

# Solution 16i



Security Systems

EN | Installation Manual  
Security System

# BOSCH

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**TELEPERMIT NOTE**

The grant of a Telepermit for a device in no way indicates Telecom acceptance of responsibility for the correct operation of that device under all operating conditions.

This equipment shall not be used in any manner that could constitute a nuisance to other Telecom customers.

Immediately disconnect this equipment should it become physically damaged, and arrange for its disposal or repair.

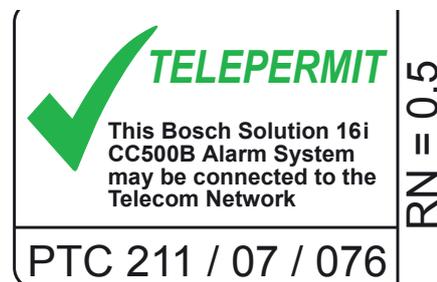
The transmit level from this device is set as a fixed level and because of this there may be circumstances where the performance is less than optimal. Before reporting such occurrences as faults, please check the line with a standard telepermitted telephone.

**Warnings**

- 1) This product must be installed by a qualified and licensed security installer.
- 2) This product may not perform as expected if installed incorrectly.
- 3) Some features of this product, including but not limited to Back to Base reporting, SMS and Email Reporting and Automatic Time and Date Adjustments require a working telephone line to operate and telephone communication service provider charges are applicable.
- 4) Australian standard AS 2201 requires regular service by qualified and licensed security persons and regular user testing. Please consult your security alarm company for further details.
- 5) Incorrect programming of parameters can result in operation contrary to what may be desired.
- 6) Leave the mains adapter plugged in at all times.
- 7) Leave the telephone line plugged in at all times under normal conditions.
- 8) The Product Identification Label for this product which is supplied in the resistor pack, must be affixed to the outside of the enclosure during installation.



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- 9) This equipment shall not be set up to make automatic calls to the Telecom '111' Emergency Service.

# CONTENTS

COPYRIGHT NOTICE .....	II
TRADEMARKS .....	II
NOTICE OF LIABILITY .....	II
TELEPERMIT NOTE .....	II
<b>SECTION 1</b>	
<b>OVERVIEW .....</b>	<b>1-1</b>
FEATURES .....	1-1
OVERVIEW .....	1-2
<b>SECTION 2</b>	
<b>INSTALLING THE HARDWARE .....</b>	<b>2-1</b>
ABOUT THE PANEL .....	2-1
ENCLOSURES .....	2-1
ENCLOSURE FIXING METHOD .....	2-1
INSTALLING THE TAMPER SWITCH .....	2-1
ENCLOSURE MODULE SPACES .....	2-1
INSTALLING PANELS AND MODULES .....	2-2
CONNECTING POWER TO THE PANEL .....	2-4
CONNECTING THE BATTERY .....	2-4
AC MAINS TRANSFORMER OPTION .....	2-4
PANEL LED INDICATORS .....	2-5
KEYPAD BUTTON FUNCTIONS .....	2-5
KEYPAD SETUP .....	2-6
KEYPAD ADDRESS SELECTION .....	2-6
STATUS ICONS & LED INDICATORS .....	2-6
KEYPAD TONES .....	2-7
VANDAL RESISTANT KEYPADS .....	2-8
WATERPROOF EXTERNAL LAN READERS .....	2-8
EXPANSION MODULES .....	2-9
EXPANSION MODULE CONFIGURATION .....	2-11
EOL RESISTOR COLOUR CODE .....	2-11
<b>SECTION 3</b>	
<b>WIRING DIAGRAMS .....</b>	<b>3-1</b>
ZONE WIRING .....	3-1
BOARD CONNECTORS .....	3-2
TERMINAL DESCRIPTIONS .....	3-2
LAN OVERVIEW .....	3-5
LAN WIRING .....	3-5
SYSTEM EARTHING .....	3-6
TERMINATING THE LAN .....	3-6
<b>SECTION 4</b>	
<b>PROGRAMMING OVERVIEW .....</b>	<b>4-1</b>
PROGRAMMING OVERVIEW .....	4-1
ENTERING PROGRAMMING MODE .....	4-1
EXITING PROGRAMMING MODE .....	4-1
PROGRAMMING STRUCTURE .....	4-1
INTERPRETING THE TEXT DISPLAY .....	4-1
PROGRAMMING BIT OPTIONS .....	4-2
PROGRAMMING TEXT LOCATIONS .....	4-2
PROGRAMMING TELEPHONE NUMBERS .....	4-3
PROGRAMMING LIST OPTIONS .....	4-3
PROGRAMMING THE CLOCK .....	4-3

<b>GETTING STARTED BACK TO BASE .....</b>	<b>4-4</b>
<b>DEFAULTING THE SYSTEM .....</b>	<b>4-4</b>
<b>DOMESTIC TEMPLATE DEFAULTS .....</b>	<b>4-4</b>
<b>DTMF CONTROL FUNCTIONS .....</b>	<b>4-5</b>
<b>DIRECT LINK PROGRAMMING .....</b>	<b>4-6</b>
<b>ZONE ARRAY .....</b>	<b>4-6</b>
<b>BASIC REPORTING REFERENCE .....</b>	<b>4-6</b>
<b>SYSTEM TROUBLE EVENT LISTING .....</b>	<b>4-7</b>
<b>HOW SYSTEM TROUBLES ARE DISPLAYED .....</b>	<b>4-7</b>
<b>PROGRAMMING LOCATIONS REFERENCE TABLE .....</b>	<b>4-10</b>

## **SECTION 5**

<b>ACCESS PROGRAMMING .....</b>	<b>5-1</b>
<b>USER DEFAULT TABLE .....</b>	<b>5-2</b>
<b>USER PIN CODES .....</b>	<b>5-2</b>
Erase User .....	5-2
Change Own PIN .....	5-2
Change Other PIN .....	5-2
Add PIN .....	5-3
Delete PIN .....	5-3
View PIN .....	5-3
<b>PROXIMITY TOKENS &amp; CARDS .....</b>	<b>5-4</b>
Add Token .....	5-4
Delete Token .....	5-4
Token Status .....	5-4
<b>RF RADIO KEYFOBS .....</b>	<b>5-5</b>
Add Keyfob .....	5-5
Delete Keyfob .....	5-5
Test Keyfob .....	5-5
<b>USER PROPERTIES .....</b>	<b>5-5</b>
User Name .....	5-5
Area Assignment .....	5-6
User Options .....	5-6
<b>UNDERSTANDING TIMER GROUPS .....</b>	<b>5-7</b>
<b>Timer Group Example .....</b>	<b>5-7</b>
Timer Group .....	5-7
Access Group .....	5-8
PIN Length .....	5-8
PIN Retry Count .....	5-9
Installer PIN .....	5-9
PIN Expire Time .....	5-9
<b>PROX READERS .....</b>	<b>5-9</b>
Name .....	5-9
Area Assignment .....	5-10
Access Assignment .....	5-10
Reader Options .....	5-10

## **SECTION 6**

<b>AREA PROGRAMMING .....</b>	<b>6-1</b>
Example: Simple Two Area System .....	6-1
<b>AREA COMMANDS .....</b>	<b>6-1</b>
Area Status .....	6-1
Turn Area On/Off .....	6-2
Turn All Areas On .....	6-2
Turn All Areas Off .....	6-2
Move To Area .....	6-3
Chime On/Off .....	6-3
Chime Mode .....	6-3
<b>To set the chime mode. ....</b>	<b>6-4</b>
<b>AREA PROPERTIES .....</b>	<b>6-4</b>
Area Name .....	6-4
General Options .....	6-4

Input Options .....	6-5
Output Options .....	6-6
Reporting Options.....	6-7
Strobe Trigger.....	6-7
<b>AREA REPORTING.....</b>	<b>6-8</b>
Account Dest 1.....	6-8
Account Dest 2.....	6-8
Open / Close Route .....	6-8
<b>AREA TESTING .....</b>	<b>6-8</b>
Area Watch .....	6-8
User Test Interval.....	6-9
Service Interval.....	6-9
Test Options.....	6-9

## SECTION 7

<b>INPUT PROGRAMMING .....</b>	<b>7-1</b>
<b>INPUT COMMANDS .....</b>	<b>7-2</b>
Zone Status .....	7-2
Zone Array.....	7-2
Bypass Zones.....	7-2
Set Chime Zones .....	7-3
Set Part 2 Zones.....	7-3
Smoke Sensor Reset.....	7-3
<b>ZONE DEFAULT TABLE.....</b>	<b>7-4</b>
<b>ZONE PROPERTIES .....</b>	<b>7-4</b>
Zone Name.....	7-4
Zone Type .....	7-5
Area Assignment.....	7-6
Pulse Count.....	7-7
Pulse Count Time .....	7-7
<b>UNDERSTANDING ACCESS GROUPS .....</b>	<b>7-7</b>
Door Access Group Example .....	7-7
Access Group.....	7-8
Report Route .....	7-8
Report Options .....	7-8
<b>The above options are programmable per zone.....</b>	<b>7-8</b>
Zone Options.....	7-9
<b>ADDING RF SENSORS.....</b>	<b>7-10</b>
<b>RF Sensor - Direct Entry Mode .....</b>	<b>7-10</b>
Add RF Device.....	7-10
<b>RF Sensor - Learn Mode.....</b>	<b>7-10</b>
Delete RF Device .....	7-11
Test RF Device .....	7-11
<b>GLOBAL INPUT OPTIONS .....</b>	<b>7-11</b>
EOL Value.....	7-11
Keyswitch Options.....	7-12
Input Options.....	7-12
Input Type.....	7-13
Tamper Options.....	7-13
<b>INPUT TESTING .....</b>	<b>7-14</b>
Walk Test All Zones.....	7-14
Walk Test A Single Zone .....	7-14
Sensor Watch Time .....	7-14

## SECTION 8

<b>OUTPUT PROGRAMMING .....</b>	<b>8-1</b>
<b>OUTPUT COMMANDS .....</b>	<b>8-1</b>
Output Status.....	8-1
Turn Output On/Off .....	8-2
<b>OUTPUT PROPERTIES .....</b>	<b>8-2</b>
Output Name .....	8-2
Event Type .....	8-3
Event Assignment.....	8-7

Output Polarity .....	8-7
<b>TIMED OUTPUTS .....</b>	<b>8-9</b>
Time Parameter .....	8-9
Output Options .....	8-9
Macro Group.....	8-10
<b>OUTPUT TESTING .....</b>	<b>8-10</b>
External Siren Test.....	8-10
Internal Bell Test .....	8-10
Strobe Siren Test.....	8-10
<b>OUTPUT EVENT TYPES.....</b>	<b>8-11</b>
<b>OUTPUT DEFAULT TABLE.....</b>	<b>8-11</b>
<b>SECTION 9</b>	
<b>COMMS PROGRAMMING .....</b>	<b>9-1</b>
<b>COMMS PROGRAMMING COMMANDS .....</b>	<b>9-1</b>
Domestic Number .....	9-1
Call / Answer RAS.....	9-2
Call Forward On/Off.....	9-2
Start Direct Link Session.....	9-2
Voice Setup .....	9-2
<b>PHONE NUMBER PROGRAMMING .....</b>	<b>9-3</b>
Number Prefix .....	9-3
Primary Dest 1.....	9-3
Secondary Dest 1 .....	9-3
Primary Dest 2.....	9-3
Secondary Dest 2.....	9-4
Domestic Number .....	9-4
Call Forward On.....	9-4
<b>Example:.....</b>	<b>9-5</b>
Call Forward Off.....	9-5
<b>COMMS PROPERTIES .....</b>	<b>9-5</b>
Call Attempt Count .....	9-5
Dialler Options.....	9-6
Phone Line Options .....	9-6
Country.....	9-7
Set SMS Password.....	9-7
Call Back Number.....	9-8
RAS Security PIN.....	9-8
Log Threshold .....	9-8
Ring Count .....	9-9
Solution Link RAS Options.....	9-9
DTMF Options .....	9-10
<b>DTMF CONTROL FUNCTIONS .....</b>	<b>9-11</b>
Voice Access Code .....	9-12
CLI Number .....	9-12
<b>REPORTING OPTIONS .....</b>	<b>9-13</b>
TX Format Dest 1.....	9-13
TX Format Dest 2.....	9-13
Test Route .....	9-13
Status Route.....	9-14
Emergency Route .....	9-14
Swinger Dialler.....	9-14
Burg Report Delay .....	9-14
Fire Report Delay.....	9-15
<b>COMMS REGISTRATION.....</b>	<b>9-15</b>
MyAlarm IP Address.....	9-15
MyAlarm Port .....	9-15
MyAlarm Options.....	9-15
Email Address.....	9-16
Email Options.....	9-16
Base Station IP Address .....	9-17
Base Station Port Number .....	9-17
Poll Rate.....	9-17

Acknowledge Wait Time.....	9-18
IP Format.....	9-18
Retry Count.....	9-18
RAS IP Address.....	9-19
RAS IP Port.....	9-19
IP RAS Options.....	9-20
IP RAS Lockout Time.....	9-20
<b>COMMS TESTING.....</b>	<b>9-21</b>
Send Test Report.....	9-21
Test Report Time.....	9-21
Test Report Period.....	9-21
Test Report Options.....	9-22
Test Route.....	9-22
Dial Number Test.....	9-22

## SECTION 10

### DEVICE PROGRAMMING ..... 10-1

#### DEVICE COMMANDS ..... 10-1

LAN Status.....	10-1
LAN Secure.....	10-1

#### KEYPAD OPTIONS ..... 10-2

Keypad Volume.....	10-2
Keypad Contrast.....	10-2
Keypad Backlight.....	10-2
Home Area.....	10-2
General Options.....	10-3
Beeper Options.....	10-4
Emergency Keys.....	10-4
Access Group.....	10-5

#### Lockout Time ..... 10-6

#### RF RECEIVER OPTIONS ..... 10-6

Receiver Options.....	10-6
Supervision Time.....	10-6
RF Device Options.....	10-7
Add RF Keypad.....	10-8
Delete RF Keypad.....	10-8
View RF Device ID.....	10-8

#### SERIAL DEVICE OPTIONS ..... 10-8

Device Type.....	10-8
Baud Rate.....	10-8
Flow Control.....	10-8
Report Format.....	10-8
Options.....	10-8

#### ETHERNET DEVICE OPTIONS ..... 10-9

IP Address Module.....	10-9
Subnet Mask.....	10-9
Default Gateway.....	10-9
MAC Address.....	10-9
Encryption Key.....	10-10
IPRS Address (Reserved).....	10-10
IPRS Port (Reserved).....	10-10
Connetix NNC.....	10-10
Ethernet Options.....	10-11

## SECTION 11

### SYSTEM PROGRAMMING ..... 11-1

#### SYSTEM COMMANDS..... 11-1

Panel Status.....	11-1
System Trouble.....	11-1
History Log.....	11-2
System > Commands >.....	11-2
Domestic Default.....	11-2
Factory Default.....	11-2
Template Default.....	11-3

Service Mode.....	11-3
<b>SYSTEM CLOCK.....</b>	<b>11-3</b>
Set Date & Time .....	11-3
Summertime On.....	11-4
Summer Time Off.....	11-4
<b>SYSTEM TIMERS.....</b>	<b>11-5</b>
Exit Time.....	11-5
Entry Time 1 .....	11-5
Entry Time 2 .....	11-5
Part Entry Time.....	11-5
Auto Arm Pre-Alert.....	11-6
Output Pre-Alert .....	11-6
Senior Watch Time.....	11-6
<b>SYSTEM POWER OPTIONS.....</b>	<b>11-7</b>
AC Options .....	11-7
Battery Options .....	11-7
Fuse Options.....	11-8
<b>HORN SPEAKER OPTIONS .....</b>	<b>11-9</b>
Tone .....	11-9
Speed .....	11-9
Volume (RF SPK Beep).....	11-9
Siren Swinger .....	11-9
<b>SYSTEM SCHEDULES.....</b>	<b>11-10</b>
Name.....	11-10
Start / Stop Times.....	11-10
Day .....	11-11
Function .....	11-11
Index.....	11-12
<b>SYSTEM HOLIDAYS.....</b>	<b>11-13</b>
Name.....	11-13
Start / Stop Dates.....	11-13
<b>SYSTEM OPTIONS.....</b>	<b>11-14</b>
General Options .....	11-14
Area Options.....	11-14
Keypad Idle Screen.....	11-15
Keypad Hi/Lo Temp.....	11-15
Installer Options.....	11-16
Language.....	11-17
Site Name .....	11-17
<b>SYSTEM TESTING.....</b>	<b>11-18</b>
Walk Test All Zones .....	11-18
Battery Test.....	11-18
<hr/> <b>SECTION 12</b> <hr/>	
<b>PROGRAMMING EXAMPLES .....</b>	<b>12-1</b>
<hr/> <b>SECTION 13</b> <hr/>	
<b>SPECIFICATIONS .....</b>	<b>13-1</b>
<b>SPECIFICATIONS.....</b>	<b>13-1</b>
<hr/> <b>SECTION 14</b> <hr/>	
<b>INDEX .....</b>	<b>14-1</b>

## TABLES

<b>TABLE 1: EXPANSION OPTIONS .....</b>	<b>2-2</b>
<b>TABLE 2: DIALLER INDICATOR LED .....</b>	<b>2-5</b>
<b>TABLE 3: STATUS INDICATOR LED .....</b>	<b>2-5</b>
<b>TABLE 4: KEYPAD BUTTON FUNCTIONS .....</b>	<b>2-5</b>
<b>TABLE 5: KEYPAD EMERGENCY ALARM TRIGGER'S.....</b>	<b>2-6</b>
<b>TABLE 6: KEYPAD DIP SWITCH ADDRESS SETTINGS .....</b>	<b>2-6</b>
<b>TABLE 7: ICON &amp; LED INDICATOR MEANINGS .....</b>	<b>2-7</b>
<b>TABLE 8: KEYPAD TONE MEANINGS .....</b>	<b>2-7</b>
<b>TABLE 9: ZONE CONFIGURATION USING EXPANDERS .....</b>	<b>2-9</b>
<b>TABLE 10: LAN MODULE ADDRESSING.....</b>	<b>2-11</b>
<b>TABLE 11: EOL RESISTOR COLOUR CODES .....</b>	<b>2-11</b>
<b>TABLE 12: BOARD CONNECTOR DESCRIPTIONS.....</b>	<b>3-2</b>
<b>TABLE 13: TERMINAL BLOCK DESCRIPTIONS AND FUNCTIONS .....</b>	<b>3-2</b>
<b>TABLE 14: KEYS USED DURING PROGRAMMING .....</b>	<b>4-1</b>
<b>TABLE 15: TEXT KEYPAD CHARACTER SET .....</b>	<b>4-2</b>
<b>TABLE 16: PHONE NUMBER PROGRAMMING.....</b>	<b>4-3</b>
<b>TABLE 17: DOMESTIC DIALING DEFAULTS SETTINGS .....</b>	<b>4-4</b>
<b>TABLE 18: DTMF REMOTE CONTROL FUNCTIONS .....</b>	<b>4-5</b>
<b>TABLE 19: BASIC REPORTING CODE REFERENCE.....</b>	<b>4-6</b>
<b>TABLE 20: SYSTEM TROUBLE / FAULT DESCRIPTIONS.....</b>	<b>4-8</b>
<b>TABLE 21: PROGRAMMING LOCATIONS AND DESCRIPTIONS .....</b>	<b>4-12</b>
<b>TABLE 22: USER DEFAULT PROGRAMMING OPTIONS .....</b>	<b>5-2</b>
<b>TABLE 23: DEFAULT USER NAMES .....</b>	<b>5-6</b>
<b>TABLE 24: DEFAULT AREA NAMES .....</b>	<b>6-4</b>
<b>TABLE 25: ZONE CONFIGURATION .....</b>	<b>7-1</b>
<b>TABLE 26: ZONE DEFAULTS .....</b>	<b>7-4</b>
<b>TABLE 27: DEFAULT ZONE NAMES.....</b>	<b>7-4</b>
<b>TABLE 28: DEFAULT OUTPUT NAMES.....</b>	<b>8-2</b>
<b>TABLE 29: EXAMPLE - OUTPUT ONE SHOT TIMER .....</b>	<b>8-9</b>
<b>TABLE 30: OUTPUT EVENT TYPES.....</b>	<b>8-11</b>
<b>TABLE 31: OUTPUT DEFAULT TABLE.....</b>	<b>8-11</b>
<b>TABLE 32: DTMF REMOTE CONTROL FUNCTIONS .....</b>	<b>9-11</b>
<b>TABLE 33: KEYPAD EMERGENCY KEYS.....</b>	<b>10-5</b>
<b>TABLE 34: DAYLIGHT SAVINGS DATES - AUSTRALIA .....</b>	<b>11-4</b>
<b>TABLE 35: DEFAULT SCHEDULE NAMES.....</b>	<b>11-10</b>
<b>TABLE 36: DEFAULT HOLIDAY NAMES.....</b>	<b>11-13</b>

## FIGURES

<b>FIGURE 1: PCB AND MOUNTING CLIP INSTALLATION DIAGRAM .....</b>	<b>2-1</b>
<b>FIGURE 2: TAMPER BRACKET INSTALLATION.....</b>	<b>2-1</b>
<b>FIGURE 3: PCB MOUNTING CLIP .....</b>	<b>2-2</b>
<b>FIGURE 4: MW700 CONFIGURATION EXAMPLES .....</b>	<b>2-3</b>
<b>FIGURE 5: MW710 - LARGE ENCLOSURE DETAILS .....</b>	<b>2-3</b>
<b>FIGURE 6: MW710 CONFIGURATION EXAMPLES .....</b>	<b>2-4</b>
<b>FIGURE 7: INTERNAL TRANSFORMER CONNECTION DIAGRAM .....</b>	<b>2-4</b>
<b>FIGURE 8: KEYPAD EMERGENCY KEYS.....</b>	<b>2-6</b>
<b>FIGURE 9: KEYPAD ADDRESS SELECTION .....</b>	<b>2-6</b>
<b>FIGURE 10: LCD DISPLAY SHOWING ALL ICONS .....</b>	<b>2-6</b>
<b>FIGURE 11: CP150B EXTERNAL VANDAL RESISTANT KEYPAD .....</b>	<b>2-8</b>
<b>FIGURE 12: PR111B SLIM EXTERNAL LAN READER .....</b>	<b>2-8</b>
<b>FIGURE 13: CM704B ZONE EXPANDER.....</b>	<b>2-9</b>
<b>FIGURE 14: CM710B OUTPUT EXPANDER MODULE .....</b>	<b>2-9</b>
<b>FIGURE 15: CM720B POWER SUPPLY MODULE.....</b>	<b>2-9</b>
<b>FIGURE 16: CM195B MULTI RF RECEIVER INTERFACE MODULE.....</b>	<b>2-10</b>
<b>FIGURE 17: CM750B IP INTERFACE MODULE .....</b>	<b>2-10</b>
<b>FIGURE 18: CM101B VOICE MODULE .....</b>	<b>2-10</b>
<b>FIGURE 19: EOL RESISTOR COLOUR CHART .....</b>	<b>2-11</b>
<b>FIGURE 20: N/C NO EOL ZONE.....</b>	<b>3-1</b>
<b>FIGURE 21: N/C SINGLE EOL ZONE .....</b>	<b>3-1</b>
<b>FIGURE 22: N/C SPLIT EOL ZONE .....</b>	<b>3-1</b>
<b>FIGURE 23: N/C ZONE WITH TAMPER .....</b>	<b>3-1</b>
<b>FIGURE 24: N/O NO EOL ZONE .....</b>	<b>3-1</b>
<b>FIGURE 25: N/O SINGLE EOL ZONE.....</b>	<b>3-1</b>
<b>FIGURE 26: N/O SPLIT EOL ZONE.....</b>	<b>3-1</b>
<b>FIGURE 27: N/O ZONE WITH TAMPER.....</b>	<b>3-1</b>
<b>FIGURE 28: TERMINAL DESCRIPTIONS .....</b>	<b>3-3</b>
<b>FIGURE 29: WIRING DIAGRAM .....</b>	<b>3-4</b>
<b>FIGURE 30: LAN CONNECTION USING 2 PAIR SECURITY CABLE RECOMMENDED FOR LAN LENGTHS 300 METRES OR LESS.....</b>	<b>3-5</b>
<b>FIGURE 31: LAN CONNECTION USING TWISTED PAIR CABLE RECOMMENDED FOR LAN LENGTHS GREATER THAN 300 METRES. ....</b>	<b>3-6</b>
<b>FIGURE 32: TEXT CHARACTERS WHICH CAN BE DISPLAYED.....</b>	<b>4-2</b>
<b>FIGURE 33: SAMPLE OPTION BIT MENU DISPLAY .....</b>	<b>4-2</b>
<b>FIGURE 34: AREA TEXT PROGRAMMING DISPLAY .....</b>	<b>4-2</b>
<b>FIGURE 35: TELEPHONE NUMBER PROGRAMMING DISPLAY .....</b>	<b>4-3</b>
<b>FIGURE 36: LIST OPTION PROGRAMMING DISPLAY .....</b>	<b>4-3</b>
<b>FIGURE 37: FACTORY DEFAULT DISPLAY .....</b>	<b>4-4</b>
<b>FIGURE 38: ZONE ARRAY SHOWING Z1 TO Z4.....</b>	<b>4-6</b>
<b>FIGURE 39: ZONE ARRAY SHOWING Z9 TO Z12.....</b>	<b>4-6</b>
<b>FIGURE 40: SYSTEM TROUBLE DISPLAY SEQUENCE.....</b>	<b>4-7</b>
<b>FIGURE 41: TEXT MENU EXAMPLES .....</b>	<b>4-9</b>
<b>FIGURE 42: KEYPAD EMERGENCY KEYS.....</b>	<b>10-5</b>



# Overview

## FEATURES

Listed below are the main features of the Solution 16i Control Panel.

- ❖ Individual Box Tamper Circuit Monitoring
- ❖ Telephone Line Busy Tone Detect
- ❖ RAS Intelli-connect® CLI Caller Line Identification
- ❖ Daylight Savings Auto Time Adjust
- ❖ Senior Watch
- ❖ System Maintenance Interval Reminder
- ❖ System Weekly Test Reminder
- ❖ Area Inactivity Interval
- ❖ Temporary Pin Code
- ❖ Dual Reporting
- ❖ Alarm Report Abort/cancel Options
- ❖ 8 Programmable Holiday Calendars
- ❖ 8 Programmable Schedules
- ❖ 8 On-board Zones (Exp To 16 Wired or Wireless)
- ❖ Fire Alarm Verification
- ❖ 48 PIN's
- ❖ 4 Supervised High Power Digital Outputs
- ❖ Supervised Siren Driver
- ❖ Partitionable To 4 Areas
- ❖ Reports SIA, Contact ID, IP, SMS, Voice and Email Formats
- ❖ Supervised LAN Keypads (Maximum 8 Keypads)
- ❖ Keyswitch Input
- ❖ 256 History Event Memory
- ❖ Fully Menu Text Programmable
- ❖ Programmable Via Solution Link (Remote/Direct)
- ❖ Telephone Line Fail Monitor
- ❖ Time Executed Functions
- ❖ 60 Output Event Types
- ❖ Exit Restart
- ❖ Expansion Module SuperSolution
- ❖ DTMF Tone Decoder Built In
- ❖ Remote and Auto Arming

## OVERVIEW

### Zones

The control panel provides up to 16 separate zones of protection. Zone programming determines the panel's response to open/short and tamper conditions on the zone loop.

### Areas

The control panel supports up to 4 separate areas. You can assign all zones to a single area, or you can assign each zone to a combination of different areas.

You can arm and disarm the control panel by area, alternatively, you can arm and disarm several areas at the same time.

### Dialler

The control panel has a built-in dialler to send reports to the receiving party (ie. Security company monitoring station, mobile phone, SMS etc).

### Keypads

You can connect a maximum of 8 fully supervised keypads to the control panel. Proximity keypads and external vandal resistant metal keypads (CP150B/CP151B) are also available.

### LAN Readers

External LAN readers (PR109B Black/PR110B White and slim PR111B Black/PR112B White) feature our proprietary 40 bit transmission format and can be used to provide alarm and or access control functionality when used on the Solution 16i security control panel.

### IP Reporting

The CM750B Ethernet Module allows you to interface the control panel to the building's hard wired IP connection point using a CAT 5E connection cable. Once configured and operating you will be able to report to monitoring centres that support the available IP reporting formats and to upload/download to the control panel through an internet or intranet connection.

### History Log

The control panel can store up to 256 history events from all 4 areas. All events are stored in the log, even if they are programmed not to report via the on-board dialler.

You can view the control panel's history log via keypad, or by connection of a personal computer (direct/remote) using the Solution Link upload/download software.

### Programming

You can program the control panel either by a keypad or using a personal computer using the Solution Link upload/download software.

Solution Link Version V1.10 or higher is required to program this panel.



# Installing the Hardware

## ABOUT THE PANEL

### ENCLOSURES

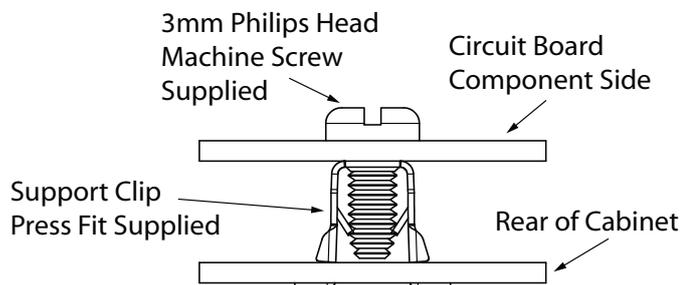
The MW700 - Small Enclosure and MW710 - Large Enclosure have been designed to reduce installation time and improve aesthetics on larger installations where often multiple enclosures need to be located in close proximity to each other.

A number of new features have been incorporated including a new style tamper bracket which can be easily installed before or after the enclosure is mounted to the wall, an anti tamper lid which insures the cabinet tamper triggers when the lid is removed, easier access for flexible and rigid conduits, additional 20mm cable entry knockouts and a new board mounting system using removable spring clips.

The MW700 and MW710 enclosures include numerous holes, allowing the PCB mounting clips to be positioned in the most appropriate location for each installation.



*For ease, it is recommended that the PCB mounting clips are installed from the rear of the enclosure before mounting it to the wall.*



**Figure 1: PCB and Mounting Clip Installation Diagram**

### ENCLOSURE FIXING METHOD

#### MW700 - Small Enclosure

Use appropriate fasteners capable of handling a minimum of 6kg to fix the cabinet against a sturdy surface using the mounting holes provided.

#### MW710 - Large Cabinet

Use appropriate fasteners capable of handling a minimum of 12kg to fix the cabinet against a sturdy surface using the mounting holes provided.

### INSTALLING THE TAMPER SWITCH

The tamper switch can be located on either the left or right hand side of the cabinet to suit the installation. Before installing the bracket, fit the tamper lead to the switch and then insert it into the bracket.

Once the enclosure has been mounted to the wall, insert the tamper bracket into the rectangular hole in the top flange of the enclosure and then slide the base of the bracket toward the top until the tamper switch locates in the rear of the enclosure.

Depress the tamper a few times with your finger to ensure smooth operation.



**Figure 2: Tamper Bracket Installation**

### ENCLOSURE MODULE SPACES

The MW700 enclosure has space for 2 large modules or 4 small modules while the optional MW710 enclosure has space for up to 4 large modules or 8 small ones. The enclosures have been designed so that any combination of large and small units can be neatly mounted together on the wall.

Each module is mounted to the enclosure using 4 or more clip in standoffs. The clips can be inserted from the rear of the enclosure before mounting it to the wall, or from the front of the enclosure after it has been mounted. Both

methods should be performed using your finger tips to prevent damage to the standoff. (Standoffs and screws are supplied with each module).

All compatible add on modules will mount on these spaces. See below for list of modules which can be added to the Solution 16i control panel.

Module	Space Occupied
Solution 16i Control Panel	2 Module Spaces
CM704B Zone Expander	1 Module Space
CM710B Output Expander	1 Module Space
CM720B LAN Power Supply	1 Module Space
CM195 RF Receiver Expander	1 Module Space

**Table 1: Expansion Options**

Use the above table to help determine which size cabinet you will require for the job.

On some export models, one module space will not be available as the mains transformer mounts in this location.

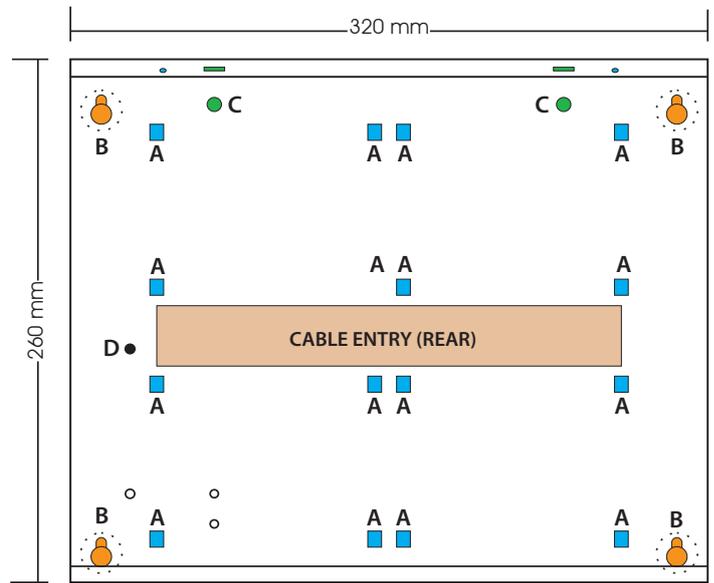
**INSTALLING PANELS AND MODULES**

Once the enclosure is secured in place, install the panels and modules onto the mounting clip using the supplied 3mm screws. Do not over tighten the screws.

When fitting panels or large modules, you should use 5 mounting clips, one in each corner of the PCB and one in the middle of the PCB underneath the main terminal blocks. When mounting small modules, only 4 clips are required, 1 in each corner.

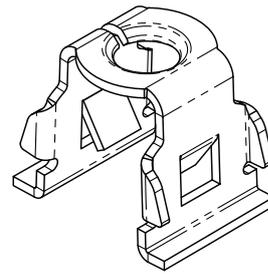
Both enclosures are supplied with tamper switches, tamper leads, tamper brackets and a quantity of mounting clips and screws. If required, additional mounting clips and screws may be purchased in bags of 50 clips (10 packs x 5pcs). (P/N: MW890)

**Note** The supplied mounting clips are designed to use the 3mm machine screws supplied with the enclosure. The use of self tapping screws will damage the clips.



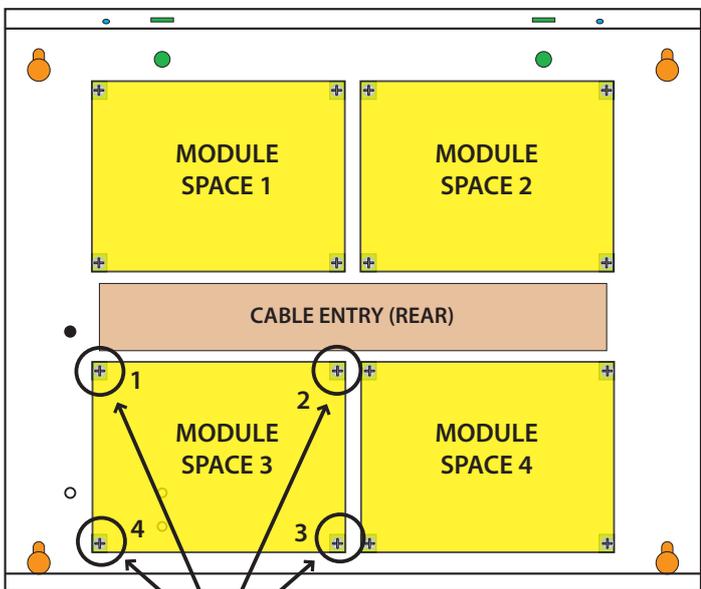
- A = PCB Mounting Clip Holes
- B = Enclosure Mounting Holes
- C = Tamper Bracket Mounting Holes
- D = Earth Stud - 4mm

**Figure 3: MW700 - Small Enclosure Details**



**Figure 3: PCB Mounting Clip**

The following example shows the MW700-Small enclosure configured using 4 small modules.



When installing small modules, you should fit 4 mounting clips as shown.

When installing large modules, you should fit 5 mounting clips as shown. Clip 5 provides support under the main terminal block only. No screw is fitted.

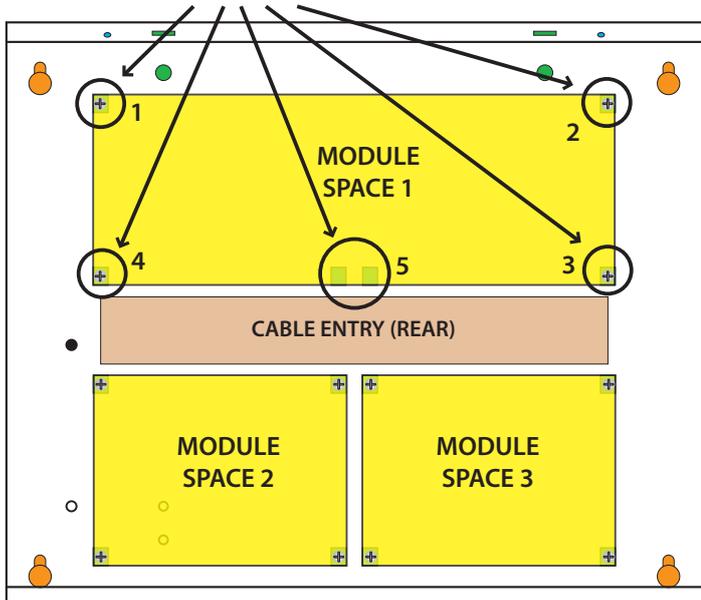
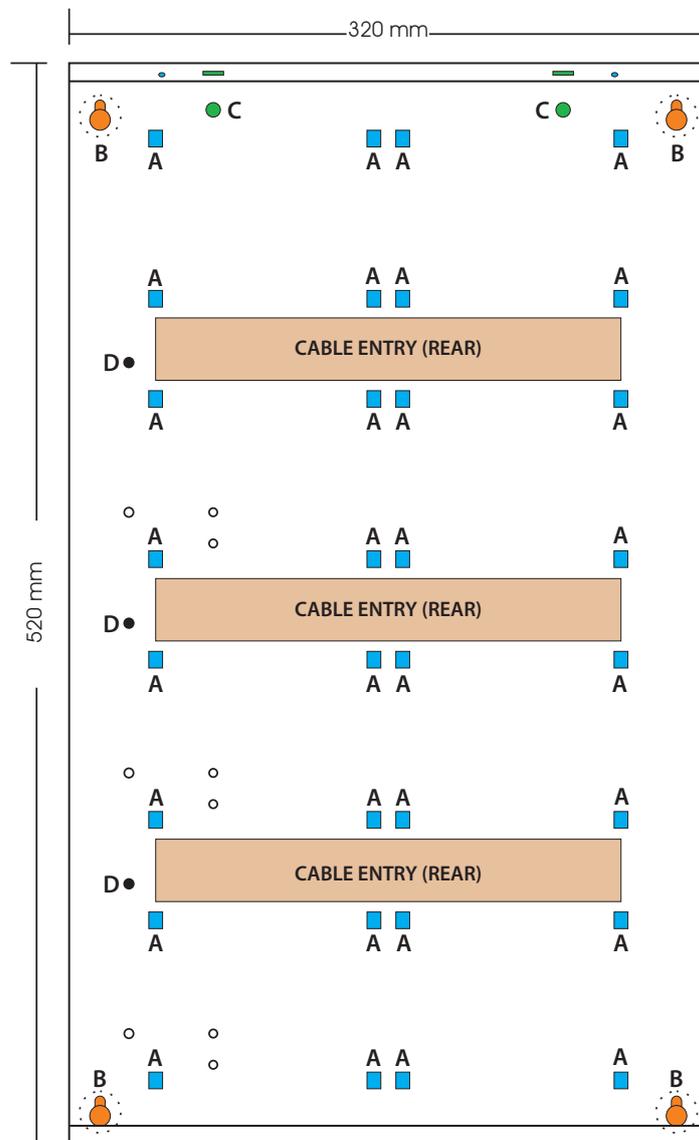


Figure 4: MW700 Configuration Examples

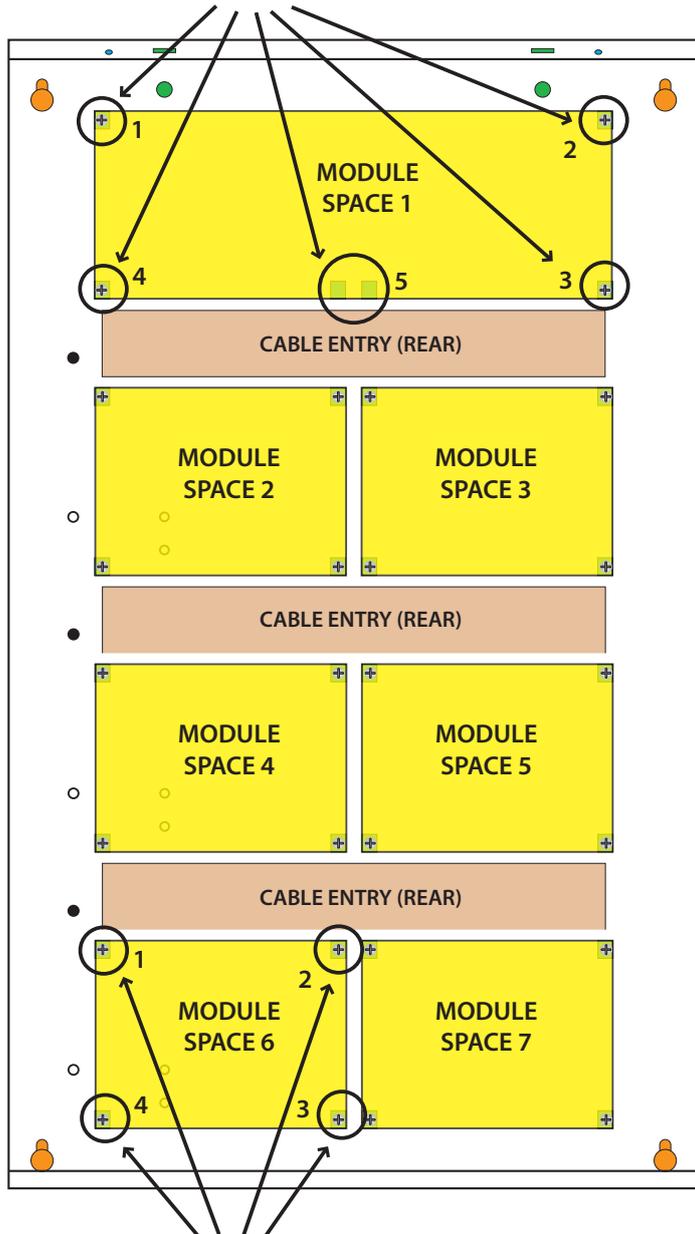


- A = PCB Mounting Clip Holes
- B = Enclosure Mounting Holes
- C = Tamper Bracket Mounting Holes
- D = Earth Stud - 4mm

Figure 5: MW710 - Large Enclosure Details

The following examples show the MW710 - Large enclosure configured using 6 small modules and 1 large module.

When installing large modules you should fit 5 mounting clips as shown. Clip 5 provides support under the main terminal block only. No screw is fitted.



When installing small modules, you should fit 4 mounting clips as shown.

Figure 6: MW710 Configuration Examples

### CONNECTING POWER TO THE PANEL

For normal operation, the panel requires both AC and DC power sources. The AC source can be provided either by an external adapter or by an internal transformer depending on the model and country of sale.

When connecting using the A.C adapter, feed the cable in to the enclosure and terminate the wires on the removable terminal block supplied before connection it to the PCB.

If using a 3 wire Adaptor, then the earth wire should also be terminated onto the terminal block. Always check the orientation of the terminal block with the PCB markings before connecting it to the PCB.

### CONNECTING THE BATTERY

The panel is supplied with a set of battery leads to suit the chosen enclosure. Connect the Red Battery lead to the Battery (+) terminal and the Black Battery lead to the Battery (-) terminal on the PCB.

Once terminated onto the PCB connect the other end of the leads to the battery paying attention to the polarity.

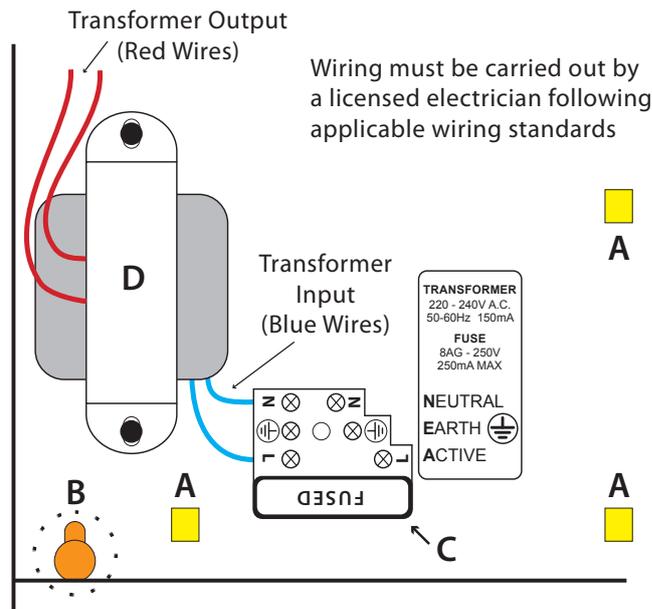
### AC MAINS TRANSFORMER OPTION

On models with an internal transformer, a permanent connection shall be made to the mains supply. See Figure 8. This must be completed by a suitably qualified electrician according to the applicable wiring standards and regulations.

Next connect the transformer output wires (red) to the removable terminal block supplied and then connect it to the PCB. Always check the orientation of the terminal block with the PCB markings before connecting.



For permanently connected equipment, a readily accessible disconnect device shall be installed in a location near to the equipment.



- A = PCB Mounting Clip Holes
- B = Enclosure Mounting Holes
- C = Fused Terminal Block
- D = Transformer

Figure 7: Internal Transformer Connection Diagram

## PANEL LED INDICATORS

The control panel PCB has two LED indicators (Dialler and Status LED's) which display the following information.

Condition	Meaning
Off	Offline
On	On Line (Dialling/ Answered)
Flashing	Incoming Call

Table 2: Dialler Indicator LED

Condition	Meaning
Off	Error
On	Error
Flash Once Every 2 Seconds	OK
Flash Fast	AC or Battery Trouble

Table 3: Status Indicator LED



During factory defaulting the Status and Dialler LED indicators will flash alternatively for approximately 15 seconds.

## KEYPAD BUTTON FUNCTIONS

The keypad has 20, silicone rubber push button keys. The keys allow you to input instructions and navigate the menu screens as required. Some buttons have a secondary function which is activated by holding them down for two seconds.

Each key's function is described below

Key	Description
	The numeric keys allow you to enter numbers when required
	Use the [MENU] and the numeric keys to enter commands. The [MENU] key is also used to go back one level when navigating through menus or to exit a programming location without saving changes.
	The [ON] key allows you to turn an area or output on. To turn all areas on at the same time when the system has been partitioned, press and hold the [ON] key for two seconds.
	The [PART] key allows you to turn an area Part On. This key can also be used to bypass a zone or multiple zones when you press and hold for two seconds.

Key	Description
	The [OFF] key allows you to turn an area or output off. To turn all areas off at the same time when the system has been partitioned, press and hold the [OFF] key for two seconds.
	The [OK] key allows you to save any changes and exit the command.
	The [MAIL] key allows you to read stored mail. This key can also be used to initiate a dialler test when you press and hold for two seconds.
	The [←] key allows you to move the cursor to the left when programming text or telephone numbers.
	The [→] key allows you to move the cursor to the right when programming text or telephone numbers.
	The [↑] key allows you to navigate through menus or to toggle characters when programming text or telephone numbers.
	The [↓] key allows you to navigate through menus or to toggle characters when programming text or telephone numbers. Pressing the [↓] key when the area is disarmed will display any current trouble conditions.
	Pressing the [→] and [↑] keys together and holding them down for 2 seconds will trigger a Panic alarm. If programmed the sirens will sound and the monitoring station will be notified.
	Pressing the [←] and [→] keys together and holding them down for 2 seconds will cause trigger a Fire alarm. If programmed the sirens will sound and the monitoring station will be notified.
	Pressing the [↑] and [↓] keys together and holding them down for 2 seconds will trigger a Medical alarm. If programmed the sirens will sound and the monitoring station will be notified.

Table 4: Keypad Button Functions

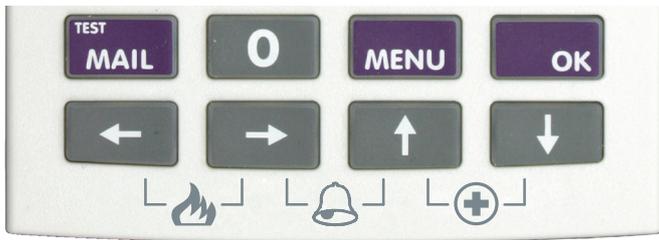


Figure 8: Keypad Emergency Keys

KEYPAD EMERGENCY ALARM TRIGGER'S	
Key Sequence	Event Triggered
[←] + [→] Hold for 2 seconds	Keypad Fire Alarm
[→] + [↑] Hold for 2 seconds	Keypad Panic Alarm
[↑] + [↓] Hold for 2 seconds	Keypad Medical Alarm

Table 5: Keypad Emergency Alarm Trigger's

### KEYPAD SETUP

The Solution 16i control panel can have a maximum of 8 keypads connected via the LAN terminals. Each keypad must be set to a unique address before they will operate.

Each keypad needs to be assigned to a home area via MENU 6-1-3. This sets the area the keypad will display and control by default. Keypads can be locked to a home area or allowed to roam or move between areas.

When the system is powered up, any keypads which have not been assigned a home area will be automatically set to home area 1.

Set each keypad address using the table below as a guide.

 **Note** Only 1 Keypad can be assigned to each address. All Keypads are supplied from the factory set to address 1. (OFF-OFF-OFF-OFF).

### KEYPAD ADDRESS SELECTION

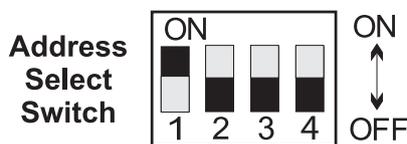


Figure 9: Keypad Address Selection

Keypad DIP Switch Address Settings				
Keypad To Address	S1	S2	S3	S4
Keypad 1	Off	Off	Off	Off
Keypad 2	On	Off	Off	Off
Keypad 3	Off	On	Off	Off
Keypad 4	On	On	Off	Off

Keypad 5	Off	Off	On	Off
Keypad 6	On	Off	On	Off
Keypad 7	Off	On	On	Off
Keypad 8	On	On	On	Off

Table 6: Keypad DIP Switch Address Settings

### STATUS ICONS & LED INDICATORS

The following table lists the function of each of the ICON Symbols and LED Indicators on the ICON Keypad Display.

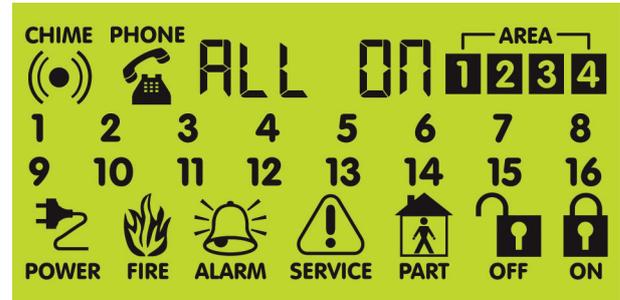


Figure 10: LCD Display Showing All ICONS

Icon	Status	Meaning
[AREA] 1 2 3 4		The keypad can display which areas (1 – 4) are turned on or off via the Area Icon Indicators. This programmable option can be disabled in MENU 6-1-4.
	On	Area is turned All On or Part On
	Off	Area is turned Off
	Flashing Fast	Alarm occurred in the area
POWER	On	System power is normal
	Flashing	System power is missing
FIRE	Flashing	A fire alarm is active
	Off	No fire alarm
	On	Fire alarm in memory (Turn the area All On and Off to Clear).
	Off	No service or trouble conditions exist
SERVICE	On	The existing service or trouble condition has been acknowledged.
	Flashing	A service or trouble condition is present that has not been acknowledged.
PART	On	The area is turned Part On.
	Off	The area is not turned Part On.

 <b>OFF</b>	<b>On</b>	The area is turned Off
	<b>Off</b>	The area is turned All On or Part On
 <b>ON</b>	<b>On</b>	The area is turned All On
	<b>Off</b>	The area is turned Off
<b>CHIME</b> 	<b>On</b>	Chime Mode is On
	<b>Off</b>	Chime Mode is Off
<b>PHONE</b> 	<b>On</b>	Phone Line in Use
	<b>Off</b>	Phone Line not in use
Red LED	<b>On</b>	System Armed
	<b>Flashing</b>	Alarm
Green LED	<b>On</b>	System Disarmed
	<b>Flashing</b>	Area not ready to turn on
Red & Green LED	<b>Flashing</b>	Installer programming mode is active.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	<b>On</b>	Zone Open or Unsealed
	<b>Off</b>	Zone Closed or Sealed
	<b>Flashing</b>	Zone in Alarm or Alarm Memory

Table 7: ICON &amp; LED Indicator Meanings

## KEYPAD TONES

Your keypad emits several distinct tones and displays text to alert you to system events. The volume of the keypad tones can be adjusted in MENU 6-1-0.

Type	Meaning
<b>Fire Alarm Tone</b>	When a fire zone sounds an alarm, the keypad will sound 3 seconds on and 2 seconds off (repeat).
<b>Burglary Alarm Tone</b>	When a burglary zone activates while your system is turned on, your keypad emits a continuous siren tone. It sounds for the time set by your security company.
<b>Trouble Tone</b>	When a system component is not functioning properly, your keypad sounds 4 fast short beeps followed by a 5 second pause (repeat).
<b>Key Press Tone</b>	Pressing any key on the keypad sounds one short beep, indicating that the key press is accepted.

Type	Meaning
<b>Entry Delay Tone</b>	When you enter the premises through a zone programmed for entry delay, the keypad sound a Hi/Low tone to remind you to turn off the area. If the area is not turned off before the entry delay expires, an alarm condition will sound and a report may be sent to your alarm company.
<b>Exit Delay Tone</b>	After you turn an area All On, the keypad will sound 1 short beep every second. During the last 10 seconds fast short beeps will be heard. If you don't exit before the delay time expires and an exit delay door is faulted, an alarm occurs.
<b>Error Tone</b>	If you press an incorrect key, your keypad will sound a 2 second tone.
<b>Menu Mode</b>	The keypad will sound a Hi / Lo tone to indicate you have entered MENU Mode and a Lo/Hi tone to indicate you have exited MENU mode.
<b>Chime Tone</b>	The keypad sounds fast short beeps to alert you when a zone programmed for chime is faulted or unsealed.

Table 8: Keypad Tone Meanings

## VANDAL RESISTANT KEYPADS

The CP150B keypad provides alarm and or access control functionality when used on selected Solution security control panels. Constructed from satin chrome plated zinc die cast, the CP150B/CP151B (slim) keypad provides a high level of vandal resistance and is also weather resistant to IP67 making it ideal for external installations.

Both keypads includes red and green indicators which are used to show area or door lock status and the 12 buttons with blue backlighting make it easy to operate in all lighting conditions.

The keypad connects to the control panel via the RS485 encrypted LAN and occupies a standard keypad position in the panel configuration.



*Figure 11: CP150B External Vandal Resistant Keypad*

## WATERPROOF EXTERNAL LAN READERS

The PR109B (Black)/PR110B (White) and the slim PR111B (Black)/PR112B (White) external LAN readers feature our proprietary 40 bit transmission format and can be used to provide alarm and or access control functionality when used on selected Solution security control panels.

Constructed from UV stabilised ASA plastic, the external readers provide a high level of vandal resistance and are weather resistant to IP66 making them ideal for outdoor installations.

The LAN readers include red, green and blue indicators which are used to show area and or door lock status at all times.

The reader connects to the control panel via the RS485 encrypted LAN and occupies a standard keypad position in the panel configuration.



*Figure 12: PR111B Slim External LAN Reader*

## EXPANSION MODULES

### CM704B Zone Expander Module

The Solution 16i panel includes support for 1 x CM704B - 8/16 Zone Expansion module. This allows for 16 individual zones when using Alarm and Tamper (4 state) monitoring as well as allowing zones to be located in two separate locations within a building.

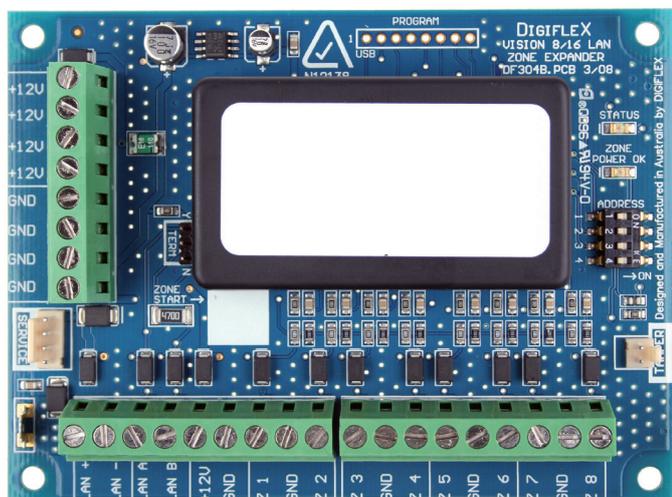


Figure 13: CM704B Zone Expander

All zones follow the global EOL setting in MENU 3-4-0 regardless of whether they are on the panel or on the expander module.

Zone numbering is automatically assigned by the panel during power up depending on the module configuration found and the EOL value selected.



*When using the CM704B you should not select Split EOL monitoring. If you do the zones on the expander will not be available.*

For example single EOL is selected and 1 x CM704B Zone Expander is fitted, then Zones 1 - 8 will be located on the main panel and Zones 9 - 16 will be located on CM704B.

Fitting an RF receiver to the panel allows any zone to be programmed as a wireless zone.

ZONE CONFIGURATION TABLE				
Device Type	Single EOL	Alarm + Tamper	Split EOL	RF Zones
Solution 16i Panel	8	8	16	Up to 16 zones
CM704B Expander	8	8	N/A	
<b>Total Zones</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>Max</b>

Table 9: Zone Configuration Using Expanders

Once a zone has been programmed to be a wireless type the corresponding hardwired zone input is automatically disabled. No EOL resistor is required.



*Currently the panel supports only supports CM704B zone expanders.*

### CM710B Output Expander Module

The Solution 16i panel includes support for 1 x CM710B, 4 Way Relay Output Expander.

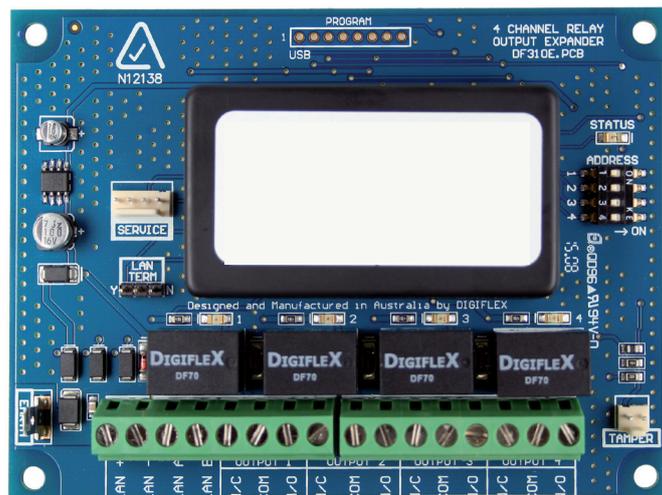


Figure 14: CM710B Output Expander Module

Adding a CM710B adds an additional 4 relay outputs to the panel. The maximum output capacity is 8. The output expander can be located with the control panel or in separate part of the building and then wired back to the control panel via the 4 wire LAN to minimise cable requirements.

### CM720B Power Supply Module

The Solution 16i panel includes support for 1 x CM720B, 1 Amp LAN Power Supply Module which can be used to provide LAN voltage regeneration as well as supplying power to other modules, Intrusion Sensors Door Strikes etc.

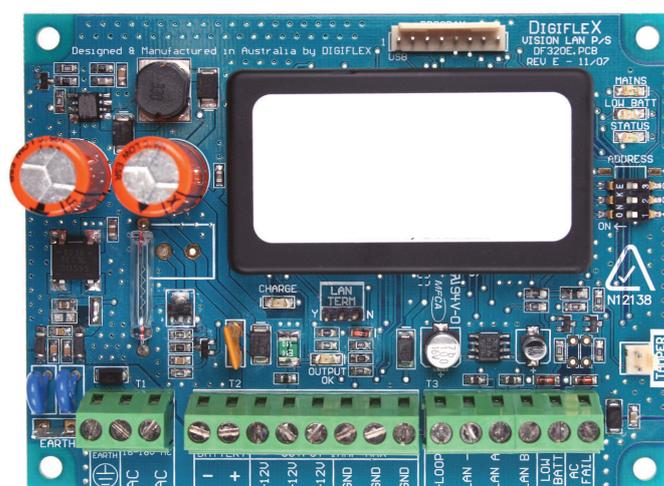


Figure 15: CM720B Power Supply Module

The CM720B module can be located with the control panel or in separate part of the building and then wired back to the control panel via the 4 wire LAN to minimise cable requirements.

The CM720B module is designed to run off a standard plug pack transformer and includes a built in battery charger suitable for charging 12V 7Ah batteries.

As with all LAN modules, the status of the CM720B is constantly being monitored and reported to the control panel via the system LAN.

### CM195 Multi RF Receiver Interface

The CM195 Multi Channel Radio Interface allows up to three RF receivers to be simultaneously connected to the control panel. This can be used to provide greater in building radio coverage on large or RF unfriendly installations.

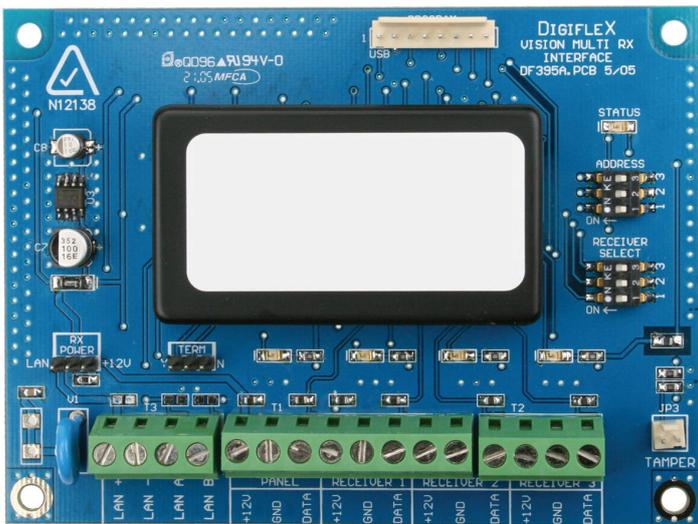


Figure 16: CM195B Multi RF Receiver Interface Module

Large factories, houses or multi level installations where RF sensors are required, can benefit by having multiple receivers located throughout the building as they can provide you the best possible coverage and a level of redundancy when more than one receiver's coverage area overlaps another.

The CM195 intelligently analyses all signals passed to it by each receiver before sending the appropriate signal to the control panel for processing. Duplicated transmissions sent by more than one RF receiver are filtered to prevent multiple signals being triggered for the same event.

### CM750 IP Interface Module

The CM750B IP module allows you to interface the Solution 16i control panel to the building's hard wired IP connection point using a CAT 5E connection cable.

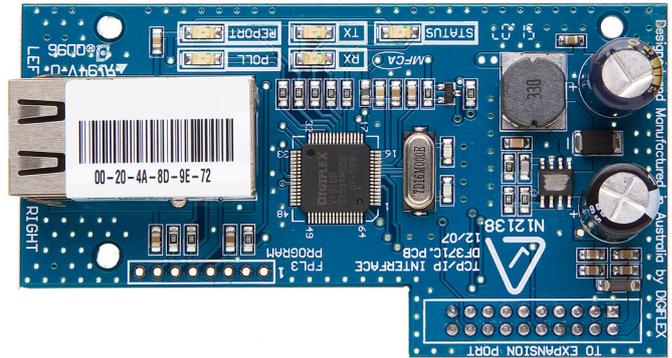


Figure 17: CM750B IP Interface Module

Once configured and operating you will be able to report to monitoring centres that support the available IP reporting formats and to upload/download to the control panel through an internet or intranet connection.

### CM101B Interactive Voice Module

The CM101B Voice Module allows the Solution 16i panel to deliver concise voice alarm reports to up to 3 different phone numbers when an alarm event occurs.

The installer or a master user can record their own customised message descriptions for both the system Greeting Message and Zone Names for the first 16 zones. Other messages are fixed within the voice module and cannot be changed by the installer or user. These include open/close reports, system trouble reports and emergency alarms etc.

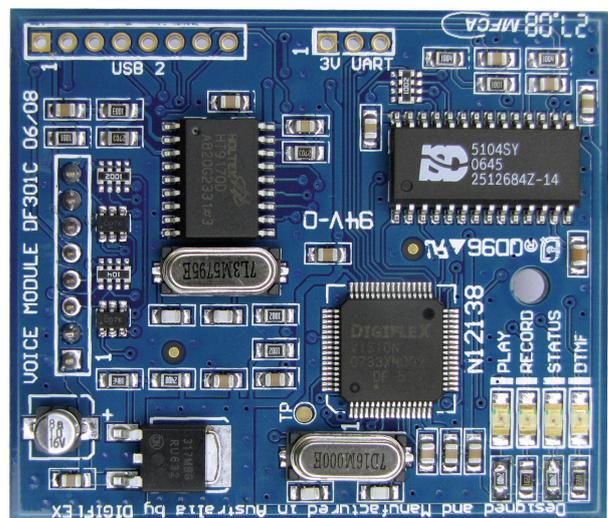


Figure 18: CM101B Voice Module

The customised voice messages allow the user to easily interpret the type of report being sent when they answer an incoming call from the control panel.

In addition to voice reporting, the CM101B also provides voice prompting during remote control of the system with full user PIN authentication. Areas and or Outputs can be armed or turned on and off using a mobile phone or any other telephone keypad capable of sending DTMF tones.

**EOL RESISTOR COLOUR CODE**

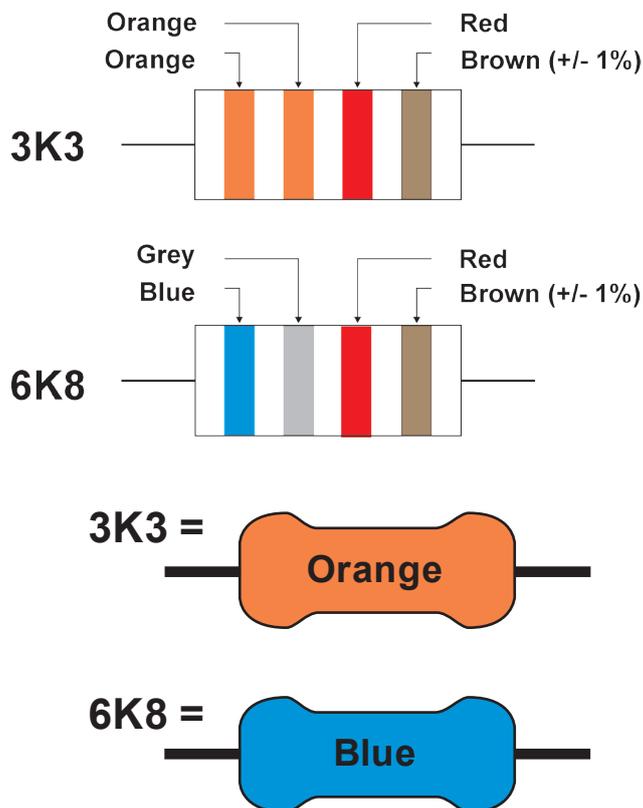


Figure 19: EOL Resistor Colour Chart

**EXPANSION MODULE CONFIGURATION**

LAN module support for the Solution 16i panel requires that each module type is set to address 1. For example if a system has 1 x CM704B and 1 x CM720B installed, they should both be addressed as "module 1".

The panel will only look for new devices following a power cycle and only if the LAN is not secured. To add new devices, make sure the LAN is unsecured before powering the system down.

Set the module Address DIP switches accordingly and complete wiring as per instructions. Once complete re-power the system. To interrogate devices connected to the LAN you can use LAN Status command, MENU-6-0-0

LAN MODULE ADDRESSING				
Module	SW 1	SW 2	SW 3	Address
CM704B	OFF	OFF	OFF	1
CM720B	OFF	OFF	OFF	1
CM710B	OFF	OFF	OFF	1

**Each different module type should be configured to address 1.**

Table 10: LAN Module Addressing

Selected Resistor Colour Codes				
Value	Band 1	Band 2	Band 3	Band 4
2K2	RED	RED	RED	BROWN
4K7	YELLOW	VIOLET	RED	BROWN
5K6	GREEN	BLUE	RED	BROWN
8K1	GREY	BROWN	RED	BROWN
10K	BROWN	BLACK	ORANGE	BROWN
12K	BROWN	RED	ORANGE	BROWN
22K	RED	RED	ORANGE	BROWN

Table 11: EOL Resistor Colour Codes

Because of variations in the colours used to mark resistors it is recommended that you use a multimeter to verify the value of resistors rather than rely on the colour code.

» » END OF SECTION « «





# Wiring Diagrams

## ZONE WIRING



Figure 20: N/C No EOL Zone

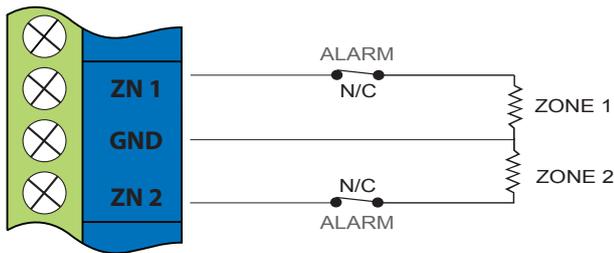


Figure 21: N/C Single EOL Zone

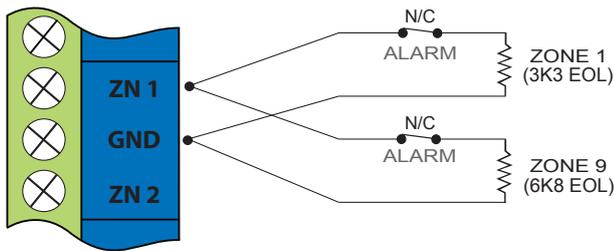


Figure 22: N/C Split EOL Zone

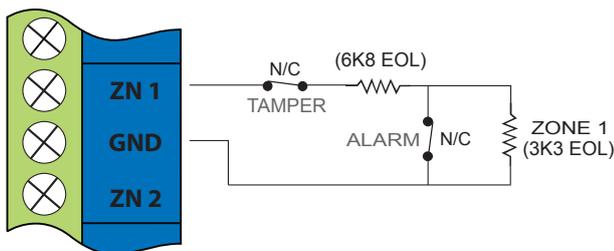


Figure 23: N/C Zone With Tamper

using Normally-Open Alarm Contacts you must select Inverted Seal for each zone in MENU 3-1-8. A shorted loop is a tamper condition for all EOL zone configurations.



Figure 24: N/O No EOL Zone

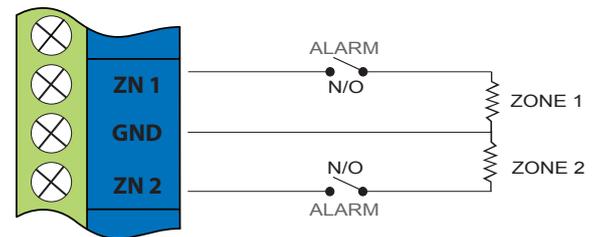


Figure 25: N/O Single EOL Zone

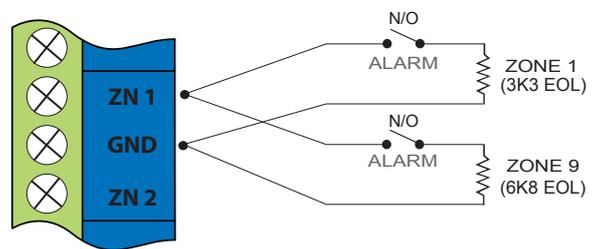


Figure 26: N/O Split EOL Zone

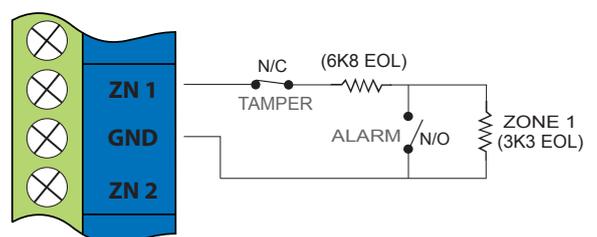


Figure 27: N/O Zone With Tamper



The Above diagrams display the zone wiring configurations using Normally-Closed Alarm contacts and Normally-Open Alarm Contacts. When

## BOARD CONNECTORS

The following table lists the various sockets, pin headers and switches located on the panel and their functions.

Connector	Description
<b>Service</b>	This socket allow you to connect a service Keypad to the panel during installation.
<b>Tamper</b>	This socket is used to connect the cabinet tamper switch to the panel.
<b>Default</b>	This push button is used to reset the control panel back to factory default and to enable Direct Link Programming Mode.
<b>Voice Module</b>	This is used to connect the optional Voice Command Module (CM101B).
<b>Direct Link Port</b>	This socket is used to connect the Direct Link Interface (P/N CM900B) or the Flash Programmer Interface (P/N CM901) to the panel.
<b>Telco</b>	This is a RJ12 6P/4C connector that allows you to connect the control panel to the PSTN telephone line.
<b>Expansion Port</b>	Used to connect addition modules to the control panel. eg TCP/IP interface.
<b>LAN Term</b>	Used to terminate the RS485 LAN.

Table 12: Board Connector Descriptions

## TERMINAL DESCRIPTIONS

N°	Name	Description
1	Earth	Earth wire from this terminal is connected to the Mains earth.
2	~ (AC)	Connection of the 16-18V AC 50-60 Hz adapter or internal transformer.
3	~ (AC)	
4	BAT (-)	Negative and positive connections to the stand-by battery. 12 VDC / 7.2AH
5	BAT (+)	
6	+12V	These terminals are used to power detectors and other accessory devices. (750mA Fused)
7	+12V	
8	GND	
9	GND	
10	LAN +	These terminals are used to power LAN modules and devices. (750 mA Fused)
11	LAN -	
12	LAN A	Connect the LAN A data terminal of any LAN device (eg. Keypads, expansion boards) to this terminal. The control panel supports up to 300 m of 24/0.20 (18 AWG) wire on these terminals.
13	LAN B	Connect the LAN B data terminal of any LAN device (eg. Keypads, expansion boards) to this terminal. The control panel supports up to 300 m of 24/0.20 (18 AWG) wire on these terminals.
14	COMM+	Common positive terminal for system outputs. This terminal is 2.5A PTC Fuse protected.

N°	Name	Description
15	OUT 1	Fully supervised programmable, open collector outputs capable of driving (sink) loads up to 1 amp for sirens, strobes etc.
16	OUT 2	
17	OUT 3	
18	OUT 4	
19	INPUT	Programmable Input for RF Receivers, Keyswitch and other devices.
20	ZN 1	Zone 1 and 9 sensor loop input (+).
21	GND	Common (-) for Zone 1 & 2 sensor loop.
22	ZN 2	Zone 2 and 10 sensor loop input (+).
23	ZN 3	Zone 3 and 11 sensor loop input (+).
24	GND	Common (-) for Zone 3 & 4 sensor loop.
25	ZN 4	Zone 4 and 12 sensor loop input (+).
26	ZN 5	Zone 5 and 13 sensor loop input (+).
27	GND	Common (-) for Zone 5 & 6 sensor loop.
28	ZN 6	Zone 6 and 14 sensor loop input (+).
29	ZN 7	Zone 7 and 15 sensor loop input (+).
30	GND	Common (-) for Zone 7 & 8 sensor loop.
31	ZN 8	Zone 8 and 16 sensor loop input (+).
32	IN	These terminals are used to connect the telephone line from the street.
33	IN	
34	OUT	These terminals are used to connect the premises telephones.
35	OUT	

Table 13: Terminal Block Descriptions and Functions

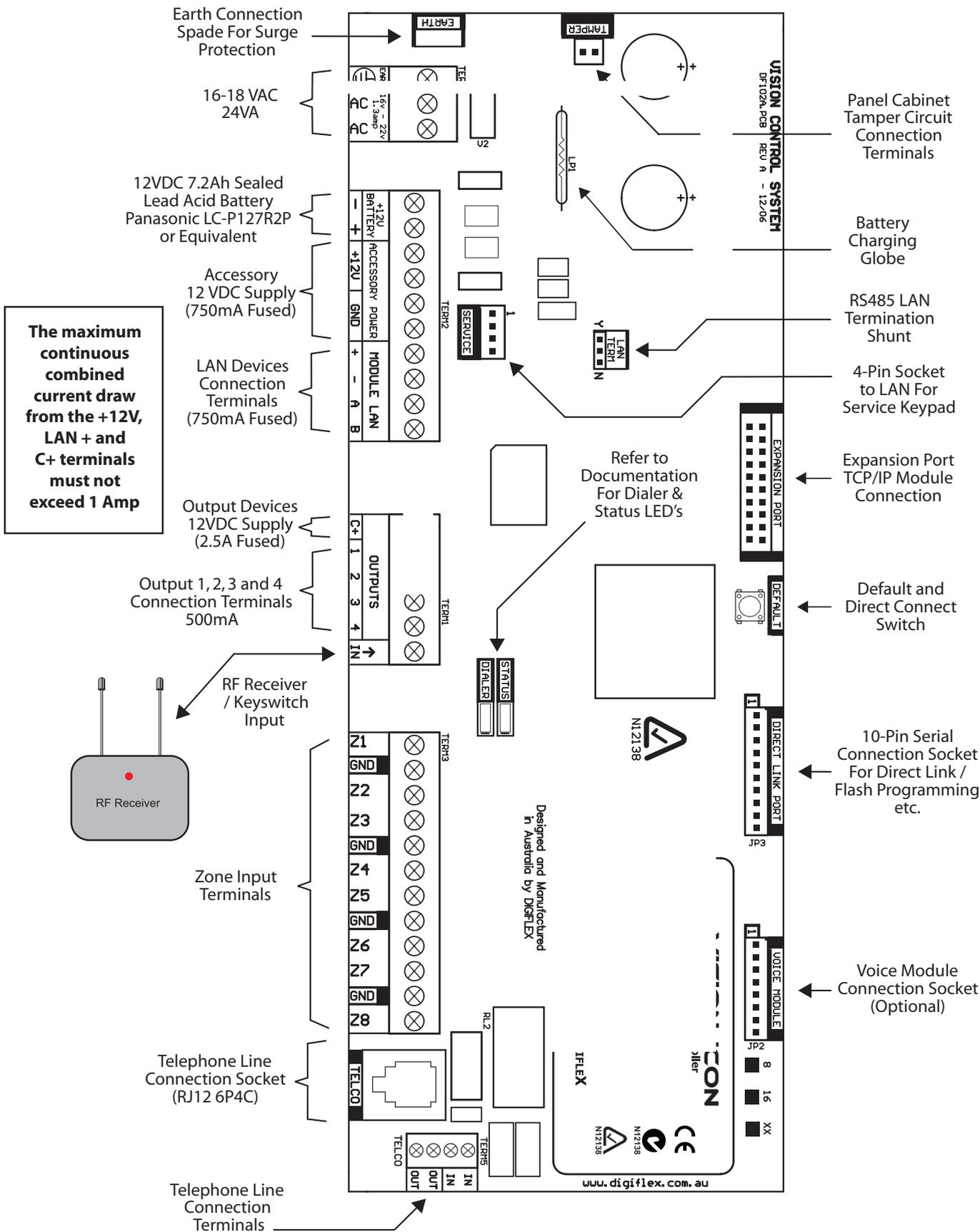


Figure 28: Terminal Descriptions

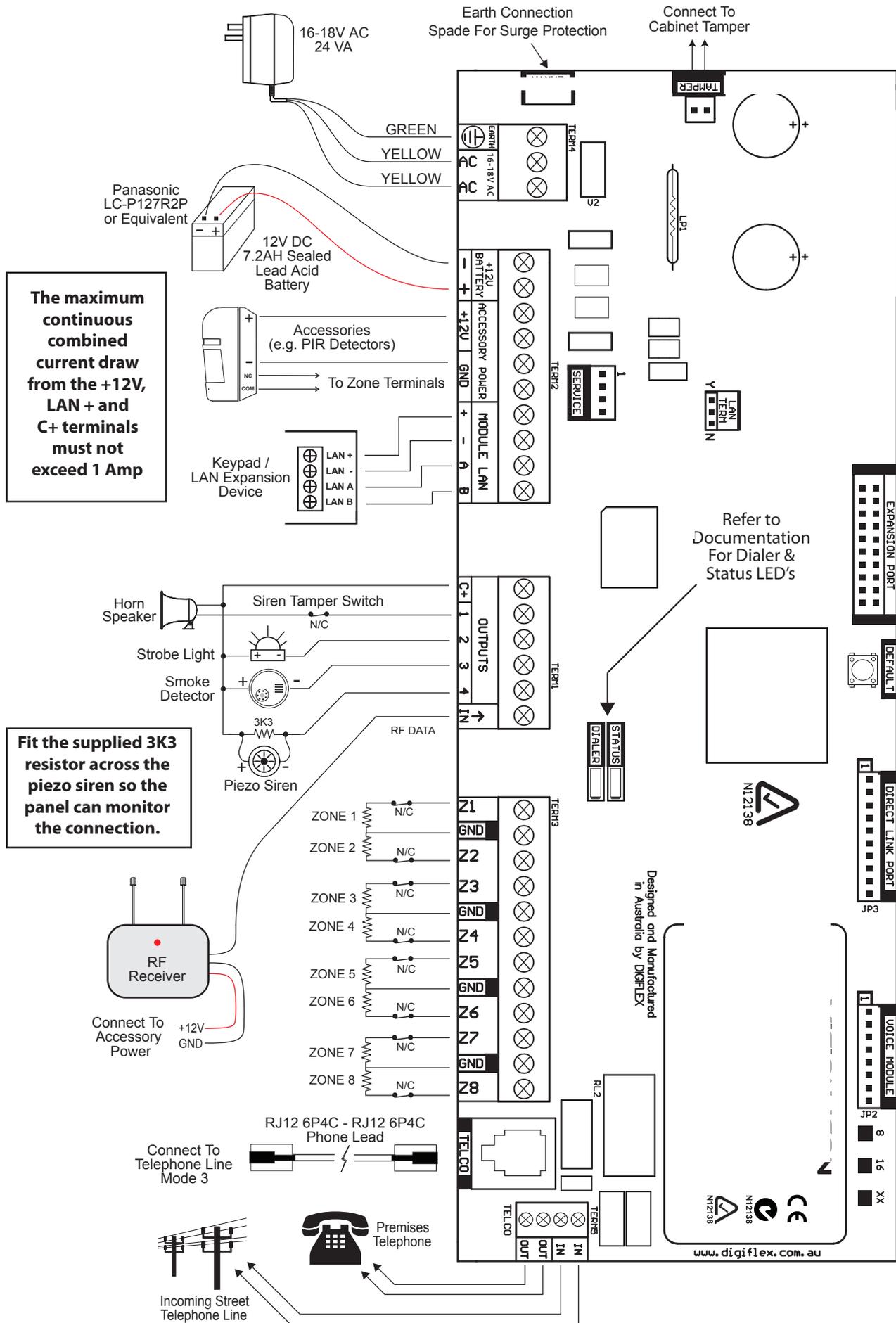


Figure 29: Wiring Diagram

### LAN OVERVIEW

The Solution 16i panel communicates with other system module devices via the built in RS485 LAN or Local Area Network.

For increased security, the system uses anti-substitution technology and a proprietary data encryption algorithm to communicate with all LAN modules.

When using the recommended cable types the LAN can be up to 1500metres in length, or even greater when LAN isolators are used.

See the CM397B LAN Isolation Module reference guide for more information on how to use LAN isolators to increase the overall LAN length, improve surge immunity protection and prevent earth loops.



*It is recommended that one or more CM379 Isolators be used when connecting the LAN between multiple buildings.*

### LAN WIRING

Figure 28 and Figure 29 show the two recommended module connection diagrams.

The method shown in Figure 28, is only recommended for use where the total LAN length is 300metres or less and the system is not installed in a electrically noisy environment. In this case it is possible to use 7/0.20 or 14/0.20 security cable (non twisted) provided that module voltage levels are maintained within specification.

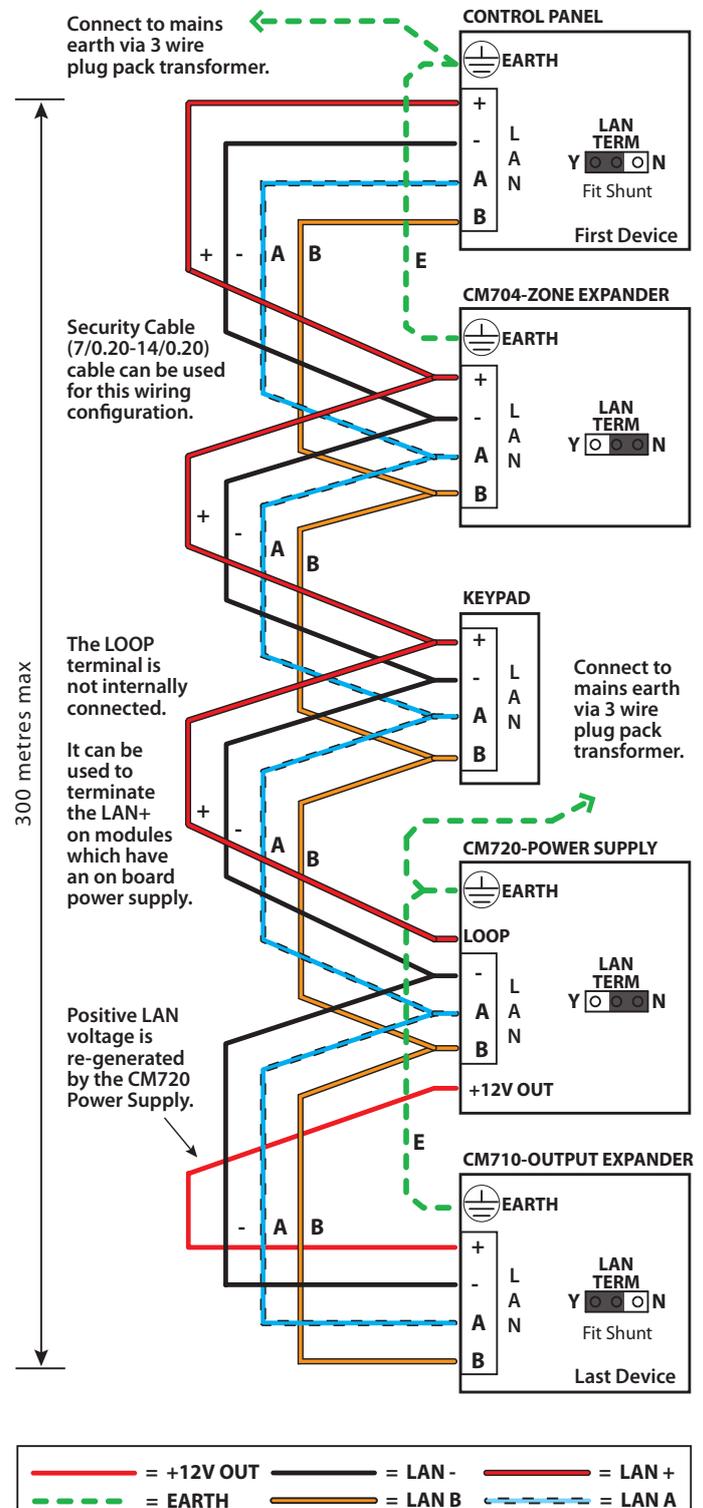
The method shown in Figure 28, offers the greatest immunity to noise interference and voltage surges. This connection method is recommended where the total LAN length is greater than 300metres. When using twisted pair cable the LAN length can be up to 1500metres, and this can be extended even further when using LAN isolators.

The LAN can be wired using the daisy chain method as shown, where each module is wired back to the panel on the same cable run or using a star configuration, where individual modules are wired back to the panel on individual wires.

Un-shielded cable can be used successfully in many situations however for the highest reliability and performance in areas prone to frequent electrical storms or high levels of electrical interference, shielded twisted pair cable should be used.

LAN+ and LAN- should not be used to power detectors or other external devices. These devices should be powered from the +12V terminals on the panel or via an external power supply.

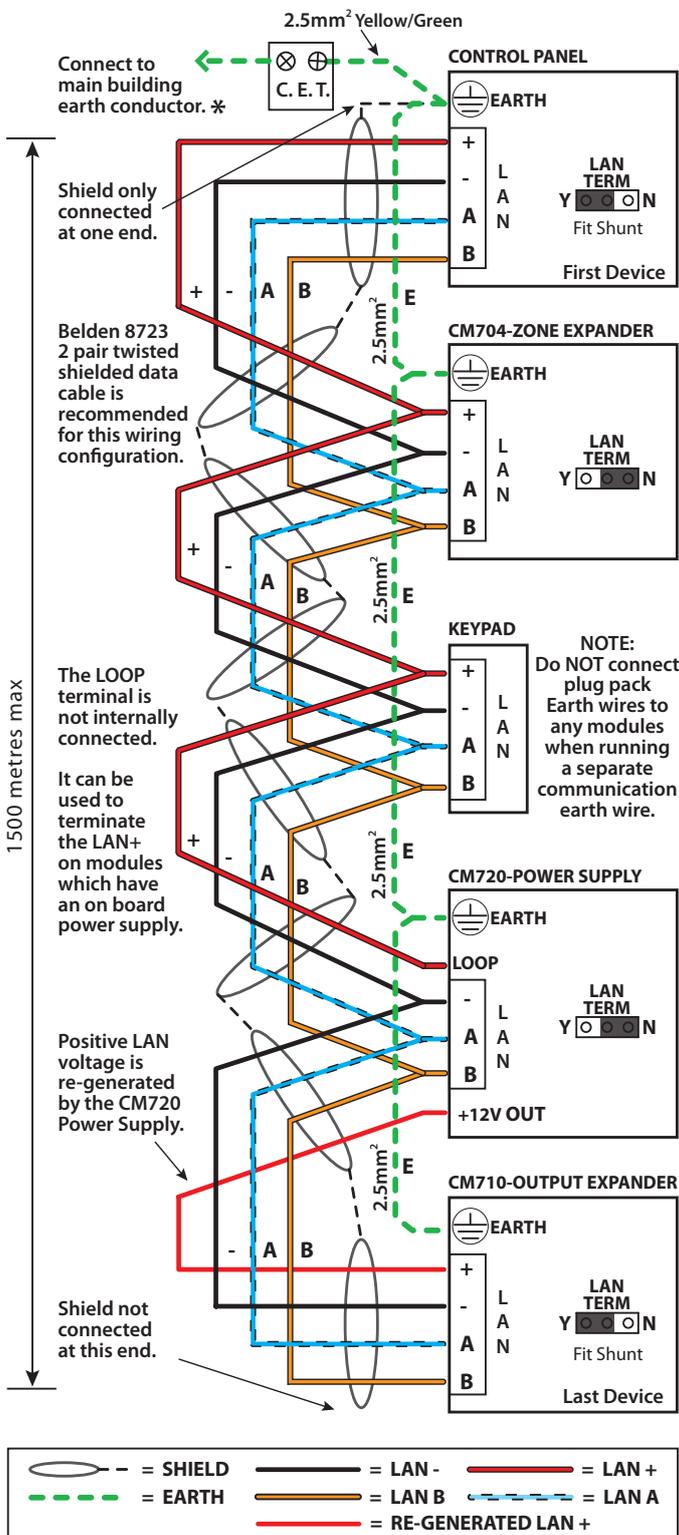
When wiring modules with built in power supplies like the control panel and the CM720B Power Supply, do NOT connect the EARTH wire from any 3 wire plug pack to the module's EARTH input terminal, if you have installed a separate communication earth wire.



**Figure 30: LAN Connection Using 2 Pair Security Cable Recommended for LAN Lengths 300 metres or less.**

The LAN A and LAN B wires are not interchangeable. Make sure that the LAN A wires from all modules connect to LAN A on the panel and LAN B wires from all modules connect to LAN B on the panel.

Do not connect the positives of two power supply sources together. When wiring the LAN to modules that are self powered, or powered from an external source you should terminate the LAN+ into the terminal marked LOOP. This terminal is simply a termination point and is not internally connected.



**Figure 31: LAN Connection Using Twisted Pair Cable Recommended for LAN Lengths greater than 300 metres.**

The LAN- terminals from all modules must be connected together for correct operation.

### SYSTEM EARTHING

When running a CET communications Earth as per Figure 29, the communication earth should be connected to the earth terminal on each module and then connected back through the CET to the main building earth conductor.

Do NOT connect the plug pack transformers earth wire to any modules earth terminal.



*If a separate Communications Earth wire is installed, Do NOT connect the EARTH wire from any 3 wire plug pack to any modules EARTH input terminal.*

If a separate communications earth is NOT being used, then you should connect the earth wire from the 3 wire plug pack to the panels earth terminal as shown in Figure 28.

When using shielded cable, the shield of each length of cable should only be connected to a protective earth at one end. Do not allow the shield to make contact with negative 0 volts, ground or any other wiring within the system.

All earth wiring should be carried out in accordance with the local wiring regulations in your area.

### TERMINATING THE LAN

For reliable operation the system LAN must be terminated correctly. The control panel and all LAN modules include a LAN TERM pin header and shunt which is used to connect the termination resistor on the module.

When the shunt is installed between the Y pin and the centre pin, the terminator is fitted and when the shunt is between the N pin and the centre pin the terminator is not fitted.

Where all modules are connected to the panel on a single cable run, (Daisy Chained) the terminators should be installed on the first and last modules on the LAN.

If the modules are connected to the panel via multiple cables all running back to the control panel (Star Configuration) then the terminators should be installed on the modules at the end of the two longest cable runs.

There are no LAN terminators on keypads. If a keypad is one of the two furthest devices from the control panel then a 470 ohm 1/2watt resistor can be fitted at the keypad between the LAN A and LAN B terminals.

In smaller installations where no LAN modules have been installed there is no need to fit the termination resistor on the control panel.



*The LAN must be terminated correctly for proper operation.*



# Programming Overview

## PROGRAMMING OVERVIEW

The Solution 16i Control System incorporates a ICON style user interface and includes a text display to show all programming data in an easy to read format. Once programming mode is entered you will see a number of menu options in the display and these may vary depending in the user authority level.

All user and master code user options include brief text prompts to simplify operation and reduce the need to refer to the manual.

Installer programming options are accessed using location numbers with text prompts showing the current location number and the data currently programmed.

## ENTERING PROGRAMMING MODE

To enter installer program mode enter, PIN + [MENU].

**The default Installer PIN is 1234.  
The default Master Code PIN is 2580.**

The Red and Green LED indicators on the keypad will flash to confirm Installer programming mode is active.



*All areas must be disarmed with no active alarms. To disarm all areas enter the Installer PIN and hold the [OFF] Key for 2 seconds.*

## EXITING PROGRAMMING MODE

Press and hold down [MENU] key for 2 seconds.



*You can also select End from the menu and press [OK] to exit.*

## PROGRAMMING STRUCTURE

The ICON system utilises a mixture of text menus and location numbers to simplify programming for both end users and installers.

All programming options can be accessed by entering the appropriate location or menu number followed by the [OK] key, however only a limited number of text menus are provided. As the installer you have access to both programming methods.

Most end user functions can be accessed via the text menu which simplifies operation and reduces training time.

- 1) Enter Program Mode. [1234 + MENU]
- 2) Enter the desired location number to program and press [OK]. Follow the prompts.
- 3) Alternatively, press [MENU] and use the arrow and OK keys to navigate through the text menus.
- 4) At any time you are free to enter the location you wish to move to followed by the [OK] key.
- 5) To exit programming navigate to the end option and press [OK], alternatively hold the [MENU] key down for 2 seconds.

Key	Description
←	Scrolls Cursor Left
→	Scrolls Cursor Right
↑	Scrolls Cursor Up
↓	Scrolls Cursor Down
OK	Enter Menu Options or Saves Changes
MENU	Go Back One Level, Hold Down to Exit Programming Mode, Abort Changes
0 to 9	Enter Data Value, Toggle Bit Option
ON	Turn On Functions, Accept Data
OFF	Turn Off Functions, Clear to End of Line

Table 14: Keys Used During Programming

## INTERPRETING THE TEXT DISPLAY

The ICON keypad text display includes space for up to 6 characters to be displayed at one time. To simplify programming, some text menus have been abbreviated.

The following table list the upper case, numbers and some of the special characters which can be displayed on the keypad. See the Character Set Table at the end of this document for a complete character listing.

A = [A]	N = [n]	+ = [T]	0 = [0]
B = [b]	O = [O]	, = [J]	1 = [1]
C = [c]	P = [P]	- = [-]	2 = [2]
D = [d]	Q = [9]	+ = [T]	3 = [3]
E = [E]	R = [r]	- = [-]	4 = [4]
F = [F]	S = [5]	[ = [C]	5 = [5]
G = [9]	T = [t]	] = [J]	6 = [6]
H = [h]	U = [U]	SP = [ ]	7 = [7]
I = [i]	V = [v]	# = [H]	8 = [8]
J = [j]	W = [W]	= = [=]	9 = [9]
K = [K]	X = [x]	@ = [a]	
L = [L]	Y = [y]	* = [A]	
M = [m]	Z = [z]	/ = [I]	

Figure 32: Text Characters Which Can Be Displayed.

**PROGRAMMING BIT OPTIONS**

The ICON system includes a number programming locations which are know as option bit locations. Each of these has up to 8 different parameters which can be selected.

To program BIT locations, enter the location number followed by the [OK] key. The system will then display the currently selected options in that location.

The numbers 1 to 8 are used to represent the option's state. For example if the number is ON then the coresponding option is enabled, if the number is OFF then the option is disabled.

To toggle the option state, simply press the number on the keypad coresponding to the option.

When finished press the [OK] key to save any changes.

You should refer to the IRG or Installation manual for detailed explanation of the various options.

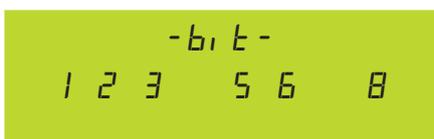


Figure 33: Sample Option Bit Menu Display

To abort programming changes, press the [MENU] key.

**PROGRAMMING TEXT LOCATIONS**

Text descriptions are available for Area Name, Zone Name, User Name, Schedule Name, Holiday Name Prox Reader Name and Output Name. Each name can have a maximum of 16 characters.

These names are not displayed on the keypad, however they are used when reporting in SIA+ , SMS or Web reporting formats. They are also stored in the history log and can be uploaded and downloaded to the panel using the RAS software.

The system includes default text for all locations.



Figure 34: Area Text Programming Display

When programming text, each numeric key represents a different group of characters.

Pressing the same numeric key repeatedly will step you through the available characters assigned to the key. The text key layout is the same as most phones. Refer to the table below for detailed character information.

Key	Characters Assigned To Each Numeric Key							
1	_	-	@	.	1			
2	A	B	C	2				
3	D	E	F	3				
4	G	H	I	4				
5	J	K	L	5				
6	M	N	O	6				
7	P	Q	R	S	7			
8	T	U	V	8				
9	W	X	Y	Z	9			
0	SPACE	0						
↑	Scroll Up through entire character list							
↓	Scroll Down through entire character list							
←	Move to left one character position							
→	Move to right one character position							
OFF	Clear from cursor position to end of line							

Table 15: Text Keypad Character Set

Once the desired character is displayed press the right arrow key to move to the next character position.

To save programming changes, press [OK], else press [MENU] to exit without saving. If the text string is longer than can fit on the keypad then you can use the [←] and [→] to scroll left and right. Pressing the off key will clear the rest of the line from the current cursor position.

Programming Example - Change Zone 3 Name

- 1) Enter Program Mode.  
[1234 + MENU]
- 2) Select the text location to program, Zone Name for example,  
[MENU 3-1-0] + [OK]
- 3) When prompted and the zone number  
[Zn = ] 3 + [OK]

- 4) The system will display the current text. The current cursor position is indicated by the flashing character. To move the cursor, use the left and right arrow keys.
- 5) Enter the required text and then press [OK] to save when finished.



The following additional special characters are available by scrolling using the up and down arrow keys. + - @ # \$ " & % \* : ( ) / < > =

### PROGRAMMING TELEPHONE NUMBERS

To program, select primary telephone number under [MENU] 5-1-1 then enter the digits of the telephone number and press the [OK] key to save. Use the up and down arrow keys to program special characters (\*, # and Pause).

If the number is longer than can fit on the keypad display then you can use the [←] and [→] to scroll left and right to view the entire number. It is also possible to edit a single digit of the number by moving the cursor to the location with the [←] and [→] keys.

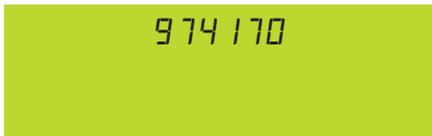


Figure 35: Telephone Number Programming Display

Key	Characters Assigned To Each Numeric Key
0 to 9	Enter the Digits 0 to 9
↑ ↓	Scroll Up through entire character list 0 - 9 • # , comma = 2 second pause
← →	Move to left or right one character position
OFF	Clear from cursor position to end of line

Table 16: Phone Number Programming

To save programming changes, press [OK], else press [MENU] to exit without saving.

### PROGRAMMING LIST OPTIONS

Enter the location (Menu) number to be programmed followed by the [OK] key.

When prompted enter the number of the Zone, User, Area, Output or Keypad to program then press the [OK] key.

Enter the required data and then press the [OK] key to finish. Press [MENU] at any time to exit without saving.



The display will flash prompting you to enter the required data value.

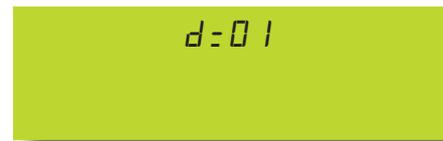


Figure 36: List Option Programming Display

### PROGRAMMING THE CLOCK

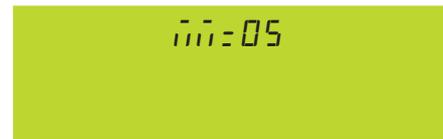
Clock programming requires the following information to be entered, dd mm yy hh mm. To accept the currently programmed data for any field, simply press the [→] to move to the next field.

Enter location 7-1-0 followed by the [OK] key. The keypad will display the currently programmed day of the month.

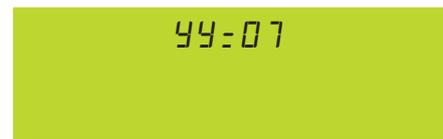
To change, enter the new day of the month. The system will automatically move to the month field.



To change, enter the new month of the year. The system will automatically move to the year field.



To change, enter the new year. The system will automatically move to the hour field.



To change, enter the hour of the day in 24hr format. The system will automatically move to the minute field.

To change, enter the minute of the hour followed by the [OK] key to exit.



Pressing OK on any field will accept all currently programmed date and time values. Time is programmed in 24 hr format.

## GETTING STARTED BACK TO BASE

The following steps are the minimum requirements to get the system reporting back to base. Examples assume the panel is disarmed with no alarms and starting from factory default settings.

- 1) Enter Program mode.  
[1234 + MENU]
- 2) Set Time and Date.  
[MENU 7-1-0]
- 3) Change Default Installer PIN.  
[MENU 1-5-2]
- 4) Change Default Master PIN.  
[MENU 1-1-1]
- 5) Enter Account (client) Number, Area 1.  
[MENU 2-2-0]
- 6) Enter Base Primary Telephone Number.  
[MENU 5-1-1]
- 7) Enter Base Secondary Telephone Number.  
[MENU 5-1-2]
- 8) Hold Down MENU Key To Exit. SERVICE MODE

Service mode when activated disables dialler reporting, prevents all alarms and prevents all users from arming the system.

### To Turn Service Mode ON

- 1) Enter Program Mode.  
[1234 + MENU]
- 2) Enter,  
[MENU 7-0-8]
- 3) The display will show IS OFF if service mode is off or IS ON if service mode is on.
- 4) Press the On or OFF key to change the service mode state then press [OK] to exit.



 Keypads will display SERVIC on the screen when service mode is active.

## DEFAULTING THE SYSTEM

Defaulting the system will reset all programming options back to the factory default setting. All programming information will be erased.

### To Hardware Default

- 1) Remove All Power To The System. AC and Battery.
- 2) Press and Hold The Default Push Button Down Then Apply Power To The System.
- 3) Release Button, The Panel Will Reset And Revert To Normal Operation When Default Is Complete.

### To Software Default

- 1) Enter Program Mode.  
[1234 +MENU]
- 2) Select Factory Default Option.  
[MENU 7-0-4]
- 3) The Panel Will Reset And Revert To Normal Operation When Defaulting Is Complete.



Figure 37: Factory Default Display



You can disable factory defaulting using MENU 7-7-4. If factory defaulting has been disabled you **must** know the installer code to perform a factory default otherwise the system will need to be returned to your supplier for defaulting or you can purchase a CM255 Default Unlock Key which will unlock the panel in the field. Charges apply for defaulting if returned to the distributor.

## DOMESTIC TEMPLATE DEFAULTS

The following table list the changes that will occur when you select domestic default.

Program Option	Domestic Default Value
All Trouble Reports	Disabled
All Bypass Reports	Disabled
All Restore Reports	Disabled
Destination 1 TX Format	Domestic Reporting
Open / Close Reports	Disabled (all areas)
System Events Route	Log Only

Table 17: Domestic Dialing Defaults Settings

## DTMF CONTROL FUNCTIONS

Version V1.10 and higher includes comprehensive DTMF control of individual areas and outputs with full user PIN and timer group access verification.

Unlike other systems, no additional hardware or modules are required for DTMF control. To configure the desired functions see MENU 5-3-5 DTMF Options.

### How to Use DTMF Control

- 1) Once the panel answers the incoming call, if either option 1, 2, 3 or 4 in MENU 5-3-5 is enabled, then the panel will play a short welcome jingle. You now have approximately 5 seconds to enter a valid PIN and log onto the panel.
- 2) Enter PIN followed by the [#] key. If the PIN is valid the system will respond with two short beeps. If the PIN is invalid then a single long beep will be heard.

If a valid PIN is not entered in time, the panel will attempt to establish a modem connection as if connecting to the Solution Link software.

If this happens you will need to hang up for approximately 60 seconds before trying again.

- 3) Once validated, the following commands can be performed outlined in Table 11.

If no keys are pressed for 20 seconds or the user presses [#] [#], the control panel will play the exit jingle and terminate the session.

DTMF CONTROL FUNCTIONS		
Operation	Command	Response
Quick Arm All Areas	[0] + [#]	2 x Beeps
Log In OK	[PIN] + [#]	Welcome Jingle
Log In Failed	[Invalid PIN] + [#]	Long Beep
Turn Area All On	[1] + [Area N°] + [1] + [#]	2 x Beeps (Low - High)
Turn Area Off	[1] + [Area N°] + [2] + [#]	2 x Beeps (High - Low)
Turn Output On	[2] + [Output N°] + [1] + [#]	2 x Beeps (Low - High)
Turn Output Off	[2] + [Output N°] + [2] + [#]	2 x Beeps (High - Low)
End Session	[#] + [#]	Exit Jingle

Table 18: DTMF Remote Control Functions

### DTMF EXAMPLES

Each example below shows the log on step for clarity. In practise is only necessary to log on once per DTMF control session.

To log on and turn Area 1 All On, enter the following:

[2] [5] [8] [0] + [#] = Log ON

[1] + [1] + [1] + [#] = Arm Area 1

To log on and turn Output 8 on, enter the following:

[2] [5] [8] [0] + [#] = Log ON

[2] + [8] + [1] + [#] = Turn Output 8 ON

To log on and turn Output 6 off, enter the following:

[2] [5] [8] [0] + [#] = Log ON

[2] + [6] + [2] + [#] = Turn Output 6 OFF



If the DTMF Quick Arm option is enabled then it is possible to remotely turn on all areas without logging onto the panel. Simply enter [0] + [#] following the welcome jingle.

Make sure that the telephone being used to remotely control the panel is set to transmit DTMF tones when keys are pressed during the call. This option is disabled by default on some telephones.

## DIRECT LINK PROGRAMMING

The panel can be programmed via the Solution Link Upload/Download software in either Direct Link or Remote Link modes. For Direct Link you will need a CM900 Direct Link module which connects the panels serial port to the PC.

Once the cable is connected you will need to hold down the default switch on the panel for 5 seconds to initiate the programming session. See Figure 12: for the default switch location. It is also possible to initiate the programming session via [MENU 5-0-5] Start Direct Link.

Solution Link V1.10 or higher is required to program this panel.

## ZONE ARRAY

The feature allows you to view the condition or status of all zones on the panel in groups of 4 zones at a time. Use the [↑] and [↓] keys to change the group of zones to display.

The starting zone for each group is displayed at the beginning of the screen so you will always know which zones you are viewing.

Use Keys [↑] and [↓] to scroll up and down the zone bank Press [OK] or [MENU] when finished.

**N**= NORMAL  
**S** = SHORTED  
**A**= ALARM  
**T**= TAMPER  
**-** = DISABLED



Figure 38: Zone Array Showing Z1 to Z4



Figure 39: Zone Array Showing Z9 to Z12

In the above example screens,

**N** = Zone 01, 04 and 10 are Normal (Sealed)  
**S** = Zone 02 is Shorted  
**A** = Zone 03 is in Alarm (Unsealed)  
**T** = Zone 12 is in Tamper Alarm (Unsealed)  
**-** = Zone 09 is Disabled (Unused)

## BASIC REPORTING REFERENCE

A complete reporting template is available on the Solution Link CD, from your distributor or from Bosch. Your base station will need to create a specific reporting template for this and other 2nd generation Solution panels.

Point ID Table	Module Description
Ur999	Installer
Ur998	Remote User
Ur001 - 256	Users
Ur000	Quick Arm
Zn301-428	User Keyfob 1 - 128
Zn891-898	Panels 1-8
Zn881-888	Keypads 1-8
Zn871-878	Ethernet 1-8
Zn861-868	GSM 1-8
Zn851-858	Output Expander 1-8
Zn841-848	Serial Expander 1-8
Zn831-838	Lan P/Supply 1-8
Zn821-828	RF Reciever 1-8
Zn811-818	Access 1-8
Zn801-808	X10 1-8
Zn781-788	Input Expander
Zn791-798	Lift 1-8
Zn001-128	Zones

Table 19: Basic Reporting Code Reference

## SYSTEM TROUBLE EVENT LISTING

When one or more trouble events are in effect, the keypad will display the SERVICE symbol indicating that something requires attention. The table below lists all of the system troubles or system faults which can be present on the alarm panel.

Each trouble event that can be shown by the panel has been assigned a unique Trouble Event Number. This number is used to identify the trouble event from the list shown in "Table 20: System Trouble / Fault Descriptions" on page 4-8" on page 4-7.

To interpret the system trouble from the keypad do the following;

1) Enter program mode and then press [7] + [0] + [1] + [OK]. Alternatively you can press the [↓] at any time provide a system trouble is present. The keypad will now show the first trouble event number in the display. Use the the [↑] and [↓] keys to scroll from one trouble event to the next.

2) To find out more detail on each specific trouble event you can either refer to the trouble event descriptions in the table below or to view more specific information on the keypad press [OK] and the display will begin to scroll the trouble event number, the device or module number, trouble text description 1 and then trouble text description 2. The display will continue to scroll the description of the trouble event which is in focus.

3) To return to the trouble list, press the [MENU] key or the exit completely and return to normal state press and hold the the [MENU] key down for 2 seconds.

## HOW SYSTEM TROUBLES ARE DISPLAYED

The following diagram shows the typical procedure and keypad displays for a panel with 3 system troubles. The trouble shown are Panel Tamper, Panel AC Fail and Panel Date and Time Error.

Enter programming mode and then press MENU 7-0-1 + [OK]

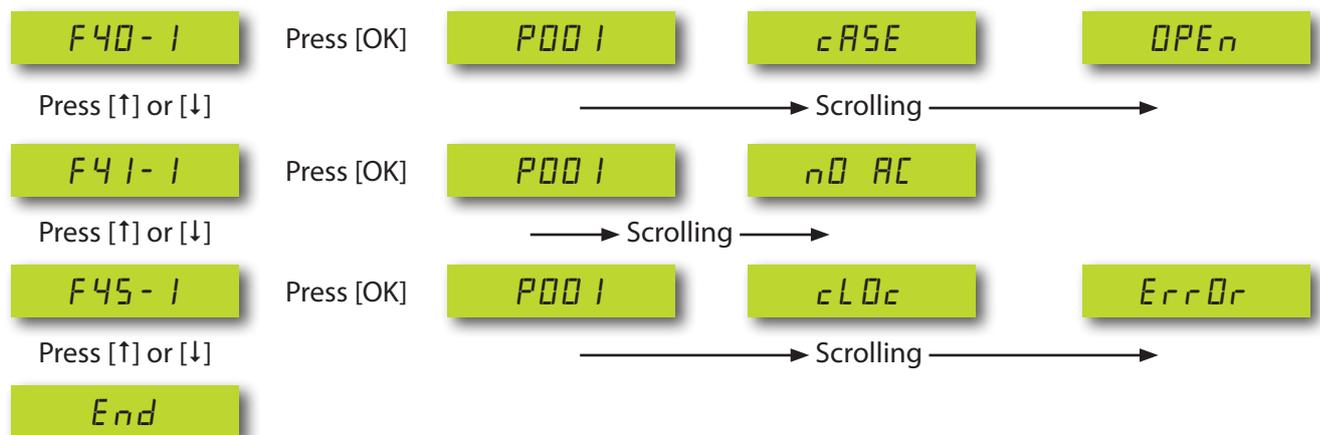


Figure 40: System Trouble Display Sequence

Trouble Event Number	Trouble Event Description	Device or Module Number	Trouble Text Description #1	Trouble Text Description #2
F00-Output #	Output Missing	OP00x	LOSt	
F01-Output #	Output Overload	OP00x	LOAd	ShorT
F02-Output #	Output Trouble	OP00x	nD	LOAd
F10-Zone #	Zone Missing	Zn0xx	LOSt	
F11-Zone #	Zone Tamper	Zn0xx	cASE	OPEn
F12-Zone #	Zone Sensor Watch	Zn0xx	SEnSor	ALerT
F13-Zone #	Zone Low Battery	Zn0xx	bAtteRy	LEuEL
F20-Zone Expander #	Zone Module Expander Missing	IE001	LOSt	
F21-Zone Expander #	Zone Module Expander Tamper	IE001	cASE	OPEn
F30-Keyfob #	RF Keyfob User Low Battery	KF0xx	LD	bAt
F40-Panel #	Panel Tamper	P001	cASE	OPEn

Trouble Event Number	Trouble Event Description	Device or Module Number	Trouble Text Description #1	Trouble Text Description #2
F41-Panel #	Panel AC Fail	P001	nD AC	
F42-Panel #	Panel Low Battery	P001	bAttery	LEuEL
F43-Panel #	Panel Missing Battery	P001	nD	bAttery
F44-Panel #	Panel Default PIN	P001	dFAULt	PI n
F45-Panel #	Panel Date/Time	P001	cLDC	ErrOr
F46-Panel #	Panel Route 1	P001	rEPOrt	rte 1
F47-Panel #	Panel Route 2	P001	rEPOrt	rte 2
F48-Panel #	Panel Phone Line Fail	P001	PhonE	Li nE
F49-Panel #	Panel Service Mode	P001	INStAL	OnSi tE
F50-Panel #	Panel Eprom Fail	P001	dAtA	ErrOr
F51-Panel #	Panel Comm+ Overload	P001	DUt 12	LEuEL
F52-Panel #	Panel LAN Overload	P001	LAN 12	LEuEL
F53-Panel #	Panel ACC Overload	P001	Acc 12	LEuEL
F54-Panel #	Panel - TCP IP Comm Fail	P001	IP PDL	FAi L 1
F55-Panel #	Panel - TCP IP Comm Fail	P001	IP PDL	FAi L 2
F60-RTC #	RTC Module Missing	CL001	LOSt	
F61-RTC #	RTC Module Tamper	CL001	cRSE	DPEn
F62-RTC #	RTC Module Low Battery	CL001	bAttery	LEuEL
F63-RTC #	RTC Module Missing Battery	CL001	nD	bAttery
F64-RTC #	RTC Clock Error	rtC001	cLDC	ErrOr
F70-Receiver #	RF Receiver Missing	rF001	LOSt	
F71-Receiver #	RF Receiver Tamper	rF001	cRSE	DPEn
F72-Receiver #	RF Receiver Jam	rF001	Si gnAL	Hi GH
F80-Power Supply #	P/S Module Missing	PS001	LOSt	
F81-Power Supply #	P/S Module Tamper	PS001	cRSE	DPEn
F82-Power Supply #	P/S Module AC Fail	PS001	nD AC	
F83-Power Supply #	P/S Module Low Battery	PS001	bAttery	LEuEL
F84-Power Supply #	P/S Module Battery Missing	PS001	nD	bAttery
F85-Power Supply #	P/S Module Output Overload	PS001	DUtPDUt	ShOrt
F88-Output Module #	Output Module Expander Missing	OE001	LOSt	
F89-Output Module #	Output Module Expander Tamper	OE001	cRSE	DPEn
F90-Keypad #	Keypad Missing	CP00x	LOSt	
F91-Keypad #	Keypad Tamper	CP00x	cRSE	DPEn
F91-Reader #	LAN Reader Tamper	LP00x	cRSE	DPEn
F92-Keypad #	Keypad High Temperature	CP00x	tDD	HdE
F93-Keypad #	Keypad Low Temperature	CP00x	tDD	COld
F100-Module #	Ethernet Module Missing	Et001	LOSt	
F101-Module #	Ethernet Module IP Changed	Et001	IP	chAnGE
F102-Module #	Ethernet Module No Connection	Et001	nD	cAbLE
F103-Module #	Ethernet Module IP Lockout	Et001	LDCh	DUt
F104-Module #	Ethernet Module IP Conflict	Et001	IP	INUSE

Table 20: System Trouble / Fault Descriptions

AccESS	= Access MENU	SYSTEM	= System MENU
ch-Pin	= Change PIN Number	clock	= Set the System Clock
ch-oth	= Change Other PIN Number	st-on	= Set Daylight Saving On Time
UrArEA	= Assign Areas to User	st-off	= Set Daylight Saving Off Time
AddPin	= Add New PIN	HiSLOG	= View History Log
AddProx	= Add Prox Token	SendLOG	= Send Log
AddFob	= Add RF Keyfob	trbl	= View System Troubles
dELPin	= Delete User PIN	test-bA	= Test Battery
dELProx	= Delete User Prox	About	= Displays Firmware Version
dELFob	= Delete User RF Keyfob		
dEL-Ur	= Erase User	LO00	= Location 000
		d= 14	= Data equals 14
ArEA	= Area MENU	A=	= Enter Area Number
chOnOff	= Turn Chime Mode On/Off	A= 6	= Area 6 Selected
ch tYP	= Change Chime Mode	OP=	= Enter Output Number
		zn=	= Enter Zone Number
inPUt	= Input MENU	Ur=	= Enter User Number
StAtUS	= Input Status	OP=	= Enter Output Number
bYPASS	= Bypass Mode	cP=	= Enter Keypad Number
Fire-r	= Reset Fire / Smoke Sensors	hcs	= Max Possible number is 5
ch-zn	= Set Chime Zones	EntPin	= Enter PIN Number
Pt2-zn	= Set Part Mode 2 Zones	dd =22	= Date = 22nd
test-zn	= Test a Zone	mm =06	= Month = June
testzns	= Test All Zones	yy =07	= Year = 2007
		P001	= Panel 1
OUTPUt	= Output MENU	cP001	= Keypad 1
StAtUS	= Output Status	E 148	= History Log Event 148
On-off	= Turn Output On/Off	Ph test	= Communication Test
testsr	= Test External Siren	ch On	= Chime Mode ON
testint	= Test Internal Siren	ch OFF	= Chime Mode OFF
teststr	= Test Strobe	U= 1.00	= Software Version 1.00
		t= 19c	= Temperature = 19°C
dialerS	= Dialer MENU	v= 13-8	= Voltage = 13.8V
SEt-Ph	= Set Domestic Phone Number	On	= On
cFOnOff	= Turn Call Forwarding On / Off	OFF	= Off
cFOnPh	= Call Forward On Number	LEAVE	= Exit Now
cFOFPh	= Call Forward Off Number	End	= Exit Programming Mode
cALANS	= Call / Answer RAS Software		
dircOn	= Start Direct Connect		
cUSrEG	= Customer Registration		
test-dL	= Perform Dialer Test		
dEvicE	= Device MENU		
cP-vOL	= Keypad Volume		
cP-CON	= Keypad Contrast		
cP-bl	= Keypad Backlight		
cP-dEG	= Set Keypad Temp Alarm		
LAN-St	= LAN Status		

Figure 41: Text Menu Examples

**PROGRAMMING LOCATIONS REFERENCE TABLE**

The Solution 16i panel includes a simple text menu system which makes all levels of programming extremely easy. Once a valid PIN has been entered followed by the MENU key the system will automatically determine which menus and option the user has access to and only those items will be displayed.

There are four basic grouping levels used;

**A = All (No PIN Required)**

**U = User PIN Has Access**

**M = Master PIN Has Access**

**I = Installer PIN Has Access**

The following table lists all programming locations and the authority level required to access them.

<b>0</b>	<b>Commands</b>	<b>1</b>	<b>Access</b>	<b>2</b>	<b>Areas</b>
<b>UMI</b>	2-0-1 Turn Area On/Off	<b>1-0</b>	<b>Commands</b>	<b>2-0</b>	<b>Commands</b>
<b>UMI</b>	2-0-2 Turn All Areas On	<b>MI</b>	1-0-0 Erase User	<b>AUMI</b>	2-0-0 Area Status
<b>UMI</b>	2-0-3 Turn All Areas Off			<b>UMI</b>	2-0-1 Turn Area On/Off
<b>UMI</b>	2-0-4 Move To Area	<b>1-1</b>	<b>PIN Codes</b>	<b>UMI</b>	2-0-2 Turn All Areas On
<b>AUMI</b>	2-0-5 Chime On/Off	<b>UMI</b>	1-1-0 Change Own PIN	<b>UMI</b>	2-0-3 Turn All Areas Off
<b>UMI</b>	1-1-0 Change Own PIN	<b>M</b>	1-1-1 Change Other PIN	<b>UMI</b>	2-0-4 Move To Area
<b>AUMI</b>	3-0-0 Zone Status	<b>MI</b>	1-1-2 Add PIN	<b>AUMI</b>	2-0-5 Chime On/Off
<b>AUMI</b>	4-0-0 Output Status	<b>MI</b>	1-1-3 Delete PIN	<b>UMI</b>	2-0-6 Chime Mode
<b>UMI</b>	4-0-1 Turn Output On/Off	<b>I</b>	1-1-4 View PIN		
<b>MI</b>	7-1-0 Set Date & Time			<b>2-1</b>	<b>Area Properties</b>
<b>UMI</b>	3-0-5 Smoke Sensor Reset	<b>1-2</b>	<b>Token</b>	<b>MI</b>	2-1-0 Area Name
<b>UMI</b>	3-9-0 Walk Test All Zones	<b>MI</b>	1-2-0 Add Token	<b>I</b>	2-1-1 General Options
<b>MI</b>	4-9-0 External Siren Test	<b>MI</b>	1-2-1 Delete Token	<b>I</b>	2-1-2 Input Options
<b>MI</b>	4-9-1 Internal Siren Test	<b>MI</b>	1-2-2 Token Status	<b>I</b>	2-1-3 Output Options
<b>MI</b>	4-9-2 Strobe Test			<b>I</b>	2-1-4 Reporting Options
<b>MI</b>	5-0-0 Set Domestic Number	<b>1-3</b>	<b>RF Keyfob</b>	<b>I</b>	2-1-5 Strobe Trigger
<b>UMI</b>	5-0-1 Call/Answer RAS	<b>MI</b>	1-3-0 Add Keyfob		
<b>UMI</b>	7-9-1 Battery Test	<b>MI</b>	1-3-1 Delete Keyfob	<b>2-2</b>	<b>Reporting</b>
<b>UMI</b>	5-9-0 Test Dialler	<b>I</b>	1-3-2 Test Keyfob	<b>I</b>	2-2-0 Account Dest 1
<b>I</b>	7-0-8 Service Mode			<b>I</b>	2-2-1 Account Dest 2
<b>UMI</b>	About	<b>1-4</b>	<b>User Properties</b>	<b>I</b>	2-2-2 Open Close Route
		<b>MI</b>	1-4-0 User Name		
		<b>MI</b>	1-4-1 Area Assignment	<b>2-9</b>	<b>Area Testing</b>
		<b>I</b>	1-4-2 User Options	<b>I</b>	2-9-0 Area Watch
		<b>MI</b>	1-4-4 Timer Group	<b>I</b>	2-9-1 User Test Interval
		<b>MI</b>	1-4-5 Access Assignment	<b>I</b>	2-9-2 Service Interval
		<b>I</b>		<b>I</b>	2-9-3 Test Options
		<b>1-5</b>	<b>Global Properties</b>		
		<b>I</b>	1-5-0 PIN Length		
		<b>I</b>	1-5-1 PIN Retry Count		
		<b>I</b>	1-5-2 Installer PIN		
		<b>I</b>	1-5-3 PIN Expire Time		
		<b>1-6</b>	<b>Prox Reader</b>		
		<b>I</b>	1-6-0 Name		
		<b>I</b>	1-6-1 Area Assignment		
		<b>I</b>	1-6-2 Access Group		
		<b>I</b>	1-6-3 Reader Options		

<b>3 Inputs</b>		<b>4 Outputs</b>		<b>5 Comms</b>	
	<b>3-0 Commands</b>		<b>4-0 Commands</b>		<b>5-0 Commands</b>
<b>AMI</b>	3-0-0 Zone Status	<b>AUMI</b>	4-0-0 Output Status	<b>MI</b>	5-0-0 Set Domestic Number
<b>I</b>	3-0-1 Zone Array	<b>UMI</b>	4-0-1 Turn Output On/Off	<b>UMI</b>	5-0-1 Call /Answer RAS
<b>UMI</b>	3-0-2 Bypass Zones			<b>MI</b>	5-0-2 Call Forward On/Off
<b>MI</b>	3-0-3 Set Chime Zones		<b>4-1 Properties</b>	<b>MI</b>	5-0-3 Check Web Email
<b>MI</b>	3-0-4 Set Part 2 Zones	<b>MI</b>	4-1-0 Output Name	<b>MI</b>	5-0-4 Email System Log
<b>UMI</b>	3-0-5 Smoke Sensor Reset	<b>I</b>	4-1-1 Event Type	<b>MI</b>	5-0-5 Start Direct Link
		<b>I</b>	4-1-2 Event Assignment		5-0-6 Voice Setup
	<b>3-1 Zone Properties</b>	<b>I</b>	4-1-3 Output Polarity		5-0-7 Reserved
<b>MI</b>	3-1-0 Zone Name	<b>I</b>	4-1-4 Timer Parameter		5-0-8 Register Customer
<b>I</b>	3-1-1 Zone Type	<b>I</b>	4-1-5 Output Options	<b>I</b>	5-0-9 Register Installer
<b>I</b>	3-1-2 Area Assignment				
<b>I</b>	3-1-3 Pulse Count		<b>4-9 Output Testing</b>		<b>5-1 Telephone Numbers</b>
<b>I</b>	3-1-4 Pulse Count Time	<b>MI</b>	4-9-0 External Siren Test	<b>I</b>	5-1-0 Number Prefix
<b>I</b>	3-1-5 Access Group	<b>MI</b>	4-9-1 Internal Siren Test	<b>I</b>	5-1-1 Primary Dest 1
<b>I</b>	3-1-6 Report Route	<b>MI</b>	4-9-2 Strobe Test	<b>I</b>	5-1-2 Secondary Dest 1
<b>I</b>	3-1-7 Report Options			<b>I</b>	5-1-3 Primary Dest 2
<b>I</b>	3-1-8 Zone Options			<b>I</b>	5-1-4 Secondary Dest 2
				<b>MI</b>	5-1-5 Domestic Numbers
	<b>3-3 RF Zone</b>			<b>MI</b>	5-1-6 Call Forward On
<b>I</b>	3-3-0 Add RF Device			<b>MI</b>	5-1-7 Call Forward Off
<b>I</b>	3-3-1 Delete RF Device				
<b>I</b>	3-3-2 Test RF Device				<b>5-2 Properties</b>
				<b>I</b>	5-2-0 Call Attempt Count
	<b>3-4 Global Input Options</b>			<b>I</b>	5-2-1 Dialler Options
<b>I</b>	3-4-0 EOL Value			<b>I</b>	5-2-2 Phone Line Options
<b>I</b>	3-4-1 Keyswitch Options			<b>I</b>	5-2-3 Country
<b>I</b>	3-4-2 Input Options			<b>I</b>	5-2-7 Set SMS Password
	<b>3-5 PGM Input</b>				<b>5-3 Remote Access</b>
<b>I</b>	3-5-0 Input Type			<b>I</b>	5-3-0 Call Back Number
				<b>I</b>	5-3-1 RAS Security PIN
	<b>3-6 Tamper Inputs</b>			<b>I</b>	5-3-2 Log Threshold
<b>I</b>	3-6-0 Tamper Options			<b>I</b>	5-3-3 Ring Count
				<b>I</b>	5-3-4 RAS Options
	<b>3-9 Input Testing</b>			<b>I</b>	5-3-5 DTMF Options
<b>UMI</b>	3-9-0 Walk Test All Zones			<b>I</b>	5-3-6 Voice Access Code
<b>UMI</b>	3-9-1 Walk Test A Zone			<b>I</b>	5-3-7 CLI Numbers
<b>I</b>	3-9-2 Sensor Watch Time			<b>I</b>	5-3-8 User RAS Security PIN
					<b>5-4 Dialler Reporting</b>
				<b>I</b>	5-4-0 TX Format Dest 1
				<b>I</b>	5-4-1 TX Format Dest 2
				<b>I</b>	5-4-2 Test Route
				<b>I</b>	5-4-3 System Route
				<b>I</b>	5-4-4 Emergency Route
				<b>I</b>	5-4-5 Swinger Dialler
				<b>I</b>	5-4-6 Burg Report Delay
				<b>I</b>	5-4-7 Fire Report Delay

5 Comms (Con't)		6 Devices		7 System	
	<b>5-5 MyAlarm</b>		<b>6-0 Commands</b>		<b>7-0 Commands</b>
	5-5-0 IP Address	<b>UMI</b>	6-0-0 LAN Status	<b>UMI</b>	7-0-0 Panel Status
	5-5-1 Port #	<b>I</b>	6-0-1 LAN Secure	<b>UMI</b>	7-0-1 System Trouble
	5-5-2 Options			<b>UMI</b>	7-0-2 History Log
	5-5-3 Reserved		<b>6-1 Keypads</b>	<b>I</b>	7-0-3 Domestic Default
	5-5-4 Reserved	<b>MI</b>	6-1-0 Volume	<b>I</b>	7-0-4 Factory Default
	5-5-5 Reserved	<b>MI</b>	6-1-1 Contrast	<b>I</b>	7-0-5 Template Default
	5-5-6 Reserved	<b>MI</b>	6-1-2 Backlight	<b>I</b>	7-0-8 Service Mode
	5-5-7 Reserved	<b>I</b>	6-1-3 Home Area		
<b>MI</b>	5-5-8 Email Address	<b>I</b>	6-1-4 General Options		<b>7-1 Clock</b>
<b>MI</b>	5-5-9 Email Options	<b>I</b>	6-1-5 Beeper Options	<b>MI</b>	7-1-0 Set Date & Time
		<b>I</b>	6-1-6 Emergency Keys	<b>I</b>	7-1-1 Summertime On
	<b>5-6 IP</b>	<b>I</b>	6-1-7 Access Group	<b>I</b>	7-1-2 Summertime Off
<b>I</b>	5-6-0 Base Station IP	<b>I</b>	6-1-8 Lockout Time		
<b>I</b>	5-6-1 Base Station Port			<b>7-2 Timers</b>	
<b>I</b>	5-6-2 Poll Rate	<b>I</b>	<b>6-2 RF Devices</b>	<b>I</b>	7-2-0 Exit Time
<b>I</b>	5-6-3 Ack Wait Time	<b>I</b>	6-2-0 Receiver Options	<b>I</b>	7-2-1 Entry Time 1
<b>I</b>	5-6-4 IP Format	<b>I</b>	6-2-1 Supervision Time	<b>I</b>	7-2-2 Entry Time 2
<b>I</b>	5-6-5 Retry Count	<b>I</b>	6-2-2 RF Device Options	<b>I</b>	7-2-3 Part Entry Time
<b>I</b>	5-6-6 RAS IP Address	<b>I</b>	6-2-3 Add RF Keypad	<b>I</b>	7-2-4 Auto Arm Pre Alert
<b>I</b>	5-6-7 RAS IP Port	<b>I</b>	6-2-4 Delete RF Keypad	<b>I</b>	7-2-5 Output Pre Alert
<b>I</b>	5-6-8 IP RAS Options	<b>I</b>	6-2-5 View RF Device ID	<b>I</b>	7-2-6 Senior Watch Time
<b>I</b>	5-6-9 RAS IP Lockout				
			<b>6-3 Serial Device</b>		<b>7-3 Power</b>
	<b>5-9 Comms Test</b>	<b>I</b>	6-3-0 Device Type	<b>I</b>	7-3-0 AC Options
<b>UMI</b>	5-9-0 Send Test Report	<b>I</b>	6-3-1 Baud Rate	<b>I</b>	7-3-1 Battery Options
<b>I</b>	5-9-1 Test Report Time	<b>I</b>	6-3-2 Flow Control	<b>I</b>	7-3-2 Fuse Options
<b>I</b>	5-9-2 Test Report Period				
<b>I</b>	5-9-3 Test Report Options		<b>6-5 GSM Modem</b>		<b>7-4 Siren</b>
<b>I</b>	5-9-4 Test Route			<b>I</b>	7-4-0 Tone
<b>I</b>	5-9-5 Dial Number Test		<b>6-6 Ethernet</b>	<b>I</b>	7-4-1 Speed
		<b>I</b>	6-6-0 IP Address Module	<b>I</b>	7-4-2 Volume
		<b>I</b>	6-6-1 Subnet Mask	<b>I</b>	7-4-3 Swinger Siren
		<b>I</b>	6-6-2 Default Gateway		
		<b>I</b>	6-6-3 MAC Address	<b>7-5 Schedules (TEF)</b>	
		<b>I</b>	6-6-4 Encryption Key	<b>MI</b>	7-5-0 Name
		<b>I</b>	6-6-5 IPRS (Reserved)	<b>MI</b>	7-5-1 Time
		<b>I</b>	6-6-6 IPRS Port (Reserved)	<b>MI</b>	7-5-2 Day
		<b>I</b>	6-6-7 Connetix NCC	<b>I</b>	7-5-3 Function
		<b>I</b>	6-6-8 Reserved	<b>I</b>	7-5-4 Index
		<b>I</b>	6-6-9 Ethernet Options		
				<b>7-6 Holidays</b>	
			<b>6-7 Access Controller</b>	<b>MI</b>	7-6-0 Name
				<b>MI</b>	7-6-1 Start Stop Dates
			<b>6-8 X10 Device</b>		
				<b>7-7 System Options</b>	
				<b>I</b>	7-7-0 General Options
				<b>I</b>	7-7-1 Area Options
				<b>I</b>	7-7-2 Keypad Idle Screen
				<b>MI</b>	7-7-3 Keypad Hi/Lo Temp
				<b>I</b>	7-7-4 Installer Options
				<b>I</b>	7-7-5 Language
				<b>MI</b>	7-7-7 Site Name
				<b>7-9 System Testing</b>	
				<b>UMI</b>	7-9-0 Walk Test All Zones
				<b>UMI</b>	7-9-1 Battery Test

Table 21: Programming Locations and Descriptions



# Access Programming

The Solution 16i has 48 users which can each use any combination of pin, radio keyfob or a proximity token to operate the system. A total of 8 proximity readers can be connected, which are integrated within the individual keypads.

Each user can be assigned their own unique name up to 16 characters long to identify the user within the system and to present a greeting message when operating the system. User PIN's can be configured for 1 to 8 digits or variable where users can have different pin lengths up to 8 digits long. All users have options which can be set to control their authority level within the system, whether they are allowed to bypass zones or send open close reports see MENU 1-4-2 — User Options.

The installer Ur999 is a special user within the system and has ultimate privileges which can not be changed. The Installer PIN can arm or disarm the system and has access to all menus at all times. This is a very powerful user pin and should be treated with utmost respect so that it is not widely known.

## Timer Group

Users can belong to a timer group that determines whether or not the user is allowed access to the system. To create a timer group you will need to setup a schedule with start and stop times then set the function to Timer Group and select an index 1 to 8 to represent the timer group. Each user that you require to be restricted is then assigned to the timer group number you selected.

Multiple schedules can be used to create multiple access times within the day and holiday schedules can also be linked with schedules.

### Example:

Restricting access to only Monday to Friday 8am to 10pm.

- 1) Pick a timer group number between 1-8 lets say 5.
- 2) Set up a schedule start time 8am, stop time 10pm, days MTWTF, Function =Timer Group, Index=5
- 3) Assign each restricted user to Timer Group 5

## Schedules

Schedules determine the valid operating times and days and then the schedule is linked to a timer group number.

Users which are to be restricted are then assigned to the same timer group number as the schedule.

## Access Group

A user can be restricted to certain doors within a building and this is done by assigning the user to one or more access groups. When a user presents his token to a proximity reader, the user parameters are checked and if the user has a matching access group assignment to the reader access group assignment then access is granted.

The output used to operate the door strike will also need to have the same access group assignment number so that it operates at the same time. To restrict a user from accessing doors outside specified times, create a timer group and assign the user to the timer group.

### Example:

Prox reader operating a door.

- 1) Assign proximity reader 1 to an access group 1-8 say 4
- 2) Set an output Event type=Access group and Index=4
- 3) Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.
- 4) Assign reader to area 0 and disable arm/disarm options
- 5) Present token to reader to access door

### Example:

Prox reader operating door and disarm Area 1.

- 1) Assign proximity reader 1 to an access group 1-8 say 4
- 2) Set an output Event type=Access group and Index=4
- 3) Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.
- 4) Assign reader to area 1, enable arming option
- 5) Present token to reader to disarm, present token again to release door.

**Example:**

Prox reader operating door and arm/disarm Area 1.

- 1) Assign proximity reader 1 to an access group 1-8 say 4
- 2) Set an output Event type=Access group and Index=4
- 3) Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.
- 4) Assign reader to area 1, enable arming/disarming and Badging option.
- 2) Present token to disarm, present token to release door, present token 3 times to arm system.

USER DEFAULT TABLE		
Parameter	User 1	User 2 - 48
Add PIN	2580	
Name	User 1	User 2 - 48
Area Assignment	1	1
User Options		
Has Master PIN Privileges	Y	
Expire PIN Code		
Is Arm Only Code		
Can Bypass Zones	Y	Y
Can Auto Bypass Zones	Y	Y
Send 'Open/Close' Reports	Y	Y
Timer Group		
Access Group		

Table 22: User Default Programming Options

**USER PIN CODES**

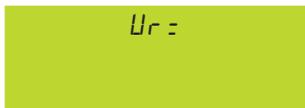
At factory default, each PIN is set to 4 digits in length. The default PIN for User 1 (Master user) is 2580. Only the Installer can change the PIN Length see MENU 1-5-0 — PIN Length.

Access > PIN Codes > dEL -Ur  
**Erase User** I-M MENU 1-0-0

This command allows a master user or installer to to erase another user from the system. Erasing a user will remove the user's PIN, Proximity Token and RF keyfob credentials.

- 1) Enter your Installer PIN or Master PIN + [MENU]
- 2) Enter [1] + [0] + [0] + [OK].

The keypad will display Ur = prompting you to enter the number of the user to erase.



- 3) Enter the user number then press [OK].



- 4) The keypad will now prompt you to confirm the erasure by pressing [OK].

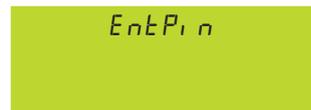
Access > PIN Codes > ch-Pin  
**Change Own PIN** I-M-U MENU 1-1-0

This menu lets you change your own PIN. It is recommended that you write down your old PIN and the new one before you begin. The new PIN must have the same number of digits as your old PIN unless the variable PIN length option has programmed by your installer. Once the change is complete you should destroy the written copy.

At factory default, each PIN is fixed to 4 digits in length.

- 1) Enter your Installer PIN or Master PIN + [MENU]
- 2) Enter [1] + [1] + [0] + [OK].

The keypad will prompt you to enter a new PIN.



- 3) Enter your new PIN, and then press [OK].

If an error tone sounds and the display reads "bAdPin" you should try a different PIN. The keypad will now prompt you to enter your new PIN again.



- 4) To confirm your new PIN, enter your new PIN again.
- 5) Press [OK] to save and exit, or press [MENU] to exit without saving. Your PIN has now been changed.

Access > PIN Codes > ch-0th  
**Change Other PIN** I-M MENU 1-1-1

This menu allows a master user or Installer PIN to change somebody else's PIN. It is recommended that you write down the old PIN and the new one before you begin. Once the change is complete you should destroy the written copy. The new PIN must have the same number of digits as the old PIN.

At factory default, each PIN is fixed to 4 digits in length. The default PIN for User 1 (Master user) is 2580.

## 1) Enter your Installer PIN or Master PIN + [MENU]

## 2) Enter [1] + [1] + [1] + [OK].

The keypad will display Ur = prompting you to enter the number of the user to change. Each user in the system is assigned a user number as well as a PIN Number.

## 3) Enter the user number to change then press [OK].

## 4) Enter the new PIN.

If an error tone sounds, or "bAdPin" is displayed try a different PIN.

## 5) Press [OK] to save and exit, or press [MENU] to exit without saving.

Access > PIN Codes >

Add PIN

I-M

AddPin

MENU 1-1-2

This menu allows a master user or installer to add a PIN for a new user. Each master user can only program new PINs for those users that have been assigned to the same area(s) as the master user.

At factory default, each PIN is fixed to 4 digits in length however this can be changed by your installer to suit your needs. The default PIN for User 1 (Master user) is 2580.

## 1) Enter your Installer PIN or Master PIN + [MENU]

## 2) Enter [1] + [1] + [2] + [OK].

The keypad will display the Ur = prompt.

## 3) Enter the user number that you want to add, then press [OK].

If you select a user number which already exists, an error beep will sound. If this happens select a different user number.

## 4) Enter the new PIN for the user you have selected.

If an error tone sounds, try a different PIN. The display will show ==== as you enter the new PIN.

## 5) Press [OK] to save and exit, or press [MENU] to exit without saving.

Access > PIN Codes >

Delete PIN

I-M

dELPin

MENU 1-1-3

This menu allows a master user or Installer the ability delete another users PIN. A Master user can only delete a PIN for users that have been assigned to the same area(s) as the Master user. A Master user cannot delete their own PIN.

## 1) Enter your Installer PIN or Master PIN + [MENU].

## 2) Enter [1] + [1] + [3] + [OK].

The keypad will display the Ur = prompt.

## 3) Enter the user number you want to delete, then press [OK].

If you have selected a valid user, the system will ask you to confirm the deletion.

## 4) Press [OK] to delete the PIN, or press [MENU] to cancel.

Access > PIN Codes >

View PIN

I

L114

MENU 1-1-4

This menu allows the Installer to view the actual PIN for any user.

## 1) Enter your Installer PIN + [MENU].

## 2) Press [MENU] + [1] + [1] + [4] and enter the user to view, then press [OK].

## 3) The PIN will always display 6 digits however only the number of digits corresponding to the global PIN Length setting are valid.



2580AA

- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

## PROXIMITY TOKENS & CARDS

Proximity tokens and cards can be used as an alternative to a PIN number when on and off the system.

A token is a small plastic tag card that has a unique ID. A user can place the token card in front of a reader keypad to turn the system or specific areas on and off.

This feature requires that at least one keypad that has an in-built prox reader fitted. This section outlines how to add and delete proximity tokens or cards. If you try to add a token from a keypad that does not have an in-built reader, the keypad will prompt you to select the reader you wish to learn the new token.

You should discuss this feature with your installer for more details on your particular installation.

Access > Token >

### Add Token

I-M

AddPr0

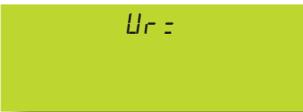
MENU 1-2-0

This menu allows a master user or Installer to add a new token for other users provided they are assigned to the same area(s) as the Master user.

This feature requires that at least one keypad that has an in-built prox reader fitted.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [2] + [0] + [OK].

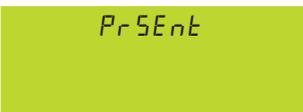
The keypad will display the Ur = prompt.



Ur =

- 3) Enter the user number you want to add the token to, then press [OK].

If you are currently using a keypad with built in reader the system will prompt you to present the new token to the keypad.



PrSEnt

- 4) Present the token at the keypad to learn the new token.

Access > Token >

### Delete Token

I-M

dELPr0

MENU 1-2-1

This menu allows a master user or Installer to delete a users proximity token or card. Master users can only delete user's tokens that belong to the same area.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [2] + [1] + [OK].

The keypad will display the Ur = prompt.



Ur =

- 3) Enter the user number who's token you want to delete, then press [OK].

If you have selected a valid user with a token, the system will ask you to confirm the deletion.



dEL ?

- 4) Press [OK] again to delete the token, or press [MENU] to cancel.

Access > Token >

### Token Status

I-M

idPr0

MENU 1-2-2

This menu allows a master user or Instller to identify which user belongs to the token.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [2] + [2] + [OK].

The system will prompt you to present the token to be identify to the keypad.



PrSEnt

- 3) Present the token to the keypad.

Once the token is presented the system will display the user number who the token belongs to. In the example below the token belongs to user 9.



Ur009

- 4) Press [OK] when finished.

## RF RADIO KEYFOBS

Radio Keyfobs can be used as an alternate method for users to turn an area(s) on and off and or control an automatic door or gate.

This section outlines how to add and delete RF keyfobs for users. The RF Keyfob must be compatible with the RF Receiver that has been installed by your security company.

Access > RF Keyfob >

### Add Keyfob

I-M

AddFob

MENU 1-3-0

This menu allows a master user or Installer to program or learn a keyfob ID number into the system.

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [1] + [3] + [0] + [OK].

The keypad will display the Ur = prompt.

Ur =

3) Enter the user number you want to add the keyfob to, then press [OK].

The keypad will prompt you to enter the RF keyfob ID number.

Ent id

4) Enter the RF Keyfob's ID Number or alternatively press any button on the keyfob to automatically learn the ID number.

Access > RF Keyfob >

### Delete Keyfob

I-M

dELFob

MENU 1-3-1

This menu allows a master user or Installer to delete the RF keyfob that has been assigned to a user.

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [1] + [3] + [1] + [OK].

The keypad will display the Ur = prompt.

Ur =

3) Enter the user number who's keyfob you want to delete, then press [OK].

dEL?

4) Press [OK] to delete the RF keyfob and exit.

Access > RF Keyfob >

### Test Keyfob

I

L 132

MENU 1-3-2

This menu allows the installer to test the RF Keyfob operation. Key the transmitter a number of times and the display will show the number of transmissions received and a signal level of GOOD, BAD or AVERAGE.

1) Enter your Installer PIN + [MENU].

2) Enter [1] + [3] + [2] = [OK] and then enter the user number who's keyfob you want to test, then press [OK].

Ur =

3) Press any key on the transmitter you wish to test.

Er 9Er

4) If the system receives a signal from the RF keyfob, the keypad will display the signal strength (eg. Average, Good or Move).

AuErA9

5) Repeat step 2 as required and then Press [OK] to exit.

## USER PROPERTIES

This section outlines user properties including User Name, Area Assignment, User Options, Erase User and Access Group.

Access > User Properties >

### User Name

I-M

Ur nAME

MENU 1-4-0

This menu allows the master user or installer to program the user's name. A maximum of 16 characters can be entered in this field. Use the [←] and [→] keys to scroll the cursor left and right to view the entire user name.

The text programming procedure is very similar to that of most mobile phones. Refer the Programming Text section on page 4-2 for more details.

User names are stored with associated events in the system's history log. This enables accurate auditing of user movements at a later time if required. Names are also used when reporting alarms and arm /disarm events in SMS and other text based reporting formats.

Each user has a default name which can be changed if desired. The default names are as follows.

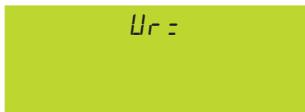
DEFAULT USER NAMES	
User Number	Default Name
1	USER 1 nRiE
2	USER 2 nRiE
↓	↓
48	USER 48 nRiE

Table 23: Default User Names

To change a user name,

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [4] + [0] + [OK].

The keypad will display the Ur = prompt.



- 3) Enter the user number who's name you want to change, then press [OK].

The keypad will display the current User Name.



The cursor position is displayed by the flashing character in the name.

- 4) Use the 0 to 9, [←] and [→] keys to change the user name text as required. At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all text from the cursor position to the right, press the [OFF] key.

- 5) When the user name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.

Access > User Properties >

UrRrER

Area Assignment

I-M

MENU 1-4-1

1	Area 1	Y
2	Area 2	N
3	Area 3	N
4	Area 4	N

This menu allows the master user or installer to program which area(s) (1 to 4) a user operate. The master user can only assign another user to any one or multiple areas that the master user has been assigned to. At factory default, each user is assigned to operate Area 1.

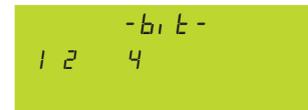
- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [4] + [1] + [OK].

The keypad will display the Ur = prompt.



- 3) Enter the user number who's area assignment you want to change, then press [OK].

Zone numbers 1 to 4 area used to display which areas that the user has access to.



- 4) Use keys [1] to [4] to toggle the area assignment on or off.
- 5) Press [OK] to save and exit, or press [MENU] to exit without saving.

Access > User > Properties

L 142

User Options

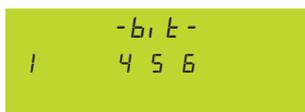
I

MENU 1-4-2

1	Has Master Code Privileges	Y
2	Expire PIN Code	N
3	Is Arm Only Code	N
4	Can Bypass Zones	Y
5	Can Auto Bypass Zones	Y
6	Send Open / Close Reports	Y
7	Reserved	N
8	Reserved	N

The above options are programmable per User.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [4] + [2] + [OK] and enter the user number required to change, then press [OK].
- 3) Use keys [1] to [8] to enable or disable the options required.



- 4) **Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

### Has Master PIN Code Privileges

Setting this option assigns the user as Master User. Master Users have access to additional commands for administering the system. Non-Master Users have limited access to menu options. See the Menu Reference Table in Section 5 for a list of available Master User commands.

### Expire PIN Code

Setting this option will cause the User PIN to expire after the time period set in Menu 1-5-3 — PIN Expire Time. The time will reset each time the user PIN operates the system. Valid times are from 1 to 255 Days. Setting the time to 0 will prevent the code from expiring. To reactivate an expired PIN simply enter a new PIN for the User.

### Is Arm Only Code

Setting this option restricts the Users PIN code to only turn an area on. The PIN code has no access to turn an area off or reset an alarm.

### Can Bypass Zones

Setting this option allows the User to manually bypass and un-bypass zones.

### Can Auto Bypass Zones

Setting this option allows the User to turn the area on, even though one or more zones are still faulted or open. Upon arming, the system will prompt the user to automatically bypass each faulted zone. To prevent users from being able to force arm an area you will need to disable this option.

### Send Open/Close Reports

Setting this option will cause the system to send opening and closing reports when the user arms and disarms an area.

## UNDERSTANDING TIMER GROUPS

Timer Groups are used to restrict users from operating doors outside given times, days or holidays. To do this you need to create a timer group, then assign one or more schedules to the timer group to specify the access period, day of the week and holidays. To now restrict the user, they must belong also to the same timer group. This now restricts the user from accessing the system outside the nominated times and days within the schedules linked to the timer group.

### User

Can only belong to 1 timer group.

### Schedules

Multiple schedules can be linked to the same timer group.

### Timer Groups

There are 8 different timer groups available.

### Timer Group Example

- 1) **To set up a timer group you need to select an unused timer group number from 1 to 8, in this example we will assume timer group number to be 5.**
- 2) **Select an unused schedule and program the times and day of the week then assign the schedule to timer group 5**
- 3) **Then under user properties assign the users who you wish to restrict to timer group 5. Remember that you are only able to assign a user to one access group.**

A master code holder is able to change the schedules so they can change the access times for a given user. If a user tries to operate the system outside their assigned timer group periods then access will be denied.

Access > User Properties >

Timer Group

Ur GrP

I - M

MENU 1-4-4

00 = No Timer Group

01 = Timer Group 1

02 = Timer Group 2

03 = Timer Group 3

04 = Timer Group 4

05 = Timer Group 5

06 = Timer Group 6

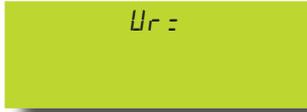
07 = Timer Group 7

08 = Timer Group 8

This menu allows the master user or installer assign each user to a timer group. Timer groups can be used to restrict User access to be within specific times defined by schedules. Each user can only be assigned to one timer group. Setting this option to 0 will give the user 24 hour access to the system.

- 1) **Enter your Installer PIN or Master PIN + [MENU].**
- 2) **Enter [1] + [4] + [4] + [OK].**

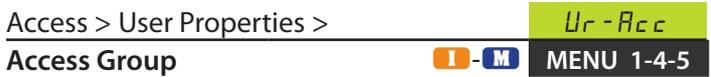
The keypad will display the Ur = prompt.



- 3) Enter the user number you want to assign, then press [OK].



- 4) Using the numeric keys (1 to 8 / 0 = disabled) , enter the timer group number.
- 5) Press [OK] to save and exit or press [MENU] to exit without saving.



Access Group		
1	Access Group 1	N
2	Access Group 2	N
3	Access Group 3	N
4	Access Group 4	N
5	Access Group 5	N
6	Access Group 6	N
7	Access Group 7	N
8	Access Group 8	N

This menu allows the master user or installer to assign other users to one or more access groups. An access group is used to allow and/or restrict which users have access to various system outputs. Outputs can be used to control doors, gates or roller doors etc.

You should discuss these options with your installer.

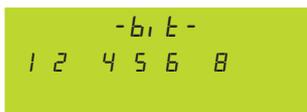
- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [1] + [4] + [5] + [OK].

The keypad will display the Ur = prompt.



- 3) Enter the user number you want to assign, then press [OK].

The keypad will display the current access groups assigned to the user via the zone indicators.



- 4) Use keys [1] to [8] to toggle the corresponding access groups on or off.
- 5) Press [OK] to save and exit, or press [MENU] to exit without saving.



(\*\* System Wide Parameter \*\*)

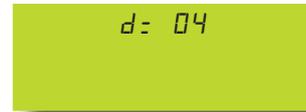
00 = Variable	03 = 3 Digits	06 = 6 Digits
01 = 1 Digit	04 = 4 Digits	07 = 7 Digits
02 = 2 Digits	05 = 5 Digits	08 = 8 Digits

At factory default, all User PINs are set to be 4 digits long. This menu allows you to change the length for all PIN codes.

If you select the Variable code length option then you are free to create pin codes with different code lengths. For example User 1 could have a 4 digit code while user 3 can have an 8 digit code.

Variable pin lengths are useful for increasing security levels. Another use would be to program a single digit code to trigger an output. To do this create a code which is not assigned to an area and then map this to the required output.

- 1) Enter your installer PIN + [MENU].
- 2) Enter [1] + [5] + [0] + [OK]. The keypad will display the current PIN length.



- 3) Select the required PIN length using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving.

Access &gt; Global Properties &gt;

L 151

**PIN Retry Count**

I MENU 1-5-1

(\*\*\*) System Wide Parameter (\*\*\*)

6

This menu sets how many times an invalid PIN can be entered before the keypad will be quarantined or locked out. See MENU 6-1-8 — Keypad Lockout Time to set the lockout time period.

An Access Denied report will be sent to the base station when the keypad is quarantined. If keypad lockout is not required set this option to 0.

The PIN retry count is reset every time the corresponding area is turned All On, Part On or Off.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [5] + [1] + [OK]. The keypad will display the current PIN retry count.

d: 06

- 3) Enter the required PIN Retry Count using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 1 - 15, 0 = Unlimited.

Access &gt; Global Properties &gt;

L 152

**Installer PIN**

I MENU 1-5-2

(\*\*\*) System Wide Parameter (\*\*\*)

1 2 3 4

This menu sets the Installer PIN. The Installer can access all menu functions and can also disarm one or multiple areas. The Installer PIN Can Be Up To 8 Digits Long.

The factory default Installer PIN is 1234.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [5] + [2] + [OK]. The keypad will display the current Installer PIN.

1234AA

- 3) Enter the required PIN Retry Count using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving.

Access &gt; Global Properties &gt;

L 153

**PIN Expire Time**

I MENU 1-5-3

(\*\*\*) System Wide Parameter (\*\*\*)

0 3 0

DAYS

This menu programs how many days PINs that have been programmed to expire, will be able to operate the system. Every time a valid temporary code is used, the Expire Time counter will restart.

To renew a temporary user, the Installer or Master user must reprogram the PIN. The PIN Expire Time is global for all temporary PIN users.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [5] + [3] + [OK]. The keypad will display the current PIN Expire Time.

d: 030

- 3) Enter the new PIN Expire Time using the numeric keys. Valid entries are 0 - 255 days.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving. cursor position to the end of the line.

**PROX READERS**

Access &gt; Prox Reader &gt;

L 160

**Name**

I MENU 1-6-0

R e a d e r 1 N a m e

This menu allows the installer to program the name or location description of the prox reader. Up to 8 different Readers can be used on the Solution 16i via keypads that have built-in Readers.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [6] + [0] + [OK] and enter the Reader number required, then press [OK].

rEAdEr

- 3) Use the arrow and number keys to move and change text. When the Reader Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.



See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.

Access &gt; Prox Reader &gt;

L 161

## Area Assignment

I MENU 1-6-1

1	Area 1	Y
2	Area 2	N
3	Area 3	N
4	Area 4	N

This menu programs which area (1 to 4) the reader will operate. Each reader can assigned to operate a single area.



*Software version 2.10 and higher now allow proximity readers to be assigned to multiple areas.*

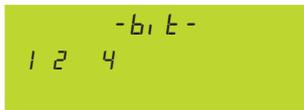
When using a prox keypad reader, if you set the area assignment to a specific area number then only that area will arm / disarm when a valid token is used.

If you set the area assignment to 0 (zero), and a token is presented then the keypad will move to the first area which that user has access to. If the same token is presented a second time then the area currently in focus will arm or disarm.

If the user wants to arm / disarm a different area which they have access to, then after swiping their token the first time, they can use the left and right arrow keys to move to the desired area and then swipe their token a second time to operate.

If the user wants to arm / disarm all areas they belong to, then after swiping their token once, they can press and hold the [ON] key to arm or the [OFF] key to disarm all areas they belong to.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [6] + [1] + [OK].
- 3) Enter the Reader required, then press [OK].
- 4) Use keys [1] to [4] to toggle on or off the required area (s), then press [OK] to save and exit or press [MENU] to exit without saving.



*The keypad display will return back to its home area if no keys are pressed or tokens are presented for 60 seconds.*

Access &gt; Prox Reader &gt;

L 162

## Access Assignment

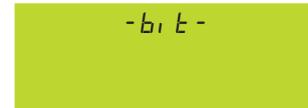
I MENU 1-6-2

1	Access Group 1	N
2	Access Group 2	N
3	Access Group 3	N
4	Access Group 4	N
5	Access Group 5	N
6	Access Group 6	N
7	Access Group 7	N
8	Access Group 8	N

This menu is used to assign a Prox Reader to one or more Access Groups (1 to 8). Access Groups are used to restrict user access to doors.

Setting this option to 0 means the reader will not operate any system outputs.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [6] + [2] + [OK].
- 3) Enter the Reader required, then press [OK].
- 4) Use keys [1] to [8] to toggle on or off the required access groups.



- 5) Press [OK] to save and exit or press [MENU] to exit without saving.

Access &gt; Prox Reader &gt;

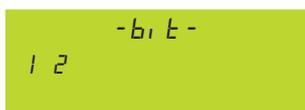
L 163

## Reader Options

I MENU 1-6-3

1	All On Arming Allowed	Y
2	Disarming Allowed	Y
3	Badging Required	N
4	Zero Exit Time	N
5	Part On Arming Allowed	N
6	Arm If Single User Area	N
7	Reserved	N
8	Arm All User Areas	N

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [1] + [6] + [3] + [OK].
- 3) Enter the Reader required, then press [OK].
- 4) Use keys [1] to [8] to toggle on or off the required reader options.



- 5) **Repeat Step 4 until all Reader options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

### **All On Arming Allowed**

Selecting this option allows the prox reader to arm the area that it is assigned to when a valid token is presented. The User must have access to the Area that the Reader has been assigned to. See MENU 1-6-1 — Reader Area Assignment

### **Disarming Allowed**

Selecting this option allows the prox reader to disarm the area that it is assigned when a valid token is presented. The User must have access to the Area that the Reader has been assigned to. See MENU 1-6-1 — Reader Area Assignment.

### **Badging Required**

Selecting this option allows the user to unlock a door and arm an Area from a single reader. This option is only relevant if Arming Allowed has been selected.

When the area is disarmed, presenting the Token once will unlock the door. Presenting the Token 3 times within 5 seconds will arm the Area.

When the area is armed, presenting the Token once will disarm the area. Presenting the Token a second time will unlock the door.

### **Zero Exit Time**

Selecting this option allow the User to arm the area from the reader with no exit time.

### **Part On Arming Allowed**

Selecting this option allows the user to arm the area using their token in Part On and Part 2 On modes. This function is only available at Prox enabled Keypads.

#### **To Arm In All On Mode**

From the disarmed state, present the token once to fully arm the area.

#### **To Arm In Part Mode**

Present the token twice within 5 seconds and the area will arm in Part Mode.

#### **To Arm In Part Mode**

Present the token three times within 5 seconds and the area will arm in Part Mode 2.

### **Arm If Single User Area**

This option allows a roaming reader to turn on only the first area that the token user has been assigned to (ie multi area user). This allows the user to log on when the token is swiped the second time. Swiping the token a third time will turn the first area that the user has been assigned to All On.

### **Arm All User Areas**

This option allows a token user to turn on or off all areas that the user has been assign to at the same time. This option can be set per reader.

» » E N D O F S E C T I O N « «

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# Area Programming

The Solution 16i has 4 different areas each with its own specific programmable options.

Under the commands menu you can interrogate the status of an area, turn chime mode on/off, move to an area or arm and disarm a specific area.

The customer account number is programmable for each individual area as well as input, output and general options. Each time you are presented with an option that is area specific, the menu will prompt you to specify the area first.

## Partitioning

The Solution 16i control system can be partitioned into 4 individual areas. Each area has its own individual properties which determine how the area operates. The default name for AREA-1 is "Security System" and it can be changed to any other name using the area properties menu. All zones and users are assigned to AREA-1 so no assigning of users or zones is required for non partitioned systems by default.

To create an area, assign one or more zones to the area of your choice. A zone can only belong to one area and any number of zones can belong to a single area. Each area operates independently from other areas as if it were another security panel and there are numerous options available to tailor just how the entire system should operate. If you require a common area that automatically arms when all other areas are armed, and disarms as soon as any other area is disarmed, then Area 1 can be set as a common area. To make area 1 a common area, set the option under MENU 7-7-1 — Area Options.

All keypads connected to the system have the ability to display the arm/disarm condition of every area at the same time using the area icons on the display. This is selectable per keypad under MENU 6-1-4 — General Options.

Once you log onto a keypad using your pin code + OK the system knows who you are and will allow you to use the left arrow key to move from the current area to the next area that your assigned to. To move areas without having to enter your code select the option under MENU 7-7-1 — Area Options and then simply step through all the available areas using the arrow keys. Each keypad is assigned a home area and will automatically revert back to this area after 60 seconds.

The system outputs must be configured to operate for their corresponding areas. The external siren, internal siren and strobe outputs are defaulted to output index 0 and will operate for any area . If you want the output to operate for multiple areas then the output index needs to be set to 0.

## Example: Simple Two Area System

- 1) Assign zones to area 1 and area 2
- 2) Assign the home areas for the keypads
- 3) Assign users to areas
- 4) Set outputs to operate individually or common for all areas.
- 5) Set account code for each area
- 6) Set options,
  - Code to Change areas or just arrow key
  - Which keypads to display area icons
  - Reset Sirens by any user on any area

## AREA COMMANDS

Areas > Commands >	L 200
Area Status	A - I - M - U MENU 2-0-0

This menu allow users the ability to view the area status of the current area or the status of a different area. This menu is only available via a keypad who's corresponding area is turned off.

- 1) Enter your PIN + [MENU].
- 2) Enter [2] + [0] + [0] + [OK].

If your system has been configured to have more than one area, the keypad will display the A = prompt.

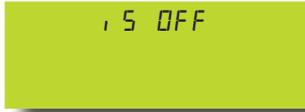


- 3) Enter the number of the area that you want to view the status of, then press [OK].

The keypad will display the area status information. If the area is turned All On, the keypad will display:



If the area is turned All Off, the keypad will display:



If the area is turned Part On, the keypad will display:



If the area is turned Part 2 On, the keypad will display:



4) To exit, press [OK].



This menu allows you to turn a single area All On. If your system has been configured to have multiple areas then the keypad will prompt you to select the area you wish to turn All On.

- 1) Enter your PIN + [MENU].
- 2) Enter [2] + [0] + [1] + [OK].

If your system has been configured to have more than one area, the keypad will display the A = prompt.



3) Enter the area number you wish to turn All On, then press [OK].



This menu allows you to turn on all areas that your PIN has been assigned to at the same time All On. The keypad displays below show the area icons 1 and 2 on indicating that both Area 1 and Area 2 are armed.

- 1) Enter your PIN + [MENU]
- 2) Enter [2] + [0] + [2] + [OK].

The keypad will display the word "LEAVE" in the display and the exit warning beeper will sound. You should leave all areas now.



When exit time has expired, the keypad will display that the home area (Area 1 in this case) is on, and that area 2 is also on via the area icons.



*Area icons will only display if programmed to do so by your security installer.*



This menu allows you to turn off all areas that your PIN has been assigned to at the same time. At least one keypad on the system must be in a disarmed area before you can access this command.

- 1) Enter your PIN + [MENU].
- 2) Enter [2] + [0] + [3] + [OK].

The system will now disarm all areas that are in the armed condition provided the user belongs or has access to the area.

Areas &gt; Commands &gt;

L204

Move To Area

I-M

MENU 2-0-4

This menu allows you to move the focus of a keypad's default home area to a different area. Once the keypad's focus has changed, you will be able to see the status of the zones in that area and also perform functions as if you were using the keypad located or assigned to that area.

This menu allows you to move the focus of a keypad's default home area to a different area. Once the keypad's focus has changed, you will be able to see the status of the zones in that area and also perform functions as if you were using the keypad located or assigned to that area.

1) Enter your Installer PIN or Master PIN + [MENU]

2) Enter [2] + [0] + [4] + [OK].

If your system has been configured to have more than one area, the keypad will display the A = prompt.

A3 OFF

3) Enter the area number (1 to 4) that you want to move to, then press [OK].

The keypad will now move to the requested area. If you do not have access to the selected area the system will sound an error beep and the keypad focus will remain unchanged.

The keypad will return to its home area, 30 seconds after the last key press.



If the keypad has been programmed to be a roaming keypad then you can use the [←] and [→] keys to move between areas at any time.

Areas &gt; Commands &gt;

chOnOff

Chime On/Off

A-I-M-U

MENU 2-0-5

Chime mode allows you to monitor a zone (or group of zones) while the system or area is in the disarmed state.

The system can be programmed to sound the keypad buzzer or activate a programmable output when the corresponding chime zone(s) are faulted. This feature can be useful when you need to monitor the front or back entrance to the premises.

This menu allows a user to turn chime mode on and off. Only keypads programmed to sound the chime tone will be heard when a zone programmed for chime is faulted.

The master user can program which zones are monitored for chime alarms in MENU 3-0-3.

1) Enter your PIN + [MENU].

2) Enter [2] + [0] + [5] + [OK].

The system will display the current chime state. If your system has been configured for multiple areas you will be prompted to enter the area number to program.

In the example below chime mode "IS OFF".

, 5 OFF

3) To turn Chime mode on, simply press the [ON] key.

The display will show that chime mode "IS ON" and also the chime icon will be displayed.

, 5 On

To toggle chime mode off again, simply press [OFF].

4) Press the [OK] key to exit.



It is possible to turn chime mode on and off pressing the 4 key down for 2 seconds. Only the area currently in focus will operate when using this method.

Areas &gt; Commands &gt;

ch tYP

Chime Mode

I-M

MENU 2-0-6

Chime mode allows the master user to control the way chime alarms operate. There are 4 options available.

1) Chime Always

Will sound the chime alarm while ever the zone(s) programmed for Chime are open or faulted.

ch ALL

2) Chime One-Shot (Max 255 seconds)

Will sound the chime alarm for the programmed time regardless of how long the chime zone(s) remains open or faulted.

ch 000

### 3) Delayed Chime (Max 255 seconds)

Will sound the chime alarm only after the chime zone(s) has been open or faulted for the programmed time.



### 4) Chime Latching.

Will sound the chime alarm until a valid user code is entered followed by the [OK] key. This will reset the Chime Alarm.



To set the chime mode.

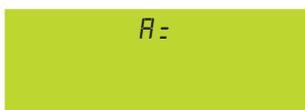
- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [2] + [0] + [6] + [OK].  
If your system has been configured for multiple areas, your keypad will prompt you to enter the area number to program. The keypad will display the current chime mode set for that area.
- 3) Use the [↑] and [↓] keys to select the required chime mode.  
If a time parameter is required for the chosen mode, simply enter the require value in seconds.
- 4) Press [OK] to save and exit, or press [MENU] to exit without saving.

### AREA PROPERTIES



This menu allows you to program the name for each area. The area name can be up to 16 characters long. At factory default, only Area 1 is used. The control panel can have a maximum of 4 independent areas programmed.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [2] + [1] + [0] + [OK].  
The keypad will prompt you to enter the area number of the area that you want to change the name for.



- 3) Enter the area number (1 to 4), then press [OK].

The keypad will display the first six characters of the current area name.



- 4) Use the [0] to [9], [←] and [→] keys to change the area name text as required.  
At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.  
To clear all text from the cursor position to the right, press the [OFF] key.
- 5) When the area name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.

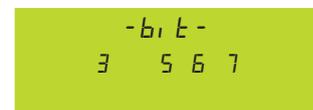
DEFAULT AREA NAMES	
Area Number	Default Name
1	SECURITY SYSTEM
2	AREA 2
3	AREA 3
4	AREA 4

Table 24: Default Area Names

Areas > Properties >		L211
General Options		<b>I</b> MENU 2-1-1
1	Exit Time Restart	N
2	Reset Alarm Memory On Disarm	N
3	Duress Allowed	Y
4	Acknowledge All Faults	N
5	Single Button Arming - All On	Y
6	Single Button Arming - Part On	Y
7	Link To Common Area	Y
8	Single Button Part Off	N

The above options are programmable per area.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [1] + [1] + [OK],
- 3) Enter the area required, then press [OK].
- 4) Use the keys [1] to [8] to toggle on or off the option required.



- 5) Repeat Step 4 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Exit Time Restart**

The exit delay timer will restart (once per arming cycle) when the same entry/exit delay zone is faulted a second time during exit delay (eg. If an entry/exit delay zone is unsealed, restored and unsealed a second time during exit delay = exit time restart).

**Reset Alarm Memory On Disarm**

Clears all alarm memories displayed on the keypad when a user has turned the corresponding area off. If this option is not set, alarm memory will continue to display until the user has turned the corresponding area 'on' again.

**Duress Allowed**

If a user is being forced to turn off the security system under duress they can disarm the system and initiate a silent duress alarm.

To trigger the duress alarm enter your PIN then repeat the last two digits of your PIN before pressing [ON], [OFF], or [OK] key.

**Example:**

If your PIN is 2580, to send a duress report when the area is off,  
Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OK] or [ON].

If your PIN is 2580, to send a duress report when the area is on,  
Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OFF].

**Acknowledge All Faults**

If this option has been programmed, the control panel will force a user to acknowledge each trouble condition even though the trouble condition has already cleared.

If this option is not programmed, any trouble condition that occurs will not have to be acknowledged if it has already been rectified or cleared.

**Single Button Arming Allowed – All On**

This option allows users to simply press the ON key to turn the area ON. All zones being armed must be sealed. If open and close reports are programmed, the user ID number will report as 000.

**Single Button Arming Allowed – Part On**

This option allows users to simply press the Part On key to turn the area Part On. All zones in the being armed must be sealed. If open and close reports in Part Mode are programmed, the user ID number will report as 000.

**Link To Common Area**

This option causes the selected area or areas to control the common area. If this option is not selected for an area then it will be able to operate independent of the common area. See MENU 7-7-1 — Area Options to enable the common area.

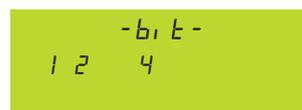
**Single Button Part Off**

This option allows users to disarm from Part Mode or Part Mode 2 simply by pressing the OFF key. This function will only work if there are no alarms in effect, and the entry timer is not running.

Areas > Properties >		L2 12
Input Options		<b>I</b> MENU 2-1-2
1	Non Sequential Handover (Entry Path)	Y
2	Pulse Count Handover Allowed	Y
3	Senior Watch	N
4	Reset Smoke On Arming	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

The above options are programmable per area.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [1] + [2] + [OK].
- 3) Enter the area required, then press [OK].
- 4) Use the keys [1] to [8] to toggle on or off the option required.



- 5) Repeat Step 4 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Non Sequential Handover**

With Non-Sequential entry path you can trigger handover zones in any order provided that an entry delay zone was triggered first.

If this option is not programmed, handover zones must be triggered in numerical sequence provided that an entry delay zone was triggered first.

If a handover zone is triggered before an entry delay zone is triggered an instant alarm will occur.

### Pulse Count Handover Allowed

This option allows zones from the same area that have both pulse count and pulse count time programmed the ability to hand over pulses to other pulse count zones during their respective pulse count time. Only zones that have an active pulse count time can accept pulse count handover from another zone.

Burglary delay zones can only handover pulses to other burglary delay zones. Burglary instant and/or handover zones can handover pulses to other burglary instant and/or handover zones. 24 hour non-fire zone types can only handover pulses to other 24 hour non fire zones. A 24-hour fire zone can only handover pulses to another 24-hour fire zone.

### Senior Watch

This option requires at least one burglary zone in the corresponding area to be faulted and restored during the senior watch time. If no burglary zone has register during the senior watch time, the keypad will sound an alarm.

To warn the user that senior watch time is about to expire, the keypad will sound the auto arm pre-alert time (if programmed) prior to sounding the alarm. See MENU 7-2-6 — Senior Watch Time.

This feature is not applicable when the corresponding area is turned All On.

An output (Output Event Type 51) can be programmed to operate as follow Senior Watch if required.

### Reset Smoke On Arming

This option when set, will trigger any output that is programmed as event type 49 - Smoke Sensor GND to operate on the next arming cycle, therefore resetting the connected smoke sensors each time the area is armed.

If this option is not set then a manual reset will need to be performed via MENU 3-0-5.

Areas > Properties >

L213

### Output Options

**I** MENU 2-1-3

1	Arm/Disarm Speaker Beeps Via RF Keyfob	Y
2	Arm/Disarm Speaker Beeps Via Keypress	Y
3	Siren / Strobe When Part On Allowed	Y
4	Alarm On PIN Retry Violations	Y
5	Alarm On Exit Error	N
6	Alarm On Keypress Tamper (Only If System Armed)	Y
7	Reserved	N
8	Reserved	N

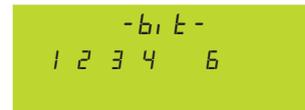
The above options are programmable per area.

1) Enter your installer PIN + [MENU].

2) Enter [2] + [1] + [3] + [OK].

3) Enter the area required, then press [OK].

4) Use the keys [1] to [8] to toggle on or off the option required, then press [OK].



5) Repeat Step 4 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Arm/Disarm Speaker Beeps Via RF Key Fob

This option allows audible beeps via the speaker output to verify to the user that they have successfully turned the area On or Off using the RF keyfob. The speaker output will sound One beep for Off, two beeps for On and three beeps for Part On.

### Arm/Disarm Speaker Beeps Via Keypress

This option allows audible beeps via the speaker output to verify to the user that they have successfully turned the area On or Off using a Keypress. The speaker output will sound One beep for Off, two beeps for On.

### Siren / Strobe When Part On Allowed

This option allows the strobe and audible alarms to operate when the system is turned Part On or Part 2 On mode.

### Alarm On PIN Retry Violations

When the PIN Retry Count as programmed in MENU 1-5-1 is reached an audible alarm will occur.

### Alarm On Exit Error

This option allows you to sound an alarm when an exit error occurs.

An exit error occurs when an entry/exit delay zone becomes unsealed during exit delay time and remains unsealed at the end of exit delay time. If this happens, the entry delay will start. If the area is not turned off (disarmed) before the entry delay time expires an alarm will occur.

### Alarm On Keypress Tamper

This option allows you to sound an alarm when a tamper condition occurs on a zone programmed as a Keypress Zone. Refer to Menu 3-1-1 — Zone Type in Section 8 - Input Programming for information on programming zones to be a keypress input.

Areas &gt; Properties &gt;

L2 14

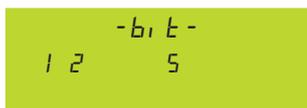
**Reporting Options**

I MENU 2-1-4

1	Report PIN Retry	Y
2	Report Exit Error	Y
3	Smart Lockout	N
4	Reserved	N
5	Cancel Reports	Y
6	Reserved	N
7	Open / Close Reports For Part On	N
8	Open / Close Reports Only After Alarm	N

The above options are programmable per area.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [1] + [4] + [OK].
- 3) Enter the area required, then press [OK].
- 4) Use the keys [1] to [8] to toggle on or off the option required.



- 5) Repeat Step 4 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Report PIN Retry**

When the PIN Retry Count as programmed in MENU 1-5-1 is reached a Wrong Code Entry alarm report will be sent to the Control Room.

**Report Exit Error**

This option allows the system to report and Exit Error Alarm.

An exit error occurs when an entry/exit delay zone becomes unsealed during exit delay time and remains unsealed at the end of exit delay time. If this happens, the entry delay will start. If the area is not turned off (disarmed) before the entry delay time expires an Exit Error alarm report will be sent.

**Smart Lockout**

Smart lockout allows and previously locked zones to reactivate during the siren run time when a new alarm event occurs.

**Cancel Reports**

When set, a Cancel report will be sent if a user disarms the area before the siren timer expires.

**Open/Close Reports For Part On**

When set, the panel will Send Open or Close reports when the system is armed in Part On mode.

**Open/Close Reports Only After Alarm**

When set, the panel will send a single Open / Close report if a previous alarm has occurred. This report will be sent for all users regardless of whether or not they have been programmed to send Open/Close reports.

Areas &gt; Properties &gt;

L2 15

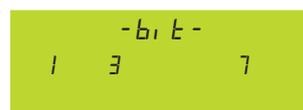
**Strobe Trigger**

I MENU 2-1-5

1	Audible Burglary Alarm	Y
2	Silent Burglary Alarm	N
3	Fire Alarm	Y
4	Arm / Disarm Flash Via RF Keyfob	N
5	Arm / Disarm Flash Via Keypad or PGM Input	N
6	Reserved	N
7	24-Hour Alarm	Y
8	Reserved	N

Programming any of these options allow the strobe output to operate when the corresponding event occurs. The strobe light must be connected to an output programmed as a Event Type 48 for it to operate. See Section 8 — output Programming for more Information on output event types.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [1] + [5] + [OK].
- 3) Enter the area required, then press [OK].
- 4) Use the keys [1] to [8] to toggle on or off the option required.



- 5) Repeat Step 4 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Audible Burglary Alarm**

When selected, the panel will activate the strobe output when an audible burglary zone has triggered an alarm.

**Silent Burglary Alarm**

When selected, the panel will activate the strobe output when a silent burglary zone has triggered an alarm.

**Fire Alarm**

When selected, the panel will activate the strobe output when a zone programmed as fire (audible or silent) has triggered an alarm.

### Arm/Disarm Flash Via RF Keyfob

When selected, the panel will activate the strobe output for six seconds when a user turns the area on via an RF Key fob. This provides silent feedback to the user that the signal has been received.

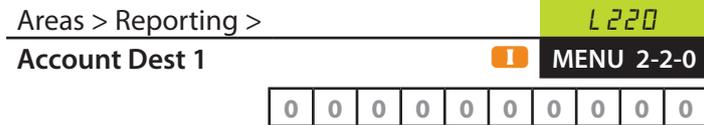
### Arm/Disarm Flash Via Keyswitch or PGM Input

When selected, the panel will activate the strobe output for six seconds when a user turns the area on via a Keyswitch Input or the Programmable Input. This provides silent feedback to the user that the signal has been received.

### 24-Hour Alarm

When selected, the panel will activate the strobe output when a zone programmed as 24-hour (audible or silent) has registered an alarm. Zones programmed as 24-Hour Hold-Up are not included.

## AREA REPORTING

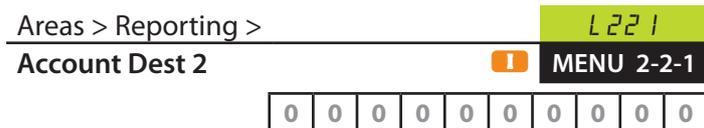


The area account number identifies which control panel is reporting to the security company's base station receiver. Each destination can have a different account number programmed. The number should be entered from left to right with trailing zeros.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [2] + [0] + [OK].
- 3) Enter the area required, then press [OK].
- 4) Using the numeric keys, enter the new account number. Use the up and down arrows to select special characters BCDEF.



- 5) Press [OK] to save and exit or press [MENU] to exit without saving.



The area account number identifies which control panel is reporting to the security company's base station receiver. Each destination can have a different account number programmed. The number should be entered from left to right with trailing zeros.

- 1) Enter your Installer PIN + [MENU].

- 2) Enter [2] + [2] + [1] + [OK].
- 3) Enter the area required, then press [OK].
- 4) Using the numeric keys, enter the new account number. Use the up and down arrows to select special characters BCDEF.



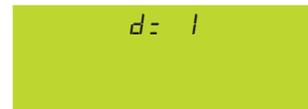
- 5) Press [OK] to save and exit or press [MENU] to exit without saving.



- 00 = Report Events To Log Only
- 01 = Report Events To Destination 1 + Log
- 02 = Report Events To Destination 2 + Log
- 03 = Report Events To Destination 1 & Destination 2 + Log
- 04 = Report Events To Dest 2 If Dest 1 Fails + Log

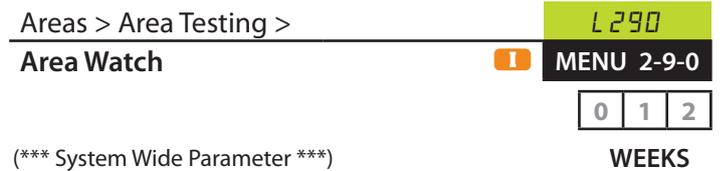
This menu programs the destination for open and close reports. Only one option can be programmed in this menu.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [2] + [2] + [OK].
- 3) Use the numeric keys 0-9 to select the desired option.



- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

## AREA TESTING



This menu programs the number of weeks (001 – 255 weeks / 000 = disabled) an area can remain disarmed before registering an 'Inactivity Interval' report. A restore signal will be sent when the area is next armed and the exit time expires.

- 1) Enter your Installer PIN + [MENU].

- 2) Enter [2] + [9] + [0] + [OK]. The keypad will display the current number of weeks programmed for area watch.



- 3) Using the numeric keys, enter the number of weeks that an area can remain turned off before a trouble condition will occur. Valid entries are 1 – 255 Weeks or 000 to disable.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Areas > Area Testing > L291  
**User Test Interval** MENU 2-9-1

0 0 0

DAYS

(\*\*\* System Wide Parameter \*\*\*)

This menu sets the number of days before it will prompt the user to walk test the system. To clear the trouble condition, you will need to perform the 'Walk Test' function.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [9] + [1] + [OK]. The keypad will display the current number of weeks between User Test intervals.



- 3) Using the numeric keys, enter the number of days between each user test interval. Valid entries are 1 – 255 Days or 000 to disable.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Areas > Area Testing > L292  
**Service Interval** MENU 2-9-2

0 0 0

WEEKS

(\*\*\* System Wide Parameter \*\*\*)

This menu sets the number of weeks between service intervals. When a service interval is due, a trouble condition will display on the keypad to remind the customer that a system check is required by the security company. When viewing the trouble condition, the keypad will display 'Call For Service'. To clear the trouble condition, the installer must enter and exit installer's programming mode.

- 1) Enter your Installer PIN + [MENU].

- 2) Enter [2] + [9] + [2] + [OK]. The keypad will display the current number of weeks between user test intervals.



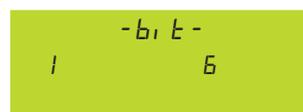
- 3) Using the numeric keys, enter the number of weeks between each user Service Interval. Valid entries are 1 – 255 Weeks or 000 to disable.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Areas > Area Testing > L293  
**Test Options** MENU 2-9-3

1	User Test Interval	Y
2	Reserved	N
3	Reserved	N
4	Reserved	N
5	Reserved	N
6	Walk Test Reports	Y
7	Walk Test 24-Hour Zones	N
8	Walk Test Fire Zones	N

The above options are programmable per area.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [2] + [9] + [3] + [OK] and enter the area required, then press [OK].
- 3) Use keys [1] to [8] to toggle on or off the test report options required.



- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### User Test Required

This option allows the keypad assigned to the corresponding area to display a trouble condition when a user test is due. The trouble condition can be cleared by performing a walk test.

### Walk Test Reports

This option allows the corresponding area to send Walk Test reports when a user enters/exits walk test mode and test zones.

### **Walk Test 24-Hour Zones**

This option allows any 24-hour (non-fire) zone assigned to the corresponding area to be tested during walk test.

### **Walk Test Fire Zones**

This option allows 24-hour fire zone assigned to the corresponding area to be tested during walk test.

» » E N D O F S E C T I O N « «



# Input Programming

The Solution 16i is capable of controlling up to 16 inputs in either hardware or wireless configuration. Each input can have its own unique name up to 16 characters to identify it on the system for display and reporting purposes.

Under the commands menu you are able to view the status of any input, bypass a zone, define which zones will operate in chime mode, define which zones operate in part 2 mode and reset smoke detectors.

There is a command called Zone Array that allows the installer to view the condition of inputs in banks of 4. This is extremely helpful when commissioning a system or fault finding.

There are numerous configurations for each hardware input. The end of line resistor can be configured to eliminate the need to change the end of line resistors on a job when doing a change over. Input zones can be setup as alarm only, alarm + tamper or even split end of line.

For normally open contacts the system is wired exactly

the same as for normally closed but there is an option provided that inverts the sealed state of a zone.

When arming the system, all zones will be tested by default and you may wish to turn this option off for certain zones so that you don't continually alert the operator during arming.

The sensor watch feature lets you monitor zones to ensure that they are working and detecting movement within a determined programmable period.

Zones by default can be bypassed and you should disable this option for zones you don't want to be able to bypass, for example 24hr, fire, holdup or panic zone types.

The IN input is a special input that can be configured to accept data from a number of different RF receiver manufacturers or simply be used as an keyswitch input.

The tamper options configure the system behaviour for cabinet tamper alarms and also for the cabinet tamper of the peripheral devices.

ZONE CONFIGURATION TABLES									
Device	Address SW			Single EOL Zones	Physical Zone Numbering	Alarm + Tamper Zones	Physical Zone Numbering	Split EOL Zones	Physical Zone Numbering
	1	2	3						
Solution Panel	---			8	1 to 8	8	1 to 8	16	1 to 16
CM704B Expander	OFF	OFF	OFF	8	9 to 16	8	9 to 16		
Total Zones				16		16		16	

Table 25: Zone Configuration

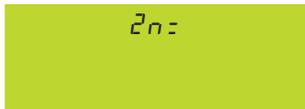
**INPUT COMMANDS**

Inputs > Commands > 5 6 7 8 9  
**Zone Status** A - I - M - U MENU 3-0-0

This menu allows you to view the status or condition of each zone on the system. There are four possible states which can be displayed, Zone Normal, Zone Open, Zone Tamper and Zone Shorted. The status display will also show the resistance across the zone loop.

- 1) Enter your PIN + [MENU].
- 2) Enter [3] + [0] + [0] + [OK].

The keypad will display the Zn = prompt.



- 3) Enter the zone number you want to view the status of, then press [OK].

The keypad will scroll the zone status information. The first screen will display the zone state.

There are 4 possible states;

- Normal - Zone is closed and ready.
- Short - Zone is shorted and not ready.
- Open - Zone is open and not ready.
- Tamper - Zone tamper circuit is open.



The keypad will now display the zone resistance in ohms. This resistance is measured by the control panel.



- 4) Press the [OK] key to exit.

Inputs > Commands > L 3 0 1  
**Zone Array** I MENU 3-0-1

This menu allows you to view zones in groups of four. The keypad displays the zone status as follows:

- n = NORMAL
- S = SHORTED
- A = ALARM
- t = TAMPER
- = DISABLED

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [0] + [1] and use the up and down arrows to select the zone group to view.
- 3) The keypad will display the following zone array information for Zones 1 to 4.



In the above example screen,

- N = Zone 01 is Normal (Sealed)
- S = Zone 02 is Shorted
- A = Zone 03 is in Alarm (Unsealed)
- T = Zone 04 is in Tamper Alarm (Unsealed)

- 4) When finished press [OK] or [MENU] to exit.

Inputs > Commands > bYPASS  
**Bypass Zones** I - M - U MENU 3-0-2

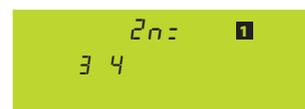
This menu allows you to bypass one or more zones before you turn an area All On, Part On or Part 2 On. When a zone is bypassed, it is not able to detect intrusion or sound an alarm. All non bypassed zones will continue to operate as normal.

Any zone that has been bypassed will automatically be un-bypassed when you turn the corresponding area off.

- 1) Enter your PIN + [MENU].
- 2) Enter [3] + [0] + [2] + [OK].

The keypad will flash the Zn= prompt. Any zone(s) which are currently bypassed will also be flashing.

If your system is programmed for multiple areas, the area icon will also be displayed.



- 3) To bypass a zone, enter the zone number and then press [OK].

The zone indicator will begin to flash. To un-bypass a zone type the zone number and then press [OK].

Repeat step 3 for any additional zones that you need to bypass or un-bypass.

- 4) Press [OK] to save and exit, or press [MENU] to exit without saving.



You can only bypass zones in the current area. To bypass zones in another area, exit programming mode and move to the required area before repeating from step 1.



You can also access the Zone Bypass function by entering your PIN and then pressing the PART / Bypass key down for 2 seconds.

Inputs > Commands >

Set Chime Zones

I-M

ch-zn

MENU 3-0-3

This menu allows the Master User or Installer to program zones to be monitored when the corresponding area is turned off. Chime mode is ideal to monitor a front door to sound the keypad buzzer when opened (faulted).

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [3] + [0] + [3] + [OK].

The keypad will flash the Zn= prompt, indicating that you are in data entry mode. Any zone(s) which are currently set as Chime Zones will be displayed.

An area icon will also display to verify which area you are programming chime zones for.



- 3) Enter the zone number (1 to 16) followed by the [OK] key to toggle the zone on or off for chime mode.

Repeat step 3 toggle chime zones on or off.

- 4) Press [OK] to save and exit, or press [MENU] to exit without saving.

Inputs > Commands >

Set Part 2 Zones

I-M

Pt2-zn

MENU 3-0-4

This menu allows you to program which zones are to be monitored when an area has been turned Part 2 On.

At factory default all zones are monitored when you turn the area Part 2 On.

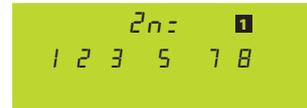
- 1) Enter your Master PIN or Installer PIN + [MENU].

- 2) Enter [3] + [0] + [4] + [OK].

The keypad will display the Zn= prompt.

Any zone(s) that are programmed not to be monitored when you turn the area Part 2 On will not be displayed.

An area icon will also display to verify which area you are programming chime zones for.



- 3) Enter the zone number (1 to 16) followed by [OK] to toggle the monitoring of the zone on or off when turned Part 2 On.

Repeat Step 3 for any additional Part 2 zones you require.

- 4) Press [OK] to save and exit, or press [MENU] to exit without saving.



In the above example, zones 1, 2, 3, 5, 7 and 8 will be monitored when the Area 1 is turned Part 2 On. Zones 4 and 6 will not be monitored.

Inputs > Commands >

Smoke Sensor Reset

I-M-U

Fire-r

MENU 3-0-5

If your system has smoke sensors fitted, they may be powered directly by the control panel. If this is the case, this menu is used to reset your smoke detectors when required.

- 1) Enter your PIN + [MENU].
- 2) Enter [3] + [0] + [5] + [OK].



The keypad will display the word BUSY for 10 seconds while the smoke sensors are reset before returning to the menu.



If the system is configured for multiple areas you may be asked to select the area to reset.

## ZONE DEFAULT TABLE

The table below lists the default values for all zone parameters in the Solution 16i. By default, zones 5 to 16 are set as Instant zones. Zones marked as Not Used do not require EOL resistors to be fitted.

Programming Option	Zone 1	Zone 2	Zone 3	Zone 4	Zones 5 to 16
Zone Name	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5 - Zone 16
Zone Type	1 = Delay 1	5 = Handover	5 = Handover	5 = Handover	3 = Instant
Area Assignment	1	1	1	1	1
Pulse Count	0	0	0	0	0
Pulse Count Time (Sec's)	120	120	120	120	120
Access Group	0	0	0	0	0
Report Route	2	2	2	2	2
<b>Reporting Options</b>					
Lockout Dialler	Y	Y	Y	Y	Y
Report Alarm	Y	Y	Y	Y	Y
Report Alarm Restore	Y	Y	Y	Y	Y
Report Trouble	Y	Y	Y	Y	Y
Report Trouble Restore	Y	Y	Y	Y	Y
Report Bypass	Y	Y	Y	Y	Y
Report Bypass Restore	Y	Y	Y	Y	Y
Delay Report	N	N	N	N	N
<b>Zone Options</b>					
Lockout Siren	Y	Y	Y	Y	Y
Silent Alarm	N	N	N	N	N
Inverted Seal	N	N	N	N	N
Bypass Allowed	Y	Y	Y	Y	Y
Sensor Watch	N	N	N	N	N
Armed When Part On	Y	Y	Y	Y	Y
Reserved	N	N	N	N	N
Test On Exit	N	Y	Y	Y	Y

Table 26: Zone Defaults

## ZONE PROPERTIES

Inputs > Zone Properties >



This menu allows the master user to program name of each zone (Up to 16 characters). Use the [←] and [→] keys to move the cursor position left and right to view the zone name.

The text programming procedure is very similar to that of most mobile phones. Refer the Programming Text section on page 10 for more details.

Zone names are stored with associated events in the system's history log. This enables accurate auditing of events at a later time if required. Names are also used when reporting alarms and turning an area on and off in SMS and other text based reporting formats.

Each zone has a default name which can be changed if desired. The default names are as follows.

DEFAULT ZONE NAMES	
Zone Number	Default Name
1	ZONE 1
2	ZONE 2
↓	↓
16	ZONE 16

Table 27: Default Zone Names

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [3] + [1] + [0] + [OK].

The keypad will display the Zn = prompt.



- 3) Enter the zone number you want to program, then press [OK].

The keypad will display the current Zone Name.



Zone 1



d= 01

- 4) Use the [0] to [9], [←] and [→] keys to change the Zone Name text as required.

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all text from the cursor position to the right, press the [OFF] key.

- 5) When the Zone Name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.



See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.

Inputs > Zone Properties >

Zone Type



MENU 3-1-1



L311



0 1

This menu allows you to configure the zone type or behaviour for every zone in the system. Each zone should be assigned to a Zone Type that defines the way in which the panel will respond when an alarm is triggered on that zone. Refer to the table and descriptions below for the available Zone Type selections.

- 00 = Zone Not Used
- 01 = Burglary Delay 1 (Entry Timer 1)
- 02 = Burglary Delay 2 (Entry Timer 2)
- 03 = Burglary Instant 1 (With Exit Delay)
- 04 = Burglary Instant 2 (No Exit Delay)
- 05 = Burglary Handover
- 06 = Burglary 24-Hour
- 07 = Tamper 24-Hour
- 08 = Hold Up 24-Hour (Silent & Invisible)
- 09 = Medical 24-Hour
- 10 = Panic 24-Hour
- 11 = Fire 24-Hour
- 12 = Reserved
- 13 = Keypad Zone
- 14 = Display Only
- 15 = 24-Hour Non Burglary

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [1] + [1] + [OK], then enter the zone number required, and press [OK].
- 3) Use the numeric keys and enter the zone type required, then press [OK] to save and exit or press [MENU] to exit without saving.

### 0 – Zone Not Used

Program the zone type as zero if the zone is not being used.

### 1 – Burglary Delay 1

Zones programmed as Delay 1 will cause Entry Timer 1 to start when tripped. The user must disarm the area before entry timer expires or an alarm will occur. Zones set as Burglary Delay 1 are only active when the area is armed. See MENU 7-2-1 — Entry Time 1 to set the required delay time.

### 2 – Burglary Delay 2

Zones programmed as Delay 2 will cause Entry Timer 2 to start when tripped. The user must disarm the area before entry timer expires or an alarm will occur. Zones set as Burglary Delay 2 are only active when the area is armed. See MENU 7-2-2 — Entry Time 2 to set the required delay time.

### 3 – Burglary Instant 1

Zones programmed as Instant 1 will immediately cause the alarm to trigger when the zone is tripped. ie No Entry Delay. Zones set as Burglary Instant 1 have Exit Delay and are only active when the area is armed. See MENU 7-2-0 — Exit Time

### 4 – Burglary Instant 2

Zones programmed as Instant 2 will immediately cause the alarm to trigger when the zone is triggered. ie. No Entry Delay. Zones set as Burglary Instant 2 have NO Exit Delay and are only active when the area is armed.

### 5 – Burglary Handover

A Handover zone will provide a delayed alarm only when a delay zone has been tripped first (ie. the entry time is active) otherwise it will trigger an instant alarm.

Zones programmed as Handover can be set to sequential or non-sequential handover. At factory default, handover is set to sequential which means that zone must be triggered in numerical order for the delay to handover. Non Sequential Handover means the zone do not have to be programmed in numerical order. In both cases an entry delay zone must be triggered first for the delay to handover. See MENU 2-1-2 — Input Options to set Non Sequential Handover.



The Zone Types listed above will only trigger an alarm if the system or area is in the armed state and the exit time has expired. Zones must be sealed at the end of exit time to trigger alarms.

## 6 – Burglary 24-Hour

Zones programmed as 24-hour burglary will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Burglary report will be sent to the central station receiver.

## 7 – Tamper 24-Hour

Zones programmed as 24-Hour Tamper will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Tamper report will be sent to the central station receiver.

## 8 – Hold Up 24-Hour

Zones programmed as 24-Hour Hold Up will trigger a Silent alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Hold Up report will be sent to the central station receiver. No Siren/Strobe or Keypad indication will be given. To view the status of a 24hr hold up zone, refer to MENU 3-0-1.

## 9 – Medical 24-Hour

This zone type is used for personal medical emergency alarms. Zones programmed as 24-Medical will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Medical report will be sent to the central station receiver.

## 10 – Panic 24-Hour

This zone type is used for a general type of emergency including the presence of one or more unwanted persons trying to gain entry to the premises. It will sound an alarm at any time as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Panic report will be sent to the central station receiver.

## 11 – Fire 24-Hour

This zone type is used for Fire and Smoke detector alarms. Zones programmed as 24hr Fire will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Fire report will be sent to the central station receiver.

If a horn speaker is connected and programmed, a distinct fire sound will be heard to indicate that it is a fire alarm that has registered. The fire sound via the horn speaker is different than the burglary sound.

## 13 – Keyswitch

A keyswitch zone can be used as an input terminal to turn on and/or off an area. Refer to MENU 3-4-1 — Keyswitch Options to select the various options such as latching or momentary arm and/or disarm etc. When reporting back to base, the keyswitch user number will follow the actual zone number.

## 14 – Display Only

A display zone is not a burglary zone. It can never sound the sirens or trigger the dialler. Its purpose is to only display on the keypad when faulted.

## 15 – 24-Hour Non Burglary

This zone type operates as a 24-hour type and is used for non-specific alarms such as water level or temperature sensors.



*The 24 Hour Zone Types listed above are active 24hrs a day. They will trigger an alarm regardless of whether or not the system or area is in the Armed, Part Armed or Disarmed state.*

Inputs > Zone Properties >

L 3 12

Area Assignment



MENU 3-1-2

0 1

00 = No Area

01 = Area 1

02 = Area 2

03 = Area 3

04 = Area 4

This menu programs which area or partition each zone belongs to. The system can be partitioned to a maximum of 4 separate areas. Each zone can only be assigned to a single area. For installations requiring a common access point, it is possible to set Area 1 to be a common area. See MENU 7-7-1 — Area Options

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [1] + [2] + [OK] and enter the zone number required, then press [OK].

d = 01

- 3) Use the numeric keys, enter the area that you want to assign the zone to.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Inputs &gt; Zone Properties &gt;

L 3 13

Pulse Count

I MENU 3-1-3

0 0

PULSES

00 = 0 Pulse	08 = 8 Pulses
01 = 1 Pulse	09 = 9 Pulses
02 = 2 Pulses	10 = 10 Pulses
03 = 3 Pulses	11 = 11 Pulses
04 = 4 Pulses	12 = 12 Pulses
05 = 5 Pulses	13 = Delay (By Seconds)
06 = 6 Pulses	14 = Delay (By Minutes)
07 = 7 Pulses	15 = Delay (By Hours)

Pulse Count sets the number of trigger pulses a single zone must receive before an alarm will be tripped. The number of pulses must be detected within the Pulse Count Time period for an alarm to occur. See MENU 3-1-4 — Pulse Count Time.

A feature called Pulse Count Handover can be enabled allowing pulses registered by one zone to handover to another zone provided they are the same Zone Type (ie. instant zone to instant zone) and in the same Area. See MENU 2-1-2 — Input Options

When pulse count hands over from one zone to another and an alarm is triggered, a cross alarm report will be sent to the central station.

Options 13 to 15 program how long a zone must be faulted (delay time) before the zone will register an alarm condition. This delay time is calculated by multiplying the pulse count delay option (Second, Minutes or Hours) with the pulse count time set in MENU 3-1-4.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [1] + [3] + [OK] and enter the zone number required, then press [OK].

d= 00

- 3) Using the numeric keys, enter the number of pulses required to register an alarm. Valid entries are 0 – 15.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Inputs &gt; Zone Properties &gt;

L 3 14

Pulse Count Time

I MENU 3-1-4

1 2 0

SECONDS

This menu sets the time period during which the number of zone trigger pulses must be received for an alarm to occur. The zone must be set as a Pulse Count Zone for this time to have any effect.

- 1) Press your Installer PIN + [MENU].
- 2) Enter [3] + [1] + [4] + [OK], then enter the zone required and press [OK].

d= 120

- 3) Using the numeric keys, enter the required Pulse Count Time. Valid entries are 0 – 255 seconds.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

## UNDERSTANDING ACCESS GROUPS

Access Groups are used to link Readers, Users and Outputs together to allow you to operate a door strike when a user token is presented to a given reader. To do this you need to create an access group and assign the user, the reader and the output to the same access group.

### Users

A user can belong to multiple Access Groups.

### Outputs

An output can only belong to 1 Access Group.

### Reader

A reader can belong to only 1 Access Group.

### Access Group

There are 8 different access groups.

### Door Access Group Example

- 1) To set up a door access group you need to select an unused Access Group number from 1 to 8, in this example we will assume the Access Group number to be 5.
- 2) Under user properties assign the users who you wish to have access to Access Group 5. Remember that you are able to assign users to more than one Access Group.

- Now select the output that will be used to operate the door strike and assign it to Access Group 5. You also need to set the output type to ACCESS and the polarity to one shot low with a time of how long you would like the strike to operate. Generally a strike would be operated for 5 seconds.
- Assign the Reader under Reader properties to Access Group 5.

When a user who belongs to Access Group 5 presents their token to the reader that is assigned to Access Group 5, the assigned output will operate releasing the door strike.

A reader can belong not only to a Access Group but also to an Area if arming and disarming is required from the reader.

If a user presents their token to an reader that has an area assigned, then the user Access Group and Area Permissions are both checked. If the area is armed and the user belongs to the same area as the Reader and the same Access Group, the system will disarm and allow access.

If the user does not belong to the same area as the reader but the Access Groups match, then door access will only be available to that user if the area is disarmed.

When using the same reader for door access as well as arming, you need to select the badging option MENU 1-6-3—Reader Options. Badging requires that you present your token 3 times in succession within 5 seconds to arm the system.

Inputs > Zone Properties > L 3 15

---

**Access Group** MENU 3-1-5

0 0

- 00 = No Access Group
- 01 = Access Group 1
- 02 = Access Group 2
- 03 = Access Group 3
- 04 = Access Group 4
- 05 = Access Group 5
- 06 = Access Group 6
- 07 = Access Group 7
- 08 = Access Group 8

- Enter your Installer PIN + [MENU].
- Enter [3] + [1] + [5] + [OK], then enter the zone required and press [OK]. The keypad will display the current Access Group setting.



- Using the numeric keys, enter the Access Group that you want to assign the zone to.
- Press [OK] to save and exit or press [MENU] to exit without saving.

Inputs > Zone Properties > L 3 16

---

**Report Route** MENU 3-1-6

0 1

- 00 = Report Events To Log Only
- 01 = Report Events To Destination 1 + Log
- 02 = Report Events To Destination 2 + Log
- 03 = Report Events To Destination 1 & Destination 2 + Log
- 04 = Report Events To Dest 2 If Dest 1 Fails + Log

This menu sets the Zone Report Route or Report Destination for each individual zone in the system. All events such as alarms and troubles for each zone will be reported according to this menu setting. Each zone can only be assigned to one report route from the list above.

- Enter your Installer PIN + [MENU].
- Enter [3] + [1] + [6] + [OK], then enter the zone number required and press [OK]. The keypad will display the current Zone Report Route.



- Use the numeric keys to program the Report Route that you want to assign the zone to.
- Press [OK] to save and exit or press [MENU] to exit without saving.

**Note** At factory default all Zones are set to report to Destination 1 and the System Log. See the Zone Default Table for more information on Zone default settings.

Inputs > Zone Properties > L 3 17

---

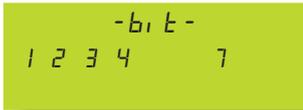
**Report Options** MENU 3-1-7

1	Lockout Dialler	Y
2	Report Alarm	Y
3	Report Trouble	Y
4	Report Bypass	Y
5	Reserved	N
6	Reserved	N
7	Report Restores	Y
8	Delay Report	N

The above options are programmable per zone.

- Enter your Installer PIN + [MENU].
- Enter [3] + [1] + [7] + [OK], then enter the zone number required and press [OK]. The keypad will display the Report Options for the currently selected zone.

- 3) Use keys [1] to [8] to toggle on or off the option required.



- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Lockout Dialler

Setting this option will enable Dialler Lockout functionality for the respective zone(s). All zones in the system can be individually programmed for Dialler Lockout.

When enabled the zone will be allowed to transmit alarm reports each time it is triggered provided that the Swinger Dialler count has not been reached. If the zone is triggered and the Swinger Dialler count has been reached then the zone will become locked out and no further reports will be sent for that zone. Dialler lockout will be reset on the next arming cycle.

See MENU 5-4-5 — Swinger Dialler to set the number of times a zone is allowed to trigger before being locked out.

### Report Alarm

Setting this option will enable the system to Report Alarm events for the respective zone. All zones in the system can be individually programmed to report alarms.

### Report Trouble

Setting this option will enable the system to Report Trouble events for the respective zone. A Trouble report will be sent if the zone is left unsealed at the end of exit time. All zones in the system can be individually programmed to report trouble events.

### Report Bypass

Setting this option will enable the system to Report Zone Bypass events for the respective zone. A Bypass report will be sent at the end of exit time for zones which have been manually bypassed. All zones in the system can be individually programmed to report Zone Bypass events.

### Report Restores

Setting this option allows the system to send Restore reports for zones that have already sent a previous alarm or trouble report on the same arming cycle.

- 1) **Burglary Zone alarms and troubles restore when the zone reseals or the area is disarmed.**
- 2) **24hr Zone alarms and troubles restore when the zone reseals.**
- 3) **Bypassed Zone restore when the area is disarmed.**

### Delay Report

Setting this option will cause the system to delay alarm reports for the selected zone. This option can be enabled to allow a user to enter their PIN and disable the report in case they have caused a false alarm. If a PIN is not entered within the delay time, the system will trigger the sirens and send the report as normal.

See MENU 5-4-6 — Burg Report Delay and MENU 5-4-7 — Fire Report Delay to set the delay time.

If a PIN code is entered after the delay time has expired, and the sirens are still sounding, the system will send the Alarm report followed by a Cancel report.

Inputs > Zone Properties >

L 3 18

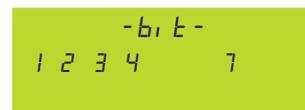
### **Zone Options**

**MENU 3-1-8**

1	Lockout Siren	Y
2	Silent Alarm	N
3	Inverted Seal	N
4	Bypass Allowed	Y
5	Sensor Watch	N
6	Armed When in Part Mode 1	Y
7	Reserved	N
8	Test On Exit	Y

The above options are programmable per zone.

- 1) **Enter your Installer PIN + [MENU].**
- 2) **Enter [3] + [1] + [8] + [OK], then enter the zone number required and press [OK]. The keypad will display the Zone Options for the currently selected zone.**
- 3) **Use keys [1] to [8] to toggle on or off the option required.**



- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Lockout Siren

Setting this option will enable Siren Lockout functionality for the respective zone(s). All zones in the system can be individually programmed for Siren Lockout.

When enabled the respective zone will be allowed to cause the sirens to sound each time a new alarm is triggered provided that the Swinger Siren count has not been reached. If the zone is triggered and the Swinger Siren count has been reached then the siren will become locked out for that zone and no further siren activations will occur from that zone. Only zones which have been locked out are prevented from triggering the sirens.

Siren lockout will be reset on the next arming cycle. See MENU 7-4-3 — Swinger Siren to set the shutdown count.

### Silent Alarm

Setting this option will set the corresponding zone to become a silent zone. Audible alarm outputs will not sound when a silent zone is triggered.

### Inverted Seal

Setting this option allows a normally-open sensor or device to operate as a normally-closed device by reversing the open/closed state of the zone loop. (eg. When the zone loop is open, the system will register the zone loop as closed or normal.)

### Bypass Allowed

Setting this option allows users with the appropriate access level to manually bypass this zone effectively removing it from the area for the current arming cycle. All zone types including 24hour zones can be bypassed if this option is selected. Bypassed zones will be reset when the area is turned off or disarmed.

### Sensor Watch

Setting this option causes the system to monitor the zone's activity while the corresponding area is in the disarmed state. If the zone fails to unseal and reseal at least once during the Sensor Watch Time period a system trouble will be displayed on the keypad and a Sensor Watch report for the corresponding zone will be sent to the programmed destination. See MENU 3-9-2 — Sensor Watch to set the time period.



*Sensor Watch monitoring is only active when the area is in the disarmed state. 24 hour zone types cannot be monitored using the Sensor Watch feature.*

### Armed When In Part Mode 1

Setting this option causes the zone to be active or monitored when the corresponding area is armed in Part On Mode 1.

If this option is not set, the corresponding zone will be inactive when the area is armed in Part Mode 1 allowing users to move freely within this zone and not trigger an alarm.

### Test On Exit

Setting this option will cause the system to prompt the user that a zone or zones are not sealed when they attempt to arm the area in which the zone belongs. An error beep will sound and a zone trouble message will display on the keypad advising the user to seal the zone(s) or to bypass them before the area will arm.

If this option is disabled the zone will not be tested during the arming sequence and the system will arm. If the zone(s) are unsealed at the end of exit time a Zone Trouble report will be sent.

## ADDING RF SENSORS

The Solution 16i panel supports a wide range of 3rd party wireless movement sensors, door contacts and smoke detectors allowing you to choose the most appropriate devices for each installation.

There are basically two different methods for adding RF devices to the Solution 16i, Direct Entry and Learn Mode. The system will prompt for the appropriate method depending on the Receiver type you have fitted.

In all cases the RF sensor must be compatible with the RF Receiver that is installed. See MENU 3-5-0 — Input Type.



*Zones configured as RF zone will follow all other zone properties.*

### RF Sensor - Direct Entry Mode

Inputs > RF Zone >

L 330

Add RF Device

**I** MENU 3-3-0

This menu allows you to program an RF device to a zone. Only one device can be connected to each zone up to a maximum of 16 RF devices per system.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [3] + [0] + [OK], then enter the zone number required and press [OK].

000000

- 3) Using the numeric keys, enter the RF device ID number.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

### RF Sensor - Learn Mode

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [3] + [0] + [OK], then enter the zone number required and press [OK].

000000

- 3) Trigger the RF device to transmit its ID number.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.



*Make sure that only one device is triggered when the system is in learn mode. Devices that have already been learnt cannot be learnt again unless they are deleted from the system first.*

Inputs &gt; RF Zone &gt;

L 331

Delete RF Device



MENU 3-3-1

This menu allows you to delete an RF device .

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [3] + [1] + [OK], then enter the zone number required press [OK]. The keypad will display the first 6 digits of the current RF ID number.

007407

- 3) Press [OK] to DELETE the RF device and exit or press [MENU] to exit without deleting.

Inputs &gt; RF Zone &gt;

L 332

Test RF Device



MENU 3-3-2

This menu allows you to test just how good the current position is for an RF device. Enter the command and you will be presented with a list of RF zones in the current area that are available for test. Use the arrow keys to highlight the zone to test and press OK. At any time press menu to exit.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [3] + [2] + [OK], then enter the zone number required and press [OK].

Er, 9Er

- 3) Once a signal is received the following information will be displayed.

900d

Signal can = Good, Average or Move (Relocate)

## GLOBAL INPUT OPTIONS

Inputs &gt; Global Input Options &gt;

L 340

EOL Value



MENU 3-4-0

(\*\*\*) System Wide Parameter (\*\*\*)

0 5

00 = No EOL

01 = 1K0

06 = 4K7

11 = 6K8 Alarm + 2K2 Tamper

02 = 1K5

07 = 5K6

12 = 10K Alarm + 10K Tamper

03 = 2K2

08 = 6K8

13 = 22K

04 = 2K7

09 = 8K1

14 = 3K3 Alarm + 6K8 Tamper

05 = 3K3

10 = 10K

15 = 3K3//6K8 Split EOL

This menu programs the End Of Line resistor (EOL) value that is global for all hard-wired zones including zones on the Zone Expander Module. Only one EOL Value can be programmed.

Setting the EOL Value to type 0 to 14 will configure the system as 8 hardwired zones . Additional zones via optional zone expander boards will start on zone 9. Setting the EOL as type 15 will configure the system as 16 hardwired zones.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [4] + [0] + [OK]. The keypad will display the current EOL value (Default = 5).

d = 5

- 3) Use the numeric keys to enter the EOL Value you require, then press [OK] to save and exit or press [MENU] to exit without saving.

Inputs &gt; Global Input Options &gt;

L 341

**Keyswitch Options**

MENU 3-4-1

(\*\*\*) System Wide Parameter (\*\*\*)

0 0

00 = Latching - All On/Off      05 = Momentary All On/Off  
 01 = Latching - All On          06 = Momentary - All On  
 02 = Latching - Part On/Off    07 = Momentary - Part On/Off  
 03 = Latching - Part On        08 = Momentary - Part On  
 04 = Latching - Off            09 = Momentary - Off

This menu programs the properties for any zone in the system programmed as a keyswitch zone. Only one option can be selected for the entire system which means that all keyswitches fitted will behave the same way.

The system can send Open and Close reports based on the keyswitch operation with the zone number representing the user number in the report.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [4] + [1] + [OK]. The keypad will display the current keyswitch options (Default = 0 Disabled).

d = 5

- 3) Use the numeric keys to enter the keyswitch option required, then press [OK] to save and exit or press [MENU] to exit without saving.

Inputs &gt; Global Input Options &gt;

L 342

**Input Options**

MENU 3-4-2

1	Tamper On Short	N
2	Reserved	N
3	Response Time 500ms	N
4	Reserved	N
5	Keyswitch Open / Close	Y
6	Alarm On Tamper	N
7	Reserved	N
8	Reserved	N

(\*\*\*) System Wide Parameter (\*\*\*)

This menu programs the various global input options which will effect all zones on the system.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [4] + [2] + [OK]. The keypad will display the current input options.

- b i t -  
5

- 3) Use the keys [1] to [8] to toggle on or off the option required.
- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Tamper On Short**

Setting this option will cause any Zone which become shorted to report a tamper alarm condition for the zone.

**Response Time 500ms**

Setting this option will increase the response time for all zones to 500ms.

**Keyswitch Open/Close**

This feature allows you to select whether or not a zone programmed as a Keyswitch Zone, will send opening and closing reports. The default is set to Off.

**Alarm On Tamper**

This option allows tamper circuits on RF sensors and hardwire zones to sound an alarm when faulted when their corresponding area is turned off (disarmed).

Inputs > PGM Input >



**Input Type**

(\*\*\* System Wide Parameter \*\*\*)

- 00 = Disabled
- 01 = Latching - On/Off (RF Relay)
- 02 = Momentary - On/Off (RF Relay)
- 03 = Digiflex RF On/Off
- 04 = Bosch Serial RF Receiver
- 05 = Crow Serial RF Receiver
- 06 = NESS Serial RF Receiver
- 07 = Inovonics Serial RF Receiver
- 08 = Secure Wireless RF Receiver

This menu option is used to configure the systems programmable input terminal. Various devices can be connected including keyswitches of radio controlled relays etc. When RF zones are required you need to connect the RF receiver to this input

Connect keyswitch between Input terminal and GND. See Wiring Diagrams in Section 3 for various connection diagrams.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [5] + [0] + [OK]. The keypad will display the current input type (Default = 0 Disabled).



- 3) Use the up and down arrows to select the required Input Device Type then press [OK] to save and exit or press [MENU] to exit without saving.



*The Latching and Momentary On/Off modes are active low, and when triggered, they will automatically force arm the area.*

Inputs > Tamper Inputs >



**Tamper Options**

1	Display Panel Tamper	Y
2	Report Panel Tamper	Y
3	Audible Panel Tamper	Y
4	Display Expander Tamper	N
5	Report Expander Tamper	N
6	Audible Expander Tamper	N
7	Reserved	N
8	Reserved	N

This menu programs how the various system tamper inputs behave when faulted. These dedicated tamper inputs are active 24 hours a day when enabled.

- 1) Enter your Installer PIN + [MENU].
  - 2) Enter [3] + [6] + [0] + [OK]. The keypad will display the current tamper options.
- 
- 3) Use the numeric keys [1] to [8] to toggle on or off the option required.
  - 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Display Cabinet Tamper**

Setting this option allows the keypad to display a trouble condition when the tamper circuit that monitors the systems cabinet is faulted. The trouble condition will clear when the tamper circuit has restored.

**Report Cabinet Tamper**

Setting this option allows the panel to send a Cabinet Tamper report when the cabinet tamper circuit is faulted. A Cabinet Tamper Restore report will be sent when the tamper circuit has restored.

**Audible Cabinet Tamper**

Setting this option will cause the panel to sound the sirens when the cabinet tamper circuit is faulted.

**Display Expander Tamper**

Setting this option causes the system to display tamper events which have occurred on peripheral modules.

**Report Expander Tamper**

Setting this option enables peripheral tamper reporting.

**Audible Expander Tamper**

Setting this option causes the system to trigger an audible alarm when a peripheral tamper is triggered.

## INPUT TESTING

Inputs > Input Testing >

Walk Test All Zones



TESTZNS

MENU 3-9-0

This menu allows you to test all zones within an area at the same time. To successfully walk test each zone, you must open and close each zone.

- 1) Enter your PIN + [MENU].
- 2) Enter [3] + [9] + [0] + [OK].

The keypad will display a list of all zones to be tested. If your system is configured for multiple areas then you may be prompted to select the area to test.

TEST  
1 2 3 4 5 6 7 8

- 3) Fault and restore each zone that needs to be tested.

A zone that has been successfully tested will no longer be displayed on the keypad display.

When all zones have been tested, the keypad will display PASS.

PASS

- 4) Press [OK] to exit.

Inputs > Input Testing >

Walk Test A Single Zone



TEST-ZN

MENU 3-9-1

This menu allows you to select a single zone to be tested via walk test.

- 1) Enter your PIN + [MENU].
- 2) Enter [3] + [9] + [1] + [OK].

The keypad will display the Zn = prompt.

Zn =

- 3) Enter the zone number you want to test, then press [OK].

TEST  
2

- 4) Fault and restore the zone to be tested.

If the zone test was successful, the keypad will display PASS.

The system will also chirp the sirens for 1 second if the zone test was successful making it easier for one person to do the test.

PASS

Inputs > Input Testing >

Sensor Watch Time



L392

MENU 3-9-2

0 3 0

(\*\*\* System Wide Parameter \*\*\*)

DAYS

This menu programs the Sensor Watch Time interval. Zones programmed for Sensor Watch are required to seal and unseal at least once within the Sensor Watch Time period or a trouble message will be displayed on the keypad and a Zone Trouble report sent.

Valid entries are 1 -255 Days and 0 = Sensor Watch Disabled

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [3] + [9] + [2] + [OK]. The keypad will display the current sensor watch time (Default = 30 days).

d = 030

- 3) Using the numeric keys, enter the new Sensor Watch time in days then press [OK] to save and exit or press [MENU] to exit without saving.



*Sensor Watch monitoring is only active when the area is in the disarmed state. 24 hour zone types cannot be monitored using the Sensor Watch feature.*

» » END OF SECTION « «



# Output Programming

The Solution 16i is capable of controlling up to 8 outputs. The first 4 outputs are on the main control board and an additional 4 outputs are provided using an output expander module. Each output can have its own unique name up to 16 characters to identify it on the system for display and reporting purposes.

Under the commands menu you are able to view the status of any output and to change its on/off condition. In the case of latching output types, you will be required to reset the output manually using these commands.

Outputs are programmed using an event type. First select the event type that will cause the output to trigger. Then select the polarity of the event, if it is low and goes high or high and goes low. If the event is pulsing or one shot type, the time parameter must also be programmed to define the time of the pulse.

Event Assignment, this is extremely important parameter and has a different meaning depending on the event type selected. For example, event type "24 - Area Part On" the event assignment selects the Area that is armed in part on for the output to trigger. If you set the event assignment to 1, then it will correspond to area 1 and so on, setting it to zero means all areas. See the event type table for more detail on the relationship of event type to event assignment.

Outputs 1 and 2 are special outputs that can be configured as horn speaker polarity types and are monitored to report a device connection trouble. Output 4 is a dry relay contact which has a optional jumper that allows you to switch positive or negative without the need to add additional wiring.

The outputs are all protected and will shut down individually under overload conditions. A report will be generated and a displayed on the keypad to indicate the trouble condition.

## OUTPUT COMMANDS

Outputs &gt; Commands &gt;

STATUS

Output Status

A - I - M - U

MENU 4-0-0

This menu allows you to view the the current status of each output.

1) Enter your PIN + [MENU].

2) Enter [4] + [0] + [0] + [OK].

The keypad will flash the Op = prompt.



OP =

3) Enter the output number you want to view, then press [OK].

The keypad will now display the status of the selected output.

There are 4 possible states.

, 5 OFF - output is OFF,

, 5 On - Output is ON and

c OnL St - Connection Trouble.

OnL OAd - Connection Overload.

If connection trouble or connection overload is shown there may be a problem with an output device on the system. In this case you should contact your installer for further information.

The keypad will display the following when output 3 is OFF.



, 5 OFF

The keypad will display the following when output 2 is ON.



The keypad will display the following when output 3 has a connection trouble (output device is missing).



The keypad will display the following when output 3 has an overload condition.



4) Press [OK] to exit.



This menu allows you to manually control the system outputs that have been programmed by your installer. Outputs can be programmed to control sirens, strobe lights, outside lighting, pool pumps, watering systems etc.

- 1) Enter your PIN + [MENU].
- 2) Enter [4] + [0] + [1] + [OK].

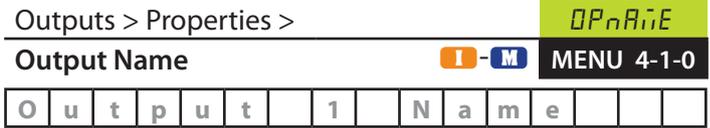
The keypad will flash the Op= prompt. Any output(s) which are currently on will also be displayed.



If your system is configured for multiple areas the area Icon for the current area will also be displayed.

- 3) Enter the output number + [OK] to toggle the output on or off.  
Repeat step 3 for any additional outputs that you need to control.
- 4) Press [OK] to exit.

## OUTPUT PROPERTIES



This menu allows the master user to program name of each Output (Up to 16 characters). Use the [←] and [→] keys to move the cursor position left and right to view the zone name.

The text programming procedure is very similar to that of most mobile phones. Refer the Programming Text section on page 4-2 for more details.

Output names are stored with associated events in the system's history log. This enables accurate auditing of events at a later time if required. Names are also used when reporting alarms and turning an area on and off in SMS and other text based reporting formats.

Each output has a default name which can be changed if desired. The default names are as follows.

DEFAULT OUTPUT NAMES	
Output Number	Default Name
1	EktErnAL Siren
2	Strobe
3	Silence Sensor
4	IntErnAL Siren
5	Output 5 name
6	Output 6 name
7	Output 7 name
8	Output 8 name

Table 28: Default Output Names

Outputs 5 to 8 are available when an optional output expander is fitted. Discuss this feature with your installer.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [4] + [1] + [0] + [OK].

The keypad will flash the Op = prompt.



- 3) Enter the output number (1 to 8) you want to program, then press [OK].



- 4) Use keys [0] to [9], [←] and [→] keys to change the Output Name text as required.

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters. To clear all text from the cursor position to the right, press the [OFF] key.

- 5) When the Output Name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.

Outputs > Properties >

Event Type



MENU 4-1-1

L411

0 0 0

This menu allows you to set the output event type. See the Output Event Type Table and Event Type Descriptions in this section for more information on the available options.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [4] + [1] + [1] + [OK], then enter the output number required and press [OK].
- 3) Use the numeric keys and enter the Event Type required then press [OK] to save and exit or press [MENU] to exit without saving.

d= 036

### 1 - Battery Trouble

This event type will cause the output to operate when the panel detects a low or missing stand-by battery and will reset once a successful battery test has been performed.

Battery tests are performed automatically every 4 hours and when the system is armed. A manual test can also be requested at any time while the system is disarmed. See MENU 7-9-1 — Battery Test

### 2 – AC Trouble

This event type will cause the output to operate when the panel detects that the AC mains power has been missing for 1 minute and will reset when the power has been restored for 1 minute.

### 3 – Telephone Line Trouble

This event type will cause the output to operate when the panel detects that the telco line has been disconnected for 30 seconds and will reset when the line has been restored.

### 4 – Comm Fail – Destination 1 / 2

This event type will cause the output to operate if the panel fails to report to destination1 or 2 or both. The panel will try to send the report as many times as set in

the call attempt counter before registering a comm fail.

The output will restore as soon as a successful report has been sent to the destination that has previously failed to report. If both Destination 1 and Destination 2 had failed to report then successful report to both destinations will need to be made before the output will reset. See MENU 5-2-0 — Call Attempt Count

### 5 – Third Failed Dialler Attempt

This event type will cause the output to operate when the panel has made 3 unsuccessful call attempts to the base station. The output will reset when all pending messages have been sent or when the maximum number of call attempts have been made.

### 6 – Destination 1 Reporting

This event type will cause the output to operate when the panel is communicating to Destination 1 and will reset when the transmission ends.

### 7 – Destination 2 Reporting

This event type will cause the output to operate when the panel is communicating to Destination 2 and will reset when the transmission ends.

### 8 – Destination 1/2 Kiss-Off

This event type will cause the output to operate when the panel receives an kiss-off acknowledgment from the receiving party while communication to destination 1 or 2. It is recommended that this output is programmed with a one-shot timer.

### 9 – Destination 1 Kiss-Off

This event type will cause the output to operate when the panel receives a kiss-off acknowledgment from the receiving party while communicating to destination 1. It is recommended that this output is programmed with a one-shot timer.

### 10 – Destination 2 Kiss-Off

This event type will cause the output to operate when the panel receives a kiss-off acknowledgment from the receiving party while communicating to destination 2. It is recommended that this output is programmed with a one-shot timer.

### 11 – Dialler Disabled

This event type will cause the output to operate if the panel reporting functions are manually disabled and will reset when reporting is enabled. See MENU 5-2-1 — Dialler Options.

**12 – Horn Speaker Missing**

This event type will cause the output to operate when the panel detects that a horn speaker is missing. The output will reset when the horn speaker is reconnected. Only output 1 and 2 can be programmed as a horn speaker outputs. See MENU 4-1-3 — Output Polarity for information on configuring an output to drive a horn speaker

**13 – Output Trouble**

This event type will cause the output to operate when the panel detects that an output device is missing or in an overload condition. The output will reset when all failed outputs have restored or the overload condition has been removed.

**14 – Panel On-Line**

This event type will cause the output to operate when the panel seizes the phone line and will reset when the phone line is released.

**15 – Incoming Call**

This event type will cause the output to operate when the panel detects an incoming call on the phone line and will reset when the ring signal stops.

**16 – System Trouble**

This event type will cause the output to operate when the panel detects a system trouble condition and will reset when the condition is cleared.

**17 – Box Tamper**

This event type will cause the output to operate when the panel detects that the onboard cabinet tamper circuit is open. The output will reset when the tamper circuit is closed. No EOL resistor is required on this input.

**18 – Zone Trouble**

This event type will cause the output to operate when the panel detects that a zone has a trouble condition and will reset when the trouble condition has cleared.

**19 – Zone Mirror**

This event type will cause the output to operate when a specific zone is open or unsealed and will reset when the zone closes. See MENU 4-1-2 — Event Assignment for information on how to set the zone to mirror.

**20 – Zone Alarm**

This event type will cause the output to operate when a specific zone has triggered an alarm and will reset when the corresponding area is disarmed. For a non 24hour zone to trigger an alarm the area must be armed. See MENU 4-1-2 — Event Assignment for information on how to set the zone to monitor.

**21 – Area Disarmed**

This event type will cause the output to operate as soon as the corresponding area is disarmed and will reset when the area is armed in either the All On or Part On modes.

If the output event assignment for this output is set to zero (all areas), then all areas must be disarmed for the output to operate. The output will reset as soon as any area is armed in either the All On or Part On modes.

**22 – Area Armed (Any)**

This event type will cause the output to operate when the selected area is armed in either All On or Part On mode. The output will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas) then the output will only operate when all areas have been armed in All On or Part On mode. The output will reset as soon any area is disarmed.

**23 – Area All On**

This event type will cause the output to operate as soon as a specific area is armed All On mode and will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the All On mode and will reset as soon as any area is disarmed.

**24 – Area Part On**

This event type will cause the output to operate as soon as a specific area is armed Part On mode and will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the Part On mode and will reset as soon as any area is disarmed.

**25 – Area Part 2 On**

This event type will cause the output to operate as soon as a specific area is armed Part 2 On mode and will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the Part 2 On mode and will reset as soon as any area is disarmed.

**26 – Entry Time**

This event type will cause the output to operate while either Entry Timer 1, Entry Timer 2 or the Part Mode Entry Timer is active. The output will reset when the entry timer expires or the corresponding area is disarmed.

**27 – Exit Time**

This event type will cause the output to operate while Exit Timer is active. The output will reset when the exit timer expires or the corresponding area is disarmed.

**28 – End Of Exit Time**

This event type will cause the output to operate when the Exit Time expires and will reset when the corresponding area is disarmed.

**29 – Chime On**

This event type will cause the output to operate when Chime Mode is activated and will reset when Chime Mode is turned off.

If the event assignment for this output is set to zero (all areas), then the output will operate as soon as Chime Mode is activated in any area and will reset when Chime Mode is turned off in all areas.

**30 - Chime Zone Faulted**

This event type will cause the output to operate when a specific Chime Zone is triggered and reset when the Chime Zone reseals.

If the event assignment for this output is set to zero (all areas), then the output will operate as soon as any chime zone is triggered provided that Chime Mode is on in those areas. The output will reset when all Chime Zones are resealed. For this event type to work Chime Mode must be turned on. See MENU 2-0-5 — Chime On/Off

**31 – Auto Arm Pre-Alert**

This event type will cause the output to operate when the Auto Arm Pre-Alert Timer is active and will reset when the Pre-Alert Timer expires or a valid user code is entered.

**32 – Ready To Arm All On**

This event type will cause the output to operate when the area is disarmed and all zones in the area are sealed. The output will reset when the area is armed or when a zone becomes unsealed.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all zones are sealed. The output will reset if any area is armed or if any zone becomes unsealed.

**33 – Ready To Arm Part On**

This event type will cause the output to operate when the area is disarmed and all zones in the area which are to be monitored in Part On mode are sealed. The output will reset when the area is armed or when a Part On zone becomes unsealed.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all Part On zones are sealed. The output will reset if any area is armed or if any Part On zone

becomes unsealed.

**34 – Ready To Arm Part 2 On**

This event type will cause the output to operate when the area is disarmed and all zones in the area which are to be monitored in Part 2 On mode are sealed. The output will reset when the area is armed or when a Part 2 On zone becomes unsealed.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all Part 2 On zones are sealed. The output will reset if any area is armed or if any Part 2 On zone becomes unsealed.

**35 – ‘Close’ Report Sent OK**

This event type will cause the output to operate when the Closing report has been acknowledged (Kissed-Off) by the control room receiver. The output will reset when the area is disarmed. If the output has been assigned to multiple areas then it will only reset when all areas have been disarmed.

**36 – External Siren (Spk Beeps)**

This event type will cause the output to operate when any audible alarm occurs. The output will reset when the system or area is disarmed.

This event type will also generate speaker beeps when the system or area is armed via a RF Keyfob, the Programmable Input Terminal or Keyswitch zone.

- ❖ 1 beep when the area is disarmed
- ❖ 2 beeps when the area is armed All On
- ❖ 3 beeps when the area is armed Part On

**37 – Internal Siren**

This event type will cause the output to operate when any audible alarm occurs. The output will reset when the system or area is disarmed. No speaker beeps are generated for this event type.

**38 – Alarm Any (Silent or Audible)**

This event type will cause the output to operate when any silent or audible alarm occurs. The output will reset when the system or area is disarmed

**39 – Fire Alarm**

This event type will cause the output to operate when any audible fire zone or keypad emergency fire alarm occurs. The output will reset when the system or area is disarmed.

**40 – Burglary Alarm**

This event type will cause the output to operate when any audible burglary alarm (including keypad emergency panic, medical and tamper alarm) occurs. The output will reset when the system or area is disarmed.

**41 – Silent Alarm**

This event type will cause the output to operate when any silent alarm occurs (including silent fire and silent keypad emergency alarms). The output will reset when the system or area is disarmed.

**42 – Duress Alarm**

This event type will cause the output to operate when a user initiates a Duress alarm.

**43 – Keypad Medical**

This event type will cause the output to operate when a silent or audible medical alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a medical emergency via the keypad, simultaneously press and hold the [7] and [9] keys for 2 seconds.

**44 – Keypad Fire**

This event type will cause the output to operate when a silent or audible fire alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a fire emergency via the keypad, simultaneously press and hold the [4] and [6] keys for 2 seconds.

**45 – Keypad Panic**

This event type will cause the output to operate when a silent or audible panic alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a panic emergency via the keypad, simultaneously press and hold [1] and [3] keys.

**46 – Keypad Tamper**

This event type will cause the output to operate when the tamper circuit on the rear of the keypad is triggered. The output will reset when a valid user PIN is entered.

**47 – Access Denied**

This event type will trigger if you attempt to enter an incorrect code more times than programmed in the pin retry count location. The event assignment will be the area number for this event type.

**48 – Strobe**

This event type is used to operate a strobe warning light. The output can be made to operate when any of the following events occur. At least one strobe event must be selected for this output type to operate. See MENU 2-1-5 — Strobe Trigger option.

Strobe trigger options include:

- ❖ = Audible Burglary Alarm
- ❖ = Silent Burglary Alarm
- ❖ = Fire Alarm
- ❖ = Arm/Disarm Flash Via RF Keyfob
- ❖ = Arm/Disarm Flash Via Keyswitch or PGM Input
- ❖ = 24-Hour Alarm

**49 – Smoke Sensor GND**

This output is used to allow smoke detectors to be automatically reset when the system is disarmed. You should connect the GND terminal of all smoke detectors in the system to outputs which are set to this event type.

For this output type to perform correctly you should program the output polarity as type 11 - Normally Low One Shot Open and program the output time parameter to be 5 seconds. The smoke sensor needs to be connected to a zone input programmed as fire.

If fire alarm verification is required, we recommend that you program the zone pulse count to 2 pulses and the pulse count time to 90 seconds for each fire zone.

**50 – Sensor Watch**

This event type will cause the output to operate when a zone sensor watch fault has occurred. The output will reset when the system or area is armed. See MENU 3-1-8 — Zone Options in Section 7 - Input Programming for more information on Sensor Watch.

**51 – Senior Watch**

This event type will cause the output to operate when a Senior Watch fault has occurred. See MENU 2-1-2 — Input Options in Section 6 - Area Programming for more information on Senior Watch.

**52 – Exit Error**

This event type will cause the output to operate when a Entry/Exit Delay zone becomes unsealed during exit time and remains unsealed when the exit time expires. The output will reset when the system is disarmed.

**53 – RF Keyfob Function 1**

This event type will cause the output to operate when Key X is pressed on the Keyfob. This function requires a 4 button keyfob.

**54 – RF Keyfob Function 2**

This event type will cause the output to operate when Key Y is pressed on the Keyfob. This function requires a 4 button keyfob.

**55 – Output Pre Alert**

This event type will cause the output to operate when the output pre-alert timer is active and will reset when the pre-alert timer expires.

## 56 – Follow PIN

This event type will cause the output to operate when a specified user PIN is entered via the keypad or when the corresponding user's keyfob or token is used.

You should program the User whose PIN is to be followed into the Event Assignment for this output.

## 57 – Part Entry Time

This event type will cause the output to operate when the Part Entry timer is active and will reset when Part Entry time expires.

## 58 – Schedule

This event type will cause the output to operate when a specific schedule occurs. The output requires a schedule to be programmed to operate an output. The output programmed to follow the schedule must match that programmed in the schedule index.

## 59 – Keypad Temperature Alarm

This event type will cause the output to operate when the keypad temperature increases above the maximum or falls below the minimum set temperature. The output will reset when the temperature reads between the maximum and minimum values.

See MENU 7-7-3 — Keypad Hi/Lo Temp in Section 11 - System Programming

## 60 – Access Group

This event type will cause the output to operate when a user assigned to the same Access Group swipes their token. The prox reader must be assigned to the same Access Group as the Output and User.

The Event Assignment is the Access Group Number.

Outputs > Properties >

L4 12

Event Assignment

**I** MENU 4-1-2

0 0 0

This menu allows you to assign an Output event to an Area number (1 to 4), a User number (1 to 48), a Zone number (1 to 16) or a Group number (1 to 8) that the output will follow. Programming a zero will assign the output event to follow any area, user, zone or access group depending on the event type.

Refer to Output Event Type Table for a complete listing of available options.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [4] + [1] + [2] + [OK], then enter the output number you want to change and press [OK].

d= 00

- 3) Using the numeric keys, enter the Output Event Assignment required, then press [OK] to save and exit or press [MENU] to exit without saving.

Outputs > Properties >

L4 13

Output Polarity

**I** MENU 4-1-3

0 0

- 00 = Normally Open, Going Low
- 01 = Normally Open, Going Low With Pre Delay
- 02 = Normally Open, Latching Low
- 03 = Normally Open, Pulsing Low
- 04 = Normally Open, One Shot Low
- 05 = Normally Open, One Shot Low + Retrigger
- 06 = Normally Open, One Shot Low + Reset
- 07 = Normally Low, Going Open
- 08 = Normally Low, Going Open With Pre Delay
- 09 = Normally Low, Latching Open
- 10 = Normally Low, Pulsing Open
- 11 = Normally Low, One Shot Open
- 12 = Normally Low, One Shot Open + Retrigger
- 13 = Normally Low, One Shot Open + Reset
- 14 = Horn Speaker (Output 1 and/or 2 Only)
- 15 = Toggle On / Toggle Off

The output polarity programs how the output will operate. Only one option (0 – 15) can be programmed per output. See the Output Polarity description for more detailed information.

- 1) **Enter your Installer PIN + [MENU].**
- 2) **Enter [4] + [1] + [3] + [OK], then enter the output number, then press [OK]. The keypad will display the current output polarity.**



- 3) **Use the numeric keys and enter the Output Polarity required then press [OK] to save and exit or press [MENU] to exit without saving.**

### **Normally Open Going Low**

Output is normally open circuit and switches to GND when the event occurs. The output will reset when the output event restores. Time parameters do not apply to this polarity type.

### **Normally Open Going Low With Pre Delay**

Output is normally open circuit and switches to GND when the event occurs provided the time parameter has expired. The output will reset when the output event restores. Time parameters will only set the Pre Delay when this polarity is selected.

### **Normally Open Latching Low**

Output is normally open circuit and will switch to zero volts when the event occurs. The output can only be reset manually using the Output Command Menu.

### **Normally Open Pulsing Low**

Output is normally open circuit and will pulse LOW when the event occurs. The output will reset when the output event restores. Use the Time Parameter to set the pulse duration.

### **Normally Open One Shot Low**

Output is normally open circuit and switches to GND when the event occurs. The output will only reset when the time specified in the Time Parameter expires. The output will run for the full duration and cannot be manually reset.

### **Normally Open One Show Low + Retrigger**

Output is normally open circuit and switches to GND when the event occurs. The output will retrigger each time the event occurs. The output will reset when the one shot time has expired.

This polarity is ideally suited for security lighting control. A sensor can be used to trigger an output event and then each time the sensor triggers, the output will operate. The light will turn off when the one shot timer expires.

### **Normally Open One Shot Low + Reset**

Output is normally open circuit and will switch to GND when the event occurs. The output will reset when the

one shot timer expires or when the event has restored. This means the operation of the output can be shortened based on the event and or the programmed time parameter.

### **Normally Low Going Open**

Output is normally GND and will switch to open circuit when the event occurs. The output will reset when the output event restores. Time parameters do not apply to this polarity type.

### **Normally Low Going Open With Pre Delay**

Output is normally GND and will switch to open circuit when the event occurs provided the time parameter has expired. The output will reset when the output event restores. Time parameters will only set the Pre Delay when this polarity is selected.

### **Normally Low Latching Open**

Output is normally GND and will switch to open circuit when the event occurs. The output can only be reset manually using the output Command Menu.

### **Normally Low Pulsing Open**

Output is normally LOW and will pulse OPEN when the event occurs. The output will reset when the output event restores. Use the Time Parameter to set the pulse duration.

### **Normally Low One Shot Open**

Output is normally LOW and will switch to open circuit when the event occurs. The output will only reset when the time specified in the Time Parameter expires. The output will run for the full duration and cannot be manually reset.

### **Normally Low One Show Open + Retrigger**

Output is normally LOW and will switch to open circuit when the event occurs. The output will retrigger each time the event occurs. The output will reset when the one shot time has expired.

### **Normally Low One Shot Open + Reset**

Output is normally LOW and will switch to open circuit when the event occurs. The output will reset when the one shot timer expires or the event has restored. This means the operation of the output can be shortened based on the event and or the programmed time parameter.

### **Horn Speaker (Output 1 or 2 Only)**

This polarity can only be used for Output 1 and Output 2 when a horn speaker has been connected.

### **Toggle On / Toggle Off**

This polarity allows the output to turn on when the event occurs. The output will toggle off when the event occurs again. This polarity does not follow any time parameters.

## TIMED OUTPUTS

Outputs > Properties >

Time Parameter

L 4 14

MENU 4-1-4

0 0 0	0 0 0	0 0 0	0 0 0
Hour	Minute	Seconds	10 <sup>th</sup> Sec

The time base parameter is only applicable for output types that are programmed as one shot or pulsing. Program 0 to 255 for each of the units (Hour, Minute, Seconds and 10th of a Second) for the time parameter. If required, add the units together to give the total one shot time or pulsing on/off time.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [4] + [1] + [4] + [OK], then select the output you want to program and press [OK].
- 3) Using the numeric keys, enter the length of time in hours, minutes, seconds and 10th of seconds as required. You can use the left and right arrow keys to move between screens if no data change is required.



Enter the number of hours (000 to 255).



Enter the number of minutes (000 to 255).



Enter the number of seconds (000 to 255).



Enter the number of 10th seconds (000 to 255).

- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

### One Shot Mode

The time base is the length of time that the output will operate. For Example you may want a strobe output to operate for 1 hour, Either of the examples below will achieve the 1 hour time.

Total Time	Hour	Minute	Seconds	10th Sec
60 Minutes	001	000	000	000
60 Minutes	000	060	000	000

Table 29: Example - Output One Shot Timer

### Pulsing Mode

The time base is the unit of time that the output will pulse on and off. If the time base is programmed for 60 seconds, the output will pulse on for 60 seconds and then off for 60 seconds (repeat) until the output is reset.

Outputs > Properties >

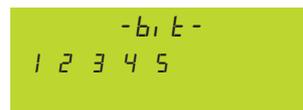
Output Options

L 4 15

MENU 4-1-5

1	Do Not Operate On Low Battery	Y
2	Display Overload	Y
3	Report Overload	Y
4	Display Device Fail	Y
5	Report Device Fail	Y
6	Alarm On Device Fail	N
7	Block If Armed All On	N
8	Display Output Status On Keypad	N

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [4] + [1] + [5] + [OK], then enter the output number you want to program and press [OK].
- 3) Use the numeric keys [1] to [8] to toggle in or off the option required.



- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Do Not Operate Output On Low Battery

This option forces the control panel not to operate the output when a low battery or missing battery condition is in effect. Once the low battery condition restores, the output will return to normal operation.

### Display Output Overload

This option allows the keypad to display a trouble condition when output current exceeds its maximum limit.

### Report Output Overload

This option allows the panel to send an Output Overload report when the output current exceeds its maximum limit. A restore report will be sent when the current overload condition no longer exists.

### Display Missing Output Device

This option allows the panel to display a trouble condition when it detects that the output device is missing. The trouble condition will clear when the output device has been restored.

### Report Missing Output Device

This option causes the panel to send an Output Trouble report when it detects that the output device is missing. A restore report will be sent when the when the output device is reconnected.

### Alarm When Missing Output Device

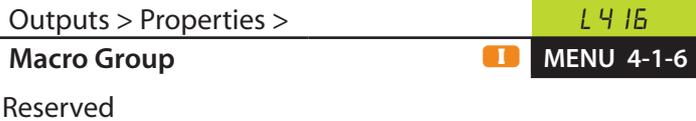
This option causes the panel to sound an alarm when the output device becomes missing.

### Block If Armed All On

This option prevents the output from turning on when the corresponding area is turned All On. When the area is off, Part On or Part 2 On, the output can again operate when the output event occurs.

### Display Output Status On Keypad

This option allows the keypad to display the output that is currently active on the keypad.



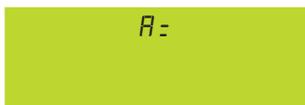
## OUTPUT TESTING



This menu allows you to test the external sirens which have been connected to the system. The test will last for 5 seconds.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [4] + [9] + [0] + [OK].

If your system has been configured to have more than one area, the keypad will display the A = prompt.



- 3) Enter the Area number in which to test the external sirens in and then press [OK].



The keypad will display 'Siren' and the alarm icon

during the audible 3 second siren test.



This menu allows you to test any internal sirens which have been connected to the system. The test will last for 3 seconds.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [4] + [9] + [1] + [OK].

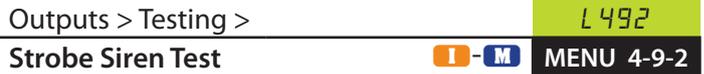
If your system has been configured to have more than one area, the keypad will display the A = prompt.



- 3) Enter the Area number in which to test the internal sirens in and then press [OK].



The keypad will display 'Bell' and the alarm icon during the audible 3 second internal siren test.



This menu allows you to test the external strobe lights fitted to the system. The test will last for 1 minute.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [4] + [9] + [2] + [OK].

If your system has been configured to have more than one area, the keypad will display the A = prompt.



- 3) Enter the area number in which to test the strobe lights in and then press [OK].



During the 60 second strobe test, the keypad will display both the word 'Strobe' and also the alarm icon.

**OUTPUT EVENT TYPES**

0 = Disabled					
1 = Battery Trouble	P	26 = Entry Time	A	51 = Senior Watch	A
2 = AC Trouble	P	27 = Exit Time	A	52 = Exit Error	A
3 = Telephone Line Trouble	P	28 = End Of Exit Time	A	53 = RF Key Fob Function 1	A
4 = Comm Fail – Destination 1 / 2	P	29 = Chime On	A	54 = RF Key Fob Function 2	A
5 = Third Dialler Attempt	P	30 = Chime Zone Triggered	A	55 = Output Pre-Alert	A
6 = Destination 1 Reporting	P	31 = Auto Arm Pre-Alert	A	56 = Follow PIN	U
7 = Destination 2 Reporting	P	32 = Ready To Arm All On	A	57 = Part Entry Time	A
8 = Destination 1 or 2 Kiss Off	P	33 = Ready To Arm Part On	A	58 = Time Schedule	S
9 = Destination 1 Kiss Off	P	34 = Ready To Arm Part 2 On	A	59 = Temperature Alarm	K
10 = Destination 2 Kiss Off	P	35 = Closing Report Sent OK	A	60 = Access Group	G
11 = Dialler Disabled	P	36 = External Siren (Spk Beeps)	A		
12 = Horn Speaker Missing	P	37 = Internal Siren (Spk Beeps)	A		
13 = Output Trouble	O	38 = Alarm Any (Silent or Audible )	A		
14 = Panel On Line	P	39 = Fire Alarm	A		
15 = Incoming Call	P	40 = Burglary Alarm	A		
16 = System Trouble	P	41 = Silent Alarm	A	(A) = Area Event Assignment	
17 = Box Tamper	P	42 = Duress Alarm	A	(P) = Panel Event Assignment	
18 = Zone Trouble	Z	43 = Keypad Medical	A	(O) = Output Event Assignment	
19 = Zone Mirror	Z	44 = Keypad Fire	A	(Z) = Zone Event Assignment	
20 = Zone Alarm	Z	45 = Keypad Panic	A	(U) = User Event Assignment	
21 = Area Disarmed	A	46 = Device Tamper	A	(S) = Schedule Event Assignment	
22 = Area Armed (Any)	A	47 = Access Denied	A	(G) = Access Group Event Assignment	
23 = Area All On	A	48 = Strobe	A	(K) = Keypad	
24 = Area Part On	A	49 = Smoke Sensor GND	A		
25 = Area Part 2 On	A	50 = Sensor Watch	A		

Table 30: Output Event Types

**OUTPUT DEFAULT TABLE**

The table below list the default values for all Output parameters in the Solution 16i. Outputs 1 to 3 are High current digital outputs and Output 4 is the onboard relay output. Outputs 5 to 8 are only available if the optional Output Relay Expander Boards (CM110) are fitted. Options marked N/A = Not Applicable.

Programming Option	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8
<b>Output Name</b>	External Siren	Strobe Light	Smoke Sensor PWR	Internal Siren	Output 5 Name	Output 6 Name	Output 7 Name	Output 8 Name
<b>Event Type</b>	36 (External Siren)	48 (Strobe)	49 (Smoke Sensor GND)	37 (Internal Siren)	0	0	0	0
<b>Event Assignment</b>	0	0	0	0	0	0	0	0
<b>Output Polarity</b>	14	6	11	6	0	0	0	0
<b>Time Parameter</b>								
<b>N° Of Hours</b>	000	008	000	000	000	000	000	000
<b>N° Of Minutes</b>	005	000	000	005	000	000	000	000
<b>N° Of Seconds</b>	000	000	010	000	000	000	000	000
<b>N° Of 1/10 Seconds</b>	000	000	000	000	000	000	000	000
<b>Output Options</b>								
<b>Do not Operate If Low Battery</b>	Y	Y	Y	Y	N	N	N	N
<b>Display Output Overload</b>	Y	Y	Y	Y	N/A	N/A	N/A	N/A
<b>Report Output Overload</b>	Y	Y	Y	Y	N/A	N/A	N/A	N/A
<b>Display Missing Output Device</b>	Y	N	N	N	N/A	N/A	N/A	N/A
<b>Report Missing Output Device</b>	Y	N	N	N	N/A	N/A	N/A	N/A
<b>Alarm On Device Fail</b>	N	N	N	N	N/A	N/A	N/A	N/A
<b>Block Output If Armed All On</b>	N	N	N	N	N	N	N	N
<b>Display Status On Keypad</b>	N	N	N	N	N	N	N	N

Table 31: Output Default Table

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# Comms Programming

## COMMS PROGRAMMING COMMANDS

Comms > Commands >

SET - Ph

Domestic Number

I - M

MENU 5-0-0

The Solution 16i has a built in dialler that connects directly to a standard PSTN telephone line. To program the dialler you must set the telephone number to dial and then the reporting format to send the information in.

The command menu allows you to set the Domestic Numbers, initiate a Solution Link Upload / Download session, turn on/off call forwarding.

There are two independent reporting routes that define where a reportable event should be sent, by default all events will report through route 1. Reportable events in the system are categorised into Alarm, System, Emergency, Open/Close and Test. This means that you are able to steer these different event categories to different report routes. A report route is just like an independent dialler, it has its own primary and secondary telephone numbers and reporting format.

### Example: Route 1 = CID, Route 2 = SMS

If you set the reporting route for Open/Close as Route 2 and all other events to Route 1, then all reports will be sent to route 1 in Contact ID format and then all open close reports will be sent through SMS. This is very handy if you want to monitor what time your children come home from school or cleaners entering or leaving your premises.

Telephone numbers can be 32 digits long and characters 0-9\*# and , are supported with the comma representing a 2 second pause. Destination route 1 and route 2 both have their own Primary and Secondary telephone numbers, Domestic reporting has 3 telephone numbers and remote access has one call back number.

There are two back to base monitoring formats called CID and SIA, both formats are all predefined so the system will always send the same reporting code for the same event. The type of zone selected under zone type automatically determines the reporting code to the base station. If a zone is defined as Medical then when it goes into alarm the report will be Medical Alarm, if a zone is programmed as a Fire zone then the report will automatically be Fire Alarm.

Domestic reporting allows the control panel to send reports to 3 different personal telephone numbers (eg. mobile telephone numbers). Each telephone number has a maximum of 32 digits.

A telephone call needs to be acknowledged by the user that answers the incoming call by pressing [#] on their telephone. If the user fails to acknowledge the call, the control panel will make another attempt to report until the maximum number of call attempts are reached.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [5] + [0] + [0] + [OK].

If the control panel is not configured to report via domestic format, the keypad will display the following:

If the control panel has been configured to report via domestic format, the keypad will display information for telephone number 1.

- 3) Using the numeric keys, enter all of the digits of the first telephone number that the control panel will call.

You can change a single digit by scrolling the cursor left [←] and right [→]. For special characters (eg. Pause = P, A = \*, H = # etc), use the [↑] and [↓] keys.

To clear or delete all numbers from the current cursor position to the right, press the [OFF] key.

4) Press [OK] to program telephone number 2.



5) Using the numeric keys, enter all of the digits of the second telephone number (if required).

6) Press [OK] to program telephone number 3.



7) Using the numeric keys, enter all the digits of the third telephone number (if required).

8) Press [OK] to save and exit, or press [MENU] to cancel.



**Domestic** reporting must be programmed by your installer or this location will not be available.



This menu allows you to initiate a modem call to the installer's off-site computer for programming changes and updates or to remotely service and configure your system.

- 1) Enter your PIN + [MENU].
- 2) Enter [5] + [0] + [1] + [OK].



This menu allows you to turn on and off the call forward feature. When you turn on call forwarding, the control panel will automatically activate and de-activate the call forward on and call forward off sequence accordingly when you turn your system All On and Off.

For this feature to work you will need to also program the Call Forward On and Call Forward Off Numbers as detailed later in this section.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [5] + [0] + [2] + [OK].  
If call forwarding is off, the keypad will display:



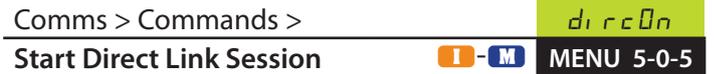
If call forwarding is on, the keypad will display.



- 3) To turn Call Forwarding On, press the [ON] key or press the [OFF] key to turn call Forwarding off.
- 4) Press [OK] to exit.



See MENU 5-1-6 and MENU 5-1-7 to program the Call Forward ON and Call Forward OFF number sequence.



This menu allows the master user to start a direct link session without the need for the installer to press and hold the default button.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [5] + [0] + [5] + [OK].



Once the computer and the control panel establishes a connection, the keypad will automatically return to the normal state.



This menu allows the master user to record their own customised greeting and zone description message that will be played back to users that are programmed to receive domestic telephone calls from the alarm system.

These messages should be clear enough so that the user receiving the telephone call from the control panel can then take the appropriate action.

This feature requires an optional voice module to be fitted to the control panel by your installer. Additional programming information is included with the voice module.



This feature requires firmware version 2.10 or higher.

## PHONE NUMBER PROGRAMMING

Comms &gt; Telephone Number &gt;

L 5 10

Number Prefix

1 MENU 5-1-0

1	Digits							32

The number prefix allows you to program the customer account number and pass code (PIN) to access the telephone line exchange when using a pre-paid telephone account (e.g. Telstra Communic8 Pre-Paid Home account), or when a number followed by a pause is required to get an outside line on a PABX system.

The number prefix is global for all telephone numbers programmed in both Destination 1 and Destination 2 (including the domestic telephone numbers and call forward sequences). the prefix will be dialled immediately before the number.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [1] + [0] + [OK]. The keypad will display the current Telco Number Prefix.



- 3) Using the numeric keys, enter all the digits of the telephone number prefix. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, \* or #, use the up and down arrow keys.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Comms &gt; Telephone Number &gt;

L 5 11

Primary Dest 1

1 MENU 5-1-1

1	Digits							32

This menu sets the primary telephone number for Report Destination 1. This will typically be the primary base station receiver number.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [1] + [1] + [OK]. The keypad will display the current Primary Telephone Number for Destination 1.



- 3) Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, \* or #, use the up and down arrow keys.

- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Comms &gt; Telephone Number &gt;

L 5 12

Secondary Dest 1

1 MENU 5-1-2

1	Digits							32

This menu sets the secondary telephone number for Destination 1. This will typically be the secondary base station receiver number.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [1] + [2] + [OK]. The keypad will display the current Secondary Telephone Number for Destination 1.



- 3) Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, \* or #, use the up and down arrow keys.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Comms &gt; Telephone Number &gt;

L 5 13

Primary Dest 2

1 MENU 5-1-3

1	Digits							32

This menu sets the primary telephone number for Report Destination 2. This will typically be the primary base station receiver number.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [1] + [3] + [OK]. The keypad will display the current Primary Telephone Number for Destination 2.





The default sequence *FB 1P20H* is explained below. You should modify this sequence to suit your particular requirements or ask your installer to configure for you.

*FB 1* = (Turn Call Forward On – No Answer).

*P* = (2 Second Pause).

*20H* = (Delay Call Forward sequence for 20 seconds).

3) **Using the combination of numeric keys and [↑] and [↓] keys to program special characters, enter all the digits of the call forward on sequence.**

You can change a single digit by moving the cursor position using the [←] and [→] keys.

**Example:**

For the control panel to initiate the sequence of forwarding all calls immediately to the telephone number 0212345678, a sequence of *F2 02 123456 78H* would be programmed.

4) **Press [OK] to save and exit, or press [MENU] to exit without saving.**



For more information on how to use the Call Forwarding features contact your telephone service provider or your installer.

When programming telephone numbers the following symbols have a special meaning or function.

*F* = \*

*H* = #

*P* = Pause (2 second)

Comms > Telephone Number >

*c FDFPh*

Call Forward Off

**I** - **M**

**MENU 5-1-7**

1	Digits						32
#	6	1	#				

When you enter your premises, you no longer need to remember to manually disable the Call Forward feature via the telephone. This option allows you to program the Call Forward Off sequence that the control panel will automatically use when you turn Area 1 'Off'.

In Australia, a typical sequence of activating the Call Forward Off feature is described below:

**Call Forward Off All Calls -**

**Immediate**

[\*][2][1] [#]

or

**If No Answer**

[\*][6][1] [#]



For other countries please substitute the appropriate commands after consultaion with your telephone company.

1) **Enter your Installer PIN or Master PIN + [MENU].**

2) **Enter [5] + [1] + [7] + [OK].**

The keypad will display the current call forward off sequence.



The default sequence *FB 1H* is explained below. You should modify this sequence to suit your particular requirements or ask your installer to configure for you.

*FB 1* (To turn Call Forward With No Answer Off).

*H* (End of Call-Forward sequence)

3) **Using the combination of numeric keys and [↑] and [↓] keys to program special characters, enter all the digits of the call forward off sequence.**

You can change a single digit by moving the cursor position using the [←] and [→] keys.

For special characters (eg. *P* = pause, *F*=\* or *H*=# etc), use the [↑] and [↓] keys.

4) **Press [OK] to save and exit, or press [MENU] to exit without saving.**

**COMMS PROPERTIES**

Comms > Properties >

*L 520*

Call Attempt Count

**I**

**MENU 5-2-0**

0	6
---	---

This menu programs the maximum number of call attempts the panel will make per destination in order to deliver the report signal.

At factory default, the maximum number of call attempts per event is 6 when reporting to a single destination and 12 attempts when reporting to 2 destinations. (6 attempts per destination)

Domestic dialling also follows the call attempt count. However, the call attempt count will be spread over total phone numbers programmed for domestic reporting, ie. if three domestic telephone numbers are programmed and the call attempt count is 6, the panel will dial telephone number 1, telephone number 2 and telephone number 3, then repeat once giving a total of 6 attempts). if the call is acknowledged no further calls will be made for that event.

1) **Enter your Installer PIN + [MENU].**

2) **Enter [5] + [2] + [0] + [OK]. The keypad will display the current number of call attempts per destination. (Default = 6).**

d = 06

- 3) Using the numeric keys, enter the required number of call attempts per destination. Valid entries are 1 to 15. 0 = reporting disabled.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.



Setting the Call Attempt count to zero will disable all reporting for Destination 1 and Destination 2

Comms &gt; Properties &gt;

L521

**Dialler Options**

MENU 5-2-1

1	Dialler Enabled	Y
2	Pulse Dialling	N
3	Dial Tone Detect	Y
4	Busy Tone Detect	N
5	Mirror Reports To Web	Y
6	Extend Handshake Wait Period To 1 Minute	N
7	Reserved	N
8	Abort Failed Reports	Y

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [2] + [1] + [OK]. The keypad will display the current Dialler Options.

- b i t -  
1 3 5 8

- 3) Use the numeric keys [1] to [8] to toggle on or off the option required.
- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

**Dialler Enabled**

This option enables the dialler reporting function. When disabled, all dialler reporting will stop.

**Pulse Dialling**

This option will configure the panel to use pulse or decadic dialling rather than tone or DTMF dialling. DTMF dialling should always be used unless the telephone network you are communicating on does not support it.

**Dial Tone Detect**

This option configures the panel to start dialling as soon as it detects dial tone on the line. This can speed up the dialling process by up to 3 seconds. If no tone is detected the panel will blind dial after 4 seconds.

If this option is disabled the panel will blind dial.

**Busy Tone Detect**

This option configures the panel to detect busy tone. If a busy tone is detected during the dialling sequence, the panel will immediately hang up and move on to the next number in the sequence in an attempt to get the report through as quickly as possible.

If this option is disabled, the panel will wait for a period of 30 seconds before dialling the next telephone number in the sequence. The 30 second timer starts when the first digit of the first telephone number is dialled.

**Mirror Reporting To WEB Email**

Reserved.

**Extend Handshake Wait Period To 1 Minute**

This option sets the panel to wait for up to 60 seconds to receive a valid handshake signal from the base station receiver. The handshake tone indicates to the panel that it has reached the security company's base station receiver and can now send its pending reports.

If this option is disabled the handshake wait time will default to 30 seconds.

**Abort Failed Reports**

Setting this option will cause a failed report to be flagged in the log and no further reports will be made for that event.



A report will be failed if the number of programmed dial attempts has been reached.

Comms &gt; Properties &gt;

L522

**Phone Line Options**

MENU 5-2-2

1	Display Telephone Line Fail	Y
2	Report Telephone Line Fail	Y
3	Alarm On Line Fail If Armed	N
4	Alarm On Line Fail If Disarmed	N
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Display Phone In Use	N

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [2] + [2] + [OK]. The keypad will display the current Phone Line Options.

- b i t -  
1 2

- 3) Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.
- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Display Telephone Line Fail

This option sets the panel to display a trouble signal on the keypad display when the panel detects a telco line fail condition.

### Report Telephone Line Fail

This option sets the panel to send a line fail report when it detects a telco line fail condition. If configured, the panel is able to report this signal via an alternative reporting method such as the GSM cellular network.

If no alternative route exists then the panel will send the signal and restore when the PSTN line is reconnected.

### Alarm On Telephone Line Fail If Armed

This option sets the panel to trigger an alarm when the telco line fails provided that the area is turned All On or Part On. In a multi-area system this option is global and will be triggered if only one area in the system is in the armed state. The alarm will continue to sound until a valid PIN is entered or the siren timer expires.

### Alarm On Telephone Line Fail If Disarmed

This option sets the panel to trigger an alarm when the telco line fails provided that the area is turned OFF or disarmed. In a multi-area system this option is global and will be triggered if only one area in the system is in the disarmed state. The alarm will continue to sound until a valid PIN is entered or the siren timer expires.

### Display 'Phone In Use'

This option allows the keypad to display Phone In Use when the telephone line has been looped by the control panel for either incoming or outgoing calls. If this option is disabled, no indication is provided on the keypad.



*The dialler status indicator LED located on the main panel will always show the status of the dialler. See Section 3 - Wiring Diagrams for more information.*

Comms > Properties >

L523

Country

I MENU 5-2-3

(\*\* System Wide Parameter \*\*)

0 1

01 = Australia	06 = Spain	11 = Bulgaria
02 = New Zealand	07 = Portugal	12 = China
03 = Italy	08 = Hungary	13 = Hong Kong
04 = Greece	09 = Czech Republic	14 = Malaysia
05 = Cyprus	10 = Poland	15 = Brazil

This menu automatically sets the dialling parameters including dial and busy tones etc. for the country the panel is working in.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [2] + [3] + [OK]. The keypad will prompt you to enter the country required. The default country is Australia.
- 3) Use the numeric keys [0] to [9] to select the appropriate country, then press [OK].



- 4) Press [OK] to confirm and save and exit or press [MENU] to exit without saving.



*For correct dialler operation, you must make sure that the correct country selection is made for your location. If your country is not listed here please contact your Digiflex distributor.*

Comms > Properties >

L527

Set SMS Password

I MENU 5-2-7

p a s s w d

This menu sets the SMS password which is required whenever SMS reporting is selected. The password will typically be defined by the service provider or Telco carrier who you are using to route the message.

By default the SMS password is set to suit the Telstra Network in Australia.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5]+[2]+[7] + [OK]. The keypad will display the current SMS password.
- 3) Use the arrow and number keys to move and change text. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.



- 4) Press [OK] to confirm and save and exit or press [MENU] to exit without saving.

**Note** See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.



This menu sets the call back telephone number which can be used to establish a Solution Link RAS connection to the panel for remote programming. The remote computers modem should be connected to this number and Solution Link should be set to wait for an incoming call.

The installer or customer can force the panel to dial this number by entering MENU 5-0-1.

For higher security the panel can be configured to always use this number for callback verification when establishing a Solution Link remote access connection. The following steps outline the callback procedure.

- Step 1)** Use Solution Link RAS to call panel from remote computer.
- Step 2)** Panel will answer, acknowledge the request and then hang up.
- Step 3)** Panel will then dial the callback number.
- Step 4)** Solution Link will answer the call and establish a RAS session.

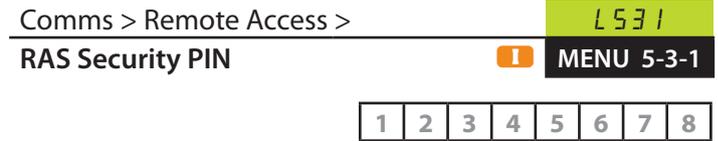
**Note** See MENU 5-3-4 to force Callback Verification for every RAS Session.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [3] + [0] + [OK]. The keypad will display the current Call Back telephone number if programmed.



- 3) Using the numeric keys [0] to [9], enter all the digits of the Call Back number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, \* or #, use the up and down arrow keys.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

**Note** You must add any area codes or other special access numbers which are required to be able to dial the remote computer from the panel phone line. Simply add these numbers before the Call Back number.

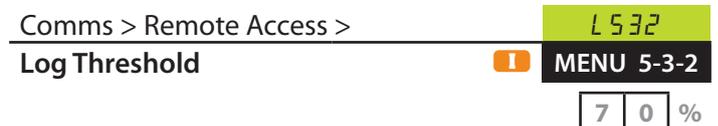


The RAS security PIN programmed here must match the security PIN programmed in the customer file of the Solution Link RAS upload/download database otherwise a connection to the panel cannot be established.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [3] + [1] + [OK]. The keypad will display the current RAS Security PIN. The default = 12345678.



- 3) Using the numeric keys, enter all the digits of the new RAS security PIN. You can change a single digit by scrolling the cursor left or right.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.



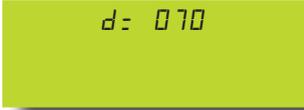
The control panel can store up to 256 system events in its built in history log. A newly installed panel will have 100% of its log space available for new events (0% full). As the panel starts to store events in the log, the capacity for new events is reduced. The history log is 100% full when event 256 is stored in memory. Event 257 will start to overwrite the oldest events in the log.

When the Log Threshold option is programmed, the panel will send a 'Log Threshold' report to the base station when the event log reaches the percentage as set since the last Solution Link session.

If the event log reaches 100% capacity before a Solution Link RAS session is established then the system will send a

'Log Overflow' report. The panel will also log these events in its memory.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [3] + [2] + [OK]. The keypad will display the current threshold limit. The default is 70% full.



d= 070

- 3) Using the numeric keys enter the new threshold limit, then press [OK] to save and exit or press [MENU] to exit without saving. There is no need to enter the % symbol.



Each time a Solution Link RAS session is established with the panel, the log information will be uploaded to the Solution Link database where it can be reported on or archived for later use

Comms > Remote Access >

L533

Ring Count

**I** MENU 5-3-3

00 = No Answer

2 0

01 to 30 = Answer Ring Count

This menu sets the number of rings the panel will wait until answering an incoming call. Programming a zero will stop the panel from answering any incoming calls.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [3] + [3] + [OK]. The keypad will display the current ring count.



d= 020

- 3) Use the numeric keys to enter the required ring count, then press [OK] to save and exit or press [MENU] to exit without saving.



If answering machine bypass is required to allow a Solution Link connection to be made without the answering machine answering the call, see MENU 5-3-4 — Solution Link RAS Options

Comms > Remote Access >

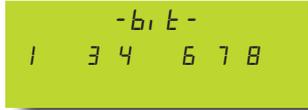
L534

Solution Link RAS Options

**I** MENU 5-3-4

1	RAS Allowed	Y
2	Call Back Verification Required	N
3	Terminate RAS on Alarm	Y
4	Answer Machine Bypass	Y
5	Answer Incoming Call Only If Armed	N
6	Tone Bypass	Y
7	Allow User Functions Via Remote Access Software	Y
8	Report / Log RAS Start / End Sessions	Y

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [3] + [4] + [OK]. The keypad will display the current RAS options.



- b, t -  
1 3 4 6 7 8

- 3) Use the numeric keys [1] to [8] to toggle on or off the option required.
- 4) Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.

### RAS Allowed

This option allows you to configure the panel via the Solution Link RAS upload/download software using a PC.

There are two different methods of connection available;

- 1) Direct Connect – via serial cable.
- 2) Remote Connect – via telephone line.



See Direct Link and Solution Link RAS Upload/Download programming in Section 5 — Programming Overview for more information.

### Call Back Verification Required

Setting this option will force the panel to use call back verification for all remote Solution Link RAS sessions. See MENU 5-3-0 — Call back Number for more information.

### Terminate RAS On Alarm

If this option is programmed, the RAS connection between the panel and the remote upload / download computer will be terminated if panel registers an alarm that needs to be reported.

### Answer Machine Bypass

Answering machine bypass allows you to establish a RAS connection to a panel when there is an answering machine or facsimile machine connected on the same telephone line.

- 1) **Using Solution Link call the panel and let the phone ring no more than 4 times before hanging up.**
- 2) **Wait a minimum of 8 seconds (but no more than 60 seconds) before calling the panel again. This time the panel will answer the incoming call as soon as it registers the first ring and the connection will be established.**

### Answer Incoming Call Only If Armed

Setting this option will prevent the panel from answering an incoming call unless at least one area on the system is armed. If all areas are off the panel will not answer the call. This option would be useful in a busy office when due to the large volume of incoming calls answering machine bypass may not be effective.

### Tone Bypass

It is often difficult to establish a remote connection to a panel if the customer picks up the phone or if a fax or answering machine answers the call before the panel does.

While the ultimate solution to this problem is the use the CLI Intelliconnect method, this requires the customer to enable CLI via their telco provider.

When enabled, the new Tone Bypass option (MENU 5-3-4) tells the panel to listen to every answered call and to look for a specific sequence of DTMF tones.

The tone sequence will be sent by the remote programming software and when the panel recognises them, it will immediately seize the line away from the answering party and the programming session will commence.

### Remote Program Editing Only When Disarmed

Setting this option will prevent a Solution Link RAS connection to the panel while any are is armed.

### Allow 'User Functions' Via Remote Access Software

Setting this option allows access to user functions via the RAS upload/download software. If this option is not programmed, user functions will be disabled.

### Report RAS Start / End Sessions

Setting this option will cause the panel to report the start and end of RAS programming sessions in the history log and SMS reporting messages.

Comms &gt; Remote Access &gt;

L535

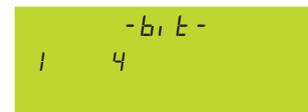
### DTMF Options



MENU 5-3-5

1	DTMF Arming	Y
2	DTMF Disarming	N
3	DTMF User Functions	N
4	DTMF Quick Arm ([0] + [#])	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

- 1) **Enter your Installer PIN + [MENU].**
- 2) **Enter [5] + [3] + [5] + [OK]. The keypad will display the current DTMF options.**



- 3) **Use the numeric keys [1] to [8] to toggle on or off the option required.**
- 4) **Repeat Step 3 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

### DTMF Arming

Setting this option enables user to remotely arm one or more areas on the panel using their PIN and a touch tone phone. This option requires the Solution Interactive Voice module to be fitted.

### DTMF Disarming

Setting this option enables users to remotely disarm one or more areas on the panel using their PIN and a touch tone telephone. This option requires the Solution Interactive Voice module to be fitted.

### DTMF User Functions

Setting this option enables access to user DTMF functions using their PIN and a touch tone telephone. This option requires the Solution Interactive Voice module to be fitted.

### DTMF Quick Arm

Setting this option allows users and control room operators to remotely arm the system using a touch tone phone without the need for a PIN.

To arm the system call the number which the panel is connected to and when the panel answer you will here 3 beeps in ascending frequency if the panel is in the disarmed condition. Press [0] + [#] to arm. You will hear 3 beeps in descending order when the panel arms.



All areas on the system will be armed regardless of there condition when using the DTMF quick arm function.

## DTMF CONTROL FUNCTIONS

Version V1.10 and higher includes comprehensive DTMF control of individual areas and outputs with full user PIN and timer group access verification.

Unlike other systems, no additional hardware or modules are required for DTMF control. To configure the desired functions see MENU 5-3-5 DTMF Options.

### How to Use DTMF Control

- 1) **Once the panel answers the incoming call, if either option 1, 2, 3 or 4 in MENU 5-3-5 is enabled, then the panel will play a short welcome jingle. You now have approximately 5 seconds to enter a valid PIN and log onto the panel.**
- 2) **Enter PIN followed by the [#] key. If the PIN is valid the system will respond with two short beeps. If the PIN is invalid then a single long beep will be heard.**

If a valid PIN is not entered in time, the panel will attempt to establish a modem connection as if connecting to the Solution Link software.

If this happens you will need to hang up for approximately 60 seconds before trying again.

- 3) **Once validated, the following commands can be performed outlined in Table 11.**

If no keys are pressed for 20 seconds or the user presses [#] [#], the control panel will play the exit jingle and terminate the session.

DTMF CONTROL FUNCTIONS		
Operation	Command	Response
Quick Arm All Areas	[0] + [#]	2 x Beeps
Log In OK	[PIN] + [#]	Welcome Jingle
Log In Failed	[Invalid PIN] + [#]	Long Beep
Turn Area All On	[1] + [Area N°] + [1] + [#]	2 x Beeps (Low - High)
Turn Area Off	[1] + [Area N°] + [2] + [#]	2 x Beeps (High - Low)
Turn Output On	[2] + [Output N°] + [1] + [#]	2 x Beeps (Low - High)
Turn Output Off	[2] + [Output N°] + [2] + [#]	2 x Beeps (High - Low)
End Session	[#] + [#]	Exit Jingle

Table 32: DTMF Remote Control Functions

### DTMF EXAMPLES

Each example below shows the log on step for clarity. In practise is only necessary to log on once per DTMF control session.

**To log on and turn Area 1 All On, enter the following:**

[2] [5] [8] [0] + [#] = Log ON

[1] + [1] + [1] + [#] = Arm Area 1

**To log on and turn Output 8 on, enter the following:**

[2] [5] [8] [0] + [#] = Log ON

[2] + [8] + [1] + [#] = Turn Output 8 ON

**To log on and turn Output 6 off, enter the following:**

[2] [5] [8] [0] + [#] = Log ON

[2] + [6] + [2] + [#] = Turn Output 6 OFF



If the DTMF Quick Arm option is enabled then it is possible to remotely turn on all areas without logging onto the panel. Simply enter [0] + [#] following the welcome jingle.

Make sure that the telephone being used to remotely control the panel is set to transmit DTMF tones when keys are pressed during the call. This option is disabled by default on some telephones.



- 12) Using the numeric keys, enter all the digits for CLI number 3. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, \* or #, use the up and down arrow keys.
- 13) Press [OK] to save CLI number 3.
- 14) When finished Press [OK] to save and exit or press [MENU] to exit without saving.



Up to 3 Phone numbers can be entered for CLI Call Line Identification for remote access detection. You must enter STD code plus the complete number for this option to work. Press [OK] after each telephone number is entered to save and move to the next number.

## REPORTING OPTIONS

Comms > Dialler Reporting > L 540

---

**TX Format Dest 1** I MENU 5-4-0

00 = Disable		0 1
01 = Contact ID	07 = Domestic	
02 = SIA	08 = Voice	13 = Reserved
03 = Serial STU	09 = SIA +	14 = SMS - No Parity
04 = GSM	10 = Reserved	15 = Reserved
05 = WEB MAIL	11 = Reserved	
06 = SMS	12 = Ethernet	

This menu allows you to program the transmission format or language the panel will use to send event reports to Destination 1. The panel has two separate destinations that reports can be sent to and each one can be set to use a different transmission format depending on the application.

At factory default, all reports are routed to Destination 1.

- 1) Enter your Installer PIN + [MENU].
- 2) Press [5] + [4] + [0] + [OK]. The keypad will display the current Transmission Format for Destination 1.



- 3) Use the numeric keys to enter the Transmission Format required then Press [OK] to save and exit or press [MENU] to exit without saving.

Comms > Dialler Reporting > L 541

---

**TX Format Dest 2** I MENU 5-4-1

00 = Disable		0 1
01 = Contact ID	07 = Domestic	
02 = SIA	08 = Voice	13 = Reserved
03 = Serial STU	09 = SIA +	14 = SMS - No Parity
04 = GSM	10 = Reserved	15 = Reserved
05 = WEB MAIL	11 = Reserved	
06 = SMS	12 = Ethernet	

This menu allows you to program the transmission format or language the panel will use to send event reports to Destination 2.

At factory default, all reports are routed to Destination 1.

- 1) Enter your Installer PIN + [MENU].
- 2) Press [5] + [4] + [1] + [OK]. The keypad will display the current Transmission Format for Destination 2.



- 3) Use the numeric keys to enter the Transmission Format required, then Press [OK] to save and exit or press [MENU] to exit without saving.

Comms > Dialler Reporting > L 542

---

**Test Route** I MENU 5-4-2

(\*\* System Wide Parameter \*\*)

00 = Report Events To Log Only		0 1
01 = Report Events To Destination 1 + Log		
02 = Report Events To Destination 2 + Log		
03 = Report Events To Destination 1 & Destination 2 + Log		
04 = Report Events To Dest 2 If Dest 1 Fails + Log		

This menu programs which destination will be used to send both manual and automatic test reports.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [4] + [2] + [OK]. The keypad will display the current Test Route.



- 3) Use the numeric keys to enter the Test Route required, then press [OK] to save and exit or press [MENU] to exit without saving.

## Comms &gt; Dialler Reporting &gt;

L543

**Status Route**

I MENU 5-4-3

(\*\*\*) System Wide Parameter (\*\*\*)

0 1

- 00 = Report Events To Log Only
- 01 = Report Events To Destination 1 + Log
- 02 = Report Events To Destination 2 + Log
- 03 = Report Events To Destination 1 & Destination 2 + Log
- 04 = Report Events To Dest 2 If Dest 1 Fails + Log

This menu sets the report destination that will be used to send all system event reports.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [4] + [3] + [OK]. The keypad will display the current Status Route.

d: 01

- 3) Use the numeric keys to enter the Status Route required, then press [OK] to save and exit or press [MENU] to exit without saving.

## Comms &gt; Dialler Reporting &gt;

L544

**Emergency Route**

I MENU 5-4-4

(\*\*\*) System Wide Parameter (\*\*\*)

0 1

- 00 = Report Events To Log Only
- 01 = Report Events To Destination 1 + Log
- 02 = Report Events To Destination 2 + Log
- 03 = Report Events To Destination 1 & Destination 2 + Log
- 04 = Report Events To Dest 2 If Dest 1 Fails + Log

This menu programs the destination that all keypad emergency alarms are reported.

(\*\*\*) System Wide Parameter (\*\*\*)

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [4] + [4] + [OK]. The keypad will display the current Emergency Route.

d: 01

- 3) Use the numeric keys to enter the Emergency Route required, then press [OK] to save and exit or press [MENU] to exit without saving.

## Comms &gt; Dialler Reporting &gt;

L545

**Swinger Dialler**

I MENU 5-4-5

(\*\*\*) System Wide Parameter (\*\*\*)

0 6

Swinger Dialler can be used to prevent a faulty or run-a-way PIR from continually re-triggering the zone and reporting to the base station.

The Swinger Dialler count sets the maximum number of times an individual zone can trigger an alarm during the current arming cycle before it is locked out.

If this option is not programmed, the panel will continue to report the alarm signal until the system or area is disarmed.

Only zones that have been programmed for Lockout Dialler in MENU 3-1-7 — Report Options will follow the Swinger Dialler count.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [4] + [5] + [OK]. The keypad will display the current swinger dialler count.

d: 06

- 3) Using the numeric keys, enter the new Swinger Dialler count then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 0 - 15 / 0 = disabled.

## Comms &gt; Dialler Reporting &gt;

L546

**Burg Report Delay**

I MENU 5-4-6

0 0 0

(\*\*\*) System Wide Parameter (\*\*\*)

SECONDS

This menu programs how long the panel will delay reporting Burglary alarm reports. Only burglary (non-fire) zones that have been programmed for Delay Report in MENU 3-1-7 — Report Option will follow the Burglary Report Delay time.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [4] + [6] + [OK]. The keypad will display the current burglary report delay time.

d: 000

- 3) Using the numeric keys, enter the new report delay time then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 0 to 255 seconds





Comms > IP > L 560

---

**Base Station IP Address** I MENU 5-6-0

Dest N° 1      1                      Digits                      12

0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---

Dest N° 2      1                      Digits                      12

0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---



*This feature requires firmware version 2.10 or higher.*

This menu allows the installer to program the TCP IP address for Destination 1 and/or Destination 2 so that the control panel can communicate to the base station receiver.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [6] + [0] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the base station IP address.



- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the first six digits of the base station IP address.



- 5) Use the numeric keys [0] to [9] + [←] and [→] keys to program the new MyAlarm IP Address, then press [OK] to save and exit or press [MENU] to exit without saving.

Comms > IP > L 561

---

**Base Station Port Number** I MENU 5-6-1

IP

Dest N° 1      0 7 7 0 0

IP

Dest N° 1      0 7 7 0 0



*This feature requires firmware version 2.10 or higher.*

This menu allows the installer to program the TCP IP port number for Destination 1 and/or Destination 2 so that the control panel can communicate to the base station receiver. The port number must be 5 digits long within the range - to 65535.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [6] + [1] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the base station port number.



- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the current base station port number.



- 5) Use the numeric keys [0] to [9] to program the new MyAlarm IP Address, then press [OK] to save and exit or press [MENU] to exit without saving.

Comms > IP > L 562

---

**Poll Rate** I MENU 5-6-2

0	0	6	0
---	---	---	---

SECONDS



*This feature requires firmware version 2.10 or higher*

This menu allows the installer to program how often the control panel sends a signal to the base station receiver via Destination 1 and/or Destination 2. The poll interval programmed should be set so that the control panel sends a poll to the base station receiver at least once within the polling time required.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [6] + [2] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the poll rate.



- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the current poll rate.

0060

- 5) Use the numeric keys [0] to [9] to program the new poll rate in seconds (0000 to 1300), then press [OK] to save and exit or press [MENU] to exit without saving.

Comms &gt; IP &gt;

L563

Acknowledge Wait Time



MENU 5-6-3

0 1 0

SECONDS

*This feature requires firmware version 2.10 or higher*

This menu allows the installer to program the acknowledge wait time in seconds for both Destination 1 and/or Destination 2. The acknowledge wait time can be programmed between 1 and 255 seconds (0 = Disabled).

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [6] + [3] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the acknowledge wait time.

d5t =

- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the current acknowledge wait time.

d = 010

- 5) Use the numeric keys [0] to [9] to program the new acknowledge wait time in seconds (000 to 255), then press [OK] to save and exit or press [MENU] to exit without saving.

Comms &gt; IP &gt;

L564

IP Format



MENU 5-6-4

0 1

- 0 = Conettix
- 1 = Conettix NNC (Anti Replay)
- 2 = CSV IP ALARM

*This feature requires firmware version 2.10 or higher.*

This menu allows the installer to program which IP format the control panel will report to the base station receiver.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [5] + [6] + [4] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the acknowledge wait time.

d5t =

- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the current IP format.

d = 00

- 5) Use the numeric keys [0] to [9] to program the new IP format required, then press [OK] to save and exit or press [MENU] to exit without saving.

*d5t = Enter Destination 1 or Destination 2 then press [OK].*

Comms &gt; IP &gt;

L565

Retry Count



MENU 5-6-5

0 3

*This feature requires firmware version 2.10 or higher.*

This menu allows the installer to program the number of attempts that the system will try to communicate via TCP/IP to the base station receiver for both Destination 1 and/or Destination 2. The retry count can be programmed between 1 and 15 (0=Disabled).

- 1) Enter your Installer PIN + [MENU].

- 2) Enter [5] + [6] + [5] + [OK]. The keypad will prompt you to enter which destination (destination 1 or 2) that you want to program the acknowledge wait time.



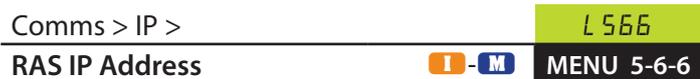
- 3) Enter the destination number (1 or 2) required, then press [OK] to select.
- 4) The keypad will display the current acknowledge wait time.



- 5) Use the numeric keys [0] to [9] to program the new retry count, then press [OK] to save and exit or press [MENU] to exit without saving.



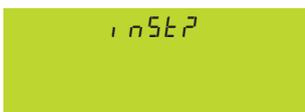
*d5t: Enter Destination 1 or Destination 2 then press [OK].*



*This feature requires firmware version 2.10 or higher.*

This menu allows the installer or Master user the ability to program the Solution Link IP address.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [5] + [6] + [6] + [OK]. The keypad will prompt you to enter which Solution Link IP address (IP 1 = Installer or IP 2 = User) that you want to program.



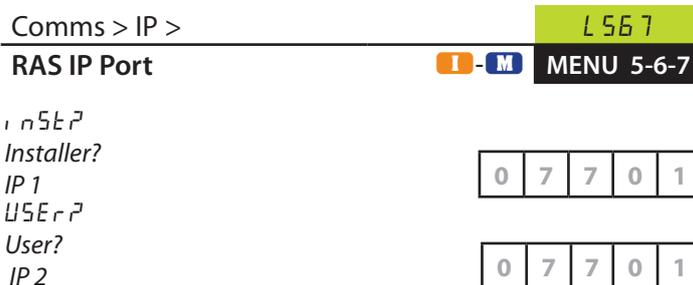
The installer can now select either the installer Solution Link IP address or the user Solution Link IP address by using the up and down arrow keys. If the Master user programs this menu, the keypad will only display the option to program the user IP address:



- 3) Select the which IP address that you want to change (installer or user, then press [OK] to enter.
- 4) The keypad will display the first six digits of the Solution Link IP address.



- 5) Use the numeric keys [0] to [9] + [←] and [→] keys to program the IP Address, then press [OK] to save and exit or press [MENU] to exit without saving.



*This feature requires firmware version 2.10 or higher.*

This menu allows the installer or Master user the ability to program the Solution Link IP port number. The Solution Link IP port number must be 5 digits in length and programmed within the range of 0 to 65535.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [5] + [6] + [6] + [OK]. The keypad will prompt you to enter which Solution Link IP port number (IP 1 = Installer or IP 2 = User) that you want to program..

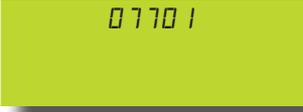


The installer can now select either the installer Solution Link IP port number or the user Solution Link IP port number by using the up and down arrow keys. If the Master user programs this menu, the keypad will only display the option to program the user IP port number:



- 3) Select the which IP port number that you want to change (installer or user, then press [OK] to enter.

- 4) **The keypad will display the first six digits of the Solution Link IP port number.**



07701

- 5) **Use the numeric keys [0] to [9] + [←] and [→] keys to program the IP Address, then press [OK] to save and exit or press [MENU] to exit without saving.**

Comms &gt; TCP/IP &gt;

L568

**IP RAS Options**
 MENU 5-6-8

1	IP RAS Allowed	Y
2	RAS Only If Disarmed	N
3	Report Session	Y
4	Report Lockout	Y
5	UDP Installer RAS	N
6	UDP User RAS	N
7	Reserved	N
8	Reserved	N

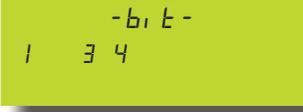


*This feature requires firmware version 2.10 or higher.*

This menu allows the installer to select which IP options are allowed.

- 1) **Enter your Installer PIN + [MENU].**
- 2) **Enter [5] + [6] + [8] + [OK].**

The keypad will display the current options which are selected or enabled.



-bit-  
1 3 4

- 3) **Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.**
- 4) **When all email options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.**

**IP RAS Allowed**

This option allows the control panel to connect with Solution Link via the optional ethernet module.

**RAS Only If Disarmed**

This option allows a RAS connection via TCP IP connection only when the system is disarmed.

**Report Session**

This option allows the control panel to report a RAS Start and RAS End session to the security base station when a remote TCP IP connection was made and ended.

**Report Lockout**

This option allows the control panel to report when the maximum number of incorrect attempts has been made to remotely connect to the panel using the IP connection method.

**UDP Installer RAS**

This option allows the control panel to communicate using the UDP internet protocol (User Datagram Protocol) when the installer remotely connects via Solution Link software.

If this option is not programmed, the control panel will use the TCP IP protocol.

**UDP User RAS**

This option allows the control panel to communicate using the UDP internet protocol (User Datagram Protocol) when the user remotely connects via Solution Link software.

If this option is not programmed, the control panel will use the TCP IP protocol.

Comms &gt; TCP/IP &gt;

L569

**IP RAS Lockout Time**
 MENU 5-6-9

0 6 0

SECONDS



*This feature requires firmware version 2.10 or higher.*

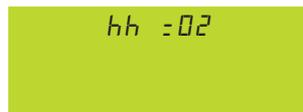
This menu allows the control panel to lockout and prevent the ability for anyone to remotely connect to the system using the RAS IP connection method. During the lockout time, (1 to 255 seconds / 0 = No Lockout), the system will not respond to any TCP IP connection requests. The lockout count is set at 6 failed attempts (fixed) over a 60 second period)

- 1) **Enter your Installer PIN + [MENU].**
- 2) **Enter [5] + [6] + [9] + [OK]. The keypad will display the current IP RAS Lockout time.**



d= 060

- Using the numeric keys, enter the new IP RAS Lockout Time, then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 0 to 255 seconds.



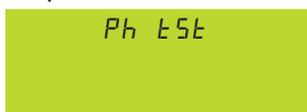
### COMMS TESTING



This menu allows you to test the reporting functions of the control panel by manually sending a 'Test' report to the receiving party (i.e. security company monitoring station, mobile telephone etc).

- Enter your PIN + [MENU].
- Enter [5] + [9] + [0] + [OK].

The test will begin and the keypad will display that testing is in the progress. The test may take up to 3 minutes to complete.



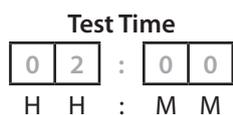
If the test is successful, the keypad will prompt:



If the test is NOT successful, the keypad will prompt:



- Press [OK] or [MENU] to exit.



This menu programs the time of the day that the panel will send the automatic Test Report to the base station receiver. Automatic test reports are used to verify the panels ability to report events via the telephone line on an ongoing basis.

- Enter your Installer PIN + [MENU].
- Enter [5] + [9] + [1] + [OK]. The keypad will display the current hour of the day that the test report is set.

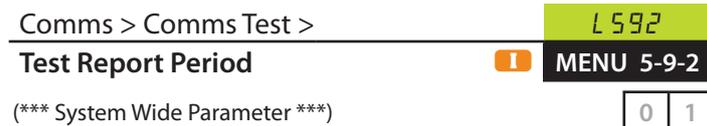
- Use the numeric keys to hour of the day that the test report is required. The keypad display the current minute of the day that the test report is set.



- Use the numeric keys to program the minutes of the hour that the test report is required.
- Press [OK] to save and exit or press [MENU] to exit without saving.



The time set should be entered using the 24-hour format.



(\*\* System Wide Parameter \*\*)

00 = No Test Report	08 = Reserved
01 = Every Day	09 = Reserved
02 = Every Week	10 = Reserved
03 = Every Month	11 = Reserved
04 = Reserved	12 = Reserved
05 = Reserved	13 = Reserved
06 = Reserved	14 = Every Hour
07 = Reserved	15 = Every 12 Hours

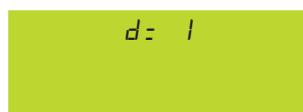


Options 14 and 15 are only available from firmware revision 2.10 or higher.

This menu programs how often the control panel will send a test report. Only one option can be programmed.

(\*\* System Wide Parameter \*\*)

- Enter your Installer PIN + [MENU].
- Enter [5] + [9] + [2] + [OK]. The keypad will display the current Test Report Period.



- Use the numeric keys to enter the Test Report Period, then press [OK] to save and exit or press [MENU] to exit without saving.

Comms > Comms Test >

L 593

**Test Report Options**

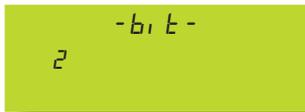
**I MENU 5-9-3**

1	Send Test Reports Only If No Other Report	N
2	Send Test Reports On Audible Time Out	Y
3	Reserved	N
4	Reserved	N
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

1) Enter your Installer PIN + [MENU].

2) Enter [5] + [9] + [3] + [OK].

The keypad will display the current options which are selected or enabled.



3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.

4) When all email options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

**Send Test Reports Only If No Other Report**

Setting this option will cause the system to only send its automatic Test report if no other area report has been sent within the test report time period as programmed in MENU 5-9-2.

**Send Test Reports On Audible Time Out**

Setting this option will delay the Automatic Test Report if the sirens are running when the test report time expires. This effectively keeps the telco line free to make any further alarm reports which may be triggered while the sirens are running. The panel will send the cued Test Report as soon as the siren run-time has expired.

Comms > Comms Test >

L 594

**Test Route**

**I MENU 5-9-4**

(\*\*\* System Wide Parameter \*\*\*)

0 1

- 00 = Report Events To Log Only
- 01 = Report Events To Destination 1 + Log
- 02 = Report Events To Destination 2 + Log
- 03 = Report Events To Destination 1 & Destination 2 + Log
- 04 = Report Events To Dest 2 If Dest 1 Fails + Log

This menu programs which destination will be used to send both manual and automatic test reports.

1) Enter your Installer PIN + [MENU].

2) Enter [5] + [9] + [4] + [OK]. The keypad will display the current Test Route.



3) Use the numeric keys to enter the Test Route required, then press [OK] to save and exit or press [MENU] to exit without saving.

Comms > Comms Test >

L 595

**Dial Number Test**

**I MENU 5-9-5**

This option provides a quick and easy way for the Installer to test the communication path for the panel while they are onsite without the need to trigger test reports and then verify them with the base station. Once the telco wiring has been completed, enter your mobile phone or another test number into this location and press [OK]. The panel will then seize the phone line and dial the programmed number.

1) Enter your Installer PIN + [MENU].

2) Enter [5] + [9] + [5] + [OK]. The keypad will prompt you to enter a telephone number.



3) Using the numeric keys [0] to [9], enter all the digits of the telephone number. For special characters including, pause, \* or #, use the up and down arrow keys.

4) Press [OK] to commence the dialler number test.



*The panel will make only one attempt to call this number per activation. To perform multiple tests repeat the sequence. There is no need to answer the test call.*

» » END OF SECTION « «



# Device Programming

This chapter covers the different device types and the numerous programmable options which can be used to control how a device operates.

The commands menu allows you to view the status of any device in the system and will display its condition as well as the temperature and voltage where available.

Keypads are the most common device used in the system and must be assigned to a home area if they are to operate correctly in a system. You are also able to set the contrast, backlight and beeper volume to your own personal preference.

RF Devices can also be connected to the system and from this menu you are able to set supervision times, receiver jamming, tamper options and more.

## DEVICE COMMANDS

Devices > Commands > LAN - St  
LAN Status I - M - U MENU 6-0-0

This menu provides a listing of all devices and modules connected to your system. Using this option it is possible to view the voltage, temperature and other information about each of the modules.

- 1) Enter your PIN + [MENU].
- 2) Enter [MENU] + [6] + [0] + [0] + [OK].  
The keypad will display the first device fitted to the system.
- 3) Use the [↑] and [↓] keys to select the device that you want to view, then press [OK] to select.

The system display CP001 which represents Keypad number 1 on the system. Press [OK] to view.

The display will show each parameter for the device one at a time.

Display shows the current keypad temperature.

Displays the current voltage being measured at the keypad.

Displays the firmware version of the keypad.

Displays the keypad size. 8 Zone or 16 Zone

Displays if the keypad has an in built proximity reader.

- 4) Press [OK] or [MENU] to exit.

Devices > Commands > L601  
LAN Secure I MENU 6-0-1

If the LAN network is secure, this will prevent the system detecting additional LAN devices when the system has been powered down, additional devices connected and powered back up again. If the LAN network is not secured, the system will automatically detect any additional devices added when the system has been powered down and then powered back up again.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [0] + [1] + [OK]. If the system LAN is not secured, the keypad will display the following.

3) Use the ON and OFF keys to toggle LAN secure on or off.

4) Press [OK] to exit.

### KEYPAD OPTIONS

Devices > Keypads >

Keypad Volume



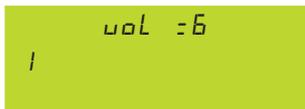
cP-u0L  
MENU 6-1-0

This menu allows you to adjust the volume of the keypad's buzzer. Each keypad can have their volume adjusted separately to suit your needs.

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [6] + [1] + [0] + [OK].

The keypad will display the current volume setting and the keypad address. This example shows keypad 1.



3) Press the the [↑] and [↓] keys to adjust the volume. Min = 1, Max = 8, 0 = Off.

4) Press [OK] to save and exit, or press [MENU] to exit without saving.

Devices > Keypads >

Keypad Contrast



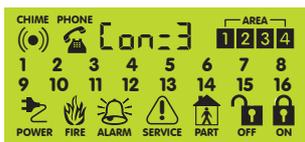
cP-c0n  
MENU 6-1-1

This menu allows you to adjust the contrast of the keypad's LCD display to improve visibility. Each keypad can have their display adjusted separately.

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [6] + [1] + [1] + [OK].

The keypad will then display the contrast screen which includes all of the available symbols and the current contrast setting.



3) Press the the [↑] and [↓] keys to adjust the contrast. Min = 1, Max = 3.

4) Press [OK] to save and exit, or press [MENU] to exit without saving.

Devices > Keypads >

Keypad Backlight



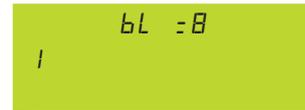
cP-bL  
MENU 6-1-2

This menu allows you to adjust the brightness of the keypad's LCD display backlight. Each keypad can have their display adjusted separately.

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [6] + [1] + [2] + [OK].

The keypad displays the current backlight setting and the keypad address. This example shows keypad 1.



3) Press the the [↑] and [↓] keys to adjust the contrast. Min = 1, Max = 10, 0 = Off.

4) Press [OK] to save and exit, or press [MENU] to exit without saving.

Devices > Keypads >

Home Area



L613  
MENU 6-1-3

0 1

00 = No Home Area

01 = Area 1

03 = Area 3

02 = Area 2

04 = Area 4

This menu allows you to assign each keypad to a default home area (Area 1 to 4). Only 1 home area can be programmed for each keypad.

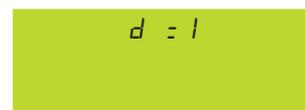
If a user toggles the keypad display to view a different area, the keypad will automatically timeout and move back to the home area if no key is pressed for a period of 60 seconds.

To prevent users from viewing areas which they do not have access to, you will need to enable the PIN To Change Area option. Setting this option will set the system to request a user's PIN before allowing them to view another area. The system will only allow a user to view the areas they have access to. See MENU 6-1-4 — Keypad General Options.

1) Enter your Installer PIN + [MENU].

2) Enter [6] + [1] + [3] + [OK], then enter the number of the keypad that you want to change and press [OK].

3) Enter the Home Area required, then press [OK] to save and exit or press [MENU] to exit without saving.





All keypads must be set to a unique address via the node select switch on the keypad and they all must have a home area programmed to work correctly. Area 1 is the default Home Area.

Devices > Keypads >

L614

### General Options

**MENU 6-1-4**

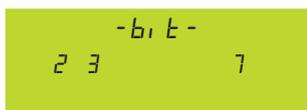
1	Keypad Extinguish	N
2	Greetings	Y
3	Enable Egress Input	N
4	Enable Rear Tamper	N
5	PIN To Change Area	N
6	Home Area Only	N
7	Report/Display Keypad Temperature	Y
8	Display Area ICON Indicators	N

The above options can be configured independantly for each keypad fitted to the system.

1) **Enter your Installer PIN + [MENU].**

2) **Enter [6] + [1] + [4] + [OK].**

The keypad will display the current options which are selected or enabled.



3) **Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.**

4) **When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.**

### Keypad Extinguish

Setting this option configures the panel to automatically turn off the keypad backlighting after an inactivity period of 60 seconds. As soon as a key is pressed or an alarm occurs, the keypad backlight will turn on.

### Greetings

Setting this option configures the keypad to display a farewell greeting when the user arms an area or a welcome greeting when the user disarms an area. The greeting will include the user name if programmed.

The greeting will reflect the time of day and include the user name if programmed.

- ❖ **Good Morning Greeting = 00:00 to 11:59**
- ❖ **Good Afternoon Greeting = 12:00 to 17:59**
- ❖ **Good Evening Greeting = 18:00 to 23:59**

### Enable Egress Input

This option allows the egress input to operate when using the CP150B / CP151B external vandal resistant keypads.



This option is only available with software version 2.19 and higher.

### Enable Rear Tamper

Setting this option enables the panel to trigger an alarm when the keypad's inbuilt tamper circuit becomes faulted. A tamper alarm report will be sent to the base station, a tamper alarm restore will be sent when the tamper has been reset.

For this option to work, the keypad model being used must have the on-board tamper switch fitted.

### PIN To Change Area

Setting this option will prevent a user from switching between different areas on the keypad unless they enter a valid user PIN.

When this option is not set, users will be able to change the keypad view to all other areas in the system regardless of whether or not they have access to those areas.

### Home Area Only

Setting this option will force the keypad to display only it's assigned home area information. Therefore a user cannot toggle (or move) the keypad display to show that of a different area when the system has been partitioned.

### Report/Display Keypad Temperature

This option allows the keypad to display and report a temperature alarm to the base station if the keypads temperature falls below or rises above the minimum and maximum temperatures programmed in MENU 7-7-3 — Keypad Hi/Lo Temp.

An output can be programmed to operate when a keypad hi/low temperature fail condition occurs irrespective of whether or not this option is set.

See MENU 6-1-5 — Beeper Options to set the keypad to always show the current temperature in the display.

### Display Area ICON Indicators

This option sets the keypad to show the AREA ICON indicators in the keypad display at all times. The Icons show the status of all areas on the system without having to press any keys.

When the Area Icon is ON the corresponding area is armed and when the Area Icon is OFF or not visible the corresponding area is disarmed.

Devices &gt; Keypads &gt;

L 6 15

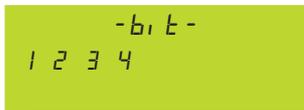
**Beeper Options****I** MENU 6-1-5

1	Trouble Alert Beeps	Y
2	Entry Warning	Y
3	Exit Warning	Y
4	Chime Tone	Y
5	Display Temperature	N
6	PIN Arming Not Allowed	N
7	Installer PIN Not Allowed	N
8	Reserved	N

The above options can be configured independently for each keypad fitted to the system.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [1] + [5] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

**Trouble Alert Beeps**

Setting this option will cause the keypad to sound a trouble alert tone to notify the user that the panel has a trouble condition that needs to be rectified. Press the [OK] to acknowledge the trouble condition and stop the alert tone. Press the down arrow for more information on the trouble condition.



See MENU 7-7-1 — Area Options if you would like to delay the audible trouble alert tone during the night when the panel is used in residential applications.

**Entry Warning**

Setting this option will cause the keypad to sound an entry warning alert tone when the entry timer is running. The tone will stop when a key is pressed or when the entry time expires.

**Exit Warning**

Setting this option will cause the keypad to sound an exit warning alert tone when the exit timer is running. The tone will stop when the timer expires.

**Chime Tone**

Setting this option will cause the keypad to sound a chime alert tone when a chime zone is faulted. Chime zones are active when the area is disarmed and are typically used to monitor the front door of a shop. The chime alert tone will stop when the zone reseals.

**Display Temperature**

Setting this option configures the panel to always show the current keypad temperature in the display. Each keypad can be set to display its own temperature. It is possible to trigger a temperature alarm based on the keypad temperature. See MENU 7-7-3 — Keypad Hi/Lo Temp for more information.

**PIN Arming Not Allowed**

Situations may arise where a keypad is only required for door access. In this situation, to prevent a user the ability to turn the area that the keypad has been assigned to on or off, programming this option will still allow the user to operate the door strike that have the appropriate access group level.

**Installer PIN Arming Not Allowed**

This option prevents the installer PIN to access menus or to turn the system on or off at any keypad programmed with this option.

Devices &gt; Keypads &gt;

L 6 16

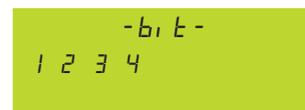
**Emergency Keys****I** MENU 6-1-6

1	Audible Keypad Fire	Y
2	Report Keypad Fire	Y
3	Audible Keypad Medical	Y
4	Report Keypad Medical	Y
5	Audible Keypad Panic (Invisible If Not Set)	N
6	Report Keypad Panic	N
7	Reserved	N
8	Reserved	N

The above options can be configured independently for each keypad fitted to the system.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [1] + [6] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.

- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Audible Keypad Fire

Setting this option allows the panel to sound an audible alarm when a Keypad Fire Emergency Alarm has been triggered via the keypad. To initiate a fire emergency via the keypad, press and hold the [4] + [6] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

### Report Keypad Fire

Setting this option allows the panel to send a Fire report to the base station when a Keypad Fire Emergency Alarm has been triggered via the keypad.

### Audible Keypad Medical

Setting this option allows the panel to sound an audible alarm when a Keypad Medical Emergency Alarm has been triggered via the keypad. To initiate a medical emergency via the keypad, press and hold the [7] + [9] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

### Report Keypad Medical

Setting this option allows the panel to send a Medical report (event 43) to the base station when a Keypad Medical Emergency Alarm has been triggered via the keypad.

### Audible Keypad Panic

Setting this option allows the panel to sound an audible alarm when a Keypad Panic Emergency Alarm has been triggered via the keypad. To initiate a panic emergency via the keypad, press and hold the [1] + [3] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

 *If this option is disabled, a keypad panic alarm will not be visible on the keypad display (i.e. Invisible Panic Alarm).*

### Report Keypad Panic

Setting this option allows the panel to send a Panic report to the base station when a Keypad Panic Emergency Alarm has been triggered via the keypad.

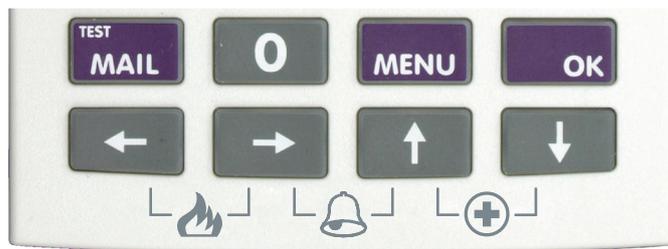


Figure 42: Keypad Emergency Keys

The new methods are easier for the end user to remember and also allow for labelling to be applied to the keypad further simplifying operation. At this time both old and new methods function.

KEYPAD EMERGENCY ALARM TRIGGER'S	
Key Sequence	Event Triggered
[←] + [→] Hold for 2 seconds	Keypad Fire Alarm
[→] + [↑] Hold for 2 seconds	Keypad Panic Alarm
[↑] + [↓] Hold for 2 seconds	Keypad Medical Alarm

Table 33: Keypad Emergency Keys

Devices > Keypads > LE 17

**Access Group** I MENU 6-1-7

0

0

- 00 = No Access Group
- 01 = Access Group 1
- 02 = Access Group 2
- 03 = Access Group 3
- 04 = Access Group 4
- 05 = Access Group 5
- 06 = Access Group 6
- 07 = Access Group 7
- 08 = Access Group 8

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [1] + [7] + [OK], then enter the keypad number and press [OK]. The keypad will display the current Access Group setting.



- 3) Use the numeric keys to enter the Access Group that you want to assign the keypad to.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Devices &gt; Keypads &gt;

**Lockout Time**


(\*\*\*) System Wide Parameter (\*\*\*)

0 6 0

SECONDS

This menu programs how long a keypad will be quarantined if the PIN retry count value is exceeded. See MENU 1-5-1 — PIN Retry Count. The PIN retry counter is reset when any area is armed or disarmed using a valid PIN.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [1] + [8] + [OK]. The keypad will display the current keypad lockout time.



- 3) Use the numeric keys to program the number of seconds the keypad will be locked out for. Valid entries are 0 - 255, 0 = No Lockout.
- 4) Press [OK] to save and exit, else press [MENU] to exit without saving.

**RF RECEIVER OPTIONS**

Devices &gt; RF Devices &gt;

**Receiver Options**

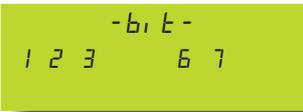
  


1	Display RF Receiver Trouble	Y
2	Alarm On RF Receiver Tamper	Y
3	Report RF Receiver Tamper	Y
4	Alarm On RF Receiver Jam Detect	N
5	Report RF Receiver Jam Detect	N
6	Alarm On RF Receiver Comms Fail	Y
7	Report RF Receiver Comms Fail	Y
8	Reserved	N

This menu option allows you to configure the various RF receiver functions. Only one RF receiver can be fitted per panel.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [2] + [0] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.

- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

**Display RF Receiver Trouble**

Setting this option allows the panel to display a trouble condition on the keypad when an RF receiver fail condition occurs.

**Alarm On RF Receiver Tamper**

Setting this option allows the panel to trigger an alarm when the RF receiver tamper circuit is tripped.

**Report Faulted RF Receiver Tamper**

Setting this option allows the panel to send an RF Receiver Tamper report to the base station when the RF receiver tamper circuit is tripped. A restore report will be sent when the tamper circuit is resealed.

**Alarm On RF Receiver Jam Detect**

Setting this option allows the panel to sound an alarm when the RF Receiver detects a jamming signal. This signal may not be provided by all compatible RF Receivers.

**Report Receiver Jam Detect**

Setting this option allows the panel to send an RF Receiver Jam report to the base station when the RF Receiver detects a jamming signal. A restore report will be sent as soon as the jamming signal stops.

**Alarm On RF Receiver Comms Fail**

Setting this option allows the panel to sound an alarm when it is unable to communicate with the RF Receiver.

**Report RF Receiver Comms Fail**

Setting this option allows the panel to send an RF Receiver Comms Fail report to the base station when the panel is unable to communicate with the RF Receiver. A restore report will be sent as soon as communication is restored between the panel and the RF receiver.

Device &gt; RF Devices &gt;

**Supervision Time**


(\*\*\*) System Wide Parameter (\*\*\*)

0 2 4

HOURS

This menu sets the global RF supervision time for all RF devices connected to the system.

RF transmitters (sensor devices) will send a supervisory test signal approximately once every hour. The RF receiver expects to receive this supervisory signal from every transmitting device within the supervision time period.

The panel will send a Missing report to the base station for any RF device that fails to report within the supervision time.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [2] + [1] + [OK]. The keypad will display the current RF supervision time.



d= 024

- 3) Using the numeric keys, enter the number of hours for the RF supervision time. Valid times are 0 - 255 hours, 0 = No Supervision.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

Device > RF Devices >

L622

#### RF Device Options

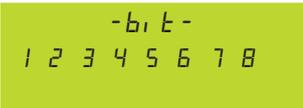
**I** MENU 6-2-2

1	Display RF Tamper	Y
2	Report RF Tamper	Y
3	Report RF Low Battery	Y
4	Report Lost RF Device	Y
5	Open Zone On Lost RF	Y
6	Audible Keyfob Panic	Y
7	Report Keyfob Panic	Y
8	Keyfob Function 1 Key = Part On	Y

This menu option allows you to configure various options and functions for RF devices connected to the system.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [2] + [2] + [OK].

The keypad will display the current options which are selected or enabled.



-b, t-  
1 2 3 4 5 6 7 8

- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

#### Display RF Device Tamper

Setting this option will cause the keypad to display the RF zone when a tamper condition occurs.

#### Report RF Device Tamper

Setting this option will cause the panel to send an RF Device Faulted report to the base station when the devices tamper circuit is tripped. A restore report will be sent when the tamper circuit is resealed.

#### Report RF Device Low Battery

Setting this option will cause the panel to send a report to the base station when the RF device signals to the panel that it has a low battery condition.

#### Report RF Device Missing

Setting this option will cause the panel to send a report to the base station if the panel detects that an RF device is missing.

#### Open Zone On RF Device Missing

Setting this option will cause the panel to show a zone fault on the keypad for any RF devices that are missing.

#### Audible RF Key Fob Panic

Setting this option allows users who have RF keyfobs to trigger an audible panic alarm via the keyfob.

#### Report RF Keyfob Panic

Setting this option will cause the panel to send a Panic report to the base station when a panic alarm has been initiated via a key fob.

#### RF Keyfob Function Key 1 = 'Part On'

Setting this option will allow keyfob users to arm an area or all areas of the system using function key 1 on the keyfob.

Devices > RF Devices >

L623

Add RF Keypad

**I** MENU 6-2-3

Reserved for future use.

Devices > RF Devices >

L624

Delete RF Keypad

**I** MENU 6-2-4

Reserved for future use.

Devices > RF Devices >

L625

View RF Device ID

**I** MENU 6-2-5

This command allows you to trap and view a transmitters I.D. number when it has been forgotten or it is no longer legible on the transmitter label. The device being tested must be compatible with the RF receiver fitted to the panel.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [2] + [5] + [OK]. The system will then begin waiting for a valid trigger signal.



- 3) Trigger the transmitter by pressing any button on the keyfob or by triggering the tamper switch on any sensor. The keypad will display the first 6 digits of the serial number of the RF device.



Use the left and right arrow keys to scroll through the RF serial number.

To test another transmitter, repeat step 3.

- 4) Press [OK] or [MENU] to exit this command.

## SERIAL DEVICE OPTIONS

Devices > Serial Device >

L630

Device Type

**I** MENU 6-3-0

00 = Disabled

0 0

01 = Serial Printer

02 = Computer

Reserved for future use.

Devices > Serial Device >

L631

Baud Rate

**I** MENU 6-3-1

00 = No Device Connected

0 0

01 = 300 Baud

05 = 9600 Baud

02 = 600 Baud

06 = 19200 Baud

03 = 1200 Baud

04 = 2400 Baud

Reserved for future use.

Devices > Serial Device >

L632

Flow Control

**I** MENU 6-3-2

00 = No Handshaking

0 0

01 = Hardware

02 = Xon-Xoff

Reserved for future use.

Devices > GSM Modem >

L650

Report Format

**I** MENU 6-5-0

00 = SIA

0 0

01 = CID

02 = Domestic

Reserved for future use

Devices > GSM Modem >

L651

Options

**I** MENU 6-5-1

00 = Reserved

0 0

01 = Reserved

02 = Reserved

Reserved for future use.

## ETHERNET DEVICE OPTIONS

Devices > Ethernet >

L660

IP Address Module

I-M

MENU 6-6-0

1	Digits						12
0	0	0	0	0	0	0	0



This feature requires firmware version 2.10 or higher.

This is the IP address of the TCP/IP module on the customer's internal local area network.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [6] + [0] + [OK]. The keypad will display the first 6 digits of the current IP address.

000000

- 3) Use the numeric keys [0] to [9] + [←] and [→] keys to program the IP Address, then press [OK] to save and exit or press [MENU] to exit without saving.

Devices > Ethernet >

L661

Subnet Mask

I-M

MENU 6-6-1

1	Digits						12
0	0	0	0	0	0	0	0



This feature requires firmware version 2.10 or higher.

The can be found by running IPCONFIG on a PC connected to the clients network. Typical subnet mask is 255.255.255.0.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [6] + [1] + [OK]. The keypad will display the first 6 digits of the current subnet mask.

000000

- 3) Use the numeric keys [0] to [9] + [←] and [→] keys to program the 12 digit subnet mask number, then press [OK] to save and exit or press [MENU] to exit without saving.

Devices > Ethernet >

L662

Default Gateway

I-M

MENU 6-6-2

1	Digits						12
0	0	0	0	0	0	0	0



This feature requires firmware version 2.10 or higher.

The can be found by running IPCONFIG on a PC connected to the clients network.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [6] + [2] + [OK]. The keypad will display the first 6 digits of the current gateway number.

000000

- 3) Use the numeric keys [0] to [9] + [←] and [→] keys to program the 12 digit gateway number, then press [OK] to save and exit or press [MENU] to exit without saving.

Devices > Ethernet >

L663

MAC Address

I

MENU 6-6-3

0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---



This feature requires firmware version 2.10 or higher.

This is the hardware machine address of the module and can be found on the bar-coded sticker.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [6] + [3] + [OK]. The keypad will display the first 6 digits of the current MAC address.

000000

- 3) Use the numeric keys [0] to [9] + [←] and [→] keys to program the MAC address, then press [OK] to save and exit or press [MENU] to exit without saving. This is the hardware machine address of the module and can be found on the bar-coded sticker.



Devices &gt; Ethernet &gt;

L669

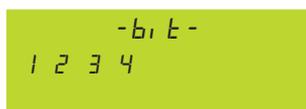
**Ethernet Options****MENU 6-6-9**

1	Display Faults	Y
2	Report Cable Lost	Y
3	Report IP Conflict	Y
4	Report Poll Fail	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

This menu option allows you to configure the various RF receiver functions. Only one RF receiver can be fitted per panel.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [6] + [6] + [9] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

**Display Faults**

This option allows the keypad to display a trouble condition if the control panel detects when the ethernet module is missing, the module IP is changed, there is no connection, there is an IP lockout or there is an IP conflict.

**Report Cable Lost**

This option allows the control panel to report when it detects that the LAN cable is missing via the dialler.

**Report IP Conflict**

This option allows the control panel to report an IP conflict via the dialler when it detects two computers on the LAN or internet have been assigned the same IP address.

**Report Poll Fail**

This option allows the control panel to report via the dialler when the ethernet module fails to send a poll to the base station.

» » END OF SECTION « «

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# System Programming

This section contains the different parameters required that are system related features.

The commands menu will allow you to view the panel status, system troubles, history log, factory default and entering service mode.

Some of the key parameters in these menus are the setting of the date/time under Clock and Schedules which control all the automated time functions of the system.

## SYSTEM COMMANDS

System > Commands >

Panel Status



STATUS

MENU 7-0-0

This command scrolls and displays the following panel related information on the keypad display.

**Screen 1 Displays:** The panel voltage.

**Screen 2 Displays:** The panel temperature

**Screen 3 Displays:** The panel type.

**Screen 4 Displays:** The panel number.

Other information such as current system troubles will also scroll in the list.

- 1) Enter your PIN + [MENU].
- 2) Enter [7] + [0] + [0] to view the panel status.
- 3) Press [OK] to exit when finished.

System > Commands >

System Trouble



trbl

MENU 7-0-1

When one or more trouble events are in effect, the keypad will display the SERVICE symbol indicating that something requires attention. The table below lists all of the system troubles or system faults which can be present on the alarm panel.

Each trouble event that can be shown by the panel has been assigned a unique Trouble Event Number. This number is used to identify the trouble event from the list shown in "Table 24: System Trouble / Fault Descriptions" on page 11-1.

To interpret the system trouble from the keypad do the following;

- 1) Enter your PIN + [MENU].
- 2) Enter [7] + [0] + [1] to view any current trouble condition.
- 3) Use the [↑] and [↓] keys to scroll from one trouble event to the next.
- 4) To find out more detail on each specific trouble event, you can either refer to the trouble event descriptions in the trouble table on the following pages or to view more specific information on the keypad, press [OK] and the display will begin to scroll the trouble event number, the device or module number, trouble text description 1 and then trouble text description 2. The display will continue to scroll the description of the trouble event which is in focus.
- 5) To return to the trouble list, press the [MENU] key, or to exit completely and return to the normal state, press and hold the [MENU] key down for 2 seconds.

System &gt; Commands &gt;

Hi 5L09

History Log

I - M - U

MENU 7-0-2

This command allows you to review the last 256 history events in chronological order. Each log entry provides a wealth of information about the event including log even number, time and date stamp, user and zone names and the report route used.

When you enter the history log the most recent event will always be shown first. Once the log memory is full it will wrap and begin overwriting the oldest event in memory.

Each event will show up to 7 different screens, each screen displaying a different part of the history event. By combining all the different screens together, you can determine the actual event:

**Screen 1 Displays:** The History Event Number.

**Screen 2 Displays:** The Trouble Description #1.

**Screen 3 Displays:** The Trouble Description #2.

**Screen 4 Displays:** The Device Number.

**Screen 5 Displays:** The Date The Event Occurred.

**Screen 6 Displays:** The Time The Event Occurred.

**Screen 7 Displays:** The Reporting Information. Destination 1 and /or 2 report status (S= Sent, P = Pending, F = Fail, A = Abort and L = Log Only).

- 1) Enter your PIN + [MENU].
- 2) Enter [7] + [0] + [2] + [OK]. The keypad will display the most recent event from the history log.

E 123

bAtteRy

Erbl

P001

03 JAN

21-15

51-12

- 3) Use the up and down arrows keys to scroll between history events .
- 4) When finished press [OK] or [MENU] to exit.

System &gt; Commands &gt;

L 703

Domestic Default

I

MENU 7-0-3

This command will configure the control panel for Domestic format reporting (eg. mobile telephones etc). All alarm restore reports and open/close reporting options will be automatically disabled. Therefore, only emergency, burglary and fire reports will be sent.

- 1) Enter your PIN + [MENU].
- 2) Enter [7] + [0] + [3] + [OK]. The keypad will display:

ddEFF?

- 3) Press [OK] to start the default process or press [MENU] to cancel and exit.
- 4) The keypad will display the following message during the default process and will exit back to the menu when finished.

-bU54-

System &gt; Commands &gt;

L 704

Factory Default

I

MENU 7-0-4

This command will erase ALL programmable data and return the control panel to factory default settings. Defaulting the panel will NOT erase any history events that are currently stored in the panel.

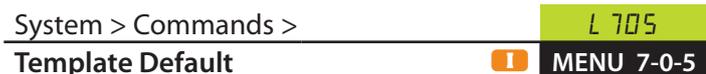
- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [0] + [4] + [OK]. The keypad will display:

FdEFF?

- 3) Press [OK] to start the default process or press [MENU] to cancel and exit.
- 4) The keypad will display the following message during the default process and will exit back to the menu when finished.

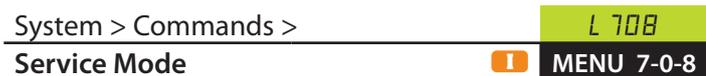


**Note** During a factory default both the Status and Dialer LED indicators on the panel will flash very quickly to indicate defaulting is still in progress.



This command allows the installer to download pre-configured templates set up by the Installer on the MyAlarm web interface. The installer can configure up to 4 separate templates.

This feature is currently reserved.



This command allows the installer to put the panel into service mode before performing system maintenance or upgrades. When in service mode, the following functions are disabled. By default, service mode will automatically terminate after 2 hours if not terminated sooner by the installer.

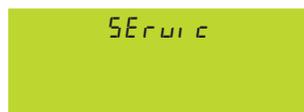
- ❖ Zone Tamper
- ❖ Alarm Outputs
- ❖ Dialler
- ❖ Panel Tamper

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [0] + [8] + [OK]. The keypad will display the current service mode status.



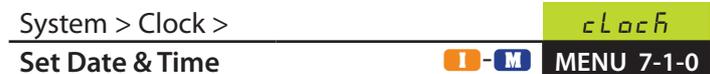
- 3) To turn service mode on, press [ON], or press [OFF] to turn service mode off.
- 4) Press [OK] or [MENU] to exit when finished.

When you exit programming mode, the keypad will display 'Service' whilst service mode is active.



**Note** Service mode will automatically exit after 2 hours if set to do so in MENU 7-7-4 — Installer Options.

### SYSTEM CLOCK



This menu allows you to program or adjust the system's clock.

The keypad allows you to easily program the system's date and time separating the day, month, year, hour and minutes over 5 different screens.

At any time you can toggle between screens by pressing the [←] and [→] keys. You should step through all 5 screens to confirm the time and date are correct before pressing the [OK] key to exit.

See the example below. 01/01/2008 21:53

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [1] + [0] + [OK].

The keypad will display the currently programmed day of the month.



- 3) Use the numeric keys to enter the correct day (1 - 31).

The keypad will display the currently programmed month.



- 4) Use the numeric keys to enter the correct month (1 -12). The keypad will display the currently programmed year.



- 5) Use the numeric keys to enter the last 2 digits of the current year (01 -99).

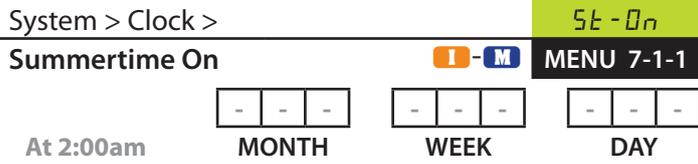
The keypad will display the currently programmed hour of the day in 24hr time.



- 6) Use the numeric keys to enter the correct hour (00 -23). The keypad will display the currently programmed minute of the day.



- 7) Use the numeric keys to enter the correct minute (01 -59).
- 8) Use the [←] and [→] keys at any time to confirm programming, then press [OK] or [MENU] to exit.



This menu allows you to program when day light savings start during the year. This will allow the control panel to automatically adjust it's built in clock accordingly. See the section on Australian daylight savings times for more information.

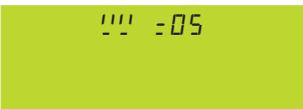
To program Summertime On, you will need to set the month of the year (Jan to Dec), the week of the month (1 to 5) and the day of the week (Sun to Sat) that daylight savings starts.

- January = Month 1      December = Month 12
- First Week = 1      Last Week = 5
- Sunday = Day 1      Saturday = Day 7

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [1] + [1] + [OK].



- 3) Enter the number of the month (January = 01 / December = 12) that Summer Time starts.



- 4) Enter the number of the week (First Week = 1 / Last Week = 5) in that month that Summer Time starts.



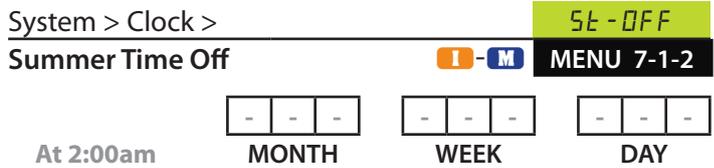
- 5) Enter the number of the day in the week (Sunday = 01 / Saturday = 07) Summer Time starts
- 6) Use the [←] and [→] keys at any time to confirm programming and then press [OK] to exit.

**Australian Daylight Savings Times**

From 2008, the ACT, NSW, South Australia, Victoria and Tasmania will all start daylight savings on the first Sunday in October and end on the first Sunday in April. This will result in an extra month of daylight savings for the ACT and introduces common start and finish dates in these states.

Daylight Saving Begins	Daylight Saving Ends
Turn Clock Ahead 1 hr	Turn Clock Back 1 hr
Sunday 2 October 2011	Sunday 1 April 2012
Sunday 7 October 2012	Sunday 7 April 2013
Sunday 6 October 2013	Sunday 6 April 2014

Table 34: Daylight Savings Dates - Australia



This menu allows you to program when day light savings end during the year. This will allow the panel to automatically adjust it's built in clock accordingly.

To program Summer time Off, you will need to program the month of the year (Jan to Dec), the week of the month (1 to 5) and the day of the week (Sun to Sat) that daylight saving ends.

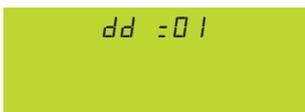
- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [1] + [2] + [OK].



- 3) Enter the number of the month (January = 01 / December = 12) that Summer Time ends.



- 4) Enter the number of the week (First Week = 1 / Last Week = 5) in that month that Summer Time ends.



- 5) Enter the number of the day in the week (Sunday = 01 / Saturday = 07) Summer Time ends.
- 6) Use the [←] and [→] keys at any time to confirm programming and then press [OK] to exit.

### SYSTEM TIMERS

System > Timers > L 720

---

Exit Time I MENU 7-2-0

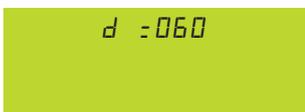
0 | 6 | 0

SECONDS

(\*\*\* System Wide Parameter \*\*\*)

This menu sets the exit time delay period for all areas on the system. The exit timer starts when an area is armed in the On and Part On modes. The keypad will sound an exit warning tone while the exit timer is running. Exit delay time can be programmed between 0 and 255 seconds.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [0] + [OK]. The keypad will display the current Exit Time.



- 3) Using the numeric keys, enter the required Exit Time in seconds. Valid times are 0 - 255 seconds 0 = No Exit Time.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System > Timers > L 721

---

Entry Time 1 I MENU 7-2-1

0 | 2 | 0

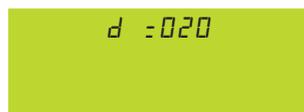
SECONDS

(\*\*\* System Wide Parameter \*\*\*)

This menu sets the entry time delay for zones programmed as entry delay 1 zones. Entry Time 1 is common for all areas on the system.

When a zone programmed as Delay 1 is triggered, the entry time will start and the keypad will sound an entry warning tone. Entry Time 1 can be programmed between 0 and 255 seconds.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [1] + [OK]. The keypad will display the current Entry Time 1 delay.



- 3) Using the numeric keys, enter the required delay for Entry Time 1 in seconds. Valid times are 0 - 255 seconds 0 = No Entry Time.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System > Timers > L 722

---

Entry Time 2 I MENU 7-2-2

0 | 4 | 0

SECONDS

(\*\*\* System Wide Parameter \*\*\*)

This menu sets the entry time delay for zones programmed as entry delay 2 zones. Entry Time 2 is common for all areas on the system.

When a zone programmed as Delay 2 is triggered, the entry time will start and the keypad will sound an entry warning tone. Entry Time 2 can be programmed between 0 and 255 seconds.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [2] + [OK]. The keypad will display the current Entry Time 2 delay.



- 3) Using the numeric keys, enter the required delay for Entry Time 2 in seconds. Valid times are 0 - 255 seconds 0 = No Entry Time.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System > Timers > L 723

---

Part Entry Time I MENU 7-2-3

0 | 6 | 0

SECONDS

(\*\*\* System Wide Parameter \*\*\*)

This menu allows you to program the Part Mode Entry Delay time also know as entry guard. When armed in Part Mode, all active zones retain their normal functionality. ie. instant zones will trigger instantly etc. The part entry timer allows all active zones to have an entry delay when the the area is armed in part mode regardless of their normal functionality. This can help to prevent false alarms when people on site inadvertently unseal an active zone.

If a valid PIN code is not entered before the timer expires then the alarm will trigger. Programming the entry guard time as zero will disable this feature.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [3] + [OK]. The keypad will display the current Part Entry time.



- 3) Using the numeric keys, enter the required delay for the Part Entry Time in seconds. Valid times are 0 - 255 seconds, 0 = No Part Entry Time.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System &gt; Timers &gt;

Auto Arm Pre-Alert

MENU 7-2-4

0	1	0
---	---	---

(\*\*\*) System Wide Parameter (\*\*\*)

MINUTES

This menu allows you to program the Auto Arm Pre Alert count down timer. The timer is used to warn staff or users that the system is about to auto arm by sounding a tone on the keypad. To set up auto arming see MENU 7-5-0 — System Schedules.

If a valid PIN + [OFF] is entered, the tone will stop and the keypad will prompt the user to either abort or delay the automatic arming. If the user selects the option to delay the auto arm, this sequence will repeat on the hour until the system is armed manually or automatically.

For example if the system is programmed to auto arm at 8.00pm and the Pre Alert time is set to 10 minutes then at 7.50pm the system will begin sounding the Pre Alert tone on the keypad.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [4] + [OK]. The keypad will display the current Pre-Alert Time.



- 3) Using the numeric keys, enter the pre-alert time . Valid times are 0 to 255 minutes. 0 = No Auto Arm Pre Alert.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System &gt; Timers &gt;

Output Pre-Alert

MENU 7-2-5

0	0	0
---	---	---

(\*\*\*) System Wide Parameter (\*\*\*)

MINUTES

The panel can be programmed to automatically operate an output via a schedule, see MENU 7-5-0 — System Schedules.

This menu allows you to program the Output Pre Alert count down timer. The timer is used to warn staff or users that an output is about to operate by sounding a tone on the keypad.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [5] + [OK]. The keypad will display the current Output Pre Alert Time.



- 3) Using the numeric keys, enter the pre-alert time. Valid times are 0 to 255 minutes. 0 = No Output Pre Alert
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

System &gt; Timers &gt;

Senior Watch Time

MENU 7-2-6

0	0	0
---	---	---

(\*\*\*) System Wide Parameter (\*\*\*)

HOURS

This feature can be used to verify that an elderly person is OK or as a dead man timer for an onsite patrolman or security officer.

This menu allows you to program the Senior Watch Time period. The panel must register at least one burglary zone in the programmed area to unseal and reseal during this time period or the panel will report a Senior Watch alarm to the base station.

A Senior Watch Restore will be sent when at least one zone is unsealed and resealed. Senior Watch monitoring is only active when the corresponding area is in the disarmed state.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [2] + [6] + [OK]. The keypad will display the current senior watch time. (default = 0 hours).



- 3) Using the numeric keys, enter the new senior watch time. Valid times are 0 to 255 hours. 0 = No Senior Watch Time.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

## SYSTEM POWER OPTIONS

System > Power >

L 730

AC Options

**I** MENU 7-3-0

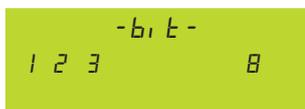
1	Display AC Fail	Y
2	Report AC Fail	Y
3	Use AC To Synchronise The System Clock	Y
4	Random AC Report 2hour	N
5	AC Fail After 1 hour	N
6	Reserved	N
7	Reserved	N
8	Display Clock Trouble	Y

(\*\*\* System Wide Parameter \*\*\*)

This menu option allows you to configure the AC Mains Power system options.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [3] + [0] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Display AC Fail

Setting this option will cause the panel to flash the Mains Power icon as soon as the AC power supply has failed. If the power remains missing continuously for 1 minute then a system trouble will be registered on the keypad. When the AC power supply returns to normal the Mains Power icon will remain on steady. If this option is disabled then the system will not flash the Mains Power icon and no system trouble will occur.

### Report AC Fail

Setting this option will cause the panel to report an AC Fail to the base station if the mains power has been missing for a period of 1 minute. A restore report will be sent once the mains power has been restored for one

minute.

### Synchronise System Clock to AC

Setting this option allows the panel to synchronise its internal clock with the mains frequency (50hz). This option should be set unless the panel is being used in an area where the mains power is unreliable.

### Random AC Reporting 2hr

Setting this option allows the panel to randomly delay (up to 2 hours) the AC Fail report. This option is used to prevent multiple Solution panels from reporting AC fail at the same time.

### AC Fail To 1 Hour

Setting this option will cause the panel to only send an AC Fail report to the base station if the power has been missing continuously for one hour. The Mains Power icon will operate as normal.

### Display Clock Trouble

Setting this option will cause the panel to show a Date and Time System trouble if the power is removed from the system for any period of time such as when performing a system upgrade or service work. If this option is disabled then no system trouble will appear and you will need to remember to set the correct time when you re power the system.

System > Power >

L 731

Battery Options

**I** MENU 7-3-1

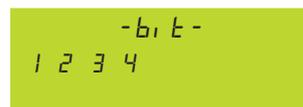
1	Display Battery Fail	Y
2	Report Battery Fail	Y
3	Execute Battery Testing On Arming	Y
4	Arming Allowed On Low Battery	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

(\*\*\* System Wide Parameter \*\*\*)

This menu option allows you to configure the standby Battery system options. The system is constantly monitoring the battery condition with a dynamic battery test carried out every 4 hours.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [3] + [1] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Display Battery Fail

Setting this option will cause the keypad to display a Trouble condition when the panel detects that the standby battery is disconnected or that its voltage is low. The trouble condition will clear as soon as the panel has measured the battery voltage is 12.5 volts or greater.

### Report Battery Fail

Setting this option will cause the panel to send a Low Battery report to the base station when it measures the battery voltage has dropped below 11.5 volts. A Low Battery Restore report will be sent when the panel detects that the battery voltage is above 12.5 volts.

If the panel fails to detect the battery, or if it measures the battery voltage below 10.2 volts, then a Battery Test Failed report will be sent. A Battery Test restore will be sent when the battery is re-connected or replaced.

### Execute Battery Testing On Arming

Setting this option will cause the panel to perform an additional dynamic battery test each time Area 1 is armed All On.

### Arming Allowed On Low Battery

Setting this option will allow the system to be armed even though the panel currently has a low battery condition.

When this option is disabled, the panel will not arm if there is a low battery condition or if the battery is missing. The user will be notified of the system trouble on the keypad and they will need to have the fault rectified before the system or area can be armed.

System &gt; Power &gt;

L 732

Fuse Options



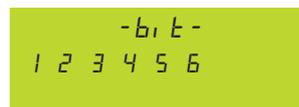
MENU 7-3-2

1	Display COMM+ Current Overload	Y
2	Report COMM+ Current Overload	Y
3	Display +12V (Acc) Current Overload	Y
4	Report +12V (Acc) Current Overload	Y
5	Display LAN+ Overload	Y
6	Report LAN+ Overload	Y
7	Reserved	N
8	Reserved	N

(\*\*\* System Wide Parameter \*\*\*)

This menu option allows you to configure the Fuse related system options.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [3] + [2] + [OK].  
The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.

### Display COMM + Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the COMM + terminal exceeds its maximum rating of 3 Amps.

### Report COMM + Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the COMM + terminal exceeds its maximum rating of 3 Amps.

### Display +12V (Accessories) Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the +12 V terminal exceeds its maximum rating of 1Amp.

### Report +12V (Accessories) Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the +12 V terminal exceeds its maximum rating of 1Amp.

### Display LAN + Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the LAN+ terminal exceeds its maximum rating of 1Amp.

## Report LAN + Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the LAN+ terminal exceeds its maximum rating of 1Amp.

## HORN SPEAKER OPTIONS

System > Siren > L 740  
**Tone** I MENU 7-4-0

This menu allows you to customise the tone that is emitted from the horn speaker when a non-fire alarm is triggered. By changing the tone and speed, it is possible to program a unique siren sound for each system when you are installing a number of them in close proximity to each other.

- 1) Enter the Installer PIN + [MENU].
- 2) Enter [7] + [4] + [0]. The keypad will display the current siren tone.

L 740

- 3) Use the up and down arrow keys to change the the siren tone.
- 4) Repeat Step 3 and 3 until the desired siren tone is achieved then press [OK] to save and exit, or press [MENU] to exit without saving.

 Only outputs programmed as Event Type 46 and or 47 will be affected by this menu option.

System > Siren > L 741  
**Speed** I MENU 7-4-1

This menu allows you to customise the speed of the siren tone when a non-fire alarm is triggered. By changing the tone and speed, it is possible to program a unique siren sound for each system when you are installing a number of them in close proximity to each other.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [4] + [1] + [OK]. The keypad will display the current siren speed.

SPd=09

- 3) Use the up and down arrow keys to change the siren speed.

- 4) Repeat Step 3 until the desired siren tone is achieved then press [OK] to save and exit, or press [MENU] to exit without saving.



Only outputs programmed as event type 36 and or 37 will be affected by this menu option.

System > Siren > L 742  
**Volume (RF SPK Beep)** I MENU 7-4-2

(\*\*\* System Wide Parameter \*\*\*) 1 5

This menu allows you to program the volume level of the radio key speaker beeps which are heard when the system is armed and disarmed using a radio keyfob.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [4] + [2] + [OK]. The keypad will display the current siren volume (default = 15).

d= 15

- 3) Using the numeric keys, enter the new volume level. Valid entries are 0 to 15 where 15 = the loudest volume and 0 = no speaker beeps.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.



Only outputs programmed as Event Type 36, horn speaker with beeps will be effected by this menu option.

System > Siren > L 743  
**Siren Swinger** I MENU 7-4-3

(\*\*\* System Wide Parameter \*\*\*) 0 3

This menu allows you to program how many times a zone programmed for Lockout Siren can sound the siren during each arming cycle.

At default, zones programmed for Lockout Siren will be able to trigger the siren 3 times before being locked out. The count will be reset when the system or area is next disarmed.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [4] + [3] + [OK]. The keypad will display the current Swinger Siren count.

d= 03

- 3) Using the numeric keys, enter the new swinger siren count. Valid entries are 0 to 15 where 0 = unlimited.
- 4) Press [OK] to save and exit or press [MENU] to exit without saving.

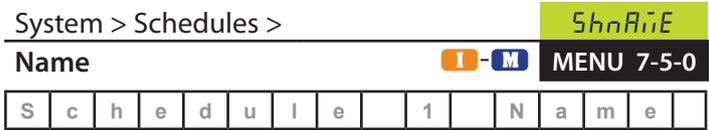
### SYSTEM SCHEDULES

The Solution 16i has 8 schedules each with a start and stop time as well as the day of the week and holidays. These schedules can be used to operate outputs, arm and disarm different areas at different times. When linked to Timer Groups they will control a users access to the system.

To setup an Auto Arming time simply select a schedule that is not used, set the name to something convenient and the start time to the arming time you require. The stop time should be set to 12:00am which prevents the system from auto disarming.

Now set the function to Area On/Off and the Index to the area to operate. If an index of zero is used then arming will occur for all areas. Finally select the days which you wish auto arming to occur.

To operate an output using a schedule select an unused schedule, set the name to something convenient, set the start time to when to operate the output, set the stop time to when to turn the output off, select the schedule function as Operate Output, set the Index to the output number, set the days of the week to operate and you are finished.



This menu allows the installer or master user to program the schedule's name (maximum = 16 characters). Use the [←] and [→] keys to scroll the cursor left and right to view the entire name.

The text programming procedure is very similar to that of most mobile phones. Refer the Programming Text section on page 4-2 for more details.

Schedule names are stored with associated events in the system's history log. This enables accurate auditing of events at a later time if required. Names are also used when reporting alarms and arm /disarm events in SMS and other text based reporting formats.

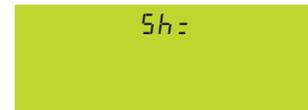
Each schedule has a default name which can be changed if desired. The default names are as follows.

DEFAULT SCHEDULE NAMES	
Schedule Number	Default Name
1	SchEdULE 1 nRiiE
2	SchEdULE 2 nRiiE
↓	↓
8	SchEdULE 8 nRiiE

Table 35: Default Schedule Names

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [5] + [0] + [OK].

The keypad will display the sh = prompt.



- 3) Enter the schedule number (1 to 8) you want to program, then press [OK].

The keypad will display the current Schedule Name. Use the [←] and [→] keys to view the existing name. The cursor position is indicated by the flashing character in the name. It is possible to edit a single character in the name without re-entering the entire name.

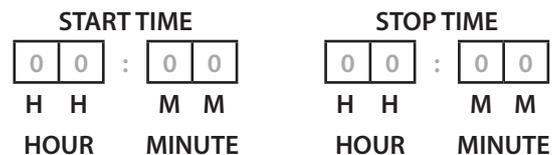


- 4) Use the [0] to [9], [←] and [→] keys to change the Schedule Name text as required.

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all text from the cursor position to the right, press the [OFF] key.

- 5) When the Name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.



This menu allows you to program the start time and stop time for of each schedule. Some schedules like those used to automatically arm the system, will only have a start time.

You should discuss the configuration of any schedules on

your system with your installer.

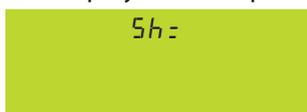
The following prompts will be shown when entering the schedule time parameters.

- S h h* = Start Time Hours
- S i i i* = Start Time Minutes
- E h h* = End Time Hours
- E i i i* = End Time Minutes

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [7] + [5] + [1] + [OK].

The keypad will display the sh = prompt.



3) Enter the Schedule number you want to program, then press [OK].



4) Enter the hour (00 - 23) of the day that the schedule will start.



5) Enter the minutes (00 - 59) of the hour that the schedule will start.



6) Enter the hour (00 - 23) of the day that the schedule will end.



7) Enter the minutes (00 - 59) of the hour that the schedule will end.

8) Use the [←] and [→] keys to confirm programming and then press [OK] to exit.

System > Schedules >

sh dR4  
MENU 7-5-2

Day

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hol
Y	Y	Y	Y	Y	Y	Y	N

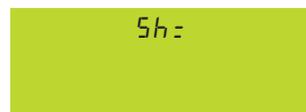
This menu you to program which days of the week the schedule will operate.

- 1 = Sunday
- 2 = Monday
- 3 = Tuesday
- 4 = Wednesday
- 5 = Thursday
- 6 = Friday
- 7 = Saturday
- 8 = Holidays

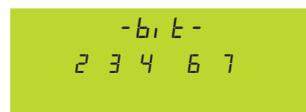
1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [7] + [5] + [2] + [OK].

The keypad will display the sh = prompt.



3) Enter the Schedule number (1-8) you want to program, then press [OK].



4) Using keys [1] to [8], toggle on or off which days of the week the schedule will operate.

Repeat Step 4 until all required days for the schedule are programmed.

5) Press [OK] to save and exit, or press [MENU] to exit without saving.

System > Schedules >

L 753  
MENU 7-5-3

Function

- 00 = Disabled
- 01 = Area On/Off
- 02 = Area Part On/Off
- 03 = Operate Output
- 04 = Timer Group



This menu allows you to program what function the schedule will perform. There are a number of options which are explained in more detail below. Only one option can be programmed.

1) Enter your Installer PIN + [MENU].

2) Enter [7] + [5] + [3] + [OK].

The keypad will display the sh = prompt.

sh=

- 3) Enter the Schedule number (1-8) you want to program, then press [OK].

d= 01

- 4) Use numeric keys to enter the option number required, then press [OK] to save and exit or press [MENU] to exit without saving.

### Disabled

Setting this option will disable the schedule.

### Area On/Off

Setting this option will cause the system to turn ON at the START time and turn OFF at the STOP time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the AREA to turn on and/or off, setting the index to zero will arm and disarm all areas.

### Area Part On/Off

Setting this option will cause the system to turn ON in Part Mode 1 at the START time and turn OFF at the STOP time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the AREA to turn on and off in Part Mode, setting the index to zero will arm and disarm all areas.

### Operate Output

Setting this option will cause the system to operate the output at the start time and turn the output off at the stop time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the Output Number to turn on and off, setting the index to zero will disable the output.

### Timer Group

Setting this option will assign the start and stop times to a Timer Group to restrict user access to doors and areas. The INDEX defines the Timer Group to link to. See MENU 1-4-4 — Timer Group for information on assigning users to timer groups.

System &gt; Schedules &gt;

L 754

Index

I MENU 7-5-4

0

This menu allows you to program which Area, Output or Timer Group the Schedule will operate. The index type is determined by the schedule function which was selected in MENU 7-5-3.

- 1) Enter your Installer PIN + [MENU].

- 2) Enter [7] + [5] + [4] + [OK].

The keypad will display the sh = prompt.

sh=

- 3) Enter the Schedule number (1-8) you want to program, then press [OK].

d= 01

- 4) Use numeric keys to enter the index number required, then press [OK] to save and exit or press [MENU] to exit without saving.

## SYSTEM HOLIDAYS

The Solution 16i has provision for up to 8 individual holiday time periods which can be used to allow or deny access to users or to operate outputs via schedules. Holidays are defined by setting a start and stop date so it is possible to create 1 system holiday that spans multiple days. For example the holiday could start on the 1st Jan and end on the 5th Jan.

System > Holidays >

hOliDAY

Name

I-M

MENU 7-6-0

H o l i d a y 1 N a m e

This menu allows the master user to program the holiday's name. A maximum of 16 characters can be entered in this field. Use the [←] and [→] keys to scroll the cursor left and right to view the entire name.

DEFAULT HOLIDAY NAMES	
Holiday Number	Default Name
1	HOLi DAY 1 nRiE
2	HOLi DAY 2 nRiE
↓	↓
8	HOLi DAY 8 nRiE

Table 36: Default Holiday Names

1) Enter your Installer PIN or Master PIN + [MENU].

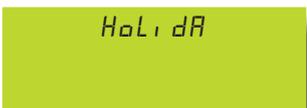
2) Enter [7] + [6] + [0] + [OK].

The keypad will display the Ho = prompt.



3) Enter which holiday name (1 to 8) that you want to program, then press [OK].

The keypad will display the first 6 characters of the holiday name.



4) Use the [0] to [9], [←] and [→] keys to program the new holiday name text as required.

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all text from the cursor position to the right, press the [OFF] key.

5) When the holiday name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.

System > Holidays >

hOliDAY

Start / Stop Dates

I-M

MENU 7-6-1

START 12:00AM

0 0 : 0 1

D D M M  
(DAY) (MONTH)

STOP 12:00AM

0 0 : 0 1

D D M M  
(DAY) (MONTH)

This menu allows you to program the duration of each holiday stored in the panel. This is done by programming the start and stop date for each holiday period. Holidays can be as short as one day and as long as a week or more.

The following prompts will be shown when entering the holiday parameters.

Sdd = Start Date (day of the month)

Smm = Start Month (month of the year)

Ehh = End Date (day of the month)

Emm = End Month (month of the year)

1) Enter your Installer PIN or Master PIN + [MENU].

2) Enter [7] + [6] + [1] + [OK].

The keypad will display the Ho = prompt.



3) Enter the Holiday number you want to program, then press [OK].



4) Enter the day (01 - 31) of the month that the holiday will start.



5) Enter the month (01 - 12) that the holiday will start.



6) Enter the day (01 - 31) of the month that the holiday will end.

7)

E 111 = 0 1

- 8) Enter the month (01 - 12) that the holiday will end.
- 9) Use the [←] and [→] keys to confirm programming and then press [OK] to exit.

## SYSTEM OPTIONS

System > System Options >

L 770

### General Options

**I** MENU 7-7-0

1	Display LAN Fail	Y
2	Report LAN Fail	Y
3	Alarm On LAN Fail	N
4	Cannot Change Own PIN	N
5	Reserved	N
6	Monitor Default PIN Codes	N
7	PIN Always Required	Y
8	Reserved	Y

(\*\*\* System Wide Parameter \*\*\*)

This menu allows you to configure the General system options. All options are global to users, areas and keypads.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [7] + [0] + [OK].

The keypad will display the current options which are selected or enabled.

- b i t -  
1 2                      7 8

- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Display LAN Fail

Setting this option allows all connected keypads to display a system trouble when a device connected the the system LAN has failed to communicate to the panel.

### Report LAN Fail

Setting this option allows the panel to report which LAN device has failed to the base station.

### Alarm On LAN Fail

Setting this option allows the panel to sound an alarm when a device connected to the LAN failed to

communicate to the panel.

### Cannot Change Own PIN

Setting this option prevents all users the ability to change their own PIN.

### Monitor Default PIN Codes

Setting this option will cause the panel to monitor the default Installer PIN and User 1 PIN which are factory set to 1234 and 2580 respectively. If either of these codes are left as default then the keypad will display the system trouble Default PIN. The fault will clear once the code or codes have been changed.

### PIN Always Required

Setting this option will force the system to request a valid PIN to be entered before any menu functions can be accessed. If this option is not set then some restricted menu options will be available without entering a valid PIN.

System > System Options >

L 771

### Area Options

**I** MENU 7-7-1

1	Area 1 = Common Area	N
2	First To Open Last To Close	N
3	Reset Siren All Users (All Areas)	N
4	Power Up In Same State As Powered Down	Y
5	Fault Acknowledge All Areas	Y
6	Delay Trouble Beeps	N
7	Power Up Disarmed	N
8	Reserved	N

(\*\*\* System Wide Parameter \*\*\*)

This menu allows you to configure the Area system options. All options are global to users, areas and keypads.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [7] + [1] + [OK].

The keypad will display the current options which are selected or enabled.

- b i t -  
4 5

- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 4) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Area 1 = Common Area

Setting this option will cause the system to automatically arm Area 1 All On when all other areas have been turned on. As soon as any area is turned off the system will automatically turn Area 1 off. Only one common area is available on the system. If no common area is required then do not set this option.

### First To Open / Last To Close

Setting this option will cause the system to only report an opening signal to the base station when the first area is Disarmed and a closing signal when the last area has been armed or turned All On.

### Reset Siren All Users

Setting this option allows a user with a valid PIN to silence alarm outputs from any keypad on the system without the need to toggle the keypad to the area that the alarm occurred.

If this option has not been programmed, the user will need to toggle the keypad to the area the alarm occurred in and then silence the alarm by entering their PIN followed by the [OFF] key.

### Power Up In Same State As Powered Down

Setting this option will cause the panel to power up in the same state as it was when it was powered down. For example with this option set if the panel is in the disarmed state and all power is removed for service work to be done. When the power is reapplied, the panel will start in the disarmed state. Any zone that was programmed as bypassed when the power was removed will remain bypassed when the power supply has restored.

If this option is not programmed, the system will always power up in the armed All On state and any zones bypassed prior to power loss will power up as unbypassed zones.

### Fault Acknowledge All Areas

Setting this option allow system trouble faults to be acknowledged from any area or keypad on the system without the need to toggle over to the area the fault occurred in.

### Delay Trouble Beeps

Setting this option will prevent any system trouble events from sounding the keypad speaker between the hours of 10pm until 7am. During this time, any new trouble events will be shown in the keypad display.

If any trouble events are still in effect at 7am, the keypad will begin sounding the trouble alert to notify the user of the problem. The function is primarily for use in residential installations.

### Power Up Disarmed

Setting this option forces the control panel to power up in the disarmed state after you power down the system.

System > System Options > L 772  
**Keypad Idle Screen** I MENU 7-7-2  
 (\*\* System Wide Parameter \*\*) 0 0

00 = No Idle Screen                      02 = Time  
 01 = Date and Time                    03 = Time + Temp Alternating

This menu allows you to select a keypad Idle Screen which will appear on the display when there has been no activity at the keypad for a period of 2 minutes. The keypad display will return to normal as soon as any key has been pressed.

There are two built-in Idle Screens and one custom Idle screen which can be created and programmed only via the Solution Link upload/download software. The custom screen can be used to display the Installer name and logo or other information as required.

All keypads on the system will display the same screen saver. See the examples below.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [7] + [2] + [OK]. The keypad will display the current Keypad Idle Screen option.

A keypad display showing the text "d = 0" on a green background.

- 3) Use the numeric keys to enter the new idle screen option required, then press [OK] to save and exit or press [MENU] to exit without saving.

System > System Options > L 773  
**Keypad Hi/Lo Temp** I-M MENU 7-7-3  
0 0 °C      0 0 °C  
 (\*\* System Wide Parameter \*\*)    HI TEMP                      LO TEMP

The keypad Hi/Lo temperature allows you to program the minimum (0 °C) and maximum (50 °C) temperatures the keypad will monitor (tolerance = +/- 3 °C).

If the temperature falls below the minimum temperature, or rises above the maximum temperature then the system trouble indicator will be displayed.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [7] + [3] + [OK].

The keypad will display the current Hi temperature setting.

A keypad display showing the text "hi = 20" on a green background.

- 3) Enter the required Hi temperature value in degrees celcius.



- 4) Enter the required Lo temperature value in degrees celcius.
- 5) Press [OK] to save and exit, or press [MENU] to exit without saving.

System > System Options >

L 774

Installer Options



MENU 7-7-4

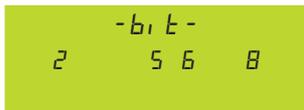
1	Report/Log Entry/Exit Intstaller Menu	N
2	Report/Log Program Data Change	Y
3	Arm Only Installer PIN	N
4	Reserved	N
5	Auto Exit Installer Menu In 2 Hours	Y
6	Auto Exit Service Mode In 2 Hours	Y
7	Reserved	N
8	Factory Defaulting Allowed	Y

(\*\*\* System Wide Parameter \*\*\*)

This menu allows you to configure the Installer system options.

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [7] + [4] + [OK].

The keypad will display the current options which are selected or enabled.



- 3) Use the numeric keys [1] to [8] to turn on and off the features as required. When the corresponding number on the keypad is on then the option is selected.
- 2) When all options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.

### Report/Log Entry/Exit Installer Menu

Setting this option will cause the panel to make a log entry and to send a report to the base station when the installer enters and exits Installer programming mode. The entry/exit reports will follow the System Route.

### Report/Log Program Data Changed

Setting this option will cause the panel to make a log entry and to send a report to the base station when the installer has changed programming data. The data changed reports will follow the System Route.

### Arm Only Installer PIN

Setting this option will prevent the installer PIN holder from disarming the system. Normally the installer PIN is able to arm and disarm the system.

### Auto Exit Installer Menu In 2 Minutes

Setting this option will cause the panel to automatically terminate Installer programming mode after 2 minutes of no activity on the keypad. If this option is not set, the panel will remain in Installer programming mode until manually terminated.

### Auto Exit Service Mode In 2 Hours

Setting this option will cause the panel to automatically terminate service mode after 2 hours of no activity on the keypad keys. If this option is not set, the panel will remain in the service mode until it is manually terminated.

### Factory Defaulting Allowed

Setting this option will allow the panel to be defaulted back to the factory setting using the the on board push button switch. See below for defaulting instructions.

If this option is not set then manual defaulting will not function and the only way to default the panel will be by using the current installer PIN. If the installer PIN is not know then the panel will need to be returned to Digiflex for defaulting. A charge applies for this service.

System > System Options >

L 775

**Language**

**MENU 7-7-5**

00 = English

0 0

01 = Alternate Language

This menu allows you to select the language that will be displayed on the keypad. You have a choice between English (default) or a second language (determined by the country that the control panel is shipped to).

- 1) Enter your Installer PIN + [MENU].
- 2) Enter [7] + [7] + [5] + [OK]. The keypad will display the following:



- 3) Using the numeric keys, enter the language option as required then press [OK] to save and exit or press [MENU] to exit without saving.

System > System Options >

S, EE

**Site Name**

**MENU 7-7-7**

1 Characters 16  
M y A l a r m



*Email reporting requires firmware version 2.10 or higher and will only operate within Australia.*

This menu allows the installer or master user to program the emails subject line to identify the alarm system (eg. site name) to the receiving party. A maximum of 16 characters can be entered in this field. Use the [←] and [→] keys to scroll the cursor left and right to view the entire name.

- 1) Enter your Installer PIN or Master PIN + [MENU].
- 2) Enter [7] + [7] + [7] + [OK].

The keypad will display the current Site Name.



- 3) Use the [0] to [9], [←] and [→] keys to change the Site Name text as required.

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters. To clear all text from the cursor position to the right, press the [OFF] key.

- 4) When the site name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.

**SYSTEM TESTING**

System &gt; System Testing &gt;

L 790

**Walk Test All Zones**

I-M-U

**MENU 7-9-0**

This menu allows you to test all zones within an area at the same time. To successfully walk test each zone, you must fault and restore each zone (eg. open, then close front door etc).

- 1) **Enter your Installer PIN or Master PIN + [MENU].**
- 2) **Enter [7] + [9] + [0] + [OK].**

The keypad will display a list of all zones to be tested. If your system is configured for multiple areas then you may be prompted to select the area to test.



```

TEST
1 2 3 4 5 6 7 8
  
```

- 3) **Fault and restore each zone that needs to be tested.**

Any zone that has been successfully tested will no longer be displayed on the keypad.

When all zones have been tested, the keypad will display PASS.



```

PASS
  
```

- 4) **Press [OK] to exit.**

System &gt; System Testing &gt;

L 5E-BR

**Battery Test**

I-M-U

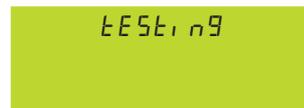
**MENU 7-9-1**

This menu allows you to manually test the systems back up battery. The panel will automatically test the battery once per day and every time Area 1 is turned All On.

The battery test can take up to two minutes to complete and the keypad will display the voltage of the battery during the test.

- 1) **Enter your PIN + [MENU].**
- 2) **Enter [7] + [9] + [1] + [OK].**

The keypad will display the battery voltage whilst under test.



```

TESTING
  
```

If the test passes the keypad will display:



```

PASS
  
```

If the test fails the keypad will display. If this happens you should contact your installer.



```

FAIL
  
```

- 3) **Press [OK] to exit.**

» » END OF SECTION « «



# Programming Examples

This section includes a number of programming examples detailing how to implement some common installation functionality.

Examples are provided to show;

- ❖ How to Open a Garage Door using a Single Digit Code.
- ❖ How to Open a Garage Door using a 4 Button Keyfob.
- ❖ How to set Auto Arming for an Area.
- ❖ How to operate an Output using a Schedule
- ❖ How to Use a Reader to Unlock a Door.
- ❖ How to Use a Reader to Unlock a Door and Disarm Area 1.
- ❖ How to Use a Reader to Unlock a Door and Arm/Disarm.
- ❖ How to use Call Line Identification.
- ❖ How to send SMS Reports.

## Opening a Door using a Single Digit Code

The Solution 16i can be used to operate an electrically controlled door using a single digit code. The example assumes User 10 and Output 5 are being used. (Output 5 is located on the CM110B Output Expander).

### Procedure

- 1) Set User Pin Code Length MENU 1-5-0 = 0  
(0 = Variable Length)
- 2) Set User 10 - PIN Code MENU 1-1-2 = 5
- 3) Set User 10 - Area Assignment MENU 1-4-1 = NNNNNNNN
- 4) Set Output 5 - Event Type MENU 4-1-1 = 56  
(56 = Follow Pin)
- 5) Set Output 5 - Event Assignment MENU 4-1-2 = 10  
(10 = User Number)
- 6) Set Output 5 - Output Polarity MENU 4-1-3 = 4  
(4 = Normally Open One Shot Low)
- 7) Set Output 5 - Time Parameter MENU 4-1-4 = 000  
000 005 000 (5 seconds)
- 8) Enable Output 5 - Output Options MENU 4-1-5 =  
Display Status Message

Wire Output 5 to the appropriate Door Controller input. Each time button 5 on the keypad is pressed the door will activate.

## Opening a Garage Door Using a 4 Button RF Keyfob

The following example show how to configure the Solution 16i to allow control of a grage door as well as arm and disarm functions using a 4 Button Keyfob. The example assumes User 10 and Output 5 are being used. (Output 5 is located on the CM110B Output Expander).

### Procedure

- 1) Set RF Receiver Type MENU 3-5-0 = D  
(D = DS Type)
- 2) Assign Keyfob to User 10 MENU 1-3-0 = 123456789
- 3) Set Output 5 - Event Type MENU 4-1-1 = 53  
(53 = RF Keyfob Function 1)
- 4) Set Output 5 - Event Assignment MENU 4-1-2 = 1  
(1 = Area Number)
- 5) Set Output 5 - Output Polarity MENU 4-1-3 = 4  
(4 = Normally Open One Shot Low)
- 6) Set Output 5 - Time Parameter MENU 4-1-4 = 000  
000 005 000 (5 seconds)
- 7) Enable Output 5 - Output Options MENU 4-1-5 =  
Display Status Message.

**Auto Arming an Area**

The Solution panel can be configured to automatically arm and or disarm an area automatically if required.

**Procedure**

To setup an Auto Arming time, select a schedule that is not being used, and program the schedule name to something convenient. Set the start time for the schedule to the arming time you require. The stop time should be set to 12:00am or --:--am, which prevents the system from auto disarming.

Now set the Schedule Function, MENU 7-5-3 to Area On/Off and the Schedule Index, MENU 7-5-4 to correspond to the area to operate. If an index of 0 is used then arming will occur for all areas. Finally select the days of the week you wish auto arming to occur in MENU 7-5-2

**Operating an Output with a Schedule**

To automatically operate an output using a schedule, select an schedule that is not being used, and program the schedule name to something convenient. Set the start time to the time you want the output to operate, and set the stop time to the time you want the output to turn off. Set the Schedule Function MENU 7-5-3 to Operate Output and set the Schedule Index MENU 7-5-4 to the Output number which is to operate. Finally set the days of the week the output is to operate on.

**Unlock A Door Using A Reader**

This example assumes Reader 1, Access Group 4 and Output 5 are being used.

**Procedure**

- 1) **Assign Proximity Reader 1 to Access Group 4, MENU 1-6-1.**
- 2) **Set output 5 to Event type = 60 - Access Group and Access Assignment = 4**
- 3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
- 4) **Assign Reader 1 to Area Assignment = 0 (All Areas) and then set disable arm/disarm options in MENU 1-6-3.**
- 5) **Present the Token to the Reader to access the door.**

**Unlock A Door and Disarm Area 1 Using A Reader**

This example assumes Reader 1, Access Group 4 and Output 5 are being used.

**Procedure**

- 1) **Assign Proximity Reader 1 to Access Group 4, MENU 1-6-1.**
- 2) **Set output 5 to Event type = 60 -Access Group and Access Assignment = 4.**

- 3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
- 4) **Assign Reader 1 to Area Assignment = 1 and then set the disarming option in MENU 1-6-3.**
- 5) **Present the Token to the Reader to Disarm, present the Token again to release the door.**

**Unlock A Door and Arm/Disarm Area 1 Using A Reader**

This example assumes Reader 1, Access Group 4 and Output 5 are being used.

**Procedure**

- 1) **Assign Proximity Reader 1 to Access Group 4, MENU 1-6-1.**
- 2) **Set output 5 to Event type = 60 (Access Group) and Access Assignment = 4.**
- 3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
- 4) **Assign Reader 1 to Area Assignment = 1 then set the arming/disarming and badging option in MENU 1-6-3.**
- 5) **Present the token to Disarm, present the Token to release door, present the token 3 times to Arm the system.**

**Using C.L.I. to establish Upload/Download Connection**

Calling Number Identification is a feature provided by your teleco line provider that can help you identify who is calling by displaying the caller's phone number.

This feature is used by the Solution control panel to identify the telephone number that the upload download computer is calling from. When the Solution panel verifies that the calling number corresponds to any one of the three different numbers programmed in MENU 5-3-7 — CLI Number then the panel will answer the call immediately.

This feature is extremely helpful for remote access using the Solution Link software to eliminate the need for making multiple calls to fax bypass or annoying customer calls where you have to let the number ring numerous times to trigger the panel into answering your call.

The numbers you store into MENU 5-3-7 should include the full STD number of the calling line you which the panel to answer on.

Almost every telephone line will send its CLI information when making a call however you will not receive the callers line information if you don't specifically request and enable this feature with your telco line provider.

## **Sending SMS Alarm Reports**

The Solution panel is capable of reporting alarm information directly to a mobile phone using SMS messaging without the need to add any additional hardware.

### **Procedure**

- 1) **Determine the required reporting destination and set the reporting format to SMS.**
- 2) **Program the access number into the Primary and Secondary telephone numbers.**
- 3) **Program the mobile phone number that the messages are to be sent to into the account code for the corresponding destination. In multi-area systems you will need to enter the appropriate mobile phone number for each area.**
- 4) **Program the SMS password. The panel default is set for the Telstra network.**
- 5) **Program the destination route for each event type which is required to report to SMS. By default all event types report to route 1.**

**» » E N D O F S E C T I O N « «**

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# Specifications

## SPECIFICATIONS

<b>Panel</b>	Solution 16i (Part Number CC500)	
<b>Voltage Input</b>	16-18V AC 50-60Hz - 24VA External Power Adaptor or 220-240V AC to 18V AC 50-60Hz - 24VA Internal Transformer (Primary Power Source)	
<b>Continuous Power</b>	1 Amp MAX ( Combined power drawn from Accessory Power(+12V) Lan Power (Module LAN +) and Output Power (C+) terminals must not exceed 1 amp)	
<b>Alarm Power</b>	4 Amp (Total with Primary and Secondary Power Sources Fitted)	
<b>Stand-by Battery</b>	12 VDC, 7.2AH sealed rechargeable battery - Panasonic LC-P127R2P or equivalent. (Secondary Power Source) Dispose of used batteries according to the instructions.	
<b>Minimum Operating Voltage</b>	10.2 VDC	
<b>Battery Charger</b>	Pulse by pulse charger. (Note: Charge voltage can't be measured unless battery is fitted.)	
<b>Module Connection (RS485 LAN)</b>	Max total LAN length using multi strand security cable = 300m , Max total LAN length using 2 pair twisted shielded data cable (Belden 8723) = 1500m. See the product installation manual for complete wiring instructions.	
<b>Telephone Connections</b>	RJ-12 Socket or 4-way terminal	
<b>Temperature</b>	0° to 55° C	
<b>Enclosure Fixing Method</b>	<p><b>CM700B - Small Enclosure</b> Use appropriate fasteners capable of handling a minimum of 6kg to fix the cabinet against a sturdy surface using the mounting holes provided.</p> <p><b>CM710B - Large Enclosure</b> Use appropriate fasteners capable of handling a minimum of 12kg to fix the cabinet against a sturdy surface using the mounting holes provided.</p>	
<b>Relative Humidity</b>	5 to 85% non-condensing.	
<b>Compatible Keypads</b>	CP300i - 8 Zone ICON Keypad - White CP510i - 16 Zone ICON Keypad - White	CP301i - 8 Zone ICON Keypad + Prox - White CP511i - 16 Zone ICON Keypad + Prox - White
<b>Compatible Accessories</b>	CM704B - 8/16 Zone Expander CM710B - 4 Way Relay Output Module CM720B - 1-Amp LAN Power Supply CM195 - Multi RF Receiver Interface	SW500B - Solution Link (RAS) Software CM900B - Direct Link Interface MW710B - Large Enclosure CM101B - Voice Interface Module CM750B - IP Interface Module
<b>Enclosure Dimensions:</b>	P/N: MW700 - (W)320, (H)260, (D)75mm P/N: MW710 - (W)320, (H)520, (D)75mm	
<b>PWA Dimensions:</b>	(W) 235, (H) 85, (D) 40mm	
<b>Warranty:</b>	3 years from date of manufacture (return to base)	

**The following parts are supplied with the panel**

(Australian models only - content may differ in export models )

<b>Panel Assembly</b>	1 x CM700B Metal Enclosure + Tamper	1 x Installer Reference Guide
<b>Includes</b>	1 x Panel PWA	1 x Resistor Pack
	1 x User Manual	
<b>Resistor Pack</b>	1 x Red Battery Lead	10 x 3K3 – 0.25W +/- 1% Metal Film Resistors
<b>Includes</b>	1 x Black Battery Lead	10 x 6K8 – 0.25W +/- 1% Metal Film Resistors
	1 x 2-Way Shunt With Handle	1 x 3-Way Removable Terminal Block
	2 x Phillips Pan Head Zinc Plated Screws	1 x Panel Tamper Switch + Tamper Lead
	1 x Telephone Cable RJ12 6P/4C	1 x Tamper Switch Bracket
	1 x Pack PCB Mounting Clips (5 pc/pack)	1 x Product Identification Label
<b>Available Separately</b>	Solution 16i Installation Manual Part Number BLCC500I	
	Solution Link (RAS) Software Part Number: SW500B	



## Index

### Symbols

24-Hour Alarm..... 6-8

### A

**Access Assignment** ..... 5-8  
**Access Programming**..... 5-1  
**Account Dest 1** ..... 6-8  
**Account Dest 2** ..... 6-8  
**AC Options** ..... 11-7  
    Delay Fail To 1 Hour ..... 11-7  
    Display Clock Trouble ..... 11-7  
    Display Fail ..... 11-7  
    Random Delay Reports..... 11-7  
    Report Fail ..... 11-7  
    Sync System Clock ..... 11-7  
**ADDRESS SELECT**  
    Keypad ..... 2-6  
**Alarm On LAN Fail** ..... 11-14  
**Alarm On PIN Retry Violations** ..... 6-6  
**Area 1 = Common Area**..... 11-14  
**Area Assignment**  
    User 5-6  
**Area Programming**..... 6-1  
**AREAS**  
    Area Name ..... 6-4  
    Area Status ..... 6-1  
    Area Watch ..... 6-8  
    Chime Mode..... 6-3  
    Chime On/Off..... 6-3  
    Exit Time Restart..... 6-5  
    General Options ..... 6-4  
    Input Options..... 6-5  
    Move To Area ..... 6-3  
    Output Options..... 6-6  
    Reporting Options ..... 6-7  
    Senior Watch ..... 6-6  
    Strobe Trigger  
        Fire Alarm ..... 6-7  
        Strobe Trigger  
            Audible Burglary Alarm ..... 6-7  
            Silent Burglary Alarm ..... 6-7  
            Turn All Areas Off ..... 6-2  
            Turn All Areas On ..... 6-2  
            Turn Area On/Off ..... 6-2  
**Armed When Part On** ..... 7-10  
**Arm Only Code** ..... 5-7

**Audible Burglary Alarm** ..... 6-7  
**Auto Arm Pre-Alert** ..... 11-6  
**Auto Exit Installer Menu In 2 Min** ..... 11-16  
**Auto Exit Service Mode In 2 Hrs**..... 11-16

### B

**Battery Options**..... 11-7  
    Arming Allowed If Low/Missing ..... 11-8  
    Display Fail ..... 11-8  
    Execute Test On Arm ..... 11-8  
    Report Fail..... 11-8  
**Battery Test**..... 11-18  
**Bypass Allowed**..... 7-10

### C

**Call / Answer RAS** ..... 9-2  
**Call Attempt Count** ..... 9-5  
**Call Back Number**..... 9-8  
**Call Back Verification Required** ..... 9-9  
**Call Forward Off** ..... 9-5  
**Call Forward On** ..... 9-4  
**Cancel Reports** ..... 6-7  
**Cannot Change Own PIN** ..... 11-14  
**Chime Mode**..... 6-3  
**Chime On/Off**..... 6-3  
**Chime Zones** ..... 7-3  
**CLI Number** ..... 9-12, 10-10  
**Clock Programming**..... 11-3  
**Common Area**  
    Link To Common Area..... 6-5  
**Comms Programming**..... 9-1  
**Communication Options**  
    Test Report Send ..... 9-16  
**Country** ..... 9-7

### D

**Data Changed Report** ..... 11-16  
**Date & Time** ..... 11-3  
**Daylight Saving**  
    Summertime On..... 11-4  
**Template Default** ..... 11-3  
**DEFAULTING THE SYSTEM**  
    Factory Defaulting Allowed ..... 11-16  
**Delay Report** ..... 7-9  
**Delay Trouble Beeps** ..... 11-15  
**Delete PIN**..... 5-3  
**Destination 1**  
    Primary Number ..... 9-3, 9-4  
    TX Format ..... 9-13

<b>Destination 2</b>	
TX Format .....	9-13
<b>Dialler Enabled</b> .....	9-6
<b>Dialler Options</b> .....	9-6
<b>Dial Number Test</b> .....	9-22
<b>Direct Link Session</b> .....	9-2
<b>Display LAN Fail</b> .....	11-14
<b>Display Menu Numbers</b> .....	11-14
<b>Domestic Default</b> .....	11-2
<b>Domestic Phone Numbers</b> .....	9-1, 9-4
<b>DTMF Options</b> .....	9-10
<b>Duress Allowed</b> .....	6-5

## E

<b>Egress Input</b> .....	10-3
<b>Email</b>	
Address .....	9-16
Options .....	9-16
Site Name .....	11-17
<b>Entry Time 1</b> .....	11-5
<b>Entry Time 2</b> .....	11-5
<b>EOL Value</b> .....	7-11
<b>Ethernet</b>	
Connetix NNC .....	10-10
Default Gateway .....	10-9
Encryption Key .....	10-10
IP Address Module .....	10-9
IPRS Address (Reserved) .....	10-10
IPRS Port (Reserved) .....	10-10
MAC Address .....	10-9
Options .....	10-11
Subnet Mask .....	10-9
<b>Event Type</b> .....	8-3
<b>Exit Error Alarm</b> .....	6-6
<b>Exit Error Report</b> .....	6-7
<b>Exit Time</b> .....	11-5
<b>Exit Time Restart</b> .....	6-5
<b>Expire PIN Code</b> .....	5-7

## F

<b>Factory Default</b> .....	11-2
Allowed .....	11-16
<b>Fault Acknowledge All Areas</b> .....	11-15
<b>Acknowledge All Faults</b> .....	6-5
<b>Features</b> .....	1-1
<b>Fire Alarm</b> .....	6-7
<b>Fire Report Delay</b> .....	9-15
<b>First To Open / Last To Close</b> .....	11-15
<b>Fuse Options</b> .....	11-8
Display +12V Overload .....	11-8
Display COMM+ Overload .....	11-8
Display LAN+ Overload .....	11-8
Report +12V Overload .....	11-8
Report COMM+ Overload .....	11-8
Report LAN+ Overload .....	11-9

## H

<b>Handover</b>	
Non Sequential Handover .....	6-5, 6-6
Pulse Count Handover Allowed .....	6-6
<b>History Log</b> .....	11-2
<b>History Log Threshold</b> .....	9-8
<b>Holidays</b>	
Name .....	11-13

Start Stop Dates .....	11-13
<b>Home Area</b> .....	10-2
<b>Horn Speaker</b>	
RF Beep Volume .....	11-9
<b>Horn Speaker Speed</b> .....	11-9
<b>Horn Speaker Tone</b> .....	11-9

## I

<b>Indicators</b>	
Keypad LED Indicators .....	2-6
<b>Input Options</b> .....	7-12
<b>Installer Menu Log</b> .....	11-16
<b>Installer Options</b> .....	11-16
<b>INSTALLER PIN</b>	
Arm Only .....	11-16
Change PIN .....	5-9
<b>Installing</b>	
Connecting Battery .....	2-4
Connecting Power .....	2-4
Enclosure .....	2-1
EOL Resistor Colour Code .....	2-11
Keypad Button Functions .....	2-5
Keypad Setup .....	2-6
Optional MAINS Transformer .....	2-4
Panels & Modules .....	2-2
PCB Connectors .....	3-2
PCB LED Indicators .....	2-5
Tamper Switch .....	2-1
Terminal Descriptions .....	3-2
<b>Inverted Seal</b> .....	7-10
<b>IP</b>	
Acknowledge Wait Time .....	9-18
Base Station Address .....	9-17
Base Station Port Number .....	9-17
Format .....	9-18
Poll Rate .....	9-17
RAS Address .....	9-19
RAS Lockout Time .....	9-20
RAS Options .....	9-20
RAS Port .....	9-19
Retry Count .....	9-18

## K

<b>Keypad</b>	
Address Settings .....	2-6
Button Functions .....	2-5
Emergency Keys .....	2-6
ICON & LED Indicators .....	2-6
Tones .....	2-7, 2-8
<b>KEYPAD</b>	
Access Group .....	10-5
Beeper Options .....	10-4
Chime Tone .....	10-4
Display Area Indicators .....	10-3
Display Home Area Only .....	10-3
Display Temperature .....	10-4
Emergency Keys .....	10-4
Entry Warning .....	10-4
Exit Warning .....	10-4
Extinguish .....	10-3
General Options .....	10-3
Greeting On Arm .....	10-3
Greeting On Disarm .....	10-3
Home Area .....	10-2
Installer PIN Arming Not Allowed .....	10-4

Keypad Backlight .....	10-2
Keypad Volume .....	10-2
Lockout Time .....	10-6
PIN Arming Not Allowed .....	10-4
PIN To Change Area .....	10-3
Rear Tamper .....	10-3
Report Temperature .....	10-3
Show Alarm When Armed .....	10-4
Temperature Display .....	10-4
Trouble Alerts .....	10-4
Keypad Hi/Lo Temp .....	11-15
Keypad Idle Screen .....	11-15
Keypad Status .....	10-1
Keyswitch Options .....	7-12
Keyswitch or PGM Input Arm/Disarm Flash .....	6-8
Keyswitch Tamper Alarm .....	6-6

## L

Language .....	11-17
LAN Secure .....	10-1
LAN Status .....	10-1
Link To Common Area .....	6-5
Lockout Dialler .....	7-9
Lockout Siren .....	7-9
Log Threshold .....	9-8

## M

MENU REFERENCE TABLE .....	4-12
Monitor Default PIN Codes .....	11-14
Multi Tenant Mode .....	11-16
MyAlarm	
IP Address .....	9-15
Options .....	9-15
Port .....	9-15

## N

Non Sequential Handover .....	6-5
-------------------------------	-----

## O

Open/Close Reports .....	5-7
Open/Close Reports For Part On .....	6-7
Open/Close Reports Only After Alarm .....	6-7
Open / Close Route .....	6-8
Output Default Table .....	8-11
Output Pre-Alert .....	11-6
OUTPUTS	
Event Assignment .....	8-7
Event Type .....	8-3
Output Name .....	8-2
Output Options .....	8-9
Output Polarity .....	8-7
Output Status .....	8-1
Time Parameter .....	8-9
Turn Output On/Off .....	8-2
Output Testing	
External Siren Test .....	8-10
Internal Bell Test .....	8-10
Strobe Siren Test .....	8-10

## P

Panel Status .....	11-1
Part 2 Zones .....	7-3
Part Mode Entry Time .....	11-5

PGM Input Type .....	7-13
Phone Line Options .....	9-6, 9-16
Phone Number Prefix .....	9-3
Phone Number Programming .....	9-3
Installer PIN .....	5-9
PIN	

Add User PIN .....	5-3
Change Own PIN .....	5-2
User Area Assignment .....	5-6

PIN Always Required .....	11-14
PIN Expire Time .....	5-9
PIN Length .....	5-8
PIN Retry Count .....	5-9
PIN Retry Report .....	6-7
Power Up In Same State .....	11-15

### Programming

Telephone Numbers .....	4-3
-------------------------	-----

### PROGRAMMING

Overview .....	4-1
----------------	-----

### PROGRAMMING EXAMPLES

Auto Arming an Area .....	12-1
Opening a Door using a Single Digit Code .....	12-1
Opening Garage Door Using a 4 Button Keyfob ..	12-1
Operating an Output with a Schedule .....	12-2
Sending SMS Alarm Reports .....	12-3
Unlock Door and Disarm Area via Reader .....	12-2
Unlock Door & Arm/Disarm Area via Reader .....	12-2
Using C.L.I. to establish VisionLink Connection ...	12-2

### PROX READERS

Access Assignment .....	5-10
Area Assignment .....	5-10
Arm All User Areas .....	5-11
Arming Allowed .....	5-11
Arm Single User Area .....	5-11
Badging Required .....	5-11
Disarming Allowed .....	5-11
Name .....	5-9
Part On Badging .....	5-11
Reader Options .....	5-10
Zero Exit Time .....	5-11

### Pulse Count

Pulse Count Handover Allowed .....	6-6
Pulse Count Time .....	7-7

Pulse Count Time .....	7-7
------------------------	-----

## R

RAS Security PIN .....	9-8
------------------------	-----

### REPORTING OPTIONS

Burg Report Delay .....	9-14
Emergency Route .....	9-14
Fire Report Delay .....	9-15
Status Route .....	9-14
Swinger Dialler .....	9-14
Test Route .....	9-13
TX Format Dest 1 .....	9-13
TX Format Dest 2 .....	9-13

Report LAN Fail .....	11-14
-----------------------	-------

RF Device Options .....	10-7
-------------------------	------

### RF Devices

Add RF Device .....	7-10
Delete RF Device .....	7-11
Test RF Device .....	7-11

RF I.D.Viewer .....	10-8
---------------------	------

### RF Keyfob

Add .....	5-5
-----------	-----

Delete .....	5-5
RF Keyfob Arm/Disarm Flash .....	6-7
RF Receiver Options.....	10-6, 10-11
RF Status .....	10-1
RF Supervision Time .....	10-6
Ring Count .....	9-9

## S

### SCHEDULES

Day .....	11-11
Function.....	11-11
Index.....	11-12
Name .....	11-10
Time .....	11-10
Senior Watch .....	6-6
Senior Watch Time .....	11-6
Sensor Watch .....	7-10
Sensor Watch Time.....	7-14
Service Interval .....	6-9
SERVICE MODE .....	6-9, 11-3
Silent Alarm .....	7-10
Silent Burglary Alarm .....	6-7
Single Button Arming .....	6-5
Single Button Part Off.....	6-5
Siren Reset All Users .....	11-15
Siren / Strobe When Part On .....	6-6
Siren Swinger.....	11-9
Site Name .....	11-17
Smart Lockout.....	6-7
Smoke Reset On Arming .....	6-6
Smoke Sensor Reset .....	7-3
SMS Password .....	9-7
SolutionLink.....	9-2
SolutionLink RAS Options .....	9-9, 9-15
SolutionLink Security PIN .....	9-8
Speaker Beeps.....	11-9
Speaker Beeps Via Keypad .....	6-6
Speaker Beeps Via RF Key Fob .....	6-6
SPECIFICATIONS .....	13-1
Status Route.....	9-14
Strobe Trigger .....	6-7
Summertime On .....	11-4
Swinger Dialler .....	9-14
System	
History Log .....	11-4

### SYSTEM OPTIONS

Area Options .....	11-14
General Options .....	11-14
Installer Options.....	11-16

### SYSTEM POWER

AC Options .....	11-7
Arming Allowed On Low Battery .....	11-8
Battery Options.....	11-7
Fuse Options .....	11-8
Synchronise System Clock to AC.....	11-7

### SYSTEM PROGRAMMING

Panel Status .....	11-1
System Trouble .....	11-1
System Trouble .....	11-1

## T

Tamper Options .....	7-13
Temperature .....	10-4
Terminal Descriptions.....	3-2

### Test Dialler

Dial Number Test .....	9-22
------------------------	------

### Testing The System

Battery Test .....	11-18
Walk Test All Zones.....	11-17, 11-18

Test On Exit.....	7-10
-------------------	------

### Test Report

Send a test report.....	9-16
-------------------------	------

Test Report Options.....	9-22
--------------------------	------

Test Report Period .....	9-21
--------------------------	------

Test Report Route.....	9-22
------------------------	------

Test Reports .....	9-16,
--------------------	-------

9-17, 9-18, 9-19, 9-21, 10-9, 10-10

Test Report Time.....	9-21
-----------------------	------

Timer Groups .....	5-7
--------------------	-----

Token .....	5-4
-------------	-----

Tone Bypass .....	9-10
-------------------	------

## U

### User

Area Assignment .....	5-6
-----------------------	-----

Name .....	5-5
------------	-----

User Default Table .....	5-2
--------------------------	-----

User PIN Codes .....	5-2
----------------------	-----

### USERS

Access Assignment .....	5-10
-------------------------	------

Can Auto Bypass Zones .....	5-7
-----------------------------	-----

Can Bypass Zones.....	5-7
-----------------------	-----

PIN Expire Time .....	5-9
-----------------------	-----

PIN Length .....	5-8
------------------	-----

PIN Retry Count.....	5-9
----------------------	-----

Send Open/Close Reports.....	5-7
------------------------------	-----

User Options .....	5-6
--------------------	-----

View PIN.....	5-3
---------------	-----

User Test Interval .....	6-9
--------------------------	-----

User Test Required .....	6-9
--------------------------	-----

## V

Voice Access Code .....	9-12
-------------------------	------

Voice Setup .....	9-2
-------------------	-----

## W

### Walk Test

All Zones .....	7-14
-----------------	------

Walk Test 24-Hour Zones .....	6-9
-------------------------------	-----

Walk Test All Zones.....	11-17, 11-18
--------------------------	--------------

Walk Test Fire Zones .....	6-10
----------------------------	------

Walk Test Reports.....	6-9
------------------------	-----

### WIRING

Board Connectors.....	3-2
-----------------------	-----

PCB Overlay .....	3-2
-------------------	-----

Terminal Descriptions.....	3-2
----------------------------	-----

Zone Wiring .....	3-1
-------------------	-----

## Z

Bypass Zones .....	7-2
--------------------	-----

### Set Chime Zones

Chime Zones .....	7-3
-------------------	-----

### Set Part 2 Zones

Part 2 Zones .....	7-3
--------------------	-----

Zone Array .....	7-2
------------------	-----

ZONE CONFIGURATION TABLES.....	7-1
--------------------------------	-----

<b>Zone Default Table</b> .....	7-4
<b>Zone Name</b> .....	7-4
<b>Smoke Sensor Reset</b>	
Smoke Sensor Reset .....	7-3
<b>ZONES</b>	
Access Group .....	7-8
Add RF Device .....	7-10
Area Assignment .....	7-6
Delete RF Device .....	7-11
EOL Value .....	7-11
Input Options .....	7-12
Input Testing .....	7-14
Input Type .....	7-13
Inverted Seal .....	7-10
Keyswitch Options .....	7-12
Report Options .....	7-8
Report Route .....	7-8
Sensor Watch .....	7-10
Tamper Options .....	7-13
Test On Exit .....	7-10
Test RF Device .....	7-11
Zone Options .....	7-9
<b>Zone Status</b> .....	7-2
<b>Zone Type</b> .....	7-5

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