



# IDS 816

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## Installer Manual

South Africa's leading manufacturer and distributor of electronic security products.





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# CONTROL KEYPAD

For a more detailed explanation of the keypad indicators see understanding the Keypad Indicators.

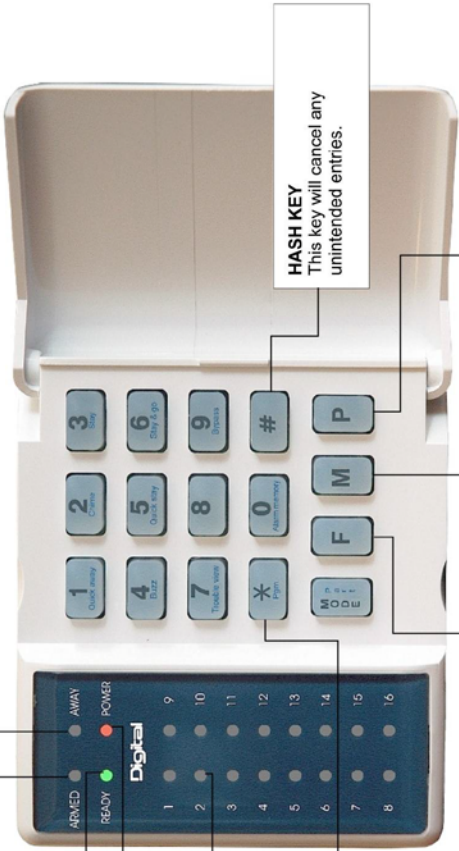
**ARMED INDICATOR (RED)**  
The indicator is illuminated when the system is armed in the AWAY mode.

**READY INDICATOR (GREEN)**  
The indicator is illuminated when the system is ready to be armed.

**POWER INDICATOR (RED)**  
The indicator is illuminated when mains power is present.

**ZONE INDICATOR (ORANGE)**  
Indicates the status of the zones.

**STAR KEY**  
Used as an entry key for data input.



**HASH KEY**  
This key will cancel any unintended entries.

**MEDICAL ALARM**  
This key will activate the MEDICAL ALARM when held down for one second.

**FIRE ALARM**  
This key will activate the FIRE ALARM when held down for one second.

**PANIC ALARM**  
This key will activate the PANIC ALARM when held down for one second.

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Indicates the status of the zones.

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This key will activate the PANIC ALARM when held down for one second.

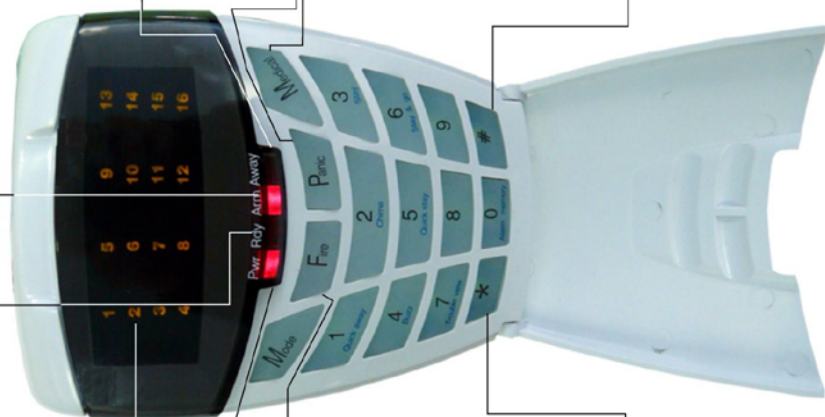
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This key will cancel any unintended entries.

**STAR KEY**  
Used as an entry key for data input.



# 1.

## Introduction to the IDS 816

The IDS 816 is a versatile, microprocessor based eight zone Alarm Panel. It has two partitions and can be expanded to sixteen zones. Most features are optional and may be programmed either directly through the keypads or via the telephone system, using the IDS download software and appropriate modem.

There are eight programmable burglary zones, a dedicated panic zone, monitored siren output, auxiliary power outputs and five programmable outputs, which may be programmed to perform various, trigger/switching functions.

For correct operation, the IDS 816 must be used in conjunction with the specified transformer/battery combination and appropriate peripheral sensors and signalling devices.

### 1.1

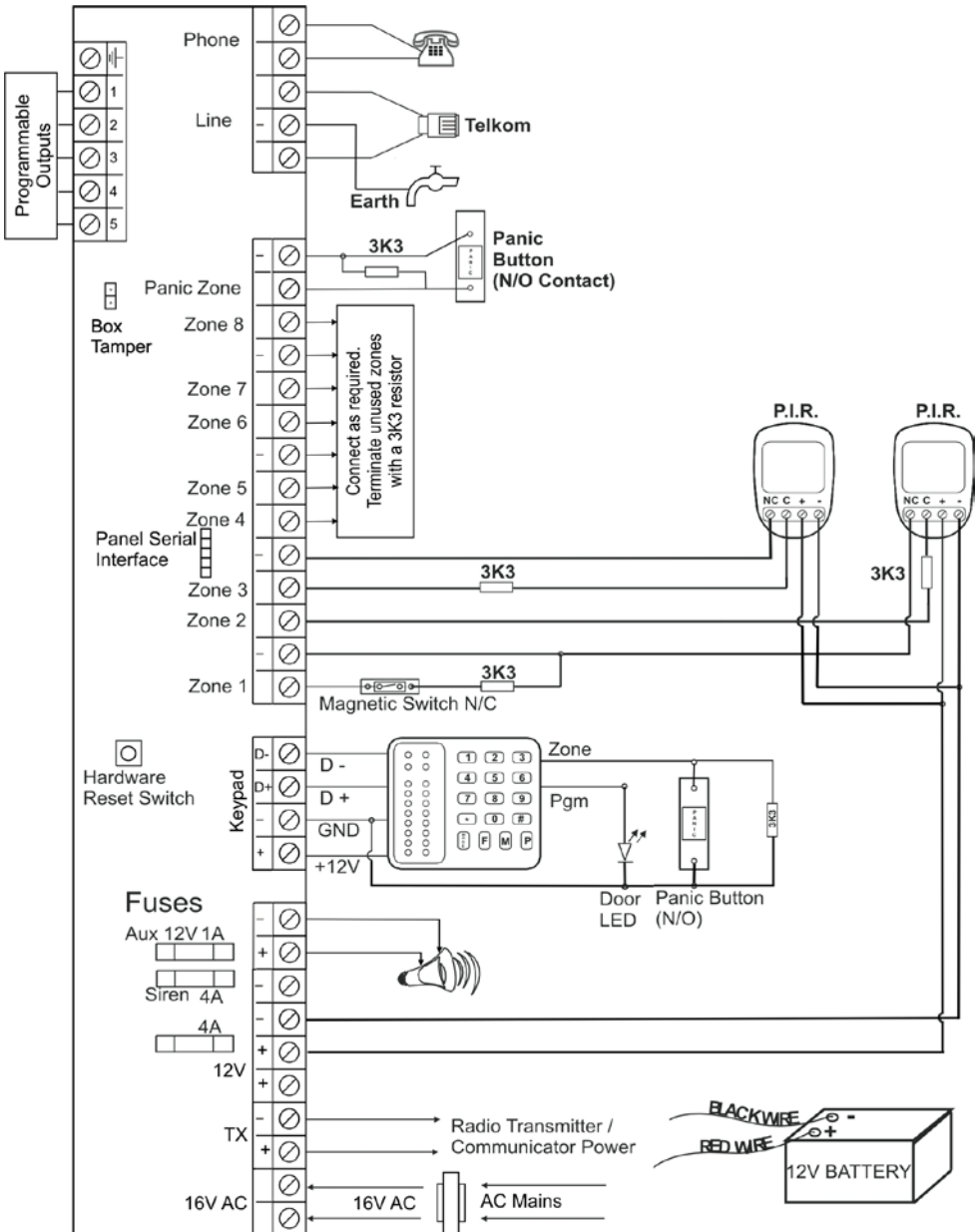
#### Features of the IDS 816

- Eight programmable, end-of-line supervised zone inputs
- Expandable to sixteen zones via keypad zones, zone expander module, zone doubling or wireless expansion.
- 2 partitions
- Optional tamper reporting per zone using double end-of-line resistors (12K and 4K7)
- Fully programmable digital telephone communicator that supports most industry standard formats.
- Five programmable outputs on alarm panel. Expandable to seven when using Wired Zone Expander module.
- Non volatile EEPROM memory retains all program and event log data in the event of a total power failure
- Programmable loop response time
- Up and downloadable using IDS Windows based software, either directly via RS 232 or remotely using a modem.
- Excellent protection against lightning (provided by specialised "zap tracking" and transient suppressors)
- Auto arm/disarm capability per partition and by day of the week. The panel can be programmed to arm/disarm at a pre-determined time
- Fax defeat/answering machine override
- Dual reporting provides for duplicated reporting to two independent central base stations.
- Dynamic battery self test
- Low battery cut out circuit



## 2. Installation and Wiring

Please refer to Figure 1: Connection Diagram and familiarise yourself with the following sections.



## 2.1

## Additional Technical Data

- A suitable transformer with an output voltage of 16 volts AC  $\pm 10\%$  with a 16VA minimum rating must be used. A 32 VA transformer is recommended for larger installations.
- A 12V sealed lead acid battery with a minimum capacity of 7AH must be used. The back up period after mains failure will depend on the number of keypads, sensors and peripheral devices connected to the system.
- The panel can supply a total continuous current of 750mA to peripheral devices such as keypads, remotes, receivers, passives etc.
- Connect a 12-volt self-driven siren or piezo siren [not a horn speaker] to the siren output.

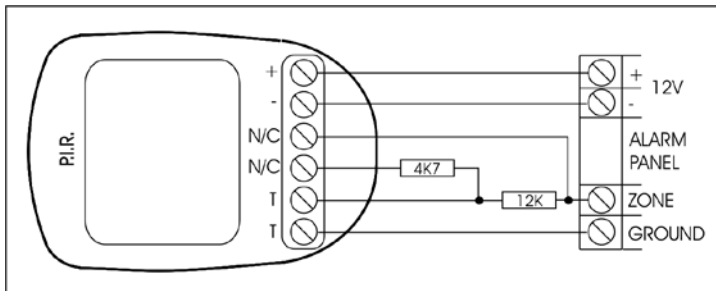
## 2.2

## End-of-Line Resistors

### (Including Tamper by Zone / Zone Doubling)

- All zones must be end-of-line supervised.
- Any unused zones must be terminated with a 3K3 resistor. The end of line resistor must be placed inside or as close to the sensor as possible.
- If neither zone doubling nor tamper by zone are required the 3K3 resistor must be used.
- For zone doubling or tamper per zone, the 4K7 and 12K end-of-line resistors must be connected as per Figures 2 and 3.

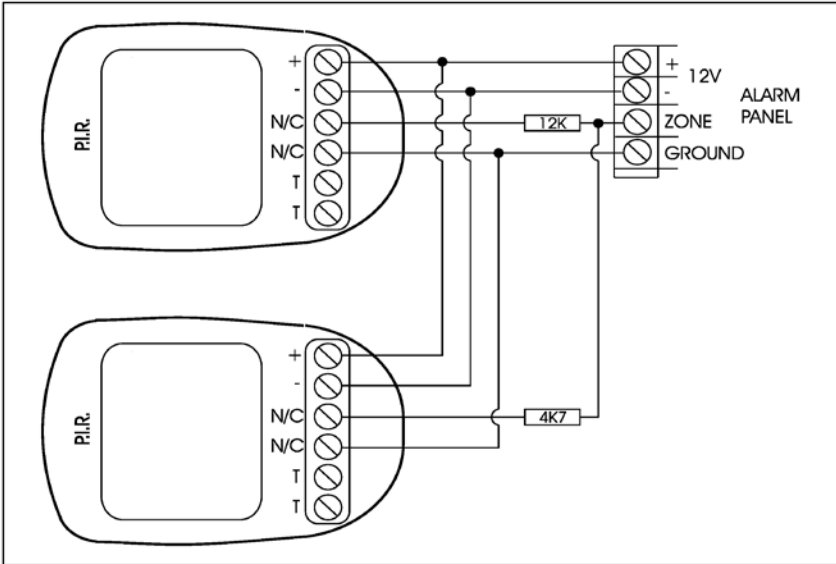
**Figure 2 : Tamper by Zone Connection**



### Tamper operation is as follows:

- If the panel is unarmed and a tamper condition occurs, the siren will not sound but a tamper condition will be reported.
- If the panel is armed and a tamper condition occurs an audible alarm will register and a tamper condition AND zone violation will be reported.
- Panic zones always register panic and tamper conditions.
- The colour codes for the 12K and 4K7 resistors are as per in Figure 4.

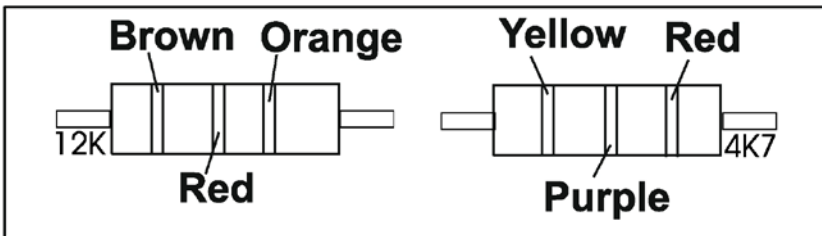
**Figure 3 : Zone Doubling Connection**



**The following limitations apply to zone doubling:**

1. Only normally closed contacts (n/c) may be used.
2. If the zone input to the panel is short or open circuited at the panel, both the zone and its double will be violated.
3. If the 12K resistor is "open circuited" the primary zone will indicate a violation i.e. assuming zone 8 is doubled in this case zone 8 will be indicated as violated.
4. If the 4K7 resistor is "open circuited" the secondary zone will indicate a violation i.e. assuming the example in 3 above zone 16 would indicate the violation.
5. The colour codes for the 4K7 and 12K resistors are shown in Figure 4.

**Figure 4 : Resistors (Tamper per Zone or Zone Doubling)**



## 2.3

### Box Tamper Input

The box tamper input does not require an end-of-line resistor and requires a normally closed contact.

## 2.4

### Installing an Expander Module

When installing an expander module refer to the document supplied with the module. Note that only one (8-zone) expansion module may be added to the IDS 816 Alarm Panels.

## 2.5

### Connecting the Telephone Communicator

Refer to Figure 1. Connection Diagram (Page 9).

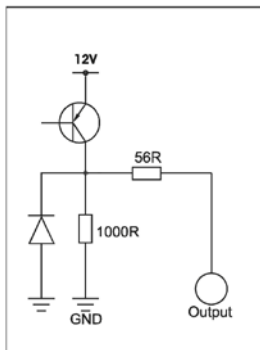
For optimum lightning protection, connect a low impedance earth to the communicator earth input. Always connect the telephone communicator in line seizure mode and never in parallel with the telephone. Ensure the telephone receiver is connected to the communicator terminals marked "phone" and the incoming line to the terminals marked "line".

## 2.6

### Programmable Outputs

A relay board must be used when any device requiring a high current is connected to a programmable output. The programmable output circuitry consists of a 12-volt source with a 56  $\Omega$  series resistor. Current sink is via a 1 000  $\Omega$  resistor to negative. For information purposes, the output circuitry for a single output is shown in Figure 5.

**Figure 5 : Programmable Output Configuration**



## 2.7

### Key-switch or Remote Control Unit

A momentary key-switch or non-latching remote control receiver may be connected to any zone to allow remote arm/disarm and remote panic capability.

- When using a key-switch or remote control unit a 3K3 resistor must be connected between the zone input and ground.

- Use only a spring-loaded momentary key-switch or non-latching remote control unit.

## 2.8 IDS Remote Receiver

An IDS Remote Receiver (P/N 860-07-002DI) may be connected to the keypad bus. Using this facility allows remote arming and disarming of the panel while providing user identification for a maximum of 32 remotes.

## 2.9 Radio Transmitter Connection

When connecting a radio transmitter, use the TX terminal provided on the PCB to supply power to the transmitter. (Figure 1) The 4 Amp battery fuse protects this output.

## 3. Hardware Reset Switch

Should the need arise to return the panel to factory default, use the hardware reset switch (Figure 1).

### The panel may be defaulted as follows:

Remove both battery and AC power from the panel. While depressing the reset switch reapply power to the panel by either connecting the battery or the AC power. Release the reset switch approximately 2 seconds after reapplying the power. Factory default values will now be restored to all locations and all attached keypad IDs will be defaulted. A default event will be logged and the existing event log will NOT be erased.

### NOTE:

If reset switch has been disabled by programming a 10 into location 444, it will no longer be possible to default the panel using the reset switch. The panel can only be defaulted if a valid installer code is entered and a value of [0] is entered into location 0.

## 4. Enrolling Keypads and Other Devices

A new panel supplied from the factory will have factory default values in all locations (as indicated throughout this manual). Similarly new keypads will have no ID assigned to them. It is however good practice to default the system by using the reset switch prior to commencement of programming. This will ensure that the above is true and that no factory test values remain.

The keypad(s) attached to a system as defaulted above will have no ID and will therefore not communicate with the panel. This is indicated by all keypad LED's flashing simultaneously.

In order to enrol a keypad (thereby giving the keypad an ID) press the **[#]** key of the keypad you wish to enrol. The enrolled keypad will now indicate the alarm status. Repeat this process with the remaining keypads where more than 1 keypad is used.

The first keypad enrolled will have an ID of 1, the second enrolled will have an ID of 2, the third an ID of 3 etc. A maximum of 8 keypads may be used.

(The **[P]** and **[M]** keys can be used to scroll up and down through the menu functions).

### NOTE:

If the keypad zone is to be used, consideration must be given to the sequence in which keypads are enrolled as this affects the LED zone designation. The keypad 1 will contain zone 16, keypad 2 will contain zone 15 etc. as per section 14 in this manual.

To enrol other devices (IDS Remote Receivers or Zone Expanders); consult the installation instructions for those devices. The IDS 816 Alarm Panels can only accept one zone expander and/or one IDS Remote Receiver.

## 4.1 Replacing a Faulty Keypad/Device

### NOTE:

Should a faulty keypad be REPLACED with another keypad, the following applies:

1. Disconnect ONLY the faulty keypad.
2. Program a value 4 into location zero to free up all vacant addresses.
3. Connect the replacement keypad and enrol it - by pressing **[#]** – it will now be enrolled in the first available address, which should now be the address just freed up in step 2.

### NOTE:

If other devices (keypads) are disconnected (or faulty), at the time of performing step 2, their addresses will also be freed. Any new devices being enrolled will automatically be allocated addresses beginning from the lowest free address. This can cause devices to be associated with the wrong addresses/partitions. The resultant communications attempts made to the wrong addresses can result in sluggish system behaviour. Operation will become confusing.

### Check

After enrolling a keypad, go to location 446 to check the keypad's ID (which is a number that corresponds to the order that the keypads were enrolled). If the keypad ID is incorrect (2<sup>nd</sup> keypad has ID = 3, for example), then this must be rectified for the system is to operate correctly.

### Solution

If the system is complex and has developed a keypad allocation problem, it is recommended that all keypads are defaulted and registered "from scratch", as it were, in the correct, required sequence.

To re-enrol a zone expander, or an IDS Remote Receiver, consult the installation instructions for the relevant device.

## 4.2 Defaulting Keypads

**To default the ID of an individual keypad:**

### **Power off, Hold [1] & [3], Restore power, Release [1] & [3]**

1. Remove power to the keypad (or the whole panel if easier). Whilst holding down the **[1]** and **[3]** keys restore the power to the keypad.
2. All the keypad LED's will flash simultaneously indicating that the keypad has now been de-registered.
3. The ID of any (correctly registered) keypad can be interrogated by viewing the data in location 446 from the keypad of interest.
4. Wait for five seconds and then press the hash **[#]** key to allocate a new ID to the defaulted keypad. Keypad IDs are allocated incrementally.

**To default the ID of ALL keypads:**

Programming a value of **[3]** into location **[0]** causes ALL keypads to be defaulted.

## **[INSTALLER CODE] [\*] [0] [\*] [3] [\*]**

On pressing the final **[\*]**, wait a few seconds and ALL the keypads will begin flashing. (Do NOT press **[#]** at the end of this sequence, unless you wish the keypad you are using to be registered in the first address)

Re-enrol all keypads by pressing **[#]** on each keypad – in the CORRECT sequence to ensure that keypad zone and partition allocation is as required by the user.

### **5. Event Log**

A comprehensive log of the 500 most recent events is retained in the non-volatile EEPROM. The log may be retrieved using the up/ download software. Alternatively, it can be viewed using an LCD keypad. (See LCD Keypad Manual)

### **6. Download Code**

The download code (in conjunction with the installer code) is required for download access. The default download code is 9999. Using the downloading software, it is possible to program a location that will either allow or disallow defaulting of the download code.

This location is only accessible using the download software. If the panel is defaulted, the download code will revert back to 9999. A value of [1] [0] programmed into this location will prevent the download code from being defaulted when defaulting the panel.

### **6.1 Programming the Panel**

The panel can be programmed either via a keypad or via the up/ download software. Programming the panel by means of an LED keypad is explained below:

#### **NOTE:**

Before commencing programming, it is advisable to read the Installer Manual thoroughly.

### **6.2 Location Values**

All values within a program location will be displayed by the zone indicators in binary coded decimal format i.e. zone indicators 1-4 indicate units (1's) and zone indicator 5-8 indicate tens (10's), and so on.

To read a binary value on the keypad sum the values represented by each LED that is on, as shown in Table 1.

**Table 1 : Values Represented by Each Zone LED**

Zone LED	Value	Digit	Zone LED	Value	Digit
Zone 1	1	Units	Zone 9	1	Hundreds
Zone 2	2		Zone 10	2	
Zone 3	4		Zone 11	4	
Zone 4	8		Zone 12	8	
Zone 5	1	Tens	Zone 13	1	Thousands
Zone 6	2		Zone 14	2	
Zone 7	4		Zone 15	4	
Zone 8	8		Zone 16	8	

**Example:**

Assume the following zone indicators are on:

Zone 1, Zone 3 and Zone 5.

Units are represented by the sum of Zone 1 and Zone 3 (i.e. 1 + 4) and tens of units are represented by the value of Zone 5 (i.e. 1)

Thus, the value indicated by the LED's that are on will be shown below.

Zone LED	Value	Digit
Zone 1	1	Units
Zone 2	2	
Zone 3	4	
Zone 4	4	
Zone 5	1	Tens
Zone 6	2	
Zone 7	4	
Zone 8	8	

Therefore, the displayed value is 15.

## 7. Programming the Panel

For all programming procedures, the **[\*]** star key functions as the **<ENTER>** key and the **[#]** hash key functions as a **<CLEAR>** or an **<EXIT>** program key.

Invalid data entries are indicated by means of an error beep consisting of 3 short beeps of the keypad buzzer.

**There are two location categories:**

- Standard locations which are single tiered and do not contain any sub-locations.
- Extended locations, which are double tiered and have sub-locations.

Both standard and extended locations may contain further subcategories referred to as bitmapped locations.

For both main categories, clear visual keypad prompts are provided which aid the programming process.



To read the data stored in multi-digit locations (e.g. a telephone number, account codes, etc.), enter the location. Upon initial entry into the location, the zone indicators will display the first digit. Pressing the **[Panic]** key will cause the next digit within the location to be displayed.

Where a hexadecimal number must be programmed, use the **[MODE]** key as per Table 2 below:

**Table 2 : Hexadecimal Value**

Hex Value	Decimal Value	Key Strokes
A	10	<b>[MODE]</b> key then <b>[0]</b> key
B	11	<b>[MODE]</b> key then <b>[1]</b> key
C	12	<b>[MODE]</b> key then <b>[2]</b> key
D	13	<b>[MODE]</b> key then <b>[3]</b> key
E	14	<b>[MODE]</b> key then <b>[4]</b> key
F	15	<b>[MODE]</b> key then <b>[5]</b> key

## 7.1 Entering Program Mode

1. Ensure that all partitions are unarmed.
2. Press the **[#]** hash key followed by the **[INSTALLER CODE]**.
3. The default installer code is 9999 or alternatively 999999 should a six digit default installer code have been used.
4. Press the **[\*]** star key and a long beep will confirm entry into program mode. If a correct code has been entered, the green READY indicator will flash.

## 7.2 Programming Standard Locations

1. Ensure the panel is in program mode - the READY indicator will be flashing.
2. Enter the **[LOCATION NUMBER]** of the program location you wish to view or change.
3. Press the **[\*]** star key. The READY indicator will continue flashing and the AWAY indicator will come on.
4. The zone LED's will display the data stored in the program location in binary format.
5. Enter the **[NEW DATA]** followed by the **[\*]** star key. A long beep will indicate a valid entry and the AWAY indicator will turn off.
6. If you do not wish to change the data, press the **[#]** key. The READY indicator will continue flashing and the AWAY indicator will turn off.
7. Repeat steps 2 - 6 until all the necessary locations have been programmed.
8. Press the **[#]** hash key to exit program mode.
9. The READY indicator will stop flashing and the panel will return to the standby mode.

## 7.3 Programming Extended Locations

1. Ensure that the panel is in program mode - the READY indicator will be flashing.
2. Enter the **[LOCATION NUMBER]** of the program location that you wish to view or change.
3. Press the **[\*]** star key. The READY indicator will continue flashing and the ARMED indicator will come on.
4. Enter the **[SUB-LOCATION NUMBER]** for the program location that you wish to view or change.
5. Press the **[\*]** star key, a long beep indicates a valid data entry. The READY indicator will continue flashing and the ARMED and AWAY indicators will come on.
6. Enter the **[NEW DATA]** followed by the **[\*]** star key. A long beep will indicate a valid entry. The AWAY indicator will turn off.

7. If you do not wish to change the data within this sub-location, press the **[#]** hash key. The READY indicator will continue flashing and the AWAY indicator will turn off.
8. Repeat steps 4 to 7 until all sub-locations at the current location have been programmed as required.
9. Press the hash **[#]** key to exit from the current location, the ARMED LED will turn off and the READY indicator will continue flashing.
10. Repeat steps 2 to 9 until all locations, and their sub-locations, have been programmed as required.
11. Press the **[#]** hash key again to exit from program mode (READY LED will stop flashing).

## **7.4 Programming a Bitmapped Location**

1. A bitmapped location allows the installer to program multiple panel features within a single location or sub-location. This is achieved using the individual zone LED's to indicate which features are enabled or disabled.
2. By referring to the appropriate location reference tables, the installer can view the entire selection of features associated with that location.
3. A zone LED that is on indicates that a feature is enabled. A LED that is off indicates that a feature is disabled.
4. The installer is able to toggle a selected LED indicator ON or OFF by entering the corresponding number followed by the **[\*]** star key
5. Once a complete selection of features has been finalised, press the **[#]** key to leave the location/sub-location with the state as indicated by the LED.

### **Example:**

Location 40 allows the installer to select up to twelve trouble conditions which may be displayed. By default, only AC fail and low battery trouble conditions are enabled.

Entering program mode and viewing the contents of Location 40 it will be noted that the zone 1 and zone 5 LED's will be on. All other zone LED indicators will be turn off.

To enable the Comms Fail Trouble Display (indicated by zone 2 LED) press the **[2]** key followed by the **[\*]** star key. A long beep will indicate a valid entry and the zone 2 LED will come on indicating that Comms Fail Trouble Display has been enabled.

Continue selection (or de-selection) of the desired trouble conditions. Once a final selection has been made press the **[#]** hash key to exit the location. The AWAY indicator will turn off and a long beep will indicate acceptance of a valid data entry.

## **7.5 Incorrect Data Entries**

1. When programming either standard or extended locations any attempt to enter invalid data will result in an error beep (3 short beeps)
2. In the case of standard locations, the AWAY indicator will remain on after the error beeps. Re-enter the correct data. There is no need to press the **[#]** hash key.
3. In the case of extended locations, the AWAY and ARMED indicators will remain on after the error beeps. Re-enter the correct data. There is no need to press the **[#]** key.

## **7.6 Programming Location Summary**

A detailed description of each location and its options follows.

<b>LOCATION 0</b>	<b>Defaulting of the Panel or Master User Code</b>
-------------------	--

<b>Value</b>	<b>Action</b>
0	Will reset all locations to the factory default values. (Master User Code 1234) and all keypad IDs will be defaulted.
1	Will default the master user code to 1234 - or 123456 if 6 digits are being used. Master user code properties will also be defaulted.
2	Defaults ALL users
3	Defaults ALL keypads
4	Remove Missing Devices A missing device (keypads, for example), will have its address freed up, making its address available for a new device when it is enrolled. This MUST be done when replacing a faulty device – see “Enrolling Keypads and other Devices”, page 13.

<b>7.6.1</b>	<b>Zone Options</b>
--------------	---------------------

<b>LOCATIONS 1 - 16</b>	<b>Individual Zone Setup</b>
-------------------------	------------------------------

<b>Sub-location 1</b>	<b>Zone type</b>
-----------------------	------------------

The first sub-locations of program locations 1 - 16 are used to define the zone characteristics of each of the sixteen zones. There are 13 zone types. Table 3 provides a location/zone cross-reference together with the default zone characteristics.

**Table 3 : Location / Zone Defaults**

<b>Zone</b>	<b>Location</b>	<b>Sub-location 1 Default</b>	<b>Zone Type</b>
1	1	1	Entry / Exit
2	2	2	Follower
3	3	4	Audible Instant
4	4	4	Audible Instant
5	5	4	Audible Instant
6	6	4	Audible Instant
7	7	4	Audible Instant
8	8	4	Audible Instant
9	9	0	Disabled
10	10	0	Disabled
11	11	0	Disabled
12	12	0	Disabled
13	13	0	Disabled
14	14	0	Disabled
15	15	0	Disabled
16	16	0	Disabled

Table 4 provides a complete list of the different zone types together with a description of their characteristics.

**Table 4 : Programmable Zone Types**

<b>Value</b>	<b>Zone Type</b>
<b>0</b>	<b>DISABLED</b> A Zone violation of a disabled zone is ignored by the control panel and will not be indicated on the keypad.
<b>1</b>	<b>PRIMARY ENTRY / EXIT ZONE</b> Violations of an Entry/Exit zone are ignored during the exit delay period of the arming procedure. Violating an Entry/Exit zone when armed will initiate the entry delay. If valid User Code is not entered before the entry delay period expires, an alarm condition will be registered. Failure to exit through an Entry/Exit zone after arming will cause the panel to Stay Arm. This zone may also function as an Entry/Exit zone that is COMMON to two partitions. In such a case, should a user violate this zone and then disarm his partition, the OTHER partition will re-arm after the entry delay.
<b>8</b>	<b>SECONDARY ENTRY / EXIT ZONE</b> The secondary entry delay will be activated if this zone is violated when the panel is armed.
<b>2</b>	<b>FOLLOWER ZONE</b> A violation of a Follower zone is ignored during the entry/exit delay period (this allows the user to enter/exit via the Follower zone). A Follower zone will behave as an instant zone if the panel is armed and an Entry/Exit zone is not violated prior to violation of the follower zone.
<b>3</b>	<b>PANIC / PRIORITY ZONE</b> Regardless of whether the panel is armed or not, a violation of a Priority zone will cause the control panel to register a panic condition. This zone type CANNOT be bypassed.
<b>4</b>	<b>INSTANT ZONE</b> When the panel is armed the violation of an instant zone will cause the control panel to register an alarm condition.
<b>5</b>	<b>ARM/DISARM ZONE</b> The violation of an Arm/Disarm zone will cause the panel to toggle between (away) armed and disarmed. It is typical to connect a momentary key-switch, or non-latching remote control unit to this zone.
<b>9</b>	<b>RESERVED</b>
<b>10</b>	<b>FIRE ZONE</b> Violation of a Fire zone will cause the siren to sound regardless of whether the panel is armed or not. The siren will sound intermittently (one second on, one second off) For correct operation a programmable output programmed as a fire detector power output must be used to control power to the fire detector. There is a 10 second violation when unarmed and instant when armed.
<b>11</b>	<b>TAMPER ZONE</b> Violation of this zone will be reported to the base station regardless of whether the panel is armed or disarmed. If the panel is armed, the siren will be activated.
<b>12</b>	<b>24 HOUR ALARM ZONE</b> This works the same as a panic zone – with the exception that it can be bypassed.
<b>13</b>	<b>WARNING ZONE</b> When the panel is armed, violation of a warning zone will cause the siren to beep. The violation is logged in the event log but it is not reported to the base station. Warning zones may be included and will be counted when used as part of the cross-zone matrix.
<b>14</b>	<b>PUSH TO ARM ZONE</b> Violation of a push to arm zone during the exit delay will immediately arm the panel.
<b>15</b>	<b>OUTDOOR INSTANT ZONE</b> When the panel is armed violation of an outdoor instant zone will cause the panel to register an alarm condition.

**NOTE:**

Select all the options for each zone. Shaded areas in the table indicate default values. This is a bitmapped location.

LED	ON / OFF	Zone Properties
1	ON	Tamper by zone enabled
	OFF	Tamper by zone disabled
2	ON	Cross-zone enabled
	OFF	Cross-zone disabled
3	ON	Shutdown zone enabled
	OFF	Shutdown zone disabled
4	ON	Silent zone enabled
	OFF	Silent zone disabled

Default values are shaded

**Further zone related functionality explained****Tamper by Zone**

Individual zones may be enabled for tamper by zone. For connection details, see Figure 2. This feature is not available if zone doubling is enabled. (Figure 3, page 11 and location 38, page 24)

**Cross-zoning**

This feature is useful for reducing false alarms. Violating zones with the cross-zone property enabled will not immediately generate an alarm. The cross-zone delay timer is started. (location 36).

Depending on the value programmed into location 37 (Cross-zone Trip Count), the zone (or any other zone with cross-zone option enabled) must trip the number of times programmed into location 37 before an alarm is generated. An alarm will also be generated should any single zone remain violated for the entire delay period (location 36). An entry/exit cannot be cross-zoned.

**Swinger Shutdown**

During a single arm cycle, if the number of alarm violations generated by a swinger zone equals the shutdown count (location 33), the control panel will automatically bypass the zone. The swinger shutdown counter will reset when the system is disarmed and can be programmed to reset automatically when the 24 hour self test report is generated. (Sub-location 5 of locations 128 and 129).

**Silent Zone**

This property allows any zone that would ordinarily activate the siren to be programmed as a silent zone i.e. the violation of a silent zone while the system is armed will not activate the siren. However, the relevant reporting code (if programmed) will still be reported.

**Zone Reporting Codes****NOTE:**

For the following locations, a two digit hexadecimal code must be programmed. To disable a reporting code a double zero (00) must be entered. If a zero is to be reported, it must be entered as hexadecimal value A, i.e. **[MODE] [0]**. In the event that only 1 of the digits is programmed or an A is incorrectly programmed as a zero the code will not be reported. If domestic reporting is used, only the first digit of the reporting code is required / used.

<b>Sub-location 3</b>	<b>Alarm Reporting Code</b>
-----------------------	-----------------------------

This is the code transmitted when the zone is violated during an arm cycle or if a panic or 24 Hour Zone is violated.

<b>Sub -location 4</b>	<b>Alarm Restoral Reporting Code</b>
------------------------	--------------------------------------

The zone restoral code is transmitted when the zone has returned to the “unviolated” condition after triggering an alarm.

<b>Sub-location 5</b>	<b>Bypass Reporting Code</b>
-----------------------	------------------------------

A zone bypass code will be reported when a zone has been bypassed and the panel is armed.

<b>Sub-location 6</b>	<b>Force Arm Reporting Code</b>
-----------------------	---------------------------------

This code will be transmitted if a partition is programmed to allow forced arming (arming with a violated zone) and a zone is violated at the time of arming.

<b>Sub-location 7</b>	<b>Tamper Reporting Code</b>
-----------------------	------------------------------

The tamper code will be reported if tamper-by-zone has been enabled and a zone tamper occurs.

<b>Sub-location 8</b>	<b>Tamper Restore Reporting Code</b>
-----------------------	--------------------------------------

When a zone tamper condition clears, this code will be reported.

<b>Sub-location 9</b>	<b>Swinger Shutdown Reporting Code</b>
-----------------------	--

The swinger shutdown zone code will be reported if the system is armed and a zone is automatically bypassed as a result of multiple violations of that zone.

<b>Sub-location 10</b>	<b>Swinger Shutdown Restore Reporting Code</b>
------------------------	--

If enabled, this code will be reported when a swinger shutdown zone is automatically restored i.e. un-bypassed.

<b>Sub-location 11</b>	<b>Zone Programmable Output Location</b>
------------------------	--

A programmable output will be pulsed or latched, high or low if a zone causes an alarm condition. If pulsed, the output will be pulsed for the time programmed in sub-location 1 of locations 388 - 394.

Two digits must be programmed for each zone. The first digit references the programmable output number e.g. output 1 to 5 (7 with an expander). The second digit sets the output action. Refer “System Programmable Outputs” (Page 30) for a detailed description on Programming Programmable Outputs.

<b>Sub-location 12</b>	<b>Zone Name Editing (LCD keypads only)</b>
------------------------	---

Zones may be given appropriate names, like “Front Door” for zone 1, etc. When the zone is triggered, the display will indicate “Front Door”, instead of “Zone 1”. (Full instructions are included in the LCD keypad manual.)

## 7.6.2

## System Options

### LOCATION 33

### Zone Shutdown Count (Default = 5)

Determines the number of times a zone may be violated during an arm cycle before it is automatically bypassed. Select zones individually for this option in locations 1 – 16 (sub-location 2). Valid range of data for this location is 1 to 15.

### LOCATION 34

### Programmable Zone Loop Response Time

The following applies when option 4 in location 38, is ON

Value	Response Time	Value	Response Time
0	6 ms	8	96 ms
1	12 ms	9	108 ms
2	24 ms (default)	10	120 ms
3	36 ms	11	132 ms
4	48 ms	12	144 ms
5	60 ms	13	156 ms
6	72 ms	14	168 ms
7	48 ms	15	180 ms

The zone loop response is the period of time for which the programmed zone must remain violated before a violation is registered. By default, this table is ignored and a Fixed Zone Loop Response of 100ms is used.

### LOCATION 35

### Reserved

### LOCATION 36

### Cross-zone Delay Timer

This location defines the cross-zone delay timer period.

Value	Response Time
0	3 seconds
1	10 seconds
2	15 seconds
3	20 seconds (default)
4	25 seconds
5	30 seconds
6	45 seconds
7	1 Minute

### LOCATION 37

### Cross-zone Count (Default = 2)

If the panel is armed and the total number of violations of zones programmed as cross-zones reaches this count within the time period programmed into location 36, an alarm condition will be registered. Program a value from [0] to [1] [5]. A [0] will disable this location. Program zones as cross-zones in sub-location 2 of locations 1 to 16. Any single zone enabled for cross-zoning, which is violated continuously for the time specified in location 36 will also register an alarm condition.

<b>LOCATION 38</b>	<b>Global Options</b>
--------------------	-----------------------

<b>LED</b>	<b>ON / OFF</b>	<b>Action</b>
<b>1</b>	ON	A user assigned to any partition may cancel the siren
	OFF	Only a user assigned to the partition that triggered the siren may cancel the siren
<b>2</b>	ON	Enables keypad trouble beep
	OFF	Disables keypad trouble beep
<b>3</b>	ON	Enables telephone line monitoring
	OFF	Disables telephone line monitoring
<b>4</b>	ON	Enables use of programmable loop response time
	OFF	Standard 100ms loop response time
<b>5</b>	ON	Enables keypad beep on communication
	OFF	Disables keypad beep on communication
<b>6</b>	ON	Enables keypad fire, medical and panic keys
	OFF	Disables keypad fire, medical and panic keys
<b>7</b>	ON	Enables the display of bypassed and stay zones when armed in the stay mode
	OFF	Disables the display of bypassed and stay zones when armed in the stay mode
<b>8</b>	ON	Enables the siren delay
	OFF	Disables the siren delay
<b>9</b>	ON	Enables zone doubling
	OFF	Disables zone doubling (expansion / keypad zones can be used to expand the system to sixteen zones.)
<b>10</b>	ON	Enable box tamper
	OFF	Disable box tamper
<b>11</b>	ON	Enable siren tamper
	OFF	Disable siren tamper
<b>12</b>	ON	Enable 485 device tamper
	OFF	Disable 485 device tamper
<b>13</b>	ON	Dedicated panic zone – silent
	OFF	Dedicated panic zone – audible

Default values are shaded



<b>Value</b>	<b>Delay</b>
0	3 seconds
1	10 seconds
2	15 seconds
3	20 seconds
4	25 seconds
5	30 seconds
6	45 seconds
7	1 minute
8	2 minutes
9	3 minutes
10	4 minutes
11	5 minutes
12	10 minutes
13	15 minutes
14	18 minutes
15	21 minutes
16	1 hour
17	2 hours
18	3 hours
19	4 hours
20	10 hours

In the event of a power failure the panel will display an instant trouble, but will wait for this period of time before REPORTING the mains failure. The same time period applies before the restoral event is reported and logged. This delay eliminates unnecessary reporting if the AC power is removed for a short time period.

It is important to note that an AC restoral will only be reported if an AC failure was reported, i.e. the delay period was exceeded. Provided the back up battery is in good condition, short AC power failures will not affect the functioning of the alarm system. Select the appropriate value from the table above.

<b>LOCATION 40</b>	<b>Trouble Display</b>
--------------------	------------------------

<b>LED</b>	<b>ON/ OFF</b>	<b>Action</b>
<b>1</b>	ON	Enable AC fail trouble display
	OFF	Disable AC fail trouble display
<b>2</b>	ON	Enable Comms fail trouble display
	OFF	Disable Comms fail trouble display
<b>3</b>	ON	Enable phone line trouble display
	OFF	Disable phone line trouble display
<b>4</b>	ON	Enable siren tamper trouble display
	OFF	Disable siren tamper trouble display
<b>5</b>	ON	Enable low battery detection trouble display
	OFF	Disable low battery detection trouble display
<b>6</b>	ON	Enable clock loss trouble display
	OFF	Disable clock loss trouble display
<b>7</b>	ON	Enable engineers reset trouble display
	OFF	Disable engineers reset trouble display
<b>8</b>	ON	Enable box tamper trouble display
	OFF	Disable box tamper trouble display
<b>9</b>	ON	Reserved
	OFF	Reserved
<b>10</b>	ON	Enable 485 device trouble display
	OFF	Disable 485 device trouble display
<b>11</b>	ON	Enable bus trouble display
	OFF	Disable bus trouble display
<b>12</b>	ON	Enable Aux. 12V trouble display
	OFF	Disable Aux. 12V trouble display
<b>13</b>	ON	Reserved
	OFF	Reserved

Default values are shaded

Location 40 determines which trouble conditions are displayed on the trouble menu. A trouble condition is indicated by a flashing POWER LED. Notwithstanding the disabling of a trouble condition from the viewing menu the relevant code will be reported if programmed to do so.

Trouble conditions will be reported if programmed to do so in locations 118 to 120, regardless of whether or not they are enabled for display.

The trouble condition can be viewed by holding down the **[7]** key for one second. See "Viewing Trouble Conditions" in the User Manual.

<b>LOCATION 41</b>	<b>Siren Time Out Period</b>
--------------------	------------------------------

<b>Value</b>	<b>Delay</b>
0	3 seconds
1	10 seconds
2	15 seconds
3	20 seconds
4	25 seconds
5	30 seconds
6	45 seconds
7	1 minute
8	2 minutes
9	3 minutes
10	4 minutes
11	5 minutes
12	10 minutes
13	15 minutes
14	18 minutes
15	21 minutes

The siren time out period is the period of time for which the siren will sound after an audible alarm condition is registered. Select the appropriate time period from the table above.

<b>LOCATION 42</b>	<b>Siren Delay</b>
--------------------	--------------------

When an audible alarm is registered, a delay can be implemented before the siren is triggered. The alarm will however be reported as soon as it occurs. Enable option 8, location 38.

<b>Value</b>	<b>Delay</b>
0	3 seconds
1	10 seconds
2	15 seconds
3	20 seconds
4	25 seconds
5	30 seconds
6	45 seconds
7	1 minute
8	2 minutes
9	3 minutes
10	4 minutes
11	5 minutes
12	10 minutes
13	15 minutes
14	18 minutes
15	21 minutes

<b>LOCATION 43</b>	<b>Keypad Lockout Count (Default = 4 seconds)</b>
--------------------	---

If a partition has keypad lockout enabled (Page 46) this value determines the number of consecutive incorrect codes, which will activate a keypad lockout. The keypad will remain locked for the time programmed in location 44. Activating a Keypad Panic will unlock the keypad.

<b>LOCATION 44</b>	<b>Keypad Lockout Time (Default = 30 seconds)</b>
--------------------	---

The value programmed into this location determines the keypad lockout period. The valid range is 0 - 255 seconds.

**NOTE:**

Keypad lockout is enabled by partition. See Partition Options Page 44, sub-location 5.

<b>LOCATION 45</b>	<b>Keypad Sleep Delay (Default = 5 seconds)</b>
--------------------	---

The values stored in this location work in the same way as siren delay (table on page 27). The default value is 11, which equates to 5 minutes.

**NOTE:**

This function is set individually per keypad (locations 400 to 407). After this time period, if there is no keypad activity (on this keypad) the backlighting and all other status and alarm indicators will turn off. The power LED and if appropriate, the arm LED will remain on.

<b>LOCATION 46</b>	<b>User and Installer Code Number of Digits</b>
--------------------	---

This location determines whether 4 or 6 digit user / installer codes are applicable. Only a value of four or six may be programmed into this location. By default, all codes are four digits in length.

The value programmed into this location has no effect on the download code, which is always 4 digits in length.

<b>Code</b>	<b>Old Four-digit Code</b>	<b>New Six-digit Code</b>
All Previously Programmed Codes	XXXX	XXXX00
Installer Code	9999	999999
Master User Code 1	1234	123456

<b>8. System Reporting Codes (4 x 2 and Domestic)</b>
---

For all these locations, a two digit hexadecimal code must be programmed. To disable a reporting code a double zero (00) must be entered into the corresponding location. Note that if one of the above-mentioned reporting digits is inadvertently omitted or programmed as a zero, the code will not be reported. The exception to this rule is when using domestic reporting where only the first digit is used.

<b>LOCATION 47</b>	<b>AC Failure Reporting Code</b>
--------------------	----------------------------------

The control panel will transmit this code in the event of an AC failure but only after the AC failure delay time has elapsed (location 39).

<b>LOCATION 48</b>	<b>AC Restoral Code</b>
--------------------	-------------------------

The control panel will transmit this code once the AC restore delay time has elapsed. (location 39). It will however only be reported if an AC failure was registered as per location 47.

<b>LOCATION 49</b>	<b>Low Battery Reporting Code</b>
--------------------	-----------------------------------

A low battery condition is reported when the battery voltage drops below 11.8V for a period longer than 5 minutes or immediately if it drops below 10V.

<b>LOCATION 50</b>	<b>Battery Restore Reporting Code</b>
--------------------	---------------------------------------

This code is reported once the battery voltage rises above 12 volts for a period of five minutes.

<b>LOCATION 51</b>	<b>Auto Test Reporting Code</b>
--------------------	---------------------------------

This code is reported at regular intervals. (location 112)

<b>LOCATION 52</b>	<b>Download Access Reporting Code</b>
--------------------	---------------------------------------

This code is reported once successful access to the panel has been obtained.

<b>LOCATION 53</b>	<b>Siren Trouble Reporting Code</b>
--------------------	-------------------------------------

This code is reported when the siren fuse blows or when the siren or siren wiring is tampered with.

<b>LOCATION 56</b>	<b>Device Tamper Reporting Code</b>
--------------------	-------------------------------------

This code is reported when there is a tamper condition on any external device attached to the keypad bus.

<b>LOCATION 57</b>	<b>Keypad Bus Failure Reporting Code</b>
--------------------	--

This code is reported when there is a fault on the keypad bus

<b>LOCATION 58</b>	<b>Box Tamper Reporting Code</b>
--------------------	----------------------------------

This code is reported when the box tamper contacts are open for a period exceeding 200 ms.

<b>LOCATION 59</b>	<b>Dedicated Panic Reporting Code</b>
--------------------	---------------------------------------

This code is reported when the dedicated panic zone is violated.

<b>LOCATION 60</b>	<b>Phone Line Restoral Reporting Code</b>
--------------------	---

If phone line monitoring is enabled (location 38), this code is reported once phone line integrity has been restored to indicate that the phone line has been tampered with.

<b>LOCATION 61</b>	<b>RF Jamming Reporting Code</b>
--------------------	----------------------------------

This reporting code will be reported if the RF receiver module detects a jamming signal for a period exceeding 30 seconds.

<b>LOCATION 62</b>	<b>RF Jamming Restore Reporting Code</b>
--------------------	--

This reporting code will be reported once the jamming signal has ceased for a period exceeding 30 seconds.

## 9. System Programmable Outputs

### Programming the Outputs:

Programmable outputs are able to toggle between different states when specific system events occur. Either single or multiple events may be programmed to a particular output.

For most events the action of an output, when triggered, is programmable. To program these events a two-digit code must be entered. The output action for certain events is fixed – and function driven, the strobe function is one example. For these events, only a single digit code need be programmed.

There are five programmable outputs on the IDS 816 Alarm Panel and a further two programmable outputs on the Wired Zone Expander module. When selecting outputs, programmable outputs on the alarm panels are addressed from “1” to “5”.

Outputs on the Wired Zone Expander are addressed as “6” and “7” – (refer to table 5).

**Table 5 : Programmable Output Numbering**

Value	Programmed as	Output Addressed
0	[0]	No output addressed
1	[1]	Panel - programmable output 1
2	[2]	Panel - programmable output 2
3	[3]	Panel - programmable output 3
4	[4]	Panel - programmable output 4
5	[5]	Panel - programmable output 5
6	[6]	Zone expander - programmable output 2
7	[7]	Zone expander - programmable output 1

There are 4 permitted output actions, which may be selected. These are listed below in table 6.

**Table 6 : Output Actions**

Value	Output Action
0	Set output high (Set)
1	Set output low (Reset)
2	Pulse output high
3	Pulse output low

When programming these outputs a two-digit code must be entered. The first digit references the programmable output number (Table 5) and the second digit references the output action (Table 6).

### Example:

Entering a value of [1][0] into location 70 will cause Panel Programmable Output 1 to be set (latched) high in the event of an AC Mains Failure. Entering a value of [1][1] into location 71 will cause the Panel Programmable Output 1 to be set (latched) low in the event of an AC Mains Restoral.

When programming a programmable output whose action is fixed only a single digit need be entered. This digit references the programmable output number (Table 5).

### Example:

Programming a value of [7] into sub-location 42 of location 129 will cause the Zone Expander Programmable Output 1 to follow the Siren Output for Partition 2.

**NOTE:**

When connecting any device with a high current requirement to a programmable output a suitable relay must be used. DO NOT connect such devices directly to the programmable outputs as this may damage the output circuitry.

<b>LOCATIONS 70-87</b>	<b>Event Driven Programmable Outputs</b>
------------------------	--

**Table 7 : Event Driven Programmable Outputs**

<b>Loc.</b>	<b>Event</b>	<b>Output</b>	<b>Default Action</b>
70	AC fail programmable output	Disabled	
71	AC restore programmable output	Disabled	
72	Low battery programmable output	Disabled	
73	Battery restore programmable output	Disabled	
74	Auto test programmable output	Disabled	
75	Download programmable output	Disabled	
76	Siren trouble programmable output	Disabled	
77	Aux 12V trouble programmable output	Disabled	
78	Keypad fuse programmable output	Disabled	
79	485 device tamper programmable output	Disabled	
80	485 bus failure programmable output	Disabled	
81	Box tamper programmable output	Disabled	
82	Dedicated panic programmable output	1	Pulse high [2]
83	Communication fail programmable output	Disabled	
84	Phone line tamper programmable output	Disabled	
85	Phone line restore programmable output	Disabled	
86	RF jamming programmable output	Disabled	
87	RF jamming restore programmable output	Disabled	

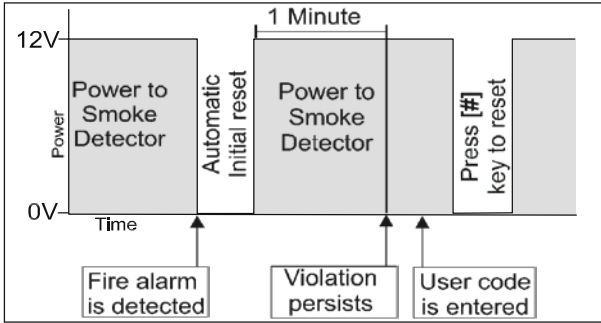
<b>LOCATIONS 95 – 96</b>	<b>Function Driven Programmable Outputs</b>
--------------------------	---

**Table 8 : Function Driven Programmable Outputs**

Summary of System function Driven Programmable outputs

<b>Loc.</b>	<b>Function</b>	<b>Output</b>
95	Fire sensor power programmable output	Disabled
96	Dual reporting programmable output	Disabled

**Figure 6 : Fire Detect Output Sequence**



**NOTE:**

Since multiple conditions may be programmed to a single output, it is essential to ensure that no unwanted conditions are assigned to an output.

**Dual Reporting Output**

If dual reporting is enabled this output will be set when the panel dials the second phone number, and cleared when it hangs up at the end of transmission. This output follows the hook relay. It may be used to trigger switching from the telephone line to a radio transmitter.

**10. System Clock Options**

<b>LOCATION 98</b>	<b>System Time</b>
--------------------	--------------------

Enter the system time. The format is "hhmm" and is based on a 24-hour clock. *(All 4 digits must be entered.)*

<b>LOCATION 99</b>	<b>System Day of Month</b>
--------------------	----------------------------

Enter a two-digit value of the current day of the month.  
Valid range 01 to 31.

<b>LOCATION 100</b>	<b>System Month</b>
---------------------	---------------------

Enter the month as a value from 01 to 12.

<b>LOCATION 101</b>	<b>System Year</b>
---------------------	--------------------

Enter the current year as a four-digit value e.g. 2007.

<b>LOCATION 102</b>	<b>System Day of Week</b>
---------------------	---------------------------

Enter the current day of the week. Refer to table 9.



**Table 9 : Value for Day of the Week**

<b>Value</b>	<b>Day</b>
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday

<b>LOCATION 103</b>	<b>Month to Start Daylight Saving</b>
---------------------	---------------------------------------

Enter the month when Daylight Saving will commence.

<b>LOCATION 104</b>	<b>Day of Week to Start Daylight Saving</b>
---------------------	---

Enter which day of the week Daylight saving is to commence.  
Refer to location 102 Table 9.

<b>LOCATION 105</b>	<b>Week of Month to Start Daylight Saving</b>
---------------------	---

Enter which week of the month Daylight Saving is to commence. If the last week of the month is wanted, program a five (5).

<b>LOCATION 106</b>	<b>Month to Return to Standard Time</b>
---------------------	---

Enter the month when Daylight Saving reverts to standard time.

<b>LOCATION 107</b>	<b>Day of Week to Return to Standard Time</b>
---------------------	---

Enter which day of the week (Table 9) that Daylight Saving returns to standard time.

<b>LOCATION 108</b>	<b>Week of Month to Return to Standard Time</b>
---------------------	---

Enter which week of the month Daylight Saving will return to standard time. If it is to be the last week of the month, program a five (5).

<b>LOCATION 109</b>	<b>Daylight Saving Time Offset</b>
---------------------	------------------------------------

This location is used for setting the Daylight Saving offset. Enter the number of minutes the clock will offset - Valid range 0 to 250.

**11.****Communicator Options****LOCATION 110****Communication Delay**

<b>Value</b>	<b>Delay</b>
0	3 seconds
1	10 seconds
2	15 seconds
3	20 seconds
4	25 seconds
5	30 seconds
6	45 seconds
7	1 minute
8	2 minutes
9	3 minutes
10	4 minutes
11	5 minutes
12	10 minutes
13	15 minutes
14	18 minutes
15	21 minutes

If delayed communications is enabled for either partition, (locations 128 and 129) the panel will wait for this period before reporting zone violations and restorals. If the alarm is cancelled within this time zone, violations and restorals will not be reported. Violations will however be logged in the event log. Panic events will be reported instantly – regardless of any selected delay period.

**LOCATION 111****Reporting Options**

<b>LED</b>	<b>On / Off</b>	<b>Action</b>
1	ON	Tone dialling enabled
	OFF	Pulse dialling enabled
2	ON	Join the telephone numbers together
	OFF	Keep two separate telephone numbers
3	ON	Enable dual reporting
	OFF	Disable dual reporting
<b>Single reporting options (LED 3 off)</b>		
4	ON	Reports to secondary number only after failing on attempting the primary number. (Panic event initiates dual reporting)
	OFF	Alternates reporting attempts between both numbers until successful with one of them. (Single reporting, regardless of panic)

Default values are shaded

**NOTE:**

- The panel may be programmed to report to a single central station (single reporting) or to report to 2 central stations (dual reporting).
- When programmed for single reporting, the panel default will alternate attempts between the two “equally ranked” stored numbers. With LED 4 on, the secondary number will only be called if the attempt to report to the primary number fails. In either case, the number of attempts (per phone number) will be equal to the number stored in location 115, with a default value of 6.
- The primary and secondary telephone numbers may be joined to provide for a single telephone number of 48 digits in length.

<b>LOCATION 112</b>	<b>Auto Test Interval</b>
---------------------	---------------------------

<b>Value</b>	<b>Time Period</b>
0	Report every hour
1	Report daily (default)
2	Every two days
3	Every three days
4	Every four days
5	Every five days
6	Every six days
7	Every seven days
8	Every eight days
9	Every nine days
10	Every ten days
11	Every eleven days
12	Every twelve days
13	Every thirteen days
14	Every fourteen days
15	Every fifteen days

The value programmed into this location will determine the duration of time between Auto Tests.

<b>LOCATION 113</b>	<b>Auto Test Time</b>
---------------------	-----------------------

Enter the time when the auto test will be reported. The format is “hhmm” based on a 24-hour clock. (All four digits must be entered.)

**Example:**

If a value of [7] was programmed into location 112 and [1400] was programmed into this location, the auto test would be sent weekly at 2:00pm.

<b>LOCATION 114</b>	<b>Number of Account Code Digits (Default = 4)</b>
---------------------	--

Most reporting formats use a 4-digit account code. Program a 6 into this location to enable 6-digit account code reporting. This option is not supported by Contact ID.

<b>LOCATION 115</b>	<b>Number of Dial Attempts (Default = 6)</b>
---------------------	--

This location determines the maximum number of dial attempts that the panel will make in order to contact the base station.

**NOTE:**

Entering [0] into this location will disable the dialler.

<b>LOCATION 116</b>	<b>Primary Communicator Format</b>
---------------------	------------------------------------

<b>Value</b>	<b>Format Name</b>	<b>Description</b>
0	Ademco Express	Dual Tone HS
1	FBI 4 x 2 ( With Parity)	1.8kHz TX, 2.3kHz HS, 40PPS
2	FBI 4 x 2 (No Parity)	1.8kHz TX, 2.3kHz HS, 20PPS
3	Silent Knight 4 x 2 Fast	1.9kHz TX, 1.4kHz, 20PPS
4	Silent Knight 4 x 2 Slow	1.9kHz TX, 1.4kHz, 20PPS
5 (Default)	Contact ID	Dual Tone HS
6	Domestic Reporting	0.5kHz TX, Blind, 20PPS

TX = Transmit  
 HS = Handshake  
 PPS = Pulses per Second

The value entered into location 116 selects the primary communicator format. Select from the table above the value appropriate to the required format. During communication, the green LED on the PCB will come on indicating that the panel has taken the telephone off-hook. If programmed accordingly (location 38), the keypad will beep after receiving a handshake from the base station. This indicates a successful transmission of data.

<b>LOCATION 117</b>	<b>Secondary Communicator Format</b>
---------------------	--------------------------------------

If dual reporting is enabled then this format will be used to report to phone number 2. (Table for location 116.)

**NOTES ON DUAL REPORTING**

When dual reporting is enabled, it is possible to select two different formats. In this instance, all data will be transmitted to each phone number (i.e. reported twice) using a different format per phone number.

**NOTES ON CONTACT ID**

If the panel has been programmed to use the Contact ID, it will not be necessary to program individual reporting codes. Provision is made to enable/disable the reporting of certain groups of codes. (location 118 to 120). Table 10 contains a list of standard (default) Contact ID reporting codes. Any event that relates to a specific zone, or to a specific user, will have the relevant zone/user number appended to the end of the Contact ID reporting code.

**Table 10 : Standard Contact ID Reporting Codes**

<b>Description</b>	<b>Codes</b>	<b>Description</b>	<b>Codes</b>
Keypad medical	1100	Cancel	1406
Fire	1110	Open by download	1407
Keypad Fire	1110	Open with key-switch	1409
Panic	1120	Low battery	1302
Panic zone	1120	Sounder/Relay trouble	1320
Keypad panic	1120	Expansion module fail	1333
Duress	1121	Zone/Sensor bypass	1570
Burglary violation	1130	Zone/Sensor bypass restoral	3570
Perimeter violation	1131	Burg. bypass	1573
Interior violation	1132	Test report	1602
24 Hour (safe) violation	1133	Panic restore	3120
Entry/Exit violation	1134	Zone restoral	3130
Day/night violation	1135	Keypad tamper restore	3137
Outdoor violation	1136	Zone restoral	3130
Tamper violation	1137	Sensor tamper restore	3144
Keypad tamper	1137	Expansion module tamper restore	3145
Keypad lockout	1137	RF low battery restore	3384
Near alarm violation	1138	Close by user	3401
Tamper by zone	1144	Close by auto arm	3403
Expansion module tamper	1145	Close by download	3407
Exp. module low bat	1338	Close with key-switch	3409
RF receiver jam detect	1344	Expansion module fail restore	3333
Long range transmitter fault	1353	AC loss	3321
Loss of supervision RF	1381	AC restoral	3333
RF low battery	1384	Low battery restore	3302
Open by user	1401	Sounder/Relay restore	3320

**NOTES ON DOMESTIC REPORTING:**

If Dual Reporting is enabled, Domestic reporting may either be reported to 2 telephone numbers or using the dual reporting option, report to a central station as well as to an individual mobile phone etc. This format provides for a simple form of easily identifiable remote alarm which may be reported to an office, mobile phone etc.

A series of tones is transmitted to the phone, which notifies the user that an alarm condition has occurred. If a 1 is programmed to a location, a single beep will be heard if that particular alarm condition occurs. If a 2 is programmed to a location, 2 beeps will be heard etc.

**NOTE:**

If the system is armed using the quick arm key **[1]** the system will report a close by **user 35**.

If the system is armed by means of a key switch or non-latching remote receiver connected to an arm/disarm zone the system will report a close by **user 34**.

**Enabling / Disabling Reporting Groups**

Locations 118 to 120 are used to either enable or disable the reporting of groups of reporting codes when using Contact ID.

LED	ON / OFF	Action
1	ON	Enable close reporting code
	OFF	Disable close reporting code
2	ON	Enable stay close reporting code
	OFF	Disable stay close reporting code
3	ON	Enable open reporting code
	OFF	Disable open reporting code
4	ON	Enable cancel reporting code
	OFF	Disable cancel reporting code
5	ON	Enable alarm reporting code
	OFF	Disable alarm reporting code
6	ON	Enable restore reporting code
	OFF	Disable restore reporting code
7	ON	Enable bypass reporting code
	OFF	Disable bypass reporting code
8	ON	Enable force reporting code
	OFF	Disable force reporting code
9	ON	Enable tamper reporting code
	OFF	Disable tamper reporting code
10	ON	Enable tamper restore reporting code
	OFF	Disable tamper restore reporting code
11	ON	Enable shutdown reporting code
	OFF	Disable shutdown reporting code
12	ON	Enable shutdown restore reporting code
	OFF	Disable shutdown restore reporting code
13	ON	Enable AC fail reporting code
	OFF	Disable AC fail reporting code
14	ON	Enable AC restore reporting code
	OFF	Disable AC restore reporting code
15	ON	Enable low battery reporting code
	OFF	Disable low battery reporting code
16	ON	Enable battery restore reporting code
	OFF	Disable battery restore reporting code

Default values are shaded

LED	ON / OFF	Action
1	ON	Enable test report reporting code
	OFF	Disable test report reporting code
2	ON	Enable download reporting code
	OFF	Disable download reporting code
3	ON	Enable siren fuse trouble reporting code
	OFF	Disable siren fuse trouble reporting code
4	ON	Enable Aux. 12V trouble reporting code
	OFF	Disable Aux. 12V trouble reporting code
5	ON	Enable keypad fuse trouble reporting code
	OFF	Disable keypad fuse trouble reporting code
6	ON	Enable 485 device tamper reporting code
	OFF	Disable 485 device tamper reporting code
7	ON	Enable 485 bus tamper reporting code
	OFF	Disable 485 bus tamper reporting code
8	ON	Enable box tamper reporting code
	OFF	Disable box tamper reporting code
9	ON	Enable dedicated panic reporting code
	OFF	Disable dedicated panic reporting code
10	ON	Enable phone line restoral reporting code
	OFF	Disable phone line restoral reporting code
11	ON	Enable duress reporting code
	OFF	Disable duress reporting code
12	ON	Enable keypad panic reporting code
	OFF	Disable keypad panic reporting code
13	ON	Enable keypad fire reporting code
	OFF	Disable keypad fire reporting code
14	ON	Enable keypad medical reporting code
	OFF	Disable keypad medical reporting code
15	ON	Enable keypad lockout reporting code
	OFF	Disable keypad lockout reporting code
16	ON	Enable access reporting code
	OFF	Disable access reporting code

Default values are shaded

LED	ON / OFF	Action
1	ON	Enable RF jamming
	OFF	Disable RF jamming
2	ON	Enable RF jamming restore
	OFF	Disable RF jamming restore
3	ON	RESERVED
	OFF	
4	ON	RESERVED
	OFF	
5	ON	RESERVED
	OFF	
6	ON	RESERVED
	OFF	
7	ON	RESERVED
	OFF	
8	ON	RESERVED
	OFF	
9	ON	RESERVED
	OFF	

Default values are shaded

## 11.1 Programming Telephone Numbers

For the telephone number locations, a value of **[0]** is used as a termination digit. It is important therefore that any zeros (0) in the telephone number itself be entered as a **[10]**. All hexadecimal values are entered using the mode key (See table 2, page 17).

Enter numbers consecutively with no other key presses between each digit.

To dial a "0" program a table 2 **[10]** – by pressing **[MODE] [0]**

To dial a "\*" program an **[11]** - by pressing **[MODE] [1]**

To dial a "#" program a **[12]** - by pressing **[MODE] [2]**

### Inserting pauses

A pause may be inserted at any point within the telephone number: Entering a value of **[13]** (by pressing **[MODE] [3]**) will provide a 12-second pause and a value of **[15]** (by pressing **[MODE] [5]**) will provide a 4-second pause.

To terminate a telephone number, program a **[0]** immediately after the last digit of the telephone number.

Example:

Phone number 1 is to be dialled as follows:

[0] followed by a 4 second pause then [0317051373]. The key sequences are as follows:



<b>Data entered</b>	<b>Explanation</b>
<b>[INSTALLER CODE][*]</b>	To enter program mode
<b>[1][2][1][*]</b>	To enter location 121 (phone number 1)
<b>[MODE][0]</b>	To dial the zero
<b>[MODE][5]</b>	This programmes the 4 second pause
<b>[MODE][0][3][1]</b>	This programmes the area code
<b>[7][MODE][0][5][1][3][7][3]</b>	The remainder of the number
<b>[0]</b>	To mark the end of the number
<b>[#]</b>	To exit program mode

## 11.2 Telephone Number Storage Locations

### LOCATION 121 Phone Number 1

This location contains the primary telephone number. A maximum of 24 digits can be entered. Enter the digits consecutively and after the last digit has been entered, terminate with a **[0]**.

### LOCATION 122 Phone Number 2

This location contains the secondary telephone number. A maximum of 24 digits can be entered. Enter the digits consecutively and after the last digit has been entered, terminate with a **[0]**.

## 11.3 Download Options

### LOCATION 123 Download Options

<b>LED</b>	<b>ON / OFF</b>	<b>Action</b>
1	ON	Enable fax defeat
	OFF	Disable fax defeat
2	ON	Enable forced answer
	OFF	Disable forced answer
3	ON	Enable auto pickup
	OFF	Disable auto pickup
4	ON	Enable call-back
	OFF	Disable call-back

Default values are shaded

Fax defeat is useful for downloading when a fax or answering machine is connected to the same phone line as the alarm panel. If this feature is enabled, dial the panel and hang up before three rings. Dial the panel again within one minute. The panel will then pick up the call on the first ring thereby preventing the fax / answering machine from answering the call before the alarm.

If forced answer is enabled the **[8]** key may be used to force the panel to go off hook, "answering the line".

If enabled, Auto Pickup will pick up the line after the number of rings programmed into location 124.

The Call-back feature when enabled, allows the download software/PC to request that the panel call it back using the phone number as programmed into location 125.

<b>LOCATION 124</b>	<b>Number of Rings to Answer (Default = 15)</b>
---------------------	---

This location determines the number of rings before the panel "answers" the telephone line. In the event that the panel answers the call and no valid download log on sequence is received within 40 seconds, the panel will terminate the call.

<b>LOCATION 125</b>	<b>Call-back Phone Number</b>
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If Call-back is enabled in Download Options (location 123) the phone number programmed into this location will be used to respond to a call-back request from the IDS Download Software/PC.

<b>12.</b>	<b>Partition Setup</b>
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<b>LOCATIONS 128 – 129</b>	<b>Partition Setup</b>
----------------------------	------------------------

Location 128 - Partition One.  
 Location 129 - Partition Two.

<b>Sub-location 1</b>	<b>Partition Zone Allocation</b>
-----------------------	----------------------------------

This location is bitmapped with each LED representing a zone. LED's that are on represent the zones in the selected partition. Enter the number of the zone followed by the **[\*]** key to select or deselect zones. By default, all zones are allocated to partition 1 and no zones are allocated to partition 2.

<b>Sub-location 2</b>	<b>Primary Account Code</b>
-----------------------	-----------------------------

This account code is used if single reporting has been enabled. If dual reporting is enabled then this account code is reported to telephone number 1.

<b>Sub-location 3</b>	<b>Secondary Account Code</b>
-----------------------	-------------------------------

This account code is only used when dual reporting is enabled. It is reported to Telephone Number 2.

LED	On / Off	ACTION
1	ON	Enable instant arm
	OFF	Disable instant arm
2	ON	Enable instant key-switch arm
	OFF	Disable instant key-switch arm
3	ON	Enable quick arm key
	OFF	Disable quick arm key
4	ON	Enable quick stay arm key
	OFF	Disable quick stay arm key
5	ON	Enable auto stay arm if no exit zone is triggered
	OFF	Panel away arms regardless if zone is triggered
6	ON	Enable auto stay arm if no exit zone is triggered when arming with a key-switch (or remote)
	OFF	Disable auto stay arm if no exit zone is triggered when arming with a key-switch (or remote)
7	ON	Enable forced arm
	OFF	Disable forced arm
8	ON	Enable zone bypassing
	OFF	Disable zone bypassing
9	ON	Enable arm with zones in the entry route violated
	OFF	Disable arm with zones in the entry route violated
10	ON	Enable siren toot on arm
	OFF	Disable siren toot on arm
11	ON	Enable siren toot on disarm
	OFF	Disable siren toot on disarm
12	ON	Enable the entry beep
	OFF	Disable the entry beep
13	ON	Enable the exit beep
	OFF	Disable the exit beep
14	ON	Enable engineers reset
	OFF	Disable engineers reset
15	ON	Enable auto disarm
	OFF	Disable auto disarm

Default values are shaded

#### Quick Arm:

This option allows the user to arm the panel by holding down the **[1]** key for two seconds until the keypad beeps.

#### Force Arm:

With this option enabled, the panel will arm with violated zones e.g. an open window. When the panel arms, any violated zone is bypassed. If bypassed zones restore during the arm cycle (e.g. a window is closed), the zone is automatically re-activated (un-bypassed).

#### Siren Toot on Away Arm / Disarm:

This option allows the user an audible confirmation that arming or disarming of the panel has occurred. The siren can be programmed to give a short beep after successful arming, and two short beeps after disarming. This is useful when used in conjunction remote or key-switch arming/disarming.

**Engineer Reset:**

If enabled this option prevents arming the panel after an alarm condition has occurred. The panel can only be armed after the engineer has entered a valid installer code. A trouble condition will be displayed on the keypad if enabled in location 40.

<b>Sub-location 5</b>	<b>Partition Options</b>
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LED	ON / OFF	Action
1	ON	Enable automatic re-enabling of shutdown zones at the time of the dialler test.
	OFF	Disable automatic re-enabling of shutdown zones at the time of the dialler test.
2	ON	Enable bypassing of common zones
	OFF	Disable bypassing of common zones
3	ON	Enable delay before communications
	OFF	Disable delay before communications
4	ON	Enable keypad lockout
	OFF	Disable keypad lockout
5	ON	Enable user phone access
	OFF	Disable user phone access
6	ON	Enable silent keypad panic
	OFF	Disable silent keypad panic

Default values are shaded

<b>Sub-location 6</b>	<b>Exit Delay Period</b>
-----------------------	--------------------------

Value	Time-out Delay	Value	Time-out Delay
0	3 Seconds	8	2 Minutes
1	10 Seconds	9	3 Minutes
2	15 Seconds	10	4 Minutes
3	20 Seconds	11	5 Minutes
4	25 Seconds	12	10 Minutes
5	30 Seconds (default)	13	15 Minutes
6	45 Seconds	14	18 Minutes
7	1 Minute	15	21 Minutes

The exit delay will begin after the entry of a valid user code (or pressing of the **[1]** or **[6]**, initiating the quick-arm function). During this period, it is permissible to violate Entry/Exit and Follower zones without causing an alarm condition thus allowing exit from the premises.

Select the appropriate exit delay period from the table above. If an instant zone is violated during this period, an alarm condition will immediately be registered. Select the appropriate value for the primary exit delay from the table.

<b>Sub-location 7</b>	<b>Primary Entry Delay Time</b>
-----------------------	---------------------------------

(Values identical to Sub-location 6) This entry delay begins after the violation of a primary Entry/Exit zone. During this, it is permissible to violate follower zones without causing an alarm condition if an Entry/Exit zone was violated first.

If a follower zone is violated without a prior Entry/Exit zone violation, it will be treated as an instant zone. If an instant zone is violated during this period, an alarm condition will immediately be registered. Select the appropriate value for the primary entry delay from the same table for sub-location 6.

<b>Sub-location 8</b>	<b>Secondary Entry Delay</b>
-----------------------	------------------------------

(Values identical to Sub-location 6) The secondary entry delay applies to secondary Entry/Exit zones. Once an entry has been initiated, subsequent violations of any entry zone will NOT reset the entry time. Use the same table from Sub-location 6 to look up the value for the time interval required.

<b>Sub-location 9</b>	<b>Auto Arm Time (Default = disabled)</b>
-----------------------	---

This sub-location stores the time at which a particular partition will auto arm. The data format entered into this location is "hhmm" based on a 24-hour clock. Example: To auto arm at 11:35pm, enter 2335. All four digits must be entered, include any leading zeros (0100 for 1 am).

To disable this feature, ensure that no day of the week is selected in sub-location 10.

<b>Sub-location 10</b>	<b>Auto Arm Days (Default = all OFF)</b>
------------------------	--

This Bitmapped sub-location sets the days on which the partition will auto arm at the time programmed in sub-location 9.

<b>LED's</b>	<b>Days of the Week</b>
LED 1	Monday
LED 2	Tuesday
LED 3	Wednesday
LED 4	Thursday
LED 5	Friday
LED 6	Saturday
LED 7	Sunday
All OFF	(Auto arm disabled)

<b>Sub-location 11</b>	<b>Auto Disarm Time</b>
------------------------	-------------------------

This sub-location will store the time that the partition will auto disarm. The format of data entered into this location is "hhmm" based on a 24-hour clock. For example: To auto disarm at 11:35 am, enter 1135.

<b>Sub-location 12</b>	<b>Auto Disarm Days</b>
------------------------	-------------------------

This Bitmapped sub-location sets the days on which the partition will auto disarm at the time programmed in sub-location 11.

<b>LED's</b>	<b>Days of the Week</b>
LED 1	Monday
LED 2	Tuesday
LED 3	Wednesday
LED 4	Thursday
LED 5	Friday
LED 6	Saturday
LED 7	Sunday
All OFF	(Auto arm disabled)

**NOTE:**

Auto Disarm, if required, must be enabled per partition. (Sub-location 4).

<b>Sub-location 13</b>	<b>Auto Arm Delay</b>
------------------------	-----------------------

This location selects the delay period for the keypad buzzer warning, which is initiated before the panel auto arms. At the completion of the Auto Arm Delay, the panel will arm. A valid user code entered during the delay period will cancel the auto arming.

<b>Value</b>	<b>Delay</b>	<b>Value</b>	<b>Delay</b>
0	3 seconds	8 (Default)	2 minutes
1	10 seconds	9	3 minutes
2	15 seconds	10	4 minutes
3	20 seconds	11	5 minutes
4	25 seconds	12	10 minutes
5	30 seconds	13	15 minutes
6	45 seconds	14	18 minutes
7	1 minute	15	21 minutes

<b>Sub-location 14</b>	<b>Reserved</b>
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<b>Sub-location 15</b>	<b>Reserved</b>
------------------------	-----------------

**Partition Reporting Codes (for 4 x 2 & Domestic)**

For all these locations, a two digit hexadecimal code must be programmed. To disable a reporting code, a double zero (00) must be entered into the corresponding location. Note that if one of the above-mentioned reporting digits is inadvertently omitted or programmed as a zero, the code will not be reported. The exception to this rule is when using domestic reporting where only the first digit is used.

<b>Sub-location 16</b>	<b>Duress Reporting Code</b>
------------------------	------------------------------

This code is reported when a duress code is entered.

<b>Sub-location 17</b>	<b>Keypad Panic Reporting Code</b>
------------------------	------------------------------------

This code is reported when the **[P]** key on a keypad is held down for one second.

<b>Sub-location 18</b>	<b>Keypad Fire Reporting Code</b>
------------------------	-----------------------------------

This code is reported when the **[F]** key on the keypad is held down for one second.

<b>Sub-location 19</b>	<b>Keypad Medical Reporting Code</b>
------------------------	--------------------------------------

This code is reported when the **[M]** key on the keypad is held down for one second.

<b>Sub-location 20</b>	<b>Keypad Lockout Reporting Code</b>
------------------------	--------------------------------------

This code is reported when a keypad lockout condition occurs.

<b>Sub-locations 21 – 44</b>	<b>Partition Programmable Outputs</b>
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See “System Programmable Outputs” (Section 9, page 30) for details on programming the programmable outputs. The table below summarises the partition specific events that can be assigned to the outputs.

## Summary of Partition Event Driven Programmable Outputs

<b>Sub-loc</b>	<b>Event</b>	<b>Output</b>	<b>Default Action</b>
21	Close programmable output	<b>3</b>	<b>Set high [0]</b>
22	Stay close programmable output	Disabled	
23	Open programmable output	<b>3</b>	<b>Set low [1]</b>
24	Cancel programmable output	Disabled	
25	Alarm restoral programmable output	Disabled	
26	Bypass programmable output	Disabled	
27	Forced arm programmable output	Disabled	
28	Zone tamper programmable output	Disabled	
29	Zone tamper restoral programmable output	Disabled	
30	Zone shutdown programmable output	Disabled	
31	Zone shutdown restoral programmable output	Disabled	
32	Keypad panic programmable output	<b>1</b>	<b>Pulse high [2]</b>
33	Keypad fire programmable output	Disabled	
34	Keypad medical programmable output	Disabled	
35	Keypad lockout programmable output	Disabled	
36	Duress programmable output	<b>1</b>	<b>Pulse high [2]</b>
37	Verifies alarm programmable output	Disabled	
38	Burglary programmable output	<b>2</b>	<b>Pulse high [2]</b>
39	Panic programmable output	<b>1</b>	<b>Pulse high [2]</b>
40	Fire programmable output	Disabled	
41	Tamper zone programmable output	Disabled	
42	Siren programmable output	Disabled	
43	Strobe programmable output	Disabled	
44	Chime programmable output	Disabled	

<b>Sub-location 45</b>	<b>Clear Programmable Outputs on Disarming</b>
------------------------	--

This bitmapped sub-location allows any programmable output to be cleared (set low) on disarming.

The output(s) to be cleared will be displayed by zone LED's that are on, representing the output i.e. zone 1 = output 1 etc. To toggle the status of the output, press the **[NUMBER OF OUTPUT] [\*]** if the LED was off it will now come on and visa versa.

(To exit this mode press [#])

<b>LED</b>	<b>Output</b>
1	Panel - programmable output 1
2	Panel - programmable output 2
3	Panel - programmable output 3
4	Panel - programmable output 4
5	Panel - programmable output 5
6	Wired zone expander - programmable output 2
7	Wired zone expander - programmable output 1

**13.****User Options****LOCATIONS 136 – 167 Individual User Code Setup**

The IDS 816 provides for 32 user codes. These locations allow the installer to configure the user code properties.

**Table 11 : User Code Locations**

<b>Loc Number</b>	<b>User Number</b>	<b>Loc Number</b>	<b>User Number</b>
136	User 1	152	User 17
137	User 2	153	User 18
138	User 3	154	User 19
139	User 4	155	User 20
140	User 5	156	User 21
141	User 6	157	User 22
142	User 7	158	User 23
143	User 8	159	User 24
144	User 9	160	User 25
145	User 10	161	User 26
146	User 11	162	User 27
147	User 12	163	User 28
148	User 13	164	User 29
149	User 14	165	User 30
150	User 15	166	User 31
151	User 16	167	User 32

When the panel is defaulted, User Code 1 defaults to 1234 and is a Master User Code. All other User Codes are disabled.

**Sub-location 1 Assigned to Partitions**

This bitmapped sub-location determines which partition a user code is assigned to. By default, User Code 1 is assigned to Partitions 1 and 2. All other User Codes are assigned to Partition 1 only. (Depending on sub-location 2, bit 1). Change partitions by holding **[MODE]** for 1 second, **[2] [\*]**, in user mode – provided that the keypad is Global. (Sub-location 2, bit 4).

<b>LED</b>	<b>Partition</b>
LED 1	Partition one
LED 2	Partition two

**Sub-location 2 User Code Properties**

This is a bitmapped sub-location.

<b>LED</b>	<b>User Option</b>
1	Master user
2	Duress code
3	Arm to disarm code (maid's code)
4	Global Arm/Disarm



**NOTE:**

A master user code allows for the programming of other user codes in User Programming Mode.

**User Reporting Codes** (for 4x 2 and Domestic Reporting)

For all these locations, a two digit hexadecimal code must be programmed. To disable a reporting code a double zero (00) must be entered into the corresponding location. Note that if one of the above-mentioned reporting digits is inadvertently omitted or programmed as a zero, the code will not be reported. The exception to this rule is when using domestic reporting where only the first digit is used.

<b>Sub-location 3</b>	<b>Close Reporting Code</b>
-----------------------	-----------------------------

This code is reported when the panel is AWAY ARMED.

<b>Sub-location 4</b>	<b>Stay Close Reporting Code</b>
-----------------------	----------------------------------

This code is reported when the panel is STAY ARMED.

<b>Sub-location 5</b>	<b>Open Reporting Code</b>
-----------------------	----------------------------

This code is reported when the panel is disarmed.

<b>Sub-location 6</b>	<b>Siren Cancel Reporting Code</b>
-----------------------	------------------------------------

If the siren is sounding and the siren is cancelled using a valid user code, a cancel code will be reported. Cancelling a silent alarm or silent panic will not cause the cancel siren code to be reported.

## 14. Programmable Output Options

<b>LOCATIONS 388 – 394</b>	<b>Programmable Output Timing Setup</b>
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Locations 388 to 394 allow the installer to setup the timing characteristics of each programmable output individually.

<b>Location</b>	<b>Output No.</b>	<b>Output Type</b>
388	1	Panel prog. output 1
389	2	Panel prog. output 2
390	3	Panel prog. output 3
391	4	Panel prog. output 4
392	5	Panel prog. output 5
393	6	Zone expander prog. output 2
394	7	Zone expander prog. output 1

<b>Sub-location 1</b>	<b>Output Pulse Time</b>
-----------------------	--------------------------

This sub-location determines the length of time for which an output will pulse.

<b>Value</b>	<b>Delay</b>	<b>Value</b>	<b>Delay</b>
0 (Default)	3 seconds	8	2 minutes
1	10 seconds	9	3 minutes
2	15 seconds	10	4 minutes
3	20 seconds	11	5 minutes
4	25 seconds	12	10 minutes
5	30 seconds	13	15 minutes
6	45 seconds	14	18 minutes
7	1 minute	15	21 minutes

### Output Scheduling

Outputs can be scheduled to set and reset at specified times on specific days of the week. To disable scheduling of an output ensure that all "days" are deselected.

<b>Sub-location 2</b>	<b>Schedule ON Time</b>
-----------------------	-------------------------

Enter the time using "hhmm" format at which the output is to be SET. (MUST be four digits)

<b>Sub-location 3</b>	<b>Schedule ON Days</b>
-----------------------	-------------------------

This bitmapped sub-location determines on which day(s) an output will be set.

<b>LED</b>	<b>Days of the Week</b>
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday

<b>Sub-location 4</b>	<b>Schedule OFF Time</b>
-----------------------	--------------------------

Enter the time using "hhmm" format at which the output is to be RESET. All four digits must be entered, include any leading zeros (0100 for 1 am, for example).

<b>Sub-location 5</b>	<b>Schedule OFF Days</b>
-----------------------	--------------------------

This bitmapped sub-location determines on which day(s) an output will be scheduled to RESET.

<b>LED</b>	<b>Days of the Week</b>
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday

**15.****Keypad Options****LOCATIONS 400 – 407 | Individual Keypad Setup**

These locations allow the installer to setup the individual keypad properties.

Location	Keypad ID
400	Keypad 1
401	Keypad 2
402	Keypad 3
403	Keypad 4
404	Keypad 5
405	Keypad 6
406	Keypad 7
407	Keypad 8

**Sub-location 1 | Default Keypad Partition (Default = Partition 1)**

This defines the partition to which a keypad will automatically return after viewing another partition.

**Sub-location 2 | Keypad Options**

(Change partitions by entering **[MODE] [\*] [Partition Number] [\*]**, in USER MODE)

LED	ON / OFF	Action
1*	ON	The keypad will timeout back to its default partition after it has been used to view another partition
	OFF	The keypad will not timeout and will continue to show current partition information
2	ON	Keypad sleep mode enabled
	OFF	Keypad sleep mode disabled
3	ON	Enable keypad zone
	OFF	Disable keypad zone
4	ON	Enable global keypad status
	OFF	Disable global keypad status

Default values are shaded

\* LED 4 must be ON in order for LED 1 to have any effect.

- The Global Keypad Options will allow all sixteen zones to be displayed regardless of the partition to which either the keypad or zones are assigned.
- Keypad zones are mapped according to Keypad ID as shown in the table.

<b>Keypad Zone</b>	<b>Zone Number</b>
Keypad ID 1	Zone 16
Keypad ID 2	Zone 15
Keypad ID 3	Zone 14
Keypad ID 4	Zone 13
Keypad ID 5	Zone 12
Keypad ID 6	Zone 11
Keypad ID 7	Zone 10
Keypad ID 8	Zone 9

## **16. Installer Options**

<b>LOCATION 444</b>	<b>Reset Switch Disable (Default = 0)</b>
---------------------	---

<b>Value</b>	<b>Action</b>
10	Disable reset switch
Any other value	Enable reset switch

For the detailed operation of this switch, refer to Section 3: Hardware Reset Switch.

<b>LOCATION 445</b>	<b>Installers Code (Default = 9999)</b>
---------------------	---

Enter the installer code into this location.

<b>LOCATION 446</b>	<b>View Keypad ID</b>
---------------------	-----------------------

View the data in this location to ascertain the Keypad ID

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## Quick Reference User Guide

Description	Programming
Add a User Code	<b>[*] [Master Code] [*] [0] [*] [New Code] [*]</b>
Change a User Code	<b>[*] [Master Code] [*] [2] [*] [Old Code] [*] [New Code] [*]</b>
View a Slot Number	<b>[*] [Master Code] [*] [3] [*] [User Code] [*]</b> View the Slot number via the zone LED's
Edit User Code Properties	<b>[*] [Master Code] [*] [4] [*] [User Code] [*] [2,3 or 4] [*]</b> 2 = Duress                      3 = Arm to Disarm Code 4 = Global Arm/Disarm Code
Allocate a User Code to a Partition	<b>[*] [Master Code] [*] [5] [*] [User Code] [*] [Partition Number] [*] [#]</b>
Teach a Remote to a User Code	<b>[*] [Master Code] [*] [8] [*] [User Code] [*]</b> Press Tx Button
Delete a User Code by Code	<b>[*] [Master Code] [*] [9] [*] [User Code] [*]</b>
Delete a User Code by Slot Number	<b>[*] [Master Code] [*] [10] [*] [Slot Number] [*]</b>
Change Partitions	<b>[Mode] [1] [*] [Partition Number] [*]</b>
Select a Stay Profile	<b>[Mode] [2] [*] [Profile Number] [*]</b>
Program/Cancel Stay Zone	<b>[3] [Zone Number] [*] [#]</b>
Program/Cancel Buzz Zone	<b>[4] [Zone Number] [*] [#]</b>
Program/Cancel Chime Zone	<b>[2] [Zone Number] [*] [#]</b>
Quick Arm	<b>[1]</b>
Quick Stay	<b>[5]</b>
Stay Arm and Go	<b>[6]</b>
Bypassing/Un-bypassing a Zone	<b>[9] [Zone Number] [*] [#]</b>
Alarm Memory	<b>[0]</b> Displays zones violated.
View Trouble Conditions	<b>[7]</b> 1 = AC Mains Fail      2 = No Communication 3 = Phone Line        4 = Siren Tamper 5 = Low Battery        6 = Loss of Clock Timer 7 = Engineer Reset    8 = Box Tamper 10 = Tamper on Peripheral 11 = Comms. Failure to Peripheral Device 12 = Loss of Power to Peripheral Device



# Warranty

Inhep Electronics Holdings (Pty) Ltd guarantees all IDS Control Panels against defective parts and workmanship for 24 months from date of purchase. Inhep Electronics Holdings shall, at its option, repair or replace the defective equipment upon the return of such equipment to any Inhep Electronics Holdings branch. This warranty applies **ONLY** to defects in components and workmanship and **NOT** to damage due to causes beyond the control of Inhep Electronics Holdings, such as incorrect voltage, lightning damage, mechanical shock, water damage, fire damage, or damage arising out of abuse and improper application of the equipment.

**NOTE:** Wherever possible, return only the PCB to Inhep Electronics Holdings service Centres.  
DO NOT return the metal enclosure.

The **IDS 816** is a product of **IDS (Inhep Digital Security)**  
and is manufactured by  
**Inhep Electronics Holdings (Pty) Ltd**

**ICASA Type Approval TE2006/172**

## WARNING

**For safety reasons, only connect equipment with a telecommunications compliance label. This includes customer equipment previously labelled permitted or certified.**

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