



X-Series
WIRELESS

Firmware Version 2.1

X16 Stock Code: 860-1-473-X16

X64 Stock Code: 860-1-864-XS

Features	4
Entering Data	5
Reading numerical Values Stored in Locations via an LED Keypad	5
Programming	6
Location Definitions	7
Zone Types and Their Values	9
Global Settings	11
Daylight Savings	15
Advanced Miscellaneous Settings	16
Communication Settings	17
Zone Properties	20
Auto Arm and Alarm	21
Security Options	23
Partition Options	24
Keypad Configuration	27
Wireless	29
Reporting Codes	34
Extending Contact ID Zone Reporting	36
Triggering Outputs	37
Event Reporting Codes	42
Appendix	46
Hardware	47
Wireless Device Hardware setup	50
Contact ID Zone Reporting	52
Features Grouped by Locations	54

1. Auto arm / disarm
 - a. Per partition
 - b. By day of week
 - c. Pre-determined time
 - d. No movement
2. Four reporting numbers
 - a. Dual reporting
 - b. Split reporting
3. Medical Alarm on no movement
4. Maintenance code
 - a. Siren time and delay
 - b. Keypad lockout
 - c. Day light savings
 - d. No movement auto arm / disarm
 - e. Auto arm
5. Selectable bypass via user code
6. Dynamic battery test
7. Low battery cut out
8. Improved power supply
9. Programmable zone loop response
10. Up & downloadable via software
11. Fax defeat to bypass fax / answering machines
12. Optional tamper reporting per zone
13. Non-volatile memory
14. Voice reporting and DTMF control
15. Wireless




This manual incorporates the X16 & X64 alarm panels. References are to both and depending on the system you are working on will depend on how to interpret the information.

Example: If zones above 16 are mentioned then X64 is being described.

Training must be done with X64 panels as some of the exercises are not suitable for X16.

Entering Data

Below is a description of the keys to be used when entering data:



Mode Key
Use the mode key to enter Hexadecimal numbers

Enter Key
The * key has two functions

- To save the data that has been entered
- To scroll through locations with data already entered

Scroll keys >> & <<
When in a menu >> will scroll forward through the menu and << will scroll you backward.
LCD keypad only

Clear / Exit Key
The # key has two functions:

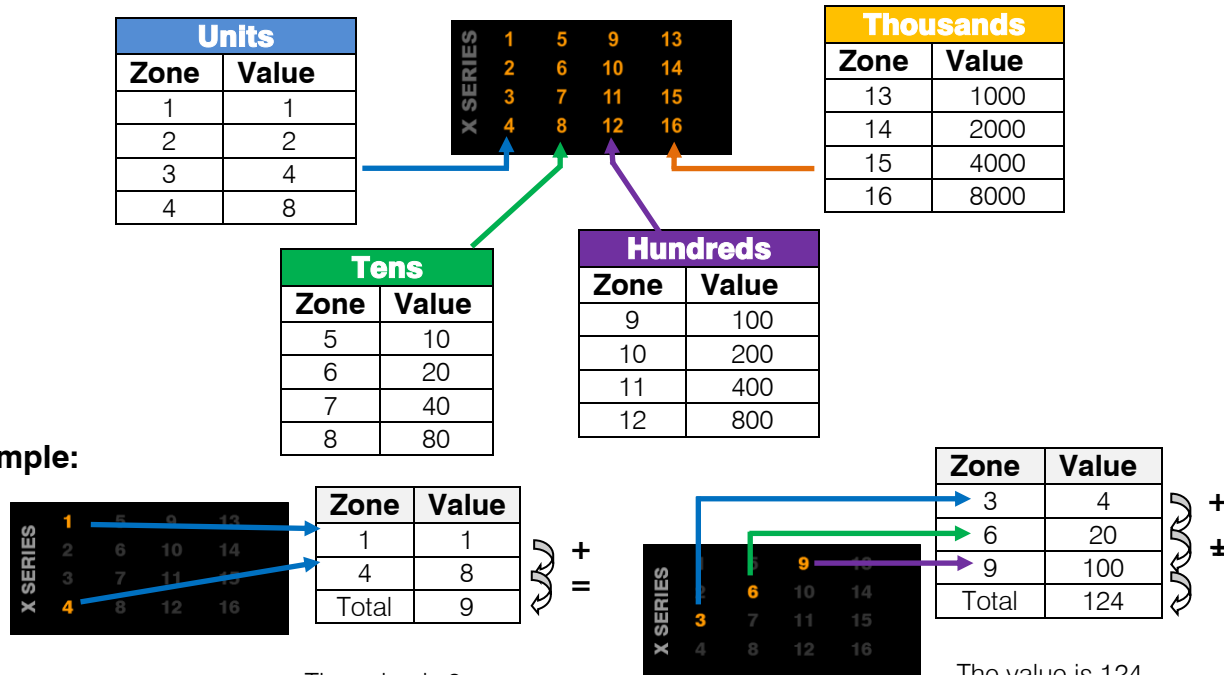
- If data is entered incorrectly press the # key to clear what was entered.
- If no data is to be entered and you want to exit the location or installer mode

Feedback while entering data

- Single extended beep = correct entry
- 3 beeps = incorrect entry

Reading numerical Values Stored in Locations via an LED Keypad

When using an LED keypad, values will be displayed in Binary format. Every zone is given a value which needs to be added together to makeup the value in the location.



Units	
Zone	Value
1	1
2	2
3	4
4	8

Tens	
Zone	Value
5	10
6	20
7	40
8	80

Hundreds	
Zone	Value
9	100
10	200
11	400
12	800

Thousands	
Zone	Value
13	1000
14	2000
15	4000
16	8000

Example:

Zone	Value
1	1
4	8
Total	9

=

Zone	Value
3	4
6	20
9	100
Total	124

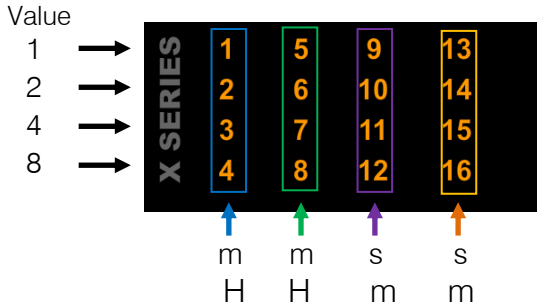
=

The value is 9 The value is 124

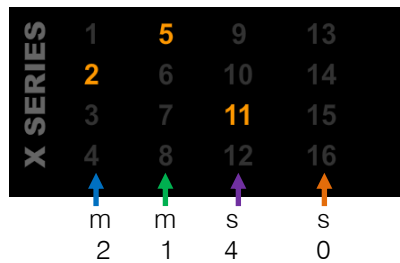
Reading Time Locations via an LED Keypad

When reading time on an LED keypad remember that time is always in the 24 hour format, (mm:ss, hh:mm), therefore each digit has four zone LEDs associated to it. Example, zone 1 to 4 belong to digit 1, zone 5 to 8 belong to digit 2, etc. as shown below. As with calculating any value each zone is given a value, zone 1/5/9/13 have a value of 1, zone 2/6/10/14 have a value of 2, zone 3/7/11/15 have a value of 4 and zone 4/8/12/16 have a value of 8

H = Hour m = minutes s = seconds



Example:



The time in this location is:
21 minutes and 40 seconds

Programming

Installer Mode


Installer mode is where all program settings can be changed to suit any installation requirements. The default installer code is "9999".



Note: Please remember to change the installer code when you have completed the installation. (Location 197)

Exercise:

Entering the installer code.

Instructions	Key presses
Clear any previously pressed keys that maybe in memory	[#]
Enter the installer code and confirm with a * (Default is 9999)	[9] [9] [9] [9] [*]
The ready LED will begin to flash indicating installer mode	

Location Definitions

A location is an area of memory that holds a value. Each location is associated to a function that the alarm needs to operate correctly. These locations have options, other locations or different data that can be entered, to allow for customisation depending on the property being protected and on the monitoring company.

1. Sub-location

A sub-location is a location as above, but just placed into another location.

2. Bitmap

A bitmapped location is a location that has more than one option in it and each option needs to be enabled or disabled depending on the requirements.

3. String Location

A string location is a location that holds many values and is programmed all at once.

4. Partition

A partition is an independently monitored set of zones. The X SERIES can have 8 independently monitored set of zones (partitions).

Different Types of Locations and How to Enter Data into Them

Standard Location

A standard location is an area of memory that holds a value only.

To program a standard location:

1. Enter Installer mode [#] [9] [9] [9] [9] [*] (This step is only required if you are not already in installer mode)
2. Then press the keys that represent the location number followed by the [*] key
3. Now enter the data value that needs to be in the location followed by the [*] key
4. You can enter the next location or press the [#] key to exit Installer mode

Sub-location

A sub-location is a location that is within another location.

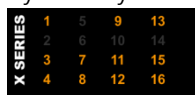
1. Enter Installer mode [#] [9][9][9][9] [*] (This step is only required if you are not already in installer mode)
2. Then press the keys that represent the location number followed by the [*] key
3. Then press the keys that represent the sub-location number followed by the [*] key
4. Now enter the data value that needs to be in the location followed by the [*] key
5. You can enter the next sub-location or press the [#] key to exit the location
6. You can enter the next location or press the [#] key to exit Installer mode

Bitmapped Location

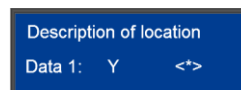
A bitmapped location holds many options within a single location that have to be selected or deselected. Bitmapped locations can also be sub-locations.

1. Enter Installer mode [#] [9][9][9][9] [*] (This step is only required if you are not already in installer mode)
2. Then press the keys that represent the location number followed by the [*] key
3. Below is a diagram of what you may see when entering a bitmapped location or sub-location

Enabled option – number is on
Disabled option – number is off



LED Keypad



LCD Keypad

Y – Option Enabled
N – Option Disabled

4. To enable or disable an option, press the number corresponding to the option, then press the [*] key, the number will come on if it was off or go off if it was on.
5. On the LCD keypad when the [*] key is pressed you will be taken to the option you have chosen. This will show you the current value and if you want to then change the value, press the [*] key (You can also scroll through the options using the scroll keys [>>] [<<])
6. Continue with any other options you wish to change
7. When complete, press the [#] key to exit the location or sub-location.

String Location

The string location holds more than one value in one location.

There are two types of string locations. A, root string location is shown in the manual with square brackets [] and a normal string location.

A [root] string location is a standard string location and a sub-location, location. This allows you to program in two ways:

1. Enter the complete string of data
2. Enter each piece of data as if working in a sub-location.

Entering data in a string format:

1. Enter the location (E.g. [1] [*])
2. Now enter the complete string of data (E.g. [0][1] [0][2] [0][4] [0][4] [0][4] [1][0] [0][5] [0][3] [*])
3. When the [*] key is pressed at the end of the string, you will be removed out of the location and the data saved. If there is an error you will hear 3 error beeps, and will remain in the location to re-enter the data.

Entering data in a [root] string location using the sub-location method.

1. Press the keys that represent the location number followed by the [*] key (E.g. [1] [*])
2. Then press the keys that represent the sub-location number followed by the [*] key (E.g. [3] [2] [*])
3. Now enter the data value that needs to be in the location followed by the [*] key (E.g. [0] [4] [*])
4. When the [*] key has been pressed, you will be taken out of the sub-location but left in the location
5. You can enter the next sub-location as shown in step 2 or press the [#] key to exit the location
6. You can enter the next location as shown in step 1, or press the [#] key to exit installer mode

Review:

Location Type	Keys Presses
Entering the Installer Code	[#] [9] [9] [9] [9] [*]
Standard Location	[Location Number] [*] [Value] [*]
Sub-location	[Location Number] [*] [Sub-location Number] [*] [Value] [*]
Bitmapped	[Location Number] [*] [Option] [*] [Option] [*]....[#]
String method	[Location number] [*] [all values to be entered] [*]

Location 0:

Defaulting the alarm system.

Value	Action
0	Default the complete system back to factory settings
1	Will default the Primary Master User Code back to 1234 - or 123456 if 6 digits are being used. Master User Code properties will also be defaulted.
2	Defaults ALL user codes and their properties.
3	Defaults ALL keypads.
4	Remove Missing Devices. Any missing devices (keypads, for example), will have its address freed up, making its address available for a new device when it is enrolled. This MUST be performed when replacing a faulty device. (You must wait for 10 seconds.)
5	"Central Monitoring Mode" default setting change. Defaults some settings to factory default and changes some others. (Implemented in vers.2 please see appendix for complete listing)
6	"Private Reporting Mode" settings change. Defaults some settings to factory default and changes some others (Implemented in vers.2 please see appendix for complete listing)
7	Defaults all wireless zones and settings

Exercise: Defaulting back to factory settings

Instructions	Key presses
Enter installer mode	[#] [9] [9] [9] [9] [*]
Enter location zero	[0] [*]
Enter a value of zero	[0] [*]
The keypad will begin to beep until all locations have been reset. The LEDs on the keypads will flash indicating that they have no IDs and the system is defaulted.	

Zone Types and Their Values

The value indicated in the left column of the table, is the information that must be entered. Each zone must have a type associated to it, for the alarm to react accordingly when violated. Think of a sports team each player is given a function, defender, attacker, etc. This allows them to function within the game which is the same with each zone, their function is what causes them to work correctly for the security that is needed.

Value	Zone Type	Description
00	DISABLED	This disables the zone.
01	PRIMARY ENTRY / EXIT ZONE	An Entry/Exit zone is used to determine if the occupants have left the building once the arming procedure is initiated. Violating an Entry/Exit zone when armed will initiate the entry delay. If a 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.
02	FOLLOWER ZONE	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.
03	PANIC / PRIORITY ZONE	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.
04	INSTANT ZONE	When the panel is armed the violation of an Instant zone will cause the control panel to register an alarm condition.
05	ARM / DISARM ZONE	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.
08	SECONDARY ENTRY / EXIT ZONE	The Secondary Entry delay will be activated if this zone is violated when the panel is armed.
09	INSTANT FIRE ZONE	The zone will trigger on the first violation of the smoke detector
10	FIRE ZONE	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.
11	TAMPER ZONE	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.
12	24 HOUR ALARM ZONE	This works the same as a Panic zone – with the exception that it is able to be bypassed.
13	WARNING ZONE	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
15	OUTDOOR INSTANT ZONE	When the panel is armed the violation of an Outdoor Instant zone will cause the panel to register an alarm condition the only difference compared to instant zone is the contact ID code sent to the control room.

Location 1 to 8: Zone Type

Root Location: →

The table on the right shows each location and the defaults programmed into them at the time of manufacture.

Zones 1 to 8 are the only zones programmed with zone types.

All other zones must be programmed and allocated to a partition, as described below.

Loc	Zone Types							
[1]	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8
	01	02	04	04	04	04	04	04
2	Z9	Z10	Z11	Z12	Z13	Z14	Z15	Z16
	--	--	--	--	--	--	--	--
3	Z17	Z18	Z19	Z20	Z21	Z22	Z23	Z24
	--	--	--	--	--	--	--	--
4	Z25	Z26	Z27	Z28	Z29	Z30	Z31	Z32
	--	--	--	--	--	--	--	--
5	Z33	Z34	Z35	Z36	Z37	Z38	Z39	Z40
	--	--	--	--	--	--	--	--
6	Z41	Z42	Z43	Z44	Z45	Z46	Z47	Z48
	--	--	--	--	--	--	--	--
7	Z49	Z50	Z51	Z52	Z53	Z54	Z55	Z56
	--	--	--	--	--	--	--	--
8	Z57	Z58	Z59	Z60	Z61	Z62	Z63	Z64
	--	--	--	--	--	--	--	--

As can be seen in the table above, **Loc [1]** has a square bracket around it, indicating that it is a root location. This means that, zone types can be entered in the string method, for zones 1 to 8 or the sub-location method for all 64 zones.

Exercise:

1. Programming zones using both the string and bitmapped methods.
 - a. Let's program zones 9 to 16 using the string method and zones 17 to 24 using the bitmapped method
 - b. The table describes what type of zone each one will be

Zone	Type	Value
9	Secondary Entry / Exit	08
10	Follower	02
11	Follower	02
12	Instant	04
13	Instant	04
14	Outdoor Instant	15
15	Outdoor Instant	15
16	Panic	03

Zone	Type	Value
17	Entry / Exit	01
18	Follower	02
19	Instant	04
20	Instant	04
21	Follower	02
22	Follower	02
23	Outdoor Instant	15
24	Panic	03

- c. To program zones 9 to 16 into the system via the string method:

Instructions	Key presses
Enter installer mode	[#] [9] [9] [9] [9] [*]
Enter the location 2	[2] [*]
Type in the complete string of information for all zones	[0][8] [0][2] [0][2] [0][4] [0][4] [1][5] [1][5] [0][3] [*]

- d. Programming zones 7 and 8 using the sub-location method:

Instructions	Key presses
Enter location 1	[1] [*]
Enter the sub-location number for zone 7 and press the [*] key	[7] [*]
Enter the value for an external instant zone followed by the [*] key.)	[1] [5] [*]
Now zone 8	[8] [*]
Panic zone	[0] [3] [*]
To exit location 1 press the [#] key	[#]
Note: You will still be installer mode	

Global Settings

Location 10: Zone Shutdown Count

This option monitors the zone for the number of times it violates when the system is armed. Once the number of violations reaches the number entered in this location, the zone is automatically bypassed.

Each partition has an option to enable any zones belonging to the partition that were bypassed due to this option in locations 221 to 228 depending on the partition.

Valid Range: 1 - 15

Default: 5

Location 11: Programmable Zone Loop Response Time

This is the time that the zone must be violated before the zone will register a violation.

Valid Range: 1 - 255

Default: 2

Value	Response Time	Value	Response Time	Value	Response Time
1	12 ms	12	144 ms	120	1.44 seconds
2	24 ms	13	156 ms	135	1.62 seconds
3	36 ms	14	168 ms	150	1.80 seconds
4	48 ms	15	180 ms	165	1.98 seconds
5	60 ms	16	192 ms	180	2.16 seconds
6	72 ms	30	360 ms	195	2.34 seconds
7	84 ms	45	540 ms	210	2.52 seconds
8	96 ms	60	720 ms	225	2.70 seconds
9	108 ms	75	900 ms	240	2.88 seconds
10	120 ms	90	1.08 seconds	255	3.06 seconds
11	132 ms	105	1.26 seconds		

The table shows a representation of the values. If the value you want to use is not in this table see below. To work out a response time:

1. Take a value from 1 to 255.
2. Multiply the value by 0.012

Example:

Value of $66 \times 0.012 = 792$ ms

Location 12: Cross-zone Delay Time

Zones can be set to trigger only after a two sets of options have been fulfilled. These are, Time (Location 12) & number of violations (Location 13), the number of violations must happen in the time set. If this does not happen the system will reset both.

Cross-zone delay time is the time that the violations must take place within, before a violation is triggered.

Valid Range: 0000 - 5959

Default: 0030



Note: Each zone must be enabled to be part of the cross-zone group. (Location 101 to 164 depending on the zone number)

Example:

If the cross-zone delay time is set for 30 seconds and location 13 cross-zone delay count, below, is set to 2, then when the zone violates the first time the system begins a 30 second timer waiting for the second violation. If the second violation does not happen the timer resets waiting for the next violation to start the count down. But if the second violation does happen within the 30 second count down the alarm will be triggered.

Location 13: Cross-zone Delay Count

This is the number of times the zone must violate within the time set in location 12, Cross-zone delay time, above.

Valid Range: 1 -15

Default: 3



Note: Each zone must be enabled to be part of the cross-zone group. (Location 101 to 164 depending on the zone number)

Location 14: Global Options

These options are global to the alarm system and affect all partitions

LED	Default	Action	
1	ON	Cancel the siren	This will allow any user from any partition to enter their code to stop the siren
2	OFF	Keypad trouble beep	When this option is enabled and the system detects a trouble condition, the keypad will beep intermittently to alert the users
3	OFF	Telephone line monitoring	This will look for the telephone line voltage and if the telephone line voltage goes missing a trouble condition will be logged and if another form of communication is available this will be communicated if option 3 is enabled in location 571
4	OFF	Keypad beep on communication	Whenever the alarm successfully communicates via telephone, the keypad will beep to indicate a successful transfer of information
5	ON	Keypad Fire, Medical and Panic keys	The keypad has a F for fire, M for medical and P for panic keys and this option enables or disables these keys
6	ON	Display of bypassed zones when armed	When the alarm is armed and this option is enabled, will display all zones that have been bypassed. If disabled then none will be shown
7	OFF	Siren delay	This will delay any sound coming from the siren for a period entered into location 18. The alarm will still communicate instantly
8	ON	Box tamper monitoring	If you have a switch on the alarm panel housing so that if anyone opens the housing and the switch is triggered, the panel will log an event and send a tamper signal if option 8 in location 571
9	ON	Siren tamper monitoring	This looks for a load on the siren port, if the load goes missing then a tamper is triggered and logged. If option 4 in location 571 is enabled a tamper will be sent to the monitoring company
10	OFF	Peripheral tamper monitoring	For monitoring tampering on other devices on the systems communication bus. If option 1 in location 572 is enabled a message will be sent to the monitoring station
11	OFF	Onboard dedicated panic-silent	On the panel next to zone 8 there is a panic zone. If a silent panic is required enable this option
12	ON	Low battery monitoring	This option will allow the panel to test the battery every 30 min. If the battery is faulty or low, an event will be logged and with option 8 in location 572 enabled, a signal will be sent to the control room
13	ON	Low battery cut out	This option enables the alarm system to monitor the battery voltage and when it reaches 10.5V it will shut the system down. When AC is restored the alarm will switch back on and begin to charge the battery
14	OFF	Bypassing with user code	If the area that is being protected is a high security area this forces a user to insert their code before zones can be bypassed
15	OFF	Dedicated panic bypass	This option will allow users to bypass the dedicated onboard panic zone
16	OFF	Cancel panic via a remote Tx	If a panic has been triggered this option will allow or deny panic violations to be reset via the arm/disarm button on the remote Tx. If off only a user code entered on a keypad will cancel the panic condition

Location 15: AC Fail / Restore Reporting

This is the time the system waits before reporting that the electricity has been disconnected.

Data format: hhmm

Valid Range: 0001 - 1800

Default: 0004



Note: AC restoral waits for one minute before reporting the restoral.

Location 16: Trouble Display

When the alarm system detects any of the trouble conditions are enabled in the table below, the power light on the keypad flashes and can be set in location 14, option 2, to beep. To view the trouble condition: Press and hold the [7] key down until the beep.

When the trouble condition has been corrected, pressing and holding [7] until the beep, and then press the [#] key to clear the power LED trouble condition. Some troubles will clear themselves, E.g. AC Fail

LED	Default	Action	Description
1	ON	AC fail trouble display	This trouble condition monitors the AC that powers the Alarm Panel and will register a trouble condition after the time programmed in location 15. This will only clear when AC is restored
2	OFF	Reporting comms fail trouble display	This is if the panel tries to communicate and fails to communicate after trying the number of times in location 47
3	OFF	Phone line trouble display	A trouble condition will be displayed when telephone line goes down.
4	ON	Siren tamper trouble display	This option looks for a load and when this load goes missing a trouble is indicated
5	ON	Low battery detection trouble display	The alarm system tests the battery every 30 min. If a trouble is encountered a condition will be shown
6	OFF	Aux. 12V trouble display	When there is a short or some sort of trouble that causes the 12V output to fail
7	OFF	Engineer's reset trouble display	If this option is set in partition options (location 211 to 218) and the alarm triggers, this option will show and the alarm can only be armed again once the installer code has been entered.
8	ON	Box tamper trouble display	If the alarm control box is fitted with a switch that is connected to the tamper pins on the control board and enabled in location 14 and the door of the box is opened a trouble will be displayed
9	OFF	Peripheral tamper trouble display	If any peripheral's tamper have been set and any tampering will cause this option to be displayed
10	OFF	485 bus fail trouble display	This will display when a device attached to the system via the bus fails and stops communicating
11	OFF	Peripheral low power/ battery display	If an expander detects low power on the 12V terminal a trouble condition will be displayed
12	OFF	Wireless battery low	When a wireless device's battery needs to be replaced the device will send a battery low signal and trigger a trouble if enabled
13	OFF	Wireless supervision Monitoring	Each wireless device will check in and if a device does not a trouble is triggered
14	OFF	Wireless RF jam	If an unknown signal that can interfere with signals from wireless is detected a trouble will be triggered
15	OFF	Wireless low RSSI	RSSI is signal strength measurement and if lower than 20% a trouble will be logged
16	OFF	Zone tamper	If a zone is monitored for tamper and then a tamper signal is detected by the alarm a trouble will be triggered.

Location 17: Siren Time Out

This is the time the siren will sound after an alarm is registered

Data format: mmss

Valid Range: 0001 - 5959

Default: 0200

Location 18: Siren Delay

The siren can be delayed not to sound for a specific time after an alarm is registered.

Data format: mmss

Valid Range: 0001 - 5959

Default: 0200

Location 20: Keypad Lockout Count

If a user code is entered incorrectly the number of times entered in this location the keypad will lock-up for the time entered in location 21

Valid Range: 2 - 16

Default: 4



Note: Keypad lockout must be enabled under extra partition options.

(Location 221 to 228 option 4 depending on the partition the keypad belongs too.)

Location 21: Keypad Lockout Time

This is the time the keypad will not respond to any key presses except for the panic button.

Data format: mmss

Valid Range: 0001 - 5959

Default: 0030

Location 22: Keypad Sleep Delay

If the keypad is set in location 251 to 258, depending on the keypad's ID, to go into sleep mode, this location is how long after the last key press does the keypad wait to switch off all its LEDs.

Data format: mmss

Valid Range: 0001 - 5959

Default: 0500

Location 23: User, Installer, Maintenance Code Number of Digits

By default all codes are made up of four digits. This location can change the number of digits that make up a code to six digits.

If the number of digits is changed to six, then:

Code	Old four-digit code	New six-digit code
Installer Code	9999	999999
Maintenance Code	8888	888888
Master User Code 1	1234	123456
User Codes 2-128	XXXX	XXXX00

Valid Range: 4 or 6

Default: 4

Location 24: Account Code Number of Digits

The reporting account codes can be increased to six digits from four.

Valid Range: 4 or 6

Default: 4

Daylight Savings

Daylight savings is practiced in some countries in summer where they advanced their time to increase daylight in the evenings and back in autumn.

Location 25: Month to Start Daylight Savings

Select the month that daylight savings begins

Value	Month
0	Disabled
1	January
2	February
3	March
4	April

Value	Month
5	May
6	June
7	July
8	August

Value	Month
9	September
10	October
11	November
12	December

Location 26: Day of the Week to Start Daylight Savings

Select the day that daylight savings begins

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

Location 27: Week of the Month to Start Daylight Savings

Select the week in the month that daylight savings begins

Value	1	2	3	4	5
Week	Week 1	Week 2	Week 3	Week 4	Week 5

Location 28: Month to End Daylight Savings

Select the month that daylight savings ends

Value	Month
0	Disabled
1	January
2	February
3	March
4	April

Value	Month
5	May
6	June
7	July
8	August

Value	Month
9	September
10	October
11	November
12	December

Location 29: Day of the Week to End Daylight Savings

Select the day that daylight savings ends

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

Location 30: Week of the Month to End Daylight Savings

Select the week in the month that daylight savings ends

Value	1	2	3	4	5
Week	Week 1	Week 2	Week 3	Week 4	Week 5

Location 31: Daylight Savings Time Offset

This is the value that the time must be offset by when daylight savings is enabled.

Valid Range: 1 - 250

Default: 060

Advanced Miscellaneous Settings

Location 32: Auto Test Interval

The time between test signals that are sent back to the monitoring company.

Value	Time Period	Value	Time Period	Value	Time Period	Value	Time Period
0	Every hour	6	Every 12 hours	11	Every 5 days	16	Every 10 days
1	Every 2 hours	7	Every 1 days	12	Every 6 days	17	Every 11 days
2	Every 3 hours	8	Every 2 days	13	Every 7 days	18	Every 12 days
3	Every 4 hours	9	Every 3 days	14	Every 8 days	19	Every 13 days
4	Every 6 hours	10	Every 4 days	15	Every 9 days	20	Every 14 days
5	Every 8 hours						

Location 33: Auto Test Time

This is the time of day that the test signal, set in location 32, must be transmitted

Data Format: hhmm

Valid Range: 0000 - 2359

Default: 0010

Location 34: Download Code Default Disable

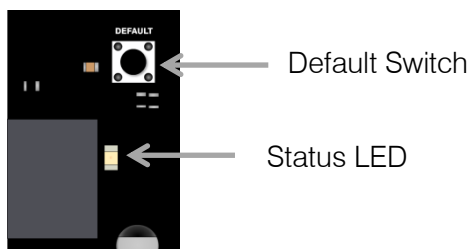
The download code is a security code to stop any illegal connection and changing of data via external connections, using IDSwift software. If this option is enabled then defaulting the system will have no effect on the download code.

Value	Action
0	Enable Download code defaulting
10	Disable Download code defaulting

Valid Range: 0 or 10

Location 35: Hardware Default Switch Disable

Every system has a hardware default switch which is activated by removing power from the system and powering up while holding the switch down until the status LED flashes. If this option is enabled then the only way to default is via the installer code and location 0.



Value	Action
0	Enable defaulting of the download code
10	Disable the defaulting of the download code

Location 36: Zone Status Verify Time

This is the time a zone is monitored for a restore. If the zone does not restore, the system will wait the time entered in this location before sending another burglary event after the siren has timed out.

Data Format: mmss

Valid Range: 0001 to 5959

Default: 1000 (10 min)

Location 37: Zone Status Verify Count

The number of times a burglary event will be sent if the zone does not restore once the siren times out. After the number in this location is reached the zone will be ignored until it restores.

Valid Range: 0 to 16

Default: 0

Communication Settings

Location 40: Serial Communication Format

This is to configure the X Series alarm system to communicate to the serial device using the correct format

Value	Format Name	Description
0	Ademco Express	Dual Tone HS, DTMF
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	Contact ID	Dual Tone HS, DTMF
7	SIA Reporting	Bell 103 FSK, HS



Note: For serial communication jumper J1 must be shorted / closed.
J1 open = direct download enabled; closed = serial reporting

Location 41 to 44: Communication format

This is the language the Alarm Panel must transmit for the equipment in the control room to understand what is being reported. Each phone number can be enabled to communicate in a different format.

Value	Format Name	Description
0	Ademco Express	Dual Tone HS, DTMF
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	Contact ID	Dual Tone HS, DTMF
7	SIA Reporting	Bell 103 FSK, HS



Note: For Contact ID and SIA formats, their event reporting codes are automatically entered into reporting locations. Locations 501 to 588 enable or disable reporting for Contact ID and SIA. All other formats, the reporting codes must be entered manually into location 300 to 373.

Location 45: Communication Delay

This is the time the alarm will wait before reporting an event; it must be enabled under partition options in locations 221 to 228.

Data Format: mmss

Valid Range: 0001 to 5959

Default: 0000

Location 46: Reporting Options

These options setup how the alarm system will communicate with the telephone system and how many numbers it will dial to report any events

LED	Default	Action	Description
1	ON	Tone Dialling	Depending on the telephone system will depend on the choice. Modern systems use Tone
2	OFF	Keep Two Separate Telephone Numbers	24 digits can be entered into a telephone number location. If this is not enough telephone number locations can be joined to form one 48 bit number
3	OFF	Dual Reporting	Dual reporting allows the system to report to two numbers every time an event happens
4	OFF	Alternate Reporting	Off = will alternate between telephone numbers for the number of dial attempts. On = will dial 1 st number until all dial attempts are exhausted, then will try the 2 nd phone number for the amount of dial attempts



Note: The panel can be programmed to report to 4 different phone numbers. Phone numbers 1 and 2, 3 and 4 are grouped together for dual and split reporting.

Dual reporting is when the alarm will report to both numbers to make sure the signal gets through to the control room, in case there is a problem reporting on one of the numbers, it will try the second number and go back to the first after it has succeeded with the second number.

Split reporting is when certain events are programmed to report to certain groups of phone numbers and each group has two numbers for dual reporting in each group.

Location 47: Number of Dial Attempts

If the alarm cannot report on the first attempt, this location tells the system how many times to try. The default is 6 attempts, and can be changed to a maximum of 9. (0 will disable dialling)

Valid Range: 1 - 9

Default: 6

Location 48: Download Options

The IDS X SERIES alarm system can be up / downloaded with IDSwift software over a standard phone line, via an IDS modem. The following options help the system to deal with incoming calls.

LED	Default	Action	Description
1	ON	Fax Defeat	The system monitors the line and if the phone rings twice and stops, then 10 seconds later rings again, the panel will answer before any other device that may be on the line
2	ON	Forced Answer	By pressing and holding down the [8] key for 3 seconds will force the alarm system to pick up the telephone line
3	ON	Auto Pickup	By default if the telephone line rings 15 times the alarm will pick up the line. Location 49

Location 49: Number of rings to answer

When the panel detects this number of rings on a phone line it will automatically pick up the phone if automatic pickup is enabled in location 48.

Valid Range: 1 - 15

Default: 15

Location 51 to 54: Entering a telephone number

When entering phone numbers please follow the following instructions:

To dial a “*” enter [MODE] [1]

To dial a “#” enter [MODE] [2]

For a “12-second pause” enter [MODE] [3] (On the LCD keypad it will be displayed as a “+”)

For a “8-second pause” enter [MODE] [4] (On the LCD keypad it will be displayed as a “=”)

For a “4-second pause” enter [MODE] [5] (On the LCD keypad it will be displayed as a “-”)



Note: [MODE] [0] will clear the phone number

Exercise:

The control room’s phone number is 0860105937. The alarm is installed in a building with a switchboard and 0 has to be dialled to get a line and then must wait 4 seconds before dialling.

Instructions	Key presses
Enter location 51	[5][1] [*]
Enter the value needed to dial	[0] [mode] [5] [0] [8] [6] [0] [1] [0] [5] [9] [3] [7] [*]

Location 55: Serial Reporting Telephone Number

The telephone number the serially connected device must dial to report any signals.



Note: This option is only entered if the serial device has this option built in.

Location 61 to 68: Primary Account Codes per Partition

The account code is what identifies the alarm system to the security company so that they can respond to the correct customer. It is by default a four digit number but can be changed in location 24 to a six digit number.

Exercise:

Enter an account code 0123

Instructions	Key presses
Enter location 61	[6][1] [*]
Enter the account Code	[0] [1] [2] [3] [*]



Note: If the account code is 0000 no reporting will take place. This also allows you to configure which partitions report and which do not.

Location 71 to 78: Secondary Account Codes

The secondary account code is used if double dial is enabled and the second dial must have a different account code to the primary account code.



Note: If the account code is 0000 no reporting will take place. This also allows you to configure which partitions report and which do not.

Zone Properties

Location 101 to 164: Setting Zone Properties

1. Zone properties are individually setup for each zone
2. There are 8 options that can be chosen

Option	Default	Description	Explanation
1	OFF	Tamper	This option allows the monitoring of devices, even when the alarm is not active, for any interference.
2	OFF	Cross-zone	This is when the device has to be triggered a predetermined number of times within a set time period before the alarm will be activated. Also known as double knock. (I.e. The zone must trigger twice in 20 seconds)
3	OFF	Shutdown Zone	This option monitors the zone for violations and if the set number of violations is reached whilst the alarm is on, the zone will be bypassed. (There is an option to try and re-enable the zone when the alarm does its auto test, if the zone is not violated, under extra partition options. Locations 221 to 228)
4	OFF	Silent Zone	This will not set off an audible alarm, but will alert the armed response company if the alarm has been configured to do so
5	OFF	Chime Zone	This will cause the keypad to beep 5 times when violated in an unarmed state. This can also be done via the user menu
6	OFF	Bypass	Enable or disable the zone from being bypassed
9 Profile 1 10 Profile 2 11 Profile 3 12 Profile 4	OFF	Stay Profile	This is to allocate the zone to a stay profile so that if that profile is activated the zone will be bypassed. A stay profile is used to deactivate certain zones when the alarm is active, allowing movement within those zones. Different, or the same zones, can be allocated to 4 different profiles allowing for different situations that may arise. (This can also be set via the user menu)
13 Profile 1 14 Profile 2 15 Profile 3 16 Profile 4	OFF	Buzz Profile	Again this is an option to allocate zones to a buzz profile. A buzz zone only works in the stay mode, allowing the zone to be violated for 30 seconds before triggering the alarm. During the 30 seconds, the keypad will sound the buzzer as an audible warning to alert the person that the zone has been violated. As with stay profiles, different or the same zones can be allocated to 4 different profiles allowing for different situations that may arise. (This can also be set via the user menu.) Buzz profile 1 is associated with stay profile 1, etc.

Exercise:

Zone 16 is a panic zone, let's make it a silent panic so that the siren will not trigger alerting the intruder, but will send the signal to the monitoring company.

Instructions	Key Presses
Enter location 116	[1][1][6] [*]
Select the silent zone option	[4] [*]
LED 4 will come on	
Exit the location	[#]

Auto Arm and Alarm

Each partition can be set to automatically arm or alarm with a medical signal if no movement is detected within a certain time period.

Arm on no Movement

Each partition can be set to automatically arm if no movement is detected within a certain time period. There are 3 steps that need to be completed:

Location 165: Auto Arm Time Out

This is the time the panel will wait before beginning to arm, once all movement has stopped. If movement is detected within this time, the system resets and waits for the movement to stop.

Format: HHMM

Default: 0000

Valid range: 0000 to 2359

Location 166: Auto Arm Start Time

The time entered here in the 24 hour format (HHMM) is when the system will start to monitor for no movement.

Format: HHMM

Default: 0000

Valid range: 0000 to 2359

Location 167: No movement auto arm stop time

If movement has not stopped when this time (HHMM) has been reached the system stops monitoring for no movement.

Format: HHMM

Default: 0000

Valid range: 0000 to 2359

Medical Alarm on No Movement

Each partition can be set to monitor for no movement and if movement is not detected within a certain period of time, an alarm can be triggered to alert someone of the situation.

There are 3 steps that need to be completed:

Location 168: No movement Medical Alarm Time Out

This is the time the panel will wait before triggering the alarm, once all movement has stopped. If movement is detected within this time, the system resets and waits for all movement to stop again.

Format: HHmm

Default: 0000

Valid range: 0000 to 2359

Location 169: No movement Medical Alarm Start Time

The time entered here in the 24 hour format (HHMM) is when the system will start to monitor for movement to stop

Format: HHmm

Default: 0000

Valid range: 0000 to 2359

Location 170: No movement Medical Alarm Stop Time

If movement has not stopped when this time has been reached the system stops monitoring for no movement.

Format: HHmm

Default: 0000

Valid range: 0000 to 2359

Location 171 to 178: Days to no movement auto arm / Medical Alarm



NOTE: These locations contain both no movement auto arm and no movement alarm days of the week.

LED	ARM Days of the Week
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
All OFF	(Arm Day Disabled)

LED	Alarm Days of the Week
9	Monday
10	Tuesday
11	Wednesday
12	Thursday
13	Friday
14	Saturday
15	Sunday
All OFF	(Disarm Day Disabled)

To set the partition to arm on a Friday, Saturday and Sunday

Instructions	Key presses
Enter location 181	[1][8][1] [*]
Enter the partition number	[1] [*]
Enter the days for the partition to auto arm	[5] [*] [6] [*] [7] [*]
To exit	[#]

Auto Arm and Disarm

Each partition can be set to automatically arm or disarm at a certain time and on specific days.

Location 180: Auto Arm

Time that the partition must auto arm entered in 24 hour format (HHMM H=hour, M=minute)

Instructions	Key presses
Enter location 180	[1][8][0] [*]
Enter the partition number	[1] [*]
Enter the time for the partition to auto arm	[2] [0] [3] [0] [*]

Location 181 to 188: Days to auto arm / disarm



NOTE: These locations contain both auto arm and disarm days of the week

LED	ARM Days of the Week
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
All OFF	(Arm Day Disabled)

LED	Alarm Days of the Week
9	Monday
10	Tuesday
11	Wednesday
12	Thursday
13	Friday
14	Saturday
15	Sunday
All OFF	(Disarm Day Disabled)

Location 189: To auto disarm

This option sets the time the partition must disarm automatically.

Format: HHmm

Default: 0000

Valid range: 0000 to 2359

Instructions	Key presses
Enter location 189	[1][8][9] [*]
Enter the partition number	[1] [*]
Enter the days for the partition to auto arm	[0] [8] [0] [0] [*]
To exit	[#]



NOTE: This option must be enabled in the partition options, location 211 to 218
To set the days to auto arm / disarm location 181 to 188.

Location 190: Auto Delay

This location sets the delay period for the keypad buzzer warning, 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.

Format: mmss

Default: 0200

Valid range: 0000 to 5959

Security Options

These are the security codes that protect the panel's programming from being changed without the correct authorization.

Location 197: Installer code

This is the installer code we have been using throughout the training to change settings in locations.

Default: 9999

Valid range: 0001 to 9999

Instructions	Key presses
Enter location 197	[1][9][7] [*]
Enter the new installer code	[8] [4] [2] [1] [*]



Note: It is important to change the installer code to minimise the risk of someone changing any settings.

Location 198: Download code

This code protects the system from unwanted external connections via the telephone line. (To connect successfully you must have the installer code and the download code.)

Default: 9999

Valid range: 0001 to 9999

Instructions	Key presses
Enter location 197	[1][9][8] [*]
Enter the new installer code	[9] [6] [3] [1] [*]

Location 199: Maintenance code

The maintenance code is for a super user to be able to change some settings, using the location method as an Installer would.



Note: No settings can be changed that would compromise communication with the security company.

Panel functions that can be edited in maintenance mode are:

- Siren time
- Siren delay
- Keypad lockout count
- Keypad sleep delay
- All daylight savings settings
- All partition auto arm settings
- All no zone activity auto arm settings
- All no zone activity alarm settings

Default: 8888

Valid range: 0001 to 9999

Instructions	Key presses
Enter location 197	[1][9][9] [*]
Enter the new installer code	[4] [3] [2] [1] [*]

Partition Options

The X Series alarm panels have eight partitions that can have a number of zones and users allocated to them. A partition is a separately controlled group of zones. Zones can be unique to the partition or can be shared between partitions for areas that are common.

Location 201 to 208: Placing Zones into a Partition


By default only the first eight zones are placed into partition one and any added zones must be allocated to a partition.

Valid Range: 01 - 64

Location	Partition	Default Zones	Location	Partition	Default Zones	Location	Partition	Default Zones
201	1	1 to 8	204	4		207	7	
202	2		205	5		208	8	
203	3		206	6				

Exercise:

Zones 10 to 16 need to be programmed into partition 2

Instructions	Key presses
To allocate all the zones that we configured in sections c and d to partition 1 enter location 201	[2][0][2] [*]
The green READY LED should be on the and ARM, AWAY and POWER LEDs should be off	
This is a bitmapped location so data is entered by entering the zone number of the zone you want to allocate to the partition	[9] [*] [1][0] [*] [1][1] [*] [1][2] [*] [1][3] [*] [1][4] [*] [1][5] [*] [1][6] [*]
Zone 9 to 16 LEDs should now be on	
Exit location 202	[#]



Note: When using an LED keypad to gain access to zones 17 onwards press the [*] key to page to the next sixteen zones.

The diagrams below show which page is being displayed via the keypad LEDs and which zones they represent for the X64



Location 211 to 218: Partition Configuration

These options are to set how the system must behave when the partition needs to be armed.

LED	Default	Action	Description
1	OFF	Instant Arm	Instant arm allows the alarm to arm without an exit delay
2	ON	Instant Key-switch arm	When using a zone to arm or disarm this will enable or disable the exit delay
3	ON	Quick Arm Key	This is to enable/disable the pressing of the 1 key to start the arm cycle instead of inserting a user code
4	ON	Quick Stay Arm Key	This is to enable/disable the pressing of the 5 key to stay arm
5	ON	Auto Stay Arm if No Exit Zone is Triggered	When arming with a user code and no entry/exit zone is triggered then the alarm will automatically arm in stay mode
6	OFF	Auto Stay Arm if No Exit Zone is Triggered When Arming with a Key-switch	When arming with a remote transmitter and no entry/exit zone is triggered then the alarm will automatically arm in stay mode
7	OFF	Disable Forced Arm	This will bypass any triggered zone allowing the system to be armed even though there are triggered zones
8	ON	Zone Bypassing	This enables or disables the ability for a user to bypass a fault zones using the 9 key.
9	OFF	Arm with Zones in the Entry Route Violated	This allows movement to take place in a follower zone and the entry / exit zone to be violated when you are about to arm
10	OFF	Siren Toot on Arm	When the alarm arms in the away mode the siren will give one toot to indicate that it has armed
11	OFF	Siren Toot on Disarm	When the alarm disarms from being away armed it will toot twice
12	ON	Entry Beep	This will silence the keypad when the entry zone is triggered to start the entry cycle
13	ON	Exit Beep	This will silence the keypad when the alarm starts to arm
14	OFF	Engineer's Reset	This option will lock the alarm system, until the installers code has been entered, when an alarm has occurred.
15	OFF	Auto Disarm	When enabled the alarm will automatically disarm and the time set in locations 189
16	OFF	Open & Close Reporting	This is a global enable or disable of opening & closing user reporting. By default all users are enabled by default. Enabling this option and all user codes will begin reporting opens and closes

Exercise:

Let us enable siren toot on arm and disarm so the customer will know if the alarm is armed when using a remote transmitter.

Instructions	Keypad presses
Enter the partitions location	[2][1][1] [*]
Option 10 and 11 need to be enabled	[1][0] [*] [1][1] [*]
Exit the location	[#]

Locations 221 to 228: Extra partition options

These are more partition options that can be set

LED	Default	Action	Description
1	OFF	Automatic Re-enabling of Shutdown Zones at the Time of the Dialler test	If a zone is disabled due to reaching the number of triggers in location 10 when armed, the alarm will try and re-enable those zones at auto test
2	OFF	Bypassing of Common Zones	If zones are in more than one partition and the zones may need to be bypassed at some time this option must be enabled in all partitions it belongs to
3	OFF	Delay Before Communications	This option will delay any communication for the time set in location 45. Except for panic or duress signals
4	OFF	Keypad Lockout	If a person enters a wrong code the number of times set in location 20 the keypad will stop responding to any key presses, for the amount of time set in location 21
5	OFF	Disable Silent Keypad Panic	This will stop the siren from sounding if the P key on the keypad is pressed and a panic is triggered
6	OFF	Toot on Successful Communication	When closing reporting is enabled and this option is on the siren will only toot once the system is armed and has communicated that to the security company successfully.
7	OFF	Stay zone reporting	When enabled and stay closing is enabled all zones bypassed will be reported to the security company
8	OFF	Zone restoral signal sending option	When enabled a zone restoral will only be sent once the siren time out period has completed

Location 230: Exit delay

This is the time the alarm waits before fully arming. During this time any zones that are entry/exit or follower zones are disabled and only when the exit delay is finished do these zones become active. By default the exit delay is indicated by the keypad beeping.

Format: mmss

Default: 0030

Valid range: 5959 to 5959

Exercise:

Instructions	Keypad presses
Enter the location 230	[2][3][0] [*]
Enter partition 1's sub-location	[1] [*]
Change the 30 sec default to 10sec (mmss)	[0][0] [1][0] [*]
Exit the location	[#]

Location 231: Primary Entry delay

This is the time the alarm will allow a person from triggering the primary entry/exit zone to entering a valid disarm code before sounding the alarm. When the entry/exit zone triggers, it automatically disables the follower zones.

There is a secondary entry delay (location 232) for a different entry times.

Format: mmss

Default: 0030

Valid range: 5959 to 5959

Exercise:

Instructions	Keypad presses
Enter the location 231	[2][3][1] [*]
Enter partition 1's sub-location	[1] [*]
Change the 30 sec default to 1 min 30sec (mmss)	[0][1] [3][0] [*]
Exit the location	[#]

Location 232: Secondary Entry delay

This is the time the alarm will allow a person from triggering the secondary entry/exit zone to entering a valid disarm code before sounding the alarm. When the entry/exit zone triggers, it automatically disables the follower zones.

Format: mmss

Default: 0030

Valid range: 5959 to 5959

Keypad Configuration

Each X Series system can have eight LCD or LED keypads controlling it. Keypads can be in any partition.



NOTE: By default all keypads, when registered, belong to partition 1 and factory defaults apply.

To register a keypad:

When a new keypad or after a factory or keypad default, all the keypad's LEDs will flash. By pressing the [#] key the keypad will ask the system for an ID. The first available ID will be given to the keypad.

Location 240: Keypad and partitions

Each keypad when registered will belong to partition 1.

Exercise:

Add keypad 1 to partition 1, keypad 2 to partition 2, 3 to partition 3 and 4 to 4:

Instructions	Key presses
Enter location 240	[2][4][0] [*]
Now enter the string for each of the keypads and the keypads not installed leave as default by leaving them in partition 1	[1] [2] [3] [4] [1] [1] [1] [1] [*]
When the [*] key is entered the data will be saved and you will be exited out of the location	

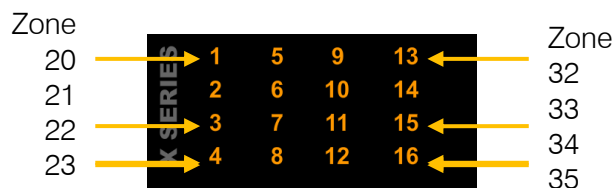
Default: 1

Valid range: 1 - 8

Location 241: Keypad Display Start Zone

The LED keypad can only show 16 zones at a time, therefore on an LED keypad you can set the keypad to start at any zone.

This allows you to set what physical zone the LED keypad will display as zone 1. For example, by setting the keypad to start at zone 20, zone 1, printed on the keypad, will now represent the physical zone 20.



Exercise:

Let us now make keypad number 2 start displaying from zone 9.

Instructions	Key presses
If you are not in installer mode, enter into installer	[#][9][9][9][9] [*]
Keypad display start zone is in location 241	[2][4][1] [*]
Only keypad 2 is changing so we will use the bitmapped method	[2][*]
Enter the start zone number	[0][9] [*]
As you enter * your data is saved and you are exited back into location 241	
To exit out of location 241	[#]
To exit installer mode	[#]

Default: 01

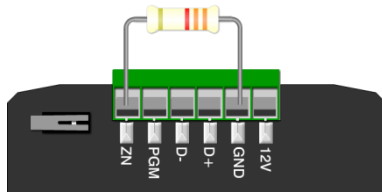
Valid range: 01 - 64

Location 242: Keypad zone

On each keypad is a physical zone which can be mapped to any zone on the alarm, it does not have to be physically connected. The physical zone that the keypad zone is mapped to, on the panel or expander, will be switched off. For example if I make keypad 3's zone, zone number 8. Zone 8 on the panel will be no longer be in operation, but the zone on the keypad will display and report as zone 8.

Default: 00

Valid range: 01 - 64



Exercise:

Instructions	Key presses
If not in installer mode enter into installer	[#][9][9][9][9] [*]
To enable the keypad zone go to location 242	[2][4][2] [*]
Again we are only changing keypad 3 so we will use the bitmap method	[3] [*]
Enter the zone that this keypad's zone will represent	[8] [*]
Exit from the location	[#]
To exit programming	[#]

You could also map the keypad zone to zone 33 even though you don't have an expander with zone 33 physically connected.



NOTE: Please remember that you still need to give the zone a zone type and place it into a partition for it to work.

Location 243: Keypad ID

Enter this location physically on the keypad that you want to know the ID for.

Location 251 to 258: Keypad Options

Each keypad can be set with the following options:

LED	Default	Action	Description
1	ON	The keypad will timeout back to its default partition after it has been used to view another partition	If a keypad is made global, i.e. The keypad will be able to view other partitions on the system. This option will automatically return the keypad to its home partition which was programmed into location 240
2	OFF	Keypad sleep mode	If this is enabled, the keypad will switch all its LEDs off after the time programmed into location 22. Press any key to wake it up.
3	OFF	Global keypad status	If this is enabled the keypad can view any partition on the system. This option ties in with option 1.
4	OFF	Show all Zones	If the keypad is set to global this option determines if the user sees all zones, ON or only the zones that belong to the partition
5	OFF	Partition Menu	Shows all partitions if any of the following keys are pressed: 1-Quick Arm Key, 5-Stay Arm Key, 6-Stay and Go Key

Exercise:

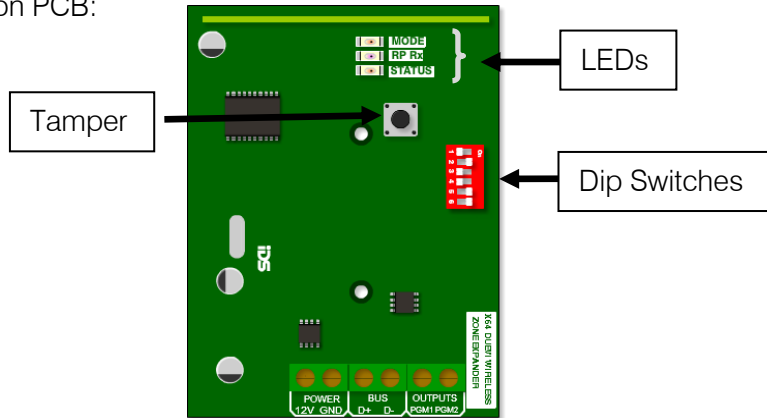
Configure keypad 1, to be a global keypad with the partition menu active

Instructions	Key presses
Enter the location for keypad 1	[2][5][1] [*]
Option 3 must be enabled	[3] [*]
Enable partition menu	[5] [*]
Exit the location	[#]



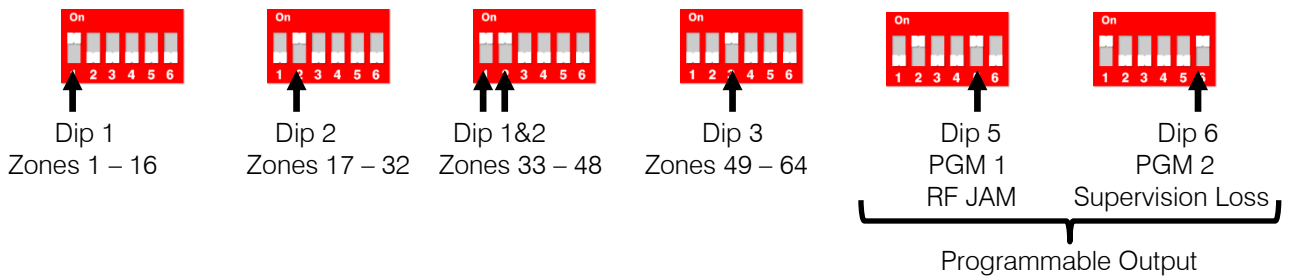
Note: Older wireless hardware devices will not work with the X SERIES, Duevi integration. Please make sure that you have the correct devices.

IDS & Duevi integration PCB:



1. DIP switch operation

The Dipswitch currently has only two operations. The first is to set the device address on the X SERIES bus. This is done in binary the same as was done for the wired expander save for one difference. That is that these expanders each cater for 16 zones and not 8 like the wired expander.



Note: When dip switch 5 and 6 are:

OFF the outputs are then programmable.

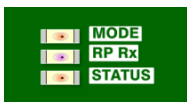
ON the outputs are by default set to output 1 RF jam and output 2 supervision loss

2. Default

The second operation is a standalone default feature. If all Dip-switches are ON during power-up then the unit will default. Please power down after, set appropriate address and power up to resume normal operation.

LED operation

There are 3 LEDs on the board marked “MODE”, “RF RX” and “STATUS”.



STATUS: LED that will indicate whether the receiver is connected and communicating. ON indicates good bus communication with the system.

RF RX: LED that will indicate when the receiver received a message from a learnt detector

MODE: Indicates current operating errors. Errors are indicated much the same as the wired expander. If the LED is ON continuously then there are no errors. However if there are errors it will start pulsing the error number. These error pulses will be separated by a 1sec pause with the LED off.

Pulse error number:

1. Duevi receiver module not responding
2. No activity on the X SERIES serial bus
3. No X SERIES messages detected
4. No messages for this peripheral detected from X SERIES
5. Not used
6. Expander not yet registered on the X SERIES
7. Expander tamper violated
8. Unsupported DIP address configured

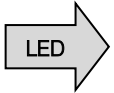
Location 260

Location 260 has a four sub locations listed in the table below:

Sub Location	Description
1	Add Wireless Device
2	Delete Wireless Device
3	Wireless Device Signal Strength
4	Supervision Interval Time



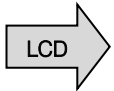
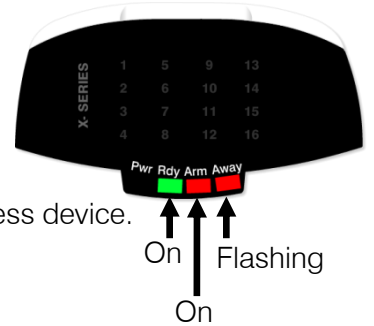
Note: Depending if you have an LED or LCD keypad will depend on the feedback you can expect to receive while programming. The following instructions will be broken up into LED keypad



LED Keypad Instructions

Upon Location entry the user will notice the following:

- Ready LED ON, Armed LED ON, Away LED flashing.
- Menu system now only awaiting sub location selection.
 - User must enter [number][*] to advance into "sub menu".
- When entering sub menus, i.e. add wireless device or delete wireless device.
 - Zones that are wireless zones will be on.
- [#] will return user to Installer menu location entry.



LCD Keypad Instructions

Upon location entry the following will be displayed

Wireless Menu
Add Device <*>

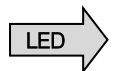
Scroll backwards using
using the Medical key

Scroll forward using
the Panic key

Press * key
to enter

[#] will return user to Installer menu location entry

Sub Location 1: Add Wireless Detector

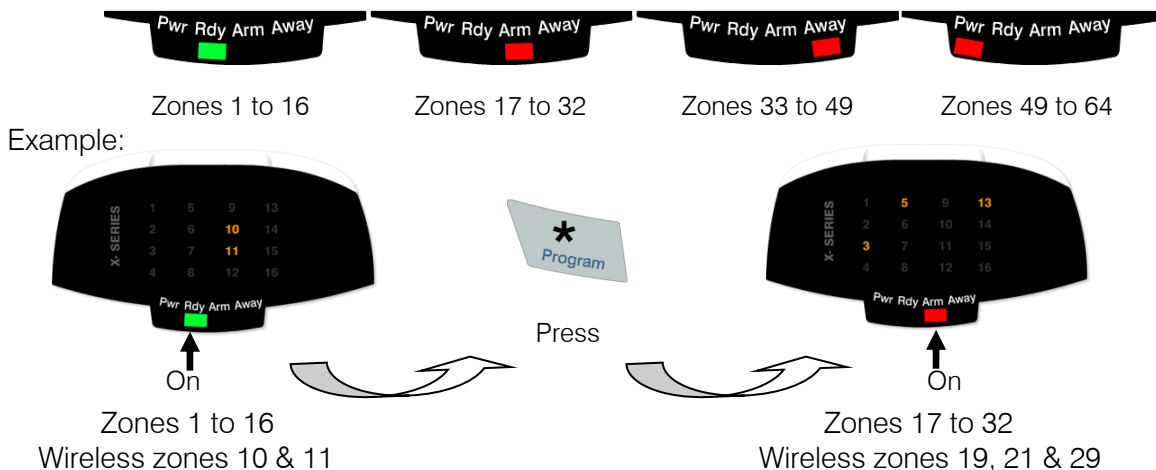


Upon Sub menu entry the user will notice the following:

When working with more than 16 zones on an LED keypad to page through to the next 16 zones press the [*] key.



Note: Each time a new page of zones are shown the Pwr, Rdy, Arm and Away LEDs will change to show which zones are being displayed.



1. Zone LEDs will be ON if the zone already has a wireless detector assigned. The menu is now waiting for user to select to which zone to add a detector. If the user selects a pre-allocated zone then the keypad will sound 3 error beeps and wait for a valid zone entry.



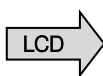
Note: Detectors may only be added on LED keypads via the tamper method.

2. Upon valid zone selection the keypad will sound an OK (single beep) and set the zone LED selected to start flashing. The system is now waiting for the new detector to be tampered.

When the user triggers the tamper the system will receive a notification and determine whether the detector has already been assigned to any other zones. If this is the case the user will be notified by 3 error beeps and the menu will keep waiting for a tamper from an unassigned detector.

If the detector has not been assigned then it will be automatically added to the system. The user will be notified via keypad by a LONG OK beep as well as the Zone LED previously flashing will now be ON.

3. The system will now wait for a new zone to be selected.
4. [#] key at any time will return the user back to the sub menu selection menu.



Upon Sub menu entry the user will notice the following:



← Scroll using Medical or Panic Keys, Enter with [*] key
← Or enter the zone number followed by the [*] key

[#] will return user to sub menu selection entry.

Example: If the zone name is still default or changed to "Main Lounge"



1. Upon selecting a zone that is not already a wireless zone the user will be presented with the following.



2. Press enter to confirm zone selection

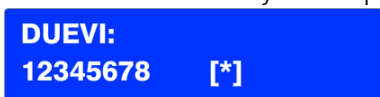


The user must now either trigger the tamper on the detector or key in the serial number of the device.

When the user triggers the tamper the system will receive a notification and determine whether the detector has already been assigned to any other zones. If this is the case the user will be notified by 3 error beeps and the menu will keep waiting for a tamper from an unassigned detector.

Incorrect or pre-allocated serial numbers will also result in a 3 beep error tone and the menu will keep waiting for a valid entry.

3. Upon valid Serial Number entry or tamper the user will be presented with the following.

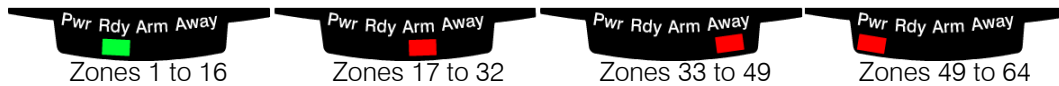


Press [*] to confirm the serial number is correct

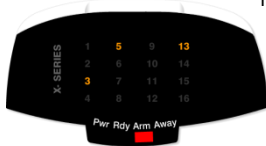
Sub Location 2: Delete Wireless Detector

LED → Upon Sub menu entry the user will notice the following:

Note: Each time a new page of zones are shown the Pwr, Rdy, Arm and Away LEDs will change to show which zones are being displayed. Pages are scrolled using the [*] key.



Pages are scrolled using the [*] key.



1. Zone LEDs will be ON if the zone already has a wireless detector assigned.
- The menu is now waiting for user to select which zone they want to delete a detector from.

Note: The user MAY select a zone that is not pre-allocated.

2. Zone LED will turn OFF on zone selection.
3. [#] key at any time will return the user back to the sub menu selection menu.

LCD → Upon entering location 260 and scrolling to or entering option 2 the following will be displayed:

Wireless Menu
Del. Device <*>

← Scroll using Medical or Panic Keys, Enter with [*] key

1. Enter [*] to enter the delete sub location to have the following displayed:

Zone Names <*>
Zone No + *

← Scroll using Medical or Panic Keys, Enter with [*] key

← Or enter the zone number followed by the [*] key

2. Enter the zone number or scroll to the zone.

SN: 12345678
02 Zone 02

Sub menu 3: Signal Power of Receiver

Note: This menu is active for the LCD keypad only. The user will need to either trigger the tamper or zone to get a signal power update.

LCD → Upon entering location 260 and scrolling to or entering option 3 the following will be displayed:

Wireless Menu
Signal Power <*>

← Scroll using Medical or Panic Keys, Enter with [*] key

1. Enter [*] to enter signal strength testing

Zone Names <*>
Zone No + *

← Scroll using Medical or Panic Keys, Enter with [*] key

← Or enter the zone number followed by the [*] key

2. Enter or scroll to the zone to be deleted

Zone Names <*>
02 Zone 02 . W

← Scroll using Medical or Panic Keys, Enter with [*] key

← Indicates that this zone is a wireless zone

3. Press the [*] key to select the zone

Please Trigger
02 zone 02 . W

4. Trigger the device and the display will show the signal strength on the first row.

Signal Power 75%
02 zone 02 . W

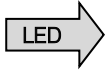
← Signal strength displayed in percentage

Sub Location 4: Supervision monitoring

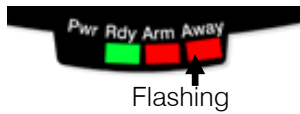
Supervision is the monitoring of wireless devices to make sure that they remain communicating with the system. In this sub location you can choose the time that the alarm waits before raising a trouble condition if it has not received a signal from a device.



Note: When entering this sub-location the first supervision time displayed is the entered time



Upon entering location 260 and entering option 4 the following will be displayed



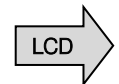
3 Hr Check-in

12 Hr Check-in

X-SERIES	1	5	9	13
	2	6	10	14
	3	7	11	15
	4	8	12	16

1. Enter the supervision time required by entering the correct option from the following table.

Option	Description
1	3 Hours
2	24 Hours



Upon entering location 260 and scrolling or entering option 4 the following will be displayed:

Wireless Menu
Supervision <*>

← Scroll using Medical or Panic Keys, Enter with [*] key

1. Enter by pressing the [*] key

Supervision <*>
Otion No. + *

← Scroll using Medical or Panic Keys, Enter with [*] key

2. Enter the option

Option 1

Supervision <*>
Check - In 3Hrs *

3 hours

OR

Option 2

Supervision <*>
Check - In 24Hrs *

24 hours

Default: 2 (24 hour)

Valid range: 1 – 2



Note: All devices must be set to the correct supervision time corresponding to the selection in the supervision monitoring sub-location. Please [appendix](#) for hardware supervision settings

Reporting Codes

In the following locations the value of the reporting codes are entered for reporting formats other than SIA and Contact ID. For example formats like, FBI 4x2.

[INSTALLER CODE] [*] [LOCATION] [*] [SUB-LOCATION] [*] [REPORTING CODE] [*]

Location 261 to 264 Stay Zone Reporting Codes

Locations to enter reporting codes if you want to report stay zones to the control room. This is for formats other than Contact ID and SIA.

Location	Profile	Zones	Location	Profile	Zones
261	1	1 to 64	263	3	1 to 64
262	2	1 to 64	264	4	1 to 64

Default is 00

Valid Range: 00 - FF

Location 300 Global Reporting

Sub-Loc	Description	Explanation
1	AC Fail	Enter the code that is to be reported when the main electrical supply has failed and the system is running on the backup battery
2	AC Restore	This reporting code is sent when the main electrical supply is restored
3	Communication Fail	The X SERIES can be programmed to try and communicate a number of times via the phone line. When these attempts have been exhausted a communication fail is sent.
4	Communication Restored	When communication is restored the code is sent
5	Phone line tamper	If the phone line is tampered with and the line voltage goes missing an alert is sent
6	Phone line restore	When the line voltage is restored a reporting code is sent alerting the security company
7	Siren tamper	The X SERIES monitors the siren and if it goes missing a signal is sent
8	Siren tamper restore	Once the siren has been restore the security company is alerted

Location 301 Global reporting

Sub-Loc	Description	Explanation
1	Battery Low	After AC has failed and the system detects that the battery voltage has reached 10.5V this code is sent to warn the company that it is about to switch off because of the lack of power
2	Battery Restore	Once charged a restore will be sent to confirm the battery is charged
3	Auxiliary 12V Fuse failed	If the fuse protecting the auxiliary 12V output latches off a code can be sent to alert the security company
4	Auxiliary 12V Fuse restored	When the fault is corrected a restore is sent
5	Installer reset required	If this option is enabled in location 211 to 218 and the alarm is tripped in the partition that it is enabled in, the alarm cannot be armed until the installer code is entered.
6	Installer reset restored	Once the installer code has been entered after an alarm has tripped a restoral will be sent
7	Box tamper	On the alarm panel is a connector that a switch can be connected to monitor the box that it is in so it cannot be opened without notifying the security company
8	Box tamper restore	When the box is closed a restore is sent

Location 302 Global reporting

Sub Loc	Description	Explanation
1	Bus device tamper	When a device that is connected to the keypad bus registers a tamper this code is sent to the alarm company
2	Bus device tamper restore	When the device on the bus registers that the tamper condition has been restored it will send this code
3	Bus peripheral Communication fail	When a device that has been registered on the bus stops communicating the control panel will send this code to alert the company monitoring the alarm
4	Bus peripheral Communication restore	Once the communication between the control panel and the missing device is corrected a restoral is sent to the alarm company
5	Bus peripheral power/battery low	A device that has the ability to monitor its power detects that it's power is low a message can be sent
6	Bus peripheral power/battery restore	Once the power is restored a signal alerting the monitoring company can be sent
7	Wireless detector battery low	Wireless devices monitor their batteries and when a battery needs changing this low battery code is sent
8	Wireless detector battery restore	After changing the battery a restoral is sent

Location 303 Global reporting

Sub Loc	Description	Explanation
1	Wireless detector supervision failure	Each device checks in with the controller at a predetermined time and if this signal is not received, the alarm company is alerted that it has gone missing
2	Wireless detector supervision restore	When the wireless device starts communicating after being missing a restoral is sent
3	Wireless receiver signal jam	If the receiver detects a signal that could block effective communication from the devices that it is monitoring an alert is sent to the monitoring company
4	Wireless receiver signal restore	When the signal causing the jam has been removed a restoral is sent
5	Wireless Detector RSSI low	Each detectors signal strength is checked and if the signal strength drops below 20% a low RSSI is sent
6	Wireless Detector RSSI restore	Once the signal strength of a device increases above 20% a RSSI restore is sent
7	Dedicated Panic	On board is a dedicated panic zone, when triggered this code is sent
8	Test report	The X SERIES can be programmed to send test signals to confirm that it is still alive
9	Download report code	After the system has been connected to by IDSwift software a code is sent.

Location 304 to 335: Zone reporting

Loc	Sub Loc	Description	Explanation
304 to 307	1 to 16	Zone alarm reporting	When the system is armed, a 24Hr zone or a panic zone is triggered this code is reported
308 to 311	1 to 16	Zone alarm restoral	When the zone restores after being violated this code is sent
312 to 315	1 to 16	Zone tamper reporting	If the tamper monitoring option is enabled and a tamper signal is received this code is sent
316 to 319	1 to 16	Zone tamper restoral	Once the tamper condition is corrected a restoral is sent
320 to 323	1 to 16	Zone bypass reporting	If a zone is bypassed and the alarm is armed this code is sent to report which zones are inactive
324 to 327	1 to 16	Forced Arming	If the system is programmed to automatically bypass zones that are violated when arming, this code is sent to alert the monitoring company of inactive zones
328 to 331	1 to 16	Swinger shutdown reporting	If swinger shutdown has been enabled and the alarm automatically shuts down a zone that has violated the swinger shutdown settings
332 to 335	1 to 16	Swing shutdown restore	The system can be set to try and restore a zone that has been disabled by the swing shutdown option and if it is able to restore the zone this code is sent

Extending Contact ID Zone Reporting

Locations 304 to 335 can be programmed with a value that will change the contact ID reporting code for each zone to extend what can be connected to each zone and what is reported to the control room.

Example: If a gas detector is connect to zone 8

By entering 26 into location 304 sub-location 8, whenever zone 8 triggers a contact ID code, 151 (Gas detected), is sent to the control room.

Please see [Appendix](#) at the end of the manual for all values.

Value	CID	Description	Value	CID	Description
01	100	Medical Zone	3C	303	RAM Checksum bad Zone
02	101	Personal Emergency Zone	3D	304	ROM checksum bad Zone
26	151	Gas detected Zone	3E	305	System reset Zone
28	153	Loss of heat Zone	3F	306	Panel programming changed Zone

Location 336 to 340: Partition reporting codes

[INSTALLER CODE] [*] [LOCATION] [*] [SUB LOC] [*] [REPORTING CODE] [*]

Loc	Sub Loc	Description	Explanation
336	1 to 8	Duress reporting	A user code can be programmed to send a duress signal to alert the security company of a life threatening situation causing the user to disarm the alarm with this code
337	1 to 8	Keypad panic	Each keypad has a panic button which when pressed can send a code alerting the monitoring company of a situation
338	1 to 8	Fire alarm	If a fire is detected or the fire key is pressed this code will be reported
339	1 to 8	Medical Key	A medical code is sent alerting the monitoring company to send an ambulance
340	1 to 8	Keypad lockout	If a code is entered incorrectly the keypad can be set to lock for a period of time and sent this code to alert the monitoring company

Location 342 to 373: User reporting codes

[INSTALLER CODE] [*] [LOCATION] [*] [SUB LOC] [*] [REPORTING CODE] [*]

Loc	Sub Loc	Description	Explanation
342 to 349	1 to 16	Close reporting	Every time a user arms the alarm this code is sent
350 to 357	1 to 16	Stay close reporting	If the user arms in stay mode this code is sent
358 to 365	1 to 16	Open reporting	Every time a user disarms the alarm this code is sent
366 to 373	1 to 16	Siren cancel reporting	When a user enters their code to cancel the siren this code is sent

Triggering Outputs

Outputs are normally used to trigger communication devices like radios, with a voltage. All outputs on the panel and expanders are positive 12 volt outputs. The output can be either pulsed or latched.

Definition:

- i. Pulse is when the output will go from no voltage up to 12 volts and with no intervention goes back to no voltage. Like a spring if you compress it and then leave it alone and it will automatically start uncompressing
- ii. Latch is when the output will go from zero to 12 volts and stay there until something else tells it to go back to zero volts, like a light switch.

Defaults:

Output	Event	Action
1	Panic and Duress	Pulse to 12V
2	Burglary	Pulse to 12V
3	Arm	Latch to 12V
3	Disarm	Unlatch to 0V

The X SERIES alarm panel has 5 physical outputs on the main board, each expander has 2 and the X64 system can have up to 6 expanders. Each of the possible 8 keypads has an output. Below shows the number assigned to each of the available outputs.

Number	Physical Outputs	Number	Physical Outputs
00	Disabled	13	Zone expander 4 output 2
01	Onboard output 1	14	Zone expander 5 output 1
02	Onboard output 2	15	Zone expander 5 output 2
03	Onboard output 3	16	Zone expander 6 output 1
04	Onboard output 4	17	Zone expander 6 output 2
05	Onboard output 5	34	Keypad 1 output
06	Zone expander 1 output 1	35	Keypad 2 output
07	Zone expander 1 output 2	36	Keypad 3 output
08	Zone expander 2 output 1	37	Keypad 4 output
09	Zone expander 2 output 2	38	Keypad 5 output
10	Zone expander 3 output 1	39	Keypad 6 output
11	Zone expander 3 output 2	40	Keypad 7 output
12	Zone expander 4 output 1	41	Keypad 8 output

When allocating an output to an event, an action must also be entered so that the system knows what to do when triggered.

The action can be either a pulse or latch as discussed before. Below are the values for the actions.

Value	Output Action	ACTION
00	Set Output High (Set)	From 0V to 12V
01	Set Output Low (Reset)	From 12V to 0V
02	Pulse Output High	From 0V to 12V back to 0V
03	Pulse Output Low	From 12V to 0V back to 12V

When entering the value into the location follow the following steps:

1. Enter the output number that is to be triggered. **[0][5]**
2. Then enter the action to be performed. **[0][2]**
3. Only once the output number and the action have been entered press **[*]**

Outputs can be triggered by many different events and we will discuss the most common first.

Location 380: Clear Programmable Onboard Outputs on Disarm

Any outputs enabled in this location will be reset when the alarm system is disarmed.

The onboard outputs are 1 to 5.

Default: OFF

Location 381 to 386: Clear Programmable Zone Expander Outputs on Disarm

Any outputs enabled in this location will be reset when the alarm system is disarmed.

The zone expander outputs are:

Expander	1		2		3		4		5		6	
Output	6	7	8	9	10	11	12	13	14	15	16	17

Default: OFF

Location 389: Clear Programmable Keypad Outputs on Disarm

Any outputs enabled in this location will be reset when the alarm system is disarmed.

The keypad outputs are:

Keypad	1	2	3	4	5	6	7	8
Zone No.	34	35	36	37	38	39	40	41

Default: OFF

Partition dependant events:

Loc	Event	Description
390	Close Programmable Output	Enter the output and action to be performed when the alarm is away armed
391	Stay Close Programmable Output	When the alarm is armed in the stay mode, someone is staying on the premises and internal zones are automatically bypassed
392	Open Programmable Output	Open means disarmed from either away or stay armed
393	Cancel Programmable Output	By disarming the partition an output can be turned off
394	Alarm Restoral Programmable Output	This is when a device has triggered and comes back to the normal working state
395	Bypass Programmable Output	When a zone is disabled using the bypass key [9]
396	Forced Arm Programmable Output	If forced arm has been enabled and zones have been automatically bypassed by the system to allow the panel to arm
397	Zone Tamper Programmable Output	If tamper has been enabled on a zone and the tamper switch on the device is triggered
398	Zone Tamper Restoral Programmable Output	When the tamper switch goes back to normal
399	Zone Shutdown Programmable Output	If enabled and a zone does get bypassed
400	Zone Shutdown Restoral Programmable Output	When the zone is un-bypassed at the auto test time if enabled to do so
401	Keypad Panic Programmable Output	When the panic on the keypad is pressed
402	Keypad Fire Programmable Output	When the fire button on the keypad is pressed
403	Keypad Medical Programmable Output	When the medical button on the keypad is pressed
404	Keypad Lockout Programmable Output	If someone randomly presses keys and all parameters are met in locations 20 and the keypad options menu (251 to 258) the keypad will lock for the time specified in location 21
405	Duress Programmable Output	A duress code can be programmed into the system to mimic a user code but will send a duress (panic) signal to the control room
406	Verifies Cross-Zone Trigger Programmable Output	This output when programmed will trigger when an alarm is caused by zones that are cross zoned. I.e. The number of triggers in the time allocated is exceeded.
407	Burglary Programmable Output	Triggered when the alarm is armed and a zone is triggered
408	Panic Programmable Output	If any panic event is triggered
409	Fire Programmable Output	If a fire zone is triggered
410	Tamper Zone Programmable Output	If a zone is set to be of the zone type tamper

The following events do not need an action as they either follow an event or are preprogrammed.

Loc	Event	Description
411	Siren Programmable Output	Follows the dedicated siren output in every way
412	Strobe Programmable Output	Will set the output until a valid user code is entered
413	Chime Programmable Output	The output triggers when a chime zone is violated
414	Arm Follow Programmable Output	The output mimics the arm LED on the keypad



Note: When programming output 411 to 414, enter an output number only, as they mimic other devices or actions.

Exercise:

When the fire button on keypad 1, in partition 1, is pressed output 4 will pulse

Instruction	Key presses
Enter location 402	[4][0][2][*]
We are working in partition 1	[1][*]
The rule is output first then the action: output 4 then pulse	[0][4][0][2][*]
Exit location	[#]

Globally triggered outputs

These events do not depend on a partition but are system related.

Loc	Sub-loc	Event	Description
423	1	AC Fail Programmable Output	By default the system monitors the 16V AC and will trigger these outputs if there are any changes
	2	AC Restore Programmable Output	
	3	Low Battery Programmable Output	The battery is monitored constantly
	4	Low Battery Restore Programmable Output	
	5	Auto Test Programmable Output	The system can be set to do a test at different intervals as programmed into location 32
	6	Download Programmable Output	When someone has connected to the alarm via the download software
	7	Siren Tamper Programmable Output	If siren monitoring is enabled and the siren goes missing
	8	Aux 12V Trouble Programmable Output	The 12V output on the panel is monitored constantly
Loc	Sub-loc	Event	Description
424	1	Reserved	
	2	Bus-wired Peripheral Tamper Programmable Output	This is any device that connects to the system via the communication bus
	3	Bus-wired Peripheral Fail Programmable Output	If the actual communication bus fails
	4	Box Tamper Programmable Output	The alarm panel has a 2 pin connector that can be connected to a switch to monitor the door of the panel box
	5	Dedicated Panic Programmable Output	Onboard next to zone 8 is a dedicated panic connector for panic buttons
	6	Communication Fail Programmable Output	If the system cannot communicate and deliver an event via phone after the number of tries programmed into location 47
	7	Telephone Line Tamper Programmable Output	The telephone line voltage is monitored and if this changes then the output will trigger
	8	Telephone Line Restore Programmable Output	Set this to restore the output of option 7 if it was set to latch

Loc	Sub-loc	Event	Description
425	1	RF Jam	If a signal is detected that interferes with the receiver a jam will be logged and an output can be triggered and reset when the jamming signal stops
	2	RF Jam Reset	
	3	RF Supervision Fail	
	4	RF Detector Battery Low	
	5	RF Detector Battery Restore	
	6	RF Receiver Battery	
	7	RF Receiver Battery restore	
			Each device is set to send a signal, either every 90min or 12 hours to confirm it is still available. If the system does not receive the signals a supervision fail is logged
			When the wireless device detects that its battery voltage is low it will inform the system and the system can set the output to warn the occupants and restores when battery is replaced
			If the receiver's battery goes low an output can be triggered and reset when restored
Loc	Sub-loc	Event	Description
426	1	Wired Zone Expander Low Battery Programmable Output	When a powered expanders battery voltage drops below 11V a low battery will be reported
	2	Wired Zone Expander Battery Restore Programmable Output	Once the battery is recharged a restore will be reported
	3	Fire Sensor Power Programmable Output	Fire sensors need to be reset when they have been triggered. This option allows the system to reset the device
	4	Dual Reporting Programmable Output	When the system has been set to dual reporting and the second number is dialled, this option will trigger the output set

Zone triggered outputs

A zone can be set to trigger an output when it is violated. If the zone is a zone that will only trigger when the alarm is armed, then it will only trigger the output when all conditions are met. For example, an instant zone will only trigger when the system is armed, but a 24-hour zone is always active, therefore, even if the system is unarmed and the zone is triggered the output will trigger.

Location 415 to 422: Zone triggered outputs

[Installer Code] [*] [4] [1] [5] [*] [Output No.] [*] [Output] [Action] [*]

Location	Zones	Locations	Zones	Locations	Zones
415	1 to 8	418	25 to 32	421	49 to 56
416	9 to 16	419	33 to 40	422	57 to 64
417	17 to 24	420	41 to 48		

Data format: 0000

Valid Range: 0000 - 4103

Default: 0000

Configuring pulse length

The pulse duration can be lengthened if needed.

Location 428: Onboard Outputs Pulse Length

Each of the five onboard outputs can be lengthened or shortened.

[Installer Code] [*] [4] [2] [8] [*] [Output No.] [*] [m] [m] [s] [s] [*]

Data format: mmss

Valid Range: 0000 – 5959

Default: 0002

Location 429 to 434: Zone Expander Outputs Pulse Length

Each of the six zone expanders have two outputs.

[Installer Code] [*] [location] [*] [Output No.] [*] [m] [m] [s] [s] [*]

Data format: mmss

Valid Range: 0000 – 5959

Default: 0002

Location 437: Keypad Outputs Pulse Length

Each of the eight keypads have an outputs.

[Installer Code] [*] [4] [3] [7] [*] [Output No.] [*] [m] [m] [s] [s] [*]

Data format: mmss

Valid Range: 0000 – 5959

Default: 0002

Scheduled Output triggers

An output can be scheduled to turn on or off by time and day

Location 448: Onboard Output Scheduling

Outputs 1 to 5 on the main system board

[Installer Code] [*] [4] [4] [8] [*] [Output No.] [*] [h] [h] [m] [m] [*]

Data format: hhmm

Valid Range: 0000 – 2359 (2400 disables)

Default: 2400

Location 449 to 454: Zone Expander Output Scheduling

Each zone expander has two outputs.

[Installer Code] [*] [location] [Output No.] [*] [h] [h] [m] [m] [*]

Data format: hhmm

Valid Range: 0000 – 2359 (2400 disables)

Default: 2400

Location 457: Keypad Output Scheduling

Each keypad has an output that can be triggered

[Installer Code] [*] [4] [5] [7] [*] [Output No.] [*] [h] [h] [m] [m] [*]

Data format: hhmm

Valid Range: 0000 – 2359 (2400 disables)

Default: 2400

Location 458 to 498: Output On / Off Days

Each output can be scheduled to switch on or off on certain days of the week.

Option	ON Days	Option	OFF Days
1	Monday	9	Monday
2	Tuesday	10	Tuesday
3	Wednesday	11	Wednesday
4	Thursday	12	Thursday
5	Friday	13	Friday
6	Saturday	14	Saturday
7	Sunday	15	Sunday
8	Disabled	16	Disabled

Manually triggered

Only the 5 onboard outputs can be triggered via the keypad, by pressing and holding the **[MODE]** key until you hear a beep (about 3 seconds) then pressing **[3][*]**. Enter the **[output number] [*]** (LCD keypad press **[*]** again).

Follow the same procedure to turn the output off.

Event Reporting Codes

When using contact ID and SIA formats all event codes are programmed into the X SERIES alarm system and only need to be enabled or disabled in the following locations. The first eight options are to enable or disable the reporting and the second 8 are to select which group of phone numbers to use.

Location 501 to 564 Global Split Reporting

These locations are for each of the zones, 501 is for zone 1, 502 is for zone 2, 503 is for zone 3, etc.

LED	Default	Action	Explanation	Split Reporting Option	Default
1	ON	Zone alarm reporting	If this option is selected whenever a zone is violated the alarm reports via telephone	9	OFF
2	OFF	Zone alarm restore	When the zone restores the alarm reports via telephone	10	OFF
3	OFF	Zone bypassing	When a zone is bypassed it is reported via telephone	11	OFF
4	OFF	Zone force bypassing	When the system is set to bypass zones that are violated when arming it reports that it was forced to arm by bypassing zones	12	OFF
5	OFF	Zone tamper	When tamper has been set for a zone and the tamper signal is received it will be reported via telephone	13	OFF
6	OFF	Zone tamper restore	When the tamper restores a report is sent via telephone	14	OFF
7	OFF	Zone swinger shutdown	A zone shuts down because it has exceeded the shutdown count and the system will report via telephone	15	OFF
8	OFF	Zone swinger shutdown restore	At the auto test report, the system will try and restore the zone if it is not violated and this will be reported via telephone	16	OFF

Location 571 Global Split Reporting

LED	Default	Action	Explanation	Split Reporting Option	Default
1	ON	AC fail reporting	After the wait time set in loc ?? The AC failure will be reported	9	OFF
2	OFF	Communication fail reporting	If the system cannot report a failure to report message is sent	10	OFF
3	ON	Telephone line tamper reporting	The alarm monitors the voltage on the telephone line and if that it goes missing a tamper is reported	11	OFF
4	ON	Siren fail reporting	The siren output monitors the load on the output and if it goes missing then a tamper is reported	12	OFF
5	ON	Panel low battery fail reporting	When AC is off and the battery voltage drops to 10.5V a battery low signal is sent, warning that the system is close to shutting down	13	OFF
6	ON	Enable aux 12V fuse fail reporting	If a short circuit or too much current is drawn from the auxiliary 12V the fuse will shut off and send a signal warning of a problem	14	OFF
7	OFF	Installer Reset Required	If installer reset is enabled in loc.211 to 218 and the alarm is triggered the system will not arm until the installer code is entered. This alerts the security company of this	15	OFF
8	ON	Box tamper reporting	The alarm has an input that monitors a switch that monitors if the housing that it is in is opened	16	OFF

Location 572 Global Split Reporting

LED	On/Off	Action	Explanation	Split Reporting Option	Default
1	ON	Bus-wired peripheral tamper reporting	Any device connected on the keypad bus is tampered with this option will send a report	9	OFF
2	ON	Bus-wired peripheral fail reporting	A device on the keypad bus fails and stops communicating a report is sent	10	OFF
3	OFF	Bus-wired peripheral low battery reporting *	If a device is powered by a battery because of a power failure and the battery has reached a critical level a low battery signal is sent	11	OFF
4	ON	Wireless Detector Battery Low	When a wireless device's battery needs replacing a battery low signal will be sent	12	OFF
5	OFF	Wireless Detector Supervision fail	If a device stops communicating after a set amount of time a supervision failure is sent	13	OFF
6	OFF	Wireless Receiver Signal Jammed	When a signal is detected that could block signals from the wireless detectors a jam is reported	14	OFF
7	OFF	Wireless Detector RSSI Low	RSSI is the monitoring of signal strength from detectors and if the signal drops below 20% a message will be sent to alert the security company	15	OFF
8	ON	AC Restored	After AC is restored a message can be sent	16	OFF

Location 573 Global Split Reporting

LED	Default	Action	Explanation	Split Reporting Option	Default
1	OFF	Comms Restored	When the system is able to communicate after a failure a restoral is sent	9	OFF
2	OFF	Comms Tamper Restore	If the lines went down and when they start working again a restore is sent	10	OFF
3	OFF	Siren Restore	If the siren went missing and is reconnected a restore will be sent	11	OFF
4	OFF	Battery Restore	After a battery low is reported and the battery is changed or charged a restore will be sent	12	OFF
5	OFF	Aux 12V Restored	After a short circuit or too much current being drawn is fixed the fuse will restore and send a signal	13	OFF
6	OFF	Installer Reset restored	After an installer reset required condition is reset a signal will be sent	14	OFF
7	ON	Box tamper restored	When the box that the system is housed is closed a restore is sent	15	OFF
8	ON	Bus device tamper restored	When the device on the keypad bus that was tampered is restored a signal will be sent	16	OFF

Location 574 Global Split Reporting

LED	Default	Action	Explanation	Split Reporting Option	Default
1	OFF	Bus device comms restored	When a device has stopped communicating on the bus and when the fault is corrected and communication is restored a signal is sent to confirm this.	9	OFF
2	OFF	Bus device battery restored	A device that reported a low battery on the bus will send a restore when the battery voltage is full and report the restoral condition	10	OFF
3	OFF	Wireless detector battery restored	Once the wireless devices battery is changed it will respond by sending a restore	11	OFF
4	OFF	Wireless detector supervision restored	When a device starts communicating after being marked as missing by the system a supervision restoral is sent	12	OFF
5	OFF	Wireless receiver jam restored	After detecting a strong signal that could cause wireless devices from communicating is switched off a restoral will be sent	13	OFF
6	OFF	Wireless detector RSSI low restored	A device that recorded a low signal recovers and the signal comes up to an acceptable level a restoral will be sent	14	OFF
7	ON	Dedicated Panic	The X SERIES has a dedicated panic onboard and if this is triggered a panic signal will be sent	15	OFF
8	ON	Test Report	The alarm can be configured to send a test report every 6 hours to every 14 days	16	OFF

Location 575 Global Split Reporting

LED	On/Off	Action	Explanation	Split Reporting Option	Default
1	OFF	IDSswift Download Accessed	This option reports when the system has been communicated with by the download software	9	OFF

Location 581 - 588 Partition Split Reporting

LED	On/Off	Action	Explanation	Split Reporting Option	Default
1	ON	Duress reporting	When a user code is made into a duress code and is used this enables the contact ID code to be sent to the security company	9	OFF
2	ON	Keypad Panic Reporting	When the "P" key on the keypad is pressed a panic signal is sent to the security company	10	OFF
3	ON	Fire reporting	When the "F" key is pressed or a zone is a fire zone and is violated a fire signal is sent to the security company	11	OFF
4	ON	Medical Reporting	When the "M" key or the option "Medical alarm if no movement is detected" is enable a medical signal will be sent if this option is enabled	12	OFF
5	ON	Keypad Lockout Reporting	If this option is enabled in location 221 – 228 and an incorrect code is entered the number of times set in location 20 within the time set in location 21, the signal will be sent	13	OFF
6	Reserved				
7	Off	Arm without user code Reporting	When arming with the "Quick Arm" keys or a arm/disarm zone this option must be enabled to send an arm signal	15	OFF
8	Reserved				

Location 617: User Reporting Codes

If open and close reporting is required by default all user options are enable therefore to enable reporting the global option under partition options, [Locations 211 to 218](#) must be enabled. In this location you can enable or disable per user.

Option	Default	Action	Description
1	ON	Close reporting	Enable if a close signal is to me sent to the security company
2	ON	Stay Close Reporting	Enable if a stay close signal is to me sent
3	ON	Open Reporting	Enable if a open signal is to me sent
4	OFF	Siren Cancel Reporting	Enable if the siren is active and a user cancels the siren
5	Reserved		
6	OFF	AC Fail Reporting	Enable if a signal is to me sent when the electricity goes off
7	OFF	AC Restore Reporting	Enable if signal is to me sent when the electricity is stored
8	OFF	Low Battery Reporting	Enable if a signal is to me sent when the battery reaches 10.5V
9	On	Auto Test Reporting	This is a signal reporting that the alarm is communicating
10	OFF	Zone Bypassing Reporting	Enable if a signal is to me sent when zones are bypassed

Location 618: User Split Reporting

Select which group of phone numbers to report the user reporting codes per code

Option	Default	Action	Option	Default	Action
Close	OFF	Telephone Module 1	Open	OFF	Telephone Module 2
Stay Close	OFF	Telephone Module 1	Siren Cancel	OFF	Telephone Module 2

Appendix

1. X Series Hardware.....	47
2. Wireless.....	48
3. Extra Contact ID Zone Reporting.....	52
4. Communication Default Settings.....	54
5. Features Grouped by Location.....	62

Hardware



This is a quick summary of the hardware; please see the hardware training manual for more detailed explanations.

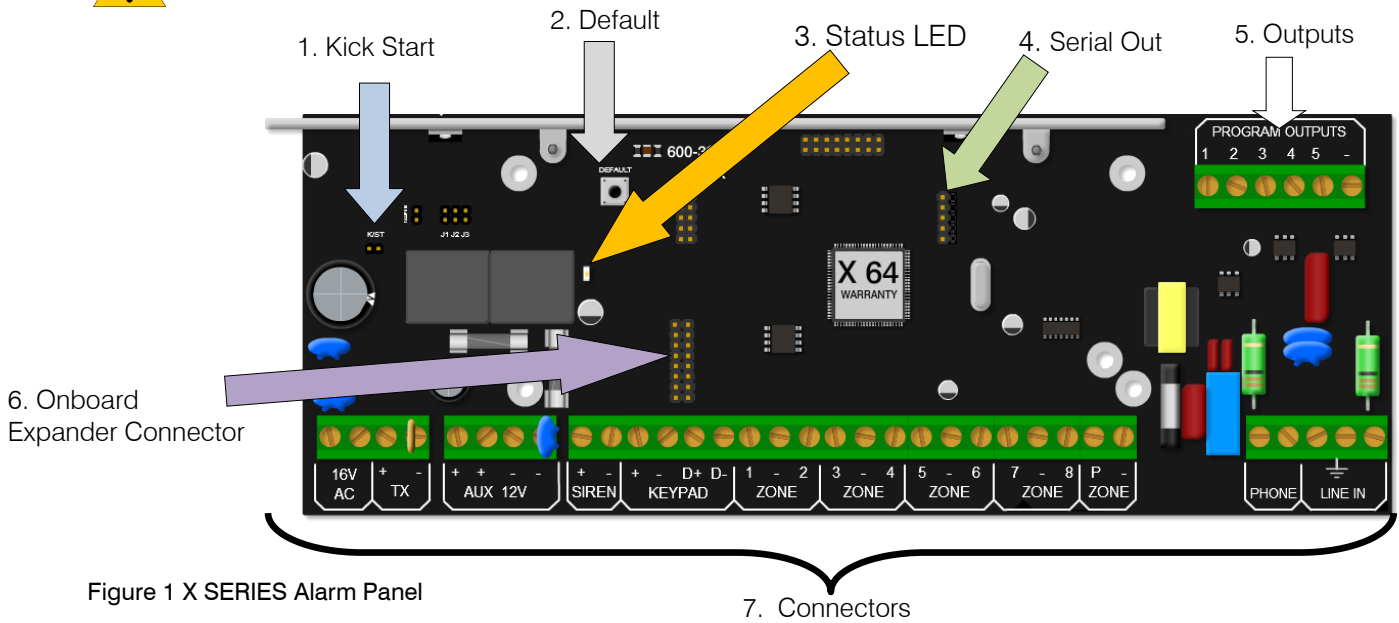
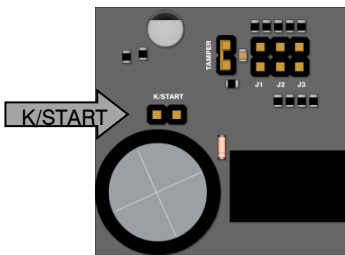


Figure 1 X SERIES Alarm Panel

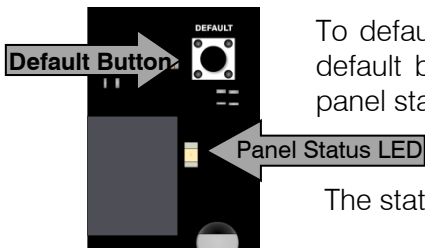
7. Connectors

1. Kick Start Jumper



When connecting to a battery, without 16VAC connected, the X Series will not power up until the kick start jumper has been shorted for a second. This feature has been included so that if the battery voltage starts fluctuating and goes below 10.5 volts, without AC, the panel switches off, stopping the alarm from entering any undesirable states that could compromise the integrity of the system. When AC is applied the alarm will power up automatically

2. Default button & 3. Panel Status LED

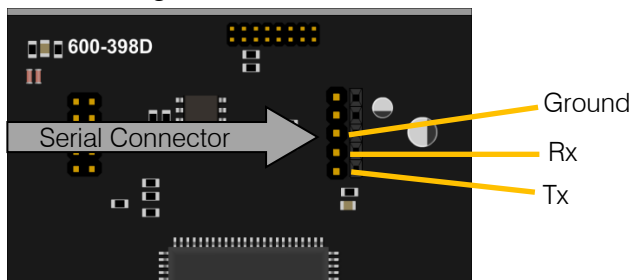


To default the panel, physically remove power from the unit and press down the default button. Replace power whilst still holding down the button. Wait until the panel status LED flashes once and then release the button.

The status LED indicates the condition of the operating system

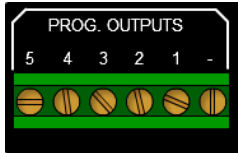
4. Serial Output

The serial output is for connecting the voice module and direct download device.



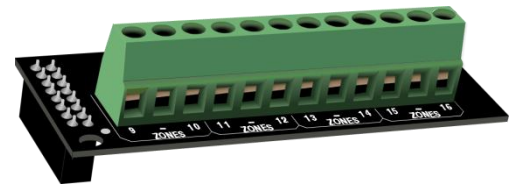
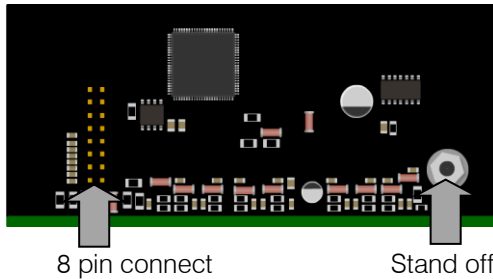
5. Outputs

Five positively triggered outputs that can supply 80mA of current



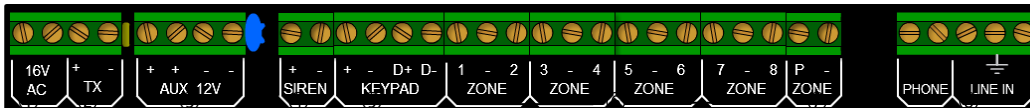
6. Onboard expander connection

The X SERIES can be expanded via expanders. Zones 9 to 16 are added by plugging the onboard expander onto the PCB via this connector



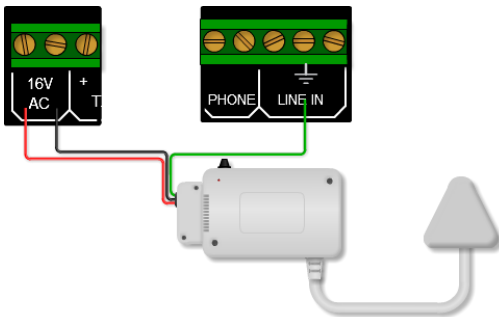
Onboard Expander

7. X Series Connectors



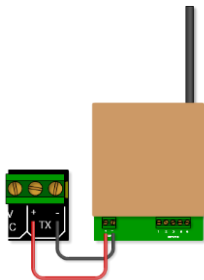
The above figure shows how the X SERIES connectors are laid out. Each connection is briefly discussed, but more detailed information can be found at the end of the manual in appendix 1. Please note that devices, especially between different manufacturers, are different and the manuals should be thoroughly read and understood before attempting installation.

7.1 AC Power



The X SERIES Alarm Panel requires 16V AC to be connected to the AC connector on the board. The minimum recommended transformer is a 16V 32VA, but the recommended transformer is a 16V 40VA transformer.

7.2 TX

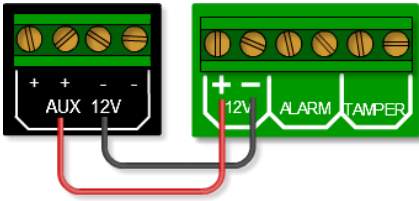


The Tx connection can supply enough power for radios up to 15 watts.



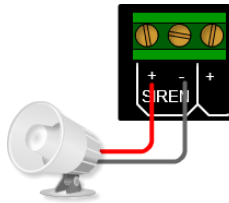
NOTE: Please use cable with a minimum of 0.5mm copper core depending on the distance between system and radio transmitter.

7.3 Aux 12V



The X SERIES Alarm Panel can supply 750mA of power to all bus-wired peripherals, including keypads, expanders and remote receivers, etc. To check that the power consumption is not exceeded please see hardware training manual.

7.4 Siren

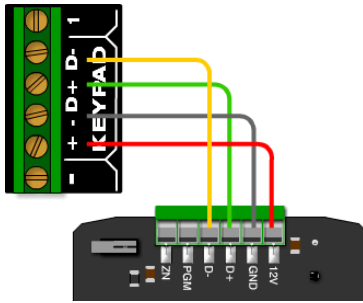


The siren connects directly to the siren output and can drive up to a 30 watt siren.

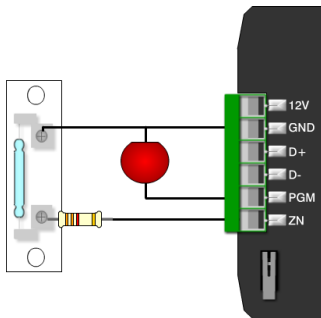


Note: The siren must be self-driven and cannot be a speaker, etc.

7.5 Keypad Bus



The devices connected to the bus should be connected in a daisy chain formation for the best results.

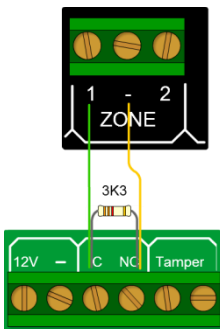


The keypad has a programmable output (PGM). The PGM functions the same as the onboard programmable outputs, except that it triggers with 5V and not 12V.

The zone works exactly like a normal zone with an end-of-line resistor. When using the zone it will replace the zone that it has been programmed as. E.g. if the keypad zone has been programmed as zone 10, zone 10 on the board will be shut down and cannot be used.

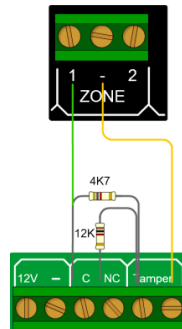
7.6 Zones

No Tamper



End of Line 3k3 Ohm resistor

Tamper



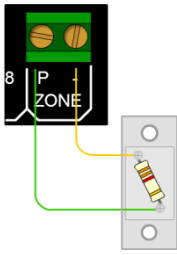
12K & a 4k7 Ohm resistor

Devices that are connected to zones are divided into two categories, normally open (NO) or normally closed (NC). Some devices have both and the installer can select either, depending on their preference.



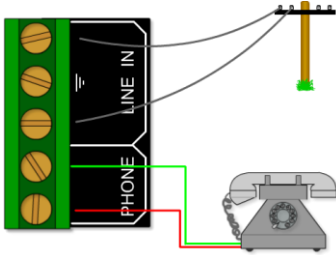
NOTE: The end of line resistor must be 3K3Ω (Ω = ohm)
For a tamper installation a 12kΩ and a 4K7Ω

7.7 Panic Zone



The dedicated panic zone is end-of-line supervised and for safety reasons, if this resistor is not detected the system will not arm.

7.8 Telephone Connections



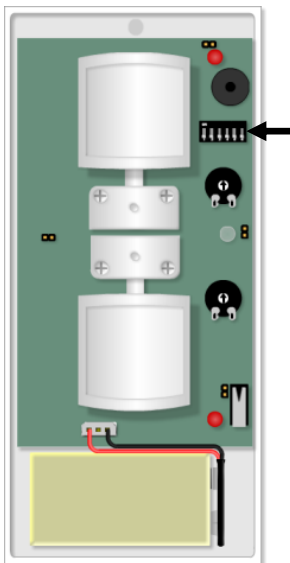
The line coming into the building must go directly to the alarm panel and then onto any telephones. This will stop any attempt to disrupt communication by taking the phone off the hook.

Wireless Device Hardware setup



Note: The important thing to remember is that when you have chosen the supervision time of 3Hrs on the X SERIES is to make sure the detectors are also set to 90min. The correct hardware must be used as the older Duevi wireless detectors will not learn to the integrated receiver

Duevi Outdoor Wireless Dual Head PIR - 866-DX-OPWF



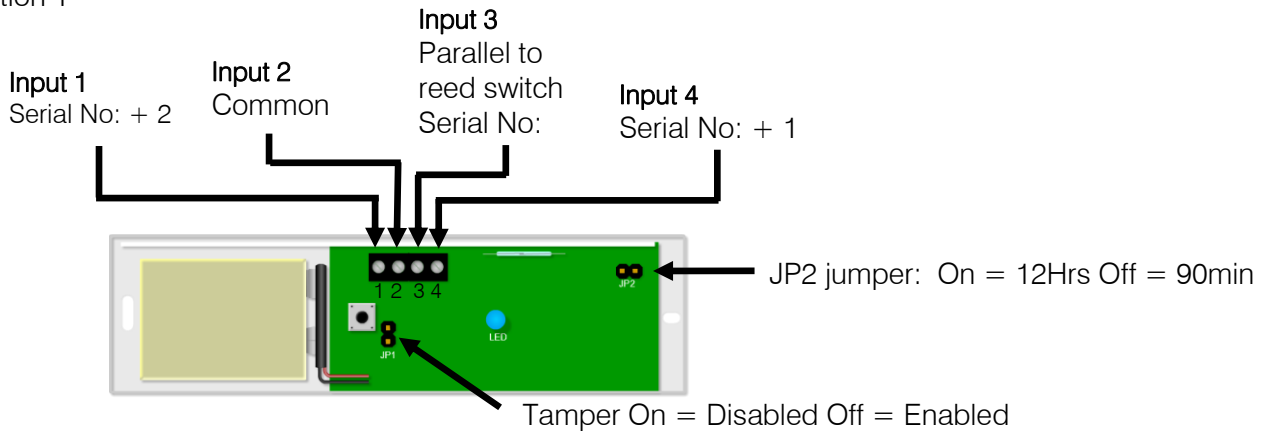
Dip Sw	Function	Enable /Disable	Description
1	Double Pulse	Off = Disabled	When enabled the upper head must trigger twice within 25 seconds before an activation is sent
		On = Enable	
2	IR Sensitivity	Off = High	
		On = Low	
3	AND Mode	Off = Normal	Directional means that the lower head must trigger first for the device not to send an alarm signal.
		On = Directional	
4	Test Mode	Off = Normal	Enables head LEDs and buzzer for testing. (JP4 must be closed for buzzer to sound)
		On = Test Mode	
5	Supervision	Off = 90 minutes	This is the interval that the device waits between supervision signals that are sent to the X Series alarm
		On = 12 Hours	
6	Continuous detection	Off = Quiet time	Once the device has triggered it will wait 30 seconds before triggering again. If during the 30 seconds movement is seen the 30 seconds is reset and the countdown starts again
		On = Continuous	



Note: To learn the dual PIR to the X SERIES first get both PIR heads to detect movement then press the tamper switch when in location 260 sub location 1 and the correct zone number has been selected

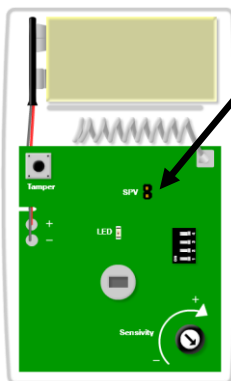
Duevi Wireless Door Contact including input - 866-DX-PWF

Inputs 1 and 4 can be used but the serial number must be entered via keypad into location 260 sub-location 1



Note: To learn the door contact to the X SERIES press the tamper switch when in location 260 sub location 1 and the correct zone number has been selected

Duevi Wireless Indoor Wireless pet tolerant (18kg) PIR - 866-DX-PWF

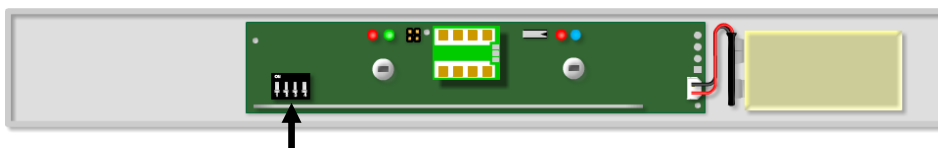


Dip Sw	Function	Enable /Disable	Description
1	Mode	Off = Test Mode	
		On = Normal	
2	Pulse	Off = 1 pulse	
		On = 2 pulse	
3	Tamper	Off = Enabled	
		On = Disabled	
4	LED	Off = No LED	
		On = LED	



Note: To learn the indoor PIR to the X SERIES press the tamper switch when in location 260 sub location 1 and the correct zone number has been selected

Duevi Outdoor E-Wall with PIR & Microwave - 866-DX-EWF



Dip Sw	Function	Enable /Disable	Description
1	Tamper	Off = Enabled	
		On = Disabled	
2	Sensitivity	Off = High	Door installation
		On = Low	Window installation
3	Transmission	Off = Normal	In test mode the device will transmit every time it is triggered
		On = Test	
4	Supervision	Off = 90 minutes	This is the interval that the device waits between supervision signals that are sent to the X Series alarm
		On = 12 hours	



Note: To learn the door contact to the X SERIES press the tamper switch when in location 260 sub location 1 and the correct zone number has been selected

Contact ID Zone Reporting

This is the complete list of values that can be entered into locations 304 to 335 to extend the Contact ID reporting

Value	CID	Description	Value	CID	Description
01	100	Medical Zone	3C	303	RAM Checksum bad Zone
02	101	Personal Emergency Zone	3D	304	ROM checksum bad Zone
03	102	Fail to report in Zone	3E	305	System reset Zone
04	110	Fire Zone	3F	306	Panel programming changed Zone
05	111	Smoke Zone	40	307	Self- test failure Zone
06	112	Combustion Zone	41	308	System shutdown Zone
07	113	Water flow Zone	42	309	Battery test failure Zone
08	114	Heat Zone	43	310	Ground fault Zone
09	115	Pull Station Zone	44	311	Battery Missing/Dead Zone
0A	116	Duct Zone	45	312	Power Supply Overcurrent Zone
0B	117	Flame Zone	46	313	Engineer Reset User
0C	118	Near Alarm Zone	47	320	Sounder/Relay Zone
0D	120	Panic Zone	48	321	Bell 1 Zone
0E	121	Duress User	49	322	Bell 2 Zone
0F	122	Silent Zone	4A	323	Alarm relay Zone
10	123	Audible Zone	4B	324	Trouble relay Zone
11	124	Duress – Access granted Zone	4C	325	Reversing relay Zone
12	125	Duress – Egress granted Zone	4D	326	Notification Appliance Ckt. # 3 Zone
13	130	Burglary Zone	4E	327	Notification Appliance Ckt. #4 Zone
14	131	Perimeter Zone	4F	330	System Peripheral trouble Zone
15	132	Interior Zone	50	331	Polling loop open Zone
16	133	24 Hour (Safe) Zone	51	332	Polling loop short Zone
17	134	Entry/Exit Zone	52	333	Expansion module failure Zone
18	135	Day/night Zone	53	334	Repeater failure Zone
19	136	Outdoor Zone	54	335	Local printer out of paper Zone
1A	137	Tamper Zone	55	336	Local printer failure Zone
1B	138	Near alarm Zone	56	337	Exp. Module DC Loss Zone
1C	139	Intrusion Verifier Zone	57	338	Exp. Module Low Batt. Zone
1D	140	General Alarm Zone	58	339	Exp. Module Reset Zone
1E	141	Polling loop open Zone	59	341	Exp. Module Tamper Zone
1F	142	Polling loop short Zone	5A	342	Exp. Module AC Loss Zone
20	143	Expansion module failure Zone	5B	343	Exp. Module self-test fail Zone
21	144	Sensor tamper Zone	5C	344	RF Receiver Jam Detect Zone
22	145	Expansion module tamper Zone	5D	350	Communication trouble Zone
23	146	Silent Burglary Zone	5E	351	Telco 1 fault Zone
24	147	Sensor Supervision Failure Zone	5F	352	Telco 2 fault Zone
25	150	24 Hour Non-Burglary Zone	60	353	Long Range Radio xmitter fault Zone
26	151	Gas detected Zone	61	354	Failure to communicate event Zone
27	152	Refrigeration Zone	62	355	Loss of Radio supervision Zone
28	153	Loss of heat Zone	63	356	Loss of central polling Zone
29	154	Water Leakage Zone	64	357	Long Range Radio VSWR problem Zone
2A	155	Foil Break Zone	65	370	Protection loop Zone
2B	156	Day Trouble Zone	66	371	Protection loop open Zone
2C	157	Low bottled gas level Zone	67	372	Protection loop short Zone
2D	158	High temp Zone	68	373	Fire trouble Zone
2E	159	Low temp Zone	69	374	Exit error alarm (zone) Zone
2F	161	Loss of air flow Zone	6A	375	Panic zone trouble Zone
30	162	Carbon Monoxide detected Zone	6B	376	Hold-up zone trouble Zone
31	163	Tank level Zone	6C	377	Swinger Trouble Zone
32	200	Fire Supervisory Zone	6D	378	Cross-zone Trouble Zone
33	201	Low water pressure Zone	6E	380	Sensor trouble Zone
34	202	Low CO2 Zone	6F	381	Loss of supervision - RF Zone
35	203	Gate valve sensor Zone	70	382	Loss of supervision - RPM Zone
36	204	Low water level Zone	71	383	Sensor tamper Zone
37	205	Pump activated Zone	72	384	RF low battery Zone

Value	CID	Description	Value	CID	Description
38	206	Pump failure Zone	73	385	Smoke detector Hi sensitivity Zone
39	300	System Trouble Zone	74	386	Smoke detector Low sensitivity Zone
3A	301	AC Loss Zone	75	387	Intrusion detector Hi sensitivity Zone
3B	302	Low system battery Zone	76	388	Intrusion detector low sensitivity Zone
77	389	Sensor self-test failure Zone	AD	521	Bell 1 disable Zone
78	391	Sensor Watch trouble Zone	AE	522	Bell 2 disable Zone
79	392	Drift Compensation Error Zone	AF	523	Alarm relay disable Zone
7A	393	Maintenance Alert Zone	B0	524	Trouble relay disable Zone
7B	400	Open/Close User	B1	525	Reversing relay disable Zone
7C	401	O/C by user User	B2	526	Notification Appliance Ckt. # 3 disable Zone
7D	402	Group O/C User	B3	527	Notification Appliance Ckt. # 4 disable Zone
7E	403	Automatic O/C User	B4	531	Module Added Zone
7F	404	Late to O/C (Note: use 453, 454 instead)	B5	532	Module Removed Zone
80	405	Deferred O/C (Obsolete-do not use)	B6	551	Dialer disabled Zone
81	406	Cancel User	B7	552	Radio transmitter disabled Zone
82	407	Remote arm/disarm User	B8	553	Remote Upload/Download disabled Zone
83	408	Quick arm User	B9	570	Zone/Sensor bypass Zone
84	409	Keypad O/C User	BA	571	Fire bypass Zone
85	441	Armed STAY User	BB	572	24 Hour zone bypass Zone
86	442	Keypad Armed STAY User	BC	573	Burg. Bypass Zone
87	450	Exception O/C User	BD	574	Group bypass User
88	451	Early O/C User	BE	575	Swinger bypass Zone
89	452	Late O/C User	BF	576	Access zone shunt Zone
8A	453	Failed to Open User	C0	577	Access point bypass Zone
8B	454	Failed to Close User	C1	601	Manual trigger test report Zone
8C	455	Auto-arm Failed User	C2	602	Periodic test report Zone
8D	456	Partial Arm User	C3	603	Periodic RF transmission Zone
8E	457	Exit Error (user) User	C4	604	Fire test User
8F	458	User on Premises User	C5	605	Status report to follow Zone
90	459	Recent Close User	C6	606	Listen- in to follow Zone
91	461	Wrong Code Entry Zone	C7	607	Walk test mode User
92	462	Legal Code Entry User	C8	608	Periodic test - System Trouble Present Zone
93	463	Re-arm after Alarm User	C9	609	Video Xmitter active Zone
94	464	Auto-arm Time Extended User	CA	611	Point tested OK Zone
95	465	Panic Alarm Reset Zone	CB	612	Point not tested Zone
96	466	Service On/Off Premises User	CC	613	Intrusion Zone Walk Tested Zone
97	411	Callback request made User	CD	614	Fire Zone Walk Tested Zone
98	412	Successful download/access User	CE	615	Panic Zone Walk Tested Zone
99	413	Unsuccessful access User	CF	616	Service Request Zone
9A	414	System shutdown command User	D0	621	Event Log reset Zone
9B	415	Dialer shutdown command received	D1	622	Event Log 50% full Zone
9C	416	Successful Upload Zone	D2	623	Event Log 90% full Zone
9D	421	Access denied User	D3	624	Event Log overflow Zone
9E	422	Access report by user User	D4	625	Time/Date reset User
9F	423	Forced Access Zone	D5	626	Time/Date inaccurate Zone
A0	424	Egress Denied User	D6	627	Program mode entry Zone
A1	425	Egress Granted User	D7	628	Program mode exit Zone
A2	426	Access Door propped open Zone	D8	629	32 Hour Event log marker Zone
A3	427	Access point Door Status Monitor t	D9	630	Schedule change Zone
A4	428	Access point Request To Exit trouble Zone	DA	631	Exception schedule change Zone
A5	429	Access program mode entry User	DB	632	Access schedule change Zone
A6	430	Access program mode exit User	DC	641	Senior Watch Trouble Zone
A7	431	Access threat level change User	DD	642	Latch-key Supervision User
A8	432	Access relay/trigger fail Zone	DE	651	Reserved for Ademco Use Zone
A9	433	Access RTE shunt Zone	DF	652	Reserved for Ademco Use User
AA	434	Access DSM shunt Zone	E0	653	Reserved for Ademco Use User
AB	501	Access reader disable Zone	E1	654	System Inactivity
AC	520	Sounder/Relay Disable Zone			

Default 5

Location 14 Global Options

LED	Factory Default	Default 5	Action
1	ON	ON	A user assigned to any partition may cancel the siren
2	OFF	OFF	Keypad trouble beep
3	OFF	OFF	Telephone line monitoring
4	OFF	OFF	Keypad beep on successful reporting to the base station
5	ON	ON	Keypad Fire, Medical and Panic keys
6	ON	ON	Display of bypassed and stay zones when armed
7	OFF	OFF	Siren delay
8	ON	OFF	Box tamper monitoring
9	ON	OFF	Siren monitoring
10	OFF	Off	Bus-wired peripheral tamper monitoring*
11	OFF	OFF	Onboard dedicated panic – silent
12	ON	ON	Low battery monitoring**
13	ON	ON	Low battery cut-out**
14	OFF	OFF	Bypassing with user code***
15	OFF	OFF	Dedicated Panic Zone Bypassing
16	OFF	OFF	Remote transmitters are able to cancel a panic condition

Location 41 - 44 Communication Format

Factory Default	Default 5	Format Name	Description
5	5	Contact ID	Dual Tone HS, DTMF

Location 46 Reporting Option

LED	Factory Default	Default 5	Action
1	ON	ON	Enable Tone Dialling
2	OFF	OFF	Keep Two Separate Telephone Numbers
3	OFF	OFF	Disable Dual Reporting
4	OFF	OFF	Disable Alternate Reporting

Locations 51 – 54 Primary Telephone Numbers

Clears all numbers

Location 211 – 218 Partition Arm Options

LED	Factory Default	Default 5	Action
1	OFF	OFF	Instant Arm
2	ON	ON	Instant Key-switch Arm
3	ON	ON	Quick Away Arm Key
4	ON	ON	Quick Stay Arm Key
5	ON	OFF	Auto Stay Arm if No Exit Zone is Triggered*
6	OFF	OFF	Auto Stay Arm if No Exit Zone is Triggered When Arming with a key-switch
7	OFF	OFF	Forced Arm
8	ON	ON	Zone Bypassing
9	OFF	ON	Arm with Zones in the Entry Route Violated
10	OFF	OFF	Siren Toot on Arm
11	OFF	OFF	Siren Toot on Disarm
12	ON	ON	Entry Beep
13	ON	ON	Exit Beep
14	OFF	OFF	Engineer's Reset
15	OFF	OFF	Auto Disarm
16	OFF	OFF	Opening & Closing Reporting

Locations 342 – 349 Close Reporting Codes

Clears all codes

Locations 350 – 357 Stay Close Reporting

Clears all codes

Locations 358 – 365 Open Reporting

Clears all codes

Locations 366 – 373 Siren Cancel Reporting

Clears all codes

Locations 501 – 564 Zone Split Reporting

LED	Factory Default	Default 5	Action
1	ON	ON	Zone alarm reporting
2	OFF	OFF	Zone alarm restore reporting
3	OFF	OFF	Zone bypass reporting
4	OFF	OFF	Zone force arm reporting
5	OFF	OFF	Zone tamper reporting
6	OFF	OFF	Zone tamper restore reporting
7	OFF	OFF	Zone swinger shutdown reporting
8	OFF	OFF	Zone swinger shutdown restore reporting

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 571 Global Split Reporting 1

LED	Factory Default	Default 5	Action
1	ON	ON	AC fail reporting
2	OFF	OFF	Communication fail reporting *
3	ON	ON	Telephone line tamper reporting
4	ON	ON	Siren fail reporting
5	ON	ON	Panel low battery fail reporting
6	ON	ON	Aux 12V fuse fail reporting
7	Reserved		
8	ON	ON	Box tamper reporting

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	Reserved	
16	OFF	Telephone module 1

Location 572 Global Split Reporting 2

LED	Factory Default	Default 5	Action
1	ON	ON	Bus-wired peripheral tamper reporting
2	ON	ON	Bus-wired peripheral fail reporting
3	OFF	OFF	Bus-wired peripheral low battery reporting *
4	ON	OFF	Wireless Detector Battery Low
5	OFF	OFF	Wireless Detector Supervision fail
6	OFF	OFF	Wireless Receiver Signal Jammed
7	OFF	OFF	Wireless Detector RSSI Low
8	ON	ON	AC Restored

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 573 Global Split Reporting 3

LED	Factory Default	Default 5	Action
1	OFF	OFF	Comms Restored
2	OFF	OFF	Comms Tamper Restore
3	OFF	OFF	Siren Restore
4	ON	ON	Battery Restore
5	OFF	OFF	Aux 12V Restored
6	OFF	OFF	Installer Reset restored
7	OFF	OFF	Box tamper restored
8	OFF	OFF	Bus device tamper restored

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 574 Global Split Reporting 4

LED	Factory Default	Default 5	Action
1	OFF	OFF	Bus device comms restored
2	OFF	OFF	Bus device battery restored
3	OFF	OFF	Wireless detector battery restored
4	OFF	OFF	Wireless detector supervision restored
5	OFF	OFF	Wireless receiver jam restored
6	OFF	OFF	Wireless detector RSSI low restored
7	ON	ON	Dedicated Panic
8	ON	ON	Test Report

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 575 Global Split Reporting 5

LED	Factory Default	Default 5	Action
1	OFF	OFF	IDSswift Download Accessed

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1

Location 581 - 588 Partition Split Reporting

LED	Factory Default	Default 5	Action
1	ON	ON	Enable duress reporting
2	ON	ON	Enable keypad panic reporting
3	ON	ON	Enable fire reporting
4	ON	ON	Enable medical reporting
5	ON	ON	Enable keypad lockout reporting
6	OFF		Reserved
7	OFF	OFF	Disable armed without user code reporting
8	OFF		Reserved

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14		Reserved
15	OFF	Telephone module 1
16		Reserved

Location 600 – 616 Voice Module Phone Numbers

All numbers cleared

Default 6

Location 14 Global Options

LED	Factory Default	Default 6	Action
1	ON	ON	A user assigned to any partition may cancel the siren
2	OFF	OFF	Disable keypad trouble beep
3	OFF	OFF	Disable telephone line monitoring
4	OFF	OFF	Disable keypad beep on successful reporting to the base station
5	ON	ON	Enable keypad Fire, Medical and Panic keys
6	ON	ON	Enable the display of bypassed and stay zones when armed
7	OFF	OFF	Disable the siren delay
8	ON	OFF	Enable box tamper monitoring
9	ON	OFF	Enable siren monitoring
10	OFF	OFF	Disable bus-wired peripheral tamper monitoring
11	OFF	OFF	Disable onboard dedicated panic– audible
12	ON	ON	Enable low battery monitoring
13	ON	ON	Enable low battery cut-out
14	OFF	OFF	Disable bypassing with user code***
15	OFF	OFF	Disable Dedicated Panic Zone Bypassing
16	OFF	OFF	Disable remote transmitters to cancel a panic condition

Location 46 Reporting Options

LED	Factory Default	Default 6	Action
1	ON	ON	Tone Dialling
2	OFF	OFF	Join the Telephone Numbers Together
3	OFF	OFF	Disable Dual Reporting
4	OFF	OFF	Disable Alternate Reporting

Locations 51 – 54 Primary Telephone Numbers

Clears all numbers

Location 211 – 218 Partition Arm Options

LED	Factory Default	Default 6	Action
1	OFF	OFF	Instant Arm
2	ON	ON	Instant Key-switch Arm
3	ON	ON	Quick Away Arm Key
4	ON	ON	Quick Stay Arm Key
5	ON	OFF	Auto Stay Arm if No Exit Zone is Triggered*
6	OFF	OFF	Auto Stay Arm if No Exit Zone is Triggered When Arming with a key - switch
7	OFF	OFF	Forced Arm
8	ON	ON	Zone Bypassing
9	OFF	ON	Arm with Zones in the Entry Route Violated
10	OFF	OFF	Siren Toot on Arm
11	OFF	OFF	Siren Toot on Disarm
12	ON	ON	Entry Beep
13	ON	ON	Exit Beep
14	OFF	OFF	Engineer's Reset
15	OFF	OFF	Auto Disarm
16	OFF	OFF	Opening & Closing Reporting

Locations 342 – 349 Close Reporting Codes

Clears all codes

Locations 350 – 357 Stay Close Reporting

Clears all codes

Locations 358 – 365 Open Reporting

Clears all codes

Locations 366 – 373 Siren Cancel Reporting

Clears all codes

Locations 501 - 564 Zone Split Reporting

LED	Factory Default	Default 6	Action
1	ON	ON	Zone alarm reporting
2	OFF	OFF	Zone alarm restore reporting
3	OFF	OFF	Zone bypass reporting
4	OFF	OFF	Zone force arm reporting
5	OFF	OFF	Zone tamper reporting
6	OFF	OFF	Zone tamper restore reporting
7	OFF	OFF	Zone swinger shutdown reporting
8	OFF	OFF	Zone swinger shutdown restore reporting

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 571 Global Split Reporting 1

LED	Factory Default	Default 6	Action
1	ON	OFF	Enable AC fail reporting
2	OFF	OFF	Disable communication fail reporting *
3	ON	OFF	Enable telephone line tamper reporting
4	ON	OFF	Enable siren fail reporting
5	ON	OFF	Enable panel low battery fail reporting
6	ON	OFF	Enable aux 12V fuse fail reporting
7	OFF	OFF	Installer Reset Required
8	ON	OFF	Enable box tamper reporting

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 572 Global Split Reporting 2

LED	Factory Default	Default 6	Action
1	ON	OFF	Enable bus-wired peripheral tamper reporting
2	ON	OFF	Enable bus-wired peripheral fail reporting
3	OFF	OFF	Disable bus-wired peripheral low battery reporting *
4	ON	OFF	Wireless Detector Battery Low
5	OFF	OFF	Wireless Detector Supervision fail
6	OFF	OFF	Wireless Receiver Signal Jammed
7	OFF	OFF	Wireless Detector RSSI Low
8	ON	OFF	AC Restored

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 573 Global Split Reporting 3

LED	Factory Default	Default 6	Action
1	OFF	OFF	Comms Restored
2	OFF	OFF	Comms Tamper Restore
3	OFF	OFF	Siren Restore
4	OFF	OFF	Battery Restore
5	OFF	OFF	Aux 12V Restored
6	OFF	OFF	Installer Reset restored
7	ON	OFF	Box tamper restored
8	ON	OFF	Bus device tamper restored

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1
10	OFF	Telephone module 1
11	OFF	Telephone module 1
12	OFF	Telephone module 1
13	OFF	Telephone module 1
14	OFF	Telephone module 1
15	OFF	Telephone module 1
16	OFF	Telephone module 1

Location 574 Global Split Reporting 4

LED	Factory Default	Default 6	Action	LED	On/Off	Reporting Pair
1	OFF	OFF	Bus device comms restored	9	OFF	Telephone module 1
2	OFF	OFF	Bus device battery restored	10	OFF	Telephone module 1
3	OFF	OFF	Wireless detector battery restored	11	OFF	Telephone module 1
4	OFF	OFF	Wireless detector supervision restored	12	OFF	Telephone module 1
5	OFF	OFF	Wireless receiver jam restored	13	OFF	Telephone module 1
6	OFF	OFF	Wireless detector RSSI low restored	14	OFF	Telephone module 1
7	ON	ON	Dedicated Panic	15	OFF	Telephone module 1
8	ON	OFF	Test Report	16	OFF	Telephone module 1

Location 575 Global Split Reporting 5

LED	Factory Default	Default 6	Action
1	OFF	OFF	IDSwift Download Accessed

LED	On/Off	Reporting Pair
9	OFF	Telephone module 1

Location 581 - 588 Partition Split Reporting

LED	Factory Default	Default 6	Action	LED	On/Off	Reporting Pair
1	ON	ON	Duress reporting	9	OFF	Telephone module 1
2	ON	ON	Keypad panic reporting	10	OFF	Telephone module 1
3	ON	ON	Fire reporting	11	OFF	Telephone module 1
4	ON	ON	Medical reporting	12	OFF	Telephone module 1
5	ON	ON	Keypad lockout reporting	13	OFF	Telephone module 1
6			Reserved	14		Reserved
7	OFF	OFF	Armed without user code reporting	15	OFF	Telephone module 1
8			Reserved	16		Reserved

Location 600 – 616 Voice Module Phone Numbers

All numbers cleared

Features Grouped by Locations

Feature	Location	Description	Page
Entry/Exit	1 to 64	Zone type	Page 9
	211 to 218	5 – Auto stay if no exit zone triggered 6 – Auto stay if no exit zone triggered when using an arm/disarm zone 9 – Arm with zones in the entry route violated 12 – Entry beep 13 – Exit beep	Page 25
	230	Exit delay	Page 26
	231	Entry delay	Page 26
	232	Secondary exit delay	Page 27
	Zones	1 to 64	Zone types
10		Zone shutdown count	Page 11
11		Programmable zone loop response time	Page 11
12		Cross zone delay time	Page 11
13		Cross zone count	Page 12
14		Display bypassed zones when armed	Page 12
16		Zone tamper trouble	Page 13
101 to 164		Zone properties	Page 20
201 to 208		Partition zone allocation	Page 24
211 to 218		5 – Auto stay if no exit zone triggered 6 – Auto stay if no exit zone triggered when using an arm/disarm zone 8 – Zone bypassing 9 – Arm with zones in the entry route violated 12 – Entry beep 13 – Exit beep	Page 25
221 to 228		1 – Automatic enabling of shutdown zones 2 – Bypassing common zones 7 – Stay zone reporting 8 – Zone restoral signal sending option	Page 26
241		Keypad display start zone	Page 27
242		Keypad zone	Page 28
251 to 258		4 – Show all zones	Page 28
260		1 – Add wireless detector to zones 2 – Delete wireless detector from zone	Page 30
261 to 264		Stay zone reporting codes	Page 34
304 to 335		Zone reporting	Page 35
415 to 422		Zone triggered outputs	Page 40
501 to 564		Zone split reporting options	Page 42
617		10 – Zone user bypassing reporting	Page 44
Partitions	61 to 68	Account codes	Page 19
	71 to 78	Secondary account codes	Page 19
	165 to 178	Arming and Medical alarm on no movement	Page 21
	180 to 190	Auto arm and disarm settings	Page 22
	201 to 208	Zone allocation	Page 24
	211 to 218	Partition configuration	Page 25
	221 to 228	Extra partition options	Page 26
	230	Exit delay	Page 26
	231	Entry delay	Page 26
	232	Secondary entry delay	Page 27
	240	Keypad partition allocation	Page 27
	336 to 340	Partition reporting codes	Page 36
	390 to 414	Partition triggered programmable outputs	Page 38

Feature	Location	Description	Page
Keypads	14	2 – Keypad trouble beep 4 – Keypad beep on communication 5 – Keypad fire, medical & panic keys	Page 12
	16	9 – Peripheral tamper trouble display 10 – 485 bus fail trouble display	Page 13
	20	Keypad lockout count	Page 14
	21	Keypad lockout time	Page 14
	22	Keypad sleep delay	Page 14
	240	Keypad partition allocation	Page 27
	241	Keypad start zone	Page 27
	242	Keypad zone	Page 28
	243	Keypad ID	Page 28
	251 to 258	Keypad options	Page 28
	302	1 – Bus device tamper 2 – Bus tamper restore 3 – Bus peripheral communication fail 4 – Bus peripheral communication restore	Page 35
	337	Keypad panic reporting	Page 36
	338	Keypad/zone fire reporting	Page 36
	339	Keypad medical reporting	Page 36
	340	Keypad lockout reporting	Page 36
	389	Clear keypad outputs on disarm	Page 38
	437	Keypad outputs pulse length	Page 41
	457	Keypad output scheduling	Page 41
	Communication	572	1 – Bus wired peripheral tamper reporting 2 – Bus wired peripheral communication fail reporting
573		8 – Bus wired peripheral tamper restore reporting	Page 43
574		1 – Bus wired peripheral communication restore reporting	Page 44
14		3 – Telephone line monitoring 4 – Keypad beep on communication	Page 12
16		2 – Trouble communication trouble display 3 – Phone line trouble display	Page 13
24		Account code number of digits	Page 14
40		Serial communication format	Page 17
41 to 44		Communication format	Page 17
45		Communication delay	Page 17
46		Reporting Options	Page 18
47		Number of dial attempts	Page 18
48		Download options	Page 18
49		Number of rings to answer	Page 18
51 to 54		Telephone numbers	Page 19
55		Serial reporting telephone number	Page 19
61 to 68		Primary account codes	Page 19
71 to 78		Secondary account codes	Page 19
261 to 373	Reporting codes	Page 34	
424	6 – Communication fail output 7 – Telephone line tamper output 8 – Telephone line tamper restore output	Page 39	
426	4 – Dual reporting output	Page 40	
501 to 618	Split reporting options	Page 42	

Feature	Location	Description	Page
Wireless	16	12 – Wireless device battery low fault display 13 – Wireless device supervision fault display 14 – Wireless RF jam trouble display 15 – Wireless low RSSI fault display 16 – Zone tamper display	Page 13
	260	Sub 1 – Add a wireless device to a zone Sub 2 – Delete a wireless device from a zone Sub 3 – Wireless device signal strength Sub 4 – Wireless device supervision time	Page 30
	302 to 303	Global split reporting options	Page 35
	304 to 335	Zone reporting	Page 35
	415 to 422	Zone triggered outputs	Page 40
	425	Wireless triggered outputs	Page 40
	501 to 564	Zone split reporting options	Page 42
	572	4 – Wireless detector low battery split reporting 5 – Wireless supervision split reporting 6 – Wireless RF jam split reporting 7 – Wireless low RSSI split reporting	Page 43
	574	3 – Wireless detector low battery restored split reporting 4 – Wireless supervision restored split reporting 5 – Wireless RF jam restored split reporting 6 – Wireless low RSSI restored split reporting	Page 44

