

Xwave² Hub Manual

THANK YOU FOR CHOOSING IDS

Thank you for purchasing an IDS Bi-directional Xwave² Wireless system. The IDS X-Series Bi-directional Wireless system offers an additional 16 wireless supervised zones per installed Hub, with two programmable current sink outputs. Each output is a 12V DC output that can carry 80mA of current.

For more information on IDS products please visit: www.idsprotect.com

Note: Read the entire manual before attempting to install the Xwave² Wireless system.

Xwave² devices are not compatible with Xwave devices

Features

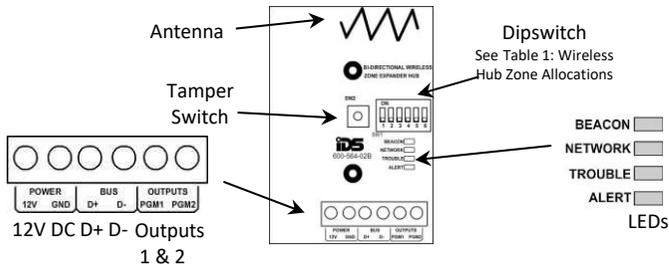
- 16 Bi-directional Wireless Zones with constant supervision, tamper and battery monitoring
- Remote transceiver.
- Xwave² I/O module with two zones and one relay driven output
- Integrated Optex detectors
- IDS Xwave² Wireless Door Mags
- Remote receiver built in

Installation

Communication Bus wiring

The Xwave² wireless hub must receive its 12V power from the X-Series alarm panel or be connected via the X-Series RS485 Bus Isolator 860-06-0557 when connected to a separate power source, to remove any chance of ground loops on the keypad bus which will cause communication errors.

Figure 1: Wireless Hub Bus Connection



Addressing via Dipswitch

To address the Xwave² wireless hub, set the dipswitches as per the Table below. The hubs address will determine the zone numbers of that hub.

Note: The unit must be powered down when selecting the units address.

Table 1: Wireless Hub Zone Allocations

Binary value on switch	Expander's zones
Dipswitch 1 up	1 -16
Dipswitch 2 up	17 - 32
Dipswitches 1 + 2 up	33 – 48
Dipswitch 3 up	49 - 64
Dipswitch 6 up	3 second button panic disabled

Note: Wireless zones take president over wired zones. If you learn a detector onto a zone with a wired detector the wired detector will be ignored.

LED Status Indicators

There are 4 LEDs on the board marked “BEACON”, “NETWORK”, “TROUBLE” and “ALERT”. (See **Figure 1: Wireless Hub Bus Connection**)

Wireless Hub Bus Connection

BEACON: LED will flash when transmitting information.

NETWORK: LED will show if there are any errors on Xwave² wireless network of devices. If it is ON there are no errors on the Xwave² wireless network but if it is flashing then errors have been detected. See table 2.

Table 2: Network LED Display

Pulse	Error	Description
1	Learn Mode	The hub is in learn mode to add new devices to its network
2	Remote Panic	A panic has been received from a remote transmitter
3	Low Detector Battery	A detector has reported that its battery needs to be replaced
4	Detector Tamper	A device has reported a tamper
5	Supervision Loss	A device has not checked in at the required time
6	Low Signal Strength	A device on the network has a very low signal strength
7	Signal Jam	A signal at the same frequency has been detected and could interfere with signals to and from detectors

TROUBLE: LED that indicates current operating errors. If the LED is OFF continuously then there are no errors. However if there are errors it will start pulsing the error number. (See Table 3: Trouble LED Display).

Table 3: Trouble LED Display

Pulse	Error	Description
1	Dead keypad bus	No keypad bus detected
2	Unregistered	Xwave ² Hub not registered on the X-Series alarm panel
3	Registered but no communication	Xwave ² Hub has registered with the X-Series alarm panel but not receiving any messages from the alarm panel

ALERT: LED will pulse to indicate a message is being received.

Outputs

The Xwave² Hub has two outputs, rated at 12V 80mA, on board that can be used to trigger external devices. The Xwave² Hub outputs follow the wired zone expander outputs of the same ID.

EG: Zone Expander 1 outputs are six and seven and if a wireless expander 1 is added its outputs would also be six and seven.

Defaulting the Xwave² Wireless Hub

If a hub has been registered to a panel it would have received a unique network ID and to remove the hub and attach it to a different X-Series panel it must be defaulted.

To default the Xwave² Hub:

1. Remove all power
2. Put all dipswitches ON
3. Power the unit up and wait three seconds
4. Power the unit down

Default via the keypad. (**Note:** Will default all wireless devices including Xwave devices)

1. Enter installer mode, [9][9][9][9][*]
2. Enter location 0, [0][*]
3. Enter value 7, [7][*]
4. All LEDs on the Xwave2 hub will light up indicating that the memory is being cleared

ID the Xwave² Hub (See Table 1: Wireless Hub Zone Allocations)

Device Battery Voltage Check

Each Xwave² devices battery voltage can be checked via the keypad to determine if the batteries will require changing in the near future giving you peace of mind when going away on holiday.

The system will begin to notify you of a low battery, when the battery voltage reaches 2.5V.

To check battery voltage of a device:

1. Enter the Master User Menu: Hold down [*] for 3 seconds
2. Enter the Master code: [1][2][3][4] [*]
3. Scroll using the [Panic >>] key to “View Bidir Batt” menu or enter [1][5][*]
4. Enter the hub number whose devices you want to check: [1][*]
5. Scroll using the [Panic >>] or [Medical <<] keys to the zone.

The LCD screen will show the battery voltage of the device allocated to the zone.

Note: Batteries must be changed when they have reached 2.5V or before

Walk test mode

Walk test mode will put certain capable devices into walk test mode from the X-Series keypad. Once in walk test mode the device will trigger continuously when an object has been detected and the LED will come on to indicate the detection.

To enter a device into walk test mode:

1. Enter the Master User Menu: Hold down [*] for 3 seconds
2. Enter the Master code: [1][2][3][4] [*]
3. Scroll using the [Panic >>] key to Walk Test menu or enter [1][9][*]
4. Enter the partition whose devices you want to walk test: [1][*]
5. Enter the number of minutes the walk test must stay active, 1 to 15 minutes. The system will automatically exit walk test mode once the time entered expires

X-Series Installer Programming

Location 260 Zone Properties

Xwave² devices are learnt in a similar manner as Xwave devices

This location is broken up into different sub locations. Each sub location has a different function.

Sub location1 learning wireless devices

Sub location 2 deleting wireless devices

Sub location 3 checking signal strength. (Not used for Xwave²)

Sub location 4 Supervision Time. (Not used for Xwave²)

Sub Location 1: Adding Wireless Detectors

There are two methods of teaching a wireless device to the wireless receiver.

1. Insert the battery. Note: This step can be done with all types of keypads or go to step 2.
2. Typing in the serial number of the device when required. Note: This step can only be done with a LCD keypad.

LCD Keypad instructions

Upon Sub menu entry the user will notice the following:

```
Zone Names <*>
Zone No + *
```

The user now needs to specify which zone they want to add to the receiver by either:

- > Pressing [<], [>] and scrolling through the zone names and then press [*] to select the zone.
- > Enter the zone number then [*] and to select it press [*] again.
- > [#] will return user to sub menu selection entry.

Note: When scrolling through the zones the user may be presented with one of the following:

```
Zone Names <*>
02 Zone 02 W
```

```
Zone Names <*>
02 Main Lounge W
```

Presence of the “W” after the zone name signifies the zone is a zone with a wireless detector.

Selecting a zone that has been pre-allocated will result in an error and the user will be alerted with 3 error beeps.

Upon selecting a valid unallocated zone the user will be presented with the following.

```
Tamper or Enter
SN:-----
```

The user must now either trigger the tamper on the detector or type in the serial number of the device, which is on the product label on the device.

Xwave² devices just need the battery inserted for the unit to be learnt into the zone.

Note: Do not place batteries into all Xwave² devices while learning, do one at a time and close the housing once complete as if left open in the tamper state, each device will continuously send join requests.

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.

Upon a valid serial number being entered or set via tampering the device the user will be presented with the following.

```
Serial No:
SN: 12345678 [*]
```

- The user needs to confirm the detector being added by pressing [*].

Sub Location 2: Deleting Wireless Detectors

This sub location is accessed the same as sub location 1.

Sub Location 3: Signal Strength of Detector

This sub location is accessed the same as sub location 1 and 2.

Note: Not used for Xwave²

Sub-Location 5: Xwave² Zone Properties

Two options can be set on integrated devices with the following options:

Table 4: Xwave² Zone Properties

Option	Default	Description
1	N	Device LED can be enabled = Y or disabled = N
2	N	Set sensitivity pulse count. See the detector manual that is allocated to the zone for options N = Default option Y =second option

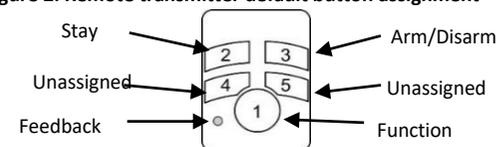
Remote Receiver

The wireless hub has a remote transmitter receiver for all Xwave² remote transmitters built in. The receiver will communicate bi-directionally with learnt remote transmitters to give feedback on any instructions received. Remote transmitters are learnt to a user code and will inherit that codes permissions, i.e. arm/disarm, etc.

Remote Transmitter

Each remote transmitter has five buttons to control the alarm panel or query its status.

Figure 2: Remote transmitter default button assignment



Buttons 2 to 5 can be programmed to any of the functions listed in remote transmitter manual, 700-563-005

Note: Xwave² remote transmitters are not compatible with Xwave remote transmitter devices

For more information please see the remote transmitter manual, 700-563-005