Installation Manual Premier 60iXD

Issue 4

CE



Introduction

The *Premier 60IXD* expander module provides up to 60 zones of expansion using iD biscuits. The module has two loops each supporting up to 30 iD biscuits. The *Premier 60IXD* module can be installed in one of two modes:

Local Mode

The local mode allows the *Premier 60IXD* to be connected to the expansion port on the *Premier 48/88/168/640* control panels. This mode provides the following facilities:

- Two loops each supporting up to 30 iD biscuits
- Fused 12V output for powering detectors
- Advanced diagnostics using the system remote keypad
- Biscuits can be mapped to any zone in the system



The *Premier 60IXD* expander module is only supported on *Premier 88/168* control panels from version 5.0 onwards and *Premier 48* from version 2.0 onwards. The *Premier 48* can only support a maximum of 48 zones/biscuits.

Network Mode

The network mode allows the *Premier 60IXD* to be connected to the network terminals of any *Premier* control panel. This mode provides the following facilities:

- Two loops each supporting up to 30 iD biscuits
- Module reports as either 4 or 8 zone expanders (Premier 8XP)
- Fused 12V output for powering detectors
- Local diagnostics using an engineer's keypad
- Biscuits are mapped to a fixed expansion zone



Although the *Premier 60IXD* expander module can support 60 zones of expansion, you can only utilise the expandable zones available on the control panel, e.g., If the *Premier* control panel only supports two zone expanders, you can only use a maximum of 16 iD biscuits (2 x 8).

'iD' and 'iD PLUS' is a registered trademark of Novar ED&S.

PCB Layout



- ① Harness connection to control panel (Local Mode)
- 2 Engineer's keypad connector for local diagnostics
- ③ Receive data LED for Network connections
- ④ Network terminals for connection to a Premier control panel (Network Mode)
- (5) Auxiliary 12V (fused by F1) power for powering detectors
- (6) iD biscuit Loop 1 and 2
- Short circuit indicator LEDs for iD loops 1 and 2
- ⑧ Local Mode communication indicator LED
- (9) Tamper switch connector
- 1 Address selector (Network Mode)
- 1 Heartbeat/Power indicator LED
- 12 Auxiliary 12V fuse (electronic) and fault indicator LED

Installation

Before connecting the *60IXD* expander module, isolate ALL power from the control panel (AC mains and battery), do not continue if there is still power present on the control panel.

Local Mode

- 1. Fix the expander module as close as possible to the control panel.
- 2. Route the harness lead from the control panel into the expander module.
- **3.** Plug one end of the connection harness onto JP2 of the expander module and the other end onto the expansion port (JP7) of the control panel.
- 4. Connect the iD devices to the expander module, see "iD Connections".
- 5. Reapply power to the control panel and program the necessary options on the panel, see "Commissioning and Testing".

Network Mode

- 1. Fix the module in the required location.
- 2. Connect the network connections of the module to the network connections of the control panel.
- 3. Set the address switch to the require position (see table below)
- 4. Connect the iD devices to the expander module, see "iD Connections".
- 5. Reapply power to the control panel and program the necessary options on the panel, see "Commissioning and Testing".

Control Panel	Address	Expanders	iD	iD	Panel
	Selector	Reported	Loop	Biscuits	Zones
Premier 412/816	1	1	1	01 - 08	09 - 16
Premier 832	1	1 - 3	1	01 - 24	09 - 32
Premier 24	1	1 - 2	1	01 - 16	09 - 24
Premier 48	1	1 - 4	1	01 - 30	09 - 38
Premier 88/168	1	1 - 4	1	01 - 30	09 - 38
Premier 88/168	2	1 - 8	1	01 - 30	09 - 38
			2	01 - 30	41 - 70
Premier 640	1	1 - 4	1	01 - 30	01 - 30
Premier 640	2	1 - 8	1	01 - 30	01 - 30
			2	01 - 30	33 - 62

Network Mode Configuration Table

iD Connections

Each iD biscuit is connected across a two-wire detector loop. Apart from observing the correct polarity, any wiring configuration can be used, as shown in the diagram below:



* See Note on page over.

Cabling Considerations

The iD loop can be wired using standard 4-core alarm cable; however it is highly recommended that screened cable is used to improve RF/false alarm immunity.

The use of 4-core cable allows 2 cores to be used for the iD biscuit and 2 cores for supplying 12V power for PIR's etc.

The maximum cable run depends on the type of biscuits that are connected to the module:

Biscuits	Maximum Cable Run
Standard	100m
iD Plus	400m

When installing the iD loop it is usually more practical to run several cables from the expander module to the different areas of protection. This effectively reduces any distance problems and makes fault finding much easier.

To reduce the risk of induced interference and wherever possible, cables should not be positioned along side mains power, telephone or other data transmission cables, or run within the same ducting or trunking as any other cables.

The wiring for the system's internal sounders (loudspeakers) should not be connected in the same multi-core as the iD loop.

The *60IXD* expander module is supplied with 4 off 10nF capacitors in the spares pack. It is recommended that you connect a 10nF capacitor approximately at the half way point of each iD spur. It is especially important to do this on iD spurs that are less than 30 metres.

ID Biscuit Connections

The figure below shows both the old and newer iD Plus biscuits:



Each iD biscuit is identified by its own number 01 to 30 and contains its own internal sensor which is continuously monitored by the expander module. The diagram below shows the connections to the biscuit for monitoring both tamper and alarm contacts.



When the tamper switch is opened, the iD biscuit is taken offline and a tamper condition is generated by the control panel. If the alarm switch is opened the biscuit's internal sensor changes state and the control panel will see this as an active condition and will respond as appropriate.

The diagram below shows the typical wiring of a biscuit to a standard PIR.



From Expander

To next detector

Commissioning and Testing

Programming the 60IXD Expander (Local Mode)

Once the *60IXD* expander module has been installed, the following procedure must be carried out in order to enable the module:

- 1. Enter into the Engineers Menu (1234).
- 2. Select the UDL/Digi Options menu (7) and press (1985).
- 3. Select the Com Port Setup menu (8) and press ($\frac{1}{100}$).
- 4. Select Expansion Port option (4).
- 5. Press (No) to change and select iD Module option (2), followed by (Ses) to accept.
- 6. Exit from the Expansion Port menu by pressing Menu.
- 7. Exit from the **Com Port Setup** menu by pressing weee.
- 8. The Comms Led on the expander module should now be flashing.
- 9. Select the Engineer Utils menu (9) and press (1985).
- 10. Select the View iD Data menu (and press ().
- **11.** Follow the flowchart on the next page for viewing and programming the iD biscuit options.
- 12. Once the iD biscuits have been mapped to zones on the system you can now program them as you would normal zones, refer to the "Zone Setup" menu in the *Premier* 48/88/168/640 Installation Manual.

Viewing the iD Data (Local Mode)

As shown on the flowchart on the next page you can view the iD biscuit data that expander is reporting to the control panel. There are two way of viewing the data from the expander:

Normal Scan Mode

This is the normal operation mode of the expander and the data being displayed is the average result of 4 successive scans of the iD loop.

Quick Scan Mode

In this mode the data being displayed is the result of each scan of the iD loop. This mode is useful for identifying problems with biscuits due to interference, high resistance connections etc.

View iD Data Menu (Local Mode)





Programming the 60IXD Expander (Network Mode)

When installed in the Network Mode the *Premier 60IXD* expander module will report as standard eight zone expanders. Each iD Biscuits is mapped to a particular expander and zone:

Expander	Expander Zones	iD Loop	iD Biscuits
1	1 - 8	1	01 - 08
2	1 - 8	1	09 - 16
3	1 - 8	1	17 - 24
4	1 - 6	1	25 - 30
5	1 - 8	2	01 - 08
6	1 - 8	2	09 - 16
7	1 - 8	2	17 - 24
8	1 - 6	2	25 - 30

- 1. Enter into the Engineers Menu (1234).
- 2. Program the zones for the required type, see relevant Installation Manual.
- 3. Walk test/view zone status to check biscuit operation, see relevant Installation Manual.
- **4.** If you have an engineer's keypad it can be plugged onto the *Premier 60IXD* for local diagnostics.

Local Diagnostics using an Engineer's Keypad

The local diagnostics menu can be accessed by plugging an engineer's keypad onto the *Premier 60IXD*. The following menus are available:

O - General Status

This menu shows the general status of the module and includes the number of biscuits connected to each loop, tamper status and address details:



No of Biscuits on Loop 1

② No of Active Biscuits on Loop 1

③ No of Reported Expanders (4 or 8)

I No of Biscuits on Loop 2

S No of Active Biscuits on Loop 2

Tamper Status (A=Active, H=Healthy)

1 - Loop 1 Data

This menu shows the status of each biscuit connected to loop 1:



① Biscuits 01 to 16
 ② Biscuits 17 to 30

 = Not Fitted/Tamper
 1 = Healthy
 Ø = Active

 ③ Menu/Loop Number

 1 = Loop 1
 2 = Loop 2

2 - Loop 2 Data

This menu shows the status of each biscuit connected to loop 2 (see Loop 1).

③ - Slow Scan Mode

This menu allows you to put the module into "Slow Scan Mode" which can be used to measure the LOW, MID and HIGH states of the iD loop. For correct operation, the voltages measured both at the module and at each biscuit should be as follows:

State	Voltage
LOW	$2.70V\pm0.5V$
MID	$6.00V\pm0.5V$
HIGH	$11.80V\pm0.5V$

iD Loop1=MID iD Loop2=MID	>3
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Slow Scan Mode

Press [No] to change between LOW, MID and HIGH states.

(4) - Firmware Version and Voltage

This menu shows the firmware version and voltage level at the module:



- ① Firmware Version
- ② Voltage
- ③ Keypad Address (1 8; E=Engineer's)

Specifications

Technical

Operating Voltage	10 - 13.7VDC
Current Consumption	<100mA
Operating Temperature	-10°C (+14°F) to +50°C (+122°F)
Storage Temperature	-20°C (-4°F) to +60°C (+140°F)
Maximum Humidity	95% non-condensing
EMC Environment	Residential, Commercial, Light Industrial or Industrial

Standards

The *60IXD* conform to European Union (EU) Low Voltage Directive (LVD) 73/23/EEC (amended by 93/68/EEC) and Electro-Magnetic Compatibility (EMC) Directive 89/336/EEC (amended by 92/31/EEC and 93/68/EEC).

The CE mark indicates that this product complies with the European requirements for safety, health, environment and customer protection.

This product is suitable for use in systems designed to comply with PD 6662: 2004 (prEN 50131-1: 2004) at Grade 3 and Environmental Class II.

Warranty

All Texecom products are designed for reliable, trouble-free operation. Quality is carefully monitored by extensive computerised testing. As a result the *Premier 60IXD* expander is covered by a two-year warranty against defects in material or workmanship. As the *Premier 60IXD* expander is not a complete alarm system but only a part thereof, Texecom cannot accept responsibility or liability for any damages whatsoever based on a claim that the *Premier 60IXD* expander failed to function correctly. Due to our policy of continuous improvement Texecom reserve the right to change specification without prior notice.

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