

Installing the ID²net Intelligent Digital Delivery Network PCB Assembly

The ID²net Intelligent Digital Delivery Network PCB (PN: 124-312) locates inside the main chassis' enclosure on the right-hand side and plugs directly into the Processor PCB (PN: 124-302). This PCB can be fitted above first- or second-layer PCBs. The ID²net PCB kit provides the parts required for either option.



Your ID²net PCB kit, PN: 020-647, should contain:

ID ² net PCB Assembly	PN: 124-312
M3 x 10 SEM screws (4 off)	PN: 775-058
M3 Metal spacers (8 off)	PN: 423-269
M3 Metal spring washers (4 off)	PN: 791-034
M3 Metal plain washers (4 off)	PN: 790-005
Anti-Static Warning instructions	PN: 997-180
Jumper link (3 off)	PN: 542-074
2-way connector (2 off)	PN: 610-173
3-way connector (1 off)	PN: 610-172

Check Your Equipment....

Taking suitable precautions, before proceeding with the installation, remove all packaging and inspect contents for any damage that may have occurred during transit. If no damage is evident, proceed using the instructions below. In the unlikely event that damage has occurred, or any items are missing, DO NOT PROCEED, contact your supplier and refer to the panel Installation & Commissioning Manual.

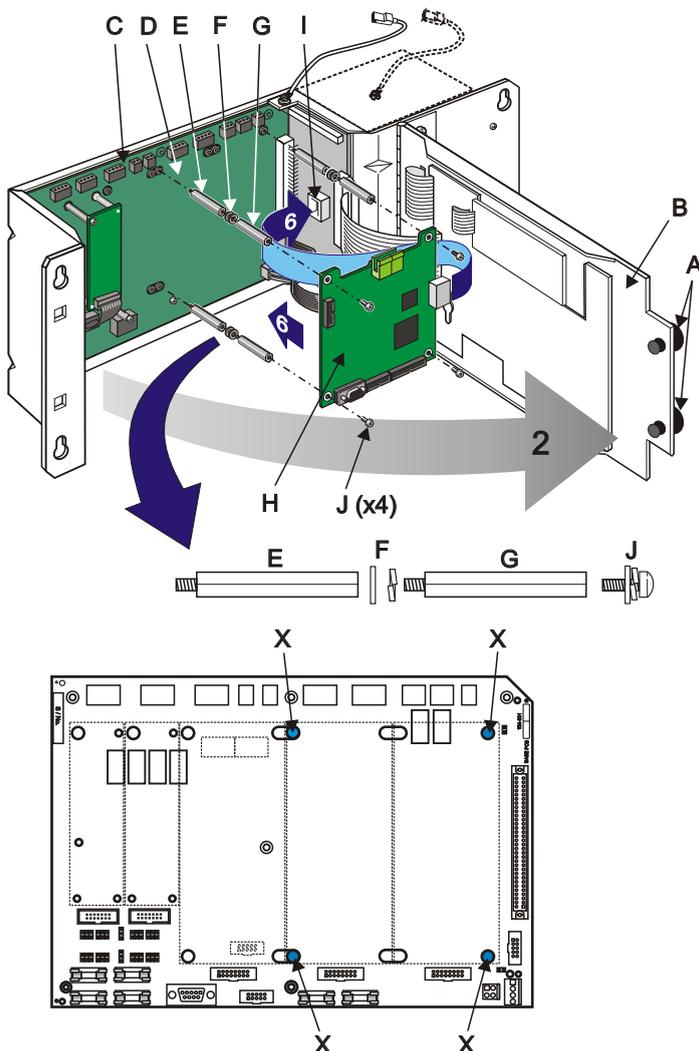
Making sure that the mains supply has been isolated, the batteries disconnected and observing all necessary precautions, fit the ID²net Intelligent Digital Delivery Network PCB as follows:

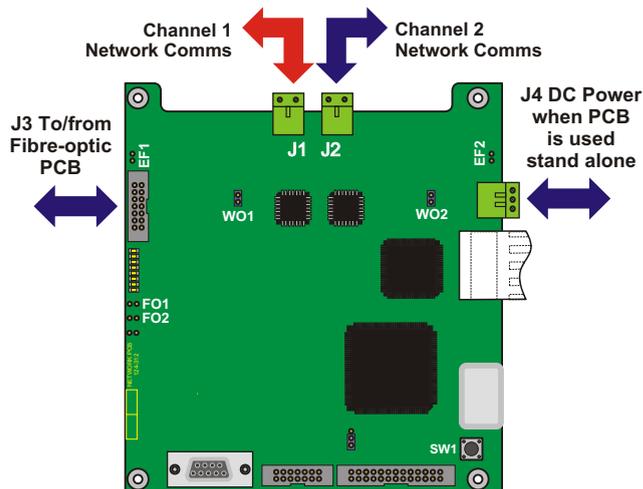
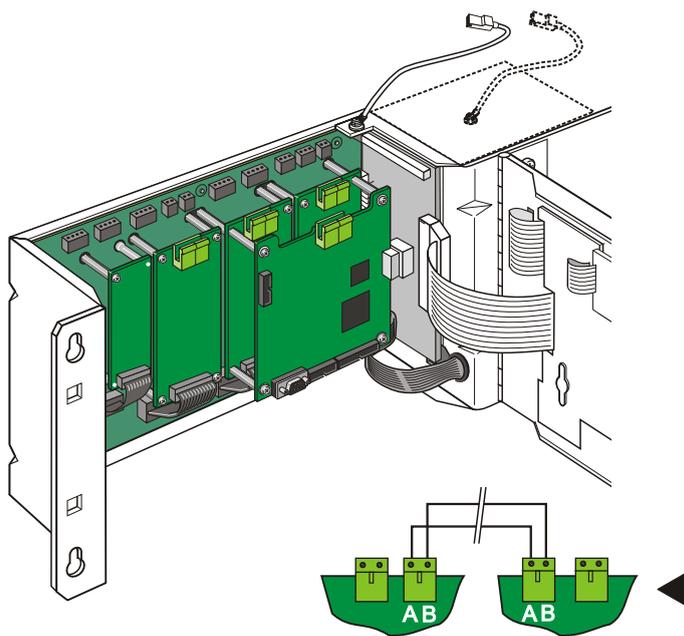
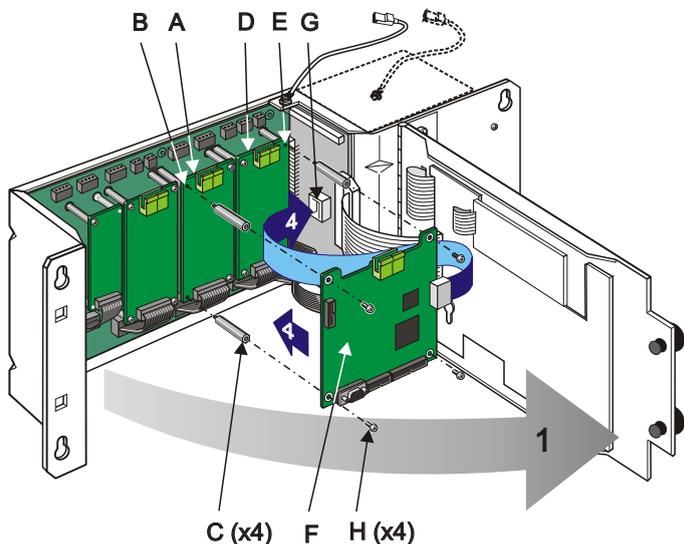
Quick Start

-  Packing washers **MUST** be used if second-layer PCBs are not fitted.
-  All screws **MUST** be fitted to guarantee correct operation.
-  Cables **MUST** be screened and screens **MUST** be terminated to the back box to guarantee correct operation.
-  Take care to correctly align the 48-way connector before gently pushing home.

Fitting the Network PCB

- 1 Remove the front cover moulding, if fitted - use a 3mm hexagonal socket key if 1/4 turn fasteners are fitted, or a 4mm hexagonal socket key if M6 screws are fitted. Place the cover in a protective bag and store safely.
- 2 Using a suitable-sized coin, release the two quarter-turn fasteners (A) located on the left-hand side of the chassis' door (B). Open the door to gain access to the main chassis PCB enclosure (C), containing the Base PCB (D).
- 3 If second-layer PCBs are NOT fitted, fit the first four metal, hexagonal spacers (E) in the hole positions marked 'X' and tighten (the lower drawing shows the footprint of all second-layer PCBs).
- 4 Using the four supplied plain and spring packing washers (F), fit the second set of four hexagonal spacers (G) into the ends of the first four spacers.
- 5 Remove the ID²net Network PCB (H) from its packaging.
- 6 The ID²net Network PCB **MUST** correctly engage the socket (I) on the Processor PCB. With the PCB correctly orientated, carefully line up the 48-way connector on its right-hand side to engage the socket on the Processor PCB. When it is correctly aligned, gently push the ID²net Network PCB connector into the Processor PCB socket until fully home.
- 7 Once in place, fit the four M3 x 8 SEM screws (J) in the corners of the ID²net Network PCB. To prevent any distortion make sure all screws are fitted and hand-tightened before fully tightening them with a screwdriver.





If Second-layer PCBs are Fitted...

Proceed as follows:

- 1 Follow steps 1 and 2 overleaf to gain access to the main chassis PCB enclosure.
- 2a If a second-layer PCB (A) is fitted in the centre mounting position (i.e. it is connected to SK16 on the Base PCB), remove both left-hand screws (B) from the PCB and discard. In their place insert hexagonal spacers (C) and tighten with a 5.5mm hexagonal socket tool.
- 2b If a second-layer PCB (D) is fitted in the right-hand position (i.e. it is connected to SK17) repeat the procedure described in step 2a but for the two right-hand screws (E) of this second-layer PCB. Discard the remaining spacers and packing washers.
- 3 Remove the Network PCB (F) from its packaging.
- 4 The ID²net Network PCB MUST correctly engage the socket (G) on the Processor PCB. With the PCB correctly orientated, carefully line up the 48-way connector on its right-hand side to engage the socket (G) on the Processor PCB. When you are satisfied that it is correctly aligned, gently push the ID²net Network PCB connector into the Processor PCB socket until fully home.
- 5 Once in place, fit the four M3 x 8 SEM screws (H) supplied with the kit in the corners of the ID²net Network PCB. To prevent any distortion make sure all screws are fitted and hand-tightened before fully tightening them with a screwdriver.

The drawing at left shows the ID²net Network PCB correctly fitted.

Connecting Wiring and Cables

Network cables - Conventional wire cables are terminated at connectors J1 (Channel 1) and J2 (Channel 2). Fibre-optic cable connections are made using the optional Fibre-optic interface PCB (Kit PN: 020-643) - refer to separate installation instruction sheet for details. Cables are to be brought into the back box using 20mm knockouts and appropriate glands - (refer to the Installation & Commissioning manual) in accordance with local standards. Cable shields MUST be terminated at the gland or back box using the optional earthing blocks (PN: 020-453).

Connect terminal A to A and B to B.

Jumper Link Setting

If cables are connected at J1 and/or J2, ensure jumper links are fitted as follows:

- Channel 1 - WO1
- Channel 2 - WO2

When using fibre-optic cables, ensure jumper links are fitted in the following positions instead:

- Channel 1 - FO1
- Channel 2 - FO2

Note: For further details refer to the Fibre-optic PCB installation instructions.

Earth Fault Monitoring (EFM)

To monitor the network links for earth faults J1 and J2 MUST be fitted.

For J1 comms - fit EF1 link (JP1). For J2 comms - fit EF2 link (JP2).

Note: To avoid earth loops, only one end of each inter-panel comms link requires setting. It is not important which end is set.