

## Replacing Panel Electronics

The panel electronics kit (020-635-XXX or 020-638-XXX) comprises the replacement PCB assembly with mounted LCD unit and fascia (supplied as one item). The PCB assembly is located within the back box, but should ONLY be removed when installing product specific kits in the back box or when a serious system fault occurs with the panel, necessitating a PCB replacement.

**Note:** When stated, refer to the appropriate product **Installation, Commissioning & Configuration Manual**.

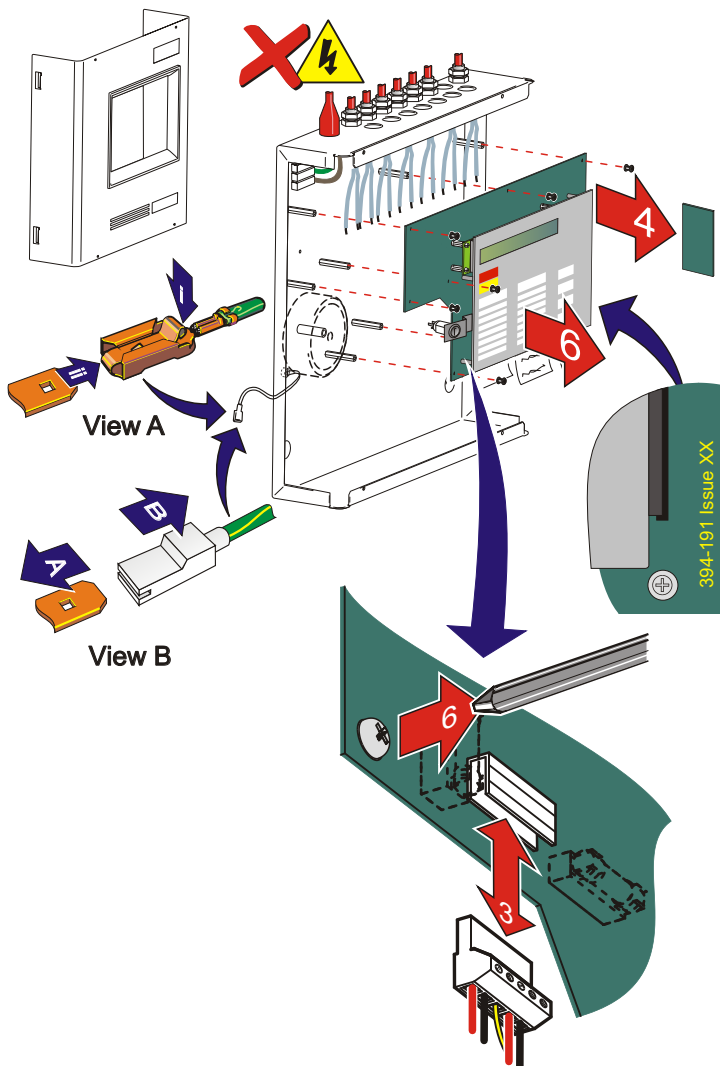


**WARNING** - Make sure you have a PC back-up of the current configuration data and ALL power to the panel has been disconnected.



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
SENSITIVE  
DEVICES

Your kit PN: 020-635-XXX or 020-638-XXX should contain:  
Panel Electronics (PCB, LCD and Fascia) PN: 020-635-XXX  
or PN: 020-638-XXX  
Anti-Static Warning instructions PN: 997-180



### Check your equipment....

Take suitable anti-static precautions, such as wearing a grounded wrist strap, when following ALL instructions. Remove all packaging from the electronics equipment and ensure that it has not been damaged in transit (and that no items are missing - see checklist on the left) before proceeding any further. If no damage is evident, proceed using the instructions below. In the unlikely event that damage has occurred or items are missing, DO NOT PROCEED, contact your supplier and refer to the panel's **Installation, Commissioning & Configuration Manual**.

With the back box secured to the wall in its chosen location, proceed with the instructions below:

### Removing the Panel Electronics

When removing the Panel Electronics follow the recommended procedure below:

- 1 Remove the cover and store in a safe place, see **Section 2.5.1, Removing the Cover**. Then make a back-up of the current system configuration, remembering to disconnect the link at jumper J19 if replacing a **394-191 Issue 6** PCB assembly or later.

**Note:** The blade connection to the cover fitted in back boxes installed with a **394-191-001, 002, or 003** PCB assembly incorporates a locking bar. To remove this connection, press the release tab (i) on the connector and then withdraw (ii) - see View A.

The blade connection to the cover fitted in back boxes installed with a **394-191 Issue 6** PCB assembly incorporates a locking bar. To remove this connection, pull the shroud (B), NOT the earth wire from the earth blade terminal (A) - see View B.

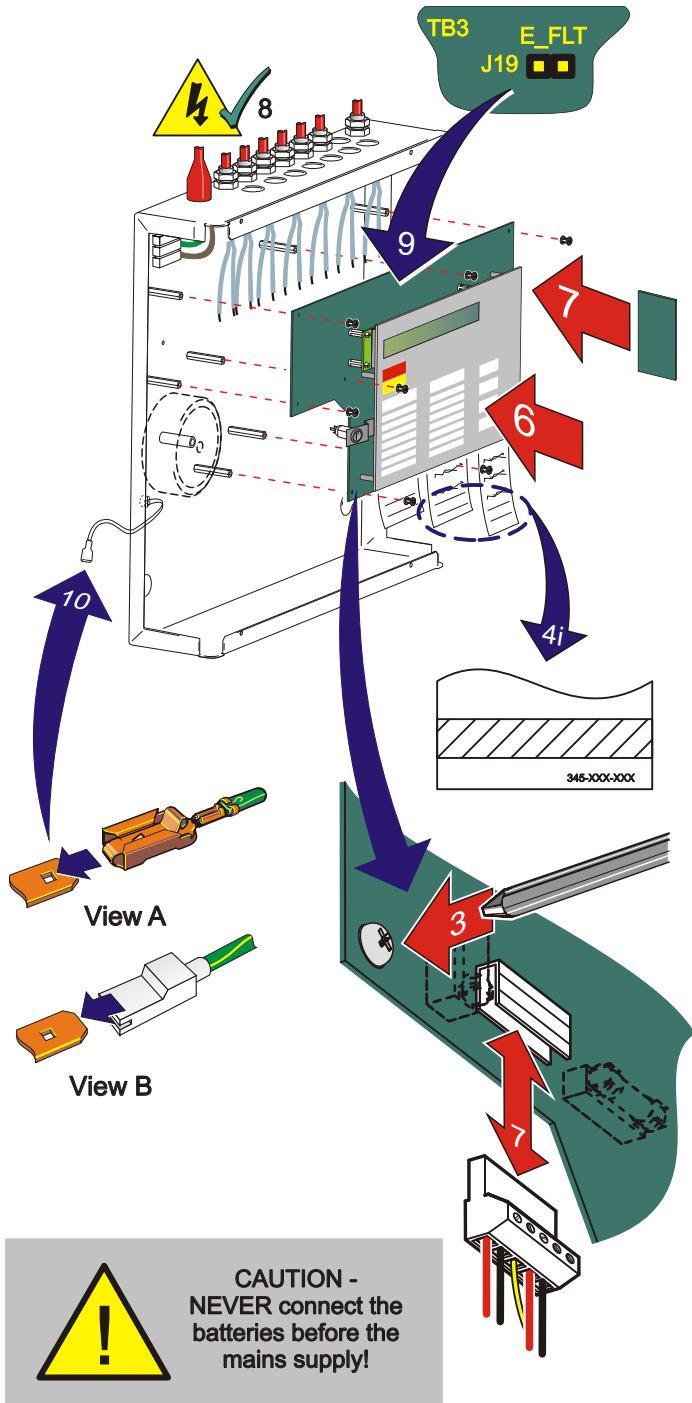
- 2 Isolate mains power supply and disconnect the battery interlink wire if fitted.
- 3 At the two-part connector, TB1 on the PCB assembly, using a constant pulling action carefully disconnect the mains and battery power supply wiring.
- 4 Remove the RS485 Interface Module PCB if fitted, refer to **Installation, Commissioning & Configuration Manual**.
- 5 At the PCB assembly, note the cable polarity and connections of all cables in use and any jumper configuration settings. Using a screwdriver loosen all the connector securing screws and carefully secure all external cable tails away from within the back box.
- 6 Using a No.1 Posidriv screwdriver, remove the M3 x 8mm SEM screws from the PCB assembly. Gently lift the PCB assembly clear of the supporting pillars. Place the electronics in an anti-static bag and return to supplier.

## Fitting the Panel Electronics

When installing the Panel Electronics follow the recommended procedure below:

**Note:** The Panel Electronics has an integrally-mounted keyswitch. Some panels have a keyswitch mounted on a bracket; if this is the case, that bracket together with all components mounted on it must be removed, as described on page 3, before the replacement Panel Electronics can be fitted.

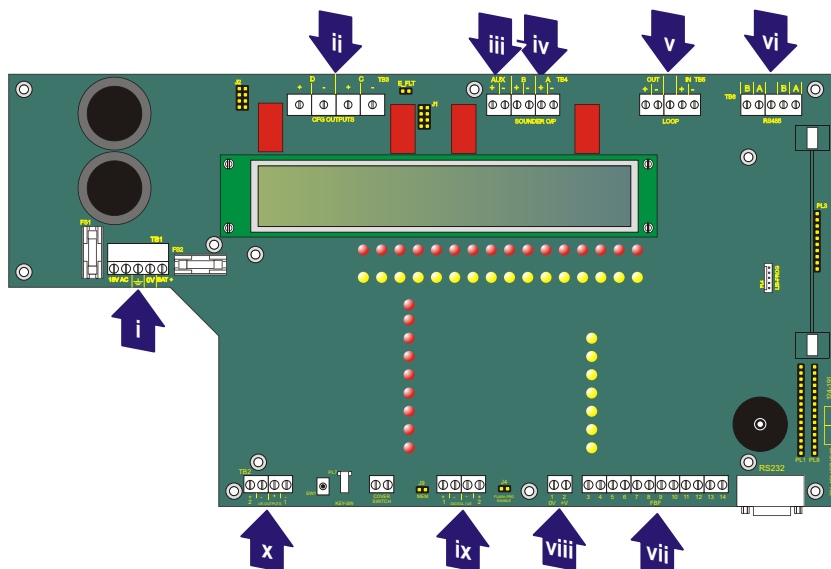
- 1 Observe ALL safety and anti-static precautions when installing the PCB assembly.
- 2 Install all kits that require the removal of the PCB assembly.
- 3 Align the PCB assembly to the supporting pillars and using a No.1 Posidriv screwdriver, screw the eight (8) M3 x 8mm SEM screws in to position.
- 4 Fit the labels. The labels may require the application of a low tack adhesive.
  - i Apply low tack adhesive to area indicated.
  - ii Slide each label into position.
  - iii Apply a little pressure to the area along the bottom edge of the fascia to ensure the labels are secure.
- 5 Apply the mains power supply and then connect the batteries. Check the latest PCB assembly installation operates correctly and then isolate all power to the panel.
- 6 At the PCB assembly,
  - i Noting the cable polarity connect all cables and secure at the correct termination blocks, see **Cables & Wiring** below.
  - ii Set all required hardware jumper configurations, refer to **Installation, Commissioning & Configuration Manual**.
- 7 Fit the RS485 Interface Module PCB, if applicable, refer to **Installation, Commissioning & Configuration Manual**.
- 8 Re-apply the mains power supply and then connect the batteries.
- 9 Disconnect the link to the earth fault monitoring jumper (J19) and fit the 9-way 'D' type connector of a data communications cable to the panel's RS232 connector, PL5. Using the Support Tool transmit the latest system configuration to the panel.
- 10 Remove the lead and then fit the link at jumper J19 and the cover, refer to **Installation, Commissioning & Configuration Manual**.



**Note:** DO NOT forget to connect the earth wire to the inner side wall of the cover at the tag marked with the earth symbol.

## Cables & Wiring

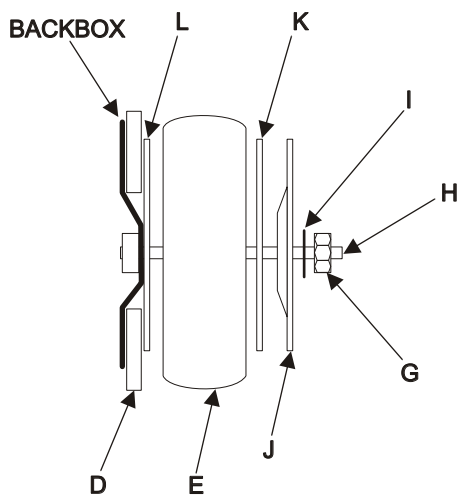
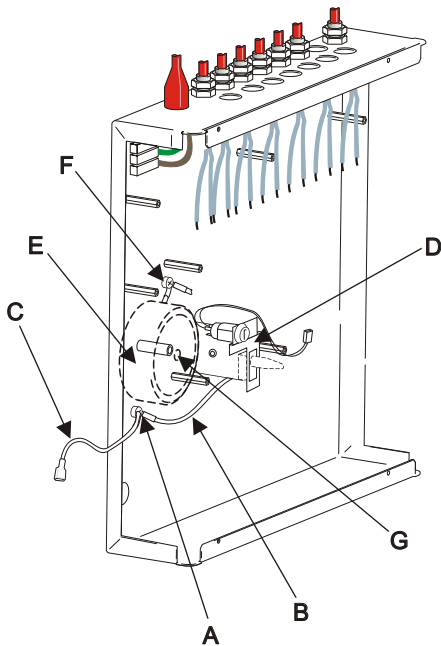
- i Power Supply from transformer (TB1),
- ii CFG Outputs D and C (TB3),
- iii 24 V Auxiliary Power Supply (TB4),
- iv Sounder Outputs B and A (TB4),
- v Loop Cable Output (TB5),
- vi RS485 Communications Cable (TB6),
- vii FBF Communications Cable (Vds Mode Only) (TB10),
- viii FBF Power Supply (Vds Mode Only) (TB9),
- ix Digital / UE Inputs (TB8), and
- x -VE Outputs (TB2).



## Removing the Bracket (if fitted)

If the panel has a keyswitch and cover switch mounted on a bracket, this bracket, together with the keyswitch and cover switch (if fitted) mounted on it, must be removed. The procedure assumes that the PCB assembly has already been removed as described on page 1.

**Note:** The software in the replacement Panel Electronics does not support the cover off switch.



TRANSFORMER - EXPLODED VIEW

- 1 This step is performed at the lower earth point (A):
  - (i) Remove the fixing screw.
  - (ii) Disconnect the bracket earth lead (B).
  - (iii) Ensure that the cover earth lead (C) remains connected.
  - (iv) Replace the fixing screw.
  
- 2 To remove the bracket (D), it is first necessary to remove the transformer (E):
  - (i) At the upper earth point (F), remove the fixing screw and disconnect both earth leads (this is to ensure that there is no possibility of the transformer being supported by its earth lead during the removal procedure).
  - (ii) Remove the M5 nut (G) from the transformer mounting stud (H). Retain the nut.
  - (iii) Remove and retain the M5 washer (I), the metal dished washer (J) and the first rubber washer (K).
  - (iv) Remove and retain the transformer (E) - **although this item can be held in one hand it is heavy so take care not to drop it.**
  - (v) Remove and retain the second rubber washer (L).
  - (vi) Remove the bracket (D) and discard it safely in accordance with local regulations.
  
- 3 To replace the transformer (E):
  - (i) Place one rubber washer (L) over the transformer mounting stud (H).
  - (ii) Orientate the transformer such that its wires exit from approximately the one o'clock position, then place the transformer on the mounting stud.
  - (iii) Place the other rubber washer (K), the metal dished washer (J) orientated as shown at left, and the M5 washer (I) on the mounting stud as shown at left.
  - (iv) Place the M5 nut (G) onto the mounting stud and tighten it to a torque setting of 1.6-1.7Nm.
  - (v) Reconnect both earth leads (one from the transformer and one from the five-way dc connector) to the upper earth point (F) and secure with the fixing screw.
  - (vi) Ensure that the leads from the transformer pass through the adjacent cable clamp.
  
- 4 Fit the replacement Panel Electronics as described on page 2.