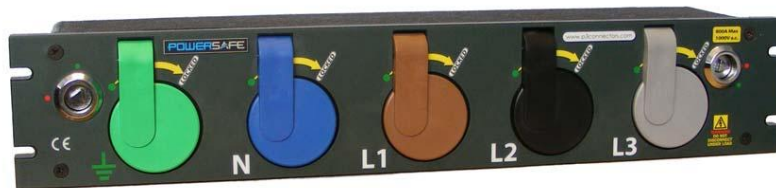




# POWERSAFE BOX USER MANUAL



**Thank you for purchasing our Powersafe sequential Coupling Unit.**

The unit controls the connection sequence of incoming / out going cable connections. The sequence ensures that the Earth connection is made first and disconnected last. (FMLB- First Mate Last Break).

#### **To connect cables to the unit**

1: With key (included) turn the Earth lock clockwise (Fig 1). The Earth cover will pop open.

2: Raise the Earth cover fully open.

3: Take the Earth cable end connector (not included) and plug into the Earth position.

**The Powersafe connectors are mechanically keyed to prevent connection errors. So it is not possible to plug any other connector other than and Earth keyed connector into this position.**

4: To mate the connectors align the arrow on the mating connector with the green circle on the Powersafe unit front panel. **Push the connector fully** into the box until it stops and then turn clockwise.

5: The Neutral cover will now pop open.

6: Raise the Neutral cover to the fully open position. (Note when covers are raised the previous connection cannot be disconnected without first closing the cover- for example when the Neutral cover is raised the Earth connector cannot be removed)

7: Repeat steps 3-6 until all 5 connectors (E, N, L1,L2 &L3) are connected.

8: When the L3 connector is mated and turned fully clockwise to the locked position. **Take the key lock and turn the L3 lock clockwise.** (Fig 2)

#### **Turning this lock does two things.**

- a) *It locks the L3 connector in place to prevent accidental disconnection under load and prevents further access to the unit.*
- b) *It switches an integral micro switch, which can be used as a signal path for electrical protection device. A 3 pin connector plug is available which will plug onto the 3 pin connector on the rear of the unit, to allow for connection of such devices (Fig 3)*

#### **To disconnect cables from the Unit**

The disconnect sequence is reversed. Therefore the connectors have to be removed from Right to Left starting with the L3 connector.

9: Turn L3 key lock anticlockwise to release the L3 connector.

10: Now turn the L3 connector fully anticlockwise and pull out of the port.

11: Push the cover down (note the cover will not fully close at this point, however **with the cover raised it will not be possible to remove the next connector.**

12: Now turn the L2 connector fully anticlockwise and unplug (**Note the L3 cover will automatically fully close during this action**)

13: Once all connectors are removed, turn the Earth key lock anticlockwise. This locks the Earth cover preventing access to the unit.

# POWERSAFE BOX

The Earth lock prevents unauthorised use of the unit.



Fig 1



Fig 2

Final lock prevents removal of connectors from the unit and activates integral microswitch.



Locking Tool



Fig 3

Connector on rear panel for connection of the microswitch cable



Microswitch Connector Lead

## Technical data

### Overall Dimensions:

**Option 1 : 2U rack mounting** Height 88mm, Length 483mm, Depth 130mm  
**Option 2 : Panel mounting** Height 108mm, Length 483mm, Depth 130mm  
**For option 2 add "108" to part number**

**Maximum Rated Voltage to Earth:** 2KVac  
**Current Rating** Up to 800A  
**Rear Terminals :** M12 x 25 threaded studs  
**TIGHTEN NUTS TO A MAXIMUM OF 12 - 14Nm**  
**Micro Switch rating:** 250VAC / 3A

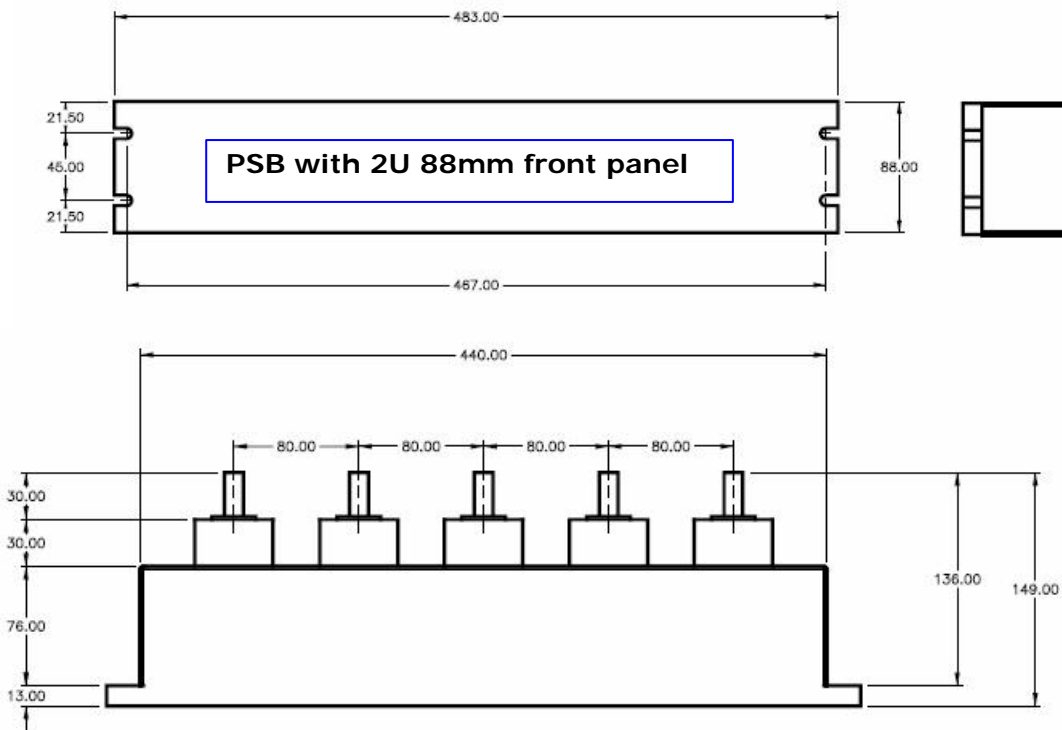
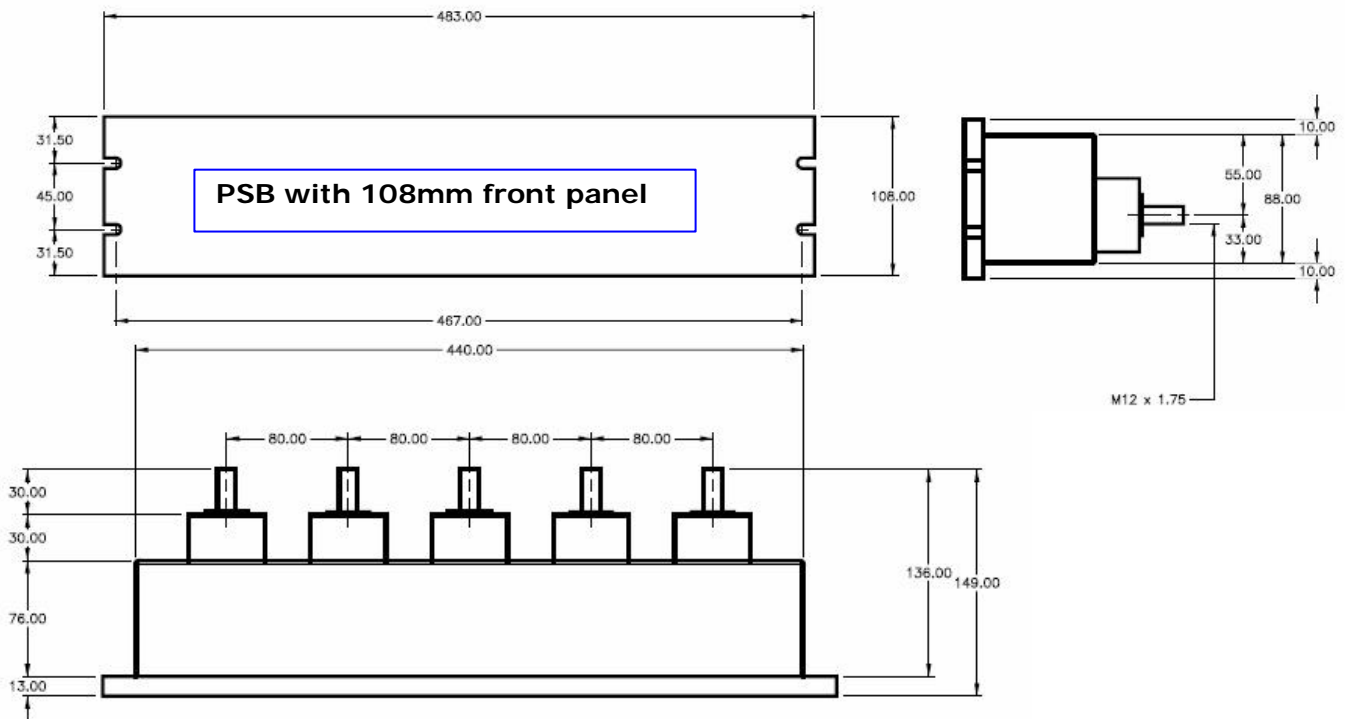
### Description

Panel Source Box (Green, Black, Red, Yellow, Blue Phase Coding)  
 Panel Source Box (Green, Blue, Brown, Black, Grey Phase Coding)  
 Panel Source Box (Green, Black, Red, White, Blue Phase Coding)  
 Panel Source Box (Green, White, Black, Red, Blue Phase Coding)  
 Panel Drain Box (Green, Black, Red, Yellow, Blue Phase Coding)  
 Panel Drain Box (Green, Blue, Brown, Black, Grey Phase Coding)  
 Panel Drain Box (Green, Black, Red, White, Blue Phase Coding)  
 Panel Drain Box (Green, White, Black, Red, Blue Phase Coding)  
 Micro Switch Connector (Accessory)  
 Micro Switch Lead Assembly (Connector assembled with 5 meters of 3 core x 1mm jacketed cable)  
 Unlocking Tool (Spare)  
 Source Earth Dummy Plug (Allows box to be used in 4 wire configuration without Earth Position)  
 Drain Earth Dummy Plug (Allows box to be used in 4 wire configuration without Earth Position)

### Part Code

PS5-UK  
 PS5-E  
 PS5-A  
 PS5-USA  
 PD5-UK  
 PD5-E  
 PD5-A  
 PD5-USA  
 PP00236  
 PP00238  
 PP00262  
 EDP-PSBS  
 EDP-PSBD

# POWERSAFE BOX



DO NOT INSERT UNASSEMBLED INSULATORS INTO THE BOX AS THIS CAN MISALIGN THE INTERNAL BARRELS. **ONLY PLUG FULLY ASSEMBLED CONNECTORS INTO THE UNIT.** IN THE EVENT THAT INSULATORS HAVE BEEN INSERTED AND THE BARREL ALIGNMENT IS LOST, THEN REINSERT THE INSULATORS AND MAKE SURE EACH IS TURNED FULLY TO THE LEFT. THIS WILL RESET THE MECHANISM.