

Power Control Module Model 08870 / 08871

Rev 2.0



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1 Introduction

1.1 General Information

The FP-08870 / 08871 Power Control Module provides a plug-in, supplementary power supply to be installed in conjunction with the FP-08450 or FP-08451 Fire Control Panel. The Power Control Module provides continuous power to the FirePro fire control panel, for a period of 24 hours (as per AS5062), in the event the main power supply fails.

The Power Control Module operates when both a Main Power supply and the internal backup battery are connected. Should the main supply fail or drop below operating voltage, the module automatically switches the power supply to the fire control panel to the internal batteries.

1.2 AS5062 Vehicle and Mobile Plant Installations

Where a vehicle does not have two separate power supplies capable of operating the fire control panel for 24 hours, a FP-08870 or FP-08871 must be installed to be compliant.

2 Components List



FP-08870 Power Control Module

24hr backup for fire systems with 12vDC main power supply



FP-08871 Power Control Module

24hr backup for fire systems with 24vDC main power supply



FP-08875 Replacement Backup Battery
12vDC, 1.3ah
Sealed Lead Acid

1x DP-2000

Deutsch Plug 2 Pin Male/Female, c/w heatshrink

3 Designs Considerations

3.1 Power Supply Input

FirePro Power Control Modules are available in two operating voltages; 12-volt DC (FP-08870) and 24-volt DC (FP-00871). The selection of Power Control Module should be based on the available power supply, as the main power supply input **MUST** have the same voltage as the Power Control Module.

The main power supply should be connected directly to the vehicle battery – NOT through the vehicle’s fuse block. This will ensure continuous power to the FIP and will not drain the backup batteries. The connection to the vehicle battery must be done using a FP-14016 Battery lead, with an inline fuse installed.

3.2 Mounting

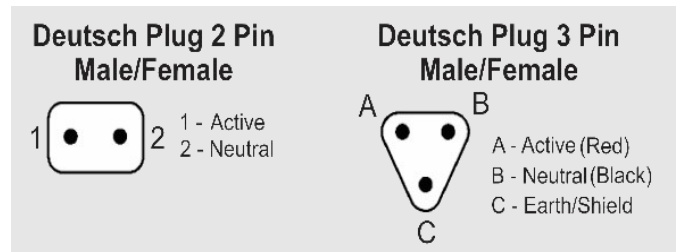
For correct installation, the Power Control Module must be mounted by four bolts or screws through the mounting holes in the flange on both sides of the Module. **No penetrations are to be made through the casing of the panel.**

The Power Control Module enclosure is rated IP65, so should be installed in a convenient location, away from where it may be affected by large amounts of water. The module does not need to be installed adjacent to the fire control panel.

3.3 Cabling Requirements

When constructing extension leads the supplied Deutsch Plugs must be used to ensure water-proof connections are made throughout the installation.

1. Cut cable to required length and strip outer insulation to approximately 25-30mm.
2. Strip inner insulation to approximately 6mm and using a Deutsch Crimping tool, fix pins to the exposed ends of the cable, including the earth where applicable.
3. Place heat shrink over the end of the cable. Identify correct socket on plug by the numbers/letter on the side of the plug and push through the gasket at the bottom of the plug until a click is heard and the pin is locked in place.
4. Place the locking mechanism inside the plug to ensure pins remain secure. (Male plugs; locking mechanism is orange. Female plugs; locking mechanism is green).
5. Using the heat shrink, seal the back of the plug.

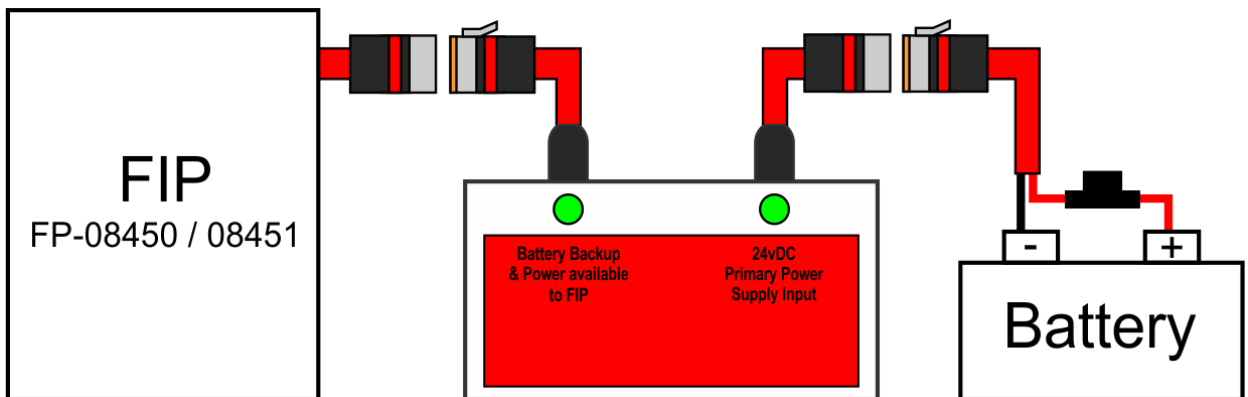
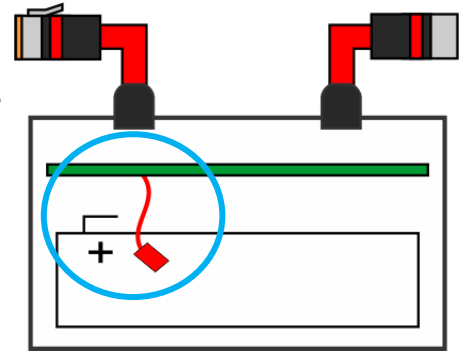


Cables are colour coded for easy identification. When installing system, cables should be only connected to the correctly coded cable. Colour Coding for cables is as follows:

Colour	Circuit
Red	Power Supply
Yellow 1	Activation
Yellow 2	Activation Delayed
Green 1	Detection 1
Green 2	Detection 2
Blue	Discharge Advice
Orange	Siren/Strobe
White	Relay Output

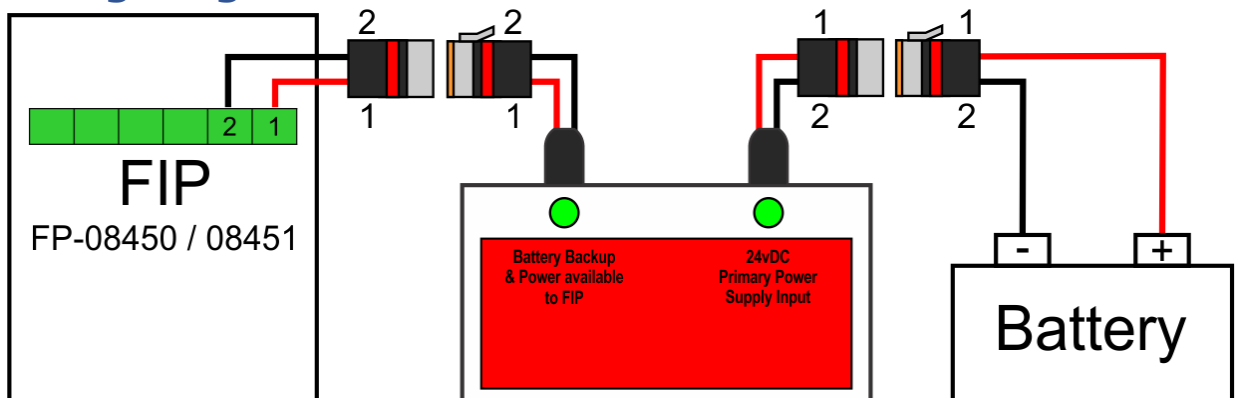
4 Installation

1. The output cable to the FIP should remain disconnected until all other steps are completed.
2. **When supplied, the internal battery is disconnected.** Before connecting the main power supply, open the Power Control Module and connect the red wire to the positive terminal on the internal battery. All other terminals will be connected when supplied. This will illuminate the "Battery Backup Power Available" LED indicator. With the internal batteries securely connected, it is now safe to connect the main power supply.
3. Using the FP-14016 Battery Lead, connect the Power Control Module directly to the vehicle battery and plug the Battery Lead into the "Primary Power Supply Input". If the main power supply voltage is correct, the "Primary Power Supply Input" LED indicator will illuminate.
4. If both LED indicators are illuminated and steady, the Power Control Module can be closed and plugged into the FIP power cable, marked red.



Note: Any connections must observe polarisation as shown in wiring diagram. Incorrect connections will not provide power and may damage the module or FIP.

5 Wiring Diagram



6 Commissioning

Commissioning should be performed when main supply and internal batteries are connected, and fire control panel is not in an alarm/fault condition.

1. Isolate and disconnect the any installed FirePro aerosol generators. This should generate a fault on the fire control panel.
2. Connect a FirePro FP-08800 Universal Test Lamp.
3. Disconnect main power supply and ensure "Primary Power Supply Input" LED indicator turns off.
4. Power supply will automatically switch to the internal batteries.
5. Ensure fire control panel remains operational and out of fault.
6. Reconnect main power supply.

7 Servicing and Maintenance

Inspection and servicing of the installed fire system should occur in accordance with the relevant Australian Standards. This should include a visual inspection of the enclosure to ensure the seals are intact.

Monitoring and operation of any installed modules should be tested as outlined in 6. Commissioning.

Replacement Schedule:

1. The internal batteries **must** be changed every 3 years or if the backup batteries have been completely discharged.
2. Sealed Lead Acid batteries **will not** accept a charge once they have been completely discharged. If this should occur, the batteries must be replaced.

8 Operation

The Power Control Module operates when both a Main Power supply and the internal backup battery are connected. Should the main supply fail or drop below operating volatage, the module automatically switches the power supply to the fire control panel to the internal batteries.

9 Troubleshooting

Problem	Possible Cause	Solution
"Primary Power Supply Input" LED not illuminating	Reversed connection to battery OR Power supply is not connected to PCM	Check connection and polarity of battery lead and any extension cables. Check condition of the inline fuse and replace if necessary.
"Battery Backup Power Available" LED indicator not illuminating	Internal battery disconnected OR Internal Battery discharged	Check connection to internal battery. Check output voltage from internal battery and replace if necessary

For additional assistance contact your supplier.

10 Specifications

	FP-08870	FP-08871
Dimensions - mm	160L x 95W x 60D	200L x 120W x 60D
Enclosure material	Die Cast Aluminium	
Operating voltage	12vDC	24vDC
Internal Battery	12v SLA battery 1.3ah	2 x12v SLA battery 1.3ah
Outputs	Power max 2.A at 12vDC	Power max 2.A at 24vDC
Fuse	2A Polyswitch self-resetting	
Fault-sensing	Indicators for each Power Source Only	
Operating Temp.	-40 to 85°C	
Ingress Protection	IP65	