

IFD-NET Battery Backup



DATASHEET

USER AND INSTALLATION MANUAL

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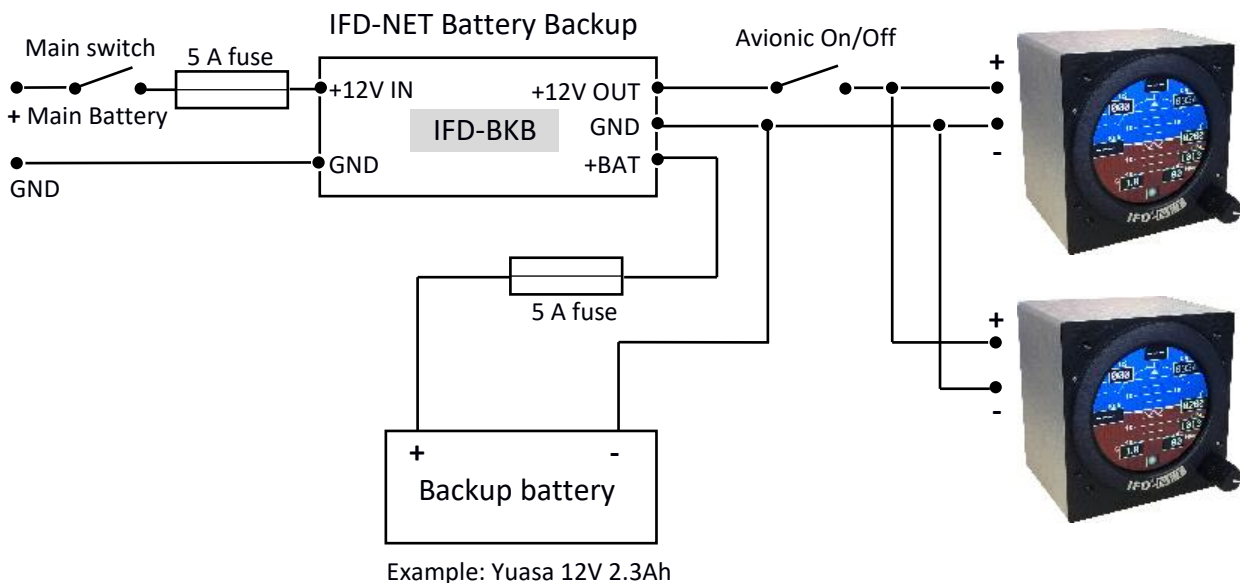
OVERVIEW

The IFD-NET Battery Backup is designed to provide power to your IFD-NET and other MAV avionics in the event of failure of the main electrical system.

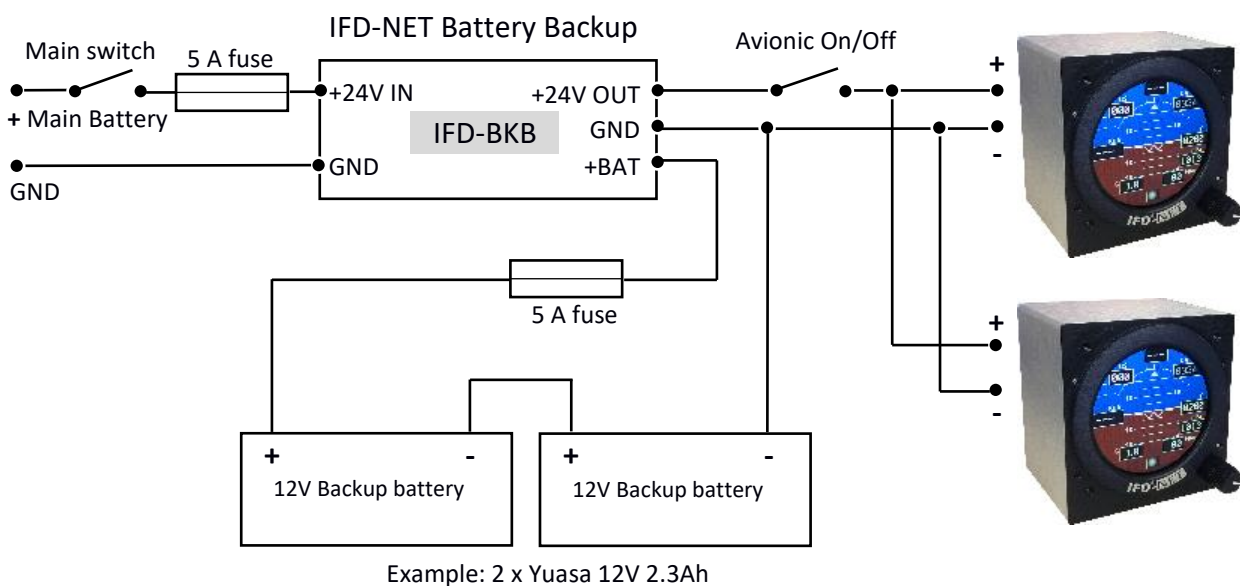
The electrical power in this case is provided by a backup battery which must be connected as explained below.

The backup battery is automatically kept charged as long as the main aircraft power is available; however, in case of power interruption, the Battery Backup device will instantly switch to backup power and will continue to provide electrical supply to the “+12V OUT” output (actual voltage depends on the aircraft electrical system)

ELECTRICAL CONNECTIONS (AIRCRAFT WITH 12/14 V SYSTEM)



ELECTRICAL CONNECTIONS (AIRCRAFT WITH 24/28 V SYSTEM)



If the aircraft’s electrical system uses the 24/28V standard, connect two 12V batteries in series. The IFD-BKB battery backup and the IFD-NET instruments can work with voltages up to 30V.

NOTES

1. Use **lead batteries only**
2. The “+ **Main Battery**” input must be the unregulated voltage from the aircraft battery/alternator circuit (the same circuit used to charge the main battery of the aircraft)
3. After the backup battery is connected be very careful to **avoid any short circuit** between the wires and/or the ground. It is suggested to leave as last the connection between the battery positive “+” and the “+BAT” wire, as the device will immediately provide power as soon as the battery is connected.
4. Connection with IFD-NET 80mm instruments: “+12V OUT” wire goes to the “+” pin of the IFD-NET power connector (green); “GND” goes to the “-” pin of the IFD-NET. Other MAV units can be connected similarly.
5. With a fully charged backup battery, in good condition, the complete IFD-NET six-pack configuration will be powered for **about one hour** (6 IFD-NET 80mm devices + one avionic module; Yuasa battery 12V / 2.3Ah).
6. Always consider that the maximum current which can be supplied is **2 Ampere**.
7. Never allow the backup battery to discharge completely to avoid damaging it.
8. The IFD-NET Battery Backup is not designed to charge a completely discharged battery. **Never connect a discharged battery to the Battery Backup** but instead use a proper battery charger first.
9. During engine start, as a normal precaution to protect the electronic devices, it is strongly suggested to isolate the avionics bus (e.g. through the main switch shown above)
10. Periodically check the backup battery and replace it if the performance has become unacceptable

TECHNICAL SPECIFICATIONS

- All connections done with aeronautical grade wiring, length 20 cm, 1.5 mm²
- Size: 110 x 40 x 20 mm
- Operating temperature range: -20 to +70 °C
- Input voltage: 12 - 15 VDC
- Maximum output current: 2A