

### 2-Year Guarantee

This guarantee covers failure of your Proception product resulting from manufacturing defect within a period of 2 years from the date of supply to the end-user.

This guarantee does not cover damage to the product caused by abuse, tampering, defective installation or natural causes such as lightning discharge. Repair or attempted repair, other than by the manufacturer, will render this guarantee void.

This guarantee does not affect a consumer's statutory rights.

*Performance data given are typical unless otherwise stated. Proception Limited reserves the right to change product designs and specifications without prior notice.*

**Proception Limited,**  
177-187 Rutland Road  
SHEFFIELD  
S3 9PT  
United Kingdom

Web: <http://www.proception.co.uk/>  
e-mail: [support@proception.co.uk](mailto:support@proception.co.uk)



PD2011-9001-05

proPSU11C

proPSU11F Mk 2

proPSU12F

12 V 100 mA Power Supply Units

**PROception**

### INSTALLATION INSTRUCTIONS

These regulated DC power units are intended for powering PROception masthead preamplifiers or similar equipment requiring 12 V line-power via a coaxial cable.

#### Features

- Signal frequency range 47 – 862 MHz (5 – 862 MHz for proPSU11F Mk 2).
- Regulated DC output: 12 V at 100 mA max.
- Compatible with the proMHD and proUSM ranges of masthead preamplifiers.
- Output short-circuit protection, with 2-colour LED power-on / fault indicator.
- Choices of 'IEC' or 'F' connectors, with one or two outputs on 'F' version.

#### Application guide

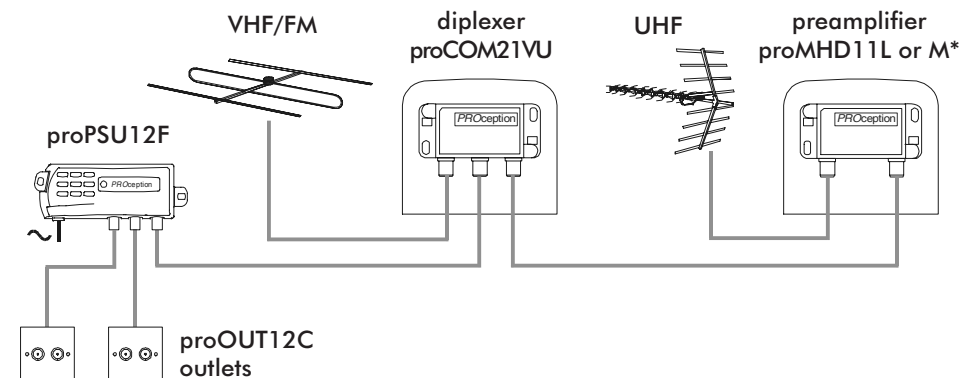
**proPSU11C** – single output, with 'IEC' connectors.

**proPSU11F** – single output, with 'F' connectors. The extended frequency range of the Mk 2 version allows its use in applications handling return-path signals.

**proPSU12F** – dual output, with 'F' connectors. This power unit contains a built-in wideband 2-way splitter, conveniently allowing two outlet points to be installed without the need for additional passive components.

Application example Fig. 1 shows how a proPSU12F can be used with PROception masthead products and outlets to install a 2-point system providing VHF/FM and UHF signals at both points.

Fig 1. – Application example: 2-point VHF and UHF system using the proPSU12F



\*Use the lowest gain amplifier necessary to obtain satisfactory UHF signal levels.

## Fixing

Fix the power unit to a sound vertical surface such as a wall, skirting board or equipment mounting board. Ventilation gaps of at least 50 mm should be left around the front and all sides of the unit. More clearance will be required below the unit to allow access for the signal cables. **Do not leave the power unit resting on a carpet or install it where it may become smothered with curtains or other soft furnishing fabrics. When installing the power unit in a roof space ensure that it will not come into contact with thermal insulation material.**

## Signal connections

To preserve RF screening integrity the signal connections to the power unit should be made using good quality coaxial cable and connectors. This is particularly important with digital terrestrial TV (DTT) to minimise the ingress of impulsive electrical interference from home appliances.

- The use of cable 'benchmarked' under the CAI scheme is recommended.
- Power unit proPSU11C requires 'IEC' connectors (IEC 60169-2).
- Power units proPSU11F and proPSU12F require Type-F connectors (IEC 60169-24).

For both connector types the use of crimp connectors, used in accordance with the manufacturer's instructions will give the best results. The importance of achieving sound braid connections cannot be over-stressed. 'F' connectors should be tightened with a spanner, not left finger tight.

## Mains supply connection and safety notes

The power supply unit is supplied with a fitted mains plug and may be plugged directly into a 13 A (BS 1363) socket outlet. If socket outlets of a different type are in use, please refer to the safety instructions on page 3. The mains plug should remain readily accessible to permit disconnection of the unit from the supply.

Alternatively the plug may be cut off and the power unit wired into a readily accessible fused connection unit, fitted with an approved 3 A fuse to BS 1362. This method of connection is recommended for permanent distribution system applications, since it reduces the risk of tampering and accidental disconnection.

If the power unit is **not** connected to the mains using the fused plug supplied, or a fused connection unit, it must be protected by means of a fuse or MCB at the final distribution board of rating not exceeding 6 A. A readily accessible isolating switch should be provided to allow the unit to be disconnected from the supply when necessary.

Any fixed wiring installed to supply power to this power unit should comply with BS 7671 (IEE wiring regulations) and, where relevant, Part P of the building regulations.

The power units are of Class 2 construction and do not require a protective earth connection. This does not obviate the need to provide a circuit protective (earth) conductor in the supply wiring, as required by BS 7671.

## System equipotential bonding

Distribution systems supplying signals to more than one household should comply with the safety requirements of BS EN 60728-11. This effectively requires earthed equipotential bonding of the system. (The use of isolated outlet plates is no longer recommended since they compromise screening integrity and allow ingress of interference.) Bonding may be effected using a proBAR5 equipotential bonding bar.

## Output protection

The power unit is internally protected against output short-circuit. If this protection operates, the power indicator LED colour will change from **green** to **red** to indicate a fault condition. To reset the protection, disconnect the unit from the mains and allow at least one minute for cooling before re-applying power.

## Technical data

	proPSU11C	proPSU11F Mk 2	proPSU12F
Signal frequency range	47 .. 862 MHz	5 .. 862 MHz	47 .. 862 MHz
Signal connector type	'IEC' (IEC 60169-2)	Type-F (IEC 60169-24)	Type-F (IEC 60169-24)
Number of outputs	1	1	2
Signal insertion loss	≤ 0.5 dB	≤ 0.5 dB	≤ 4 dB
Isolation between outputs	–	–	20 dB
Output voltage	+12 V regulated DC (± 0.6 V)		
Output current rating	100 mA max.		
Output protection	Withstands indefinite output short-circuit without damage		
Mains power requirement	230 V 50 Hz at 3 W (4 VA)		
Power and status indicator	2-colour LED: green-normal, red-s/c fault		
Operating temperature range	-10 .. +40 °C		
Standards compliance	Safety: BS EN 60065: 2002; EMC: BS EN 50083-2: 2001(Class B) <sup>1</sup>		

<sup>1</sup>EMC compliance for type proPSU11C is with BS EN 55013:2001+A1:2003 and BS EN 55020:2002+A1:2003. This unit is recommended for individual domestic aerial installations feeding a single receiver or outlet point.

## Safety Instructions

### OVERHEATING

These power units are intended for use in moderate climates only. They should not be used in tropical regions. The recommended ventilation clearances and other precautions given in the relevant section of this instruction leaflet should be observed to prevent overheating. No unit should be fixed where it is likely to become smothered by soft furnishing fabrics such as curtains, or by thermal insulation material in a roof space or building void. Mains powered equipment should not be left resting on a carpet

### WATER AND FIRE RISKS

The appliance is not waterproof. It is intended for indoor use only and must not be fixed where it could be exposed to dripping or splashing water. Objects containing liquids should not be placed on or near the appliance. To prevent risk of fire, no object with a naked flame should be placed on or near the appliance, or its associated wiring.

### MAINS PLUG AND DISCONNECTION FROM THE SUPPLY

The appliance is supplied with a standard fused plug fitted. If this is unsuitable, refer to the instructions below. If you need to change the fuse in the fitted plug, a 3 Amp fuse to BS 1362 carrying the ASTA or BSI approval mark must be used. Always replace the plastic fuse carrier when renewing the fuse. The plug (or other means of disconnection from the supply, if used) should remain readily accessible for operation when necessary. The LED power indicator on this equipment should not be regarded as providing reliable indication of supply disconnection.

### CHANGING THE PLUG

If the fitted mains plug is not suitable for the socket-outlets in use, it should be cut off and a new plug fitted.

**Wiring the new plug:** Instructions supplied with the new plug should be followed. The brown wire must be connected to the live (L) terminal of the plug and the blue wire to the neutral (N) terminal. Neither wire should be connected to the earth (E) terminal of a 3-pin plug (the appliance does not require an earth connection). Ensure that the cord grip in the plug is correctly used and clamps the sheath of the cord firmly.

**Fuse Rating:** If the new plug is a fused type, the fuse fitted should be rated at not more than 3 Amp.

**Caution:** The old plug should be destroyed immediately since it would be dangerous if plugged into a live socket.