Safety Instructions

OVERHEATING

These amplifiers 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 line (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.

2-Year Guarantee

This guarantee covers failure of your *PRO*ception 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.

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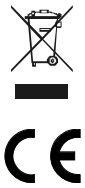


PD2011-9043-01

proAMP24 & '24R Mk 3
proAMP26 & '26R Mk 3
proAMP28 & '28R Mk 3
VHF/UHF Amplifiers

*PRO*ception

INSTALLATION INSTRUCTIONS

These amplifiers are ideal for use in small digital and analogue reception and distribution systems. All Mk 3 products feature a filtered dual-band VHF input which accepts signals in both Bands II and III, allowing use for Band III DAB or TV, as well as for FM radio.

Features – whole range

- Separate VHF and UHF inputs.
- New dual-band VHF input for Band II FM radio and Band III DAB or TV.
- 4-, 6- and 8-way versions available.
- Low noise figure and high output capability.
- New equipotential bonding terminal added on Mk 3 versions.

Features – proAMP24, '26 and '28

- Traditional multi-way aerial signal amplifiers.
- Line power available at UHF input – 12 V at up to 100 mA.
- Higher-gain FULL output on 6- and 8-way versions allows expansion beyond eight points.
- 'IEC' connectors.

Features – 'R' versions

- 7 MHz return path for Sky* infrared remote control systems.
- Built-in power for IR 'eyes' on all outputs.
- 'F' connectors.

Note: 'R' versions do not have input line-power capability or FULL outputs.

Fixings

Fix the amplifier to a sound vertical surface such as a wall 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 and to the right of the unit to allow access for the signal cables.

Do not leave the amplifier resting on a carpet or install it where it may become smothered with curtains or other soft furnishing fabrics. When installing the amplifier 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 amplifier 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.
- Amplifiers proAMP24, '26 and '28 Mk 3 require 'IEC' connectors (IEC 61169-2).
- Amplifiers proAMP24R, '26R and '28R Mk 3 require Type-F connectors (IEC 61169-24).

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.

Important: the FULL output (where fitted) must always be terminated in a well-matched 75 Ω load. The terminator plug supplied **must** be fitted if this output is not used.

Fig.1 - Using the FULL output (proAMP26 and proAMP28 Mk 3 only).

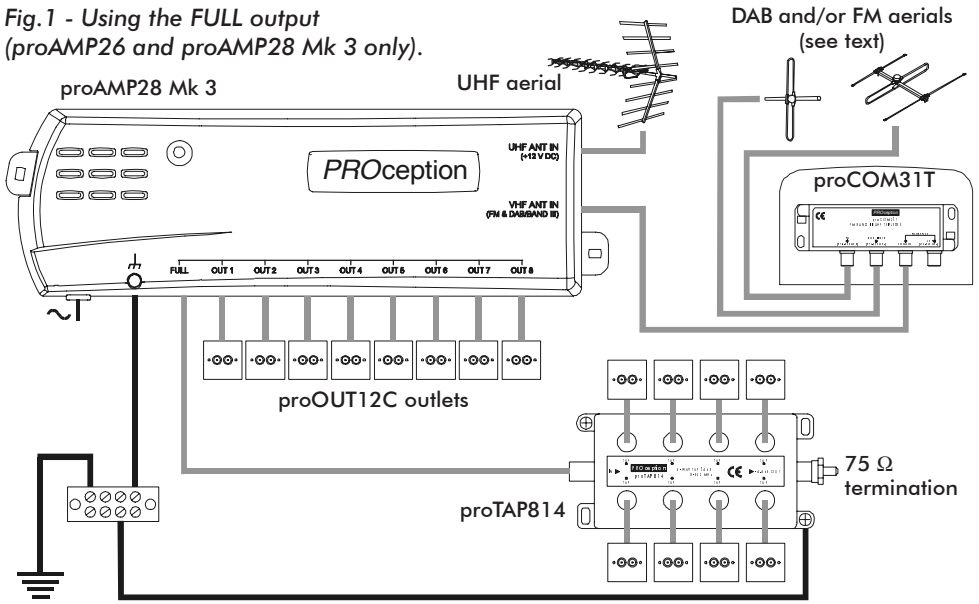
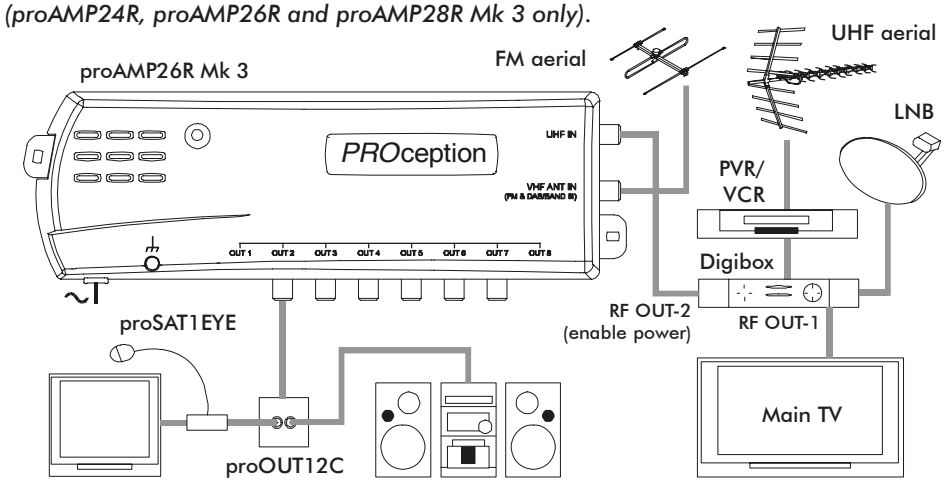


Fig.2 - PVR/VCR and Sky distribution with control of Sky* box (proAMP24R, proAMP26R and proAMP28R Mk 3 only).*



Note: SCART cables have been omitted for clarity.

Dual-band VHF input

The VHF input will accept Band II FM radio signals and/or DAB or TV signals in Band III. Separate bandpass circuits in the amplifier provide filtering outside and between these bands. Where more than one aerial is to be connected a separate diplexer such as the *PRO*ception proCOM31T should be used (see example in Fig.1).

Making use of the FULL output

The FULL output (where fitted) allows additional outlets to be fed via an external passive network. This network should present a good 75 Ω load to the amplifier (otherwise the other outputs will be affected). Fig. 1 shows an example of correct practice, using an 8-way tap unit to provide eight additional outlets. The terminator plug supplied must always be fitted if the FULL output is not used.

Using remote control

'R' versions of the amplifiers are compatible with the *PRO*ception proSAT1EYE and other Sky* remote control extenders. When using remote control it is essential that the amplifier's UHF input is fed directly from the RF OUT-2 connector of the Sky receiver. The amplifier provides 9 V DC power for remote 'eyes' on all outputs. Note that some Sky receivers require their RF OUT-2 power option to be enabled in order for remote control extension to work. On the Sky handset press SERVICES, 4, 0, 1, SELECT, then select the SECOND OUTLET POWER SUPPLY option. Set this to be ON, SAVE SETTINGS and BACK UP out of the menus.

As always with wired remote extender systems, it is essential to maintain DC continuity through the coaxial cabling between the amplifier output(s) and the IR receiver equipment in the remote room(s). For this reason isolated outlet plates cannot be used in the remote rooms and all connections must be securely clamped, crimped or soldered. When troubleshooting remote control problems, the first step should be to check for the presence of approximately 9 V DC on the cable in the remote room.

Mains supply connection and safety notes

The amplifier 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 4. Alternatively the plug may be cut off and the amplifier 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 amplifier 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 amplifier should comply with BS 7671 (IEE wiring regulations) and, where relevant, Part P of the building regulations. proAMP amplifiers 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. (Isolated outlet plates cannot be used with proAMP 'R' versions for functional reasons.) Although not mandatory in single households, system equipotential bonding is strongly recommended for all installations. All proAMP Mk 3's are provided with a bonding terminal. A bonding conductor of 4 mm² should be provided, connected to the main earth terminal of the electrical installation which supplies the unit. Bonding may be effected using *PRO*ception proBAR5 or 8 equipotential bonding bars.

Technical data

	proAMP24 & '24R Mk 3	proAMP26 & '26R Mk 3	proAMP28 & '28R Mk 3
Number of outputs	4	6	8
Signal frequency ranges (VHF)	87.5 .. 108 & 174 .. 230 MHz	87.5 .. 108 & 174 .. 230 MHz	87.5 .. 108 & 174 .. 230 MHz
Signal frequency range (UHF)	470 .. 862 MHz	470 .. 862 MHz	470 .. 862 MHz
Noise figure	3.5 dB	4 dB	4 dB
Gain to each output (except FULL)	9 dB	5 dB	5 dB
Gain to FULL output[1]	—	18 dB	18 dB
Output capability[2]	86 dBμV	82 dBμV	82 dBμV
IR receiver ('eye') line-power	9 V at 15 mA (s/c protected) present at all outputs ('R' versions only)		
UHF input line-power	12 V DC at 100 mA maximum load with automatic shutdown (not fitted on 'R' versions)		
Signal connector type	'IEC' (IEC 61169-2)		
Signal connector type ('R' versions)	'F' (IEC 61169-24)		
Mains power requirement	230 V 50 Hz at 6 W (8 VA)		
Operating temperature range	-10 .. +40 °C		
Standards compliance	Safety: BS EN 60065: 2002; EMC: BS EN 50083-2: 2001		

1. Full output is not fitted on 'R' versions.
2. Output capability is given for 5 analogue TV channels plus up to 6 DTT multiplexes at ≤ -14 dB relative level (VHF FM and DAB radio signals should not exceed -10 dB relative to analogue TV).