A200 PRO Series Signal Distribution Amplifiers

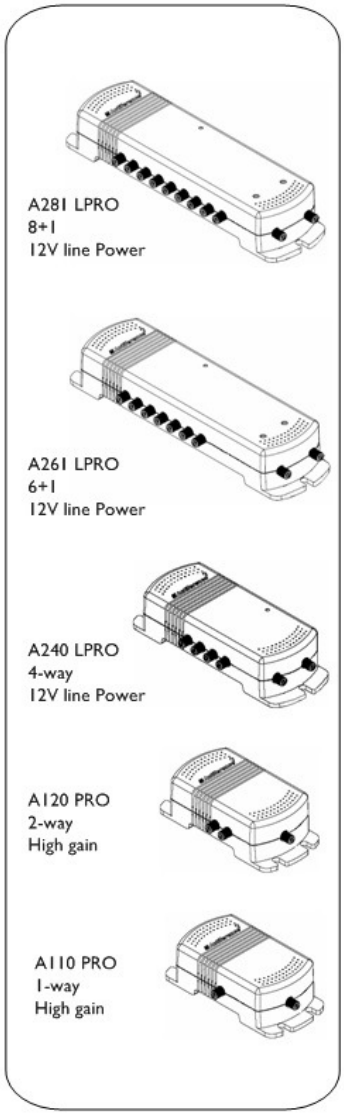
Fully-screened for professional results

Antiference A200 pro series range of distribution amplifiers is designed for the distribution of VHF/UHF, digital and analogue, radio and TV signals in domestic applications. These models are designed to overcome the losses due to splitting of the signal and extra cable lengths needed to distribute signal to each room.
All models are fully screened for high immunity to interference and impulse noise and are fitted with F-connectors for reliable and professional installation. The 4, 6 and 8-way models have additional input filtering to reject interference from TETRA radio and GSM cell-phone transmissions. All Pro series distribution amplifiers have a built in 4G filter to protect against 4G signals in the local area

There are Five models in the range which have all been designed to make installation easy.

A110 PRO	Single input for UHF. 1 output with 15dB gain.
A120 PRO	Single input for UHF. 2 outputs with 12dB gain.
A240 LPRO	Separate VHF and UHF inputs. 4 outputs with 8dB gain.
A261 LPRO	Separate VHF and UHF inputs. 6 outputs with 8dB gain
A281 LPRO	Separate VHF and UHF inputs. 8 outputs with 8dB gain.

The A200 pro series has been designed to work in moderate to strong signal areas without overloading, and where cables from the amplifier to the outlet wall plate are relatively short.
The high output on the 6 and 8 way versions is ideal for extending to additional points and has 16dB gain which is sufficient to drive up to a further 8 outlets using a low-loss splitter.



Fitting the amplifier

The A200 pro series of amplifiers are mains powered and are intended for indoor use only. These amplifiers are designed for continuous use. Do not locate these amplifiers where they may come into contact with moisture or sources of heat. The A200 pro series would normally be located in a roof space but care must be taken to ensure that they are well ventilated and kept clear of any insulation material. A roof space can get extremely hot in the summer! Always ensure free ventilation and avoid covering the unit with soft furnishings when installed in a living room.
Always securely mount the amplifier on a wall or fixed board that allows easy routing of the cables. Do not allow the unit to hang on its cables as this may damage the connections or the circuit board. Do not cut off the moulded mains plug and directly wire these units to the mains supply. These units are fused at 3 amps.
Once a convenient location has been selected mount the unit with screws by the fixing lugs provided on the housing.
Route all of the cables and fit the F-connectors.
Connect a VHF/FM, VHF/DAB or VHF BIII aerial to the VHF input (85-240MHz). Connect a suitable UHF TV aerial to the UHF input (470-782MHz).
Once all of the coaxial connections have been made, plug the unit into the mains supply and switch on. The red power LED will illuminate. If not illuminated check the mains supply and 3.0amp fuse in the plug.

Fitting F-Connectors to the cable

Fit a professional crimped F-connector with the correct tool, following the dimensions in the diagram below. Strip 10mm of the plastic cable sheath to expose the screening braid (fig.2). Fold the coaxial braid back over the cable sheath neatly and evenly (fig.3). Remove any foil screening to expose the dielectric. Trim the dielectric to expose a maximum 8mm of centre conductor (fig.4). Do not allow the centre conductor to exceed 8mm as it may short inside the F-female on the amplifier. Fit the F-connector. Check that there are no whiskers of braid shorting the centre conductor

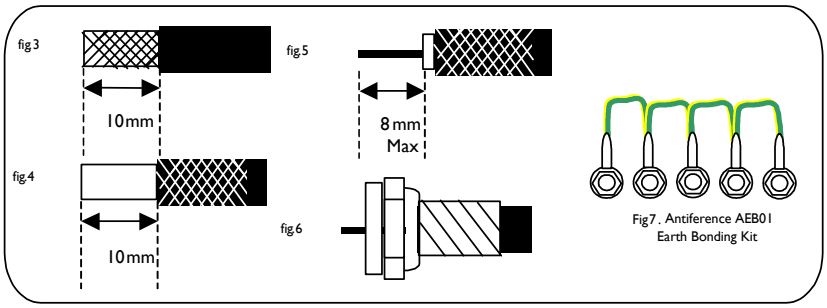


Fig7. Antiference AEB01
Earth Bonding Kit

Weak UHF signals

The 4, 6 and 8 way models have 12v automatic line power facility to power a masthead amplifier should these units be used in fringe reception areas. Where the UHF signals are weak, or long cable runs from the aerial to the amplifier unit cannot be avoided, fit a fully screened masthead amplifier. Do not over-amplify or use too high a gain model as overload may occur.

Before choosing to use a masthead amplifier it is always better to use a larger or more suitable aerial. If you are using a UHF masthead pre-amplifier with the built-in Line Power, the green auto-line power LED is illuminated on power up, If the UHF input is shorted out the Line power is Switched off internally.

To Reset Line power
1) Clear short-circuit then turn the mains supply back on the amplifier. The Green LED will then illuminate providing 12V again.

The line power will operate a 12v masthead amplifier up to 50 mA, which covers all Antiference mastheads.

If you require Channel 60 we recommend using one of our 75 Series amplifiers.

Screening and accessories

All digital installations should be installed using double screened coaxial cables and screened accessories only. Digital signal integrity and immunity to impulse noise cannot be guaranteed without adequate screening.
Antiference offer a full range of fully screened accessories and cable A100. Ask your local distributor to advise you on the full Antiference range or visit our web site for further information.
We recommend using Antiference SW700 or SW71 0U/V fully screened outlet plates to protect the signals right to the back of the TV or digital set-top box. Where DAB and FM radio signals need combining before the VHF input to the amplifiers we recommend using a suitable screened diplexer such as Antiference UDF400.

Cable Lengths

The cable length to each outlet depends on the input signal level and the quality of coaxial cable used. We recommend using a double screened "type 100" coaxial cable with a 1mm centre conductor. Antiference A100 is ideal.
The typical* maximum cable lengths from amplifier to each outlet possible for each model are as follows: -

A110 PRO	1 x 15dB gain UHF TV to 1 point up to 75m.
A120 PRO	2 x 12dB gain UHF TV to 2 points up to 60m.
A240 LPRO	4 x 10dB gain UHF TV to 4 points up to 60m.
A261 LPRO	6 x 8dB gain UHF TV to 6 points up to 30m.
A281 LPRO	8 x 8dB gain UHF TV to 8 points up to 30m.

Model Specification	A110 PRO	A120 PRO	A240 LPRO	A261 LPRO	A281 LPRO
Inputs	Single Input UHF 470-782MHz	Single Input UHF 470-782MHz	Dual Inputs 85-240MHz 470-782MHz	Dual Inputs 85-240MHz 470-782MHz	Dual Inputs 85-240MHz 470-782MHz
Outputs	1	2	4	6 + full	8 + full
Filtering	n/a	n/a	390Mhz >40dB 400-450MHz >30dB 450MHz >25dB 870MHz >15dB 930MHz >28dB 950MHz >30dB		
Max Gain	15dB	12dB	8dB	8dB 16dB	8dB 16dB
Max Output DIN 45004B IMD_3 –60dB	100dBµV	95dBµV	92dBµV	90dBµV 98dBµV	90dBµV 98dBµV
Noise Figure	<4dB	<4dB	<4dB	<4dB	<4dB
Masthead Line-Power	n/a	n/a	12v 50mA		
Mains Power	230V AC 50Hz ±10% 3A fuse Rating Fitted mains plug to BS1363				

Declaration of Conformity

Hereby, Antiference declares that this amplifier for TV broadcast reception in domestic premises is in compliance with the Radio Equipment Directive 2014/53/EU. The full Declaration of Conformity is available by contacting the following internet address: www.antiference.co.uk

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