

- (i) the supplying of the services again;
 (ii) the cost of having the services supplied again.
- 2.4 For repairs outside the warranty period, we warrant our repairs to be free from defects in materials and workmanship for three months from the date of the original repair. We agree to re-repair or replace (at our option) any materials or workmanship which we are satisfied are defective.
- 2.5 We warrant that we will perform services with reasonable care and skill and agree to investigate any complaint regarding our services made in good faith. If we are satisfied that the complaint is justified, and as our sole liability to you under this warranty (to the extent permitted at law), we agree to supply those services again at no extra charge to you.
- 2.6 To make a warranty claim you must before the end of the applicable warranty period (see warranty table), at your own cost, return the goods you allege are defective, provide written details of the defect, and give us an original or copy of the sales invoice or some other evidence showing details of the transaction.
- 2.7 Send your claim to:
 Standard Communications Pty Ltd.
 PO Box 96, Winston Hills, NSW 2153, Australia.
 Tel: (02) 9879 8888, Fax: (02) 9816 4722
 Email: servadmin@gme.net.au
- 2.8 If we determine that your goods are defective, we will pay for the cost of returning the repaired or replaced

goods to you, and reimburse you for your reasonable expenses of sending your warranty claim to us.

3. What this warranty does not cover

- 3.1 This warranty will not apply in relation to:
- (a) goods modified or altered in any way;
 - (b) defects and damage caused by use with non Standard Communications products;
 - (c) repairs performed other than by our authorised representative;
 - (d) defects or damage resulting from misuse, accident, impact or neglect;
 - (e) goods improperly installed or used in a manner contrary to the relevant instruction manual; or
 - (f) goods where the serial number has been removed or made illegal.

4. Warranty period

- 4.1 We provide the following warranty on GME and Kingray products. No repair or replacement during the warranty period will renew or extend the warranty period past the period from original date of purchase.

Product Type	Warranty Period
Kingray amplifiers, modulators, diplexers and filters, Kingray plug pack power supplies, Kingray Professional rack mount products.	3 years



1300 463 463 **kingray.net.au**

A division of Standard Communications Pty Ltd.
 Head Office: PO Box 96, Winston Hills, NSW 2153, Australia.
 New Zealand: PO Box 58-446 Botany, Auckland, 2163, NZ. T:(09) 274 0955.
 All other international enquires email: export@gme.net.au

Kingray

Specialists in TV Signal Amplification

INSTALLATION MANUAL

MODEL MDA20L/MDA20H/MDA20U

Fully Shielded & F Type Masthead Distribution Amplifier



Thank you for selecting an Australian designed and built F Type masthead amplifier.

- Mount with polypropylene securing strap on to mast or mount to a wall with the four pre-drilled holes.
- Best mounting location for masthead unit is on mast within 3 metres below antenna.
- Ensure weatherproof strips remain in place.
- Very low Noise Figure.
- Ideal for digital reception.

GENERAL INFORMATION

The MDA20 Series amplifier is based on a new concept of convergent technology. The characteristics of the IC selected provide a noise figure that is lower than any other product currently on the market and an output figure that surpasses most distribution amplifiers hence the name Masthead Distribution Amplifier (MDA).

The MDA20 Series are multipurpose amplifiers that are ideal for our digital and analogue environment. Whether the units are used as a Masthead or Distribution Amplifier the low noise figure, capacity for multiple channels with low distortion and a high output provides a solution to all installations and is proven especially effective in digital problem reception areas.

SPECIFICATIONS

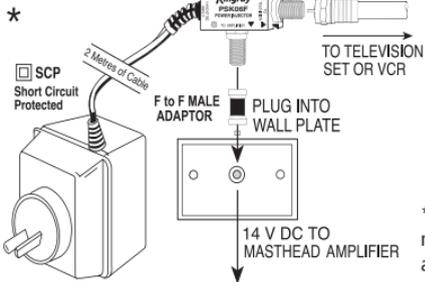
Model	MDA20L	MDA20H	MDA20U
Frequency	44-860 MHz	174-860 MHz	470-860 MHz
Gain	19 dB	19 dB	19 dB
Flatness	± 0.5 dB	± 0.5 dB	± 0.5 dB
Noise Figure	<1.6 dB	<1.6 dB	<1.6 dB
Output Figure	118 dB @ -60 dBIMR Din 45004 B	118 dB @ -60 dBIMR Din 45004 B	118 dB @ -60 dBIMR Din 45004 B
Return Loss	>10 dB	>10 dB	>10 dB
Supply Voltage	12-24 V DC ONLY*	12-24 V DC ONLY*	12-24 V DC ONLY*
Filters	44 MHz HP	174 MHz HP	470 MHz HP
Inputs	1	1	1

*Recommended Power Supply PSK06/F, KPS06/F.

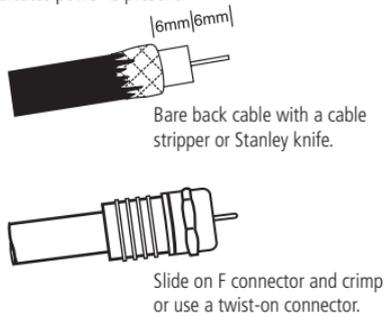
INSTALLATION

The head of the amplifier may be mounted outside on the pole under the antenna or in the roof. The amplifier requires F type connectors.

The power supply unit is placed at a television outlet, or at a remote location, a low voltage then runs up the cable to power the head remotely, via



the output. There are no controls inside the diecast housing, however there is an LED that when on, indicates power is present.

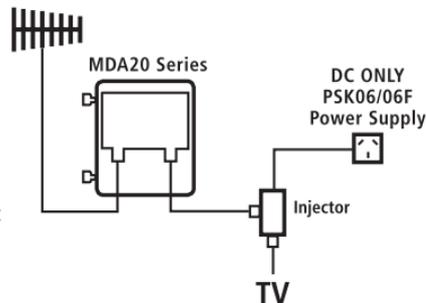


*Note: Depending on the wall plate installed and model power supply used, you may need to use adaptors.

TECHNICAL ADVICE

- Check** if the power is reaching the amplifier. Unscrew two screws holding the alloy cover and check if the LED is on.
- Check** the orientation of the injector is correct on the power supply.
- Is there more than one outlet?**

Check the splitter box, the power supply must be connected to the coaxial outlet that feeds the AC/DC leg of the splitter box to pass power to the head unit. (Check if LED is on).



STANDARD COMMUNICATIONS CONTRACT WARRANTY AGAINST DEFECTS

This warranty against defects is given by Standard Communications Pty Ltd ACN 000 346 814 (We, us, our or GME). Our contact details are set out in clause 2.7. This warranty statement only applies to products purchased in Australia. Please contact your local GME distributor for products sold outside of Australia. Local distributor details at www.gme.net.au/export.

1. Consumer guarantees

- Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- To the extent we are able, we exclude all other conditions, warranties and obligations which would otherwise be implied.

2. Warranty against defects

- This warranty is in addition to and does not limit, exclude or restrict your rights under the Competition

and Consumer Act 2010 (Australia) or any other mandatory protection laws that may apply.

- We warrant our goods to be free from defects in materials and workmanship for the warranty period (see warranty table) from the date of original sale (or another period we agree to in writing). Subject to our obligations under clause 1.2, we will at our option, either repair or replace goods which we are satisfied are defective. We warrant any replacement parts for the remainder of the period of warranty for the goods into which they are incorporated.
- To the extent permitted by law, our sole liability for breach of a condition, warranty or other obligation implied by law is limited
 - in the case of goods we supply, to any one of the following as we decide -
 - the replacement of the goods or the supply of equivalent goods;
 - the repair of the goods;
 - the cost of repairing the goods or of acquiring equivalent goods;
 - in the case of services we supply, to any one of the following as we decide -