

- LMA113R 13dB UHF Pre-Amp
- LMA125VR 12-25dB Variable Gain UHF Amp
- KIT125VR LMA125VR + PSUFC Power Supply
- LMA209R 1-in, 2-out UHF Amp
- LMA415VR 2-in, 4-out 0-15dB Variable Gain VHF/UHF Amp
- KIT415VR LMA125VR + PSUFC Power Supply



Introduction

The name Labgear has been associated with quality signal distribution since 1932 and the current range of amplifiers continues to uphold that tradition.

All LMA masthead amps can carry analogue and digital TV, Freeview, DVB-T and DVB-T2 HD TV signals and have:

- Improved gain flatness delivering a better balance across the performance range
- Lower noise figure for optimised signal quality
- Greater signal handling capacity to cope with more channels
- Better impedance matching and therefore improved signal transfer from amp to cable

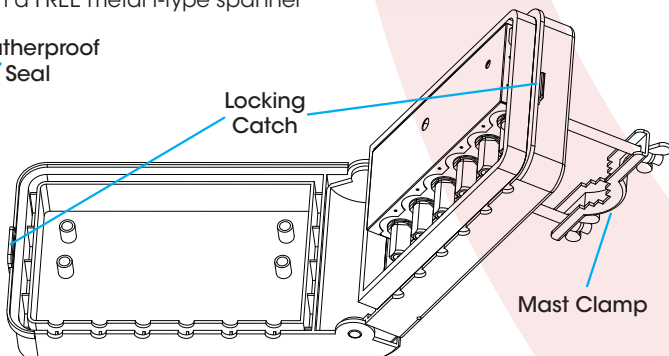
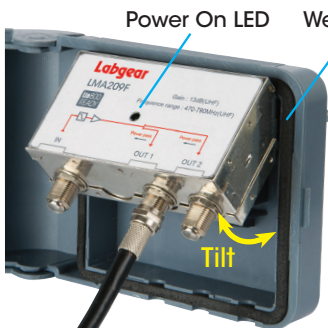
and now

- Class 3 filtering to provide a typical 45dB protection from interference from 4G LTE800 transmissions

All LMA amplifiers are compliant with the Radio Equipment Directive 2014/53/EU and meet harmonised standard EN 303 354 for product Type D, Class 3.

Labgear masthead amps are packed with features to make installation easier, simplify fault diagnosis and deliver a durable, quality solution, including:

- A sturdy metal mast clamp instead of a plastic cable tie
- LED power indication which assists fault diagnosis
- Tilt-out module for easier cable connection
- F-type connectors for better matching and security
- Solid housing with weatherproof seal
- Every masthead is supplied with a FREE metal f-type spanner

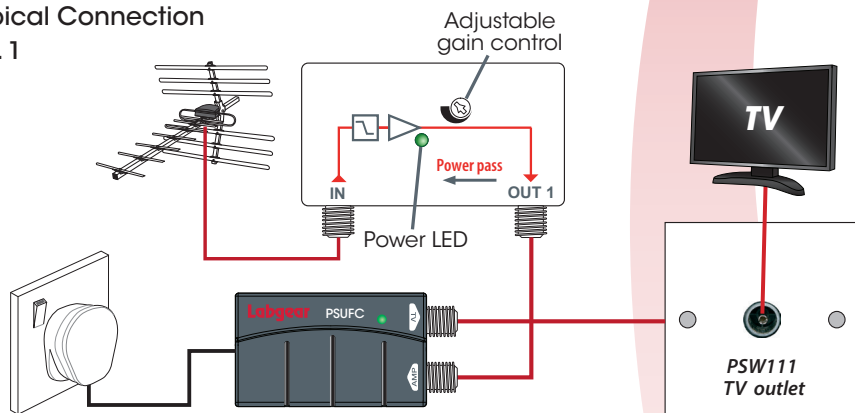


General Safety Precautions

- To avoid risk of electric shock during installation we recommend that the power unit and all associated TV receivers, etc. are isolated from the mains until the installation is complete.
- Fixed wiring for electrical supply to these products should be carried out in accordance with BS7671 (IET Wiring Regulations).
- Distribution systems supplying signals to more than one household should comply with the safety requirements of BS EN60728-11. This requires the system to be earth bonded or the use of isolated outlets.
- If you are in any doubt about an installation, refer to a qualified aerial installer.
- When working on an installation outside, beware of overhead power lines.
- Observe safe working practices, tread carefully and ensure adequate lighting is available in loft or roof space.
- Always follow manufacturer's operating/safety instructions when using tools/ equipment.
- Only carry out work outdoors at height if you are competent in the use of ladders and related access equipment.
- Always read and follow the manufacturer's instruction label affixed to the ladder.

Typical Connection

Fig. 1



Specifications	LMA113R	LMA209R	LMA125VR	LMA415VR
No of Inputs / Outputs	1 / 1	1 / 2	1 / 1	2 / 4
Frequency Range	470-782MHz		470-782MHz	87-230/470-782MHz
Gain per port	13dB	10dB	12-25dB	0-15dB
Noise Figure	Typ. <2dB	Typ. <2dB	Typ. <2dB	Typ. <2dB
Max Output level (IMA3-60dB)	98dBµv	94dBµv	101dBµv	94dBµv
Isolation between outlets	N/A	22dB	N/A	22dB
RED, EMC and LVD	Compliant		Compliant	
Power Requirement	12V DC 30mA		12V DC 60mA	
Power Supply	PSUFC			
DC Output	12VDC - Voltage tolerance 5% - Current 300mA max			
Power Requirement	220-240V~50Hz at <3W			
Signal Insertion Loss	0.5dB			

Applications

Masthead amplifiers are designed to boost and distribute the signal from an outdoor aerial and are fitted as close to the aerial as possible to minimise signal loss and interference.

Aerials that are fitted indoors may have compromised performance with both lower signal levels and a higher pick-up of noise.

LMA amps are fitted with a Class 3 4G filter however if you wish to receive TV on Channel 60 you should use a Labgear LDL DigiLink Class 0 indoor amplifier, you may also need a Channel 60 4G filter (currently available from at800 free of charge).

LMA amps do not have an IR return path to enable channel changing from remote locations.

LMA113R - Pre-amp

Ideal to overcome longer cable runs or lift signals with intermittent problems

LMA125VR - Amp with variable gain

By incorporating variable gain this amp can be used in a range of situations, setting the gain at the optimum level to raise a weak signal or boost to overcome long cable runs.

LMA209R - 2-way distribution amp

Boosts the signal to overcome splitting and longer cable runs

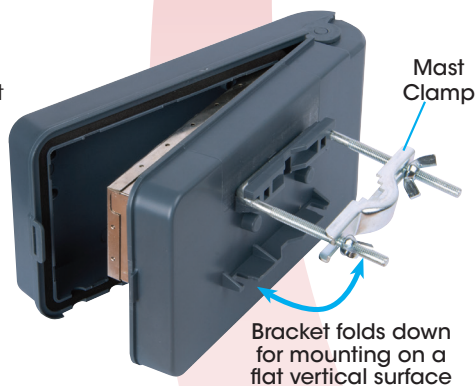
LMA415VR - 2-in, 4-out VHF/UHF variable gain distribution amp

Every popular option built into one product to ensure you have the right tools for a wider range of applications. TV and Radio signals can be distributed to 4 points. Weak TV signals can be boosted.

Fixing Methods

Mount the amplifier on a vertical section of the mast below the antenna using the built-in mast clamp shown opposite. The amplifier will not be affected by proximity to the antenna, but reasonable clearance - a minimum of 300mm - should be maintained to avoid disturbing the antennas performance. Otherwise for minimum signal loss mount as close to the antenna as possible.

Labgear masthead amps can also be screwed onto a vertical surface in a loft using the screw points in the housing with the bracket folded down.



Signal connections

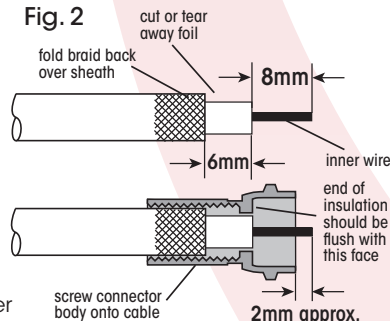
Input and output connections to the amp are made using F-type (IEC 60169-24) connectors.

Connections can be made using a tool for crimp or compression connectors or by hand with twist-on connectors (see Fig.2). Ensure that the correct size connector is used to match the size of the coax cable.

Make sure that the external connections are adequately weatherproofed to prevent water ingress which could damage your amplifier.

The module in the housing can be tilted out to make connection easier. Tighten the connector using the spanner provided but do not over tighten. After making the connections make sure that all cables are aligned with the slots in the housing before closing. Make sure the locking catch clicks home and the housing is closed securely.

Fig. 2



Connecting to the power supply unit (PSU)

We recommend that you use the Labgear PSUFC – 12V 300mA PSU. If you consider using a different power supply check its current rating against the specification table on page 2 to ensure that it has sufficient capacity and note that poor quality power supplies can be a source of noise that will affect your whole system.

The PSU should be placed on a solid non flammable surface in a well ventilated area.

DO NOT leave the PSU on a carpet or other soft furnishings or insulation material.

Take care to ensure that the PSU is not covered in any way that would prevent the free circulation of air around it especially behind curtains or in loft spaces where insulation material is fitted.

Signal connections are made to the F connectors on the right-hand side of the power unit (see Fig. 1 on page2). Good quality coaxial cable to EN50117-2 must be used. Labgear recommend the use of CAI "benched marked" cable.

- The down lead from the masthead amplifier must be connected to the socket marked 'IN'.
- The signal output from the socket marked 'TV' is connected to the receiving installation (satellite receiver, DVR, TV, etc.) or to the input of the cabled distribution system.

Connection to the PSU are made using F type (male) connectors. The use of high quality crimp connectors is preferred. F type connectors should always be tightened very gently with a spanner. Leaving them finger tight may result in unwanted signal ingress or leakage, as well as suck-outs in the frequency response, alternatively do not over tighten as this could damage your PSU.

2 -Year Guarantee

Your amplifier is guaranteed against faulty components or poor workmanship for a period of two years from the date of purchase. This guarantee does not cover accidental or malicious damage (including damage from natural causes such as lightning) and will be invalidated by installation or use other than in accordance with these instructions, repair or attempted repair other than by the manufacturer, or opening or removal of the case. This does not affect your statutory rights.

Labgear Reserve the right to modify their designs or specifications, In the light of future developments, without prior notice. Performance figures quoted are typical and subject to normal manufacturing and service tolerances.

This product is intended for use within the UK and Eire.

Declaration of Conformity

Hereby, Labgear 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.labgear.co.uk/DoC

Technical Support

For further help, advice or information visit

Our website www.labgear.co.uk

Email: technical@labgear.co.uk

Member



No. M. 1125



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist.

Check with your Local Authority for recycling advice.

