

General Safety Precautions

- 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.

Installation Instructions

Introduction

These technically advanced UHF antenna pre-amplifiers offer an unparalleled combination of low noise, good input filtering and medium output. The amplifier units consist of fully screened modules fitted with f connectors. They are enclosed in a moulded ABS weatherproofing housing suitable for outdoor applications.

They both have an integrated sturdy metal mast clamp so that they can be quickly and securely fitted to masts. The amplifiers also tilt by 45° to make the attachment of f plugs to the sockets much easier. The built in filter removes signals above 790MHz emitted by Lte 800 4G phone transmitters and picked up by the attached aerial.

Other features include

- Industry-leading noise performance
- Sturdy metal mast clamp
- LED power indicator, a useful aid to fault finding
- Inputs well filtered below 470MHz to minimise interference from Tetra transmissions
- The amplifier is suitable for indoor or outdoor use
- The LMA209F can be powered via either of its outputs



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 open or removal of the case. This does 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

For further information or any queries please contact

Customer Careline: 08457 573 479

(Local rate – UK only)

Technical Support: www.philex.com/support

4



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority for recycling advice.



Power Supply

Both units require an independent 12VDC 30-35mA power supply we recommend the use of the PSUF 12V, 100mA power supply unit with short circuit protection and a fault indication LED which changes from Green to Red. If using as a pre-amplifier with the LDA204L, LDA2061L or LDA2081L you do not need an additional power supply, these distribution amps have built-in line powering.

LMA113F

This 13dB model improves signal strength and C/N in domestic and MATV systems with normal length download cables.

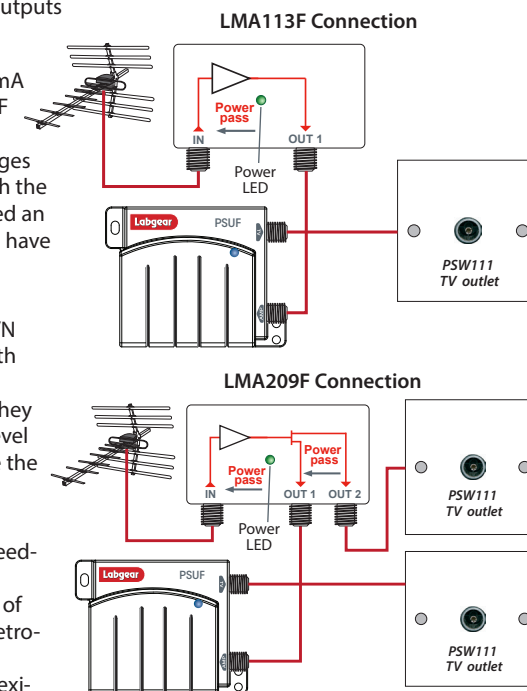
This is ideal for use in digital installations where they will enable the minimum recommended signal level (45dBµV) to be delivered to the tuner and reduce the likelihood of impulse interference problems.

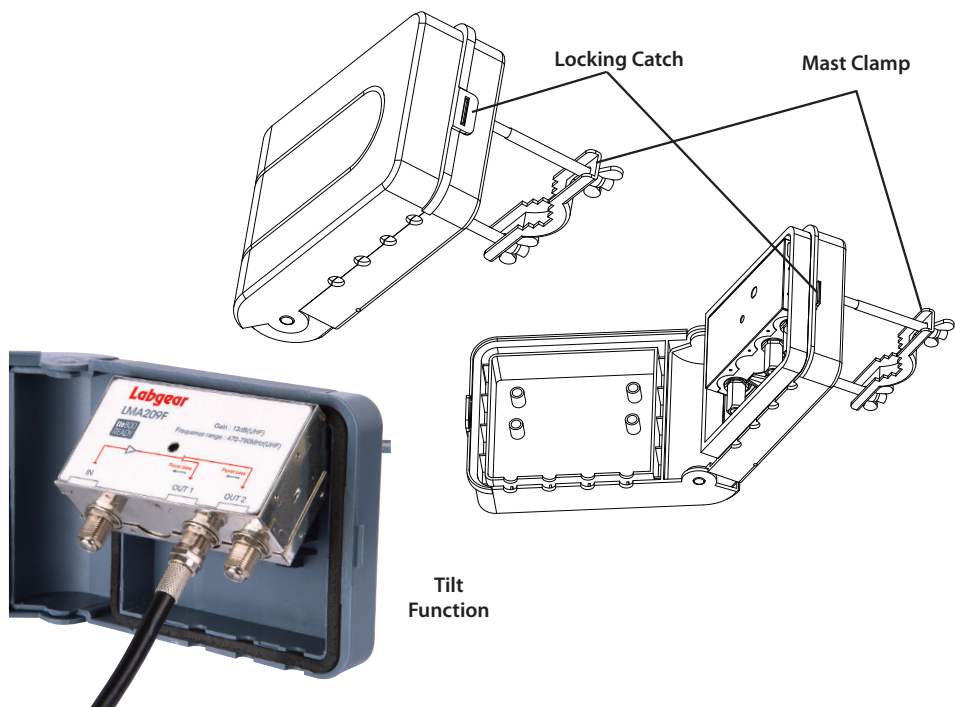
LMA209F

This amplifier with 9dB gain per port is ideal for feeding two TV points from one antenna.

The downloads can be run mainly on the outside of the building, making this a popular solution for retrofit on older buildings.

It can be powered from either output, allowing flexibility in the power unit location.





Fixing methods

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

Signal connections

Type-f connectors provide a reliable low-cost method of connection with excellent screening integrity and impedance match. Select the appropriate male connectors to fit the cable type used. This method of connection is superior in all respects to saddle-and-clamp types that it replaces. Good quality double screened coaxial cable to EN50117-2 should be used, ideally in conjunction with high quality crimp on connectors. Connectors should be properly fitted in accordance with the manufacturer’s instructions, using a suitable crimping tool.

For easy connection the amplifier module tilts by 45° making it easier to screw on your F connectors.

F connectors should always be tightened very gently with a spanner. Leaving them finger tight can result in unwanted signal ingress or leakage, as well as suck-outs in the frequency response. After making your connections ensure that all cables are aligned with the slots in the housing before gently closing the housing. Make sure the locking catch on the rght is closed securely

Connecting to a power supply unit (PSU)

We recommend that you use a **PSUF - 12V 100mA power supply with Type-F connections**. However alternative 12V power supplies can be used providing they supply enough current, see the specification table below for current requirements for each amplifier. Read carefully the instructions that come with your PSU before installation.

The PSU should ideally be fixed to a wall, skirting board, mounting board or similar hard surface. A ventilation gap of at least 25mm should be left around the front and sides of a PSU. Do not leave the power unit resting on a carpet.

Do not install the power unit where it may become smothered by curtains or other fabrics. If you are installing the power unit in a roof space ensure that it is not covered by thermal insulation materials.

Signal connections are made to the coaxial sockets on the right-hand side of the power unit. 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, VCR, TV, etc.) or to the input of the cabled distribution system.

Connections

Connection to the PSU are usually made using type-f (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.

General Safety Notes

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 (IEE Wiring Regulations).

Distribution systems supplying signals to more than one household should comply with the safety requirements of BS EN50083-1. This requires the system to be earth bonded or the use of isolated outlets.

Specifications	LMA113F	LMA209F
No of Inputs	1	
No of Outputs	1	2
Frequency Range	UHF: 470-790MHz	
UHF Gain per port	13dB	9dB
Max Out put level (IMA3-60dB). EN50083-5	>92dBµv	>88dBµv
Noise Figure	>1.7dB	>1.7dB
Isolation Out/Out	-	15dB
Power Input Required	12VDC	30-35mA
Dimensions	140 x 96 x 55mm	140 x 96 x 55mm