General Safety Precautions

To Prevent Overheating

The recommended clearences and other precautions given in this instruction section of these instructions must be observed to prevent overheating. In addition, the units should not be fixed where they are likely to become smothered by curtains or other fabrics, etc, or other thermal inssullation materials in a roof space or similar building void. The unit should not be left resting on a carpet.

Other Precautions

These appliances are not waterproof. They are for indoor use only and must not be fixed where they could be exposed to dripping or splashing water. Objects containg 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 appliances or the wiring to them.

Fitted Mains Plug

These appliances are supplied with a standard fixed plug already fitted. If this is not suitable, refer to the instructioons below. In the unlikely event that you need to change the fuse in this plug, 13Amp fuse to BS1362 carrying the ASTA or BSI approved mark must be used. Always re-fit the plastic fuse carrier when replacing the fuse.

Changing the Plug

If the fitted mains plug is not suitable for the socket outlet in use, it should be cut off and an appropriate new plug fitted.

Wiring a New Plug

Any instruction supplied with the plug should be followed(these may state how much insullation to remove from the wires in the mains cord). The Brown wire must be connected to the live (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(this 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 no more than 3 Amp.

Caution: The old plug should be destroyed promptly since it would be dangerous if plugged into the live socket.

2 –Year Guarantee

From the date of purchase. This guarantee does not cover accidental or mallcoius damage (Including damage from natural causes such as lightening) 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 thelight of future developments, without prior notice.Performance figures quoted are typical and subject to normal manufacturing and service tolerances

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Labgear

MSA242
MSA262
MSA282

Multi-way Distribution Amplifiers

Installation Instuctions

These fully screened general-purpose 4, 6 and 8 way amplifiers are ideal for distributing TV and FM DAB radio signals. Separate inputs for UHF TV (470-862 MHz)and for FM DAB. The FM DAB operating for the standard unit UK market is 88-230 MHz. Versions are also availabe with VHF frequency range 40-270 MHz– specify by adding suffix EIR to the product code.

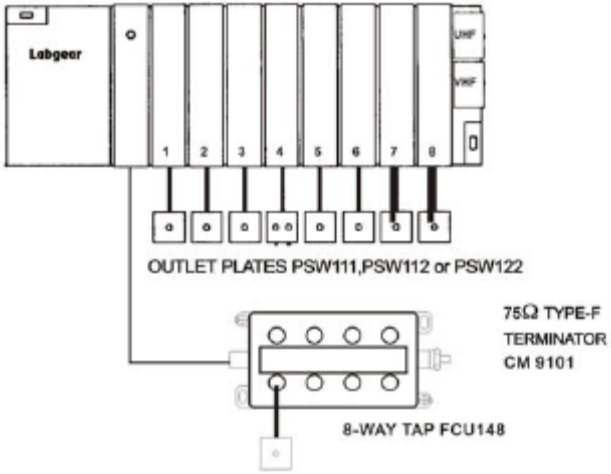
The 6 and 8 –way versions feature a higher gain "FULL" output. This may be used in conjuction with additional passive accessories(taps and splitters) to allow additional outputs to be fed.

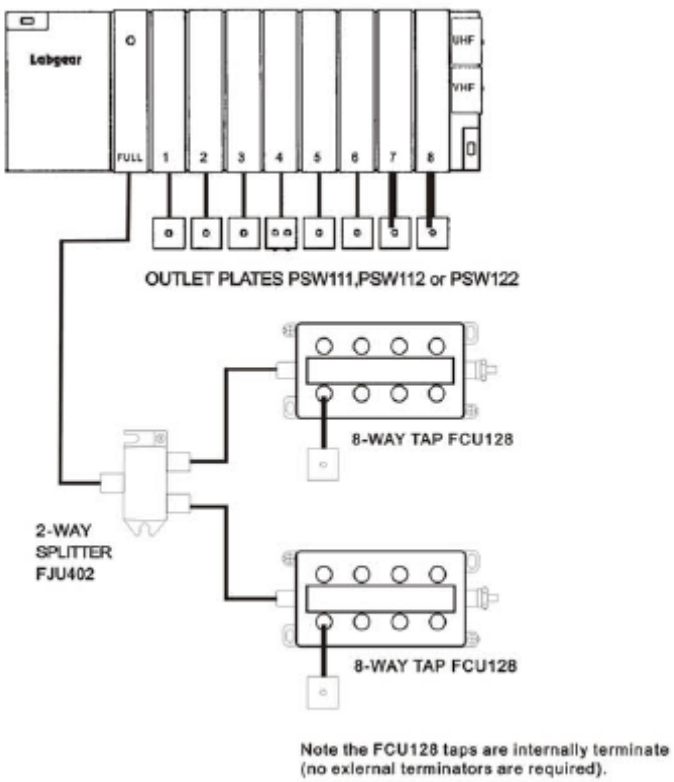
All units are suitable for handling digital terrestrial TV (DTT) signals in addition to the analogue services. Distribution of DTT signals requires careful attention to signal levels for satisfactory results.

Applications

Using the "FULL" ouput

The "FULL" output allows additional points to be fed without the need for another amplifier. The diagrams below and overleaf show two typical examples of how Labgear taps can be used to provide another 8 or 16 outputs. NB the taps in these examples have f-type connectors.





Use with a UHF preamplifier

In weak UHF signal areas, or where a long cale downlead cable is required, it may be desirable to use a masthead preamplifier mounted close to the UHF antenna. These multi-way amplifiers feature a built-in 12V line powering on the UHF input; ther is no need to use a separate power unit for the masthead amplifier.

The built-in line power is rated at 25mA (fully short curcuit-proof) and is compatible with the majority of Labgear masthead preamplifiers. The masthead gain should be keep to a minimum and genarally only needs to exceed the downlead cable loss by about 6dB. A single stage 12…15dB gain masthead will be suitable for the great majority of applications. Use of excessive amounts of gain will lead to severe cross-modulation and intermodution problems.

Installation

Important note: attention is drawn to the General Safety Precautions Panel on page 4 which contains advise refering to safe installation and operation of these products.

Location

Choose a location for the amplifier from which it is convenient to run cables from the antennas and to the system outlets. Typical examples of suitable locations are a loft space or a cupboard. In weak signal areas it is helpful to keep the antenna cables as short as practicable.

Select a cool, dry location to install the amplifier. This meansa location where the ambient temperature will remain between -10°C and +40°C, and which is free from risk of dripping or splashing water.etc.

The fixing location should allow adequate access to the equipment for wiring and maintenance. Clearence of at least 25mm should be allowed around the top and left hand side of the unit for ventilation.More clearance will be needed under and the right of the amplifier to allow access for cables.

Fixing

The amplifier should be be fixed to a wall or other suitablehard surface, using suitable screws and masonary plugs(not supplied). The amplifier should not be left supported by its own wiring, nor should it be left resting on a carpet or other insulating and/or inflammable surfaces.

Electricity Supply

Fixed wiring and connection of the electrical supply to these products should be carried out in accordance with BS7671 (IEE Wiring Regulations) .

Each amplifier is supplied with afitted 13A mains plug. If this is not suitable, see General Safety Precautions Panel on page 4.

As an alternative to the use of plug and socket connection, the amplifier may be connected to the supply using a switched fused connection unit BS 1363-4. A 3 Amp fuse to BS 1362 should be fitted in the fused connection unit.

If the power unit is connected to the supply other than by means of its fitted fused plug or a fused connection unit, It must be protected by a non-time delayed fuse or a type B MCB at the distribution board of rating not exceeding 6A. An isolating switch should be provided near to the unit to allow it to be disconnected from the supply when necessary.

Signal Connections

Input and output signal connections are made using 'IEC' (IEC 60169-2) connectors. Good quality plugs should be used, preferably of the crimp on type. Attention is drawn to the need to maintain DC continuity throughout the system for correct operation of infra-red remote control functions (MSA d range only).

The "FULL" output must always be terminated in a well matched 75Ω load. A 75Ω terminator is supplied.

Model Number	MSA242	MSA262	MSA282	
Number of Outputs	4	6+1	8+1	+1 indicates "FULL" output
Gain to numbered outputs	8dB	8dB	8dB	
Gain to full output		18dB	18dB	
Noise figure	4dB	4dB	4dB	
Output capability from numbered outputs	96dBµV	85dBµV	85dBµV	
Output capability from 75Ω FULL output		99dBµV	99dBµV	Must be terminated in
FM DAB	88-230 MHZ			
VHF EIR version	40-270 MHz			
Line power	25mA			with auto shut down
Power requirements	230V AC 50Hz@ at <7VA		Supplied and fitted Mains Plug to BS 1363	