

General Safety Precautions

To Prevent Overheating

The recommended clearances 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 insulation materials in a roof space or similar building void.

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 containing 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 instructions below. In the unlikely event that you need to change the fuse in this plug, 3 Amp 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 insulation 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

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

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



Labgear

MS581E 8-way Enhanced Multiswitch

MS512E 12-way Enhanced Multiswitch

MS516E 16-way Enhanced Multiswitch



Installation Instructions

Introduction

This new range of fully screened Multiswitches provide transparent switching of the 4 LNB polarities as well as the terrestrial. They are designed to be used either as stand alone or by utilising an IF /UHF combined launch amplifier. They are available in 8, 12 or 16-ways and are ideal for small to medium sized IRS projects. These Multiswitches feature improved isolation between the IF bands and increased rejection between the UHF and the IF frequencies, reduces noise and other unwanted products from the LNB in the UHF band to a negligible level. Weak UHF signals will not be rendered unusable by LNB noise, even in the upper part of band V.

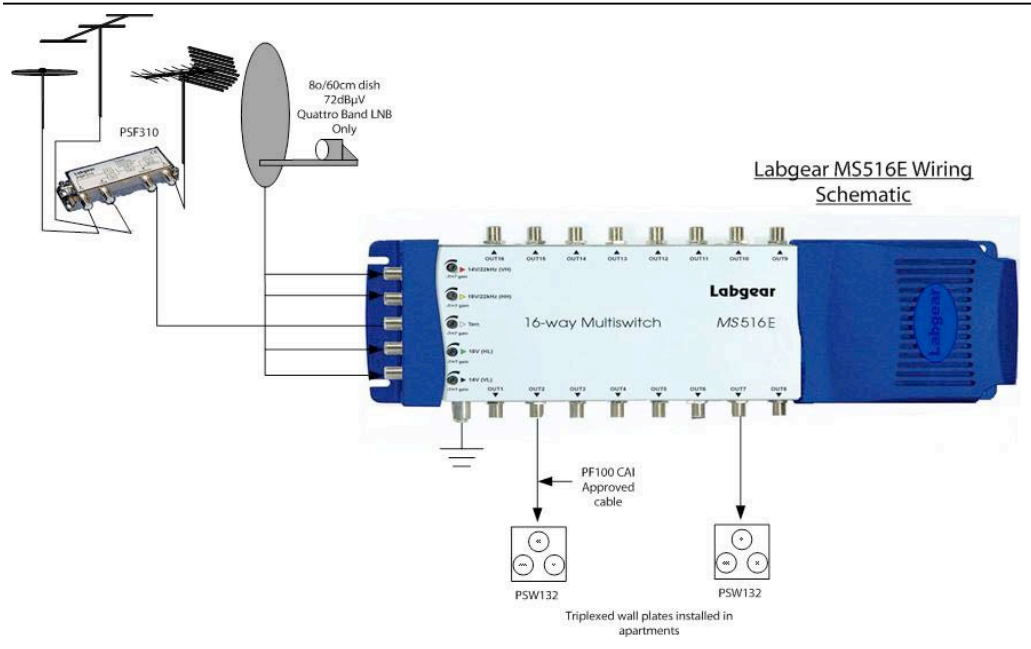
The FM, DAB and UHF signals can be combined on to a common cable by using a PSF310. The common feed is then inserted into the Terrestrial Input which covers from 88-862 MHz.

The switches incorporate the standard colour coding as well as stating the polarity / high or low Band. The Multiswitches must be used with Quattro Band LNB's, there is no 22 khz tone generator built in.

There is provision for a 6mm earth termination which can be linked to the earth bonding bars (PSC050 and PSC080).

The switch incorporates built in attenuators which allow for all the IF polarities to be balanced prior to delivery to the outlet plate.

Labgear have full range of taps and splitters to create a tree and branch network.



Installation

Important note: attention is drawn to the General Safety Precautions Panel on page 4 which contains advise referring 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 means a 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. Clearance 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 fixed to a wall or other suitable hard surface, using suitable screws and masonry 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 a fitted 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

It is recommended that all f-type connectors are of the crimp type, screw on connectors are not to be used as they do not comply to the CAI codes of practice. Contact the CAI for clarification.



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Technical Specifications

Model Number	MS581E	MS512E	MS516E
Number of Inputs		4 x IF, 1 x Terr.	
Number of Outputs	8	12	16
Insertion Loss	87.5-862MHz	-2dB	-2dB
	950-2150MHz	5dB	5dB
	87.5-862MHz	12dB	12dB
	950-2150MHz	10dB	10dB
Attenuation	Terr to SAT	25dB	25dB
	SAT to Terr	25dB	25dB
	Cross Polar H/V	30dB	30dB
Isolation	87.5-862MHz	30dB	30dB
	950-2150MHz	30dB	30dB
	87.5-862MHz	11dB	10dB
Out to out	950-2150MHz	11dB	11dB
	950-2150MHz	11dB	10dB
Return Loss	87.5-862MHz	11dB	11dB
	950-2150MHz	11dB	11dB
Sat (IMA ₃ 35dB) EN50083-3	100dB μ V	101dB μ V	101dB μ V
Power requirements	230V AC 50Hz	Supplied and fitted Mains Plug to BS 1363	