Multiswitch

INSTRUCTION MANUAL

WM508L | WM512L | WM516L | WM524L | WM532L

Whyte Technologies

www.whytetechnologies.com

In the interest of continuous improvement,
all specifications of products within this brochure are
subject to change without notice.

CONTENTS

SAFETY

The Multiswitches are intended for indoor use only.
Do not install the Multiswitch in damp, humid, hot or dusty areas.

Switch off and remove the power supply when making connections to the Multiswitch to avoid damaging the unit.

Always earth bond the Multiswitch using the Earth Bonding Lug and/or the Earth Terminal Bars to a suitable earth bonding point using minimum 4mm² diameter earth cable.

PRECAUTIONS

To ensure trouble free operation:

Do not remove the cover of the Multiswitch or disassemble it as this will invalidate the guarantee.

The female F connectors on this unit were designed for use with '100' type coaxial cable with a centre core diameter of 1mm². When using larger CT125 or CT167 cables, you must ensure that suitable F connectors with reducing pins are used otherwise damage to the unit will occur which will invalidate the guarantee.

Do not over tighten the F connectors (finger tight only).

GUARANTEE

All Whyte products are guaranteed for a period of 4 years from the date of purchase against defects. Within this guarantee period, Whyte Technologies will repair or replace the faulty product. In the unlikely event, please return any faulty products to your dealer.

The Guarantee will be deemed as void if the serial number on the product is removed, damaged or illegible. The Guarantee excludes defects caused by incorrect use, accidental damage, disassembly, water/fire/lightning damage or lack of ventilation.

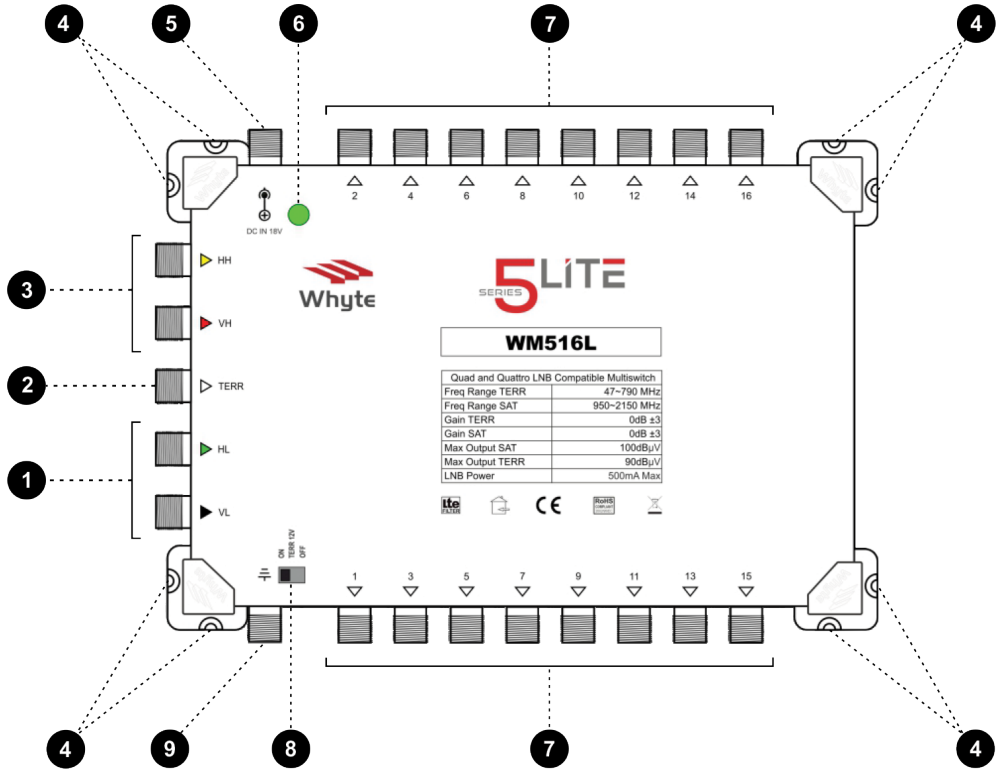
GENERAL DESCRIPTION

The Whyte Series 5 Lite Multiswitch range is universally flexible and is designed to be used in small, medium to large Integrated Reception Systems (IRS). Whyte Multiswitches can be used as Standalone Multiswitches when powered directly via the18V Auxiliary Input by using a Whyte 0.8A Power Supply Unit (model WPSU-0.8A).

Features include:

- 4 Years Warranty
- Colour coded inputs
- Industry leading performance at a competitive price
- LED power indicator
- Includes separate Power Supply Unit with F-Type DC Lead
- Gain SAT 0dB TERR 3dB
- Switchable 12V supply to power Mast Head Amplifier
- High quality Standalone Multiswitch with 4 years warranty
- Adequate clearance to route cables under the Multiswitch
- Inbuilt High-Rejection LTE 4G filter

PRODUCT DESCRIPTION



1. SAT Inputs
2. TERR Input
3. Corner Brackets
4. Auxiliary 18V Input
5. LED Power Indicator
6. Subscriber (REC) Outputs
7. TERR 12V Switch
8. Earth Lug

TECHNICAL DESCRIPTION

Whyte Series 5 Lite Multiswitches are compatible with Quad and Quattro LNB's. The inputs are colour coded for ease of installation which is especially useful when using a Quattro LNB. For convenience, existing satellite dishes which are already fitted with a Quad LNB may be used, whereby the drop cables can be connected to the SAT inputs in no particular order.

The 5 Lite range provides a nominal gain of 0dB(±2dB) for Satellite and 3dB(±2dB) Terrestrial Reception. To facilitate the reception of FM and DAB radio at the outlets, the FM and DAB aerials must be combined with the Terrestrial TV Aerial using a Triplexer. The combined signals are then connected the TERR input of the Multiswitch.

A high rejection LTE filter is fitted to avoid interference from 4G LTE signals. If required, a Terrestrial mast amplifier can be powered via the multiswitch by setting the 12V switch to the "ON" position. If a mast amplifier is not being used, this switch must be left in the "OFF" position.

The Power Supply Unit provided must be connected to the 18V DC Input. This will power the Multiswitch as well as provide power to the Satellite LNB inputs. A maximum of 500mA LNB power is available which enables the use of a line powered launch amplifier if required.

If a local mains supply is not available such as in lofts and outdoor cabinets, the Power Supply Unit may be conveniently fitted elsewhere whereby the 18V DC F-Type lead can be extended using coaxial cable.

INSTALLATION INSTRUCTIONS

MOUNTING THE MULTISWITCH

Select a suitable location to install the Multiswitch. Do not install the Multiswitch in damp, humid, hot or dusty areas. Using the screw slots on the Corner Brackets, secure the Multiswitch using the appropriate fixing screws and wall plugs to suit the relevant wall surface or cabinet.

CONNECTING THE SAT & TERR INPUT CABLES

Use a suitably sized Satellite Dish to provide adequate signal levels from the satellite being received. Ensure that the Satellite Drop Cables are connected correctly in the corresponding order with respect to the LNB and the Multiswitch SAT inputs (Quattro LNB only). Ensure that the F Connectors are properly sealed against water ingress.

If a Composite Cable (multi core coaxial cable) has been used, ensure that the outer jacket is not facing upwards and cannot collect rain water. Check the Terrestrial Drop Cable and ensure that this has also been sealed against water ingress. If a Triplexer has been used to combine FM and DAB aerials with the UHF Terrestrial Aerial, ensure that this is also water tight. Ensure that all drop cables have drip loops prior to their entering the building.

Connect the SAT and TERR drop cables to the corresponding Satellite & TERR Inputs of the Multiswitch.

CONNECTING THE SUBSCRIBER CABLES

Terminate the Subscriber Cables with good quality F Connectors and connect to the Subscriber Outputs. The F Connectors should be fitted to the coaxial cable correctly, ensuring that the centre core protrudes 3mm above the F Connector body. See figure 3 (on page 8). Ensure that you do not exceed the bending radius of the Coaxial Cable being used.

The Subscriber Cables may be arranged either side of the Multiswitch before being terminated and connected. If required, the Subscriber Cables may be arranged to one side of the Multiswitch, with the cables passing under the Multiswitch before being terminated and connected to the Subscriber Outputs on the opposite side. See figure 4 (on page 8). Always use CAI approved high quality coaxial cable.

EARTH BONDING

Earth bond the Multiswitch to the Earth Bonding Lug using minimum 4mm² Earth Bonding Cable. Make sure that the Earth Bonding Cable is connected directly to the building's PME (Protective Multiple Earthing) point. Matching Whyte Technologies Earth Bonding bars for your Multiswitch are available from Whyte Technologies distributors.

CONNECTING THE POWER SUPPLY UNIT (PSU)

The PSU must be fixed to the relevant wall surface using the appropriate fixings. Connect the DC F-type lead to the 18V DC Input of the Multiswitch.

Once all connections have been made, connect the plug to a 240V (110V) socket to power up the Multiswitch. If a local mains supply is not available such as in lofts and outdoor cabinets, the Power Supply Unit may be conveniently fitted elsewhere whereby the 18V DC F-Type lead may be extended using coaxial cable.

Figure 4

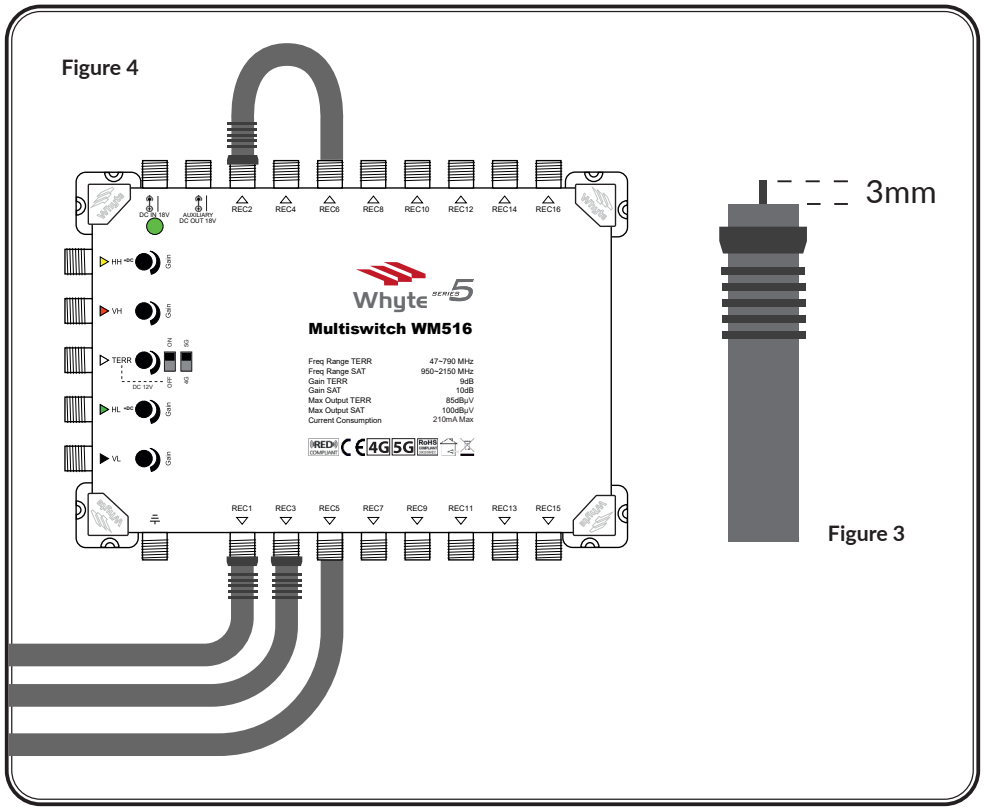
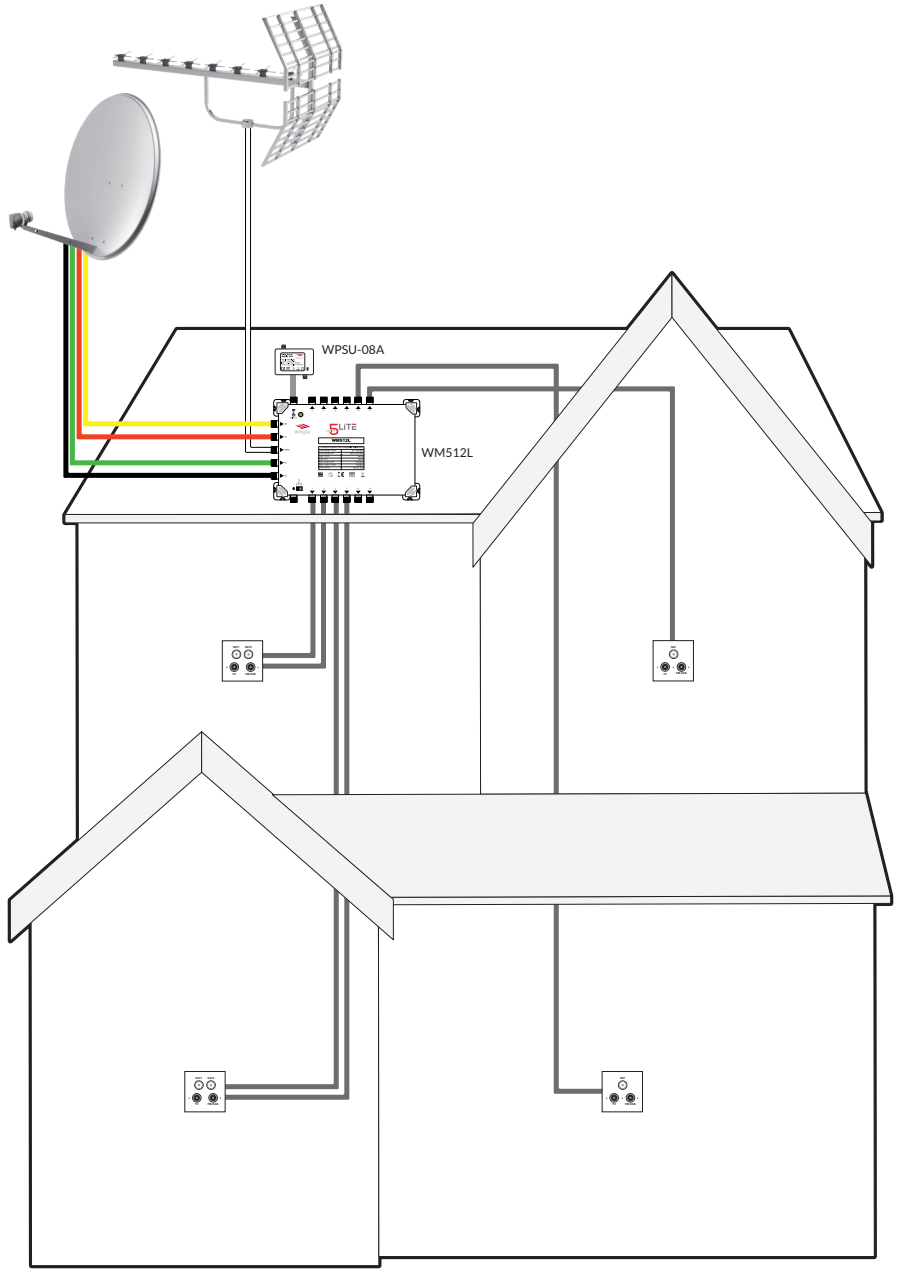


Figure 3

EXAMPLE CONFIGURATION



SPECIFICATIONS WM508L | WM512L

MODEL		WM508L | WM512L
Frequency Range	SAT	950-2150MHz
	TERR	87-790MHz
Input (F-Type Female)		4 SAT + 1 TERR
Tap Outputs (F-Type Female)		8 | 12
Gain	SAT	0±2dB
	TERR	3±2dB
Return Loss	SAT Trunk Input	>8dB
	TERR Trunk Input	>8dB
Max Output Level	SAT (IMA^3 -35dB)	100dBµV
	TERR (IMA^3 -60dB)	>85dBµV
Isolation	Trunk-Trunk	≥28dB
	Cross-Polar	≥25dB
	Tap-Tap (SAT)	≥25dB
	Tap-Tap (TERR)	≥23dB
	Rejection	≥20dB
Impedance		75Ω
Switching Commands	Legacy	13/18V / 22kHz
Power Supply Voltage		18V DC
Powering	Via DC In	YES
Power Consumption (Max) @ 18V		100mA
Power Indication		LED
18V DC 800mA PSU Included	(WPSU-0.8A)	YES
Masthead Supply (Switchable)	TERR Input Only	12V DC 100mA
Earth Lug		Up to 6mm² core
Dimensions including earth bars		150 x 150 x 43mm
Weight		402g

WM516L | WM524L | WM532L

WM516L	WM524L	WM532L
950-2150MHz	950-2150MHz	950-2150MHz
87-790MHz	87-790MHz	87-790MHz
4 SAT + 1 TERR	4 SAT + 1 TERR	4 SAT + 1 TERR
16	24	32
0±2dB	0±2dB	0±2dB
3±2dB	3±2dB	3±2dB
>8dB	>8dB	>8dB
>8dB	>8dB	>8dB
100dBµV	100dBµV	100dBµV
>85dBµV	>85dBµV	>85dBµV
≥28dB	≥28dB	≥28dB
≥25dB	≥25dB	≥25dB
≥25dB	≥25dB	≥25dB
≥23dB	≥23dB	≥23dB
≥20dB	≥20dB	≥20dB
75Ω	75Ω	75Ω
13/18V / 22kHz	13/18V / 22kHz	13/18V / 22kHz
18V DC	18V DC	18V DC
YES	YES	YES
100mA	130mA	130mA
LED	LED	LED
YES	YES	YES
12V DC 100mA	12V DC 100mA	12V DC 100mA
Up to 6mm² core	Up to 6mm² core	Up to 6mm² core
214 x 150 x 43mm	278 x 150 x 43mm	342 x 150 x 43mm
566g	726g	890g

The EU Declaration of Conformity can be viewed at www.whytetechnologies.com.

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