

SLx masthead amplifiers

27830R 15dB gain 27831R 26dB gain

Application

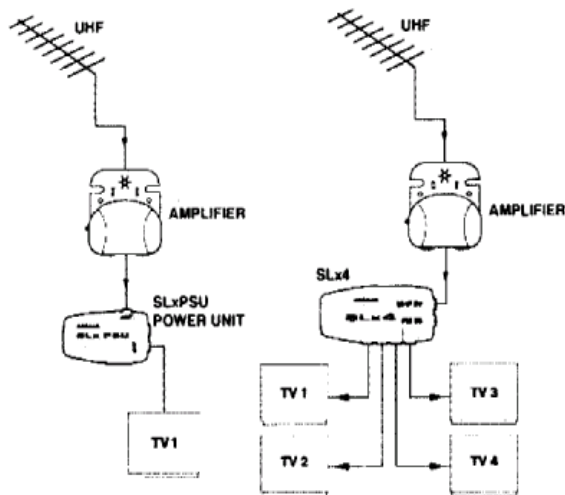
- Philex's SLx masthead amplifiers are designed as domestic UHF TV antenna preamplifiers. They are ideally used in areas of poor signal strength or when wishing to receive an out-of-area transmission.
- The 15dB gain masthead amplifier (27830R) is ideal for the majority of domestic installations.
- The 26dB gain masthead amplifier (27831R) should be used if long cable runs are necessary (the loss is greater than 5dB) or if the amplifier is connected to passive splitters feeding additional outlet ports.
- A 12V DC power supply (12V DC) must be connected to the amplifier via the downlead cable. This can be supplied either by a dedicated power supply unit (Philex's SLx PSU 27832R) or from a distribution amplifier with line-powering for a masthead amplifier, installed downstream of the preamplifier (Philex's SLx4 27820R, SLx6 27823R or SLx8 27824R).

Restrictions

- Do not use either masthead amplifier on systems feeding more than one household or (S)MATV systems.
- These products do not have through-line powering and are not intended to be cascaded.

Installation

- Both masthead amplifiers are suitable for indoor and outdoor use.
- SAFETY FIRST - make sure all power supplies and TV receivers are isolated from the mains unit until all work is complete. This minimises the risk of electric shock during installation.
- The antenna should be mounted as high as possible to give the best signal reception. It may be necessary to adjust the exact position since UHF signals can vary in strength over short distances.
- The antenna, amplifier and cabling should be in a position that minimises possible interference from other electrical sources such as telephone or power lines.
- Use only good quality coaxial cable to make connections - Philex PH100 cable (27603/27613R) C55-type cable (Philex part no. 27600R) or cable conforming to BS5425 should be used. UHF cables with very low braid coverage should be avoided as should foil-only cables, since it is difficult to make reliable connections.



Typical applications

Typical configuration

- Ensure that the DC power supply is available (12V 25mA - as supplied from Philex SLxPSU 27832R). Both masthead amplifiers receive power from the remote end of their PSU cables. It can be supplied either from a dedicated power unit or from a unit to which the PSU cable connects, providing line powering is available.
- Ensure that the mains power supply (SLxPSU 27832R or equivalent) is correctly connected. Isolated outlet plates are recommended since they give additional protection against receiver faults.

Getting the best performance

- The cable between the antenna and the amplifier should be kept as short as possible for best performance - though the amplifier should not be installed amongst the elements of the antenna itself. Ideally, the masthead amplifier should be positioned on the mast at least one metre below the closest part of the antenna.
- Tighten all connections, taking particular care with the braid clamps, which should be as tight as possible, without crushing the cable. Remember to re-fit the lid, ensuring that it is tightly in.

Technical specifications

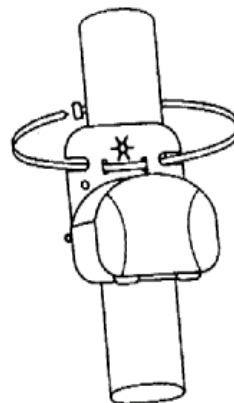
Philex part no.	27830R	27831R
Bandwidth	470-862MHz	470-862MHz
Noise figure	4dB	4dB
Gain	15dB gain	26dB gain
Max output	105dbuV	105dbuV
Power requirement	12V DC 23mA	12V DC 23mA

Guarantee

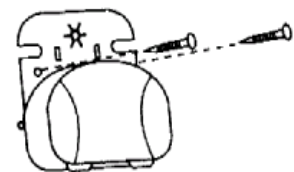
This product is guaranteed against faulty components or poor workmanship for a period of 3 years from the date of purchase. This guarantee does not cover accidental or malicious damage (including damage from natural causes such as lightning) and will be invalidated by installation or use other than in accordance with these instructions, repair or attempted repair other than by the manufacturer. This does not affect your statutory rights.

Philex reserves the right to modify or change the specifications of these products without prior notice. The technical specifications listed are typical and subject to normal manufacturing and service tolerances.

MAST MOUNTING



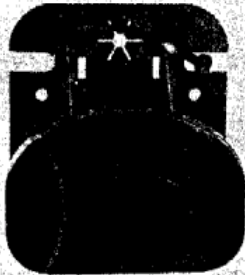
WALL MOUNTING



Fixing methods

NEW RANGE

SLx masthead accessories



27830R



27831R



27832R

SLx masthead amplifiers & power supply

UHF TV and FM radio antenna preamplifiers designed for the professional aerial installer - ideal for areas of poor signal strength or when wishing to receive an out-of-area transmission

- 1-way 15dB gain masthead amplifier (27830R) is ideal for the majority of domestic TV installations
- 1-way 26dB gain masthead amplifier (27831R) should be used in TV installations where long cable runs are necessary (the loss is greater than 5dB) or if the amplifier is connected to passive splitters feeding additional outlet ports
- 2 and 4-way masthead amplifiers are fully screened
- Screw terminals and saddle clamp connections on 1-way masthead amplifiers
- F connectors on 2 and 4-way masthead amplifiers
- Through line powering on 2 and 4-way masthead amplifiers - allows additional masthead amplifiers to be powered in series using a single power supply unit
- 2-way UHF TV masthead amplifier (27837R) supplies TV signals to 2 locations
- 4-way UHF TV masthead amplifier (27838R) supplies TV signals to 4 locations
- 4-way UHF TV & FM radio masthead amplifier (27839R) supplies TV and radio signals to 4 locations
- Requires 12V DC power supply connected via the download - supplied either by a dedicated power supply unit (Philex's SLx PSU 27832R) or from a distribution amplifier with line-powering for a masthead amplifier, installed downstream of the preamplifier (Philex's SLx/SLxB range)

Part No. 27830R SLx 1-way output UHF TV masthead amplifier 15dB gain

Part No. 27831R SLx 1-way output UHF TV masthead amplifier 26dB gain

Part No. 27837R SLx2M 2-way output UHF TV masthead amplifier 10dB gain

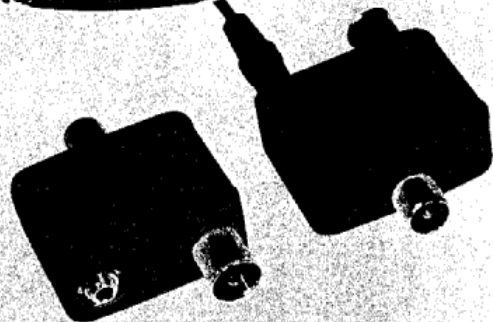
Part No. 27838R SLx4M 4-way output UHF TV masthead amplifier 10dB gain

Part No. 27839R SLx4MF 4-way output UHF TV & FM radio masthead amplifier

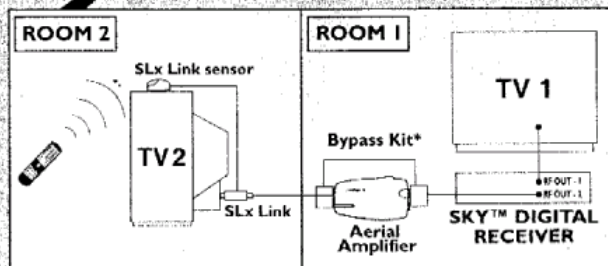
Part No. 27832R SLx PSU masthead amplifier power supply

SLx by-pass kit

NEW



SKY™ COMPATIBLE



SKY™ compatible SLx amplifier by-pass kit

The problem - your customer uses a normal aerial amplifier and is prevented from using the Sky™ Digibox Digleye because the aerial amplifier cannot pass the IR signal

The solution - the SLx Digi by-pass kit

- For use with an aerial amplifier without an integrated digital bypass and Sky™ Digibox
- Allows infra-red signals from a 2nd TV with Digleye to pass back to the Digibox
- Connects between the input feed to the aerial amplifier and the output feed to the 2nd TV which controls the Digibox via the Digleye
- Can be controlled by the original Digibox remote control or a Philex Sky™ UNI remote control (RCUNI15)

Part No. 27829R SLx Digi by-pass kit

Technical specifications for masthead amps

	27830R	27831R	27837R	27838R	27839R
Bandwidth (UHF)	470-862MHz	470-862MHz	470-862MHz	470-862MHz	470-862MHz
FM					88-108MHz
Gain UHF	15dB	26dB	10dB	10dB	10dB
FM					5dB
Noise figure	<5dB	<5dB	3dB	3dB	3.5dB
Through line powering	No	No	Yes	Yes	Yes
Fully screened	No	No	Yes	Yes	Yes
Input/output connector	Saddle clamp	Saddle clamp	F connector	F connector	F connector
	27832R				
Output voltage	12V DC				
Output current	100mA				



SLx low noise, high gain aerial amplifiers

Aerial amplifiers-the SLx range



27828R



27822R



27820R



27823R



27824R

The problem - a weak TV or radio signal causing poor picture or sound quality.

The problem - connecting up to eight TV's to a single aerial outlet without losing signal strength to each TV.

The solution - the SLx range of Aerial Amplifiers from Philex.

Designed with style, sophistication and value in mind, the SLx range is the choice for **both** the professional aerial installer and the home user wanting to get the very best from their AV equipment.

We have integrated the very best of UK-designed product styling and the highest levels of safety to produce a class-leading product that is crammed with additional features not usually associated with equipment in this class. And with full instructions, wall mounting bracket and template, installing any of the SLx Aerial Amplifiers is just as easy as it is using it.

- Digital Satellite compatibility
- LED indicator illuminated when active
- Double insulation and safety certificated to the latest BS and CE standards (EN5008-1, EN50082-1, EN50083-2 & EN61000-3-2/-3)
- Class-leading noise figures of 4dB or less, ensuring minimal interference
- Variable gain control on SLx1 and SLx2
- 10.5dB signal amplification on SLx4, SLx6 and SLx8
- 25mA Line powering for masthead amplifier (SLx4, SLx6 and SLx8 only)
- Gunmetal grey compact design to compliment existing home entertainment systems
- Attractive retail display packaging
- Full instructions
- Wall mounting drilling guide
- 12 months full guarantee

Technical specifications

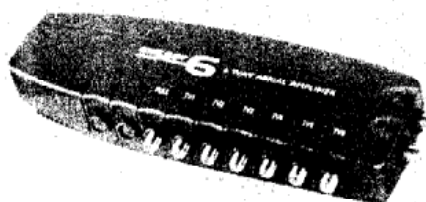
Model	SLx1	SLx2	SLx4	SLx6	SLx8
Inputs	1	1	2	2	2
Outputs	1	2	4	6+1	8+1
Frequency range VHF	47-230MHz	47-230MHz	47-230MHz	47-230MHz	47-230MHz
Frequency range UHF	470-863MHz	470-863MHz	470-863MHz	470-863MHz	470-863MHz
Gain full output socket	-	-	-	18dB	18dB
Max output level dBµV	94dBµV	94dBµV	90dBµV	87dBµV	83dBµV
Full line powering for masthead amp	-	-	Yes, 25mA	Yes, 25mA	Yes, 25mA
Gain per Split (VHF) UHF	14dB	18dB	(9dB) 12dB	(10dB) 12dB	(10dB) 12dB
Noise figure	4dB	3.5dB	3.5dB	<4dB	<4dB
Isolation loss	22dB	≥16dB	23dB	23dB	23dB
Weight	330g	330g	518g	726g	726g
Dimensions (mm)	130x75x45	130x75x45	178x85x46	260x85x46	260x85x46

SLx amplifiers with coax connectors

- Part No. 27828R SLx1 signal booster (UK mains plug)
- Part No. 27822R SLx2 2-way aerial amplifier (UK mains plug)
- Part No. 27820R SLx4 4-way aerial amplifier (UK mains plug)
- Part No. 27823R SLx6 6-way aerial amplifier (UK mains plug)
- Part No. 27824R SLx8 8-way aerial amplifier (UK mains plug)

SLx amplifiers with 'F' connectors

- Part No. 27823F SLx6 6-way aerial amplifier (UK mains plug)
- Part No. 27824F SLx8 8-way aerial amplifier (UK mains plug)



SLx6 & SLx8 also available with 'F' connectors

audio - visual - aerial amplifiers

SLX AMPLIFIERS SPECIFICATION SPREADSHEET (summary)

Features / Model	SLX	SLX	SLX2M	SLX4M	SLX4M F	SLX1	SLX2	SLX4	SLX6	SLX6F	SLX8	SLX8F	SLX2B
Pilex Part No.	27830R	27831R	27837R	27838R	27839R	27828R	27822R	27820R	27823R	27823F	27824R	27824F	27822BM
Digital Satellite Compatible	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of Outlets	1	1	2	4	4	1	2	4	6 + 1	6 + 1	8 + 1	8 + 1	2
LED Illuminated when active	n/a	n/a	n/a	n/a	n/a	RED	RED	RED	RED	RED	RED	RED	BLUE
Latest BS, CE & LVD stds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gain per Split (FM)	15	26	12	12	10 (6)	16	18	12 (9)	10 (FULL18)	10 (FULL18)	10 (FULL18)	10 (FULL18)	6
Short Circuit protection	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓	Ind Port
Variable Gain Control						✓	✓	✓	✓	✓	✓	✓	
25mA Line Powering for masthead amp.						✓	✓	✓	✓	✓	✓	✓	
Integrated Digital Bypass for SKY Digleye	n/a	n/a	n/a	n/a	n/a								✓
Full Output (to connect 2nd Amplifier in series)													
Connector	S/Clamp Line Power	S/Clamp Line Power	F ⁱ Line Power	F ⁱ Line Power	F ⁱ Line Power	Coax Mains	Coax Mains	Coax Mains	Coax Mains	F ⁱ Mains	Coax Mains	F ⁱ Mains	Coax Mains
Power Supply													

Features / Model	SLX2CF	SLX2C	SLX4C	SLX4CF	SLX4B	SLX6B	SLX8B	SLX4L	SLX8L	SLX1P	SLX2P	SLX3P	SLX4P
Pilex Part No.	27867F	27857R	27858R	27858F	27820BM	27823BM	27824BM	27855R	27856R	27840R	27941R	27842R	27943R
Digital Satellite Compatible	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of Outlets	2	2	4	4	4	6	8	4	8	1	2	3	4
LED Illuminated when active	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE	BLUE
Latest BS, CE & LVD stds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gain per Split (FM)	F8/R8	F8/R8	F7/R7	F7/R7	6	6	6	8	8	10 - 20	8 - 18	0 - 12	0 - 12
Short Circuit protection	Ind Port	Ind Port	Ind Port	Ind Port	Ind Port	Ind Port	Ind Port	Ind Port	Ind Port	✓	✓	✓	✓
Variable Gain Control													
25mA Line Powering for masthead amp.													
Integrated Digital Bypass for SKY Digleye	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Full Output (to connect 2nd Amplifier in series)													
Connector	F ⁱ	Coax	Coax	F ⁱ	Coax	Coax	Coax	F ⁱ	F ⁱ	Coax	Coax	Coax	Coax
Power Supply	Rx, 12v	Rx, 12v	Rx, 12v	Rx, 12v	Mains	Mains	Mains	Mains	Mains	Mains Plug-In	Mains Plug-In	Mains Plug-In	Mains Plug-In

Additional Information

SLX4L & SLX8L Only
Power to Remote R receivers
Gordon Dunbar

20V, 400mA LNB Powering,
9V DC at 15mA Max per outlet

Satellite splitters

Wideband digital satellite splitters 5-2400MHz

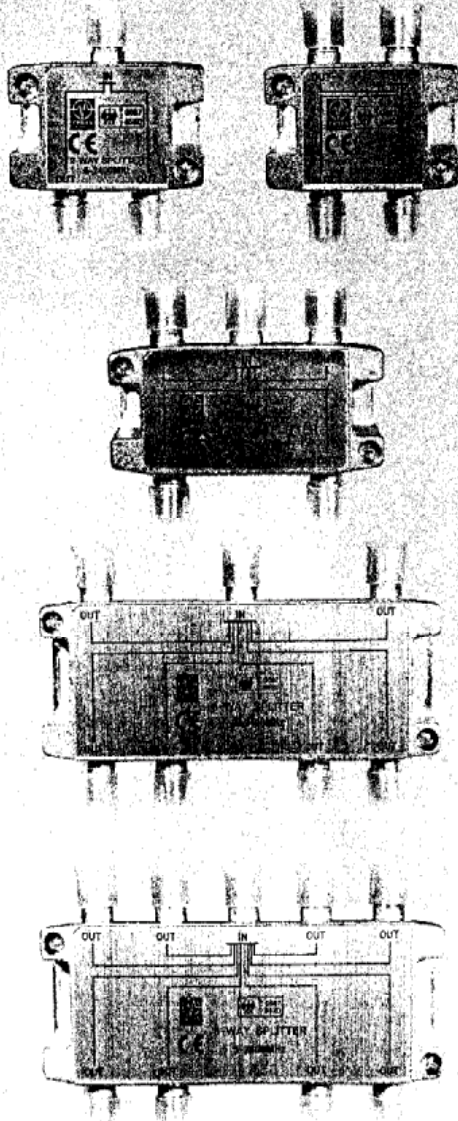
A range of high performance wideband splitters designed for use with conventional TV and satellite systems as well as digital satellite and digital terrestrial UHF TV distribution systems.

- All ports F-female connector 75Ω
- RF shielded nickel-plated zinc diecast housing
- Grounding terminal provided
- Fitting screws included
- Designed for easy installation, up to 9mm cable
- Low insertion loss, high return loss and isolation for CATV, MATV, SMATV, IRS, satellite TV & MMDS
- Screening factor
 - 40-450MHz ≥ 75dB
 - 470-860MHz ≥ 65dB
 - 950-1750MHz ≥ 55dB
 - 1750-2400MHz ≥ 55dB
- Power pass max 1A, 30V DC/17V AC



Wideband splitters with power pass on input to output 1 port only

- Part No. 27900R 2-way wideband splitter power pass 1 port
- Part No. 27901R 3-way wideband splitter power pass 1 port
- Part No. 27902R 4-way wideband splitter power pass 1 port
- Part No. 27903R 6-way wideband splitter power pass 1 port
- Part No. 27904R 8-way wideband splitter power pass 1 port



Technical specifications

Philex Part No.	PP 1 port PP all ports	27900R	27901R	27902R	27903R	27904R
		27905R	27906R	27909R	27951R	
		2 WAY	3 WAY	4 WAY	6 WAY	8 WAY
Insertion Loss (In-Out) (dB)	5-400MHz	4.0	7.0	8.0	11.0	12.0
	40-1000MHz	4.5	8.0	8.5	11.5	12.5
	1000-2250MHz	5.8	10.0	11.0	14.0	16.0
	2250-2400MHz	6.5	11.0	11.8	16.5	18.0
Mutual Isolation (Out-Out) (dB)	5-400MHz	14	22	23	24	25
	40-1000MHz	22	22	22	22	24
	1000-2250MHz	22	20	22	22	22
	2250-2400MHz	22	20	22	20	22
Return Loss (dB)	5-400MHz	12	10	10	10	10
	40-1000MHz	15	12	12	14	12
	1000-2250MHz	14	12	12	12	12
	2250-2400MHz	12	12	12	12	12

Wideband splitters with power pass on all ports

- Part No. 27905R 2-way wideband splitter power pass all ports
- Part No. 27906R 4-way wideband splitter power pass all ports
- Part No. 27909R 6-way wideband splitter power pass all ports
- Part No. 27951R 8-way wideband splitter power pass all ports

