

# SLx4L Distribution System Instruction Manual

## INTRODUCTION

The SLxL series of signal distributors are designed to allow distribution of FM, DAB, CCTV, VCR, satellite and terrestrial television signals to multiple locations around the home.

The SLx4L has an **integrated by-pass** designed to allow the user control digital Sky™/Sky+™ receivers from any of the connected televisions using an infrared link device and a Sky™/Sky+™ compatible remote control.

The SLx4L distribution system is easy to install and fully automatic in operation, meaning that no user adjustment is required once installed. The low running cost permits continuous operation.

## INSTALLING THE SLx4L AMPLIFIER

### **Before your begin**

We advise that high quality satellite cable is used for all connections at all times when installing your distribution system. Using lesser quality cable will result in noticeable signal loss and possible interference.

All connectors on the SLx4L are F-type connectors. F-type connectors offer a far superior connection and signal transfer than ordinary coaxial connectors.

**CONNECTION DIAGRAM (Fitting F-type connectors)**

### **STEP ONE – Connecting your inputs**

#### **CONNECTION DIAGRAM**

#### **SKY™**

Connect the satellite dish download to the **LNB IN** input on the SLx4L.

#### **SKY+™**

Sky+ systems use two download cables from the satellite dish; one for viewing and one for recording. Only one of these downloads needs to connect to the SLx4L. The other can be connected to the Sky+™ receiver as normal.

#### **UHF TV AERIAL**

Connect your UHF TV aerial download to the **UHF IN** input on the SLx4L

#### **CCTV**

*CCTV cameras with built-in RF modulator*

Connect your CCTV output cable to the **CCTV IN** input on the SLx4L

*CCTV cameras without built-in RF modulator (composite video phono output)*

The output from your CCTV camera must first be converted to an RF frequency before it can be connected to the SLx4L. To do this you will require an RF modulator. Connect the RF (TV OUT) output to the **CCTV IN** input on the SLx4L.

If you are not using the CCTV input, please attach the supplied terminator to it so to reduce any unwanted interference.

#### **FM AERIAL**

Connect your FM aerial download to the **FM IN** input on the SLx4L

#### **DAB**

Connect your DAB aerial downlead to the **DAB IN** input on the SLx4L

## **STEP TWO – Creating the downlink-uplink circuit (Sky™, Sky+™, VCR distribution only)**

### **NOTE**

**If you do not intend to distribute a Sky™/Sky+™ or VCR signal to each television, it is not necessary to complete this section. Use the supplied shorting cable to connect between the DOWN LINK OUT and UP LINK IN sockets on the SLx4L then move onto STEP THREE.**

The stage of the installation provides the SLx4L with further signals to distribute to the connected televisions:

1. Connect a length of satellite cable from the **DOWNLINK OUT** socket on down to the location of your Sky™/Sky+™/VCR system. The downlink cable carries a mixed signal containing each of the inputs connected to the SLx4L.
2. Fit a triplexed outlet wall plate next to the location of your Sky™/Sky+™/VCR system and connect the downlink cable (above) to the rear of the wall plate.

The triplexed outlet wall plate (eg. Philex Part No. 27965U *Screened triplexed outlet with UK faceplate*) MUST be used in order to separate the mixed signals contained in the downlink cable. The signals are then available from the following sockets on the triplexed outlet wall plate:

SAT output	-	Carries signal from LNB input on SLx4L.
TV output	-	Carries signals from CCTV input and UHF input on SLx4L.
FM-DAB output	-	Carries signals from DAB and FM inputs on SLx4L.

### **CONNECTION DIAGRAM**

The downlink cable carries a mixed signal containing each of the inputs connected to the SLx4L.

#### **A. DISTRUBUTING A SKY™/SKY+™ SIGNAL**

### **CONNECTION DIAGRAM**

1. Connect an aerial fly-lead from the **TV** socket on the triplexed outlet wall plate to the aerial input on the Sky™/Sky+™ receiver.
2. Connect a length of satellite cable from the **SAT** socket on the triplexed outlet wall plate to the LNB/dish input on the Sky™/Sky+™ receiver.
3. Connect a length of satellite cable from the RF2 socket on the Sky™/Sky+™ receiver to the **UP LINK IN** socket on the SLx4L.
  - The Sky™/Sky+™ receiver can continue to be connected to a television in the same location using a SCART cable.
  - Each TV connected to the SLx4L will be able to tune any channel to the Sky™/Sky+™ receiver.

Note: If you wish to use a wall plate between any connections, ensure that the wall plate is 'unscreened' or 'un-isolated'. Using isolated or screened wall plates will prevent the use of infrared link devices. Screened or Isolated wall plates can be identified by a small number of electrical components on the rear of the plate. These components will block the voltage required to power infrared link devices. If in doubt ask your local electrical retailer.

#### **B. DISTRUBUTING VCR SIGNAL**

### **CONNECTION DIAGRAM**

1. Connect an aerial fly-lead from the **TV** socket on the triplexed outlet wall plate to the aerial input on the VCR.

2. Connect a length of satellite cable from the aerial output socket on the VCR to the **UP LINK IN** socket on the SLx4L.
  - The VCR can continue to be connected to a television in the same location using SCART cables.
  - Each TV connected to the SLx4L will be able to tune any channel to the VCR signal.

### *C. DISTRIBUTING BOTH A VCR AND SKY™/SKY+™ SIGNAL*

#### **CONNECTION DIAGRAM**

1. Connect an aerial fly-lead from the **TV** socket on the triplexed outlet wall plate to the aerial input socket on the VCR.
2. Connect an aerial fly-lead from the aerial output on the TV to the aerial input on the Sky+™ receiver.
3. Connect a length of satellite cable from the **SAT** socket on the triplexed outlet wall plate to the LNB/dish input on the Sky™/Sky+™ receiver.
4. Connect a length of satellite cable from the RF2 socket on the Sky™/Sky+™ receiver to the **UP LINK IN** socket on the SLx4L.
  - The Sky™/Sky+™ receiver and VCR can be continue to be connected to a television in the same location using SCART cables.
  - Each TV connected to the SLx4L will be able to tune any channel to the Sky™/Sky+™ receiver and the VCR.

Note: If you wish to use a wall plate between any connections, ensure that the wall plate is 'unscreened' or 'un-isolated'. Using isolated or screened wall plates will prevent the use of infrared link devices. Screened or Isolated wall plates can be identified by a small number of electrical components on the rear of the plate. These components will block the voltage required to power infrared link devices. If in doubt ask your local electrical retailer.

#### **TIPS FOR UPLINK AND DOWNLINK CABLES**

Ensure that all uplink and downlink cables are of the highest quality you can afford. The quality of the cable directly affects the performance of the system.

The cable can be fed indoors or outdoors. Take care not to create kinks in the cables or feed the cables around any tight bends as this can damage the cable core and as a result signal quality can become poor or even lost.

It is permitted to run the uplink and downlink cable side by side (parallel to each other) provided that the cables are of a high quality to prevent any cross interference between the cables.

#### **USING THE SLx4L WITH DTT (DIGITAL TERRESTRIAL TELEVISION) RECEIVERS**

The SLx4L is designed to utilise the advantages of Sky™/Sky+™ distribution. It is however possible to distribute a DTT receiver signal through the SLx4L provided that your DTT receiver is equipped with both an aerial input AND an aerial output. Follow the steps shown in STEP 2B but substitute the VCR with your DTT receiver. If you have a VCR and a DTT receiver, connect the two in series but ensure that the DTT receiver is connected BEFORE the VCR.

*Note.* As with Sky™/Sky+™ distribution, you will only be able to view one channel in any TV location at any one time unless a DTT receiver is installed in each TV location requiring independent channel selection.

*Note.* Infrared link products will not be compatible with DTT receivers.

### **STEP THREE – Connecting your televisions**

Once you have connected all of your inputs (STEP ONE) and completed the downlink-uplink circuit you can feed each output to each of your TV locations. Use high quality satellite cable in order to maintain a high quality signal with minimum interference.

You can fit a diplexed outlet wall plate in each location in order to separate UHF signals from the FM and DAB signals (if applicable).

**Note.** The wall plate must be unscreened or un-isolated for use with infrared link devices with Sky™/Sky+™ systems. (eg. Philex Part No 19150 *TV and FM coaxial diplexed wall outlet*).

Each television connected to the SLx4L will be able to tune to any available terrestrial television channels, any available DTT channels (when connected to dedicated DTT receiver, as well as tune to other equipment connected within the uplink circuit.

### **TROUBLESHOOTING**

**If you are still experiencing reception problems after installing the SLx4L amplifier, please refer to the below troubleshooting guide:**

#### **No picture or sound**

No signal is reaching your television due to a possible break in the aerial signal path. Ensure that all equipment has been switched on (including the SLx4L amplifier) and that all coaxial connectors have been fitted correctly.

If you are not using Sky™ or Sky+™ ensure the uplink circuit has been completed by connecting the supplied shorting cable from the **UP LINK IN** socket to the **DOWN LINK OUT** socket.

If you are able to view your Sky™/Sky+™ receiver signal in each room but not terrestrial television it is because the uplink cable does not contain the UHF signal. Ensure that your UHF aerial has been connected to the SLx4L correctly and that the Sky™/Sky+™ receiver is connected to the TV socket on the triplexed outlet wall plate (See STEP 2A or STEP 2C).

#### **Snowy picture**

Your signal strength is too weak. You may have to use a masthead aerial amplifier improve the signal quality from the UHF aerial downlead. Also ensure that your aerial is positioned correctly (pointing at your local TV transmitter). For details of your local television transmitters, visit [www.bbc.co.uk/reception](http://www.bbc.co.uk/reception). Aging aerials become corroded by the weather, which may need to be replaced. Also check that the position of the aerial has not been misaligned by weather, birds, or loft activity.

#### **'Herringbone' pattern**

'Herringboning' is generally caused by too strong signal or possibly by a local high power transmitter such as CB, amateur or taxi radios. Your TV sound may be affected as well as the picture. Use a signal attenuator (available from your local electrical retailer) to reduce the gain of your aerial signal and improve your picture. If you are located very close to your local television transmitter, point your aerial at an alternative transmitter in order to receive a more suitable level signal.

#### **Problems with DTT**

Unlike analogue terrestrial television, it is not possible to view DTT channel under weak signal strength conditions. Therefore, typically you will either receive DTT channels with a clear picture and sound or you will not receive any channels at all.

Sometimes, an insufficient digital signal can cause occasional blocking, freezing or complete loss of picture. Some roof aerials may not be suitable for digital terrestrial television. Ensure that you have fitted a suitable wideband, high gain aerial to help improve signal quality to a suitable level for clear DTT reception

Blocking, freezing or complete loss of picture can also occur when a digital signal is too strong, If your signal is too strong then connect your DTT receiver directly to the UHF aerial downlead, then connect the SLx4L amplifier to your DTT receiver output followed by your remaining equipment. If the signal is still too strong, fit a signal attenuator between the aerial downlead and DTT receiver to help reduce the signal strength.

For specific help with digital terrestrial television reception problems, visit [www.dtg.org.uk](http://www.dtg.org.uk)

### **Problems with satellite television**

If you are experiencing any problems with your satellite television picture, check that all cables and connectors have been fitted correctly. If the problem persists it is probably due to the dish alignment or a temporary problem with the channel transmissions. Please contact your local satellite dealer if the problem persists.

### **Infrared Link problems**

If your infrared link is not functioning, it may be because power is not reaching it from the Sky™/Sky+™ receiver. Check that the uplink cable is connected to the RF2 socket on the Sky™/Sky+™ receiver. Ensure that all wall plates used between the Sky™/Sky+™ receiver and the infrared link are unshielded or un-isolated. Check that the Sky™/Sky+™ receiver has been set up correctly to use with infrared links and ensure that all coaxial and F-type plugs have been fitted firmly. If the problem persists, contact the infrared link manufacture for further advice.

### **Technical Support**

If you are experiencing problems setting up your SLx4L amplifier, or have any questions regarding this product or any other product within the Philex range, please call the Philex Customer Care Line on 08457 573 479 (UK only). Calls are charged at local rate. Mobile call charges may vary, please contact your network provider for details.

Alternatively, please visit our technical website at <http://technical.philex.com>

## **TECHNICAL SPECIFICATIONS**

### **OPERATING FREQUENCY:**

FM	-	88 – 108 MHz
DAB	-	217 – 230 MHz
UHF	-	470 – 864 MHz
CCTV	-	470 – 864 MHz
LNB	-	950 – 2300 MHz

### **DOWNLINK OUTPUT:**

FM	-	4dB loss
DAB	-	5dB loss
UHF	-	2.5dB loss
CCTV	-	6.5dB loss
LNB	-	2dB loss

### **GAIN PER DISTRIBUTION PORT:**

8dB

**WEIGHT:**

850g

**DIMENSIONS**

340 x 120 x 56mm