

INSTRUCTIONS FOR INSTALLATION AND USE

PROception starLINK is a wired remote control extender system. It is used where the outputs from set-top box equipment such as VCR, DVD, satellite and digital receivers, etc. are 'piped' to TV sets in one or more additional rooms. StarLINK facilitates remote control of the set-top equipment from these other rooms, enabling you, for example, to watch digital satellite programmes on a bedroom TV with full control of the Digibox.

Basics

In these instructions we refer to the location of the central set-top equipment as the *master location* – this is usually the living room or lounge, where the main TV is situated. Other rooms which receive wired TV signals distributed from the master location are called *extension rooms*. The set-top equipment at the master location is referred to as the *source equipment*.

These instructions assume that the source equipment is already installed and working satisfactorily, with good TV signals from the aerials and satellite dish (if fitted).

Single extension room

This starLINK kit contains all the parts (except cable) necessary to install a basic system to distribute signals from the master location to one extension room with remote control of the source equipment. (Existing extension wiring can usually also be used.)

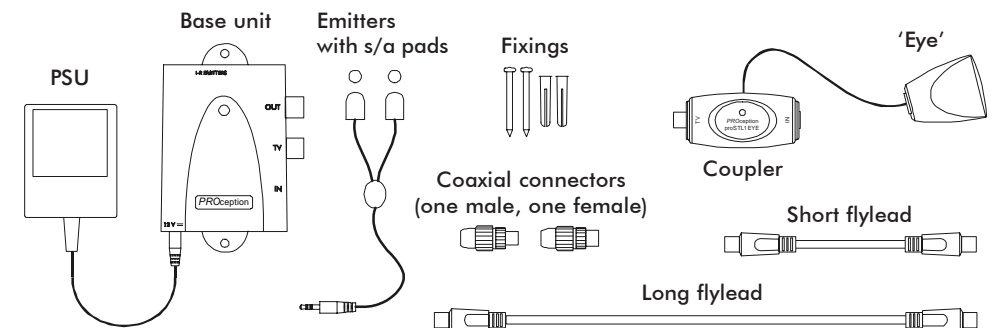
Multiple extension rooms

StarLINK can also be used in homes equipped with a PROception starBOX RF hub. The starBOX system incorporates a special starLINK-compatible distribution amplifier which allows up to five or ten extension rooms (depending on the starBOX model fitted) to be connected.

Compatibility

Multi-extension-room remote control with starLINK can only be achieved where a PROception starBOX is fitted. StarLINK is not compatible with other types of 'return path amplifier' and may not be compatible with amplifier bypass kits from other manufacturers. StarLINK is a wired infra-red re-emission type of remote control extender and is compatible with the majority of household sound and vision equipment. StarLINK is not compatible with UK Digital Cable set-top boxes or with B&O 'Beolink'.

Fig. 1 – Contents of kit.



Compatibility disclaimer

Occasionally equipment may be found that cannot be controlled via starLINK. Although we guarantee that starLINK equipment will perform its intended opto-electronic functions, PROception cannot guarantee interoperability of this system with every piece of audio or video equipment on the market. Some known incompatibilities are listed under the heading "Compatibility" on Page 1.

2-Year Guarantee

This guarantee covers failure of your PROception product resulting from manufacturing defect within a period of 2 years from the date of supply to the end-user.

This guarantee does not cover damage to the product caused by abuse, tampering, defective installation or natural causes such as lightning discharge. Repair or attempted repair, other than by the manufacturer, will render this guarantee void.

This guarantee does not affect a consumer's statutory rights.

Performance data given are typical unless otherwise stated. Proception Limited reserves the right to change product designs and specifications without prior notice.

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System components

This section gives a brief description of each part of the starLINK system.

Components supplied in this kit

Eye – located in the extension room, the infra-red receiver eye picks up remote control commands and sends them back along the TV signal cable to the *base unit*. The eye consists of two parts: the receiver eye itself and the *coupler*, which serves to connect the eye into the signal cable.

Base unit – this is located near to the source equipment and serves three purposes. Firstly it splits the signal to feed both the local (main) TV and the extension rooms, secondly in a single-extension system it provides power to the remote eye and thirdly it interfaces the commands from the extension rooms to the *emitters* or *blaster*.

Power supply unit (PSU) – a plug-in power unit (mains adapter) which provides DC power for the base unit.

Emitters – the stick-on emitters, supplied in pairs, are small devices which attach to the front of the source equipment you wish to control from the extension rooms. They plug into the base unit and re-emit the infra-red commands relayed from the extension room(s). Two emitter pairs can be connected to one base unit.

Sundries – fixings, coaxial plugs and flyleads.

Other accessories available

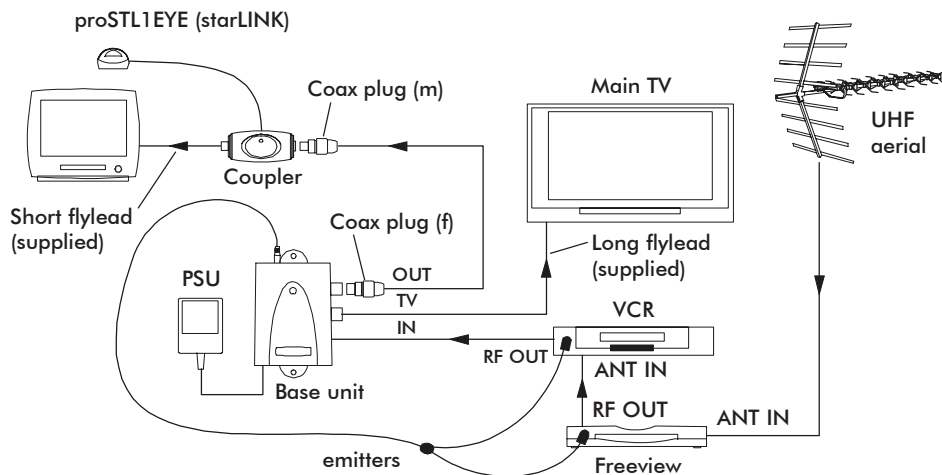
Additional eyes – in systems using the PROception starBOX RF hub, up to five or ten extension rooms (depending on the starBOX model fitted) can be equipped with remote control eyes. Additional eye kits are available separately (product code proSTL1EYE).

I-R blaster – the blaster accessory (product code proSTL1BLAST) is an alternative to the stick-on emitters, useful where more than two items of source equipment need to be controlled, or where the emitters are considered inconvenient. The blaster operates by emitting higher-level infra-red radiation in a similar fashion to a remote control handset and can be placed in the general vicinity of the source equipment.

Installation wiring

Typical installation wiring diagrams are shown in Figs. 2 to 5. These should be used as a general guide to principles since the particular equipment installed will vary.

Fig. 2 – Stand-alone application with a single extension room.



Troubleshooting hints

The following list may help if you are experiencing remote control problems.

| Checklist | Comments |
|---|--|
| Are you using the right remote handset for the equipment you are trying to control? | Check obvious things first! |
| Is the master location (living room) installation OK? | Check that the base unit and emitters (or blaster) are correctly installed and connected – see wiring diagrams. Problems here will affect operation in ALL extension rooms. |
| Is each coupler connected the right way round? | If a coupler is connected backwards TV pictures will be OK, but remote control will not work. |
| Does the red LED indicator on the coupler flash when a handset button is pressed? | If not, the most common problem is a lack of power from the base unit or starBOX. This is usually due to a connection problem, such as a badly fitted coax plug, damaged flylead or the presence of an isolated outlet plate (see text above). Check all connections carefully. (There should be 8 - 9 V DC on the IN connection to the coupler – check with a multimeter if necessary.) |
| Is the eye positioned away from bright light sources? | Direct sunlight or bright light from fluorescent lamps (or the TV screen itself) falling on the receiver eye can inhibit operation. This will also stop the coupler's LED indicator flashing. Experiment by re-positioning the eye (or lamps). |
| Does the base unit LED flash red when an extension room handset is operated? | If not, check the connection between the base unit (OUT) and the starBOX (UHF RETURN) for DC continuity. In a stand-alone system check continuity between the base unit and the coupler. If this LED does flash, check the emitter or blaster connection and positioning. |

* "Sky" and "Sky+" are registered trade marks of British Sky Broadcasting Group PLC.

† "Freeview" is a registered trade mark of the British Broadcasting Corporation.

Safety Instructions

OVERHEATING

The recommended ventilation clearances and other precautions given in the relevant section of this instruction leaflet should be observed to prevent overheating. No unit should be fixed where it is likely to become smothered by soft furnishing fabrics such as curtains, or by thermal insulation material in a roof space or building void. Mains powered equipment should not be left resting on a carpet.

WATER AND FIRE RISKS

Components of this kit are not waterproof. They are intended for indoor use only and must not be placed where they could be exposed to dripping or splashing water. Objects containing liquids should not be placed on or near the components.

To prevent risk of fire, no object with a naked flame should be placed on or near any of the components or the associated wiring.

MAINS POWER SUPPLY UNITS

The power unit supplied as part of this kit is suitable only for use with 13 A sockets to BS 1363. Consult a qualified electrician if the socket outlets in the location where the appliance is to be installed are of a different type.

FIXED WIRING

Any fixed wiring installed to supply power to this system should comply with BS 7671 (IEE wiring regulations, 16th Edition) and, where relevant, Part P of the building regulations. The power unit is of Class 2 construction and does not require a protective earth connection. This does not obviate the need to provide a circuit protective (earth) conductor in the supply wiring, as required by BS 7671.

Tuning

In a new installation, extension room TVs will need tuning-in to the output channel(s) from the source equipment at the master location (usually the main living room). To tune-in these TVs leave a tape or disk playing on a VCR or DVD player, or select a known channel on a digital receiver, then tune an unused channel setting on each of the remote TVs into the video or digital programme. Repeat this procedure for each set-top item. For instructions on how to tune a TV refer to its instruction manual or the manufacturer's help line or Web site. In starBOX systems similar tuning will be required for the CCTV camera output, where installed.

If more than one item of set-top equipment is connected in the system you may experience severe interference (patterning) when more than one output channel is present. In this case the output channel number (modulator channel) for one or more items will need to be changed, and the relevant TVs retuned.

Testing

Once installation is complete and TV pictures are available in all extension rooms, test the system to ensure that remote control of each item of source equipment is working in every extension room. For example, if you are watching a Freeview[†] or Sky* Digital channel from a Freeview[†] or Sky* box in the living room it should be possible to control the relevant box from any extension room equipped with a starLINK eye. The normal remote handset for each item of equipment should be used (or alternatively a suitable 'universal' handset programmed for your equipment).

During testing you may need to experiment with the positioning of the eyes and/or emitters to obtain reliable operation of the system. The LED indicators provided on the eye couplers and base unit can help with testing:

- The coupler LED should flash red whenever a remote control command is received by the eye.
- The base unit LED is a 2-colour device: green for power-on indication and red to indicate when remote control commands are being received from an extension room.

Avoiding problems

Some dos and don'ts

- Each eye should be positioned to face toward the viewing area of the room. Avoid placing an eye where it could be exposed to full sunlight, or near other bright lights, particularly compact fluorescent lamps. (These light sources could inhibit correct operation of the infra-red receiver.)
- Don't plug the coupler directly into the aerial socket of a TV, since its weight could place excessive stress on the TV's connector and cause damage. Always use the short flylead supplied for this purpose.
- Don't cut off an unused emitter (see Page 5).
- The signal connections to the extension rooms must not include any isolated outlet plates. These will not pass the power supply from the base unit or starBOX to the eyes and will need to be replaced to ensure correct operation of the system.

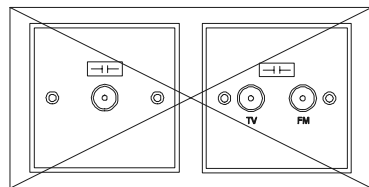


Fig – 7. Old isolated outlet plates are not compatible with the starLINK system.

Fig. 3 – Master location wiring for starBOX system with Sky+*

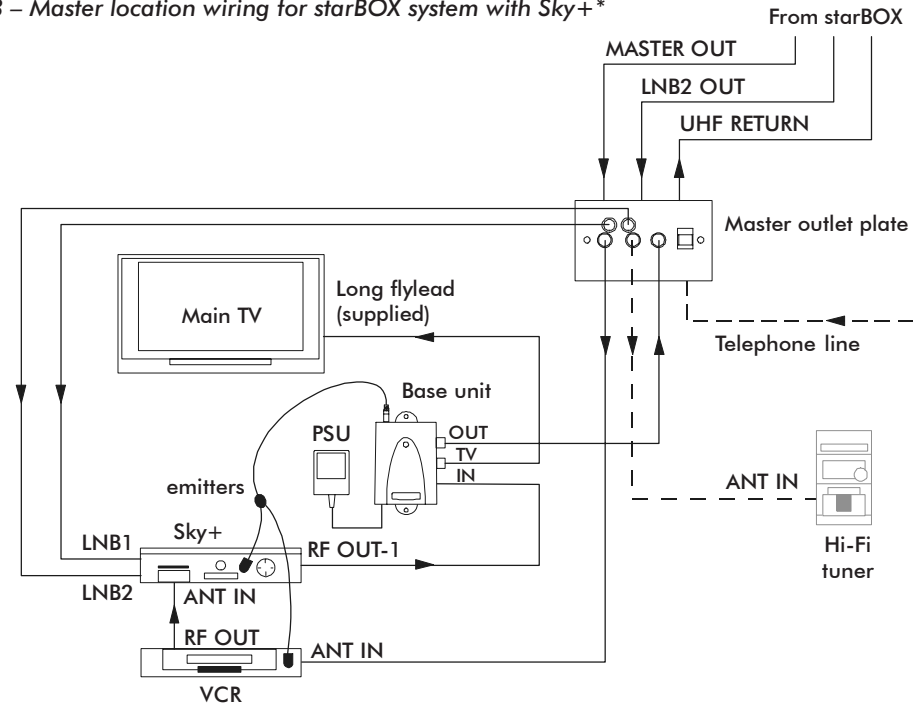


Fig. 4 – Master location wiring for starBOX system with a Freeview[†] receiver.

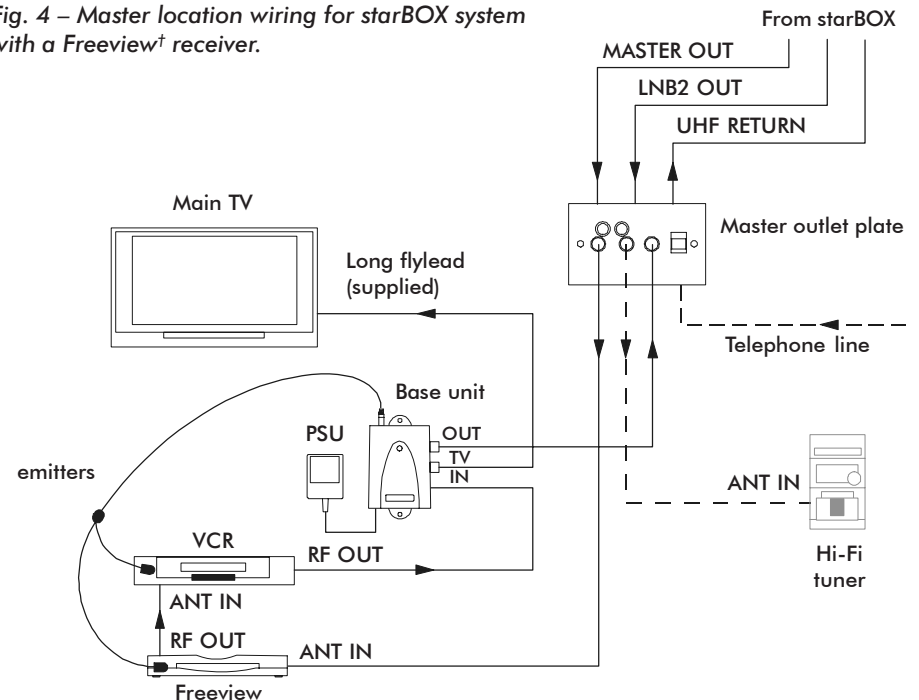
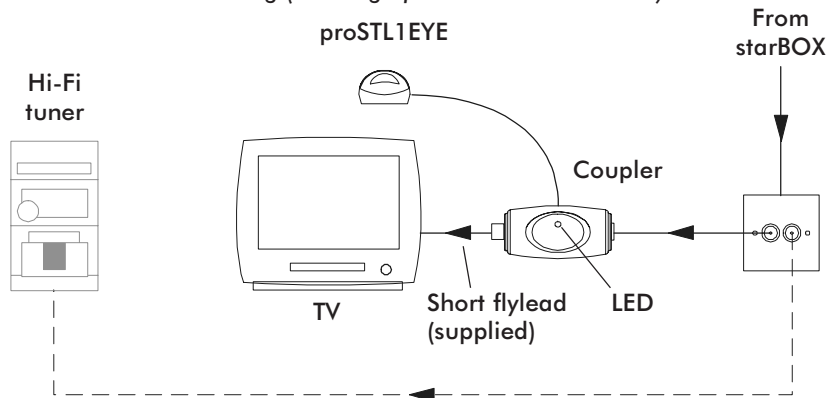


Fig. 5 – Extension room wiring (showing optional VHF radio tuner).



Single extension room (stand-alone application)

The installation wiring diagram for the basic single-extension system is shown in Fig. 2. The wiring steps for this application are as follows:

1. Divert the aerial lead from the main TV to the IN connector of the base unit.
2. Connect the longer flylead supplied between the TV connector of the base unit and the TV aerial socket.
3. Run a coaxial cable connection from the OUT connection of the base unit to IN connector of the coupler in the extension room. The coaxial connectors supplied in the kit will need to be fitted to the ends of the cable (see coaxial connectors on Page 5). Note that the female connector is used at the base unit end (master location) and the male connector at the extension room end.
4. Connect the TV end of the coupler to the TV via the shorter flylead supplied.
5. Position the receiver eye on top of the TV, or in a suitable nearby location, facing toward the seating or TV viewing area of the room.

Now connect the power unit and emitters (or blaster) to the base unit and you should have a working system – see the notes on tuning and testing below.

Multiple extension rooms (starBOX systems)

Typical master location wiring is shown in Fig. 3 for Sky* or Sky+* systems and Fig. 4 for a Freeview† system. (These diagrams assume that the starBOX system has been installed in accordance with the instructions supplied.) Note that a new flylead (not supplied) will be required to connect between the base unit (OUT) and the RETURN input socket on the master outlet plate.

In all cases the input to the base unit should come from the final item of source equipment in the signal chain, and the return feed to the starBOX must be taken directly from the OUT connector of the base unit.

Extension room wiring is shown in Fig. 5. Take care to ensure that the coupler is connected the right way round (the IN and TV connectors are clearly marked). Where a dual TV & radio outlet plate is installed in the extension room, as shown in the figure, take care to connect the coupler and TV to the TV side of the plate. If further set-top TV equipment, such as a local VCR or Freeview† box, is to be used in an extension room it should be connected between the coupler and the TV. The output channel from such equipment will only be available in that extension room.

Eye installation with an existing TV

Where an extension room already has a TV installed follow these steps to install the starLINK eye:

1. Unplug the aerial lead from the TV and plug it into the female IN connector of the coupler.
2. Plug the male TV connector of the coupler into the TV's aerial socket via the short flylead provided.
3. Position the receiver eye on top of the TV, or in a suitable nearby location, facing toward the seating or TV viewing area of the room.
4. Select a VCR or set-top box channel on the TV and check that remote control operation of the relevant source equipment is working.

General installation notes

Base unit and power supply

The base unit should be fixed to a wall, skirting board or similar surface using the fixings provided. Connect the output of the power supply to the base unit before connecting the the power unit to the mains supply.

The power unit supplied is for use with a standard UK (BS 1363) mains socket-outlet only. Before connecting this equipment to the mains supply, read the safety instructions on page 7. Disconnect the power unit from the mains whenever the equipment is to remain unused for long periods of time.

Emitters or blaster

One emitter device should be stuck to the front of each item of source equipment. The exact positioning is not usually very critical, but it is recommended to experiment with the position of each emitter (see the section below on testing) before sticking it in place. The emitter housings are transparent to infra-red and do not interfere with normal local operation of the equipment. The low-tack sticky pads supplied in the kit allow the emitters to be removed easily when necessary.

The emitters plug into the jack connectors on the top of the base unit. Up to two emitter pairs may be connected. If one of the emitters of a pair is unused it should be tucked away behind the equipment. Do not cut an unused emitter off the wiring harness as this will stop the other one working (they are wired in series). Separate instructions are supplied with the blaster accessory.

Coaxial connectors

The connectors supplied may be used for the ends of the extension cable run in the stand-alone (single extension room) application, or for making-up a flylead. The correct method of fitting the connectors is illustrated in Fig. 6. For best results the use of a double-screened (tape and braid) cable such as 'CT100-type' or WF100 is recommended.

Fig. 6 – Fitting the coaxial connectors

