

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

The appliance is not waterproof. It is intended for indoor use only and must not be fixed where it 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 appliance, or its associated wiring.

MAINS POWER SUPPLY UNITS

The power unit(s) supplied as part of this appliance are 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 appliance should comply with BS 7671 (IEE wiring regulations, 16th Edition). The appliance power units are of Class 2 construction and do 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.

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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PROception

proWSS1
Wireless AV signal sender

INSTALLATION AND OPERATION INSTRUCTIONS

The proWSS1 provides a short-range licence-exempt wireless AV link. It can be used to transmit video, and accompanying stereo audio, from any source which provides standard baseband outputs (audio and composite video). This product must not be used to provide an audio-only link.

The proWSS1 system includes a wireless infrared remote control return link. This allows an AV source to be operated remotely, using its usual handset. The link can also be used to control ancillary equipment such as a separate satellite dish positioner, or a SCART switch (for source switching).

In these instructions the equipment providing the AV signal to be transmitted is referred to as the AV source. The receiving end of the link is referred to as the remote location. To use this product the TV in the remote location must have at least one AV input (SCART socket or phono sockets).

Examples of AV sources

- Video cassette recorder (VCR) or DVD player.
- PC tuner cards or TV-OUT from graphics card.
- CCTV camera.
- Digital TV receiver boxes.
- Cable TV boxes, analogue or digital (see note below regarding remote control compatibility with digital cable boxes).

Application examples

- Watch VCR, DVD or satellite TV in a bedroom, study or on children's TV without extra wiring.
- Baby monitoring.
- Monitor a remote security camera on a TV in the house.

Limitations

The proWSS1 does not take the place of a wired aerial distribution system. It can only transmit one AV source at a time. It works with video and audio signals and not with the RF signals from an aerial. The TV at the remote location still requires an aerial connection for watching normal off-air TV.

The proWSS1 must not be used to provide an audio-only link. (This is a legal restriction related to licence exemption, rather than a technical limitation.)

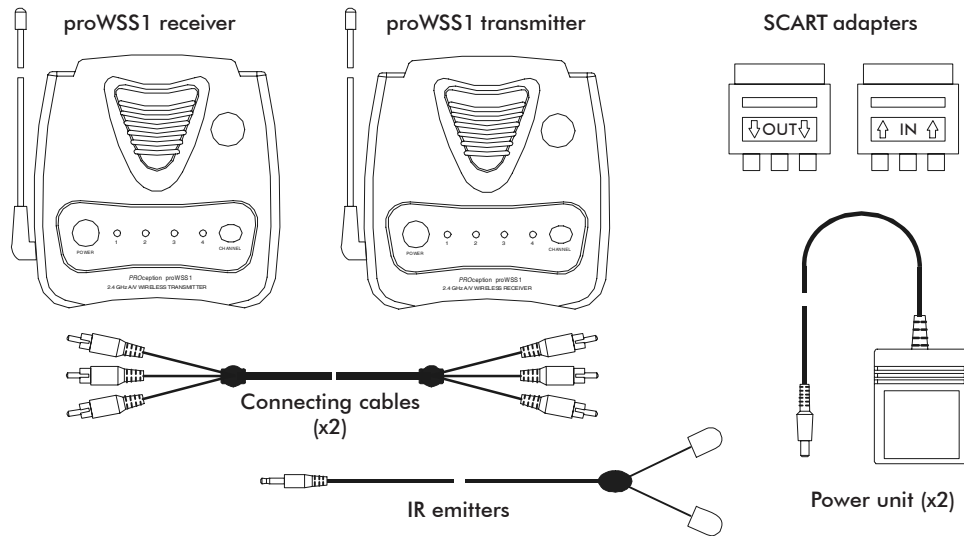
The remote control extender system is compatible with many manufacturers' products, but universal compatibility is not guaranteed. The remote control extender system in this product is not compatible with some digital cable TV boxes in the UK.

Users should be aware that wireless links may not be secure. A neighbour using the same or similar equipment may be able to receive and watch your AV source material.

Operating range

The proWSS1 system is intended to be operable over a range of a few metres in buildings of standard masonry and timber construction. In practice the usable operating range will vary considerably, depending on the nature of building materials and other obstructions between transmitter and receiver. Large metallic obstructions, such as foil-backed plasterboard, will cause a screening effect and may reduce the usable range considerably.

Fig.1 - System components



System components

Transmitter – connects to the AV source at the sending end of the link; also acts as a receiver for remote control commands coming from the remote location.

Receiver – connects to TV display at the remote location. The receiver also contains an infrared ‘eye’ and UHF radio transmitter for sending remote control commands to the source equipment.

IR emitters – optionally used with the transmitter to relay infrared remote control commands to the source equipment.

Power units – used with the transmitter and receiver; for use with standard UK 13A socket-outlets only.

Connecting cables – two identical AV cables for connecting between the source and transmitter, and between the receiver and TV.

SCART adapters – used where necessary to convert between the ‘phono’ plugs on the cables and SCART sockets on the source and TV. Observe the colour coding of the phono sockets, which should be matched to the plugs during installation. **Important:** the two SCART adapters are different and cannot be interchanged between the AV source and remote location ends of the link (see installation diagrams, Figs. 2 & 3).

Transmitter and receiver locations

Locate the transmitter and receiver in convenient positions near to the AV source equipment and remote location TV. Avoid placing the transmitter or receiver on top of a stack of other equipment as this may result in overheating. Clearance of at least 50 mm should be allowed above and around the units for ventilation. Ensure that the transmitter and receiver will not become smothered by fabrics (such as curtains) or by other thermally insulating materials.

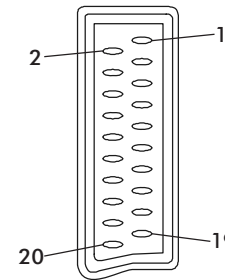
Where the link is being used toward the limit of its range it will be necessary to experiment with the equipment locations to obtain best picture and sound quality. Positions which provide a high clear ‘view’ towards the other end of the link will usually be best.

SCART Adapter pin connections (NC = no internal connection to pin)

Output from source (input to transmitter)

pin no.	connection	pin no.	connection
1	R audio out	11	NC
2	NC	12	NC
3	L audio out	13	NC
4	Ground (audio)	14	NC
5	NC	15	NC
6	NC	16	NC
7	NC	17	Ground (video)
8	NC	18	NC
9	NC	19	Video out (CVBS)
10	NC	20	NC
		21	Ground (shell)

Fig.4 SCART connector pin numbers (view towards socket)



Input to display (output from receiver)

pin no.	connection	pin no.	connection
1	NC	11	NC
2	R audio in	12	NC
3	NC	13	NC
4	Ground (audio)	14	NC
5	NC	15	NC
6	L audio in	16	NC
7	NC	17	Ground (video)
8	NC	18	NC
9	NC	19	NC
10	NC	20	Video in (CVBS)
		21	Ground (shell)

Troubleshooting hints

Problem	Check the following
AV transmission not working.	Is all relevant equipment powered-up and correctly connected? Is the AV source providing signals? Check by connecting directly to a TV SCART socket instead of transmitter (if not, refer to AV equipment manuals). Is the display TV set to the correct AV ‘channel’ or input, corresponding to the SCART socket to which the receiver is connected? Try out the link at very short range (same room) then separate the ends gradually to establish limit of range for your particular circumstances.
Interference on picture.	Try using a different channel (see ‘Operation – selecting a channel’ on page 6).
Remote controls not working from remote location.	Are you are using the correct handset(s) for the equipment concerned? Try moving the receiver unit (sunlight and some types of fluorescent lights can interfere with the IR receiver). Try moving the ‘whip’ aerials on the transmitter and receiver (these are used for the UHF remote control link only). Experiment with position of IR emitters on source equipment. Equipment may not be compatible (e.g. digital cable boxes, B&O ‘Beolink’).
Remote controls not working in source room (transmitter end).	Switch off proWSS1 transmitter.

Phono connections

Equipment with 'phono' connectors (also known as 'RCA' or 'Cinch') can be connected to the transmitter or receiver simply by omitting the SCART adapter(s) shown in Figs.2 and 3. Plug the proWSS1 cable directly into the equipment, ensuring that each plug is inserted into the matching coloured socket – yellow for video, red for the right audio channel and white for the left audio channel.

Remote control emitters

Position the emitter(s) on or near the front(s) of AV source (or ancillary) equipment to be controlled from the remote location. It may be necessary to experiment with the exact position of the emitter(s) to obtain reliable remote control operation. When suitable positions have been found, secure the emitters with the self-adhesive pads. If only one emitter is used, tuck the other one away out-of-sight behind the equipment. Do not cut off the unused emitter as this will stop the remote control system working.

Power units

The power units supplied are for use with standard UK (BS 1363) mains socket-outlets only. Before connecting this equipment to the mains supply, read the safety instructions on page 8.

To install, connect the lead from the power unit into the socket marked '9V DC' on the back of the transmitter or receiver, then plug the power unit into a suitably located mains socket outlet and switch on.

Disconnect the power units from the mains whenever the equipment is to remain unused for long periods of time.

Operation — selecting a channel

The transmitter and receiver operate on one of four frequency channels, 1 - 4, indicated by LEDs on the units. Channel 1 is selected by default at switch-on and will be OK in most cases. If picture interference is experienced, experiment with use of the other channels in turn and select the channel which gives the best results. To select a channel, press the CHANNEL button repeatedly until the appropriate LED lights.

The transmitter and receiver must both be set to the same channel, otherwise no signal will be received. Other than for channel 1 it is necessary to re-select the desired operating channel when switching the units back on, or after a power cut.

Avoiding interference

To avoid causing interference to other 2.4 GHz wireless products, the transmitter should be switched off when not in use. This will also reduce the risk of interference with normal (local) operation of remote controls on the A/V source equipment.

Technical data

Video input/output level	1 V p-p (internal 75 Ω termination)
Audio input/output levels	350 mV RMS approximately
Transmission frequency band (AV)	2.400 .. 2.483 GHz, choice of four channels
Transmission bandwidth (AV)	18 MHz approximately, modulation type: FM
Transmitter power level (AV)	-10 dBm approximately (~100 μ W)
Transmission frequency (RC)	433.92 MHz
Operating range	100 metres maximum, under clear line-of-sight conditions
Power supply to transmitter & receiver units	9 V DC (unregulated) at 300 mA approximately, supplied with plug-in mains power units
Standards compliance	Safety: EN 60950; EMC: EN 301489-1, EN 301489-3; radio: EN300220-3, EN 300440 (licence exempt)

Transmitter and receiver connections

The transmitter and receiver can be connected in many different ways, depending on the type of equipment providing the AV source, and on other equipment in use with the remote location TV. This leaflet provides general guidance only. You may find it helpful to refer to the instructions for the accompanying AV equipment.

Fig.2a shows the basic transmitter connections. This configuration is appropriate where the AV source is a single item of equipment such as a camera, camcorder or VCR. In the last case the connection to the local TV must be made with an RF (aerial) cable.

Fig.2b shows how more than one item of source equipment can be connected. The principle is that the SCART lead that would usually go to the main TV is diverted to the transmitter, and an RF (aerial lead) connection is used for the main TV. Source selection can be made from the remote location, provided that both items of source equipment are IR controlled. Digital source equipment may need to be configured to provide a composite video output, rather than RGB, for this set-up to work.

Fig.3a shows the basic receiver connections. The aerial and its download should be omitted in 'monitoring' applications where off-air TV is not required.

Fig.3b shows how the receiver can be added to a remote location installation with a TV and dual-SCART VCR.

Fig.3c shows a VCR and digital satellite receiver in use with a TV which has two or more SCART connectors. This set-up is recommended where the proWSS1 system is being used for baby or security monitoring on the main TV. (Best picture quality from a digital receiver or DVD player will usually be obtained by connecting the receiver or DVD to SCART input 1 of the TV and, if necessary, configuring it to provide RGB output. The proWSS1 receiver should be connected to SCART input 2 or 3.)

Fig.2a - Basic transmitter connections.

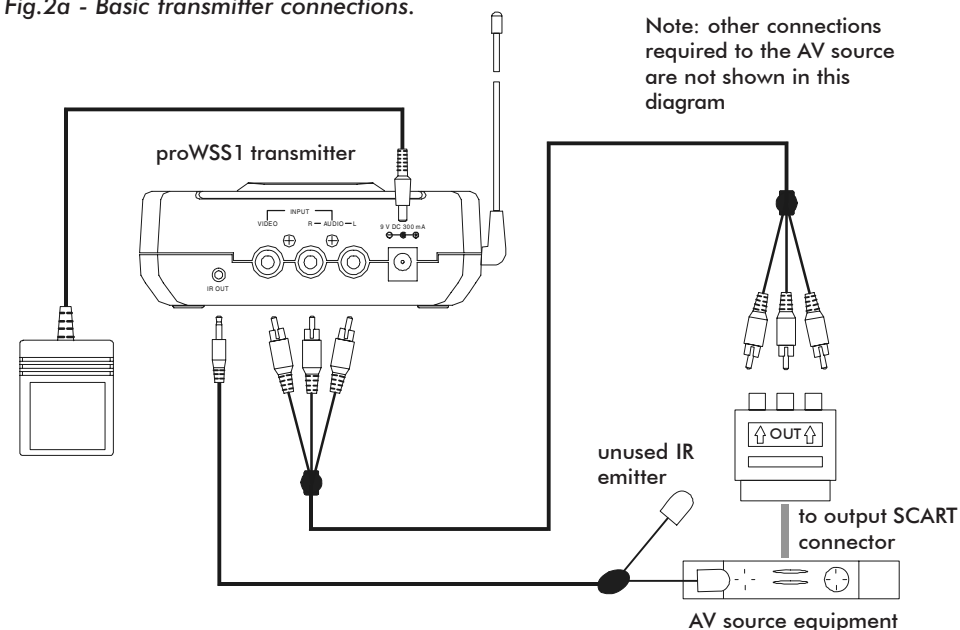


Fig.2b - Example of transmitter connection with VCR and digital satellite receiver.

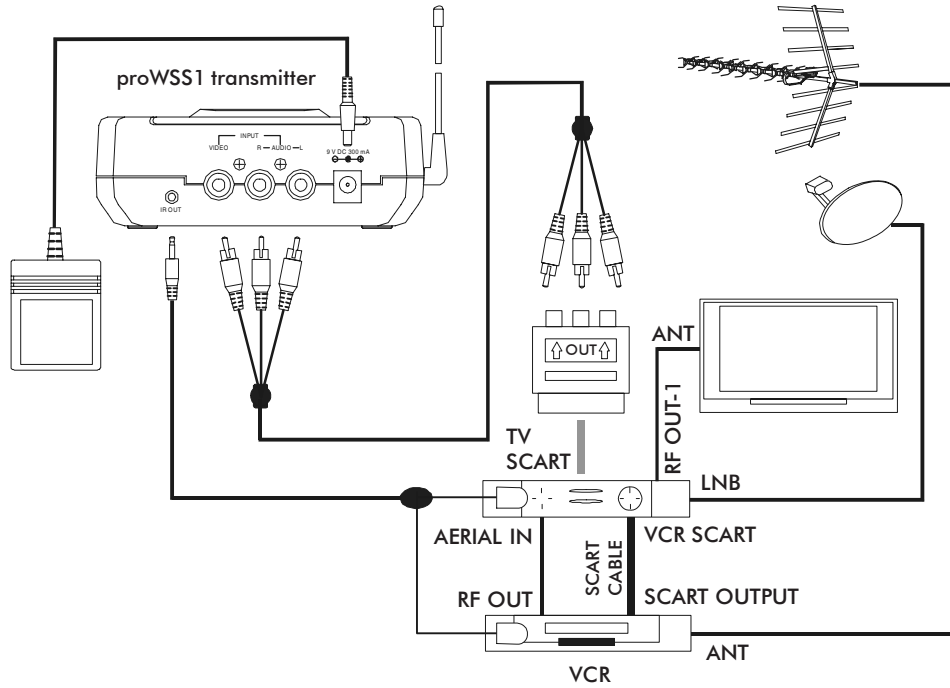


Fig.3b - Example of receiver connection with VCR and TV.

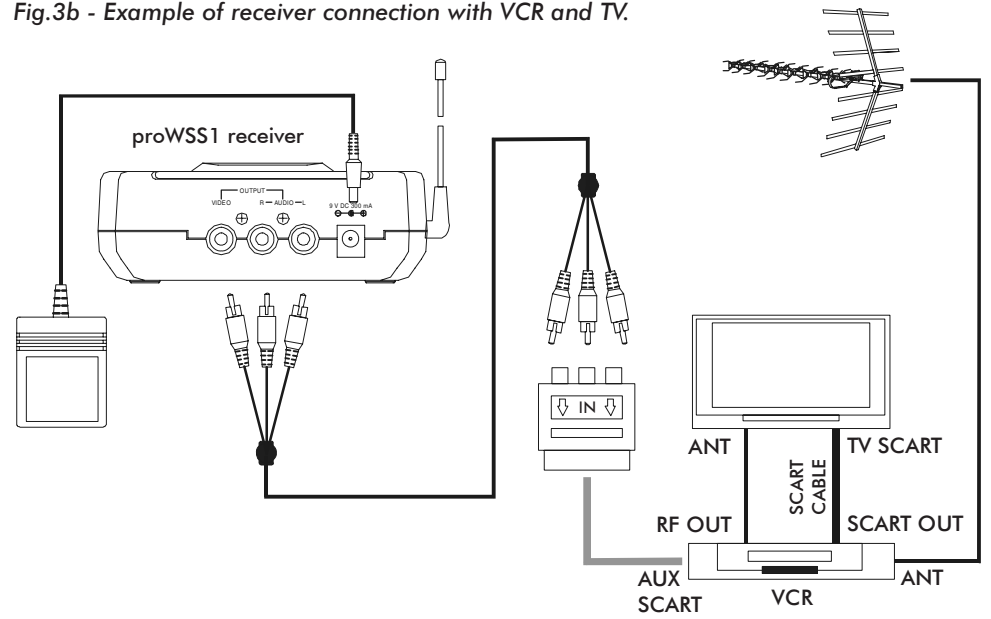


Fig.3c - Example of receiver connection for TV with multiple SCART sockets.

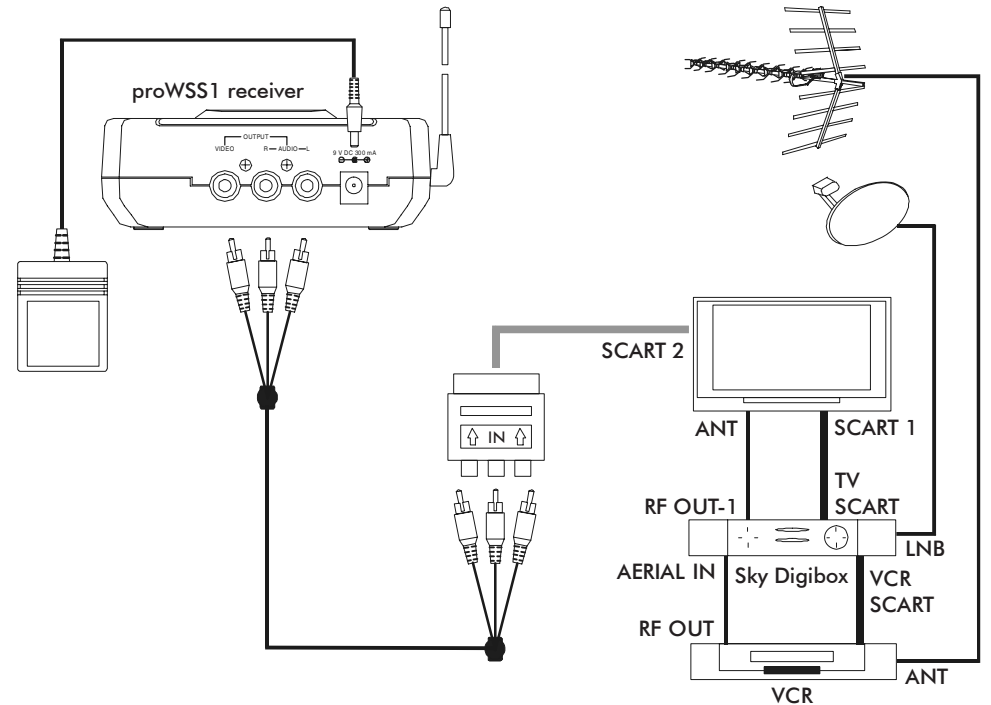


Fig.3a - Basic receiver connection (TV only).

