

SCART CONNECTOR

Also known as the Peritel or Euroconnector, this is the most widely used plug/socket arrangement for AV connections between VCRs, TV sets and satellite receivers. It was originally devised by the French in the late Seventies (SCART stands for Syndicat des Constructeurs d'Appareils Radio Recepteurs et Televisieurs – Peritel for peripheral television) Fig. 1 shows the socket. Standard pin connections are as follows:

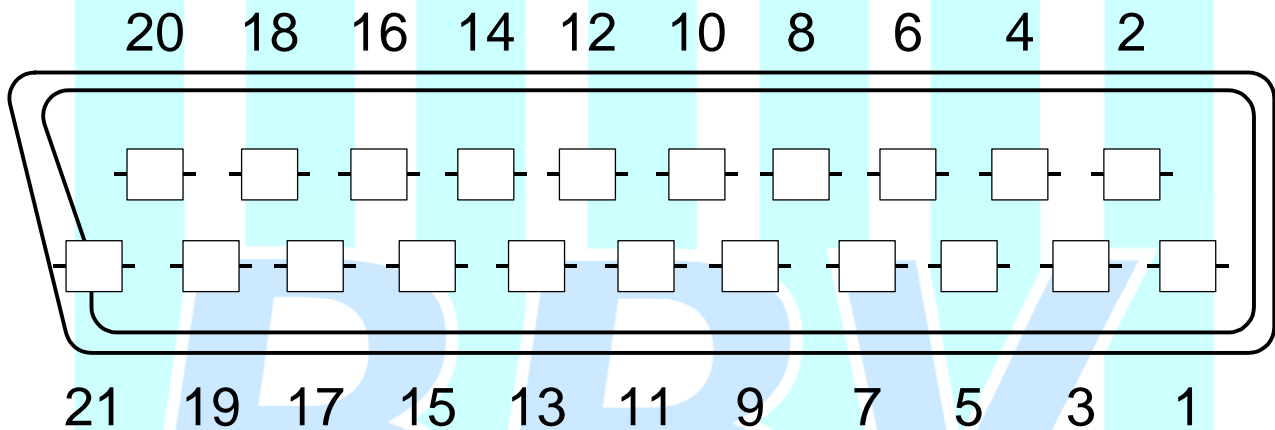


Fig. 1: SCART socket pin configuration.

- 1 Right audio channel output 0.5V to 1k Ω load.
- 2 Right audio channel input. 0.5V to 10k Ω load.
- 3 Left audio channel output. 0.5V to 1k Ω load.
- 4 Audio earth.
- 5 Blue Video signal earth.
- 6 Left audio channel input. 0.5V to 10k Ω load.
- 7 Blue video signal input. 0.7V at 75 Ω .
- 8 Source switching. Can vary. Usually 12V maximum to 10k Ω load.
- 9 Green video signal earth.
- 10 Data line.
- 11 Green video signal input. 0.7V at 75 Ω .
- 12 Data line.
- 13 Red video signal earth.
- 14 Data line.
- 15 Red video signal input. 0.7V at 75 Ω .
- 16 Fast RGB blanking.
- 17 CVBS (composite video, blanking and syncs) earth.
- 18 Fast blanking earth.
- 19 CVBS output. 1V p-p at 75 Ω .
- 20 CVBS input. 1V p-p at 75 Ω .
- 21 Socket earth.

Connections may not be made to all pins: it depends on the equipment specification and the use to which the connector is put (you can find up to four connectors). Most SCART to SCART connection cables cater for audio and composite video signals only, the majority of the pins being without connections. Pins 7, 11 and 15 may also be used for RGB outputs.

With S-video signals pin 15 is used for chrominance input/output, pin 19 for luminance output and pin 20 for luminance input. Pin 16 is used for switching between composite video and S-video.

Pin 8 is low for E-E (0-2V), high for playback (9-12V0). There is also now an intermediate condition (4.5-7V, nominally 6V) which indicates to a wide-screen set that the signal source is suitable for this form of presentation.

Prior to the introduction of integrated satellite receiver-decoders (IRDs), satellite receivers were often fitted with one SCART socket for the outputs and another one for connection to a decoder. With the decoder SCART the output at pin 19 must be raw baseband video, i.e. without de-emphasis and unclamped. Such a socket is usually labeled 'decoder only'. Pin 8 is held high by the decoder to route the signals from the receiver to the decoder and back again: when pin 8 is low, the receiver ignores the decoder.

With satellite receivers pin 12 may be used for serial data input/output to a decoder or for dish positioner control.

A few satellite receivers have a single SCART socket that can be used either for the outputs or for decoder connection. Pin 8 is used to select either raw baseband video or processed (clamped and de-emphasised) composite video at pin 19. With pin 8 low, raw video is fed to the decoder, whose outputs are then switched to the receiver's u.h.f. modulator. Alternatively a pin officially assigned to another purpose may be used for the receiver's video output to the decoder. Pin 8 may not always be used to do the switching.

D-TYPE SOCKET

Some satellite receivers use a 15-pin D-type socket for connection to a separate decoder. Fig.2 shows the pin layout. Connections are as follows:

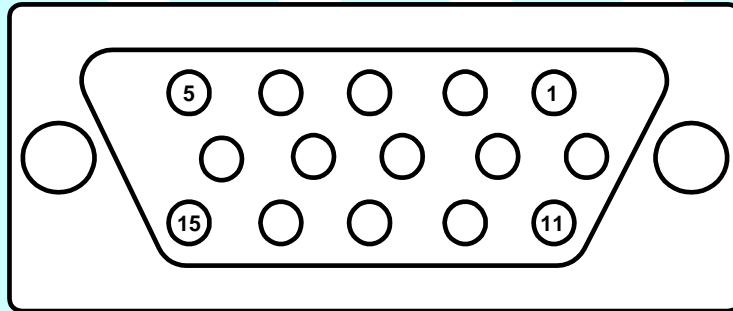


Fig:2 D-type socket pin configuration.

- 1 Left channel audio from decoder to receiver. 0.5-0.7V to 10k Ω load.
- 2 Composite PAL video from decoder to receiver. 1V p-p at 75 Ω .
- 3 Video switching.
- 4 Baseband video output to decoder, unclamped and without de-emphasis.
- 5 PAL video output (clamped) to decoder, 1V p-p at 75 Ω .
- 6 Right channel audio from decoder to receiver. 0.5V-0.7V to 10k Ω load.
- 7 Audio switching.
- 8 Earth.
- 9 Not assigned.
- 10 Not assigned.
- 11 Earth
- 12 Left channel audio output to decoder. 0.5-0.7V to 10k Ω load.
- 13 Right channel audio output to decoder. 0.5-0.7V to 10k Ω load.
- 14 Not assigned
- 15 Not assigned

With some receivers a single switching line may be used for both the audio and video signals.

DIN SOCKETS

5-, 6-, 7- and 8-pin DIN sockets are in use for AV connections between VCRs and TV sets. Fig.3 shows the pin configurations. Connection details are as follows:

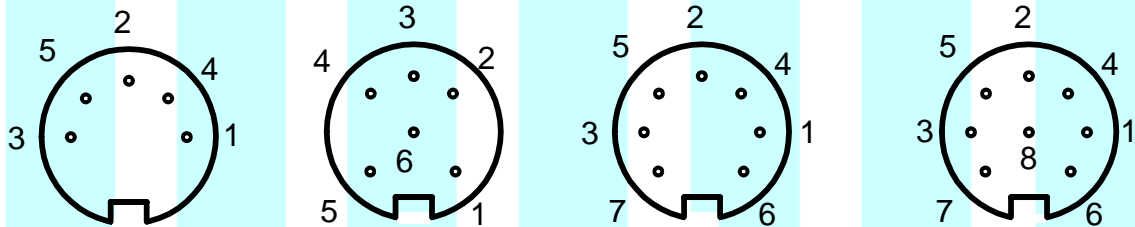


Fig3: DIN AV socket arrangements.

5-pin DIN socket

- 1 Left channel audio input.
- 2 Earth.
- 3 Left channel audio output.
- 4 Right channel audio input.
- 5 Right channel audio output.

Alternatively 1 and/or 4 may be used for mono audio input and 3 and/or 5 for mono audio output.

6-pin DIN

- 1 AV select. For the VCR, high makes all pins outputs, low makes all pins inputs. The opposite applies for the associated TV set.
- 2 Video input/output.
- 3 Earth.
- 4 Left audio channel input/output.
- 5 12V.
- 6 Right audio channel input/output.

7-pin DIN

- 1 Left audio channel input.
- 2 Earth.
- 3 Left audio channel output.
- 4 Right channel audio input.
- 5 Right channel audio output.
- 6 Remote control data.
- 7 Earth.

8-pin DIN

- 1 Left audio channel input.
- 2 Remote control data.
- 3 Right audio channel input.
- 4 Audio earth.
- 5 Remote control data.
- 6 Video earth.
- 7 Audio earth.
- 8 Video input.

The 5-pin DIN socket is used for audio signals only and is compatible with the 7-pin DIN system which has the additional facility to link remote control data. The 6-pin DIN socket is used with both VCRs and TV sets, catering for inputs and outputs depending on the switching voltage at pin 1. The 8-pin DIN Socket is fitted to some TV sets, providing an input route only.