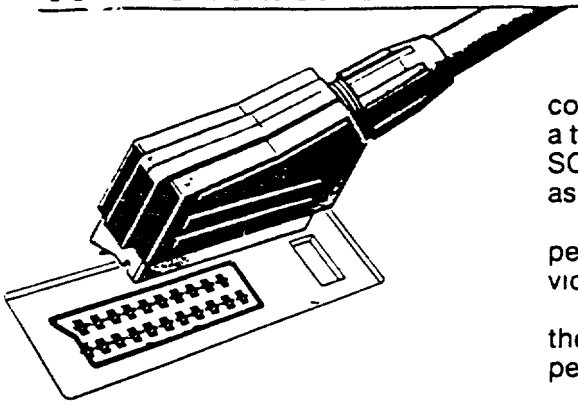
THE SCART SYSTEM



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WHAT IS SCART?

SCART is a system of connecting consumer video peripherals to a tv set. This is facilitated by the SCART connector which is made up as follows:

1. The female socket mounted permanently on the tv set and the video peripherals.
2. The male connector or plug at the end of the cable linking a peripheral to the tv set.

Diagram 4. The female SCART socket (As seen from the wiring side).

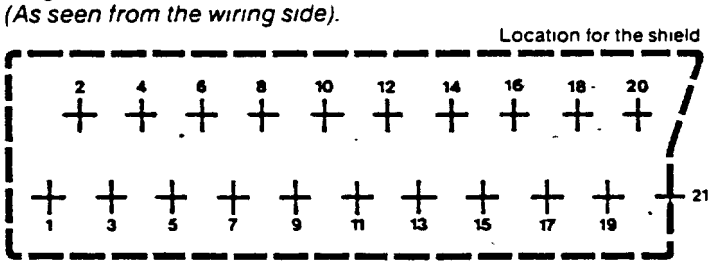
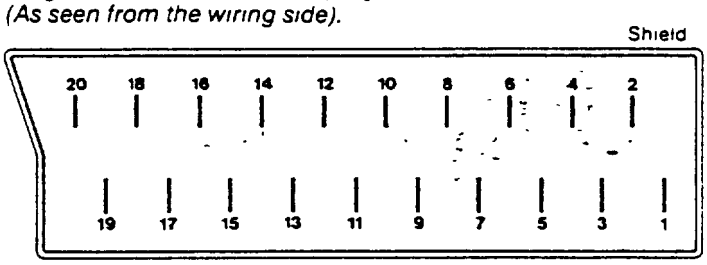


Diagram 5. The male SCART plug. (As seen from the wiring side).



The female socket features 2 rows of 10 contacts in a staggered arrangement which accept the male 'blade' contacts. A 21st contact is made by the metal shield of the male plug.

THE CONNECTIONS

The full SCART specification consists of the following connections.

1	Audio out (right)	500 mV//1K Ohm
2	Audio in (right)	500 mV//1K Ohm
3	Audio out (left)	500 mV//1K Ohm
4	Audio earth	
5	Blue earth	
6	Audio in (left)	500 mV//1K Ohm
7	Blue in	700 mV//75 Ohm
8	Status CVBS	0-2 V/10-12 V// 10K Ohm
9	Green earth	
10	Intercommunication line D²B inverted	
11	Green in	700 mV//75 Ohm
12	Intercommunication line D²B	
13	Red earth	
14	D²B earth	
15	Red in	700 mV//75 Ohm
16	Status RGB (fast blanking)	0-0, 4 V/1-3 V//
17	CVBS earth	
18	RGB status earth	
19	CVBS out	1 V/75 Ohm
20	CVBS in	1 V/75 Ohm
21	Socket earth	

N.B. The above is the full SCART specification. Each unit of video equipment will be equipped with a SCART connector with a specification equal or less than the full SCART listed above.

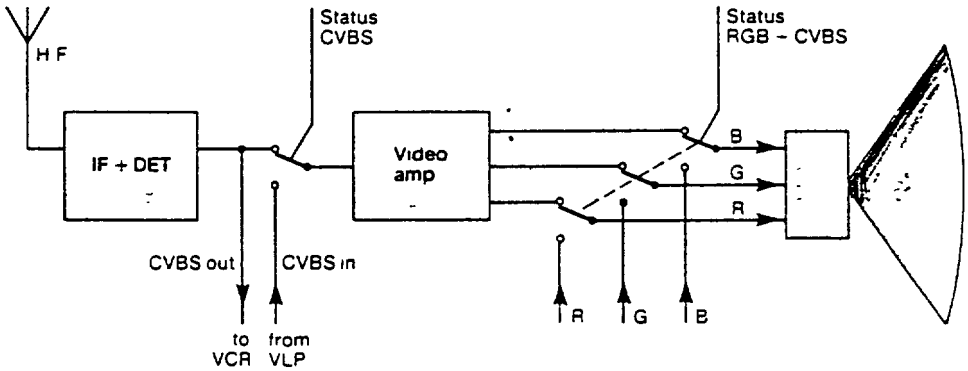


Diagram 6. Full SCART specification.

ADVANTAGES

1. All audio/video in and outputs are via the one connection.
2. The CVBS input by-passes the tv set's high frequency demodulator, so a modulator in the video peripherals is no longer necessary. This reduces the cost of the video peripherals.
3. As the signal delivered to the tv set does not pass through the modulation/demodulation process, a better quality picture results.
4. Using the SCART system and a simple switchbox, it is possible to operate 2 video peripherals through the tv set simultaneously e.g. you can record a tv programme on the VCR directly from the tuner part of the tv set while watching a video disc.
5. When watching live tv transmissions or playback from a VCR or video disc, the set's status system operates automatically.
6. Via the CVBS output, it is possible to attach an external Teletext decoder whose signal is fed into the set via the RGB pins.
7. RGB sources such as a video camera or home computer can be connected directly to the RGB input pins (a video amplifier is no longer necessary). This is a very cheap method which will reduce the cost of such video peripherals.
8. A number of domestic systems such as the lighting and heating may be controlled and monitored on the tv set using the D²B facility.
9. SCART is a simple connection system which the consumer will find easy to use.

CONCERN SETS EQUIPPED WITH SCART

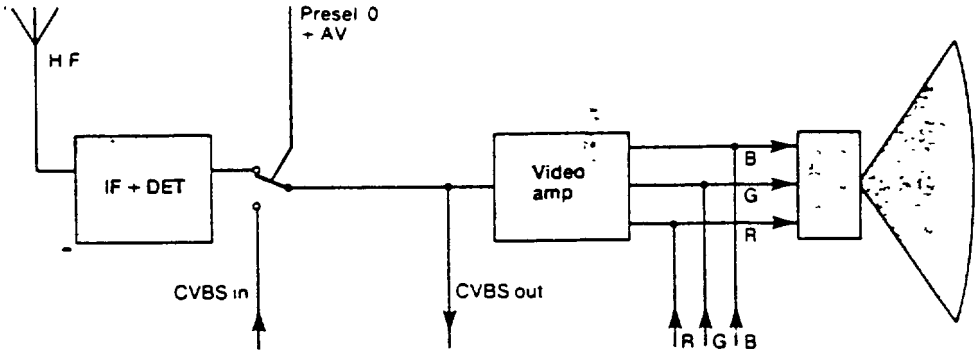


Diagram 7. SCART reduced specifications.

A number of Concern sets are already equipped with a SCART connector with a reduced specification. Points 8, 10, 12, 14, 16 and 18 are not connected in this version.

In sets equipped with Teletext, points 5, 7, 9, 11, 13 and 15 are also not connected for reasons of cost.

N.B. The final specification for SCART has not yet been determined and changes and/or additions to the information found here will be made at a future date.

FEATURES & BENEFITS SUMMARY

PRODUCT NAME: SCART
FUNCTION: To provide a simple to use solution for connecting the increasing number of consumer video peripherals coming onto the market to a domestic tv set

FEATURE	BENEFIT	PROOF
One integrated standard plug	Simple to use.	See plug.
	Straightforward connection of all video peripherals to the tv set.	Test ease of connection
CVBS in/out.	Improved picture quality.	Compare.
	More compact. less expensive video peripherals	See specification. Compare sets with & without CVBS in/out.
RGB in.	Direct connection of video peripherals to set – home computer. video games. video cameras More compact and less expensive peripheral equipment.	See specification.
CVBS in/out - RGB in.	This combination makes it possible to attach an external Teletext decoder to a tv set. Simple. inexpensive upgrading of existing set.	See specification.
Low frequency audio in	TV set may be used as stereo amplifier for VCR/VLP. babyphone. video camera etc. Bi-lingual reception.	See specification. Test.
Low frequency audio out	High power stereo sound via direct connection to HiFi system.	See specification. Test.
	Direct recordings from tv may be made on cassette or open reel recorder.	Test.
Controls in/out.	One remote control sensor in tv set for whole system – convenient operation and greater freedom in placing peripherals in the living-room.	Demonstrate.
	Future orientated – for control of home systems such as lighting and heating via remote control.	See specification.

CART stands for Syndicat des constructeurs d'appareils radio récepteurs et téléviseurs – a committe of prominent French radio and tv manufacturers which set about devising a standard connector for domestic video appliances.
The SCART connector which they recommended is now a legal requirement in France and will be most likely adopted by other manufacturers in Europe in the near future.

Some Concern colour television sets are already equipped with SCART connectors and others will follow shortly. The purpose of this brochure is to explain what SCART is, what it does and the advantages it offers over existing systems.

EXISTING SYSTEMS

To appreciate why the Concern should adopt the new SCART connector, we should first examine the pros and cons of the existing systems for connecting video peripherals to a colour tv set.

THE AERIAL SOCKET

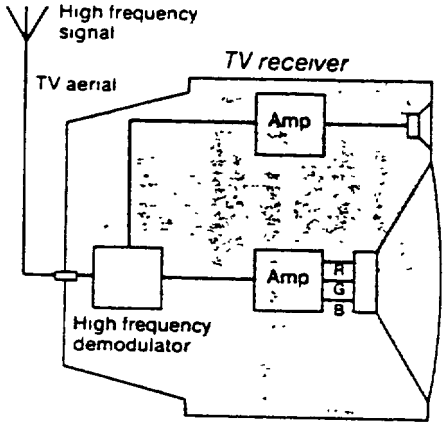


Diagram 1.

Diagram 1 illustrates the normal tv set connection made by the aerial input socket. The high frequency tv signal is fed into the set where it is demodulated before being passed on to the amplifier.

Diagram 2 illustrates the set-up when a video peripheral is added such as a VCR. The VCR intercepts the aerial signal before passing on a modulated signal to the tv set.

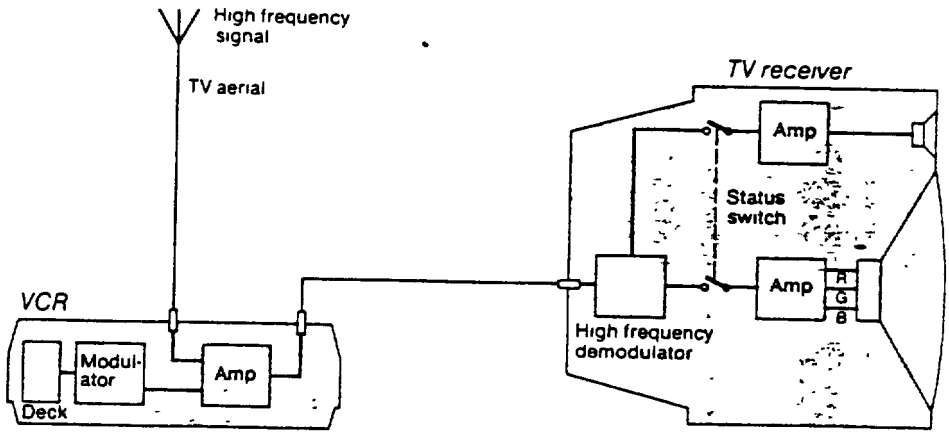


Diagram 2.

ADVANTAGES

1. Simple, straightforward connections.

DISADVANTAGES

1. All video peripherals such as a VCR or video disc player must feature a modulator in order to pass on a high frequency signal to the set's demodulator This adds to the cost of producing the video peripherals.

2. Because the high frequency tv signal is modulated by the video peripheral and then demodulated by the tv set before amplification, the resulting picture quality is less than optimum.

3. Under normal circumstances, it is only possible to connect one video peripheral to the tv set at a time.

4. Playback of a video peripheral is not possible in stereo.

THE AV SOCKET

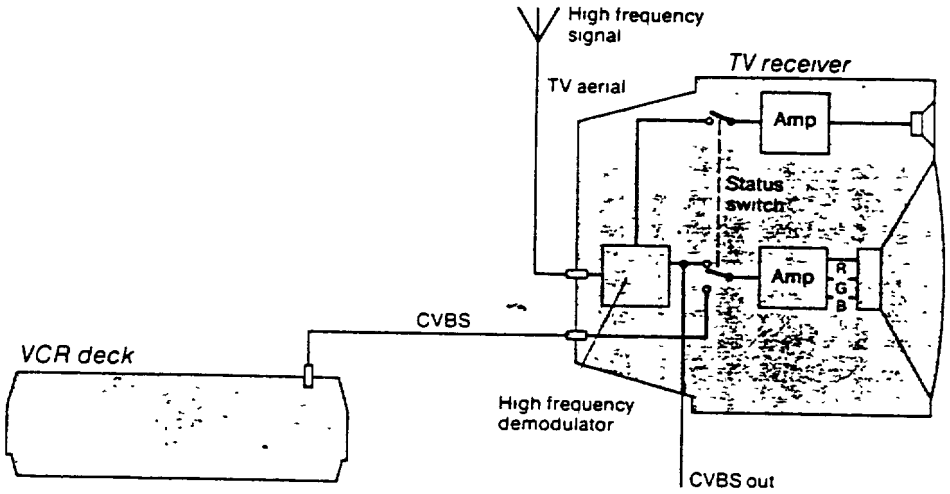


Diagram 3.

Some tv sets feature a 6 pole DIN AV socket in addition to the normal tv aerial input. This socket connects directly to the video peripheral in the following way.

The tv aerial is connected to the set in the normal way while the AV socket connects to the tv set from the video peripheral at a point after the high frequency demodulator.

ADVANTAGES

1 The video peripheral feeds a CVBS (Composite video blanking signal) directly into the set. Consequently, there is no need for a modulator in the video peripheral which reduces its cost.

2. The CVBS signal by passes the set's high frequency demodulator which results in a better quality picture.

3. The connection arrangements between set and video peripheral are very simple.

4. Playback of a video peripheral in stereo is possible.

DISADVANTAGES

1. On many sets, the user has to operate a switch when going from a direct tv transmission to the playback of a video recording (on Philips sets this is done by selecting preselection 0 after manually switching the AV/TV switch on the control panel to the AV position).

2. Only one video peripheral may be connected to the tv set at a time.

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CONNECTEURS ENFICHABLES

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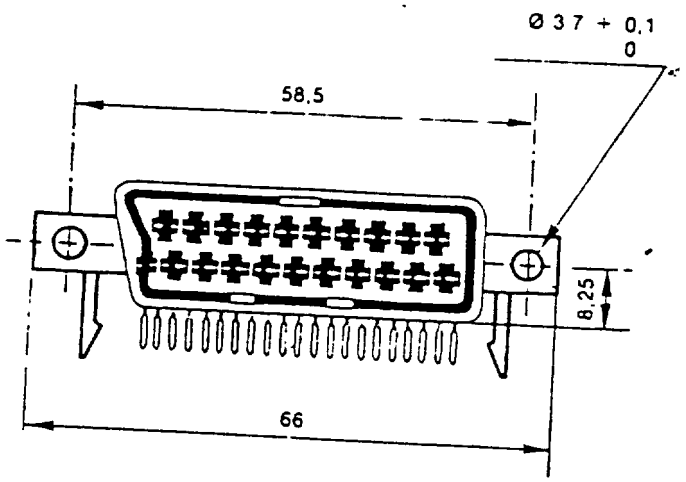

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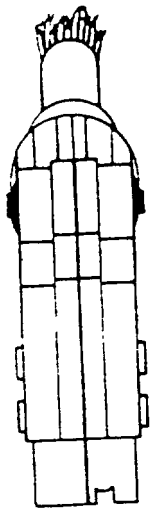

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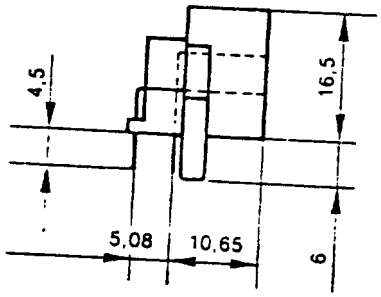
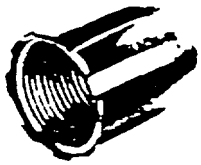
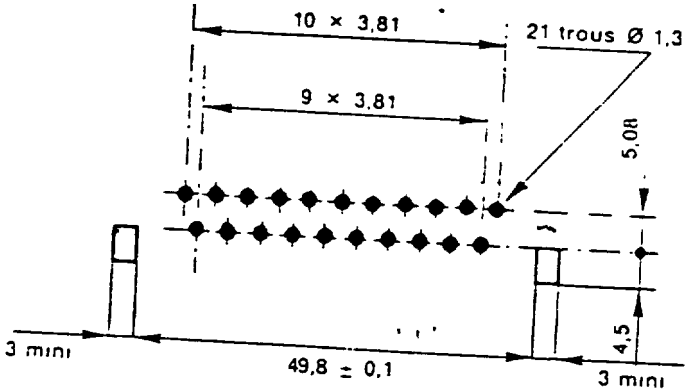


Découpe du circuit imprimé





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CONTACTS
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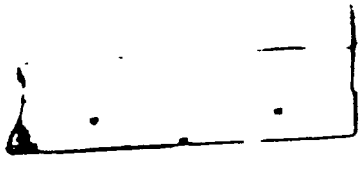

BLINDAGE PRE
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