

# keene electronics HCP11QC data sheet

The connectors are marked on the pcb with the scart pin numbers. There is one unmarked connector which is connected to the pcb ground plane and can if required be used to connect to a system earth.

Please note that there is no specific colour coding that cable manufacturers adhere to, so if you are connecting this plate to a cable with a scart plug already fitted on the other end it is best to use a multimeter or continuity tester to determine which conductor is connected to which scart pin. In general the video signals red, green, and blue are usually connected to the slightly thicker red, green and blue conductors (coax) and the composite video signal to the slightly thicker yellow coax. The audio signals are usually carried by the thinner low capacitance screened cables inside a grey sleeve, although please remember this is a general guide and not true for ALL cable manufacturers. If you are wiring both ends of the cable yourself then the colours are not critical as long as the signal goes from the correct pin to the correct pin.

Scart leads are usually connected so that the composite video and the stereo audio are wired to cross over from input to output inside the cable. The rest are wired directly pin to pin; 8 - 8, 16 - 16 etc.

PCB no.	Other end
1	2
2	1
3	6
6	3
4 ground	4 ground
5 ground	5 ground
7	7
8	8
9 ground	9 ground
10	10
11	11
12	12
13 ground	13 ground
14	14
15	15
16	16
17 ground	17 ground
18	18
19	20
20	19
21 ground	ground

If you use a scart cable from say a set top box to the wall plate, the plate would need to be wired as shown on the pin-outs adjacent. The composite video and the stereo audio channels all have a dedicated pin for input and output depending which way the signal is travelling. As you can see the audio pins are crossed over – pins 1, 2, 3, and 6. The composite video pins are also crossed over – pins 19 and 20.

Not all connections need to be made, it depends on the signal being sent and if the direction is to be one way only. In fact it is better to wire only the connections you will be using as this results in lower crosstalk and you can usually accommodate a better grade of cable. At the wall plate all the above grounds are connected together and to the pcb ground plane.

Example RGB + stereo audio from a typical Set Top Box to a TV, This would require the composite video for the sync. You would run a scart to scart cable into faceplate A.

Faceplate A is at the STB end and faceplate B is at TV end.

A	B
2	1 Audio R
4	4 Audio ground
6	3 Audio L
5	5 Blue ground
7	7 Blue
8	8 AV switching and aspect ratio
9	9 Green ground
10	10 see note 1
11	11 Green
12	12 see note 1
13	13 Red ground
14	14 see note 1
15	15 Red
16	16 RGB/Composite video switching on most systems (used to be blanking)
17	17 Composite video ground
20	19 Composite video

Scart to scart lead from Faceplate B to display (TV)

Green ground should be the screen of the green conductor (coax) same for Red and Blue etc Use low loss 75R coax for all video connections and low capacitance screened cable for the audio.

### Note 1

You will notice pins 10, 12 and 14 aren't connected as these are not usually required in standard RGB plus sync systems. They are only required for auto setup etc on some STBs and separate 5v TTL sync on some systems.

## Composite & RGB

1 Audio out R	11 RGB green	1 Audio out R
2 Audio in R	12 Data line 1/H sync	2 Audio in R
3 Audio out L	13 RGB red Gnd	3 Audio out L
4 Audio Gnd	14 Data Gnd	4 Audio Gnd
5 RGB blue Gnd	15 RGB red	5 RGB blue Gnd
6 Audio in L	16 Blanking	6 Audio in L
7 RGB blue	17 Video Gnd	7 RGB blue
8 12V	18 Blanking Gnd	8 12V
9 RGB green Gnd	19 Video out	9 RGB green Gnd
10 Data line 2/V sync	20 Video in	10 Data line 2/V sync
	21 Common Gnd	

## s-video

11 RGB green
12 Data line 1/H sync
13 Chrominance Gnd
14 Data Gnd
15 Chrominance I/O
16 Blanking
17 Luminance Gnd
18 Blanking Gnd
19 Luminance out
20 Luminance in
21 Common Gnd

