

**Overview**

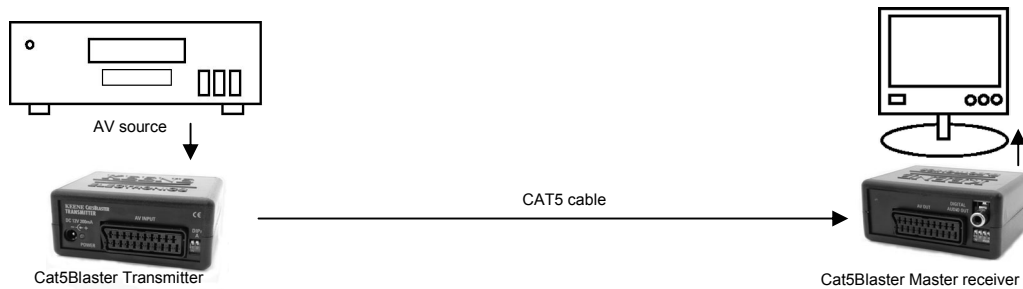
The Cat5Blaster is a modular system that enables high quality video and audio to be distributed over long distances using inexpensive network cable (CAT5 unshielded twisted pair). It has three independent video channels and so may be configured for component video, s-video plus composite video, 3 X composite video or RGsB\*. It can also be configured for analogue stereo or digital audio as required and there is provision for IR feedback from each receiver to enable control of the source equipment near the transmitter. The Cat5Blaster consists of a Transmitter and Master Receiver (for 1:1 distribution). Additional Slave receivers may be added as required for multi-room distribution. \*Please note that an RGB2C or SyncBlaster Black box may be required to convert set top box RGBs (separate sync) to RGsB (sync on green).

**Connection**

*Note: The Cat5 cable used for connecting the Cat5Blaster must be used solely for that purpose. All of the connectors within the Cat5 cable are used and it is important that it is not accidentally connected to any other computer or telephone equipment.*

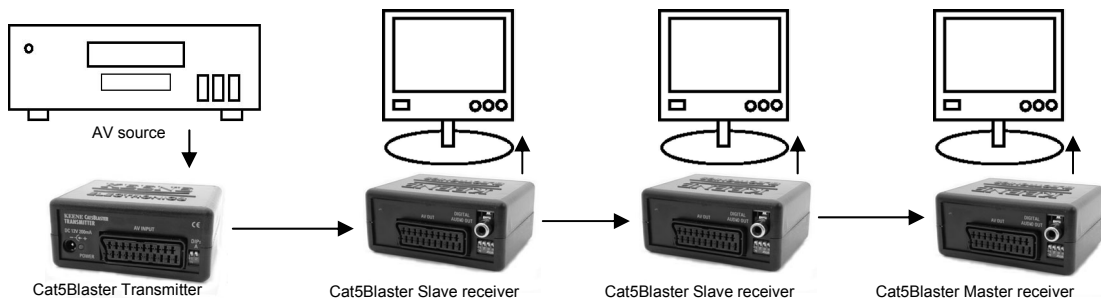
**Cabling (single receiver)**

Run the Cat5 cable from the location of the transmitter to the location of the receiver. Use standard Cat5 cabling practice (pin1 to pin1 without any crossovers, and with pins 1 & 2 being twisted pair "a", pins 3 & 4 being twisted pair "b" etc) and terminate the cable in a standard wall plate (such as [UTPSP] or similar). The Cat5Blaster transmitter and master receiver can then be connected to the wall plate using a std patch (not crossover) cable such as PLB05 or similar).



**Cabling (multiple receivers)**

Additional slave receivers may be added as required up to a maximum of 6 (in addition to the master receiver). The cabling should be connected in a "daisy-chain" arrangement as shown below, with the Master receiver being the last in line. (See also maximum cable lengths overleaf).



**Connecting your AV equipment to the Transmitter**

The Transmitter uses a conventional scart socket for the AV input and the dip switches determine how the signals are configured.

If you just want to connect one device to the transmitter such as DVD player it may be connected via a fully wired scart to scart provided that the players scart socket is configured to provide either component video, s-video or composite video. If the player is giving RGB it is likely to be RGB plus composite sync (RGBs) and so will need converting to sync on green (RGsB) via a device such as the SyncBlaster black box. No conversion is performed within the unit so if RGsB is input it may also need converting at the receivers AV output.

### Maximum Cat5 cable lengths

The Cat5Blaster transmitter must always be powered using the supplied KT5 mains adaptor. The Cat5Blaster Master receiver may be used in powered or unpowered mode depending upon the length of CAT5 between the devices. The maximum distance from the transmitter to a non-powered master receiver is approximately 100m. The power LED on the Master Receiver will extinguish once the unpowered cable length is exceeded and so may be used as a guide. For cable runs between 100m & 300m the Master receiver must be powered. The actual distance may vary slightly depending upon which video mode is being used. If multiple slave receivers are also used and each unit has an IR receiver connector, the effective maximum distance may be reduced slightly, depending upon the video mode in use.

### Operation

#### Transmitter - dip switch settings

To select RGB input A1 down, A2 up  
To select composite or s-video input A1 up, A2 down  
To select stereo audio input B1 down, B2 up  
To select digital audio input B1 up, B2 down

#### Master & Slave receiver - dip switch settings

To select RGB output 1 down, 2 up  
To select composite or s-video output 1 up, 2 down  
To set scart pin 16 high (force RGB mode) 3 down  
To set scart pin 8 high (force AV mode) 4 down

### Equipment list

Items included in Cat5Blaster main unit;  
Cat5Blaster Transmitter  
Cat5Blaster Master Receiver  
1 x KT6 Power supply  
1 x IRSR  
1 x IR low power output wand C5LPW

#### Items included in Cat5Blaster Slave Receiver;

Cat5Blaster Slave Receiver  
1 x KT6 power supply  
1 x IRSR

#### Optional extras you might find useful;

[KT6] power supply (for cable runs in excess of 100m)  
[RGB2C] (to convert digi box RGB signals to component video for transmission)  
[SBBOX] (to convert digibox RGBs to RGsB for transmission)  
[C5HPW] IR high power output wand  
[C5SFW] R side firing equipment fascia wand

#### Quick tip!

If you intend to use one PSU only, ensure it is plugged in to the TX end. Both the TX and RX LEDs will light up if a single PSU is plugged into the RX only, although the system will not function properly. It is an easy mistake to make and may save some head-scratching!

#### Cat5Blaster Transmitter Scart pin-outs

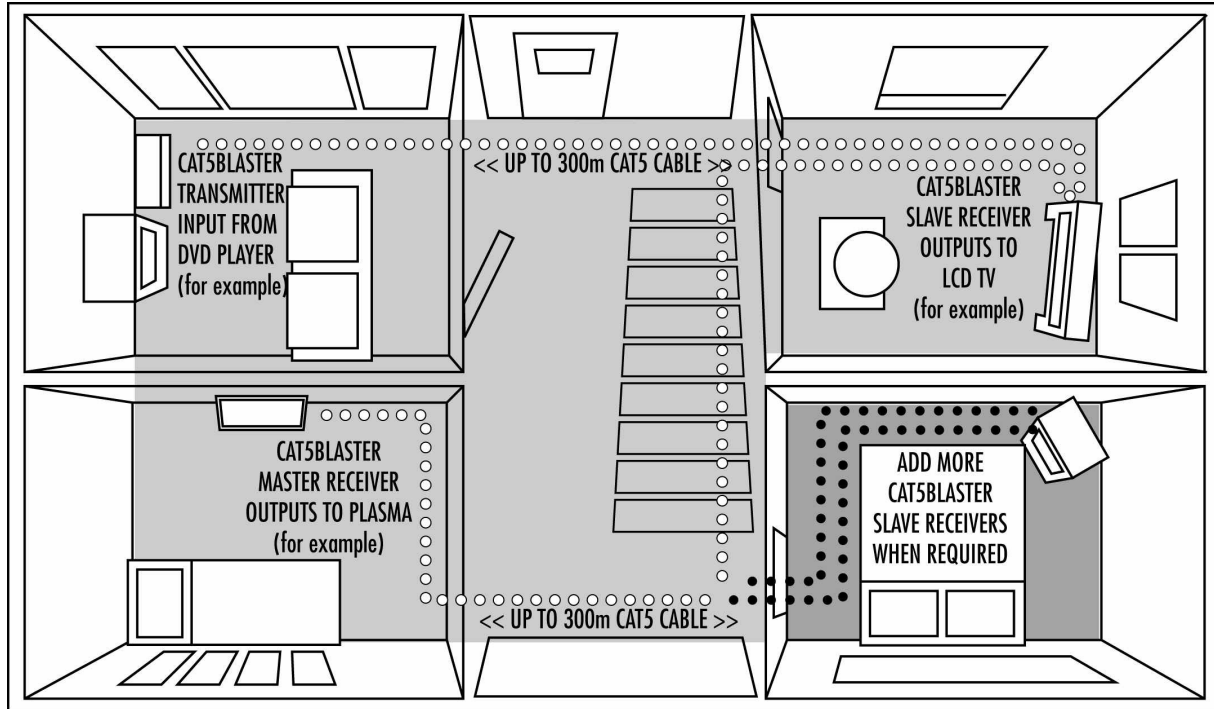
1	n/c
2	Audio in right
3	n/c
4	Gnd
5	Gnd
6	Audio in left
7	Blue/Pb in
8	n/c
9	Gnd
10	n/c
11	Green (Gs)/Y in (switch selectable)
12	n/c
13	Gnd
14	n/c
15	Red/Pr / chroma in (switch selectable)
16	n/c
17	Gnd
18	Gnd
19	n/c
20	Composite / Luma in (switch selectable)
21	Gnd

#### Cat5Blaster Receiver Scart pin-outs

1	Audio out right
2	n/c
3	Audio out left
4	Gnd
5	Gnd
6	n/c
7	Blue (Pb) out
8	12v via 470R (switch selectable)*
9	Gnd
10	n/c
11	Green/Gs/Y out (switch selectable)
12	n/c
13	Gnd
14	n/c
15	Red/Pr/Chroma out (switch selectable)
16	12v via 470R (switch selectable)*
17	Gnd
18	Gnd
19	Composite out/Luma (switch selectable)
20	n/c
21	Gnd

\* May be less than 12v depending upon the length of cable run and whether or not a PSU is used on the receiver.

# Example installation



## IMPORTANT! PLEASE READ

The Cat5Blaster cabling must be configured as “straight through” (pin to pin) throughout. Use of a cross-over patch cable or crossed wires within patch panels will result in damage to the Cat5Blaster. Please check the wiring before connecting the transmitter & receiver units. If you are in any doubt over the cabling we strongly recommend the use of a cable tester before connection.

## More notes on cabling configuration:

The Cat5Blaster RJ45 sockets are configured such that adjacent connections are expected to be the twisted pair. That is to say that pins 1&2 should be connected to twisted pair “a”, pins 3 & 4 to twisted pair “b” and so on. A “pair” is always colour co-ordinated, for example orange and white/orange make a pair, blue and white/blue make a pair etc.

If you are configuring your own cable runs to use between the transmitter and receiver's then this wiring is easy to follow. If instead you are using pre-configured Cat5 patch leads then it is possible (indeed likely) that the cables will have been wired to the 586B standard. This places twisted pairs on non-adjacent pins of the RJ45 socket. Although the Cat5Blaster system will still work with such a cable, it means that the cable is susceptible to cross-talk and may cause picture degradation to occur. This would normally only be noticeable on longer cable runs (say 20m plus) and would manifest itself as herring bone type patterning. If you wish to use pre-configured Cat5 cables then it is possible to reconfigure the “pairs” correctly by using a short line adaptor at each end. This line adaptor is available free of charge from Keene Electronics on request, order code [C5LA]

