Keene Electronics

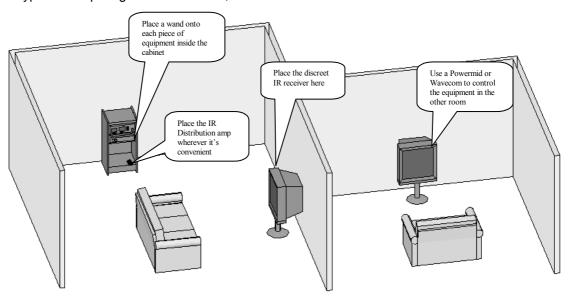
IR DISTRIBUTION AMPLIFIER

Overview

The Keene IR Distribution Amplifier enables IR control to be used on equipment that is located in positions where your remote wouldn't normally work. For example, equipment placed inside cabinets with closing doors or located on shelves behind you or around a corner. The unit is very flexible, allowing for a number of configurations that will solve almost all IR control problems.

Basic Operation

A typical set-up diagram is as follows;



In the example above a discreet receiver is placed on top of the TV. This is then connected to the IR distribution amplifier within the cabinet and low power wands operate the equipment inside. The input is also connected to a Wavecom transmitter which allows easy control when viewing in the adjacent room. Additionally a high power wand may be used to operate equipment on the opposite wall.

Connection Sockets Explained

IR IN - where the unit receives the signal to be amplified. This would be connected to either a std IR receiver or wideband receiver. Alternatively it could be connected directly to the IR output from remote control extender (eg Powermid or Wavecom).

(IMPORTANT please do not connect an output Wand to the IR input! There are pictures of each item overleaf if you're unsure).

Std OUT - These are sockets for connecting the wands that output the IR signal. There is a choice of wands, either **low power** (which can be positioned on the equipment facia or up to approx 4 metres away form it) or **Side Firing** wands which can attach directly to the equipment facia.

High OUT - is for connection to a high power wand only. A high power wand would normally be used for equipment up to 10 metres away.

The Activity LED flashes to confirm receipt of an IR signal



Hints and tips for using the IR Distribution amplifier

1/ The high power wand will work in either the high power or the standard power sockets, but the standard power emitters will operate in the std sockets ONLY. The standard socket is wired anode to the tip of the 3.5mm plug and cathode to the barrel while the high power socket is wired anode to the ring on the 3.5mm plug and cathode to the barrel.

2/ If wiring up your own extension for the emitters always make all three connections so it will work with either the std or the high power emitters

3/ It is permissible to use more than one IR receiver into the distribution amp, but only one can be receiving a signal at anyone time, otherwise the signals will mix and confuse the unit that you are trying to control. IE you can't put a wide band and a standard receiver next to each other and feed both to the distribution amp as you will get a garbled result.

4/ It is also possible to confuse the IR receiver on the equipment you want to control by having 2 sources of IR. for example having a standard emitter on the front of a VCR and a high power emitter pointed at the same VCR would result in 2 conflicting signals at the VCR and could result in mis-operation.

5/ All the emitter diodes are directional (rather like a narrow torch beam) and this should be borne in mind when positioning the emitters. The standard ones are designed to be fitted onto say a VCR just to one side of the IR receiver. The diode pointing at the IR receiver. (This is why the diode is directed at about 30 degrees downwards) The high power emitters can be positioned up to 10 meters away from the device to be controlled and must be pointed directly at it. The standard emitters can be used in some circumstances at up to about 4 meters away BUT the diode must point at whatever you want to control – note that it is normally angled down at about 30 degrees

6/ Take care when positioning the receiver. The wideband receiver can be affected by IR interference from TV scan coils, fluorescent lights and direct sunlight . Any interference will be noticeable because the IR distribution amp light will be flickering. Because of the effects of filtering a wider bandwidth results in a poorer sensitivity. This means that the Standard receiver has limited bandwidth but a very good range (distance) and conversely the wide band receiver has a good bandwidth but poorer range. In general the standard receiver will give the best performance and the wide band should only be used if you have equipment that doesn't operate in the 40Khz band.

7/ The Powermid is an example of a wide band receiver.

8/ Whilst a splitter (KA109) may be used on the input it should never be used on a wand output.

Code	Description	Price*
IRBKIT	Basic IR Distribution Amp kit containing 1 high power wand, 1 low power wand, Distribution amp and power supply	£34.99
IRLPW	Low power wand	£5.99
IRHPW	High power wand	£7.99
IRSR	Standard receiver for most domestic equipment (40KHz)	£7.99
IRWBR	Wideband IR receiver for equipment up to 100KHz	£12.99
KLDE6	Couples the Powermid IR output directly to the IR distribution amp input (3.5mm jack to 3.5mm jack)	£5.99
KLDE10	Couples the Wavecom IR output directly to the IR distribution amp input (2.5mm jack to 3.5mm jack)	£8.99
KLD40	3 metre extension lead for input or output	£4.49
KLD405	5 metre extension lead for input or output	£4.99
KLD4010	10 metre extension lead for input or output	£8.99
KA109	IR input splitter 1 x 3.5mm jack to 2 x 3.5mm sockets for using both cabled feed (Powermid/ Wavecom) and in-room IR receiver)	£1.89

*prices correct at time of printing and may be subject to change











IRHPW

IRSFW

IRWBR