

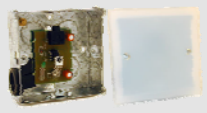


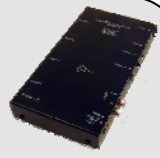


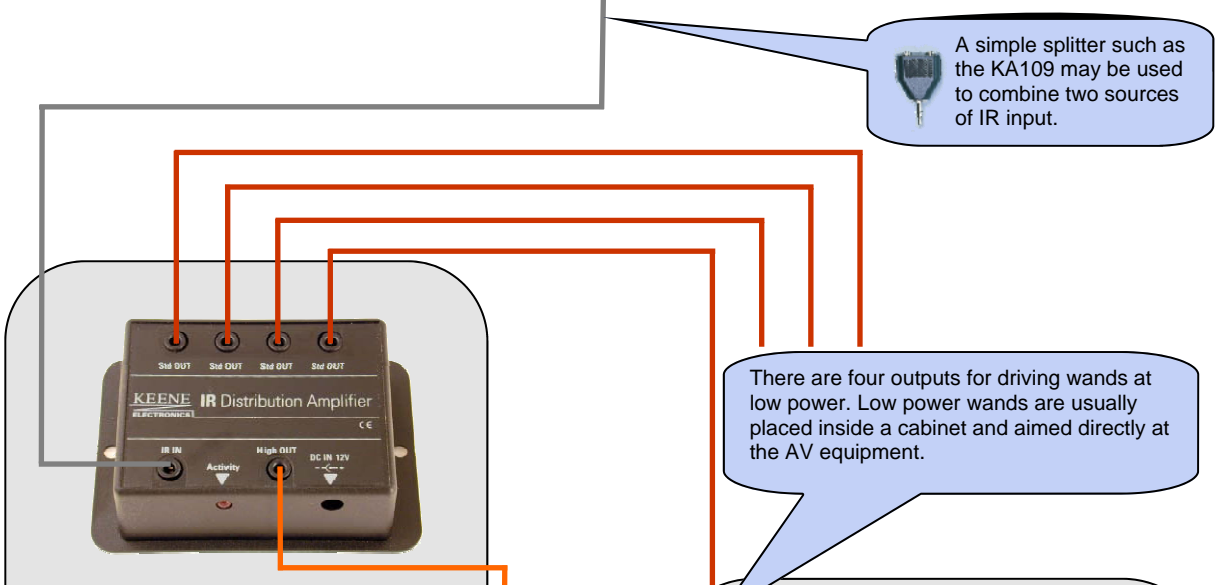


IR inputs

IRBKIT/S

	or		or		or		or		or	
IRSR The standard IR receiver, supplied with the IRBKITS		IRWBR (optional) wide-band IR receiver		IRSP (optional) flush wall mount standard IR receiver. Also available in wideband [IRSPW]		PMID (separate system) Use the output direct from a wireless IR sender such as the Powermid		RF2IR (separate system) Use the output direct from the RF2IR system		CAT5 (separate systems) Use the IR output direct from any of the Keene video over CAT5 systems

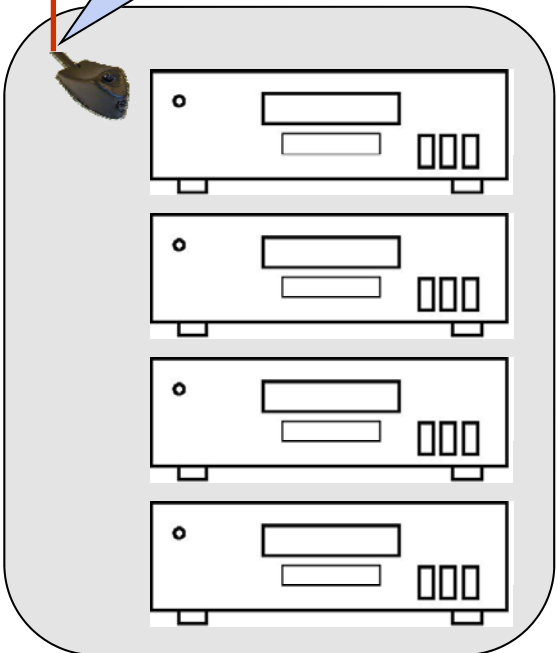
A simple splitter such as the KA109 may be used to combine two sources of IR input.



The main body of the IR distribution amplifier is usually located out of sight or within the AV cabinet. It operates from 12v DC allowing for easy integration in marine or travel installations, a mains to 12v adaptor is supplied.

There are four outputs for driving wands at low power. Low power wands are usually placed inside a cabinet and aimed directly at the AV equipment.


There is one output for driving wands at high power. High power wands can be used to control equipment located up to 10m away.



	IRUW IR Universal Wand. Can be used in either low power or high power outputs. The dual emitter allows for equipment fascia or shelf mounting. Two are supplied with a IRBKIT or IRBKITS
	IRFSW (optional) A slim, short range emitter for direct attachment to the equipment fascia IR window.
	IRLPW (optional) A short range emitter for attachment to the equipment fascia adjacent to the IR window.
	IRHPW (optional) A very directional high power long range emitter for use where the IRUW has insufficient range.

IR Cables
The Keene IR Distribution systems use 3.5mm jacks for receiver inputs and wand outputs. Each component is supplied with a 2m cable that can be easily extended if required:

- 3.5mm plug to socket ext. 3.0m [KLD40]
- 3.5mm plug to socket ext. 5.0m [KLD405]
- 3.5mm plug to socket ext. 10.0m [KLD4010]
- 3.5mm to CAT5 adaptors, allow use of a standard CAT5 network cable between the two items at distances of to 100m [KA175]



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.

Connection sockets and basic operation

IR IN - is the Infrared input where the unit receives the IR signal to be distributed. This is normally connected to either a standard or wideband IR receiver. It can also be connected to the IR output from Keene CAT5 AV systems and wireless IR systems such as the Powermid (see diagram overleaf).

(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 for these sockets, either **Universal, Low Power** or **Side Firing**. A **High Power** wand can also be used in this socket in low power mode if desired.

High OUT - This socket is for connecting to high power compatible wands, either **Universal** or **High Power**.

The **Activity** LED flashes to confirm receipt of an IR signal

Hints and tips for using the IR Distribution amplifier

Wands: The universal and high power wands will work in either the high power or the standard power sockets, but the low power and side firing emitters will operate in the std sockets ONLY.

Wiring: 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. 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. For the receiver wiring the tip is 5v data (TTL), the ring is 5v supply, and the barrel is ground.

Multiples: 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. i.e. 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.

Sources: 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.

Positioning emitters: 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

Positioning receivers: Take care when positioning the receiver. The wideband receiver can be affected by IR interference from TV scan coils, LCD panels, 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.**

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

Useful product codes

Code	Description
IRBKIT	Basic IR Distribution Amp kit containing 2 universal wands, Distribution amp and power supply
IRBKITS	Basic IR Distribution Amp kit containing IR Standard Receiver, 2 universal wands, Distribution amp and power supply
IRC	Advanced IR Distribution Amplifier with multiple inputs and outputs
IRUW	Universal wand
IRLPW	Low power wand
IRHPW	High power wand
IRSFW	Side firing wand
IRSR	Standard receiver for most domestic equipment (40KHz)
IRWBR	Wideband IR receiver for equipment up to 100KHz
IRSP	Flush mounted single gang wall plate containing a standard IR receiver
IRSPW	Flush mounted single gang wall plate containing a wideband IR receiver
KLDE6M	Couples the Powermid IR output directly to the IR distribution amp input (3.5mm jack to 3.5mm jack)
KLDE10M	Couples other 2.5mm IR outputs (eg Wavecom) directly to the IR distribution amp input (2.5mm jack to 3.5mm jack)
KLD40	3 metre extension lead for input or output
KLD405	5 metre extension lead for input or output
KLD4010	10 metre extension lead for input or output
KA175	A short (25cm) line adaptor with an RJ45 line socket to a 3.5mm stereo jack plug. Allows use of standard CAT5 network cables to extend the distance between the IR receivers and the Keene IRBKIT and IR Commander infra red distribution systems. Works up to 100m.
KA109	IR input splitter 1 x 3.5mm jack to 2 x 3.5mm sockets for using both cabled feed (Powermid) and in-room IR receiver

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