

# IR Relay System Operation Manual



Thank you for selecting this infrared repeater system. The quality of this system is the result of many years of research and development to ensure reliable operation. Please carefully read these points below to ensure correct installation of the system.

## Basic Components

An IR repeater system consists of five parts.

### 1. Receiver

Receivers are placed in one or more location to control remote devices. Infrared commands are sent to the receiver from the remote handset and relayed to the connecting block. Forté infrared receivers also include a talkback LED to confirm a received command and status indication (see status section for details).

### 2. Cable

The cable carries the IR data, power for the system and status between the receivers and the connecting block. A 3-core cable is required for operation (4-core if status is to be used) but more often Cat5 is the most robust and economical option.

### 3. Connecting block

The connecting block is normally located close to the equipment being controlled. It allows for the termination of the cables from the IR receivers.

### 4. Power Supply

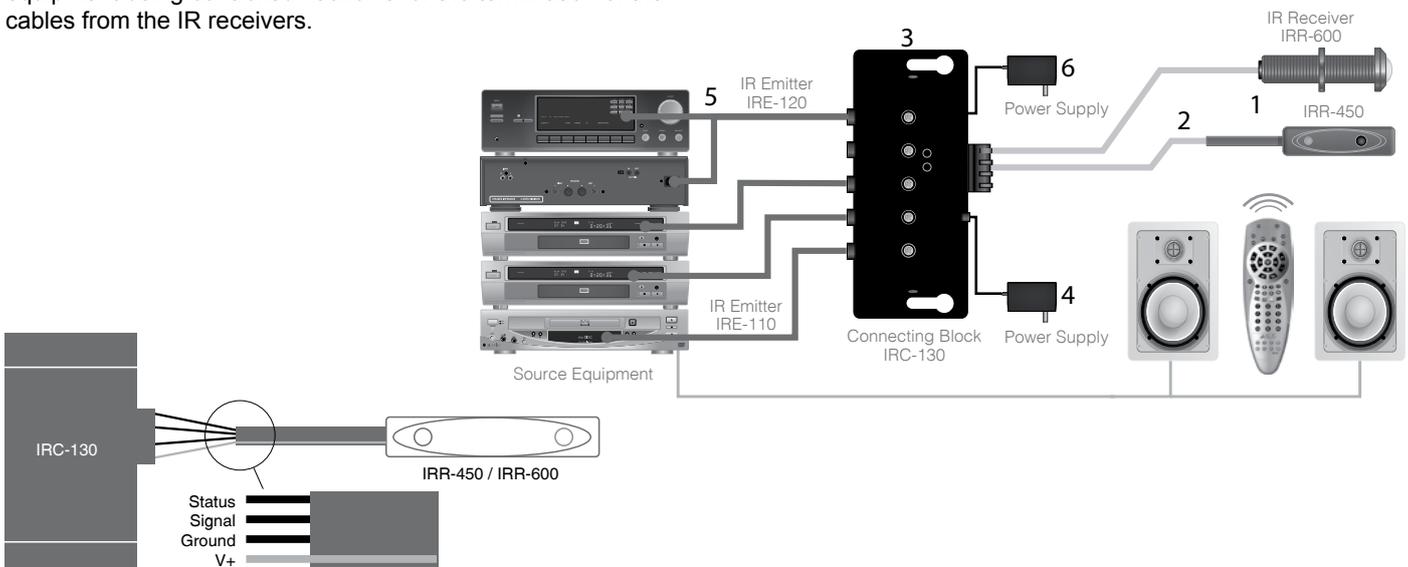
The supplied power supply is recommended and will work on systems with up to ten receivers.

### 5. Emitters

The emitter converts the data signal from the receivers back into infrared light. They come in either a single or dual head version and are simply stuck over the IR eye of the device to be controlled. The shells are IR transparent so the devices can still be directly controlled using the remote handset. A "Blank Out" cover is supplied to prevent IR signals deflecting on other components in situations where there are source components with similar IR codes. They also improve the adhesiveness of the emitter to ensure long term placement. Trainer guides are also supplied to assist in a tidy installation.

### 6. Status Indicator

Requires second power supply



Wiring for connecting the IRR-450 & IRR-600 to the IRC-130

## Placement

Your Forté IR receivers are quite powerful and should provide excellent range in reasonable light conditions. Care should be taken to locate the receiver pointing away from light wherever possible and also locate it directly in line with the normal operation of the remote when placed in the users hand. The power of the IR receiver will give you some flexibility in finding a suitable location, however, it is recommended that the preferred location be tested before the system is permanently installed. The user will need to point their remote control in the general direction of the receiver for it to operate and it is recommended they be able to see the "Talk back LED/Status" indicator on the receiver. While Forté IR receivers are sunlight and plasma resistant it should be remembered the operating range is reduced when excessive amounts of sunlight and infrared interference is received (please note some artificial light sources contain infrared and may also interfere with the receivers operation).

The receivers are not weatherproof, if they are placed outdoors care should be taken to place the receiver in some type of protective housing.

## Status

One of the biggest problems faced by consumers is the "Power" button on their remote control. It is often a single command for both ON and OFF toggle. If an operator in one room does not know the system has already been turned on they may accidentally be turning the system OFF.

The "Status" indicator allows the user to see the systems state via a LED on the infrared receiver. On the IRR-450 a red LED is shown and on the IRR-600 a blue LED is shown.

The status feature is simple to install as it only requires an extra power supply connected to the switched output of the amplifier/AV receiver and the status indicator on the connecting block. All Forté IR receivers incorporate a system "Status" indicator.

**Note:** Maximum 10 Forté receivers per one Forté connecting block.

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## Component Details and Specifications

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### Connecting Block

The connecting block is the heart of an IR system. If there is more than one receiver in the system then they are simply wired together in parallel at the connecting block. It features:

#### Inputs

- Four-way terminal for cable
- 3.5mm Infrared receiver socket
- Power socket 2.1mm DC
- "Status" socket for 2nd power supply 2.1mm DC (see section on "Status")
- Dimensions 105mm (4.1") x 25mm (.98") x 58mm (2.28") (WHD)

#### Outputs:

- Five emitter sockets, with signal attenuation trim pots
- Trim pots allow you to attenuate the signal output strength of individual emitter sockets in order to fine tune difficult source components.

#### Mounting:

- Each unit comes with mounting wings and holes for easy installation.



### IR Receivers

Nominal Operating Range: Up to 4 metres in direct sunlight  
Up to 30 metres in ideal conditions

Nominal Operating Angle: 45° off axis

Frequency: Broad Spectrum, Paid TV- ready

Voltage Requirements: 12 volt regulated

Connection: 4 core

Talk Back: All models include a Talk Back Indicator LED  
(IRR-450 Green / IRR-600 Blue)

Status: All models include a Status Indicator LED  
(IRR-450 Red / IRR-600 Blue)

Dimensions: IRR-450:  
44mm (1.73") x 11mm (.43") x 12mm (.47") (WHD)  
IRR-600:  
50mm (2") x 15mm (.59") bezel diameter x 12 mm (.47")  
mounting hole diameter



### Emitters

Forté IR emitters come in either single or dual head versions. An emitter will be required for each piece of equipment to be controlled.

The shells are IR transparent so the devices can still be directly controlled using the remote handset. A "Blank Out" cover is supplied to prevent IR signals going to other components in situations where there are source components with similar IR codes. They also improve the adhesiveness of the emitter to ensure long term placement. Trainer guides are supplied to assist in a tidy installation.

### Power Supply

The Forté power supplies are recommended as the standard power supply for our IR systems. These will power up to ten Forté IR receivers. If more than ten IR receivers are required then a larger power supply will be required, please contact your place of purchase for the power supply requirements for your situation.

### Warranty

The Forté Infrared range is guaranteed for 12 months, from the date of purchase against all defects in materials and workmanship.



*This infrared relay system is an advanced design and is likely to provide trouble free operation, however, some source components do not conform with typical infrared standards and relaying their commands may not be possible or could be erratic. These factors are beyond the control of the Forté relay system.*