

SmartPath™

IRC-2P2.0 & IRC-2P2.1

Plasma Block

2-Piece Surface Mount Infrared Receivers

The IRC-2P2.0 and IRC-2P2.1 are designed to block Plasma, CFL, EMI, and ESI noise sources, using an exclusive "smart" circuit (patent pending). In addition, the Pick-Up Module of this 2-piece design allows mounting on flat surfaces in very tiny spaces of furniture recesses, monitor panels, under shelves, etc., using the double-sided tape supplied. The Main Module can either be mounted on an exterior surface, so that the green Status and blue Activity LEDs are visible, or mounted out of sight on an interior surface. There are no IR pick-up devices in the Main Module.

Note: The action of the "smart" circuit is such that an initial flicker of the blue Activity LED will occur when CFL type lighting is first turned on. Also, occasional flickering may occur in the presence of plasma interference during scene changes, etc. This is normal operation and does not prevent IR commands from controlling system components.

Placement Notes: These IR receivers are very effective at blocking Plasma and other types of noise from being passed through to controlled components. However, the effective range of IR control will decrease as the intensity of such interference increases. For best range performance therefore, the Pick-Up Module should be oriented or placed in such a way as to minimize the intensity of such interference. This may mean placing the Pick-Up Module on a surface set back from the front surface of a plasma monitor panel, or keeping CFL or overhead electronically ballasted fluorescents 3 feet or more distant.

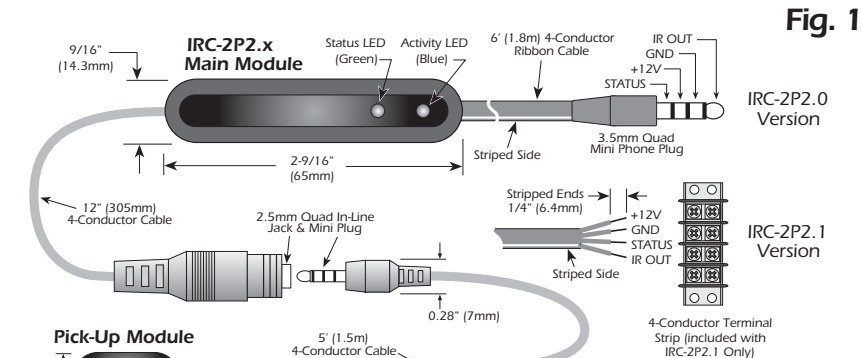


Fig. 1

FEATURES/SPECIFICATIONS

- The IRC-2P2.0 and IRC-2P2.1 are identical except for output lead termination. The IRC-2P2.0 has a unique 3.5mm quad plug to accommodate STATUS as well as IR, Power and Gnd connections. The IRC-2P2.1 comes with stripped ends plus a 4-conductor terminal strip allowing interface connections to in-wall room-to-room wiring. (refer to Fig. 1)
- Exclusive Plasma Blocking "smart" circuit (patent pending).
- STATUS Indicator. Green LED for System On/Off indication.
- ACTIVITY Indicator. Blue LED indicates IR signal activity in a completed circuit with a Terminator or an Emitter.

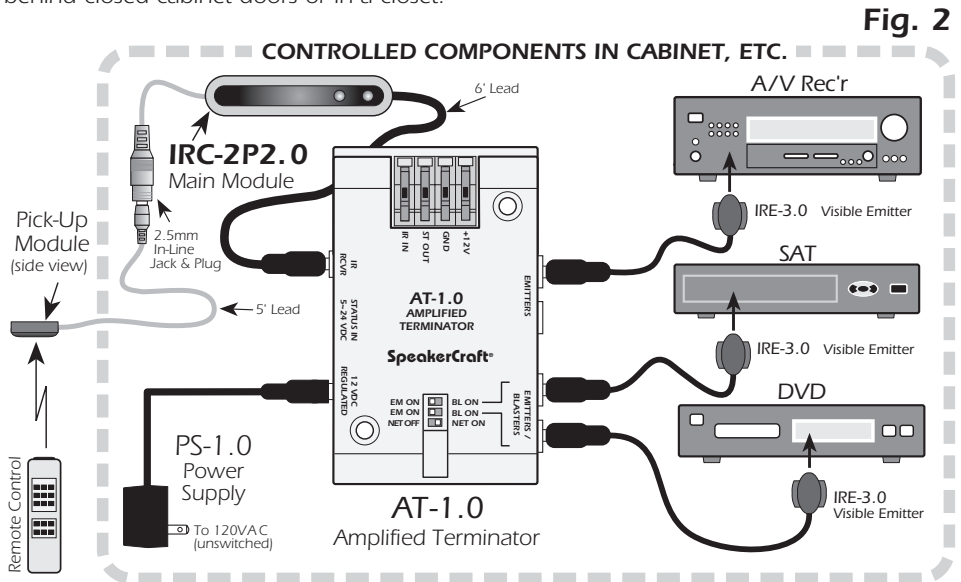
- These IR receivers require a Power Supply, Terminator Block and Emitters for IR Repeater operation.
- Mounting: Both the Pick-up and Main Modules may be attached to any flat surface using the included double-sided tape. The tape may be applied to the back or side surfaces to accommodate the installation.
- Power: 12V DC @ 12 mA. Supplied from connected Terminator.
- IR Lens rejects visible light interference.
- Internal Shield inhibits EMI/ESI Interference.
- Carrier Freq. Acceptance Range: 36 to 60 kHz.
- Output Carrier Freq.: 38 & 56 kHz.
- Control Range: Up to 75 feet, depending on remote strength and ambient interference (noise) conditions.
- Control Angle: +/- 50 degrees off axis.
- Room-to-Room Wire Recommendations: Use 4-conductor (min.) 24 gauge unshielded solid or stranded copper wire up to 600' (Cat. 5e ok), 22 gauge up to 1200', 20 gauge up to 2400' and 18 gauge up to 5300'.
- Max. Recommended cable length: 5300' with 18 gauge.
- Dimensions: Pick-Up Module: 7/8" (23mm) L x 13/32" (10.3mm) W x 9/32" (7.2mm) D. Pick-Up Module Lead Length: 5' (1.5m). Main Module: 2-9/16" (65mm) L x 9/16" (14mm) W x 1/2" (13mm) D. Main Module Lead Length: 6' (1.8m).

SYSTEM CONNECTIONS

The following are a few typical applications of the IRC-2P2.0 and IRC-2P2.1 for IR repeater systems.

A Basic System

Fig. 2 shows a basic plug-and-play installation, such as controlling components located behind closed cabinet doors or in a closet.



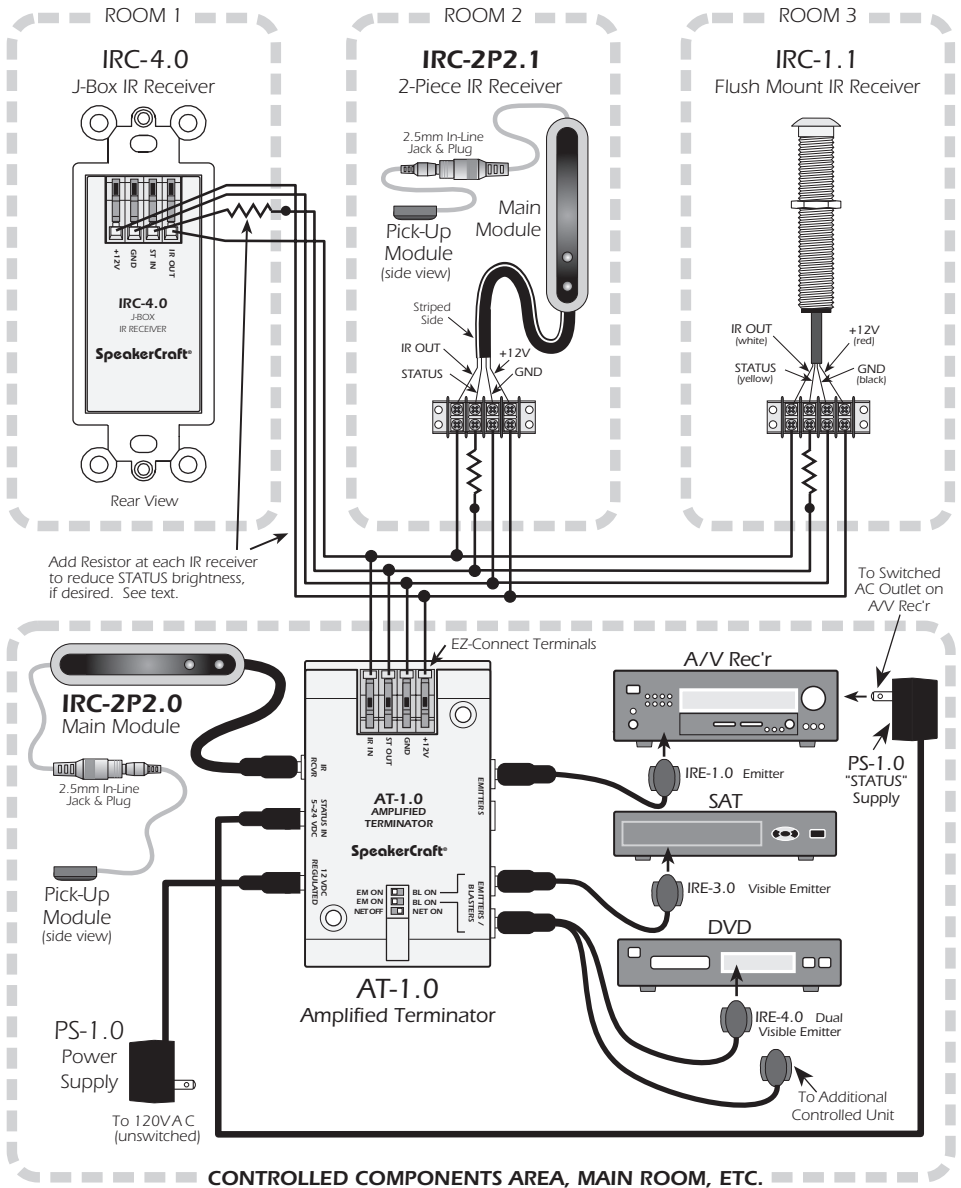
1. Mount the Pick-Up Module of the IRC-2P2.0 in a recessed cabinet area or other inconspicuous location, using the 2-sided adhesive tape supplied.
Note: Be sure you have an unobstructed line-of-sight path from the Pick-Up Module to the area from which the remote control will be used.
2. If necessary, you can drill a 9/32" hole to pass the small 2.5mm plug and wire through to the 2.5mm In-Line jack on the Main Module inside the cabinet.

3. Plug the IR Receiver Main Module and the Emitters into the SpeakerCraft AT-1.0 Amplified Terminator, as shown.
4. Set the DIP switches on the AT-1.0 to EM ON and NET ON or OFF.
5. Plug in the Power Supply.
6. The remote control, fired at the Pick-Up Module, should now control the components.

A Multi-Room System

Fig. 3 is an example of the IRC-2P2.1 wired version of this IR Receiver in a multi-room system with other SpeakerCraft IR receivers in various rooms, plus a local IRC-2P2.0. These control the various components in the main room or equipment area.

Fig. 3



1. Pull 4-conductor wire from each room (home runs) to the AT-1.0 Terminator near the controlled components.
Note: Use 24 gauge unshielded solid or stranded copper wire up to 600' (Cat. 5e ok), 22 gauge up to 1200', 20 gauge up to 2400' and 18 gauge up to 5300'. Total lengths include all wire runs from each room added together, not just the longest single run. If using shielded wire, these lengths would be reduced by approx. 30%. Also, to achieve operation with long lengths, the lower DIP switch on the AT-1.0 **must** be set to the NET ON position.
2. Connect IR receivers in each room to the 4-conductor home runs as shown, using the 4-conductor terminal strip supplied.
3. Connect the home run wires to the correct terminals on the AT-1.0 EZ-Connect terminals.
Note: You may use the SpeakerCraft CB Connecting Block (not illustrated, stock # ASM20200) to help connect the many paralleled home run wires to the AT-1.0 EZ-Connect terminals.
4. Install and plug the various emitters into the AT-1.0.
5. Set the DIP switches to EM ON (or BL ON if using Blasters behind closet doors) and NET ON.
6. Plug the local IRC-2P2.0 IR Receiver into the IR RCVR jack.
7. Plug in the PS-1.0 Power Supply.
8. A remote control, fired at the various IR receivers, should now control the components.

Note: Refer to the SpeakerCraft AT-1.0 Instructions for Power Supply considerations.

STATUS Brightness

Fig. 3 also shows how an external resistor can be added to reduce the brightness of the Status LEDs on SpeakerCraft IR Receivers to any desired level.

1. In this example, a PS-1.0 12 V Power Supply is used as the voltage source to indicate ON/OFF status of an AV Receiver.
2. Choose a resistor value that achieves the brightness you desire (about 2.2k to 12k, 1/8 W). Connect it in series with the STATUS lead on each IR receiver desired, as shown.

LIMITED 5-YEAR WARRANTY

SpeakerCraft warrants this product to be free of defects in materials or workmanship. This extends for five years from the date of purchase by the original consumer. Any products returned to SpeakerCraft and found to be defective by SpeakerCraft within the warranty period will be repaired or replaced, at SpeakerCraft's option, at no charge. SpeakerCraft will not be responsible for the actual cost of installation or removal of the product, nor for any incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights. You may have additional legal rights that vary from state to state.

SpeakerCraft®

SpeakerCraft ▪ 940 Columbia Avenue, Riverside, CA 92507 ▪ 800-448-0976 ▪ Fax 888-599-9059
www.speakercraft.com

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