**STATUS Brightness**
**Diagram 3** also shows how an external resistor can be added to reduce the brightness of the Status LEDs on Proficient IR Receivers to any desired level.

In this example, an IR Power Supply–200mA is used as the voltage source to indicate the ON/OFF status of an A/V Receiver.

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.

**IR Terminal**
Use this unit to interface between the quad (4-circuit) plug on Proficient IR Receivers (so equipped) and 4-conductor home runs. This eliminates the need to cut off the plug and strip and tin the leads for certain applications. *(See Diagrams 3 & 4)*



**Diagram 4**

## LIMITED 5-YEAR WARRANTY
Proficient warrants to the original retail purchaser only that this Proficient product will be free from defects in materials and workmanship, for a period of 5-years, provided it was purchased from a Proficient Authorized Dealer. Defective products must be shipped, together with proof of purchase, prepaid insured to the Proficient Authorized Dealer from whom they were purchased, or to the Proficient factory at the address listed on this installation instruction manual. Freight collect shipments will be refused. It is preferable to ship this product in the original shipping container to lessen the chance of transit damage. In any case, the risk or loss or damage in transit is to be borne by the purchaser. If upon examination at the Factory or Proficient Authorized Dealer it is determined that the unit was defective in materials or workmanship at any time during this warranty period, Proficient or the Proficient Authorized Dealer will, at its option, repair or replace this product at no additional charge, except as set forth below. If this model is no longer available and can not be repaired effectively, Proficient, at its sole option may replace the unit with a current model of equal or greater value. In some cases where a new model is substituted, a modification to the mounting surface may be required. If mounting surface modification is required, Proficient assumes no responsibility or liability for such modification. All replaced parts and product become the property of Proficient Products replaced or repaired under this warranty will be returned to the original retail purchaser, within a reasonable time, freight prepaid. This warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the unit, or service, repair or modification of the product which has not been authorized or approved by Proficient. This warranty also excludes normal cosmetic deterioration caused by environmental conditions. This warranty will be void if the Serial number on the product has been removed, tampered with or defaced. This warranty is in lieu of all other expressed warranties. If the product is defective in materials or workmanship as warranted above, the purchaser's sole remedy shall be repair or replacement as provided above. In no event will Proficient be liable for any incidental or consequential damages arising out of the use or inability to use the product, even if Proficient or a Proficient Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply. All implied warranties on the product are limited to the duration of this expressed warranty. Some states do not allow limitation on the length of an implied Warranty. If the original retail purchaser resides in such a state, this limitation does not apply.

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PROFICIENT™
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**OWNER'S MANUAL**

# IR Plasma Receiver
## with IR Terminal

The IR Plasma Receiver is designed to block Plasma, CFL, EMI, and ESI noise sources using an exclusive Plasma Blocking 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 Plasma Blocking 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:** The IR Plasma Receiver is 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, 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 fluorescent 3 feet or more distant.



**Diagram 1**

## FEATURES/SPECIFICATIONS

- The IR Plasma Receiver has a unique 3.5mm quad plug for direct plug-in to the Proficient IR Hub. It accommodates STATUS as well as IR, Power and Gnd connections.
- Exclusive Plasma Blocking 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 an IR Hub or an IR Flasher.
- Requires IR Power Supply, IR Hub and IR Flashers for IR repeater operation.

- Mounting: Both the Main and Pick-Up 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 IR Hub.
- 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˚ off axis.
- Dimensions:
    Pick-Up Module (L x W x D): ⅞" (23mm) x ¹³⁄₃₂" (10.3mm) x ⁹⁄₃₂" (7.2mm).
    Pick-Up Module Lead Length: 5' (1.5m).
    Main Module (L x W x D): 2⁹⁄₁₆" (65mm) x ⁹⁄₁₆" (14mm) x ½" (13mm).
    Main Module Lead Length: 6' (1.8m).

## SYSTEM CONNECTIONS

The following are a few typical applications of the IR Plasma Receiver in IR repeater systems.

### A Basic System
**Diagram 2** shows a basic plug-and-play installation, such as controlling components that are behind closed cabinet doors or in a nearby closet.

**Diagram 2**



CONTROLLED COMPONENTS IN CABINET, ETC.
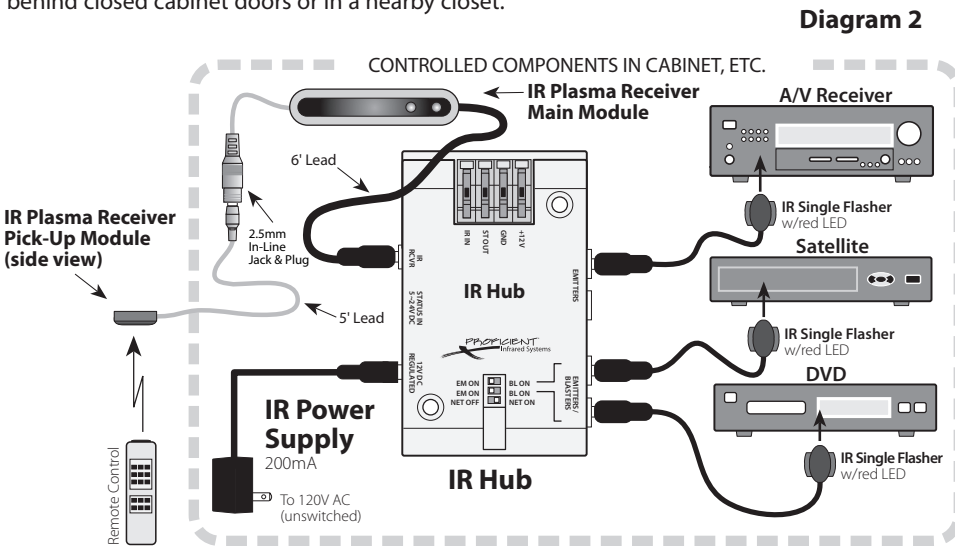
1. Mount the Pick-Up Module of the IR Plasma Receiver in a recessed cabinet area or other inconspicuous location, using the 2-sided adhesive tape supplied.
   **Note:** Be sure you have an unobstructed line-of-sight path from the Pick-Up Module to the area from which the remote control will be used.
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 Main Module of the IR Plasma Receiver and the IR Flashers into the Proficient IR Hub, as shown.
4. Set the DIP switches on the IR Hub to EM ON and NET ON or OFF.
5. Plug in the IR Power Supply.
6. The remote control, fired at the Pick-Up Module, should now control the components.

### A Multi-Room System
**Diagram 3** is an example of the IR Plasma Receiver in a multi-room system with other Proficient IR receivers in various rooms, plus a local IR Plasma Receiver. These control the various components in the main room or equipment area.

**Diagram 3**



CONTROLLED COMPONENTS AREA, MAIN ROOM, ETC.
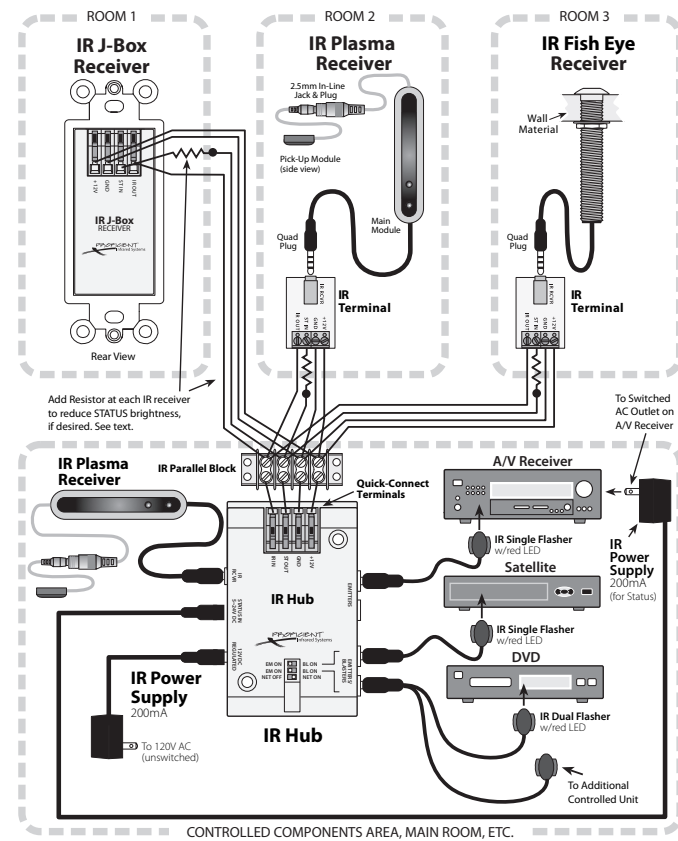
1. Pull 4-conductor wire from each room (home runs) to the IR Hub near the controlled components. **Note:** Use 24 gauge unshielded solid or stranded copper wire up to 600' (Cat. 5e ok), 22 gauge up to 1200', 20 gauge up to 2400' and 18 gauge up to 5300'. ***Total lengths include all wire runs from each 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 IR Hub 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 IR Terminals supplied.
3. Connect the home run wires to the correct Quick-Connect Terminals on the IR Hub. **Note:** You may use the IR Parallel Block included with the IR Hub to help connect the many paralleled home run wires to the IR Hub's Quick-Connect Terminals.
4. Install and plug the various IR Flashers into the IR Hub.
5. Set the DIP switches to EM ON (or BL ON if using Blasters behind closet doors) and NET ON.
6. Plug the local IR Plasma Receiver's Main Module into the IR RCVR jack.
7. Plug in the IR Power Supply–200mA into the 12V DC Regulated jack.
8. A remote control, fired at the various IR receivers, should now control the components.

**Note:** Refer to the Proficient IR Hub manual for Power Supply considerations.