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)*
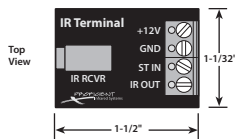

Top View

IR Terminal — +12V, GND, ST IN, IR OUT — IR RCVR — 1-1/32" — 1-1/2"

Diagram 4

Plasma Ambient Light Restrictor (ALR) Caps

Included are two special snap-on caps for the restriction of plasma and other types of ambient IR noise interference. The exclusive Ambient Noise Suppression circuit used in the IR Fish Eye Receiver will handle all types of noise and effectively reduces such noise to an acceptable level. However, in certain cases, the random strength of the pulsed IR noise from plasma displays, with scene changes, will cause too much noise to pass to the controlled component, resulting in intermittent response to IR commands. If you experience this problem, snap on one of these caps instead of the thinner color caps supplied. *(See Diagram 5)* Normally, use the one with the LARGER hole (Cap 1, ³⁄₁₆"). It will work in most cases and gives a wider angle of reception (about ± 35˚). If you encounter a particularly severe case, use the one with the SMALLER hole (Cap 2, ⁵⁄₃₂"), bearing in mind that this narrows the reception angle to about ± 30˚ and reduces the range somewhat.

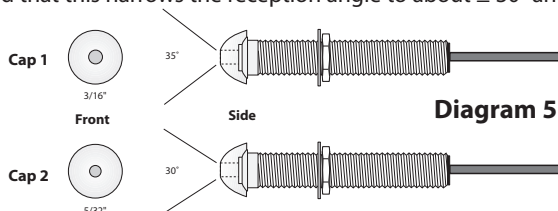Cap 1 — 3/16" — 35˚

Front — Side — **Diagram 5**

Cap 2 — 5/32" — 30˚

CAUTION: These caps can be spray painted to match wall colors as with the other color caps. However, when so doing, you must plug the hole to mask it from the paint. The inside of the hole must remain black for maximum rejection of the IR plasma interference.

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™ Infrared Systems

OWNER'S MANUAL

IR Fish Eye Receiver
with IR Terminal

The IR Fish Eye Receiver is a small IR receiver encased in a threaded tube, designed to mount flush into a cabinet or wall surface with only a circular bezel exposed to the room. Snap-on Color Cap bezels are included in white, bone, almond, and black. Also, they can be painted so that a match to any décor is achievable. Among its unique features is an exclusive Ambient Noise Suppression (ANS) system. It acts to push down IRI, CFL, EMI, or ESI noise sources so that stronger signals from IR remotes have adequate margin for command of the controlled component.

Note: The ANS will take a few seconds to adjust to a given noise source. During this time, the blue Activity LED will glow brightly and then fade out. If the interference disappears momentarily, then returns, the fade down process will repeat. Certain noise sources, however, (such as Plasma Screens) may result in low-level flickering even after the fade down. This is normal. Such signals have been acted upon by the ANS, allowing most equipment to be controlled.
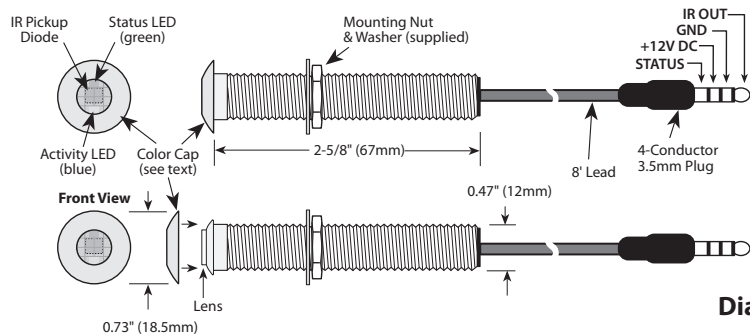

IR Pickup Diode — Status LED (green) — Mounting Nut & Washer (supplied) — IR OUT, GND, +12V DC, STATUS — Activity LED (blue) — Color Cap (see text) — 2-5/8" (67mm) — 8' Lead — 4-Conductor 3.5mm Plug — **Front View** — Lens — 0.73" (18.5mm) — 0.47" (12mm)

Diagram 1

FEATURES / SPECIFICATIONS

- The IR Fish Eye Receiver has a unique 3.5mm quad plug for direct plug-in to the Proficient IR Router. It accommodates STATUS as well as IR, Power and Gnd connections.
- Exclusive Ambient Noise Suppressor (ANS) system.
- STATUS Indicator: Green LED for System On/Off indication.
- ACTIVITY Indicator: Blue LED indicates IR signal activity in a completed circuit with an IR Router or an IR Flasher.
- Requires IR Power Supply, IR Router and IR Flashers for IR repeater operation.
- Mounting: Attaches to any flat surface through a ½" clearance hole, secured by a nut and washer (included) on the threaded tube from the backside.
- Power: 12V DC @ 6 mA. Supplied from connected IR Router.
- Crosshatch Shield (internal) inhibits EMI/ESI Interference.
- Carrier Frequency Acceptance Range: 28 to 90 kHz.
- Control Range: Up to 35 feet, depending on remote strength and ambient noise conditions.
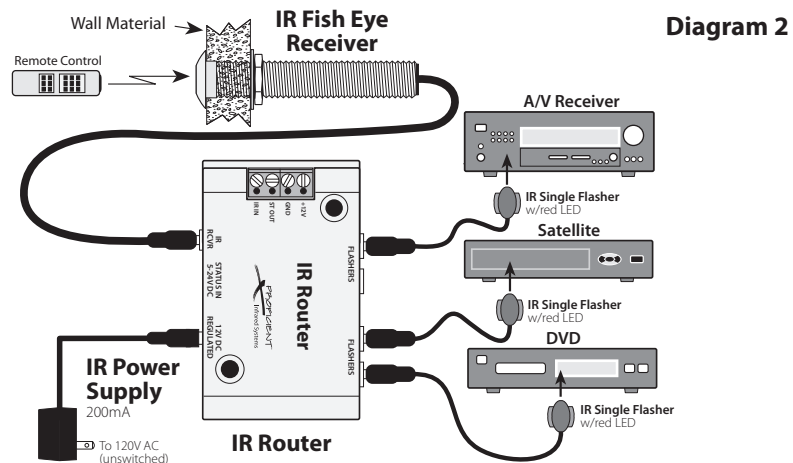- Control Angle: ±50˚ off axis.

- Color Cap bezels (included) snap on from the front. Provided in white, bone, almond, and black. In addition, they can be painted to match any room color scheme.
- Dimensions:
    IR Fish Eye Receiver (Diameter x Depth): ½" (12mm) x 2⅝" (67mm).
    Color Caps (Diameter): ¾" (18.5mm)

SYSTEM CONNECTIONS

The following are a few typical applications of the IR Fish Eye 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.
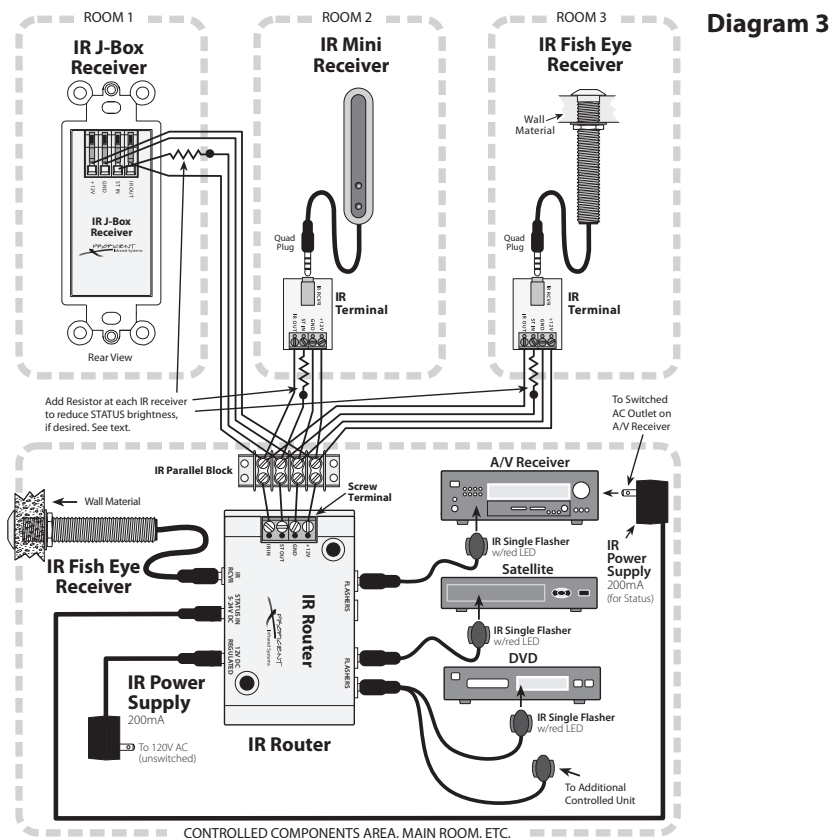

Diagram 2

1. Find an inconspicuous recessed cabinet panel or wall surface convenient for mounting the IR Fish Eye Receiver. Be sure you have a direct "line-of-sight" path from the user's remote control to the IR Fish Eye Receiver. Drill a ½" clearance hole.
2. Pass the lead and the IR Fish Eye Receiver through the hole and run the washer and nut up from the rear for tightening. *(See Diagram 2)*
3. Prior to tightening the nut, press on the Color Cap of your choice on the front until it "snaps" into place. Tighten the nut just sufficiently to draw the edge of the color cap flush with the wall surface. ***Do not over tighten!***
4. Plug the IR Fish Eye Receiver and IR Flashers into the Proficient IR Router, as shown.
5. Plug in the IR Power Supply.
6. The remote control, fired at the IR Fish Eye Receiver, should now control the components.

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

1. Pull 4-conductor wire from each room (home runs) to the IR Router near the controlled components. **Note:** Use 24 gauge unshielded solid or stranded copper wire up to 1200' (Cat. 5e ok), 22 gauge up to 2000', 20 gauge up to 3000' 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 approximately 30%.

Diagram 3

2. Install the IR Fish Eye Receiver in wall or cabinet surfaces per steps 1-3 of the **Basic System** section previous.
3. Connect IR receivers in each room to the 4-conductor home runs as shown, using the IR Terminals supplied.
4. Connect the home run wires to the correct Screw Terminal on the IR Router. **Note:** You may use the IR Parallel Block included with the IR Router to help connect the many paralleled home run wires to the IR Router's Screw Terminal.
5. Install and plug the various IR Flashers into the IR Router.
6. Plug the local IR Fish Eye Receiver 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 IR receivers, should now control the components.

Note: Refer to the Proficient IR Router Instructions for Power Supply considerations.

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.