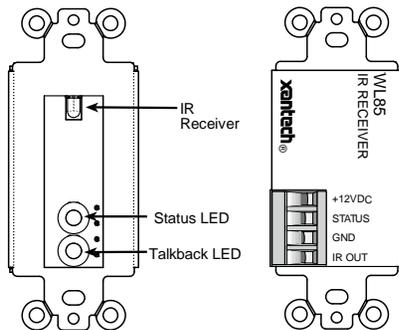




INSTALLATION INSTRUCTIONS

WL85

Wall Link™
Plasma \ LCD \ LED \ CFL Friendly
IR Receiver



DESCRIPTION

The WL85 is designed to reject interference from Plasma, LCD, LED Displays and Compact Fluorescent Lamps (CFL) from entering the IR signal line. This IR Receiver mounts easily into a single gang, electrical J-Box, is supplied with mounting screws, and comes with a Decorator-style insert, allowing the installer to use a Decorator-style wall cover plate. This provides an integrated look for control of A/V equipment behind closed doors or any IR Repeater System that is in close proximity to light sources described above.

FEATURES

- J-Box Mounting with Decorator-style insert (available in white (included), ivory, almond, & black)
 - 4-screw terminal block for interface to **Xantech** Connecting Blocks
 - Works in normal 3-wire mode
 - Improved Compact Fluorescent Light rejection
 - May be used in Direct Sunlight
 - RF Grid included for EMI reduction
 - Talk Back LED for IR reception and full system operation indication
 - Status LED for system On/Off indication (requires 12VDC Source @10mA)
 - 7 units may be powered by one 781ERGPS power supply (regulated 12VDC 200mA supply)
- Note:** The WL85 will not operate in 2-wire **Phantom Power** mode

SPECIFICATIONS

- Infrared modulation frequency bandwidth: 30 - 60 kHz
- Reception range: up to 80 feet (18M), depending on remote control output strength and ambient conditions.
- Reception angle: 55 degrees off axis at 50% range reduction
- Cable requirements: 3-conductor. Use 24-gauge up to 200' (61M), 22 gauges up to 600' (180M), 20-gauge up to 2000' (600M), 18-gauge up to 5000' (1.5KM) -- unshielded OK.
- Maximum transmission length: One mile using 18-gauge wire (1.6KM)
- Maximum current output: 100 mA (pulse)
- Dimensions: 1-3/4" W x 4-1/8" H x 1-1/8" D
- Power requirements: 12 volts DC @ 20mA

INSTALLATION

This unit is meant to be installed into a standard J-Box mounting box and interfaced to Xantech Connecting Blocks, such as the CB12, 789-44, 791-44, etc.

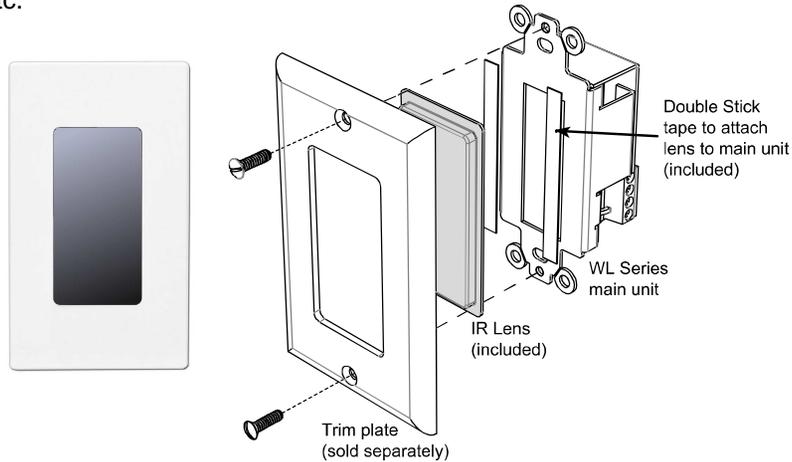


Figure 1 – WL series Assembly

CAUTION: THE J-BOX MUST NOT BE SHARED WITH 120/240VAC CIRCUITS.

PLACEMENT

Placement of the IR Receiver does matter when used in the presence of a Plasma Display. Ideally it should be placed somewhere around the Display with the front of the receiver flush with the front of (or set back from) the Display. If the WL85 needs to be placed in front of the display (such as on an adjacent side wall perpendicular to the display), make sure it is placed at a location at least 45 degrees off axis from the corners of the unit – see **Figure 2**. The presence of Direct Sunlight and Fluorescent Lighting should not affect the reception of this unit.

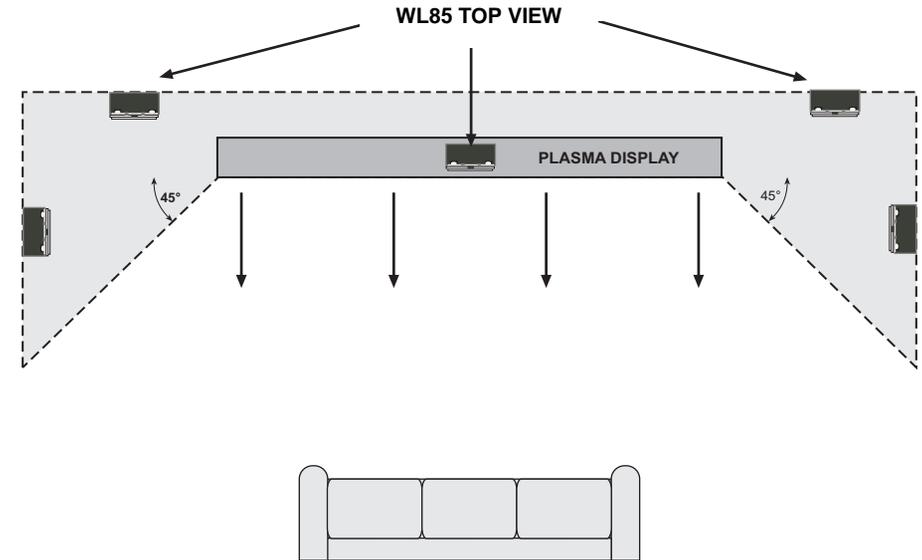


Figure 2 – WL series Placement

NOTE: Plasma interference can be reflected off of any item within approx. 3 feet from the front of the display. Keeping this in mind, make sure that the WL85 is free of any obstruction that might reflect back into the receiving eye.

Note: While this unit shows strong rejection to standard 50/60Hz 'ballasted' fluorescent lighting, it is still prone to interference from CFL style Fluorescent lighting.

MOUNTING

1. Pre-wire a 3-conductor cable (refer to **Specifications** section for proper Wire Gauge) from the connecting block location to J-box mounting location.

Note: If using the STATUS LED feature, use 4-conductor cable in the appropriate gauge (see Figure 2)

2. Connect proper wires to the +12VDC, GND, STATUS (if applicable), and IR OUT terminals on the rear of the WL85 as shown in **Figure 2**.
3. Secure the WL85 into the J-Box using the supplied screws.

APPLICATION WIRING

A typical system, with a WL85, 781ERGPS Power Supply and 283M Emitters plugged into a 789-44 Connecting Block, is shown in **Figure 3**:

1. Wire the appropriate leads of the 3 or 4-conductor cable from the WL85 to the +12VDC, GND, STATUS (if applicable), and IR IN terminals on the 789-44 Connecting Block
2. Plug in the 3.5mm mono mini plug from any of the 282, 284, 283 and 286 series Emitters into the jacks labeled EMITTERS on the 789-44 Connecting Block and affix the opposite end to the IR Sensor Window of the controlled equipment.
3. Plug in the 2.1mm Coaxial power plug of the 781ERGPS Power Supply (not included) into the jack labeled 12VDC on the 789-44 Connecting Block.
4. Plug the AC end of the 781ERGPS power Supply into an 'un-switched' 120VAC outlet.

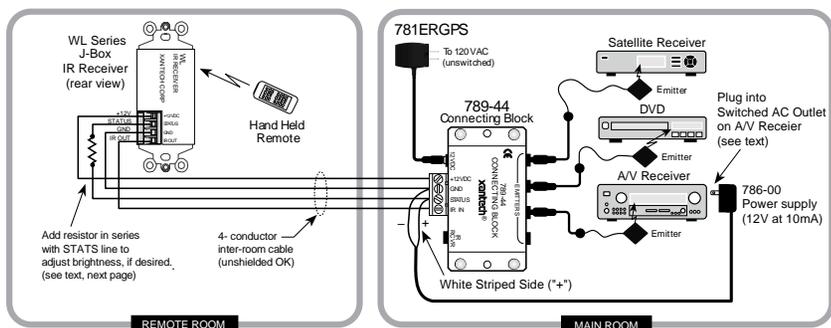


Figure 3 - Typical System Layout using WL series, 789-44, 781ERGPS, and 283D Emitters

ADVANCED WIRING CONFIGURATION

WL85 may also be used in conjunction with other Xantech IR Receivers by simply wiring in parallel on a Connecting Block such as the 791-44 Amplified Block as shown in Figure 4 below.

1. Connect all IR Receivers in parallel at the terminals of the connecting block as shown in **Figure 4** below.
2. Plug in the 2.1mm Coaxial power plug of the 781ERGPS (or 782) Power Supply (not included) into the jack labeled PWR on the 789-44CB.

NOTE: Up to 7 IR Receivers may be connected in parallel with a single 781ERGPS power supply. If more IR Receivers or any Keypads are required, check total current requirements and increase power supply current rating accordingly; i.e. 782-00 - 1.2A power Supply)

3. Plug in the Emitters 3.5mm mono mini plug (282, 284, 283 or 286 series) into the Emitter Outputs on the 791-44.

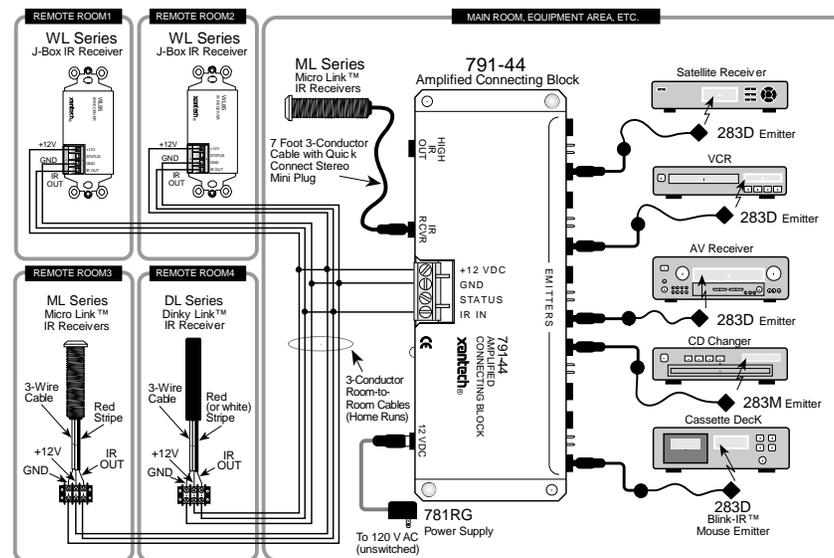


Figure 4 - Advanced Wiring Configuration using WL series, ML and DL series, 781ERGPS Power Supply and multiple 283D's

CAUTION: With any of these systems, be sure the 781ERGPS (or 782-00) Power Supply is plugged into an un-switched AC outlet. This maintains the 780 system in "stand-by" operation so that power-on commands can be sent to the controlled equipment.

USING THE STATUS LED INDICATOR

The WL85 Plasma Friendly IR Receiver includes a Status LED located just below the Talkback LED (See cover page). This permits the system to have a visible power ON/OFF indicator in the remote room.

When used with any of Xantech's Whole-house Audio Video Entertainment systems such as the MRC-88, or the ZPR68-10 Pre-Amp as part of the normal 4-wire hookup, connect the terminal marked STATUS on the WL85 Plasma Friendly IR Receiver to the appropriate Zones STATUS (or CO) connection on the MRC or ZPR system controller. See Figure 5 below. This will give visual ON/OFF status of the associated zone on the AV System Controller.

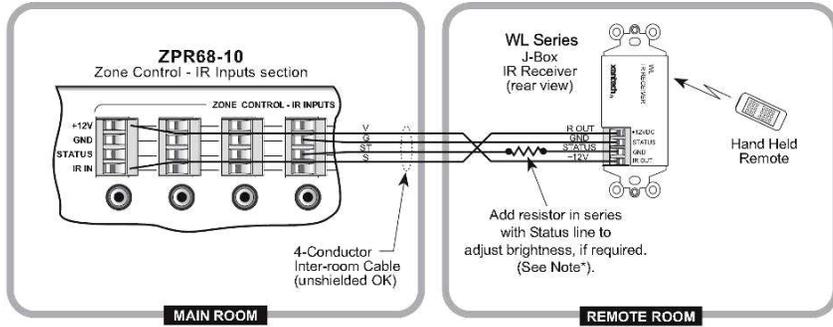


Figure 5 – Interfacing STATUS connection of WL85 with Zone STATUS line on ZPR68-10

In Single Zone systems, the Status LED could show the ON/OFF status of an AV Receiver. To achieve this, simply plug a 12vDC adapter, such as the Xantech 781ERGPS Power Supply, into the **switched** AC Outlet of the AV Receiver. The 12v '+' and '-' leads are then connected between the STATUS ('+' lead) and GND ('-' lead) terminals of the WL85. The Connecting Block makes a convenient tie-line for extending leads of the Power Supply to the actual terminals of the WL85 as shown in **Figure 6**.

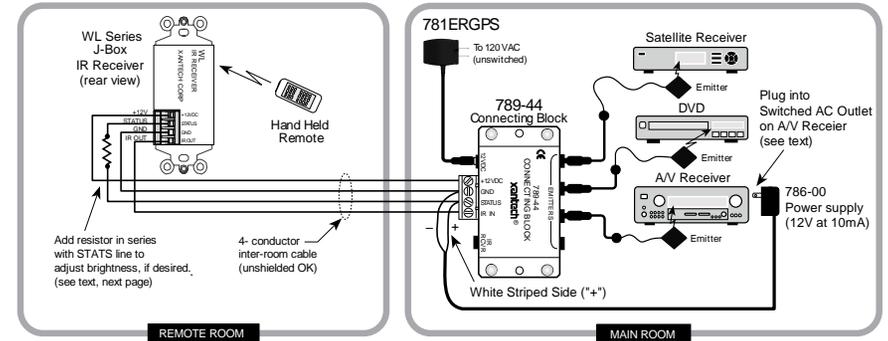


Figure 6 – Interfacing STATUS connection of WL85 to Switched Outlet of AV Receiver

TROUBLE SHOOTING:

1. Perhaps the most common problem you may encounter is stray IR (infrared) or RF (radio frequency) interference preventing proper operation of the controlled equipment.
 - Fluorescent, Compact Fluorescent, Neon or Halogen lights, Neon Art, and light dimmers.
 - Direct or reflected sunlight.
 - Infrared security sensors (active types).
 - RF radiation from TV sets that may be close to the Micro Link IR Receiver.
2. You can confirm the source of the interference by temporarily turning off TV sets, isolating the Micro Link IR Receiver from all sunlight and turning off all lights, light dimmers and Infrared security systems. Then check to see if the Micro Link IR Receiver operates the component.
 - Sometimes interference will cause the red Talk-Back LED on the front of the Micro Link IR Receiver to blink dimly, intermittently, or continuously.
 - The Talk-Back Led should only blink when you are sending infrared commands to the Micro Link IR receiver from a remote control.
 - It may be necessary to move either the interfering source of the Micro Link IR Receiver to achieve proper operation.
3. If the Talk-Back LED or the 286D Emitters do not blink when you are sending IR commands to the Micro Link IR Receiver from a remote control, check the following:
 - Make sure the power supply is plugged securely into a live AC electrical outlet.
 - Be sure the stereo mini plug of the Micro Link IR Receiver is plugged into the "IR RCVR" jack on the CB12 Connecting Block, not into the "OUT" jack.
 - Check to see that all the mini plugs are properly seated into the mini jacks on the CB12 Connecting Block.
4. If the 283D Emitters blink, but the component does not respond, reposition the 283D Emitter(s). They may not be located directly over the component's infrared receiving "window". Consult the owner's manual of the unit or the manufacturer for the exact location of the infrared "window".

Limited Warranty

Xantech® warrants its products to be free of defects in materials or workmanship. This is a Limited Lifetime warranty from the date of purchase by the original consumer. Any products returned to Xantech and found to be defective by Xantech within the warranty period will be repaired or replaced, at Xantech's option, at no charge. Xantech 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.

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