IWA Series
Remote Control PCB

Installation & Operation

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REMOTE CONTROL

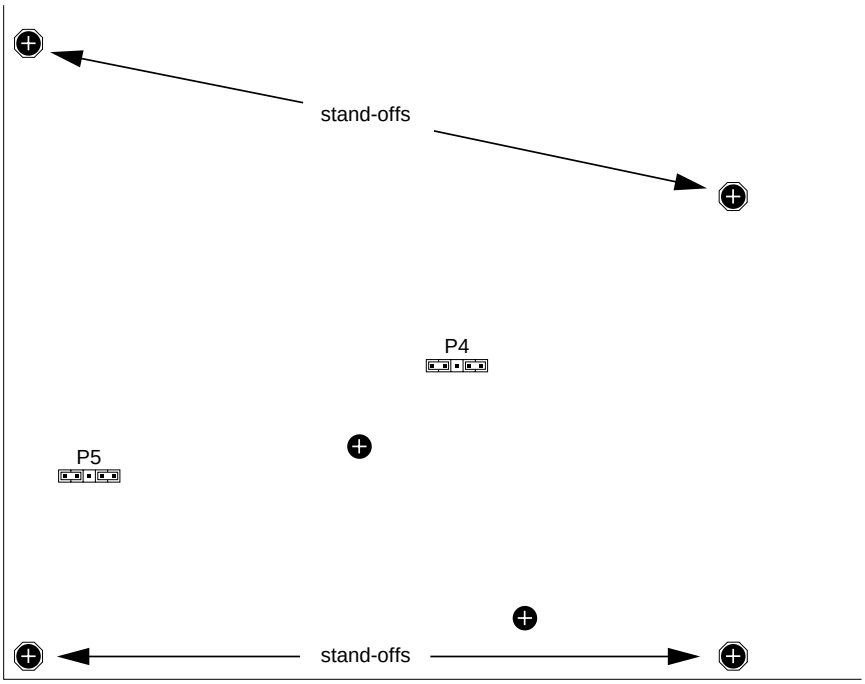
REMOTE CONTROL PCB

The IWA Series can be remotely controlled via infrared, wall-mount, or custom controls (see pages 2 & 3). Remote control capability is provided by an optional (user installed) Remote Control PCB (printed circuit board). The Remote Control PCB allows remote control of Main & Zone Output levels, as well as switching of three relays (included on circuit board). Connections are provided for up to two remote controls, which may then be assigned the necessary functions for a specific location or application. A non-volatile memory allows storage & recall of up to eight presets (levels & relays).

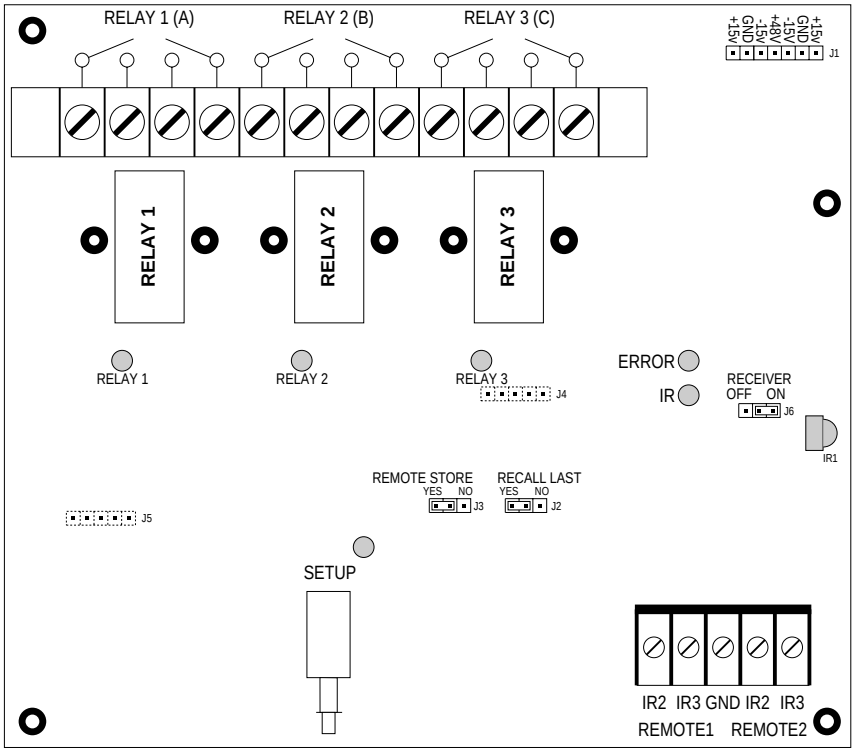
The Remote Control PCB is installed at the lower-left of the mixer PCB (see diagrams). Remove two jumpers from both P4 & P5 (on mixer PCB), and screws from the four stand-offs. Mate receptacles J4 & J5 (on rear of Remote Control PCB) to P4 & P5, and secure the PCB with the four screws. A power wire harness is tie-wrapped to the mixer wire harness. Cut tie-wrap and push connector onto J1 (at upper-right of PCB). Connections for remote controls are provided at the lower-right. The "normally open" contacts for three DPDT relays are provided at the upper-left ("normally closed" contacts are provided as wiring pads next to each relay). The relay contacts are rated for 5 Amps max.

The Remote Control PCB provides an infrared receiver at the right edge (IR1) for "set-up" purposes (see page 2). After set-up, this receiver may be disabled via the adjacent jumper (J6). Two jumpers are provided near the center of the PCB (J2 & J3). Once presets have been stored, jumper J3 allows remote control "store" buttons to be disabled. When power is turned on, the most current settings will be recalled, however, jumper J2 allows preset #1 to be recalled instead. LEDs indicate status of each relay, as well as reception and errors from remote controls. A switch and LED (at bottom edge) are used to enter "set-up" mode.

MIXER PCB



REMOTE CONTROL PCB



REMOTE CONTROL

SET-UP

The Remote Control PCB provides connections for two remote controls (Remote 1 & Remote 2). From the factory, universal control (recall presets, store presets, switch relays, Main level, and Zone level) is possible from both Remote 1 and Remote 2. However, "set-up" mode allows specific functions to be assigned to Remote 1 and Remote 2 independently. For example, Remote 1 might be assigned to recall presets, switch relays, and adjust Main level, while Remote 2 is assigned only to adjust Zone level. The actual remote controls could then be installed in their respective areas (Main & Zone), providing localized control.

To enter "set-up" mode, and assign specific functions to Remote 1 & Remote 2, press and hold the SETUP button (at bottom edge of Remote Control PCB) while turning on power to the IWA unit. Continue to hold the SETUP button (2 seconds), until the adjacent LED flashes once, then release the button immediately. In "set-up" mode, the ON & OFF buttons (A,B, or C) on a remote control are used to assign functions. There are five possible functions, each of which may be assigned to Remote 1 and/or Remote 2 (see table).

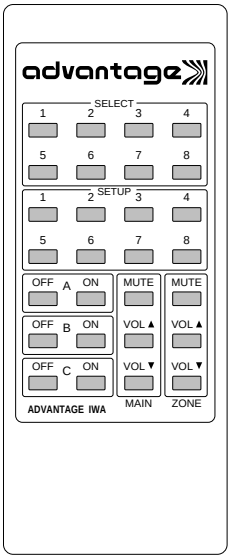
The table shows the exact sequence in which assignments must be made (use the table as a worksheet to plan assignments). Choose either ON or OFF for each function. The IR indicator will flash whenever a selection is made. The ERROR indicator will flash only if a wrong button is pressed. When all ten selections have been made, the SETUP indicator will light (1 second) and the Remote Control PCB will automatically return to normal operation. The Remote Control PCB may be returned to the factory default assignments (universal control) at any time. **CAUTION:** *Returning to factory defaults also erases presets.* To return to factory defaults, press and hold the SETUP button while turning on power. Instead of releasing the SETUP button after the adjacent LED flashes once, continue to hold the button (7 seconds) until the LED flashes twice. Release the button. The LED will light (1 second) and the Remote Control PCB will return to normal operation. **NOTE:** *The SETUP LED will flash occasionally during normal operation. This is only an indication that the Remote Control PCB is automatically storing the current settings in non-volatile memory.*

1) Remote 1 - RECALL PRESETS	OFF	ON
2) Remote 1 - STORE PRESETS	OFF	ON
3) Remote 1 - SWITCH RELAYS	OFF	ON
4) Remote 1 - MAIN LEVEL	OFF	ON
5) Remote 1 - ZONE LEVEL	OFF	ON
6) Remote 2 - RECALL PRESETS	OFF	ON
7) Remote 2 - STORE PRESETS	OFF	ON
8) Remote 2 - SWITCH RELAYS	OFF	ON
9) Remote 2 - MAIN LEVEL	OFF	ON
10) Remote 2 - ZONE LEVEL	OFF	ON

REMOTE CONTROLS

The IWA Series can be remotely controlled via infrared, wall-mount, and/or custom controls. An internal infrared receiver is provided on the Remote Control PCB (for set-up purposes only). The actual remote controls are offered optionally. This allows the user to select the type and quantity of remote controls necessary for a particular application. Remote controls affect mixer output volumes, relay switching, and memory presets. Two remote controls may be added, and may be configured for control of independent functions. Optional remote controls are: **Infrared Transmitters**, **External Infrared Receivers**, **Wall-Mount Panels**, & **Remote Interface Kits**.

Infrared Transmitter (Biamp #909-0063-00)**:** The transmitter is a hand-held remote control, which transmits infrared codes unique to Biamp. Therefore, the transmitter should not affect any other infrared controlled equipment (such as TVs or VCRs). Likewise, other infrared controllers will not provide proper control of Biamp equipment. The transmitter requires two AAA batteries, which are included with the unit (user installed). The Select 1~8 buttons choose a desired preset from non-volatile memory. The Setup 1~8 buttons create presets by storing current settings (levels & relays) in non-volatile memory. Once presets have been established, the Setup 1~8 buttons may be disabled. The MUTE, VOL ▲, and VOL ▼ buttons (Main & Zone) provide volume up, volume down, and volume off functions for the mixer outputs. The ON and OFF buttons (A, B, & C) provide switching of the respective relays (on Remote Control PCB). For best results, there should be an unobstructed line-of-sight from transmitter to receiver. The transmitter will operate up to 30 feet from a receiver. When infrared information is transmitted to a receiver, the IR LED indicators on the Remote Control PCB, and inside the receiver, will flash.

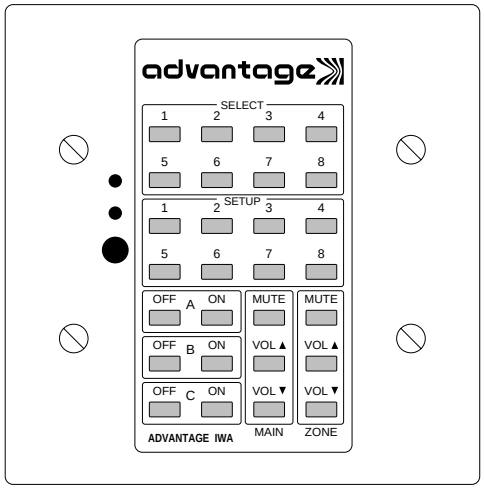


Infrared Transmitter
(Biamp #909-0063-00)

External Infrared Receiver (Biamp #909-0030-00)**:** The receiver consists of a black plastic box, which contains an infrared photo detector, an LED indicator, and three screw terminals. To install the receiver, first take off the front cover by removing the four screws. Mount the receiver to a wall or other surface, using the two screw holes on the back cover (screws not included). The receiver should not be mounted in direct sunlight, or pointed directly at fluorescent lighting. For best results, there should be an unobstructed line-of-sight from transmitter to receiver. The receiver may be wired up to 2000 feet from the IWA unit, using 2-conductor shielded cable (not included). Route the cable through the access hole on the bottom of the receiver. The three screw terminals inside the receiver ("GND", "IR2", & "IR3") directly correspond to the Remote 1 and Remote 2 terminals on the Remote Control PCB (Remote 1 and Remote 2 share a common "GND" terminal). Remote Infrared Receivers may be connected to Remote 1 and/or Remote 2, depending upon the particular application. Connect the cable shield to the "GND" terminal at each end. Use the two conductors to connect "IR2" to "IR2" and "IR3" to "IR3". Replace the receiver front cover. When the IWA unit is turned on, power is delivered to the receiver. The LED indicator inside the receiver, and the IR LED indicator on the Remote Control PCB, will flash whenever infrared information is detected. **NOTE:** The Infrared Receiver includes a "Remote Translator", which allows remote control of Advantage products via third-party controllers (instructions included with receiver).

External Infrared Receiver
(Biamp #909-0030-00)

Wall-Mount Panel (Biamp #909-0073-00)**:** The wall-mount is a "hard-wired" control panel, which receives power from the Remote Control PCB. There are no batteries to wear out, and it is not easily lost or stolen. The wall-mount may be wired up to 2000 feet from the IWA unit, using 2-conductor shielded cable (not included). Remove the mounting box from the front panel. Route the cable through a "knock-out" hole on the rear of the mounting box. Install the mounting box in a wall or panel. The three screw terminals on the Wall-Mount Panel circuit board ("GND", "IR2", & "IR3") directly correspond to the Remote 1 and Remote 2 terminals on the Remote Control PCB (Remote 1 and Remote 2 share a common "GND" terminal). Wall-Mount Panels may be connected to Remote 1 and/or Remote 2, depending upon the particular application. Connect the cable shield to the "GND" terminal at each end. Use the two conductors to connect "IR2" to "IR2" and "IR3" to "IR3". Install the front panel in the mounting box. The wall-mount has twenty-eight buttons. The Select 1~8 buttons choose a desired preset from non-volatile memory. The Setup 1~8 buttons create presets by storing current settings (levels & relays) in non-volatile memory. Once presets have been established, the Setup 1~8 buttons may be disabled. The MUTE, VOL ▲, and VOL ▼ buttons (Main & Zone) provide volume up, volume down, and volume off functions for the mixer outputs. The ON and OFF buttons (A, B, & C) provide switching of the respective relays (on Remote Control PCB). When the IWA unit is turned on, power is delivered to the Wall-Mount Panel and the green LED indicator will light. The red LED indicator on the Wall-Mount, and the IR LED indicator on the Remote Control PCB, will flash whenever infrared information is detected. The Wall-Mount Panel includes an infrared detector (below LED indicators), which allows it to operate as an External Infrared Receiver as well. The infrared detector may be disabled via a circuit board jumper strap. Complete instructions are included with the Wall-Mount Panel.



Wall-Mount Panel
(Biamp #909-0073-00)

Remote Interface Kit (Biamp #909-0041-00)**:** The Remote Interface Kit allows the user to create a customized control panel, using his own switches, enclosure, and panel. It can provide up to 40 buttons (12 more than standard remote controls). The Remote Interface Kit is a tested circuit board assembly, which includes two wiring harnesses. The circuit board connects to the Remote Control PCB in exactly the same way the External Infrared Receiver does, using 2-conductor shielded cable (not included), and may be wired up to 2000 feet from the IWA unit. The three screw terminals on the Remote Interface Kit circuit board ("GND", "IR2", & "IR3") directly correspond to the Remote 1 and Remote 2 terminals on the Remote Control PCB (Remote 1 and Remote 2 share a common "GND" terminal). Remote Interface Kits may be connected to Remote 1 and/or Remote 2, depending upon the particular application. When the IWA unit is turned on, power is delivered to the circuit board. The circuit board is 2.27"W by 2.65"H, with four mounting holes (2" centers) and #6 mounting hardware provided. Complete instructions are included with the Remote Interface Kit.