



WR-4 Active Remote Operating Instructions

The WR-4 is a microprocessor-controlled wall remote control unit for the 24.24M matrix processor designed to allow zoned source selection and zone volume control. The WR-4 controls the 24.24M input channel source selection of the specified output channel using the six upper selection keys. The WR-4 will also allow control of the output channel volume using the two lower keys. To select an input audio source, simply press one of the six corresponding input select keys. Multiple input sources may be assigned to a single select key, and also multiple selected keys may be engaged at a given time. Select keys that are currently engaged will have their corresponding LED lit. To deselect an input source, simply press the corresponding key again. To change the output volume, simply scroll the up and down arrow volume control keys. The WR-4 installs in a standard wall-mounted electrical box. Up to four WR-4 or WR-3 wall remotes can be phantom-powered from a 24.24M main unit. Connection to the 24.24M is via the Data In and Data Out terminals on the rear of the 24.24M, and can communicate up to 1,200 feet (365 meters). Additional wall remotes can be used provided an external power supply is properly connected (see section xx.x).

When pressing a source select key, the corresponding LED may take up to a second to respond because the remote is communicating the command to the 24.24M and waiting for a confirmation reply from the 24.24M before changing the corresponding LED indicator.

The WR-4 must be programmed with the input channels to be selected by the source select keys, and the output channel that is controlled by the volume control keys. The WR-4 is programmed using its own pushbutton keys when powered by a 24.24M main unit. To program the WR-4, follow the programming instructions below.

To program the Device ID of the 24.24M device that the WR-4 will control:

1. Simultaneously press select keys one and six to enter the DEVICE ID PROGRAMMING MODE. The first select LED will start flashing indicating it is in the Device ID programming mode.
2. The number displayed in the numeric LED display is the Device ID of the 24.24M that the WR-4 will control. Simply scroll the up and down arrow keys to change the Device ID.
3. Press select keys one and six together again to accept the Device ID and return to normal operating mode.
4. Programming modes can be disabled from being activated from the front panel keys by switching the rear-side red switch number one to ON.

To program the output channel whose volume and source selection will be controlled by the WR-4:

1. Simultaneously press select keys two and six to enter the OUTPUT CHANNEL CONTROL PROGRAMMING MODE. The second select LED will start flashing indicating it is in the Output Channel Control Programming Mode.
2. The number displayed in the numeric LED display is the output channel of the 24.24M that the WR-4 will control. Simply scroll the up and down arrow keys to change the output channel that the WR-4 will control.
3. Press select keys two and six together again to accept the output channel number and return to normal operating mode.
4. The output channel volume control feature of the WR-4 can be disabled by switching the rear-side red switch number two to ON.

To program the sources which will be selected when each select key is depressed:

1. Simultaneously press select keys three and six to enter SOURCE SELECT PROGRAMMING MODE. The select LED of the current select button will start flashing indicating the unit is in the Source Select Programming Mode.
2. Press any one of the six select keys to begin programming the input channel sources to be selected by that source select key. The corresponding select LED will start flashing indicating the WR-4 is in programming mode of source selection for that key.
3. Press the up and down arrow keys to scroll through the input channels. If an input channel is assigned to be selected by the currently flashing select key, then the input channel number will be flashing on the numeric LED display. To select or deselect an input channel assigned to the source select key, simply press the currently flashing select key.
4. Press both the up and down keys together to accept the source select assignments and return to the normal operating mode.
5. Programming modes can be disabled from being activated from the front panel keys by switching the rear-side red switch number one to ON.

To program the options applied to the WR4:

Options Available

- Exclusive source selection (when a source is selected all others are turned off)
- Biamped operation – both the current channel and the next channel will be adjusted when this option is enabled.

Programming Instructions

1. Simultaneously press select keys four and six to enter the OPTION PROGRAMMING MODE. The fourth select LED will start flashing indicating it is in the Option Programming Mode. Press the up or down keys to change options.
2. Press the fourth select key to turn on or off an option. If an option is turned on the displayed option number will flash.
3. Press both the up and down keys together to exit the programming mode.

Lockout Functions:

Programming Modes may be locked out so they cannot be inadvertently modified by switching Switch 1 (on the Back of the WR4) to the On Position

Output Volume Control may be locked out by switching Switch 2 (on the Back of the WR4) to the On position.

SECTION XX.X

Connecting More Than Four WR-3 and WR-4 Remote Controllers:

A 24.24M Matrix Processor's phantom power supply can only power up to four remote controller units (WR-3 or WR-4) at a time. It is possible to connect more wall remotes if an external power supply is used with the additional units. It should be noted, however, that only four WR-3's can be connected to a 24.24M Matrix Processor at any given time, due to the WR-3's method of communication with the device. There is no set limit for the WR4 wall remotes, its limitation is set by the amount of time it will take data to be transferred through the system.

The external power supply should supply anywhere from +15VDC to +20VDC and supply at least 28mA of current for each remote controller connected. To connect an external power supply to phantom power several remote controls, follow the procedure below.

1. Connect the 24.24M Data Out connection to the Data In of the first remote control as normal but do **NOT** connect the terminal labeled "+18" on the 24.24M.
2. Connect the external power supply negative terminal (-) to the 24.24M terminal labeled "-/G" which is also connected to the first remote control.
3. Connect the external power supply positive terminal (+) to the first remote controller Data Input terminal labeled "+18".
4. Connect the Data Output of the first remote controller to the Data Input of the second remote controller. Continue this Data Output to Data Input 'daisy chain' for all remote controllers and connect the last remote control's Data Output to the 24.24M's Data Input.

Notes:

1. The WR-4 will not function if a PC is connected.
2. Depending on the number of WR-X's in a system there may be a small delay between when a source is selected at the remote and when the change reaches the 24.24M
3. On power-up it will take (1/2sec * number of remotes) for all remotes to receive the current state of the 24.24M.
4. It may take several minutes after a preset recall for all new channel information to filter down to each remote.