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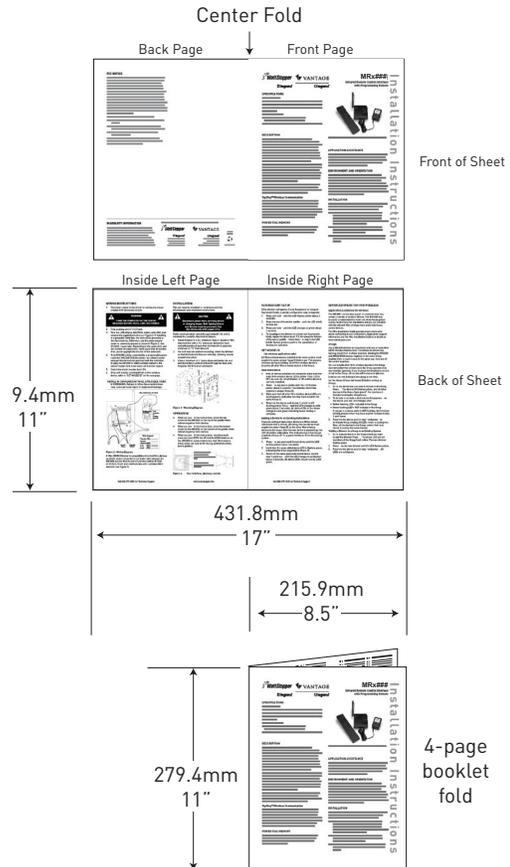
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**Print Two Sides, 2 sheets 8.5" (Wide) x 11" (High),
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OR

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IF YOU HAVE ANY QUESTIONS REGARDING SPECIFICATIONS OR REQUIRE ADDITIONAL FILE FORMATTING, PLEASE CONTACT Mary Jo Sowinski.

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PLM				
MARCOM				
ENGINEERING				
QA				
		Title: MRIR1 Installation Instructions		
TITLE BOX PG	SCALE 1:1	Drawing #: 07068	Orig. Drawing Date: 27 SEP 06 Revision Date: 29 MAY 09	REV. #: 3

SPECIFICATIONS

Input Voltage 12VDC, 50mA minimum
 AC-DC adaptor 120VAC, 60Hz
 Programming Remote CR2025 battery 3.0V 170mAH
 IR Frequency 36KHz
 Control Inputs:
 Internal IR receiver
 3.5mm jack for connection to an optional external IR sensor or IR repeater system
 Output TopDog RF commands

DESCRIPTION

The MRIR1 provides Top Dog™ wireless network connectivity via commonly available IR learning remotes. Miro house and room scenes are invoked based on IR codes transmitted from the included Programming Remote or a user supplied learning remote (e.g., Philips Pronto, or those by other manufacturers such as Universal Remote, RTI etc.). This allows the preferred IR remote to integrate with the Miro wireless network to execute house and room scenes and also control audio video components.

The MRIR1 interface module is designed with an integrated 36Khz IR receiver located at an opening placed at the top of the device. The MRIR1 also has a 3.5mm mini stereo jack allowing direct connection to existing Xantech IR receivers. Additional receiver options may be available from Xantech or other vendors. This product has been tested the MRIR1 with Xantech Dinky Link model 480B-30.

The included infrared Programming Remote is lightweight and about the size of a credit card. It can be configured to send either House or Room scenes by pressing the desired Mode button. See IR Programming Remote Configuration.

Top Dog™ Wireless Communication

Wireless devices use radio signals to communicate with each other to control lighting and other types of electric loads in selected areas. These wireless devices use the 900MHz band for high-speed control communication. Using "frequency-agile" Top Dog™ technology, these wireless devices avoid interference with other 900MHz devices, such as cordless phones and baby monitors.

POWER FAIL MEMORY

After a power failure, all wireless devices automatically return to the state that they were in immediately prior to loss of power. All configuration and scene control information is preserved.



IR Programming Remote, MRIR1 interface, power supply

APPLICATION ASSISTANCE

The MRIR1 functions as part of a network that may contain a variety of wireless devices. Instructions for installation, binding operations, and use are included with the relevant wireless devices. Application support information and installation guides are available online.

ENVIRONMENT AND ORIENTATION

Do not locate the MRIR1 close to any device that may cause radio frequency interference or behind large metal objects that can block radio reception. Avoid TV sets, computers, refrigerators, microwave ovens, range hoods, safes, etc. The infrared receiver must also have a clear line of sight view of the areas where the IR remote control will be operated. Avoid fluorescent light fixtures, direct sunlight, frosted or tinted glass obstructions.

INSTALLATION

A screw slot on the base of the MRIR1 interface is provided for wall mounting. Alternatively, the base of the unit is equipped with rubber feet for shelf-top operation.

1. Complete the physical installation and binding of all other wireless devices in the network. Use an appropriate scene controller or hand held scene remote to set up the scenes that will be executed based on the decoded IR transmissions.
2. Plug the MRIR1's power supply into a convenient 120VAC outlet, and connect the power cord to the power supply jack on the MRIR1.
3. The status LED lights yellow, indicating that the unit is ready for configuration. See SET HOUSE ID in this manual.

BINDING THE MRIR1 INTERFACE

Set House ID and Room Binding

1. Go to a previously configured Room Scene Controller in the room where the MRIR1 is to operate. Start a Room Binding by pressing the UP/DN buttons on the controller. If the MRIR1 doesn't need to be bound to a room (it will only be used to execute house scenes) you can start the binding from any device in the house, confirm that the house binding is successful, then skip to step 3.

The MRIR1 house binding is successful when it's LED starts blinking green.

2. To include the MRIR1 in the room where the binding was initiated, go to the MRIR1 and simultaneously press and hold its ⬆️ buttons while the house binding is still active (LEDs on all devices in the house are blinking).

The MRIR1 room binding is successful and it is included in the room when it's LED starts blinking yellow (amber).

3. When binding is complete, terminate the binding from the device that started the binding (simultaneously hold and hold the ⬆️ buttons until the unit stops blinking).

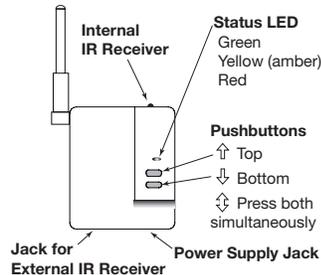
Setup of the MRIR1 is complete.

Changing House/Room ID

To change the House ID, reset the MRIR1 to its factory default state ("0" for House and Room ID). Press and hold the ⬆️ buttons for 10 seconds, until the LED turns solid yellow (amber). When the unit returns to defaults, it can accept a new House ID.

To change the Room ID (when the House ID is correct), initiate a Room Binding from a device with the desired Room ID. Include the MRIR1 into the Room by simultaneously pressing its ⬆️ buttons to include or exclude it. When the MRIR1 is included it's LED blinks yellow (amber). When excluding the MRIR1 from a room the Room ID is cleared leaving the device with no Room ID.

When a House ID has been assigned but the Room ID is at the factory default of "0" then in the normal operating mode the MRIR1 will show a Red LED error condition indicating that the unit is not yet bound to a specific room.



THE IR PROGRAMMING REMOTE

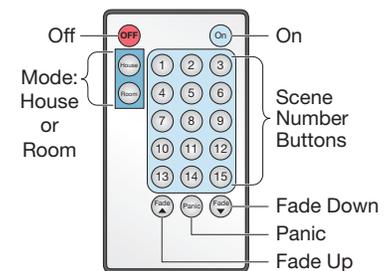
The Programming Remote supplied with the MRIR1 uses the Legrand CAD IR data protocol. This protocol is built into the MRIR1 interface, which translates the codes from the IR remote to Top Dog commands for wireless transmission to the Miro network.

You can use the Programming Remote to directly control the MRIR1, or you can use the Programming Remote to teach a "learning remote" the codes. Refer to the instructions supplied with the learning remote for programming and protocol information. For more information about remotes, go to www.RemoteCentral.com.

Teaching Mode Procedures

To teach a learning remote using the Programming Remote you must set the Programming Remote to the desired Mode. This toggles the IR codes sent by the buttons between Room and House scenes.

1. Press and release the desired Mode button to send Miro Room or House On/Off or scene commands. Depending on the Mode selected some of the buttons in the scene area may become inactive, for example there are only 10 House scenes. Therefore, in House mode scene buttons 11-15 are inactive.



2. Place the learning remote and the Programming Remote about 6 to 12 inches apart, with the IR transmit/receive lenses aimed at each other.
3. Put the learning remote in Learn mode (according to the instructions provided with the remote).
4. Press a button on the learning remote that you want to teach a function or scene then press the button on the Programming Remote that invokes the desired function or scene. Repeat as necessary until the remote is fully programmed.
5. Terminate the Learn mode on the learning remote then test operation of the system using the learning remote.

IR PROGRAMMING REMOTE CONFIGURATION

House Mode - Recall House Scene

House Mode commands the MRIR1 to recall house scenes. When the Programming Remote is in House Mode the scene buttons (blue area) transmit House scenes 1-10. The On and Off buttons transmit House On and Off. The Panic button below the scenes area initiates Panic mode with the first press and cancels Panic mode with a subsequent press.

Room Mode - Recall Room Scene

Room Mode commands the MRIR1 to recall Room Scenes. When the Programming Remote is in Room Mode the scene buttons (blue area) transmit Room scenes 1-15. The On and Off buttons transmit Room On and Off. The Panic button is inactive.

About Room Proportional Ramp Commands: In a standard Miro installation, a Proportional Ramp is performed using the paddle on a room scene controller. The amount of fade is reflected in the duration of the press. Most IR devices, however, transmit their command data on the initial button action, therefore the MRIR1 proportional ramp function has been adapted.

To initiate a Proportional Ramp command, press and release the corresponding Ramp Down or Ramp Up button on the Programming Remote. When the desired output level is achieved, press and release any button to stop the action. Since the ramp operation requires multiple operations (1-Start, 1-Stop), the ramp speed associated with the IR command operates roughly 30% slower than that issued by a Miro wireless scene controller. This should aid the user in making adjustments with more accuracy.

Please note: Since most IR remotes issue the same command several times to ensure that the command was received, the MRIR1 treats subsequent identical IR commands as a retransmission of the same command. Therefore, it is possible that the Proportional Ramp command may not be functional on all learning remotes.

TESTING

Test scene recall by pressing a scene button on the programmed learning remote or on the Miro Programming Remote. The LED on the MRIR1 will blink twice indicating the command was sent to the wireless Miro network.

BATTERY REPLACEMENT

The Programming Remote uses a CR2025 Lithium coin battery. Access the battery from the back side of the remote and slide the battery holder drawer out of the remote to remove the old battery.



TROUBLESHOOTING

Using the MRIR1 with an IR repeater system

If you are using an IR repeater system with the MRIR1, make sure it is working correctly with the Programming Remote. If not, you will need to troubleshoot the IR repeater system.

During Set House ID, the LED is not flashing on some Wireless devices.

- If LED is solid green before initiating house ID binding:
The device already has another house ID. Reset it to the factory default so that it can be bound to the desired house ID. Resetting to factory defaults is described in the "I need to start over" issue.
- If LED is solid yellow (amber) after initiating house ID binding:
The device may be out of range of the initiating device. It may be necessary to add a MRR2 Repeater if reception to a particular area of the house is blocked.

After teaching the customer's learning remote, there is no response from the MRIR1.

Try sending the same code from the Programming Remote. If that works correctly, there may have been a problem during the learning process. IR signals are susceptible to interference by sunlight and fluorescent lighting. Try moving to a location that is not affected by sunlight or a fluorescent lighting fixture, place the Programming Remote closer or further away from the learning remote and then re-teach the desired commands.

I need to start over.

You can reset any wireless device to factory default settings by pressing and holding the Up/Down buttons on the until the LED changes to solid yellow (amber) (approximately 10 seconds). During the process, the LED flashes yellow (amber) and when complete, it changes to solid yellow (amber). The device can then be reconfigured, exactly like any new device.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

WARRANTY INFORMATION

Manufacturer warranties its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of manufacturer for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

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