

## ADVANCED OPERATION

### Assigning Occupancy Emulation to a House Scene

You can assign the repeater's occupancy emulation function to a Miro House Scene button. This is very convenient, especially if the repeater is installed in a hard to reach area.

1. From a wireless house scene controller (MRD5 or MRH5), press ⇄ until its LED begins flashing (about 2 seconds).
2. Press the scene button you want to use. We recommend the fourth one. The LEDs on all the Miro wireless devices begin to flash. You now have 10 minutes to complete this process.
3. Go to the repeater and press both buttons for 2 seconds until the repeater status LED blinks yellow.

**IMPORTANT: Only one repeater should be assigned to the house scene button. If you have more than one repeater, use the most centrally located.**

4. Check all the Miro wireless device LEDs. If they are blinking yellow, they are assigned to the selected scene button. To exclude a device from the scene press ⇄ on the device until the LED begins to flash green.

**Yellow** flashing LED = Included in the active scene

**Green** flashing LED = NOT included in the active scene

If a device LED is NOT flashing, the 10 minute binding process timer may have expired. Go back to step 1 and repeat.

5. Return to the house scene controller used in step 1. Press ⇄ for 2 seconds — the status LED stops flashing, then all the status LEDs in the house turn to solid green.
6. From the same house scene controller, press and hold the same scene button until the LED flashes once (about 2 seconds). Scene recording for this button is complete.
7. When you leave the house, press the House Scene button you just recorded. One minute later, occupancy emulation will begin.

## CLEANING

Clean using only a cloth dampened with water and a little mild detergent.

Use of solvents or hydrocarbon-based cleaners may cause permanent damage.

## TROUBLESHOOTING

### **During Set House ID, the LED is not flashing on some Wireless Miro 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 after initiating house ID binding:  
The device may be out of range of the initiating device. Relocate the MRR2. It may be necessary to add another MRR2 if reception to a particular area of the house is blocked.

### **I made a configuration mistake. I need to start over.**

You can reset any wireless Miro device to factory default settings by pressing and holding  until the LED changes to solid yellow (approximately 10 seconds). During the process, the LED flashes yellow and when complete, it changes to solid yellow. 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 The 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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# MRR2

## Wireless Repeater



# Installation Instructions

### Specifications

MRR2 Input Voltage.....	9-12VDC, 50mA minimum
AC-DC adaptor (provided)	
Input 120VAC, 60Hz	
Output .....	9VDC, 50mA

Patents pending

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 V A N T A G E

## UNIT DESCRIPTION

Use the Miro™ MRR2 Wireless Repeater in large installations, where the standard range (approximately 25m/80') is insufficient, or in buildings with difficult wireless reception conditions.

The wireless repeater effectively doubles the transmit/receive range of Miro wireless devices. In large applications or where radio reception is difficult, you may use two repeaters, strategically located.

For extremely large or difficult applications requiring more than two repeaters, please contact Technical Support for assistance.

The wireless repeater also offers a security feature — real life occupancy emulation. It continuously records a one-week loop of actual Miro wireless network traffic, and can play it back when you're away from home — it will look like the house is occupied.

While we recommend the repeater for either or both of these functions, you should use only the number required for effective wireless communication throughout the home. Using too many repeaters will not provide any additional benefit and may slow down network communication. For in-depth system design guidance, see Application Assistance, below.

### Miro Wireless

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

### Application Assistance

The **Miro Installation Guide** provides more information about configuring the Miro wireless control system, including setting up scenes and presets. Instructions for installation and use are included with the relevant Miro wireless devices. Application support information, the **Specification Guide** and the **Miro Installation Guide** is available online.

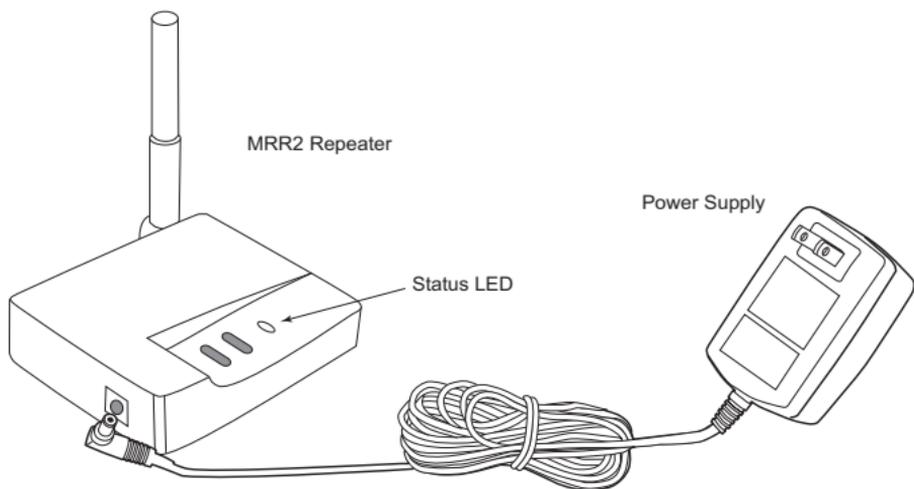


**Repeater  
Identification Icon**

## INSTALLATION

1. Locate the repeater in a central location, taking into consideration both the horizontal and vertical space in the home. In a 2-story plus basement home, a good position may be on the first floor atop a bookcase.
2. Plug the external power supply into a convenient 120 volt outlet, and connect the power cord to the repeater's power socket.
3. The status LED will light yellow, indicating that the unit is ready for configuration.

Do not locate the MRR2 Wireless Repeater close to any device that may cause interference or behind large metal objects that can block radio reception. Avoid fluorescent light fixtures, TV sets, computers, refrigerators, microwave ovens, range hoods, safes, etc.



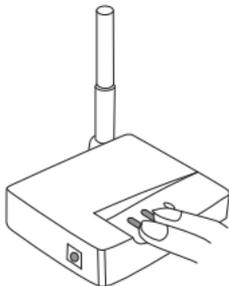
## SET HOUSE ID

All Miro wireless devices installed in the same home must acquire the same unique House ID before use. This process is known as house binding. Each Miro wireless device is bound to all other Miro wireless devices in the house.

**IMPORTANT:** Because the repeater increases the range of the Miro wireless system, it is very important to make sure the repeater is installed and powered before setting the House ID using any other Miro wireless device. The repeater automatically checks for House IDs that are installed in the neighborhood.

### New Installation

1. With all devices installed and energized, make sure that every Miro wireless device LED is yellow. If any LED is off, be sure the circuit breaker is on and the device is correctly installed.
2. Press  on any device until the LED flashes yellow (about 2 seconds). This indicates that it has acquired a unique House ID.
3. Make sure that all other Miro wireless device LEDs are flashing green, indicating that they have acquired the same House ID.
4. Return to the device used in step 2, which is still flashing yellow. Press  until the LED changes to solid green (about 2 seconds). All device LEDs in the House change to solid green, indicating house binding is complete.



When you see  in the instructions, firmly press and hold both buttons on the MRR2 until the LED changes (about 2 seconds).

### Adding a Device to an Existing Installation

If you're adding or replacing a device in a Miro wireless installation that is already operating, the new device must acquire the same House ID as the other Miro wireless devices in the house. After the new device is powered up, the LED should be solid yellow. This indicates that it has not yet acquired a House ID. To acquire the House ID for the existing system:

1. Press  on any previously bound device until the LED flashes yellow (about 2 seconds).
2. Verify that the newly added device LED is flashing green, indicating that it has acquired the House ID.
3. Return to the same previously bound device used in step 1 and press  until the LED changes to solid green (about 2 seconds). All device LEDs should now be solid green.

## OPERATION

### Wireless Range Boost

Once the repeater is bound to the House, it automatically receives and retransmits all wireless Miro network traffic in the House, effectively doubling the range of all devices sharing the same House ID.

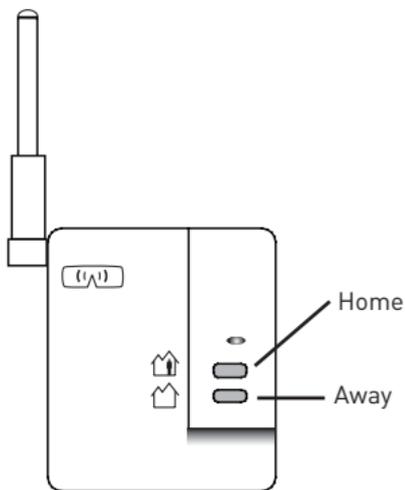
### Occupancy Emulation

The repeater stores a 7-day record of actual network traffic. It constantly keeps it up to date to account for seasonal variations in lighting use.

1. Press the Away button. One minute later the repeater starts playing back a seven-day loop of wireless Miro commands. It will be just like the last week you spent at home.
2. When you come back, press Home, or any button on any wireless Miro device in the home to cancel occupancy emulation.

### Power Fail Memory

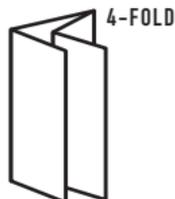
After a power failure, all Miro devices automatically return to the state that they were in immediately prior to loss of power. All configuration and scene control information is preserved.



REV	DESCRIPTION	INT:	REV. DATE	APPROVED
1	ECO# C00890	MJS	4/28/04	CG
2	ECO# C02412	DR		

**TITLE BOX PAGE ONLY.**  
**DO NOT MAKE FILM • DO NOT PRINT**

- Print: 2-sides
- Ink Color: Black
- Paper: White 16lb (60g/m sq)  
Uncoated, prefer recycled stock
- Final trim size: 16" (Wide) x 6" (High).
- Four (4) fold.
- Final folded size: 4" (Wide) x 6" (High).



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