



APPENDIX H

: USER'S MANUAL



MRA-DUO Owner's Manual



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Total Control

Introduction

The MRA-DUO Network System Controller controls is designed to meet the needs of residential or small commercial environments.

Only Total Control software, products, and user interfaces are supported by this powerful device.

Features and Benefits

- Supports both wired and wireless IP network connections, with Bluetooth® Low Energy (BLE) 5.2.
- Has four IR 3.5mm ports and a front IR Blaster to control IR devices.
- Can control up three Bluetooth® devices.

Parts List

The MRA-DUO Advanced Network Controller includes:

- 1x MRA-DUO System Controller
- 1x AC Power Adapter
- 4x IR Emitters 3.5mm (standard)
- Wall Mount and 4x Screws

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Front Panel Description

The front panel of the MRA-DUO Advanced Network System Controller displays the following information:

1. Network LED: Indicates nine (9) possible states:

- **Solid Green** - The device is connected **wirelessly** to the network with **strong/good signal strength** & is connected to the MRX Master Base Station.
- **Solid Yellow** - The device is connected **wirelessly** to the network with **fair/poor signal strength** & is connected to the MRX Base Station.
- **Solid Blue** - The device is connected to the network with a **wired** Ethernet connection & is connected to the MRX Master Base Station.
- **Solid Red** - The device **is not connected** to a network.
- **Blinking Yellow** - The device is connected to a network but is **not connected** to the MRX Master Base Station.
- **Blink Blue Three Times then Stop** - The 12VDC Power is initially connected to the device.
- **Blinking Green** - The device is being downloaded to from the URC software.
- **Blinking Blue Continuously Until Device Reboots** - The Reset button has been pressed and held for 15 seconds.
- **Blink White for 10 Seconds** - The device was sent the "Identify Device" command.



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Front Panel Description (cont'd)

2. Bluetooth®/Infrared LED: Indicates seven (7) possible states:

- **Off** - The device is powered ON, booted, and not paired to a Bluetooth® device.
- **Solid Blue** - The device is powered ON, booted, and paired to at least one Bluetooth® device.
- **Blinking Blue** - The device is transmitting RF (Bluetooth®) data.
- **Blinking White** - The device in pairing mode.
- **Blink Green Three Times** - The Bluetooth® pairing attempt succeeded.
- **Blink Yellow Three Times** - The Bluetooth® pairing attempt failed.
- **Blinking Red** - The device is transmitting Infrared data.

3. Front Panel Infrared Blaster - IR Blaster that floods a room with infrared commands.



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Rear Panel Description

The rear panel of the MRA-DUO Advanced Network System Controller displays the following information:

1. **DC 12V Port** - Connect the supplied power adapter to this port.
2. **IR Outputs** - Four (4) standard 3.5mm IR emitter ports. IR Output 4 provides variable level adjustment.
3. **Infrared Intensity Trimpot** - This trimpot affects IR Output #4 only.
4. **LAN Port** - RJ45 standard 10/100 Ethernet connection to the local network. Please note that PoE is not supported.



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Bottom Panel Description

The bottom panel of the MRA-DUO Advanced Network System Controller displays the following information:

1. **Reset Button:** Located at the bottom of the device and requires a stylus or paper clip to press. Performs two (2) possible actions:
 - **Single Tap:** Reboot the device.
 - **Press-N-Hold:** Press this button for 15 seconds to restore the device to its factory settings. This action cannot be reversed and the device **REQUIRES** re-programming with the Total Control software. Pressing and holding the Reset button for 15 seconds will also result in the Network LED blinking fast blue until the Reset button is released.
2. **Mounting Plate:** Slide the mounting plate up or down to remove it from the device. Use the four (4) supplied mounting screws to mount the MRA-DUO on a wall, ceiling, or any other convenient location.



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Installing the MRA-DUO

The MRA-DUO Advanced Network System Controller can be installed almost anywhere in the home.

Once physically installed, it requires programming by a certified URC integrator in order to operate local equipment using IP (Network) or IR (Infrared). All cables must be connected to their respective ports at the rear of the device.

Network Installation

1. Connect an Ethernet cable (RJ45) to the rear of the MRA-DUO and the onto an available LAN port of the network's local router (Luxul preferred).
2. A certified URC integrator is required for this step, configure the MRA-DUO to a DHCP/MAC reservation within the local router.



Connecting IR Emitters

IR emitters are used to communicate to AV devices such as cable boxes, televisions, blu-ray players and more.

1. Plug IR emitters (four (4) supplied in the box) into any of the four (4) IR outputs available on the rear of the MRA-DUO.
2. Remove the adhesive covering from the emitter and place it over the IR receiver of the 3rd party device (cable box, television, etc.).



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Specifications

- **Network:** One (1) 10/100 RJ45 Ethernet port (two LED indicators)
- **Wi-Fi :** 2.4GHz [802.11 b/g/n]
- **Bluetooth :** BLE 5.2
- **Processor:** Xtensa® dual-core 32-bit LX6
- **RAM: PSRAM 2MB**
- **Storage: FLASH 8MB**
- **Weight: 3.2oz**
- **Power:** DC 12V/1.0A
- **IR Outputs:** Four (4) IR outputs (IR attenuator on output 4)
- **IR Blaster:** Front IR Blaster



Limited Warranty Statement

<https://www.urc-automation.com/legal/warranty-statement/>

End User Agreement

The terms and conditions of the End User Agreement available at <https://www.urc-automation.com/legal/end-user-agreement/> shall apply.

Federal Communication Commission Interference Statement

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 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.

Warning!

The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure condition without restrictions.

Bluetooth Trademark Notice

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