APPENDIX H

: USER'S MANUAL

Total control

Owner's Manual

MRX-4SEN2

Sensor Extender

URC™
Control the Experience.

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Control the Experience.

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Introduction

Thank you for purchasing the MRX-4SEN2 Sensor Extender. Expand your MRX-Advanced Network System Controller sensor coverage by adding additional MRX-4SEN2 units throughout the home or office. Take advantage of the networking capabilities and control your MRX-4SEN2 via Wi-Fi or wired connection.

Features and Benefits

- Network Connectivity
  The MRX-4SEN2 utilizes the network (wired or wireless) for a more stable communication to the Total Control System that is less susceptible to interference and more reliable. This grants you the flexibility to install it virtually anywhere in the project.

- Expand Sensor Coverage
  Add one or more MRX-4SEN2 throughout you system to add more triggers to your connected home. This may be used to initiate system events in Total Control.

- Compact Size
  The small size of the MRX-4SEN2 allows it to easily fit behind equipment or into places where a traditional base station would not.

Parts Guide

The MRX-4SEN 2 Includes:

1 - MRX-4SEN2 Sensor Extender
1 - AC Power Adapter
4- Mounting Screws
1 -Mounting Plate
1 - Owner's Manual

Front, Rear, and Bottom Panel Descriptions

Front Panel

The front panel consist of three indicator lights:

Power LED: Illuminates red when connected to power.

Status LED: The LED color varies depending on the device's Wi-Fi connection:

- Connected: Illuminates green
- Low Signal: Illuminates orange
- Not Connected: Not illuminated

Data LED: This LED flashes as the MRX-4SEN2 transmits data to the MRX Advanced System Controller.

Note: When connected via Ethernet the status LED does not illuminate.

Rear Panel

The rear panel consist of:

DC 5V Power: Plug in the included 5V DC 1A power supply.

Sensor Inputs: Connect the sensor's 3.5mm plug to an available port. The following URC sensors, with their respective model numbers, are compatible with the MRX-4SEN2:

- Voltage Sensor SEN-VOLT
- Video Sensor SEN-VID
- Contact Closure Sensor SEN-CCLS
- Light Sensor SEN-LITE
- Current Sensor (Magnetic Field) SEN-CMF
- Audio Sensor SEN-AUD

LAN Connection: If a wired connection is needed, this port uses a standard Ethernet (RJ-45) plug to communicate via the local area network (LAN).

Note: To connect to Wi-Fi, an initial "hardlined" connection must be made first.

Bottom Panel

The bottom panel consists of:

Serial Number Sticker: The serial number, located at the bottom of the unit, uniquely identifies the product.

MAC Address Sticker: The MAC Address (12 numbers) identifies this device when connected to the network.

WPS (Wi-Fi Protected Setup): Functions with other wireless devices (routers, wireless access points, etc.) to provide a simplified method of connection to the network. Press this button in conjunction with the WPS button found on your other wireless devices to establish a connection.

Reset: Turns the unit OFF then ON again and reconnects to the network.

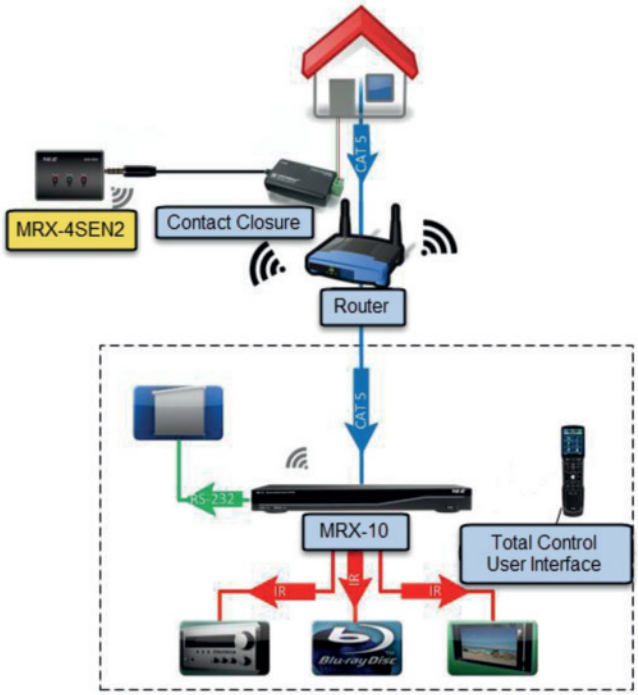
Network Installation

WARNING!! Before proceeding, a Custom Professional is required to install and configure you MRX-4SEN2.

Connect the 3.5mm sensor plug to the rear of the MRX-4SEN2. When a change in the sensor's state is detected, the MRX-4SEN2 sends a signal to the MRX Advanced System Controller and triggers a series of commands.

The example below showcases a voltage sensor connected to the home's doorbell and the MRX-4SEN2. Whenever the doorbell is pressed, a signal is sent over the network (wired or wireless) to the MRX Advanced System Controller. The MRX unit, previously programmed by the Custom Professional, triggers a series of commands or an event to gain your attention. A programmed event, such as Watch Movie/TV, may pause the movie, mute the audio, and display the front door's video camera.

*Note: All programming is performed through URC Accelerator Software, this is proprietary software **ONLY** available to Certified Custom Professionals.*



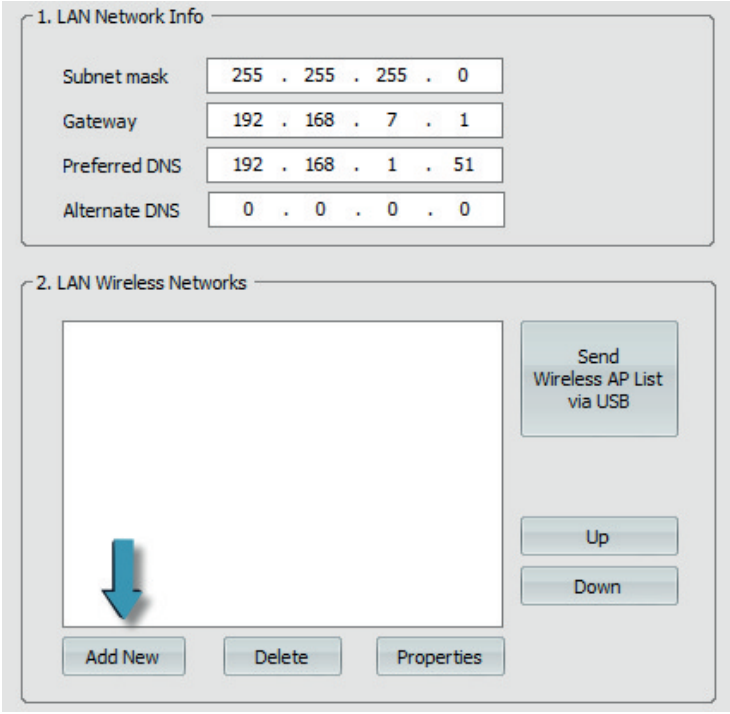
Wireless Setup

The key feature added to the MRX-4SEN2 is adding Wi-Fi connectivity to an already brilliant sensor expander. Wi-Fi connection makes it simple to install the device in difficult to reach locations of the home.

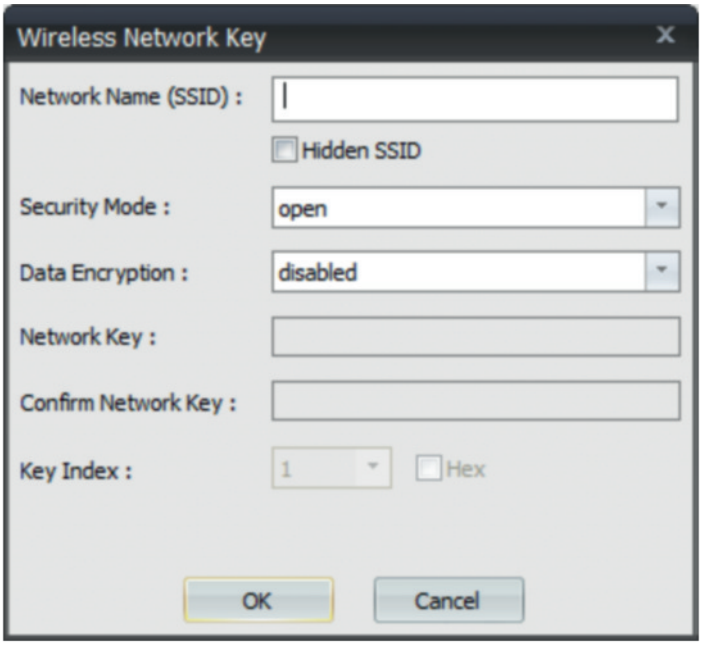
Note: An initial wired connection must first be made in order to send the wireless information from Accelerator to the MRX-4SEN2.

Steps:

1. Go to Step 6: Network Setup and select Add New



2. Fill out the wireless network information in the **Wireless Network Key** window, when finished select **OK**

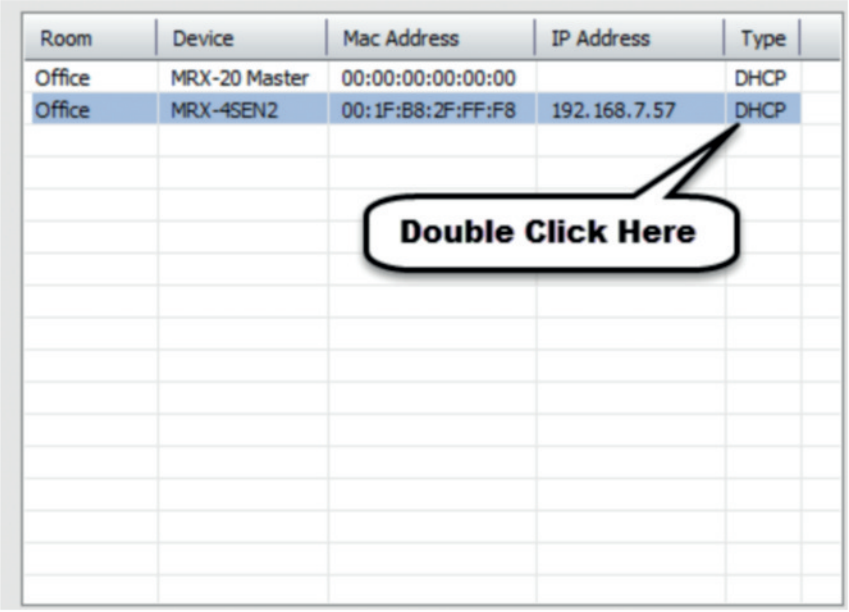


3. Press **Save** located below **2. LAN Wireless Networks**

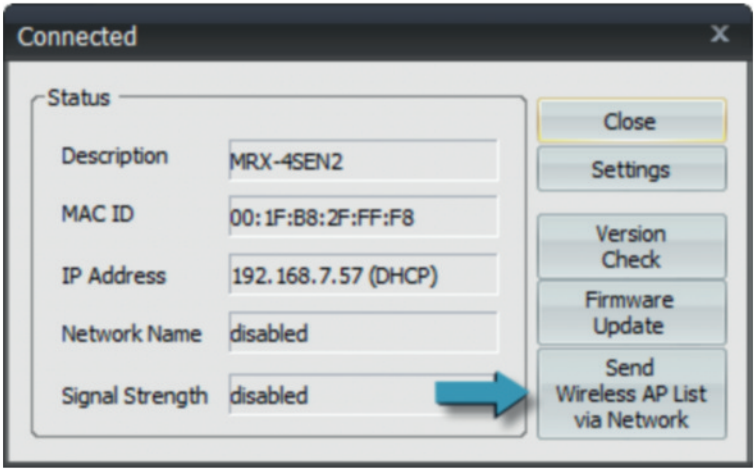
4. Select **URC Device** from the sub menu in Step 6

5. Discover the MRX-4SEN2 (if you have not already) using the method for all other URC network devices

6. Highlight the MRX-4SEN2 and double-click on the area that reads **DHCP**



7. Select **Send Wireless AP List** via Network



8. Unplug the Ethernet cable from the back of the MRX-4SEN2 unit.

   Note: The MRX-4SEN2 connects to Wi-Fi automatically after the Wireless AP list has been downloaded and the Ethernet cable has been removed. To check the connection strength review the Status LED and page 2.

Limited Warranty Statement

1. LIMITED WARRANTY AND DISCLAIMERS

Universal Remote Control, Inc. (“URC”) warrants that URC equipment purchased directly from URC or from an authorized URC dealer or distributor shall be free from defects in material and workmanship under normal usage for a period of one (1) year from the date of purchase of the product by the end-user, but no longer than thirty-six (36) months from the date of shipment of the URC equipment by URC to an authorized URC dealer or distributor, except that with respect to Total Control® whole-house products, the warranty extends for two (2) years from the date of purchase by the end-user, but no longer than forty-eight (48) months from the date of shipment of the URC equipment by URC to an authorized URC dealer or distributor.

This limited warranty is valid only in the United States of America.

URC equipment purchased from other than an authorized URC dealer or distributor is without warranty.

URC warrants that the software will substantially conform in any material respect to its functional specifications at the time of delivery. URC SHALL NOT BE LIABLE FOR OPERATIONAL, TECHNICAL OR EDITORIAL ERRORS AND/OR OMISSIONS MADE IN THE URC DOCUMENTATION. URC DOES NOT WARRANT THAT THE URC SOFTWARE IS BUG-FREE OR ERROR FREE OR THAT THERE ARE NO ERRORS/BUGS IN THE URC SOFTWARE.

URC warrants that at the time of purchase the URC equipment and the URC software complied with all applicable regulations and policies of the Federal Communications Commission ("FCC") regarding electromagnetic interference caused by electronic/computing devices and to the extent that the URC equipment and/or the URC software fails to so comply, URC shall, at its own expense, take all reasonable measures to promptly cause such to comply.

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WITHOUT IN ANY WAY LIMITING THE GENERALITY OF THE OTHER PROVISIONS HEREIN, THIS LIMITED WARRANTY DOES NOT COVER: (I) DAMAGE FROM MISUSE, NEGLECT OR ACTS OF NATURE, (II) MODIFICATIONS, (III) INTEGRATION WITH THIRD PARTY CONTENT, OR (IV) BEYOND THE WARRANTY PERIOD AND/ OR FAILURE TO FOLLOW URC WARRANTY CLAIM PROCEDURE.

The warranty limitations and warranty disclaimers may not apply to end user in whole or in part, where such are restricted or excluded by applicable law, and such shall apply to the maximum extent permitted by applicable law.

In the event of any warranty claim, URC will, at its sole option, repair the URC equipment using new or comparable rebuilt parts, or exchange the URC equipment for new or rebuilt equipment. **In the event of a defect, these are the end user's exclusive remedies.**

All the URC equipment returned for service, exchange or repair require an RGA number. To obtain an RGA number, you must complete a Return

Request Form which you may obtain by calling (914) 835-4484 or contacting URC at returnrequest@universalremote.com

. To obtain warranty service, end user must deliver the URC equipment, freight prepaid, in its original packaging or packaging affording adequate protection to URC at 420 Columbus Avenue, Valhalla, NY 10595. It is end user's responsibility to backup any macro programming, artwork, software or other materials that may have been programmed into the unit. It is likely that such data, software, or other materials will be lost during service and URC will not be responsible for any such damage or loss. A dated purchase receipt, bill of sale, installation contract or other verifiable proof of purchase is required. For the URC equipment support and other important information, please visit URC's website available at www.universalremote.com or call the Customer Service Center at (914) 835-4484.

This limited warranty only covers the URC equipment issues caused by defects in material or workmanship during ordinary consumer use. It does not cover product issues caused by any other reason, including but not limited to product issues due to commercial use, acts of God, third-party installation, misuse, limitations of technology, or modification of or to any part of the URC equipment. This limited warranty does not cover the URC equipment sold as used, as is, refurbished, so called "B stock" or consumables (such as batteries). This limited warranty is invalid if the factory applied serial number has been altered or removed from the URC equipment. This limited warranty specifically excludes the URC equipment sold by unauthorized resellers.

With the exception of URC's IR-only, broad-based consumer remotes, none of URC's PC programmable remotes or any of our Total Control® whole-house equipment are authorized for online Internet sales. Buying URC's PC programmable remotes or any of our Total Control® whole-house equipment online means buying equipment that does not have URC's limited warranty. Such equipment is not eligible for URC tech support or software support, either.

2. URC’S LIMITATIONS OF LIABILITY

IN NO EVENT SHALL URC BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND OR LOSS OF PROFITS OR BUSINESS OPPORTUNITY, EVEN IF URC IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IN NO EVENT SHALL URC BE LIABLE FOR LOSS OF OR DAMAGE TO DATA, COMPUTER SYSTEMS OR COMPUTER PROGRAMS.

URC'S LIABILITY, IF ANY, FOR DIRECT DAMAGES OF ANY FORM SHALL BE LIMITED TO ACTUAL DAMAGES, NOT IN EXCESS OF AMOUNTS PAID BY END USER FOR THE URC EQUIPMENT.

IN NO EVENT SHALL URC BE LIABLE FOR ANY EVENTS BEYOND ITS CONTROL, INCLUDING ANY INSTANCE OF FORCE MAJEURE.

IN NO EVENT SHALL URC BE LIABLE FOR THE ACTS OR OMISSIONS OF END USER OR ANY THIRD PARTY.

THE LIMITATIONS OF LIABILITY MAY NOT APPLY TO END USER IN WHOLE OR IN PART, WHERE SUCH ARE RESTRICTED LIMITED OR EXCLUDED BY APPLICABLE LAW AND SUCH SHALL APPLY TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW.

URC SHALL NOT BE HELD RESPONSIBLE FOR THE STATEMENTS MADE BY OTHERS.

SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO END USER. THIS LIMITED WARRANTY GIVES END USER SPECIFIC LEGAL RIGHTS AND END USER MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.

End User Agreement

The terms and conditions of the End User Agreement available at www.universalremote.com/eua.php 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 locate 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!

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.
Note: The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Federal Communication Commission (FCC) Radiation Exposure Statement

The device and the antenna for this device must be installed to ensure a minimum separation distance of 20 cm more from a person's body. Other operating configurations should be avoided.

Declaration of Conformity

Company Name	: Universal Remote Control Inc.
Company Address	: 500 Mamaroneck Avenue, Harrison, NY 10528, U.S.A www.universalremote.com
Contact Information	: Phone: (914)835-4484, Fax: (914)835-4532
Brand Name	: UNIVERSAL remote control
Product Name	: Sensor Extender
Model Name	: MRX-4SEN2

This product herewith complies with the requirements of R&TTE Directive(1995/5/EC) issued by the Commission of the European Community

Compliance with these directives implies conformity to the following European Community

■ R&TTE Directive
- ETSI EN 300 328 V1.9.1 (2015)
- ETSI EN 301 489-1 V1.9.2 (2011)
- ETSI EN EN 301 489-17 V2.2.1(2012)
- EN 55032 (2012)
- EN 55024 (2010)
- EN 62479 (2010)
- EN 60950-1 (2006) + A11 (2009) + A1 (2010) + A12 (2011) + A2(2013)
- EN 61000-3-2(2014)
- EN 61000-3-3(2013)

■ Test Report No.:
- Radio : GETEC-E2-16-059
- EMC : GETEC-E2-16-060
- Heath : GETEC-E2-16-059
- Safety : GETEC-E7-16-003

List of test reports and/or certificate verified compliance with the standards above

■ R&TTE Directive
- Certificate No. :
- Certificate Body : TUV Rhineland (No. 0197)

Date of issue : April 6, 2016

Name and signature of authorized person : James Novak
Director of Product
Universal Remote Control Inc.

Certification	CE
Type No. (Model No.)	MRX-4SEN2
Manufacturer	Ohsung Electronics co.,Ltd.
Batch/Serial No.	
Power Rating	5.0V ⎓, 1.0A
Frequency band	2.4GHz