



MRX-4SEN2 OWNER'S MANUAL

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TOTAL CONTROL

MRX-4SEN2 OWNER'S MANUAL

Introduction

The MRX-4SEN2 Sensor Extender 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

- 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.
- Add **one or more** MRX-4SEN2 throughout your home or office to **detect changes** in a connected sensor, which may be used to **trigger** system events.
- 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 List

The MRX-4SEN2 Sensor Extender includes:


- | | |
|--------------------------------|----------------------|
| • 1x MRX-4SEN2 Sensor Extender | • 4x Mounting Screws |
| • 1x AC Power Adapter | • Mounting Plate |

Front Panel Description

The front panel of the MRX-4SEN2 Sensor Extender displays the following information:

1. **Power LED:** Indicates the device has power.
2. **Status LED:** Indicates three (3) possible states:

- **Green:** Good signal strength.
- **Red:** Poor signal strength.
- **Off:** No connection.

 When connected via **Ethernet**, the status LED **does not** illuminate.

3. **Data LED:** Indicates the device is transmitting IR data.



Rear Panel Description

The rear panel of the MRX-4SEN2 Sensor Extender displays the following information:

1. **DC 5V:** Connect the supplied power adapter to this port, the Power LED becomes solid blue when the device has received power.
2. **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



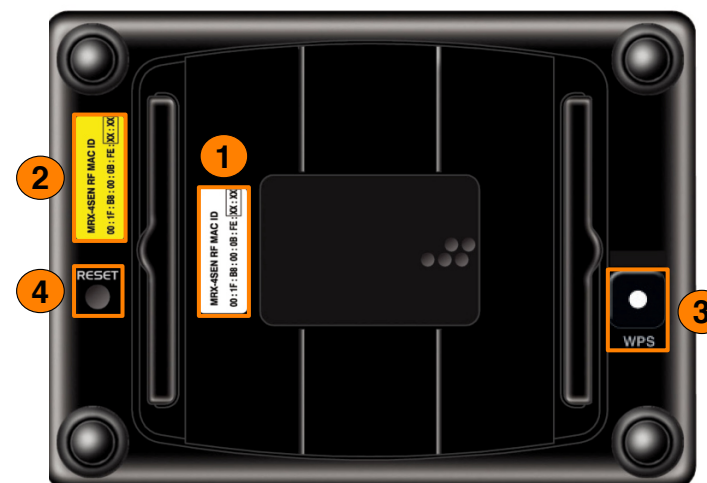
To connect to **Wi-Fi**, an initial Ethernet connection **must be made** first.

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

Bottom Panel Description

The bottom panel of the MRX-4SEN2 Sensor Extender displays the following information:

1. **Serial Number Sticker:** The ZIGBEE Address (16 characters) identifies this wireless device when connected to the network.
2. **MAC Number Sticker:** The serial number, located at the bottom of the unit, uniquely identifies the product.
3. **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.
4. **Reset Button:** Turns the unit **OFF** then **ON** again, and reconnects to the network.



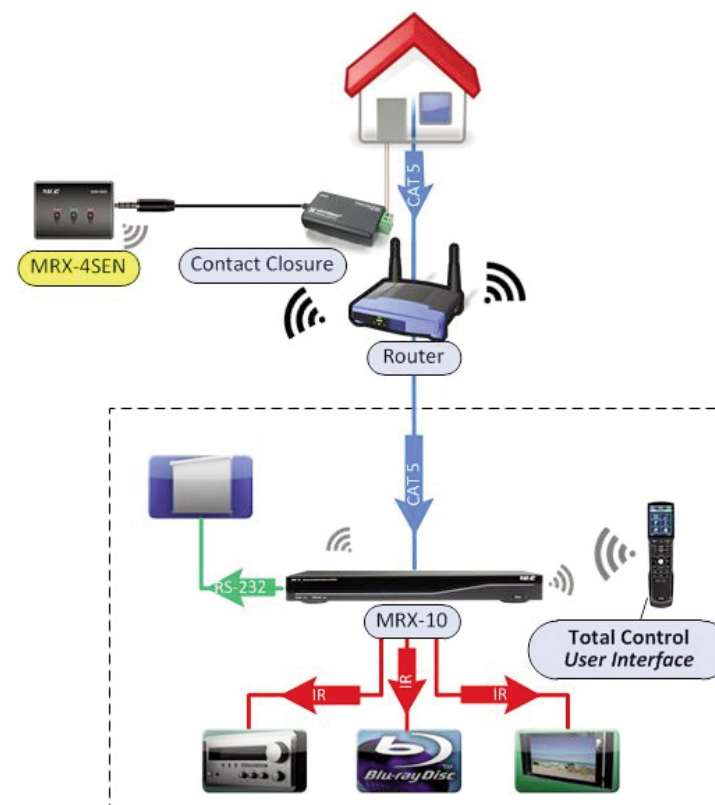
Installing the MRX-4SEN2

The MRX-4SEN2 Sensor Extender can be installed almost anywhere in the home.

Once physically installed, it requires **programming by a certified URC integrator** in order to function properly.

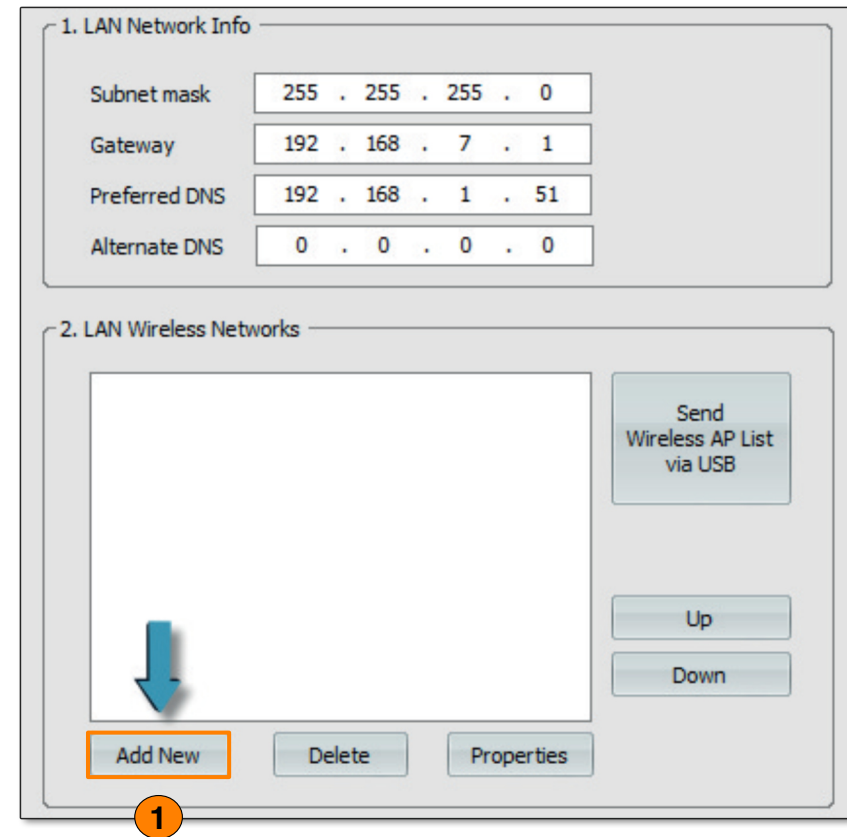
Connect the 3.5mm sensor plug to the **rear** of the MRX-4SEN2. When a **change** in the sensor's **state** is detected, the MRX-4SEN2 sends a signal to the MRX Advanced Network System Controller and **triggers** a series of commands.

This home network example showcases a **voltage sensor** connected to the home's **doorbell** and the **MRX-4SEN2**. Whenever the door bell is **pressed**, a signal is sent over URC's RF 2.4GHz to the MRX Advanced Network System Controller. The MRX unit **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.

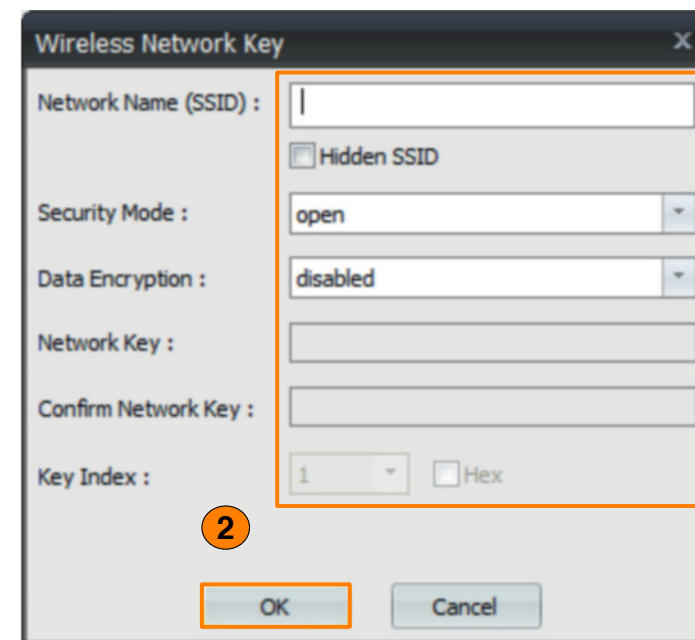


The key feature added to the MRX-4SEN2 is adding **Wi-Fi connectivity** to an already brilliant sensor expander. Wi-Fi connection makes it simple to install the device in difficult to reach locations of the home.

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



2. Fill out the **wireless network information** in the **Wireless Network Key** window. Select **OK** when finished.
3. Select **Save**, located below **2. LAN Wireless Networks**.
4. Select **URC Device** from the sub-menu in **Step 6**.
5. Discover the MRX-4SEN2 using the method for **all** URC network devices.



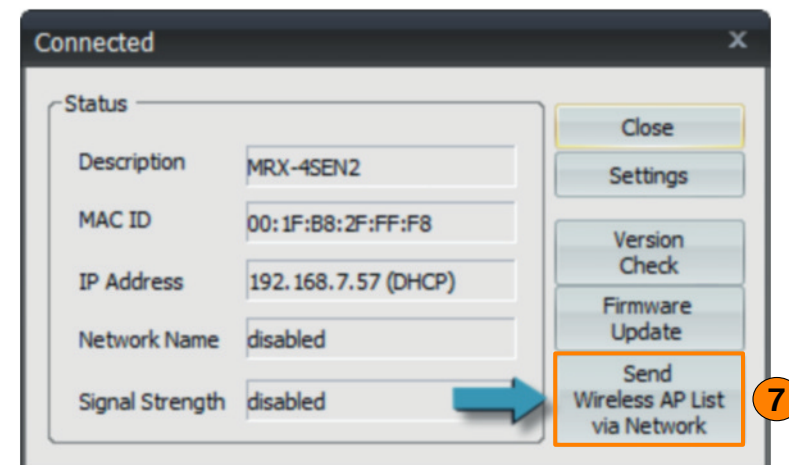
Room	Device	Mac Address	IP Address	Type
Office	MRX-20 Master	00:00:00:00:00:00		DHCP
Office	MRX-4SEN2	00:1F:B8:2F:FF:F8	192.168.7.57	DHCP

Double Click Here

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.



The MRX-4SEN2 connects to Wi-Fi **automatically** after the Wireless AP list has been downloaded and the Ethernet cable has been **removed**.



Specifications

Sensor: Four sensor ports support Video, Current, Contact Closure, Ambient Light, Audio, and Voltage sensors from URC.

Network: One 10/100/1000M RJ45 Ethernet port (two LED indicators)

RF Range (Radio Frequency): 50 to 100 feet, depending upon the environment

RF Frequency: 2.405 ~ 2.480 GHz

Weight: 2.98oz

Size: 3.74" X 2.7" X 1.1"

Power: 12V DC 1A



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.



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TEST REPORT

Order Number	: GETEC-C1-16-182
Test Report Number	: GETEC-E2-16-060
Type of Equipment	: Sensor Extender
Model Name	: MRX-4SEN2
Applicant	: OHSUNG ELECTRONICS CO., LTD.
Applicant Address	: # 181 Gongdan-dong, Gumi-si, Gyeongbuk, Republic of Korea.
Date of Incoming	: March 30, 2016
Date of Issue	: May 16, 2016

SUMMARY

This device has been verified to comply with the requirement of following standard.

-. EN 55032 (2012)	-. EN 55024 (2010)
-. EN 61000-3-2 (2014)	-. EN 61000-3-3 (2013)
-. ETSI EN 301 489-1 V 1.9.2 (2011)	-. ETSI EN 301 489-17 V 2.2.1 (2012)

This test report only contains the result of a specific sample supplied for the examination.
It is not a generally valid assessment of the features of the respective products of the mass-production.

This test report consists of 29 pages.
It is not allowed to copy this report even partly without the approval of EMC center.

Tested by: Soon-Hoon


Soon-Hoon Jeong / Senior Engineer
GUMI UNIVERSITY EMC CENTER

Approved by: [Signature]

Jae-Hoon Jeong / Technical Manager
GUMI UNIVERSITY EMC CENTER

GETEC-QP-2B-005 (Rev.02)

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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.

Regulatory Information to the User

- CE conformity Notice Products with "CE" marking comply EMC Directive 2014/30/EU issued by the commission of the European Community.

1. EMC Directive

- Emission
- Immunity
- Power

- Declaration of Conformity

"Hereby, Universal Remote Control Inc. declares that this MRX-4SEN2 is in compliance with the Essential requirements."