



# HDA-4100 OWNER'S MANUAL



# TOTAL CONTROL

## TABLE OF CONTENTS

Overview .....	1	SAFETY PRECAUTIONS .....	12
Features & Benefits .....	1	Important Safety Instructions .....	13
Parts & Pieces .....	2	Caution .....	13
Front Panel Descriptions .....	3	Federal Communications Commission .....	14
Rear Panel Description .....	5	Interference Statement .....	14
Installation Instructions .....	6	Warning! .....	14
Connecting Speakers .....	7	FCC Caution .....	14
Network Setup .....	8	Limited Warranty Statement .....	15
HDA Modules .....	9	End User Agreement .....	17
Specifications .....	10		

### **Congratulations!**

The **HDA-4100 Multi-Zone Amplifier** is one of URC's powerful yet flexible amplifier! This document highlights product features, LED status conditions, basic installation, and general speaker wiring instructions.

For questions on how this device operates contact your **certified URC Integrator** or **URC's Technical Support Team!**



### **Technical Support**

Toll Free: 800-904-0800

Main: 914-835-4484

[techsupport@urc-automation.com](mailto:techsupport@urc-automation.com)

Hours: 9:00am - 6pm EST M-F

# TOTAL CONTROL

## Overview

URC's HDA-4100 Multi-Zone amplifier delivers incredible performance, reliability, and powerful amplification making it the perfect audio distribution system for any home or business. The HDA-4100 can provide audio in up to **four (4) stereo zones, eight (8) mono zones**, or **any combination** of both.

The HDA-4100 Multi-Zone amplifier is designed with **ICEpower technology** to provide a robust, cool running distributed audio system.

Using URC's HDA amplifiers in conjunction with **URC architectural in-ceiling speakers** delivers an incredible high-fidelity audio experience throughout the home or business.

HDA products are **NOT** compatible with URC's legacy Total Control amplifiers (DMS).

## Features & Benefits

- **Flexible Multi-Zone Configuration:** With support of up to four (4) powered stereo zones, up to eight (8) mono zones, or any combination.
- **HDA Audio Streams:** This device supports up to four (4) audio sources that are converted into a digital "high resolution" audio stream over the network.
- **Source Sharing:** Any zone controlled via an HDA amplifier or I/O device has access to the system's HDA Audio Streams.
- **100W of Power at 8Ω** (200W per zone) driven by ICEpower modules to provide a high-fidelity audio experience.
- **Flexible Zone Linking:** Link one or more zones on the fly via Total Control's **Rooms Menu** or have your programmer configure a **"Party Mode"** button. **Room Linking** is an easy way to distribute audio across the system.
- **Integrated Audio Sensor:** Each available input on the HDA-4100 has built-in audio sensing capabilities. These sensors can be used to trigger programmed events or activities.
- **Zone Input Ducking:** The HDA-4100 has the ability to "fade in" an audio input over the currently selected audio input.  
  
The perfect solution to briefly lower the volume on the current source to make an audio announcement or doorbell chime.
- **Rack-mountable** with included rack ears.



# TOTAL CONTROL

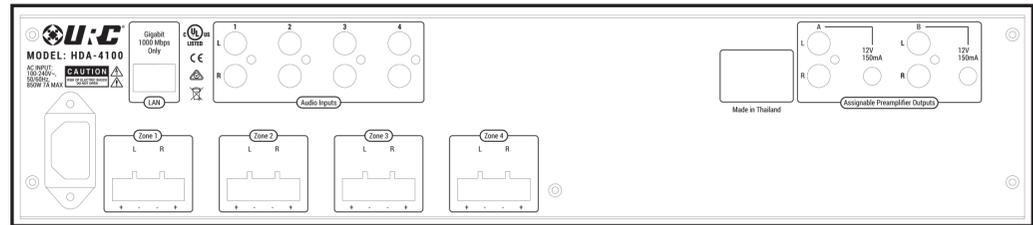
## Parts & Pieces

Included with the HDA-4100 is the following:

### CONTENTS

- ① HDA-4100 Multi-Zone Amplifier
- ② Power Cord
- ③ 4 Speaker Terminal Blocks
- ④ 4 Device Feet
- ⑤ 4 Feet Mounting Screws
- ⑥ Rack Ears
- ⑦ 6 Rack Ear Screws

①



②



③



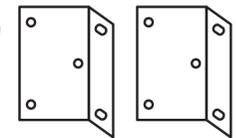
④



⑤



⑥



⑦



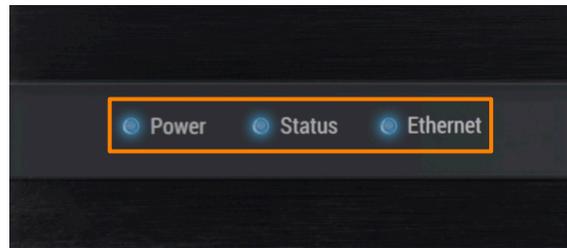
# TOTAL CONTROL

## Front Panel Descriptions

There are three (3) LEDs on the front panel of the HDA-4100:

**1. Power LED:** Indicates one (1) of the following:

- **Solid Blue:** Power has been applied to the device and it has successfully initialized.
- **Off:** Power has been removed from the device.



**2. Status LED:** Indicates one (1) of the following:

- **Solid Blue:** The device has been programmed with Total Control software and is ready for operation.
- **Blinking Blue:** The device is receiving a download from the Total Control programming software.
- **Blinking Green:** The device is receiving a firmware upgrade, this light continues to blink until the update is fully applied.
- **Off:** The device has not been programmed with Total Control software.



### 3. Ethernet LED: Indicates one (1) of the following:

- **Solid Blue:** The device has received an IP address from the local network.
- **Blinking Blue:** The device is connected to the local network; however, it has not received an IP address.
- **Off:** The device is not connected to the local network.

### 4. Reset Button: There are two (2) ways to press this button:

- **Single Press:** Tap the Reset button to power cycle the device.
- **Factory Reset:** Press-n-hold the Reset button for 10 seconds or more.

This option cannot be reversed, once the device has been factory defaulted it **requires re-programming**.



# TOTAL CONTROL

## Rear Panel Description

Below are the available connections on the rear of the HDA-4100:

- 1. LAN:** Full duplex gigabit **LAN** (only), for audio streaming and zone control (Wi-Fi NOT available, device must be hard-lined to the network).
- 2. Audio Inputs:** The HDA-4100 Multi-Zone Amplifier contains **four (4) RCA** (single ended) stereo inputs.
- 3. Assignable Preamp Output:** Two (2) assignable preamplifier outputs, each with 12V programmable triggers are capable of 150mA of current.
- 4. Zone Speaker Outputs:** Supports up to four (4) stereo (L + R) zones, eight (8) mono zones, or any combination of stereo/mono zones (phoenix connector).
- 5. AC Main Power:** Connect the supplied power cable to provide the HDA-4100 with power.



**Slotted-styled** screws are used to secure the speaker wire to the terminal block/phoenix style connector.

# TOTAL CONTROL

## Installation Instructions

The HDA-4100 Multi-Zone Amplifier comes with rack-mounting ears and can be installed in a **2U rack space**.

### Installing the HDA-4100 in a Rack:

1. Using a **cross-head** screw driver, remove the HDA-4100's feet from the bottom of the device.
2. Attach the **rack ears** to the left and right sides of the amplifier using the supplied screws.



Align the rack ears to the sides of the HDA-4100 aligning the three (3) screw inserts with the slots on the left and right sides of the devices.

Turn all three (3) cross-styled screws clockwise until the rack ears are secured onto the device's chassis.

3. Install into the rack (**2U rack space**) and connect cabling.
4. Use the supplied cross-styled screws (4) to secure the HDA-4100 (with rack ears installed) to the equipment rack.



### CAUTION!

To prevent damage, **maintain adequate ventilation** space to the sides of the amplifier.



Amplifiers can be **stacked vertically**, but assure that the device is **NOT** placed next to other components or against the side of a cabinet. Doing so may block ventilation openings.

# TOTAL CONTROL

## Connecting Speakers

The **HDA-4100 Multi-Zone Amplifier** can power up to four (4) stereo zones, eight (8) mono zones or any combination of stereo/mono.

To connect speaker wire:

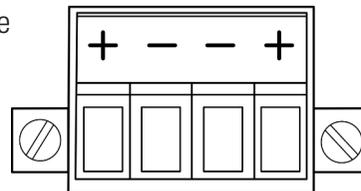
1. Connect the **speaker wire** to the positive (red) and negative (black) to the wire terminals available on the speaker (be mindful of proper polarity).

Please refer to the manufacturer's owner's manual for specific instructions on wiring the speaker.

2. Loosen the integrated slotted-style screws (turn counter-clockwise) and **remove the phoenix connector from the terminal block on the HDA-4100.**
3. Secure the **speaker wire into the phoenix connector** (using the integrated slotted-style screws), and reinsert it into the terminal block.
4. Using the integrated slotted-style screws on the left and right sides of the phoenix connector (image at the right), **secure the phoenix connector to the terminal block.**



6.5" SP-6EX





**CAUTION!** Verify the **polarity** of the speakers and the wires before returning the phoenix connector into the terminal block on the amplifier.



HDA-4100

# TOTAL CONTROL

## Network Setup

When using more than one (1) HDA devices, URC's **HDA-SW5 Network Switch** is **REQUIRED** on the local network.

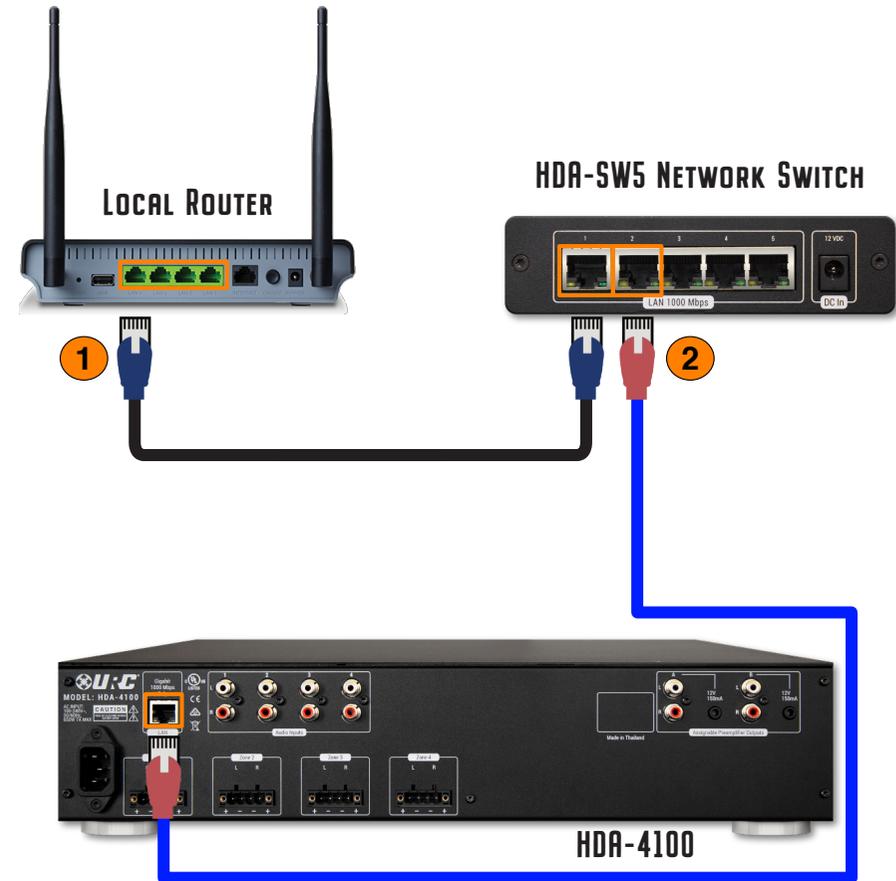
For more information of the **HDA-SW5 Network Switch**, please refer to the HDA-SW5 Owner's Manual.

Although 3<sup>rd</sup> Party AVB switches may be utilized, they **are not supported** by URC's Technical Support team.

### Connecting the HDA-4100 to the Network:

1. Connect an ethernet cable to an available **LAN port** on the head-end network switch.  
  
If no switch is connected to the network then connect the ethernet cable to an available LAN port on the local router (Luxul preferred).
2. Connect the ethernet cable from the previous step to any available LAN port on the **HDA-SW5**.
3. Connect another ethernet cable to an **available LAN port on the HDA-SW5 Network Switch**.
4. Connect the ethernet cable from the previous step to the ethernet port found at the **rear of the HDA-4100** ([page 5](#)).
5. Configure the HDA-4100 to a **DHCP/MAC reservation** within the local router and program the device into the new or existing Total Control system.

A **certified URC integrator is REQUIRED** to integrate the **HDA-4100** into a new or existing Total Control system.



# TOTAL CONTROL

## HDA Modules

URC's HDA line of products contains several **two-way modules** that are accessible from any graphical user interface.

These modules serve a variety of residential and commercial applications providing end-users with advanced functionality directly from any URC interface.

For specific instructions on how to use these HDA modules, please refer to the **HDA User's Guide**.

The following modules are supported by the HDA-4100 Multi-Zone Amplifier:

- **Room Volume Module**
- **Room / Zone EQ Module**
- **Volume Mixer Module**
- **Announcement Module**
- **Input Status**
- **Amplifier Status**
- **Zone Status**

Not all HDA modules are displayed at the right, for full details on how these modules, refer to the **HDA User's Guide**.



Room / Zone Status



Amplifier Status



Announcements



Room / Zone EQ

### Specifications

#### **General:**

#### **Audio Inputs:**

- Four (4) **RCA analog (unbalanced) inputs** with **audio sensing** capabilities

#### **Zone Speaker Outputs:**

- **Four (4) Stereo amplifier output channels / Eight (8) mono output channels** (any zone can be set to stereo or two [2] **independent mono** zones)
- **Two (2) assignable pre-amp outputs** including two (2) **12VDC 150mA triggers**

#### **Rate Wattage Per Channel:**

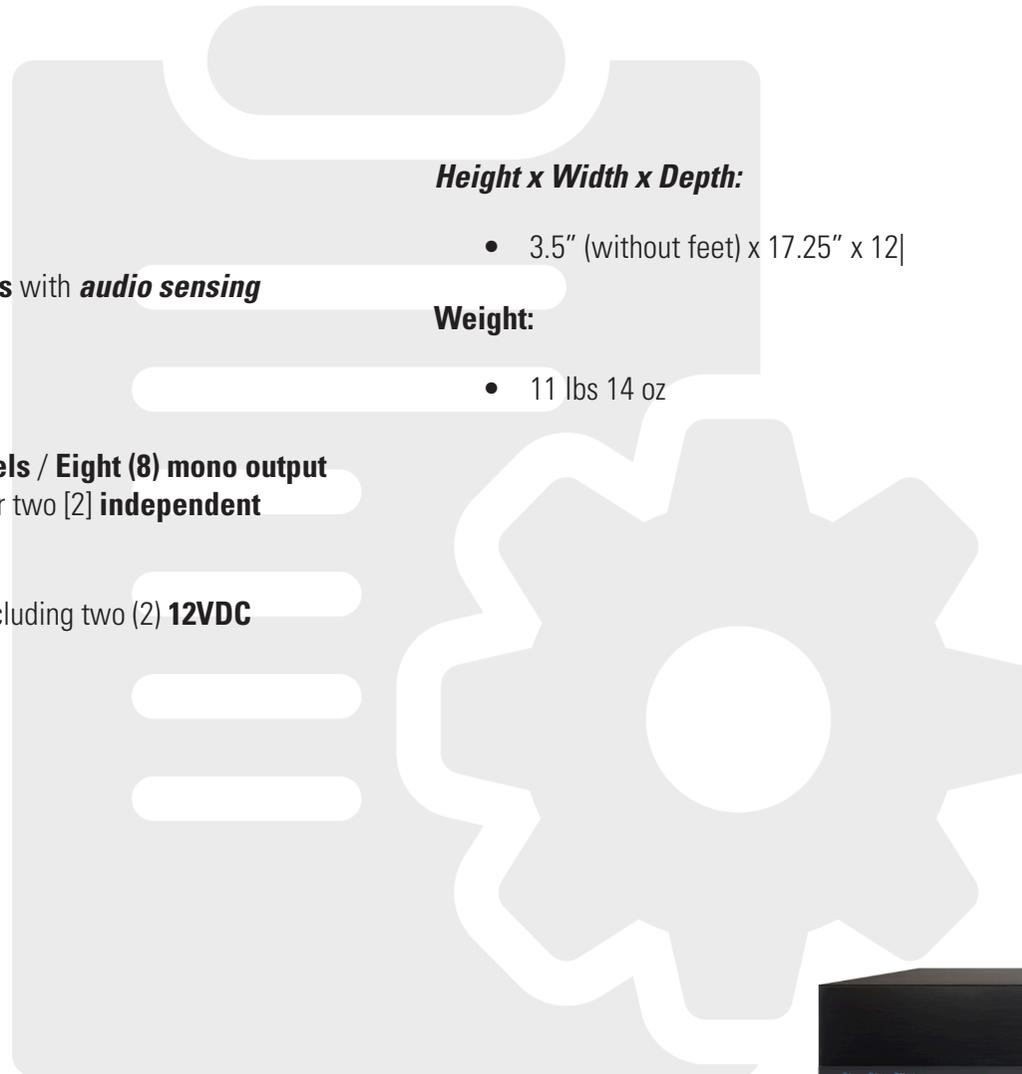
- 100 W per channel @ 8Ω
- 200 W per channel @ 4Ω

#### **Height x Width x Depth:**

- 3.5" (without feet) x 17.25" x 12"

#### **Weight:**

- 11 lbs 14 oz



### Audio:

- **Frequency Response:**  $\pm 0.4$  dB, 10Hz - 20kHz, all loads  $4\Omega$  -  $8\Omega$
- **Signal to Noise Ratio:** >100 dB
- **High & low pass filters** per zone
- **Each Zone** supports a fully customizable **5-band parametric EQ**
- **Permanent Zone Grouping** (also between multiple amplifiers)
- **96 kHz / 24-bit** streaming
- **Ducking** input capability
- **Page event** support
- **Store up to 10 .WAV files** in each amplifier (for doorbell ring and/or trigger alert chimes)

### Thermal:

- **Operating Temperature:** 32°F to 86°F
- **Humidity:** Maximum 85%
- **Storage:** -40°F to 140°F

### Power:

- **AC Main Power:** Universal mains 100-240VAC, 50 - 60 Hz
- **Power Consumption:** 100-240W AC 50-60Hz 6A

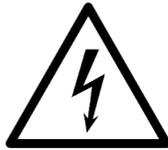


# TOTAL CONTROL

SAFETY PRECAUTIONS

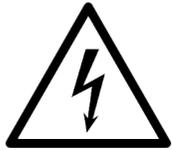


**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION**

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICE TO A QUALIFIED SERVICE PROFESSIONAL



The **lightning flash with arrowhead symbol**, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The **exclamation point within an equilateral triangle** is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**CAUTION**  
TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSET.

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.

# TOTAL CONTROL

## Important Safety Instructions

- **Read Instructions:** All the safety and operating instructions should be read before the apparatus is operated.
- **Retain Instructions:** Safety and operating instructions should be retained for future reference.
- **READ** all warnings!
- **FOLLOW** all instructions.
- In the event of malfunction, unplug **IMMEDIATELY**.
- Do NOT use the apparatus near **WATER**.
- Clean only with a dry cloth.
- **DO NOT BLOCK** any ventilation openings.
- Do **NOT** install the apparatus upside down.
- Do **NOT** install inside any type of ventilation or AC duct.
- Do **NOT** install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do **NOT** defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **ONLY** use the attachments/accessories specified by the manufacturer.
- **Protect** the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Use **ONLY** with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug the apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing required when the apparatus has been damaged in any way, such as power-supply cord or plug I damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



## Caution

- The ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the unit.
- Minimum distances around the apparatus for sufficient ventilation: 20 centimeters
- The product is used in moderate climates.
- Do not expose the unit dripping or splashing fluids, do not place objects filled with liquids, such as vases, on the unit.

# TOTAL CONTROL

## **Federal Communications 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!**

Changes or modifications not expressly approved by the manufacturer 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.

# TOTAL CONTROL

## 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.

THIS LIMITED WARRANTY DOES NOT COVER TECHNICAL ASSISTANCE FOR HARDWARE OR SOFTWARE USAGE EXCEPT AS EXPRESSLY PROVIDED FOR HEREIN.

CERTAIN IMPLIED WARRANTIES, INCLUDING AN IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, MAY BE AVAILABLE WITH RESPECT TO URC EQUIPMENT. IMPLIED WARRANTIES VARY FROM STATE TO STATE. URC EXPRESSLY LIMITS THESE IMPLIED WARRANTIES, TO THE EXTENT ALLOWABLE BY LAW, TO THE TIME PERIODS COVERED BY THE EXPRESS WRITTEN WARRANTIES PROVIDED HEREIN. OTHERWISE AND EXCEPT AS PROVIDED FOR HEREIN, URC EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, AND MAKES NO REPRESENTATIONS REGARDING THE USE OF, OR THE RESULTS OF THE USE OF, THE EQUIPMENT, SOFTWARE OR DOCUMENTATION IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY OR OTHERWISE.

EXCEPT AS EXPRESSLY PROVIDED FOR HEREIN, TECHNICAL SERVICES ARE SUPPLIED "AS IS", WITHOUT ANY WARRANTY, EXPRESS, STATUTORY OR IMPLIED, OF ANY KIND. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, URC EXPRESSLY DISCLAIMS ALL WARRANTIES RELATING TO TECHNICAL SERVICES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF QUALITY OR REASONABLE SKILL AND CARE, OR OUTCOME OR RESULTS.

WITHOUT IN ANY WAY LIMITING THE GENERALITY OF THE OTHER PROVISIONS HEREIN, THIS LIMITED WARRANTY DOES NOT COVER: (I) DAMAGE FROM MISUSE, NEGLIGENCE 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

# TOTAL CONTROL

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@urc-automation.com](mailto:returnrequest@urc-automation.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 37 Ramland Road, Unit 104, Orangeburg, NY 10962. 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.urc-automation.com](http://www.urc-automation.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 Limitation 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

# TOTAL CONTROL

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 are available at:

<https://www.urc-automation.com/legal/end-user-agreement/>