APPENDIX H

: USER'S MANUAL

MX-790 / MX-790i
Owner's Manual

COMPLETE CONTROL®

Complete Control

MX-790
Owner's Manual

Introducing the MX-790

Thank you for purchasing URC's MX-790 wand remote control. Its easy and intuitive use helps to simplify your life while adding control of more things than thought possible.

Online Support:
Complete Control is sold direct only and must installed/program by a certified custom integrator.

End-User Support:
Visit the URC Home Page for product information, owner's manuals, and support contact information.

Contact Support:
Complete Control is a URC product sold direct only. For questions or assistance contact your Custom Installer/Programmer.

My Installer/Programmer

_____

_____

_____

Technical Support
Toll Free: 800-904-0800
Main: 914-835-4484
techsupport@urc-automation.com
Hours: 9:00am - 5:00pm EST M-F

Rev 1.0

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Congratulations!

Thank you for purchasing the Complete Control MX-790 universal remote control. This unit can directly control every IR device in your home. You can also control devices located in different rooms by integrating an MRF base station. Controlling your home is simple with the MX-790 remote.

Brilliant LCD color display with hard button interface

When any button is pressed, the color LCD (Liquid Crystal Display) screen, as well as the remote buttons, light up. Once the screen is lit, each of the three buttons on either side of the screen are labeled. These button labels are based on the devices you want to watch or listen to.

User interface customization for any activity

Each button can be customized for activities, such as watching TV or listening to the radio. These activities can contain multiple commands (macros) which enable a single button press to turn the needed devices ON or OFF.

Ultra-reliable narrow band RF - compatible with URC 418 MHz RF Base Stations

The MX-790 can communicate directly to RF base stations, such as the MRF-350 and the MRF-260. It also natively communicates to URC Lighting via 418MHz RF. This gives the MX-790 the ability to control your system without being in direct line-of-sight.
(The MX-790i uses a frequency of 433MHZ.)

Fast setup of complex systems via Complete Control PC editor

To fully automate an audio/video system, the programmer must have a detailed knowledge of each component and how the system connects and operates. Only a trained and certified professional audio/video installer can install an MX-790 remote control in a timely and efficient manner.

Replacing the Batteries

Unlock the battery cover by pushing up on the spring lock at the bottom of the cover. Remove the cover. Observe the + and – polarity indicators inside the battery compartment and the batteries. Place the four AA batteries into their positions in the battery compartment. Now, replace the battery cover and snap it into place.

The **Title** displays what the main page or device you can control.

Press either of the **Page** buttons to see any other available choices.

The **Volume** and **Mute** buttons always control the sound regardless of what screen is displayed.

The **Transport buttons (Play, Stop, Skip-, Skip+, Fwd, Rew and Pause)** operate when the selected device requires them. When watching Cable TV, use the number keypad to enter channel numbers. When listening to a CD, the number keypad enters track numbers.

LIGHT The Light button activates button backlighting.

The **LCD button labels** describe special features for this activity.

The **Channel** and **Previous Channel** buttons will change channels when you have selected devices like CABLE.

The **4-way cursor** buttons enable you to navigate on screen guides and menus with ease.

The **Number keypad** enters numbers for the devices you've selected. When watching Cable TV, use the number keypad to enter channel numbers. When listening to a CD, the number keypad enters track numbers.

Using the MX-790

The MX-790 displays the title (Main or device) at the top of the screen. Below the title, the LCD displays the device or command names. All of the hard buttons of the MX-790 are changed to control the functions of the selected device.

Displaying the Settings Screen

You can adjust settings for the MX-790 whenever you like by pressing and holding the **MAIN + ENT** button for three seconds. When you do, the screen will change to the Settings menu. If you do not press any button on the Settings screen, the MX-790 returns to the previous Settings or Main screen after 30 seconds.

There are two Settings screens. To access the other page, press either of the **page** buttons. To select a setting, press the button adjacent to the setting you would like to adjust.

To go back a step or to get out of the settings screen, press either the **MAIN** button or the **EXIT** button on the MX-790.

Color Screen

Color screen settings provides two configurable options.

1. Brightness: Adjust the screen brightness by pressing the screen buttons on the left and right side of the slider bar. Once the brightness has been adjusted, simply press the **Save** button. Pressing the **Cancel** button will revert to the remote's last saved brightness setting.

   Note: High brightness settings will deplete the batteries faster.

2. Automatic Turn Off: Adjust the duration the LCD screen will remain illuminated after a button is pressed. Pressing the **left** and **right** screen buttons, next to the slider bar, changes how long the LCD screen stays on. Pressing the **Less** side decreases the time in steps down to a minimum time of 5 seconds. Pressing the **More** side increases the time in steps up to a maximum of 60 seconds. Once the setting has been adjusted, simply press the **Save** button. Pressing the **Cancel** button reverts the remote's Automatic Turn Off setting to the last saved setting.

Note: Increasing the Auto Turn off time will deplete the batteries faster.

Button Lighting

The Button Light settings page provides two configurable options for how the MX-790's hard buttons should behave.

1. **Automatic ON:** Adjusting this setting controls when the hard button backlight automatically turns on.

   A. **Automatic Light Yes:** Every time a button is pressed the button back light automatically turns on.

   B. **Automatic Light No:** The only way to turn on the hard button backlight is to press the dedicated Lights button, located on the right side of the remote control.

   Once all changes have been made, press the Save button. Pressing the Cancel button reverts to the remote's last saved setting.

   Note: Selecting AutoLight Yes will deplete the batteries faster.

2. **Automatic Turn Off:** You can adjust the amount of time the backlight remains on after a button is pressed. Press the **left** and **right** screen buttons next to the slider bar to change the duration. Pressing the **Less** side decreases the time in steps down to a minimum of 5 seconds. Pressing the **More** side increases the time in steps up to a maximum of 60 seconds. Once the setting has been adjusted, simply press the **Save** button. Pressing the **Cancel** button reverts to the remote's last saved Automatic Turn off setting.

   Note: Increasing the Auto Turn off time will deplete the batteries faster.

System
The System Settings page provides two options.

1. **Power Remaining:** This option shows you how much battery life is remaining. You can also adjust when the low battery warning screen appears by pressing the screen buttons to the **left** and **right** of the slider bar. Once the low battery percentage is reached, a notification screen appears reminding you the batteries will need to be replaced. Once the setting has been adjusted, simply press the **Save** button. Pressing the **Cancel** button reverts to the remote's last saved Power Remaining setting.

2. **System Info:** The System Info screen displays data about the MX-790's memory usage and operating system version. Pressing the **Next** screen button takes you to the Operating System information, and pressing the **Prev** button takes you back to the System Memory information.

Erasing and Resetting
WARNING! Only use this button when instructed by Technical Support. It resets the memory of the MX-790 to the factory default. All of your programming will be lost!

To erase your MX-790 program, press the **Erase** button to return to factory default. Once selected a secondary screen will ask if you really want to erase the program.

Specifications

These are the technical specifications for the MX-790:

Microprocessor: ARM Cortex-M3 Core 32MHz

Memory: External 64Mb

RAM: CPU Internal 48Kbytes

LCD: 240 x 320, 2" TFT LCD

Photo Diode: SMD TYPE x 2EA

IR: SMD TYPE x 2EA

IR Range (Line of Sight via Infrared): 30 to 50 feet, depending on the environment

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

Batteries: Four AA Alkaline Batteries (included)

Battery Life: Users should expect some variation based on the battery brand.

Operating Temp: 0~40 °C

Size: 225 X 52 X 27.5 (mm)

Product Weight: 222g (with battery loaded)

Parts List

These are the parts included within the packaging:

- **MX-790 Remote Control**
- **4x AA Alkaline Batteries (DC 6V / 1.5V x 4EA)**
- **USB Type C-Cable**

Limited Warranty Statement

1. **Limited Warranty and Disclaimers**
   Universal Remote Control, Inc. ("URC") warrants that the URC equipment shall be free from defects in material and workmanship under normal usage for one (1) year from purchase when such is purchased from URC. **This limited warranty is valid only in the United States of America**. 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 Commissions ("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.

   URC equipment purchases from other than an authorized URC dealer or distributor are without warranty.

   THIS LIMITED WARRANTY DOES NOT COVER TECHNICAL ASSISTANCE FOR HARDWARE OR SOFTWARE USAGE EXCEPT AS EXPRESSLY PROVIDED FOR HEREIN, THE EQUIPMENT, SOFTWARE AND DOCUMENTATION OF URC 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, EXPRESS, STATUTORY OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF

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WITHOUT IN ANY WAY LIMITING THE GENERALITY OF THE OTHER PROVISIONS HEREIN, WARRANTY DOES NOT COVER: (I) DAMAGE FROM MISUSE, NEGLECT OR ACTS OR NATURE, (II) MODIFICATIONS, (III) INTEGRATION WITH THIRD PARTY CONTENT (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 Page 36 URC's PC programmable remotes or any of our Complete Control® whole-house equipment are authorized for online internet sales. Buying URC's PC programmable remotes or any of our Complete Control® whole-house equipment online means buying

equipment that does not have a 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 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.

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.

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 MX-790i is in compliance with the Essential requirements

URC
Control the Experience.

Certification	CE
Type No.(Model No.)	MX-790i
Batch/Serial No.	-

Declaration of Conformity:

Company Name : Summit Technology, Inc

Company Address : 130, Digital-ro, Namsung Plaza
Suite 611, Geumcheon-gu, Seoul, Korea

Contact Information : Phone: (+82)-2-6929-3161

Product Name : RF Remote controller

Model Name : MX-790i

This product herewith complies with the requirements of Radio equipment Directive (2014/53/EU) issued by the Commission of the European Community Compliance with these directives implies conformity to the following European Community.

- Radio Equipment Directive
  - EN 62368-1 (2014) + A11 (2017)
  - EN 62479 (2010
  - ETSI EN 301 489-1 V2.1.1 (2016)
  - ETSI EN 301 489-17 V3.1.1 (2016)
  - ETSI EN 300 328 V2.1.1 (2016)
- Test Report No.:
  - Radio:
  - EMC:
  - Health:
  - Safety

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

- Radio equipment Directive
  - Certificate No. :
  - Certificate Body : TUV Rhineland

Date of Issue: :

Name an signature of authorized person :

General Product Manager
Summit Technology, Inc