er Number : GETEC-C1-09-180 Report Number : GETEC-E3-09-097

## APPENDIX I

: USER'S MANUAL

EUT Type: RF remote controller FCC ID.: OZ5URCMX-880I

# Operating Your System With the MX-880i





This remote control was Custom Programmed for you by:

For questions about your Custom Programming call:

Custom Programming of a complex home theater and/or a multi-room system is one of the most challenging tasks within an audio/video installation. It involves an intimate knowledge of how the components interact and exact details on the proper sequences of control.

Only a Complete Control dealer has the requisite experience and training to quickly and effectively customize a remote control for true automated operation.

Congratulations on your choice!

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www.connected-technologies.com

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## **Congratulations!**

You've purchased a unique synthesis of hardware and software engineering, the Complete Control MX-880i. The MX-880i achieves a magnificent combination of power and flexibility, simplifying and automating operation of even the most complex system.

#### **User Configurable Screen and Button Lighting**

A built in pick up sensor can be set to light the screen and/or the buttons automatically. Additionally, a dedicated LIGHT button enables the user to backlight the buttons if the pick up sensor is turned off.

#### **Integrated Sound Signaling**

The MX-880i incorporates a small speaker for beeps. Anytime you press a button, the MX-880i signals that it has understood your command with a beep sound.

#### **Custom Labeled Buttons**

When you pick up the MX-880i, it automatically lights up the color LCD screen which labels the six buttons to either side of the screeen. These button labels change based on what you are watching or listening to. Thus, if you have selected Watch TV, you will see a list of buttons that are useful to that activity, while if you select Watch DVD, the buttons will control the DVD.



#### LIGHT Button

Press the Light button on the side of the MX-880i to backlight all of the buttons. Of course, you could opt to set the buttons to light automatically via the pick up sensor.

## Optional RF "No Rules" Operation

In combination with a Complete Control RF Base Station, the MX-880i can control your system without being in line-of-sight of the equipment.

To preserve good operation always utilize a Narrow Band RF Base Station with RF Addressing. RF Addressing gives you the ability to control equipment locations throughout your home, even if they are concealed in other rooms or are behind closed doors.

1. The MX-880i sends radio waves in every direction, so you don't have to point the remote anymore!



2. The RFX-250i RF Sensor can be freely positioned for optimal reception.







4. Self-adhesive "Flashers" affix to the Infrared sensors on the front panels of your components. The Flashers relay commands to components out of sight of the MRF-350i's Front Blaster. The flashers plug in to the MRF-350i's rear flasher line outputs via their 10 foot cables. Uniquely, the MRF-350i can also connect to components with rear panel IR Inputs via its adjustable IR Line Outputs.

## **Installing and Charging the Battery**

Open the battery cover by pressing on the release clip and removing the cover.



Note that the three contacts on the battery must connect to the three spring-loaded contacts in the MX-880i. Angle the battery into the battery compartment, contacts first, then gently fit the rear of the battery into the compartment as well. Replace the battery cover by inserting the hinged end in first, then snapping the cover back into place.



You can charge the Lithium Ion battery by simply plugging the included charger into the base of the remote as shown here.

The MX-880i can be used while charging.



## Programming the MX-880i

The MX-880i is programmed via a Windows PC equipped with a USB port (programming cable included), using our proprietary software, MX-880i Editor.

To fully automate an audio/video system the programmer must have a detailed knowledge of each component and how the system is connected and operated. We highly recommend that you use a professional audio/video installer to program your MX-880i so you will be able to enjoy all the benefits of the MX-880i.

## Selecting a New "Activity"

The MX-880i's WATCH and LISTEN buttons display the activities you can control with your MX-880i. When you want to watch something else (a DVD movie, a videotape or an HDTV broadcast), simply press the WATCH button and select the new activity. When you want to listen to the radio or to a CD, touch the LISTEN button and select what you would like to listen to.

Your installer will have programmed the button you pressed to totally configure your system to watch or listen to whatever you selected. Now, the screen will change, and all of the LCD buttons will be reconfigured to give you full control of your system while watching or listening to your selection!

When you press the LISTEN button, you can see the most frequently used activities you have for listening in your system.

When you press the WATCH button, you can see the most frequently used activities you have for watching the sources in your system.





#### **PAGE DISPLAY**

At the bottom of the LCD screen, the page display informs you if there are other pages of buttons available.



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

## Using the MX-880i to Control an "Activity"

Once you've selected a new activity, the MX-880i displays the title of the activity at the top of the screen. Below the title, the LCD displays the customized names of any special features you need for the activity. All the hard buttons of the MX-880i have now changed to functions optimized for this activity.

The Title displays what activity 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+, FF, REW and Pause) operate when the selected activity requires them (for example, if you watch CABLETV with a TiVo type of DVR, these buttons will control the built-in DVR, while if you are watching a DVD, these buttons will control the DVD player).



The LCD button labels describe special features for this activity.

The Channel and Previous Channel buttons will change channels when you have selected an activity like Watch CABLETV or Watch SAT TV.

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

The Number keypad will enter numbers for the activity you've selected. Thus, for watching Cable TV, you use the number keypad to enter channel numbers, while when listening to CD, the number keypad enters track numbers.

## Accessing the MX-880i's Setup Menus

The MX-880i has internal setup menus that enable you to change the settings that control your color screen, the button lighting, battery warnings and the clock. To access these settings, you must press and hold two buttons at the same time as shown here:



At the same time, press and hold both the WATCH button and the ENTER button. When the SETUP screen appears, you can release the two buttons.

≱age 8

## **Selecting from the Setup Menus**

There are two pages of settings on the Setup Menu. Use the page buttons to view them. To select, simply press the corresponding button.



Select the setting you'd like to adjust by pressing the button beside the screen.

Use the Page button to see other pages.

Exit the Setup Menus by pressing the WATCH or LIS-TEN button, or simply waiting (the setup menus time out in 30 seconds).

## **Setting the Color Screen**

Although usage of the color screen will affect how frequently you have to charge the battery, the screen does not drain the battery as quickly as the button lighting does.

Adjust the brightness of the screen to taste. In most lighting conditions, 50% gives good results.

The Pick Up sensor senses motion, so it will keep the screen on (and drain your battery charge) as long as you are holding it in your hand. If you turn off the Pick Up sensor you will extend battery life (the screen will still light up when you press any

Adjust how long the screen stays lit after you put it down or stop using it here.



#### **Setting Brightness**

Use the buttons next to DIM and BRIGHT to adjust the brightness. You'll see the screen dim and brighten. When you have the right setting, press SAVE. Pressing Cancel discards all changes.



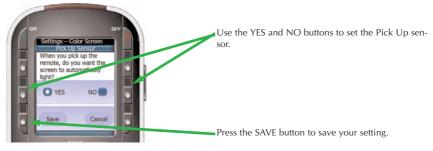
Use the DIM and BRIGHT buttons to adjust the lighting of the color screen.

Press the SAVE button to save your setting.

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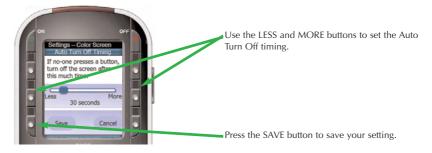
#### **Setting the Screen Pick Up Sensor**

Use the buttons next to YES and NO. If you say YES, the color screen will light as long as you are moving the MX-880i. If you say NO, the screen will light when you press any button.



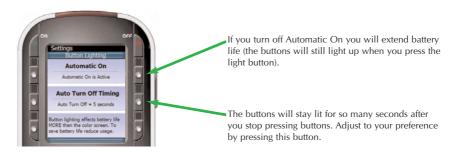
#### **Setting the Screen Auto Turn Off**

Use the buttons next to LESS and MORE to adjust the amount of time the screen will stay lit when you stop moving it (Pick Up Sensor ON) or when you stop pressing buttons (Pick Up Sensor OFF).



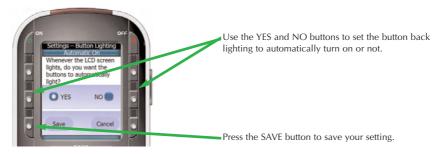
## **Setting the Button Lighting**

Note that button backlighting uses more battery charge than the screen. So if you would like to extend the time between charges, lower the usage of button lighting.



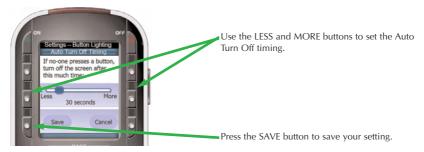
#### **Setting Button Lighting Automatic On**

Use the buttons next to YES and NO. If you say YES, the buttons will light whenever the LCD screen is on. If you say NO, the buttons will only light when you press the LIGHT button.



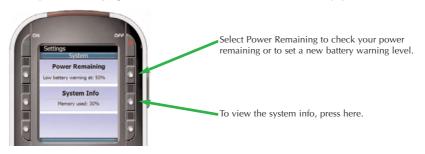
#### **Setting the Button Lighting Auto Turn Off**

Use the buttons next to LESS and MORE to adjust the amount of time the buttons will stay lit when you stop moving it (Pick Up Sensor ON) or when you stop pressing buttons (Pick Up Sensor OFF).



## System Menu

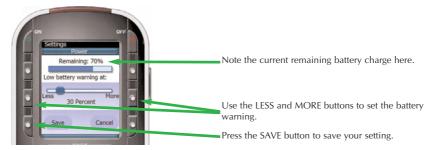
While you are using the MX-880 you can get a more accurate reading of the exact power remaining by checking the System Menu. Additionally, the System Info page offers a look at how much memory you have used.



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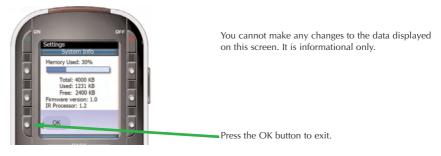
#### **Power Remaining and Battery Warning Settings**

On this screen, you can see how much battery charge remains and you can reset the "Low Battery" warning to either 10, 20 or 30 percent. The battery indicator at the top left of the MX-880i screen will flash when your low battery warning level is reached.



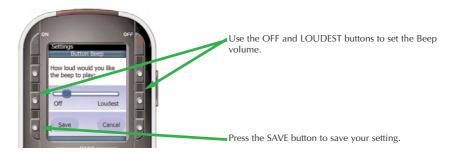
#### **System Info**

See how much memory you've used on this screen.



## **Setting the Button Beep Volume**

Use the buttons next to OFF and LOUDEST to adjust how loud the beeps are.

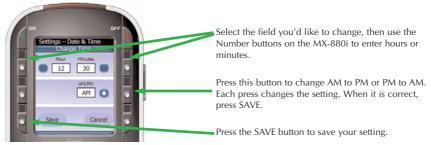


#### **Date and Time Menus**

Via the three menus for Date and Time you can set the date, set the time and opt to display either the date or the time.

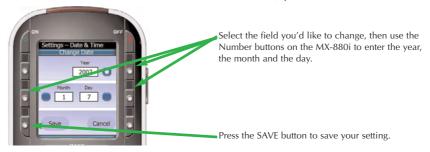
#### **Setting Time**

Tap the button beside hour or minutes then use the number keys to enter the correct time. Set the AM/PM by toggling the button. When the time is correct, press the SAVE button.



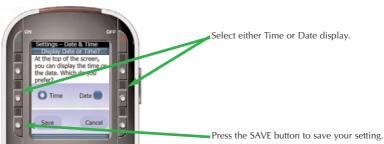
#### **Setting Date**

Tap the button beside day, month or year then use the number keys to enter the correct date. When the date is correct, press the SAVE button.



#### **Setting Display for Time or Date**

The MX-880i can display either the time or the date, not both. Select what you would like to be displayed and press SAVE.

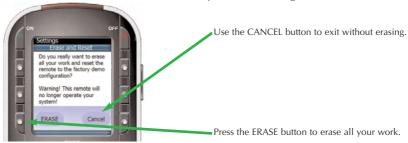


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#### **MX-880i Owners Manual**

## **Erasing and Resetting**

You can erase your MX-880i (all of your work, all devices, all activities will be lost) and reset it to the factory default configuration.



## **USA Limited Warranty Statement**

Your Universal Remote Control, when delivered to you in new condition, is warranted against defects in materials or workmanship as follows: UNIVERSAL REMOTE CONTROL, INC. warrants this product against defects in material or workmanship for a period of one (1) year and as set forth below. Universal Remote Control will, at its sole option, repair the product using new or comparable rebuilt parts, or exchange the product for a comparable new or rebuilt product. In the event of a defect, these are your exclusive remedies.

This Limited Warranty covers only the hardware components packaged with the Product. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the Product; any such software is provided "AS IS" unless expressly provided for in any enclosed software Limited Warranty.

To obtain warranty service, you must deliver the product, freight prepaid, in its original packaging or packaging affording adequate protection to Universal Remote Control at the address provided in the Owner's Manual. It is your responsibility to backup any macro programming, artwork, software or other materials that may have been programmed into your unit. It is likely that such data, software, or other materials will be lost during service and Universal Remote Control 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 product support and other important information visit Universal Remote Control's website: http://www.UniversalRemoteControl.com or call the Universal Remote Control Customer Service Center (914) 835-4484.

This Limited Warranty only covers product issues caused by defects in material or work-manship 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 Universal Remote Control product. This Limited Warranty does not cover Universal Remote Control products 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 product. This Limited Warranty is valid only in the United States of America. This Limited Warranty specifically excludes products sold by unauthorized resellers.

UNIVERSAL REMOTE CONTROL SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OR CONDITION ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, THERE IS NO OTHER WARRANTY EXPRESSED OR IMPLIED. UNIVERSAL REMOTE CONTROL WILL NOT BE HELD RESPONSIBLE FOR STATEMENTS MADE BY OTHERS CONCERNING THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT. 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 you. This Limited Warranty gives you specific legal rights and you may have other rights which vary from state to state or jurisdiction to jurisdiction.

## **Specifications**

Memory - 32 Megabits of Flash Memory Total (28 Megabits for User Configuration)

Customization Capability - Up to 48 devices and up to 8 pages each for a total of 384 pages.

Learning Capability - Standard frequencies (15kHz to 460kHz)

Macro Capability - Up to 255 steps each

IR Range (Line of Sight via Infrared): 30-50 feet, depending on the environment RF Range (radio frequency): 50 to 100 feet, depending upon the environment

RF Frequency: 433MHz

Weight: 6.9 ounces (with battery loaded)

Size: 8" H x 2.25" W x 1.25" D

Battery: Lithium Ion rechargeable battery included

#### **Contact Us**

Need assistance or have questions? Our Customer Service Support Center is here to help. Call (914) 835-4484 to speak with a customer service representative or email us at techsupport@universalremote.com

500 Mamaroneck Avenue, Harrison, NY 10528 Phone: (914) 835-4484 Fax: (914) 835-4532

www.universalremote.com

## **Your Listen Devices**

List any component or device you'd like to access via the Listen menu:

Type of Device (TV, DVD, VCR etc.)	Brand	Model

## **Your Watch Devices**

List any component or device you'd like to access via the Watch menu:

Type of Device (TV, DVD, VCR etc.)	Brand	Model

## Regulatory Information to the user

#### **■** FCC Compliance 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 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.

#### **■** Caution

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.

#### **■** CE conformity Notice

Products with "CE" marking comply with the R&TTE Directive 1995/5/EC, EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EEC issued by the commission of the European Community.

1) R&TTE Directive

•Safety : EN 60950-1

●EMC : ETSI EN 301 489-1,3 ●RF : ETSI EN 300 220-1,2

2) EMC Directive

●Emission : EN 55022●Immunity : EN 55024●Power : EN-61000-3-2, 3

3) Low Voltage Directive

●Product safety: EN 60950-1

## ■ Safety instruction for charging internal rechargeable battery of remote control Caution

Use only with EN60950-1 approved as Limited power source and double insulation( $\square$ ) marked power adaptor & same ratings described on the product label (5Vdc, 1.0A).

## **Precautions and Information Concerning Rechargeable Lithium-Ion Batteries**

- If you will not be using your remote control for an extended period of time, be sure to remove the battery
- ◆ Do not attempt to disassemble, alter or apply heat to the battery.
- ◆ Use care to avoid dropping the battery or subjecting it to severe impact that could damage the case.
- ◆ The battery should not be immersed in water.
- ◆ Lithium Ion batteries are recyclable. For the address of a recycle drop-off location near you call toll Free 1-800-822-8837 or visit http://www.rbrc.com

#### **■** Declaration of Conformity

"Hereby, Ohsung Electronics co.Ltd, declares that this MX-880i is in compliance with the Essential requirements and other relevant provisions of Directive 1999/5/EC."

Certification	C€ 0197
Type No.(Model No.)	MX-880i
Manufacturer	Ohsung Electronics Co.Ltd
Batch/Serial No.	-
Power Rating	5.0V <del></del> , 1.0A
Frequency band	433.92MHz

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