



APPENDIX H

: USER'S MANUAL

TRC-780

Owners Manual



MS-780 Owner's Manual ©2010 URC, Inc.

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Congratulations!

You've purchased a unique synthesis of hardware and software engineering, the Total Control TRC-780. The TRC-780 achieves a magnificent combination of power and flexibility by simplifying and automating the operation of even the most complex systems.

The MRX-10 "Controller" is required to make the TRC-780 work. The combination of the TRC-780 and MRX-10 create a robust and powerful system.

Backlit Color OLED Screen Buttons

When any button is pressed the color OLED screen as well as the remote buttons will light up. Once the screen is lit, each of the six buttons on either side of the screen will have a label. 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. If you are listening to your iPod through a PSX-2 you will be able to browse the iPod content.

RF "No Rules" Operation

The TRC-780 communicates directly to the MRX-10 via 2.4 GHz "bi-directional" RF. This gives the TRC-780 the ability to control your system without being in direct line of sight of the equipment.

Use the optional Z-Repeater ZR-1 to expand two way communication within a large space between a TRC-780 and MRX-10.

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.

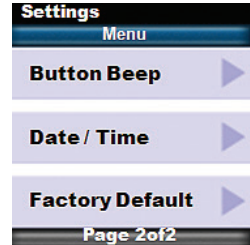
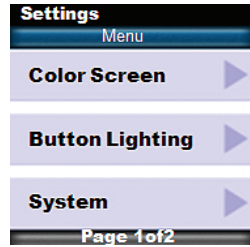


Displaying the Settings Screen

You can adjust settings of the TRC-780 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 TRC-780 will beep signifying a timeout after 30 seconds and return to the previous setting or main screen.

There are two pages of Settings screens. To access the other page, press either of the page buttons. To select a setting, press the settings adjacent button.

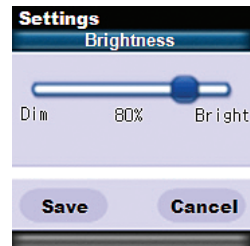
To go back a step or to get out of the settings screen, press either the MAIN button or the EXIT button on the TRC-780.



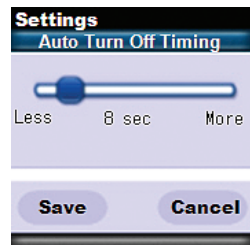
Color Screen

Color screen settings give 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 remotes last saved brightness setting. Note: The higher the brightness, the faster the batteries will deplete.



2. Automatic Turn Off: Adjust the duration the OLED screen will stay illuminated after a button is pressed. Pressing the left and right screen buttons, next to the slider bar, will change how long the OLED screen will stay on. Pressing the "Less" side will decrease the time in steps down to a minimum time of 5 seconds. Pressing the "More" side will increase 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 will revert the remote's Automatic Turn Off setting to the last saved setting. Note: The longer the OLED screen stays on, the faster the batteries will deplete. .

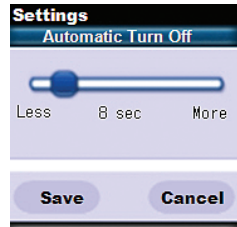
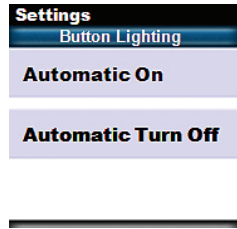


Button Light

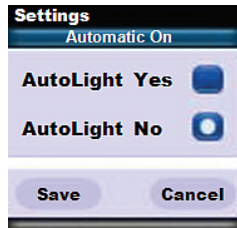
The Button Light settings page provides two configurable options for how the TRC-780' shard buttons should behave.

1. Automatic ON: Adjusting this setting will control when the hard button backlight will turn on.
 - a. Automatic Light Yes: Every time a button is pressed the button back light will automatically turn "On".
 - b. Automatic Light No: The only way to turn on the hard button back-light 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 will revert to the remotes last saved setting. Note: The more often the back light turns "ON", the faster the batteries will deplete.



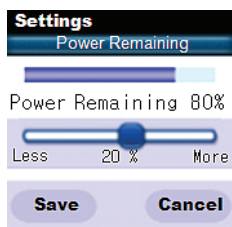
2. Automatic Turn Off: You can adjust the amount of time the back-light will remain after a button is pressed. Press the left and right screen buttons next to the slider bar to change the duration. Pressing the "Less" side will decrease the time in steps down to a minimum of 5 seconds. Pressing the "More" side will increase 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 will revert to the remote's last saved Automatic Turn off setting. Note: The longer the backlight stays on, the faster the batteries will deplete.



System

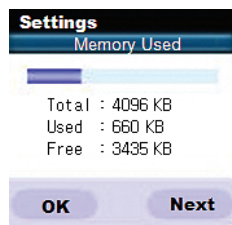
The System Settings page provides two options.

1. **Power Remaining:** This option shows you how much battery life is remaining. You can also adjust when the low battery warning screen will appear by pressing the screen buttons to the left and right of the slider bar. The battery indicator will blink when the batteries are low and need to be replaced.



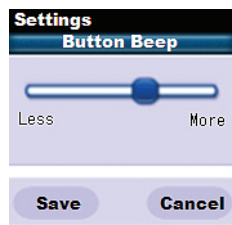
Once the setting has been adjusted, simply press the Save button. Pressing the Cancel button will revert to the remotes last saved Power Remaining setting.

2. **System Info:** The System Info screen displays data about the MS-780's memory usage, and operating system version. Pressing the "Next" screen button will take you to the Operating System information, and pressing the "Prev" button will take you back to the System Memory information. Update imageUpdateimage



Button Beep

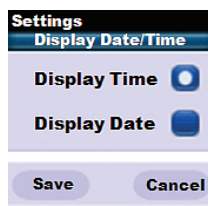
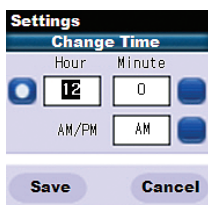
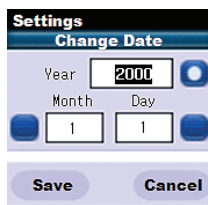
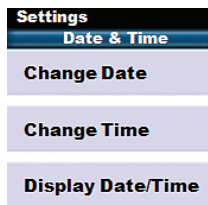
Use the screen buttons to the left and right of the slider bar to adjust the button sound. Once the setting has been adjusted, simply press the Save button. Pressing the Cancel button will revert to the remotes last saved button beep setting..



Date/Time

The Date and Time is automatically sent from the MRX-10 to the TRC-780. If you would like to adjust the time or date you can do so on the remote control. Note: Any Date or Time adjustment made on the TRC-780 will automatically go out to all the other remotes and keypads in the system.

1. Change Date: Tap the button beside day, month, or year then use the numeric keypad to enter in the new date information. When you are finished press the Save button.
2. Change Time: Tap the button beside hour or minutes then use the numeric keypad to enter in a new time. Set the AM/PM by toggling the button. When you are finished press the Save button.
3. Display Date/Time: The TRC-780 can display either the Time or the Date, but not both. Select which one you would like to display. Press the screen button next to Time or Date. Once you are finished press the Save button.



Erasing and Resetting

WARNING! Only use this button when instructed by Technical Support. It resets the memory of the TRC-780 to the factory condition. All your programming will be lost!

To erase your TRC-780 program, press the "Erase" button to perform a factory default. Once selected a secondary screen will ask if you really want to erase the program...



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.UniversalRemote.com> or call the Customer Service Center (914) 835-4484.

This Limited Warranty only covers product 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 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.**

Specifications

Microprocessor: ARM7TDMI

RAM: 8Mbit SRAM

FLASH: 32Mbit Nor FLASH

Display: 1.46" PMOLED (128 x 128)

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: 2.45GHz (ZigBee-Pro)

Weight: 8.5 oz. (with battery)

Size: 8.7"H x 2.2"W x 1.3"D

Battery Life: 18 Hours of continuous button pressing with backlighting and LCD ON (months of use for most users). Users should expect some variation based on the brand of alkaline batteries used.

Note: In actual use, the TRC-780 protects itself if it gets stuck between couch cushions (with a button being continuously pressed). After 30 seconds the TRC-780 will turn off, and will not turn on again until the button is released.

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.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Federal Communication Commission (FCC) Radiation Exposure Statement

This remote device is approved as a hand-held and hand-operated only portable (relative to hand) device which is normally operated at 5 cm from a person's body.

Regulatory Information to the user

■ 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

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

2) EMC Directive

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

■ Declaration of Conformity

“Hereby, Universal Remote Control Inc. declares that this TRC-780 is in compliance with the Essential requirements and other relevant provisions of Directive 1999/5/EC.”



Universal Remote Control®

Certification	CE 0197
Type No.(Model No.)	TRC-780
Batch/Serial No.	-
Power Rating	6V
Frequency band	2.45GH(ZigBee-Pro)

Declaration of Conformity

Company Name : Universal Remote Control Inc.
 Company Address : 500Mamaroneck Avenue, Harrison, NY 10528, U.S.A
www.universalsremote.com
 Contact Information : Phone: (914)835-4484 Fax: (914)835-4532
 Brand Name : UNIVERSAL remote control
 Product Name : RF Re-mote Controller
 Model Name : TRC-780

This product herewith complies with the requirements of EMC Directive (2004/108/EC) and 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

- EMC Directive
 - EN 55022
 - EN 55024
 - EN 61000-3-2
 - EN 61000-3-3
- R&TTE Directive
 - ETSI EN 301-489-1,3
 - ETSI EN 300 220-1,2
 - ETSI EN 300

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

- EMC Directive
 - Report No.
 - Testing Laboratory : Gumi College EMC Center
- R&TTE Directive
 - Certificate No.
 - Certificate Body : TUV Rheinland (No. 0197)

Date of issue : May 30, 2010

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



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