



APPENDIX H
: USER'S MANUAL

MRF-250C INSTALLATION MANUAL



Multi-Room “No-Pointing” RF Control of
Cable Box/your Components

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Universal Remote Control

500 Mamaroneck Avenue, Harrison, NY 10528

Phone: (914) 835-4484 Fax: (914) 835-4532

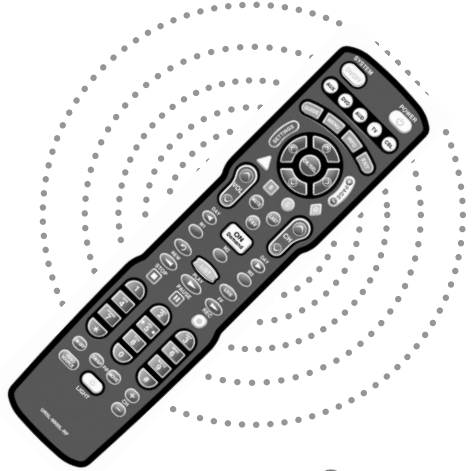
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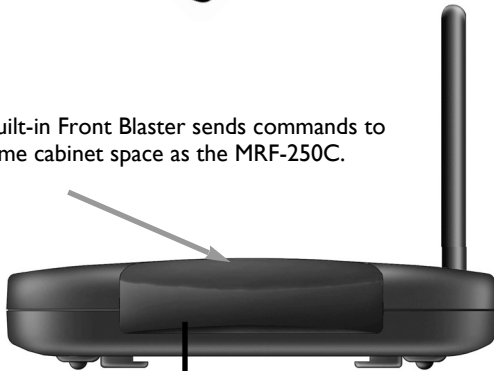
Introduction

The combination of the UR5L-9000LRF with its companion MRF-250C base station will enable you to place your Cable Box/your components out of sight behind closed doors or in another room of your house. The MRF-250C converts commands to infrared signals that control your AV components. This allows the UR5L-9000LRF to send radio signals throughout your house whether you be indoors, outdoors, or even up to 100' away.

1. The UR5L-9000LRF remote control sends radio waves in every direction, so you don't have to point the remote at the device anymore!



2. The MRF-250C's built-in Front Blaster sends commands to components in the same cabinet space as the MRF-250C.



3. 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-250C's Front Blaster. The flashers plug in to the MRF-250C's rear allowing the flasher line to output via their 10 foot cables.

Features and Benefits

No More Pointing - Radio Waves Penetrate Walls, Doors and Floors

The MRF-250C receives the RF signals of the UR5L-9000LRF remote control from any direction. You no longer need to point the remote control at any of your AV components. You can also place the components distracting blinking lights and displays behind closed doors or in another room!

Reliable Control Throughout Your House

The MRF-250C receives RF signals from your UR5L-9000LRF from within a radius of 50 to 100 feet enabling you to control out of sight cable boxes or components such as those behind walls or closed doors. Range depends on the structure of your home and the amount of interference generated by computers, microprocessors and other devices within and nearby your home.

Control an Equipment Locations Controlled From Any UR5L-9000LRF

Each UR5L-9000LRF can be programmed to operate equipment in another room, by installing an MRF-250C base station at each location. The MRF-250C is assigned one of 16 unique ID#s. In operation it is simple: when you select a device located in the den, the UR5L-9000LRF only signals to the MRF-250C in the den.

No Pointing Remote Controls In Every Room

You can opt to control a multi-room or multi-zone system via RF remote control by placing a UR5L-9000LRF in each room of your home.

Parts Guide

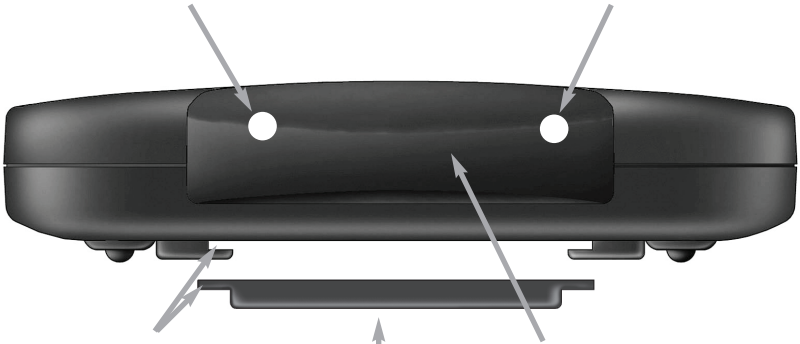
The MRF-250C RF Base Station includes:

- 1 - MRF-250C Receiver with integrated antenna
- 1 - Mounting Plate for wall mounting the MRF-250C
- 4 - Screws for wall mounting the mounting plate
- 1 - 9V-300mA Power Supply
- 6 - Flashers with 10 foot plug in cables.

MRF-250C Details

Red POWER LED Lights up when the MRF-250C's power supply is plugged into an active AC outlet.

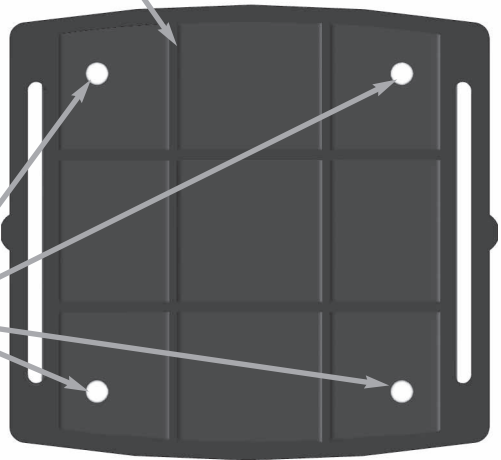
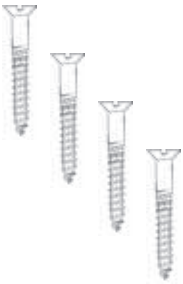
Red STATUS LED Lights up when the MRF-250C receives an RF signal from the UR5L-9000LRF.



The MRF-250C's slots enable the mounting plate's matching guides to slide and "snap" into place for quick and easy mounting on the wall.

Front Blaster sends Infrared commands to all AV components in the same cabinet space.

The MRF-250C Mounting Plate



Using the four enclosed screws, you can choose to fix the mounting plate to a wall or the back of your component cabinet.

MRF-250C BASE STATION

Integrated Antenna swings in any direction to optimize RF reception and range.



Included 9V power supply plugs into the MRF-250C's power connector.



Six Rear Flasher Line Output Jacks connect flashers for control of A/V components out of sight of the MRF-250C's Front Blaster.



Six Plug-In Flashers are supplied with 10 foot cables and six extra self-adhesive pads in case a flasher has to be repositioned.

Bottom panel Dial sets the Receiver ID# when more than one MRF-250C receiver is used.



A Standard MRF-250C System

A standard system utilizes one UR5L-9000LRF and one MRF-250C to control an equipment location.

Step 1 - Place the MRF-250C

The MRF-250C should be placed so that the Front Blaster will control as many of the system's AV components as possible. If you are connecting the outboard flashers to the rear Flasher outputs only, the MRF-250C may be concealed and mounted to the rear wall or back of the system cabinet. The mounting plate slides apart from the receiver, screws to the wall or cabinet with the enclosed screws, then the receiver is slid back into place.

Step 2 - Connect the Power Supply and Insert the Batteries

Connect the 9V power supply to an active UNSWITCHED AC outlet. The MRF-250C must always be powered up to operate. The red POWER LED should Light up. Insert the batteries in the UR5L-9000LRF remote control.

Step 3 - Test the UR5L-9000LRF

Observe the MRF-250C's STATUS LED blinking while you press and hold a programmed button (one with an actual command). This tells you that the MRF-250C is receiving the RF commands of the UR5L-9000LRF. However, if the LED continues to flicker after you release the button, you are receiving RF Interference and you must move the MRF-250C to another location.

Step 4 - Orient the Antenna for Optimum Range

If you need to extend the range of the remote, try adjusting the angle of the MRF-250C receiving antenna via its pivoting ball mount.

Step 5 - Test Operation Without Flashers

With the UR5L-9000LRF IR output blocked by a jacket or pillow, test the control of your components using just the Front Blaster. In most cabinets, the MRF-250C's Front Blaster will control any AV components in the same cabinet space by reflections from the cabinet walls and doors. Make sure that the components operate with the cabinet doors closed or open.

If a component is placed too far away from the front blaster, you will need to utilize the included Flashers plugged into the MRF-250C's rear Flasher Line Output jacks.

Step 6 - Connect Flashers to Out of Sight A/V Components

Important Note: Test the operation BEFORE sticking the flasher in place.

Use a flashlight to identify the correct location of the component's IR sensor, then try a few commands while moving the flasher around the face plate of the component. The most reliable operation typically occurs a half inch or so away from the IR sensor.

Once you have found the spot that gives the most reliable operation, peel off the protective backing of the self-adhesive tape on the included Flashers and stick them in place.

Important Note: Always replace the self-adhesive tabs if you have to reposition a flasher. Six extra self-adhesive tabs are supplied for this purpose.

Front Blaster Overload

A few models of Cable Box or your components can be OVERLOADED by the Front Blaster. If you are having intermittent or inconsistent results with a particular component, try repositioning the MRF-250C and facing the Front Blaster in a different direction. If this improves the situation but is impractical, it may be necessary to utilize the self-adhesive flashers only. This will limit the number of components your MRF-250C can control to six.

RF Setup Method for remote — Step by Step

Step 1 - After installing the MRF-250C, press the [CBL] and [LIST] button simultaneously for 3 seconds. The [CBL] device LED will turn on indicating that it is ready to be programmed. The LED will remain on for 30 seconds.

Step 2 - After installing the MRF-250C, press the [CBL] and [LIST] button simultaneously for 3 seconds. The [CBL] device LED will turn on indicating that it is ready to be programmed. The LED will remain on for 30 seconds.

Step 3 - Once you have completed RF ID setting, Store the 2-digit number by pressing the [CBL] button once again. The [CBL] device LED will blink twice to confirm that the RF ID number has been stored.

Note - Install and select the ID # on the MRF-250C. (For further details, refer to the MRF-250C manual.) You can operate up to 15 different equipment locations, each with an MRF-250C unique Receiver ID #

Frequently Asked Questions

Can I use flasher/emitters that I have already installed in the system to connect to the MRF-250C?

Yes, the flashers are compatible, however flashers from other companies are equipped with a mini plug that is too large to fit the MRF-250C's flasher jacks. Use Radio Shack part # 274-327 to convert 3.5mm plug Flasher/Emitters to the MRF-250C.

How can I increase the range of the UR5L-9000LRF?

Often, you can increase range by repositioning the MRF-250C and/or by re-orienting the antenna. Try to avoid placing the MRF-250C directly adjacent to satellite receivers, personal computers or any other component using high speed microprocessors if possible.

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.**

LIMITATION OF REMEDIES

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. IN NO EVENT SHALL UNIVERSAL REMOTE CONTROL BE LIABLE, WHETHER IN CONTRACT OR IN TORT (INCLUDING NEGLIGENCE) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, ACCESSORY OR SOFTWARE, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, SOFTWARE OR APPLICATIONS OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS, ACCESSORIES OR SOFTWARE TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

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.

REV020708

Specifications

MRF-250C

Power Supply: 9V 300mA

IR Flasher Line Outputs: 2.5mm Mono Mini Jack

RF Frequency: 418MHz

Size: 5 1/8" x 3.5" x 1.25" (4.5" antenna up)

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.



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