

## Operating Instructions for Advanced Series Remote Control and RF to IR converter (RF2IRKIT)



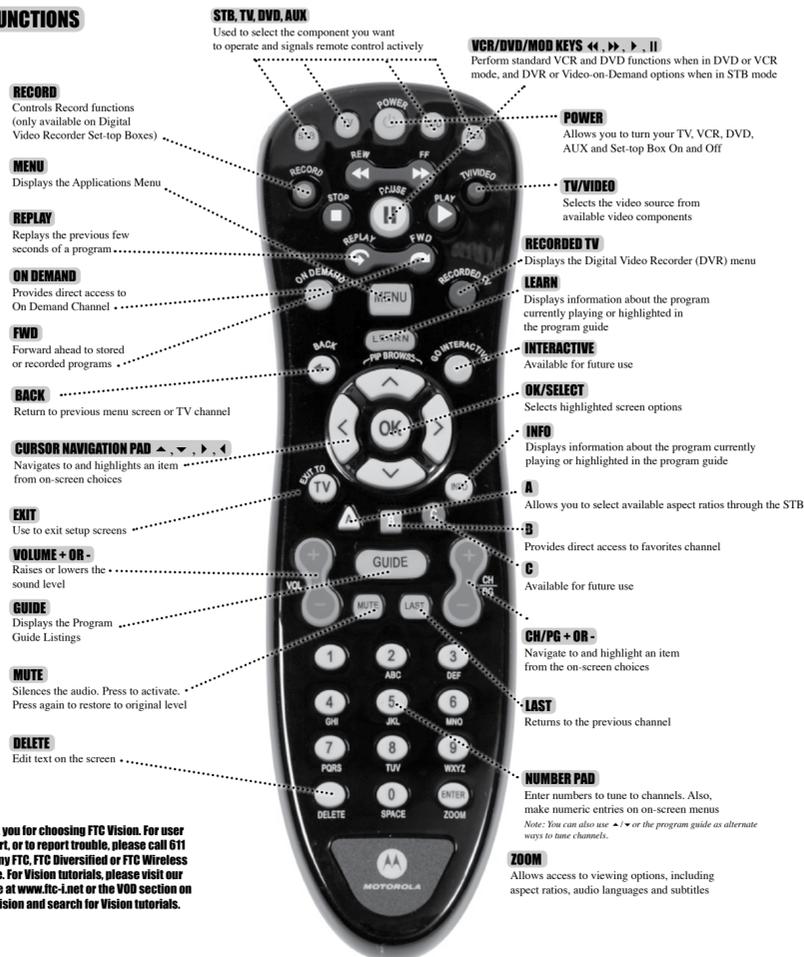
## Operating Instructions for Advanced Series Remote Control and RF to IR converter (RF2IRKIT)



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### BUTTON FUNCTIONS



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BUTTONS SHOULD BE PRESSED AND RELEASED QUICKLY, AS HOLDING BUTTONS MAY EXECUTE ADDITIONAL COMMANDS.

### Battery Installation



Install two AA alkaline batteries, as shown.

1. On the back of the remote, push down on the tab and lift the cover off.
2. Match the batteries to the + and - marks inside the battery case, then insert two AA alkaline batteries.
3. Press the battery cover back into place.

### Installing the RF2IR Converter

If you install the RF2IR converter and "pair" it with the remote, you can use your remote anywhere up to 100 feet from your STB without needing to point your remote at the STB. The RF2IR converter receives wireless (RF) commands from your remote and converts them to IR to control your STB. By default, the remote transmits RF commands. You can set it to send IR commands if you don't want to use the RF2IR converter (see section L).

Press and hold the FIND button on the RF2IR converter, and, while holding it pressed, plug it into the USB port on the front of your Set-top Box. Release the FIND button.

The remote can be paired with the RF2IR when it is within about 2 feet from it.

1. Bring the remote within 2 feet of the RF2IR and press any key (in RF – default – STB mode).

Check that the remote is paired by waiting for the lights to go off on the remote for a few seconds, and then press the FIND key on the RF2IR. The remote will play "Hello, Moto." Do this if you misplace your remote. (You can pair only ONE remote with the RF2IR converter). You can now use your remote anywhere up to 100 feet from your STB without needing to point the remote at your STB.

### Programming the Remote to Control Other Devices

The remote control will only control the device that is selected by the appropriate mode key (STB, TV, DVD and AUX). The mode key light for the selected device flashes each time a valid key is pressed. In order to control other devices with your MX3 Remote Control, you need to tell the remote control what types of devices you have. Sections A and B take you through the steps needed to do this. The volume controls will control your Set-top Box (STB) until the TV device mode is set up. The channel controls will always control your STB. If you want to change this, you should follow the steps in Sections E & F.

To use your RF2IR Remote Control for your other devices, you will need to set up the TV, DVD and AUX mode keys to control the devices (Section A).

Please refer to the code list for a list of supported brands and models. If you do not find the brand of your device on the supported code list, please refer to section B for the search function or you may use section C for instructions on the learning feature of your remote control.

If you have an integrated or combo unit such as a TV/DVD, each component of the unit may need to be set up separately by setting up both the TV and DVD mode keys.

**Note:** The DVD and AUX mode keys can be set up with any code. The TV mode key can only be set up with TV codes.

### A. Manual Programming

How to set up the TV, DVD or AUX mode keys:

1. Power on the device you want to program and locate the 4-digit code from the code list.
2. Press and hold the mode key (TV, DVD or AUX) and, while holding it pressed, press the LEARN key for 1 second.
3. Release both keys. All of the mode keys will flash then the selected mode key light will stay lit.
4. Enter the 4-digit code by pressing the numerical keys (0-9). The selected mode key light will blink for each digit entry and will remain off after the entry of the fourth digit – indicating a successful setup.
5. Point the remote control at the selected device and press the power key once. The device should turn off. If the device stayed on, repeat steps 2 through 5, trying each code for your brand until you find the correct code

Repeat the steps above to set up another device. To use the remote control for your Set-top Box, press the STB mode key.

**Note:** If an invalid code is entered or no key is pressed at all for 30 seconds, the mode key light flashes for 3 seconds and turns off. The remote control returns to normal operation and you will need to start over from step A2 to set up the device.

### B. Using the Search Function

To search for a particular device code for DVD or AUX, e.g., VCR, use the Manual Programming for section A and program DVD or AUX with any VCR code prior to starting a search.

1. Turn on the device you want to control and point the remote at that device.
2. Press and hold the mode key (TV, DVD or AUX) and, while holding it pressed, press the OK key for 1 second.
3. Release both keys. All of the mode keys will flash then the selected mode key light will stay lit.
4. Press the power button repeatedly until the selected device turns off. Once your device has turned off, press OK to save the code.

5. To indicate a successful setup, the selected mode key will turn off and you are ready to set up another device by following steps 1 through 4 of this section.

### C. Learning

If the code for your device is not found in the code list and the search feature was not able to find the code for your device, then the learning feature may be your best option. The learning feature lets you "learn" functions from your original remote control.

**Note:** Learning cannot be performed for any mode until after that mode is set up with a valid code. So, to learn the keys, first set up the mode with a valid code, see section A (select any code for the appropriate mode from the code list), then follow the steps below.

### C-I. Learning Commands

1. Press and hold the mode key (TV, DVD or AUX) on the RF2IR remote and, while holding it pressed, press the LEARN key for 1 second, then release both keys.



2. All of the mode keys will flash and then the selected mode key light remains on.

3. On your RF2IR Remote, press and release the key that you want to teach.

4. While pointing your original remote at the bottom of your RF2IR Remote, approximately 1 inch apart, press and hold the original remote key until the mode key light blinks once and stays on. (If there is a learning problem, the mode key light blinks for 3 seconds and stays on. If this happens, repeat steps 3 and 4 above.)

5. Repeat steps 3 and 4 for each key you want your RF2IR Remote Control to learn.

6. Press and release the LEARN key when all desired remote commands have been learned. If you have encountered difficulties with the LEARN key setup, please refer to Section M: Troubleshooting Learning.

**NOTE:** It is not necessary to have your RF2IR Remote Control learn every key from your original remote, since most of the keys will not be used under normal daily use. The best practice is to teach only the keys that help you navigate for the best experience, like your volume up and down.

### D. Clearing Commands

#### D-I. To Clear all Learned Commands (Under a Single Mode)

1. Press and hold the mode key (TV, DVD or AUX) and, while holding it pressed, press the LEARN key for one second, then release both keys.

2. All of the mode keys will flash and the selected mode key light will stay on.

3. Press and release the LEARN key once. The mode key light blinks off.

4. Press and release the DELETE key. The mode key light turns off. All learned commands under that mode are now cleared.

#### D-II. To Clear all Learned Commands (Under ALL Modes)

1. Press and hold the mode key (TV, DVD or AUX) and, while holding it pressed, press the LEARN key for 1 second, then release both keys.

2. All of the mode keys will flash and the selected mode key light will stay on.

3. Press and release the LEARN key twice. The mode key light blinks off.

4. Press and release the DELETE key. The mode key light turns off. All learned commands under that mode are now cleared.

### E. Volume Control Setup Options

The volume controls will control your Set-top Box until the TV device mode is programmed, e.g., if DVD mode is selected, then volume controls your STB. If TV mode is programmed and DVD mode is selected, then volume controls your TV. If you'd like the volume commands to operate from just one device, e.g., always TV, then follow the instructions in Section E-I. If you'd like the volume commands to be sent to different devices, depending on which mode you are in, then follow the instructions in Section E-II.

#### E-I. Volume Always Controls the Same Device

1. Press the TV key and, while holding it pressed, press the OK key for 1 second.

2. Release both keys and all of the mode keys will flash, followed by the TV mode key light remaining on.

3. Press and hold the MUTE key for 3 seconds until the TV mode key light briefly turns off, then remains on. Press and release the mode key that you always want to operate the volume commands (STB, TV, DVD or AUX). The selected mode key light will remain on.

4. Press and release the MUTE key to save the setting. The selected mode key light will turn off, indicating a successful setup. The volume commands will be set up for the selected device, despite what mode is selected.

If the selected mode key light flashes for 3 seconds and turns off, then the selected mode will have no volume commands of its own and will need to start over from step 1 above and select a different mode to program the device.

#### E-II. Volume Control Depends on Device Selected

1. Press and hold the TV key and, while holding it pressed, press the OK key for 1 second.

2. Release both keys. All of the mode keys will flash, followed by the TV mode key light remaining on.

3. Press and hold the MUTE key for 3 seconds until the

TV mode key light briefly turns off, then stays on, then release the MUTE key.

4. Press and release the MUTE key to save the setting. The TV mode key light turns off, indicating successful setup. The volume commands will now work for different devices.

**Note:** If a programmed mode key has no volume commands of its own, then the volume control will normally operate the TV. If an invalid key is pressed, the selected mode key light flashes for 3 seconds and turns off. The remote control returns to normal operation and you will need to start over.

If no key is pressed within 30 seconds, the remote control times out, the selected mode key light flashes for 3 seconds and turns off. The remote control returns to normal operation at which time you can start over.

### F. Channel Control Setup Options

The channel controls (Channel Up/Down, 0-9 and LAST) will always work your Set-top Box. If you'd like the channel commands to be sent to different devices, depending on which mode you are in, then follow the instructions in Section F-I.

#### F-I. Channel Control Depends on Device Selected

1. Press and hold the TV key and, while holding it pressed, press the OK key for 1 second.

2. Release both keys and all of the mode keys flash, followed by the TV mode key light remaining on.

3. Press and hold the LAST key for 3 seconds until the TV mode key light briefly turns off, then stays on, then release the LAST key.

4. Press and release the LAST key to save the setting. The TV mode key light turns off, indicating successful setup. The channel commands will now work for different devices.

#### F-II. Channel Always Controls Your Set-top Box (Factory Default)

1. Press and hold the TV key and, while holding it pressed, press the OK key for 1 second.

2. Release both keys and all of the mode keys will flash, followed by the TV mode key light remaining on.

3. Press and hold the LAST key for 3 seconds until the TV mode key light briefly turns off then remains on.

4. Press and release the STB mode key. The selected mode key light remains on.

5. Press and release the LAST key to save the setting.

The STB mode key light will turn off, indicating a successful initial setup. The channel commands will be set up for your Set-top Box, regardless of what mode is selected. If the selected mode key light flashes for 3 seconds and turns off, then you will need to start over from step 1.

### G. Mode Deactivation

If you'd like to deactivate a device mode, then follow the instructions below:

1. Press and hold the mode key to be deactivated (TV, DVD or AUX) and, while holding it pressed, press the OK key for 1 second.

2. Release both keys, all of the mode keys will flash and then the selected mode key light will remain on.

3. Enter the 4-digit code 1754 by pressing the numerical keys (0-9). The selected mode key light will blink for each digit entry and will remain off after the entry of the fourth digit, indicating the mode is deactivated. Note the STB mode cannot be deactivated.

### H. Multiple Device Power Control Setup Options

After pressing the STB key, pressing the Power key turns the Set-top Box on or off, AND turns on or off the TV if it has been set up. If you want the Power key to turn on other devices at the same time, you can enable these as follows:

1. Press and hold the STB key and, while holding it pressed, press the OK key for 1 second. Then release both keys. You are now in setup mode.

2. Press and release the mode key (TV, DVD or AUX) you want to enable.

3. Press and release the 1 key. The selected mode is now enabled. If no mode key is pressed in step 2, ALL modes (TV, DVD and AUX) will be enabled.

To remove a mode from the Power key:

1. Press and hold the STB key and, while holding it pressed, press the OK key for 1 second. Then release both keys. You are now in setup mode.

2. Press and release the mode key (TV, DVD or AUX) you want to disable.

3. Press and release the 0 key. The selected mode is now disabled. If no mode key is pressed in step 2, ALL modes (TV, DVD and AUX) will be disabled.

**Note:** You can turn individual devices on/off by pressing the desired mode key, followed by the Power key. It is important to point your RF2IR Remote directly toward the devices for this feature to operate correctly.

### I. Backlight Cancellation Feature

Your RF2IR Remote Control has the ability to toggle between turning the backlights on or off. If you wish to use this feature, follow these instructions:

1. Press and hold the TV key and, while holding it pressed, press the OK key for 1 second and release both keys at the same time.

2. All of the mode keys flash and the TV mode key light stays on.

3. Press the GUIDE key and all backlights will no longer turn on. To reverse this process so that the backlights turn on when the remote control is being used, simply follow the same steps of the above section one more time.

### J. Resetting the Remote Control to the Factory Default Settings

1. Press and hold the TV key and, while holding it pressed, press the OK key for 1 second and release both keys at the same time.

2. All the mode keys will flash. The TV mode key light will stay on.

3. Press and hold the DELETE key for 3 seconds until the TV mode key blinks and stays off. The remote control is now reset to factory default settings. If you want to use the remote control for your TV and other devices, you will need to set up the TV, DVD and AUX mode keys.

4. If no key is pressed within 30 seconds, the remote control times out. The selected mode key light flashes for 3 seconds and turns off. The remote control returns to normal operation and you will need to start over.

### K. Repairing

**Note:** After resetting the remote to the Factory Default Settings, you will need to repair it with the RF2IR converter as follows.

1. Remove the RF2IR converter from the Set-top Box (STB).

2. Press and hold the FIND button.

3. Insert the RF2IR back into the STB while holding the FIND button.

4. Release the FIND button. The old pairing code will be deleted.

5. Bring the remote within a few feet of the STB.

6. Press any key on the remote to pair it with the RF2IR.

Once paired, pressing the FIND key on the RF2IR will cause the sound in the remote to be played and the keys on the remote will now operate the STB.

### L. Changing Between RF and IR

You can toggle the STB key between RF and IR transmission (all other modes transmit IR always). The default for the STB key is RF. To change this to IR:

1. Press and hold the STB key.

2. While pressing the STB key, press the OK key.

3. Release both keys. The STB key lights up and stays on.

4. Press the PLAY key once. The STB key blinks off once for IR and then stays off.

To change back to RF transmission, repeat steps above. In step 4, the STB key blinks twice for RF, then stays off.

### M. Troubleshooting Learning

You can only learn one device type under any one mode key. For example, only learn TV codes under the TV mode, DVD codes under the DVD mode, etc. If you are trying to learn from a "Universal" remote, it might have more than one code type stored under a mode.

- a. No functions may be stored under the LEARN key, or in the STB mode.

- b. Depending on the remote you are trying to learn, some keys may not be learnable.

- c. Only one original device type can be learned per individual mode.

- d. Use fresh batteries for your original remote and your RF2IR Remote Control.

- e. Stay at least 3 feet away from incandescent or low-energy lights when learning.

- f. Before learning, clear all learned commands (refer to Section D-II), then try learning two or three commands initially.

- g. Point your original remote at the bottom end of your RF2IR Remote Control so the IR elements on both remotes are directly in line with each other. (See diagram in C-I.) You may need to adjust the height of either remote to achieve this.

- h. Avoid learning your original remote's Volume/Mute keys unless you are sure these operate the same device.

- i. Avoid learning your original remote's VCR or DVD transport keys, unless you're sure these operate the same device.

- j. If learning the first or second keys for a mode results in continuous errors, then try the following:

- i. End the learn session by pressing the LEARN key.

- ii. Clear out the learned commands for that mode.

- iii. Check that the IR elements are correctly aligned between the two remotes.

- iv. Adjust the distance between the two remotes to be closer (e.g., half an inch) or farther away (e.g., 2 inches) from each other.

- v. Try learning the original remote for that mode again. If problems reoccur with the same key, check the original remote key being learned. Does it transmit? Does it operate the target device? Try learning that key under a different clear mode. If it learns OK, then it is likely to be a different code type from the others and cannot be learned under the same mode.

