



Advanced Series Remote Control and RF to IR converter (RF2IRKIT)

Battery Installation

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

A. Installing the RF2IR converter

If you install the RF2IR converter and "pair" it to the remote, you can use your remote anywhere up to 100 ft. from your STB without needing to point the remote at your 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).

Plug the RF2IR converter into the USB port on the front of your Set Top Box.



Before you can use the remote you need to "pair" it to the RF2IR converter, to do this:

1. Bring the remote close to the RF2IR converter. The remote will "pair" with the RF2IR when it is within about 2 feet from it.

Check that the remote is paired by waiting for the lights to go off on the remote and then press the FIND button on the RF2IR - the remote will play a "Hello Moto." Do this if you misplace your remote.



(You can pair up to 8 remotes 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 which 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 MXv3RF Remote Control, you need to tell the remote control what types of devices you have. Sections B and C 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 setup. The channel controls will always control your STB. If you want to change this, you should follow the steps in Sections F & G.

To use your MXv3RF Remote Control for your other devices, you will need to setup the TV, DVD and AUX mode keys to control the devices (Section B).

Please refer to the code list (on separate sheet) 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 C 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 setup separately by setting up both the TV and DVD mode keys.

NOTE: The DVD and AUX mode keys can be setup with any code. The TV mode key can only be setup with TV codes.

B. Manual Programming

Use the following steps to setup 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 OK key for one 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 the steps 2 thru 5 trying each code for your brand until you find the correct code.

Repeat the steps above to setup 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 B2 to setup the device.

C. Using the Search Function

To search for a particular device code for DVD or AUX e.g. VCR, use the Manual Programming for section B and C 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 setup.

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 one 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 repetitively until the selected device turns off. Once your device has turned off, press OK to save the code. (If you overshoot the code, press chan down to go back, then press OK).
5. To indicate a successful setup, the selected mode key will turn off and you are ready to setup another device by following steps 1 thru 4 of this section.

D. Learning

IMPORTANT: Learning cannot be performed until the mode has been setup with a valid 4-digit code (see section B). So, first setup the mode with any valid 4-digit code (from the code list), then follow the steps below.

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.

D-I. Learning Commands

1. Press and hold a mode key (TV, DVD, or AUX) on the MXv3RF remote 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 then the selected mode key light remains on.
3. On your MXv3RF remote, press and release the key that you want to teach.
4. While pointing your original remote at the bottom of your MXv3RF 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 three seconds and stays on. If this happens, repeat steps 3 and 4 above.)



MXv3RF remote

1 inch apart



Your original remote

5. Repeat steps 3 and 4 above for each key you want your MXv3RF 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 O: Troubleshooting Learning.

NOTE: It is not necessary to have your MXv3RF 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, channel up and down, and DVR functions.

E. Clearing Commands

E-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 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.

E-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 one second then release both keys.
2. All 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 in the remote are now cleared.

F. 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 F-I. If you'd like the volume commands to be sent to different devices depending which mode you are in, then follow the instructions in Section F-II.

F-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, 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, and 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 setup 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.

F-II. Volume Control Depends on Device Selected

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

G. 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 which mode you are in, then follow the instructions in Section G-I.

G-I. Channel Control Depends on Device Selected

1. Press and hold the TV key and while holding it pressed, press the OK key for one second.
2. Release both keys, 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.

G-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, 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 setup 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.

H. Mode Deactivation

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 one 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.

I. 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 setup. 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 instep 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 MXv3RF remote directly towards the devices for this feature to operate correctly.

J. Backlight Cancellation Feature

Your MXv3RF 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 one second and release both keys at the same time.

2. All the mode keys flash and the TV mode key light stays on.
3. Press the GUIDE key, 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.

K. 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 one 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 setup 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.

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 then stays off. To change back to RF transmission repeat steps above but press PLAY TWICE in step 4. The STB key blinks twice then stays off.

M. To set a specific "Pairing ID"

1. Press and hold the STB key.
2. While pressing the STB key, press the OK key.
3. Release both keys. The STB indicator stays on.
4. Press MENU key once.
5. Enter the 4 digits (0000 to 9999). The mode key light blinks for each digit and then remains off.
6. Pair the remote with the RF2IR as in section A.

N. To clear all paired remotes.

1. Before plugging in the RF2IR receiver, press and hold the FIND key.
2. Plug the RF2IR converter into the USB port on the your STB while holding the FIND key.
3. Release the FIND key. All paired remotes are cleared.

O. 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 MXv3RF Remote Control.
- e. Keep at least three feet away from incandescent or low-energy lights when learning.
- f. Before learning, clear all learned commands (refer to Section E-II) then try learning 2 or 3 commands initially.
- g. Point your original remote at the bottom end of your MXv3RF remote so the IR elements on both remotes are directly in line with each other (see diagram in section D). 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 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 further 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.

Note: Changes or Modifications not expressly approved by the Party responsible could void the user's authority to operate this device.



Code List

TV

Table listing various TV models and their corresponding code lists, including brands like Abex, Acme, Admiral, Advent, etc.

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

DIGITAL TV

Samsung 0085

TV/DVD COMBO

TV/DVD/VCR COMBO

TV/VCR COMBO

HDTV

LCD TV

TV/VCR TUNER COMBO

TV/DVD/VCR TUNER COMBO

DVD

CD

DVD/VCR COMBO

DVD-DVR

PLASMA TV

PROJECTION TV

RECEIVER/AMPLIFIER

RECEIVER/TUNER

HOME THEATER IN A BOX (HTIB)

RECEIVER (HTIB)

TUNER

TUNER/CD COMBO

RECEIVER/TUNER (HTIB)

TUNER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER/TUNER (HTIB)

TUNER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER

RECEIVER (HTIB)

AMPLIFIER



MOTOROLA