

Overview

The Mio Modero® R-4 remote (**FG148-04**) provides custom control features, including a full-color touchscreen, contained in an elegant handheld rechargeable device. The R-4 communicates with a NetLinx master via a wireless ZigBee® network: the device comes with installed firmware for connecting to a ZigBee Pro network, but it can be updated with firmware to allow it to connect to older ZigBee networks. Use TPDesign4 (TPD4) to program this device. The R-4 uses a mini-USB port for transferring programming files.



FIG. 1 Mio Modero R-4 Remote

Touch And Tilt Sensor

The Mio R-4 wakes up upon touching either the chrome side rails or pressing a button. If the remote goes to sleep when holding it, you can reawaken the device by tilting it. Errant jostling, such as bumping a table on which the device rests, will not wake the device unless you are holding it.

Specifications

Mio R-4 (FG148-04) Specifications	
Battery	Rechargeable Lithium-Ion
Transmission Frequencies	• ZigBee RF wireless network
Transmission Range	• 100 feet (30.48m).
Memory	• 32 Mbytes of FLASH • 64 Mbytes of SDRAM
Top Components	• LED - blue backlit buttons indicate device is awake • LCD - high resolution (240x320) 76800 pixels with backlight and touch overlay • Pushbuttons - the power button is red backlit; the rest are blue backlit buttons. 29 buttons total

Mio R-4 (FG148-04) Specifications (Cont.)	
Rear Components	• Programming Port • Battery Door • Rechargeable Battery Connection
Dimensions (HWD)	9.50 x 2.00 x .74 (241.3 mm x 50.8 mm x 18.80 mm)
Supported Languages:	<ul style="list-style-type: none"> • English • Spanish • French • Italian • German • Portuguese • Arabic • Russian • Greek • Simplified Chinese • Japanese • Thai • Hindi • Korean
Certifications:	• FCC ID: CWU-NXR-MO • IC: 5078A-NXRMO • CE • IEC-60950 • Japan Approval • Designed for ZigBee
Weight	• .45 lbs (20 g) without batteries • .55 lbs (25 g) with batteries
Operating Environment	• Operating Temperature: 0° to 40° C (32° to 104° F) • Storage Temperature: -20° to 70° C (-4° to 158° F)
Included Items	• Mio-RBP Rechargeable Lithium-ion Battery (FG147-10)
Optional Keypads:	• MIO-R4-KP-ITALIAN (FG148-141) • MIO-R4-KP-FRENCH (FG148-142) • MIO-R4-KP-ARABIC (FG148-143) • MIO-R4-KP-CHINESE (FG148-144)
Other AMX Equipment	• CC-USB Programming cable (FG10-5965) • Mio-RCC Charging Base (FG147-02) with power supply • NXR-ZGW (FG5791-01) • NXR-ZRP-PRO (FG5791-03)

Inserting the Lithium-Ion Battery Into The Mio R-4

To install your Lithium-Ion battery into the Mio R-4:

1. Flip and turn the Mio R-4 so that the buttons are facing away from you and the device is upside down.
2. Holding the device in both hands, place your thumbs on the battery door and slide the battery door free.
3. Connect the terminal end of the Lithium-Ion battery to the port shown in FIG. 2. It may be necessary to use a thin, blunt non-conductive object to seat the battery connector fully within its port. (**Note:** Make sure that the battery wires run alongside the battery in the compartment as shown in FIG. 2. Otherwise, the wires may be damaged or the battery door may not close properly.)
4. Replace the battery door, and slide it to lock it in place.

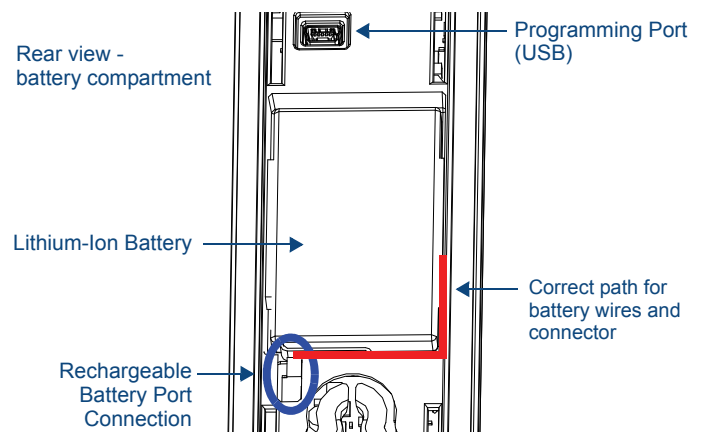


FIG. 2 Rechargeable Battery and Programming Ports on The Mio R-4 Remote

Installing a Supported Language Keypad

1. Remove the battery door (See *Inserting the Lithium-Ion Battery Into the Mio R-4*) and remove the battery.
2. Unscrew the 6 screw points.
3. Turn the unit over so the buttons are facing you.
4. Lift the top assembly away from the PCB.
5. If necessary, push out the standard buttons from the front of the top assembly.

- Drop in your language pad and verify the alignment with the guide posts on the PCB.
- Place the top assembly back down on the PCB and return the unit over, exposing the 6 screw points.
- Tighten the 6 screw points.
- Reinstall the battery, replace the battery door, and slide the door to lock it in place.

Using the Programming Jack on the Mio R-4

The programming jack located on the back of the Mio R-4 (FIG. 2) is used for communication between the device and TPDesign4. The programming jack uses a CC-USB Programming cable, USB to mini USB (FG10-5965). You can order the programming cable from AMX if you do not have one. While loading your configuration file, make sure the device is situated in the charging cradle.

- Remove the battery door (See *Inserting the Lithium-Ion Battery Into the Mio R-4*).
- Connect the mini USB programming cable (FG10-5965) into the programming jack.
- Connect the other end of the USB cable to the USB port on your computer.
- Configure the communication parameters in TPDesign4. For more information, please refer to the *Mio Modero R-4 Operation/Reference Guide*, available at www.amx.com.

Device Setup Pages - Setup Menu

The Setup Menu allows you to set and check the following device features:

- Project Information Functions
- Remote & Display Settings
- Date/Time Settings
- Sound Settings
- Protected Settings
- Battery Settings

To enter the Setup Menu, press and hold the *Input* and *Back* buttons for 6 seconds. Navigate the setup pages using the onscreen menu selections and up and down arrows. For more information on the Setup Menu, please refer to the *Mio Modero R-4 Operation/Reference Guide*, available at www.amx.com.

Protected Settings

The Protected Settings Menu allows you to set and check the following device features:

- Options & Recovery
- Change Passwords
- Calibrate
- System Settings
- Reboot Panel

The Protected Settings Menu may be accessed through the Setup Menu. Accessing *Protected Settings* menu items requires a password confirmation. For more information on the Protected Settings Menu, please refer to the *Mio Modero R-4 User Manual*, available at www.amx.com.

Note: To access the Protected Settings Menu for the first time, you must provide the default password: **1988**.

Changing Passwords

- Select **Protected Settings** in the Setup Menu.
- Select **Change Passwords** on the Protected Settings Menu.
- Select one of the five passwords to be changed.
- Enter, edit, and confirm changes to the password.
- Select the **Back** button until you are out of the Setup Menu.

Calibrating the Mio R-4

- Select *Protected Settings* in the Setup Menu.
- Select the *Calibrate* button.
- Touch each target as it appears on the screen.
- If successfully calibrated, the Mio R-4 will return you to the Protected Settings Menu.

Rebooting the Mio R-4

- Select *Protected Settings* in the Setup Menu.
- Select the *Reboot Panel* button.
- Select *Reboot*.

System Settings

The *System Settings* page of the *Protected Settings* provides connection status, gateway selection, and RF link information. Use the device's up and down arrows to move from viewable page to page.

Checking Connection Status

- Select *Protected Settings* in the Setup Menu.
- Select *System Settings* in the Protected Settings Menu. If the round button at the top right of the first page is green, the system is connected.
- Select the **Back** button until you are out of the Setup Menu.

Joining a Wireless Network

- In the NXR-ZGW Browser-Based Configuration Pages, configure the network's gateway to allow joining. (For more information, please refer to the *NXR-ZGW-ZRP-PRO Operator/Reference Manual*, available from www.amx.com.)
- Select *Protected Settings* in the Setup Menu.
- Select *System Settings* in the Protected Settings Menu.
- Press the **Network Scan** button. The available networks are listed below. Use the up and down arrows to navigate the menu.
- Select the network by pushing it on the touch screen. A pop-up page reading "Do you wish to connect to [Extended PAN ID number]" will appear.
 - To connect to the PAN, press the **Yes** button.
 - To return to the *Network Scan* page without connecting to the PAN, press the **No** button.
 - If you do not make a selection within three seconds, the pop-up page will automatically close in three seconds.
- Select the **Back** button until you are out of the Setup Menu.

Note: Due to the wireless nature of the ZigBee network, temporary interference may prevent a command from reaching the NetLinx master. If this happens while increasing volume, the master may receive the command to increase the volume but not the command to stop increasing it. Therefore, programmers should consider setting safeguards for volume control, either established volume limits or timeouts with the NetLinx master or more interactive adjustment from the Mio R-4 (i.e., direct volume control), to prevent issues with lost commands.

Battery Low Indicator

When the battery charge level is too low to sustain continuous operation, a popup window will appear on the touchscreen reading "Battery Low" and then "Battery Very Low". If the device is still not returned to the charging cradle, it will then shut down.

Battery Settings

- Select *Battery Settings* in the Setup Menu.
- The battery level will be displayed on the *Battery Settings* Page. The higher the number of green lights, the higher the charge.
- Select the **Back** button until you are out of the Setup Menu.

Mio Remote Charging Base

The Mio remotes are complemented with the Mio-RCC charging base. To charge the remote from the charging base:

- Connect the terminal end of the power supply to the bottom external power port on the Mio remote charging base.
- Route the cable through the provided channel so that it comes out the side of the base.
- Connect the power cord to an external power source.
- Place the bottom of the Mio R-4 into the charging base so the contacts on the device are on top of the charging contacts inside the charging base. The Power LED on the Mio R-4 blinks red to indicate it is charging and illuminates solid red when it is done. A full charge cycle for a depleted battery is approximately 3 hours.

Patents

This product is covered by the following patents:

AMX

U.S. Patent No. D 602,858

U.S. Patent No. D 520,495

U.S. Patent No. 7,786,623

This product employs or practices certain features and/or methods of one or more of the following patents:

SIPCO, LLC

U.S. Patent No. 7,103,511

U.S. Patent No. 6,914,893

U.S. Patent No. 7,697,492

