

## Mio Attaché Remote Keypad Device

### Overview

The Mio Attaché (**FG5799-01**) is a remote keypad device that uses both 38 and 455 KHz AMX IR frequencies. The Attaché also has an LCD fixed menu system that doubles as a button.



FIG. 1 The Mio Attaché

### Specifications

Mio Attaché (FG5799-01) Specifications																			
Battery	Lithium-ion, with approximately a 3-hour charge time.																		
Transmission Frequencies	AMX 38 KHz/455 KHz IR																		
Transmission Range (distance) with Mio IR Receiver	<ul style="list-style-type: none"> <li>• 100 feet at 38KHz (direct line of sight)</li> <li>• 40 feet at 455KHz (direct line of sight)</li> </ul>																		
Transmission Range (angle)	<ul style="list-style-type: none"> <li>• 270° horizontally and vertically from an axis extending from the end of the remote.</li> </ul>																		
Top Components	<ul style="list-style-type: none"> <li>• LCD - SPI controlled 96 x 96 pixel resolution, monochrome FSTN display with an Electroluminescent backlight; an active button.</li> <li>• Pushbuttons - a maximum of 20 backlit custom buttons.</li> <li>• LEDs - blue backlit buttons with red indicating a button press</li> </ul>																		
Front Component	<ul style="list-style-type: none"> <li>• Charging LED - Red; ON indicates active charging. Blue; ON indicates charged. OFF indicates charge complete.</li> </ul>																		
Rear Component	<ul style="list-style-type: none"> <li>• Programming Port - 2.5 mm stereo female conductor jack</li> <li>• External Power Port - 2.1mm barrel-style, DC power jack</li> </ul>																		
Operating Environment:	<ul style="list-style-type: none"> <li>• Operating Temperature: 0° to 50° C (32° to 122° F)</li> <li>• Storage Temperature: -10° to 70° C (14° to 158° F)</li> </ul>																		
Dimensions (HWD)	2.47 (62.74 mm) x 9.63 (244.60 mm) x 5.38 (136.65 mm)																		
Supported Languages:	<table border="0"> <tr> <td>• Arabic</td> <td>• Hebrew</td> <td>• Mandarin</td> </tr> <tr> <td>• English</td> <td>• Hindi</td> <td>• Chinese</td> </tr> <tr> <td>• French</td> <td>• Italian</td> <td>• Portuguese</td> </tr> <tr> <td>• German</td> <td>• Japanese</td> <td>• Russian</td> </tr> <tr> <td>• Greek</td> <td>• Korean</td> <td>• Spanish</td> </tr> <tr> <td></td> <td></td> <td>• Thai</td> </tr> </table>	• Arabic	• Hebrew	• Mandarin	• English	• Hindi	• Chinese	• French	• Italian	• Portuguese	• German	• Japanese	• Russian	• Greek	• Korean	• Spanish			• Thai
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• German	• Japanese	• Russian																	
• Greek	• Korean	• Spanish																	
		• Thai																	
Weight	1.90 lbs (0.86 kg)																		
Included Accessories	<ul style="list-style-type: none"> <li>• PS4.4 Power Supply (13.5 VDC) (<b>FG423-44</b>)</li> <li>• Lithium-ion Battery Pack (<b>FG5799-20</b>)</li> </ul>																		
Other AMX Equipment	<ul style="list-style-type: none"> <li>• Custom buttons: <b>FG5796-21BL</b> (4 single buttons); <b>FG5796-22BL</b> (2 double buttons)</li> <li>• Blank buttons: <b>FG5795-07BL</b></li> <li>• Lithium-ion Battery Pack (<b>FG5799-20</b>)</li> <li>• Programming Cable - a 3 wire, 2.5 mm stereo jack (<b>FG10-817</b>)</li> <li>• Docking Station (<b>FG5799-10</b>)</li> </ul>																		

### The Mio Attaché Wake Up State

The Mio Attaché offers a programmable sleep mode to conserve battery life when the unit is not in use. The Mio Attaché wakes upon the user's touch of the metal trim ring or when a button is pressed, and remains in an active state for a

set period of time. After a predefined amount of time of inactivity, the unit returns to the sleep mode and all button lights are turned off to conserve battery life.

**Note:** While charging directly through the PS4.4 power supply, the Mio Attaché will not enter sleep mode.

### Installing The Battery

The Mio Attaché is equipped with a lithium-ion rechargeable battery. The battery is charged from a PS4.4 power supply through either a DC power jack located under the kickstand or through the optional Docking Station.

1. Extend the kickstand on the Mio Attaché to the upright position, exposing two screws on the battery door (FIG. 2).

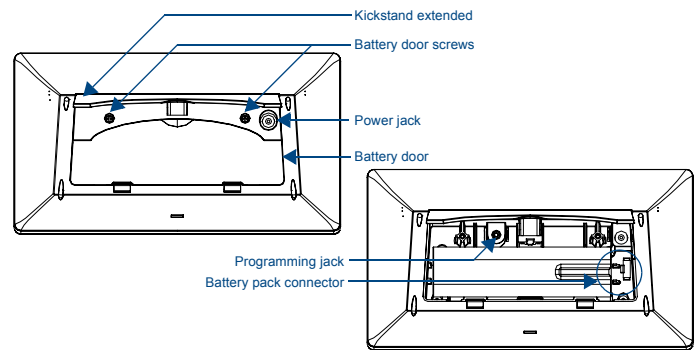


FIG. 2 Mio Attaché Bottom Components

2. Remove the two screws holding the battery door in place.
3. Plug in the connector attached to the battery pack. The mating connector is located at one end of the battery compartment and is "keyed" to prevent it from being plugged in the wrong way.

### Charging The Attaché with the Provided Power Supply

The Mio Attaché can receive power for charging from an AMX PS4.4 power supply through a barrel-plug connector. When the battery is charging from complete depletion, the battery does a trickle charge where it starts gradually and ramps up to full charge.

1. Extend the kickstand on the Mio Attaché to the upright position, exposing an external power port, 2.1 mm barrel-style power jack (FIG. 2).
2. Connect the terminal end of the PS4.4 power supply to the external power port on the Mio Attaché.
3. Connect the PS4.4 AC power cord to an external power source. The charging LED on the Attaché illuminates red to indicate it is charging and turns blue when it is done. The LED is off after completion of charge cycle. Full charge cycle for a depleted battery is approximately 3 hours.

### Changing Buttons

The Mio Attaché is shipped with "installation" buttons; they are intended to be place holders until your engraved buttons, designed with KeypadBuilder, arrive.

#### To switch out "installation" buttons:

1. Pry the button using the slot on the front of the "installation" buttons to remove them from the Mio Attaché.
2. Select the location of the custom buttons and snap them into place. Be sure to note the orientation of the white insert on the back of the button, the notch must be down. Insert the bottom of the button first and then push the top into place.

#### To change custom buttons:

1. Using a thin, nonconductive probe, pry between the buttons to pop one free.
2. Snap the desired custom buttons into place. Be sure to note the orientation of the white insert on the back of the button, because the notch must be down. Insert the bottom of the button first and then push the top into place.

Be certain to reprogram the Mio Attaché to match the new button arrangement; use KeypadBuilder to assign the locations. Please refer to the *KeypadBuilder Instruction Manual*, available at [www.amx.com](http://www.amx.com).

### KeypadBuilder

Most functionality of the Mio Attaché is handled using the application, *KeypadBuilder*. Go to [www.amx.com](http://www.amx.com) for the *KeypadBuilder Instruction Manual*.

## Using Connector Ports on The Attaché

The programming jack is used for communication between the device and KeypadBuilder. The programming jack uses a three-wire, 2.5 mm stereo jack; you can order the programming cable (**FG10-817**) from AMX if you do not currently possess one. The baud rate is 115200.

To download KeypadBuilder Configuration Files:

1. Extend the kickstand on the Mio Attaché to the upright position, exposing two screws on the battery door. Remove the two screws holding the battery door in place, exposing the programming port within the battery compartment, 2.5 mm stereo female conductor jack.
2. Connect the 2.5 mm stereo plug (male) end of the programming cable (**FG10-817**) into the programming port shown in FIG. 3.
3. If necessary, connect the DB-9 end of the programming cable to the female DB-9 connector on the DB-9 extension cable (**FG10-727**).
4. Connect the female DB-9 terminal end of the extension cable to the port on the back of your computer.
5. Configure the communication parameters in KeypadBuilder.

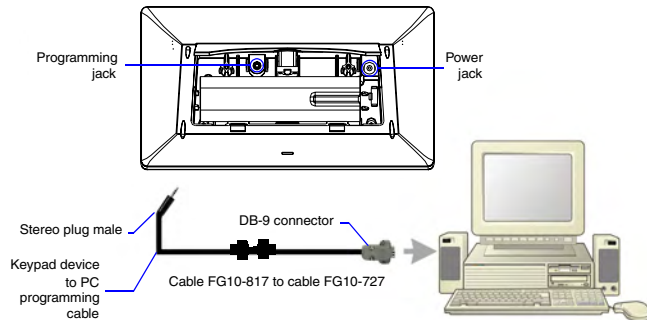


FIG. 3 Connecting The Keypad Device to Your PC

### Setting The IR Frequency

The Mio Attaché is set to the IR frequency 38KHz by default. Use the IRMODE Serial Command to change the frequency to 455KHz. To set the frequency to 455KHz:

1. Establish a HyperTerminal session with your device.
2. Send "IRMODE 455" to the device.
3. Close the HyperTerminal session.

The command, "IRMODE 38" switches the device back to 38KHz.

### Persistent Serial Commands

The Attaché recognizes a select number of persistent commands. Establish a HyperTerminal session with your device to use the following commands:

Serial Commands	
BATT	<p>Display Battery Level</p> <p><b>Syntax:</b></p> <pre>" 'BATT, #' "</pre> <p><b>Variables:</b></p> <p># = 0 through 4; 0 turns the display off, 1 - 4 indicates the line of display on the LCD.</p> <p><b>Example:</b></p> <pre>" 'BATT, 2' "</pre> <p>Displays the battery level on line 2 of the LCD.</p>

Serial Commands (Cont.)	
@BRT	<p>Set Brightness level</p> <p><b>Syntax:</b></p> <pre>" 'BRT-&lt;tag&gt;,&lt;awake brightness level&gt;,&lt;sleep brightness level&gt;' "</pre> <p><b>Variables:</b></p> <p>brightness level # = a value from 0 - 32.</p> <p>tag = Red or Blue; affected LCDs</p> <pre>"@BRT-#" (Set LED Awake brightness level)</pre> <pre>"@BRT-#,#" (Set LED Awake brightness level, sleep brightness level)</pre> <pre>"@BRT-tag#" (Set Red or Blue LED, brightness level)</pre> <pre>"@BRT-tag,#,#" (Set Red or Blue LED, awake brightness level, and sleep brightness)</pre> <p><b>Example:</b></p> <pre>(1) "'@BRT-16' "</pre> <p>Sets the awake brightness level to 50%.</p> <pre>(2) "'@BRT-32,5' "</pre> <p>Sets the awake brightness level to 100% and sleep brightness level to approximately 15%</p> <pre>(3) "'@BRT-RED,32' "</pre> <p>Sets the red LED awake brightness level to 100%.</p> <pre>(4) "'@BRT-BLUE,32,5' "</pre> <p>Sets the Blue LED awake brightness level to 100% and sleep brightness level to approximately 15%</p>
^CFG Not Persistent	<p>Combine/Uncombine adjacent buttons</p> <p><b>Syntax:</b></p> <pre>" '^CFG- &lt;command value&gt;' "</pre> <p><b>Variables:</b></p> <p>command value = (1= configuration ON, 0= configuration OFF).</p> <p><b>Example:</b></p> <pre>" '^CFG-1' "</pre> <p>Set the Key Pad to button combine mode</p>
@CST-	<p>Sets the display contrast for the device.</p> <p><b>Syntax:</b></p> <pre>" '@CST-&lt;Contrast Level&gt;' "</pre> <p><b>Variables:</b></p> <p>Contrast Level = a value from 0 - 31.</p> <p><b>Example:</b></p> <pre>" '@CST-15' "</pre> <p>Sets the display contrast to approximately 50%.</p>
IRMODE #	<p>Sets the IR transmission frequency to either 455KHz or 38KHz.</p> <p><b>Syntax:</b></p> <pre>" IRMODE # "</pre> <p><b>Variables:</b></p> <p># = 455 or 38</p> <p><b>Example:</b></p> <pre>" IRMODE 455 "</pre> <p>Sets the IR transmission frequency to 455KHz.</p>
SLEEP-#	<p>Force the device into screen saver mode.</p> <p><b>Syntax:</b></p> <pre>" 'SLEEP-#' " (timed sleep; a persistent command)</pre> <p><b>Variables:</b></p> <p># = 0 - 60 in seconds; time to wait before going to sleep. Default is 30. 0 sets the device to never sleep.</p> <p><b>Example:</b></p> <pre>" 'SLEEP-45' "</pre> <p>Forces the device into screen saver mode after 45 seconds.</p>

### Sending Firmware to The Mio Attaché

NetLinx Studio is required to update firmware located on the Mio Attaché. To send firmware to the device:

1. Open NetLinx Studio.
2. Go to **Tools > Firmware Transfers > Send to Access Device...** This opens the *Send to Access Dialog Window*.
3. Browse to the location of the firmware file.
4. Select the file within the *Files* frame.
5. Click **Query for Devices**.
6. Select the Mio Attaché within the *Devices* frame.
7. Click **Send** and then **Close**.
8. Upon confirmation of a successful send, exit NetLinx Studio.

