



Operation/Reference Guide

Mio Attaché

Remote Keypad Device



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Table of Contents

Overview	1
Mio Attaché	1
Specifications	2
The Mio Attaché Wake Up State	3
Mio Attaché Docking Station	3
Specifications	3
Installation	5
Installing The Battery	5
Charging The Attaché with the Provided Power Supply	5
Charging The Attaché with the Docking Station	6
Low Battery Indicator	6
Changing Buttons	7
To switch out "installation" buttons:	7
To change custom buttons:	7
Programming The Attaché	9
KeypadBuilder	9
Using Connector Ports on The Attaché	9
Setting The IR Frequency	10
Persistent Serial Commands	10
Sending Firmware to The Mio Attaché	12

Overview

Mio Attaché

The Mio Attaché (FG5799-01) is a remote keypad device that enables control without the tether of wires; it 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

The specifications for the Mio Attaché are as follows:

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

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 ring that trims the unit and illuminates the buttons. The buttons also light when a button is pressed and remain in an active state for a set period of time. After a programmatically defined amount of time of inactivity the unit returns to the sleep mode and all button lights are turned off to conserve battery life.



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

Mio Attaché Docking Station

The Mio Attaché is complemented with an optional docking station (**FG5799-10**). The station allows you to charge and use your devices without the apparent wiring plugged into the bottom of the Attaché.

Specifications

The specifications for the Mio Attaché docking station are as follows:

Mio Attaché Docking Station Specifications	
Dimensions (HWD)	.94 (23.88 mm) x 9.63 (244.60 mm) x 5.53 (140.46 mm)
Weight	0.70 lbs (0.32 kg)
Other AMX Products	<ul style="list-style-type: none"> • PS4.4 Power Supply (13.5 VDC) (FG423-44) • Mio Attaché (FG5799-01)

Installation

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. Shown in FIG. 2.

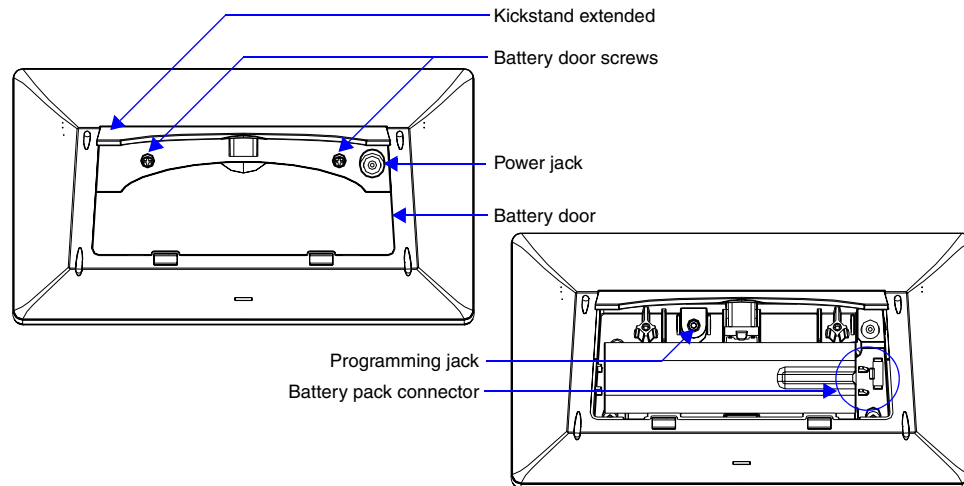


FIG. 2 Mio Attaché Bottom Components

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, it 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. Shown in 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.

Charging The Attaché with the Docking Station

The Mio Attaché can also receive power for charging from an optional Docking Station. When the battery is charging from complete depletion, the battery does a trickle charge where it starts gradually and ramps up to full charge.

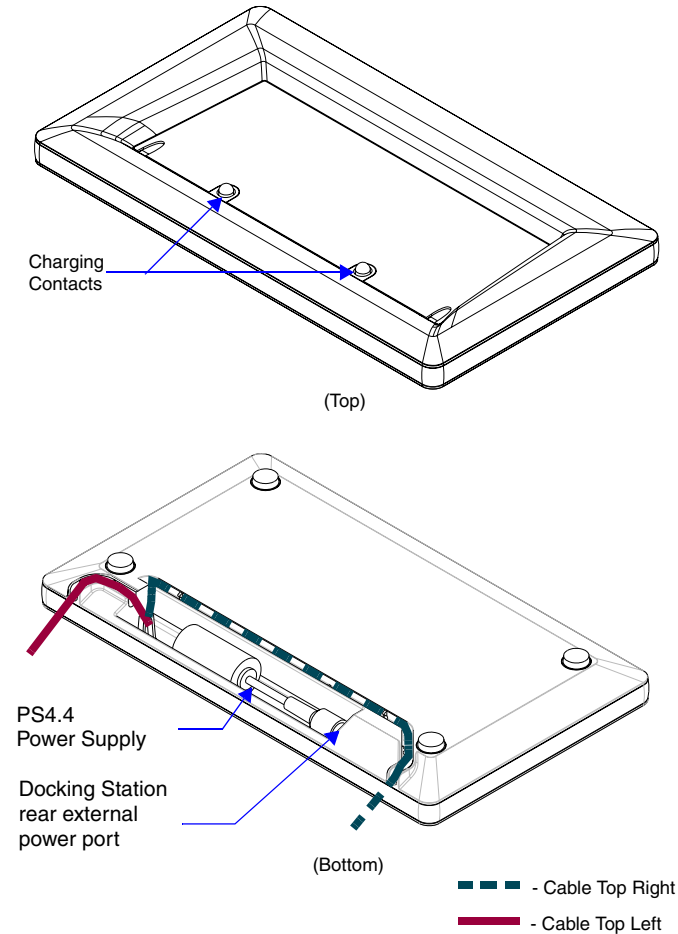


FIG. 3 Mio Attaché Docking Station (Top and Bottom view)

1. Connect the terminal end of the PS4.4 power supply to the rear external power port on the Mio Attaché Docking Station. The port on the docking station is located under the station on the back. See FIG. 3 for location.
2. Route the cable through one of the provided channels so that it comes out either the top right or top left of the Docking Station.
3. Connect the PS4.4 AC power cord to an external power source.
4. Place the Mio Attaché into the docking station so the contacts at the front of the device are on top of the charging contacts at the front of the docking station (shown in FIG. 3). The kickstand can be in either position when charging on the base. 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.

Low Battery Indicator

The Mio Attaché is equipped with a fail-safe known as Low Battery Indicator. When the battery charge level is too low to sustain continuous operation, the LCD flashes, "Battery Low" and the device shuts down.

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. A plastic guitar pick works exceptionally well for this purpose.
2. Snap the desired custom buttons 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.

Be certain to reprogram the Mio Attaché to match the new button arrangement; use KeypadBuilder to assign the locations. In cases where the default button numbering is needed, the default may be accessed by creating a file for the keypad in KeypadBuilder. The default button numbering is:

Default button numbering				
1 1	9	13	17	21
LCD	10	14	18	22
3 7	11	15	19	23
4 8	12	16	20	24

For more information, please see the *KeypadBuilder Instruction Manual*, available at www.amx.com.

Programming The Attaché

KeypadBuilder

Most functionality of the Mio Attaché is handled using the application, *KeypadBuilder*. Go to 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. 4.
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.

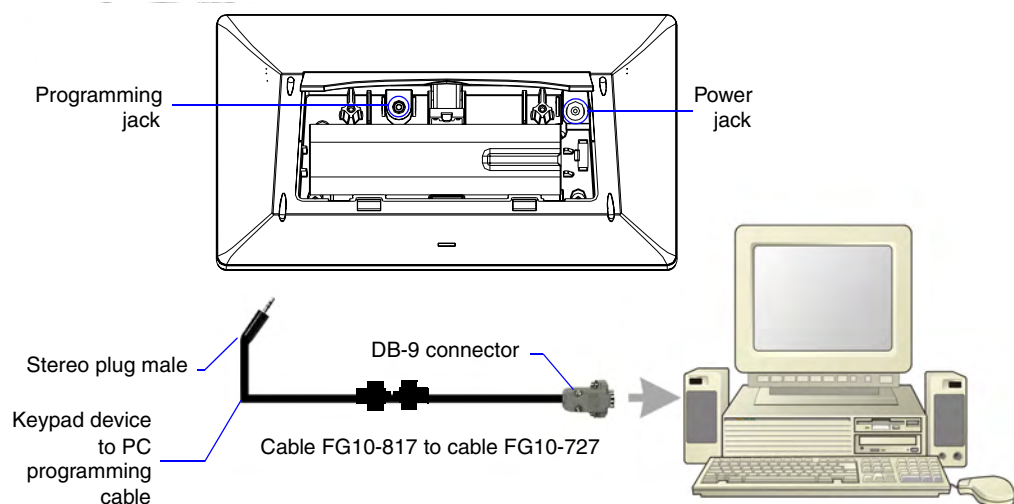


FIG. 4 Connecting The Keypad Device to Your PC

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

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

Serial Commands	
BATT	<p>Display Battery Level</p> <p>Syntax:</p> <pre>" 'BATT, #' "</pre> <p>Variables:</p> <p># = 0 through 4; 0 turns the display off, 1 - 4 indicates the line of display on the LCD.</p> <p>Example:</p> <pre>" 'BATT, 2' "</pre> <p>Displays the battery level on line 2 of the LCD.</p>
@BRT	<p>Set Brightness level</p> <p>Syntax:</p> <pre>" 'BRIT-<tag>, <awake brightness level>, <sleep brightness level>' "</pre> <p>Variables:</p> <p>brightness level # = a value from 0 - 32.</p> <p>tag = Red or Blue; affected LCDs</p> <p>""@BRT-#" (Set LED Awake brightness level)</p> <p>""@BRT-#,#" (Set LED Awake brightness level, sleep brightness level)</p> <p>""@BRT-tag,#" (Set Red or Blue LED, brightness level)</p> <p>""@BRT-tag,##" (Set Red or Blue LED, awake brightness level, and sleep brightness)</p> <p>Example:</p> <p>(1) " '@BRT-16' "</p> <p>Sets the awake brightness level to 50%.</p> <p>(2) " '@BRT-32, 5' "</p> <p>Sets the awake brightness level to 100% and sleep brightness level to approximately 15%</p> <p>(3) " '@BRT-RED, 32' "</p> <p>Sets the red LED awake brightness level to 100%.</p> <p>(4) " '@BRT-BLUE, 32, 5' "</p> <p>Sets the Blue LED awake brightness level to 100% and sleep brightness level to Approximately 15%</p>

Serial Commands (Cont.)	
^CFG Not Persistent	Combine/Uncombine adjacent buttons Syntax: "'^CFG- <command value>'" Variables: command value = (1= configuration ON, 0= configuration OFF). Example: "'^CFG-1'" Set the Key Pad to button combine mode
@CST-	Sets the display contrast for the device. Syntax: "'@CST-<Contrast Level>'" Variables: Contrast Level = a value from 0 - 31. Example: "'@CST-15'" Sets the display contrast to approximately 50%.
IRMODE #	Sets the IR transmission frequency to either 455KHz or 38KHz. Syntax: "IRMODE #" Variables: # = 455 or 38 Example: "IRMODE 455" Sets the IR transmission frequency to 455KHz.
SLEEP-#	Force the device into screen saver mode. Syntax: "'SLEEP-#'" (timed sleep; a persistent command) Variables: # = 0 - 60 in seconds; time to wait before going to sleep. Default is 30. 0 sets the device to never sleep. Example: "'SLEEP-45'" Forces the device into screen saver mode after 45 seconds.

Sending Firmware to The Mio Attaché

You need NetLinX studio 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*.

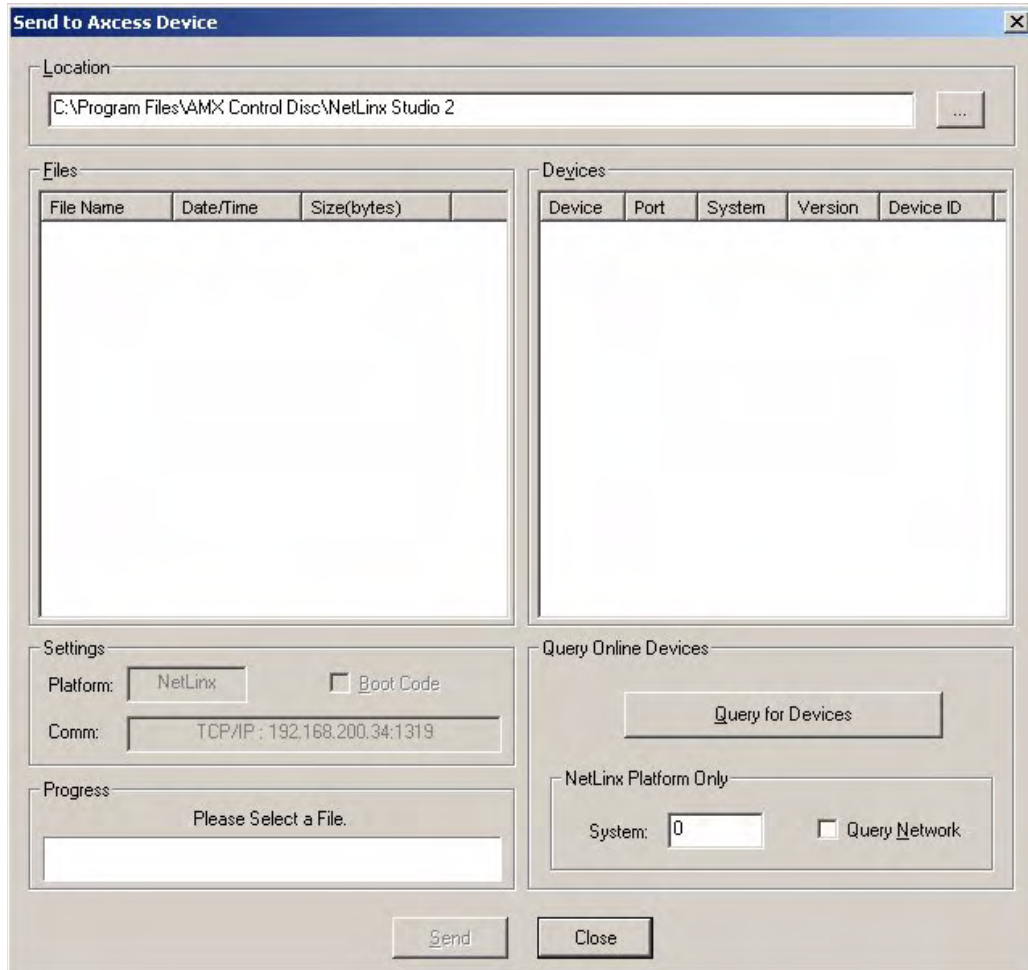


FIG. 5 Send to Access Dialog Window

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, you can exit NetLinX Studio.



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