

# **Overview**

The Mio Modero IR (**FG5797-01xx**; xx indicates color selection) is a remote IR receiver for use with NetLinx Central Controllers and operates via the AXlink bus to remotely control devices. The Mio Modero IR is in a wall panel that fits into the US-style single-gang enclosure and most International single-gang enclosures. The Mio Modero IR works with AMX 38 kHz and 455 kHz IR transmitters.



### FIG. 1 MIO MODERO IR RECEIVER

MIO MODERO IR SPECIFICATIONS				
Power:	12 vDC, 15 mA			
Receive Frequencies:	38 and 455 kHz			
Range	<ul> <li>38KHz:</li> <li>transmitter at 38Hz and at 50° horizontal angle from center</li> <li>transmitter at 38Hz and at 30° vertical angle from center</li> <li>455KHz:</li> <li>transmitter at 455Hz and at 45° horizontal angle from center</li> <li>transmitter at 455Hz and at 45° vertical angle from center</li> </ul>			
Mounting:	Mounts into US-style single-gang enclosures and most International single-gang enclosures.			
Dimensions (HWD):	4.46" x 2.71" x .57" (113.28 mm x 68.83 mm x 14.48 mm)			
Weight:	.15 lbs (.07 kg)			
Included Accessories:	Phoenix Connector (41-5045)			

# **Available Color Schemes**

The Mio Modero device family is available in a range of colors. The IR supports these color schemes, Black (BL), White (WH), and Beige (BG).

# Wiring and Installation

**Note:** Before touching the device, discharge the static electricity from your body by touching a grounded metal object.

Set the receive AXlink device number before installing the Mio Modero IR. FIG. 2 illustrates the location of key components on the Mio Modero IR circuit board.



FIG. 2 LOCATION OF KEY COMPONENTS ON THE MIO MODERO IR CIRCUIT BOARD

# Setting the AXlink Device Number

- 1. If connected, disconnect the power supply.
- 2. Locate the 8-position Device DIP switch (FIG. 2).
- 3. Set the DIP switch according to the DIP switch values shown below.

Switch	1	2	3	4	5	6	7	8
Value	1	2	4	8	16	32	64	128

The device number is set by the total value of "ON" (up) DIP switch positions. As an example, the DIP switch in FIG. 3 defines device number 129 (1+128=129).



#### FIG. 3 EXAMPLE DEVICE DIP SWITCH SET TO 129

If you later change the device number, remove and reconnect the AXlink power connector to enter the new device number into memory.

### Preparing captive wires

You will need a wire stripper, and flat-blade screwdriver to prepare and connect the captive wires.

- 1. Strip 0.25 inch (6.35 mm) of wire insulation off all wires.
- 2. Insert each wire into the appropriate opening on the connector according to the wiring diagrams and connector types described in this section.
- Turn the flat-head screws clockwise to secure the wires in the connector. Note: Do not over-torque the screws; doing so can bend the seating pins and damage the connector.

### **Wiring Guidelines**

The Mio Modero IR requires 12 VDC power to operate properly. The power is supplied by the AMX system's AXlink cable. The maximum wiring distance between the Central Controller and the receiver is determined by power consumption, supplied voltage, and the wire gauge used for the cable. The following table lists wire sizes and the maximum lengths allowable between the receiver and the Central Controller. The maximum wiring lengths are based on a minimum of 13.5 volts available at the Central Controller's power supply. If the distance is greater than what is listed in the table, consult the *Mio Modero Device Family Instruction Manual* for wiring with external power sources.

WIRING SPECIFICATIONS @ 35 MA					
Maximum Wiring Length					
Wire Size	Distance				
18 AWG	3000 feet (914.40 m)				
20 AWG	2121.64 feet (646.68 m)				
22 AWG	1,322.75 feet (403.17 m)				
24 AWG	833.80 feet (254.14 m)				

### **AXlink Data and Power Connections**

The Mio Modero IR uses a four-pin mini AXlink connector for power and data. Connect the control system's AXlink connector to the AXlink connector on the rear panel of the Mio Modero IR for data and 12 VDC power as shown in FIG. 4.



FIG. 4 AXLINK STRAIGHT-THRU WIRING

### **Checking AXlink Status**

The AXlink LED lights to indicate AXlink power/data status as follows:

- 1 blink per Indicates power is active and AXlink communication is working. second
- · 2 blinks per Indicates the devices specified in the Master program do not second match the devices found.
- 3 blinks per Indicates AXlink communication error. second
- Full On Indicates the following conditions:
  - There is no AXlink control or activity, but power is On. · The Axcess program is not loaded.

If the LED is on and not flashing, disconnect the AXlink connector and recheck all AXlink connections. Then, reconnect the AXlink connector to the panel and verify the LED is flashing once per second.

# **Mounting Procedure**

AMX recommends mounting the Mio Modero IR in a standard one-gang wallbox, a conduit box per NEC specs section 370, with a minimum internal clearance of 2-5/8" x 1-3/4" x 1-5/8" (HWD). More installation details are available in the Mio Modero Device Family instruction manual.



FIG. 5 MIO MODERO IR MOUNTING DIMENSIONS

- 1. Use the cutout dimension for the wallbox to cutout the install surface for the Mio Modero IR.
- 2. Confirm that the terminal end of the AXlink cable is disconnected, and not receiving power.
- If the faceplate is connected to the mounting frame, place a flathead screwdriver 3. in the notch at the bottom right of the Mio Modero IR, and pry the faceplate from the mounting frame.
- Connect the AXlink power supply. The connector passes through the center of the 4 mounting frame and connects to the board.
- 5. Place the mounting frame on the wallbox; align the screw holes with the mounting holes and fasten the mounting frame to the wallbox using the screws supplied.
- Attach the faceplate to the mounting frame first at the top and swing it to the 6. bottom. See FIG. 6.



FIG. 6 ATTACHING THE FACEPLATE TO THE MOUNTING FRAME



93-5797 REV: J

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