

738A ADEMCO™ INTERFACE MODULE

Installation Guide

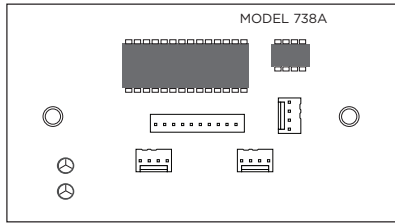


Figure 1: 738A Interface Module

DESCRIPTION

The 738A Ademco Interface Module allows you to interface Ademco 5881 wireless receivers with the XR150/XR550 Series and XT30/XT50 Series panels. See "Compatibility" for specific firmware levels. The module provides up to 32 supervised, programmable zones of Ademco wireless transmitters.

The module supports the Armed, Alarm, and Ready to Arm status LEDs on an Ademco 5804BD. This requires connecting an Ademco 5800TM to an XT30/XT50 panel.

Compatibility

- XR Series control panels
- XT Series control panels with firmware Version 101 or higher
- For a list of compatible Ademco devices, refer to "Ademco Compatibility".

What is Included?

- One 738A Ademco Interface Module
- Two Model 300 4-Wire Harnesses
- Hardware Pack



1 MOUNT THE MODULE

The 738A comes in a high-impact plastic housing that you can mount directly to a wall, backboard, or other flat surface. For easy installation, the back of the housing contains multiple holes that allow you to mount the module on a single-gang switch box or ring. The module can also be mounted in a DMP enclosure using the standard 3-hole mounting pattern. Refer to Figure 2 and Figure 3 as needed during installation.

1. Hold the plastic standoffs against the inside of the enclosure side wall.
2. Insert the included Phillips head screws from the outside of the enclosure into the standoffs. Tighten the screws.
3. Carefully snap the module onto the standoffs.

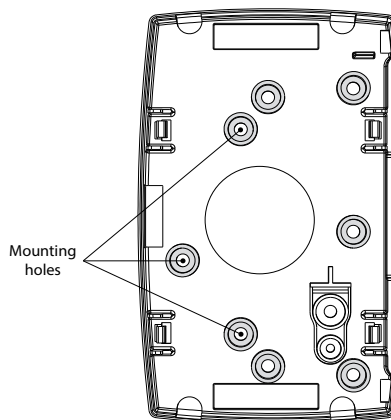


Figure 2: Mounting Hole Locations

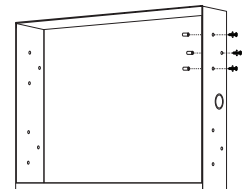


Figure 3: Standoff Installation

2 WIRE THE MODULE

After properly mounting the module, follow the instructions to wire the module to the panel. Refer to Figure 4 for wiring details.

1. For Keypad Bus operation, connect a Model 300 4-wire harness from the DMP BUS header to the Keypad Bus. For LX-Bus operation, connect a Model 300 4-wire harness from the DMP BUS header to the LX-Bus.
2. Connect the provided Model 300 4-wire harness from the RECEIVER header to the Ademco wireless receiver and 5800TM transmitter harness. The maximum distance between the Ademco wireless receiver and module is 3 feet.
3. When programming, connect a Model 330 dual-ended programming cable from the PROG header to any DMP keypad.
4. Place the provided jumper across the PROGRAM header to enter the 738A programming mode. When you're done programming, remove the jumper from the PROGRAM header and place it on one pin for future use.

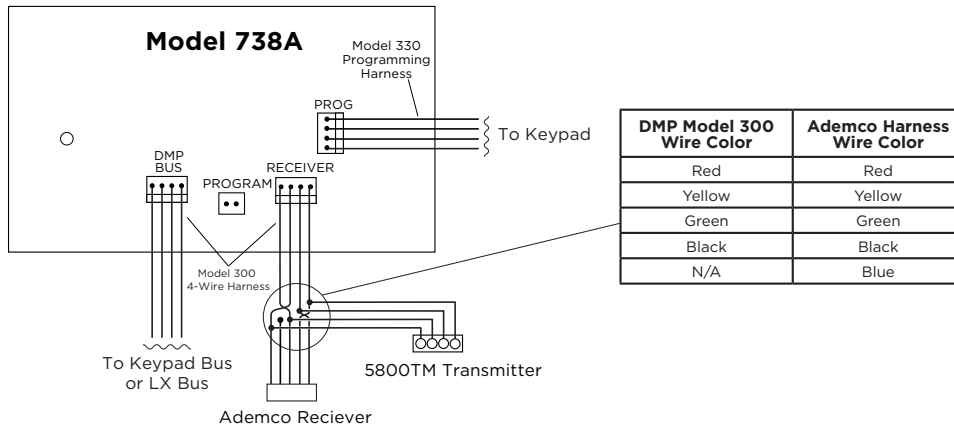


Figure 4: 738A Wiring

3 PROGRAM THE MODULE

Programming Options

Use this section for reference when programming the module.

INIT ALL? **NO** YES

INITIALIZATION

Select **YES** to reset all programming options to the factory default. Select **NO** to maintain all programming options at their current settings.

BUS: ***KYPD** LX

PANEL BUS TYPE

Select the type of connection from the panel to the module. Choose either Keypad Bus or LX-Bus connection. Press the **CMD** key to accept the selection. An asterisk displays to the left of the bus type selected.

Note: If the 738A will be used on the keypad bus, ensure it is programmed as a device in **Device Setup**.

HOUSE ID: **01**

HOUSE ID

Select a number from 01 to 31 for the House ID. Enter a leading zero for numbers less than ten. The factory default is **01**. The same House ID number must be programmed into any 5804BD Wireless Key transmitters to receive Armed, Alarm, and Ready to Arm status. Refer to the Ademco 5804BD Installation Instructions to enter the House ID.

ZONE? **TEST** ADD

ZONE TEST OR ADD

Select **ADD** to program new zones into the system or select **TEST** to perform a zone test on existing zones. When performing a Zone Test, the 5881 receiver signal gain is reduced by 50%. When adding new zones to the system, select **TEST** to perform the Zone Test.

TRIPS **END**

ZONE TEST TRIPS COUNTER

When **TEST** is selected, the Zone Test Trips Counter displays the number of times any programmed zone trips (alarm/short) during the Zone Test. The keypad buzzer sounds for 1 second each time a programmed zone trips. Select **END** to stop the zone test and display any failed zones.

Note: When the keypad is removed from the module, the 5881 receiver signal gain automatically returns to 100%.

ZONE: XX **-FAIL**

ZONE TEST FAIL

The zone number of any zone that failed to trip at least once during the test displays for four seconds and the buzzer sounds for one second. The next failed zone displays. Press **CMD** to advance to the next failed zone.

| PANEL ADDRESS | ZONE NUMBERS | |
|---------------|------------------|--------------------|
| | XT30/XT50 SERIES | XR150/XR550 SERIES |
| 1 | 11 to 14 | 11 to 14 |
| 2 | 21 to 24 | 21 to 24 |
| 3 | 31 to 34 | 31 to 34 |
| 4 | 41 to 44 | 41 to 44 |
| 5 | 51 to 54 | 51 to 54 |
| 6 | 61 to 64 | 61 to 64 |
| 7 | 71 to 74 | 71 to 74 |
| 8 | 81 to 84 | 81 to 84 |

Table 1: Keypad Bus Addresses

| 738A ADDRESS | XR150/XR550 SERIES LX-BUS | | | | |
|--------------|---------------------------|----------|----------|----------|----------|
| | PANEL ZONE RANGE | | | | |
| | LX-BUS 1 | LX-BUS 2 | LX-BUS 3 | LX-BUS 4 | LX-BUS 5 |
| 1 | 501 | 601 | 701 | 801 | 901 |
| 2 | 502 | 602 | 702 | 802 | 902 |
| 3 | 503 | 603 | 703 | 803 | 903 |
| ... | ... | ... | ... | ... | ... |
| 16 | 516 | 616 | 716 | 816 | 916 |
| 17 | 517 | 617 | 717 | 817 | 917 |
| 18 | 518 | 618 | 718 | 818 | 918 |
| ... | ... | ... | ... | ... | ... |
| 32 | 532 | 632 | 732 | 832 | 932 |

Table 2: LX-Bus Addresses

ZONE NO:

ZONE NUMBER

After selecting **ADD**, enter a wireless transmitter zone number to be programmed into the module at the Zone Number option. Press **CMD** to accept the zone number.

This zone number must correspond to a zone number programmed into the panel.

When the module is connected to the Keypad Bus and any wireless input zones for a particular address are programmed (Ex: 11-14 = Addr 1), the module responds to polls for this address. Other devices, such as keypads, cannot use this address. For more information about addressing the module, refer to Table 1 and Table 2.


*UN RF UR BR

TRANSMITTER TYPE

Enter a transmitter type by pressing the select key that corresponds to the type of transmitter used. An asterisk appears to the left of the transmitter type chosen. Default is **UN**. Press the **CMD** key to accept the selection. Refer to the installation instructions provided with the Ademco transmitter for additional information.

- UN** = Unused Zone **UR** = Unsupervised Transmitter
- RF** = Supervised Transmitter **BR** = Button Transmitter

When a transmitter reed switch, contact, or button is in a faulted condition, the corresponding panel zone is **SHORTED**. When the transmitter tamper is in a faulted condition, the corresponding panel zone is **OPEN**.

 **Note:** Supervised transmitters need to report to the module at least once every 12 hours. If not, the DMP panel indicates that the zone is missing.


LEARN ID? NO YES
TRANSMIT NOW

TRANSMITTER IDENTIFICATION NUMBER

Select **YES** to enter Learn ID programming. The keypad displays **TRANSMIT NOW**. For the module to learn the transmitter identification number, the transmitter input (reed switch or contact) must be activated (tripped) and restored. The first activation beeps the program keypad once. Within four to eight seconds after the first activation the transmitter input must be tripped and restored a second time. The keypad beeps twice. The keypad displays the “learned” transmitter identification number (ID). To accept this number, press the **CMD** key.

ID: _ _ _ _ _

Select **NO** to manually enter the transmitter identification number. At **ID: _ _ _ _ _**, enter the seven-digit transmitter number printed under the bar code on the label attached to your Ademco transmitter. Press **CMD** to accept the number.

 **Note:** When programming a 5804BD, you must manually enter the Transmitter ID Number.

INPUT NO: _

TRANSMITTER INPUT NUMBER

Enter a number (1 to 4) to identify the transmitter input zone. When the transmitter ID is “learned,” the keypad displays the zone input number. Refer to the Ademco transmitter installation instructions for zone input information. Default is **1**. Press the **CMD** key to accept the number. The display returns to **ZONE NO** for programming the next transmitter.

ALREADY ZONE: XX

TRANSMITTER ALREADY LEARNED

This display indicates the transmitter has previously been learned as a zone and continuously displays until the Back Arrow or **CMD** key is pressed. Pressing the Back Arrow key returns programming to **TRANSMIT NOW** to allow a different transmitter to be learned. Pressing the **CMD** key returns programming to **ZONE NO**.

Exit Programming

Remove the jumper from the PROGRAM header to exit 738A programming mode. Place the jumper over one pin for future use. Remove the Model 330 cable and the DMP keypad from the PROG header. After exiting the programming mode, all zone states report to the panel as normal. Always test and verify all zones for proper communication.

ADDITIONAL INFORMATION

Wiring Specifications

The maximum wire distance between the Ademco™ wireless receiver and the module is 3 feet. Refer to the following LX-Bus and Keypad bus wiring specifications.

DMP recommends using 18 or 22 AWG for all LX-Bus and Keypad Bus connections. The maximum wire distance between any module and the DMP Keypad Bus or LX-Bus circuit is 1,000 feet. To increase the wiring distance, install an auxiliary power supply, such as a DMP Model 505-12. Maximum voltage drop between a panel or auxiliary power supply and any device is 2.0 VDC. If the voltage at any device is less than the required level, add an auxiliary power supply at the end of the circuit.

To maintain auxiliary power integrity when using 22-gauge wire on Keypad Bus circuits, do not exceed 500 feet. When using 18-gauge wire, do not exceed 1,000 feet. Maximum distance for any bus circuit is 2,500 feet regardless of wire gauge. Each 2,500 foot bus circuit supports a maximum of 40 LX-Bus devices.


For additional information refer to the LX-Bus/Keypad Bus Wiring Application Note (LT-2031) and the 710 Bus Splitter/ Repeater Module Installation Guide (LT-0310).

Keypad and LX-Bus Connection

For simple installation, the module connects to the panel 4-wire keypad data bus. The module can also connect to the on-board LX-Bus of an XR150/XR550 Series panel.

XR150/XR550 Series

Connect the module directly to the Keypad Bus or the LX-Bus (LX500-LX900) connectors on the panel.

 **Note:** When programming module zones on the LX-Bus select **NO** at the Wireless option in the Zone Information section of panel programming.

738A LED Operation

The green LED on the module indicates data transmission to the panel.

- **On**—There are no transmitters programmed
- **Off**—The module is not being programmed or it is not responding to the panel
- **Flashing**—The module is transmitting data to the panel or it is being programmed

| LED | LED CONDITION | SOUNDER | SYSTEM STATUS |
|-------|---------------|---------|----------------------------|
| Red | ON Steady | 2 Beeps | Armed Away |
| | | 3 Beeps | Armed Stay or Instant |
| | Flashing | Pulsing | Fire Alarm |
| | | Steady | Armed, Burglary Alarm |
| Green | ON Steady | 1 Beep | Disarmed, Ready to Arm |
| | Flashing | Silent | Disarmed, Not Ready to Arm |

Table 3: LED and Sounder Operation

ADEMCO COMPATIBILITY

Compatible Ademco Wireless Transmitters and Receivers

Table 4 and Table 5 list current Ademco transmitters and receivers that have been tested by DMP and are compatible with the module. Other Ademco products have not been evaluated by DMP. The 738A module has not been tested by UL.

The module supports up to 32 wireless zones. The module can deliver all 32 zones to a DMP panel regardless of the number of zones assigned by the Ademco wireless receiver model number. For example, a Model 5881ENL 8-Zone Receiver delivers 32 wireless zones to the module.

| RECEIVER MODEL NUMBER | | XT30/XT50 SERIES AND XR150/XR550 SERIES |
|--|------------------|--|
| 5881ENL | 8-Zone Receiver | 32 Zones |
| 5881ENM | 16 Zone Receiver | 32 Zones |
| 5881ENH | 64-Zone Receiver | 32 Zones |
| Note: Dip switches on the 5881 series receiver must be set to zero. | | |

Table 4: Ademco Receivers

| SUPERVISED | ADEMCO TYPE |
|--|-------------|
| 5802MN Miniature Panic Button | BR or UR |
| 5816 Window/Door | RF |
| 5817 3-Zone | RF |
| 5890 Motion Detector | RF |
| * Note: For use with XT30/XT50 Series panels. | |

| UNSUPERVISED | ADEMCO TYPE |
|--|-------------|
| 5802 Panic Button | BR |
| 5803 3-Button | BR |
| 5804 4-Button | BR |
| 5804BD 4-Button * | BR |
| * Note: For use with XT30/XT50 Series panels. | |


Table 5: Ademco Transmitters

Ademco 5800TM Transmitter Module

The 738A supports the Armed, Alarm, and Ready to Arm status LEDs on an Ademco 5804BD. This requires connecting an Ademco 5800TM to an XT30/XT50 panel. When a 5800TM is connected as shown in Figure 4, the panel Armed, Alarm, and Ready to Arm status displays on the Ademco 5804BD Wireless Key LED and sounder. Table 3 describes the LED and sounder operation. Refer to the Ademco 5804BD Installation Instructions for proper button operation.

Ademco 5804BD Panic Buttons

Use 5804BD buttons A and C to send a panic signal to the DMP panel. Press the A and C buttons at the same time for two seconds to send a Zone 19 Panic signal to the central station receiver. The zone name information sent to the receiver contains the first address number that the module is answering.

 **Note:** For use with XT30/XT50 panels. When programming the 5804BD into the panel, you must manually enter the transmitter ID number in **ZONE INFORMATION**.


FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

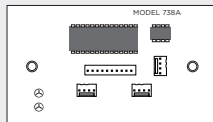
 **Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

738A ADEMCO INTERFACE MODULE

Specifications

| | |
|---------------|---|
| Primary Power | 12 VDC |
| Current Draw | 75 mA |
| Dimensions | 5.50" W x 3.00" H x 0.75" D 13.97 cm W x 7.62 cm x H x 1.91 cm D |



Accessories

| | |
|-----------|----------------|
| Model 300 | 4-Wire Harness |
|-----------|----------------|

Compatibility

- XR Series control panels
- XT Series control panels with firmware Version 101 or higher

Certifications

- FCC Part 15



Designed, engineered, and
manufactured in Springfield, MO
using U.S. and global components.

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2500 North Partnership Boulevard
Springfield, Missouri 65803-8877
800.641.4282 | DMP.com