Installation Instructions

MOOSE 401

Remote Control and IR Transmitter

"ONE TOUCH" SYSTEM OPERATION

The Moose 401 Remote Control makes arming and disarming a security system easy. Using a hand-held transmitter, users can now arm and disarm their Moose security system or activate an access control device with the touch of a button.

The Moose 401 is comprised of an infrared (IR) receiver and a hand-held transmitter that emits an IR frequency signal (like a television remote control). The receiver installs like a keypad and communicates with the control panel. Each transmitter is programmed as a separate user code into the control. When the transmitter button is pressed, the receiver converts the transmitters IR signal into a pre-programmed user code which it sends to the control panel. If the system has been disarmed, pressing the transmitter button will arm it ... and vice versa.

The Moose 401 is compatible with ZX200/ZX210 and ZX400ZX410 security controls plus Moose Z900, Z950, Z700, and A910 controls.

BENEFITS

- Recommended for indoor use only

- Helps reduce false alarms by minimizing keypad errors

- Designed for mounting near the main entry/exit

- Provides remote system status with three LED's and piezo sounder

- Ideal in the garage for disarming the security system before entering the premises

- Handicapped and senior citizen users will appreciate the easy operation

- Can be used as an Access Control device

INSTALLATION

The 401 receiver communicates with the control panel like a keypad. The operating characteristics of the receiver are established with five resistors or "jumpers" on the receiver's circuit board. The resistors are cut with wire cutters or left intact to establish the operating characteristics of the receiver. The resistors determine:

a. Control Panel Type (*default is Moose ZX200/ZX210 and ZX400/ZX410*).

   Note: If the control panel type selected is Moose Z900, Z950, Z700, or A910, options b, c, and d are not used.

b. Assignment as keypad 1, 2, 3, or 4 (*default is Keypad 4*).

c. Supervision (*default is Supervised*).

d. Arm/Disarm mode or Access Control mode (*default is Arm/Disarm mode*).

Note: The 401 IR Receiver has static sensitive circuitry. Make sure you are properly grounded before touching the circuit board.

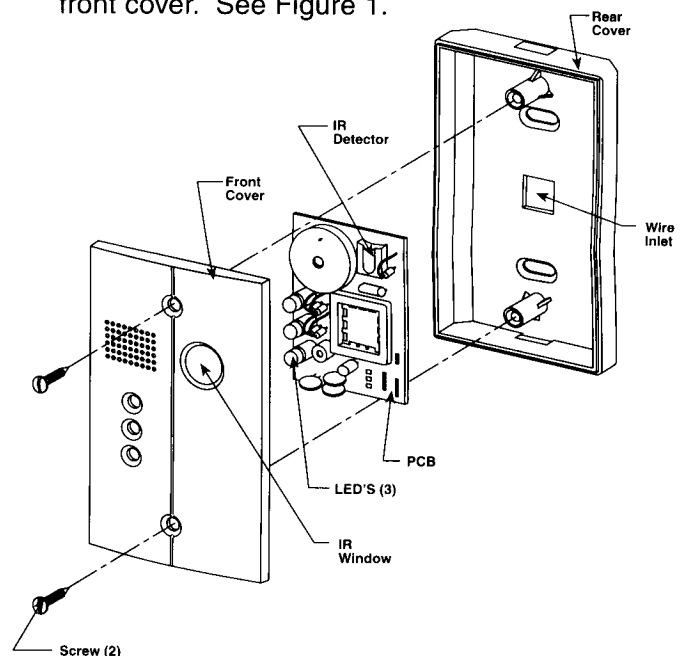1. Remove the printed circuit board (PCB) from the front cover. See Figure 1.

Figure 1 Moose 401 Disassembly

2. Locate the five resistors or "jumpers" on the front surface of the PCB. The resistors are identified on the PCB as "JP1", "JP2", "JP3", "JP4", and "JP5". See Figure 2.
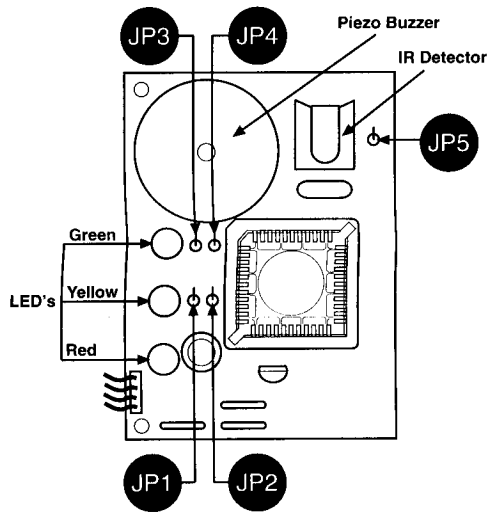

Figure 2 PCB Jumper Locations

3. **Locate resistor "JP5".** This resistor determines compatibility with Moose ZX200/ZX210 and ZX400/ZX410 control panels or Moose Z-bus control panels.

   Cut the resistor if your control panel is a Moose Z900, Z950, Z700, or A910 control.

   Do not cut the resistor if your control panel is a Moose ZX200/ZX210 or ZX400/ZX410.

4. **Locate resistors "JP1" and "JP2".** Reference the table below to establish the keypad assignment and cut the appropriate resistor(s).

KEYPAD ASSIGNMENT			
KEYPAD 1	**KEYPAD 2**	**KEYPAD 3**	**KEYPAD 4**
CUT JP1		CUT JP1	
CUT JP2	CUT JP2		

5. **Locate resistor "JP3".** This resistor determines whether the receiver is to be supervised or unsupervised. **(Never allow a device to be at the same address as a supervised device).**

   Cut the resistor if you want the receiver to be un-supervised.

   Do not cut the resistor if you want the receiver to be supervised.

6. **Locate resistor "JP4".** The 401 IR Remote Control can be used in access control applications to activate a door strike or other access control output. **(The 401 Remote Control is not UL Listed for Access Control).**

   Cut the resistor for Access Control mode.

   Do not cut the resistor if the receiver is to be used to Arm/Disarm the control.

7. Reinstall the circuit board and the front cover in the opposite manner in which it was removed.

MOUNTING THE RECEIVER

• *Avoid mounting the receiver in a location where it may be typically activated from a wide angle. The receiver operates reliably when the transmitter is activated directly in front of the receiver at a distance not greater than 20 feet.*

• *Avoid mounting the receiver where it may be exposed to bright or direct sunlight.*

• *The rear cover is provided with knock-outs for Nice-Duc® Self-Adhesive Wiring Duct.*

Flat Surface Mounting

Mount the rear cover to the surface of the wall using two #6 flat head screws (provided) through the elongated slots. See Figure 3. Wire the receiver according to the Wire Connection table and attach the front cover (with circuit board) to the rear cover with the two white #6 oval head screws (provided).
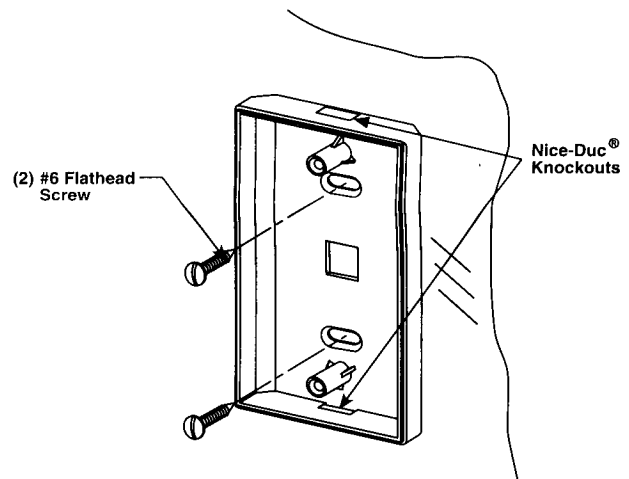

Figure 3 Flat Surface Mounting

Corner Mounting

The edges of the rear cover are beveled so the unit can be securely mounted in a corner. Mount the rear cover in a corner using the two #6 flat head screws (provided). See Figure 4. Wire the receiver according to the Wire Connection table and attach the front cover (with circuit board) to the rear cover with the two white #6 oval head screws (provided).
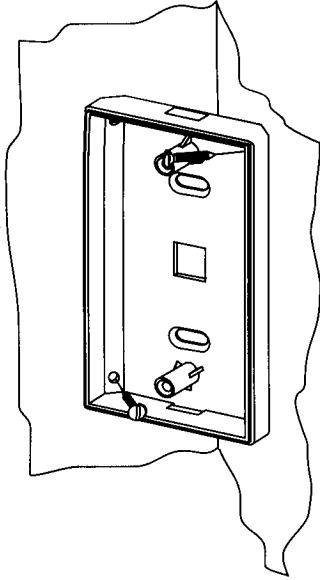

Figure 4 Corner Mounting

Single Gang Box Mounting

Discard the rear cover and mount the front cover with the circuit board to the single gang box using the two white #6 oval head screws (provided). See Figure 5. Be sure the screws are compatible with the type of single gang box you are using. Use the two #6-32 white oval head screws when mounting into a metal box. The circuit board is small enough to fit into the majority of single gang boxes available.
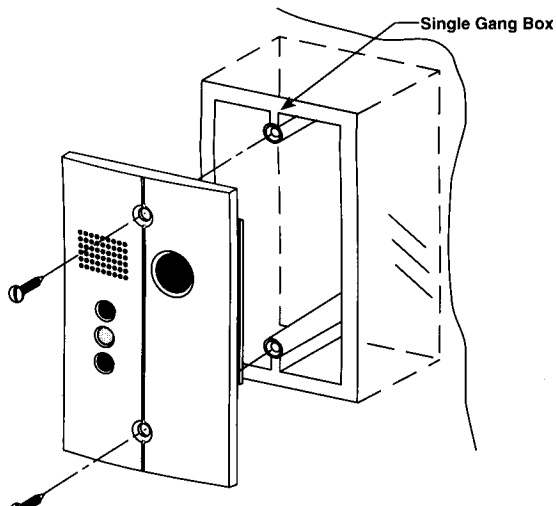

Figure 5 Single Gang Box Mounting

WIRE CONNECTIONS

The receiver wires to the control panel databus exactly like a keypad.

WIRE COLOR	FUNCTION
Black	Negative
Green	Data A/Data IN
White	Data B/Data OUT
Red	+12VDC

PROGRAMMING REMOTE TRANSMITTERS

All remote transmitters are pre-programmed at the factory with a unique numeric identification code. The code is identified on each transmitter (or transmitter poly-bag) with an adhesive label. Typically the code is written as a seven digit number (ex. 10-12345). The last four digits shown (ex. 2345) must be programmed into the control panel as a user passcode. Refer to the control panel's manual for instructions on how to program user passcodes.

OPERATION

System Status LEDs

The 401 Remote Control has three LED's which indicate the status of the alarm system. These LED's mimic the status indicators found on the system keypad.

GREEN	**ON**	All zones are secure. The system is ready to be armed.
	OFF	All zones are not secure. Secure all doors and windows before arming the system.
RED	**ON**	The system is armed.
	FLASHING	An alarm has occurred - the receiver may sound an alarm tone.
YELLOW	**ON**	A trouble condition exists. Consult your Security Company Representative for service.

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SYSTEM OPERATION

1. Aim the transmitter at the receiver from a distance not greater than 20 feet.

2. Press the activation button momentarily.

3. The red LED <u>in the transmitter</u> will light momentarily when you press the button. This indicates that the transmitter is sending data and the batteries in the transmitter are good.

4. The receiver will sound a short 2 second tone to confirm that it has received the signal from the transmitter. Listen for the tone each time you attempt to arm or disarm the system.

5. Observe the change in status of the receiver LED's as the system arms or disarms the security system (no change when activating the access control output).

FORCE ARMING

If the control panel is programmed to allow Force Arming, then Force Arming may be performed with the 401 Remote Control. To Force Arm the system:

1. Press the transmitter activation button to attempt to arm the system. If the system is <u>not</u> ready to arm, the receiver will sound an error tone.

2. Press the transmitter activation button again within 5 seconds to Force Arm the system.

CHANGING THE BATTERIES IN THE TRANSMITTER

The life of batteries in the transmitter will vary with usage. Normal life should be around 2 years. Follow these steps to change the batteries:

1. Lay the transmitter on a flat surface with the button facing upwards.

2. Insert the flat end of a screwdriver into the slot in the end of the transmitter and pry it apart.

3. Lift the cover, which contains the circuit board, and set it aside. **Note the location and orientation of the two batteries before you remove them**.

4. Remove the batteries and replace with 2 new Duracell type DL2016 (or equivalent) batteries with the "+" side of both batteries facing downward.

5. Replace the cover and snap it shut.

SPECIFICATIONS

401 Receiver

Enclosure Material: Fire Resistant ABS

Input Operating Voltage: 7.0 VDC-30.0 VDC

Current Consumption - typical: 60mA

Operating Temperature Range: (+0° to +70° C) (+32° to +158° F)

Storage Temperature Range: (-25° to +85° C) (-13° to +185° F)

Indicators: *Audible* - Piezo sounder, 100dB at 10cm, 3.75kHz   *Visual* - 3 LED's (Red, Green, Yellow)

Detector Type: Short wavelength infrared (IR) communication

IR Detector: Wavelength of Operation: 950 nm

Dimensions: 2.7" x 4.5" x 0.9"

Hardware Pack: (2)-#6 white oval HD x 3/4"
(2)-#6-32 white oval HD x 3/4"
(2)-#6-Flat HD phil x 3/4"
(2)-#6 x 3/4" wall anchors

Transmitter

Battery Life: 2 years, typical

Battery Type: Duracell DL 2016 or equivalent (2 required)

Range: 20 feet

Operating Temperature Range: (-18° to +55° C) (+0° to +131° F)