

C-404

SUPERVISED WIRELESS FOUR CHANNEL RECEIVER

Installation / Operation Manual

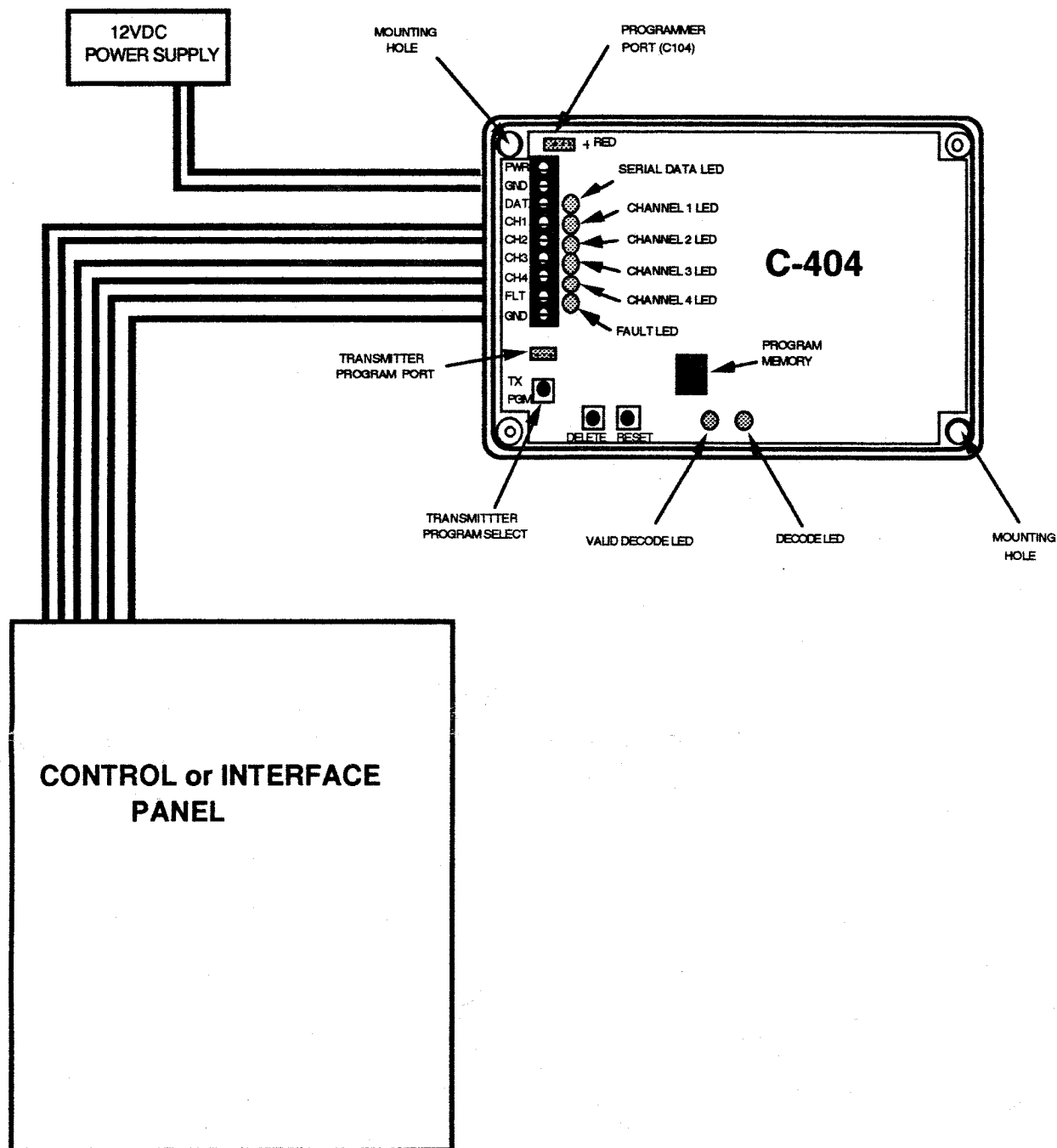
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INSTALLING THE C-404 RECEIVER

1. Connect 12VDC power to the Receiver.

Most Panels will provide this source of power. If not, a separate supply can be used. A supply with backup battery capability is recommended for applications requiring uninterrupted operation.

2. Connect the desired CHANNEL and FAULT outputs to the input connections of the Panel.

The Panel must accept a normally open configuration and a common ground connection must also be made between the Panel and the Receiver. If the panel cannot accept a normally open configuration, a C-540 Relay Module may be used. The Relay Module provides both normally open and normally closed isolated outputs for connection to the Panel.

3. Program the transmitters that are to be monitored.

Be sure to note the default settings for each point (Channels 1 through 4) are appropriate for the specific transmitters being assigned to each point. If the settings are not appropriate, the C-104 Programmer can be used to change the default settings or an altered memory chip can be ordered from the factory for a nominal charge.

4. Test the operation of the Receiver, Transmitters, and Panel.

Press the RESET button on the receiver to initialize all the outputs and functions of the Receiver. Activating a specific transmitter should activate the corresponding output of the Receiver and illuminate the corresponding channel LED. The Panel should respond appropriately.

Should the FAULT indicator and output activate, check each of the transmitters for a TAMPER or LOW BATTERY condition. An INACTIVE fault condition will not occur until the end of a supervisory period (default is 240 minutes) should a transmitter not be operational or improperly programmed.

If a C-104 Programmer is available, the status of each transmitter can be displayed and the radio signal levels can be checked.

OPERATIONAL OVERVIEW

GENERAL

The C-404 Receiver is a fully supervised radio receiver that allows for the monitoring of four wireless transmitter points. In order for a transmitter to operate with the receiver, the transmitter must be programmed by the receiver. The Receiver contains all necessary programming information for each of the four points in its memory. The program memory is set to default settings at the factory. The settings can be changed by using the C-104 Programmer or by requesting specific settings from the factory. The programming of transmitters is accomplished by selecting the point to be programmed and connecting the programming cable between the Receiver and the transmitter.

The Receiver provides an output for each of the four channels as well as a single global fault output. Activation of the outputs is indicated by illumination of an LED next to each of the outputs. The global fault output is activated by the occurrence of any fault of any transmitter. Faults that are indicated are tamper conditions, low battery condition, and inactive status of the transmitters. A transmitter becomes inactive if it fails to report to the receiver during a supervisory time period. Fault status can only be cleared by pressing the reset button on the Receiver.

PROGRAMMING A TRANSMITTER

To program a transmitter, the channel being assigned to that transmitter must first be selected. This is accomplished by pressing the TX PGM button on the receiver. Each time the button is pressed, a new channel is selected. The selection is indicated by the channel LED. When the appropriate channel is selected, the programming cable is connected between the TX PROGRAM PORT on the Receiver and the programming port on the transmitter. When the transmitter accepts the data, the channel LED will be extinguished.

DELETING A PREVIOUSLY PROGRAMMED TRANSMITTER

If a transmitter is to be removed from operation, it must be deleted from the Receiver's register. If a removed transmitter is not deleted, an INACTIVE fault will occur.

To delete a transmitter, press the TX PGM button to select the desired channel number as indicated by the illuminated LED. When the channel is selected, press the DELETE button. The channel LED will extinguish and the Receiver will no longer respond to the transmitter.

Deleting a transmitter will not delete the programming information stored in the Receiver. A transmitter can be put back into operation by re-performing the programming steps.

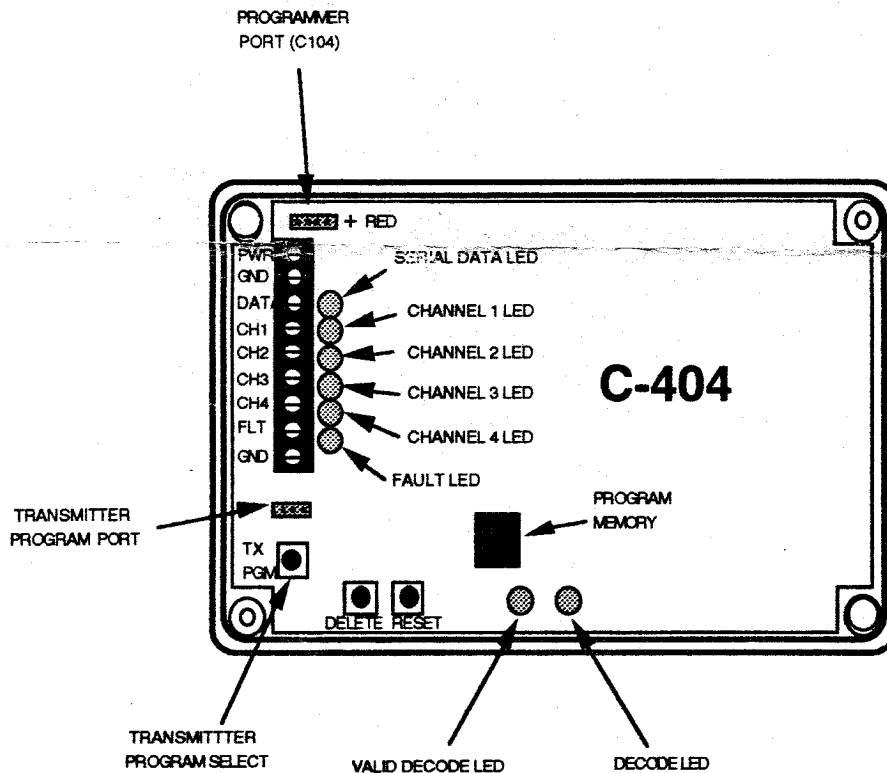
CLEARING FAULTS

When a transmitter fault occurs, the FAULT output on the Receiver is activated and latched. To clear the fault indicator, the transmitter fault must be corrected and the RESET button on the Receiver pressed. Transmitter faults include TAMPERS, LOW BATTERY, and INACTIVE. Determination of the fault and the associated point can be specifically obtained by using the C-104 Programmer. Otherwise observation and testing to the transmitters is required.

OUTPUT CONFIGURATIONS

The outputs are OPEN COLLECTOR type meaning that they are a NORMALLY OPEN configuration. Open collector outputs require a common ground connection between the Receiver and the Panel or interface device. In its normal state, the output is high impedance or normally open. When activated, the output becomes low impedance or normally closed.

If the panel or interface device being connected to the Receiver is not compatible with a normally open configuration, it will be necessary to use the C-540 Relay module which will provide both normally open and normally closed outputs to the Panel.



RECEIVER PROGRAMMING

PROGRAMMABLE SETTINGS

The Receiver contains all the programmable information for its operation as well as all the information for the four transmitters. These settings are factory set to default settings but can be changed using the C-104 Programmer or by requesting specific settings from the factory. All of the programmable parameters are listed below along with the default settings and possible selections.

RECEIVER PARAMETERS

<u>PARAMETER</u>	<u>DEFAULT</u>	<u>SELECTIONS</u>
System ID	random	0 to 254
Supervisory Period	240 seconds	0 to 254 seconds
Output Operation	follow	follow latched momentary
Programming Access Code	0-0-0-0	any four digit combination

TRANSMITTER PARAMETERS

<u>PARAMETER</u>	<u>DEFAULT</u>	<u>SELECTIONS</u>
Type	standard	standard command
Sensor/switch input	point #1 = N/O point #2 = N/O point #3 = N/C point #4 = N/C	normally open normally closed
External Input Supervision (EOL Resistor)	not selected	not selected selected
Internal Magnetic Contact (C-200W Transmitter only)	not selected	not selected selected
Check In Period	60 seconds	10 seconds 30 seconds 60 seconds none

PARAMETER DEFINITIONS

System ID - Identification coding that is unique to the Receiver and Transmitters. This allows for multiple Receiver and Transmitter groups to be operated on different system numbers so that they will not interfere with one another.

Supervision Period - Period of time allowed by the Receiver for transmitters programmed into the system to report to the Receiver. Transmitters that do not check in are set to inactive status and the FAULT output is activated.

Output Operation - Response of the output to an activation. The output can be programmed to follow the state of the transmitter, to latch on the first activation from a transmitter, or provide a momentary activation (2 to 4 seconds) upon receiving an activation from a transmitter.

Programming Access Code - Access code that will allow access to programmable parameters from a C-104 Programmer.

Type - Types of transmitters that can be programmed by the Receiver and be received by it. There are two types, STANDARD and COMMAND. The Receiver can be operated with four STANDARD type transmitters (one transmitter programmed to each of the four channels) or one COMMAND type programmed to any one of the four channels.

STANDARD transmitters include:

- C-200 Universal Transmitters
- C-200W Universal Transmitter with built in magnetic reed switch
- C-201 Smoke Detector Transmitter
- C-203 Glass Break Detector Transmitter
- C-204 Emergency Pendant Transmitter
- C-206 PIR Sensor Transmitter

The COMMAND Transmitter is the C-100 or C-100A Command 4 Channel Transmitter. Each channel on the transmitter corresponds to the 4 channels on the receiver.

Sensor/Switch Input - The configuration of the external input of a STANDARD transmitter. The STANDARD transmitters allow for the selection of the switch or sensor interface as to normally open or normally closed.

External Input Supervision - Supervision of the connection between the external inputs on the C200 and C-200W transmitters and the switch or sensor they are attached to. This supervision is provided by a 2.2K ohm End of Line resistor either placed in series or in parallel with the switch depending on its N/O N/C configuration.

Internal Magnet Contact - In addition to an external sensor/switch input, the C-200W transmitter has an internal magnetic reed switch that is activated by an external magnet.

Check In Period - The periodic interval that the transmitter is to automatically transmit a check in message to the receiver. This time interval can be set to 10 seconds, 30 seconds, 60 seconds, or not at all.

C-200W WIDE-GAP UNIVERSAL TRANSMITTER C-200 UNIVERSAL TRANSMITTER

1. Remove the cover from the transmitter
2. Connect the battery to the battery terminals.
3. Press the reset button.
4. Connect the programming cable from the C-404 Receiver to the programming port on the transmitter. When the programming operation has been confirmed, disconnect the cable.
5. Replace the cover by positioning the narrow end of the cover to the base and closing the case.

PROGRAM PARAMETERS:

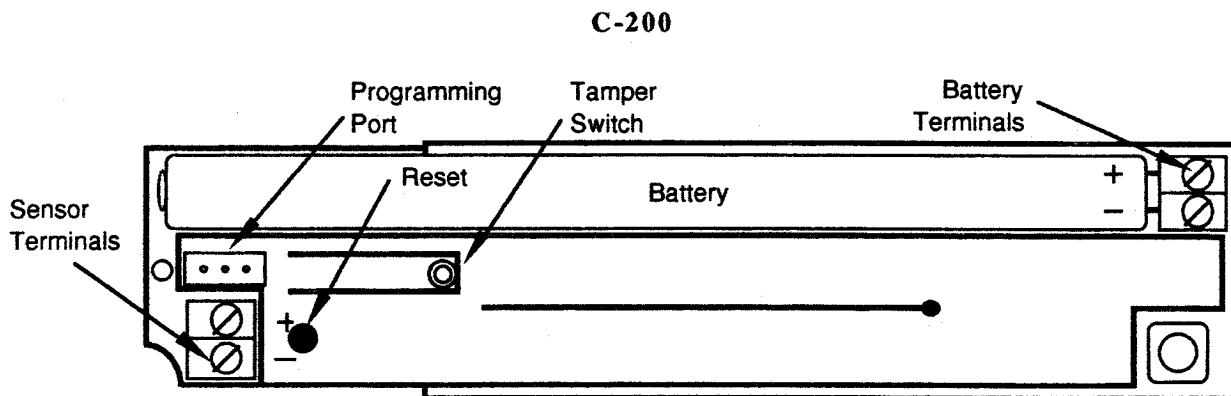
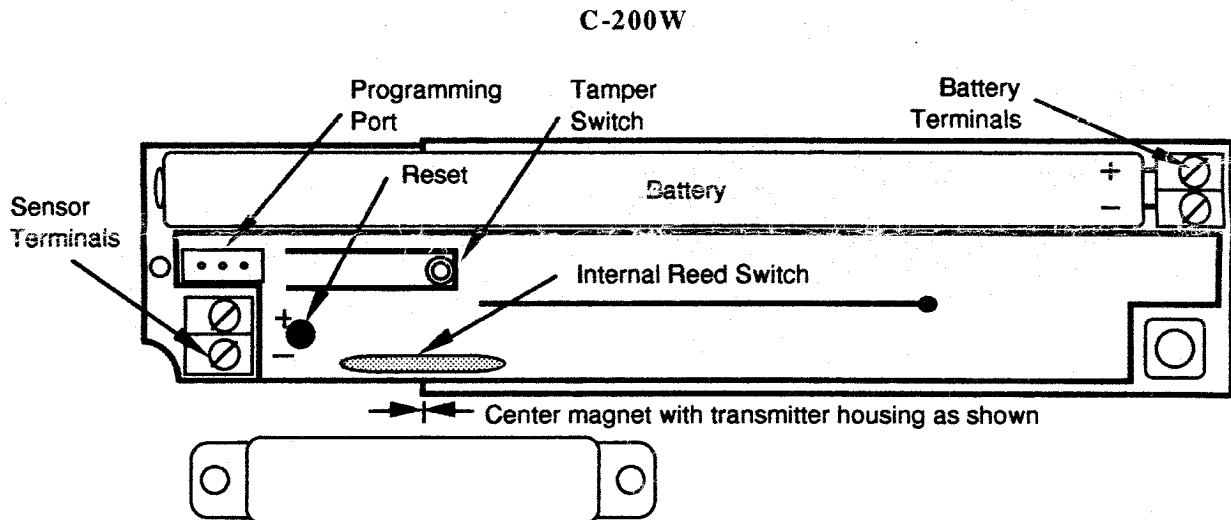
Type - Standard

Sensor Input - As appropriate for external sensor

EOL Resistor - As appropriate for external sensor

Internal Contact - No for C-200, Yes for C-200W

Check in Period - 60 seconds



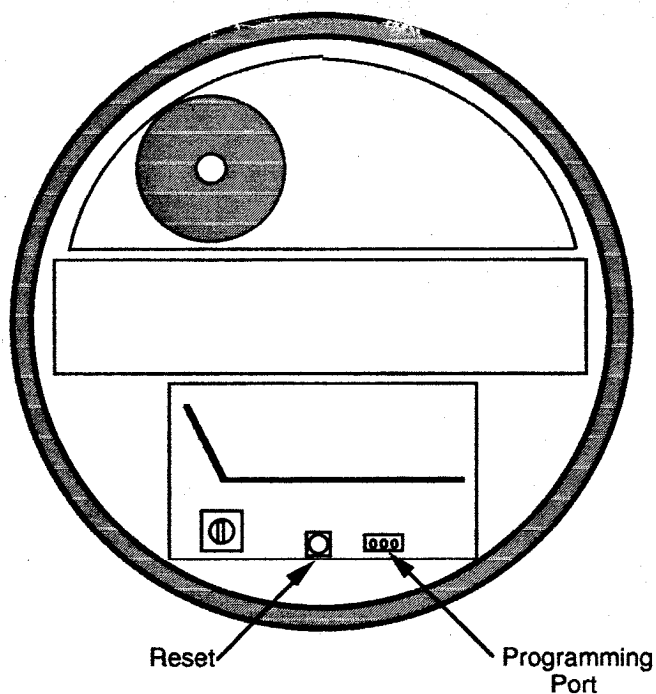
1.25"W x 6"L x .75"D

C-201 SMOKE DETECTOR TRANSMITTER

1. Insert the batteries into their holders being careful to observe polarity. The battery holders are marked with (+) and (-) signs.
2. Lift the top cover to reveal the transmitter.
3. Press the reset button.
4. Remove the programming shunt from the programming port.
5. Connect the programming cable from the C-404 Receiver to the programming port on the transmitter. When the programming operation has been confirmed, disconnect the cable.
6. Replace the programming shunt on the programming port. **FAILURE TO DO SO WILL CAUSE A TAMPER CONDITION.**
7. Close the cover.

PROGRAM PARAMETERS:

Type - Standard
Sensor Input - N/O
EOL Resistor - no
Internal Contact - no
Check in Period - 60 seconds



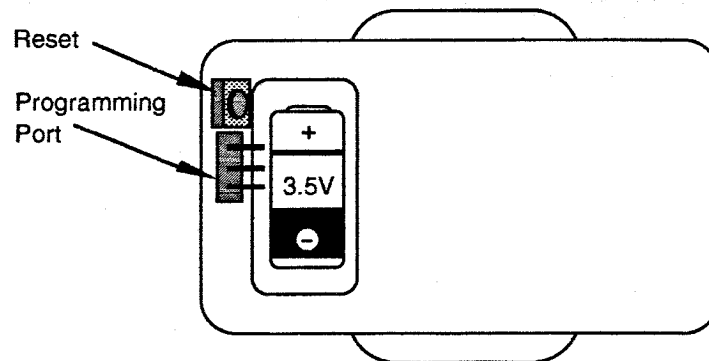
6"W x 1.75"D

C-204 PENDANT TRANSMITTER

1. Remove the battery cover.
2. Insert the battery into the holder being careful to observe polarity. The battery holder is marked with a (+) sign.
3. Press the reset button.
4. Connect the programming cable from the C-404 Receiver to the programming port on the transmitter. When the programming operation has been confirmed, disconnect the cable.
5. Replace the battery cover.

PROGRAM PARAMETERS:

Type	- Standard
Sensor Input	- N/O
EOL Resistor	- no
Internal Contact	- no
Check in Period	- 60 seconds

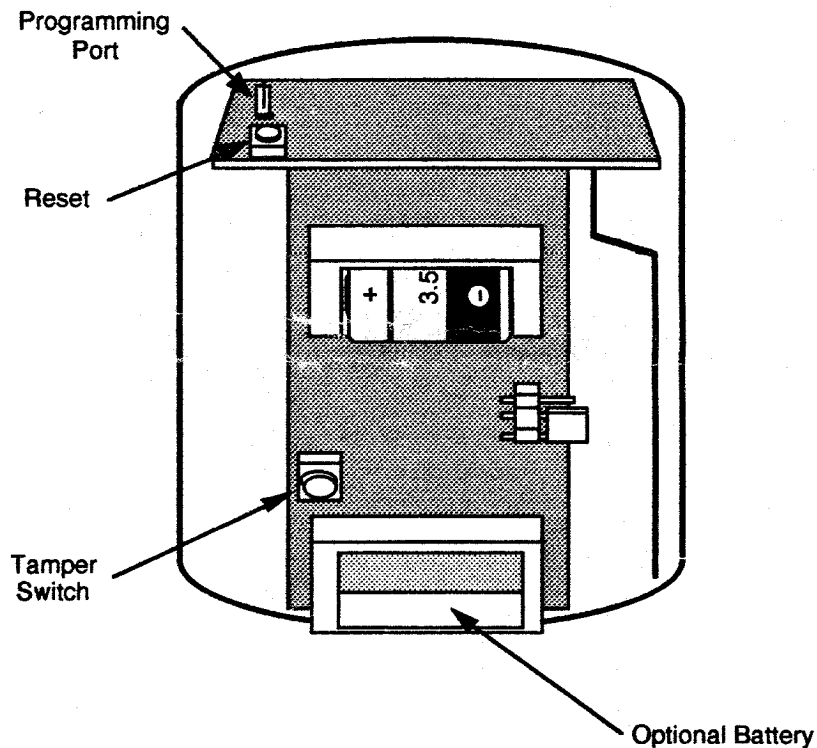


2"W x 2.75"L x .75"D

C-206 SHARPSHOOTER PIR TRANSMITTER

1. Remove the cover from the transmitter.
2. Press the reset button.
3. Connect the programming cable from the C-404 Receiver to the programming port on the transmitter. When the programming operation has been confirmed, disconnect the cable.
4. Replace the cover.

PROGRAM PARAMETERS: Type - Standard
 Sensor Input - N/C
 EOL Resistor - no
 Internal Contact - no
 Check in Period - 60 seconds

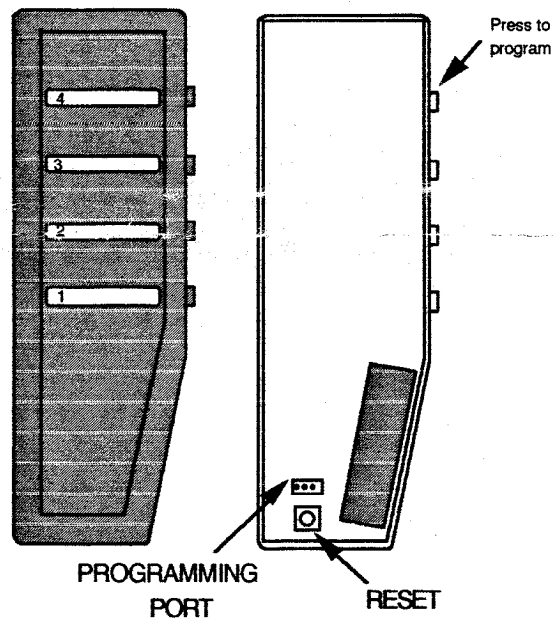


3"W x 3.75"L x 2.5"D

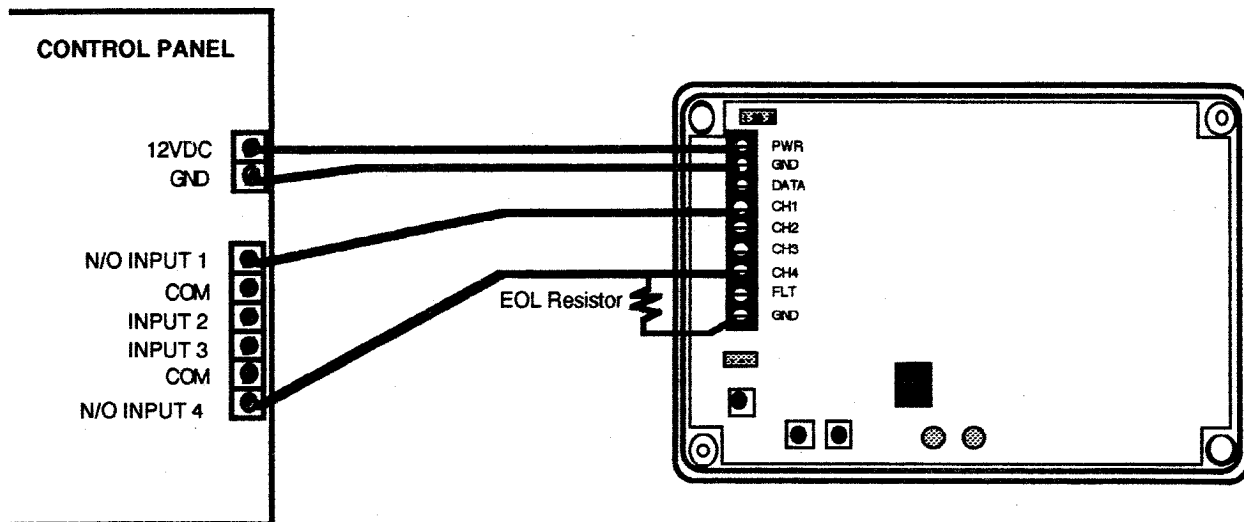
C-100 FOUR CHANNEL TRANSMITTER

1. Remove the two screws holding the case halves together.
2. Press the reset button.
3. Connect the programming cable from the C-404 Receiver to the programming port on the transmitter.
4. Press the channel 4 button to initiate programming.
5. When the programming operation has been confirmed, disconnect the cable.
7. Replace the cover and screw the case halves together.

PROGRAM PARAMETERS: Type - Command

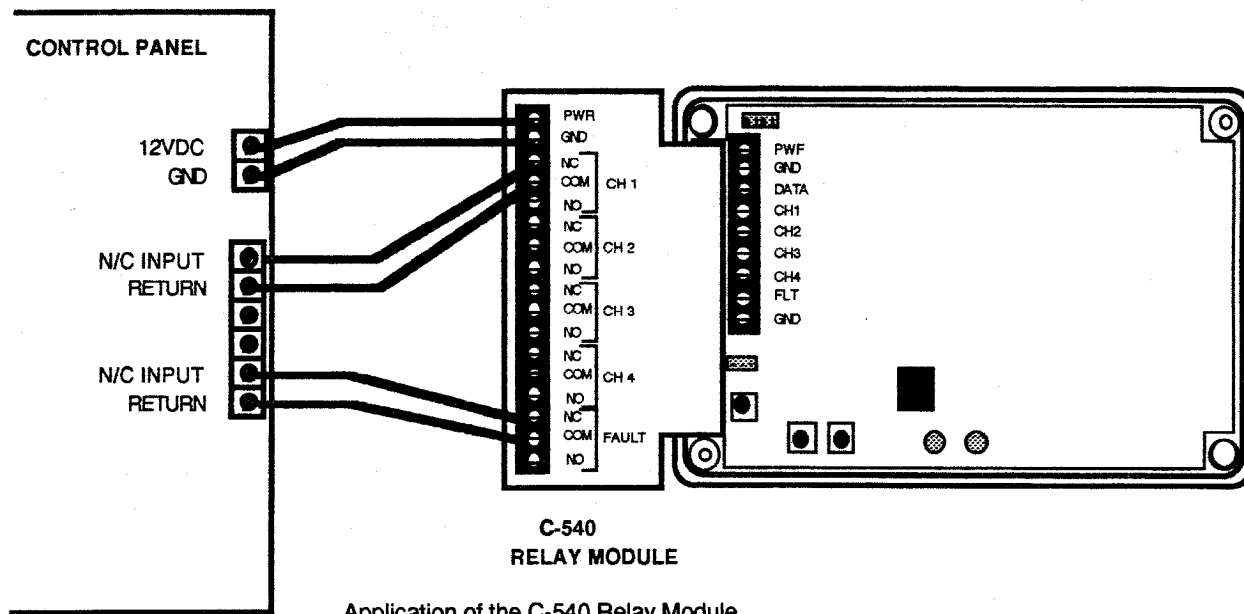


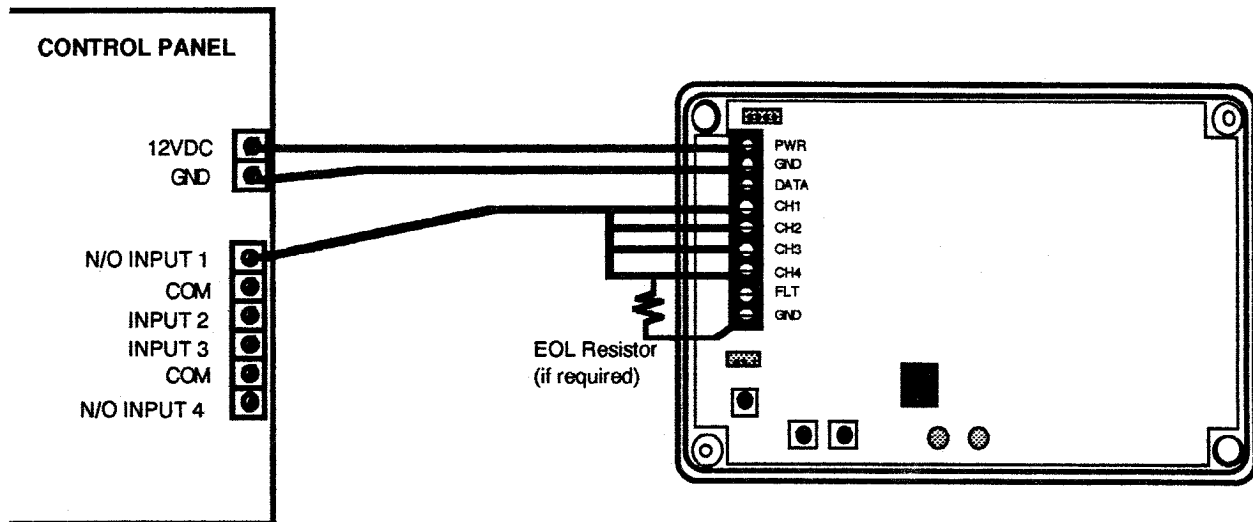
1.875"W x 5.625"L x .875"D



Typical configuration using open collector output of C-404 Receiver. The Panel must accept a normally open device and the common input terminals must be in common with power common.

Consult the Panel manufacturer's instructions to confirm compatibility.





WIRED "OR" CONFIGURATION

All of the outputs of the Receiver may be wired together and connected to a single input on the panel. An EOL resistor may also be used as configured if required by the panel.

TECHNICAL SPECIFICATION

Size:	5.75" x 3.63" x 1.25"
Power Requirements:	10.5VDC to 14.0VDC
Current Consumption:	100 mA
Center Frequency:	920 MHz
Receiver Type:	Super Heterodyne Diversity Reception Automatic Gain Switching Automatic Threshold Control
Input/Output Capability:	Open Collector Output Max applied voltage - supply voltage Max pull down voltage - 1.0 V Max current sink - 500 mA Transmitter programming port Keypad programming port

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