

Installation Instructions

937104 Xtended Range FM transmitters and receivers are designed for use in various wireless remote control applications. When triggered with an external switch, the Model XT-4 transmitter will send a 10 watt, 27.255 MHz, digital encoded, FSK modulated, signal to its companion receiver. The receiver will verify the digital code, activate its output, and trigger the remote device.

The XT-4 transmitter has full supervision capabilities. If the "status" option is selected, the XT-4 sends hourly status signals to its receiver. If these signals cease, the receiver will indicate trouble by activating its status output after four hours. Contact supervision allows the receiver's outputs to follow the transmitter's inputs, staying activated as long as each transmitter input is activated. Alternately, an "auto-restore" option can be selected, causing a momentary receiver output each time any transmitter input is activated. Each input can be configured for either N/O or N/C contacts (switch selectable).

Power for the XT-4 transmitter can come from an external regulated 12 VDC power supply **Power 12VDC 937112** or from a 12-volt battery. A 3-amp fuse protects the unit from reverse power polarity. The XT-4 draws about 15 μ A standby, and about two amps during transmissions. If the power supply voltage drops below 10.5 volts, a low battery message will be included with any signal transmitted, causing the receiver's low battery output to activate.

Two antennas (sold separately) are available for the XT-4. The Model ANT-1A is an 8-inch "rubber duck" antenna for short range applications (less than 1 mile). The ANT-1A requires a CON-180A (straight) connector to mate the antenna to the transmitter. For a right angle antenna, use the CON-180A plus the CON-90A. The Model ANT-2 is a 3-foot whip antenna for use in long range or difficult installations where more range from the XT-4 is required. A common 9-foot 1/4 wave CB whip antenna can also be used with the XT-4 for maximum range.

Two 8-position switches set the unit's system code. This code must be matched in the XT-4's receiver. There are 65,536 different system codes possible. The 4-position option switch selects the receiver's bank (for XR-16 receiver only), and options for status and auto-restore transmissions.

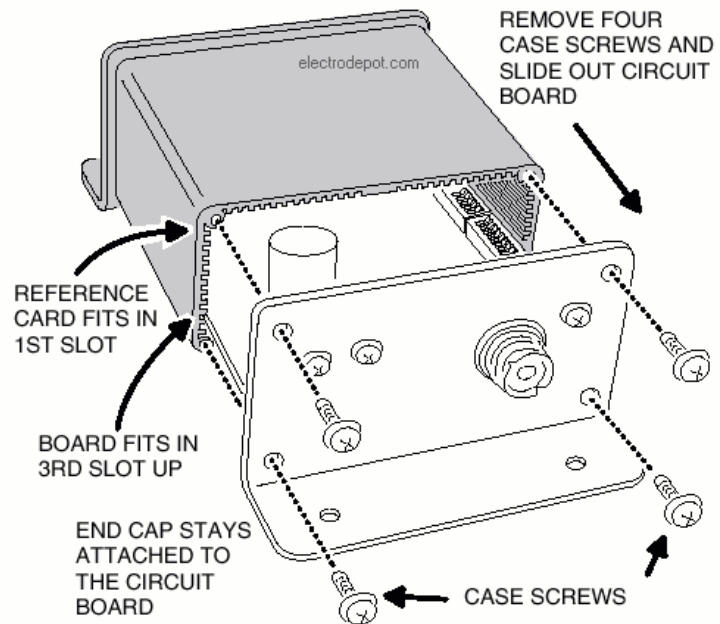
The transmitter is housed in a rugged weather-resistant metal enclosure with a sturdy SO-239 antenna connector and a water-tight wiring strain relief bushing. During transmissions, the red operation indicator (visible through a window on the case) lights. If the XT-4's input voltage is low, the indicator will blink during transmissions.

Warning: Radio control equipment is not to be used in life safety

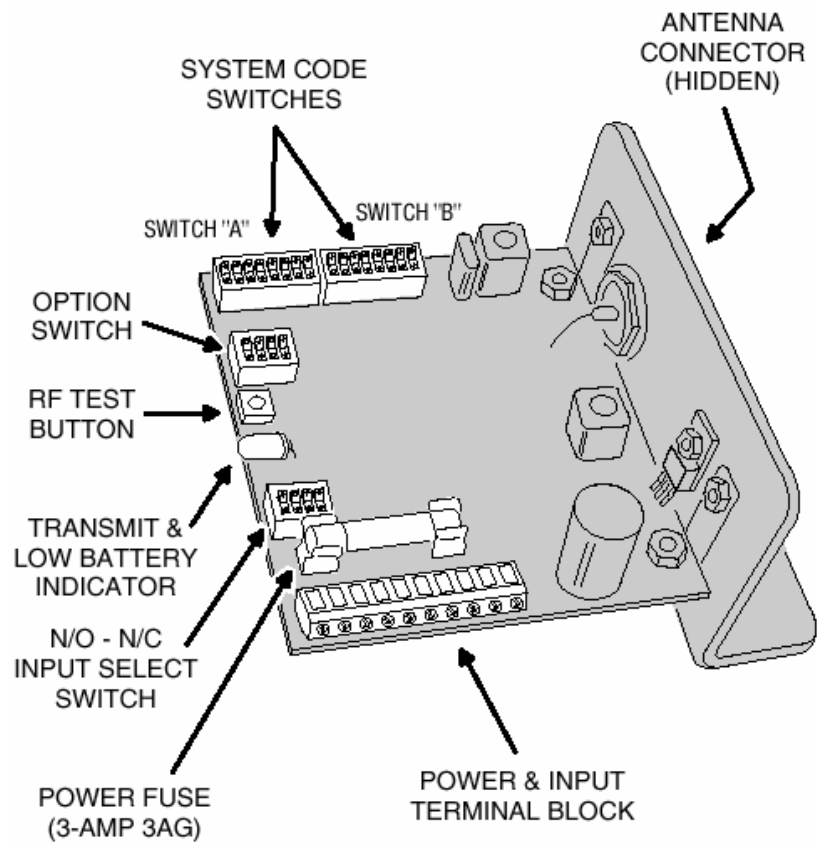
937104 Four channel supervised stationary transmitter

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OPEN TRANSMITTER



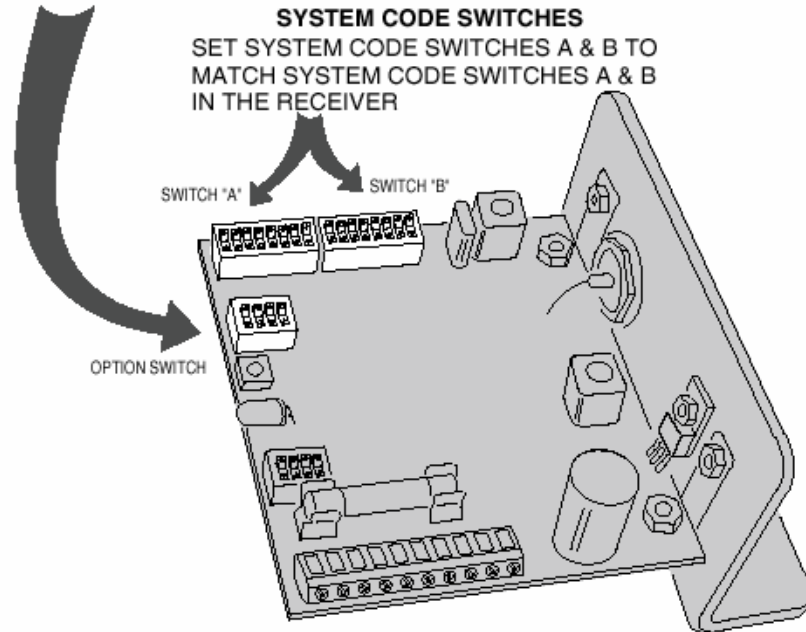
COMPONENT LOCATION



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SET TRANSMITTER

RECEIVER BANK			STATUS REPORTS	
SWITCH 1	SWITCH 2	BANK #	SWITCH 3	
OFF	OFF	1	OFF	NO STATUS REPORTS
ON	OFF	2	ON	STATUS REPORTS
OFF	ON	3		
ON	ON	4		
SET SWITCHES 1 & 2 TO SELECT THE RECEIVER BANK THE TRANSMITTER ACTIVATES (USED ONLY FOR 16 CHANNEL RECEIVER, USE BANK 1 FOR ALL OTHERS)			AUTO RESTORAL	
			SWITCH 4	
			OFF	MANUAL RESTORE
			ON	AUTO RESTORE



CONNECTIONS

INPUT SELECT SWITCH

SWITCH #	CHANNEL	OFF =	ON =
SWT 1	CH 1	N/O	N/C
SWT 2	CH 2	N/O	N/C
SWT 3	CH 3	N/O	N/C
SWT 4	CH 4	N/O	N/C

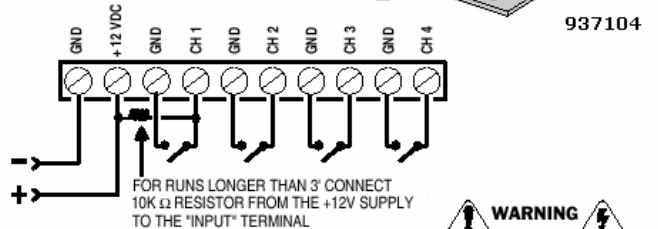
SET SWITCHES 1 - 4 TO SELECT THE NORMAL (NON-VIOLATED) STATE OF THE INPUT TRIGGER DEVICE
SWITCH OFF = N/O SWITCH ON = N/C

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ROUTE WIRES THROUGH CASE STRAIN RELIEF BUSHING BEFORE CONNECTING TO TERMINALS

USE 18-24 AWG WIRE TO CONNECT POWER AND TRIGGER INPUTS

CAUTION: BE SURE WIRE STRANDS DO NOT TOUCH NEARBY FUSE



FROM 12 VDC, 2-AMP REGULATED POWER SOURCE

NOTE: MAXIMUM POWER WIRE RUN 25-FEET WITH 18 AWG WIRE

WARNING

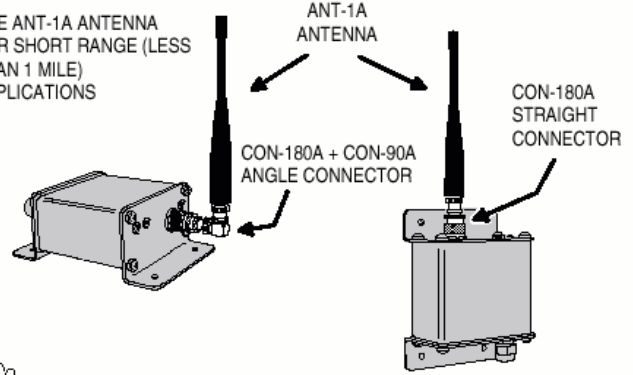
THIS UNIT REQUIRES 12 VDC AT 2 AMPS. THE NO-LOAD VOLTAGE OF THE SUPPLY MUST NOT EXCEED 17.5 VDC OR DAMAGE TO THE UNIT WILL OCCUR!

Electrodepot Long Range Wireless Systems

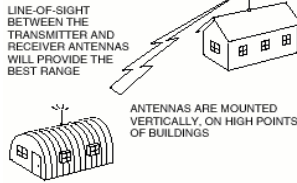
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ANTENNA MOUNT

USE ANT-1A ANTENNA FOR SHORT RANGE (LESS THAN 1 MILE) APPLICATIONS



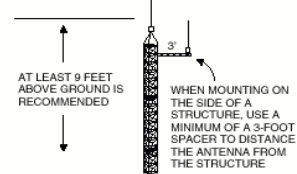
GOOD INSTALLATION



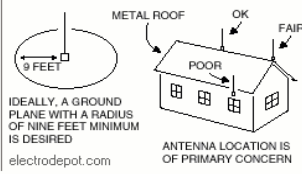
BAD INSTALLATION



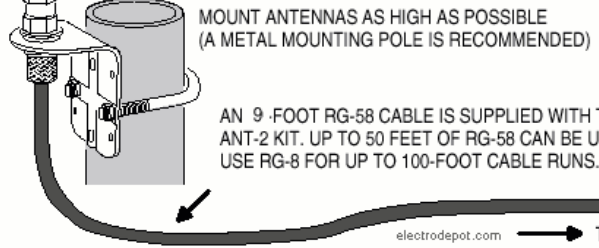
MOUNT ANTENNA AS HIGH AS POSSIBLE



GOOD ANTENNAS NEED GOOD GROUNDS



USE 3-FOOT LONG ANT-2 ANTENNA FOR LONGER RANGE APPLICATIONS OR DIFFICULT INSTALLATIONS



TEST THE SYSTEM

SLIDE BOARD INTO CASE IN THE 3RD SLOT UP

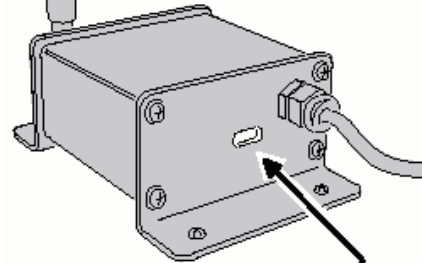


WARNING

NEVER CONNECT THE TRANSMITTER AND RECEIVER ANTENNA CONNECTORS DIRECTLY TO EACH OTHER. MAJOR DAMAGE TO BOTH UNITS WILL OCCUR!

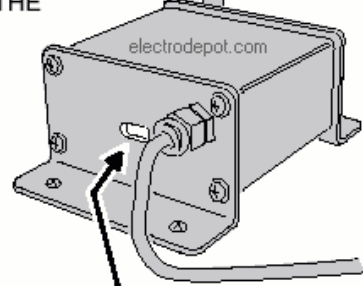
INSTALL AND SETUP THE COMPANION UNIT AS DESCRIBED IN ITS INSTALLATION INSTRUCTIONS

TRANSMITTER
APPLY POWER AND TRIGGER THE TRANSMITTER'S INPUT



THE TRANSMIT INDICATOR SHOULD LIGHT WHEN THE TRANSMITTER IS TRIGGERED

RECEIVER



THE RECEIVER'S SIGNAL INDICATOR SHOULD LIGHT AND OUTPUT SHOULD ACTIVATE

IF SYSTEM FAILS TEST, CHECK POWER, SWITCH SETTINGS AND ANTENNA CONNECTIONS