Wired Fire Transmitter Model #510

Description: The Model #510 Wired Fire Transmitter is specifically designed for connection to initiating devices, sprinkler supervisory switches and other miscellaneous non-burglary non-emergency accessories with Normally Open dry contact outputs. Wires from the screw terminal block of the Model 510 sense the EOL (End Of Line Resistor) connected at the end of the wire loop and report a Trouble alert if a wire becomes disconnected. The transmitter is fully supervised for tamper and low battery. Restore signals are transmitted upon the correction of each alarm or alert. The Model 510 is intended to be used with World Electronics Model 2085B Control Panel. Refer to the 2085B installation instructions, Part Number 2085B.MAN Revision Series #1, for additional details.

Coding: The Model #510 board contains 3 binary dip switches labeled TYPE, VERT-HORZ, and RF. These switches set the alarm TYPE, the VERTical and HORiZontal control panel identification, and the system's RF code. Refer to the system's manual for coding details.

Operation: When the wires connected to the 510 are shorted:

1. An initial (bit 17) alarm signal is sent.
2. A 30 second delay occurs. If during this delay the alarm condition is reset, a restore signal is sent ending the alarm cycle.
3. The continued alarm condition causes a "Repeat Level 2" (Bit 18) alarm transmission.
4. Another 30 second delay as in Step 3.
5. The continued alarm causes a "Verified Level 3" combination (Bits 17 & 18) alarm to be sent.
6. Steps 5 and 6 continue until reset.
7. On reset a restore signal is sent.

Testing: The test is initiated by placing a strong magnet along side of the transmitter near the LED. This starts the following sequence :

1. The unit transmits a tamper signal(BIT19) which will be displayed on the control panel as a tamper alert showing the location that the transmitter is coded to.
2. A 40 second delay occurs.
3. A repeater Signal Survey transmission is sent. Refer to the signal survey manual or the repeater manual for details.

Low Battery Alert: Battery voltage under-load is automatically tested prior to every transmission (not less than once every 1.2 hours). In the event that a low battery voltage is detected, a transmission with the low battery bit (Bit 20) set will occur every 1.2 hours for a minimum of seven days. When the battery is replaced the powering up of the transmitter will cause a restore signal to be sent.

Tamper Alert: The Model 510 is equipped with a tamper switch which will cause a tamper if the unit is opened. Upon detection of a tamper, a tamper signal (Bit 19) is sent and repeated every 30 seconds until the tamper condition is restored. During other transmissions, the tamper bit will be set adding a tamper condition to the transmission. A restore signal is sent when the tamper condition is reset.

Trouble Alert: If a wire becomes disconnected from either, the device the 510 is connected to, OR the EOL, a special signal (TX code 9) is transmitted immediately to indicate a wiring problem exists. This transmission is repeated every hour until the condition is corrected. If other alarms or alerts occur this signal will be sent instead of their normal restore until this condition is corrected. A normal restore is sent when corrected.

Installation: Select an accessible location which is not prone to tampering or accidental damage. The surface should be relatively flat and capable of accepting screws or anchors. Do not locate the Model 510 outdoors or expose it to weather or corrosive conditions. An 18 gage stranded copper wire pair should be used to connect the Model 510 to the dry contacts to be monitored. Wire runs should be as short as possible, contained within one room, and not routed near equipment generating electrical noise such as generators, air conditioners, etc. The wires should enter the Model 510 through the hole provided near the screw terminal block. Under no circumstances are wires to be run near or draped over the printed circuit board in the Model 510. The EOL provided with the Model 510 must be connected either as recommended by the manufacturer of the device being monitored or directly across the dry contact connecting block of the monitored device. Multiple sets of contacts on monitored equipment may be wired in parallel and connected to a single Model 510. However, **only one fire initiating device may be connected to a single Model 510** since each fire initiating device must be individually identified by the control panel.

Cautions

1- When closing the case make sure the LED lamp is over the hole in the cover.
2- Make sure the battery is firmly mounted in the battery clip.
3- The unit must be secured tightly to the wall so as not to be dislodged.
4- Test the unit after any service or battery change.

Following the Codes: The Model #510 should be installed in accordance with the

National Fire Protection Association's (NFPA) Standards as well as the National Electric Code and all local fire and electrical requirements. When connecting to equipment follow the instructions and recommendations of that manufacturer.

The user is hereby notified that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Design Parameters:

* Battery Life: 12 months minimum
* Battery: 9 volt Alkaline: Duracell #MN1604, Eveready #522, Eveready #1222, Eveready #216, Rayovac A1604, Rayovac #D1604, or Lithium battery Ultralife #U9VL, Ultralife #U9VL-J
* Battery Replacement: Upon low battery report and/or during annual maintenance
* Operating Temperature Range: 0° C to +49° C.
* Operating Humidity Range: 0 to 85% RH
* Testing: bimonthly or per local requirements
* Transmission: In compliance with FCC Part 15 for reception on equipment manufactured by World Electronics.
* Test Transmission: Every 1.2 hours
* Format: World Electronics frequency shift tone encoded with enhanced carrier shifting
* Compatibility: World Electronics 2085B Control Panel
* Size: 4.75 in. high, 2.55 inches wide, 1.58 in. deep (depth measured from wall)
* Weight: 6.5 oz.
* US Patent # 4,862,514
* Input Current Rating: 25 micro-amp Normal Supervisory 5 milliampere Alarm
* Initiating Loop Rating: 5 Volts dc 1 milliampere

Limited 2 Year Warranty

ANY PART OF THE MODEL #510 Transmitter (BATTERY EXCLUDED) MANUFACTURED BY WORLD ELECTRONICS, INC. WHICH PROVE TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP WITHIN TWO YEARS OF THE DATE OF SHIPMENT WILL BE REPAIRED OR REPLACED AT WORLD'S OPTION WITH A NEW OR FUNCTIONALLY OPERATIVE PART. THIS LIMITED WARRANTY RUNS ONLY TO THE ORIGINAL PURCHASER AND IS NOT TRANSFERABLE.

CONDITIONS NOT COVERED BY LIMITED WARRANTY:

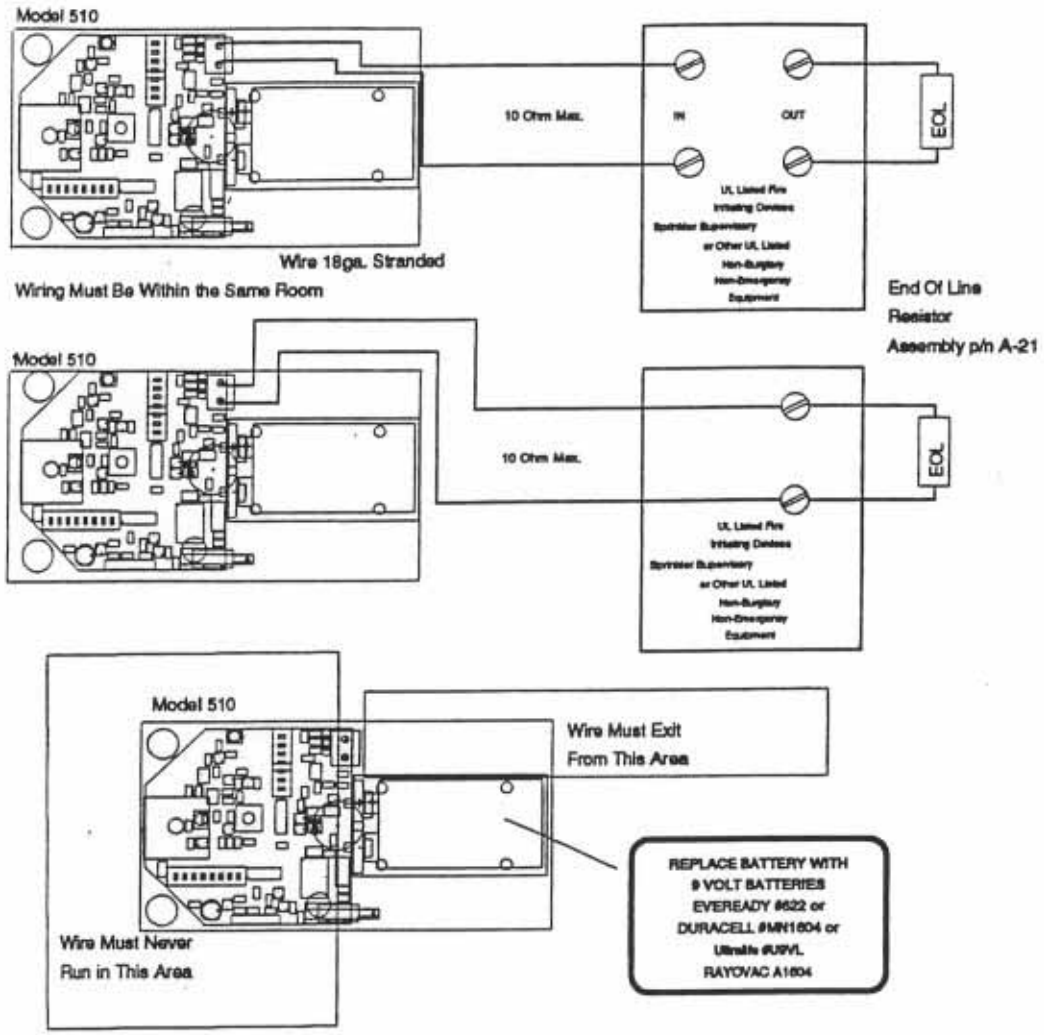
A. DAMAGE RESULTING FROM ACCIDENTS, ACTS OF GOD, ALTERATION, MISUSE, TAMPERING, AND ABUSE.
B. FAILURE OF PURCHASER TO PROPERLY FOLLOW OPERATING INSTRUCTIONS PROVIDED BY WORLD AT THE TIME OF INSTALLATION AND SET FORTH IN THE OPERATING MANUAL PROVIDED.

THE PRODUCT SHOULD BE PACKED CAREFULLY IN A WELL PADDED AND INSULATED CARTON AND RETURNED, POSTAL CHARGES PREPAID TO:

WORLD ELECTRONICS INC.
REPAIR DEPARTMENT
10794 N.W. 53RD STREET
SUNRISE, FL 33351

A NOTE SHOULD BE INCLUDED ADVISING THE NATURE OF THE MALFUNCTION.

Wiring Diagram Model 510 Transmitter



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Rev. 3.0