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I Description:

The Alarm Delay Module is designed to accept dry contact inputs, either Normally Open (N.O.) or Normally Closed (N.C.), and to delay the transmission of the contact position information for a period of time.

II Application:

The primary application is in alarm systems where it is desirable to insert a variable time interval between the detection of an alarm condition and the transmission of the alarm information to monitoring systems, telephone dialers, external services, etc.

Such delay is particularly important in areas where short power interruptions are frequent, or where transitory alarm conditions are likely to occur. The user can select a time period of alarm delay that results in the minimum number of "false" (self-correcting) alarm transmissions while still providing the degree of safety required.

III Design Considerations:

- Independence from line power --- The Alarm Delay Module uses a standard 9 volt battery. A built-in battery test function is provided.
- Extremely low power consumption --- The Alarm Delay Module is designed to have a battery life expectancy of well over one year.

- Accurate delay times --- A digital timing circuit provides accurate, repeatable time delays from 0.5 minutes to 32 minutes.

- Alarm traceability --- If the Alarm Delay Module transmits an alarm condition, an indicator (flashing red light) remains on even if the condition eventually corrects itself. This allows responding personnel to accurately determine the source of the transmission.

- Contact isolation --- A relay provides electrical isolation between the incoming contact lines and those connected to the output. In addition, the Alarm Delay Module can be used to invert the "sense" of the alarm contacts, that is, change an incoming N.O. set of contacts to a N.C. set of transmitted contacts, virtually assuring that any existing alarm detection device can be hooked to any monitoring system, dialer, etc.

IV Installation & Operation:

1. Remove the plastic case cover by squeezing on the center of the long sides and applying light pressure on the face plate. The cover and the face plate will come off together although they are not physically attached to each other.

2. Locate the **ALARM INPUT** switch on the green circuit board. Move the switch to the condition of the contacts in the alarm monitoring device **when in the NON-ALARM condition**. The unit is shipped with the switch in the N.O. (Normally Opened) position
   For the majority of installations, this will be the correct. However, if your alarm device opens its contacts when in the alarm state, simply slide the switch to the N.C. (Normally Closed) position.

3. Locate the row of pins on the short edge of the board labeled "On-Delay". When you receive the unit, a black shorting clip will be located at the 8 minute position. In this position the alarm delay module will require 8 minutes of CONTINUOUS incoming alarm indication BEFORE sending the alarm status on to the output system. Please note that transmission is only made when the input alarm has been received continuously for the selected time period. If, in this example, an alarm is sent to the alarm delay module for 7 minutes, goes away for 30 seconds and then is sent again, a new full 8 minute period will be required before the alarm condition is sent on to the monitoring device.

   If the pre-selected 8 minute period is not correct for your installation, simply remove the black plastic jumper and place it across the set of pins marked 0.5, 1, 2, 4, 8, 16, or 32 minutes. The pair of pins marked "T" are for test purposes and should not be used in normal installations.

4. Next install the signal wires. We suggest you route the wires through the rear of the base. Bring them through the drilled hole and to the terminal strip mounted on the base. Connect the two wires from the alarm detection device to terminals 1 & 2. Connect the two wires from the transmission device to terminals 4 & 5 if the transmission device requires contact closure for operation - or to terminals 3 & 4 if it requires open contacts for operation.

5. Finally, install a standard 9 volt battery (<u>user supplied</u>) in the holder provided. Alkaline batteries are recommended.

6. Before replacing the face plate and cover, check the system for proper operation. Check the LED's on the front panel, in the absence of an alarm condition none of the LED's will be lit. Press the panel push button, the green LED will light momentarily to indicate the battery is operational.

If the unit senses an incoming alarm condition, the yellow LED on the upper right will slowly flash. When the set delay time has elapsed, the yellow LED will stop flashing and the red LED will begin to flash.

- A flashing yellow light indicates that an alarm condition is being timed.
- A flashing red light means that an alarm condition has persisted for the set time and has been transmitted to the monitoring device.
- Pressing **RESET** will cause the green LED to come on momentarily if the 9v battery is operational and will also reset the transmission contacts to their normal non-alarm state provided that the incoming alarm condition has been cleared. Resetting is indicated by the red LED going off.
- If the incoming alarm condition still exists, pressing the **RESET** will have no effect other than indicating battery condition.

NOTE: It is important that the battery condition be checked regularly by pressing **RESET**. A dead battery will prevent proper operation of the Alarm Delay Module.

We recommend that the batteries in all equipment be changed once a year as a good preventative maintenance procedure. Many people choose the first week in January as a convenient time for replacement.

7. Self-adhesive Velcro strips are provided as one means of attaching the Alarm Delay Module to a surface. Mounting position will not affect operation. However, positioning the unit so that the LED indicators can be easily seen (and the **RESET** switch can be pressed) is necessary.