

No. 59 & 59L RECESSED MAGNETIC CONTACTS

USE A NO. 259 INSTALLATION TOOL FOR SPEED AND ACCURACY
IN LOCATING THE SWITCH AND MAGNET HOLES.

Note: NOT RECOMMENDED FOR STEEL FRAMED DOORS OR WINDOWS

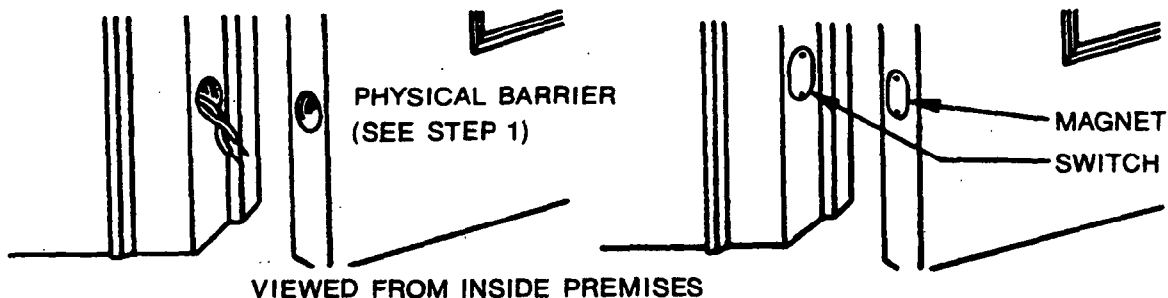
1. Select and mark a location for the switch on the frame of the door (never on the hinged edge) or window. Make sure wires can be easily routed to the selected location and that there will be clearance for the plate which mounts opposite the switch on the door or window. U.L. requires that there be a physical barrier present to protect against defeat of the contact from outside the premises. See diagram.
2. Drill 3/4" holes at the locations marked. Use a No. 7010 Hole Saw. Make sure that the switch and magnet are fitted properly and are not too snug.
3. Bring a pair of wires from the positive leg of the protective circuit through the switch hole.

No. 59L RECESSED MAGNETIC CONTACTS come with 12" switch leads already attached. Splice directly into the protective circuit and proceed to Step 8.

NO. 59 CONTACTS ONLY

4. Thread both wires through the insulator jackets supplied.
5. Place one of the enclosed circular dust shields down over the two rear terminal lugs of the switch. (There is a dust shield for each switch in the carton. The shield's use is especially recommended when the switch is to be installed vertically at the top of a door or window frame.)
6. Solder the wires to the switch terminals. Use only a low wattage soldering iron (Ademco No. 7500 or equivalent) to avoid heat damage to the switch. Do not hold the iron against the terminals longer than necessary. Pre-tinning the protective circuit wires will be helpful.
7. Slide the jackets over the soldered terminals.
8. Using No. 549 (1/2" No. 2, Flat Head) Screws, mount the switch and magnet.

Note: Spacing between the switch and the magnet should not exceed 3/32". Use No. 62 Spacers, if necessary, to bring switch and magnet closer together.



MATS

Nos. 123 123-U	12" x 12" Supervised
124 124-U	18" x 24" Supervised
125 125-U	18" x 30" Supervised
126 126-U	24" x 24" Supervised
127A 127A-U	8" x 30" Supervised
128 128-U	30" x 36" Supervised
129 129-U	30" x 45" Supervised
158	30" wide x 5, 10, or 25 foot lengths
159	18" x 24" Super Thin Mat
160	18" x 30" Super Thin Mat
161	6" x 23" Super Thin Mat

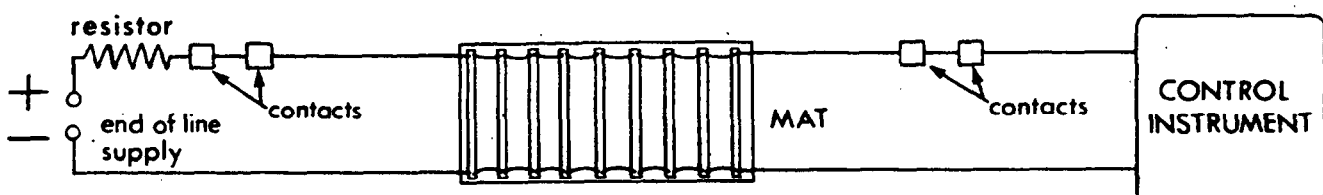
All of the above mats can be connected into any closed or open circuit burglar alarm system. Depending on the system used and/or the need for supervision, the following installation procedures are recommended:

SUPERVISED INSTALLATION

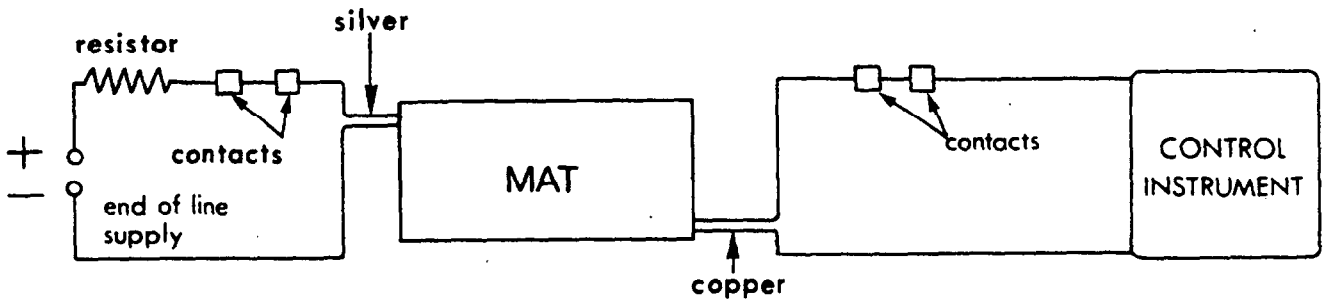
MAT NOS. 123-U through 129-U and NO. 158.

When an installation is supervised, any break in the mat wiring will be reported to the user as an indication that the system will not properly set up. Only Mat. Nos. 123 through 129 with the "U" suffix and Mat No. 158 can be employed in supervised installations because the protective circuit current is made to flow through the connecting wires of these mats. In the event of a break or malfunction of the mat, the user is so informed by a general indication that the particular zone, or in a single-zone installation, the total system is faulted.

INSTALLATION OF A SUPERVISED MAT IN 1000 SERIES CONTROLS



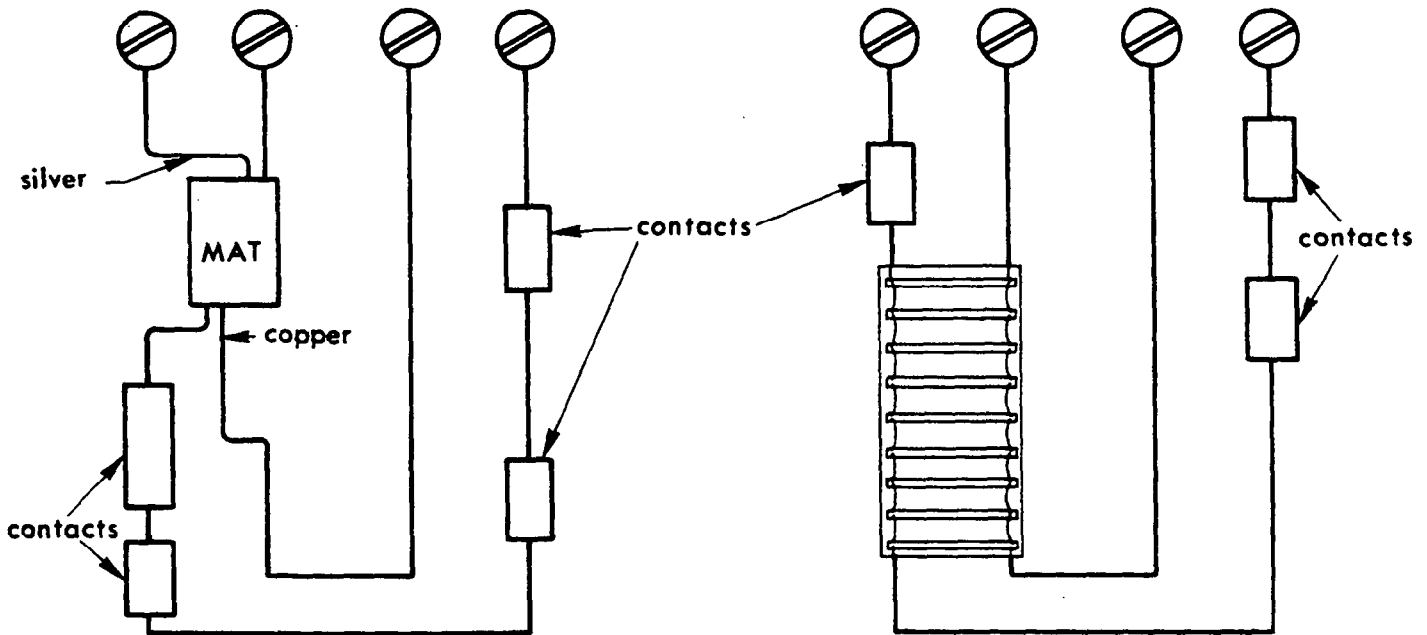
No.158 MAT



Nos. 123-U thru 129-U MAT

When a mat is stepped on, it shorts the panel's sensitive relay and causes it to drop out and sound the alarm when the system is armed. This method gives a completely supervised installation and is ideal for commercial use. It is necessary to add the 125 ohm, 10 watt resistor (Ademco No. 603) in series with the protective circuit at the end-of-line power supply. This will limit the current drawn from the batteries when the mat is stepped on and prevents damage to them. Since there is a voltage drop across the resistor, be sure that the meter reading when the panel is in the CIRCUIT TEST function, is at least 3 milliamps. Using a resistor will not present a problem when using a rechargeable supply at the end-of-line, but in cases where dry cells are used to power the protective circuit, it may be necessary to add an additional No. 6 battery (1 1/2 volts) in series with the others to compensate for the resistor, if at least 3 milliamps cannot be obtained on the meter.

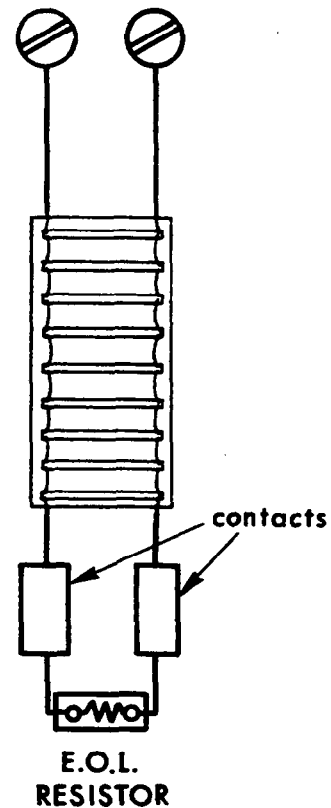
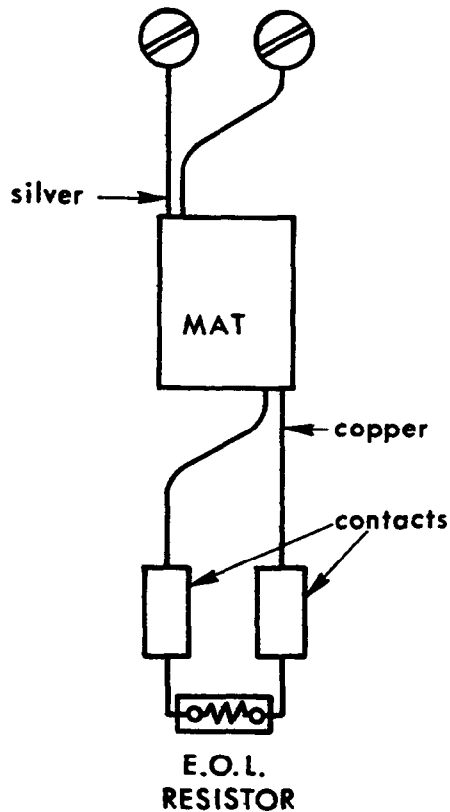
Other supervised installations are shown below:



MAT Nos.123U THRU 129U

MAT No.158

WITH NOS. 221, 229, 330/340 SERIES CONTROLS
AND NOS. 1026, 1028, and 1030 IN THE APC SERIES



MAT Nos. 123U THRU 129U

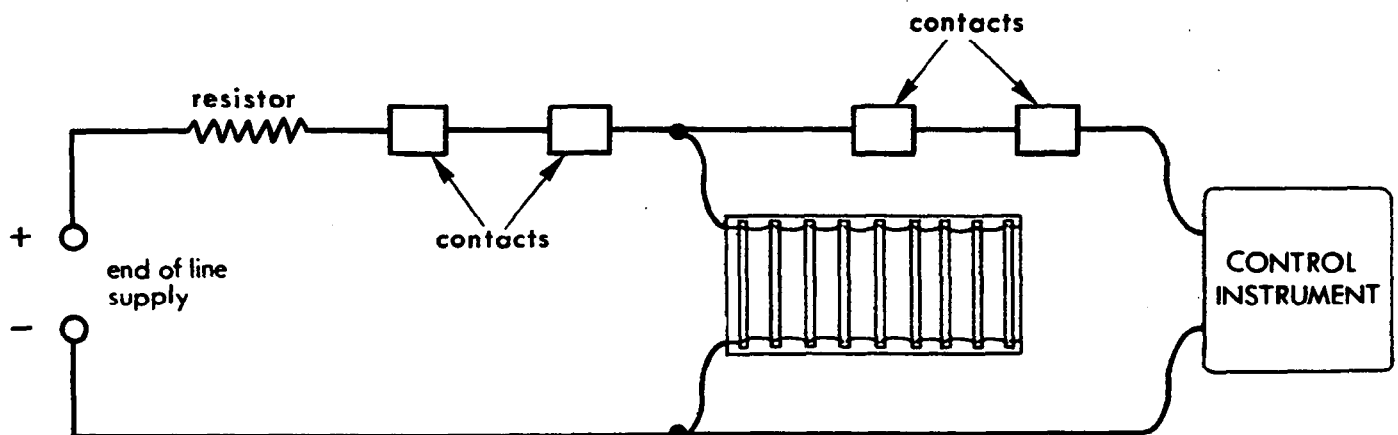
MAT No. 158

WITH APC SERIES CONTROLS USING END-OF-LINE RESISTOR

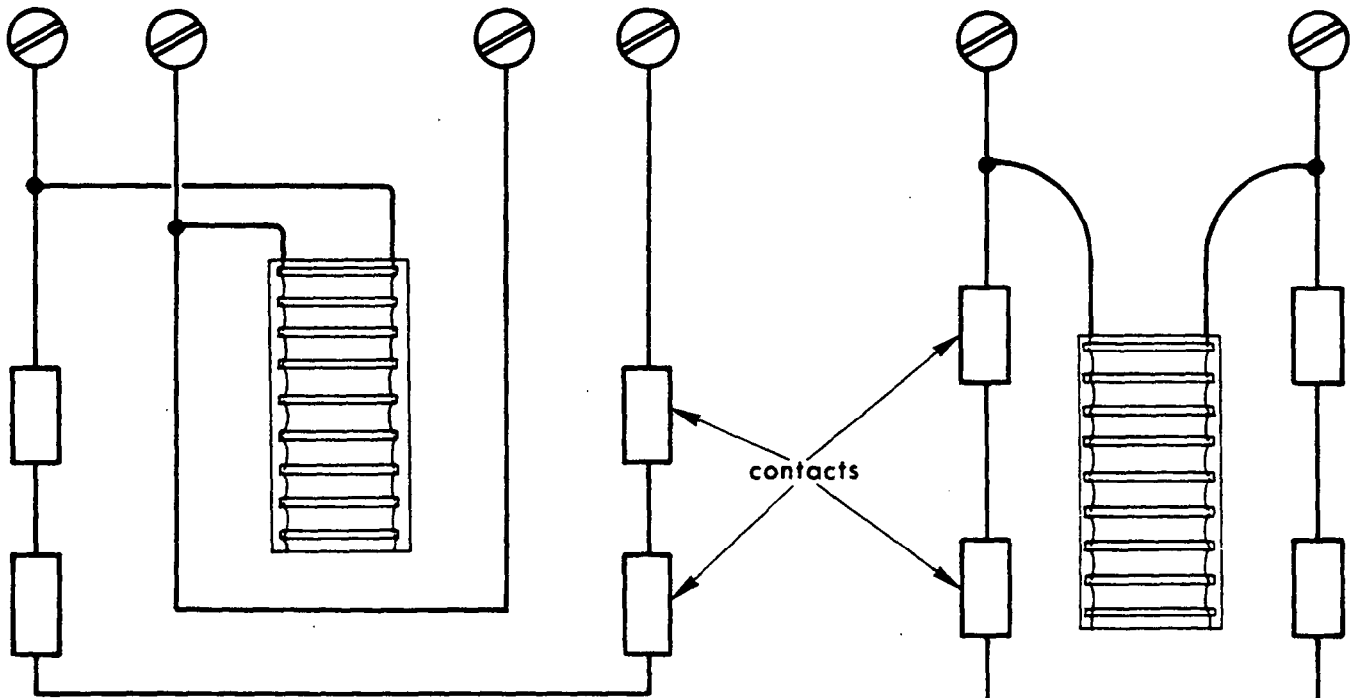
UNSUPERVISED INSTALLATION

MAT NOS. 123 through 129 and NOS. 158 through 161

In an unsupervised mat installation, the user has no way of obtaining a report of a defect in the mat or in the mat wiring. This is because the protective circuit current does not flow through the mat or its wiring. Mats wired in this way should be checked by stepping on them while the system is in its "disarmed and ready to be armed" state, and noting whether or not stepping on the mat creates a fault in the zone to which it's attached.



INSTALLATION OF UNSUPERVISED MATS IN THE 1000 SERIES CONTROLS



INSTALLATION OF UNSUPERVISED MATS
IN NOS. 221, 229, 330/340 SERIES
AND NOS. 1026, 1028 AND 1030
IN THE APC SERIES

**END-OF-LINE
 RESISTOR**

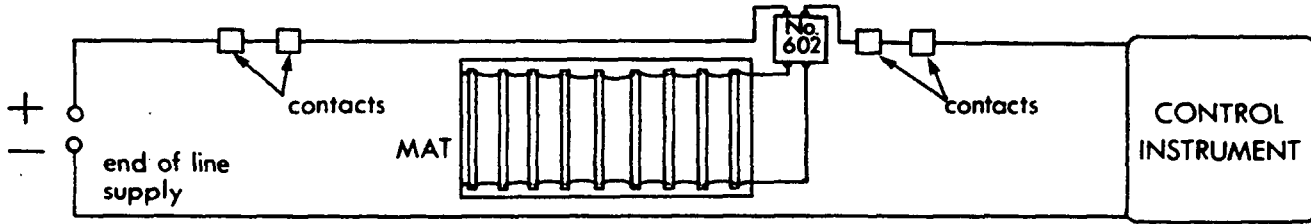
USING END-OF-LINE RESISTOR

USING No. 602 MAT COUPLER (UNSUPERVISED INSTALLATIONS)

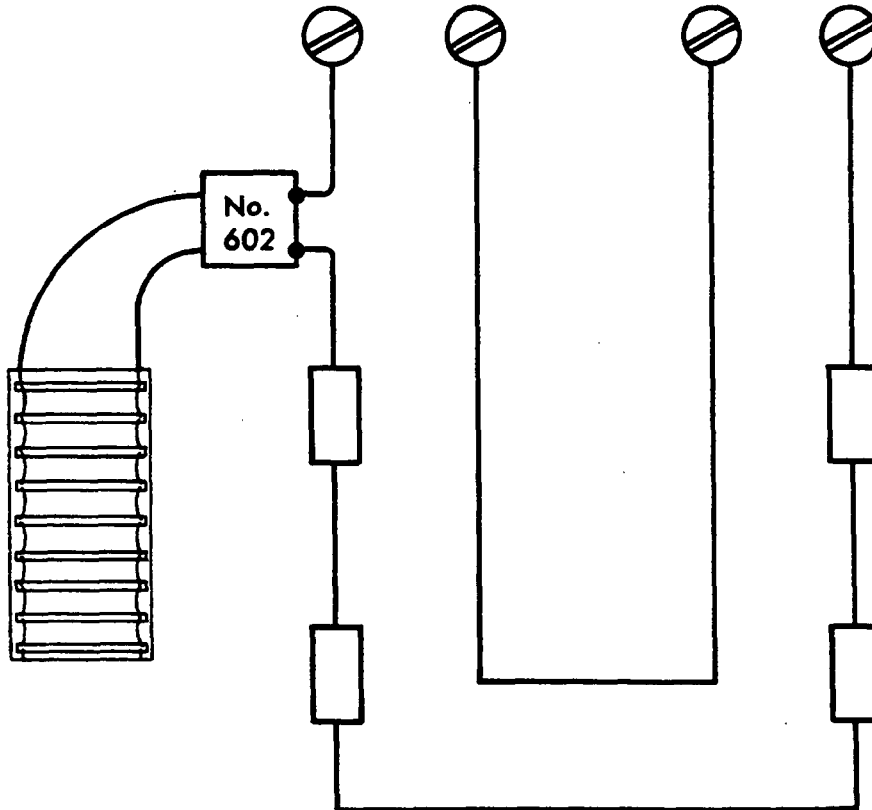
The No. 602 mat coupler converts the operation of the mat from open circuit to closed circuit use. In the hookup below, the coupler acts like a contact which remains closed as long as the mat is not acted upon. Once stepped on, the mat causes the coupler to open, thus breaking the protective circuit and sounding the alarm, if the system is armed. In its use the coupler develops a voltage drop, and in cases when end-of-line dry cells are used to power the protective circuit, (e.g. 1000 series), it may be necessary to add an additional dry cell to insure that at least 3 milliamps of protective circuit current are flowing through the panel's ammeter. This will not be necessary when using rechargeable supplies having a 6 volt output. It should be noted that this type of installation is not supervised, since protective circuit current does not normally flow through the mat wires. To test the operation of the mat and the coupler, have the system in a "ready to be armed" state and step on the mat. The zone to which the mat is attached should indicate a fault at this time.

NOTE: DO NOT USE A MAT COUPLER WITH APC CONTROLS.

INSTALLATION OF MAT AND MAT COUPLER



IN THE 1000 SERIES



WITH NOS. 221, 229, AND 330/340 SERIES CONTROLS

GENERAL INSTALLATION

The matting should always be placed on a flat rigid surface. Install the mat under the carpet padding, not between the padding and the carpet. On surfaces such as concrete, where moisture may be present, place heavy gauge polyethylene sheets or some other moisture resistant material under the mats.

For protecting stairs with thin matting, good practice is to place three separate sections of mat on three consecutive or alternate steps and then wire the sections together in parallel.

ZONING MATS WITH COMBINATION CONTROLS

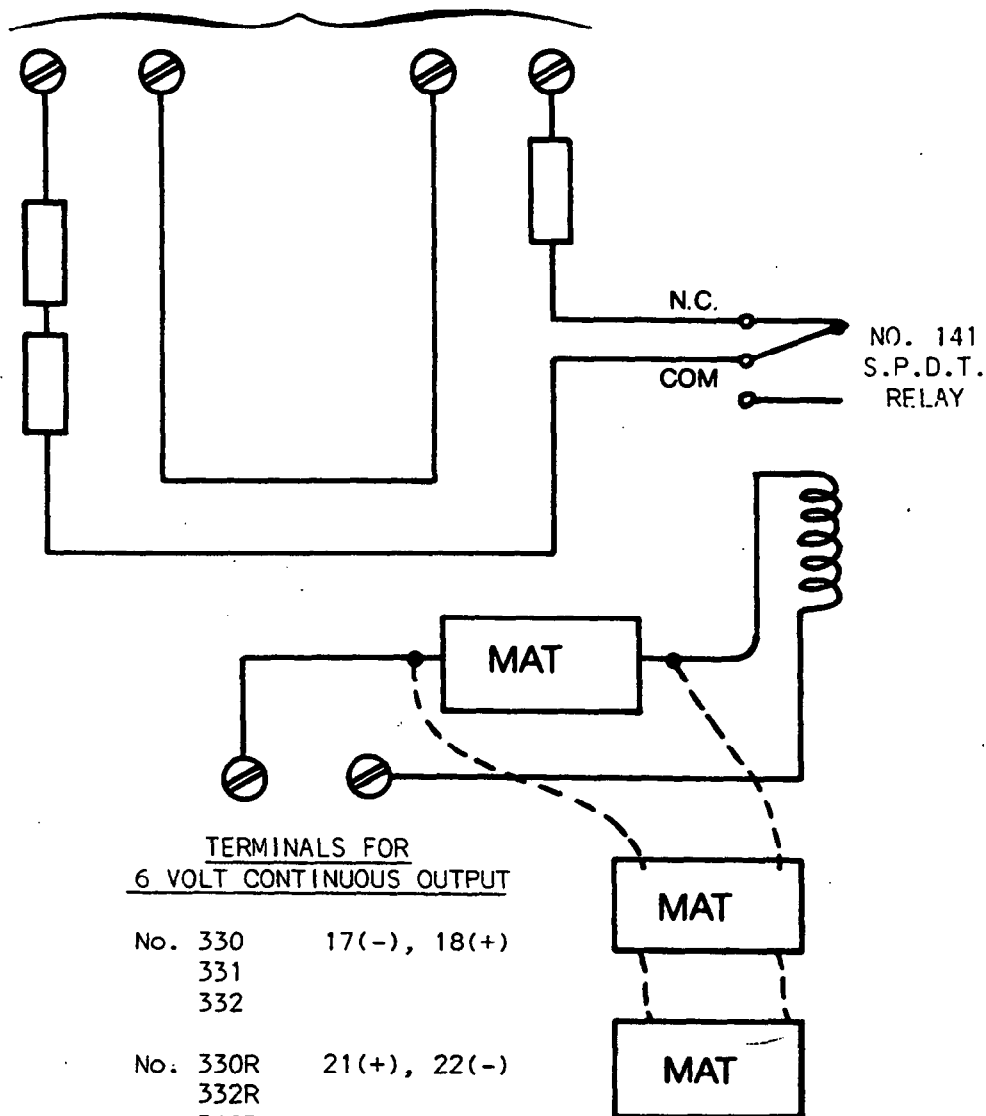
For Combination Alarm Systems in the 330/340 Series, a way of locating a mat to a specific zone is shown below. Normally, a mat wired into a control panel in the 330/340 Series in the manner previously described (without a mat coupler) will cause an alarm when the mat is stepped on regardless of the position of the Zone Switch. Thus, if the system is armed and the Zone Switch is in the "ZONE 1 OFF" position with a mat wired into zone 1, an alarm will sound whenever the mat is stepped on.

To avoid this and to zone out mats without the use of a coupler, use a No. 141 SPDT relay or its equivalent and wire it in the manner shown in the diagram below.

Stepping on the mat completes the relay circuit and causes the COMMON and N.C. relay contacts to separate breaking the protective circuit.

ZONING MATS WITH NO. 141 RELAY

ZONE1 OR 2



TERMINALS FOR 6 VOLT CONTINUOUS OUTPUT

No. 330	17(-), 18(+)
331	
332	
No. 330R	21(+), 22(-)
332R	
340R	
342R	