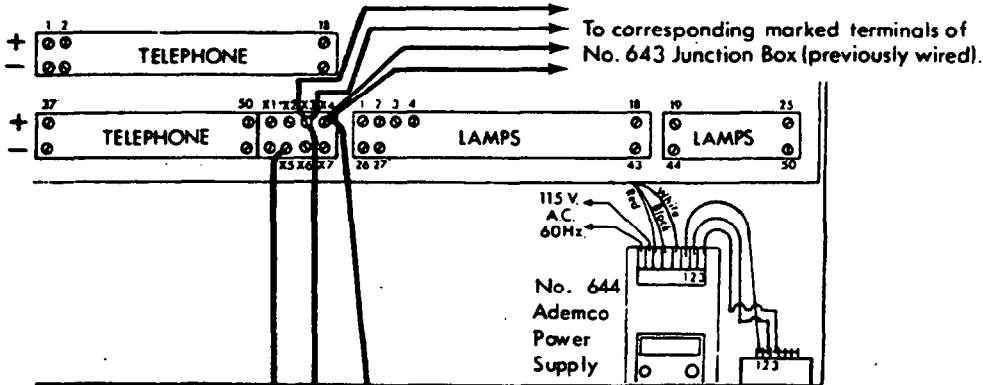


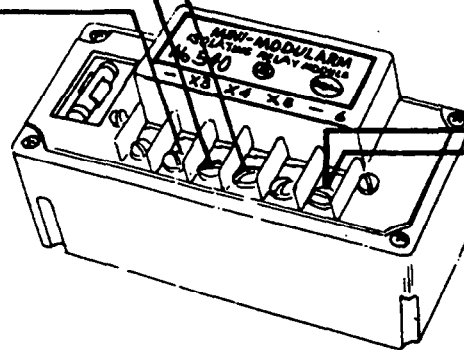
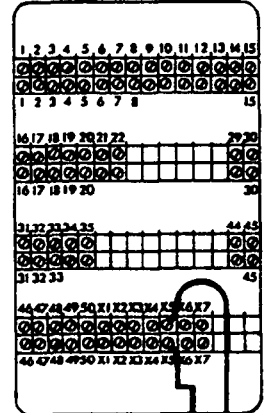
No. 540 ISOLATING RELAY MODULE FOR FIRE MINI-MODULARM

The No. 540 Isolating Relay Module must be wired between the No. 535 Control Cabinet and the No. 643 Junction Box on all Fire Mini-Modularm installations. It should be installed after all fifty lamp terminals plus terminals X1, X2, X3, X4 and X7 of the junction box have been wired in parallel to like numbered terminals inside the control cabinet. (See installation instructions supplied with Fire Mini-Modularm systems.) It should be located in the lower left side of the control cabinet.

No. 535 Control Cabinet



No. 643 Junction Box



TO-WIRE THE NO. 540 MODULE:

No. 540 Module

1. Connect No. 540 Module terminals X3, X4 and X5 to correspondingly marked terminals inside the No. 535 Control Cabinet. Note that terminals X3 and X4 of the control cabinet will now have three wires attached to them: one from the No. 540 Module and two from the junction box. Terminal X5 will be connected to the No. 540 by a single wire only.
2. Connect two wires from terminal 6 of the No. 540 to the terminals marked X5 of the junction box, one wire to each terminal. Spare conductors inside the No. 543 cable can be used for this purpose. Note that no direct connection is made between the X5 terminal of the junction box and terminal X5 of the control cabinet.

TROUBLESHOOTING FIRE MINI-MODULARM

Before beginning to troubleshoot the Mini-Modularm System:

1. Make sure the No. 644 Power Supply is wired properly. The white lead from the control cabinet should be wired to the "protective circuit +" terminal of the No. 644; the black lead to the "common" terminal, and the red lead to the "6 volts 4 amps +" terminal. Terminals 1, 2 and 3 on the No. 644 MUST be wired to terminals 1, 2, and 3 of the No. 97LT or No. 96M Power Pack.
2. Make sure that the No. 644 Power Supply is connected to a 24-hour outlet not controlled by a switch.
3. Make sure that there are no wires "pinched" between the steel plate of the wired panel and the mounting brackets inside the control cabinet. Since there are hundreds of connections behind the wired panel, it is possible that either during mounting or wiring, one of these wires has shorted to the cabinet.
4. Inspect all solder connections made to each of the sockets on the back of the wired panel. Make certain that none of the wiring tabs touch each other.
5. Remove the housing of the display panel and inspect all solder connections made to this unit. Also determine that no two solder lugs or components are shorting out.
6. Check the wiring to the No. 540 Isolating Relay Module if it has been included with the unit. This module is located in the lower left hand corner of the control cabinet. The red, black, green, and white wires coming out from the bottom left hand corner of the wired panel in the control cabinet must be connected to terminals 2, 3, 4 and 6 respectively of the No. 540 Module. Detailed information on the wiring of the No. 540 can be found on page 86 of this section.

NOTE: EARLY PRODUCTION RUNS OF THE MINI-MODULARM DID NOT INCLUDE THE 540. IF IT IS NECESSARY TO ADD THIS TO YOUR SYSTEM, INSTRUCTIONS ARE SUPPLIED FOR HOOK-UP TO FIRE & BURGLARY MINI-MODULARM SYSTEMS. THEY CAN BE FOUND UNDER NO. 540 ISOLATING RELAY MODULE.

TROUBLESHOOTING FIRE MINI-MODULARM SYSTEM

TROUBLE: 1. AC PILOT LAMP NOT LIT.

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
A. <u>AC connection to the No. 644 has been disconnected.</u>	A. <u>Make certain that the No. 644 is connected to a 24 hour outlet.</u>
B. <u>Fuse in the No. 644 has burned out.</u>	B. <u>Replace the fuse in the No. 644 with an Ademco No. 90-7 (.5 amp Slo-BlO).</u>
C. <u>Fuse on chassis of No. 535 has burned out.</u>	C. <u>Replace fuse with Ademco No. 90-5 (7 amp).</u>
D. <u>Lamp in AC pilot light assembly has burned out.</u>	D. <u>Replace lamp with an Ademco No. 765.</u>
E. <u>Control module is not plugged in properly.</u>	E. <u>Since the AC lamp being lit depends upon the control module, make certain that the module is plugged in.</u>

TROUBLE: 2. HORN WILL NOT RESET WHEN RESET BUTTON IS PUSHED BUT DOES STOP AS LONG AS RESET BUTTON IS HELD IN.

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
<u>Dirty cancel relay contacts inside the plug-in subscriber module (in older units).</u>	<u>Relay in subscriber module must be cleaned. Request return authorization number and return for repair.</u>

TROUBLE: 3. HORN WILL NOT STOP EVEN THOUGH RESET SWITCH IS HELD DEPRESSED.

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
A. <u>Wire connecting X2 in the control cabinet to X2 on the display is open.</u>	A. <u>Momentarily short X2 to X4 inside the control cabinet. If the horn resets, look for an open in the wire from X2 in the control cabinet to X2 on the display.</u>
B. <u>Defective reset button.</u>	B. <u>Open the display cabinet and short across the back of the reset button to stop horn. If horn stops, this indicates defective switch which must be replaced.</u>
C. <u>Open coil in cancel relay inside subscriber module (in older units).</u>	C. <u>Obtain a return authorization number and return the plug-in subscribers module for repair.</u>

TROUBLE: 4. ALARM CONDITION EXISTS AT CUSTOMER'S PREMISES BUT SIGNAL IS NOT RECEIVED.

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
A. <u>Signal is not being transmitted properly at control instrument</u>	A. <u>Thoroughly check the customer's alarm system to make certain that</u>

PROBABLE CAUSE

REMEDY

located in the protected premises.

a proper signal is being transmitted on the telephone lines (reversal of current) during an alarm condition. If a No. 145 or No. 147 is being used, make certain that the polarity is correct on terminals 1 and 2.

B. The contacts of the sensitive relay inside the plug-in subscriber module are dirty.

B. Relay inside subscriber module must be cleaned. Request return authorization number and return plug-in subscriber unit for repair.

C. No. 536 control module is defective.

C. Replace module.

TROUBLE: 5. A PARTICULAR DISPLAY LAMP COMES ON FOR EVERY ALARM SIGNAL RECEIVED AND GOES OUT COMPLETELY WHEN THE RESET BUTTON IS DEPRESSED.

PROBABLE CAUSE

REMEDY

Shorted diode in individual subscriber module.

Obtain a return authorization number and return the subscriber module for repair.

TROUBLE: 6. HORN SOUNDS FOR INCOMING ALARM BUT NONE OF THE DISPLAY LAMPS LIGHT.

A. Individual lamp for the subscriber module in alarm condition has burned out.

A. Using the test switch, determine which lamp is inoperative and replace it with an Ademco No. 542 Replacement Lamp.

B. Wire connecting the control cabinet to the subscriber lamp is open.

B. Push the test button and determine which lamp circuit is inoperative. Check the wiring for that lamp circuit between the display panel and the control cabinet. Make certain that all connections are proper.

C. No. 536 Control Module is defective.

C. Replace Control Module.

TROUBLE: 7. INDIVIDUAL SUBSCRIBER LIGHT COMES ON FOR INCOMING ALARM SIGNAL BUT HORN DOES NOT SOUND.

PROBABLE CAUSE

REMEDY

A. Wire connecting X5 in the control cabinet to X5 in the display is open.

A. Short terminal X5 to terminal X3 in the control cabinet. If horn does not sound, look for open in wire connecting X5 in the control cabinet to X5 in the display panel.

B. Horns inoperative.

B. If pushing the test button does not sound horn, the horn unit must be replaced with Ademco No. 375.

PROBABLE CAUSE

REMEDY

C. Short to ground on wire to X2 (reset).

C. Momentarily remove wire from X2 terminal, then cause an alarm condition. If the indication is proper, check for ground on wire to X2. Also try removing all the other subscriber modules. Try causing another alarm condition. If horn blows, one of the other subscriber modules is defective. See NOTE that follows.

TROUBLE: 8. WHEN USING FIRE MINI-MODULARM SYSTEM, COMMON RED LAMP ON LEFT OF DISPLAY PANEL DOES NOT COME ON DURING AN ALARM SIGNAL.

A. Lamp is burned out.

A. Replace with Ademco No. 765.

B. Improper subscriber unit has been used.

B. For fire alarm circuits, Ademco No. 641 Subscriber Units must be used. If a standard No. 537 is used, the common red lamp will not light during an alarm.

C. Trouble with printed circuit board in panel.

C. Contact factory.

TROUBLE: 9. ON FIRE MINI-MODULARM SYSTEM, COMMON RED AND WHITE LAMPS LOCATED ON THE LEFT HAND SIDE ARE ON CONTINUOUSLY.

PROBABLE CAUSE

REMEDY

This indicates a possible problem in the logic circuit inside the display panel.

Contact the factory for additional instructions.

TROUBLE: 10. PUSHING TEST BUTTON DOES NOT LIGHT LAMPS OR SOUND HORNS.

PROBABLE CAUSE

REMEDY

A. Control module is not plugged in properly.

A. Make certain that control module is plugged in correctly.

B. Open in wire from X1 in control cabinet to X1 in display panel.

B. Momentarily short terminal X1 to X3 in control cabinet. If test function does not operate, look for open in wire going from X1 in control cabinet to X1 in display panel.

C. Test button not operative.

C. If shorting across the back of the test button operates the test function, replace the test switch with an Ademco No. 8064.

TROUBLE: 11. ONLY HORN SOUNDS FOR TEST. THE DISPLAY LIGHTS DO NOT LIGHT.

PROBABLE CAUSE

Contacts of test relay in control module are dirty.

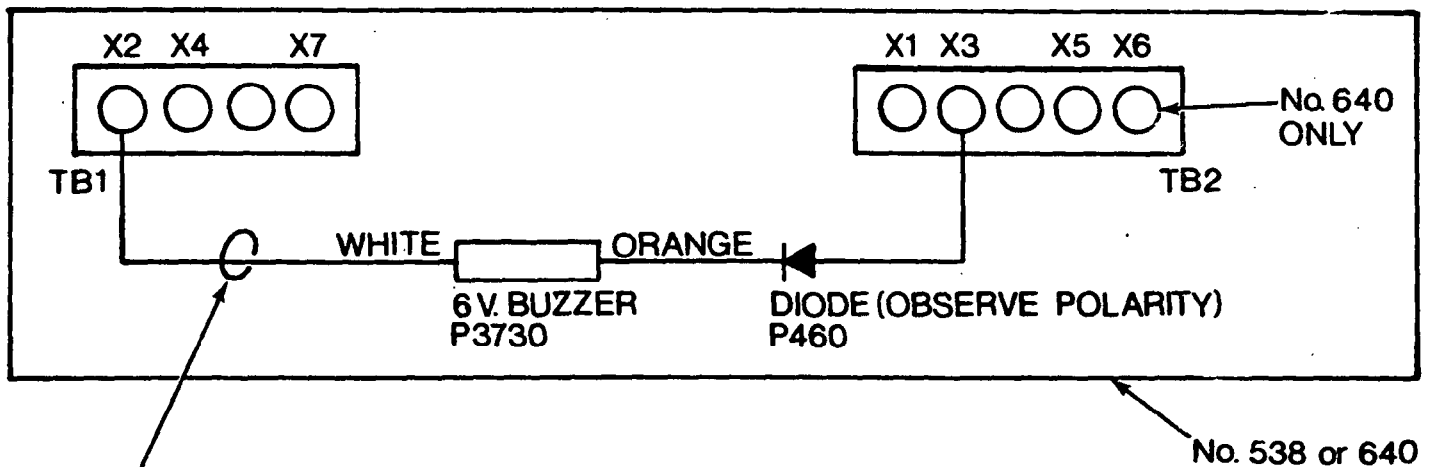
REMEDY

Relay inside control module must be cleaned. Request return authorization number and send the control module back for repair.

PRODUCT INFORMATION ABOUT FIRE MINI-MODULARM

NOTE: The following feature has been added to the No. 640 Fire Mini-Modularm Display panel manufactured after Oct. 15, 1979. A buzzer and diode have been added to supervise the horn reset feature in the mini-modularm plug-in receiving modules. Whenever an alarm is received, a buzzer will sound as long as the reset button on the display panel is held in. Should a failure occur in any module, which would prevent the horn from sounding on a subsequent alarm from any other subscriber, the new buzzer will stay on when the reset button is released. The buzzer will continue to sound until the faulted module is replaced or the source of the alarm is removed.

This supervisory feature can be added to any existing mini-modularm installation. Simply order P3730 (buzzer) and P460 (diode) and install them as shown below.



Note: To silence buzzer, if fault cannot be corrected immediately, insert an SPST switch (e.g. Ademco No. 258) in series here (remote it to a convenient location). THIS IS NOT A RECOMMENDED PROCEDURE, since you will lose supervision if the switch is left in the open position.