

No. 590D AC POWERED SMOKE DETECTOR

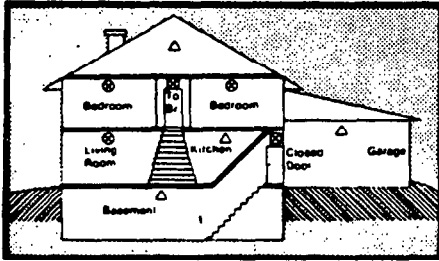
The smoke detector is designed to sense the visible and invisible products of combustion created by a fire. It requires no adjustment and is easily installed. It uses a tiny, harmless quantity of radioactive material (see radioactive material label affixed to the detector) to detect the products of combustion.

These instructions are written in accordance with the installation guidelines of NFPA standard 74-1975. NFPA Standard 74 can be obtained by sending \$3.00 to the National Fire Protection Association, 470 Atlantic Avenue, Boston, Mass. 02110. State and local codes and ordinances may conflict with the above standard. We suggest you contact your local fire authority for local requirements.

Your local fire department should be notified of your smoke detector installation.

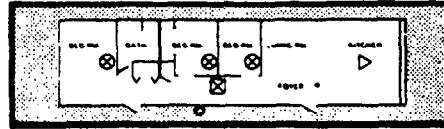
The installation of your ~~smoke~~ detector is intended to provide early warning in case of fire or smoke. The detector is a single and/or multiple station fire alarm for residential use.

NFPA 74 LEVELS OF PROTECTION			
Where To Be Installed			
Level	Detection Equipment Required	Smoke Detectors	Smoke or Heat Detectors
1	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area and at the head of each basement stairs	All other major areas and rooms of the living unit including any basement
2	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area	Basement, kitchen, living room, bedrooms, attic, furnace (utility) rooms
3	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area	Basement, kitchen, living room, furnace (utility) rooms
4	One or more smoke detectors	To protect each separate sleeping area and at the head of each stairway to occupied areas	Not applicable



TYPICAL MULTIPLE FLOOR INSTALLATION

- LEGEND**
- ☒ Smoke Detectors For Minimum Protection
 - ⊗ Smoke Detectors For Additional Protection
 - △ Heat Activated Detectors



TYPICAL MOBILE HOME INSTALLATION*
(intended as supplementary protection)

*NOTE: Federal regulations specify that in mobile homes smoke detectors shall be installed on interior walls only, and must be located 5 to 7 inches from the ceiling. DO NOT INSTALL ON CEILING OR OUTSIDE WALL.

LOCATION OF DETECTORS

The NFPA has established guidelines indicating appropriate locations for the installation of detectors. Level 1 is the recommendation for maximum coverage.

DO NOT LOCATE YOUR DETECTOR IN OR NEAR:

- the KITCHEN--smoke from cooking might cause an unwanted alarm.
 - the GARAGE---products of combustion are present when you start automobiles.
 - the front of forced air ducts used for heating or air conditioning.
 - the peak of an "A" frame type of ceiling.
 - BATHROOMS--excessive steam from a shower can cause an unwanted alarm.
 - UNHEATED BUILDINGS--temperature limits are 40 to 100 degrees Fahrenheit.
- The detector will not function properly in locations where the normal ambient temperature exceeds these limits.

NOTE: Your smoke detector is designed to provide early warning of fire or smoke. It cannot be expected to protect against such occurrences as fires from smoking in bed, violent explosions, or escaping gas.

INSTALLATION INSTRUCTIONS:

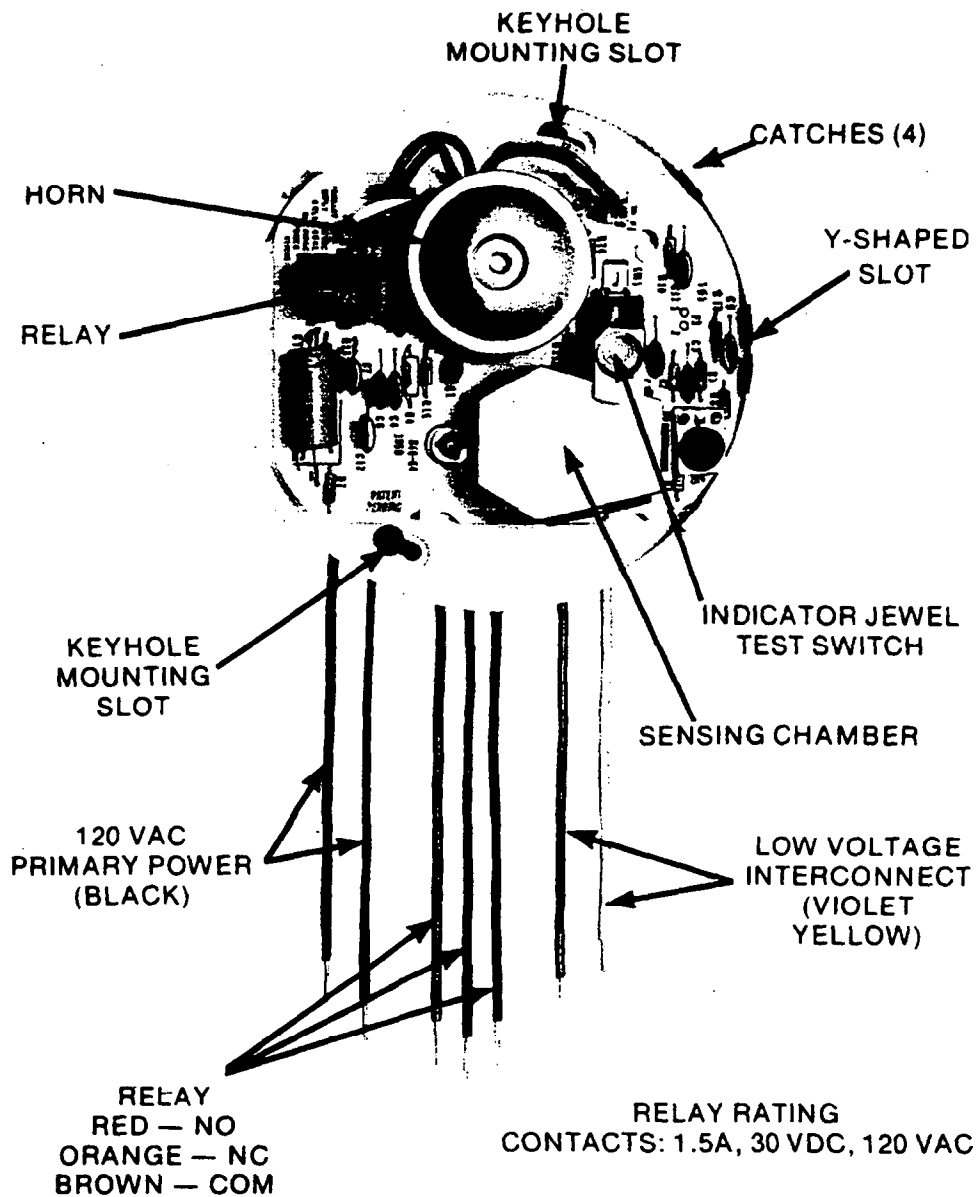
The detector is designed for mounting to a 4" octagon or square 2-1/8" deep junction box. It may be necessary to add extension ring if selected box does not have adequate volume. Power to the detector must be from a 24-hour 120 volt A.C. 60 HZ circuit which cannot be turned off with a switch. DETECTOR INSTALLATION MUST CONFORM TO THE ELECTRICAL CODES IN YOUR AREA. IT IS RECOMMENDED THAT WIRING BE PERFORMED BY A TRAINED INSTALLER.

To Install the detector:

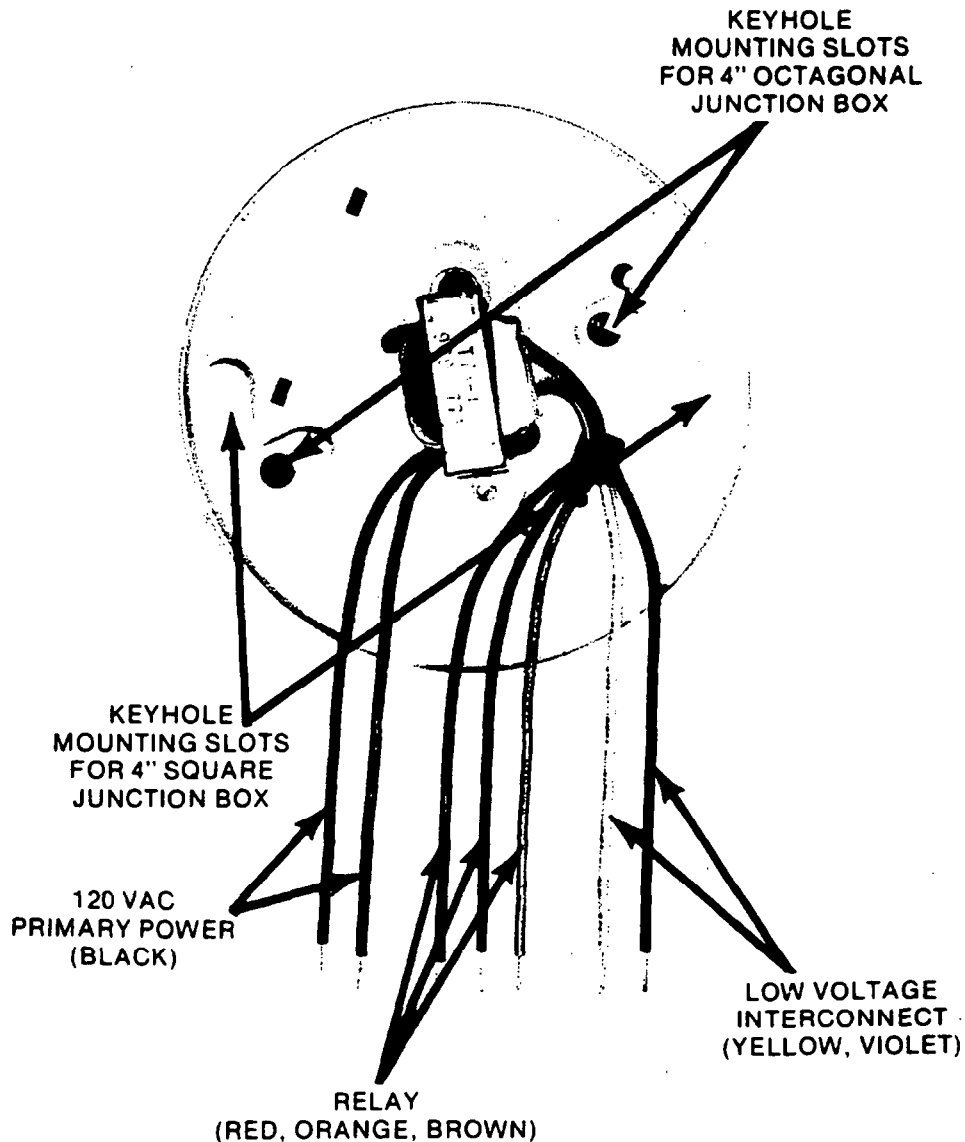
1. Determine the best location for the detector. Install a junction box. Use standard #14 gauge wire for wiring to the junction box.
2. Tighten the mounting screws until they are snug, then unscrew them two turns.
3. Remove the detector's cover. The cover may be removed by holding the base firmly and pulling the cover away from the base.
4. Using wire nuts, attach the A.C. wires to the detector's primary wires as follows: (a) one BLACK wire from the detector to the BLACK power wire, (b) the other BLACK wire from the detector to the WHITE line.

5. Mount the detector using the appropriate keyhole for the junction box selected. Tighten the screws in the smaller portion of the keyhole mounting slot.
6. Replace the cover by lining the single rib in the cover with the Y-shaped slot in the base. Press the cover firmly toward the base until the catches engage.
7. Connect power to the junction box. Indicator light should go on within 30 seconds and be visible through clear indicator jewel. The indicator light MUST be on at all times.
8. Depress the "TEST SWITCH" (indicator jewel) and hold it depressed for ten (10) seconds. The horn should sound. This indicates that the detector is functioning properly and is set to the proper sensitivity for fire detection.

PARTS IDENTIFICATION



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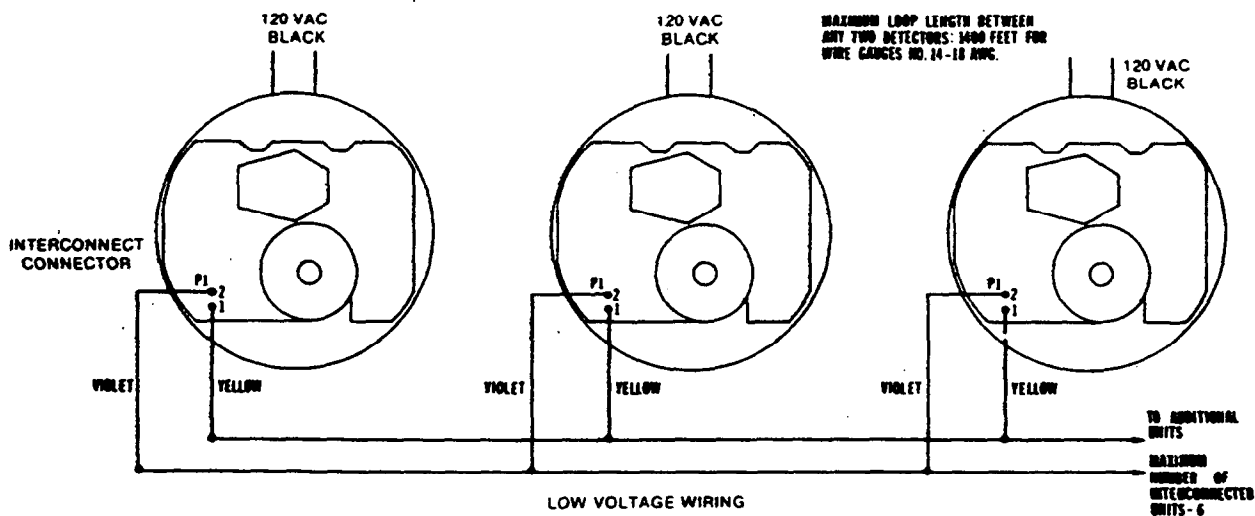


CONNECTING AUXILIARY DEVICES

RELAY: This detector has a built-in relay which may be used to activate auxiliary devices such as bells, sirens and dialers. The relay contacts, rated at 1.5 amps, automatically close when the detector goes into alarm and automatically reset when the alarm stops. For wiring, see the diagrams.

CAUTIONARY NOTE: The No. 590D is designed for residential use only. Ademco does not advise the use of a detector in multiple (7 or more) detector systems monitored by a central control because the No. 590D does not have a built-in alarm indicator light. Without such a light, it is impossible to know which detector in a multiple head system caused a given alarm. It should also be remembered that the No. 590D is self-restoring and does not lock into an alarm condition. This fact again makes the detectors unsuitable for large system troubleshooting.

DETECTOR INTERCONNECTION: This detector may be interconnected with other No. 590D detectors using the connectors supplied. To interconnect units, connect yellow leads of all detectors together. Connect violet leads of all detectors together using wire nuts. See figure below. If unit is not to be interconnected, remove connector assembly by pulling on plastic body.



MAINTENANCE AND CLEANING

Your products of Combustion Detector has been designed to be as free from maintenance as possible. However, there are three simple things you must do to maintain your unit in reliable working condition:

1. Test it monthly (see TESTING PROCEDURE below).
2. Have the detector serviced if needed.
3. Clean it if grease or dust accumulates. It is recommended that the following cleaning procedures be followed at least once a year:
 - a. Turn off AC power and remove the cover by pulling steadily downward.
 - b. Using a vacuum cleaner, remove any accumulated dust from the sensing chamber openings.
 - c. Replace the cover and turn on AC power.
 - d. Depress the test switch. The detector should sound an alarm.

TEST PROCEDURE

You should test your detector at least once per month to ensure yourself of proper operation. A weekly test is recommended by NFPA. To test your detector, firmly press the test button located near the center of the cover for a few seconds. The alarm will sound as it would if smoke from a fire were actually present.

SERVICE

Should the detector require service, send it to ADEMCO, 165 Eileen Way, Syosset, N.Y. 11791. Enclose a note describing the apparent malfunction.

DISPOSAL

Do not discard your detector. Return it to Ademco at the above address for disposal.

RADIATION AND YOUR SMOKE DETECTOR

See the discussion on radiation found on page 28 of this section.