No.632D PRODUCTS OF COMBUSTION DETECTOR

GENERAL DESCRIPTION

The No. 632D is a dual chamber six volt products of combustion detector designed for use in small to moderately sized fire systems. It may be used with Ademco's No. 508, 340R and 342R controls in listed installations and with the 330 and 330R series controls in non-listed installations. If other control equipment is used, the power supply must be DC or filtered full-wave rectified AC. The detector has a light emitting diode in the center of its cover which lights and locks in when products of combustion are sensed. Detector reset is achieved by momentarily interrupting power to the detector. Power supervision is accomplished by installing a No. 633 End-of-Line Relay Module at the end of the detector loop. A power failure or break in the detector loop de-energizes the E.O.L. Module, opening its relay contacts, and activates a trouble signal at the control panel. (See Diagram 2). Full specifications for No. 632D appear in Table I below:

TABLE I

Voltage	5.1-10 VDC
Idle Current	100uA
Alarm Current	125mA
Alarm Relay	SPDT -N.O./N.C. contacts, 1 amp resistive at 120 VAC/28 VDC
End-Of-Line Module (No. 633)	6 VDC Power Supervisory Relay

PLANNING AN INSTALLATION

Before installing detectors, please review carefully "Application Notes For Systems Products of Combustion Detectors", found on page 64 of this section. No more than 10 detectors should be placed on any one zone. Ademco's Fire Early Warning System should be used on larger systems.

Table II below shows how many No. 632Ds can be used with basic Ademco controls:

TABLE II

ADEMCO CONTROL	ADEMCO STANDBY BATTERY	MAX. NUMBER NO. 632Ds	HOURS OF STANDBY CAPACITY
330 Series	866	20 (with 4 incandescent remotes)	50
330 Series	493	20 (with 4 incandescent remotes)	25
330R, 340R Series	492	20 (with 4 incandescent remotes)	12
330R, 340R Series	493	20 (with 4 incandescent remotes)	25
508	866	20	50

WIRE SELECTION

All wiring must be installed in compliance with the National Electrical Code or Local Codes having jurisdiction. Proper gauge wire should be used. Each conductor should be identifiable to avoid wiring mistakes. Table III will serve as a guide for wire selection.

NO. 632D POWER LINES MAXIMUM LENGTH (FEET)			
WIRE SIZE	NO. OF DETECTORS		
	1-5	5-10	10-20
#18 AWG	350	175	95
#16 AWG	525	275	150
#14 AWG	880	440	240

MOUNTING

The Model 632D detector can be mounted:

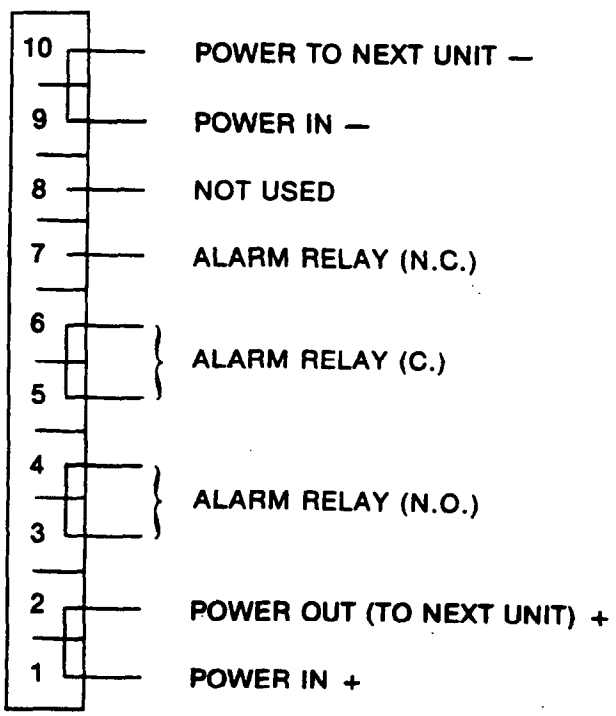
(1) Directly to a 4" octagonal or 4" square, 1-1/2" deep (#125 or equivalent) electrical box (see Diagram 3).

(2) Directly to the ceiling using the enclosed mounting kit provided with the detector. Use the detector base as a template and drill two 3/16" holes for the plastic screw anchors.

WIRING

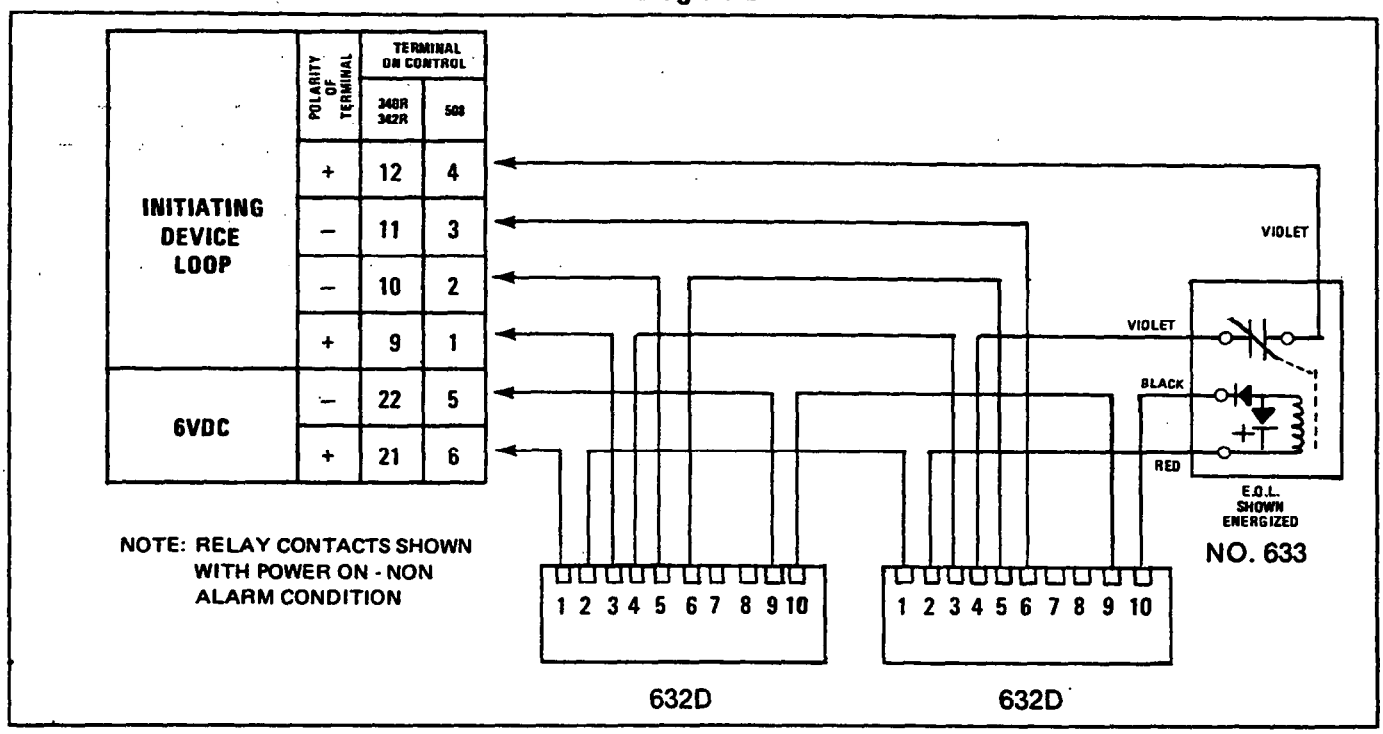
Wiring connections are made to the 10 position terminal block. Wiring is pulled through the cutout on the bottom of the base. These detectors are low voltage and therefore do not need conduit except where required by local codes. See diagram 1 for terminal designations.

Diagram 1: Terminal Designations



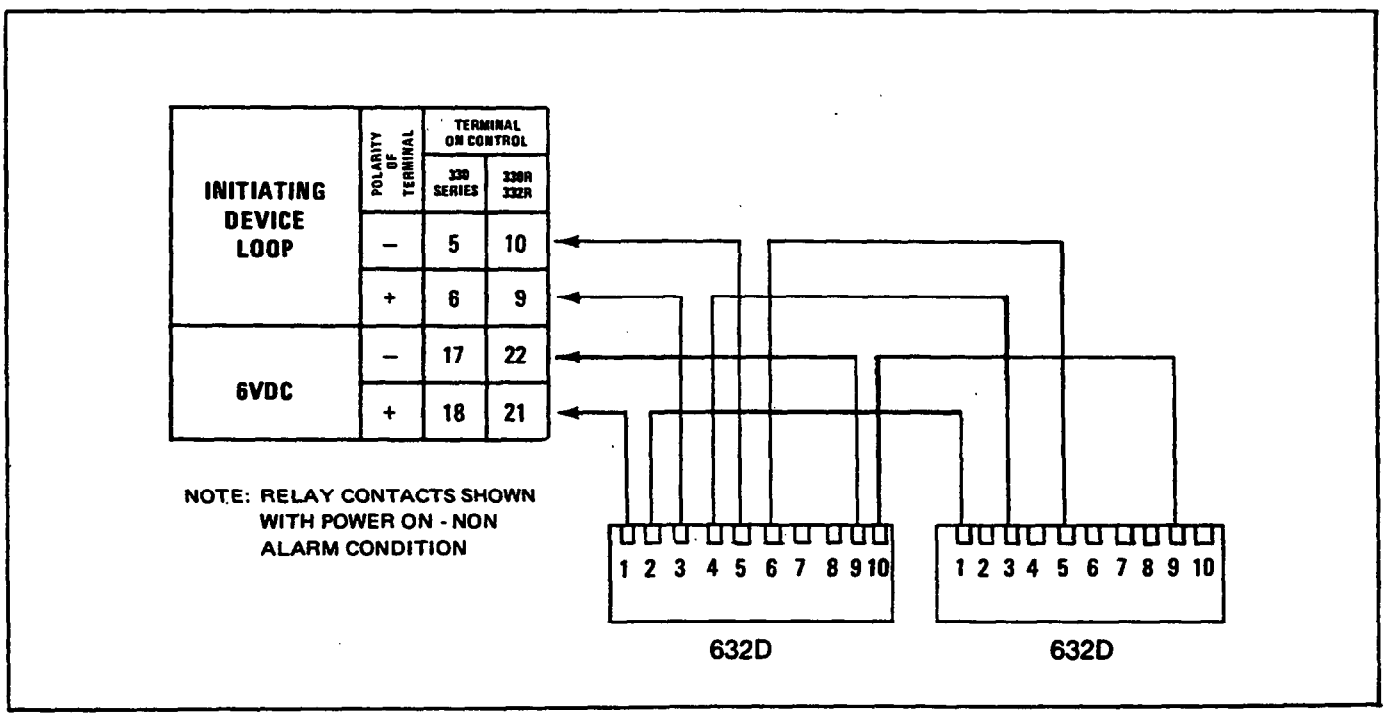
The No. 632D Detector is compatible to both supervised and non-supervised control circuits. See Diagrams 2 and 3 for connecting instructions to ADEMCO control panels.

Diagram 2



NO. 632D WIRING TO 340R, 342R AND 508 CONTROLS

Diagram 3



NO. 632D WIRING TO 330 SERIES CONTROLS

SENSITIVITY TESTING

Remove the cover from the detector. Verify that power is being supplied. (See Diagram 4 for parts locations). The sensitivity test switch is located in the area below the chamber to the right of the terminal block and is labeled S1. To check sensitivity, depress and hold the upper part of S1. (labeled A). The detector must alarm (allow about 10 seconds), and the alarm LED must light. Reset the detector by removing power. If it fails the test, follow the cleaning procedure and then retest. If it still fails to operate properly, the unit must be returned to Ademco for repair.

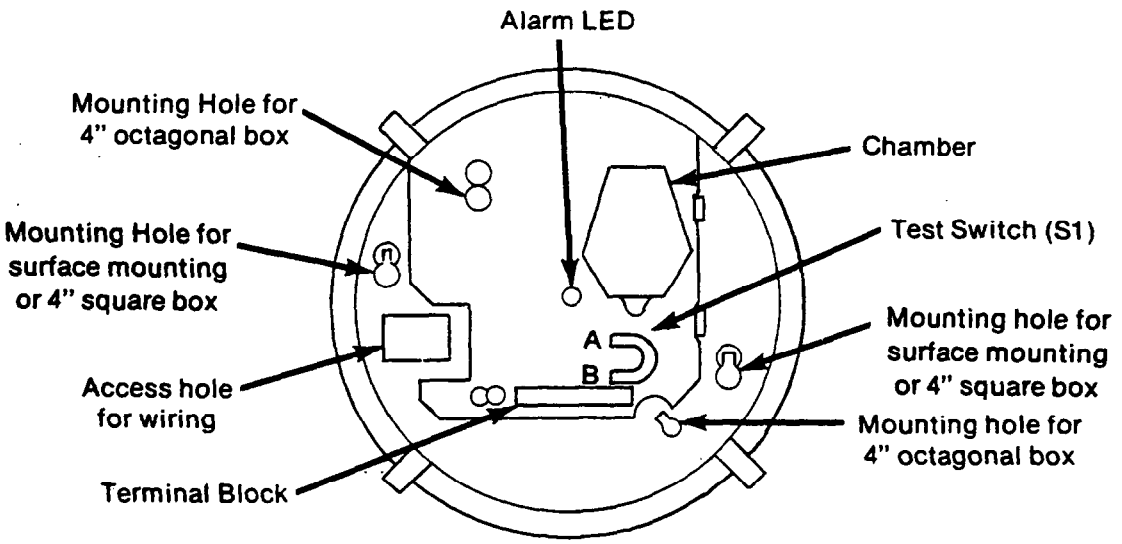


Diagram 4 : Parts Location

MAINTENANCE AND CLEANING

The 632D has been designed to be as maintenance free as possible. Normal dust in the atmosphere, however, can accumulate in the chamber and will cause the detector to become more sensitive. Detectors should be cleaned at least once per year and more often when used in dusty areas. Detectors must be cleaned immediately after a fire. Failure to maintain detectors may result in needless false alarms.

TO CLEAN DETECTORS

a. Turn off power to the system.
b. Remove cover from the detector.
c. Use a vacuum cleaner and remove dust from openings on detector chamber.
d. Restore system power.
e. Perform sensitivity test.
f. Replace cover on detector.