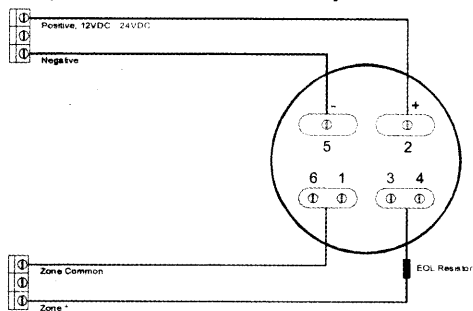


# WIZMART

## NB338 Photoelectric Smoke Detector Installation Wiring Diagram

### TYPICAL WIRING DIAGRAM

Figure 1 shows the typical wiring diagram of the 4-wire multiple-station smoke detector system.



DO NOT PLACE LINKS BETWEEN THE WIRING POSITIONS OF TERMINALS 2 AND 5 TO PROVIDE POWER SUPERVISION

### WARNING

TO PREVENT DETECTOR CONTAMINATION AND SUBSEQUENT WARRANTY CANCELLATION, THE SMOKE DETECTOR MUST REMAIN COVERED UNTIL THE AREA IS CLEAN AND DUST FREE.

### INSTALLING THE BASE

- To insure proper installation of the detector head to the base, all the wires should be properly addressed at installation:
  - Position all the wires flat against terminals.
  - Fasten the wires away from connector terminals.
- If you use a jumper wire to connect the poles of terminal 2 and 5 when testing the detector loop continuity, be sure to remove the jumper wire prior to the installation of the detector head.
- The end-of-line device shown in fig. 1(a) and 1(b) should be compatible with the control unit. The end-of-line supervisory relay used should be rated for the DC power voltage used.
- Open area smoke detectors are intended for mounting on a ceiling or a wall in accordance with the fire standard in your country.
- The base of the smoke detector can be mounted directly onto an electrical junction box such as an octagonal (75mm, 90mm or 100mm), a round (75mm), or a square (100mm) box without using any type of mechanical adapter.

### INSTALLING THE HEAD

- Align the components as shown in Figure 2.
- Mate the detector head onto the base and twist clockwise to secure it.

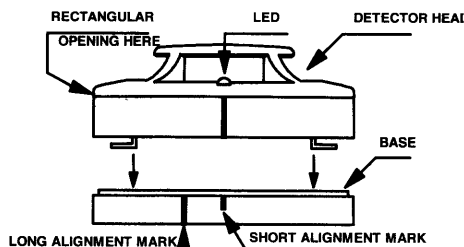


Fig. 2 Mating detector head on the base

- Do not install the detector head until the area is

thoroughly cleaned of construction debris, dusts, etc. The maximum number of smoke detector installed in the same loop is 30 units

### ADJUSTING THE RELAY FOR NO/NC

The normal condition for the relay is "normally open" (NO). To remove top cover remove two screws on back of NB-338 smoke detector as shown in Figure 3

#### \*\*\* NOTE \*\*\*

To remove top cover remove two screws on back of NB-338 smoke detector

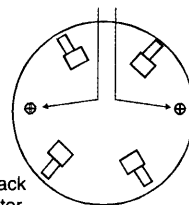


Fig. 3 Two screws on back of NB-338 smoke detector

- To adjust the normal condition of the relay to "normally closed" (NC),
- Refer to Figure 4. There is a jumper head next to the relay on the PCB. Remove the jumper head and reinsert it in the NC position.
- Carefully replace the front cover.

Relay contact rating:

1A@30VDC,  
0.5A@125VAC.

Set Jumper setting to NC (Normally Closed)

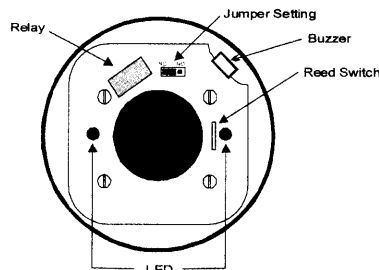


Fig. 4 Schematic of detector structure  
When front cover is open.

### TESTING

- All the alarm signal services, releasing device and extinguisher system should be disengaged during the test period and must be re-engaged immediately at the conclusion of testing.
- After energizing the detector head for approximately one minute, check to see the indicator green LED flashing once every 3~5 seconds. If green LED fails to flash, it indicates the non-functioning of the detector or faulty wiring. Re-check the wiring or replace the detector if necessary.
- Position the "Test Magnet" against the side of the detector housing marked "TEST" for at least 5 seconds as shown in Figure 5. The detector should be triggered to alarm as indicated by steady red LED illumination. Reset the control unit to return to normal operation.
- Allow smoke from a cotton wick or a test smoke aerosol to enter the detector-sensing chamber for at least 10 seconds. When sufficient smoke has entered the chamber, the detector will signal an alarm, this being visible by a continuous illumination of the LED. Reset each detector and/or control unit before attempting to test any additional detectors in the same zone. If the alarm fails in this step, it indicates a