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### Description

The T-Spy Series photo smoke, multi-sensor, and heat detectors employ advanced addressable digital communications of analog readings. Built-in Dip switches are used to conveniently set the detector's address. The base has output terminals for connection to A remote LED.

T-Spy detectors are compatible with Harrington Signal's FireSpy® Tracker Fire Alarm Control Panels (T1000, T2000, & T8000).

#### TS8-DP

T-Spy detectors that employ photoelectric smoke detection have an infrared light emitting diode (IRLED) that acts as a light source and a photodiode that acts as a light receiver. The IRLED is positioned at an angle of 120° to the photodiode. A plastic rod between the IRLED and photodiode prevents the light from IRLED shining directly onto the photodiode. In normal operation the photodiode will not receive any light from IRLED; therefore, no current is induced by the photodiode. When smoke from a fire gets into the detector

chamber, fine smoke particles scatter some of the light emitted by the IRLED into the photodiode.

The photodiode changes impedance when it receives the scattered light so as to increase the level of the photo electronic circuit output. The increase is recognized by the microprocessor inside the detector and a corresponding analog value is sent to the control panel when interrogated. An analog value of 55 corresponds to the UL 268 alarm sensitivity level.

#### TS8-DH

The heat sensor used in T-Spy heat detectors is an accurate, fast-response, high-reliability NTC thermistor. An analog-to-digital conversion is done once per second by the microprocessor for both fixed temperature and rate-of-rise measurements. When the temperature reaches the alarm value of 138°F (59°C) or the rate of rise and sustained time meets UL 521, the detector increases its analog value to 55. The detector communicates the analog value to the control panel when interrogated.



### Features

- Compatible with Harrington's FireSpy® Tracker 1000, 2000, and 8000 Panels
- Two status LEDs
- Address is set by Built-in Dip switch
- Digital Communication
- Detectors support addressing from 1 to 254
- Dual LED's for 360° visibility
- Remote LED option per base
- Automation Type Identification
- Addressing Confirmation
- Sleek low-profile housing display
- Heat Detector Fixed / ROR
- Combination Multi-Detector Photo / Heat

### Ordering Information

Model Number	Part Number	Description
TS8-DP	TS8-DP	Photo Smoke Detector
TS8-DH	TS8-DH	Heat Detector (Rate-of-Rise / Fixed)
TS8-DM	TS8-DM	Multi-sensor Detector (Photo / Heat)
TS8-B6	TS8-B6	6" Base (for above heads)
TS8-B4	TS8-B4	4" Base (for above heads)



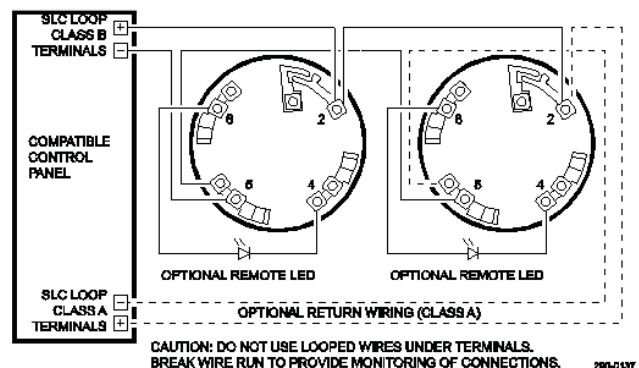
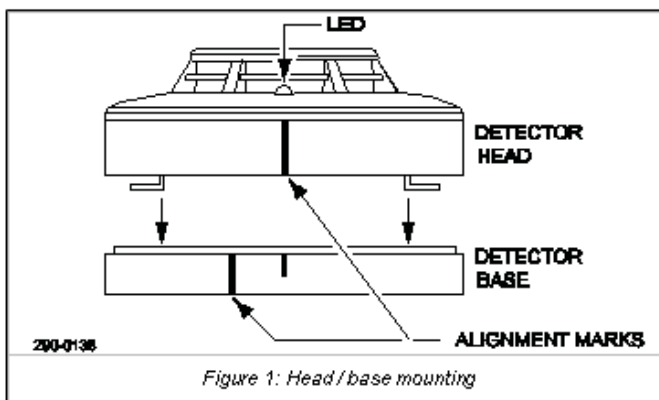
### TS8-DM

T-Spy Multi-sensor detectors that employ a photoelectric smoke detector, the TS8-DP, and a heat sensor detector, the TS8-DH. See previous description of each detector for operation as Photo Smoke and Heat detectors on page 1.

### Engineering Specifications

The detector shall be able to support 254 address and shall be mechanically addressed on the detector head. The detector shall contain integral LED that will latch in when the unit goes into alarm and flash sporadically when in a trouble or illegal state.

Specifications	Rating
Listings:	ETL, Standard UL268, 521
Use / Environment	Commercial / Indoor, dry
Operating Voltage:	17 to 28 VDC
Standby Current:	500µA @ 24 VDC
Max Alarm Current	5mA @ 24 VDC (LED on)
Max Remote LED:	2mA @ 1.5 V
Output current	
Operating Humidity	10% to 93%, relative, non-condensing
Operating Temperature:	14 to 100°F (-10 to 37.8°C)
Height:	1.8" (46 mm) with base
Diameter (head):	3.93" (100 mm)
Maximum Detectors on one loop:	254
Detector Compatibility Identifier:	TS8D
Base Compatibility Identifier	TS8B4, TS8B6



NOTICE: The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information are provided with the product and are available from Harrington Signal Inc. Fire Alarm. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact Harrington Signal Inc. Harrington Signal Inc. Fire Alarm reserves the right to change specifications without notice.