

# HOCHIKI

## HOCHIKI AMERICA CORPORATION INSTALLATION INSTRUCTIONS

These instructions apply to all Hochiki America detector bases that utilize a detector with an LED to indicate power and alarm.

### CAUTION

Install the bases in this instruction in accordance with applicable NFPA standards, local codes, and the authorities having jurisdiction. Failure to follow these instructions may result in failure of the detector to initiate an alarm condition. Hochiki America is not responsible for detectors that have been improperly installed, tested, or maintained.

Refer to page 4 of these instructions and to technical bulletin HA-88. Also refer to NFPA-72, Standard for Automatic Fire Detectors, for installation guidelines, testing, and maintenance.

Use "3M" Weatherban # 606 non-flammable sealing compound to seal field wiring conduit openings in the mounting back box. Compliance with this

request may reduce the occurrence of the "STACK EFFECT".

FIG. 1

BASE	BOX MOUNTING		
	3" OCT	4" OCT	4" SQR
HSB-BASE	NO	YES	YES
HSC-BASE	NO	YES	YES
YBA-BASE	YES	NO	NO
HS-BASE	YES	YES	YES

Connect wiring to the bases as shown in the wiring diagrams that follow. Detectors and bases may be mixed on the same initiating loop as long as the number of two-wire powered detectors does not exceed the specifications of the control panel (see figure 2 below).

### CAUTION

CONNECT WIRING TO TERMINALS AS SHOWN. DO NOT LOOP WIRE UNDER TERMINALS. BREAK WIRE RUN TO PROVIDE SUPERVISION OF CONNECTIONS.

FIG. 2

SPECIFICATIONS	SMOKE DETECTOR DATA		
DETECTORS	SIH-24F	SLK-24F, 24FL, 24FH	SLK-835, 835H
TYPE OF DETECTOR	IONIZATION	PHOTOELECTRIC / PHOTO W/HEAT	PHOTOELECTRIC PHOTO W/HEAT
WORKING VOLTAGE (2-WIRE)	15-33.0 VDC	15-33.0 VDC	8.0 - 35.0VDC
RATED VOLTAGE (4-WIRE)	17.7-33.0 VDC	17.7-33.0 VDC	8.0 - 33.0VDC
VOLTAGE WAVEFORM	FILTERED DC * 18V RIPPLE MAX.	FILTERED DC * 18V RIPPLE MAX.	FILTERED DC * 18V RIPPLE MAX.
MAX. ALARM CURRENT	150 mA	150 mA	150 mA
MAX. SURGE CURRENT	200 $\mu$ A	160 $\mu$ A	300 $\mu$ A
AVERAGE STANDBY CURRENT	40 $\mu$ A	45 $\mu$ A	100 $\mu$ A @ 24VDC 45 $\mu$ A @ 12VDC
HEAT ELEMENT RATING	N/A	135 <sup>o</sup> F ("H" Suffix only)	135 <sup>o</sup> F ("H" Suffix only)
COMPATIBILITY IDENTIFIER	HD3	HD3	HD5
SENSITIVITY TEST DEVICES	TRT-A100 TSA-B110	TRT-A100 TSA-B110	TRT-A100 TSA-B110
PFS-2 CONTROL PANEL **	30/ZONE	30/ZONE	NA
FC-72 (ZDM) CONTROL PANEL ***	NA	NA	20/ZONE

\* When using a four-wire base full wave rectified AC can be used.

\*\* ZONE IDENTIFIER - C

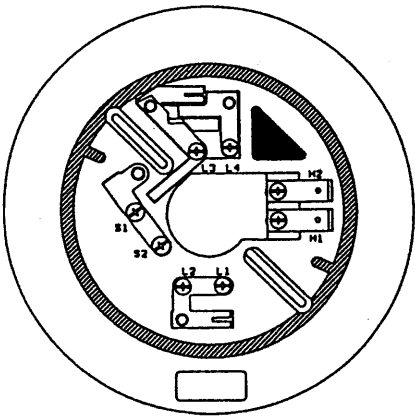
\*\*\* ZONE IDENTIFIER - ZDM01

NOTE: When mounting detector on a wall, it must be between 4" and 12" from the ceiling.

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SEE DWG. # HA-06-013 FOR  
ADDITIONAL COMPATIBILITY  
INFORMATION ON PANEL/  
DETECTOR/BASE COMBINATIONS.

DWG. #  
HA-06-001  
(PG 1, 4/96)

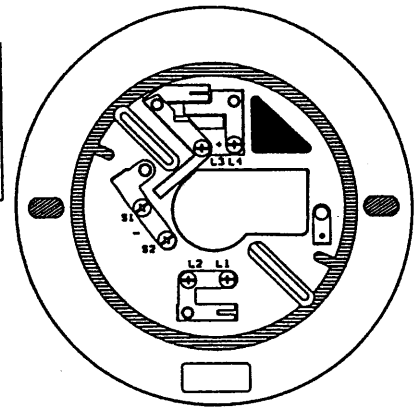


HSC STYLE BASE

BASE	ALARM CURRENT	ID
HSB-224/224N	43mA (70 mA @ 33.0V MAX.)	HB-53
HSC-224R/RA ①	43mA (58 mA @ 30.0V MAX.)	HB-73
HSC-4R ②	43mA (58 mA @ 30.0V MAX.)	N/A
HSC-4R12 ③	47mA (75 mA @ 18.0V MAX.)	N/A

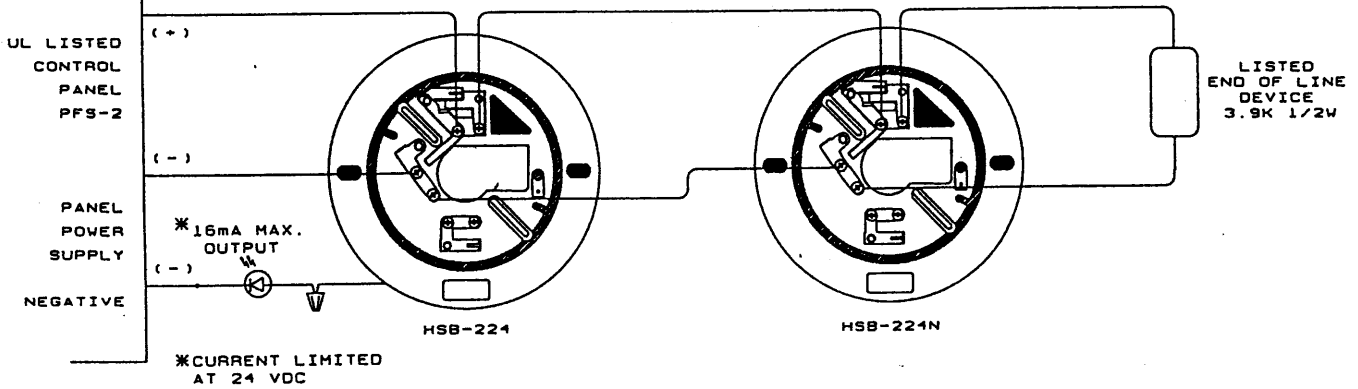
- ① 2-WIRE AUXILLIARY RELAY BASE
- ② 4-WIRE 24V BASE
- ③ 4-WIRE 12V BASE

NOTE: HSB NON-"N" MODELS & HSC 2-WIRE MODELS HAVE A SHORTING DIODE TO CAUSE ALARM WHEN POLARITY IS REVERSED. MODELS ENDING IN "N" DO NOT HAVE SHORTING DIODE OR ANNUNCIATOR OUTPUT FEATURE.

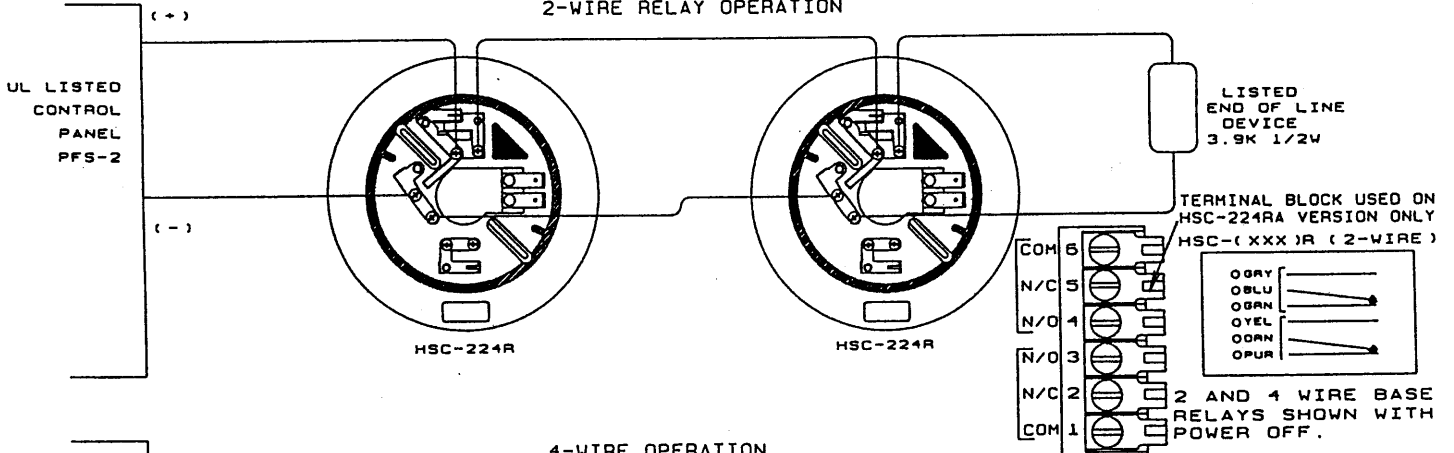


HSB STYLE BASE

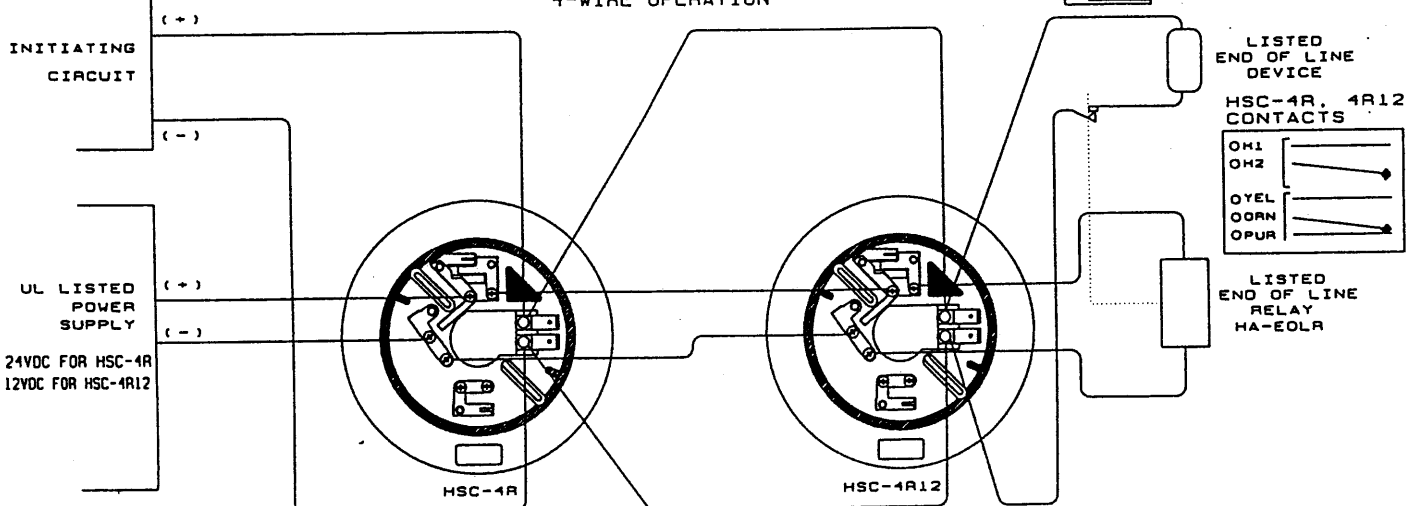
2-WIRE OPERATION

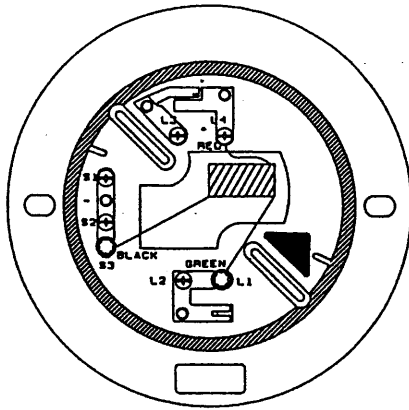


2-WIRE RELAY OPERATION



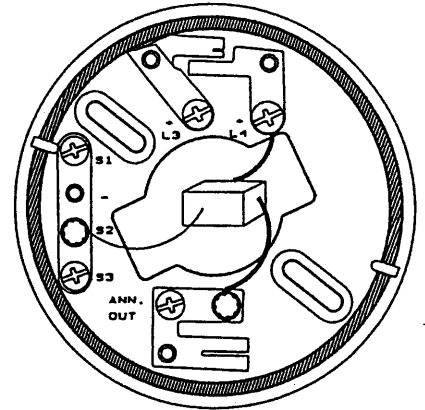
4-WIRE OPERATION



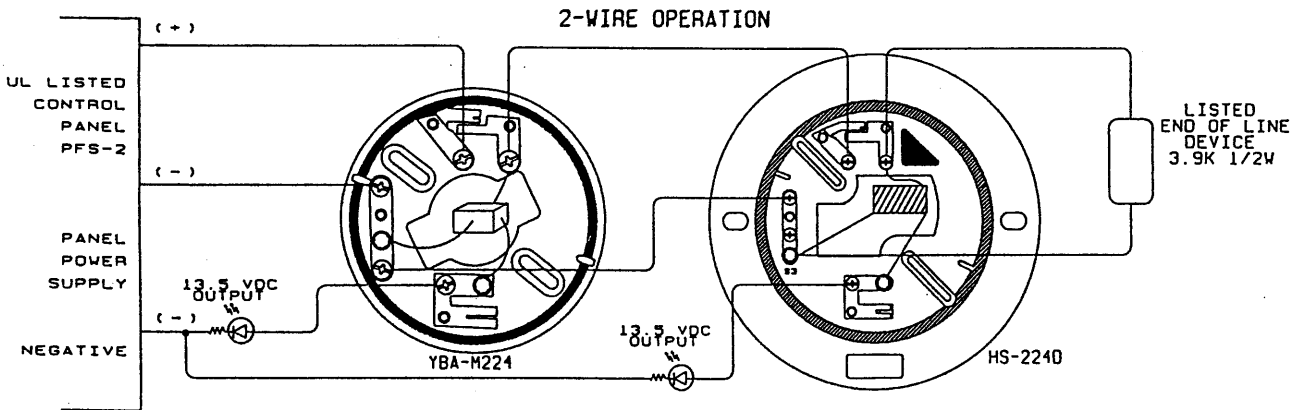
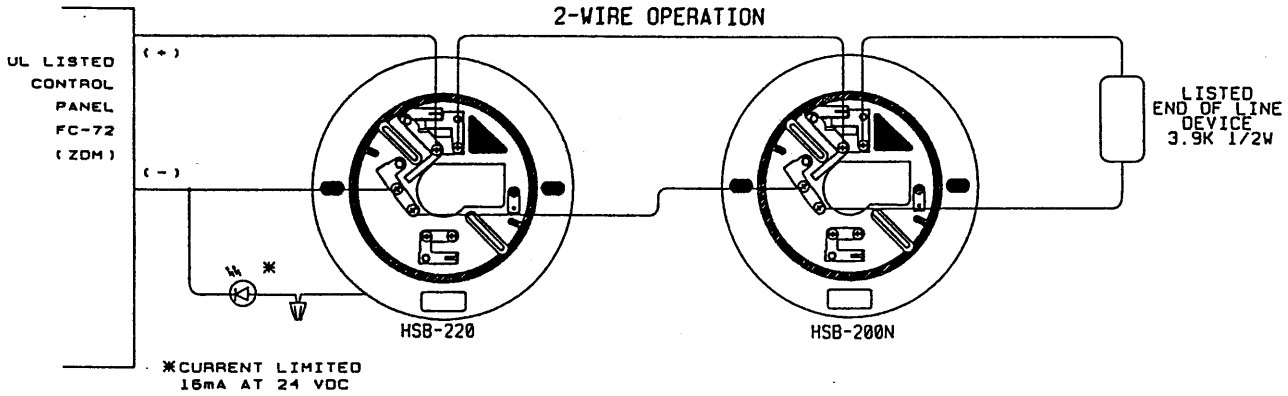


HS STYLE BASE

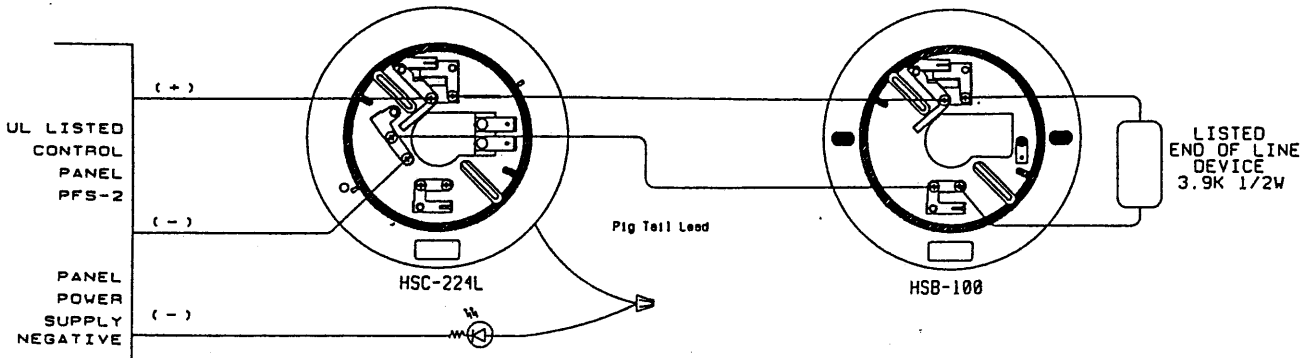
BASE	ALARM CURRENT	IDENTIFIER
YBA-M224	45 mA (70mA MAX @ 33VDC)	HB-5
HS-224D	45 mA (70mA MAX @ 33VDC)	HB-5
HSB-220	84 mA (120mA MAX @ 35VDC)	HB-56
HSB-200N	NOT CURRENT LIMITED	HB-55



YBA STYLE BASE



SPECIFICATIONS		HEAT DETECTOR DATA			
DETECTOR MODEL		DCA-135	DCA-190	* OFE-135	* OFE-190
DETECTOR TYPE		RATE OF RISE FIXED TEMP.	RATE OF RISE FIXED TEMP.	FIXED TEMPERATURE	FIXED TEMPERATURE
TEMPERATURE RATING		135 F.	190 F.	135 F.	190 F.
MAX. ALARM CURRENT		100 mA	100 mA	100 mA	100 mA
BASE MODEL	ALARM CURRENT	COMPATIBILITY IDENTIFIER		LATCHING INDICATION	
HSC-224L	35-42 mA @ 24V (53.5 mA MAX.)	HB-62		YES	
HSB-100	NON-CURRENT LIMITED	N/A		NO	



# SENSITIVITY TEST PROCEDURE FOR DETECTORS WITH BUILT-IN SENSITIVITY TEST FEATURE

## IMPORTANT NOTE:

This method of sensitivity testing is only intended for Hochiki America smoke detector models SIH-24F and SLK Series that contain a label as shown on the right identifying this specific function. DO NOT attempt to use this method of sensitivity testing on detectors without this label.

## TEST DEVICE:

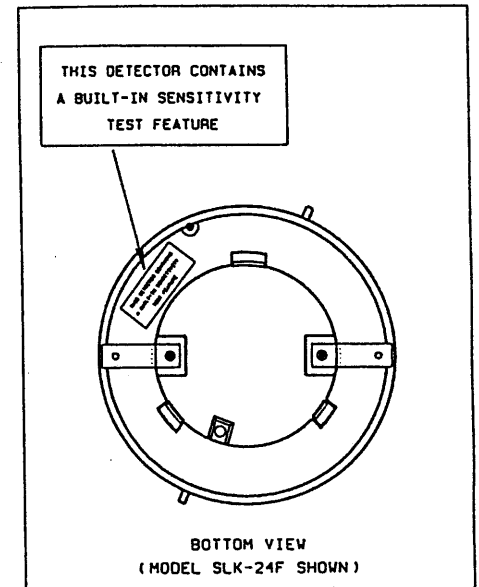
Testing is performed with the Hochiki America Alarm Test Magnet (Part Number 0700-01110) shown below.



TOP VIEW



SIDE VIEW



## TEST PROCEDURE

1. With detector wired to appropriate initiating circuit or current limited power source and with normal applied power, place magnet as shown in figure 1.
2. Wait at least six seconds. Detector SHOULD alarm and LED should light.
3. Place magnet on detector as shown in figure 2 (opposite side).
4. Wait at least six seconds. Detector SHOULD NOT alarm.
5. If detector does not alarm when magnet is positioned as in figure 1 or does produce an alarm when magnet is positioned as in figure 2 detector is not within specified sensitivity limits and may require service. See Tech Bulletin HA-88 for more information and for additional sensitivity test devices.

## NOTE:

CONDUCT TESTING ONLY UNDER NORMAL STANDBY CONDITIONS. ABNORMAL OR LOW POWER CONDITIONS MAY AFFECT SENSITIVITY. ALWAYS RESET POWER PRIOR TO TESTING OF NEXT UNIT. MAGNET PLACEMENT IDENTICAL FOR ALL DETECTORS WITH BUILT-IN SENSITIVITY TEST FEATURE.

