

# INSTALLATION INSTRUCTIONS

These instructions apply to all Hochiki America detector bases that utilize an NS detector with LEDs to indicate power, and alarm.

FIG. 1

BASE	BOX MOUNTING		
	3" OCT	4" OCT	4" SQR
NS4-BASE	YES	NO	NO
NS6-BASE	NO	YES	YES
HSC-BASE	NO	YES	YES

**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.

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)

For testing and cleaning information, refer to Page 2 of these instructions and to Technical Bulletin HA-97 Conventional. Also refer to NFPA-72 Chapters 2 and 7 for Automatic Fire Detector 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".

**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	SIJ-24/-24C	SLR-24/-24C/-24V/-24VC/-24VN/-24H/-24HC	SLV-24V/-24N SLV-24	DCD-135/-135C/-190/-190C	SLR-835/-835W/-835C	SLR-835H/-835HW
TYPE OF DETECTOR	IONIZATION	PHOTOELECTRIC	PHOTOELECTRIC	FIXED TEMP/RATE OF RISE HEAT	PHOTOELECTRIC	PHOTOELECTRIC
WORKING VOLTAGE (2-WIRE)	15-33.0 VDC	15-33.0 VDC	15-33.0 VDC	15.0-33.0VDC	8.0~35.0 VDC	8.0~35.0 VDC
RATED VOLTAGE (4-WIRE)	17.7-30.0 VDC	17.7-30.0 VDC	17.7-30.0 VDC	17.7-30.0VDC	8.0~35.0 VDC	8.0~35.0 VDC
VOLTAGE WAVEFORM	FILTERED DC * 5V RIPPLE MAX.	FILTERED DC * 5V RIPPLE MAX.	FILTERED DC * 5V RIPPLE MAX.	FILTERED DC * 5V RIPPLE MAX.	FILTERED DC* 15% RIPPLE MAX.	FILTERED DC* 15% RIPPLE MAX.
MAX. ALARM CURRENT	150 mA	150 mA	150 mA	150 mA	150 mA	150 mA
MAX. SURGE CURRENT	200µA	160 µA	160µA	160µA	200µA	200µA
AVERAGE STANDBY CURRENT	40µA	45 µA	45µA	35µA	38µA @ 12 VDC 55µA @ 24VDC 70µA @ 35VDC	38µA @ 12 VDC 55µA @ 24VDC 70µA @ 35VDC
HEAT ELEMENT RATING	N/A	135°F(SLR-24H only)	N/A	135/190°F	N/A	135°F
COMPATIBILITY IDENTIFIER	HD3	HD3	HD3	HD3	HD5	HD5
SENSITIVITY TEST DEVICES **	NSTT-A100	BUILT-IN TEST FEATURE	BUILT-IN TEST FEATURE	TTA-1H	BUILT-IN TEST FEATURE	BUILT-IN TEST FEATURE
HCP-1008E CONTROL PANEL	30/ZONE	30/ZONE	30/ZONE	30/ZONE	30/ZONE	30/ZONE

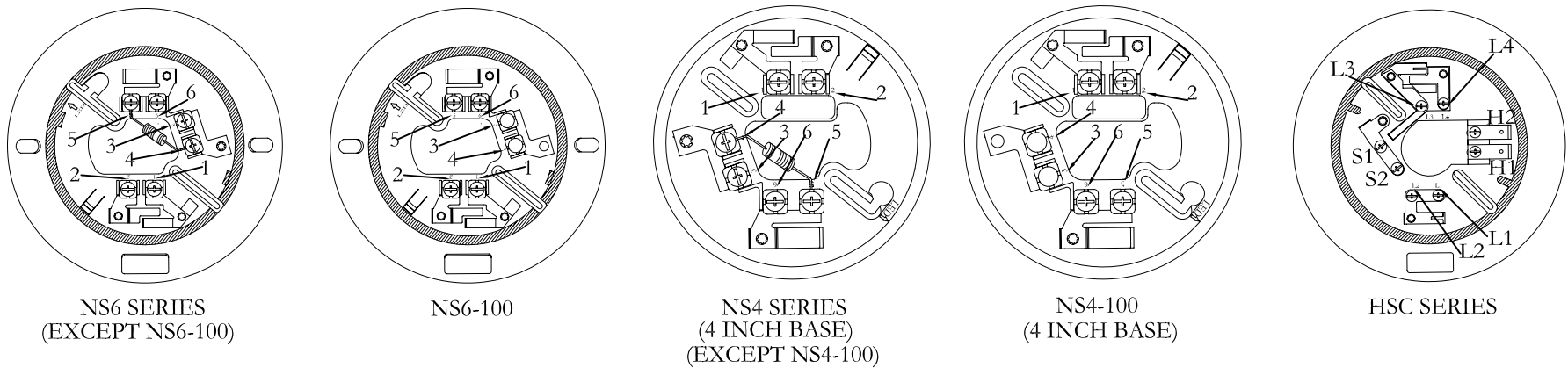
\* When using a four-wire base full wave rectified AC can be used.

\*\* Zone Identifier - A

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

Note: The SLR-24V and SLV-24V are suitable for installation in air velocities up to 4000ft./min.

**BASE STYLES**



**DSC-EA HEAT DETECTORS**

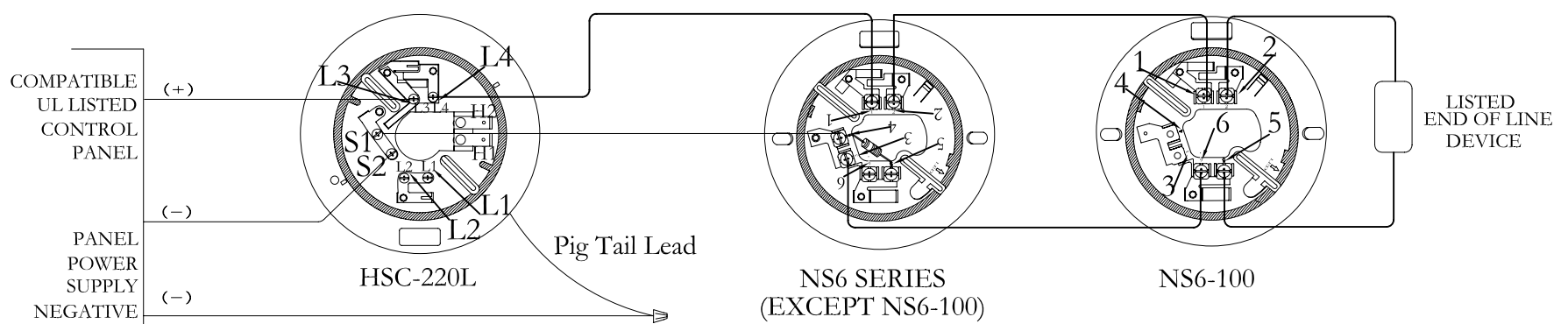
SPECIFICATIONS	HEAT DETECTOR DATA
DETECTOR MODEL	DSC-EA
DETECTOR TYPE	RATE OF RISE
TEMPERATURE RATING	15°F./MIN.
MAX. ALARM CURRENT	100 mA
TEMPERATURE RANGE	-10°C TO +50°C

BASE MODEL	ALARM CURRENT	COMPATIBILITY IDENTIFIER	LATCHING INDICATION
HSC-224L	35~42 mA @ 24V (54 mA MAX.)	HB-62	YES
HSC-220L	67~80 mA @ 24V (88.5mA @ 26.5VDC MAX)	HB-64	YES
HSC-221L	37~45 mA @ 24V (57mA MAX)	HB-63	YES
NS4-100,100W	NON-CURRENT LIMITED	N/A	NO
NS6-100,100W	NON-CURRENT LIMITED	N/A	NO

NOTE: BASES WITH THE "W" SUFFIX ARE WHITE IN COLOR

**DFE HEAT DETECTORS**

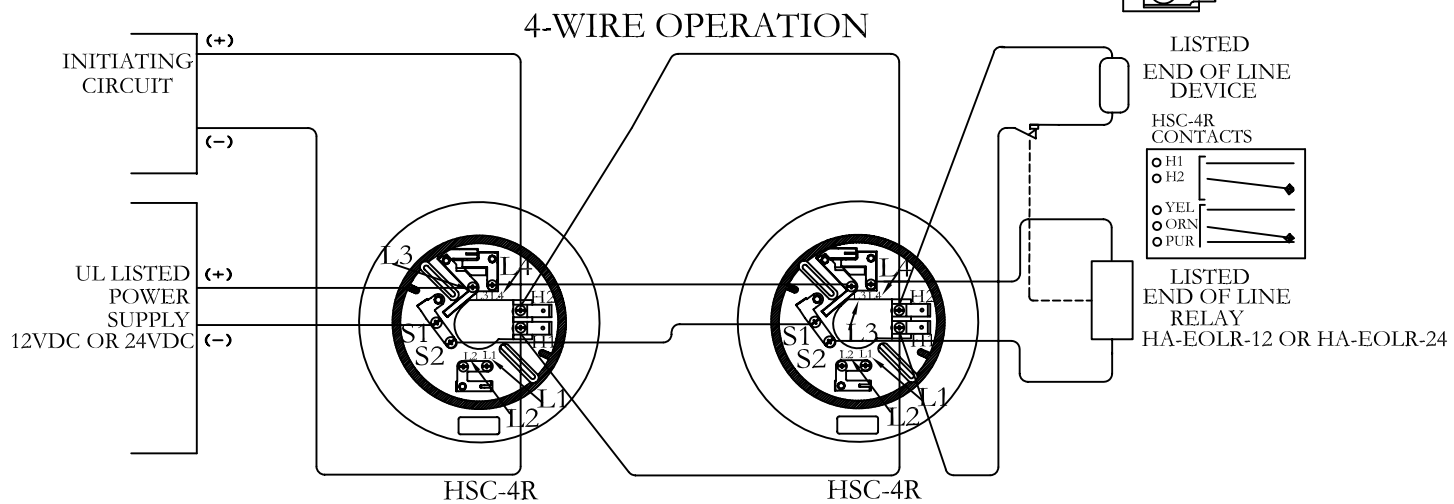
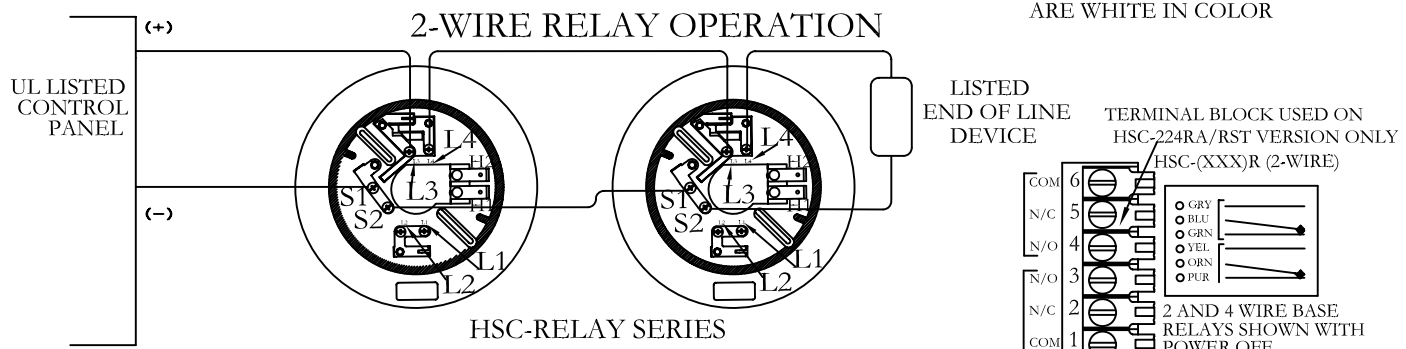
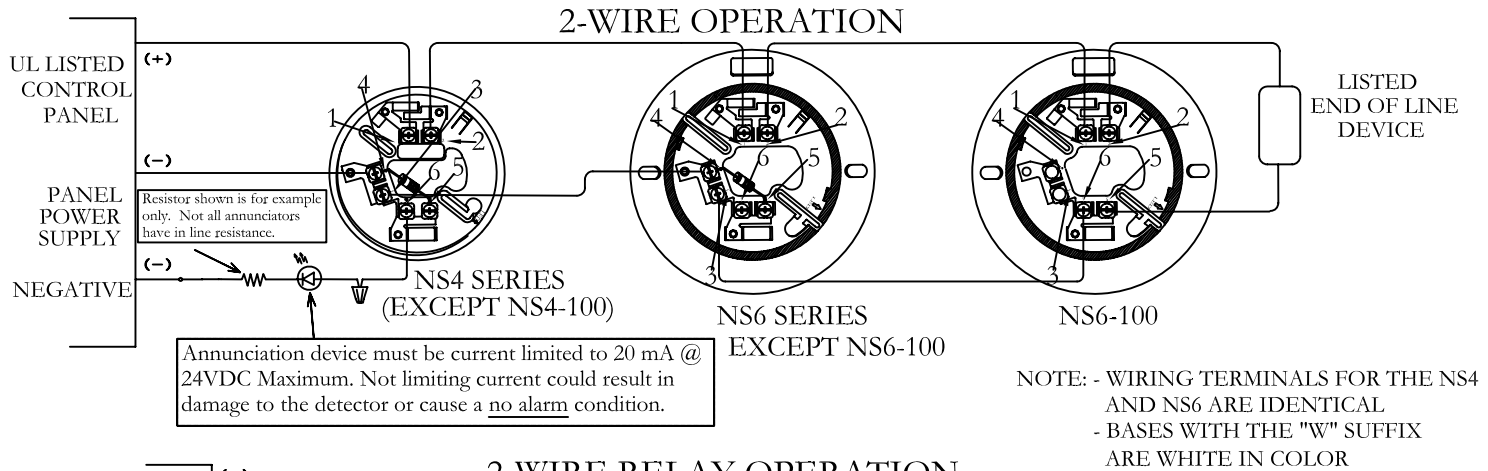
SPECIFICATIONS	HEAT DETECTOR DATA	
DETECTOR MODEL	DFE-135/DFE-135C	DFE-190/DFE-190C
DETECTOR TYPE	FIXED TEMPERATURE	FIXED TEMPERATURE
TEMPERATURE RATING	135°F.	190°F.
MAX. ALARM CURRENT	100 mA	100 mA



BASE	ALARM CURRENT	ID
NS6-224, 224W, 224C	43mA (70mA @ 33.0V MAX.)	HB-5
NS6-220, 220W, 220C	93mA (136mA @ 33.0V MAX.)	HB-3
NS6-221, 221W, 221C	46mA (77mA @ 33.0V MAX.)	HB-4
*NS6-100, 100W, 100C	150mA @ 15.0~33.0V MAX.	HB-55
NS4-224, 224W, 224C	43mA (70mA @ 33.0V MAX.)	HB-5
NS4-220, 220W, 220C	93mA (136mA @ 33.0V MAX.)	HB-3
NS4-221, 221W, 221C	46mA (77mA @ 33.0V MAX.)	HB-4
*NS4-100, 100W, 100C	150mA @ 15.0~33.0V MAX.	HB-55
HSC-224R/224RW/224RC/RA/RST ①	43mA (58mA @ 30.0V MAX.)	HB-73
HSC-220R/220RW/220RC ①	88mA (98mA @ 26.5V MAX.)	HB-72
HSC-221R/221RW/221RC ①	49mA (62mA @ 30.0V MAX.)	HB-71
HSC-4R/-4RC ②	43mA (58mA @ 30.0V MAX.)	N/A
HSC-4R12	47mA (75mA @ 18.0V MAX.)	N/A

\* - Requires External Current Limiting To 150mA Max.

① 2-WIRE AUXILIARY RELAY BASE  
② 4-WIRE 24V BASE



### SIJ-24/-24C SENSITIVITY TEST PROCEDURE

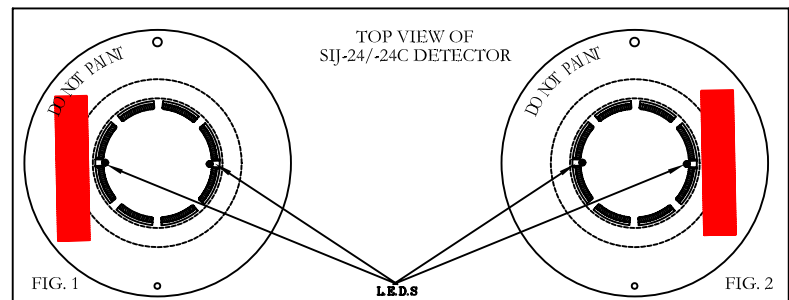
**TEST DEVICE:**

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



**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** not alarm and LED should not light.
- 3). Place magnet on detector as shown in Figure 2 (opposite side).
- 4). Wait at least six seconds. Detector **SHOULD** alarm.
- 5). If detector does alarm when magnet is positioned as in Figure 1 or does not 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-97 for more information and for additional sensitivity test devices.



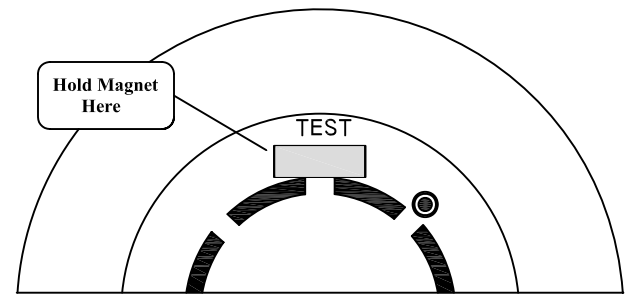
**NOTE:**

CONDUCT TESTING ONLY UNDER NORMAL STANDBY CONDITIONS. ABNORMAL OR LOW POWER CONDITIONS MAY AFFECT SENSITIVITY. ALWAYS RESET POWER PRIOR TO TESTING OF NEXT UNIT.

**TESTING THE SLR-835/SLR-24 AND THE SLV-24 SERIES INSTALLATION**

For go/no-go testing, a magnet will be required.

1. Hold the magnet just UNDER the word "TEST" as shown on Diagram A.
2. The detector should alarm within 10 seconds (If control panel is programmed for Fire Alarm Verification, it may take up to 30 seconds).
3. The detector's LEDs should be on Red continuously and any control panel indicating appliances should activate.
4. Silence the system and activate the control panel reset to reset smoke detector.
5. The smoke detector LEDs should flash Green.



### SLR -24/-835 AND SLV-24 SERIES SENSITIVITY TEST FEATURE

NOTE: The SLR-24/-24C/-24V/-24VC/-24VN/-24H/-24HC/-835/-835W/-835C/-835H/-835HW and the SLV-24/-24V/-24N have a built-in automatic sensitivity test feature.

- 1) In normal condition both LEDs flash Green.
- 2) When the sensitivity drifts outside of its sensitivity limits, both LEDs flash Red
- 3) In the alarm state both LEDs are on Red continuously.
- 4) When the condition exists as stated in 2) the device needs to be cleaned or returned to the factory for servicing. Refer to Technical Bulletin HA-97 for cleaning information.

DWG. # HA-06-060  
(Pg.2 of 2, 02/08)  
PART# 1700-09987