

# INSTALLATION INSTRUCTIONS

These instructions apply to all Hochiki America detector bases that utilize an NS detector with LEDs 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.

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".

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

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

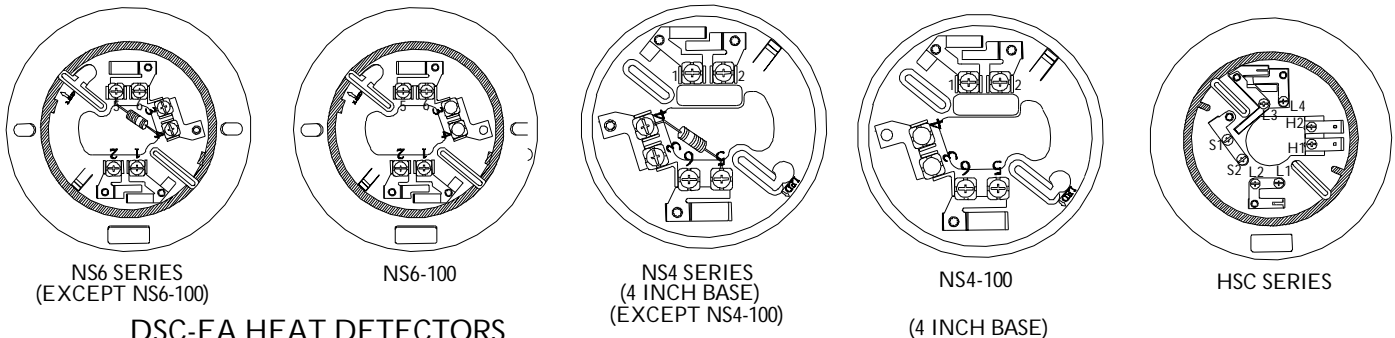
SPECIFICATIONS	SMOKE DETECTOR DATA						
DETECTORS	SIJ-24/-24C	SLR-24/-24C/-24V/-24VC/-24VN/-24H/-24HC	SLV-24V/-24N/-24NW/SLV-24	DCD-135/-135W/-135C/-190/-190W/-190C	SLR-835/-835W/-835C	SLR-835H/-835HW	SOC-24V/-24VN SOC-24VW
TYPE OF DETECTOR	IONIZATION	PHOTOELECTRIC	PHOTOELECTRIC	FIXED TEMP/RATE-OF RISE HEAT	PHOTOELECTRIC	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	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	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.	FILTERED DC * 15% RIPPLE MAX.
MAX. ALARM CURRENT	150 mA	150 mA	150 mA	150 mA	150 mA	150 mA	150 mA
MAX. SURGE CURRENT	200µA	160µA	160µA	160µA	200µA	200µA	160µA
AVERAGE STANDBY CURRENT	40µA	45µA	45µA	35µA	38µA @ 12 VDC 55µA @ 24VDC 70µA @ 35VDC	38µA @ 12 VDC 55µA @ 24VDC 70µA @ 35VDC	59µA
HEAT ELEMENT RATING	N/A	135°F(SLR-24H only)	N/A	135/190°F	N/A	135°F	N/A
COMPATIBILITY IDENTIFIER	HD3	HD3	HD3	HD3	HD5	HD5	HD3
SENSITIVITY TEST DEVICES	NSTT-A100	BUILT-IN TEST FEATURE	BUILT-IN TEST FEATURE	TTA-1H	BUILT-IN TEST FEATURE	BUILT-IN TEST FEATURE	BUILT-IN TEST FEATURE
HCP-1008E CONTROL PANEL	30/ZONE	30/ZONE	30/ZONE	30/ZONE	30/ZONE	30/ZONE	30/ZONE

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

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

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

### BASE STYLES



### DSC-EA HEAT DETECTORS

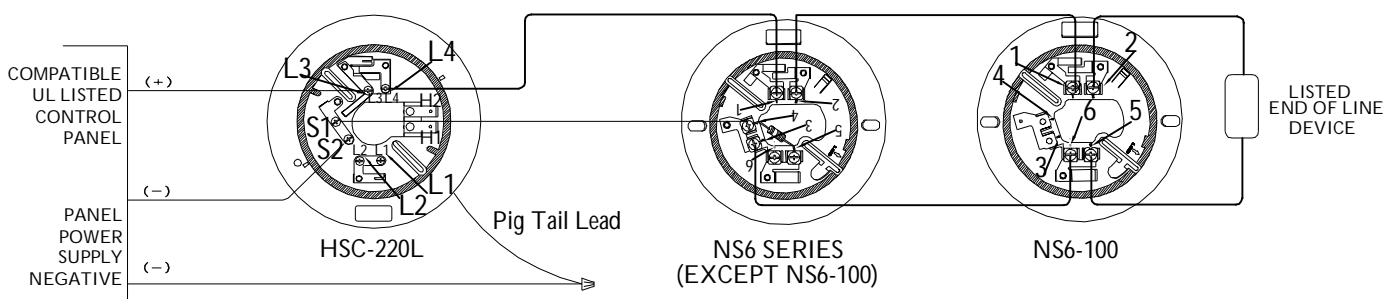
SPECIFICATIONS	HEAT DETECTOR DATA
DETECTOR MODEL	DSC-EA/DSC-EAW
DETECTOR TYPE	RATE OF RISE
TEMPERATURE RATING	15°F./MIN.
MAX. ALARM CURRENT	100 mA
UL LISTED TEMPERATURE	0°C ~ 37.8°C (32°F ~ 100°F)
OPERATING TEMPERATURE	-10°C ~ 50°C (14°F ~ 122°F)

### DFE HEAT DETECTORS

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

BASE MODEL	ALARM CURRENT	COMPATIBILITY IDENTIFIER	LATCHING INDICATION
HSC-224L/-224LW	35-42 mA @ 24V (54 mA MAX.)	HB-62	YES
HSC-220L/-220LW	67-80 mA @ 24V (88.5mA @ 26.5VDC MAX)	HB-64	YES
HSC-221L/-221LW	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

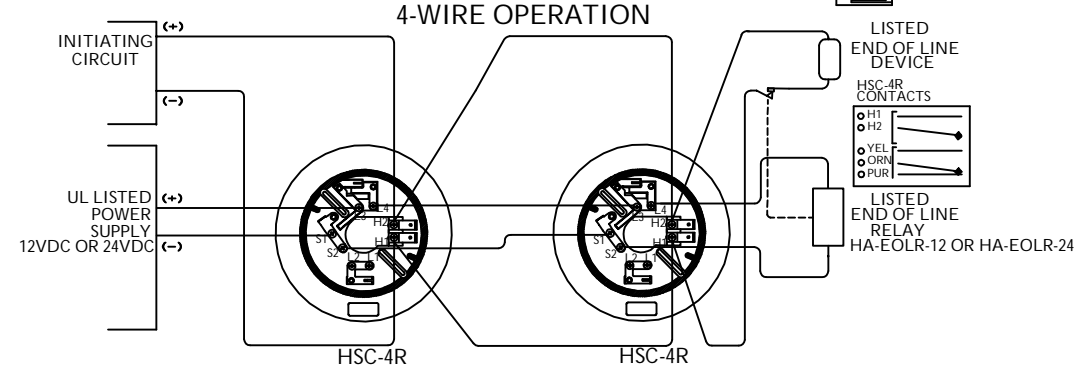
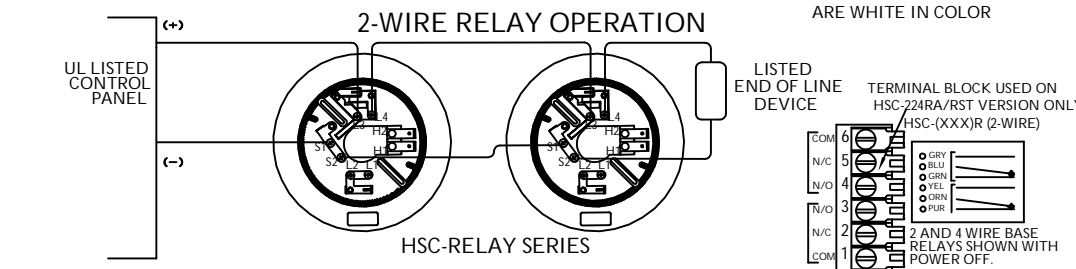
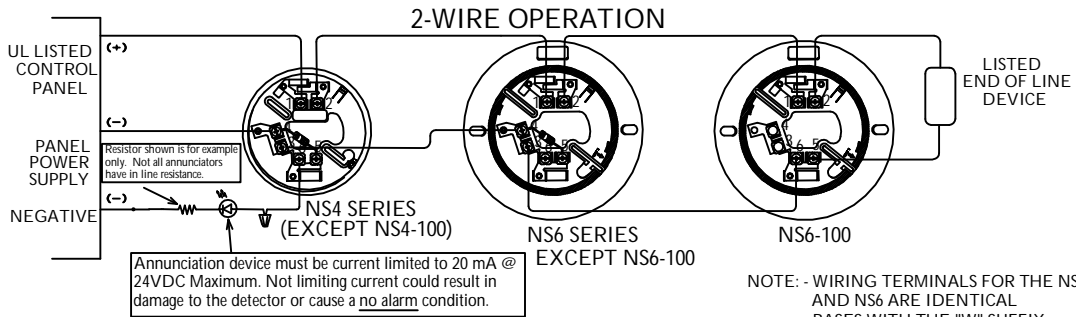
NOTE: BASES/DETECTORS WITH THE "W" SUFFIX ARE WHITE IN COLOR.  
NOTE: BASES/DETECTORS WITH THE "C" SUFFIX ARE CANADIAN.



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



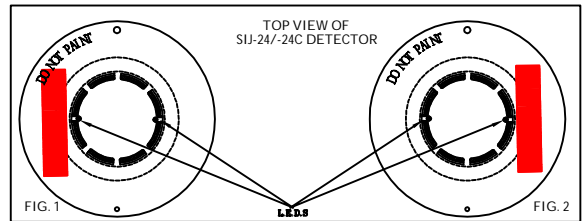
### SIJ-24/-24C SENSITIVITY TEST PROCEDURE

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.

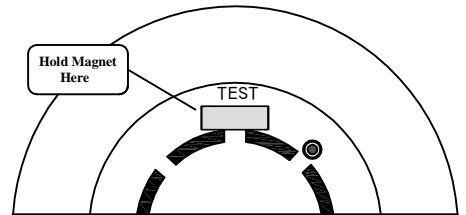


NOTE:  
CONDUCT TESTING ONLY UNDER NORMAL STANDBY CONDITIONS. ABNORMAL OR LOW POWER CONDITIONS MAY AFFECT SENSITIVITY. ALWAYS RESET POWER PRIOR TO TESTING OF NEXT UNIT.

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

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

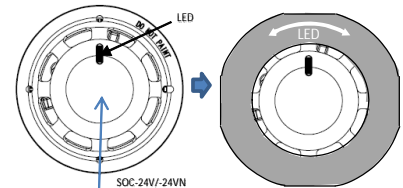
1. Hold the magnet just UNDER the word "TEST" as shown on Diagram A.
2. The detector should alarm within 10 seconds (If control panel is programmed for Fire Alarm Verification, it may take up to 30 seconds).
3. The detector's LEDs should be on Red continuously and any control panel indicating appliances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



#### TESTING THE SOC-24V/-24VN/-24VW

For go/no-go testing, original test tool will be required.

1. Hold the test tool on the detector like Diagram B.
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 LED should be on Red continuously and control panel indicating appliances should activate.
4. Silence the system and activate the control panel reset to reset smoke detector.
5. The smoke detector LED should flash Green.



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

NOTE: The SLR-24/-24C/-24V/-24VC/-24VN/-24H/-24HC/-835/-835W/-835C/-835H/-835HW, SLV-24/-24V/-24N/-24NW and SOC-24V/-24VN/-24VW 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.

NOTE: In case of SOC-24V/-24VN/-24VW, only 1 LED

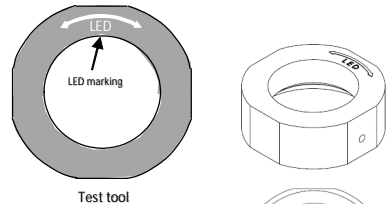


DIAGRAM B