SILENT KNIGHT®
by Honeywell

# INSTALLATION INSTRUCTION FOR SILENT KNIGHT SD505 ANALOG SMOKE SENSORS

These instructions apply to all Silent Knight SD–505 (Digital Communication Protocol) analog sensors and bases.

These units must be installed and maintained in accordance with applicable N.F.P.A. standards, local codes and any authority having jurisdiction. Please refer to N.F.P.A.72 Standard for Automatic Fire Detectors for installation guidelines and testing procedures. Also refer to Technical Bulletin HA–96 for testing, cleaning, and maintenance.

Smoke detectors should be tested upon completion of installation and at least semiannually thereafter, in accordance with N.F.P.A. 72, section on "Inspection, Testing, and Maintenance".

| BASE BOX MOUNTING | | |
|---|---|---|
| 3"–O | 4"–O | 4"–S |
| YES | YES | YES |

To install the detector insert the detector into the base. Turn the the detector clockwise until it stops.

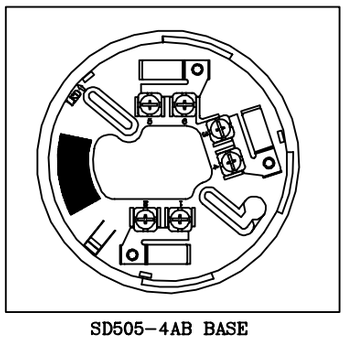
Use "3M" Weatherban #606 non–flammable sealing compound to seal field wiring conduit openings in the mounting back box. Compliance with this request may reduce the occurrence of the "STACK EFFECT".

## SPECIFICATIONS

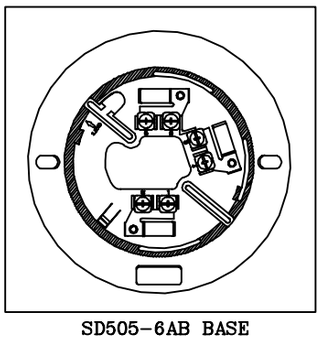
| CATEGORY | SD505–APS | SD505–AIS | SD505–AHS | SD505–HEAT | SD505–PHOTO | SD505–4AB | SD505–6AB |
|---|---|---|---|---|---|---|---|
| Absolute Maximum Applied Voltage | 39.5 VDC | 41.0 VDC | 41.0 VDC | 41.0 VDC | 41.0 VDC | 41.0 VDC | 41.0 VDC |
| Operating Voltage Range ($V_H$) (S–SC) | 22 ~ 39.5 VDC | 24 ~ 40.7 VDC | 24 ~ 40.7 VDC | 24 ~ 40.7 VDC | 24 ~ 40.7 VDC | 24 ~ 40.7 VDC | 24 ~ 40.7 VDC |
| Sensitivity Range | 0.88–3.57 %/ft. | 0.55–1.15 %/ft. | 135°–149°F. | 135°–149°F. | SEE CHART BELOW | N/A | N/A |
| Current Consumption (S–SC) Normal Mode | 390μA Typical 800μA Maximum | 390 AμTypical 540 AμMaximum | 390μA Typical 540μA Maximum | 350μA Typical 500μA Maximum | 450μA Typical 540μA Maximum | N/A | N/A |
| Current Consumption (S–SC) When Polled | 2mA | 2mA | 2mA | 2mA | 2mA | N/A | N/A |
| Alarm Current (S–SC) | (See Base) | (See Base) | (See Base) | (See Base) | (See Base) | 8mA (Typical) | 8mA (Typical) |
| Remote LED Current | (See Base) | (See Base) | (See Base) | (See Base) | (See Base) | 8mA (Typical) | 8mA (Typical) |
| Device Type Code | 88 Hex | A8 Hex | 98 Hex | 98 Hex | 88 Hex | N/A | N/A |
| Operating Temperature | –10° ~ 50° C | –10° ~ 50° C | –10° ~ 50° C | –10° ~ 50° C | –10° ~ 50° C | –10° ~ 50° C | –10° ~ 50° C |
| UL listed temperature | 0° ~ 37.8° C | 0° ~ 37.8° C | 0° ~ 47° C | 0° ~ 47° C | 0° ~ 47° C | 0° ~ 47° C | 0° ~ 47° C |
| Storage Temperature | –20° ~ 60° C | –20° ~ 60° C | –20° ~ 60° C | –20° ~ 60° C | –20° ~ 60° C | –20° ~ 60° C | –20° ~ 60° C |
| Test | * | * | * | * | * | N/A | N/A |
| Dimensions | 3–15/16"D X 1–1/2"H | 3–15/16"D X 1 3/4"H | 3–15/16"D X 1–9/16"H | 3–15/16"D X 1–9/16"H | 3–15/16"D X 1–9/16"H | 3–15/16"D X 15/32"H | 5–7/8"D X 15/32"H |
| Environment | Indoor Use Only | Indoor Use Only | Indoor Use Only | Indoor Use Only | Indoor Use Only | Indoor Use Only | Indoor Use Only |
| Visual Alarm/ Power Indicator | Dual LED | Dual LED | Dual LED | Dual LED | Dual LED | See Sensor | See Sensor |
| Address Setting | * | * | * | * | * | N/A | N/A |

* = See Control Panel For proper address setting and testing procedure.

| SENSITIVITY RANGES | |
|---|---|
| VELOCITY (fpm) | SD505-PHOTO(%/ft.) |
| 300 | .70 ~ 4.0 (Open Area) |
| 300 | .70 ~ 4.0 (Duct Application) |
| 2000 | .70 ~ 3.86 (Duct Application) |
| 4000 | .70 ~ 2.65 (Duct Application) |



SD505–4AB BASE



SD505–6AB BASE

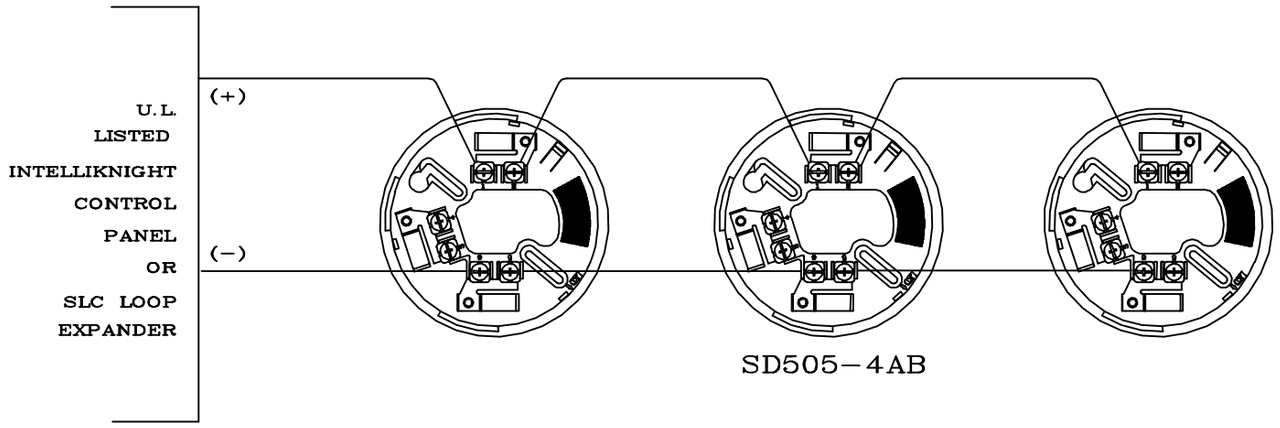
**ATTENTION!!!!**
INSTALLATION WIRING SHALL NOT EXCEED 50 OHMS (14–18 AWG.)

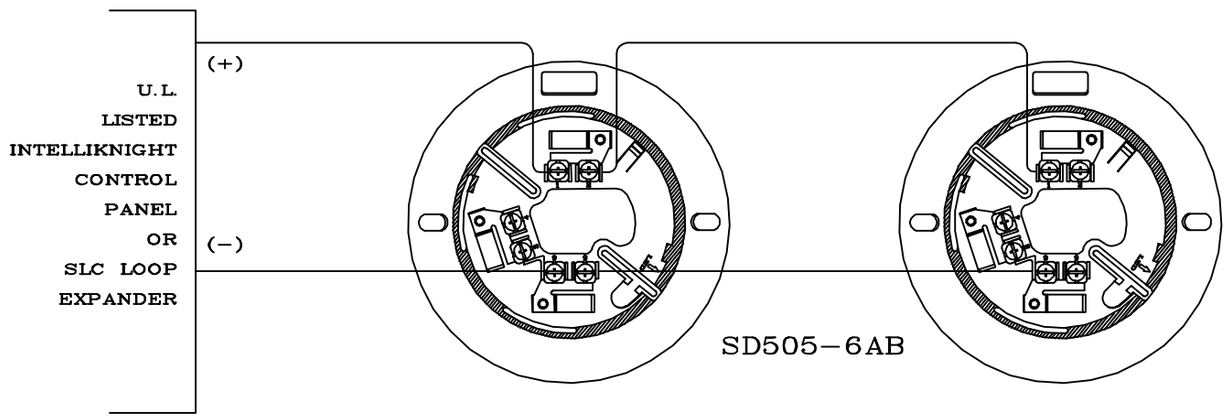
**WARNING!!!!**
Failure to follow these instructions may result in the failure of the detector to to initiate an alarm condition. Silent Knight is not responsible for detectors that have been improperly installed, tested or maintained.

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(REFER TO DWG # HA–06–045)
PART NO. 1700–09980

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## Instructions For Implementing The Security Feature

The following instructions will enable the user to activate the security feature and to release the base security locking tab so as to remove the sensor from the base.

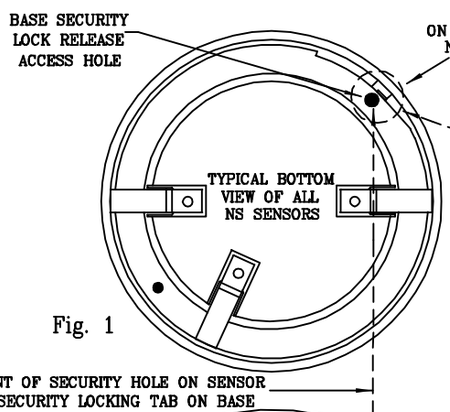



Fig. 1

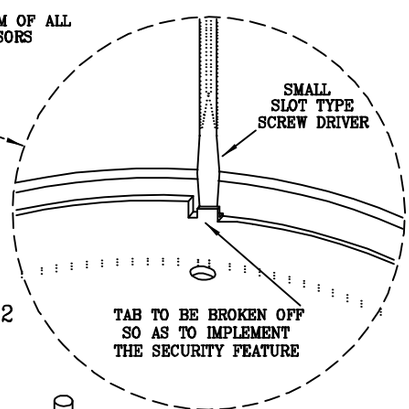



Fig. 2

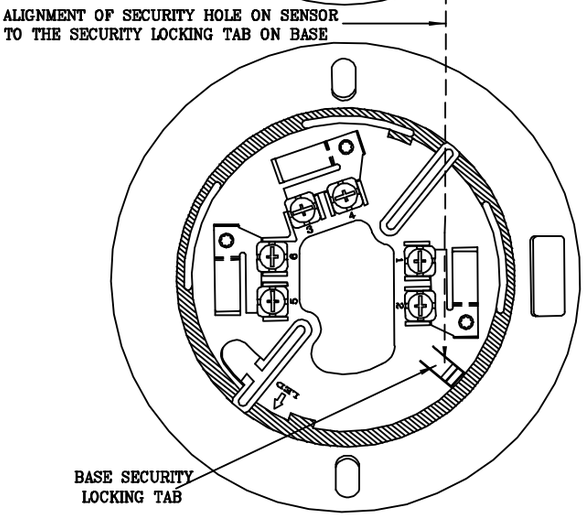



Fig. 3

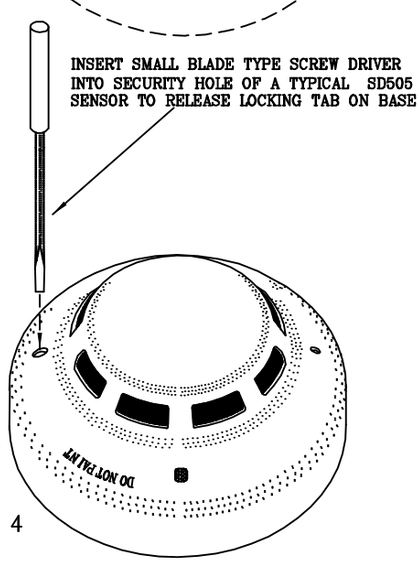



Fig. 4

1) Take any sensor and turn it over to view the bottom as shown in Fig. 1. Using a small blade type screw driver break the tab as shown in Fig. 2. This will allow the base security locking tab, as shown in Fig. 3 to stay elevated. This will prevent the sensor from being removed from it's base.

2) To remove the sensor from it's base, take a small diameter screw driver and insert it into the large hole on the outer rim of the sensor (see Fig. 4). Use caution when pushing the base security locking tab down. Only use enough force to remove the sensor. While pushing the tab down rotate the sensor counter clockwise enough to clear the base security locking tab. Once this is accomplished the sensor can be completely removed.

CAUTION!!! DO NOT USE EXCESSIVE FORCE WHEN UNLOCKING THE BASE SECURITY LOCKING TAB