HYUNDAI

Addressable smoke/ heat detector

HYU-FD-ASHDC2W001

USER MANUAL

Cautions

ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.

FRAGILE: Inspect the equipment prior to installation. Do not install the equipment if damage is apparent. Do not attempt to disassemble this equipment. If damaged, return to the supplier.

ELECTROSTATIC HAZARD: This is sensitive electronic equipment. Apply safe ant-static practices when handling this equipment.

CIRCUIT LIMITATIONS: The maximum number of detectors connected to a single detection zone is limited by the control and indicating equipment, and may be limited by local regulations.

Introduction

Analogue addressable photoelectric smoke/heat detectors are microprocessor controlled state-of-the-art detectors suitable for connection to Numens 2-wire addressable fire detection control and indicating equipment.

These instructions provide trained installation personnel with details to install and commission smoke/heat detectors for optimum performance.

Preparation

Before commencing installation, ensure all equipment and tools to mount and connect the equipment are available, such as drills, mounting screws, cables and ladders.

SNA-360 smoke/heat detectors can be installed with the following bases and accessories.

Description	Part number
4-terminal 102 mm low profile base	HYU-FD-4TRB001
8-terminal 102 mm low profile base	HYU-FD-8TRB00
Remote indicator [a]	HYU-FD-RI001

[a] Requires 8-terminal base.

Installation

Base

The base can be mounted directly onto an electrical junction box such as an octagonal (75 mm, 90 mm or 100 mm), a round (75 mm), or a square (100 mm) box without using any type of mechanical adapter.

1. Feed the conductors through the middle of the base for termination to the base contacts.
2. Mount the base on the junction box or directly onto a flat surface.
3. Mount the base to the surface using fixing screws that are suitable to securely fix the base to the surface.

Wiring

Base terminals accept (0.4 ~ 2.5) mm^2 conductors.

1. Strip the conductor insulation to expose 5 mm of the conductor.
2. Connect the conductors to the base terminals as shown in Fig. 1.

WARNING: Take care to ensure the insulation does not get clamped by the terminal contact.

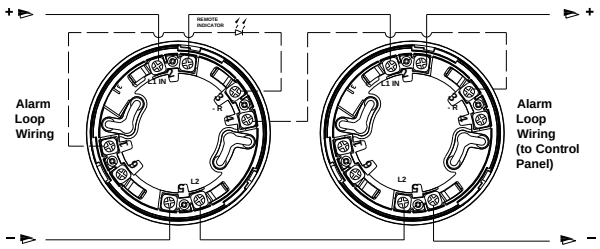


Fig. 1: Base wiring connections

Note 1: 8-terminal base required if a remote indicator is installed.

Note 2: If a remote indicator is not installed, the polarity of the zone circuit wiring may be reversed.

WARNING: Do not short-circuit terminals 2 and 5.

3. Check the wiring for continuity, short circuits and earth faults.

Detector

WARNING: Do not install the detector head until the area is thoroughly cleaned of construction debris, dust, etc.

1. Select the detector address and set the address as shown in Table 1 by adjusting the DIP switch settings located on the underside of the detector body.

Note: Addresses 0, 126 and 127 cannot be used.

2. Align the detector alignment mark with the short alignment mark in the base, as shown in Fig. 2.
3. Mate the detector head onto the base and rotate it clockwise to secure it. The long alignment marks should be aligned.

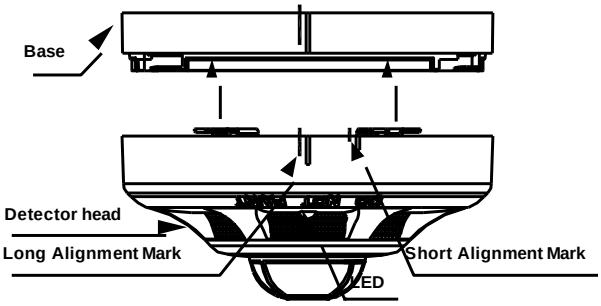


Fig. 2: Fitting the detector to the base

Commissioning

Smoke Detector

1. Ensure all the alarm signal services, releasing devices and extinguisher systems are disabled during the commissioning period.
2. Connect power to the detector for approximately 1 min. Check that the detector is recognized and in the quiescent condition at the control and indicating equipment. If the detector is not shown or shows in fault, check the wiring for the correct voltage and earth leakage. Replace the detector if necessary.
3. Allow smoke from a cotton wick or a test smoke aerosol to enter the detector-sensing chamber for at least 10 s. When sufficient smoke has entered the chamber, the detector will signal an alarm, by continuous illumination of the LEDs.
4. Upon alarm, immediately remove the smoke source.
5. Reset the detector from the control and indicating equipment.
6. Check that the detector LEDs are off and the control and indicating returns to the quiescent condition.

Heat Detector

1. Subject the detector to a flow of warm air at a temperature of between 65 ˚C and 80 ˚C as follows (this requirement can be met by some domestic hair dryers).
   a. Start the warm airflow and check that temperature is correct and stable.
   b. From a distance of approximately 5 cm, direct the airflow at the guard protecting the thermistor for up to

30 s. The detector will signal an alarm by continuous illumination of the LED.

c. Upon alarm, immediately remove the heat source.

2. Reset the detector from the control and indicating equipment.
3. Check that the detector LEDs are off and the control and indicating returns to the quiescent condition.

Remote Indicator (where fitted)

Check that the indicator illuminates at the same time as the detector LED.

Final Conditions

Ensure all the alarm signal services, releasing devices and extinguisher systems disabled for the commissioning are returned to their previous condition.

References

Document	Description
31-0042	Analogue addressable smoke/heat detector datasheet



Table 1 – DIP switch address settings

Least significant nibble \ Most significant nibble	0000	1000	0100	1100	0010	1010	0110	1110
0000	—[a]	16	32	48	64	80	96	112
1000	1	17	33	49	65	81	97	113
0100	2	18	34	50	66	82	98	114
1100	3	19	35	51	67	83	99	115
0010	4	20	36	52	68	84	100	116
1010	5	21	37	53	69	85	101	117
0110	6	22	38	54	70	86	102	118
1110	7	23	39	55	71	87	103	119
0001	8	24	40	56	72	88	104	120
1001	9	25	41	57	73	89	105	121
0101	10	26	42	58	74	90	106	122
1101	11	27	43	59	75	91	107	123
0011	12	28	44	60	76	92	108	124
1011	13	29	45	61	77	93	109	125
0111	14	30	46	62	78	94	110	—[a]
1111	15	31	47	63	79	95	111	—[a]

[a] Address not permitted.

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