

D306



EN | Installation Instructions
Remote Indicator Plate



BOSCH

1.0 Description

Use the D306 Remote Indicator Plate with the D296/D297 Long-Range Beam Smoke Detector and the D340 Series Duct Smoke Detector Housing (D340, D341, D342, D343). This plate has LEDs to indicate the detectors' status and condition and a point to read and test the sensitivity voltage.

2.0 Installation

Install the D296/D297 or the D340 according to the *DS296/297 Installation Instructions* (P/N: 31344) and the *D340 Installation Instructions* (P/N: 48188). Ensure the detectors are working properly.

Also install the D341/D342 Duct Smoke Detector Housing or the D343 Duct Smoke Detector Housing according to the *D341/D342 Duct Smoke Detector Housing Installation Instructions* (P/N: 48196) and the *D343 Duct Smoke Detector Housing Installation Instructions* (P/N: 48199).

Mount the D306 to a single gang box, to a standard single-wire mold box, or flush mount it. Five conductors are required from the D296/D297 receiver or the D340 Series.

When using 18 AWG (1.2 mm) wire, mount the box and the flush mount ring (supplied) a maximum of 500 ft (152 m) from the receiver. When using 22 AWG (0.8 mm), mount the box and the mount ring a maximum of 200 ft (61 m) from the receiver.



Before routing wire, ensure all wiring is unpowered.

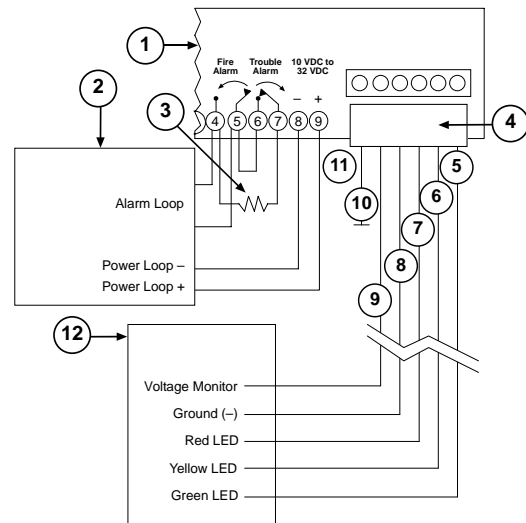
To mount the D306 to a box:

1. Mount the box.
2. Connect the wiring as shown in *Figure 1*.
3. Mount the D306 to the box as shown in *Figure 2*.
4. Route wiring from the D306 to the D340 Series (refer to *Figure 3* on page 3).

To flush mount the D306:

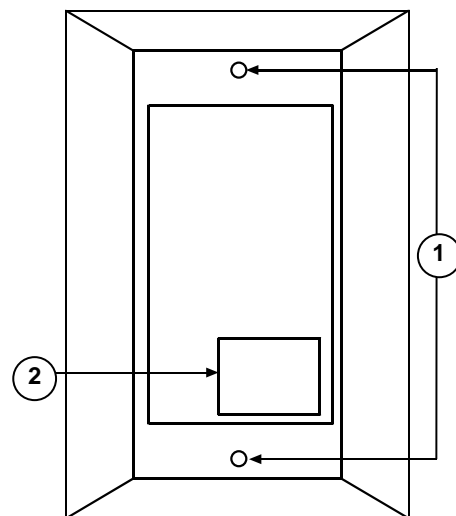
1. Push the prongs of the flush mount ring into the flush mounting hole that is a minimum of 2.5 in. (6.4 cm) high by 1.6 in. (4.1 cm) wide.
2. Connect the wiring as shown in *Figure 1*.
3. Mount the D306 to the flush mount ring as shown in *Figure 2*.
4. Route the wiring from the D306 to the D340 Series (refer to *Figure 3* on page 3).

Figure 1: D306 and D296/D297 Wiring



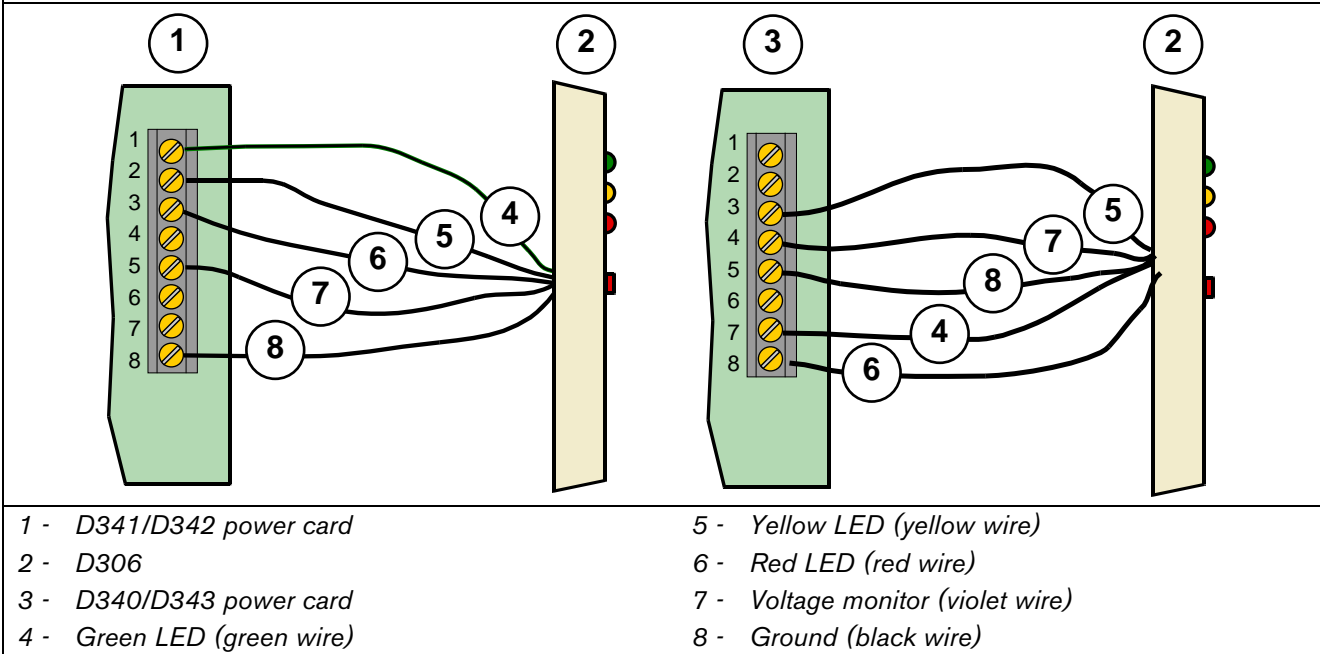
- 1 - D296/D297 receiver
- 2 - Fire alarm control panel (FACP)
- 3 - End-of-line (EOL) resistor
- 4 - Remote indicator plate connector
- 5 - Green LED (green wire)
- 6 - Yellow LED (yellow wire)
- 7 - Red LED (red wire)
- 8 - Ground (black wire)
- 9 - Voltage monitor (violet wire)
- 10 - Not used
- 11 - Orange wire
- 12 - D306

Figure 2: Back of D306



- 1 - Mounting hole (2)
- 2 - Wire entrance

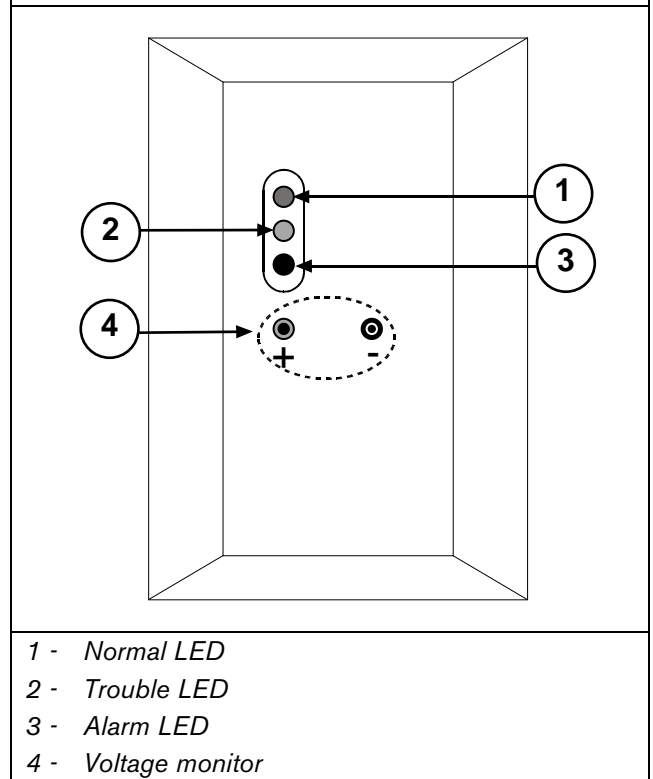
Figure 3: D306 and D340 Series Wiring



3.0 Testing

- Apply power.
 The D306's Normal LED (green) (*Figure 4*) lights steadily for 60 to 120 sec and then flashes. This indicates the D306 and the D296/D297 are connected.
 The Normal LED lights steadily for the D340 Series. Refer to *Table 1* on page 4 for other LED indicators.
- Connect a standard VOM to the D306 voltage monitor plugs. The D296/D297 voltage reading must range from 3.8 VDC to 4.2 VDC.
 Use the volt-ohm meter (VOM) to check the D296/D297 and D340 Series sensitivity level after installation. The voltage reading decreases as the signal level decreases. This is caused by dust or dirt buildup on the D296/D297 lenses or beam misalignment.
 Refer to the troubleshooting section of the *D296/D297 Installation Instructions* (P/N: 31344) for proper voltage readings.
 Refer to the related detector head installation instructions for the proper levels for the D340 Duct Smoke Detector Housing, D343 Duct Smoke Detector Housing, and D341/342 Duct Smoke Detector Housing.

Figure 4: D306 LED Indicators and Voltage Monitor



4.0 Troubleshooting

Table 1: Troubleshooting				
D296/D297 Long-Range Beam Smoke Detector				
Red LED	Yellow LED	Green LED	Condition	Solution
OFF	OFF	ON	The receiver is initializing. Stabilizes in 60 to 120 sec.	
OFF	OFF	Flashing	Normal.	
OFF	ON	ON	Trouble. The beam is blocked or misaligned.	Clear the beam path or realign the receiver.
OFF	ON	Flashing	Trouble. If the voltage at the voltage monitor is lower than 2 VDC, dust or dirt on the lenses reduced the signal strength, or the beam misaligned.	Clean the transmitter and receiver covers. If the voltage does not return to 4 VDC, realign the receiver and press the Setup button.
OFF	ON	Flashing	Trouble. If the voltage at the voltage monitor is greater than 4.8 VDC, the beam strength increased because of initial misalignment of the beam or the air quality improved.	Reset the detector.
ON	OFF	Flashing	Alarm.	Determine the cause of the alarm and reset the detector.
ON	ON	ON	Alarm and trouble.	Determine the cause of the alarm, clear the beam path, and reset the detector.
OFF	Flashing	Flashing	Invalid sensitivity setting.	Set the receiver to the proper sensitivity setting.
D340 Duct Smoke Detector Housing				
Red LED	Yellow LED	Green LED	Condition	Solution
OFF	OFF	OFF	There is no power applied to loop and auxiliary. The power or wiring is incorrectly connected.	Apply power to the bus and auxiliary power. Correct power or wiring connection.
OFF	OFF	ON	Normal.	
OFF	Flashing	ON	Trouble. The head is missing from the base or is dirty; the cover is missing, or the wiring harness to the base is unplugged.	Replace or clean the head, or replace the cover. If the missing cover does not cause a trouble condition, the tamper jumper disables.
ON	OFF	ON	Alarm.	Determine the cause of the alarm and reset the detector.
D341/D342 Duct Smoke Detector Housing				
Red LED	Yellow LED	Green LED	Condition	Solution
OFF	OFF	ON	Normal condition.	
OFF	OFF	OFF	There is no power applied or the wiring connection is incorrect.	Correct the power or wiring connection.
OFF	ON	ON	Trouble. The head is missing from the base, the head is dirty, or the cover is missing.	Clean or replace the head, or replace the cover. If the missing cover does not cause a trouble condition, the tamper jumper disables.
ON	ON	ON	Alarm.	Determine the cause of the alarm and reset the detector.

Table 1: Continued				
D343 Duct Detector Housing				
Red LED	Yellow LED	Green LED	Condition	Solution
OFF	OFF	ON	Normal.	
OFF	OFF	OFF	There is no power applied to the bus and auxiliary power, or the wiring is incorrectly wired.	Apply power to the bus and auxiliary power. Correct the power or wiring connection.
OFF	Flashing	OFF	Trouble. The cover is missing or the wiring harness to the base is unplugged.	Replace the head or cover. If the missing cover does not cause a trouble condition, the tamper jumper disables.
ON	OFF	ON	Alarm.	Determine the cause of the alarm and reset the detector.

5.0 Specifications

Table 2: Specifications	
Voltage	10 VDC to 32 VDC
Current Draw	5.0 mA at 24 VDC, standby; 15.0 mA at 24 VDC, alarm
Operating Temperature Range	-22°F to +130°F (-30°C to +54°C)

Notes

Notes

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