Annunciators, 8 LED

D7030X, D7030X-S2, and D7030X-S8

BOSCH

en   Installation Manual

1   Notices

These instructions cover the installation of the D703X, D7030X-S2, and D7030X-S8 Eight-zone LED Annunciators in a fire system supervised by a compatible Bosch Security Systems, Inc. (Bosch) fire alarm control panel (FACP). For Bosch products compatible with these annunciators, see *Description, page 4*.

Before installing the module, become familiar with the *Installation and Operation Guide* for the control panel you are using.

Install, test and maintain the module according to these instructions, NFPA codes, local codes, and the authority having jurisdiction (AHJ). Failure to follow these instructions can result in failure of the device to operate properly. Bosch Security Systems, Inc. is not responsible for improperly installed, tested or maintained devices.

2   Description

Each annunciator can indicate 16 zones of information and has power, trouble, and eight zone LEDs that can be individually labeled. Connecting a D7032 Annunciator expander D7030X, D7030X-S2, or D7030X-S8 annunciator provides an additional 8 LED zones. This allows the annunciator and D7032 combination to show a total of 16 LED zones. If no D7032 is attached, only the lower 8 zones appear. For more information on the annunciator/D7032 combination, see the following table.

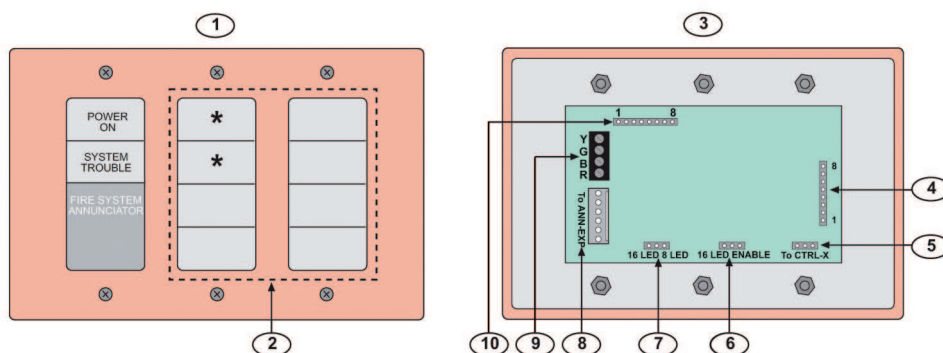|	Zones Covered	Appears on annunciator	Appears on D7032 (if attached)	Comment
1	1 to 16	1 to 8	9 to 16	Combination with lowest option bus address such as Address 1.
2	17 to 32	17 to 24	25 to 32	Combination with second lowest option bus address such as Address 2.
3	33 to 48	33 to 40	41 to 48	Combination with third lowest option bus address such as Address 3.
4	49 to 64	49 to 56	57 to 64	Combination with fourth lowest option bus address such as Address 4.
5	1 to 16	1 to 8	9 to 16	Fifth combination repeats first combination.
6	17 to 32	17 to 24	25 to 32	Sixth combination repeats second combination.
7	33 to 48	33 to 40	41 to 48	Seventh combination repeats third combination.
8	49 to 64	49 to 56	57 to 64	Eighth combination repeats fourth combination.
The column labeled "Appears on annunciator" applies whether or not the D7032 is connected to any annunciator.				

The annunciator mounts in a standard three-gang box, and the D7032 mounts in a double-gang box. Up to 8 annunciator/D7032 combinations can connect to an FACP allowing annunciation of up to 64 zones at two locations.
The annunciators and annunciator/D7032 combinations can be used with the Bosch Security Systems, Inc. control panels indicated in the following table.

Control Panels	
– Active	FPA-1000-V2 Analog Addressable Fire Panel
	FPD-7024 Fire Alarm Control Panels
– Legacy*	FPA-1000-UL Compact Fire Panel
	D7024 Fire Alarm Control Panels
	DS9400 Fire Alarm Control Panels
Modules	D7032 LED Annunciator Expander

> * Legacy products are not available for purchase. The FPA-1000-UL is listed to UL864, 9th edition. The D7024 and DS9400 FACPs are listed to UL864, 8th edition.

For an illustration of the important features of the annunciators, see the following figure:

Figure 2.1: Features

1	Front outside view	2	Zone LEDs (8) – see note below
3	Inside view	4	Address jumpers
5	(not currently used)	6	LED enable jumpers
7	8 and 16 zone selection	8	To D7032 (optional)
9	To FACP option bus	10	Remote LED pins
When using the D7030X, all eight LEDs are red. For the D7030X-S2, the two LEDs shown with * are yellow and the other six are red. For the D7030X-S8, all eight are yellow,			

3   Settings

Setting the addresses

The annunciator must have a unique address set within its address pins. This address cannot conflict with other annunciator addresses or other option bus device addresses. Program the annunciator at the control panel using the Update Bus option in the Programming Mode. See *Programming, page 12*.

For the fifteen annunciator addresses you can select from when setting the annunciator address, see the following figure:
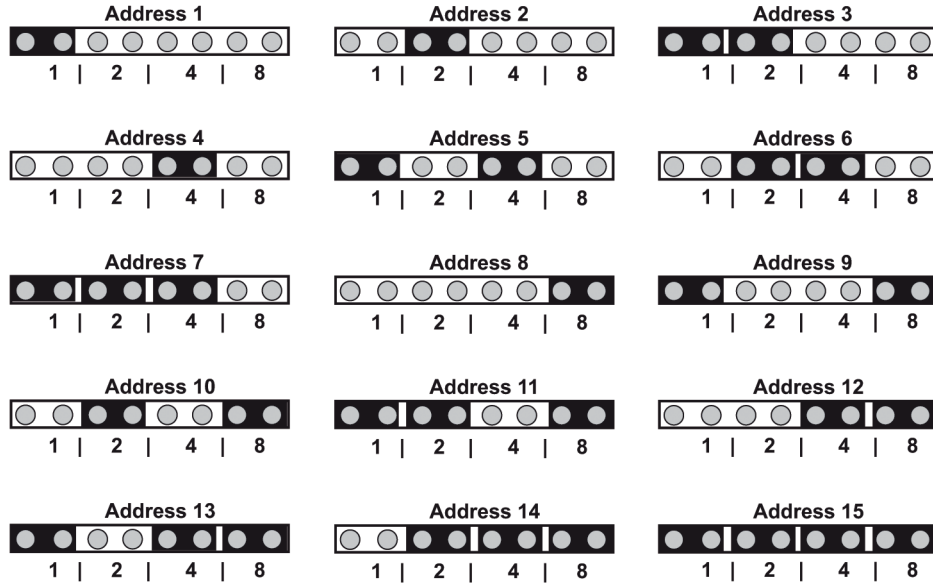
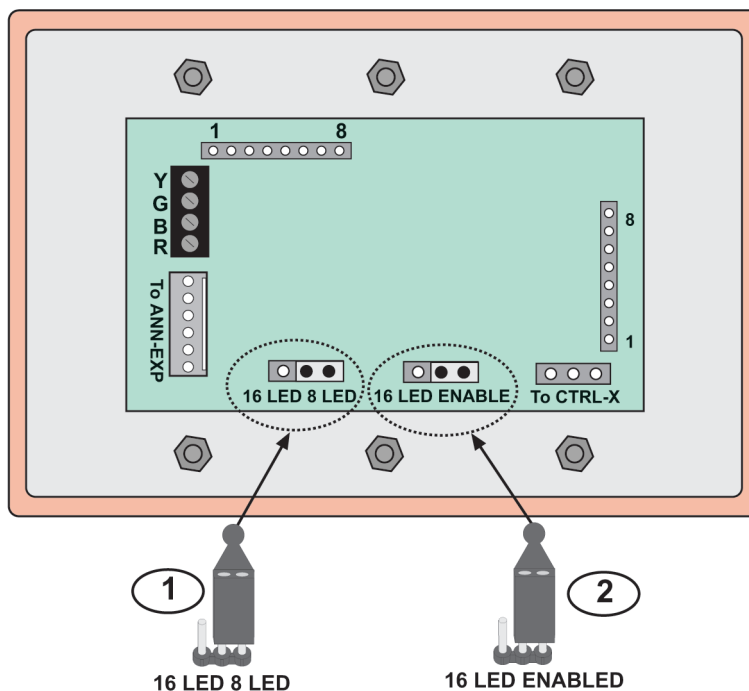| Address 1	Address 2	Address 3
1 | 2 | 4 | 8	1 | 2 | 4 | 8	1 | 2 | 4 | 8
Address 4	Address 5	Address 6
1 | 2 | 4 | 8	1 | 2 | 4 | 8	1 | 2 | 4 | 8
Address 7	Address 8	Address 9
1 | 2 | 4 | 8	1 | 2 | 4 | 8	1 | 2 | 4 | 8
Address 10	Address 11	Address 12
1 | 2 | 4 | 8	1 | 2 | 4 | 8	1 | 2 | 4 | 8
Address 13	Address 14	Address 15
1 | 2 | 4 | 8	1 | 2 | 4 | 8	1 | 2 | 4 | 8

Figure 3.1: Address settings

Notice!

Each address can support only one device.

Setting LED jumpers

Set the LED jumpers to 8 LED (zones) and 8 LED ENABLED as shown in the following figure.

Figure 3.2: Jumper settings

1	16 LED 8 LED (jumper setting for 8 zones)	2	16 LED ENABLED (jumper setting for 8 LEDs enabled)

For jumper settings when adding a D7032, refer to the *D7032 Installation Guide.*

4 Wiring

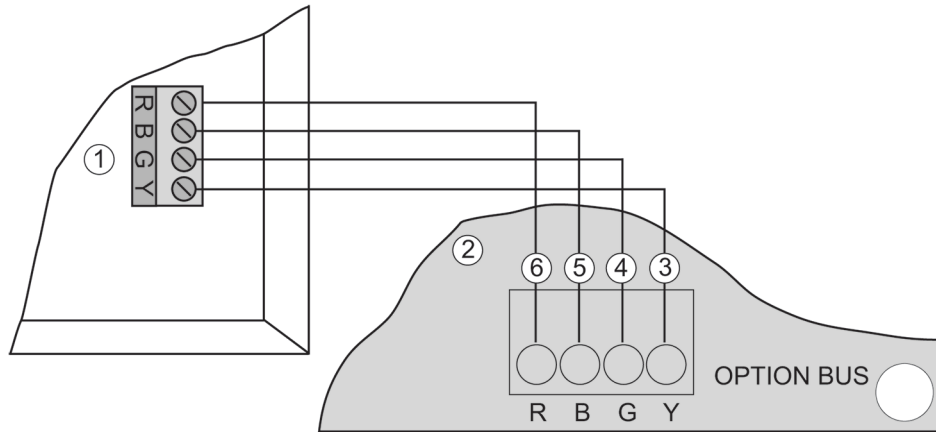**Wiring the annunciator**

	Danger!
	Make sure all power is removed before making any electrical connections. Failure to do so may result in personal injury and/or damage to equipment.

	Notice!
	Before making any changes in equipment or programming on an existing system, inform the operator and the local authority having jurisdiction (AHJ).

NFPA 72 requires that you perform a complete system wide functional test following any modifications, repair, upgrades or adjustments made to the system's components, hardware, wiring, programming and software/firmware.

Figure 4.1: Wiring to the option bus

1	Option bus terminals on device	2	FACP
3	Data line	4	Data line
5	Commin	6	+12 V

	Notice!
	The FPD-7024 has one option bus. The D7024 and DS9400 FACPs have two option buses (A and B). The annunciator can operate improperly if it is wired to both option bus A and option bus B. Ensure that the annunciator is wired to only one of the option buses on the D7024 or DS9400 FACPs.

1. Route the wiring from the control panel through the three-gang box knockout and to the annunciator terminal strip.
2. Follow the wiring guidelines:
   Do not use shielded cable.
   Do not exceed 1000 ft (305 m) between the FACP and the annunciator.
   Multiple home-runs are permitted but the total length of annunciator wiring is limited to a maximum of 4000 ft (1219 m) per system depending on the total current draw on the branches. You can use up to three annunciators on a single 500 ft (152 m) run of 18 AWG

(ISO 0.75 mm^2) wire, or one annunciator on a 1000 ft (305 m) run. For more information on cable length, see the following table and, if using a D7032, the *D7032 Installation Guide*.

3. Mount the annunciator. For mounting information, see *Mounting, page 11*.
4. Restore power to the system.
5. When wiring is complete, ensure the three-gang box is secured to the mounting surface.

Total current draw on branch	Maximum length of 18 AWG (ISO 0.75 mm^2) wire
175 mA	4000 ft (1219 m)
200 mA	5300 ft (1065 m)
250 mA	3000 ft (915 m)
300 mA	2500 ft (760 m)
400 mA	1900 ft (580 m)
500 mA	1500 ft (455 m)

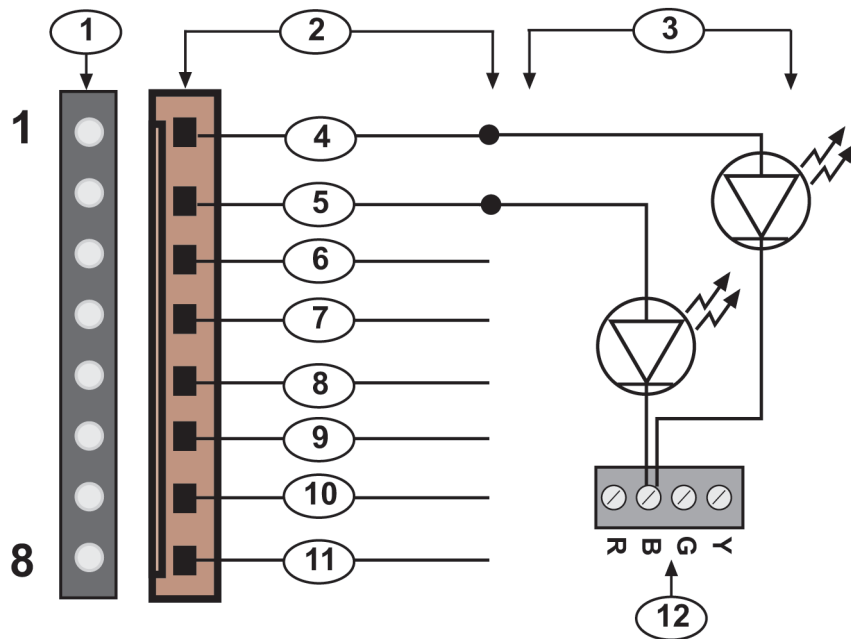**Tab. 4.1:** Current draw and wire gauge restrictions

Adding external LEDs

Notice!
The remote LEDs are unsupervised. Ensure that all wiring between external LEDs and the annunciator is within 20 ft (6 m), in the same room, enclosed within conduit, and is a minimum of 22 AWG (ISO 0.34 mm^2) wire.

Add external LEDs for remote indication of the individual zones by connecting to the remote LED pins as shown in the following figure.

Figure 4.2: External LED connections

1	Remote LED pins	2	Cable harness

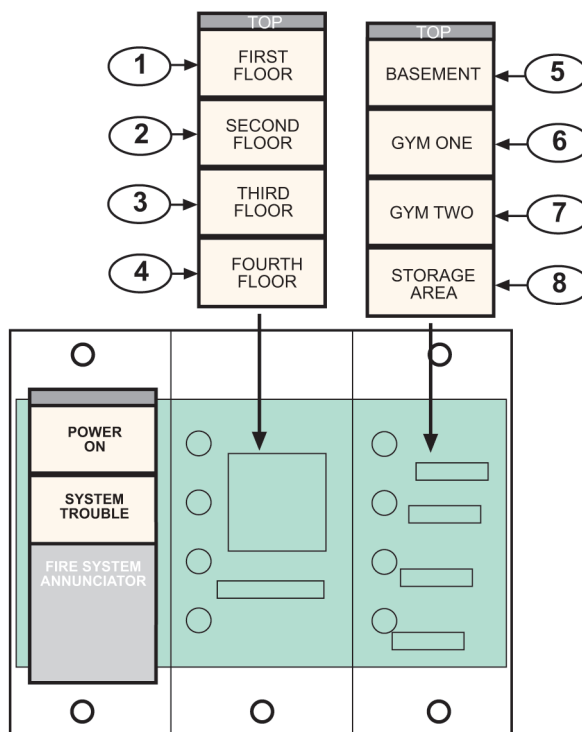| 3	Remote LEDs	4	Brown wire
5	Red wire	6	Orange wire
7	Yellow wire	8	Green wire
9	Blue wire	10	Violet wire
11	Gray wire	12	Option bus

Notice!
The current draw for remote LEDs for any zone cannot exceed 6 mA.

5   Mounting

Notice!
Mount annunciators in easily seen positions at entry locations.

Figure 5.1: Zone Labeling

1	Zone 1	2	Zone 2
3	Zone 3	4	Zone 4
5	Zone 5	6	Zone 6
7	Zone 7	8	Zone 8

1. Before mounting the annunciator, mark the zone labels and insert the labels into their respective slots.
2. Set the annunciator in or over the three-gang box.
3. Position the faceplate.
4. Secure the annunciator to the box using the screws (supplied).
5. Connect the standby batteries.
6. Turn on AC power.

6 Programming

You can assign program zones to light whenever points within that zone go into alarm. Do this by assigning an output zone to each annunciator input point. For example, if you assign Output Zone 1 to Input Points 1 through 5, the LED for Output Zone 1 lights when any input point in this zone goes into an alarm.

For programming details, see the pertinent FACP's *Installation Manual*.

7   Speifications

Environmental

Environment:	Indoor, dry

Physical

Dimensions (HxWxD):	4.5 in. x 6.5 in. x 1.5 in. (11.4 cm x 16.5 cm x 3.8 cm)

Power

Current (alarm):	255 mA maximum (includes remote LED current). Use 190 mA for battery calculation.
Current (standby):	45 mA maximum (use 34 mA for battery calculation).
Voltage (operating):	12 VDC nominal