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BOSCH D720 Series LED Intrusion SDI Keypad

BOSCH D720 Series LED Intrusion SDI Keypad Installation Guide

Contents

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Description

- The D720 Series Keypads (D720, D720W, and D720B) are low profile surface mount, four–wire units that can annunciate up to eight protective points on their LED display. They have a [COMMAND] bar, an [ENT] (ENTER) key, and number keys from [0] to [9]. The keys are used to enter personal passcodes and command functions. When a key is pressed, the keypad is backlit and the keypad emits a short beep to indicate that the buffer has stored the entry.
- When a passcode is completed, the [ENT] key must be pressed to enter the passcode. If the [ENT] key is not pressed, the passcode is ignored by the control panel. The [ENT] key is not required to enter [COMMAND] bar functions.
- The keypad has a time window for accepting key entries. After one key is pressed, the next key in the passcode must be pressed within five seconds. After five seconds have expired from the last key entry, the entire entry is cleared and the passcode must be restarted.

The D720 Series is compatible with the following control panels:

Table 1: Compatible control panels	
D9412G	D7412
D7412G	D7212
D7212G	D9112
D9412	D9124

Function Keys

The D720 Series Keypad has three programmable function keys labeled [A], [B], and [C]. Each key can be programmed to perform many command functions of the control panel. This enables the user to press one button

to perform command functions instead of memorizing the command combination. For complete details concerning the programming of the function keys, refer to Section 7.3 Custom Functions on page 6.

Response Tones

The keypad contains a sounder used to annunciate several system conditions and area conditions. The response tones are as follows:

Table 2: D720 Series Response tones	
Tone	Description
Entry/Exit Delay	The keypad beeps during the entry/exit delay period to remind the user to disarm the security system. This is a programmable function.
Keystroke Entry	As each key is touched the keypad emits a short beep to indicate that the entry has been stored in the keypad buffer. This feature can be disabled using the dip switch on the D720 Series.
Faulted Point Protest	Protective points may be programmed to sound the area keypad buzzer after an arming command is entered, to indicate that a point is faulted.
Watch Tone	The keypad sounder emits a short beep when a watch point is faulted during watch mode.
System Trouble Tone	Some points may be programmed to sound a service tone when they are faulted. To silence the sounder enter an arm/disarm passcode for that area, or enter [COMMAND][4].
	Some points, such as fire points, may be programmed so the sounder cannot be silenced until the point fault is corrected. For additional programming information, refer to the appropriate program entry guide (refer to *Table 5* on page 5).
Alarm Tones	When a fire point activates, the keypad emits a fast, pulsating, high-pitched tone. When a burglary point activates while the system is armed, the keypad emits a steady burglary tone.

Display

The display annunciates four different types of status: armed, point, AC, battery power, and command mode (Figure 1).
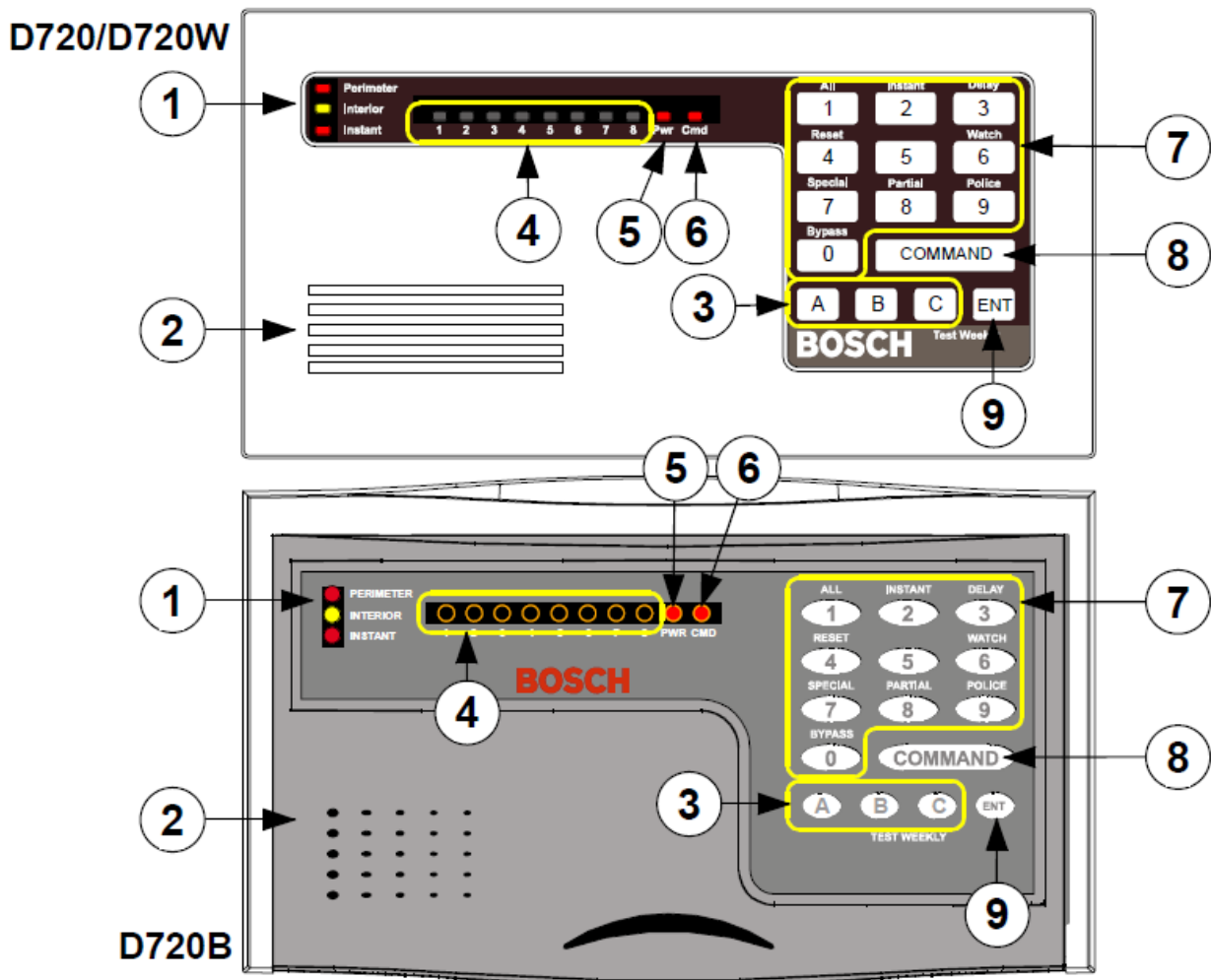
1. Armed status indicators
2. Sounder
3. A, B, and C function keys
4. Point status indicators
5. Power status indicator
6. Command mode indicator
7. Digital keypad
8. Command bar
9. ENT key

Armed status indicators

Armed Status Indicators show the armed condition of the area to which the keypad has been assigned. (Keypads are assigned to areas in the Cmd Cntr Assignment section of the panel program). Three different indicators show the area armed status:

- **Perimeter** – When this indicator is lit, the area perimeter points are armed. During exit delay time, this indicator flashes slowly.
- **Interior** – When this indicator is lit, the area's interior points are armed. During exit delay time, this indicator flashes slowly.
- **Instant** – When this indicator is lit, the area is armed without entry/exit delay time.

Point status indicators

The keypad contains eight numbered indicator lights, which are used to annunciate the condition of the area's protective points (Item 4 in Figure 1).

- Point Fault – While a point is faulted, its indicator lights steadily. When the point is restored to normal, the indicator goes "off."
- Point Alarm Memory – A point alarm memory condition causes the indicator light to flash "on" and "off" rapidly. The indicator continues to flash rapidly until the system is next armed or [COMMAND][4] is entered.
- Bypassed Point – When a point is bypassed, the point's indicator flashes "on" and "off" slowly. The indicator continues to flash slowly until the system is disarmed, or with some systems, the point may be unbypassed.

Protective points may be programmed as invisible. When programmed invisibly, the status of the point is not displayed for alarm conditions.

Command mode indicator
When the [COMMAND] bar is pressed, the command mode indicator is lit for approximately 15 seconds or until the command is completed.

Power Indicator
The Power (PWR) indicator is "on" when AC power is present and the battery is good. The Power ([PWR]) indicator is "off" when AC power is not present. The Power ([PWR]) indicator blinks slowly when battery power is low and AC is present. The Power ([PWR]) indicator blinks quickly when battery power is missing and AC is present.

Table 3: Power indicator status		
Indicator	AC	BATT
OFF	NO	YES*
ON	YES	GOOD
SLOW	YES or NO	LOW
FAST	YES	MISSING

If AC is not present and the battery becomes depleted, the keypad will not indicate at all

Setting the Keypad Address

Switches 1 to 4 on the D720 Series assign an address (1 to 8) to the keypad (refer to Figure 2 below and Table 4 on page 5). The address determines the area to which the keypad is assigned. Switch 5 allows you to enable or disable the keystroke entry tone, and Switch 6 allows you to enable or disable keypad backlighting. The Slide Switches can only be set while power is removed from the keypad. If the switch positions are reset while the keypad is powered up, the changes will not affect the subsequent performance of the keypad.

Figure 2: D720 Series internal arrangement

1 - Serial data wiring connector   2- Wire opening   3 - DIP switches
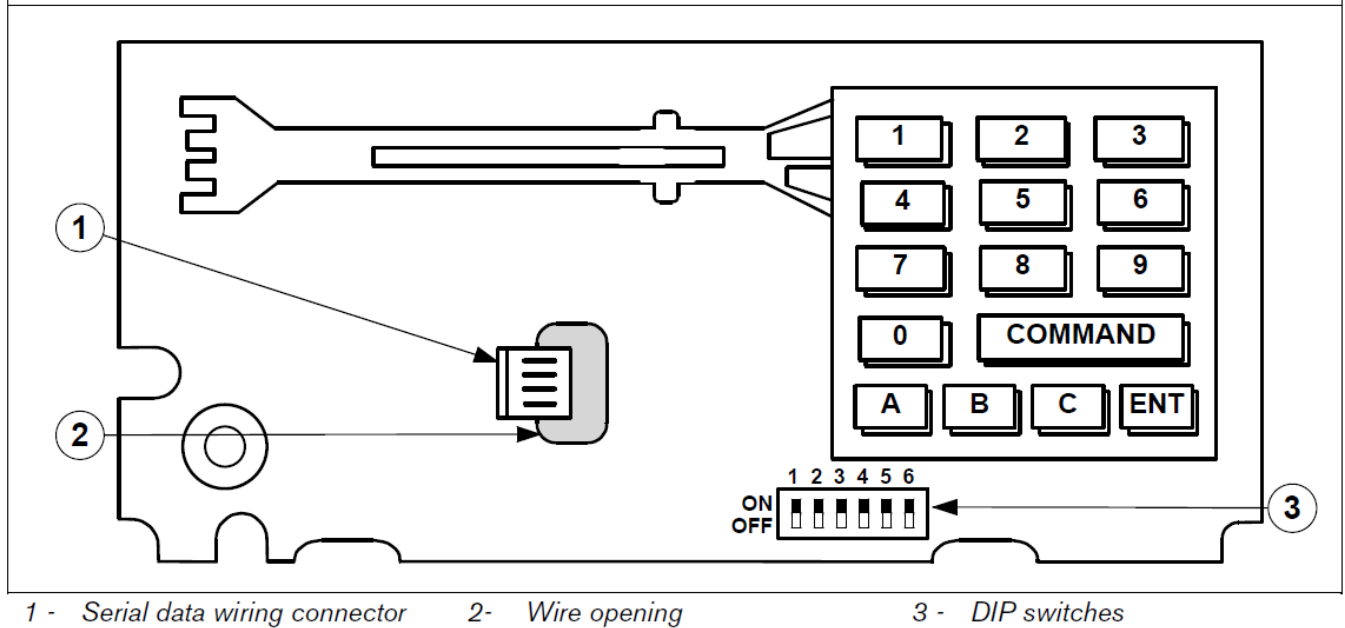
Refer to Section 5.1 Silencing the keystroke entry tone
Refer to Section 5.2 Enabling constant keypad backlighting.

Table 4: Keypad address settings						
	Switches					
Address #	1	2	3	4	5	6
Address #1	ON	ON	ON	ON	*	#
Address #2	OFF	ON	ON	ON	*	#
Address #3	ON	OFF	ON	ON	*	#
Address #4	OFF	OFF	ON	ON	*	#
Address #5	ON	ON	OFF	ON	*	#
Address #6	OFF	ON	OFF	ON	*	#
Address #7	ON	OFF	OFF	ON	*	#
Address #8	OFF	OFF	OFF	ON	*	#

Silencing the keystroke entry tone
Switch 5 on the D720 Series allows you to enable or disable the keystroke entry tone. Put the switch in the ON position to enable the tone, and OFF to disable the entry tone.

Enabling constant keypad backlighting
Switch 6 on the D720 Series allows you to enable or disable keypad backlighting. Put the switch in the ON position to enable backlighting on key presses, and OFF to enable constant backlighting.

Installing the D720 Series

To mount the unit, the front cover must be removed from the base, exposing the mounting holes. Follow the directions below for mounting.

Do not mount the keypad in a location exposed to direct sunlight. Direct sunlight makes the display less visible and may also cause damage to the keypad's electrical components

1. Remove the front cover from the enclosure base. Use a small flat-bladed screwdriver to gently push two bottom cover tabs back. As the tabs are pushed back, lift the bottom of the cover away from the base. Remove the cover.

2. Route the four-wire flying leads through the wiring opening in the back of the enclosure base and plug into the serial data wiring connector. Connect wiring as described in the appropriate Operation and Installation Guide (refer to Table 5 for panel-specific literature).

   The D720 Series is wired the same as the D1255 Keypad.

Table 5: Related documentation	
Document	Part Number
D7212G Operation and Installation Guide	4998138544
D7212G Program Entry Guide	4998138538
D9124 Operation and Installation Guide	39352
D9412G/D7412G Operation and Installation Guide	43488
D9412G/D7412G Program Entry Guide	47775

3. Place the enclosure base on the wall in the desired location. Use a center punch or a pencil to mark the locations of the mounting holes. (The enclosure base can be mounted to a single–gang wall box if desired. Two mounting screw holes on the base are positioned for standard single–gang boxes.) Secure the enclosure base to the wall or gang box.

4. Align the top two tabs of the enclosure cover with the top two tab slots in the enclosure base. Slide the top of the cover into the base. Gently push the bottom of the cover down on the base until it snaps into place.

5. Push each key on the keypad towards the top of the enclosure to ensure proper mating with the openings in the top cover.

Control panel programming

If you haven't created a program for the control panel, review the appropriate program entry guide (refer to Table 5 on page 5). Check to be certain you have all the required accessory modules installed for the features you want to use. Use the D5200 Programmer or the RAM IV (RPS) remote programming software to load your custom program into the panel.

Cmd Cntr Assignment

- Keypad Addresses. There is no unique programming required for the D720 Series. The keypads may be used on any one of the keypad's addresses. Bosch Security Systems recommends not mixing D720 Series and

other types of keypads on the same address. The "keystrokes" used to control the security system differ slightly between keypad types, so that if two different types are on the same address the end user could become confused. For example, the user could become confused by starting a Walk Test with one type of keypad and then viewing untested points from another type of keypad.

- Supervision. Multiple D720 Series can be installed on the same address when supervision is set to NO. Only one D720 Series can be put at the keypad address when supervision is set to YES.
- Scope. The keypad scope must be set to "Area Wide." The D720 Series does not support "accounts" or "panel-wide" scope selection.
- Area Assignment. The D720 Series can be assigned to any area.

Area Text
All programming within this section is not used by the D720 Series.

Custom Functions

- The D720 Series "A," "B," and "C" keys will execute custom function numbers "128," "129," and "130," respectively:
  The D9112 Program Entry Guide (P/N: 71-06145-000) and D7212G Program Entry Guide (P/N: 4998138538) explain the procedures for proper programming of the "keystrokes" for use with custom functions. There are some differences between executing keystroke sequences on a D720 Series as opposed to a D1255. The keypad's [A],[B], and [C] keys execute custom functions as if they were being executed from a D1255.
- The D720 Series does not have a Menu key to bring up the "Command Menu." No program entries are necessary in the "Command Menu" section.
- Point Assignment: The D720 Series' eight-point LEDs will be associated with the first eight points assigned to the area in numerical sequence (not including invisible points):
  For example, if a D720 Series is to be used in area 3, and point numbers 21 through 28 are assigned to area 3, then the D720 Series keypad LED #1 will reflect the state of point #21, LED #2 will reflect the state of point #22, and so on.

Troubleshooting:

- Do not program more than eight points to any area using a D720 Series for control. If more than eight points are assigned to an area controlled by a D720 Series, there will be no indication of the ninth (or above) point in this area.
- Invisible points are not associated with any LEDs.
- If a point is one of the first eight assigned to an area, and the point does not have a point index number assigned, the LED will not light for a fault or trouble, although the sounder will annunciate the condition.

System Commands Supported by the D720 Series

The following commands are supported by the D720 Series:

Table 6: Keypad supported commands	
Function	Command
Bypass a Point	CMD 0
Unbypass a Point	CMD 00
Master Arm	CMD 1
Master Arm Instant	CMD 11
Perimeter Instant	CMD 2
Perimeter Delay	CMD 3
Send Report	CMDs 41 & 42
Remote Program	CMD 43
Walk Test	CMD 44
Reset Sensors	CMD 47
Delete Passcode	CMD 53
Change Passcode	CMD 55
Fire Test	CMD 58
Watch Mode	CMD 6
User Command 7	CMD 7
Perimeter Partial	CMD 8
User Command 9	CMD 9

How to Customize User's Guide for System Owner
In the D720 Series User's Guide (P/N: 71-06898-000), check the appropriate boxes on the pages describing system commands so the end user knows

- whether a function is available and
- whether a passcode is required for the function.

Specifications

Table 7: D720 Series Specifications	
Operating Voltage	Nominal 12 VDC
Current Requirements	Keypad Idle 20 mA Maximum 100 mA
Dimensions (H x W x D)	4.6 in. x 8.2 in. x 0.8 in. (11.7 cm x 20.8 cm x 20.8 cm)
Wiring	A four-conductor, quick-connect, plug- in cable is provided for interfacing with the compatible control panels (refer to *Table 1*)
Operating Temperature	+32°F to +122°F (0°C to +50°C)
Non-condensing Relative Humidity	5% to 85% @ +86°F (+30°C)

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Documents / Resources

BOSCH D720 Series LED Intrusion SDI Keypad [pdf] Installation Guide
D9412G, D720 Series LED Intrusion SDI Keypad, LED Intrusion SDI Keypad, Intrusion SDI Keypad, SDI Keypad, Keypad, D7412G, D7212G, D9412, D7412, D7212, D9112, D9124

References

- **User Manual**