Installation Guide

1.0   Description

The D720 Command Center is a low profile surface mount, four–wire unit which can annunciate up to eight protective points on its LED display. It has 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 command center 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/communicator. The [ENT] key is not required to enter [COMMAND] bar functions.

The control/communicator 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 is compatible with the following control/communicators:

Compatible Control/Communicators		
D9412	D9412	D9112
D7412G	D7412	D9124
D7212G	D7212	

2.0   Specifications

Operating Voltage	Nominal 12 VDC
Current Requirements	Keypad Idle: 20 mA Keypad Maximum: 100 mA
Dimensions (H x W x D)	4.6 in. x 8.2 in. x 0.82 in. (11.7 cm x 20.8 cm x 20.8 mm)
Wiring	A four-conductor, quick-connect, plug-in cable is provided for interfacing with the D720 Control/Communicator.
Operating Temperature	0°C to +50°C (+32°F to +122°F)
Non-condensing Relative Humidity	5% to 85% @ +30°C (+86°F)

3.0   Function Keys

The D720 Command Center has three programmable function keys labeled [A], [B], and [C]. Each key can be programmed to perform many command functions of the control/communicator. 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, see *Section 8.3* on page 5.

4.0   Response Tones

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

Entry/Exit Delay – The command center 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 command center emits a short beep to indicate that the   entry has been stored in the command center buffer. This feature can be disabled using the dip switch on the D720.

Faulted Point Protest – Protective points may be programmed to sound the area command center buzzer after an arming command is entered, to indicate that a point is faulted.

Watch Tone – The command center 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].

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Note: *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** *(see* **Table** *3 on page 4).*

Alarm Tones – When a fire point activates, the command center emits a fast, pulsating, high-pitched tone. When a burglary point activates while the system is armed, the command center emits a steady burglary tone.

5.0   Display

The display annunciates four different types of status: armed, point, AC and battery power, and command mode (see *Figure 1*).
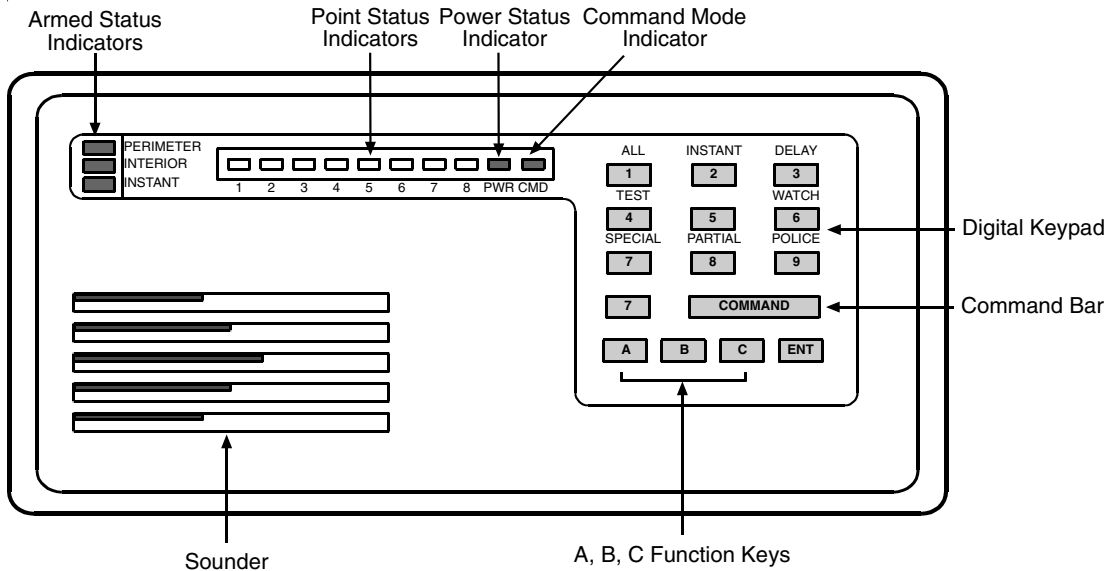

Figure 1: The D720 Command Center

5.1   Armed Status Indicators

Armed Status Indicators show the armed condition of the area to which the command center has been assigned. (Command centers 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.

5.2   Point Status Indicators

The command center contains eight numbered indicator lights, which are used to annunciate the condition of the area's protective points (see *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.

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

5.3   Command Mode Indicator

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

5.4   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.

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 command center will give no indication at all.

Table 1: Power Indicator Status

6.0   Setting the Command Center Address

Switches 1 to 4 on the D720 assign an address (1 to 8) to the command center (refer to *Figure 2* below and *Table 2* on page 4). The address determines the area to which the command center 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 command center. If the switch positions are reset while the command center is powered up, the changes will have no effect on the subsequent performance of the command center.
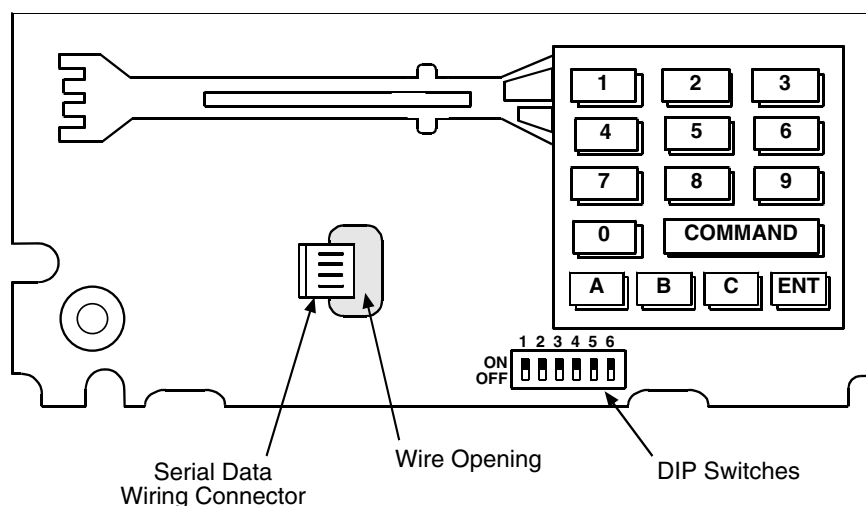

Figure 2: Internal Features

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Address #	Switches					
	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	*	#

*See *Section 6.1 Silencing the Keystroke Entry Tone.*

See *Section 6.2 Enabling Constant Keypad Backlighting.*

Table 2: Command Center Address Settings

6.1   Silencing the Keystroke Entry Tone

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

6.2   Enabling Constant Keypad Backlighting

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

7.0   Installing the D720

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

> **CAUTION** *Do not mount the command center in a location exposed to direct sunlight. Direct sunlight makes the display less visible and may also cause damage to the command center 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 3* for panel specific literature).

Note: *The D720 is wired the same as the D1255 Command Center.*

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

Table 3: Related Documentation

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.

8.0 Programming the Panel for the D720

If you haven't created a program for the panel, review the appropriate *Program Entry Guide* (refer to *Table 3* on page 4). 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 remote programmer to load your custom program into the panel.

8.1 Cmd Cntr Assignment

- Command Center Addresses. There is no unique programming required for the D720. The D720 may be used on any one of the command center's addresses. Bosch Security Systems recommends not mixing D720s and other types of command centers on the same address. The "keystrokes" used to control the security system differ slightly between command center 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 command center and then viewing untested points from another type of command center.

- Supervision. Multiple D720s can be installed on the same address when supervision is set to **NO**. Only one D720 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 does not support "accounts" or "panel wide" cope selection.

- Area Assignment. The D720 can be assigned to any area.

8.2 Area Text

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

8.3 Custom Functions

- The D720 "A," "B," and "C" keys will execute custom function numbers "128," "129," and "130," respectively: The D9112 and D7212 program entry guides 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 as opposed to a D1255. The D720's [A],[B], and [C] keys execute custom functions as if they were being executed from a D1255.

- The D720 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's 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 is to be used in area 3, and point numbers 21 through 28 are assigned to area 3, then the D720 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 for control. If more than eight points are assigned to an area controlled by a D720, 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.

Programming the Panel for the D720

8.4   System Commands Supported by the D720

The following commands are supported by the D720:

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

Notes: