D1255RB/D1256RB/D1257RB

BOSCH

Listings and Approvals

US

UL 365	Police Station Burglar Alarm Units and Systems
UL 609	Local Burglar Alarm Units and Systems
UL 864	Control Units for Fire-protective Signaling Systems
UL 1023	Household Burglar Alarm System Units
UL 1076	Proprietary Alarm Units
UL 1610	Central-station Burglar-alarm Units
UL 1635	Digital Alarm Communicator System Units

CA

CAN/ULC S303	Local Burglar Alarm Units and Systems
CAN/ULC S304	Signal Receiving Centre and Premise Alarm Control Units
ULC-ORD C1023	Household Burglar Alarm System Units
ULC-ORD C1076	Proprietary Burglar Alarm Units and Systems

Contents

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Tables

1.0   Introduction

Before installing the D1255RB, D1256RB, or D1257RB, you should be familiar with the operation and installation guide and the program entry guide for the control panel you are using. Before proceeding with the installation instructions in this manual, be sure that you are familiar with the programming recommendations in the *Guide to UL 864 9th Edition Programming Requirements* section of the control panel's program entry guide.

2.0   Overview

2.1   D1255RB/D1256RB/D1257RB Features

The D1255RB and D1256RB Fire Keypads and the D1257RB Fire Alarm Annunciator are 4-wire serial devices used with the following Bosch Security Systems, Inc. control panels:

Control Panel	Keypad/Annunciator
B9512G B9512G-E B8512G B8512G-E D9412GV4 D7412GV4 D7212GV4 D9412GV3 D7412GV3 D7212GV3 D9412GV2 D7412GV2 D7212GV2	D1255RB, D1256RB, D1257RB

The D7212GV4, D7212GV3, and D7212GV2 control panels are not approved for commercial fire applications.

2.1.1   D1255RB

The D1255RB has number keys (0 to 9) and function or menu keys, including [COMMAND] and [ENTER]. The D1255RB can be used as a system controller and an annunciator.

Because a passcode is required to use the keypad, it is usually installed in building entrances and areas with unrestricted access. Near an exterior door in a hotel or in a business lobby is an ideal mounting location, allowing a responding agency or persons evacuating the building to identify quickly the type and location of the emergency from outside without being in danger.

2.1.2   D1256RB

The D1256RB provides annunciation and system control. Four function keys on the D1256RB provide quick execution of alarm silencing, trouble silencing, annunciator display reset, and sensor reset functions.

The D1256RB should be mounted in a secure area or locked inside an approved clear plastic enclosure.

2.1.3   D1257RB

The D1257RB provides remote annunciation without system control capability. It can be mounted in public access locations.

Two keys on the D1257RB allow the user to select forward or backward through a list of system events.

2.2   Description

2.2.1   Display

The D1255RB, D1256RB and D1257RB use a 16-character display with custom programmable text. The custom text programmed at the control panel appears in the vacuum fluorescent display (VFD). Refer to *Figure 1*, *Item 1*.

The keypads and annunciator show the latest status conditions of the fire system using words, numbers, and symbols. When an alarm occurs, a message remains in the display until the user acknowledges the event at a keypad or annunciator. When a series of events affecting the system occurs, each event appears in order of its priority.

2.2.2   Audible Tones

The D1255RB, D1256RB and D1257RB have a built-in speaker that produces several distinct warning tones. To change the speaker volume, adjust the potentiometer (*Figure 1, Item 3*). Turn the potentiometer clockwise to increase and counterclockwise to decrease the volume.

> ✓ You cannot connect external annunciation devices to the D1255RB, D1256RB, and D1257RB.

- **Fire Signal** – Pulsed, high pitched bell tone when the system is in alarm

- **Invalid Key Buzz** – Flat buzz tone when an invalid key, or sequence of keys, is pressed
- **Keypad Encoding Tone** – Muted beep tone as each key is pressed to indicate that the entry has been accepted. To disable the keypad encoding tone, refer to *Section 2.2.3 Switch Settings*.
- **Trouble Buzzer** – Two-tone warble when a trouble event occurs, such as a service alert. To stop the signal on a D1255RB Keypad, press [COMMAND][4]. To stop the tone on a D1256RB, press the [TROUBLE SILENCE] key.

Figure 1:   D1255RB, D1256RB, and D1257RB Internal Arrangement
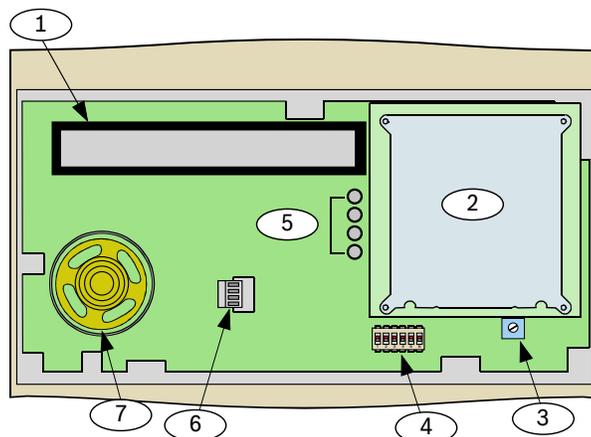
1 -	Vacuum fluorescent display (VFD)	5 -	Status LEDs
2 -	Keypad	6 -	Wiring harness connector
3 -	Speaker volume control (potentiometer)	7 -	Speaker for sounder
4-	Address DIP switches		

> ✓ The D1257RB does not have a manual method of stopping the trouble buzzer.

Refer to the *Fire System User's Guide* (P/N: F01U011793) for information about silencing the signals.

Lost Communication – Single trouble tone followed by a 30-second silence when a keypad or annunciator loses communication from the control panel.

- To stop the tone, restore communication or remove power from the keypad or annunciator.

2.2.3   Switch Settings

A 6-position DIP switch (*Figure 1*, *Item 4*) located under the cover allows you to select the address of each keypad or annunciator and silence the keypad encoding tones.

For information on accessing the switches, refer to *Section 3.3 Installation Procedure* on page 6.

> ✓ For supervised keypads, assign only one keypad to each address.

3.0   Installation

3.1   Mounting Information (D1255RB, D1256RB, and D1257RB)

The D1255RB, D1256RB, and D1257RB are low-profile, surface-mounted units molded in durable red plastic. Use the D56 Keypad Conduit Box (protected surface or flush mount) for mounting the units.

Mounting Locations

⚠
- **Do not** mount the keypads and annunciators in locations where they are exposed to direct sunlight. Direct sunlight can interfere with the display screen's visibility and damage internal components.
- **Do not** mount the units in wet or moist locations.

3.2   Wiring Information (D1255RB, D1256RB, and D1257RB)

A four-wire flying lead is required for the data and power connections between the keypad or annunciator and the control panel. The unit includes a wiring harness with four color-coded flying leads at one end and a female four-pin connector at the other end.

Refer to *Figure 10* and *Figure 11* on page 9 to wire the D1255RB, D1256RB, or D1257RB.

3.3   Installation Procedure

1. Power down the control panel.
2. Using a small flat-bladed screwdriver, gently push the two bottom tabs up and in to release the enclosure base. Refer to *Figure 2*.

⚠ Use caution to avoid damage to the tabs and hinges.

Figure 2:   Releasing the Enclosure Base
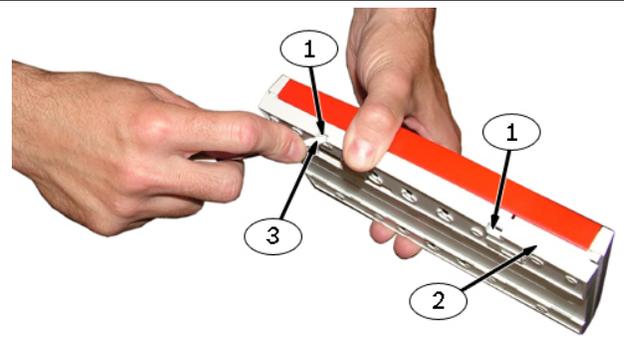
1 -   Screwdriver
2 -   Tabs
3 -   Enclosure base

3. Gently lift the unit from the enclosure base as the tabs are pushed in.

Figure 3:   Lifting the Keypad from the Enclosure Base
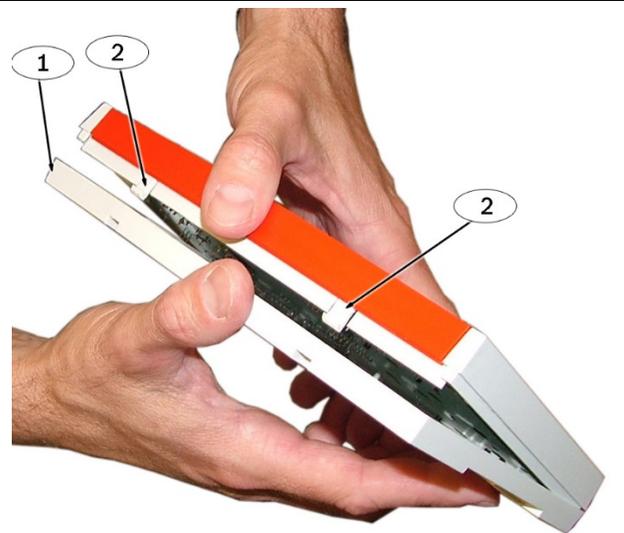
1 -   Enclosure base
2 -   Tabs

4. Gently pull the keypad apart from the enclosure base at the top hinges.

Figure 4:   Removing the Enclosure Base
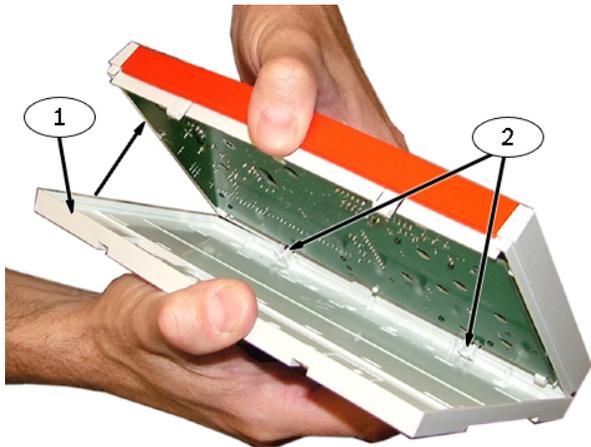
1 - Enclosure base
2-   Top hinges

5. Lift and remove the red cover.

Figure 5:   Lifting the Red Cover

Figure 6:   Removing the Red Cover
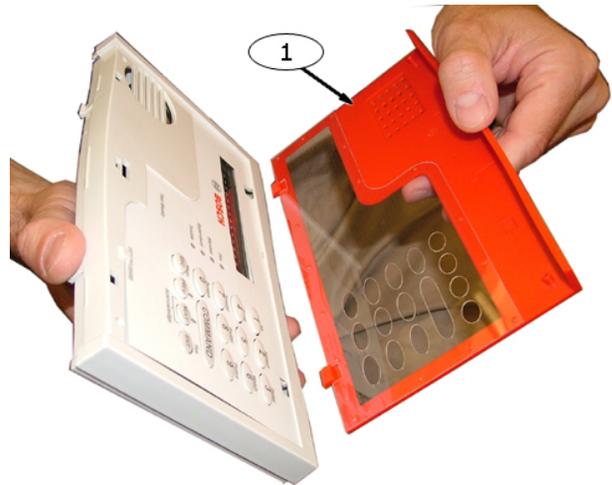
1 - Red cover

6. Remove the faceplate.

Figure 7:   Removing the Faceplate

1 - Faceplate

7. Set the address switches. Refer to *Figure 8*, *Figure 9*, and *Table 1*.

Figure 8:   Setting the Address Switches
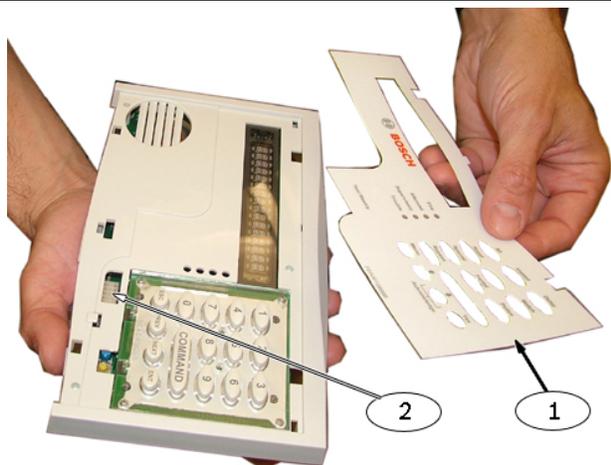
1 - *Faceplate*
2 - *Address switches*

⚠ **Warning:** Avoid injury. Do not wire the D1255RB, D1256RB, or D1257RB if power is applied to the control panel.

8. Connect the flying leads on the wiring harness (*Figure 10*) to the wiring terminals on the control panel. Refer to *Table 2*.

Table 2:   Keypad or Annunciator Connections

D9412GV2/ D7412GV2 Terminal	Function	Keypad Wire Color	Function
32*	POWER +	Red	12 VDC
31	DATA BUS A	Yellow	Data
30	DATA BUS B	Green	Data
29	COMMON	Black	Common

* Connect with at least 1.5 m (5 ft.) of 0.8 mm (22 AWG) wire (4.3 m [14 ft.] of 1.2 mm [18 AWG] wire).

9. Feed the connector end of the wiring harness through the opening in the back of the enclosure base (*Figure 10*).
10. Secure the keypad or annunciator to its mounting location from inside the enclosure base by inserting screws through the mounting holes (*Figure 10*).

Figure 9:   Address DIP Switches
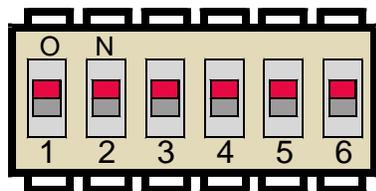
Table 1:   DIP Switch Address Settings

Address Number	Switch Number					
	1	2	3	4	5*	6
1	ON	ON	ON	ON		ON
2	OFF	ON	ON	ON		ON
3	ON	OFF	ON	ON		ON
4	OFF	OFF	ON	ON	ENCODING TONE ON/OFF	ON
5	ON	ON	OFF	ON		ON
6	OFF	ON	OFF	ON		ON
7	ON	OFF	OFF	ON		ON
8	OFF	OFF	OFF	ON		ON

*   Switch 5 toggles the encoding tone ON and OFF. With the encoding tone turned on, the keypad sounds a beep each time a key is pressed.

Figure 10: Mounting the Enclosure Base
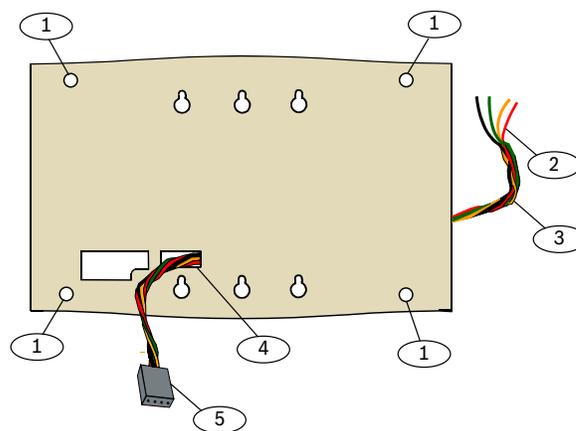
1 - *Mounting hole*
2 - *Flying leads*
3 - *Wiring harness*
4 - *Opening*
5 - *Connector*

11. Connect the wiring harness to the connector on the back of the keypad or annunciator (*Figure 11*).

Figure 11: Wiring Harness Connection to Keypad or Annunciator

1 - Connector
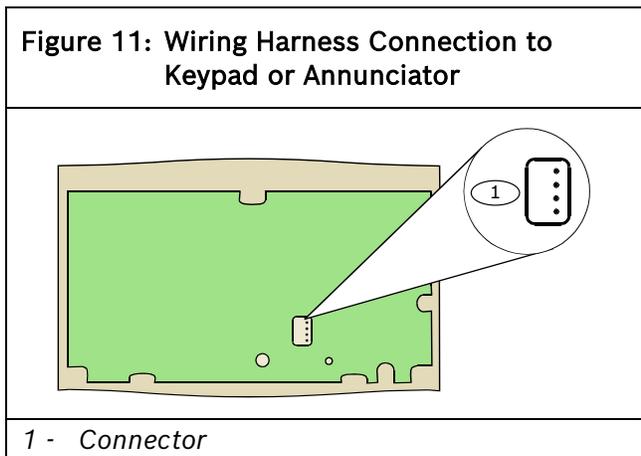
12. Replace the faceplate.
13. Replace the cover. Align and insert the top two tabs of the cover into the top two tab slots on the front of the keypad.

14. Install the enclosure base:
a. Hold the unit at an angle to the enclosure base and snap the hinges on the top edge of the unit into place first.

Figure 12: Installing the Enclosure Base – Top

1 - Hinges
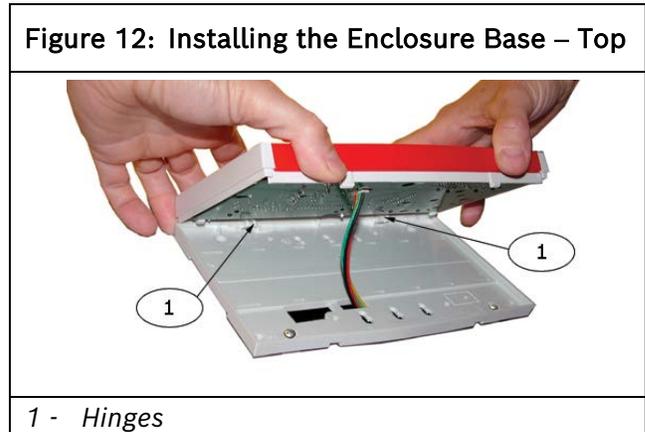
b. Press the bottom edge of the unit toward the enclosure base until the tabs snap into the openings in the base.

Figure 13: Closing the Enclosure Base – Bottom

1 - Enclosure base
2   Tabs
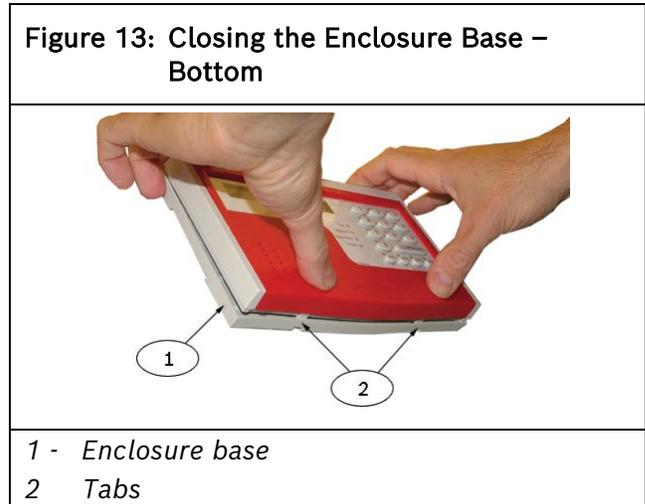
4.0   D1256RB Programming Requirements

> For D1255RB and D1257RB programming information, refer to the appropriate program entry guide and program record sheet for the control panel.

Important programming recommendations and requirements are described in this section for the D1256RB.

4.1   Keypad (COMMAND CENTER) Assignments

- **Keypad Text:** The D1256RB can be assigned to any one of the eight addresses in the control panel.

- **Supervised:** Certain local jurisdictions might require supervision of fire system annunciators. If your area has that requirement, set the supervision to YES for the addresses that use fire alarm annunciators.
- **Scope:** The D1256RB acknowledges fire alarms and troubles, not burglar alarms and troubles. Set the scope to include fire areas only.
- **Area:** Program the area number of the fire area(s) as normal.

4.2   Area Text

4.2.1   D9412GV4/D7412GV4/D7212GV4 v1.xx and earlier versions

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Figure 14: Example – Area Text for Fire Applications

	Area 1	**Area 2**
Area # is On	P R E S S A L A R M S I L	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Area # Not Ready	C H E C K F I R E S Y S	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Area # is Off	* F I R E S Y S T E M *	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Area # Acct is On	P R E S S A L A R M S I L	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Area # is On – PRESS ALARM SIL

Fire area should remain in the OFF state at all times. If the authority level is not programmed correctly, and the fire alarm area arms, PRESS ALARM SIL shows on the display. Pressing the [ALARM SILENCE] key silences any alarms(s) and disarms the area.

The idle text, * FIRE SYSTEM *, appears on the display when the area is disarmed.

Area # Not Ready – CHECK FIRE SYS

Most fire alarm areas consist of all 24-hour points and the **Area # Not Ready** display is not used. If a controlled point type is used for some type of fire supervision device, and the device becomes off-normal, CHECK FIRE SYS appears on the fire keypad.

Area # is Off – * FIRE SYSTEM *

This is the normal idle text for the fire keypad and annunciator.

Area # Acct is On – PRESS ALARM SIL

Fire area should remain in the OFF state at all times. If the authority level is not programmed correctly, and the fire alarm area arms, PRESS ALARM SIL shows on the display. Pressing the [ALARM SILENCE] key silences any alarms(s) and disarms the area.

The idle text, * FIRE SYSTEM *, appears on the display when the area is disarmed.

4.2.2   B9512G/B8512G and D9412GV4/D7412GV4/D7212GV4 v2.xx

RPS Menu Location

Bx512G Program Record Sheet > Area Wide Parameters > Area/Bell Parameters, Open Close Options > Area Arming Text

Figure 15: Example – Area Arming Text for Fire Applications					
Area Arming Text	Area Name Text	Account Is On Text	Area # Is On Text	Area # Is Not Ready Text	Area # Is Off Text
Area "#"	**Fire System**	**Fire System**	**Fire System**	**Fire System**	**Fire System**

Area Name Text – ** FIRE SYSTEM **

Sets what text is displayed at the keypad. Information purposes only

Account Is On Text – ** FIRE SYSTEM **

Text to display at the keypad for each area. Program this parameter as *Fire System*.

Area # Is On Text – ** FIRE SYSTEM **

Text to display at the keypad for each area. Program this parameter as *Fire System*.

Area # Is Not Ready Text – ** FIRE SYSTEM **

Text to display at the keypad for each area. Program this parameter as *Fire System*.

Area # Is Off Text – ** FIRE SYSTEM **

Text to display at the keypad for each area. Program this parameter as *Fire System*.

4.3   Custom Functions

The Custom Functions section does not apply to the B9512G/B8512G or D9412GV4/D7412GV4 v2.xx. Selecting the corresponding Keypad Type in RPS automatically selects the keypad and functions. Refer to the appropriate program entry guide for specific control panel information. For the B9512G/B8512G and D9412GV4/D7412GV4 v2.xx control panels, proceed to section 4.4.1.

Figure 16: Example – Custom Functions Recommended for UL864 9th Edition

	Custom Function Text	Custom Function Keystrokes
CF 128	A L A R M S I L E N C E ?	1 2 5 6 0 0 E _ _ _ _ _ _ _ _
CF 129	T R O U B L E S I L E N C E ?	A 4 C C _ _ _ _ _ _ _ _ _ _ _
CF 130	D E T E C T O R R E S E T ?	A 4 7 _ _ _ _ _ _ _ _ _ _ _ _
CF 131	A N U N C I A T O R R E S E T	1 2 5 6 0 0 C A 4 7 _ _ _ _ _ _

In *Figure 16*, C = [ESC], E = [ENT], A = [Command].

In the D1256RB, **Custom Functions** must be programmed as indicated in *Figure 15*. Refer to *Keypad (Command Center), Custom Functions* in the program record sheet for your control panel for information on making the function keys operational.

The passcode 125600 is used in the following examples. You can use any passcode.

CF 128 – ALARM SILENCE ?

Keystrokes: [1] [2] [5] [6] [0] [0] [ENT]. Program this custom function as the first Menu item in the D1256RB display. The Alarm Silence function is executed when the [ALARM SILENCE] key is pressed on the D1256RB. The control panel sees the keystroke entry as a valid passcode having the authority to silence a ringing fire bell in the area. The [ENT] key has the enter function.

CF 129 – TROUBLE SILENCE ?
Keystrokes: [A] [4] [ESC][ESC]. Program this custom function as the second item in the Menu. The function is executed whenever the [TROUBLE SILENCE] key is pressed on the D1256RB. This entry is the equivalent to executing a [COMMAND] [4] on the D1256RB.

CF 130 – DETECTOR RESET ?
Keystrokes: [A] [4] [7]. Program this custom function as the third item in the Menu. The function is executed whenever the [DETECTOR RESET] key is pressed on the D1256RB. This entry is the equivalent to executing a [COMMAND] [4][7] on the D1256RB.

CF 131 – ANNUNCIATOR RESET ?
Keystrokes: [1] [2] [5] [6] [0] [0] [ESC] [Command] [4] [7]. Program this custom function as the fourth command item in the Menu. The function is executed whenever the [ANNUNCIATOR RESET] key is pressed on the D1256RB. Executing this function clears the "View Memory" buffer, but does not clear the event out of the event log contained with the control panel.

4.4   Function List

Figure 17: Example – Function List

Menu Item	Function	CC Address 1	CC Address 2	CC Address 3	CC Address 4	CC Address 5	CC Address 6	CC Address 7	CC Address 8
1	128	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
2	129	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
3	130	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
4	131	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
5	_ _ 9	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
6	_ 10	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
7	_ 12	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
8	_ 21	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
9	_ 29	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
10	_ 32	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
11	_ _ _	**Yes**/No	Yes/**No**	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Refer to *Function List* in the program record sheet for the control panel.

4.4.1 Menu Item and Function

Program the first ten menu items as indicated in *Table 3*. This programming is necessary for the D1256RB to operate properly. The first four keys on the D1256RB execute the first four menu items enabled at the keypad address. Menu items five through ten are optional features that can be programmed into the D1256RB system. Refer to the *Fire System User's Guide* (P/N: F01U011793) for further explanation of these optional programmable items.

Ensure that *CF 128* through *CF 131* are programmed **E** (enabled) and not **P** (passcode required).

4.4.2 CC Address

CC = command center = keypad

Program the keypad (command center) addresses as **Yes** for the first four menu items and for the optionally programmed menu items 5 through 10.

Table 3:	Function List Description	
Menu Item Shortcut menu[1]	Function	Description
1	128	ALARM SILENCE?
2	129	TROUBLE SILENCE?
3	130	DETECTOR RESET?
4	131	ANNUNCIATOR RESET
5	9	VIEW MEMORY?
6	10	VIEW PT STATUS?
7	12	FIRE TEST?
8	21	VIEW LOG?
9	29	REMOTE PROGRAM?
10	32	DISPLAY REV?

[1]D9412GV4/D7412GV4/D7212GV4 v2.xx or later

[1]Use the ESC key to access the Shortcut menu. Use Next and Prev to navigate the Shortcut menu.

4.4.3   Passcode Worksheet

The Passcode Worksheet section does not apply to D9412GV4/D7412GV4/D7212GV4 v2.xx and later versions.

Figure 18: Example – Fire Passcode Worksheet

User (Passcode) Worksheet (Users 000 to 029)

User ###	Passcode	User Group	Area Authority 1	2	3	4	5	6	7	8	User Name
000	123 _ _ _ _ _ _	___	15	15	15	15	15	15	15	15	SERVICE PASSCODE
001	1 2 5 6 0 0	___	14	_	_	_	_	_	_	_	USER 1

Refer to *User (Passcode) Worksheet* in the program record sheet for the control panel.

4.4.4   Passcode

The Passcode section does not apply to D9412GV4/D7412GV4/D7212GV4 v2.xx and later versions.

A special passcode must be programmed as a valid passcode for the system to work properly. This passcode is used in Custom Functions 128 through 131. Use any user number to establish this mandatory valid passcode. You must also create it as a valid passcode in the area to which the D1256RB is assigned. Use Authority Level 14 together with the passcode you select. Ensure that **Passcode Arm** is disabled (blank) for the Authority Level. Refer to *Authority Level Selections* in the program record sheet for the control panel.

4.4.5   Keypad (Command Center) Functions

The following keypad function must be enabled or passcode required to enable the [DETECTOR RESET] key.

- #27 Reset Sensors

Include the following items in the menu:

- #9 View Event Memory
- #10 View Point Status
- #12 Fire Test
- #21 View Log
- #29 Remote Program
- #32 Display Rev

Refer to *Figure 18*.

For the D9412GV4 v1.xx, D9412GV3, and D9412GV2 Control Panel, program each of the keypad functions with **E** (enabled) and not **P** (passcode required). If restricting any of the keypad functions with a passcode is required, those functions must be executed from a custom function that includes an authorized passcode.

Example (Refer to *Figure 18*.): If the keypad function *View Memory* is programmed as **P** (passcode required), and the passcode 125600 has authority to execute it, the keystrokes would be:

[A] [4] [0] [1] [2] [5] [6] [0] [0] [E]

When creating a Menu Function List for a keypad address, consider that the D1256RB Keypad does not have numeric keys. Ensure that:

- no passcode-protected keypad functions are in a Menu Function List enabled at an address that coincides with the installed address for a D1256RB Keypad.
- the CC# Menu Key Lock prompt is set to No for the D1256RB address.

Figure 19: Example – Keypad Functions

Keypad Functions			
#	Functions	Command	E/P[1]
1	Disarm ?		P
2	Master Arm Delay ?	CMD 1	P
3	Master Arm Instant ?	CMD 11	
4	Perimeter Instant ?	CMD 2	P
5	Perimeter Delay ?	CMD 3	P
6	Watch Mode ?	CMD 6	E
7	Perimeter Part ?	CMD 8	P
	Go to Main Menu [2]	CMD 8	
8	View Area Status ?		P
9	View Memory ?	CMD 40	E
10	View Pt Status ?		E
11	Walk Test ?	CMD 44	E
12	Fire Test ?	CMD 58	P
13	Send Report ?	CMD 41/42	P
14	Door Control ?	CMD 46	P
	Cycle Door ?		E
	Unlock Door ?		E
	Secure Door ?		E
37	Access Control Level?		P
15	Change Display ?	CMD 49	E
16	Change Time/Date ?	CMD 45	E
17	Change Passcode ?	CMD 55	P
18	Add User ?	CMD 56	P
19	Del User ?	CMD 53	P
20	Extend Close ?	CMD 51	P
21	View Log ?		E
22	Print Log ?		P
23	User Command 7 ?	CMD 7	P
24	User Command 9 ?	CMD 9	P
25	Bypass a Point ?	CMD 0	P
26	Unbypass a Point ?	CMD 00	P
27	Reset Sensors ?	CMD 47	E
28	Change Relays ?	CMD 54	P
29	Remote Program ?	CMD 43	P
30	Move To Area ?	CMD 50	P
32	Display Rev ?	CMD 59	E
33	Service Walk ?		P
34	Default Text ?	CMD 57	P
35	Change Skeds ?	CMD 52	P
36	Invisible Walk ?		P

[1] Keypad Function options: P = Passcode; E = Enabled (no passcode required); Blank = Disabled

[2] B9512G/B8512G

> ☑ Ensure that CF 128 through CF 131, and any other functions you are using in the menu, are programmed **E** (enabled), not **P** (passcode required). Refer to *Figure 19*.

Figure 20: Custom Functions

Keypad Functions		
#	**Custom Functions**	**E/P***
128	Custom Function 128	E
129	Custom Function 129	E
130	Custom Function 130	E
131	Custom Function 131	E
132	Custom Function	
133	Custom Function	
134	Custom Function	
135	Custom Function	
136	Custom Function	
137	Custom Function	
138	Custom Function	
139	Custom Function	
140	Custom Function	
141	Custom Function	
142	Custom Function	
143	Custom Function	

702 Ur gekHecvkqpu

Table 4: Specifications for the D1255RB and D1256RB Keypads and the D1257RB Annunciator	
Power	Nominal 12 VDC supplied by the control panel
Current Required	**Idle:** 104 mA
	Maximum: 225 mA, with annunciator lit, all 4 Status LEDs on, and warning tone on
Wiring	4-wire supplies Data In, Data Out, + 12 VDC, and Common. Maximum data loop resistance is 10 Ω.
Dimensions (H x W x D)	**Base (HxW):** 4.6 in. x 8.2 in. (11.6 cm x 20.7 cm)
	Cover : 4.3 in. x 8.12 in. x 0.8 in. (10.9 cm x 20.6 cm x 2.9 cm)
Color	Red
Display	16-character vacuum fluorescent display (VSD). Each character is a 14-segment unit.
Operating Temperature	+32°F to +122°F (0° C to +49° C)
Relative Humidity	5% to 93% at 90°F (+30° C)

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