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## D7412G Control Panel



The D7412G Control Panel provides an integrated solution for Access Control, Security, and Fire Alarm system applications. The control panel is capable of monitoring alarm points for intruder or fire alarms while operating user command centers and other outputs. The control panel includes a communicator that reports events to selected PSTN or IP network destinations through four programmable route groups. Programming and accessory modules offer flexibility and beneficial features rarely found in other security control systems.

The D7412G Control Panel provides eight on-board points, up to 67 off-board points, 64 relays, and two access control doors. Grant access from a Wiegand style card reader connected to: a D9210B Access Control Module, a request-to-enter or request-to-exit input, or a keypad.

### Functions

#### Programmable Outputs

- 2 A alarm power at 12 VDC
- 1.4 A auxiliary power at 12 VDC
- Four alarm output patterns
- Automatic bell test
- Programmable bell shut-off timer

- ▶ **Digital communicator with phone line monitor (loop or ground start)**
- ▶ **Multiple telephone numbers, primary and duplicate paths with main and alternate destinations**
- ▶ **All reports within each of four route groups are programmable**
- ▶ **Optional dual phone line switcher monitors two phone lines**
- ▶ **Optional network interface module for two-way communication over Ethernet networks**
- ▶ **Automatic test and status reports**
- ▶ **Time windows for arming and open and close report suppression**
- ▶ **Programmable answering machine solution for remote programming on shared phone lines**

The D7412G Control Panel provides up to 75 individually identified points. Each point accommodates normally open (NO) and or normally closed (NC) devices with end-of-line (EOL) resistor supervision. Each point is programmable for fire, fire supervisory, or burglary applications.

#### System Response

- 31 custom point indexes, including fire supervisory
- Selectable point response time
- Cross point compatibility
- Fire alarm verification
- Fire inspector's local test
- Watch mode
- Scheduled events (skeds) arm, disarm, bypass and unbypass points, control relays, control authority levels, and control door access

#### User Interface

- Supervises up to eight command centers or keypads (up to 32 non-supervised command centers or keypads can be used)
- Custom command center text
- Full function command menu including custom functions
- Each user has authority by area and 16-character name
- 14 custom authority levels control user's authority to change, add, delete passcodes or access control tokens/cards, disarm, bypass points, and initiate system tests

- Adjustable brightness or volume for keypad display or sounder

**Note** At least one keypad per system is recommended.

### Area Configurations

Area programming offers a wide selection of different system configurations. Each area is assigned an account number to define annunciation, control, and reporting functions. Multiple areas can be linked to a shared area which is automatically controlled (hallway or lobby). Area arming can be conditional on other areas (master or associate).

### User Passcodes

User passcodes contain three to six digits. Each user is assigned one of 14 customized authority levels in each area. Passcodes can be restricted to operate only during certain times. User names can contain up to 16 characters. The user name can be viewed, printed, reported to a central station in Modem IIIa<sup>2</sup> Communications format or retrieved with Remote Programming (RPS) software.

### Security and Fire Detection

The D7412G Control Panel provides eight on-board points, and up to 67 additional off-board points (depending on model and expansion interfaces). Program individual points to monitor all types of burglar alarm, fire alarm, and supervision devices.

### Communications

The D7412G has four route groups. It can sort reports by priority and transmit reports to four route groups each of which has a programmable primary and backup destination.

The D7412G is compatible with the D6600 NetCom Communications System using a DX4020 Network Interface Module. It has programmable anti-replay anti-substitution when using a DX4020.

The Modem IIIa<sup>2</sup> Communications Format, available with Bosch receivers, adds reporting capabilities such as:

- Individual point numbers and text
- Opening or closing reports by area number, user number, and user text
- Remote programming attempts
- Diagnostic reports

### Event Log Storage, Viewing and Printing

All local and transmitted events (up to 1,000 total events) are stored in a log. The event log includes time, date and event, with area, point and user number. You can view the event log from select keypads or remotely retrieve event information using RPS. With the printer interface module installed, the D7412G Control Panel allows the use of one on-site parallel printers. The Event Log and a local printer provide a record of openings and closings without extra communications costs. RPS operators can retrieve events

periodically using one phone call, rather than receiving several calls each day. When the control panel's event log reaches the storage limit, it can send a report to a receiver.

Access events that you can store, view or print include:

- Access granted
- No entry
- Request-to-enter
- Request-to-exit

### Access Control

- Custom door strike, point shunt and auto disarming response by area
- Logging options for: Access Granted, No Entry, Request-to-exit, and Request-to-enter
- 14 panel-wide access levels with both manual and scheduled control

### Scheduled Events (Skeds)

The D7412G Control Panel's internal clock and calendar helps to operate individually scheduled events (skeds). Skeds perform a specific function such as arm/disarm, relay control, or point bypassing. The D7412G Control Panel offers:

- 40 scheduled events with up to 26 different functions
- 16 open or closing windows
- Eight user windows
- Day-of-week, date-of-year, or holiday only schedules
- Four holiday schedules of 366 days each (leap year)

### Fire Test

When a user activates Fire Test Mode, the control panel suppresses all reports to the central station. Use a passcode at the keypad to activate Fire Test Mode. The keypad and annunciator show all testing data. An automatic sensor reset feature saves time; you do not need to reset the sensors manually. At the end of test, the keypad shows the number of untested points.

### Programming, Diagnostics and Controls

Users can program all system functions on-site with a D5200 Programmer, or remotely through RPS. A programmable system passcode prevents unauthorized remote programming.

The control panel accommodates up to four separate telephone numbers for primary, alternate and backup receivers for automatic test reports.

When resetting alarms, arming or disarming a combination fire/burglary and/or access control system, the user is identified by name and number.

## Certifications and Approvals

Region	Certification	
USA	UL	AMCX: Central Station Alarm Units (UL1610, UL1635), AOTX: Local Alarm Units (UL464, UL609), APAW: Police Station Alarm Units (UL365, UL464), APOU: Proprietary Alarm Units (UL1076), NBSX: Household Burglar Alarm System Units (UL1023), UOJZ: Control Units, System (UL864, 9th edition), UTOU: Control Units and Accessories - Household System Type (UL985)
	FM	
	CSFM	7165-1615: 119
	FCC	AJ9-MUL-46532-AL-E
	NYC-MEA	12-92-E, Vol. XII
Brazil	ANATEL	0049-03-1855

## Installation/Configuration Notes

### Compatible Products

<b>Keypads</b>	<p><b>D1260 Series Keypads (D1260, D1260W, D1260R, D1260BLK, D1260B)</b></p> <p>D720 Series Keypads (D720, D720W, D720R, D720B)</p> <p>D1255 Series Keypads (D1255, D1255W, D1255R, D1255B, D1255RB)</p> <p>D1256 and D1256RB Fire Keypads</p> <p>D1257 and D1257RB Remote Fire Alarm Annunciators</p> <p>D279A Independent Zone Control</p>
<b>Detectors</b>	<p>OD850 Series Outdoor TriTech Detectors</p> <p>MX250 Series Smoke Detectors</p> <p>MX775i Addressable PIR Detector</p> <p>MX794i Long Range Multiplex PIR Detector</p> <p>MX934i Addressable PIR Detector</p> <p>MX938i Addressable PIR Detector</p> <p>ZX776Z PIR Detector</p> <p>ZX794Z Long Range PIR Detector</p> <p>ZX835 TriTech Microwave/PIR Detector</p> <p>ZX935Z PIR Detector</p> <p>ZX938Z PIR Detector</p> <p>ZX970 PIR/Microwave Detector</p> <p>Bosch conventional detectors include Blue Line, seismic, PIR, TriTech PIR Microwave, photoelectric, and heat, and smoke.</p>
<b>Enclosures</b>	<p>D8103 Universal Enclosure</p> <p>D8108A Attack-Resistant Enclosure</p> <p>D8109 Fire Enclosure</p>

<b>Keypads</b>	<b>D1260 Series Keypads (D1260, D1260W, D1260R, D1260BLK, D1260B)</b>
<b>Magnetic Contacts</b>	All Bosch magnetic contacts, including recessed, terminal connection, miniature, overhead door, and surface mount.
<b>Bells</b>	<p>D440 Bell 12 V, 15 cm (6 in.)</p> <p>D441 Bell 24 V, 15 cm (6 in.)</p> <p>MB-G10-12-R Bell 12 V, 25.4 cm (10 in.)</p> <p>MB-G10-24-R Bell 24 V, 25.4 cm (10 in.)</p>
<b>Modules</b>	<p>C900V2 Dialer Capture Module</p> <p>D125B Dual Class B Initiating Module</p> <p>D127 Reversing Relay Module</p> <p>D129 Class A Initiating Module</p> <p>D130 Auxiliary Relay Module</p> <p>D136 Plug-in Relay</p> <p>D185 Reverse Polarity Signaling Module</p> <p>D192C Notification Appliance Circuit Module</p> <p>D192G Notification Appliance Circuit Module</p> <p>D8121A Derived Channel S.T.U. Five Zone (Non-UL)</p> <p>D8122 Derived Channel S.T.U. Five Zone (UL)</p> <p>D8125MUX Multiplex Bus Interface</p> <p>D8125 POPEX Point Expander</p> <p>D8128D OctoPOPIT Eight Point Expander</p> <p>D8129 Octo-relay Module</p> <p>D9127 Series POPIT Modules</p> <p>D9131A Printer and Parallel Interface Module</p> <p>D9210BLC Access Control Interface Module</p> <p>DS7432 Eight-input Remote Module</p> <p>DS7457i Series Single Zone Multiplex Input Modules</p> <p>DS7460i Two-input Module</p> <p>DS7461i Single-input Multiplex Module</p> <p>DS7465i Input and Output Module</p> <p>DX4010i RS-232 Serial Interface Module</p> <p>DX4020 Network Interface Module</p>
<b>Peripheral Hardware</b>	rvm4c Remote Video Module
<b>Programming</b>	<p>D5200 Series Programmers</p> <p>RPS or RPS-Lite Remote Programming Software</p>
<b>Readers</b>	<p>ARD-R10 iCLASS Mullion Reader</p> <p>ARD-R40 iCLASS Switchplate Reader</p> <p>ARD-RK40-09 iCLASS PIN Reader</p> <p>ARD-VSMART iCLASS Reader</p> <p>D8201/W Series Low-profile Readers</p> <p>D8203/W Series Mullion Proximity Readers</p> <p>D8223 Prox Pro Reader</p> <p>D8224 Mullion Reader</p> <p>D8224-SP Switch Plate Reader</p> <p>D8225 Mini Mullion Reader</p> <p>D8227 Insert Card Reader</p>

**Keypads**      **D1260 Series Keypads (D1260, D1260W, D1260R, D1260BLK, D1260B)**

D8301/W Series Low-profile Proximity Readers  
 D8302 Vandal-resistant Reader  
 D8303/W Series Mullion Proximity Readers  
 D8304/W Series Extended Range Proximity Readers  
 WP644 Series Waterproof Pass-through Readers

**SAFECOM Radio Communicators**

SC2104 Series Slave Communicators  
 SC3100 Series Data Transfer Radio Communicators  
 SC4000 Series Full Data Transfer Radio Communicator

**Wireless Products**

D8125INV Wireless Interface  
 FA113 Keychain Remote Control  
 FA116 Executive Programmer  
 FA202 Wireless Smoke Detector and Transmitter  
 FA203S Necklace Pendant Transmitter (Single-button)  
 FA203D Necklace Pendant Transmitter (Double-button)  
 FA204 Necklace Pendant Transmitter  
 FA205S Belt Clip/Loop Transmitter (Single-button)  
 FA205D Belt Clip/Loop Transmitter (Double-button)  
 FA206DS PIR Transmitter  
 FA206i PIR Transmitter  
 FA209 Billtrap Transmitter  
 FA210 Universal Transmitter (Off-white)  
 FA210-BN Universal Transmitter (Brown)  
 FA210W Universal Wide Gap Transmitter (Off-white)  
 FA210W-BN Universal Wide Gap Transmitter (Brown)  
 FA216L Low Temperature Transmitter  
 FA216H High Temperature Transmitter  
 FA223S Water-resistant Pendant (White Single-button)  
 FA223D Water-resistant Pendant (Black Double-button)  
 FA250 High-power Universal Transmitter  
 FA400 Remote Receiver  
 FA404R Transmitter Receiver  
 FA416R Transmitter Receiver  
 FA570 High Power Indoor Repeater  
 FA575 High Power Indoor/Outdoor Repeater

**Technical Specifications****Communications**

SDI Bus A (+):	9 VDC 4572 m (15,000 ft)
SDI Bus B (-):	9 VDC 4572 m (15,000 ft)
Telephone Connection:	<ul style="list-style-type: none"> <li>Two TelCo lines</li> <li>D928 Dual Phone Line module required for 2 phone lines</li> </ul>

**Environmental Considerations**

Relative Humidity:	5% to 85% at +30°C (+86°F), non-condensing
Temperature (Operating):	0°C to +50°C (+32°F to +122°F)

**Number of...**

Areas:	8
Card Readers (Doors):	2
Credentials (Tokens):	396
Custom Functions:	4
Events:	Store up to 1,000
Hardware Addresses:	75
Parallel Printers:	1
Passcode Users:	99, plus 1 service passcode
Points:	75 (8 on-board, up to 67 off-board)
Programmable Relay Outputs:	67
RF Points:	67
SKEDs:	40

**Power Requirements**

Current Draw (Minimum):	200 mA
Current Draw (Maximum):	500 mA
Output (Alarm):	2 A at 12 VDC
Output (Auxiliary, Continuous Power, and Switched Auxiliary combined):	1.4 A at 10.2 VDC to 13.9 VDC
Voltage (Operating):	12 VDC
Voltage (AC):	16.5 VAC 40 VA plug-in transformer (D1640)
Voltage (DC):	<ul style="list-style-type: none"> <li>Up to 2 12 VDC, 7 Ah sealed lead acid rechargeable batteries</li> <li>Up to 2 12 VDC, 18 Ah sealed lead acid rechargeable batteries</li> </ul>

**Parts Included**

<b>D7412G Components</b>	<b>Quantity</b>
D7412G Board	1
Mounting Skirt	1
Faceplate with D7412G Label	1

## D7412G Kit Ordering Information

Components	Kits			
	D7412G-A	D7412G-B	D7412G-C	D7412G-D
D7412G Board	1	1	1	1
D1640 Transformer	1	1	1	1
D8103 Enclosure with D101 Lock and Key Set			1	
D8108A Attack-Resistant Enclosure with D101 Lock and Key Set	1			
D8109 Fire Enclosure with D101F Lock and Key Set		1		
D6103 Enclosure with D101 Lock and Key Set				1
D122 Dual Battery Harness		1		
D928 Dual Phone Line Switcher		1		
D161 2.1 m (7 ft) Dual Modular Phone Cords		2		

## Ordering Information

**D7412G Control Panel** **D7412G**

Includes one printed circuit board (PCB).

**D7412G Attack-Resistant Kit** **D7412G-A**

Includes one PCB, one D8108A Attack-Resistant Enclosure, and one D1640 Transformer.

**D7412G Fire and Burglar Kit** **D7412G-B**

Includes one PCB, one D8109 Fire Enclosure, one D928 Dual Phone Line Switcher, and two D161 Dual Modular Phone Cords.

**D7412G Commercial Burglar Kit** **D7412G-C**

Includes one PCB, one D8103 Enclosure, and one D1640 Transformer.

**D7412G Commercial Burglar Kit** **D7412G-D**

Includes one PCB, one D6103 Enclosure, and one D1640 Transformer.

## Accessories

**ICP-EZTS Dual Tamper Switch** **ICP-EZTS**

Combination tamper switch with a wire loop for additional tamper outputs.

**D101 Lock and Key Set** **D101**

Harness with circuit breaker. Connects two batteries to a compatible control panel.

**D122L Dual Battery Harness with Long Leads** **D122L**

Color-coded harness with circuit breaker and leads measuring 89 cm (35 in.). Connects 12V batteries to compatible control panels.

**D126 Standby Battery (12 V, 7 Ah)** **D126**

Sealed lead-acid standby and auxiliary rechargeable power supply.

**D137 Mounting Bracket** **D137**

Used to mount accessory modules in D8103, D8108A, and D8109 enclosures.

**D138 Mounting Bracket, Right Angle** **D138**

Used to mount accessory modules in D8103, D8108A, and D8109 enclosures.

## Ordering Information

**D1218 Battery (12 V, 18 Ah)** **D1218**

A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.

**D1224 Battery (12 V, 26-28 Ah)** **D1224**

A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.

**D1238 Battery (12 V, 38 Ah)** **D1238**

A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.

**D1640 Transformer** **D1640****D8103 Enclosure** **D8103****D8108A Attack Resistant Enclosure** **D8108A**

Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes lock and key set. Requires the D2402 Mounting Plate.

**D8109 Fire Enclosure** **D8109**

Red steel enclosure measuring 40.6 cm x 40.6 cm x 8.9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes a lock and key set.

**D9002-5 Mounting Skirt** **D9002-5****D136 Plug-In Relay** **D136**

Maximum rating is 1 A at 24 VDC or 2 A at 12 VDC. Available individually (D136) or in a package of 25 (D136-25).

**D928 Dual Phone Line Switcher** **D928**

Allows the control panel to operate over and supervise two separate phone lines. Only one D162 phone cord is supplied. Two additional D161 or D162 phone cords are required.

## Ordering Information

### Software Options

**RPS Kit (LPT)**

Account management and control panel-programming software with LPT connection.

**D5500C-LPT****RPS Kit (USB)**

Account management and control panel-programming software with USB connection.

**D5500C-USB**

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