

SIA Installation Quick Reference Guide

1.0 Introduction



The default programming for the D6412/D4412 Control/Communicators includes a 30 sec. communicator delay for alarms on non-fire point types. It can be removed (or increased to 45 sec.) at the option of the end user in consultation with the installer.

1.1 SIA Control Panel Standard – Features for False Alarm Reduction

False alarms have become such an issue that the local authorities in some jurisdictions no longer respond to alarms. The Security Industry Association (SIA) has developed a Control Panel False Alarm Reduction Standard that details design features for security control panels and their associated arming and disarming devices to reduce the occurrence of false alarms.

This *SIA Installation Quick Reference Guide* will help ensure that your installation of a security system supervised by a Bosch Security Systems D6412 or D4412 Control/Communicator complies with the SIA Control Panel Standard – Features for False Alarm Reduction (ANSI/SIA CP-01-2000). The default settings for the programming parameters described throughout this document already comply with SIA's false alarm reduction requirements.

1.2 D6412/D4412 Programming Literature

The remaining sections describe the default programming for the D6412/D4412 as it pertains to the SIA Control Panel Standard – Features for False Alarm Reduction.

Direct references to the programming literature (*D6412/D4412 Program Entry Guide* [P/N: 45351]) are labeled along with parameter group names that appear in ***Bold Italics***. Descriptions of parameters follow the group names.

2.0 User Caused False Alarms, Turning the System On

2.1 Requirements are for All On and Auto - All On

The SIA standard requirements described in this section apply to full arming (All On) and automatic arming (All On Sked).

2.1.1 Exit Time Defaults

The SIA standard calls for Exit Time to range from 45 sec. to at least 2 min. (not to exceed 255 sec.). The default is 60 sec.

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: Exit time is set at the Exit Delay Time 1 prompt.

2.1.2 Exit Tone

The SIA standard requires that the panel provide an Exit Tone to alert anyone still in the premises that Exit Delay is in process. The tone needs to become more urgent during the last 10 sec. of Exit Time.

The Exit Tone can be disabled only for individual command centers, not the entire system.

During the last 10 sec. of Exit Delay, the panel's command centers emit a double tone every second, indicating that Exit Delay is about to expire.

D6412/D4412 Program Entry Guide Reference

The panel's default programming provides Exit Tone at all keypads for all but Silent Exit (see *Section 2.1.3 Silent Exit* on page 2).

Command Centers: Use the Command Center Options parameter to change the default 'Enable Exit Tone' option if Exit Tone is not desired for a particular command center.

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2.1.3 Silent Exit

The panel includes a Silent Exit feature (hold the [All] or [Part] key until Exit Delay begins). The SIA standard requires that the panel double Exit Time if the user uses Silent Exit. The Exit Tone is suppressed for that exit only.

D6412/D4412 Program Entry Guide Reference

There is no special programming to enable this feature. Holding either the [All On] or [Part On] key starts a silent, doubled Exit Delay.

2.1.4 Exit Time Restart

The SIA standard requires that the panel have an option that restarts Exit Delay if a user follows these steps:

1. Starts Exit Delay (turns the system on).
2. Exits and closes an Exit Delay point.
3. Returns through the same Exit Delay point.

The panel restarts Exit Delay (one-time restart only).

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: The default for the Exit Time Restart parameter is enabled. Use this parameter to disable the feature if necessary.

2.1.5 Exit Error

When a user leaves an Exit Delay point violated at the end of Exit Time, the panel creates an Exit Error as specified by the SIA standard:

1. The alarm output and command center sound the alarm immediately.
2. Entry Delay begins (alarm continues to sound).
3. The user does not return to silence the alarm. Entry Time expires.

The panel sends alarm and Exit Error reports.

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: The Open/Close Reporting Options parameter can be used to disable the Exit Error report if necessary. The default enables Exit Error reports.

2.1.6 All On – No Exit Option (Unvacated Premises)

If a user turns an area All On and does not leave the premises (no Entry/Exit points are faulted during the Exit Time), the panel's All On – No Exit option automatically shifts the area from All On to Part On.

This feature does not apply when a user turns the system All On with a RF keyfob.

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: The Arming Options 1 parameter can be used to disable the All On-No Exit feature if necessary. The default enables the feature.

2.1.7 Recent Closing

If an alarm occurs within 2 min. of the expiration of Exit Time, the panel creates an "alarm-recent closing" event. If the user armed with a passcode or a RF keyfob, the user number is included in the Recent Closing report.

Recent Closing events are not created for Fire Alarm events.

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: The Open/Close Reporting Options parameter can be used to disable the Recent Closing report if necessary. The default enables Recent Closing reports.

3.0 User Caused False Alarms, Turning the System Off

3.1 Entry Time Defaults

The SIA standard requires an Entry Time of between 30 sec. and 4 min. The required default is 30 sec. If the system is not turned off within the Entry Time, the panel creates an Alarm Event.

During the Entry Time, the panel sounds an Entry Delay Tone (distinct from the alarm tone).

D6412/D4412 Program Entry Guide Reference

Global Open/Close Options: Entry time is set at the Entry Delay Time 1 prompt.

3.2 Passcode Turns System (Area) Off

When the panel is All or Part On, entering a valid passcode turns the system off as soon as the last digit of the code is entered. No other keys are required.

D6412/D4412 Program Entry Guide Reference

There is no special programming to configure the panel's disarm function. Entering a valid passcode disarms and/or silences alarm outputs.

4.0 Turning the System On and Off with RF Keyfobs

4.1 Arming Beeps and Flashes

The SIA standard requires that the panel provide a means to annunciate a change in arming state made from a RF keyfob.

D6412/D4412 Program Entry Guide Reference

Global Output Configuration: The Global Output Configuration Option parameter has options to allow the alarm output to "beep" the arming state and to allow the Strobe Output to "flash" the arming state. Default is not enabled.

4.2 Hold Lock and UnLock keys for Panic Event

To help ensure that accidental manual alarms do not occur, users must press and hold the lock (arm) and unlock (disarm) keys at the same time to generate a "Panic" event.

D6412/D4412 Program Entry Guide Reference

RF Keyfobs: The Keyfob Options parameter enables the keyfob Panic feature. The default disables the feature.

5.0 Alarm Transmission Sequence

5.1 Alarm Abort

The SIA standard requires an Alarm Abort feature. The panel uses this feature to give end users an opportunity to acknowledge an alarm event and effectively cancel (or abort) the panel's alarm response. The following sections (5.1.1 to 5.1.5) explain how it works.

5.1.1 Assigned to Point Index

Point Indexes determine how the panel responds to faults on its sensor loops. The Alarm Abort feature is assigned to Point Indexes.



The Alarm Abort feature cannot be assigned to Fire point types.

D6412/D4412 Program Entry Guide Reference

Point Index Configuration: The Options 1 parameter for each Point Index enables/disables the Alarm Event Abort feature. The default enables the feature for Point Indexes configured for non-fire point types.

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5.1.2 Abort Window

The Abort Window is the time the end user has to acknowledge an alarm and effectively abort the panel's alarm response. The Abort Window is programmable.

- The minimum duration is 15 sec.
- The maximum is 45 sec.
- The default is 30 sec.



In accordance with UL standards, the SIA standard intends that the combined Entry Time and Abort Window will not be programmed to exceed 1 min.

D6412/D4412 Program Entry Guide Reference

Global Point Configuration: The Alarm Event Abort Window sets the duration of the window (15, 30, or 45 sec.). The default is 30 sec.

5.1.3 Passcode Acknowledges Alarm

When the panel is sounding an alarm, enter a valid passcode to silence the alarm. Entering the first digit of the code silences the alarm temporarily. If a valid passcode is not entered, the alarm begins sounding again after a period of about 10 sec. passes with no keypad activity.

5.1.4 Alarms Acknowledged within the Abort Window

If the end user acknowledges an alarm within the Abort Window:

- The alarm output is silenced.
- No alarm, restoral, or cancel reports are sent.
- A “three beep tone” sounds at the command center indicating that the alarm event was aborted.

5.1.5 At the End of the Alarm Abort Window

If no user acknowledges the alarm within the Alarm Abort Window, the panel sends the appropriate alarm reports.

5.2 Cancel Report

If a user acknowledges an alarm after the Abort Window expires, but before Bell Time expires, the panel sends a Cancel Report.

D6412/D4412 Program Entry Guide Reference

Global Reporting Options: The Cancel Event Enabled parameter enables/disables the Cancel Event. The Cancel Event Enabled feature is enabled by default.

6.0 Duress and Manual Alarm

6.1 Duress Feature Disabled

The Duress feature is disabled as required by the SIA standard.

6.1.1 Passcodes 29 to 32 can be Duress Passcodes

The panel's Duress feature does not use a passcode + 1, or passcode + 2 scheme. Use options as described below to create unique Duress users.

The passcodes for Duress users follow the Authority Level they are assigned to. In addition to executing the functions assigned to the Authority Level, the panel sends a Duress report each time a Duress passcode is entered at a command center.

D6412/D4412 Program Entry Guide Reference

ABC Keys and Duress Parameters: Use the Duress Reporting Options parameter to make any of Users 29 to 32 into Duress users. The default is that there are no Duress users (passcodes). The Duress feature is disabled.

6.2 Manual Alarm Require Double Action Trigger

The ABC keys on command centers can be programmed to initiate alarm events, including sending alarm reports. The ABC keys must be pressed twice within 2 sec. to activate.

D6412/D4412 Program Entry Guide Reference

ABC Keys and Duress Parameters: Use the A, B, or C Key Alarm Response Option to configure the A, B, or C keys for alarm response. The A, B, or C keys are disabled by default.

7.0 Miscellaneous

7.1 Annunciation

SIA requires that the control panel provide an output to activate an auxiliary device to annunciate all sounds.

D6412/D4412 Program Entry Guide Reference

Outputs: Assign the "Follow Command Center Sounder" function to a programmable output. Wiring the output to an appropriate sounder allows the panel to annunciate the SIA required sounds via an auxiliary device.

The standard also requires that Entry and Exit Times can be sounded at multiple locations within the premises.

Outputs: Assign the "Entry Delay or Exit Delay" function to a programmable output. Wiring the output to an appropriate sounder allows the panel to annunciate the Entry and Exit Times at multiple locations within the premises.

Connecting multiple command centers also meets the requirement.

The default setting is Burg Alarm Output Function on Output 1. All other outputs are disabled by default.

7.2 Sensor Caused False Alarms

7.2.1 Cross Points

Assigning points to a Point Index with the Cross Point option enabled puts those points in a Cross Point Group. When a single point in that group is faulted, the panel starts a timer but does not immediately create an alarm event. If a second point is faulted within 60 sec., a Cross Point Alarm Event is generated. If 60 sec. pass without a second point in the Cross Point Group going into alarm, an “unverified alarm” event is generated for the single point. The panel can be programmed to send an “unverified alarm report”.



In accordance with UL standards: When using Cross Points (Cross Zoning), the detection pattern of both units shall be installed so that each unit shall have the capability of protecting the area alone.

D6412/D4412 Program Entry Guide Reference

Point Index Configuration: Assign the Cross Point feature in Options 2 parameter for each Point Index. Cross Point is disabled by default.

Global Point Configuration: Enable reports for unverified events in the Point Response Option parameter. This feature is disabled by default.

7.2.2 Swinger Bypass

The Swinger Bypass feature is assigned by Point Index. The panel’s default configuration enables Swinger Bypass for all non-fire Point Indexes. The feature can be configured for the number of point events that can occur during an arming cycle before the Swinger Bypass event (Swinger Count). The default for the Swinger Count is one.

D6412/D4412 Program Entry Guide Reference

Point Index Configuration: Assign the Swinger Bypass feature in Options 2 parameter for each Point Index.

Global Point Configuration: Set the Swinger Count in the Swinger Count parameters.

7.2.3 Verification for Fire Points

The panel provides a “Fire with Verification” point type that can be used for both two-wire and four-wire smoke detectors. A fault on a Fire with Verification activates a sensor reset response and starts a verification timer. A second fault after the reset generates an alarm event. If the verification timer expires without a second fault, no alarm event is created.

D6412/D4412 Program Entry Guide Reference

Point Index Configuration: Assign the Fire with Verification feature in “Point Type” parameter for each point index.

8.0 Call Waiting

If Phone Number 1 is programmed with a sequence to cancel Call Waiting (typically *70 pause) followed by the phone number, Phone Number 2 should be programmed **without** the Call Waiting cancel sequence. If the subscriber cancels Call Waiting without notifying their alarm installing company, the panel can still send reports using Phone Number 2. Dialing a Call Waiting sequence on a non-Call Waiting line prevents the system from dialing the central station successfully.

9.0 Testing

9.1 Cmd 41 Tests System Operation

End users can test their system weekly with Cmd 41. The panel includes an option that provides a Weekly Test Reminder at command centers. The reminder occurs after 8 days from the last test. Only completing a system test (Cmd 41) clears the reminder.

Installers can configure Cmd 41 for any combination of Bell Test, Strobe Test, Battery Test, and Communicator Test.

D6412/D4412 Program Entry Guide Reference

Global Reporting: Enable the Weekly Test Reminder at the Call for Service/System Inactive Options parameter. This feature is enabled by default.

Tests: Configure Cmd 41 at the System Test – Cmd 41 Configuration Options parameter. The default setting for Cmd 41 Configuration Options is Bell Test and Battery Tests.

9.2 Use Cmd 44 for Walk Test

End users can use Cmd 44 to test points.

Installers can configure Cmd 44 for any combination of controlled points, non-fire 24-hour points, and fire points.

D6412/D4412 Program Entry Guide Reference

Tests: Configure Cmd 44 at the Walk Test – Cmd 44 Configuration Options parameter. The Cmd 44 Configuration Options default is Controlled Points only.

