### 1 | Overview
This keypad is SDI2 compatible with four inputs and one output.

![Keypad Diagram](image)

### 2 | Installation

#### 2.1 | Remove the mounting plate
1. Insert a slotted screwdriver under the retention clip to release the clip. Do not twist upwards.
2. Move the plate towards the bottom of the keypad. Refer to the following illustration.

![Removal Illustration](image)

#### 2.2 | Install the mounting plate
1. Use the plate as a template to mark the wall for installation.
2. Make sure it is level.
3. Pull the wiring through the wiring opening.

![Installation Illustration](image)

### 3 | Connecting the wires to the keypad
Attach the wires to the keypad and to any inputs or outputs before you install the keypad.

#### 3.1 | Attach to the control panel
Use the control panel terminals labeled R, Y, G, B (PWR, A, B, COM).
1. Put the keypad on a smooth surface.
2. Use a ballpoint pen to press the button on the terminal release.
3. Put the wire into the terminal. When you remove the pen, the terminal release locks the wire.
4. To remove wires, press the terminal release.
5. Gently pull the wire out.

![Control Panel Illustration](image)

#### 3.2 | Attach the inputs
Wire resistance on each sensor input must be less than 100 Ohms with the detection devices connected. The terminal block supports 18 to 22 AWG (0.10 to 0.65 mm) wires. The keypad identifies open, short, normal, and ground fault circuit conditions on its sensor loops and transmits the conditions to the control panel. Each sensor loop has a point number and transmits to the control panel individually. Run wires away from any telephone and AC wiring.

- 1 ― Keypad terminal strip
- 2 ― Keypad sensor loops
- 3 ― 1 kΩ EOL resistor (ICP-1K22AWG-10)

![Input Illustration](image)

#### 3.3 | Attach the output
The keypad provides one NO (normally open) output. It includes NO and C (COMMON) terminals. When the output is active (energized), the NO has continuity with the C terminal.

![Output Illustration](image)

#### 3.4 | Install the keypad
1. Align the mounting hook openings over the hooks.
2. Push the keypad down.

### 4 | Set the address
Each SDI2 keypad must have a unique address. For single-digit addresses 1 through 9, set the tens switch to 0. The following illustration shows the address switch setting for address 1.

- 1 — Power indicator LED
- 2 — Integrated proximity reader (for use with RF ID tokens and access cards)
- 3 — Presence sensor

![Address Illustration](image)

### 5 | Status indicators

<table>
<thead>
<tr>
<th>Status indicator</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Ready to turn on (arm)</td>
</tr>
<tr>
<td>✖</td>
<td>Turned on (armed)</td>
</tr>
<tr>
<td>🔴</td>
<td>System trouble</td>
</tr>
<tr>
<td>🔴 GAS</td>
<td>Gas alarm</td>
</tr>
<tr>
<td>🔴 AC</td>
<td>AC power present</td>
</tr>
</tbody>
</table>

![Status Indicator Illustration](image)
The keypad has a built-in speaker that produces distinct warning tones.

### 6 | Audible tones

<table>
<thead>
<tr>
<th>Tone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire alarm</td>
<td>Emits a pulsed, high-pitched tone.</td>
</tr>
<tr>
<td>Gas alarm</td>
<td>Emits a unique high pitched tone.</td>
</tr>
<tr>
<td>User alarm</td>
<td>The tone sounds for the programmed amount of time.</td>
</tr>
<tr>
<td>Burglary alarm</td>
<td>Emits a steady, high pitched bell tone.</td>
</tr>
<tr>
<td>Entry delay</td>
<td>Emits an intermittent beep tone during entry delay periods.</td>
</tr>
<tr>
<td>Exit delay</td>
<td>Emits an intermittent beep tone during exit delay.</td>
</tr>
<tr>
<td>Invalid button</td>
<td>Emits a flat buzz tone.</td>
</tr>
<tr>
<td>Keypad err</td>
<td>Emits a muted beep tone.</td>
</tr>
<tr>
<td>Trouble</td>
<td>Emits a two-tone warble if you enter a pro- grammed passcode.</td>
</tr>
<tr>
<td>Watch point fault</td>
<td>Emits a single clean tweedle tone.</td>
</tr>
</tbody>
</table>

### 7 | Supervision

The control panel supervises all SDI2 devices. Any device that fails to respond will be declared missing.

### 8 | Proximity reader

The proximity reader allows users to use a token or card in place of a passcode to turn on or off the security system. The proximity reader supports EM4102 (125 kHz) credentials. The Bosch ACR13-RFID tag and Bosch ACD-ATR11ISO-RFID card are examples.

### 9 | Configure programable keys functions

Use PPS to set the A, B, C Key Response parameters (KEYPADS/Global Keypad Settings) as follows:
- Medical key: set B Key Response to Manual medical alarm (with or without alarm bell).
- Panic key: set C Key Response to Manual panic alarm (invisible or visible).

### 10 | Addresses, points, and output numbers

To determine the point numbers or output number for each keypad address, multiply the address number by 10 for the base number, and then use numbers 1 through 4 in the ones place for the point numbers. Use 1 in the ones place for the output number.

#### Examples

For keypad address 01 the point numbers for the input devices are 11 through 14.

<table>
<thead>
<tr>
<th>Terminal number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input number</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

For output devices connected to the NO and C terminals the output number is 11.

For keypad address 11 the point numbers for the input devices are 111 through 114.

<table>
<thead>
<tr>
<th>Terminal number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point number</td>
<td>111</td>
<td>112</td>
<td>113</td>
<td>114</td>
</tr>
</tbody>
</table>

For output devices connected to the NO and C terminals the output number is 111.

### 11 | Firmware updates

Firmware updates require a MicroSD card (2 GB to 32 GB).

1. Go to us.boschsecurity.com.
2. Download the firmware from the B942 product page.
3. Save the firmware to your MicroSD card.
4. Make sure the keypad is powered.
5. Move the MicroSD card into the slot until it clicks into place.
6. Wait while the keypad shows Please wait while programming flash.
7. If the keypad shows the calibration screen, follow the on-screen instructions.
8. Remove the SD card when the keypad shows Firmware update successful. Remove SD card to continue.
9. Push down quickly on the card.
10. Use your fingernail on the upper groove on the card to push it out.
11. The keypad shows the power up screen with the updated revision number and then shows the Home screen.

### 12 | Keypad cleaning

Use a soft cloth or a non-abrasive cleaning solution. Spray the cleaner onto the cloth, not the keypad.

### 13 | Certifications

#### Region

- **US**: UL 1076 - Proprietary Burglar Alarm Units and Systems
- **UL 1610**: Central Station Burglar Alarm Units
- **CSFM**: California Office of the State Fire Marshal
- **FCC Part 15 Class B**:
- **ANSI/SIA CP-01-2010**: Control Panel Standard - Features for False Alarm Reduction
- **CA**:
  - CAN/ULC S303 - Local Burglar Alarm Units and Systems
  - CAN/ULC S304 - Signal Receiving Centre and Premise Alarm Control Units
  - CAN/ULC S540 - Residential Fire Warning System Control Units
  - ULC-ORD C1023 - Household Burglar Alarm System Units
  - ULC-ORD C1074 - Proprietary Burglar Alarm Units and Systems
- **ICES-003**: Digital Apparatus

#### Compatibility

- **B95120/B9512G-E**: Firmware v2.03 and higher
- **B9512/B9512G**: Firmware v2.03 and higher
- **B6512**: Firmware v2.03 and higher
- **B8512G/B8512G-E**: Firmware v2.03 and higher
- **B5512/B5512E**: Firmware v2.03 and higher
- **B4512/B4512E**: Firmware v2.03 and higher
- **B3512/B3512E**: Firmware v2.03 and higher
- **D74120/ D74120G**: Firmware v2.03 and higher
- **D7412G/ D7412G-E**: Firmware v2.03 and higher

**DE**: Für Dokumentation in Ihrer Sprache, klicken Sie hier https://de.boschsecurity.com/de
**Fr**: Accédez à l’adresse https://fr.boschsecurity.com/fr/ pour obtenir la documentation dans cette langue.
**Hu**: A hozzáférési lehetőséget látják a https://hu.boschsecurity.com/hu/ oldalon.
**It**: Andare a https://it.boschsecurity.com/it/ per la documentazione in questa lingua.
**Nl**: Voor de documentatie in uw taal, ga naar https://www.boschsecurity.com/nl/nl
**Pt**: Documentação em português pode ser encontrada em https://pt.boschsecurity.com/pt/
**Se**: Se cjeny dokumentationen på denna lingua, gå till https://se.boschsecurity.com/se/

### 14 | Specifications

#### Territory

- **FD**: 6.2 mm x 4.7 mm x 0.6 mm (158 mm x 120 mm x 16 mm)
- **NO**: 12 VDC nominal
- **C**: 300 mA in standby mode
- **NO and C**: 300 mA in alarm mode
- **C**: 400 mA in alarm mode
- **C**: Operating temperature: 0°C to +50°C (+32°F to +122°F)

#### Compatibility

- **B95120/B9512G-E**: Maximum distance - wire size (unshielded wire only):
  - 200 ft (61 m) - 22 AWG (0.65 mm)
  - 300 ft (91 m) - 18 AWG (1.02 mm)
- **B9512/B9512G**: Maximum distance - wire size (unshielded wire only):
  - 200 ft (61 m) - 22 AWG (0.65 mm)
  - 300 ft (91 m) - 18 AWG (1.02 mm)
- **B6512**: Maximum distance - wire size (unshielded wire only):
  - 200 ft (61 m) - 22 AWG (0.65 mm)
  - 300 ft (91 m) - 18 AWG (1.02 mm)

#### Gas alarm

Emits a unique high pitched tone.

#### Fire alarm

Emits a pulsed, high-pitched tone.

#### Keypad cleaning

Use a soft cloth or a non-abrasive cleaning solution. Spray the cleaner onto the cloth, not the keypad.

#### Firmware updates

1. Go to us.boschsecurity.com.
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#### Touch Screen Keypad

B942/B942W

### Installation Guide

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Use the serial number located on the product label and refer to the Bosch Security Systems, Inc. website at http://www.boschsecurity.com/datecodes/.

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