**1 | Overview**

This module adds a maximum of 2A of 12 VDC power for Fire and Burglar standby power applications.

**3 | Installation**

The enclosure holds the module. Wires attach the module to the control panel, SD12 expansion modules, and any other device.

**3.2 | Attaching the grounding wire**

*(models B10, D2203, AE1, and AE2)*

1. Put the grounding wire lug onto the bolt
2. Attach it with a nut and a washer.
3. Put the other end of the wire onto the door hinge.

**3.1 | Install the module in the enclosure**

*(models B10, D2203, AE1, and AE2)*

**NOTICE!**

Remove all power (AC and battery) before making any connections. Failure to do so might result in personal injury and/or equipment damage.

**3.3 | Attach the module in the enclosure**

*(model B8103)*

1. Install the mounting clips onto the appropriate standoff locations inside the enclosure. Callout # 3 in the following illustration.
2. Put the module onto the mounting clips.
3. Attach the module with mounting screws.

**3.4 | Mount the B12 mounting plate in the enclosure**

*(model B8103)*

1. Put the mounting plate in the back of the enclosure.
2. Set the tabs of the enclosure into the two mounting skirt hooks.
3. Attach the tab to mounting hole with the screw. Refer to the following illustration.

**3.5 | Attaching the module onto the mounting plate**

Refer to Section 3.1 for installation steps as well as the following illustration.

**2 | SDI2 address settings**

The control panel uses the address for communications. Use the control panel configuration to set the address switches. If multiple modules are on the same system, each module must have a unique address.

**NOTICE!**

The module reads the address switch setting only during power up. Cycle the power to the module in order for the new setting.

**2.1 | Setting the address settings**

1. Set the switches using a screwdriver.
2. For single-digit address numbers 1 through 9, set the tens switch to 0 and the ones switch to the appropriate number.

The following illustration shows an example of address "12."

**Callout — Description**

1 — Address switches
2 — EARTH ground connector terminal
3 — 18 VAC transformer input terminal
4 — BATT 1 and BATT 2 terminals
5 — SDI2 IN terminals (from control panel)
6 — SDI2 OUT terminals and interconnect wiring connector
7 — Auxiliary power terminals
8 — Tamper switch connector
9 — AC LED
10 — BATT 1 and BATT 2 LEDs
11 — Heartbeat LED

**NOTICE!**

Finland: Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

Norway: Apparatet må tilkoples jordet stikkontakt.

Sweden: Apparaten skall anslutas till jordat uttag.

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The following illustration shows an example of address "12."

**Callout — Description**

1 — Mounting screws
2 — B10, D2203, AE1, and AE2 enclosures
3 — Standoff locations
4 — Plastic mounting clips
5 — Batteries (up to two 7 Ah or one 18 Ah batteries)
6 — B520 module

**NOTICE!**

To help prevent damage from electrostatic charges or other transient electrical surges, connect the system to earth ground before making other connections.

1. Use 14 AWG (1.6 mm) to 16 AWG (1.3 mm) wire for the connection. Do not use telephone or electrical ground.
2. Use a grounding rod or a cold water pipe.
3. Install the wire as close as possible to the grounding device.

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Sweden: Apparaten skall anslutas till jordat uttag.
1. Attaching the tamper switch

2. Use the SDI2 IN terminal strip with PWR, A, B, and COM to attach to the control panel.

3. Connect an optional enclosure door tamper switch for tamper switch installation.

4. The B520 module can be used as a plug-in transformer (for Europe) and a transformer distance transformer.

5. To select the size, compare the current calculations from "Table A" and "Table B". If the current from "Total A" is bigger than the highest value in that column, or the current from "Total B" is bigger than the highest value in that column, or the current from "Table B" is bigger than 4A, then use a second B520 to split the current load.

6. Do not exceed 260 mA. (digital section = 22 mA) + (Qty of relays x 16 mA) = total current. (Add 16 mA for each relay being used).

7. BATT 1 and BATT 2 are used in UL 864 Fire, or Combination Fire and Security Systems.

8. Transformer distance transformer and the power supply.

9. For Commercial Fire Applications, UL required.


11. Low battery.

12. Battery test performing.


14. SDI2 communication error.

15. Indicates (the module is in a "no communication state") resulting in an alarm condition.

16. Indicates normal operation state.

17. Off LED trouble state. Module is not ready to receive data. Refer to the Overview section for locations.

18. The module includes on-board LEDs for troubleshooting.

19. On Steady Indicates normal operation state.

20. Flashes once Battery charger failure.

21. Flash pattern Function

22. 3 quick flashes Battery test performing.

23. Every 1 sec Battery malfunction.


25. Every 1 sec Indicates normal operation state.

26. Every 4 sec SDI2 communication error.

27. Every 8 sec Battery charger failure.

28. Heartbeat (blue) LED descriptions

29. On Steady Indicates normal operation state.

30. Flashes once Battery charger failure.

31. Flash pattern Function

32. 3 quick flashes Battery test performing.

33. Every 1 sec Battery malfunction.

34. Every 4 sec SDI2 communication error.

35. Every 8 sec Battery charger failure.

36. Indicates normal operation state.
6 | Show the firmware version

- With a tamper switch, push and release the switch with the enclosure door open.
- Without a tamper switch, briefly short the tamper pins.

Refer to the following illustration for an example of flash patterns.

When the tamper switch is activated (closed to open), the heartbeat LED stays off for 3 seconds, then shows the firmware version. The LED pulses the major, minor, heartbeat LED stays OFF for 3 seconds, then shows the digit. Micro digits of the version, with a 1 second pause after each firmware version. The LED pulses the major, minor, and heartbeat LED stays OFF for 3 seconds, then shows the pattern.

9 | Certifications

USA
- UL 365 - Police Station Connected Burglar Alarm Units and Systems
- UL 609 - Local Burglar Alarm Units and Systems
- UL 636 - Hold-Up Alarm Units
- UL 864 - Control Units and Accessories for Fire Alarm Systems
- UL 985 - Household Fire Warning System Units
- UL 1023 - Household Burglar Alarm System Units
- UL 1076 - Proprietary Burglar Alarm Units and Systems
- UL 1610 - Central Station Burglar Alarm Units
- CSFM - California State Fire Marshal
- FCC Part 15 Class B

Europe
- CE - EMC Directive (EMC)
- CE - Low-Voltage Directive (LVD)
- CE - R&TTE Directive (R&TTE)
- CE - RoHS Directive (RoHS)

10 | Specifications

- Dimensions: 4.5 in x 6.84 in x 1.15 in (11.43 cm x 17.62 cm x 2.9 cm)
- Output voltage (rated range): 11.5 - 12.2 VDC (special application)
- AC line input voltage frequency: 120 VAC +/-15% (60 Hz) 0.5 A
- Current available (maximum): 2.0 A SDI2 Out and AUX Power (combined)
- Current drawn from the control panel: 15 mA
- Battery input: 2 separate 12 V lead acid batteries (7-18 Ah) 4.0 A max available from charger
- Operating temperature: +32°F to +120°F (0°C to +49°C)
- Relative humidity: 5% to 93% at +90°F (+32°C) non-condensing
- Storage temperature: -4°F to 140°F (-20°F to 60°C)
- Transformer power supply input: TR1850 (18 VAC, 50 VA)
- Transformer power supply output: TR1850-CA (18 VAC, 50 VA) for Canada
- Transformer rating: 12-18 AWG
- Terminal wire size: 12 AWG to 22 AWG (2 mm to 0.6 mm)

Usage: Intended for indoor/dry use

8 | Configuration

Use Remote Programming Software to program the control panel to work with the module. For programming parameter descriptions, options, and defaults using RPS, refer to RPS Help.

7 | Troubleshooting

Flash pattern Corrective action
Heartbeat – 3 quick flashes every 1 sec 1. Check wiring connection.
2. Check Control panel programming.
3. Check address selections.

BATT 1 (BATT 2) – 3 quick flashes every 1 sec
1. Measure the voltage at the terminals.
2. If the voltage is above 13.3 VDC, and the battery is a fully charged, the module goes back to normal state after some of the energy is removed from the battery.
3. If the voltage is below 13.3 VDC, the module may be damaged.

AC Flashing
1. Measure the AC voltage before and after the transformer. If there is voltage before and none after, replace the transformer.

DE-de: Für Dokumentation in Ihrer Sprache, klicken Sie hier https://de.boschsecurity.com/de/
El-es: Mendaxite a huweboldján https://el.boschsecurity.com/el/ va nyújthassuk az értesítéseket!
It-it: Andare a https://it.boschsecurity.com/it/ per la documentazione in questa lingua.
Nl-nl: Voor de documentation in uw taal, ga naar https://www.boschsecurity.com/nl
Pl-pl: Dokumentacja w tym języku znajduje się w witrynie https://pl.boschsecurity.com/pl/
Se-se: För dokumentation i denna språk, gå till https://www.boschsecurity.com/se

 Compatibility

- B9512G/B9512G-E
- B8512G/B8512G-E
- B6512
- B5512/B5512E
- B4512/B4512E
- B3512/B3512E
- GV4 Series control panels
- AE1/AE2 Enclosure
- B10 Enclosure
- D2203 Enclosure
- BAT1B-40 Enclosure**
- DB103/DB103 Enclosure**
- DB108A Attack Enclosure**

**Requires B12

SDI2 wiring
- *Maximum distance – Wire size: (Unshielded wire only) 1000 ft (305 m) - 22 AWG (0.6 mm)
- 1000 ft (305 m) - 18 AWG (1 mm)
- *Maximum wiring distance from the panel to the last SDI2 module can not exceed 1000 ft.

Backup power source

- Auxiliary Power Supply Module

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