

Battery Lead Supervision Module

D113



BOSCH

en Installation Manual

Notices

These instructions cover the installation of the Bosch Security Systems, Inc. (hereinafter, Bosch) D113 Battery Lead Supervision Module in a system controlled by a Bosch 12 VDC control/communicator. This module may be used with other panels when referenced in the panel's installation/operation instructions.



Warning!

Follow these instructions to avoid personal injury and damage to equipment.

Install, test and maintain the module according to these instructions, NFPA codes, local codes, and the authority having jurisdiction (AHJ). Failure to follow these instructions can result in failure of a detector to initiate an alarm event. Bosch Security Systems, Inc. is not responsible for improperly installed, tested or maintained devices. NFPA 72 requires that you perform a complete system wide functional test following any modifications, repair, upgrades or adjustments made to the system's components, hardware, wiring, programming and software/firmware.

Description

This module provides supervision of the battery lead connection between the module and one or two batteries in a system controlled by a Bosch 12 VDC FACP or control/communicator. This module may be used with other panels when referenced in the panel's installation/operation instructions. The module meets NFPA 72 requirements for battery lead supervision for fire alarm control panels (FACPs).

The following products are compatible with this module:

Category	Product
Batteries	D126 Standby Battery (12 V, 7 Ah)
	D1218 Battery (12 V, 18 Ah)
Control panels	G series panels ¹
¹ G-series = D9412GV4, D7412GV4, D7212GV4 ² , D9412GV3, D7412GV3, D7212GV3 ² , D9412GV2, D7412GV2, D7212GV2 ² , D9412G, D7412G, D7212G ²	
² These products are legacy products and have been investigated for compatibility only to UL864 8th edition.	

Trouble and Supervisory conditions

When the module detects a disconnected battery lead, it creates a shorted condition on the supervising zone or point. Program the panel according to the appropriate programming guide to generate a trouble response to a shorted condition on the loop. Reset the module by reconnecting the battery lead and clearing the trouble condition at the FACP.



Caution!

When two batteries are connected in parallel to a FACP with on-board battery lead supervision, the panel cannot detect a single missing battery. Use this module in all fire applications using two parallel batteries.



Notice!

The module will also indicate a trouble condition if one or both of the batteries are connected with their polarity reversed. To reset, disconnect the batteries and reconnect properly.

Installation

Removing power from the FACP

**Caution!**

Before installing the module in an existing system, inform the Central Station and the Local Authority and disconnect all power to the control panel.

Remove AC power from the system at the dedicated 120 VAC breaker and remove the standby battery power before making or removing any connections to the FACP.

Mounting the module in the FACP enclosure

The module mounts to the side of the enclosure using the supplied plastic standoffs and screws.

A snap track is included for enclosures that do not have a three-hole mounting pattern on the interior side walls. To mount the snap track, remove the backing from the tape, line the hole(s) in the snap track up with the existing hole(s) in the enclosure, and firmly press it onto the side of the enclosure. After mounting the snap track, secure it to the enclosure with at least one screw and nut. Then mount the module to the snap track.

Wiring the module to the FACP

**Caution!**

Do not cross polarity. Red wires connect to the positive battery terminals. Black wires connect to the negative battery terminals.

Use the following procedure when wiring the module to a FACP:

1. Connect the RED wire lead provided with the module to the positive (+) battery terminal on the FACP.
2. Connect the other end of the RED wire lead to Terminal 1 (CHRG+) on the module.
3. Connect the BLACK wire lead provided with the module to the negative (-) battery terminal on the FACP.
4. Connect the other end of the BLACK wire lead to Terminal 4 (CHRG-) on the module.
5. Connect the GREEN wire lead provided with the module to the zone or point input with the EOL resistor on the FACP.
6. Connect the other end of the GREEN wire lead to Terminal 2 (SUPV) on the module.
7. Connect the ORANGE wire lead provided with the module to the auxiliary power positive terminal on the FACP or the auxiliary power supply.
8. Connect the other end of the ORANGE wire to Terminal 3 (VAUX+) on the module.

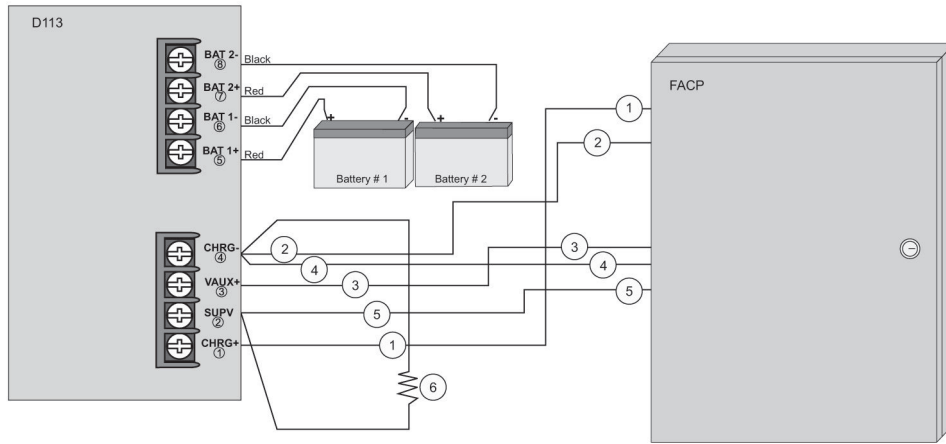


Figure 4.1: Wiring the module

1	To Batt Pos (+)	4	To Comm
2	To Batt Neg (-)	5	To Input Point (Trouble)
3	To Aux Power (+)	6	EOL

Wiring the module to the battery leads

Use the following procedure when wiring the module to the battery leads:

1. Connect the positive (+) battery lead from Battery 1 to Terminal 5 (BAT1+) of the module.
2. Connect the negative (-) battery lead from Battery 1 to Terminal 6 (BAT1-) of the module.
3. Connect the positive (+) battery lead from Battery 2 to Terminal 7 (BAT2+) of the module.
4. Connect the negative (-) battery lead from Battery 2 to Terminal 8 (BAT2-) of the module.

Module terminal	Battery connection
8	Battery 2 NEG (-)
7	Battery 2 POS (+)
6	Battery 1 NEG (-)
5	Battery 1 POS (+)

Table 4.1: Module terminals to battery connections

1. If the module is supervising a single battery, connect the battery leads to Terminals 5 and 6 and connect the jumper wires to Terminals 7 and 8, as shown in the following Figure.

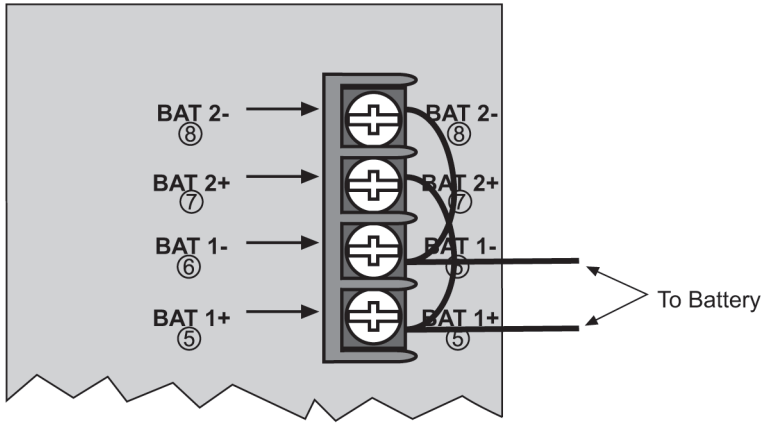


Figure 4.2: Jumper locations for single-battery installations

Restoring power to the FACP

Close the 120 VAC dedicated breaker that controls the power input to the FACP and reconnect the standby batteries.

Specifications

Electrical

Voltage (input range)	10.2 V min to 13.9 V max
Voltage (battery)	12 V nominal
Current draw ¹	45 mA
¹ For battery calc, use 45 mA for alarm and 45 mA for standby	

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