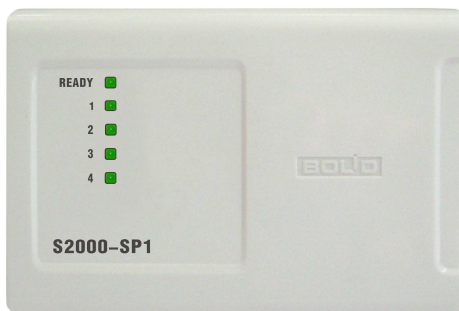




EXECUTIVE RELAY MODULE S2000-SP1

INSTALLATION MANUAL

This Installation Manual includes instructions on how to mount the S2000-SP1 Executive Relay Module (hereinafter referred to as the module) and to prepare it for operation.

The description of the module and rules of setting up and operating this one can be found in S2000-SP1 Instruction Manual (which is a part of the standard delivery and can also be downloaded from the website of the Bolid Company at the address of www.bolid.com, in the Products Section).

1 SAFETY PRECAUTIONS



- There are no potential hazard circuits within the module.
- **Do SHUT OFF the device power before mounting, wiring, or maintaining the module.**
- Mounting and maintaining the module **MUST** be performed by qualified engineers.

2 MOUNTING THE MODULE

2.1 The module is to be mounted within cabinets, on walls, or on other constructions within premises closely to connected executive devices at places protected against atmospheric fallouts, mechanical damage, and unauthorized access.

2.2 Wiring the module is performed in accordance with Figure 4.

2.3 If the module is to be mounted within unprotected premises, it is recommended to mount it at a height of minimum 2.2 m above the floor.

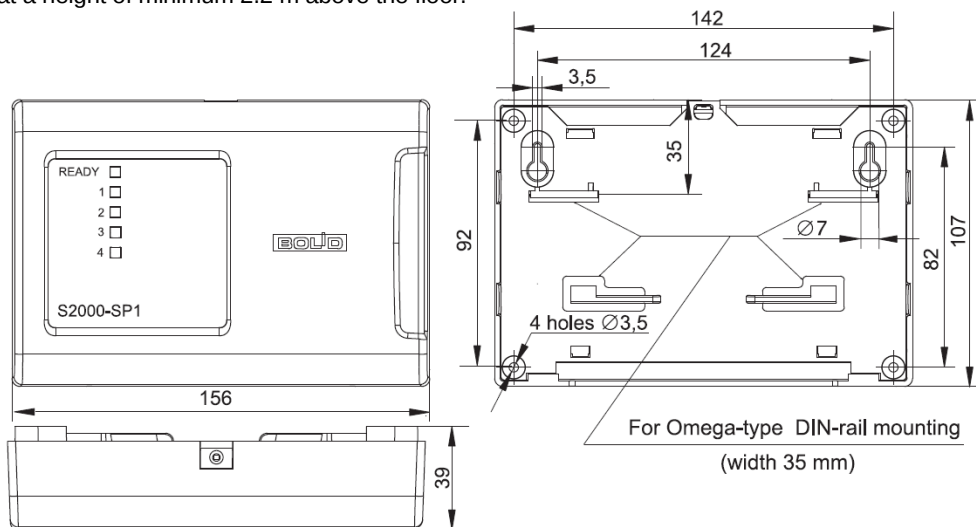


Figure 1. Overall and Mounting Dimensions of the Module

3 MOUNTING THE MODULE

3.1 Mounting on a Wall

3.1.1 Please ensure that the wall the module is to be mounted to is solid, flat, clean, and dry.

3.1.2 Attach the module to the wall in accordance with the Variant 1 or Variant 2 below.

3.1.3 **Variant 1.** Apply the Mounting Pattern (page 7) to the wall. Drill three holes (A, B and C or D).

3.1.4 Insert wall plugs to the holes and screw provided woodscrews to the two upper holes so that a distance between a screw head and the wall is about 7 mm.

3.1.5 Remove the module cover as shown in Figure 2.

3.1.6 Hang the module on the two screws. Screw the third screw into the bottom mounting hole and fasten the module to the wall.

3.1.7 **Variant 2.** Apply the Mounting Pattern (page 7) to the wall. Drill three holes (A, B and C or D).

3.1.8 Insert wall plugs to the holes.

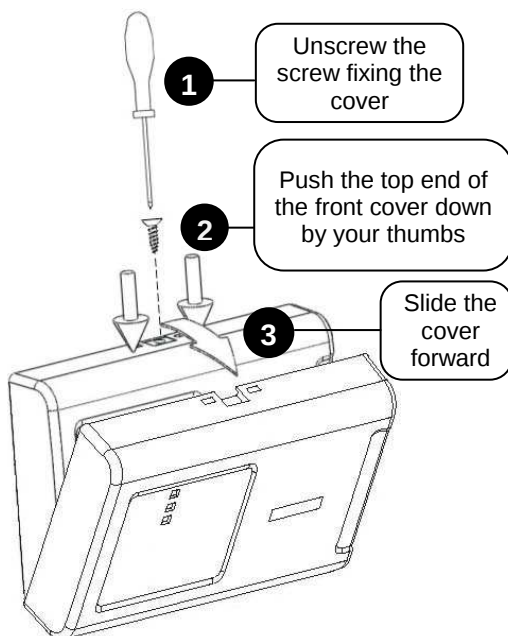


Figure 2. Opening the front cover

3.1.9 Remove the module cover as shown in Figure 2.

3.1.10 Screw the woodscrews to the mounting holes and attach the module on the wall.

3.2 Mounting on a DIN-rail

3.2.1 Select the mounting place for the module so that to provide free access to the tapping screw at the upper end of the module front cover.

3.2.2 Install the module on the DIN-rail as shown in Figure 3.

3.2.3 Remove the module cover as shown in Figure 2.

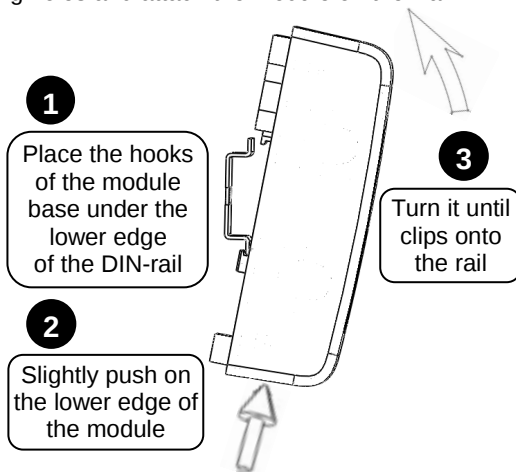


Figure 3. Installing the module on the DIN-rail

4 CONNECTING THE MODULE

4.1 Connecting the RS-485 Interface Bus

4.1.1 Connect A and B lines of the RS-485 interface bus to “A” and “B” terminals of the module respectively. Use wires with the cross section of no more than 1.5 sq. mm.

4.1.2 Unless the module is the last or the first device in the RS-485 interface bus, remove the XP2 jumper from the module PCB (see Figure 4).

4.1.3 If the module, the console or other Orion system devices connected to the RS-485 interface bus are supplied with power by different power supplies, couple their “0V” circuits.

4.2 Connecting Executive Devices

4.2.1 Connect normally open contacts of a relay (“NO” and “COM”) to the circuits which unauthorized closing is prohibited even upon power failures in the module (such as a shutdown).

4.2.2 Connect normally closed contacts of a relay (“NC” and “COM”) to the circuits which unauthorized opening is prohibited only in case of module's power failures.

4.3 Connecting Power Supplies

4.3.1 Connect the main power supply to the terminals “+U1” and “0V” of the module.

4.3.2 If necessary, connect the optional power supply to the terminals “+U2” and “0V” of the module.

4.3.3 Please do not confuse the polarity connecting the module to the power supply (supplies).



It is advisable to use battery backed power supplies of RIP-12 or RIP-24 series manufactured by the Bolid Company

4.4 Close the module front cover as shown in Figure 6.

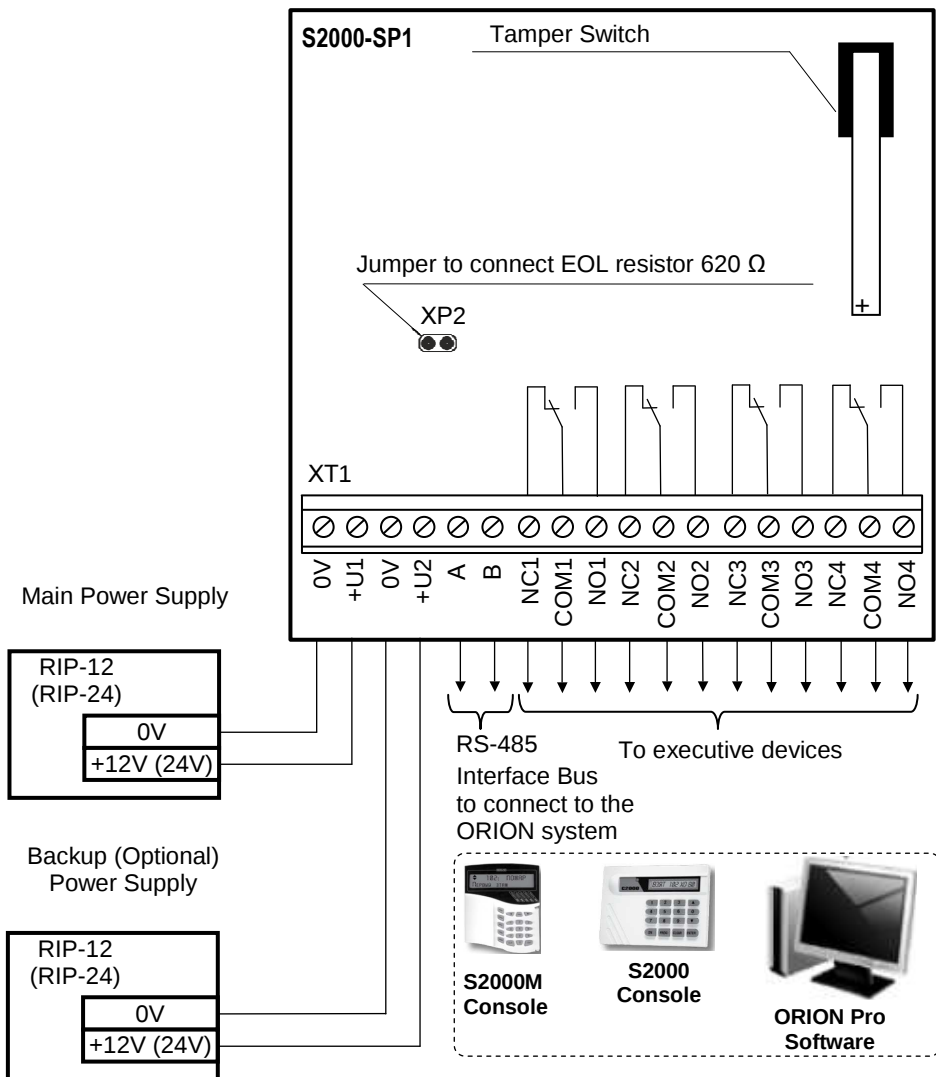


Figure 4. S2000-SP1 Wiring Diagram

5 INSPECTING THE MODULE

5.1 To make sure your S2000-SP1 module keeps proper operability, it must be inspected by a competent specialist at least on receipt and annually.

5.2 Inspect the module at following ambient conditions:

- The relative humidity 45% through 80%;
- The ambient temperature 15°C through 35°C;
- The atmospheric pressure 630 mm Hg through 800 mm Hg.

5.3 While inspecting the module, always shut off the module power before connecting and disconnecting its external circuits.

5.4 Full inspection of the module comprises inspecting the module's operability and testing the module in its self-diagnostic mode.

5.5 Inspecting Operability of the Module

5.5.1 To inspect module's operability, use an S2000M fire and alarm console. Connect the module's RS-485 circuits and power circuits to the relevant terminals of the console (see the S2000M manual for detailed instructions).

5.5.2 Power on the module and the console.

5.5.3 The module's READY indicator shall be lit steady in green within 5 s.

5.5.4 Within a minute since powering on the console it shall display a message about detecting a device with the network address assigned to the module (factory value of the module address is 127). Figure 5 shows the display of the S2000M console with the relevant message.



Figure 5

5.5.5 If several messages accumulated by the module have been received by the console, you can browse them by the arrow buttons «◀» and «▶» on the S2000M.

5.6 Testing the S2000-SP1 in the Self-Diagnostic Mode



Before turning on the self-diagnostic mode of the module, detach its executive circuits which must not be activated on testing!

5.6.1 To activate the self-diagnostic mode of the module, open its front cover and press the tamper switch on the PCB in SSSL pattern, where “S” (“short”) stands for holding the tamper switch pressed for 0.1 s to 0.5 s while “L” (“long”) stands for holding the tamper switch pressed for at least 1.5 s. Pauses between pressings should be 0.1 to 0.7 s.

5.6.2 If the module operates correctly, its READY indicator shall flash five times per second while relays “1” to “4” shall be activated one-by-one for a short time.

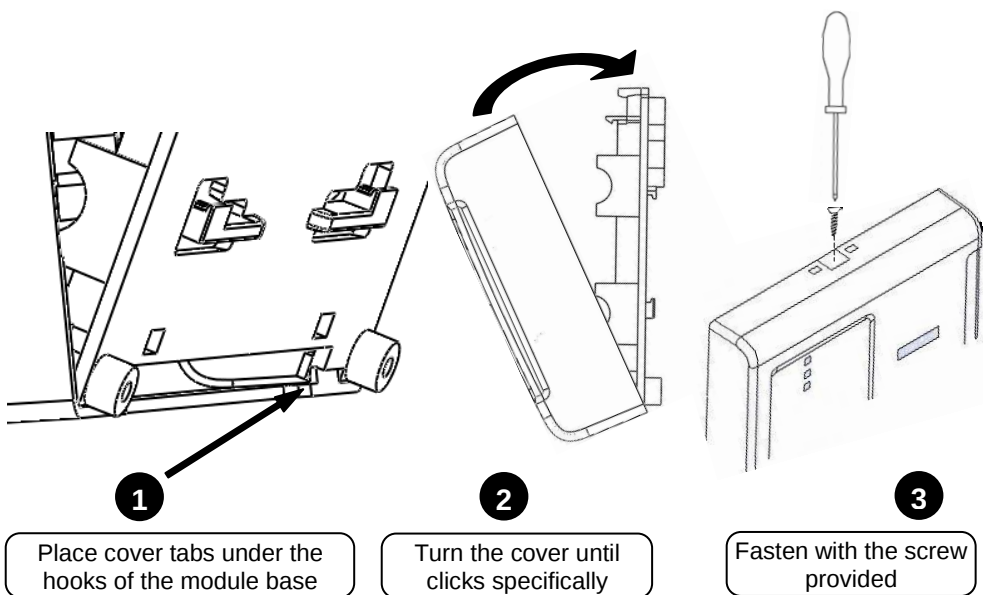


Figure 6. Closing the Module Front Cover

6 GETTING STARTED

In order the module can operate as a part of an Orion system under S2000 / S2000M console or a PC with installed Orion Pro software, it should be assigned to a unique network address and be set properly (see the Instruction Manual for the S2000-SP1).



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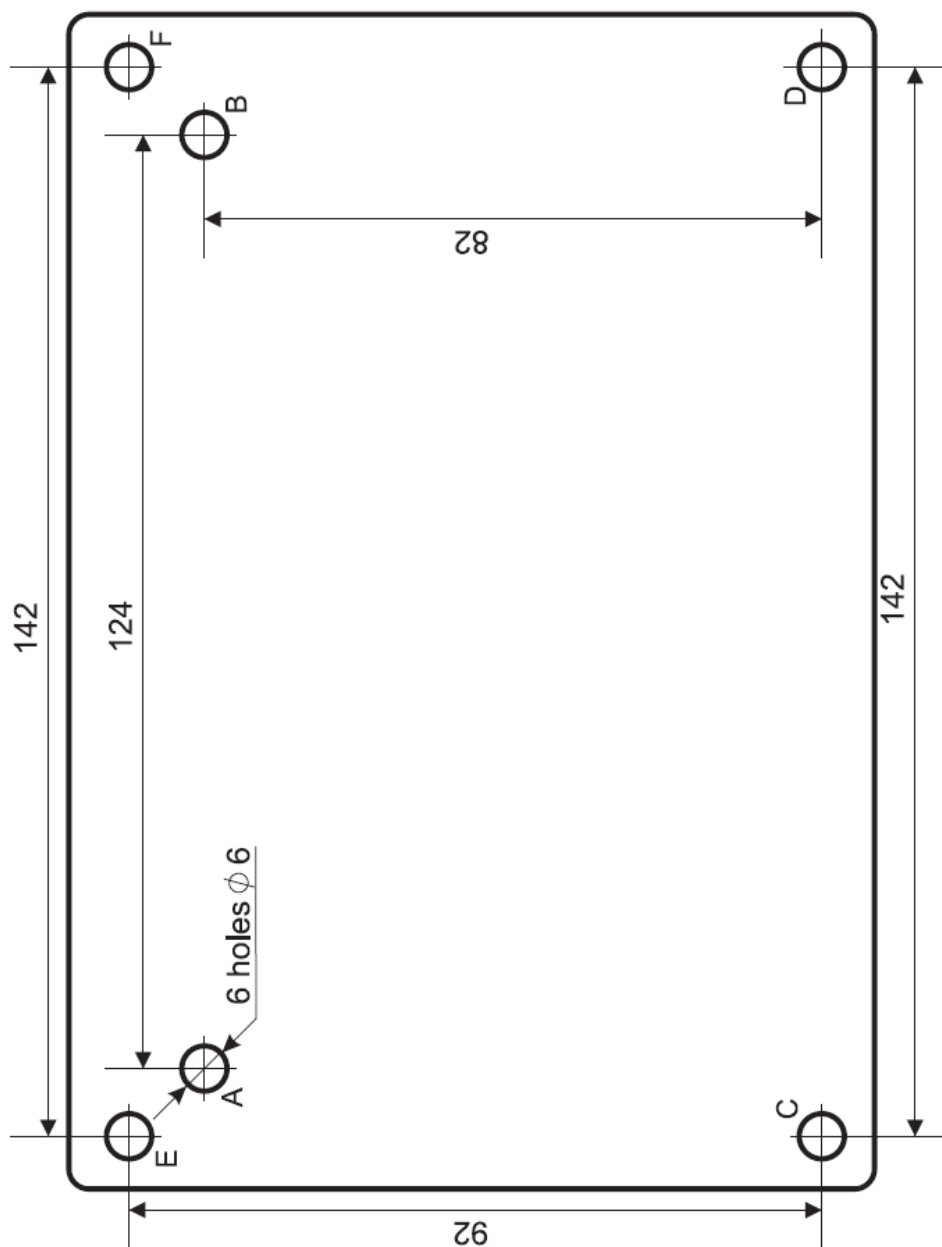


Figure 7. Mounting Pattern

BOLID ONE YEAR LIMITED WARRANTY

Bolid Company and its divisions and subsidiaries («Seller»), 4 Pionerskaya Str., Korolev 141070, Moscow Region, Russia warrants its security equipment (the «product») to be free from defects in materials and workmanship for one year from date of original purchase, under normal use and service. Seller's obligation is limited to repairing or replacing, at its option, free of charge for parts or labor, any product proven to be defective in materials or workmanship under normal use and service. Seller is not responsible for results where the product is used improperly, where it is used for any application it is not intended for, used under unacceptable environmental conditions and mishandled or stored under improperly. Seller shall have no obligation under this warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than the Seller. In case of defect, contact the security professional who installed and maintains your security equipment or the Seller for product repair.

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