

T941OM Output Module

INSTALLATION GUIDE



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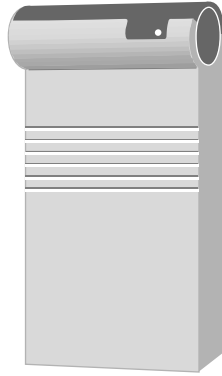
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1 INTRODUCTION

T941OM Output module has 16 outputs. Outputs are galvanically isolated and transient protected and can be supplied either internally or externally. However, for galvanic isolation the outputs must be fed by a separate power supply.

Figure 1. The Output Module



Supply voltage:	12.5 V DC \pm 10%
Current consumption:	400 mA if all outputs are fed externally max. 2A if all outputs are fed internally

- If internal power is used, total consumption for all 16 outputs must not exceed 1.6 A.
- If external power is used, voltage can vary between 7 and 35 V DC. Total consumption for all outputs must not exceed 16 A.
- Consumption per output must never exceed 1 A, which applies to both internal and external power supplies.

Delivery includes:	T941OM Modular system bus cable
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Tools, etc. required:	Screwdriver Cutting pliers Screws for installation Multimeter Soldering iron and solder
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1.1 CIRCUIT BOARD OVERVIEW

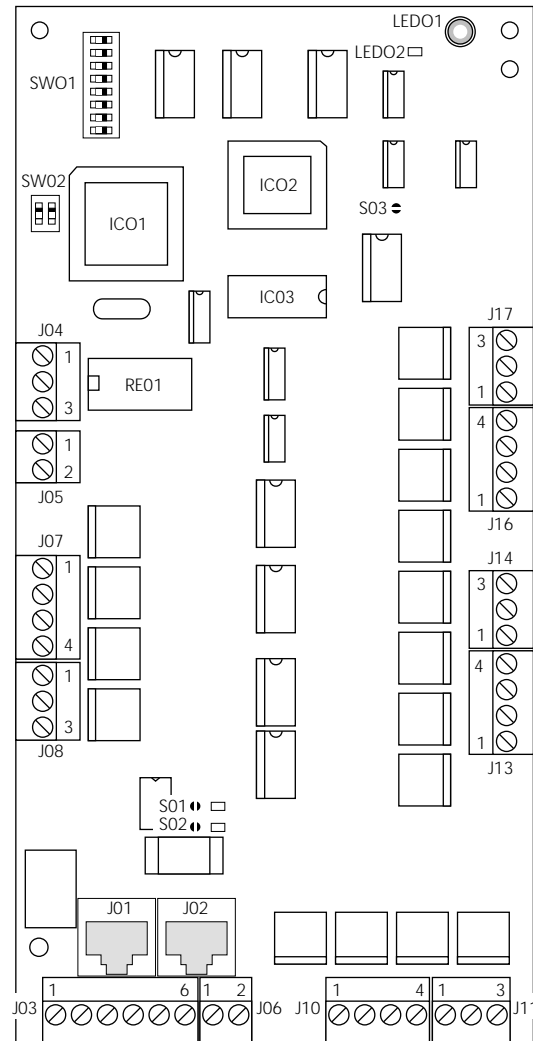


Figure 2. Circuit board of the OJutput Module

2 INSTALLATION

The Output Module should be placed in a dry environment with a temperature range of 0 to +40°C.

The figure below shows dimensions for installing the Output Module.

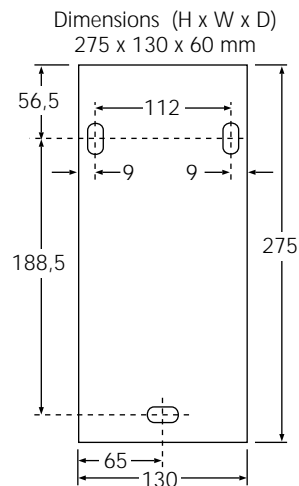


Figure 3. Mounting dimensions

Use a screwdriver or similar to release the cover by applying a light pressure to the two snap catches (1) and remove the cover (2).

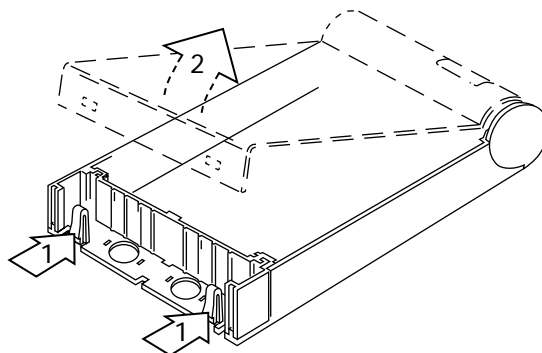


Figure 4. Releasing the cover of the Output Module.

2.1 INSTALLATION TOGETHER WITH OTHER UNITS

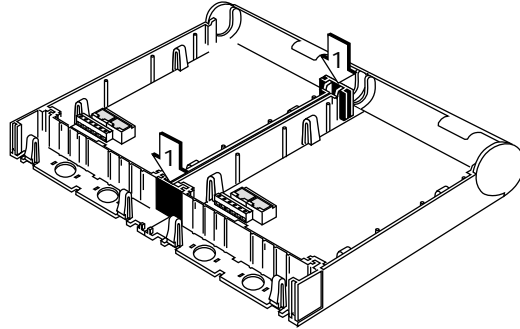


Figure 5. Mounting two units together.

- 1 Remove upper and lower covers. The lower rectangular covers are used to fasten units to each other (1).
- 2 Fasten the module with three screws; see [figure 3](#) on page 4.

3 ADDRESSING

Select the proper address by setting address selector switch SW01. The address must not be 00 nor the same as any other system unit.

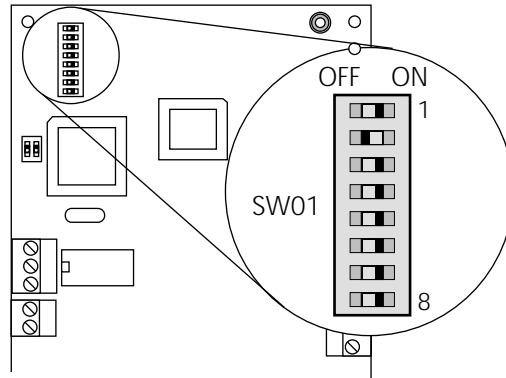


Figure 6. Addressing switch on the Output Module.

Note: When connected to the Central Portable Device Manager (CPDM), the module address has to be in the range 01 to 0F.

For information about how to distribute alarms from the CPDM to the Output Module, see *Installation and Operation Manual, CPDM*.

3.1 HOW TO SET THE ADDRESS

The address consists of two hexadecimal digits that are selected by the eight sections of the address switch. The eight sections are divided into two groups, each with four sections (1-4 and 5-8). Sections 5-8 select the first (most significant) hex digit and sections 1-4 select the second hex digit.

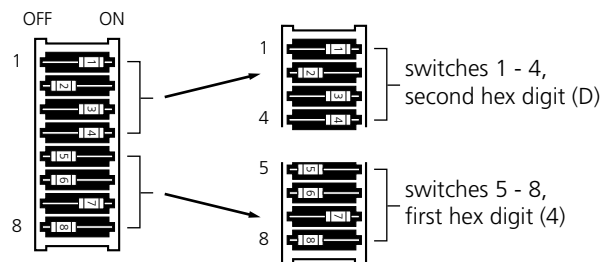


Figure 7. Setting the address of the Output Module.

4 WIRING RUNS

The plastic partition (shaded in [figure 8](#)) is scored to facilitate breaking at convenient intervals.

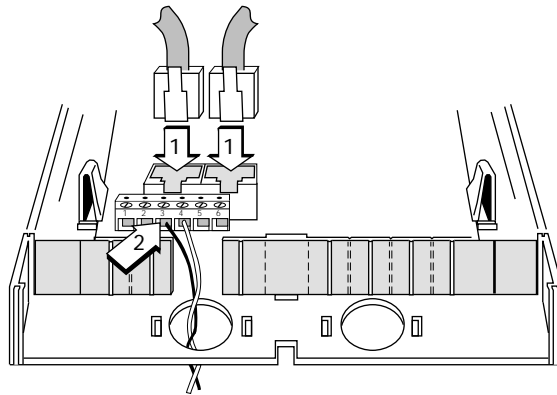


Figure 8. Breaking the partition for wiring.

- 1 Use pliers to break off a suitable section.
- 2 Run the wiring out through the partition.

Wiring can be run three ways from the Output Module:

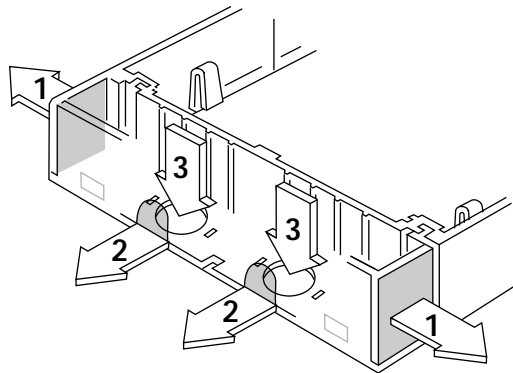


Figure 9. How to run cables from the Output Module.

- Remove the rectangular covers and run the cabling out through the side (1).
- Break off sections at short side of case and run the cabling downwards (2).
- Run the cabling through the round holes at the bottom of the case (3).

Secure the wiring with cable straps.

5 CONNECTION OF SYSTEM BUS

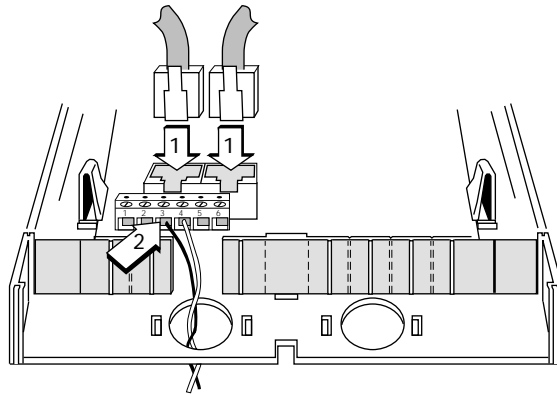


Figure 10. Connection of system bus with modular bus cable.

- Connect modular bus cabling to J01 and J02 (1)

or if required

Connect two-wire connection to J03 screw 5 and 6 (2)
(see figure below)

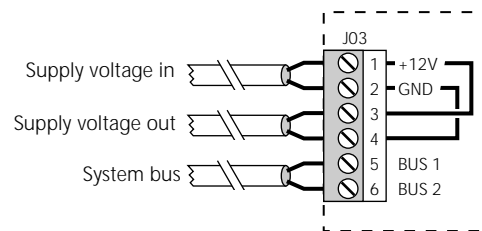


Figure 11. Connection of system bus with twisted-pair and supply voltage.

Note: The data lines are polarized. Use only twisted-pairs for two-wire connections!

6 CONNECTION OF SUPPLY VOLTAGE

Supply voltage is connected to screw 1 and 2 of screw connector J03, see [figure 11](#).

7 CONNECTION OF ALARM OUTPUTS

There are 16 alarm outputs arranged in groups of four:

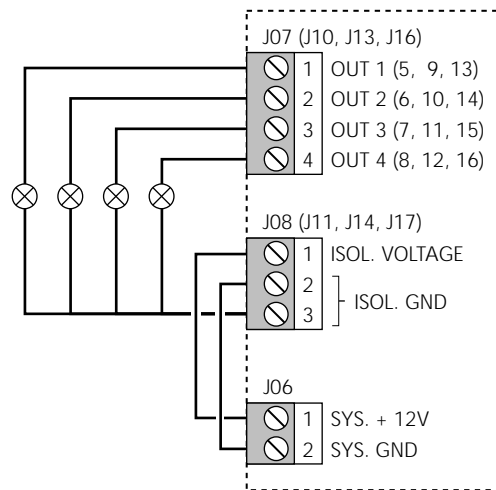
- Outputs 1-4 on screw connector J07
- Outputs 5-8 on screw connector J10
- Outputs 9-12 on screw connector J13
- Outputs 13-16 on screw connector J16

Each group has a screw connector for supply voltage (J08, J11, J14, J17).

7.1 CONNECTING INTERNAL SUPPLY VOLTAGE TO ALARM OUTPUTS (WITHOUT GALVANIC ISOLATION)

Each group of four outputs is supplied with internal supply voltage and ground and is not galvanically isolated from the others.

- 1 Connect internal supply voltage from screws 1 and 2 on connector J06 to the connector for the corresponding group (see drawing below).
- 2 Connect each load (lamp, relay, etc.) via a twisted pair between the alarm output and the corresponding screw connector for ground.



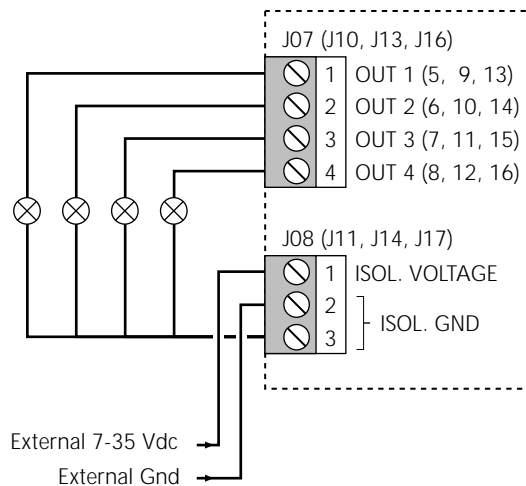
*Connection of internal supply voltage to alarm outputs (without galvanic isolation).
When internal power is used total consumption for all 16 outputs must not exceed 16 A.
Current load on each output must never exceed 1 A.*

Figure 12. Connection of outputs without galvanic isolation.

7.2 CONNECTING EXTERNAL SUPPLY VOLTAGE TO ALARM OUTPUTS (WITH GALVANIC ISOLATION)

Each group of four outputs is supplied by a separate external voltage supply and is galvanically isolated from the others.

- 1 Connect external supply voltage to screws 1 and 2 on the connector for the corresponding group (see drawing below).
- 2 Connect each load (lamp, relay, etc.) via a twisted pair between the alarm output and the corresponding screw connector for ground.



*Connection of external supply voltage to alarm outputs (with galvanic isolation).
Current load on each output must never exceed 1 A.*

Figure 13. Connection of outputs with galvanic isolation.

8 INSTALLATION TEST

After the installation, a functional check is made.

If a malfunction occurs, check that the functional indicator (LED) on the unit shows a steady light. If not proceed as follows.

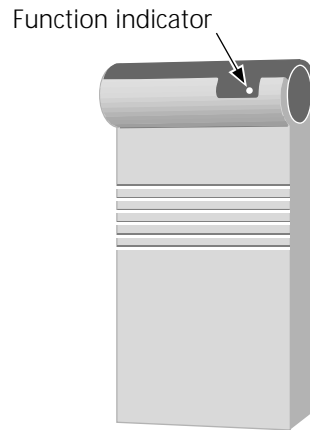


Figure 14. Function indicator of the Output Module

- No light: No power, check power supply. Hardware fault, contact your dealer.
- Slow blink (0.5 Hz): Program error. Restart the unit by switching the power off and on.
- Fast blink (0.8 Hz): Communication error. Check bus polarity and addressing of the unit.
- One blink every fourth second: Unit in test mode. Contact your dealer.

Activate an alarm from the external equipment and check that the handsets respond correctly.

9 PROGRAMMING

System settings in the Output Module are factory set

Default settings are:

- Activation time: Active until deactivated. If the duration is set by the Basic Alarm Manager in the CPDM, the output will be active during that time period.
- Outputs cannot be reset from input on the Output Module.