OUTPUT EXPANDER

CA-64 O-OC
CA-64 O-R
CA-64 O-ROC

ca64o_en 03/09

The CA-64 O output expander is designed for operation in intruder alarm systems. It is capable of interfacing with the SATEL made CA-64, INTEGRA and VERSA control panels. The device enables expansion of the system by 8 programmable outputs. It comes in three versions:

- CA-64 O-OC – 8 OC type outputs;
- CA-64 O-R – 8 relay outputs;
- CA-64 O-ROC – 4 OC type outputs and 4 relay outputs.

1. Description of electronics board

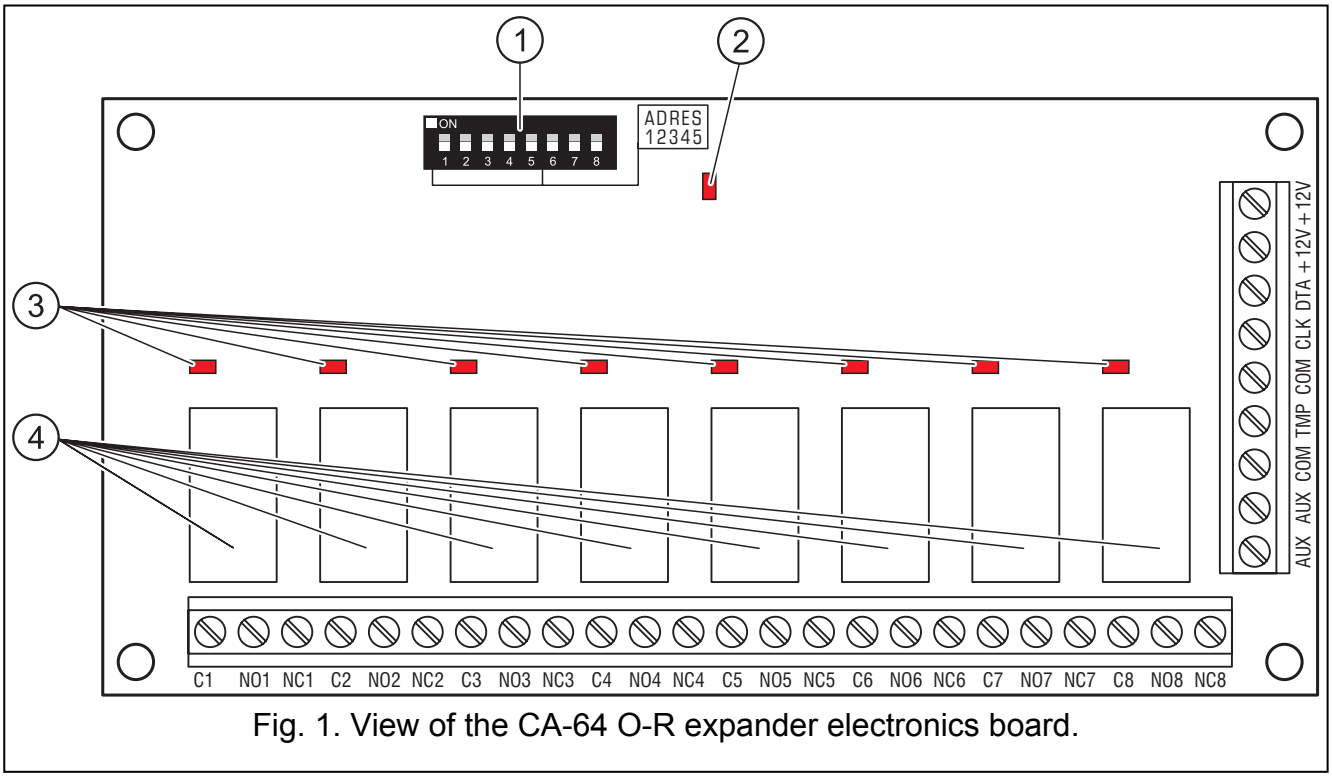

Fig. 1. View of the CA-64 O-R expander electronics board.

Explanations for Fig. 1:

1 - a set of DIP-switches for setting individual address of the module (see section DIP-SWITCHES).

2 - LED indicating communication with the control panel:
  - LED is blinking – data exchange with the control panel;
  - LED is lit – no communication with the control panel.

3 - LED indicating status of the outputs:
  - OC type output: LED is ON – output shorted to ground;
  - OC type output: LED is OFF – output disconnected from ground;

- relay output: LED is ON – terminal NO is shorted to common terminal C, and terminal NC is disconnected from common terminal C;
- relay output: LED is OFF – terminal NO is disconnected from common terminal C, and terminal NC is shorted to common terminal C.

4 - relays – all relays are only installed in the CA-64 O-R version. In the CA-64 O-ROC version, the relays are installed for outputs from 5 to 8.

Description of the terminals:

C1...C8 - common relay terminal or OC type output;

NO1...NO8 - terminal normally disconnected from the common relay terminal. When in active state or in case of reversed polarization, it is shorted to the common terminal.

NC1...NC8 - terminal normally shorted to the common relay terminal. When in active state or in case of reversed polarization, it is disconnected from the common terminal.

AUX - power supply output (+12V DC).

COM - common ground.

TMP - tamper input (if no tamper contact is connected to this terminal, it should be shorted to common ground).

CLK - clock.

DTA - data.

+12V - power supply input.

The RESET pins are used during the manufacturing process, hence they must not be shorted.

1.1 DIP-switches

The DIP-switches from 1 to 5 are to be used for address setting. The address must be different from that of the other modules connected to the communication bus of alarm control panel. In order to determine the expander address, add up the values set on individual switches as shown in Table 1.

DIP-switch number	1	2	3	4	5
Numerical value (for switch in ON position)	**1**	**2**	**4**	**8**	**16**

Table 1.

DIP-switches 6, 7 and 8 are not used.

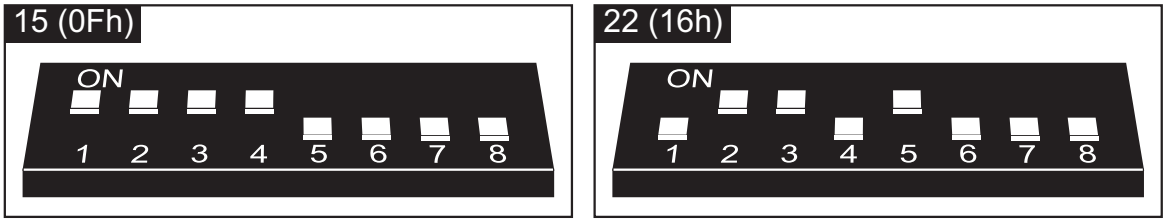

Fig. 2. Examples of address setting (address 15 (0Fh) is required for interfacing with VERSA series control panels).

2. Installation and start-up

All connections should only be made when power supply of the alarm system is disconnected.

1. Install the expander electronics board in the enclosure.
2. Using the DIP-switches, set the expander address.
3. Using cables, connect the CLK, DTA and COM terminals to the corresponding terminals of the control panel communication bus.
4. Connect the cables of enclosure tamper contact to the TMP and COM terminals (or short the TMP terminal to the COM terminal).
5. Connect the cables of the devices whose operation is to be controlled by the control panel, to the selected output terminals.
6. Connect the module power supply cables to the +12V and COM terminals. Supply may be provided from the control panel mainboard, from an additional power supply unit or from an expander with power supply (see: installer manual for alarm control panel).
7. Turn on power supply of the alarm system.
8. Start the identification function in the control panel. When the identification is completed, the outputs will be assigned respective numbers in the alarm system (output numeration rules are described in the alarm control panel manual).

3. Technical data

Supply voltage		12 V DC ±15%
Number of programmable outputs		8
Current consumption (without OC type output load and without active relays)		36 mA
Current consumption by active relay		20 mA
OC-type programmable output maximum load		50 mA
Maximum relay switching voltage		24 V
Maximum relay switching current		2 A
Dimensions of electronics board		68x140 mm
Environmental class		II
Working temperature range		-10 °C…+55 °C
Weight	CA-64 O-OC	74 g
	CA-64 O-R	118 g
	CA-64 O-ROC	96 g

The latest EC declaration of conformity and product approval certificates are available for downloading on website **www.satel.pl**	CE

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