

# SIEMENS

## Installation Instructions Model OCM-16

Output Control Module (500-033150 / S24235-B113-A2)

### INTRODUCTION

The SIEMENS Model OCM-16 Output Control Module is a remotely located, general purpose output module. It provides sixteen open collector outputs to drive LEDs, incandescent lamps or external relays. There is an additional output for a local audible and two inputs for momentary lamp test and local audible silence switches.

### OPERATION

The OCM-16 is mounted in an enclosure that is remotely located from the Main Panel. Communication between the OCM and the NIC-C or the next CAN module (in CE applications) is through the Control Area Network (CAN) bus. Each OCM-16 has two 10 position rotary switches that are used to set the board address on the CAN which is a sub-address of the NIC-C or of the DAC-NET (in CE applications). The 16 outputs of the OCM-16 are controlled by messages received from the NIC-C (DAC-NET) over the CAN.

A CAN message can activate any or all of the 16 outputs to drive LEDs, incandescent 24 Volt lamps or relays.

Whenever any of the outputs is activated, (LEDs, lamps or relays ON) the local audible (if installed) will sound until it is acknowledged by shorting position 19 and 20 on TB2. If the outputs are deactivated before the alarm (local audible) is acknowledged, the alarm (local audible) will cease to sound.

By shorting terminals 17 and 18, all LEDs or lamps will turn on to confirm that they are working and automatically will return to their normal state after a few seconds. Both the lamp test and local audible silence switch on multiple OCM-16s can be connected to a single switch, one for each function. A single audible can also be used with multiple OCM-16s.

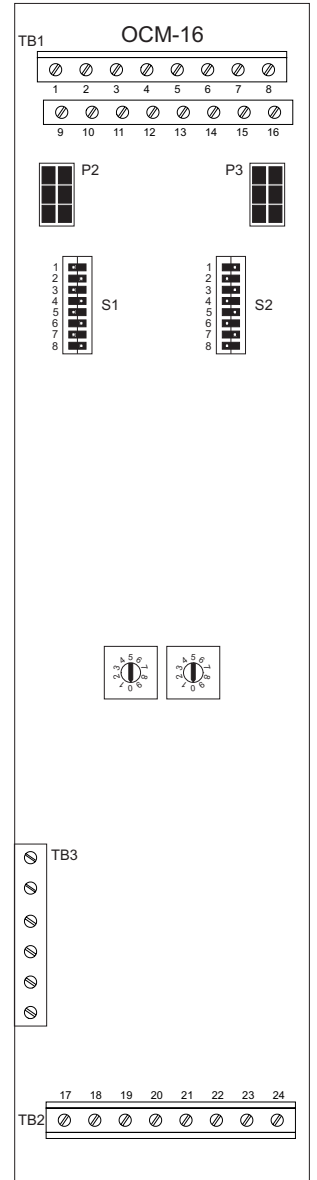


Figure 1  
OCM-16 Output Control  
Module

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PRE-INSTALLATION

**Rotary Address Switches** - Set the board address for each OCM-16 using both of the ten-position rotary switches located on the board (See Figure 2). Each of these addresses must be a sub-address of **the NIC-C or of the DAC-NET (in CE applications) and must be the same as the addresses assigned in the Zeus Programming Tool.**

**S1/S2 LED, Incandescent/Relay Select Switches**

- When LEDs are used, open corresponding dipswitches on S1 and S2 (Refer to OCM-16 Switches Table) to provide a current limiting resistor of 2.7K ohms to each LED.
- When incandescent lamps or relays are used, close corresponding dipswitches on S1 and S2 (Refer to OCM-16 Switches Table) to bypass the limiting resistors.

**OCM-16 SWITCHES**

| TB1 | S1 Switch | TB1 | S2 Switch |
|-----|-----------|-----|-----------|
| 1   | S1-1      | 9   | S2-1      |
| 2   | S1-2      | 10  | S2-2      |
| 3   | S1-3      | 11  | S2-3      |
| 4   | S1-4      | 12  | S2-4      |
| 5   | S1-5      | 13  | S2-5      |
| 6   | S1-6      | 14  | S2-6      |
| 7   | S1-7      | 15  | S2-7      |
| 8   | S1-8      | 16  | S2-8      |

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INSTALLATION

An OCM-16 may be installed in a REMBOX or in an enclosure on mounting plate MP-OM (in CE applications). When using REMBOX 2 or 4, mount the OCM-16 in one module space on a REMBOX2-MP, P/N 500-634211 or REMBOX4-MP, P/N 500-634212 using the four screws provided. (Refer to REMBOX2-MP/REMBOX4-MP Installation Instructions, P/N 315-034211.) Up to 4 OCM-16s will fit in a REMBOX2; up to 8 OCM-16s will fit in a REMBOX4.

WIRING



Disconnect BATTERY and AC prior to working on equipment.

- Each OCM-16 module is a node in the CAN bus.
- The OCM-16 can be installed with or without an RNI. Connect 24V and CAN bus as shown in Figures 2 and 3.
- Up to 99 CAN modules, in any combination, can be connected to the CAN bus of each NIC-C or the CAN bus of the DAC-NET (in CE applications).
- Each OCM-16 module is shipped with one CCS cable.
- Cable connections for OCM-16 modules are shown in the following table:

NOTES

1. All wiring must be in accordance with Article 760 of NEC or local building codes.
2. All circuits are power limited to NFPA 70 per NEC 760.
3. Electrical Ratings:  
Standby current: 14mA max. @ 24VDC  
Active current: 200mA max. @ 24VDC
4. For additional information, refer to the NIC-C Installation Instructions, P/N 315-033240 / A24205-A334-B824.
5. All wiring to TB1 must be:  
- within the same room  
- within 20 feet (6.5m)  
- in rigid conduit
6. Lamp test switch, ACK alarm switch, and audible device must be UL 864 listed devices.
7. CAN network max. line resistance 16S.
8. Mount the Lamp Test, Ack Alarm and Audible Device on the REMBOX2/4 front door.
9. Wiring for TB1 and TB3 is 18 AWG (1.0mm<sup>2</sup>) min., 12 AWG (4mm<sup>2</sup>) max.
10. Wiring for TB3 is 26 AWG (Ø 0.25mm) min., 16 AWG (1.5mm<sup>2</sup>) max.

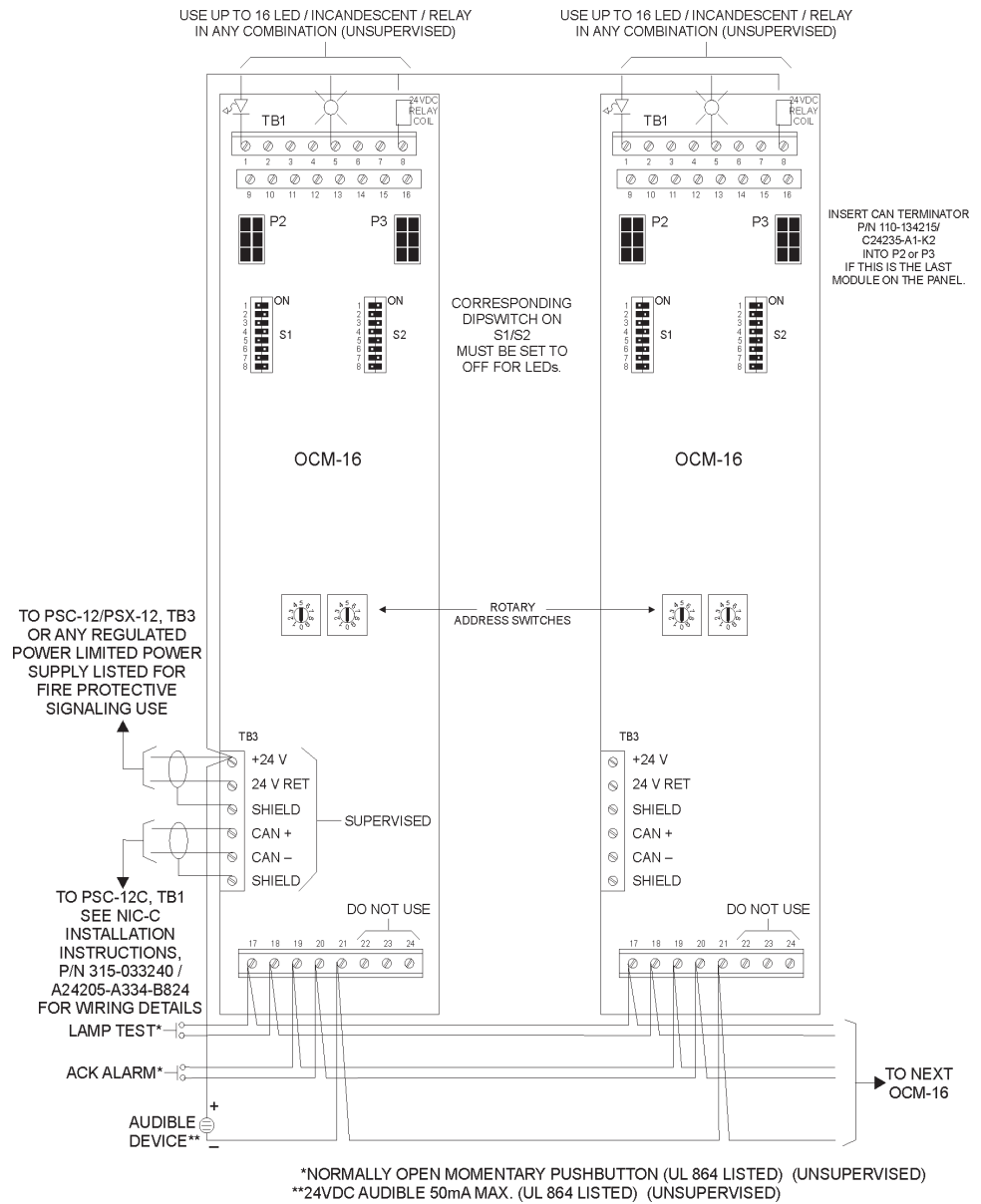


Figure 2  
OCM-16 Wiring Without An RNI

### SIM-16 CABLE CONNECTIONS

| Cable | Description                                       | Part Number                | Connection   |
|-------|---|----------------------------|--|
| CCL   | CAN-CABLE-Long<br>30 in. (100cm) ,6-<br>conductor | 599-634214<br>C24235-A1-K6 | Connects P4 on RNI to first SIM-16. Also<br>connects from SIM-16 to FCM/<br>LCM/SCM/CSB modules (on door). |
| CCS   | CAN-CABLE-Short<br>5½ in. (14cm) ,6-<br>conductor | 555-133539<br>C24235-A1-K4 | Connects SIM-16 modules to SIM-16 or<br>OCM-16 modules in a single row                                     |

**NOTE** 

The CAN bus requires a 120S termination at each end of the loop. Refer to the NIC-C Installation Instructions, P/N 315-033240 / A24205-A334-B824 or DAC-NET Installation Instructions P/N 315-035100 / A24205-A334-B839 for

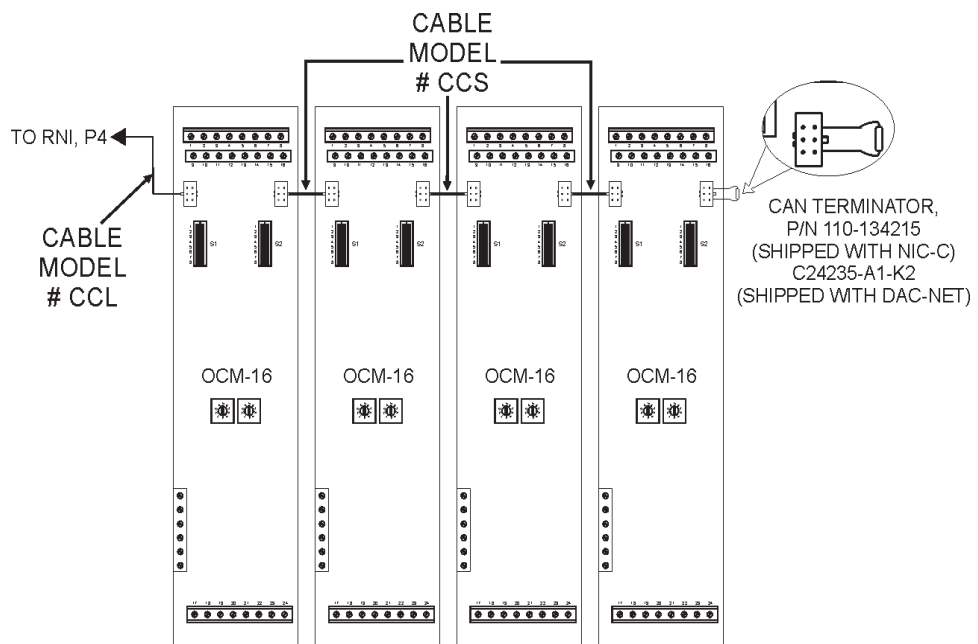


Figure 3  
OCM-16 CAN Bus Connections With An RNI

### ELECTRICAL RATINGS

|                            |                            |
|----------------------------|----------------------------|
| 24V Back Plane Current     | 0                          |
| Screw Terminal 24V Current | 14mA + 10mA per active LED |
| 6.2V Back Plane Current    | 0                          |
| 24V Standby Current        | 14mA + 10mA per active LED |

For CE applications in Cerberus E100 systems refer to Installation Instruction A24205-A334-B844 (English) or A24205-A334-A844 (German).

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