Installation Instructions
Models FCM-6 / LCM-8 / SCM-8
Model CSB
Control Module / LED Control Module / Switch Control Module
CAN Sounder Board

INTRODUCTION

The Siemens Models FCM-6, LCM-8 and SCM-8 are similar in appearance and identical in installation.

The Siemens Model FCM-6 Control Module (Figure 1) contains six sets of three pushbutton switches and their corresponding LEDs. The ON and AUTO switches both have one bi-color (red/green) LED while the OFF switch has one bi-color and one yellow LED. The functions of the switches and LEDs are programmed using the Zeus Tool (Refer to the Zeus Quick Start Guide, P/N 315-033875). All LEDs can be programmed ON, OFF, or FLASHING. The FCM is designed for general control requiring ON/OFF/AUTO operation.

The Siemens Model LCM-8 LED Control Module (Figure 2) contains eight pairs of LEDs. Each pair contains one bi-color (red/green) and one yellow LED. The functions of the LEDs are programmed using the Zeus Tool (Refer to the Zeus Quick Start Guide, P/N 315-033875). All LEDs can be programmed ON, OFF, or FLASHING. These LEDs are used for fire system status annunciation.

The Siemens Model SCM-8 Switch Control Module (Figure 3) contains eight switches and eight pairs of LEDs. Each pair contains one bi-color (red/green) and one yellow LED. The functions of the switches and LEDs are programmed using the Zeus Tool (Refer to the Zeus Quick Start Guide, P/N 315-033875). All LEDs can be programmed ON, OFF, or FLASHING. The SCM is used for manual control of the fire system.
The **SIEMENS** Model CSB CAN Sounder Board (P/N 500-033130) is an optional module that can be ordered separately. It contains a sounder (buzzer) that can be used with the SCM-8 or FCM-6 to provide audible feedback to indicate that a switch closed properly and communication was successful. The CSB requires no programming.

All modules mount on an ID-MP mounting plate which is then mounted on the inner door of a CAB enclosure or the outer door of a REMBOX enclosure. The mounting plate can hold either 4 SCMs/LCMs or 2 FCMs or 1 FCM and 2 SCMs/LCMs.

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**OPERATION**

**FCM Controls and Indicators** The FCM contains six sets of three pushbutton switches and their corresponding LEDs. Pressing any of the six ON, OFF, or AUTO switches generates a unique CAN message on the bus to the NIC that indicates which switch was pressed. A CAN message from the NIC to the FCM produces a preprogrammed output to the corresponding LED (ON, FLASHING, or OFF). An open collector is provided for connection to the CAN Sounder Board (CSB), a separate audio module. The CSB provides an audible feedback to indicate that the switch closed properly and that communication between the FCM and NIC was successful.

**LCM Controls and Indicators** The LCM contains eight pairs of LEDs. A CAN message from the NIC to the LCM produces a preprogrammed output to any of the corresponding LEDs (ON, FLASHING, or OFF).

**SCM Controls and Indicators** The SCM contains eight switches and eight pairs of LEDs. Each switch is associated with a pair of LEDs. Pressing any of the eight switches generates a unique CAN message on the bus to the NIC that indicates which switch was pressed. A CAN message from the NIC to the SCM produces a preprogrammed output to the corresponding LED (ON, FLASHING, or OFF). An open collector is provided for connection to the CAN Sounder Board (CSB), a separate audio module. The CSB provides an audible feedback to indicate that the switch closed properly and that communication between the SCM and NIC was successful.

**CSB Controls and Indicators** The CSB contains a sounder (buzzer) that sounds when any switch on an FCM or SCM is pressed. Only one CSB is required for audible feedback; more can be connected to increase the volume if needed.

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**PRE-INSTALLATION**

Set the board address for each FCM/LCM/SCM using both of the ten-position rotary switches located on the back of the board (See Figure 5). Each of these addresses must be a sub-address of the NIC and must be the same as the addresses assigned in the Zeus Programming Tool. The CSB does not require address setting.

After setting the address, label each switch or LED. When viewed from the front panel of the FCM/LCM/SCM, the labels are on the left and the control switches and LEDs are on the right.

- Refer to the Zeus configuration for the address of each module and its assigned functions.
- Remove the label strip from its slot, and type or print a brief function identifier for each switch.
- After completing the label strip, insert it back into its slot (See Figure 6).
INSTALLATION

FCM-6, LCM-8, and SCM-8  (Refer to Figure 7)

1. Hold mounting bracket **SIEMENS** Model ID-MP so that the words UP are at the top.

2. Place each FCM/LCM/SCM in the desired position on the mounting bracket, aligning the two studs in the smaller holes on the bracket. Secure with a 10-32 nut on each threaded stud.

3. If all of the positions on the mounting plate are not filled with FCM/LCM/SCM modules, install a Control Module Blank Plate BCM in each of those positions by aligning the two studs in the smaller holes on the bracket and securing with a 10-32 nut on each threaded stud.

4. Position the filled mounting bracket over the two studs on the back of the inner door, so that the modules face through the opening and secure with a 10-32 nut on each threaded stud.

5. Repeat steps 1 through 4 until all FCM/LCM/SCM modules are installed.

6. Install a blank plate, **SIEMENS** Model ID-SP, in unused spaces on door and secure with 10-32 nuts. Refer to **SIEMENS** Models CAB2-BD/-RD and CAB3-BD/-RD Installation Instructions, P/N 315-033008 for more information.
CAN Sounder Board

(Refer to Figure 8.)

The CSB is normally positioned at the last FCM, LCM or SCM. If desired, multiple CSBs can be installed. The CSB mounts on the stud of the FCM/LCM/SCM module that it connects to.

1. Determine the position of the CSB on the ID-MP Mounting Plate. (This is normally at the last FCM, LCM or SCM module.)
2. If necessary, remove 10-32 nut from stud of FCM/LCM/SCM where CSB is to be mounted.
3. Place mounting hole on the CSB over stud.
4. Secure with 10-32 nut supplied with FCM/LCM/SCM.

![Diagram of CSB mounting](image)

Figure 8

Mounting The CSB

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WIRING

(Refer to Figure 9.)

Remove ELECTRICAL POWER prior to working on equipment.

- Each FCM/LCM/SCM module is a node in the CAN bus.
- Each FCM/LCM/SCM connects through the CC-5/CC-2 CAN bus via a plug-in cable to the NIC or to another FCM/LCM/SCM module.
- Up to 99 FCM/LCM/SCM modules, in any combination, can be connected to the CAN bus of each NIC.
- Each FCM/LCM/SCM/CSB module is shipped with one CCS cable.
Figure 9
Typical Wiring For FCM-6, LCM-8, SCM-8 And CSB

- Cable connections for FCM/LCM/SCM/CSB modules are shown in the following table and in Figure 10:

<table>
<thead>
<tr>
<th>Cable</th>
<th>Description</th>
<th>Part Number</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCL</td>
<td>CAN-CABLE-Long</td>
<td>599-634214</td>
<td>Connects from row to row (on door) for FCM/LCM/SCM/CSB modules. Also connects from P3 on CC-5/CC-2 to first FCM/LCM/SCM</td>
</tr>
<tr>
<td></td>
<td>30 in., 6-conductor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCS</td>
<td>CAN-CABLE-Short</td>
<td>555-133539</td>
<td>Connects FCM/LCM/SCM/CSB modules to FCM/LCM/SCM/CSM/CSB modules in a single row</td>
</tr>
<tr>
<td></td>
<td>5½ in., 6-conductor</td>
<td></td>
<td></td>
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</tbody>
</table>
The CAN bus requires a 120Ω resistance at each end of the loop. Refer to the NIC-C Installation Instructions, P/N 315-033240 for details about CAN termination.

**ELECTRICAL RATINGS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>24V Back Plane Current</td>
<td>0</td>
</tr>
<tr>
<td>Screw Terminal 24V Current</td>
<td>14mA max + 1mA per active LED</td>
</tr>
<tr>
<td>6.2V Back Plane Current</td>
<td>0</td>
</tr>
<tr>
<td>24V Standby Current</td>
<td>14mA max + 1mA per active LED</td>
</tr>
</tbody>
</table>

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