SIEMENS

Installation Instructions
Model GCM-8

Graphics Control Module

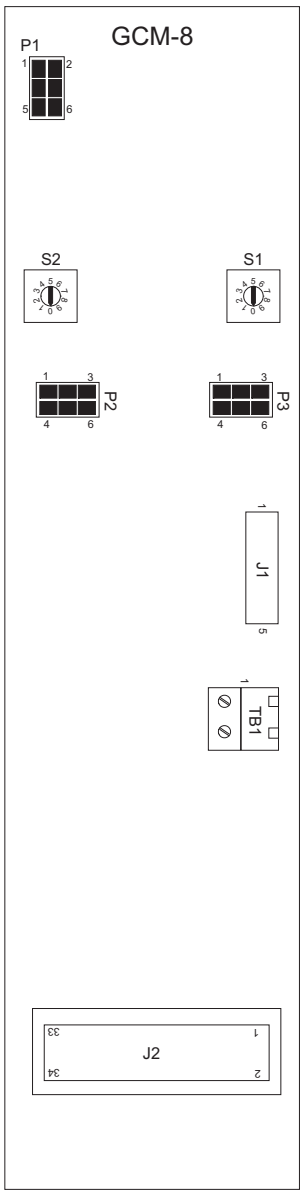


Figure 1
GCM-8 Graphics Control Module

INTRODUCTION

The Model GCM-8 Graphics Control Module from Siemens Industry, Inc. is a remotely located module. It provides twenty-four outputs to drive eight pairs of LEDs. Each pair contains one bicolor (red/green) and one yellow LED. It also provides eight inputs to connect to external momentary switches. The functions of the switches and LEDs are programmed by inserting an SCM-8 in the Zeus Tool (Refer to the Zeus Quick Start Guide, P/N 315-033875). All LEDs can be programmed ON, OFF or FLASHING.

The GCM-8 is used for manual control of the fire system.

There is an additional input for a momentary lamp test.

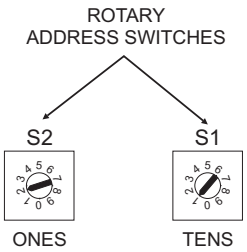
OPERATION

The GCM-8 interfaces to 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-C or DAC-NET that indicates which switch was pressed. A CAN message from the NIC-C or DAC-NET to the GCM-8 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 GCM-8 and NIC-C or DAC-NET was successful. Refer to the CSB Installation Instructions, P/N 315-033040, for more information.

By shorting terminals 1 and 2 of TB1, all LEDs will turn on to confirm that they are working and automatically will return to their normal state after a few seconds. The lamp test switch on multiple GCM-8s can be connected to a single switch.

Siemens Industry, Inc.
Building Technologies Division

PRE-INSTALLATION



Set the board address for each GCM-8 using both of the ten-position rotary switches (S1 and S2) located on the board (See Figure 1). The address must be a sub-address of the NIC-C or DAC-NET and must be the same as the addresses assigned in the Zeus Programming Tool. To set the address, turn the pointers on each of the dials to the numbers for the selected address. For example, if the address is 12, set the pointer for the TENS dial (S1) to "1" and set the pointer for the ONES dial (S2) to "2." The range of allowable addresses is from 01 to 99 (leading zeros must be used).

INSTALLATION

A GCM-8 may be installed in a REMBOX. When using REMBOX 2 or 4, mount the GCM-8 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 GCM-8s will fit in a REMBOX2; up to 8 GCM-8s will fit in a REMBOX4.

WIRING

Remove all system power before installation, first battery then AC. (To power up, connect the AC first, then the battery.)

- Each GCM-8 module is a node in the CAN bus.
- The GCM-8 can be installed with or without an RNI. Connect 24V and CAN bus as shown in Figure 2.
- Up to 99 CAN modules, in any combination, can be connected to the CAN bus of each NIC-C or DAC-NET.
- Each GCM-8 module is shipped with one CCS cable.
- Cable connections for GCM-8 modules are shown in the following table:

GCM-8 CABLE CONNECTIONS

Cable	Description	Part Number	Connection
CCL	CAN-CABLE-Long 30 in., 6-conductor	599-634214	Connects P4 on RNI to first GCM-8. Also connects from GCM-8 to P3 on CC-5/CC-2.
CCS	CAN-CABLE-Short 5½ in., 6-conductor	555-133539	Connects GCM-8 modules to GCM-8, OCM-16 or SIM-16 modules in a single row

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.

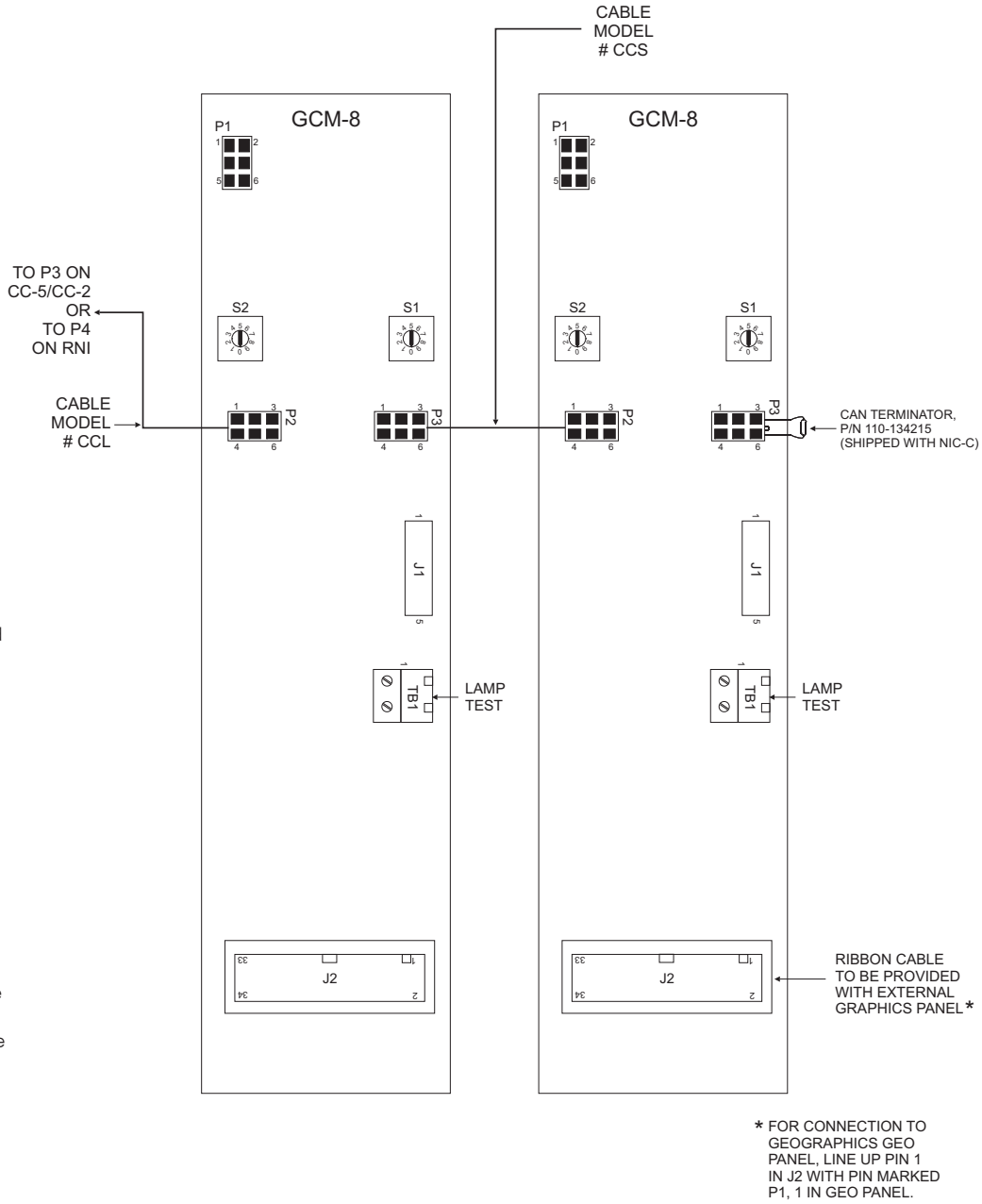
- Connections to J2 are shown in the following table:

CONNECTIONS TO J2

POS	Designation	POS	Designation
1	Bicolor -- GREEN1	2	Bicolor -- RED1
3	Bicolor -- GREEN2	4	Bicolor -- RED2
5	Bicolor -- GREEN3	6	Bicolor -- RED3
7	Bicolor -- GREEN4	8	Bicolor -- RED4
9	Bicolor -- GREEN5	10	Bicolor -- RED5
11	Bicolor -- GREEN6	12	Bicolor -- RED6
13	Bicolor -- GREEN7	14	Bicolor -- RED7
15	Bicolor -- GREEN8	16	Bicolor -- RED8
17	YELLOW1	18	YELLOW2
19	YELLOW3	20	YELLOW4
21	YELLOW5	22	YELLOW6
23	YELLOW7	24	YELLOW8
25	SWITCH1	26	SWITCH2
27	SWITCH3	28	SWITCH4
29	SWITCH5	30	SWITCH6
31	SWITCH7	32	SWITCH8
33	LED COMMON	34	SWITCH 5V POWER

NOTE

The GCM-8 has 2.7K limiting resistors for the Yellow1 to Yellow8 LEDs. The 2.7K limiting resistors for the bicolor LEDs must be provided by the External Graphics Panel.



NOTES

1. All wiring must be in accordance with Article 760 of NEC or local building codes.
2. All circuits are power limited per article 760 of NEC.
3. Electrical Ratings:
   Standby current: 14mA max. @ 24VDC
   Active current: 200mA max. @ 24VDC
4. For additonal information, refer to the NIC-C Installation Instructions, P/N 315-033240.
5. Lamp test switch must be UL 864 listed devices.
6. CAN network max. line resistance 15Ω.
7. Mount the Lamp Test on the REMBOX2/4 front door.
8. P1 and J1 are for factory use only.

Figure 2
GCM-8 Wiring

ELECTRICAL RATINGS

24V Back Plane Current	0
24V Screw Terminal Current	15mA + 5mA per active LED
6.2V Back Plane Current	0
24V Standby Current	15mA + 5mA per active LED
Output Power	
CAN Network Pair	8V peak to peak max.
	75mA max. (during msg transmission)

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