

# SIEMENS

## Installation Instructions

### Model CRM-4

### Controllable Relay Module

The Model CRM-4 Controllable Relay Module from Siemens Industry, Inc. provides auxiliary control of building functions such as door holder release, elevator capture, smoke control, lock release, etc.

### OPERATION

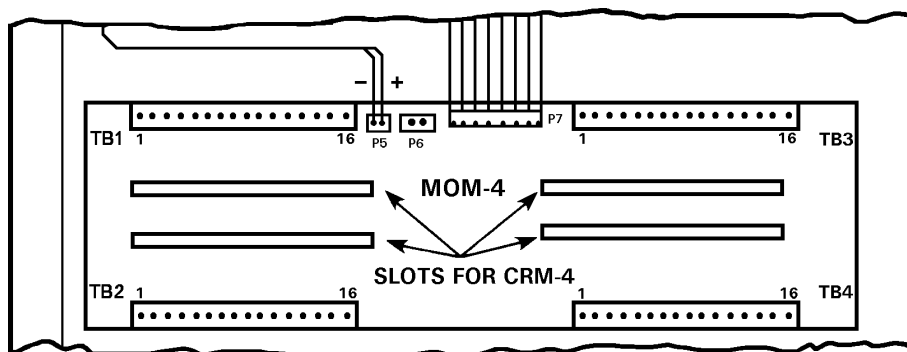
Each CRM-4 module provides four fully programmable relays. Each relay contains one set of SPDT contacts rated at 2A, 30 VDC/120 VAC resistive. All relay coils are supervised in a de-energized state to provide proper operation.

Individual relays can be automatically activated or deactivated through control by event and time based logic contained in the MXL. Each relay

may also be either manually controlled or may be disarmed through the MXL keypad. When any relay is disarmed, the LCD annunciator indicates the affected relay, and the **PARTIAL SYSTEM DISABLE** and **TROUBLE** indicators light until the relay is returned to an armed condition.

Four LEDs are provided on the CRM-4. Two diagnostic LEDs provide positive indication of the CRM-4's network communication. The other two are user programmable through the MXL software.

***For additional information, refer to the MXL/MXLV Manual, P/N 315-092036.***



**Figure 1**  
**MOM-4 Slots for the CRM-4**

# INSTALLATION

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

The CRM-4 module plugs into one slot on the MOM-4 Expansion module. There are four available slots for the CRM-4 on the MOM-4 (See Figure 1). Selecting which position on the MOM-4 to use for a CRM-4 determines which contacts are available: TB1, TB2, TB3, or TB4.

## Setting the Address

Before the CRM-4 is installed in the MOM-4, set the network address on dipswitch S1 (See Figure 2). Set the network address to the address selected in the CSG-M. Refer to Table 1 on the back for the correct switch settings for that address.

## Device Addresses on Module

The device addresses on the module are as follows:

Relay 1	01
Relay 2	02
Relay 3	03
Relay 4	04
LED 1	05
LED 2	06

## Terminal Block Cover

The CRM-4 is shipped with a protective cover for the MOM-4 terminal block used for that CRM-4 installation. To install this cover, remove the screw

and clamp assembly from position 8 on the MOM-4 terminal block used. Place the cover over the terminal block and fasten it into position 8 with the nylon thumb screw provided.

## Mounting the CRM-4

The CRM-4 module has a card guide that must be installed into the MOM-4 (See Figure 4). **To install the card guide:**

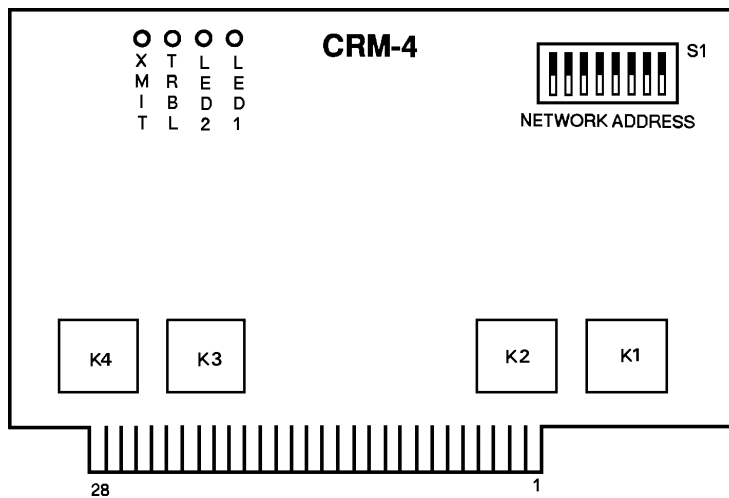
1. Loosen the appropriate screw in the center of the MOM-4 and set the card guide in place.
2. Make sure that the locating pin on the bottom of the card guide is in the hole on the MOM-4.
3. Tighten the screw on the MOM-4 to secure the card guide.

Then install the CRM-4 in the MOM-4, being sure that the module is firmly seated in the card edge connector.

## ELECTRICAL INFORMATION

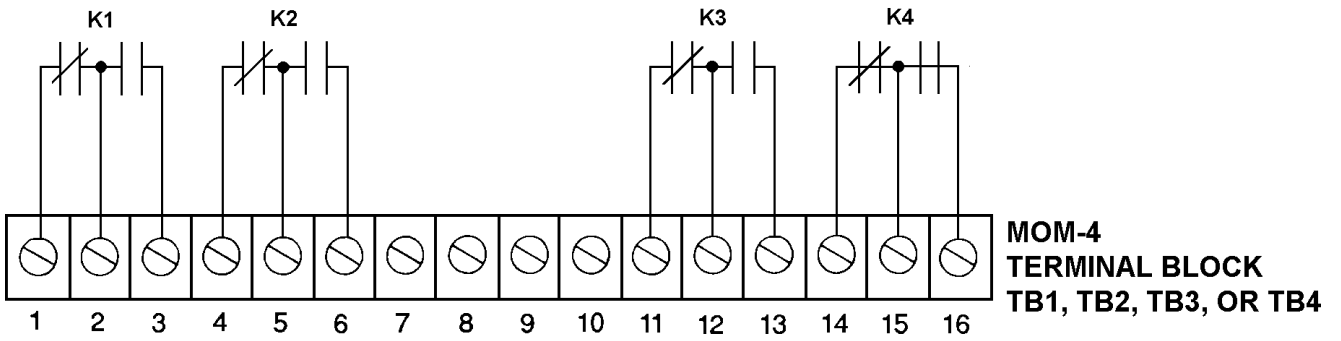
Active 5VDC Module Current	10mA
Active 24VDC Module Current	18mA per active relay
Standby 24VDC Module Current	5mA (no active relays)

Electrical connections and ratings for the four relays are shown in Figure 3.



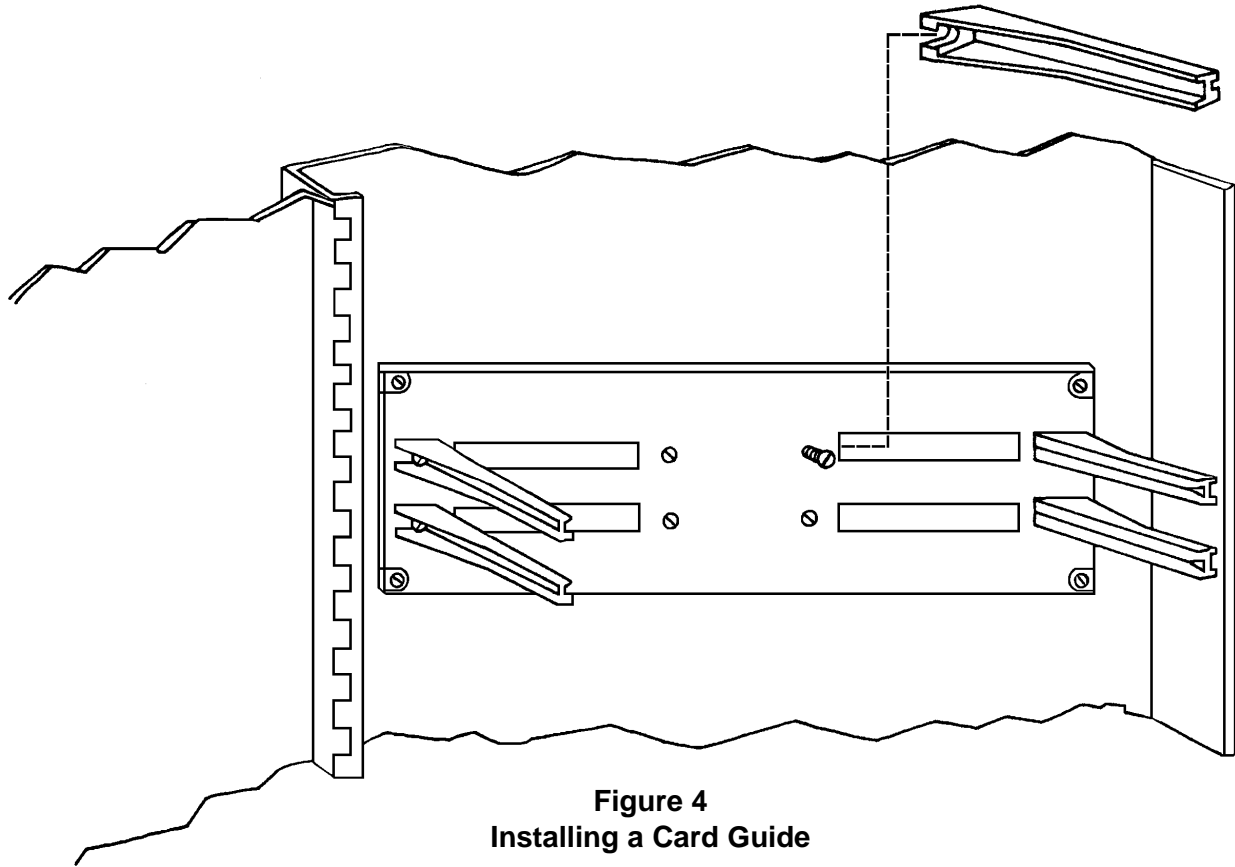
**Figure 2**  
**CRM-4 PC Board**

**CONTACT RATING: 2A, 30 VDC/120 VAC RESISTIVE  
 COILS ARE SUPERVISED WHEN DE-ENERGIZED; CONTACTS ARE NOT SUPERVISED**



**ALL RELAY CONTACTS ARE SHOWN IN NORMAL (DE-ENERGIZED) STATE  
 NOTE: RELAYS K1 - K4 ARE PROGRAMMABLE.**

**Figure 3  
 CRM-4 Relay Wiring**



**Figure 4  
 Installing a Card Guide**

**TABLE 1  
NETWORK ADDRESS PROGRAMMING**

ADDR	87654321	ADDR	87654321	ADDR	87654321	ADDR	87654321
000	ILLEGAL	064	OX000000	128	X0000000	192	XX000000
001	ILLEGAL	065	OX00000X	129	X000000X	193	XX00000X
002	ILLEGAL	066	OX0000X0	130	X00000X0	194	XX0000X0
003	000000XX	067	OX0000XX	131	X00000XX	195	XX0000XX
004	00000X00	068	OX000X00	132	X0000X00	196	XX000X00
005	00000X0X	069	OX000X0X	133	X0000X0X	197	XX000X0X
006	00000XX0	070	OX000XX0	134	X0000XX0	198	XX000XX0
007	00000XXX	071	OX000XXX	135	X0000XXX	199	XX000XXX
008	0000X000	072	OX00X000	136	X000X000	200	XX00X000
009	0000X00X	073	OX00X00X	137	X000X00X	201	XX00X00X
010	0000X0X0	074	OX00X0X0	138	X000X0X0	202	XX00X0X0
011	0000X0XX	075	OX00X0XX	139	X000X0XX	203	XX00X0XX
012	0000XX00	076	OX00XX00	140	X000XX00	204	XX00XX00
013	0000XX0X	077	OX00XX0X	141	X000XX0X	205	XX00XX0X
014	0000XX00	078	OX00XX00	142	X000XX00	206	XX00XX00
015	0000XXXX	079	OX00XXXX	143	X000XXXX	207	XX00XXXX
016	000X0000	080	OX0X0000	144	X00X0000	208	XX0X0000
017	000X000X	081	OX0X000X	145	X00X000X	209	XX0X000X
018	000X00X0	082	OX0X00X0	146	X00X00X0	210	XX0X00X0
019	000X00XX	083	OX0X00XX	147	X00X00XX	211	XX0X00XX
020	000X0X00	084	OX0X0X00	148	X00X0X00	212	XX0X0X00
021	000X0X0X	085	OX0X0X0X	149	X00X0X0X	213	XX0X0X0X
022	000X0XX0	086	OX0X0XX0	150	X00X0XX0	214	XX0X0XX0
023	000X0XXX	087	OX0X0XXX	151	X00X0XXX	215	XX0X0XXX
024	000XX000	088	OX0XX000	152	X00XX000	216	XX0XX000
025	000XX00X	089	OX0XX00X	153	X00XX00X	217	XX0XX00X
026	000XX0X0	090	OX0XX0X0	154	X00XX0X0	218	XX0XX0X0
027	000XX0XX	091	OX0XX0XX	155	X00XX0XX	219	XX0XX0XX
028	000XXX00	092	OX0XXX00	156	X00XXX00	220	XX0XXX00
029	000XXX0X	093	OX0XXX0X	157	X00XXX0X	221	XX0XXX0X
030	000XXX00	094	OX0XXX00	158	X00XXX00	222	XX0XXX00
031	000XXXXX	095	OX0XXXXX	159	X00XXXXX	223	XX0XXXXX
032	00X00000	096	OX000000	160	X0X00000	224	XX000000
033	00X0000X	097	OX00000X	161	X0X0000X	225	XX00000X
034	00X000X0	098	OX0000X0	162	X0X000X0	226	XX0000X0
035	00X000XX	099	OX0000XX	163	X0X000XX	227	XX0000XX
036	00X00X00	100	OX000X00	164	X0X00X00	228	XX000X00
037	00X00X0X	101	OX000X0X	165	X0X00X0X	229	XX000X0X
038	00X00XX0	102	OX000XX0	166	X0X00XX0	230	XX000XX0
039	00X00XXX	103	OX000XXX	167	X0X00XXX	231	XX000XXX
040	00X0X000	104	OX00X000	168	X0X0X000	232	XX00X000
041	00X0X00X	105	OX00X00X	169	X0X0X00X	233	XX00X00X
042	00X0X0X0	106	OX00X0X0	170	X0X0X0X0	234	XX00X0X0
043	00X0X0XX	107	OX00X0XX	171	X0X0X0XX	235	XX00X0XX
044	00X0XX00	108	OX00XX00	172	X0X0XX00	236	XX00XX00
045	00X0XX0X	109	OX00XX0X	173	X0X0XX0X	237	XX00XX0X
046	00X0XXX0	110	OX00XXX0	174	X0X0XXX0	238	XX00XXX0
047	00X0XXXX	111	OX00XXXX	175	X0X0XXXX	239	XX00XXXX
048	00XX0000	112	OX0X0000	176	X0XX0000	240	XX0X0000
049	00XX000X	113	OX0X000X	177	X0XX000X	241	XX0X000X
050	00XX00X0	114	OX0X00X0	178	X0XX00X0	242	XX0X00X0
051	00XX00XX	115	OX0X00XX	179	X0XX00XX	243	XX0X00XX
052	00XX0X00	116	OX0X0X00	180	X0XX0X00	244	XX0X0X00
053	00XX0X0X	117	OX0X0X0X	181	X0XX0X0X	245	XX0X0X0X
054	00XX0XX0	118	OX0X0XX0	182	X0XX0XX0	246	XX0X0XX0
055	00XX0XXX	119	OX0X0XXX	183	X0XX0XXX	247	XX0X0XXX
056	00XX0000	120	OX0X0000	184	X0XX0000	248	ILLEGAL
057	00XX000X	121	OX0X000X	185	X0XX000X	249	ILLEGAL
058	00XX00X0	122	OX0X00X0	186	X0XX00X0	250	ILLEGAL
059	00XX00XX	123	OX0X00XX	187	X0XX00XX	251	ILLEGAL
060	00XX0X00	124	OX0X0X00	188	X0XX0X00	252	ILLEGAL
061	00XX0X0X	125	OX0X0X0X	189	X0XX0X0X	253	ILLEGAL
062	00XX0XX0	126	OX0X0XX0	190	X0XX0XX0	254	ILLEGAL
063	00XX0XXX	127	OX0X0XXX	191	X0XX0XXX	255	ILLEGAL

O = OPEN (or OFF) X = CLOSED ( or ON)