SIEMENS

Fire Safety

Installation Instructions

Model CZM-4
Conventional Zone Module

OPERATION

The Model CZM-4 Conventional Zone Module from Siemens Building Technologies, Inc. is used with the MXL to provide four Class A (Style D) or Class B (Style B) conventional initiating device circuits. Each circuit can monitor up to thirty 2-wire photoelectric or ionization smoke detectors and an unlimited number of normally open contact devices. Projected beam and flame detectors, detector relay bases, and remote indicator lamps may also be used with the CZM-4.

Activation of any device on the circuit initiates a zone alarm and causes any previously programmed functions to operate. Any circuit in alarm or trouble condition is identified by a user-specified, 32-character, alphanumeric message displayed on the MXL LCD annunciator.

The CZM-4 is designed to function in a local degrade mode during failure of the MXL main processor or during the loss of the System communication network. While in the degrade mode, the CZM-4 can report both alarm and trouble conditions and can activate local outputs on other modules within the same enclosure.

Note: When verification is used on a CZM-4 zone, do not use shorting devices on that circuit.

Any or all of the CZM-4 circuits may be programmed to operate with Alarm Verification.
This allows the automatic verification of alarm conditions caused by smoke detectors in order to prevent nuisance alarms.

The CZM-4 has five LEDs which indicate alarm, transmit, trouble, and two user programmable functions, respectively.

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

INSTALLATION

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

The CZM-4 module plugs into two half-width slots, forming one full slot on the MOM-4 (See Figure 1). As many as two CZM-4 modules may be plugged into a MOM-4 Card Cage.

Each CZM-4 can be in either the upper or lower slots of the MOM-4. The position it is in determines whether the device loops are on TB1 or TB2 of the MOM-4.

Setting the Address

Before the CZM-4 is installed into the MOM-4, set the network address on switch S1 (See Figure 2). Set the address to the one selected in the CSG-M for this particular CZM-4. Follow the switch positions in Table 1 on the back to set the address.

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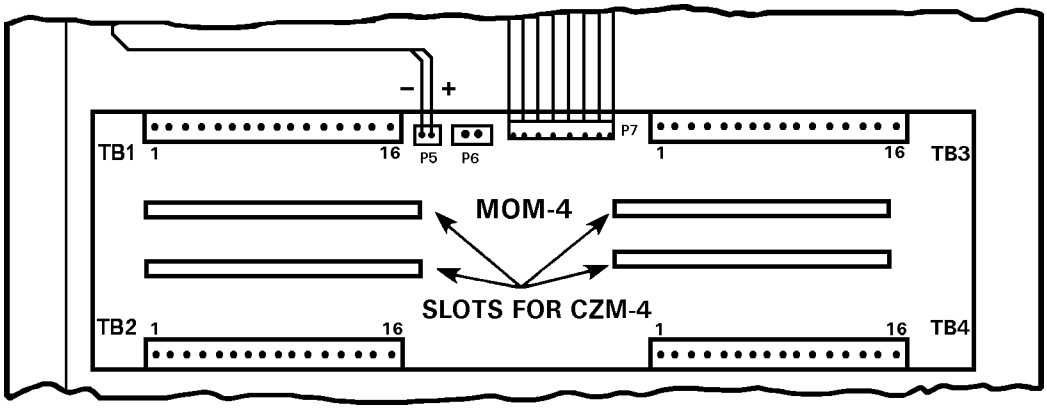


Figure 1
MOM-4 PC Board

Mounting the CZM-4

After the address is set, install the CZM-4 into the MOM-4 module, being sure that the CZM-4 is firmly seated in the card edge connector.

ELECTRICAL RATINGS

Active 5VDC Module Current	10mA
Active 24VDC Module Current	45mA + 180mA per active zone
Standby 24VDC Module Current	50mA

Initiating Circuits

Voltage range:	21.7-22.8 V unfiltered full wave
Supervisory circuit:	4mA max
Alarm current:	180mA per zone max

INITIATING DEVICES

Up to 30 detectors, listed in Table 2 (except the PBA-1191), may be used on a CZM-4 zone. Manual fire alarm stations and smoke detectors can be mixed on zones where local codes allow. Detectors of different models are not to be mixed or matched on a system. Up to five waterflow switches and any number of direct shorting thermal detectors also may be used with each zone on the CZM-4. Only one PBA-1191 may be used on a zone. The model numbers listed are the UL compatibility identifiers.

TABLE 2
COMPATIBLE DETECTORS FOR CZM-4

Detector	Base	Installation Instructions Part Number
DI-3/3H*	DB-3S	315-081943
DI-A3/A3H*	DB-3S	315-081943
DI-B3/B3H*	AD-3I/3ILP SA-3I	315-093234 315-096274
DT-11*‡	DB-11 DB-3S + DB-ADPT	315-095429 315-095429
PBA-1191†	PBB-1191	315-095424
PE-3/3T*	DB-35* AD-3ILP AD-3RP	315-090875 315-093234 315-086591
PE-11/11T*	DB-11 DB-3S + DB-ADPT AD-11P/11PR SA-11P	315-094198 315-094198 315-095659 315-096274

* May use up to 30 detectors of any type but PBA-1191.
‡ Do not use with alarm verification.
† Only one PBA-1191 per zone (See Figure 3).

Refer to Figure 3. All circuits are power limited to NFPA 70 per NEC 760. Each detector or group of detectors must use a 2-wire circuit of at least 18 AWG, thermoplastic fixture wire, enclosed in conduit. If permitted by local building codes, 18 AWG limited energy, shielded cable without conduit may also be used.

Total circuit resistance must not exceed 70 ohms—40 ohms if relay bases are used.

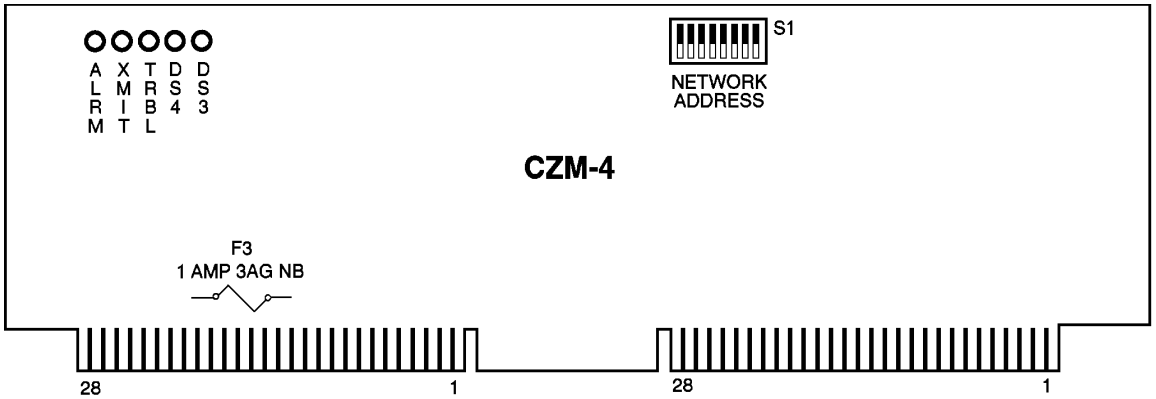
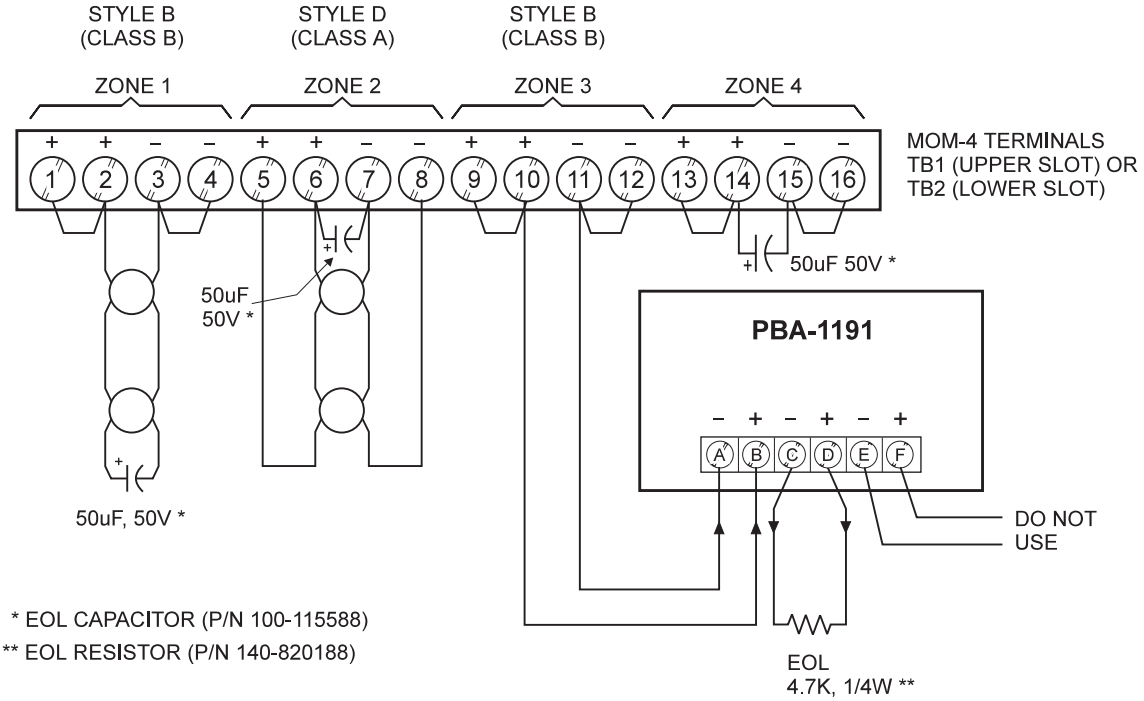


Figure 2
CZM-4 PC Board



NOTES:
1. All circuits can be Class A or Class B.
2. All circuits are power limited per NEC 760.
3. All circuits are supervised.
4. Do not connect more than one PBA-1911 to each zone. (Refer to PBA-1191 Instructions, P/N 315-095424, for further information.)
5. Do not mix smoke detectors with the PBA-1191.
6. Maximim resistance: 70 ohms/circuit.
7. The PBA-1191 requires Rev. 3 or higher of CZM-4 software.
8. Positive and negative ground fault detected at <20 ohms for terminals 1-16.

Refer to Wiring Specification for MXL, MXL-IQ and MXLV Systems, P/N 315-091772 revision 6 or higher, for additional wiring information.

Figure 3
Wiring Diagram

TABLE 1
NETWORK ADDRESS PROGRAMMING

ADDR	87654321	ADDR	87654321	ADDR	87654321	ADDR	87654321
000	ILLEGAL	064	OXOOOOOO	128	XOOOOOOO	192	XXOOOOOO
001	ILLEGAL	065	OXOOOOOX	129	XOOOOOOX	193	XXOOOOOX
002	ILLEGAL	066	OXOOOOXO	130	XOOOOOXO	194	XXOOOOXO
003	OOOOOOXX	067	OXOOOOXX	131	XOOOOOXX	195	XXOOOOXX
004	OOOOOXOO	068	OXOOOXOO	132	XOOOOXOO	196	XXOOOXOO
005	OOOOOXOX	069	OXOOOXOX	133	XOOOOXOX	197	XXOOOXOX
006	OOOOOXXO	070	OXOOOXXO	134	XOOOOXXO	198	XXOOOXXO
007	OOOOOXXX	071	OXOOOXXX	135	XOOOOXXX	199	XXOOOXXX
008	OOOOXOOO	072	OXOOXOOO	136	XOOOXOOO	200	XXOOXOOO
009	OOOOXOOX	073	OXOOXOOX	137	XOOOXOOX	201	XXOOXOOX
010	OOOOXOXO	074	OXOOXOXO	138	XOOOXOXO	202	XXOOXOXO
011	OOOOXOXX	075	OXOOXOXX	139	XOOOXOXX	203	XXOOXOXX
012	OOOOXXOO	076	OXOOXXOO	140	XOOOXXOO	204	XXOOXXOO
013	OOOOXXOX	077	OXOOXXOX	141	XOOOXXOX	205	XXOOXXOX
014	OOOOXXXO	078	OXOOXXXO	142	XOOOXXXO	206	XXOOXXXO
015	OOOOXXXX	079	OXOOXXXX	143	XOOOXXXX	207	XXOOXXXX
016	OOOXOOOO	080	OXOXOOOO	144	XOOXOOOO	208	XXOXOOOO
017	OOOXOOOX	081	OXOXOOOX	145	XOOXOOOX	209	XXOXOOOX
018	OOOXOOXO	082	OXOXOOXO	146	XOOXOOXO	210	XXOXOOXO
019	OOOXOOXX	083	OXOXOOXX	147	XOOXOOXX	211	XXOXOOXX
020	OOOXOXOO	084	OXOXOXOO	148	XOOXOXOO	212	XXOXOXOO
021	OOOXOXOX	085	OXOXOXOX	149	XOOXOXOX	213	XXOXOXOX
022	OOOXOXXO	086	OXOXOXXO	150	XOOXOXXO	214	XXOXOXXO
023	OOOXOXXX	087	OXOXOXXX	151	XOOXOXXX	215	XXOXOXXX
024	OOOXXOOO	088	OXOXXOOO	152	XOOXXOOO	216	XXOXXOOO
025	OOOXXOOX	089	OXOXXOOX	153	XOOXXOOX	217	XXOXXOOX
026	OOOXXOXO	090	OXOXXOXO	154	XOOXXOXO	218	XXOXXOXO
027	OOOXXOXX	091	OXOXXOXX	155	XOOXXOXX	219	XXOXXOXX
028	OOOXXXOO	092	OXOXXXOO	156	XOOXXXOO	220	XXOXXXOO
029	OOOXXXOX	093	OXOXXXOX	157	XOOXXXOX	221	XXOXXXOX
030	OOOXXXXO	094	OXOXXXXO	158	XOOXXXXO	222	XXOXXXXO
031	OOOXXXXX	095	OXOXXXXX	159	XOOXXXXX	223	XXOXXXXX
032	OOXOOOOO	096	OXXOOOOO	160	XOXOOOOO	224	XXXOOOOO
033	OOXOOOOX	097	OXXOOOOX	161	XOXOOOOX	225	XXXOOOOX
034	OOXOOOXO	098	OXXOOOXO	162	XOXOOOXO	226	XXXOOOXO
035	OOXOOOXX	099	OXXOOOXX	163	XOXOOOXX	227	XXXOOOXX
036	OOXOOXOO	100	OXXOOXOO	164	XOXOOXOO	228	XXXOOXOO
037	OOXOOXOX	101	OXXOOXOX	165	XOXOOXOX	229	XXXOOXOX
038	OOXOOXXO	102	OXXOOXXO	166	XOXOOXXO	230	XXXOOXXO
039	OOXOOXXX	103	OXXOOXXX	167	XOXOOXXX	231	XXXOOXXX
040	OOXOXOOO	104	OXXOXOOO	168	XOXOXOOO	232	XXXOXOOO
041	OOXOXOOX	105	OXXOXOOX	169	XOXOXOOX	233	XXXOXOOX
042	OOXOXOXO	106	OXXOXOXO	170	XOXOXOXO	234	XXXOXOXO
043	OOXOXOXX	107	OXXOXOXX	171	XOXOXOXX	235	XXXOXOXX
044	OOXOXXOO	108	OXXOXXOO	172	XOXOXXOO	236	XXXOXXOO
045	OOXOXXOX	109	OXXOXXOX	173	XOXOXXOX	237	XXXOXXOX
046	OOXOXXXO	110	OXXOXXXO	174	XOXOXXXO	238	XXXOXXXO
047	OOXOXXXX	111	OXXOXXXX	175	XOXOXXXX	239	XXXOXXXX
048	OOXXOOOO	112	OXXXOOOO	176	XOXXOOOO	240	XXXXOOOO
049	OOXXOOOX	113	OXXXOOOX	177	XOXXOOOX	241	XXXXOOOX
050	OOXXOOXO	114	OXXXOOXO	178	XOXXOOXO	242	XXXXOOXO
051	OOXXOOXX	115	OXXXOOXX	179	XOXXOOXX	243	XXXXOOXX
052	OOXXOXOO	116	OXXXOXOO	180	XOXXOXOO	244	XXXXOXOO
053	OOXXOXOX	117	OXXXOXOX	181	XOXXOXOX	245	XXXXOXOX
054	OOXXOXXO	118	OXXXOXXO	182	XOXXOXXO	246	XXXXOXXO
055	OOXXOXXX	119	OXXXOXXX	183	XOXXOXXX	247	XXXXOXXX
056	OOXXXOOO	120	OXXXXOOO	184	XOXXXOOO	248	ILLEGAL
057	OOXXXOOX	121	OXXXXOOX	185	XOXXXOOX	249	ILLEGAL
058	OOXXXOXO	122	OXXXXOXO	186	XOXXXOXO	250	ILLEGAL
059	OOXXXOXX	123	OXXXXOXX	187	XOXXXOXX	251	ILLEGAL
060	OOXXXXOO	124	OXXXXXOO	188	XOXXXXOO	252	ILLEGAL
061	OOXXXXOX	125	OXXXXXOX	189	XOXXXXOX	253	ILLEGAL
062	OOXXXXXO	126	OXXXXXXO	190	XOXXXXXO	254	ILLEGAL
063	OOXXXXXX	127	OXXXXXXX	191	XOXXXXXX	255	ILLEGAL

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