SIEMENS

Installation Instructions
Model MKB-5/-5C
Annunciator/Keypad Module

The Model MKB-5/-5C Annunciator from Siemens Industry, Inc., communicates with the MMB Main Control Board through the System network link. The MKB-5/-5C provides the MXL with its primary control and annunciation.

OPERATION

The MKB-5/-5C has a multi-line display that continuously updates information about the system event status. If there are multiple events (alarms, security conditions, supervisories and/or troubles), the highest priority event that occurred displays on the screen. The user can view up to 8 events at a time and can scroll through the complete list using the Up (▲) and Down (▼) keys located next to the More Info key. For further information on the operation of the MXL Multi-Line Keyboard/Display Panel, refer to the MXL Keyboard/Display Panel Operating Instructions, P/N 315-048692, and Section 3, OPERATION, in the *MXL/MXLV Manual,* P/N 315-092036.

The keyboard/display panel has keys for the following functions:

- Acknowledging fire alarms **(ALARM ACK)**
- Silencing audibles **(AUD SIL)**
- Acknowledging supervisories **(SUPV ACK)**
- Acknowledging troubles **(TRBL ACK)**
- Acknowledging security conditions **(SEC ACK)**

There is also a separate key for resetting the Control Panel **(RESET).**

The 10-digit numeric keypad allows entry of the three levels of user passwords. It is also used to perform specific menu-driven operations as well as programming and maintenance functions.

Separate **UP** and **DOWN** keys located next to the **MORE INFO** key allow the user to scroll forward and backwards through the entire list of events.

The **SPACE** key allows the user to input addresses faster by enabling them to reduce redundant key presses of the “0” key.

The **MORE INFO** key allows the user to instantly view all relevant information about the highlighted event, which is displayed in the last three lines of the screen.

The user can access the MXL Control menu by pressing the **ENTER** key.

The panel has System status indicator LEDs. The **ALARM** and **TROUBLE** LEDs function even if the main processor fails. (See Figure 1).

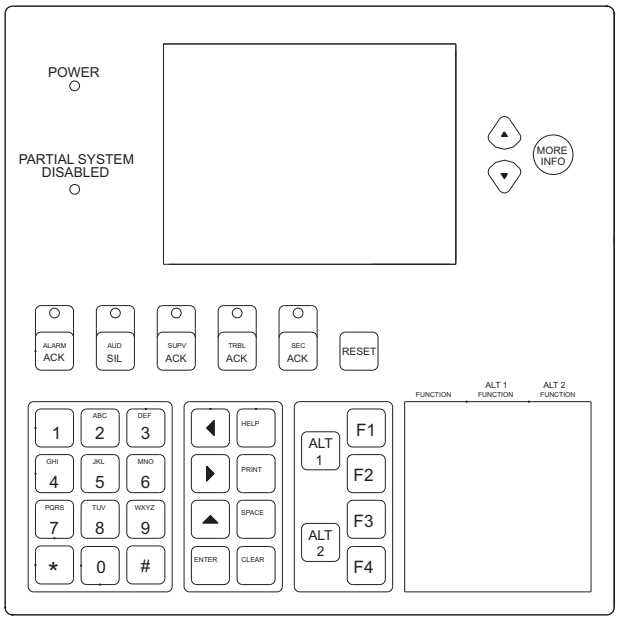


Figure 1
MKB-5/-5C Panel

Siemens Industry, Inc.
Building Technologies Division
Florham Park, NJ

Siemens Building Technologies, Ltd.
Fire Safety & Security Products
2 Kenview Boulevard
Brampton, Ontario
L6T 5E4 Canada

P/N 315-048727-5

INSTALLATION

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

Unpack the MKB-5/-5C. Inspect the module for such things as integrated circuits (ICs) not firmly seated in their sockets, bent IC pins, connectors not properly installed, dirt, and packing material on the board.

NOTE:
The MKB-5/-5C is supplied with the keyboard annunciator mounted to the hinged panel, but with black filler plates installed to the right and left to accommodate a telephone and microphone, if used. To install the telephone module (TMM-1) or microphone module (MMM-1) on the MKB-5/-5C, follow the installation instructions which accompany those modules (P/N 315-092098 and P/N 315-092099, respectively). To install the TMM-1 module when using an MMB-3, it is necessary to first remove the ANN-3 board on the back of the MKB-5. After the TMM-1 is mounted, the ANN-3 can then be replaced.

Setting the Network Address

Set the Network Address for the MKB-5/-5C using the three ten-position rotary switches (S1, S2 and S3) located on the back of the keyboard/display panel, as shown in Figure 2. For example, to set the switches to address 248: set S1 to 2, set S2 to 4, and set S3 to 8. The possible addresses for this module are 248, 249, 250, and 251.

NOTE: There is no need to set supervision on the MKB-5/-5C because it is, by default, always supervised. No unsupervised annunciators (MKB-1/-2/-3/-4) are allowed at the same address as an MKB-5/-5C. Unsupervised applications require the use of the MKB-1/-2/-3/-4 and they must all be set to the same address.

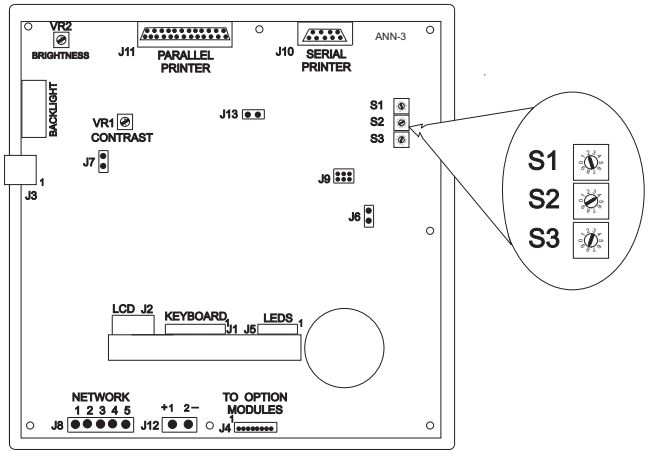


Figure 2
MKB-5/-5C Rear View

Mounting the MKB-5/-5C (Refer to Figure 3)

1. Install four screws in the first group of four tapped holes in the right flange. Leave a 1/8-inch gap between the head of the screw and the flange. Slide the slots of the MKB-5/-5C panel hinge under the head of the screws and tighten.
2. If the panel locking fastener is not aligned with the hole located on the left flange, loosen the screws and adjust accordingly. Retighten the screws.

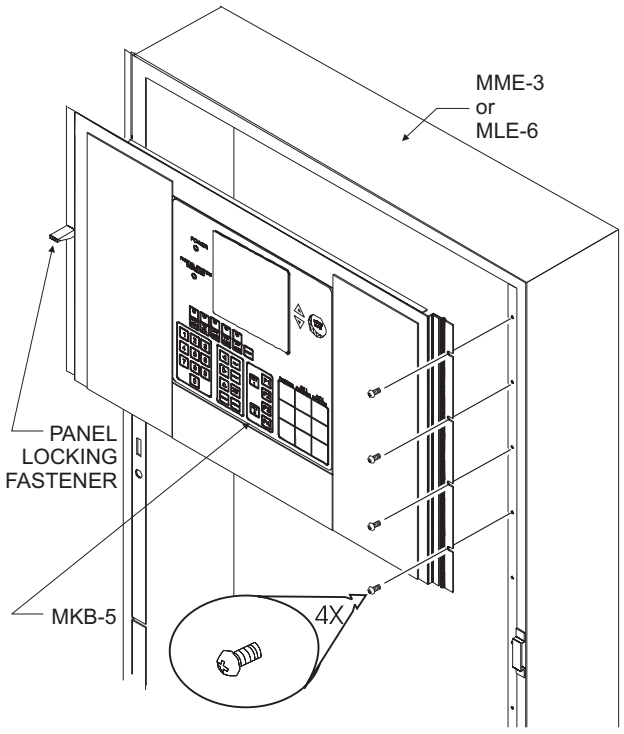


Figure 3
Installing the MKB-5/-5C Annunciator/Keyboard

Wiring (Refer to Figures 4, 5 and 6)

1. Pull all field wiring into the backbox and dress the wiring to the approximate location to which it will go.
2. Remove the connector plugs from J8. Attach the wiring to the connector plugs in positions 1 and 2 for Style 4 and positions 1, 2, 3 and 4 for Style 7. Always connect position 5 to Chassis GND (Earth GND).
3. Remove the connector plugs from J12. Attach the field wiring to the connector plugs, making sure that position 1 on J12 is for +24VDC and position 2 on J12 is for -24VDC return.
4. If needed, J11 is the connector for a parallel printer and J10 is the connector for a serial printer. The serial connection can be supervised; the parallel connection is supervised by default. Note that only one printer, either parallel or serial, may be connected to the system.

Supervision for the MKB-5/-5C printer is set in CSG-M. In the Network Module Map, select the MKB and press Enter. Scroll down to Printer Option and press Enter to toggle to the correct printer. The fields *Supervised Operation* and *Serial Port* must both be set to YES.

5. Make certain the connector plugs are in place on J13 for normal operation and network programming.
6. Using 8-wire ribbon cable P/N 555-148722, connect J4 on the back of the MKB-5/-5C to P6 on the MMB, or to P7 or P10 on the MOM, or to P3 or P4 on the OMM. Make sure that the red tracing wire is at position 1 on both connectors.
7. If the MKB-5/-5C is used with an MXLV system, connect P5 on the ACM-1 to P8 on the MMB-2/-3.
8. Refer to MMB-3 Installation Instructions, P/N 315-048860, *Configuration* and *MNET* sections to configure the MMB-3 and CSGM for Style 4/7 wiring.

Operation

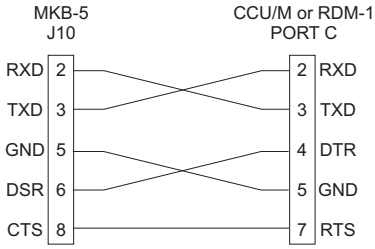
Refer to the *MXL Multi-Line Display/Panel Operating Instructions,* P/N 315-048692, for additional information on the operation of the keyboard panel.

To adjust the contrast and brightness of the display, use pots VR1 and VR2 respectively, located on the back of the keyboard /display panel. (Refer to Figure 2.)

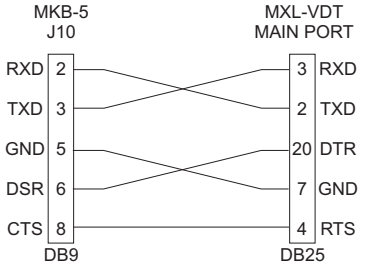
ELECTRICAL RATINGS

Active 5VDC Module Current	0mA
Active 24VDC Module Current	300mA
Standby 24VDC Module Current	300mA

CCU/M And RDM-1 Wiring To MKB-5/-6 Or RCC-3



MXL-VDT Wiring To MKB-5/-6 Or RCC-3



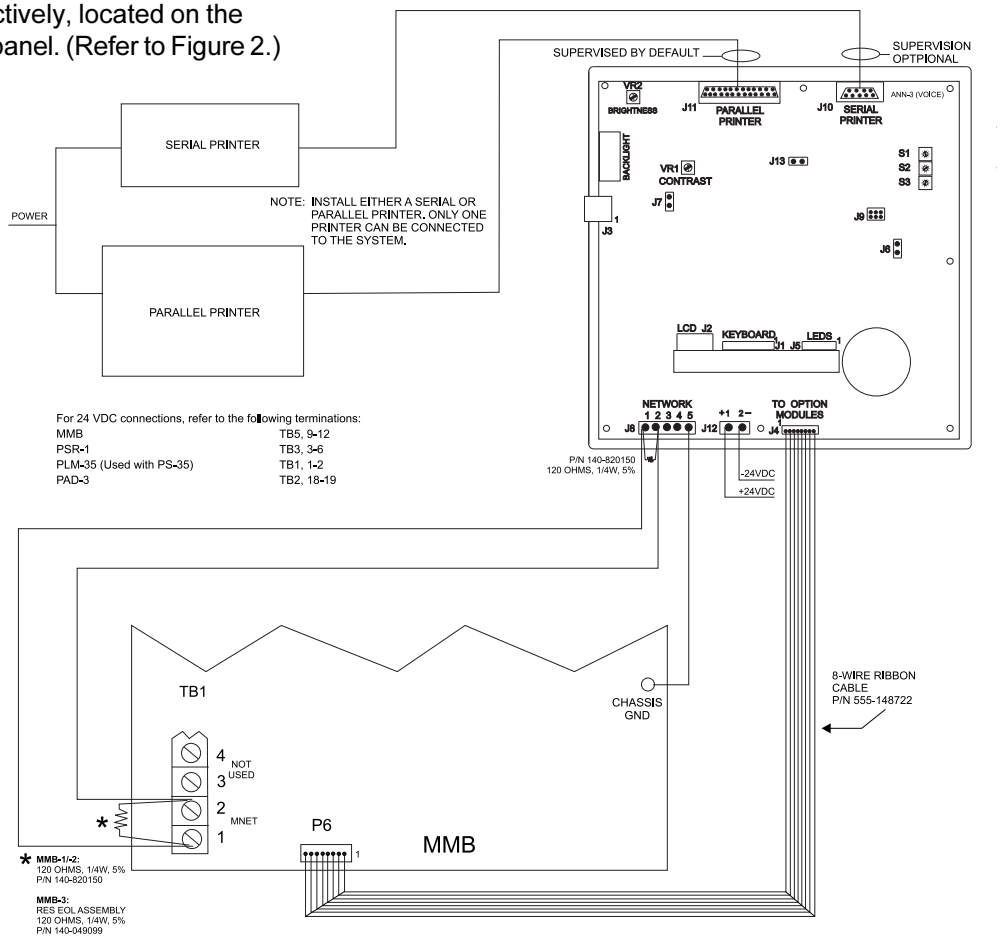


Figure 4
Typical Style 4 Wiring

Notes:

1. Use a minimum wire gauge of 22 AWG.
2. Use a maximum of 80 ohms per pair of wires for the network connections.
3. Use shielded twisted pair for network connections.
4. Terminate the shield ONLY at the MMB enclosure.
5. For MMB-1/-2/-3 Style 4, use a 120 Ohm, 1/4W, 5% EOLR, P/N 140-820150, in positions 1 and 2 on plug J8.
6. This configuration is power limited to NFPA 70 according to NEC 760.
7. There MUST be an earth ground connected to the chassis. Wire shield or conduit is not an acceptable ground. Use any available unused, unpainted stud on the MMB for chassis grounding.
8. Refer to Wiring Specification for MXL, MXL-IQ and MXLV Systems, P/N 315-092772 revision 6 or higher, for additional wiring information.
9. Maximum voltage:
   8V peak to peak
   Maximum current: 150mA

Notes:

1. Use a minimum wire gauge of 22 AWG.
2. Use a maximum of 80 ohms per pair of wires for the network connections.
3. Use shielded twisted pair for network connections.
4. Terminate the shield ONLY at the MMB enclosure.
5. For Style 7, use a 120 Ohm, 1/4W, 5% EOLR, P/N 140-820150, in positions 1 and 2 and positions 3 and 4 on plug J8.
6. For Style 7, use a NET-7 card and refer to the NET-7 Installation Instructions, P/N 315-090914.
7. The NET-7 is not compatible with the PS-5N.
8. This configuration is power limited to NFPA 70 according to NEC 760.
9. There MUST be an earth ground connected to the chassis. Wire shield or conduit is not an acceptable ground. Use any available unused, unpainted stud on the MMB for chassis grounding.
10. Refer to Wiring Specification for MXL, MXL-IQ and MXLV Systems, P/N 315-092772 revision 6 or higher, for additional wiring information.
11. Maximum voltage:
    8V peak to peak
    Maximum current: 150mA

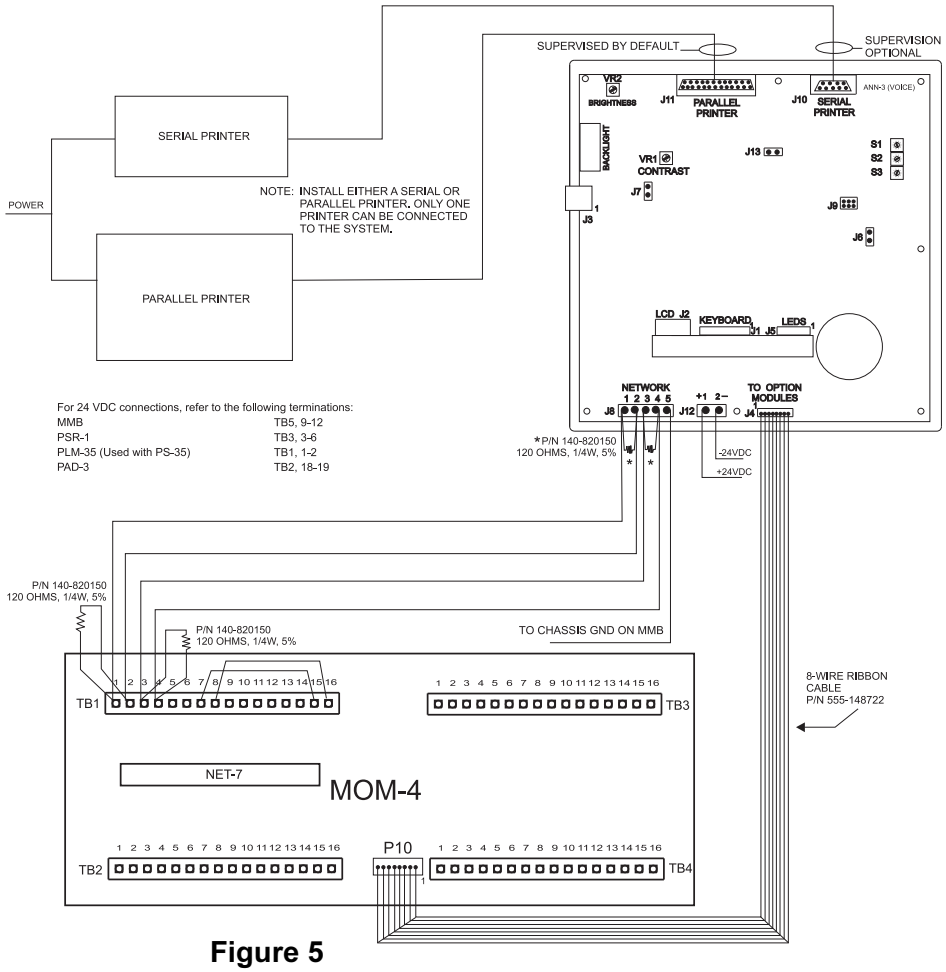


Figure 5
Typical Style 7 Wiring (MMB-1 or MMB-2)

Notes:

1. Use a minimum wire gauge of 22 AWG.
2. Use a maximum of 80 ohms per pair of wires for the network connections.
3. Use shielded twisted pair for network connections.
4. Terminate the shield ONLY at the MMB enclosure.
5. For Style 7, use a 120 Ohm, 1/4W, 5% EOLR, P/N 140-820150, in positions 1 and 2 and positions 3 and 4 on plug J8.
6. This configuration is power limited to NFPA 70 according to NEC 760.
7. There MUST be an earth ground connected to the chassis. Wire shield or conduit is not an acceptable ground. Use any available unused, unpainted stud on the MMB for chassis grounding.
8. Refer to Wiring Specification for MXL, MXL-IQ and MXLV Systems, P/N 315-092772 revision 6 or higher, for additional wiring information.
9. Maximum voltage:
    8V peak to peak
    Maximum current: 150mA

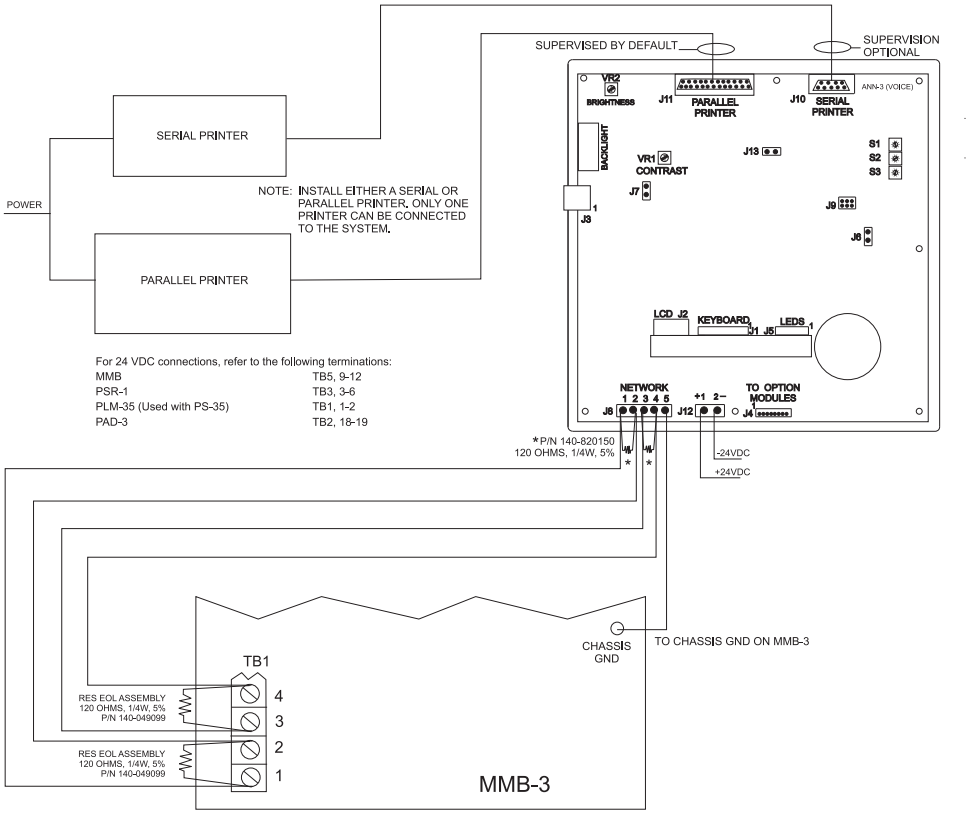


Figure 6
Typical Style 7 Wiring (MMB-3)