

SIEMENS

Installation Instructions

Model ADBX-11

Audible Base

INTRODUCTION

Model ADBX-11

The Model ADBX-11 Audible Base consists of a standard Series 11 base combined with an audible device. All field wiring terminates at two four-position terminal blocks located on the back of the unit. The ADBX-11 is used with FP-11 and FPT-11 detectors, P/N 315-095921, and FS-DP, FS-DPT, and FS-DT detectors, P/N 315-699481. The ADBX-11 operates as described below (Refer to Figures 1, 2, 3, 4, and 5).

The ADBX-11 can generate either steady or temporal tone with the insertion of a jumper at the terminal block. Refer to **Tone Selection** on page 2.

APPLICATION NOTE

The ADBX-11 is a UL268 listed smoke detector supplementary device which combines detector base and audible device functions. It meets or exceeds the 85 dB at 10 foot audibility requirement for smoke alarms as specified in UL217, Single and Multiple Station Smoke Alarms and NFPA 72 for sleeping areas. When used in conjunction with listed, compatible Siemens equipment, the ADBX-11 may be used in lieu of single/multiple station smoke alarms to achieve enhanced, system-level functionality. Typical applications are sleeping rooms in hotels, guest suites, dormitories, day-care, and residential board and care facilities as designated in NFPA 72.

ELECTRICAL RATINGS AND CONSTRAINTS

Model ADBX-11

Voltage Rating: 17-31 VDC

Current: Supervisory – 0A
Alarm – 24mA at 25 VDC

Constraints:

1. The maximum number of ADBX-11s per an MMB-1/2/3, SMB-1/2, or CSM-4 notification appliance circuit is 60, with no other devices connected, and with the maximum loop current available.

Note: The number of ADBX-11s cannot exceed the maximum current available to the loop. See the MXL Manual, P/N 315-092036, or the MXL-IQ Manual, P/N 315-093624, for the compatibility details of ALD and notification appliance circuit wiring.

2. Maximum line resistance permitted (both wires), not including the end of line resistor, is 3 ohms. A minimum of 14 AWG wire must be used.
3. T-tapping of the notification appliance circuit (Figures 1, 2, 3, 4, and 5) is **not** allowed.
4. If the ADBX-11 is powered by System MXL/MXL-IQ (Figures 3, 4, and 5) or FS-100 (Figure 6), the notification appliance circuits supply 1.5A. If more than 1.5A is required, use the configuration in Figure 1 or Figure 2 for auxiliary power. See **Note** above.
5. Connect terminal 6 of the PS-35 (Figures 1 and 2) to the minus DC side of the MXL/MXL-IQ main power supply for proper ground fault supervision.

Note: For additional information on the modules used in an individual system, refer to the *Installation Instructions* for that particular module or contact your authorized Siemens Industry, Inc., representative.

DETECTOR PLACEMENT

The FP-11, FPT-11, FS-DP, FS-DT and FS-DPT detectors can be used with the ADBX-11 Detector Base. Refer to the *FP-11/FPT-11 Installation Instructions*, P/N 315-095921, or the *FS-DP/FS-DT/FS-DPT Installation Instructions*, P/N 315-699481, as applicable for further information.

Even though no specific spacings are allocated to the detectors used with this base, use 30 foot center spacing (900 sq ft), as referred to in NFPA Standard 72 National Fire Alarm Code, Chapter 5 and CAN/ULC-S524, as a

guide or starting point, if practical, in a detector installation layout. This spacing is based on ideal conditions—smooth ceiling, no air movement, and no physical obstructions.

In all installations (except in special circumstances like computer room underfloors), locate the detector on the ceiling, a minimum of 6 inches from a side wall, or on a wall, between 4 and 6 inches from the ceiling.

If questions arise regarding detector placement, it is extremely important that the drawings provided or approved by Siemens Industry, Inc., or by its authorized distributors be followed! The detector placements shown on these drawings were chosen after a careful evaluation of all facets of protecting the area. Environmental factors such as air current, temperature, humidity, air pressure, and the nature of the fire load are carefully considered. Special consideration is given to room or area configuration and the type of ceiling (sloped or flat, smooth or beamed). Siemens Industry, Inc.'s extensive experience in the design of fire detection systems assures optimum detector placement and is reflected in these drawings. Follow sound engineering judgment made by qualified personnel.

DETECTOR WIRING (USING THE ADBX-11 BASE)

(Refer to Figure 6.) Audible base model ADBX-11 should be interconnected as shown in the *Installation/Wiring Diagrams* above and wired to the specific system modules and control panels following the appropriate instructions. For operation with System MXL/MXL-IQ, note any limitations on the number of audible bases permitted on each MMB-1/2, SMB-1/2, or CSM-4 audible circuit, depending on the total cable resistance for each audible signal circuit. (See **ELECTRICAL RATINGS** section.)

TONE SELECTION

With audible base Model ADBX-11, the user can choose either temporal tone or steady tone. (Refer to Figure 7.)

For Temporal Tone: Terminals 3 and 4 are shorted (insert a jumper).

For Steady Tone: Terminals 3 and 4 are not connected (without a jumper).

DETECTOR MOUNTING (USING THE ADBX-11 BASE)

The detector base comes from the factory prewired. All signaling and initiating circuits are connected directly to the back of the ADBX-11 audible base using the four-position terminal blocks.

Note: The Audible Base Model ADBX-11 attaches only to a 4-inch square electrical box with extension.

Mounting the Detector Base

1. Route all wires out from the outlet box.
2. When the alarm LED viewing is critical, position the LED mark on the base in the intended direction (Refer to Figure 8).
3. Make connections directly to the audible base terminals located on the back of the base. Refer to the related *Installation/Wiring Diagram*.
4. After all bases are installed, check loop continuity. For ADBX-11 loop continuity check, refer to the System MXL or MXL-IQ Manual *Checkout Procedure*.
5. If loop continuity is acceptable, proceed with detector head installation.

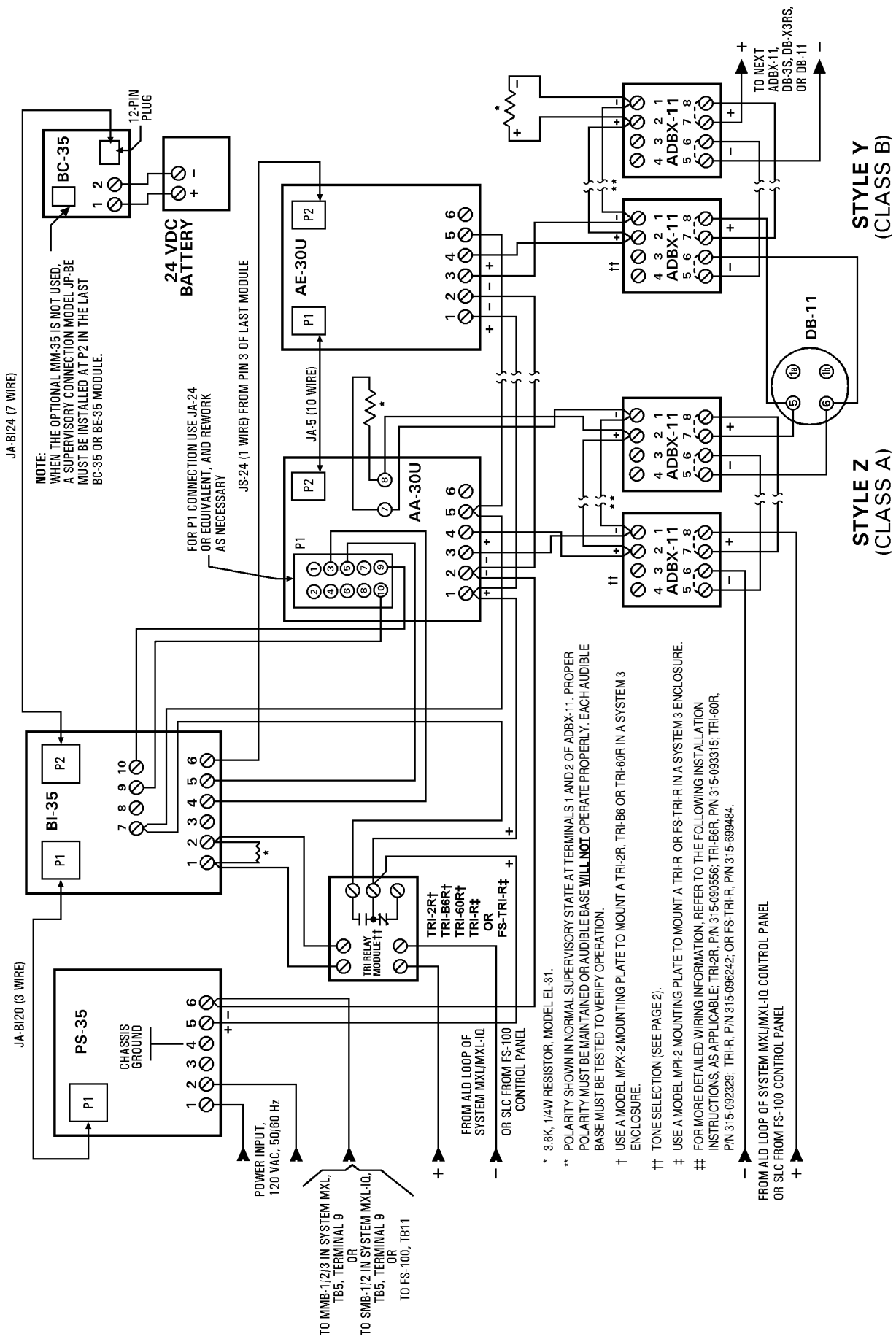


Figure 1
Installation/Wiring Diagram for ADBX-11 Powered by Auxiliary Power Supply with Battery Backup

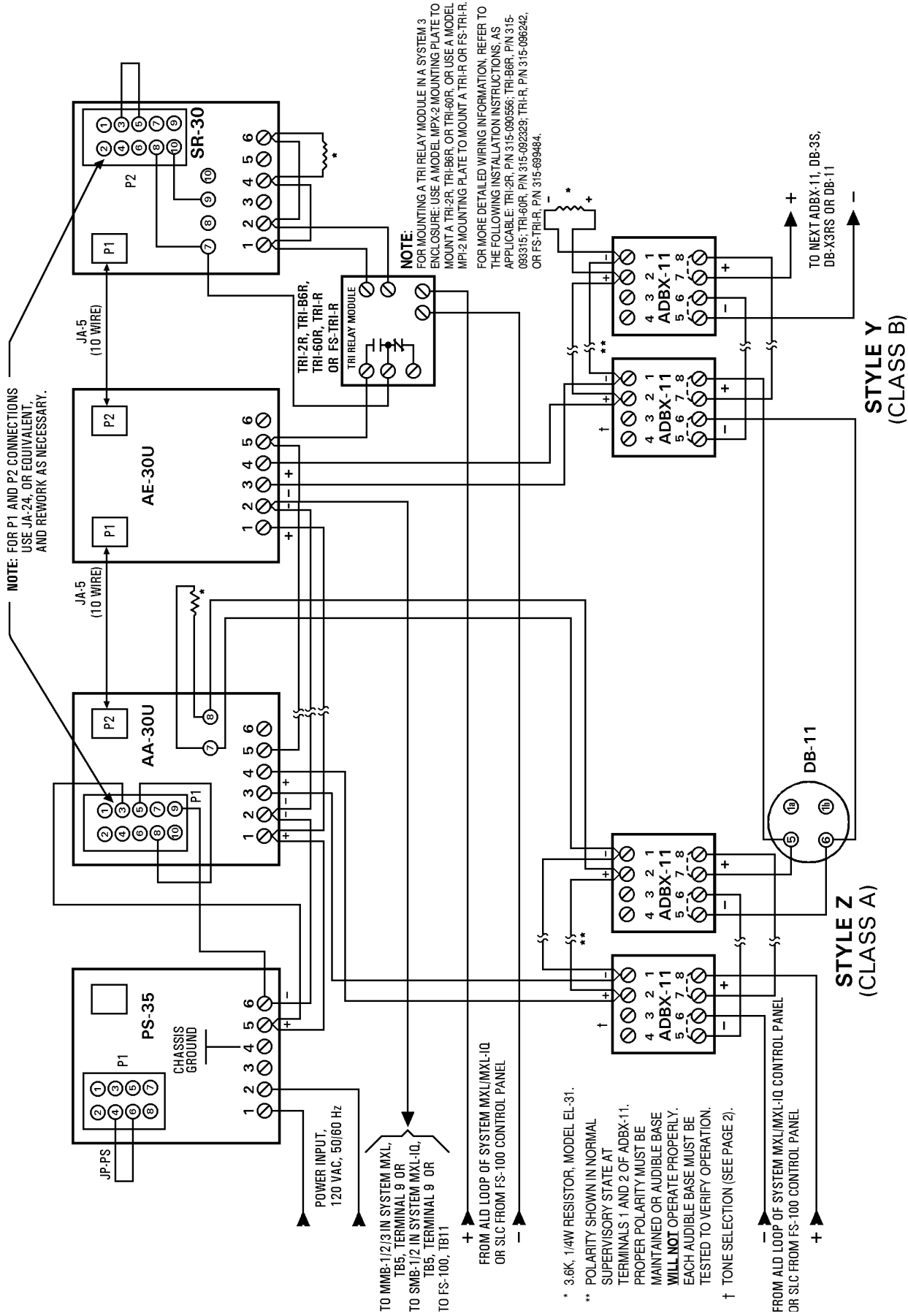


Figure 2
Installation/Wiring Diagram for ADBX-11 Audibles Powered by Auxiliary Power Supply (No Battery Backup)

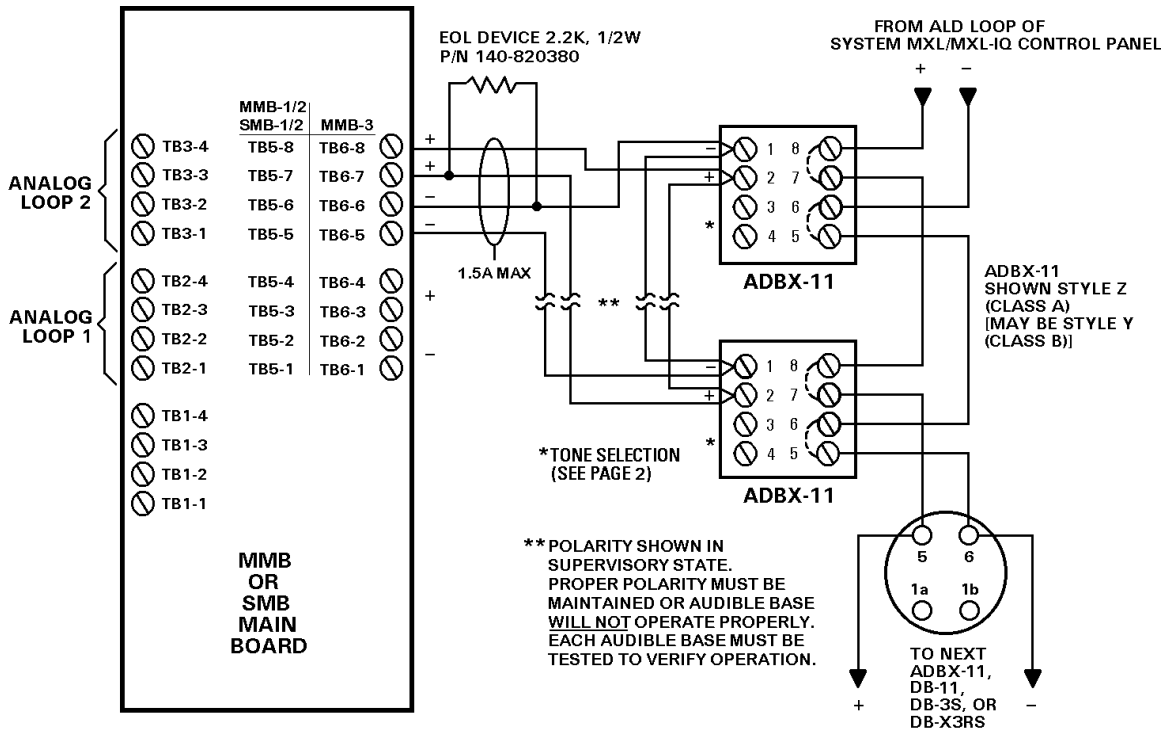


Figure 3
Installation/Wiring Diagram for ADBX-11 Audibles Powered by System MXL/MXL-IQ Main Board

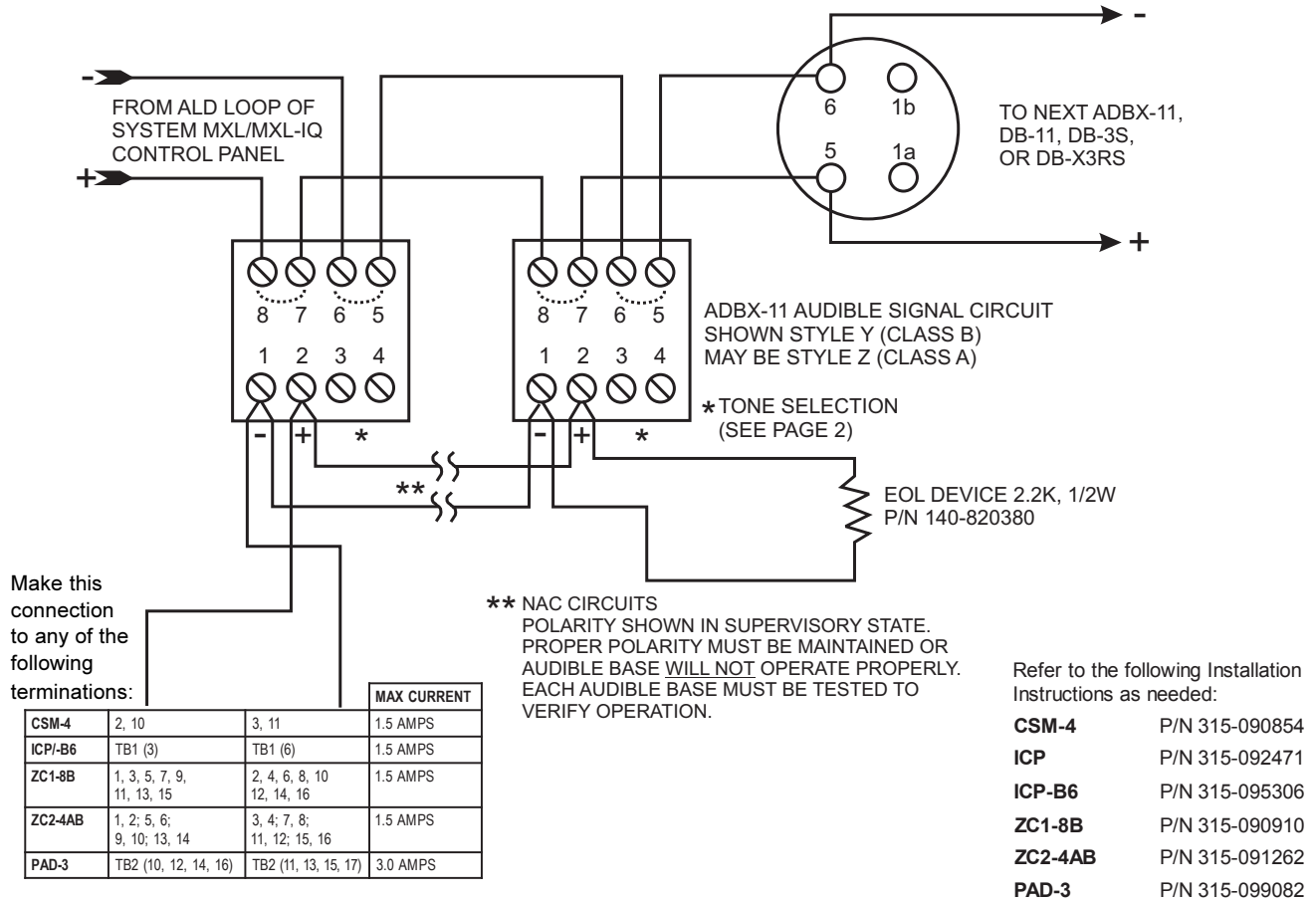
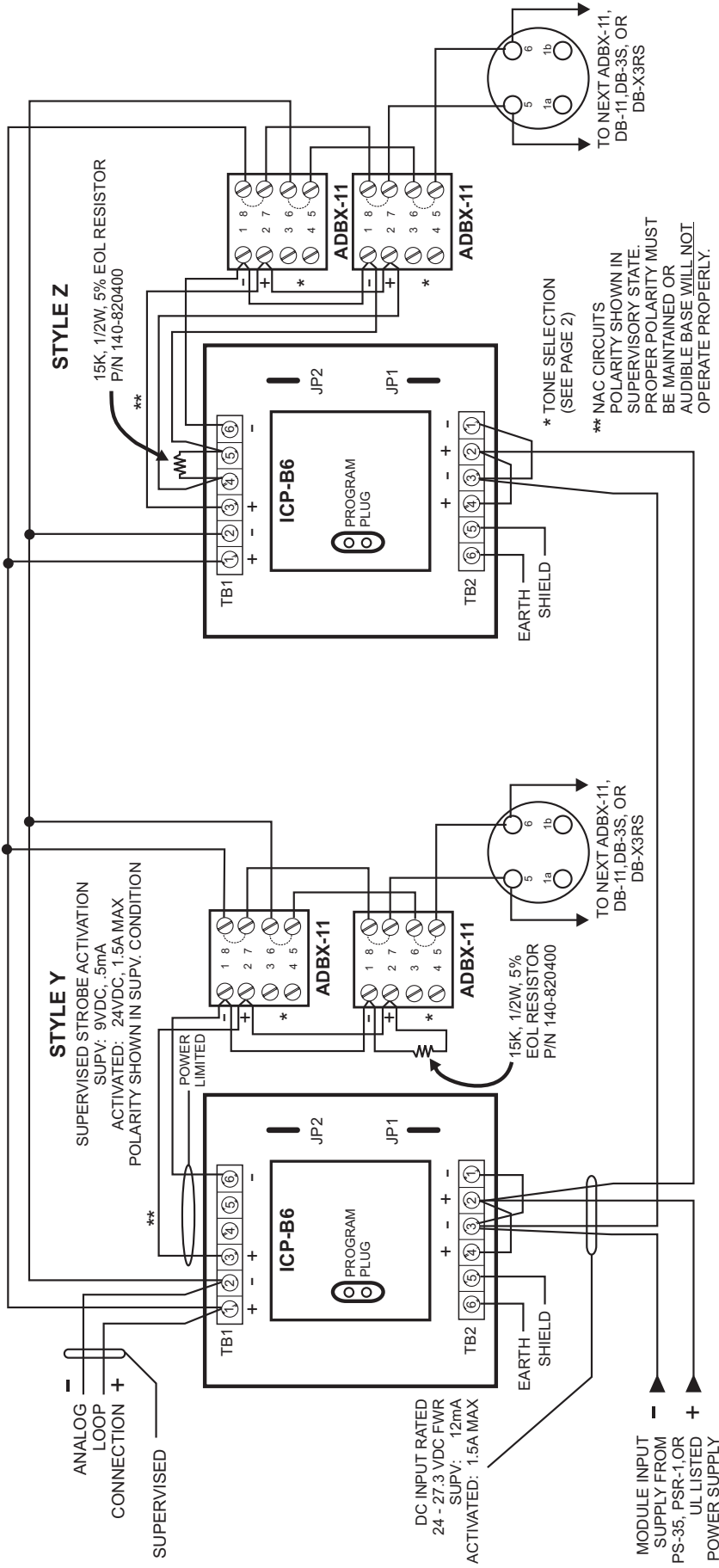


Figure 4
Installation/Wiring Diagram for ADBX-11 Audibles Powered by System MXL/MXL-IQ Modules



NOTE: All wiring must comply with national and local codes.

ELECTRICAL: 24-27.3 VDC, 18mA MAX
 INPUT DC SUPPLY: 9 VDC, 0.5mA
 SUPERVISORY OUTPUT: 24 VDC, 1.5A, POWER LIMITED

Figure 5
Using ICP-B6 to Supervise Power to ADBX-11

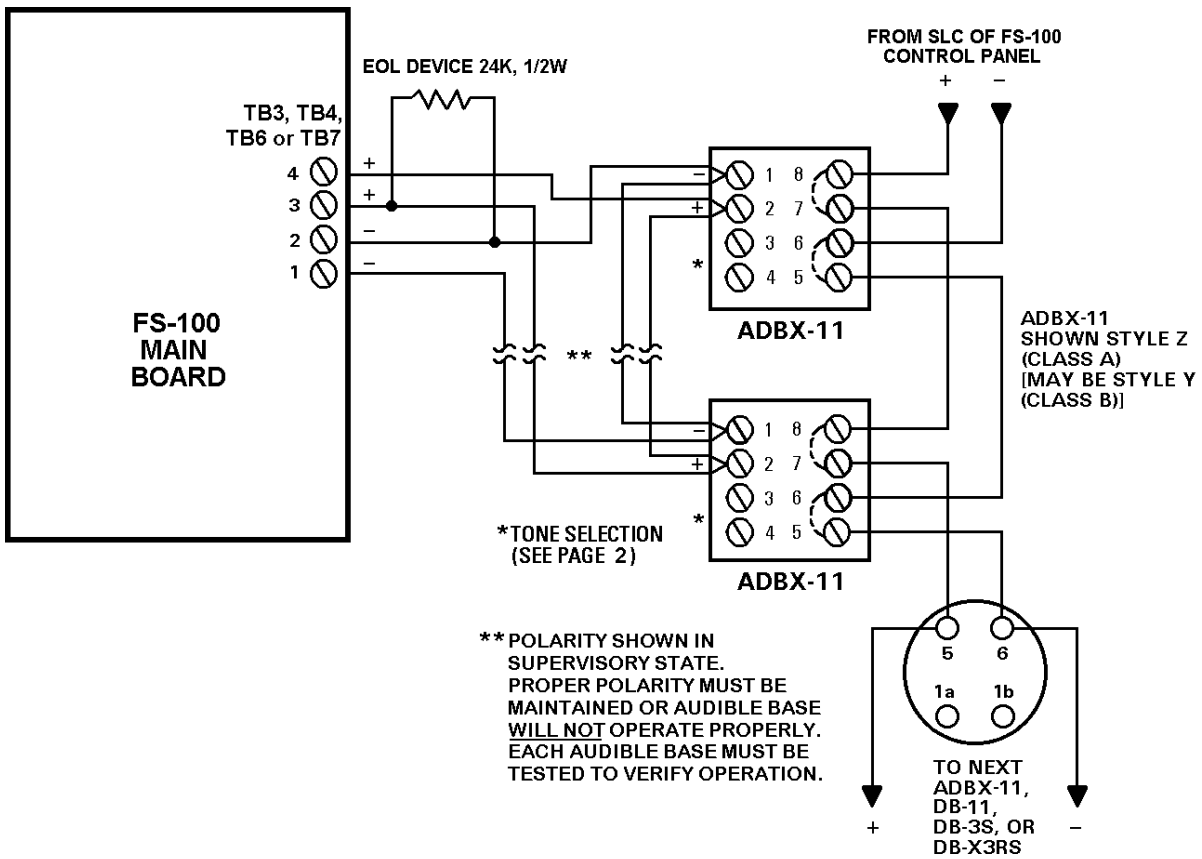


Figure 6
Installation/Wiring Diagram for ADBX-11 Audibles
Powered by System FS-100 Main Board

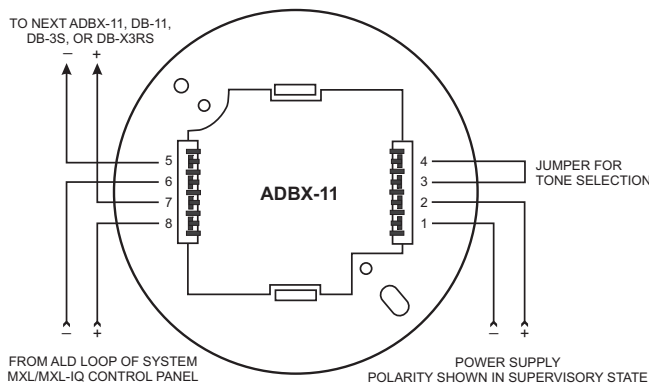


Figure 7
ADBX-11 Audible Base Terminal Blocks

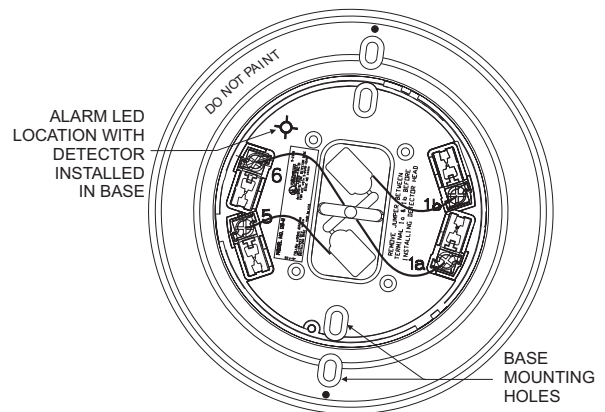


Figure 8
Positioning the Alarm LED

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