FARADAY

MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT

OWNERS MANUAL
P/N 444851B

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IMPORTANT INSTALLATION AND WARRANTY INFORMATION

Warranty Information: The Manufacturer provides a limited warranty for one year from the date of purchase to the Original Purchaser of this product. The Original Purchaser is the party to whom the Manufacturer issued its Sales Order, generally, the Manufacturer's distribution. In order to preserve this warranty, it is important that the product be serviced only by persons who have been properly trained and authorized by the Manufacturer.

Other parties involved in the installation of this product may have also provided a warranty which may be different than that of the manufacturer. The Manufacturer will only be responsible to the Original Purchaser and only for the Manufacturer's own warranty. For further information regarding the Manufacturer's warranty, contact the Original Purchaser.

Owner's Manual: The owner's manual does not purport to cover all the details or variations in the equipment described, nor does it provide for every possible contingency to be met in connection with installation, operation and maintenance. All specifications subject to change without notice. Should further information be desired or should particular problems arise which are not covered sufficiently, the matter should be referred to the Installer or Original Purchaser listed below.

INSTALLER INFORMATION

Company: _____ Installer: _____ Phone: _____

Address: _____ City: _____State: ____ Zip: _____

Date Installed: _____ Installer's Signature: _____

ORIGINAL PURCHASER INFORMATION

Company: _____ Phone: _____

Address: _____ City: _____State: ____ Zip: _____

Purchaser's Purchase Order Number: _____

Date of Purchase: _____

Faraday Sales Order Acknowledgment Number: _____

Original Purchaser's Signature: _____

MPC-2000 NAMEPLATE

MPC-2000 FARADAY LLC. TECUMSEH, MI 49286

PART NO. 2000___-_____

INPUT	VOLTS	AMPS	Hz
AC	120V	____MAX.	60
BATTERY	24V	____MAX.	DC

ALL CIRCUITS ARE POWER LIMITED EXCEPT LOCAL ENERGY CIRCUIT.

ZN-1/1A DUAL ZONE MODULE - ZONE IDENTIFIER "D"
ZN-2/2A DUAL ZONE MODULE - ZONE IDENTIFIER "D"
ZN-3/3A DUAL ZONE MODULE - ZONE IDENTIFIER "D"

FOR SPECIFIC WIRING AND INSTALLATION INFORMATION SEE OWNERS MANUAL P/N 4448518 ISSUE ____
FOR BATTERY MAINTENANCE AND REPLACEMENT INSTRUCTIONS SEE OWNERS MANUAL P/N 4448518 ISSUE ____
FOR OPERATING INFORMATION SEE MPC-2000 OPERATING INSTRUCTIONS P/N 445209 ISSUE ____
FOR OPERATING INFORMATION SEE MPC-2000 EVAC OPERATING INSTRUCTIONS P/N 445350 ISSUE ____

TYPE OF CONTROL UNIT

- ☐ LOCAL NFPA 72
- ☐ LOCAL WITH SHUNT NFPA 72*
  - ☐ CT-1 CITY TIE
- ☐ AUXILIARY NFPA 72
  - ☐ CT-1 CITY TIE
- ☐ REMOTE STATION (PROTECTED PREMISES) NFPA 72
  - ☐ CT-1 CITY TIE **
- ☐ PROPRIETARY (PROTECTED PREMISES) NFPA 72
  - ☐ AR-1 OR AR-2 AUX RELAY WITH ATTE-8 POTTER TRANSMITTER
- ☐ CENTRAL STATION (PROTECTED PREMISES) NFPA 72
  - ☐ DI-1 D.A.C.T. INTERFACE MODULE W/ DC-100/DC-101 COMMUNICATOR

*THE SHUNT IS RECOGNIZED ONLY AS A SUPPLEMENTARY SIGNALING UNIT AS PART OF A LOCAL CONTROL UNIT AND IS NOT RECOGNIZED AS AN AUXILIARY CONTROL UNIT CONNECTION PER NFPA 72.

**NOT SUITABLE FOR REMOTE STATION PROTECTED PREMISES SERVICE WHERE SEPARATE TRANSMISSION CIRCUITS ARE REQUIRED FOR FIRE, SUPERVISORY AND TROUBLE SIGNALS.

- ☐ SMOKE DETECTOR SENSITIVITY TEST NFPA 72
  ONLY FOR IONIZATION AND PHOTOELECTRIC SENSORS ON THE AN-1 MODULE.

TYPE OF SERVICE

- ☐ MANUAL FIRE ALARM
- ☐ AUTOMATIC FIRE ALARM
- ☐ SUPERVISORY
- ☐ WATERFLOW ALARM

TYPE OF SIGNALING SERVICE

- ☐ NON-CODED
- ☐ CODED
- ☐ EMPLOYS A PRESIGNAL FEATURE
- ☐ EMPLOYS AN ALARM SILENCE INHIBIT TIMER
- ☐ EMPLOYS TIME-LIMIT CUTOFF OF INDICATING APPLIANCES THIS TIME IS ADJUSTABLE UP TO 255 MINUTES.
- ☐ DIGITAL ALARM COMMUNICATOR TRANSMITTER
- ☐ MARCH TIME
- ☐ PRERECORDED MESSAGE
- ☐ EMERGENCY VOICE COMMUNICATIONS
- ☐ EMERGENCY TELEPHONE COMMUNICATIONS

WARNING

THIS UNIT MAY INCLUDE AN ALARM VERIFICATION FEATURE THAT WILL RESULT IN A DELAY OF THE SYSTEM ALARM SIGNAL FROM THE INDICATED CIRCUITS THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTOR) SHALL NOT EXCEED 60 SECONDS. NO OTHER INITIATING DEVICES SHALL BE CONNECTED TO THESE CIRCUITS UNLESS APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION.

CIRCUIT (ZN ZONE)	CONTROL UNIT DELAY - SEC	SMOKE DETECTOR DELAY (POWER-UP)
	12	TIME MARKED ON THE INSTALLED SMOKE DETECTOR(S) IS TO BE USED

CIRCUIT (AM DEVICE)	TOTAL DELAY - SEC
	12

THIS EQUIPMENT COMPLIES WITH THE REQUIREMENTS IN PART 15 OF FCC RULES FOR A CLASS A COMPUTING DEVICE. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION

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PREFACE

Along with the use of this Instruction Manual, the appropriate following standards and the manufacturers' instructions for initiating and signaling devices should be used to install and maintain a functioning Fire Alarm Signaling System.

NFPA 70-1993 *National Electrical Code 1993*

NFPA 72-1993 *National Fire Alarm Code*

NFPA 101-1993 *Life Safety Code*

OTHER STANDARDS - Contact the authority having jurisdiction for other standards that may apply.

FOR NFPA PUBLICATIONS CONTACT:

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269

PANEL PERFORMANCE PARAMETERS

This control panel will not show an alarm condition without U.L. listed compatible initiating devices (smoke detectors, etc.) and indicating devices (horn, lights, etc.) connected to it. Electrical ratings of the initiating and indicating appliances must be U.L. listed compatible with the electrical ratings of the control panel and must be properly interconnected. The wiring used for interconnection must be large enough to carry the total current by all appliances without excessive voltage drop. Refer to Section III of this manual for a complete listing of approved compatible devices.

This panel must be connected to a dedicated primary electrical source of 120VAC 60Hz that has a high degree of reliability and adequate capacity for this panel. The only means of disconnecting this power source shall be available exclusively to authorized personnel and clearly marked "Fire Alarm Circuit Control".

This panel must also have connected to it, a battery set (24V) that has enough capacity to properly operate the system for 24 hours standby and 5 minutes alarm per NFPA 72, or 60 hours standby and 5 minutes alarm per NFPA 72. These batteries do lose capacity with age. Batteries must be replaced when they fail to provide the panel with the required standby and alarm power or every 4 years, whichever occurs first. These batteries must be checked for performance at least 2 times per year or more, if local requirements dictate it.

A regular test program should be followed and documented to make sure that each part of the system is tested as per NFPA 72 or more often if dictated by local code requirements. Malfunctioning units must be replaced or repaired immediately by factory authorized service personnel.

Note: This panel is designed to show an alarm condition when the initiating devices connected to it detect specific conditions. These conditions may or may not represent a life threatening condition (ie. burnt toast may cause an initiating device to indicate an alarm condition). Also, evacuation of a building or area unnecessarily may subject individuals to an unnecessary hazard. Therefore, it is most important that the building owner, manager or representative develop, distribute and/or post instructions describing steps to be taken when the fire alarm panel signals an alarm condition. These instructions should be developed in cooperation and conformance with representatives of the local authority having jurisdiction.

As a backup or precautionary measure, it is strongly suggested that one of these steps should be to notify the local fire department even where the city tie option (or similar device) is included in the system.

This equipment complies with the requirements in part 15 of FCC Rules for a Class A computing device. Operation is subject ot the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received.

Including interference that may cause undesired operation.

MPC-2000 INTRODUCTION

The MPC-2000 Control Panel is an electrically supervised, power limited, conventional and/or addressable/analog fire alarm panel with voice evacuation/relocation capabilities, firefighter communication phone system is also available. The MPC-2000 is modular in design for customized application and is factory assembled. With the variety of function modules and microprocessor control, the MPC-2000 provides a versatile control package for a wide selection of applications.

MPC-2000 Modules:

CU-2	Main Control Module
ZN-1A	Dual Initiating Circuit Module
ZN-2A	Dual Initiating Circuit Module
ZN-3A	Dual Initiating Circuit Module
ZN-1S	Dual Initiating Circuit Module
ZN-2S	Dual Initiating Circuit Module
ZN-3S	Dual Initiating Circuit Module
AM-1	Addressable/Analog Circuit Module
SC-1	Dual Indicating Circuit Module
SC-2	Dual Indicating Circuit Module
SC-3	Dual Indicating Circuit Module
AR-1	Dual Auxiliary Relay Circuit Module
AR-2	Dual Auxiliary Relay Circuit Module
AR-3	Dual Auxiliary Relay Driver Circuit Module
CT-1	Universal City Tie Module
DI-1	D.A.C.T. Interface Module
SI-2	Serial Interface Module
SI-3	Serial Interface Module
CI-1	Communication Interface Module (computer)
CI-2	Communication Interface Module (printer)
MP-3	Main Power Supply Module
AP-4	Regulated Auxiliary Power Supply Module
AP-5	Unregulated Auxiliary Power Supply Module
PD-1	Power Distribution Module
PD-4	Power Distribution Module
BC-2	Battery Charger Module
PR-1	System Status Printer
BB-1	Buffer Board Module
BB-2	Buffer Board Module
TX-1	Transformer Module
TX-2	Transformer Module

MPC-EVAC MODULES

MC-1	Microphone Module
SW-1	Slow Whoop Module Assembly
TT-1	Temporal Tone Module Assembly
AS-1	Amplifier Supervisory Module
FP-1	Fire Phone Master
FP-2	Fire Phone Extender Motherboard
PE-1	Fire Phone Extender (4 circuit)
FP-3	Fire Phone Master
VAA-C	Audio Amplifier
PD-2	Power Distribution/Control for Audio Amplifiers
DM-1A	Voice Unit DMR Assembly (Single Message)
DM-1B	Voice Unit DMR Assembly (Four Message)
DM-1C	Voice Unit DMR Assembly (Continuous Message)
EI-1	EVAC Interface to MPC-2000

MINIMUM CONTROL PANEL CONFIGURATIONS

Minimum Conventional MPC-2000 Control Panel Includes:

- (1) CU-2
- (1) ZN-1A or ZN-2A
- (1) SC-1, SC-2 or SC-3
- (1) MP-3
- (1) AP-5
- (1) BC-2
- (2) BB-1
- (2) TX-1
- (1) Control Unit Cabinet
- (1) Battery Cabinet
- (1) Appropriate Sized Battery Set
- (1) Installation Kit P/N 401286 or 401284.

Minimum Addressable/Analog MPC-2000 Control Panel Includes

- (1) CU-2
- (1) AM-1
- (1) MP-3
- (1) BC-2
- (1) BB-2
- (2) TX-1
- (1) Control Unit Cabinet
- (1) Battery Cabinet
- (1) Appropriate Sized Battery Set
- (1) Installation Kit P/N 401286 or 401284.

Minimum Conventional MPC-2000 EVAC Control Panel Includes:

- (1) CU-2
- (1) ZN-1A, ZN-2A or ZN-3A
- (1) SC-1, SC-2 or SC-3
- (1) MP-3
- (1) AP-5
- (1) BC-2
- (2) BB-1
- (2) AR-2
- (1) EI-1
- (2) TX-1
- (2) Control Unit Cabinet
- (1) Battery Cabinet
- (1) Appropriate Sized Battery Set
- (1) Installation Kit P/N 401286
- (1) Installation Kit P/N 401285
- (1) MC-1
- (1) SW-1 or TT-1
- (1) AS-1
- (1) VAA-C
- (1) PD-2
- (1) VRR-A, VRR-B, VRR-C or VRR-D
- (3) PD-4

Minimum Addressable/Analog MPC-2000 EVAC Control Panel Includes:

- (1) CU-2
- (1) AM-1
- (1) MP-3
- (1) BC-2
- (1) BB-1
- (2) AR-2
- (1) EI-1
- (1) SC-1, SC-2, SC-3
- (1) BB-2
- (2) TX-1
- (2) Control Unit Cabinet
- (1) Battery Cabinet
- (1) Appropriate Sized Battery Set
- (1) Installation Kit P/N 401286
- (1) Installation Kit P/N 401285
- (1) MC-1
- (1) SW-1 or TT-1
- (1) AS-1
- (1) VAA-C
- (1) PD-2
- (1) VRR-A, VRR-B, VRR-C, VRR-D
- (3) PD-4

MODULE DESCRIPTIONS

CU-2 Main Control Module: This module consists of three circuit boards, a 32 character alpha/numeric display and a keypad. The primary function of this module is to scan all secondary module status' and to allow for operator interaction through the keypad and LCD display. Operator keypad controls include:

System Reset
Alarm Silence
Trouble Silence
Circuit Cutoff
  Zone Cutoff
  Signal Cutoff
  City Tie Cutoff
Drill Test
  Drill
  Recall
Lamp Test
System Programming
  Time Set
  Date Set
  System Programming
  System Testing
    Quick Test

Some operator status displays include:

Time/Date
Zone Alarms
Zone Troubles
Signal Circuit Troubles
Aux Relays Off Normal
Zone Cutoff
Signal Cutoff
Positive Ground Fault
Negative Ground Fault
Module Faults
Power Faults
Communication Faults

System status LEDs include:

Power On
System Alarm
Alarm Silenced
System Trouble
Trouble Silenced
Input Power Fault
Standby Power Fault
System Ground

ZN-1A Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" or style "D" operation. Each circuit has an individual red alarm LED and yellow trouble LED. Provisions for individual zone labeling are provided on the module label applied to the front cover. Other programmable features include:

Programmable Alarm Verification
Programmable Diagnostics (Diagnostic Option)
Programmable Zone Coding (Code Option)
Programmable Sprinkler Supervisory Operation (off normal and restoration)
Programmable Water flow Operation (silencing and non-silencing operation)

This module allows for the operation of UL Listed Compatible non-coded devices such as:

Manual Pull Stations
2-Wire Smoke Detectors
4-Wire Smoke Detectors
Heat Detectors
Flame Detectors
Duct Detectors
Beam Detectors
Water flow Switches
Sprinkler Supervisory Switches
And Other UL Listed Compatible Contact Devices

The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

ZN-2A Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" operation. Each circuit has an individual red alarm LED and yellow trouble LED. Provisions for individual zone labeling are provided on the module label applied to the front cover. Other programmable features include:

Programmable Zone Coding (Code Option)
Programmable Sprinkler Supervisory Operation (off normal and restoration)
Programmable Water flow Operation (silencing and non-silencing operation)

This module allows for the operation of UL Listed compatible non-coded devices such as:

Manual Pull Stations
2-Wire Smoke Detectors
4-Wire Smoke Detectors
Heat Detectors
Flame Detectors
Duct Detectors
Beam Detectors
Water flow Switches
Sprinkler Supervisory Switches
And Other UL Listed Compatible Contact Devices
The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

ZN-3A Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" or style "D" operation. Each circuit has an individual red alarm LED and yellow trouble LED. Each circuit has a disconnect/test switch. Provisions for individual zone labeling are provided on the module label applied to the front cover. Other programmable features include:

Programmable Alarm Verification
Programmable Diagnostics (Diagnostic Option)
Programmable Zone Coding (Code Option)
Programmable Sprinkler Supervisory Operation (off normal and restoration)
Programmable Water flow Operation (silencing and non silencing operation)

This module allows for the operation of UL Listed Compatible non-coded devices such as:

Manual Pull Stations
2-Wire Smoke Detectors
4-Wire Smoke Detectors
Heat Detectors
Flame Detectors
Duct Detectors
Beam Detectors
Water flow Switches
Sprinkler Supervisory Switches
And other UL Listed Compatible Contact Devices

The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

ZN-1S Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" or style "D" operation. Each circuit has an individual yellow alarm LED and yellow trouble LED. Provisions for individual zone labeling are provided on the module label applied to the front cover.

This module allows for the operation of UL Listed Compatible non-coded Sprinkler Supervisory Switches

The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

ZN-2S Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" operation. Each circuit has an individual yellow alarm LED and yellow trouble LED. Provisions for individual zone labeling are provided on the module label applied to the front cover.

This module allows for the operation of UL Listed compatible non-coded Sprinkler Supervisory Switches

The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

ZN-3S Dual Conventional Initiating Circuit Module: This module allows for two independent, power limited initiating circuits. These circuits may be wired for style "B" or style "D" operation. Each circuit has an individual yellow alarm LED and yellow trouble LED. Each circuit has a disconnect/test switch. Provisions for individual zone labeling are provided on the module label applied to the front cover.
This module allows for the operation of UL Listed Compatible non-coded Sprinkler Supervisory Switches
The primary functions of this module are to supervise wiring to remote initiating devices and to receive alarm signals from remote detection devices and identify the area from which the alarm originated. In doing so the module initiates the control panel to perform its' pre-programmed operating sequences.

AM-1 Addressable/Analog Circuit Module: This module allows for one independent power limited addressable circuit, capable of 99 sensors and 99 modules. This circuit may be wired in a "2-wire" or "4-wire" configuration comparable to style "4" or style "6" operation. The AM-1 has a red "Alarm" LED, a yellow "Supervisory" LED, a green "Scanning" LED and a yellow "Trouble" LED. The MPC-2000 can support up to 8 AM-1 modules.

The primary function of the AM-1 module is to communicate with the addressable/analog sensors, monitor modules, and control modules. This includes the supervision of the wiring, receive alarm signals, identify area from which alarm originated, selectively activate indicating circuits or form-c output relays and initiate the Control Panel to perform its pre-programmed operating sequences.

This module allows for the operation of the following U.L. Listed compatible devices:

9163	Ionization Addressable/Analog Sensor (System Sensor 1551B)
9152	Photoelectronic Addressable/Analog Sensor (System Sensor 2551HR)
9153	Photoelectronic Addressable/Analog Sensor with Thermal (System Sensor 2551BT)
9154	Thermal Addressable/Analog Sensor (System Sensor 5551B)
9182	Thermal Addressable/Analog Sensor (System Sensor 5551R)
9155	Addressable/Analog Sensor Base for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor B501B)
9156	Addressable/Analog Sensor Base with Integral Horn for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor B501BH)
9181	Addressable/Analog Sensor 4” Base for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor B501)
9161	Duct Housing with Addressable Analog Sensor Base with Auxiliary Relay for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor DH500AC/DC)
9179	Duct Housing with Addressable/Analog Sensor Base for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor DH500)
9157	Zone Monitor Module (System Sensor M500MB)
9158	Device Monitor Module (System Sensor M501M)
9159	Control Module (System Sensor M500CH)
9160	Isolator Module (System Sensor M500X)
9191	Two-Wire (Zone Powered) Conventional Detector Monitor Module (System Sensor M502M)
9186	Ionization Addressable/Analog Sensor, Low Profile (System Sensor 1251)
9187	Photoelectronic Addressable/Analog Sensor, Low Profile (System Sensor 2251)
8406	Photoelectronic Addressable/Analog Sensor with Thermal (System Sensor 2251T)
8407	Thermal Addressable/Analog Sensor (System Sensor 5251P)
8408	Thermal Addressable/Analog Sensor (System Sensor 5251RP)
9189	Addressable/Analog Sensor Base for 9186 or 9187 Sensors (System Sensor B210LP)
9296	Addressable/Analog Sensor Relay Base for 9186 or 9187 Sensors (System Sensor B224RB)
9297	Addressable/Analog Sensor Relay Base for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor B524RB)
9298	Addressable/Analog Sensor Isolator Base for 9186 or 9187 Sensors (System Sensor B224BI)
9299	Addressable/Analog Sensor Isolator Base for 9163, 9152, 9153, 9154 or 9182 Sensors (System Sensor B524BI)

SC-1 Dual Conventional Indicating Circuit Module: This module allows for two independent, power limited indicating circuits. These circuits may be wired for style "Y" or style "Z" operation. Each circuit has an individual yellow trouble LED which indicates circuit wiring opens and shorts. This LED also indicates the status of an operating indicating circuit during system alarm condition. It flashes when the circuit is operating and remains on steady when the circuit is deactivated (silenced). Provisions for individual signal circuit labeling are provided on the module label applied to the front cover. Other programmable features include:

Programmable Diagnostics (Diagnostic Option)
Programmable Zone Coding (Code Option)
Programmable Zone Ringing
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady Ringing
Programmable Automatic Timed Cutout
Programmable Automatic Time Delay On
Programmable Audible and Visual Compatible Device Formatting

(Silencing and Non-Silencing)
Programmable Drill
Programmable Recall
Automatic Wiring Short Circuit Disconnect

This module allows for the operation of UL Listed compatible indicating devices such as:
Horns
Bells (Vibrating and Single Stroke)
Chimes (Vibrating and Single Stroke)
Electronic Signals
Strobes
And Other Compatible Indicating Appliances

The primary functions of this module are to supervise the wiring to the indicating appliances and activate indicating appliances in predetermined areas according to the control panel's pre-programmed sequence of operation, thereby alerting occupants of a possible emergency situation.

SC-2 Dual Conventional Indicating Circuit Module: This module allows for two independent, power limited indicating circuits. Each circuit can supervise and control two independent indicating loops. These circuits must be wired for style "Y" operation. Each circuit has an individual yellow trouble LED which indicates circuit wiring opens and shorts. This LED also indicates the status of an operating indicating circuit during system alarm condition. It flashes when the circuit is operating and remains on steady when the circuit is deactivated (silenced). Provisions for individual signal circuit labeling are provided on the module label applied to front cover. Other programmable features include:

Programmable Zone Coding (Code Option)
Programmable Zone Ringing
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady Ringing
Programmable Automatic Timed Cutoff
Programmable Automatic Time Delay On
Programmable Audible and Visual Compatible Device Formatting
(Silencing and Non-Silencing)
Programmable Drill
Programmable Recall
Automatic Wiring Short Circuit Disconnect

This module allows for the operation of UL Listed compatible indicating devices such as:

Horns
Bells (Vibrating and Single Stroke)
Chimes (Vibrating and Single Stroke)
Electronic Signals
Strobes
And Other Compatible Indicating Appliances

The primary functions of this module are to supervise the wiring to the indicating appliances and activate indicating appliances in predetermined areas according to the control panel's pre-programmed sequence of operation, thereby alerting occupants of a possible emergency situation.

SC-3 Dual Conventional Indicating Circuit Module: This module allows for two independent, power limited indicating circuits. These circuits must be wired for style "Y" operation. Each circuit has two status LED's a yellow "Trouble/Off" LED and a green "Normal"/red "On" LED. The "Trouble/Off" status LED indicates the status of the circuit during system alarm condition. It flashes when the circuit is operating and remains on steady when the circuit is deactivated (silenced). The yellow "Trouble/Off" LED also indicates circuit wiring opens and shorts, which is indicated by the yellow LED on steady. The green "Normal"/red "On" status LED indicates the status of the circuit. In normal standby condition the LED is green. When the indicating circuit is activated the LED is red. Each indicating circuit has a three position toggle switch for manually controlling the indicating circuit. The toggle switch positions are "Automatic", "Off", and "On". Provision for individual indicating circuit labeling are provided on the module label applied to the front cover. Other programmable features include:

Programmable Zone Coding (Code Option)
Programmable Zone Ringing
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady Ringing
Programmable Automatic Timed Cutoff
Programmable Automatic Time Delay On
Programmable Audible and Visual Compatible Device Formatting
(Silencing and Non-Silencing)
Programmable Drill
Programmable Recall
Automatic Wiring Short Circuit Disconnect

This module allows for the operation of UL Listed compatible indicating devices such as:

Horns
Bells (Vibrating and Single Stroke)
Chimes (Vibrating and Single Stroke)
Electronic Signals
Strobes
And Other Compatible Indicating Appliances

The primary functions of this module are to supervise the wiring to the indicating appliances and activate indicating appliances in predetermined areas according to the control panel's pre-programmed sequence of operation, thereby alerting occupants of a possible emergency situation.

AR-1 Dual Auxiliary Relay Circuit Module: This module allows for two independent, programmable auxiliary relays. Each relay has an individual red 'Energized' LED and yellow 'Off Normal' LED. The off normal/status LED also indicates the status of an operating auxiliary relay during system alarm condition. It flashes when the relay is operating and remains on steady when the relay is deactivated. Each relay also has a three position toggle switch for manually controlling the auxiliary relay. The toggle switch includes "Automatic","Manual On" and "Manual Off". Each relay provides 1 dry form "C" contact output for auxiliary control circuit wiring. Provisions for individual relay circuit labeling are provided on the module label applied to the front cover. Other features include:

Programmable Zone Coding (Code Option)
Programmable Dedicated Zone Activation
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady On
Programmable Automatic Time Cut Off
Programmable Automatic Time Delay On
Programmable 1st Round Of Code Delay On (Code Option)
Programmable Drill
Programmable Recall

This module also allows for the control of other compatible auxiliary devices such as:

Door Holders
Fan Damper Controls
Elevator Control
Other Secondary Control Circuitry

The primary function of this module is to activate, during alarm and/or trouble, auxiliary circuitry throughout the building, in predetermined areas, according to the control panel's pre-programmed sequence of operation.

AR-2 Dual Auxiliary Relay Circuit Module: This module allows for two independent, programmable auxiliary relays. Each relay has an individual red 'Energized' LED. Each relay provides 1 form "C" contact output for auxiliary control circuit wiring. Provisions for individual relay circuit labeling are provided on the module label applied to the front cover. Other features include:

Programmable Zone Coding (Code Option)
Programmable Dedicated Zone Activation
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady On
Programmable Automatic Time Cut Out
Programmable Automatic Time Delay On
Programmable 1st Round Of Code Delay On (Code Option)
Programmable Drill
Programmable Recall

This module also allows for the control of other compatible auxiliary devices such as:

Door Holders
Fan Damper Controls
Elevator Control
Other Secondary Control Circuitry

The primary function of this module is to activate, during alarm and/or trouble, auxiliary circuitry throughout the building, in predetermined areas, according to the control panel's pre-programmed sequence of operation.

AR-3 Dual Auxiliary Relay Driver Circuit Module: This module allows for two independent, power limited, supervised, programmable auxiliary relay drivers. Each relay driver has 2 status LED's, a yellow "Trouble/Off" LED and a green "Normal"/red "On" LED. The "Trouble/Off" status LED indicates the status of the relay driver during system alarm condition. It flashes when the relay driver is operating and remains on steady when the relay driver is deactivated. The yellow "Trouble/Off" LED also is a status indication of the wiring to the remote relay. A short or open in the field wire will be indicated by the yellow LED on steady. The green "Normal"/ red "On" status LED indicates the status of the relay driver. In normal standby condition the LED is green. When the relay driver circuit is activated the LED is red. Each relay driver circuit has a three position toggle switch for manually controlling the auxiliary relay driver circuit. The toggle switch positions are "Automatic", "Manual Off", and "Manual On". Provisions for individual relay drive circuit labeling are provided on the module label applied to the front cover. Other features include:

Programmable Zone Coding
Programmable Dedicated Zone Activation
Programmable March Time Beat
Programmable Temporal Evacuation Code
Programmable Steady On
Programmable Automatic Time Cut Off
Programmable Automatic Time Delay On
Programmable Drill
Programmable Recall
Automatic Wiring Short Circuit Disconnect

This module allows for the operation of UL Listed compatible relay devices such as:

Remote Relay Unit 711-1

The primary functions of this module are to supervise the wiring to the remote relays and activate the remote relays in predetermined areas according to the control panel's pre-programmed sequence of operation.

CT-1 Universal City Tie Module: This module provides an Alarm / Trouble transmitter, optional Supervisory transmitter and optional dedicated Trouble transmitter. City Tie transmitter #A is an Alarm condition transmitter which can be configured to report troubles by removing a jumper. This transmitter can be configured for Local Energy, Leased Line, or Shunt operation. City Tie transmitter #B is a Leased Line Supervisory condition transmitter. City Tie transmitter #C is a Leased Line Trouble condition transmitter. The alarm (#A) and supervisory (#B) transmitters can be cut off through the front panel keypad (a

trouble output will be transmitted during a cut off condition). The module also has a yellow trouble LED which indicates module trouble or disconnect.

The primary function of this module is to report general system status (alarm, trouble and supervisory) to a remote location.

DI-1 D.A.C.T. Interface Module: This module in conjunction with a Digital Alarm Communicator Transmitter allows the MPC-2000 Control Panel to be monitored by a central station. The DI-1 provides a form "C" trouble contact, a form "C" alarm contact, a form "C" supervisory contact, a form "C" power failure contact and a 24 VDC power output. The module also contains a disconnect switch and a yellow Trouble/Off-Normal Switch LED. The disconnect switch may be activated during testing or servicing of the system to prevent transferring the alarm, supervisory, and power failure contacts (a trouble output will be generated upon activation of the disconnect switch). (Power Supply)

SI-2 Serial Interface Module: This module allows for communication with the Faraday RDC-700A remote display/control annunciator, the D700 series and G700 series of LED/incandescent annunciators, and the R710A series of remote control relay units. The SI-2 uses the parallel channel on the BB-2 Buffer Board. (Power Limited)

SI-3 Serial Interface Module: This module allows for communication with the Faraday RDC-700A remote display/control annunciator, the RDC 800 remote display/control annunciator, the D700 series and G700 series of LED/incandescent annunciators, and the R710A series of remote control relay units. The SI-3 uses the parallel channel on the BB-2 Buffer Board. The SI-3 when used with the RDC-800 (80 character) display/control annunciator has the ability to increase the custom message information. Consult the factory for complete operation. (Power Limited)

CI-1 Communications Interface Module: This module allows for a IBM PC compatible personal computer's serial port (RS232) connection to the MPC-2000 Fire Alarm Control Panel for temporary connection to panel for configuring panel. Consult the factory for complete operation. (Power Limited)

CI-2 Communications Interface Module: This module allows for a remote UL Listed EDP printer to be connected to the panel for supplimental remote printing of panel events. (Power Limited)

MP-3 Main Power Supply: This module provides the system modules with battery backed resettable operating power and non-resettable operating power (In case of primary input power failure the module must be battery backed to provide power). Requires a filtered ½ of a TX-1 Transformer Module. The secondary functions of this module are as follows: (Power Limited)

System Ground Detection (positive and negative)
System Brown Out Detection
Resettable 4-wire Smoke Detector Power

AP-4 Regulated Auxiliary Power Supply: This module is used to extend the resettable and non resettable, power limited regulated power capabilities of the control panel. The module has a green Power On LED and a yellow Trouble LED (In case of primary input power failure the module must be battery backed to provide power). Requires a filtered ½ of a TX-1 transformer module.

AP-5 Un-Regulated Auxiliary Power Supply: This module provides un-regulated, non-resettable power, power limited for operation of the system's alarm indicating devices. The module has a green Power On LED and a yellow Trouble LED (In case of primary input power failure the module must be battery backed to provide power). Requires a unfiltered ½ of a TX-1 or TX-2 transformer module.

PD-1 Power Distribution Module: This module is used when more than two connections are required from a power supply.

PD-4 Power/Terminal Distribution Board: This module is used when extra wiring terminals are needed for inter or intra panel wiring.

BC-2 Battery Charger Module: This module is used to charge and maintain the System's standby batteries. The module has a green Power On LED and a yellow Trouble LED. The module also provides for complete supervision of the System's standby battery set for "Low Battery" and "No Battery" conditions. Requires a filtered ½ of a TX-1 transformer module.

PR-1 System Status Printer: The system status printer consists of an interface module and a thermal printer. This module provides a hard copy printout of the control panels status and activities. Requires 1.5 amps of non resettable power from MP-3 or AP-4. An example status printout would be:

13:20:25 11/06/89	Time/Date
Zone #nn	Circuit Identifier
In Alarm	Status
13:24:25 11/06/89	Time/Date
Signal Circ #nn	Circuit Identifier
Open	Status

BB-1 Buffer Board: This module interfaces the input and output channels with the CU-2 module. One required for each 54 ZN zones, and one required for each 54 SC signal circuit/AR relays.

BB-2 Buffer Board: This module interfaces the printer/ parallel channel of the CU-2 module to any module which requires the parallel channel operation such as the PR-1, AM-1, SI-2, and CI-1.

TX-1 Transformer Module: One each of these modules is required by each of the MP-3, AP-4, and BC-2 modules. This module provides 3A of filtered power to these modules. In addition a separate output also can supply 3A of unfiltered power to the AP-5 module.

TX-2 Transformer Module: The module contains two separate outputs, 3A of unfiltered power for AP-5.

EVAC MODULE DESCRIPTIONS

MC-1 Microphone Module: This module contains a hand held microphone with integral push to talk switch. The circuitry includes redundant preamplifiers with automatic switch over. A failure in one of the preamplifiers or the microphone will cause the "MIC Trouble" LED and the system trouble LED to light.

SW-1 Slow Whoop Module Assembly: This module produces a slow whoop tone. It includes redundant tone circuits with automatic switchover if the primary generator fails. If either the primary or secondary generator fail the tone failed LED and the system trouble LED will light. This also provides a tone silence switch and tone silenced LED.

TT-1 Temporal Tone Module Assembly: This module produces a temporal tone. It includes redundant tone circuits with automatic switch over if the primary generator fails. If either the primary or secondary generator fail the tone failed LED and the system trouble LED will light. This also provides a tone silenced switch and tone silenced LED.

AS-1 Amplifier Supervisory Module: This module supervises the output of one, two, three or four audio amplifiers. The module provides for the optional change over to a backup amplifier should a primary amplifier fail. The backup amplifier requires one of the four supervisory points. A failure of one of the amplifiers connected to this module will cause a LED on the module and the system trouble LED to light.

FP-1 Fire Phone Master (with 4 circuits): The Fire Phone Master contains four selectable telephone circuits which are supervised for both open circuit and short circuit fault conditions. Two way communications can be initiated from either the Telephone Master or from a remote warden station. For one way communications over any active speaker circuits from a selected remote telephone station the Master unit includes a "Patch" feature. The unit includes an intercom switch which activates the communication lines on a selected circuit and a ring switch which calls all warden phones on a selected circuit. Indicators include 4 circuit LED's which flash when a call originates on the circuit or illuminate steadily if the circuit is in trouble, a power on LED, an intercom on indicator, a patch and a ring switch. (Power Limited)

FP-2 Telephone Mother Board

PE-1 Telephone Extender (4 cirucits): The FP-2 Telephone Extender Board provides all of the circuitry necessary to expand the Fire fighter's Telephone system. A total of eight (8) PE-1 Telephone Extender modules can be added to the FP-2 bringing the total number of supervised telephone circuits to a maximum of 36. The PE-1 modules plug into the FP-2 telephone mother board. Each PE-1 contains four (4) individual circuit selector switches and four (4) LED indicators. **NOTE: A maximum of one (1) FP-2 and eight (8) PE-1 modules can be added to any system.** (Power Limited**)**

FP-3 Fire Phone Master (with 4 circuits): The Fire Phone Master contains four selectable telephone circuits which are supervised for both open circuit and short circuit fault conditions. Two way communications can be initiated from either the Telephone Master or from a remote warden station. The unit includes an intercom switch which activates the communication lines on a selected circuit and a ring switch which calls all warden phones on a selected circuit. Indicators include 4 circuit LED's which flash when a call originates on the circuit or illuminate steadily if the circuit is in trouble, a power on LED, an intercom on indicator, a patch and a ring switch. (Power Limited)

VAA-C Audio Amplifier: The VAA-C audio power amplifier is an all solid state unit operating from a 120VAC/60Hz source and standby battery. Frequency response is within ± 3dB from 60 to 15,000Hz. The amplifier is capable of operating up to 220 watts of 25 volt speakers. Mounts in the equipment rack.

PD-2 Power Distribution Panel: This module is used to distribute direct current standby power to, up to four audio amplifiers. Mounts in the equipment rack.

DM-1A Voice Unit DMR Assembly: This module is used to play a single pre-recorded evacuation message during an alarm. Messages are stored in non-volatile memory. The module also includes a message silence switch and message silenced LED.

DM-1B Voice Unit DMR Assembly: This module is used to play a single pre-recorded evacuation message four times during an alarm. Messages are stored in non-volatile memory. The module also includes a message silence switch and message silenced LED.

DM-1C Voice Unit DMR Assembly: This module is used to play a single pre-recorded evacuation message continuously during an alarm. Messages are stored in non-volatile memory. The module also includes a message silence switch and message silenced LED.

EI-1 Evac Interface Module: This module provides an "All Call" function for the speaker circuits. It also provides the trouble interface to the "EVAC" circuits to the MPC circuits.

CABINET DESCRIPTIONS

CB-2U (R) or (B) Universal Back Box, 2 Opening (R)-Red, (B)-Black: Contains 28 module spaces and space for 4 TX-1 or TX-2 transformers.

CD-2S (R) or (B) Surface Door, 2 Opening, Lefthand Hinge (R)-Red, (B)-Black: For CB-2U (R) or (B) Universal back box.

CD-2F (R) or (B) Flush Door, 2 Opening, Lefthand Hinge (R)-Red, (B)-Black: For CB-2U (R) or (B) Universal Back Box.

CD-4S (R) or (B) Surface Door, 2 Opening, Righthand Hinge (R)-Red, (B)-Black: For CB-2U (R) or (B) Universal back box.

CD-4F (R) or (B) Flush Door, 2 Opening, Righthand Hinge (R)-Red, (B)-Black: For CB-2U (R) or (B) Universal Back Box.

CB-1U (R) or (B) Universal Back Box, 3 Opening (R)-Red, (B)-Black: Contains 42 module spaces and space for 4 TX-1 or TX-2 transformers.

CD-1S (R) or (B) Surface Door, 3 Opening, Lefthand Hinge (R)-Red, (B)-Black: For CB-1U (R) or (B) Universal back box.

CD-1F (R) or (B) Flush Door, 3 Opening, Lefthand Hinge (R)-Red, (B)-Black: For CB-1U (R) or (B) Universal Back Box.

CD-3S (R) or (B) Surface Door, 3 Opening, Righthand Hinge (R)-Red, (B)-Black: For CB-1U (R) or (B) Universal back box.

CD-3F (R) or (B) Flush Door, 3 Opening, Righthand Hinge (R)-Red, (B)-Black: For CB-1U (R) or (B) Universal Back Box.

BE-1S (R) or (B) Battery Enclosure (R)-Red, (B)-Black: Provides mounting of sealed battery sets.

BT-1F (R) or (B) Semi-Flush Trim Ring (R)-Red, (B)-Black: For BE-1S (R) or (B) Battery Enclosure.

14050 (R) or (B) Battery Enclosure (R)-Red, (B)-Black: Provides mounting of sealed battery sets.

15216 (R) or (B) Semi-Flush Trim Ring (R)-Red, (B)-Black: For 14050 (R) or (B) Battery Enclosure.

VRR-A Equipment Rack: Contains 42 inches of rack mounting space.

VRR-B Equipment Rack: Contains 61¼ inches of rack mounting space.

VRR-C Equipment Rack: Contains 70 inches of rack mounting space.

VRR-D Equipment Rack: Contains 77 inches of rack mounting space.

SYSTEM ACCESSORY DESCRIPTIONS

RDC-700A Remote Display/Control Unit: Supervised remote annunciator with LCD display of system status and control switches.

RDC-800 Remote Display/Control Unit: Supervised remote annunciator with LCD display of system status and control switches

D700 Series Remote LED or Incandescent Annunciators: Supervised remote annunciator with either LED or incandescent annunciators.

G700 Series Remote LED or Incandescent Graphic Annunciators: Supervised graphic annunciator with either LED or incandescent annunciators.

R710A Series Remote Relay Control Units: Supervised remote control relays with relay activation by zone.

RPR-100 Remote Printer Unit: Supervised remote 80 column printer to provide hard copy reports of all system alarms and troubles.

MODULE SPACE REQUIREMENTS

	Module Spaces	Transformer Spaces	Transformer Type
CU-2	5	0	0
ZN-1A	1	0	0
ZN-2A	1	0	0
ZN-3A	1	0	0
AM-1	2	0	0
AR-1	1	0	0
AR-2	1	0	0
AR-3	1	0	0
AP-4	2	0	½ TX Filtered
AP-5	1	0	½ TX-1 or ½ TX-2 Unfiltered
PD-1	1	0	0
PD-4	1	0	0
BC-2	2	0	½ TX-1 Filtered
TX-1	0	1	0
TX-2	0	1	0
SC-1	1	0	0
SC-2	1	0	0
SC-3	1	0	0
CT-1	1	0	0
DI-1	1	0	0
BB-1	1	0	0
BB-2	1	0	0
SI-2	1	0	0
SI-3	2	0	0
CI-1	2	0	0
CI-2	2	0	0
MP-3	2	0	½ TX-1 Filtered
PR-1	3	0	½ TX-1 or ½ TX-2 Filtered or Unfiltered

EVAC MODULE SPACE REQUIRMENTS

	EVAC Module Spaces	Transformer Spaces	Equipment Rack Space
MC-1	0	0	0
SW-1	5	0	0
TT-1	5	0	0
AS-1	5	0	0
FP-1	0	0	0
FP-2	9	0	0
PE-1	0	0	0
FP-3	0	0	0
VAA-C	0	0	10½"
PD-2	0	0	8 23/32"
PD-4	1	0	0
DM-1A	5	0	0
DM-1B	5	0	0
DM-1C	5	0	0
EI-1	1	0	0

ALARM OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

AN ALARM IS INDICATED BY THE FOLLOWING CONDITIONS:

A red ALARM L.E.D. lights.
The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.
The designated building alarm signals activate.
The designated auxiliary relay circuits activate.
If a remote annunciator is used, the alarm and/or trouble is also indicated at the remote location.
If a remote station type of city connection is used, an alarm signal is sent to the remote station.
If a local energy type of city connection is used, an alarm signal is sent to the fire department.
Optional alarm relays will also activate to serve various supplementary functions.
Optional trouble relays will also activate to serve various supplementary functions.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE switch.
The trouble buzzer silences.
The TROUBLE SILENCED L.E.D. lights.

TO SILENCE THE BUILDING ALARM SIGNALS:

Momentarily press the signal silence switch.
The yellow ALARM SILENCED L.E.D. will light, indicating the building alarm signals are off. An alarm condition in additional zones will re-activate the building alarm signals and the yellow SIGNAL SILENCED L.E.D. will go out. The building alarm signals may again be silenced by repeating the procedure above.
NOTE: If any zone has been programmed as a non-silencing zone, once that zone is alarmed its designated building alarm signals cannot be silenced. If any indicating circuit has been programmed for non-silencing operation, once activated it cannot be silenced.

TO RESET AFTER AN ALARM

First, the device which caused the alarm must be reset.
- Manual Pull Station
  - Reset the manual pull station using the instructions provided with the station.
- Heat Detector
  - For restorable type detectors, the affected area must be restored to a lower temperature.
  - For non-restorable type detectors, the heat detector or heat detector element must be replaced.
- Smoke Detector
  - The affected area must be cleared of smoke and the detector should be cleaned.
- Waterflow Switches
  - The activated sprinkler head must be replaced or restored and the sprinkler system must be restored to its normal condition.

Momentarily press the SYSTEM RESET switch.
If a local energy type of city connection is used, the master box must be reset to clear the trouble condition.
If a trouble condition still exists, notify the proper personnel for servicing the system immediately.

TROUBLE OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

A TROUBLE IS INDICATED BY THE FOLLOWING CONDITIONS:

The yellow SYSTEM TROUBLE L.E.D. lights.

The trouble buzzer sounds.

Depending on the type of trouble, a yellow ZONE TROUBLE L.E.D., a yellow SIGNAL TROUBLE L.E.D., or a yellow L.E.D. of an optional module may be lit and the SYSTEM STATUS display will indicate the trouble.

If a remote station type of city connection is used, a trouble signal is sent to the remote station(s).

If a remote annunciator is used, the trouble is indicated at the remote location.

Optional trouble relays will also activate to service various supplementary functions.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE Switch.

Notify the proper personnel for servicing the system immediately.

Refer to SECTION V - TROUBLESHOOTING GUIDE

SPRINKLER SUPERVISORY OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT.

(This applies only to control units that have an initiating circuit programmed for sprinkler supervisory switches).

A SUPERVISORY CONDITION IS INDICATED BY THE FOLLOWING CONDITIONS:

The red ZONE ALARM L.E.D. lights or yellow Supervisory L.E.D. lights.

The yellow SYSTEM TROUBLE L.E.D. lights

The trouble buzzer sounds.

If a remote annunciator is used, the alarm and/or trouble is also indicated at the remote location.

If a supervisory remote station connection is used, a supervisory signal is sent to the remote station.

If a trouble remote station connection is used, a trouble signal is sent to the remote station.

If a signal circuit has been programmed for supervisory operation, it will sound until the activated switch has been restored or until alarm silence has been pressed.

Optional supervisory relays will also activate to serve various supplementary functions.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE SWITCH.

Locate the activated switch and return it to its normal position.

If a Supervisory Signal Circuit has been programmed, it will sound march time beat for approximately 5 seconds.

If a supervisory condition still exists, notify the proper personnel for servicing the system immediately.

FIRE TELEPHONE OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

A flashing yellow station L.E.D. indicates a calling station or shorted telephone circuit.

A steady yellow station L.E.D. indicates a selected station or open telephone circuit.

FIRE TELEPHONE COMMUNICATION

To use the fire telephone, push the INTERCOM switch to the on position.

1.) A.) To place a call from a fire warden station, open the door and lift the handset off the cradle.

B.) To place a call from a portable fire handset, plug the handset into a fire phone jack.

C.) To answer a calling station, push the associated circuit selector switch and lift the handset off the cradle.

2.) To place a call to a warden station, push the appropriate selector switch, lift the handset off the cradle and momentarily push the RING switch.

3.) Up to five fire warden stations and/or portable fire handsets may communicate in a common talk mode.

4.) To allow selected fire warden stations and portable fire handsets to page on activated speaker circuits, push the PATCH switch.

EVAC OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

AN ALARM ACTIVATES THE FOLLOWING EVAC FUNCTIONS:

Alarm tone sounds on all activated speaker circuits.
Optional recorded message will play on all activated speaker circuits followed by alarm tone (Repeating message continuous message are optional).

TO SILENCE THE ALARM TONE:

Momentarily press the TONE SILENCE switch.
The yellow TONE SILENCED L.E.D. will light, indicating the tone has silenced on all activated speaker circuits. An alarm condition in additional zones will re-activate the tone and the yellow TONE SILENCED L.E.D. will go out. The tone may again be silenced by repeating the procedure above.

TO SILENCE THE OPTIONAL RECORDED MESSAGE:

Momentarily press the message silence switch.
The yellow message SILENCED L.E.D. will light, indicating the message has silenced on all activated speaker circuits. The alarm tone will sound on all activated speaker circuits, unless silenced. An alarm condition in additional zones will re-activate the message and the yellow message SILENCED L.E.D. will go out. The message may again be silenced by repeating the procedure above.

TO ACTIVATE ALL SPEAKER CIRCUITS:

Put the ALL-CALL switch of the EI-1 module to the all-call position. The red ALL-CALL L.E.D. will light and all speaker circuits will activate following the alarm functions listed above.

TO PAGE TO ACTIVATED SPEAKER CIRCUITS:

Depress the push-to-talk switch on the microphone and speak into the microphone with clear and concise messages.

MPC-2000 OPERATING INSTRUCTIONS

ALARM OPERATION OF THE FIRE ALARM SYSTEM

AN ALARM IS INDICATED BY:

The red SYSTEM ALARM L.E.D. lights.
The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

Notify the proper personnel to institute preplanned Fire Alarm Procedures:_____

Telephone the Fire Department. (Phone No.:_____), to advise of the alarm and/or verify that an automatic signal has been received at the Fire Department.

AUTHORIZED PERSONNEL ONLY

TO SILENCE THE TROUBLE BUZZER:

Press the TROUBLE SILENCE SWITCH.

TO SILENCE THE BUILDING ALARM SIGNALS:

Momentarily push the ALARM SILENCE SWITCH. The ALARM SILENCE L.E.D. will light, indicating the building alarm signals are off.
NOTE: If any initiating or indicating circuit(s) has been programmed for non-silence operation, once alarmed its designated building alarm signals cannot be silenced.

TO RESET AFTER AN ALARM:

First, the device which caused the alarm must be reset.
Momentarily press the SYSTEM RESET switch.
If a trouble condition still exists, notify the proper personnel for servicing the system immediately.

TROUBLE OPERATION OF THE FIRE ALARM SYSTEM

A TROUBLE IS INDICATED BY:

The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE Switch.

Notify the proper personnel for servicing the system immediately.
Institute alternate Fire Alarm Procedures.

SEE THE OWNERS MANUAL (P/N 444851B) FOR FURTHER DETAILS.

LOCAL SERVICE REPRESENTATIVE

NAME:_____PHONE:_____

ADDRESS:_____CITY:_____STATE:_____ZIP:_____

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ISSUE II

FRAME THESE INSTRUCTIONS AND MOUNT THEM ADJACENT TO THE CONTROL UNIT.

MPC-2000 EVAC OPERATING INSTRUCTIONS

ALARM OPERATION OF THE FIRE ALARM SYSTEM

AN ALARM IS INDICATED BY:

The red SYSTEM ALARM L.E.D. lights.
The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

Notify the proper personnel to institute preplanned Fire Alarm Procedures:_____

Telephone the Fire Department (Phone No.:_____), to advise of the alarm and/or verify that an automatic signal has been received at the Fire Department.

AUTHORIZED PERSONNEL ONLY

TO SILENCE THE TROUBLE BUZZER:

Press the TROUBLE SILENCE SWITCH.

TO SILENCE THE BUILDING ALARM SIGNALS AND SPEAKERS:

Momentarily push the ALARM SILENCE SWITCH. The ALARM SILENCE L.E.D. will light, indicating the building alarm signals are off.

NOTE: If any initiating or indicating circuit(s) has been programmed for non-silence operation, once alarmed its designated building alarm signals cannot be silenced.

TO RESET AFTER AN ALARM:

First, the device which caused the alarm must be reset.
Momentarily press the SYSTEM RESET switch.
If a trouble condition still exists, notify the proper personnel for servicing the system immediately.

TROUBLE OPERATION OF THE FIRE ALARM SYSTEM

A TROUBLE IS INDICATED BY:

The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE Switch.

Notify the proper personnel for servicing the system immediately.
Institute alternate Fire Alarm Procedures.

SEE THE OWNERS MANUAL (P/N 444851B) FOR FURTHER DETAILS.

LOCAL SERVICE REPRESENTATIVE

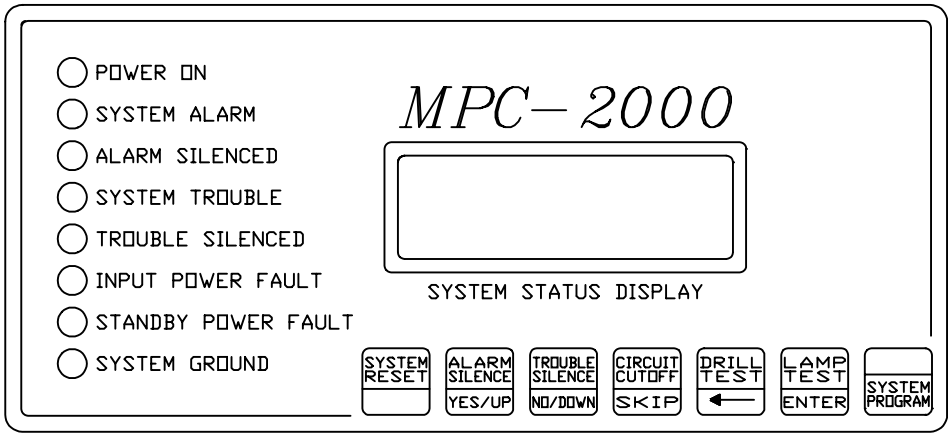
NAME:_____PHONE:_____

ADDRESS:_____CITY:_____STATE:_____ZIP:_____

445350
ISSUE II

FRAME THESE INSTRUCTIONS AND MOUNT THEM ADJACENT TO THE CONTROL UNIT.

MPC-2000 KEYPAD CONTROLS



FUNCTION	DISPLAY	PRESS	REMARKS
To Reset the System		SYSTEM RESET	System resets
To Silence the Building Indicating Appliances.		ALARM SILENCE YES/UP	Indicating appliances silence **(SEE NOTE 1)**
To Silence the System Trouble Buzzer.		TROUBLE SILENCE NO/DOWN	Trouble buzzer silences
To Perform Lamp Test.		LAMP TEST ENTER	The LED's will light all control unit LED's.

NOTE 1: Only Indicating Circuits which have been programmed to silence will silence. Indicating Circuits which have been enabled by Non-Silencing zones will not silence.

FUNCTION	DISPLAY	PRESS	REMARKS
To Cut Off a AM-1 Module.		CIRCUIT CUTOFF SKIP	
	Cut Off AM-1 Mod? (Y/N)	ALARM SILENCE YES/UP	
	AM-1 loop #01 Cut Off? (Y/N)	ALARM SILENCE YES/UP	AM-1 loop will be cut off.
		OR TROUBLE SILENCE NO/DOWN	AM-1 loop will not be cut off.
		OR CIRCUIT CUTOFF SKIP	AM-1 loop will not change but will skip to next display question.
	AM-1 loop #02 Cut Off? (Y/N)		
	Repeat same steps used for AM-1 loop #1 for every AM-1 loop in system.	OR LAMP TEST ENTER	Enter willadvance to next function. Cut off ZN zone?
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	AM-1 loops programmed for cut off will be in cut off.
To Restore a AM-1 loop in Cut Off.	Repeat same procedure to cut off a AM-1 module.		A AM-1 loop in cut off will appear on display.
	AM-1 loop #__ Restore? (Y/N)	ALARM SILENCE YES/UP	AM-1 loop will be re-stored.
		OR TROUBLE SILENCE NO/DOWN	AM-1loop will remain in cutoff.
		OR CIRCUIT CUTOFF SKIP	AM-1 loop will not change but will skip to next display question.
	Repeat same step for every AM-1 loop in system	OR LAMP TEST ENTER	Enter will advance to next function. Cut off ZN zone?
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	AM-1 loops programmed to be restored will be restored.

FUNCTION	DISPLAY	PRESS	REMARKS
To Cut Off a AM-1 Device.		CIRCUIT CUTOFF / SKIP	
	Cut Off AM-1 Mod? (Y/N)	ALARM SILENCE / YES/UP	
	AM-1 loop #01 Cut Off? (Y/N)	TROUBLE SILENCE / NO/DOWN	
	Cut Off AM-1 #01 Device? (Y/N)	ALARM SILENCE / YES/UP	
	Cut Off Z001L1S01T Device Message	ALARM SILENCE / YES/UP	AM-1 device will be cut off.
		OR	
		TROUBLE SILENCE / NO/DOWN	AM-1 device will not be cut off.
		OR	
		CIRCUIT CUTOFF / SKIP	AM-1 device will not change but will skip to next display question.
	Repeat same step for every AM-1 device in loop	OR LAMP TEST / ENTER	Enter will advance to next function. Cut off ZN zone?
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE / NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE / NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE / NO/DOWN	AM-1 devices programmed to be cutoff will be cutoff.

FUNCTION	DISPLAY	PRESS	REMARKS
To Restore a AM-1 device in Cut Off.	Repeat same procedure to cut off a AM-1 device.		A AM-1 device in cut off will appear on display.
	Restr Z001L1S01T Device Message	ALARM SILENCE YES/UP	AM-1 device will be re-stored.
		OR	
		TROUBLE SILENCE NO/DOWN	AM-1 device will remain in cutoff.
		OR	
		CIRCUIT CUTOFF SKIP	AM-1 device will not change but will skip to next display question.
	Repeat same step for every AM-1 device in loop.	OR LAMP TEST ENTER	Enter will advance to next function. Cut off ZN zone?
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	AM-1 devices programmed to be restored will be restored.

FUNCTION	DISPLAY	PRESS	REMARKS
To Cut Off ZN Zone.		CIRCUIT CUTOFF SKIP	
	Cut Off AM-1 Mod? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off ZN Zone? (Y/N)	ALARM SILENCE YES/UP	
	Zone #01 Cut Off? (Y/N)	ALARM SILENCE YES/UP	Zone will be cut off.
		OR	
		TROUBLE SILENCE NO/DOWN	Zone will not be cut off.
		OR	
		CIRCUIT CUTOFF SKIP	Zone will not change but will skip to next display question.
	Zone #02 Cut Off? (Y/N)		
	Repeat same steps used for Zone #01 for every zone in system.	OR LAMP TEST ENTER	Enter will advance to next function. Cut off signals?
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	Zones programmed for cut off will be in cut off.
To Restore ZN Zone in Cut Off.	Repeat same procedure to cut off a zone		A zone in cut off will appear on display.
	Zone #__ Restore? (Y/N)	ALARM SILENCE YES/UP	Zone will be restored.
		OR	
		TROUBLE SILENCE NO/DOWN	Zone will remain in cut off.
		OR	
		CIRCUIT CUTOFF SKIP	Zone will not change but will skip to next display question.
	Repeat same step for every zone in system.	OR LAMP TEST ENTER	Enter will advance to next function. Cut off SC Signals?
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	Zones programmed to be restored will be restored.

NOTE: A System reset may be required to restore ZN-1 modules.

FUNCTION	DISPLAY	PRESS	REMARKS
To Cut Off SC Signal Circuit.		CIRCUIT CUTOFF SKIP	
	Cut Off AM-1 Mod? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	ALARM SILENCE YES/UP	
	Signal #01 Cut Off? (Y/N)	ALARM SILENCE YES/UP	Signal circuit will be cutoff.
		OR	
		TROUBLE SILENCE NO/DOWN	Signal circuit will not be cut off.
		OR	
		CIRCUIT CUTOFF SKIP	Signal circuit will not change but will skip to next display question.
	Repeat same steps used for signal circuit #1 for every signal circuit in system.	OR LAMP TEST ENTER	Enter will advance to next function. City Tie Cut Off?
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	Signal circuits programmed for cut off will be in cut off.
To Restore SC Signal Circuit in Cut Off.	Repeat same procedure to cut off a signal circuit.		A signal circuit in cut off will appear on display.
	Signal #__ Restore? (Y/N)	ALARM SILENCE YES/UP	Signal circuit will be restored.
		OR	
		TROUBLE SILENCE NO/DOWN	Signal circuit will remain in cut off.
		OR	
		CIRCUIT CUTOFF SKIP	Signal circuit will not change but will skip to next display question.
	Repeat same steps for every signal circuit in system.	OR LAMP TEST ENTER	Enter will advance to next function. City Tie Cut Off?
	City Tie Cut Off? (Y/N)	TROUBLE SILENCE NO/DOWN	Signal circuits programmed to be restored will be restored.

FUNCTION	DISPLAY	PRESS	REMARKS
To Cut Off the City Tie.		CIRCUIT CUTOFF SKIP	
	Cut Off AM-1 Mod? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Cut Off? (Y/N)	ALARM SILENCE YES/UP	City tie will be cut off.
To Restore the City Tie.		CIRCUIT CUTOFF SKIP	
	Cut Off AM-1 Mod? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off ZN Zone? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Cut Off SC Sig? (Y/N)	TROUBLE SILENCE NO/DOWN	
	City Tie Restore? (Y/N)	ALARM SILENCE YES/UP	City tie will be restored.
		DRILL TEST ←	Key will skip back to previous display question in circuit cut off programming.

FUNCTION	DISPLAY	PRESS	REMARKS
To Enable Drill Test.		DRILL TEST ←	
	Enable Drill Test? (Y/N)	ALARM SILENCE YES/UP	Signal circuits will perform their programmed alarm functions.
	Performing Drill Test		6 seconds on display.
	Enable Recall? (Y/N)	ALARM SILENCE YES/UP	Signal circuits will perform their programmed recall functions.
	Performing Recall	OR	6 seconds on display.
		TROUBLE SILENCE NO/DOWN	
	To Restore Press System Reset	SYSTEM RESET	
To Enable Recall if Drill Test Not Used.		DRILL TEST ←	
	Enable Drill Test? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Enable Recall? (Y/N)	ALARM SILENCE YES/UP	Signal circuits will perform their programmed recall functions.
	Performing Recall		6 seconds on display.
	To Restore Press System Reset	SYSTEM RESET	

FUNCTION	DISPLAY	PRESS	REMARKS
To Set the Time.		SYSTEM PROG.	
	Set the Time? (Y/N)	ALARM SILENCE YES/UP	
	12:00:00 PM Set Hours	ALARM SILENCE YES/UP	Press up or down to set hours.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will advance to set minutes.
	12:00:00 PM Set Minutes	ALARM SILENCE YES/UP	Press up or down to set minutes.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will advance to set seconds.
	12:00:00 PM Set Seconds	ALARM SILENCE YES/UP	Press up or down to set seconds.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will set clock to the time on the display and advance to next function.
	Set the Date? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Program System? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Test System? (Y/N)	TROUBLE SILENCE NO/DOWN	

FUNCTION	DISPLAY	PRESS	REMARKS
To Set the Date.		SYSTEM PROG.	
	Set the Time? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Set the Date? (Y/N)	ALARM SILENCE YES/UP	
	Set Year 5/18/90	ALARM SILENCE YES/UP	Press up or down to set year.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will advance to set month.
	Set Month 2/18/95	ALARM SILENCE YES/UP	Press up or down to set month.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will advance to set day.
	Set Day 2/18/95	ALARM SILENCE YES/UP	Press up or down to set day.
		OR	
		TROUBLE SILENCE NO/DOWN	
		LAMP TEST ENTER	Enter will set date to the date on the display and advance to next function.
	Program System? (Y/N)	TROUBLE SILENCE NO/DOWN	
	Test System? (Y/N)	TROUBLE SILENCE NO/DOWN	

RDC-700A OPERATING INSTRUCTIONS

ALARM OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

AN ALARM IS INDICATED BY:

SYSTEM ALARM L.E.D. lights.
The YELLOW SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

Notify the proper personnel to institute preplanned Fire Alarm Procedures:_____

Telephone the Fire Department. (Phone No.:_____), to advise of the alarm and/or verify that an automatic signal has been received at the Fire Department.

AUTHORIZED PERSONNEL ONLY

TO SILENCE THE TROUBLE BUZZER:

Press the TROUBLE SILENCE SWITCH.

TO SILENCE THE BUILDING ALARM SIGNALS:*

Momentarily push the ALARM SILENCE SWITCH.
Enter access code.
The ALARM SILENCE L.E.D.
will light, indicating the building alarm signals are off.

NOTE: If any zone has been programmed for non-silence operation, once alarmed its designated building alarm signals cannot be silenced.

TO RESET AFTER AN ALARM:*

First, the device which caused the alarm must be reset.
Momentarily press the SYSTEM RESET switch.
Enter access code.
If a trouble condition still exists, notify the proper personnel for servicing the system immediately.

TROUBLE OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

A TROUBLE IS INDICATED BY:

The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE Switch.

Notify the proper personnel for servicing the system immediately.

Institute alternate Fire Alarm Procedures.

* Function must be enabled on RDC-700A

FRAME THESE INSTRUCTIONS AND MOUNT THEM ADJACENT TO THE CONTROL UNIT.

445210
Issue I - Rev. A

RDC-800 OPERATING INSTRUCTIONS

ALARM OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

AN ALARM IS INDICATED BY:

SYSTEM ALARM L.E.D. lights.
The YELLOW SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

Notify the proper personnel to institute preplanned Fire Alarm Procedures:_____

Telephone the Fire Department. (Phone No.:_____), to advise of the alarm and/or verify that an automatic signal has been received at the Fire Department.

AUTHORIZED PERSONNEL ONLY

TO SILENCE THE TROUBLE BUZZER:

Press the TROUBLE SILENCE SWITCH.

TO SILENCE THE BUILDING ALARM SIGNALS:*

Momentarily push the ALARM SILENCE SWITCH.
Enter access code.
The ALARM SILENCE L.E.D.
will light, indicating the building alarm signals are off.

NOTE: If any zone has been programmed for non-silence operation, once alarmed its designated building alarm signals cannot be silenced.

TO RESET AFTER AN ALARM:*

First, the device which caused the alarm must be reset.
Momentarily press the SYSTEM RESET switch.
Enter access code.
If a trouble condition still exists, notify the proper personnel for servicing the system immediately.

TROUBLE OPERATION OF THE FIRE ALARM SYSTEM CONTROL UNIT

A TROUBLE IS INDICATED BY:

The yellow SYSTEM TROUBLE L.E.D. lights.
The trouble buzzer sounds.

TO SILENCE THE TROUBLE BUZZER:

Momentarily press the TROUBLE SILENCE Switch.

Notify the proper personnel for servicing the system immediately.

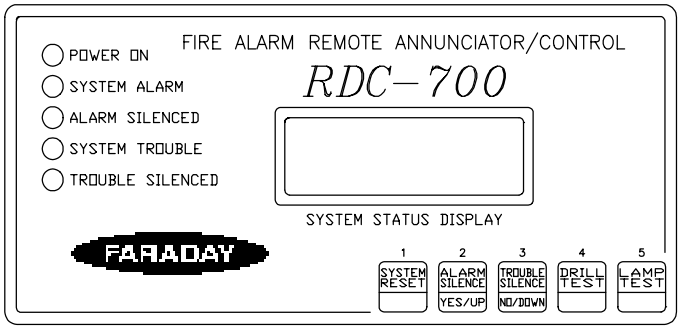
Institute alternate Fire Alarm Procedures.

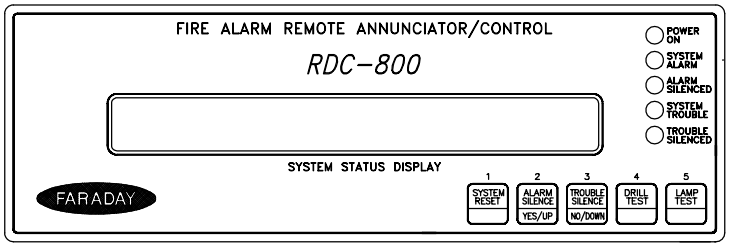
* Function must be enabled on RDC-800
** Skip if the Access Code Bypass switch on the RDC-800K is activated.

FRAME THESE INSTRUCTIONS AND MOUNT THEM ADJACENT TO THE CONTROL UNIT.

445828
Issue I Rev. A

RDC-700A/RDC-800 KEYPAD CONTROLS





FUNCTION	DISPLAY	PRESS	REMARKS
To Reset the System		SYSTEM RESET	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1 System resets
To Silence the Building Indicating Appliances		ALARM SILENCE YES/UP	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1 Indicating appliances silence (SEE NOTE 1)

FUNCTION	DISPLAY	PRESS	REMARKS
To Silence the Trouble Buzzer		TROUBLE SILENCE NO/DOWN	Trouble buzzer silences.
To Perform Lamp Test		LAMP TEST	All LED's light for four seconds.
NOTE 1: Only Indicating Circuits which have been programmed to silence will silence. Indicating Circuits which have been enabled by Non-Silencing zones will not silence.			
To Enable Drill Test		DRILL TEST	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1

To enable drill test continued on next page.

FUNCTION	DISPLAY	PRESS	REMARKS
	Enable Drill Test? (Y or N)	ALARM SILENCE YES/UP	Signal circuits will perform their programmed alarm functions.
	Performing Drill Test		6 seconds on display.
	Enable Recall? (Y or N)	ALARM SILENCE YES/UP	Signal circuits will perform their programmed recall functions.
	Performing Recall	OR	6 seconds on display.
		TROUBLE SILENCE NO/DOWN	
	To Restore Press System Reset	SYSTEM RESET	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1 System resets

FUNCTION	DISPLAY	PRESS	REMARKS
To Enable Recall if Drill Test Not Used		DRILL TEST	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1
	Enable Drill Test? (Y or N)	TROUBLE SILENCE NO/DOWN	
	Enable Recall? (Y or N)	ALARM SILENCE YES/UP	Signal Circuits will perform their programmed recall functions.
	Performing Recall		6 seconds on display.
	To Restore Press System Reset	SYSTEM RESET	
	1st Digit 1st Digit	DRILL TEST	4
	2nd Digit 2nd Digit	ALARM SILENCE YES/UP	2
	3rd Digit 3rd Digit	TROUBLE SILENCE NO/DOWN	3
	4th Digit 4th Digit	ALARM SILENCE YES/UP	2
	5th Digit 5th Digit	SYSTEM RESET	1 System resets

THE D700 AND G700 SERIES REMOTE ANNUNCIATOR
KEY SWITCH CONTROLS

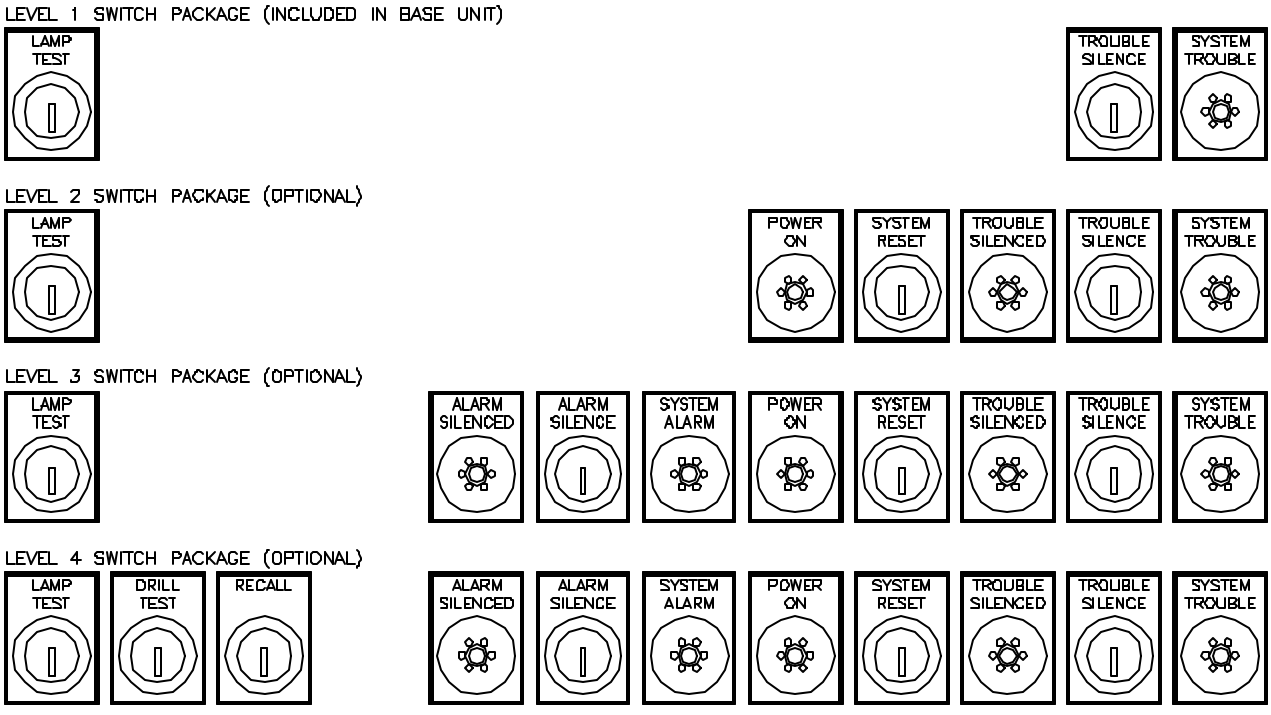
LEVEL 1 switch package is included in the base unit. This level of operation allows for a lamp test of all visual indicating lamps on the remote annunciator. The trouble silence keyswitch will silence the buzzer in the remote annunciator. There is a system trouble LED to indicate any trouble condition at the fire control panel.

LEVEL 2 switch package option has all the features of level 1 plus a system reset keyswitch to reset the fire control panel. A power on LED indicates there is power to the remote annunciator. The trouble silenced LED indicates the trouble buzzer has been silenced on the remote annunciator.

LEVEL 3 switch package option has all the features of level 2 plus a system alarm LED which indicates an alarm condition at the fire control panel. The alarm silence keyswitch will silence only indicating devices programmed at the fire control panel to be silencing. The alarm silence LED indicates if the indicating devices programmed to be silenced are silenced.

LEVEL 4 switch package option has all the features of level 3 plus drill test and recall of indicating devices programmed at the fire control panel for drill test and recall. To initiate drill test or recall from the remote annunciator operate key switch of desired function. The fire control panel will operate indicating devices programmed for that function. To restore system, operate system reset keyswitch.

ALL KEY SWITCHES ARE MOMENTARY TYPE SWITCHES



MPC-2000 GENERAL SPECIFICATIONS

Ambient Temperature:	32^{o}-120^{o}F (0^{o}-49^{o}C)
Relative Humidity:	Up to 85% @ 86^{o}F (30^{o}C)
Primary Input Voltage:	120 Vac 60Hz Nominal (102-132 VAC)
Secondary and Trouble Power Supply:	24 Volt Battery Set

Resettable Smoke Detector Power (MP-3, AP-4)

Power Limited	
Voltage:	24 VDC nominal
Current:	1.5 Amps max including control panel requirements.
Requires ½ of a TX-1 Module Filtered	
Maximum Ripple:	1.2VAC

Non-resettable Power (MP-3, AP-4)

Power Limited	
Voltage:	24 VDC nominal
Current:	1.5 Amps max including control panel require-ments.
Requires ½ of a TX-1 Module Filtered	
Maximum Ripple:	1.2VAC

Non-Regulated Aux Power Supply (AP-5)

Power Limited	
Voltage:	24 VDC full wave (nominal)
Current:	3 Amps max
Maximum Ripple:	16 VAC
Requires ½ of a TX-1 or TX-2 Module Unfiltered.	

Battery Charger (BC-2)

Maximum Charge Voltage:	27.8 VDC
Maximum Charge Current:	5 Amps
Battery Capacity per BC-2	17-76 Amp Hour
Requires ½ of a TX-1 Module Filtered.	

Initiating Circuits	104 zones max including
(ZN-1A, ZN-2A, ZN-3A, ZN-1S, ZN-2S, ZN-3S)	ZN-1A, ZN-2A, ZN-3A, ZN-1S,
Power Limited	ZN-2S, ZN-3S and zones for
Style "B" or Style "D" (ZN-1A, ZN-1S, ZN-3A & ZN-3S)	the AM-1 modules.
Style "B" Only (ZN-2A & ZN-2S)	
Disconnect/Test (ZN-3A & ZN-3S only)	
Standby Voltage Range:	16 - 27 VDC
Maximum Standby Current:	7.6mA
Maximum Standby Detector Current:	3.0 mA
Maximum Alarm Current:	48 mA
Maximum Ripple:	500 mV
Maximum Wire Loop Resistance:	100 ohms
E.O.L. - 3.9K ohms 1/2 W. Resistor	P/N 10808

(AM-1)

Power Limited	
Comparable to a Style "4" or Style "6" operation	
Normal voltage range (communication to sensors)	Tri-level 0V, 5V, 24V nominal
Normal current:	150mA peak
Alarm current:	150mA peak
Maximum wire loop resistance for the Addressable/Analog Loop Circuit	40 ohms
Maximum number of AM-1 modules	8

Indicating Circuit (SC-1)	96 max including SC-1, SC-2, SC-3, AR-1, AR-2, AR-3 and software circuits for the AM-1 modules
Power Limited	
Style "Y" or Style "Z"	
Alarm Voltage:	Regulated 24 VDC, 24 VDC full wave (nominal) or 25V. audio
Maximum Alarm Current:	2.5A @ 24 VDC
Maximum Alarm Ripple:	16 VAC
Maximum Standby Current:	0.94 mA per circuit
Maximum Wire Loop Voltage Drop:	1.9 VDC
E.O.L. - 24K Ohm 1/2 W. Resistor (per circuit)	P/N 10807

Indicating Circuit (SC-2)	96 max including SC-1, SC-2, SC-3, AR-1, AR-2, AR-3 and software circuits for the AM-1 modules
Power Limited	
Style "Y"	
Alarm Voltage Range:	Regulated 24 VDC, 24 VDC full wave (nominal) or 25V. audio
Maximum Alarm Current:	2.5A @ 24 VDC
Maximum Alarm Ripple:	16 VAC
Maximum Standby Current:	0.94 mA per circuit
Maximum Wire Loop Voltage Drop:	1.9 VDC
E.O.L. - 47K Ohm 1/2 W. Resistor (per loop)	P/N 10809

Indicating Circuit (SC-3)	96 max including SC-1, SC-2, SC-3, AR-1, AR-2, AR-3 and software circuits for the AM-1 modules
Power Limited	
Style "Y"	
Alarm Voltage Range:	Regulated 24 VDC, 24 VDC full wave (nominal) or 25V. audio
Maximum Alarm Current:	1.5A @ 24 VDC
Maximum Alarm Ripple:	16 VAC
Maximum Standby Current:	0.94 mA per circuit
Maximum Wire Loop Voltage Drop:	1.9 VDC
E.O.L. - 24K Ohm 1/2 W. Resistor (per circuit)	P/N 10807

Auxiliary Relay Circuits (AR-1, AR-2)	96 max including SC-1,

SC-2, SC-3, AR-1, AR-2
AR-3 and software
circuits for the AM-1
modules.

One Form "C" contact per relay — 5 Amps @ 30 VDC/VAC

Auxiliary Relay Driver Circuits (AR-3) — 96 max including SC-1,
Power Limited — SC-2, SC-3, AR-1, AR-2,
AR-3 and software circuits for the AM-1 modules

Alarm voltage: — 24 VDC full wave (nominal)
Maximum Alarm Current: — 1.5 Amps at 24VDC
Maximum Alarm Ripple: — 16VAC

Universal City Tie (CT-1)
Circuit A
Remote Station Alarm/ Trouble
Power Limited
See installation sheet for compatible receivers.

Local Energy Alarm
Not Power Limited
See installation sheet for compatible devices.

Shunt Alarm
dry contact (1 Amp 30Vdc resistive)

Circuit B
Remote Station Sprinkler Supervisory (optional)
Power Limited
See installation sheet for compatible receivers.

Circuit C
Remote Station Trouble (optional)
Power Limited
See installation sheet for compatible receivers.

Communications Interface (CI-1) — 1 max.
Voltage Range: — -15 VDC to +15VDC
Maximum Current (shorted): — 50 mA
Baud Rate: — 9600
Power Limited RS232 port

Communications Interface (CI-2) — 1 max.
Voltage Range: — -15 VDC to +15VDC
Maximum Current (shorted): — 50mA
Baud Rate: — 1200
Power Limited RS232 Port

D.A.C.T. Interface (DI-1)
Non-resettable Power Output (Power Limited)
Voltage: — 24 VDC Nominal
Current: — .3 AMPS Max.
Maximum Ripple: — 1.2 VAC
Form “C” Contacts — 1 AMP @ 28 VDC

Telephone Circuit (FP-1, FP-2 w/PE-1, FP-3)

Power Limited	
Voltage Range:	6-19 VDC
Maximum Current (shorted):	85mA
Maximum Wire Loop Resistance:	10 ohms
E.O.L. - 33K ohm 1/4 w. resistor	17-320125-08

Remote Control (RDC-700A)
Powered from SI-2 or SI-3 module — 8 max includes any combination of remotes

Remote Control (RDC-800)
Powered from SI-3 module — 8 max includes any combination of remotes

D700 and G700 Series of Remote Annunciators
Powered from SI-2 or SI-3 module and MP-3 or AP-4 module.

R710A Series of Remote Control Relay Units
Powered from SI-2 or SI-3 module and MP-3 or AP-4 module.

Listed to UL 864 Seventh Edition File S-425

MPC-2000 INSTALLATION INSTRUCTIONS

Installation is to be done only by qualified personnel who have thoroughly read and understand this instruction manual.

There may be several sources of power into the control unit. Every source must be disconnected prior to installing or removing modules and/or connecting or disconnecting wiring.

All wiring must be in accordance with local codes and should comply with National Electric Code, Article 760.

It is recommended that all circuitry be removed from the cabinet for any procedure that may cause dust, metal shavings, grease or any matter which may adversely affect the internal workings of the panel.

Improper wiring and/or installation may result in equipment damage and may result in personal injury.

Incoming Power wiring shall be sourced by a dedicated Life Safety Branch Circuit, or as required by local code.

STEP 1.) The control panel should be located near an exit at ground level, where the normal ambient temperature is maintained within the control unit specifications (see General Specifications). The environment should also be free of dust, vibration, moisture and condensation. Mount the control panel at a convenient height for viewing indicators and operating switches (see pages III-13, III-14, III-19 and III-20). Use appropriate fasteners to support the entire weight of the control panel and fasten to the wall. Mount the battery cabinet below the control panel again using the appropriate fasteners. If the battery cabinet is to be mounted semi-flush, the backbox can be mounted up to 7 1/4" into the wall. Place the semi-flush trim around the battery cabinet and affix to the wall. Locate equipment rack in the same room.

STEP 2.) Attach conduit (if required) and run wires as required. Do not connect wires at this time.

NOTE: Conduit must be used between enclosures and between an enclosure and equipment rack.

STEP 3.) Install the internal circuitry.

STEP 4.) Connect the primary (main) power supply wires to the 120 VAC terminals in the control panel.

STEP 5.) Apply power to the system. The following indications must occur:

A.) POWER ON LED is on.
B.) SYSTEM TROUBLE LED is on.
C.) Trouble buzzer is pulsating.
D.) All initiating and indicating circuit trouble LED's on. (Unless E.O.L. resistors have been installed on modules)

Note: The trouble buzzer can be silenced by momentarily pressing the TROUBLE SILENCE key.

STEP 6.) * Program the control panel for desired operation. Refer to the PROGRAMMING THE CONTROL PANEL section in the installation manual.

* Skip this step if programming was done at the factory.

STEP 7.) Remove power from the control panel.

STEP 8.) To check the supervised circuits of the control panel:

A.) Place a 3.9K (orange, white, red) ohm resistor across each initiating circuit, terminals 1 and 4.
B.) Place a 47K (yellow, violet, orange) ohm resistor across all SC-2 indicating circuits, terminals 1 and 4.
C.) Place a 47K (yellow, violet, orange) ohm resistor across all SC-2 indicating circuits, terminals 2 and 3.
D.) Place a 24K (red, yellow, orange) ohm resistor across all SC-1 indicating circuits, SC-3 indicating circuits and AR-3 auxiliary relay circuits terminals 1 and 4.

E.) Place all SC-3 indicating circuit, AR-1 auxiliary relay circuit and AR-3 auxiliary relay driver circuit, switches in the auto position.

F.) AM-1 Addressable/Analog Module cannot simulate a sensor or module with a resistor. The + out and - out terminals of the module are the communication lines to these devices. This module will have a trouble indication until the actual devices are connected. Therefore it is important that the installation wiring to these sensors and modules (the Addressable /Analog Loop Circuit) is done properly and to the specification listed under the Addressable/Analog Loop Circuit section in this manual.

G.) Place a 33K (orange, orange, orange) ohm resistor across each firefighter's telephone circuit, terminals + and -.

STEP 9.) Re-apply power to the system. Connect the battery set to the B+ and B- terminals on the battery distribution block.

WARNING: Improper battery connections or shorting the battery terminals may damage the control panel and/or may cause personal injury.

STEP 10.) After 10 seconds, all trouble indications should be extinguished and the SYSTEM STATUS DISPLAY should be displaying a time and date. If any trouble exists on the LCD display or any of the module trouble LEDs are lit, proceed to the TROUBLE SHOOTING guide in this manual.

NOTE: If system has AM-1 modules, see step 8 item F

NOTE: Battery power fault condition may take up to a minute to clear.

STEP 11.) Disconnect ALL power into the system, including standby battery power.

STEP 12.) Before connecting any installation wiring to the control panel, all wiring should be checked for opens shorts, grounds and extraneous voltages. If any errors are found, correct and/or replace wiring as necessary.

CAUTION: Damage may result if a high voltage insulation tester is used on wiring while connected to the control panel.

STEP 13.) Installation wiring loop wire resistance should be recorded and compared with allowed wire resistance on the wiring diagram.

STEP 14.) Connect U.L. Listed compatible devices as shown on the wiring diagram, following the instructions provided with each device.

NOTE: Observe proper polarity for all devices.
As installation wiring is connected, remove discard resistors installed in step 8. (or factory installed)

STEP 15.) Apply power to the system, including standby battery power.

STEP 16.) Check for proper operation of the control panel, stations, detectors, and supervision of wires.

NOTE: Refer to NFPA 72.

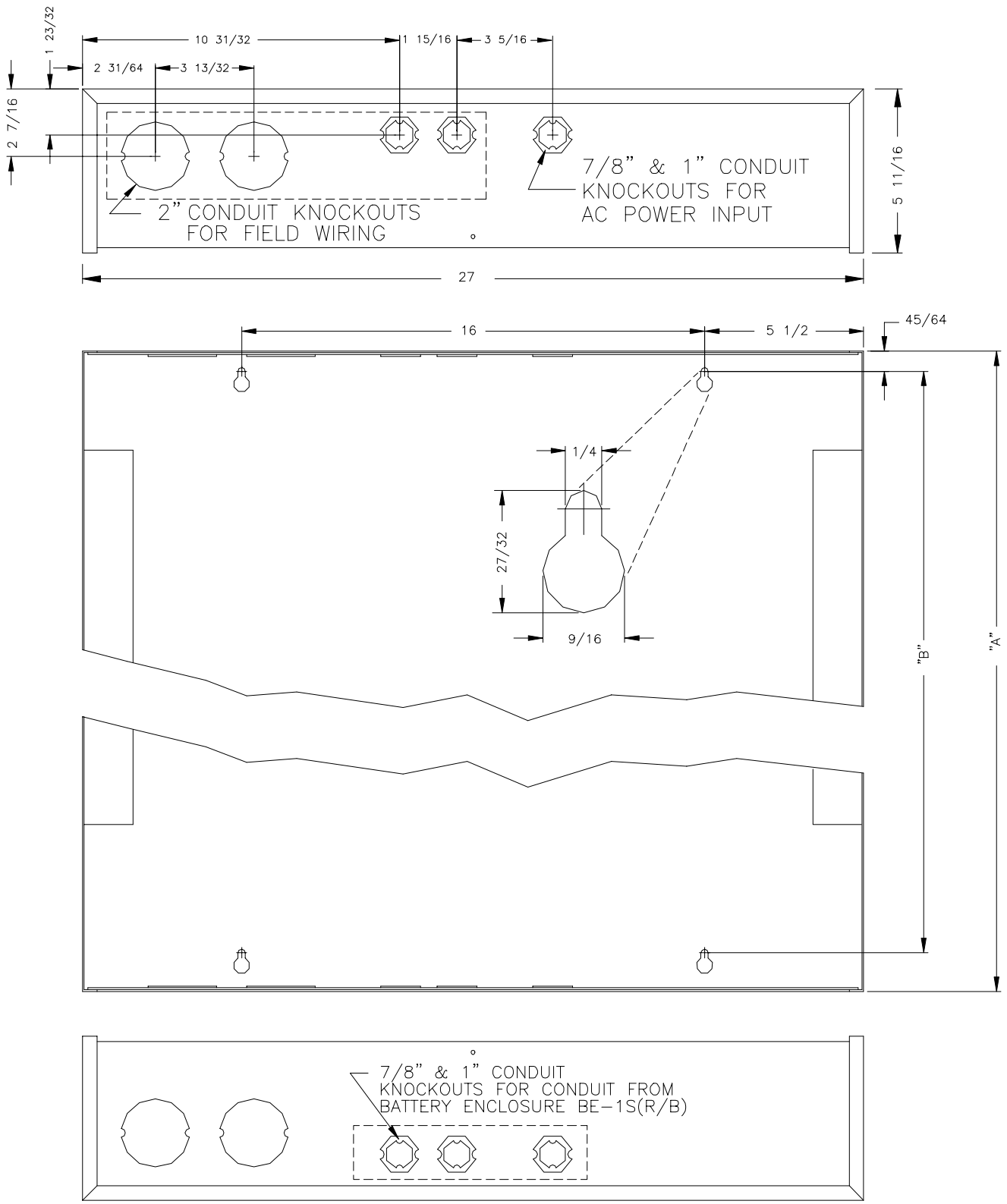
STEP 17.) Attach the door assembly.

STEP 18.) Check off the appropriate options on the nameplate and install on lower left corner of lower module cover plate.

STEP 19.) Mount the operating instructions next to the control unit.

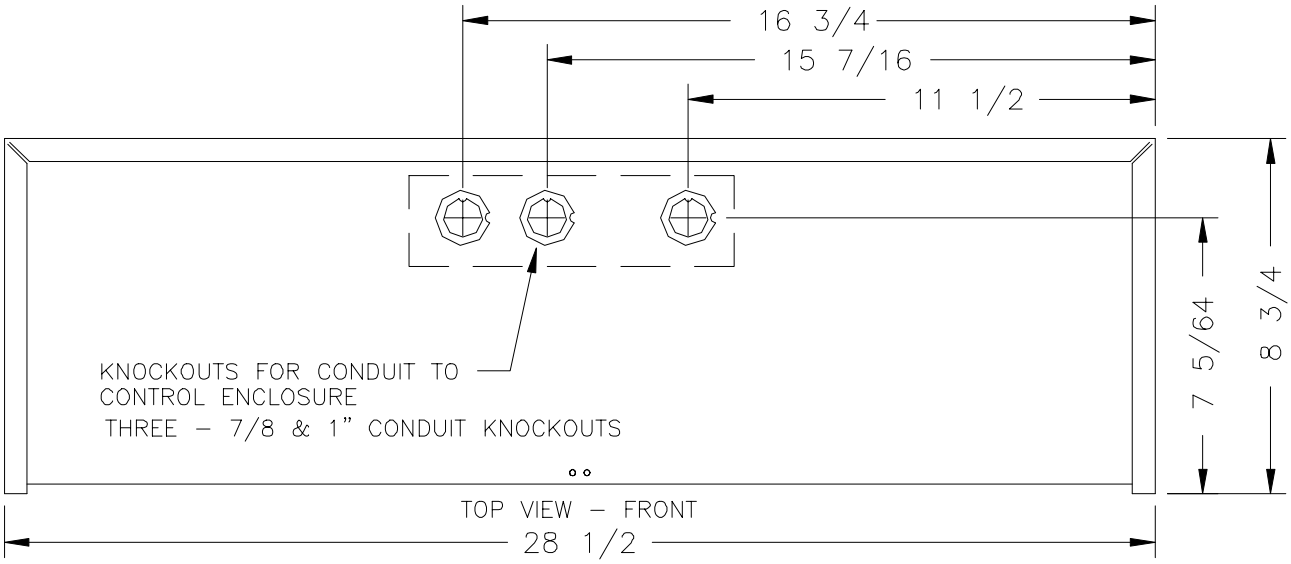
NOTE: Fill in the information required for the Service Representative

CONTROL ENCLOSURE LAYOUT
FOR MPC-2000 SERIES CONTROL PANEL



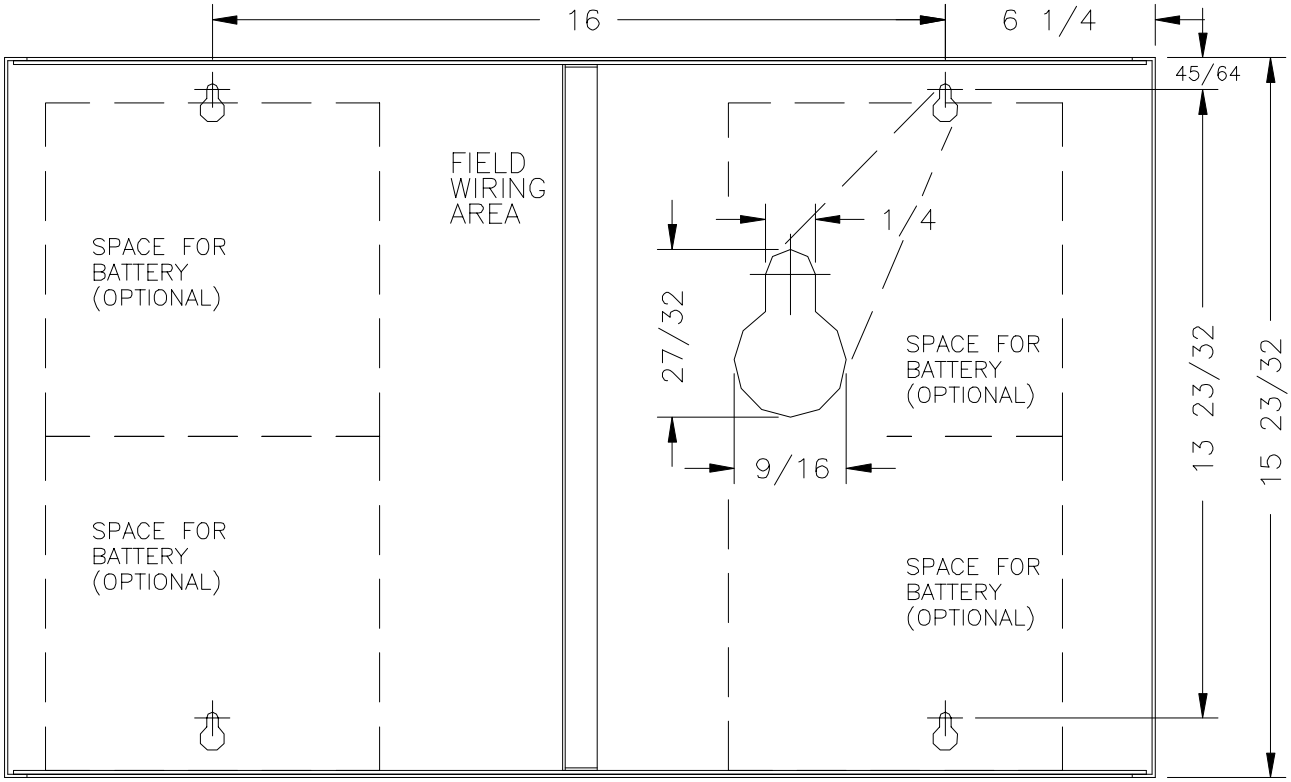
	DIM "A"	DIM "B"
2 Opening Box	27 17/32	25 17/32
3 Opening Box	36 3/16	34 3/16

CAT. NO. BE-1S(R/B) BATTERY ENCLOSURE LAYOUT



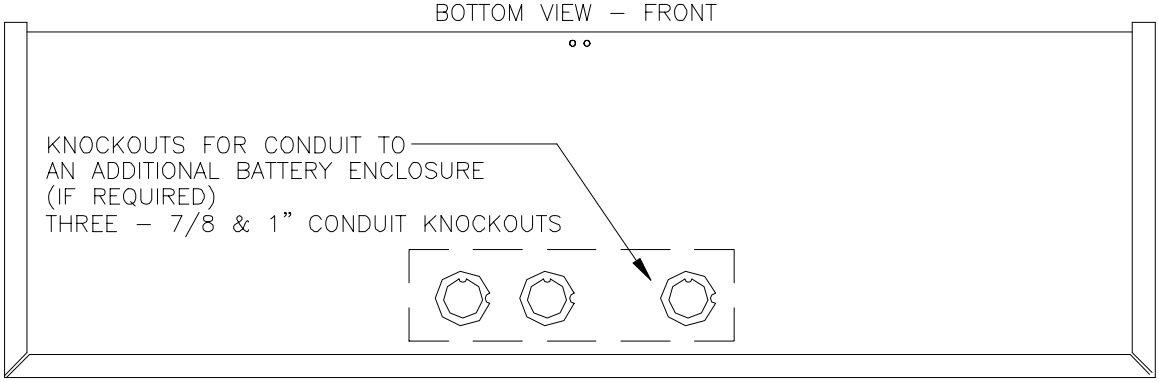
TOP VIEW – FRONT

28 1/2

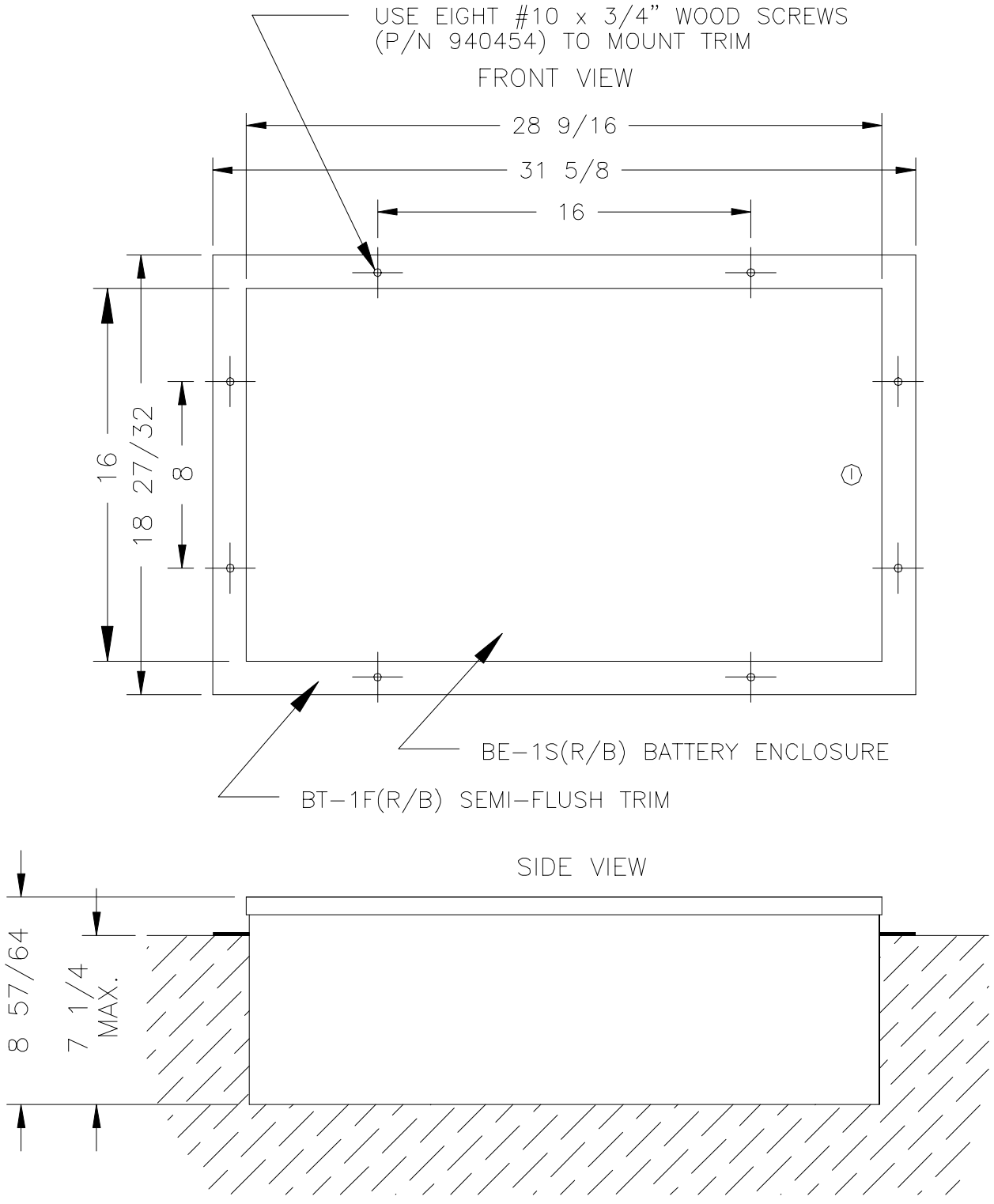


FRONT VIEW

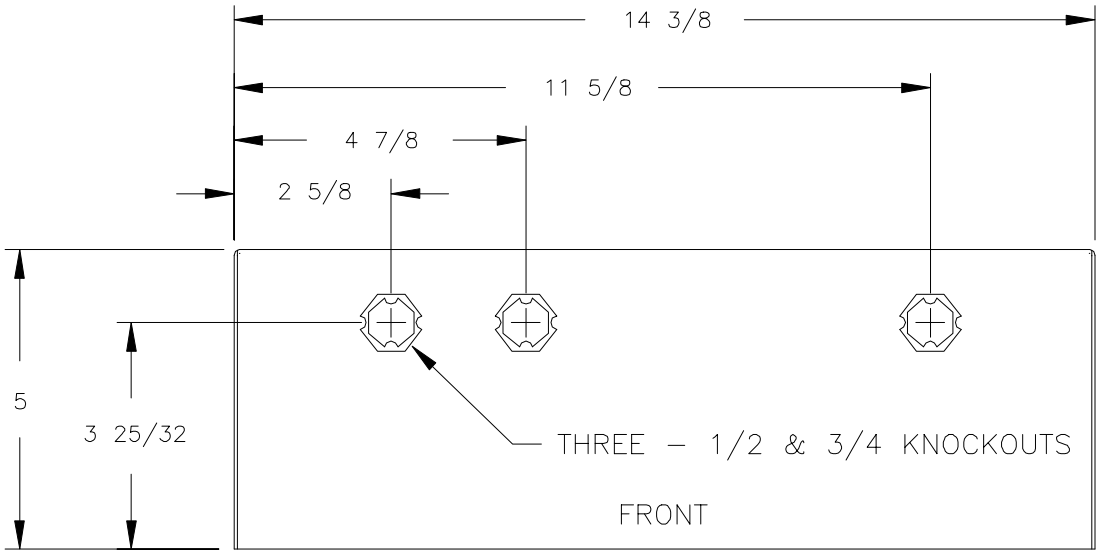
BOTTOM VIEW – FRONT



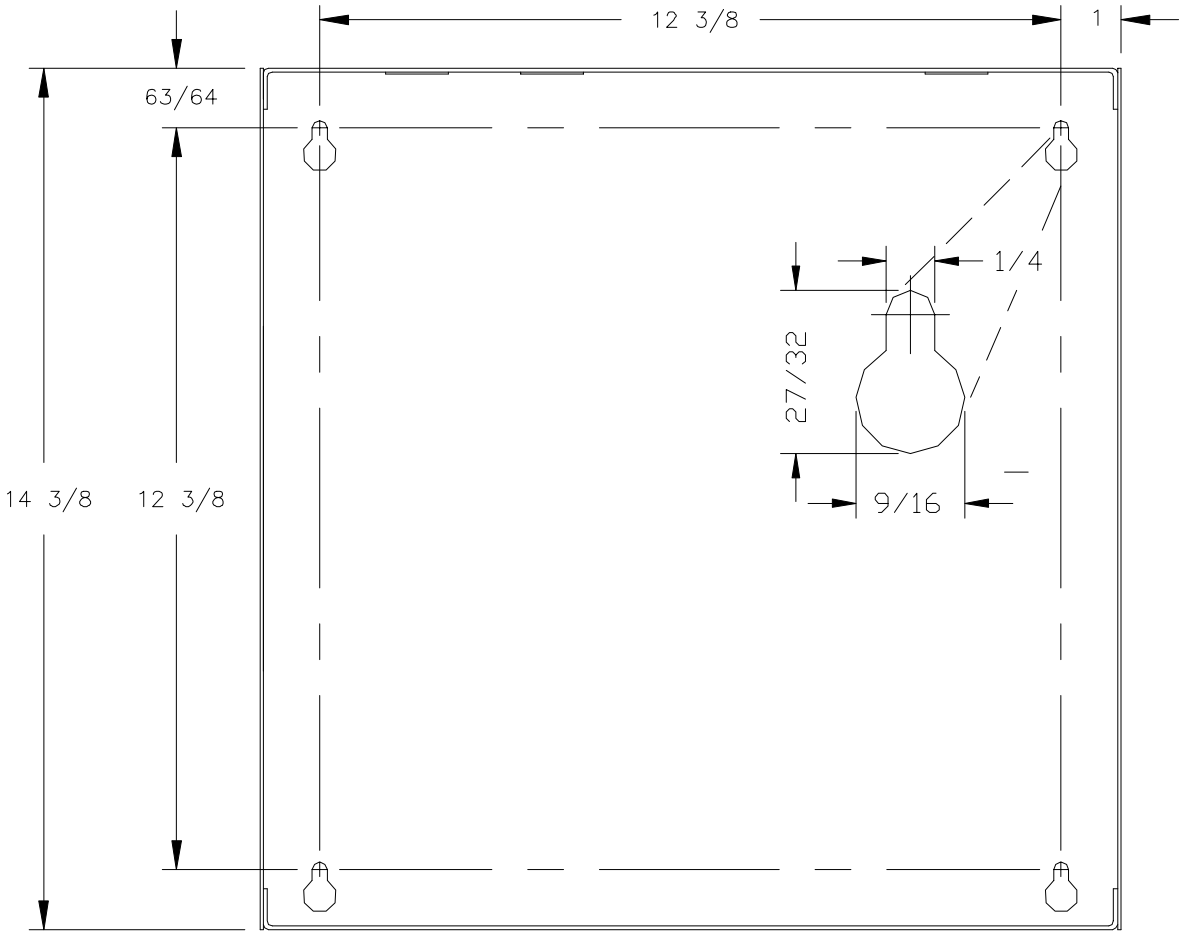
Battery Enclosure Layout
For BE-1S(R/B) Battery Enclosure
With BT-1F(R/B) Semi-Flush Trim



CAT. NO. 14050 BATTERY ENCLOSURE LAYOUT

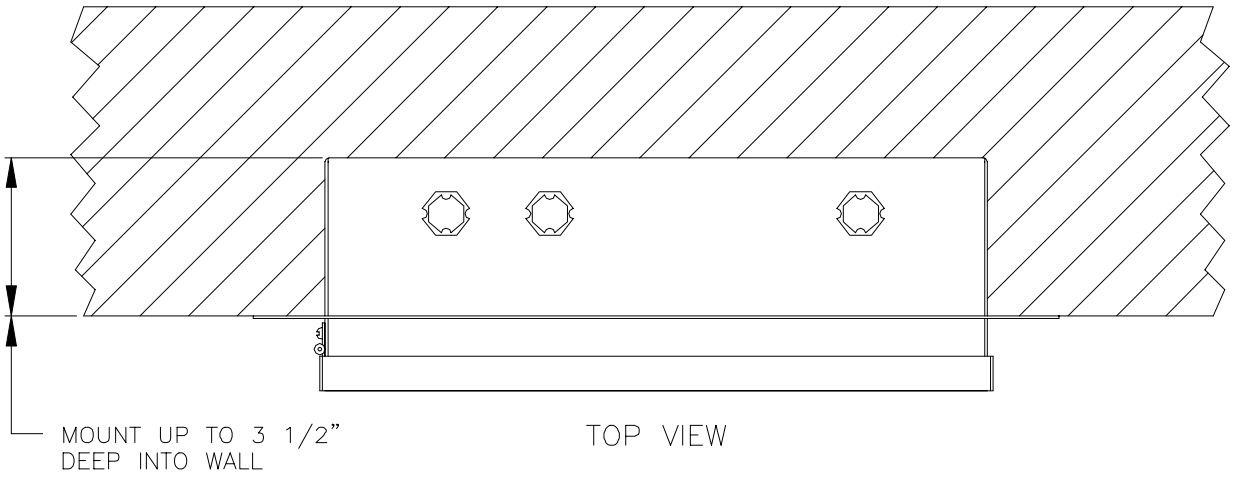


TOP VIEW

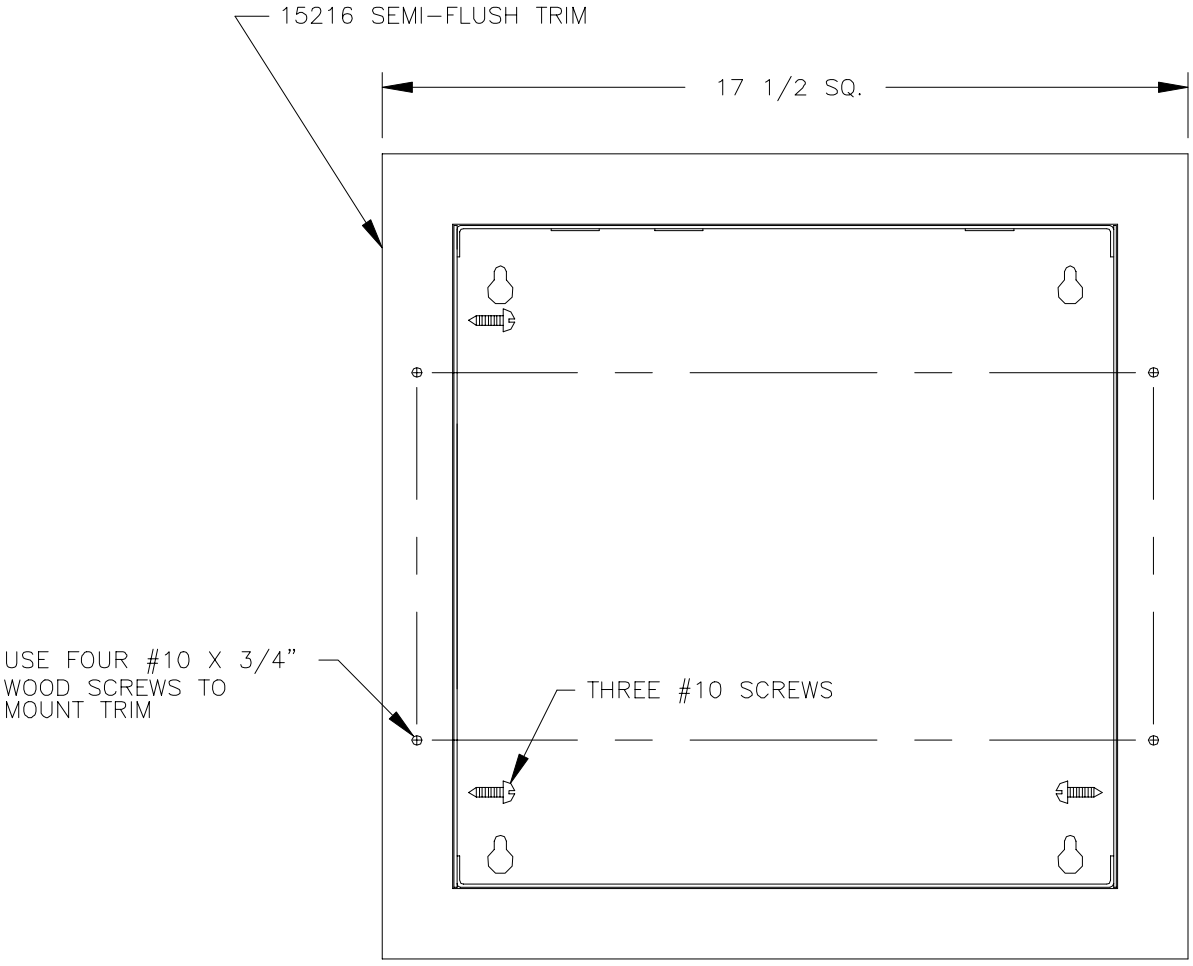


FRONT VIEW

Battery Enclosure Layout
For Cat. No. 14050 Battery Enclosure
With Cat. No. 15216 Semi-Flush Trim



TOP VIEW

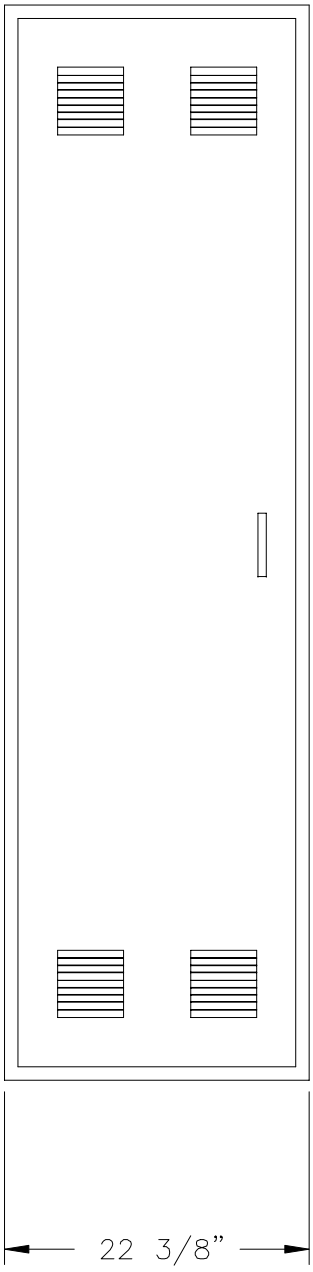


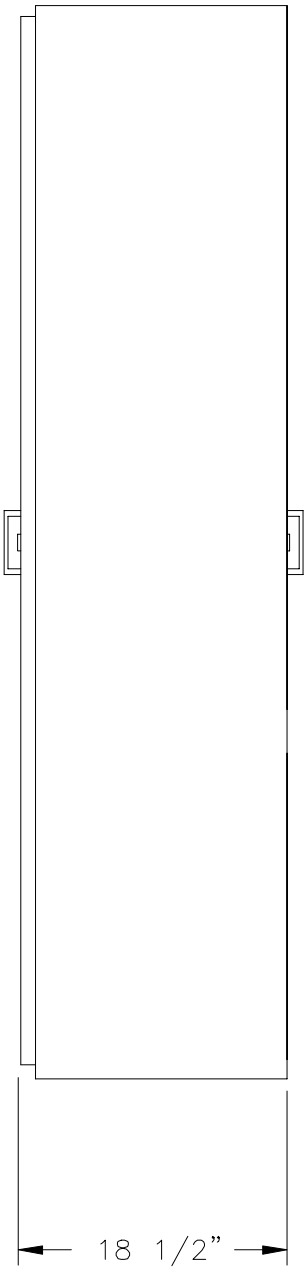
FRONT VIEW

Equipment Rack
For MPC-2000 Series Control Panel

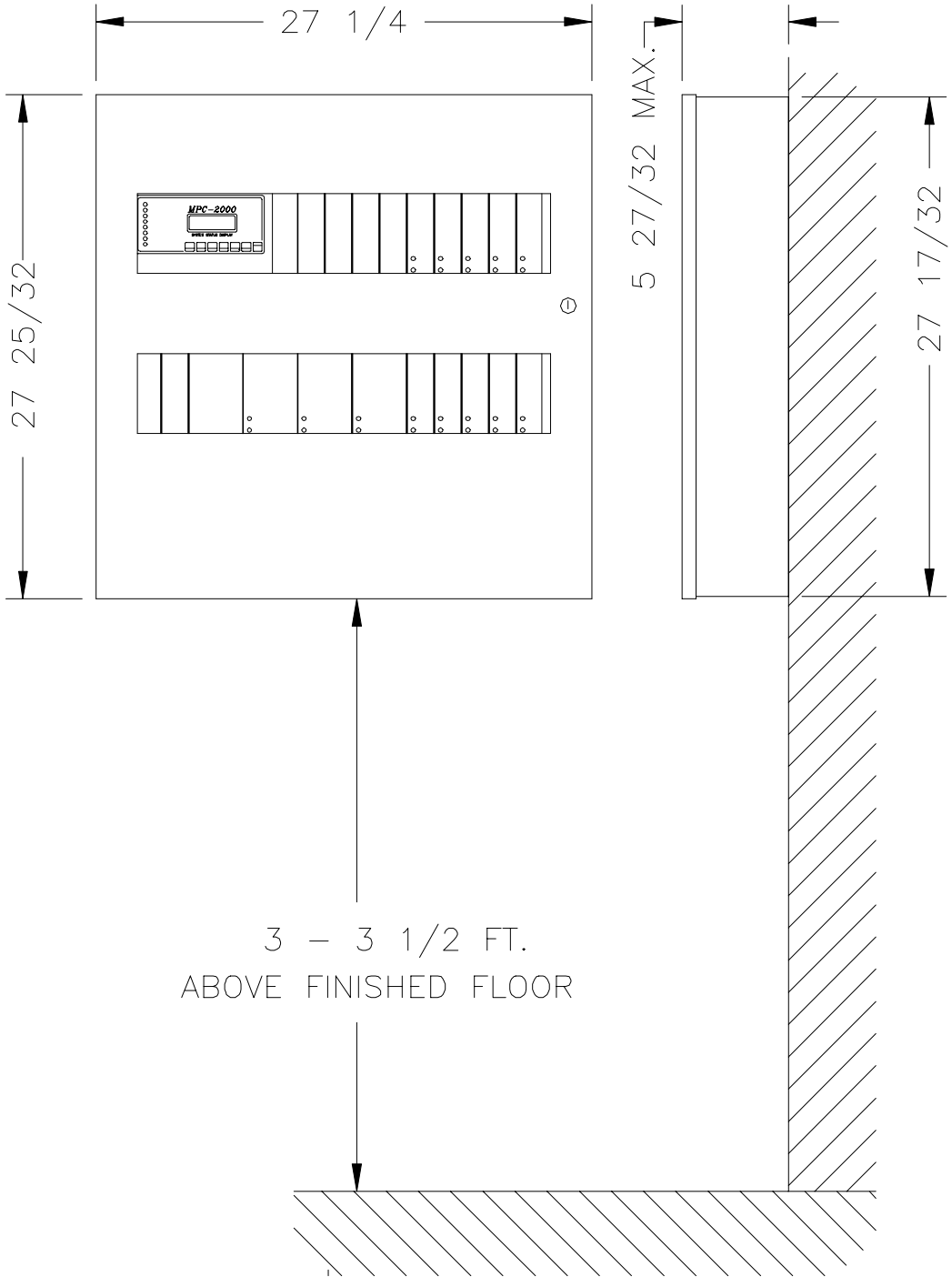
CAT. NO.	HEIGHT	EQUIPMENT RACK SPACE
VRR-A	46 5/16"	42" X 19"
VRR-B	65 7/16"	61 1/4"X19"
VRR-C	74 5/16"	70" X 19"
VRR-D	81 5/16"	77" X 19"

NOTE: CONDUIT MUST BE USED BETWEEN ENCLOSURE AND EQUIPMENT RACK.



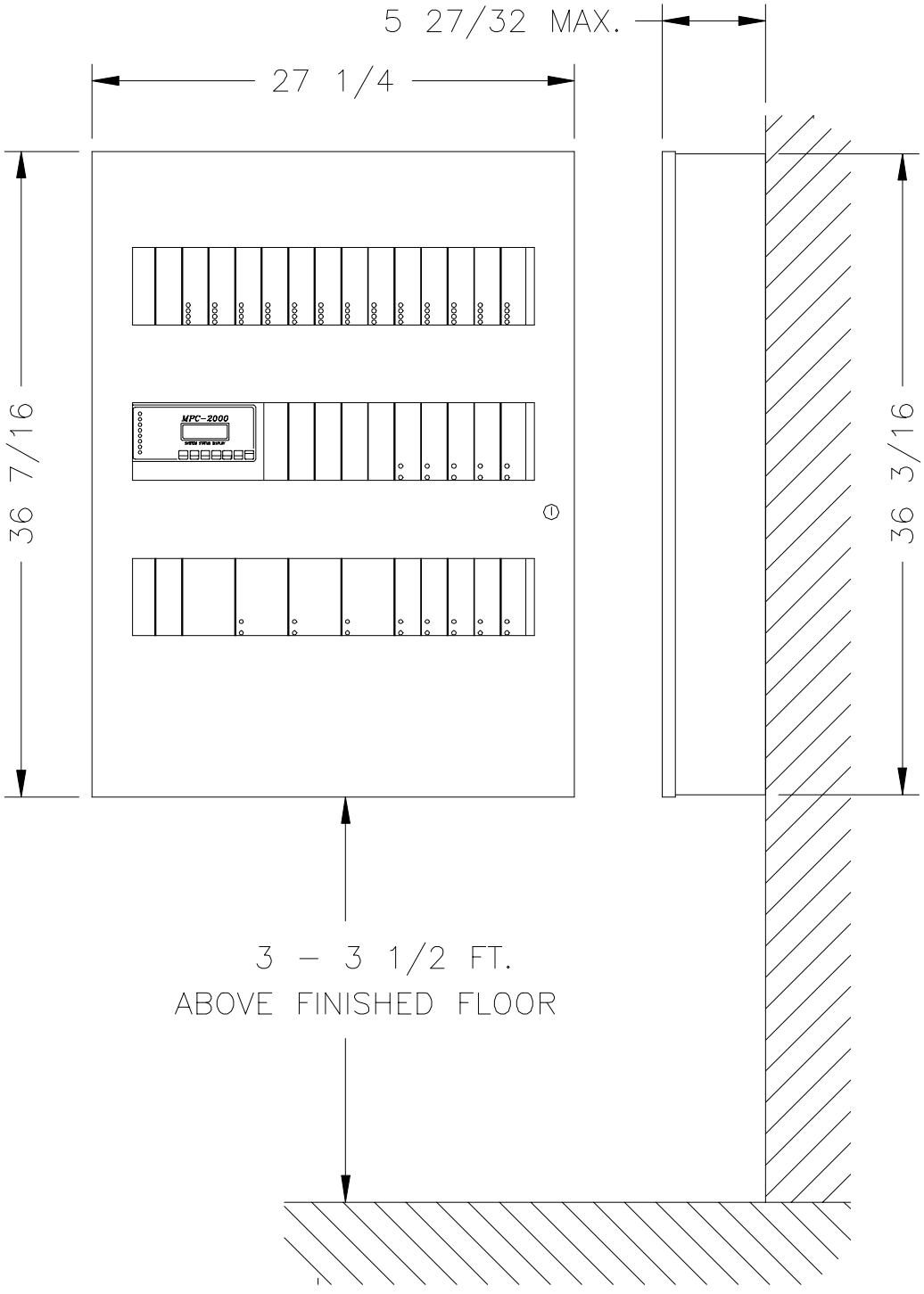


Control Enclosure Layout
For MPC–2000 Series Control Panel
in a Two (2) Opening Surface Enclosure



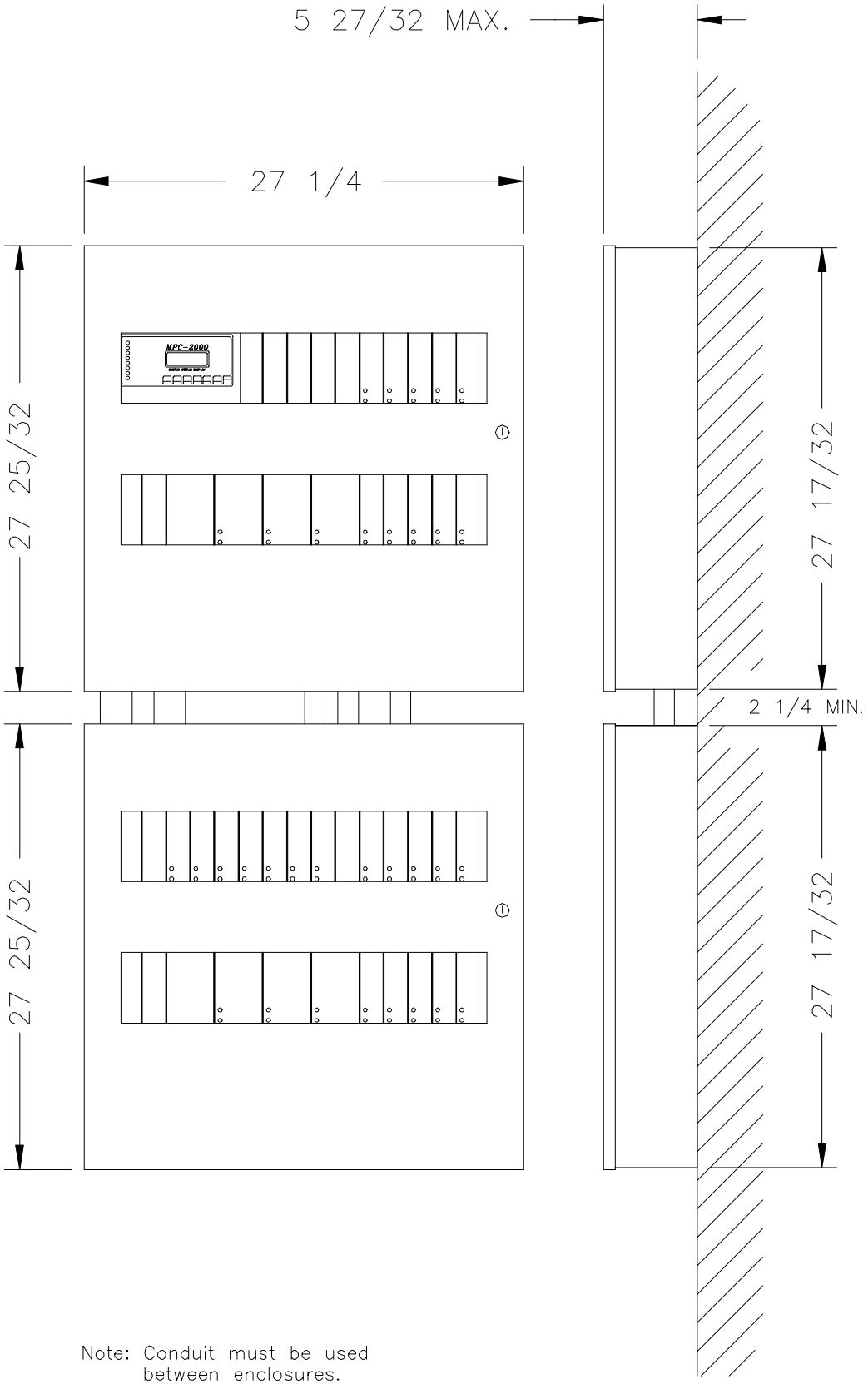
SPACE PROVISIONS:
MODULE – 28
TRANSFORMER – 4

Control Enclosure Layout
For MPC–2000 Series Control Panel
in a Three (3) Opening Surface Enclosure



SPACE PROVISIONS:
MODULE – 42
TRANSFORMER – 4

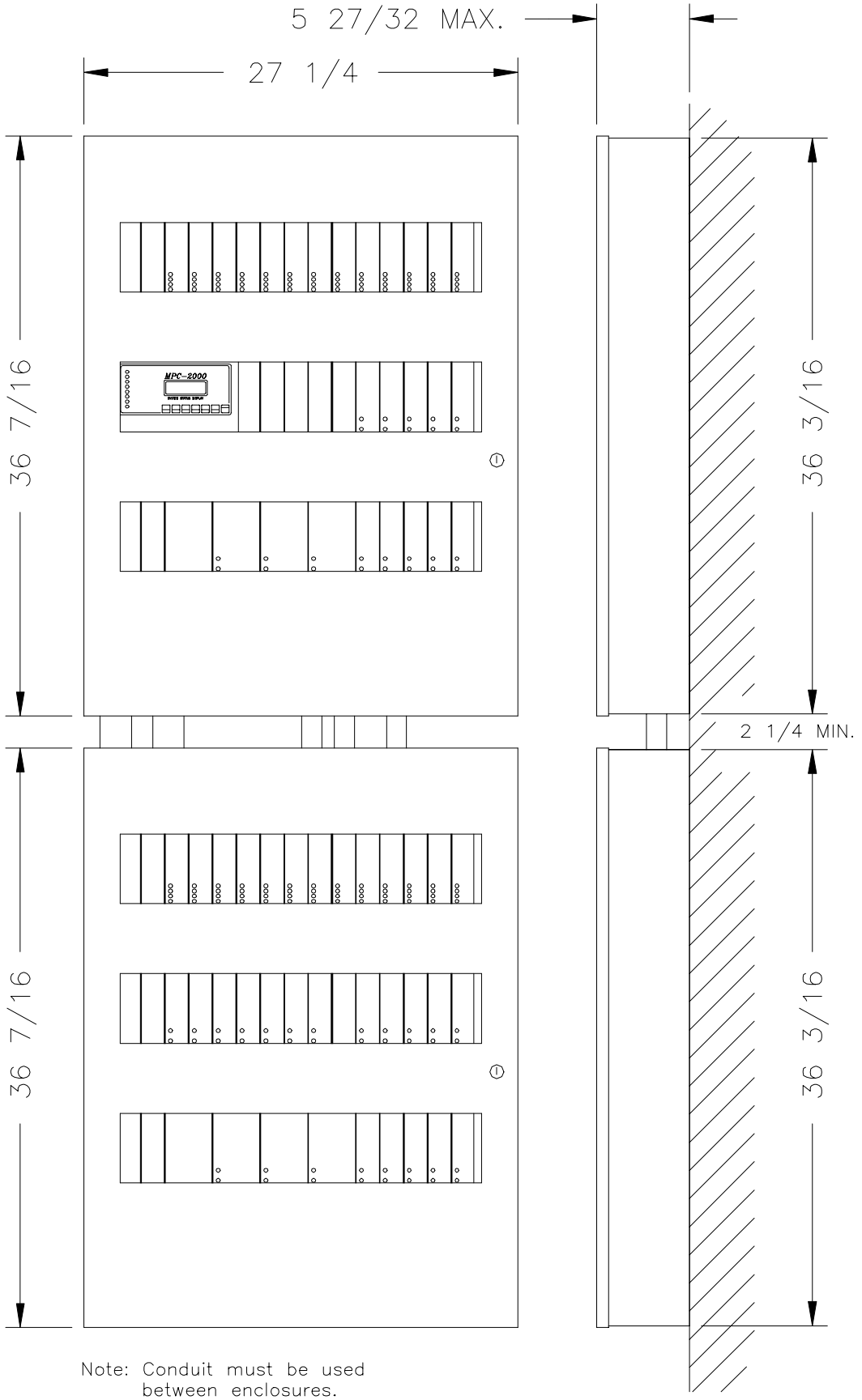
Control Enclosure Layout
For MPC–2000 Series Control Panel
Two (2) Opening Surface Enclosures in Stacked Arrangement



SPACE PROVISIONS:
MODULE – 56
TRANSFORMER – 8

Note: Conduit must be used between enclosures.

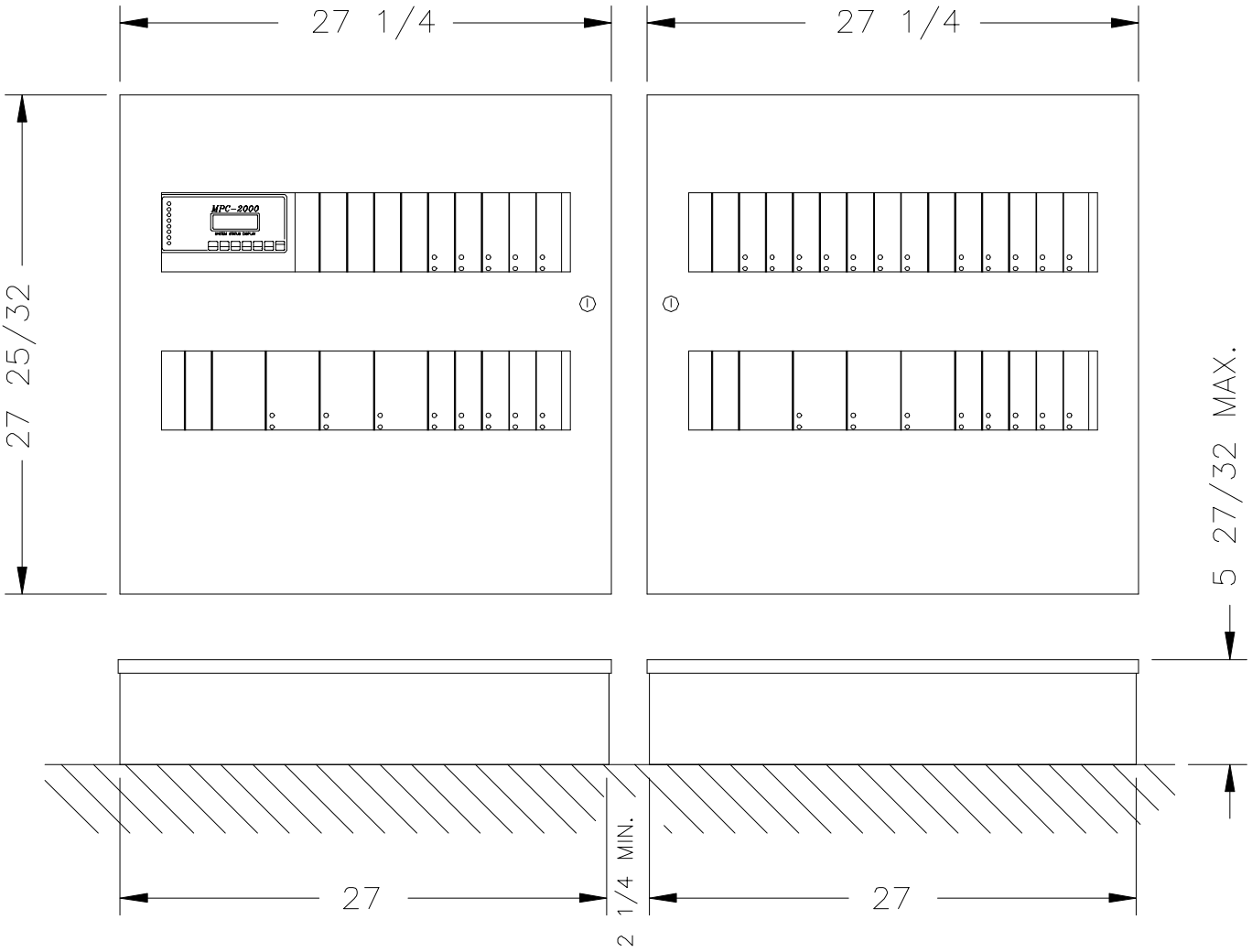
Control Enclosure Layout
For MPC–2000 Series Control Panel
Three (3) Opening Surface Enclosures in Stacked Arrangement



SPACE PROVISIONS:
MODULE – 84
TRANSFORMER – 8

Note: Conduit must be used between enclosures.

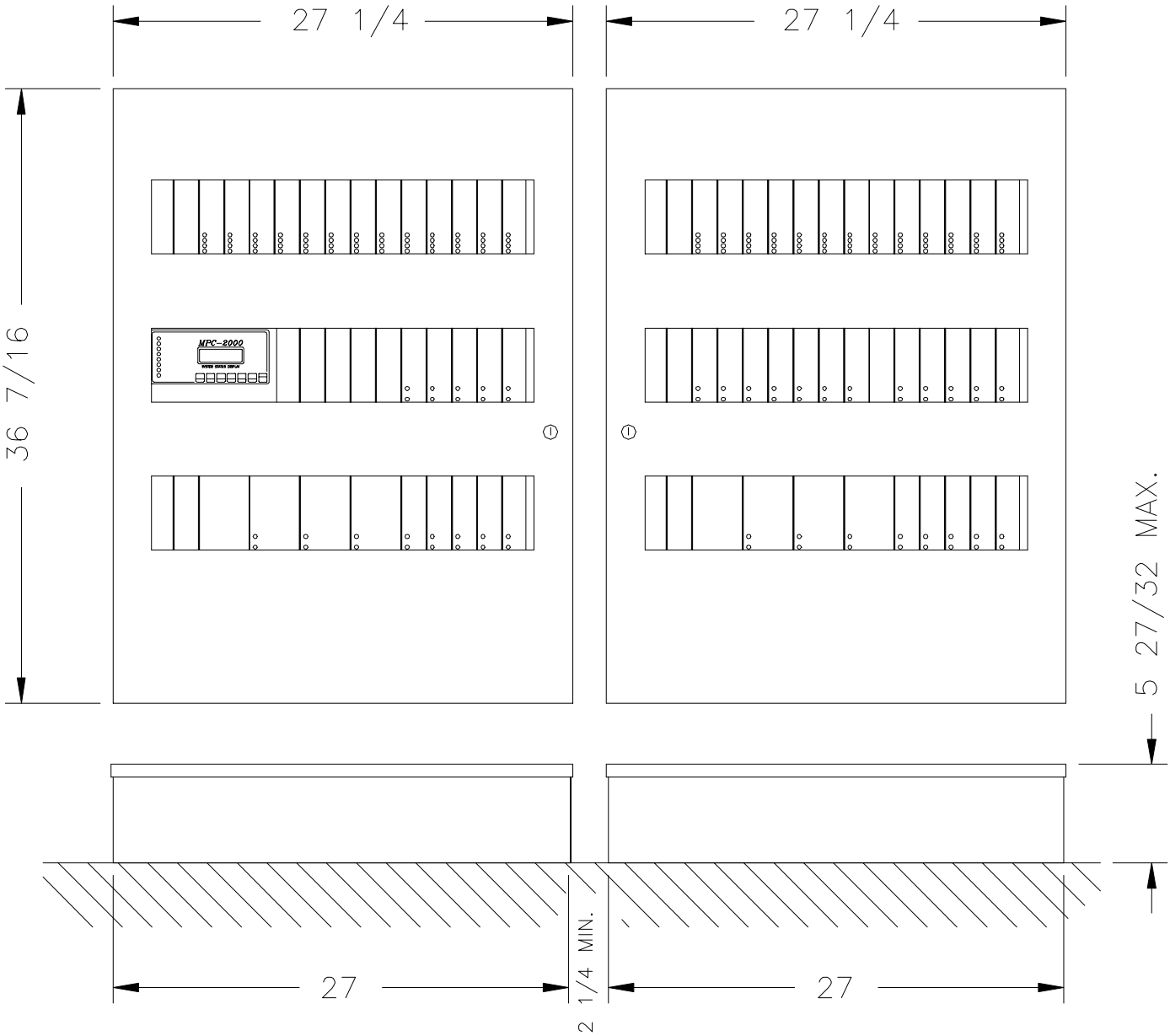
Control Enclosure Layout
For MPC–2000 Series Control Panel
Two (2) Opening Surface Enclosures in Side–by–Side Arrangement



Note: Conduit must be used between enclosures.

SPACE PROVISIONS:
MODULE – 56
TRANSFORMER – 8

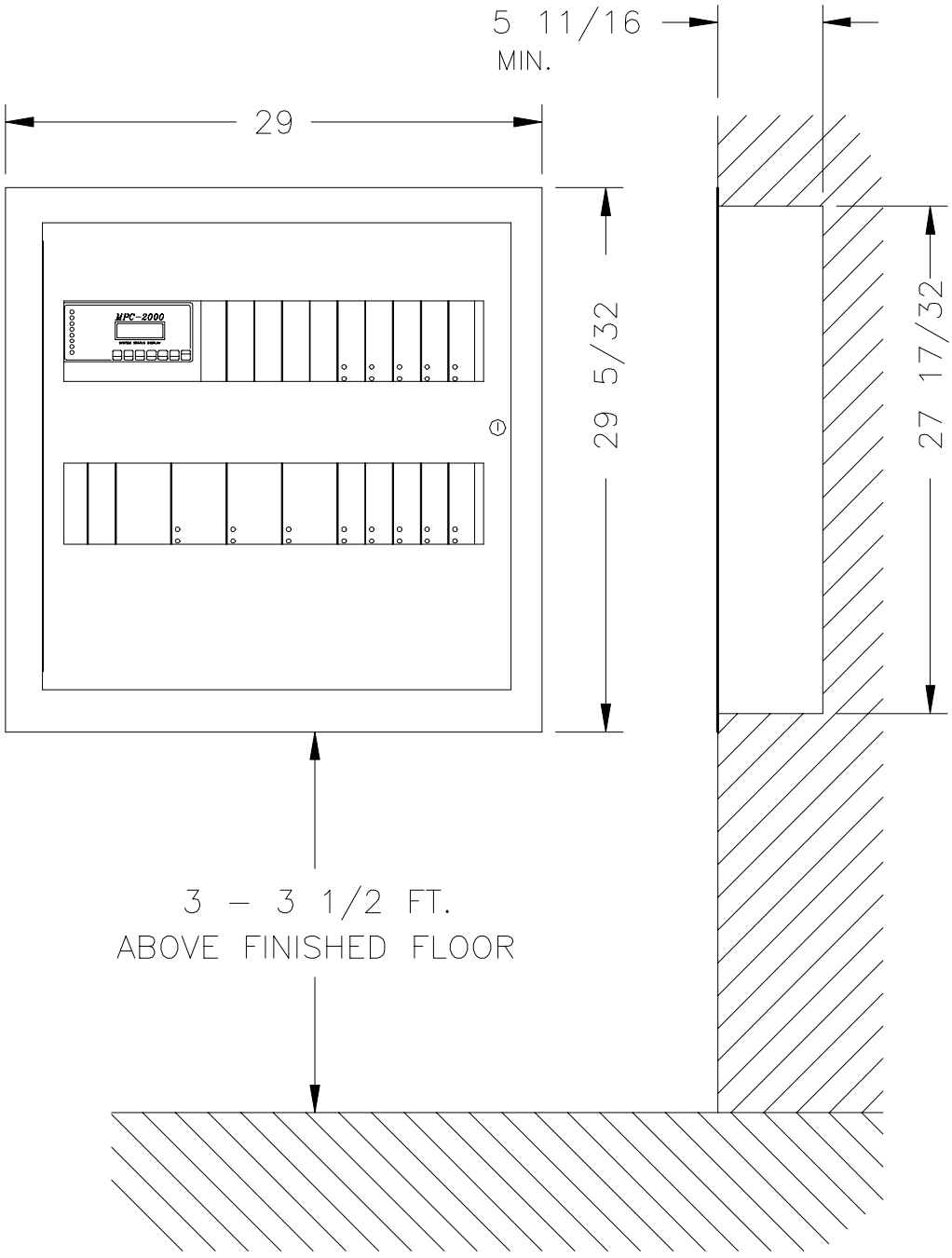
Control Enclosure Layout
For MPC–2000 Series Control Panel
Three (3) Opening Surface Enclosures in Side–by–Side Arrangement



Note: Conduit must be used between enclosures.

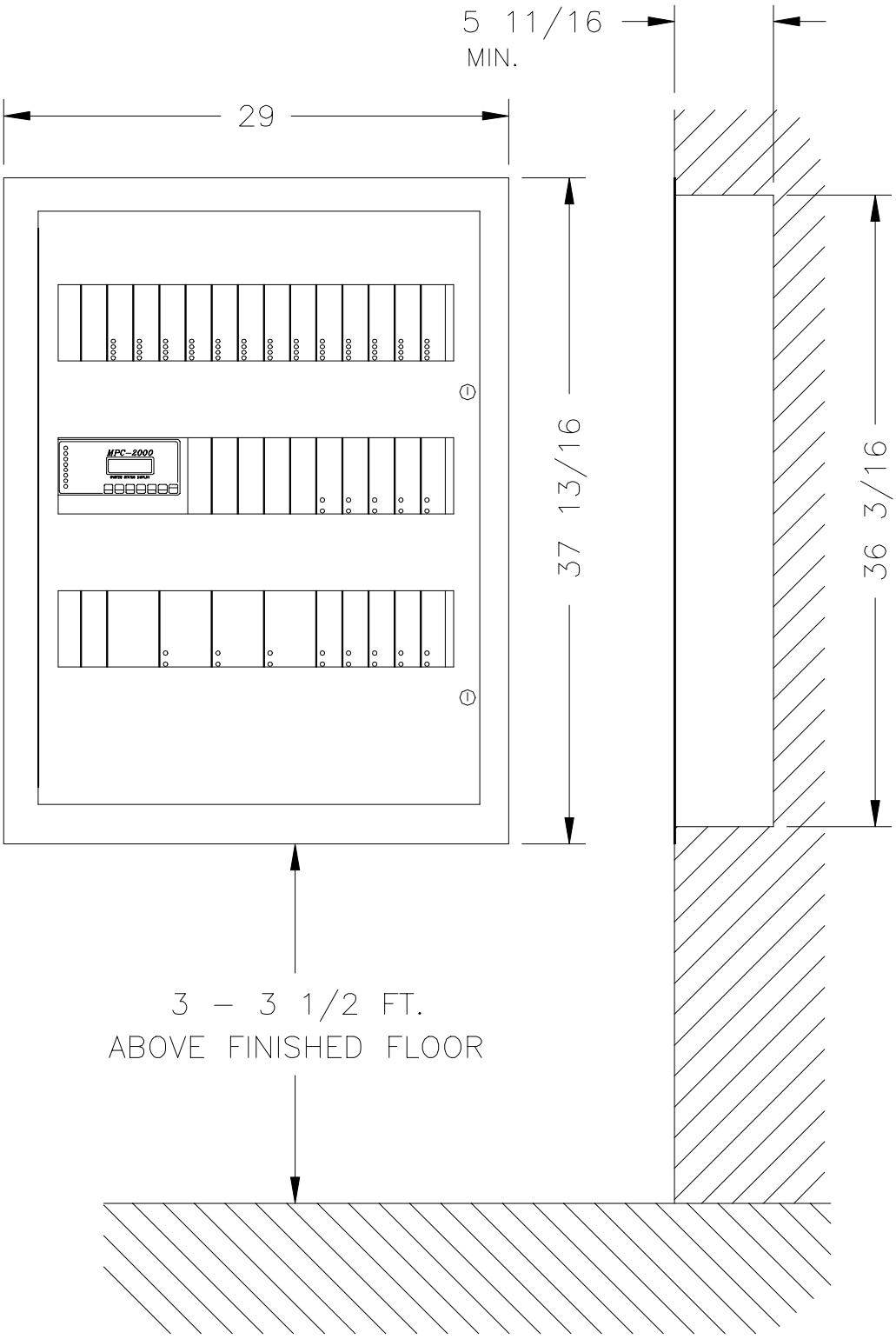
SPACE PROVISIONS:
MODULE – 84
TRANSFORMER – 8

Control Enclosure Layout
For MPC–2000 Series Control Panel
in a Two (2) Opening Flush Enclosure



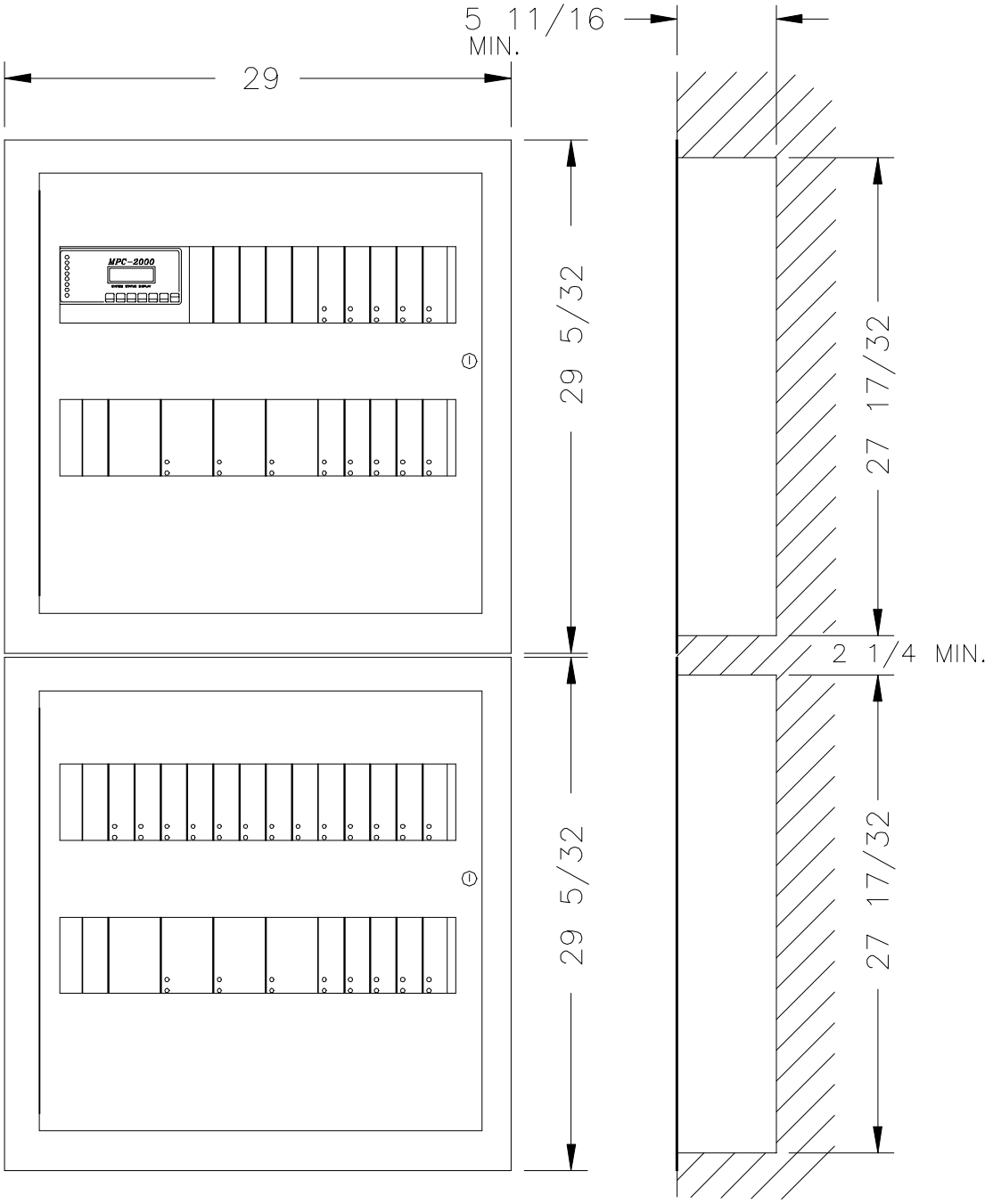
SPACE PROVISIONS:
MODULE – 28
TRANSFORMER – 4

Control Enclosure Layout
For MPC–2000 Series Control Panel
in a Three (3) Opening Flush Enclosure



SPACE PROVISIONS:
MODULE – 42
TRANSFORMER – 4

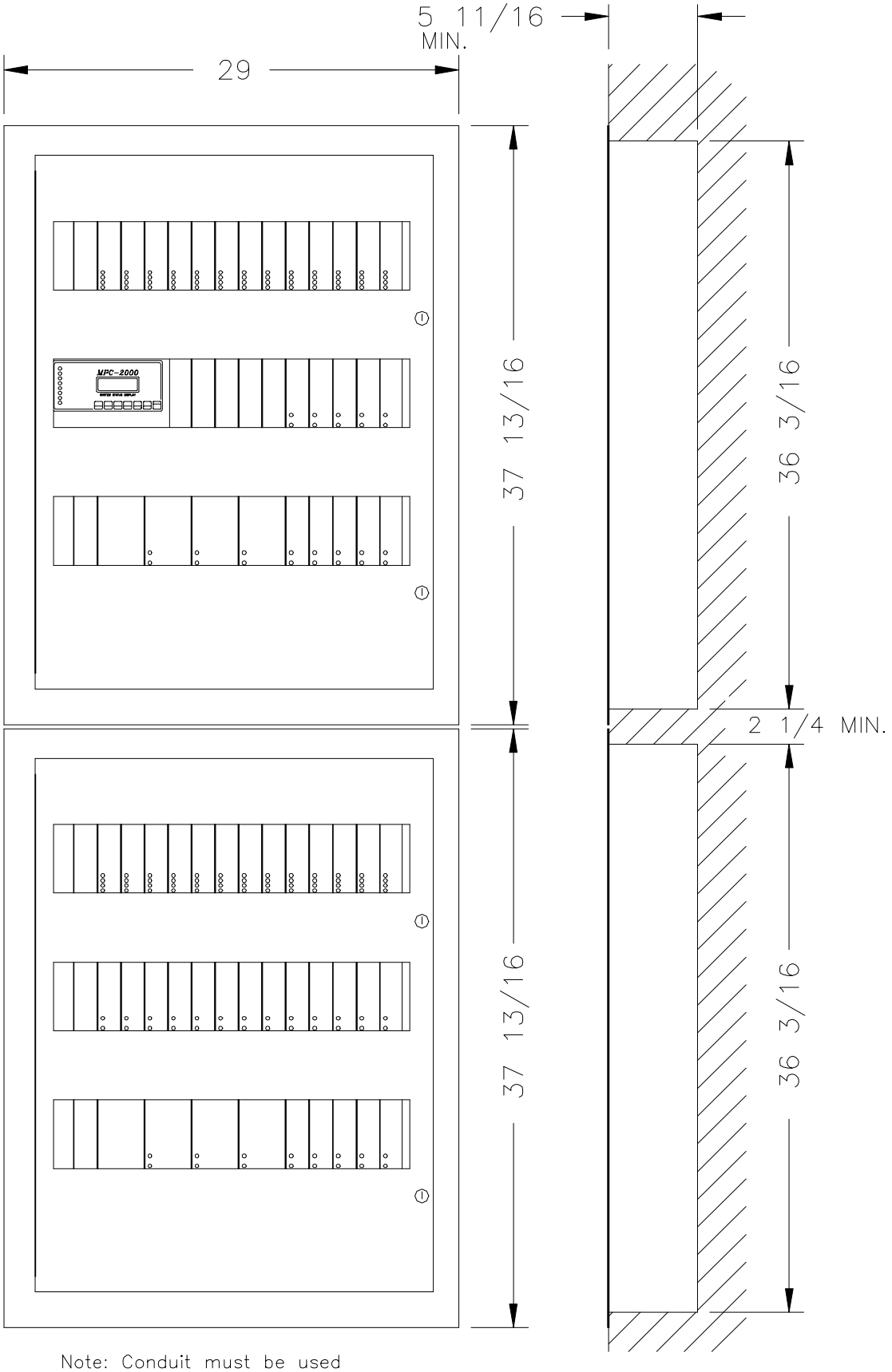
Control Enclosure Layout
For MPC–2000 Series Control Panel
Two (2) Opening Flush Enclosures in Stacked Arrangement



SPACE PROVISIONS:
MODULE – 56
TRANSFORMER – 8

Note: Conduit must be used between enclosures.

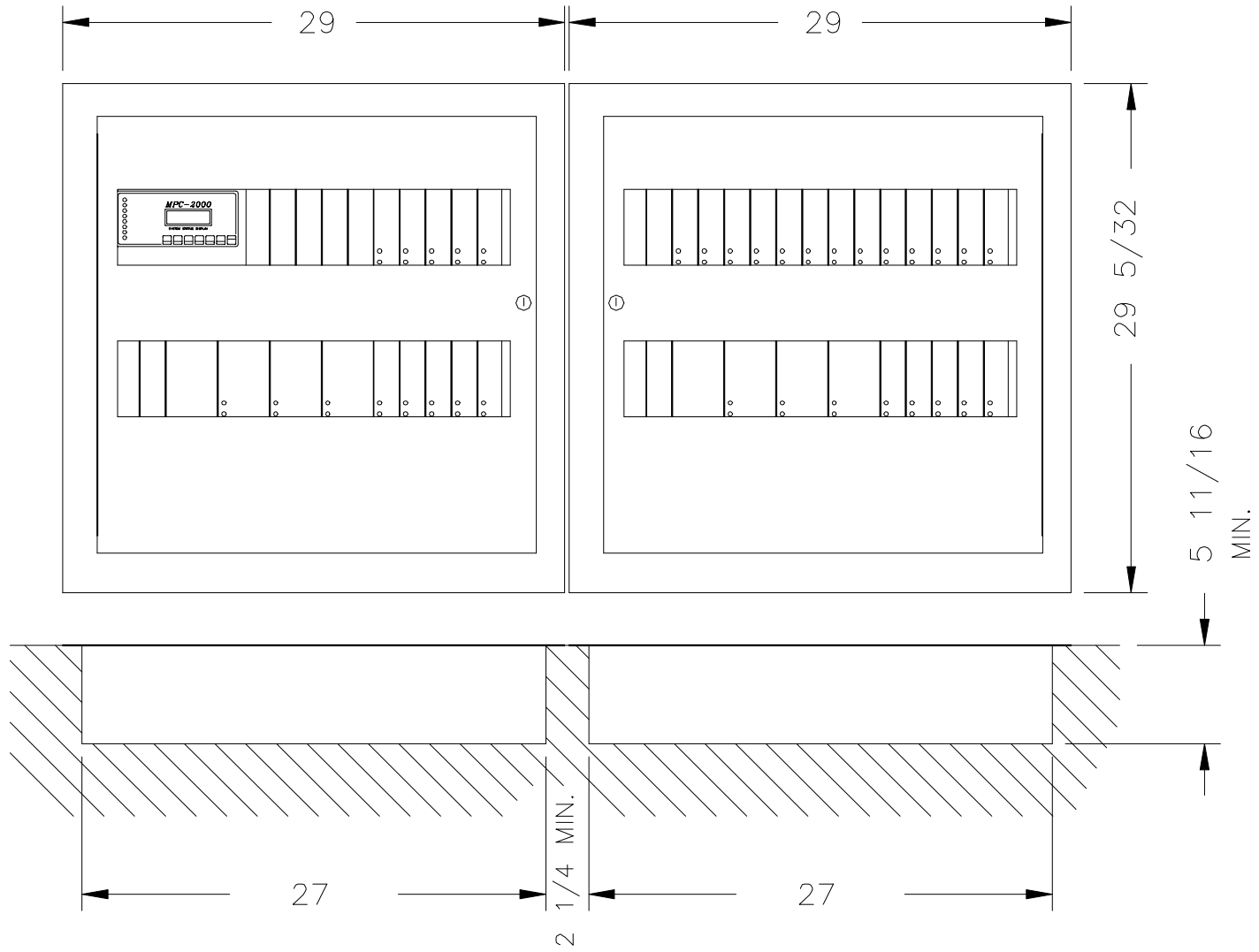
Control Enclosure Layout
For MPC–2000 Series Control Panel
Three (3) Opening Flush Enclosures in Stacked Arrangement



SPACE PROVISIONS:
MODULE – 84
TRANSFORMER – 8

Note: Conduit must be used between enclosures.

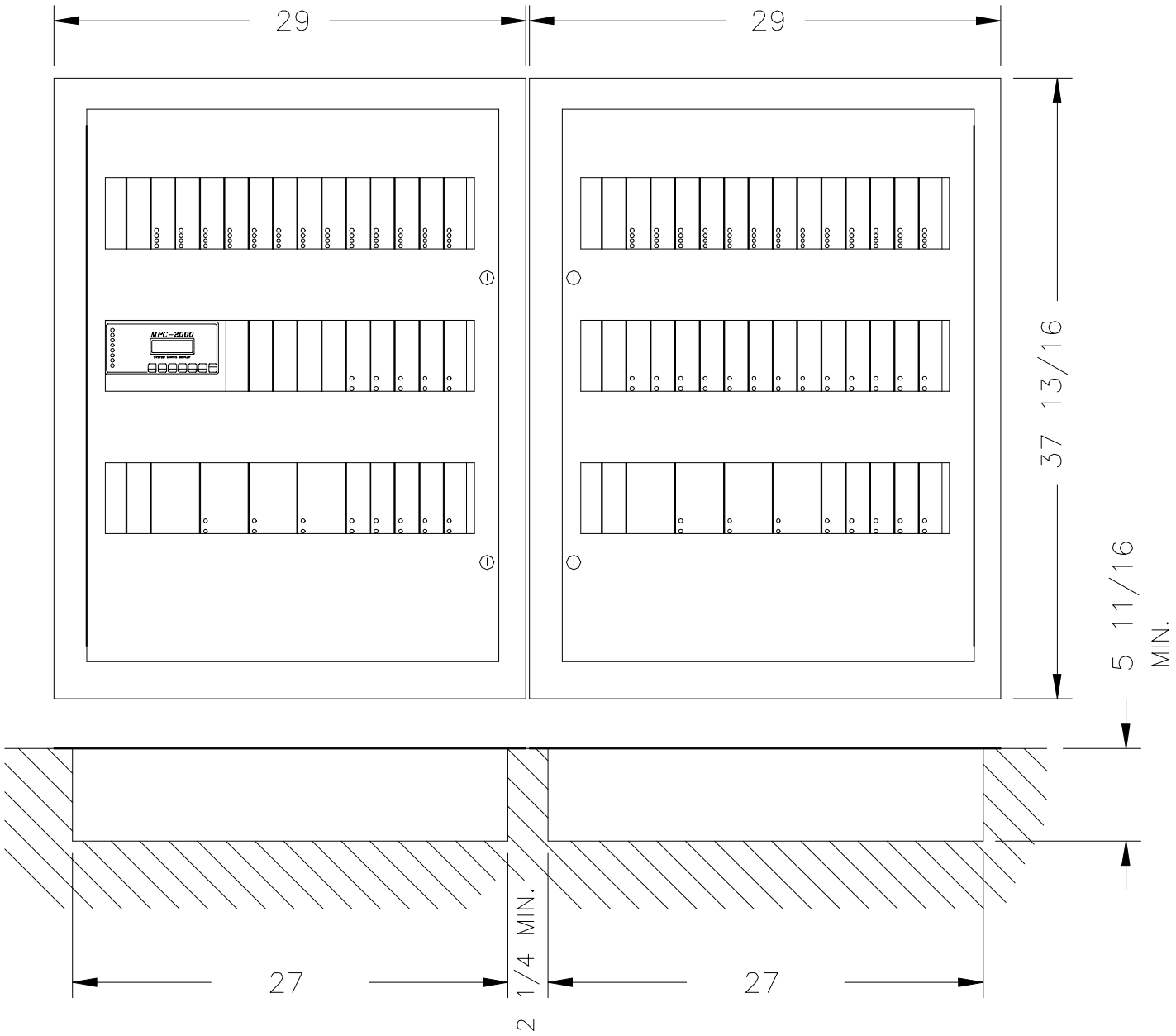
Control Enclosure Layout
For MPC-2000 Series Control Panel
Two (2) Opening Flush Enclosures in Side-by-Side Arrangement



Note: Conduit must be used between enclosures.

SPACE PROVISIONS:
MODULE – 56
TRANSFORMER – 8

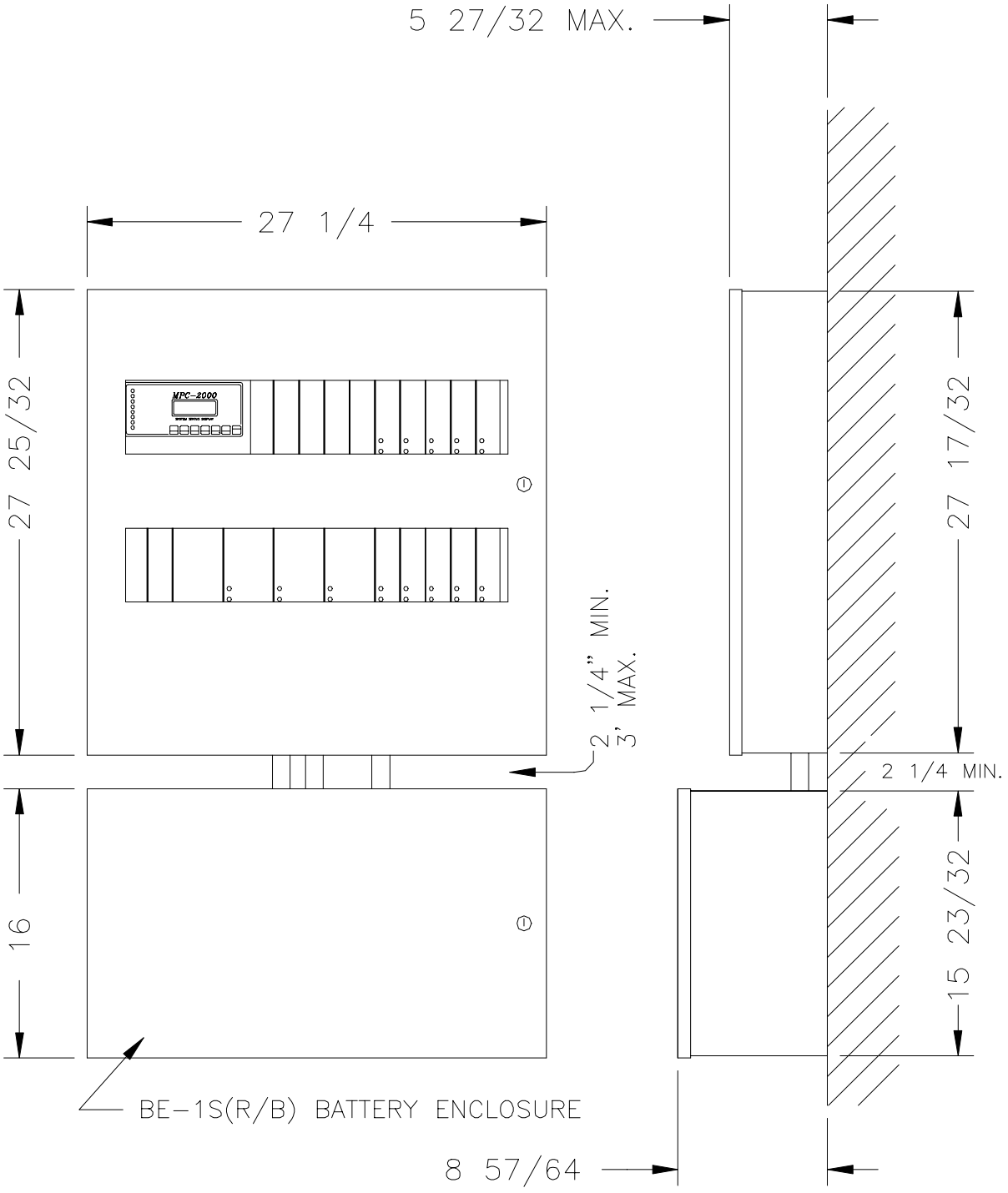
Control Enclosure Layout
For MPC–2000 Series Control Panel
Three (3) Opening Flush Enclosures in Side–by–Side Arrangement



Note: Conduit must be used between enclosures.

SPACE PROVISIONS:
MODULE – 84
TRANSFORMER – 8

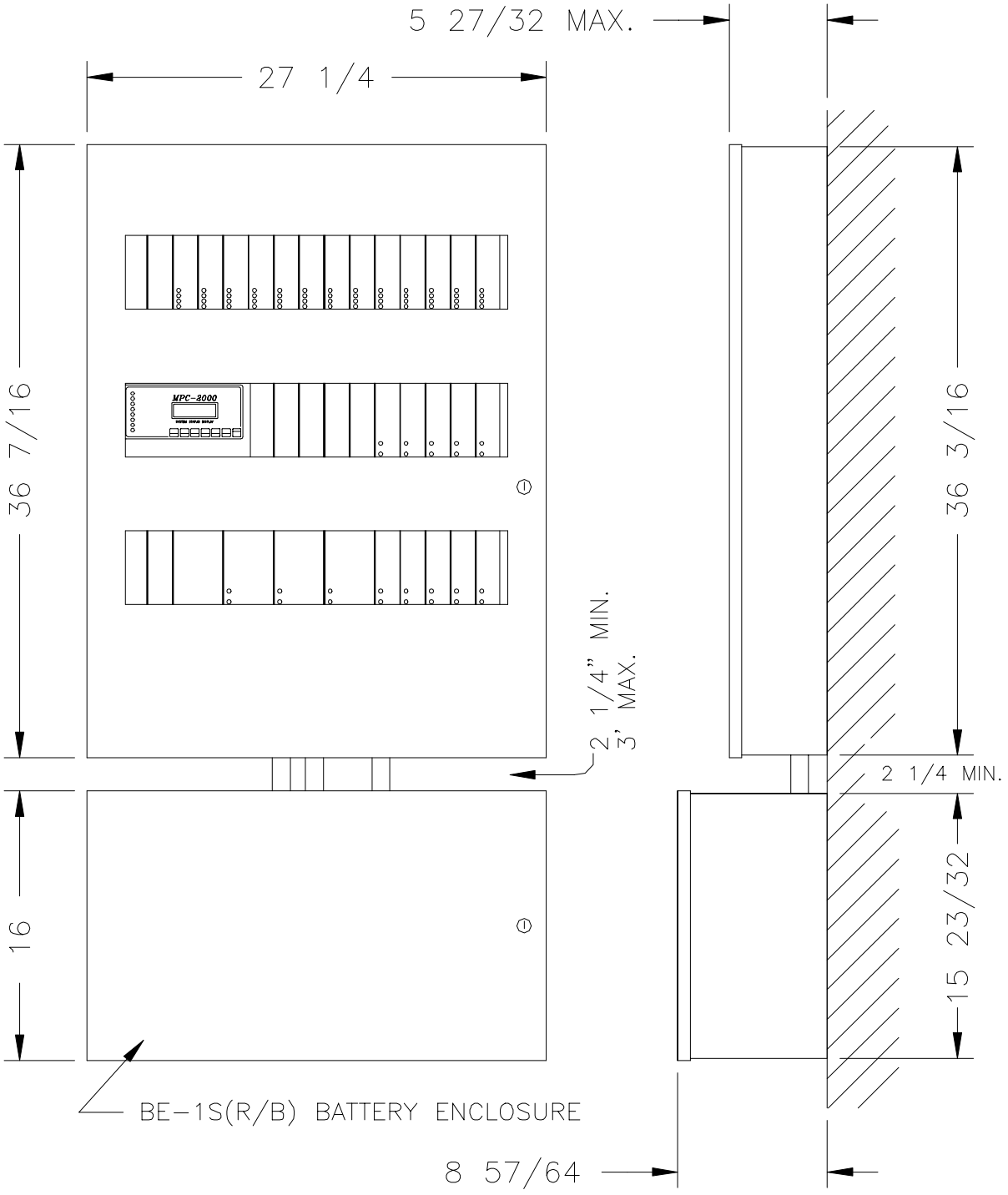
Control Enclosure Layout
For Two (2) Opening MPC–2000 Series Control Panel
With BE–1S(R/B) Battery Enclosure



Note: Conduit must be used between enclosures.

SPACE PROVISIONS:
MODULE – 28
TRANSFORMER – 4

Control Enclosure Layout
For Three (3) Opening MPC–2000 Series Control Panel
With BE–1S(R/B) Battery Enclosure

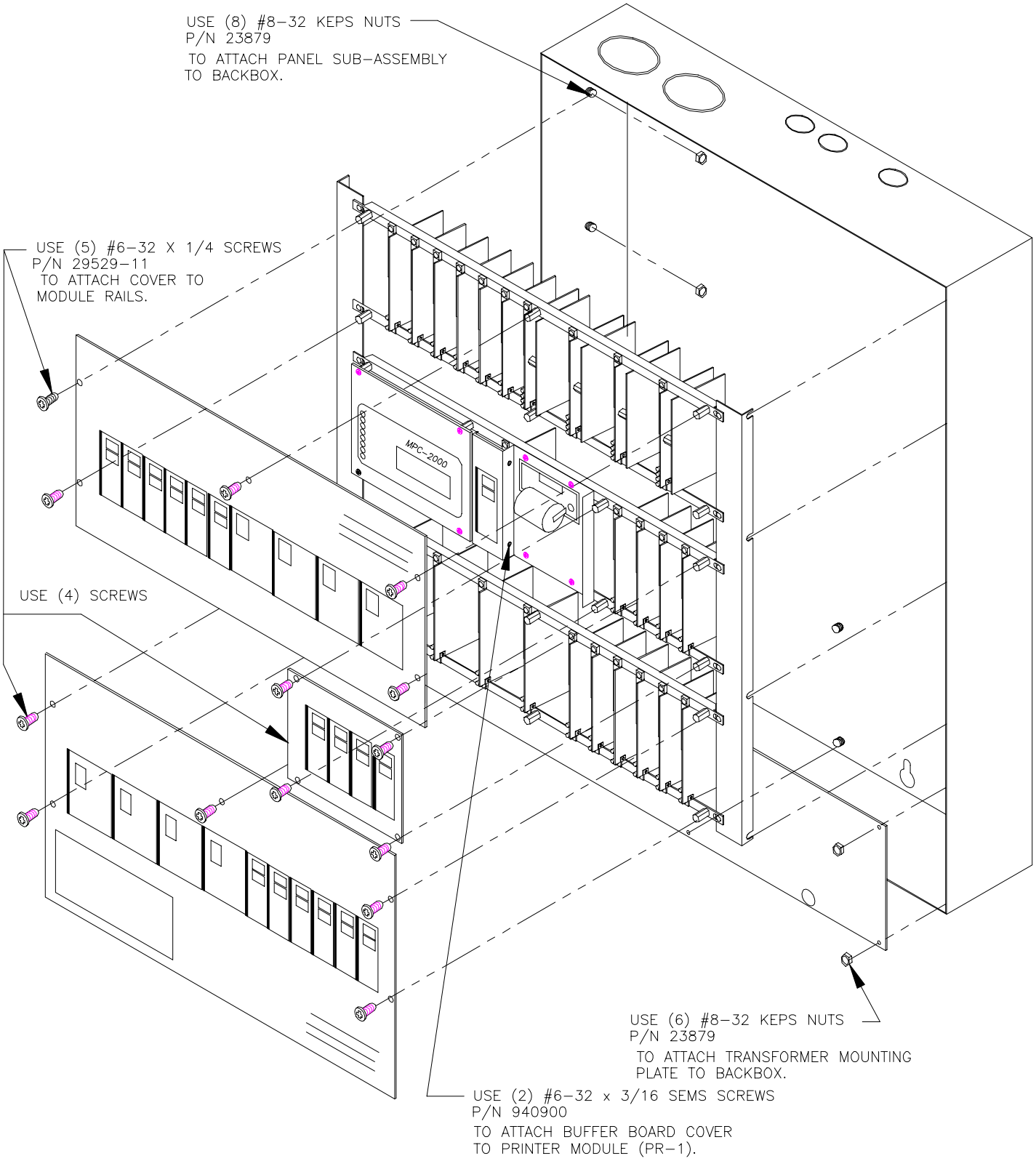


Note: Conduit must be used between enclosures.

SPACE PROVISIONS:
MODULE – 42
TRANSFORMER – 4

MPC-2000 Series Control Panel Assembly

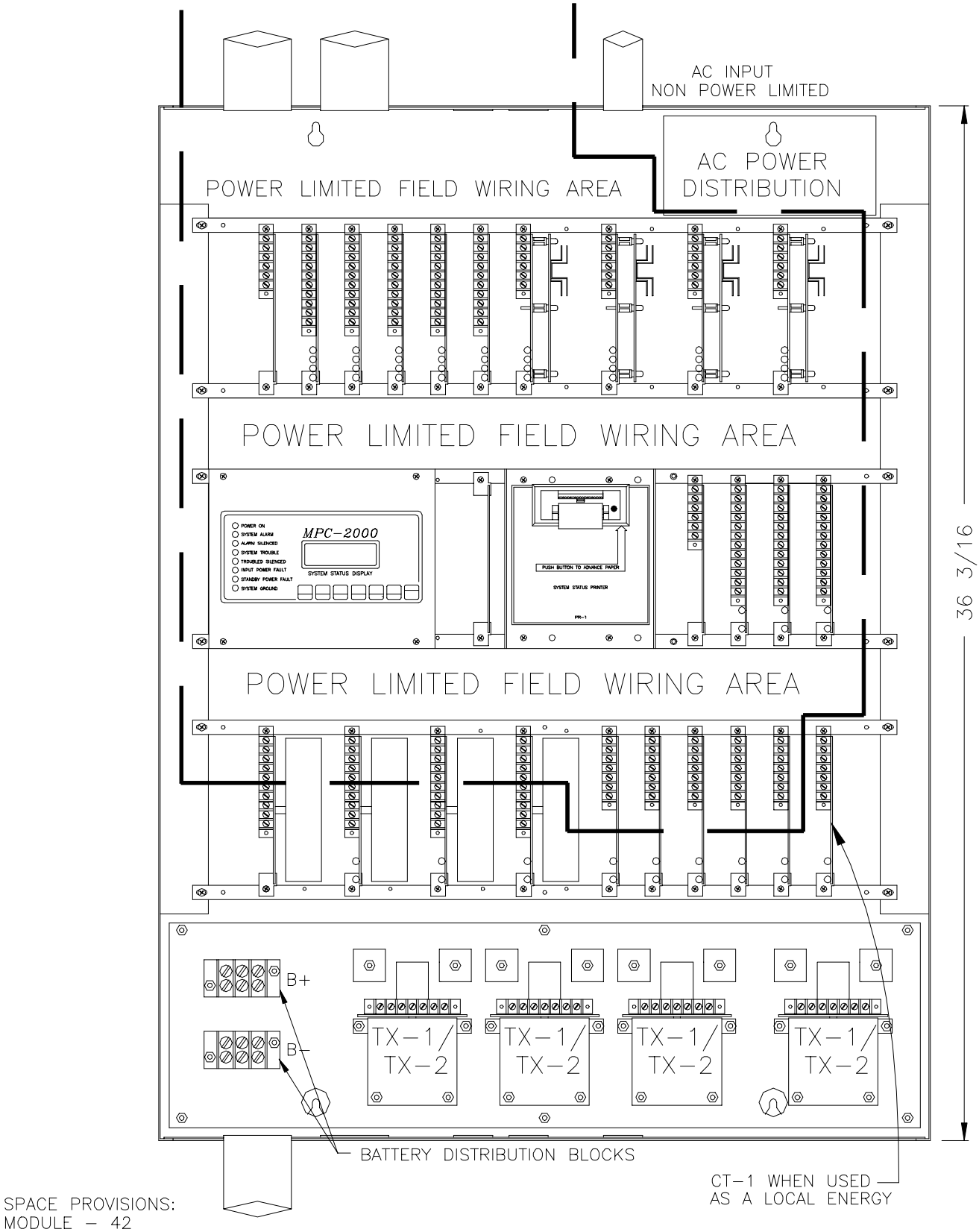
THREE (3) OPENING PANEL ASSEMBLY
W/CU-2 MODULE & OPTIONAL PRINTER MODULE (PR-1)



MPC–2000 SERIES CONTROL PANEL LAYOUT

THREE (3) OPENING PANEL LAYOUT W/ OPTIONAL PRINTER MODULE (PR–1)

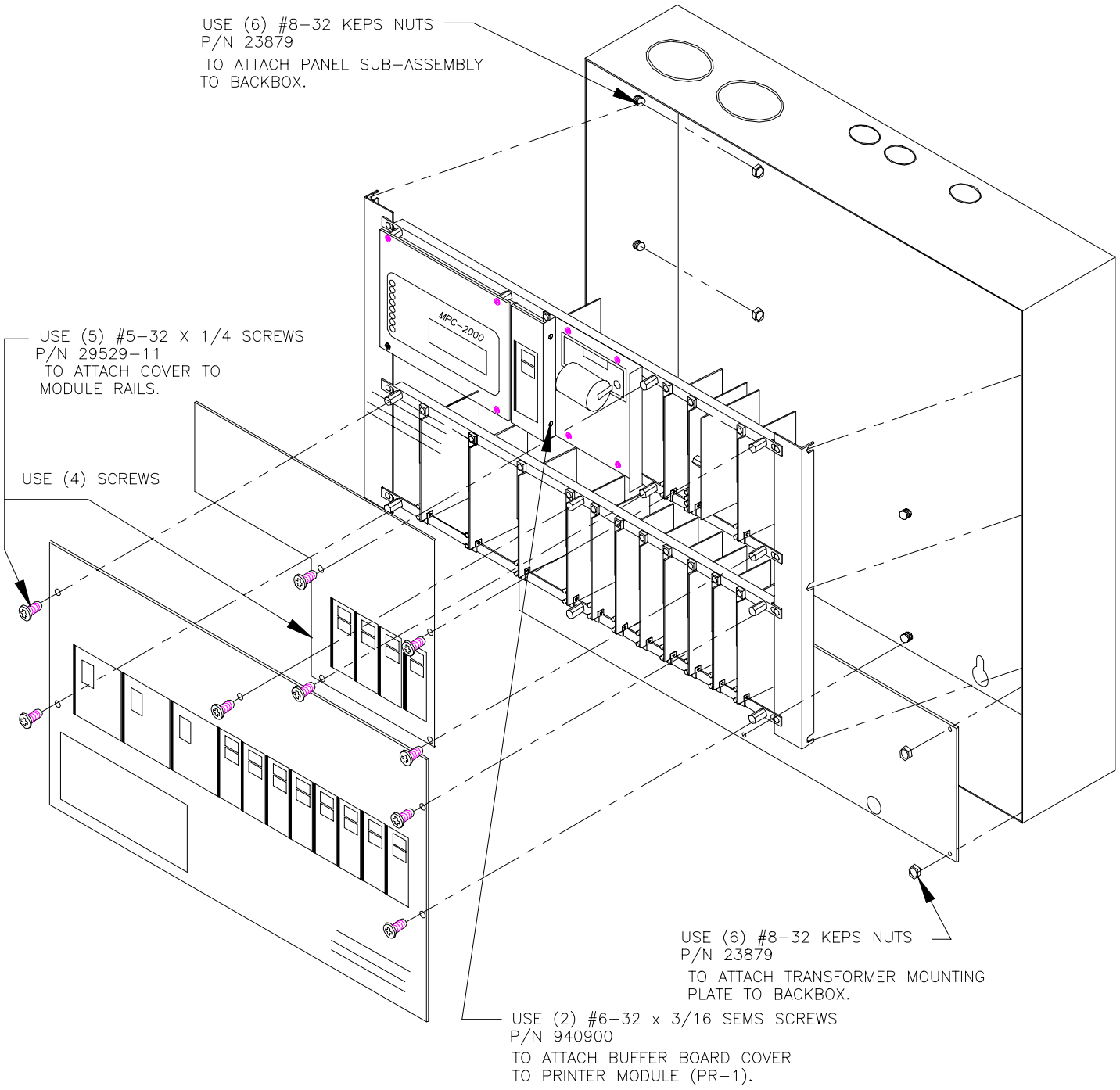
NON POWER LIMITED FIELD WIRES MUST BE RUN IN SEPARATE CONDUIT AND BE A MINIMUM OF 1/4" FROM POWER LIMITED WIRES.



SPACE PROVISIONS:
MODULE – 42
TRANSFORMER – 4

MPC-2000 Series Control Panel Assembly

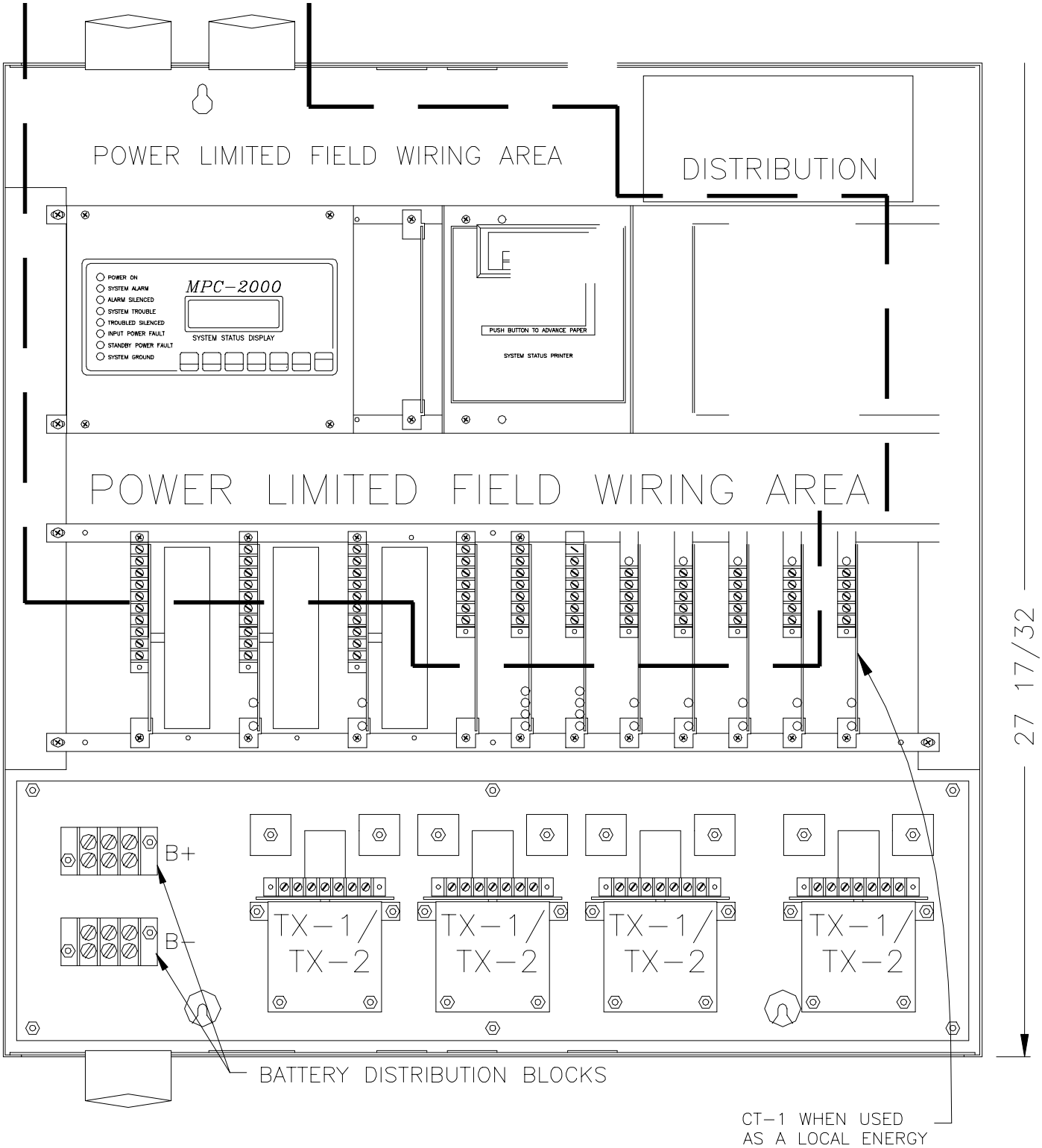
TWO (2) OPENING PANEL ASSEMBLY
W/CU-2 MODULE & OPTIONAL PRINTER MODULE (PR-1)



MPC-2000 SERIES CONTROL PANEL LAYOUT

TWO (2) OPENING PANEL LAYOUT W/ OPTIONAL PRINTER MODULE (PR-1)

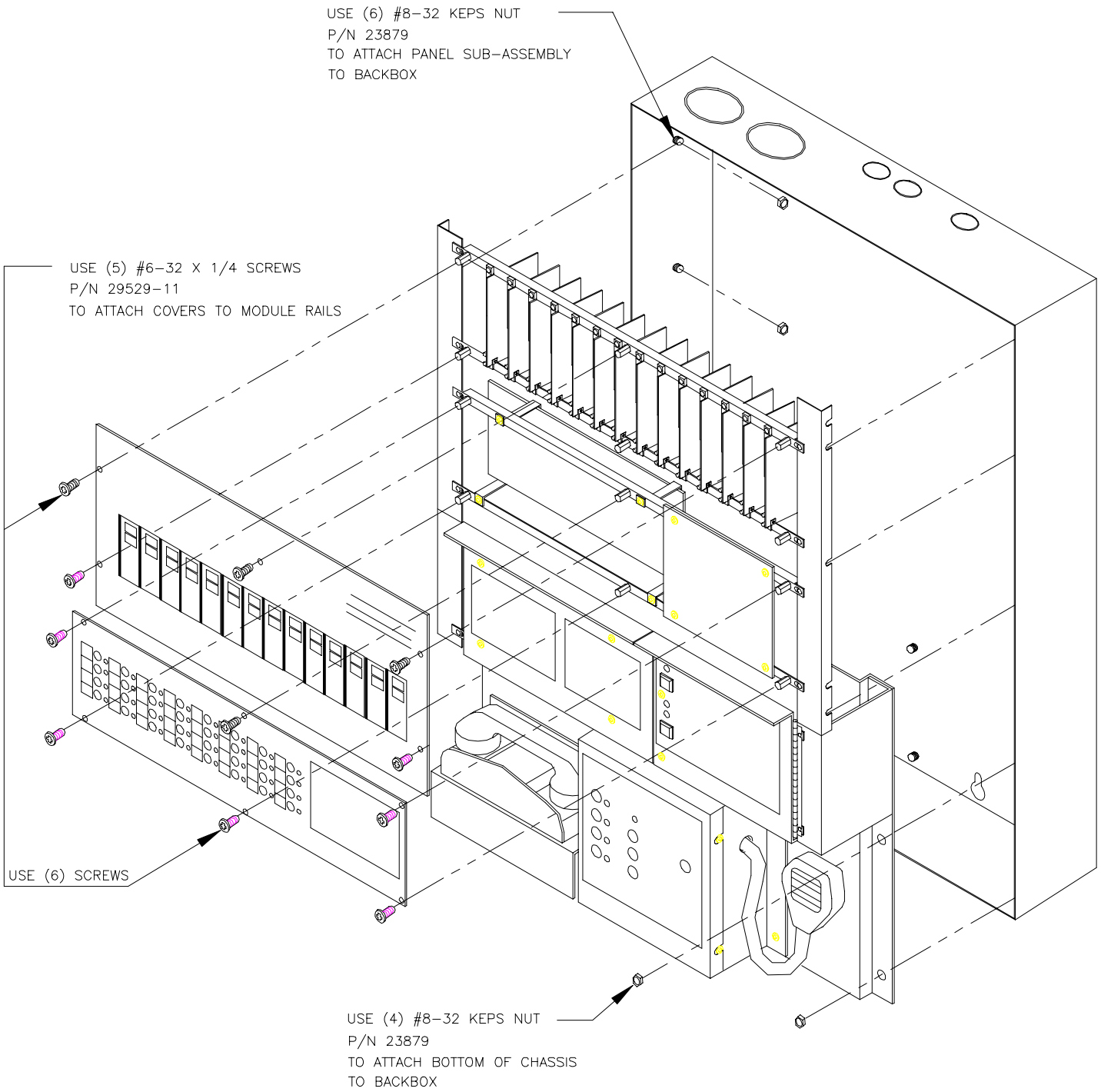
NON POWER LIMITED FIELD WIRES MUST BE RUN IN SEPARATE CONDUIT AND BE A MINIMUM OF 1/4" FROM POWER LIMITED WIRE.



SPACE PROVISIONS:
MODULE – 28
TRANSFORMER – 4

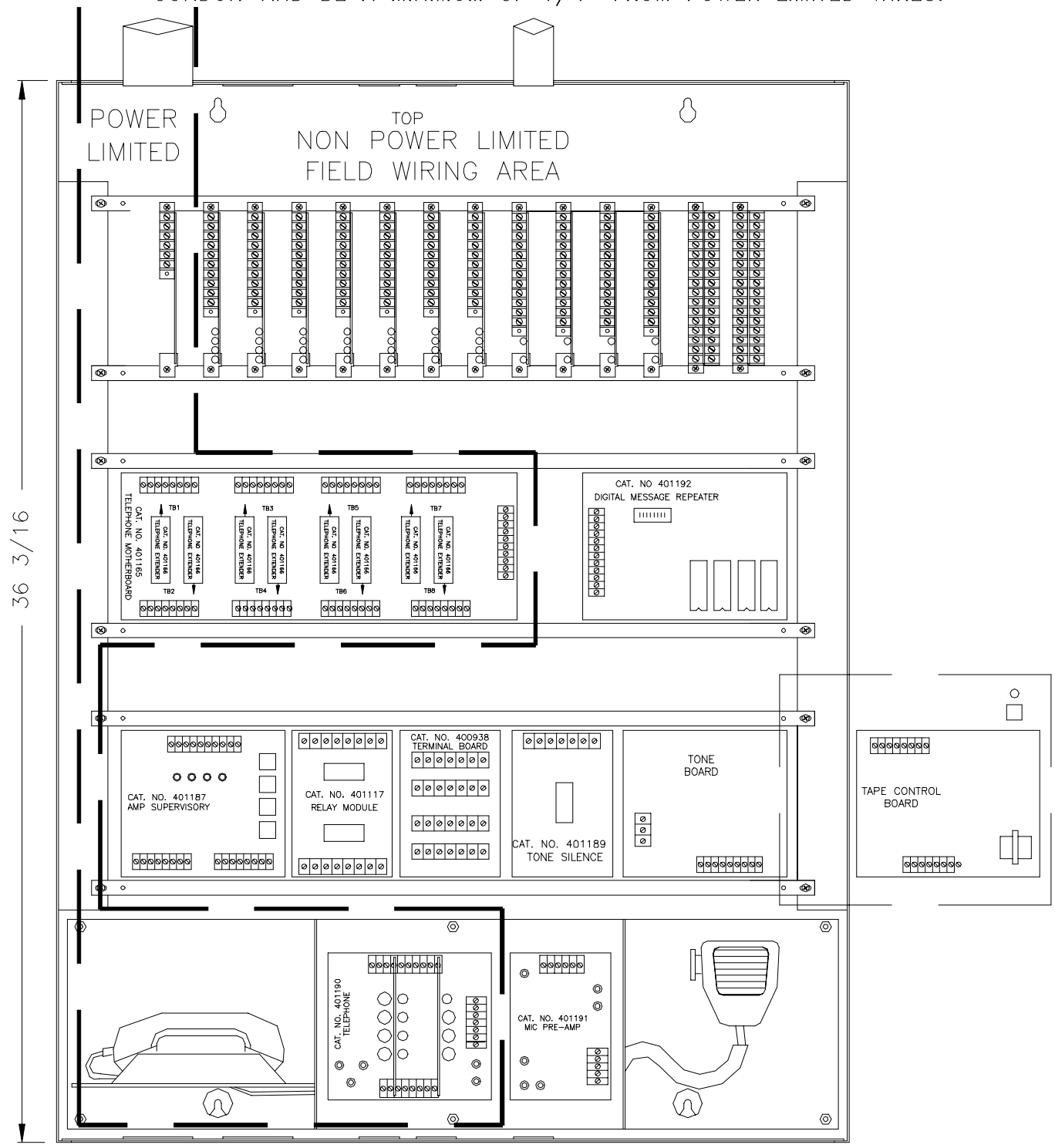
MPC-2000 Evac Series Control Panel Assembly

THREE (3) OPENING PANEL ASSEMBLY



MPC–2000 EVAC SERIES CONTROL PANEL LAYOUT

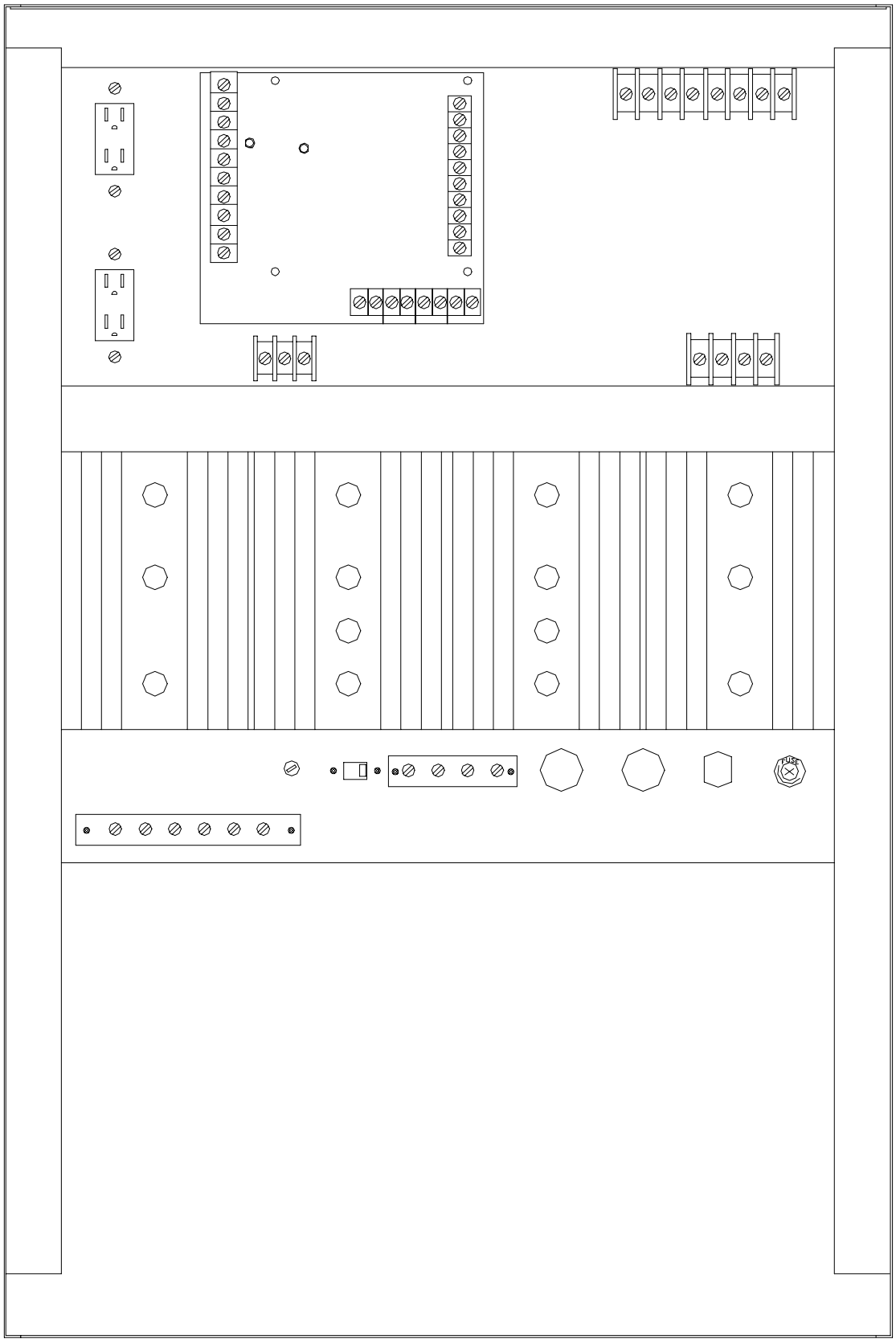
NON POWER LIMITED FIELD WIRES MUST BE RUN IN SEPARATE CONDUIT AND BE A MINIMUM OF 1/4" FROM POWER LIMITED WIRES.



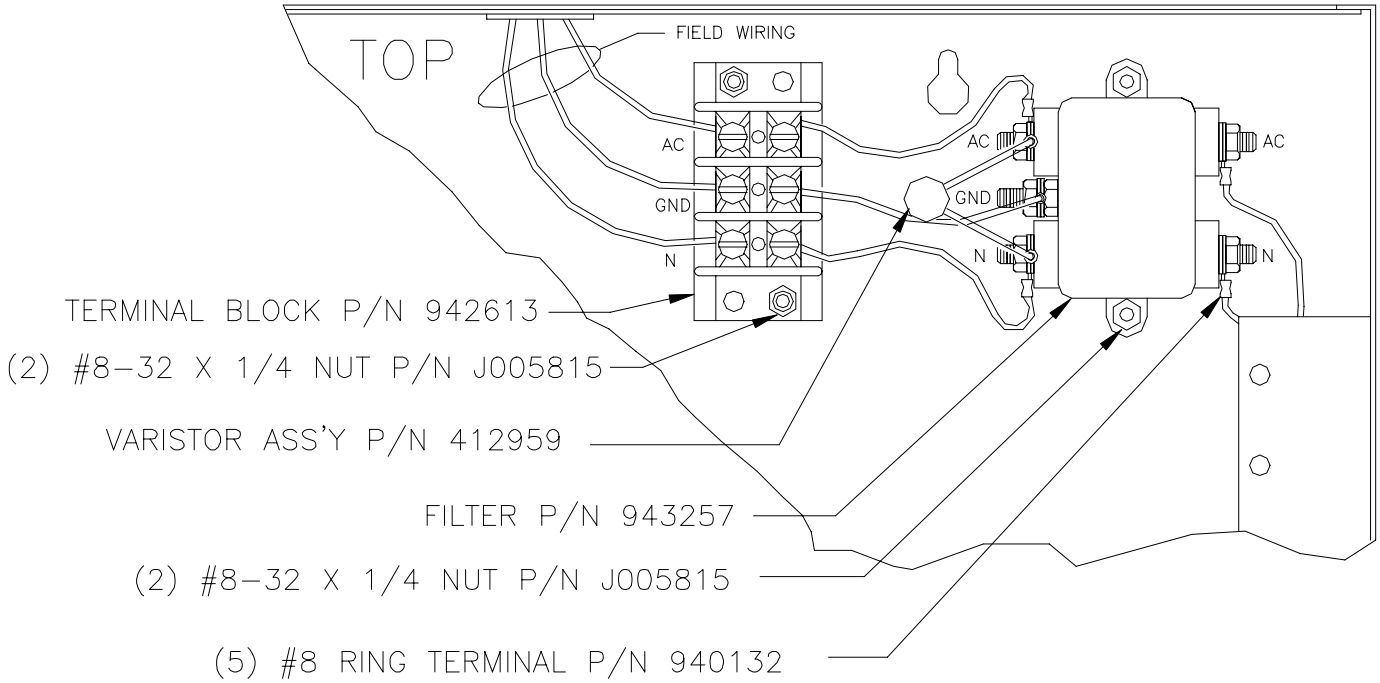
DO NOT USE BOTTOM KNOCKOUTS
FOR FIELD OR INTERNAL WIRING

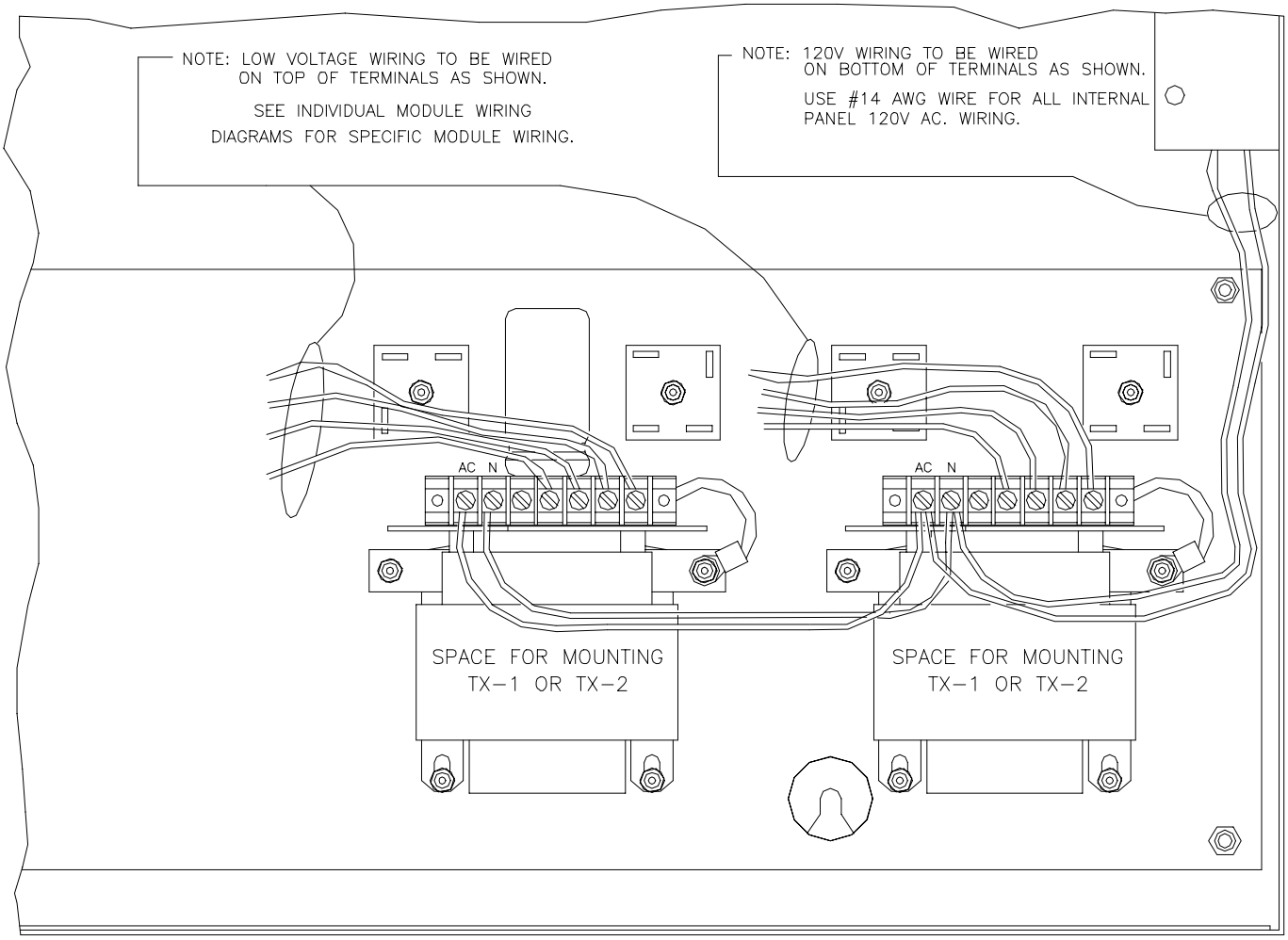
SPACE PROVISIONS:
MODULE – 42
TRANSFORMER – 0

EQUIPMENT RACK LAYOUT
FOR MPC-2000 EVAC SERIES CONTROL PANEL

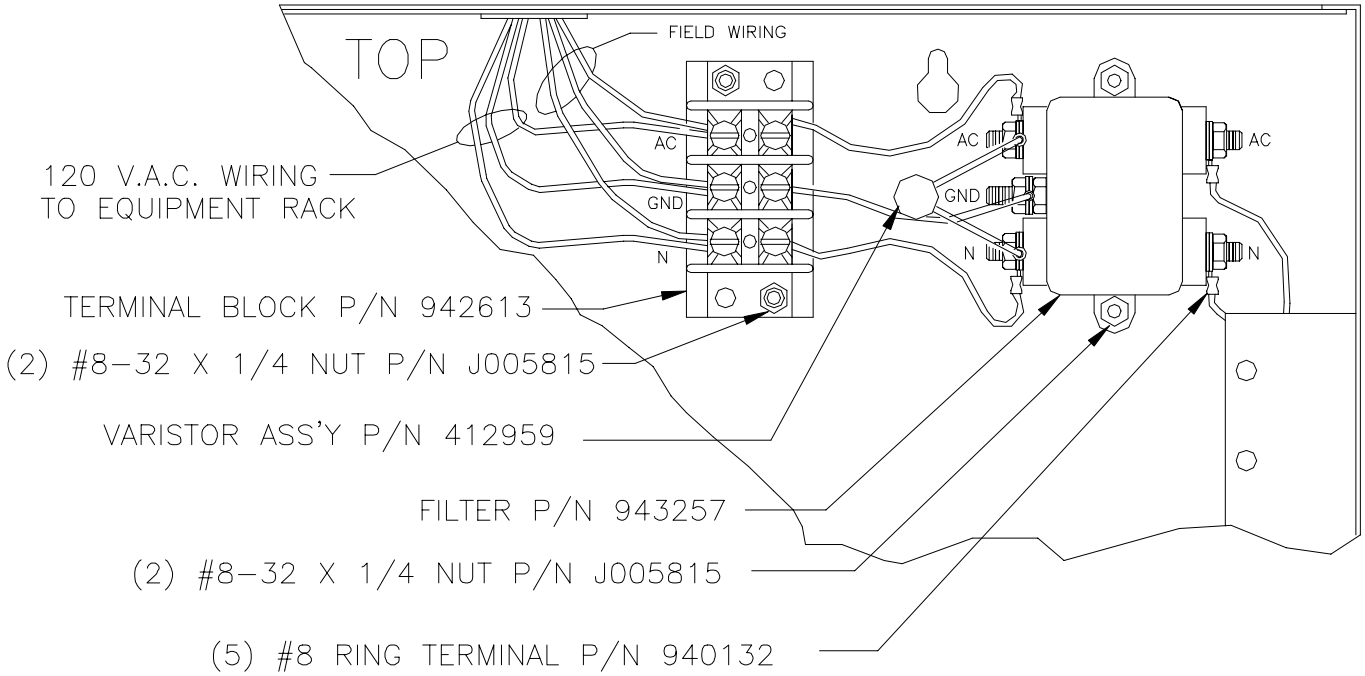


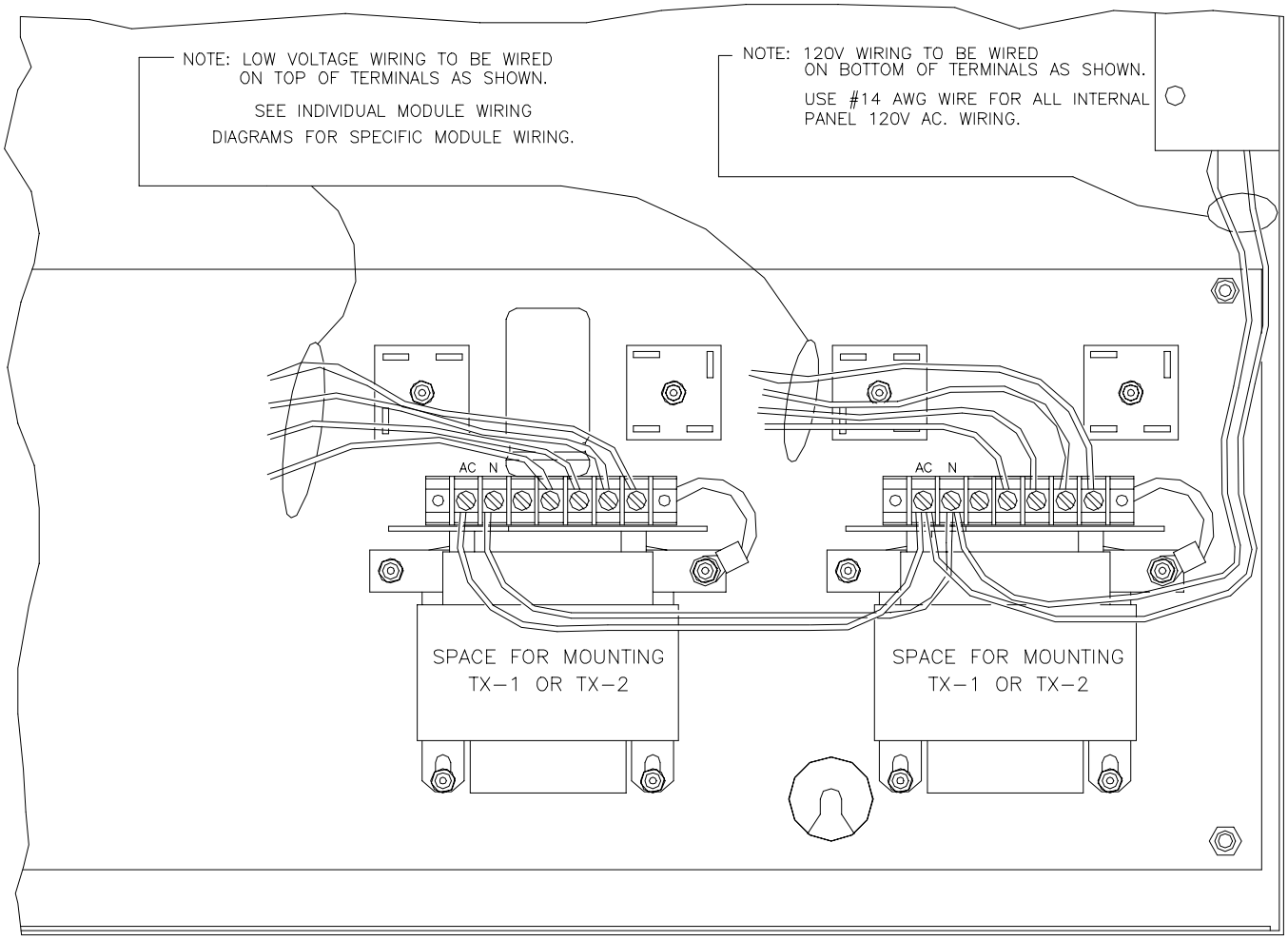
MPC–2000
120V.A.C. WIRING DIAGRAM





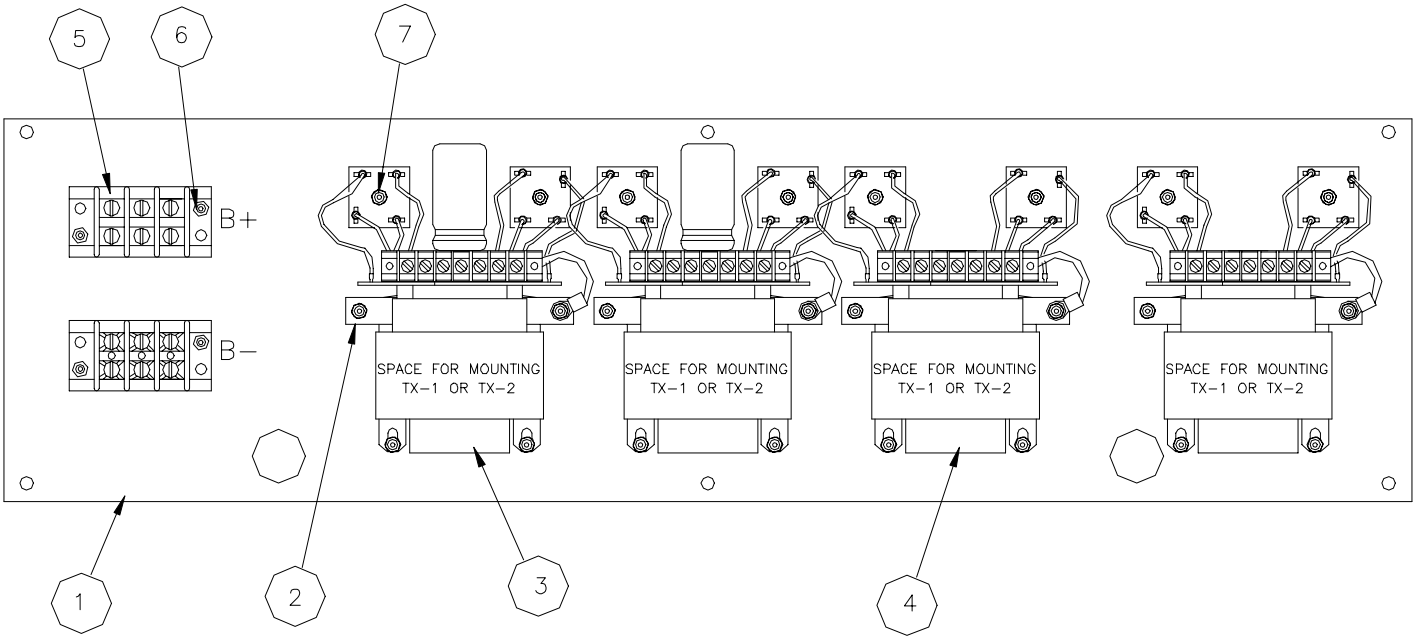
MPC-2000 EVAC
120V.A.C. WIRING DIAGRAM



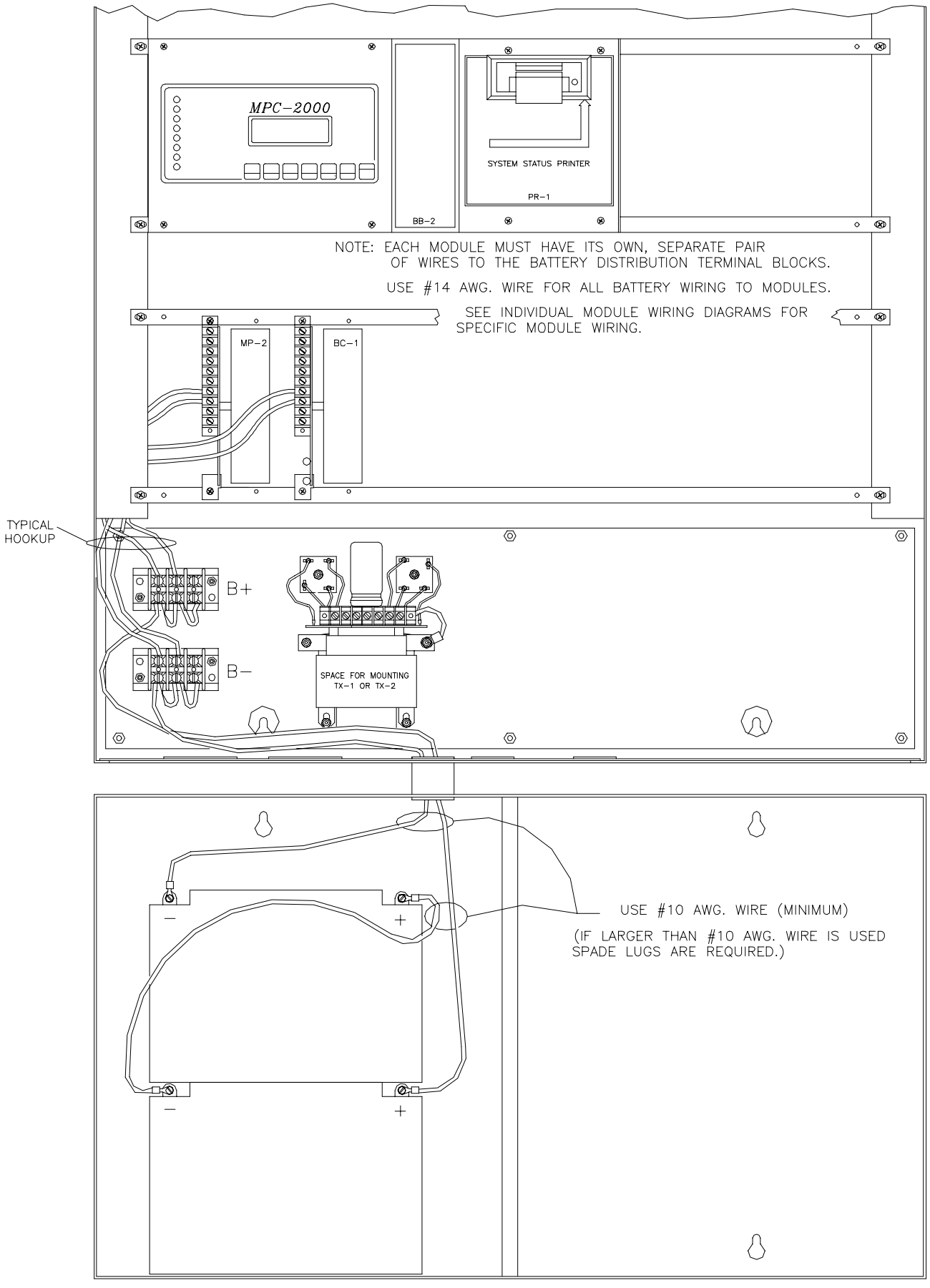


MPC–2000
TRANSFORMER MOUNTING DIAGRAM

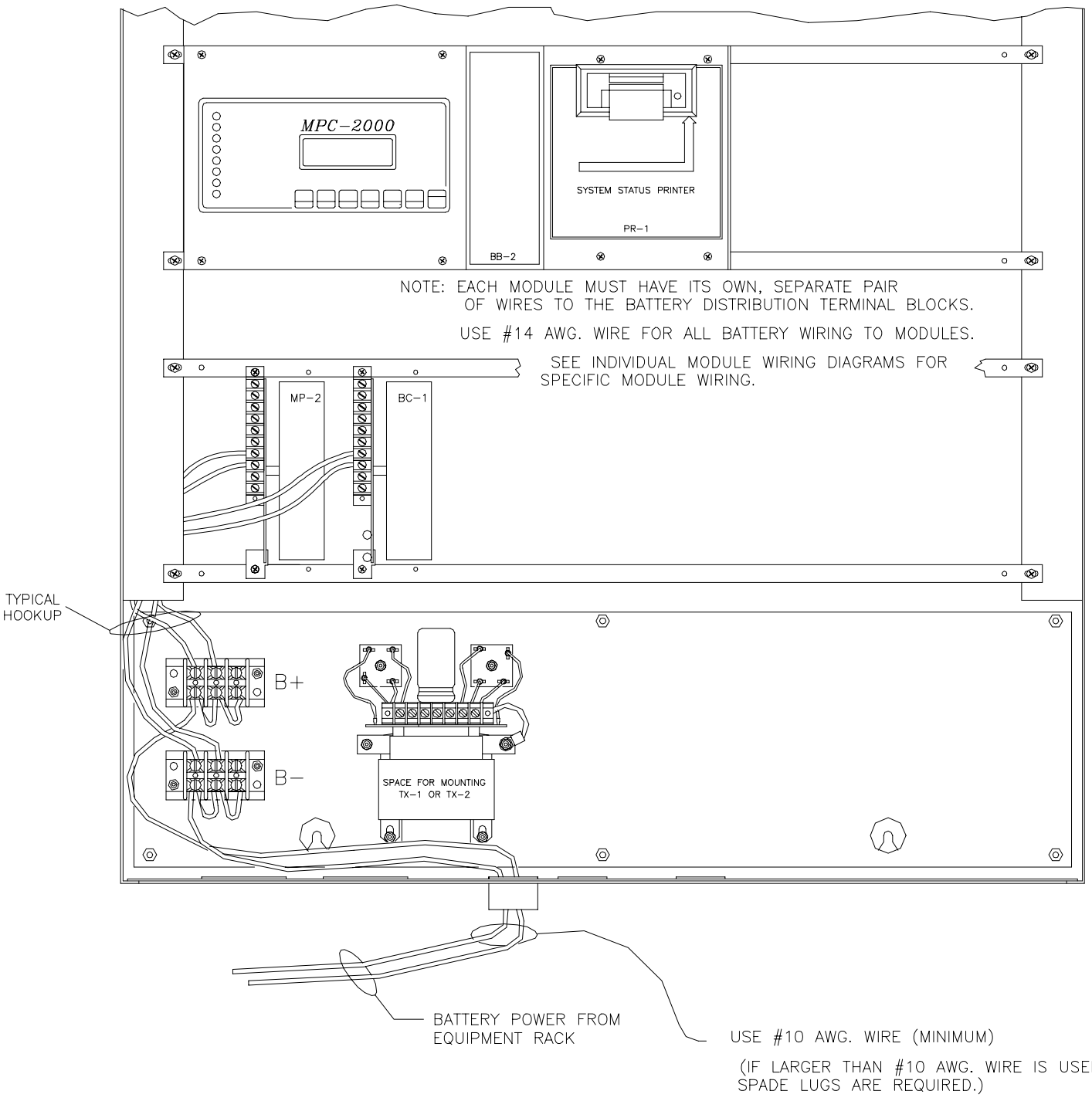
DET.	DESCRIPTION
7	NUT, KEPS #8–32 (6 PER TRANS. ASS'Y)
6	NUT, #8–32 X 1/4 (2 PER TERM. BLK.)
5	TERMINAL BLOCK
4	TRANSFORMER ASS'Y (TX–2)
3	TRANSFORMER ASS'Y (TX–1)
2	STRAP, TRANSFORMER (1 PER TRANS.)
1	PLATE, TRANSFORMER



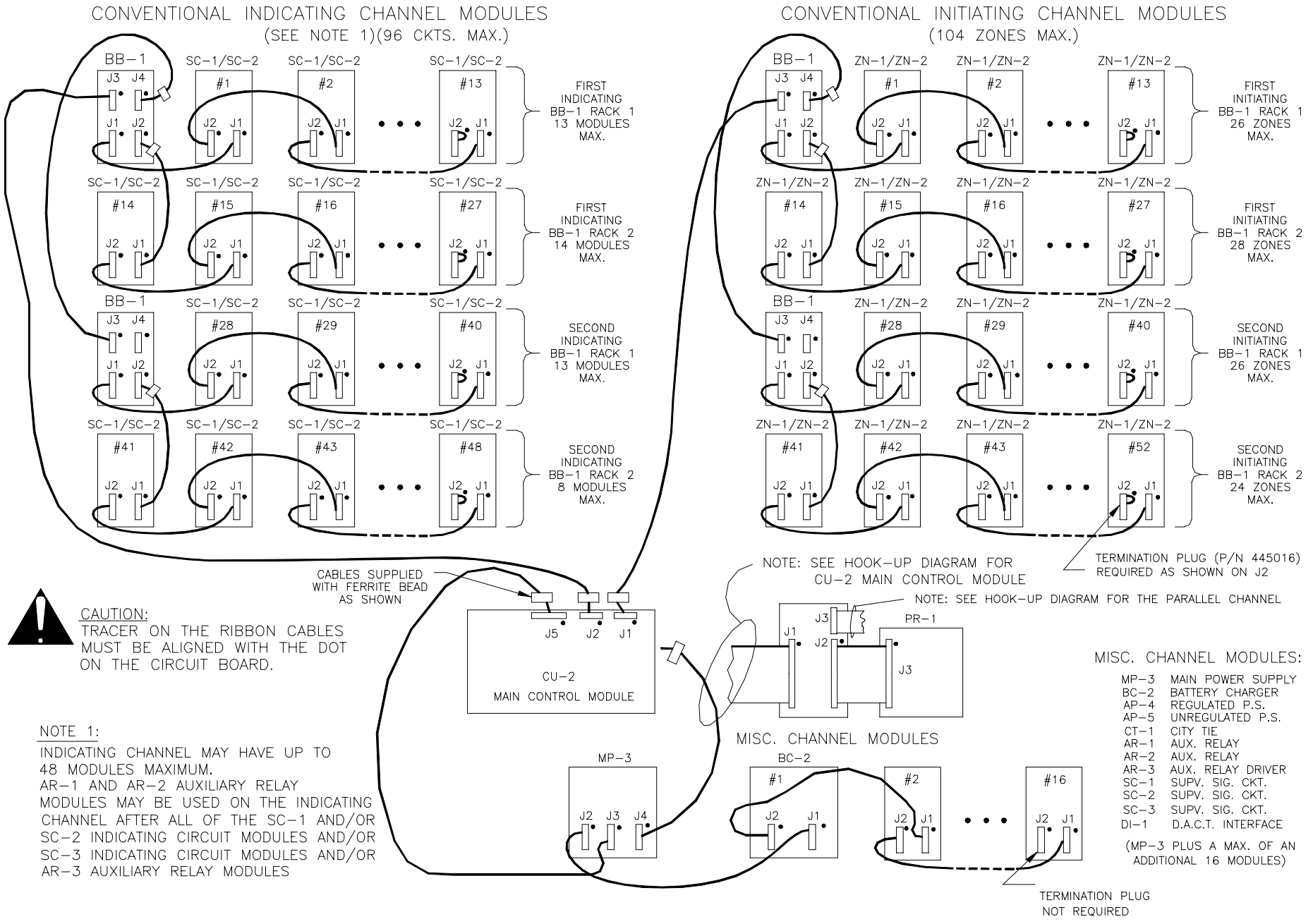
MPC–2000
BATTERY WIRING DIAGRAM



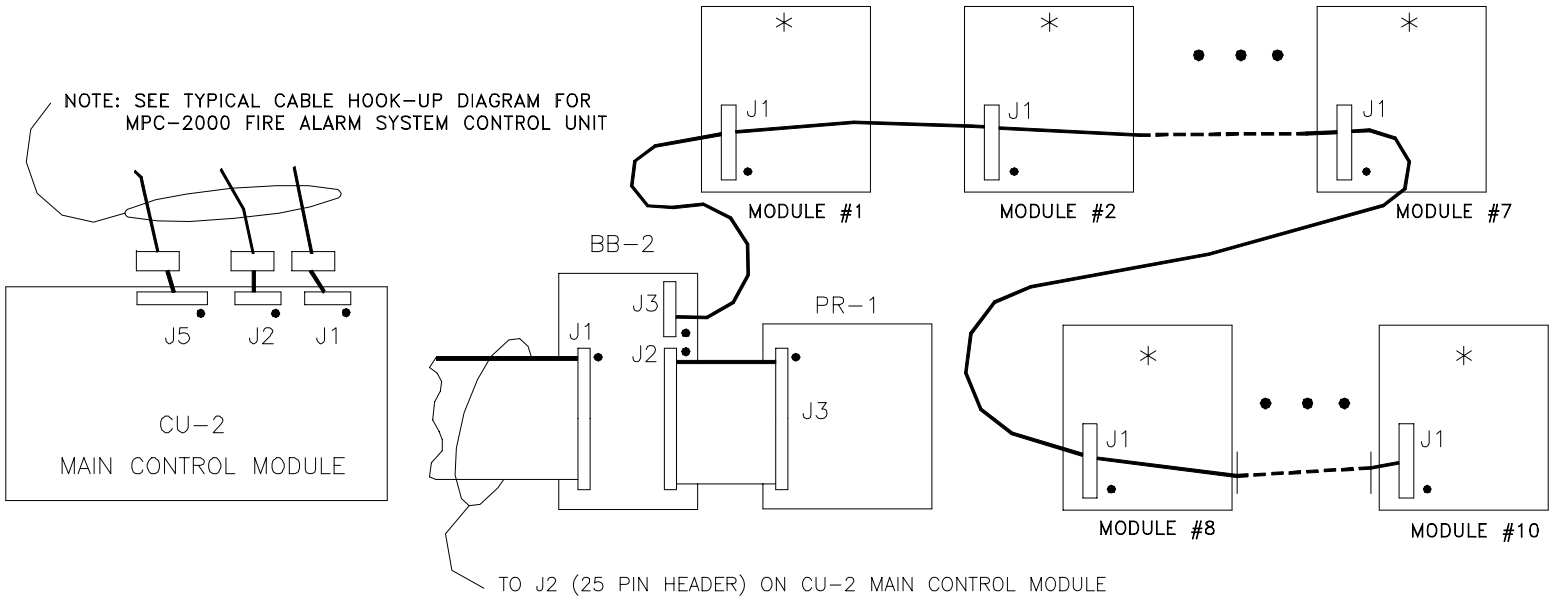
MPC–2000 EVAC
BATTERY WIRING DIAGRAM



TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



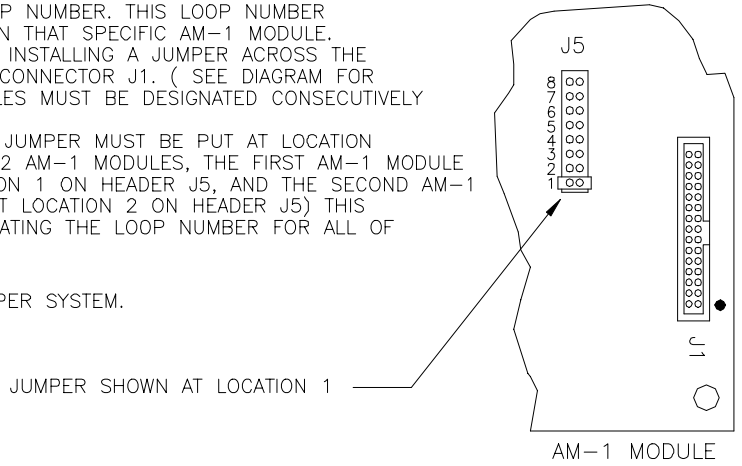
TYPICAL CABLE HOOK–UP DIAGRAM FOR MPC–2000 FIRE ALARM SYSTEM PARALLEL CHANNEL



NOTE:

THE AM–1 MODULE MUST HAVE A LOOP NUMBER. THIS LOOP NUMBER IS USED TO PROGRAM THE DEVICES ON THAT SPECIFIC AM–1 MODULE. THE LOOP NUMBER IS DESIGNATED BY INSTALLING A JUMPER ACROSS THE HEADER J5 NEAR THE PARALLEL BUS CONNECTOR J1. (SEE DIAGRAM FOR HEADER LOCATION) THE AM–1 MODULES MUST BE DESIGNATED CONSECUTIVELY ALWAYS STARTING WITH LOCATION 1.
(EXAMPLE: FOR 1 AM–1 MODULE THE JUMPER MUST BE PUT AT LOCATION 1 OF THE HEADER J5. IF THERE ARE 2 AM–1 MODULES, THE FIRST AM–1 MODULE SHOULD HAVE THE JUMPER AT LOCATION 1 ON HEADER J5, AND THE SECOND AM–1 MODULE SHOULD HAVE THE JUMPER AT LOCATION 2 ON HEADER J5) THIS PROCEDURE IS FOLLOWED FOR DESIGNATING THE LOOP NUMBER FOR ALL OF THE AM–1 MODULES.

NOTE: MAXIMUM OF 8 AM–1 MODULES PER SYSTEM.



NOTE: BB–2 BUFFER BOARD MUST BE MOUNTED ADJACENT TO THE CU–2 MAIN CONTROL UNIT AND THE PR–1 PRINTER MUST BE MOUNTED ADJACENT TO THE BB–2 BUFFER BOARD.

* PARALLEL CHANNEL MODULES

AM–1	ADDRESSABLE/ANALOG	(8 MAX.)
CI–1	REMOTE COMPUTER	(1 MAX.)
SI–2	SERIAL INTERFACE	(1 MAX.)
CI–2	REMOTE PRINTER	(1 MAX.)

NOTE: PARALLEL CHANNEL MAY HAVE UP TO 10 MODULES MAXIMUM.
(BB–2 PLUS AN ADDITIONAL 10 MODULES)

CAUTION:
TRACER ON THE RIBBON CABLES MUST BE ALIGNED WITH THE DOT ON THE CIRCUIT BOARD.

TYPICAL WIRING FOR
CAT. NO. MP–3 / PART NO. 401379 MAIN POWER SUPPLY

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .110 AMP.
NORMAL – .110 AMP.

SPACE REQUIREMENTS:
MODULE – 2
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK–UP DIAGRAM FOR MPC–2000 FIRE ALARM SYSTEM CONTROL UNIT

SEE OWNERS MANUAL (P/N 444851B) FOR BATTERY WIRING DIAGRAM

SEE OWNERS MANUAL (P/N 444851B) FOR U.L. LISTED COMPATIBLE 4–WIRE SMOKE DETECTORS

NOTE:
IF POWER SUPPLY OUTPUT IS ALSO BEING USED TO POWER INTERNAL CONTROL PANEL MODULES, THE POWER CONSUMPTION OF THE MODULES MUST BE SUBTRACTED FROM THE TOTAL POWER SUPPLY OUTPUT RATING.

OPTIONAL EXTERNAL FIELD WIRING CONNECTIONS USE ONLY COMPATIBLE 4–WIRE SMOKE DETECTORS SPECIFIED IN OWNERS MANUAL

OUTPUT:
RESETTABLE SMOKE DETECTOR POWER
24 VDC NOMINAL
1.5 AMP. MAX.
1.2 VAC MAX. RIPPLE
POWER LIMITED

SUPERVISED BY END OF LINE RELAY(S)

+ → R
– → –

NOTE:
IF POWER SUPPLY OUTPUT IS ALSO BEING USED TO POWER EXTERNAL DEVICES, THE POWER CONSUMPTION OF THE DEVICES MUST BE SUBTRACTED FROM THE TOTAL POWER SUPPLY OUTPUT RATING.

OPTIONAL INTERNAL CONTROL PANEL CONNECTION WIRING

OUTPUT:
NON RESETTABLE MODULE POWER
24 VDC NOMINAL
1.5 AMP. MAX.
1.2 VAC MAX. RIPPLE
POWER LIMITED
SEE NOTE 1.

UNSUPERVISED

+ → +
– → –

CAUTION:
BECAUSE OF POSSIBLE NOISE PROBLEMS, SOME DEVICES AND MODULES SHOULD USE SEPARATE POWER SUPPLIES.

INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
STANDBY POWER FROM BATTERY DISTRIBUTION BLOCK
SEE NOTE 1.

SUPERVISED

– → B–
+ → B+

INPUT:
FROM TERMINALS "+" AND "–" ON TX–1 TRANSFORMER
SEE NOTE 1.

– → – IN
+ → + IN

SUPERVISED

NC
NC

O

MP–3 MODULE

REGULATED MAIN POWER SUPPLY

MP–3

FRONT COVER LABEL

445897 ISSUE I REV. A
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. AP-4 / PART NO. 401381
REGULATED AUXILIARY POWER SUPPLY

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .030 AMP.
NORMAL – .030 AMP.

SPACE REQUIREMENTS:
MODULE – 2
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK–UP DIAGRAM FOR MPC–2000 FIRE ALARM SYSTEM CONTROL UNIT

SEE OWNERS MANUAL (P/N 444851B) FOR BATTERY WIRING DIAGRAM

SEE OWNERS MANUAL (P/N 444851B) FOR U.L. LISTED COMPATIBLE 4–WIRE SMOKE DETECTORS

NOTE:
IF POWER SUPPLY OUTPUT IS ALSO BEING USED TO POWER INTERNAL CONTROL PANEL MODULES, THE POWER CONSUMPTION OF THE MODULES MUST BE SUBTRACTED FROM THE TOTAL POWER SUPPLY OUTPUT RATING.

OPTIONAL EXTERNAL FIELD WIRING CONNECTIONS
USE ONLY COMPATIBLE 4–WIRE SMOKE DETECTORS SPECIFIED IN OWNERS MANUAL

OUTPUT:
RESETTABLE SMOKE DETECTOR POWER
24 VDC NOMINAL
1.5 AMP. MAX.
1.2 VAC MAX. RIPPLE
POWER LIMITED

SUPERVISED BY END OF LINE RELAY(S)

NOTE:
IF POWER SUPPLY OUTPUT IS ALSO BEING USED TO POWER EXTERNAL DEVICES, THE POWER CONSUMPTION OF THE DEVICES MUST BE SUBTRACTED FROM THE TOTAL POWER SUPPLY OUTPUT RATING.

OPTIONAL INTERNAL CONTROL PANEL CONNECTION WIRING

OUTPUT:
NON RESETTABLE MODULE POWER
24 VDC NOMINAL
1.5 AMP. MAX.
1.2 VAC MAX. RIPPLE
POWER LIMITED
SEE NOTE 1.

UNSUPERVISED

CAUTION:
BECAUSE OF POSSIBLE NOISE PROBLEMS, SOME DEVICES AND MODULES SHOULD USE SEPARATE POWER SUPPLIES.

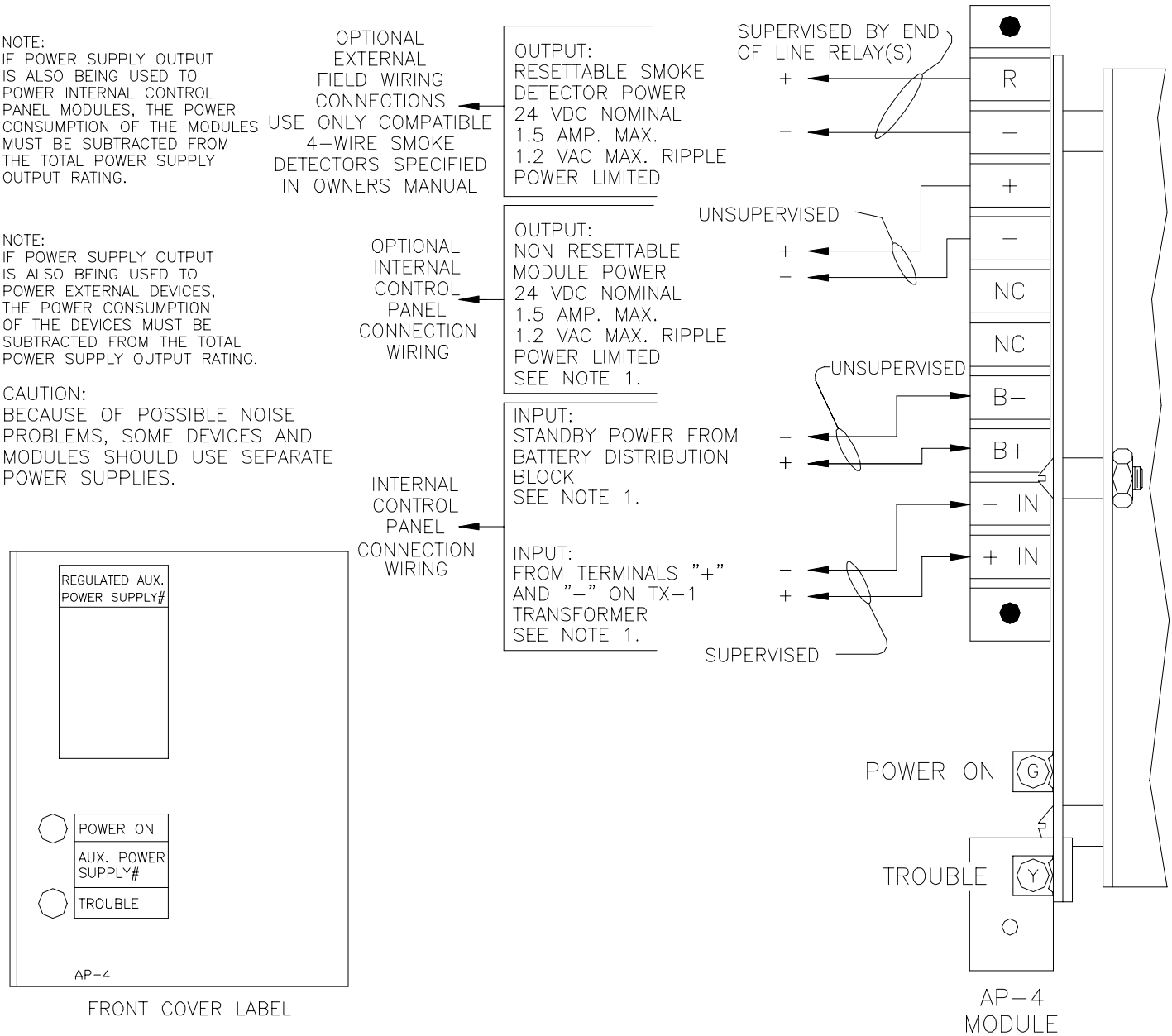
INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
STANDBY POWER FROM BATTERY DISTRIBUTION BLOCK
SEE NOTE 1.

UNSUPERVISED

INPUT:
FROM TERMINALS "+" AND "–" ON TX–1 TRANSFORMER
SEE NOTE 1.

SUPERVISED



FRONT COVER LABEL

445898 ISSUE I REV. B
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. AP-5 / CAT. NO. 401382
UNREGULATED AUXILIARY POWER SUPPLY

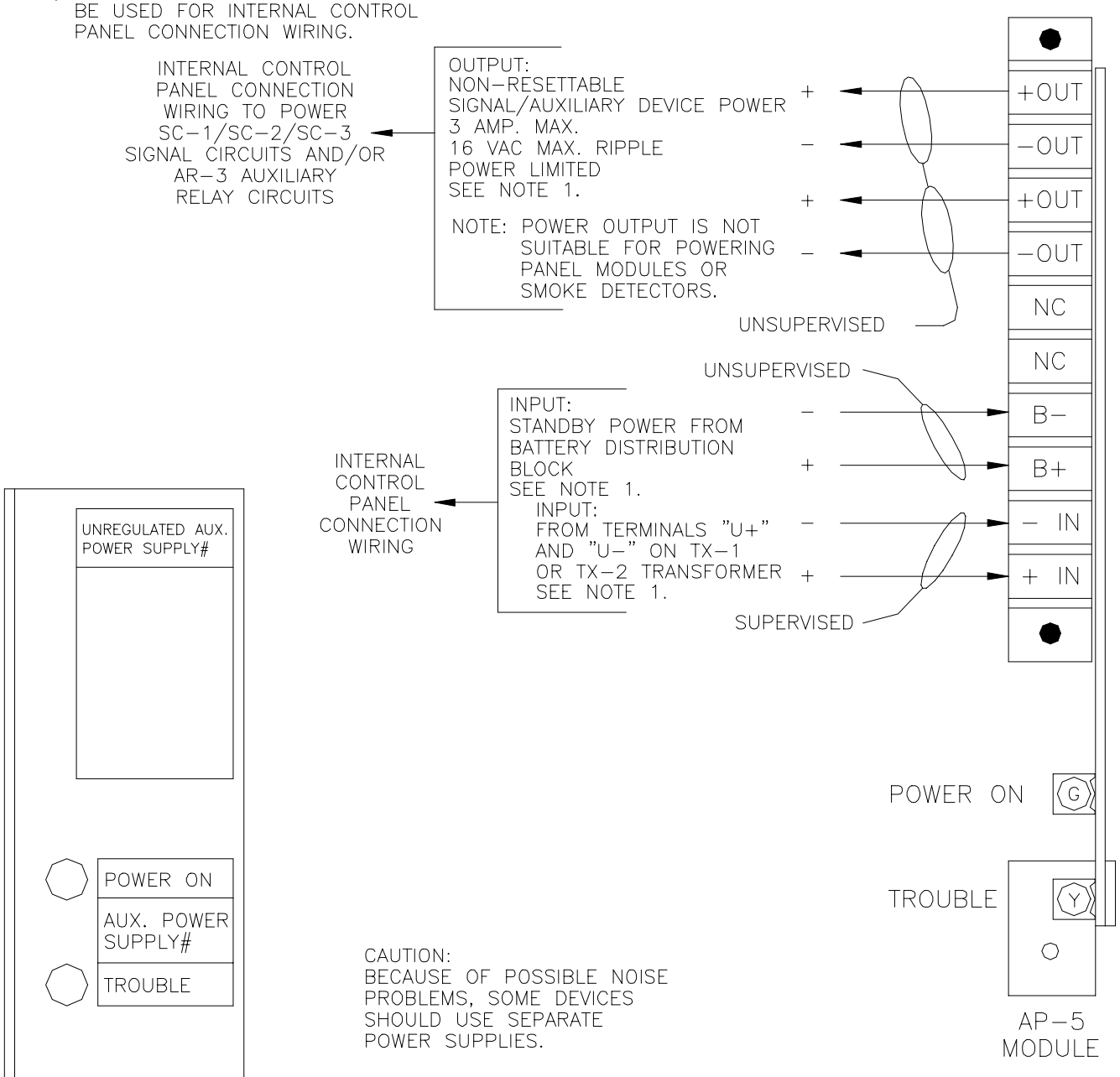
MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .035 AMP.
NORMAL – .035 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT

SEE OWNERS MANUAL (P/N 444851B) FOR BATTERY WIRING DIAGRAM



CAUTION:
BECAUSE OF POSSIBLE NOISE PROBLEMS, SOME DEVICES SHOULD USE SEPARATE POWER SUPPLIES.

445899 ISSUE I REV. A
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. BC-2 / 401380 BATTERY CHARGER

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .010 AMP.
NORMAL – .010 AMP.

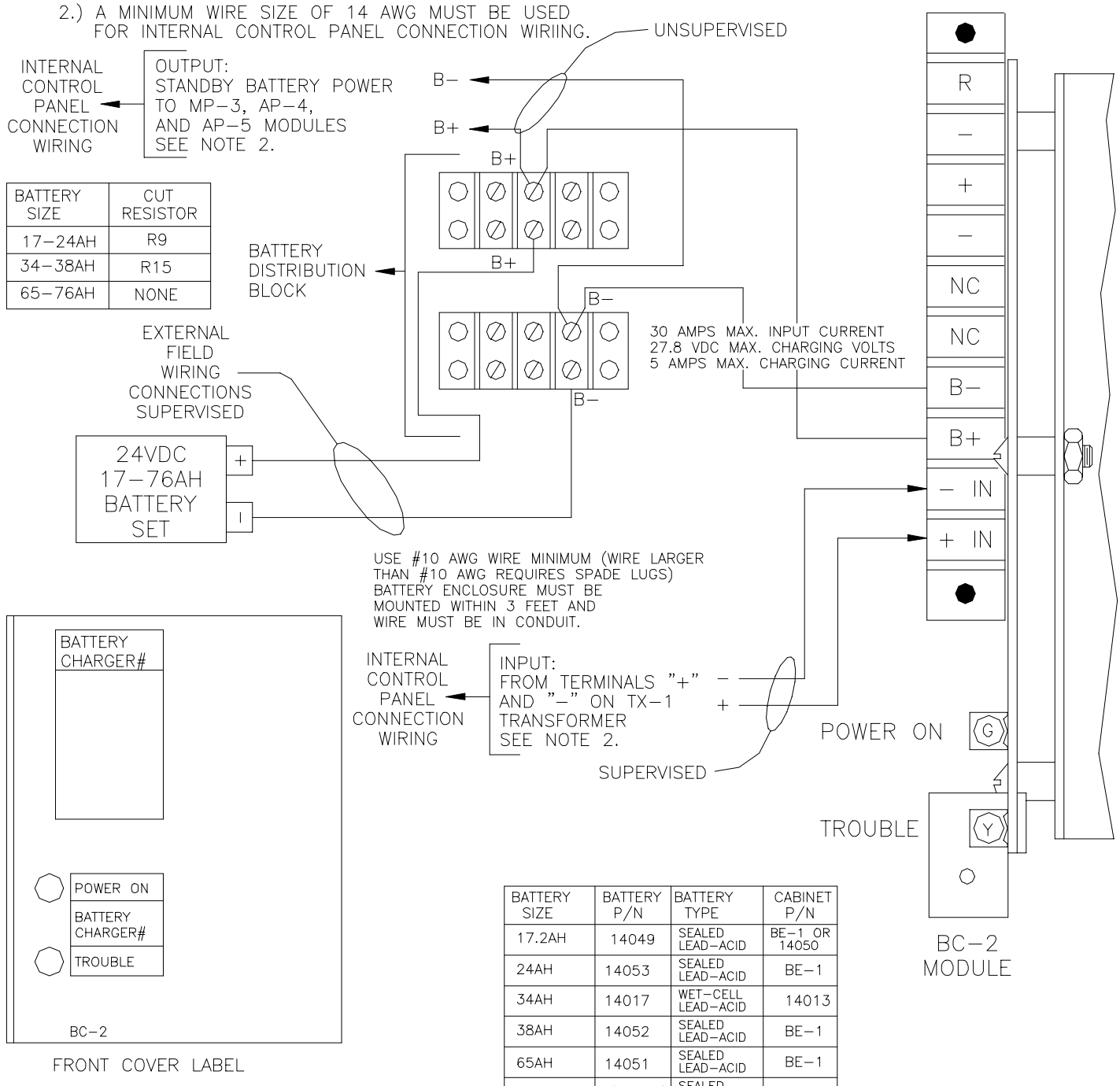
SPACE REQUIREMENTS:
MODULE – 2
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT

SEE OWNERS MANUAL (P/N 444851B) FOR BATTERY WIRING DIAGRAM

NOTE 1.) EACH MODULE THAT HAS BATTERY CONNECTIONS REQUIRES SEPARATE WIRES FOR "B+" AND "B–" FROM EACH MODULE BACK TO THE BATTERY DISTRIBUTION TERMINAL BLOCK. DO NOT "DAISY CHAIN"

2.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRIING.



BATTERY SIZE	CUT RESISTOR
17–24AH	R9
34–38AH	R15
65–76AH	NONE

FRONT COVER LABEL

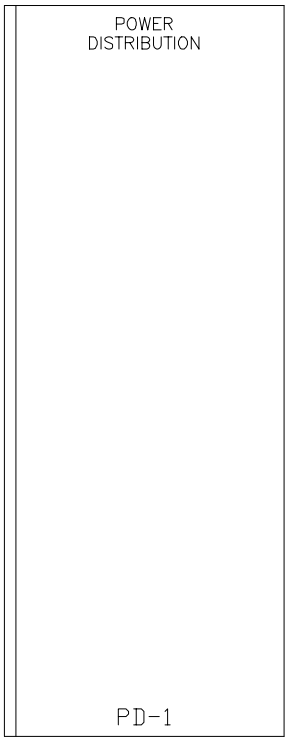
BATTERY SIZE	BATTERY P/N	BATTERY TYPE	CABINET P/N
17.2AH	14049	SEALED LEAD-ACID	BE-1 OR 14050
24AH	14053	SEALED LEAD-ACID	BE-1
34AH	14017	WET-CELL LEAD-ACID	14013
38AH	14052	SEALED LEAD-ACID	BE-1
65AH	14051	SEALED LEAD-ACID	BE-1
76AH	2(14052)	SEALED LEAD-ACID	BE-1

445951 ISSUE I REV. A
FARADAY LLC

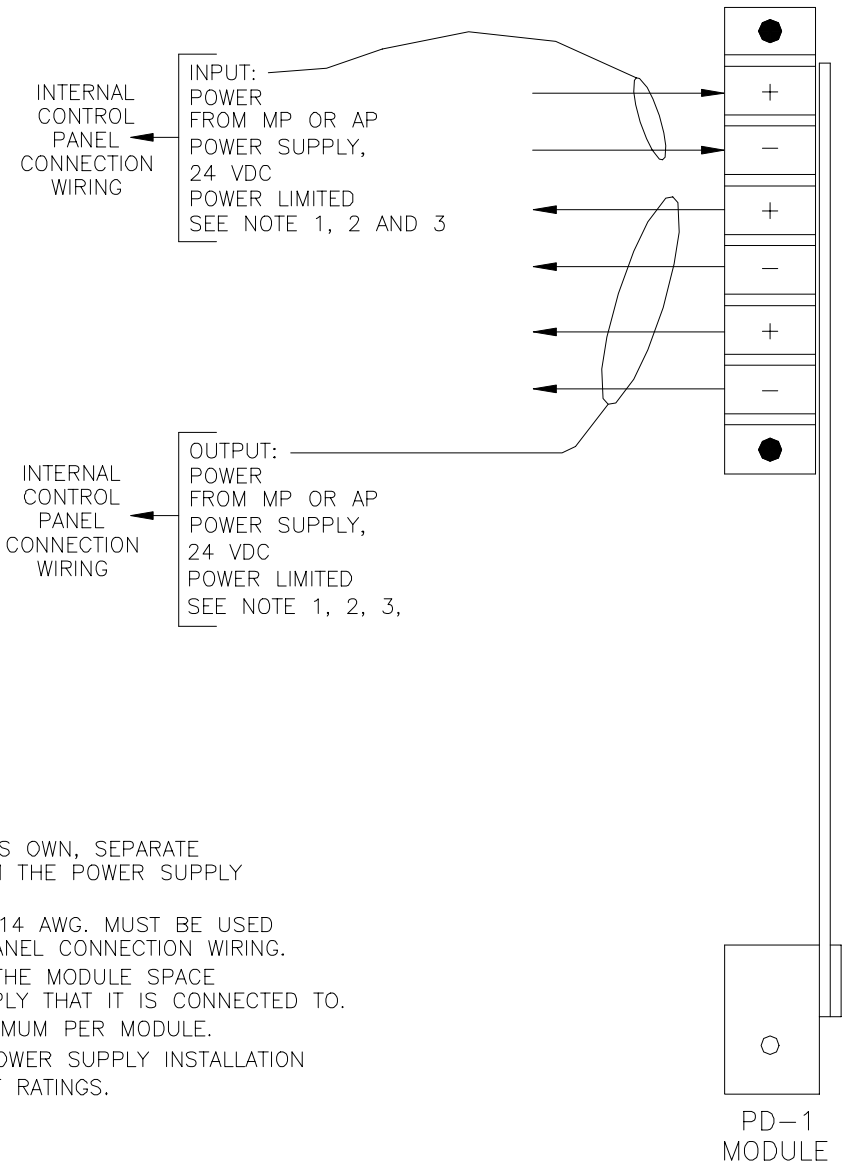
TYPICAL WIRING FOR
CAT. NO. PD-1 / PART NO. 401351 POWER DISTRIBUTION BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .000 AMP.
NORMAL – .000 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0



FRONT COVER LABEL



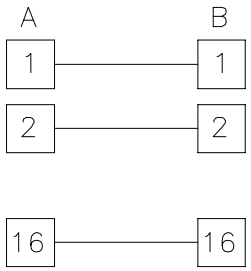
PD–1
MODULE

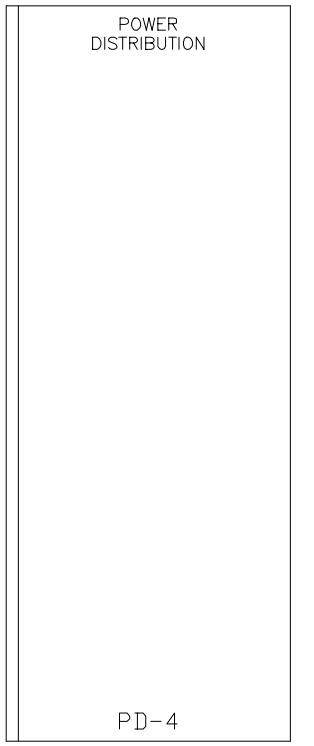
NOTES:
1.) EACH PD–1 MUST HAVE ITS OWN, SEPARATE SET OF INPUT WIRES FROM THE POWER SUPPLY (NOT DAISY CHAINED).
2.) A MINIMUM WIRE SIZE OF 14 AWG. MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.
3.) MODULE MUST MOUNT IN THE MODULE SPACE NEXT TO THE POWER SUPPLY THAT IT IS CONNECTED TO.
4.) 3 AMPS OF CURRENT MAXIMUM PER MODULE.
5.) REFER TO APPROPRIATE POWER SUPPLY INSTALLATION SHEET FOR OUPUT CIRCUIT RATINGS.

TYPICAL WIRING FOR
CAT. NO. PD-4 / PART NO. 401353
POWER / TERMINAL DISTRIBUTION BOARD

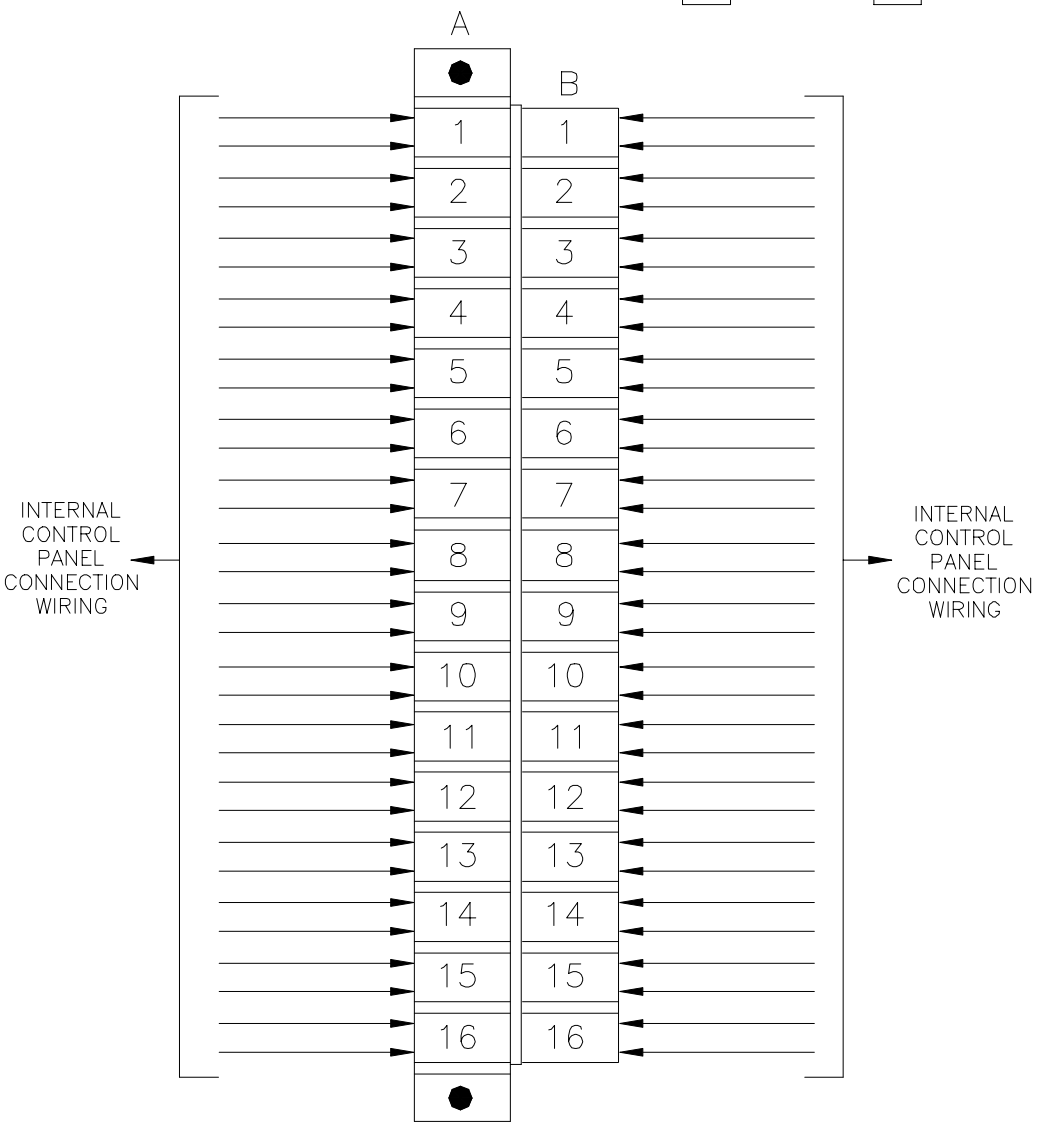
MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .000 AMP.
NORMAL – .000 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0





FRONT COVER LABEL



PD-4
MODULE

NOTES:

1.) SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.
2.) 15 AMPS OF CURRENT MAXIMUM PER TERMINAL.
3.) MUST NOT BE MOUNTED NEXT TO POWER SUPPLIES.

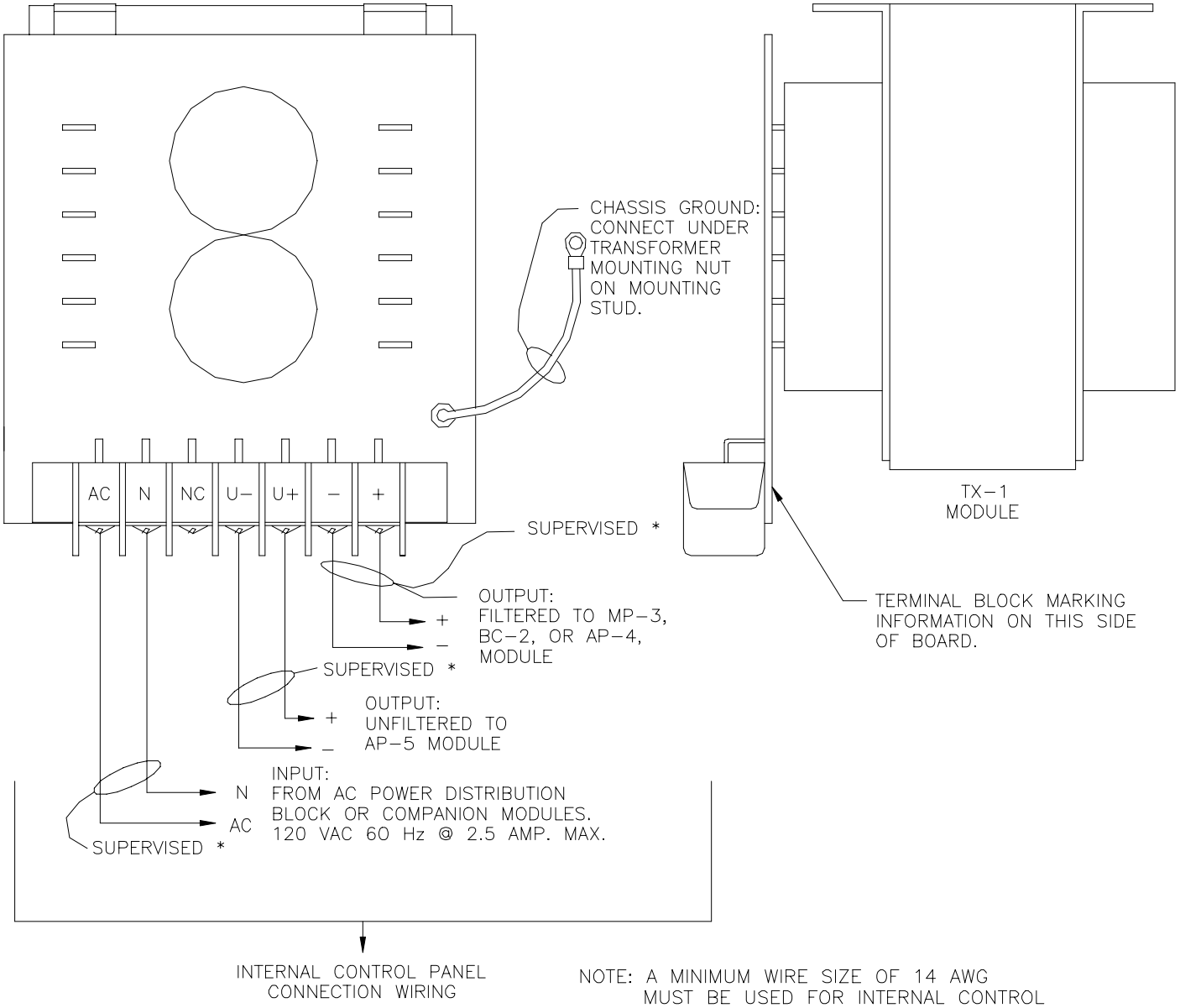
TYPICAL WIRING FOR CAT. NO. TX–1 / PART NO. 401324 FILTERED / UNFILTERED TRANSFORMER BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .000 AMP.
NORMAL – .000 AMP.

SPACE REQUIREMENTS:
MODULE – 0
TRANSFORMER – 1

SEE OWNERS MANUAL (P/N 444851B) FOR 120 VAC WIRING DIAGRAM

SEE OWNERS MANUAL (P/N 444851B) FOR TRANSFORMER MOUNTING REFERENCE DRAWINGS



NOTE: A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

444908 ISSUE I – REV. D
FARADAY LLC

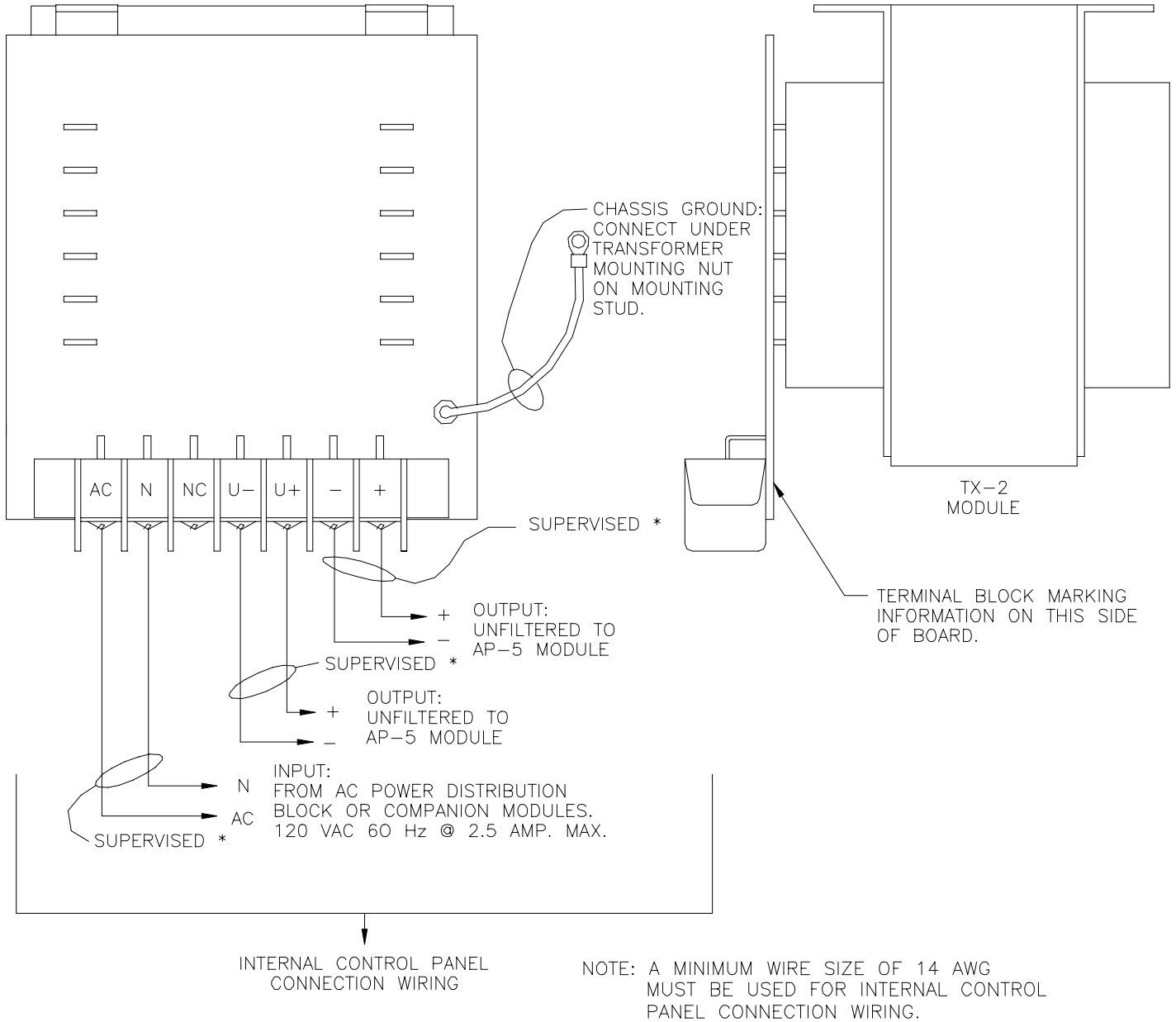
TYPICAL WIRING FOR CAT. NO. TX–2 / PART NO. 401325 UNFILTERED TRANSFORMER BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .000 AMP.
NORMAL – .000 AMP.

SPACE REQUIREMENTS:
MODULE – 0
TRANSFORMER – 1

SEE OWNERS MANUAL (P/N 444851B) FOR 120 VAC WIRING DIAGRAM

SEE OWNERS MANUAL (P/N 444851B) FOR TRANSFORMER MOUNTING REFERENCE DRAWINGS



NOTE: A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

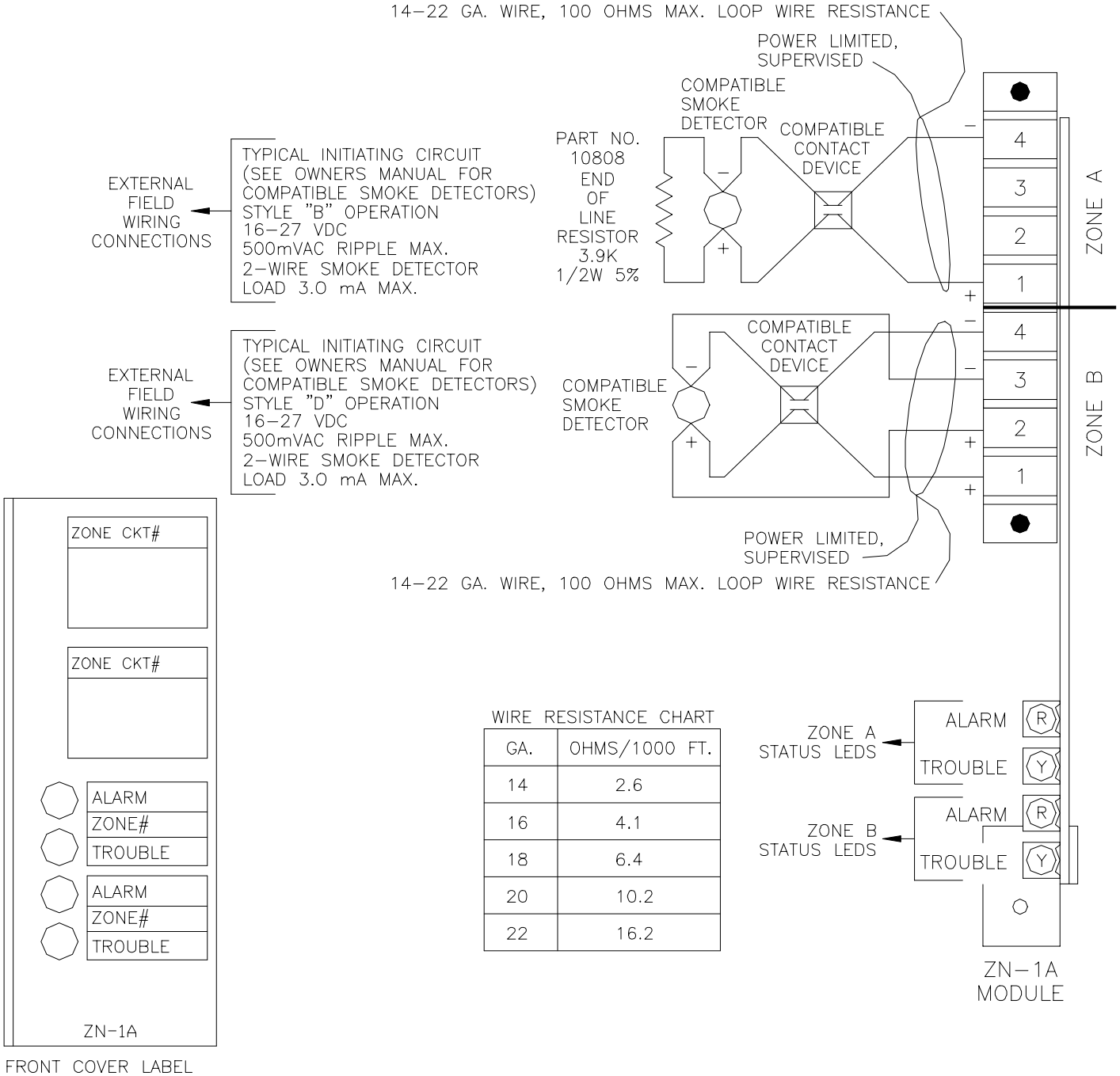
444909 ISSUE I – REV. D
FARADAY LLC

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-1A / PART NO. 401310A
CONVENTIONAL DUAL ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .112 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT



WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

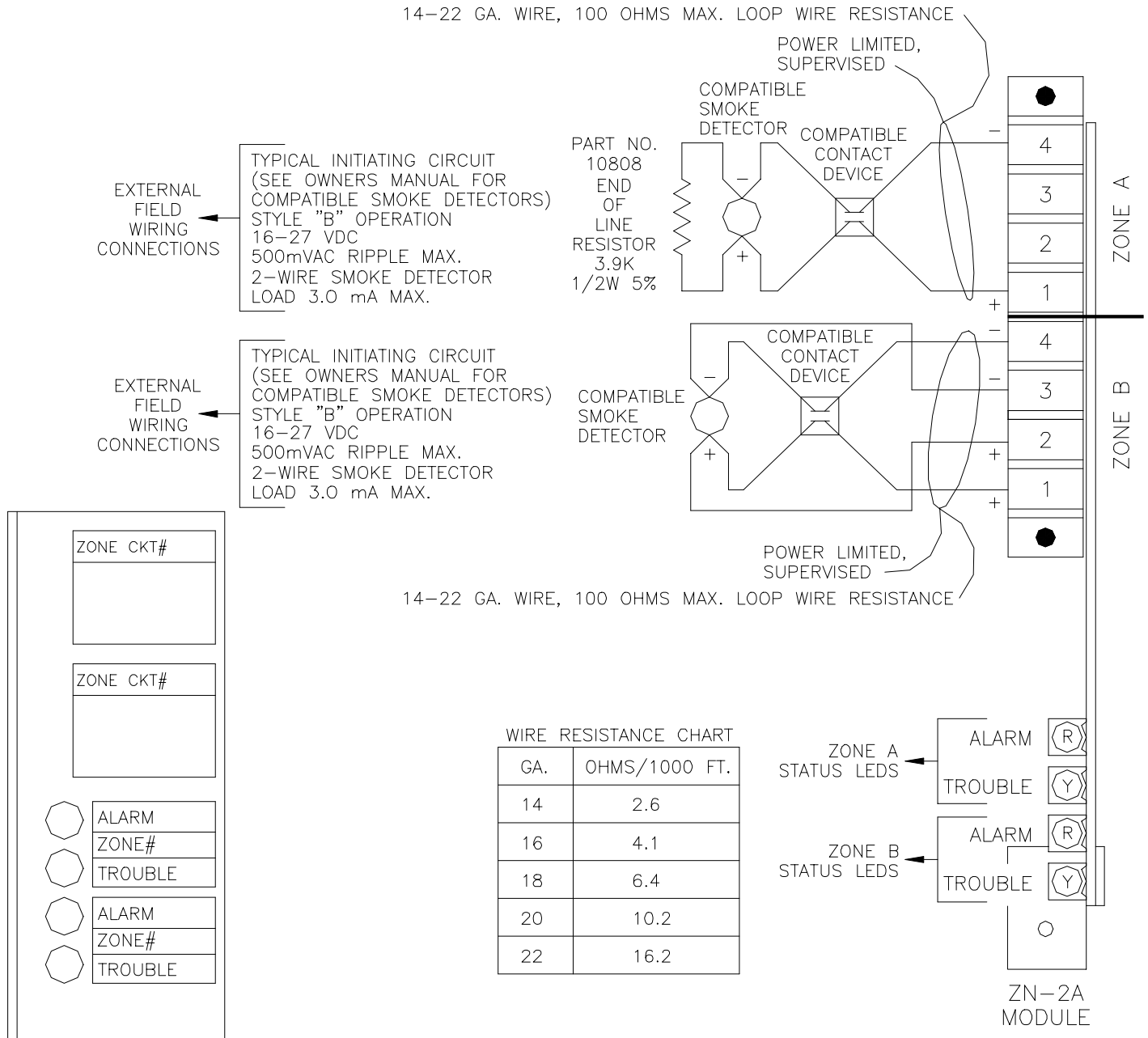
447030 ISSUE I – REV.
FARADAY, LLC

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-2A / PART NO. 401311A
CONVENTIONAL DUAL ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .112 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT



WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

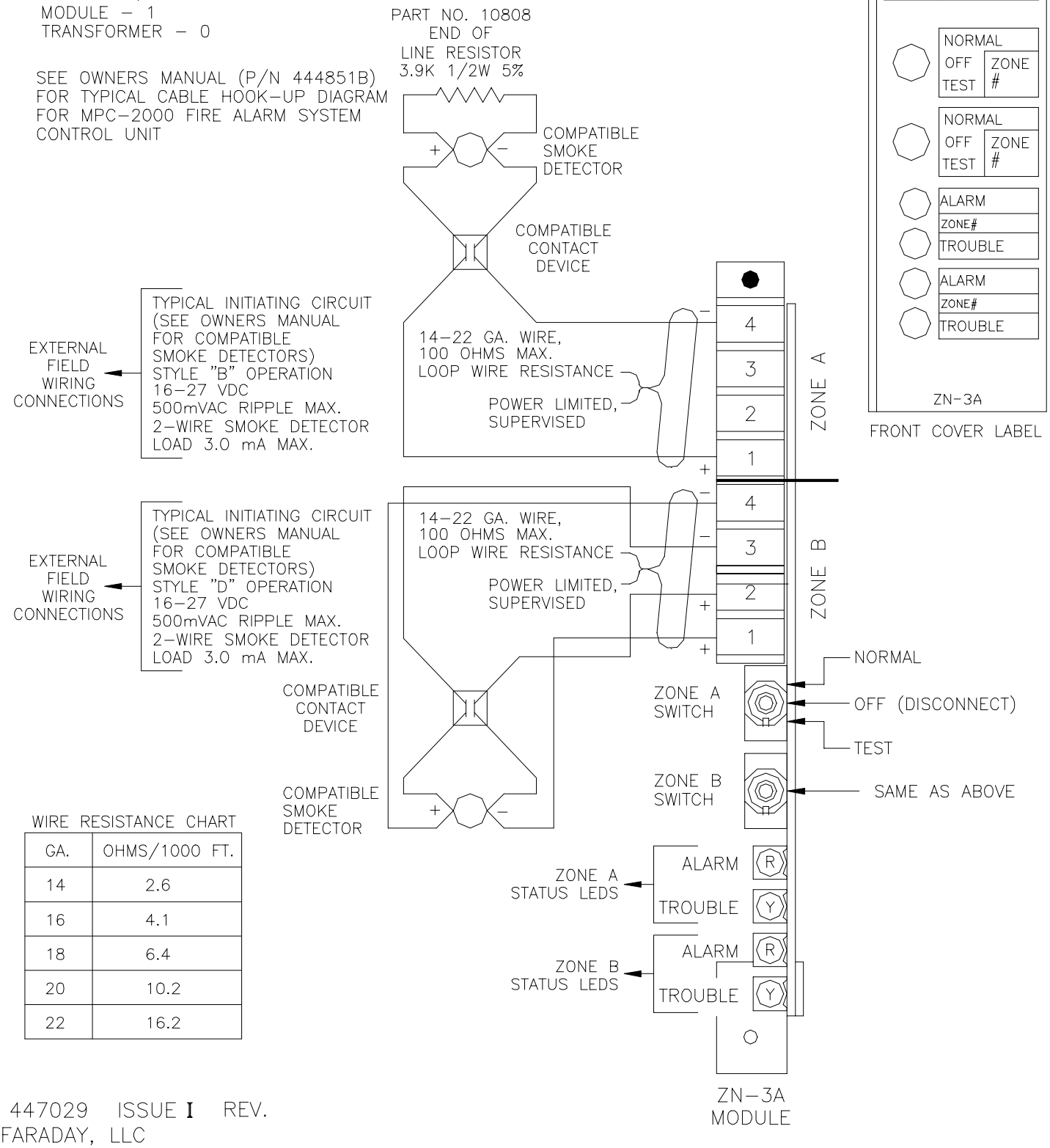
447031 ISSUE I – REV.
FARADAY, LLC

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-3A / PART NO. 401312A
CONVENTIONAL DUAL ZONE WITH DISCONNECT/TEST SWITCH PER ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .112 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



WIRE RESISTANCE CHART

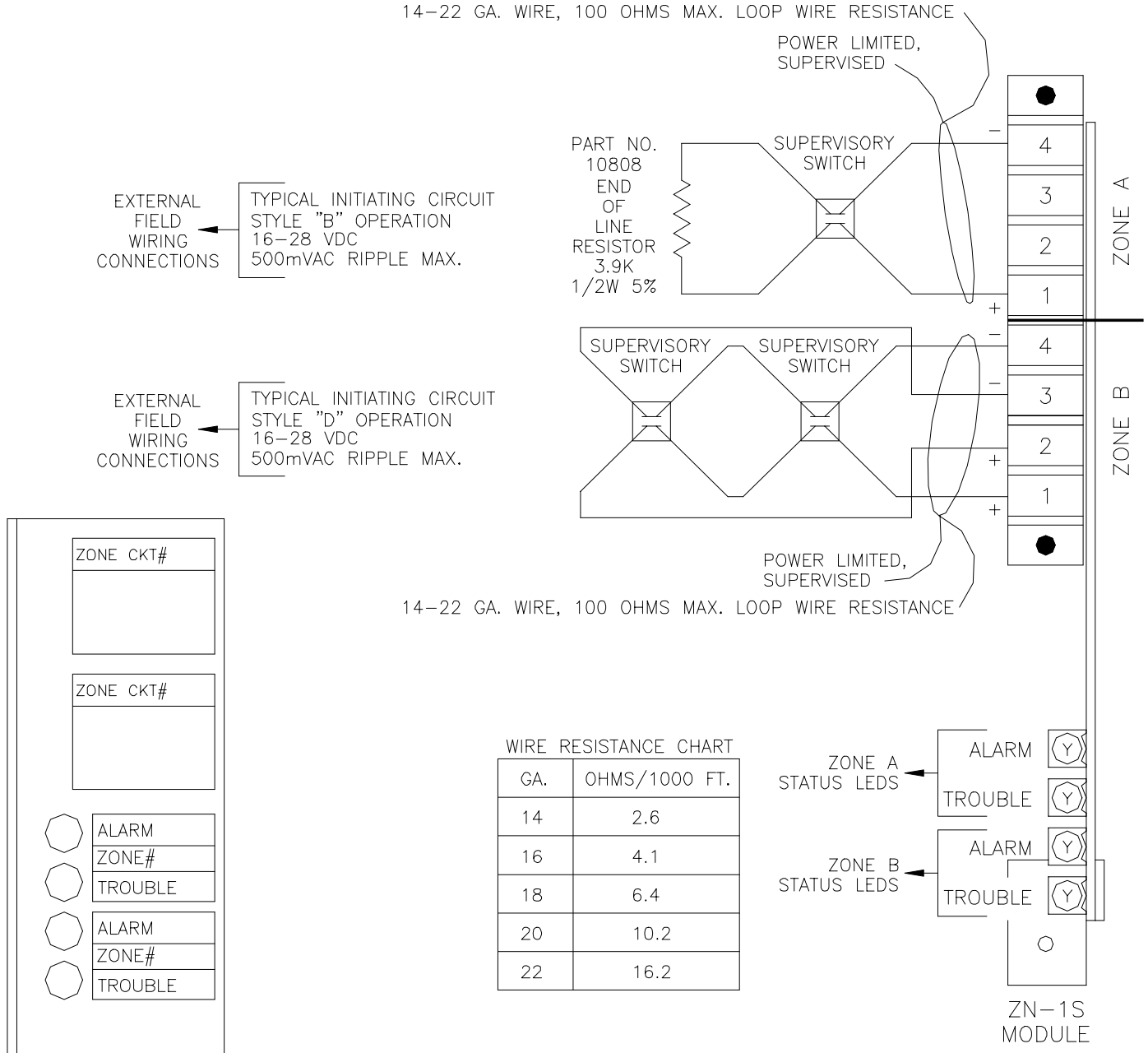
GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-1S / PART NO. 401360 CONVENTIONAL DUAL ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT



WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

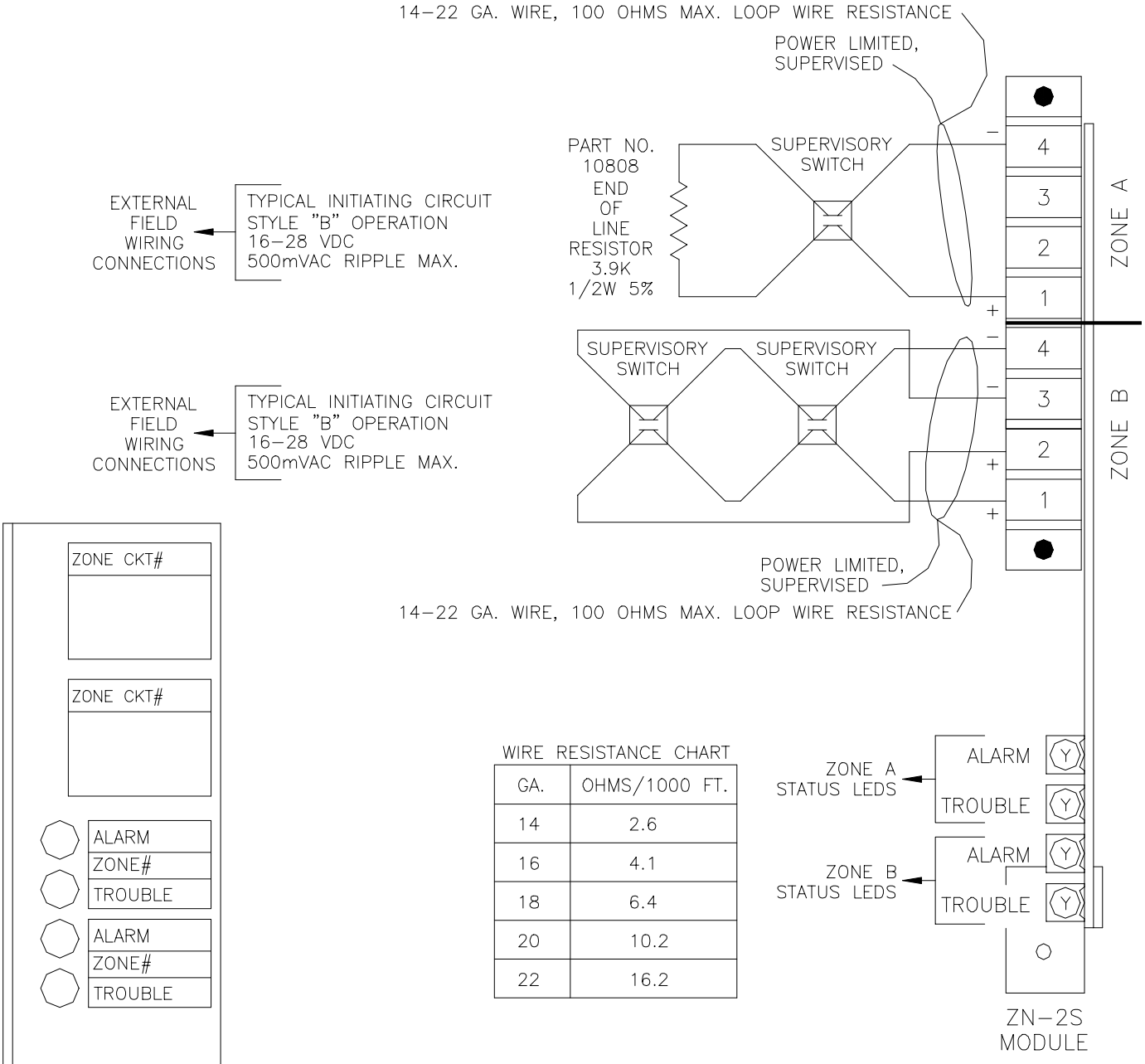
445554 ISSUE I REV. B
FARADAY LLC

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-2S / PART NO. 401361 CONVENTIONAL DUAL ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT



WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

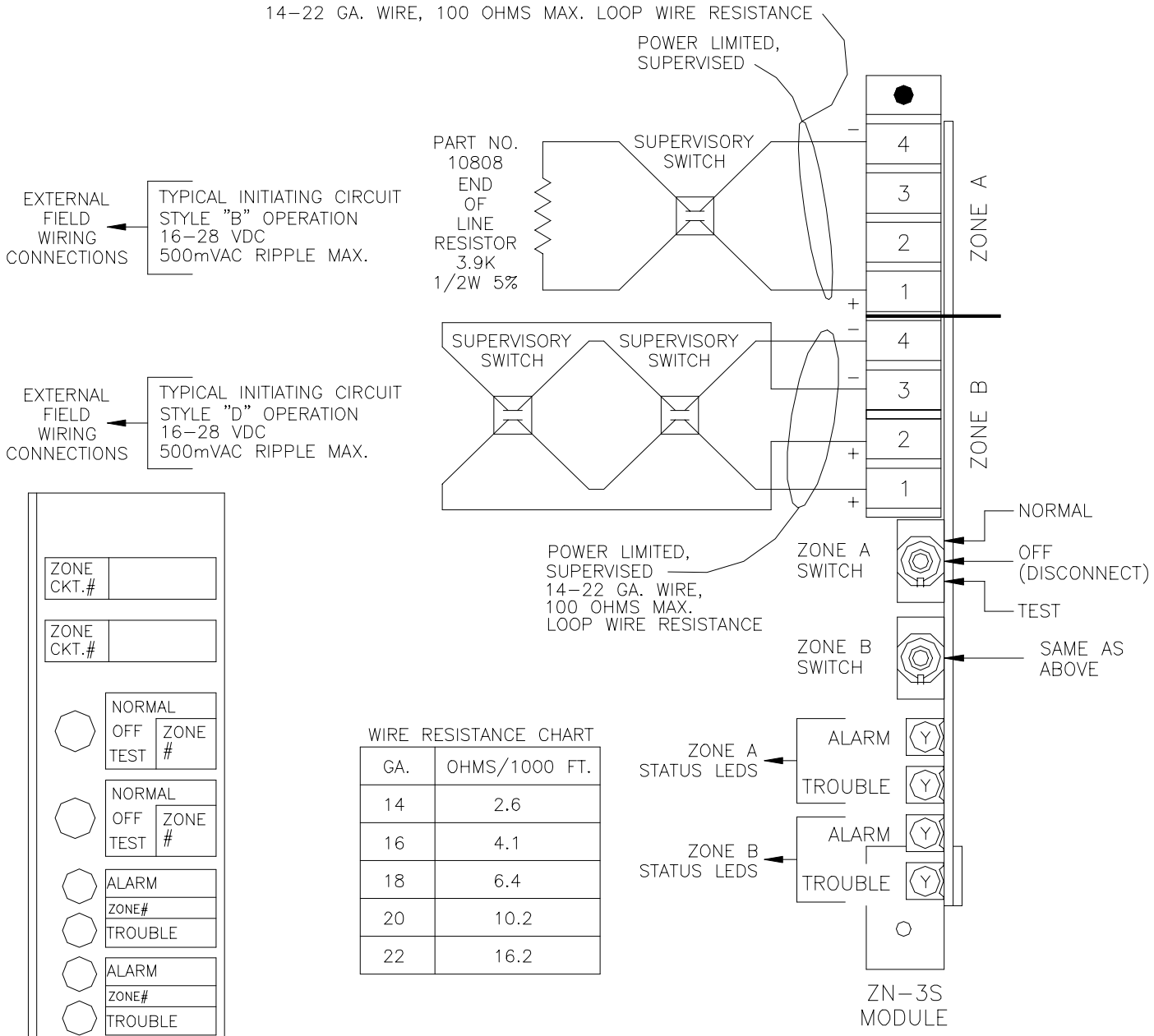
445555 ISSUE I REV. B
FARADAY LLC

TYPICAL INITIATING CIRCUIT WIRING (ZONE IDENTIFIER "D")
CAT. NO. ZN-3S / PART NO. 401362 CONVENTIONAL DUAL ZONE WITH DISCONNECT/TEST SWITCH PER ZONE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT

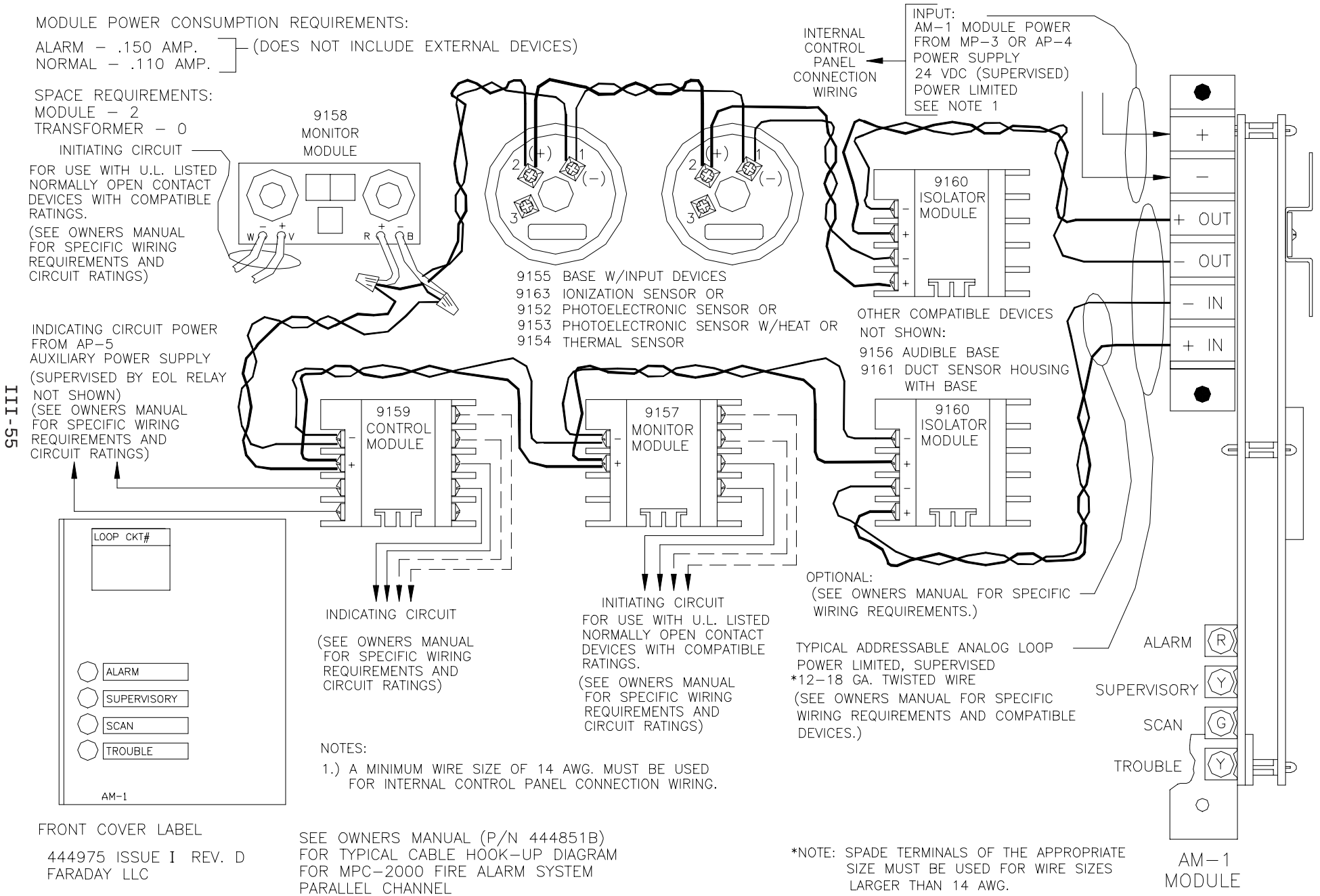


WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

445556 ISSUE I REV. B
FARADAY LLC

TYPICAL ADDRESSABLE ANALOG LOOP CIRCUIT
CAT. NO. AM–1 / PART NO. 401337



NOTES:

1.) A MINIMUM WIRE SIZE OF 14 AWG. MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

FRONT COVER LABEL

444975 ISSUE I REV. D
FARADAY LLC

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK–UP DIAGRAM FOR MPC–2000 FIRE ALARM SYSTEM PARALLEL CHANNEL

*NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

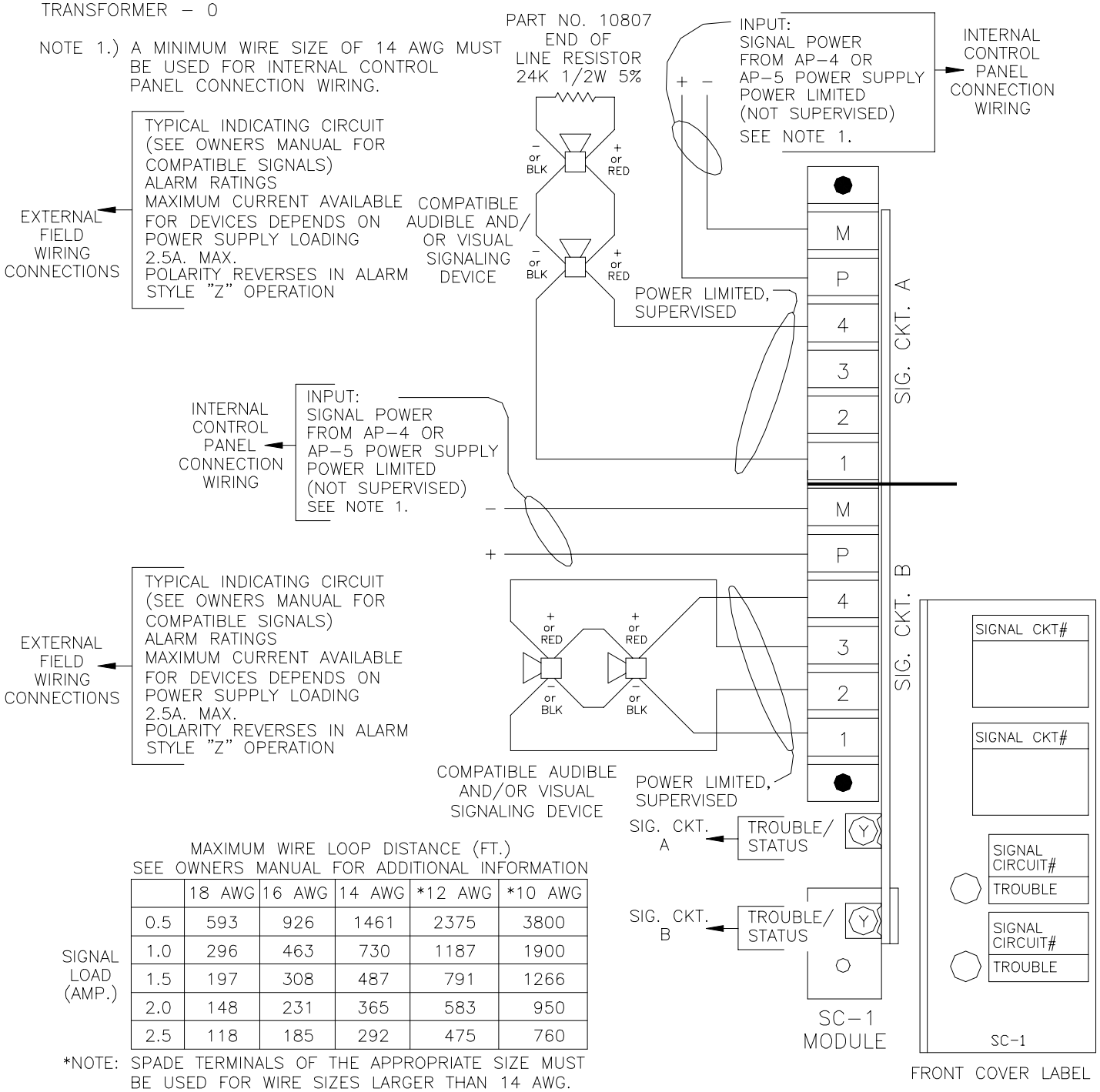
TYPICAL INDICATING CIRCUIT WIRING
CAT. NO. SC-1 / PART NO. 401313
CONVENTIONAL DUAL SIGNAL CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SIGNAL LOAD (AMP.)	18 AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
0.5	593	926	1461	2375	3800
1.0	296	463	730	1187	1900
1.5	197	308	487	791	1266
2.0	148	231	365	583	950
2.5	118	185	292	475	760

*NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

444894 ISSUE I – REV. E
FARADAY LLC.

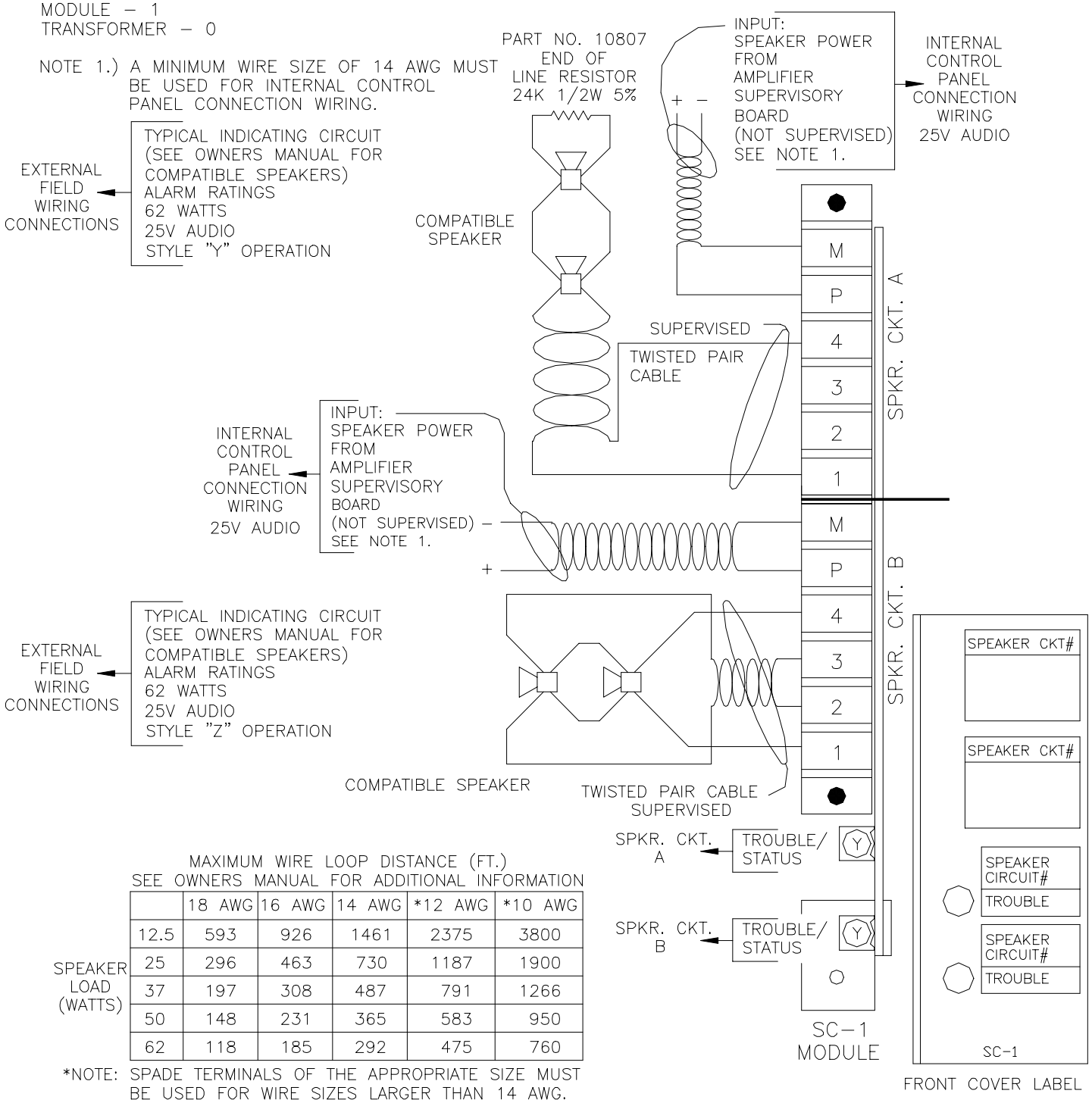
TYPICAL INDICATING CIRCUIT WIRING
CAT. NO. SC-1 / PART NO. 401313
CONVENTIONAL DUAL SPEAKER CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SPEAKER LOAD (WATTS)	18 AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
12.5	593	926	1461	2375	3800
25	296	463	730	1187	1900
37	197	308	487	791	1266
50	148	231	365	583	950
62	118	185	292	475	760

*NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

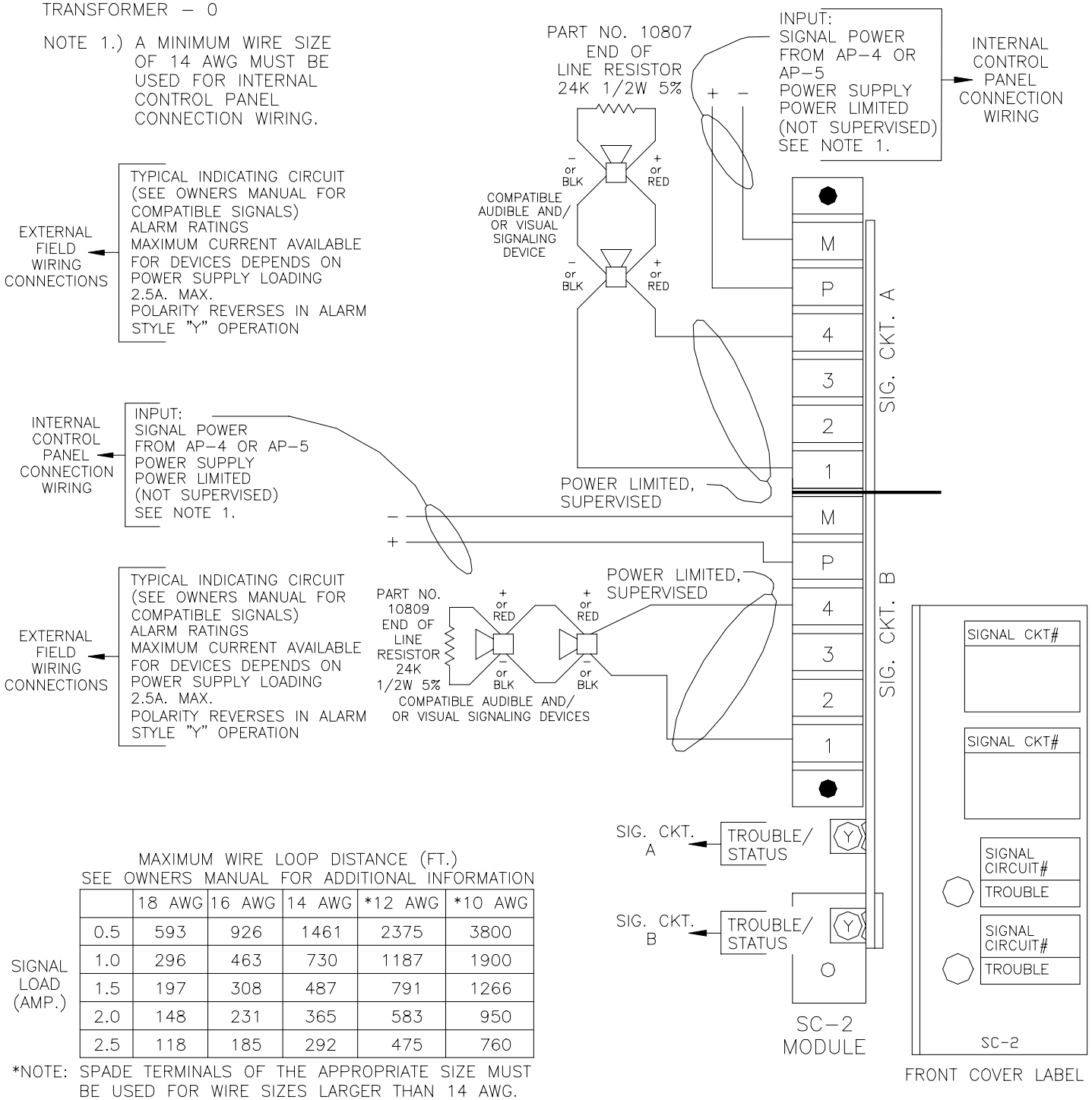
TYPICAL INDICATING CIRCUIT WIRING
CAT. NO. SC-2 / PART NO. 401314
CONVENTIONAL DUAL SIGNAL CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .060 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SIGNAL LOAD (AMP.)	18 AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
0.5	593	926	1461	2375	3800
1.0	296	463	730	1187	1900
1.5	197	308	487	791	1266
2.0	148	231	365	583	950
2.5	118	185	292	475	760

*NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

444895 ISSUE I – REV. E
FARADAY LLC.

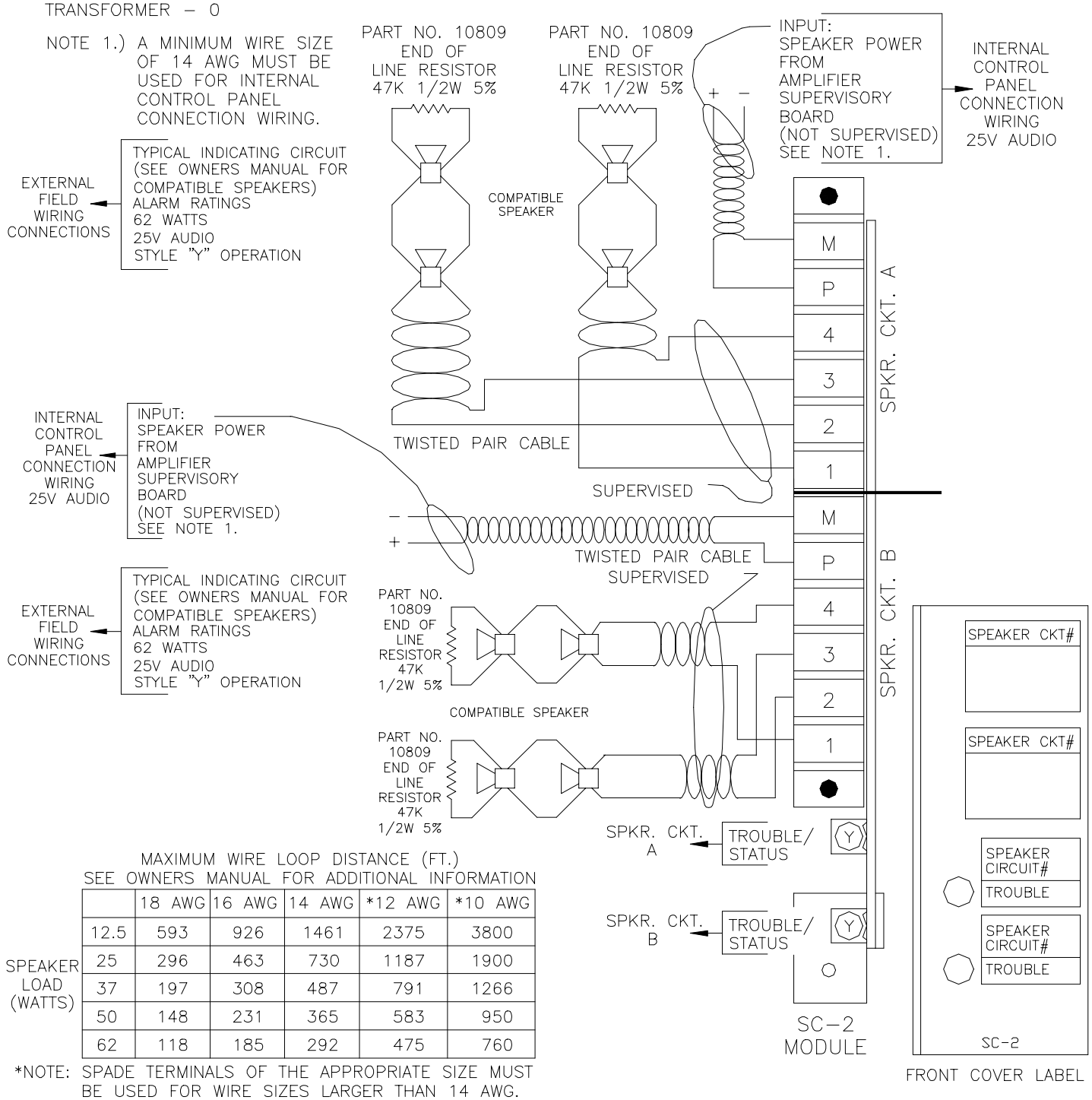
TYPICAL INDICATING CIRCUIT WIRING
CAT. NO. SC-2 / PART NO. 401314
CONVENTIONAL DUAL SPEAKER CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .060 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SPEAKER LOAD (WATTS)	18 AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
12.5	593	926	1461	2375	3800
25	296	463	730	1187	1900
37	197	308	487	791	1266
50	148	231	365	583	950
62	118	185	292	475	760

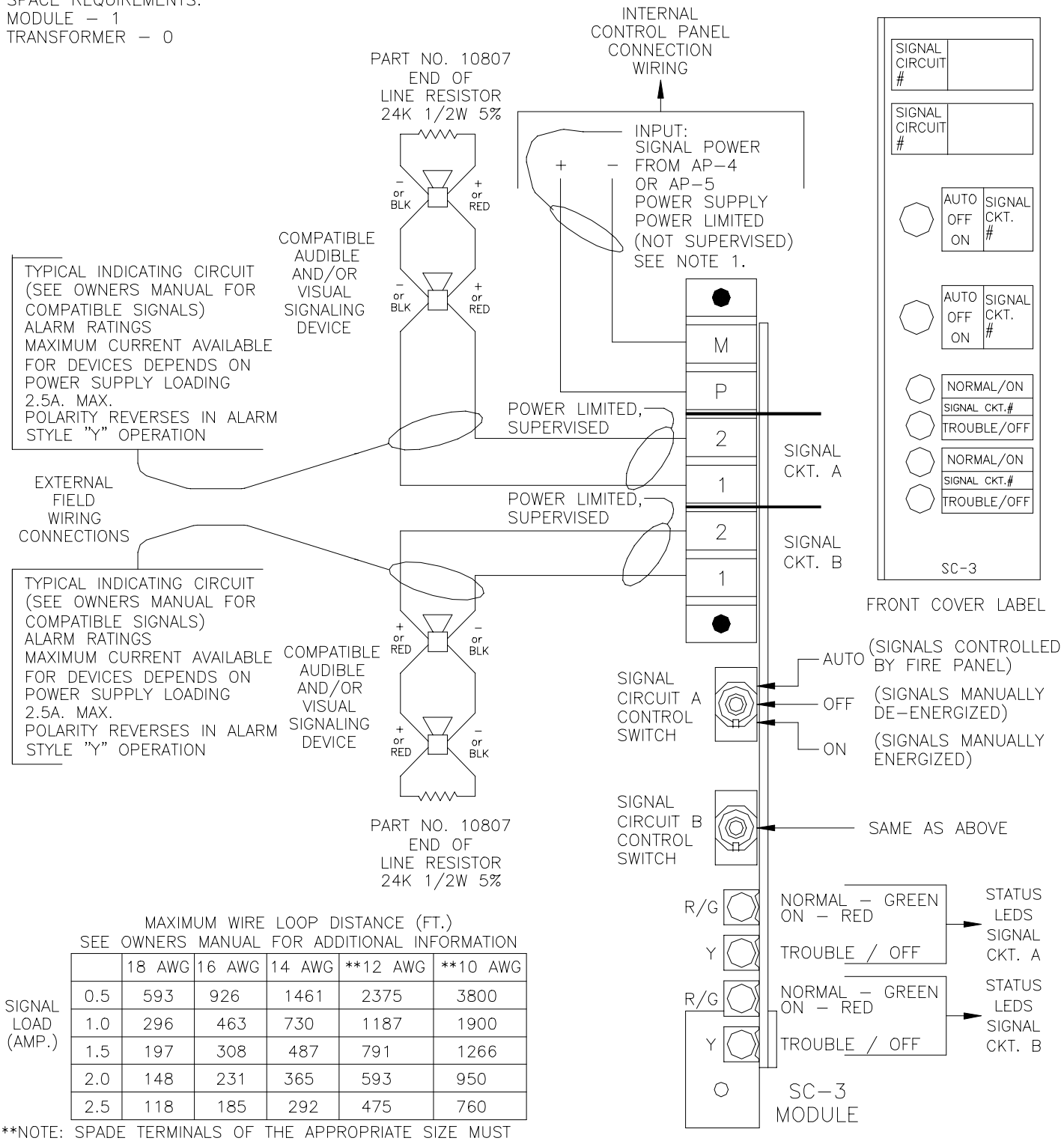
*NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

TYPICAL WIRING FOR CAT. NO. SC-3 / PART NO. 401315 CONVENTIONAL DUAL SIGNAL CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .085 AMP.
NORMAL – .025 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SIGNAL LOAD (AMP.)	18 AWG	16 AWG	14 AWG	**12 AWG	**10 AWG
0.5	593	926	1461	2375	3800
1.0	296	463	730	1187	1900
1.5	197	308	487	791	1266
2.0	148	231	365	593	950
2.5	118	185	292	475	760

**NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

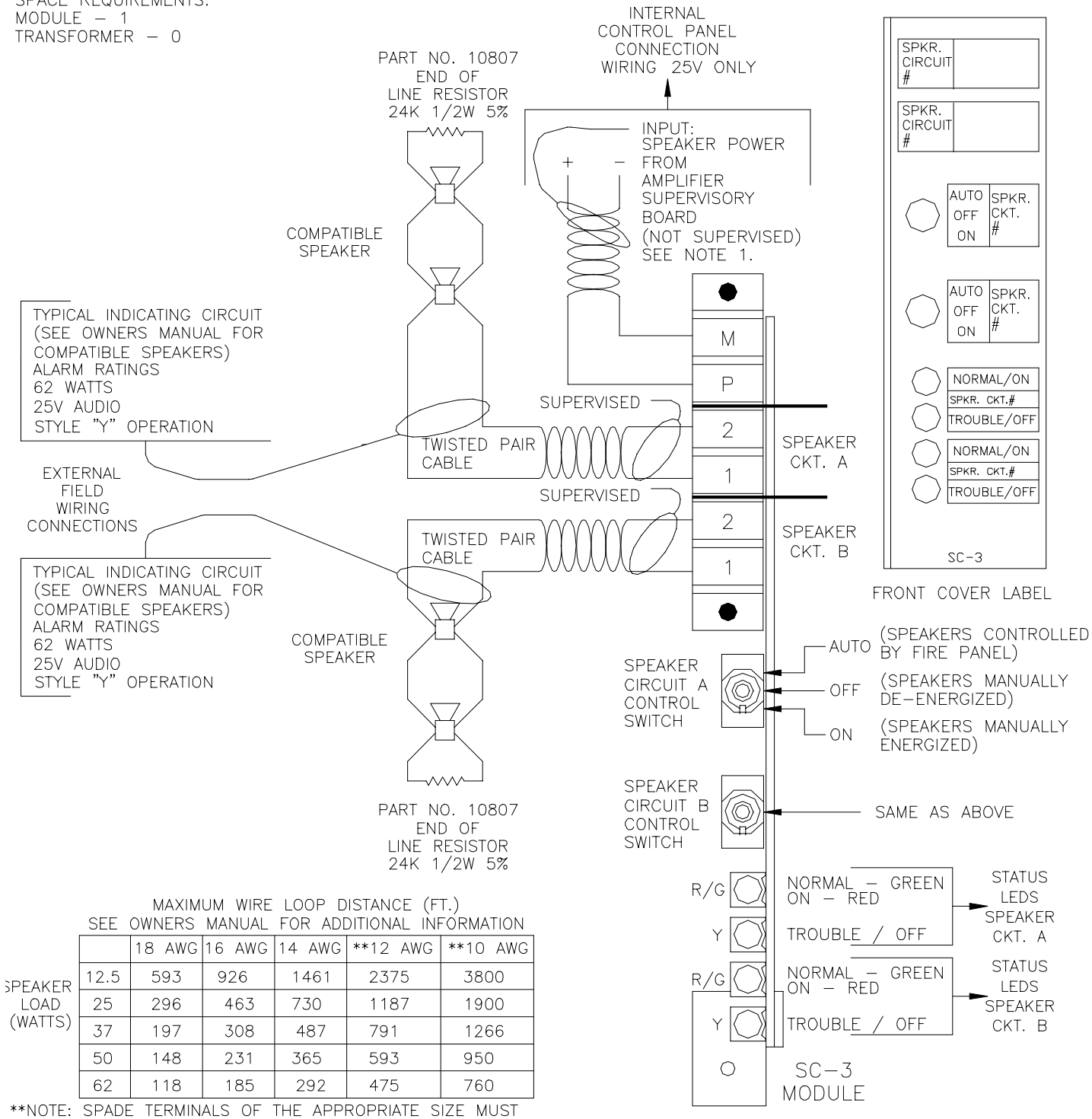
445207 ISSUE I – REV. C
FARADAY LLC

TYPICAL WIRING FOR CAT. NO. SC-3 / PART NO. 401315 CONVENTIONAL DUAL SPEAKER CIRCUIT

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .085 AMP.
NORMAL – .025 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT



MAXIMUM WIRE LOOP DISTANCE (FT.)
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

SPEAKER LOAD (WATTS)	18 AWG	16 AWG	14 AWG	**12 AWG	**10 AWG
12.5	593	926	1461	2375	3800
25	296	463	730	1187	1900
37	197	308	487	791	1266
50	148	231	365	593	950
62	118	185	292	475	760

**NOTE: SPADE TERMINALS OF THE APPROPRIATE SIZE MUST BE USED FOR WIRE SIZES LARGER THAN 14 AWG.

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

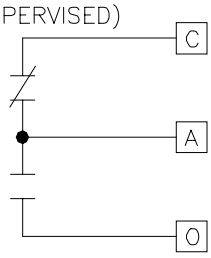
TYPICAL WIRING FOR
CAT. NO. AR–1 / PART NO. 401316
CONVENTIONAL DUAL AUXILIARY RELAY

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .085 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

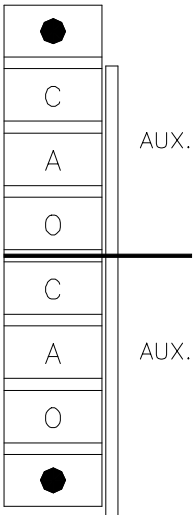
SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
CONTROL UNIT

CONTACTS RATED
5A. @ 30 VAC / VDC
FOR POWER LIMITED SOURCE
(NOT SUPERVISED)



TYPICAL CONTACT CONFIGURATION
(CONTACT SHOWN IN NORMAL STANDBY CONDITION: TRANSFER FOR OPERATED CONDITION).

EXTERNAL FIELD WIRING CONNECTIONS



AUX. RELAY A

AUX. RELAY B

AUX. RELAY A CONTROL SWITCH

AUTO (RELAY CONTROLLED BY FIRE PANEL)

OFF (RELAY MANUALLY DE–ENERGIZED)

ON (RELAY MANUALLY ENERGIZED)

AUX. RELAY B CONTROL SWITCH

SAME AS ABOVE

R ENERGIZED

Y OFF NORMAL

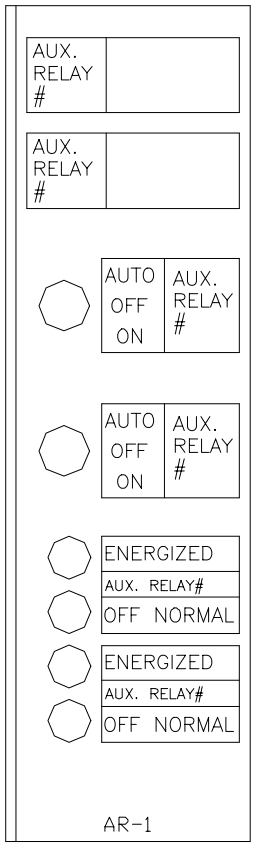
AUX. RELAY A STATUS LEDS

R ENERGIZED

Y OFF NORMAL

AUX. RELAY B STATUS LEDS

AR–1 MODULE



FRONT COVER LABEL

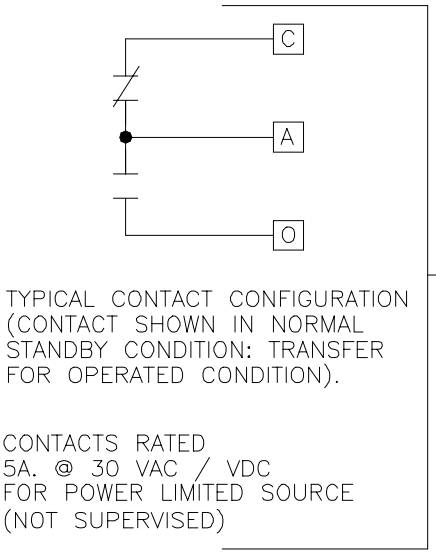
444897 ISSUE I – REV. C
FARADAY LLC.

TYPICAL WIRING FOR
CAT. NO. AR-2 / PART NO. 401317
CONVENTIONAL DUAL AUXILIARY RELAY

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .075 AMP.
NORMAL – .010 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

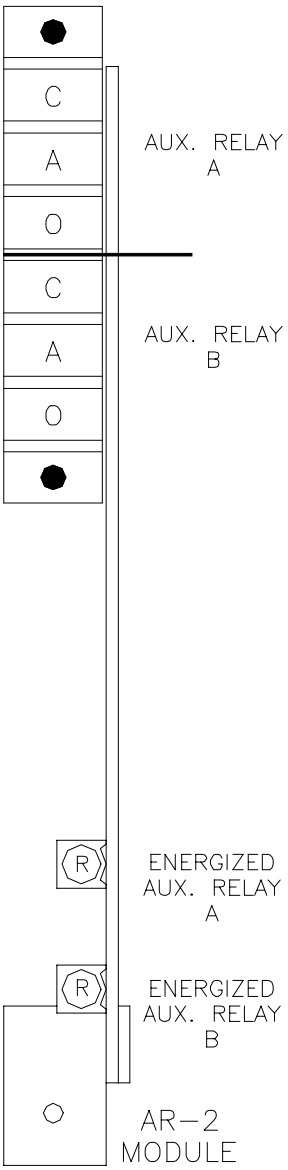
SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT

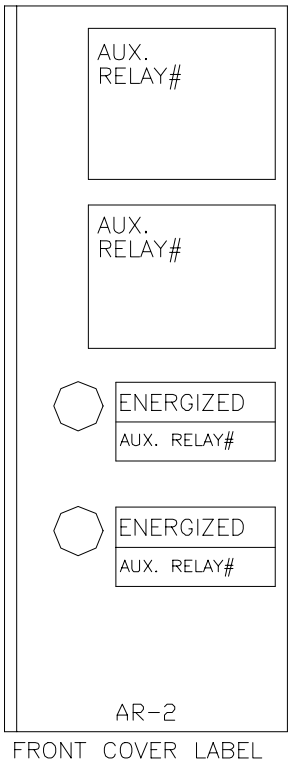


TYPICAL CONTACT CONFIGURATION
(CONTACT SHOWN IN NORMAL
STANDBY CONDITION: TRANSFER
FOR OPERATED CONDITION).

CONTACTS RATED
5A. @ 30 VAC / VDC
FOR POWER LIMITED SOURCE
(NOT SUPERVISED)

EXTERNAL
FIELD
WIRING
CONNECTIONS





FRONT COVER LABEL

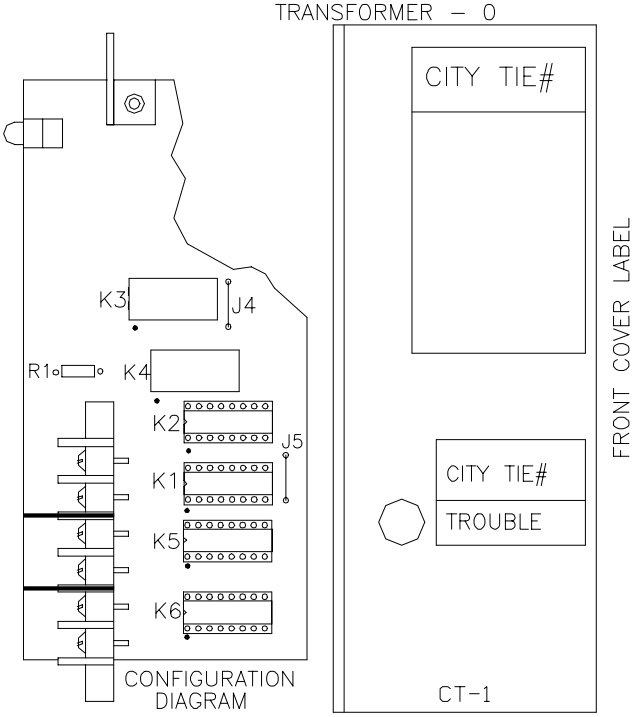
WHEN USED ON A MISCELLANEOUS
CHANNEL, DIODE D9 MUST BE REMOVED
UNLESS RELAY "A" IS PROGRAMMED
FOR A SYSTEM TROUBLE

444896 ISSUE I – REV. C
FARADAY LLC.

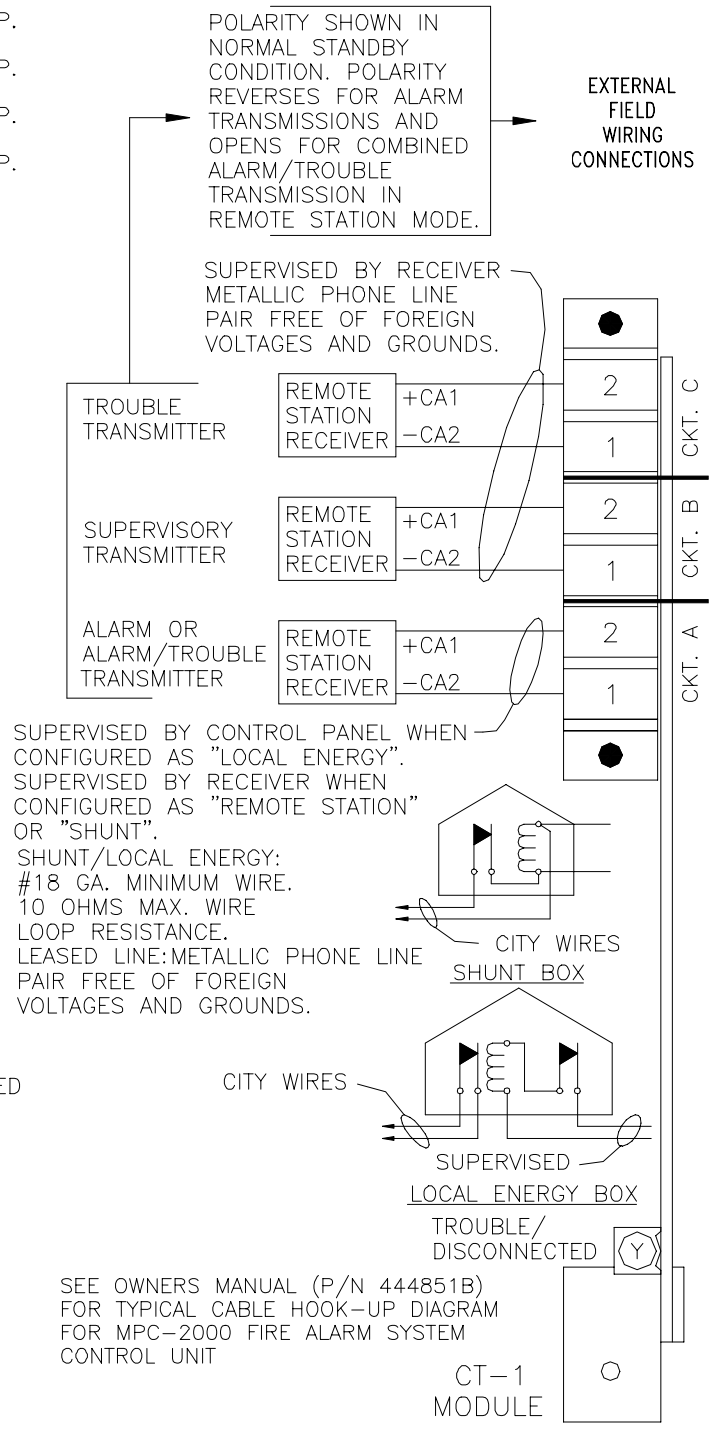
MODULE POWER CONSUMPTION REQUIREMENTS:

FOR SHUNT TRANSMISSION (CKT A):	ALARM – .040 AMP. NORMAL – .008 AMP.
FOR LOCAL ENERGY TRANSMISSION (CKT A):	ALARM – .040 AMP. NORMAL – .008 AMP.
FOR ALARM/TROUBLE TRANSMISSION (CKT A):	ALARM – .070 AMP. NORMAL – .020 AMP.
FOR ALARM ONLY TRANSMISSION (CKT A):	ALARM – .070 AMP. NORMAL – .020 AMP.
FOR SUPERVISORY ONLY TRANSMISSION (CKT B):	ALARM – .045 AMP. NORMAL – .020 AMP.
FOR TROUBLE ONLY TRANSMISSION (CKT C):	ALARM – .045 AMP. NORMAL – .020 AMP.

SPACE REQUIREMENTS: MODULE – 1
TRANSFORMER – 0



TYPICAL WIRING FOR CAT. NO. CT–1 PART NO. 401319 CITY TIE



CKT. C – TROUBLE ONLY (NFPA 72) – POWER LIMITED

INSTALL OPTIONAL RELAY K6 FOR DEDICATED REMOTE STATION TROUBLE ONLY TRANSMISSION. SEE NOTE 1

CKT. B – SUPERVISORY ONLY (NFPA 72) – POWER LIMITED

CUT OUT DIODE D7,
INSTALL OPTIONAL RELAY K5 FOR DEDICATED REMOTE STATION SUPERVISORY ONLY TRANSMISSION. SEE NOTE 1

CKT. A – SEE OPTIONS

ALARM ONLY (NFPA 72) – POWER LIMITED
INSTALL RELAYS K3, K4 AND CUT RESISTOR R1 FOR DEDICATED ALARM ONLY REMOTE STATION TRANSMISSION.

ALARM/TROUBLE (NFPA 72) – POWER LIMITED
INSTALL RELAYS K3, K4 AND CUT RESISTOR R1 AND JUMPER J4 FOR DEDICATED ALARM & TROUBLE REMOTE STATION TRANSMISSION. SEE NOTE 1

LOCAL ENERGY (NFPA 72) – REMOVE RELAYS K3 & K4, INSTALL RELAY K1 AND CUT JUMPER J5 FOR LOCAL ENERGY TRANSMISSION. (*NOT POWER LIMITED*)

SHUNT (NFPA 72) – REMOVE RELAYS K3 & K4, INSTALL RELAY K2 AND CUT RESISTOR R1 FOR SHUNT TRANSMISSION. – SEE NOTE 2

NOTES: 1.) COMPATIBLE REMOTE STATION RECEIVERS KELTRON DMP701, DMP702, DMP703, OR DMP704 ALARM MONITORING SYSTEM WITH 75DM722–02 OR 75DM726 REVERSE POLARITY SUBSCRIBERS NEST MAXIMUM LEASED LINE RESISTANCE – 4500 OHM

2.) THE SHUNT CONNECTION IS RECOGNIZED ONLY AS A SUPPLEMENTARY SIGNALING UNIT AS PART OF A LOCAL CONTROL UNIT AND IS NOT RECOGNIZED AS AN AUXILIARY CONTROL UNIT CONNECTION PER NFPA NO. 72.

TYPICAL WIRING FOR
CAT. NO. DI-1/ PART NO. 401401
D.A.C.T. INTERFACE MODULE

POWER CONSUMPTION REQUIREMENTS:

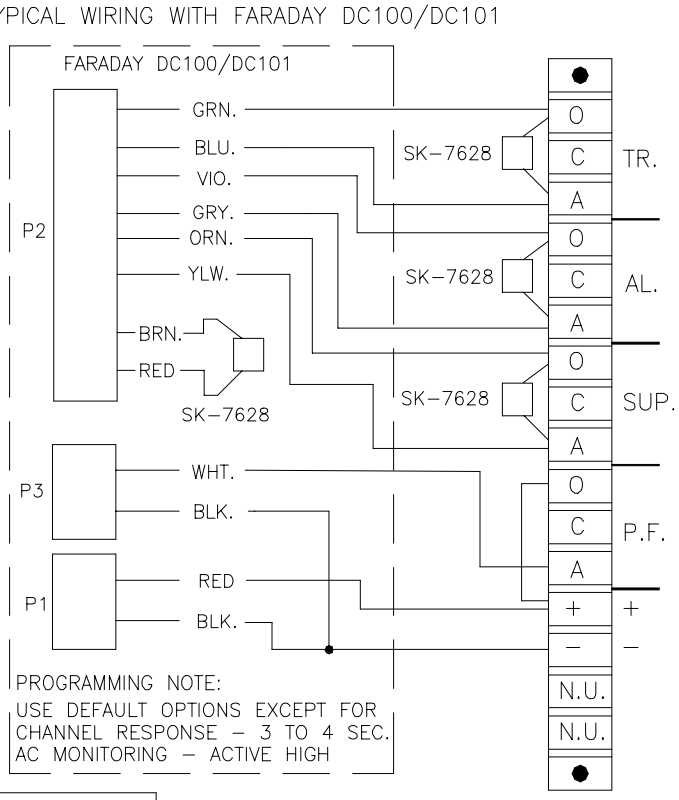
ALARM – .090 AMP.
NORMAL – .035 AMP.

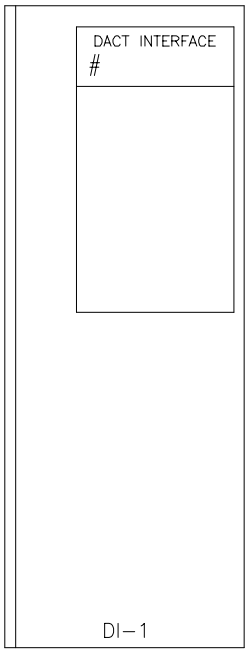
SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK-UP DIAGRAM FOR MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT

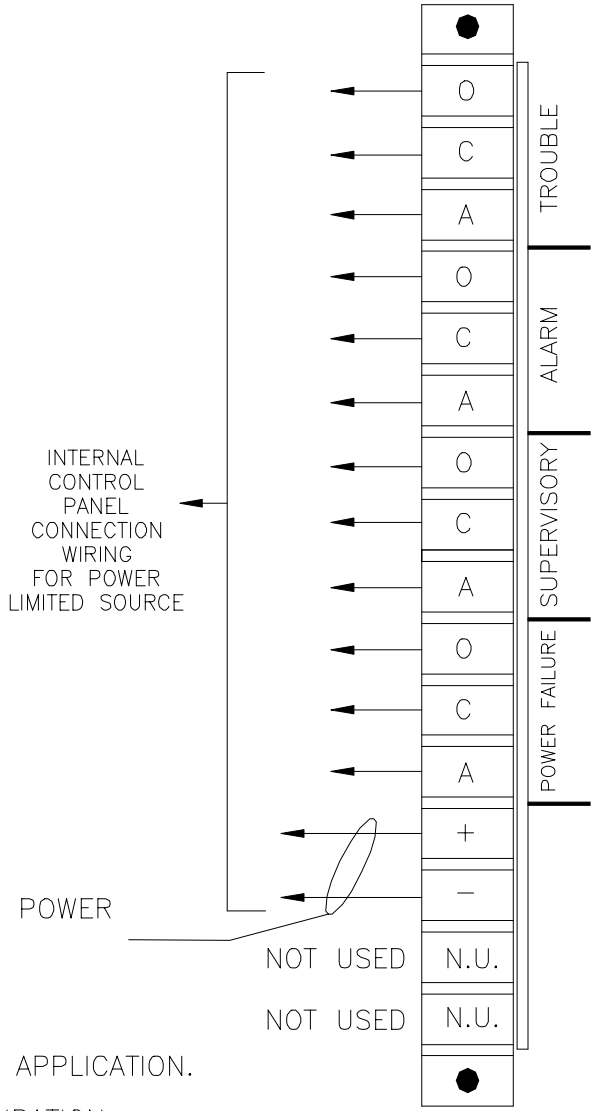
NOTE: WIRING FOR DC101 MUST BE ENCLOSED IN CONDUIT AND MAY NOT EXCEED 20 FEET.

TYPICAL WIRING WITH FARADAY DC100/DC101





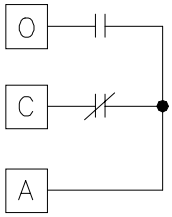
FRONT COVER LABEL



DI-1
MODULE

OUTPUT: NON-RESETTABLE POWER
POWER LIMITED
24VDC NOMINAL
.3 AMP MAX.
1.2 VAC MAX. RIPPLE
NOT SUPERVISED, SPECIAL APPLICATION.

TYPICAL CONTACT CONFIGURATION
CONTACT SHOWN IN NORMAL STANDBY CONDITION: TRANSFER FOR OPERATED CONDITIONS.



CONTACTS RATED
1A @ 30VDC, RESISITIVE
NOT SUPERVISED

445903 ISSUE I REV. A
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. SI-2/ PART NO. 401339 SERIAL INTERFACE and
CAT. NO. RDC-700A/ PART NO. 401347 REMOTE DISPLAY/CONTROLLER
FOR PARALLEL CHANNEL MODULES

POWER CONSUMPTION REQUIREMENTS:
SI–2
ALARM – .200 AMP.
NORMAL – .050 AMP.
RDC–700A (EACH)
ALARM – .065 AMP.
NORMAL – .055 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

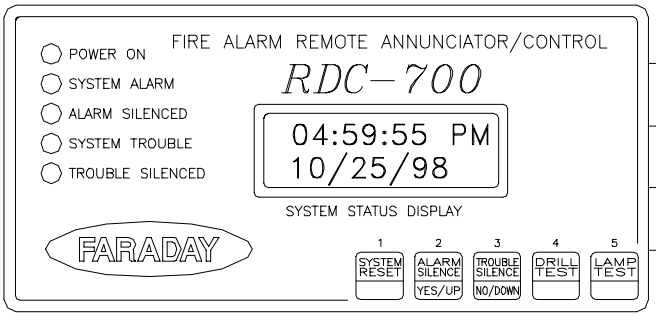
INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
SI–2 MODULE POWER
FROM MP–3 OR AP–4 NON–RESETTABLE
POWER SUPPLY
24 VDC
SEE NOTE 1

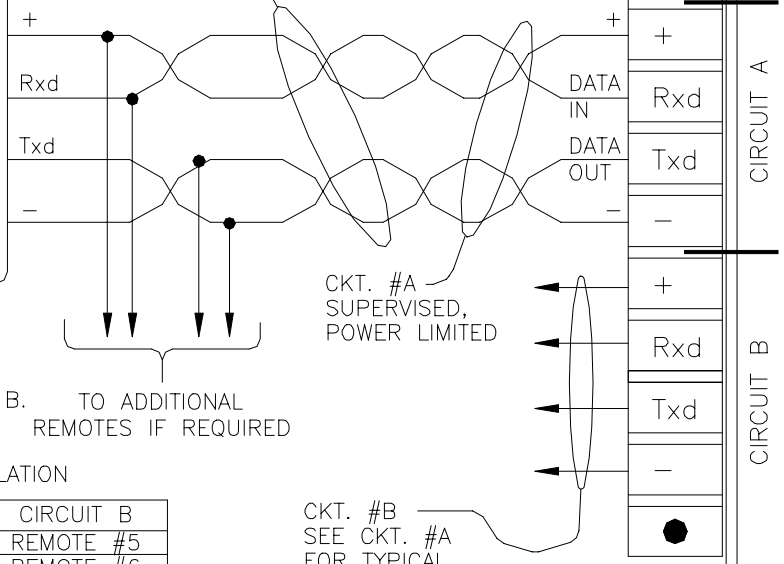
SUPERVISED

EXTERNAL FIELD WIRING CONNECTIONS
SUPERVISED, POWER LIMITED
TWO TWISTED PAIR, #20 GA. MIN. WIRE
TOTAL CABLE LENGTH NOT TO EXCEED 2000 FT.

RDC–700A UNITS TO BE MOUNTED IN
STANDARD 5 GANG ELECTRICAL OUTLET BOX



REMOTE DISPLAY/CONTROLLER

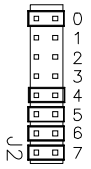


CKT. #A
SUPERVISED,
POWER LIMITED

TO ADDITIONAL
REMOTES IF REQUIRED

EACH CIRCUIT MAY HAVE UP TO 4 REMOTE UNITS.
CIRCUIT A MUST HAVE 4 REMOTE UNITS ATTACHED
BEFORE ANY REMOTE UNITS ARE WIRED TO CIRCUIT B.

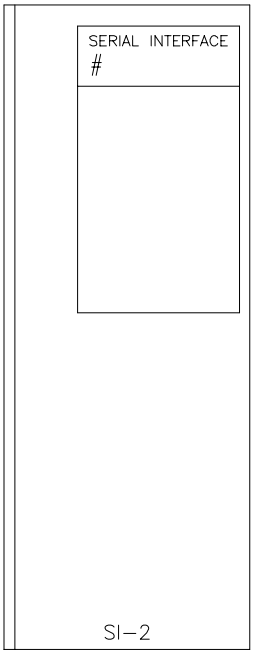
SET JUMPERS AS REQUIRED UPON RDC–700A INSTALLATION



		CIRCUIT A	CIRCUIT B
REMOTE DISPLAY ADDRESS	J2–0	REMOTE #1	REMOTE #5
	J2–1	REMOTE #2	REMOTE #6
	J2–2	REMOTE #3	REMOTE #7
	J2–3	REMOTE #4	REMOTE #8
KEYPAD ENABLE	J2–4	RECALL	
	J2–5	SYSTEM RESET	
	J2–6	DRILL TEST	
	J2–7	ALARM SILENCE	

FIGURE SHOWN IS SETUP FOR REMOTE #1 OR REMOTE #5
AND ALL KEYS ENABLED.

CKT. #B
SEE CKT. #A
FOR TYPICAL
PARAMETERS



FRONT COVER LABEL

SI–2
MODULE

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
PARALLEL CHANNEL

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST
BE USED FOR INTERNAL CONTROL
PANEL CONNECTION WIRING.

TYPICAL WIRING FOR CAT. NO. SI-2/ PART NO. 401339 SERIAL INTERFACE and R710 SERIES REMOTE RELAY or D700 / G700 SERIES REMOTE ANNUNCIATOR FOR PARALLEL CHANNEL MODULES

POWER CONSUMPTION REQUIREMENTS:
SI–2
ALARM – .200 AMP.
NORMAL – .050 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

FROM MPC–2000 CONTROL UNIT
MP–3 OR AP–4 NON RESETTABLE
REGULATED POWER SUPPLY
17–28 VDC, 3.0 Amp. MAX./ZONE
POWER LIMITED
ANNUNCIATOR MODULE
SUPERVISED

INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
SI–2 MODULE POWER
FROM MP–3 OR AP–4 NON RESETTABLE
POWER SUPPLY
24 VDC
SEE NOTE 1

SUPERVISED

SUPERVISED, POWER LIMITED
TWO TWISTED PAIR, #20 GA. MIN. WIRE
TOTAL CABLE LENGTH NOT TO EXCEED 2000 FT.

EXTERNAL FIELD WIRING CONNECTIONS

R710 SERIES SERIAL RELAY CONTROL UNIT, D701/D702 SERIES SERIAL REMOTE ANNUNCIATOR OR G703/G704 SERIES SERIAL REMOTE ANNUNCIATOR

\+
Rxd
Txd
–

DATA IN
DATA OUT

CIRCUIT A
\+
Rxd
Txd
–

CIRCUIT B
\+
Rxd
Txd
–

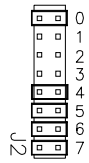
CKT. #A SUPERVISED, POWER LIMITED

CKT. #B SEE CKT. #A FOR TYPICAL PARAMETERS

EACH CIRCUIT MAY HAVE UP TO 4 REMOTE UNITS. CIRCUIT A MUST HAVE 4 REMOTE UNITS ATTACHED BEFORE ANY REMOTE UNITS ARE WIRED TO CIRCUIT B.

TO ADDITIONAL REMOTES IF REQUIRED

SET JUMPERS AS REQUIRED UPON REMOTE RELAY OR ANNUNCIATOR INSTALLATION



		CIRCUIT A	CIRCUIT B
REMOTE DISPLAY ADDRESS	J2–0	REMOTE #1	REMOTE #5
	J2–1	REMOTE #2	REMOTE #6
	J2–2	REMOTE #3	REMOTE #7
	J2–3	REMOTE #4	REMOTE #8
SWITCH ENABLE	J2–4	RECALL	
	J2–5	SYSTEM RESET	
	J2–6	DRILL TEST	
	J2–7	ALARM SILENCE	

NOT USED FOR REMOTE RELAY CONTROL UNITS

FIGURE SHOWN IS SETUP FOR REMOTE #1 OR REMOTE #5 AND ALL SWITCHES ENABLED.

SERIAL INTERFACE #

SI–2 MODULE

SEE OWNERS MANUAL (P/N 444851B) FOR TYPICAL CABLE HOOK–UP DIAGRAM FOR MPC–2000 FIRE ALARM SYSTEM PARALLEL CHANNEL

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

FRONT COVER LABEL

SI–2

TYPICAL WIRING FOR
CAT. NO. SI-3/ PART NO. 401366 SERIAL INTERFACE and
CAT. NO. RDC-800/ PART NO. 401367 REMOTE DISPLAY/CONTROLLER
FOR PARALLEL CHANNEL MODULES

POWER CONSUMPTION REQUIREMENTS:
SI−3
ALARM − .331 AMP.
NORMAL − .195 AMP.
RDC−800 (EACH)
ALARM − .065 AMP.
NORMAL − .055 AMP.

SPACE REQUIREMENTS:
MODULE − 2
TRANSFORMER − 0

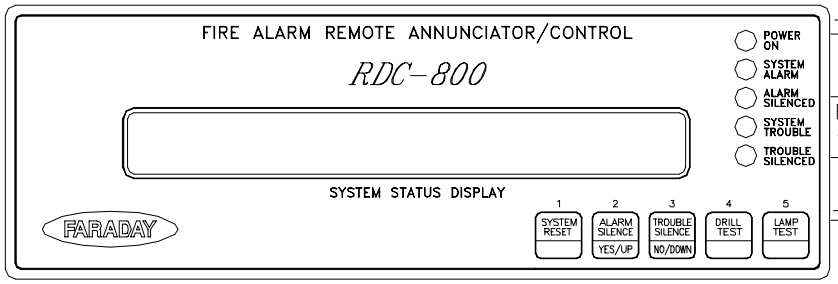
INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
SI−3 MODULE POWER
FROM MP−3 OR AP−4
NON−RESETTABLE POWER SUPPLY
24 VDC
SEE NOTE 1

SUPERVISED

EXTERNAL FIELD WIRING CONNECTIONS
SUPERVISED, POWER LIMITED
TWO TWISTED PAIR, #20 GA. MIN. WIRE
TOTAL CABLE LENGTH NOT TO EXCEED 2000 FT.

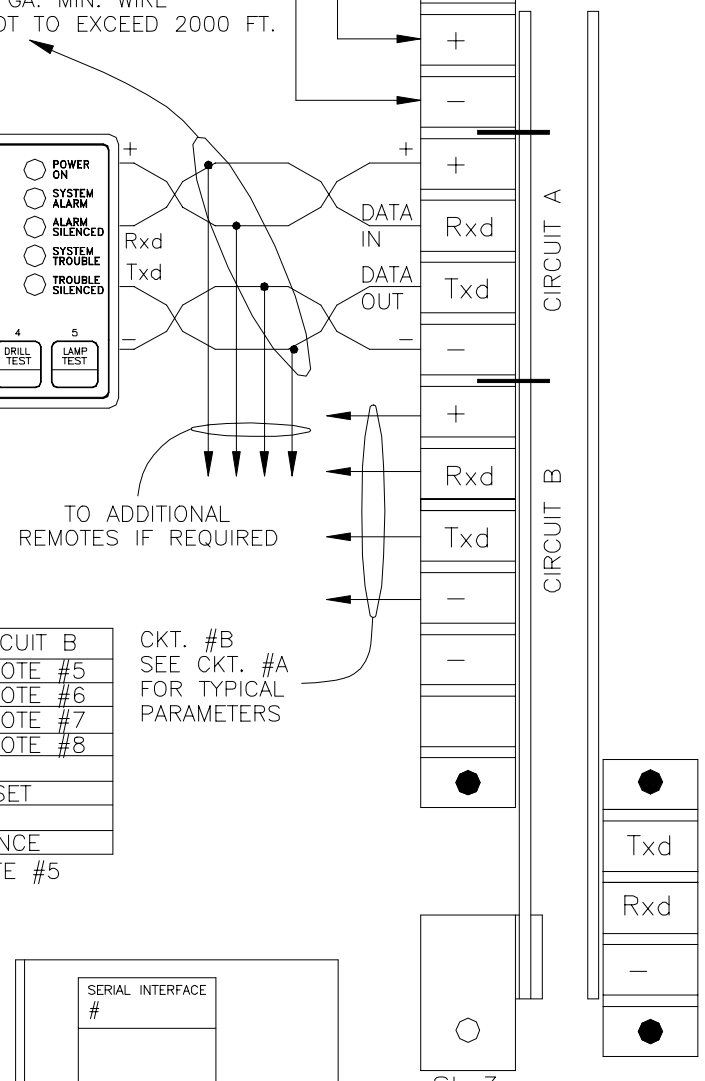
RDC−800 UNITS TO BE MOUNTED IN
STANDARD 5 GANG ELECTRICAL OUTLET BOX



REMOTE DISPLAY/CONTROLLER

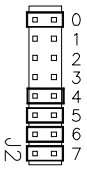
EACH CIRCUIT MAY HAVE UP TO 4 REMOTE UNITS.
CIRCUIT A MUST HAVE 4 REMOTE UNITS ATTACHED
BEFORE ANY REMOTE UNITS ARE WIRED TO CIRCUIT B.

TO ADDITIONAL REMOTES IF REQUIRED



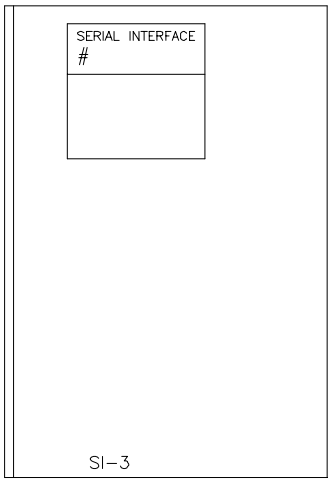
CKT. #B SEE CKT. #A FOR TYPICAL PARAMETERS

SET JUMPERS AS REQUIRED UPON RDC−800 INSTALLATION



		CIRCUIT A	CIRCUIT B
REMOTE DISPLAY ADDRESS	J2−0	REMOTE #1	REMOTE #5
	J2−1	REMOTE #2	REMOTE #6
	J2−2	REMOTE #3	REMOTE #7
	J2−3	REMOTE #4	REMOTE #8
KEYPAD ENABLE	J2−4	RECALL	
	J2−5	SYSTEM RESET	
	J2−6	DRILL TEST	
	J2−7	ALARM SILENCE	

FIGURE SHOWN IS SETUP FOR REMOTE #1 OR REMOTE #5
AND ALL KEYS ENABLED.



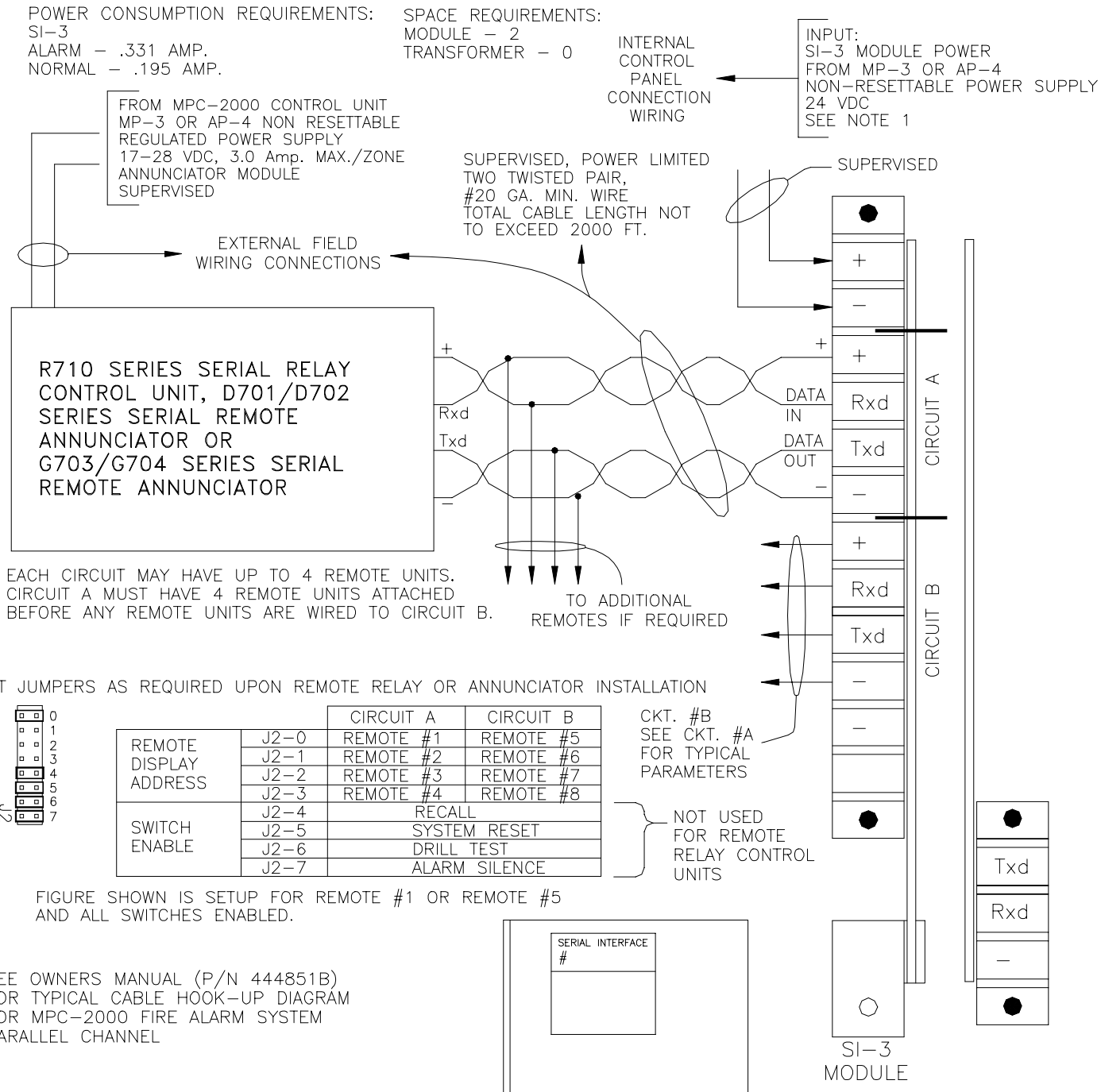
FRONT COVER LABEL

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK−UP DIAGRAM
FOR MPC−2000 FIRE ALARM SYSTEM
PARALLEL CHANNEL

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.

445762 ISSUE II REV. C
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. SI-3/ PART NO. 401366 SERIAL INTERFACE and
R710 SERIES REMOTE RELAY or
D700 / G700 SERIES REMOTE ANNUNCIATOR
FOR PARALLEL CHANNEL MODULES



		CIRCUIT A	CIRCUIT B
REMOTE DISPLAY ADDRESS	J2–0	REMOTE #1	REMOTE #5
	J2–1	REMOTE #2	REMOTE #6
	J2–2	REMOTE #3	REMOTE #7
	J2–3	REMOTE #4	REMOTE #8
SWITCH ENABLE	J2–4	RECALL	
	J2–5	SYSTEM RESET	
	J2–6	DRILL TEST	
	J2–7	ALARM SILENCE	

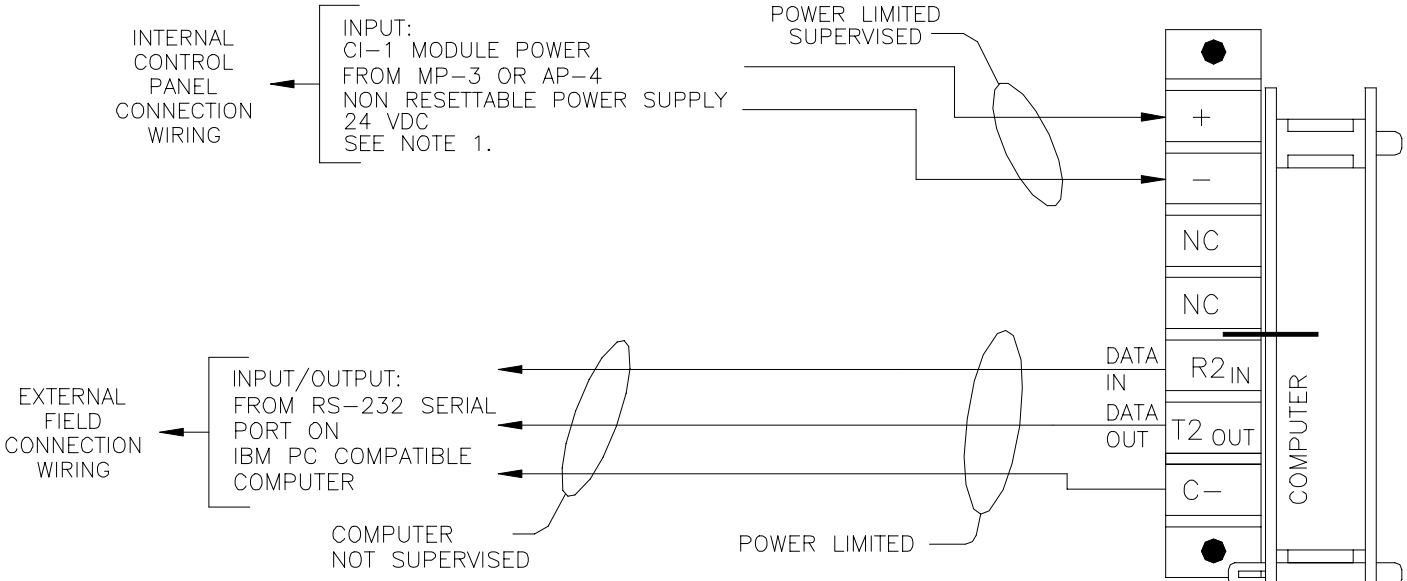
TYPICAL WIRING FOR
CAT. NO. CI-1 / PART NO. 401340 COMMUNICATIONS INTERFACE
FOR TEMPORARY COMPUTER CONNECTION

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .100 AMP.

SPACE REQUIREMENTS:
MODULE – 2
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
PARALLEL CHANNEL

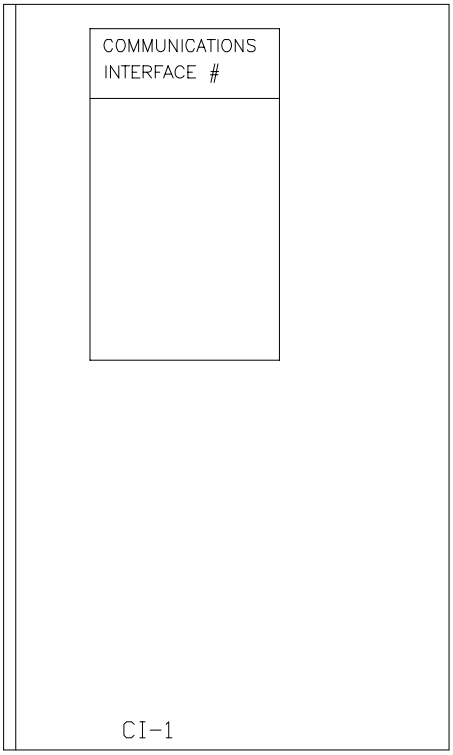
NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.



9600 BAUD
8 DATA BITS
NO PARITY
1 STOP BIT

COMPUTER CONNECTOR WIRING

DB25 PIN	DB9 PIN	FUNCTION	CI–1 TERMINAL
2	3	TRANSMIT DATA	R 2 IN
3	2	RECIEVE DATA	T 2 OUT
7	5	SIGNAL GROUND	C–



FRONT COVER LABEL

CI–1
MODULE

WARNING

INTENDED FOR TEMPORARY CONNECTION ONLY. FOR SYSTEM TROUBLESHOOTING ONLY.

TYPICAL WIRING FOR
CAT. NO. CI-2 / PART NO. 401354 COMMUNICATIONS INTERFACE
FOR REMOTE PRINTER

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .100 AMP.

SPACE REQUIREMENTS:
MODULE – 2
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
PARALLEL CHANNEL

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG
MUST BE USED FOR INTERNAL CONTROL
PANEL CONNECTION WIRING.

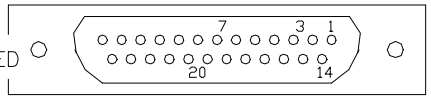
INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT:
CI–2 MODULE POWER
FROM MP–3 OR AP–4
NON RESETTABLE POWER SUPPLY
24 VDC
SEE NOTE 1.

SUPERVISED

EXTERNAL FIELD CONNECTION WIRING

DB–25 MALE
CONNECTOR INTO
EIA–232 PORT
OF UL EDP LISTED
PRINTER
OR CAT. NO.
401355
PRINTER



1200 BAUD
NO PARITY
8 DATA BITS
1 STOP BIT

Tx
DTR

+
–
T1 OUT
R1 IN
NC
NC
GND
C–

PRINTER 1

PRINTER CABLE – TWISTED PAIR
TYPICAL 50 FT. WIRING DISTANCE
LIMITED BY CABLE CAPACITANCE
SEE EIA–232D STANDARD
PRINTER MUST BE LOCATED
IN THE SAME ROOM

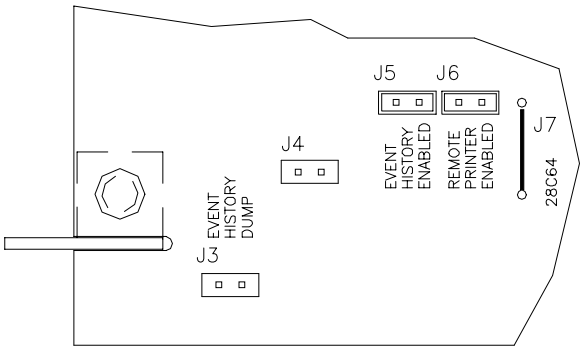
PAIR CONNECTIONS IN NO CONDUIT

DB–25 Connector / Printer	Serial Interface Board
Don't Connect	Connect to Cabinet
REFERENCE (7)	C–
RECEIVE (3)	T1 OUT
DON'T CONNECT	C–
DTR (20)	R1 IN

PAIR CONNECTIONS IN FULL CONDUIT

DB–25 Connector / Printer	Serial Interface Board
Connect to Pin 1	Don't Connect
REFERENCE (7)	C–
RECEIVE (3)	T1 OUT
DON'T CONNECT	C–
DTR (20)	R1 IN

POWER LIMITED
SUPERVISED



SHORT J3 TO DUMP EVENT HISTORY TO REMOTE PRINTER.
SHORT J4 TO ERASE ALL EVENT HISTORY.
J5 IS FACTORY JUMPERED ENABLING EVENT HISTORY.
J6 IS FACTORY JUMPERED ENABLING REMOTE PRINTER.
J7 IS INSTALLED FOR 100 EVENT HISTORY
(INSTALL P/N 401364, EH–1 CHIP OPTION).
NOTE: CUT J7 IF INSTALLING P/N 401365,
EH–4 CHIP OPTION.

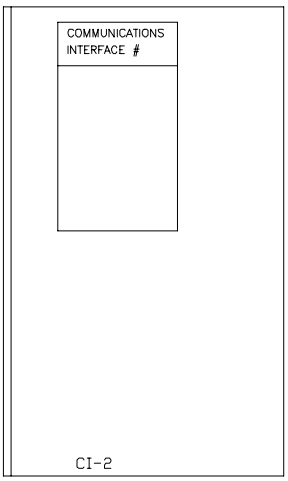
SWITCH SETTINGS FOR 401355 PRINTER

SERIAL CARD	1	2	3	4	5	6	7	8
SWITCH BANK 1	ON	ON	ON	ON	ON	ON	ON	ON
SWITCH BANK 2	ON	ON	OFF	OFF	ON	OFF	ON	NOT USED

SYSTEM BOARD	1	2	3	4	5	6	7	8
SWITCH BANK 1	OFF	OFF	OFF	OFF	ON	ON	ON	OFF

REMOTE PRINTERS REQUIRE 120VAC 60HZ PRIMARY POWER.
A SECONDARY POWER SOURCE (BATTERY) IS NOT PROVIDED.
THE USE OF A SEPARATE UNINTERRUPTABLE POWER
SUPPLY (UL LISTED FOR FIRE PROTECTIVE SIGNALING)
IS HIGHLY RECOMMENDED.

FOR PRINTER OPERATION AND MAINTENANCE
REFER TO PRINTER HANDBOOK.



FRONT COVER
LABEL

CI–2
MODULE

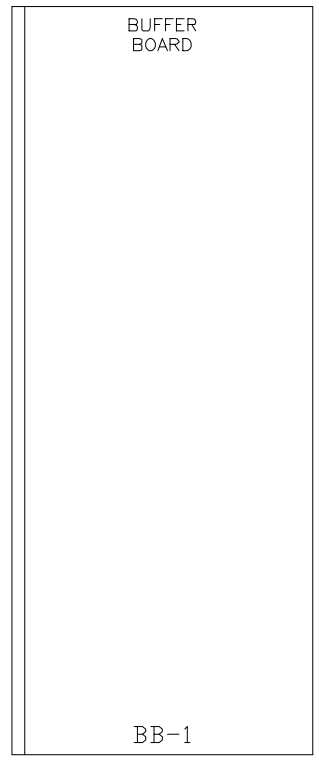
445459 ISSUE I REV. C
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. BB–1 / PART NO. 401327 BUFFER BOARD

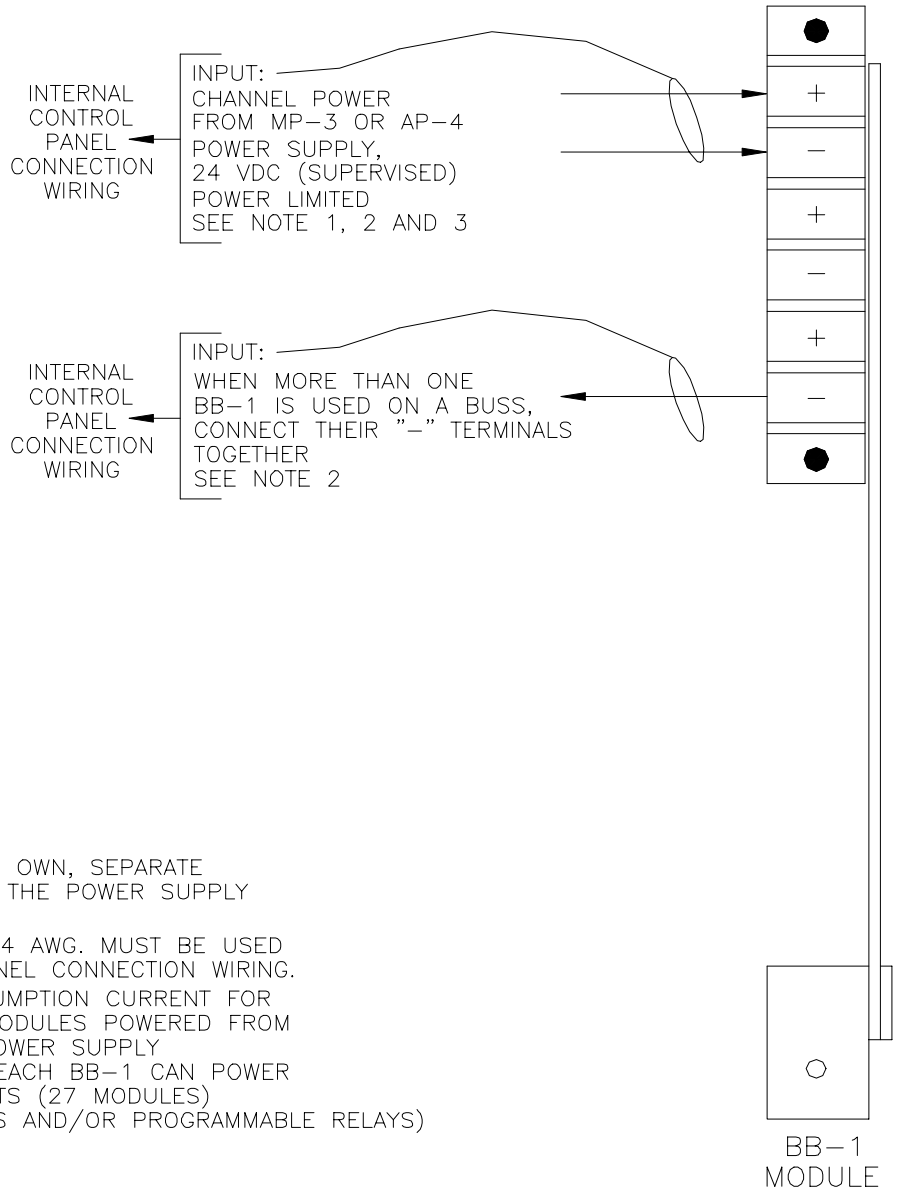
MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .006 AMP.
NORMAL – .006 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
CONTROL UNIT



FRONT COVER LABEL



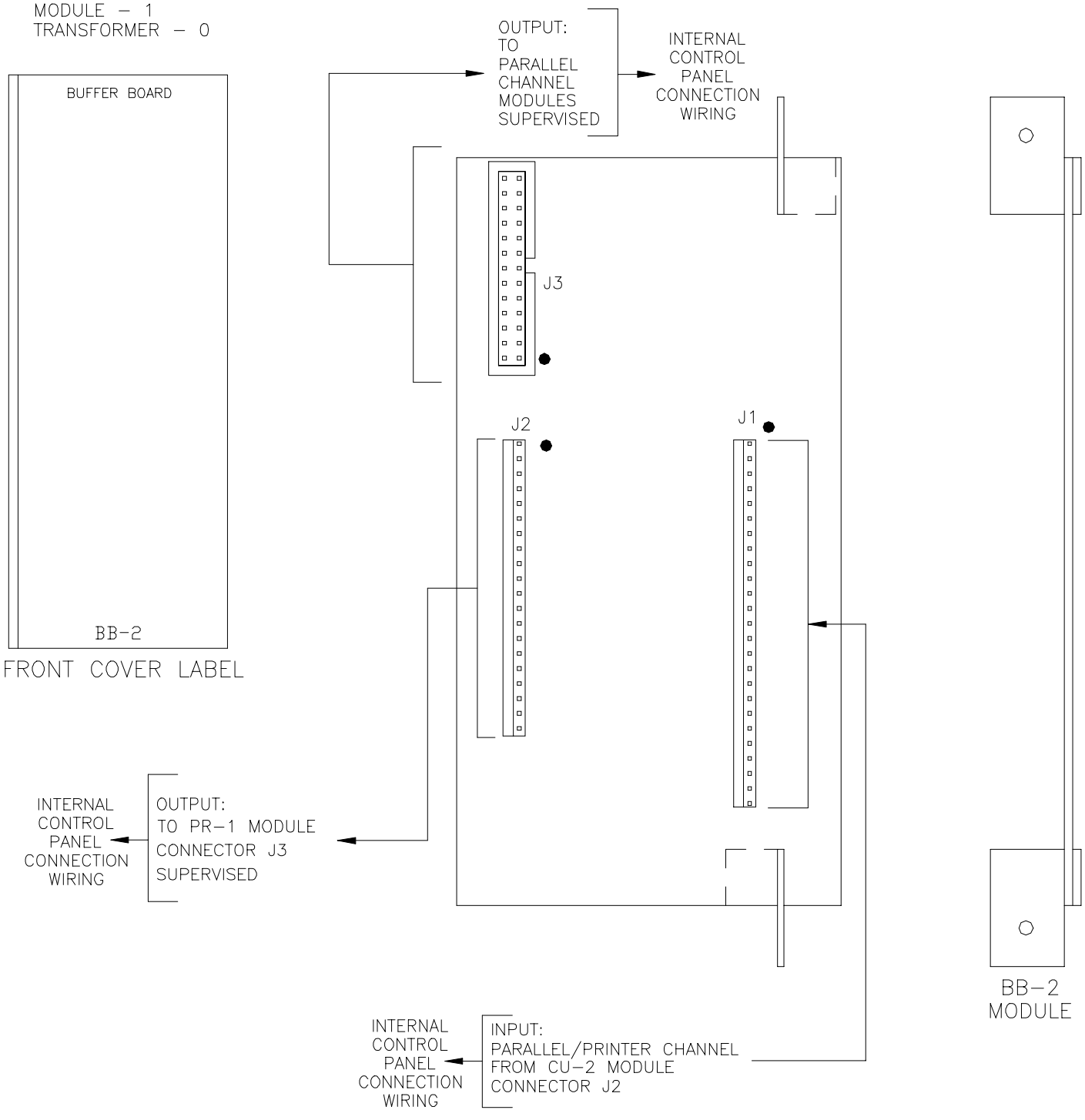
NOTES:
1.) EACH BB–1 MUST HAVE ITS OWN, SEPARATE SET OF INPUT WIRES FROM THE POWER SUPPLY (NOT DAISY CHAINED).
2.) A MINIMUM WIRE SIZE OF 14 AWG. MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.
3.) ADD MODULE POWER CONSUMPTION CURRENT FOR BB–1 MODULE PLUS ALL MODULES POWERED FROM THIS BB–1 MODULE FOR POWER SUPPLY CURRENT REQUIREMENTS. EACH BB–1 CAN POWER NOT MORE THAN 54 CIRCUITS (27 MODULES) (ZONES OR SIGNAL CIRCUITS AND/OR PROGRAMMABLE RELAYS)

TYPICAL WIRING FOR
CAT. NO. BB-2 / PART NO. 401338 BUFFER BOARD
FOR PARALLEL CHANNEL MODULES

MODULE POWER CONSUMPTION REQUIREMENTS:
SEE MP-2
NORMAL - .006 AMP.

SPACE REQUIREMENTS:
MODULE - 1
TRANSFORMER - 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
PARALLEL CHANNEL



444980 ISSUE I REV. B
FARADAY LLC

TYPICAL WIRING FOR
CAT. NO. PR–1 / PART NO. 401323 PRINTER BOARD

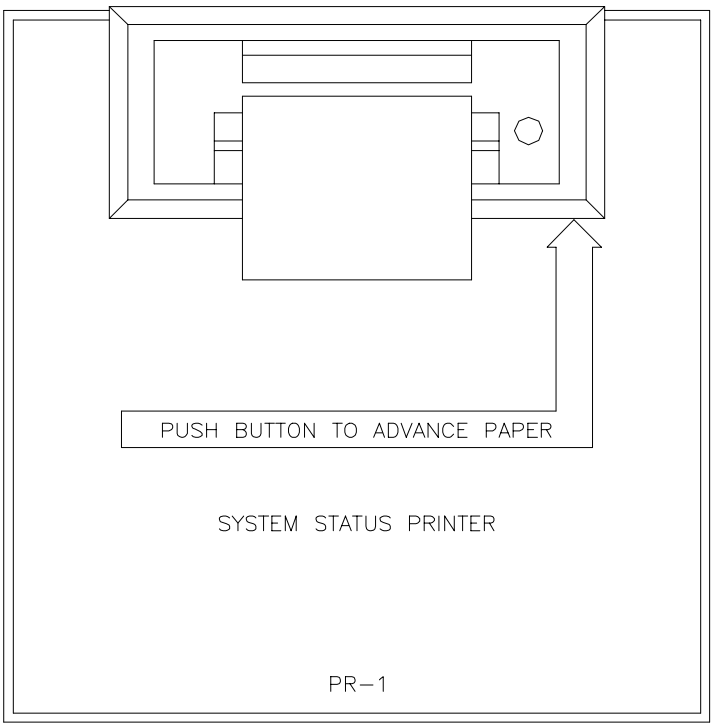
MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .050 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 4
TRANSFORMER – 0

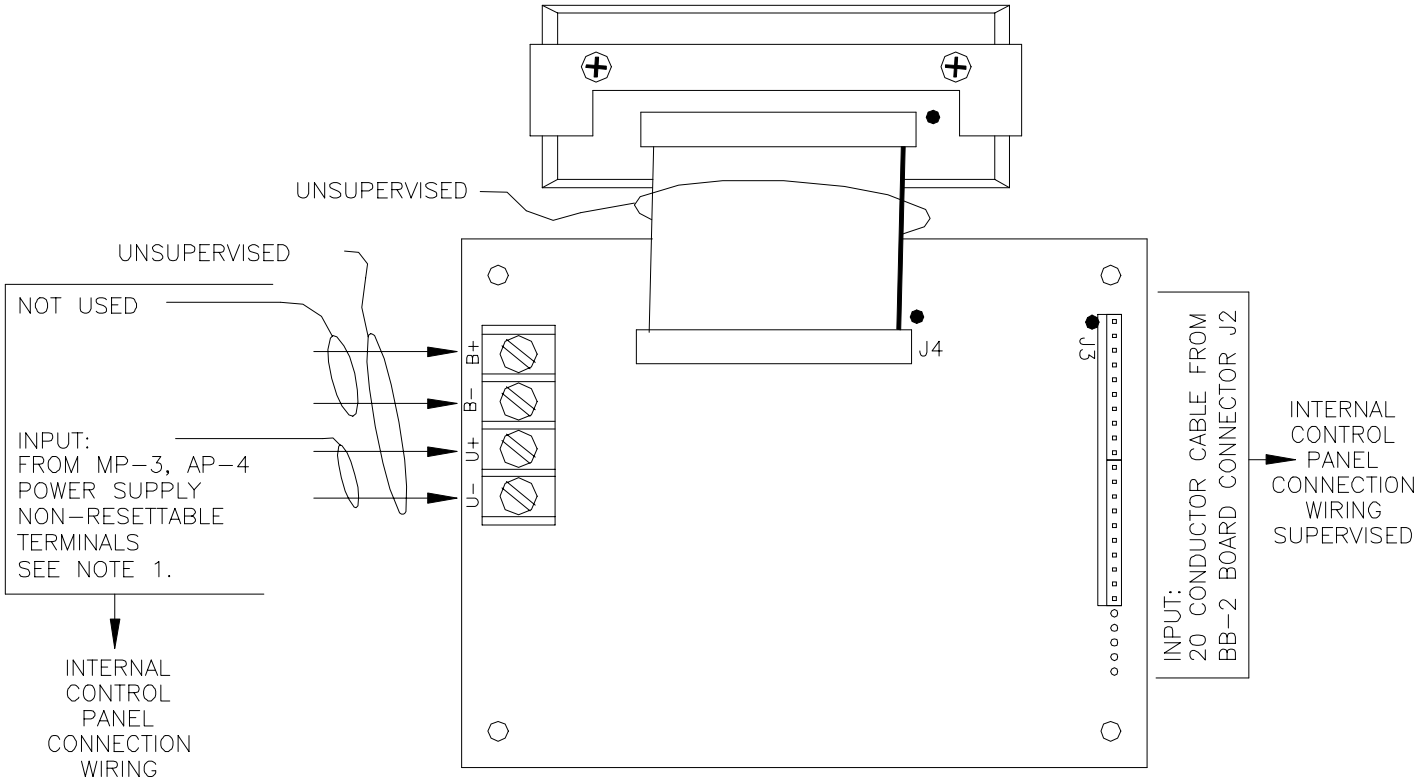
SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK–UP DIAGRAM
FOR MPC–2000 FIRE ALARM SYSTEM
CONTROL UNIT

SEE OWNERS MANUAL (P/N 444851B)
FOR BATTERY WIRING DIAGRAM

NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED FOR INTERNAL CONTROL PANEL CONNECTION WIRING.



FRONT COVER DECAL W/ PRINTER

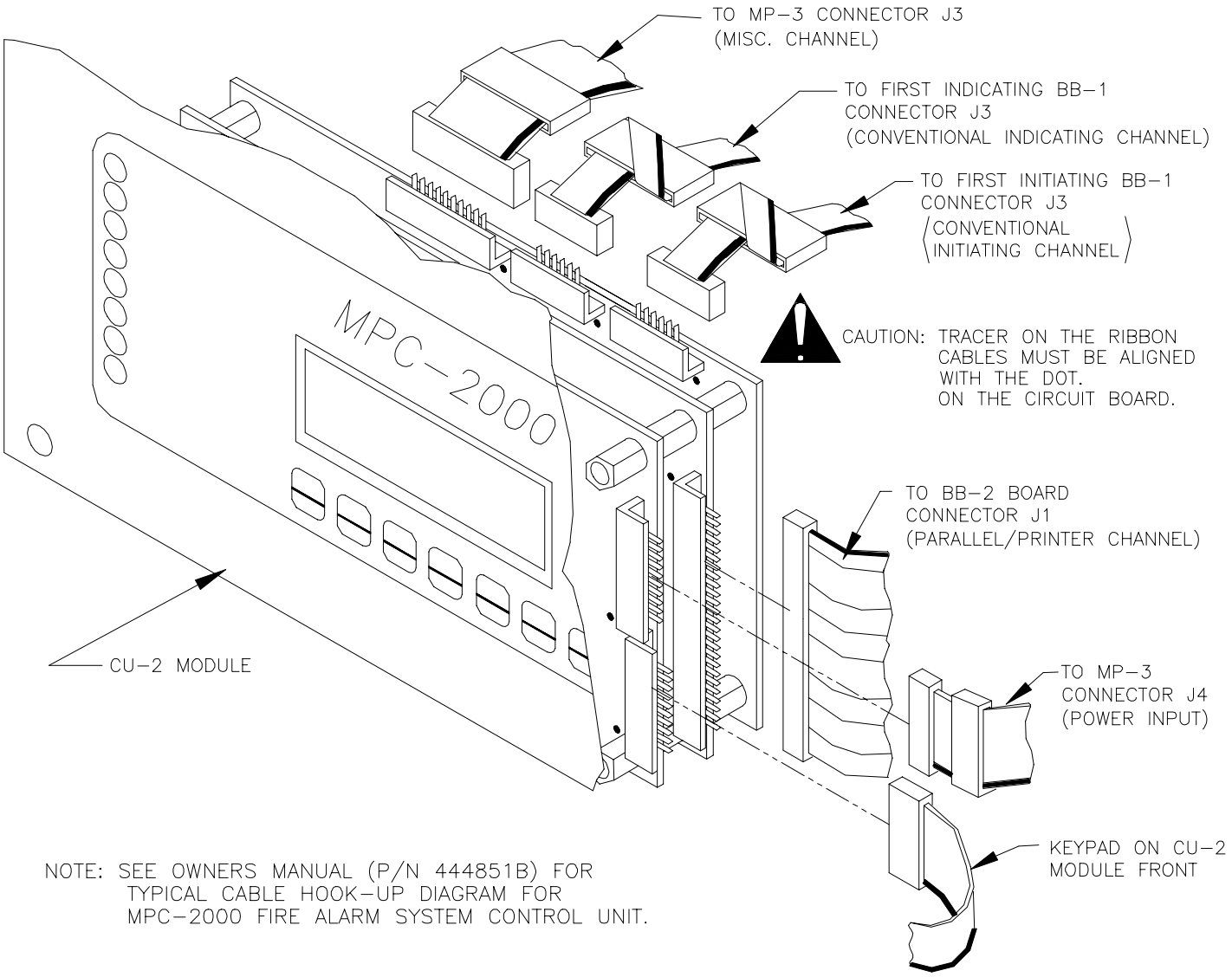


444904 ISSUE I – REV. D
FARADAY LLC.

TYPICAL CABLE HOOK-UP FOR
CAT. NO. CU-2 / PART NO. 401348 MAIN CONTROL MODULE

MODULE POWER CONSUMPTION REQUIREMENTS:
SEE MP-3

SPACE REQUIREMENTS:
MODULE - 5
TRANSFORMER - 0

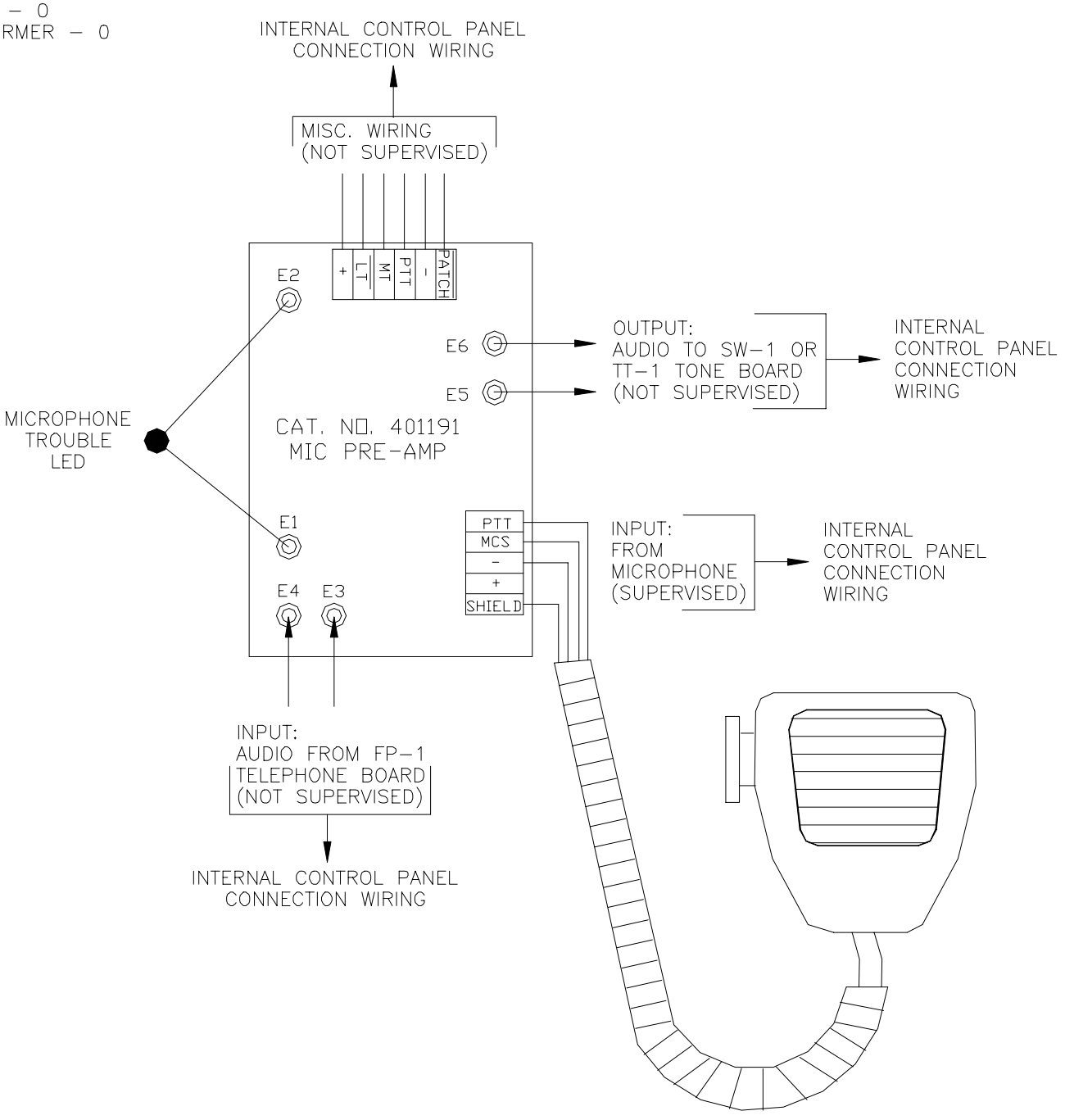


NOTE: SEE OWNERS MANUAL (P/N 444851B) FOR
TYPICAL CABLE HOOK-UP DIAGRAM FOR
MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT.

TYPICAL WIRING FOR
CAT. NO. MC-1 / PART NO. 401191 MIC/PRE-AMP BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .060 AMP.
NORMAL – .030 AMP.

SPACE REQUIREMENTS:
MODULE – 0
TRANSFORMER – 0

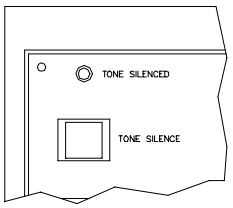


TYPICAL WIRING FOR
CAT. NO. SW-1 / PART NO. 401196 SLOW WHOOP MOD. ASSY
CONSISTING OF: PART NO. 401152 SLOW WHOOP TONE BOARD
PART NO. 401117 RELAY MODULE
PART NO. 400938 TERMINAL BOARD
PART NO. 401189 TONE SILENCE MODULE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .055 AMP.
NORMAL – .055 AMP.

SPACE REQUIREMENTS:
SLOW WHOOP BOARD – 5
RELAY MODULE – 2
TERMINAL BOARD – 2
TONE SILENCE MODULE – 2
TRANSFORMER – 0

FRONT COVER



IF DM-1A, 1B, OR 1C IS USED, SEE DM-1A, 1B, OR 1C VOICE UNIT DMR ASSY FOR FRONT COVER.

INTERNAL CONTROL PANEL CONNECTION WIRING

OUTPUT: AMPLIFIER AUDIO INPUT TO PD-4 POWER/TERMINAL DISTRIBUTION BOARD (SUPERVISED)

SHIELDED TWISTED PAIR WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT: AUDIO FROM TAPE CONTROL BOARD (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

A C O O C A 1 2

DMR TROUBLE

CAT. NO. 401117 RELAY MODULE

AUDIO EVAC TROUBLE

3.9K

A C O O C A 3 4

MISC. WIRING (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

1 2 3 4 5 6 7

1 2 3 4 5 6 7

CAT. NO. 400938 TERMINAL BOARD

8 9 10 11 12 13 14

8 9 10 11 12 13 14

MISC. WIRING (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

S1 E1 LT – R TE 0

CAT. NO. 401189 TONE SILENCE

CAT. NO. 401152 SLOW WHOOP TONE GENERATOR

E6

E5

AUDIO OUT

AL

AH

GND

E3 E4

TE TS MK + – RTS CA TI LT

INPUT: AUDIO FROM MC-1 MIC PRE-AMP BOARD (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

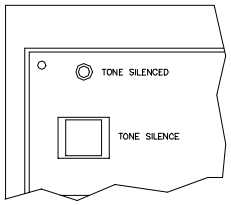
INTERNAL CONTROL PANEL CONNECTION WIRING

TYPICAL WIRING FOR
CAT. NO. TT-1 / PART NO. 401197 TEMP. TONE MOD. ASSY
CONSISTING OF: PART NO. 401153 TEMPORAL TONE BOARD
PART NO. 401117 RELAY MODULE
PART NO. 400938 TERMINAL BOARD
PART NO. 401189 TONE SILENCE MODULE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .055 AMP.
NORMAL – .055 AMP.

SPACE REQUIREMENTS:
TEMPORAL TONE BOARD – 5
RELAY MODULE – 2
TERMINAL BOARD – 2
TONE SILENCE MODULE – 2
TRANSFORMER – 0

FRONT COVER



IF DM-1A, 1B, OR 1C IS USED, SEE DM-1A, 1B, OR 1C VOICE UNIT DMR ASSY FOR FRONT COVER.

INTERNAL CONTROL PANEL CONNECTION WIRING

OUTPUT: AMPLIFIER AUDIO INPUT TO PD-4 POWER/TERMINAL DISTRIBUTION BOARD (SUPERVISED)

SHIELDED TWISTED PAIR WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

INPUT: AUDIO FROM MC-1 MIC/PRE-AMP BOARD (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

A C O O C A 1 2

DMR TROUBLE

CAT. NO. 401117 RELAY MODULE

AUDIO EVAC TROUBLE

3.9K

A C O O C A 3 4

MISC. WIRING (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

1 2 3 4 5 6 7

1 2 3 4 5 6 7

CAT. NO. 400938 TERMINAL BOARD

8 9 10 11 12 13 14

8 9 10 11 12 13 14

MISC. WIRING (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

INTERNAL CONTROL PANEL CONNECTION WIRING

MISC. WIRING (NOT SUPERVISED)

S1 E1 LT – R TE O

CAT. NO. 401189 TONE SILENCE

CAT. NO. 401153 TEMPORAL TONE GENERATOR

E3

E4

AUDIO OUT

AL

AH

GND

E6 E5

TE TS MK + - R15 CA TT LT

INPUT: AUDIO FROM TAPE CONTROL BOARD (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

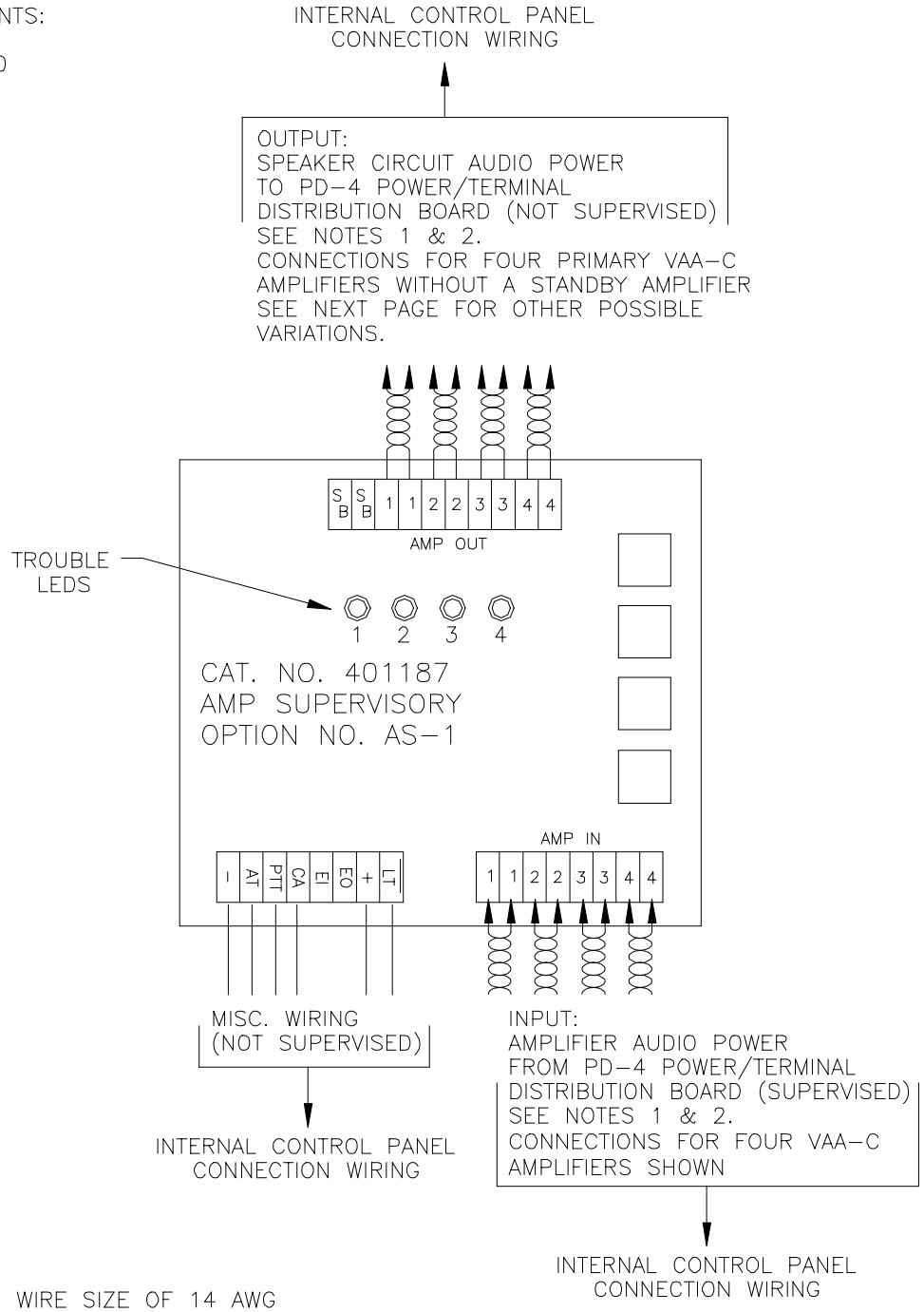
MISC. WIRING (NOT SUPERVISED)

INTERNAL CONTROL PANEL CONNECTION WIRING

TYPICAL WIRING FOR
CAT. NO. AS-1 / PART NO. 401187 AMP SUPERVISORY BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .015 AMP.
NORMAL – .015 AMP.

SPACE REQUIREMENTS:
MODULE – 5
TRANSFORMER – 0

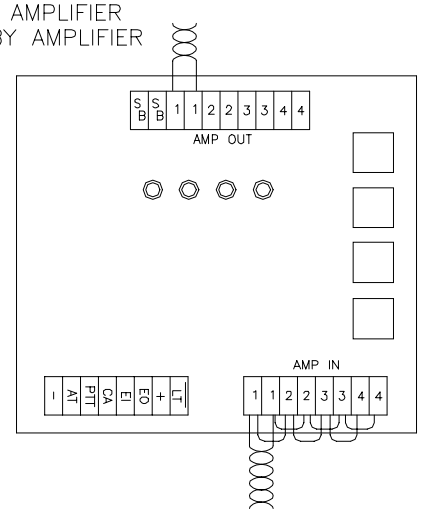


OTE 1.) A MINIMUM WIRE SIZE OF 14 AWG
MUST BE USED.

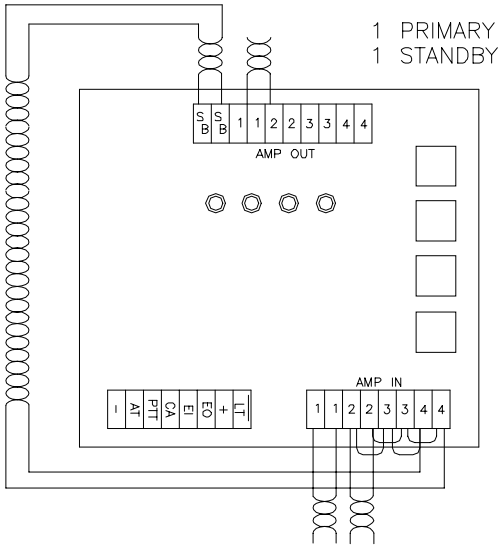
OTE 2.) TWISTED PAIR WIRING MUST BE USED.

WIRING VARIATIONS OF PRIMARY AND STANDBY AMPLIFIERS FOR CAT. NO. AS-1 / PART NO. 401187 AMP SUPERVISORY BOARD

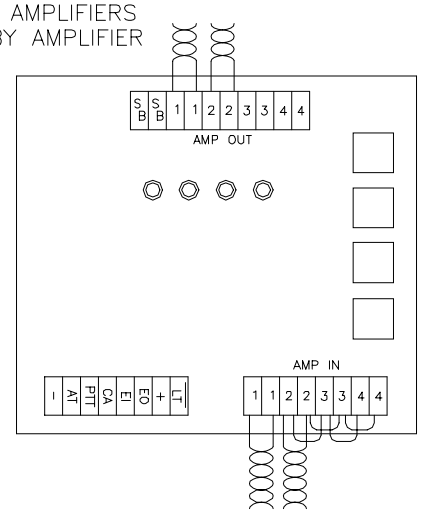
1 PRIMARY AMPLIFIER
NO STANDBY AMPLIFIER



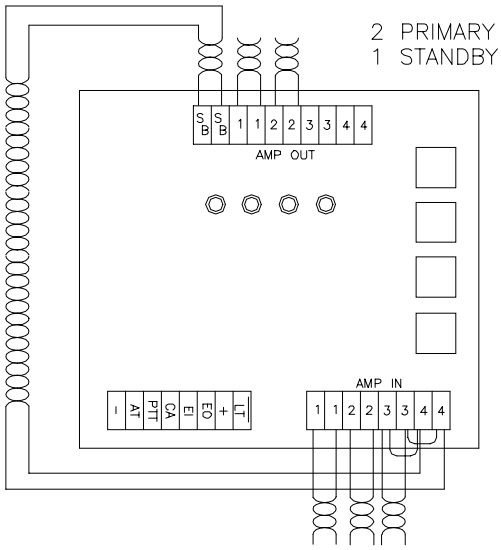
1 PRIMARY AMPLIFIER
1 STANDBY AMPLIFIER



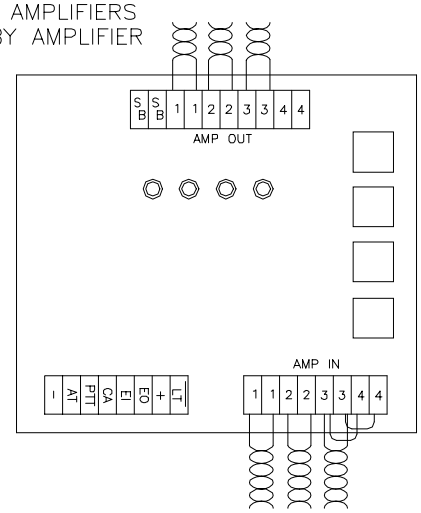
2 PRIMARY AMPLIFIERS
NO STANDBY AMPLIFIER



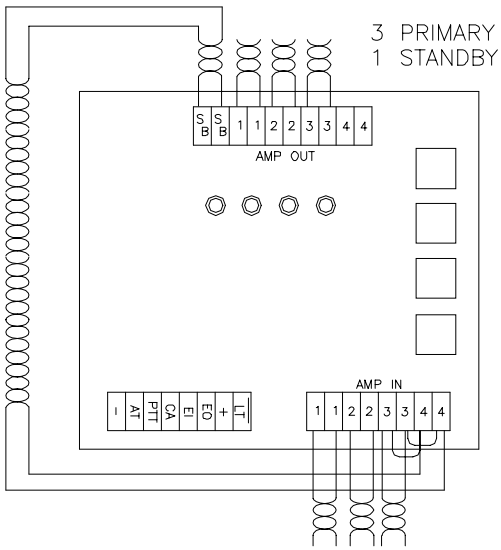
2 PRIMARY AMPLIFIERS
1 STANDBY AMPLIFIER



3 PRIMARY AMPLIFIERS
NO STANDBY AMPLIFIER



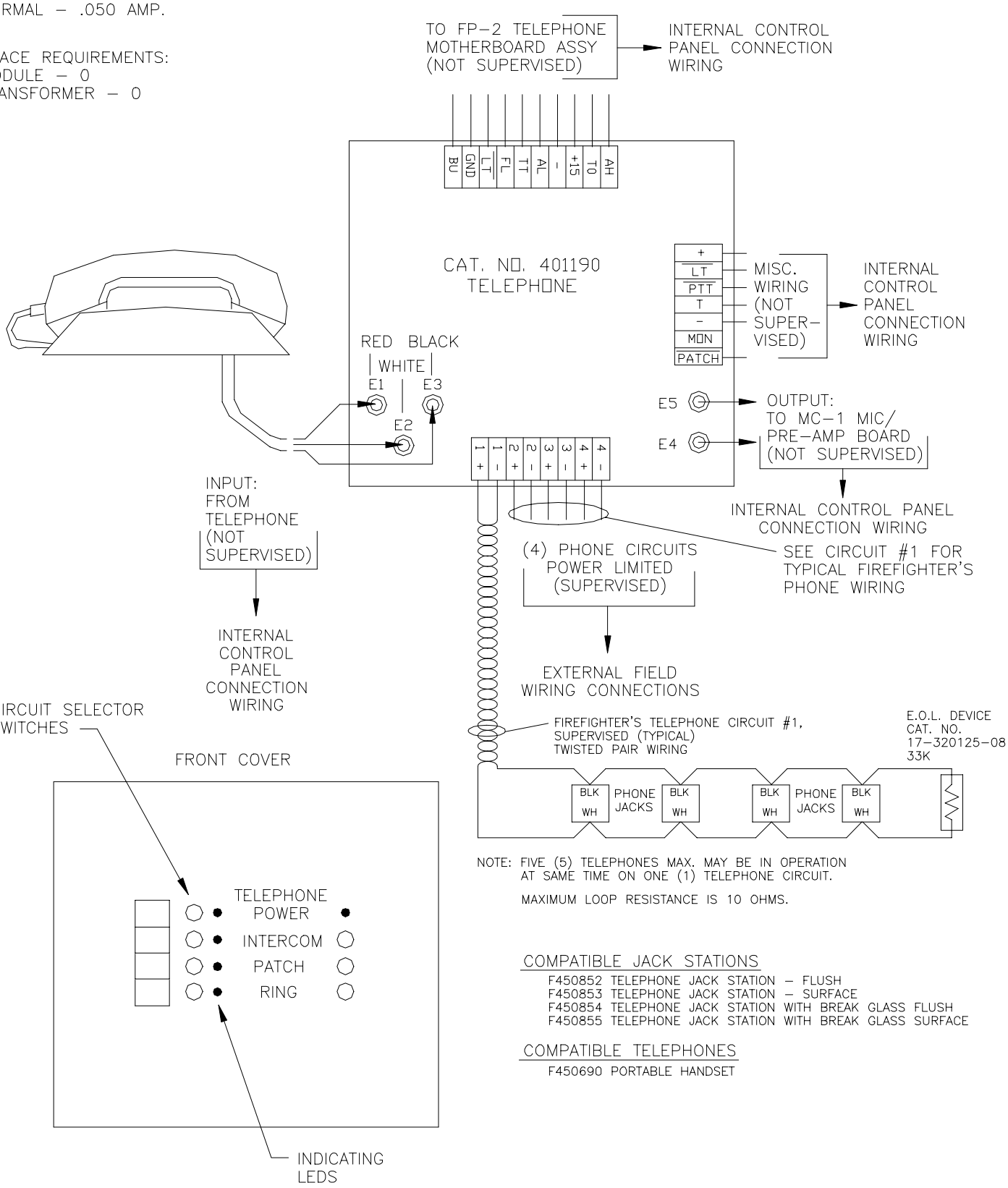
3 PRIMARY AMPLIFIERS
1 STANDBY AMPLIFIER



TYPICAL WIRING FOR
CAT. NO. FP-1 / PART NO. 401190 TELEPHONE MODULE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .200 AMP.
NORMAL – .050 AMP.

SPACE REQUIREMENTS:
MODULE – 0
TRANSFORMER – 0



NOTE: FIVE (5) TELEPHONES MAX. MAY BE IN OPERATION AT SAME TIME ON ONE (1) TELEPHONE CIRCUIT.

MAXIMUM LOOP RESISTANCE IS 10 OHMS.

COMPATIBLE JACK STATIONS

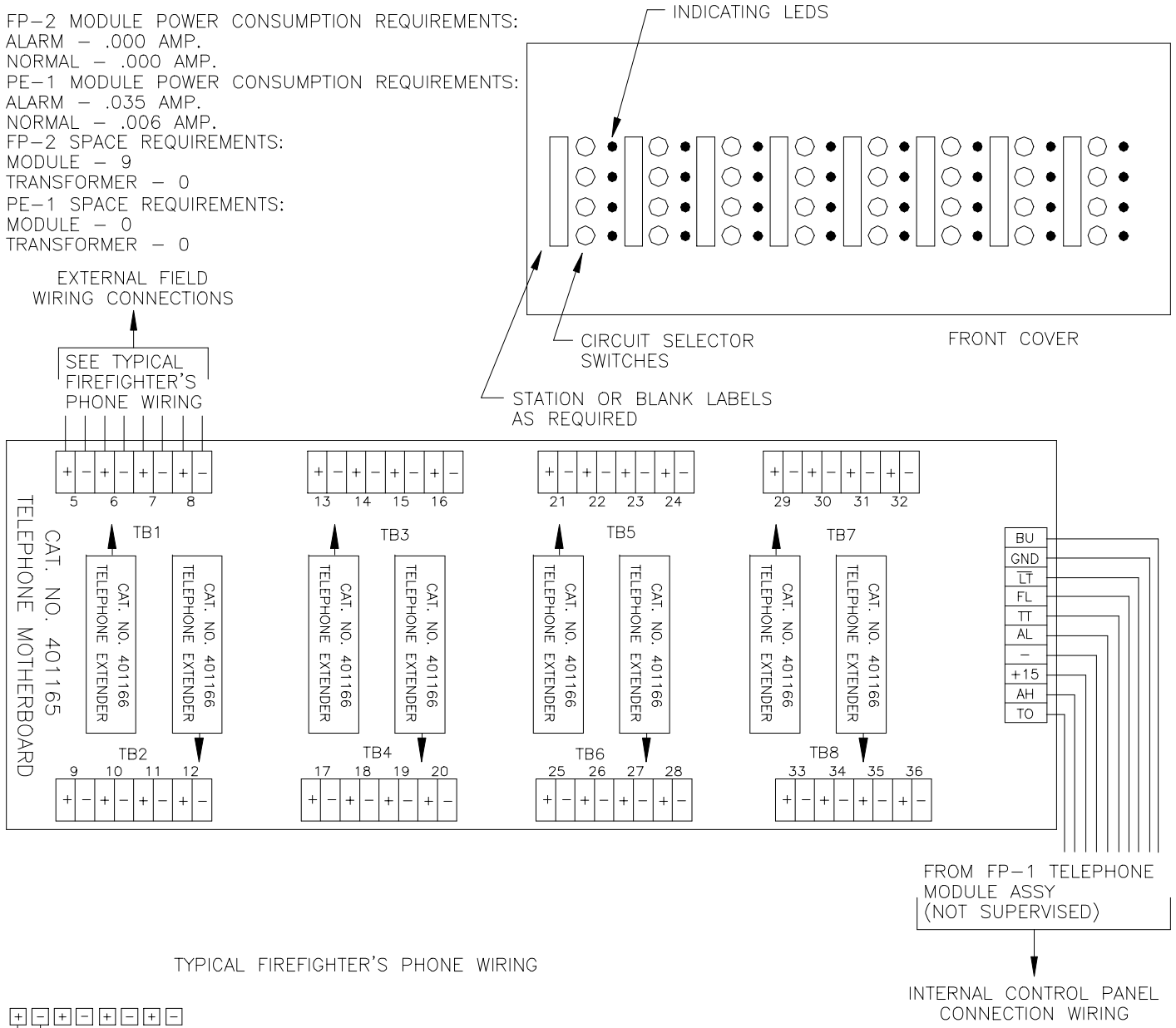
F450852 TELEPHONE JACK STATION – FLUSH
F450853 TELEPHONE JACK STATION – SURFACE
F450854 TELEPHONE JACK STATION WITH BREAK GLASS FLUSH
F450855 TELEPHONE JACK STATION WITH BREAK GLASS SURFACE

COMPATIBLE TELEPHONES

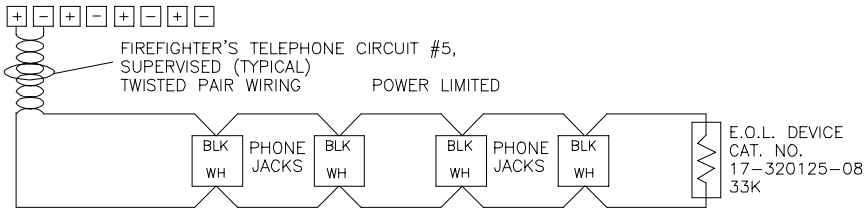
F450690 PORTABLE HANDSET

TYPICAL WIRING FOR CAT. NO. FP-2 / PART NO. 401195 TELEPHONE MOTHERBOARD ASSEMBLY CAT. NO. PE-1 / PART NO. 401166 TELEPHONE EXTENDER

FP-2 MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM - .000 AMP.
NORMAL - .000 AMP.
PE-1 MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM - .035 AMP.
NORMAL - .006 AMP.
FP-2 SPACE REQUIREMENTS:
MODULE - 9
TRANSFORMER - 0
PE-1 SPACE REQUIREMENTS:
MODULE - 0
TRANSFORMER - 0



TYPICAL FIREFIGHTER'S PHONE WIRING



NOTE: FIVE (5) TELEPHONES MAX. MAY BE IN OPERATION AT SAME TIME ON ONE (1) TELEPHONE CIRCUIT.

MAXIMUM LOOP RESISTANCE IS 10 OHMS.

COMPATIBLE JACK STATIONS

F450852 TELEPHONE JACK STATION - FLUSH
F450853 TELEPHONE JACK STATION - SURFACE
F450854 TELEPHONE JACK STATION WITH BREAK GLASS FLUSH
F450855 TELEPHONE JACK STATION WITH BREAK GLASS SURFACE

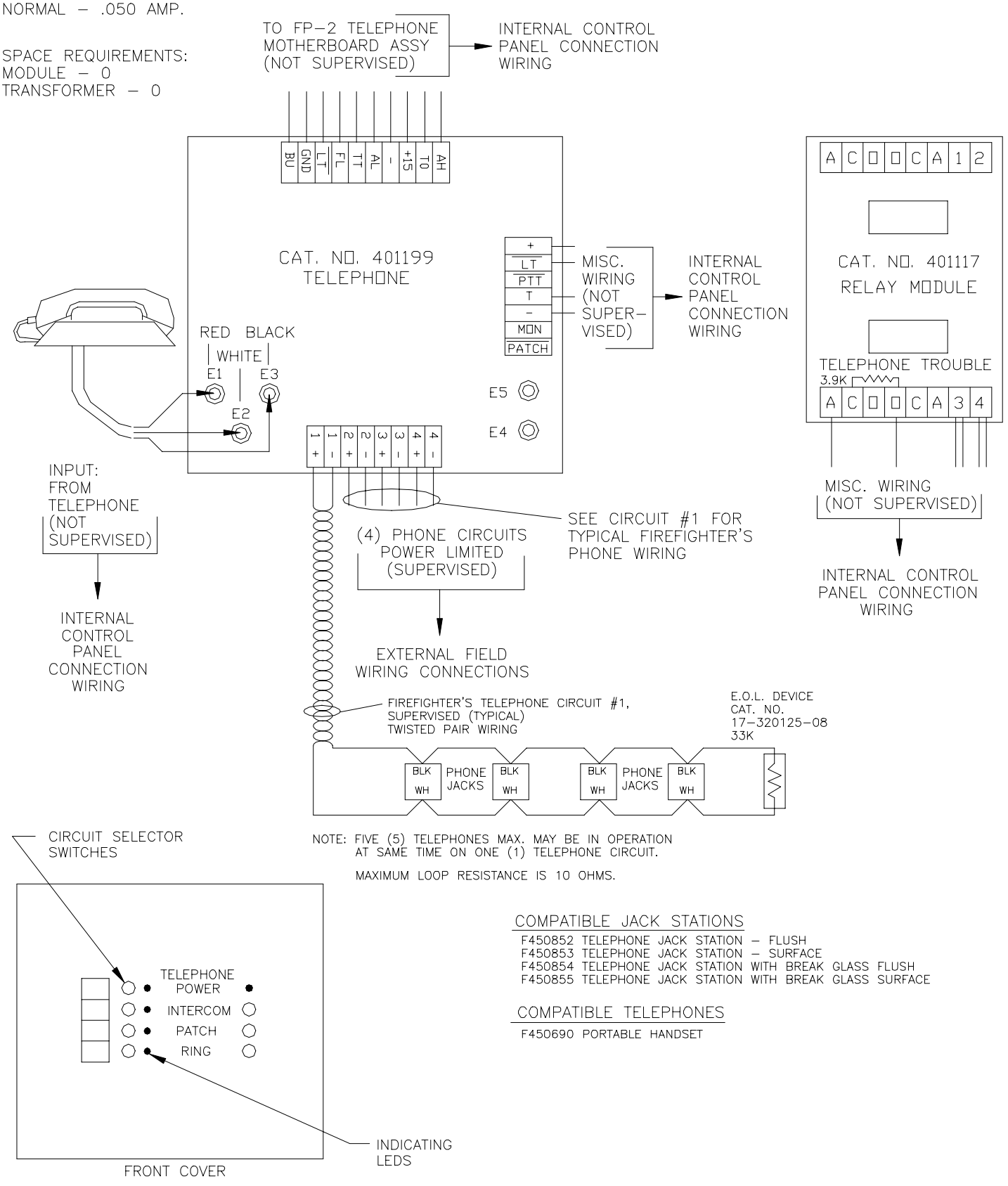
COMPATIBLE TELEPHONES

F450690 PAORTABLE HANDSET

TYPICAL WIRING FOR
CAT. NO. FP-3 / PART NO. 401199 TELEPHONE MODULE

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .200 AMP.
NORMAL – .050 AMP.

SPACE REQUIREMENTS:
MODULE – 0
TRANSFORMER – 0



NOTE: FIVE (5) TELEPHONES MAX. MAY BE IN OPERATION AT SAME TIME ON ONE (1) TELEPHONE CIRCUIT.

MAXIMUM LOOP RESISTANCE IS 10 OHMS.

COMPATIBLE JACK STATIONS

F450852 TELEPHONE JACK STATION – FLUSH
F450853 TELEPHONE JACK STATION – SURFACE
F450854 TELEPHONE JACK STATION WITH BREAK GLASS FLUSH
F450855 TELEPHONE JACK STATION WITH BREAK GLASS SURFACE

COMPATIBLE TELEPHONES

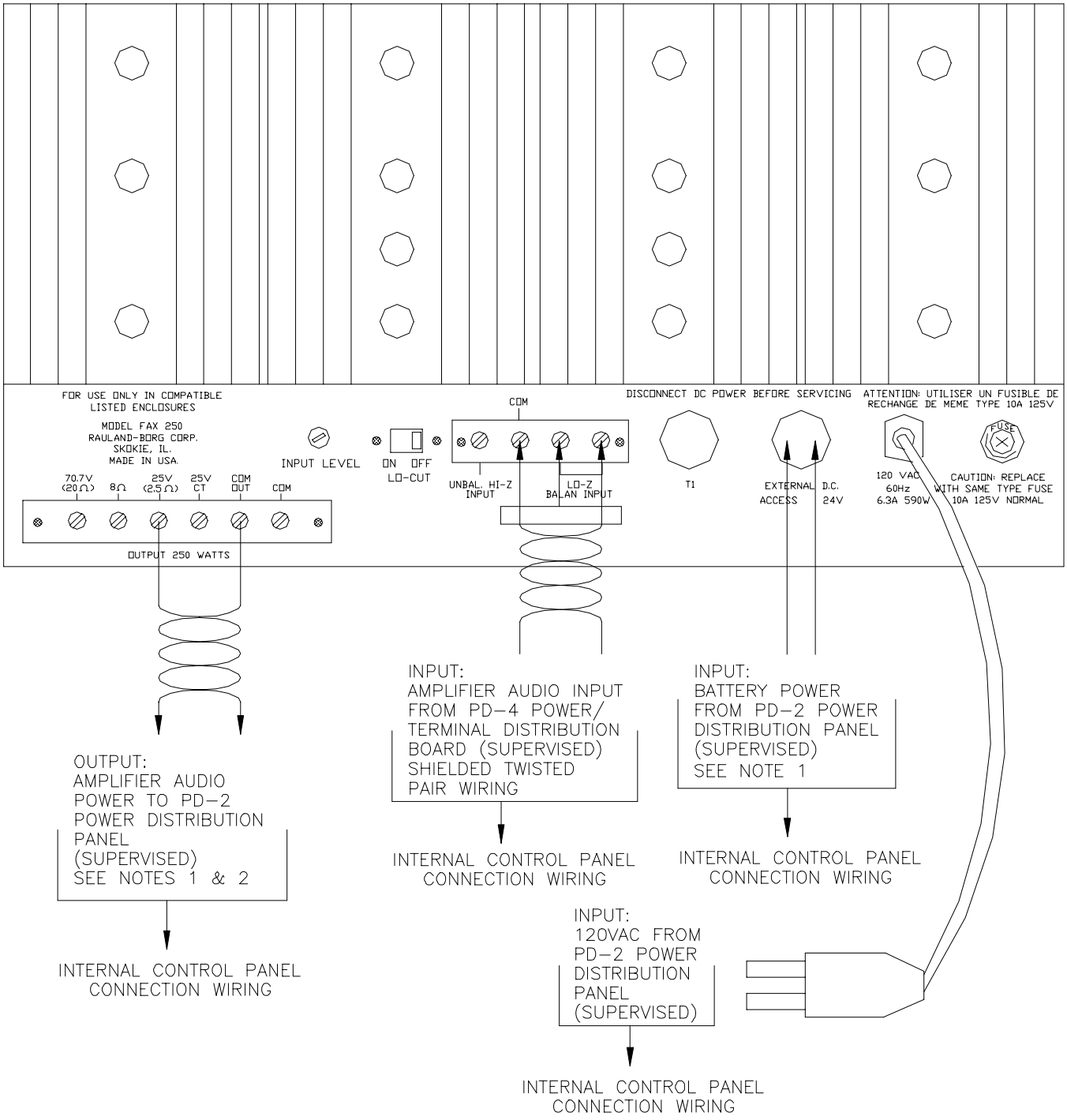
F450690 PORTABLE HANDSET

TYPICAL WIRING FOR
CAT. NO. VAA–C / PART NO. 444578 AUDIO AMPLIFIER

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .000 AMP. } USES 120 V.A.C. INPUT
NORMAL – .000 AMP. } FOR POWER

SPACE REQUIREMENTS:
EQUIPMENT
SPACE RACK – 10 1/2"

NOTES:
1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED.
2.) TWISTED PAIR WIRING MUST BE USED.
3.) LO–CUT SWITCH MUST BE LEFT IN THE OFF POSITION.
4.) INPUT LEVEL IS SET AT THE FACTORY.
5.) FOR SINGLE AMPLIFIER USE 444600 TRANSFORMER.
6.) FOR MULTIPLE AMPLIFIERS USE 444666 TRANSFORMER.
7.) CAPABLE OF OPERATING UP TO 220 WATTS OF 25 VOLT SPEAKERS.

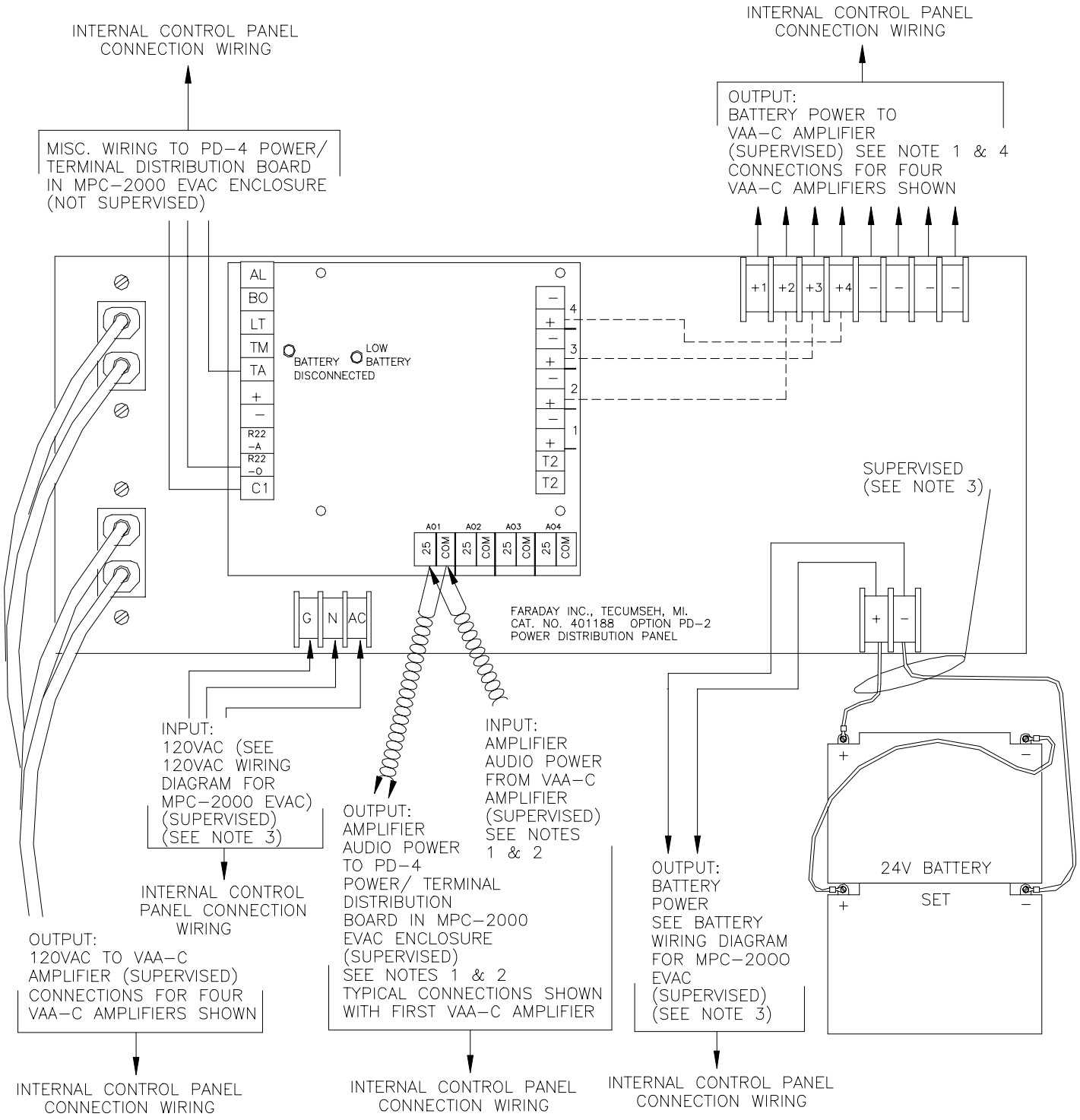


TYPICAL WIRING FOR
CAT. NO. PD-2 / PART NO. 401188 POWER DISTRIBUTION PANEL

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .150 AMP.
NORMAL – .030 AMP.

SPACE REQUIREMENTS:
EQUIPMENT
RACK SPACE – 8 23/32"

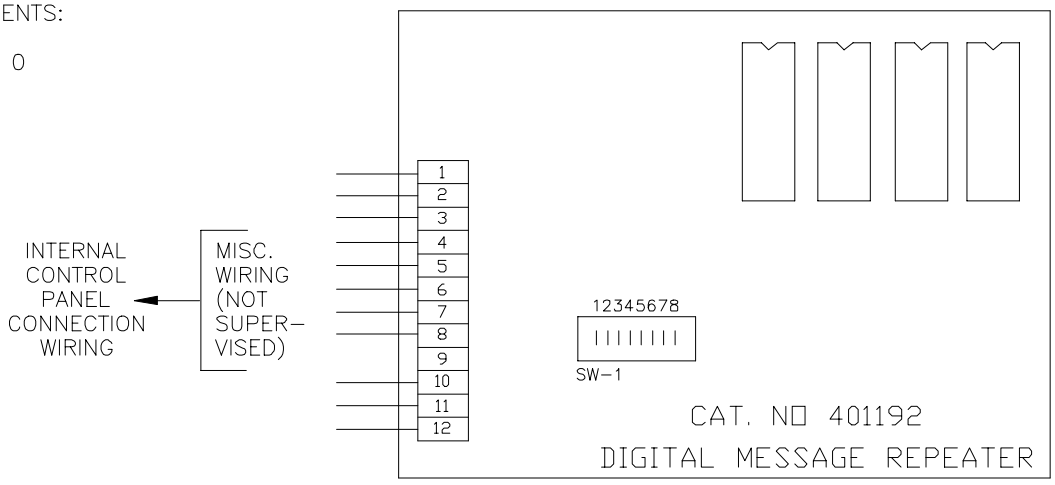
NOTE 1.) A MINIMUM WIRE SIZE OF 14 AWG MUST BE USED.
NOTE 2.) TWISTED PAIR WIRING MUST BE USED.
NOTE 3.) A MINIMUM WIRE SIZE OF 2 AWG MUST BE USED.
NOTE 4.) UNUSED BATTERY POWER TERMINALS (+ ONLY) MUST BE CONNECTED TO MATCHING TERMINAL ON THE CIRCUIT BOARD.

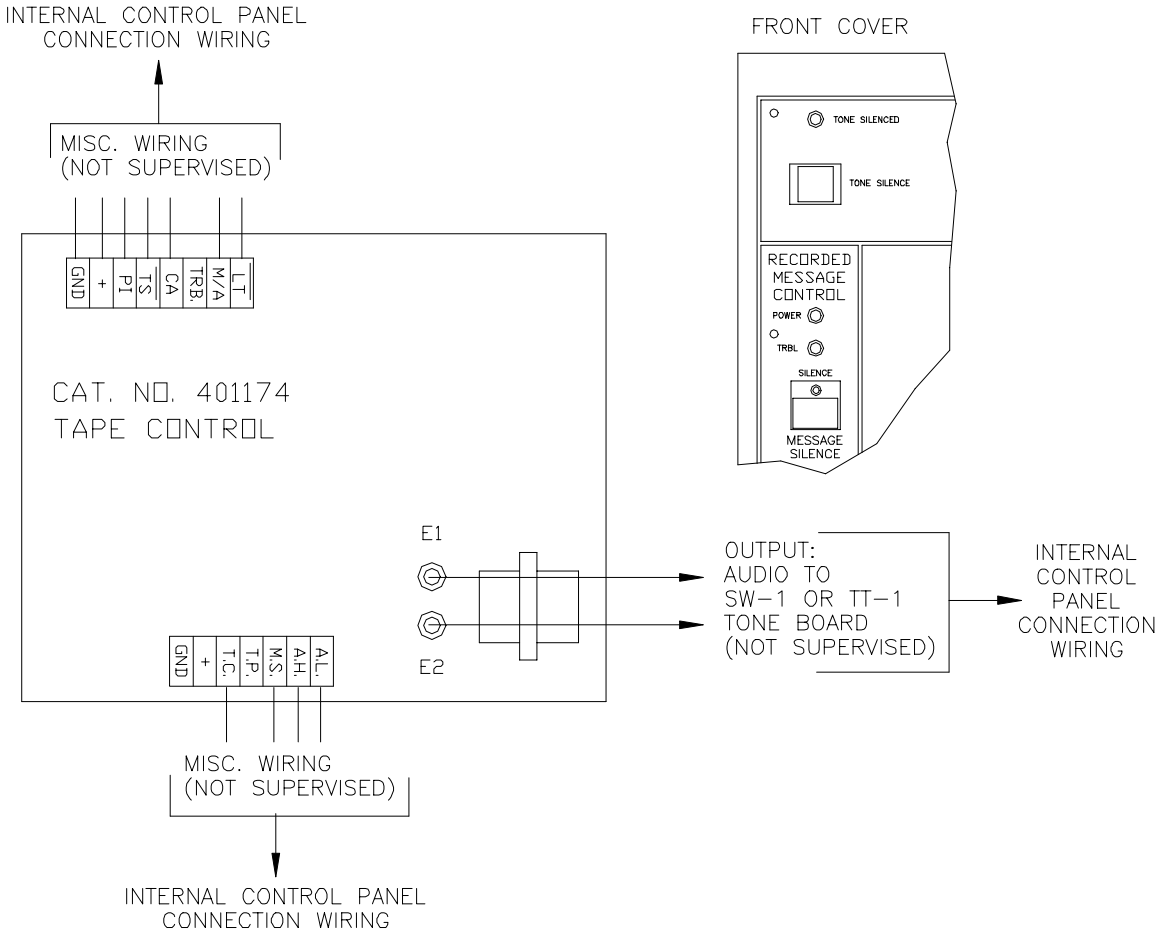


TYPICAL WIRING FOR
CAT. NO. DM-1A / PART NO. 401198 VOICE UNIT DMR ASSEMBLY
CONSISTING OF: PART NO. 401192 DIGITAL MESSAGE REPEATER
WITH 401174 SINGLE MESSAGE TAPE CONTROL BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .240 AMP.
NORMAL – .160 AMP.

SPACE REQUIREMENTS:
MODULE – 5
TRANSFORMER – 0

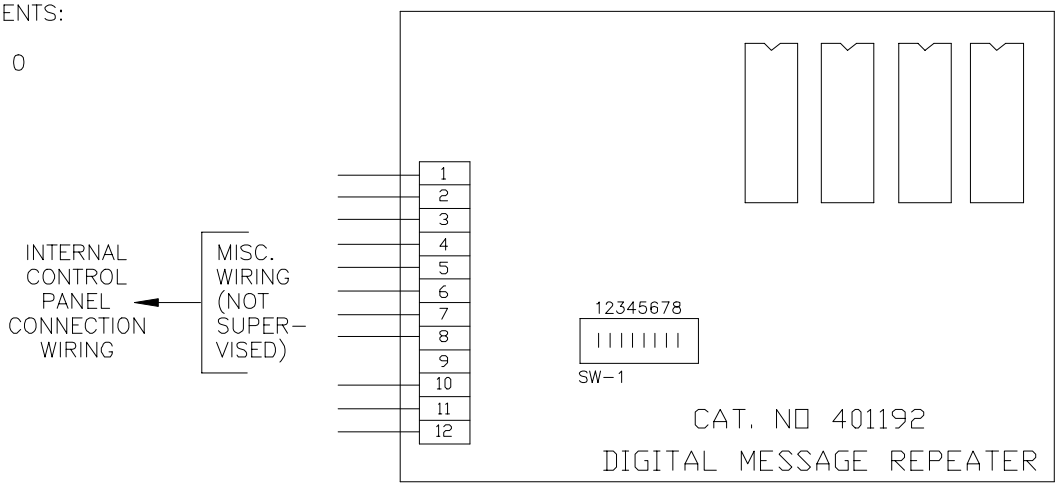


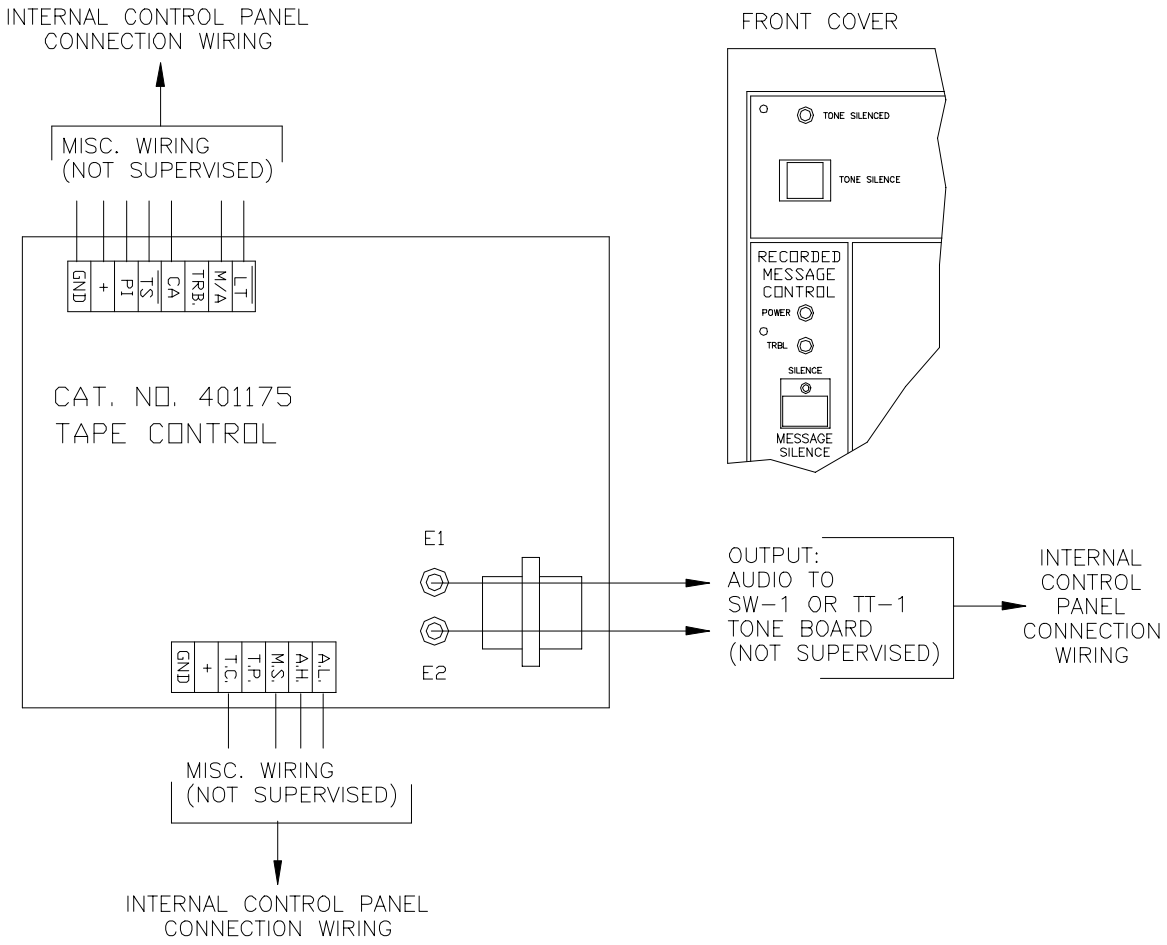


TYPICAL WIRING FOR
CAT. NO. DM-1B / PART NO. 401193 VOICE UNIT DMR ASSEMBLY
CONSISTING OF: PART NO. 401192 DIGITAL MESSAGE REPEATER
WITH 401175 FOUR MESSAGE TAPE CONTROL BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .240 AMP.
NORMAL – .160 AMP.

SPACE REQUIREMENTS:
MODULE – 5
TRANSFORMER – 0

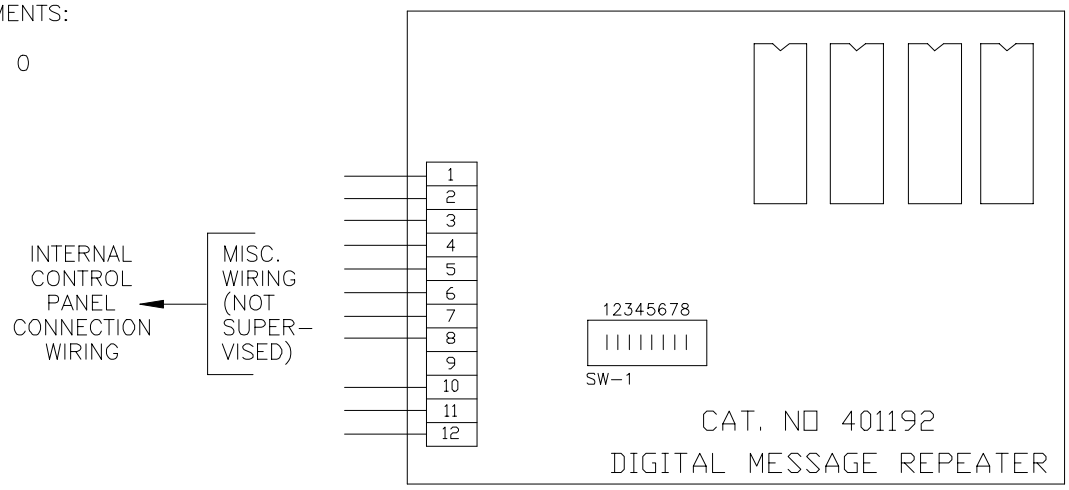


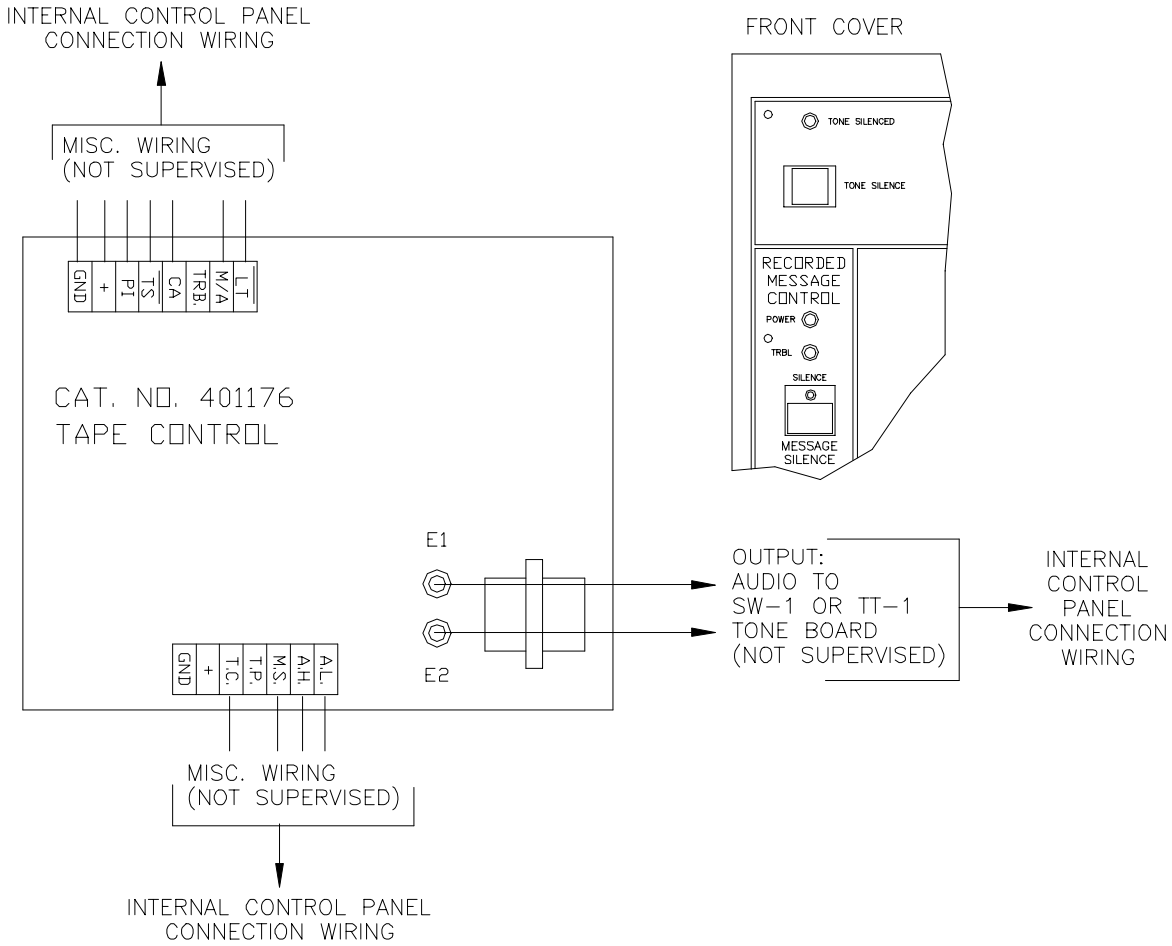


TYPICAL WIRING FOR
CAT. NO. DM-1C / PART NO. 401194 VOICE UNIT DMR ASSEMBLY
CONSISTING OF: PART NO. 401192 DIGITAL MESSAGE REPEATER
WITH 401176 CONTINUOUS MESSAGE TAPE CONTROL BOARD

MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .240 AMP.
NORMAL – .160 AMP.

SPACE REQUIREMENTS:
MODULE – 5
TRANSFORMER – 0



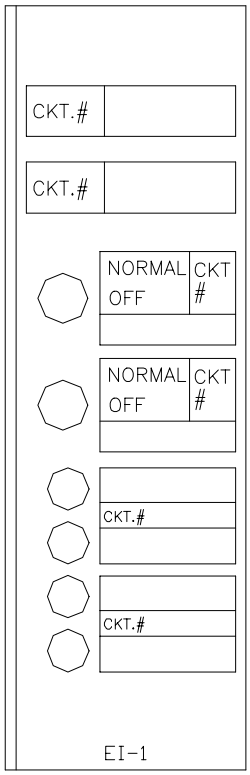


CAT. NO. EI-1 / PART NO. 401352
EXTERNAL INTERFACE MODULE

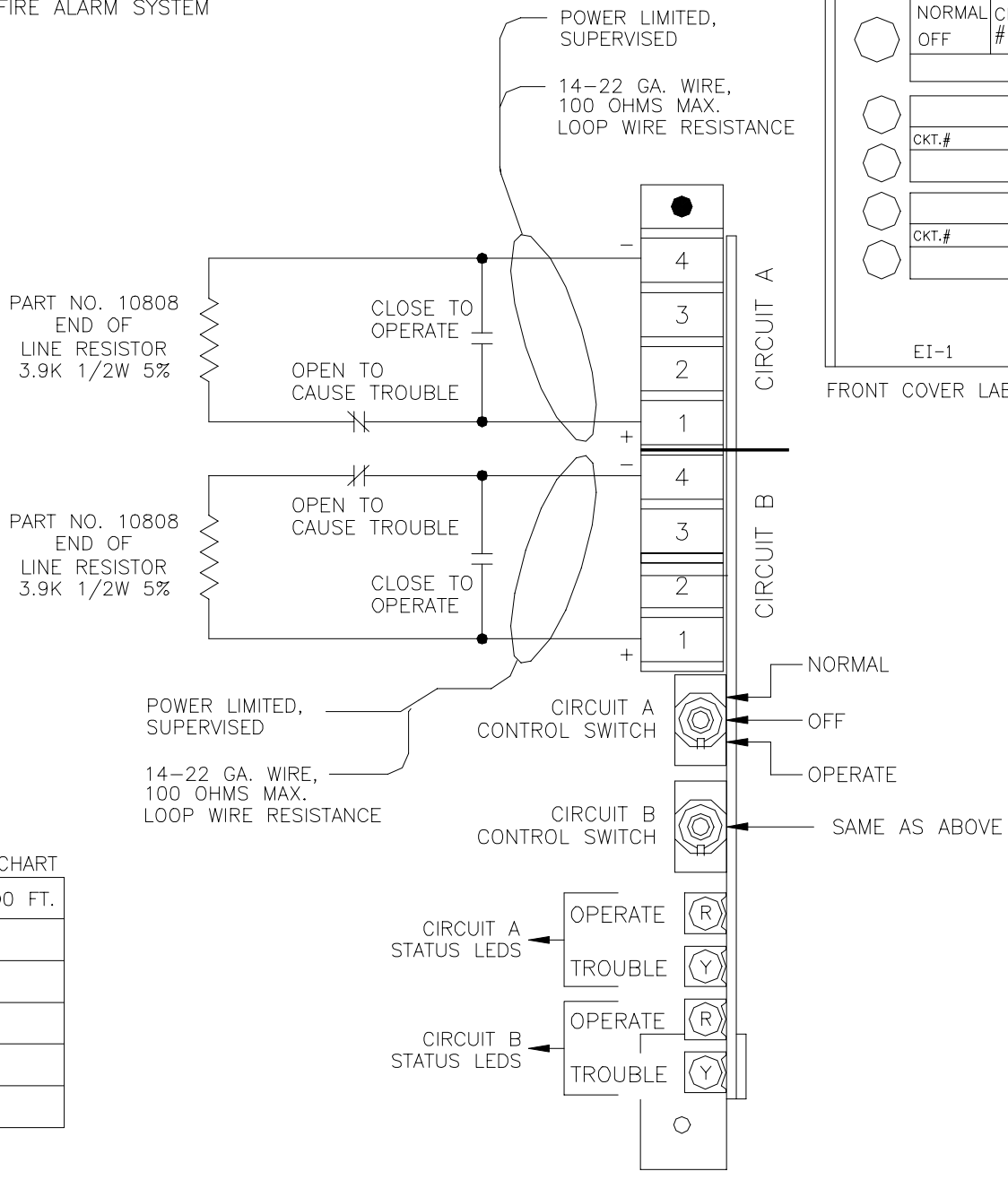
MODULE POWER CONSUMPTION REQUIREMENTS:
ALARM – .100 AMP.
NORMAL – .020 AMP.

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT



FRONT COVER LABEL

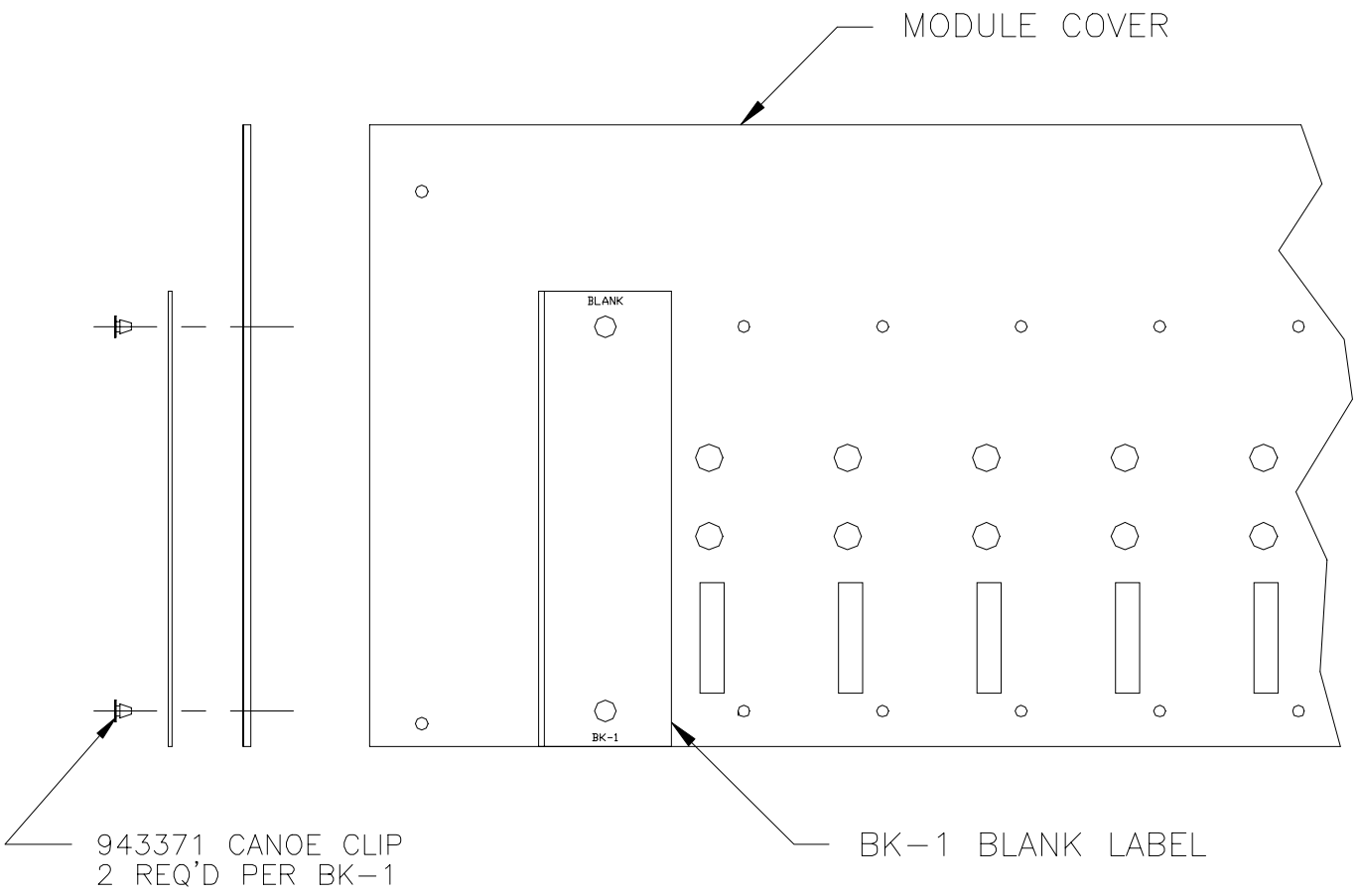


WIRE RESISTANCE CHART

GA.	OHMS/1000 FT.
14	2.6
16	4.1
18	6.4
20	10.2
22	16.2

CAT. NO. BK-1 / PART NO. 444918 BLANK LABEL

SPACE REQUIREMENTS:
MODULE – 1
TRANSFORMER – 0



COMPATIBLE SIGNALS

Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
446(*1)	Bell-Vibrating	21-30 VDC	0.110A		
476(*1)	Bell-Vibrating	21-30VDC	0.070A		
477(*1)	Bell-Single Stroke	21-30VDC	0.360A		
2700-E	Strobe Light			20-31VDC	0.059A
2700-G	Strobe Light			20-31VDC	0.089A
2700-J	Strobe Light			20-31VDC	0.155A
2700-K	Strobe Light			20-31VDC	0.164A
2700-L	Strobe Light			20-31VDC	0.249A
2700-M (*2)	Sync Strobe Light			20-31VDC	0.059A
2700-R (*2)	Sync Strobe Light			20-31VDC	0.088A
2700-T (*2)	Sync Strobe Light			20-31VDC	0.154A
2700-Y (*2)	Sync Strobe Light			20-31VDC	0.170A
2700-Z (*2)	Sync Strobe Light			20-31VDC	0.249A
2701-E	Strobe Light			20-31VDC	0.059A
2701-G	Strobe Light			20-31VDC	0.089A
2701-J	Strobe Light			20-31VDC	0.155A
2701-K	Strobe Light			20-31VDC	0.164A
2701-L	Strobe Light			20-31VDC	0.249A
2701-M (*2)	Sync Strobe Light			20-31VDC	0.059A
2701-R (*2)	Sync Strobe Light			20-31VDC	0.088A
2701-T (*2)	Sync Strobe Light			20-31VDC	0.154A
2701-Y (*2)	Sync Strobe Light			20-31VDC	0.170A
2701-Z (*2)	Sync Strobe Light			20-31VDC	0.249A
2705-E	WP Strobe Light			20-31VDC	0.059A
2705-L	WP Strobe Light			20-31VDC	0.249A
2705-M (*2)	WP Sync Strobe Light			20-31VDC	0.059A
2705-Z (*2)	WP Sync Strobe Light			20-31VDC	0.249A
2820 (*2)	Sync Electronic Horn	20-31VDC	0.030A		
2821 (*2)	Sync Electronic Horn	20-31VDC	0.030A		
2824-M (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.059A
2824-R (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.088A
2824-T (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.154A
2824-Y (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.170A
2824-Z (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.249A
2880	Electronic Signal-8T	20-31VDC	0.024-0.050A (*4)		
2881	Electronic Signal-8T	20-31VDC	0.024-0.050A (*4)		
2884-E	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.059A
2884-G	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.089A
2884-J	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.155A
2884-K	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.164A
2884-L	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.249A
2884-M (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.059A
2884-R (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.088A
2884-T (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.154A
2884-Y (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.170A
2884-Z (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.249A
5300 (*5)	Electronic Chime	21-30VDC	0.020A		
5303 (*5)	Electronic Chime	21-30VDC	0.020A		
5304 (*5)	Electronic Chime	21-30VDC	0.020A		
5305 (*5)	Electronic Chime	21-30VDC	0.020A		
5306-(0,X) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.038A
5306-(A,B) (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.145A
5306-(H,U) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.075A
5306-(N,W) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.079A
5306-C (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.285A
5306-D (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.175A

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Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
5306-S (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.245A
5307-(0,X) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.038A
5307-(A,B) (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.145A
5307-(H,U) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.075A
5307-(N,W) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.079A
5307-C (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.285A
5307-D (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.175A
5307-S (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.245A
5308-(0,X) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.038A
5308-(A,B) (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.145A
5308-(H,U) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-30VDC	0.075A
5308-(N,W) (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	21-32VDC	0.079A
5320 (*5)	Slow Whoop	21-30VDC	0.150A		
5323 (*5)	Slow Whoop	21-30VDC	0.150A		
5324 (*5)	Slow Whoop	21-30VDC	0.150A		
5325 (*5)	Slow Whoop	21-30VDC	0.150A		
5326-(0,X) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.038A
5326-(A,B) (*2) (*5)	Slow Whoop w/Sync Strobe	21-30VDC	0.150A	20-31VDC	0.145A
5326-(H,U) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.075A
5326-(N,W) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.079A
5326-C (*2) (*5)	Slow Whoop w/Sync Strobe	21-30VDC	0.150A	20-31VDC	0.285A
5326-D (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.175A
5326-S (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.245A
5327-(0,X) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.038A
5327-(A,B) (*2) (*5)	Slow Whoop w/Sync Strobe	21-30VDC	0.150A	20-31VDC	0.145A
5327-(H,U) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.075A
5327-(N,W) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.079A
5327-C (*2) (*5)	Slow Whoop w/Sync Strobe	21-30VDC	0.150A	20-31VDC	0.285A
5327-D (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.175A
5327-S (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.245A
5328-(0,X) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.038A
5328-(A,B) (*2) (*5)	Slow Whoop w/Sync Strobe	21-30VDC	0.150A	20-31VDC	0.145A
5328-(H,U) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-30VDC	0.075A
5328-(N,W) (*5)	Slow Whoop w/Strobe	21-30VDC	0.150A	21-32VDC	0.079A
5330	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5333	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5334	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5335	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5336-(0,X)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.038A
5336-(A,B) (*2)	Electronic Horn-3T w/Sync Strobe	21-32VDC	0.020-0.025A (*4)	20-31VDC	0.145A
5336-(H,U)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.075A
5336-(N,W)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.079A
5336-C (*2)	Electronic Horn-3T w/Sync Strobe	21-32VDC	0.020-0.025A (*4)	20-31VDC	0.285A
5336-D	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.175A
5336-S	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.245A
5337-(0,X)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.038A
5337-(A,B) (*2)	Electronic Horn-3T w/Sync Strobe	21-32VDC	0.020-0.025A (*4)	20-31VDC	0.145A
5337-(H,U)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.075A
5337-(N,W)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.079A
5337-C (*2)	Electronic Horn-3T w/Sync Strobe	21-32VDC	0.020-0.025A (*4)	20-31VDC	0.285A
5337-D	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.175A
5337-S	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.245A
5338-(0,X)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.038A
5338-(A,B) (*2)	Electronic Horn-3T w/Sync Strobe	21-32VDC	0.020-0.025A (*4)	20-31VDC	0.145A
5338-(H,U)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-30VDC	0.075A
5338-(N,W)	Electronic Horn-3T w/Strobe	21-32VDC	0.020-0.025A (*4)	21-32VDC	0.079A
5340	Electronic Horn	21-32VDC	0.020A		

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Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
5343	Electronic Horn	21-32VDC	0.020A		
5344	Electronic Horn	21-32VDC	0.020A		
5345	Electronic Horn	21-32VDC	0.020A		
5346-(0,X)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.038A
5346-(A,B) (*2)	Electronic Horn w/Sync Strobe	21-32VDC	0.020A	20-31VDC	0.145A
5346-(H,U)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.075A
5346-(N,W)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.079A
5346-C (*2)	Electronic Horn w/Sync Strobe	21-32VDC	0.020A	20-31VDC	0.285A
5346-D	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.175A
5346-S	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.245A
5347-(0,X)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.038A
5347-(A,B) (*2)	Electronic Horn w/Sync Strobe	21-32VDC	0.020A	20-31VDC	0.145A
5347-(H,U)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.075A
5347-(N,W)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.079A
5347-C (*2)	Electronic Horn w/Sync Strobe	21-32VDC	0.020A	20-31VDC	0.285A
5347-D	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.175A
5347-S	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.245A
5348-(0,X)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.038A
5348-(A,B) (*2)	Electronic Horn w/Sync Strobe	21-32VDC	0.020A	20-31VDC	0.145A
5348-(H,U)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-30VDC	0.075A
5348-(N,W)	Electronic Horn w/Strobe	21-32VDC	0.020A	21-32VDC	0.079A
5350	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5353	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5354	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5355	Electronic Horn-3T	21-32VDC	0.020-0.025A (*4)		
5360	Electronic Horn	21-32VDC	0.020A		
5363	Electronic Horn	21-32VDC	0.020A		
5364	Electronic Horn	21-32VDC	0.020A		
5365	Electronic Horn	21-32VDC	0.020A		
5370	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5373	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5374	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5375	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5376-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5376-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5376-C (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.285A
5376-D	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.175A
5376-S	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.245A
5377-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5377-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5377-C (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.285A
5377-D	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.175A
5377-S	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.245A
5378-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5378-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5380	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5383	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5384	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5385	Electronic Signal-8T	12-32VDC	0.020-0.050A (*4)		
5386-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5386-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5386-C (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.285A
5386-D	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.175A
5386-S	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.245A
5387-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5387-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5387-C (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.285A

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Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
5387-D	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.175A
5387-S	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.245A
5388-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	12-32VDC	0.020-0.050A (*4)	20-31VDC	0.145A
5388-(N,W)	Electronic Signal-8T w/Strobe	12-32VDC	0.020-0.050A (*4)	21-32VDC	0.079A
5390 (*5)	Electronic Chime	21-30VDC	0.020A		
5394-E (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.059A
5394-G (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.089A
5394-J (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.155A
5394-K (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.164A
5394-L (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.249A
5394-M (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.059A
5394-R (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.088A
5394-T (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.154A
5394-Y (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.170A
5394-Z (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.249A
5395 (*5)	Electronic Chime	21-30VDC	0.020A		
5398-E (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.059A
5398-G (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.089A
5398-J (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.155A
5398-K (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.164A
5398-L (*5)	Electronic Chime w/Strobe	21-30VDC	0.020A	20-31VDC	0.249A
5398-M (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.059A
5398-R (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.088A
5398-T (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.154A
5398-Y (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.170A
5398-Z (*2) (*5)	Electronic Chime w/Sync Strobe	21-30VDC	0.020A	20-31VDC	0.249A
5405	Sync Control Unit	20-31VDC	.020A		
5406	Sync Control Unit	20-31VDC	.020A		
5508-(0,X)	Strobe Light			21-30VDC	0.038A
5508-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5508-(H,U)	Strobe Light			21-30VDC	0.075A
5508-(N,W)	Strobe Light			21-32VDC	0.079A
5508-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5508-D	Strobe Light			21-32VDC	0.175A
5508-S	Strobe Light			21-32VDC	0.245A
5509-(0,X)	Strobe Light			21-30VDC	0.038A
5509-(H,U)	Strobe Light			21-30VDC	0.075A
5510-(0,X)	Strobe Light			21-30VDC	0.038A
5510-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5510-(N,W)	Strobe Light			21-32VDC	0.079A
5511-(0,X)	Strobe Light			21-30VDC	0.038A
5511-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5511-(H,U)	Strobe Light			21-30VDC	0.075A
5511-(N,W)	Strobe Light			21-32VDC	0.079A
5511-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5511-D	Strobe Light			21-32VDC	0.175A
5511-S	Strobe Light			21-32VDC	0.245A
5512-(0,X)	Strobe Light			21-30VDC	0.038A
5512-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5512-(H,U)	Strobe Light			21-30VDC	0.075A
5512-(N,W)	Strobe Light			21-32VDC	0.079A
5512-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5512-D	Strobe Light			21-32VDC	0.175A
5512-S	Strobe Light			21-32VDC	0.245A
5516-(0,X)	Strobe Light			21-30VDC	0.038A
5516-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5516-(H,U)	Strobe Light			21-30VDC	0.075A

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Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
5516-(N,W)	Strobe Light			21-32VDC	0.079A
5516-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5516-D	Strobe Light			21-32VDC	0.175A
5516-S	Strobe Light			21-32VDC	0.245A
5517-(0,X)	Strobe Light			21-30VDC	0.038A
5517-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5517-(H,U)	Strobe Light			21-30VDC	0.075A
5517-(N,W)	Strobe Light			21-32VDC	0.079A
5517-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5517-D	Strobe Light			21-32VDC	0.175A
5517-S	Strobe Light			21-32VDC	0.245A
5518-(0,X)	Strobe Light			21-30VDC	0.038A
5518-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5518-(H,U)	Strobe Light			21-30VDC	0.075A
5518-(N.W)	Strobe Light			21-32VDC	0.079A
5519-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5519-(N,W)	Strobe Light			21-32VDC	0.079A
5519-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5519-D	Strobe Light			21-32VDC	0.175A
5519-S	Strobe Light			21-32VDC	0.245A
5521-(0,X)	Strobe Light			21-30VDC	0.038A
5521-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5521-(H,U)	Strobe Light			21-30VDC	0.075A
5521-(N,W)	Strobe Light			21-32VDC	0.079A
5521-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5521-D	Strobe Light			21-32VDC	0.175A
5521-S	Strobe Light			21-32VDC	0.245A
5521C-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5521C-(N,W)	Strobe Light			21-32VDC	0.079A
5521C-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5521C-D	Strobe Light			21-32VDC	0.175A
5521C-S	Strobe Light			21-32VDC	0.245A
5522-(0,X)	Strobe Light			21-30VDC	0.038A
5522-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5522-(H,U)	Strobe Light			21-30VDC	0.075A
5522-(N,W)	Strobe Light			21-32VDC	0.079A
5522-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5522-D	Strobe Light			21-32VDC	0.175A
5522-S	Strobe Light			21-32VDC	0.245A
5522C-(A,B) (*2)	Sync Strobe Light			20-31VDC	0.145A
5522C-(N,W)	Strobe Light			21-32VDC	0.079A
5522C-C (*2)	Sync Strobe Light			20-31VDC	0.285A
5522C-D	Strobe Light			21-32VDC	0.175A
5522C-S	Strobe Light			21-32VDC	0.245A
6120	Horn	21-30VDC	0.035A		
6140	Horn	21-30VDC	0.065A		
6220	Horn	21-30VDC	0.038A		
6223	Horn	21-30VDC	0.038A		
6224	Horn	21-30VDC	0.038A		
6225	Horn	21-30VDC	0.038A		
6226-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.145A
6226-(N,W)	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.079A
6226-C (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.285A
6226-D	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.175A
6226-S	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.245A
6227-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.145A
6227-(N,W)	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.079A

COMPATIBLE SIGNALS

Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
6227-C (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.285A
6227-D	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.175A
6227-S	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.245A
6228-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.145A
6228-(N,W)	Horn w/Strobe	21-30VDC	0.038A	21-32VDC	0.079A
6230	Horn	21-30VDC	0.038A		
6234-E	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6234-G	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.089A
6234-J	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.155A
6234-K	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.164A
6234-L	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6234-M (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6234-R (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.088A
6234-T (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.154A
6234-Y (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.170A
6234-Z (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6235-E	Horn w/WP Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6235-L	Horn w/WP Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6235-M (*2)	Horn w/WP Sync Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6235-Z (*2)	Horn w/WP Sync Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6238-E	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6238-G	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.089A
6238-J	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.155A
6238-K	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.164A
6238-L	Horn w/Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6238-M (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.059A
6238-R (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.088A
6238-T (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.154A
6238-Y (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.170A
6238-Z (*2)	Horn w/Sync Strobe	21-30VDC	0.038A	20-31VDC	0.249A
6240	Horn	21-30VDC	0.065A		
6243	Horn	21-30VDC	0.065A		
6244	Horn	21-30VDC	0.065A		
6245	Horn	21-30VDC	0.065A		
6246-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.145A
6246-(N,W)	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.079A
6246-C (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.285A
6246-D	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.175A
6246-S	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.245A
6247-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.145A
6247-(N,W)	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.079A
6247-C (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.285A
6247-D	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.175A
6247-S	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.245A
6248-(A,B) (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.145A
6248-(N,W)	Horn w/Strobe	21-30VDC	0.065A	21-32VDC	0.079A
6250	Horn	21-30VDC	0.065A		
6254-E	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6254-G	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.089A
6254-J	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.155A
6254-K	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.164A
6254-L	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.249A
6254-M (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6254-R (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.088A
6254-T (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.154A
6254-Y (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.170A
6254-Z (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.249A

COMPATIBLE SIGNALS

Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
6255-E	Horn w/WP Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6255-L	Horn w/WP Strobe	21-30VDC	0.065A	20-31VDC	0.249A
6255-M (*2)	Horn w/WP Sync Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6255-Z (*2)	Horn w/WP Sync Strobe	21-30VDC	0.065A	20-31VDC	0.249A
6258-E	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6258-G	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.089A
6258-J	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.155A
6258-K	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.164A
6258-L	Horn w/Strobe	21-30VDC	0.065A	20-31VDC	0.249A
6258-M (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.059A
6258-R (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.088A
6258-T (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.154A
6258-Y (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.170A
6258-Z (*2)	Horn w/Sync Strobe	21-30VDC	0.065A	20-31VDC	0.249A
6300	Mini-Horn	20-31VDC	0.025A		
6301	Mini-Horn	20-31VDC	0.025A		
6302-(A,B) (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.145A
6302-(N,W)	Mini-Horn w/Strobe	20-31VDC	0.025A	21-32VDC	0.079A
6302-C (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.285A
6302-D	Mini-Horn w/Strobe	20-31VDC	0.025A	21-32VDC	0.175A
6302-S	Mini-Horn w/Strobe	20-31VDC	0.025A	21-32VDC	0.245A
6304-E	Mini-Horn w/Strobe	20-31VDC	0.025A	20-31VDC	0.059A
6304-G	Mini-Horn w/Strobe	20-31VDC	0.025A	20-31VDC	0.089A
6304-J	Mini-Horn w/Strobe	20-31VDC	0.025A	20-31VDC	0.155A
6304-K	Mini-Horn w/Strobe	20-31VDC	0.025A	20-31VDC	0.164A
6304-L	Mini-Horn w/Strobe	20-31VDC	0.025A	20-31VDC	0.249A
6304-M (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.059A
6304-R (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.088A
6304-T (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.154A
6304-Y (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.170A
6304-Z (*2)	Mini-Horn w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.249A
6310	Mini-Horn-S/T	20-31VDC	0.025A		
6311	Mini-Horn-S/T	20-31VDC	0.025A		
6312-(A,B) (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.145A
6312-(N,W)	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	21-32VDC	0.079A
6312-C (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.285A
6312-D	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	21-32VDC	0.175A
6312-S	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	21-32VDC	0.245A
6314-E	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	20-31VDC	0.059A
6314-G	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	20-31VDC	0.089A
6314-J	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	20-31VDC	0.155A
6314-K	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	20-31VDC	0.164A
6314-L	Mini-Horn-S/T w/Strobe	20-31VDC	0.025A	20-31VDC	0.230A
6314-M (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.059A
6314-R (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.088A
6314-T (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.154A
6314-Y (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.170A
6314-Z (*2)	Mini-Horn-S/T w/Sync Strobe	20-31VDC	0.025A	20-31VDC	0.249A
6320 (*2)	Sync Electronic Horn	20-31VDC	0.030A		
6321 (*2)	Sync Electronic Horn	20-31VDC	0.030A		
6322-(A,B) (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.145A
6322-C (*3)	Sync Electronic Horn w/Sync Strobe	20-31VDC	0.030A	20-31VDC	0.285A
6380	Electronic Signal-8T	20-31VDC	0.024-0.050A (*4)		
6381	Electronic Signal-8T	20-31VDC	0.024-0.050A (*4)		
6382-(A,B) (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.145A
6382-(N,W)	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	21-32VDC	0.079A
6382-C (*2)	Electronic Signal-8T w/Sync Strobe	20-31VDC	0.024-0.050A (*4)	20-31VDC	0.285A

COMPATIBLE SIGNALS

Catalog Number	Description	Audible Voltage	Audible Current	Strobe Voltage	Strobe Current
6382-D	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	21-32VDC	0.175A
6382-S	Electronic Signal-8T w/Strobe	20-31VDC	0.024-0.050A (*4)	21-32VDC	0.245A

Key:
(*1) 1=10” gong, 4=4” gong, 5=chime, 6=6” gong, 8=8” gong
(*2) Sync Strobe Light or Sync Electronic Horn require 5405 Sync Control Module
(*3) Sync Electronic Horn and Sync Strobe Light require 5405 or 5406 Sync Control Module
(*4) See Installation Instructions for the current of the desired tone.
(*5) Signal Circuit Module must be powered from a Regulated Power Supply.

Cat. No. xxxx-0 = Strobe Light (UL1638 4.5cd)
Cat. No. xxxx-H = Strobe Light (UL1638 15cd)
Cat. No. xxxx-X = Strobe Light (UL1638 30cd)
Cat. No. xxxx-U = Strobe Light (UL1638 120cd)
Cat. No. xxxx-N = Strobe Light (UL1971 15cd)
Cat. No. xxxx-W = Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-D = Strobe Light (UL1971 75cd)
Cat. No. xxxx-S = Strobe Light (UL1971 110cd)
Cat. No. xxxx-A = Sync Strobe Light (UL1971 15cd)
Cat. No. xxxx-B = Sync Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-C = Sync Strobe Light (UL1971 75cd)
Cat. No. xxxx-E = Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-G = Strobe Light (UL1971 30/75cd)
Cat. No. xxxx-J = Strobe Light (UL1971 60/75cd)
Cat. No. xxxx-K = Strobe Light (UL1971 75cd)
Cat. No. xxxx-L = Strobe Light (UL1971 110cd)
Cat. No. xxxx-M = Sync Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-R = Sync Strobe Light (UL1971 30/75cd)
Cat. No. xxxx-T = Sync Strobe Light (UL1971 60/75cd)
Cat. No. xxxx-Y = Sync Strobe Light (UL1971 75cd)
Cat. No. xxxx-Z = Sync Strobe Light (UL1971 110cd)

Notes:
1. The accessory device listed may be wired to activate from the notification appliance circuits.
2. For specific wiring and installation information, read the instructions provided with each device.

COMPATIBLE ACCESSORY DEVICES

Faraday Cat. No.	Mfg. Part Number	Description
Faraday		
R711-1	711-1	Polarized Auxiliary Relay
MEP-100	15050	Mini-Evac Control Unit
15222A	15222A	Signal Expander Panel
RSE-100	15070	Signal Expander Panel
MVP-500	15060	Mini-Voice Control Unit
MVP-501	15061	Mini-Voice Control Unit

COMPATIBLE SPEAKERS

Catalog Number	Description	Speaker Voltage	Strobe Voltage	Strobe Current
2603-25	Speaker	25V		
2604-25	Speaker	25V		
2605-25	Speaker	25V		
2606-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2606-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2606-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2606-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2606-C-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2606-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2606-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A

COMPATIBLE SPEAKERS

Catalog Number	Description	Speaker Voltage	Strobe Voltage	Strobe Current
2607-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2607-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2607-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2607-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2607-C (*2)-25	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2607-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2607-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A
2608-(0,X)	Speaker w/Strobe	25V	21-30VDC	0.038A
2608-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2608-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2608-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2623-25	Speaker	25V		
2624-25	Speaker	25V		
2625-26	Speaker	25V		
2626-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2626-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2626-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2626-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2626-C-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2626-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2626-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A
2627-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2627-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2627-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2627-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2627-C (*2)-25	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2627-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2627-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A
2628-(0,X)	Speaker w/Strobe	25V	21-30VDC	0.038A
2628-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2628-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2628-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2633-25	Speaker	25V		
2634-25	Speaker	25V		
2635-26	Speaker	25V		
2636-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2636-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2636-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2636-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2636-C-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2636-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2636-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A
2637-(0,X)-25	Speaker w/Strobe	25V	21-30VDC	0.038A
2637-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2637-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2637-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2637-C (*2)-25	Speaker w/Sync Strobe	25V	20-31VDC	0.285A
2637-D-25	Speaker w/Strobe	25V	21-32VDC	0.175A
2637-S-25	Speaker w/Strobe	25V	21-32VDC	0.245A
2638-(0,X)	Speaker w/Strobe	25V	21-30VDC	0.038A
2638-(A,B)-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.145A
2638-(H,U)-25	Speaker w/Strobe	25V	21-30VDC	0.075A
2638-(N,W)-25	Speaker w/Strobe	25V	21-32VDC	0.079A
2933-25	Speaker	25V		
2934-E-25	Speaker w/Strobe	25V	20-31VDC	0.059A
2934-G-25	Speaker w/Strobe	25V	20-31VDC	0.089A
2934-J-25	Speaker w/Strobe	25V	20-31VDC	0.155A

COMPATIBLE SPEAKERS

Catalog Number	Description	Speaker Voltage	Strobe Voltage	Strobe Current
2934-K-25	Speaker w/Strobe	25V	20-31VDC	0.164A
2934-L-25	Speaker w/Strobe	25V	20-31VDC	0.249A
2934-M-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.059A
2934-R-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.088A
2934-T-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.154A
2934-Y-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.170A
2934-Z-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.249A
2935-25	Speaker	25V		
2938-E-25	Speaker w/Strobe	25V	20-31VDC	0.059A
2938-G-25	Speaker w/Strobe	25V	20-31VDC	0.089A
2938-J-25	Speaker w/Strobe	25V	20-31VDC	0.155A
2938-K-25	Speaker w/Strobe	25V	20-31VDC	0.164A
2938-L-25	Speaker w/Strobe	25V	20-31VDC	0.249A
2938-M-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.059A
2938-R-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.088A
2938-T-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.154A
2938-Y-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.170A
2938-Z-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.249A
2953-25	Speaker	25V		
2954-E-25	Speaker w/Strobe	25V	20-31VDC	0.059A
2954-G-25	Speaker w/Strobe	25V	20-31VDC	0.089A
2954-J-25	Speaker w/Strobe	25V	20-31VDC	0.155A
2954-K-25	Speaker w/Strobe	25V	20-31VDC	0.164A
2954-L-25	Speaker w/Strobe	25V	20-31VDC	0.249A
2954-M-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.059A
2954-R-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.088A
2954-T-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.154A
2954-Y-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.170A
2954-Z-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.249A
2955-25	Speaker	25V		
2958-E-25	Speaker w/Strobe	25V	20-31VDC	0.059A
2958-G-25	Speaker w/Strobe	25V	20-31VDC	0.089A
2958-J-25	Speaker w/Strobe	25V	20-31VDC	0.155A
2958-K-25	Speaker w/Strobe	25V	20-31VDC	0.164A
2958-L-25	Speaker w/Strobe	25V	20-31VDC	0.249A
2958-M-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.059A
2958-R-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.088A
2958-T-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.154A
2958-Y-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.170A
2958-Z-25 (*2)	Speaker w/Sync Strobe	25V	20-31VDC	0.249A

Key:

(*2) Sync Strobe Light requires 5405 or 5406 Sync Control Module

Cat. No. xxxx-0 = Strobe Light (UL1638 4.5cd)
Cat. No. xxxx-H = Strobe Light (UL1638 15cd)
Cat. No. xxxx-X = Strobe Light (UL1638 30cd)
Cat. No. xxxx-U = Strobe Light (UL1638 120cd)
Cat. No. xxxx-N = Strobe Light (UL1971 15cd)
Cat. No. xxxx-W = Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-D = Strobe Light (UL1971 75cd)
Cat. No. xxxx-S = Strobe Light (UL1971 110cd)
Cat. No. xxxx-A = Sync Strobe Light (UL1971 15cd)
Cat. No. xxxx-B = Sync Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-C = Sync Strobe Light (UL1971 75cd)
Cat. No. xxxx-E = Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-G = Strobe Light (UL1971 30/75cd)
Cat. No. xxxx-J = Strobe Light (UL1971 60/75cd)
Cat. No. xxxx-K = Strobe Light (UL1971 75cd)
Cat. No. xxxx-L = Strobe Light (UL1971 110cd)
Cat. No. xxxx-M = Sync Strobe Light (UL1971 15/75cd)
Cat. No. xxxx-R = Sync Strobe Light (UL1971 30/75cd)
Cat. No. xxxx-T = Sync Strobe Light (UL1971 60/75cd)
Cat. No. xxxx-Y = Sync Strobe Light (UL1971 75cd)
Cat. No. xxxx-Z = Sync Strobe Light (UL1971 110cd)

WIRE SELECTION GUIDES

RESISTANCE OF SOLID COPPER WIRE

AWG	OHMS PER THOUSAND FEET
22	16.2
20	10.2
18	6.4
16	4.1
14	2.6
12	1.6
10	1.0

CONVENTIONAL INITIATING CIRCUIT WIRE SELECTION GUIDE

Each initiating circuit loop must not have a wire resistance greater than 100 ohms. The following chart is based on the resistance of solid copper wire.

MAXIMUM INITIATING CIRCUIT LOOP DISTANCE (FT.)

	22 AWG	20 AWG	18 AWG	16 AWG	14 AWG
WIRE LENGTH	6,172	9,803	15,625	24,390	38,461
CABLE LENGTH	3,086	4,901	7,812	12,195	19,230

CONVENTIONAL SIGNAL/RELAY DRIVER CIRCUIT WIRE SELECTION GUIDE

Each signal circuit loop must not have a voltage drop greater than 1.9 volt. The following chart is based on the following premises: 1) All of the load is at the end of the wire run (worst case), 2) resistance is of solid copper wire, 3) AP-5 power supply is used, 4) signals are from compatible signal list. Contact your local distributor or the factory, if further information is needed for your requirements.

MAXIMUM WIRE LOOP DISTANCE (FT.)

	18AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
0.5	593	926	1461	2375	3800
1.0	296	463	730	1187	1900
1.5	197	308	487	791	1266
2.0	148	231	365	593	950
2.5	118	185	292	475	760

NOTE: * For wire sizes larger than the terminal block will accept, spade terminals must be used.

WIRE SELECTION GUIDES (CONT'D)

CONVENTIONAL SPEAKER CIRCUIT WIRE SELECTION GUIDE

Each speaker circuit loop must not have a voltage drop greater than 1.9 volt. The following chart is based on the following premises: 1) All of the load is at the end of the wire run (worst case), 2) resistance is of solid copper wire, 3) VAA-C amplifier is used, 4) speakers are from compatible speaker list. Contact your local distributor or the factory, if further information is needed for your requirements.

MAXIMUM WIRE LOOP DISTANCE (FT.)

	18AWG	16 AWG	14 AWG	*12 AWG	*10 AWG
12.5	593	926	1461	2375	3800
25	296	463	730	1187	1900
37	197	308	487	791	1266
50	148	231	365	593	950
62	118	185	292	475	760

NOTE: * For wire sizes larger than the terminal block will accept, spade terminals must be used.

CONVENTIONAL TELEPHONE CIRCUIT WIRE SELECTION GUIDE

Each telephone circuit loop must not have a wire resistance greater than 10 ohms. The following chart is based on the resistance of solid copper wire.

MAXIMUM TELEPHONE CIRCUIT LOOP DISTANCE (FT.)

	22 AWG	20 AWG	18 AWG	16 AWG	14 AWG
WIRE LENGTH	617	980	1562	2439	3846
TWISTED PAIR CABLE LENGTH	308	490	781	1219	1923

FOR WIRE REQUIREMENTS OF THE ADDRESSABLE/ANALOG LOOP IN SECTION V OF THIS MANUAL.

BATTERY SIZE CALCULATION

		Quantity Amps	Standby Current (Amps)	Alarm Current (Amps)
(CU-2) Control Unit			.100	.110
(MP-3) Main Power Supply				
(BC-2) Battery Charger	Standby	____ X .005 =	____	N/A
	Alarm	____ X .005 =	N/A	____
(AP-4) Regulated Aux Power	Standby	____ X .007 =	____	N/A
	Alarm	____ X .007 =	N/A	____
(AP-5) Unreg Aux Power	Standby	____ X .010 =	____	N/A
	Alarm	____ X .010 =	N/A	____
(ZN-1A) Initiating Circuit D Full	Standby	____ X .020 =	____	N/A
	Alarm	____ X .112 =	N/A	____
(ZN-2A) Initiating Circuit B	Standby	____ X .020 =	____	N/A
	Alarm	____ X .112 =	N/A	____
(ZN-3A) Initiating Circuit	Standby	____ X .020 =	____	N/A
	Alarm	____ X .112 =	N/A	____
(AM-1) Addressable/Analog Module	Standby	____ X .100 =	____	N/A
	Alarm	____ X .110 =	N/A	____
(SC-1) Indicating Circuit Z Full	Standby	____ X .010 =	____	N/A
	Alarm	____ X .100 =	N/A	____
(SC-2) Indicating Circuit Y	Standby	____ X .010 =	____	N/A
	Alarm	____ X .060 =	N/A	____
(SC-3) Indicating Circuit Y	Standby	____ X .025 =	____	N/A
	Alarm	____ X .085 =	N/A	____
(AR-1) Auxiliary Relay	Standby	____ X .010 =	____	N/A
	Alarm	____ X .070 =	N/A	____
(AR-2) Auxiliary Relay	Standby	____ X .010 =	____	N/A
	Alarm	____ X .065 =	N/A	____
Trouble/Alarm	Standby	____ X .035 =	____	N/A
	Alarm	____ X .065 =	N/A	____
(AR-3) Auxiliary Relay Driver	Standby	____ X .025 =	____	N/A
	Alarm	____ X .085 =	N/A	___
(CT-1) Universal City Tie (Add Currents for all Ckts used)				
For Shunt Transmission (Ckt A)	Standby	____ X .008 =	____	N/A
	Alarm	____ X .040 =	N/A	____
For Local Energy Transmission (Ckt A)	Standby	____ X .008 =	____	N/A
	Alarm	____ X .040 =	N/A	____
For Alarm/Trouble Transmission (Ckt A)	Standby	____ X .030 =	____	N/A
	Alarm	____ X .070 =	N/A	____
For Alarm Only Transmission (Ckt A)	Standby	____ X .045 =	____	N/A
	Alarm	____ X .070 =	N/A	____
For Supervision Only Transmission (Ckt B)	Standby	____ X .020 =	____	N/A
	Alarm	____ X .045 =	N/A	____
For Trouble Only Transmission (Ckt C)	Standby	____ X .040 =	____	N/A
	Alarm	____ X .045 =	N/A	____
(PR-1) Printer	Standby	____ X .020 =	____	N/A
	Alarm	____ X .050 =	N/A	____
(DI-1) D.A.C.T. Interface	Standby	____ X .010 =	____	N/A
	Alarm	____ X .055 =	N/A	____
(SI-2) Serial Interface	Standby	____ X .020 =	____	N/A
	Alarm	____ X .020 =	N/A	____
(SI-3) Serial Interface	Standby	____ X .020 =	____	N/A
	Alarm	____ X .020 =	N/A	____
(BB-1) Buffer Board	Standby	____ X .006 =	____	N/A
	Alarm	____ X .006 =	N/A	____
		TOTAL	_____	_____

BATTERY SIZE CALCULATIONS (continued)

		Quantity	*Amps*	***Standby Current (Amps)***	***Alarm Current (Amps)***
TOTAL FROM PREVIOUS PAGE				_____	_____
(BB-2) Buffer Board (Parallel)	Standby		____ X .006 =	____	N/A
	Alarm		____ X .006 =	N/A	____
(CI-2) Communication Interface	Standby		____ X .100 =	____	N/A
	Alarm		____ X .100 =	N/A	____
(EI-1) External Interface Module	Standby		____ X .020 =	____	N/A
	Alarm		____ X .100 =	N/A	____
(AS-1) Amp. Supervisory Module	Standby		____ X .105 =	____	N/A
	Alarm		____ X .120 =	N/A	____
(DM-1A,B, OR C) Voice Unit DMR Asssembly	Standby		____ X .160 =	____	N/A
	Alarm		____ X .240 =	N/A	____
(FP-1) Telephone Module Assembly	Standby		____ X .050 =	____	N/A
	Alarm		____ X .050 =	N/A	____
(FP-2) Telephone Motherboard Assembly	Standby		____ X .000 =	____	N/A
	Alarm		____ X .000 =	N/A	____
(PE-1) Telephone Extender	Standby		____ X .006 =	____	N/A
	Alarm		____ X .006 =	N/A	____
(MC-1) MIC/Pre-amp Board	Standby		____ X .030 =	____	N/A
	Alarm		____ X .030 =	N/A	____
(PD-2) Power Distribution Panel	Standby		____ X .030 =	____	N/A
	Alarm		____ X .150 =	N/A	____
(SW-1) Slow Whoop Module Assembly	Standby		____ X .055 =	____	N/A
	Alarm		____ X .055 =	N/A	____
(TT-1) Temporal Tone Module Assembly	Standby		____ X .055 =	____	N/A
	Alarm		____ X .055 =	N/A	____
(VAA-C) 250 Watt Amplifier	Standby		____ X .000 =	____	N/A
	Alarm		____ X 18.0 =	N/A	____
RDC-700A Remote Control	Standby		____ X .055 =	____	N/A
	Alarm		____ X .060 =	N/A	____
RDC-800	Standby		____ X .055 =	____	N/A
	Alarm		____ X .060 =	N/A	____
7700 Trouble Unit	Standby		____ X .040 =	____	N/A
	Alarm		____ X .040 =	N/A	____
ATTE-B Transmitter	Standby		____ X .009 =	____	N/A
(Potter Electric Signal Co.)	Alarm		____ X .075 =	N/A	____
DC-100/DC-101 Digital Communicator	Standby		____ X .084 =	____	N/A
	Alarm		____ X .154 =	N/A	____
			TOTAL	_____	_____

BATTERY SIZE CALCULATIONS (continued)

		Quantity	*Amps*	***Standby Current (Amps)***	***Alarm Current (Amps)***
		TOTAL FROM PREVIOUS PAGE		_____	_____
2-Wire Smoke Detectors					
Catalog Number		Quantity	X Current =		
_____		_____	X _____ =	____	N/A
_____		_____	X _____ =	____	N/A
_____		_____	X _____ =	____	N/A
4-Wire Smoke Detectors					
Catalog Number		Quantity	X Current =		
_____	Standby	_____	X _____ =	____	N/A
	Alarm	_____	X _____ =	N/A	____
_____	Standby	_____	X _____ =	____	N/A
	Alarm	_____	X _____ =	N/A	____
_____	Standby	_____	X _____ =	____	N/A
	Alarm	_____	X _____ =	N/A	____
_____	Standby	_____	X _____ =	____	N/A
	Alarm	_____	X _____ =	N/A	____
End of Line Relay		Quantity	X Current =		
_____		_____	X _____ = ____	____	
Indicating Appliances					
Catalog Number		Quantity	X Current =		
_____		_____	X _____ = N/A	____	
_____		_____	X _____ = N/A	____	
_____		_____	X _____ = N/A	____	
_____		_____	X _____ = N/A	____	
Other		Quantity	X Current =		
_____		_____	X _____ = ____	N/A	
_____		_____	X _____ = N/A	____	
_____		_____	X _____ = ____	N/A	
_____		_____	X _____ = N/A	____	
	TOTAL STANDBY CURRENT			_____	**N/A**
	TOTAL ALARM CURRENT			**N/A**	_____

BATTERY SIZE CALCULATIONS (continued)

TOTAL STANDBY CURRENT[4]	OURS OF STANDBY REQUIRED PER NFPA STANDARD (24 OR 60)	A.H FOR STANDBY
_____ Amps	X _____ Hours =	_____
TOTAL ALARM CURRENT[5]	MINUTES OF ALARM REQUIRED PER NFPA STANDARD[1] (5 or 15)	A.H. FOR ALARM
ALARM_____ Amps	X___ Minutes - 60 x 4 =	_____

_____A.H. FOR STANDBY	+	_____A.H. FOR ALARM =	REQUIRED BATTERY CAPACITY[2,3] _____A.H.

NOTE 1: An additional multiplier is included to compensate for the higher discharge rate in alarm.

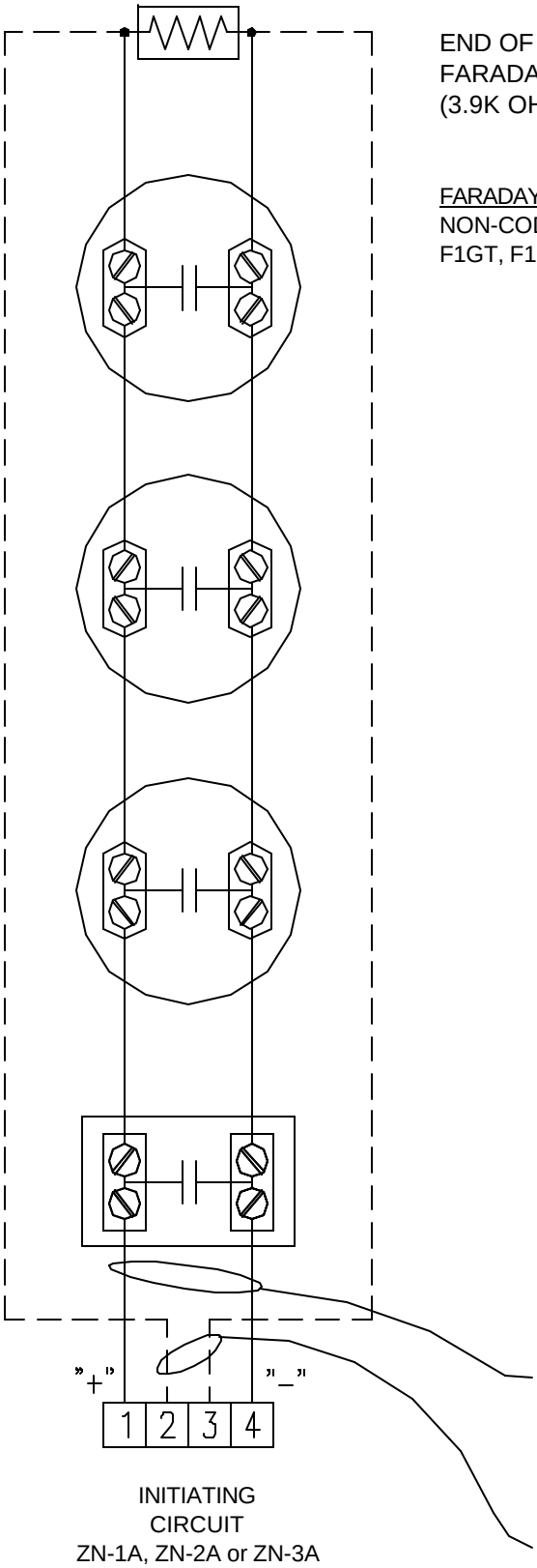
NOTE 2: Battery capacity decreases with age, a four year old battery can lose up to 50% of it's capacity. Compensations should be made to allow for this loss.

NOTE 3: The minimum battery size used must be 17 A.H. and the maximum battery size is 76 A.H. per battery charger.

NOTE 4: Total standby current can not exceed: 3.1 amps for 24 hours of standby
1.2 amps for 60 hours of standby
Total standby current must be at least: .147A for 24 hours of standby
.177A for 60 hours of standby

NOTE 5: Total alarm current can not exceed 30 Amps.

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
HEAT DETECTORS AND PULL STATIONS



END OF LINE RESISTOR
FARADAY P/N 10808
(3.9K OHM 1/2W)

FARADAY
NON-CODE PULL STATION
F1GT, F1GGT, F1GHT

*9300-135, *9300-200,
*9301-135, *9301-200,
9341, 9342, 9343,
9344, 9345, 9346,
9347, 9348,
PM2872-136, PM2872-190,
PM2872F-136, PM2872F-190

HEAT DETECTORS

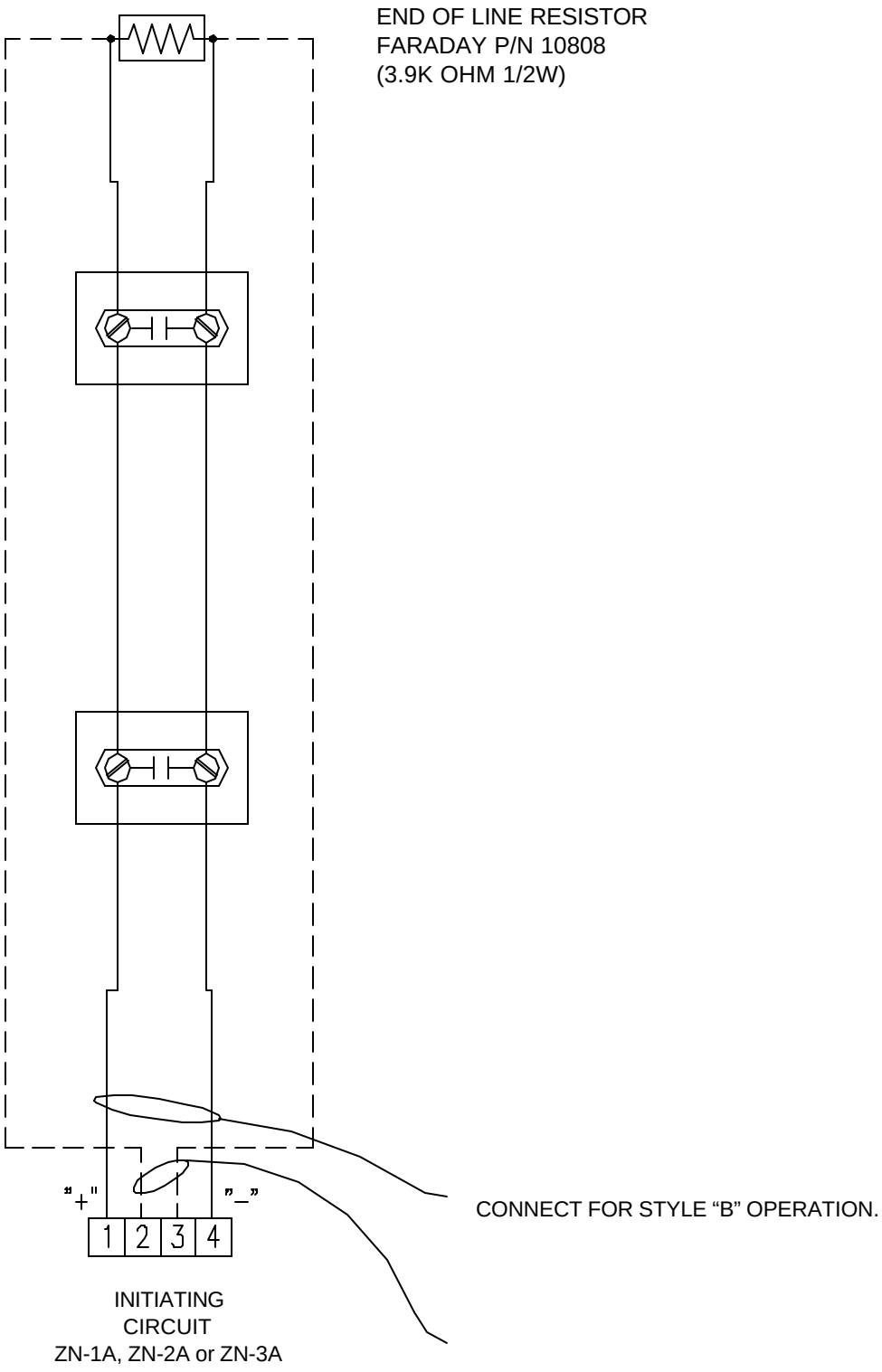
CHEMETRON CAT. NO.
*A-135, *A-200,
*AT-135, *AT-200,
*601, *602,
*603, *604,
*621, *622
*623, *624,

CONNECT FOR STYLE “B” OPERATION.

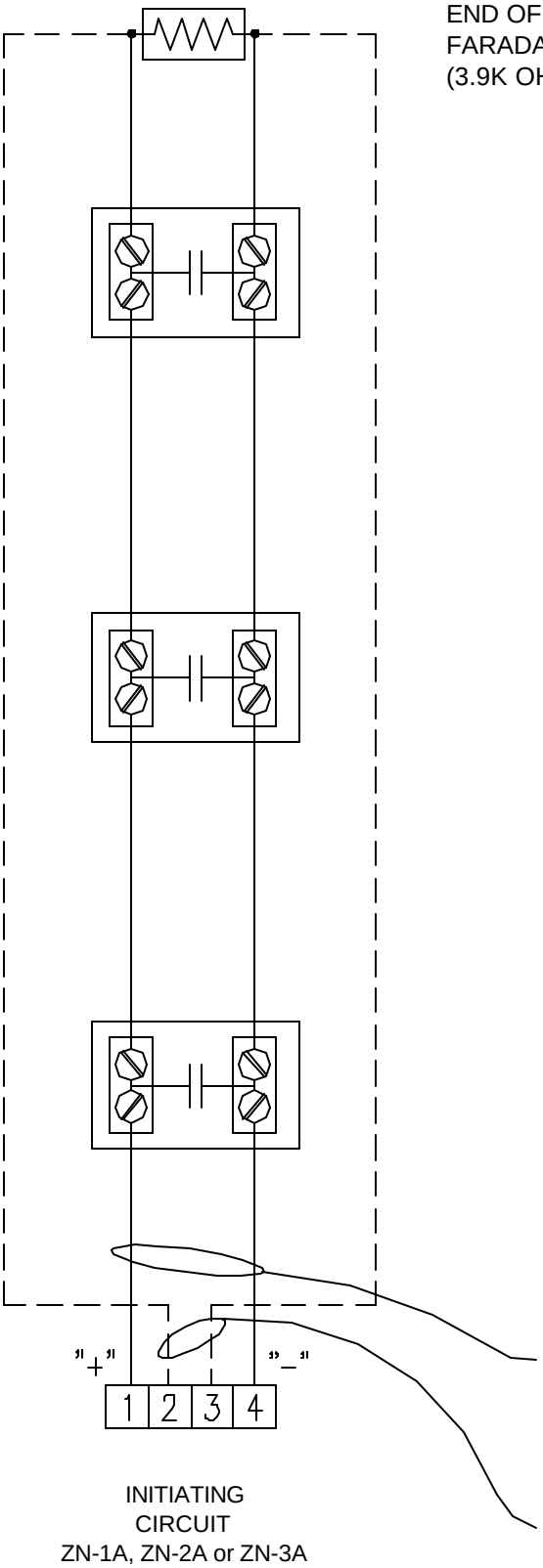
INITIATING
CIRCUIT
ZN-1A, ZN-2A or ZN-3A

OPERATION

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
GATE VALVE (SUPERVISORY / TAMPER) SWITCHES



TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
WATERFLOW SWITCHES



U.L. COMPATIBLE CONVENTIONAL 2-WIRE (ZONE POWERED) SMOKE DETECTORS FOR THE ZN-1A, ZN-2A & ZN-3A ZONE MODULES (ZONE IDENTIFIER "D")

This list of 2-wire smoke detectors has been approved by U.L. for use with the MPC-2000 fire alarm panel. To insure proper operation, no other types of 2-wire smoke detectors should be used.

Faraday P/N Detector w/Base	Mfg. Detector w/Base	Number of Detectors Per Circuit	Maximum Standby Current	Detector Identifier	Base Identifier
	Air Products & Controls				
9267	RW-2W-N	0-30	0.081mA	RW-2W-N	45681-200
9268	RW-2W-P	0-25	0.110mA	RW-2W-P	45681-200
	Apollo Fire Detectors Limited				
9259 w/9267	55000-150 w/45681-200	0-30	0.057mA	55000-150	45681-200
9259 w/9262	55000-150 w/45681-220	0-30	0.057mA	55000-150	45681-220
9259 w/9266	55000-150 w/45681-227	0-30	0.086mA	55000-150	45681-227
9259 w/9265	55000-150 w/45681-230	0-30	0.089mA	55000-150	45681-230
9259 w/9224	55000-150 w/45681-231	0-30	0.089mA	55000-150	45681-231
9259 w/9223	55000-150 w/45681-232	0-30	0.057mA	55000-150	45681-232
+9221 w/9267	55000-151 w/45681-200	0-30	0.057mA	55000-151	45681-200
+9221 w/9262	55000-151 w/45681-220	0-30	0.057mA	55000-151	45681-220
+9221 w/9266	55000-151 w/45681-227	0-30	0.086mA	55000-151	45681-227
9221 w/9265	55000-151 w/45681-230	0-30	0.089mA	55000-151	45681-230
9221 w/9224	55000-151 w/45681-231	0-30	0.089mA	55000-151	45681-231
9221 w/9223	55000-151 w/45681-232	0-30	0.057mA	55000-151	45681-232
+9274 w/9267	55000-152 w/45681-200	0-30	0.057mA	55000-152	45681-200
+9274 w/9262	55000-152 w/45681-220	0-30	0.057mA	55000-152	45681-220
+9274 w/9266	55000-152 w/45681-227	0-30	0.086mA	55000-152	45681-227
9274 w/9265	55000-152 w/45681-230	0-30	0.089mA	55000-152	45681-230
9274 w/9224	55000-152 w/45681-231	0-30	0.089mA	55000-152	45681-231
9274 w/9223	55000-152 w/45681-232	0-30	0.057mA	55000-152	45681-232
+9264 w/9267	55000-153 w/45681-200	0-30	0.057mA	55000-153	45681-200
+9264 w/9262	55000-153 w/45681-220	0-30	0.057mA	55000-153	45681-220
+9264 w/9266	55000-153 w/45681-227	0-30	0.086mA	55000-153	45681-227
9264 w/9265	55000-153 w/45681-230	0-30	0.089mA	55000-153	45681-230
9264 w/9224	55000-153 w/45681-231	0-30	0.089mA	55000-153	45681-231
9264 w/9223	55000-153 w/45681-232	0-30	0.057mA	55000-153	45681-232
+9261 w/9267	55000-250 w/45681-200	0-30	0.081mA	55000-250	45681-200
+9261 w/9262	55000-250 w/45681-220	0-30	0.081mA	55000-250	45681-220
+9261 w/9266	55000-250 w/45681-227	0-30	0.092mA	55000-250	45681-227
9261 w/9265	55000-250 w/45681-230	0-30	0.100mA	55000-250	45681-230
9261 w/9224	55000-250 w/45681-231	0-30	0.100mA	55000-250	45681-231
9261 w/9223	55000-250 w/45681-232	0-30	0.081mA	55000-250	45681-232
+9260 w/9267	55000-350 w/45681-200	0-27	0.110mA	55000-350	45681-200
+9260 w/9262	55000-350 w/45681-220	0-27	0.110mA	55000-350	45681-220
+9260 w/9266	55000-350 w/45681-227	0-23	0.130mA	55000-350	45681-227
9260 w/9265	55000-350 w/45681-230	0-23	0.130mA	55000-350	45681-230
9260 w/9224	55000-350 w/45681-231	0-23	0.130mA	55000-350	45681-231
9260 w/9223	55000-350 w/45681-232	0-27	0.110mA	55000-350	45681-232
9222 w/9267	55000-380 w/45681-200	0-16	0.185mA	55000-380	45681-200
9222 w/9262	55000-380 w/45681-220	0-16	0.185mA	55000-380	45681-220
9222 w/9266	55000-380 w/45681-227	0-14	0.205mA	55000-380	45681-227
9222 w/9265	55000-380 w/45681-230	0-14	0.205mA	55000-380	45681-230
9222 w/9224	55000-380 w/45681-231	0-14	0.205mA	55000-380	45681-231
9222 w/9223	55000-380 w/45681-232	0-16	0.185mA	55000-380	45681-232
	System Sensor, Div. of Pittway Corp.				
+9184 w/9185	1151 w/B110LP	0-25	0.120mA	A	A
+9184 w/9448	1151 w/B116LP	0-25	0.120mA	A	A
+9183 w/9185	2151 w/B110LP	0-25	0.120mA	A	A
+9183 w/9448	2151 w/B116LP	0-25	0.120mA	A	A

Faraday P/N Detector w/Base	Mfg. Detector w/Base	Number of Detectors Per Circuit	Maximum Standby Current	Detector Identifier	Base Identifier
+9374	1400	0-25	0.120mA	A	---
	System Sensor, Div. of Pittway Corp. (Cont'd)				
+9375	2400	0-25	0.120mA	A	---
+9376	2400TH	0-25	0.120mA	A	---
9418	1100	0-30	0.100mA	A	---
9419	2100	0-30	0.100mA	A	---
9420	2100T	0-30	0.100mA	A	---
+9358 w/9364	1451 w/B401	0-25	0.120mA	A	A
+9358 w/9361	1451 w/B401B	0-25	0.120mA	A	A
+9358 w/9424	1451 w/B406B	0-25	0.120mA	A	A
+9359 w/9364	2451 w/B401	0-25	0.120mA	A	A
+9359 w/9361	2451 w/B401B	0-25	0.120mA	A	A
+9359 w/9424	2451 w/B406B	0-25	0.120mA	A	A
+9360 w/9364	2451TH w/B401	0-25	0.120mA	A	A
+9360 w/9361	2451TH w/B401B	0-25	0.120mA	A	A
+9360 w/9424	2451TH w/B406B	0-25	0.120mA	A	A
+9447 w/9364	5451 w/B401	0-25	0.120mA	A	A
+9447 w/9361	5451 w/B401B	0-25	0.120mA	A	A
9447 w/9424	5451 w/B406B	0-25	0.120mA	A	A
+9421 w/9364	4451HT w/B401	0-25	0.120mA	A	A
+9421 w/9361	4451HT w/B401B	0-25	0.120mA	A	A
9421 w/9424	4451HT w/B406B	0-25	0.120mA	A	A
+9176	DH400I (1451DH w/DH400)	0-25	0.120mA	A	A
+9177	DH400P (2451 w/DH400)	0-25	0.120mA	A	A
	Faraday				
8854 w/8853	8854 w/8853	0-27	0.110mA	8854	8853
8842 w/8853	8842 w/8853	0-27	0.110mA	8842	8853
8843 w/8853	8843 w/8853	0-27	0.110mA	8843	8853
8854 w/8840	8854 w/8840	0-27	0.110mA	8854	8840
8854 w/8853 & 8845 or 8849	8854 w/8853 & 8845 or 8849	0-27	0.110mA	8854	8853
8842 w/8853 & 8845 or 8849	8842 w/8853 & 8845 or 8849	0-27	0.110mA	8842	8853
8843 w/8853 & 8845 or 8849	8843 w/8853 & 8845 or 8849	0-27	0.110mA	8843	8853
8854 w/8840 & 8845 or 8849	8854 w/8840 & 8845 or 8849	0-27	0.110mA	8854	8840
8854 w/8853 & 8844 or 8848	8854 w/8853 & 8844 or 8848	0-13	0.220mA	8854	8853
8842 w/8853 & 8844 or 8848	8842 w/8853 & 8844 or 8848	0-13	0.220mA	8842	8853
8843 w/8853 & 8844 or 8848	8843 w/8853 & 8844 or 8848	0-13	0.220mA	8843	8853
8854 w/8840 & 8844 or 8848	8854 w/8840 & 8844 or 8848	0-13	0.220mA	8854	8840

NOTES:

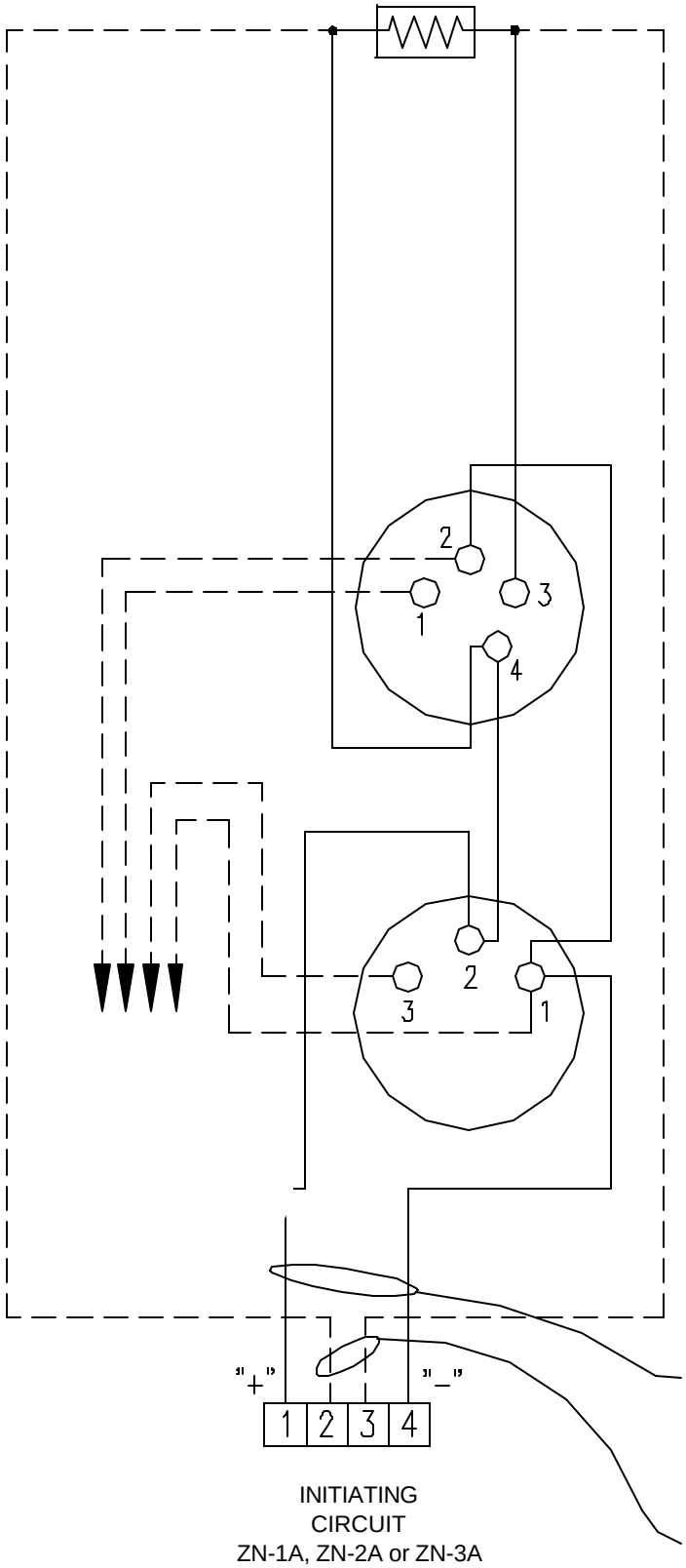
1.) These detector modules may be mixed and matched as long as total maximum standby current does not exceed 3.0 mA per zone. The total number of detectors on an initiating circuit should not exceed 30.

2.) The control unit is not intended to handle more than one 2-wire detector in alarm, per zone.

3.) The activation of a manual pull station or any other contact device will prevent any 2-wire detector on the same zone from remaining activated or from activating.

4.) For specific wiring and installation information read the instructions provided with each device.

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
SYSTEM SENSOR TWO WIRE (ZONE POWERED)
SMOKE DETECTORS



END OF LINE RESISTOR
FARADAY P/N 10808
(3.9K OHM 1/2W)

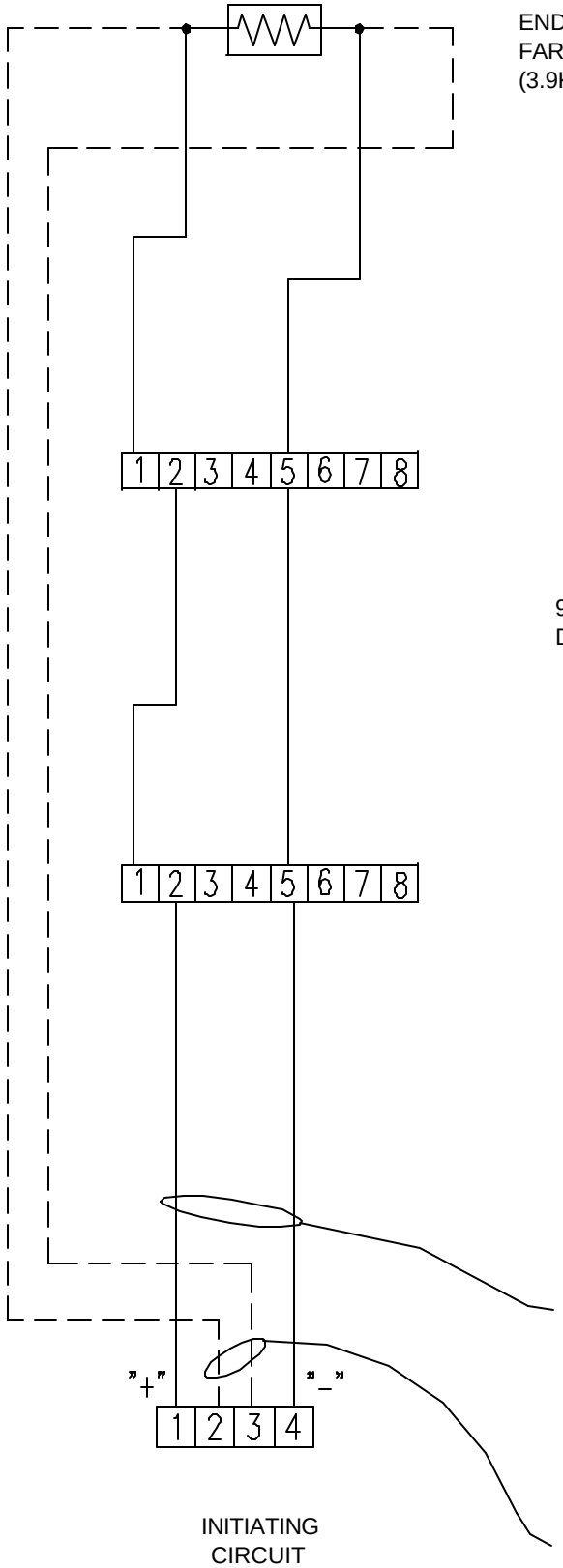
	_____ CAT. NO.
9361 BASE WITH 9358, 9359 OR 6360 DETECTOR	B401B BASE WITH 1451, 2451 OR 2451TH DETECTOR

	_____ CAT. NO.
9374, 9375 OR 9376 DETECTOR	1400, 2400 OR 2400TH DETECTOR

CONNECT FOR STYLE “B” OPERATION.

INITIATING
CIRCUIT
ZN-1A, ZN-2A or ZN-3A

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
SYSTEM SENSOR TWO WIRE (ZONE POWERED)
DUCT DETECTORS



END OF LINE RESISTOR
FARADAY P/N 10808
(3.9K OHM 1/2W)

	_____ CAT. NO.
9176 OR 9177 DUCT DETECTOR	DH400I OR DH400P DUCT DETECTOR

CONNECT FOR STYLE "B" OPERATION.

INITIATING
CIRCUIT
ZN-1A, ZN-2A or ZN-3A

OPERATION

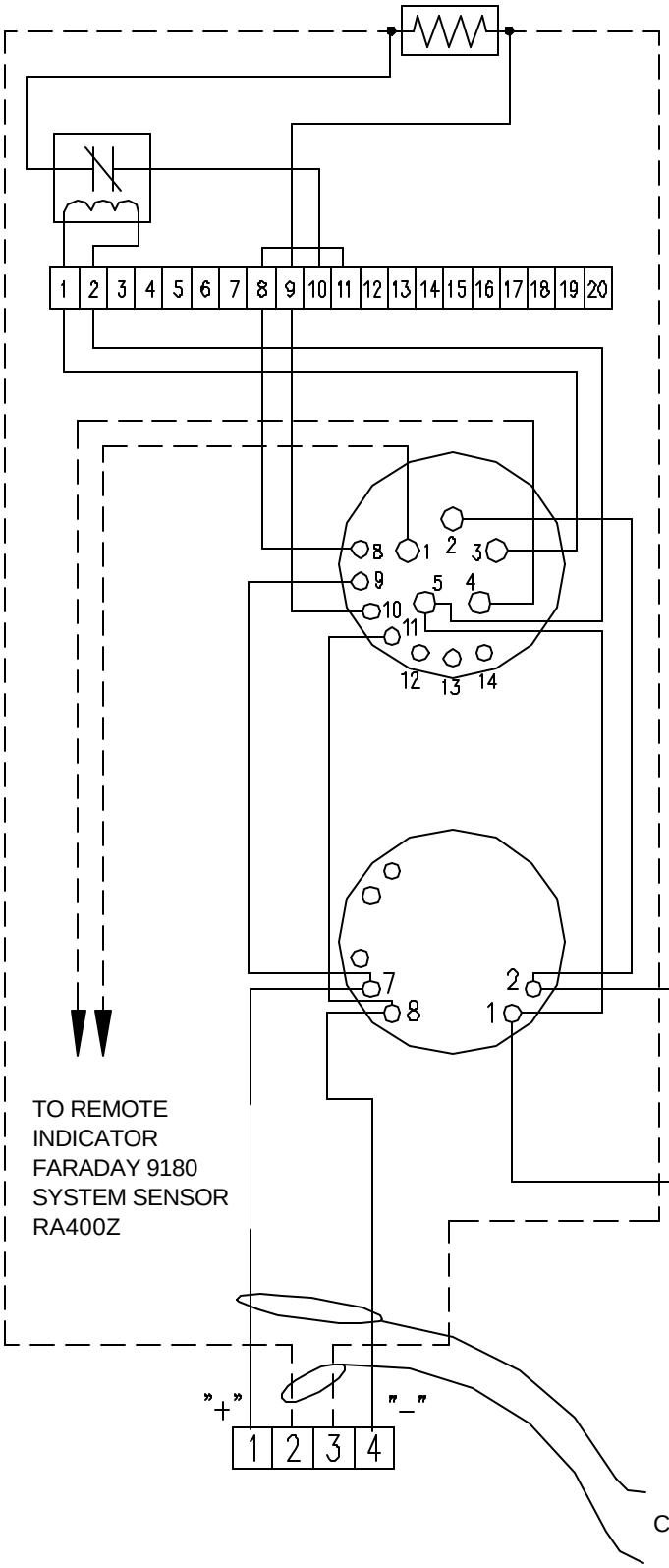
U.L. COMPATIBLE CONVENTIONAL 4-WIRE (SEPARATELY POWERED) SMOKE DETECTORS FOR THE ZN-1A, ZN-2A & ZN-3A ZONE MODULES (ZONE IDENTIFIER "D")

Faraday Detector w/Base	Mfg Detector w/Base	Maximum Standby Current	Maximum Alarm Current	Notes
	Air Products & Controls			
9269	RW-DC-N	0.081mA	115mA	Must use EOL Relay
9270	RW-DC-P	0.110mA	115mA	Must use EOL Relay
	Apollo Fire Detectors Limited			
9259 w/9266	55000-150 w/45681-227	0.073mA	100mA	Must use EOL Relay
9221 w/9266	55000-151 w/45681-227	0.073mA	100mA	Must use EOL Relay
+9274 w/9266	55000-152 w/45681-227	0.073mA	100mA	Must use EOL Relay
+9264 w/9266	55000-153 w/45681-227	0.073mA	100mA	Must use EOL Relay
+9261 w/9266	55000-250 w/45681-227	0.060mA	100mA	Must use EOL Relay
+9260 w/9266	55000-350 w/45681-227	0.125mA	100mA	Must use EOL Relay
9222 w/9266	55000-380 w/45681-227	0.200mA	100mA	Must use EOL Relay
	System Sensor, Div. of Pittway Corp.			
+9377	1424	0.100mA	41mA	Must use EOL Relay
+9378	2424	0.120mA	41mA	Must use EOL Relay
+9379	2424TH	0.120mA	41mA	Must use EOL Relay
+9337	1112/24	0.050mA	25mA	Must use EOL Relay
+9338	2112/24	0.050mA	25mA	Must use EOL Relay
+9339	2112/24T	0.050mA	25mA	Must use EOL Relay
+9340	2112/24TSRB	15mA	45mA	Must use EOL Relay
+9358 w/9362	1451 w/B402B	0.120mA	41mA	Must use EOL Relay
+9359 w/9362	2451 w/B402B	0.120mA	41mA	Must use EOL Relay
+9360 w/9362	2451TH w/B402B	0.120mA	41mA	Must use EOL Relay
9447 w/9362	5451 w/B402B	0.120mA	41mA	Must use EOL Relay
9421 w/9362	4451HT w/B402B	0.120mA	41mA	Must use EOL Relay
+9164	DH400ACDCI	25mA	110mA	Must use 6 wires
+9165	DH400ACDCP	25mA	110mA	Must use 6 wires
+9175	6424	10mA	28.4mA	Must use EOL Relay and 6 wires

NOTE: For specific wiring and installation information read the instructions provided with each device.

\+ FM Approved

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
SYSTEM SENSOR FOUR WIRE (SEPARATELY POWERED)
24V.D.C SMOKE DETECTORS



END OF LINE RELAY
FARADAY 9423 OR
SYSTEM SENSOR A77-716-02

FARADAY CAT. NO.	SYSTEM SENSOR CAT. NO.
9164 OR 6165 DUCT DETECTOR	DH400ACDCI OR DH400ACDCP DUCT DETECTOR
FARADAY CAT. NO.	SYSTEM SENSOR CAT. NO.
9362 BASE WITH 9358, 9359 OR 6360 DETECTOR	B402B BASE WITH 1451, 2451 OR 2451TH DETECTOR
FARADAY CAT. NO.	SYSTEM SENSOR CAT. NO.
9374, 9375 OR 6376 DETECTOR	1424, 2424 OR 2424TH DETECTOR

TO REMOTE
INDICATOR
FARADAY 9180
SYSTEM SENSOR
RA400Z

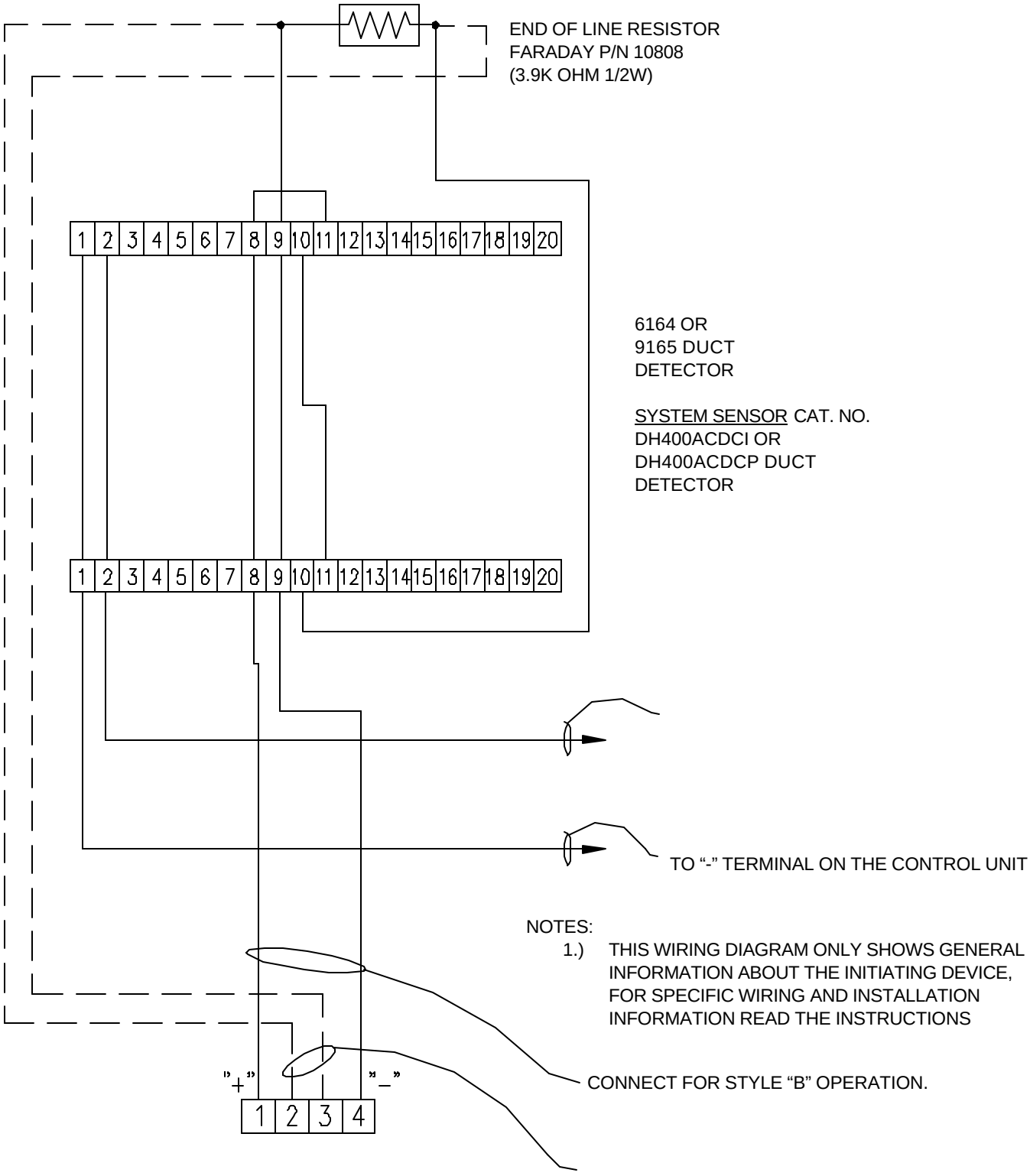
OPERATION

TO "-" TERMINAL ON THE CONTROL UNIT

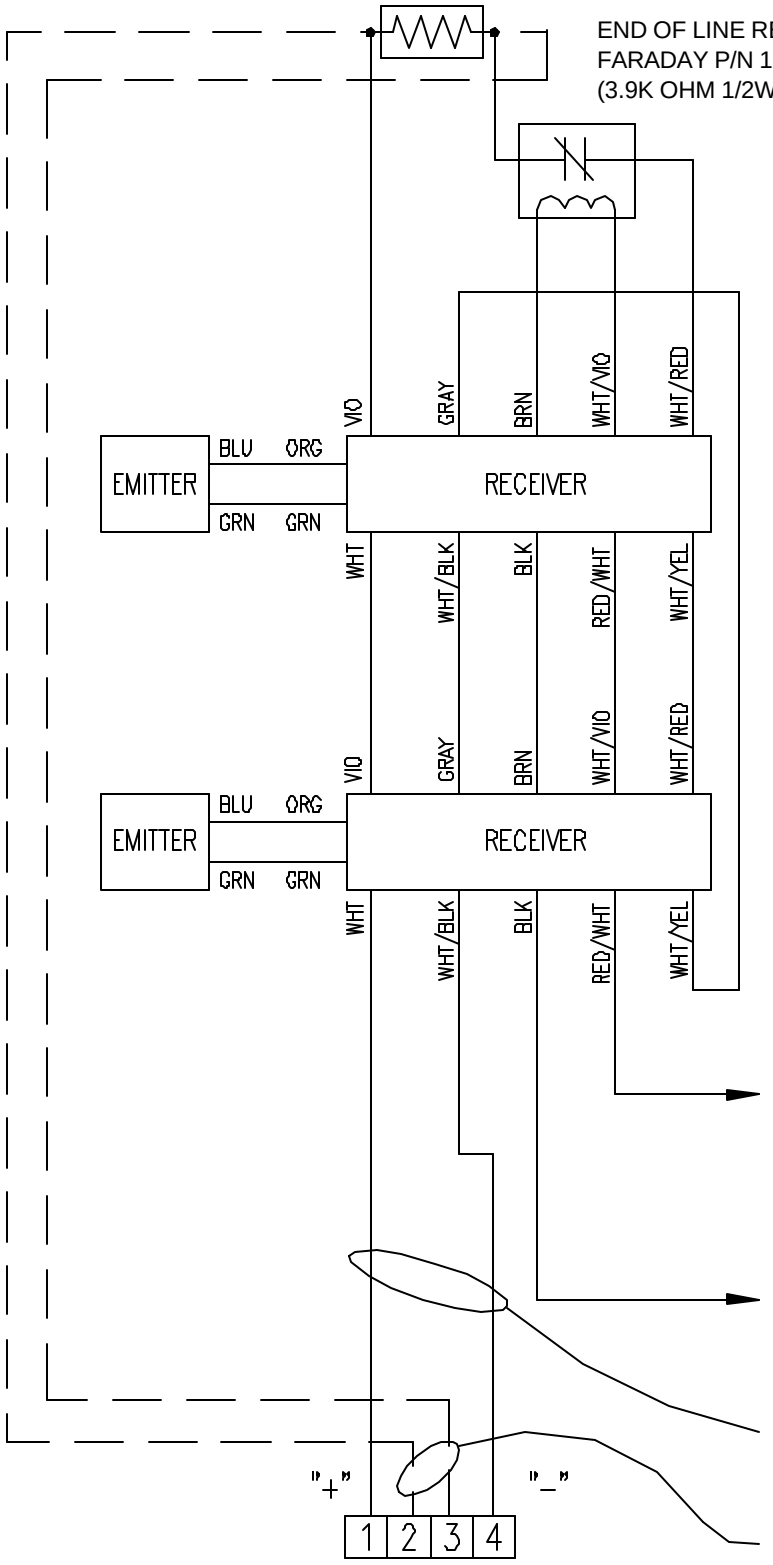
CONNECT FOR STYLE "B" OPERATION.

CONNECT IN LIEU OF END OF LINE RESISTOR
FOR STYLE "B" OR STYLE "D" (ZN-1A & ZN-3A ONLY)
OPERATION

TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
SYSTEM SENSOR TWO WIRE (SEPARATELY POWERED)
24V.D.C. DUCT DETECTORS



TYPICAL CONVENTIONAL INITIATING DEVICE WIRING DIAGRAM
SYSTEM SENSOR TWO WIRE (SEPARATELY POWERED)
24V.D.C. PROJECTED BEAM SMOKE DETECTORS



FARADAY CAT. NO.
6175 SMOKE DETECTOR

SYSTEM SENSOR CAT. NO.
6264 SMOKE DETECTOR

NOTES:

1.) THIS WIRING DIAGRAM ONLY SHOWS GENERAL INFORMATION ABOUT THE INITIATING DEVICE, FOR SPECIFIC WIRING AND INSTALLATION INFORMATION READ THE INSTRUCTIONS PROVIDED WITH EACH DEVICE.

TO "-" TERMINAL ON THE CONTROL UNIT

CONNECT IN LIEU OF END OF LINE RESISTOR FOR STYLE "B" OR STYLE "D" (ZN-1A & ZN-3A ONLY) OPERATION

AM-1 ADDRESSABLE/ANALOG LOOP CIRCUIT

The AM-1 Addressable/Analog Module communicates with Addressable/Analog Sensors, Monitor Modules and Control Modules through the Addressable/Analog Loop. The AM-1 communicates every few seconds with up to 99 sensors and 99 modules on the loop, identifying exactly which device is in alarm or trouble. In addition, the AM-1 can measure analog sensitivity and also determine the type of sensor (ie. ionization, photoelectric or thermal) on the Addressable/Analog Loop. The AM-1 automatically tests and verifies the connected sensors daily. A "TstTr" (Test Trouble) will be displayed if a sensor has fallen out of calibration and needs service. The AM-1 functions as an interface between the MPC-2000 Control Panel and the Addressable/Analog Loop circuit. The MPC-2000 Control Panel can support up to 8 Addressable/Analog Modules (AM-1).

The Sensors communicate through the Addressable/Analog Loop to the AM-1 Module.

The Monitor Modules allow the AM-1 to supervise circuits of normally open contacts: pull stations, waterflow switches, etc. Conventional four wire smoke detectors can be monitored through their alarm contacts wired as an initiating loop to the Monitor Module.

The Isolator Module provides the circuitry to automatically open and thus isolate a branch or section of the Addressable/Analog Loop Circuit if a short should occur in that branch or section.

The Control Module allows the AM-1 to selectively activate indicating circuits or form C output relays. The Control Modules require an external power supply to operate horns, strobes, bells, etc.

The Sensors, Monitor Modules and Control Modules respond to an address that is selected by rotary switches on the devices. The "units" and "tens" digits are dialed in.

The Sensor and Modules are preset at the factory for address 0 0. This is a default code. If the system detects any device at address 0 0, it will indicate a fault condition. Valid addresses for Sensors are from 01 to 99. Valid addresses for Control Modules and Monitor Modules are also from 01 to 99.

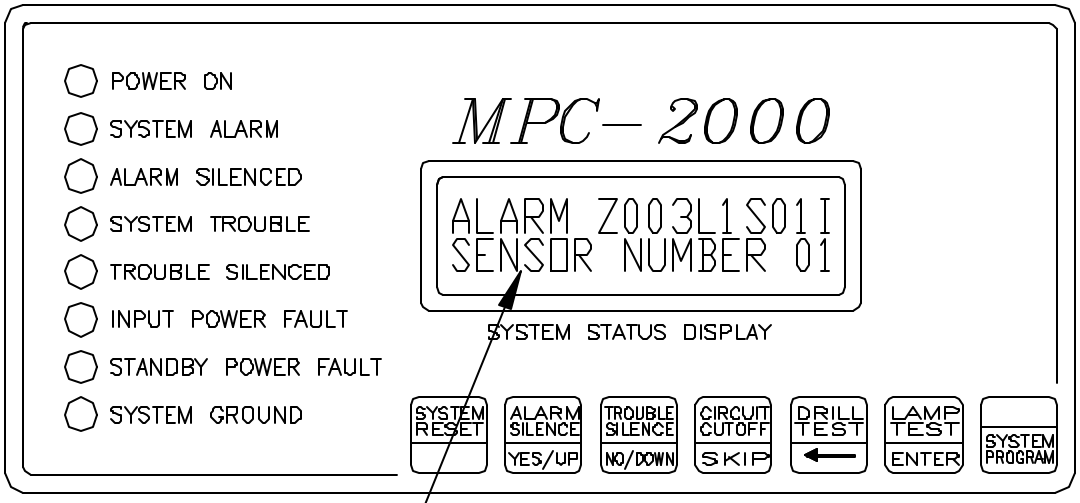
No two Sensors can have the same address and no two modules can have the same address when controlled by the same AM-1 module.
A Sensor can have the same address as a module when controlled by the same AM-1 module.
***** For Example:

Sensors 01, 02, 03, 04, ... up to 99
and
Modules 01, 02, 03, 04, ... up to 99

Normally it is recommended for Monitor Modules to use the higher address codes.

*** NOTE: Controlled by the same AM-1 module.**

SYSTEM STATUS DISPLAY
for
ADDRESSABLE / ANALOG DEVICES



Location for Custom Label

ALARM Z003L1S01I

Device Type
- I - Ionization Sensor
- P - Photoelectric Sensor
- T - Thermal Sensor
- C - Control Module
- M - Monitor Module

Device Address
- S - Sensor Address Number (01-99)
- M - Module Address Number (01-99)

Loop Number
- L - Addressable / Analog Loop (AM-1 Module 1-8)

Circuit Number
- Z - AM Zone Number (001 - 104)
- S - AM Signal Circuit Number (001 - 094)
- R - AM Relay Circuit Number (001 - 094)

Device Status
- ALARM - Alarm for a Sensor or Monitor Module
- Suprv - Supervisory Alarm for a Monitor Module
- Open - Open in Module wiring to the Load Device
- Short - Short in Module wiring to the Load Device
- Missg - Missing Sensor or Module
- Type - Type of Device installed is not as programmed
- Maint - Sensor has operated in a near Alarm condition for more than 24 hours
- TstTr - Test Trouble with Sensor out of range during Daily Test
- AddTr - Address Trouble - Two Sensors or Two Modules have the same address
- ComTr - Communication Trouble with a Sensor or Module
- Troub - Trouble with Sensor
- Verfy - Alarm Verify for a Sensor or Monitor Module
- PgrTr - Sensor or Module Installed are not programmed
- Cutof - Device Cutoff - Alarm and Trouble disabled

ADDRESSABLE/ANALOG LOOP WIRE SELECTION GUIDE

Each Addressable/Analog Loop must meet the following requirements:

1.) Total loop resistance - 40 ohm maximum.
2.) Total loop capacitance - 0.28µF. maximum (56 pf/ft. maximum).
3.) Twisted pair of wire
4.) Unshielded cable.
5.) Low capacitance cable
6.) High velocity of propagation cable - 60% minimum.
7.) Run cables of different loops separately.
8.) Run cables of the same loop. (+ out & - out from + in & - in.
9.) Different models or types of cable should not be mixed on the loop.

MAXIMUM WIRE LOOP DISTANCE (ft.)
(Includes all Branches of a Style 4 Loop)

	18 AWG	16 AWG	14 AWG	*12 AWG
WIRE LENGTH	6,150	9,750	10,000	10,000
TWISTED PAIR CABLE LENGTH	3,075	4,875	5,000	5,000

* For wire sizes larger than the terminal block will accept, spade terminals must be used.

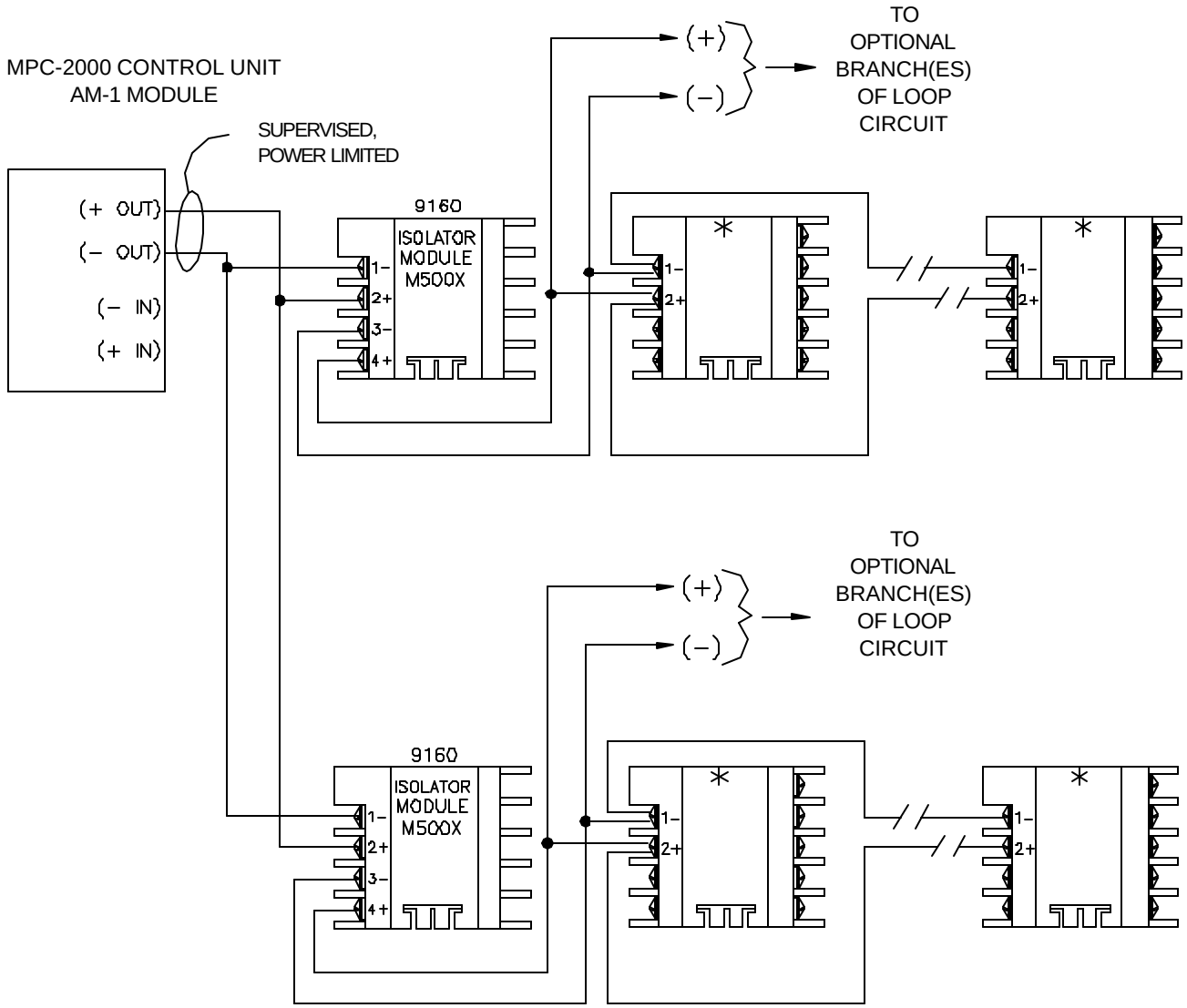
U.L. COMPATIBLE ADDRESSABLE/ANALOG DEVICES FOR THE AM-1 MODULE

This list of Addressable/Analog Devices has been approved by U.L. for use with the AM-1 Module of the MPC-2000 Fire Alarm Panel. To provide proper operation, no other types of devices may be used.

	FARADAY MODULE NO.	SYSTEM SENSOR MODEL NO.	DESCRIPTION
+	9163	1551B	IONIZATION ADDRESSABLE/ANALOG SENSOR
+	9152	2551HR	PHOTOELECTRONIC ADDRESSABLE/ANALOG SENSOR
+	9153	2551T	PHOTOELECTRONIC ADDRESSABLE/ANALOG SENSOR WITH THERMAL
	9154	5551B	THERMAL ADDRESSABLE/ANALOG SENSOR
	9182	5551R	THERMAL ADDRESSABLE/ANALOG SENSOR
+	9155	B501B	ADDRESSABLE/ANALOG SENSOR BASE FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9156	B501BH	ADDRESSABLE/ANALOG SENSOR BASE WITH INTEGRAL HORN FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9181	B501	ADDRESSABLE/ANALOG SENSOR 4” BASE FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9161	DH500AC/DC	DUCT HOUSING WITH ADDRESSABLE/ANALOG SENSOR BASE WITH AUXILIARY RELAY FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9179	DH500	DUCT HOUSING WITH ADDRESSABLE/ANALOG SENSOR BASE FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
+	9157	M500MB	ZONE MONITOR MODULE
+	9158	M501M	DEVICE MONITOR MODULE
+	9159	M500CH	CONTROL MODULE
+	9160	M500X	ISOLATOR MODULE
	9186	1251	IONIZATION ADDRESSABLE/ANALOG SENSOR, LOW PROFILE
	9187	2251	PHOTOELECTRONIC ADDRESSABLE/ANALOG SENSOR, LOW PROFILE
	8406	2251T	PHOTOELECTRONIC ADDRESSABLE/ANALOG SENSOR WITH THERMAL
	8407	5251P	THERMAL ADDRESSABLE/ANALOG SENSOR
	8408	5251RP	THERMAL ADDRESSABLE/ANALOG SENSOR
	9189	B210LP	ADDRESSABLE/ANALOG SENSOR BASE FOR 9186 OR 9187 SENSORS
	9296	B224RB	ADDRESSABLE/ANALOG SENSOR RELAY BASE FOR 9186 OR 9187 SENSORS
	9297	B524RB	ADDRESSABLE/ANALOG SENSOR RELAY BASE FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9298	B224BI	ADDRESSABLE/ANALOG SENSOR ISOLATOR BASE FOR 9186 OR 9187 SENSORS
	9299	B524BI	ADDRESSABLE/ANALOG SENSOR ISOLATOR BASE FOR 9163, 9152, 9153, 9154 OR 9182 SENSORS
	9191	M502M	TWO-WIRE (ZONE POWERED) CONVENTIONAL DETECTOR MONITOR MODULE

+ FM Approved

ADDRESSABLE / ANALOG LOOP CIRCUIT
WIRING / OPERATION COMPARABLE TO NFPA STYLE “4”

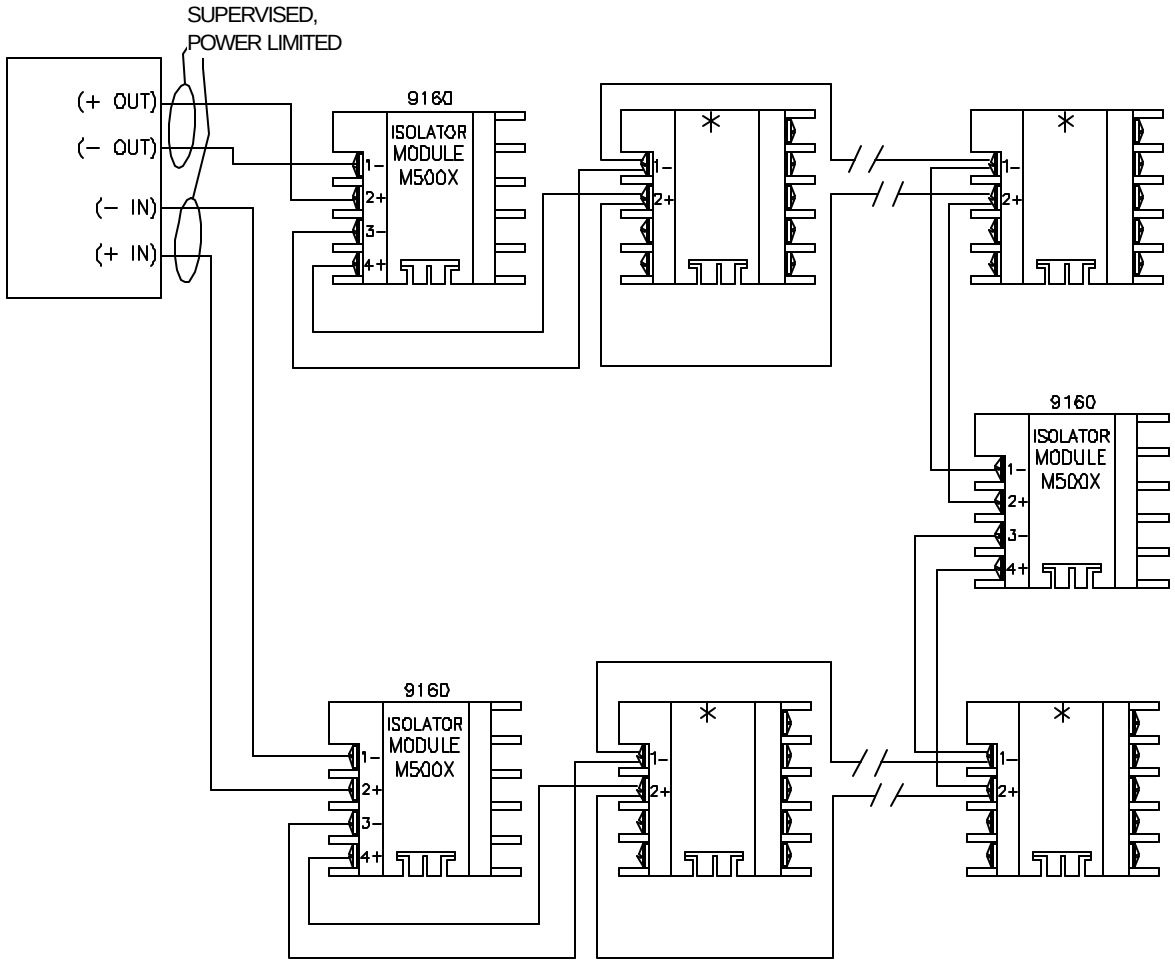


*NOTE: Any combination of Sensors,
Monitor Modules, or Control Modules
up to a maximum of 99 Sensors and 99 Modules.

Recommended maximum of 25 devices
Isolator Module

ADDRESSABLE / ANALOG LOOP CIRCUIT
WIRING / OPERATION COMPARABLE TO NFPA STYLE “6”

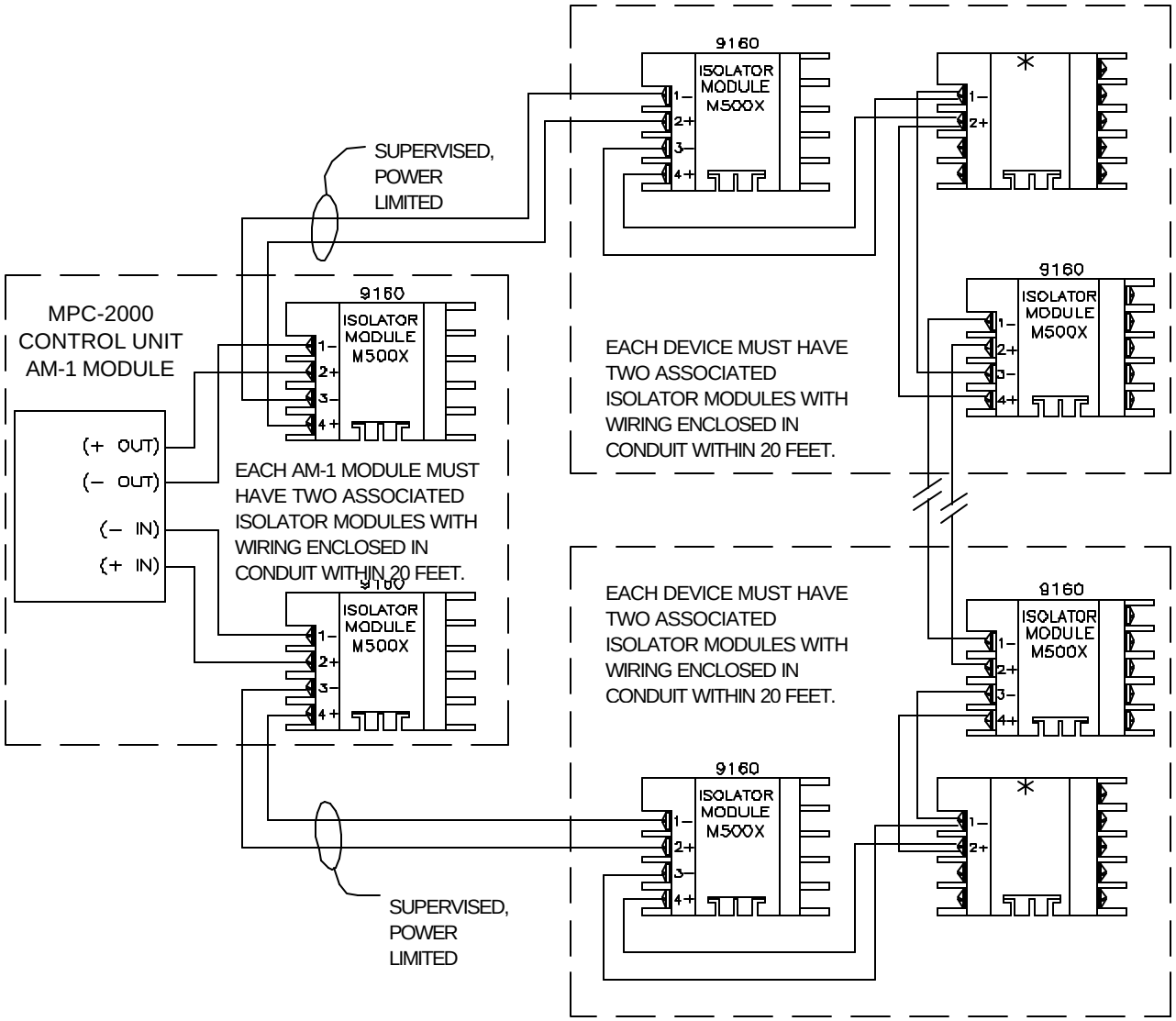
MPC-2000 CONTROL UNIT
AM-1 MODULE



*NOTE: Any combination of Sensors,
Monitor Modules, or Control Modules
up to a maximum of 99 Sensors and 99 Modules.

Recommended maximum of 25 devices
Isolator Module

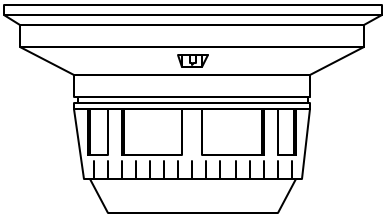
ADDRESSABLE / ANALOG LOOP CIRCUIT
WIRING / OPERATION COMPARABLE TO NFPA STYLE "7"



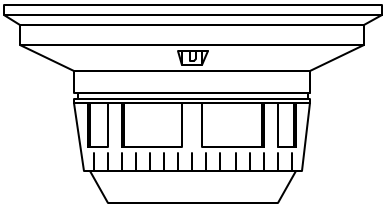
*NOTE: Any combination of Sensors,
Monitor Modules, or Control Modules
up to a maximum of 99 Sensors and 99 Modules.

Maximum 1 device between
Isolator Module

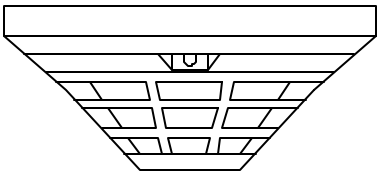
ADDRESSABLE ANALOG SENSORS (9152, 9153, 9154 AND 9163)



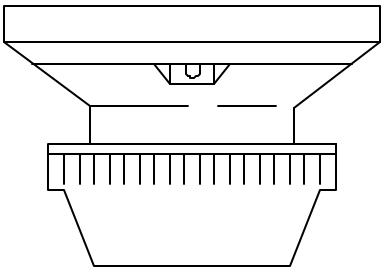
The 9152 (System Sensor 2551B) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9152 is regularly scanned by the AM-1 and checked for its current sensor status. The MPC-2000 will interpret and respond to the analog data as programmed. Each time the 9152 is scanned the integral red visible LEDs will flash. In the event of an alarm condition the red LEDs will illuminate and latch on. The 9152 has programmable analog sensitivity. Requires a 9155, 9181 or 9156 base. (System Sensor B501B, B501 or B501BH).



The 9153 (System Sensor 2551TB) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9153 is regularly scanned by the AM-1 and checked for its current sensor status. The MPC-2000 will interpret and respond to the analog data as programmed. Each time the 9153 is scanned the integral red visible LEDs will flash. In the event of an alarm condition the red LEDs will illuminate and latch on. The 9153 has programmable analog sensitivity with fixed thermal temperature of 140° F. Requires a 9155, 9181 or 9156 base. (System Sensor B501B, B501 or B501BH).



The 9154 (System Sensor 5551B) or 9182 (System Sensor 5551R) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9154 is regularly scanned by the AM-1 and checked for its current sensor status. The MPC-2000 will interpret and respond to the analog data as programmed. Each time the sensor is scanned the integral red visible LEDs will flash. In the event of an alarm condition the red LEDs will illuminate and latch on.
The 9154 has a fixed operating temperature of 140°F. The 9182 has a fixed operating temperature of 135°F with rate- of-rise detection. Requires a 9155, 9181 or 9156 base. (System Sensor B501B, B501 or B501BH).



The 9163 (System Sensor 1551B) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9163 is regularly scanned by the AM-1 and checked for its current sensor and chamber status. These status's are reported by device location to the MPC-2000 control unit. The MPC-2000 will interpret and respond to the analog data as programmed. Each time the 9163 is scanned the integral red visible LEDs will flash. In the case of an alarm condition the red LEDs will illuminate and latch on. The 9163 has programmable analog sensitivity. Requires a 9155, 9181 or 9156 base. (System Sensor B501B, B501 or B501BH).

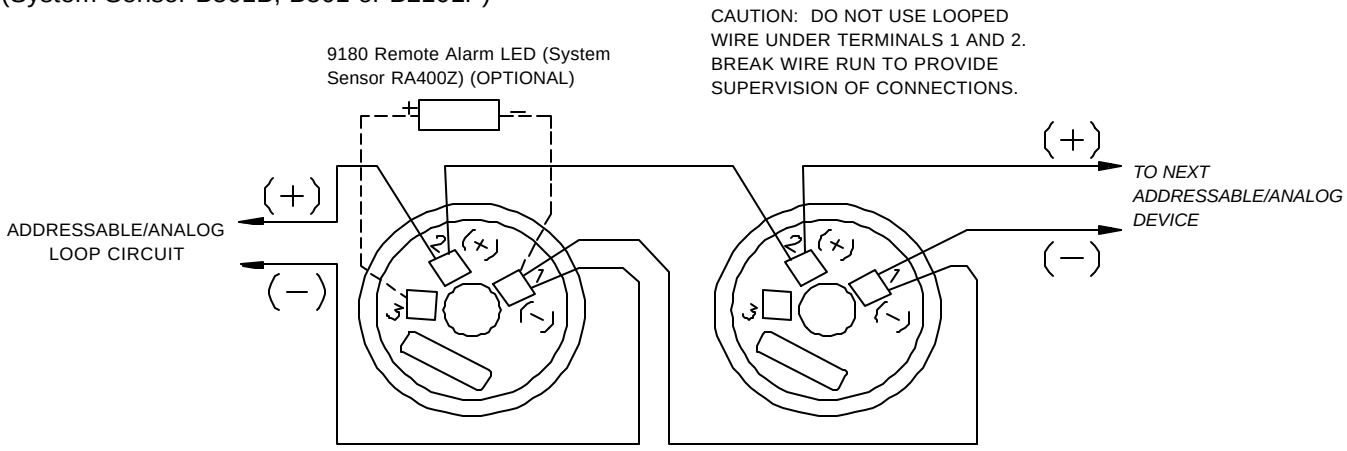
NOTE: The sensors are set at the factory for address 00.
to the predetermined address code.

9155, 9156, 9181 AND 9189 ADDRESSABLE/ANALOG BASES

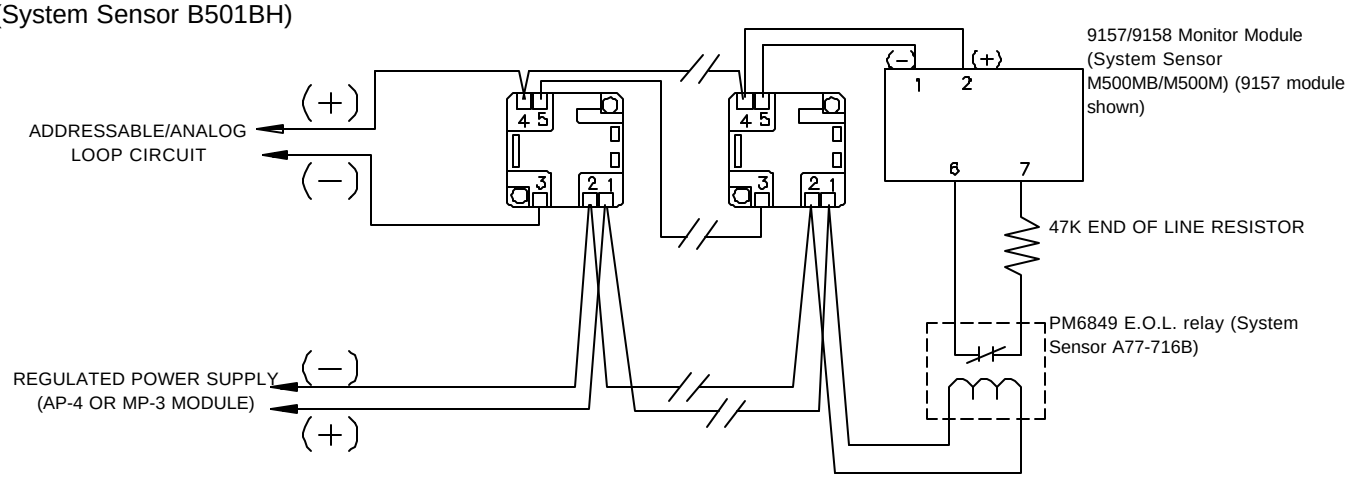
The 9155, 9181 or 9189 (System Sensor B501B, B501 or B210LP) base is a standard design for use with an addressable/analog sensor. Provides connection to an optional remote LED.

The 9156 (System Sensor B501BH) audible sensor base is designed for use with an addressable/analog sensor. The 9156 provides means to obtain a local audible alarm at the specific sensor location. Once the 9156's associated sensor has latched into the alarm state the integral horn in the 9156 will sound. It will remain on until the sensor is successfully reset. A regulated power supply is required for the integral horn.

9155, 9181 or 9189 BASE:
(System Sensor B501B, B501 or B210LP)



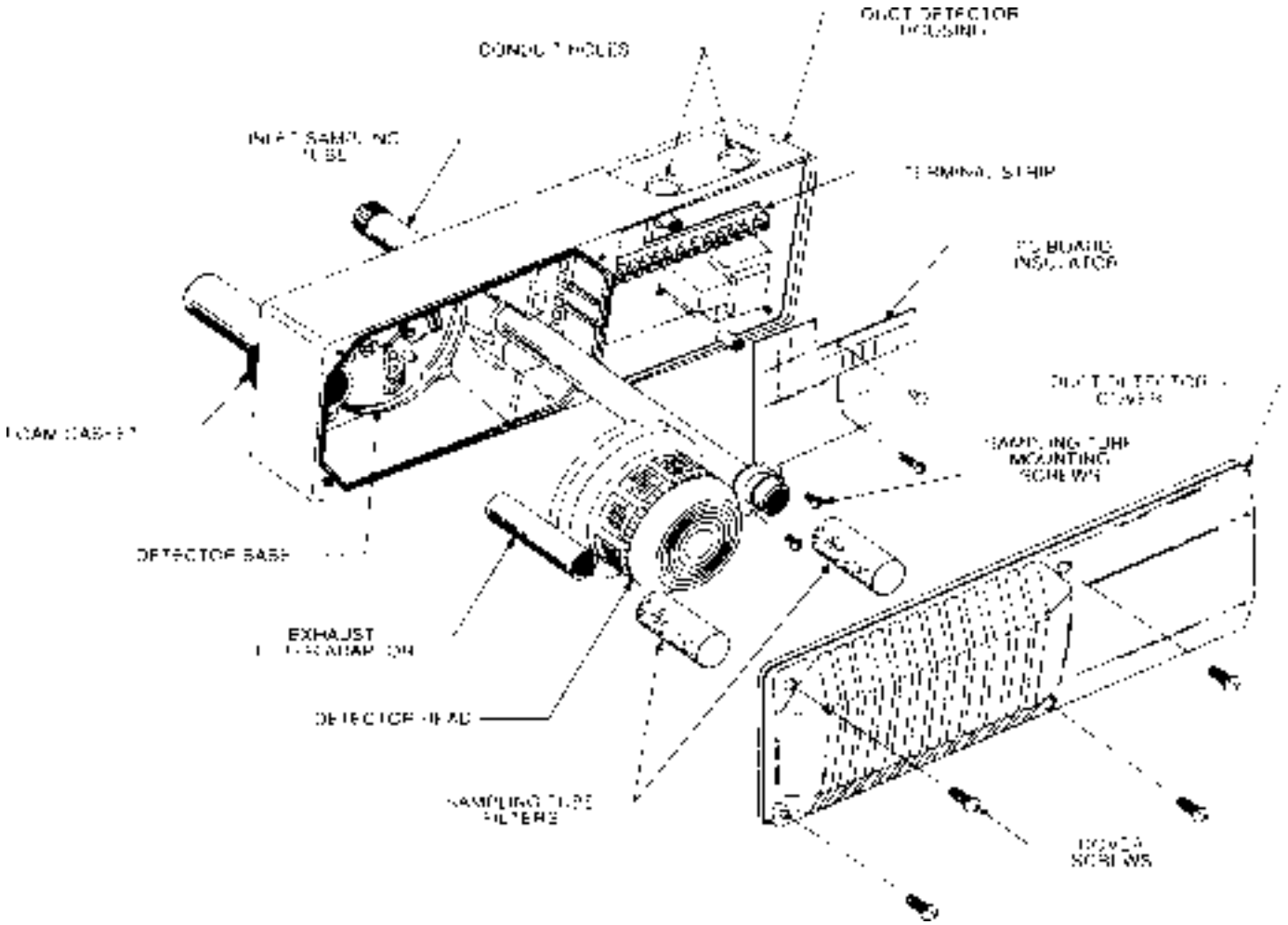
9156 BASE:
(System Sensor B501BH)



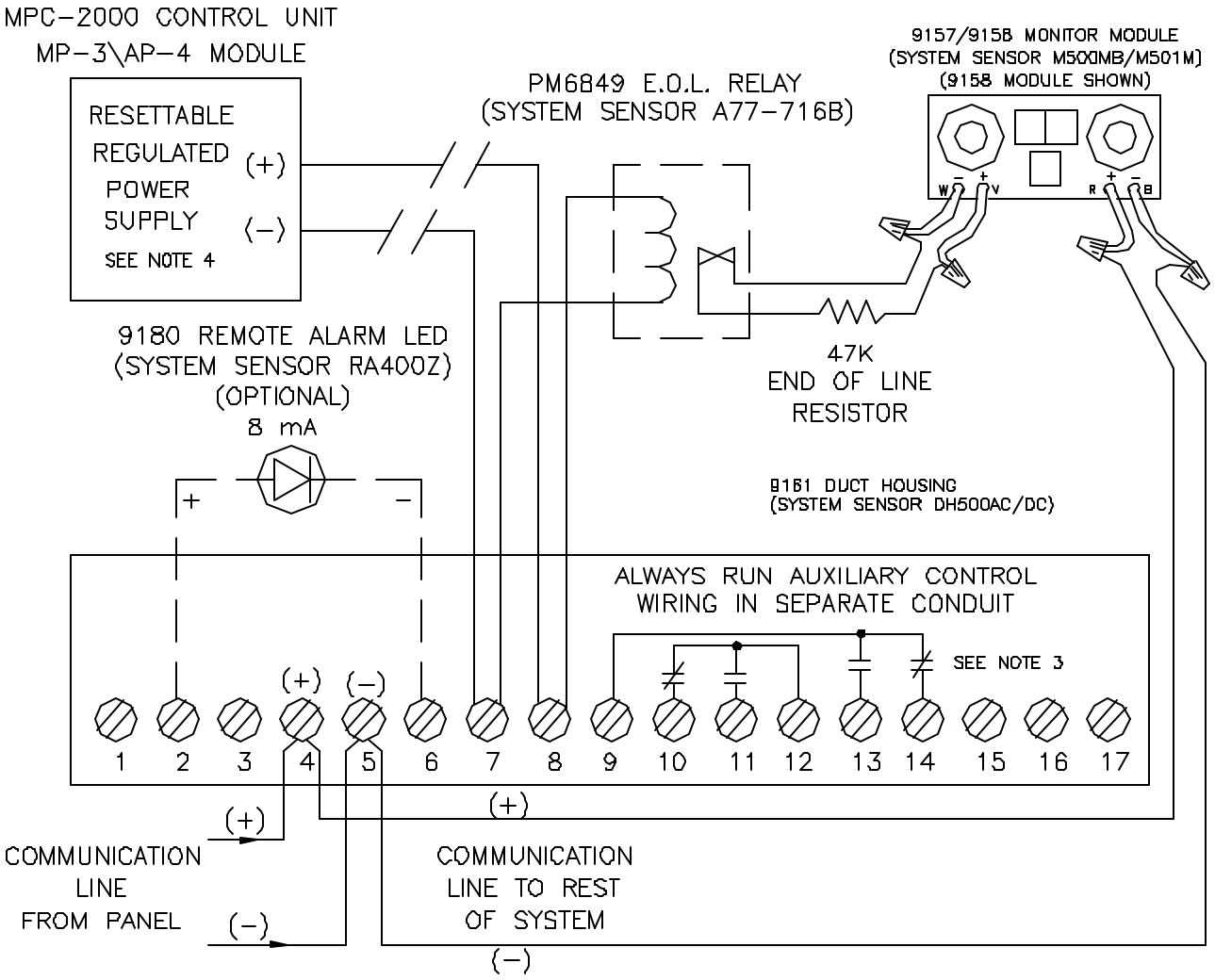
NOTE: 1.) Do not use looped wire on terminals 1, 2 & 4. Break wire run to provide supervision of connection.
2.) Wire size: In alarm, no more than 3.0V drop from power supply to end of
3.) For regulated power supply supervision use an EOL. relay with a 9157 or 9158 monitor module as shown.(Relay contact shown with power applied).

9161 DUCT HOUSING FOR ADDRESSABLE/ANALOG SENSOR

The 9161 (System Sensor DH500AC/DC) and it's associated sensor (9163 or 9152) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module loop circuit. The 9161 is built for 120VAC, 240VAC, 24VAC or 24VDC to operate auxiliary functions. Two "Form C" relay output contacts are available. The LEDs on the detector, light to provide a local alarm indication. Remote alarm indication is make possible by utilizing the 9180 remote alarm LED unit.



TYPICAL WIRING DIAGRAM FOR A 9161 DUCT HOUSING FOR ADDRESSABLE ANALOG SENSOR

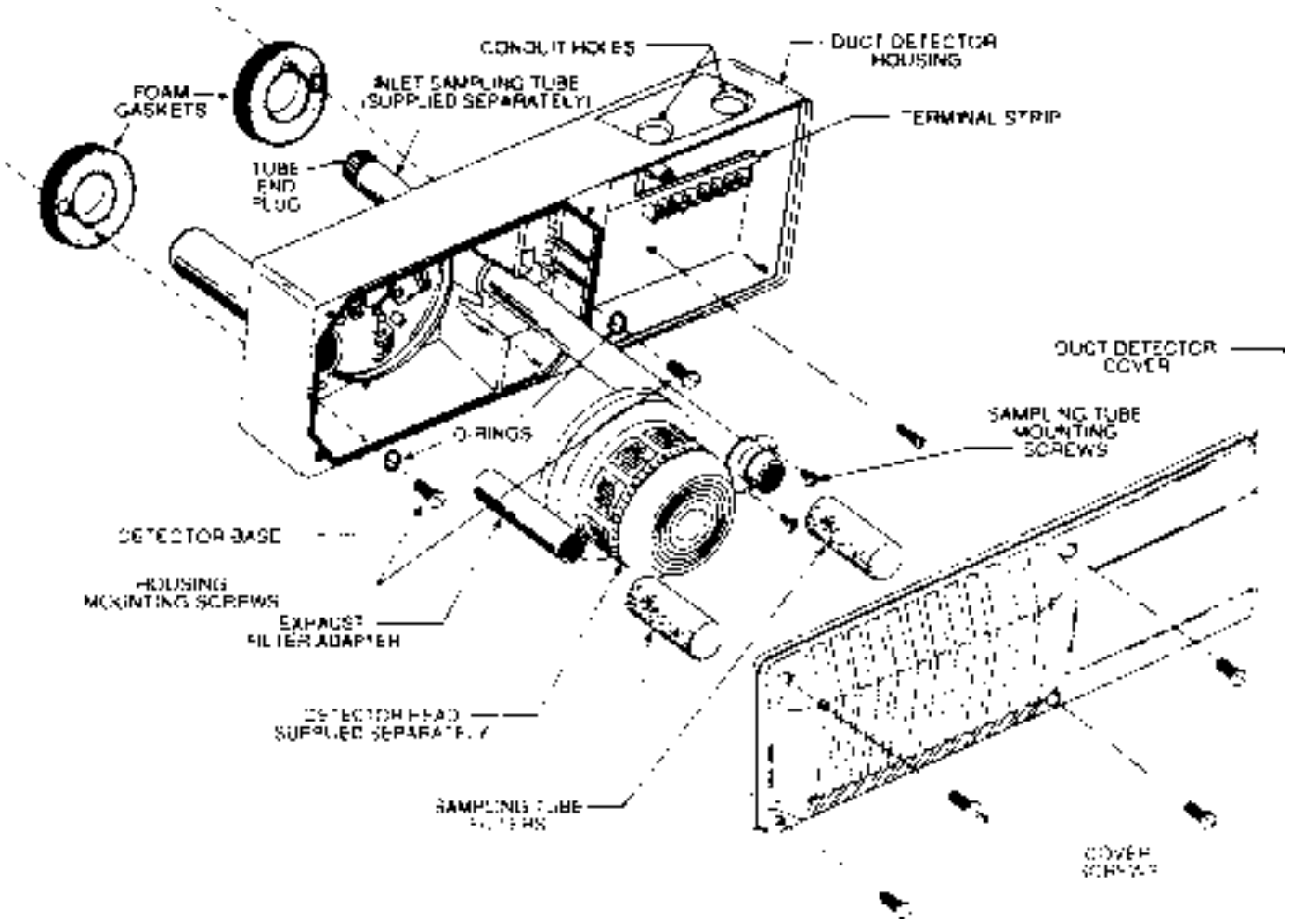


NOTES:

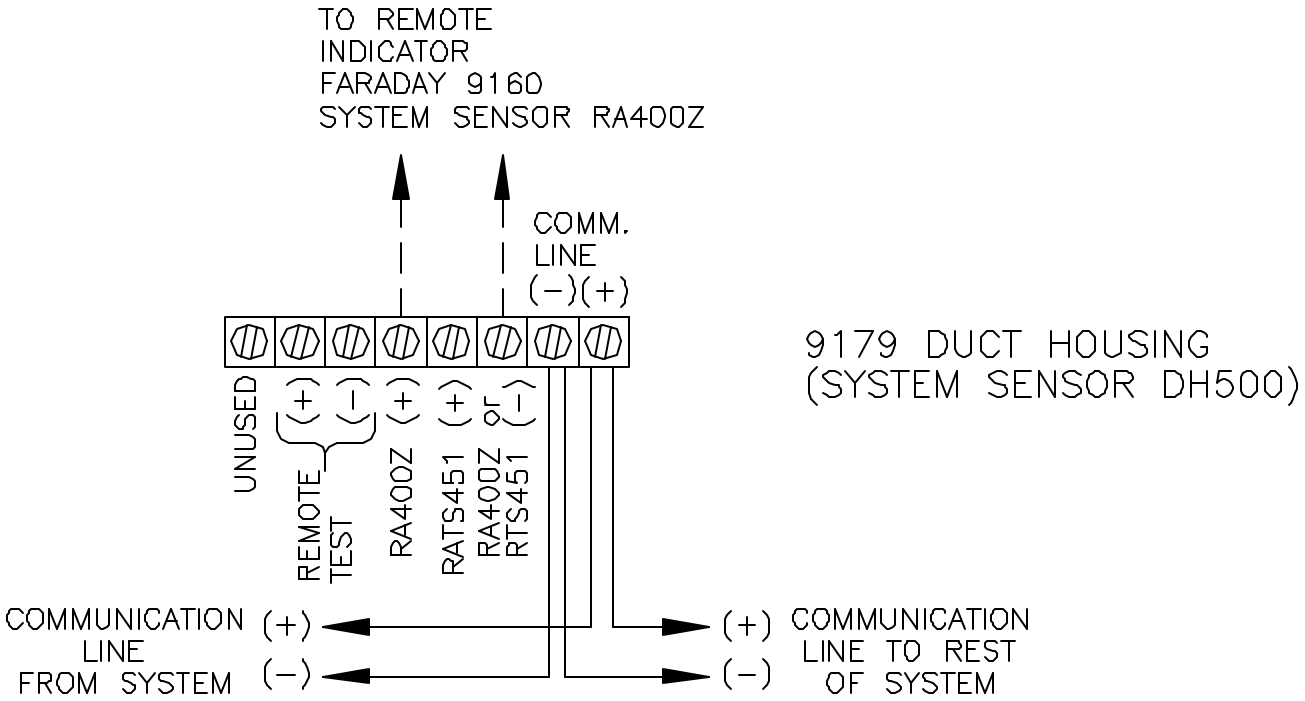
1.) This wiring diagram only shows general information about the initiating device. For specific Wiring and Installation information read the instructions provided with each device.
2.) 9180 Remote LED and Auxiliary Control contacts will not function without separate power.
3.) Relay contacts are rated at 10 Amps maximum at 30VDC, 10 Amps maximum at 277VAC, 1/2 HP at 240VAC and 360VA at 240VAC.
4.) For Power Supply supervision use EOL Relay with a 9157 or 9158 Monitor Module as shown (Relay Contact shown with power applied).

9179 DUCT HOUSING FOR ADDRESSABLE/ANALOG SENSOR

The 9179 (System Sensor DH500) and it's associated sensor (9163 or 9152) uses a sensor address between 01 and 99 on an MPC-2000 AM-1 module loop circuit. The LEDs on the detector, light to provide a local alarm indication. Remote alarm indication is make possible by utilizing the 9180 remote alarm LED unit.



TYPICAL WIRING DIAGRAM FOR A 9179 DUCT HOUSING FOR ADDRESSABLE/ANALOG SENSOR



NOTES:

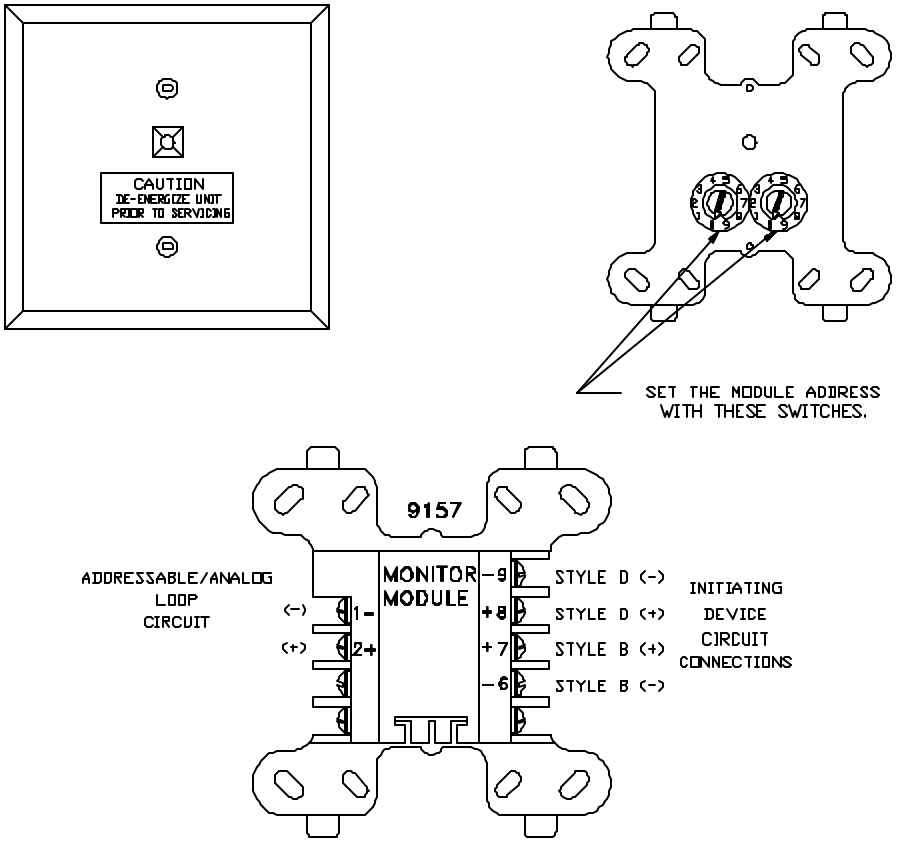
1.) This wiring diagram only shows general information about the initiating device, for specific wiring and installation information read the instructions provided with each device.

2.) The 9167 remote test station switch will not function without separate power. (See typical wiring diagram for a 9161 duct housing for wiring of separate power with supervision).

THE MONITOR MODULE (9157)

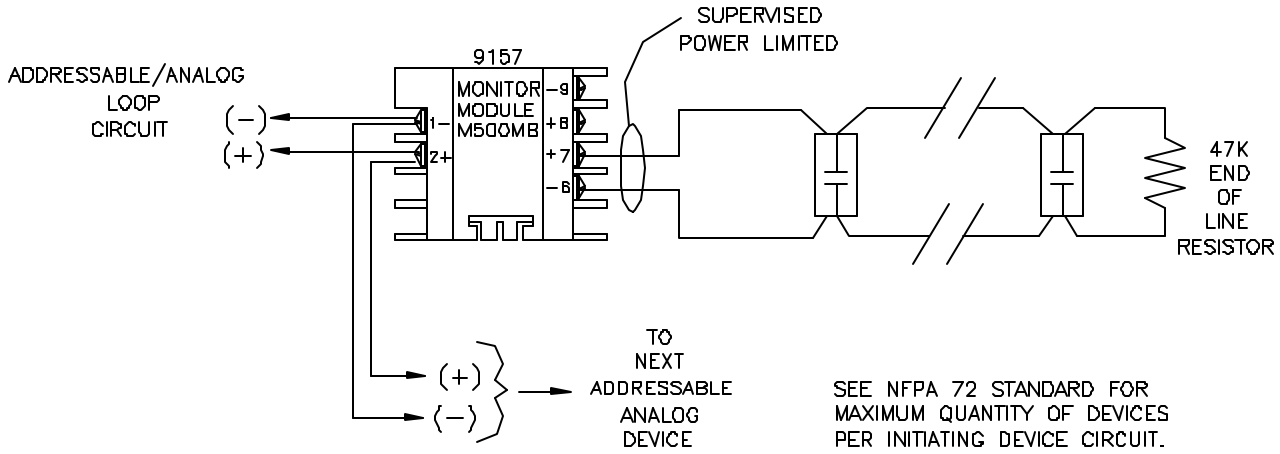
The 9157 (System Sensor M500MB) monitor module provides (1) Style "B" (2-wire) initiating circuit or (1) Style "D" (4-wire) initiating circuit for normally open dry contact fire alarm and supervisory (tamper) devices. The 9157 is designed to mount directly inside a 4" square junction box. The 9157 monitor module may be used to monitor a single unit or "zone" of units of "4-wire" (separately powered) smoke detectors, manual stations, waterflow switches, tamper (supervisory) switches or other dry, normally open contact initiation devices.

The 9157 uses a module address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9157 module is regularly scanned by the AM-1 and checked for its current monitored device(s) status (ie. open (trouble), normal (EOL), shorted (alarm)). Each time the 9157 is scanned the front visible red LED will flash. Once the AM-1 has received the status data the MPC-2000 will interpret and respond to this data as programmed. In the case of an alarm status or Style "D" open circuit, the front visible red LED will illuminate and latch on the appropriate 9157 module(s) until the system is successfully reset.



NOTE: The module is set at the factory for address 00. This is a default code. During installation set address to the predetermined unique address code between 01 and 99.

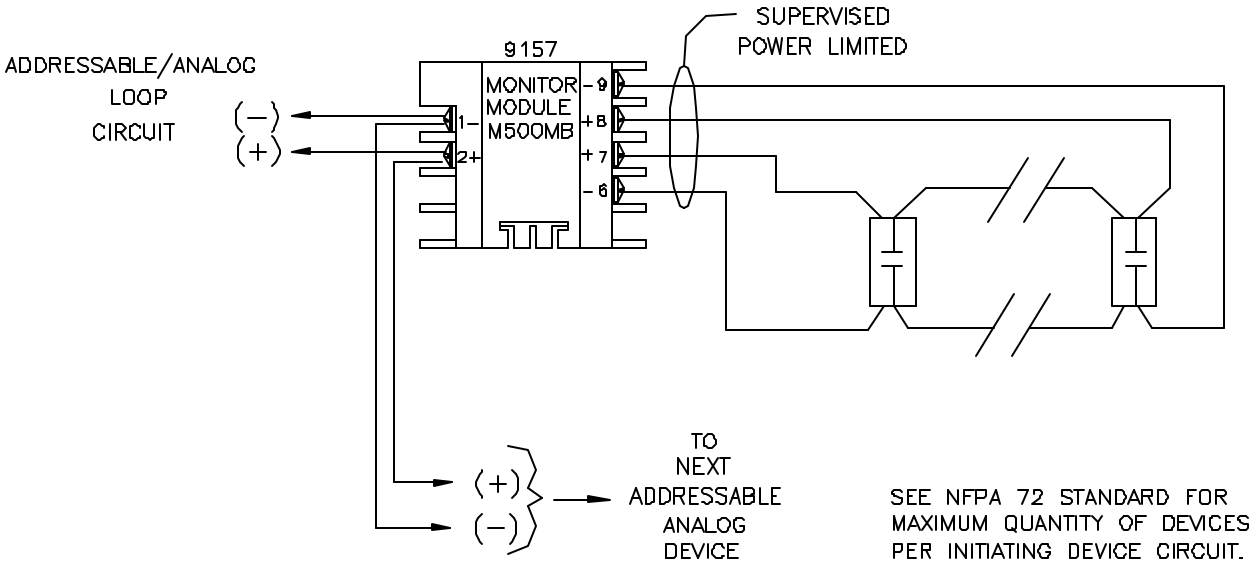
CONFIGURATION OF 9157 MONITOR MODULE
TYPICAL CONVENTIONAL STYLE "B" ("2-WIRE")
CONTACT DEVICE INITIATING CIRCUIT



NOTES

1.) Terminals 6 & 7 current limited to 230 A max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Length 2500 Ft.
   Max. Resistance 20 Ohms
4.) Do not put "2-Wire" (Zone Powered) Smoke Detectors on Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.

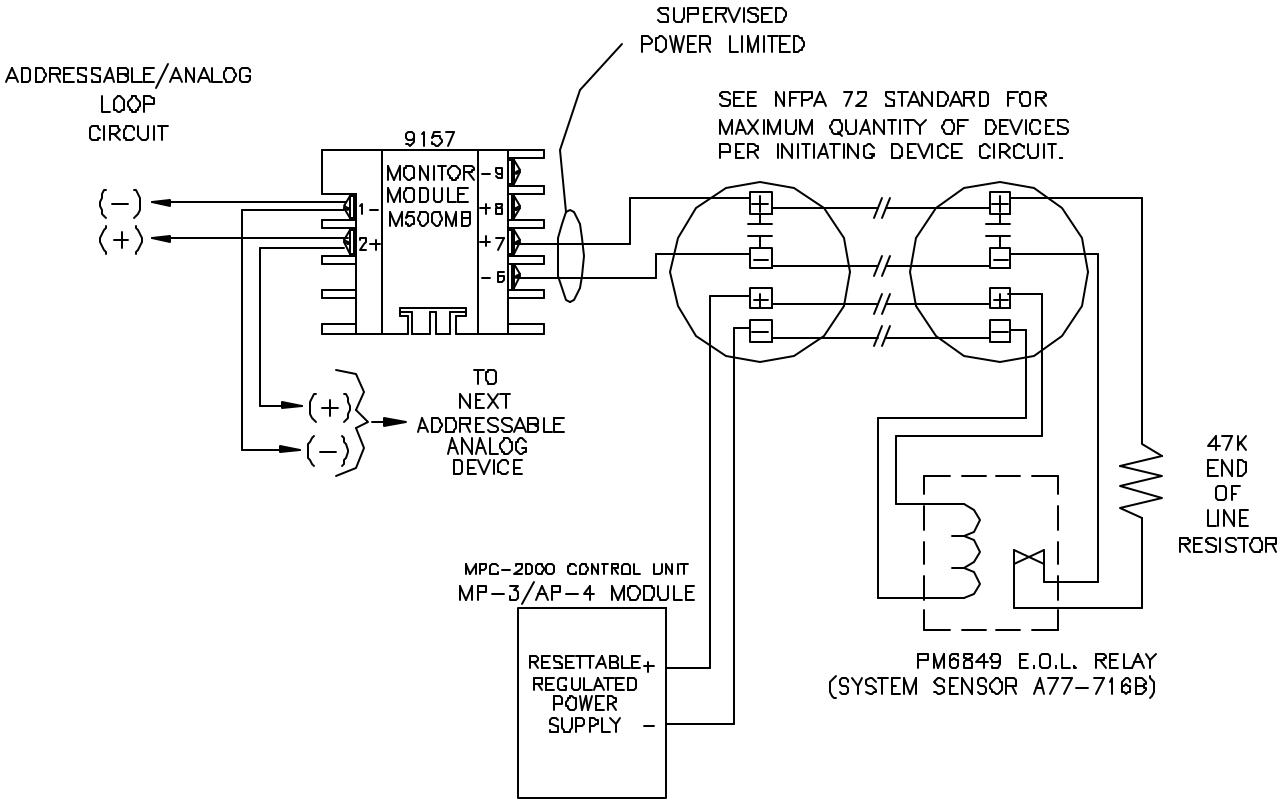
CONFIGURATION OF 9157 MONITOR MODULE
TYPICAL CONVENTIONAL STYLE "D" ("4-WIRE")
CONTACT DEVICE INITIATING CIRCUIT



NOTES

1.) Terminals 6 & 7 current limited to 230µA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Length 2500 Ft.
   Max. Resistance 20 Ohms
4.) Do not put "2-Wire" (Zone Powered) Smoke Detectors on Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.

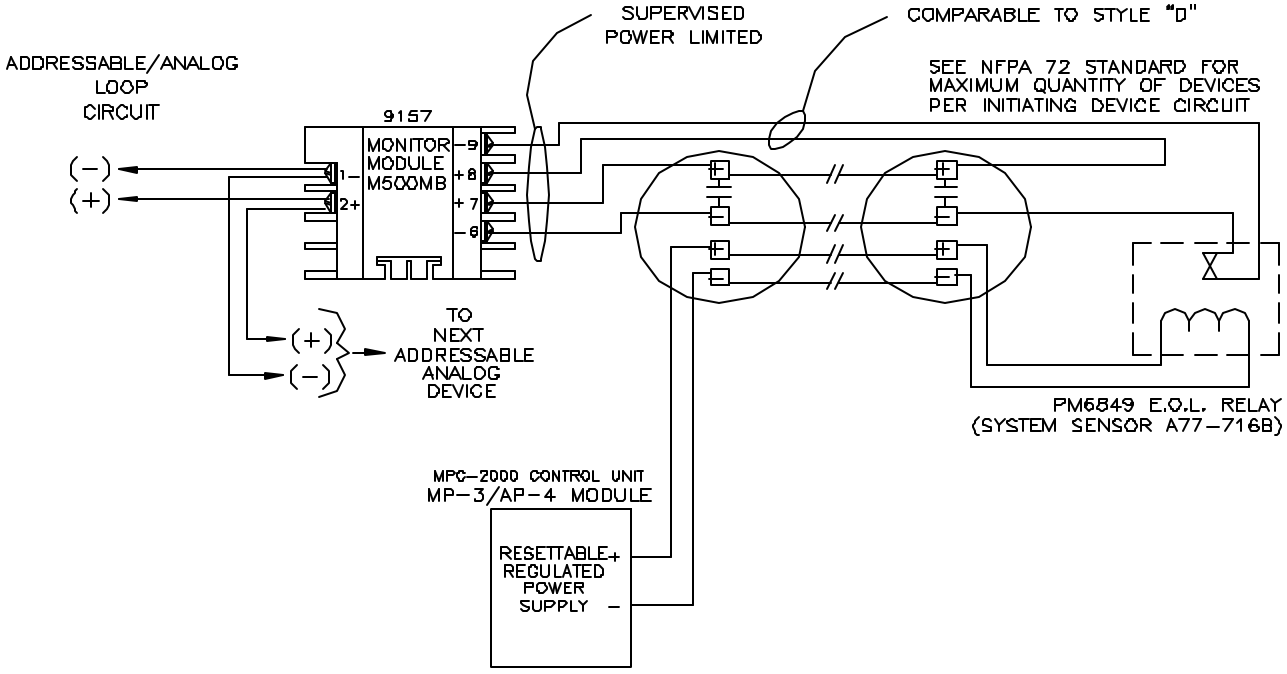
CONFIGURATION OF 9157 MONITOR MODULE
TYPICAL WIRING DIAGRAM FOR CONVENTIONAL
"4-WIRE" (SEPARATELY POWERED) SMOKE DETECTORS STYLE "B" ("2-WIRE")



NOTES

1.) Terminals 6 & 7 current limited to 230µA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Length 2500 Ft.
   Max. Resistance 20 Ohms
4.) Do not put "2-Wire" (Zone Powered) Smoke Detectors on Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.
6.) For Alarm Verify operation see application notes in manual for Smoke Detector power wiring.
7.) see Initiating Device Wiring Diagram section for Compatible "4-Wire" (Separately Powered) Smoke Detectors.
8.) E.O.L. Relay is shown with power applied.

CONFIGURATION OF 9157 MONITOR MODULE
TYPICAL WIRING DIAGRAM FOR CONVENTIONAL
"4-WIRE" (SEPARATELY POWERED) SMOKE DETECTORS STYLE "D" ("4-WIRE")



NOTES

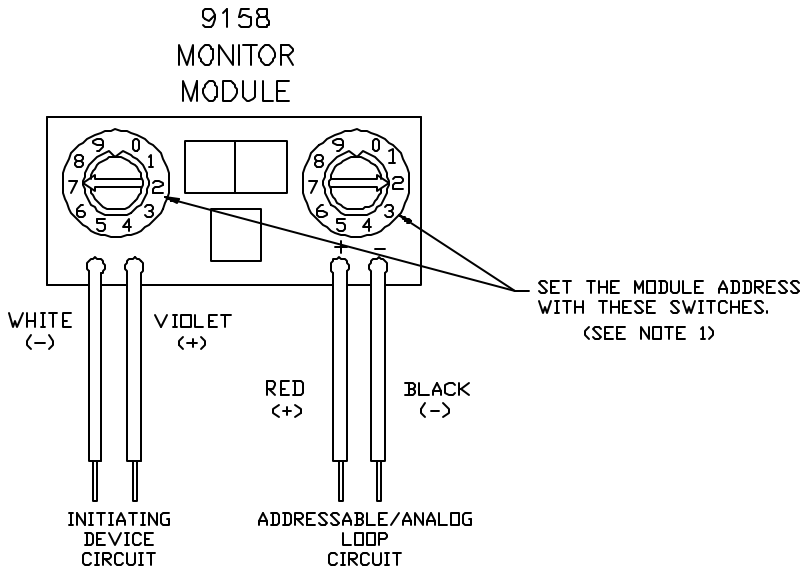
1.) Terminals 6 & 7 current limited to 230µA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Length 2500 Ft.
   Max. Resistance 20 Ohms
4.) Do not put "2-Wire" (Zone Powered) Smoke Detectors on Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.
6.) For Alarm Verify operation see application notes in manual for Smoke Detector power wiring.
7.) see Initiating Device Wiring Diagram section for Compatible "4-Wire" (Separately Powered) Smoke Detectors.
8.) E.O.L. Relay is shown with power applied.

THE DEVICE MONITOR MODULE (9158)

The 9158 (System Sensor M501M) addressable mini-monitor module provides a Style "B" (2-wire) initiating circuit for normally open dry contact fire alarm and supervisory (tamper) devices. The 9158's small size and light weight design allows it to be installed inside a single gang box, or behind a device being monitored without being rigidly mounted. The 9158 addressable mini-monitor module may be used to monitor a single unit or a "zone" of units of "4-Wire" (separately powered) smoke detectors, manual stations, waterflow switches, tamper (supervisory) switches or other dry, normally open contact initiation devices.

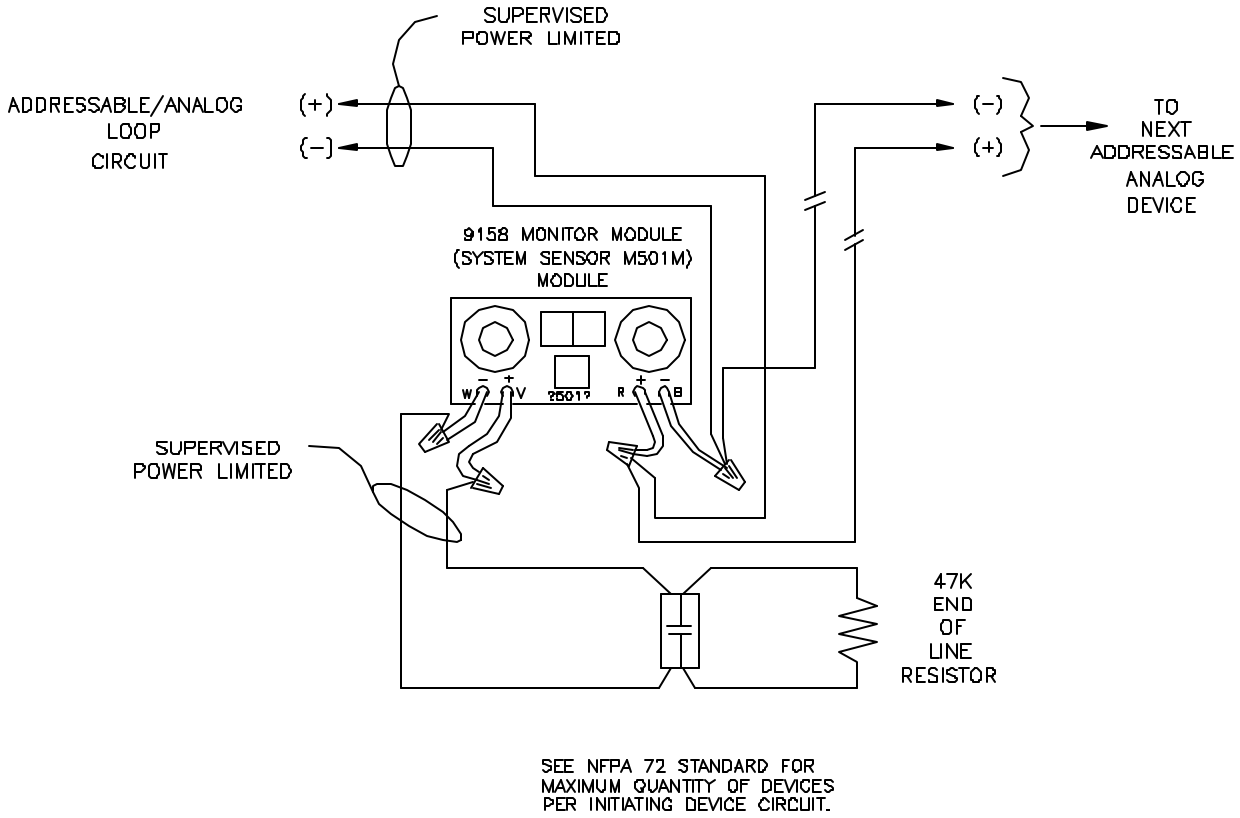
NOTE: "2-Wire" (Zone Powered) Smoke detectors and initiation devices are not compatible.

The 9158 uses a module address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9158 is regularly scanned by the AM-1 and checked for its current monitored device(s) status (i.e. open (trouble), normal (EOL), shorted (alarm)). Once the AM-1 has received the status data, the MPC-2000 will interpret and respond to this data as programmed.



NOTE: The module is set at the factory for address 00. This is a default code. During installation set address to the predetermined unique address code between 01 and 99.

CONFIGURATION OF 9158 MONITOR MODULE
TYPICAL CONVENTIONAL STYLE "B" ("2-WIRE") INITIATING CIRCUIT



SEE NFPA 72 STANDARD FOR MAXIMUM QUANTITY OF DEVICES PER INITIATING DEVICE CIRCUIT.

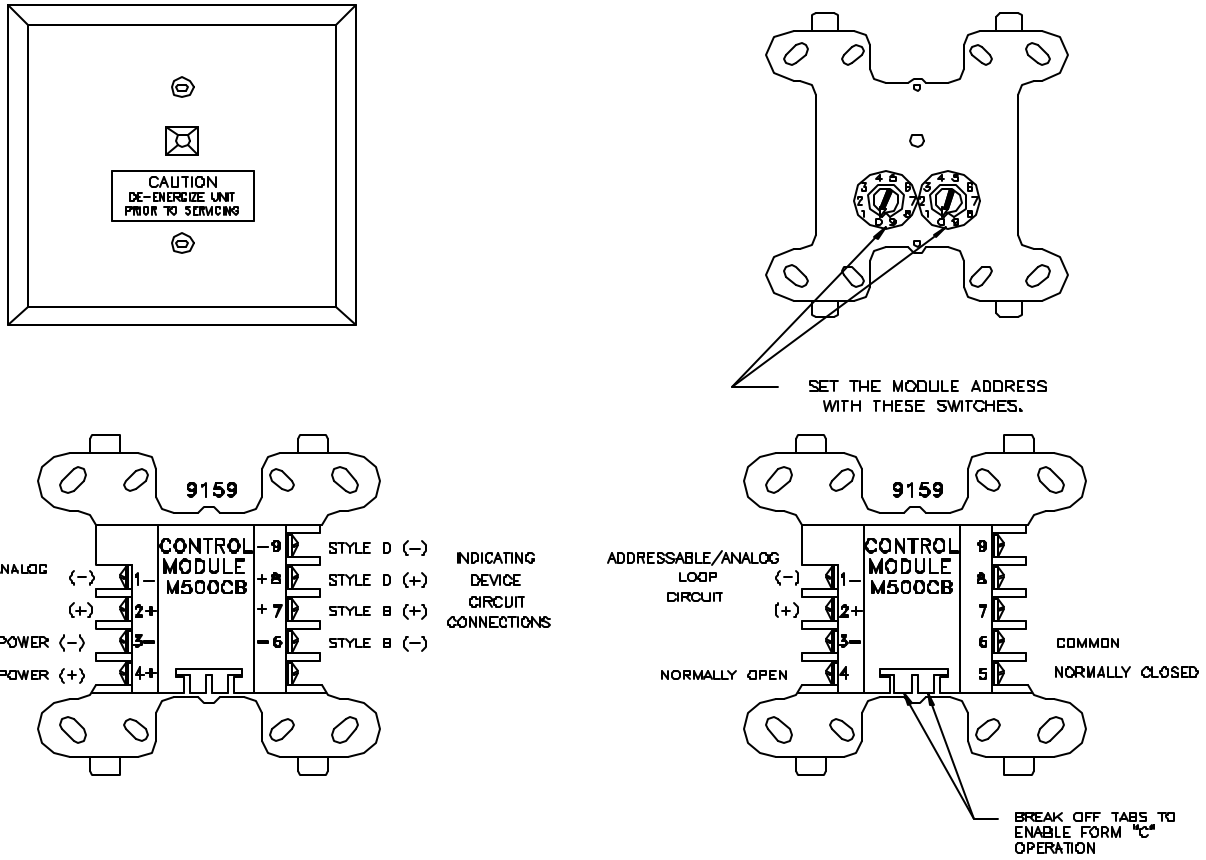
NOTES

1.) Terminals 6 & 7 current limited to 230µA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Length 2500 Ft.
   Max. Resistance 20 Ohms
4.) Do not put "2-Wire" (Zone Powered) Smoke Detectors on Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.

THE CONTROL MODULE (9159)

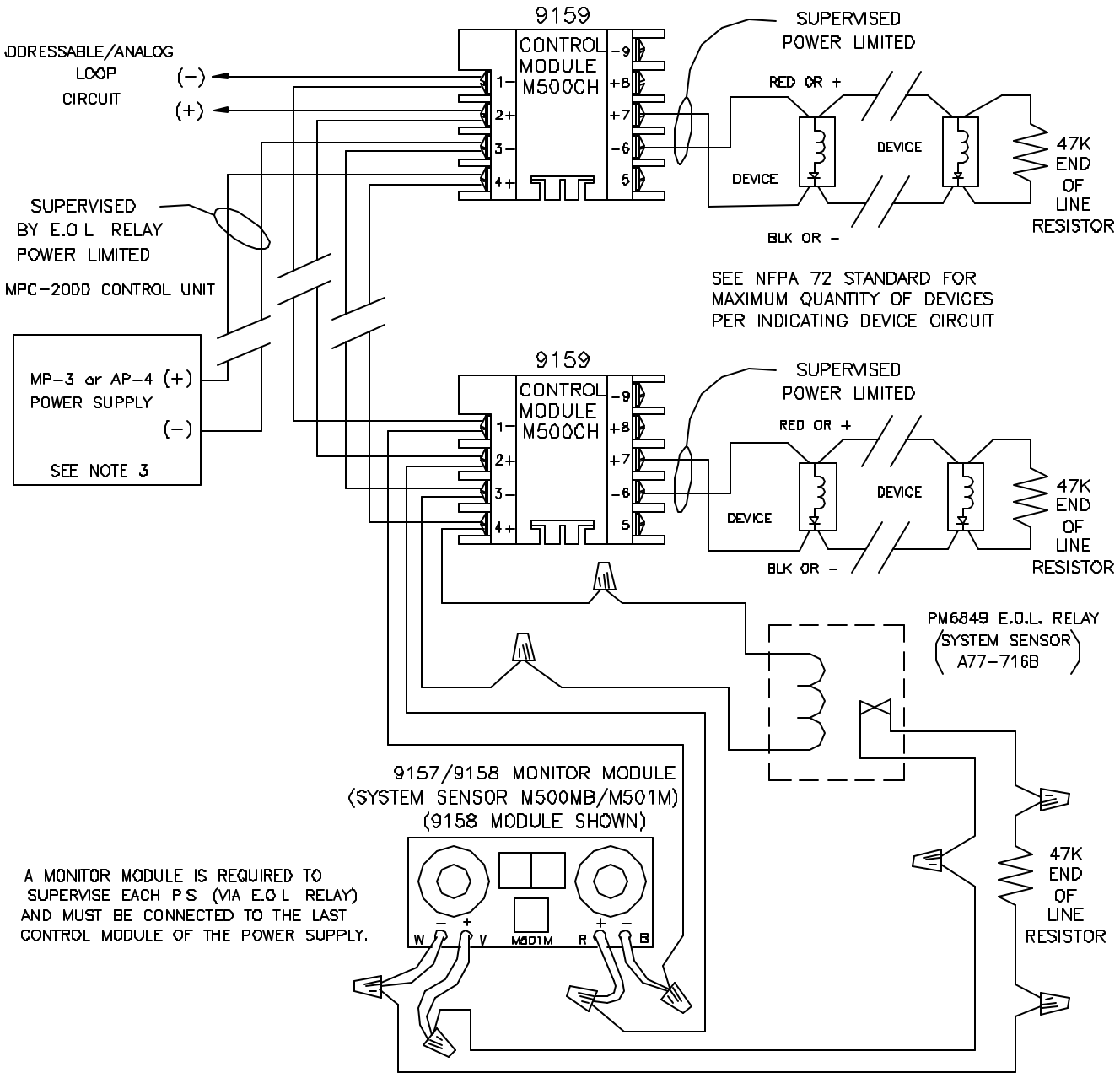
The 9159 (System Sensor M500CH) addressable control module provides (1) Style "Y" (2-Wire") polarity reversal signaling circuit or (1) "4-Wire" Class "A" (Style "Z") polarity reversal signaling circuit or (1) dry form "C" contact output format. The selection of any (1) of these formats per module can be made in the field via an integral programming tab. The 9159 is designed to mount directly inside a 4" square junction box. When the 9159 control module is used to drive conventional polarized signaling and auxiliary devices, the operating power for the devices must be wired to the 9159 separately from an AP-1 power supply in the MPC-2000. The separate power circuit is then supervised by an E.O.L. and monitor module combination relay in a similar fashion as a "4-Wire" (separately powered) conventional smoke detector power circuit.

The 9159 uses a module address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9159 is regularly scanned by the AM-1 and checked for it's monitored device(s) status (ie open (trouble), normal (EOL), shorted (trouble)). Each time the 9159 is scanned the front visible red LED will flash. Once the AM-1 module has received alarm status data the MPC-2000 will interpret and respond to the data as programmed thus activating any predetermined 9159 control module(s). When an associated 9159 operates, it's red LED will illuminate and the module will latch into the operated mode until reset.



NOTE: The module is set at the factory for address 00. This is a default code. During installation set address to the predetermined unique address code between 01 and 99.

CONFIGURATION OF 9159 CONTROL MODULE
TYPICAL CONVENTIONAL STYLE "Y" ("2-WIRE") INDICATING CIRCUIT



NOTES

1.) See Owner's Manual (P/N 444851B) for Compatible Signals
Maximum Signal Load: 1 Amp for each Control Module

2.) Do not use looped wire on terminals 3 & 4.
Break wire run to provide supervision of connection.

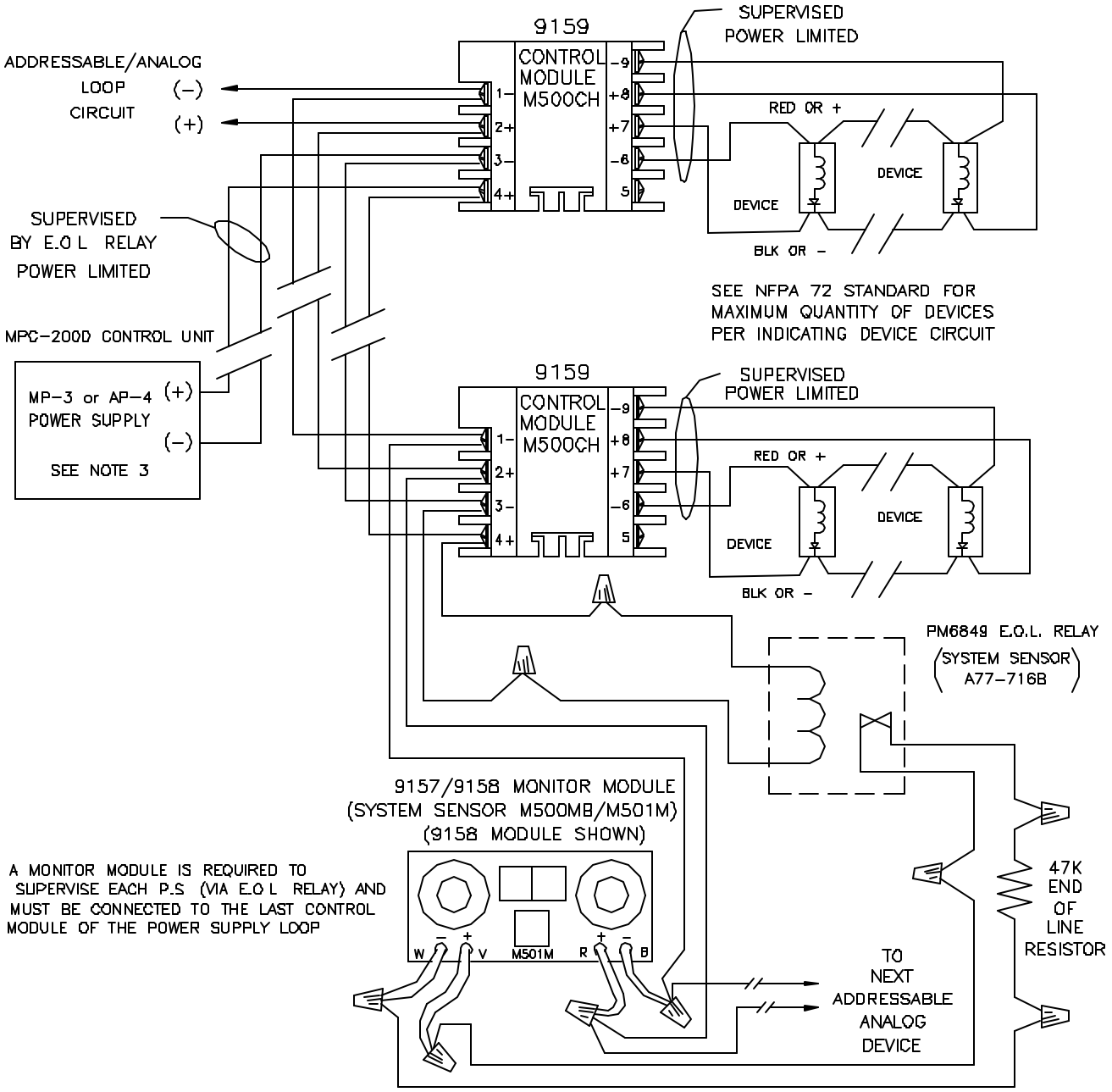
3.) Calculate Power Supply loading per Control Module.

4.) Wire Size: In Alarm, no more than 1.9V drop from Power Supply to end of each Indicating Circuit.

5. For Power Supply supervision use an E.O.L. Relay with a 9157 or 9158 Monitor Module as shown (Relay contact shown with power applied).

6.) See Article 370 of the N.E.C. for proper box depth.

CONFIGURATION OF 9159 CONTROL MODULE
TYPICAL CONVENTIONAL STYLE "Z" ("4-WIRE") INDICATING CIRCUIT



NOTES

1.) See Owner's Manual (P/N 444851B) for Compatible Signals
Maximum Signal Load: 1 Amp for each Control Module

2.) Do not use looped wire on terminals 3 & 4.
Break wire run to provide supervision of connection.

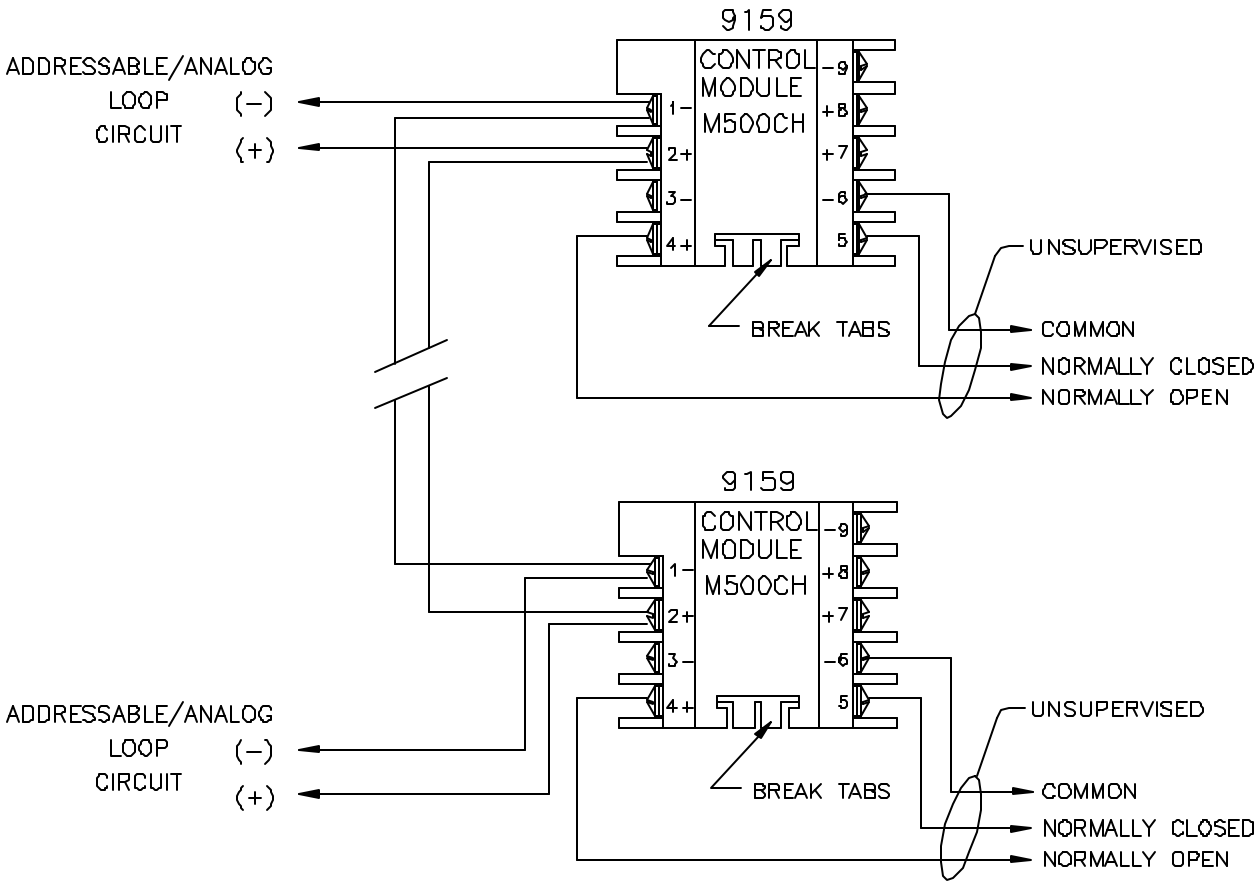
3.) Calculate Power Supply loading per Control Module.

4.) Wire Size: In Alarm, no more than 1.9V drop from Power Supply to end of each Indicating Circuit.

5. For Power Supply supervision use an E.O.L. Relay with a 9157 or 9158 Monitor Module as shown (Relay contact shown with power applied).

6.) See Article 370 of the N.E.C. for proper box depth.

CONFIGURATION OF 9159 CONTROL MODULE
TYPICAL DRY FORM "C" CONTACT OUTPUT



Relay Contact Ratings:	Resistive:	2 Amp., 30VDC
	Inductive:	1 Amp., 30VDC (0.6pF)
		0.3 Amp., 110VDC (0.35pF)
		0.3 Amp., 120VAC (0.35pF)

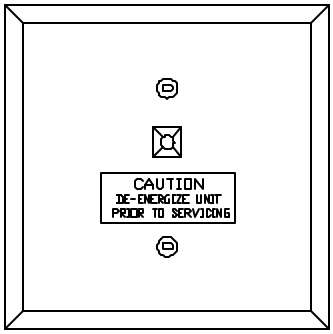
NOTE

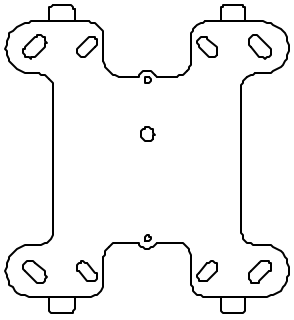
1.) See Article 370 of the N.E.C. for proper box depth.

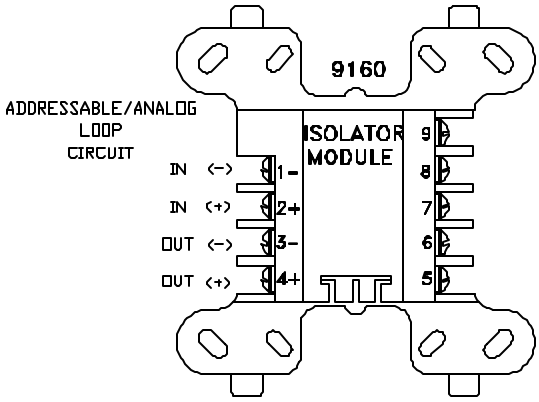
THE ISOLATOR MODULE (9160)

The 9160 (System Sensor M500X) addressable loop isolator module provides the circuitry to automatically open and thus "isolate" a branch or section of an addressable/analog loop circuit on an MPC-2000 AM-1 module. This isolation will occur when the 9160 senses a short condition after it's position on the loop. By isolating the shorted portion of the circuit the AM-1 module will still be able to communicate with and monitor devices not involved with the faulted section or branch of the addressable/analog loop circuit.

During normal operation the red scan/shorted LED will flash several times a minute. In the event that the monitored portion becomes shorted the red scan/shorted LED will latch on steady, and the associated protected loop portion will be automatically disconnected from the system and a defined trouble condition will be reported to the MPC-2000 control panel via the associated AM-1 module. Once the shorted condition has been removed the 9160 module will automatically unlatch thus restoring normal operations between itself, it's monitored loop portion, and the rest of the system.



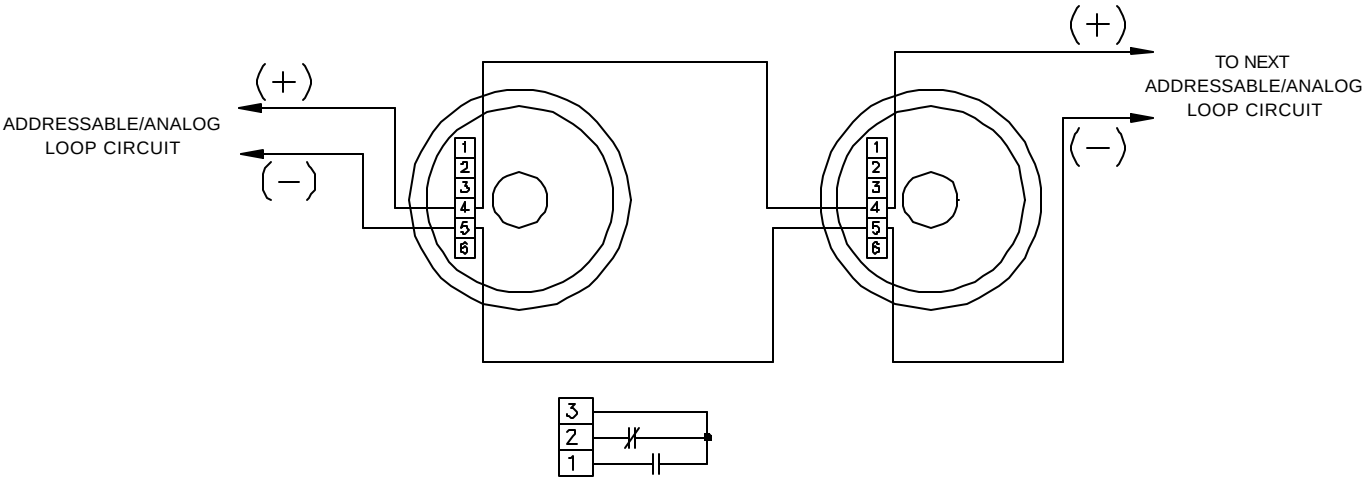




9296 AND 9297 ADDRESSABLE/ANALOG RELAY BASES

The 9296 or 9297 (System Sensor B224RB or B524RB) relay base is for use with an addressable/analog sensor. The relay bases provide a form C contact for control of auxiliary functions, activated from the sensor remote LED output.

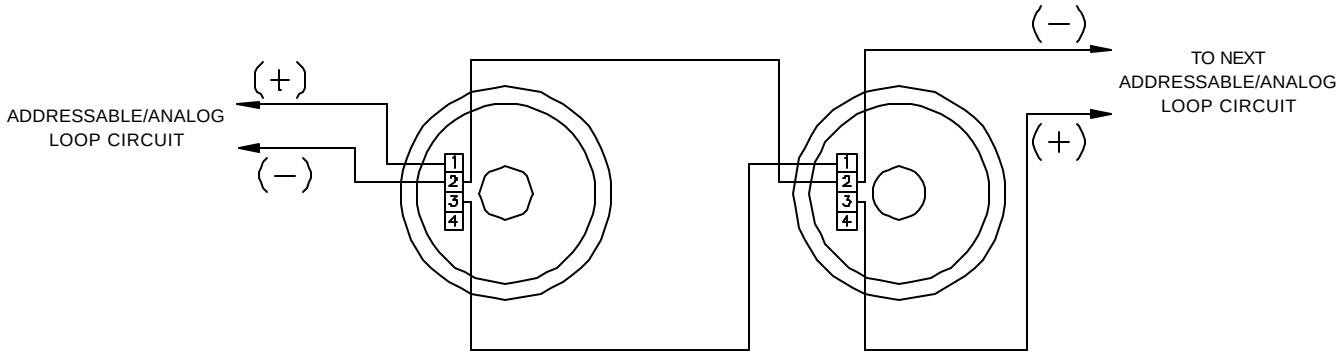
9296 OR 9297 BASE:
(System Sensor B224RB or B524RB)



9298 AND 9299 ADDRESSABLE/ANALOG ISOLATOR BASES

The 9298 or 9299 (System Sensor B224BI or B524BI) isolator base is for use with an addressable/analog sensor. The isolator bases provide the circuitry to automatically open and thus "isolate" a branch or section of an addressable/analog loop circuit on a MPC-2000 AM-1 module. This isolation will occur when the isolator base senses a short condition after it's position on the loop. By isolating the shorted portion of the circuit the AM-1 module will still be able to communicate with and monitor devices not involved with the faulted section or branch of the addressable/analog loop circuit.

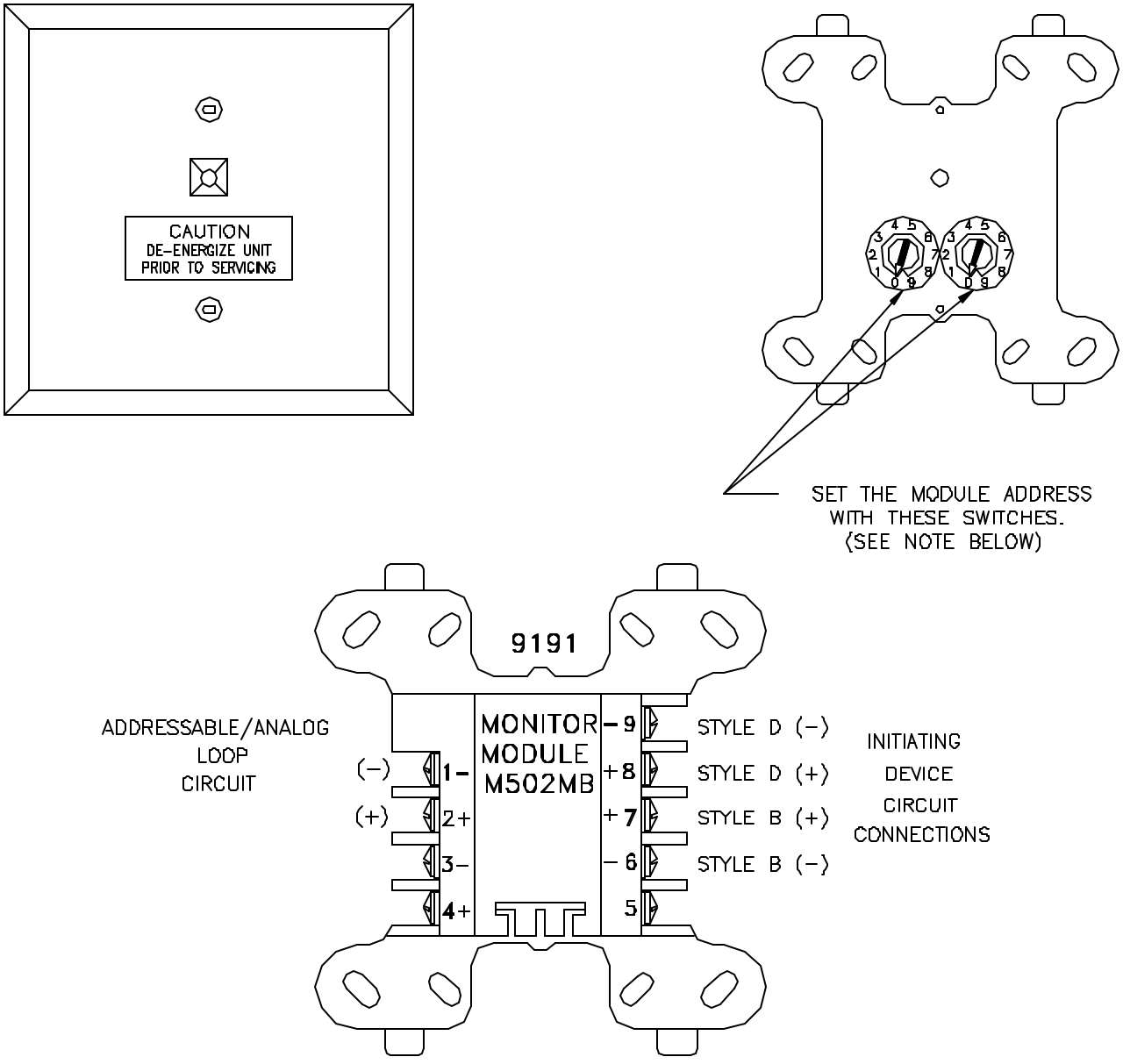
9298 or 9299 BASE:
(System Sensor B224BI or B524BI)



9191 TWO-WIRE (ZONE POWERED) CONVENTIONAL DETECTOR MONITOR MODULE

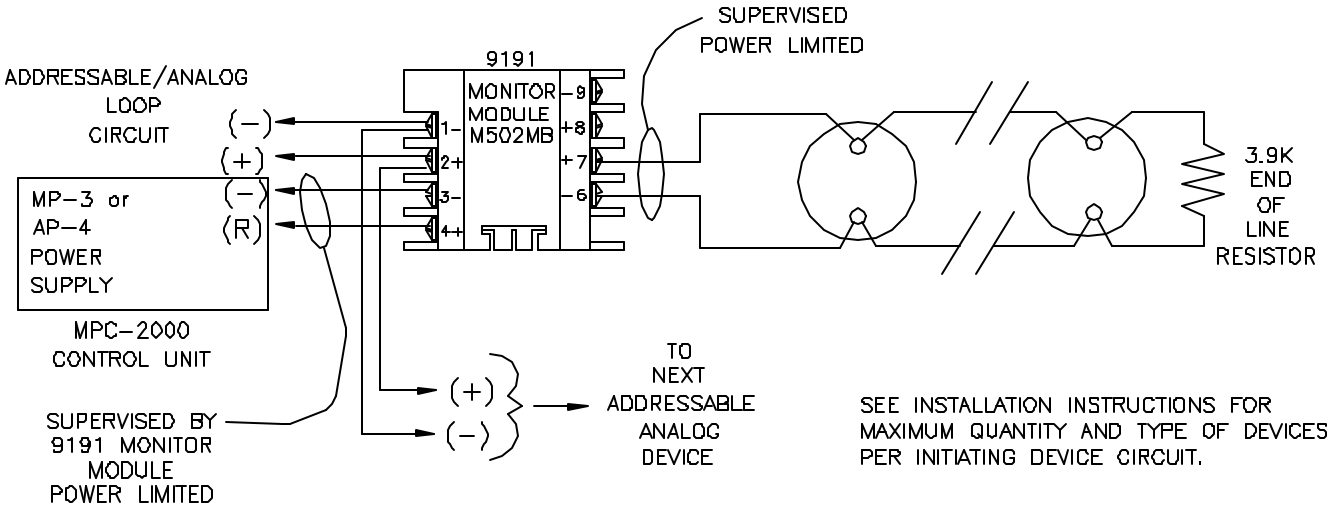
The 9191 (System Sensor M502M) monitor module provides (1) Style "B" (2-wire) initiating circuit or (1) Style "D" (4-wire) initiating circuit for two-wire (zone powered) conventional detectors. The 9191 is designed to mount directly inside a 4" square junction box. The 9191 monitor module allows up to 20 U.L. compatible smoke detectors.

The 9191 uses a module address between 01 and 99 on an MPC-2000 AM-1 module's loop circuit. The 9159 is regularly scanned by the AM-1 and checked for it's monitored device(s) status (ie open (trouble), normal (EOL), shorted (alarm)). Each time the 9191 is scanned the front visible red LED will flash. Once the AM-1 has received the status data the MPC-2000 will interpret and respond to this data as programmed. In the case of an alarm status or Style "D" open circuit, the front visible red LED will illuminate and latch on the appropriate 9191 module(s) until the system is successfully reset.



NOTE: The module is set at the factory for address 00. This is a default code. During installation set address to the predetermined unique address code between 01 and 99.

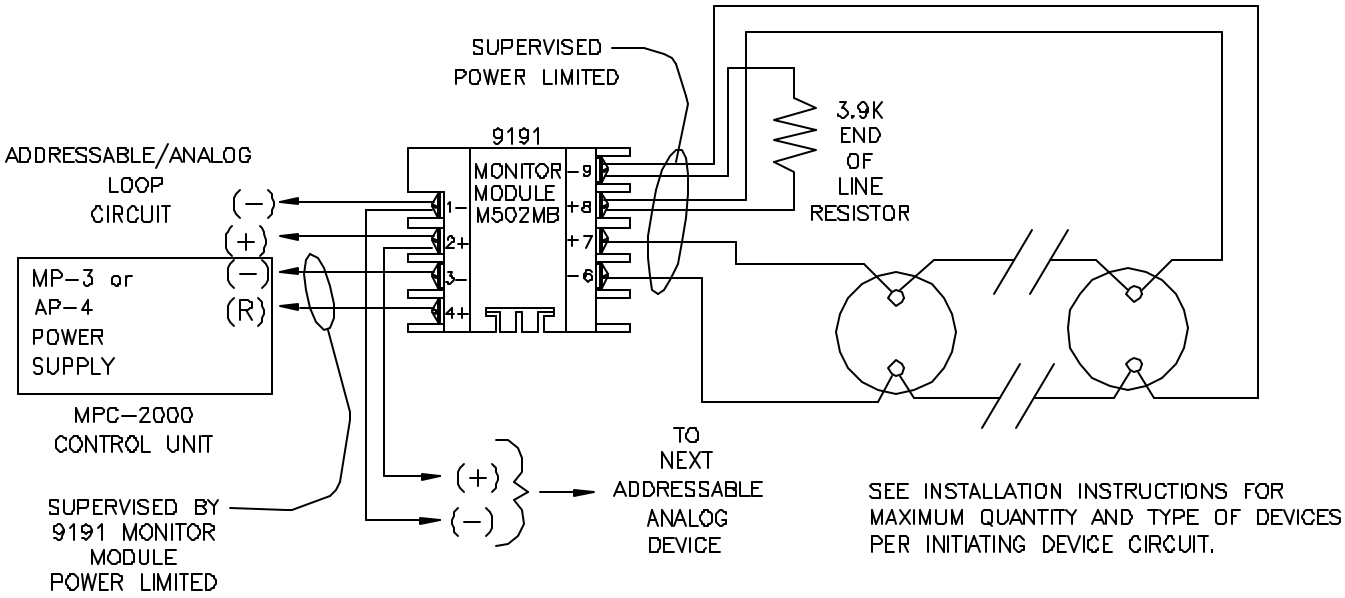
CONFIGURATION OF 9191 MONITOR MODULE
TYPICAL CONVENTIONAL STYLE "B" ("2-WIRE")
CONTACT DEVICE INITIATING CIRCUIT



NOTES

1.) Terminals 6 & 7 current limited to 92mA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Resistance 25 Ohms
4.) Use only UL Compatible "2-Wire" Smoke Detectors from list on Monitor Module Installation Instructions for Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.

CONFIGURATION OF 9191 MONITOR MODULE
TYPICAL CONVENTIONAL STYLE "D" ("4-WIRE")
CONTACT DEVICE INITIATING CIRCUIT



NOTES

1.) Terminals 6 & 7 current limited to 92mA max.
2.) Do not mix Fire & Supervisory (Tamper) Devices on the same Module Detection loop.
3. Initiating Circuit Requirements:
   Max. Resistance 25 Ohms
4.) Use only UL Compatible "2-Wire" Smoke Detectors from list on Monitor Module Installation Instructions for Monitor Module Initiating loop.
5.) See Article 370 of the N.E.C. for proper box depth.

SYSTEM TESTING AND MAINTENANCE

Testing and maintenance is to be done only by qualified personnel who have thoroughly read and understand this owners manual.

SYSTEM TESTING

NOTE: Before any tests are conducted, the local Fire Department should be notified.

1.) System testing and/or fire drills must be performed at the intervals required by local fire authorities. Where no local regulations exist, testing schedules for fire alarm systems are specified in NFPA Standard 72.

2.) All system tests should be documented. A complete log of device testing including the type of device, its location, the date of the test and the operation should be maintained for the system.

3.) Devices should be tested in accordance with manufacturers' instructions.

4.) When testing has been completed all switches must be returned to their normal position.
DO NOT LEAVE SWITCHES IN THE DISCONNECTED POSITION!

5.) If any problems are found or trouble conditions exists, notify the proper personnel for servicing the system immediately.

MAINTENANCE

1.) The MPC-2000 Fire Alarm System Control Unit does not require periodic maintenance except that the unit should be kept clean and dry. If a PR-1 system status printer is used, check for low paper at least once a month. Low paper is indicated by a red line on each edge of the paper. See PR-1 system status printer paper replacement instructions.

2.) Sealed Lead Acid batteries should be replaced every four years or if the voltage is low. The terminals should be checked for corrosion and cleaned, if necessary. To check for low battery voltage, with the primary power supply disconnected, operate the Fire Alarm System in alarm (under full load) for five minutes. If the battery voltage is less than 24.0 volts, with the control unit in alarm, replace the battery set.

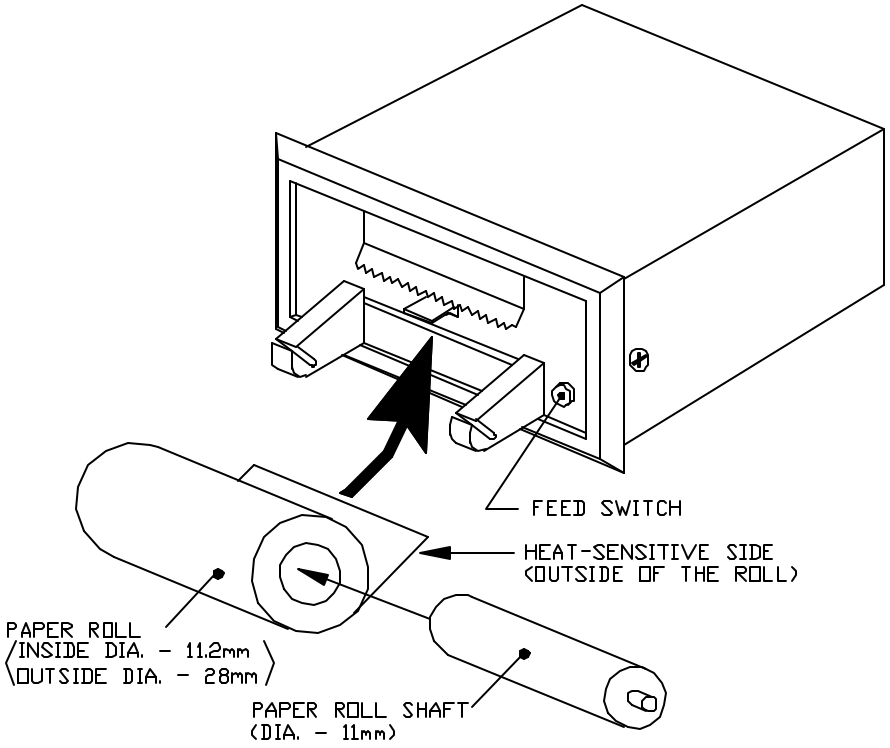
3.) Maintenance of other devices connected to the control unit should be done in accordance with the manufacturers' instructions.

RECOMMENDED SPARE CONTROL UNIT PARTS

943160	Fuse 5A. Fast-acting, 2AG
943237	Paper, printer (if PR-1 option is used)
444688	Fuse 25A. Normal-BLO, 3AB or ABC (if VAA-C is used)
	Fuse 10A. Normal-BLO, (if VAA-C is used)

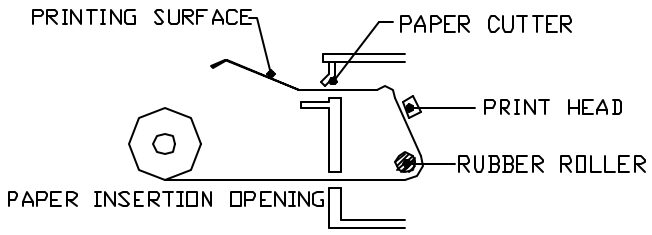
PR-1 SYSTEM STATUS PRINTER
PAPER REPLACEMENT INSTRUCTIONS

1.) The outside and inside surfaces of the paper are different. Gently push the outside of the roll, which is the heat-sensitive printing surface, face down into the Paper Inserting Opening.



2.) When you turn on the power and press the feed switch, the rubber roller grips the paper and pulls it inside.

3.) Keep pressing the feed switch until the paper comes out underneath the Paper Cutter.

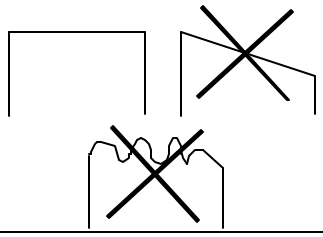


4.) Push the shaft into the Paper Roll and set it in the Holders on the Main Unit.

NOTES:

1.) If the paper is not pulled when you press the Feed Switch, push the paper in slightly.

2.) Cut the edge of the paper straight across.



PAPER PRECAUTIONS

- Do not print without paper
- Do not pull out the thermal paper from the Paper Insertion Rolls
- Use only the 38-mm wide thermal paper rolls specified below

Faraday	943237
Jujo Paper	TP50KS-A
Honshu Paper	FH65B-X14N
Mitsubishi Paper Mills	F-200U7N5

SYSTEM TROUBLE SHOOTING GUIDE

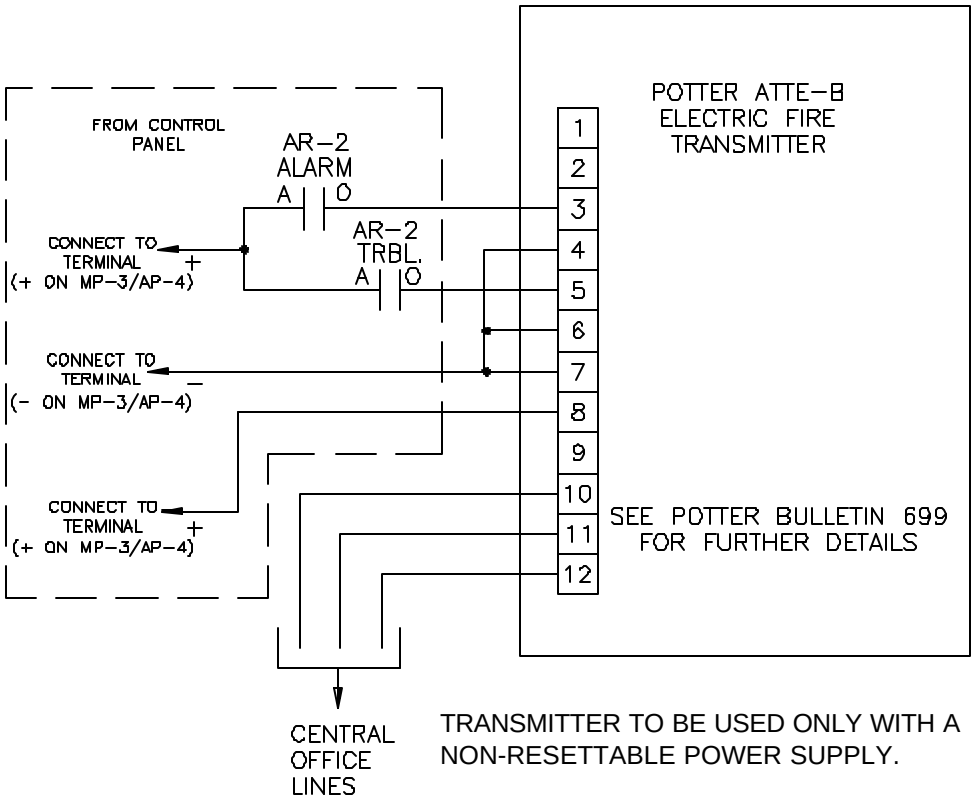
LED INDICATION	LCD DISPLAY	PROBABLE CAUSE
POWER ON indicator is not lit and INPUT POWER FAULT LED is lit.	Input Power Fault	Low or no AC input power
STANDBY POWER FAULT and SYSTEM TROUBLE	Standby Power Fault	Low or no battery connected
SYSTEM GROUND and SYSTEM TROUBLE LED's are lit.	Pos. (Neg.) Ground Fault	One or more external field connections grounded.
One or more Signal Circuit LED's and SYSTEM TROUBLE LED's are lit.	Signal Circuit # Shorted (Open)	Faulty Signal circuit wiring.
One or more Zone Trouble LED's and SYSTEM TROUBLE LED are lit.	Zone # In Trouble	Faulty Zone circuit wiring.
SYSTEM TROUBLE LED is lit.	Remote Display # Comm Fault	Faulty Remote Display wiring.
SYSTEM TROUBLE LED is lit.	Aux. Relay # Off Normal	Aux. Relay switch is in a manual position.
SYSTEM TROUBLE LED is lit.	City Tie In Trouble	City Tie configured incorrectly. Faulty wiring.
SYSTEM TROUBLE LED is lit.	Aux. Power Supply Fault	Low or no AC input power. Open fuse on Aux. Power Supply board or transformer board.

SYSTEM TROUBLE SHOOTING GUIDE

LED INDICATION	LCD DISPLAY	PROBABLE CAUSE
AM - Module Device trouble LED lit.	AM Module # Comm Fault	Incorrect System Programming, Incorrect module cabling.
AM - Loop Trouble LED lit.	AM Module # Loop Trouble.	Faulty Addressable/Analog Loop Circuit Wiring.
Erratic System operation		Incorrect System Programming. Incorrect module cabling.
CPU FAULT LED and trouble buzzer remain on.		Have System Serviced by qualified service personnel.
External Interface Trouble LED on	External Interface in trouble	Fault on Interface connections.

McCULLOH TRANSMITTER CONNECTIONS

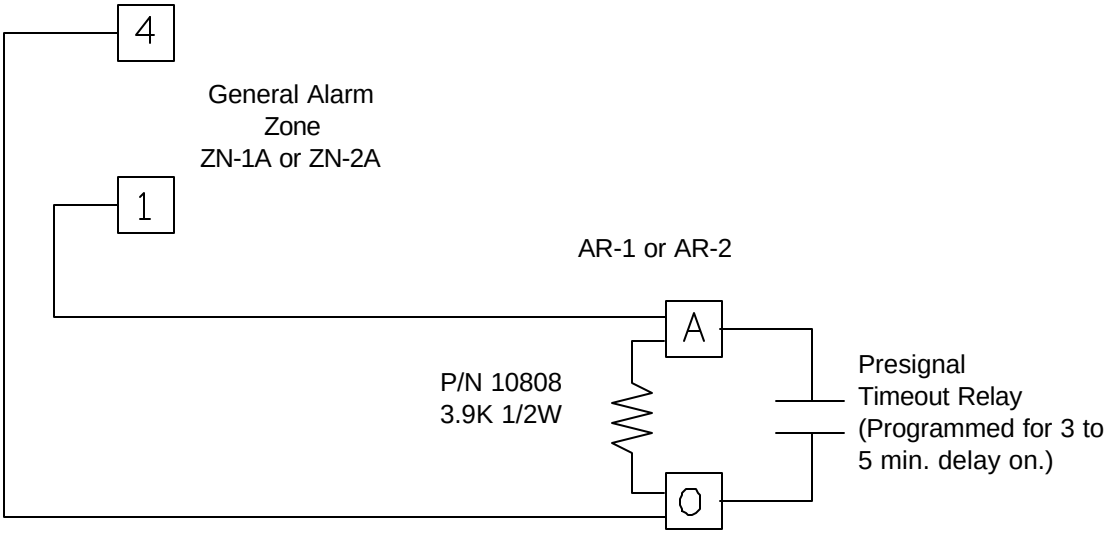
The MPC-2000 Fire Alarm System Control Unit can be wired in conjunction with a Potter Electric Signal Co., Model ATTE-B Alarm Transmitter, to provide central station, proprietary, or remote station service. An AR-2 Auxilliary Relay Module (programmed for Trouble/Alarm Operation) is also required to provide a general alarm contact and trouble contact. If alarm transmission by zone is required, the AR-1/AR-2 Auxiliary Relay Modules may be used in conjunction with additional transmitters. If supervisory transmission is required, a AR-2 auxiliary relay module (programmed for trouble/supervisory operation) can be used in conjunction with an additional transmitter.



TRANSMITTER TO BE USED ONLY WITH A NON-RESETTABLE POWER SUPPLY.

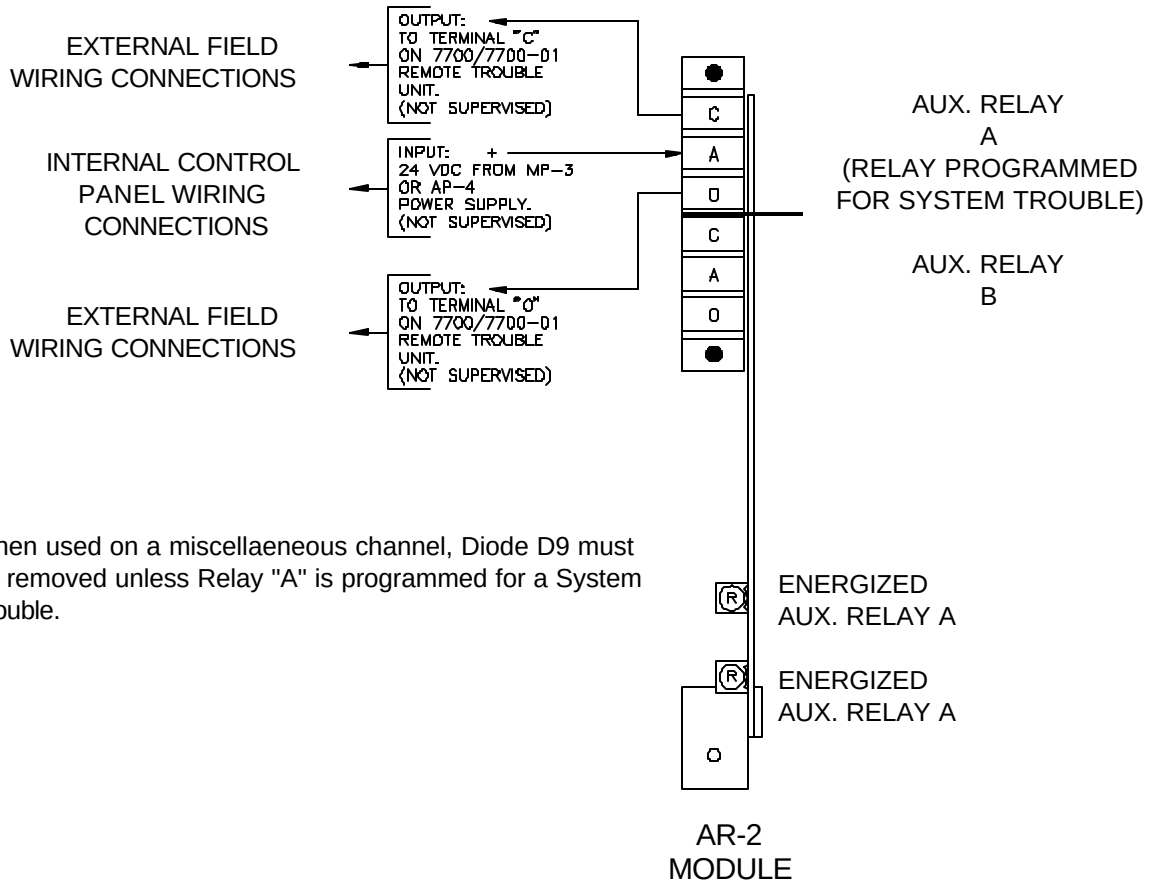
PRESIGNAL/GENERAL ALARM WIRINGPRESIGNAL/GENERAL ALARM WIRING

The MPC-2000 Fire Alarm System Control Unit can be setup for Presignal/General Alarm operation, a dedicated General Alarm Zone and a Presignal Timeout Auxiliary Relay is required. All of the Presignal Zones in the System must be programmed to operate the Presignal Timeout Relay in addition to the other desired functions. The Presignal Timeout Relay, after a 3 to 5 minute delay on, will activate the dedicated General Alarm Zone to provide a System General Alarm Condition (i.e. operate all building signals and/or Auxiliary Relays for appropriate functions.)



REMOTE TROUBLE UNIT WIRING

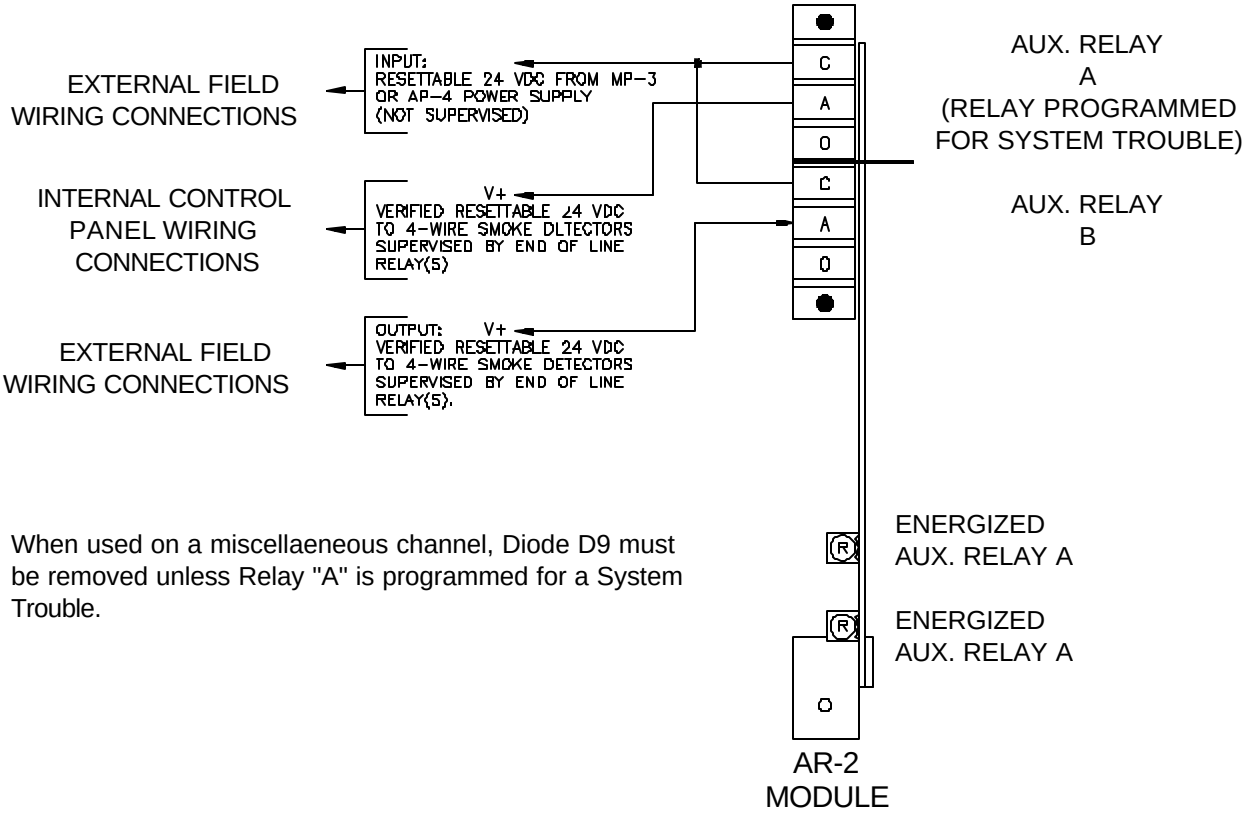
An AR-2 Auxiliary Relay Module (Programmed for Trouble/Alarm or Trouble/Supervisory) must be used to provide power for a 7700/7700-01 Remote Trouble unit.



SMOKE DETECTOR POWER WIRING

With Alarm Verification
(4 Wire Smoke Detectors)

An AR-2 Auxiliary Relay Module (Programmed for Alarm Verification) must be used when Alarm Verification is programmed, to provide resettable power for 4-Wire Smoke Detectors.

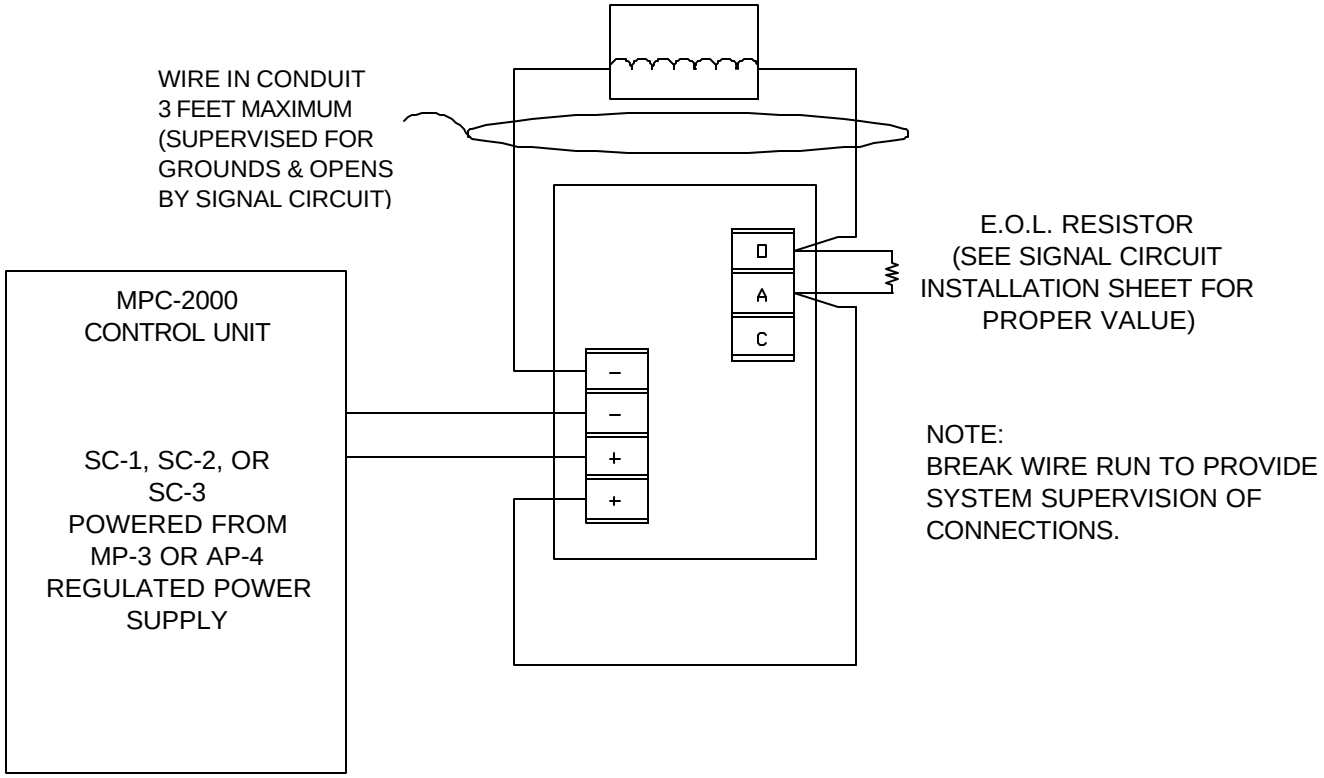


When used on a miscellaeneous channel, Diode D9 must be removed unless Relay "A" is programmed for a System Trouble.

PREACTION/DELUGE VALVE WIRING

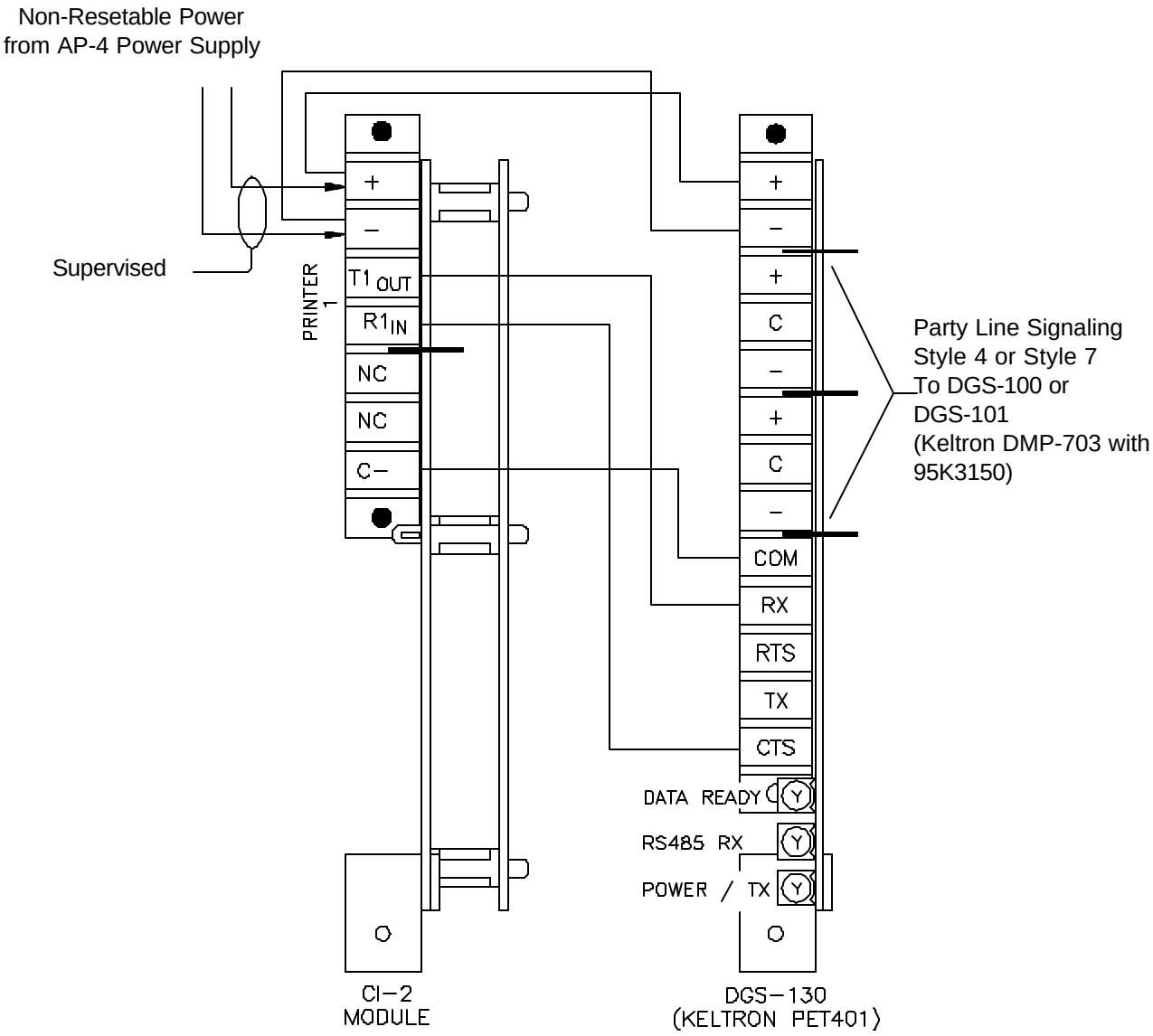
The MPC-2000 Fire Alarm System Control Unit can be wired in conjunction with a 711-1 Remote Relay Unit to activate the solenoid of an automatic water control valve. The dedicated signal circuit must be programmed for steady, non-silencable operation with the drill and recall disabled. The 711-1 Relay contacts will transfer, upon activation of the signal circuit, to allow the valve solenoid to energize. (Warning: Do Not Use on EVAC or Canadian Control Units.)

U.L. COMPATIBLE VALVES
SKINNER MODEL LV2LBX25, 24VDC, .458A.
ASCO MODEL T8210A107, 24VDC, .700A.
ASCO MODEL R8210A107, 24VDC, .700A.
ASCO MODEL 8210A107, 24VDC, .700A.



DATA GATHERING SYSTEM

The MPC-2000 Fire Alarm System Control Unit can be used in conjunction with the DGS-100 or DGS-101 Data Gathering Unit to provide Proprietary Service. A DGS-130 Serial Interface Module is used to connect the CI-2 Communications Interface Module to the DGS-100 or DGS-101. Up to 256 Fire Alarm Control Units wired Style 4 or 128 Fire Alarm Control Units wired Style 7 may be connected to each controller in the Data Gathering Unit.



For further information, see Installation Manual (P/N 446105)