METASYS®

Appendix J: AVPS-24 Power Expansion

AVPS-24 Power Expansion **Page 3**

- *General Description* *3*
- *AC Power* *3*
- *Programming* *3*
- *Supply Calculations* *4*
- *Installation* *5*

© 1998 Johnson Controls, Inc.

AVPS-24 Power Expansion

General Description

The notification appliance power available from the system can be increased by three amperes when an AVPS-24/AVPS-24E is added to the system. The AVPS-24/AVPS-24E must be mounted in the battery compartment of the cabinet and the batteries must be relocated to the BB-17 Battery Box. The AVPS-24/AVPS-24E supplies a maximum of 3.0A to the notification appliances connected to Circuits 3 and 4 combined, however, the maximum current from any one circuit is limited to 2.5A. Since the AVPS-24/AVPS-24E supplies special purpose (unfiltered, unregulated) power, only compatible notification appliances listed in the *Device Compatibility Technical Bulletin*, *LIT-445180*, can be connected to Circuits 3 and 4.

AC Power

AC power required for the AVPS-24 is 120 VAC, 50/60 Hz, 1.0A and AC power required for the AVPS-24E is 220/240 VAC, 50/60 Hz, 0.5A.

Programming

The control panel must be programmed to supervise the AVPS-24/ AVPS-24E. To program supervision for an AVPS-24/AVPS-24E, enter a Y in the SYSTEM screen after AVPS=. A control panel programmed for an AVPS-24/AVPS-24E cannot be used in a combination Fire/Burglary application, since the AVPS-24/AVPS-24E trouble input is the same input used to monitor the door tamper switch (STS-200).

Programming menu selection **7, SYSTEM**:

```
SIL INH=000
VERIFY=00
ANNUN=NONE
BLINK=Y  ST=R
AUTO=000
USA TIME
SUPV LocM
AVPS=Y
```

Supply Calculations

Supply calculations for systems with an AVPS-24/AVPS-24E are as follows:

1. Add 1.0A for the AVPS-24 and 0.5A for the AVPS-24E to the AC branch circuit current in the *120 VAC Branch Circuit Requirements* table in *Appendix A: Supply Calculations* in this manual.
2. Do not include the load current on Bell Circuits 3 and 4 in the 5.0A limitation in the *Total Secondary Power Requirements @ 24 VDC* table in *Appendix A: Supply Calculations* in this manual.
3. Include the load current on Bell Circuits 3 and 4 in the 5.0 A limitation in the *Battery Size and Location* table in *Appendix A: Supply Calculations* in this manual.

System Alarm Current Limitations with AVPS-24/AVPS-24E installed follow:

TB1, Terminals 1 and 2 = 1.5A.

TB1, Terminals 3 and 4 = 0.5A.

TB1, Terminals 5 and 6 = 0.5A.

TB1, Terminals 3 and 4 combined with Terminals 5 and 6 = 0.5A.

All circuits on TB1 combined with TB2 Terminals 1, 2, 3, and 4 = 5.0A.

TB2, Terminals 5, 6, 7, and 8 combined (Bell Circuits [NACs] 3 and 4) = 3.0A.

TB2, any one circuit = 2.5A.

Installation

Use the following procedure to install an AVPS-24/AVPS-24E.

1. Mount the AVPS-24/AVPS-24E as shown in Figure 1.
2. Interconnect the AVPS-24/AVPS-24E and control panel as follows:
   a. Earth Ground (green): AVPS-24/AVPS-24E, TB1 Terminal 6 connects to control panel TB7 Terminal 3.
   b. AC Hot (black): AVPS-24/AVPS-24E, TB1 Terminal 5 connects to control panel TB7 Terminal 1.
   c. AC Neutral (white): AVPS-24/AVPS-24E, TB1 Terminal 4 connects to control panel TB7 Terminal 2.
   d. Battery (–): Black wire from the battery cable connects to AVPS-24/AVPS-24E TB1 Terminal 3.
   e. Battery (+): Red wire from the battery cable connects to AVPS-24/AVPS-24E TB1 Terminal 2.
3. Connect AVPS-24/AVPS-24E output to control panel Notification Appliance Circuits 3 and 4 as follows:
   a. Cut Jumpers JP6 and JP7, located in the top center of the control panel circuit board.
   b. Plug the bell power cable, PN 71093, into Plug J10. Plug J10 is located in the top center of the control panel circuit board.
   c. Connect J10 (–) to TB2 Terminal 2 on the AVPS-24/AVPS-24E.
   d. Connect J10 (+) to TB2 Terminal 1 on the AVPS-24/AVPS-24E.
4. Connect the AVPS-24/AVPS-24E trouble output to the control panel as follows:
   a. Cut Jumper JP3, located in the bottom right center of the control panel circuit board.
   b. Plug the gray trouble cable, PN 71033, into Plug J11 with the wires exiting the connector on top. Plug J11 is located in the bottom right center of the control panel circuit board.
   c. Plug the other end of the cable into P1 with the wires exiting from the bottom.
5. Primary power is connected to the AVPS-24/AVPS-24E as follows:
   a. Connect earth ground to TB1 Terminal 6.
   b. Connect AC hot to TB1 Terminal 5.
   c. Connect AC neutral to TB1 Terminal 4.
6. Batteries are connected as follows:
   a. Connect battery (–) to AVPS-24/AVPS-24E TB1 Terminal 3.
   b. Connect battery (+) to AVPS-24/AVPS-24E TB1 Terminal 2.

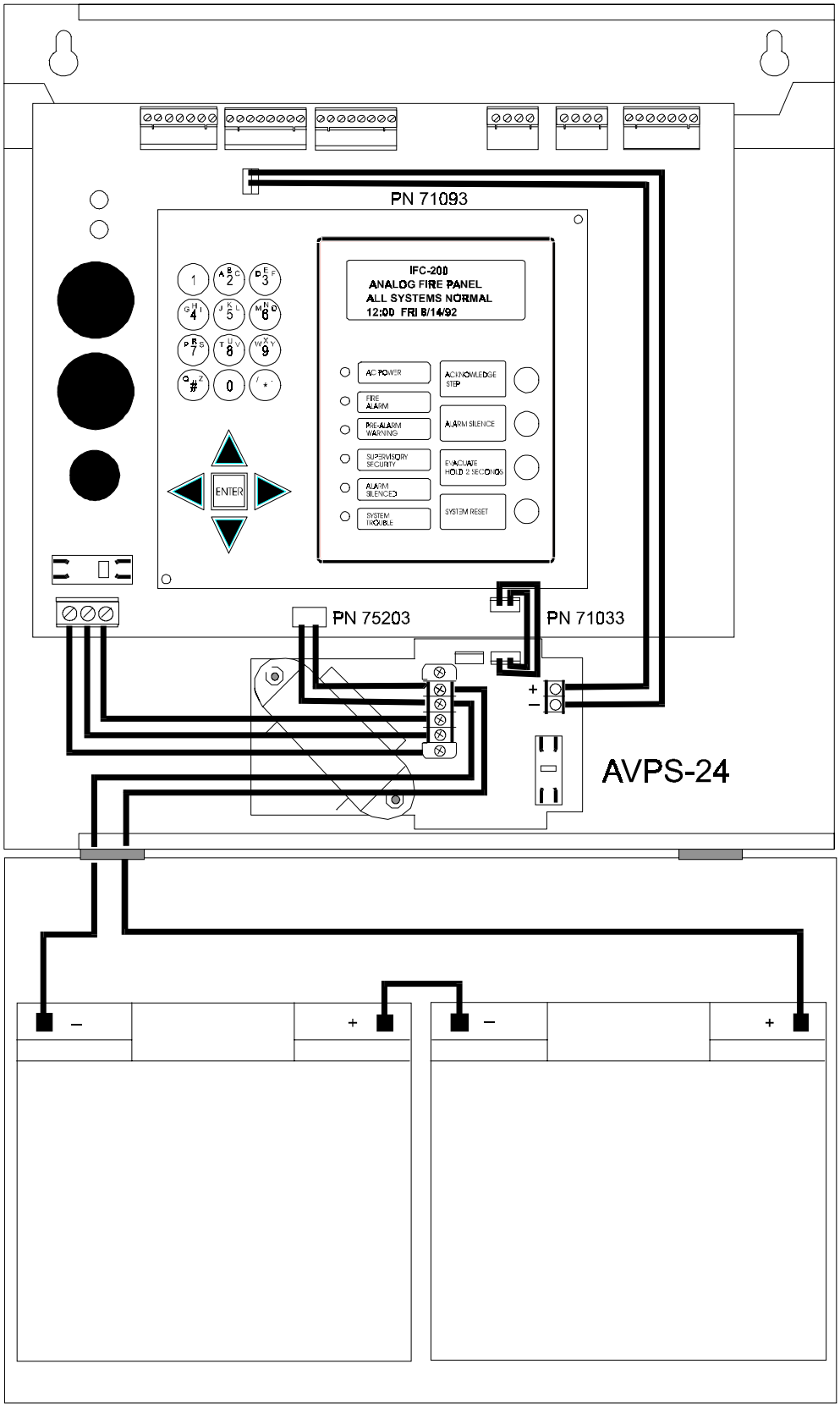


Figure 1: IFC-200/AVPS-24 Power Expansion

Notes

Notes

JOHNSON CONTROLS

Controls Group
507 E. Michigan Street
P.O. Box 423
Milwaukee, WI 53201

FAN 444
IFC-200 Technical Manual
Rev. Level 2.0
Printed in U.S.A.