INSTALLER'S MANUAL

PROGRAMMABLE ALARM SYSTEM

With COMMUNICATOR

MODEL AV3000

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SYSTEM DESCRIPTION

The Acron Model AV-3000 "AVENGER II" is an integrated alarm system consisting of a combination 8 zone control panel/digital communicator and one model DK-IIA digital control station. The control panel/digital communicator can be custo tailored for each installation. This is accomplished by programming a "PROM" (included with the system) on an Acron Model DD-1PC Programmer. Both control panel and digital communicator functions are programmed on the same PROM. For installations not requiring digital communication, programming only the panel portion is required. NOTE: THE SYSTEM WILL NOT WORK WITHOUT A PROGRAMMED PROM. For specific AV3000 programming information consult the "DD-1PC programming addendum" included with the system.

PROGRAMMABLE FUNCTIONS

A list of programmer selected functions are outlined below. The "Memory Location" column refers to the "Memory Location" function switch on the DD-1PC programmer.

PROGRAMMABLE CONTROL PANEL FUNCTIONS

Memory Location	Function
27B	Normally Closed Zones
20B	Audible Panic Zones
21B	Audible Burglary Zones
22B	Delay Burglary Zones
26B	Fire Zones
23B	Exit Delay Time
24B	Entrance Delay Time
25B	Bell Shut-Off and Automatic Panel Reset Time
29B	Silent Panic Zones
31B	All Burglary Zones Normally Closed
32B	False Alarm Shutdown (Swinger Rejection)

Note: Unprogrammed Zones are Silent Zones

PROGRAMMABLE COMMUNICATOR FUNCTIONS

Memory Location	Function	
1A-13A	First Phone Number	
1B-13B	Second Phone Number	
14A,16A,28B	Account Number (SEE NOTE 1)	
17A	Abort Zones (SEE NOTE 2)	
18A,19A	Reporting Delay Zones and Time	
20A,21A	Test Cancel Zones and Code	
22A,23A	Restore Zones and Code	
24A-31A	Zone Codes	
32A,18B,19B	Reporting Format	
14B	Zones to Dial Second Number Only	
17B	Zones to Dial Both Numbers	
15B,16B	Listen-in Zones and Time	
31B	Opening (SEE NOTE 3)	Non-Emergency Alarm Reports (Reports In Extended Format)
31B	Closing (SEE NOTE 3)	
31B	24-Hour Self-Test	
30B	Forced Arming	
30B	Low Battery/Trouble (SEE NOTE)	
19B	Non-Emergency Alarm Reports Dial Second Phone Number Only	
19B	Non-Emergency Alarm Reports Dial Both Phone Numbers	
32B	Dial If No Dial Tone	

NOTES: 1) NOT ALL RECEIVERS CAN ACCEPT A FOUR-DIGIT ACCOUNT NUMBER.
2) DO NOT USE ABORT IF 24-HOUR SELF-TEST OR FALSE ALARM SHUTDOWN ARE USED
3) CONVENTIONAL OPENING AND CLOSING REPORTING MAY BE ACHIEVED AT THE EXPENSE OF USING ONE OF THE INPUT CHANNELS. CONNECT TERMINAL V14 TO CHANNEL INPUT 5 OR 8. IF CHANNEL 5 IS USED REMOVE LINK J2. IF CHANNEL 8 IS USED REMOVE LINK J1. (THIS CHANNEL MUST BE PROGRAMMED FOR A SILENT PAN
4) CONVENTIONAL LOW BATTERY REPORTING MAY BE ACHIEVED AT THE EXPENSE OF USING ONE OF THE INPUT CHANNELS. CONNECT TERMINAL V13 TO ONE OF THE INPUT CHANNELS. (MUST BE A N.O. LOOP)

↳ N.O. LOOP WITH THE RESTORE FUNCTION, THE ZONE CODE BECOMES THE CLOSING CODE THE RESTORE CODE BECOMES THE OPENING CODE

OPTIONAL ACCESSORIES

In addition to the ability to select control panel and digital communicator characteristics, the system can be expanded through the use of one or more of the following optional modules:

DKIIA-a digital arming station that allows full system control and displays full system status from one or more convenient locations. 8 LED's display zone status and alarm memory for each zone; 8 LED's display armed status of each zone; 3 LED's display general loop status, instant/delay mode and general armed status. Up to 5 DKIIA's maybe used.

CL-1-CABINET LOCK-Use the knockout on the right side of the cabinet door (reviewed from the front).

V300D-LISTEN-IN MODULE-Provides "listen-in" capability from 1 to 15 minutes after kiss-off on desired zone/zones. Use with M1-microphone or equivalent.

EOL-8 SUPERVISED END OF LINE RESISTOR MODULE-converts the eight input zones to fully supervised zones. Each zone has a link to select Burglary or Fire operation. In the Fire position, an open will trigger a Trouble signal.

COURTESY OUTPUT-a +5 Vdc voltage is available at pin v-12 during Exit/Entrance times, and can be used to operate a line carrier lamp driver, etc. A BSR BA-285 Burglar Alarm Interface, Radio Shack 49-526 Burglar Alarm Interface or equivalent product can be used.

LZA-LOCAL ZONE ANNUNCATOR-provides troubleshooting aid by annunciation loop status and alarm memory at the panel.

DC-1-DERIVED CHANNEL INTERFACE-provides discreet outputs for use with derived channel or long range wireless systems.

CAUTION:

1. Don't short terminals 5 or 6 to 3 or 26 or the Fuse F2 will blow.
2. Don't connect battery until installation is complete.
3. Zones which aren't programmed for panel functions become Silent Zones.

PROM FACTORS

1. Determine the characteristics required for the installation. Program a PROM according to the DD-1PC Programming Addendum. The PROM may be programmed by the factory, distribution outlets, or on your own PROM programmer.

NOTE: REFER TO FIG. 1 FOR THE FOLLOWING STEPS:

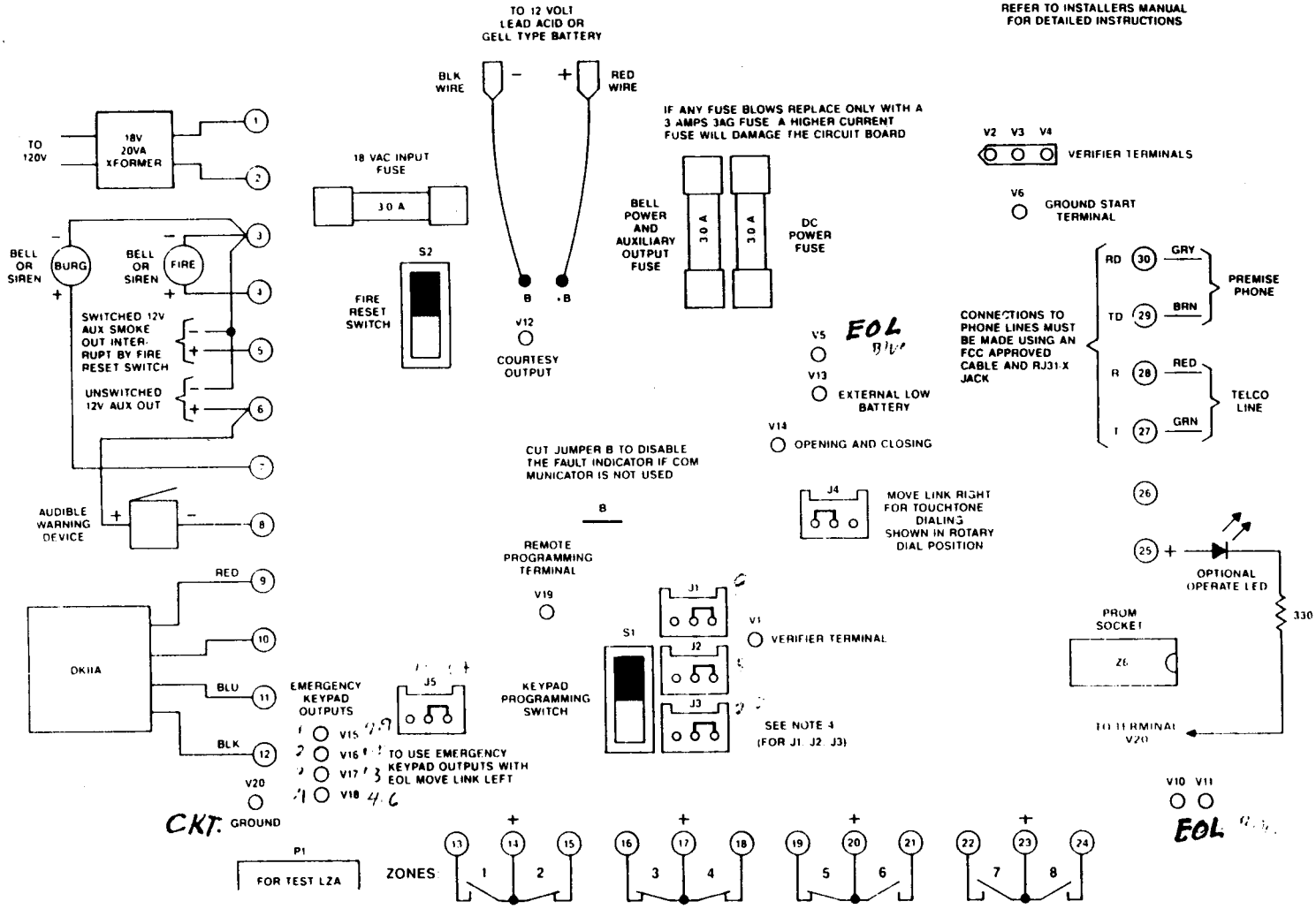
2. Install the PROM, making sure that the identification notch is located as shown in Fig. 1.

1000 uF

DO NOT USE VIBRATING FIRE HORN DEVICE UNLESS A 100 f CAPACITOR IS PLACED ACROSS THE DEVICE AND A DIODE IS WIRED IN SERIES WITH ONE POWER LEAD.

WIRING DIAGRAM
FOR MODEL
AV-3000 AVENGER II

REFER TO INSTALLERS MANUAL FOR DETAILED INSTRUCTIONS



ZONES ARE PROGRAMMED FOR N.O. OR N.C. OPERATION
IN THIS EXAMPLE ZONES 2-5 ARE N.C. AND ZONES 1, 6-8 ARE N.O.

NOTES
1. EARTH GROUND GOES TO CABINET
2. FCC REG. NO. AB798Z 67793-AL-E
   RINGER EQUIVALENCE 0.1 B
3. TOUCHTONE IS A REGISTERED TRADE MARK OF AT&T CO.
4. WHEN USING EOL MODULE MOVE LINKS J1, J2 AND J3 LEFT
   WHEN USING OPEN COLLECTOR DEVICES ON ZONE 5 MOVE LINK J2 LEFT
   WHEN USING ZONE 5 FOR **CONVENTIONAL** OPENING AND CLOSING REPORTS REMOVE LINK J2
   WHEN USING OPEN COLLECTOR RF DEVICES ON ZONE 8 MOVE LINK J2 LEFT
   WHEN USING ZONE 8 FOR **CONVENTIONAL** OPENING AND CLOSING REPORTS REMOVE LINK J1
5. SWITCHES S1 AND S2 ARE SHOWN IN NORMAL POSITION

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FIGURE 1

INSTALLATION

1. Install the optional cabinet lock if desired. Use the knockout on the right de of the cabinet door (reviewed from the front).

2. An AUDIBLE WARNING DEVICE may be connected between terminals 6 and 8. The device may be located in the cabinet or it may be remoted. The sounding device should operate at 12 Vdc, and must not require more than 40 mA. The device will produce a steady sound during Entrance Delay Time. The device will pulsate when the system has been Forcibly Armed (for the Exit delay time), and when in the Test mode. When Kiss-Off is received, it will sound momentarily, and if a receiver is not reached after 8 attempts, it will sound. continuously while the FAULT LED IS ON.

NOTES: 1) WHEN A TRIP OCCURS ON A ZONE(S) PROGRAMMED FOR SILENT PANIC IN MEMORY LOCATION 29B, THE KISS-OFF INDICATOR WILL NOT OPERATE. & The LED's will not Flash.

3. Connect a 12 Vdc Burglary Bell or Siren to terminals 3 and 7. Observe polarity.

4. Connect a 12 Vdc Fire Bell or Siren to terminals 3 and 4. Observe polarity.

5. 12 Vdc is available at terminals 3 and 6 for auxiliary devices.

NOTE: UNSWITCHED POWER FOR AUXILIARY DEVICES IS AVAILABLE AT TERMINAL 6 AND TERMINAL 3. SWITCHED SMOKE DETECTOR POWER IS AVAILABLE AT 5 AND 3. TERMINAL 3 IS THE COMMON TERMINAL AND TERMINALS 5 AND 6 ARE THE +12VDC TERMINALS. THE AMOUNT OF AVAILABLE CURRENT IS 600 MA (INCLUDING ANY DK II's EVEN THOUGH THEY ARE NOT CONNECTED TO TERMINALS 10 AND 11 OR 12). TO DETERMINE THE TOTAL CURRENT REQUIREMENT FOR AN INSTALLATION, TOTAL THE CURRENT REQUIREMENTS FOR ALL ITEMS TO BE CONNECTED TO THE AUXILIARY OUTPUT. AS WELL AS THE DKIIA'S. CURRENT REQUIREMENTS FOR ALL APPLICABLE ACRON ITEMS ARE:

Model	Current
DK II	80mA
EOL-8	30mA

Do not exceed 600 mA total

6. If the COURTESY OUTPUT is to be used to turn on a light during Exit and Entrance delay times, install a BSR BA-284 Burglar Alarm interface (or equivalent). Connect the positive (+) terminal of the interface unit to the COURTESY OUTPUT TERMINAL V12 and the negative (-) lead to terminal 3.

7. Connect the eight (8) input zones to terminals 13-24 as shown. The loops must be N.C. or N.O. according the the PROM program.

8. If a V300D Listen-In Module is to be used, connect it to terminals V1, V2, V3 and V4. Refer to the instructions supplied with the Listen-In Module.

9. If an OPERATE LED is desired (ON when unit is in reporting cycle), connect the anode to terminal 25 and the cathode to one end of a 390 ohm resistor. Connect the other end of the resistor to terminal V20.

10. Connect the telephone connection cable to terminals 27, 28, 29 and 30 as shown. Insulate all unused leads. The cable must be physically separated from power and signal lines.

11. Connect DKIIA to AV3000. Red lead to terminal 9. Blue lead to terminal 11. Black lead to terminal 12. Remaining lead to terminal 10. Refer to DKIIA Installers Manual for complete instructions regarding DKIIA installation and options.

12. Connect the cabinet to an earth ground. Do not use a lightning rod ground.

13. Check all connections, verifying polarity.

14. Connect the transformer to terminals 1 and 2. Polarity is not important.

15. Plug the transformer to a 125 Vac receptacle. The ARMED indicator on the DKIIA should light. (The system arms itself on Power-Up.)

16. Connect the BLACK FLYING LEAD to the negative (-) terminal of a 12 volt, rechargeable gell type battery. Connect the RED FLYING LEAD to the positive (+) terminal of the battery. If the battery is not fully charged, allow 36 hours for battery to reach full charge.

17. Plug the telephone connection cable into the RJ31-X jack.

18. For additional information refer to the DK-IIA Installer's manual and DK-IIA User's manual.

19. Fill in the appropriate information in the User's Manual, and give it to your customer when you explain how the system operates. Provision is made on the back page for your business card.

ADDITIONAL NOTES

After 8 unsuccessful attempts, the system will wait for one hour before additional attempts. To silence the Audible Warning Device and clear the Alarm Memory to prevent further attempts to report the initial alarm, remove AC power and disconnect one of the battery leads for 15 second. This will clear the Alarm Memory and reset the system.

You may wish to advise your customer over the phone to use this method to clear the Alarm Memory until you can cure the problem.

To aid in troubleshooting zone loop problems, use the LZA. (The LZA maybe connected via P1).
The LZA indicators follow the status of each zone loop.

SPECIFICATIONS

POWER REQUIREMENTS: 125 Vac, 20 VA, 18V transformer supplied. 12 volt battery, rechargeable gell type, not supplied.

Bell Outputs: Burglary and fire Outputs, 12 Vdc, total current not to exceed 3 Amps

Auxiliary Power Output: 12 Vdc, regulated, 600 mA. See NOTE preceding Step 6.

Transient and Lightning Protection: Lightning and surge protection provided on all input, power line, and telephone line.

Zone Response Time: 300 mSec. During reporting cycle, response time increases to 1 sec.

Maximum Loop Resistance: Do Not exceed 300 ohms on any zone loop (does not apply when Supervised End of Line Module is used)

Dimensions: 12" H x 10 1/2" W x 2 3/4" D

Shipping Weight: 10 lbs.

FCC Registration Number: AB798Z-67793-AL-E

Ringer Equivalence: 0.1B

FCC COMPLIANCE

This equipment generates and uses radio frequency energy and if not installed and used pro-perly, that is, in strict accordance with the manufacturer's instructions, may cause inter-ference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications of Subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient the TV or radio antenna.
2. Relocate or move the alarm control away from the receiver.
3. Plug the transformer for the alarm control into a different outlet so that the receiver and the alarm are on different branch circuits.
4. If necessary, the user should consult the alarm dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, stock #004-000-00345-4.

FOR TECHNICAL ASSISTANCE CALL:
800-631-2144
IN N.J. (201) 364-7200

MEMORY LOCATION ASSIGNMENT

PAGE A			PAGE B		
MEM. LOC.	DESCRIPTION	DATA ENTRY	DESCRIPTION	DATA ENTRY	MEM. LOC.
1	1ST DIALED DIGIT		1ST DIALED DIGIT		1
2	2ND DIALED DIGIT		2ND DIALED DIGIT		2
3	3RD DIALED DIGIT		3RD DIALED DIGIT		3
4	4TH DIALED DIGIT		4TH DIALED DIGIT		4
5	5TH DIALED DIGIT		5TH DIALED DIGIT		5
6	6TH DIALED DIGIT	FIRST TELEPHONE NO.	6TH DIALED DIGIT	SECOND TELEPHONE NO.	6
7	7TH DIALED DIGIT		7TH DIALED DIGIT		7
8	8TH DIALED DIGIT		8TH DIALED DIGIT		8
9	9TH DIALED DIGIT		9TH DIALED DIGIT		9
10	10TH DIALED DIGIT		10TH DIALED DIGIT		10
11	11TH DIALED DIGIT		11TH DIALED DIGIT		11
12	12TH DIALED DIGIT		12TH DIALED DIGIT		12
13	13TH DIALED DIGIT		13TH DIALED DIGIT		13
14	1ST DIGIT		◄ SELECT ZONES TO DIAL SECOND NO. ONLY		14
15	2ND DIGIT	ACCOUNT NO.	◄ LISTEN-IN. SELECT ZONES		15
16	3RD DIGIT		LISTEN-IN TIME. 1 MIN. INCREMENTS		16
17			◄ SELECT ZONES TO DIAL BOTH NUMBERS		17
18	◄ ABORT/DELAY-SELECT ZONES (COMMUNICATOR ONLY)		◄ EXTENDED FORMAT. SELECT ZONES		18
19	DELAY TIME-10 SEC. INCREMENTS		1 FAST/SLOW INVERT 4 BOTH NUMBERS 8 SECOND NUMBER		19
20	◄ TEST CANCEL. SELECT ZONES		◄ AUDIBLE PANIC. SELECT ZONES (24 HOURS)		20
21	TEST CANCEL. CODE (U) = 9 (CT)		◄ AUDIBLE BURGLARY. SELECT ZONES		21
22	◄ RESTORE. SELECT ZONES		◄ DELAY BURGLARY. SELECT ZONE (MUST ALSO BE AUD. BURG.)		22
23	RESTORE. CODE (U) = 0 (AT)		EXIT DELAY TIME. 10 SEC. INCREMENTS (U) = 30 SEC.		23
24	ZONE 1 REPORTING CODE (U) = 1 (FT)		ENTRANCE DELAY TIME. 10SEC. INCREMENTS (U) = 30 SEC.		24
25	ZONE 2 REPORTING CODE (U) = 2		BELL SHUTOFF TIME. 2 MIN. INCREMENTS (U) = 16 MIN.		25
26	ZONE 3 REPORTING CODE (U) = 3		● AUDIBLE FIRE. SELECT ZONES (24 HOURS)		26
27	ZONE 4 REPORTING CODE (U) = 4		◄ NORMALLY CLOSED LOOP. SELECT ZONES		27
28	ZONE 5 REPORTING CODE (U) = 5		ACCOUNT NUMBER 4TH DIGIT		28
29	ZONE 6 REPORTING CODE (U) = 6		SILENT PANIC. SELECT ZONES (24 HRS.)		29
30	ZONE 7 REPORTING CODE (U) = 7		1 FORCED ARMING REPORTS 2 LOW BATTERY/TROUBLE		30
31	ZONE 8 REPORTING CODE (U) = 8		24 HR. TEST 2 CLOSING 4 OPENING 8 ALL BURG. N.C.		31
32	1 VOID PAGE 4 SK 4 + 2 8 ACRON FORMAT		1 VOID PAGE 4 DIAL IF NO DIAL TONE 8 FALSE ALARM		32

■ = PROGRAM NUMBER FOR DESIRED FUNCTION

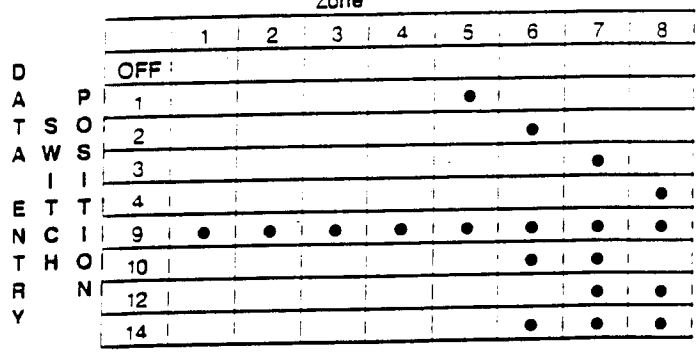
□ = CONTROL PANEL FUNCTIONS-USE ONLY WITH ACRON CONTROL PANELS

(U) = UNPROGRAMMED

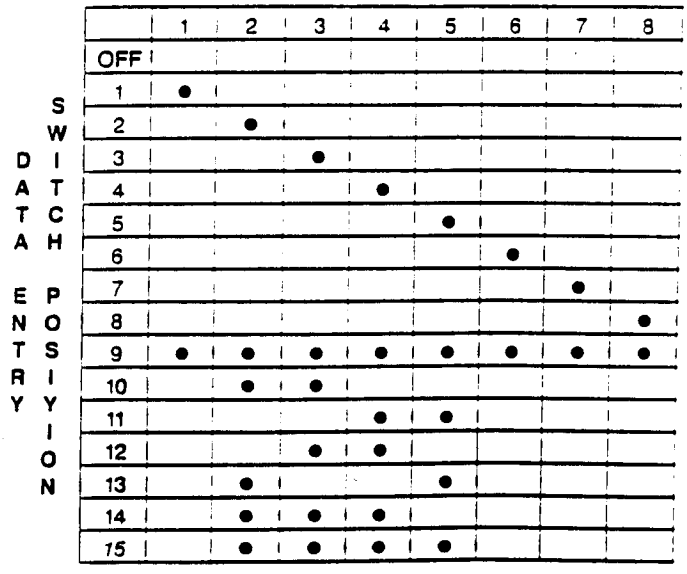
◄ = USE ZONE SELECT MATRIX (FIG. III).

● = USE FIRE ZONE SELECT MATRIX (FIG. II).

† = VALUE FOR ACRON FORMAT



FIRE ZONE SELECT MATRIX
FIG. II



ZONE SELECT MATRIX
FIG. III

FOR TECHNICAL ASSISTANCE CALL:
800-631-2144

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