

# DD-1PC PROM PROGRAMMER

## Programming Addendum

Use this addendum when programming a PROM for Acron products with "© 1983" microprocessors.

Refer to the DD-1PC instruction manual for programmer operating instructions.

Functions which can be zone selected (except Fire Zones) use the Acron Channel Select format found in Fig. III on page 10 of the Programmer Operating Instructions. Figure III is repeated on page 6 of this addendum.

Some Memory Locations are programmed for more than one function. When only one function in a particular Memory Location is desired, program the number for that function only. When two or more functions in a particular Memory Location are desired, you may program using two different methods.

*Example:* Memory Location 30B

FUNCTION		ENTER
Forced Arming		"1"
Low Battery/Trouble		"2"
Method 1)	Program the numbers for the desired functions one at a time. Enter a "1" for Forced Arming, then enter a "2" for Low Battery/Trouble. The displayed number will be a "3" ("1" + "2" = "3").	Method 2) Add the numbers of the desired functions together and enter that number.
		"1" Forced Arming
		"2" Low Battery/Trouble
		"3" Enter

When certain Memory Locations in the PROM are unprogrammed, an "unprogrammed value" is automatically assumed by the microprocessor. (Refer to the list below.) Programming any number in a location with an unprogrammed value will override the assumed value. The unprogrammed value is not in the PROM and cannot be read in the PROM. Memory Locations which have unprogrammed values are:

LOCATION	FUNCTION	UNPROGRAMMED VALUE		LOCATION	FUNCTION	UNPROGRAMMED VALUE
		Standard	Acron			
21A	Test Cancel Code	9	C	28A	Zone 5 Report Code	5
23A	Restore Code	0	A	29A	Zone 6 Report Code	6
24A	Zone 1 Report Code	1	F†	30A	Zone 7 Report Code	7
25A	Zone 2 Report Code	2	2	31A	Zone 8 Report Code	8
26A	Zone 3 Report Code	3	3	23B	Exit Delay Time	30 Sec.
27A	Zone 4 Report Code	4	4	24B	Entrance Delay Time	30 Sec.
				25B	Bell Shutoff Time	16 Min.

† = F is the Unprogrammed Value for Acron Format. Any value other than "1" may be programmed.

### MEMORY LOCATION FUNCTIONS

Use in conjunction with Programmer Instructions

#### "A" PAGE

- Test Cancel Zone Select—Memory Location 20A:** The Test Cancel Code will be sent when a Burglary zone which is programmed for Test Cancel is tripped and the panel is disarmed before the alarm report is sent.
- Restore Zone Select—Memory Location 22A:** The Restore Code will be sent when a Burglary zone which is programmed for Restore is tripped and the panel is disarmed after the alarm report is sent.
- Second dial tone:** In installations where two dial tones are received (first for internal line and second for outside line), the communicator may be programmed to detect a second dial tone. Programming a "14" after the outside line access code will cause the communicator to wait for a second dial tone before continuing the dialing sequence.
- Memory Location 32A:** A "1" (or any odd number) voids the page. An "8" is programmed when the Acron Superfast Reporting Format is to be used. (It is no longer necessary to program a "2" or a "4" in location 32.)
- All other Memory Locations are unchanged.**

#### "B" PAGE

- Dial Both Numbers—Memory Location 17B:** Select zones to report to BOTH phone numbers. Refer to Fig. III on page 6.

- b) **Extended Format Zone Select—Memory Location 18B:** An Extended Reporting Format may be zone selected. Using the Extended Format, both zone and code information is transmitted to the receiver. Examples of the different reporting formats are illustrated in Figure 1.

The Extended Format can be used to identify which Zone(s) originate Alarm, Test Cancel and/or Restore reports. Example B in Figure 1 illustrates a trip on Zone 2, which is programmed to report Code 3. In the Standard Format, the Zone which originated the Code 3 is not identified, while the Extended Format shows Zone 2 as the tripped Zone.

In the following examples:

Account Number = 123	*Restore Code = 0 (Std), A (Acron)	Opening = Selected
Test Cancel Zone = 4, 5	Extended Format = All Zones	Closing = Selected
*Test Cancel Code = 9 (Std), C (Acron)	Forced Arming = Selected	24-Hour Self-Test = Selected
Restore Zone = 2, 3, 4	Low Battery = Selected	Zone 2 Reporting Code = 3
* = Unprogrammed Value		

CONDITION	REPORTING FORMAT		
	STANDARD	EXTENDED	ACRON
A) Trip on Zone 1	123 1	123 1 111 1	Account 123 Zone 1 2 3 4 5 6 7 8 Code F
B) Momentary Trip on Zone 2	123 3	123 3 333 2	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 3
C) Disarm after alarm report	123 0	123 0 000 2	Account 123 Zone 1 2 3 4 5 6 7 8 Code T A
D) Momentary trip on Zone 3	123 3	123 3 333 3	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 3
E) Momentary trip on Zone 5, disarm before alarm report	123 9	123 9 999 5	Account 123 Zone 1 2 3 4 5 6 7 8 Code T C
F) Momentary trip on Zone 4, disarm before alarm report	123 9	123 9 999 4	Account 123 Zone 1 2 3 4 5 6 7 8 Code T C
G) Momentary trip on Zone 4	123 4	123 4 444 4	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 4
H) Disarm after alarm report	123 0	123 0 000 4	Account 123 Zone 1 2 3 4 5 6 7 8 Code T A
I) Opening	123 9 999 0	123 9 999 0	Account 123 Zone 1 2 3 4 5 6 7 8 Code D D D D D D D D
J) Closing	123 9 999 9	123 9 999 9	Account 123 Zone 1 2 3 4 5 6 7 8 Code A A A A A A A A
K) Low Battery/Trouble	123 0 000 9	123 0 000 9	Account 123 Zone 1 2 3 4 5 6 7 8 Code B B B B B B B B
L) Forced Arming	123 0 000 9	123 0 000 9	Account 123 Zone 1 2 3 4 5 6 7 8 Code T T T T T T T T
M) 24 Hour Self-Test	123 0 000 0	123 0 000 0	Account 123 Zone 1 2 3 4 5 6 7 8 Code

FIG. 1

- NOTES: 1) The Test Cancel and Restore Code Numbers should not be the same. If they are, a momentary trip will not be able to be distinguished from a restoral.
- 2) The Test Cancel and Restore Code Numbers should not be the same as a Zone Code Number.
- 3) The Test Cancel and Restore Codes are used in combination to report non-emergency alarm reports (I-M in Fig. 1). In this example, the Restore Code is "0" and the Test Cancel Code is "9".

- 4) The "T" in Acron Format (conditions B-H) indicates zone 1 is still tripped. In addition to the alarm which caused the report, the status of all zones is reported during each alarm transmission; a "T" indicates a tripped zone, while a blank space indicates a zone which is not violated.
- 5) The "F", "A", and "C"'s in Acron Format are unprogrammed values. The "F" may be changed to any value other than "1". The "A" and "C"'s may be changed to any other value.

- c) **Memory Location 19B:** This location is used for two functions — Fast/Slow Invert and the phone number(s) to be dialed for non-emergency alarm reports (Opening, Closing, 24-Hour Self-Test, Low Battery/Trouble, Forced Arming). When Fast/Slow Invert is selected, the communicator will transmit in Slow format when a Fast handshake is received, and Fast format when a Slow handshake is received. *Note: Not all receivers will accept inverted formats.*

FUNCTION	ENTER
Fast/Slow Invert	"1"
Dial Both Numbers	"4"
Dial Second Number Only	"8"

- d) **Control Panel Functions:** (\* indicates function can also be used on DD-1, DD-2, and DD-3.)

Early PAS Control Panels (those with "© 1982" microprocessors) had a limitation because of the Zone Select Matrix; it was not possible to have 5, 6 or 7 Audible Burglary Zones. When a zone was programmed for a function other than Audible Burglary, no more than 4 Audible Burglary Zones could be obtained. This restriction is eliminated in the "© 1983" microprocessor.

Using a unique *override* technique, the "© 1983" microprocessor allows any number of Audible Burglary Zones (Keyswitch Operated Zones), 1 through 8, to be selected. With this method, a zone(s) may be programmed for Keyswitch Operation and non-Keyswitch Operation (Silent Panic, Audible Panic and Fire). When a zone(s) is programmed for Keyswitch Operation and non-Keyswitch Operation, that zone will take on the non-Keyswitch Operation function—the non-Keyswitch Operation function will *override* the Keyswitch Operation function. For example, a zone which is programmed for Audible Burglary (Keyswitch Operated) and Audible Panic (non-Keyswitch Operated) will be an Audible Panic Zone (non-Keyswitch Operated).

In practice, to obtain full utilization of the override technique, all 8 zones will be programmed for Audible Burglary. Then, selected zones will be overridden with Silent Panic, Audible Panic, and/or Audible Fire. For example, if one Fire Zone and one Silent Panic Zone are required, the following steps would give the desired results:

1. Select all zones for Audible burglary by programming a "9" in Memory Location 21B.
2. Select Zone 1 for Silent Panic by programming a "1" in memory Location 29B.
3. Select Zone 8 for Fire by programming a "4" in Memory Location 26B.

The 8 zones of the PAS will have the following characteristics:

FUNCTION	ENTER
Audible Burglary	2,3,4,5,6,7
Silent Panic	1
Audible Fire	8

One further feature of the "© 1983" microprocessor is the ability, through programming the PROM, to select all Audible (and Delay) Burglary Zones for Normally Closed operation. This is accomplished by programming an "8" in Memory Location 31B.

*NOTE: Zones which are not selected for a specific function are Silent zones. The Armed LED will flash on alarm whether the panel is armed or disarmed.*

**1) Audible Panic Zone Select—Memory Location 20B**

The Armed LED will flash on alarm whether the panel is armed or disarmed. Zones which are programmed as Audible Burglary in Memory Location 21B may be overridden for Audible Panic. Refer to Fig. III on page 6 for the Zone Select Matrix.

**2) Audible Burglary Zone Select—Memory Location 21B**

Zones which are programmed for Audible Burglary can be overridden for Audible Panic, Audible Fire or Silent Panic. A Zone which is programmed for Audible Burglary and Audible Panic, for example, will be Audible Panic. This feature is particularly useful when 5, 6 or 7 Audible Burglary Zones are needed. In this case, program all zones (1-8) for Audible Burglary and then program any of the eight zones for Audible Panic, Audible Fire and/or Silent Panic. Refer to Figs. II and III on page 6 for the Zone Select Matrixes.

**3) Delay Burglary Zone Select—Memory Location 22B**

Delay Burglary Zones must also be programmed as Audible Burglary Zones in Memory Location 21B. Delay Burglary Zones may be overridden with Audible Panic, Audible Fire and Silent Panic as described for Audible Burglary Zones. Refer to Figs. II and III on page 6 or the Zone Select Matrixes.

**4) Exit Delay Time—Memory Location 23B**

10 to 150 seconds in 10-second increments. Program a "1" for a 10-second delay, a "2" for 20 seconds, etc., up to a "15" for a 150-second delay. If a Delay Zone(s) is selected, and Delay Time is not programmed, the Delay Time will be 30 seconds.

**5) Entrance Delay Time—Memory Location 24B**

10 to 150 seconds in 10-second increments. Program a "1" for a 10-second delay, a "2" for 20 seconds, etc., up to a "15" for a 150-second delay. If a Delay Zone(s) is selected, and Delay Time is not programmed, the Delay Time will be 30 seconds.

**6) Bell Shutoff Time—Memory Location 25B**

2 to 30 minutes in 2-minute increments. Program a "1" for 2 minutes, a "2" for 4 minutes, etc., up to a "15" for 30 minutes. If a number is not programmed, the Bell Shutoff Time will be 16 minutes.

**7) Fire Zone Select—Memory Location 26B**

The Armed LED will flash on alarm whether the panel is armed or disarmed. Zones which are programmed as Audible Burglary in Memory Location 21B may be overridden for Audible Fire. Refer to Fig. II on page 6 to select Fire Zones.

**8) Normally Closed Loop Select\*—Memory Location 27B**

Zones may be programmed in Memory Location 27B using the Zone Select Matrix (Fig. III) on page 6. Refer to Memory Location 31B for instructions on how to program all Audible Burglary Zones for Normally Closed operation.

**9) Account Number, 4th Digit\*—Memory Location 28B**

A fourth digit may be added to the Account Number in this location.

*NOTE: Not all receivers will accept a four-digit account number.*

**10) Silent Panic Zone Select—Memory Location 29B (use on PAS 1/WC ONLY)**

The Armed LED will not flash on alarm whether the panel is armed or disarmed, and the Fault LED will not indicate receipt of Kiss-Off. Zones which are programmed as Audible Burglary in Memory Location 21B may be overridden for Silent Panic. Refer to Fig. III on page 6 for the Zone Select Matrix.

**11) Low Battery\*/Trouble and Forced Arming Reports—Memory Location 30B**

FUNCTION	ENTER
Forced Arming Report	"1"
Low Battery/Trouble	"2"

**12) Opening, Closing, 24-Hour Self-Test\* Reports and All Burglary Zones Normally Closed—Memory Location 31B**

All zones which are programmed for Audible Burglary in Memory Location 21B, and which are not overridden as Audible Panic, Audible Fire or Silent Panic, can be programmed for Normally Closed operation by entering an "8" in Memory Location 31B. Zones may also be programmed in Memory Location 27B for Normally Closed operation whether or not an "8" is entered in Memory Location 31B.

*NOTE: The Closing Report will be sent after the Exit delay time expires. If the Exit time is unprogrammed, it will be 30 seconds.*

FUNCTION	ENTER
24-Hour Self-Test	"1"
Closing	"2"
Opening	"4"
All Burglary Zones Normally Closed	"8"

**13) Memory Location 32B\***

The communicator may be programmed to "Dial if Dial Tone is Not Detected" and for False Alarm Shutdown. When programmed for False Alarm Shutdown, three alarms on a single zone within a two-hour period will shut down that zone for 24 hours. Program a "1" in this location to cancel the page.

FUNCTION	ENTER
Void Page	"1"
Dial if No Dial Tone	"4"
False Alarm Shutdown	"8"

## PROGRAMMING EXAMPLE FOR A TYPICAL ALARM INSTALLATION

Assume that you have the following requirements for an installation:

- 5 Audible Burglary Zones, Normally Closed, Code 3
- 1 Delay Burglary Zone, Normally Closed, Code 3
  - 30 Second Exit Delay
  - 40 Second Entrance Delay
- 1 Silent Panic Zone, Normally Open, Code 2
- 1 Audible Fire Zone, Normally Open, Code 1
- Opening and Closing Reports
- Low Battery Report
- 10 Minute Bell Shutoff and Automatic Reset
- Emergency Alarms report ONLY to Fast Format Receiver at 800-555-1212
- Silent Panic Alarms report to Fast Format Receiver at 800-555-1212 and Slow Format Receiver at 459-6868.
- Non-Emergency Alarms report to Slow Format Receiver at 459-6868 ONLY.
- Restore Reports (Code 0) to be sent for Zones 3 and 4.
- Shut down any Zone which sends 3 reports in less than 2 hours.
- Account Number 240
- Access code for outside telephone line is "9".

The Memory Location Assignment chart below contains the programming information necessary to obtain the above-mentioned requirements.

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

When the PROM is programmed according to the above information, the PAS will have the following characteristics:

Zones 1, 3, 4, 5, 6	Audible Burglary, Normally Closed, report Code 3 to first receiver, Zones 3 and 4 report restorals as Code 0.
Zone 2	Silent Panic, Normally Open, reports Code 2 to both receivers.
Zone 7	Delay Burglary, Normally Closed, 30 second Exit Delay, 40 second Entrance Delay, reports Code 3 to first receiver.
Zone 8	Audible Fire, Normally Open, reports Code 1 to first receiver.
Account Number	240
Non-Emergency Alarm Reports	Low Battery, Opening and Closing Reports dial second receiver ONLY.
Bell Shutoff and Automatic Reset	10 Minutes
False Alarm Shutdown	Any Zone which reports 3 times within 2 hours will be shutdown for 24 hours.

# MEMORY LOCATION ASSIGNMENT

PAGE A			PAGE B		
MEM. LOC.	DESCRIPTION		DESCRIPTION		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 #	6TH DIALED DIGIT	SECOND TELEPHONE #	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	ACCOUNT #	▲ SELECT ZONES TO DIAL SECOND # ONLY		14
15	2ND DIGIT		▲ LISTEN-IN, SELECT ZONES		15
16	3RD DIGIT		LISTEN-IN TIME, 1 MIN. INCREMENTS		16
17	▲ ABORT, SELECT ZONES *		▲ SELECT ZONES TO DIAL BOTH #'S		17
18	▲ DELAY, SELECT ZONES		▲ EXTENDED FORMAT, SELECT ZONES		18
19	DELAY TIME - 10 SEC. INCREMENTS		1 FAST/SLOW INVERT 4 BOTH NUMBERS 3 SECOND NUMBER		19
20	▲ TEST CANCEL, SELECT ZONES		▲ AUDIBLE PANIC, SELECT ZONES (24 HOUR)		20
21	TEST CANCEL, CODE (U) = 9 (C †)		▲ AUDIBLE BURGLARY, SELECT ZONES (KEYSWITCH CONTROLLED)		21
22	▲ RESTORE, SELECT ZONES		▲ DELAY BURGLARY, SELECT ZONES (MUST ALSO BE AUD. BURG.)		22
23	RESTORE, CODE (U) = 0 (A †)		EXIT DELAY TIME, 10 SEC. INCREMENTS (U) = 30 SEC.		23
24	ZONE 1 REPORTING CODE (U) = 1 (F†)		ENTRANCE DELAY TIME, 10 SEC. 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 HOUR)		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 (USE ON PAS-1/WC ONLY)		29
30	ZONE 7 REPORTING CODE (U) = 7		1 FORCED ARMING 2 LOW BATTERY/TROUBLE		30
31	ZONE 8 REPORTING CODE (U) = 8		1 24 HR. TEST 2 CLOSING 4 OPENING 8 ALL BURG N.C.		31
32	1 VOID PAGE 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 PAS - 1 OR PAS - 1/WC

(U) = UNPROGRAMMED

† = VALUE FOR ACRON FORMAT

▲ = USE ZONE SELECT MATRIX (FIG. III)

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

\* = DO NOT USE ABORT IF 24 HOUR SELF-TEST OR FALSE ALARM SHUTDOWN ARE USED

ZONE

	1	2	3	4	5	6	7	8
DATA ENTRY SWITCH POSITION	OFF							
1					●			
2						●		
3							●	
4								●
9	●	●	●	●	●	●	●	●
10						●	●	●
12							●	●
14						●	●	●

FIRE ZONE SELECT MATRIX  
FIG.II

ZONE

	1	2	3	4	5	6	7	8
DATA ENTRY SWITCH POSITION	OFF							
1	●							
2		●						
3			●					
4				●				
5					●			
6						●		
7							●	
8								●
9	●	●	●	●	●	●	●	●
10		●	●					
11				●	●			
12				●	●			
13		●				●		
14		●	●	●				
15		●	●	●	●			

ZONE SELECT MATRIX  
FIG.III

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

 **acron**  
corporation  
490 OBERLIN AVE. SO., LAKEWOOD, N. J. 08701