

# **INSTALLATION/ PROGRAMMING INSTRUCTIONS**

**AVENGER VI  
ALARM  
SYSTEM**

**MODEL AV-6000**

**SCANTRONIC**

(USA) INC.

## TABLE OF CONTENTS

<b>SECTION I:</b>	<b>INSTALLATION INSTRUCTIONS</b>	
1.0	SYSTEM DESCRIPTION .....	3
1.1	INSTALLATION .....	3-4
1.2	FIGURE 1 (AV-6000 WIRING DIAGRAM) .....	5
1.3	TROUBLESHOOTING .....	6
1.4	ADDITIONAL NOTES .....	6
1.5	SPECIFICATIONS .....	6
1.6	OPTIONAL ACCESSORIES .....	6
1.7	FCC COMPLIANCE .....	7
 <b>SECTION II:</b>	 <b>PROGRAMMING INSTRUCTIONS (Using the DK-IV)</b>	
2.0	INTRODUCTION .....	8
2.1	PROGRAMMING MODE .....	8
	 <b>DISPLAY</b>	
2.2	LED ARRANGEMENT .....	8-9
2.3	NUMERIC DATA .....	9
2.4	SELECTION DATA .....	9
	 <b>KEYPAD</b>	
2.5	CHANGING MEMORY LOCATIONS AND VIEWING DATA .....	9-10
2.6	PROGRAMMING NUMERIC DATA .....	10
2.7	REVIEWING THE DATA .....	10
2.8	REPROGRAMMING NUMERIC DATA .....	10
2.9	PROGRAMMING SELECTION DATA .....	10
	 <b>SUMMARY</b>	
2.10	MODE KEY .....	11
2.11	ENTER KEY .....	11
2.12	NUMERIC KEYS .....	11
	 <b>EXAMPLES AND FIGURES</b>	
2.13	PROGRAMMING EXAMPLE .....	11
2.14	PROGRAMMING WORKSHEET EXAMPLE .....	12
2.15	RECEIVER FORMAT EXAMPLE .....	13
2.16	PROGRAMMING WORKSHEET .....	14
 <b>SECTION III:</b>	 <b>PROGRAMMING INSTRUCTIONS/DEFINITIONS</b>	
3.0	TELEPHONE NUMBERS .....	15
3.1	FIRST NUMBER DIALING .....	15
3.2	SECOND NUMBER DIALING .....	15
3.3	FIRST ACCOUNT NUMBER .....	15
3.4	SECOND ACCOUNT NUMBER .....	16
3.5	DIAL SECOND NUMBER ONLY, SELECT ZONES .....	16
3.6	DIAL BOTH NUMBERS, SELECT ZONES .....	16
3.7	ROTARY/TOUCH TONE DIALING .....	16
3.8	FALSE ALARM SHUT DOWN (SWINGER REJECTION) .....	16
3.9	DK-III OR DK-II OPERATION .....	16
3.10	EUROPEAN MAKE/BREAK .....	16
3.11	INHIBIT FAILURE TO COMMUNICATE .....	16
3.12	RECEIVER FORMATS FOR THE FIRST TELEPHONE NUMBER .....	16

3.13	RECEIVER FORMATS FOR THE SECOND TELEPHONE NUMBER .....	17
3.14	RESTORE, SELECT ZONES .....	17
3.15	RESTORE CODE .....	17
3.16	TEST CANCEL, SELECT ZONES .....	17
3.17	TEST CANCEL CODE .....	17
3.18	REPORTING DELAY, SELECT ZONES .....	17
3.19	REPORTING DELAY TIME .....	17
3.20	LOW BATTERY AND AC DELAY ZONES .....	18
3.21	ZONE REPORTING CODES .....	18
3.22	ZONE 1 THROUGH 6 REPORTING CODES .....	18
3.23	ZONE 9 CODE (LOW BATTERY) .....	18
3.24	ZONE 10 CODE (A.C. POWER FAILURE) .....	18
3.25	ZONE 11 CODE (AUTOMATIC SELF TEST) .....	18
3.26	ZONE 12 CODE (CLOSING REPORT) .....	18
3.27	ZONE 13 CODE (OPENING REPORT) .....	18
3.28	ZONE 14 CODE (STATION) .....	18
3.29	ZONE 15 CODE (BYPASSING REPORT) .....	19
3.30	ZONE 16 (TROUBLE REPORT) .....	19
3.31	FOLLOWER, SELECT ZONES .....	19
3.32	AUDIBLE PANIC, SELECT ZONES (24 HR.) .....	19
3.33	SILENT PANIC, SELECT ZONES (24 HR.) .....	19
3.34	AUDIBLE FIRE, SELECT ZONES (24 HR.) .....	19
3.35	AUDIBLE BURGLARY, SELECT ZONES .....	19
3.36	DELAYED BURGLARY, SELECT ZONES .....	19
3.37	EXIT DELAY TIME .....	20
3.38	ENTRANCE DELAY TIME .....	20
3.39	BELL SHUT-OFF TIME (× 2 MIN.) .....	20
3.40	FIRE BELL SHUT-OFF .....	20
3.41	REPORTING DELAY AC/LOW BATTERY .....	20
3.42	REPORTING ATTEMPTS .....	20
3.43	SECOND NUMBER DIALING (AUXILIARY) .....	20
3.44	BOTH NUMBER DIALING (AUXILIARY) .....	20
3.45	SELF-TEST REPORTING CYCLE .....	21
3.46	KEYPAD AUDIBLE ALARM SELECT (FIRE OR BURGLARY) .....	21
3.47	KEYPAD INITIATED REPORTING CODES .....	21
3.48	STATUS REPORTING CODE .....	21
3.49	LOW BATTERY RESTORE CODE .....	21
3.50	AC POWER FAILURE RESTORE CODE .....	21
3.51	DAY/NIGHT TROUBLE ZONES DISPLAY ENABLE .....	22
3.52	DAY/NIGHT TROUBLE ZONES REPORT ENABLE .....	22
3.53	INSTALLERS KEYPAD REFERENCE GUIDE .....	23
<b>SECTION IV:</b>	<b>CANADIAN INSTALLATIONS .....</b>	<b>24</b>
	<b>LIMITED WARRANTY .....</b>	<b>25</b>

# SECTION I: INSTALLATION INSTRUCTIONS

## 1.0 SYSTEM DESCRIPTION

The Scantronic Model AV-6000 "AVENGER VI" is a six-zone control panel/digital communicator alarm system that consists of one AV-6000 panel and one model DK-IV digital control station. The AV-6000 can be custom tailored for each installation by programming an Electrically Erasable Programmable Read Only Memory (EEPROM) which is included with the system. Programming can be accomplished using either the DK-IV or the Scantronic Model P-4000 EEPROM Programmer. For complete information concerning programmable features and use of the DK-IV to enter data and commands into the EEPROM, see Sections II and III AV-6000 Programming Instructions.

**NOTE:** *The system will not work without a programmed EEPROM.*

The material in this publication is for information purposes only and is subject to change without notice. Scantronic (USA) Inc. assumes no responsibility for any error which may appear in this publication.

## 1.1 INSTALLATION

### — CAUTION —

1. Don't short terminals 7 or 8 to 3, 4 or 5 or Auxiliary output fuse will blow.
2. Don't connect battery until installation is complete.
3. Do not apply power until after step 10.

1. Mount control panel in a convenient location.
2. Mount DK-IV. Keypad may be either surface mounted or mounted on a single or double gang plastic gem box. DO NOT USE A METAL GEM BOX.
3. Connect a 12 Vdc Bell or Siren to terminals 5 and 6. Observe polarity. Output is steady for burglary, pulsed for fire.
4. Unswitched 12 Vdc is available at terminals 3 and 7 for auxiliary devices.
5. If smoke detectors are used, their 12-volt power should be supplied through terminal 7 (+12 V) and terminal 3 (common). To reset the smoke detectors, this 12V source must be interrupted by using an external normally closed switch (not supplied).

**NOTE:** *The total amount of available current is 400 mA (including any DK-IV's even though they are not connected to terminal 7). To determine the total current requirement for an installation, add the current requirements for all items to be connected to the auxiliary output as well as the DK-IV's. Current requirements for the DK-IV is 80 mA.*

*Do not exceed 400 mA total.*

6. Connect the six (6) input zones to terminals 11-19. Make sure to use the supplied END OF LINE resistors as shown in Fig. 1.

**NOTE:** *Normally closed loops are wired in series with the resistor; normally open loops are wired across the resistor.*

7. Connect the F.C.C. approved telephone connection cable to terminals 20, 22, 23 and 24 as shown. Insulate all unused leads. **THE CABLE MUST BE PHYSICALLY SEPARATED FROM POWER AND SIGNAL LINES.**
8. Connect DK-IV to AV-6000. Red lead to terminal 8. Blue lead to terminal 10. Black lead to terminal 4. Yellow lead to terminal 9. Refer to DK-IV Installer's Manual and User's Manual for complete instructions regarding DK-IV installation and options. **WIRES CONNECTING DK-IV to AV-6000 MUST BE KEPT AWAY FROM A.C. AND TELCO WIRING TO MINIMIZE TRANSIENT PROBLEMS DUE TO LIGHTNING.**

9. Connect Terminal 21 and Cabinet to an EARTH GROUND.

**NOTE:** 1) *Suggested earth ground and protection levels are:*

*A) Preferred protection — Separate metal grounding rod.*

*B) Acceptable Protection — Metal cold water pipe.*

*2) Use at least 16 gauge wire between terminal 21 and earth ground.*

*3) Keep wire run as short as possible and away from other panel wiring.*

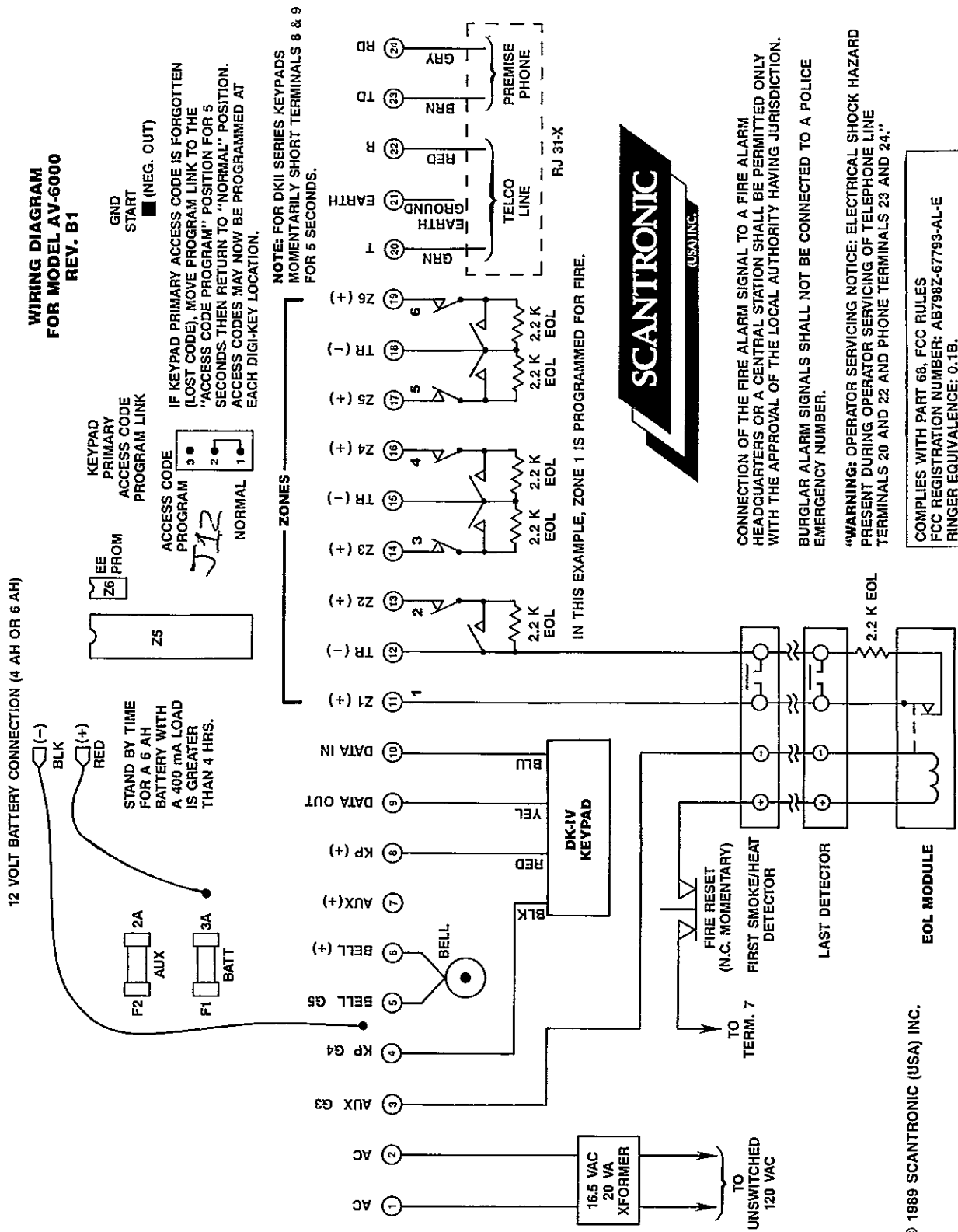
*4) Do not use an existing lightning rod ground; it can provide a path for lightning strikes to panel.*

10. Check all connections, verifying polarity.
11. Connect the transformer to terminals 1 and 2. Polarity is not important.
12. Plug the transformer to an unswitched 120 Vac receptacle. The indicators on the DK-IV should light.
13. Connect the BLACK FLYING LEAD to the negative (–) terminal of a 12-volt, rechargeable gel-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.
14. Program the EEPROM for the desired system configuration and features. Refer to the AV-6000 Programming Instructions (Sections II and III) for proper procedures. After programming is completed, restore the system back to the panel and keypad modes.
15. Plug the telephone connection cable into the RJ31-X jack.
16. The system may now be Disarmed and Armed from the DK-IV using the (Factory Programmed) Access Code 123. Leave system Disarmed.
17. TESTING THE LOCAL SYSTEM USING THE DK-IV: Arm the system in the TEST MODE. (Press: Access Code, MODE, TEST, then ENTER). The audible warning devices will pulsate continuously during TEST, except when testing an Entrance Delay zone. During Entrance Delay time, the audible warning device will change to a steady sound (for 4 seconds in the TEST MODE) and then return to a pulsating sound. All loops may now be tested independently. Violate each loop separately. The Arm and zone LEDs will flash on alarm. No need to reset panel after each zone test. Bell or Siren will shut off in 4 seconds and another zone can be tested.  
  
**NOTE:** *Zones violated while in the TEST MODE will not report to the Central Reporting Station. After all zones are tested, Disarm the panel. All audible warning devices will shut off and the master Arm LED will turn off.*
18. TESTING COMMUNICATION TO THE CENTRAL REPORTING STATION: Arm the Panel. Violate a zone. The Siren/Bell should turn on, the zone and Arm LEDs should flash and the premise telephone should be inoperative (DEAD). After the Central Reporting Station receives a good transmission of this violation, it will send a Kiss-off signal back to the panel and disconnect from the telephone line.
19. For additional information on DK-IV operation and reprogramming the access code, refer to the AV-6000 DK-IV Installer's and User's Manuals.
20. 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.

#### **NOTE**

***This equipment and wiring should be installed by a professional installer. The control unit and keypad are to be installed in accordance with the Standard of the National Fire Protection Association for Household Fire Warning Equipment, NFPA 74. Installation wiring locations and wiring methods should be in accordance with the National Electrical Code, ANSI/NFPA 70-1978 or the most recent revision. For further information, contact the NFPA, 470 Atlantic Avenue, Boston, MA 02201. The installer should also observe any State or Local codes that may exist.***

1.2 FIGURE 1



### 1.3 TROUBLESHOOTING

SYMPTOM	CHECK
No indicators light . . . . .	Make sure system is connected to either a good battery or AC. (Test battery under load.) Check Auxiliary output fuse.
Bells won't ring . . . . .	Check battery fuse.
Fault Analysis Condition . . . . . (Green LED flashing) (Sounder pulsing)	This mode provides diagnostic troubleshooting for AC power failure, low battery, trouble, and failure to communicate. See "Fault Analysis" in DK-IV User's Manual.

### 1.4 ADDITIONAL NOTES

After the programmed number of attempts, the system shuts down unless a new alarm condition occurs. To silence the Audible Warning Device and clear the Alarm Report to prevent further attempts to report the initial alarm, enter and exit the TEST MODE. This will clear the Alarm Report and reset the system.

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

Upon resetting the system (including entering and exiting the TEST MODE any existing fault conditions will cause the Audible Warning Device to pulsate. To silence, initiate the Fault Analysis mode. (See DK-IV User's Manual.)

### 1.5 SPECIFICATIONS

POWER REQUIREMENTS: 120 Vac, 20 VA, 16.5V transformer supplied. 12-volt battery, rechargeable gel-type, not supplied.

TEMPERATURE OPERATING RANGE: 35° Fahrenheit to 135° Fahrenheit.

BELL OUTPUT: Burglary and Fire Output, 12 Vdc, total current not to exceed 2 Amps. (Includes Auxiliary Power Output.)

AUXILIARY POWER OUTPUT: 12 Vdc, regulated, 400 mA. See NOTE preceding Step 6.

TRANSIENT AND LIGHTNING PROTECTION: Lightning and surge protection provided on all input, power and telephone lines.

ZONE RESPONSE TIME: 220 mSec. During reporting cycle, response time increases to approximately 1 sec.

MAXIMUM LOOP RESISTANCE: Do Not exceed 300 ohms on any zone loop (not including EOL Resistor).

DIMENSIONS: 8¼" H x 11" W x 3" D.

SHIPPING WEIGHT: 6 lbs.

FCC REGISTRATION NUMBER: AB798Z-67793-AL-E.

RINGER EQUIVALENCE: 0.1B.

### 1.6 OPTIONAL ACCESSORIES

**BL/AV:** Black label for DK-IV keypads.

**BP-1:** Combination Trim/Back plate that allows New Low profile keypads to be installed in place of the older style surface mount Digi-Key keypads.

**DK-IV:** A digital arming station that allows full system status from one or more convenient locations. 6 LEDs display zone status and alarm memory for each zone; 6 LEDs display armed status of each burglary zone; 3 LEDs display general loop status, instant/delay mode and general armed status. Maximum of 4 DK-IVs may be used.

**W/AV:** Beige label for DK-IV keypads.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference 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:

- ## NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



# SECTION II: PROGRAMMING INSTRUCTIONS

## Using The DK-IV as a Programmer

### GENERAL

#### 2.0 INTRODUCTION

Whether you are an experienced installer/programmer or a newcomer you will find programming and installing the AV-6000 simple and easy to understand. For those familiar with programming Scantronic or other products, a reading of Section II with an occasional glance at Section III (DEFINITIONS) is probably all that is necessary. For those that are new to programming, a thorough reading of Sections II and III is recommended.

The EEPROM in the AV-6000 may be programmed either by a separate programmer or by the DK-IV, which comes with the system. These instructions describe how the DK-IV is used for this purpose. A free permanent overlay for the DK-IV is also available from your distributor or Scantronic (USA) Inc. to simplify the use of the Digi-Key, or use the temporary overlay printed on the DK-IV box.

#### 2.1 PROGRAMMING MODE

The DK-IV keypad is shipped with all zone LED's enabled for programming. Once programming is complete, zones 7-8 corresponding LED's must be disabled for use with AV-6000; these otherwise unprogrammed zones will display 24 hr. status.

Both the panel and the DK-IV must be placed in the "PROGRAM" mode in order to program the AV-6000. This is accomplished by the following key sequences:

Put the DK-IV in the programming mode first by entering the following key sequence:



Then put the AV-6000 into the programming mode from the DK-IV by entering the following:



When programming is complete, return the AV-6000 and the DK-IV to the "PANEL" mode as follows:

Press **4** and **5** simultaneously to return the AV-6000 to panel mode.

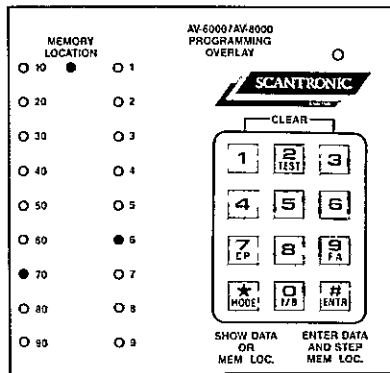
Press **★** and **#** simultaneously to return the DK-IV to normal mode.

**NOTE:** Failure to return both AV-6000 and DK-IV to the panel mode will result in improper operation. If this occurs, return DK-IV to the program mode and repeat above in proper sequence.

### DISPLAY

#### 2.2 LED ARRANGEMENT

The two columns of 9 LED's may be thought of as a two-digit decimal display with the left column representing the tens' digit and the right column representing the units' digit. The top LED represents a "one", the bottom LED represents a "nine". When all LEDs are off, a "zero" is being displayed. When the yellow LED is on, either blinking or steady, the display is showing a memory location; when the yellow LED is off, the display is showing the data. A blinking yellow LED indicates a Memory Location that exceeds 99. For example, the figure on page 10 (which has a steady yellow LED) indicates memory location 76 (• indicates the LED is on).



**NOTE:** A Free Programming overlay may be obtained from your distributor or by calling Scantronic (USA) Inc.

The "MODE" key is used to switch back and forth between these two display modes. When in the memory location mode, the display shows the current memory location and the keypad can be used to move to any desired location.

When in the data mode (the yellow LED off), the display shows the contents of the current memory location and the keypad can be used to modify data. The EEPROM is capable of storing two types of data, each of which is displayed and manipulated differently.

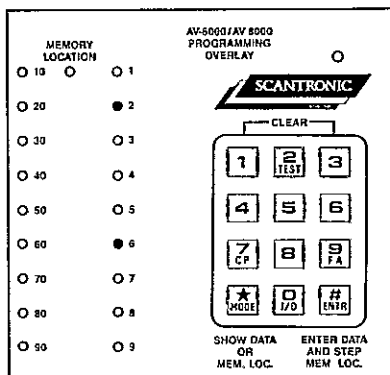
## 2.3 NUMERIC DATA

NUMERIC DATA is used to store telephone numbers, account codes, entrance/exit delays, etc.

## 2.4 SELECTION DATA

SELECTION DATA displays specific data selected for special functions (burglary zones or fire zones, for example, or Touch Tone dialing and False Alarm shutdown, for example).

DISPLAY of Selection data uses only the top 8 LED's of the right hand column and specifies the functions selected. For example, the figure below indicates that zones 2, 4, and 6 have been selected.



## KEYPAD

### 2.5 CHANGING MEMORY LOCATIONS AND VIEWING DATA

Changing Memory Locations and Viewing Data is accomplished in the following manner. If the display is not showing, a Memory Location (Yellow LED ON), press the Mode key.

THE NUMERIC KEYS enter numbers into the display in the same way as a standard calculator; that is, each entry shifts the contents of the units' digit into the tens' digit and then places the new entry in the units' digit. For example:

To go to location 76, enter 076. To go to location 1, enter 001.

**NOTE:** *To avoid confusion, each entry should be 3 digits long.*

## 2.6 PROGRAMMING NUMERIC DATA

The following example shows how to program a telephone number. Let's program the primary phone number to dial 3647200.

A review of the programming work sheet (Figure 4) shows that the first digit of the first number starts in memory location "1". To program the telephone number, display memory location "1". Next press the MODE key to switch the display to show data. Next, press key 3, press ENTR, press key 6, press ENTR, press key 4, press ENTR, and continue this sequence until the last digit "0" is entered. Notice that the digit "0" is displayed as a 10. This is similar to the "0" on a rotary telephone dial. Although the dial is marked with a "0", the actual number of pulses transmitted is 10.

After programming the last telephone digit, the "1" & "3" keys must be pressed simultaneously. This will "clear" the next memory location by entering a blank, which must be done to inform the AV-6000 that the dialing sequence is complete.

## 2.7 REVIEWING THE DATA

In order to review the telephone number or any other data, the following procedure is used. Go to memory location "1" (start of the first telephone number). Switch the display to view data, a 3 will be displayed (first dialed digit); press ENTR again, a 6 will be displayed; press ENTR, a 4 will be displayed. Every time the ENTR key is pressed, the memory location is advanced and the associated data is displayed. When the last digit is displayed, switch the display to show the Memory Location. Since the last dialed digit is the 7th digit, the display will show 7. This last step is not necessary, and is intended to show the relationship between the Memory Location and its associated data. It also shows a way to check for errors.

## 2.8 REPROGRAMMING NUMERIC DATA

It is not necessary to "clear" existing numeric data when reprogramming, just reprogram over the old data — **unless the data is a one (1)**. In this case the location must be first cleared (pressing keys 1 and 3 simultaneously), then enter the new data.

## 2.9 PROGRAMMING SELECTION DATA

The following example shows how to select Zones 2, 4 and 6 for Burglary. A review of the Programming Worksheet shows Burglary Functions are assigned to Memory Location 84.

Set the display to Memory Location 84. Change display to show data. If random data appears, press clear key combination (1 & 3). The display will indicate no zones selected (all LEDs in right hand column are out). Press key 2, press key 4, press key 6. Notice as you press each key, its associated LED lights up in the right column indicating you have selected that zone. If the information is correct, press ENTR key. That location is now programmed. If incorrect, press the clear keys again and re-select zones. Unlike numeric data (where a new entry overwrites an old entry) selection data must be cleared if an error is made.

PROGRAMMING SELECTION DATA other than Zone data is the same as Programming Zone Data. Example: Select Touch Tone Dialing and False Alarm Shutdown. The Memory Assignment Chart shows location 53 contains the numbers to be entered. A "1" for Touch Tone dialing and a "3" for False Alarm Shutdown.

Set the display to show the data in Memory Location 53. If clearing is required, do so. If not, press the "1" then the "3" key. Display will now show the "1" and "3" LEDs lit in the right hand column. Press the ENTR Key. This location is now programmed.

## SUMMARY

### 2.10 MODE KEY

Changes the display. Display can view a memory location or its associated data, but not both at the same time. Pressing the MODE key allows alternating between viewing a memory location or its contents (data).

### 2.11 ENTER KEY

When the display shows a memory location, pressing the ENTR KEY will advance that memory location. When the display shows data, pressing the ENTR KEY enters the displayed data into EEPROM and advances to the next memory location.

### 2.12 NUMERIC KEYS

WHEN DISPLAY SHOWS MEMORY LOCATIONS. Used to change memory locations. Examples: display shows 76 and 1 is desired, enter the following key sequence: 0 0 1. The display now shows 1.

WHEN DISPLAY SHOWS DATA AND NUMERIC DATA ENTRY IS REQUIRED. Use numbers 0 thru 15 to enter data. A "0" entry will program and display 10.

WHEN DISPLAY SHOWS DATA AND SELECTION DATA ENTRY IS REQUIRED. Use keys 1 thru 8 to enter Function data. Key 9 will select all function numbers (1 thru 8).

WHEN THE DISPLAY SHOWS DATA AND THE CLEAR KEY FUNCTION IS REQUIRED. Pressing the clear key combinations keys **1** & **3** simultaneously programs a blank in the associated memory location. This function is used to "clear" data when necessary.

**NOTE:** This function must be used after programming the last telephone number digit.

## EXAMPLES AND FIGURES

### 2.13 PROGRAMMING EXAMPLE:

This programming example shows two telephone numbers programmed to access second (outside) Dial Tone. Zones, Mode Selection and Reporting Codes are as follows:

ZONES AND MODES SELECTED	REPORTING CODES SELECTED
Touch Tone Dialing	Acct Number = 123 (both Primary and Secondary)
False Alarm Shutdown	Test Cancel Code = 9
Extended Format All Zones Telephone #1 (not used with SK 4+2)	Restore Code = 14(E) - Change to "2" for SK 4+2
Std. Format Telephone #2	Low Battery Code = 8 - Change to "6" for SK 4+2
Restore Zones 2, 3, 4	Opening Code = 11(B) - Change to "9" for SK 4+2
Fire Zone 1	Closing Code = 12(C) - Change to "4" for SK 4+2
Burglary Zones 2-5	Self-Test Code = 13(D) - Change to "3" for SK 4+2
Silent Panic Zone 6	Test Cycle = 1 (24 Hrs.)
Test Cancel Zones 4 & 5 (not used with SK 4+2)	Zones 2-5 Reporting Code = 3 - Change to "0" for SK 4+2
Delayed Burglary 2 & 3	Zone 1 = Code 1
8 Reporting Attempts	Zone 6 = Code 2
Keypad Emergency (1 & 3)	Station Code = 7
Keypad Emergency (4 & 6)	Emergency Keypad (4 & 6) = Code 4 (Audible Panic)
Keypad Emergency (★ & #)	Emergency Keypad (★ & #) = Code 2 (Silent Panic)
	Emergency Keypad (1 & 3) = Code 1 (Audible Fire)

This example is shown on the sample programming worksheet. See Figure 2.

FIGURE 2

## 2.14 PROGRAMMING WORKSHEET EXAMPLE

Name \_\_\_\_\_

First Acct. # \_\_\_\_\_

Address \_\_\_\_\_

Second Acct. # \_\_\_\_\_  
(If used)

## PROGRAMMING WORKSHEET

MEMORY LOCATION	DESCRIPTION	DATA ENTERED (NEW)																					FACTORY PROGRAMMED
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1-21	FIRST TELEPHONE NUMBER MEMORY LOCATIONS																						
	FIRST TELEPHONE NUMBER DIGITS	9	14	1	8	0	0	5	5	5	1	2	1	2	*								
22-42	SECOND TELEPHONE NUMBER MEMORY LOCATIONS																						
	SECOND TELEPHONE NUMBER DIGITS	9	14	5	5	5	1	2	1	2	*												
43-46	FIRST ACCOUNT NUMBER MEMORY LOCATIONS																						
	FIRST ACCOUNT NUMBER DIGITS	43				44				45				46									
47-50	SECOND ACCOUNT NUMBER MEMORY LOCATIONS																						
	SECOND ACCOUNT NUMBER DIGITS	47				48				49				50									
51	DIAL SECOND NUMBER ONLY, SELECT ZONES																						
52	DIAL BOTH NUMBERS, SELECT ZONES																						
53	1=TE, DIALING 3=FALSE ALARM SHUTDOWN 4=EUR. MAKE/BREAK † 6=DK-III OR DK-M OPERATION ‡ 7=DUAL BELL OP 8=FAILURE TO COMM DISABLE																						
54	TEL #1 2=EXT REP 4=SK 4+2 8=ACRON																						
55	TEL #2 2=EXT REP 4=SK 4+2 8=ACRON																						
57	RESTORE SELECT ZONES																						
58	RESTORE CODE																						
59	TEST CANCEL, SELECT ZONES																						
60	TEST CANCEL CODE																						
61	REPORTING DELAY, SELECT ZONES																						
62	REPORTING DELAY TIME (x 10 SEC)																						
63	1=LOW BATT. DELAY, SELECT 2=AC DELAY SELECT																						
64	ZONE 1 CODE																						1
65	ZONE 2 CODE																						2
66	ZONE 3 CODE																						3
67	ZONE 4 CODE																						4
68	ZONE 5 CODE																						5
69	ZONE 6 CODE																						6
70	ZONE 7 CODE																						
71	ZONE 8 CODE																						
72 *	ZONE 9 CODE (LOW BATTERY)																						
73 *	ZONE 10 CODE (AC POWER FAILURE)																						
74 *	ZONE 11 CODE (SELF-TEST)																						
75 *	ZONE 12 CODE (CLOSING)																						
76 *	ZONE 13 CODE (OPENING)																						
77 *	ZONE 14 CODE (STATION)																						
78 *	ZONE 15 CODE (BYPASSING)																						
79 *	ZONE 16 CODE (TROUBLE)																						
80	FOLLOWER, SELECT ZONES																						
81	AUDIBLE PANIC, SELECT ZONES (24 HR)																						
82	SILENT PANIC, SELECT ZONES (24 HR)																						
83	AUDIBLE FIRE, SELECT ZONES (24 HR)																						
84	AUDIBLE BURGLARY, SELECT ZONES																						
85	DELAYED BURGLARY, SELECT ZONES																						
86	EXIT DELAY (x 10 SEC)																						
87	ENTRANCE DELAY (x 10 SEC)																						
88	BELL SHUT OFF TIME (x 2 MIN)																						
89	FIRE BELL TIME CL=AUTO 1=MANUAL																						
90	AC/LOW BATT REPORT DELAY (x 1 MIN)																						
91	NUMBER OF REPORTING ATTEMPTS (CLEAR=UNLIMITED)																						
95	DIAL 2ND NUMBER ONLY, AUXILIARY																						
	1=LOW BATT 2=AC 3=SELF-TEST 4=O/C/S 5=KP & DURESS 7=BYPASS 8=ZONE TROUBLE																						
96	DIAL BOTH NUMBERS, AUXILIARY																						
97	SELF-TEST #OF REPORTING CYCLES (x 24 HR) (CLEAR=16)																						
98	BURG/FIRE EMERGENCY BELLS																						
99 *	KEYPAD (1 & 3) REPORTING CODE																						
100 *	KEYPAD (4 & 6) REPORTING CODE																						
101 *	KEYPAD (7 & 9) REPORTING CODE																						
102 *	KEYPAD (* & #) REPORTING CODE																						
103 *	DURESS REPORTING CODE																						
104 *	STATUS REPORTING CODE																						
105	LOW BATTERY RESTORE CODE																						
106	AC POWER FAILURE RESTORE CODE																						
144	DAY/NIGHT TROUBLE ZONES - DISPLAY ENABLE																						
145	DAY/NIGHT TROUBLE ZONES REPORT ENABLE																						

• A NUMBER (1 - 15) MUST BE ENTERED TO ENABLE THIS REPORT.

† FOR USE WITH DK-III'S AND DK-II'S.

■ NOT AVAILABLE FOR USE ON AV-6000.

\* = BLANK

Figure 3 shows how this information would be reported on various formats.

## 2.15 RECEIVER FORMAT EXAMPLE

**FIGURE 3**

CONDITION	STANDARD	EXTENDED	4 + 2 SILENT KNIGHT	ACRON
A) Trip on Zone 1	123 1	123 1 111 1	1234 01	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	1234 02	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 3
C) Disarm after alarm report	123 E	123 E EEE 2	1234 22	Account 123 Zone 1 2 3 4 5 6 7 8 Code T E
D) Momentary trip on Zone 3	123 3	123 3 333 3	1234 03	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 3
E) Momentary trip on Zone 5, disarm before alarm report and Zone 3 restores	123 9 123 E	123 9 999 5 123 E EEE 3	1234 05 1234 23	Account 123 Zone 1 2 3 4 5 6 7 8 Code T E 9
F) Momentary trip on Zone 4 disarm before alarm report	123 9	123 9 999 4	1234 04	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 9
G) Momentary trip on Zone 4	123 3	123 3 333 4	1234 04	Account 123 Zone 1 2 3 4 5 6 7 8 Code T 3
H) Disarm after alarm report	123 E	123 E EEE 4	1234 24	Account 123 Zone 1 2 3 4 5 6 7 8 Code T E
I) Opening (By User)	123 B	† 123 B BBB 3	1234 93	Account 123 Zone 1 2 3 4 5 6 7 8 Code T B
J) Closing (By User)	123 C	† 123 C CCC 3	1234 43	Account 123 Zone 1 2 3 4 5 6 7 8 Code T C
K) Low Battery	123 8	123 8 888 0	1234 60	Account 123 Zone 1 2 3 4 5 6 7 8 Code 8 8 8 8 8 8 8 8
L) Station Code	123 7	* 123 7 777 2	1234 72	Account 123 Zone 1 2 3 4 5 6 7 8 Code 7
M) 24-Hour Self-Test	123 D	123 D DDD-O	1234 30	Account 123 Zone 1 2 3 4 5 6 7 8 Code D D D D D D D D

### NOTES

- 1) 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.
- 2) The Acron Format value for Zone 1 must be changed to any other value except 1. In this example we have selected code 15 (F).

† Reports user codes 1 through 8 for Opening/Closing by user. This example shows user 3. For additional information see Avenger DK-IV instructions.

\* This example shows Station Code =7, Access Code =234, and Station #2 Opening or Closing.

## 2.16 PROGRAMMING WORKSHEET

FIGURE 4

Name \_\_\_\_\_

First Acct. # \_\_\_\_\_

Address \_\_\_\_\_

Second Acct. # \_\_\_\_\_  
(If used)

## PROGRAMMING WORKSHEET

MEMORY LOCATION	DESCRIPTION	DATA ENTERED (NEW)																				FACTORY PROGRAMMED	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21
1-21	FIRST TELEPHONE NUMBER MEMORY LOCATIONS																						
	FIRST TELEPHONE NUMBER DIGITS																						
22-42	SECOND TELEPHONE NUMBER MEMORY LOCATIONS																						
	SECOND TELEPHONE NUMBER DIGITS																						
43-46	FIRST ACCOUNT NUMBER MEMORY LOCATIONS																						
	FIRST ACCOUNT NUMBER DIGITS																						
47-50	SECOND ACCOUNT NUMBER MEMORY LOCATIONS																						
	SECOND ACCOUNT NUMBER DIGITS																						
		ENTER NUMBERS	SELECT ZONE(S)																				
			1	2	3	4	5	6	7	8													
51	DIAL SECOND NUMBER ONLY, SELECT ZONES																						
52	DIAL BOTH NUMBERS, SELECT ZONES																						
53	1=TT DIALING 3=FALSE ALARM SHUTDOWN 4=EUR. MAKE/BREAK † 6=DK-III OR DK-II OPERATION 7=DUAL BELL OP 8=FAILURE TO COMM DISABLE																						ROTARY SINGLE BELL
54	TEL. #1 2=EXT REP 4=SK 4+2 8=ACRON																						STANDARD
55	TEL. #2 2=EXT REP 4=SK 4+2 8=ACRON																						STANDARD
57	RESTORE SELECT ZONES																						
58	RESTORE CODE																						
59	TEST CANCEL, SELECT ZONES																						
60	TEST CANCEL CODE																						
61	REPORTING DELAY, SELECT ZONES																						
62	REPORTING DELAY TIME (x 10 SEC)																						
63	1=LOW BATT DELAY, SELECT 2=AC DELAY SELECT																						
			DESCRIPTION																				
64	ZONE 1 CODE																						1
65	ZONE 2 CODE																						2
66	ZONE 3 CODE																						3
67	ZONE 4 CODE																						4
68	ZONE 5 CODE																						5
69	ZONE 6 CODE																						6
70	ZONE 7 CODE																						
71	ZONE 8 CODE																						
72 •	ZONE 9 CODE (LOW BATTERY)																						
73 •	ZONE 10 CODE (AC POWER FAILURE)																						
74 •	ZONE 11 CODE (SELFTEST)																						
75 •	ZONE 12 CODE (CLOSING)																						
76 •	ZONE 13 CODE (OPENING)																						
77 •	ZONE 14 CODE (STATION)																						
78 •	ZONE 15 CODE (BYPASSING)																						
79 •	ZONE 16 CODE (TROUBLE)																						
			SELECT ZONE(S)																				
			1	2	3	4	5	6	7	8													
80	FOLLOWER, SELECT ZONES																						
81	AUDIBLE PANIC, SELECT ZONES (24 HR)																						
82	SILENT PANIC, SELECT ZONES (24 HR)																						
83	AUDIBLE FIRE, SELECT ZONES (24 HR)																						
84	AUDIBLE BURGLARY, SELECT ZONES																						1
85	DELAYED BURGLARY, SELECT ZONES																						2-6
86	EXIT DELAY (x 10 SEC)																						3
87	ENTRANCE DELAY (x 10 SEC)																						3
88	BELL SHUT OFF TIME (x 2 MIN)																						8-16 MIN.
89	FIRE BELL TIME CL=AUTO 1=MANUAL																						AUTO
90	AC/LOW BATT. REPORT DELAY (x 1 MIN)																						
91	NUMBER OF REPORTING ATTEMPTS (CLEAR=UNLIMITED)																						8
95	DIAL 2ND NUMBER ONLY, AUXILIARY																						
	1=LOW BATT 2=AC 3=SELFTEST 4=O/C/S 5=KP & DURESS 7=BYPASS 8=ZONE TROUBLE																						
96	DIAL BOTH NUMBERS, AUXILIARY																						
97	SELF-TEST #OF REPORTING CYCLES (x 24 HR) (CLEAR =16)																						
98	BURG/FIRE EMERGENCY BELLS																						
99 •	KEYPAD (1 & 3) REPORTING CODE																						
100 •	KEYPAD (4 & 6) REPORTING CODE																						
101 •	KEYPAD (7 & 9) REPORTING CODE																						
102 •	KEYPAD (* & #) REPORTING CODE																						
103 •	DURESS REPORTING CODE																						
104 •	STATUS REPORTING CODE																						
105	LOW BATTERY RESTORE CODE																						
106	AC POWER FAILURE RESTORE CODE																						
144	DAY/NIGHT TROUBLE ZONES - DISPLAY ENABLE																						
145	DAY/NIGHT TROUBLE ZONES REPORT ENABLE																						

• A NUMBER (1 - 15) MUST BE ENTERED TO ENABLE THIS REPORT.  
 † FOR USE WITH DK-III's AND DK-II's.

■ NOT AVAILABLE FOR USE ON AV-6000.

## SECTION III: PROGRAMMING INSTRUCTIONS

### MEMORY LOCATION

### DEFINITIONS

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1-42

#### 3.0 TELEPHONE NUMBERS

The AV-6000 is capable of reporting to two different telephone numbers. Telephone numbers are entered into the appropriate Memory Locations.

Each number may be up to 20 digits long. The first number must be programmed in memory locations 1-20. The 2nd number in locations 22-41. **Each number must be CLEARED after the last digit.**

If the communicator function is not to be used, Location 1 must be cleared.

If more than 20 digits are required, the second telephone number's memory locations may be used to dial a single long number of up to 41 digits which must begin in memory location 1.

In addition to the telephone number, two special function numbers may be inserted:

##### 1) SECOND DIAL TONE

In installations where two dial tones are received (first for internal line and second for outside line). The AV-6000 may be programmed to detect a second dial tone by entering a "14" between the internal line number and the outside line number.

##### 2) DIALING PAUSE

In areas where a dialing pause is required a dialing pause may be programmed after any dialing digit by entering a "15". The dialing pause is approximately 5 seconds.

1-21

#### 3.1 FIRST NUMBER DIALING

Spaces 1-20 are reserved for entering the first telephone number. Start at Memory Location 1.

The location after the last digit must contain a blank (cleared); therefore location 21 is used when a 20 digit telephone number is used.

22-42

#### 3.2 SECOND NUMBER DIALING

Spaces 22-41 are reserved for entering the second telephone number. Start at Memory Location 22. In special cases when a longer telephone number is required, these spaces may be used. There are three second number dialing modes.

##### 1) BACK-UP REPORTING

If the primary receiver does not answer after two attempts, the second number will be called for the next two attempts. This alternation process between both numbers will repeat until the programmed number of attempts are completed.

##### 2) DIAL-SECOND NUMBER ONLY (See Memory Locations 51 & 55)

Zones may be selected to dial second number only. Useful for reporting non-emergency conditions without tying up the primary receiver. For example, using a zone for testing on demand.

##### 3) DIAL BOTH NUMBERS (See Memory Locations 52, 54 & 55)

Zones may be selected to dial both numbers. Used in high security applications where redundant reporting is desired.

43-46

#### 3.3 FIRST ACCOUNT NUMBER

A three or four digit account number can be used, beginning in Memory Location 43. If a 3 digit account number is required, location 46 must be cleared. Hexadecimal digits may be pro-



**MEMORY  
LOCATION**

**DEFINITIONS**

---

grammed when required. Although these are programmed as 10 through 15, some receivers will display them as letters A through F. Some receivers will not accept a four digit account number.

**47-50**

**3.4 SECOND ACCOUNT NUMBER**

A second account number may be entered beginning in Memory Location 47. If a 3 digit account number is required, location 50 must be cleared.

***NOTE: A second account number must be programmed whenever a second telephone number is used.***

**51**

**3.5 DIAL SECOND NUMBER ONLY, SELECT ZONES**

Any combination of the 6 zones may be selected to Dial Second Number Only.

**52**

**3.6 DIAL BOTH NUMBERS, SELECT ZONES**

Any combination of the 6 zones may be selected to dial both numbers.

**53**

**3.7 ROTARY/TOUCH TONE DIALING**

Rotary dialing is factory programmed. If Touch Tone Dialing is desired, a "1" must be programmed in Memory Location 53. If touch tone dialing is to be changed to rotary dialing, the "1" in Memory Location 53 must be cleared.

**3.8 FALSE ALARM SHUT DOWN (SWINGER REJECTION)**

This feature is not factory programmed. This feature may be selected by programming a "3" in Memory Location 53. When this feature is selected, 4 reports on the same zone within a 2-hour period will shut down that zone and ignore alarm signals for 24 hours or until system is armed or disarmed again.

**3.9 DK-III or DK-II OPERATION**

This allows the AV-6000 to be used with all Digi-Key models in replacement of existing systems. To enable this feature a "6" must be programmed in Memory Location 53.

***NOTE: Not to be used with DK-IV keypads.***

**3.10 EUROPEAN MAKE/BREAK**

American standard make/break rotary dialing ratio of 60/40 is factory programmed. If European make/break ratio of 70/30 is desired, enter a "4" in Memory Location 53.

**3.11 INHIBIT FAILURE TO COMMUNICATE**

If Failure to Communicate function is not desired, program an "8" in Memory Location 53.

***NOTE: All five functions can be enabled if "1", "3", "4", "6" and "8" are entered.***

**54**

**3.12 RECEIVER FORMATS FOR THE FIRST TELEPHONE NUMBER**

If this memory location is cleared, the standard reporting format will be selected.

Entering a "2" will select EXTENDED REPORTING. (This method allows compatibility with Radionics receivers for open/close by user and other special features.)

Entering a "4" will select SILENT KNIGHT 4+2 format.

When using Silent Knight 4+2 reporting format, the AV-6000 should be programmed as follows:

1. 4 Account digits must be used.
2. Memory Locations 64 to 69 must contain "10" or "A".
3. If Restores are desired, Memory Location 58 should contain "2".
4. Test Cancel should not be used.

**MEMORY  
LOCATION**

**DEFINITIONS**

---

When using the non-emergency codes (Low Battery, Opening, Closing and Self-Test) with Silent Knight 4+2 format, these codes should be programmed as follows:

Memory Location 72 Low Battery = 6  
Memory Location 76 Opening = 9  
Memory Location 75 Closing = 4  
Memory Location 74 Self-Test = 3

Entering an 8 will select ACRON superfast format.

***NOTE: If two number reporting is used, 2 different receiver formats may be used.  
Example: Acron Superfast format receiver on one number and Ademco 660  
"Slow" format receiver on the other.***

55

**3.13 RECEIVER FORMATS FOR THE SECOND TELEPHONE NUMBER**

Specific zones may be selected to dial both telephone numbers or second telephone number only. Memory Locations 51 and 52 are used to select zones 1 through 6 for emergency reporting. Memory Locations 95 and 96 are used to select non-emergency reporting conditions.

Receiver formats for telephone #2 are selected in the same manner as telephone #1. See Memory Location 54.

57

**3.14 RESTORE, SELECT ZONES**

Select zones which will report restores. A restore is defined as a return to normal after a zone has previously been tripped. If a burglary zone is tripped, a restore report will be sent when the panel is Disarmed after reporting to the receiver. 24-Hour zones report Restorals when the zone restores after reporting to the receiver.

58

**3.15 RESTORE CODE**

Enter restore code desired in this location.

59

**3.16 TEST CANCEL, SELECT ZONES**

Select zones which will report test cancels. If a test cancel zone is tripped and restored before transmission of the alarm code is completed, the Test Cancel Code will be sent. On burglary zones the Test Cancel Code will be sent if the system is Disarmed prior to transmission. 24-Hour zones report Test Cancel only if the zone restores before the transmission is completed.

60

**3.17 TEST CANCEL CODE**

Enter Test Cancel Code desired in this location.

61

**3.18 REPORTING DELAY, SELECT ZONES**

Select zones which will delay before dialing out to the receiver. If an alarm signal on a 24-Hour delay zone restores prior to expiration of the delay time, the zone will not report out, but audible and silent zones latch in (sounding alarm and flashing the LEDs) until the panel is armed or disarmed).

If the panel is disarmed prior to the expiration of the delay time, all audible zones (including burglary zones) will not report out.

62

**3.19 REPORTING DELAY TIME**

Enter the reporting delay time desired in this location.

Delays from 10 to 150 seconds may be selected in 10-second increments. Enter a "1" for 10 seconds, a "2" for 20 seconds, up to a "15" for 150 seconds.

**MEMORY  
LOCATION**

**DEFINITIONS**

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- 63**                    **3.20 LOW BATTERY & AC DELAY ZONES**  
Entering a "1" in this Memory Location will delay the Low Battery Report. If the low battery signal restores prior to the expiration of delay time, the low battery signal will not report out.  
  
Entering a "2" in this Memory Location will delay the AC power failure report. If AC power restores prior to expiration of delay time, the AC power failure signal will not report out.  
  
Either a Low Battery or AC zone may be selected. If both are selected, the reporting delay time applies to both. If either or both are selected, a reporting delay time must be programmed in Memory Location 90.
- 3.21 ZONE REPORTING CODES**  
  
Memory Locations 64 through 79 are reserved for entering zone reporting codes. Zones 1 through 6 are factory programmed, all others are cleared. The factory programmed code for Zone 1 is 1, Zone 2 is 2, and so on through Zone 6.  
  
Memory Locations 72 through 79 are non-emergency reporting zones.
- 64 Through 69**       **3.22 ZONE 1 THROUGH ZONE 6 REPORTING CODE**
- 72**                    **3.23 ZONE 9 CODE (LOW BATTERY)**  
An automatic low battery report is generated when battery voltage falls to a low level and a reporting code is selected in this Memory Location.
- 73**                    **3.24 ZONE 10 CODE (AC POWER FAILURE)**  
An AC Power failure condition report is generated when a reporting code is selected in this Memory Location.
- 74**                    **3.25 ZONE 11 CODE (AUTOMATIC SELF-TEST)**  
Enter reporting code to represent an automatic test report that will automatically report once every day to once every sixteen days. Self-test period is selected in Memory Location 97.
- 75**                    **3.26 ZONE 12 CODE (CLOSING REPORT)**  
Enter reporting code to represent a closing (arming) report. Closing report is sent after exit delay time expires. If exit delay time is not programmed, closing report will be sent immediately.
- 76**                    **3.27 ZONE 13 CODE (OPENING REPORT)**  
Enter reporting code to represent an opening (disarming) report. Opening report is sent when system is disarmed.  
  
***NOTE: Opening and closing reports are used to notify the Central Monitoring Station when the system is disarmed (opening) and armed (closing).***  
  
An example of opening and closing reporting is shown on page 14.  
  
Opening and closing "By User" can identify up to eight users per keypad in the Extended, Silent Knight 4+2 and Acron reporting formats. (See DK-IV Instructions.)  
  
If failure to communicate occurs prior to completion of an opening or closing by user report, and a different user subsequently opens or closes, then the original user code is replaced by the last user code when communications is re-established.
- 77**                    **3.28 ZONE 14 CODE (STATION)**  
  
Enter reporting code to enable station code reporting in this Memory Location. This report should be used in conjunction with Opening/Closing report by user in Extended, Acron Super-

**MEMORY  
LOCATION**

**DEFINITIONS**

---

fast or Silent Knight 4 + 2 formats. Station number is determined by first digit of the primary access code. The Station I.D. Code will also be sent whenever an emergency key pair is initiated.

- 78**                    **3.29 ZONE 15 CODE (BYPASSING REPORT)**  
Enter reporting code to enable bypass reporting in this Memory Location. This report when used in conjunction with Extended, Acron Superfast or Silent Knight 4 + 2 formats will indicate (upon arming) which zone(s) have been bypassed.
- 79**                    **3.30 ZONE 16 (TROUBLE REPORT)**  
Enter reporting code to enable trouble reporting in this Memory Location. This report when used in conjunction with Extended, Acron Superfast or Silent Knight 4 + 2 reporting formats will report trouble by zone as selected in Memory Location 145.

**PANEL FUNCTIONS**

- 80**                    **3.31 FOLLOWER, SELECT ZONES**  
Selecting follower zones deactivates these zones during entrance and exit delay times. This feature allows the system user to walk in front of an intrusion detector when entering or exiting the premise via an entrance/exit delay zone. If a follower zone is violated when an exit delay is not in progress (when system is armed) or when an entrance delay is not in progress (entrance to premise was not through a delay zone), then the follower zone will instantly go into alarm. *These zones must also be selected for audible burglary.*
- 81\*\*\***                **3.32 AUDIBLE PANIC, SELECT ZONES (24 HR)**  
Select zones to be programmed for audible panic. The Armed LED will flash on alarm whether the panel is armed or disarmed. Zones selected for Audible Panic are always on. Any combination of zones 1 - 6 may be selected.
- 82\*\*\***                **3.33 SILENT PANIC, SELECT ZONES (24 HR)**  
Select zones to be programmed for silent panic. Whether the panel is armed or disarmed the Armed LED will not flash on alarm. And the zone LED will not light. Zones selected for Silent Panic are always on. Any combination of zones 1 - 6 may be selected.
- 83\*\*\***                **3.34 AUDIBLE FIRE, SELECT ZONES (24 HR)**  
Select zones to be programmed for audible fire. The Armed LED will flash on alarm whether the panel is armed or disarmed. Zones selected for Audible Fire are always on. Any combination of zones 1 - 6 may be selected.
- 84\*\*\***                **3.35 AUDIBLE BURGLARY, SELECT ZONES**  
Select zones to be programmed for audible burglary. Zones that are selected for Audible Burglary are on when armed and not bypassed. These zones can be armed and disarmed from the keypad. Any combination of zones 1 - 6 may be selected.
- 85**                    **3.36 DELAYED BURGLARY, SELECT ZONES**  
Select zones to be programmed for delayed burglary. These zones must be selected if an Entrance Delay or Exit Delay is desired. Any combination of Zones 1 - 6 may be selected. *These zones must also be selected for audible burglary.*

---

\*\*\*Any zone not PROGRAMMED IN ANY OF THESE 4 LOCATIONS (81 through 84) becomes a 24-Hour Silent Zone by default. The armed LED will flash when tripped, whether the panel is armed or disarmed.



MEMORY LOCATION	DEFINITIONS
97	<p><b>3.45 SELF-TEST REPORTING CYCLE</b></p> <p>The Self-Test code programmed in Memory Location 74 can be reported from once every 24 hours to once every 16 days by entering a 1 through 15. Enter a "1" for a report every 24 hours, a "2" for every 2 days up to a "15" for every 15 days. For a report every 16 days, clear this Memory Location.</p>
98	<p><b>3.46 KEYPAD AUDIBLE ALARM SELECT (FIRE OR BURGLARY)</b></p> <p>Any or all of the four keypad pair combinations may be programmed to sound an audible alarm when a key pair is activated. Each key pair may sound either an audible burglary or fire alarm but not both. When not programmed, function is "silent" if reporting code is selected in Memory Locations 99-102.</p> <p>Row 1 key pair (1 &amp; 3) will sound burglary when a "1" is entered and fire when a "5" is entered. Row 2 key pair (4 &amp; 6) will sound burglary when a "2" is entered and fire when a "6" is entered. Row 3 key pair (7 &amp; 9) will sound burglary when a "3" is entered and fire when a "7" is entered. Row 4 key pair (★ &amp; #) will sound burglary when a "4" is entered and fire when a "8" is entered. Examples: Row 1 is to sound fire and rows 2 and 3 are to sound burglary. Enter a "5", "2", and "3" in Location 98.</p> <p><b>3.47 KEYPAD INITIATED REPORTING CODES</b></p> <p>Memory Locations 99 through 103 are used to select the reporting code keypad initiated 24-hour emergency alarms will report.</p>
99	<b>KEYPAD 1 AND 3 REPORTING CODE</b>
100	<b>KEYPAD 4 AND 6 REPORTING CODE</b>
101	<b>KEYPAD 7 AND 9 REPORTING CODE</b>
102	<b>KEYPAD ★ AND # REPORTING CODE</b>
103	<p><b>DURESS REPORTING CODE</b></p> <p>Enter Reporting Code to enable Duress Report when a "0" is entered following the last digit of the Access Code. Then press ENTER.</p>
104	<p><b>3.48 STATUS REPORTING CODE</b></p> <p>To enable Status Reporting in the Acron Superfast format a "1" must be entered. For Extended and Silent Knight 4 + 2 reporting formats enter reporting code to represent status report in this Memory Location. A status report indicates a zone currently violated and previously reported.</p>
105	<p><b>3.49 LOW BATTERY RESTORE CODE</b></p> <p>Entering a number in this Memory Location selects the code that will report when a low battery condition is restored.</p> <p><i>NOTE: This Memory Location must not be programmed if Memory Location 72 is not programmed.</i></p>
106	<p><b>3.50 AC POWER FAILURE RESTORE CODE</b></p> <p>Entering a number in this Memory Location selects the code that will report when an AC power failure condition restores.</p> <p><i>NOTE: This Memory Location must not be programmed if Memory Location 73 is not programmed.</i></p>

MEMORY LOCATION	DEFINITIONS
144	<p><b>3.51 DAY/NIGHT TROUBLE ZONES DISPLAY ENABLE</b></p> <p>Any combination of the 6 zones may be selected to display a trouble condition. Fire zones are automatically enabled. Burglary zones will sound and indicate a trouble condition when violated while disarmed. Useful for monitoring window foil breakage.</p>
145	<p><b>3.52 DAY/NIGHT TROUBLE ZONES REPORT ENABLE</b></p> <p>Any combination of the 6 zones may be selected to report a trouble condition. Burglary zones will report a trouble condition while violated when disarmed. Fire zones will report trouble whenever the trouble condition occurs. The reporting code selected in Memory Location 79 will be reported.</p>

### 3.53 INSTALLERS KEYPAD REFERENCE GUIDE

FUNCTION	MODE SEQUENCE	KEY SEQUENCE
ABBREVIATED ARMING, SET	A A A  MODE 1  MODE	N D  ENTR
ABBREVIATED ARMING, CLEAR	A A A  MODE 1  MODE	N  ENTR
ENABLE ZONE LEDs	A A A  MODE 8  MODE 1	Z Z Z  ENTR
ENABLE ZONE BYPASS	A A A  MODE 8  MODE 2 TEST	Z Z Z  ENTR
ENABLE ZONE ANNUNCIATOR/CHIME	A A A  MODE 8  MODE 3	Z Z Z  ENTR
AUDIBLE FEEDBACK SELECT/DESELECT	A A A  MODE 8  MODE 4  ENTR	N/A
SOUNDER SELECT/DESELECT	A A A  MODE 8  MODE 5  ENTR	N/A
MULTI/SINGLE PREMISE SELECT/DESELECT	A A A  MODE 8  MODE 7 CP  ENTR	N/A
ENTER PROGRAM MODE KEYPAD	A A A  MODE 8  MODE 9 FA  ENTR	N/A
ENTER PROGRAM MODE PANEL †	ENTR 1 2 TEST 3 4 5  ENTR	N/A
EXIT PROGRAM MODE PANEL †	SIMULTANEOUSLY PRESS 4 & 6	N/A
EXIT PROGRAM MODE KEYPAD	SIMULTANEOUSLY PRESS  MODE &  ENTR	N/A
PRODUCT CODE 3135 CURRENT AV-6000/8000 ***	ENTR  MODE 9 FA 0 I/D 9 FA 1  ENTR ENTR  MODE 9 FA 0 I/D 9 FA 3  ENTR	N/A
PRODUCT CODE 3113 OLDER AV-6000/8000 †††	ENTR  MODE 9 FA 0 I/D 9 FA 1  ENTR ENTR  MODE 9 FA 0 I/D 9 FA 2 TEST  ENTR	N/A
PRODUCT CODE OTHERS	ENTR  MODE 9 FA 0 I/D 9 FA 0 I/D  ENTR ENTR  MODE 9 FA 0 I/D 9 FA 2 TEST  ENTR	N/A
PRIMARY ACCESS CODE CHANGE *	ENTR A A A  MODE 7 CP	NEW A A A  ENTR
SECONDARY ACCESS CODE SET **	A A A  MODE 7 CP  MODE	N S S S  ENTR
SECONDARY ACCESS CODE CLEAR	A A A  MODE 7 CP  MODE	N  ENTR

See DK-IV Installation Instructions.

\* = Factory Programmed for 1, 2, 3

\*\* = Cleared at Factory

\*\*\* = Factory Programmed

† = For AV-6000/8000 Only

AAA = Primary Access Code (from 3 to 6 digits)

††† = For use with 3113 Microprocessor

SSS = Secondary Access Code (from 3 to 6 digits)

ZZZ = Zone(s) enabled for bypass, annunciator/  
chime or individual armed LEDs

N = User Number

D = Number of digits (1-3) selected for  
abbreviated arming



## SECTION IV: CANADIAN INSTALLATIONS

**NOTE:** *The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.*

Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**CAUTION:** *Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician as appropriate.*

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device to prevent overloading. The termination on the loop may consist of any combination of devices subject only to the requirements that the total of the Load Numbers of all the devices does not exceed 100. The load number for this equipment is LN-30.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des communications du Canada.

FOR TECHNICAL ASSISTANCE CALL:

1-800-631-2144

MONDAY THROUGH FRIDAY 8:00 a.m.-6:00 p.m.

EASTERN STANDARD TIME

TO EXPEDITE TROUBLESHOOTING HAVE YOUR PROGRAMMING WORKSHEET ON HAND.

## **Limited Warranty**

Seller warrants to the Purchaser that its products will be free from defects in material and workmanship for 24 months from date of manufacture. Seller's obligation under this Limited Warranty shall be limited, at Seller's option, to repairing or replacing the product, which upon examination is found to be defective in material or workmanship. The repair or replacement of any product under this Limited Warranty shall not extend the term of the warranty beyond the original term as set forth above.

All repairs qualifying under this Limited Warranty must be performed by Seller. In the event that any product is found to be defective during the warranty period, the Purchaser or installer or retail purchaser shall notify Seller of any claimed defect within 30 days after such defect is discovered. The Purchaser, installer, or retail purchaser shall obtain a return authorization number from Seller's customer service department and return the product, transportation prepaid, to Seller's Lakewood, New Jersey location. Under no circumstances will Seller be responsible for expenses or labor incurred in removing and reinstalling its products from the retail Purchaser's location.

This Limited Warranty shall not cover defective conditions caused, in whole or in part, in Seller's opinion, by negligence in use; misuse; abuse; flood, fire or acts of God; improper installation or application; improper maintenance or repair; alteration or repair by an unauthorized repair facility; or improper storage, transportation or handling.

This Limited Warranty is the sole and entire warranty pertaining to Seller's products and is in lieu of and excludes all other warranties of any nature whatsoever, whether express, implied or arising by operation of law, trade usage or course of dealing, including, but not limited to, warranties of merchantability, warranties of fitness for a particular purpose and any warranties relating to materials or components manufactured by any party other than Seller. Seller will not be liable for any direct, indirect, consequential, incidental or any damages other than repair or replacement of products that are found by Seller to be defective during the warranty period. In no event shall Seller's liability for any claim for any product, whether arising out of breach of contract, warranty or tort (including negligence, failure to warn, or strict liability) or otherwise, except the per unit product price for each of the products that gives rise to the claim.

The Purchaser expressly agrees that the remedies granted to it hereunder are its sole and exclusive remedies with respect to any claim other than arising under this contract and limited warranty.

