

# **INSTALLATION/ PROGRAMMING INSTRUCTIONS**

## **SPARTAN VI ALARM SYSTEM**

**MODEL SP-6**



**985 AND 1023**

**ACRON**

CORPORATION

## TABLE OF CONTENTS

<b>SECTION I:</b>	<b>INSTALLATION INSTRUCTIONS</b> .....	<b>2</b>
1.0	SYSTEM DESCRIPTION .....	2
1.1	INSTALLATION .....	2-3
1.2	TROUBLESHOOTING .....	4
1.3	SPECIFICATIONS .....	4
1.4	FCC COMPLIANCE .....	4-5
1.5	WIRING DIAGRAM (FIGURE 1) .....	6
	TEST SWITCH INSTALLATION (FIGURE 1) .....	6
 <b>SECTION II:</b>	 <b>PROGRAMMING INSTRUCTIONS — DEFINITIONS</b> .....	 <b>7-11</b>
2.0	TELEPHONE NUMBER .....	7
2.1	ACCOUNT NUMBER DIGITS .....	7
2.2	DIALING/REPORTING FORMAT CONTROL .....	7
2.3	NUMBER OF ATTEMPTS .....	7
2.4	RESTORE SELECT ZONE .....	8
2.5	RESTORE CODE .....	8
2.6	TEST CANCEL SELECT ZONES .....	8
2.7	TEST CANCEL CODE .....	8
2.8	REPORTING DELAY SELECT ZONES .....	8
2.9	REPORTING DELAY TIME .....	8
2.10	ZONE REPORTING CODES .....	8
2.11	LOW BATTERY REPORTING CODE .....	8
2.12	AC POWER LOSS REPORTING CODE .....	8
2.13	KEYPAD 1-3 REPORTING CODE .....	9
2.14	FIRE TROUBLE REPORTING CODE .....	9
2.15	KEYPAD 4-6 REPORTING CODE .....	9
2.16	KEYPAD 7-9 REPORTING CODE .....	9
2.17	DURESS REPORTING CODE .....	9
2.18	KEYPAD ★ — # REPORTING CODE .....	9
2.19	OPENING REPORT CODE .....	9
2.20	CLOSING REPORT CODE .....	9
2.21	FOLLOWER ZONE SELECT .....	9
2.22	AUDIBLE PANIC, SELECT ZONES (24 HR) .....	9
2.23	AUDIBLE FIRE, SELECT ZONES (24 HR) .....	9
2.24	AUDIBLE BURGLARY, SELECT ZONES .....	9
2.25	DELAYED BURGLARY, SELECT ZONES .....	10
2.26	EXIT DELAY TIME .....	10
2.27	ENTRANCE DELAY TIME .....	10
2.28	BELL SHUT OFF TIME .....	10
2.29	FIRE BELL SHUT OFF .....	10
2.30	ACCESS CODE DIGIT LOCATIONS .....	10
2.31	BYPASS ENABLE .....	10
2.32	KEYPAD AUDIBLE ALARM SELECT (FIRE OR BURGLARY) .....	11
2.33	SILENT ALARM .....	11
2.34	PROGRAMMING WORKSHEET (FIGURE 2) .....	12
NOTE	CANADIAN INSTALLATIONS .....	11

FOR TECHNICAL ASSISTANCE CALL

1-800-631-2144

IN N.J. (201) 364-7200

TO EXPEDITE TROUBLESHOOTING HAVE YOUR PROGRAMMING WORKSHEET ON HAND.

# SECTION I: INSTALLATION INSTRUCTIONS

## 1.0 SYSTEM DESCRIPTION

The Acron Model SP-6 "SPARTAN VI" is a multi-zone control panel/digital communicator alarm system that consists of one SP-6 panel and one model KP-6 Digital Control Station. The SP-6 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 the Acron Model P-4000 EEPROM Programmer or an Acron AVENGER-IV, AV-VI, or AV-VIII system. Zones which may be programmed include 6 EOL supervised zones; 5 keypad activated Emergency zones plus Fire Trouble, Opening, Closing, Automatic Low Battery and A.C. Power Failure Reporting Zones. Unit is shipped with factory program to allow out of box testing.

**Read and become familiar with the information contained in the Spartan VI Owner's Manual before proceeding with the installation instructions.**

The material in this publication is for information purposes only and is subject to change without notice. Acron Corporation assumes no responsibility for any error which may appear in this publication.

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 and Installation and Classification of Residential Burglar Alarm Systems, UL 1641. 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.

## 1.1 INSTALLATION

### **CAUTION:**

**CONNECTIONS MUST BE MADE WITH ALL POWER REMOVED.**

1. Don't connect battery until installation is complete.
2. Do not apply power until after step 8.

### **OPTIONAL TEST/FIRE RESET SWITCH ACRON PART NUMBER AC058**

A D.P.D.T. push button switch (order Acron part number AC058) may be installed to reset smoke detectors and/or provide convenient battery/bell test. Wire shown in Figure 1.

The switch should be mounted on the LEFT side of the cabinet as shown in Figure 1A. To install switch module enlarge starter hole with a 1/4" drill. Mount switch and complete wiring. If smoke detectors are not used the violet wire need not be connected. Make sure all splices are soldered and not exposed.

1. Connect a 12 Vdc Bell, Amseco MSB-8B-PV4 to terminals 5 and 6. Observe polarity. For U.L. fire installation, a Bell must be mounted indoors.
2. Unswitched 12 Vdc is available at terminals 4 and 7 for auxiliary devices. Connect Auxiliary devices.

**NOTE:** *The total amount of available auxiliary current is 300 mA (including any KP-6's even though they are not connected to terminal 7). To determine the total current requirement for an installation, add the current consumption for all items to be connected to the auxiliary output as well as the KP-6's current requirements. Each KP-6 requires 40 mA.*

**DO NOT EXCEED 300 MA TOTAL.**

3. Connect the six (6) input zones to terminals 11-19 using the 2.2K End of Line resistor provided as shown in Figure 1.

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

4. 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.
5. Connect the KP-6 arming station to the SP-6. Red lead to terminal 8. Blue lead to terminal 9. Black lead to terminal 3. Yellow lead to terminal 10. WIRES CONNECTING KP-6 TO SP-6 MUST BE KEPT AWAY FROM A.C. AND TELCO WIRING TO MINIMIZE TRANSIENT PROBLEMS DUE TO LIGHTNING.
6. Connect Terminal 21 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.**

7. Check all connections, verifying polarity.
8. Connect the transformer to terminals 1 and 2. Polarity is not important.
9. Plug the transformer to an unswitched 120 Vac receptacle. The indicators on the KP-6 should light.
10. 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.
11. As soon as battery is partially charged, disconnect AC power. VERIFY that AC fault condition exists at keypad.
12. Make sure you have programmed the EEPROM for the desired system configuration and features. Refer to the SP-6 Programming Instructions (Section II) for proper procedures.
13. Plug the telephone connection cable into the RJ31-X jack.
14. The system may now be Disarmed and Armed from the KP-6 using the (Factory Programmed) Access code 1234. Leave system disarmed.
15. TESTING COMMUNICATION TO THE CENTRAL REPORTING STATION: Arm the panel. Violate a zone. The Bell should turn on, the appropriate zone LED 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. The panel will restore the telephone line back to the premise telephone.
16. Fill in the appropriate information in the Owner'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.
17. Select a testing method as outlined in the Owner's Manual. If Test/Fire Reset push button switch (Acron P/N AC058) is not installed, program SP-6 for Bell test from keypad (Memory Location 98).

## 1.2 TROUBLESHOOTING

SYMPTOM	CHECK
No indicator lights .....	Make sure system is connected to either a good battery or AC. (Test battery under load). Check Auxiliary output fuse.
Fault Analysis Condition ..... (Yellow LED flashing) (Prealert pulsing)	This mode provides diagnostic troubleshooting for AC power failure, low battery, trouble, and failure to communicate. See "Fault Analysis" in SP-6 Owner's Manual.

## 1.3 SPECIFICATIONS

POWER REQUIREMENTS: 120 Vac, 20 VA, 16.5 Volts, 50/60 Hz, transformer supplied.  
12 Volt 4 AH (NP4-12) Yuasa Battery  
or 6 AH (NP6-12) (not supplied, available on request).

AUXILIARY POWER OUTPUT: 12-14 Volts D.C., 300 ma.

BELL POWER OUTPUT: Maximum 1.0A (supplied from battery).

OPERATING TEMPERATURE: 35° - 120° F.

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

ZONE RESPONSE TIME: 300 mSec. During reporting cycle, response time increases to approximately 1 sec.

ZONE LOOP MAXIMUM RESISTANCE: Do not exceed 300 OHMS or any 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

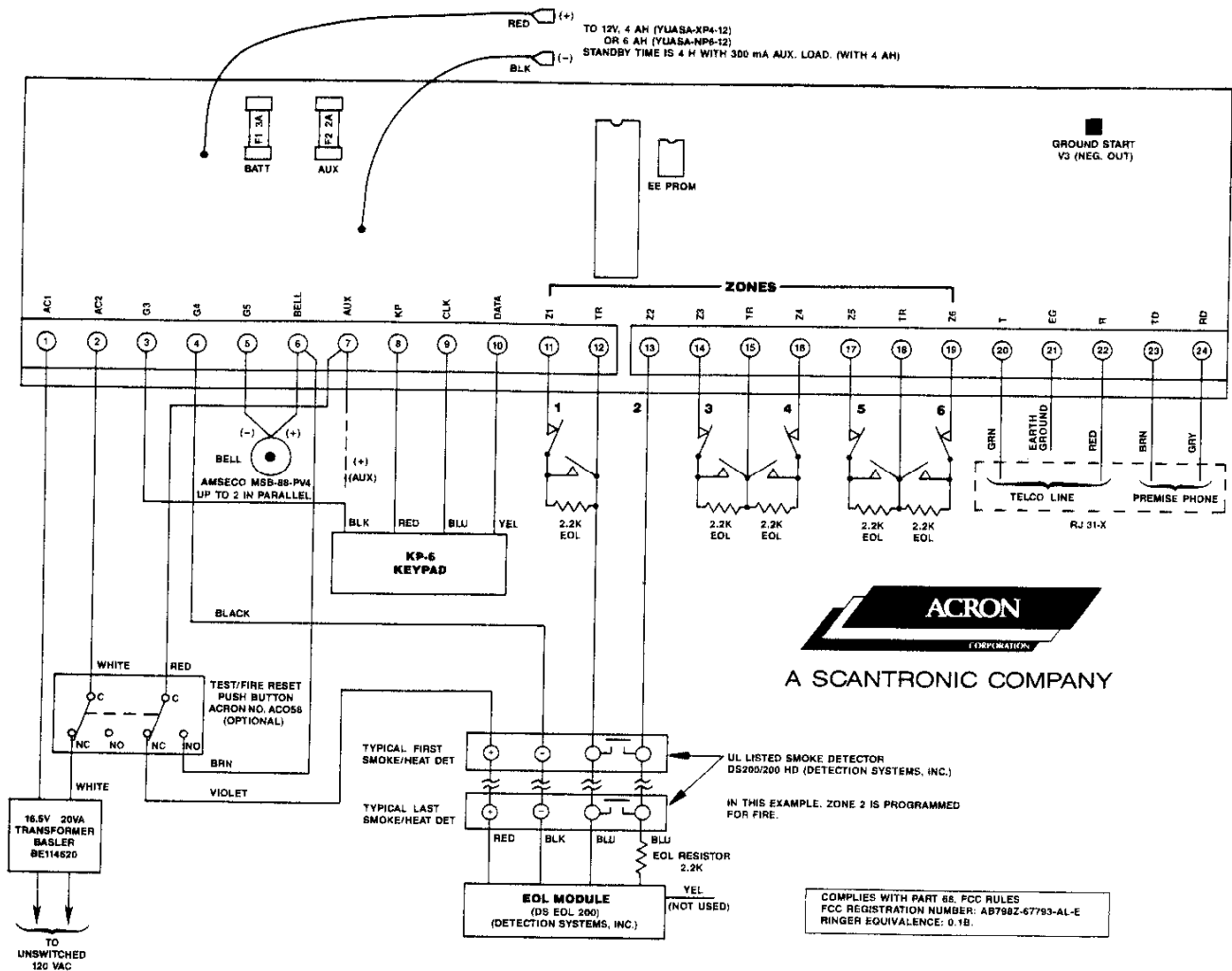
## 1.4 FCC COMPLIANCE

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:

1. Reorient the TV or radio antenna.
2. Relocate or move the alarm control away from the receiver.

- [illegible]

**FIG. 1**  
**WIRING DIAGRAM**  
**FOR MODEL SP-6**  
**(TYPICAL INSTALLATION)**  
**REV. B**

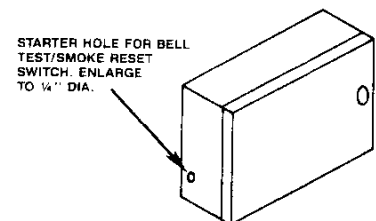


CONNECTION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEADQUARTERS OR A CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION.

BURGLAR ALARM SIGNALS SHALL NOT BE CONNECTED TO A POLICE EMERGENCY NUMBER.

THE COMMUNICATOR OR THE RECEIVING END TO WHICH THIS EQUIPMENT TRANSMITS SIGNALS HAVE NOT BEEN EVALUATED BY UL.

**FIG. 1A**  
**TEST SWITCH INSTALLATION**



# SECTION II: PROGRAMMING

## PROGRAMMING INSTRUCTIONS

Programming the EEPROM that is included with the system can be done with an Acron model P-4000 programmer or an AVENGER IV, VI, OR VIII system. Entering numbers (programming) in the EEPROM is explained in the manuals of the above products however the Spartan programming worksheet and it's accompanying definitions should be used to identify memory locations and their associated data.

### MEMORY LOCATION

### DEFINITIONS

---

1-41

#### 2.0 TELEPHONE NUMBERS

Telephone numbers are entered into the appropriate memory locations. The Spartan's memory location may be used to dial a single number of up to 41 digits. If the communicator function is not to be used, memory Location 1 must be cleared.

In addition to telephone dialing digits, three special function numbers may be inserted into the first 41 memory locations. They are second dial tone, dialing pause, and 11 (Delete Call Waiting, Tone Dialing Only).

##### 1) SECOND DIAL TONE

In installations where two dial tones are received (first for internal line and second for outside line). The Spartan 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.

##### 3) 11 - (DELETE CALL WAITING)

The "11" is used to delete call waiting in tone dialing only. 11, 7, and 0 is programmed before the dialed phone number. Use first three Memory Locations. Check with your local telephone company to make sure of the exact digit sequence.

43-47

#### 2.1 ACCOUNT NUMBER DIGITS

A three, four or five digit account number may be programmed starting in Memory Location 43. If all five Memory Locations are not used then the remaining Memory Locations must be cleared.

53

#### 2.2 DIALING/REPORTING FORMAT CONTROL

Rotary dialing is factory programmed. If Touch Tone Dialing is desired, a "1" must be programmed in this location. Entering a 4 will adjust the make to break ratio from 60/40 to 70/30 (used in most European countries). Entering a 6 will program the reporting format to be *extended*. (This method allows compatibility with Radionics receivers. Fast or slow transmission speeds are automatically adjusted during analysis of the receiver handshake tone. If this memory location is cleared dialing will be rotary, make to break will be 60/40 and transmission format will be non-extended (standard fast or slow).

54

#### 2.3 NUMBER OF ATTEMPTS

If this location is cleared the Spartan will continue to dial until a shut down signal is received from the receiver (in countries where allowed). If any number 1-15 is entered the unit will shut down after the entered number of attempts. Example: 8 is programmed and the central station is temporarily down. After 8 attempts the Spartan will not attempt to communicate until another alarm occurs or is powered down (AC and DC).

- 57**                    **2.4 RESTORE SELECT ZONES**  
 Zone numbers entered (1-8) will report restores. More than one number may be entered. Example: enter 1, 2 and 3, zones 1, 2 and 3 will repeat restores.  
 A restore is defined as a return to normal after a zone has been previously tripped.  
 Restores report as they occur unless they are combined with reporting delays or assigned to burglary zones. When combined with a reporting delay, a report will not be sent unless the restore occurs after the reporting delay expires. When combined with a burglary zone the report will not occur until the Spartan is disarmed.
- 58**                    **2.5 RESTORE CODE**  
 Enter desired restore code in this location.
- 59**                    **2.6 TEST CANCEL SELECT ZONES**  
 Test cancel zones are assigned the same way as restore zones are.  
 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 or any audible zones the Test Cancel Code will be sent if the system is Disarmed prior to transmission. Silent zones report Test Cancel only if the zone restores before the transmission is completed.
- 60**                    **2.7 TEST CANCEL CODE**  
 Enter the desired test cancel code in this location.
- 61**                    **2.8 REPORTING DELAY SELECT ZONES**  
 Zones may be selected for reporting delays (abort delays) the same way that restore zones are selected. A tripped zone that is selected for a reporting delay will not report (unless it's a burglary zone) unless the trip signal exist for a longer period than the reporting delay time. Burglary zones combined with reporting delays will not report if the Spartan is disarmed before the reporting delay time expires.  
***NOTE: Zones programmed for reporting delay cannot be programmed for entry/exit delay or erratic operation will occur.***
- 62**                    **2.9 REPORTING DELAY TIME**  
 Enter the reporting delay time desired in this location. Delay from 10 to 150 seconds may be selected in 10 second increments. Enter a "1" for 10 seconds and "2" for 20 seconds and a "15" for 150 seconds.
- 64-79**                **2.10 ZONE 1 THROUGH 6 REPORTING CODES**  
 Memory Locations 64-79 are reserved for entering reporting codes. Numbers 0-9 may be entered for all receivers and 0-15 may be entered for receivers that can handle hexadecimal numbers. Zones 9-16 (Memory Location 72-79) will not report if cleared. They must be assigned zone codes to report.
- 70**                    **ZONE 2.11 ZONE 7 CODE (LOW BATTERY)**  
 An automatic low battery report is generated when battery voltage falls to a low level when a reporting code is selected in this memory location.
- 71**                    **2.12 ZONE 8 CODE (A.C. POWER FAILURE)**  
 An A.C. Power failure condition report is generated when a reporting code is selected in this memory location.

**MEMORY  
LOCATION**

**DEFINITIONS**

---

- 72**                    **2.13 ZONE 9 CODE (KEYPAD 1-3)**  
Press keys 1-3 simultaneously will report the 24-hour emergency code programmed.
- NOTE: There is no indication for keypad activated alarms.**
- 73**                    **2.14 ZONE 10 CODE (FIRE TROUBLE)**  
Enter a code if fire trouble reports are desired.
- 74**                    **2.15 ZONE 11 CODE (KEYPAD 4-6)**  
Press keys 4-6 simultaneously will report the 24-hour emergency code programmed.
- 75**                    **2.16 ZONE 12 CODE (KEYPAD 7-9)**  
Press keys 7-9 simultaneously will report the 24-hour emergency code programmed.
- 76**                    **2.17 ZONE 13 CODE (DURESS)**  
Entering a code in 76 will report when the duress function is activated from the keypad. This occurs when a 0 is entered at the keypad immediately after the access code is entered.
- 77**                    **2.18 ZONE 14 CODE (KEYPAD ★ – #)**  
Press keys ★ – # simultaneously will report the 24-hour emergency code programmed.
- 78**                    **2.19 ZONE 15 CODE (OPENING REPORT)**  
Enter reporting code to represent an opening (disarming) report. Opening report is sent when system is disarmed.
- 79**                    **2.20 ZONE 16 CODE (CLOSING REPORT)**  
Enter reporting code to represent a closing (arming) report.
- NOTE: Opening and closing reports are used to notify the central station when the system is disarmed (opening) and armed (closing).**
- 80**                    **2.21 FOLLOWER ZONE SELECT**  
Selecting follower zones (the same way as restore select 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.
- 81**                    **2.22 AUDIBLE PANIC, SELECT ZONES (24 HR.)**  
Select zones to be programmed for audible panic. The zone 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.
- 83**                    **2.23 AUDIBLE FIRE, SELECT ZONES (24 HR.)**  
Select zones to be programmed for audible fire. The zone 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**                    **2.24 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.

**MEMORY  
LOCATION**

**DEFINITIONS**

---

- 85**                    **2.25 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.
- NOTE: Zones programmed for entry/exit delay should not be programmed for reporting delay or erratic operation will occur.***
- 86**                    **2.26 EXIT DELAY TIME**  
Delays from 10 to 150 seconds may be selected in 10-second increments. For U.L. installations the maximum exit delay may not exceed 60 seconds. When using a closing report an exit delay time should be entered even though an exit delay zone is not selected. This will prevent nuisance reports caused by user immediately disarming the system after arming.
- Enter a "1" for 10 seconds, a "2" for 20 seconds, up to "15" for 150 seconds.
- There is a blank space in the owner's manual to enter the Exit Delay time. This delay time should be entered in the provided space.
- 87**                    **2.27 ENTRANCE DELAY TIME**  
Delays from 10 to 150 seconds may be selected in 10-second increments. For U.L. installations the maximum entrance delay may not exceed 40 seconds. Enter a "1" for 10 seconds, a "2" for 20 seconds, up to a "15" for 150 seconds.
- There is a blank space in the owner's manual to enter the Exit Delay time. This delay time should be entered in the provided space.
- 88**                    **2.28 BELL SHUT OFF TIME (x2 MIN.)**  
Times from 2 to 30 minutes may be entered in 2-minute increments. Enter a "1" for 2 minutes, a "2" for 4 minutes, etc., up to a "15" for 30 minutes.
- U.L. installations require a bell shut-off time of at least 4 minutes.
- 89**                    **2.29 FIRE BELL SHUT-OFF**  
The Fire Bell will time out as determined by Memory Location 89 (Auto Shut-Off). If set to "1", the fire bell will not turn off unless manually reset. This is a requirement in some states (i.e., California). If the manual shut-off mode is to be changed to the auto shut-off mode, the "1" must be cleared. UL installations require 4 minutes of alarm.
- 91-94**                **2.30 ACCESS CODE DIGIT LOCATIONS**  
These Memory Locations are reserved for entering a four digit Access Code. All four digits must be entered. Number 0-9 may be used. Digits in sequence 1-2-3-4 shall not be used for the Access Code.
- 95**                    **2.31 BYPASS ENABLE**  
Select zones to be programmed to allow bypassing. Zones(s) selected can be bypassed on arming. Zone(s) will remain bypassed until the system is re-armed. **DO NOT ALLOW FIRE ZONES TO BE BYPASSED.**
- NOTE: 24 Hour zones may be bypassed to allow testing of tampered enclosures or safes.***

**98**

**2.32 KEYPAD AUDIBLE ALARM SELECT (FIRE OR BURGLARY)**

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. The top key pair (row 1) will sound burglary when a "1" is entered and fire when a "5" is entered. Row (2) key pair will sound burglary when a "2" is entered and fire when a "6" is entered. Row (3) key pair will sound burglary when a "3" is entered and fire when a "7" is entered. Row (4) key pair 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.

**NOTE:**

**2.33 SILENT ALARM (24 HR.)**

Zones not programmed for any panel functions will be silent. The zone LED will flash during a silent alarm (except key pair activated).

In non U.L. applications the LED may be disabled by cutting the copper leading to it.

## **NOTICE FOR 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.

FIGURE 2

2.34 PROGRAMMING WORKSHEET

Name \_\_\_\_\_

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

Address \_\_\_\_\_

PROGRAMMING WORKSHEET

DIALER FUNCTIONS

REPORTING CODES

PANEL FUNCTIONS

MEMORY LOCATION	DESCRIPTION	DATA ENTERED (NEW)																					FACTORY PROGRAMMED				
1-41	TELEPHONE NUMBER MEMORY LOCATIONS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21					
	TELEPHONE NUMBER DIGITS																										
	TELEPHONE NUMBER MEMORY LOCATIONS	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41						
	TELEPHONE NUMBER DIGITS																										
43-47	ACCOUNT NUMBER MEMORY LOCATIONS	43					44					45					46					47					
	ACCOUNT NUMBER DIGITS																										
53	1 = TOUCHTONE DIALING 4 = EUROPEAN MAKE/BREAK 6 = EXTENDED FORMAT	ENTER NUMBERS	SELECT ZONE(S)																								
		1	2	3	4	5	6	7	8																		
										ROTARY																	
	54	NUMBER OF ATTEMPTS CL = CONTINUOUS																					8				
	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)																									
		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 (LOW BATTERY)																										
71	ZONE 8 CODE (AC FAIL)																										
72	ZONE 9 CODE KEYPAD (1 & 3) REPORT CODE																										
73	ZONE 10 CODE FIRE TROUBLE REPORT CODE																						9				
74	ZONE 11 CODE KEYPAD (4 & 6) REPORT CODE																										
75	ZONE 12 CODE KEYPAD (7 & 9) REPORT CODE																										
76	ZONE 13 CODE DURESS REPORT CODE																										
77	ZONE 14 CODE KEYPAD (* & #) REPORT CODE																										
78	ZONE 15 CODE OPENING REPORT CODE																										
79	ZONE 16 CODE CLOSING REPORT CODE																										
		SELECT ZONE(S)																									
		1	2	3	4	5	6	7	8																		
80	FOLLOWER ZONE SELECT																										
81	AUDIBLE PANIC, SELECT ZONES (24 HR)																										
83	AUDIBLE FIRE, SELECT ZONES (24 HR)																						1				
84	AUDIBLE BURGLARY, SELECT ZONES																						23456				
85	DELAYED BURGLARY, SELECT ZONES																						3				
86	EXIT DELAY (x 10 SEC)																						3				
87	ENTRANCE DELAY (x 10 SEC)																						3				
88	BELL SHUT OFF TIME (x 2 MIN)																						2				
89	FIRE BELL TIME CL=AUTO 1=MANUAL (CALIF.)																						AUTO				
91-94	ACCESS CODE MEMORY LOCATIONS	91					92					93					94										
	ACCESS CODE DIGITS																					1234					
*95	BYPASS ENABLE, SELECT ZONES																										
98	KEYPAD AUDIBLE ALARM SELECT (FIRE OR BURG)																						5				

\* DO NOT ALLOW FIRE ZONES TO BE BYPASSED.

