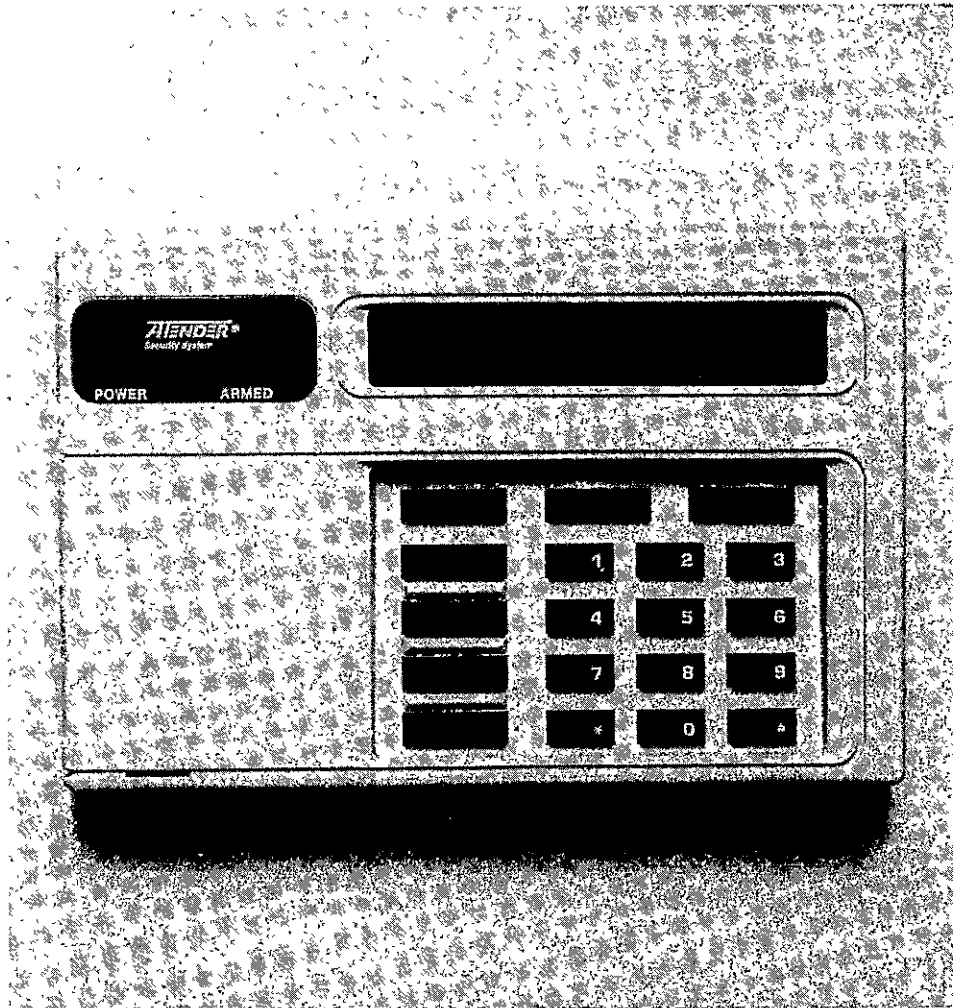# ATENDER® 151

Security Terminal
INSTALLER'S INSTRUCTIONS

FEATURES AND SPECIFICATIONS

SPECIFICATIONS

- Liquid Crystal Display(LCD): Two line 48 Character (total) with Electro-luminescent blue-green backlight.

- Touchpad lighting: Variable intensity incandescent.

- LEDs: Two ("ARMED" and "POWER").

- Wiring: 4 wire plug-in connector. (Same as CS-152).

- Sounder: Multi-function piezo.

- Color: Off-white with neutral gray accents.

- Current drain: 35 mA standby (brightness set at "0"), 125 mA standby (brightness set at "20"), 158mA in alarm (maximum; LCD and touchpad lighting on).

- Dimensions: 6.8" x 4.5" x 1.35"

- Operating temperature range: 32-122°F (0- +50°C).

FEATURES

- Ease of operation virtually eliminates user training.
- Step by step user prompts and soft feature keys replace confusing words or phrases printed on the touchpad.
- Alpha-numeric liquid crystal display with programmable zone descriptions. Create your own or choose from built-in library of over 100 words.
- Zone names may be "copied" to other CS-151s.
- LCD and touchpad lights activate upon first key entry, automatically time out after 30 seconds, and are selectable to illuminate during exit/entry delay, AC power failure, all alarms, and stand-by.
- Unique non-mechanicalLCD viewing angle adjustment.
- Date and time displayed during "READY" status and available during alarm history display.
- Installer programmable options with built-in factory defaults.
- User selectable options include: lamp brilliance, piezo volume, clock settings, control commands, etc.
- EEPROM retains memory during total loss of power.
- Surface mounts to flat surface or any single or double gang electrical box. Same hole alignment as CS-152.
- Attractive design and neutral colors blend easily into any residential and commercial installations.
- User manual included.

NOTE: See "Additional Notes" on page 10 regarding single digit commands or two digit arming if either of these features are to be used.

INTRODUCTION AND OVERVIEW

The CS-151 Security Terminal features a forty-eight (48) character Liquid Crystal Display (LCD) which prompts the user through each operating step in easy to understand words and phrases. The user interacts with the Security Terminal in much the same way as most 24 hour bank teller machines, by responding to prompts using three (3) soft feature keys. A menu (scroll) key provides additional non-mandatory choices. The LCD screen, soft feature keys and menu scroll key, replace the awkward and confusing words printed on ordinary control station touch-pads. The user is guided through each step of operation and is asked to enter his/her authorization code when required. In addition to the soft keys and menu key, three color coded emergency keys labeled "A" "B" and "C" are provided for activation (press and hold for three seconds) of the control panel auxiliary and emergency alarms.

For visibility and convenience, the Security Terminal features electro-luminescent (EL) back-lighting of the LCD and provides adjustable touch-pad lighting for standby and active conditions. The standby condition may be used as a continuous night-light. The active condition illuminates on the first key press and may be programmed to light on entry/exit delay, AC power failure, and alarms.

TABLE OF CONTENTS

1. MOUNTING AND WIRING

1. Select a mounting location with an ambient temperature range of 32 to 122 degrees F (0 to +50 degrees C). The Security Terminal should not be exposed to freezing conditions or direct sunlight. It may be mounted to any suitable flat surface or to a 1, 2, or 3 gang electrical box. Avoid mechanical obstructions (plumbing, electrical outlets, etc.).

2. An ideal mounting height is between 48 to 52 inches from the floor to the top of the LCD screen. This provides an ideal viewing height. The top of the unit should never be mounted higher that 60 inches.

3. The minimum recommended wire from the control to the Security Terminal is 22 gauge stranded, four conductor twisted.

4. Loosen the retaining screw, which is located on the bottom edge, then separate the main assembly from the rear mounting plate. See Figure 1.
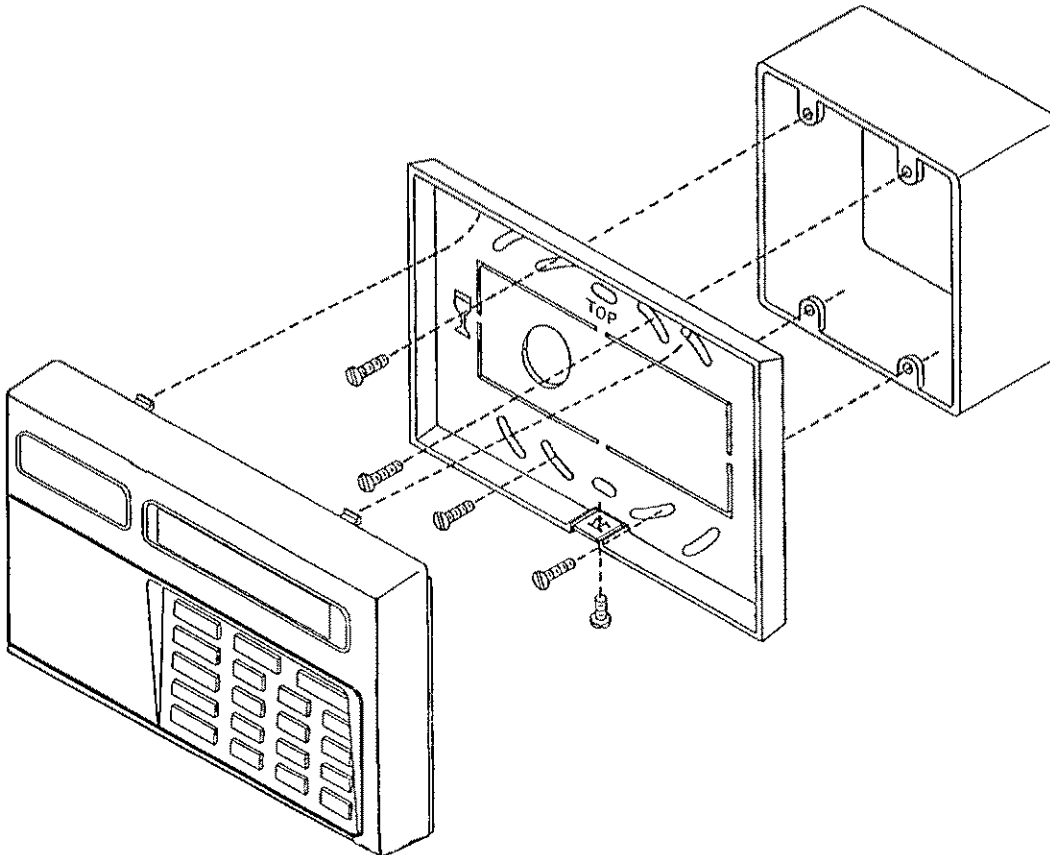

FIGURE 1

5. Insert the control wire through the hole provided in the rear mounting plate, then fasten the plate using the (four) #6 flat screws found in the hardware pack. If other screws or fasteners are used, care must be taken to prevent the screw heads from shorting to the printed circuit board. Level the plate before tightening the screws.

6. Turn the control's power off, then splice each of the four wires from the control to the color coded wires of the CS-151 plug-in connector. This is the same connector as used on the CS-152 control stations.

7. Push the splices and excess wire back through the rear hole and seal the hole with insulation to prevent air infiltration and dust.

8. Plug the four wire connector into the CS-151 mating connector. The notches on the connector will only allow one direction.

9. Hold the Security Terminal at a 45 degree angle, and insert the two plastic tabs into the two notches on the top of the rear plate. Push the bottom toward the wall until the tabs snap in place. Make certain that none of the wires are pinched or stretched. Tighten the bottom screw to secure the unit.

10. When all connections are complete, remove the protective label covering the display screen and turn the control power on.

2. POWER-UP AND GENERAL OPERATING PROCEDURES

When power is applied to the Security Terminal, the LCD screen will display a brief copyright message followed by the status of the control panel. As the control status changes, the information on the LCD changes. The Security Terminal handles all communication with the control and prompts the user for inputs as required. For instance, if all detection zones are secure, the LCD displays **SYSTEM READY** along with the date and time. Upon power-up, the date and time defaults to: JAN 1 12:00am. The steps to set the clock along with the other user selectable options can be found in both the User Manual and this installation manual.
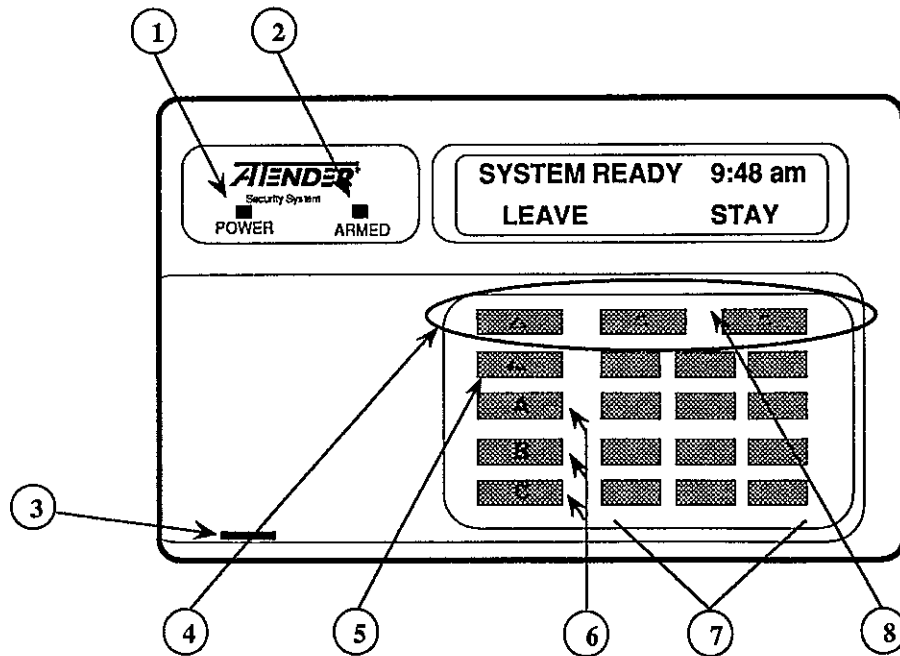

FIGURE 2

1. **POWER (green) LED**...When ON, the primary (AC) power is being supplied to the control. If OFF, the AC power is off and the control is deriving power from the standby battery. If blinking, the standby battery is weak or an internal fuse has blown.

2. **ARMED (red) LED**...Lights steady when the control panel is armed, and blinks when an alarm has occurred (alarm memory indicator).

3. **Adjustable Piezo Sounder**...Provides steady or pulsed tones upon: key presses, entry/exit delay, and alarms. The volume may be adjusted and or silenced for certain conditions. See ADJUST BEEPS on page 5.

4. **Soft Feature Keys**...Used to select corresponding options displayed on the LCD. For example: When all zones are secure, the message **SYSTEM READY** will display on the top line along with the words **LEAVE** and **STAY** across the bottom line. To leave the building and arm the control, press the key directly beneath the word **LEAVE**. To arm and stay in the building, press **STAY**. Each of the soft keys are marked with small blue triangles.

5. **Menu Scroll Key**...Used to display additional operating options such as alarm memory, walk test, set clock, etc. The key is marked with a small blue triangle and bar symbolizing a scroll or window shade.

6. **Emergency "A" "B" and "C" Keys**...Press and hold to activate the corresponding emergency condition. Each of the keys may be disabled from operation if desired. Refer to the CS-150 installation manual.

7. **Numeric Touch-pad**...Used to enter authorization codes when arming and disarming, programming, etc. These keys may also be used to enter CS-152 style commands to allow operational uniformity between CS-151 and CS-152 control stations on installations which have both.

8. **Adjustable Intensity Touchpad Lighting**...Illuminates the touch-pad and surrounding area. There are two modes (stages) of operation, with variable brightness adjustment. See ADJUST LAMP on page 5

3. USER SELECTABLE OPTIONS

By pressing the menu (scroll) key, the user may access five display menus of additional options. Each time the menu key is pressed, options appear on the LCD. The first nine (9) options are: zone status, alarm history, interior on/off, delay on/off, day monitor on/off, battery test, walk test, program, and bypass. Four (4) additional options include: adjust LCD viewing angle, adjust touchpad lamp, adjust volume of the (piezo sounder) beeps, and set clock.

The first nine (9) options are self explanatory and operate similarly. In most cases each option requires the input of an authorization code. To select an option, press the corresponding soft feature key and follow the instructions. As the code is entered, blocks are displayed to indicate entry of each digit. If a mistake is made while entering the code, press the **CLEAR** key or the ⌞ ＊⌟ key.

USER MENU 1

ZONE	ALARM
STATUS	HISTORY

1. **ZONE STATUS**....Provides a "quick view" (8 seconds) display showing the zone numbers of any zones that are not ready (violated). This is followed by another display which shows full zone status complete with descriptions. Press any key to terminate the first display.

   The second display begins with zone 01 or the first not ready zone. Three options are displayed: **NEXT** advances to the next consecutive zone, **QUIT** exits zone status, **BYPASS** removes the zone from service. The control may be programmed to disable bypassing of any or ALL zones, however the option will always display. If **BYPASS** is pressed the display reads **PLEASE WAIT....** while the control attempts to bypass the zone. The display then returns showing the zone description, followed by **BYPASSED** if the zone was successfully bypassed. An option to **SECURE** the zone and cancel the bypass will now appear. If unable to bypass the zone, the display will simply return with the previous zone information. Press **NEXT** to advance and **QUIT** when finished.

2. **ALARM HISTORY**....Displays the zone(s) which caused the most recent alarm beginning with the first zone activated. Three choices are displayed: **MORE** (to view other zones), **QUIT** (to exit alarm history), **TIME** (to display the time and date that the first zone alarmed). NOTE: The date and time will be erased if the power is lost.

USER MENU 2

	DAY	BATTERY
	MONITOR	TEST

3. **DAY MONITOR**....Displays the condition of the day monitor (on or off) and reads: **TO CHANGE ENTER CODE** If a valid code is entered and the day monitor is on, it will be changed to off. The display will read: **MONITOR IS OFF** or **MONITOR IS ON** depending on the prior condition.

4. **BATTERY TEST** (this heading reads **SMOKE RESET** during certain fire alarm conditions)....Used to test the battery and reset the (+) 12 VDC smoke power. Displays: **SMOKE RESET/BATTERY TEST ENTER YOUR CODE**. If a valid code is entered the battery will be tested and the power reset. During the test the display reads: **BATTERY UNDER LOAD TEST PLEASE WAIT 5...** **SECONDS**. If the battery fails the test, an audible trouble alert will sound and **LOW BATTERY OR BAD FUSE** will display. Press **SILENCE** to silence the trouble alert. **CONSULT USER MANUAL** will display until the battery is recharged or replaced and tested. If a latched smoke detector did not reset, the display will read: **SUPERVISORY/TROUBLE** after the test is completed.

4

```
WALK
TEST        PROGRAM      BYPASS
```

5. **WALK TEST**....Used to walk test each of the detection zones. Displays: **TO START WALK TEST ENTER YOUR CODE** If a valid code is entered the display will read: **PROCEED WITH WALK TEST.** As each zone is violated, the piezo sounder beeps and the zone number latches on so that any zones failing to respond or not tested will not appear. Press the menu key or the [____*] key to exit the walk test mode.

6. **PROGRAM**....Used along with the Program Authorization Code to enter the programming mode. Displays: **FOR PROGRAMMING MODE ENTER YOUR CODE.** If the valid programming code is entered, the programming mode will begin and the display will read: **CONTROL PANEL KEYPAD QUIT.** Refer to the programming section of this manual for further explanation. Press **QUIT** to exit the programming mode. Note: The program mode will be exited automatically after approx. one minute of no key entries.

7. **BYPASS**....Allows an individual zone to be manually bypassed, removing it from service. Displays: **BYPASS WHICH ZONE?** and waits for entry of a two digit zone number (01 to 16). When a zone number is entered, the control will attempt to bypass the selected zone and the display will read: **PLEASE WAIT....** The display then returns showing the zone description, followed by **BY-PASSED** if the zone was successfully bypassed. The display will then alternate between **... ZONES BYPASSED** and the normal system status. If the zone could not be bypassed, the main system status will display immediately. Press **QUIT** to exit from the bypass option mode. To cancel all bypassed zones, return to the bypass option and press **CANCEL**, or press [____#] + 9.

```
VIEWING      ADJUST       ADJUST
ANGLE        LAMP         BEEPS
```

8. **VIEWING ANGLE**....Allows the LCD viewing angle to be adjusted. This allows flexibility in the mounting height of the Security Terminal and enhances readability. Select **LOWER** or **HIGHER.** The selected angle is represented by a number from 00 to 24. Press **QUIT** to exit this option.

9. **ADJUST LAMP**....Allows adjustment of the touchpad lighting. Two settings are available. The first display reads: **LOW (STANDBY) LIGHT = ...** Press **LESS** or **MORE** to adjust the setting and press **QUIT** when complete. The second display reads: **BRIGHT (ACTIVE) LIGHT = ..** and is adjusted in the same manner. The selected light levels are represented by a number from 0 to 20. The low (standby) setting may be used as a constant night-light. The bright (active) setting turns on whenever a key is pressed, times out after 30 seconds of inactivity and may be programmed to light on entry/exit delay, AC power failure, and alarms.

10. **ADJUST BEEPS**....Allows the volume of the piezo sounder to be adjusted. The display reads: **BEEP LOUDNESS = .. ENTER A NUMBER (1 TO 7).** As each allowed number key is pressed, the corresponding volume will be produced. When the desired volume is selected, press the menu key to exit from this option. **WARNING: Do not reduce the volume to the extent where it cannot be heard as it is also used to provide system trouble signals.**

```
SET
CLOCK
```

11. **SET CLOCK**....Used to set the date and time of the control. Enter the month, day, hour, and minutes. Use the left and right arrow keys (as indicated on the display) to move the entry point (blinking cursor) left or right. To change am to pm or vise versa, place the entry point over am (pm), then press any number key. Press **RETURN** to exit from this option.

4. KEYPAD PROGRAMMING PROCEDURES

The programmable options of the Security Terminal are stored in non-volatile EEPROM memory. Factory default settings are provided for most options (see page 9) and may be changed to suit each installation. The Security Terminal and the CS-150 control is programmed directly from the touch-pad utilizing step by step information and instruction prompts displayed on the LCD.

1. Press the menu key three (3) times to obtain user menu 3.

2. Press **PROGRAM**. The display will read **FOR PROGRAMMING MODE ENTER YOUR CODE.** The required code is the <u>Program Authorization Code</u>.

3. Enter the Program Authorization Code. The factory default code is **98765.** When the program code is accepted, the program mode will begin with a display as indicated below. If there are any CS-150 control stations connected to the same control, their LEDs will begin blinking.

```
┌─────────────────────────────────────────────┐
│   CONTROL                                     │
│    PANEL        KEYPAD         QUIT           │
└─────────────────────────────────────────────┘
```

CONTROL PANEL: Used to program the functions of the control.
KEYPAD: Used to program the Security Terminal options.
QUIT: Exits the programming mode.

If the automatic answer/callback method of Upload/Download remote programming has been enabled in the control, the message **AUTOMATIC ANSWER ENABLED** will be momentarily displayed upon initial entry of the Program Authorization Code. To exit the programming mode at any time, press **QUIT** (when it appears) or press the ⌊___*⌋ key twice.

4. Press **KEYPAD**. The main control will exit from the programming mode as indicated by a two second beep from the Security Terminal and any other connected control stations. The first program menu will display three of the six program options as illustrated below:

PROGRAM MENU 1

```
┌─────────────────────────────────────────────┐
│                  LAMP          EXIT          │
│    ZONES        OPTIONS        ALERT         │
└─────────────────────────────────────────────┘
```

To program an option, press the corresponding soft feature key. After the option is programmed the display will return to the menu screen on which that option was displayed. Most options require only a **YES** or **NO** response.

To advance to the second three options, press the menu scroll key. This menu will be displayed as illustrated below:

PROGRAM MENU 2

```
┌─────────────────────────────────────────────┐
│   ARMING        DISPLAY                       │
│   OPTIONS       OPTIONS       DEFAULT         │
└─────────────────────────────────────────────┘
```

Pressing the menu scroll key again will display:

PROGRAM MENU 3

```
┌─────────────────────────────────────────────┐
│   KEYPAD SET-UP DONE?                         │
│                    YES          NO            │
└─────────────────────────────────────────────┘
```

When all programming is complete, press **YES** to exit from the program mode. Pressing **NO** will return to the first programming menu.

Note: Some options contain more that one feature or selection.

5. PROGRAMMING OPTIONS

ZONES /   Used to select the number of zones to be displayed by the Security Terminal and to program the zone descriptions.

1. In the keypad programming mode, the first display reads: **ARE THERE 16 ZONES?** If the control does not have a CS-160 Eight Zone Expander installed, press **NO**. The display will read: **HOW MANY ZONES?** Enter 8 and press **YES**.

2. The display will read: **PROGRAM ZONE NAMES?** Press **YES** to program the zone descriptions. The following will display:

```
ZN 01  " "
     NEXT        QUIT        --->
```

3. Programming begins with zone 01. The area for programming the description (up to 16 digits) is marked by quotation (" ") marks. Press the → to place the blinking cursor over the second (") mark. Program the first letter, then move the cursor to the right for the second, and so on. For speed and convenience the Security Terminal contains a library of over 100 words (see Table 2) that may be quickly recalled. These words may be inserted or combined onto the display with any custom programmed words.

4. All letters are selected from the numeric touchpad. The letters are assigned to numbers 2-0 just as they are shown on pushbutton telephones. For example, the **2** key represents the letters **ABC**. Table 1 lists the assignment of each key.

DIGIT	CHARACTER
1	1 2 3 5 6 7 8 9 : ; < = > ? [¥] 0
2	A B C
3	D E F
4	G H I
5	J K L
6	M N O
7	P Q R S
8	T U V
9	W X Y Z
0	{space} ' _ ! " # $ % & ( ) * + , - . /

TABLE 1

5. Select each letter by pressing the corresponding number key. Since each key is assigned to at least three letters, it may be necessary to press the same key a second or third time to obtain the desired letter. If the letter is accidentally passed by, press the previous number key to reset and begin with the correct key. If you continue to press a single key, the display will continue through the alphabet and back to the beginning. To insert a single blank space, press the zero (0) key once.

After selecting a character, move the cursor to the right by pressing the → key. Continue until the complete zone description is entered. Then press **NEXT** to proceed to the next zone. After all zone descriptions have been programmed, press **QUIT**. The display will read:

```
COPY TO OTHER TERMINALS?
              YES        NO
```

When multiple Security Terminals are connected to a single control, pressing **YES** will copy the zone descriptions (but not the other options) to all other Security Terminals that are connected to the control. The display will verify the progress and completion of the copying.

6. The [#] key may be used to insert words from the built-in library or to delete or insert characters. If the [#] key is momentarily pressed while the cursor is within the " " marks, the display will read: **<--- WORDS --->** During this display, the number keys 2-0 may be used to insert words that begin the corresponding first letters. When the desired word is displayed, press [#] to return to the normal mode. The cursor may be moved right or left for additional words. By pressing and holding the [#] key, the center and right hand soft keys will be assigned as **DELETE** and **INSERT** keys. These may be used to insert spaces or to delete letters. NOTE: The zero (0) key may be used to insert a single blank space.

7

A (2)	**F**	**L**	**Q**	**V**
ALARM	FAMILY	LAUNDRY		VALVE
AREA	FIRE	LEVEL	**R**	VAULT
ATTIC	FIRST	LIBRARY	REAR	
AUDIO	FLOOR	LIVING	RECREATION	**W** (9)
	FLOW	LOBBY	ROOF	WALL
B	FOIL	LOWER	ROOM	WAREHOUSE
BACK	FOYER			WATER
BASEMENT	FREEZER	**M** (6)	**S**	WEST
BATHROOM	FRONT	MAIN	SAFE	WINDOW
BEAM		MASTER	SECOND	
BEDROOM	**G** (4)	MAT	SENSOR	**X Y**
BREAKFAST	GAS	MONITOR	SHOCK	YARD
	GARAGE	MOTION	SHOP	
C	GLASS	MICROWAVE	SIDE	**Z**
CARPORT	GUEST		SKYLIGHT	ZONE
CEILING		**N**	SLIDING	
CLOSET	**H**	NORTH	SMOKE	Notes:
	HALLWAY	NURSERY	SOUTH	
D (3)	HEAT		SPRINKLER	(....) indicates
DEN	HOUSE	**O**	STORAGE	the key to
DETECTOR		OFFICE	SYSTEM	press to begin
DINING	**I**	OUTSIDE		words with the
DOOR	INFRARED	OVERHEAD	**T** (8)	corresponding
DOWNSTAIRS	INSIDE		TAMPER	letter.
DRIVEWAY	INTERIOR	**P** (7)	THIRD	
		PANIC	TRAP	Key " 0 " is
E	**J** (5)	PASSIVE		used to obtain
EAST	JANITOR	PHOTO	**U**	a space and
EMERGENCY		PIR	ULTRASONIC	hyphenation
ENTRANCE	**K**	PLAY	UPPER	characters.
EXIT	KEY	POLICE	UPSTAIRS	See Table 1 on
EXTERIOR	KITCHEN	POOL	UTILITY	page 7.
		PROXIMITY		

TABLE 2 LIBRARY OF WORDS

The remaining keypad programming options are displayed as questions. Each question is worded in two ways.

Example:

LIGHTS ON FOR EXIT/ENTRY?		LIGHTS OFF FOR EXIT ENTRY?	
YES	NO	YES	NO

The first display will ask if you want the option to remain as presently set. Answer **YES** to confirm the setting. If you answer **NO**, the display will reword the question so that a **YES** will select the opposite setting. A **YES** is required in response to one of the two wordings of the question before the next option or the main menu will display.

LAMP OPTIONS

Used to select whether the touchpad light on the programmed Security Terminal will be ON or OFF during the entry/exit, AC power failure, and during alarms.
The lamp options available include the example above and:

LIGHT ON AFTER AC FAIL   or   **LIGHT OFF AFTER AC FAIL**

LIGHT ON FOR ALARM   or   **LIGHT OFF FOR ALARM**

EXIT ALERT

Used to select whether the piezo sounder on the programmed Security Terminal will be audible or silent during exit delay.

AUDIBLE EXIT DELAY?   or   **SILENT EXIT DELAY?**

8

Press MENU to advance to the next three options.

ARMING OPTIONS

Used to pre-select the interior and delay status when arming from the programmed Security Terminal using the **STAY** option. Also selects whether the **BYPASS** option will be displayed when **LEAVE** or **STAY** arming is attempted while a zone is not ready.

"STAY" WITH DELAY ON   or   **"STAY" WITH DELAY OFF**

SHOW "BYPASS" ON ARMING? or   **HIDE "BYPASS" ON ARMING?**

DISPLAY OPTIONS

Used to select the wording displayed for system operation and during certain alarm conditions, to select whether to display the time during normal running modes, and whether to permit the time of alarm to be read when displaying alarm history information. If using subzoning, the feature must also be enabled through control panel programming (refer to "Expanded Subzoning" in the CS-150 installation manual).

DISPLAY "ARMED/DISARMED" or   **DISPLAY "ON" & "OFF"**

DISABLE CLOCK DISPLAY   or   **ENABLE CLOCK DISPLAY**

DISABLE ALARM TIME   or   **ENABLE ALARM TIME**

DISPLAY "AUXILIARY A"   or   **DISPLAY "FIRE"**

DISPLAY "AUXILIARY B"   or   **DISPLAY "POLICE"**   *Keypad Panic Dislpay Options*

DISPLAY "AUXILIARY C"   or   **DISPLAY "EMERGENCY"**

DISABLE SUBZONING OPTION   or   **ENABLE SUBZONING OPTION**

DEFAULT

Used to restore the factory default settings of the Security Terminal or to erase the custom zone descriptions. To guard against accidentally selecting these options, and thereby making irreversible changes, the left and center soft keys must be pressed at the same time in order to answer **YES**.

<div align="center">

RESTORE FACTORY SETTINGS
- - - YES - - -   NO

ERASE ALL ZONE NAMES?
- - - YES - - -   NO

</div>

Press the MENU key to advance to the last display which will read: **KEYPAD SET-UP DONE?**   After all programming is complete, press **YES** to exit and return to the main operation screen.

```
VIEWING ANGLE ...........................................................00 (LOWEST)
LOW (STANDBY) LIGHT LEVEL .............................................................3
BRIGHT (ACTIVE) LIGHT LEVEL ........................................................15
ADJUST BEEPS. ...............................................................................4
ZONES DISPLAYED ........................................................................16
ZONE DESCRIPTIONS...............................................................NONE
LIGHT OPTIONS ...............................LIGHT OFF FOR ENTRY/EXIT
.......................................................LIGHT OFF AFTER AC FAIL
.................................................................LIGHT ON FOR ALARM
EXIT ALERT ............................................................AUDIBLE
ARMING OPTIONS...................................."STAY" WITH DELAY OFF
.................................................SHOW "BYPASS" ON ARMING
DISPLAY OPTIONS ...........................DISPLAY "ARMED/DISARMED"
.............................................ENABLE/DISABLE CLOCK DISPLAY
.............................................ENABLE/DISABLE ALARM TIME
.............................................................DISPLAY "AUXILIARY A"
.............................................................DISPLAY "AUXILIARY B"
.............................................................DISPLAY "AUXILIARY C"
```

<div align="center">

TABLE 3   CS-151 FACTORY (DEFAULT) SETTINGS

9

</div>

6. CONTROL PANEL PROGRAMMING FROM THE SECURITY TERMINAL

Programming of the control panel is greatly simplified with the help of the Security Terminal. The program function numbers are displayed on the LCD along with the value contained in them. The **FIND, NEXT, STORE, CLEAR,** and **QUIT** operations are displayed at the appropriate times during programming. For detailed information about the programmable functions of the control, refer to the control panel installation manual. Use the following steps to gain access to control panel programming.

1. Press the *program switch* (SW1) on the control board.

2. Press the **MENU** key three times.

3. Press **PROGRAM.**

4. Enter the program authorization code when prompted. Default is 98765.

5. Press **CONTROL PANEL.**

6. Enter the function number to be programmed. When the first digit is pressed, the display will provide the options: **CLEAR FIND.** If a mistake is made, press clear and re-enter the function number.

7. Press **FIND.** The function number will be displayed along with its current value and a brief description of the function to be programmed. The display will also read: **QUIT NEXT.** To advance to the next consecutive function number, press **NEXT.**

8. If a new value is entered, the display will provide the options to: **STORE FIND.**

9. Press **STORE** to reprogram the selected function. To jump to another function, enter a new function number and press **FIND.**

10. When programming is complete, press **QUIT** to exit the programming mode.

7. ADDITIONAL NOTES

1. Please read the accompanying user manual as there are operations that may not be explained in this manual.

2. Before issuing the user manual to your customer, information should be entered on pages A, 6, 12, and 13.

3. The user manual contains 4 pages in the center of the book labeled pages A through D. These pages detail user programming procedures. If you feel that the user should not perform programming, this section may be easily removed from the manual. If you decide to leave these pages in, enter the Master Programming Code on page A in the space provided and instruct the user on programming procedures.

4. A two line message may be sent to the Security Terminal from a remote location using TRANSPORT-PC ® and an IBM PC ® or compatible computer. This message may be up to 48 characters in length and will be displayed alternately with the normal status screen. This message, such as **MERRY CHRISTMAS FROM ACME SECURITY,** may be programmed to display for up to 99 days. This message cannot be altered from the Security Terminal, but may be erased by entering the programming mode and pressing **KEYPAD.** The display will read: **ERASE DOWNLOAD MESSAGE?** Press **YES.** The message will be erased.

5. **SINGLE DIGIT COMMANDS:** The CS-151 Security Terminal was designed to simplify user operation of the CS-150 Security Control. For this reason, programming the control to accept *single digit commands* is not only unnecessary, but may actually tend to confuse the user by causing the CS-151 to display information out of sequence with the normal operational messages.

6. **TWO DIGIT ARMING:** On CS-150 Security Controls which are controlled with CS-151 Security Terminals, *two digit arming* and *force arming* are mutually exclusive features. In other words, if two digit arming and force arming are both enabled on a CS-150 control which has CS-151's connected, the force arming ("override") feature will not function on the CS-151's.

7. **RADIO FREQUENCY (RFI) EMISSIONS:** All microprocessor based electronic equipment generates radio frequency energy. Under certain limited circumstances, this energy may cause interference to nearby radios and televisions. The Federal Communications Commission (FCC) establishes specific limits to which all manufacturers must comply.

    The CS-151 was designed, tested, and complies well within the limits set by the FCC. However, in certain limited instances, the CS-151 may cause interference to nearby radios and televisions, especially those utilizing "rabbit ear" style or attic mounted antennas, and where the transmitting station is very distant or underpowered. Cable television is rarely affected by the CS-151.

    A good recommended practice is to temporarily connect and operate the device in the desired location before final mounting. If interference proves to be a problem, try adjusting or relocating the TV or radio antenna, and/or relocating the device while monitoring for the interference.

8. Glossary

ALARM HISTORY: Indication of the zone that last alarmed.

ARM: To turn the intrusion detection system on.

BYPASS: To remove a zone from the system. Bypasses are automatically removed when the system is disarmed after the exit time has expired.

CODE: Personal Authorization Code (PAC).

DELAY ZONE: Zone which allows a programmable amount of time to enter and disarm the system without activating an alarm. Also provides an exit time to leave the premises after arming. "Delay" may be assigned to any number of zones.

DISARM: To turn the intrusion detection system off.

DISPLAY: The lighted liquid crystal display (LCD) screen which displays information and prompts.

EMERGENCY KEYS: Keys A, B, and C. Used to activate emergency alarms.

ENTRANCE DELAY: Time permitted to enter the armed premises.

EXIT DELAY: Time permitted to exit the premises after arming the system.

FORCE ARM: To override. To force the system to arm when one or more zones are not ready. Also see *Bypass*.

INTERIOR: Zones consisting of motion detectors or interior door contacts designed to detect intruders within the premises.

INTERIOR FOLLOWER FEATURE: Converts interior zones to delay zones upon entry through a delay door. Interior follower provides passage through interior detection zones to the Security Terminal in order to disarm the system.

KEYS: The pushbuttons on the Security Terminal.

KEYPAD: A generic term used to describe a control station. In this case, the Security Terminal.

LEAVE: A selection to arm the system when planning to leave the premises.

MASTER PROGRAMMING CODE: A code which must be entered to permit entry into the programming mode of operation.

MENU SCROLL KEY: The key directly above key A which may be pressed to obtain menus of features from which to select.

OVERRIDE: See *BYPASS, FORCE ARM.*

PERIMETER: Zones consisting of exterior door and window contacts. The first line of defense.

PERSONAL AUTHORIZATION CODE (PAC): The number sequence that is entered to authorize selections when the display indicates ENTER YOUR CODE.

PROGRAM: To set the specific features of the Security Terminal or control panel.

REMOTE PROGRAMMING: The ability to service the system from a remote location (specified by your security representative) with the aid of an IBM PC ® or compatible computer.

RESET KEY: The ⬚ * key. Used to clear improper numeric entries and to silence the Security Terminal sounder.

SOFT FEATURE KEYS: Three keys directly below the display. Used to select features indicated on the display.

STAY: A selection to arm the system when planning to stay at the premises.

SUPERVISORY/TROUBLE: Indicates that a fault (such as a shorted or broken wire) exists on a fire or other 24 hour zone. For special applications, intrusion detection zones may also be programmed for supervisory/trouble alert.

9. INDEX

LIMITED WARRANTY

TERMS

Aritech Moose Security Products, a division of Aritech Corporation warrants that this product meets its design specifications and that it will be free from defect in materials or workmanship in normal use and service for the 24 months immediately following the date code stamped on the product. The first digit of the date code is the tester number, the next three digits represents the day of the year, and the last two digits are the year.

PURCHASER'S RIGHTS

Aritech Moose Security Products will repair or replace at its option, without charge for materials or labor, any part which proves to be defective in materials or workmanship in normal use and service. Should you discover that the product is defective within the warranty time period, you should contact any Aritech Moose Security Products dealer who will instruct you on the proper procedure for return. The cost of return transportation of the product to Aritech Moose Security Products is the responsibility of the purchaser. If for any reason you are dissatisfied with the suggested procedures, you may contact us in writing at: Aritech Moose Security Products, Customer Service Department, P.O. Box 2904, Hickory, N.C. 28603.

CONDITIONS AND EXCLUSIONS

THE ABOVE IS A LIMITED WARRANTY AND IT IS THE ONLY WARRANTY MADE BETWEEN ARITECH MOOSE SECURITY PRODUCTS AND PURCHASERS. It supercedes all proposals, promotions, representations, or prior warranties, verbal or written, and any other communications between the parties relating to the subject matter of the warranty. ARITECH MOOSE SECURITY PRODUCTS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND SPECIFICALLY EXCLUDED ARE ALL WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow the exclusions of implied warranties; if the above is true, the exclusions may not apply to you.

The warranty shall not apply if the product has been misused or altered, or if it has been repaired or serviced by anyone other than Aritech Moose Security Products.

Aritech Moose Security Products makes no representation that this product will prevent personal injury or property loss or that the product will in all cases provide adequate warning or protection. Purchaser is on notice that a properly installed and maintained alarm system may only reduce the risk of a burglary, robbery, or fire without warning, but the alarm is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. THEREFORE, ARITECH MOOSE SECURITY PRODUCTS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES IN CONNECTION WITH THE USE, INSTALLATION AND/OR MAINTENANCE OF THE PRODUCT, including, but not limited to the liability for any property damage, bodily injury, or other loss based on a claim that the product failed to give warning, or any cost of expense of providing substitute equipment or service during periods of malfunction, nonuse or maintenance. In no event shall the liability of Aritech Moose Security Products exceed the purchase price of the product.

Some states do not allow the exclusion of liability for consequential or incidental damages, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

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 or part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
1. Reorient the TV or radio antenna.
2. Relocate or move the alarm control away from the receiver.
3. Plug the transformer for the alarm control into a different outlet so that the receiver and the alarm are on different branch circuits.
4. If necessary, the user should consult the alarm dealer or an experienced radio/television technician for additional suggestions.
   The user may find the following booklet prepared by the Federal Communications Commission helpful: "How To Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402 stock #004-000-00345-4.

This equipment is a Class B Digital apparatus which complies with the radio interference regulations, CRC c.1374.