RANGER 9000E

DOWNLOADABLE CONTROL COMMUNICATOR

INSTALLATION MANUAL

TABLE OF CONTENTS

CADDX CONTROLS, INC.; GLADEWATER, TEXAS 903-845-6941

General Description

The Caddx Ranger 9000E is a hardwire 16 zone control/communicator that can be expanded to a maximum of 32 zones. With the 9090 Wireless Receiver, the Ranger 9000E can support up to 100 points of wireless protection. This control panel provides some of the most versatile, yet easy to use features available for most security applications today. Each of the 32 zones can be programmed to be one of nine different types including 24 Hour, Interior Follower, and Day zone. Each zone is individually annunciated and can be bypassed from the keypad if so enabled. See page 12 for a description of all zone types. Read the User's Manual before you begin the installation for the best overall description of how the Ranger 9000E functions. After installation of the security system, complete the information on page 1 of the User's Manual and explain the system operation to all security system owners/operators.

Standard Parts List

The Ranger 9000E is shipped with the parts listed below.

QUANTITY	PARTS DESCRIPTION	PART #
1	MASTER CONTROL PANEL W/O KEYPAD	9000E
1	16.5V 50VA TRANSFORMER	T-1650
18	3.3K ½ WATT E.O.L. RESISTORS	EOL-33
1	4-WIRE FLYING LEAD FOR AUXILIARY OUTPUTS	8920
1	INSTALLATION MANUAL	IM-9000E
1	USER'S MANUAL	OM-9000E

Optional Parts List

The following parts are available for use with the Ranger 9000E.

OPTIONAL PARTS DESCRIPTION	PART #
16 LED REMOTE KEYPAD	9001
LCD ENGLISH LANGUAGE KEYPAD	9060E
DOWNLOADING SOFTWARE PACKAGE	DL-900
PROGRAMMER WITH DIGITAL NUMERIC DISPLAY	8950
16 ZONE EXPANSION SYSTEM	9032
8 RELAY OUTPUT BOARD (HAS SERIAL PRINTER INTERFACE)	9008
16 AUXILIARY OUTPUT BOARD (HAS SERIAL PRINTER INTERFACE)	9016
RANGER WIRELESS RECEIVER	9090
PRINTER INTERFACE CABLE	9017
SMART PROGRAMMER	9075
16 AUXILIARY OUTPUT BOARD (X-10) COMPATIBLE (HAS SERIAL PRINTER INTERFACE)	9016X
OPERATOR	9040

FEATURE DEFINITIONS

Alarm Memory - On the 9001, pressing the [0] key and waiting 5 seconds will bring up the last alarm. On the 9060E, pressing [D] - [0] will access the last 12 alarms, last one first. Pressing the [#] will escape the Alarm Memory Mode.

Automatic Bypass/Instant Arming - When enabled, the control panel can automatically bypass interior follower zones if an exit is not detected during the delay time, and make the delay zones "Instant" automatically, or by the pressing the [✱] button on the keypad. See location 220, page 17 and locations 412-427, page 31 for the different combinations of programming this feature.

Chime - This lowest level of security can be enabled by zone (see Locations 171-186, page 13: **Assigning Audible Characteristics For Zones**) to create a one second tone through the keypad sounder when the system is disarmed and a zone is violated. If so programmed, this feature can be turned on and off by a one digit keypress programmed in location 244, page 22: **Assigning The Chime Code.**

Dynamic Battery Test - When enabled in locations 254-255, the Ranger 9000E can be programmed to perform a dynamic battery test for a selected duration, at a selected time. (Refer to page 24.)

Entry-Guard - This unique low level arming mode has been developed to reduce the most common source of false alarms. When armed in this mode, the opening of any zones designated as "Entry Guard zones" will initiate the keypad sounder and start a delay before creating an alarm. Non-24 Hour Zones not designated as Entry Guard Zones will be bypassed. This arming mode will encourage system owners to use their system more frequently when the premises is occupied. (Refer to locations 155-170, 223, and 396-411, pages 13, 17, and 30.)

Force Arming - When enabled in location 205, the Ranger 9000E can be armed with zones violated, lacking a green "Ready" light on the keypad. Under this condition, all zones that are not secure at the end of the exit delay will become bypassed. All zones that become secured before the end of the exit delay will become active in the system. (Refer to page 14.)   NOTE: Bypass capability must be enabled. (See locations 155-170 and 396-411, pages 13 and 30.)

Group Bypass - Zones can be programmed to bypass as a group when the [✱] button is pressed during the exit delay. This feature is enabled in Locations 155-170: Assigning Special Characteristics For Zones, pages 13 and 30.

Internal Event Log - Up to 256 events can be stored in memory along with the date and time of the event. These events can later be viewed either through downloading or through the 9060E Keypad, and/or sent to an on-site printer which can be connected to the 9000E through one of the available expansion devices. (Refer to pages 2 and 25.)

New High Powered Siren Driver - This new high powered siren driver is rated at 125db.

Partitions - The Ranger 9000E can be partitioned into a maximum of four separate systems with distinct reporting codes and user codes per system. (Refer to locations 64-79, 246, 247, and 572-586, pages 8, 23, and 32.)

Ringback - When enabled in location 212, a two second audible output of the siren or bell will occur after either a closing kissoff is received, upon arming, or at the end of the exit delay. (Refer to page 15.)

Secondary Exit Delay - Used most often for garage doors, this zone type is a second entry/exit delay that has its own delay times, independent of the standard entry/exit delay zone.
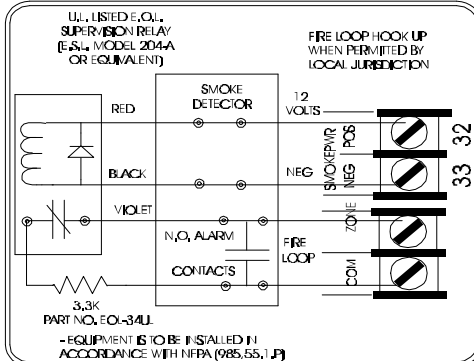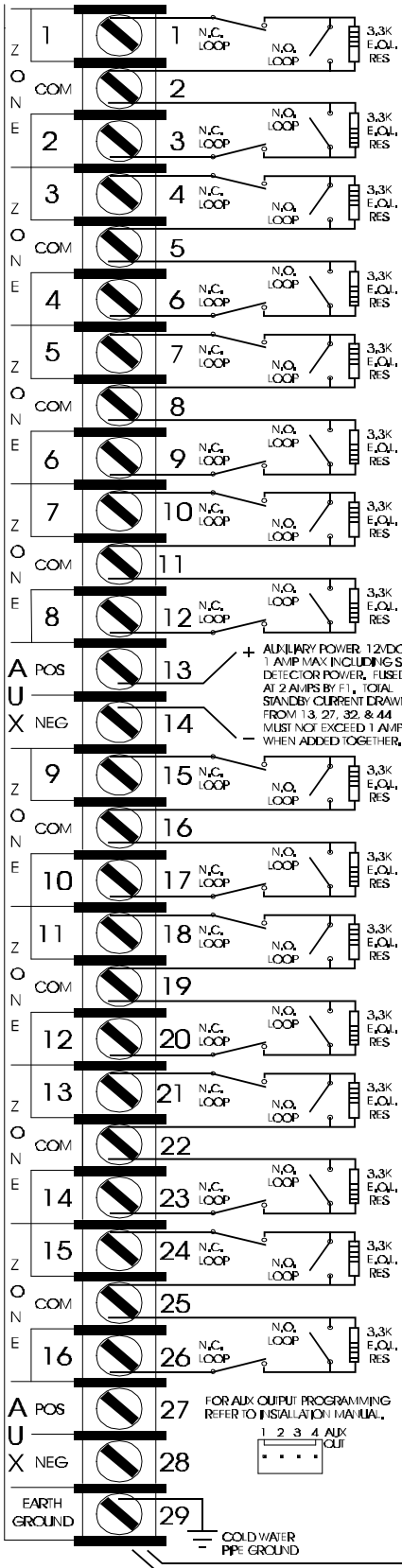
Site Initiated Downloading - Entering [✱]-[9]-[8]-[#] from the keypad will initiate a call from the panel to the download software, if programmed in location 660 (see page 37).   If desired, the control panel can be programmed to automatically call the download software at a specific time. (See location 622, page 35.)

TERMINAL DRAWING & SPECIAL NOTES

CADDX RANGER 9000E

CADDX CONTROLS, INC.
GLADEWATER, TX 75647

!! WARNING !!

DO NOT CONNECT TO A RECEPTACLE THAT IS CONTROLLED BY A SWITCH

DO NOT CONNECT 110 VAC TO TERMINAL STRIP

16.5V 50VA CLASS II TRANSFORMER

SMOKE DETECTOR POWER 12 VOLTS DC 250 mA MAX

ZONE terminals (left side): 1, COM, 2, COM, 3, COM, 4, COM, 5, COM, 6, COM, 7, COM, 8, COM

AUX POS 13, AUX NEG 14

ZONE: 9, COM, 10, COM, 11, COM, 12, COM, 13, COM, 14, COM, 15, COM, 16, COM

AUX POS 27, AUX NEG 28

EARTH GROUND 29

Screw terminals numbered 1 through 26 with N.C. LOOP / N.O. LOOP and 3.3K E.O.L. RES

U.L. LISTED E.O.L. SUPERVISION RELAY (E.S.L. MODEL 204-A OR EQUIVALENT)

FIRE LOOP HOOK UP WHEN PERMITTED BY LOCAL JURISDICTION

SMOKE DETECTOR
RED
BLACK
VIOLET
N.O. ALARM CONTACTS
3.3K PART NO. EOL-34UL

12 VOLTS
SMOKE PWR POS
NEG
ZONE
FIRE LOOP
COM

32, 33

- EQUIPMENT IS TO BE INSTALLED IN ACCORDANCE WITH NFPA (985,55,71P)

FOR ADDITIONAL INFORMATION AND INSTRUCTIONS REFER TO THE APPROPRIATE INSTALLATION AND USER MANUALS.

RELAY JUMPER SETTINGS

34-36
C +12V

38-39

FOR DRY CONTACTS ON RELAY OUTPUTS PLACE JUMPER ON LEFT AND CENTER PINS.

FOR +12 VOLTS ON RELAY OUTPUTS PLACE JUMPER ON CENTER AND RIGHT PINS.

AS SHOWN, AUX 3 (TERMINALS 34-36) WOULD HAVE DRY CONTACTS AND AUX 4 (TERMINALS 38-39) WOULD HAVE +12V OUTPUTS.

Right side terminals:
30 AC (16.5 VAC)
31 AC
32 POS (SMOKE)
33 NEG (SMOKE)
34 NO (AUX 3)
35 C (AUX 3)
36 NC (AUX 3)
37 NEG
38 C (AUX 4)
39 NO (AUX 4)
40 SPKR (SIREN)
41 SIREN
42 DATA (KEYPAD)
43 CLK (KEYPAD)
44 POS (KEYPAD)
45 NEG (KEYPAD)

BUILT IN SIREN DRIVER FOR 30 WATT SPEAKERS. 4, 8, OR 16 OHM LOAD. FUSED AT 3 AMPS BY F3.

GREEN
YELLOW
RED
BLACK

KEYPAD
1) MAXIMUM 8 KEYPADS PER SYSTEM
2) MAXIMUM WIRE RUN PER KEYPAD
   a. 22 GAUGE WIRE: 200 FEET
   b. 18 GAUGE WIRE: 500 FEET
3) DO NOT DAISY CHAIN KEYPADS, EACH MUST HAVE AN INDIVIDUAL WIRE RUN.
4) ADDITIONAL KEYPAD CURRENT DRAW: 9001 - 112 mA (LED) 9060 - 80 mA (LCD)

AUXILIARY POWER 12VDC. 1 AMP MAX INCLUDING SMOKE DETECTOR POWER. FUSED AT 2 AMPS BY F1. TOTAL STANDBY CURRENT DRAWN FROM 13, 27, 32, & 44 MUST NOT EXCEED 1 AMP WHEN ADDED TOGETHER.

ZONE 1		ZONE 9	
ZONE 2		ZONE 10	
ZONE 3		ZONE 11	
ZONE 4		ZONE 12	
ZONE 5		ZONE 13	
ZONE 6		ZONE 14	
ZONE 7		ZONE 15	
ZONE 8		ZONE 16	

1. ALL ZONES MUST HAVE E.O.L. RESISTOR ATTACHED.
2. MAXIMUM LOOP RESISTANCE 300 OHMS.
3. FOR U.L. LISTED SYSTEMS USE ONLY ALARM INITIATING DEVICES RATED AT 10.8 TO 13.8 VOLTS DC.
4. USE PART NO. EOL-34UL ON FIRE ZONE FOR ALL UL985 INSTALLATIONS.

PROGRAMMER

CONNECTORS FOR OPTIONAL PANEL PROGRAMMING DEVICES

EEPROM PROGRAMMER

FOR AUX OUTPUT PROGRAMMING REFER TO INSTALLATION MANUAL.
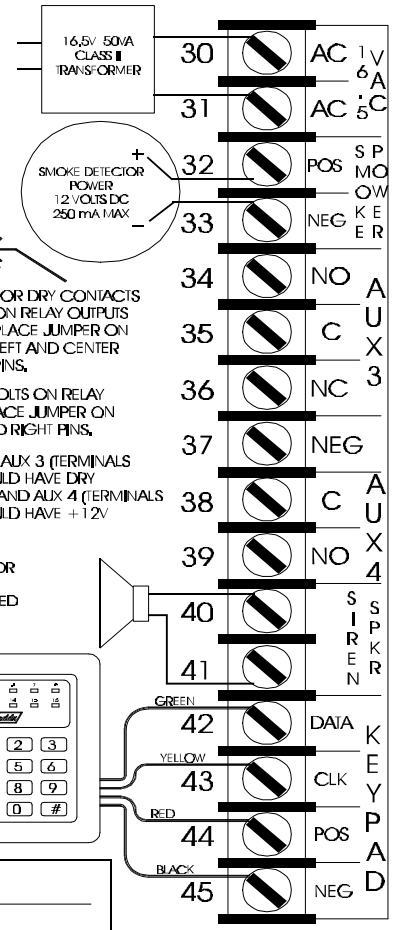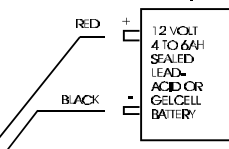1 2 3 4 AUX OUT

** WARNING **
FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH THE SAME TYPE AND RATING OF FUSE
F1=2 AMP F2=3 AMP
F3=3 AMP F4=1 AMP

LIGHTNING PROTECTION
THE CONTROL PANEL MUST BE EARTH GROUNDED FOR LIGHTNING PROTECTION TO WORK EFFECTIVELY. THE GROUND CONNECTION SHOULD BE TO A VERIFIED COLD WATER GROUND PIPE OR A DEDICATED DRIVEN METAL ROD 6' TO 10' LONG. USE MINIMUM 14 GAUGE WIRE.

COLD WATER PIPE GROUND

GRADE A LOCAL, GRADES B AND C CENTRAL STATION, POLICE CONNECT WITH BASIC LINE SECURITY.

BATTERY CAPACITY FOR EMERGENCY STANDBY AT LEAST 4 HOURS, CONTROL PANEL DRAWS 140 mA STANDBY POWER.

RED +
BLACK -
12 VOLT 4 TO 6 AH SEALED LEAD-ACID OR GELCELL BATTERY

** WARNING **
TO PREVENT RISK OF ELECTRIC SHOCK ALWAYS DISCONNECT THE TELEPHONE LINE PRIOR TO SERVICING

GREY
RED
GREEN
BROWN

TO TELCO NETWORK SPECIFY USOC RJ31X JACK

TELEPHONE terminals:
R1
R
T
T1
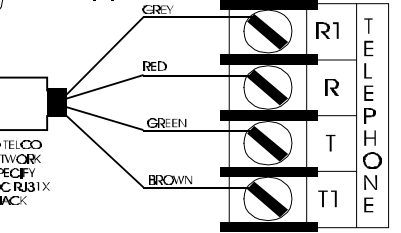
TERMINAL DESCRIPTION

TERMINAL #	DESCRIPTION
1	Connect one side of zone 1 loop. Connect other side of loop to common terminal 2. Open or short causes alarm.
2	Common (-) Terminal.
3	Connect one side of zone 2 loop. Connect other side of loop to common terminal 2. Open or short causes alarm.
4 - 12	See Terminal Drawing and repeat the above sequence for zones 3 through 8.
13 - 14	Auxiliary power, regulated 12VDC, maximum 1 AMP (500mA for U.L. installations).
15 - 26	See Terminal Drawing and continue above described hookup zones 9 through 16.
27 - 28	Auxiliary power, regulated 12VDC, maximum 1 AMP (500mA for U.L. installations).
29	Earth Ground, connect to a cold water pipe, or 6 to 10 foot driven rod.
30 - 31	AC input, connect a 16.5V 50VA, Class II U.L. approved transformer (included).
32 - 33	Resettable 12VDC 250mA Aux power.(Memory reset and/or Smoke detector power)
34 -36	Form C programmable on board relay output. Tied to auxiliary output #3.
37	Negative, provided as a convenience for relay connection.
38 - 39	Form A programmable on board relay output. Tied to auxiliary output #4.
40 - 41	Siren driver output to speaker(s). Min speaker rating 30/40 watt at 4, 8, or 16 ohms .
42 - 45	Connect keypad wires as follows; Green to terminal 42, Yellow to terminal 43, Red to terminal 44, and Black to terminal 45. Maximum run with 22 gauge wire is 200ft, maximum run with 18 gauge wire is 500ft. Home run cable to each keypad.
T1	House Telephone Tip (Brown).
T	Telephone Tip (Green).
R	Telephone Ring (Red).
R1	House Telephone Ring (Gray).
Battery Leads	Connect to 12VDC lead acid rechargeable battery: Black(-) & Red(+). Do not use a dry cell battery.

FUSE DESCRIPTION

FUSE #	DESCRIPTION
F1	2 AMP / Auxiliary Power.
F2	3 AMP / Auxiliary Outputs 3 & 4.
F3	3 AMP / Siren Driver.
F4	1 AMP / Keypad and Smoke Detector Power.

PROGRAMMING

The Ranger 9000E can be programmed by using the 8950 programmer, the 9075 Smart Programmer, the 9060E LCD keypad, or the 9001 LED keypad. These methods are described below.

Using a Programmer

Plug the optional 8950 programmer into the 4-pin male outlet marked "programer" on the Ranger 9000E PC Board and the control will enter the program mode. The 8950 will program locations 000 through 635 of the Ranger 9000E, but requires additional care for locations 400 and above. When the 400 location is reached, the two right 7 segment numeric displays will begin to flash on and off, and the left side numeric display will change to "0". The flashing is a signal to add a 4 to the left side number to determine which location you are now programming. For example, if you are in location 575, the left (100's column) will be displaying a "1", the middle (10's column) will be flashing and displaying a "7", and the right (one's column) will be flashing and displaying a "5". By adding a 4 to the "1" displayed in left column, it is determined that the location number is 575. See "Using the LED Keypad" below. (When using the 9075 Smart Programmer, please refer to the 9075 Manual.)

Using The LCD Keypad

The most straightforward method of keypad programming is to utilize the 9060E LCD Keypad in the programming mode. To access the programming mode enter [C]-[0]-[0], followed by the four digit "Go To Program" access code which is factory default [9]-[0]-[5]-[0] (this code can be reprogrammed), and follow the keypad prompts. NOTE: If the 9000E is partitioned, all partitions must be disarmed to enter the "Program" mode. (See using the LED Keypad below.)

Using The LED Keypad

The 9000E can also be programmed by the standard binary method of keypad programming described below. However, with over 600 locations, this method will be difficult except for the most experienced programmer. When the 9001 LED keypad is used for programming, enter the factory default four digit "Go To Program" access code of [9]-[7]-[1]-[3]. NOTE: The Ranger 9000E must be disarmed to gain access to programming with this code. After entry of this code, the Ranger 9000E will be in the "Program" mode, and the yellow LED's will display the data in location 000. The data is displayed using a Binary system. With this system the yellow zone 1 LED equals "1" when illuminated. The zone 2 LED equals "2" when illuminated. The zone 3 LED equals "4" when illuminated. The zone 4 LED equals "8" when illuminated. Thus if the data in location 000 is "9", the LED for zone 1 (=1) and zone 4 (=8) would be illuminated. By adding the two values together, (1+8=9) you would determine that the data in location 000 is "9". If the data in location 000 is "6", the LED or zone 2 (=2) and zone 3 (=4) would be added (2+4=6) indicating the data in that location to be "6". If no LED's are illuminated, the location contains a "0". To advance from location 000 through 635, press the [#] key. To go to a specific location, press the location number followed by the [#] key. The yellow LED's will then display the data in that location. Data is changed by entering a number 0 to 15 followed by [✱] (✱ = data enter). Review the examples in figure 1 on the following page.

Important Function Codes

There are two function codes that are used in programming the Ranger 9000E and are described below:

[9]-[1]-[0]-[#]   When in the "Program" mode, this function code can be used to write original factory default codes into the Ranger 9000E, except Locations 636-662.

[9]-[3]-[0]-[#] This function code is used to exit the programming mode after it was accessed via the keypad.

PROGRAMMING EXAMPLE - FIGURE 1
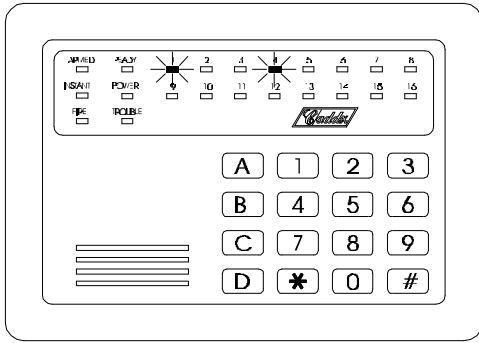
ZONE 1 LED = 1 } DATA = 9
ZONE 4 LED = 8
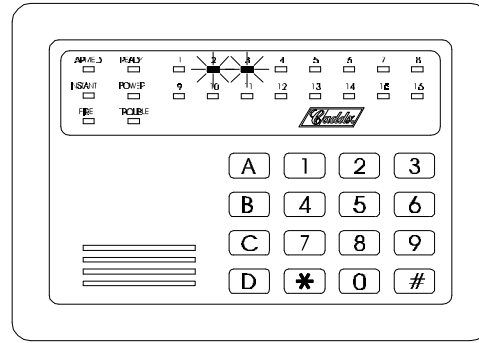
ZONE 2 LED = 2 } DATA = 6
ZONE 3 LED = 4

No LED's Illuminated = 0
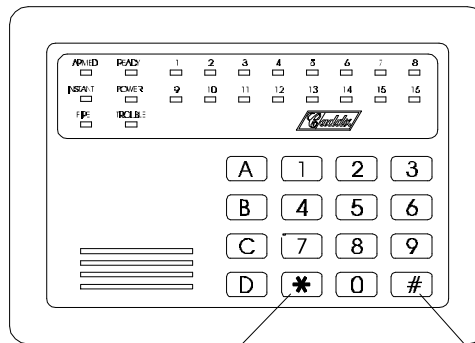
To change or enter data in the location shown, enter the data and follow by the [✱] Key.

Pressing the [#] key will advance to the next location, or specific locations can be reached by pressing the location number followed by the [#] Key.

PROGRAMMERS - FIGURE 2

Current Location Indicator

1 Thru 0 Data Keys

LOCATION = 105
DATA = 6
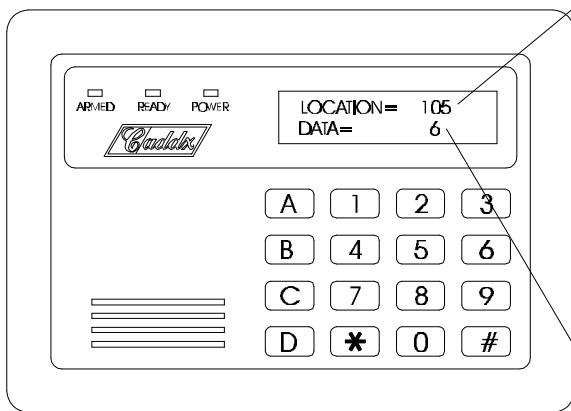
LOCATION
105

DATA
6

9060E Keypad / Program Mode

Current Data Indicator

Data Enter/Change Key

Location Advance Key

Locations 000-003: Programming The Master Arm/Disarm Code

Locations 000-003 contain master arm/disarm code (user number 1). Location 000 contains the first digit of the code; location 003 contains the fourth digit of the code. THE CODE MUST CONTAIN FOUR (4) DIGITS. The master code can then be used in the RUN mode to enter arm/disarm codes 1-30. The factory default code is [1][2][3][4].

Locations 004-055: Programming The Arm/Disarm Code For Users 2 Thru 14

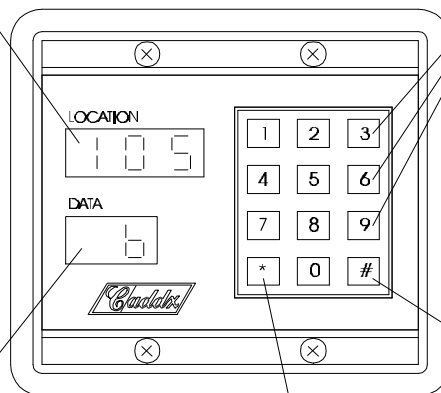Locations 004-055 contain the arm/disarm codes for users 2 thru 14. Location 004 contains the first digit of the code #2, and location 007 contains the fourth digit of code #2. THESE CODES MUST CONTAIN FOUR (4) DIGITS. To disable a code, PROGRAM a "15" as the first digit of the code. These codes can be changed in the RUN mode using the master code. Factory default is "15", disabled.

Locations 056-059: Programming The Arm/Disarm Code For User 15 (Duress Code)

Locations 055-059 contain the arm/disarm code for user number 15 (Duress Code). Duress capability is enabled by programming a communicator code in location 320-323. If locations 320-323 are left unprogrammed, user number 15 will act as a standard user code. Factory default is "15", disabled.

Locations 060-063: Programming The "Go To Program" Access Code

Locations 060-063 contain the "Go To Program" access code. Location 060 Contains the first digit of the code and location 063 contains the fourth digit of the code. THE CODE MUST CONTAIN FOUR (4) DIGITS. With the Ranger 9000E disarmed, the "Go To Program" access code can be used to enter the program mode. To disable the "Go To Program" access code, program a "15" in location 060. The factory default setting is [9][7][1][3]. NOTE: The first digit of this code should not match the Quick-Arm digit.

Locations 064-079: Users 1-15 Arm/Disarm Code Enable By Partition

PARTITIONED SYSTEMS
If partitions are utilized, codes may be assigned to a specific partition by using locations 064-079. This is done by enabling each individual code (code 1 is location 064, code 15 is location 079) for each of the four partitions that code should have access to. Codes are selected by adding the value for each partition together and placing that number in the proper location.

VALUE	PARTITIONS
1	PARTITION 1
2	PARTITION 2
4	PARTITION 3
8	PARTITION 4

NON - PARTITIONED SYSTEMS
When partitioning is not being utilized, locations 064-079 can be used to control the arming and disarming authority of the individual arm/disarm codes. A code can be given limited authority by programming a number from 1 to 15 in the corresponding location for that code. Add the values in the table that correspond to the desired arm/disarm characteristics, and program the sum in the appropriate locations.

VALUE	CHARACTERISTIC
1	STANDARD ARM/DISARM CODE
2	ARM ONLY AFTER CLOSING TIME
4	ARM ONLY CODE
8	OPEN/CLOSE REPORTS FOR USER

Locations 080-095: Programming Phone #1

Phone #1 is programmed in successive locations beginning with location 080. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate location. Program "11" for the phone digit "∗". Program "12 for the phone digit "#". If tone dialing is desired, program a "15" in the location where tone dialing should begin. If the entire number should be tone dialing, program a "15" in location 080. Factory default is "14" in each location and the phone number is not enabled. When using split or dual reporting, phone #1 always takes priority over phone #2. A "14" indicates the end of the phone number.

Locations 096-100: Programming The Account Code For Phone #1 (Or Partition One)

The account code sent when phone #1 is dialed is programmed in locations 096-100. If the account code is three digits long, use locations 096, 097, 098, and program a "0" in locations 099 and 100. If the account code is four digits long, program a "0" in location 100. If a zero "0" is part of an account code, it should be programmed as a "10". Program a "0" to indicate the end of the account code. To make this account code the account code for "Partition One", see location 132.

Location 101: Communicator Format For Phone #1

Location 101 contains the communicator format used to transmit to the receiver connected to the phone #1. Consult the instructions for your central station receiver to determine which format is compatible. Select a format from the 14 listed on page 10. If you require a format other than those listed, review the override options described in locations 610-615, to build the appropriate format. A "15" must be programmed in location 101 in addition to the entries into locations 610-615 in order to create a special format. If this location contains a "0", the built-in communicator will be disabled, and the Ranger 9000E will function as a local only control.

Locations 102-117: Programming Phone #2 (Split or Dual)

Locations 102-117 contain phone #2. This number allows certain communicator reports to go to another number (split reporting), or to cause the communicator to dial a second number if the primary number does not respond after the number of attempts programmed into location 133 have been tried unsuccessfully, or for dual reporting. The same number of attempts are made with the back-up number. Tone dialing and delay instructions are the same as for the primary number. A "14" indicates the end of the phone number.

Locations 118-122: Programming The Account Code For Phone #2 (Or Partition Two)

Locations 118-122 contain the account code for phone #2. If the account code is three digits long, use locations 118, 119, and 120. If a zero "0" is part of the account code it must be programmed as a "10". Program a "0" to indicate the end of the account code. If these locations contain a "0", the account code in locations 96-100 will be reported. To make this account code the account code for "Partition Two", see location 132.

Location 123: Communicator Format For Phone #2

Location 123 contains the communicator format used to transmit to the receiver connected to phone #2. Consult the instructions for your central station receiver to determine which format is compatible. Select a format from the chart on page 10. If you require a format other than those listed, review the override options described in locations 610-615 to build the appropriate format. A "15" must be programmed in location 123 in addition to the entries into locations 610-615 in order to create a special format. If this location contains a "0", the format programmed into location 101 will be selected.

DATA	FORMAT	DESCRIPTION
"0"	LOCAL ONLY	COMMUNICATOR IS DISABLED
"1"	ADEMCO CONTACT ID	DTMF FORMAT (SEE APPENDIX 2)
"2"	ADEMCO 4/2 EXPRESS	DTMF FORMAT
"3"	FBI SUPERFAST	DTMF FORMAT 2300Hz
"4"	PAGER	DTMF FORMAT
"5"	RADIONICS EXTENDED SLOW	1800Hz TRANSMITTAL 2300Hz HANDSHAKE 20 PPS HEX EXTENDED DOUBLE ROUND
"6"	CADDX MODEM	PROPRIETARY
"7"	RADIONICS EXTENDED FAST	1800Hz TRANSMITTAL 2300Hz HANDSHAKE 40 PPS HEX EXTENDED DOUBLE ROUND
"8"	RADIONICS EXTENDED FAST	1800Hz TRANSMITTAL 1400Hz HANDSHAKE 40 PPS HEX EXTENDED DOUBLE ROUND
"9"	RADIONICS EXTENDED FAST WITH PARITY	1800Hz TRANSMITTAL 2300Hz HANDSHAKE 40 PPS HEX EXTENDED
"10"	UNIVERSAL 4 + 2	1800Hz TRANSMITTAL 2300Hz HANDSHAKE DOUBLE ROUND 20PPS
"11"	ADEMCO/SILENT KNIGHT SLOW	1900Hz TRANSMITTAL 1400Hz HANDSHAKE 10 PPS DOUBLE ROUND PARITY
"12"	SILENT KNIGHT 4+2 FAST	1900Hz TRANSMITTAL 1400Hz HANDSHAKE 20 PPS DOUBLE ROUND PARITY ADD HEX
"13"	SESCOA/FRANKLIN FAST	1800Hz TRANSMITTAL 2300Hz HANDSHAKE 20 PPS HEX DOUBLE ROUND
"14"	SIA	FSK FORMAT (SEE APPENDIX 1)
"15"	OVER-RIDE ENABLE	SEE LOCATIONS 610-615

Locations 124-127: Account Code Three For Partition #3

Locations 124-127 are utilized to assign an account code for partition #3 if a unique code is desired. If these locations contain "0", the account code listed in locations 96-100 will be used. If a 3 digit code is used, program a "0" in location 127. If location 132 contains a "4", this account code is disabled.

Locations 128-131: Account Code Four For Partition #4

Locations 128-131 are utilized to assign an account code for partition #4 if a unique code is desired. If these locations contain a "0", the account code listed in locations 96-100 will be used. If a 3 digit code is used, program a "0" in location 131. If location 132 contains a "4", this account code is disabled.

Locations 132: Communicator Dialing Sequence 0ptions

The number programmed into this location determines the sequence and method the communicator will utilize when reporting an event code. Use the table below to build the appropriate number. Add the number(s) associated with the desired features and program the sum in this location. Factory default is "12" which closely duplicates the reporting characteristics of our smaller Ranger controls. A "12" is made up of a "4", which ties the account code to the telephone number, and a "8", which causes the communicator to call phone #1 (Locations 080-095) the number of attempts listed in location 133 first, and then that same number to the phone #2 (Locations 102-117), if phone #2 is programmed. After the selected number of attempts has been made, the communicator will not take any other action.

DATA	DESCRIPTION
"1"	Alternate between phone #1 and phone #2 in increments of two calls to each until the selected number of attempts have been made.
"2"	The communicator attempts the number of calls programmed in location 133 to phone #1, and if unsuccessful, it will delay 5 minutes and attempt the same number of calls to phone #2, if so programmed.
"4"	This entry will force the communicator to tie the account code to the phone number.
"8"	The communicator attempts the number of calls programmed in location 133 to phone #1, and if unsuccessful, the same number of attempts to phone #2, if so programmed.
"0"	If a "0" is entered, the account code corresponds to the partition.

Location 133: Entering The Number Of Dial Attempts

Location 133 is used to enter the number of dial attempts (1 to 15 Attempts) the communicator will try for the appropriate phone number(s) before ending the notification process. Factory default is "8" and the communicator will make 8 attempts to the first number, and then eight attempts to the second number, if a second number is programmed. If the factory default is modified in location 132, the first and second numbers will be called at a minimum the number times listed in this location, however this number might double and the sequence might change according to the number programmed.

Location 134: Programming The Entry Delay Time

Location 134 contains the number of 10 second increments in the entry delay. The entry delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15"= 150 seconds). For example, programming a "2" in this location will produce an entry delay of 20 seconds. (Note: A "0" entry is treated as 0 seconds). Programming a "6" in this location will produce an entry delay of 60 seconds. Factory default is 30 seconds.

Location 135: Programming The Exit Delay Time

Location 135 contains the number of 10 second increments in the exit delay. The exit delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15"= 150 seconds). For example, programming a "2" in this location will produce an exit delay of 20 seconds. (Note: A "0" entry is treated as 0 seconds). Programming a "6" in this location will produce an exit delay of 60 seconds. Factory default is 60 seconds.

Location 136: Programming The Secondary Entry Delay (Zone Type 7)

Location 136 contains the number of 10 second increments in the entry delay, when an entry delay is initiated by a zone type 7. This entry delay can be programmed in 10 second increments for 10 to 150 seconds ("1" = 10 seconds through "15" = 150 seconds. (Note: A "0" entry is treated as zero (0) seconds). Programming a "6" in this location will produce an entry delay of 60 seconds.

Location 137: Programming The Secondary Exit Delay (Zone Type 7)

Location 137 contains the number of 10 second increments after arming, before zone trips will be recognized on a zone type 7. The exit delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15" = 150 seconds). For example, programming a "2" in this location will produce an exit delay of 20 seconds. (Note: A "0" entry is treated as zero (0) seconds). Programming a "6" in this location will produce an exit delay of 60 seconds. If the exit delay time in this location is less than, or equal to that in location 135, zone type 7 will be delayed the amount of time programmed in location 135.

Location 138: Programming The Siren Shutdown/Recycle Timeout

Location 138 contains the number of 2 minute increments in the automatic cutoff time. The automatic cutoff time can be programmed in 2 minute increments from 2 to 30 minutes ("1" = 2 minutes through "15" = 30 minutes). For example, programming a "2" in this location will produce an automatic cutoff time of 4 minutes. Programming a "6" in this location will produce an automatic cutoff time of 12 minutes.

Locations 139-154: Programming The Zone Types For Zones 1-16

Locations 139 through 154 contain a number identifying the characteristics of zones 1 through 16. Location 139 corresponds to zone 1 and location 154 corresponds to zone 16. These zones have been factory defaulted to the zone type shown in the below chart. Other zone characteristics can be found in the table on the following page.

ZONE #	DEFAULT CHARACTERISTICS
1	"3" = ENTRY/EXIT DELAY ZONE
2	"5" = INTERIOR FOLLOWER
3-16	"6" = INSTANT

DATA	AVAILABLE ZONE TYPES
"1"	**DAY ZONE** - When armed, a trip produces an instant alarm. When disarmed, a trip activates the keypad sounder.
"2"	**24 HOUR** - A trip on a 24 Hour zone produces an instant alarm when armed or disarmed.
"3"	**ENTRY/EXIT** - A trip will start entry delay. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.
"4"	**INTERIOR DELAY** - A trip on Interior Delay zone will initiate an entry delay. It will be ignored during exit delay and when disarmed .
"5"	**INTERIOR FOLLOWER** - Interior zone that follows the delay zones. It is instant during non-delay times. It can be bypassed before arming, or by allowing it to automatically be bypassed in the Automatic Bypass/Instant mode if so programmed.
"6"	**INSTANT** - Produces an instant alarm if tripped when armed. Ignored when disarmed.
"7"	**SECONDARY DELAY** - Like an Entry/Exit zone but has its own independent delay time.
"8"	**FIRE** (PRIORITY WHEN AHJ HAS NOT APPROVED) - A short on a FIRE zone (non-bypassable) will communicate to the central station when the Ranger 9000E is armed or disarmed. An open will create a Trouble condition. Keypad LED will be steady for FIRE, and flashing for Trouble.
"9"	**KEYSWITCH** - A zone attached to a momentary keyswitch will cause the Ranger 9000E to arm or disarm when the zone is shorted. NOTE: Program the corresponding "Special Characteristics For Zones 1-16"(locations 155-170)as a "0".

Locations 155-170: Assigning Special Characteristics For Zones 1-16

Locations 155 through 170 are used to assign zone characteristics for zones 1 through 16. Location 155 is for zone 1 and location 170 is for zone 16. Each zone can have any or all of the following characteristics regardless of the zone type selected in locations 139-154, excluding **Fire** zones, which cannot have **Bypass Capability** enabled. Factory default is "12" for each of these locations, meaning that **Zone Bypass Capability & Entry-Guard** is enabled, and the other characteristics are not enabled. To include other characteristics, add their value, and program the sum in the appropriate location. See the table below for zone characteristics and their corresponding values.

VALUE	CHARACTERISTIC
1	Fast Loop Response (200mS)
2	Group Bypass Zone
4	Entry-Guard Zone
8	Zone Bypass Capability

Example 1 - To add **Group Bypass (Value=2)** to **Zone Bypass Capability (Value=8)** for zone 10 (location 164), add the value of the two characteristics (2 + 8 ="10"), and program the sum of "10" in location 164.

Example 2 - To enable **ALL** characteristics for zone 10, add the value of all characteristics (1 + 2 + 4 + 8 = "15"), and program the sum of "15" in location 164 (zone 10 characteristics location).

Example 3 - To disable all characteristics and create a **Non Bypassable Zone**, program a "0" in the appropriate location.

NOTE: Group Bypass zones MUST also have zone bypass capability programmed so they will bypass!

Locations 171-186: Assigning Audible Characteristics For Zones 1-16

Locations 171-186 are used to assign the audible characteristics of each zone 1 through 16. Location 171 is for zone 1 and location 186 is for zone 16. To determine the appropriate data for these locations, refer to the chart below and add the sum of the corresponding values to arrive at the correct data for these locations. For all zones except zone 2, factory default is "13" (1+ 4 + 8 = "13"). Factory default for zone 2 is "5" (1 + 4 = "5"). The **Chime** feature was not selected because it is usually undesirable on interior/follower zones which is the factory default type for zone 2. This means that all 16 zones will create a yelp siren output and a keypad sounder output when an alarm is created. To select the audible characteristics for any zone, add the values of the audible characteristics from the table below, and program the sum in the appropriate locations 171-186. If you wish for the zone to be **Silent**, program a "0" in the appropriate location. NOTE: If a *Fire* zone type is selected in locations 139-154, standard fire zone characteristics will override any selection made for a zone in this section.

VALUE	AUDIBLE CHARACTERISTICS
0	Silent
1	Yelp Siren Audible
2	Steady Siren Audible
4	Keypad Sounder Audible
8	Chime Enable

Locations 187-202: Special Communicator Reporting Characteristics For Zones 1-16

Locations 187-202 are used to assign communicator characteristics to individual zones 1 through 16. Location 187 is for zone 1 and location 202 is for zone 16. Each zone can have one or a combination of these characteristics. Factory default for all zones is "11" (1 + 2 + 8 ="11"). This means that each zone has **Restore Reporting (Value=1**), **Bypass Reporting (Value=2)**, and **Report Canceling (Value=8)** enabled. It should be noted that these locations are used to enable individual zone report capability by zone. A reporting code must be programmed in the appropriate location to enable overall reporting capability of **Restore** reports (location 364), Bypass reports (Location 368), **Trouble/24 Hour Tamper** reports (location 372), and **Cancel** reports (location 354).

VALUE	REPORTING CHARACTERISTICS
1	Restore Reporting
2	Bypass Reporting
4	Trouble/24 Hour Tamper Reporting
8	Report Canceling

Location 203: Programming The Communicator To Abort

Location 203 is used to enable the communicator **Abort**. A "1" in this location will cause the Ranger 9000E to abort the report of a trip on any non-24 hour zone, if an arm/disarm code is entered during the delay of line seizure (see location 221). If this location contains a "0", the Ranger 9000E will not abort any reports. NOTE! The Ranger 9000E will not abort unless a delay time is programmed in location 221.

Location 204: Immediate Restore By Zone

If a "1" is programmed in location 204, restoral signals will follow the restore condition and report restores immediately after the condition has restored. A non-extended format will not send a **Restore** message until all zones and **Trouble** conditions have restored. If this location contains a "0", the **Restore** signal(s) will be reported only after siren timeout.

Location 205: Force Arm Enable

Location 205 is used to enable the **Force Arming** feature. If a "1" is programmed in this location, the Ranger 9000E will allow the user to enter a valid code to arm, when one or more zones are not secure. If these zones clear before the end of either exit delay, they will arm with the remainder of the zones when the exit delay time expires. All zones which are unsecure at the end of the exit delay will be automatically bypassed. If bypass reporting has been enabled, all automatically bypassed zones will be reported to the monitoring station.

Location 206: Programming For Silent Keypad Panic

Location 206 is used to silence the audible output for the **Keypad Panic/Hold-Up** alarm. Programming a "1" in this location will enable the **Silent** mode of **Keypad Panic** operation. Factory default is "0" and operation of the **Keypad Panic** (double keypress [✱] & [#]) will cause the yelp siren output to activate.

Location 207: Priority (Fire) Siren Cutoff Inhibit

If a "1" is programmed in location 207, a Priority zone type siren will sound continuously until an arm/disarm code is entered. If this location contains a "0", the Priority zone type siren will shutdown after the amount of time programmed in location 138 has elapsed. Factory default is "0". Programming in this location does not affect the burglary siren.

Location 208: Bypassed Zone Keypad Sounder Alert

If a "1" is programmed in location 208, the keypad sounder will create a pulsed output if a valid code is utilized to arm the Ranger 9000E when one or more zones are bypassed. The code must be re-entered to silence the keypad buzzer. Factory default is "0" and keypad sounder will not sound when arming occurs with a zone bypassed.

Location 209: AC Power Off Keypad Sounder Alert

If a "1" is programmed in location 209, the keypad buzzer will create a pulsed output if a valid code is used to arm the Ranger 9000E with the AC power removed. The code must be re-entered to silence the keypad sounder. If a "0" is programmed in this location, the control can be armed with the AC power removed with no keypad sounder output. Factory default is "1" and the keypad sounder will sound if the control is armed with no AC power.

Location 210: Siren/Bell Test Feature

Programming a "1" in location 210 will cause the siren/bell to sound each time the [1] and [7] keys are pressed simultaneously. The siren/bell can be silenced with an arm/disarm code. The siren/bell test does not cause the communicator to transmit a message. Factory default is "0" and this feature is not enabled.

Location 211: Entry-Guard Security Feature

If a "0" is programmed in location 211, the control can be disarmed from the **Entry-Guard** mode by pressing the one digit code that is programmed in location 245. Factory default is "1", and the **Entry-Guard** mode can only be disarmed with a valid four digit user code.

Location 212: Ringback Feature

The 9000E can be programmed to create a two second audible output (siren or bell) upon one or more of the selected events from the table below. Select the desired events for an audible ringback, add their values, and program the sum in this location. Factory default is "0" and this feature is not enabled.

VALUE	RINGBACK EVENTS
1	Closing Signal Kissoff
2	At Arming
4	At End of Exit Delay
8	Makes Instant Zones Instant/During Exit Delay

Location 213: Multiple Partition First To Open, Last To Close Report

If "1" is programmed in location 213 an opening report will be sent only after the first partition has been opened, and a closing report will only be sent after all partitions have closed. All partitions must have enabled the opening and closing communicator codes in the appropriate locations for this feature to work properly. Factory default is "0" and partitions will report opening and closings individually according to the programming instructions entered for each partition.

Location 214: Smoke Power Reset And/Or Fire Alarm Verification

Programming a "1" in location 214 will cause the 9000E (when in the disarmed state) to interrupt the smoke detector power each time the [#] button is pressed. If this location contains a "0", the smoke detector power will reset only after the [#] button is pressed when the corresponding LED(s) for zones designated as "Priority" are on steady for alarm or blinking for trouble. Programming a "2" in this location will enable the "Fire Alarm Verification" feature. When the "Fire Alarm Verification" feature is enabled, a smoke detector will be powered down and reset automatically after the first trip, waiting for a second trip within a 2 minute time frame (thus verifying a fire alarm condition) before creating an alarm and communicating a message. Program a "3" to enable both of these features. Factory default is "1" and this feature is enabled.

Location 215: Siren Output Limit

If a "1" is programmed in location 215, the siren output will only activate once per zone during each arming cycle. Factory default is "0" and this feature is disabled.

Location 216: Communicator Report Limit

If a "1" is programmed in location 216, the communicator will only report once per zone during each arming cycle. Factory default is "0" and this feature is not enabled.

Location 217: Partition Siren Inhibit

Factory default is "0" and this feature is disabled, meaning a valid code entered from a keypad in any partition will silence the siren regardless of what partition caused the alarm. If a "1" is programmed in this location, only the keypad within the partition which caused an alarm can silence the siren.

Location 218: European Pulse Dial Ratio

Programming a "1" in this location will change the internal clock to accept 50 Hz power. Programming a "2" in this location will provide a European pulse dial ratio.   Programming a "3" in this location will provide both.   Factory default is "0", disabling this feature.

Location 219: Enabling The Swinger Shutdown

Location 219 is used to enable the burglary zone swinger shutdown. The number programmed in this location will determine the number of trips the Ranger 9000E will allow before bypassing all burglary zones (1-16) which have tripped during an arming cycle. The bypassed zones will not report trips to a central station, and the local siren or bell will not sound for these zones. A zone trip will not be added to the number count until after the zone has tripped more than once. A zone trip will only be added each time the siren cycle starts. If this location contains a "0", this feature is disabled. A zone which has been bypassed by this feature will be reported if **Bypass Reporting** is enabled. **NOTES: 1) Programming Location 215 will disable swinger shutdown.   2) If "Immediate Restore By Zone" is enabled in location 204, multiple reports may be transmitted during a siren cycle without adding to the trip count.**

Location 220: Automatic Bypass / Instant Arming

Location 220 is used to enable options, or a combination of options as described in the table below. Choose the option desired, and program the corresponding data in location 220.

DATA	DESCRIPTION
"0"	**Automatic Bypass / Instant Arming** Disabled.
"1"	Automatically enter the **Instant** mode and bypass interior follower zones if an Entry/Exit zone is not faulted during exit delay time.
"3"	Interior follower zones will auto bypass if Entry/Exit zones are not faulted during exit delay time.
"4"	Pressing [✱] will toggle **Instant** mode on Entry/Exit zone. This is factory default.
"5"	Automatically enter the **Instant** mode and bypass interior follower zones if an Entry/Exit zone is not faulted during exit delay time. Pressing [✱] will toggle **Instant** mode.
"7"	Automatically bypass interior follower zones if an Entry/Exit zone is not faulted during exit delay time. Pressing [✱] will toggle **Instant** mode.

NOTE: When the "Instant" light is on, Entry/Exit zones are instant; when off, Entry/Exit zones are delayed. Factory default is "4" and the **Instant** feature will toggle by pressing the [✱] key. If **Automatic Bypass** is enabled, it will override the **Entry-Guard** feature.

Location 221: Delay Of Phone Line Seizure For Abort

Location 221 contains the number of 2 second increments the phone line seizure and communicator output will be delayed prior to an attempt to communicate. If a "1" is programmed in this location, the delay will be 2 seconds. If a "15" is programmed in this location, the delay will be 30 seconds. Factory default is "0", and there is no delay before the initiation of an event report. NOTE: Only non-24 hour zones will delay.

Location 222: Programming The Quick Arm Digit

The Ranger 9000E can be programmed to **Quick Arm** with one digit by programming a digit (1-9) in location 222. This number cannot be the first digit of the programming code or of the **Chime** enable code. Factory default is "0" which disables this feature. The Quick-Arm digit will send a closing by user 29 if closings are enabled in Location 350.

Location 223: Entry-Guard Entry Delay Time

Location 223 contains the number of 10 second increments in the **Entry-Guard** entry delay time. The delay time can be programmed in 10 second increments from 10 to 150 seconds. ("1" = 10 seconds through "15" = 150 seconds). For example, programming a "4" in this location will create a delay time of 40 seconds. Factory default is "2" (20 seconds).

Locations 224-239: Programming the Auxiliary Output Options

Locations 224 through 239 control the output options for the four auxiliary outputs. Each of the four pins has four individual programming locations that will be referred to in this section as DATA 1, DATA 2, DATA 3, and DATA 4. There are 256 events or conditions that can be programmed to activate these four auxiliary outputs. The following descriptions of these data locations will help you to understand how to program each of these locations.

Data 1 (Source) - The number programmed in the **Data 1** location is used to direct the control as to which individual partition, or group of partitions will activate the trigger output to the four auxiliary outputs. Simply refer to the chart below to select the partition(s) and program the correct number (0-14) in the DATA 1 location of the output being programmed. If partitioning is not being used, program a "0" in the DATA 1 location of the selected output for activation from all zones. Factory default is "0", for all Partitions.

DATA	PARTITIONS ENABLED
"0"	All Partitions
"1"	Partition 1
"2"	Partition 2
"3"	Partition 1 and 2
"4"	Partition 3
"5"	Partition 1 and 3
"6"	Partition 2 and 3
"7"	Partition 1, 2, and 3
"8"	Partition 4
"9"	Partition 1 and 4
"10"	Partition 2 and 4
"11"	Partition 1, 2, and 4
"12"	Partition 3 and 4
"13"	Partition 1, 3, and 4
"14"	Partition 2, 3, and 4

DATA 2 (Duration) - The number programmed in the **Data 2** location represents the amount of time that a trigger output will remain activated. This duration time is selectable in 2 second increments, from 2 to 28 seconds. For example, programming a "5" in the data 2 location will create a voltage trigger that would last for 10 seconds (2 x "5" = 10 seconds). Programming a "0" will cause the output to follow the condition. Programming a "15" will latch the trigger output. Programming selections for this location are the numbers "0" thru "15". NOTE: If you want to change the increments from seconds to minutes, follow the programming instructions for location 241 to do so, and the duration time will be selectable from 1 to 14 minutes.

DATA 3 (Category) - The number programmed in the **Data 3** location will determine the category from which you will select an activation event. Refer to the following table on pages 19 and 20 to select which category number to program in this location. Programming selections for this location are "0" thru "15".

DATA 4 (Event) - The number programmed in the **Data 4** location will determine the actual event in which you wish to have the trigger activate upon. Refer to the table on pages 19 and 20 to select which event number to program in this location. Programming selections for this location are "0" thru "15".

DATA 3 CATEGORY	DATA 4 EVENT	DESCRIPTION OF EVENT
"0"	"0-15"	"OPEN" on individual zones 1 thru 16
"1"	"0-15"	"OPEN" on individual zones 17 thru 32
"2"	"0-15"	"SHORT" on individual zones 1 thru 16
"3"	"0-15"	"SHORT" on individual zones 17 thru 32
"4"	"0-15"	"OPEN or SHORT" on individual zones 1 thru 16
"5"	"0-15"	"OPEN or SHORT" on individual zones 17 thru 32
"6"	"0-15"	"BYPASS" of individual zones 1 thru 16
"7"	"0-15"	"BYPASS" of individual zones 17 thru 32
"8"	"0-15"	"TROUBLE" on individual zones 1 thru 16
"9"	"0-15"	"TROUBLE" on individual zones 17 thru 32
"10"	"0-15"	"ALARM" on individual zones 1 thru 16
"11"	"0-15"	"ALARM" on individual zones 17 thru 32
"12"	"0"	Any "FIRE ALARM"
	"1"	Any "PANIC ALARM"
	"2"	Any "BURGLARY ALARM"
	"3"	Any "TROUBLE CONDITION"
	"4"	Any "BYPASS REPORT"
	"5"	Any "EARLY TO OPEN"
	"6"	Any "LATE TO CLOSE"
	"7"	"AC FAILURE REPORT"
	"8"	"DURESS"
	"9"	"AUXILIARY 1"
	"10"	"AUXILIARY 2"
	"11"	"KEYPAD PANIC" (double keypress ✱ and #)
	"12"	"KEYPAD TAMPER"
	"13"	"AUTO TEST"
	"14"	"NOT ARMED"
	"15"	"CANCEL"

DATA 3 CATEGORY	DATA 4 EVENT	DESCRIPTION OF EVENT
"13"	"0"	Activation of "PRIORITY (FIRE) SIREN"
	"1"	Activation of "BURGLARY SIREN"
	"2"	"ANY SIREN"
	"3"	"ARMED WITH BYPASSED ZONE(S)"
	"4"	"ALARM MEMORY"
	"5"	"LOW BATTERY"
	"6"	"ENTRY DELAY TIME"
	"7"	"EXIT DELAY TIME"
	"8"	"ENTRY AND EXIT DELAY TIME"
	"9"	"INSTANT (PARTIAL) LED" illumination.
	"10"	"ARMED LED" illumination.
	"11"	"READY LED" illumination.
	"12"	"AC LED" illumination.
	"13"	"KEYPAD PULSING SOUNDER OR CHIME" activation.
	"14"	"FIRE LED" illumination.
	"15"	"FIRE TROUBLE LED" illumination.
"14"	"0"	"ANY VALID CODE ENTRY"
	"1-15"	"VALID CODE ENTRIES 1 THRU 15"
"15"	"0"	"DOUBLE KEYPRESS [1] & [3]"
	"1"	"DOUBLE KEYPRESS [4] & [6]"
	"2"	"DOUBLE KEYPRESS [7] & [9]"
	"3"	"DOUBLE KEYPRESS [✱] & [#]"
	"4"	"RESETTABLE AUXILIARY/SMOKE DETECTOR POWER"
	"5"	"DYNAMIC BATTERY TEST"
	"6"	"LINE SEIZURE"
	"7"	"OPEN ON ANY ZONE"
	"8"	"SHORT ON ANY ZONE"
	"9"	"OPEN OR SHORT ON ANY ZONE"
	"10"	"GROUND START"
	"11"	"TIME OF OPENING"
	"12"	"DOWNLOAD COMPLETE"
	"13"	"FAILED TO COMMUNICATE"
	"14"	"PHONE LINE TROUBLE"
	"15"	"LISTEN-IN TIME"

EXAMPLES

1)   To trip self contained siren when the Fire Siren activates:

To have Auxiliary 3 activate for the same time as the Fire Siren on the panel, program the following:
Location 232-235   [0]-[0]-[13]-[0]

2)   To trip self contained siren when the Burglary Siren activates:

To have Auxiliary 4 activate for the same time as Burglary Siren, program the following:
Location 236-239   [0]-[0]-[13]-[1]

3)   To activate external sounder when keypad chimes:

To have Auxiliary 3 follow the "chime" on the keypad, program the following:
Location 232-235   [0]-[0]-[13]-[13]

Note: You must move relay jumpers to set a voltage output (see page 4).

Location 240: Inverting Auxiliary Outputs And Setting Onboard Form C And Form A Relay Operation
(Form C Relay Tied To Pin #3 And Form A Relay Tied To Pin #4)

The auxiliary outputs of the 9000E are normally POSITIVE (+) going NEGATIVE (-). They can be changed to a normally NEGATIVE (-)going POSITIVE (+) by programming the appropriate number in this location. Auxiliary output 1 has a value of "1", Auxiliary output 2 has a value of "2", Auxiliary output 3 has a value of "4", and Auxiliary output 4 has a value of "8". The values for the outputs that you wish to change to NEGATIVE going POSITIVE must be added together and the total programmed in this location. For example, if you wished to make outputs 2 (=2) and 3 (=4) NEGATIVE going POSITIVE, you would program "6" (2+4=6) in this location. The output for pin 3 is automatically tied to the onboard Form C Relay (Terminal locations 34,35, & 36), and pin 4 is tied to the Form A relay (Terminal locations 38 & 39). You should take this into consideration when planning auxiliary output operation. If you need a relay output on pins 1 or 2 you must add a relay that can be tripped with the voltage and current available at these pins. Making outputs 3 and 4 normally negative going positive will have the effect of making the relay attached to that pin normally pulled in, and drop out when the output is activated. NOTE: THE PINS ARE CURRENT LIMITED TO 250 MICRO AMPS POSITIVE AND 20 mA NEGATIVE.

Location 241: Changing Timing Increments From Seconds To Minutes For Auxiliary Outputs

The number programmed into this location will determine if the 4 auxiliary pins described in the above locations will create 2 to 28 second, or 1 to 14 minute voltage trigger outputs. If this location contains a "0" (factory default ="0"), the output duration time is computed in seconds. By adding the value that corresponds to each pin number in the table below, and programming the sum in this location, the "second" increments will convert to "minute" increments for the pin(s) selected:

VALUE	PIN NUMBERS
1	Pin #1
2	Pin #2
4	Pin #3
8	Pin #4

Example 1 - If you need the duration time to change from seconds to minutes for the trigger output on Pin 1, you would program a "1" in this location.

Example 2 - If you need the duration time to change from seconds to minutes for the trigger output on Pin 1 and Pin 3, you

would program a "5" (1 + 4 ="5") in this location.

Example 3 - If you need the duration time to change from seconds to minutes for the trigger output on Pin 2 and Pin 4, you would program a "10" (2 + 8 ="10") in this location.

Location 242: Answering Machine Defeat

Location 242 contains the answering machine defeat enable. To defeat an answering machine, two telephone calls must be made to the premises. On the first call, let the phone ring the same number of times (or less) as the number programmed in location 242 (maximum 3). The control panel will detect these rings and start a 45 second timer. If a call comes in during that 45 second time frame, the control panel will answer on the first ring. To disable this feature, program a "0" in this location.

Location 243: Number Of Rings To Answer Download Call

Location 243 contains the number of rings the 9000E must detect before answering the telephone when initiating a download. If a number from "1" to "15" is programmed in this location, the control will answer after the number of rings entered times 2 has been detected. If a "0" is programmed in this location, the 9000E will not answer the download call. (SEE LOCATION 242: ANSWERING MACHINE DEFEAT)

Location 244: Assigning The Chime Enable Code

Program the one digit number that the end user will use to enable the **Chime** mode. This number can be any number 1 to 9. Factory default is "1" and this feature is enabled. If you do not wish to enable the **Chime** feature at this installation, program a "15" in this location. NOTE: This number should <u>not</u> be the same as the **Quick Arm** code!

Location 245: Assigning The Entry-Guard Enable Code

Program the one digit number that the end user will use to activate the **Entry-Guard** mode. This number can be any number 1 to 9. Factory default is "0" and this feature is disabled. NOTE! This code should not match the **Quick-Arm** digit, or the **Chime** enable digit. Location 220 must contain a "0" for **Entry-Guard** to work.

PROGRAMMING FOR PARTITIONS

Locations 247 through 249 are used to program the number of zones in partitions 1, 2, and 3, with the remaining zones automatically assigned to the next numerical partition, which would be 4 if all three locations are programmed. If only the first location 247 has a number programmed in it, all remaining zones will automatically go to partition 2. You can program any number of zones per partition up to a maximum of 15. All zones must be in numerical sequence. For example, if you choose to have five zones in partition 1 and 11 zones in partition 2, you would program a 5 in location 247 and zones 1-5 would be assigned to partition 1, while zones 6 through 16 would be assigned to partition 2. You cannot assign zones out of sequence such as placing zones 1-3-5-7-9 in partition 1 and 2-4-6-8 in partition two. Factory default is no partitions enabled and all zones are assigned to partition 1 without restriction. Note: When partitions are assigned in these locations, you may need to program locations 64-79, 124-131, 132, 213, 217, 224, 228, 232, 236, 246, and 572-586 which are sensitive to partitioning.

Multiple Partition Access Option

For access to other partitions from a 9001 keypad, enter [C]-[9]-[9] followed by user code #28, followed by the partition number that you wish to command. At this point, the keypad will act as though it is in the partition that you have selected, and you can make commands as needed. While in this mode, to move to any other partition, you need only to enter [C]-[9]-[9] and follow by the partition number. Anytime you are using this feature to gain access to other partitions, the keypad you are using will return to its designated partition (the one selected on the dip switches on the rear of the keypad) 20 seconds after the last keypress is entered. (When using a 9060E keypad, refer to the 9060E User's Manual.)

Location 246: Common Area Enable

If a "1" is programmed in location 246, Partition 1 will become a **Common Area** for all selected partitions. When enabled, Partition 1 will automatically disarm when any other partition is disarmed, and will automatically arm when all partitions have been armed (cannot be armed or disarmed independently). Care should be taken to allow sufficient entry delay time for Partition 1 to allow the user to reach his designated partition keypad and enter a code. Exit delay time is the delay for the last partition to arm. Factory default is "0" and this feature is disabled.

Location 247: Number Of Zones In Partition 1

Factory default is "0", and the control is not partitioned. Thus, all 16 (32 if expander is utilized) are assigned to the one group. NOTE: When no partitions are enabled, all features or characteristics associated with partitions are contained within one group.

Location 248: Number Of Zones In Partition 2

Factory default is "0", and Partition 3 is not enabled.

Location 249: Number Of Zones In Partition 3

Factory default is "0", and Partition 4 is not enabled.

Location 250: Power Up Condition

If a "1" is programmed in location 250 , the Ranger 9000E will power-up disarmed if there is a total power shutdown and battery failure. If a "2" is programmed in this location, it will power-up armed. If this location contains a "0", the Ranger 9000E will maintain the condition it was in at power-down. A watchdog circuit reset will cause the Ranger 9000E to reset to the selected condition. Factory default is "0" and the control will maintain the condition it was in at power-down.

Location 251: Power Up Delay

The number programmed in location 251 represents the number of 10 second increments the Ranger 9000E will delay before accepting open or short inputs from any zone. Factory default is "0" and this feature is disabled. If a 6 is selected, the delay will be 60 seconds. This delay period would also be initiated after a watchdog circuit reset condition or when exiting from the program mode.

Location 252: Telephone Line Fault Monitor

Location 252 is used to program the telephone line monitor. Select a number from the table below which corresponds to the activation required for your installation. Factory default is "0" and this feature is not enabled. NOTE: When using a phone line monitor, it is suggested that a delay be programmed into location 253 to delay alarm activation upon phone line fault. This could eliminate the possibility of a false alarm being created due to phone line maintenance performed by the telephone company, which many times is performed during late night or early morning hours.

VALUE	DESCRIPTION
"0"	DISABLED
"1"	ENABLED - SILENT MODE
"3"	ENABLED - ACTIVATE SIREN ONLY
"5"	ENABLED - ACTIVATE KEYPAD SOUNDER ONLY
"7"	ENABLED - ACTIVATE SIREN & KEYPAD SOUNDER
"9"	ENABLED - SILENT MODE (ARMED ONLY)
"11"	ENABLED - ACTIVE SIREN ONLY (ARMED ONLY)
"13"	ENABLED - ACTIVATE KEYPAD SOUNDER ONLY (ARMED ONLY)
"15"	ENABLED - ACTIVATE SIREN & KEYPAD SOUNDER (ARMED ONLY)

Location 253: Delay of Alarm Activation For Telephone Line Fault

The number programmed in this location determines the amount of time the Ranger 9000E will delay the alarm activation selected in location 252. This delay is programmable in 10 second increments from 10 to 150 seconds. Possible delay values are "1" ("1" x 10 seconds = 10 second delay) through "15" ("15" x 10 seconds = 150 second delay). Factory default is "0", no delay.

Location 254: Dynamic Battery Test Time

The number programmed in location 254 determines when the control will perform a dynamic battery test. This time is programmable in two hour increments from 12:00 AM to 10:00 PM. Possible values for this location are "0" thru "11". Factory default is "3" (3 x 2 = 6) meaning the dynamic battery test will occur at 6:00 AM. Programming a "0" (0 x 2 = 0) in this location would set the test time for 00:00 (midnight). Programming a "11" (11 x 2 = 22) in this location would set the test time for 22:00 (10:00 PM).

Location 255: Dynamic Battery Test Duration

The number programmed in location 255 will determine the number of minutes the Ranger 9000E will go into the dynamic battery test mode during each 24 hour period. This test causes the control to function with the system battery, thus verifying that the battery is capable of performing as designed during an actual power failure. Factory default is "0" and this feature is not enabled.

SELECTING COMMUNICATOR CODES

All zones and other reported features are programmed with up to four (4) programming locations. The first three (3) are used for a 1, 2, or 3, digit communicator code, according to the restraints of the selected communicator format. The fourth (4th) and last location is used to select if the code is to be sent to phone #1, phone #2, the internal log, activate listen-in, any combination of these selections, or all four options. Factory defaults to a three digit event (alarm) code. NOTE: The first digit will be ignored when using a 3 + 1 Extended, or 4 + 2 format. The first and second digit will be ignored when using a 3 + 1 or 4 + 1 format.

Locations 256-258: Programming The Communicator Code For Zone 1

Locations 256-258 contain the communicator codes to be reported each time zone 1 creates an alarm. Location 256 contains the first digit, location 257 contains the second digit, and location 258 contains the third digit. Always use the correct number of digits that the selected format allows, and program in the order you wish the receiver to print the report.

Location 259: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Zone 1

The number in this location will determine where the communicator report for zone 1 will be sent. This number is derived by adding a "1" for phone #1, a "2" for phone #2, and a "4" for the internal log, and an "8" for activation of Listen-In. If you want this code to be reported to both phone numbers, you must program a "3" (1 + 2 ="3") in this location. If you want this code to be reported to both phone numbers and the internal log you must program a 7 (1 + 2 + 4 ="7") in this location. Factory default is "13", which causes zone 1 to report to phone #1, the internal log, and activate Listen-in (if used).

Locations 260-319: Programming The Communicator Code , & Selecting Phone #1, 2, Internal Log, Listen-in, Or Any Combination For Zones 2 Thru 16 (See Instructions Above)

Locations 320-322: Communicator Code For Duress Code

The Ranger 9000E has the ability to report a Duress Code when the system is armed or disarmed with user code number 15 (programmed in locations 056-059) and a duress communicator code is programmed in these locations. If all locations are "0", the duress capability is disabled and user code 15 will act as a standard user code.

Location 323: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Reporting Duress. IMPORTANT! Do Not Program A "4", Internal Log Only, In This Location! (See Location 259)

Locations 324-326: Communicator Code For Keypad Auxiliary 1 (Double Keypress [1] & [3])

The Ranger 9000E has the ability to report an Auxiliary 1 code and activate the Priority (FIRE) siren each time the [1] and [3] keys are pressed simultaneously on the keypad. The desired 1 to 3 digit reporting code must be programmed in these location(s). If all locations are "0", the Auxiliary 1 double keypress is disabled. If activated, the siren can be silenced by entering any arm/disarm code.

Location 327: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Reporting Keypad Auxiliary 1 (Double Keypress [1] & [3]) (See Location 259)

Locations 328-330: Communicator Code For Keypad Auxiliary 2 (Double Keypress [4] & [6])

The Ranger 9000E will report an Auxiliary 2 code and activate the pulsing buzzer each time the [4] and [6] keys are pressed simultaneously on the keypad. The desired 1 to 3 digit Auxiliary 2 code must be programmed in these locations. If all locations are "0", the Auxiliary 2 double keypress is disabled. If activated, the keypad sounder can be silenced by entering any Arm/Disarm code.

Location 331: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Reporting Keypad Auxiliary 2 (Double Keypress [4] & [6])   (See Location 259)

Locations 332-334: Communicator Code For Keypad Panic (Double Keypress [✳] & [#])

The Ranger 9000E will report a **Keypad Panic** code and activate the Burglary siren each time the [✳] and [#] keys are pressed simultaneously on the keypad. The desired 1 to 3 digit **Keypad Panic** code is programmed in these locations. If all locations are "0", the **Keypad Panic** double keypress is disabled. If activated, the siren can be silenced by entering any Arm/Disarm code.

Location 335: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Reporting Keypad Panic (Double Keypress [✳] & [#]) See Location 259)

Locations 336-338: Communicator Code For Keypad Tamper Feature

The optional **Keypad Tamper** feature that, when enabled, will lock out the keypads for 1 minute if 30 random keypresses are made without producing a valid code. The desired 1 to 3 digit **Keypad Tamper** code must be programmed in these locations to enable this feature. If all locations are "0", the **Keypad Tamper** feature will not be enabled or reported.

Location 339: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Reporting Keypad Tamper
(See Location 259)

Locations 340-342: Communicator Code For Autotest Reports

The Ranger 9000E has the ability to send **Autotest** reports at intervals from 1 to 99 days. The desired 1 to 3 digit code must be entered in these location(s) to enable the **Autotest** feature. If all locations are "0", **Autotest** is disabled. (NOTE: WHEN USING AUTOTEST, LOCATIONS 616-621 and 624-635 MUST BE PROGRAMMED.)

Location 343: Phone #1, 2, Internal Log, Listen-In, Or Any Combination For Autotest Reports (See Loc. 259)

Location 344: Phone Selector For Bypass Reports (See Location 259)

If this location is "0", bypass reports will follow the individual zone phone selections. If this location contains something other than "0", it will be used for all bypass reports. If bypass reports are to go to the log without reporting, program a "4" in this location.

Location 345: Phone Selector For Trouble Reports   (See Location 259)

If this location is "0", trouble reports will follow the individual zone phone selections. If this location contains something other than "0", it will be used for all trouble reports. If trouble reports are to go to the log without reporting, program a "4" in this location.

Location 346: Partition Open/Close Report Selector

The number programmed in this location will select the partition(s) that will send open/close reports. Refer to the table below, and add the values of the partitions for open/close reports, and program the appropriate data in this location. Factory default is "0", enabling open/close reports for all partitions. Example: For open/close reports from partitions #1 and #3, program a "5" (1 + 4 = "5") in this location.

VALUE	PARTITION NUMBER(S)
1	PARTITION #1
2	PARTITION #2
4	PARTITION #3
8	PARTITION #4

Location 347: Special Keypad Command Functions

When the system is armed and this location is programmed with something other than a "0", pressing the first digit of the Master code followed immediately by the [✱] key can create one or more of the changes described below. Select the desired features from the table below, add their values, and program the sum in location 347. Factory default is "1".

VALUE	DESCRIPTION
1	Remove Interior Follower Bypasses.
2	Remove Interior Delay Bypasses.
4	Remove Group Bypasses.
8	Restart The Exit Delay.

REPORTING USER NUMBERS FOR VARIOUS RECEIVER FORMATS

Due to the limitations and variations of certain formats, reporting of up to 30 unique user codes requires variable programming for these formats, which are described below.

CONTACT ID OR SIA FORMATS When using these formats, program a "1" in location 348 to enable opening reports. Program a"1" in location 350 to enable closing reports. Program a "1" in location 354 to enable cancel reports. The correct event code and user number (1 thru 30) will be reported.

FBI SUPERFAST FORMAT When using this format, program the desired opening code in location 348, the desired closing code in location 350, and the desired cancel code in location 354. The correct user number will be reported.

4 + 2, AND ALL EXTENDED FORMATS When using these formats, program the desired opening code for users 1 thru 15 in location 348. Program the desired closing code for users 1 thru 15 in location 350. Program the desired cancel code for users 1 thru 15 in location 354. The user number for users 1 thru 15 will automatically be reported as 1 thru F. Program the desired opening code for users 16 thru 30 in location 352. Program the desired closing code for users 16 thru 30 in location 353. Program the desired cancel code for users 16 thru 30 in location 354. The user number for users 16 thru 30 will automatically be reported as 1 thru F.

NON-EXTENDED FORMATS When using these formats, program the opening code in location 348, the desired closing code in location 350, and the desired cancel code in location 354. User numbers will not be transmitted with non-extended formats.

Location 348: Communicator Code To Report Openings For Users 1-15

The Ranger 9000E has the ability to report an opening code each time the control is disarmed. The desired opening code is programmed in this location. If this location contains "0", openings will not be reported. When using 4+2 format, the number programmed in this location is sent first. The second digit is automatically the user number. When using the Quick-Arm digit, the user number is 29. When using a keyswitch, the user number is 30.

Location 349: Select Phone #1, 2, Internal Log, Or Any Combination To Report Openings For Users 1-15
(See Location 259)

Locations 350: Communicator Code To Report Closings For Users 1-15

The Ranger 9000E has the ability to report a closing code each time the control is armed. The desired closing code is programmed in this location. If this location contains a "0", closings will not be reported. The number programmed in this location is sent first. The second digit is automatically the user number. When using Auto Arm the user number is 28. When using the Quick Arm digit, the user number is 29. When using a keyswitch, the user number is 30. The closing report will not be initiated until the end of the exit delay.

Location 351: Select Phone #1, 2, Internal Log, Or Any Combination To Report Closings For Users 1-15
(See Location 259)

Location 352: Communicator Code To Report Closings For Users 16-30
This location will be programmed only when using a 4 + 2, or extended format.

Location 353: Communicator Code To Report Openings For Users 16-30
This location will be programmed only when using a 4 + 2, or extended format.

Location 354: Communicator Code To Report Cancel (Exception Opening) For Users 1-15

Location 354 contains the communicator code that will be sent to identify users numbered 1-15 for Cancel. The Cancel code programmed in this location will be sent if an arm/disarm code is entered after a trip on any zone has been reported (excluding Fire zones). After a cancel has been reported, no loop restorals will be transmitted on non-24 Hour zones. The number programmed in this location is sent first. The second digit is automatically the user number. If this location contains a "0", Cancel is disabled. (When using a key switch, the user # is 30.)

Location 355: Communicator Code To Report Cancel (Exception Opening) For Users 16-30
This location will be programmed only when using a 4 + 2, or extended format.

Locations 356-358: Communicator Code For Reporting AC Power Loss

The Ranger 9000E has the ability to report an AC Power Loss code after the AC power has been off for a selected number of minutes from 0 to 15 (see location 623). The desired 1 to 3 digit AC failure code is programmed in these locations. If all locations are "0", AC Power Loss will not be reported.

Location 359: Select Phone #1, 2, Internal Log, Or Combination To Report AC Power Loss (See Location 259)

Location 360-362: Communicator Code For Reporting Low Battery

The Ranger 9000E has the ability to report a Low Battery code when AC power has been lost and the battery has discharged down to 10.3 volts. The desired 1 to 3 digit Low Battery code is programmed in these locations. If all locations are "0", Low Battery will not be reported.

Location 363: Select Phone #1, 2, Internal Log, Or Combination For Reporting Low Battery (See Location 259)

The following locations allow for transmitting variable Restore report codes in zone blocks of 8. If a code is selected for zones 1-8 in location 364 it will apply to all zones unless individual codes are selected in locations 365-367. If location 364 is "0" no zone restorals will be reported. If locations 365-367 are "0", the code in location 364 will be sent.

Location 364: Restore Code For Zones 1 Thru 8

Location 365: Restore Code For Zones 9 Thru 16

Location 366: Restore Code For Zones 17 Thru 24 (When Using Expansion System)

Location 367: Restore Code For Zones 25 Thru 32 (When Using Expansion System)

The following locations allow for the transmitting of variable bypass report codes in zone blocks of eight (8). If a code is selected for zones 1-8 in location 368, it will apply to all zones unless individual codes are selected for locations 369-371. If location 368 contains a "0", no bypass reports will be sent. If enabled, bypass reports will be made at the end of the exit delay for non-24 hour zones. 24 hour zones will report a bypass immediately. When a bypass is removed, a "Restore" will be reported if "Restore" is enabled in location 364.

Location 368: Zone Bypass Code For Zones 1 Thru 8

Location 369: Zone Bypass Code For Zones 9 Thru 16

Location 370: Zone Bypass Code For Zones 17 Thru 24 (When Using Expansion System)

Location 371: Zone Bypass Code For Zones 25 Thru 32 (When Using Expansion System)

The following locations allow for the transmitting of variable trouble report codes in zone blocks of eight (8). If a code is selected or zones 1-8 in location 372 it will apply to all zones unless individual codes are selected for locations 373-375. If location 372 is "0", no trouble reports will be sent.

Location 372: Zone Trouble Code For Zones 1 Thru 8

Location 373: Zone Trouble Code For Zones 9 Thru 16

Location 374: Zone Trouble Code For Zones 17 Thru 24 (When Using Expansion System)

Location 375: Zone Trouble Code For Zones 25 Thru 32 (When Using Expansion System)

Location 376: Programming For AC Power And Low Battery Restore Code

If this location contains a "0", no AC Power or Low Battery restorals will be sent. Anything other than a "0" programmed in this location will cause the AC and Low Battery restore codes to be sent to the central station. AC Restore will be sent after the delay time programmed in location 623.

Location 377: Programming The Number Of Expansion Devices On The Buss Loop

This location is used to program the number of expansion devices added to the buss loop. DO NOT INCLUDE KEYPADS IN THIS COUNT! The maximum number of expansion devices that can be added to the Ranger 9000 is seven, therefore the largest number that can be programmed in this location is "7". Factory default for this location is "0".

Location 378: Communicator Code For Expansion Trouble

Location 378 contains the extended communicator code digit for **Expander Trouble**. The second digit, or zone ID, of this report will be the number of the expansion device that is in trouble. The **Expander Trouble Restore** code is programmed in location 511.

Location 379: Phone Number To Report Expansion Trouble Code

Location 379 is used to select the phone number to report Expander Trouble. Program a "1" in this location to report to phone #1 only. Program a "2" to report to phone #2 only. Program a "3" to report to both phone numbers. If an "8" is programmed in this location, Expander Trouble will cause zone 32 to "open", and cause Expander Trouble take on the reporting and alarm characteristics of zone 32.

Locations 380-395: Programming The Zone Types For Zones 17-32

Locations 380 through 395 contain a number identifying the *Zone Types* of zones 17 through 32. Location 380 corresponds to zone 17 and location 395 corresponds to zone 32. Each zone 17-32 has been factory defaulted to a "6", *"Instant"* zone type. To program zone types other than the default values, program a number from "1" to "9" based on the "Available Zone Types" table below.

DATA	AVAILABLE ZONE TYPES
"1"	**DAY ZONE** - When armed, a trip produces an instant alarm. When disarmed, a trip activates the keypad sounder.
"2"	**24 HOUR** - A trip on a 24 Hour zone produces an instant alarm when armed or disarmed.
"3"	**ENTRY/EXIT** - A trip will start entry delay. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.
"4"	**INTERIOR DELAY** - A trip on Interior Delay zone will initiate an entry delay. It will be ignored during exit delay and when disarmed .
"5"	**INTERIOR FOLLOWER** - Interior zone that follows the delay zones. It is instant during non-delay times. It can be bypassed before arming, or by allowing it to automatically be bypassed in the Automatic Bypass/Instant mode if so programmed.
"6"	**INSTANT** - Produces an instant alarm if tripped when armed. Ignored when disarmed.
"7"	**SECONDARY DELAY** - Like an Entry/Exit zone but has its own independent delay time.
"8"	**FIRE** (PRIORITY WHEN AHJ HAS NOT APPROVED) - A short on a FIRE zone (non-bypassable) will communicate to the central station when the Ranger 9000E is armed or disarmed. An open will create a Trouble condition. Keypad LED will be steady for FIRE, and flashing for Trouble.
"9"	**KEYSWITCH** - A zone attached to a momentary keyswitch will cause the Ranger 9000E to arm or disarm when the zone is shorted. NOTE: Program the corresponding "Special Characteristics For Zones 17-32"(locations 396-411) as a "0".

Locations 396-411: Assigning Special Characteristics For Zones 17-32

Locations 396 through 411 are used to assign *Special Characteristics* for zones 17 through 32. Location 396 corresponds to zone 17 and location 411 corresponds to zone 32. Each zone can have any or all of the following characteristics regardless of the zone type selected in locations 380-395, excluding Fire zones which cannot have bypass capability enabled. Factory default is "12" for each of these locations, meaning that *Zone Bypass Capability & Entry-Guard* are enabled, and the other characteristics are not enabled. To include other characteristics, add the values, and program the sum in the appropriate location. See the table below for zone characteristics and their corresponding values.

VALUE	CHARACTERISTIC
1	Fast Loop Response (200mS)
2	Group Bypass Zone
4	Entry-Guard Zone
8	Zone Bypass Capability

Example 1 - To add *Group Bypass Zone (Value=2)* to *Zone Bypass Capability (Value=8)* for zone 20 (location 399), add the value of the two characteristics (2 + 8 ="10"), and program the sum of "10" in location 399.

Example 2 - To enable **ALL** characteristics for zone 20, add the value of all characteristics (1 + 2 + 4 + 8 = "15"), and program the sum of "15" in location 399 (zone 10 characteristics location).

Example 3 - To disable all characteristics and create a *Non Bypassable Zone*, program a "0" in the appropriate location.

Locations 412-427: Assigning Audible Characteristics For Zones 17-32

Locations 412-427 are used to assign the **Audible Characteristics** for zones 17 through 32. Location 412 corresponds to zone 17, and location 427 corresponds to zone 32. To determine the appropriate data for these locations, refer to the chart below and add the sum of the corresponding values to arrive at the correct data for these locations. Zones 17-32 have a factory default setting of "13" (1+ 4 + 8 = "13"). This means that zones 17-32 will create a yelp siren output and a keypad sounder output when an alarm is created. To select the audible characteristics for any zone, add the values of the audible characteristics from the table below, and program the sum in the appropriate locations 412-427. NOTE: If a Fire zone type is selected in locations 380-395, standard fire zone characteristics will override any selection made for a zone in this section. If you wish for the zone to be **SILENT**, program a "0" in the appropriate location.

VALUE	AUDIBLE CHARACTERISTICS
0	Silent
1	Yelp Siren Audible
2	Steady Siren Audible
4	Keypad Sounder Audible
8	Chime Enable

Locations 428-443: Special Communicator Reporting Characteristics For Zones 17-32

Locations 428-443 are used to assign communicator characteristics to individual zones 17 through 32. Location 428 is for zone 17 and location 443 is for zone 32. Each zone can have one, or any combination of these characteristics. Factory default for all zones is "11" (1 + 2 + 8 ="11"). This means that each zone has **RESTORE REPORTING (Value=1), BYPASS REPORTING (Value=2),** and **REPORT CANCELING (Value=8)** enabled. It should be noted that these locations are used to enable individual zone report capability by zone. A reporting code must be programmed in the appropriate location to enable overall reporting capability of Restore reports (location 364), Bypass reports (location 368), Trouble/24 Hour Tamper reports (location 372), and Cancel reports (location 354).

VALUE	REPORTING CHARACTERISTICS
1	Restore Reporting
2	Bypass Reporting
4	Trouble/24 Hour Tamper Reporting
8	Report Canceling

SELECTING COMMUNICATOR CODES FOR ZONES 17-32

All zones and other reported features are programmed with up to four (4) programming locations. The first three (3) are used for a 1, 2, or 3, digit communicator code, according to the restraints of the selected communicator format. The fourth (4th) and last location is used to select if the code is to be sent to phone #1, phone #2, the internal log, activate listen-in, any combination of these selections, or all four options. The following example will assist you in this selection process. Factory defaults to a three digit event (alarm) code. NOTE: The first digit will be ignored when using a 3 + 1 Extended, or 4 + 2 format. The first and second digit will be ignored when using a 3 + 1 or 4 + 1 format.

Locations 444-446: Programming The Communicator Code For Zone 17

Locations 444-446 contain the communicator codes to be reported each time zone 17 creates an alarm. Location 444 contains the first digit, location 445 contains the second digit, and location 446 contains the third digit. Always use the correct number of digits that the selected format allows. Program in the order you wish the receiver to print the report.

Location 447: Select Phone #1, 2, Internal Log, Or Any Combination For Zone 17

The number in this location will determine where the communicator report for zone 17 will be sent. This number is derived by adding a "1" for phone #1, a "2" for phone #2, and a "4" for the internal log and an "8" for activation of Listen-in. If you want this code to be reported to both phone numbers you must program a "3" (1+2) in this location. If you want this code to be reported to both phone numbers and the internal log you must program a "7" (1+2+4) in this location. Factory default is "13", which causes zone 17 to report to phone #1, the internal log, and activate Listen-in, if used.

Location 448-507: Programming The Communicator Code and Selecting Phone Number 1, 2, Internal Log, Listen-in, or Any Combination For Zones 18-32 *(See Locations 444 - 447)*

Location 508: Reserved

Location 509: Listen-In Time

Program the number of minutes desired for Listen-in at this location (maximum 7 minutes). Factory default is "0".

Location 510: Dial Attempts To Phone #2

This location contains the number of dial attempts to the second phone number for a dual or split report to the second phone number. This is useful when the second number is a pager. Factory default is "0".

Location 511: Expander Trouble Restore Code

Location 511 contains the Expander Restoral Code. If this location is "0", restorers will not be reported.

Locations 512-571: Programming The Arm/Disarm Code For Users 16-30

Locations 512-571 contain the arm/disarm codes for user numbers 16 thru 30. EACH CODE MUST CONTAIN FOUR (4) DIGITS. To disable a code, program a "15" as the first digit of the code. This code can be changed in the RUN mode using the master code (see User's Manual). The factory default for users 16 thru 30 is "15", disabled.

Locations 572-586: Users 16-30 Arm/Disarm Code Enable By Partition

PARTITIONED SYSTEMS
If partitions are utilized, codes may be assigned to a specific partition by using locations 572-586. This is done by enabling each individual code (code 16 is location 572, code 30 is location 586) for each of the four partitions that code should have access to. Codes are selected by adding the value for each partition together and placing that number in the proper location.

VALUE	PARTITIONS
1	PARTITION 1
2	PARTITION 2
4	PARTITION 3
8	PARTITION 4

NON - PARTITIONED SYSTEMS

When partitioning is not being utilized, locations 572-586 can be used to control the arming and disarming authority of the individual arm/disarm codes. A code can be given limited authority by programming a number from 1 to 15 in the corresponding location for that code. Add the values in the table below that correspond to the desired arm/disarm characteristics, and program the sum in the appropriate locations.

VALUE	CHARACTERISTIC
1	STANDARD ARM/DISARM CODE
2	ARM ONLY AFTER CLOSING TIME
4	ARM ONLY CODE
8	OPEN/CLOSE REPORTS FOR USER

Location 587: Early-To-Open, Late-To-Close And/Or Automatic Arming Features

To enable the early-to-open and late-to-close features program a "1" in this location. If you also wish to enable the automatic arming feature, program a "2" in this location. To enable both features, program a "3" in this location. A time must be entered into locations 600-603 and 604-607 to enable these features. The Automatic Arming feature will arm the Ranger 9000E at the selected time. At that time, the keypad sounders will sound for 50 seconds, warning anyone who remains in the protected building that the system is about to automatically arm. If a valid code is not entered before the end of the 50 second warning time, the system will automatically arm. If a valid code is entered, a late to close signal will be transmitted. NOTE: If open/close reports are used, Automatic Arming will report user 28.

Locations 588-590: Communicator Code For Late-To-Close Report

The Ranger 9000E has the ability to report a 1 to 3 digit late-to-close report when these location(s) are programmed and a closing time has been programmed in locations 604-607. Factory default is "0" for all locations and this feature is not enabled.

Location 591: Select Phone #1, 2, Internal Log, Or Combination For Late-To-Close Reports (See Location 447)

Locations 592-594: Communicator Code For Early Opening Report

The Ranger 9000E has the ability to report a 1 to 3 digit early opening code when these location(s) are programmed and a opening time has been programmed in locations 600-603. Factory default is "0" for all locations and this feature is not enabled.

Location 595: Select Phone #1, 2, Internal Log, Or Combination For Reporting Early Opening (See Location 447)

Location 596-598: Communicator Code To Report Downloading Complete

Locations 596-598 contain the communicator report sent each time a download session has been completed. The report will come in after a disconnect has been made from a downloading session. If these locations contain "0", this report is disabled.

Location 599: Select Phone #1, 2, Internal Log, Or Any Combination To Report Downloading Complete

Locations 600-603: Opening Time

To enable the early-to-open report feature, a 4 digit 24 hour opening time must be entered in locations 600-603. For example, to enter a opening time of 8:15 a.m.(08:15), program a "0" in location 600, a "8" in location 601, a "1" in location 602, and a "5" in location 603. Factory default is a "0-6-0-0" which sets an opening time of 6:00 AM. NOTE: A communicator code must be entered in location(s) 592-594 if this feature is selected.

Locations 604-607: Closing Time

To enable the late-to-close report, a 4-digit, 24 hour closing time must be entered in locations 604-607. For example, to enter a closing time of 6:30 p.m.(1830), program a "1" in location 604, a "8" in location 605, a "3" in location 606, and a "0" in location 607. Factory default is a "2-0-0-0" which sets a closing time of 8:00 PM. NOTE: A communicator code must be entered in location(s) 588-590 if this feature is selected.

Location 608: Closed Saturday Enable

A "1" should be programmed in location 608 if the installation will be closed on Saturdays and early-to-open or late to close features have been enabled. A "1" will cause the early-to-open report to be communicated in the event an opening is made on Saturday. Factory default is "0", and openings are allowed on Saturday within the assigned schedule without creating a report.

Location 609: Closed Sunday Enable

A "1" should be programmed in location 609 if the installation will be closed on Sundays and early-to-open or late to close features have been enabled. A "1" will cause an early-to-open to be communicated in the event an opening is made on Sunday. Factory default is "0", and openings are allowed on Sunday with the assigned schedule without creating a report.

Locations 610-615: Format Overrides (See Appendix)

Location 616: Programming The Hour For Autotest - Tens Digit

Location 616 contains the tens digit of the hour that the autotest report is initiated. The time is entered in 24 hour time. If the desired autotest time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "1", which is the tens digit of the desired hour for autotest. If the desired autotest time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "0".

Location 617: Programming The Hour For Autotest - Ones Digit

Location 617 contains the ones digit of the hour that the autotest report is desired. The time is entered in 24 hour time. If the desired autotest time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "7", which is the ones digit of the hour for autotest. If the desired autotest time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "9".

Location 618: Programming The Minutes For Autotest - Tens Digit

Location 618 contains the tens digit, of the minutes after the hour that the autotest is desired. The time is entered in 24 hour time. If the desired autotest time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "2", which is the tens digit of the minutes for autotest time. If the desired autotest time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "3".

Location 619: Programming The Minutes For Autotest - Ones Digit

Location 619 contains the ones digit, of the minutes after the hour that the autotest is desired. The time is entered in 24 hour time. If the desired autotest time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "5", which is the ones digit of the minutes for autotest time. If the desired autotest time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "6".

Locations 620-621: Autotest Report Intervals

Locations 620 and 621 contain the number of days in the autotest report intervals. Location 620 is the tens (10's) digit, and location 621 is the ones (1's) digit. The available interval is 1 to 99 days. If a 1 to 9 day interval is selected the first location should remain a zero "0". If the selected interval is every 75 days, you would program a "7" in location 620 and a "5" in location 621. Locations 340-342 must be programmed to enable autotest reporting.

Location 622: Automatic Download Callback Enable/Autotest Suppression

Programming a "1" in location 622 will cause the control panel to automatically call the download computer callback number at every autotest interval. This feature will not activate unless a callback phone number has been programmed, and a "2" is programmed in location 660. If a "2" is programmed in location 622, the autotest report will be suppressed, if the communicator has sent any report since the last autotest. To enable both features, program a "3" in this location. Factory default is "0".

Location 623: AC Power Loss Delay Feature

The number programmed in location 623 represents the number of 1 minute increments the **AC Power Loss** report is delayed before a communication is initiated, from 1 to 15 minutes. Factory default is "5" programmed in this location and **AC Power Loss** reports will be delayed 5 minutes. If a "0" is programmed in this location this feature is not enabled. The **AC Power Restore**, if enabled in location 376, will also delay reporting until after the number of minutes programmed in this location has elapsed.

Location 624-625: Programming The Number Of Elapsed Days Since Last Auto Test Report

Location 624 contains the tens digit of the number of days between autotest reports and location 625 contains the ones digit. Example: If today is Thursday, and you want a weekly test on Sundays (a "0 - 7" in locations 620-621), program a "0" in location 624, and a "4" in location 625 (four days have elapsed).

Location 626: Programming Current Day Of Week

A number from 1 to 7 should be programmed in this location to indicate the current day of the week. Program a "2" in this location for a Monday. If the day is Friday, program a "6" in this location. Sunday ="1" and Saturday ="7".

Location 627: Programming The Current Month

Location 627 contains the current month. The month must be programmed using a number from "1" to "12".

Location 628: Programming The Current Day Of Month - Tens Digit

Location 628 should be programmed with first digit of the current day of the month. If the current date is December 25th, program a "2" in location 628.

Location 629: Programming The Current Day Of Month - Ones Digit

Location 629 should be programmed with the second digit of the current day of the month. If the current date is December 25th, program a "5" in location 629.

Location 630: Programming The Current Year - Tens Digit

Location 630 contains the current year - tens digit. If the current year is 1996, this location should contain a 9, which is the tens digit of the current year.

Location 631: Programming The Current Year - Ones Digit

Location 631 contains the current year - ones digit. If the current year is 1996, this location should contain a "6", which is the ones digit of the current year. If the current year is 1997, this location should contain a "7", which is the ones digit of the current year.

Location 632: Programming The Current Hour - Tens Digit

Location 632 contains the current hour - tens digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "1", which is the current hour - tens digit. If the current time is 9:36 AM, the 24 hour time is 09:36, so this location should contain a "0".

Location 633: Programming The Current Hour - Ones Digit

Location 633 contains the current hour - ones digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "7", which is the current hour - ones digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "9".

Location 634: Programming The Current Minutes - Tens Digit

Location 634 contains the current minutes - tens digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so location 160 should contain a "2", which is the current minutes - tens digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "3".

Location 635: Programming The Current Minutes - Ones Digit

Location 635 contains the current minutes - ones digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "5", which is the current minutes - ones digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "6".

THE FOLLOWING LOCATIONS ARE ACCESSIBLE ONLY THROUGH DOWNLOADING

Locations 636-643: Control Panel Access Code

Locations 636-643 contain the eight digit access code the 9000E must receive from the downloading software before the panel will permit downloading to occur. The factory default code is listed in the instructions provided with the CADDX download software package.

Locations 644-659: Call Back Telephone Number

If a telephone number is programmed into these locations, and "callback" is enabled in location 660, the control panel will hang up for approximately 36 seconds (insuring that the calling party has disconnected), and then call back. If tone dialing is desired, program an "F" in the location where tone dialing should begin. If the entire number should be tone dialing, program an "F" in location 644. Four second delays can be obtained anywhere in the sequence by programming a "D" in the appropriate delay location. WARNING: THE CALLBACK PHONE NUMBER SHOULD ALWAYS BE REVIEWED FOR ACCURACY BEFORE DISCONNECTING.

Location 660: Call Back Optional Features

The number programmed in location 660 will set the callback options for the control panel. Any or all of the features below can be obtained by programming the appropriate data in this location. The correct data can be obtained by ADDING the values of the corresponding characteristics from the table below (possible values are 0 to 7).

VALUE	CHARACTERISTIC
1	Panel will automatically callback for download session.
2	Site initiated download call by entering [✱]-[9]-[8]-[#] at keypad, and/or automatic callback if a "1" is programmed in location 622.
4	Panel will automatically callback when the event log is full.

Example 1 - Programming a "5" (1 + 4 = 5) in this location will combine the characteristics for values 1 and 4.

Example 2 - Programming a "7" (1 + 2 + 4 = 7) in this location will combine all of the characteristics described.

Location 661: Local Programming Lockout

Location 661 is used to disable local programming lockout. If a "5" is programmed in this location, all local programming is locked out. If an "A" is programmed in this location, all programming functions related to the digital communicator will be locked out. Any other number in location 661 will allow all local programming.

Location 662: Control Panel Shutdown

Location 662 is used to shutdown the control panel. Programming an "A" in this location will completely shutdown the control panel. The keypad will appear "dead" with only the "Trouble" LED illuminated, and the siren and communicator will not operate. WARNING: EXTREME CARE SHOULD BE TAKEN NOT TO INADVERTENTLY PROGRAM THIS LOCATION.

KEYPAD SETTINGS FOR PARTITIONED SYSTEMS

The keypads used with the Ranger 9000E control panel have a 4-position dip switch on the PC board that is easily accessed from the back of the keypad. If partitioning is not being used, all switches must be in the "OFF" position. If partitioning is being used, refer to the table below to set the keypads for use in the correct partition.

PARTITION NUMBER	SWITCH 1	SWITCH 2
PARTITION #1	OFF	OFF
PARTITION #2	ON	OFF
PARTITION #3	OFF	ON
PARTITION #4	ON	ON

The positions of dip switches 1 and 2 determine the partition to which the keypad belongs, as indicated in the table above. For example, if the keypad is in Partition 3, Switch 1 should be "OFF", and Switch 2 should be "ON". Switches 3 & 4 are reserved for future use, and should be in the "OFF" position at all times. All keypads are shipped from the factory for Partition 1 usage (switches 1 & 2 "OFF"). NOTE: These keypads will not function properly if the correct partition is not selected.

CADDX RANGER 9000
(PROGRAMMING INSTRUCTIONS AT END OF LAST PAGE)
ARM/DISARM CODES 1 - 15

LOCATION	PAGE	DESCRIPTION	DATA	DATA	DATA	DATA	DEFAULT
000-003	8	USER 1 ARM/DISARM CODE (MASTER)	1	2	3	4	"1-2-3-4"
004-007	8	USER 2 ARM/DISARM CODE					"15" DISABLED
008-011	8	USER 3 ARM/DISARM CODE					"15" DISABLED
012-105	8	USER 4 ARM/DISARM CODE					"15" DISABLED
016-019	8	USER 5 ARM/DISARM CODE					"15" DISABLED
020-023	8	USER 6 ARM/DISARM CODE					"15" DISABLED
024-027	8	USER 7 ARM/DISARM CODE					"15" DISABLED
028-031	8	USER 8 ARM/DISARM CODE					"15" DISABLED
032-035	8	USER 9 ARM/DISARM CODE					"15" DISABLED
036-039	8	USER 10 ARM/DISARM CODE					"15" DISABLED
040-043	8	USER 11 ARM/DISARM CODE					"15" DISABLED
044-047	8	USER 12 ARM/DISARM CODE					"15" DISABLED
048-051	8	USER 13 ARM/DISARM CODE					"15" DISABLED
052-055	8	USER 14 ARM/DISARM CODE					"15" DISABLED
056-059	8	USER 15 ARM/DISARM CODE (HOSTAGE)	2	5	8	0	"15" DISABLED
060-063	8	"GO TO PROGRAM" ACCESS CODE	2	1	3	0	"9-7-1-3"

ENABLING ARM/DISARM CODES 1-16 BY PARTITION (OPTIONAL)

LOCATION	PAGE	DESCRIPTION		DATA	DEFAULT
64	8	PARTITIONS FOR USER #1 ARM/DISARM CODE (Partitioned Systems)			"15" ALL
65	8	PARTITIONS FOR USER #2 ARM/DISARM CODE	1=Partition #1		"15" ALL
66	8	PARTITIONS FOR USER #3 ARM/DISARM CODE	2=Partition #2		"15" ALL
67	8	PARTITIONS FOR USER #4 ARM/DISARM CODE	4=Partition #3		"15" ALL
68	8	PARTITIONS FOR USER #5 ARM/DISARM CODE	8=Partition #4		"15" ALL
69	8	PARTITIONS FOR USER #6 ARM/DISARM CODE			"15" ALL
70	8	PARTITIONS FOR USER #7 ARM/DISARM CODE (Non-Partition System)			"15" ALL
71	8	PARTITIONS FOR USER #8 ARM/DISARM CODE	1=Standard Code		"15" ALL
72	8	PARTITIONS FOR USER #9 ARM/DISARM CODE	2=Arm after Closing		"15" ALL
73	8	PARTITIONS FOR USER #10 ARM/DISARM CODE	4=Arm Only		"15" ALL
74	8	PARTITIONS FOR USER #11 ARM/DISARM CODE	8=O/C Rep for User		"15" ALL
75	8	PARTITIONS FOR USER #12 ARM/DISARM CODE			"15" ALL
76	8	PARTITIONS FOR USER #13 ARM/DISARM CODE			"15" ALL
77	8	PARTITIONS FOR USER #14 ARM/DISARM CODE			"15" ALL
78	8	PARTITIONS FOR USER #15 ARM/DISARM CODE			"15" ALL
79	8	PARTITIONS "GO TO PROGRAM" ACCESS CODE			"15" ALL

PHONE NUMBERS, ACCOUNT CODE AND FORMAT
PROGRAM A "10" FOR ANY ZERO'S IN THE PHONE NUMBER OR REPORTING CODES

LOCATION	PAGE	DESCRIPTION	DATA								DEFAULT
80-87	9	PRIMARY NUMBER DIGITS 1-8	15	1	8	10	10	X	X	X	"14" DISABLED
88-95	9	PRIMARY NUMBER DIGITS 9-16	X	X	X	X	0				"14" DISABLED
96-100	9	PRIMARY ACCOUNT CODE (AID)									"0" DISABLED
101	9	PRIMARY FORMAT						15			"0" DISABLED
		(1=CONTACT ID, 4=PAGER, 14=SIA, 15=FORMAT OVER-RIDE)									
102-119	9	SECONDARY NUMBER DIGITS 1-8									"14" DISABLED
110-117	9	SECONDARY NUMBER DIGITS 9-16									"14" DISABLED
118-122	9	SECONDARY ACCOUNT CODE									"0" DISABLED
123	9	SECONDARY FORMAT									"0" DISABLED

PARTITION #3 & #4 ACCOUNT NUMBER (OPTIONAL)

LOCATION	PAGE	DESCRIPTION	ACCOUNT CODE	DEFAULT
124-127	10	PARTITION #3 ACCOUNT CODE		"0" DISABLED
128-131	10	PARTITION #4 ACCOUNT CODE		"0" DISABLED

CONTROL AND COMMUNICATOR FEATURES

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
132	11	PHONE SEQUENCE CONTROLLER		"12"
133	11	NUMBER OF DIAL ATTEMPTS		"8" EIGHT
134	11	PRIMARY ENTRY DELAY TIME	3	"3" 30 SECONDS
135	11	PRIMARY EXIT DELAY	6	"6" 60 SECONDS
136	12	SECONDARY ENTRY DELAY		"3" 30 SECONDS
137	12	SECONDARY EXIT DELAY		"6" 60 SECONDS
138	12	SIREN CUTOFF TIME	4	"4" 8 MINUTES

ZONE CHARACTERISTICS

LOCATION	PAGE	DESCRIPTION			DATA	DEFAULT
139	12	ZONE 1 TYPE "1" DAY ZONE	"2" 24 HOUR ZONE			"3" ENTRY/EXIT
140	12	ZONE 2 TYPE "3" ENTRY/EXIT	"4" INTERIOR DELAY			"5" INT/FOLLOWER
141	12	ZONE 3 TYPE "5" INTERIOR FOLLOWER	"6" INST/ PERIMETER			"6" INSTANT
142	12	ZONE 4 TYPE "7" SECONDARY DELAY	"8" FIRE			"6" INSTANT
143	12	ZONE 5 TYPE	"9" KEYSWITCH			"6" INSTANT
144	12	ZONE 6 TYPE				"6" INSTANT
145	12	ZONE 7 TYPE				"6" INSTANT
146	12	ZONE 8 TYPE				"6" INSTANT
147	12	ZONE 9 TYPE				"6" INSTANT
148	12	ZONE 10 TYPE				"6" INSTANT
149	12	ZONE 11 TYPE				"6" INSTANT
150	12	ZONE 12 TYPE				"6" INSTANT
151	12	ZONE 13 TYPE				"6" INSTANT
152	12	ZONE 14 TYPE				"6" INSTANT
153	12	ZONE 15 TYPE				"6" INSTANT
154	12	ZONE 16 TYPE				"6" INSTANT
155	13	ZONE #1 – SPECIAL CHARACTERISTICS	1= Fast Loop Resp.			"12"
156	13	ZONE #2 – SPECIAL CHARACTERISTICS	2=Group Bypass Zone			"12"
157	13	ZONE #3 – SPECIAL CHARACTERISTICS	4=Entry-Guard Zone			"12"
158	13	ZONE #4 – SPECIAL CHARACTERISTICS	8=Zone Bypass Enable			"12"
159	13	ZONE #5 – SPECIAL CHARACTERISTICS				"12"
160	13	ZONE #6 – SPECIAL CHARACTERISTICS				"12"
161	13	ZONE #7 – SPECIAL CHARACTERISTICS				"12"
162	13	ZONE #8 – SPECIAL CHARACTERISTICS				"12"
163	13	ZONE #9 – SPECIAL CHARACTERISTICS				"12"
164	13	ZONE #10 – SPECIAL CHARACTERISTICS				"12"
165	13	ZONE #11 – SPECIAL CHARACTERISTICS				"12"
166	13	ZONE #12 – SPECIAL CHARACTERISTICS				"12"
167	13	ZONE #13 – SPECIAL CHARACTERISTICS				"12"
168	13	ZONE #14 – SPECIAL CHARACTERISTICS				"12"
169	13	ZONE #15 – SPECIAL CHARACTERISTICS				"12"
170	13	ZONE #16 – SPECIAL CHARACTERISTICS				"12"
171	14	ZONE #1 – AUDIBLE CHARACTERISTICS	1=Yelp Siren Audible			"13"
172	14	ZONE #2 – AUDIBLE CHARACTERISTICS	2=Steady Siren Audible			"5"
173	14	ZONE #3 – AUDIBLE CHARACTERISTICS	4=Keypad Sounder			"13"
174	14	ZONE #4 – AUDIBLE CHARACTERISTICS	8=Chime Feature			"13"
175	14	ZONE #5 – AUDIBLE CHARACTERISTICS	0=Silent Zone			"13"
176	14	ZONE #6 – AUDIBLE CHARACTERISTICS				"13"
177	14	ZONE #7 – AUDIBLE CHARACTERISTICS				"13"
178	14	ZONE #8 – AUDIBLE CHARACTERISTICS				"13"
179	14	ZONE #9 – AUDIBLE CHARACTERISTICS				"13"
180	14	ZONE #10 – AUDIBLE CHARACTERISTICS				"13"
181	14	ZONE #11 – AUDIBLE CHARACTERISTICS				"13"
182	14	ZONE #12 – AUDIBLE CHARACTERISTICS				"13"

2

LOCATION	PAGE	DESCRIPTION		DATA	DEFAULT
183	14	ZONE #13 – AUDIBLE CHARACTERISTICS			"13"
184	14	ZONE #14 – AUDIBLE CHARACTERISTICS			"13"
185	14	ZONE #15 – AUDIBLE CHARACTERISTICS			"13"
186	14	ZONE #16 – AUDIBLE CHARACTERISTICS			"13"
187	14	ZONE #1 – REPORTING CHARACTERISTICS	1=Restore Report		"11"
188	14	ZONE #2 – REPORTING CHARACTERISTICS	2=Bypass Report		"11"
189	14	ZONE #3 – REPORTING CHARACTERISTICS	4=Trouble/Tamper		"11"
190	14	ZONE #4 – REPORTING CHARACTERISTICS	8=Report Canceling		"11"
191	14	ZONE #5 – REPORTING CHARACTERISTICS			"11"
192	14	ZONE #6 – REPORTING CHARACTERISTICS			"11"
193	14	ZONE #7 – REPORTING CHARACTERISTICS			"11"
194	14	ZONE #8 – REPORTING CHARACTERISTICS			"11"
195	14	ZONE #9 – REPORTING CHARACTERISTICS			"11"
196	14	ZONE #10 – REPORTING CHARACTERISTICS			"11"
197	14	ZONE #11 – REPORTING CHARACTERISTICS			"11"
198	14	ZONE #12 – REPORTING CHARACTERISTICS			"11"
199	14	ZONE #13 – REPORTING CHARACTERISTICS			"11"
200	14	ZONE #14 – REPORTING CHARACTERISTICS			"11"
201	14	ZONE #15 – REPORTING CHARACTERISTICS			"11"
202	14	ZONE #16 – REPORTING CHARACTERISTICS			"11"
203	14	COMMUNICATIOR ABORT			"0"
204	15	IMMEDIATE RESTORE BY ZONE			"0"
205	15	FORCE ARM ENABLE			"0"
206	15	SILENT HOLDUP/PANIC ("1" SILENT)		1	"0" AUDIBLE
207	15	PRIORITY (FIRE) SIREN CUTOFF INHIBIT ("1" NO SHUTDOWN)		1	"0"
208	15	BYPASSED ZONE KEYPAD SOUNDER ALERT			"0"
209	15	AC POWER OUT KEYPAD SOUNDER ALERT			"1"
210	15	SIREN/BELL TEST FEATURE ("1" ENABLE BELL TEST)		1	"0"
211	15	ENTRY-GUARD SECURITY FEATURE			"0"
212	16	RINGBACK FEATURE			"0"
213	16	MULTIPLE PARTITION : FIRST-TO-OPEN, LAST-TO-CLOSE			"0"
214	16	RESETTABLE AUXILIARY POWER (ENABLE # FOR FIRE RESET)		1	"1"
215	16	SIREN OUTPUT LIMIT			"0"
216	16	COMMUNICATOR REPORT LIMIT			"0"
217	16	PARTITION SIREN INHIBIT			"0"
218	16	50 HZ POWER SOURCE			"0"
219	16	SWINGER SHUTDOWN FEATURE		3	"0"
220	16	AUTOMATIC BYPASS/INSTANT ARMING ("3" PIR HOME/AWAY)			"0"
221	17	DELAY OF PHONE LINE SEIZURE FOR ABORT			"0"
221	17	QUICK ARM DIGIT			"0"
223	17	ENTRY-GUARD DELAY TIME			"2" 20 SECONDS

AUXILIARY OUTPUT OPTIONS

LOCATION	PAGE	DESCRIPTION				DATA			DEFAULT
224-227	18	PIN #1							"0 – 0 – 13 – 10"
228-231	18	PIN #2							"0 – 0 – 13 – 11"
232-235	18	PIN #3							"0 – 15 – 13 – 2"
236-239	18	PIN #4							"0 – 0 – 13 – 2"

HEX PROGRAMMING CONVERSIONS															
FOR	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
PROGRAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

MISC. OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
240	20	INVERTING THE AUXILIARY OUTPUTS		"0"
241	21	TIMING INCREMENTS FOR AUX OUTPUTS		"0"
242	21	AMSWERING MACHINE DEFEAT		"0"
243	21	# RINGS TO ANSWER DOWNLOAD CALL (x 2)		"4" EIGHT RINGS
244	21	ASSIGNING THE CHIME CODE(THIS KEY ENABLES DOOR CHIME)	?	"1"
245	21	ASSIGNING THE ENTRY-GUARD CODE		"0"
246	22	COMMON AREA ENABLE - MAKES 1 PARTITION COMMON TO ALL		"0"
247	22	ZONES IN PARTITION #1 IF ZONES 1 TO 6 ARE IN		"0" 01 to 15
248	22	ZONES IN PARTITION #2 PARTITION #1 ENTER 6 IN 247		"0"
249	22	ZONES IN PARTITION #3 (ALL ZONES MUST BE IN SEQUENCE)		"0"
250	22	POWER UP CONDITION		"0"
251	22	POWER UP DELAY (x10 SEC)		"0"
252	23	TELEPHONE LINE MONITOR		"0"
253	23	TELEPHONE LINE MONITOR COUNTER		"0"
254	23	DYNAMIC BATTERY TEST TIME		"0"
255	23	DYNAMIC BATTERY TEST DURATION		"3" 6:00 AM

REPORTING CODES ZONES 1-16
(First 3 digits are for Report Code, Last digit –1=Phone #1, 2=Phone #2, 4=Internal Log, 8=Listen In)

LOCATION	PAGE	DESCRIPTION	DATA	DATA	DATA	DATA	DEFAULT
256-259	24	ZONE #1 COMMUNICATOR CODE	0	3	1	5	"3 – 0 – 1 – 13"
260-263	24	ZONE #2 COMMUNICATOR CODE	0	3	2	5	"3 – 0 – 2 – 13"
264-267	24	ZONE #3 COMMUNICATOR CODE	0	3	3	5	"3 – 0 – 3 – 13"
268-271	24	ZONE #4 COMMUNICATOR CODE	0	3	4	5	"3 – 0 – 4 – 13"
272-275	24	ZONE #5 COMMUNICATOR CODE	0	3	5	5	"3 – 0 – 5 – 13"
276-279	24	ZONE #6 COMMUNICATOR CODE	0	3	6	5	"3 – 0 – 6 – 13"
280-283	24	ZONE #7 COMMUNICATOR CODE	0	3	7	5	"3 – 0 – 7 – 13"
284-287	24	ZONE #8 COMMUNICATOR CODE	0	3	8	5	"3 – 0 – 8 – 13"
288-291	24	ZONE #9 COMMUNICATOR CODE	0	3	9	5	"3 – 0 – 9 – 13"
292-295	24	ZONE #10 COMMUNICATOR CODE	0	3	10	5	"3 – 0 – 0 – 13"
296-299	24	ZONE #11 COMMUNICATOR CODE	0	3	11	5	"3 – 0 – 1 – 13"
300-303	24	ZONE #12 COMMUNICATOR CODE	0	3	12	5	"3 – 0 – 2 – 13"
304-307	24	ZONE #13 COMMUNICATOR CODE	0	3	13	5	"3 – 0 – 3 – 13"
308-311	24	ZONE #14 COMMUNICATOR CODE	0	3	14	5	"3 – 0 – 4 – 13"
312-315	24	ZONE #15 COMMUNICATOR CODE	0	3	15	5	"3 – 0 – 5 – 13"
316-319	24	ZONE #16 COMMUNICATOR CODE	0	3	15	5	"3 – 0 – 6 – 13"
320-323	24	DURESS COMMUNICATOR	0	2	6	5	"0 – 0 – 0 – 13"
324-327	24	KEYPAD [1] & [3] FIRE REPORT CODE	0	10	1	5	"0 – 0 – 0 – 13"
328-331	25	KEYPAD [4] & [6] MEDICAL REPORT CODE	0	10	4	5	"0 – 0 – 0 – 13"
332-335	26	KEYPAD PANIC REPORT CODE	0	10	2	5	"0 – 0 – 2 – 13"
336-339	26	KEYPAD TAMPER REPORT CODE	0	0	0	0	"0 – 0 – 0 – 5"
340-343	26	AUTO TEST REPORT CODE	0	0	0	0	"0 – 0 – 0 – 1"
344	26	PHONE SELECTOR FOR BYPASS REPORTS					"0"
345	26	PHONE SELECTOR FOR TROUBLE REPORTS					"0"
346	26	PARTITION OPEN/CLOSE REPORT SELECTOR					"0"
347	27	SPECIAL KEYPAD COMMAND FUNCTIONS					"1"
348	27	OPENING REPORTS FOR USERS 1-15					"0"
349	27	OPENING REPORT PHONE #1,#2, INTERNAL LOG, OR ANY COMBINATION				4	"1"
350	28	CLOSING REPORTS USERS 1-15 (PROGRAM 5 FOR CLOSING REPORTS)					"0"
351	28	CLOSING REPORT PHONE #1, #2, INTERNAL LOG, OR ANY COMBINATION				4	"0"
352	28	CLOSING REPORTS USERS 16-30 (PROGRAM 5 FOR CLOSING REPORTS)					"0"
353	28	OPENING REPORTS USERS 16-30					"0"
354	28	CANCEL REPORT CODE USERS 1-15				13	"0"
355	28	CANCEL REPORT CODES USERS 16-30				13	"0"

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MISC. REPORTING CODES cont.

LOCATION	PAGE	DESCRIPTION	DATA				DEFAULT
356-359	27	AC POWER LOSS REPORT	0	0	0	0	"0 – 0 – 0 – 13"
360-363	27	LOW BATTERY REPORT	0	7	8	5	"0 – 0 – 0 – 13"
364	27	RESTORE CODE FOR ZONES 1-8				0	"0"
365	27	RESTORE CODE FOR ZONES 9-16				0	"1"
366	27	RESTORE CODE FOR ZONES 17-24				0	"0"
367	27	RESTORE CODE FOR ZONES 25-32				0	"0"
368	28	ZONE BYPASS CODE FOR ZONES 1-8				0	"0"
369	28	ZONE BYPASS CODE FOR ZONES 9-16				0	"0"
370	28	ZONE BYPASS CODE FOR ZONES 17-24				0	"0"
371	28	ZONE BYPASS CODE FOR ZONES 25-32				0	"0"
372	28	ZONE TROUBLE CODE FOR ZONES 1-8				0	"0"
373	28	ZONE TROUBLE CODE FOR ZONES 9-16				0	"0"
374	28	ZONE TROUBLE CODE FOR ZONES 17-24				0	"0"
375	28	ZONE TROUBLE CODE FOR ZONES 25-32				0	"0"
376	28	AC POWER/LOW BATTERY RESTORE CODE				0	"0"
377	28	NUMBER OF EXPANSION MODULES					"0"
378	28	EXPANSION MODULE TROUBLE COMMUNICATOR CODE				0	"0"
379	28	EXPANSION MODULE TROUBLE REPORT TO WHICH PH. NUMBER				0	"0"
380	28	ZONE #17 – Zone TYPE	"1" DAY ZONE				"6" INSTANT
381	28	ZONE #18 – Zone TYPE	"2" 24 HOUR ZONE				"6" INSTANT
382	28	ZONE #19 – Zone TYPE	"3" ENTRY/EXIT				"6" INSTANT
383	28	ZONE #20 – Zone TYPE	"4" INTERIOR DELAY				"6" INSTANT
384	28	ZONE #21 – Zone TYPE	"5" INTERIOR FOLLOWER				"6" INSTANT
385	28	ZONE #22 – Zone TYPE	"6" INSTANT/PERIMETER				"6" INSTANT
386	28	ZONE #23 – Zone TYPE	"7" SECONDARY DELAY				"6" INSTANT
387	28	ZONE #23 – Zone TYPE	"8" PRIORITY ZONE				"6" INSTANT
388	28	ZONE #25 – Zone TYPE	"9" KEYSWITCH				"6" INSTANT
389	28	ZONE #26 – Zone TYPE					"6" INSTANT
390	28	ZONE #27 – Zone TYPE					"6" INSTANT
391	28	ZONE #28 – Zone TYPE					"6" INSTANT
392	28	ZONE #29 – Zone TYPE					"6" INSTANT
393	28	ZONE #30 – Zone TYPE					"6" INSTANT
394	28	ZONE #31 – Zone TYPE					"6" INSTANT
395	28	ZONE #32 – Zone TYPE					"6" INSTANT

ZONE CHARACTERISTICS

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
396	28	ZONE #17 – SPECIAL CHARACTERISTICS		"12"
397	28	ZONE #18 – SPECIAL CHARACTERISTICS		"12"
398	28	ZONE #19 – SPECIAL CHARACTERISTICS		"12"
399	28	ZONE #20 – SPECIAL CHARACTERISTICS		"12"
400	28	ZONE #21 – SPECIAL CHARACTERISTICS		"12"
401	28	ZONE #22 – SPECIAL CHARACTERISTICS		"12"
402	28	ZONE #23 – SPECIAL CHARACTERISTICS		"12"
403	28	ZONE #24 – SPECIAL CHARACTERISTICS		"12"
404	28	ZONE #25 – SPECIAL CHARACTERISTICS		"12"
405	28	ZONE #26 – SPECIAL CHARACTERISTICS		"12"
406	28	ZONE #27 – SPECIAL CHARACTERISTICS		"12"
407	28	ZONE #28 – SPECIAL CHARACTERISTICS		"12"
408	28	ZONE #29 – SPECIAL CHARACTERISTICS		"12"
409	28	ZONE #30 – SPECIAL CHARACTERISTICS		"12"
410	28	ZONE #31 – SPECIAL CHARACTERISTICS		"12"
411	28	ZONE #32 – SPECIAL CHARACTERISTICS		"12"
412	28	ZONE #17 – AUDIBLE CHARACTERISTICS		"13"
413	28	ZONE #18 – AUDIBLE CHARACTERISTICS		"13"

ZONE CHARACTERISTICS cont.

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
414	28	ZONE #19 – AUDIBLE CHARACTERISTICS		"13"
415	28	ZONE #20 – AUDIBLE CHARACTERISTICS		"13"
416	28	ZONE #21 – AUDIBLE CHARACTERISTICS		"13"
417	28	ZONE #22 – AUDIBLE CHARACTERISTICS		"13"
418	28	ZONE #23 – AUDIBLE CHARACTERISTICS		"13"
419	28	ZONE #24 – AUDIBLE CHARACTERISTICS		"13"
420	28	ZONE #25 – AUDIBLE CHARACTERISTICS		"13"
421	28	ZONE #26 – AUDIBLE CHARACTERISTICS		"13"
422	28	ZONE #27 – AUDIBLE CHARACTERISTICS		"13"
423	28	ZONE #28 – AUDIBLE CHARACTERISTICS		"13"
424	28	ZONE #29 – AUDIBLE CHARACTERISTICS		"13"
425	28	ZONE #30 – AUDIBLE CHARACTERISTICS		"13"
426	28	ZONE #31 – AUDIBLE CHARACTERISTICS		"13"
427	28	ZONE #32 – AUDIBLE CHARACTERISTICS		"13"
428	28	ZONE #17 – REPORTING CHARACTERISTICS		"13"
429	28	ZONE #18 – REPORTING CHARACTERISTICS		"11"
430	28	ZONE #19 – REPORTING CHARACTERISTICS		"11"
431	28	ZONE #20 – REPORTING CHARACTERISTICS		"11"
432	28	ZONE #21 – REPORTING CHARACTERISTICS		"11"
433	28	ZONE #22 – REPORTING CHARACTERISTICS		"11"
434	28	ZONE #23 – REPORTING CHARACTERISTICS		"11"
435	28	ZONE #24 – REPORTING CHARACTERISTICS		"11"
436	28	ZONE #25 – REPORTING CHARACTERISTICS		"11"
437	28	ZONE #26 – REPORTING CHARACTERISTICS		"11"
438	28	ZONE #27 – REPORTING CHARACTERISTICS		"11"
439	28	ZONE #28 – REPORTING CHARACTERISTICS		"11"
440	28	ZONE #29 – REPORTING CHARACTERISTICS		"11"
441	28	ZONE #30 – REPORTING CHARACTERISTICS		"11"
442	28	ZONE #31 – REPORTING CHARACTERISTICS		"11"
443	28	ZONE #32 – REPORTING CHARACTERISTICS		"11"

REPORTING CODES ZONES 1-16

LOCATION	PAGE	DESCRIPTION	DATA	DATA	DATA	DATA	DEFAULT
444-447	28	ZONE #17 COMMUNICATOR CODE					"3 – 1 – 7 – 13"
448-451	28	ZONE #18 COMMUNICATOR CODE					"3 – 1 – 8 – 13"
452-455	28	ZONE #19 COMMUNICATOR CODE					"3 – 1 – 9 – 13"
456-459	28	ZONE #20 COMMUNICATOR CODE					"3 – 2 – 0 – 13"
460-463	28	ZONE #21 COMMUNICATOR CODE					"3 – 2 – 1 – 13"
464-467	28	ZONE #22 COMMUNICATOR CODE					"3 – 2 – 2 – 13"
468-471	28	ZONE #23 COMMUNICATOR CODE					"3 – 2 – 2 – 13"
472-475	28	ZONE #24 COMMUNICATOR CODE					"3 – 2 – 3 – 13"
476-479	28	ZONE #25 COMMUNICATOR CODE					"3 – 2 – 5 – 13"
480-483	28	ZONE #26 COMMUNICATOR CODE					"3 – 2 – 6 – 13"
484-487	28	ZONE #27 COMMUNICATOR CODE					"3 – 2 – 7 – 13"
488-491	28	ZONE #28 COMMUNICATOR CODE					"3 – 2 – 8 – 13"
492-495	28	ZONE #29 COMMUNICATOR CODE					"3 – 2 – 9 – 13"
496-499	28	ZONE #30 COMMUNICATOR CODE					"3 – 3 – 0 – 13"
500-503	28	ZONE #31 COMMUNICATOR CODE					"3 – 3 – 1 – 13"
504-507	28	ZONE #32 COMMUNICATOR CODE					"3 – 3 – 2 – 13"

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
508-509	28	RESERVED		"RESERVED"
510	28	EUROPEAN PULSE DIAL		"0" DISABLED

LOCATION	PAGE	DESCRIPTION	DATA	DATA	DATA	DATA	DEFAULT
511	28	EXPANDER TROUBLE RESTORE CODE					"15" DISABLED

ARM/DISARM CODES USERS 17-30

LOCATION	PAGE	DESCRIPTION	DATA				DEFAULT
512-515	28	USER #16 ARM/DISARM CODE					"15" DISABLED
516-519	28	USER #17 ARM/DISARM CODE					"15" DISABLED
520-523	28	USER #18 ARM/DISARM CODE					"15" DISABLED
524-527	28	USER #19 ARM/DISARM CODE					"15" DISABLED
528-531	28	USER #20 ARM/DISARM CODE					"15" DISABLED
532-535	28	USER #21 ARM/DISARM CODE					"15" DISABLED
536-539	28	USER #22 ARM/DISARM CODE					"15" DISABLED
540-543	28	USER #23 ARM/DISARM CODE					"15" DISABLED
544-547	28	USER #24 ARM/DISARM CODE					"15" DISABLED
548-551	28	USER #25 ARM/DISARM CODE					"15" DISABLED
552-555	28	USER #26 ARM/DISARM CODE					"15" DISABLED
556-559	28	USER #27 ARM/DISARM CODE					"15" DISABLED
560-563	28	USER #28 ARM/DISARM CODE					"15" DISABLED
564-567	28	USER #29 ARM/DISARM CODE					"15" DISABLED
568-571	28	USER #30 ARM/DISARM CODE					"15" DISABLED

ENABLING ARM/DISARM CODES 16-30 BY PARTITION (OPTIONAL)

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
572	29	PARTITION(S) FOR USER #16 ARM/DISARM CODE		"15" ALL
573	29	PARTITION(S) FOR USER #17 ARM/DISARM CODE		"15" ALL
574	29	PARTITION(S) FOR USER #18 ARM/DISARM CODE		"15" ALL
575	29	PARTITION(S) FOR USER #19 ARM/DISARM CODE		"15" ALL
576	29	PARTITION(S) FOR USER #20 ARM/DISARM CODE		"15" ALL
577	29	PARTITION(S) FOR USER #21 ARM/DISARM CODE		"15" ALL
578	29	PARTITION(S) FOR USER #22 ARM/DISARM CODE		"15" ALL
579	29	PARTITION(S) FOR USER #23 ARM/DISARM CODE		"15" ALL
580	29	PARTITION(S) FOR USER #24 ARM/DISARM CODE		"15" ALL
581	29	PARTITION(S) FOR USER #25 ARM/DISARM CODE		"15" ALL
582	29	PARTITION(S) FOR USER #26 ARM/DISARM CODE		"15" ALL
583	29	PARTITION(S) FOR USER #27 ARM/DISARM CODE		"15" ALL
584	29	PARTITION(S) FOR USER #28 ARM/DISARM CODE		"15" ALL
585	29	PARTITION(S) FOR USER #29 ARM/DISARM CODE		"15" ALL
586	29	PARTITION(S) FOR USER #30 ARM/DISARM CODE		"15" ALL
587	29	EARLY-TO-OPEN, LATE-TO-CLOSE/AUTO ARM		"0" DISABLED

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
588-591	29	COMMUNICATIOR CODE FOR LATE CLOSING		"0 – 0 – 0 – 1"
592-595	29	COMMUNICATIOR CODE FOR EARLY OPENING		"0 – 0 – 0 – 1"
596-599	30	DOWNLOAD COMPLETE REPORT		"0 – 0 – 0 – 1"
600-603	30	OPENING TIME		"0 – 0 – 0 – 1"
604-607	30	CLOSING TIME		"0 – 0 – 0 – 1"
608	30	CLOSED SATURDAY		"0"
609	30	CLOSED SUNDAY		"0"

LOCATION	PAGE	DESCRIPTION	DATA						DEFAULT
610-615	30	FORMAT OVERIDES	0	10	11	6	0	0	"0 – 0 – 0 – 0 – 0 - 0"

610 - NOT USED
611 – TIME OF PULSE FORMAT,
612 - 1 = 1800 Hz, 2 = 2300 Hz, 4 = SINGLE ROUND CHECKSUM, 8 = 2-DIGIT EVENT CODE
613 - 1 = EXTENDED REPORTING, 2 = HEX DIGITS, 4 = 20 PPS, 8 = 10 PPS
614 – 1 = PAGER FORMAT, 2 = ADEMCO HANDSHAKE, 4 = RESERVED, 8 = FBI SUPERFAST
615 – 1 = CONTACT ID AND ADEMCO HIGHSPEED, 2 = RESERVED, 4 = 4/3 AND CONTACT ID, 8 = DTMF FORMAT
      (4/2 EXPRESS, SUPERFAST, ADEMCO HIGHSPEED, CONTACT ID AND PAGER FORMAT)

HEX PROGRAMMING CONVERSIONS

FOR	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
PROGRAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

SYSTEM CLOCK SETTINGS

LOCATION	PAGE	DESCRIPTION	DATA	DEFAULT
616	30	HOUR FOR AUTOTEST – TENS DIGIT		"0"
617	30	HOUR FOR AUTOTEST – ONES DIGIT		"0"
618	31	MINUTE FOR AUTOTEST – ONES DIGIT		"0"
619	31	MINUTE FOR AUTOTEST – TENS DIGIT		"0"
620-621	31	AUTOTEST INTERVALS		"0"
622	31	AUTO INITIATED DOWNLOAD CALL		"0"
623	31	AC POWER LOSS DELAY		"5" 5 MIN DELAY
624	31	ELAPSED DAYS SINCE LAST AUTOTEST – TENS DIGIT		"0"
625	31	ELAPSED DAYS SINCE LAST AUTOTEST – ONES DIGIT		"0"
626	31	CURRENT DAY OF THE WEEK		"UNDEFINED"
627	31	CURRENT MONTH		"UNDEFINED"
628	32	CURRENT DAY OF THE MONTH – TENS DIGIT		"UNDEFINED"
629	32	CURRENT DAY OF THE MONTH – ONES DIGIT		"UNDEFINED"
630	32	CURRENT YEAR – TENS DIGIT		"UNDEFINED"
631	32	CURRENT YEAR – ONES DIGIT		"UNDEFINED"
632	32	CURRENT HOUR – TENS DIGIT		"UNDEFINED"
633	32	CURRENT HOUR – ONES DIGIT		"UNDEFINED"
634	32	CURRENT MINUTE – TENS DIGIT		"UNDEFINED"
635	32	CURRENT MINUTE – ONES DIGIT		"UNDEFINED"

THE FOLLOWING LOCATIONS ARE ACCESSIBLE ONLY THROUGH DOWNLOADING

LOCATION	PAGE	DESCRIPTION				DATA				DEFAULT
636-643	33	CONTROL PANEL ACCESS CODE								"0 – 0 – 0 – 0 - 0 - 0"
644-651	33	DOWNLOAD NUMBER DIGITS 1-8								"0" DISABLED
652-659	33	DOWNLOAD NUMBER DIGITS 9-16								"0" DISABLED
660	33	CALLBACK ENABLE								"0" DISABLED
661	33	LOCAL PROGRAMMING LOCKOUT								"0" DISABLED
662	33	CONTROL PANEL SHUTDOWN								"0" DISABLED

Entering Programming LCD: Press C 0 0 + 9050 (Default)
Entering Programming LED: Press 9713 (Default)
Note: **If these do not work the Installer Code has changed and a 9075 or 8050 Programmer is required**

Advance through locations by pressing Location + #

While programming a location enter value then press * to save, # to move to next location

Exiting Programming with Keypad– Press 930#

Exiting Programming with Programmer – Just unplug from main board

Reading Binary – To view what is already programmed in a location
Zone Light 1 = 1
Zone Light 2 = 2   Add together (Example: If zone lights 1, 2 and 4 are on this equals 11 or "B")
Zone Light 3 = 4
Zone Light 4 = 8

HEX PROGRAMMING CONVERSIONS															
FOR	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
PROGRAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

APPENDIX 1

This document describes the 9000E reporting event codes when using the SIA format (format 14). The following codes are programmable and are sent when the Data 1 location is programmed as the event code. For zones, programming a "0" as the Data 1 location will result in an automatic selection of the event code depending on the zone type choosing from Fire, Panic, or Burglary. The Data 2 and Data 3 are then sent as a Zone Identifier.

PROGRAMMED DATA 1	SIA CODE	DEFINITION
1	FA	Fire Alarm
2	PA	Panic Alarm
3	BA	Burglary Alarm
4	GA	Gas Alarm
5	KA	Heat Alarm
6	WA	Water Alarm
7	QA	Emergency Alarm
8	SA	Sprinkler Alarm
9	UA	Untyped Alarm
10	HA	Holdup Alarm
11	MA	Medical Alarm
12	ZA	Freeze Alarm
13	TA	Tamper Alarm
14	RP	Periodic Test
15		Reserved

The following event codes are fixed, but must be enabled by programming a 1 in the corresponding location.

REPORTING EVENT	SIA CODE	PROGRAMMING LOCATION
Keypad Tamper	TA	336
Autotest	RP	340
Opening	OP	348
Closing	CL	350
Cancel	OC	354
AC Loss	AT	356
Low Battery	YT	360
Restore Code	*R	364
Bypass Code	*B	368
Bypass Restore	*U	368 / 364
Trouble Code	*T	372
Trouble Restore	*R	372 / 364
AC Restore	AR	376
Battery Restore	YR	376
Expander Trouble	ET	378
Expander Trouble Restorer	ER	511
Fail to Close	CL	592
Early Opening	OK	588
Download Complete	RS	596
RF Loss of Supervision	ET	(For these two - see
RF Sensor Low Battery	XT	9090 Installation Manual)

* The character transmitted in this slot will be the first character in the SIA code from the top list for the event being reported. If a "1" is programmed in location 364, and a Burglary Alarm (<u>B</u>A) restores, a <u>B</u>A will be transmitted. If a "1" is programmed in location 372, and a Fire Alarm (<u>F</u>A) zone goes into Trouble, an (<u>E</u>T) will be transmitted.

APPENDIX 2

This document lists the event reporting codes for Ademco Contact ID reporting. The event codes are programmed by placing a number from 0-15 in the Data 1 location of the communicator code for the event being reported. For zones, programming a "0" as the Data 1 location will result in an automatic selection of the event code depending on the zone type choosing from Fire, Panic, and Burglary. The Data 2 and Data 3 are sent as the Zone Identifier.

PROGRAMMED DATA 1	ADEMCO EVENT CODE	DEFINITION
0	122	Silent Panic (Only for Loc. 332)
1	110	Fire
2	120	Panic
3	130	Burglary
4	131	Perimeter Burglary
5	132	Interior Burglary
6	133	24 hour Burglary
7	134	Entry/Exit Burglary
8	135	Day/Night Burglary
9	150	Non-burg 24 hour
10	121	Duress
11	100	Medical Alarm
12	123	Audible Panic

If the following numbers are programmed for the Contact ID event code, the event code will be made up of 3 alternate programming locations according to the following:

PROGRAMMED DATA 1	PROGRAMMING LOCATIONS
13	365,366,367
14	369,370,371
15	373,374,375

The following event codes are sent automatically, but must be enabled by programming a 1 in the communicator code location for that report:

REPORTING EVENT	ADEMCO EVENT DIGIT	LOCATIONS
Keypad Tamper	137	336
Autotest	602	340
Opening/Closing	401	348 / 350
Cancel	406	354
A.C. Loss	301	356
A.C. Restore	301	376
Restore	Event code for alarm	364
Zone Bypass	570	368
Zone Trouble	380	372
Low Battery	302	360
Battery Restore	302	376
Battery Test Fail	309	360 / 255
Battery Test Restore	309	376
Late to Close	404	592
Early to Open	400	588
Download Complete	412	596
Expander Module Trouble	333	378
Expander Trouble Restore	333	511
RF Loss of Supervision	381	(For these two, see
RF Transmitter Low Battery	384	9090 Installation Manual)

APPENDIX 3

Certain older and unusual receivers have formats other than those listed on page 10. Locations 610 thru 615 provide various methods to duplicate these unusual formats. Included in these overrides is the ability to call and report to a personal pager. The timer adjustment options allowed in locations 610 and 611 sometimes can compensate for substandard, or older telephone exchanges. It is suggested that you call CADDX technical assistance the first time you attempt to use these override options.

Location 610 - Inter-round time of a two round parity transmission. The inter-round time will be the number contained in location 610 times 800 mSec. If location 610 is "0", the time is determined by the individual formats in locations 101 and 123.

Location 611 - Inter-digit time of a pulse format. If the number programmed in location 611 is something other than "0", The inter-digit time will be that number divided by the PPS. For example, if the number in location 611 is "10", and the format is a 20PPS format, the inter-digit time will be 10/20 of 0.5 seconds.

For locations 612 thru 615, you must add the listed values for the desired characteristics and program the sum in the appropriate location. If the value is not added for locations 612 and 613, the converse mode will be enabled for those locations. If the value of 1 is not added to location 612, the transmitted frequency will be 1900 Hz. If the value of 2 is not added to location 613, the communicator will not transmit hex digits. If neither of values 4 or 8 are added to location 613, the communicator will send messages at 40 PPS.

Location 612 - The number programmed in this location will determine the selected default as desired.

Location 613 - The number programmed in this location will determine the selected default as desired.

Location 614 - The number programmed in this location will determine the selected default as desired.

Location 615 - The number programmed in this location will determine the selected default as desired.

UNDERWRITERS LABORATORIES INFORMATION

The Ranger 9000E holds the following listings from Underwriters Laboratories:

Household Burglary
Household Fire
Local Grade A Mercantile, Police Station Connect with Basic Line Security (requires #9103 enclosure)
Grade B & C Central Station Burglar Alarm Unit

When installing a Ranger 9000E in compliance with Underwriters Laboratories, the following instructions must be followed.

Initiating devices must be rated at 10.2-12.5VDC residential, 12.0VDC commercial.

When using partitioned systems, the bell shall be protected 24 hours a day on a non-bypassable initiating circuit.

According to Underwriters Laboratories, a partitioned Ranger 9000E system is not intended to provide protection for strip malls and similar installations.

DACT's and their corresponding formats tested by U.L. are as follows: ADEMCO 685   Format 1,2,4
                                                                           FBI CP 220   Format 1,3

All perimeter zones shall be programmed as audible. Burglary and fire initiating circuits shall be programmed for different audibles (i.e. either yelp or steady).

Force arming shall not be enabled.

The siren/bell test shall be enabled. The auxiliary outputs controlling the audible device require a minimum cutoff time of 15 minutes for commercial, or 4 minutes for residential.

Ringback shall be enabled on U.L. commercial burglary installations.

On commercial burglary installations, the fire initiating circuits shall not be connected

The siren output limit shall be disabled.

The Entry-Guard feature shall be disabled.

50hz power source shall be disabled.

Swinger shutdown shall be disabled.

Automatic and group bypassing shall be disabled.

Delay of phone line seizure shall be set to "0".

For U.L. applications, attach burglary audible device to the AUX 3 NO output (position 34) and ground, and fire audible devices to the AUX 4 NO output (position 39) and ground. Place AUX 3 and AUX 4 jumpers (located between F2 and F3) in the +12V position. Program memory locations 232 to 239 (AUX 3 & 4) with "0-0-13-1-0-0-13-0". Combination burglary/residential fire applications require the Amseco model SSX-61-612UL. Commercial burglary installations require Ademco AD10-12 bell, and Grade A bell housing.

Total current draw from aux power connections at terminal positions 13, 27, 32, and 44, must not exceed 500mA.

Downloading shall not be used on U.L. listed systems.

The 8950, 9008, 9016, 9016X, 9032, and 9090 are not U.L. listed.

Commercial U.L. applications require #9100 or #9103 metal enclosure. Supplied screws to be used.

Maximum entry/exit delay time shall be 60 seconds.

The keyswitch option shall not be used.

The telephone line monitor shall be enabled.

24 hour communicator test transmission is required.

(1) For 24 hours of standby power using a 6.5 AH battery, limit auxiliary power load to 50 mA..
(2) For 24 hours of standby power using a 17.2 AH battery, limit auxiliary power load to 400 mA..

LOCAL TELEPHONE COMPANY INTERFACE INFORMATION

TELEPHONE CONNECTION REQUIREMENTS

Except for telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and standard telephone company provided jacks or equivalent in such a manner as to allow for immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customers premises which remains connected to the telephone network, shall occur by reason of such withdrawal.

INCIDENCE OF HARM

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required; however, where prior notice is not practical, the telephone company may temporarily discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer who will be given the opportunity to correct the situation. The customer also has the right to bring a complaint to the FCC if he feels the disconnection is not warranted.

CHANGES IN TELEPHONE COMPANY EQUIPMENT OR FACILITIES

The telephone company may make changes in its communications facilities, equipment, operations, or procedures where such action is reasonably required and proper in its business. Should any such change render the customers terminal equipment incompatible with the telephone company facilities, the customer shall be given adequate notice to make modifications to maintain uninterrupted service.

GENERAL

The FCC prohibits customer provided terminal equipment be connected to party lines.

IMPORTANCE OF THE RINGER EQUIVALENCE NUMBER

The Ringer Equivalence Number (REN) of this device is 0.0 B. This number is a representation of the electrical load that it applies to your telephone line.

MALFUNCTION OF THE EQUIPMENT

In the event that the device should fail to operate properly, the customer shall disconnect the equipment from the telephone line to determine if it is the customers equipment that is not functioning properly. If the problem is with the device the customer shall discontinue use until it is repaired.

EQUIPMENT INFORMATION

MANUFACTURER OF CONNECTING EQUIPMENT: **CADDX CONTROLS INC.**
FCC REGISTRATION NUMBER: GCQ4DC-17266-AL-E, RINGER EQUIVALENCE: 0.0 B

SPECIFICATIONS

OPERATING POWER	16.5 VAC 50 VA Transformer
AUXILIARY POWER	12 VDC Regulated 1 AMP
LOOP RESISTANCE	300 Ohms Maximum
BUILT-IN SIREN DRIVER	2-tone (Steady and Yelp)
LOOP RESPONSE	Selectable to 500 mS
OPERATING TEMPERATURE	32 to 120 degrees F
KEYPAD DIMENSIONS	6.45" Wide 4.12" High .850" Deep
METAL ENCLOSURE DIMENSION	11.25" Wide 16.25" High 3.50" Deep
SHIPPING WEIGHT	12 lbs.

FIVE YEAR LIMITED WARRANTY