



Ranger 9000

Installation Manual

RANGER 9000
DOWNLOADABLE CONTROL COMMUNICATOR
INSTALLATION MANUAL

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RANGER 9000 INSTALLATION MANUAL

General Description

The Caddx Ranger 9000 is a versatile 16 expandable to 32 zone up/downloadable security control with a built-in digital communicator. Its microcomputer design gives 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 13 for a description of all zone types. Read the OPERATORS MANUAL before you begin the installation for The best overall description of how the Ranger 9000 functions. After installation of the security system, complete the information on page 1 of the operators manual and explain the system operation to all security system owners/operators.

Standard Parts List

The Ranger 9000 is shipped with the parts listed below.

QUANTITY	PARTS DESCRIPTION	PART #
1	MASTER CONTROL PANEL W/O KEYPAD	9000
1	16.5V 50VA TRANSFORMER	T-1650
18	3.3K 1/2 WATT E.O.L. RESISTORS	EOL-33
1	4-WIRE FLYING LEAD FOR AUXILIARY OUTPUTS	8920
1	INSTALLATION MANUAL	IM-9000
1	OPERATORS MANUAL	OM-9000

Optional Parts List

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

OPTIONAL PARTS DESCRIPTION	PART #
16 LED REMOTE KEYPAD	9001
LCD ALPHA NUMERIC DISPLAY KEYPAD	9060
DOWNLOADING SOFTWARE PACKAGE	DL-900
PROGRAMMER WITH DIGITAL NUMERIC DISPLAY	8950
SMART PROGRAMMER WITH LCD DISPLAY	9075
12 VOLT 6 AMP HOUR BATTERY	B-1260
16 ZONE EXPANSION SYSTEM	9032

FEATURE DEFINITIONS

Partitions - The Ranger 9000 can be partitioned into a maximum of four separate systems with distinct reporting codes and user codes per system. See pages 22 & 23 for complete instructions.

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.

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*** beginning on page 13 of this manual.

Entry-Guard - This unique low level arming mode has been developed to reduce the most common source of false alarms. This arming mode will encourage system owners to use their system more frequently when the premises is occupied.

Chime - This lowest level of security can be enabled by zone (see page 14, Locations 171-186: ***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: ***Assigning The Chime Code*** on page 21 of this manual.

Force Arming - When enabled in location 205, the Ranger 9000 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.

Ringback - When enabled in location 212, a two second audible output of the siren or bell will occur after a kiss-off has been received by the control panel.

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, on page 17 of this manual for the different combinations of programming this feature.

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

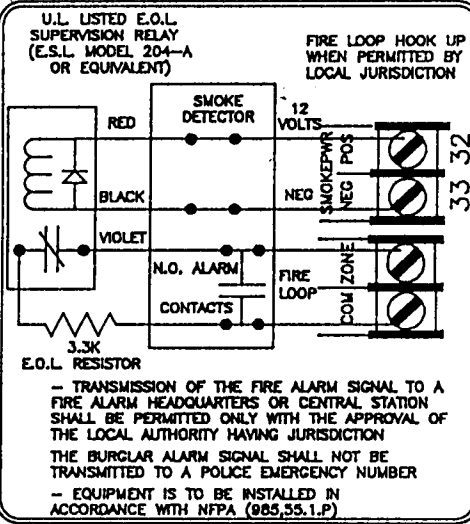
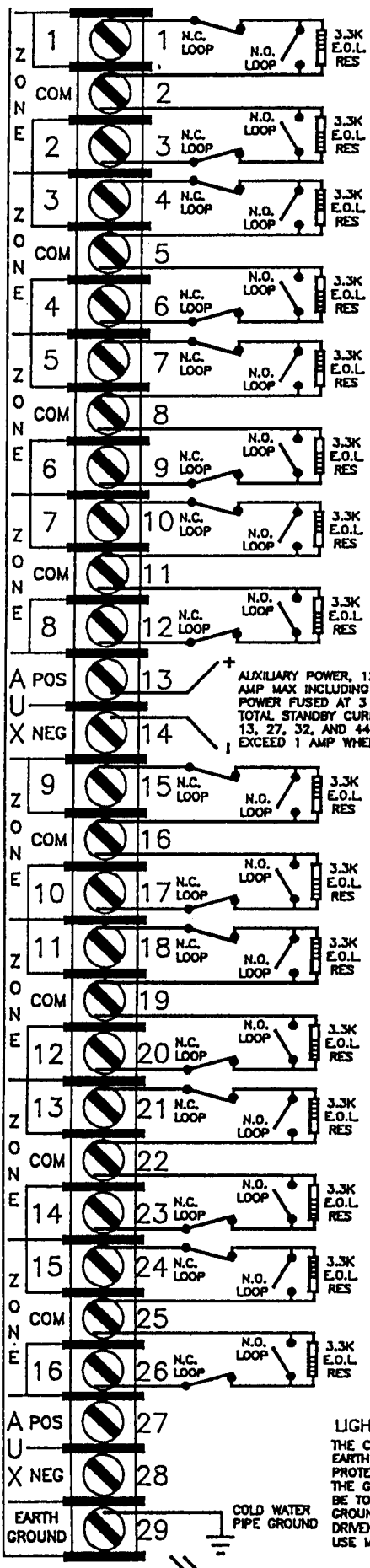
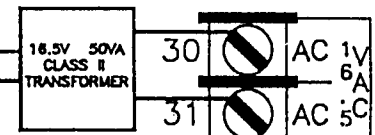
Internal Event Log - Up to 30 events can be stored in memory along with the date and time of the event. These events can later be viewed through downloading if desired.

Site Initiated Downloading - The control panel can be programmed to automatically call the download software at a specific time.

CADDX RANGER 9000

CADDX-CADDI 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



- TRANSMISSION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEADQUARTERS OR CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION
THE BURGLAR ALARM SIGNAL SHALL NOT BE TRANSMITTED TO A POLICE EMERGENCY NUMBER
- EQUIPMENT IS TO BE INSTALLED IN ACCORDANCE WITH NFPA (985,35.1.P)

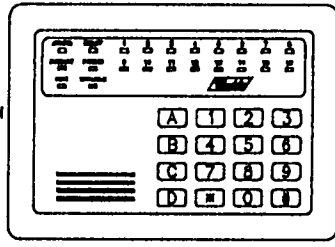
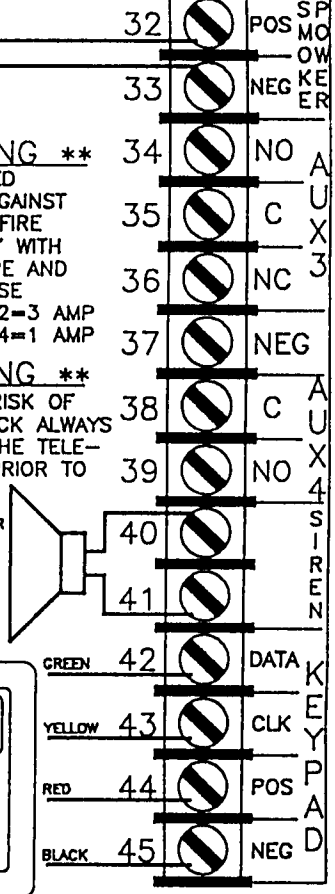
FOR ADDITIONAL INFORMATION AND INSTRUCTIONS REFER TO THE APPROPRIATE INSTALLATION AND OPERATION MANUALS.



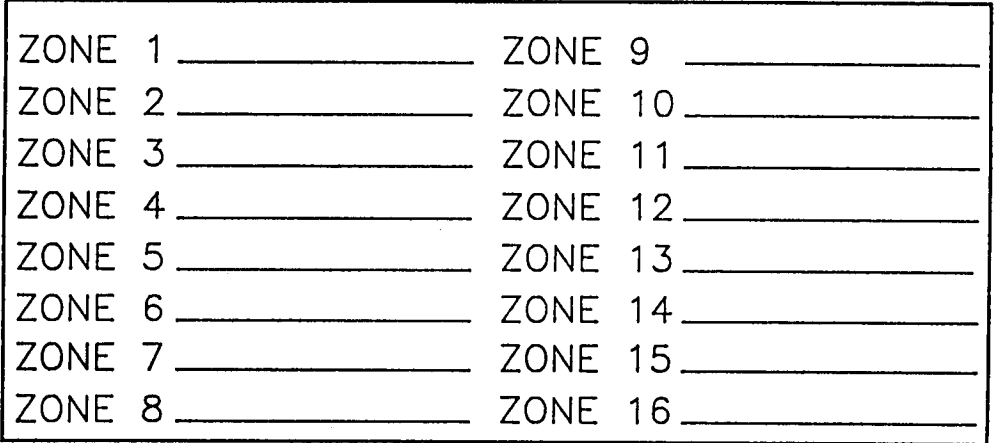
**** WARNING ****
FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH THE SAME TYPE AND RATING OF FUSE
F1=2 AMP F2=3 AMP F3=3 AMP F4=1 AMP

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

BUILT IN SIREN DRIVER FOR 30 WATT SPEAKERS, 4, 8, OR 16 OHM LOAD. FUSED AT 2 AMPS BY F1. FOR UL LISTED SYSTEMS USE WHEELLOCK BELL 48T-C4-12-R.

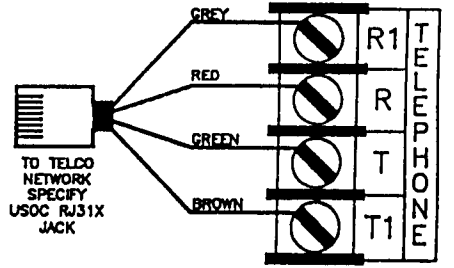
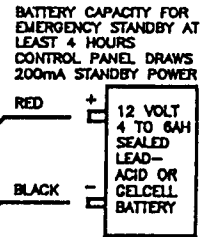


- KEYPAD**
- 1) MAXIMUM 10 KEYPADS PER SYSTEM
 - 2) MAXIMUM WIRE RUN PER KEYPAD
a. 22 GAUGE WIRE: 200 FEET
b. 18 GAUGE WIRE: 500 FEET
 - 3) DO NOT DAISY CHAIN KEYPADS. EACH MUST HAVE AN INDIVIDUAL WIRE RUN.
 - 4) ADDITIONAL KEYPADS DRAW 80 mA



1. ALL UNUSED ZONES MUST HAVE E.O.L. RESISTOR ATTACHED.
2. MAXIMUM LOOP RESISTANCE 300 OHMS.
3. FOR UL 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 UL885 INSTALLATIONS.

LIGHTNING PROTECTION
THE CONTROL PANEL MUST BE EARTH GROUND 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.



TERMINAL DESCRIPTION

<i>TERMINAL #</i>	<i>DESCRIPTION</i>
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 for all Auxiliary power outputs.
15 - 26	See Terminal Drawing and continue above described hookup zones 9 through 16.
27 - 28	Auxiliary power, regulated 12VDC. Maximum 1 AMP for all Auxiliary power outputs.
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

<i>FUSE #</i>	<i>DESCRIPTION</i>
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 9000 can be placed into the "Program" mode by use of the new *9075 Smart Programmer*, or the original 8950 programmer, or for keypad programming, by utilizing the 9060 LCD keypad (the preferred method) or the 9001 LED keypad. These methods are described below.

Using a Programmer

The 9075 Smart Programmer has been designed to make programming of the Ranger 9000 simpler as well as more efficient for users. The 9075 programmer features up to 4 resident standard programs to allow for separate system standardization. Plug the optional model 9075 programmer into the 4-pin male outlet marked "program" on the Ranger 9000 P.C. Board. We have also created a method that allows owners of the original 8950 programmer to use this programmer with the Ranger 9000. The 8950 will program all locations of the Ranger 9000 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.

Using The LCD Keypad

The most straightforward method of keypad programming is to utilize the 9060 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.

Using The LED Keypad

The 9000 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 9000 must be disarmed to gain access to programming with this code. After entry of this code, the Ranger 9000 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.

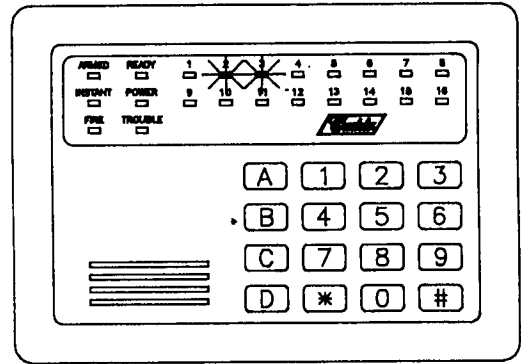
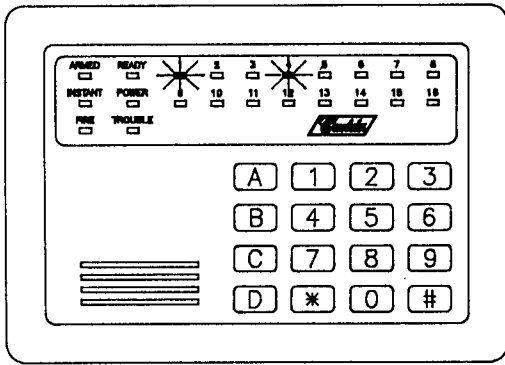
Important Function Codes

There are two function codes that are used in programming the Ranger 9000 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 9000.

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

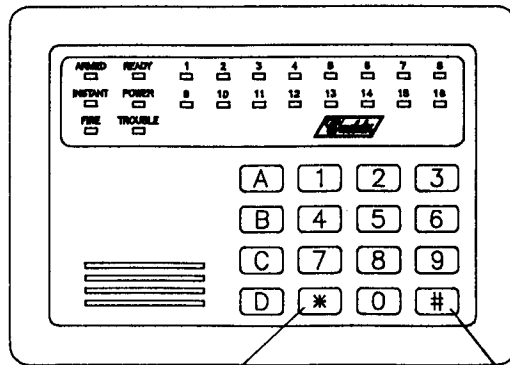
PROGRAMMING EXAMPLE - FIGURE 2



ZONE 1 LED = 1 } DATA = 9
 ZONE 4 LED = 8 }

ZONE 2 LED = 2 } DATA = 6
 ZONE 3 LED = 4 }

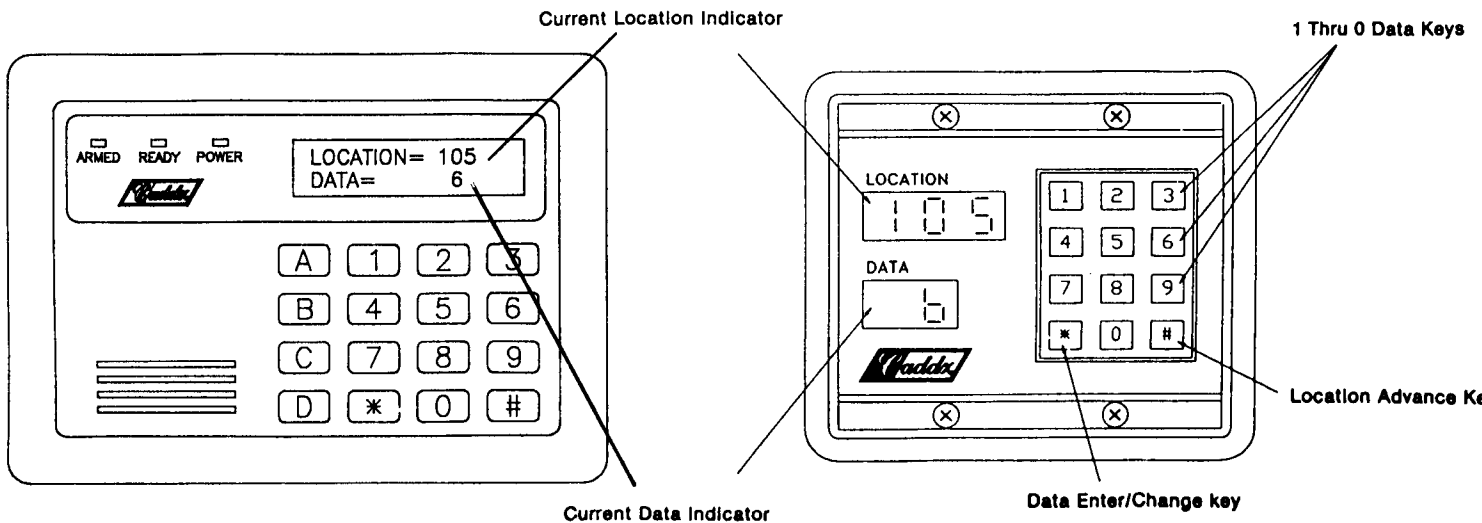
No LED's Illuminated = 0



To change or enter data in location shown, enter data and follow by the * Key.

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

PROGRAMMERS - FIGURE 3



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. To program these codes, follow the instructions in the paragraph above. To disable these codes, program a "15" (factory default) as the first digit of the code. These codes can be changed in the RUN mode using the master code (refer to operator's manual).

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

Locations 056-059 contain the arm/disarm code for user number 15 (Duress Code). To program this code, follow the instructions in the paragraph above. This code can be used as a duress code if so programmed in locations 320-323. Factory default for this code 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 9000 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: Arm/Disarm Code Enable

PARTITIONED SYSTEMS

If partitions are utilized, codes may be assigned to a specific partition by using locations 064-079. This is done by disabling each individual code (code 1 is location 064, code 15 is location 079) for each of the four partitions that code should not have access to. Codes are selected by adding the binary equivalents for each partition together and placing that number in the proper location. Partition One = 1, Partition Two = 2, Partition Three = 4, and Partition Four = 8. For example, if code 2 should only be valid for Partition Four, program a "8" in location 065. If code 10 is valid for Partitions Two, Three, and Four, a "14" would be programmed in location 073. Factory default is "15", code valid for all partitions.

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 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

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. 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 9000 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 below. 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
"2"	ADEMCO 4/2 EXPRESS	DTMF FORMAT
"3"	FBI SUPERFAST	DTMF FORMAT 2300Hz
"4"	ADEMCO HIGH SPEED	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"	SCANTRONICS	DTMF FORMAT 2300Hz HANDSHAKE
"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
"13"	SESCOA/FRANKLIN FAST	1800Hz TRANSMITTAL 2300Hz HANDSHAKE 20 PPS HEX DOUBLE ROUND
"14"	SIA	FSK FORMAT
"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 Options

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. (Note: A "0" entry is treated as the factory default of 8 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 <i>Automatic Bypass</i> or <i>Instant</i> 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 <i>Automatic Bypass/Instant</i> 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 9000 is armed or disarmed. An open will create a <i>Trouble</i> condition. Keypad LED will be steady for FIRE, and flashing for <i>Trouble</i> .
"9"	KEYSWITCH - A zone attached to a momentary keyswitch will cause the Ranger 9000 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 Zone (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.

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. Each zone can be *Silent* (*Value = 0*), or have one, or a combination of the following audible characteristics. 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
1	Yelp Siren Audible
2	Steady Siren Audible
4	Keypad Sounder Audible
8	Chime Feature

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 9000 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 9000 will not abort any reports. NOTE! The Ranger 9000 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 9000 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 in location 368, 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 9000 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 9000 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 "1" is programmed in location 211, a valid user code must be entered to disarm the control from the **Entry-Guard** mode. Factory default is "0" and the **Entry-Guard** mode can be disarmed with the one digit code programmed in location 245.

Location 212: Ringback Feature

Programming a "1" in location 212 will enable the Ringback feature of the Ranger 9000. When enabled, the control will create a two second audible output (siren or bell) after the kiss-off tone from a closing signal has been received. Factory default is "0" and this feature is not enabled.

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

If a "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: Resettable Auxiliary Power

Programming a "1" in location 214 will cause the Ranger 9000 (when in the disarmed state) to interrupt the smoke detector power each time the [#] button is pressed. If this location contains a "0", pressing the [#] button will cause the smoke detector power to reset only after zone(s) designated as Priority (FIRE) zone types are on steady for alarm or blinking for *Trouble*. 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: 50 Hz Power Source

A "1" should be programmed in location 218 when the Ranger 9000 is used in a country which has a 50 Hz based AC power source. This will insure that all internal clocks and timers maintain accurate time. Factory default is "0". All 60 Hz countries, including the USA, should maintain this default setting. NOTE: Total power loss will require reprogramming the internal clock.

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 9000 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. 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 in location 368.

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"	<i>Automatic Bypass / Instant Arming</i> Disabled
"1"	Automatically enter the <i>Instant</i> 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 <i>Instant</i> mode on Entry/Exit zone. This is factory default.
"5"	Automatically enter the <i>Instant</i> mode and bypass interior follower zones if an Entry/Exit zone is not faulted during exit delay time. Pressing [*] will toggle <i>Instant</i> mode.
"7"	Automatically bypass interior follower zones if an Entry/Exit zone is not faulted during exit delay time. Pressing [*] will toggle <i>Instant</i> 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 initiation of an event report for an abortive event. 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 9000 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.

Location 223: Entry-Guard Entry Delay Time

Location 223 contains the number the 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 partition(s) will be the source to initiate the trigger output on each of the four auxiliary outputs. When partitioning is not being used, program a "0" in this location (factory default = "0"). When partitions are being used, programming selections are as follows: "0" for all Partitions, "1" for Partition ONE, "2" for Partition TWO, "3" for Partition THREE, and "4" for Partition FOUR. Programming selections for this location are "0" thru "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 2 to 28 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 below 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 below 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.

DATA 3 CATEGORY	DATA 4 EVENT	DESCRIPTION OF EVENT
"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"	"CHECK SUM"
"15"	"CANCEL"	
"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 SOUNDER" activation.	

DATA 3 CATEGORY	DATA 4 EVENT	DESCRIPTION OF EVENT
"13"	"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"	"RESERVED"	

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 9000 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 7 & 8). 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 2 to 28 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 9000 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 9000 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 not 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. If you do not wish to enable the *Entry-Guard* feature at this installation, program a "15" in this location. NOTE! The first digit of this code should not match the *Quick-Arm* digit, or the first digit of the *Chime* enable code. 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 2. Factory default is no partitions enabled and all zones are assigned to Partition 1 (the control) 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.

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. 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 combination of the delay for the last partition to arm and the delay entered for Partition 1. 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 2 is not enabled.

Location 249: Number Of Zones In Partition 3

Factory default is "0", and Partitions 3 and 4 are not enabled.

Location 250: Power Up Condition

If a "1" is programmed in location 250, the Ranger 9000 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 9000 will maintain the condition it was in at power down. A watchdog circuit reset will cause the Ranger 9000 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 9000 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 Monitor Enable

If a number in the following chart is programmed into location 252, two different types of phone line monitoring and resulting audible output selections are available by programming a number in this location. Use the table below to determine which combination, if any, is appropriate for the installation in question. Factory default is "0" and this feature is not enabled. Add the number associated with each feature together and program the sum in location 252. NOTE: IF THIS LOCATION IS ENABLED YOU MUST ALSO PROGRAM LOCATION 253.

VALUE	DESCRIPTION
1	Activate System Siren
2	Activate Keypad Sounder
4	Dial Tone Detection Attempts
8	Dial Attempts

Example - If you choose to monitor the number of dial attempts and activate the keypad sounder when the number of attempts exceeds the number listed below in location 253, you would program a 10 ($8 + 2 = 10$) in location 252.

Location 253: Telephone Line Monitor Counter

The number programmed in location 253 (1 to 15) will represent the number of attempts made by the Ranger 9000 before the action called for in location 252 is activated. Factory default is "0" and this feature is not enabled.

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" ($3 \times 2 = 6$) meaning the dynamic battery test will occur at 6:00 AM. Programming a "0" ($0 \times 2 = 0$) in this location would set the test time for 00:00 (midnight). Programming a "11" ($11 \times 2 = 22$) 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 9000 will go into the dynamic battery test mode during each 24 hour period. This test removes the A.C. power input and 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, any combination of these three selections, or all three options. Factory defaults to a three digit event (alarm) code. However, as shown on the programming worksheet, the first digit will be ignored if a 3 + 1 or a 4 + 2 format is selected.

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

If a phone number other than phone #1 is desired, a binary number must be programmed into this location. This number is derived by adding a "1" for phone #1, a "2" for phone #2, and a "4" for the internal log. 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 "1", which causes zone 1 to report only to phone #1.

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

Locations 320 through 377 are programming locations for options which are enabled by entering a communicator code in the indicated locations. If you choose to use the described options, an appropriate 1 to 3 digit reporting code must be entered in the proper locations, along with the phone number/log select number.

Locations 320-322: Communicator Code For Duress Code

The Ranger 9000 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: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Duress. Important! Do Not Program A "4", Internal Log Only, In This Location!

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

The Ranger 9000 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: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Keypad Auxiliary 1 (Double Keypress [1] & [3])

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

The Ranger 9000 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: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Keypad Auxiliary 2 (Double Keypress [4] & [6])

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

The Ranger 9000 will report a **Keypad Panic** code and activate the Burglary siren 9 (IF IT IS NOT SILENT) 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: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Keypad Panic (Double Keypress [*] & [#])

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: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Keypad Tamper

Locations 340-342: Communicator Code For Autotest Reports

The Ranger 9000 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: Select Phone #1, 2, Internal Log, Or Any Combination For Autotest Reports

Location 344-346: Checksum Communicator Code

The Ranger 9000 has the ability to report to the receiving station when a invalid checksum is created by a compare feature in the microprocessor. It is unlikely that this situation will occur, and it is not possible to list all of the potential scenarios under which this normally could occur. Upon receipt of this code, an effort should be made to verify that the Ranger 9000 which transmitted it is functioning as intended. Factory default is "0" and this feature is not enabled.

Location 347: Select Phone #1, 2, Internal Log, Or Any Combination For Reporting Checksum

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, CADDX MODEM, 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 (tens digit) for users 1 thru 15 in location 348. Program the desired closing code (tens digit) for users 1 thru 15 in location 350. Program the desired cancel code (tens digit) for users 1 thru 15 in location 354. The user number (ones digit) for users 1 thru 15 will automatically be reported as 1 thru F. Program the desired opening code (tens digit) for users 16 thru 30 in location 352. Program the desired closing code (tens digit) for users 16 thru 30 in location 353. Program the desired cancel code (tens digit) for users 16 thru 30 in location 354. The user number (ones digit) 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 9000 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 as the first, or "tens" digit. The second, or "ones" 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

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

The Ranger 9000 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 as the first, or "tens" digit. The second, or "ones" 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. 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

Location 352: Communicator Code To Report Openings For Users 16-30

This location will be programmed only when using a 4 + 2, or extended format. When using non-extended formats, users 16 thru 30 will be reported as 1 thru F.

Location 353: Communicator Code To Report Closings For Users 16-30

This location will be programmed only when using a 4 + 2, or extended format. When using non-extended formats, users 16 thru 30 will be reported as 1 thru F.

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. If this location contains a "0", cancel is disabled.

Location 355: Communicator Code To Report Cancel (Exception Opening) For Users 16-30

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

The Ranger 9000 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 254). 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 Any Combination To Report AC Power Loss

Location 360-362: Communicator Code For Reporting Low Battery

The Ranger 9000 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 Any Combination For Reporting Low Battery

The following locations allow for the transmitting of 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 for locations 365-367. If location 364 is a zero "0" no zone restorals will be reported. If locations 365-367 are zero, 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 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 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.

Locations 377-509: These Locations Must Remain At Factory Default When No Expansion Systems Are Used

Location 510: European Pulse Dial Ratio

Programming a "1" in this location will change the pulse dialing make/break ratio and interdigit spacing to conform to most European telecom standards. Factory default is "0", disabling this feature.

Location 511: Expander Trouble Restore Code

Location 511 contains the Expander Restoral Code. See Location 378: Communicator Code For *Expansion Trouble*

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. THE 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 Operator'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 disabling each individual code (code 16, location 572 thru code 30, location 586) for each of the four partitions that code should not have access to. Codes are selected by adding the binary equivalents for each partition together and programming that number in the proper location. Partition One = 1, Partition Two = 2, Partition Three = 4, and Partition Four = 8. For example, if code 17 should only be valid for Partition Four 8, program an "8" in location 573. If code 25 is valid for Partitions Two, Three, and Four, a "14" should be programmed in location 581. Factory default is "15", code valid for all partitions.

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
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 "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 9000 at the selected time. At that time, the keypad sounders will sound for 30 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 30 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 9000 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 Any Combination For Late-To-Close Reports

Locations 592-594: Communicator Code For Early Opening Report

The Ranger 9000 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 Any Combination For Reporting Early Opening

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 opening report feature a 4 digit 24 hour (military) 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 closing 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 8:00PM. 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 opening or late to close features have been enabled. A "1" will cause the early 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 opening or late to close features have been enabled. A "1" will cause a report to be communicated in the event of a late closing after an opening. Factory default is "0" and openings are allow 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 10's digit and location 621 is the 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

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.

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 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. If the day is Monday, program a "2" in this location. 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 1992, 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 1992, this location should contain a "2", which is the ones digit of the current year. If the current year is 1995, this location should contain a "5", 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 9000 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 optionals 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
"0"	Disabled
"1"	Panel will automatically callback for download session.
"2"	Sight 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 of 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 shut down the control panel. Programming an "A" in this location will completely shutdown the control panel. The keypad will appear "dead", and the siren and communicator will not operate. **WARNING: EXTREME CARE SHOULD BE TAKEN NOT TO INADVERTENTLY PROGRAM THIS LOCATION.**

ARM/DISARM CODES 1 - 15

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
000-003	8	USER #1 ARM/DISARM CODE					"1-2-3-4"
004-007	8	USER #2 ARM/DISARM CODE					"15" DISABLED
008-011	8	USER #3 ARM/DISARM CODE					"15" DISABLED
012-015	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 <i>No sTAgE</i>					"15" DISABLED
060-063	8	"GO TO PROGRAM" ACCESS CODE	2	1	5	0	"9-7-1-3"

ENABLING ARM/DISARM CODES 1 - 15 BY PARTITION (OPTIONAL)

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
64	8	PARTITION(S) FOR USER #1 ARM/DISARM CODE		"15" ALL
65	8	PARTITION(S) FOR USER #2 ARM/DISARM CODE		"15" ALL
66	8	PARTITION(S) FOR USER #3 ARM/DISARM CODE		"15" ALL
67	8	PARTITION(S) FOR USER #4 ARM/DISARM CODE		"15" ALL
68	8	PARTITION(S) FOR USER #5 ARM/DISARM CODE		"15" ALL
69	8	PARTITION(S) FOR USER #6 ARM/DISARM CODE		"15" ALL
70	8	PARTITION(S) FOR USER #7 ARM/DISARM CODE		"15" ALL
71	8	PARTITION(S) FOR USER #8 ARM/DISARM CODE		"15" ALL
72	8	PARTITION(S) FOR USER #9 ARM/DISARM CODE		"15" ALL
73	8	PARTITION(S) FOR USER #10 ARM/DISARM CODE		"15" ALL
74	8	PARTITION(S) FOR USER #11 ARM/DISARM CODE		"15" ALL
75	8	PARTITION(S) FOR USER #12 ARM/DISARM CODE		"15" ALL
76	8	PARTITION(S) FOR USER #13 ARM/DISARM CODE		"15" ALL
77	8	PARTITION(S) FOR USER #14 ARM/DISARM CODE		"15" ALL
78	8	PARTITION(S) FOR USER #15 ARM/DISARM CODE		"15" ALL
79	8	PARTITION(S) FOR "GO TO PROGRAM" ACCESS CODE		"15" ALL

PHONE #1

LOCATION	PAGE	DESCRIPTION	PHONE NUMBER						"DEFAULT"
80-87	9	PHONE #1, DIGITS 1 - 8	F	1	8	10	10		"14" DISABLED
88-95	9	PHONE #1, DIGITS 9 - 16							"14" DISABLED

PRIMARY ACCOUNT NUMBER

LOCATION	PAGE	DESCRIPTION	ACCOUNT CODE				"DEFAULT"
96-100	9	PRIMARY ACCOUNT NUMBER					"0" DISABLED

PRIMARY FORMAT

LOCATION	PAGE	DESCRIPTION	FORMAT	"DEFAULT"
101	9	PRIMARY FORMAT	13	"0" DISABLED

PHONE #2

LOCATION	PAGE	DESCRIPTION	PHONE NUMBER						"DEFAULT"
102-109	9	PHONE #2, DIGITS 1 - 8						"14" DISABLED	
110-117	9	PHONE #2, DIGITS 9 - 16						"14" DISABLED	

SECONDARY ACCOUNT NUMBER

LOCATION	PAGE	DESCRIPTION	ACCOUNT CODE				"DEFAULT"
118-122	9	SECONDARY ACCOUNT NUMBER					"0" DISABLED

SECONDARY FORMAT

LOCATION	PAGE	DESCRIPTION	FORMAT	"DEFAULT"
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

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
132	11	PHONE SEQUENCE CONTROLLER	12	"12"
133	11	NUMBER OF DIAL ATTEMPTS	8	"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
139	12	ZONE #1 - ZONE TYPE		"3" ENTRY/EXIT
140	12	ZONE #2 - ZONE TYPE		"5" INTERIOR
141	12	ZONE #3 - ZONE TYPE		"6" INSTANT
142	12	ZONE #4 - ZONE TYPE		"6" INSTANT
143	12	ZONE #5 - ZONE TYPE		"6" INSTANT
144	12	ZONE #6 - ZONE TYPE		"6" INSTANT
145	12	ZONE #7 - ZONE TYPE		"6" INSTANT
146	12	ZONE #8 - ZONE TYPE		"6" INSTANT
147	12	ZONE #9 - ZONE TYPE		"6" INSTANT
148	12	ZONE #10 - ZONE TYPE		"6" INSTANT
149	12	ZONE #11 - ZONE TYPE		"6" INSTANT
150	12	ZONE #12 - ZONE TYPE		"6" INSTANT
151	12	ZONE #13 - ZONE TYPE		"6" INSTANT
152	12	ZONE #14 - ZONE TYPE		"6" INSTANT
153	12	ZONE #15 - ZONE TYPE		"6" INSTANT
154	12	ZONE #16 - ZONE TYPE		"6" INSTANT
155	13	ZONE #1 - SPECIAL CHARACTERISTICS		"12"
156	13	ZONE #2 - SPECIAL CHARACTERISTICS		"12"
157	13	ZONE #3 - SPECIAL CHARACTERISTICS		"12"
158	13	ZONE #4 - SPECIAL CHARACTERISTICS		"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"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
171	14	ZONE #1 - AUDIBLE CHARACTERISTICS		"13"
172	14	ZONE #2 - AUDIBLE CHARACTERISTICS		"5"
173	14	ZONE #3 - AUDIBLE CHARACTERISTICS		"13"
174	14	ZONE #4 - AUDIBLE CHARACTERISTICS		"13"
175	14	ZONE #5 - AUDIBLE CHARACTERISTICS		"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"
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	10	"11"
188	14	ZONE #2 - REPORTING CHARACTERISTICS		"11"
189	14	ZONE #3 - REPORTING CHARACTERISTICS		"11"
190	14	ZONE #4 - REPORTING CHARACTERISTICS		"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	COMMUNICATOR ABORT	0	"0"
204	15	IMMEDIATE RESTORE BY ZONE	0	"0"
205	15	FORCE ARM ENABLE	0	"0"
206	15	SILENT HOLDUP/PANIC	0	"0" AUDIBLE
207	15	PRIORITY (FIRE) SIREN CUTOFF INHIBIT	0	"0"
208	15	BYPASSED ZONE KEYPAD SOUNDER ALERT	0	"0"
209	15	AC POWER OUT KEYPAD SOUNDER ALERT	1	"1"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
210	15	SIREN/BELL TEST FEATURE		"0" DISABLED
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		"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		"0"
220	17	AUTOMATIC BYPASS/INSTANT ARMING	3	"4"
221	17	DELAY OF PHONE LINE SEIZURE FOR ABORT		"0"
222	17	QUICK ARM DIGIT		"0" DISABLED
223	17	ENTRY-GUARD DELAY TIME		"2" 20 SECONDS

AUXILIARY OUTPUT OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"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"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
240	20	INVERTING THE AUXILIARY OUTPUTS		"0"
241	21	TIMING INCREMENTS FOR AUXILIARY OUTPUTS		"0"
242	21	ANSWERING MACHINE DEFEAT		"0"
243	21	NUMBER OF RINGS TO ANSWER DOWNLOAD CALL (INCREMENTS OF 2)	6	"4" EIGHT RINGS
244	21	ASSIGNING THE CHIME CODE	?	"1"
245	21	ASSIGNING THE ENTRY-GUARD CODE		"0"
246	22	COMMON AREA ENABLE		"0"
247	22	ZONES IN PARTITION #1		"0"
248	22	ZONES IN PARTITION #2		"0"
249	22	ZONES IN PARTITION #3		"0"
250	22	POWER UP CONDITION		"0"
251	22	POWER UP DELAY (10 SECOND INCREMENTS)		"0"
252	23	TELEPHONE LINE MONITOR		"0"
253	23	TELEPHONE LINE MONITOR COUNTER		"0"
254	23	DYNAMIC BATTERY TEST TIME	2	"3" 6:00 AM 7:00 AM
255	23	DYNAMIC BATTERY TEST DURATION		"0"

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
256-259	24	ZONE #1 COMMUNICATOR CODE	3	J	0	0	"3-0-1-1"
260-263	24	ZONE #2 COMMUNICATOR CODE	3	J			"3-0-2-1"
264-267	24	ZONE #3 COMMUNICATOR CODE	3	3			"3-0-3-1"
268-271	24	ZONE #4 COMMUNICATOR CODE	3	4			"3-0-4-1"
272-275	24	ZONE #5 COMMUNICATOR CODE	3	5			"3-0-5-1"
276-279	24	ZONE #6 COMMUNICATOR CODE	3	6			"3-0-6-1"
280-283	24	ZONE #7 COMMUNICATOR CODE	3	7			"3-0-7-1"
284-287	24	ZONE #8 COMMUNICATOR CODE	3	8			"3-0-8-1"
288-291	24	ZONE #9 COMMUNICATOR CODE	3	9			"3-0-9-1"
292-295	24	ZONE #10 COMMUNICATOR CODE	3	10			"3-1-0-1"
296-299	24	ZONE #11 COMMUNICATOR CODE	3	11			"3-1-1-1"
300-303	24	ZONE #12 COMMUNICATOR CODE	3	12			"3-1-2-1"
304-307	24	ZONE #13 COMMUNICATOR CODE	3	13			"3-1-3-1"
308-311	24	ZONE #14 COMMUNICATOR CODE	3	14			"3-1-4-1"
312-315	24	ZONE #15 COMMUNICATOR CODE	3	15			"3-1-5-1"
316-319	24	ZONE #16 COMMUNICATOR CODE	3	16			"3-1-6-1"

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	DEFAULT
320-323	24	DURESS COMMUNICATOR CODE	2	6	0	0	"0-0-0-1"
324-327	24	KEYPAD [1] & [3] AUXILIARY 1 REPORT CODE	10	2			"0-0-0-1"
328-331	25	KEYPAD [4] & [6] AUXILIARY 2 REPORT CODE	10	4			"0-0-0-1"
332-335	25	KEYPAD PANIC REPORT CODE	10	2			"0-0-2-1"
336-339	25	KEYPAD TAMPER REPORT CODE	0	0	0		"0-0-0-1"
340-343	25	AUTO TEST REPORT CODE	0	0			"0-0-0-1"
344-347	25	CHECKSUM REPORT CODE	0	0			"0-0-0-1"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
348	26	OPENING REPORTS FOR USERS 1-15	0	"0"
349	26	OPENING REPORTS TO PHONE #1, #2, INTERNAL LOG, OR ANY COMBINATION	.	"1"
350	26	CLOSING REPORTS FOR USERS 1-15	0	"0"
351	26	CLOSING REPORTS TO PHONE #1, #2, INTERNAL LOG, OR ANY COMBINATION		"1"
352	27	OPENING REPORTS FOR USERS 16-30	0	"0"
353	27	CLOSING REPORTS FOR USERS 16-30	0	"0"
354	27	CANCEL REPORT CODE USERS 1-15	D	"0"
355	27	CANCEL REPORT CODE USERS 16-30	D	"0"

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	DEFAULT
356-359	27	AC POWER LOSS REPORT	0	0	0	0	"0-0-0-1"
360-363	27	LOW BATTERY REPORT	0	0	0	0	"0-0-0-1"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
364	27	RESTORE CODE FOR ZONES 1-8	0	"0"
365	27	RESTORE CODE FOR ZONES 9-16		"0"
366	27	RESTORE CODE FOR ZONES 17-24		"0"
367	27	RESTORE CODE FOR ZONES 25-32		"0"
368	28	ZONE BYPASS CODE FOR ZONES 1-8		"0"
369	28	ZONE BYPASS CODE FOR ZONES 9-16		"0"
370	28	ZONE BYPASS CODE FOR ZONES 17-24		"0"
371	28	ZONE BYPASS CODE FOR ZONES 25-32		"0"
372	28	ZONE TROUBLE CODE FOR ZONES 1-8		"0"
373	28	ZONE TROUBLE CODE FOR ZONES 9-16		"0"
374	28	ZONE TROUBLE CODE FOR ZONES 17-24		"0"
375	28	ZONE TROUBLE CODE FOR ZONES 25-32		"0"
376	28	AC POWER/LOW BATTERY RESTORE CODE		"0"
377	28	NUMBER OF EXPANSION MODULES		"0"
378	28	EXPANSION MODULE TROUBLE COMMUNICATOR CODE		"0"
379	28	EXPANSION MODULE TROUBLE REPORT TO WHICH PHONE NUMBER		"0"
380	28	ZONE #17 - ZONE TYPE		"6"
381	28	ZONE #18 - ZONE TYPE		"6"
382	28	ZONE #19 - ZONE TYPE		"6"
383	28	ZONE #20 - ZONE TYPE		"6"
384	28	ZONE #21 - ZONE TYPE		"6"
385	28	ZONE #22 - ZONE TYPE		"6"
386	28	ZONE #23 - ZONE TYPE		"6"
387	28	ZONE #24 - ZONE TYPE		"6"
388	28	ZONE #25 - ZONE TYPE		"6"
389	28	ZONE #26 - ZONE TYPE		"6"
390	28	ZONE #27 - ZONE TYPE		"6"
391	28	ZONE #28 - ZONE TYPE		"6"
392	28	ZONE #29 - ZONE TYPE		"6"
393	28	ZONE #30 - ZONE TYPE		"6"
394	28	ZONE #31 - ZONE TYPE		"6"
395	28	ZONE #32 - ZONE TYPE		"6"

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		"12"
413	28	ZONE #18 - AUDIBLE CHARACTERISTICS		"13"
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		"11"
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"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
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"

SELECTING ZONES 17-32 COMMUNICATOR CODES

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
444-447	28	ZONE #17 COMMUNICATOR CODE					"3 - 1 - 7 - 1"
448-451	28	ZONE #18 COMMUNICATOR CODE					"3 - 1 - 8 - 1"
452-455	28	ZONE #19 COMMUNICATOR CODE					"3 - 1 - 9 - 1"
456-459	28	ZONE #20 COMMUNICATOR CODE					"3 - 2 - 0 - 1"
460-463	28	ZONE #21 COMMUNICATOR CODE					"3 - 2 - 1 - 1"
464-467	28	ZONE #22 COMMUNICATOR CODE					"3 - 2 - 2 - 1"
468-471	28	ZONE #23 COMMUNICATOR CODE					"3 - 2 - 3 - 1"
472-475	28	ZONE #24 COMMUNICATOR CODE					"3 - 2 - 4 - 1"
476-479	28	ZONE #25 COMMUNICATOR CODE					"3 - 2 - 5 - 1"
480-483	28	ZONE #26 COMMUNICATOR CODE					"3 - 2 - 6 - 1"
484-487	28	ZONE #27 COMMUNICATOR CODE					"3 - 2 - 7 - 1"
488-491	28	ZONE #28 COMMUNICATOR CODE					"3 - 2 - 8 - 1"
492-495	28	ZONE #29 COMMUNICATOR CODE					"3 - 2 - 9 - 1"
496-499	28	ZONE #30 COMMUNICATOR CODE					"3 - 3 - 0 - 1"
500-503	28	ZONE #31 COMMUNICATOR CODE					"3 - 3 - 1 - 1"
504-507	28	ZONE #32 COMMUNICATOR CODE					"3 - 3 - 2 - 1"
508-509	28	RESERVED					"RESERVED"
510	28	EUROPEAN PULSE DIAL					"0" DISABLED
511	28	EXPANDER TROUBLE RESTORE CODE					"15" DISABLED
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

SELECTING ZONES 17-32 COMMUNICATOR CODES (CONTINUED)

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
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 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
588-591	29	COMMUNICATOR CODE FOR LATE CLOSING					"0-0-0-1"
592-595	29	COMMUNICATOR CODE FOR EARLY OPENING					"0-0-0-1"
596-599	30	DOWNLOAD COMPLETE REPORT					"0-0-0-1"
600-603	30	OPENING TIME					"0-6-0-0"
604-607	30	CLOSING TIME					"2-0-0-0"
608	30	CLOSED SATURDAY					"0"
609	30	CLOSED SUNDAY					"0"

FORMAT OVERRIDES

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
610-615	30	FORMAT OVERRIDES		"0-0-0-0-0-0"

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
616	30	HOUR FOR AUTOTEST - ONES DIGIT		"0"
617	30	HOUR FOR AUTOTEST - TENS 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	337	CONTROL PANEL ACCESS CODE		"90000000"
644-651	33	CALLBACK PHONE NUMBER, DIGITS 1-8		"0" DISABLED
652-659	33	CALLBACK PHONE 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

APPENDIX 1

This document describes the 9000 reporting event codes when using the SIA format (format 14). The following codes are programmable and are sent when the 100's digit is programmed as the event code. The 10's and 1's digit are then sent as a zone identifier.

<i>PROGRAMMED 100's DIGIT</i>	<i>SIA CODE</i>	<i>DEFINITION</i>
0	PA	PANIC ALARM
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.

<i>REPORTING EVENT</i>	<i>SIA CODE</i>	<i>LOCATION</i>
TAMPER	TA	336
AUTOTEST	RP	340
CHECKSUM ERROR	YF	344
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
FAIL TO CLOSE	CI	592
EARLY OPENING	OK	588
DOWNLOAD COMPLETE	RS	596

* 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 (B A) restores, a B R will be transmitted. If a "1" is programmed in location 372, and a Fire Alarm (F A) zone goes into Trouble, an F T will be transmitted.

APPENDIX 2

This document lists the event reporting codes for Ademco Contact ID reporting in the 9000. The event codes are programmed by placing a number from 0-15 in the "100's" location of the communicator code for the event being reported. The 10's and 1's digit programmed are sent as the Zone Identifier. The following event codes will be sent for the digit programmed:

<i>PROGRAMMED 100's DIGIT</i>	<i>ADEMCO EVENT CODE</i>	<i>DEFINITION</i>
0	122	Silent panic
1	110	Fire
2	120	Panic
3	130	Burglary
4	131	Perimeter Burglary
5	132	Interior Burglary
6	133	24 hour Auxiliary
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:

<i>PROGRAMMED 100's DIGIT</i>	<i>PROGRAMMING LOCATIONS</i>
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:

<i>REPORTING EVENT</i>	<i>ADEMCO EVENT DIGIT</i>	<i>LOCATIONS</i>
Keypad Tamper	137	336
Autotest	602	340
Checksum Error	300	344
Opening/Closing	401	348/350
Cancel	406	354
A.C. Loss	301	356
Restore	Event code for alarm	364
Zone Bypass	570	368
Zone Trouble	380	372
Low Battery	302	360
Battery Test Fail	309	360/255
Late to Close	404	592
Early to Open	400	588
Download Complete	412	596

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 or 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.

VALUE	DESCRIPTION
1	Set for 1800 Hz pulse transmit frequency
2	Set for 2300 Hz handshake frequency
4	Set for single round checksum frequency
8	Set for 2 digit event code

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

VALUE	DESCRIPTION
1	Set for extended reporting
2	Set for hex digits
4	Set for 20 PPS
8	Set for 10 PPS

APPENDIX 3 (Continued)

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

<i>VALUE</i>	<i>DESCRIPTION</i>
1	Set for pager format
2	Set for Ademco handshake
4	Reserved
8	Set for FBI Superfast

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

<i>VALUE</i>	<i>DESCRIPTION</i>
1	Set for Contact ID and Ademco Highspeed
2	Reserved
4	Set for 4/3 and Contact ID
8	Set for DTMF format (4/2 Express, Superfast, Ademco Highspeed, Contact ID, & Pager format)

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 500ms
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.

WARRANTY STATEMENT

CADDX-CADDI CONTROLS, INC. GUARANTEES THIS PRODUCT AGAINST DEFECTIVE PARTS AND WORKMANSHIP FOR TWENTY-FOUR (24) MONTHS FROM DATE OF MANUFACTURING. IF ANY DEFECT APPEARS DURING THE WARRANTY PERIOD RETURN IT TO CADDX, POSTAGE PREPAID. THE UNIT WILL BE REPAIRED AND RETURNED. CADDX ASSUMES NO LIABILITY FOR CONSEQUENTIAL OR INDIRECT DAMAGE AND ACCEPTS NO RESPONSIBILITY FOR REPAIRING DAMAGE TO THE PRODUCT CAUSED BY MISUSE, CARELESS HANDLING, OR WHERE REPAIRS HAVE BEEN MADE BY OTHERS.

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