

## 4. PROGRAMMING

### KEYPAD PROGRAMMING

Keypad Programming may be divided into two sub-groups: User Program Mode and Dealer Program Mode. *USER KEYPAD PROGRAMMING* is limited to user codes. In the Dealer Program Mode, the keypad provides full programming capabilities.

#### Dealer Keypad Programming.

Set the keypad to the Dealer Program Mode: Hold down Key [8] until a beep sounds, then enter the Dealer Program Code. (The default Dealer Program Code is 456789, but this code *must* be reprogrammed to preserve system security. See Glossary and the programming example, which follows.) The center segment of the numeric display will light to indicate the Dealer Program Mode.

The Dealer Program Mode cannot be accessed while the panel is armed or communicating *except* during the first three minutes after power-up. See *Power-Up Delay* in Glossary. To shut the 3-minute "window" early, that is, before it times out, hold down Key [9]. **Note:** If the Dealer Program Mode has been accessed within the first three minutes after power-up, complete the required programming, exit the Dealer Program Mode (see following), then power down and power up the system once again.

Set the location to be programmed by pressing Key [B] (the three horizontal segments of the display and the green LED will light), followed by the location number. Each location must be entered as a three-digit number, that is, 001, 020, 157, etc. Notice that as each of the three digits is entered, the three display segments extinguish in succession from bottom to top. When the last digit is entered, the yellow LED will light and the display will show the data (if any) programmed in that location.

At this point, several numeric keys will take on new functions. Note first, however, that the programming sheet is arranged in blocks. In general, each block contains two adjacent locations, but they may contain four locations (e.g., Subscriber IDs); six locations (e.g., User and Dealer

Program Codes); or as many as 18 locations (Telephone Numbers). The functions of the following keys are reasigned to provide improved mobility around the programming sheet.

**Keys [1] or [6] (Prior Location) and [2] or [3] (Next Location)** - Changes the location. Use Key [1] or [6] to move down to the next lower location, or Key [2] or [3] to move up to the next higher location. Whenever a new location is entered, a beep will sound.

**Keys [4] (Data Up) and [7] (Data Down)** - select the data for the chosen location: numbers 1-9, 0, and letters B, C, D, E, and F, as will be indicated in the display. Key [4] sequences data values in ascending order; Key [7], in descending order.

**Key [5] (Clear)** - clears data from the selected location (display will go blank).

**Key [8] (Exit)** - exits the Dealer Program Mode. Hold down until the beep sounds, then enter the Dealer Program Code within 10 seconds to exit.

**Key [B] (Set)** - sets the location to be programmed. After pressing Key [B], enter a three-digit location number.

To exit the Dealer Program Mode, hold down Key [8] until the beep sounds; all four LEDs will light. Within 10 seconds, enter the Dealer Program Code; the LEDs will go out. (If the LEDs go out before your code is entered, repeat this procedure.)

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*Example 1.* Reprogram the existing (default) Dealer Program Code to 815487.

1. Hold down Key [8] until the beep sounds. Enter the existing (default) Dealer Program Code, 456789. The center segment of the display will light.
2. Set Location 312, the first location of the Dealer Program Code block, as follows: (a) Press Key [B] (the three horizontal display segments and green LED will light); (b) press [3], [1], [2] (the yellow LED will come on and the display will indicate the first digit of the existing code, "4").
3. Program the first digit of the *new* Dealer Program Code: Press Key [4] (Data Up) repeatedly until an "8" is displayed.
4. Press Key [2] (Next Location) once to advance to Location 313, the second digit of the code. A "5" (the second digit of the default code) will be displayed. To program the second digit of the *new* code press Key [5] (Clear), then press Key [4] (Data Up) once - a "1" will be displayed.
5. Press Key [2] (Next Location) once again to advance to the third location (314) of the code. Using Key [7] (Data Down), replace the "6" with a "5".
6. Repeat this procedure, using Key [2] to advance locations and Keys [4] and [7] to select data, until the entire code has been reprogrammed. To check the code, press Key [1] (Prior Location) five times to return to Location 312, then press Key [2] to step through each location, noting the data displayed.
7. To exit the Dealer Program Mode, hold down Key [8] until the beep sounds, then enter the *new* Dealer Program Code within 10 seconds. This will confirm operation of the new code.

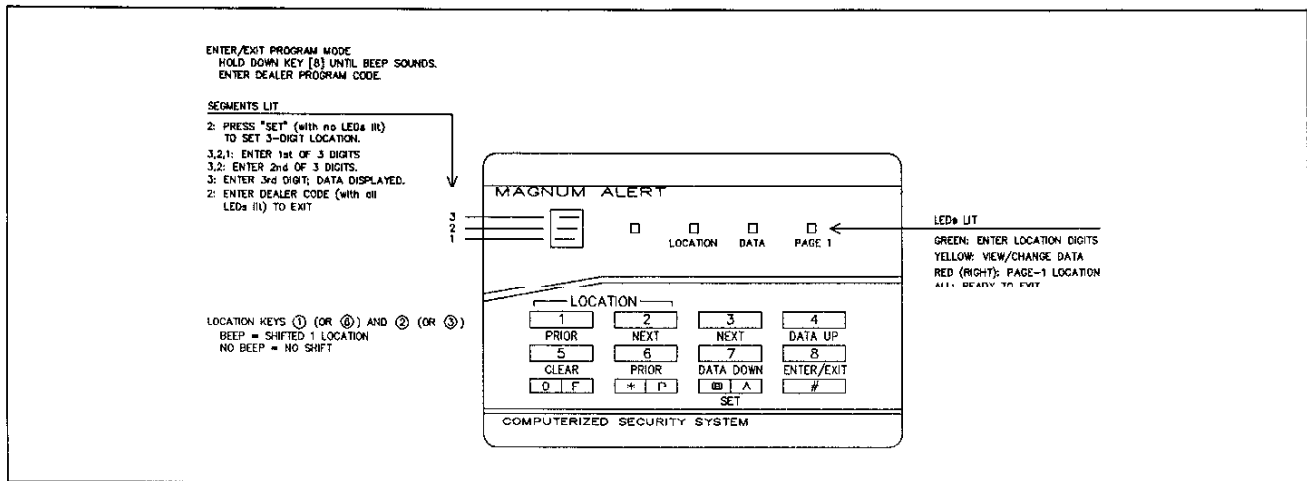


Fig. 2. RP1054e keypad functions in Dealer Program Mode.

### PROGRAMMING SHEETS.

Programming Sheets similar to those which follow are completed when planning system features and communicator information for the particular installation. These sheets should be retained for future reference. The Glossary contains information and instructions for programming each feature.

#### General Programming Steps

1. Contact the central station to confirm receiver format, data format, event codes, subscriber numbers and telephone number(s). Two receiver descriptions and telephone numbers, and up to 4 Subscriber Identification Numbers may be required.
2. Fill out the Programming Record Sheets by circling the numbers representing the zone features or system features to be programmed. Referring to the programming sheets and Table 2, note that each program location is assigned data values (1,2,4,8) such that adding any combination will produce a unique total (entry). Also note that because the entry can be only one character, the two-digit totals greater than 9 are replaced by zero and letters B through F, as shown. Check the Glossary for guidance in selecting "data" entries. To program a 10, enter [0]. To program 11 through 15, enter [B] through [F] respectively.
3. Program the entries (data totals from Programming Record Sheets in Step 2) into the respective locations. The display will show the entry numerically, but will display "0" for the number 10, and letters "B", "C", "D", "E", and "F" for the numbers 11 through 15, respectively. To program a 10, enter [0]. To program 11 through 15, enter [B] through [F] respectively.

LOCATION XXX				ENTRY
				blank (0)
(1)				1
	(2)			2
(1)	(2)			3
		(4)		4
(1)		(4)		5
	(2)	(4)		6
(1)	(2)	(4)		7
			(8)	8
(1)			(8)	9
	(2)		(8)	0 (10)
(1)	(2)		(8)	B (11)
		(4)	(8)	C (12)
(1)		(4)	(8)	D (13)
	(2)	(4)	(8)	E (14)
(1)	(2)	(4)	(8)	F (15)

Table 2. Determining data entry for a location. Numbers in parentheses indicate selected zones or features. (See Programming Sheet.)

Example 2. Program Zones 1-6 to report on alarm. Referring to the Communicator Information section of the Programming Sheets, REPORT ON ALARM is contained in Locations 166 and 167. Circle data values for Zones 1-6.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6		K/P	
REPORT ON ALARM	166	166	166	166	167	167	167	167	location
	(1)	(2)	(4)	(8)	(1)	(2)		8	data

Add the data values for Location 166:  $1 + 2 + 4 + 8 = 15$ . From Table 2, 15 is programmed as an "F". Now add the data values for Location 167:  $1 + 2 = 3$ . From Table 2, enter a "3" in Location 167

## DOWNLOADING FROM A COMPUTER USING NAPCO SOFTWARE AND INTERFACE.

### Local Downloading

Data may be locally downloaded with the use of a PCL2000 Local Download Cable, which is supplied with the PCI2000 interface. The panel need not be wired nor the keypad connected. Also refer to the instructions included with the PCI2000.

1. Referring to the PCI2000 Wiring Diagram, plug the PCL2000 Local Download Cable into the modem LINE connector; splice the spade lugs on the other end into the control panel TELCO terminals. (Remove the plug shown coming from the PCI2000-J5.)
2. With the control panel unpowered, set up the computer for a *Function-6 Method* download.
3. When a high-pitched tone is heard at the modem, power up the panel (connect the battery or transformer). A connection will automatically be established, ignoring the status of the zones.
4. Make all required selections and download the program.
5. After the computer indicates a successful download, terminate the connection, then remove power to the panel.

### Remote Downloading

Data may be remotely downloaded to the panel via telephone lines using an IBM PC-compatible computer with Napco PCD2000 software and PCI2000 interface. On-screen prompting and the extensive use of help menus simplify programming, and an error-checking mode locates omissions and incompatible data to reduce the possibility of mistakes. Remote downloading requires (a) a modem compatible with the PCI2000 and (b) PCD2000 software Version 2.E or higher. **Note:** Remote downloading may be disabled through programming and *must* be dis-

abled in UL installations.

A program may be downloaded remotely using one of the following procedures.

**Callback Method.** This method is used to download to an unattended panel. The MA1000e will accommodate an answering machine at the site if line seizure is used on the house phones. Program a "1" in Location 082 (*Enable Download with Answering Machine*). Refer to the instructions furnished with the PCD2000 for details. **Note:** The number of rings programmed into the panel must exceed that of the answering machine.

**Function 6 Method.** From the site, call the office where the PCD2000 is located to request a *Manual Download*. During this procedure, voice contact will be lost, therefore both the installer and the computer operator should be familiar with the operation. When a high-pitched tone is heard at the site phone, arm the panel, disarm, then access Hold-Down Function 6 (*Manual Download*) within 5 seconds; the site phone will go dead. Hang up the phone and wait for a call from the central station confirming a successful download.

**Auto-Download Method.** Napco PCD2000 Software Version 2.E and later includes *PC-Preset*, a utility wherein blocks of up to 99 programs each may be preset for remote uploading or downloading automatically from the installation site while the computer is unattended. The *Auto-Download ID Number* identifies the program in the computer that will be selected. (Note that the Dealer Program Code in the PCD2000 must agree with that of the control panel for the remote connection to be established.)

At the installation site, program the *Auto-Download ID Number* (corresponding to that in the computer) into the panel, along with the *Callback Telephone Number* of the computer. Then, arm, disarm, and access Function 6 within five seconds to execute an Auto-Download.

## MAGNUM ALERT 1000e PROGRAMMING RECORD SHEET

### Communicator Features & Information (default programming shown in parentheses)

		GROUP 1							GROUP 2											
		ZONE							FIR	AMB	TBL	TBL	TMR	NO	LOW					
		1	2	3	4	5	6	K/P	FIR	AMB	TBL	TBL	TMR	AC	BAT	AUX				
REPORT ON ALARM		166							167							168		169		:
CONTROL-PANEL RESTORE (SEE NOTE 1)		1	2	4	8	1	2	8	1	2	4	8	1	2	4	173		:		
ZONE RESTORE (SEE NOTE 1)		184							185									:		
ALARM/TROUBLE CODES	Single Digit	000	002	004	006	008	010	014	016	018	020	022	024	026	028	062				
		(3)	(3)	(3)	(3)	(3)	(3)	(2)	(1)	(2)	(F)	(D)	(F)	(F)	(F)	(2)				
	Extended or Two Digit	001	003	005	007	009	011	015	017	019	021	023	025	027	029	063				
		(1)	(2)	(3)	(4)	(5)	(6)	(1)	(1)	(2)	(1)	(F)	(F)	(9)	(8)	(3)				
RESTORE CODES	Single Digit	040	042	044	046	048	050	056	058	060	062	064	066	068						
		(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)						
	Extended or Two Digit	041	043	045	047	049	051	057	059	061	063	065	067	069						
		(1)	(2)	(3)	(4)	(5)	(6)	(1)	(F)	(F)	(9)	(8)	(9)	(8)						

OPENING/CLOSING CODES		CLOSING				FORCE ARM	OPENING			
		USER					USER			
		1	2	3	4		1	2	3	4
Single Digit		030	032	034	036	038	070	072	074	076
		(C)	(C)	(C)	(C)	(F)	(B)	(B)	(B)	(B)
Extended or Two Digit		031	033	035	037	039	071	073	075	077
		(1)	(2)	(3)	(4)	(SEE NOTE 2)	(1)	(2)	(3)	(4)
Select User(s) Closing		174				Select User(s) Opening	176			
		1	2	4	8		1	2	4	8

SUBSCRIBER ID NUMBERS		ALARM/RESTORE ID (SEE NOTE 3)				OPENING/CLOSING ID (SEE NOTE 4)							
		GROUP 1		GROUP 2									
Telephone 1		100	101	102	103	104	105	106	107	108	109	110	111
Telephone 2		132	133	134	135	136	137	138	139	140	141	142	143

FORMAT RCVR DATA		PRE	ACC	D/T	TELEPHONE NUMBER 1																	
		DLY NO.	DET																			
Telephone 1		112	113		114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131
		(E)	(E)	(E)																		
Telephone 2		144	145		TELEPHONE NUMBER 2																	
					146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163
		(E)	(E)	(E)																		
	# OF RINGS	CALLBACK TELEPHONE NUMBER 1																				
		269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285				
		CALLBACK TELEPHONE NUMBER 2																				
		286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301					

ENTRY	RECEIVER FORMAT	ENTRY	DATA FORMAT
Blank	ADEMCO, SILENT KNIGHT SLOW	Blank	EXTENDED OR SINGLE DIGIT
1	SESCOA, VERTEX, DCI, FRANKLIN (SEE NOTE 5)	1	SINGLE DIGIT
2	RADIONICS FAST (SEE NOTE 5)	2	TWO DIGIT (OR 4/2)
3	SILENT KNIGHT FAST	4	SUM CHECK
4	RADIONICS, DCI, FRANKLIN SLOW (SEE NOTE 5)		
5	UNIVERSAL HI-SPEED		
8	FOR 2300Hz HANDSHAKE, ADD AN "8" TO THIS LOCATION.		

NOTES: (1) IF PROGRAMMING ZONE RESTORE, ALSO PROGRAM CONTROL-PANEL RESTORE. (2) TWO-DIGIT FORMAT ONLY. (3) GROUP-2 CODES MUST BE ENTERED, EVEN IF THEY ARE THE SAME AS GROUP-1 CODES. (4) MUST BE PROGRAMMED IF OPENING/CLOSING CODES ARE PROGRAMMED. (5) THESE FORMATS TYPICALLY USE A 2300Hz HANDSHAKE; ADD AN "8" TO THIS ENTRY.

CUSTOMER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

ACCOUNT NO. \_\_\_\_\_

TEL. \_\_\_\_\_

DATE: \_\_\_\_\_

# MAGNUM ALERT 1000e PROGRAMMING RECORD SHEET

## Zone Features & Keypad Codes (default programming shown in parentheses)

ZONE FEATURES	GROUP 1							GROUP 2											
	ZONE							AUX	FIR	DAY	TST	NO	LOW	FIR	AMB	TBL	TBL	TMR	AC
	1	2	3	4	5	6	K/P												
SWINGER SHUTDOWN	084							085											
	(1)	(2)	(4)	(8)	(1)	(2)	8												
NO END-OF-LINE RESISTOR	086							087											
	1	2	4	8	1	2													
CHIME ZONE	088							089											
	(1)	2	4	8	1	2													
NEVER ARM	090							091											
	1	2	4	8	1	2													
PIR ZONE	092							093											
	1	2	4	8	1	2													
PGM LUG OUTPUT (LUG E3)	096							097							098		099		
	(1)	(2)	(4)	(8)	(1)	(2)	(8)	1	2	4	8	1	2	4					
ENABLE KEYPAD SOUNDER ON ALARM	164							165											
	(1)	(2)	(4)	(8)	(1)	(2)	8												
DAY ZONE	186							187											
	1	2	4	8	1	2													
PRIORITY ZONE WITH BYPASS (SEE NOTE 1)	188							189											
	1	2	4	8	1	2													
PRIORITY ZONE	190							191											
	(1)	(2)	(4)	(8)	(1)	(2)													
REMOVE AUTO-BYPASS (SEE NOTE 1)	192							193											
	1	2	4	8	1	2													
SELECTIVE BYPASS	194							195											
	(1)	(2)	(4)	(8)	(1)	(2)													
GROUP BYPASS	196							197											
	1	2	4	8	1	2													
24-HOUR PROTECTION	198							199											
	1	2	4	8	1	2	(8)												
AUTO-RESET	200							201											
	(1)	(2)	(4)	(8)	(1)	(2)	(8)												
EXIT/ENTRY ZONE (ENTRY DELAY 1)	202							203											
	(1)	2	4	8	1	2													
EXIT/ENTRY ZONE (ENTRY DELAY 2)	204							205											
	1	2	4	8	1	2													
EXIT/ENTRY FOLLOWER	206							207											
	1	2	4	8	1	2													
ABORT DELAY	208							209											
	1	2	4	8	1	2													
BURGLARY OUTPUT	210							211											
	(1)	(2)	(4)	(8)	(1)	(2)	8												
TIMED NEGATIVE OUTPUT (SEE NOTE 2)	212							213											
	1	2	4	8	1	2	8												
7ms LOOP RESPONSE (SEE NOTE 3)	214							215											
	1	2	4	8	1	2													
50ms LOOP RESPONSE (SEE NOTE 3)	216							217											
	1	2	4	8	1	2													

### KEYPAD CODES (DO NOT ENTER ZEROS)

AMBUSH	USER PROGRAM CODE	DEALER PROGRAM CODE
304 305	306 307 308 309 310 311	312 313 314 315 316 317
	(1) (2) (3) (4) (5) (6)	(4) (5) (6) (7) (8) (9)

NOTE: THE DEALER PROGRAM CODE MUST NOT START WITH THE SAME NUMBERS AS THE USER PROGRAM CODE.

USER 1	USER 2	USER 3	USER 4
318 319 320 321	322 323 324 325	326 327 328 329	330 331 332 333
(1) (2) (3)			
USER 5	USER 6	USER 7	USER 8
334 335 336 337	338 339 340 341	342 343 344 345	346 347 348 349

NOTES: (1) If selecting PRIORITY ZONE WITH BYPASS, do not select REMOVE AUTO BYPASS. (2) DISABLE FIRE RESET ON HOLD-DOWN [9] must be programmed; not for UL-listed applications. (3) If neither 7ms nor 50ms LOOP RESPONSE is programmed, response = 750ms.

ENTRY TOTAL:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PROGRAMMER DISPLAYS:	•	1	2	3	4	5	6	7	8	9	0	B	C	D	E	F

• (dot) or blank for no entry.

# MAGNUM ALERT 1000e PROGRAMMING RECORD SHEET

## System Features & Timeouts (default programming shown in parentheses)

### SYSTEM FEATURES

INSTRUCTIONS: FOR EACH LOCATION: (1) CIRCLE NUMBERS FOR FEATURES DESIRED. (2) PLACE SUM OF CIRCLED NUMBERS IN "ENTRY" BOX.  
WARNING: DO NOT ATTEMPT TO PROGRAM "RESERVED" LOCATIONS AS IMPROPER OPERATION MAY RESULT.

LOCATION 078	ENTRY	ENTRY
DISPLAY DAY ZONES AFTER RESET	1	
(RESERVED)		
USER 5 ARM ONLY	4	
USER 5 REPORT AS USER 1	8	

LOCATION 178	ENTRY	ENTRY
TOUCHTONE(R) DIALING	1	
TOUCHTONE(R) WITH ROTARY BACKUP	(2)	
BACKUP REPORTING	4	
DOUBLE REPORTING	8	

LOCATION 102	ENTRY	ENTRY
DISABLE FAULT FIND	1	
ENABLE KEYPAD PANIC	(2)	
ENABLE COMMUNICATOR CONF. TEST	(4)	
DISABLE BELL TEST	8	

LOCATION 079	ENTRY	ENTRY
USER 5 SERVICE CODE	1	
DISABLE DAY-ZONE REPORT	2	
USERS 6,7,8 REPORT AS USERS 2,3,4	4	
(RESERVED)		

LOCATION 179	ENTRY	ENTRY
OPENING REPORT AFTER ALARM	1	
FORCE ARM	2	
STATUS REPORT	4	
SPLIT REPORTING	8	

LOCATION 183	ENTRY	ENTRY
DISPLAY ANY BYPASS	1	
(RESERVED)		
INCL MANI BYP IN FORCF-ARM/STATUS	4	
KEY INPUT ON ZONE 5	8	

LOCATION 080	ENTRY	ENTRY
DISABLE LOW-BATTERY DISPLAY	(1)	
(RESERVED)		
DISABLE CALLBACK DOWNLOAD	4	
DISABLE FUNCTION-6 DOWNLOAD	8	

LOCATION 180	ENTRY	ENTRY
AUDIBLE TEST ON ARMING	1	
AUTO-RESET AFTER ALARM TIMEOUT	(2)	
(RESERVED)		
(RESERVED)		

LOCATION 236	ENTRY	ENTRY
ENABLE USER 8 FOR ACCESS ON PGM	1	
ENABLE PGM OUTPUT ON E/E DELAY	2	
FAILURE TO COMMUNICATE ON PGM LUG	4	
KEYPAD SOUNDER ON PGM LUG	8	

LOCATION 081	ENTRY	ENTRY
WATCH ON WITH GROUP BYPASS	1	
CHIME ON WITH GROUP BYPASS	2	
DISPLAY OPEN ZONES	(4)	
DISABLE DISPLAY BYPASS	8	

LOCATION 181	ENTRY	ENTRY
(RESERVED)		
DISABLE FIRE RESET W/HD9 (NOTE 2)	2	
ENABLE KEYPAD TACTILE BEEP	(4)	
RESET TEST TIMER ON REPORT	8	

LOCATION 237	ENTRY	ENTRY
GROUND START ON PGM LUG	1	
ARMED LED ON PGM LUG	2	
K/P AUX ALARM ON PGM (SEE NOTE 1)	4	
AUDIO VERIFICATION ON PGM LUG	8	

LOCATION 082	ENTRY	ENTRY
ENABLE DOWNLOAD W/ANSWERING MACH.	(1)	
(RESERVED)		
ENABLE KEYPAD FIRE (SEE NOTE 1)	4	
ENABLE KEYPAD AUX (SEE NOTE 1)	8	

### TIMES & TIMEOUTS

094	095	SENSOR WATCH (hours)
234	235	TEST-TIMER OFFSET (hours)

DELAY TIME		
218	219	EXIT DELAY (D,2) (seconds)
220	221	ENTRY DELAY 1 (E,1) (seconds)
222	223	ENTRY DELAY 2 (E,1) (seconds)
232	233	ABORT DELAY (seconds)

TIMEOUTS		
224	225	BURG OUT TIMEOUT (5, ) (minutes)
226	227	TIMED NEG OUTPUT (minutes)
228	229	FIRE TIMEOUT (F, ) (minutes)
230	231	CHIME TIME (8, ) (1/4 seconds)

Example: For 2 seconds, enter 8 in 230.

TIME EXAMPLES		
TIME	1st BOX	2nd BOX
5	5	NONE
10	0	NONE
15	F	NONE
30	E	1
45	D	2
60	C	3

x1	x10	
252	253	AUTO D/L ID NO. (SEE NOTE 3)
254		CALLBACK SELECT (Enter 1 or 2)

NOTES: (1) Requires that all keypads have F/P/A keypad panics. (2) Shall be left enabled in UL-listed systems with a fire-alarm loop. (3) Program in decimal numbers; do not use leading zeros.

ENTRY TOTAL:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PROGRAMMER DISPLAYS:	.	1	2	3	4	5	6	7	8	9	0	B	C	D	E	F

. (dot) or blank for no entry.