

Jan 11, 1993  
Software Version 1.3

# PROGRAMMING FLOW CHARTS

# PROGRAMMING THE PC4000

The PC4000 incorporates a new method of programming which uses a menu system to find a specific program location when it is to be entered.

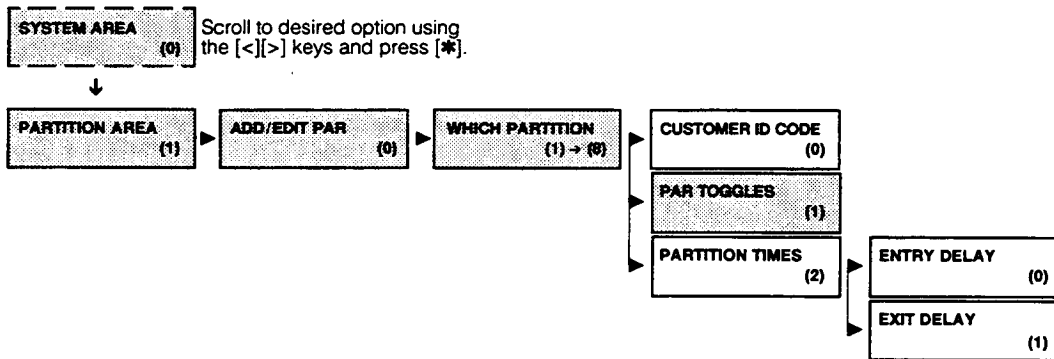
Book 1 contains the programming flow charts for the PC4000. The charts are arranged in such a way as to allow you to quickly find any option and the path required to arrive at the program location. In addition you will be able to see other options also available to you in the program area.

Plain boxes are program areas and shaded boxes are menu selections.

Two methods may be used to select the different menu items to arrive at a program location. With the first, you may use the arrow keys (<>) to scroll through the menu items. When the desired item is displayed press the [\*] key. The [\*] key is used as an 'ENTER' or 'SELECT' key. The panel will then move you to the next set of options.

The other method incorporates a 'HOTKEY' system. Every menu and program item contains a one or two digit 'HOTKEY' entry. Simply press the number(s) in the menu or program box and the panel will automatically select the item for you. DO NOT PRESS THE [\*] AFTER ENTERING THE 'HOTKEY' NUMBER. This second method is much quicker once you become familiar with it.

EXAMPLE: We wish to program the Exit Delay for Partition 4. The following is the flow chart located in Book 1.



Using the first method the arrow keys would have to be pressed many times to scroll to the various items followed by the [\*] key to select the item. Twelve keystrokes would be required after entering Installer Programming providing no mistakes are made. The keystrokes required are as follows:

- [>], [\*] to select PARTITION AREA
- [\*] to select ADD/EDIT PAR
- [>], [>], [>], [\*] to select to PARTITION 4
- [>], [>], [\*] to select PARTITION TIMES
- [>], [\*] to select EXIT DELAY

Using the second 'HOTKEY' method we require only 5 keystrokes:

- [1] to select PARTITION AREA
- [0] to select ADD/EDIT PAR
- [4] to select PARTITION 4
- [2] to select PARTITION TIMES
- [1] to select EXIT DELAY

With less keystrokes required, programming is quicker as there is less chance of an error occurring.

At any time you may press the [#] key to exit a section. ANY DATA ENTERED WILL BE CHANGED. THE [#] KEY IS NOT AN ABORT KEY! The [#] key can also be pressed to move you back to the previous menu. Pressing the [#] key several times will exit you from Installer Programming.

To make programming easier the INDEX at the back of the Programming Manual includes the chart number beside every option as well as the page number for a description of the option.

---

## Programming Toggle Options

Some program areas contain several toggle options which pertain to the menu item selected. Use the arrow keys (<>) to scroll through the various items. Press the [\*] key to toggle between [Y]es and [N]o for each feature. Once all the toggle options have been programmed press the [#] key to save your changes and return to the previous menu.

## Programming HEX Digits

Often HEX digits are required for a program item. When a HEX digit is required press the [\*] key to enter the HEX menu. You may use the arrow keys to scroll through the HEX digits (A through F) and when the desired letter is displayed press the [\*] key.

Another much quicker method for entering HEX digits is to, first, press the [\*] key followed by the number corresponding to the HEX letter i.e. A = 1, B = 2, C = 3, up to F = 6. The [\*] key must be pressed before entering each HEX digit as the software returns you to decimal programming automatically after each entry.

EXAMPLE: To enter data 'ABCD' on a PC4000 you would enter:

[\*], [1], [\*], [2], [\*], [3], [\*], [4]

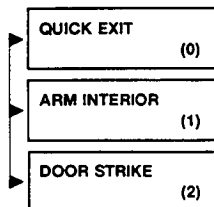
*NOTE: The [\*] key is required before every HEX digit entered.*

# USER FUNCTIONS PROGRAMMING FLOW CHARTS

---

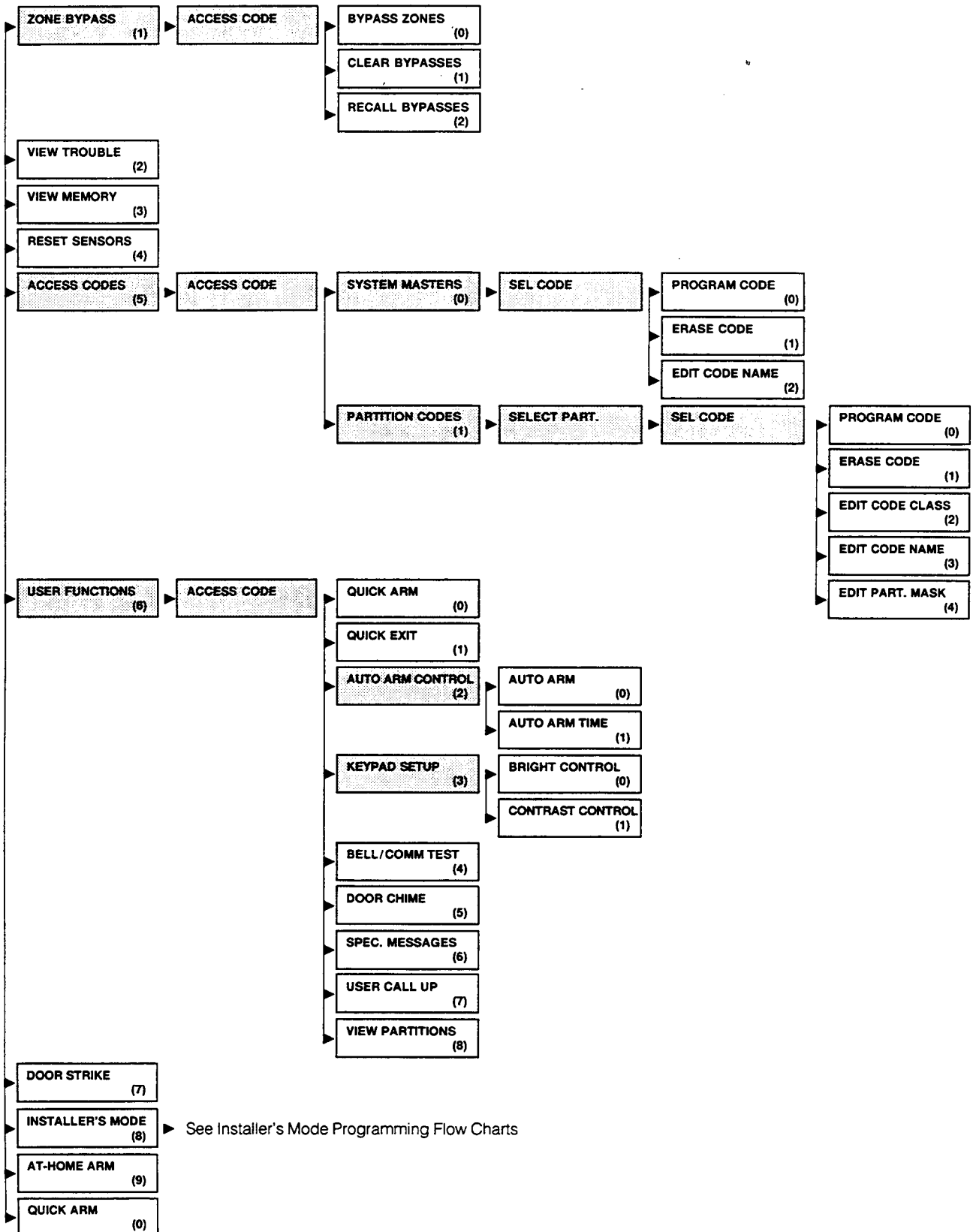
## Armed State

While the partition is armed, press the [\*] key to call up this menu.



## Disarmed State

While the partition is disarmed, press the [\*] key to call up this menu.



See Installer's Mode Programming Flow Charts

# PROGRAMMING FLOW CHARTS

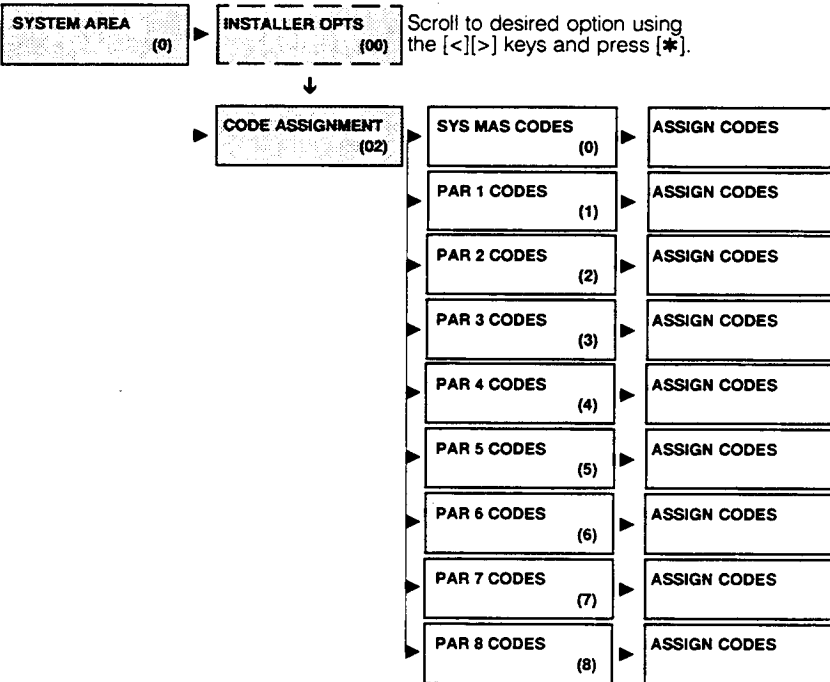
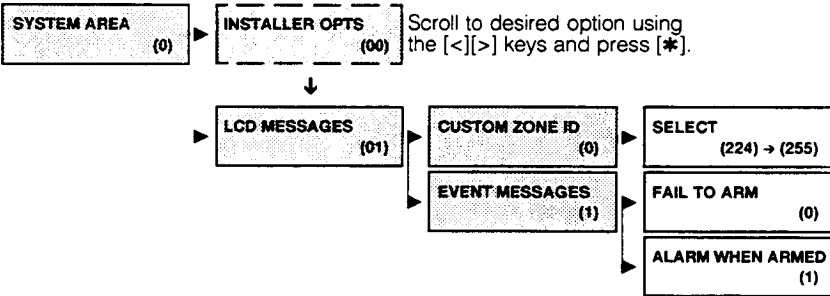
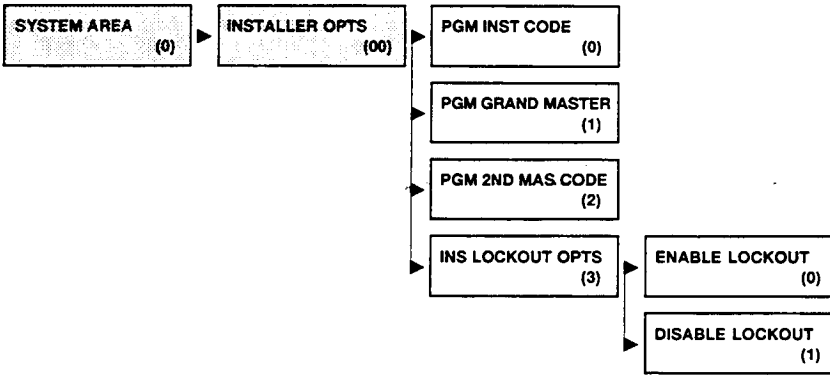
		Page
<b>SYSTEM AREA</b> (0)	<b>INSTALLER OPT'S</b> (00)	8
	<b>LCD MESSAGES</b> (01)	8
	<b>CODE ASSIGNMENT</b> (02)	8
	<b>SYSTEM OPTIONS</b> (03)	9
	<b>DLS SECTION</b> (04)	11
	<b>COMMUNICATOR</b> (05)	12
	<b>SW AUX OUTPUT</b> (06)	16
	<b>MAIN BELL OUTPUT</b> (07)	16
	<b>PGM OUTPUTS</b> (08)	17
	<b>RS-232 OPTIONS</b> (09)	19
<b>PARTITION AREA</b> (1)	<b>ADD/EDIT PAR</b> (0)	22
	<b>DELETE PARTITION</b> (1)	22
	<b>COPY PARTITION</b> (2)	22
<b>MODULE HARDWARE</b> (2)	<b>ENROLL MODULE</b> (0)	24
	<b>DELETE MODULE</b> (1)	24
	<b>CONFIRM MODULE</b> (2)	24
<b>EVENT BUFFER</b> (3)	<b>PRN ENTIRE BUFF</b> (0)	25
<b>DIAGNOSTICS</b> (4)	<b>DIAGNOSTICS</b> (0)	26
	<b>BINARY PROGRAM</b> (1)	26
	<b>MEMORIZE VBAT</b> (2)	26
	<b>FACTORY DEFAULT</b> (3)	26

# System Area Index

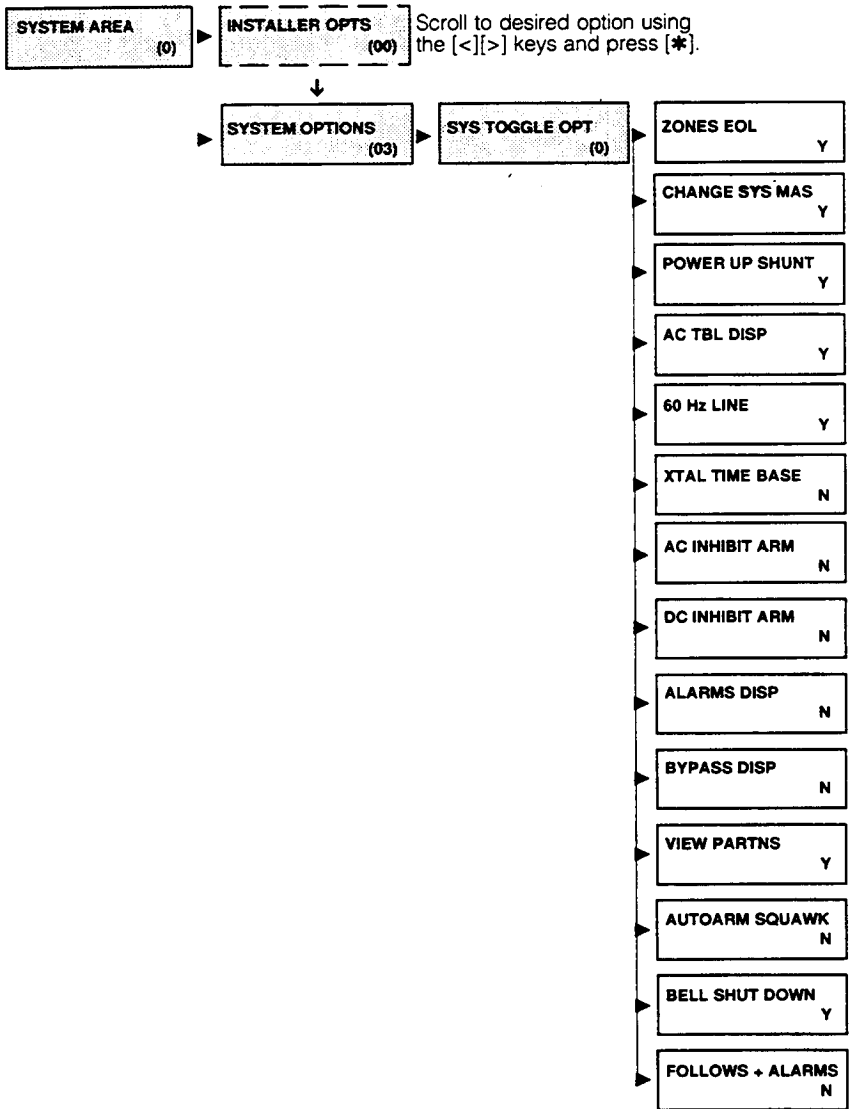
Page

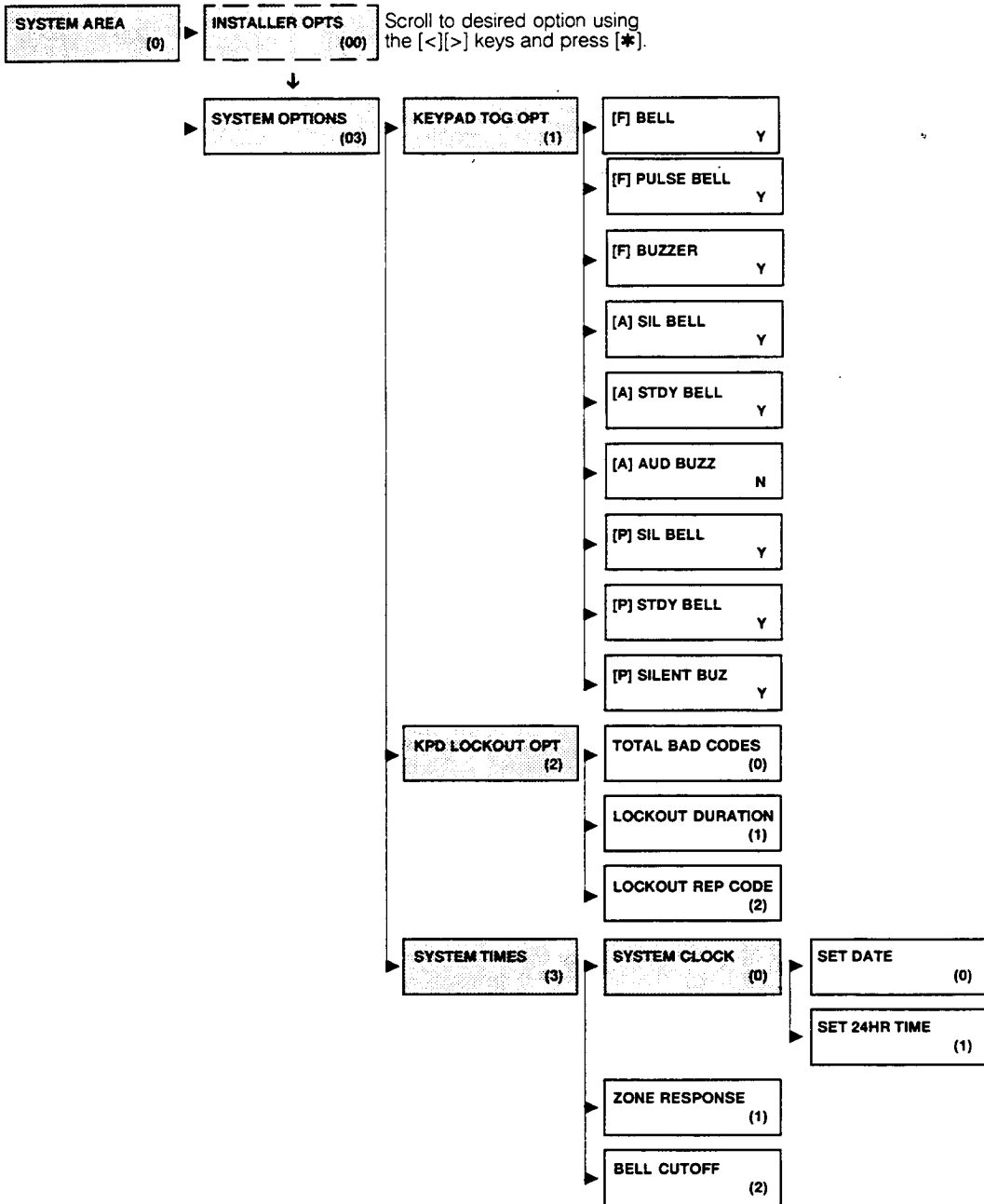
<b>SYSTEM AREA</b> (0)		
	<b>INSTALLER OPT'S</b> (00)	8
	<b>LCD MESSAGES</b> (01)	8
	<b>CODE ASSIGNMENT</b> (02)	8
	<b>SYSTEM OPTIONS</b> (03)	9
	<b>DLS SECTION</b> (04)	11
	<b>COMMUNICATOR</b> (05)	
	<b>MAIN ITEMS</b> (0)	12
	<b>COMMS TOGGLES</b> (1)	13
	<b>COMMS MISC</b> (2)	14
	<b>REPORTING CODES</b> (3)	15
	<b>SW AUX OUTPUT</b> (06)	16
	<b>MAIN BELL OUTPUT</b> (07)	16
	<b>PGM OUTPUTS</b> (08)	
	<b>MAIN PGM OUT</b> (0)	17
	<b>4204 OPTIONS</b> (1)	17
	<b>4216 OPTIONS</b> (2)	17
	<b>4216 CUSTOM</b> (3)	17
	<b>PGM PULSE TIMES</b> (4)	17
	<b>RS-232 OPTIONS</b> (09)	19

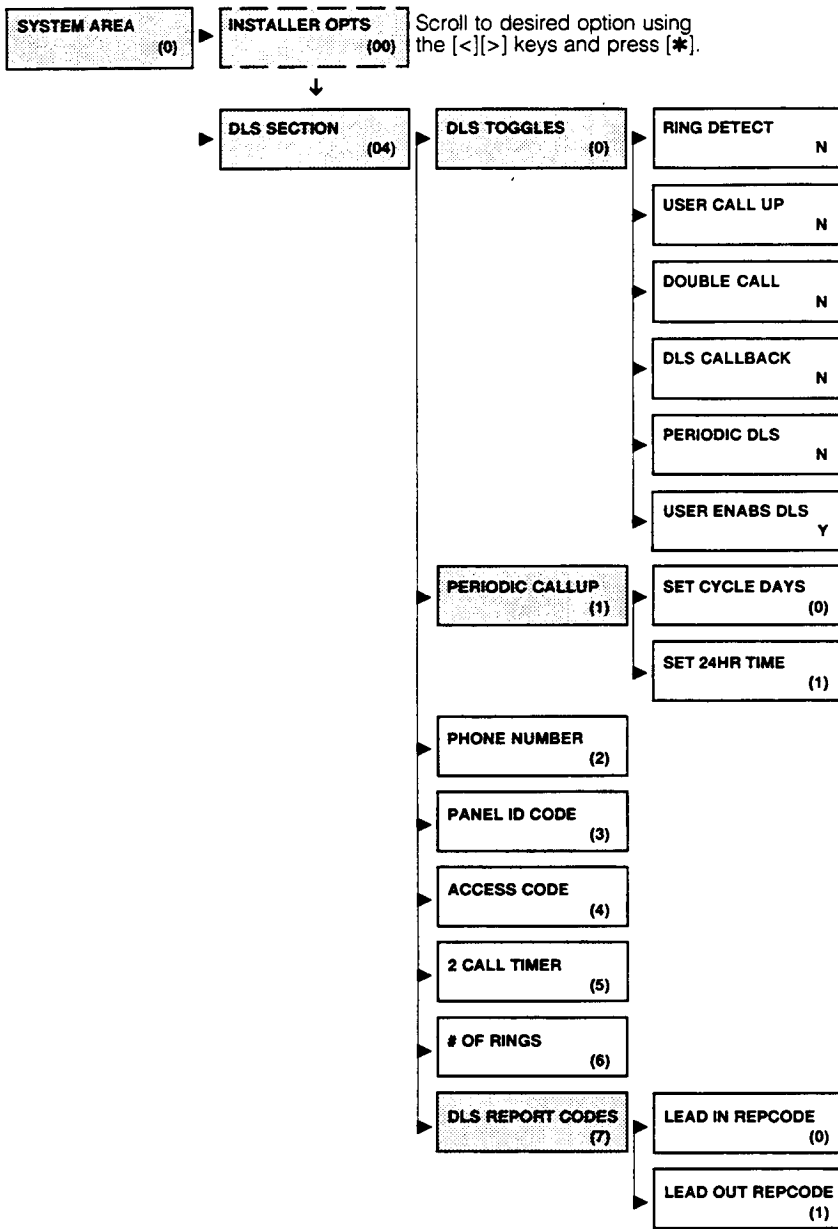
SYSTEM AREA ▶ INSTALLER OPTS/LCD MESSAGES/ CODE ASSIGNMENT

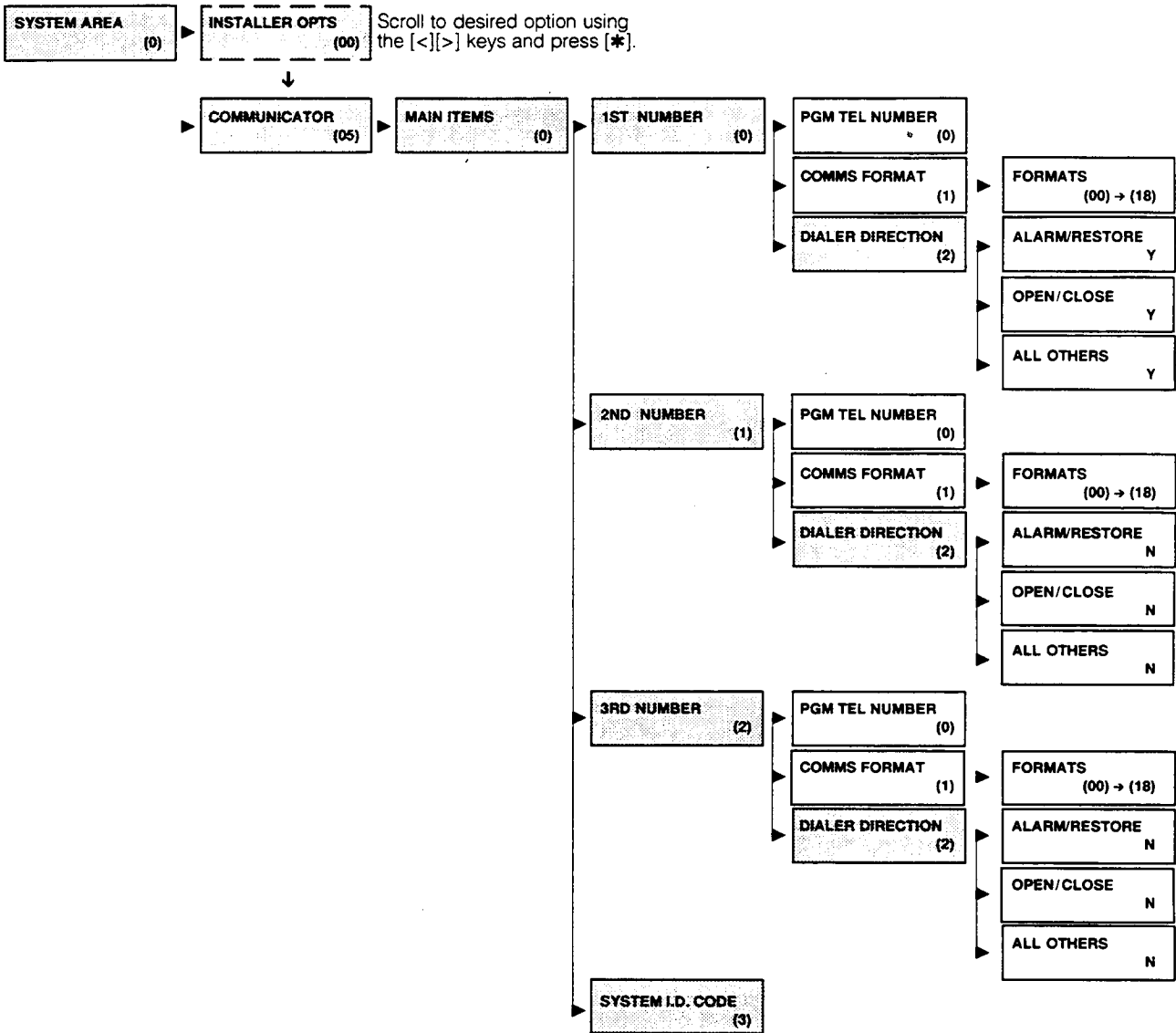


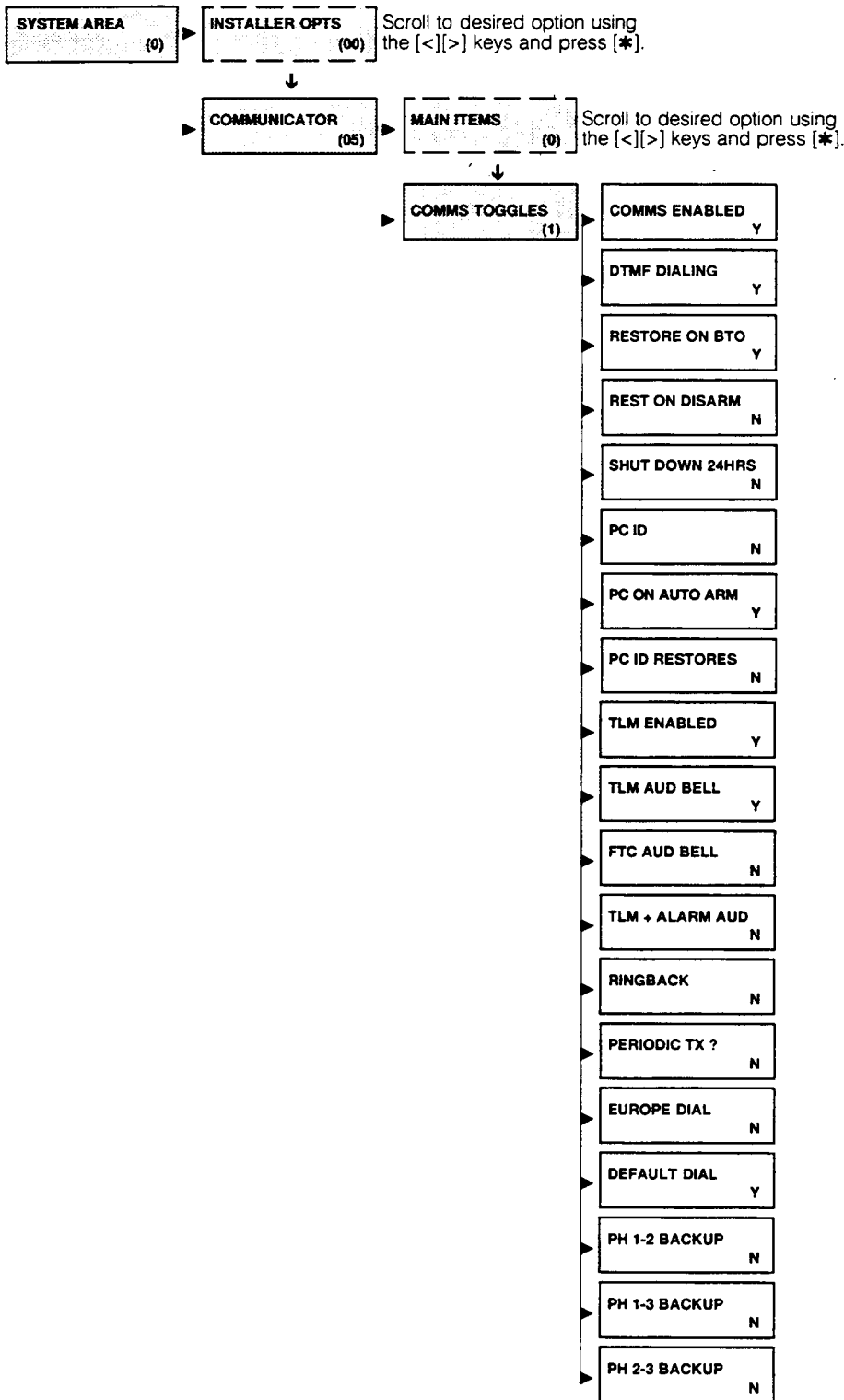


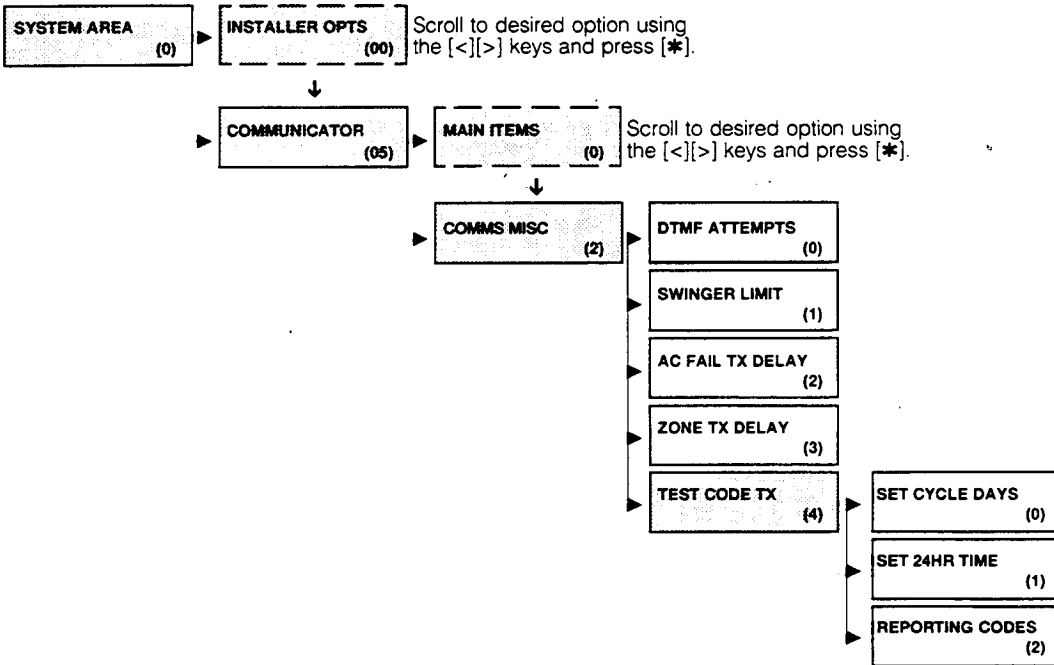


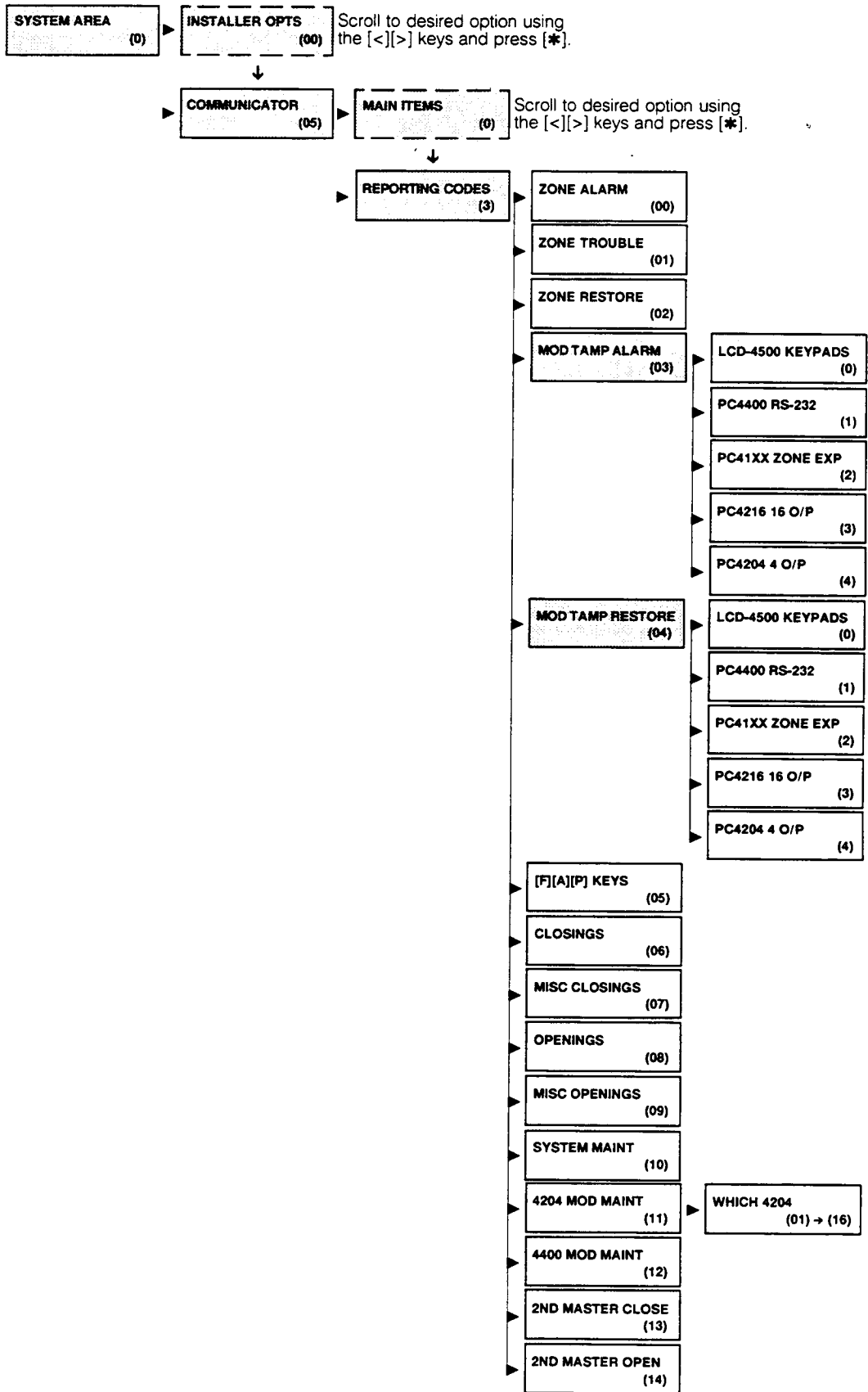








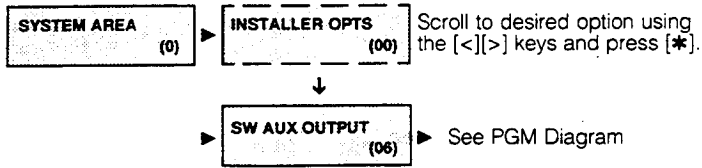




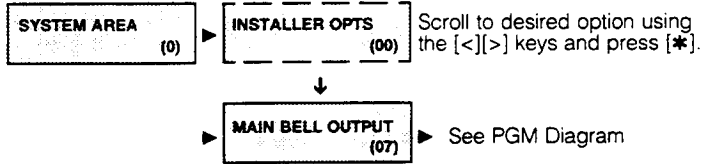
**SYSTEM AREA ▶ SW AUX OUTPUT/MAIN BELL OUTPUT**

---

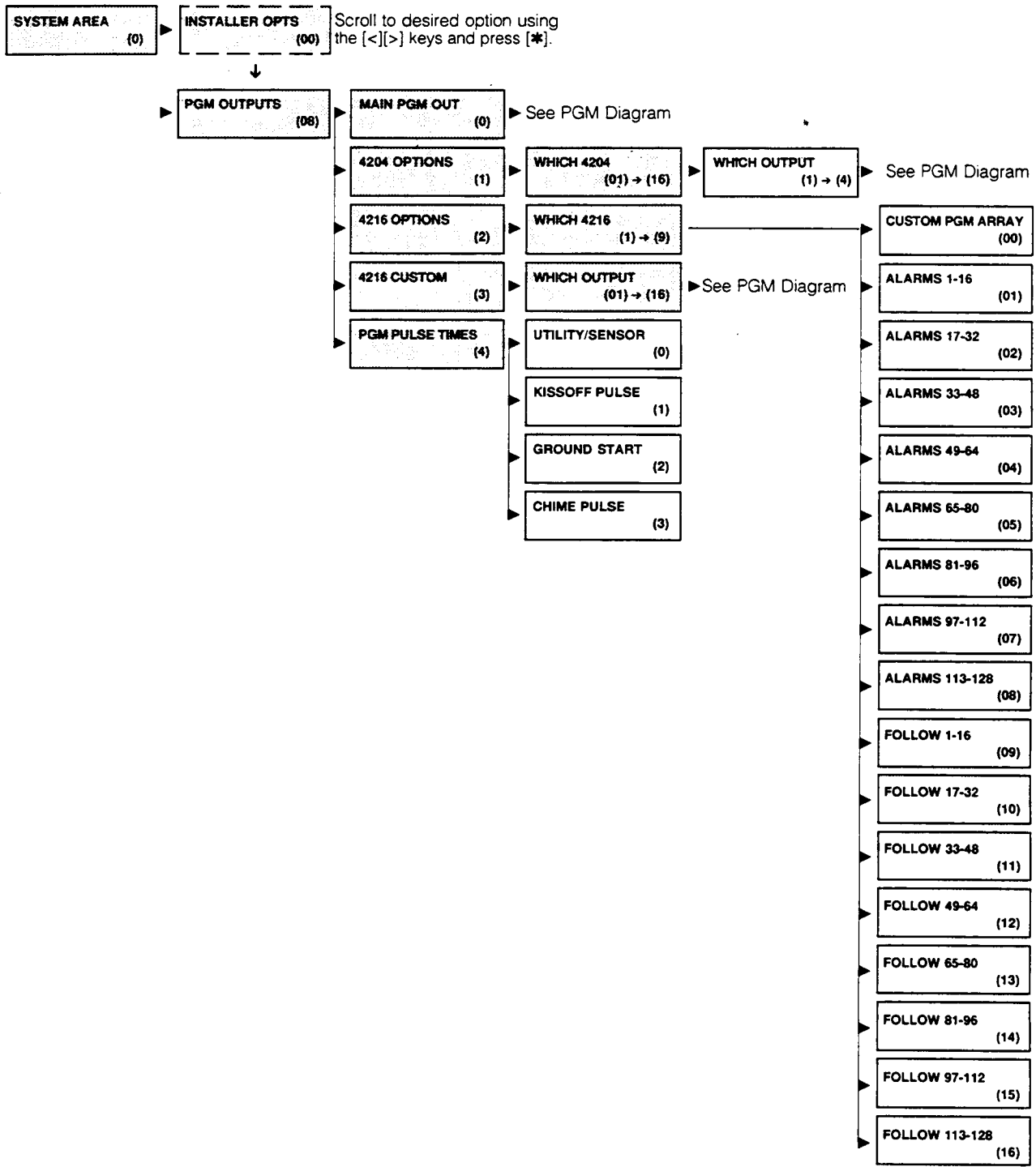
**SYSTEM AREA ▶ SW AUX OUTPUT**



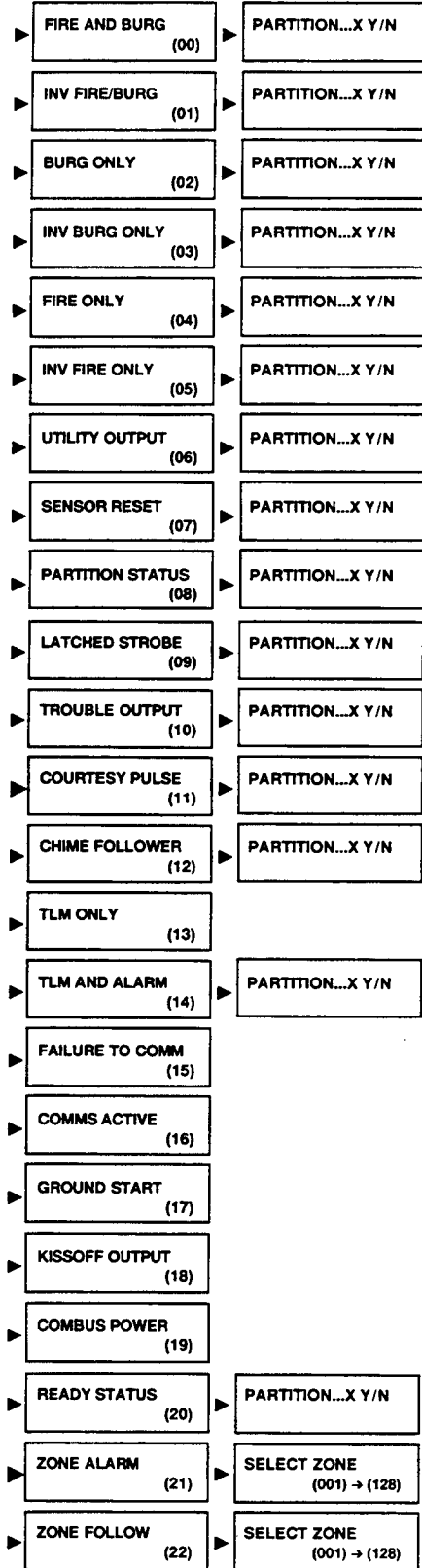
**SYSTEM AREA ▶ MAIN BELL OUTPUT**

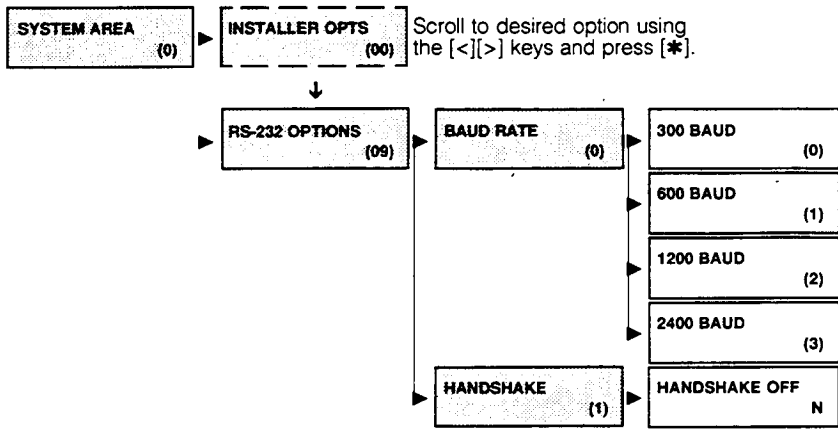






**PGM Diagram**

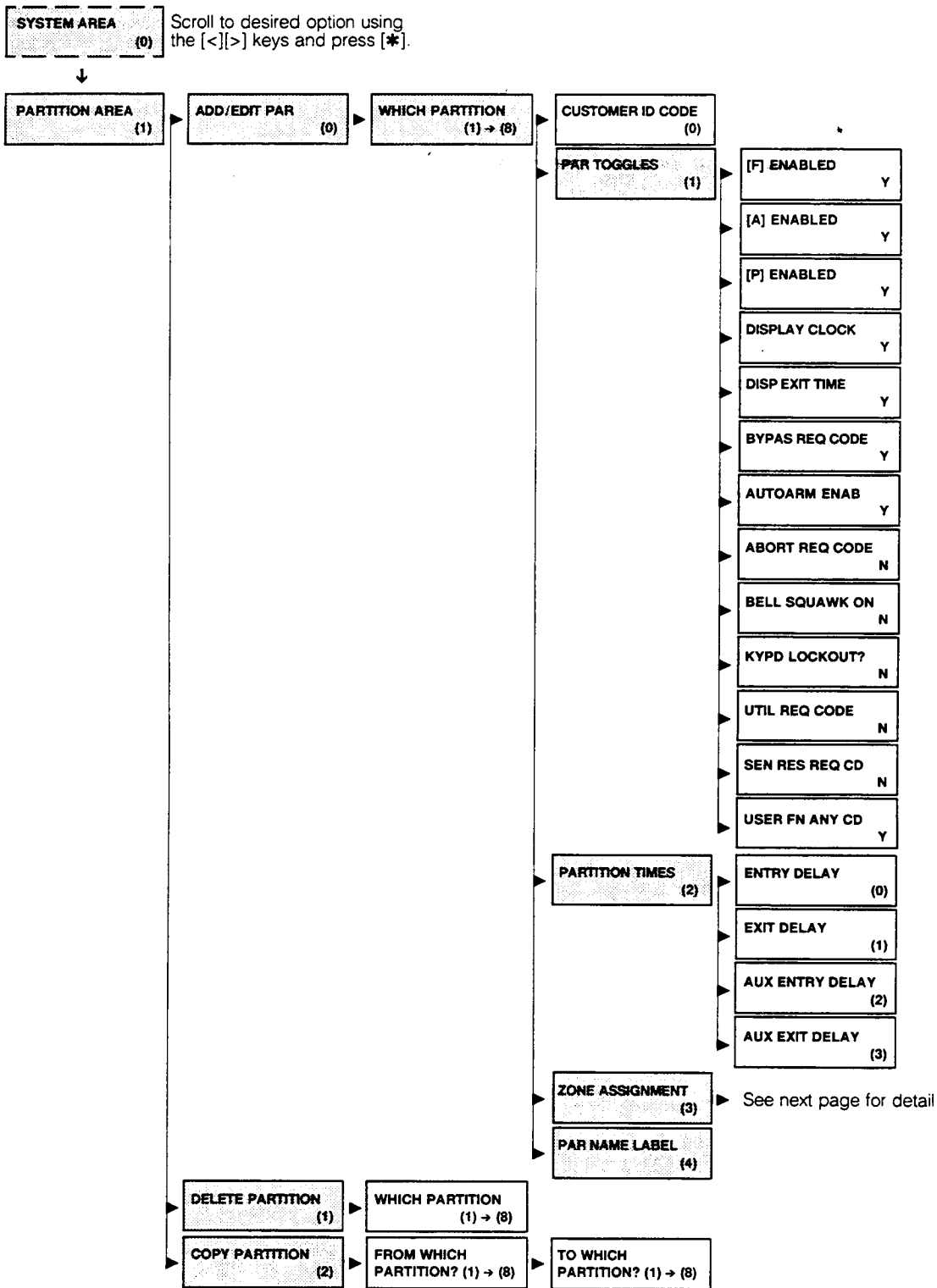


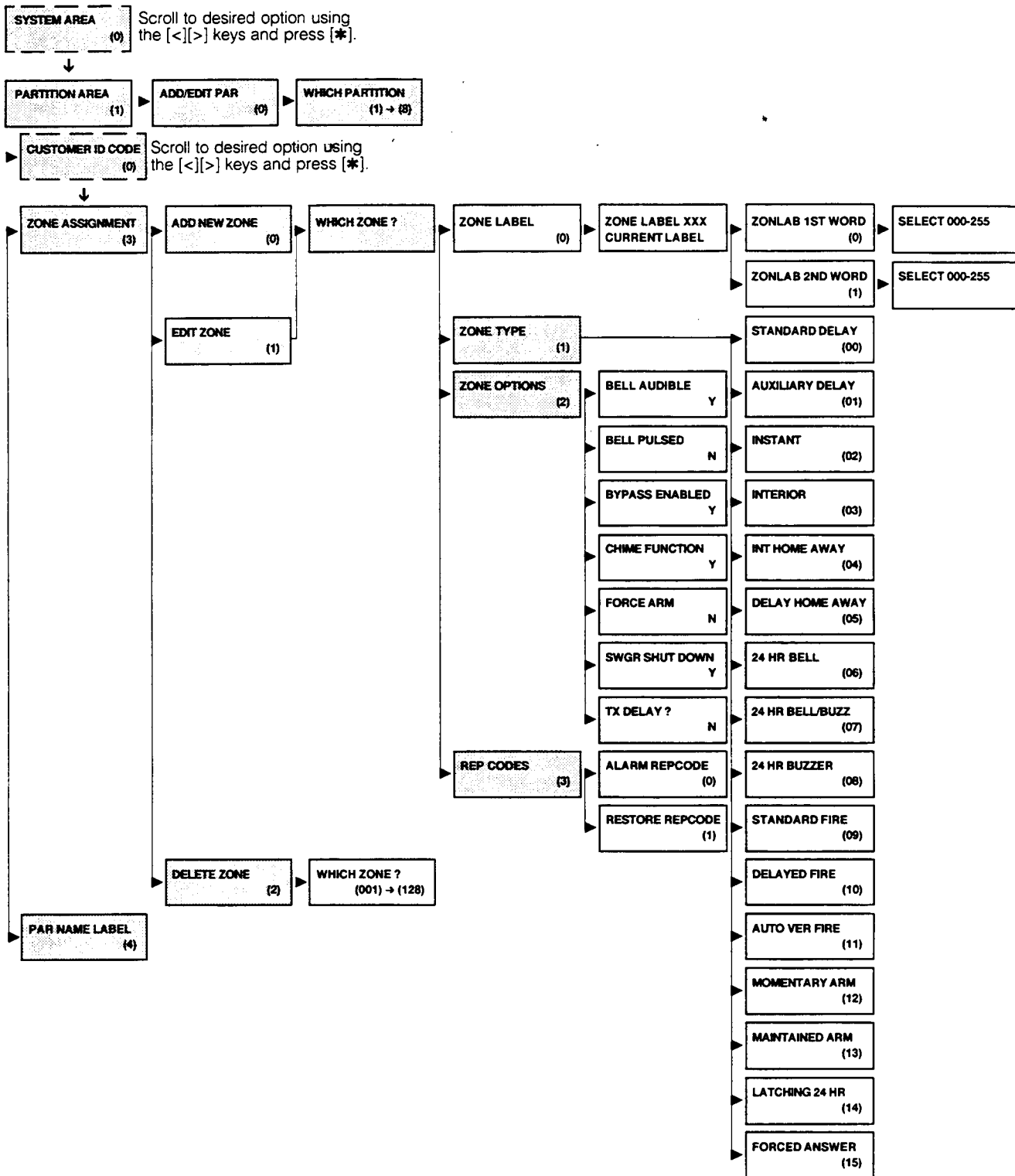


# Partition Area Index

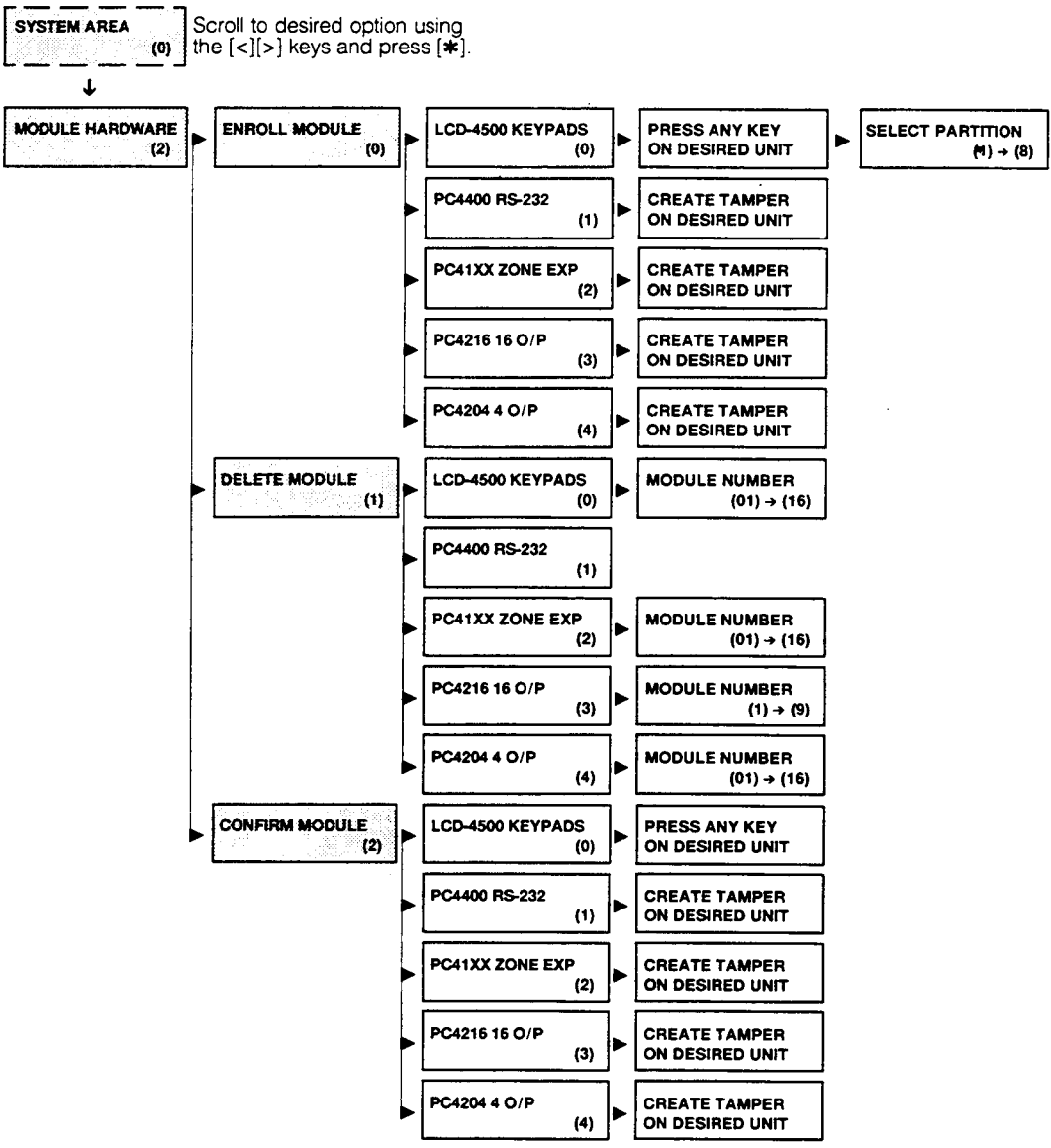
Page

<b>PARTITION AREA</b> (1)	▶	<b>ADD/EDIT PAR</b> (0)	▶	<b>WHICH PARTITION</b> (1) → (8)	▶	<b>CUSTOMER ID CODE</b> (0)	_____ 22
						<b>PAR TOGGLES</b> (1)	_____ 22
						<b>PARTITION TIMES</b> (2)	_____ 22
						<b>ZONE ASSIGNMENT</b> (3)	_____ 22
						<b>PAR NAME LABEL</b> (4)	_____ 22
	▶	<b>DELETE PARTITION</b> (1)	▶	<b>WHICH PARTITION</b> (1) → (8)			_____ 22
	▶	<b>COPY PARTITION</b> (2)	▶	<b>FROM WHICH PARTITION ?</b> (1) → (8)	▶	<b>TO WHICH PARTITION ?</b> (1) → (8)	_____ 22





**MODULE HARDWARE ▶ ENROLL MODULE/DELETE MODULE/CONFIRM MODULE**



---

**SYSTEM AREA** (0)

Scroll to desired option using the [<][>] keys and press [\*].



**EVENT BUFFER** (3)

► **PRN ENTIRE BUFF** (0)

---



# DIAGNOSTICS

**SYSTEM AREA** (0) Scroll to desired option using the [<][>] keys and press [\*].



**DIAGNOSTICS** (4)

**DIAGNOSTICS** (0)

See Appendix C for information.

*The following menus are present for first minute after power up only.*

**BINARY PROGRAM** (1)

**ENT HEX ADDRESS**

**MEMORIZE VBAT** (2)

**SET VBAT = 13.85V  
PRESS ANY KEY**

**FACTORY DEFAULT** (3)

**POWER SYSTEM  
DOWN AND RESTART**

# APPENDIX A

## List of Available ASCII Characters

032	0	@	P	`	P		—	々	ミ	⊗	P
	048	064	080	096	112	160	176	192	208	224	240
!	1	A	Q	a	q	□	ア	チ	△	⊗	q
033	049	065	081	097	113	161	177	193	209	225	241
"	2	B	R	b	r	⌈	イ	ウ	×	⊗	⊗
034	050	066	082	098	114	162	178	194	210	226	242
#	3	C	S	c	s	┘	ウ	テ	⊗	⊗	⊗
035	051	067	083	099	115	163	179	195	211	227	243
\$	4	D	T	d	t	、	I	ト	⊗	⊗	⊗
036	052	068	084	100	116	164	180	196	212	228	244
%	5	E	U	e	u	▪	オ	ナ	┘	⊗	⊗
037	053	069	085	101	117	165	181	197	213	229	245
&	6	F	V	f	v	ヲ	カ	ニ	ヨ	⊗	⊗
038	054	070	086	102	118	166	182	198	214	230	246
'	7	G	W	g	w	ア	キ	ヲ	ラ	⊗	⊗
039	055	071	087	103	119	167	183	199	215	231	247
(	8	H	X	h	x	イ	ク	ネ	リ	⊗	⊗
040	056	072	088	104	120	168	184	200	216	232	248
)	9	I	Y	i	y	ウ	ケ	ノ	ル	⊗	⊗
041	057	073	089	105	121	169	185	201	217	233	249
*	:	J	Z	j	z	エ	コ	ハ	レ	⊗	⊗
042	058	074	090	106	122	170	186	202	218	234	250
+	;	K	[	k	[	オ	サ	ヒ	ロ	⊗	⊗
043	059	075	091	107	123	171	187	203	219	235	251
,	<	L	]	l	]	カ	シ	フ	ワ	⊗	⊗
044	060	076	092	108	124	172	188	204	220	236	252
—	=	M	^	m	^	ユ	ズ	ハ	ン	⊗	⊗
045	061	077	093	109	125	173	189	205	221	237	253
▪	>	N	~	n	~	ヨ	セ	ホ	ッ	⊗	⊗
046	062	078	094	110	126	174	190	206	222	238	254
/	?	O	_	o	_	ツ	リ	マ	□	⊗	■
047	063	079	095	111	127	175	191	207	223	239	255

# APPENDIX B

## List of Available Library Words

000 BLANK LABEL	037 "CELLAR"	074 "ENTRANCE"	111 "JANITOR"
001 "1ST"	038 "CENTRE"	075 "ENTRY"	112 "KEY"
002 "2ND"	039 "CHAMBER"	076 "EXIT"	113 "KITCHEN"
003 "3RD"	040 "CHIMNEY"	077 "EXTERNAL"	114 "LAB"
004 "4TH"	041 "CHINA"	078 "FACTORY"	115 "LAUNDRY"
005 "5TH"	042 "CHUTE"	079 "FAMILY"	116 "LEFT"
006 "ACCESS"	043 "CLOSET"	080 "FENCE"	117 "LIFT"
007 "AMBULANCE"	044 "COLD"	081 "FIELD"	118 "LIGHT"
008 "APARTMENT"	045 "COMPUTER"	082 "FIRE"	119 "LINES"
009 "ATRIUM"	046 "CONDO"	083 "FLOOD"	120 "LIQUOR"
010 "ATTIC"	047 "CONTACT"	084 "FLOOR"	121 "LIVING"
011 "BABY"	048 "COPIER"	085 "FOIL"	122 "LOBBY"
012 "BACK"	049 "CORRIDOR"	086 "FORCE"	123 "LOFT"
013 "BALCONY"	050 "CORNER"	087 "FOYER"	124 "LOOP"
014 "BAR"	051 "CRAWL"	088 "FRONT"	125 "LOT"
015 "BARN"	052 "DARK"	089 "FULL"	126 "LOW"
016 "BASEMENT"	053 "DECK"	090 "FURNACE"	127 "LUNCH"
017 "BATHROOM"	054 "DEN"	091 "FUSE"	128 "MACHINE"
018 "BAY"	055 "DESK"	092 "GARAGE"	129 "MAIL"
019 "BEAM"	056 "DETECTOR"	093 "GAS"	130 "MANAGER"
020 "BEDROOM"	057 "DEVICE"	094 "GATES"	131 "MASTER"
021 "BELL"	058 "DINING"	095 "GLASS"	132 "MEDICAL"
022 "BOILER"	059 "DISH"	096 "GROUP"	133 "MEETING"
023 "BOTTOM"	060 "DISPLAY"	097 "GUARD"	134 "MIDDLE"
024 "BOX"	061 "DOOR"	098 "GUEST"	135 "MODULE"
025 "BREAK"	062 "DOORBELL"	099 "GUNS"	136 "MOTION"
026 "BROKEN"	063 "DOWNSTAIRS"	100 "GYM"	137 "N E"
027 "BURGLARY"	064 "DRAWER"	101 "HALLWAY"	138 "N W"
028 "CABINET"	065 "DRIVEWAY"	102 "HEAT"	139 "NORTH"
029 "CAFE"	066 "DRY"	103 "HOSE"	140 "NURSERY"
030 "CAGE"	067 "DUCTS"	104 "HOT"	141 "OFFICE"
031 "CAMERA"	068 "DUPLEX"	105 "HOUSE"	142 "OUTSIDE"
032 "CARPORT"	069 "EAST"	106 "HUMIDITY"	143 "OVER"
033 "CASH"	070 "ELECTRIC"	107 "INNER"	144 "OVERFLOW"
034 "CASHIER"	071 "ELEVATOR"	108 "INSIDE"	145 "OVERHEAD"
035 "CEILING"	072 "EMPTY"	109 "INTERCOM"	146 "PAD"
036 "CELL"	073 "EMERGENCY"	110 "INTERNAL"	147 "PANEL"

NOTE: 000 is a blank label for the "2ND" word, and is 'Zone XXX' for the "1ST" word.

148 "PANIC"	167 "REC"	186 "SOLAR"	205 "UNIT"
149 "PARKING"	168 "REGISTER"	187 "SOLARIUM"	206 "UPSTAIRS"
150 "PASSIVE"	169 "RIGHT"	188 "SOUTH"	207 "UTILITY"
151 "PATIO"	170 "ROOF"	189 "SPACE"	208 "VAULT"
152 "PHONE"	171 "ROOM"	190 "SPARE"	209 "VOLTAGE"
153 "PHOTO"	172 "ROOT"	191 "SPRINKLER"	210 "WAITING"
154 "PIPES"	173 "S E"	192 "STABLE"	211 "WALKWAY"
155 "PIR"	174 "S W"	193 "STAIRS"	212 "WAREHOUSE"
156 "PLACE"	175 "SAFE"	194 "STORAGE"	213 "WATER"
157 "PLATE"	176 "SCREEN"	195 "STORE"	214 "WELL"
158 "PLAY"	177 "SENSOR"	196 "STRIKE"	215 "WEST"
159 "POLICE"	178 "SHED"	197 "STROBE"	216 "WINDOW"
160 "POOL"	179 "SHELF"	198 "STUDY"	217 "WINE"
161 "PORCH"	180 "SHIPPING"	199 "TABLE"	218 "WING"
162 "POWER"	181 "SHOP"	200 "TAMPER"	219 "WIRE"
163 "PREMISE"	182 "SIDE"	201 "TEMP"	220 "WIRELESS"
164 "PRESSURE"	183 "SIREN"	202 "TOOLS"	221 "WORK"
165 "RADIATOR"	184 "SLIDING"	203 "TOP"	222 "WORKSHOP"
166 "REAR"	185 "SMOKE"	204 "UNDERGND"	223 "YARD"

**Custom Zone ID**

224 "_____"	240 "_____"
225 "_____"	241 "_____"
226 "_____"	242 "_____"
227 "_____"	243 "_____"
228 "_____"	244 "_____"
229 "_____"	245 "_____"
230 "_____"	246 "_____"
231 "_____"	247 "_____"
232 "_____"	248 "_____"
233 "_____"	249 "_____"
234 "_____"	250 "_____"
235 "_____"	251 "_____"
236 "_____"	252 "_____"
237 "_____"	253 "_____"
238 "_____"	254 "_____"
239 "_____"	255 "_____"

# APPENDIX C

## List of Diagnostics

E = Communication error  
 T = Tamper open  
 LV = Low voltage to module

Indicated # Number	For Future Use
-----------------------	----------------

1  
2  
3  
4  
5  
6  
7  
8

Indicated Number	LCD-4500 Module #
---------------------	----------------------

9 1  
10 2  
11 3  
12 4  
13 5  
14 6  
15 7  
16 8  
17 9  
18 10  
19 11  
20 12  
21 13  
22 14  
23 15  
24 16

Indicated Number	PC4400 RS-232 Module #
---------------------	---------------------------

25 1

Indicated Number	PC41XX Zone Module #
---------------------	-------------------------

26 1  
27 2  
28 3  
29 4  
30 5  
31 6  
32 7  
33 8  
34 9  
35 10  
36 11  
37 12  
38 13  
39 14  
40 For future use 15  
41 For future use 16

Indicated Number	PC4216 O/P Module #
---------------------	------------------------

42 1  
43 2  
44 3  
45 4  
46 5  
47 6  
48 7  
49 8  
50 9

Indicated Number	PC4204 O/P Module #
---------------------	------------------------

51 1  
52 2  
53 3  
54 4  
55 5  
56 6  
57 7  
58 8  
59 9  
60 10  
61 11  
62 12  
63 13  
64 14  
65 15  
66 16