FA168C / FA168C-CN
FA148CP / FA148CP-CN

Programming Guide

First Alert
PROFESSIONAL SECURITY SYSTEMS®

K5305-5PR 7/01

TO ENTER PROGRAMMING MODE:

Local programming requires the use of an alpha keypad connected to the keypad terminals on the control.

1. POWER UP, then depress **[✶] and [#]** both at once, within 50 seconds of powering up.

   OR

2. Initially, key: **Installer Code** (default = 4112) plus **8 + 0 + 0.**
   (if ✶98 was used to exit previously, see *To Exit Programming Mode* paragraph below.

Data Field Programming Procedures

Task	Procedure
Go to a Data Field	Press [✶] + [Field Number], followed by the required entry.
Entering Data	When the desired field number appears, simply make the required entry. When the last entry for a field is entered, the keypad beeps three times and automatically displays the next data field in sequence. If the number of digits that you need to enter in a data field is less than the maximum digits available (for example, the phone number fields *41, *42), enter the desired data, then press [✶] and the next data field number to be programmed to end the entry.
Review a Data Field	Press [#] + [Field Number]. Data will be displayed for that field number. No changes will be accepted in this mode.
Deleting an Entry	Press [✶] + [Field Number] + [✶]. (Applies only to fields ✶40–*46, *94, and pager programming fields)

Interactive Mode Programming (✶56, *57, ✶58, ✶79, ✶80, ✶81, ✶82)

Press **[✶] + [Interactive Mode No.]** (for example, ✶56). The alpha display keypad will display the first of a series of prompts requesting entries.

Interactive Mode	Used to Program
✶56 Zone Programming	Zone characteristics, report codes, alpha descriptors, and serial numbers for 5800 RF transmitters.
✶57 Function Key Programming	Unlabeled keypad keys (known as ABCD keys) for special functions
✶58 Zone Programming (Expert mode)	Same options as *56 mode, but with fewer prompts. Intended for those familiar with this type of programming, otherwise *56 mode is recommended.
✶79 Output Device Mapping	Assign module addresses and map individual relays/powerline carrier devices
✶80 Output Programming	4229 or 4204 Relay modules, Powerline Carrier devices, or on-board triggers
✶81 Zone List Programming	Zone Lists for relay/powerline carrier activation, chime zones, pager zones, etc.
✶82 Alpha Programming	Zone alpha descriptors

INITIALIZE DOWNLOAD and RESET DEFAULTS

✶96 Initializes download ID and subscriber account number.

✶97 Sets all data fields to original factory default values.

TO EXIT PROGRAMMING MODE:

✶98 Exits programming mode and *prevents* re-entry by: **Installer Code** + **8** + **0** + **0**. To reenter the programming mode, the system must be powered down, then powered up, then press both **[✶] and [#]** at same time within 50 seconds of powering up (method 1 described above), UNLESS Local Lockout (in field *91) is enabled. If so, re-entry to programming mode is permitted *only* by **Installer Code** + **8** + **0** + **0** (method 2 described above).

✶99 Exits programming mode and *allows* re-entry by: **Installer Code** + **8** + **0** + **0** or method 1 above.

Special Messages

OC = OPEN CIRCUIT (no communication between Keypad and Control).

EE or **ENTRY ERROR** = ERROR (invalid field number entered; re-enter valid field number).

After powering up, **AC, dl** (disabled) or **Busy Standby** and **NOT READY** will be displayed after approximately 4 seconds. This will revert to a "**Ready**" message in approximately 1 minute, which allows PIRS, etc. to stabilize. You can bypass this delay by pressing **[#] + [0].**

If **E4** or **E8** appears, more zones than the expansion units can handle have been programmed. Correct the programming and then completely de-power and re-power the control to clear this indication and remove the disable indication.

PROGRAMMING FORM

Entry of a number other than one specified will give unpredictable results. Values shown in brackets are factory defaults. Entries shown in dashed boxes indicate partition entries for FA168C only (not applicable for FA148CP).

Field	Function	Data Entries	Programmable Values
SYSTEM SETUP (✶20–✶29)			
✶ 20	INSTALLER CODE	[4112]	4 digits, 0–9
✶21	QUICK ARM ENABLE	[0,0] Part. 1 Part.2	0 = no; 1 = yes
✶22	RF JAM OPTION	[0]	0 = no RF Jam detection; 1 = send RF Jam report UL: must be 1 if wireless devices are used
✶23	FORCED BYPASS	[0,0] Part. 1 Part. 2	0 = none UL: must be "0" 1 = bypass open zones
✶ 24	RF HOUSE ID CODE	Part. 1 Part. 2 Common	00 = disable all wireless keypad usage 01–31 = using 5827, 5827BD or 5804BD keypad [00,00,00]
✶26	CHIME BY ZONE	[0]	0 = no; 1 = yes (select zones to chime on zone list 3, using *81 Menu mode)
✶27	X–10 HOUSE CODE	[0]	0 = A; 1 = B, 2 = C, 3 = D, 4 = E, 5 = F, 6 = G, 7 = H, 8 = I, 9 = J, #10 = K, #11 = L, #12 = M, #13 = N, #14 = O, #15 = P UL: not for fire or UL installations
✶28	ACCESS CODE FOR 4285/4286 PHONE MODULE	[00] (Partition 1 only)	00 = disable; 1st digit: enter 1–9; 2nd digit: enter # + 11 for "✶", or # + 12 for "#". UL: must be "00" for UL Commercial Burg. installations
✶ 29	LONG RANGE RADIO OUTPUT	[0]	0 = disable; 1 = enable
ZONE SOUNDS AND TIMING (✶31 – ✶39)			
✶31	ONE AUDIBLE ALARM PER ZONE	[0]	0 = no UL: must be "0"; 1 = yes
✶32	FIRE ALARM SOUNDER TIMEOUT	[0]	0 = sounder stops at timeout; 1 = no sounder timeout UL: must be "1" for fire install.
✶33	ALARM SOUNDER TIMEOUT	[1]	0 = none; 1 = 4 min; 2 = 8 min; 3 =12 min; 4 = 16 min; UL: minimum "1" (4 min.)
✶34	EXIT DELAY	[70,70] Part. 1 Part. 2	00–99 = seconds of exit delay time for each partition Common zones use same delay as partition 1.
✶35	ENTRY DELAY #1 (zone type 01)	[30,30] Part. 1 Part. 2	00–99 = seconds of entry delay #1 time for each partition; UL: 45 seconds max. Common zones use same delay as partition 1.
✶36	ENTRY DELAY #2 (zone type 02)	[60,60] Part. 1 Part. 2	00–99 = entry delay #2 time for each partition; UL: 60 seconds max. Common zones use same delay as partition 1.
✶ 37	AUDIBLE EXIT WARNING	[1,1] Part. 1 Part. 2	0 = no; 1 = yes
✶38	CONFIRMATION OF ARMING DING	[0,0] Part. 1 Part. 2	0 = no; 1 = yes (wired keypads and RF) 2 = yes, RF only
✶39	POWER UP IN PREVIOUS STATE	[1]	0 = no; 1 = yes UL: must be "1"

DIALER PROGRAMMING (✶40 – ✶42)

Enter the number of digits shown. Do not fill unused spaces. Enter 0–9; #+11 for '✶'; #+12 for '#'; #+13 for a 2-second pause. If fewer than the maximum digits entered, exit the field by pressing [✶] and next desired field number.

✶ 40 PABX ACCESS CODE

Enter up to 6 digits. To clear entries from field, press ✶40✶ .

✶ 41 PRIMARY PHONE No.

Enter up to 20 digits. To clear entries, press ✶41✶ .

✶ 42 SECOND PHONE No.

Enter up to 20 digits. To clear entries, press ✶42✶ .

NOTE: Entry of a number other than one specified will give unpredictable results.
For fields *43-*46: Enter 0–9; #+11 for B; #+12 for C; #+13 for D; #+14 for E; #+15 for F. Enter [✶] as the fourth digit if a 3-digit account number (for 3+1 dialer reporting format) is used. Enter 0 as the first digit of a 4-digit account number for Nos. 0000-0999. Exit field by pressing ✶ (and press next field number) if only 3 digits are used. E.g., For Acct. **B234**, enter: [#+11| 2 | 3 | 4]

✶ **43**	PARTITION 1 PRIMARY SUBS. ACCT. No.	[||||] [FFFF]	See box above for entries. To clear entries from field, press *43*.
✶ **44**	PARTITION 1 SECONDARY SUBS. ACCT. No.	[||||] [FFFF]	See box above for entries. To clear entries from field, press *44*.
✶ **45**	PARTITION 2 PRIMARY SUBS. ACCT. No.	[||||] [FFFF]	See box above for entries. To clear entries from field, press *45*.
✶ **46**	PARTITION 2 SECONDARY SUBS. ACCT. No.	[||||] [FFFF]	See box above for entries. To clear entries from field, press *46*.
✶**47**	PHONE SYSTEM SELECT	[ ] [1]	If Cent. Sta. *IS NOT* on a WATS line: 0=Pulse Dial; 1=Tone Dial; if Cent. Sta. *IS* on a WATS line: 2 = Pulse Dial ; 3 = Tone Dial
✶**48**	REPORT FORMAT	[ ] [ ] [70] primary secondary	0 = 3+1, 4+1 ADEMCO L/S STANDARD 1 = 3+1, 4+1 RADIONICS STANDARD 2 = 4+2 ADEMCO L/S STANDARD 3 = 4+2 RADIONICS STANDARD 6 = 4+2 ADEMCO EXPRESS 7 = ADEMCO CONTACT ID® REPORTING 8 = 3+1, 4+1 ADEMCO L/S EXPANDED 9 = 3+1, 4+1 RADIONICS EXPANDED
✶**49**	SPLIT/DUAL REPORTING	[ ] [0]	0 = Disable (Backup report only) **Primary Phone No. / Second Phone No.** 1 = Alarms, Restore, Cancel / Others 2 = All except Open/Close, Test / Open/Close, Test 3 = Alarms, Restore, Cancel / All 4 = All except Open/Close, Test / All 5 = All / All
✶**50**	15 SEC DIALER DELAY (BURG)	[ ] [0]	0 = no [UL: must be "0"]; 1 = yes
✶**53**	SESCOA/RADIONICS SELECT	[ ] [0]	0 = Radionics (0-9, B-F) 1 = SESCOA (0-9 only reporting) Select "0" for all other formats.
✶**54**	DYNAMIC SIGNALING DELAY	[ ] [0]	Delay selectable from 0 to 225 secs in 15-sec increments. 0 = no delay (both signals sent), 1 = 15 secs, 2 = 30 secs, etc. [UL: must be "0"]
✶**55**	DYNAMIC SIGNALING PRIORITY	[ ] [0]	0 = Primary Dialer first; 1 = Long Range Radio first.

TO PROGRAM SYSTEM STATUS, & RESTORE REPORT CODES (✶59 – ✶76, & ✶89):
For 3+1 or 4+1 Standard Format: Enter a code in the *first* box: 1–9, #+10 for 0, #+11 for B, #+12 for C, #+13 for D, #+14 for E, #+15 for F.
A 0 (*not* #+10) in the *first* box will disable a report. A 0 (*not* #+10) in the *second* box will result in automatic advance to the next field.
For Expanded or 4+2 Format: Enter codes in *both* boxes (1st and 2nd digits) for 1–9, 0, or B–F, as described above.
A 0 (*not* #+10) in the *second* box will eliminate the expanded message for that report. A 0 (*not* #+10) in *both* boxes will disable the report.
For Ademco Contact ID® Reporting: Enter any digit (other than 0) in the *first* box, to enable zone to report (entries in the *second* boxes are ignored).
A 0 (*not* #+10) in the *first* box disables the report. [UL: see installation instructions for requirements]

SYSTEM STATUS REPORT CODES (✶59–✶ 68)

✶**59**	EXIT ERROR REPORT CODE	[ ] [0]	See box above.
✶**60**	TROUBLE REPORT CODE	[|] [00]	See box above.
✶**61**	BYPASS REPORT CODE	[|] [00]	See box above.
✶**62**	AC LOSS REPORT CODE	[|] [00]	See box above.
✶**63**	LOW BAT REPORT CODE	[|] [00]	See box above.
✶**64**	TEST REPORT CODE	[|] [00]	See box above. Use Scheduling mode to set periodic test reports.
✶**65**	OPEN REPORT CODE	[ ] [ ] [ ] [0,0,0] (Part. 1 / Part. 2 / Common)	See box above.
✶**66**	ARM AWAY/STAY RPT CODE	[ ] [ ] [ ] [ ] [ ] [ ] [0,0,0,0,0,0] (Away Stay / Part. 1; Away Stay / Part. 2; Away Stay / Common)	See box above.

✶67 RF XMTR LOW BAT REPORT CODE [|] [00]
See box on previous page.
UL: must be enabled if wireless devices are used

✶68 CANCEL REPORT CODE [|] [00]
See box on previous page.

RESTORE REPORT CODES (✶70 – ✶76)

✶70 ALARM RESTORE RPT CODE [ ] [0]
See box on previous page.

✶71 TROUBLE RESTORE RPT CODE [|] [00]
See box on previous page.

✶72 BYPASS RESTORE RPT CODE [|] [00]
See box on previous page.

✶73 AC RESTORE RPT CODE [|] [00]
See box on previous page.

✶74 LOW BAT RESTORE RPT CODE [|] [00]
See box on previous page.

✶75 RF XMTR LO BAT RST RPT CODE [|] [00]
See box on previous page.
UL: must be enabled if wireless devices are used

✶76 TEST RESTORE RPT CODE [|] [00]
See box on previous page.

OUTPUT AND SYSTEM SETUP (✶77 – ✶93)

✶ 77 DAYLIGHT SAVINGS TIME START\END MONTH [|] [4][10]
0 = Disabled
1-12 = January-September (1 = Jan, 2 = Feb, etc)
#+10 = October; #+11 = November; #+12 = December

✶ 78 DAYLIGHT SAVINGS TIME START\END WEEKEND [|] [1][5]
0 = disabled, 1 = first, 2 = second, 3 = third
4 = fourth, 5 = last, 6 = next to last, 7 = third to last

✶84 AUTO STAY ARM [ ] [0]
0 = no, 1 = partition 1 only
2 = partition 2 only, 3 = both partitions

✶85 CROSS ZONE TIMER [ ] [0]
This option not for use in UL installations.

0 = 15 seconds 6 = 2-1/2 min #+12 = 8 min
1 = 30 seconds 7 = 3 min #+13 = 10 min
2 = 45 seconds 8 = 4 min #+14 = 12 min
3 = 60 seconds 9 = 5 min #+15 = 15 min
4 = 90 seconds #+10 = 6 min
5 = 2 minutes #+11 = 7 min
(assign cross zones on zone list 4, with *81 Menu mode)

✶86 CANCEL VERIFY [ ] [0]
0 = no, 1 = yes

✶87 MISC. FAULT DELAY TIME (used with Configurable Zone Types "digit 6") [ ] [0]

0 = 15 seconds 6 = 2-1/2 min #+12 = 8 min
1 = 30 seconds 7 = 3 min #+13 = 10 min
2 = 45 seconds 8 = 4 min #+14 = 12 min
3 = 60 seconds 9 = 5 min #+15 = 15 min
4 = 90 seconds #+10 = 6 min
5 = 2 minutes #+11 = 7 min
UL: may only be used on non-burglar alarm/ non-fire alarm zones when used in fire and/or UL burglar alarm installation

✶89 EVENT LOG FULL REPORT CODE [|] [00]
See box on previous page for report code entries.

✶90 EVENT LOG ENABLES [ ] [3]
NOTE*:* System messages are logged when any non-zero selection is made.
0 = None; 1 = Alarm/Alarm Restore
2 = Trouble/Trouble Restore;
4 = Bypass/Bypass Restore;
8 = Open/Close. *Example:* To select "Alarm/Alarm Restore", and "Open/Close", enter 9 (1 + 8); To select all, enter #15.

✶91 OPTION SELECTION [ ] [8]
0 = None
1 = Local Lockout 4 = AAV UL: do not use AAV
2 = Sounder Delay 8 = Exit Delay Restart
E.g. (multiple choice): for AAV (4) plus Exit Delay restart (8) enter # + 12; for all (1 + 2 + 4 + 8), enter # + 15.

✶92 PHONE LINE MONITOR ENABLE [ ] [ ] [0,0]
UL: see Inst. Instructions for requirements
Digit 1:: 0 = disabled, 1-15 = 1 min - 15 min
(#+10 = 10 min; #+11 = 11 min; #+12 = 12 min; #+13 = 13 min; #+14 = 14 min; #+15 = 15 min)
Digit 2:
0 = Keypad display when line is faulted
1 = Keypad display plus keypad trouble sound
2 = Same as "1", plus programmed output device STARTS. If either partition is armed, external sounder activates also. **NOTE:** Output Device must either be programmed to be STOPPED in field ✶80 or STOPPED by Code + # + 8 + output number.

✶93 No. OF REPORTS IN ARMED PERIOD PER ZONE (Swinger Suppression) [ ] [0]
0 = Unlimited Reports; 1 = 1 report; 2 = 2 reports
UL: must be "0"

DOWNLOAD INFORMATION (✶94, ✶95)

✶94 DOWNLOAD PHONE No.

Enter up to 20 digits, 0–9; #+11 for '✶'; #+12 for '#'; #+13 for a 2-second pause. Do not fill unused spaces. If fewer than 20 digits, exit field by pressing ✶ (and press 95, if entering next field). To clear entries from field, press ✶94✶. UL: downloading may be performed only if a technician is at the site.

✶95 RING COUNT FOR DOWNLOADING [15]

0 = Disable Station Initiated Download;
1–14 = number of rings (1–9, # +10 =10, # +11 =11, # +12 =12, # +13 =13, # +14 =14);
15 = answering machine defeat (# +15 =15).
NOTE: Do not enter "0" if using 4285/4286 Phone Module.

PAGER OPTIONS (*160-*172)

✶160 PAGER 1 PHONE No.

Enter up to 20 digits. 0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶161 PAGER 1 CHARACTERS

Enter the optional prefix characters, up to 16 digits.
0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶162 PAGER 1 REPORTING OPTIONS

Part. 1 Part. 2 common [0,0,0]

For each partition, select from the following options:
0 = no reports sent
1 = Open/closes all users
4 = All alarms and troubles
5 = All alarms / troubles, and open/closes for all users
12 = Alarms / troubles for zones entered in zone list 9
13 = Alarms / troubles for zones entered in zone list 9, and open\closes for all users

✶163 PAGER 2 PHONE No.

Enter up to 20 digits. 0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶164 PAGER 2 CHARACTERS

Enter the optional prefix characters, up to 16 digits.
0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶165 PAGER 2 REPORTING OPTIONS [0,0,0]

Part. 1 Part. 2 common

See field *162 for reporting options. Select for each partition (use zone list 10 if using options 12 or 13).

✶166 PAGER 3 PHONE No.

Enter up to 20 digits. 0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶167 PAGER 3 CHARACTERS

Enter the optional prefix characters, up to 16 digits.
0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶168 PAGER 3 REPORTING OPTIONS 0,0,0]

Part. 1 Part. 2 common

See field *162 for reporting options. Select for each partition (use zone list 11 if using options 12 or 13).

✶169 PAGER 4 PHONE No.

Enter up to 20 digits. 0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶170 PAGER 4 CHARACTERS

Enter the optional prefix characters, up to 16 digits.
0–9; #+11 = '✶'; #+12 = '#'; #+13 = 2-second pause.

✶171 PAGER 4 REPORTING OPTIONS [0,0,0]

Part. 1 Part. 2 common

See field *162 for reporting options. Select for each partition (use zone list 12 if using options 12 or 13).

✶172 PAGER DELAY OPTION FOR ALARMS [3]

0 = none, 1 = 1 minute, 2 = 2 minutes, 3 = 3 minutes
This delay is for ALL pagers in the system.
NOTE: The delay does not reset for new alarms occurring while an existing pager delay is in progress.

MISCELLANEOUS SYSTEM FIELDS (*174-*181)

✶174 CLEAN ME REPORTING OPTIONS (for ESL smoke detectors) [0]

0 = disable; 1 = Clean Me signal reports;
Note: If Clean Me is enabled, you must enter "3" in field ✶56 programming for zone 1 response time.

✶177 DEVICE DURATION 1, 2 (used in *80 Menu mode-Device Actions 5/6) [0] [0]

1 2

0 = 15 seconds	6 = 2-1/2 min	#+11 = 7 min
1 = 30 seconds	7 = 3 min	#+12 = 8 min
2 = 45 seconds	8 = 4 min	#+13 = 10 min
3 = 60 seconds	9 = 5 min	#+14 = 12 min
4 = 90 seconds	#+10 = 6 min	#+15 = 15 min
5 = 2 minutes		

✶181 50/60 HERTZ AC OPERATION [0]

0 = 60 Hz; 1 = 50 Hz

CONFIGURABLE ZONE TYPE OPTIONS (*182-*185)

✶182 CONFIGURABLE ZONE TYPE 90

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
1 2 3 4 5 6 7 8 9 10

Enter the appropriate value for each entry, 1-10, based on the charts provided on next page. Each entry is the sum of the values of its selected options (0-9, #+10=10, #+11=11, #+12=12, #+13=13, #+14=14, #+15=15).

UL: Do not configure zones as a fire alarm or UL burglar alarm zone.

✶183 ZONE TYPE 90 REPORT CODES
IMPORTANT: Use existing Contact ID® codes, if appropriate, or define unique codes in CID code range 750-789. See important note in installation instructions.

90 ALARM ID: XXX
TROUBLE ID: XXX

Enter the desired 3-digit Contact ID® report codes for alarms and troubles occurring on zones assigned to this zone type. Enter the codes sequentially (all 6 digits). When entering digits, [#] moves cursor back, [✳] moves forward. Press [✳] when done to continue.

✶184 CONFIGURABLE ZONE TYPE 91

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
1 2 3 4 5 6 7 8 9 10

Enter the appropriate value for each entry, 1-10, based on the charts provided on next page. Each entry is the sum of the values of its selected options (0-9, #+10=10, #+11=11, #+12=12, #+13=13, #+14=14, #+15=15).

UL: Do not configure zones as a fire alarm or UL burglar alarm zone.

✶185 ZONE TYPE 91 REPORT CODES
IMPORTANT: Use existing Contact ID® codes, if appropriate, or define unique codes in CID code range 750-789. See important note in installation instructions.

91 ALARM ID: XXX
TROUBLE ID: XXX

Enter the desired 3-digit Contact ID® report codes for alarms and troubles occurring on zones assigned to this zone type. Enter the codes sequentially (all 6 digits). When entering digits, [#] moves cursor back, [✳] moves forward. Press [✳] when done to continue.

KEYPAD OPTIONS (*190-*196 **NOTE**: Options for keypad address 16 are set by the factory and cannot be changed.)

NOTE: Each keypad must be assigned a unique address. Keypads programmed with the same address will give unpredictable results.

✶ 190 KEYPAD 2 ADDRESS 17

☐ ☐ [0] [0]
Partition/ Enable — Sound
FA168C: enter partition
FA148CP: 1 = enable, 0 = disable

Partition: 0 = keypad disabled; 1-3 = part. no. (3 = com)
Sound: 0 = no suppression
1 = suppress arm/disarm and E/E beeps
2 = Suppress chime beeps only
3 = suppress arm/disarm, E/E, and chime beeps

✶ 191 KEYPAD 3 ADDRESS 18

☐ ☐ [0] [0]
Part./Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 192 KEYPAD 4 ADDRESS 19

☐ ☐ [0] [0]
Part. /Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 193 KEYPAD 5 ADDRESS 20

☐ ☐ [0] [0]
Part. /Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 194 KEYPAD 6 ADDRESS 21

☐ ☐ [0] [0]
Part. /Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 195 KEYPAD 7 ADDRESS 22

☐ ☐ [0] [0]
Part. /Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 196 KEYPAD 8 ADDRESS 23

☐ ☐ [0] [0]
Part. /Enable† Sound

See field ✳190 for entries.
† FA168C: enter partition
FA148CP: 1 = enable; 0 = disable

✶ 197 EXIT TIME DISPLAY INTERVAL

☐ [0]

0 = no display; 1-5 = seconds between display refresh

✶ 198 DISPLAY PARTITION NUMBER (for Alpha Display Keypads)

⬚ [0]

0 = no; 1 = yes (partition no. appears on Alpha Display)

✶ 199 ECP FAIL DISPLAY

☐ [0]

0 = 3-digit display ("1" + device address)
1 = 2-digit fixed-display as "91"

Configurable Zone Types Worksheets

Configurable zone types 90 and 91 can be programmed via downloader software or from a keypad using data fields*182-*185. Configurable zone types 92 and 93 (FA168C only) can only be programmed using the downloader software.

Programming Configurable Zone Type options involves making 10 entries in data field *182 for zone type 90 and field *184 for zone type 91, where each entry represents the sum of the values of the various options shown in the tables below. Use fields *183 and *185 to program Contact ID report codes for these zone types.

ENTRY 1 (see note 5 for RF zones) — **ENTRY 2** (see note 5 for RF zones)

Response when system disarmed and zone is:				
Intact EOL *RF zone normal*	**Open** *RF zone N/A*	**Shorted** *RF zn off-normal*	**Auto Restore**	**Vent Zone**
0 = normal 1 = alarm 2 = trouble 3 = fault	0 = normal 4 = alarm 8 = trouble 12 = fault	0 = normal 1 = alarm 2 = trouble 3 = fault	0 = no 4 = yes	0 = no 8 = yes
Entry 1 = EOL + Open		Entry 2 = Short + auto restore + vent zone		

ENTRY 3 (see note 5 for RF zones) — **ENTRY 4** (see note 5 for RF zones)

Response when armed STAY and zone is:				
Intact EOL *RF zone normal*	**Open** *RF zone N/A*	**Shorted** *RF zn off-normal*	**Byp. when disarmed**	**Byp. when armed**
0 = normal 1 = alarm 2 = trouble 3 = fault	0 = normal 4 = alarm 8 = trouble 12 = fault	0 = normal 1 = alarm 2 = trouble 3 = fault	0 = no 4 = yes	0 = no 8 = yes
Entry 3 = EOL + Open		Entry 4 = Short + byp. disarmed + byp. armed		

ENTRY 5 (see note 5 for RF zones) — **ENTRY 6**(see note 5 for RF zones)

Response when armed AWAY and zone is:				
Intact EOL *RF zone normal*	**Open** *RF zone N/A*	**Shorted** *RF zn off-normal*	**Dial Delay (see field *50)**	**Fault Delay (see field *87)**
0 = normal 1 = alarm 2 = trouble 3 = fault	0 = normal 4 = alarm 8 = trouble 12 = fault	0 = normal 1 = alarm 2 = trouble 3 = fault	0 = no 4 = use delay	0 = no 8 = use delay see note 1
Entry 5 = EOL + Open		Entry 6 = Short + dial delay + fault delay		

ENTRY 7 — **ENTRY 8**

Display Faults	**Power Reset/ Verification**	**Use Entry Delay 1/2**	**Use Exit Delay**	**Respond as Interior Type**
0 = show alarms when armed & disarmed 1 = don't show alarms when armed (show alarms, trbles, faults when disarmed) 3 = never show any alarms, trbles, faults	0 = no 4 = power reset after fault (by code + OFF) 12 = verification (see zone type 16)	0 = no 1 = delay 1 2 = delay 2	0 = no 4 = use exit delay	0 = no 8 = yes see note 2
Entry 7 = fault display + power reset/verification		Entry 8 = entry delay 1/entry delay 2 + exit delay + interior zone type		

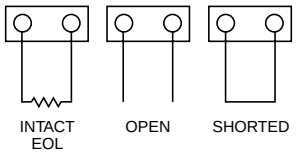
ENTRY 9 — **ENTRY 10**

Alarm Sounds	**Use Bell Timeout**	**Respond as Fire Zone**	**Trouble Sounds**	**Chime when Chime Mode On**
0 = none 1 = steady keypad 2 = steady bell and keypad 3 = pulsing bell and keypad	0 = no 4 = yes see fields *32, *33	0 = no 8 = yes see zone type 09; see note 4	0 = none 1 = periodic beep 2 = trouble beeps	0 = no 4 = yes
Entry 9 = alarm sounds + bell timeout + fire zone			Entry 10 = trouble sounds + chime	

Entries for Fields *182 and *184

Entry	Zone Type 90 (field *182)	Zone Type 91 (field *184)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

To calculate the value for each entry: Simply add the values of the selected options in each of the entry's columns (one option per column). For example, to program Entry 2 for "alarm response to short," "auto restore on," but not a "vent zone," enter 5 ("1" for alarm short + "4" for auto restore yes + "0" for vent zone no).



Zone Conditions Represented in Entries 1-6

NOTES:

1. Do not use the "fault delay" option with a configurable zone type if it is set for an entry or exit delay, otherwise unpredictable results may occur.
2. To create an interior type zone, select "respond as interior zone type" (Entry 8, interior type = yes), and set zone response to "fault" in entries 3-4 to ensure fault displays; do not set as "normal," "alarm," or "trouble."
3. Do not set fire zones to respond as a "fault" (entries 1-6), otherwise faults will not display unless the [*] key is pressed.
4. 4219/4229 modules must use EOLRs or unpredictable results may occur.
5. RF Zones: The "open" option in entries 1, 3, and 5 is not applicable for RF zones. Use the "intact EOL" option for normal RF zone conditions and "shorted" for off-normal RF zone conditions.
6. Zone-Doubling/Double-Balanced: A short on either zone of a zone-doubled pair or on a double-balanced zone causes a tamper condition.

***56 ZONE PROGRAMMING WORKSHEET** (FA148CP supports up to 32 zones: 1-6, 9-34) [default shown in brackets]

Zone	Zn Type	Part.	Report	Input Type	Loop	Rsp. Time	Serial No.	Location
1	[09]	[1]		[HW]		[1]		
2	[01]	[1]		[HW]		[1]		
3	[03]	[1]		[HW]		[1]		
4	[03]	[1]		[HW]		[1]		
5	[03]	[1]		[HW]		[1]		
6	[03]	[1]		[HW]		[1]		
7	[03]	[1]		[HW]		[1]		
8	[03]	[1]		[HW]		[1]		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49		[1]		[BR]				
50		[1]		[BR]				
51		[1]		[BR]				
52		[1]		[BR]				
53		[1]		[BR]				
54		[1]		[BR]				
55		[1]		[BR]				
56		[1]		[BR]				
57		[1]		[BR]				
58		[1]		[BR]				
59		[1]		[BR]				
60		[1]		[BR]				
61		[1]		[BR]				
62		[1]		[BR]				
63		[1]		[BR]				
64		[1]		[BR]				
95	[00]			N/A	N/A	N/A	N/A	keypad [1] / [∗]
96	[00]			N/A	N/A	N/A	N/A	keypad [3] / [#]
99	[06]			N/A	N/A	N/A	N/A	keypad [∗] / [#]

Reserved Zones

91 = addressable device report enable/disable default zone type = [05].

92 = Duress report enable/disable

NOTES: Zone Type: see chart on page 12; Input Type: HW (1-zones 1-8), AW (2-zones 9-48), RF (3-zones 9-48), UR (4-zones 9-48), BR (5-zones 49-64); Response Time: 0 (10msec), 1 (350msec), 2 (700msec), 3 (1.2 sec)

*57 FUNCTION KEY PROGRAMMING

Option	Function	A	B	C	D	Comments
01	Paging					
02	Time Display					
03	Arm AWAY					
04	Arm STAY					
05	Arm NIGHT-STAY					
06	Step Arming					
07	Device Activation					Device:
08	Comm. Test					
09	Macro Key 1					
10	Macro Key 2					
11	Macro Key 3					
12	Macro Key 4					
00	Emergency Keys:					
	Personal Emergency					
	Silent Alarm					
	Audible Alarm					
	Fire					
	Emergency Keys: A = [1] / [*] B = [*] / [#] C = [3] / [#]					

OUTPUT RELAYS/POWERLINE CARRIER DEVICES WORKSHEET FOR *79, *80 and *81.

Applicable only if Relays and/or Powerline Carrier Devices are to be used.

*79 RELAY/POWERLINE CARRIER DEVICE MAPPING (Must program before using *80)

	OUTPUT TYPE			
	Relay		X10	
Output No.	Module Addr.	Pos (1-4)	Unit No.	Description
01				
02				
03				
04				
05				
06				
07				
08				

	OUTPUT TYPE (09-16 apply to FA168C only)			
	Relay		X10	
Output No.	Module Addr.	Pos (1-4)	Unit No.	Description
09				
10				
11				
12				
13				
14				
15				
16				
17	On-Board Trigger 1			
18	On-Board Trigger 2			

*81 ZONE LISTS FOR OUTPUT DEVICES

Fill in the required data on the worksheet below and follow the procedure in the installation manual as you enter the data during the displays and prompts that appear in sequence.

Note: Record desired zone numbers below, noting that a list may include *any* or *all* of system's zone numbers.

List No.	Used For…	Contains These Zones…
01	General Purpose (GP)	
02	General Purpose	
03	Chime-by-Zone or GP	
04	Cross Zones	
05	Night-Stay Zones or GP	
06	General Purpose	
07	General Purpose	
08	General Purpose	
09	Zones activating pager 1	
10	Zones activating pager 2	
11	Zones activating pager 3	
12	Zones activating pager 4	

✶80 OUTPUT DEFINITIONS

Fill in the required data on the worksheet below and follow the programming procedure in the installation manual as you enter the data during the displays and prompts that appear in sequence.

Notes: **1.** For Relays, 4229 and 4204 devices are programmed in *79, *80, and *81 modes.
2. For Powerline Carrier devices (plcd), field ✶27 must be programmed with a House Code.
3. Tampers of expansion units cannot be used to operate devices.

Output Function Number (V20P=1-48) (V15P=1-24)	Activation Type and Detail				Partition Number (P) (if using ZT trig) 0 = any 1 = partition 1 2 = partition 2 3 = common	Event (for zone list/activated by)		Action 0 = off 1 = close 2 secs 2 = stay closed 3 = pulse 4 = toggle 5 = duration 1†† 6 = duration 2††	Output Number FA168C: 1-18 FA148CP: 1-8, 17, 18	Device Type R = relay T = trigger X = X10
	Activated by 0=delete 1=zn list 2=zn type 3=zn no.	Zone List (ZL) 1-8 = list	Zone Type (ZT) (see table below)	Zone No. (ZN) 00=none 01-64		By Zone List 0 = restore 1 = alarm 2 = fault 3 = trouble	By Zone No. 0 = restore 1 = alrm/flt/trbl			
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										

ZONE TYPE/SYSTEM OPERATION – Choices for Zone Types are:

00 = Not Used	05 = Trouble Day/Alarm Night	10 = Interior w/Delay	24 = Silent Burglary
01 = Entry/Exit#1	06 = 24 Hr Silent	12 = Monitor Zone	77 = Keyswitch
02 = Entry/Exit#2	07 = 24 Hr Audible	14 = Carbon Monoxide	90-93 = Configurable
03 = Perimeter	08 = 24 Hr Aux	16 = Fire w/Verification	
04 = Interior Follower	09 = Fire	23 = No Alarm Response	

Choices for System Operation are:

20 = Arming–Stay	38 = Chime	52 = Kissoff
21 = Arming–Away	39 = Any Fire Alarm	54 = Fire Zone Reset
22 = Disarming (Code + OFF)	40 = Bypassing	58 = Duress
31 = End of Exit Time	41 = **AC Power Failure	60 = AAV Trigger
32 = Start of Entry Time	42 = **System Battery Low	66 = Function key†
33 = Any Burglary Alarm	43 = Communication Failure	67 = Bell Failure
36 = **At Bell Timeout***		68 = TELCO Line Fault
		78 = keyswitch red LED†††
		79 = keyswitch green LED†††

Note: In normal operation mode:
Code + # + 7 + NN Key Entry **starts** Device
Code + # + 8 + NN Key Entry **stops** Device

** Use 0 (any) for Partition No. (P) entry.
*** Or at Disarming, whichever occurs earlier.
† Use *57 Menu mode to assign the function key.
†† Duration is set in program field *177.
††† Device action not used for these choices.

Zone Type Definitions

Type 00 **Zone Not Used**	Use this zone type if the zone is not used.
Type 01 **Entry/Exit Burglary #1**	• Assign to zones that are used for primary entry and exit. • Provides entry delay if the control is armed in the Away or Stay modes. • No entry delay is provided when the panel is armed in the Instant mode. • Entry delay #1 is programmable from 0 to 99 seconds for each partition. • Exit delay begins whenever the control is armed, regardless of the arming mode selected, and is independently programmable from 0 to 99 seconds (field ✶34).
Type 02 **Entry/Exit Burglary #2**	• Assign to zones that are used for entry and exit and require more time than the primary entry/exit point. • Provides a secondary entry delay, in same manner as entry delay #1. • Entry delay #2 is programmable from 0 to 99 seconds for each partition. • Exit delay is same as described for Type 01.
Type 03 **Perimeter Burglary**	• Assign to all sensors or contacts on exterior doors and windows. • Provides an instant alarm if the zone is faulted when the panel is armed in the Away, Stay, or Instant modes.
Type 04 **Interior Follower**	• Assign to a zone covering an area such as a foyer, lobby, or hallway through which one must pass upon entry (to and from the keypad). • Provides a delayed alarm (using the programmed entry/exit time) if the entry/exit zone is faulted first. Otherwise this zone type gives an instant alarm. • Active when the panel is armed in the Away mode. • Bypassed automatically when the panel is armed in the Stay or Instant modes.
Type 05 **Trouble by Day/** **Alarm by Night**	• Assign to a zone that contains a foil-protected door or window (such as in a store), or to a zone covering a sensitive area such as a stock room, drug supply room, etc. • Can also be used on a sensor or contact in an area where immediate notification of an entry is desired. • Provides an instant alarm if faulted when armed in the Away, Stay, or Instant (night) modes. • During the disarmed state (day), the system will provide a latched trouble sounding from the keypad (and a central station report, if desired).
Type 06 **24-hour Silent Alarm**	• Usually assigned to a zone containing an emergency button. • Sends a report to the central station but provides no keypad display or sounding.
Type 07 **24-hour Audible Alarm**	• Assign to a zone that has an emergency button. • Sends a report to the central station, and provides an alarm sound at the keypad, and an audible external alarm.
Type 08 **24-hour** **Auxiliary Alarm**	• Assign to a zone containing an emergency button, or to a zone containing monitoring devices such as water or temperature sensors. • Sends a report to the central station and provides an alarm sound at the keypad. **(No bell output is provided.)**
Type 09 **Fire**	• Provides a fire alarm on short circuit and a trouble condition on open circuit. A fire alarm produces a pulsing bell output. • This zone type is always active and cannot be bypassed. **Note:** Hardwired zone 1 should be used with 2-wire smoke detectors; zones 2-8 can be used with 4-wire smoke detectors; any wireless zone can be used as a fire zone.
Type 10 **Interior w/Delay**	• Provides entry delay (using the programmed entry time), if tripped when the panel is armed in the Away mode. • Entry Delay begins whenever sensors in this zone are violated, regardless of whether or not an entry/exit delay zone was tripped first. • Bypassed when the panel is armed in the Stay or Instant modes.
Type 12 **Monitor Zone**	• Works as a dynamic monitor of a zone fault/trouble. In the case of a short/open, the message, "**ALARM-24 Hr. Non-Burg. -#XXX** " (where XXX is the zone number) will be sent to the Central Station. The system keypad will display a “check” message indicating the appropriate zone. Upon restoral of the zone, the message, "**RESTORE-24 Hr. Non-Burg. -#XXX** " will be sent to the Central Station. • The “check” message will automatically disappear from the keypad. The zone restores dynamically; therefore a user code + off sequence is not needed to reset the zone. • Faults of this zone type are independent of the system, and can exist at the time of arming without interference. • Since this is a “trouble” zone type, do not use this zone type with relays set to activate upon “alarm.”
Type 14 **Carbon Monoxide**	• Assigned to any zone with a carbon monoxide detector. • The bell output will pulse when this zone type is alarmed. • Always active and cannot be bypassed.
Type 16 **Fire w/Verification**	• Provides a fire alarm when zone is shorted, but only after alarm verified. • System verifies alarm by resetting zones for 12 seconds after short is detected. A subsequent short circuit within 90 seconds triggers fire alarm. • Provides a trouble response when zone is open. • UL: may not be used on zone 1.
Type 20 **Arm-Stay**	• Arms the system in Stay mode when the zone is activated. • Pushbutton units send the user number to the central station when arming or disarming. • User code for button must be assigned.

Type 21 Arm-Away	• Arms the system in Away mode when the zone is activated. • Pushbutton units send the user number to the central station when arming or disarming. • User code for button must be assigned.
Type 22 Disarm	• Disarms the system when the zone is activated. • User code for button must be assigned.
Type 23* No Alarm Response	• Can be used on a zone when an output relay action is desired, but with no accompanying alarm (e.g., lobby door access).
Type 24 Silent Burglary	• Usually assigned to all sensors or contacts on exterior doors and windows where bells and/or sirens are NOT desired. • Provides an instant alarm, with NO audible indication at any keypad or external sounder, if the zone is faulted when the system is armed in the Away, Stay, or Instant, modes. • A report is sent to the central station.
Type 77 Keyswitch	• Assign to zone wired to a keyswitch.
Types 90-93 Installer Defined	• These zone types can be programmed for various custom responses. See data fields *182-*185. UL: Zone types 90-93 may not be used as fire or burglar zones in fire or UL burglar alarm installations.

***The system can still be armed when these zone types are in a faulted condition.**

Schedules (installer code + [#] + [6] [4]; *master code can only access schedules 01-16 for FA168C, 01-04 for FA148CP, and events 00-07 for both controls; FA148CP supports up to 8 schedules, FA168C supports up to 32 schedules*)

No.	Event (see list below)	Device No. for "01" events: enter 01-18	Group No. for "02" events: enter 1-8	Partition for "04-06" events: enter 1, 2, or 3	Start Time/ Days	Stop Time/ Days	Repeat (yes/no)	Random (yes/no)
00								
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

Events:

Master/Installer

01 = device on/off
02 = user access
03 = latch key report
04 = forced STAY arm
05 = forced AWAY arm
06 = auto disarm
07 = display "reminder"

Installer Only

10 = display custom words 8-10
11 = peridoic test report

ALPHA VOCABULARY LIST (For Entering Zone Descriptors)

000 *(Word Space)*

– A –

- **001 AIR**
- **002 ALARM**

004 ALLEY
005 AMBUSH

- **006 AREA**
- **007 APARTMENT**
- **009 ATTIC**

010 AUDIO

– B –

- **012 BABY**
- **013 BACK**
- **014 BAR**
- **016 BASEMENT**
- **017 BATHROOM**
- **018 BED**
- **019 BEDROOM**

020 BELL

- **021 BLOWER**
- **022 BOILER**

023 BOTTOM
025 BREAK

- **026 BUILDING**

– C –

028 CABINET

- **029 CALL**

030 CAMERA
031 CAR
033 CASH
034 CCTV
035 CEILING
036 CELLAR

- **037 CENTRAL**

038 CIRCUIT

- **040 CLOSED**
- **046 COMPUTER**

047 CONTACT

– D –

- **048 DAUGHTERS**

049 DELAYED

- **050 DEN**

051 DESK

- **052 DETECTOR**
- **053 DINING**

054 DISCRIMINATOR
055 DISPLAY

- **057 DOOR**
- **059 DOWN**
- **060 DOWNSTAIRS**

061 DRAWER

- **062 DRIVEWAY**
- **064 DUCT**

– E –

- **065 EAST**

066 ELECTRIC
067 EMERGENCY
068 ENTRY

- **069 EQUIPMENT**
- **071 EXIT**

072 EXTERIOR

– F –

- **073 FACTORY**

075 FAMILY

- **076 FATHERS**
- **077 FENCE**
- **079 FIRE**
- **080 FLOOR**

081 FLOW
082 FOIL

- **083 FOYER**

084 FREEZER

- **085 FRONT**

– G –

- **089 GARAGE**
- **090 GAS**

091 GATE

- **092 GLASS**

093 GUEST
094 GUN

– H –

- **095 HALL**
- **096 HEAT**

098 HOLDUP
099 HOUSE
100 INFRARED

- **101 INSIDE**

102 INTERIOR
103 INTRUSION

– J –

104 JEWELRY

– K –

- **105 KITCHEN**

– L –

- **106 LAUNDRY**
- **107 LEFT**

108 LEVEL

- **109 LIBRARY**
- **110 LIGHT**

111 LINE

- **113 LIVING**
- **114 LOADING**

115 LOCK
116 LOOP
117 LOW

- **118 LOWER**

– M –

- **119 MACHINE**

121 MAIDS
122 MAIN

- **123 MASTER**
- **125 MEDICAL**

126 MEDICINE
128 MONEY
129 MONITOR

- **130 MOTHERS**
- **131 MOTION**

132 MOTOR

– N –

- **134 NORTH**

135 NURSERY

– O –

- **136 OFFICE**
- **138 OPEN**

139 OPENING

- **140 OUTSIDE**

142 OVERHEAD

– P –

143 PAINTING

- **144 PANIC**

145 PASSIVE

- **146 PATIO**

147 PERIMETER

- **148 PHONE**

150 POINT
151 POLICE
152 POOL

- **153 POWER**

– R –

155 RADIO

- **156 REAR**

157 RECREATION
159 REFRIGERATION
160 RF

- **161 RIGHT**
- **162 ROOM**

163 ROOF

– S –

164 SAFE
165 SCREEN
166 SENSOR

- **167 SERVICE**
- **168 SHED**

169 SHOCK

- **170 SHOP**

171 SHORT

- **173 SIDE**

174 SKYLIGHT
175 SLIDING

- **176 SMOKE**
- **178 SONS**
- **179 SOUTH**

180 SPRINKLER

- **182 STATION**

184 STORE

- **185 STORAGE**

186 STORY
190 SUPERVISED
191 SUPERVISION
192 SWIMMING
193 SWITCH

– T –

194 TAMPER
196 TELCO
197 TELEPHONE

- **199 TEMPERATURE**

200 THERMOSTAT

- **201 TOOL**

202 TRANSMITTER

– U –

- **205 UP**
- **206 UPPER**
- **207 UPSTAIRS**
- **208 UTILITY**

– V –

209 VALVE
210 VAULT
212 VOLTAGE

– W –

213 WALL
214 WAREHOUSE

- **216 WEST**
- **217 WINDOW**
- **219 WING**

220 WIRELESS

– X –

222 XMITTER

– Y –

223 YARD

– Z –

224 ZONE (No.)

- **225 ZONE**
- **226 0**
- **227 1**
- **228 1ST**
- **229 2**
- **230 2ND**
- **231 3**
- **232 3RD**
- **233 4**
- **234 4TH**
- **235 5**
- **236 5TH**
- **237 6**
- **238 6TH**
- **239 7**
- **240 7TH**
- **241 8**
- **242 8TH**
- **243 9**
- **244 9TH**

245 Custom Word #1
246 Custom Word #2
247 Custom Word #3
248 Custom Word #4
249 Custom Word #5
250 Custom Word #6
251 Custom Word #7
252 Custom Word #8
253 Custom Word #9
254 Custom Word #10

Note: Bulleted (•) words in **boldface type** are those that are also available for use by the 4285/4286 Phone Module. If using a Phone module, and words other than these are selected for Alpha descriptors, the module will not provide annunciation of those words.

CHARACTER (ASCII) CHART (For Adding Custom Words)

32	(space)	41	)	50	2	59	;	68	D	77	M	87	W
33	!	42	*	51	3	60	<	69	E	78	N	88	X
34	"	43	+	52	4	61	=	70	F	79	O	89	Y
35	#	44	,	53	5	62	>	71	G	80	P	90	Z
36	$	45	–	54	6	63	?	72	H	81	Q		
37	%	46	.	55	7	64	@	73	I	82	R		
38	&	47	/	56	8	65	A	74	J	83	S		
39	'	48	0	57	9	66	B	75	K	84	T		
40	(	49	1	58	:	67	C	76	L	85	U		
										86	V		

5800 Series Transmitter Input Loop Identification

- All of the transmitters illustrated below have one or more unique factory assigned input (loop) ID codes. *Each of the inputs requires its own programming zone* (e.g., a 5804's four inputs require four programming zones).
- Transmitter inputs entered as:

"RF" (Supervised RF) Type send periodic check-in signals, as well as fault, restore and low battery signals. The transmitter must remain within the receiver's range.

"UR" (Unsupervised RF) Type send all the signals that the "RF" Type does, but the control does not supervise the check-in signals. The transmitter may, therefore, be carried off-premises.

"BR" (Unsupervised Button RF) Type only send fault signals. They do not send restore or check-in signals. They will indicate a low battery condition when tested or activated normally. The transmitter may be carried off-premises.

Note: For information on any transmitter not shown above, refer to the instructions accompanying that transmitter for details regarding loop numbers, etc.

UL NOTE: **The 5802MN, 5802MN2, 5804, 5804BD, 5814, 5816TEMP, 5819, 5819WHS & BRS, 5827BD, and 5850 transmitters are not intended for use in UL installations**

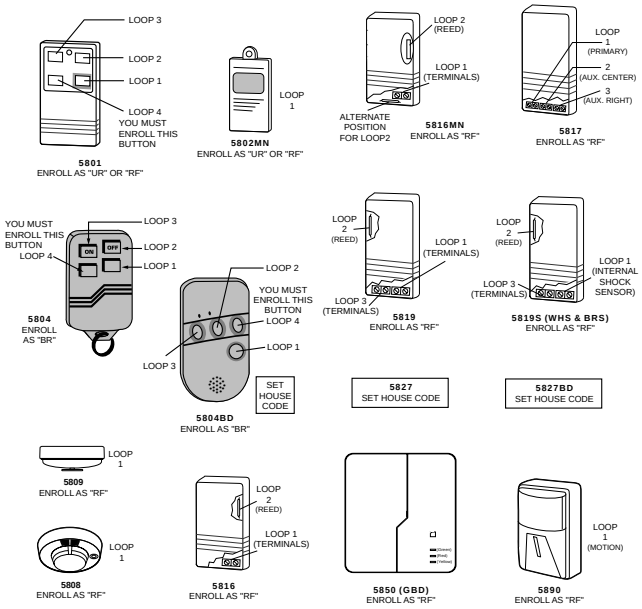


Table of Device Addresses

Address	Report††	Device	Programmed by...
00	100	RF Receiver	*56 zone programming: input device type entry
03	103	Long Range Radio	automatic if output to long range radio field *29 enabled
04	104	4286 Voice Module	automatic if phone module access code field *28 enabled
		Zone Expanders (4219/4229):	*56 zone programming: input device type entry, then:
07	107	module 1 zones 09 - 16	• automatic if zone no. 9-16 entered as AW type or relay assigned
08	108	module 2 zones 17 - 24	• automatic if zone no. 17-24 entered as AW type or relay assigned
09†	109	module 3 zones 25 - 32	• automatic if zone no. 25-32 entered as AW type or relay assigned
10†	110	module 4 zones 33 - 40	• automatic if zone no. 33-40 entered as AW type or relay assigned
11†	111	module 5 zones 41 - 48	• automatic if zone no. 41-48 entered as AW type or relay assigned
		Relay Modules (4204):	*79 output device programming: device address prompt:
12	112	module 1	• entered at device address prompt
13	113	module 2	• entered at device address prompt
14†	114	module 3	• entered at device address prompt
15†	115	module 4	• entered at device address prompt
		Keypads:	data field programming as listed below:
16	n/a	keypad 1	• always enabled for partition 1, all sounds enabled.
17	n/a	keypad 2	• data field *190
18	n/a	keypad 3	• data field *191
19	n/a	keypad 4	• data field *192
20	n/a	keypad 5	• data field *193
21	n/a	keypad 6	• data field *194
22	n/a	keypad 7	• data field *195
23	n/a	keypad 8	• data field *196
28	n/a	5800TM Module	automatic

† These module addresses apply to FA168C only.

†† Addressable devices are identified by "1" plus the device address when reporting. Enter report code for zone 91 to enable addressable device reporting (default = reports enabled). See field *199 for addressable device (ECP) 3-digit/2-digit identification touchpad display options.

K5305-5PR 7/01

First Alert PROFESSIONAL SECURITY SYSTEMS®

A DIVISION OF PITTWAY CORPORATION
175 Eileen Way, Syosset, NY 11791

24-HR BATTERY STANDBY REQUIRED FOR FIRE INSTALLATIONS. USE 12V, 17.2AH BATTERY FOR 600mA AUX POWER. SEE INSTRUCTIONS.

BATTERY CAPACITY FOR EMERGENCY BURGLARY STANDBY USE AT LEAST 4 HRS

CHARGING VOLTAGE 13.8VDC. MAXIMUM CHARGING CURRENT 650mA.

BATTERY 12V, 4AH — BLACK, RED — FLYING LEADS FOR BATTERY CONNECTION

SEALED LEAD-ACID TYPE. BATTERY NORMALLY NEED NOT BE REPLACED FOR AT LEAST 3 YRS.

TO DETERMINE TOTAL STANDBY LOAD ON BATTERY, ADD 100mA TO TOTAL OF AUX. POWER OUTPUT AND REMOTE KEYPAD CURRENTS.

USE UL LISTED LIMITED ENERGY CABLE FOR ALL CONNECTIONS

BATTERY FUSE 3A
FOR REPLACEMENT, USE SAME VALUE (e.g. ADEMCO No. 90-12)

8-PIN CONNECTOR
USED FOR 4300/1321X10 TRANSFORMER CONNECTIONS AND FOR ON-BOARD TRIGGERS SEE INSTRUCTIONS.

1 2 3 4 5 6 7 8
OUTPUT 17 (TRIG. 1), +12 AUX, GND, OUTPUT 18 (TRIG. 2), SYNC, COM, DATA — (USE SA4120XM-1 CABLE) — TO TRANS.

RED JUMPER
CUT FOR BELL SUPERVISION. ALSO, CONNECT 2000 OHM RESISTOR DIRECTLY ACROSS SOUNDER.

TO TERM 4 BLK
TO TERM 5 RED
TO TERM 6 GRN
TO TERM 7 YEL

OPTIONAL FOR UP TO 40 ADDITIONAL ZONES (FROM EITHER OR BOTH GROUPS)

BLK RED GRN YEL

4219 WIRED EXPANSION MODULE
(8 ADD'L EOLR WIRED ZONES)
-OR-
4229 WIRED EXPANSION/RELAY MODULE
(8 ADD'L EOLR WIRED ZONES PLUS 2 OUTPUT RELAYS)
-OR-
4204 RELAY MODULE
(4 OUTPUT RELAYS)

SET UNIT'S DIP SWITCH FOR DEVICE ADDRESSES 7- 15 SEE INSTRUCTIONS.

AND/OR

5881* Type RF RECEIVER
WIRELESS ZONES
5881L: UP TO 8
5881M: UP TO 16
5881H: UP TO 64
*5882 IN CANADA

SET RECEIVER'S DIP SWITCH FOR DEVICE ADDRESS OF "0". SEE INSTRUCTIONS.

4-WIRE SMOKE DETECTOR CONNECTIONS

RELAY — PROGRAM RELAY AS ZONE TYPE 54 (FIRE ZONE RESET)

AUX PWR OUTPUT TERMINALS + 5, – 4

BLK, RED, VIOLET, 2000 OHMS EOLR

4-WIRE SMOKE OR COMBUSTION DETECTOR

TO ZONES 2-8 TERM. (+)

HEAT DETECTOR

TO ZONES 2-8 TERM. (–)

EOL POWER SUPERVISION RELAY MODULE A77-716B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

CLASS 2 PLUG-IN TRANSFORMER
16.5VAC, 25VA
(e.g. 1321).
(USE No. 1321CN IN CANADA)

USE 4300 / 1321X10 TRANSFORMER INTERFACE IN PLACE OF 1321 OR 1321CN WHEN POWER LINE CARRIER DEVICES ARE BEING USED. (SEE INSTRUCTIONS FOR CONNECTIONS)

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72, CHAPTER 2 (NATIONAL FIRE PROTECTION ASSOCIATION, BATTERY-MARCH PARK, QUINCY, MA 02269).
PRINTED INFORMATION DESCRIBING PROPER INSTALLATION, OPERATION, TESTING, MAINTENANCE, EVACUATION PLANNING AND REPAIR SERVICE IS TO BE PROVIDED WITH THIS EQUIPMENT.

CONNECTION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEADQUARTERS OR A CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE PERMISSION OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE BURGLAR ALARM SIGNAL SHALL NOT BE CONNECTED TO A POLICE EMERGENCY NUMBER.

TO 110VAC UNSWITCHED OUTLET (24HR)

ALARM OUTPUT
10.5–13.8VDC, 2A MAX. (600mA MAX. FOR UL USAGE, INCLUDING AUX POWER) STEADY FOR BURGLARY/PANIC, TEMPORAL PULSE SOUNDING FOR FIRE. CAN USE 702 SIREN, OR 12V BELL). SEE INSTRUCTIONS.

FOR COMPLETE INFORMATION, SEE INSTRUCTIONS K5305-5

AUX. POWER OUTPUT
10.5-13.8VDC
600mA MAX.
(500mA MAX. FOR UL INSTALLATIONS)

ALL OUTPUTS ARE POWER LIMITED.

NOTE:
KEYPAD (S) CURRENT (IN BOTH PARTITIONS) AND ALL OTHER DEVICES DRAWING POWER FROM TERMS 4 & 5 MUST BE INCLUDED IN AUX CURRENT DRAIN CALCULATIONS.

BLACK: KEYPAD GROUND (–) RETURN
RED: KEYPAD PWR (+)
GREEN: DATA IN FROM KEYPAD
YELLOW: KEYPAD DATA OUT

REMOTE KEYPADS AND OTHER ADDRESSABLE DEVICES (e.g. 5800TM, 4285/4286, LRR, 4219, 4229, 4204, 5881)

REMOTE KEYPADS
CAN USE FA260KP OR FA560KP KEYPADS. LOCAL PROGRAMMING MUST BE DONE WITH A FA560KP, BUT NEED NOT REMAIN IN THE SYSTEM (SET TO ADDRESS 16).

CAN BE USED FOR 2-WIRE SMOKE DETECTORS

HI LO — ZONE 1 — 2000 OHMS EOLR
LO HI — ZONE 2 — 2000 OHMS EOLR
HI LO — ZONE 3 — 2000 OHMS EOLR
LO HI — ZONE 4 — 2000 OHMS EOLR
HI LO — ZONE 5 — 2000 OHMS EOLR
LO HI — ZONE 6 — 2000 OHMS EOLR
HI LO — ZONE 7 — 2000 OHMS EOLR
LO HI — ZONE 8 — 2000 OHMS EOLR
FA168C ONLY

TIP (BROWN) RING (GRAY) — HANDSET
TIP (GREEN) RING (RED) — INCOMING PHONE LINE
TELEPHONE WIRING
(VIA RJ31X* JACK AND DIRECT CONNECT CORD)
*CA38A IN CANADA

DOC LOAD NO.: 3

FOR CONNECTION OF OPTIONAL 4285 OR 4286 VIP MODULES TO PHONE TERMINALS, SEE INSTRUCTIONS.

EARTH GROUND
SEE INSTRUCTIONS FOR PROPER GROUNDING

WARNING: TO PREVENT RISK OF SHOCK, DISCONNECT TELEPHONE LINE AT TELCO JACK BEFORE SERVICING THIS UNIT.

COMPLIES WITH FCC RULES, PART 68.
FCC REGISTRATION NO. 5GBUSA-44003-AL-E
RINGER EQUIVALENCE: 0.1B.

THIS DEVICE COMPLIES WITH PART 15 OF FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM. IN ADDITION, THIS SYSTEM MUST BE CHECKED BY A QUALIFIED TECHNICIAN AT LEAST ONCE EVERY THREE (3) YEARS.

ALL DEVICES AND ACCESSORIES USED IN A CANADIAN INSTALLATION MUST BE LISTED FOR USE IN CANADA

ASSEMBLED IN MEXICO

12 13 14 — TAMPER CONTACTS — 2k — ZONE 3 — ZONE 4
TYPICAL WIRING FOR DOUBLE BALANCED ZONE (FA168C ONLY)

10 11 — ZONE 2 — 3k — ZONE 10 — 6.2k

ZONE PAIRS
2 / 10
3 / 11
4 / 12
5 / 13
6 / 14
7 / 15
8 / 16

TYPICAL WIRING FOR ZONE DOUBLING (FA168C ONLY)

- **MAXIMUM LOOP RESISTANCE:** (EACH ZONE) 300 OHMS (PLUS EOLR)
- **RESPONSE, ZONES 1-8:** 10, 350, OR 700 MSEC (PROGRAMMABLE)
- MAXIMUM NUMBER OF 2-WIRE SMOKE DETECTORS ON ZONE 1 IS 16; DETECTORS MUST HAVE COMPATIBILITY IDENTIFIER AS "A".

FA168C148CP-SOC-V0