

ESPRIT™

728™ & 738™

U L T R A™ & U L T R A™

System Programming Guide

Software Versions 5.0 (728ULT) and 5.0 (738ULT)

Installer Code (default - 728 Ultra: 282828; 738 Ultra: 383838)

Full access to programming, except user access codes (PINs). No access to arming/disarming. Use only numeric keys from [0] to [9].

Zone Recognition

Table 1: Zone Recognition

Device connected to which input?	728 Ultra No ATZ	728 Ultra With ATZ	738 Ultra No ATZ	738 Ultra With ATZ
Control Panel				
Input 1 =	Zone 1	Zones 1 & 2	Zone 1	Zones 1 & 9
Input 2 =	Zone 2	Zones 3 & 4	Zone 2	Zones 2 & 10
Input 3 =	Zone 3	Zones 5 & 6	Zone 3	Zones 3 & 11
Input 4 =	Zone 4	Zones 7 & 8	Zone 4	Zones 4 & 12
Input 5 =	N/A	N/A	Zone 5	Zones 5 & 13
Input 6 =	N/A	N/A	Zone 6	Zones 6 & 14
Input 7 =	N/A	N/A	Zone 7	Zones 7 & 15
Input 8 =	N/A	N/A	Zone 8	Zones 8 & 16
Keypad				
Zone 1 =	Zone 5	Zone 9	Zone 9	Zone 17
Zone 2 =	Zone 6	Zone 10	Zone 10	Zone 18

Streamlined Section Programming

This is an alternate method to Hex Programming (see page 2). Addresses **000 to 043** and **300 to 527** are grouped into 68 sections where each section contains four addresses (i.e. section **00** = addresses **000 to 003**). Using this method allows you to program 8 digits (4 addresses) without having to exit and re-enter addresses.



The keypad will not display the current data in the Streamlined Section Programming method.

Table 2: Streamlined Section Programming Method

- | |
|---|
| <ol style="list-style-type: none"> 1. Press [ENTER] + [INSTALLER CODE] (default - 728 Ultra: 282828; 738 Ultra: 383838) + [7]. 2. The [ENTER] and [2ND] keys will flash to indicate you are in programming mode (LED keypad only). 3. Enter 2-digit [SECTION] (00 to 67). 4. The [ENTER] key will remain on while the [2ND] key will be off (LED keypad only). 5. Enter 8-digit [DATA] to program the section. 6. The keypad will beep to indicate that the section has been programmed, data is saved and the software has advanced to the next section. 7. Return to step 4 or press [CLEAR] to exit programming mode. |
|---|

Keypad Trouble Display

Press the [TBL]/[TRBL] key to view the trouble. Any illuminated keys represent a specific trouble as indicated in *Table 3* below. Press the [CLEAR] button to exit the trouble display.

Table 3: Trouble Display

[1] - No Battery or Low Voltage	[7] - Communicator Report Failure
[2] - Power Failure	[8] - Timer Loss* (to clear, see [MEM] key in <i>Table 11</i> on page 11)
[4] - Bell Output Disconnected	[9] - Tamper or Zone Wiring Failure
[5] - Exceeded Maximum Bell Current	[10] - Telephone Line Monitoring Failure
[6] - Exceeded Maximum Auxiliary Current	[11] - Fire Loop Trouble

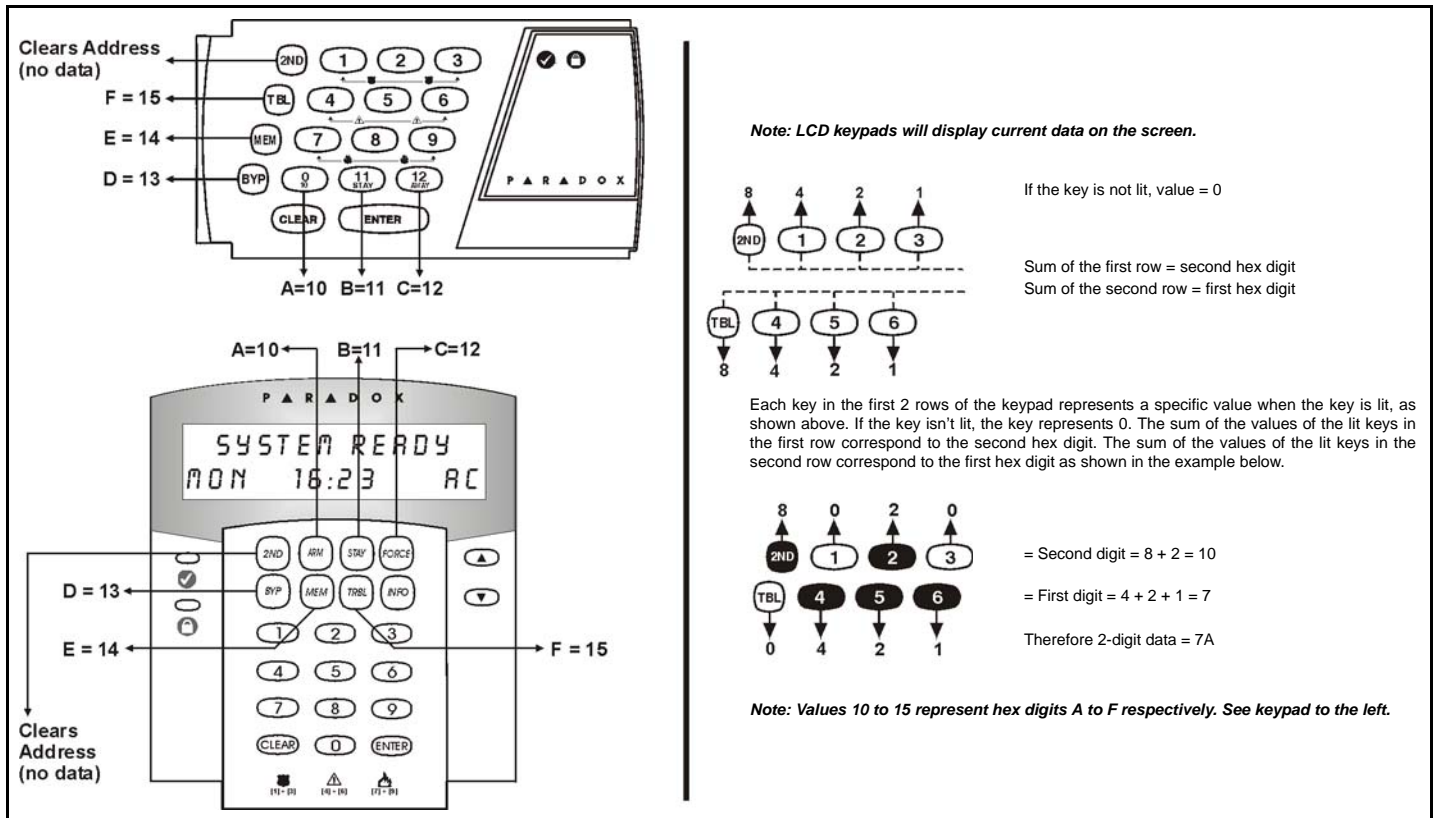
Hex Programming

This is an alternate method to the Streamlined Section Programming (see page 1). Addresses **000** to **043** and **300** to **527** can be programmed using the Hex Programming method. In this mode, you can enter any hexadecimal digit from 0 to F where keys [1] to [9] represent digits 1 to 9 respectively; the other keys represent hexadecimal digits A to F as shown in Figure 1 below.

Table 4: Hex Programming Method

1. Press [ENTER] + [INSTALLER CODE] (default - 728 Ultra: **282828**; 738 Ultra: **383838**).
2. The [ENTER] key will flash indicating you are in programming mode (LED keypad only).
3. Enter the desired 3-digit [ADDRESS].
4. The keypad will display the 2-digit data currently saved at this address as described in Figure 1 below.
5. Enter 2-digit [DATA] and do not press [ENTER], the software automatically saves the data.
6. Return to step 2 or press [CLEAR] to exit programming mode.

Figure 1: Hex Digit Data Entry and Data Display for LED Keypads



Installer / Panel Answer Options

Streamline Section	Data	Description	Address	Answering Machine Override
00	___ / ___	Installer code (1st, 2nd digit)	000	Answering Machine Override [2ND] or [1] = disabled [5] = 40 seconds [2] = 16 seconds [6] = 48 seconds [3] = 24 seconds [7] = 56 seconds [4] = 32 seconds [8] to [F] = 60 seconds
	___ / ___	Installer code (3rd, 4th digit)	001	
	___ / ___	Installer code (5th, 6th digit)	002	
	___ / ___	Panel answer options	003	
		Number of rings (Max. 15)		First digit disables Answering Machine Override (key [2ND] or key [1]), or determines period of time between first and second call. Second digit determines number of rings required before panel will answer. If [2ND][2ND] is entered, panel will not answer (default value is [2ND] [8]).

Streamline Section	Data	Description	Address	
01	___ / ___	Panel Identifier (1st, 2nd digit)	004	{ Identifies the control panel to the PC.
	___ / ___	Panel Identifier (3rd, 4th digit)	005	
	___ / ___	PC Password (1st, 2nd digit)	006	{ Identifies the PC to the control panel.
	___ / ___	PC Password (3rd, 4th digit)	007	

Telephone and Account Numbers

If only one monitoring station telephone number is used, program the same number for telephone numbers 1 and 2. If only one account number is required, the same number must be entered for both accounts "A" and "B".

[0] to [9] = numeric value [BYP] = switch from pulse to tone while dialing
 [STAY] = * [MEM] = pause 4 seconds
 [AWAY]/[FORCE] = # [TBL]/[TRBL] = end of number

Computer Telephone Number (View at addresses 008 to 015)

Streamline Section	Data	Streamline Section	Data	Press the [TBL]/[TRBL] key to end phone number if less than 16 digits are programmed.
02	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 1 2 3 4 5 6 7 8	03	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 9 10 11 12 13 14 15 16	

Monitoring Station Telephone Number 1 (View at addresses 016 to 023)

Streamline Section	Data	Streamline Section	Data	Press the [TBL]/[TRBL] key to end phone number if less than 16 digits are programmed.
04	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 1 2 3 4 5 6 7 8	05	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 9 10 11 12 13 14 15 16	

Monitoring Station Telephone Number 2 (View at addresses 024 to 031)

Streamline Section	Data	Streamline Section	Data	Press the [TBL]/[TRBL] key to end phone number if less than 16 digits are programmed.
06	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 1 2 3 4 5 6 7 8	07	___ / ___ / ___ / ___ / ___ / ___ / ___ / ___ 9 10 11 12 13 14 15 16	

Accounts "A" and "B" (View at addresses 032 to 035)

Streamline Section	Data	Streamline Section	Data	For 3-digit account numbers, enter "skip" ([2ND]) as first digit. The Standard Pulse report format can support 3- or 4-digit account numbers. The Ademco Express, Ademco Contact ID and the Pager report formats only support 4-digit account numbers.
08	___ / ___ / ___ / ___ ___ / ___ / ___ / ___ 1 2 3 4 5 6 7 8 A B			

Streamline Section	Data	Description	Address	Pager Delay Table (1st digit)	
09	[2ND] / [2ND]	Future Use	036	[2ND] or [1] = 8s	[9] = 72s
	___ / ___	1st digit: Pager Delay (see table at right) 2nd digit: Time correction (see table at right)	037 →	[2] = 16s	[0] = 80s
	___ / ___	1st digit: Communicator Format 1 2nd digit: Communicator Format 2	038	[3] = 24s	[STAY] = 88s
	___ / ___	1st digit: PGM1 type 2nd digit: PGM2 type (738 Ultra only)	039	[4] = 32s	[FORCE]/[AWAY] = 96s
10	___ / ___	PGM1	040	[5] = 40s	[BYP] = 104s
	___ / ___	PGM2 (738 Ultra only)	041	[6] = 48s	[MEM] = 112 s
	___ / ___	PGM Mask 1	042	[7] = 56s	[TBL]/[TRBL] = 120s
	___ / ___	PGM Mask 2 (738 Ultra only)	043	[8] = 64s	
				Time Correction Table (2nd digit)	
				[2ND] = No adjustment	[8] = Minus 4s
				[1] = Plus 4s	[9] = Minus 8s
				[2] = Plus 8s	[0] = Minus 12s
				[3] = Plus 12s	[STAY] = Minus 16s
				[4] = Plus 16s	[FORCE] = Minus 20s
				[5] = Plus 20s	[BYP] = Minus 24s
				[6] = Plus 24s	[MEM] = Minus 28s
				[7] = Plus 28s	[TRBL] = Minus 32s

Communicator Formats (* = supports 4-digit account codes only)

Key		Key	
[2ND]	= ADEMCO slow (1400Hz, 1900Hz, 10bps)	[6]	= RADIONICS with PARITY (1400Hz, 40bps)
[1]	= (1400Hz, 1800Hz, 10bps)	[7]	= RADIONICS with PARITY (2300Hz, 40bps)
[2]	= SILENT KNIGHT fast (1400Hz, 1900Hz, 20bps)	[8]	= * ADEMCO express
[3]	= SESCOA (2300Hz, 1800Hz, 20bps)	[9]	= * ADEMCO contact ID (programmable codes)
[4]	= RADIONICS (40bps with 1400Hz handshake)	[0]	= * ADEMCO contact ID (all codes)
[5]	= RADIONICS (40bps with 2300Hz handshake)	[TBL] / [TRBL]	= * PAGER FORMAT (personal dialing)

Programmable Contact ID Event Codes

All addresses from 300 to 527 (sections 11 to 67) programmed with values other than [2ND] [2ND] will report the contact ID codes corresponding to the values programmed. Values to be programmed should be selected from this table.

CID	Reporting Code	Prog. Value	CID	Reporting Code	Prog. Value
100:	AUXILIARY ALARM	[2ND] / [1]	300:	SYSTEM TROUBLE	[2] / [2]
110:	FIRE ALARM	[2ND] / [2]	301:	AC LOSS	[2] / [3]
111:	FIRE SMOKE	[2ND] / [3]	302:	LOW SYSTEM BATTERY	[2] / [4]
112:	COMBUSTION	[2ND] / [4]	305:	SYSTEM RESET	[2] / [5]
113:	WATER FLOW	[2ND] / [5]	306:	PROGRAM CHANGED	[2] / [6]
114:	HEAT	[2ND] / [6]	309:	BATTERY TEST FAIL	[2] / [7]
115:	PULLSTATION	[2ND] / [7]	320:	SOUNDER/RELAY TROUBLE	[2] / [8]
116:	DUCT	[2ND] / [8]	321:	BELL 1 TROUBLE	[2] / [9]
117:	FLAME	[2ND] / [9]	323:	ALARM RELAY TROUBLE	[2] / [0]
118:	NEAR ALARM	[2ND] / [0]	350:	COMMUNICATION TROUBLE	[2] / [STAY]
120:	PANIC ALARM	[2ND] / [STAY]	351:	TELCO 1 FAULT	[2ND] / [AWAY] OR [FORCE]
121:	DURESS	[2ND] / [AWAY] OR [FORCE]	354:	FAIL TO COMMUNICATE	[2] / [BYP]
122:	SILENT PANIC	[2ND] / [BYP]	370:	PROTECTION LOOP TROUBLE	[2] / [MEM]
123:	AUDIBLE PANIC	[2ND] / [MEM]	371:	PROTECTION LOOP OPEN	[2] / [TRBL]
130:	BURGLARY	[2ND] / [TRBL]	372:	PROTECTION LOOP SHORT	[3] / [2ND]
131:	PERIMETER BURGLARY	[1] / [2ND]	373:	FIRE LOOP TROUBLE	[3] / [1]
132:	INTERIOR BURGLARY	[1] / [1]	382:	SENSOR TROUBLE	[3] / [2]
133:	24HR BURGLARY	[1] / [2]	383:	SENSOR TAMPER	[3] / [3]
136:	BURGLARY OUTDOOR	[1] / [3]	400:	OPEN / CLOSE	[3] / [4]
137:	BURGLARY TAMPER	[1] / [4]	401:	OPEN / CLOSE BY USER #	[3] / [5]
138:	BURGLARY NEAR ALARM	[1] / [5]	402:	GROUP OPEN / CLOSE	[3] / [6]
140:	GENERAL ALARM	[1] / [6]	403:	AUTOMATIC OPENING / CLOSING	[3] / [7]
150:	24 HOUR AUXILIARY	[1] / [7]	404:	LATE TO OPEN / CLOSE	[3] / [8]
151:	GAS DETECTED	[1] / [8]	407:	REMOTE ARM DOWNLOAD	[3] / [9]
152:	REFRIGERATION	[1] / [9]	410:	REMOTE ACCESS	[3] / [0]
153:	LOSS OF HEAT	[1] / [0]	441:	OPEN / CLOSE - STAY MODE	[3] / [STAY]
154:	WATER LEAKAGE	[1] / [STAY]	570:	BYPASS	[3] / [AWAY] OR [FORCE]
155:	FOIL BREAK ALARM	[1] / [AWAY] OR [FORCE]	572:	24 HOUR ZONE BYPASS	[3] / [BYP]
156:	DAY TROUBLE ALARM	[1] / [BYP]	573:	BURGLARY BYPASS #	[3] / [MEM]
157:	LOW GAS LEVEL	[1] / [MEM]	574:	GROUP BYPASS	[3] / [TRBL]
158:	HIGH TEMPERATURE	[1] / [TRBL]	601:	MANUAL TEST	[4] / [2ND]
159:	LOW TEMPERATURE	[2] / [2ND]	602:	PERIODIC TEST	[4] / [1]
161:	LOSS AIR FLOW	[2] / [1]	625:	TIME / DATE RESET	[4] / [2]
			654:	SYSTEM INACTIVITY	[4] / [3]

Reporting Codes

All digits from [1] to [F] are valid. [2ND] = digit will not be reported except for Contact ID programmable codes. For single digit reporting, enter "skip" ([2ND]) as the first digit (default = [2ND] / [2ND]).



Enter FF to program the default Ademco Contact ID report code when using the Ademco Contact ID (programmable codes) or Pager report formats.

If the Contact ID Format (all codes) is selected, addresses 300 to 527 (sections 11 to 67) do not have to be programmed. To select Contact ID (all codes) you must set key [0] at section 09/address 038 for both monitoring station numbers (see page 4).

Arming (Closing) Report Codes:

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
11	___/___	Auto / Espload	300	17	___/___	User Code 23	324
	___/___	Master	301		___/___	User Code 24	325
	___/___	User Code 1	302		___/___	User Code 25	326
	___/___	User Code 2	303		___/___	User Code 26	327
12	___/___	User Code 3	304	18	___/___	User Code 27	328
	___/___	User Code 4	305		___/___	User Code 28	329
	___/___	User Code 5	306		___/___	User Code 29	330
	___/___	User Code 6	307		___/___	User Code 30	331
13	___/___	User Code 7	308	19	___/___	User Code 31	332
	___/___	User Code 8	309		___/___	User Code 32	333
	___/___	User Code 9	310		___/___	User Code 33	334
	___/___	User Code 10	311		___/___	User Code 34	335
14	___/___	User Code 11	312	20	___/___	User Code 35	336
	___/___	User Code 12	313		___/___	User Code 36	337
	___/___	User Code 13	314		___/___	User Code 37	338
	___/___	User Code 14	315		___/___	User Code 38	339
15	___/___	User Code 15	316	21	___/___	User Code 39	340
	___/___	User Code 16	317		___/___	User Code 40	341
	___/___	User Code 17	318		___/___	User Code 41	342
	___/___	User Code 18	319		___/___	User Code 42	343
16	___/___	User Code 19	320	22	___/___	User Code 43	344
	___/___	User Code 20	321		___/___	User Code 44	345
	___/___	User Code 21	322		___/___	User Code 45	346
	___/___	User Code 22	323		___/___	User Code 46	347
				23	___/___	User Code 47	348
					___/___	User Code 48 / (Duress)	349
					--- Continues in next section.		

Disarming (Opening) Report Codes (reset code "empty"):

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
23	---	See previous section		25	___/___	User Code 5	356
	___/___	Auto / Espload	350		___/___	User Code 6	357
	___/___	Master	351		___/___	User Code 7	358
24	___/___	User Code 1	352		___/___	User Code 8	359
	___/___	User Code 2	353	26	___/___	User Code 9	360
	___/___	User Code 3	354		___/___	User Code 10	361
	___/___	User Code 4	355		___/___	User Code 11	362
			___/___		User Code 12	363	

Disarming (Opening) Report Codes (reset code "empty"):

(continued)

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
27	___/___	User Code 13	364	31	___/___	User Code 29	380
	___/___	User Code 14	365		___/___	User Code 30	381
	___/___	User Code 15	366		___/___	User Code 31	382
	___/___	User Code 16	367		___/___	User Code 32	383
28	___/___	User Code 17	368	32	___/___	User Code 33	384
	___/___	User Code 18	369		___/___	User Code 34	385
	___/___	User Code 19	370		___/___	User Code 35	386
	___/___	User Code 20	371		___/___	User Code 36	387
29	___/___	User Code 21	372	33	___/___	User Code 37	388
	___/___	User Code 22	373		___/___	User Code 38	389
	___/___	User Code 23	374		___/___	User Code 39	390
	___/___	User Code 24	375		___/___	User Code 40	391
30	___/___	User Code 25	376	34	___/___	User Code 41	392
	___/___	User Code 26	377		___/___	User Code 42	393
	___/___	User Code 27	378		___/___	User Code 43	394
	___/___	User Code 28	379		___/___	User Code 44	395
				35	___/___	User Code 45	396
			___/___		User Code 46	397	
			___/___		User Code 47	398	
			___/___		User Code 48 / (Duress)	399	

Alarm Report Codes For Zones 1 to 10 (18) †:

Streamline Section	Data	Description	Address
36	___/___	Zone 1	400
	___/___	Zone 2	401
	___/___	Zone 3/Fire zone* (fire address 100)	402
	___/___	Zone 4	403
37	___/___	Zone 5/Fire zone**	404
	___/___	Zone 6	405
	___/___	Zone 7	406
	___/___	Zone 8	407
38	___/___	Zone 9	408
	___/___	Zone 10	409
	___/___	Zone 11 (738 Ultra only)	410
	___/___	Zone 12 (738 Ultra only)	411
39 <small>738 Ultra only</small>	___/___	Zone 13	412
	___/___	Zone 14	413
	___/___	Zone 15	414
	___/___	Zone 16	415
40 <small>738 Ultra only</small>	___/___	Zone 17	416
	___/___	Zone 18	417

Alarm Restore Report Codes For Zones 1 to 10 (18) †:

Streamline Section	Data	Description	Address
42	___/___	Zone 1	424
	___/___	Zone 2	425
	___/___	Zone 3/Fire zone* (fire address 100)	426
	___/___	Zone 4	427
43	___/___	Zone 5/Fire zone**	428
	___/___	Zone 6	429
	___/___	Zone 7	430
	___/___	Zone 8	431
44	___/___	Zone 9	432
	___/___	Zone 10	433
	___/___	Zone 11 (738 Ultra only)	434
	___/___	Zone 12 (738 Ultra only)	435
45 <small>738 Ultra only</small>	___/___	Zone 13	436
	___/___	Zone 14	437
	___/___	Zone 15	438
	___/___	Zone 16	439
46 <small>738 Ultra only</small>	___/___	Zone 17	440
	___/___	Zone 18	441

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Future Use

418 - 423

47

Future Use

442 - 447

* = Fire zone for 4-wire smoke detectors or 2-wire smoke detectors (with no ATZ enabled—728 Ultra only).

** = Fire zone for 2-wire smoke detectors (address 086, key [BYP]) only when ATZ is enabled (address 090, key [8]). Applies only to 728 Ultra.

† = Zones 1 to 10 for the 728 Ultra and Zones 1 to 18 for the 738 Ultra

Zones 1 to 10 (18)† Shutdown Report Codes:

Streamline Section	Data	Description	Address
48	___/___	Zone 1	448
	___/___	Zone 2	449
	___/___	Zone 3	450
	___/___	Zone 4	451
49	___/___	Zone 5	452
	___/___	Zone 6	453
	___/___	Zone 7	454
	___/___	Zone 8	455
50	___/___	Zone 9	456
	___/___	Zone 10	457
	___/___	Zone 11 (738 Ultra only)	458
	___/___	Zone 12 (738 Ultra only)	459
51 <small>738 Ultra only</small>	___/___	Zone13	460
	___/___	Zone 14	461
	___/___	Zone 15	462
	___/___	Zone 16	463
52 <small>738 Ultra only</small>	___/___	Zone17	464
	___/___	Zone 18	465
53		Future Use	466 - 471

Tampers 1 to 4, 5 and 7 (8)‡ Report Codes:

Streamline Section	Data	Description	Address
54	___/___	Tamper 1	472
	___/___	Tamper 2	473
	___/___	Tamper 3	474
	___/___	Tamper 4	475
55	___/___	Tamper 5	476
	___/___	Tamper 6 (738 Ultra only)	477
	___/___	Tamper 7	478
	___/___	Tamper 8 (738 Ultra only)	479
56 to 59		Future Use	480 - 495

† = Zones 1 to 10 for the 728 Ultra and
Zones 1 to 18 for the 738 Ultra
‡ = Zones 1 to 4, 5 and 7 for 728 Ultra and
Zones 1 to 8 for 738 Ultra

Trouble Report Codes:

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
60	___/___	Max. aux. current	496	61	___/___	Fire loop trouble	500
	___/___	Bell disconnect / max. bell current	497		___/___	Timer loss	501
	___/___	Battery disconnect / low voltage	498		[2ND]/[2ND]	Future Use	502
	___/___	Power failure	499		[2ND]/[2ND]	Future Use	503

Trouble Restore Report Codes:

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
62	___/___	Max. aux. current	504	63	___/___	Fire loop trouble	508
	___/___	Bell disconnect / max. bell current	505		___/___	Timer programmed	509
	___/___	Battery disconnect / low voltage	506		___/___	Tamper / wiring fault	510
	___/___	Power failure	507		___/___	TLM restore	511

Special Report Codes:

Streamline Section	Data	Description	Address	Streamline Section	Data	Description	Address
64	___/___	Test report	512	66	___/___	Duress	520
	___/___	Panic 1	513		___/___	Closing Delinquency	521
	___/___	Panic 2	514		[2ND]/[2ND]	Future Use	522
	___/___	Panic 3	515		[2ND]/[2ND]	Future Use	523
65	___/___	Late to close	516	67	___/___	Login (Espload)	524
	___/___	No movement	517		___/___	Program Change	525
	___/___	Partial Arming	518		[2ND]/[2ND]	Future Use	526
	___/___	Recent Close	519		[2ND]/[2ND]	Future Use	527

Decimal Programming

The decimal programming method is used to program all of the system's timers. This method uses a 3-digit address from **044** to **061** and each address is programmed with a value from **000** to **255**.

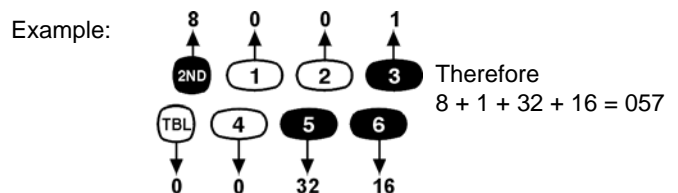
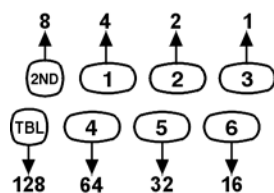
Table 5: Decimal Programming Method

1. Press **[ENTER]** + **[INSTALLER CODE]** (default - 728 Ultra: **282828**; 738 Ultra: **383838**)
2. The **[ENTER]** key will flash to indicate that you are in programming mode (LED keypad only).
3. Enter 3-digit **[ADDRESS]** (**044** to **061**).
4. The keypad displays the current 3-digit data saved at this address as described in *Figure 2* below.
5. Enter 3-digit **[DATA]** (000 to 255) and do **not** press **[ENTER]**. The software will automatically save the data.
6. Return to step 2 or press **[CLEAR]** to exit programming mode.

Address	Data	Description	Default
044	___ / ___ / ___	(hours) Auto arm time (between "000" and "023")	000
045	___ / ___ / ___	(minutes) Auto arm time (between "000" and "059")	000
046	___ / ___ / ___	(days or hours) Auto test report every ? (between "001" and "254") (000 = disabled) If address 090 key [3] OFF = address 046 in days (see page 10) If address 090 key [3] ON = address 046 in hours (see page 10) 738 Ultra only: Enter "255" to enable a Timed Test Transmission when the system is armed or disarmed (see the "728 Ultra/738 Ultra Reference & Installation Manual" for more information)	000
047	___ / ___ / ___	(hours) Auto test report (between "000" and "023") 738 Ultra only: (minutes) If address 046 = 255 and the system is armed, Armed Test Report (between "001" and "255")	000
048	___ / ___ / ___	(minutes) Auto test report (between "000" and "059") 738 Ultra only: (minutes) If address 046 = 255 and the system is disarmed, Disarmed Test Report (between "001" and "255")	000
049	___ / ___ / ___	(seconds) Exit delay	60 seconds
050	___ / ___ / ___	(seconds) Entry delay 1	45 seconds
051	___ / ___ / ___	(seconds) Entry delay 2	45 seconds
052	___ / ___ / ___	(minutes) Bell cut-off time	5 minutes
053	___ / ___ / ___	(x 15 ms) Zone speed	600 ms
054	___ / ___ / ___	(minutes) Power failure report delay (000 = disabled)	30 minutes
055	___ / ___ / ___	(x 15 minutes) No movement Auto-Arm time (000 = disabled)	Disabled
056	___ / ___ / ___	PGM timer setting (001 to 127 for seconds and 129 to 255 for minutes) Add 128 to desired value in minutes (i.e. for 5 minutes: enter 5 + 128 = 133)	5 seconds
057	___ / ___ / ___	Intellizone delay (in seconds, minimum = 10 seconds)	48 seconds
058	___ / ___ / ___	Installer code lock (147 = locked, 000 = unlocked). When Installer Lock is enabled on a control panel: For 4 seconds during power up, the STATUS LED flashes while the dialer relay opens and closes making a clicking noise.	Unlocked
059	___ / ___ / ___	(seconds) Programmable delay before alarm transmission (005 to 063 seconds) (000 = disabled)	Disabled
060	___ / ___ / ___	(seconds) Recent closing delay (000 = disabled)	Disabled
061	___ / ___ / ___	(days or hours) Closing delinquency timer (System A) If address 090 key [3] OFF = address 061 in days (see page 10) If address 090 key [3] ON = address 061 in hours (see page 10)	Disabled

Figure 2: Decimal Display For LED Keypads

Each key in the first 2 rows of the keypad represents a specific value when the key is lit, as shown below left. When the key isn't lit, the key represents 0. Add the values of the lit keys to obtain the entered data value as shown in the example below right.



Note: LCD keypads will display current data on the screen.

Feature Select Programming

Addresses **062** to **126** are programmed using the Feature Select Programming method. In this method, every key on the keypad in each address represents an option or feature. Pressing a key will display it on the keypad and pressing it again will extinguish the key. The ON or OFF status of each key determines the selected feature. Addresses **080** to **085** are reserved for future use. To program using the Feature Select Programming method:

Table 6: Feature Select Programming Method

1. Press **[ENTER]** + **[INSTALLER CODE]** (default - 728 Ultra: **282828**; 738 Ultra: **383838**)
2. The **[ENTER]** key will flash to indicate you are in programming mode (LED keypad only).
3. Enter 3-digit **[ADDRESS]** (**062** to **126**).
4. After entering the address, the keypad will display the feature selection status. Turn the keys ON or OFF by pressing the appropriate key until the desired options are set. Press the **[ENTER]** key to accept, there will be a confirmation beep indicating the options have been accepted. The **[ENTER]** key will flash to indicate that the software is awaiting the next address entry.
5. Return to step 3 to continue programming or press **[CLEAR]** to exit programming mode.

Table 7: Code Priority For System "A" / STAY

	KEY SELECT:	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[0]	[STAY]	[AWAY]/ [FORCE]	[BYP]	[MEM]	[TRBL]	[2ND]
062	User #:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
064	User #:	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
066:	User #:	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 8: Code Priority For System "B" / AWAY / FORCE

	KEY SELECT:	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[0]	[STAY]	[AWAY]/ [FORCE]	[BYP]	[MEM]	[TRBL]	[2ND]
068:	User #:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
070:	User #:	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
072:	User #:	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 9: Code Priority for Codes with Bypass Access

	KEY SELECT:	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[0]	[STAY]	[AWAY]/ [FORCE]	[BYP]	[MEM]	[TRBL]	[2ND]
074:	User #:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
076:	User #:	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
078:	User #:	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

△ = default

086:

See "TLM" table at right

Keyswitch = Regular arm

Keyswitch arming

Call back

Auto arm on time

Auto arm on no movement

Pulse dialing

Partitioning

Silent zone/panic generates a silent alarm

(1:2) Pulse Europe

See "Reporting Options" table at right

2-wire smoke detector (input 3)

Bell squawk on arm/disarm

Auto zone shutdown

088:

Automatic event buffer transmission

Panic 1 (keys [1] and [3])

Panic 2 (keys [4] and [6])

Panic 3 (keys [7] and [9])

Panic 1 silent

Panic 2 silent

Panic 3 silent

Key [0]/[ARM] - Regular arming

Key [STAY] - Stay or system A arm

6-digit access codes

Tamper Recognition

Beep on exit delay

Report zone restore on bell cut-off

Zones with EOL (1kΩ)

Always report disarm

090:

Exclude power failure from trouble display

Zone 4 (728 Ultra)/Zone 11 (738 Ultra)* enabled

Auto arm = Regular arm

Auto test report / Closing delinquency timer in days

Restrict arming on battery failure

Restrict arming on tamper trouble**

No tamper bypass

Zone doubling (ATZ) wiring in series

Zone doubling (ATZ)

Audible trouble warning

Duress

Keypad zone 1 supervision

Keypad zone 2 supervision

Master code lock

Pager format (wait delay)

Pager report alarms only

	OFF	/	ON	
	△	[2ND]	<input type="checkbox"/>	
	△	[1]	<input type="checkbox"/>	
	△	[2]	<input type="checkbox"/>	Stay arm / System A
	△	[3]	<input type="checkbox"/>	Enabled
	△	[4]	<input type="checkbox"/>	Enabled
	△	[5]	<input type="checkbox"/>	Enabled
	△	[6]	<input type="checkbox"/>	Enabled
	△	[7]	<input type="checkbox"/>	Tone dialing (DTMF)
	△	[8]	<input type="checkbox"/>	Enabled
	△	[9]	<input type="checkbox"/>	Generates only a report
	△	[0]	<input type="checkbox"/>	(1:1.5) Pulse USA
	△	[STAY]	<input type="checkbox"/>	
	△	[AWAY]/ [FORCE]	<input type="checkbox"/>	
	△	[BYP]	<input type="checkbox"/>	Enabled
	△	[MEM]	<input type="checkbox"/>	Enabled
	△	[TRBL]	<input type="checkbox"/>	Enabled
	OFF	/	ON	
	△	[2ND]	<input type="checkbox"/>	Enabled
	△	[1]	<input type="checkbox"/>	Enabled
	△	[2]	<input type="checkbox"/>	Enabled
	△	[3]	<input type="checkbox"/>	Enabled
	△	[4]	<input type="checkbox"/>	Audible
	△	[5]	<input type="checkbox"/>	Audible
	△	[6]	<input type="checkbox"/>	Fire
	△	[7]	<input type="checkbox"/>	Enabled
	△	[8]	<input type="checkbox"/>	Enabled
	△	[9]	<input type="checkbox"/>	4-digit access codes
	△	[0]	<input type="checkbox"/>	
	△	[STAY]	<input type="checkbox"/>	
	△	[AWAY]/ [FORCE]	<input type="checkbox"/>	Enabled
	△	[BYP]	<input type="checkbox"/>	On zone closure
	<input type="checkbox"/>	[MEM]	△	No EOL
	△	[TRBL]	<input type="checkbox"/>	Only after alarm
	OFF	/	ON	
	△	[2ND]	<input type="checkbox"/>	Enabled
	△	[1]	<input type="checkbox"/>	Disabled*
	△	[2]	<input type="checkbox"/>	Stay / System A
	△	[3]	<input type="checkbox"/>	In hours
	△	[4]	<input type="checkbox"/>	Enabled
	△	[5]	<input type="checkbox"/>	Enabled**
	△	[6]	<input type="checkbox"/>	Tamper follows zone bypass definition
	△	[7]	<input type="checkbox"/>	Parallel
	△	[8]	<input type="checkbox"/>	Enabled
	△	[9]	<input type="checkbox"/>	Enabled
	△	[0]	<input type="checkbox"/>	Enabled
	△	[STAY]	<input type="checkbox"/>	Enabled
	△	[AWAY]/ [FORCE]	<input type="checkbox"/>	Enabled
	△	[BYP]	<input type="checkbox"/>	Enabled
	△	[MEM]	<input type="checkbox"/>	Personal dialing (during delay)
	△	[TRBL]	<input type="checkbox"/>	All events

Telephone Line Monitoring (TLM)		
KEY		
[2ND]	[1]	
OFF	OFF	- TLM disabled
OFF	ON	- TLM generates trouble only
ON	OFF	- Generates an alarm if armed
ON	ON	- Silent alarm becomes audible

(address 086, key [9] has to be OFF)

Reporting Options		
KEY		
[STAY]	[AWAY]/[FORCE]	
OFF	OFF	- Reporting disabled
OFF	ON	- Regular reporting
ON	OFF	- Split* reporting (Alarms & System)
ON	ON	- Double reporting

Report Dialing Sequence (tel. no.)
 Regular: 1,2,1,2,1,2,1,2, fail to comm.
 Split*: Alarms - 1,1,1,1,1,1,1,1, fail to comm
 System - 2,2,2,2,2,2,2,2, fail to comm
 Double: 1,1,1,1,1,1,1,1, fail to comm
 2,2,2,2,2,2,2,2, fail to comm

** On alarm, all reports are made to Tel. #1 until system is disarmed. Once disarmed, system reports are made to Tel. #2.*




Tamper / Wire Fault Definitions			
	KEY		
	[0]	[STAY]	
System Armed	OFF	OFF	- Tamper supervision disabled
Alarm as per individual zone definitions	OFF	ON	- No alarm. Trouble code reported
Always generate trouble and alarm, audible or silent as per individual zone definitions	ON	OFF	- Silent alarm. Trouble & alarm codes reported
	ON	ON	- Audible alarm. Trouble & alarm codes reported**


** Exception: for 24 Hr zones, the tamper definition will follow the audible/silent alarm definition of the 24 Hr zone.*
*** Silent zones will generate a silent alarm.*

*** NOTE 1:** When ATZ is enabled (address 090 key [8] ON) and zone 3 is defined as a 4-wire fire zone, if you are not using zone 4 (728 Ultra) or 11 (738 Ultra), it must be disabled.

**** NOTE 2:** Only the installer can clear a tamper trouble

Table 10: Zone Definition

Address	KEY SELECT:	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[0]	[STAY]	[FORCE] /[AWAY]	[1]	[2]	[3]	[4]	[5]	[6]	
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
092:	Intellizone = ON	092:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	094:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
096:	Silent = ON	096:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	098:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Zone:	1	2	3*	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
100:	24Hr./Fire = ON	100:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	102:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Keypad zones cannot be set as 24Hr zones.		* When zone 3 is defined as 24Hr, it becomes a 4-wire smoke detector fire zone (2-wire smoke detector support must be disabled, address 086 key [BYP] = OFF). If using 2-wire smoke detectors and ATZ is enabled, zone 3 can be defined as 24Hr (728 Ultra only).																	
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
104:	Instant = ON	104:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	106:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
108:	Follow = ON	108:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	110:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
112:	Delay 2 = ON	112:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	114:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM A / STAY (if ON, zone is armed on Stay or "System A" arming)																				
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
116:		116:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	118:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM B (if ON, zone is armed in "System B" arming)																				
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
120:		120:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	122:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Zone:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
124:	Bypass = ON	124:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	126:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fire zones cannot be bypassed.																			

 **Do not use the Intellizone feature and an entry delay for the same zone, otherwise an alarm may occur as a user tries to disarm the system. Zones that are not selected at addresses 100 to 112 (728 Ultra) or 114 (738 Ultra) become "Delay 1" zones.**

Key Access Programming

Programs features quickly, without entering addresses or sections numbers. To activate Key Access Programming, press [ENTER] followed by the Installer code, Master code or User code 1 (code required depends on the desired feature; see below). Press the key corresponding to the desired feature. Press [ENTER] or [CLEAR] to exit. When communicating with Espload, it is impossible to enter programming mode.

Table 11: Key Access Programming

Key	Feature	Codes that can access feature
[8]	Installer Test Mode In Installer Test mode, a confirmation beep (intermittent) indicates that the test mode is enabled. A rejection beep indicates that the test mode is disabled. The bell will squawk during walk testing to indicate opened, functional zones.	<i>Installer Code Only</i>
[9]	"Auto Arming" Time Program Key [9] flashes. Enter 2-digit hour (00 to 23) and 2-digit minutes (00 to 59).	<i>Installer Code, Master Code or User Code 1</i>
[MEM]	Panel Time Programming [MEM] key flashes. Enter 2-digit hour (00 to 23) and 2-digit minutes (00 to 59).	<i>Installer Code, Master Code or User Code 1</i>
[BYP]	Test Report Reporting is enabled at address 086 , keys [STAY] and [AWAY]/[FORCE] (see page 10). A value must be entered at address 512 (page 7) and both telephone and account numbers must be programmed.	<i>Installer Code, Master Code or User Code 1</i>
[TRBL]	Call Espload Via Telephone Panel identifier and PC password (addresses 004 to 007 on page 3) and computer telephone number (addresses 008 to 015 on page 3) must be programmed.	<i>Installer Code, Master Code or User Code 1</i>
[AWAY]	Answer Espload This feature is available when using the ADP-1 adapter. In Espload, "blind dial" must be activated in the "modem setup" section and panel phone number programmed.	<i>Installer Code, Master Code or User Code 1</i>
[STAY]	Cancel Communication Attempts Until next reportable event.	<i>Master Code/User Code 1 only cancel calls to Espload The Installer Code can cancel all communications</i>

Connection Diagrams

The system hardware will recognize the following zone conditions:

Single Zone Connections

Figure 3: N.C. Contacts, without EOL Resistor

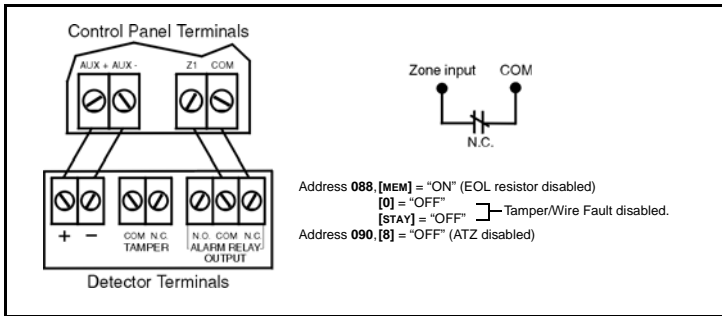


Figure 4: N.C. Contacts, with EOL Resistor (UL/cUL)

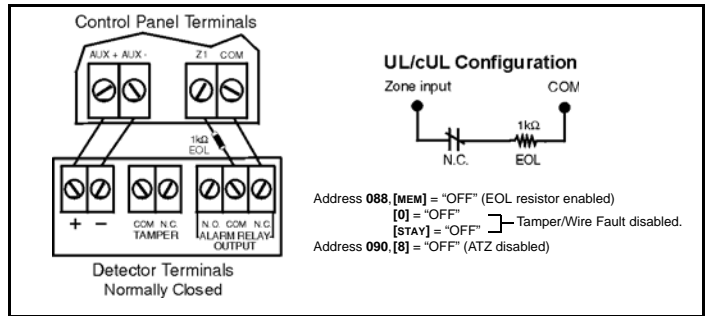


Figure 5: N.O. Contacts, with EOL Resistor (UL/cUL)

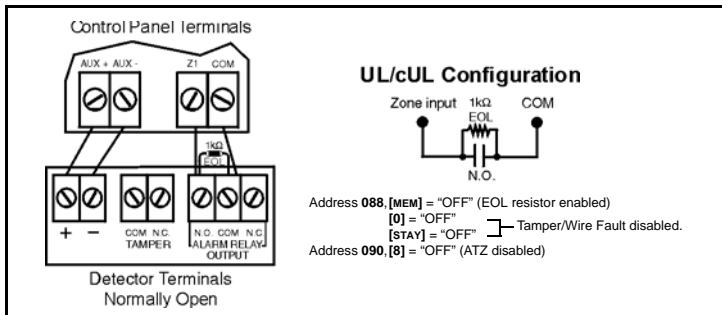


Figure 6: N.C. Contacts, without EOL Resistor, with Tamper Recognition

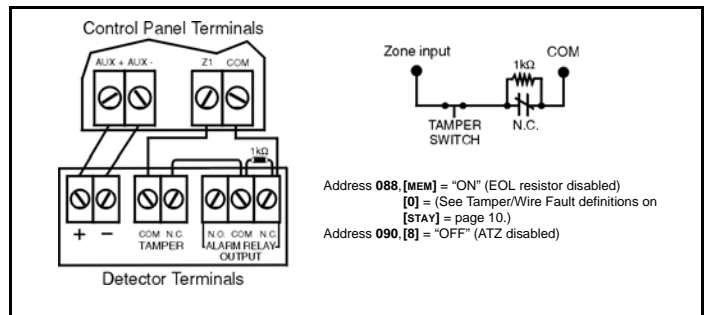
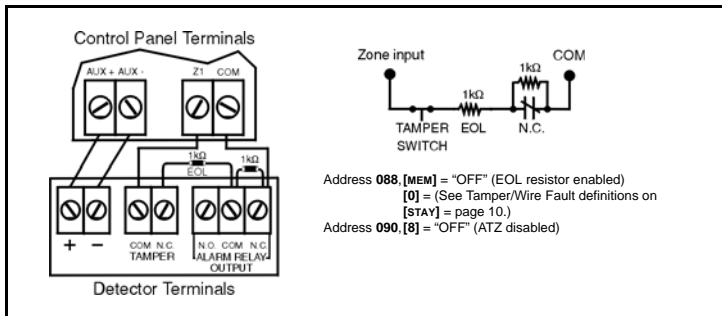


Figure 7: N.C. Contacts, with EOL resistor, with Tamper and Wire Fault Recognition (UL/cUL)



Advanced Technology Zone (ATZ) Connections

Figure 8: N.C. Contacts, without EOL Resistor

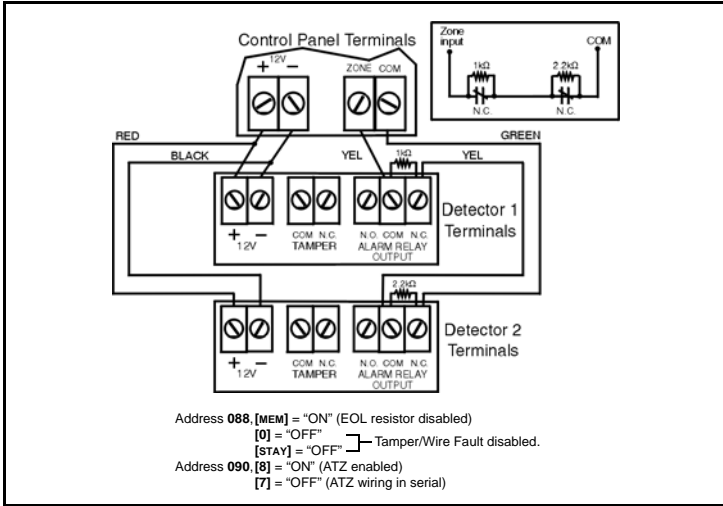


Figure 9: N.C. Contacts, without EOL Resistor, with Tamper Recognition

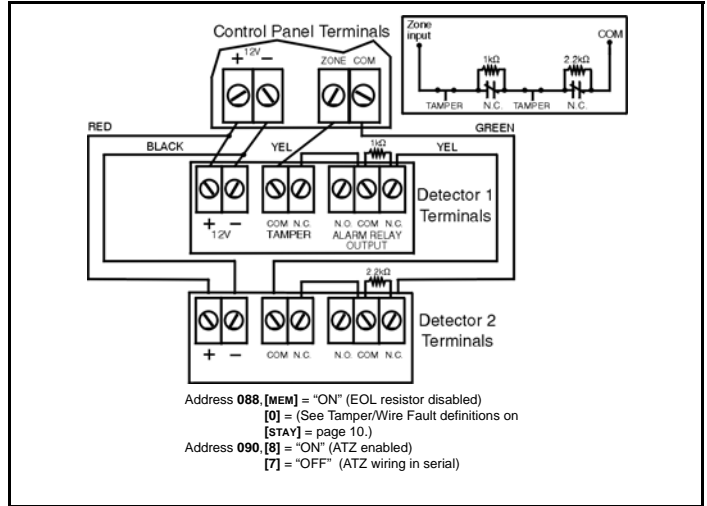


Figure 10: N.C. Contacts, with EOL Resistor, with Tamper and Wire Fault Recognition (UL/cUL)

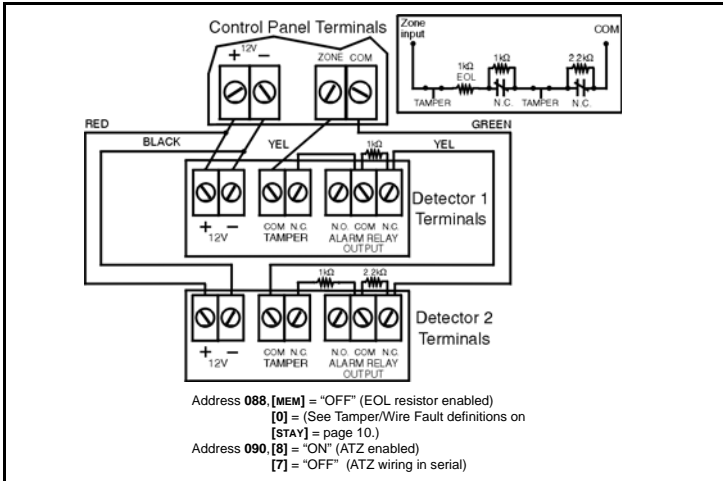
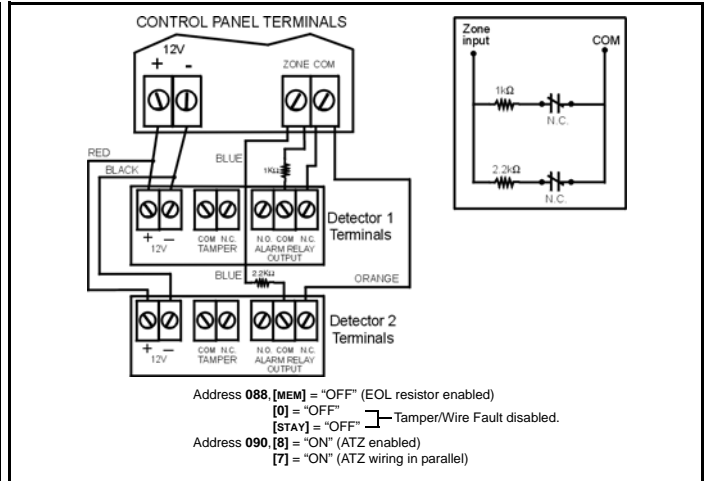


Figure 11: Parallel Wiring



Other Connection Diagrams

Figure 12: Connecting Keypad Zone(s)

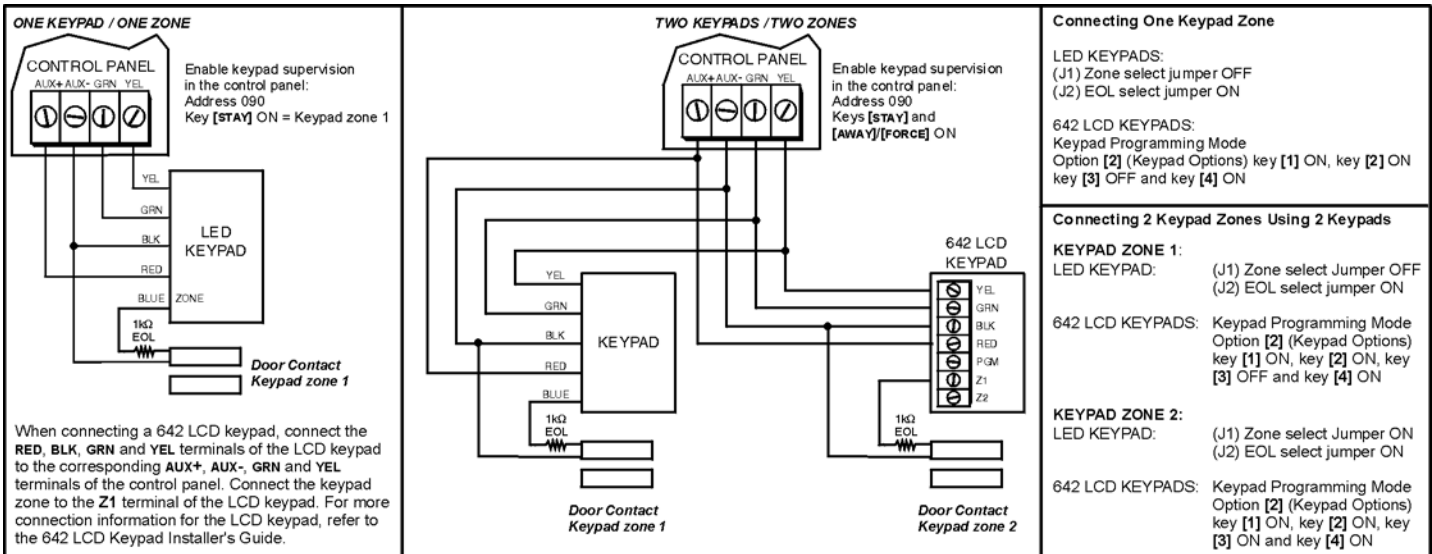


Figure 13: LED Keypad Anti-tamper Switch Connection

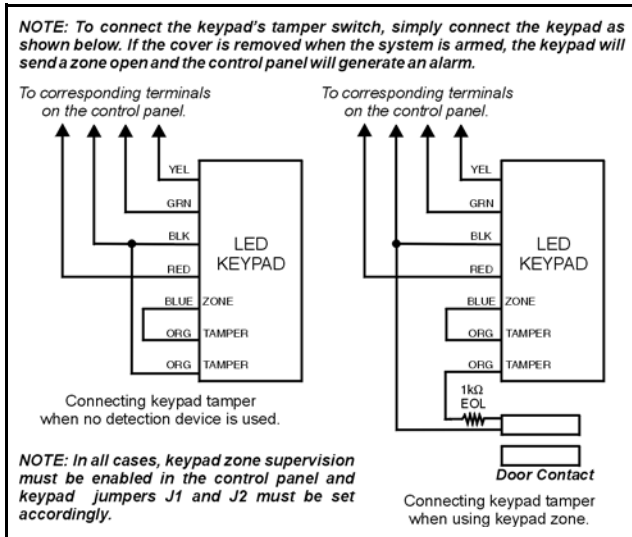


Figure 14: PGM Output Relay

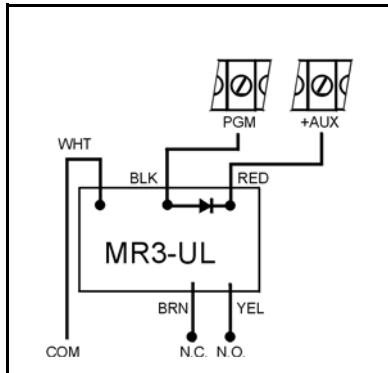


Figure 15: Ground Start Circuit

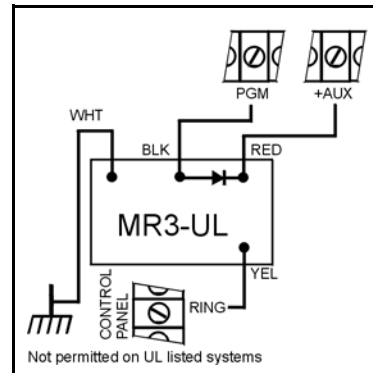


Figure 16: 4-Wire Smoke Detector Connections (Fire Zone)

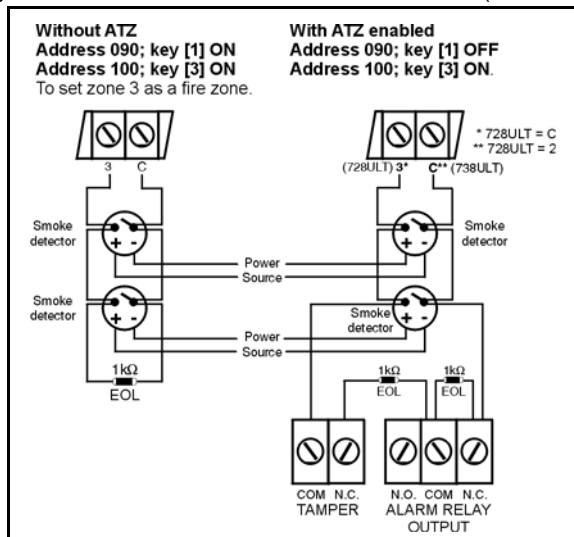


Figure 17: 4-Wire Smoke Detector Fire Reset

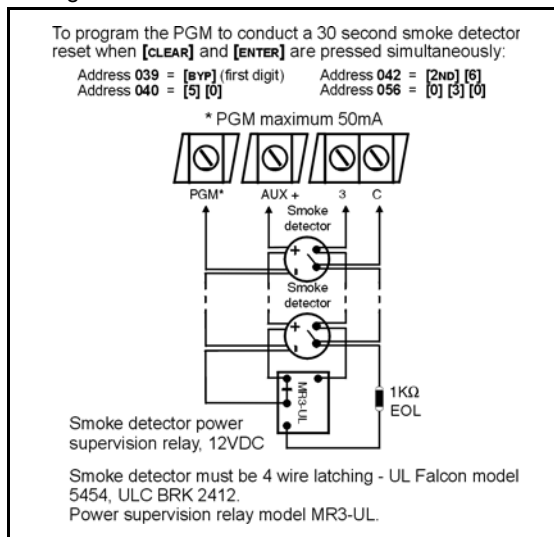
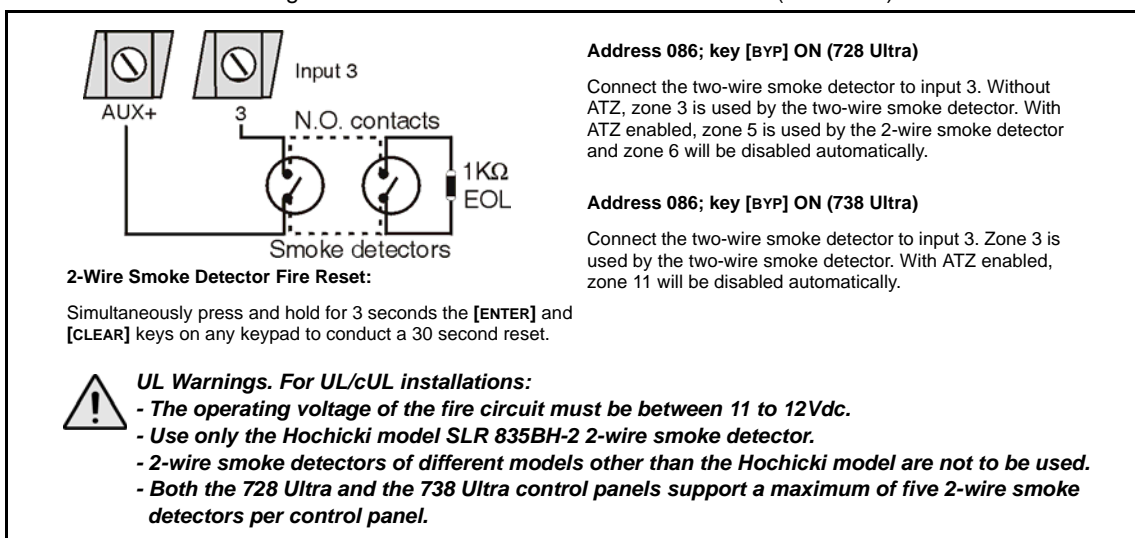


Figure 18: 2-Wire Smoke Detector Connections (Fire Zone)



It is recommended that the smoke detectors be connected using a daisy chain configuration.

728 Ultra Wiring Diagram

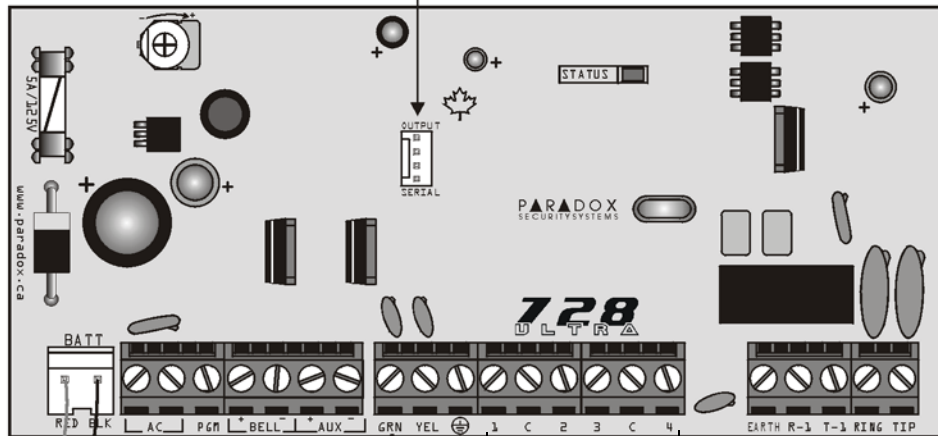
STATUS LED:
 Flash once every second = normal
 Toggle ON 1s / OFF 1s = trouble
 Always ON = panel is using phone line
 Fast flash 4s after power up = installer lock enabled

For use with the 708, Esprint and SRI-18 PGM expander
Note: To use you must disable the PGM. To do so, program [2ND] [2ND] in sections 039, 040 and 042.

Disconnect the battery before replacing the fuse

Disconnect the telephone line before servicing.

Rechargeable Acid/Lead or Gel Cell Backup Battery



Inset 2

Please refer to *Inset 1* for the input terminals. For the hardwired connections, refer to *Single Zone Connections* on page 12 and *Advanced Technology Zone (ATZ) Connections* on page 13.

Cold water pipe or grounding rod
 Ground clamp

**** UL Note:**
 Do not connect this ground with UL installations.

16.5Vac (50-60Hz) 20VA/40VA transformer

Improper connection may result in damage to the system.

AUX POWER:
 450mA maximum. UL/cUL: 250mA maximum for 24Hr Stand-by. To connect additional wiring to the auxiliary power, use the red (+) and the black (-) keypad connectors. AUX power will shut down if current exceeds 650mA.

Note: For UL installations, the metallic enclosure must be grounded to the cold water pipe or to the grounding rod.

To provide maximum lightning protection we strongly recommend having separate earth connections for the dialer and zone ground terminals.

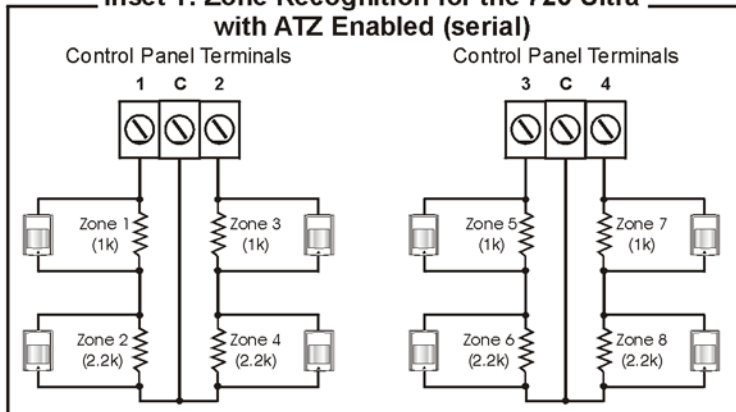


For UL and cUL warnings, refer to the Warnings section in the Esprit "728 Ultra & 738 Ultra Reference and Installation Manual".

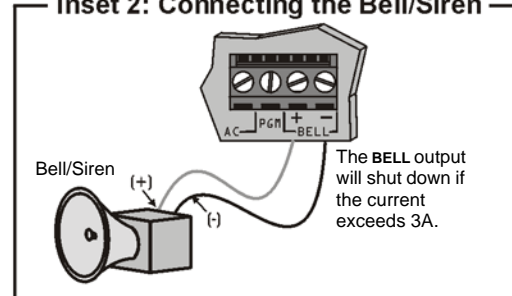
Keypads - LED Keypads 636 and 646 - LCD Keypad 642

The maximum number of keypads per installation is dependent on the auxiliary output, which is not to exceed 450mA. Refer to the "728 Ultra & 738 Ultra Reference & Installation Manual" for the current consumption table. Refer to *Figure 12* on page 13 for information on keypad zone connections.

Inset 1: Zone Recognition for the 728 Ultra with ATZ Enabled (serial)



Inset 2: Connecting the Bell/Siren



738 Ultra Wiring Diagram

STATUS LED:
 Flash once every second = normal
 Toggle ON 1s / OFF 1s = trouble
 Always ON = panel is using phone line
 Fast flash 4s after power up = installer lock enabled

For use with the 708, Esprint and SRI-18 PGM expander

Note: To use you must disable the PGM. To do so, program [2ND] [2ND] in sections 040 and 042.

Caution: Disconnect the battery before replacing the fuse

WARNING: Disconnect the telephone line before servicing.

Rechargeable Acid/Lead or Gel Cell Backup Battery

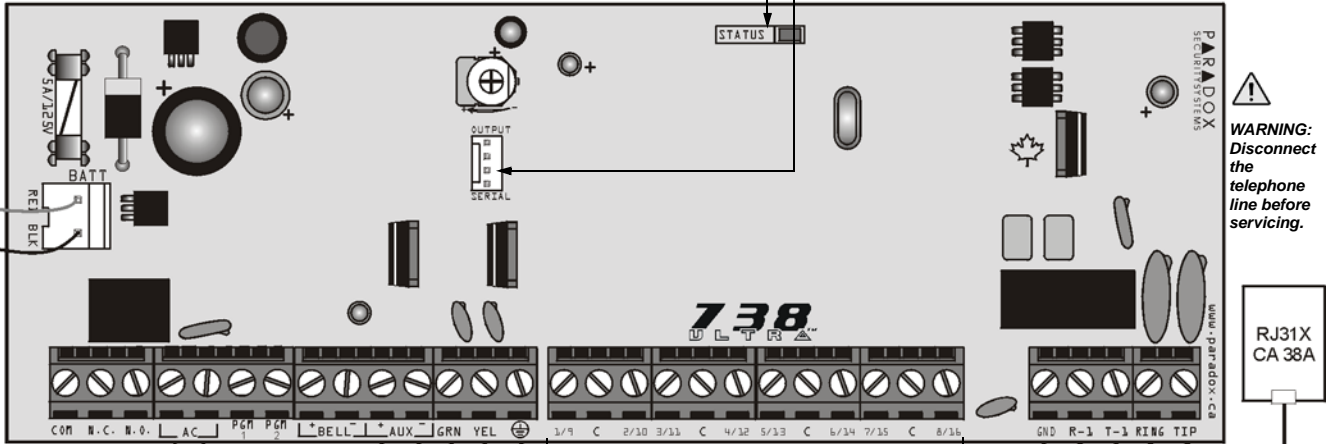
For UL and cUL warnings, refer to the Warnings section in the Esprit "728 Ultra & 738 Ultra Reference and Installation Manual".

16.5Vac (50-60Hz) 20VA/40VA transformer

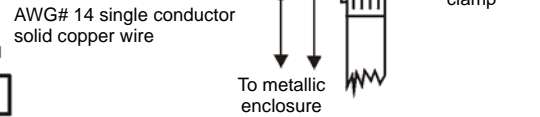
Improper connection may result in damage to the system.



AUX POWER:
 500mA maximum. 250mA maximum for 24Hr Stand-by.
 To connect additional wiring to the auxiliary power, use the red (+) and the black (-) keypad connectors. AUX power will shut down if current exceeds 700mA.



Please refer to *Inset 1* for the input terminals. For the hardwired connections, refer to *Single Zone Connections* on page 12 and *Advanced Technology Zone (ATZ) Connections* on page 13.



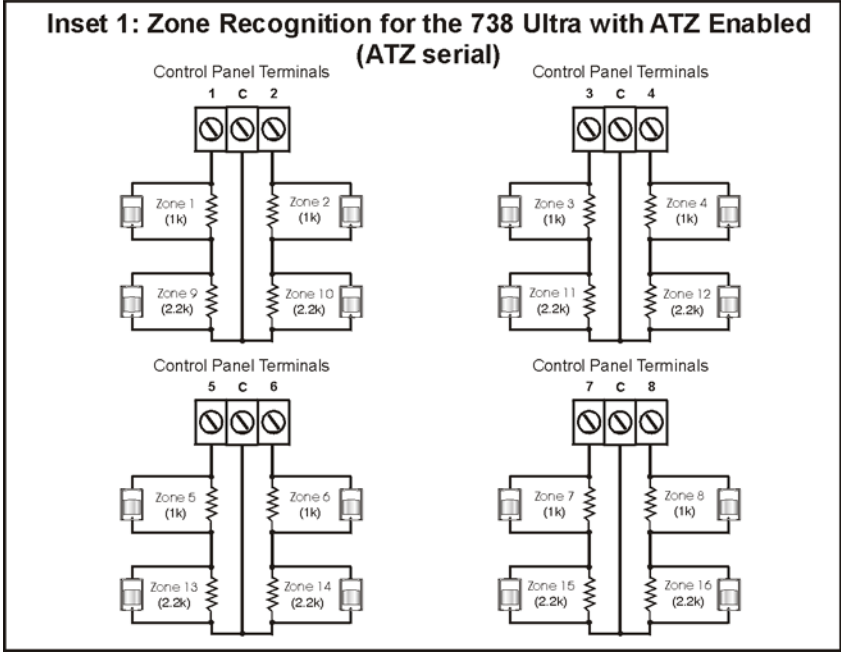
To provide maximum lightning protection we strongly recommend having separate earth connections for the dialer and zone ground terminals.

Keypads
 - LED Keypads 636 and 646
 - LCD Keypad 642

The maximum number of keypads per installation is dependent on the auxiliary output, which is not to exceed 500mA. Refer to the "728 Ultra & 738 Ultra Reference & Installation Manual" for the current consumption table. Refer to *Figure 12* on page 13 for information on keypad zone connections.

Inset 2: Connecting the Bell/Siren

The BELL output will shut down if the current exceeds 3A.

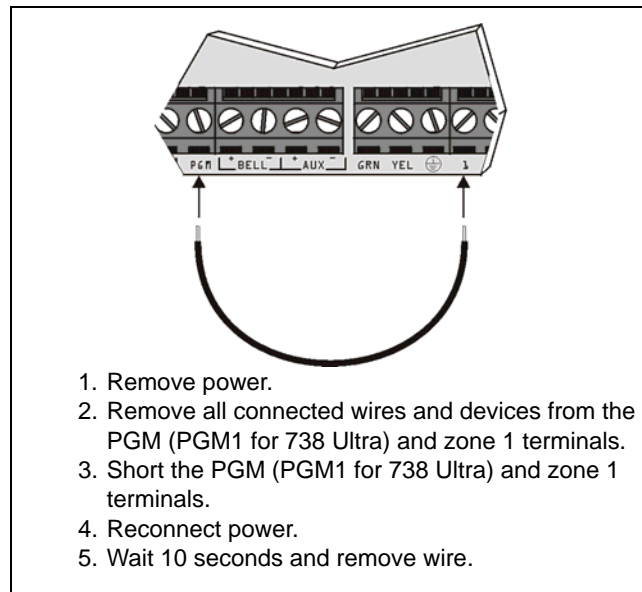


Power Down Reset

Performing a power down reset will set the Installer and Master codes to factory default. Values entered at addresses **008 to 043**, **062 to 124**, **300 to 527** and all user codes will be set to factory defaults. Programmed values at addresses **003 to 007** do not change. To perform a reset, the installer lock must be disabled. To perform a power down reset perform the following:

1. Verify installer lock is disabled.
2. Remove the battery and AC power from the control panel.
3. Remove all connected wires and devices from the PGM (PGM1 for 738 Ultra) and zone 1 terminals.
4. Short the PGM (PGM1 for 738 Ultra) and zone 1 terminals with a wire.
5. Reconnect the AC and battery power to the control panel.
6. Wait for 10 seconds and remove the wire.

Figure 19: Power Down Reset for 728 Ultra or 738 Ultra



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PRINTED IN CANADA - 07/2007

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