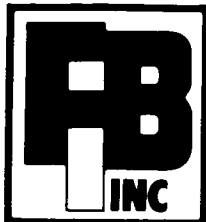# XL1218

Hook-up & Installation

Fire Burglary Instruments, Inc.

50 Engineers Road, Hauppauge, New York 11788

NEW YORK
(516) 582-6161

OUT OF STATE
(800) 645-5430

LIGHTNING
DAMAGE
PROTECTION
PLAN

EXCLUSIVE WITH FIRE BURGLARY INSTRUMENTS, INC.
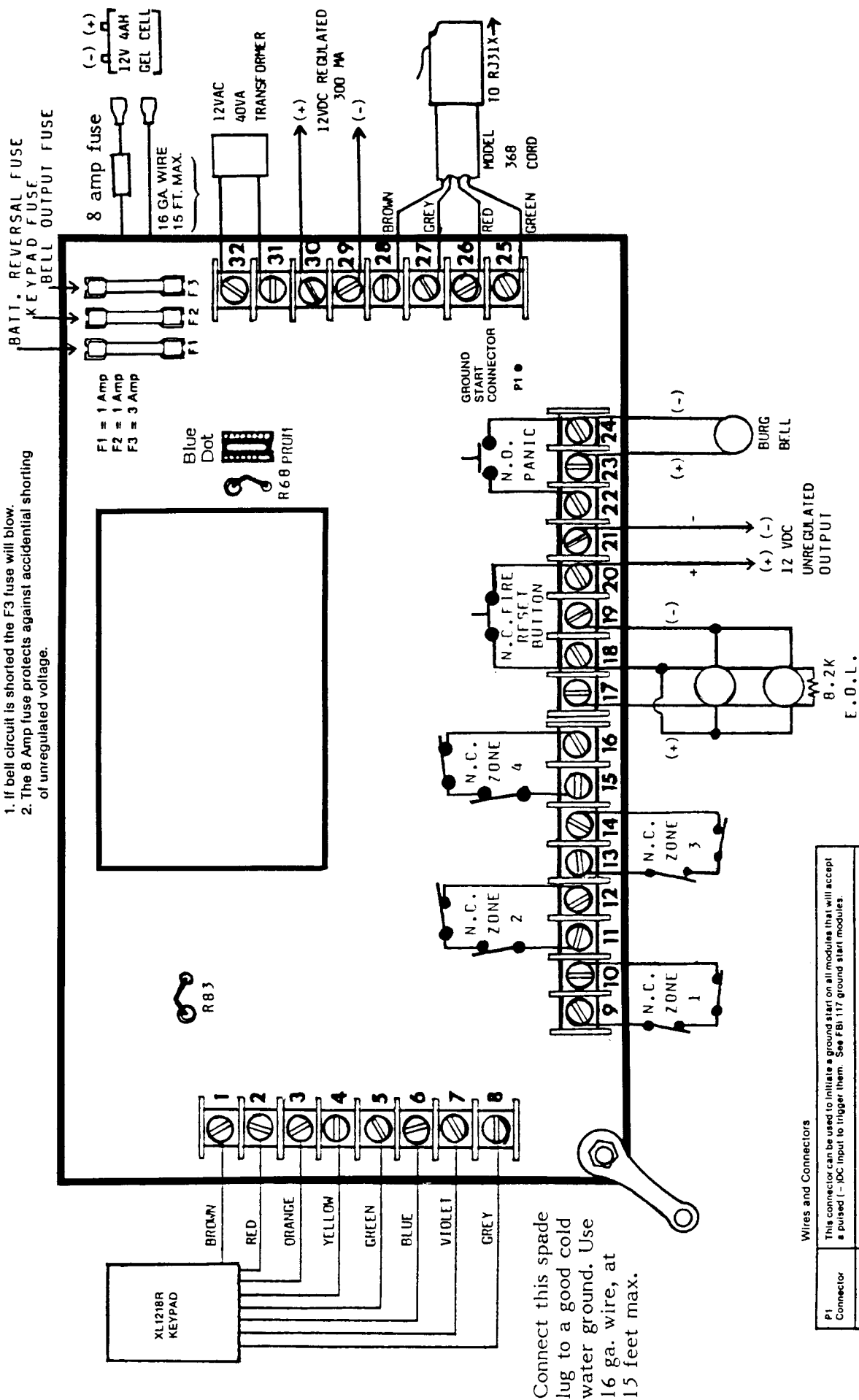
terminals 'n functions

The XL1218 and the 1218R keypad will <u>NOT</u> function until the prom has been programmed and inserted into this system.

Terminals & Descriptions

Terminal	Description
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Grey
9 & 10	Normally closed Zone 1: Wire normally closed devices in series, on these terminals. Maximum loop resistance is 2000 Ω . Zone 1 can be programmed on the prom as a <u>24 HOUR ALARM ZONE</u>, such as panic or medical with pulsing or steady bell, <u>OR SILENT</u>, with ring back or no ring back on dialer transmission. Zone 1 can be programmed as a CONTROLLED DELAY OR <u>INSTANT, OR A CONTROLLED INTERIOR ZONE</u> if it is <u>NOT</u> a 24 hour alarm zone. (Controlled zones deliver a steady bell output.) (Controlled zone = burglary zone which is armed and disarmed). Interior zone operation is as follows: When the entire system is armed, if <u>EXIT DOES NOT</u> take place during Exit Time on any <u>ONE</u> of the zones which has been selected as a Delay zone (example: stay home for the evening) the <u>INTERIOR ZONE</u> will be completely bypassed until the system is disarmed. Secondly, when the system is armed and Exit <u>DOES</u> take place through a delay zone during Exit time, the <u>INTERIOR</u> zone will have Entrance delay if Re-entry is through any of the designated Delay zones. If Re-entry is through any circuit other than a Delay zone, <u>INTERIOR</u> will be instant. Either zone type will have dialer transmission if so programmed. (NOTE: 24 hr. alarm zones may not be bypassed at the 1218R keypad. Controlled zones may be bypassed.)
10 & 12	Normally open zone 1: Wire normally open devices in parallel across these terminals.
11 & 12	Normally closed Zone 2: Wire normally closed devices in series on these terminals. Maximum loop resistance is 2000 Ω . Zone 2 can be programmed for the same options as zone 1, <u>OR</u> it may be programmed as a <u>24 HOUR TROUBLE ZONE</u>. When 24 hour trouble zones are violated they may have pulsed, steady, or silent (with ring back), sonalert outputs (sonalert in 1218R keypad) and a dialer transmission if so programmed. (Trouble zones audible output MAY by bypassed, however, dialer transmission <u>CANNOT</u>. NOTE: Zone 2 can be a positive loop if desired, call Technical services for assistance.
13 & 14	Normally closed Zone 3: Same options and operation as zone 2.
14 & 16	Normally open zone 3: Wire normally open devices in parallel across these terminals.
15 & 16	Normally closed Zone 4: Same options and operation as zone 2. NOTE: Zone 4 can be a positive loop if desired, call Technical services for assistance.

The legend "Wires from XL1218R Keypad" applies to terminals 1 through 8.

18(+) & 19(-)	Smoke Detector Power Terminals. Reset by momentary activation of N.C. Reset Button which MUST be wired across 20 & 18.
20 & 18	Fire reset: Connect a normally closed momentary Reset button across these terminals. Momentary activation of this button will reset the Fire Circuit. If the Fire Circuit is not used a jumper MUST be installed on these terminals.
18 & 17 E.O.L. 8.2K	E.O.L. Supervised Fire Zone. Wire normally open smoke detectors, etc. in parallel on these terminals. When the fire zone is violated it will trip the digital dialer and ring the BURGLARY BELL/TERMINALS, steady, or pulsing depending on how the prom is programmed. If the smoke detector loop is OPEN a COMMON TROUBLE ZONE transmission will occur and the FIRE LED on the 1218R keypad will go out. If the Fire Zone is used or not, the EOL Resistor MUST be installed on these terminals.
20(+) & 21(-)	12VDC unregulated Output. All devices which can be powered by unregulated DC voltage may be connected here.
22 & 24	Connect normally open momentary devices in parallel on these terminals to trip keypad panic. Keypad Panic can be programmed Silent or Audible in the prom.
23(+) & 24(-)	Burglary Bell Output: These terminals will deliver a constant or pulsing DC output when a 24 hour alarm zone, fire zone, or a controlled zone is violated depending on the prom programming.
25, 26 27, & 28	Telephone line connections for the XL1218 on-board digital dialer. Connect the Model #368 cord as follows: red-26, green-25, grey-27, brown-28, and plug the male connector into a RJ31X jack which should be installed by the local phone company. The XL1218 has double pole line seizure. Before using the digital dialer, the telephone company shall be requested to install a USOCRJ31X jack on the telephone line. Give the telephone company the FCC registration (AE398E-69554AL-E) & the ringer equivalence (0.0B) numbers for the XL1218. Connect the XL1218 to an approved modular plug (#368) to mate with the RJ31X as shown on the following page. Should the XL1218 cause harm to the telephone network, the telephone company may temporarily discontinue service until the problem is corrected. Notice of such action will be given by the telephone company. Should the telephone company make any changes to its facility or other requirements that could render the XL1218 incompatible, the customer shall be given adequate notice by the telephone company, in writing. Upon receipt of this information from the customer, the manufacturer shall advise the customer as to what actions must be taken to maintain uninterrupted service. The Model XL1218 may not be connected to party lines or coin lines. If trouble is experienced, the XL1218 shall be disconnected from the phone line, by means of the plug shown to determine if the XL1218 is malfunctioning. If the XL1218 is malfunctioning, do not reconnect until the problem has been corrected. This control panel should not be used in conjunction with "call waiting" phone system.
30(+) & 29(-)	12VDC Regulated Output. Less than 100 mvpp ripple. 300ma current capability. These terminals can be used to power all devices such as motion detectors which need a constant 12VDC regulated output.
31 & 32	12V AC, 40VA transformer should be wired to these terminals and plugged into a 110VAC unswitched outlet. Use 16 gauge wire at 15 feet maximum. As long as AC is applied to these terminals, the AC LED will be ON. If AC voltage is lost on this system for at least 90 seconds, the COMMON TROUBLE ZONE will transmit to the Central Office. (R83 must be cut for loss of AC transmission).

FUSE NOTES:

1. If bell circuit is shorted the F3 fuse will blow.
2. The 8 Amp fuse protects against accidental shorting of unregulated voltage.

F1 = 1 Amp
F2 = 1 Amp
F3 = 3 Amp

BATT. REVERSAL FUSE
KEYPAD FUSE
BELL OUTPUT FUSE

F3 F2 F1

8 amp fuse

16 GA. WIRE 15 FT. MAX.

(-) (+)
12V 4AH GEL CELL

12VAC 40VA TRANSFORMER

(+)
12VDC REGULATED 300 MA
(-)

TO RJ31X

MODEL 368 CORD

BROWN GREY RED GREEN

32 31 30 29 28 27 26 25

Blue Dot

R68 PROM

R83

GROUND START CONNECTOR

P1

N.O. PANIC

24 23

(-)
BURG BELL
(+)

22 21

(+) (-)
12 VDC
UNREGULATED OUTPUT

N.C. FIRE RESET BUTTON

20 19 18

(-)

17

8.2K
E.O.L.

N.C. ZONE 4

16 15 14

(+)

N.C. ZONE 3

13 12

N.C. ZONE 2

11 10

N.C. ZONE 1

9

XL1218R KEYPAD

BROWN
RED
ORANGE
YELLOW
GREEN
BLUE
VIOLET
GREY

1 2 3 4 5 6 7 8

Connect this spade lug to a good cold water ground. Use 16 ga. wire, at 15 feet max.

Wires and Connectors

P1 Connector	This connector can be used to initiate a ground start on all modules that will accept a pulsed (—)DC input to trigger them. See FBI 117 ground start modules.
Red(+) Black(—)	Connect a 12VDC, 4A.H. gel cell to these flying leads. As long as the battery voltage remains good the low battery LED on the XL1218R keypad will be ON. If the battery voltage drops to approximately 10VDC the low battery LED will shut OFF, and the COMMON TROUBLE ZONE will transmit to the Central Office. R83 must be connected for a low Batt. transmission.

4

THE 1218R KEYPAD

NOTE: THE PROM CHIP MUST BE PROGRAMMED AND INSERTED INTO THE SYSTEM PRIOR TO OPERATION OF THIS KEYPAD.

The XL1218R Keypad is designed to work exclusively with the XL1218 Computer Alarm System. There are many features in this panel which are controlled via this keypad. Consequently at least ONE and as many as 4 of these keypads MUST be used for proper operation. There are 4 green, 3 yellow, and 1 red LED displayed on the front of this device. The RED ARMED LED will be ON when the system is armed, OFF when disarmed, and BLINKING after an alarm has occurred. The yellow BAT. LED will be ON when the 12VDC gel cell is good, OFF in the event the battery voltage falls to approximately 10VDC. The yellow AC LED will be ON when AC power is applied to this system, and OFF if AC power is lost. The yellow FIRE LED is the Fire Trouble LED. It will be ON when the Fire Loop is good, and OFF if the Fire Loop is open.

The four green LED's correspond to zones 1-4. Their operation varies depending on what TYPE each zone is programmed to be. Operation is as follows: (NOTE: Controlled zones are armed and disarmed. Example: Burglary Zones.)

ZONES STATUS LEDS OPERATION

Zone Conditions	24 Hr. Alarm Zones LEDs	24 Hr. Trouble Zones LEDs	Controlled Zones LEDs System Disarmed*	Controlled Zones LEDs Sys. Armed
Loop Good	Off	On	On	Off
Loop Trouble	Off	Off	Off	Fast Blink
Loop Bypassed	Not Valid	Slow Blink	Slow Blink	Not Valid

*NOTE: Controlled zone LED's will remain in the fast blinking mode when the system is disarmed after an alarm until depressing [#]

NOTE: Zone 1 LED will also slow blink while programming the keypad, and come on steady when in the INSTANT mode, regardless of zone type. (See Keypad Programming Section.)

KEYPAD BUTTONS

NOTE: Whenever depressing the [*] or the [#] Buttons, they must be held for approximately ½ second. The buzzer will sound verifying successful entry of these keys.

[#] : This button will be used to Reset Keypad panic (if audible), all 24 hr. Alarm Zones (if Audible), Blinking Alarm Memory LEDs after the system is disarmed, and all bypasses on all Controlled Zones when the system is disarmed, if an alarm had occurred. (The red LED will blink slowly due to an unsuccessful attempt to the C.O. Depress [#] to extinguish this condition.)

[9] : This button is used to shunt out any or all zones depending on zone types. 24 hr. Alarm Zones CANNOT be bypassed. 24 hr. Trouble Zones, SONALERT OUTPUT CAN be bypassed, however they will continue to transmit to the Central Office (if programmed to do so) when violated. Controlled Zones may be bypassed while the system is disarmed. Bypass is accomplished by depressing the [9] button, and then the keypad number which corresponds to the zone desired to be bypassed. The same procedure should be followed to "unbypass" each zone. ALL Controlled Zones will AUTOMATICALLY be UNBYPASSED (auto unbypass feature) each time the entire system is disarmed as long as an alarm condition had NOT occurred on any other zone while the system WAS armed. If an alarm condition had occurred while the system was armed, DISARM the system and depress the [#] button to UNBYPASS all zones. NOTE: THE COMMON TROUBLE ZONE Sonalert output may be bypassed by depressing the [9] button and the number 0.

[9]
[8] : These buttons are used for programming EXIT & ENTRY TIMES in the event that the Fallback TIMES which are programmed on the prom are desired to be CHANGED. However, if AC & DC power are lost on this system, the PROM PROGRAMMED FALLBACK TIMES will be active again. (See Keypad Programming Section to change these times.)

[*] : This button will be used to program the ARM/DISARM codes for this system. (See Keypad Programming Section).

$\boxed{*}$: INSTANT FEATURE: When the system is armed, depress and hold the $\boxed{*}$ button for $\frac{1}{2}$ second. All DELAY LOOPS will become instant and all preprogrammed INTERIOR ZONES will be INACTIVE, if exit did not occur through any delay loop – (Example: customer plans to be inside for the evening). The zone 1 green LED will come ON indicating the INSTANT mode, however if zone 1 is violated, its LED will fast blink, if it is a controlled zone.

$\boxed{\#}$ and $\boxed{*}$: Simultaneously pressing and holding the $\boxed{*}$ and the $\boxed{\#}$ for $\frac{1}{2}$ second will trip the 24 hr. keypad panic circuit. If this circuit is programmed as AUDIBLE, it may be reset or aborted by operation of the $\boxed{\#}$ button. If this circuit is programmed as SILENT, the dialer transmission CANNOT be aborted once activated.

KEYPAD PROGRAMMING

THE PROM MUST BE PROGRAMMED AND INSERTED INTO THE SYSTEM PRIOR TO KEYPAD PROGRAMMING. This keypad may be programmed to allow as many as 4 DIFFERENT persons to have SEPARATE ARM/DISARM codes OR 3 arm/disarm & 1 ambush code.

This feature may be desired on installations where multiple personnel can operate this system. This instruction manual will refer to the 4 different personal codes as USER 0 through USER 3. USER 0 corresponds to #0 on the keypad, USER 1 - 3 corresponds to #1-3 on the keypad. User 1 is the ONLY person that can PROGRAM this device. The following is a step by step procedure that must be followed to program this keypad. The AC and DC power should not be on at this time. (NOTE: Each person can send a separate closing and opening code to the Central Office if desired. These codes are programmed on the prom. See Expanded Formats, Quadrant 4).

NOTE: Whenever depressing the $\boxed{*}$ or the $\boxed{\#}$ Buttons, they must be held for approximately $\frac{1}{2}$ second. The buzzer will sound verifying the successful entry of these keys.

Step A: All zones should be in an unviolated state, and the PROGRAMMED PROM chip should be inserted in this system.

Step B: Apply AC & DC power to this system in that order. The system should come up ARMED.

Step C: USER 1 depress #1 on the keypad (the internal buzzer will sound verifying each time a digit has been pressed), then enter the FALLBACK CODE previously programmed on the PROM chip. The system should disarm. (Further programming can be done only while disarmed). The FALLBACK CODE IS USER 1'S PROGRAMMING and ARM/DISARM CODE at this time. The USER 1 code may be changed at this time as follows, or he may keep the Fallback code. However, if AC and DC power is removed from this device, USER 1 must reprogram all information with the FALLBACK CODE.

NOTE: The number 9 MAY NOT be used anywhere in any of the 4 user codes.

Step D: After completing Step C, depress and hold the $\boxed{*}$ button for $\frac{1}{2}$ second, depress #1 on the keypad, enter the Fallback code again, depress #1 again (the zone 1 LED will blink). Now enter any 4 digit USER 1 code desired. This is USER 1's NEW PROGRAMMING AND ARM/DISARM CODE. The Fallback code is void unless AC and DC is lost.

Step E: USER 1 may program USER 2's arm/disarm code as follows: Depress and hold the $\boxed{*}$ Button for $\frac{1}{2}$ second, depress #1, Enter the new USER 1, 4 digit code, Depress #2, (The zone 1 LED will blink). Now enter any 4 digit USER 2 code desired. NOTE: Number 9 may not be used.

Step F: USER 1 should repeat Step E for user 3 ARM/DISARM CODE. Keypad number #3 corresponds to user 3.

NOTE: ALL USERS of this system MUST depress their respective USER NUMBER, THEN ENTER THEIR 4 DIGIT CODES each time arming or disarming is desired.

example: USER 2 - depress #2
then enter his 4
digit arm/disarm code

Step G: USER 0 arm/disarm code can be programmed by USER 1 ONLY if KEYPAD AMBUSH is NOT desired and NOT programmed on the prom. Program the USER 0 code the same as users 2-3. Keypad #0 corresponds to USER 0.

If KEYPAD AMBUSH IS DESIRED, USER 1 can program as follows: Depress and hold the [*] button for ½ second, depress #1, enter the user 1, 4 digit code, depress #0, (the zone 1 LED will blink). Now enter any 4 digit ambush code. NOTE: Number 9 may not be used. ALL users of this system can trip AMBUSH by depressing their respective user NUMBER, then the 4 digit AMBUSH CODE. When the ambush code is entered, the system will either arm or disarm, depending on the state it was in last, AND send the silent keypad ambush alarm code to the Central Office. (NOTE: the keypad ambush alarm code MUST be programmed on the prom.)

NOTE: THE LAST 4 DIGITS OF THE AMBUSH CODE MUST NOT BE EXACTLY THE SAME AS THE LAST 4 DIGITS OF ANY USERS CODE.

Step H: If the prom programmed FALLBACK EXIT TIME needs to be changed, proceed as follows. Depress the [*] button, depress #1, enter the 4 digit USER 1 code, depress the [8] button, (the zone 1 LED will blink), depress any 2 numbers on the keypad not to exceed 15. Exit time will be 10 times that number. Example: 02=20 seconds.

NOTE: 90 SECONDS MAY NOT BE SELECTED HERE.

Step I: If the prom programmed FALLBACK ENTRY TIME needs to be changed, proceed as follows: Depress and hold the [*] button for ½ second, depress #1, enter the 4 digit USER 1 code, depress the [9] button, (the zone 1 LED will blink), depress any 2 numbers on the keypad not to exceed 15. Exit time will be 10 times that number. Example: 02=20 seconds. NOTE: 90 seconds may not be selected.

NOTE: If all power AC and DC is lost on this system the prom programmed fallback exit and entry time will be active again. USER 1 will have to reprogram the keypad to change those times.

NOTE: User 1 may erase users 2, 3 & 0 codes as follows: Depress and hold the [*] button for ½ second, depress #1, enter User 1's 4 digit code, depress the user NUMBER that corresponds to whichever user code that is to be erased, depress the [#] button.

All programming is complete at this point. If any of these codes need to be changed, ONLY that code need be reprogrammed. There is a built in Sonalert sounding device on this keypad. It will annunciate as follows: (A) A momentary beep when the keypad digits are pressed, (B) steadily during entry time, (C) steady or pulsing as zones are violated that have been programmed respectively, and (D) several pulsing tones (ring back) after every SUCCESSFUL dialer transmission to the Central Office, unless otherwise specified.

NOTE: If dialer transmission to the Central Office is unsuccessful, after the (prom programmed) number of attempts the red LED will blink slowly until depressing the [#] button.

NOTE: There will be NO ring back on keypad ambush and keypad panic (silent).