# LEGEND 70 80 MODELS 6700 & 6800

Hookup and Installation Instructions



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# 1. INTRODUCTION

The Legend 70 (model 6700) and Legend 80 (model 6800) are state of the art EEPROM based control/communicator. The system features six fully programmable zones as well as a wired panic zone (or keyswitch zone). Programming can be performed through the keypad or the system can be uploaded and downloaded locally or remotely using the EZ-Mate programming devices. In addition, remote control actions can be taken The Legend 70/80 contains up to six user codes with capability for ambush code and an arm only code. All of the keypads are four wire devices, with up to four keypads per system.

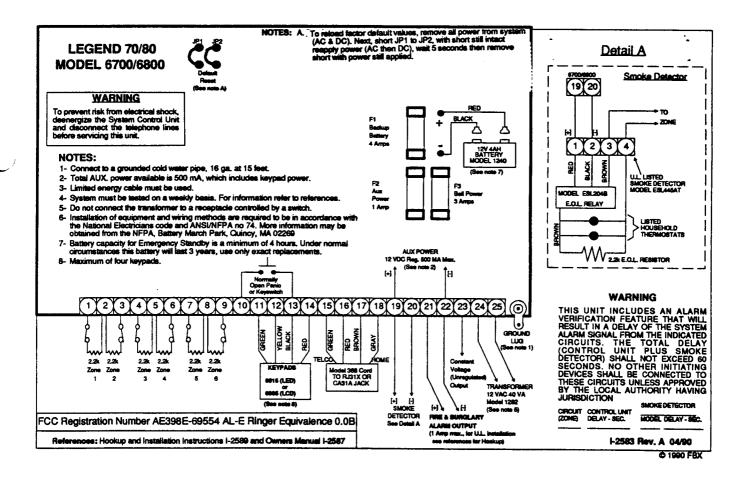
The Legend 70/80 can be used with the following keypads:

6615 Surface Mount LED keypad

6805 Surface Mount Plastic Keypad featuring two line LCD keypad with programmable zone descriptors.

# 2. SYSTEM WIRING AND HOOKUP

# 2.1. SYSTEM WIRING DIAGRAM



# TE

ERMINAL CONNECTION		
TERMINALS	DESCRIPTION	
1 & 2 (-)	Zone 1 (Requires 2.2K EOL resistor)	[Default = DELAY]
2(-) & 3	Zone 2 (Requires 2.2K EOL resistor)	[Default = INTERIOR]
4 & 5(-)	Zone 3 (Requires 2.2K EOL resistor)	[Default = PERIMETER]
5(-) & 6	Zone 4 (Requires 2.2K EOL resistor)	[Default = PERIMETER]
7 & 8(-)	Zone 5 (Requires 2.2K EOL resistor)	[Default = PERIMETER]
8(-) & 9	Zone 6 (Requires 2.2K EOL resistor)	[Default = FIRE]
	ZONE INFORMATION	
10 & 13	Normally closed devices may be wired in series in parallel with the 2.2k ohm end of line resiste loop resistance may not exceed 100 ohms. The on all zones. The factory default values for each however any zone can be programmed for Perimeter, Interior, Fire, 24 Hr. Alarm, or 24 Hr. the zone types can be found in the System Programmed CIRCUIT OR KEYSWITCH	or on all zones. The maximum e loop response time is 280 ms zone is listed in the table above, or the following types: Delay, Trouble. Further explanation of
	Normally open circuit which can be programmed or keyswitch input. If hardwired panic is prograt 24 hour zone which can be programmed for spanic circuit will activated with each violation, recommended. For UL installations, the paniterminals is to be located no more than 3 feekeyswitch option is selected then each activation disarm the system.	mmed then this zone acts as a ilent or audible operation. The therefore a latched device is ic switch connected to these et from the control unit. If the
11 12 13 14	NOTE: E.O.L. resistor is not required on this zo <b>KEYPADS:</b>	ne.
15 16 17 18	A maximum of 4 keypads, either 6615 or 6805, method of the connections are as follows; 11 (GREEN = 6 in), 13 (BLACK = negative), and 14 (RED = position), approximately 30mA. Maximum keypad length is TELEPHONE LINE:	data out), 12 (YELLOW = data ve power). Each keypad draws
	Connect the FBII model 368 cord as follows; 15 = Telco Ring), 17(BROWN= Home Tip), 18(Gi modular plug into an approved USOCRJ31X jack installations).	REY= Home Ring). Insert the
	The FCC registration number is (AE398E-6 equivalence is (0.0B). This system should not be coin operated phones.	9554 AL-E), and the ringer oe connected to party lines, or
19(+) 20(-)	Furthermore, this device should not be connec call waiting, unless the call waiting interrupt num panel dialing sequence.  SMOKE DETECTOR POWER:	ted to a phone line which has obers are programmed into the
	This system will accept 12VDC four(4) w Approximately 50mA of current is available at the detectors and an E.O.L. relay FBII model 620. I diagram for hookup.	nese terminals for powering all
	These terminals adhere to the fire verification and in the Zone types section of this manual. Manual can be accomplished by entry of any valid us	reset of smoke detector power

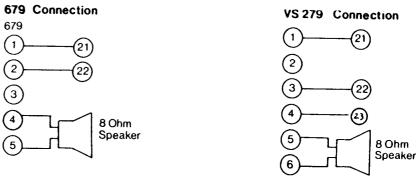
memory. 19(+) & 22(-) REGULATED POWER (13.8VDC):

The total regulated output power for motion detectors and other external devices is 500mA at 13.8VDC, with less than 100 mVPP ripple.

The total regulated output capacity of the Legend 70/80 includes the power available from these terminals (19 & 22) as well as the power used by the keypads and smoke detectors. Therefore, to determine the total power available from these terminals subtract the power consumed by the keypads and smoke detectors.

#### 21(+) & 22(-) **BELL OUTPUT:**

The total output power available for sounding devices is 1.5 amps (1 Amp for UL installations) at 13.8VDC. These terminals will deliver CONSTANT output on BURGLARY, AUDIBLE PANIC and BELL TEST. On a FIRE condition, a PULSED output will be generated. There, are separate bell cutoff times programmable for Burglary and Fire conditions within the programming sequence.



References: Model 679 I-2231 Model VS 279 1-2292

CONSTANT VOLTAGE OUTPUT

This terminal will deliver a constant unregulated voltage output (12VDC) for devices requiring constant power such as the VS279 voice siren driver.

24 & 25 TRANSFORMER:

> Connect an FBII model 1282 12 VAC 40VA transformer, utilizing 18awg wire at a distance not to exceed 15 feet from the panel, to an unswitched 120 VAC outlet.

> Do not use any other transformer since this may result in improper operation or damage to the unit.

> The AC/LOW BAT LED on the keypad will remain ON, while AC power is present. If an AC loss occurs the AC/LOW BAT LED will turn off immediately. If AC remains OFF for 15 minutes, the system will pulse the keypad buzzer and transmit to the central station, if programmed. THE KEYPAD BUZZER CAN BE SILENCED by entry of any valid user code. When AC restores the AC/LOW BAT LED will light immediately, and a restore code will be reported, if programmed.

#### **GROUNDING LUG EARTH GROUND:**

Connect this grounding lug to a cold water pipe utilizing #18AWG wire at a distance of no greater than 15 ft.. If the premises pipes terminate in PVC, this terminal must be connected to a six(6) foot grounding rod.

BACKUP BATTERY: The RED(+) and BLACK(-) flying leads must be connected to a 12 VDC 4-6AH GELL CELL, to serve as backup power in the event of AC loss.

> The Legend 70 & 80 performs a battery test approximately every 4.5 minutes. Low battery condition occurs at nominal 11VDC during this test. The keypad AC/LOW BAT LED and buzzer will PULSE SLOWLY when low battery condition is detected. The system will report this condition to the CS if programmed. Battery restoral will occur WITHIN 4.5 minutes, at the NEXT battery test. THE BUZZER MAY BE SILENCED by entry of any valid user code.

GROUND FAULT Ground fault capability can be added to the Legend 70 & 80 through addition of the FBII Model 117 module. Consult the 117 Installation Instructions for hookup information.

23

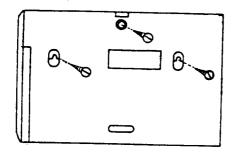
# 3. KEYPAD MOUNTING

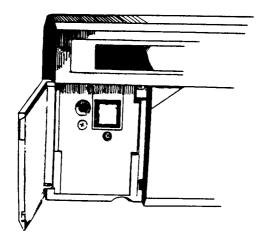
Mounting is identical for both the LED keypad (model 6615) and LCD keypad (model 6805). The keypads can either be surface mounted or recessed mounted as shown below:

Keypad mounting is identical for both the LED and LCD versions. Keypads can be surface mounted or flush mounted as described below.

NOTE: When selecting the mounting height for the LCD keypad it is important to note that the LCD display used is a top view display. This means that the display is best viewed when looking down at the display. For optimum viewing the LCD keypad should be placed in a location where the user will be looking down at the display. In addition there is an adjustment located behind the door of the keypad to vary the angle of view.

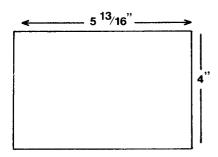
# SURFACE MOUNTING

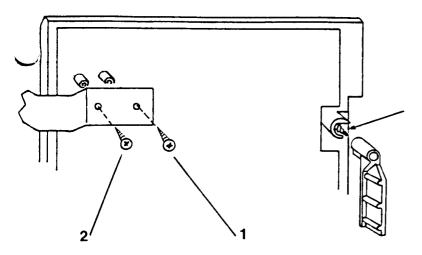




- 1. Select the desired keypad mounting location and place the plastic rear plate of the keypad on the wall. Mark the location of the cutout for the keypad wiring cable.
- 2- Create an opening for the keypad wiring in the location previously marked. Run the keypad wiring using the four wire connector provided to the control panel.
- 3- Place the keypad wiring through the cutout provided and secure the keypad backplate to the wall through the holes provided (see diagram).
- 4- Connect the keypad wiring connector to the keypad and place the keypad on the mounting plate attached to the wall.
- 5- Secure the keypad to the rear mounting plate by attaching the 5/8 inch screw provided in the lower hole, located behind the keypad door.

#### RECESSED MOUNTING





- 1- Select the desired location for mounting the keypad. Note: For recessed mounting this must be between two studs. Note: The rear plastic mounting plate is not used for recessed installations.
- 2- Create an opening in the wall exactly 4 inches high by 5 13/16 inches wide.
- 3- Turn over the keypad and remove the phillips head screw (item 1 on diagram) in the upper left hand side of the keypad printed circuit board. Note: This screw is located immediately to the left of the keypad connector.
- 4- Attach the black metal mounting strap to the rear of the keypad as follows (see diagram);
  - Face the pointed section of the mounting strap facing the front of the keypad. This will be used to latch onto the inside of the wall.
  - Place the small white plastic spacer underneath the mounting strap. Secure the mounting strap using the 5/8 inch phillips head screw (supplied with the keypad mounting hardware) and the plastic spacer to location 1.
  - Secure the other end of the strap (location 2 on diagram) to the white plastic opening using the phillips head screw removed in step 3.
- 5- Connect the white plastic tab into the round opening immediately behind the keypad door. Place the longer phillips head screw located with the keypad mounting hardware through the opening inside the keypad door and begin to tighten the screw. At this point, loosely tighten the screw and leave the tab in a downright position.
- 6- Run the keypad wiring to the control panel and attach the wiring to the keypad.
- 7- Place the keypad into the wall opening with the side containing the black metal strap first. The black metal strap with the hook will act as a spring and grab the inside of the wall.
- 8- After inserting the side of the keypad with the metal strap, insert the other side into the opening until the entire keypad is firmly in the wall. Straighten out the keypad to the desired position.
- 9- Open the keypad door and completely tighten the screw inserted in step 5. This will cause the plastic piece previously inserted into the back to flip up and tightly grab the inside of the wall.

# SYSTEM COMPONENTS AND ACCESSORIES

The following configurations and accessories are available for the Legend 70 & 80 systems:

6700 Legend 70 Control communicator. Includes Legend 70 control panel with model 6615 LED keypad and

Legend 80 Control communicator. Includes Legend 80 control panel with model 6805 LCD keypad and 6800

transformer. 6615 LED based keypad for Legend 70/80 systems

6805 LCD based keypad featuring two line by sixteen character display with customized twelve character zone

descriptors.

**DEMO7100** Legend demonstration unit.

7100SLR Sales literature for residential applications. These brochures are 4 page, full color, and available in

packages of 50.
Sales literature for commercial applications. These brochures are 4 page, full color, and available in 7100SLC

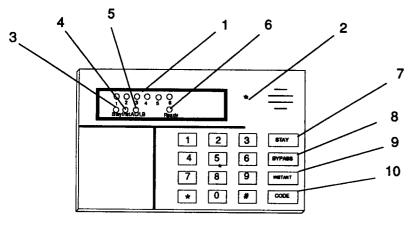
packages of 50.

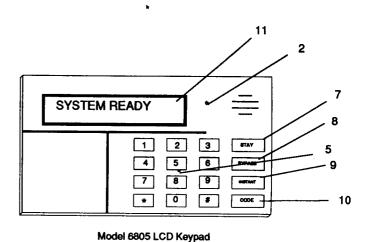
7150 EZ-Mate Programmer. Portable programming tool for the STAR product line (requires 7168DL cartridge)

Product cartridge for the Legend 70 & 80 control panels, providing local and remote uploading and downloading. In addition this cartridge performs remote commands (arm disarm bypass, system status 7168

etc).

7700 EZ-Mate Downloader Software written for IBM compatible systems for remote uploading/downloading and device commands of Fire Burglary Instruments downloadable products.





Model 6615 LED Keypad

#### 1) ZONE STATUS LEDS

These LEDS display the current zone status including alarms, bypasses, troubles and faults. Each condition will cause these LEDS to operate differently as follows:

ALARMS Fast Blink (approx. 150 ms. ON - 150 ms. OFF).

TROUBLES Slow Pulse (approx. 600 ms. ON - 600 ms. OFF).

BYPASSES Wink (100 ms. ON - 900 ms. OFF). Zone bypasses are displayed as a very slow wink of the zone LED light.

**FAULTED ZONES** Solid ON. Faulted zones are the lowest priority indication. Faulted burglary zones are displayed with the LED solidly ON while the system is disarmed.

**NORMAL OFF** 

#### 2) ARM/DISARM LED

This LED indicates whether the system is currently armed (ON) or disarmed (OFF). This LED will also blink fast to show that alarms have occurred or blink slowly upon failure to communicate with the Central Station.

#### 3) STAY LED

This LED displays whether the system has been armed in the STAY mode.

ON Interior zones are bypassed

OFF Interior zones are normal

## 4) INSTANT LED

This LED displays whether the system has been armed in the INSTANT mode, meaning that the system is currently armed and all delay zones are instant.

ON Delay zones are currently instant

OFF Delay zones are normal

# 5) AC/LOW BATTERY LED

This indicator light displays the current power status of the panel as follows;

ON AC is present

OFF No AC, running on battery backup

Slow Blink Low battery condition detected

#### 6) READY LED

This LED displays whether the system is ready for arming. The READY light is common to all BURGLARY ZONES with the following indications;

ON System ready to be armed

OFF System not ready to be armed

Slow Blink Indicates Installer programming mode

Fast Blink Alarm Memory Mode

## 7) STAY BUTTON

The STAY mode enables arming the system, excluding zones programmed as interior zones. This will provide exterior protection of the location while allowing full access throughout the interior.

## 8) BYPASS BUTTON

The BYPASS key is used to temporarily exclude protection to a specific zone.

# 9) INSTANT BUTTON

The INSTANT button enables arming of the system, eliminating the entry/exit delay.

## 10) CODE BUTTON

The CODE button is used to enter the installer programming mode and entry of user codes.

## 11) DISPLAY AREA

This section of the LCD keypad will display the current system and zone status

# 5.1. KEYPAD SOUNDER

The keypad sounder annunciates differently to indicate the following conditions:

CHIRP Keypad emits a short chirp to confirm each keystroke.

STEADY The keypad will make a steady sound during entry time, and/or during burglary alarm.

CHIME - steady 1 second tone.

**ACKNOWLEDGE** - Upon successful entry of a certain commands the system will emit a sound for approximately half a second.

**PULSING** - A pulsing sound (approximately half a second ON then OFF) indicates a trouble condition such as AC loss, Low Battery, or Fire Zone.

**NEGATIVE ACKNOWLEDGMENT -** Upon entry of an illegal command the keypad will emit four short beeps. For example, if attempting to define a new user and the master user is not entered, four short beeps will be made indicating that the command was unsuccessful.

**SOUNDER RINGBACK -** Several short beeps to indicate successful communication to the Central Station. This occurs for all signals, excluding ambush and silent zones.

FAST PULSING SOUNDER- Sound generated during entry time period AFTER an alarm condition has occurred and the system reached bell cutoff. A pulsing sounder will follow the bell output on Fire conditions. Trouble conditions also generate a pulsing sounder and will follow the loop or be silenced through entry of a valid user code.

The keypad is non-operational if none of the LED's are lit and the keypad does not beep when keys are pressed. This is indication that service is required.

# 6.1. POWER UP/SYSTEM RESET

Upon initial powerup of the LEGEND 70 & 80 , all of the lights on the LED keypad will go on and the sounder will operate for approximately 10 seconds. This occurs on a total powerup , system reset or after completion of system programming. If the total system power is lost then upon power restoral, the Legend 70/80 will return to the previous arming state.

## 6.2. ARMING THE SYSTEM

**FAIL-SAFE ARMING:** 

The Legend 70/80 can be armed only if all burglary zones are good (not faulted) and the READY LED is on.

#### **ARMING:**

Enter any programmed four digit user code.

NOTE: The factory default user #1 arming code is 1234.

The ARMED LED will light and the user may exit through an exit/entry zone for the time period programmed as the exit delay. The Legend 70/80 can be armed without the backup battery being connected, however the AC/LB light will flash.

## 6.3. STAY ARMING

Depress the STAY BUTTON followed by a four digit user code.

The ARMED and STAY LEDs will light. The system is armed at this time with all programmed interior zones excluded.

# 6.4. INSTANT ARMING

Depress the INSTANT BUTTON followed by a four digit user code.

The ARMED and INSTANT LEDs will light. The system is armed at this time with all programmed delay zones instant.

# 6.5. INSTANT-STAY ARMING

Depress the INSTANT then STAY buttons and a four digit user code.

The INSTANT STAY mode will arm the system with the characteristics of both the INSTANT and STAY modes. The system will be armed with the interior zones bypassed and the delay zones instant.

# 6.6. DISARMING

Depress any valid four(4) digit user code.

The ARMED LED will extinguish.

If an alarm condition exists or had occurred while the system was armed, the respective zone(s) LED(s) and the READY LED will be blinking rapidly. This condition is classified as ALARM MEMORY and can be cleared through entry of a valid user code.

## 6.7. RESET

Reset is accomplished through the entry of any valid user code. This can be used to reset the smoke detectors attached to the system, silence any bells, or clear the keypad display or sounder.

In addition an option exists, for making the \* key to act as a reset for clearing the sounder, communications failure, and alarm memory. This programmable option can be obtained through location 3 of question 05.

#### 6.8. BYPASS

Bypassing is performed to temporarily exclude zones which are faulty or not ready from activating the system.

Depress the BYPASS button followed by any valid four(4) digit user code, followed a number 1-6, which represents the respective zone to be bypassed.

EXAMPLE: BYPASS ZONE 2 (Assume user code of 1234)

**BYPASS 1234 2** 

Subsequent bypasses can be made by depressing the BYPASS button followed by another zone number within a ten second period. After this ten second period it will be necessary to enter the entire command including the user code.

After a successful bypass the keypad sounder will emit the acknowledge beep, and the respective zone LED will WINK SLOWLY.

In addition the following rules for bypass exist;

- · FIRE zones cannot be bypassed
- 24 hour zones can be bypassed, however they CANNOT be unbypassed if they are violated.
- Zones can only be bypassed while the system is disarmed, at which time visual indication will be displayed.
- Bypass signals will be transmitted to the Central Station UPON ARMING if a bypass code has been programmed.

NOTE: Zones which are bypassed are not protected when the system is armed.

# 6.9. AUTO UNBYPASS

All burglary zones which are bypassed can be automatically unbypassed upon system disarm, assuming no other zone(s) had been in alarm. 24 hour zones which have been bypassed will be unbypassed only if they are normal.

The autounbypass feature is a programmable option (see question 5 of the programming sequence.

# 6.10. MANUAL UNBYPASS

The UNBYPASS function removes an existing bypass from a currently bypassed zone. The procedure is the same as bypass.

# 6.11. USER CODE PROGRAMMING

Users codes can be entered or modified directly through the keypad.

The system contains up to six user codes (4 digits each) with the following applications;

<u>USER NUMBER</u>	APPLICATION
1	Master User [Default = 1234]
2	User #2 [Default = null]
3	User #3 [Default = null]
4	User #4 [Default = null]
5	User #5 [Default = null] NOTE: Can be an ARM only code
6	Ambush Code or User #6 [Default = null]

NOTE: Only the master user (user number 1) can program or modify other users.

**USER DEFINITION PROCEDURE:** 

CODE [USER] [USER#] [USERID]

where:

CODE Code button on keypad

[USER] Master User ID code (user #1)

[USER#] Desired user to be programmed (1-6)

[USERID] Four digit user code. Valid digits are 0-9

Example:

Define operator #3 with an ID of 7493. (Assume master user code is 1234).

CODE 1234 3 7493

An acknowledge sound (steady tone) verifies a successful user code programming.

A negative acknowledge sound (4 short tones) indicates unsuccessful programming.

If additional user programming is necessary, repeat the procedure listed above.

User programming can be performed while the system is DISARMED ONLY.

If a dialing format is programmed which transmits opening/closing by user ID, each user will report the respective user number.

**DURESS/AMBUSH** 

If ambush capability is required then an ambush transmission code must be entered within the programming sequence. When ambush has been enabled then the user #6 code will be used as an AMBUSH code. In this mode, entry of the user #6 code will ARM or DISARM the system and transmit the ambush code to the Central Station. Furthermore if opening/closing by user reporting is programmed, user number 6 will be reported along with the ambush code.

If ambush has not been programmed then user #6 can be used as an ordinary user code.

## **ARM ONLY CODE [USER 5 CODE]**

A programming option exists to make user #5 an ARM only code. This means that the code can only arm the system and would be used for a user such as a maid or temporary user of the system. This is obtained through location 2 of question 5.

#### 6.12. USER DELETION

Removal of users from the system can be performed as follows;

#### **USER DELETION PROCEDURE**

CODE [USER] [User #] \*

Where:

[USER] Master user code

[User #] Represents the user number being deleted.(2-6). Note: User number 1 cannot be deleted.

\* is the \* (asterisk) key from the keypad.

# 6.13. KEYPAD EMERGENCY CONDITIONS

The Legend 70/80 has the ability to transmit four separate keypad emergency conditions as follows:

CONDITION	KEYSTROKES
PANIC	#*
FIRE	7 9
AUX.	1 3
AMBUSH	[USER CODE #6]

For example, the 24 hr keypad panic can be initiated through simultaneous depression of the # and \* keys. The panic condition can be silent (no bell output) or audible based on the programming option. NOTE: The default value for panic is audible.

Audible panic can be RESET BY ENTERING ANY VALID USER CODE.

The keypad FIRE and AUX conditions are selectable through the programming sequence.

The ambush code will be user #6 if an ambush code is programmed in question #15.

# 7. SYSTEM PROGRAMMING

The Legend 70/80 system can be programmed in any one of four methods;

- Directly through keypad (6615 (LED) or 6805 (LCD))
- EZ-MATE PROGRAMMER model 7150 on-site. [Using model 7168 Cartridge and the 7180J connector]
- EZ-MATE PROGRAMMER model 7150 remotely [Using model 7168 Cartridge]
- EZ-MATE PC DOWNLOADER model 7700 remotely

This manual describes system programming via the **keypad**. The other programming products include documentation describing their programming procedures.

Keypad programming is accomplished by understanding and completing the PROGRAMMING SHEET located on the inside cover of this manual.

There are 19 total programming questions numbered 00-18. Additional programming questions are available for the programmable zone descriptors when the 6805 LCD keypad is used.

Within each question there are several locations labeled L1,L2, etc. for data entry.

The Legend 70/80 is shipped from the factory with SPECIFIC DEFAULT VALUES which were selected for a typical installation. If the default values are suitable for your installation then programming can be simplified. The default values are listed with each programming question and in the SYSTEM DEFAULT section of this manual.

# **8.** PROGRAMMING QUESTIONS LEGEND 70 80

This section of the manual defines the programming questions along with the values expected for each question. Complete the Programming sheet and then enter the data through the keypad as explained in the section titled Data Entry Through the Keypad.

# QUESTION 01 PRIMARY TELEPHONE NUMBER DEFAULT:234AAAAAAAA

Enter the telephone number (including area code or dialing prefix IF NECESSARY) of the primary central station receiver in L1 - L12.

Valid dialing digits are 0-9, B=\*, and C= three second pause. An entry of the digit A signifies the end of the phone number. REPORTING ROUTE:

The system will report all signals to the primary receiver phone number. Furthermore the panel will alternate between the primary and secondary receivers (if the second phone number is programmed) for a maximum of 8 attempts each in the event

# QUESTION 02 SECONDARY TELEPHONE NUMBER DEFAULT: AAAAAAAAAAAAA

Enter the telephone number (including area code or dialing prefix IF NECESSARY) of the secondary central station receiver in L1 - L12.

Valid dialing digits are 0-9, B=\*, and C= three second pause. An entry of the digit A signifies the end of the phone number.

The secondary telephone number will be used if the panel is unable to reach the Central Station via the primary number. This is known as backup reporting.

If the SPLIT REPORTING feature is programmed, then OPENING and CLOSING signals will be directed to the secondary CS number only, while all other conditions will be reported to primary number.

If neither split or backup reporting is necessary then this question may be left as factory defaulted and all conditions will be routed to the Primary Telephone number only.

# QUESTION 03 CALLBACK NUMBER DEFAULT: AAAAAAAAAAAA

Enter the telephone number (including area code or dialing prefix if necessary) for this control panel to reach the callback number location. The callback number is the optional location of the EZ-Mate Programmer or Downloader where the control panel will call during a remote communications (upload/download etc) session.

During remote communications the programming device and the control panel will first confirm the CS security code. If valid, communications can begin. If a callback number is defined, the control panel will the hang up and dial the callback number.

For no callback capability enter AAAAAAAAAAAAA

the signal has not been acknowledged.

# **QUESTION 04- DIALER OPTIONS**

There are 4 locations (L1-L4) within this question which define various dialer and system options as follows:

L1 = Dialer Formats

L2 = Receiver Type

L3 = Message length (ie:3x1,4x1,4x2)

L4 = System Options (Panic Type, Split Reporting, 24 Hr Test, Bell Test)

## L1 DIALER FORMATS

**DEFAULT: 1** 

Enter the digit for the desired dialer format from the chart below in location L1;

- 0 Pulse Dialing, Standard Format or 4X2
- 1 Touch Tone Dialing, Standard format or 4X2
- 2 Pulse Dialing, Extended Format
- 3 Touch Tone Dialing, Extended Format
- 4 Pulse Dialing, Partial Extended Format
- 5 Touch Tone Dialing, Partial Extended Format
- 8 No Dialer (Local Alarm only)

#### FORMAT EXPLANATIONS

#### Standard

Standard format involves a 3 or 4 digit account number followed by a single round event code. Examples:

1233

or

6548 2

#### **Extended**

Extended format (sometimes known as universal or expanded format) transmits two rounds of information. The first round includes the account number and an expansion character while the second round repeats the expansion digit as account number before identifying the zone code.

# For example;

1233

333 1

or

4312 E

EEEE 7

#### **PARTIAL EXTENDED**

The partial extended format transmits a standard signal for alarm conditions and an extended message for restores and other system conditions. NOTE: The extended message codes must be B-F).

Example:

**Alarm Condition** 

853 1

Restore

853 E

EEE 1

Enter the digit for the desired receiver type from the chart below in location L2.

VALUE	DESCRIPTION	TYPICAL CS RECEIVERS
0 =	10 PPS, 1400 Hz., No Parity	FBI, Ademco Slow, Silent Knight Slow
1 =	10 PPS, 1400 Hz, Parity	FBI
2 =	10 PPS, 2300 Hz, No Parity	FBI
3 =	10 PPS, 2300 Hz, Parity	FBI
4 =	20 PPS, 1400 Hz, No Parity	FBI, Silent Knight Fast, ADCOR, ADEMCO 685
5 =	20 PPS, 1400 Hz, Parity	FBI, Radionics Slow (1400)
6 =	20 PPS, 2300Hz., No Parity	FBI, Franklin, Sescoa, DCI, Quickalert, Varitech, ADEMCO 685
7 =	20 PPS, 2300 Hz, Parity	FBI, Radionics Slow (2300)
8 =	40 PPS, 1400 Hz, No Parity	FBI
A =	40 PPS, 2300 Hz, No Parity	FBI
B =	40 PPS, 2300 Hz, Parity	FBI, Radionics Fast (2300)

NOTE: For UL installations the acceptable receivers are FBI CP220 (all formats), ADEMCO 685 (all formats without parity), Silent Knight 8520 or 9000.

L3 - MESSAGE LENGTH / BELL LOCKOUT

Default = 1

Enter the digit for the desired message length from the chart below in location L3.

```
0 = 3 \times 1 3 digit account, 1 digit event code, no bell lockout 8 = 3 \times 1, with bell lockout 4 \times 1 4 digit account number, 1 digit event code, no bell lockout A = 4 \times 1, with bell lockout A = 4 \times 1.
```

If bell lockout is selected then subsequent activations of the same zone within the same arming interval will not activate the bell. This applies only to burglary (non 24 hour) zones. For UL installations bell lockout must not be selected.

NOTE: Please consult your Central Station manager to determine the formats and message lengths which are accepted by the receiver. To select European dialing format, add 1 to the value selected for this digit.

L4- SYSTEM OPTIONS

Default = 1

Enter the digit for the desired system options from the chart below in location L4.

- 0 = Silent Keypad Panic
- 1 = Audibie Keypad Panic
- 2 = Silent Keypad Panic, Split Reporting
- 3 = Audible Keypad Panic, Split Reporting
- 4 = Silent Keypad Panic, 24 Hr Test
- 5 = Audible Keypad Panic, 24 Hr Test
- 6= Silent Keypad Panic, Split Reporting, 24 Hr Test
- 7 = Audible Keypad Panic, Split Reporting, 24 hr Test
- 8= Silent Keypad Panic, Bell Test
- 9 = Audible Keypad Panic, Bell Test
- A= Silent Keypad Panic, Split Reporting, Bell Test
- B = Audible Keypad Panic, Split Reporting, Bell Test
- C = Silent Keypad Panic, 24 Hr Test, Bell Test
- D = Audible Keypad Panic, 24 hr Test, Bell Test
- E = Silent Keypad Panic, Split Reporting, 24 Hr Test, Bell Test
- F = Audible Keypad Panic, Split Reporting, 24 Hr Test, Bell Test

#### **DESCRIPTION OF SYSTEM OPTIONS**

**Keypad Silent/Audible Panic** - Determines whether the keypad panic condition (\* & # from the keypad) will activate the bell. In either case a signal will be transmitted to the Central Station if a panic code has been programmed. NOTE: The keypad panic condition can be activated through location 1 of question 05.

**Split Reporting** - The split reporting option will direct all opening and closing signals to the secondary receiver telephone number. All other conditions (alarms, troubles, restores etc.) will adhere to the reporting route described in question 01. If split reporting is selected then the secondary receiver telephone number MUST be programmed.

24 Hour Test - If 24 hour test is enabled then the XL4600DL will transmit the test code to the Central Station every 24 hours in the absence of any other signal. Transmission of any signal will reset the 24 hour test clock. For example if a business opened and closed 6 days a week then a test signal will be generated 24 hours after the last closing signal. NOTE: This option is required for UL Commercial Burglary applications.

Bell Test If this option is selected the bell will be activated for one second upon successful arming. This option is required for UL Commercial Burglary applications.

# QUESTION 05 KEYPAD CONDITIONS DEFAULT = 1400

This question contains four locations for various keypad definable options

L1 - KEYPAD EMERGENCY CONDITIONS DEFAULT = 1

This location specifies which of the keypad emergency conditions are active. To determine the value for this location add e values for the desired conditions as shown in the chart below:

VALUE	CONDITION
+1	Keypad Panic ( * & #) Enable
+2	Keypad Fire (7 & 9) Enable
+4	Keypad Aux (1 & 3) Enable
+8	Keypad Aux = Audible

For example, if you wanted the keypad panic and fire conditions only then add +1 and +2, and enter a 3 into this location.

The valid selections for this digit are shown below;

- 0 = Keypad Emergency Conditions Disabled
- 1 = Keypad Panic
- 2 = Keypad Fire
- 3 = Keypad Panic, Keypad Fire
- 4 = Keypad Aux (Silent)
- 5 = Keypad Panic, Aux (Silent)
- 6 = Keypad Fire, Aux. (Silent)
- 7 = Keypad Panic, Fire, Aux (Silent)
- C = Keypad Aux. (Audible)
- D = Keypad Panic, Aux. (Audible)
- E = Keypad Fire, Aux. (Audible)
- F = Keypad Panic, Fire, Aux (Audible)

# L2 - MISC OPTIONS DEFAULT = 4

To obtain the value for this location add the values corresponding to the desired options or consult the table:

## PANIC or KEYSWITCH (+1)

This option determines whether connections 10 & 13 on the control panel will be used as a panic input or a keyswitch input. Note: Add 1 if a keyswitch is desired.

## HARDWIRED PANIC SILENT or AUDIBLE (+2)

Determines whether the hardwired panic circuit will be audible or silent. NOTE: Add 2 if audible.

#### **AUTO-UNBYPASS ENABLE (+4)**

Determines whether zones will automatically be unbypassed upon disarm. Add 4 for autounbypass enable.

# ARM ONLY CODE [USER #5] (+8)

If user number 5 should be used as an arm only code (maid code) then add 8 to this digit.

The valid selections for this digit are shown below:

- 0 = Panic Input Silent
- 1 = Keyswitch Input
- 2 = Panic Input Enabled Audible
- 4 = Panic Input Silent, Auto-unbypass
- 5 = Keyswitch Input, Auto-unbypass
- 6 = Panic Input Audible, Auto-unbypass
- 8 = Panic Input Silent, Arm Only User 5
- 9 = Keyswitch Input, Arm Only User 5
- A = Panic Input Audible, Arm Only User 5
- C = Panic Input Silent, Auto-unbypass, Arm Only User 5
- D = Keyswitch Input, Auto-unbypass, Arm Only User 5
- E = Panic Input Audible, Auto-unbypass, Arm Only User 5

This location determines whether the quick commands are enabled as shown below:

- 0 = Quick Commands Disabled
- 1 = Quick Forced Arm
- 2 = Quick Arm
- 3 = Quick Forced Arm, Quick Arm
- 4 = Reset Enable
- 5 = Quick Forced Arm, Reset Enable
- 6 = Quick Arm, Reset Enable
- 7 = Quick Forced Arm, Quick Arm, Reset Enable

# QUICK FORCED ARM ENABLE (+1)

Specifies whether quick forced arm (#key followed by the 2 key from the keypad) will be permitted. If quick forced arming is permitted then user #7 code will be reported to the CS if a two digit transmission is defined.

# QUICK ARM (+ 2)

Specifies whether quick arming ( # key followed by the 1 key from the keypad) will be permitted. Quick arming allows arming of the system without entry of a user code and if permitted will report user #7 code to the CS if a two digit transmission is defined.

# **RESET ENABLE (+4)**

This option will allow entry of a \* from the keypad to reset the following conditions: sounder, communications failure, alarm memory.

# QUESTION 06 ACCOUNT NUMBER 1 DEFAULT = 1234

Enter the three(3) or four(4) digit subscriber account number for Central Station phone number 1 in locations L1-L4.

If a three(3) digit number is used then enter an A in location L4.

Valid entries are 0-9, and B-F. The value A is interpreted as the null value for account numbers.

# QUESTION 07 ACCOUNT NUMBER 2 DEFAULT = AAAA

Enter the three(3) or four(4) digit subscriber account number for Central Station phone number 2 in locations L1-L4.

If a three(3) digit number is used then enter an A in location L4.

Valid entries are 0-9, and B-F. The value A is interpreted as the null value for account numbers.

If the second phone number is not used this question can be left as factory defaulted.

THIS ACCOUNT NUMBER **MUST** BE ENTERED IF YOU HAVE PROGRAMMED A SECOND RECEIVER PHONE NUMBER FOR BACKUP OR SPLIT REPORTING.

#### **QUESTION 08 SYSTEM TIMEOUTS**

There are 4 locations (L1-L4) within this question which define various system timing options as follows:

LOCATIONS	DEFAULTS
L1 = Entry Delay	30 seconds
L2 = Exit Delay	60 seconds
L3 = Burglary Bell Cutoff	15 minutes
L4 = Fire Bell Cutoff	No Cutoff

#### L1 - ENTRY DELAY Default = 2

Enter the desired entry delay time in 15 second increments. The valid range of input is 1 - F, with 1 indicating a 15 second entry delay and F indicating 225 seconds. For UL applications the maximum entrance delay shall not exceed 45 seconds for household applications or 15 seconds for commercial burglary applications.

#### L2 - EXIT DELAY Default = 4

Enter the desired exit time in 15 second increments. For UL applications the maximum exit delay shall not exceed 60 seconds. The valid range of input is 1 - F, with 1 indicating a 15 second exit delay and F indicating 225 seconds.

# L3 - BURGLARY BELL CUTOFF Default = 5

Enter the desired bell cutoff time on alarm conditions for burglary and panic in 3 minute intervals. The valid range of input is 1 - F, with F indicating an infinite burg bell cutoff. Example 3 = 9 minutes. For UL installations in commercial applications the minimum bell cutoff shall be 15 minutes, or 4 minutes for household burglary applications.

# L4 - FIRE BELL CUTOFF Default = F

Enter the desired bell cutoff time for fire conditions in three minute intervals. The valid range of input is 1 - F, with F indicating an infinite fire bell cutoff. Example 3 = 9 minutes. For UL installations the minimum fire bell cutoff time shall be 4 minutes.

# 8.1. ZONE PROGRAMMING

Questions 09-14 represent all the options related to programmable zone. 1-6. Each question contains four(4) locations L1-L4. The first two locations (L1-L2) define the zone type. The second two locations (L3-L4) define the alarm code transmitted to the Central Station for that zone.

## **CONE TYPES**

Zones 1-6 can be programmed for any one of the following zone types:

# **BURGLARY ZONES**

**DELAY**This is the industry standard exit/entry zone. When the system is armed exit

time begins. After exit expires, any subsequent violation of this zone will begin entry time. If the system is not disarmed within the programmed entry time an alarm will occur. The keypad sounder will annunciate steadily during entry time, unless there had been an alarm condition, at which time it will pulse. Delay zones will activate instantly when the system is armed using the INSTANT

mode.

**INTERIOR** All interior zones have exit delay time upon system arming. Furthermore, all

interior zones will have entry delay time if a delay zone is violated first. If this

zone is violated first however, it will generate an immediate alarm.

Interior zones will automatically be bypassed if the system is armed in the STAY

MODE.

**PERIMETER** This zone type (sometimes known as INSTANT) will generate an alarm when

violated while the system is armed.

**BURGLARY ZONE OPTIONS** 

**RESTORE** If this option is selected on a burglary zone, then the programmed restore code

will be reported upon bell cutoff, assuming the loop is restored. The restore code

will also be reported if the system is disarmed during an alarm.

CHIME If this option is selected the keypad sounder will annunciate for 1 second when

this zone is violated in the disarmed mode.

DIALER DELAY

If this option is selected the system will allow a 15 second delay before dialing,

allowing the end user to ABORT the transmission. If this option is not selected, any alarm condition will result in an immediate transmission that cannot be

aborted. NOTE: For UL installations dialer delay may not be used.

**DAY FEATURE** If a zone with this option is violated while the system is DISARMED, the keypad

sounder and zone LED will pulse for as long as the violation remains. In addition, the SYSTEM TROUBLE CODE will be transmitted to the central station. THE SOUNDER CAN BE SILENCED through entry operation of any valid user code.

While the system is armed, a DAY zone will act as an alarm when violated.

24 HR ZONES

FIRE FIRE zones on the Legend 70 & 80 contain Fire Verification Logic. Upon

detection of the first violation, smoke detector power will be reset for a period of 8 seconds. After this time period, power is restored. For a period of 5 seconds the fire zone will not be scanned allowing the smoke detectors to settle. Future violations within a two minute period will result in a PULSING BELL OUTPUT, RAPID PULSING ZONE LED, and IMMEDIATE transmission to the CS. Fire

signals cannot be aborted.

Entry of any valid user code will silence the sounder, bell and reset smoke detector power. If the system detects that the fire zone is still violated within 2 minutes of power reset, the zone LED will pulse slowly to indicate a fire trouble. Thereafter, smoke detector power will be reset every 4 minutes automatically

in an attempt to clear the fire zone.

In the event the fire zone experiences an open, the system indicates fire trouble by pulsing the keypad zone LED and sounder slowly. The system trouble code (followed by the zone code) will be reported to the CS.

The keypad sounder can be SILENCED through entry of ANY VALID USER CODE.

NOTE: FIRE ZONES can not be bypassed.

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## 24 HR ALARM

This zone type is always active, independent of the system arming status. Programming options include audible (STEADY BELL) or silent (NO BELL or keypad indications), with or without restore codes. Upon violation the zone LEDS will pulse rapidly (audible zones only) and an immediate CS transmission will occur which cannot be aborted.

24 Hour Alarm zones can be bypassed, however they cannot be unbypassed if a violation exists on the zone terminals.

# 24 HR TROUBLE

This zone type is always active, independent of the system arming status. Programming options include audible (PULSING KEYPAD SOUNDER) or silent, with or without restore codes. Upon violation the zone LED will pulse slowly. Trouble condition must exist for 15 seconds before a transmission will occur. The keypad display and sounder will clear upon zone restoral.

24 Hour Trouble zones can be bypassed, however they cannot be unbypassed if a violation exists on the zone terminals.

THE SOUNDER MAY BE SILENCED THROUGH ENTRY OF ANY VALID USER CODE.

# **ZONE CHART**

The following table contains the entries required for locations L1 and L2 of the zone type questions;

2	ONE TYPES	
CONTROLLED ZONES	24 HOUR ZONE	S
11 Perimeter, Restore 12 Perimeter, Day 13 Perimeter, Day, Restore 14 Perimeter, Chime 15 Perimeter, Chime, Restore	20 Delay 21 Delay, Restore 24 Delay, Chime 25 Delay, Chime, Restore 40 Interior 41 Interior, Restore	81 Alarm Audible 89 Alarm Silent (no LED , sounder, bell) 91 Alarm, Restore 99 Hold-Up, Restore 8A Trouble, Silent
18 Perimeter, Dial Delay 19 Perimeter, Restore, Dial Delay 1A Perimeter, Day, Dial Delay	44 Interior Chime 45 Interior, Chime, Restore 48 Interior, Dial Delay	(LED indication only) 92 Trouble, Audible, Restore 84 Fire
1B Perimeter, Day, Restore, Dial Delay 1C Perimeter, Chime, Dial Delay 1D Perimeter, Chime, Restore, Dial Delay	49 Interior, Restore, Dial Delay 4C Interior, Chime, Dial Delay 4D Interior, Chime, Restore, Dial D	94 Fire, Restore

#### **ZONE ALARM CODES**

As previously specified locations L3 and L4 of the zone questions represent the alarm code that will be reported to the central station.

Zones will transmit to the Central Station unless these digits are defined as AA for any individual zone, or the local dialer option is selected in question 03. Based on the dialer format selected enter the alarm code as follows;

**STANDARD FORMAT**: Enter the desired single digit alarm code in location L3. The value placed in L4 will not be used.

Example: Desired transmission 123 2 (account 123, alarm code 2).

Enter a 2 in location L3 of the zone. Any value placed in L4 will be not be used.

**EXTENDED:**Enter the desired first digit of the alarm code in location L3. The second digit in L4.

Example:

Desired transmission

123 3 333 4

Enter 3 in L3, 4 in L4.

**PARTIAL EXTENDED:** Enter the desired digit in both locations L3 and L4. This will generate a single round alarm transmission and an extended transmission for all system conditions such as restores.

Example:

Alarm

123 3

Restore

123 E

EEE 3

Enter 3 in L3 and L4.

4x2:Enter the desired first digit of the alarm code in location L3. The second digit in L4.

Example:

4765 32

Enter 3 in L3, 2 in L4.

#### **QUESTION 09 ZONE 1**

There are 4 locations (L1-L4) within this question which define the operation of zone 1.

Enter a 2 digit number in locations L1 and L2 from the zone chart for the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS		DEFAULTS	
L1 - L2	ZONE TYPE	20	DELAY
L3 - L4	<b>ZONE ALARM CODE</b>	31	

# **QUESTION 10 ZONE 2**

There are 4 locations (L1-L4) within this question which define the operation of zone 2.

Enter a 2 digit number in locations L1 and L2 from the chart above that represents the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS		<u>DEFAULTS</u>
L1 - L2	ZONE TYPE	40 INTERIOR FOLLOWER
L3 - L4	ZONE ALARM CODE	32

#### **QUESTION 11 ZONE 3**

There are 4 locations (L1-L4) within this question which define the operation of zone 3.

Enter a 2 digit number in locations L1 and L2 from the chart above that represents the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS			AULIS
L1 - L2	ZONE TYPE	10	PERIMETER
L3 - L4	ZONE ALARM CODE	33	

#### **QUESTION 12 ZONE 4**

There are 4 locations (L1-L4) within this question which define the operation of zone 4.

Enter a 2 digit number in locations L1 and L2 from the chart above that represents the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS		<u>DEFAULTS</u>	
L1 - L2	ZONE TYPE	10	PERIMETER
13-14	ZONE ALARM CODE	34	

#### **QUESTION 13 ZONE 5**

There are 4 locations (L1-L4) within this question which define the operation of zone 5.

Enter a 2 digit number in locations L1 and L2 from the chart above that represents the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS D		DEFAULIS		
L1 -	- L2	ZONE TYPE	10	PERIMETER
L3 -	- L4	<b>ZONE ALARM C</b>	ODE 3	5

# **QUESTION 14 ZONE 6**

There are 4 locations (L1-L4) within this question which define the operation of zone 6.

Enter a 2 digit number in locations L1 and L2 from the zone chart that represents the desired type for this zone.

Enter the desired alarm code in locations L3 and L4 for this zone relative to the dialer format selected.

LOCATIONS	DEFAULTS		
L1 - L2	ZONE TYPE	84	FIRE
L3 - L4	<b>ZONE ALARM CODE</b>	16	

## **QUESTION 15 AMBUSH/AC LOSS**

There are 4 locations L1-L4 in this question. L1 - L2 is the alarm code that will be transmitted on AMBUSH. L3 - L4 is the AC LOSS CODE. The same rules for programming regarding dialer format apply here.

If either, or both of these transmissions are not desired, program their respective locations AA

AMBUSH transmissions are immediate and not abortable.

AC LOSS transmissions will be reported 15 minutes after detection.

LOCATIONS		DEFAULTS
L1 - L2	AMBUSH	AA
L3 - L4	AC LOSS	AA

# **QUESTION 16 PANIC/LOW BATTERY**

There are 4 locations L1-L4 in this question. L1 - L2 is the alarm code that will be transmitted on PANIC. This code will be transmitted for KEYPAD as well as HARDWIRE PANIC.

L3 - L4 is the LOW BATTERY CODE. The same rules for programming regarding dialer format apply here.

If either or both of these transmissions are not desired, program their respective locations AA

PANIC transmissions are immediate and not abortable.

LOW BATTERY transmissions will be reported 4 minutes after detection. LOW BATTERY RESTORE CODE will be reported WITHIN 4 minutes after detection of GOOD BATTERY condition.

LOCATIONS	DEFAULTS	
L1 - L2	PANIC	22
L3 - L4	LOW BATTERY	AA

# QUESTION 17 OPEN/CLOSE,24 HR.TEST CODE

There are 4 locations L1-L4 in this question.

- L1 is the single digit OPENING CODE. L2 is the single digit CLOSING CODE. Entry of AA into these two locations means that openings and closings are not desired. If a dialer format other than standard is programmed then the second digit transmitted will be the user number.
- L3 L4 is the 24 HR TEST CODE. Entry of AA means that 24 hour test is not enabled. If 24 hour test code is selected then ANY valid transmission will reset the 24 hour test timer.

LOCATIONS		<u>DEFAULTS</u>
L1	<b>OPENING CODE</b>	Α
L2	CLOSING CODE	Α
L3 - L4	24 HR TEST	AA

# QUESTION 18 BYPASS/RESTORE/TROUBLE/# RINGS

There are four(4) locations L1 - L4 in this question

- L1 is the single digit system BYPASS CODE that will be reported to the central station if a zone is bypassed, UPON ARMING.Entry of an A means that bypasses are not transmitted. If a two digit dialing format has been selected then the Bypass code will be followed by the programmed second digit of the zones code.
- L2 is the single digit system *RESTORE CODE* reported to the central station. Restores will be reported for burglary or 24 hour zones which have been programmed with the restore option. Entry of an A means that restores are not transmitted. If a two digit dialer format has been programmed then the restore code will be followed by the programmed second digit of the zones code.
- L3 is the single digit system TROUBLE CODE reported to the central station. This code will be reported on DAY TROUBLE and any FIRE TROUBLE. If a two digit format has been programmed then this code will be followed by the second digit of the respective zones code.
- L4 is a the *number of rings* for the control panel to pickup for a remote communications session. This should be selected to a value that does not interfere with normal operation of the panel location, the default value is 8 rings. NOTE: A value of 0 means that remote programming will be disabled.

LUCATIONS		DEF	AULTS
L1	<b>BYPASS</b>		A
L2	RESTORE		Α
L3	TROUBLE		F
L4	# OF RINGS	8	

#### QUESTION 19 KEYPAD FIRE/ KEYPAD AUX. DEFAULT: AAAA

There are 4 locations L1-L4 in this question. L1 - L2 is the alarm code that will be transmitted upon activation of the keypad fire condition (pressing the 7 & 9 keys on the keypad). This code can vary from any of the zones which are programmed as fire.

L3 - L4 is the code transmitted to the CS for keypad aux. condition (1 & 3 from the keypad).

NOTE: These keypad emergency conditions are optional and can be enabled within question 05 of the programming sequence. If either or both of these transmissions are not desired, program their respective locations AA

LOCATIONS DEFAULTS
L1 - L2 KPAD FIRE AA
L3 - L4 KPAD AUX AA

# **Question 00 INSTALLER CODE**

There are 4 locations L1 - L4 in this question.

Enter any 4 digit (0-9 installer code desired. This code is used to ENTER the system programming mode via the keypad.

Typically each installing company would use a unique installer code in order to prevent unauthorized people from gaining access to their panels. Note: The factory default value for the installer code is 4600 in locations L1-L4 respectively.

# 9. DATA ENTRY VIA LED KEYPAD

This section describes the physical keystrokes necessary to perform keypad programming and how to interpret the data displayed on the model 6615 LED based keypad during programming operations.

Actual keypad programming should be performed after completion of the programming sheet.

NOTE: For information regarding programming through the LCD keypad consult the next section of this manual.

# 9.1. HOW TO ENTER PROGRAMMING MODE

The SYSTEM programming mode can be entered WHILE DISARMED ONLY as follows:

DEPRESS the CODE button.

DEPRESS the \* button. (asterisk)

ENTER the four digit INSTALLER CODE (default = 4600)

# 9.2. WHAT YOU SEE ON THE KEYPAD

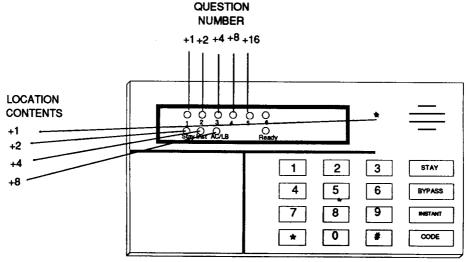
#### PROGRAM MODE = READY LED:

Upon entering the installer keypad programming mode the READY LED will slowly pulse, and will continue to pulse until leaving this mode.

## **QUESTION NUMBERS = ZONE LEDS:**

As previously stated there are 17 total questions, each of which contains multiple data entry locations.

Zone LEDS 1 through 5 display the current QUESTION NUMBER (not the specific location within each question) as follows:



Keypad Programming through model 6615 LED Keypad

In the diagram shown the **question number** is obtained by ADDING the values of all LEDS that are ON. This applies to both the metal and plastic versions of the keypad.

**EXAMPLES:** 

Zone 1 ON, Zones 2-5 OFF = QUESTION 01
Zone 1 ON, Zone 2 ON, Zones 3-5 OFF = QUESTION 03
Zone 2 ON, Zone 3 ON, Zone 4 ON, Zones 1 and 5 OFF = QUESTION 14

#### **LOCATION CONTENTS = SYSTEM STATUS LEDS**

The remaining status LEDS (ARM,STAY,INSTANT,AC/LB) display the DATA that resides in EACH location within the current question. As per the diagram and explanation above, the value located next to each LED must be ADDED to calculate the total data, for each location.

**EXAMPLES:** 

Arm ON, Stay, Instant, and AC/LB OFF, = 1 Arm ON, Stay ON, Instant and AC/LB OFF = 3

The following chart displays binary values that you will see on these LEDS for the letters A-F which may be entered in some locations of the program sheet.

Α	10	Stay & AC/LB = ON
В	11	Arm,Stay, & AC/LB = ON
С	12	Instant, & AC/LB = ON
D	13	Arm,Instant, & AC/LB = ON
Ε	14	Stay,Instant, & AC/LB = ON
F	15	Arm, Stay, Instant, & AC/LB = ON

# 9.3. HOW TO ENTER DATA

This section of the manual describes the physical keystrokes to enter the data written on the program sheet.

# **MOVEMENT BETWEEN QUESTIONS**

Upon entry into the system program mode question number 1 is displayed. Random jumps to any question can be made by depressing the \* (asterisk) button and the 2 digit question number.

Questions can be accessed randomly or sequentially.

Example:

Jump to question 07 = depress \* 0 7

The proper question number will be displayed by the zone LEDS and the other status LEDS will display the contents of the FIRST location in that question.

#### **MOVEMENT WITHIN QUESTIONS**

As previously stated the zone LEDS display the question number and the other status LEDS display the contents (data) within each location. Movement from location L1 to the next location within any question can be performed by depressing the # POUND BUTTON.

The other status LEDS will display the contents of each location as this button is depressed.

#### **DATA ENTRY**

To alter the value in ANY location, enter the desired DIGIT from the program sheet, then DEPRESS THE # BUTTON.

NOTE: THE # BUTTON <u>MUST</u> BE DEPRESSED AFTER ENTRY OF DESIRED DIGIT. THE SYSTEM WILL NOT PROGRAM THE DIGIT UNTIL THE POUND (#) BUTTON IS DEPRESSED, THEREFORE IF A MISTAKE IS MADE IT CAN BE CHANGED.

Numeric entries 0-9 can be performed by depressing the respective keypad button. However, entries of A-F require 2 keystrokes as follows:

Depress the **CODE** button followed by 1-6 for values A-F.

VALUE	KEYSTROKES
Α	CODE 1
В .	CODE 2
C	CODE 3
Đ	CODE 4
E	CODE 5
F	CODE 6

Example:

Enter an A = depress CODE followed by 1.

EXIT SYSTEM PROGRAM MODE

After all programming has been completed, depress the STAY button to exit the system program mode. All the LEDS will turn ON for approximately 10

seconds, before the system returns to normal daily operation.

QUESTION ACKNOWLEDGMENT

The keypad will emit a beep between keystrokes. In addition a beep will be

generated confirming advancement between questions numbers.

Four beeps will be generated if an invalid input is entered. Upon entry of invalid input you are positioned at the same question number and location as prior to

the input error.

# SUMMARY OF SYSTEM PROGRAMMING

FUNCTION	<b>KEYSTROKE</b> S
ENTER PROGRAMMING MODE	CODE * [INSTALLER CODE]
EXIT PROGRAMMING MODE	S#AY
ADVANCE BETWEEN LOCATIONS (ENTER)	#
GO TO SPECIFIC QUESTION	* [Question Number]
	Example: * 0 5
Data Entry	0 - 9
	A - F entered as follows;
	A CODE 1
	B CODE 2
	C CODE 3
	D CODE 4
	E CODE 5
	F CODE 6

# 10. DATA ENTRY THROUGH 6805 LCD KEYPADS

Keypad programming can also be accomplished through the 6805 LCD keypad. In addition to the normal 19 programming questions, additional capability is available for entering the zone descriptors directly through the keypad.

#### 10.1. HOW TO ENTER PROGRAMMING MODE

The SYSTEM programming mode can be entered WHILE DISARMED ONLY as follows:

DEPRESS the **CODE** button.

DEPRESS the \* button. (asterisk)

ENTER the four digit INSTALLER CODE (default = 4600)

# 10.2. WHAT YOU SEE ON THE KEYPAD

Upon entering the installer keypad programming following display will appear:

**QUES:01** L:01 DATA= 1

The display shows the current question number (QUES), the location within the question (L:) and the current value within that location (DATA =). This corresponds to the programming worksheet.

#### 10.3. **HOW TO ENTER DATA**

This section of the manual describes the physical keystrokes to enter the data written on the program sheet.

#### **MOVEMENT BETWEEN QUESTIONS**

Upon entry into the system program mode question number 1 is displayed. Random jumps to any question can be made by depressing the \* (asterisk) button and the 2 digit question number.

Questions can be accessed randomly or sequentially.

Example:

Jump to question 07 = depress \* 0 7

The proper question number will be displayed by the zone LEDS and the other status LEDS will display the contents of the FIRST location in that question.

#### **MOVEMENT WITHIN QUESTIONS**

#### **DATA ENTRY**

The display shows the current location within each programming question. Movement from location L1 to the next location within any question can be performed by depressing the # POUND BUTTON.

To alter the value in ANY location, enter the desired DIGIT from the program sheet, then DEPRESS THE # BUTTON.

NOTE: THE # BUTTON MUST BE DEPRESSED AFTER ENTRY OF DESIRED DIGIT. THE SYSTEM WILL NOT PROGRAM THE DIGIT UNTIL THE POUND (#) BUTTON IS DEPRESSED, THEREFORE IF A MISTAKE IS MADE IT CAN BE CHANGED.

Numeric entries 0-9 can be performed by depressing the respective keypad button. However, entries of A-F require 2 keystrokes as follows:

Depress the CODE button followed by 1-6 for values A-F.

VALUE	KEYSTROKES
Α	CODE 1
В	CODE 2
С	CODE 3
D	CODE 4
E	CODE 5
F	CODE 6

Example:

Enter an A = depress CODE followed by 1.

# **EXIT SYSTEM PROGRAM MODE**

After all programming has been completed, depress the STAY button to exit the system program mode. All the LEDS will turn ON for approximately 10 seconds, before the system returns to normal daily operation.

# QUESTION ACKNOWLEDGMENT

The keypad will emit a beep between keystrokes. In addition a beep will be generated confirming advancement between questions numbers.

Four beeps will be generated if an invalid input is entered. Upon entry of invalid input you are positioned at the same question number and location as prior to the input error.

## 10.4. ZONE DESCRIPTOR PROGRAMMING

The 6805 LCD keypad has capability to display 12 character zone descriptors which can be programmed directly through the keypad. These descriptors are entered as programming questions 21 - 26.

NOTE: These questions can only be accessed by an LCD keypad, or the EZ-Mate Programming Devices.

The zone descriptor questions are as follows:

QUESTION	DESCRIPTOR	
21	Zone 1 Descriptor	[Default = ZONE 1]
22	Zone 2 Descriptor	[Default = ZONE 2]
23	Zone 3 Descriptor	[Default = ZONE 3]
24	Zone 4 Descriptor	[Default = ZONE 4]
25	Zone 5 Descriptor	[Default = ZONE 5]
26	Zone 6 Descriptor	[Default = ZONE 6]

For example to program the descriptor for zone 3 enter \* 2 3, to access question 23.

When programming the English zone descriptors the following techniques are used to program the characters:

KEYSTROKE	ACTION
0	Inserts a space and advances the cursor
CODE key	Moves the cursor to the left one space
INSTANT key	Moves the cursor to the right one space
7	Increments the character at the cursor
<b>*</b> 7	Scrolls forward (UP) through the character set.
	NOTE: Depression of any key will stop the scroll
9	Decrements the character at the cursor
* 9	Scrolls backwards through the character set
	NOTE: Depression of any key will stop the scroll

NOTE: The characters available through the 6805 LCD keypad are as follows:

!"#\$%&'()\*+-./0123456789;=@ABCDEFGHIJKLMNOPQRSTUVWXYZ

#### SYSTEM DEFAULT (6805 keypad only)

The 6805 LCD keypad can initiate a system default of the Legend 70/80 by pressing the 1 & 3 keys together, while in programming mode. The system will then default and go through the reset sequence.

#### **ZONE DESCRIPTOR DEFAULT (6805 keypad only)**

The English language zone descriptors can be reset to the default state by pressing the 7 & 9 keys on the LCD keypad at the same time, while in programming mode. This will bring the zone descriptors back to the original default settings for that keypad only. NOTE: The default zone descriptors are ZONE 1, ZONE 2, ... etc.

# 11. SYSTEM DEFAULTS

The Legend 70/80 is preprogrammed from the factory with default values. These values have been selected to meet the requirements of a common installation and may suit your needs.

To reload the factory default values, remove all power from the system (AC & DC). Next short JP1 to JP2, with short still intact reapply power (AC then DC), wait 5 seconds then remove short with the power still applied. NOTE: A programming option exists within the EZ-Mate programming devices known as DEFAULT LOCKOUT. If this option is selected then a system default will not overwrite the CSID or installer code portion of the program. This will prevent an installer other than the original installer from taking over an account without cooperation.

QUESTION		DEFAULT
00 Installer Code		4600
01 Phone #1		234AAAAAAAA
02 Phone #2		AAAAAAAAAA (none)
03 Callback Number		AAAAAAAAAA (none)
04 Dialer Options		Touch Tone, 20PPS, 2300hz, 3x1, Audible Panic
05 Kpad options		1400 Keypad panic & Auto unbypass enabled
06 Account #1		1234
07 Account #2		AAAA (nuli)
08 Timeouts		Entry Delay = 30 sec., Exit Delay = 60 seconds
		Burg Bell Cutoff = 15 minutes, Fire Bell Cutoff = No Timeout
09 Zone #1		Delay (20) Code = 31
10 Zone #2		Interior (40) Code = 32
11 Zone #3		Perimeter (10) Code = 33
12 Zone #4		Perimeter (10) Code = 34
13 Zone #5		Perimeter (10) Code = 35
14 Zone #6		Fire (84) Code = 16
15 System Codes		Ambush = AA (null) AC Loss = AA (null)
16 System Codes		Panic = 22 Low Battery = AA (null)
17 System Codes		Open = A (null) Close = A (Null) Test Code = AA (null)
18 System Codes		Bypass = A (null) Restore = E Trouble = F
19 System codes		Keypad fire = AA (null) Keypad Aux = AA (null)
10 Cyclom Codoo		Noypad III o = 701 (Ildii) Noypad Max = 701 (Ildii)
21 Zone 1 Descriptor		ZONE 1 (6805 LCD Keypad Only)
22 Zone 2 Descriptor		ZONE 2 (6805 LCD Keypad Only)
23 Zone 3 Descriptor		ZONE 3 (6805 LCD Keypad Only)
24 Zone 4 Descriptor		ZONE 4 (6805 LCD Keypad Only)
25 Zone 5 Descriptor		ZONE 5 (6805 LCD Keypad Only)
26 Zone 6 Descriptor		ZONE 6 (6805 LCD Keypad Only)
•		(
USER CODES		
1	1234	
2	(null)	
2 3 4	(null)	
	(null)	
5	(null)	
5 6 2	(null)	
2	(null)	

#### **LEGEND 70 80 PROGAMMING WORKSHEET** Primary Telco. Number 01 Secondary Telco. Number 02 L6 Callback Number 03 L9 **Bypass Restore** Dialer Information 04 L2 Ε4 Trouble Troub.Ring Msg Format Rcvr Misc Byp. Rest **Keypad Conditions** 05 त Keypad Fire/Aux. Spare KP Fire Aux Account 1 06 Installer Code 3 or 4 Digit 4 Digit 07 Account 2 **L1** 3 or 4 Digit **System Timeouts** 80 $\Box$ T3 Burg Bell Exit Fire **Entry** Bell CONTROLLED ZONES 09 Zone 1 Ħ 10 Perimeter T4 11 Perimeter, Restore Zone CS Code Type 12 Perimeter, Day 13 Perimeter, Day, Restore 14 Perimeter, Chime Zone 2 10 T4 15 Perimeter, Chime, Restore Zone Type Code CS 18 Perimeter, Dial Delay 19 Perimeter, Restore, Dial Delay 1A Perimeter, Day, Dial Delay 1B Perimeter, Day, Restore, Dial Delay Zone 3 L3 CS 11 T4 1C Perimeter, Chime, Dial Delay Code Zone Type 1D Perimeter, Chime, Restore, Dial Delay 12 Zone 4 CS Code Zone Type SYSTEM DEFAULTS QUESTION 00 Installer Code 01 Phone #1 Τ4 13 Zone 5 02 Phone #2 03 Callback Number CS Code Zone Type 04 Dialer Options 05 Kpad options 06 Account #1 07 Account #2 **08 Timeouts** 14 Zone 6 Code CS Zone Type 09 Zone #1 10 Zone #2 11 Zone #3 12 Zone #4 15 Ambush/AC Loss 13 Zone #5 14 Zone #6 Ambush **AC Loss** 15 System Codes 16 System Codes 17 System Codes 18 System Codes 19 System codes 16 Panic/Low Battery H **Panic Low Battery** 21 Zone 1 Descriptor 22 Zone 2 Descriptor 23 Zone 3 Descriptor 24 Zone 4 Descriptor 17 Open Close Test 26 Zone 6 Descriptor Open Close Test

#### L1 DIALER FORMATS

#### **DEFAULT: 1**

- 0 Pulse Dialing, Standard Format or 4X2
- Touch Tone Dialing, Standard format or 4X2
- Pulse Dialing, Extended Format 2
- 3 Touch Tone Dialing, Extended Format
- Pulse Dialing, Partial Extended Format
- 5 Touch Tone Dialing, Partial Extended Format
- No Dialer (Local Alarm only) 8

#### **L4- SYSTEM OPTIONS**

#### Default = 1

- Silent Panic 0 =
- **Audible Panic** 1 =
- 2 = Silent Panic, Split Reporting
- Audible Panic, Split Reporting 3 =
- 4 = Silent Panic, 24 Hr Test
- 5 = Audible Panic, 24 Hr Test
- Silent Panic, Split Reporting, 24 Hr Test 6=
- 7 -Audible Panic, Split Reporting, 24 hr Test
- 8= Silent Panic, Bell Test
- 9 = Audible Panic, Bell Test
- Silent Panic, Split Reporting, Bell Test A=
- B = Audible Panic, Split Reporting, Bell Test
- Silent Panic, 24 Hr Test, Bell Test C -
- Audible Panic, 24 hr Test, Bell Test D=

#### L2 - RECEIVER TYPE

#### **DEFAULT: 6**

VALUE	DESCRIPTION		TYPICAL CS RECEIVERS
0 =	10 PPS, 1400 Hz., No Parity		FBI, Ademco Slow, Silent Knight Slow
1 =	10 PPS, 1400 Hz, Parity		FBI
2 =	10 PPS, 2300 Hz, No Parity		FBI
3 =	10 PPS, 2300 Hz, Parity		FBI
4 =	20 PPS, 1400 Hz, No Parity		FBI, Silent Knight Fast, ADCOR
5 =	20 PPS, 1400 Hz, Parity		FBI, Radionics Slow (1400)
6 =	20 PPS, 2300Hz., No Parity		Franklin, Sescoa, DCI, Quickalert, Varitech
7 =	20 PPS, 2300 Hz, Parity		FBI, Radionics Slow (2300)
8 =	40 PPS, 1400 Hz, No Parity	÷	FBI
A =	40 PPS, 2300 Hz, No Parity		FBI
B =	40 PPS, 2300 Hz, Parity		FBI, Radionics Fast (2300)

#### L3 - MESSAGE LENGTH

#### Default = 1

0 = 3 x 1 3 digit account, 1 digit event code, no bell lockout 2 = 4 x 1 4 digit account number, 1 digit event code, no bell lockout 4 digit account number, 2 digit event code, no bell lockout

#### 24 HOUR ZONES

ו Delay	81 Alarm Audible
21 Delay, Restore	89 Alarm Silent
24 Delay, Chime	(no LED, sounder, bell)
25 Delay, Chime, Restore	91 Alarm, Restore
40 Interior	99 Hold-Up, Restore
41 Interior, Restore	8A Trouble, Silent
44 Interior Chime	(LED indication only)
45 Interior, Chime, Restore	92 Trouble, Audible, Restore
48 Interior, Dial Delay	84 Fire
49 Interior, Restore, Dial Delay	94 Fire, Restore
4C Interior Chime Dial Dolay	

4C Interior, Chime, Dial Delay

4D Interior, Chime, Restore, Dial Delay

# SUMMARY OF SYSTEM PROGRAMMING

FUNCTION	KEYSTROKES
ENTER PROGRAMMING MODE	CODE * [INSTALLER CODE]
EXIT PROGRAMMING MODE	STAY
ADVANCE BETWEEN LOCATIONS (ENTER)	*
CO TO SPECIFIC OUESTION	th (Occasion Mombael

GO TO SPECIFIC QUESTION

# DEFAULT

#### 4600

1400 Keypad panic & Auto unbypass enabled

AAAA (null)

Burg Bell Cuton = 15 minute Delay (20) Code = 31 Interior (40) Code = 32 Perimeter (10) Code = 33 Perimeter (10) Code = 34

Perimeter (10) Code = 35

Keypad fire = AA (null) Keypad Aux = AA (null)

ZONE 1 (LCD Keypad Only) ZONE 2 (LCD Keypad Only) ZONE 3 (LCD Keypad Only)

ZONE 4 (LCD Keypad Only) ZONE 5 (LCD Keypad Only) ZONE 6 (LCD Keypad Only)

234AAAAAAAAAAAAAA (none) AAAAAAAAAAA (none)
Touch Tone, 20PPS, 2300hz, 3x1, Audible Panic

1234

Entry Delay = 30 sec., Exit Delay = 60 seconds Burg Bell Cutoff = 15 minutes, Fire Bell Cutoff = No Timeout

Fire (84) Code = 16 Ambush = AA (null) AC Loss = AA (null)

Panic = 22 Low Battery = AA (null)
Open = A (null) Close = A (Null) Test Code = AA (null)
Bypass = A (null) Restore = E Trouble = F

In the diagrams above the question number is obtained by ADDING the values of all LEDS that are ON. This applie both the metal and plastic versions of the keypad. EXAMPLES:

LOCATION

CONTENTS

+2

Zone 1 ON, Zones 2-5 OFF

Zone 1 ON, Zone 2 ON, Zones 3-5 OFF Zone 2 ON, Zone 3 ON, Zone 4 ON, Zones 1 and 5 OFF - QUESTION 01

2

5

- QUESTION 03

- QUESTION 14

3

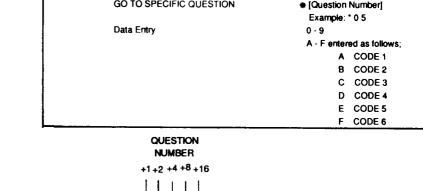
6

STAY

BYPASS

NETANT

CODE



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