

STAR XL4500

Hookup and Installation Instructions



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STAR XL4500

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IMPORTANT

For UL installations, failure to install and program this unit in accordance with UL requirements is a violation of the Listing Mark. For more information on the UL Listing, contact Underwriters Laboratories, Inc. Progress Dept., 333 Pfingsten Rd., Northbrook, IL 60062, (312) 272-8800.

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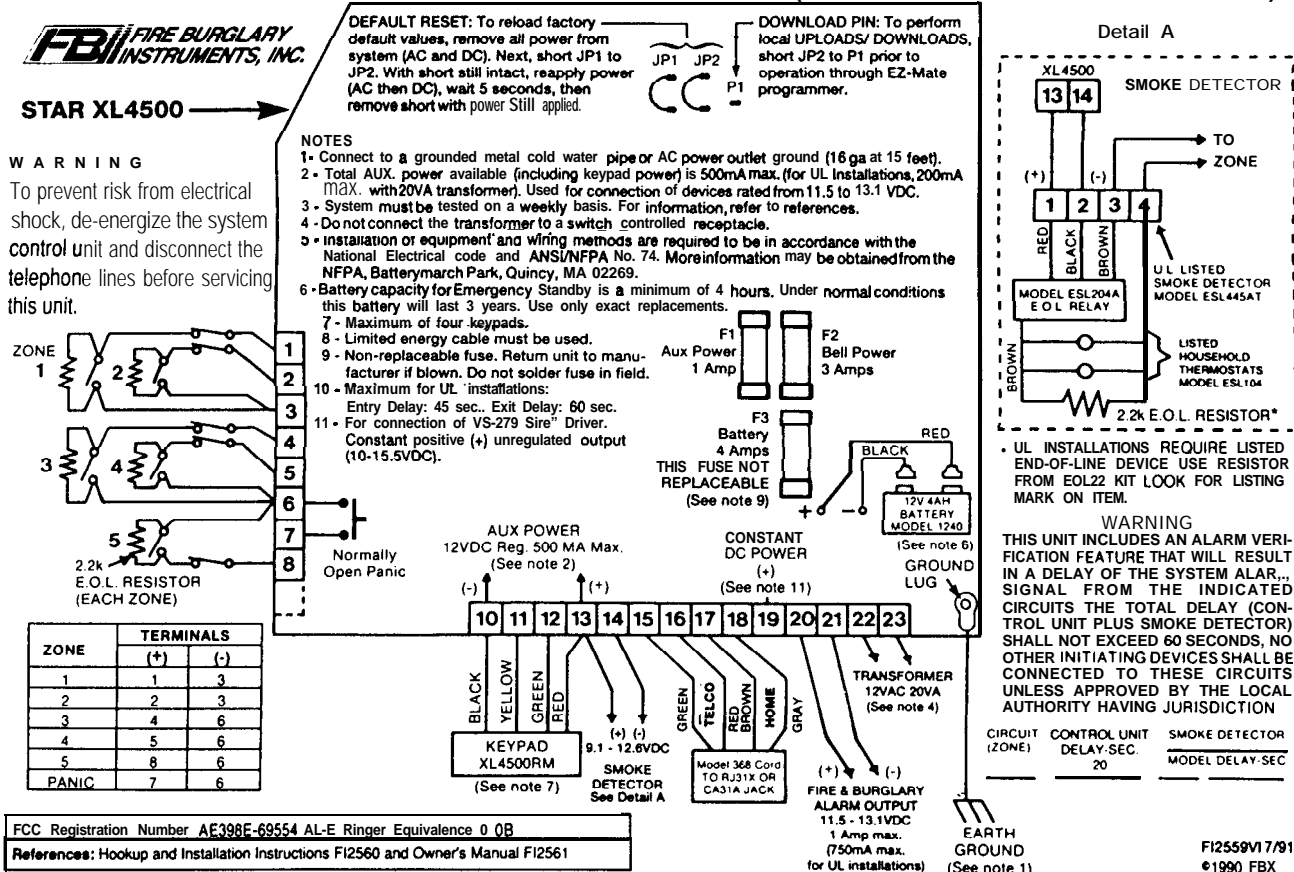
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1. INTRODUCTION

The STAR XL4500 is a state-of-the-art EEPROM based control/communicator. It is UL Listed for Household Fire and Burglar Alarm Installations per UL Standards UL935 and UL1023. The system features five fully programmable zones as well as a wired panic zone. Programming can be performed through the keypad or the system can be uploaded and downloaded locally using the EZ-Mate Programmer. The STAR XL4500 contains up to six user codes with an ambush code capability. All of the keypads are four wire devices, with up to four keypads per system.

2. SYSTEM WIRING AND HOOKUP

CONNECTIONS FOR HOUSEHOLD FIRE/BURGLAR ALARM SYSTEM (PER UL STANDARDS UL985 AND UL1023)



2.1. TERMINAL CONNECTIONS

1 & 3 (-)	Zone 1(Requires 2.2K EOL resistor)	[Default=DELAY]
2 & 3 (-)	Zone 2 (Requires 2.2K EOL resistor)	[Default=INTERIOR]
4 & 6 (-)	Zone 3 (Requires 2.2K EOL resistor)	[Default=PERIMETER]
5 & 6 (-)	Zone 4 (Requires 2.2K EOL resistor)	[Default=PERIMETER]
8 & 6 (-)	Zone 5 (Requires 2.2K EOL resistor)	[Default=PERIMETER]

ZONE INFORMATION

Normally closed devices may be wired in series and/or normally open devices in parallel with the 2.2K ohm end-of-line resistor on all zones. The maximum loop resistance may not exceed 100 ohms. The loop response time is 280ms on all zones. The factory default values for each zone is listed in the table above, however any zone can be programmed for the following types: Delay, Perimeter, Interior, Fire, 24Hr. Alarm, or 24Hr Trouble. Further explanation of the zone types can be found in the System Programming section of this manual.

6 & 7 PANIC CIRCUIT

Normally open panic circuit This hardwired panic is a 24 hour zone which can be programmed for silent or audible operation. The panic circuit will activate with each violation, therefore a latched device is recommended. For UL Installations, the panic switch connected to these terminals is to be located no more than 3 feet from the control unit, with no intervening barriers.

NOTE: E.O.L. resistor is not required on this zone.

10 11 12 13 KEYPADS:

A maximum of 4 keypads (XL4500RM, XL4800LCDP, XL4600RP, 8805 or 8815) may be wired to these terminals. The connections are as follows: 10 (BLACK = negative power) 11 (YELLOW = Data In), 12 (GREEN = Data Out), 13 (RED = Positive Power). Each LED based keypad draws approximately 30mA. Maximum keypad wiring length is 500 feet total using 22 gauge wire.

10 (-) & 13 (+) REGULATED POWER (11.5 - 13.1VDC)

The total regulated output power for motion detectors and other external devices is 500mA at 13.8VDC (200mA for UL installations), with less than 100mVPP ripple. The total regulated output capacity of the XL4590 includes the power available to the keypads, auxiliary devices and smoke detectors. **NOTE:** This output is connected to the aux fuse (F1).

13 (+) 14 (-) SMOKE DETECTOR POWER:

This system will accept 12VDC four (4) wire smoke detectors only. Approximately 50mA of current is available at these terminals for powering all detectors and an E.O.L. relay FBI model 820. These terminals adhere to the fire verification and reset logic which is explained in the Zone types section of this manual. Manual reset of smoke detector power can be accomplished by entry of any valid user code after clearing alarm memory. **NOTE:** If a fire protection is desired then zones used for fire protection must be programmed as fire zones.

15 16 17 18 TELEPHONE LINE:

Connect the FBI model 368 cord as follows: 15 (GREEN=Telco Tip), 16 (RED =Telco Ring), 17(BROWN=Home Tip), 18(GREY=Home Ring). Insert the modular plug into an approved USOCRJ31X jack (or a CA31A jack for Canadian installations).

The FCC registration number is (AE398E-69554 AL-E), and the ringer equivalence is (0.0B). This STAR XL4500 should not be connected to party lines, or coin-operated Phones. Furthermore, this device should not be connected to a phone line which has Call Waiting, unless the Call Waking interrupt numbers are programmed into the panel dialing sequence.

19 (+) CONSTANT DC POWER

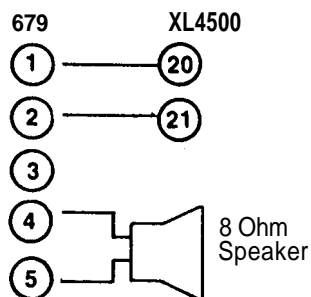
This terminal delivers constant unregulated 10.0 - 15.5VDC power for devices requiring a constant power such as a VS279. This terminal is connected to the bell fuse (F3).

20 (+) & 21 (-) BELL OUTPUT

The total output power available for sounding devices is 1 amp at 10.5 - 15.5VDC (750mA for UL applications). 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.

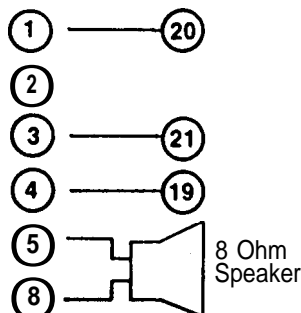
Model 679 Connections

(See Hookup and Installation: F12231)



Model VS279 Connections

(See Hookup and Installation: F12292)



For UL applications, use only one speaker. For UL Household Fire Warning System, the speaker is required to be mounted indoors, for best audibility.

GROUND EARTH GROUND:

Connect this ground tug to a metallic cold water pipe utilizing #1 6AWG 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, or AC power outlet ground.

22&23 TRANSFORMER:

Connect an FBI 12VAC, 20VA transformer, utilizing 18 AWG 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.

BACKUP BATTERY:

The RED (+) and BLACK (-) flying leads must be connected to a 12 VDC 4-6AH GEL CELL, to serve as backup power in case of AC loss.

The XL4500 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.

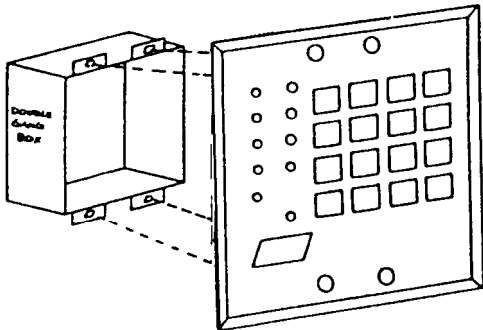
GROUND START TELCO SERVICE:

Ground fault capability can be added to the XL4500 by the addition of FBI Model 117 module. Consult the 117 Installation Instructions for hookup information. NOTE: Model 117 has not been tested for UL applications.

3. KEYPAD MOUNTING

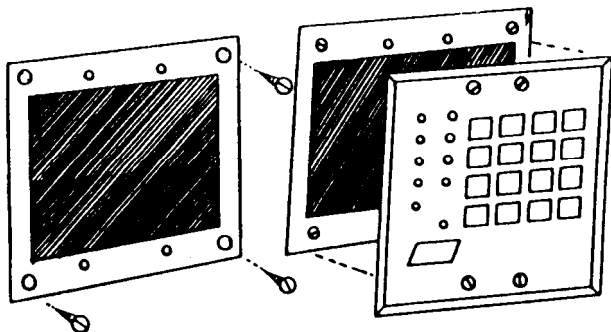
3.1. XL4500RM METAL KEYPAD

FLUSH MOUNTING USING DOUBLE GANG BOX



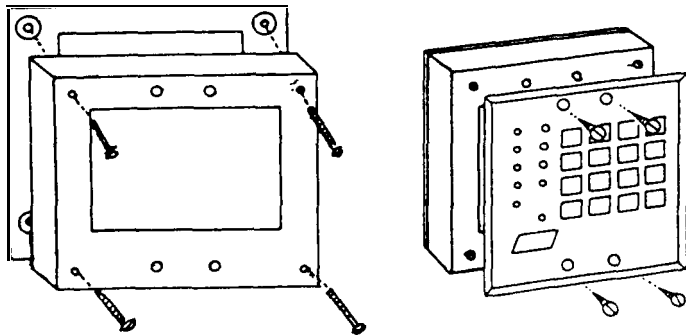
- 1- Create an opening and mount a standard double gang box.
- 2- Secure keypad to double gang box as shown in diagram below. Note: The double gang box should be mounted flush with the wall in order for the keypad screws to fit.

FLUSH MOUNTING WITH MOUNTING RING (Using the optional XL4600TR)



- 1- Create the desired opening where keypad is to be mounted, using the inside of the mounting ring as a template. NOTE: The opening should be made between the studs.
- 2- Secure mounting plate to wall through the four outer holes using suitable mounting hardware (not provided).
- 3- Connect keypad wiring to control panel and secure the keypad to the mounting ring using the four painted screws provided with the keypad.

SURFACE FLUSH MOUNTING (Using the optional XL4600RMBX)

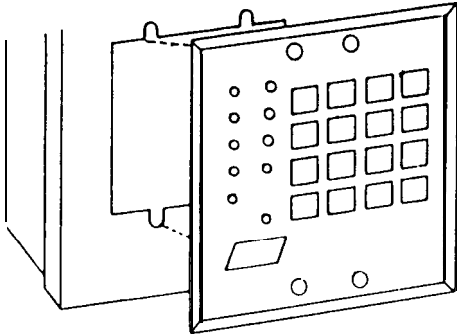


1- Depending upon the type of installation, run the keypad wiring out of the rear, top, bottom, or sides of the backbox.

2- Attach the backbox to the wall at the desired height.

3- Insert XL4500RM keypad into backbox and secure with the four screws provided.

MOUNTING KEYPAD IN CONTROL PANEL ENCLOSURE

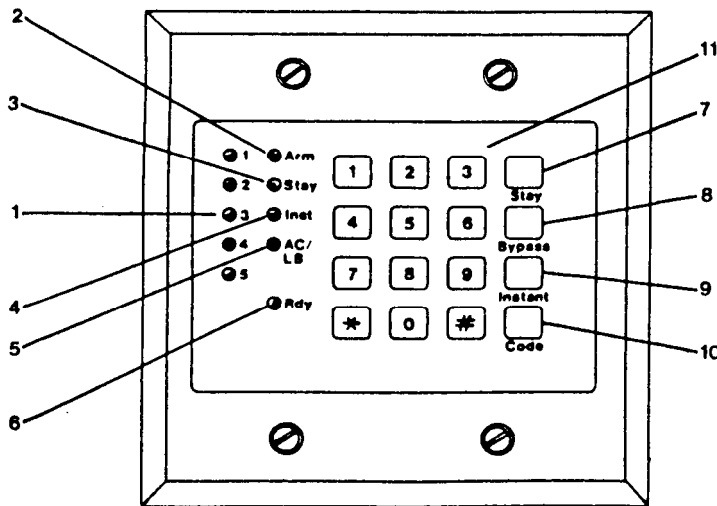


1- Remove keypad knockout from the front of the metal box enclosure as shown.

2- Insert the XL4500RM into the opening from front of the enclosure.

3- Secure the keypad to the enclosure using the four painted metal screws and nuts provided.

4. KEYPAD LAYOUT



**XL 4500 RM
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
TROUBLES
BYPASSES

FAULTED ZONES

NORMAL

Fast Blink (approx. 150 ms. OFF).

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

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

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

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 = All delay zones are currently INSTANT OFF = All delay zones are currently 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.

4.1 KEYPAD SOUNDER

The keypad sounder annunciates differently to indicate the following conditions:

CHIRP Keypad will make a steady sound during entry time, and/or during burglary alarm.

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 command, 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 SOUNDERS 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 the keys are pressed. This is an indication that service is required.

5. SYSTEMS OPERATIONS

5.1. POWER UP/SYSTEM RESET

Upon initial powerup of the XL4500, all of the lights on the 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 XL4500 will return to the previous arming state.

5.2. ARMING ME SYSTEM

FAIL- SAFE ARMING: The XL4500 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 XL4500 can be armed without the backup battery being connected, however the AC/LB light will flash.

5.3. STAY ARMING

Depress the STAY button followed by a four digit user code. The ARMED and the STAY LEDs will light. The system is armed at this time with all programmed interior zones excluded.

5.4. INSTANT ARMING

Depress the INSTANT button followed by a four digit user code. The ARMED and the INSTANT LEDs will light. The system is armed at this time with all programmed delay zones instant.

5.5. INSTANT-STAY ARMING

Depress the INSTANT then STAY buttons followed by a four digit user code. The INSTANT and the STAY modes. The system will be armed with the interior zones bypassed and the delay zones instant.

5.6. DISARMING

Depress any four digit user code. The ARMED LED will extinguish. If an alarm condition exists or had occurred while the system was armed, the respective zones LEDs 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.

5.7. 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.

5.8. BYPASS

Bypassing is performed to temporarily exclude zones which are faulty or not ready from activating the system. Depress the BYPASS button followed by a valid four digit user code, followed by 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 within a 10 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 exist for Bypass:

- 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.
- IMPORTANT: ZONES WHICH ARE BYPASSED ARE NOT PROTECTED WHEN THE SYSTEM IS ARMED.

5.9. AUTOUNBYPASS

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

5.10. MANUAL UNBYPASS

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

5.11. USER CODE PROGRAMMING

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

The STAR XL-4500 contains up to six user codes (4 digits each) with the following applications:

USER NUMBER	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]
6	Ambush Code or User #6 [Default = null]

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

USER DEFINITION PROCEDURE:

CODE [USER] [USER#] [USER ID]

where:

CODE	Code button on keypad
[USER]	Master User ID code (user #1)
[USER#]	Desired user to be programmed (1-6)
[USER ID]	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, 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.

5.12. USER DELETION

Removal of users from the XL4500 can be performed as follows:

USER DELETION PROCEDURE: CODE key [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.

5.13. KEYPAD PANIC

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 upon the programming option. NOTE: The default value for panic is audible. Audible panic can be RESET BY ENTERING ANY VALID USER CODE.

6. SYSTEM PROGRAMMING

The STAR XL4500 system can be programmed in any one of four methods:

- Directly through keypad
 - EZ-MATE PROGRAMMER model 7150 on-site. [Using model 7180R Cartridge and the 7180J connector]
 - EZ-MATE PROGRAMMER model 7150 remotely* [Using model 7180R Cartridge]
 - EZ-MATE PROGRAMMER model 7700 remotely* (call for availability)
- Requires addition of XL 4650 upload/download module to the XL4500 panel.
- NOTE: The XL4650 has not been tested for UL applications.

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 back cover of this manual. There are 17 total programming questions numbered 00-16. Within each question there are several locations labeled L1 L2, etc. for data entry.

The XL4500 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.

7. PROGRAMMING QUESTIONS STAR XL4500

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 (Section 9).

QUESTION 01 PRIMARY TELEPHONE NUMBER DEFAULT: 234AAAAAAAAAAAAA

Enter the telephone number (including area code or prefix IF NECESSARY) of the primary central station receiver in L1-L16. Valid dialing digits are 0-9, B=*, and C= three second pause. An entry of the digit A signifies the end of a phone number.

REPORTING ROUTE: The XL4500 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 the signal has not been acknowledged.

QUESTION 02 SECONDARY TELEPHONE NUMBER DEFAULT: AAAAAAAAAAAAAA

Enter the telephone number (including area code or prefix IF NECESSARY) of the secondary central station receiver in L1-L16. Valid dialing digits are 0-9, B=*, and C= three second pause. An entry of the digit A signifies the end of a phone number.

A 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 is programmed, then OPENING and CLOSING signals will be directed to the secondary CS number only, while all other conditions are reported to the primary telephone number only.

If neither split nor 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 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 Formats
- L3 = Message length (ie: 3x1,4x1,4x2)

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

FORMAT EXPLANATIONS

Standard **Standard format** involves a **3 or 4** digit account number followed by a single round event Code.

Examples: 123 3 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 an account number before identifying the zone code.

For example: 123 3 4312 E
 333 1 or EEEE 7

Partial Extended The Partial Extended format transmits a standard signal for alarm conditions and extended message for restores and other system conditions. NOTE: The extended message codes must be B-F). Example: Alarm Condition 853 1 Restore 853 EEEE 1

L2 RECEIVER TYPE DEFAULT :6

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

VALUE	DESCRIPTION	TYPICAL CS RECEIVERS
0=	10 PPS,1 400 Hz.,No Parity	FBI, Ademco Slow, Silent Knight Slow
1=	10 PPS,1400Hz.,Parity	FBI
2=	10 PPS, 2300Hz.,No Parity	FBI
3=	10 PPS, 2300Hz.,No Parity	FBI
4=	20 PPS, 1400 Hz., No Parity	FBI, Silent Knight Fast, ADCOR, ADEMCO 685
5=	20 PPS,1400Hz.,Parity	FBI, Radionics-Slow (1400)
6=	20 PPS,2300Hz.,No Parity	FBI, Franklin, SESCOA, DCI, Quikalert, Varitech, ADEMCO 685
7=	20 PPS,2300Hz.,Parity	FBI, Radionics Slow (2300)
8=	40 PPS,1400Hz.,No Parity	FBI
A=	40 PPS,2300Hz.,No Parity	FBI
E=	40 PPS,2300Hz.,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 9929 OR 9000

L3 MESSAGE LENGTH/BELL LOCKOUT DEFAULT :1

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

1=	3x1	3 digit account, 1 digit event code, no bell lockout	9 = 3X1, with bell lockout
2=	4X1	4 digit account, 1 digit event code, no bell lockout	A = 4X1, with bell lockout
4=	4x2	4 digit account, 2 digit event code, no bell lockout	C = 4X2, with bell lockout

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 message lengths which are accepted by the receiver:

L4 SYSTEM OPTIONS DEFAULT :1

Enter the digit for the desired message length from the chart below in location L4.

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

DESCRIPTION OF SYSTEM OPTIONS

Silent/Audible Panic - Determines whether the panic zones (keypad panic and the hardwired panic) will activate the bell. In either case a signal will be transmitted to the Central Station if a panic code has been programmed.

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 XL4500 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.

Bell Test - If this option is selected, the bell will be activated for one second upon successful arming.

QUESTION 04 ACCOUNT NUMBER 1 **DEFAULT :1234**

Enter the three (3) or four (4) digit subscriber acct 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 O-9, and B-F. The value A is interpreted as the null value for account numbers.

QUESTION 05 ACCOUNT NUMBER 2 **DEFAULT : AAAA**

Enter the three (3) or four (4) digit subscriber acct 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 O-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 06 SYSTEM TIMEOUTS

<u>LOCATIONS</u>	<u>DEFAULTS</u>	<u>LOCATIONS</u>	<u>DEFAULTS</u>
L1 = Entry Delay	30 seconds	L3 = Burglary Bell Cutoff	15 minutes
L2 = Exit Delay	60 seconds	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 entry delay shall not exceed 45 seconds.

L2 EXIT DELAY

DEFAULT: 4

Enter the desired exit 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 exit delay shall not exceed 60 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 infinite burg bell cutoff. For example 3 = 9 minutes. For UL applications, the burglary bell cutoff shall not be less than 4 minutes.

L4 FIRE BELL CUTOFF

DEFAULT : F

Enter the desired Fire Bell Cutoff time for fire conditions in three minute intervals. The valid range of input is 1 - F, with F indicating infinite fire bell cutoff. For example 3 - 9 minutes. For UL applications, the fire bell cutoff shall not be less than 4 minutes.

7.1. ZONE PROGRAMMING

Questions 07 - 12 represent all the options related to programmable zones 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 the alarm code transmitted to the central station for that zone.

ZONE 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.

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

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 program 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 a zone LED will pulse 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.

24 HOUR ZONES

FIRE FIRE zones on the XL4500 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 two 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 **cannot** be bypassed.

24 HOUR ZONES

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. NOTE: 24 hour silent alarm zones are not to be used for perimeter protection.

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 must exist for 15 seconds before a transmission will occur. The keypad display and sounder will clear upon zone restoral. 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. NOTE: 24 hour trouble zones are not to be used for fire or burglary detection.

ZONE CHART

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

<u>ZONE TYPES</u>		
CONTROLLED ZONES		24 HOUR ZONES
10 Perimeter	20 Delay	81 Alarm Audible
11 Perimeter, Restore	21 Delay, Restore	89 Alarm Silent
12 Perimeter, Day	24 Delay, Chime	91(no LED, sounder, bell) Alarm, Restore
13 Perimeter, Day, Restore	25 Delay, Chime, Restore	99 Hold-Up, Restore
13 Perimeter, Day, Restore	40 Interior	8A Trouble, Silent (LED indication only)
14 Perimeter, Chime	41 Interior, Restore	92 Trouble, Audible, Restore
15 Perimeter, Chime, Restore	44 Interior Chime	9A Silent Trouble, Restore
18 Perimeter, Dial Delay	45 Interior, Chime, Restore	84 Fire
19 Perimeter, Restore, Dial Delay	48 Interior, Dial Delay	94 Fire, Restore
1A Perimeter, Day, Dial Delay	49 Interior, Restore, Dial Delay	
1B Perimeter, Day, Restore, Dial Delay	4C Interior, Chime, Dial Delay	
1C Perimeter, Chime, Dial Delay	4D Interior, Chime, Restore, Dial Delay	
1D Perimeter, Chime, Restore, Dial Delay		

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. All zones will transmit to the Central Station unless 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 (acct 123, alarm code 2)
Enter a 2 in location L3 of the zone. Any value placed in L4 will not be used.

EXTENDED: Enter the desired first digit of the alarm code in location L3. The second digit in L4.
Example 123 3 333 4 Enter 3 in L3, 4 in L4.

PARTIAL EXTENDED: Enter the desired first digit of the alarm code in location 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 4 in L4.

4x4: Enter the desired first digit of the alarm code in location L3. The second digit in L4.
Example: 4765 32 Enter 3 in L3 and 2 in L4.

QUESTION 07 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

L1-L2

ZONE TYPE

L3-L4

ZONE ALARM CODE 31

DEFAULTS

20 DELAY

QUESTION 08 ZONE 2

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

Enter a 2digit 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

L1-L2

ZONE TYPE

L3-L4

ZONE ALARM CODE 32

DEFAULTS

40 INTERIOR FOLLOWER

QUESTION 09 ZONE 3

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

Enter a 2digit 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

L1-L2

ZONE TYPE

L3-L4

ZONE ALARM CODE 33

DEFAULTS

10 PERIMETER

QUESTION 10 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 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

L1-L2

ZONE TYPE

L3-L4

ZONE ALARM CODE 34

DEFAULTS

10 PERIMETER

QUESTION 11 ZONE 5

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

Enter a 2digit 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

L1-L2

ZONE TYPE

L3-L4

ZONE ALARM CODE 35

DEFAULTS

10 PERIMETER

QUESTION 12 NOT USED

Any data entered into question 12 will be ignored.

QUESTION 13 AMBUSH/AC LOSS

There are 4 locations 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

L1-L2

AMBUSH

L3-L4

AC LOSS

DEFAULTS

AA

AA

QUESTION 14 PANIC/LOW BATTERY

There are 4 locations in this question. L 1-L2 is the alarm code that will be transmitted on PANIC. The code will be transmitted for KEYPAD as well as HARDWIRE PANIC. 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
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

L1-L2	PANIC
L3-L4	LOW BATTERY

DEFAULTS

22
AA

QUESTION 15 OPEN/CLOSE, 24 HR. TEST CODE

There are 4 locations in this question. L1 is the single digit OPENING CODE. L2 is the single digit closing code. Entry of AA into these 2 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

L1	OPENING CODE
L2	CLOSING CODE
L3-L4	24 HR TEST

DEFAULTS

A
A
AA

QUESTION 16 BYPASS/RESTORE/TROUBLE/FUTURE

There are 4 locations (L1-L4) in this question. L1 is the single digit BYPASS CODE that, upon arming, will be reported to the central station if a zone is bypassed. Entry of an A means that bypasses are not desired. If a two digit dialing has been selected then the Bypass code will be followed by the second digit of the zones code.

L2 is the 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 dialer format has been programmed then this code will be followed by the programmed second digit of the respective zones code:!

L4 is a spare location at this time that may be used in the future.

LOCATIONS

L1	BYPASS
L2	RESTORE
L3	TROUBLE
L4	SPARE/FUTURE

DEFAULTS

A
A
F
A

QUESTION 00 INSTALLER CODE

There are 4 locations (L1-L4) in this question. Enter any 4 digit installer code desired. This code is used to ENTER the system program mode via the keypad.

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

8. DATA ENTRY VIA KEYPAD

This section describes the physical keystrokes necessary to perform keypad programming and how to interpret the data displayed on the keypad during programming operations. Actual keypad programming should be performed after completion of the programming sheet.

8.1. HOW TO ENTER PROGRAMMING MODE

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

DEPRESS the CODE button.

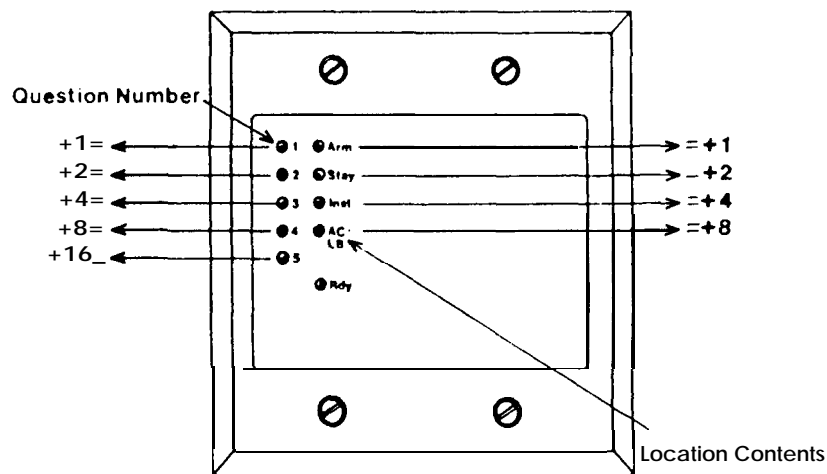
DEPRESS the * button. (asterisk)

ENTER the four digit INSTALLER CODE (default= 4600)

8.2. 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 1-5 display the current QUESTION NUMBER (not the specific location within each question) as follows:



In the diagrams above the question number is obtained by ADDING the values of all LEDS that are ON. This applies to both the metal and the 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 1 ON, Zone 3 ON, Zone 4 ON, Zones 2 and 5 OFF = QUESTION 13

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.

A	10	Stay & AC/LB = ON
B	11	Arm, Stay, & AC/LB = ON
C	12	Instant, & AC/LB = ON
D	13	Arm, Instant, & AC/LB = ON
E	14	Stay, Instant, & AC/LB = ON
F	15	Arm, Stay, Instant, & AC/LB = ON

8.3. 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 *07

The proper question number will be displayed by the zone LEDS and 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.

DATA ENTRY 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 1-9 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 I-6 for values A-F.

VALUE	KEYSTROKES
A	CODE 1
B	CODE 2
C	CODE 3
D	CODE 4
E	CODE 5
F	CODE 6

EXAMPLE: To enter an A, depress the CODE key followed by 1.

LOCATION CONTENTS = SYSTEM STATUS LEDS

EXIT SYSTEM PROGRAM MODE After all programming has been completed, depress the STAY button to exit the system programming 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

<u>FUNCTION</u>	<u>KEYSTROKES</u>
ENTER PROGRAMMING MODE	CODE . [INSTALLER CODE]
EXIT PROGRAMMING MODE	STAY
ADVANCE BETWEEN LOCATIONS (ENTER)	
GO TO SPECIFIC QUESTION	* [QUESTION NUMBER]
	EXAMPLE: *05
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

STAR XL4500 PROGRAMMING WORKSHEET

01 Primary Telco Number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		

02 Secondary Telco Number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		

03 Dialer Information

1	2	3	4

04 Account Number 1

1	2	3	4

05 Account Number 2

1	2	3	4

06 System Timeouts

1	2	3	4

07 Zone 1

1	2	3	4

08 Zone 2

1	2	3	4

09 Zone 3

1	2	3	4

10 Zone 4

1	2	3	4

11 Zone 5

1	2	3	4

12 SPARE

1	2	3	4

13 Ambush/AC Loss

1	2	3	4

14 Panic/Low Battery

1	2	3	4

15 Open/Close Test

1	2	3	4

16 Bypass Rstr Trbl

1	2	3	4

00 Installer Code

1	2	3	4

Quest. 03 L1 DIALER FORMATS

- 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

Quest. 03 L2 RECEIVER TYPE

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

Quest. 03 L3 MESSAGE LENGTH

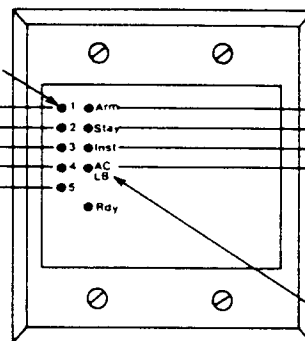
- 1= 3x1: 3 digit account, 1 digit event code*
 - 2= 4x1: 4 digit account, 1 digit event code*
 - 4= 4x2: 4 digit account, 2 digit event code*
- *Add 8 to entry for Bell Lockout

Quest. 03 L4 SYSTEM OPTIONS

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

QUESTION NUMBER

- + 1 =
- + 2 =
- + 4 =
- + 8 =
- + 16 =



LOCATION CONTENTS

In the diagram above, the question number is obtained by adding the values of all lit zone LEDs. EX: Zn 1 ON, 2-5 OFF= Quest. 01

- D = Audible Panic, 24hr Test, Bell Test
- E = Silent Panic, Split Rptng, 24hr Test, Bell Test
- F = Audible Panic, Split Rptng, 24hr Test, Bell Test

ZONE TYPES

CONTROLLED ZONES

- 10 Perimeter
- 11 Perimeter, Restore
- 12 Perimeter, Day
- 13 Perimeter, Day, Restore
- 14 Perimeter, Chime
- 15 Perimeter, Chime, Restore
- 18 Perimeter, Dial Delay
- 19 Perimeter, Restore, Dial Delay
- 1A Perimeter, Day, Dial Delay
- 1B Perimeter, Day, Restore, Dial Delay
- 1C Perimeter, Chime, Dial Delay
- 1D Perimeter, Chime, Restore, Dial Delay

24 HOUR ZONES

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

SYSTEM DEFAULTS

- 00 Installer Code = 4600
- 01 Phone #1= 234AAAAAAAAAAAAA
- 02 Phone #2= AAAAAAAAAAAAAA
- 03 Dialer Options= TTone, 20PPS, 2300hz, 3x1, Audible Panic
- 04 Acct #1= 1234
- 05 Acct #2= AAAA
- 06 Timeout= Entry Delay= 30 sec, Exit Delay=60 sec, Burg Bell cutoff= 15 min, Fire Bell= Infinite
- 07 Zone #1= Delay (20) Code 31
- 08 Zone #2= Interior (40) Code 32
- 09 Zone #3= Perimeter (10) Code = 33
- 10 Zone #4= Perimeter (10) Code = 34
- 11 Zone #5= Perimeter (10) Code = 35
- 12 Spare
- 13 System Codes Ambush= AA (null) AC Loss= AA (null)
- 14 System Codes Panic= 22 Low Bat= AA (null)
- 15 System Codes Open= A (null) Close= A (null)
- 16 System Codes Bypass= A (null) Restore= E Trouble= F

SUMMARY OF SYSTEM PROGRAMMING

Enter Prog Mode= Code* [Installer Code] Advance Between Locations= # Exit Prog Mode= Stay Go to Specific Question= * no.
Data Entry = A-F as follows: A= CODE 1; B= CODE 2; C= CODE 3; D= CODE 4; E= CODE 5; F= CODE 6