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BEFORE YOU START

Introduction

The SYSTEM 2316 is a fully-programmable 16-zone control panel. It can be programmed from the Alpha or LED keypad or remotely via the COMMANDER II/MONITOR II software package.

Scope of This Manual

This manual contains basic installation and programming information for the SYSTEM 2316. For additional information about remote programming, please refer to the Commander II/Monitor II Operating Manual.

Accuracy

This manual has been carefully checked for accuracy. However, C&K SYSTEMS assumes no liability for inaccuracies or actions resulting from the use of this manual. In addition, C&K reserves the right to modify the SYSTEM 2316 hardware, software, and manuals without prior notice.

UL COMPLIANCE

The SYSTEM 2316 is in compliance with Underwriters Laboratories, Inc. Standards UL 985, Household Warning System Units; UL 1023, Household Burglar Alarm System Units; and UL 1635, Digital Burglar Alarm Communicator System Units. **The following programming restrictions must be observed to meet UL standards.**

1. The audible must be programmed to sound at least four minutes before silencing.
2. No zone may be programmed for silent alarm.
3. Fire zones must be programmed for pulsing audible alarm.
4. Burglar zones must be programmed for a steady audible.
5. Burglar loops (non-24-hour loops) must be programmed for NO/NC with EOL.
6. No Entry Delay may be greater than 45 seconds.
7. No Exit Delay may be greater than 60 seconds.
8. The Dynamic Battery Test must be enabled.
9. The Unit Status Report must be enabled.
10. The 24-hour Check-in must be enabled.
11. No Delay Before Dial may be programmed for the communicator.
12. The unit must not be programmed to dial a police station.
13. Use screws (supplied) to secure cover or a lock must be installed on the cabinet.

UL Compliance(cont.)

14. All devices must be UL listed.

The following additional restrictions must be observed to meet Grades A and B Mercantile Premises Alarm Systems/Safe and Vault Alarms Systems under UL 365, Police Station Connected Burglar Alarm Units and Systems and UL 609, Local Burglar Alarm Units and Systems.

1. The audible must be programmed to sound at least 15 minutes before silencing.
2. The ring-back function must be activated.
3. The arming mode must be programmed "goof-proof".
4. The control panel must be mounted in an enclosure that is:
 - (a) Attack-resistant (C&K Model # 2330-UAC)
 - (b) Secured with a key-lock and #6 X 1¼" sheet metal screws.
 - (c) Tamper protected against cabinet door opening and removal from mounting surface.
 - (d) For safe and vault applications the control panel must be monitored by a UL Listed shock sensor suitable for the protection of sheet metal enclosures.
5. The Ademco Model AD10-12 bell with Model AB bell housing must be used.
6. The power and tamper wiring between the bell and control panel must be completely enclosed in rigid conduit or electric metallic tubing for a Grade A system or flexible conduit for a Grade B system.
7. Zone(s) monitoring tamper circuitry must be 24 hours and non-shuntable.

Zone Programming

FIRE LOOP

- No Delay Before Dial
- 24-hour arming
- Pulsing audible
- Supervised
 - latching for heat
 - resetting for smoke
- Not shuntable

BURGLAR LOOP

- Steady Audible
- NO/NC with EOL
- No Delay Before Dial

Keypad Requirements

The keypad may not have the EMERGENCY symbol (☒) on it. If your keypad has this symbol, remove the key and replace it with one of the blank keys provided.

INSTALLATION

Mounting

The SYSTEM 2316 should be mounted in a location which allows convenient access to AC power, telephone connections, and earth ground.

- Remove the circuit board from the cabinet. This will prevent possible damage to the circuit board when removing the knock-outs.
- outs.
- Remove the knock-outs.
- Mark the screw mounting holes on the wall.
- Mount the cabinet at the desired height and pass the cables through the knock-outs.
- Replace the circuit board, remembering to connect the ground lug to the lower left corner of the circuit board.
- Reconnect the spade lug to the lower door hinge. This provides the earth ground connection for the door.

Earth Ground

To ensure the effectiveness of the lightning and transient protection circuits, the control panel must be connected to "Earth Ground". Ideally, this should be a common ground to the power lines, telephone system, and security system. This type of ground, called a "Unified Earth Ground", provides the best protection. The ground connection, from a grounding rod, cold water pipe or other established ground point, is made to the green jacketed wire providing a ground to the panel housing.

WIRING

Standby Battery

The SYSTEM 2316 is designed to operate with a 12-volt, 6.5 AH, sealed lead-acid battery (C&K Model 1265). Do not use non-rechargeable batteries or batteries other than sealed lead-acid. **It is recommended that you replace the standby battery every three to five years.**

Connect the red lead to the positive terminal of the battery and the black lead to the negative battery terminal. The battery is reverse-polarity protected by a 3 amp, 3 AG, fast-blow fuse (F4).

AC POWER

Terminals 1 and 2



AC power is supplied by a 16.5 VAC, 25 - 40 VA transformer at 50 or 60 Hz. A UL listed Class 2 transformer must be used. Connect the secondary of the transformer to Terminals 1 and 2. Use at least 18 AWG (1.02 mm) wire to reduce voltage drops.

The primary side of the transformer must be connected to an unswitched receptacle. Do not connect primary to Ground-Fault-Interrupt (GFI) circuits. Secure the transformer to the wall.

AC Power Failure

If an AC power failure lasts more than 15 minutes, the keypads will display a system trouble. An AC failure report will be sent, if programmed. When AC is restored for five minutes, a restoral report will be sent.

Precautions

DO NOT share the secondary of the transformer with other devices. A foreign ground can damage the power supply, voiding the warranty.

DO NOT use any transformer other than that specified in the AC POWER section above.

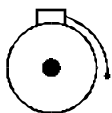
Available Power

The maximum total power available from Terminals 3, 5, 7, and 8 is 750 mA. The switched auxiliary, unswitched auxiliary, and keypads share the same power bus. Combined power for these outputs should not exceed 200 mA**.

** To comply with UL 365 and UL 609, this value must be reduced to 150 mA.

AUDIBLE OUTPUT

Terminals 3 and 4



Terminal 3 provides up to 0.75 amps at 10.5 - 13.5 VDC. The type of voltage (steady, pulsed, chirp) and the time is programmable.

Fuse F1

Terminal 3 is protected by a 2.5 amps, 3 AG fast-blow fuse (F1).

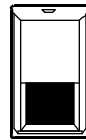
NOTE: If any fuse opens, remove AC and DC power, remove the short or overload condition, then replace the fuse before restoring power. Do not substitute a higher rated fuse.

Electromagnetic Interference

Vibrating horns and bells can produce electromagnetic interference (EMI). While EMI will not damage the SYSTEM 2316, it can cause transmission errors and mis-dialing. To minimize EMI, install a 0.01 mfd, 100 volt capacitor across the terminals of the horn or bell. The capacitor must be located at the source of the EMI (horn or bell).

AUXILIARY POWER

Terminals 5, 6, and 7



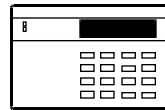
Terminals 5 and 7 provide positive 10 - 12.5 VDC power. Terminal 5 is used for devices that require switched power for resetting. Typical devices are glass-breaks and smoke detectors. Terminal 6 provides the common for both switched and unswitched AUX.

Fuse F2

Fuse F2, a 0.75 amp, 3 AG, fast-blow fuse, protects the SW/AUX and AUX outputs.

ARMING STATIONS

Terminals 6, 8, and 9



Terminal 8 (red) provides 11 - 14 VDC keypad power.

Terminal 6 (black) is common. This common terminal is shared with AUX and SW/AUX.

Terminal 9 (green) is data from the keypad to the panel.

Maximum wire length for connecting any keypad is 500' (152 m) of 22 AWG (0.643 mm) copper wire.

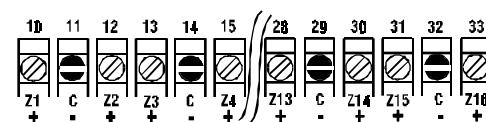
The SYSTEM 2316 is capable of addressing up to 16 keypads (8 Alpha II and 8 LED). Each LED keypad uses 35 mA of current. Each LCD keypad uses 64 mA of current. See **Available Power** for current limitations. See page 4 for additional information on keypad setup.

Fuse F3

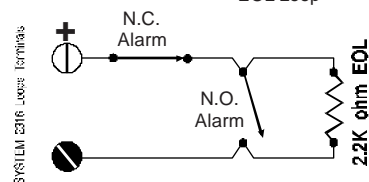
Terminal 8 (keypad power) is protected by a 0.75 amp, 3 AG, fast-blow fuse (F3).

LOOP INPUTS

Terminals 10 thru 33



EOL Loop

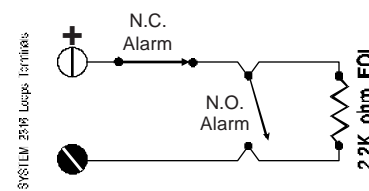


Loops 1 - 7, 9 - 16	Loop 8
0 - 2 VDC = short	0 - 2.5 VDC = short
2 - 3 VDC = normal	2.5 - 3.5 VDC = normal
3 - 5 VDC = open	3.5 - 5 VDC = open

Each loop may be independently configured through programming. Loops can be wired with an open circuit switch, closed circuit switch, or with a 2.2K-ohm end-of-line (EOL) resistor.

When programmed as an EOL circuit, either an open or a short will be reported as an alarm if the system is armed.

Supervised Loop



When operated as a Supervised Loop, an open will be reported as a Trouble, whether the system is armed or disarmed. A short on a Supervised Loop is reported as an alarm if the system is armed, but will have no effect if the system is disarmed.

Loop 8

Terminals 20 and 21 are a standard loop that can also power 2-wire devices. The loop supplies 10 - 12.5 VDC at 50 mA. Use Loop 8 to power 2-wire glass-breaks and smoke detectors. The 50 mA on Loop 8 is part of the AUX Power.

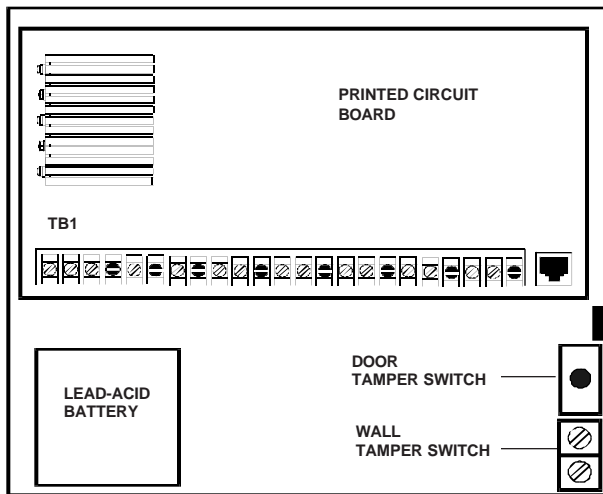
TAMPER SWITCH INSTALLATION

C&K has designed the SYSTEM 2316 cabinet to use the **Ademco Model 19** tamper switch. The cabinet is constructed in order to accommodate two switches. One tamper switch is for the cover and the second switch is for a wall tamper. To install the tamper switches:

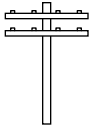
1. Position the tamper switch inside the cabinet at the lower right corner of the cabinet. For the wall tamper, the plunger should go through the small hole in the back of the cabinet. For the door tamper, the plunger should face out from the cabinet. **Refer to the drawing below.**
2. Connect the tamper switches in series and wire the tamper terminals to a dedicated zone of the control panel.
3. Program the dedicated zone as desired: NC, EOL, 24-hour, etc.

Once the tamper switches are installed, opening the cabinet door or removing the cabinet from the wall will result in a tamper signal at the control panel.

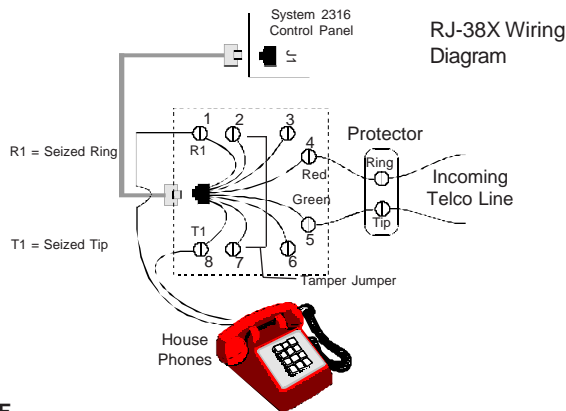
Tamper Switches installed in the SYSTEM 2316 cabinet



TELEPHONE INTERFACE



Connect the SYSTEM 2316 to the phone line using either the 9.X PCF or 9.X PCP cord. (The telco cord is not included). Each cord has an 8-pin telco plug on one end which is plugged into J1 on the 2316 PCB. Connect the other end to the phone company's RJ31 or RJ38X jack. Connect the telco cord as outlined below:



9.X PCF

The 9.X PCF has eight flying leads. Connect them to the RJ-38X terminals as follows:

- | | |
|--------------------|-----------------------------|
| RED = ring | BROWN = seized tip |
| GREEN = tip | BLUE and ORANGE = tamper |
| GRAY = seized ring | YELLOW and BLACK = not used |

SYSTEM START-UP

Five minutes after the panel is powered up, it will dynamically test the standby battery by interrupting AC power for two minutes and monitoring the battery under load.

Standby Battery Time with One LED Keypad

AUX POWER DRAIN*	STANDBY TIME
50 mA	32 hours
150 mA	24 hours
250 mA	16 hours
500 mA	10 hours

* Total power for all keypads, auxiliary, and Loop 8

If you replace the battery after a SYSTEM TROUBLE - LOW BATTERY message, you must test the battery under load conditions. Press [*][6][4][#] to start the Dynamic Battery Test.

NOTE: Some keypads may use [SHIFT] and [ENTER] in place of the [*] and [#] keys, respectively.

Voltage Variations

Output voltages at terminals 5, 7, and 8 may vary from 9.0 to 14.4 VDC (worst case), depending on the load, battery condition, and AC line voltage.

KEYPAD SETUP

ALPHA II KEYPAD INFORMATION

The Alpha II keypad uses a top viewing display. This means the display reads most clearly when viewed at an angle above the display, rather than straight on or directly below. Mounting the keypad at light switch level and adjusting the viewing angle gives the best results.

Adjusting the LCD Display

To adjust the viewing angle, remove the keypad from the back mounting plate. Towards the bottom center of the circuit board is a small hole. Insert a small screwdriver into the hole and adjust R23, while holding the keypad at its mounting height. Adjust the potentiometer as necessary for optimum viewing.

ADDRESSING KEYPADS

Each Alpha II and LED keypad installed in the system must have an address. **Addresses must not be repeated.** When replacing a keypad, make sure the replacement has the same address as the previous keypad. **Once all keypads have been addressed, reset the panel by pressing [Master Combination] [*][6][8][#] or by removing and restoring both AC and DC power.**

Addressing Alpha II Keypads

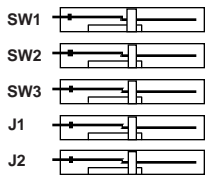
The first time you power up the system, unaddressed Alpha II keypads will display **KEYPAD ADDRESS?.** Press any number from 0 through 7 at each keypad. The exact number you press is not important, as long as each keypad has a different address number. The keypad will not accept values outside of this range. Should you accidentally use the same address for more than one keypad, the system will fail to properly respond to keypad input. Refer to page 23 for assistance in correcting this problem.

Addressing LED Keypads

The LED keypad also requires an address. The address on the LED keypad is set by the three hook switches on the LED keypad's PCB.

Hook switches **SW1**, **SW2**, and **SW3** are used to set the address of LED keypads. Refer to the chart at the top of page 5.

HOOK SWITCHES



Any address from 8 to 15 can be used. The exact number is not important, as long as each LED keypad in the system has a different address number. Should you accidentally use the same address for more than one keypad, the system will fail to respond to keypad input. Refer to page 23 (Alpha II keypads with same addresses) for assistance in correcting this problem.

SW1	SW2	SW3	KEYPAD ADDRESS
Closed	Closed	Closed	8
Closed	Closed	Open	9
Closed	Open	Closed	10
Closed	Open	Open	11
Open	Closed	Closed	12
Open	Closed	Open	13
Open	Open	Closed	14
Open	Open	Open	15

LED Keypad Backlighting

Hook switch **J1** controls the LED keypad's backlighting. When J1 is closed (default setting), the backlighting will be enabled. Open J1 to disable the backlighting.

LED Keypad Piezo

Hook switch **J2** controls the LED keypad's piezo audible. When J2 is closed (default setting), the piezo is enabled. Open J2 to disable the piezo.

FACTORY SETTINGS

DEFAULT PROGRAM SETUP

The default programming of the SYSTEM 2316 will allow you to operate it as a local panel without any additional programming. The actual default programming values are shown on the Programming Worksheet (the last 4 pages of this manual).

Note: If you connect power before wiring the loops, install a 2.2K-ohm EOL resistor across each loop.

Combinations

Installer combination: 0 1 2 3 4 5
 User #1 (Master) combination: 1 2 3 4
 Users #2 - 32: disabled
 Default installer combination: yes
 Guest combination: no
 Combination required: no
 Faulted Arming type: goof-proof
 Opening/Closing: no Users authorized to send reports
 Duress: disabled

Reporting

Account #1 and #2: disabled
 Dialing type: pulse
 RPS allowed: yes

Zones

Zone 1 = Entry/Exit delay - EOL circuit
 Zone 2 = doors or windows - EOL circuit
 Zone 3 = doors or windows - EOL circuit
 Zone 4 = doors or windows - EOL circuit
 Zone 5 = doors or windows - EOL circuit
 Zone 6 = doors or windows - EOL circuit
 Zone 7 = doors or windows - EOL circuit
 Zone 8 = fire or smoke - supervised EOL circuit

Zones (cont.)

Zone 9 = interior - EOL circuit
 Zone 10 = interior - EOL circuit
 Zone 11 = interior - EOL circuit
 Zone 12 = interior - EOL circuit
 Zone 13 = interior - EOL circuit
 Zone 14 = interior - EOL circuit
 Zone 15 = interior - EOL circuit
 Zone 16 = interior - EOL circuit

Emergency soft zone: chirp audible, non-reporting

Fire soft zone: pulsed audible, non-reporting

Police soft zone: steady audible, non-reporting

Testing

Test report interval: 7 days and disabled

Timing

Entry time: 60 seconds and prewarn

Exit time: 30 seconds and prewarn

Bell time: 5 minutes

Unit Control

Local system: yes

Dynamic battery test: off

PROGRAMMING OPTIONS

The following is an alphabetical listing of all SYSTEM 2316 programming options, including Command Locations and Digit Positions. Digit Positions are inside parentheses (). **NOTE:** All Command Locations are in Hexadecimal.

Option	Location
Account #1	0C (1 - 6)
Account #2	10 (1 - 6)
AC Power Line Frequency	2F (5)
Alarm Receiver Select by Loop	1F - 26 & 49 - 50 (1)
Alarm Reporting Code by Loop	17 - 1E & 40 - 47 (1 - 2)
Audible Time	2D (5)
Autohome Enable	09 (5)
Bell Reverse Operation	2E (3)
Cancel Report Code	2A (5)
Cancel Report Receiver Select	2A (6)
Closing Report Code	2C (3)
Closing Report Receiver Select	2C (4)
Combination Command	09 (2)
Daily Battery Test Enable	2F (2)
Default Installer Combination	09 (3)
Delay Before Dial by Loop	30 - 3F (4)
Delay Before Dial Time	0B (1)
Dial Attempts	0B (6)
Dial Type	0B (2)
Disable Loop LEDs	2E (5)
Door Chime Enable by Loop	30 - 3F (1)
Duress Report Code	2D (1)
Duress Report Receiver	2D (2)
Emergency Bell Type	27 (4)
Emergency Receiver Select	27 (3)
Emergency Report Code	27 (1 - 2)
Entry Delay Time	2D (3)
Entry Pre-alarm Enable	2E (1)
Exit Delay Time	2D (4)
Exit Pre-alarm Enable	2E (2)
Faulted Arming Type	09 (4)
Fire Bell Type	28 (4)
Fire Receiver Select	28 (3)
Fire Report Code	28 (1 - 2)
Four Minute Power Up Delay Enable	2F (3)
Group Shunt Enable	30 - 3F (3)
Guest Combination	08 (2 - 6)
Guest Combination Time	09 (1)

Option	Location
Installer Combination	00 (1 - 6)
Keypad RPS Enable	0B (3)
Local System Only	2F (1)
Loop Arming Type	1F - 26 & 49 - 50 (4)
Loop Bell Type	1F - 26 & 49 - 50 (5)
Loop Circuit Type	1F - 26 & 49 - 50 (6)
Loop Response Time	1F - 26 & 49 - 50 (2)
Loop Restore Type	1F - 26 & 49 - 50 (3)
Master Code (User #1)	01 (2 - 6)
Opening Report Code	2C (1)
Opening Report Receiver	2C (2)
Phone Ring Type	0B (5)
Police Bell Type	29 (4)
Police Receiver Select	29 (3)
Police Report Code	29 (1 - 2)
Receiver #1 Message Format	0A (2)
Receiver #1 Phone Number	0D - 0F (1 - 6)
Receiver #1 Receiver Format	0A (1)
Receiver #2 Message Format	0A (4)
Receiver #2 Phone Number	11 - 13 (1 - 6)
Receiver #2 Receiver Format	0A (3)
Restore Receiver Select	2A (2)
Restore Reporting Code by Loop	17 - 1E & 40 - 47 (3 - 4)
Ring Back Enable	2E (4)
RPS Enable	0B (4)
RPS Phone Number	14 - 16 (1 - 6)
Set Test Report Countdown Timer	A0 (1)
Set Real-Time Clock	B3 & B4 (1 - 6)
Shunt Enable	30 - 3F (2)
Shunt Receiver Select	2A (1)
Shunt Reporting Code by Loop	17 - 1E & 40 - 47 (5 - 6)
Soft Zone Operation Enable	2F (4)
Test Report Code	2B (1 - 2)
Test Report Interval	2B (4)
Test Report Receiver Select	2B (3)
Trouble Report Code	48 (1)
Trouble Report Receiver Select	48 (2)
Trouble Restore Code	48 (3)
Trouble Restore Receiver Select	48 (4)
Unit Status Code	2A (3)
Unit Status Receiver	2A (4)
User Arming Type	01 - 08 & 51 - 68 (1)
User Combinations	01 - 08 & 51 - 68 (2 - 6)

NOTE: To program Command Locations A0, B3, and B4 with an LED keypad, remember to enter the Command Location, followed by the program data. Then press the [#] key.

Warning: If you enter a Command Location and then press the [#] key without entering any program data, the keypad will beep 5 times, indicating an error. To correct this problem, simply re-enter the Command Location and Data, then press the [#] key.

Programming with the Alpha II Keypad

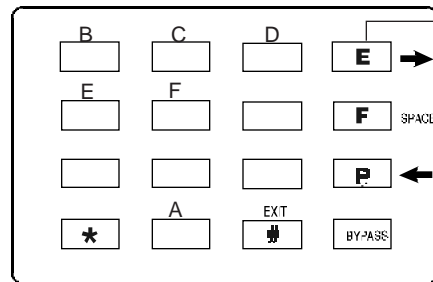
Entering program data with an Alpha II keypad is a two-step process. First, key in the two-digit address (Command Location) to be programmed and press the [#] key. The Alpha II keypad will display the value previously programmed into that location. Then enter the data you wish stored at that location and press the [#] key to store the data. You can also scroll through the Command Locations in numerical order by alternately pressing and releasing the [#] key.

NOTE: Command Locations A0, B3, and B4 must be addressed directly. The data stored at these locations is not displayed. To program them: Enter the Command Location and press the [#] key. Enter the data to be stored and again press the [#] key.

Programming Hexadecimal Numbers

The Alpha II Programming Template is double-sided. On one side is the Panel Programming Template. (See below.) Use this side when programming the control panel.

Panel Programming Keys



NOTE: The EMERGENCY key may be blank.

Data is programmed into the panel using the hexadecimal number system, which consists of the digits 0 - 9 and the letters A - F. The digits 0 - 9 are entered directly from the keypad. The chart below shows how to enter the hexadecimal digits A through F.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

The same procedure is used with both the LED and the Alpha II keypads.

End of Programming Segment

The last two Command Locations are CL 68 and B4. When you press the [#] key at these locations, the program will advance to CL 69 or CL B5, respectively. These locations are not used in the SYSTEM 2316. If you enter CL 69 or CL B5, either press [*][#] to exit programming, or press the Command Location number and [#] for the programming location you

PROGRAMMING THE PANEL

You can program the SYSTEM 2316 from the LED or LCD keypad, as well as remotely using the COMMANDER II software. Information on remote programming is available in the COMMANDER II/MONITOR II Operating Manual. This installation manual includes a brief description of each programming option beginning on page 8.

Starting Panel Programming

Key in the [Installer Combination] [*][0][#]. The default Installer Combination is **0 1 2 3 4 5**. On the LED keypad, the PROGRAM LED will light to indicate the programming mode. The Alpha II keypad will display **CMD DATA** across the top of the LCD display to indicate the programming mode.

Programming with the LED Keypad

Programming with an LED keypad is a one-step process. Key in the two-digit address (Command Location), followed immediately by the desired programming values (program data). Press the [#] key to store the data. The LED keypad does not display any programmed values. If you are not certain that the correct programming values have been entered, program the Command Location again.

want. (Remember when using the LED keypad to enter the Command Location, the Data, then the [#] key.)

To Exit Panel Programming

When you have finished programming, press [*][#]. **The panel will also exit the programming mode if you do not press any key within a five minute period.**

PROGRAMMING THE ALPHA II KEYPAD

In order to program the Alpha II keypad, you must have it wired to the SYSTEM 2316, have power applied to the panel, and have the keypad properly addressed. **You can only program when the panel is disarmed.**

NOTE: Programming The Keypad is NOT the same as Keypad Programming. (Keypad programming is used to program the control panel.)

You can program Alpha II keypads with labels for each of the 16 zones and special messages. Zone labels display during the walk-test and when the [#] key is pressed during alarm memory or faults. The Service Message is displayed during AC failure, fuse failure, communication failure, low battery, or Watchdog reset. The Dealer Message displays whenever the system is disarmed.

The messages can be programmed directly from the Alpha II keypad or remotely using the COMMANDER II/MONITOR II software package. For detailed information about remote programming, refer to the COMMANDER II/MONITOR II Operating Manual.

To enter Keypad Programming, press [Installer Combination][*][0][1][#]. The Alpha II keypad will display **SERVICE MESSAGE?** If you do not wish to enter a Service Message, press the [BYPASS] key to scroll to the desired message. If you scroll past the desired message, press and release the [BYPASS] key until you scroll around to it again. You can also scroll backwards by pressing the [*] key followed by the [BYPASS] key.

The Scrolling order of the Alpha II messages is:

- SERVICE MESSAGE
- DEALER MESSAGE
- SOFT ZONE IDENTIFIERS (A, B, and C)
- HARDWIRED LOOP IDENTIFIERS
- KEYPAD ADDRESS

For example, to change the Keypad Address:

First, start Keypad Programming, as described above. Next, press [*][BYPASS]. This will step backwards one step to Keypad Address. Enter the [New Address] followed by the [#] key.

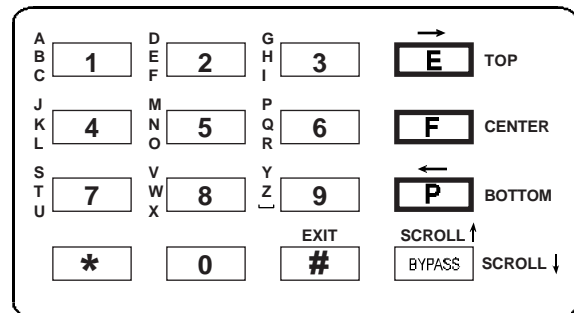
NOTE: If you do not press any key for 5 minutes, the keypad will automatically exit the Programming Mode.

How to Program Letters and Numbers

Alpha II keypads can be customized to display different messages for the loops and special functions. The Alpha II Programming Template is double-sided. On one side is the Panel Programming Template. The Alpha Programming Template (see figure at top right) is on the other side. Placing the Alpha Template over the keys will enable you to easily program the 16 hardwired loop identifiers, the 3 soft zone identifiers, the Dealer Message, the Service Message, and the keypad address. The bottom line of the display will hold up to 16 characters.

You enter letters from the Alpha II keypad by using a combination of the soft zone keys and the number keys. The template is color-coded for ease of use. Referring to the template, the top letter of each group is red. The [E] key has a red border. Pressing the [E] key followed by the [1] key will enter the letter A into the keypad. Pressing the [F] key (color-coded black) and the [1] will enter the letter B and pressing the [P] key (color-coded green) and the [1] will enter the letter C. The soft zone keys are also labelled Top, Center, and Bottom, respectively.

ALPHA II Programming Template



SPECIAL FUNCTION KEYS

The Alpha II keypad also has special function keys available during programming. The function of each key is outlined below:

STAR (Shift)



The star (*) key is used as a SHIFT key, and allows you to shift the 1, 2, 3, 4, 5, and 0 keys to other values or functions.

Press and release the *key first.

POUND (Enter)



The pound (#) key is used like the ENTER key on a computer. It signals that you are finished entering data.

MOVE CURSOR RIGHT (→)



During programming, a combination of the STAR (*) key and the EMERGENCY (E) key is used to move the cursor one space to the right. The data which is passed over is not changed.

MOVE CURSOR LEFT (←)



A combination of the STAR (*) and the POLICE (P) key is used to move the cursor one space to the left. The data which is passed over is not changed.

ERASE



A combination of the POLICE (P) key and the [9] key is used as the erase key. It erases the program value at the cursor position, then moves the cursor one position to the right.

SCROLL

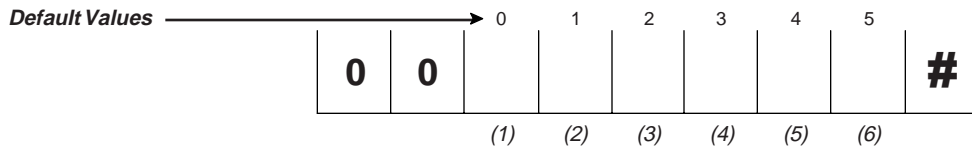


The BYPASS key is used to scroll through the messages and zone locations for keypad programming. To scroll backwards, press the STAR (*) key followed by the [BYPASS] key.

To Exit Alpha Keypad Programming

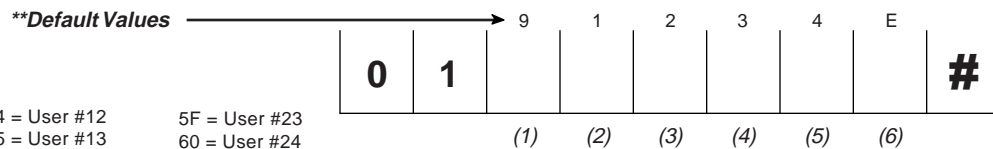
When you have finished programming, press [*][#]. **The keypad will also exit the programming mode if you do not press any key within a five minute period.**

Command Location 00: Installer Combination



Digit Positions (1) - (6): Installer Combination
 Combination must have 6 digits. Valid entries are 0 - 9.

Command Location 01 - 08 and 51 - 68: User Arming Type and Combination



- | | | |
|-----------------------|---------------|---------------|
| 01 = User #1 (Master) | 54 = User #12 | 5F = User #23 |
| 02 = User #2 | 55 = User #13 | 60 = User #24 |
| 03 = User #3 | 56 = User #14 | 61 = User #25 |
| 04 = User #4 | 57 = User #15 | 62 = User #26 |
| 05 = User #5 | 58 = User #16 | 63 = User #27 |
| 06 = User #6 | 59 = User #17 | 64 = User #28 |
| 07 = User #7 | 5A = User #18 | 65 = User #29 |
| 08 = User #8 (Guest) | 5B = User #19 | 66 = User #30 |
| 51 = User #9 | 5C = User #20 | 67 = User #31 |
| 52 = User #10 | 5D = User #21 | 68 = User #32 |
| 53 = User #11 | 5E = User #22 | |

- Digit Position (1): Arming Type**
- 1 = Arm Only, No Closing (C) Report, No Shunting
 - 2 = Disarm Only, No Opening (O) Report, No Shunting
 - 3 = Arm and Disarm, No O/C Reports, No Shunting
 - 4 = Arm Only, with Closing Report, No Shunting
 - 5 = Disarm Only, with Opening Report, No Shunting
 - 6 = Arm and Disarm, with O/C Reports, No Shunting
 - 7 = Arm Only, No Closing Report, Shunting Allowed
 - 8 = Disarm Only, No Opening Report, Shunting Allowed
 - 9 = Arm and Disarm, No O/C Reports, Shunting Allowed
 - * 0 = Arm Only, with Closing Report, Shunting Allowed
 - * 1 = Disarm Only, with Opening Report, Shunting Allowed
 - * 2 = Arm and Disarm, with O/C Reports, Shunting Allowed

NOTE: Opening and Closing Reports must be enabled. See CL 2C Digit Positions 1 and 3 for additional information.

**Default Values are different for each user. Refer to the SYSTEM 2316 Programming Worksheet at the end of this manual for other user default values.

NOTE: Some programming locations allow variable-length data and require an End-of-Number (EON) character. Program * ("E") after the last digit. Fill remain-ing unused Positions with "0". The EON character is not required if the last digit is in Position

Digit Positions (2) - (6): Arming Combination (PIN)
 Combination may have from 2 - 5 digits. Valid entries are 0 - 9.

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Location 09: Arming/Combination Options

Default Values →



Digit Position (1): Guest Combination Time

- 0 = Guest Time Disabled
- 1 = 1 day
- 2 = 2 days
- 3 = 3 days
- 4 = 4 days
- 5 = 5 days
- 6 = 6 days
- 7 = 7 days
- 8 = 8 days
- 9 = 9 days
- * 0 = 10 days
- * 1 = 11 days
- * 2 = 12 days
- * 3 = 13 days
- * 4 = 14 days
- * 5 = 15 days

Digit Position (2): Combination Command

- 0 = No
- 1 = Yes; requires combination for Bypass, Group Bypass, Instant Arm, keypad activated RPS, and Test (central station and bell)

Digit Position (3): Default Installer Combination

- 0 = No; this enables the Pirate-Guard™ feature for added security
- 1 = Yes; combination changes back to factory value on power loss

Digit Position (4): Faulted Arming Type

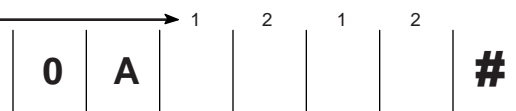
- 1 = Goof-Proof: zones must be normal or shunted to arm
- 2 = Force Arm: faulted zones will be shunted at end of Exit Delay
- 3 = Chirp Alert: faulted zones will chirp bell upon transition from Exit Delay to Entrance Delay

Digit Position (5): Autohome Enable

- 0 = No; this disables the Autohome Arming feature
- 1 = Yes; when enabled, automatically shunts all zones designated as Group Shunt if exit door is not opened during Exit Delay (See CL 30 - 3F Digit Position 3 for Group Shunt Enable option)

Command Location 0A: Communications Formats

Default Values →



Digit Position (1): Receiver #1 Receiver Format

- 1 = Fast "A", 2300 Hz
- 2 = Slow "B", 1400 Hz
- 3 = SumCheck, 1400 Hz
- 4 = SumCheck, 2300 Hz
- 5 = CFSK III
- 6 = DTMF, 1400 Hz

Digit Position (2): Receiver #1 Message Format

- 2 = 3/1 Extended
- 3 = 4/2 (2-digit reporting code)
- 5 = CFSK III
- 6 = SumCheck (DTMF)

Digit Position (3): Receiver #2 Receiver Format

- 1 = Fast "A", 2300 Hz
- 2 = Slow "B", 1400 Hz
- 3 = SumCheck, 1400 Hz
- 4 = SumCheck, 2300 Hz
- 5 = CFSK III
- 6 = DTMF, 1400 Hz

Digit Position (4): Receiver #2 Message Format

- 2 = 3/1 Extended
- 3 = 4/2 (2-digit reporting code)
- 5 = CFSK III
- 6 = SumCheck (DTMF)

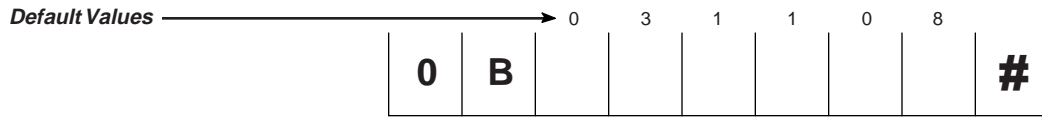
Valid combinations of Receiver Format and Message Format are listed below.

Message Format	Receiver Format(s)
3/1 Extended	All formats, except CFSK III and DTMF, 1400 Hz
4/2 (2-digit reporting)	Fast "A", 2300 Hz and Slow "B", 1400 Hz only
CFSK III	CFSK III only
SumCheck (DTMF)	DTMF, 1400 Hz only

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Location 0B: Communications Control



Digit Position (1): Delay Before Dial Time

- 0 = 0 secs 4 = 40 secs 8 = 80 secs *2 = 120 secs
- 1 = 10 secs 5 = 50 secs 9 = 90 secs *3 = 130 secs
- 2 = 20 secs 6 = 60 secs *0 = 100 secs *4 = 140 secs
- 3 = 30 secs 7 = 70 secs *1 = 110 secs *5 = 150 secs

Digit Position (2): Dial Type

- 1 = DTMF - Touch Tone (10/sec)
- 2 = DTMF (5/sec)
- 3 = Pulse (10/sec)

Digit Position (3): Enable Keypad Activated RPS

- 0 = No
- 1 = Yes; allows remote programming to start from on-site keypad command

Digit Position (4): RPS Enable

- 0 = No
- 1 = Yes; allows remote programming to start from off-premise location

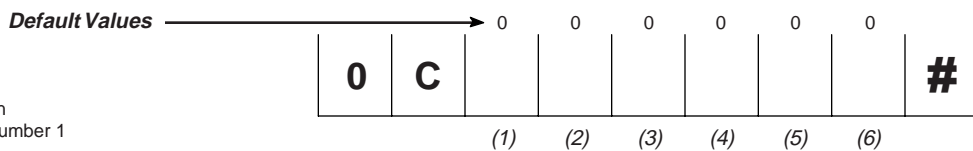
Digit Position (5): Phone Ring Type

- 0 = Single ring; uniformly timed rings with long pauses between rings
- 1 = Double ring; rings twice quickly followed by a long pause then rings twice again

Digit Position (6): Dialing Attempts

- 1 = 1 try 5 = 5 tries 9 = 9 tries *3 = 13 tries
- 2 = 2 tries 6 = 6 tries *0 = 10 tries *4 = 14 tries
- 3 = 3 tries 7 = 7 tries *1 = 11 tries *5 = 15 tries
- 4 = 4 tries 8 = 8 tries *2 = 12 tries

Command Location 0C: Account Number 1



Account Number 1 is used in conjunction with Receiver Number 1

Digit Positions (1) - (6): Account Number

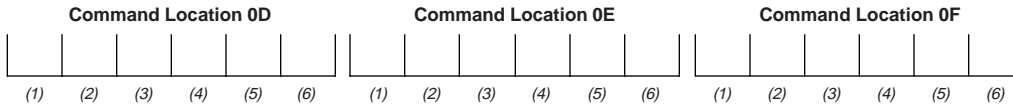
Valid entries are 0 - F.
 The Account Number is right justified. The last digit must be in Position (6).
 The SYSTEM 2316 will read the account number using:
 Digit Positions (4) - (6) with 3-digit accounts
 Digit Positions (3) - (6) with 4-digit accounts
 Digit Positions (1) - (6) with 6-digit accounts
 Fill all unused Digit Positions with 0's.

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

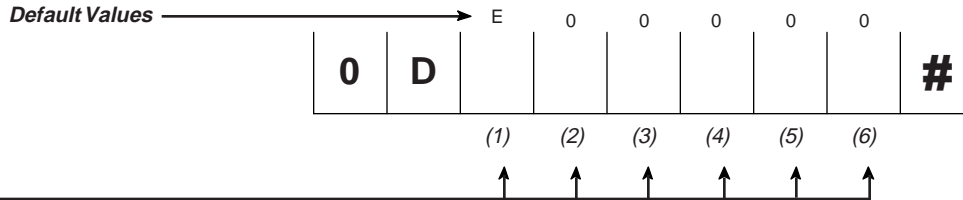
PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Locations 0D - 0F: Receiver #1 Phone Number

Order in which the numbers will be dialed



Command Location 0D: Receiver #1 Phone Number (digits 1 - 6)

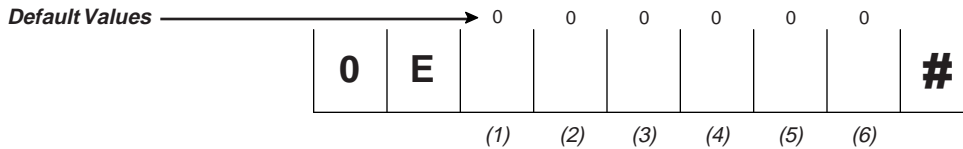


Digit Positions (1) - (6):

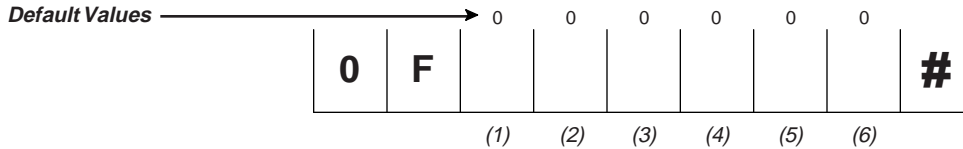
- 0 - 9 = dialing digits
- * 0 = dial tone detect
- * 2 = * (DTMF dialing only, not used in pulse dialing)
- * 3 = # (DTMF dialing only, not used in pulse dialing)
- * 4 = end of number
- * 5 = 5 second delay

Digit (1) is dialed first.
You must place a * 4 (EON) after the last digit to be dialed. Fill in remaining positions with "0". The zeroes will not be dialed.

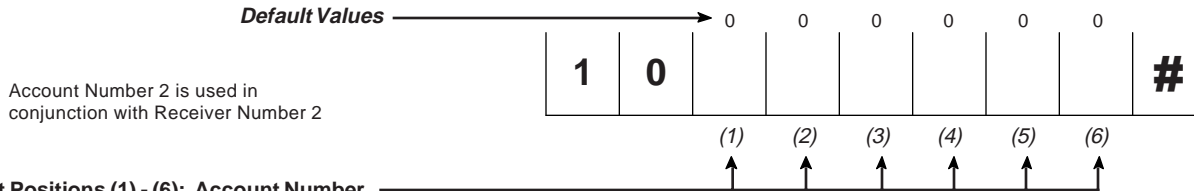
Command Location 0E: Receiver #1 Phone Number (digits 7 - 12)



Command Location 0F: Receiver #1 Phone Number (digits 13 - 18)



Command Location 10: Account Number 2



Account Number 2 is used in conjunction with Receiver Number 2

Digit Positions (1) - (6): Account Number

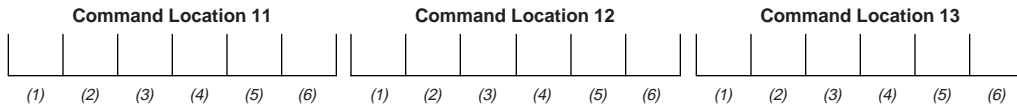
Valid entries are 0 - F.
The Account Number is right justified. The last digit must be in Position (6).
The SYSTEM 2316 will read the account number using:
Digit Positions (4) - (6) with 3-digit accounts
Digit Positions (3) - (6) with 4-digit accounts
Digit Positions (1) - (6) with 6-digit accounts
Fill all unused Digit Positions with 0's.

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

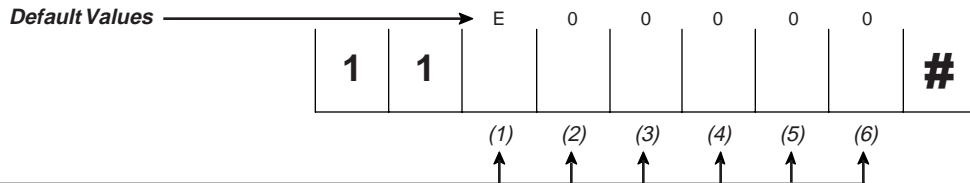
PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Locations 11 - 13: Receiver #2 Phone Number

Order in which the numbers will be dialed



Command Location 11: Receiver #2 Phone Number (digits 1 - 6)

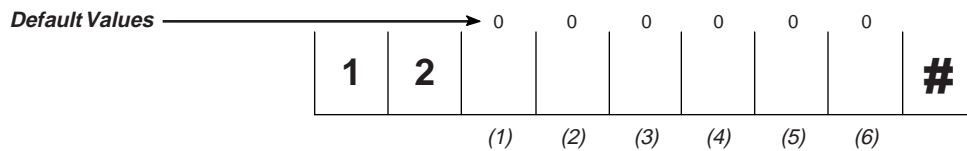


Digit Positions (1) - (6):

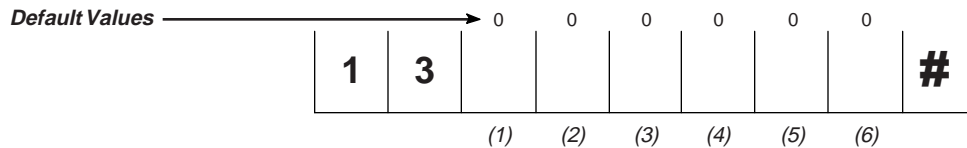
- 0 - 9 = dialing digits
- *0 = dial tone detect
- *2 = * (DTMF dialing only, not used in pulse dialing)
- *3 = # (DTMF dialing only, not used in pulse dialing)
- *4 = end of number
- *5 = 5 second delay

Digit (1) is dialed first.
You must place a *4 (EON) after the last digit to be dialed.
Fill in remaining positions with "0". The zeroes will not be dialed.

Command Location 12: Receiver #2 Phone Number (digits 7 - 12)

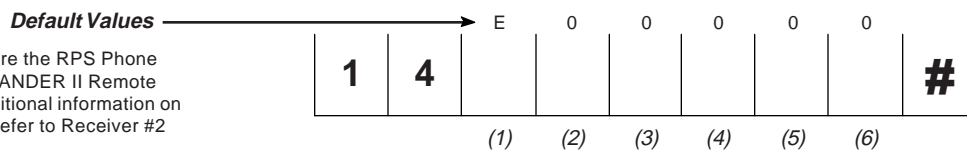


Command Location 13: Receiver #2 Phone Number (digits 13 - 18)



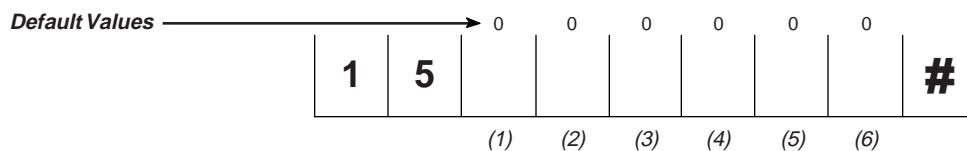
Command Locations 14 - 16: RPS Phone Number

Command Location 14: RPS Phone Number (digits 1 - 6)

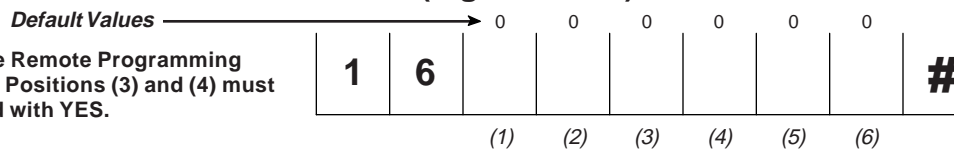


Command Locations 14 - 16 store the RPS Phone Number used by the the COMMANDER II Remote Programming Software. For additional information on programming these Locations, refer to Receiver #2 above.

Command Location 15: RPS Phone Number (digits 7 - 12)



Command Location 16: RPS Phone Number (digits 13 - 18)



NOTE: In order to utilize the Remote Programming feature, CL 0B, Digit Positions (3) and (4) must also be programmed with YES.

Command Locations 17 - 1E & 40 - 47: Loop Reporting Codes

****Default Values** → 0 1 E 1 0 0

17 = Loop 1	1C = Loop 6	43 = Loop 12
18 = Loop 2	1D = Loop 7	44 = Loop 13
19 = Loop 3	1E = Loop 8	45 = Loop 14
1A = Loop 4	40 = Loop 9	46 = Loop 15
1B = Loop 5	41 = Loop 10	47 = Loop 16
	42 = Loop 11	

1 7 | | | | | | | #

(1) (2) (3) (4) (5) (6)

****Default Values are different for each loop. Refer to the SYSTEM 2316 Programming Worksheet at the end of this manual.**

Digit Positions (1) & (2): Alarm Reporting Code
Program 00 to disable Event Reporting for a loop.

Digit Positions (3) & (4): Restore Reporting Code
Program 00 to disable Event Reporting for a loop.

Digit Positions (5) & (6): Shunt Reporting Code
Program 00 to disable Event Reporting for a loop.

Command Locations 1F - 26, & 49 - 50: Loop Control

****Default Values** → 1 2 1 3 2 3

1F = Loop 1	24 = Loop 6	4B = Loop 11
20 = Loop 2	25 = Loop 7	4C = Loop 12
21 = Loop 3	26 = Loop 8	4D = Loop 13
22 = Loop 4	49 = Loop 9	4E = Loop 14
23 = Loop 5	4A = Loop 10	4F = Loop 15
		50 = Loop 16

1 F | | | | | | | #

(1) (2) (3) (4) (5) (6)

****Default Values are different for each loop. Refer to the SYSTEM 2316 Programming Worksheet at the end of this manual.**

Digit Position (1): Alarm Receiver Select
0 = Receiver 1 with Receiver 2 as back-up
1 = Receiver 1 only
2 = Receiver 2 only
3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (2): Loop Response Time
0 = 5 milliseconds 2 = 500 milliseconds
1 = 250 milliseconds 3 = 750 milliseconds

Digit Position (3): Loop Restore Type
0 = No Restoral Report sent 2 = Restoral sent when loop normal and bell silences
1 = Restoral sent when loop normal 3 = Restoral sent when loop normal and system disarmed

Digit Position (4): Loop Arming Type
1 = Interior: delayed during E/E delays 4 = Long Delay: delay two times as long 7 = Day/Instant with bell
2 = Instant 5 = Day/Instant: buzzer on day fault 8 = Day/Delay with bell
3 = Delay 6 = Day/Delay: buzzer on day fault 9 = 24 Hours: always armed

Digit Position (5): Loop Bell Type
1 = Pulsing 3 = Chirp 5 = Silent with LED
2 = Steady 4 = Silent with no LED

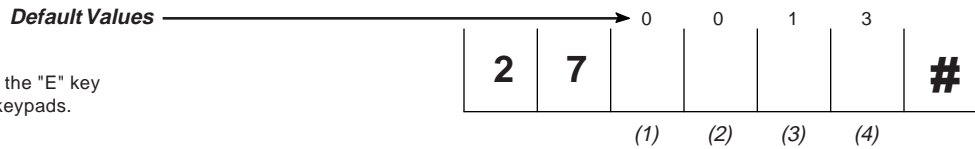
Digit Position (6): Loop Circuit Type
1 = Normally Open Circuit 4 = Supervised, bell latched
2 = Normally Closed Circuit 5 = Supervised, bell not latched
3 = End Of Line (EOL)

NOTE: A Loop programmed as type 4 or 5 will report any open as a Trouble condition, regardless of panel armed status.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

Command Location 27: Soft Zone A (Emergency)



This Zone is identified by the "E" key on the Alpha II and LED keypads.

Digit Positions (1) and (2): Emergency Report Code

Program 00 to disable alarm reporting for Emergency zone.

Digit Position (3): Emergency Zone Receiver Select

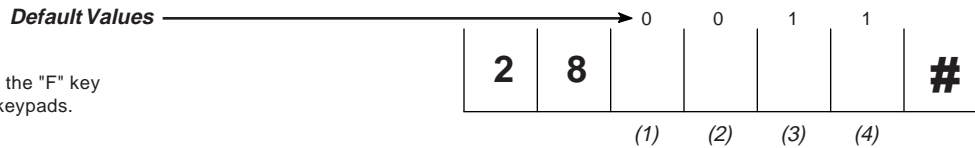
- 0 = Receiver 1 with Receiver 2 as back-up
- 1 = Receiver 1 only
- 2 = Receiver 2 only
- 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (4): Loop Bell Type

- 1 = Pulsing 3 = Chirp
- 2 = Steady 4 = Silent

NOTE: Command Location 2F Digit Position (4) must be programmed to YES to enable Soft Zones.

Command Location 28: Soft Zone B (Fire)



This Zone is identified by the "F" key on the Alpha II and LED keypads.

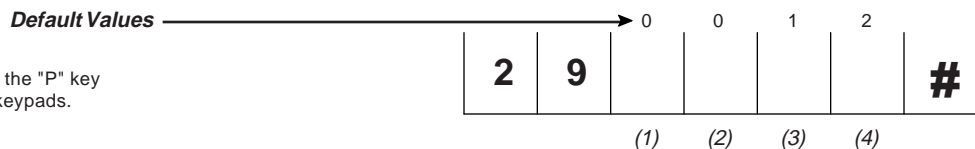
Digit Positions (1) and (2): Fire Report Code

Digit Position (3): Fire Receiver Select

Digit Position (4): Loop Bell Type

Refer to CL 27 for information about programming this zone.

Command Location 29: Soft Zone C (Police)



This Zone is identified by the "P" key on the Alpha II and LED keypads.

Digit Positions (1) and (2): Police Report Code

Digit Position (3): Police Zone Receiver Select

Digit Position (4): Loop Bell Type

Refer to CL 27 for information about programming this zone.

NOTE: Some keypads may have a [↑] [SHIFT] key and an [↵] [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Location 2A: Event Reporting



Digit Position (1): Shunt Receiver Select

See also CL 17 - 1E & 40 - 47 Digit Positions (5) and (6).

- 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
- 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (2): Restore Receiver Select

See also CL 17 - 1E & 40 - 47 Digit Positions (3) and (4).

- 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
- 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (3): Unit Status Report Code

Valid entries are 0 - F.

The panel will add a fixed extension digit when reporting. Fixed codes are listed below.

Program a 0 at this position to disable Unit Status Reporting.

Digit Position (4): Unit Status Receiver Select

- 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
- 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (5): Cancel Report Code

Valid entries are 0 - F.

The panel will add the User ID # as the second digit when reporting.

Program a 0 at this position to disable Cancel Reports.

Digit Position (6): Cancel Report Receiver Select

- 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
- 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

UNIT STATUS FIXED EXTENSION CODES	
1 = Low battery	7 = AC restore
2 = AC fail	8 = Bell fuse restore
3 = Bell fuse fail	B = Watchdog reset
5 = Failed to communicate	C = Completed programming
6 = Battery restore	

Command Location 2B: Test Report



Digit Positions (1) and (2): Test Report Code

Valid entries are 0 - F.
Program 00 to disable Test Reports.

Digit Position (3): Test Report Receiver Select

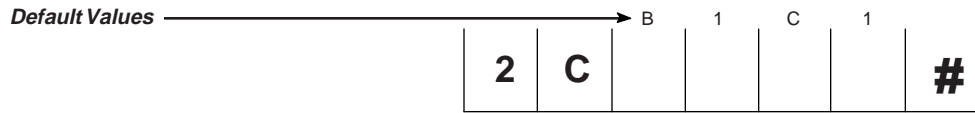
- 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
- 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Positions (4): Test Report Interval

- 1 = 1 hour 5 = 24 hours *0 = 1 hour if armed
- 2 = 2 hours 6 = 7 days *1 = 2 hours if armed
- 3 = 4 hours 7 = 14 days *2 = 4 hours if armed
- 4 = 12 hours 8 = 21 days *3 = 12 hours if armed
- 9 = 30 days *4 = 24 hours if armed

NOTE: CL A0 **must** be programmed to correctly set time of test.

Command Location 2C: Opening and Closing Report Codes



Digit Position (1): Opening Report Code

Valid entries are 0 - F.
The User ID # is transmitted after the opening code.
Program 0 to disable Opening Reports.

Digit Position (2): Opening Report Receiver Select

0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (3): Closing Report Code

Valid entries are 0 - F.
The User ID # is transmitted after the opening code.
Program 0 to disable Closing Reports.

Digit Position (4): Closing Report Receiver Select

0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Command Location 2D: Duress Report and Delays



Digit Position (1): Duress Report Code

Valid entries are 0 - F.
The User ID # will be reported as the second digit when reporting.
Program 0 to disable Duress Reports.

Digit Position (2): Duress Receiver Select

0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (3): Entry Delay Time

1 = 10 secs 6 = 60 secs *1 = 110 secs
2 = 20 secs 7 = 70 secs *2 = 120 secs
3 = 30 secs 8 = 80 secs *3 = 130 secs
4 = 40 secs 9 = 90 secs *4 = 140 secs
5 = 50 secs *0 = 100 secs *5 = 150 secs

NOTE: To program delay times greater than 150 secs, see CL 1F - 26 & 49 - 50 Digit Position (4)

Digit Position (4): Exit Delay Time

1 = 10 secs 6 = 60 secs *1 = 110 secs
2 = 20 secs 7 = 70 secs *2 = 120 secs
3 = 30 secs 8 = 80 secs *3 = 130 secs
4 = 40 secs 9 = 90 secs *4 = 140 secs
5 = 50 secs *0 = 100 secs *5 = 150 secs

NOTE: To program delay times greater than 150 secs, see CL 1F - 26 & 49 - 50 Digit Position (4)

Digit Position (5): Audible Time

1 = 2 min 4 = 15 min
2 = 5 min 5 = 30 min
3 = 10 min

NOTE: Some keypads may have a [↑] [SHIFT] key and an [↵] [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Location 2E: Audible/Visual Switches



Digit Position (1): Entry Pre-alarm Enable

0 = No
1 = Yes: sounds keypad buzzers during entry delay

Digit Position (2): Exit Pre-alarm Enable

0 = No
1 = Yes: sounds keypad buzzers during exit delay

Digit Position (3): Bell Reverse Operation

0 = No
1 = Yes: supplies bell voltage in non-alarm state; Bell requires external power supply

Digit Position (4): Ring Back

0 = No
1 = Yes: Automatic Bell test after arming (and Exit Delay has expired) for local or non-supervised accounts; follows closing report for supervised accounts; sounds bells for 2 seconds.

Digit Position (5): Disable Loop LEDs

0 = No
1 = Yes: turns off keypad zone LEDs after 5 minutes

Command Location 2F: Unit Control



Digit Position (1): Local System Only

0 = No
1 = Yes: disables all communications except RPS

Digit Position (2): Enable Daily Dynamic Battery Test

0 = No
1 = Yes: performs a 2-minute battery test (under load conditions) once every 24 hours

Digit Position (3): Enable Four Minute Power-Up Delay

0 = No
1 = Yes: all alarms suppressed for 4 minutes on power-up

Digit Position (4): Enable Soft Zone Operation

0 = No
1 = Yes: allow use of Emergency (E), Fire (F), and Police (P) keys (See also CL 27 - 29)

Digit Position (5): AC Power Line Frequency

0 = 50 Hz
1 = 60 Hz

NOTE: Some keypads may have a [SHIFT] key and an [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

Command Locations 30 - 3F: Loop Switches

Default Values → 0 1 0 0

3	0					#
		(1)	(2)	(3)	(4)	

30 = Loop 1 34 = Loop 5 38 = Loop 9 3C = Loop 13
 31 = Loop 2 35 = Loop 6 39 = Loop 10 3D = Loop 14
 32 = Loop 3 36 = Loop 7 3A = Loop 11 3E = Loop 15
 33 = Loop 4 37 = Loop 8 3B = Loop 12 3F = Loop 16

Digit Position (1): Enable Door Chime
 0 = No
 1 = Yes: keypads beep 2 seconds when faulted (disarmed condition)

Digit Position (2): Allow Shunting of This Loop
 0 = No: makes it a priority zone (not shuntable)
 1 = Yes: authorized users can bypass or force arm
 Refer to CL 01 - 08 & 51 - 58 Digit Position (1) for Arming Types (Authorization Levels)

Digit Position (3): Allow Group Shunting for This Loop
 0 = No
 1 = Yes: include as part of group when performing Home Arming or Instant/Home Arming feature
 (See CL 09 Digit Position (5) and pages 21 & 25)

Digit Position (4): Delay Before Dial
 0 = No
 1 = Yes: this loop will delay dialing on alarm for time programmed in 0B (1)

Command Location 48: Trouble Reports

Default Values → F 1 E 1



4	8					#
		(1)	(2)	(3)	(4)	

Digit Position (1): Trouble Report Code
 This is a one-digit reporting code.
 Program 0 to disable Trouble Report.

Digit Position (2): Trouble Report Receiver Select
 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

Digit Position (3): Trouble Restoral Report Code
 This is a one-digit reporting code.
 Program 0 to disable Trouble Restoral Report.

Digit Position (4): Trouble Restoral Report Receiver Select
 0 = Receiver 1 with Receiver 2 as back-up 2 = Receiver 2 only
 1 = Receiver 1 only 3 = Receiver 1 and Receiver 2 (Dual Reporting)

NOTE: Some keypads may have a  [SHIFT] key and an  [ENTER] key in place of the [*] and [#] keys, respectively. This manual uses the [*] for the [SHIFT] key and the [#] for the [ENTER] key.

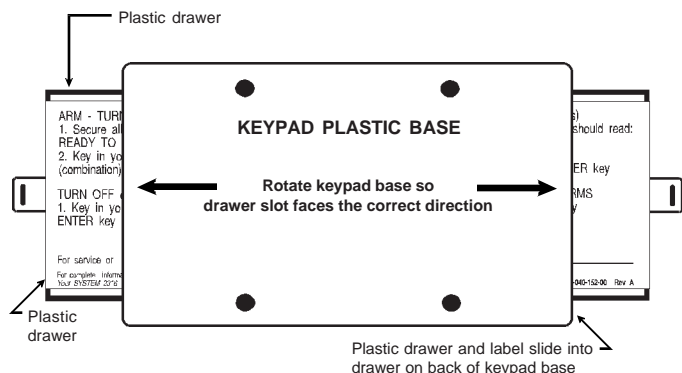
PROGRAMMING CONVERSIONS	
Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

KEYPAD LABEL DRAWER

Each keypad comes with a Label Drawer and quick reference operating label. Follow the diagram below to set up the Label Drawer for each keypad.

Example of drawer pulled from the left

Example of drawer pulled from the right



1. Fill in the zone descriptions inside the label.
2. Mark "Y" or "N" to indicate if zones can be bypassed or not.
3. Determine if the drawer will slide from the right or left.
4. Peel the cover off the drawer glue.
5. Align the edge of the label with the edge of the drawer. Center the label top to bottom.
6. Press the label onto the glue. Avoid trapping air bubbles under the label.
7. Slide the drawer/label into the slot on the back of the keypad base.

TESTING

Once the installation is complete, connect AC and DC power. Complete programming, if required. **Test all panel operations.**

TO THE INSTALLER

Regular maintenance and inspection (at least monthly) by the installer and frequent testing by the user are vital to the continuous and satisfying operation of any alarm system. The installer should assume the responsibility for developing and offering a regular maintenance program to the user, as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. **Recommendations must include a specific program of regular testing (at least weekly) to insure that the system is operating properly at all times.**

TELEPHONE LINE PROBLEMS

In the event of telephone line problems, disconnect the SYSTEM 2316 by removing the modular connector plug from the Telco interface jack. **Do not disconnect the connection inside the SYSTEM 2316 cabinet.** Doing so will prevent the premise phones from operating. If your phone works correctly after the control panel has been disconnected from the phone line, the control panel has a problem and should be returned for repair.

If the phone does not work after you have disconnected the control panel from the phone line, notify the telephone company and request prompt repair. **The user may not under any circumstance (in or out of warranty) attempt any service or repairs on the SYSTEM 2316.** The control panel must be returned to C&K SYSTEMS or an authorized service agency for repairs.

Watchdog Indicator



The SYSTEM 2316 is protected by an advanced circuit, called a Watch Dog circuit, that constantly monitors the microprocessor.

As long as the panel has power and is operating normally, the Watch Dog LED (DS1) on the circuit board will flash. If the Watch Dog circuit detects a

failure, it will attempt to reset the panel.

If the panel does not operate properly and the Watch Dog LED no longer flashes, call the **C&K Technical Support Hotline at 1-800-227-8065** in the U. S. or your local C&K representative.

FCC NOTICE

WARNING: This device is intended to be installed by a professional alarm installer.

The user shall be cautioned that changes or modifications not expressly approved by C&K SYSTEMS could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the radio/television antenna.
- Connect the AC transformer to a different outlet so that the control panel and radio/television are on different branch circuits.
- Relocate the control panel with respect to the radio/television.
- Consult the dealer or an experienced radio/television technician for help.

In accordance with Part 68 of the FCC Rules, this device must not be used on party lines or coin-operated phone lines.

If you experience trouble with the telephone lines, disconnect the control panel from the telephone line to determine the source of the trouble. If it is determined that the control panel is malfunctioning, discontinue its use until the malfunction has been corrected.

CANADIAN EMISSION REQUIREMENTS

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class B prescrites dans le Règlement sur le brouillage radioélectriques édicté par le ministère des Industrie Canada.

Keypad Operation Command Summary

The majority of the keypad commands apply equally to the LED and Alpha II keypads. Some keypad commands, however, apply to the LCD keypad only.

The following Keypad Commands apply to both the LED and Alpha II keypads:

Function	Comments	Keystroke Sequence
Arm/Disarm	Delays active	[Combination] [#]
Bypass Zone (n)	[n] is zone # 1 - 16; Combo may be required	[Combination] [Bypass] [n] [#]
Chime On/Off	Combo may be required	[Combination] [*] [5] [#]
Change Combo using Master Combo	Must be done from User #1	[Master Combo] [*] [0] [#] [User Number] [New Combo] [#] [New Combo] [#]
Clear Alarm Memory		[*] [1] [#]
Exit Programming		[*] [#]
Fire Alarm	Keypad activated	[F] (Hold for 3 seconds)
Group Bypass and Arm	Arms the system and all zones programmed for group bypass, CL 30 - 3F, Digit Position (3), are shunted simultaneously; Combo may be required (This is also called Home Arming)	[Combination] [*] [4] [#]
Group Bypass and Instant Arm	Same as Group Bypass (above) except system is Instant Armed (Exit Delay operates normally, upon expiration of Exit Delay, all delayed zones are converted to Instant - No Entry Delay). Combo may be required (Also called Instant/Home Arming)	[Combination] [*] [4] [7] [#] or [Combination] [*] [7] [4] [#]
Instant Arm	Arms system and converts delayed zones to Instant (Exit Delay active, No Entry Delay), Combo may be required	[Combination] [*] [7] [#]
Keypad Activated RPS	If enabled, CL 0B(3); Combo may be required	[Combination] [*] [0] [2] [#]
Medical Alarm	Keypad activated	[E] (Hold for 3 seconds)
Police/Panic Alarm	Keypad activated	[P] (Hold for 3 seconds)
Reset Aux Power	If resettable devices are connected to Terminals 5 and 6	[*] [6] [2] [#]
Reset Panel		[Master Combination] [*] [6] [8] [#]
Test - Battery	Use after correcting Low Battery problem	[*] [6] [4] [#]
Test - Bells	Combo may be required	[Combination] [*] [6] [3] [#]
Test - Central Station	Combo may be required	[Combination] [*] [6] [1] [#]
Test - Local Walk Test		[*] [6] [0] [#]

NOTE: For additional information about Combination Command requirements, see page 24 and CL 09 (2).

The following Keypad Commands apply to the Alpha II keypad only:

Function	Comments	Keystroke Sequence
Arm Tones Toggle On/Off		[*] [5] [4] [#]
Audible Feedback Toggle		[*] [5] [1] [#]
Backlight Toggle On/Off		[*] [8] [#]
Display Keypad Model & Revision Number		[*] [9] [#]
Chime Toggle		[*] [5] [3] [#]
Pre-warn Toggle On/Off		[*] [5] [2] [#]

The following Keypad Commands are Installer Only Commands:

Function	Comments	Keystroke Sequence
Alpha Keypad Programming	Start Programming the Keypad	[Installer Combination] [*] [0] [1] [#]
Alpha Keypad Test		[*] [6] [7] [#]
Kill/Revive Panel		[Installer Combination] [*] [6] [9] [#]
Panel Programming	Start Programming the Panel	[Installer Combination] [*] [0] [#]

Survey of Most Common Questions

The following is a summary of the questions most frequently asked of our Technical Support Department.

Question: *How do I program the panel with the LED keypad?*

Answer: To program with the LED keypad, enter the Command Location to be programmed, the Data to be programmed and the press the [#] key. (See also pages 6 - 7.)

For Example: To program User #2 with the ability to Arm only, No Reports and No Shunting; and a PIN of 6543, enter the following keystrokes:

CL	Arm Type	PIN (w/EON)	Write Data
[0][2]	[1]	[6][5][4][3][*][4]	[#]

Question: *How do I access Alpha Keypad Programming to enter Zone Labels?*

Answer: To begin Alpha Keypad Programming (you cannot program the LED keypad), enter [Installer Combination] [*] [0] [1] [#]. Then scroll to the desired message location. (See also pages 7 - 8.)

Question: *How do I interpret a Trouble on the LED keypad? How do I clear a Trouble on the LED keypad?*

Answer: A number of conditions may cause the Trouble LED to light. See the chart below for additional information.

Trouble LED	Power LED	Zone LED's	Cause
Flash Slow	On	Off	Watchdog
On	On	Flash Slow	Zone Trouble
On	Off	Off	AC Failure
On	Flash Slow	Off	Low Battery
On	On	Off	System Trouble (Bell Fuse or Comm Fail.)

Question: *How do I enter hexadecimal numbers when using keypad programming?*

Answer: Hexadecimal values are entered through the use of the [*] key and one of the digits [0] - [5]. For additional help with entering hexadecimal numbers, refer to page 7. The hexadecimal conversion chart is also found at various locations throughout the programming section of the manual.

Question: *What is an "Interface error 1" and how do I correct the error?*

Answer: This error is caused by a problem with the Data line (Green wire) between the panel and the keypad. Check the connection to ensure that the wire is not pinched or loose. Also try disconnecting all keypads from the panel (one at a time), resetting the panel after each keypad is removed. Remember, to reset the panel press: [Master Code] [*] [6] [8] [#].

Question: *How do I reset Alarm Memory?*

Answer: To Clear Alarm Memory, press [*] [1] [#].

Question: *How do I address an Alpha Keypad for the first time?*

Answer: If you have an Alpha keypad that has never been addressed, when power is initially applied, the display will read **KEYPAD ADDRESS?**. To enter the address, simply press a number between 0 and 7. Remove panel power for 3 seconds and then re-apply power to reset the system. For additional information about Keypad addressing, see page 5.

NOTE: If operating at or near the limit of AUX Power and Keypad Power, you may need to remove power for up to 30 seconds in order for the system to reset properly.

Question: *How do I interpret the Unit Status Reports? Can the codes be changed?*

Answer: The Reporting Codes for the Unit Status Report is a two-digit code. The first digit is programmed into CL 2A Digit Position (3) and may be any value from 0 - F. The second digit is fixed by the firmware and cannot be changed. Please note that programming a 0 into 2A (3) will disable the report and no Unit Status information will be sent. Additional information about Unit Status Reporting Codes can be found on page 17 in the programming section.

Question: *How do I enter Receiver and RPS Phone Numbers? Why do I have to enter the E at the end of the number?*

Answer: The System 2316 is designed to handle phone numbers up to 18 digits long, but the firmware can only handle 6 digits per Command Location. This means that 3 Command Locations are required to store a phone number. With variations in number length and special characters which may need to be included, the software needs some method of determining the end of the number. The E (entered by pressing [*][4]) tells the software that it has reached the end of the phone number and to ignore any additional digits.

For Example: To program the panel for Receiver #1 with a phone number of 555-1212 and disable the call waiting feature using *70, enter the following sequence:

Command Location 0D						Command Location 0E						Command Location 0F					
C	7	0	5	5	5	1	2	1	2	E	0	0	0	0	0	0	0
(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)

NOTE: Entering [*] [2] in CL 0D (1) will display the value "C" and entering [*] [4] in CL 0E (5) will display the value "E".

Question: *How can I correct the problem of two Alpha keypads with the same address?*

Answer: When two keypads have been given the same address, a conflict occurs on the data bus since two keypads are trying to communicate at the same time. The only way to correct the problem is to disconnect one of the keypads and then re-address the remaining one, ensuring that the new address is not in use by any other keypad. To re-address the keypad, enter Alpha Keypad Programming ([Installer Combination] [*] [0] [1] [#]) and scroll backward one step ([*] [BYPASS]). Then enter the new address. Don't forget to reset the panel ([Master Code] [*] [6] [8] [#]) after changing the address, so the panel knows how to properly address the keypad. For additional information about keypad addressing, see page 5.

Question: *Why can't my panel communicate with the Central Station?*

Answer: There are several reasons for the panel not communicating. The first place to look is CL 2F (1). This is the Unit Control, if Digit Position (1) is programmed with a 1, all communication except RPS is disabled. If 2F (1) is programmed with a 0, check to ensure that all of the following parameters are properly set:

- Account Number 1 is programmed into CL 0C
- Receiver #1 Phone Number is correctly programmed into CL 0D - 0F
- Receiver Format and Message Format agree CL 0A
- Communication Control (CL 0B) is correctly programmed
- The RJ-31X jack is correctly wired (terminals 4 & 5 are not switched with 1 & 8)

Question: *How do I disarm my panel if I accidentally locked myself out by programming my user code as Arm Only?*

Answer: The only way to correct this problem is to access the panel through Remote Programming (RPS) or Direct Connect (also RPS) and disarm the panel. Then use the remote programming to re-program the panel. For additional information about RPS, see the Commander II/Monitor II Operating Manual.

Question: *Why doesn't my keypad respond? The Power LED is lit, but nothing happens.*

Answer: The panel may be in the KILL mode. On the LED keypad, only the Power LED will be lit. On the Alpha II keypad, the Power LED will be lit and the Service Message, if programmed, will be displayed. To restore the panel, press [Installer Combination] [*] [6] [9] [#].

Question: *Why do my loops fail to respond after changing the programming?*

Answer: In order for the panel to recognize the programming changes for the loops, either the loops have to be tripped and restored or the panel must be reset ([Master Combination] [*] [6] [8] [#]).

Recommendations for Reducing False Alarms

The recommendations contained in this section are designed to assist you in reducing false alarms. The first column contains the Command Locations and Digit Positions in parentheses (). The second column is the recommended program option followed by a brief explanation.

<u>Program Option</u>	<u>CL</u>	<u>Program Function</u>	<u>Comments</u>
Arming/Combination Options	09 (2)	Combination Command	This feature is enabled to prevent unauthorized users from activating certain keypad functions. When activated, this command will require a valid User Combination to perform such functions as Bypassing a Zone, Group Bypassing, Keypad Activated RPS, Central Station and Bell Testing, and Instant Arming. For additional assistance with commands requiring User Combinations, see page 21 (Command Summary).
Arming/Combination Options	09 (4)	Chirp Alert	This option minimizes the possibility of leaving the system unarmed (faulted) when exiting. The system is armed in the normal manner and the user exits through the delayed exit door. If the door does not close properly, returning the loop to the normal state, the system will transition from the Exit Delay to the Entrance Delay at the completion of the Exit Delay time and chirp the Bell, alerting the user to the error in arming the system.
Loop Control	1F - 26 & 49 - 50 (2)	Loop Response Time	This option determines the response time of the loop itself. It acts as a buffer on the loop to minimize the possibility of fast acting sensors, such as swingers or window foil, producing false alarms.
Loop Control	1F - 26 & 49 - 50 (3)	Loop Restore Type	This option is used in conjunction with CL 17 - 1E & 40 - 47 Digit Positions (3 & 4), Restore Reporting Code, and CL 2A (2), Restore Receiver Select. The panel can be programmed to send a Restoral Report only when the loop is normal and the system is disarmed. With this arrangement, any loop which is triggered multiple times while armed will only send one alarm report until the system is disarmed. This prevents the system from tying up the phone line with continuous alarm and restoral reports.
Loop Control	1F - 26 & 49 - 50 (4)	Loop Arming Type	There may be occasion where it is desirable to program all doors and interior points as delayed. Or you may need to program interior zones to be delayed only during the Entry/Exit Delay Time. This Command Location allows a variety of Arming Types to help minimize false alarms.
Event Reporting	2A (5 & 6)	Cancel Report Code/Cancel Report Receiver Select	This feature should always be enabled on reporting systems, especially if the system does not send Opening and Closing Reports. A Cancel Report is sent to the monitoring station in the event that an Authorized User clears the alarm while the bell is still active. The Cancel Report Code (Digit Position 5) is actually a two-digit code with the first digit being programmed by the installer and the second digit being the User ID # when the report is sent. Digit Position (6) determines which receiver gets the Cancel Report.

<u>Program Option</u>	<u>CL</u>	<u>Program Function</u>	<u>Comments</u>
Audible/Visual Switches	2E (1 & 2)	Entry/Exit Pre-Alarm	If Digit Position (1) is programmed for Entry Pre-Alarm, the keypad will sound continuously for all but the last 10 seconds of the amount of time programmed for the Entry Delay Time (CL 2D (3)). The keypad will beep for the last 10 seconds of the Entry Delay. If Digit Position (2) is programmed for Exit Pre-Alarm, the keypad will beep for the time programmed into CL 2D (4), Exit Delay Time. The speed at which the keypad beeps will increase during the last 10 seconds of the Delay time. Alpha II keypads will display a bar graph in addition to the audible tone.
Unit Control	2F (3)	Enable 4-minute Power-Up Delay	Suppresses all trouble and alarm reports for a period of four minutes after power is initially applied to the panel. This allows the sensors, such as PIR's time to stabilize when initializing or prevents powered devices, such as smoke detectors, from sending alarms when first starting panel with a dead battery or no battery connected.
Loop Switches	30 - 3F (3)	Allow Group Shunting	This allows multiple loops to be shunted simultaneously with a single keypad command. This is typically done on all interior loops in a system. The command also Arms or Instant Arms the system. (See page 21 for Group Bypassing and Instant Arm.)
Loop Switches	30 - 3F (4)	Delay Before Dial	This option programs the loops to have a delay after they are triggered to allow the User time to shut down the system in the event of an accidental triggering of the zone. The amount of time is determined by the value programmed into CL 0B Digit Position (1). The time delay may be between 10 and 150 seconds, in 10 second intervals.

THE LIMITATIONS OF YOUR ALARM SYSTEM

While the SYSTEM 2316 is an advanced design security system, it does not offer guaranteed protection against burglary, fire, or other losses. Any alarm system, whether commercial or residential, is subject to compromise or failure-to-warn for a variety of reasons. These include:

- Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.
- Intrusion detectors, smoke detectors, and many sensing devices will not operate without power. Devices powered by AC will not work if their AC power supply is off for any reason and their back-up batteries are missing, dead, or improperly installed.
- Alarm warning devices such as sirens, bells, and horns may not alert people or wake up sleepers if they are located on the other side of closed or partly closed doors. If warning devices are on a different level of the residence from the bedrooms, they are less likely to waken or alert people inside the bedrooms.
- Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily out of service. Telephone lines are subject to compromise by sophisticated methods of attack.
- Smoke detectors used in conjunction with the alarm system may not sense fires that start where smoke cannot reach the detectors, such as chimneys, walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of the residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Finally, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn you about fires caused by carelessness and safety hazards, like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, arson, etc.
- The most common cause of an alarm system not functioning properly when an intrusion or fire occurs is inadequate maintenance. **Your alarm system should be tested weekly to make sure all sensors are operating properly. The SYSTEM 2316 panel and keypads should also be tested.**
- Installing an alarm system may make you eligible for lower insurance rates, but an alarm system is not a substitute for insurance. Homeowners, property owners, and renters should continue to insure their lives and property.

LIMITED WARRANTY

The SYSTEM 2316 is warrantied against manufacturing defects for **18 months** from the date of manufacture. The manufacture date is established by the date code on the unit. This Limited Warranty does not apply to any product that has been abused, altered, or misused, whether physically or electrically. Products returned within **five months** of manufacture will be replaced with a new unit.

PROCEDURE FOR RETURNING DAMAGED PRODUCTS

1. Assign your unit a PO/ID number. This is important for tracking repair status. If you do not assign your unit a PO/ID number, C&K will ID your product using the order processing date.
2. Enclose your PO/ID number, company name, personal name, and day time phone number in the return package. If you have an account with C&K, include your account number as well.
3. Send the unit to C&K SYSTEMS, 107 Woodmere Road, Folsom, California, 95630. **Do not return communicators in their cabinets.** The cabinets increase shipping costs and delay repair times.

4. Once your unit is received at C&K, it will be assigned an RMA (Return Material Authorization) number.
5. Replacement units will be returned either COD or NET-30 (depending on your account status), to the address you specify.
6. All warranty replacements will be shipped via UPS ground service, with shipping charges pre-paid.
7. All out-of-warranty replacements will be shipped via UPS ground service, with shipping charges attached.
8. If you require a faster shipping method than UPS ground service, include specific instructions with the damaged unit. Accelerated shipping charges will be added to NET-30 or COD billing. COD fast-ship orders will only be sent via UPS air.

Complete warranty information is available from C&K Distributors, C&K Sales Representatives, and the C&K Customer Service Department.

Note: The contents of this manual have been revised. For your convenience, dashed lines have been added to the margins of the document to show the locations of the changes.

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2316 Programming Worksheet

Client: _____ SYSTEM 2316 Phone Number: _____

Address: _____

Installer: _____ Date: _____ Control Location: _____

VOLTS

AC volts (term 1 and 2): _____

AUX POWER VOLTS

(term 5 and 6): _____

BATTERY VOLTS

Under load - AC off: _____

CURRENT

Keypads (term 6 and 8): _____

AUX POWER

(term 5 and 6): + _____

TOTAL

(500 mA allowed): = _____

CONTROL LOCATION:

BREAKER # AND LOCATION:

KEYPADS

Address Location

- 0 _____
- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____
- 7 _____

0	0	0	1	2	3	4	5	#
---	---	---	---	---	---	---	---	---

**Installer
Combination**

0	1	9	1	2	3	4	E	#
---	---	---	---	---	---	---	---	---

**User #1 - Master
Name: _____**

0	2	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #2
Name: _____**

0	3	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #3
Name: _____**

0	4	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #4
Name: _____**

0	5	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #5
Name: _____**

0	6	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #6
Name: _____**

0	7	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #7
Name: _____**

0	8	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #8 - Guest
Name: _____**

5	1	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #9
Name: _____**

5	2	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #10
Name: _____**

5	3	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #11
Name: _____**

5	4	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #12
Name: _____**

5	5	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #13
Name: _____**

5	6	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #14
Name: _____**

5	7	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #15
Name: _____**

5	8	9	E	0	0	0	0	#
---	---	---	---	---	---	---	---	---

**User #16
Name: _____**

5	9		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #17
Name: _____

5	A		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #18
Name: _____

5	B		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #19
Name: _____

5	C		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #20
Name: _____

5	D		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #21
Name: _____

5	E		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #22
Name: _____

5	F		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #23
Name: _____

6	0		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #24
Name: _____

6	1		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #25
Name: _____

6	2		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #26
Name: _____

6	3		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #27
Name: _____

6	4		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #28
Name: _____

6	5		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #29
Name: _____

6	6		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #30
Name: _____

6	7		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #31
Name: _____

6	8		9	E	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

User #32
Name: _____

0	9		0	0	1	1	0	#
---	---	--	---	---	---	---	---	---

Arm/Combination Option

0	A		1	2	1	2	#
---	---	--	---	---	---	---	---

Communications Formats

0	B		0	3	1	1	0	8	#
---	---	--	---	---	---	---	---	---	---

Communications Control

0	C		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

Account #1

Phone #1 (1st 6 digits)

(Middle 6 digits)

(Last 6 digits)

0	D		E	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

0	E		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

0	F		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1	0		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

Account #2

Phone #2 (1st 6 digits)

(Middle 6 digits)

(Last 6 digits)

1	1		E	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1	2		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1	3		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

RPS Phone (1st 6 digits)

(Middle 6 digits)

(Last 6 digits)

1	4		E	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1	5		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1	6		0	0	0	0	0	0	#
---	---	--	---	---	---	---	---	---	---

1 7 0 1 E 1 0 0 #

Loop 1 Codes

1 8 0 2 E 2 0 0 #

Loop 2 Codes

1 9 0 3 E 3 0 0 #

Loop 3 Codes

1 A 0 4 E 4 0 0 #

Loop 4 Codes

1 B 0 5 E 5 0 0 #

Loop 5 Codes

1 C 0 6 E 6 0 0 #

Loop 6 Codes

1 D 0 7 E 7 0 0 #

Loop 7 Codes

1 E 0 8 E 8 0 0 #

Loop 8 Codes

4 0 0 9 E 9 0 0 #

Loop 9 Codes

4 1 1 0 E A 0 0 #

Loop 10 Codes

4 2 1 1 E B 0 0 #

Loop 11 Codes

4 3 1 2 E C 0 0 #

Loop 12 Codes

4 4 1 3 E D 0 0 #

Loop 13 Codes

4 5 1 4 E E 0 0 #

Loop 14 Codes

4 6 1 5 E F 0 0 #

Loop 15 Codes

4 7 1 6 E 0 0 0 #

Loop 16 Codes

Description

Volts

Ohms

1 F 1 2 1 3 2 3 #

Loop 1 Control

2 0 1 2 1 2 2 3 #

Loop 2 Control

2 1 1 2 1 2 2 3 #

Loop 3 Control

2 2 1 2 1 2 2 3 #

Loop 4 Control

2 3 1 2 1 2 2 3 #

Loop 5 Control

2 4 1 2 1 2 2 3 #

Loop 6 Control

2 5 1 2 1 2 2 3 #

Loop 7 Control

2 6 1 2 1 9 1 5 #

Loop 8 Control

4 9 1 2 1 1 2 3 #

Loop 9 Control

4 A 1 2 1 1 2 3 #

Loop 10 Control

4 B 1 2 1 1 2 3 #

Loop 11 Control

		Description	Volts	Ohms
4	C	1 2 1 1 2 3 #		
4	D	1 2 1 1 2 3 #		
4	E	1 2 1 1 2 3 #		
4	F	1 2 1 1 2 3 #		
5	0	1 2 1 1 2 3 #		

2	7	0 0 1 3 #	Emergency Zone	2	8	0 0 1 1 #	Fire Zone	2	9	0 0 1 2 #	Police Zone
---	---	-----------	----------------	---	---	-----------	-----------	---	---	-----------	-------------

2	A	1 1 A 1 D 1 #	Event Reports	2	B	0 0 1 6 #	Test Report
2	C	B 1 C 1 #	Opening/Closing Reports	2	D	0 1 3 6 2 #	Duress/Delays
2	E	1 1 0 0 0 #	Audible/Visual Switches	2	F	1 0 0 1 1 #	Unit Control
4	8	F 1 E 1 #	Trouble Reports				

3	0	0 1 0 0 #	Loop 1 Switches	3	1	0 1 0 0 #	Loop 2 Switches
3	2	0 1 0 0 #	Loop 3 Switches	3	3	0 1 0 0 #	Loop 4 Switches
3	4	0 1 0 0 #	Loop 5 Switches	3	5	0 1 0 0 #	Loop 6 Switches
3	6	0 1 0 0 #	Loop 7 Switches	3	7	0 1 0 0 #	Loop 8 Switches
3	8	0 1 0 0 #	Loop 9 Switches	3	9	0 1 0 0 #	Loop 10 Switches
3	A	0 1 0 0 #	Loop 11 Switches	3	B	0 1 0 0 #	Loop 12 Switches
3	C	0 1 0 0 #	Loop 13 Switches	3	D	0 1 0 0 #	Loop 14 Switches
3	E	0 1 0 0 #	Loop 15 Switches	3	F	0 1 0 0 #	Loop 16 Switches