

## CE Marked Emergency Phones with Built-In Digital Voice Announcer

The **1600A-CE Series** CE marked Emergency Phones are designed to provide quick and reliable handsfree communication for any standard analog telephone line or analog phone system station port. All **1600A-CE Series** phones meet CE requirements for elevator / emergency telephones, and can be programmed from any Touch Tone phone. The phones can dial up to 5 programmable emergency numbers, as well as 2 central station numbers (except the **E-30-CE**). In addition, the **E-1600-20A-CE** and **E-1600-52A-CE** feature a second "Info" button that will dial up to 3 non-emergency numbers.

The **1600A-CE Series** phones (except the **E-30-CE**) can be programmed to automatically deliver a digital announcement to identify the location of the emergency call. Alternatively, a DTMF Touch Tone code may also be delivered. A "Call Connected" LED can be initiated manually or automatically. All programming parameters, including phone numbers and location numbers, are stored in non-volatile memory. All units are phone line powered, requiring no batteries or external power and are compatible with common Central Station Monitoring equipment.

For outdoor or harsh environments, select **1600A-CE Series** phones are available with Enhanced Weather Protection (**EWP**). EWP products feature rubber gaskets and boots, silicon sealed connections, gel-filled butt connectors, as well as urethane potted circuit boards with weather sealed, field-adjustable trim pots and DIP switches for easy on-site programming.

E-1600A-CE E-1600-45A-CE E-30-CE E-1600-20A-CE



K-1600-EHFA-CE

E-1600-30A-CE

E-1600-55A-CE

### Features

- Meets CE requirements for Emergency Phones
- New Automatic Noise Canceling (ANC) feature for proper operation in noisy environments
- Non-volatile digital voice announcer with 16 seconds of voice memory (except the **E-30-CE**)
- Advanced call progress detection
- Handsfree operation
- Phone line powered
- Non-volatile memory (no batteries required)
- Marine grade 316 stainless steel prevents corrosion (stainless models)
- Touch Tone or pulse dialing
- Dials up to 5 emergency numbers
- **E-1600-20A-CE** and **E-1600-52A-CE** dial up to 3 non-emergency "Info" numbers
- Cycles through backup emergency and non-emergency numbers on busy or no-answer
- Optional Enhanced Weather Protection (EWP)
- Hangs up on CPC, silence, busy signal, dial tone, time-out or TouchTone command
- Programmable to auto-answer on incoming calls
- Remotely programmable
- Extended temperature range (-15°F to 130°F)
- 8 different chassis or board only available
- Central Station Monitoring capability (dials 2 numbers) (except the **E-30-CE**)
- Separate central station voice speed dial number (except the **E-30-CE**)
- Push Button Delay Option
- 600 Ohm Output to drive Audio Induction Loop
- Optional Door Contact Input to Disable Phone

### Applications

- Elevators
- Parking lots/ramps
- ATM machines
- Area of Refuge Locations
- Lobbies
- Entryways
- Campus Emergency stations
- Roadside Emergency stations
- Stadiums
- Convention centers

**CAUTION - When installing on an analog extension of a phone system:** Some phone systems do not conform to analog telecom standards and might not be compatible with the **E-1600A-CE Series** Emergency phones. For a detailed description of the telephone line specifications required for any of the **E-1600A-CE Series** Phones, contact Viking Electronics Inc.



**CAUTION: THIS EQUIPMENT  
MUST BE EARTHED**

### Specifications

**Power:** Telephone line powered. 24V DC talk battery, with 20mA loop current minimum.

**Dimensions:** See Installation and Specifications

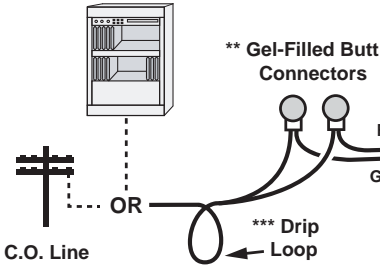
**Operating Temperature:** -26°C to 54°C (-15°F to 130°F)

**Humidity:** 5% to 95% non-condensing

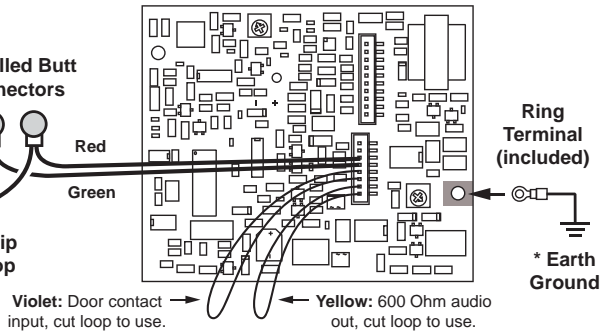
## Wiring

**⚠ IMPORTANT:** Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges.

### Analog PABX/KSU Station



### Rear View of a 1600A-CE Series Phone



\* **Note:** To increase surge protection, loosen the PCB mounting screw labeled ⊕ (as shown) and fasten a wire with ring terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

\*\* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wires with a maximum insulation of 2mm. Cut off bare wire ends prior to terminating.

\*\*\* **Note:** When wires are routed from above, a "drip loop" is recommended to keep water away from the circuit board.

## Installation and Specifications

The following sections show specifications and installation instructions for the different chassis in the 1600A-CE Series.

### E-1600A-CE / E-1600-40A-CE / E-1600-45A-CE

**Dimensions:** 133mm x 102mm x 51mm (5.25" x 4.0" x 2.0")

**Shipping Weight:** 1.13 kg (2.5 lbs.)

**Material:** .062" (16 gauge) steel

**E-1600A-CE Finish:** Red powder paint

**E-1600-40A-CE Finish:** Red without "EMERGENCY PHONE" verbiage

**E-1600-45A-CE Finish:** High visibility yellow powder paint

**Connections:** Gel-filled butt connectors

**Mounting:** Surface mount to walls, posts, single gang boxes or 4" x 4" electrical junction boxes or recess mount in elevator phone boxes.

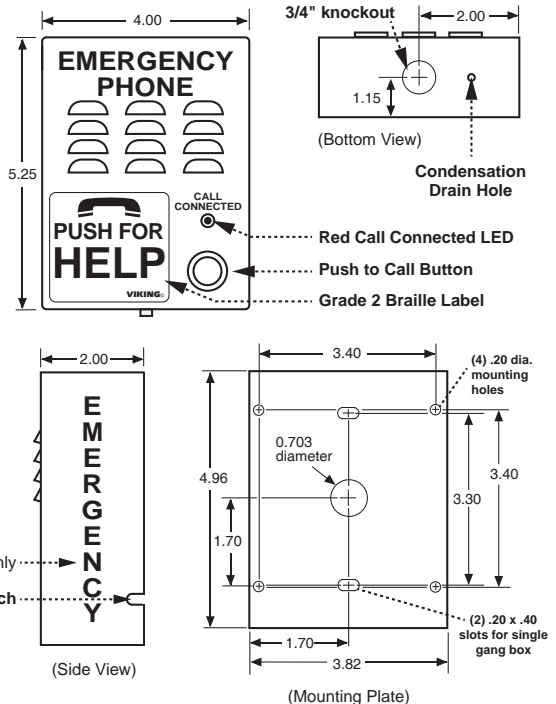
**Optional Enhanced Weather Protection (EWP)**

**Available:** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See DOD# 859.

**Note:** For greater weather resistance, apply a bead of clear silicon caulking around the top edge and sides of the chassis.

Model E-1600-45A-CE only

0.15 x 0.31 Wire Exit Notch



## E-1600-02A-CE

**Dimensions:** 330mm x 267mm x 51mm (13" x 10.5" x 2")

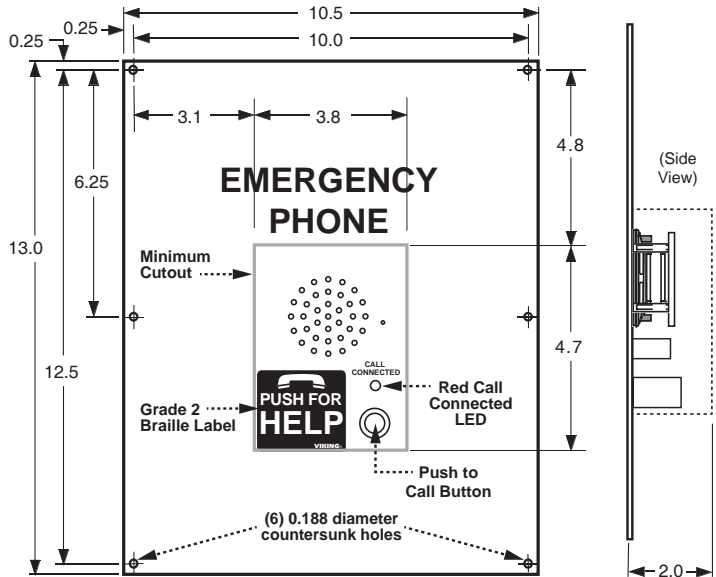
**Shipping Weight:** 3.18 kg (7 lbs.)

**Connections:** Gel-filled butt connectors

**Material:** .105" (12 gauge) brushed stainless steel

**Mounting:** Flush mount in elevator cabs, ATMs, stairwells, hallways, etc.

**Suggested Hardware:** (6) #8 x 3/4 flat head phillips sheet metal type A screws (not included)



## E-1600-03B-CE

**Dimensions:** 183mm x 149mm x 39mm (7.22" x 5.86" x 1.55")

**Material:** .074" (14 gauge) Brushed stainless steel panel and extra heavy duty button with LED

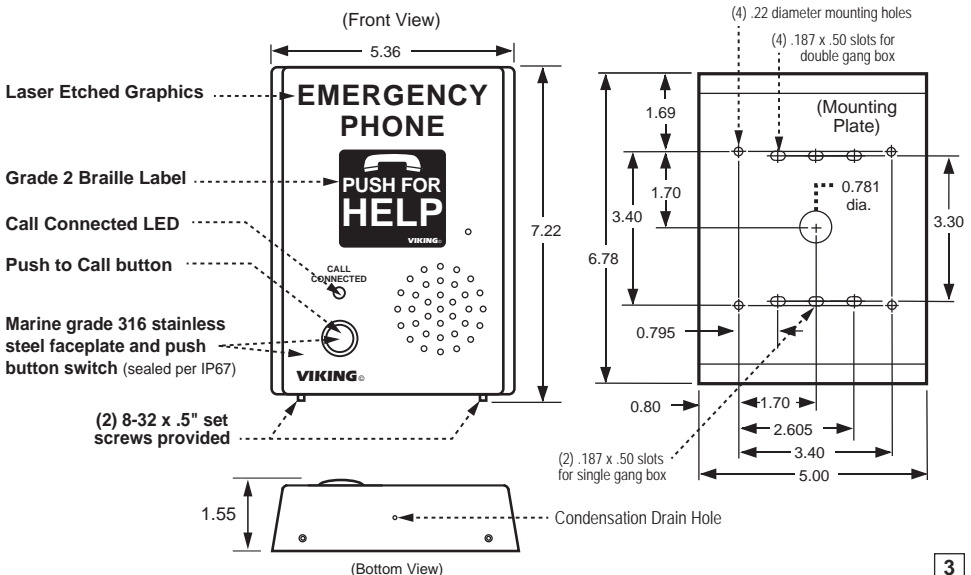
**Shipping Weight:** 1.36 kg (3 lbs.)

**Connections:** Gel-filled butt connectors

**Mounting:** Surface mount to walls, posts, single gang boxes or 4" x 4" electrical junction boxes or recess mount in elevator phone boxes.

**Optional Enhanced Weather Protection (EWP) Available:** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See **DOD# 859**.

**Note:** For greater weather resistance, apply a bead of clear silicon caulking around the top edge and sides of the chassis



# E-1600-20A-CE

**Dimensions:** Overall - 127mm x 127 x 57mm (5.0" x 5.0" x 2.25")  
 Plastic Electrical Box - 102mm x 102mm x 54mm (4.0" x 4.0" x 2.14")

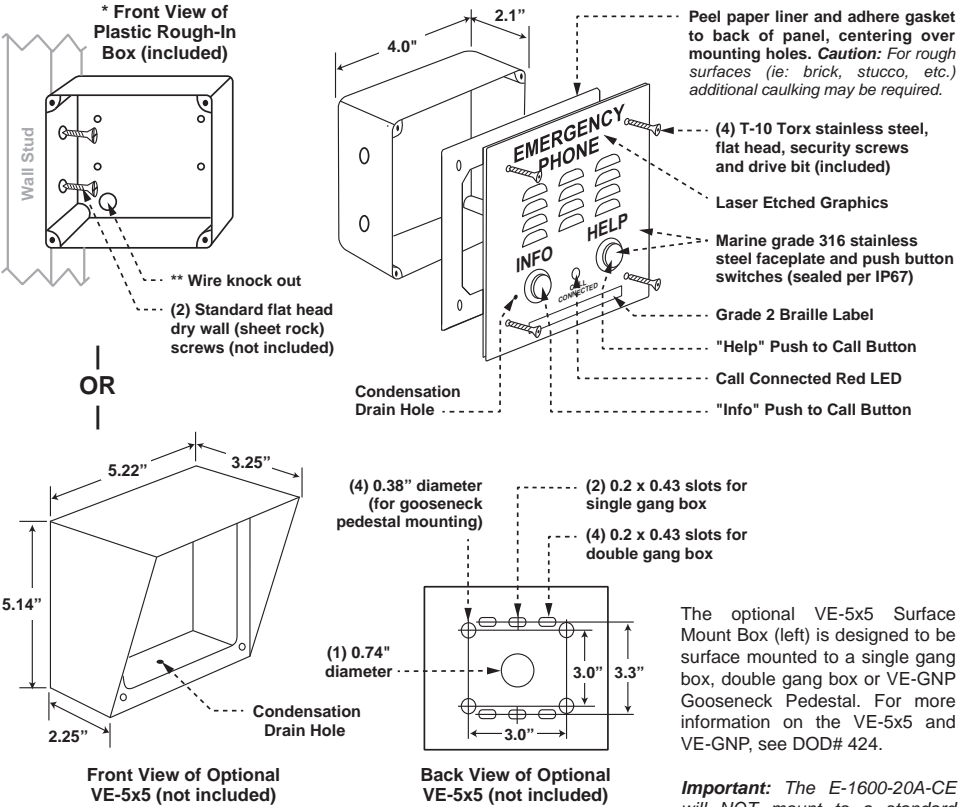
**Shipping Weight:** 1 kg (2.12 lbs.)

**Front Panel Material:** Marine grade 14 gauge brushed stainless steel

**Connections:** Gel-filled butt connectors

**Optional Enhanced Weather Protection (EWP) Available:** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See **DOD# 859** for more information on EWP.

**Mounting with Plastic Rough-In Box (included):** Flush into walls, mounts to side of wall stud **Mounting with Optional VE-5x5:** Surface mount to walls, single gang boxes, double gang boxes, posts, or to a Viking VE-GNP Gooseneck pedestal (see options below).



The optional VE-5x5 Surface Mount Box (left) is designed to be surface mounted to a single gang box, double gang box or VE-GNP Gooseneck Pedestal. For more information on the VE-5x5 and VE-GNP, see DOD# 424.

**Important:** The E-1600-20A-CE will NOT mount to a standard double gang box.

Optional VE-5x5 Surface Mount Box with black satin powder paint finish, not included (DOD# 424). Optional VE-LIGHT kit can be used to illuminate the faceplate when used with a VE-5x5 (DOD# 428). **WARNING:** Do NOT use a wet location box.

**\* Note:** The black plastic rough-in box (part # 259576) may be purchased separately (Example: Mounting boxes to studs before the walls are finished for flush installation). Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "Spare Parts" to order these rough-in boxes.

**\*\* Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-1600A-CE Series phone, always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the black plastic box.

# E-30-CE / E-1600-30A-CE

**Dimensions:** Overall - 127mm x 127 x 57mm (5.0" x 5.0" x 2.25")  
 Plastic Electrical Box - 102mm x 102mm x 54mm (4.0" x 4.0" x 2.14")

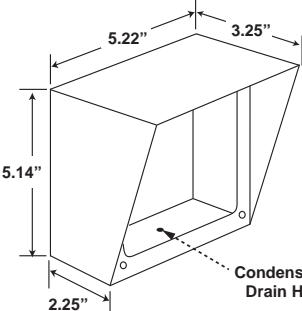
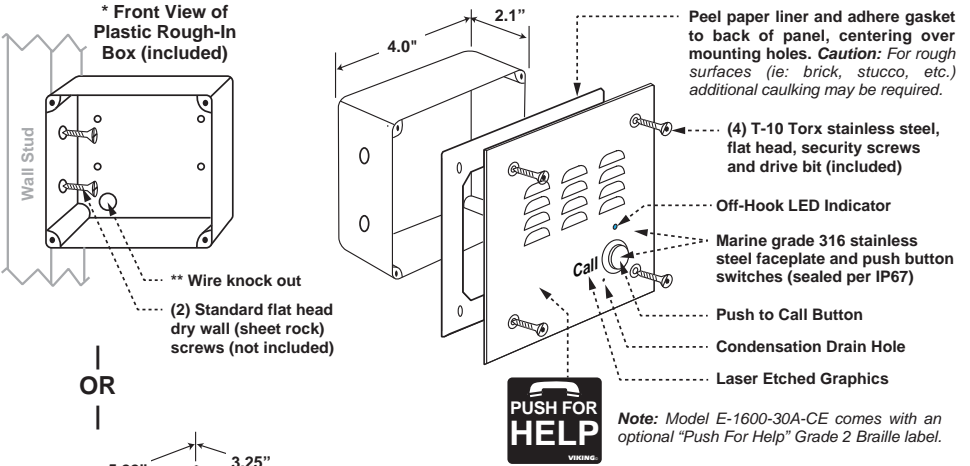
**Shipping Weight:** 1 kg (2.12 lbs.)

**Front Panel Material:** Marine grade 14 gauge brushed stainless steel

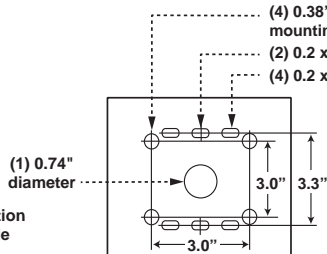
**Connections:** Gel-filled butt connectors

**Optional Enhanced Weather Protection (EWP) Available:** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See **DOD# 859** for more information on EWP.

**Mounting with Plastic Rough-In Box (included):** Flush into walls, mounts to side of wall stud **Mounting with Optional VE-5x5:** Surface mount to walls, single gang boxes, double gang boxes, posts, or to a Viking VE-GNP Gooseneck pedestal (see options below).



**Front View of Optional VE-5x5 (not included)**



**Back View of Optional VE-5x5 (not included)**

Optional VE-5x5 Surface Mount Box with black satin powder paint finish, not included (DOD# 424). Optional VE-LIGHT kit (DOD# 428) can be used to illuminate the faceplate when used with a VE-5x5. **WARNING:** Do NOT use a wet location box.

The optional VE-5x5 Surface Mount Box (left) is designed to be surface mounted to a single gang box, double gang box or VE-GNP Gooseneck Pedestal. For more information on the VE-5x5 and VE-GNP, see DOD# 424.

**Important:** The E-30-CE and E-1600-30A-CE will NOT mount to a standard double gang box.

**\* Note:** The black plastic rough-in box (part # 259576) may be purchased separately (Example: Mounting boxes to studs before the walls are finished for flush installation). Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "Spare Parts" to order these rough-in boxes.

**\*\* Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-1600A-CE Series phone, always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the black plastic box.

# E-1600-50A-CE / E-1600-52A-CE

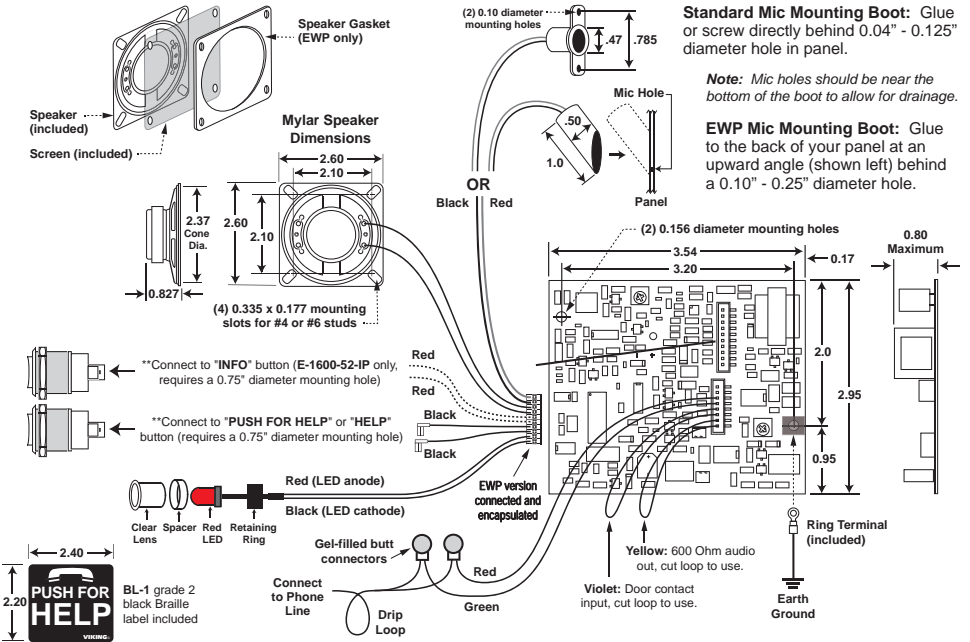
**BEFORE OPERATING THIS UNIT, IT MUST BE INSTALLED INTO A CHASSIS IN ACCORDANCE WITH EN60950**

**Note:** This is a 1600A-CE parts kit without chassis.

**Shipping Weight:** .45 kg (1 lb)

**Connections:** Gel-filled butt connectors

**Optional Enhanced Weather Protection (EWP) Available:** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See **DOD# 859**.



# E-1600-55A-CE

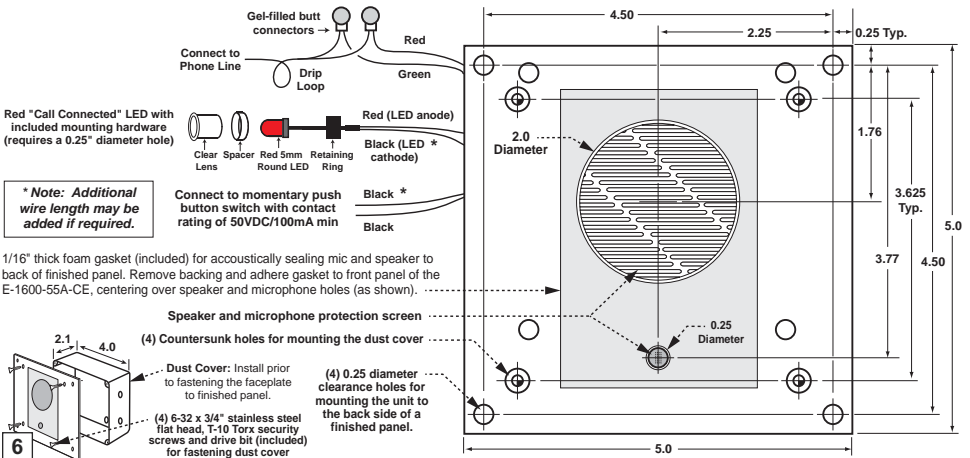
The **E-1600-55A-CE** is a universal emergency phone kit for installing behind elevator panels, or an installation requiring a custom panel. The finished panel should provide: (4) studs (#6 diameter minimum) for mounting plate, audio holes for speaker and microphone, a momentary SPST push button switch and a 0.25" diameter mounting hole for the LED. Alternatively, the LED can be cut off and the wires connected to a integral switch with LED (often found in elevators).

**Shipping Weight:** .73 kg (1.6 lb)

**Connections:** Gel-filled butt connectors

**Material:** 0.062" thick (16 gauge) zinc plated steel

**Optional Enhanced Weather Protection (EWP):** The optional EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards. See **DOD# 859**.



# K-1600-EHFA-CE

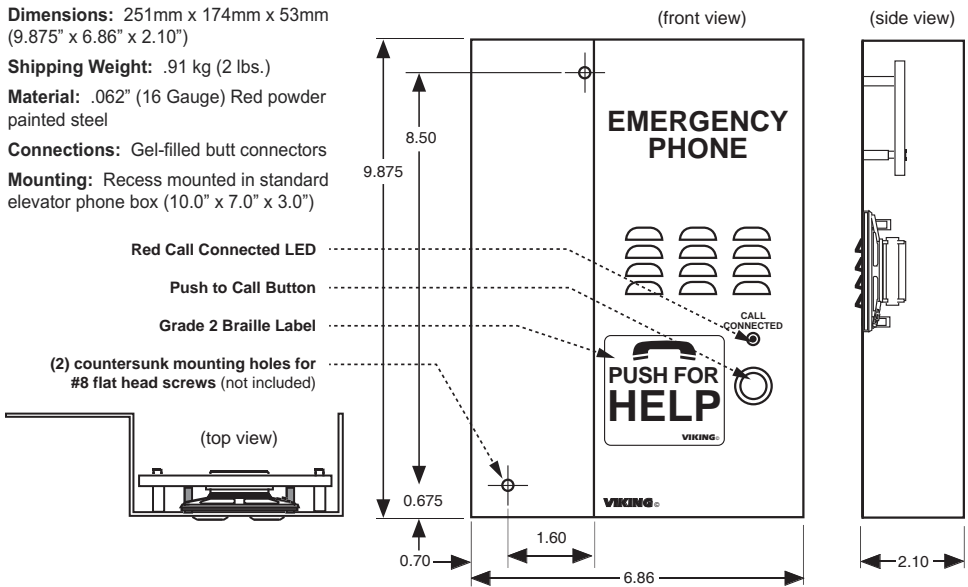
**Dimensions:** 251mm x 174mm x 53mm  
(9.875" x 6.86" x 2.10")

**Shipping Weight:** .91 kg (2 lbs.)

**Material:** .062" (16 Gauge) Red powder painted steel

**Connections:** Gel-filled butt connectors

**Mounting:** Recess mounted in standard elevator phone box (10.0" x 7.0" x 3.0")



## Programming

### A. Accessing the Programming Mode

The **E-1600A-CE Series** emergency phone can be programmed from any Touch Tone phone using a C.O. line, analog PABX/KSU station, or a **DLE-200B** Line Simulator. For more info on the **DLE-200B**, see **DOD# 605**.

#### 1. With the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls - see section J).
<b>Step 2.</b>	From a Touch Tone phone call the line attached to the <b>1600A-CE Series</b> phone.
<b>Step 3.</b>	When the <b>1600A-CE Series</b> phone answers, enter the 6-digit security code (factory set to <b>845464</b> - see section B). A double beep should be heard indicating you have entered the programming mode.

#### 2. Without the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls- see section J).
<b>Step 2.</b>	Move DIP switch 3 to the <b>OFF</b> position (incoming calls enter programming without security code, see section J).
<b>Step 3.</b>	From a touch tone phone call the line attached to the <b>1600A-CE Series</b> phone.
<b>Step 4.</b>	When the <b>1600A-CE Series</b> answers, a double beep should be heard indicating you have entered the programming mode.
<b>Step 5.</b>	When finished programming, move DIP switch 3 back to the <b>ON</b> position. (see section J).

### B. Security Code (memory location #19)

The security code allows the user/installer to program the **1600A-CE** phone while DIP switch **3** is in the **ON** (normal) position. The factory set security code is 845464 (V-I-K-I-N-G). It is recommended that the factory set security code be changed. **Example:** To store 123456 as the security code:

<b>Step 1.</b>	Access programming as shown in Programming section A.
<b>Step 2.</b>	Enter <b>123456 #19...</b>
<b>Step 3.</b>	Hang-up.

<b>Enter Your Security Code Here:</b>					
					<b>#19</b>

**Note:** The security code must be 6 digits and cannot include a \* or a #.



## C. Quick Programming Features

Description	Enter Digits	+	Location
First emergency speed dial number	0-20 digits	then	#00
Second emergency speed dial number	0-20 digits	then	#01
Third emergency speed dial number	0-20 digits	then	#02
Fourth emergency speed dial number	0-20 digits	then	#03
Fifth emergency speed dial number	0-20 digits	then	#04
Central station receiver number	0-20 digits	then	#05
Central station voice number	0-20 digits	then	#06
First "Info" speed dial number (E-1600-20A-CE and E-1600-52A-CE only)	0-20 digits	then	#07
Second "Info" speed dial number (E-1600-20A-CE and E-1600-52A-CE only)	0-20 digits	then	#08
Third "Info" speed dial number (E-1600-20A-CE and E-1600-52A-CE only)	0-20 digits	then	#09
Voice announcer/miscellaneous options (factory set to 000210)	6 digits	then	#17
Timing/Dialing options (factory set to 234721)	6 digits	then	#18
Security code (factory set to 845464)	6 digits	then	#19
Identification number (factory cleared)	0-20 digits	then	#20
Second central station identification number (factory cleared)	0-20 digits	then	#21
To clear any speed dial number	(no digits)	then	#00-#09

Description	Enter Digits
To add a * at any point in the dialing string	**
To add a # at any point in the dialing string	*#
To add a four second pause at any point in the dialing string	*7
To switch to pulse dialing at any point in the dialing string	*6
Diagnostic tones (used to check mic and speaker operation)	*0
Exit programming and disconnect	#7
Reset all programming to factory default settings	###

**Note:** A double beep indicates a valid memory position, four beeps indicate an error.

## D. Speed Dial Numbers

**Note:** Up to 20 digits can be stored in each dial position. Special features such as pause, mode change, Touch Tone \* and # count as single digits.

### 1. Emergency Speed Dial Numbers (memory locations #00 - #04)

The emergency speed dial number programmed in location #00 is the number that is dialed when the "HELP" / "CALL" button is first pressed. Additional speed dial numbers will be dialed when there is no answer or a busy signal is detected and the next number redial features are activated. To program, enter the desired speed dial number followed by the location number (#00 - #04). To clear a speed dial location, simply enter the memory location (#00 - #04) alone. The 1600A-CE series phone is factory set with no speed dial number programmed.

To Program:	Enter:
*	**
#	*#
4 second pause	*7
Switch to pulse mode	*6
0, 1, 2...9	0, 1, 2...9

### 2. "INFO" Speed Dial Numbers (E-1600-20A-CE/52A-CE Only) (memory locations #07 - #09)

The information speed dial number programmed in location #07 is the telephone or extension number that is dialed when the "INFO" button is first pressed. Additional information speed dial numbers will be dialed when there is no answer or a busy signal is detected and the next number redial features are activated. The E-1600-20A-CE phone will cycle through the programmed speed dial numbers until answered. To program, enter the desired speed dial number followed by the location number (#07 - #09). To clear a speed dial location, simply enter the location (#07 - #09) alone.



### 3. Speed Dial Programming Examples

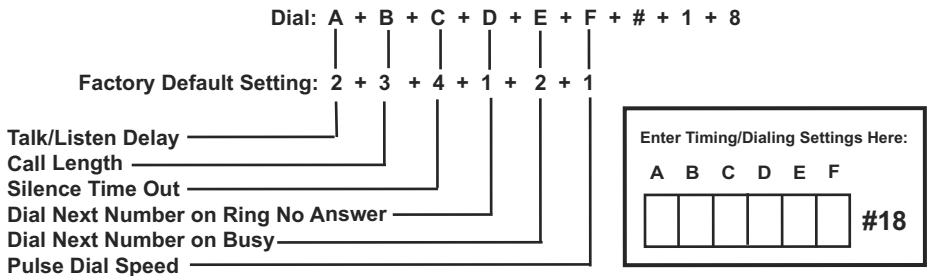
To Program the 1600A-CE Series Phone...	Step 1 See Section A	Step 2 Enter Digits:
...to store 555-1234 as the first emergency speed dial number	Enter Programming	<b>5 5 5 1 2 3 4 # 0 0</b>
...to store a Touch Tone 9, a four second pause and then a pulse dialed 333-4444 into the second "Info" speed dial memory position	Enter Programming	<b>9 *7 *6 3 3 3 4 4 4 4 # 0 8</b>
...to clear the first emergency speed dial number	Enter Programming	<b># 00</b>

### E. Identification Number (memory location #20)

The touch tone I.D. number (up to 20 digits) is used by emergency personnel to identify the location of the caller and is given out when the receiving party presses a Touch Tone \*. The security office can display the number using a touch tone decoder. To program the I.D. number, enter the desired number followed by #20. **Example:** To store 333 as the I.D. number, enter: **3 3 3 # 2 0**

### F. Timing/Dialing Options (Memory Location #18)

There are six positions in the timing/dialing options. To program these options, enter the six desired timing/dialing digits followed by #18. The six available timing/dialing options are defined as shown below.



#### Setting A - Talk/Listen Delay

This feature selects switching time between talk and listen modes (VOX switching time). Use chart on the right. \* **Note:** The factory default is .2 seconds.

Touch Tone	Talk/Listen Delay
1	.1 sec
2	.2 sec*
3	.3 sec
4	.4 sec
5	.5 sec
6	.6 sec
7	.7 sec
8	.8 sec
9	.9 sec

### Setting B - Call Length Time Out

This feature selects the maximum length of time that calls can be connected. Programmable in increments of 1 minute up to a maximum of 9 minutes (Touch Tones 1 - 9). Program 0 in this location to disable the call length time out. With the call length disabled, the **1600A-CE** series phone must rely on CPC, busy, silence or return to dial tone to hang-up. Use chart at the right.

**\*Note:** The factory default is 3 minutes.

Touch Tone	Call Length Time Out
0	Disabled
1	1 min
2	2 min
3	3 min*
4	4 min
5	5 min
6	6 min
7	7 min
8	8 min
9	9 min

### Setting C - Silence Time Out

This feature selects the length of time that calls will remain connected without voice activity. Programmable in increments of 10 seconds up to a maximum of 90 seconds (Touch Tones 1 - 9). To disable the silence time out, program 0 in this location. Use chart at the right.

**\* Note:** The factory default is 40 seconds.

Touch Tone	Silence Time Out
0	Disabled
1	10 sec
2	20 sec
3	30 sec
4	40 sec*
5	50 sec
6	60 sec
7	70 sec
8	80 sec
9	90 sec

### Setting D - Dial Next Number on Ring No Answer

If enabled and a ring-no-answer is detected, the **E-1600A-CE** phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed.

**\* Note:** Factory set to redial after 7 rings if not answered.

Touch Tone	Setting D
1 or 0	Disabled
2, 3, 4...9	*Dials second number after 2, 3, 4...9 rings respectively

### Setting E - Dial Next Number on Busy

If enabled and a busy is detected, the **1600A-CE** series phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed.

**\* Notes:** This feature is enabled in the factory default setting. If the busy signal is interrupted with a promotional message, contact your central office to have it removed.

Touch Tone	Setting E
1	Disabled
2	Enabled*

### Setting F - Pulse Dialing Rate (Pulses per Second)

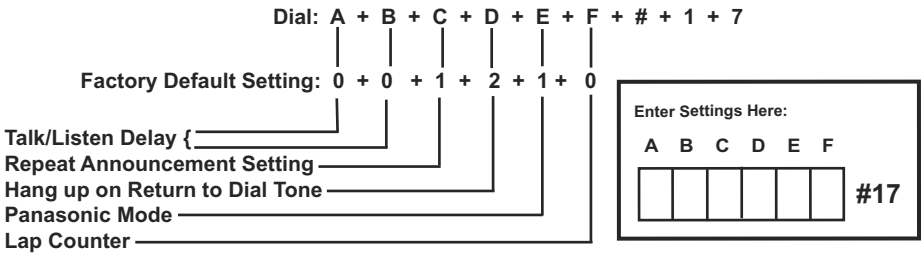
The **1600A-CE** series phone is capable of different pulse dialing speeds.

**\* Note:** The factory default setting is 10pps (pulses per second).

Touch Tone	Setting F
1	10 pps*
2	20 pps

## G. Voice Announcer/Miscellaneous Options (memory location #17)

The **1600A-CE** series phones have a built-in non-volatile digital voice announcer that may be used to identify the location of the emergency phone call. The 16 seconds of digital record time is recorded remotely from a Touch Tone phone. Programming options are as follows:



### Settings A and B - Announcement Delay (except E-30-CE, keep set at 00)

The **1600A-CE** series phone is factory set to automatically start playing the voice announcement after it has determined the call has been answered. Alternately, the announcement may be programmed to play after a programmed amount of time, from 1 to 99 seconds after dialing.

Touch Tone	Settings A/B
00	Play Automatically
01-99	1-99 seconds*

\* **Note:** If the announcement delay time is used, you must allow enough time for the **1600A-CE** series phone to detect ring-no-answer and busy signals when using the redial features. The factory default is set to play automatically.

### Settings C - Repeat Announcement Option (except E-30-CE)

The **1600A-CE** can be programmed to play the announcement from 1-9 times, or continuously repeat the announcement every 8 seconds until a Touch Tone \* is detected from the distant party. The I.D. number (if programmed) will be sent and the call connected LED will turn on automatically after the announcement has stopped repeating.

Touch Tone	Setting C
0	Repeat every 8 secs
1-9	Repeat 1-9 times*

\* **Note:** The factory default for the **1600A-CE** series phone is to play the voice announcement once (digit 1).

### Setting D - Hang Up on Return to Dial Tone

If enabled and return dial tone is detected, the **1600A-CE** will hang up.

\* **Note:** The factory default setting is enabled.

Touch Tone	Setting D
1	Disabled
2	Enabled*

### Setting E - Panasonic Mode

The **1600A-CE** series phone can be programmed to recognize the double ring cadence that is typical of Panasonic phone systems. If the **1600A-CE** is connected to a Panasonic extension, (or any other system that provides a double ring cadence) enable "Panasonic Mode" will allow for proper call progress detection.

\* **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting E
1	Disabled*
2	Enabled

### Setting F - Lap Counter

With the lap counter disabled (factory setting), if the **1600A-CE** is programmed to dial the next number on ring-no-answer and/or busy signal (see page 10), the **1600A-CE** series phone will continuously call its programmed phone numbers forever until the call is answered. The lap counter is a programmable counter that determines how many times the **1600A-CE** series phone will cycle through its list of up to 5 emergency number (or up to 3 "Info" phone numbers), before it stops the dialing process and hangs up. When all of the programmed phone numbers have been dialed, the lap counter is incremented and the dialing process repeats. When the lap counter has been met, the dialing process stops and the **1600A-CE** series phone hangs up. \* **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting F
0	Disabled*
1-9	Lap count = 1-9 times

## H. Recording the Announcement Option (except E-30-CE)

<b>Step 1</b>	Call into the <b>1600A-CE</b> series phone with a Touch Tone phone and access programming.
<b>Step 2</b>	Enter <b>*4</b> , wait for the tone and then begin recording. Sixteen seconds of record time is available.
<b>Step 3</b>	Enter any Touch Tone to stop the recording. Playback is automatic.
<b>Step 4</b>	Enter <b>*5</b> to review the announcement again.
<b>Step 5</b>	If you choose to not use a voice announcement, enter <b>*3</b> to clear the recording.

**Example:** "Elevator number 1215, located in the Financial Building, needs assistance. Press the asterisk (\*) key on your telephone to start and stop this announcement..."

## I. Assisted Programming (USA Only)

When attempting to program the **1600A-CE** Series emergency phone, if the phone number of the line it is connected to is not known, the phone can be set to automatically call Viking technical support for assistance. With DIP switch 3 set to OFF (programming mode), pushing the CALL button will cause the **1600A-CE Series** phone to call Viking, whether it be connected directly to a CO line, or behind a "dial 9" PBX.

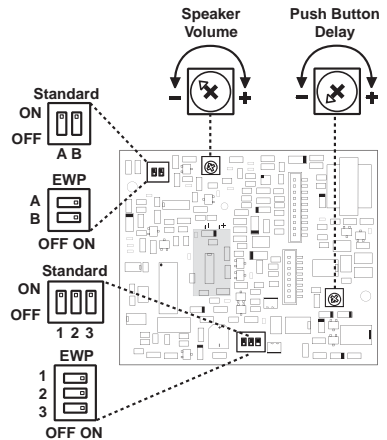
The **1600A-CE Series** phone will first dial 9, and then listen for second dial tone; if detected it will continue to dial Viking's assisted programming phone number. If a second dial tone is not detected, it then knows is not behind a PBX, so it will momentarily hang up and then directly dial Viking's assisted programming phone number. Since this is a long distance phone call, the line must be capable of placing long distance calls for the call to go through. When finished programming, it is very important to set DIP switch 3 back to ON (normal operating mode), and place a test emergency call to be sure all programming was done properly.

**Warning:** Failure to set DIP switch 3 back to ON when finished programming will cause the 1600A-CE Series phone to only call Viking Technical Support, instead of your programmed emergency number.

## J. DIP Switch Programming and Speaker / Microphone Adjustments

A speaker volume POT is provided to increase or decrease the speakerphone volume. **Note:** The Microphone Sensitivity POT has been removed because the microphone sensitivity is now microprocessor controlled. This allows the mic gain to be automatically increased in a quiet environment, allowing the distant party to clearly hear even soft or distant sounds. The microprocessor will automatically reduce the mic sensitivity when the location becomes noisy. This Automatic Noise Canceling (ANC) feature will allow speakerphone two-way communications to continue to work properly, even when subjected to loud noise such as a diesel engine or traffic.

Switch A	Switch B	Description
ON	ON	Normal audio detection
OFF	OFF	Increase audio detect sensitivity for low level lines. Useful in applications in which voice or busy signals have trouble breaking over the speaker.



Switch	Position	Description
1	ON	"HELP / CALL" button alternately connects and disconnects calls (factory default)
1	OFF	"HELP / CALL" button connects calls only
2	ON	Incoming calls answered (factory setting)
2	OFF	Incoming calls are not answered
3	ON	Normal operation mode (factory setting)
3	OFF	Learn mode - Any incoming calls are automatically entered into the programming mode (no security code required). Use this option if you have forgotten your security code. Any outbound call will dial Viking Technical Support (see section I). <b>WARNING: When finished programming, set this switch back to the ON position, otherwise the 1600A Series phone will only call Viking Technical Support instead of your programmed emergency number.</b>

## K. Push Button Delay

The Push Button Delay POT (shown in the diagram above right), allows the installer to delay the reaction time of the push-to-call buttons. The POT is factory set to the recommended minimum position (fully counterclockwise), which allows the phone to initiate an outbound call with a momentary push of the button. Increasing the POT setting slows down the reaction time of the push-to-call button, requiring the user to press and hold the button for some time before a call is initiated. The amount of time delay can be set by experimentation. The POT range is large enough that the delay time is infinite. Be sure to test both "HELP" and if applicable, "INFO" button.

## L. Optional Audio Induction Loop (Yellow Wire)

A 600 ohm audio output is available to source an Audio Induction Loop amplifier (also known as a "Hearing Loop"), used to drive hearing aids with T-Coils. To use this option cut the YELLOW wire loop in two, and connect the wire pair to the input of the amplifier.

## M. Optional Door Contact Input (Violet Wire)

The **1600A-CE** Series phone is equipped with the option to disable the phone whenever the elevator doors are open. This option is useful in installations in which prank calls are common. A call for help can only be initiated when the elevator doors are closed. To use this option cut the VIOLET wire loop in two, and connect the wire pair to a door switch that opens when the doors are open.

## N. Central station Programming

The standard **1600A-CE** emergency phone is capable of communicating using the "Ademco Contact I.D.", "Ademco High Speed", "DTMF 4+1 Express", or the "DTMF 4+2 Express" formats. All formats use the programming memory location **#20** to store the account code and alarm details.

### 1. Central Station Programming Features

#### a. Accessing the Programming Mode

Before programming, you must access the programming mode (see **Programming** section A).

#### b. Enabling/Disabling Central Station Mode

The **1600A-CE** Series emergency phone can be placed in the "Central Station Mode" by entering a central station phone number in position **#05** while programming. To cancel the "Central Station Mode," clear position **#05** by entering **#05** only (see **Programming** section D).

To Program the 1600A-CE Series Phone...	Step 1 :	Step 2 - Enter Digits:
...to enable central station programming and dial 952-2567	Enter Programming	<b>9 5 2 2 5 6 7 # 0 5</b>
...to disable central station programming	Enter Programming	<b># 0 5</b>

#### c. Ring No Answer

When the **1600A-CE** Series emergency phone is in the "Central Station Mode", it is best to have the ring no answer set to a minimum of three, because some receivers send a long tone after answering the line that sounds like a ring back. If the **1600A-CE** is set to a ring no answer of two, the phone will disconnect (see **Programming** section F.)

## d. Speed Dial Numbers

The **1600A-CE** Series phone can be programmed to dial a central station receiver only, or dial up to 5 voice numbers first, and if no answer, then dial the central station receiver. When calling the first numbers (memory positions **#00-#04** (see **Programming** section **D**), the phone stays in "two-way talk mode" allowing two-way conversation. When calling the Central Station number (memory position **#05**), the phone is in a "listen only mode" in order to interpret the hand shake signals of the receiver.

A second central station number position has been provided in location **#06** that is used when the central station receiver does not have a talk over mode. If a number is placed in position **#05** and position **#06** is cleared, the **E-1600A-CE** will call the central station monitor receiver. One or two alarm messages can be sent to the receiver (see **Operation** section **B**, note 3). After the receiver sends a kiss-off, the **E-1600A-CE** lights the "Call Connected" LED and goes into two-way talk mode. If numbers are in both positions **#05** and **#06**, the **E-1600A-CE** will call the receiver first, and after the kiss-off, will hang-up and redial the number in position **#06** for two-way voice communication

Location	Call Type
#00	Voice - Emergency
#01	Voice - Emergency
#02	Voice - Emergency
#03	Voice - Emergency
#04	Voice - Emergency
#05	Central Station Receiver
#06	Central Station Voice Line
#07	Voice - "Info" (E-1600-20A/52A ONLY)
#08	Voice - "Info" (E-1600-20A/52A ONLY)
#09	Voice - "Info" (E-1600-20A/52A ONLY)

**Notes:** If only a central station is to be dialed, the central station phone number must be preprogrammed in memory location **#05** and memory locations **#00-#04** must be cleared.

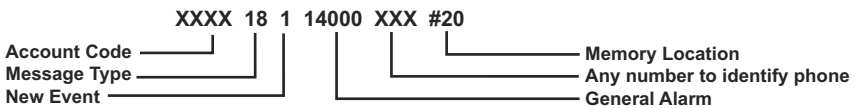
## 2. Central Station Formats

The following examples explain the receiver formats and how to properly program memory location **#20**. Each format starts with a four digit account code. This is the code that is assigned by your central station for billing purposes. You must access the programming mode before programming these features (see **Programming** section **A**). **Important:** If a number is shown, you must use that number. If an "X" is shown, use any appropriate number.

**Note:** A second information alarm message can be sent to the receiver, for any receiver that requires two separate messages. The second alarm message is programmed in **#21** location. For additional information about the second alarm message, see **Operation** section **B**.

### a. Ademco Contact ID Format

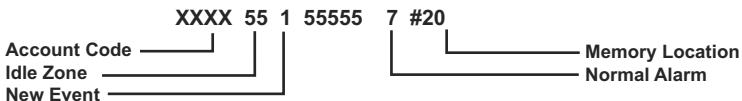
This DTMF format consists of a four digit account code, two digit message type, and a nine digit data field.



Enter Contact ID Settings Here:      #20

### b. Ademco High Speed Format

This DTMF format consists of a four digit account code, eight zone codes and one alarm type digit. With this format you can identify up to eight different phones by using a zone per phone. A "5" in a zone position means no alarm. The following example shows an alarm from the third phone.



Enter Ademco High Speed ID Settings Here:      #20

### c. 4+1 Express Format

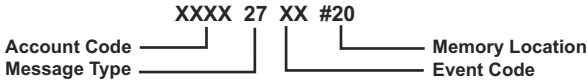
This DTMF format consists of a four digit account code, two digit message type, and a single digit event code.



Enter 4 + 1 Express ID Settings Here:  17  #20

### d. 4+2 Express Format

This DTMF format consists of a four digit account code, two digit message type, and a two digit event code.



Enter 4 + 2 Express ID Settings Here:  27  #20

## Operation

### A. Standard Operation

#### 1. "HELP" / "CALL" Button

When the "HELP" / "CALL" button is pressed, the **1600A-CE** series phone goes off-hook and dials a pre-programmed telephone number. The Call Connected LED momentarily flashes during tone or pulse dialing. In the event that the line is busy or there is a ring-no-answer, the unit can be programmed to call additional phone numbers. The phone then cycles through up to 5 pre-programmed emergency numbers until the call is answered. When the call is answered, handsfree communication to emergency personnel is established. The digital voice announcer will automatically play to identify the location of the emergency call. The \* key will stop the announcement, send the I.D. number (if programmed) and light the "Call Connected" LED. Alternatively, the phone can be programmed to automatically light the "Call Connected" LED after the announcement has played a programmed number of times. The distant party will know the location of the emergency call by either the voice announcement or by decoding the Touch Tone I.D. number. Pressing the \* key again will send the I.D. number and play the message again. Once the \* key has been pressed, the # key can be used to force the phone to hang-up. **Note:** The **E-30-CE** phone's LED is on whenever the phone is in use and there is no voice announcer.

#### 2. "INFO" Button (E-1600-20A-CE and E-1600-52A-CE Only)

When the "INFO" button is pressed (**E-1600-20A-CE** and **E-1600-52A-CE** only), the phone goes off-hook and dials the first "INFO" phone number programmed. If a busy signal is detected or the call goes unanswered, the phone will cycle through all three "INFO" phone numbers until the call is answered. When answered, handsfree communication is established. **Note:** The voice announcement is for **Emergency/Help** calls only and will not play on a call initiated from the "INFO" button.



## B. Central Station Operation (except the E-30-CE)

After the "HELP" / "CALL" button on the **1600A-CE** Series phone has been pressed the **1600A-CE** Series phone will begin to dial. If a voice number is programmed in memory locations **#00-#04**, these numbers will be dialed first. Upon detecting a busy signal or after a preprogrammed ring delay the **1600A-CE** Series phone will hang-up and dial the central station phone number stored in memory location **#05**. When the central station receiver answers, it will send a handshake tone to the **1600A-CE** phone. Upon detecting the handshake tone, the **1600A-CE** Series phone will begin uploading the information stored in memory location **#20**.

Once the **1600A-CE** Series emergency phone has sent the information stored in memory location **#20**, it waits for a "kiss-off" tone from the central station. When the "kiss-off" tone is received, the emergency phone turns on the call connected LED and goes into the "two-way talk mode" or hangs up and dials position **#06** if programmed (see Note 3 below).

### Notes:

1. The central station should have a "talk-over" feature that will allow a two-way conversation at this time. If your receiver does not support "talk-over", a voice phone number should be programmed into position **#06**.
2. If the central station answers the call, sends the handshake tone, but does not send a "kiss off" tone after the information is sent, the **1600A-CE** resends the information three additional times, waiting for a "kiss-off" after each attempt. If "kiss-off" has not been received after the fourth attempt, the **1600A-CE** hangs up and dials position **#05** again.
3. The **1600A-CE** has the capability to send a second informational message to the receiver after the first "kiss-off" is received, but only if a second informational message is stored in memory location **#21**. After the first "kiss-off" is received, the **1600A-CE** sends the information stored in memory location **#21**. It then waits for a second "kiss-off" from the central station receiver. When the second "kiss-off" is received, the emergency phone turns on the call connected LED and goes into the "two-way talk mode" or hangs up and dials position **#06** if programmed.

## Two Year Limited Warranty

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of two years from the date of purchase from any authorized Viking distributor. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments. This warranty does not cover stainless steel surfaces that have not been properly maintained.

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**Hudson, WI 54016**  
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