

TECHNIC/

Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

E-1600-BLT

ADA Compliant Emergency Tower Phone with Strobe

December 26, 2001

ADA Compliant Emergency Tower Phone with Blue Strobe Light and Voice Announcer



Many new building codes require emergency communication in elevators and "Area of Refuge" sites. Now you can provide added safety for your patrons, employees, and students with the addition of High Visibility, ADA Compliant emergency communication. At the simple push of a button, the E-1600-BLT will initiate a call to your emergency personnel and send a digital announcement to identify the location of the emergency call. In addition, the tower phone's bright (1million candle power) strobe light will instantly begin flashing to deter further activity and make it fast and easy for Police or Security personnel to locate the site of the emergency.

Though the strobe requires external power to operate, rest assured that communication is ALWAYS possible, even during power failures! All phone numbers, location numbers and programming parameters are stored in non-volatile E2 memory. No batteries are required to hold the memory.

The E-1600-BLT is equipped for outdoor or harsh environments with Enhanced Weather Protection (EWP). EWP features rubber gaskets and boots, hand soldered silicon sealed connections, gel filled tip and ring connectors, as well as urethane potted circuit boards with internally sealed, field-adjustable trim pots and

DIP switches for easy on-site programming.

Applications •

- · Campus Security Sites
- Area of Refuge sites
- Parking Ramps/Lots
- Automated Tellers (ATM)
- Entryways
- Roadside Emergency Sites
- Stairwells in Public Buildings

Phone...715.386.8861

http://www.vikingelectronics.com

Features

- Enhanced Weather Protection (EWP)
- Need More Information on EWP? Call (715) 386-4345 and select 859.
- · Non-volatile digital voice announcer with 10 seconds of voice memory
- Handsfree operation
- · Telephone line powered-communication during power failure
- Non volatile E² memory
- 1 million candle power blue strobe light
- · Touch Tone or pulse dialing
- Dials up to 5 different numbers on busy or no answer
- Transmits a unique location I.D. code
- "Call Connected" LED for the hearing impaired
- Grade 2 Braille label for the visually impaired
- Disconnects on CPC, silence, busy signal, dial tone, time-out or Touch Tone command
- Automatically answers incoming calls
- · Remotely programmable
- · "Central Station Monitoring" compatible
- · High visibility, vandal and weather resistant
- Vandal resistant polycarbonate strobe lens
- Surface mountable

Specifications '

Phone Power: Telephone line powered (24V DC/20mA min) **Strobe Power:** 120V AC/12V DC power adapter (included) Maximum Strobe Power Run: 200 feet using 24 awg wire **Dimensions:** 1070mm x 152.4mm x 109.3mm (42" x 6" x 4.5")

Shipping Weight: 5.9 kg (13 lbs) Connections: 10 pin screw terminal block Mounting: Surface mount to rigid wall or post

Environmental: -26°C to 54°C (-15°F to 130°F) with 5% to 95%

non-condensing humidity

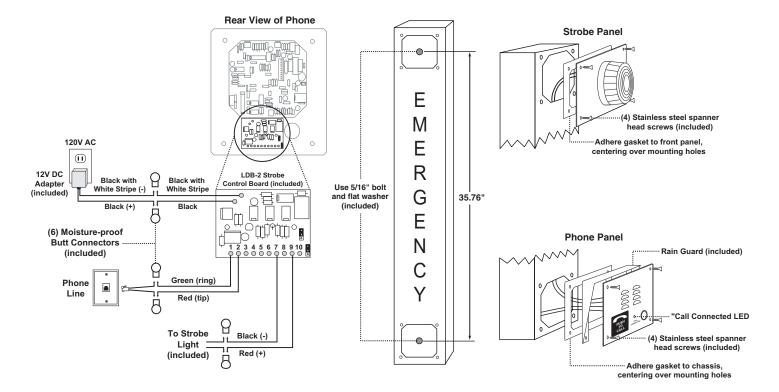
Strobe Output: 1,000,000 candle power

Material: Enclosure - .125 aluminum, 76.2mm x 152.4mm (3" x 6") tube, powder painted high-visible yellow, Phone - .074 (14 ga) stainless steel with stainless steel button, Strobe - Vandal resist-

ant polycarbonate plastic

Installation

Step 1.	Mount the tower phone approximately 42" above the floor to a flat, sturdy surface using 5/16 hardware. Note: Flat washers should be used on the main mounting bolts for additional strength.
Step 2.	Locate the strobe light panel and pass the red and black wires from the strobe panel through the gasket and the upper hole in the tower.
Step 3.	Mount the strobe panel to the tower using the four security screws provided.
Step 4.	Locate the phone panel. Using the moisture-proof connectors, connect the red and black wires labelled "Strobe Light" to the red and black wires on the strobe panel.
Step 5.	Connect the phone line to the red and green wires (this connection is not polarity sensitive).
Step 6.	Connect the 12V DC adapter wires black (+) and black with white stripe (-) to the black and black with white stripe wires from the LDB-2 Strobe Control Board.
Step 7.	Mount the phone panel to the tower using the remaining four security screws.



Programming

A. Accessing the Programming Mode

The **E-1600-BLT** 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. Need More Information on the DLE-200B?

1. Using the Security Code

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

2. Without the Security Code

Step 1.	Move DIP switch 2 to the ON position (sets unit to answer incoming calls, see section K).
Step 2.	Move DIP switch 3 to the OFF position (incoming calls enter Programming without security code, see section K).
Step 3.	From a Touch Tone phone call the line attached to the E-1600-BLT phone.
Step 4.	When the E-1600-BLT answers, a double beep will be heard and you will automatically enter the programming mode.
Step 5.	When finished programming, move DIP switch 3 back to the ON position (see section K).

B. Quick Programming Features

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
Voice announcer options (factory set to 000000)	6 digits	then	#17
Timing/Dialing options (factory set to 234111)	6 digits	then	#18
Security code (factory set to 845464)	6 digits	then	#19
Identification number (factory cleared)	0-20 digits	then	#20

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

C. Security Code (memory location #19)

The security code allows the user/installer to program the **E-1600-BLT** 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:

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

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

Enter Your Security Code Here:						
						#19

Enter Digits - then - Enter Memory Location

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

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.

The emergency speed dial number programmed in location #00 is the telephone or extension number that is dialed when the "Push To 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. The E-1600-BLT phone will cycle through the programmed speed dial numbers until answered. To program, enter the desired speed dial number followed by the location number (#00 - #04).

To Program:	Enter:
*	**
#	*#
4 second pause	*7
switch to pulse mode	*6
0, 1, 29	0, 1, 29

To clear a speed dial location, simply enter the memory location (**#00 - #04**) alone. The **E-1600-BLT** phone is factory set with no speed dial number programmed.

E. Programming Examples

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

F. 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

G. 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 numbers followed by **#18**. The six available timing/dialing options are defined as follows:.

Dial: A + B + C + D + E + F	F + # + 1 + 8
Factory Default Setting: 2 + 3 + 4 + 1 + 1 + 1	1
Talk/Listen Delay Call Length Silence Time Out Dial Next Number on Ring No Answer Dial Next Number on Busy Pulse Dial Speed	Enter Timing/Dialing Settings Here: A B C D E F #18

Setting A - Talk/Listen Delay

This feature selects switching time between talk and listen modes (VOX switching time). Use chart at the far right.

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 **E-1600-BLT** phone must rely on a CPC signal, busy signal, silence or return to dial tone to hang-up. Use chart at the right.

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

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

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 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 far right.

Setting D - Dial Next Number on Ring No Answer

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

* Note:	This	teature	İS	disabled	l in	the	tacto	ory	detau	ılt	setting	١.
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Touch Tone	Setting D
1 or 0	Disabled*
2, 3, 49	Dials second number after
	2, 3, 49 rings respectively

Setting E - Dial Next Number on Busy

If enabled and a busy is detected, the **E-1600-BLT** 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 disabled 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 **E-1600-BLT** phone is capable of different pulse dialing speeds.

Touch Tone	Setting F
1	10 pps*
2	20 pps

^{*} Note: The factory default is .2 seconds.

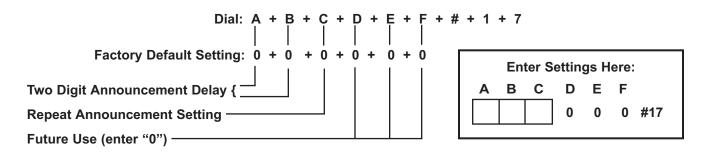
^{*} **Note:** The factory default is 3 minutes.

^{*} Note: The factory default is 40 seconds.

^{*} **Note:** The factory default setting is 10pps.

H. Voice Announcer Options (memory location #17)

The **E-1600-BLT** phone have a built-in non-volatile digital voice announcer that may be used to identify the location of the emergency phone call. The 10 seconds of digital record time is recorded remotely from a Touch Tone phone. Programming options are as follows:



Settings A and B - Announcement Delay

The **E-1600-BLT** 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	Setting A/B
00	Play automatically
01-99	1-99 seconds*

^{*} **Note:** If the announcement delay time is used, it is important to allow enough time for the **E-1600-BLT** phone to detect ring-no-answer and busy signals when using the redial features. The factory default is set to play automatically.

Setting C - Repeat Announcement Option

The **E-1600-BLT** can be programmed to play the announcement from 1-9 times, or to 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 E-1600-BLT phone is to repeat until a * is detected (digit 0).

I. Recording the Announcement

Step 1.	Call into the E-1600-BLT phone with a Touch Tone phone and access programming.		
Step 2.	Enter *4, wait for the tone and then begin recording. Ten seconds of record time is available.		
Step 3.	Enter any Touch Tone to stop the recording. Playback is automatic.		
Step 4.	Enter *5 to review the announcement again.		
Step 5.	If you choose to not use a voice announcement, enter *3 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..."

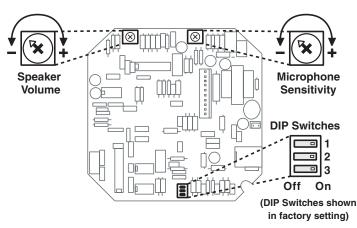
J. Automating the Call Connected LED

There are two methods of turning on the Call Connected LED. The LED will turn on after a Touch Tone * is detected from the distant party or after the voice announcer is finished playing a programmed number of times. If you want the Call Connected LED to light automatically when the call has been answered, but you don't want a voice announcement to be played, follow these programming steps:

Step 1:	Step 2:	Step 3:
Access Programming as shown in section A	Make a short (1 second) recording of silence	Enter digits: 001000#17

K. DIP Switch Programming/Speaker and Microphone Adjustments

Two POTs are provided to increase or decrease speaker volume and microphone sensitivity. In certain noisy locations the microphone sensitivity may need to be decreased as shown below. *Caution:* Setting the microphone gain too high may cause distorted audio, prevent the distant party from breaking over and inhibit second number redialing.



DIP Switch	Position	Description	
1	ON "Push to Call" button alternately connects and disconnects calls (factory default)		
1	OFF	OFF "Push to Call" button connects calls only	
2	ON	Incoming calls answered (factory setting)	
2	OFF	FF 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.	

L. Central Station Programming

The standard **E-1600-BLT** 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 **E-1600-BLT** 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**).

c. Ring Delay

When the **E-1600-BLT** emergency phone is in the "Central Station Mode", it should have the ring delay 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 **E-1600-BLT** is set to a ring delay of two, the phone will disconnect (see **Programming** section **G**).

To Program the E-1600-BLT Phone	Step 1:	Step 2 - Enter Digits:	
to enable central station programming and dial 952-2567	Enter Programming	9522567#05	
to disable central station programming	Enter Programming	# 0 5	

d. Speed Dial Numbers

The **E-1600-BLT** 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-1600-BLT will call the central station monitor receiver. After the receiver sends a kiss-off, the E-1600-BLT

lights the "Call Connected" LED and goes into two-way talk mode. If numbers are in both positions **#05** and **#06**, the **E-1600-BLT** 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

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. The "Call Connected" LED will light automatically if there is a voice recording programmed.

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

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.

a. Ademco Contact This DTMF format of a four digit acco two digit message a nine digit data		consists Account Code — Memory Location unt code, Message Type — Any number to identify phone			
	field.	Enter Contact ID Settings Here: 18 1 14000 #20			
b.	Ademco High Spe	eed 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. XXXX 55 1 55555 7 #20 Account Code Normal Alarm New Event				
		Enter Ademco High Speed ID Settings Here: 55 1 55555 7 #20			
C.	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. XXXX 17 X #20 Memory Location Message Type Wessage Type				
		Enter 4+1 Express ID Settings Here: 17 #20			
d.		at Consists of a four digit account Sage type, and a two digit event			
		Enter 4+2 Express ID Settings Here: 27 #20			

Operation

A. Standard Operation

When the Push to Call button is pressed, the **E-1600-BLT** phone goes off-hook and dials a pre-programmed telephone number. The Call Connected LED momentarily flashes during tone or pulse dialing. While the emergency call is in progress, the blue strobe will flash. 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 emergency phone then cycles through up to 5 pre-programmed 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 Touch Tone I.D. number (if programmed) and light the "Call Connected" LED.

Alternatively, the **E-1600-BLT** 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 **E-1600-BLT** phone to hang-up.

B. Central Station Operation

After the button on the **E-1600-BLT** phone has been pressed the **E-1600-BLT** 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 **E-1600-BLT** 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 **E-1600-BLT** phone. Upon detecting the handshake tone, the **E-1600-BLT** phone will begin downloading the information stored in memory location **#20**.

Once the **E-1600-BLT** 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. **Note:** 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 a "talk-over". A voice phone number should be programmed into position **#06**.

If the central station answers the call and does not send a "kiss-off", the next number will be dialed (if programmed). In either single number or multi-number programming, the phone will keep dialing until a call is completed.

Options

PB-100 Polling and Diagnostics Kit

The **PB-100** system provides centralized polling and diagnostics of all **Viking 1600** and **1600A** series emergency phones through a standard Windows 9x/NT P.C. In addition, any device or human capable of returning DTMF Touch Tones can be automatically polled.

Up to 500 individual phones can be polled, at timed intervals, for the diagnosis of proper programming and operation. The included software provides storage of complete contact/location records associated with the phones ID.

Devices that are polled successfully are stored in a "success" log while devices that returned any kind of error are stored in a "failure" log.



Reed More Information on the PB-100?
Call (715) 386-4345 and select 860.

1600A Series ADA* Compliant Emergency Phones with Built-In Digital Voice Announcer

The 1600A Ser to provide quick lic switched tele requirements for grammed to 5 programmed to 5 programmed station in station in the 1600-45A

E-1600-45A

E-1600-02A

E-1600-03A

E-1600-20A

E-1600-20A

Call (715) 386-4345 and select 215.

The **1600A Series** ADA Compliant Emergency Phones are designed to provide quick and reliable handsfree communication over the public switched telephone network. All **1600A Series** phones meet ADA requirements for elevator/emergency telephones, and can be pro-

grammed from any Touch Tone phone. The phones can dial up to 5 programmable emergency numbers, as well as 2 central station numbers. In addition, the **E-1600-20A** features an

"Info" button that will dial up to 3 non-emergency numbers.

The **1600A Series** phones can be programmed to automatically deliver a digital announcement to identify the location of the emergency call and then initiate the call connected LED light. Alternatively, a DTMF Touch Tone code may also be delivered. All

programming parameters, including phone numbers and location numbers, are stored in non-volatile E² 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 Series** phones are available with Enhanced Weather Protection (**EWP**). EWP products feature rubber gaskets and boots, hand soldered silicon sealed connections, gel filled tip and ring connectors, as well as urethane potted circuit boards with weather sealed, field-adjustable trim pots and DIP switches for easy on-site programming.

Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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