

TECHNICAL Practice

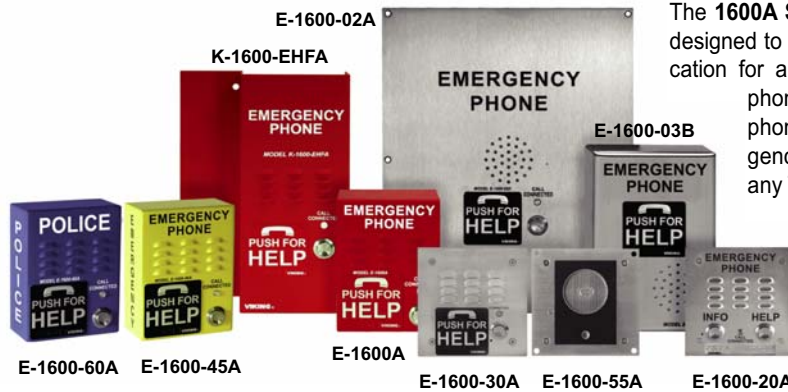
TELECOM SOLUTIONS FOR THE 21ST CENTURY

1600A Series

**ADA Compliant
Emergency Phones**

April 19, 2010

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



The **1600A Series** ADA Compliant 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 Series** phones meet ADA 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. In addition, the **E-1600-20A** and **E-1600-52A** feature a second "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. 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 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, 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.

Features

- Meets ADA requirements for Emergency Phones:
 - Can automatically light the "Call Connected" LED for the hearing impaired
 - Transmits a unique location I.D. code or voice announcement
 - Grade 2 Braille label for the visually impaired
- Non-volatile digital voice announcer with 16 seconds of voice memory
- Advanced call progress detection
- Handsfree operation
- Phone line powered
- Non-volatile memory (no batteries required)
- Touch Tone or pulse dialing
- Dials up to 5 emergency numbers
- **E-1600-20A** and **E-1600-52A** 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**), see **DOD# 859**
- Hangs up on CPC, silence, busy signal, dial tone, time-out or touch tone command
- Programmable to auto-answer on incoming calls
- Remotely programmable
- Extended temperature range (-15°F to 130°F)
- 9 different chassis or board only available
- Available in a 42" tall tower phone model **E-1600A-BLT-EWP**
- Central Station Monitoring capability (dials 2 numbers)
- Separate central station voice speed dial number
- Optional **PB-100** Polling System available
- Optional **BLK-3-EWP** strobe light kit available

Applications

- Elevators
- Parking ramps/lots
- ATM machines
- Area of refuge locations
- Lobbies
- Entryways
- Campus emergency stations
- Roadside emergency stations
- Stadiums
- Convention centers

Specifications

Power: Telephone line powered. Minimum 24V DC talk battery voltage, with a minimum loop current of 20mA loop. Loop current may be boosted on low current lines with a Viking Model **TBB-1B** talk battery booster, see **DOD# 632**.

Dimensions: See Installation and Specifications

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

Humidity - Standard Products: 5% to 95% non-condensing

Humidity - EWP Products: Up to 100%

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 1600A Series emergency phones. For a detailed description of the telephone line specifications required for any of the 1600A Series phones, see **DOD# 869**.

* Americans with Disabilities Act of 1992 contains federal regulations regarding elevator telephones (Public Law 101-336).

IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Friday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to:
Viking Electronics, 1531 Industrial Street, Hudson, WI 54016
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

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 one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, whichever ever is greater. 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.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY. WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. Located on the equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the REN's should not exceed five (5.0) To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this E-1600A Series phone does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the E-1600A Series phone causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make

the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the E-1600A Series phone, for repair or warranty information, please contact:

Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

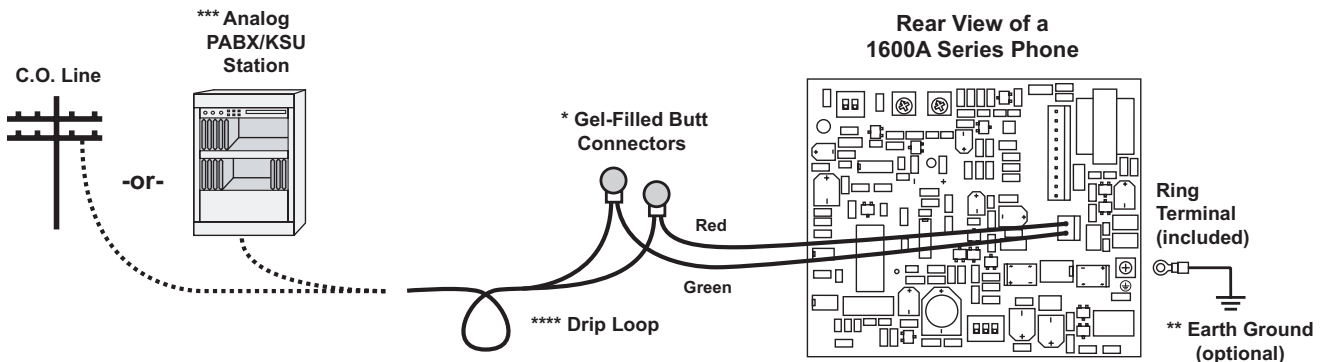
Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

PART 15 LIMITATIONS

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installation and Specifications



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. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.

* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Cut off bare wire ends prior to terminating.

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

*** **Note:** When installing a line powered phone on a low voltage and/or low loop current phone system extension, a **TBB-1B** Talk Battery Booster may be required. For more information on the **TBB-1B**, retrieve **DOD# 632**.

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

E-1600A/E-1600-45A/E-1600-60A (optional EWP) —

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

Shipping Weight: 1.13 kg (2.5 lbs.)

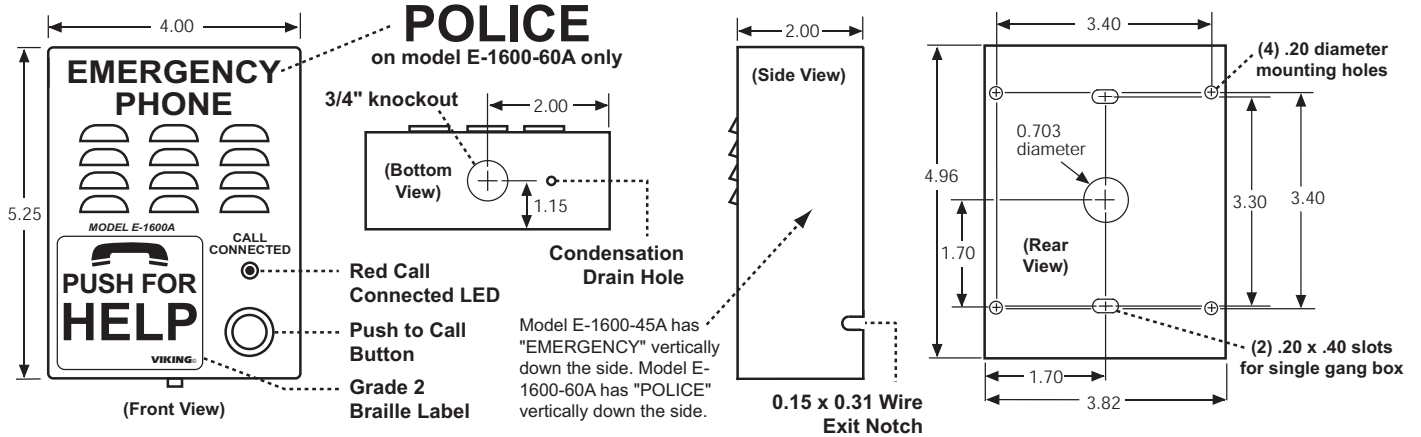
Material: .062" (16 gauge) steel, **E-1600A** - Red powder paint, **E-1600-45A** - Yellow powder paint, **E-1600-60A** - Blue powder paint

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): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.

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



E-1600-02A (optional EWP)

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

Shipping Weight: 3.18 kg (7 lbs.)

Connections: Gel-filled butt connectors

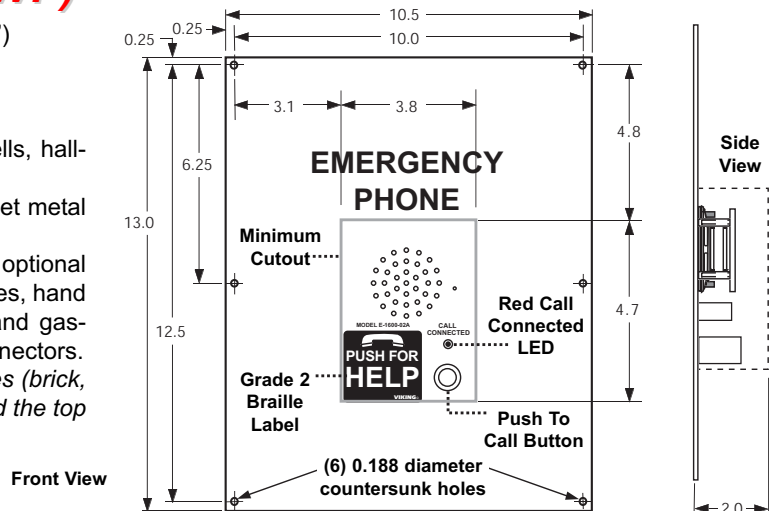
Material: .125" (11 gauge) brushed stainless steel

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)

Optional Enhanced Weather Protection (EWP): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate or VE-5x5.



K-1600-EHFA

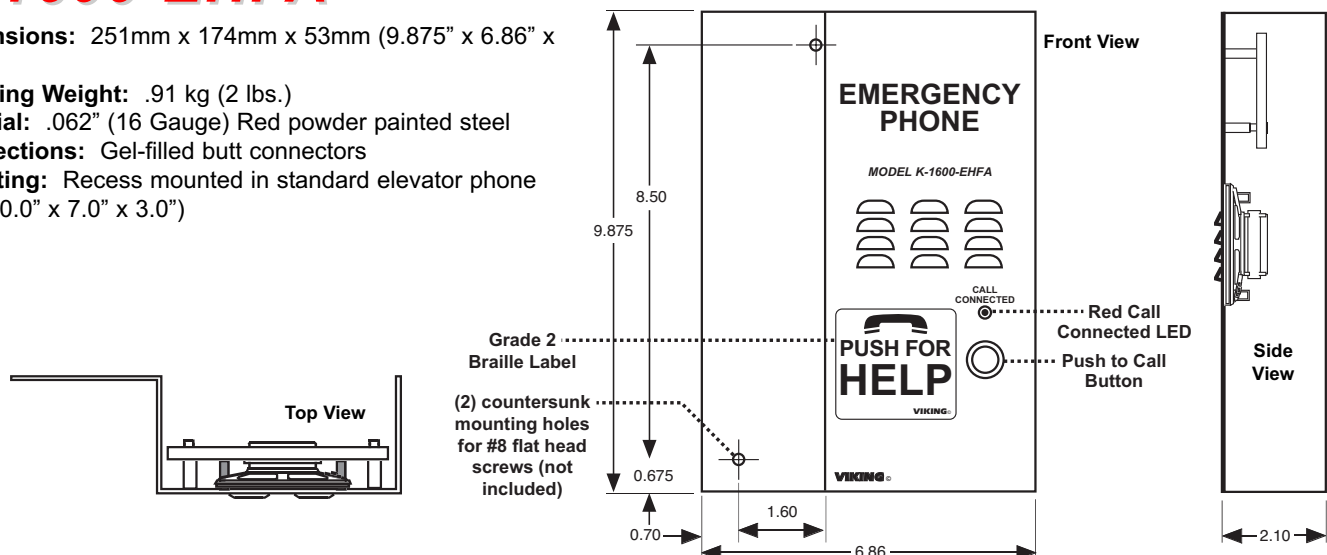
Dimensions: 251mm x 174mm x 53mm (9.875" x 6.86" x 2.10")

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")



E-1600-20A (optional EWP available)

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: 14 gauge brushed stainless steel

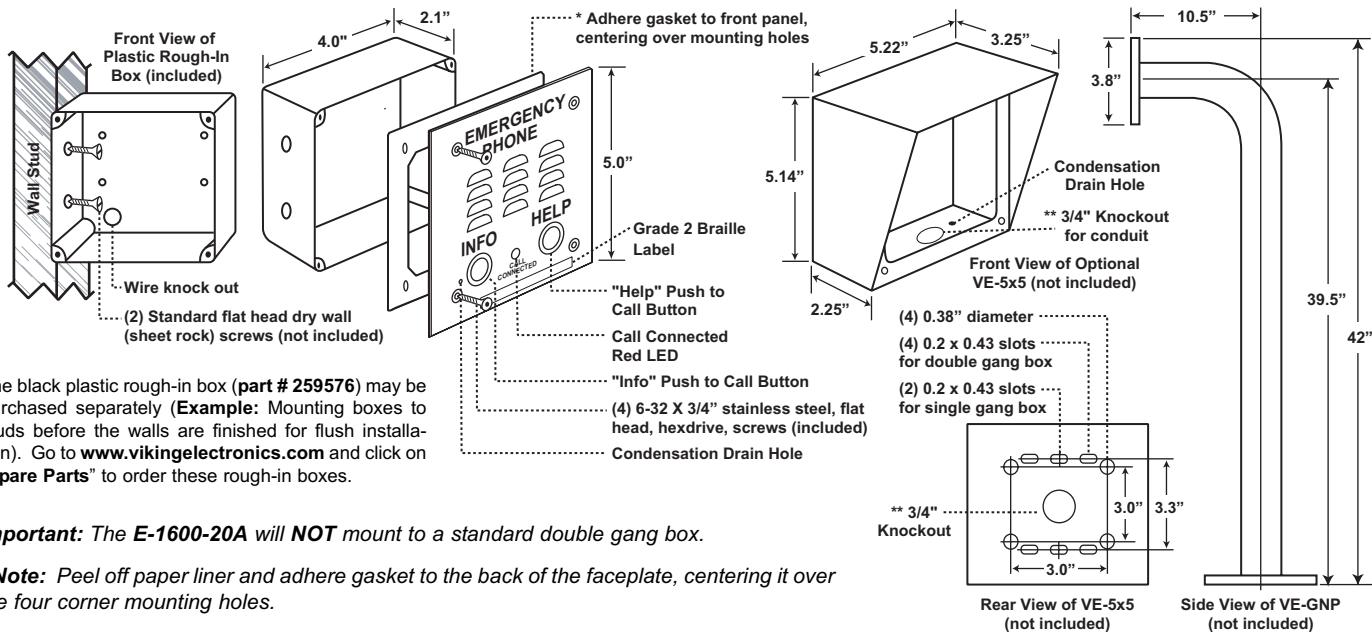
Connections: Gel-filled butt connectors

Optional Enhanced Weather Protection (EWP): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.

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).

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate or VE-5x5.



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 and click on "Spare Parts" to order these rough-in boxes.

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

*** Note:** Peel off paper liner and adhere gasket to the back of the faceplate, centering it over the four corner mounting holes.

**** 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-1600-20A 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-1600-30A (optional EWP available)

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: 14 gauge brushed stainless steel

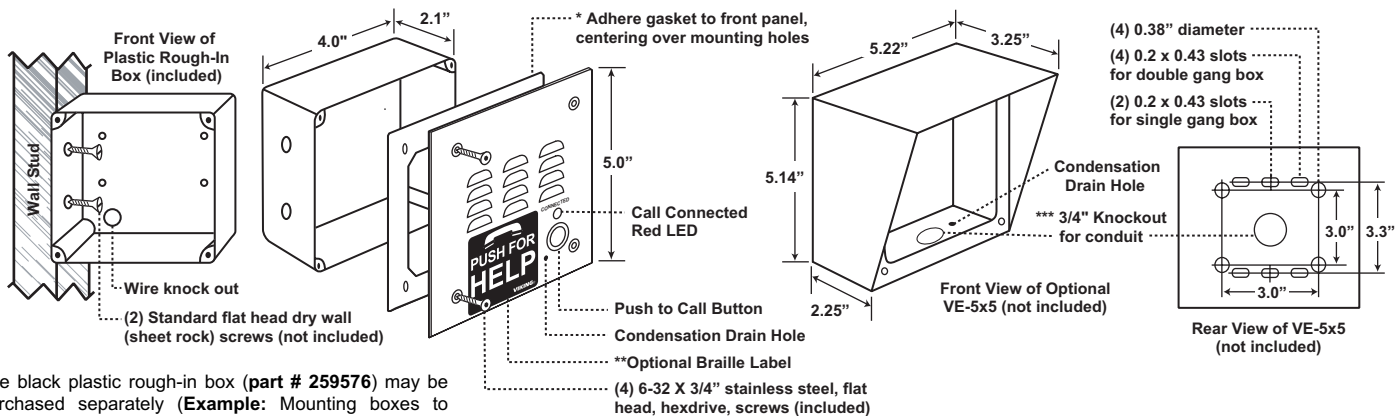
Connections: Gel-filled butt connectors

Optional Enhanced Weather Protection (EWP): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.

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 (as shown above).

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate or VE-5x5.



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 and click on "Spare Parts" to order these rough-in boxes.

*** Note:** Peel off paper liner and adhere gasket to the back of the faceplate, centering it over the four corner mounting holes.

**** Important:** Optional Braille "Push for Help" label should be adhered to the faceplate in ADA applications. Clean surface with isopropyl alcohol, peel off backing and press firmly to the front panel in location as shown above.

***** 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-1600-30A 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-1600-03B (optional EWP available)

Dimensions: 183mm x 149mm x 39mm (7.22" x 5.36" x 1.55")

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

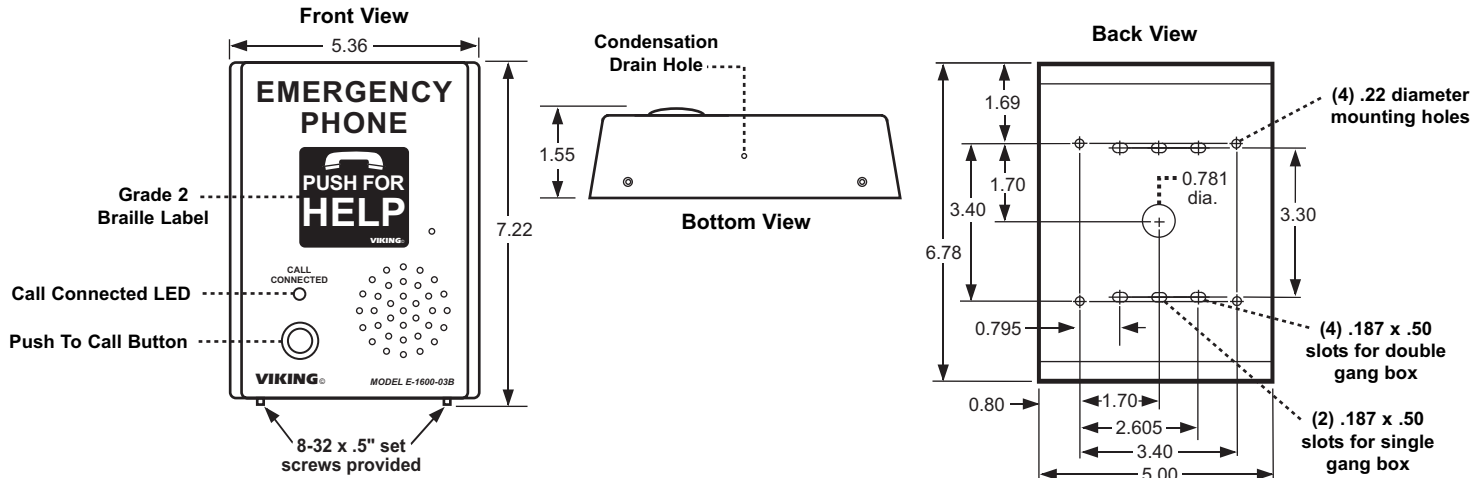
Shipping Weight: 1.36 kg (3 lbs.)

Connections: Gel-filled butt connectors

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

Optional Enhanced Weather Protection (EWP): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.

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



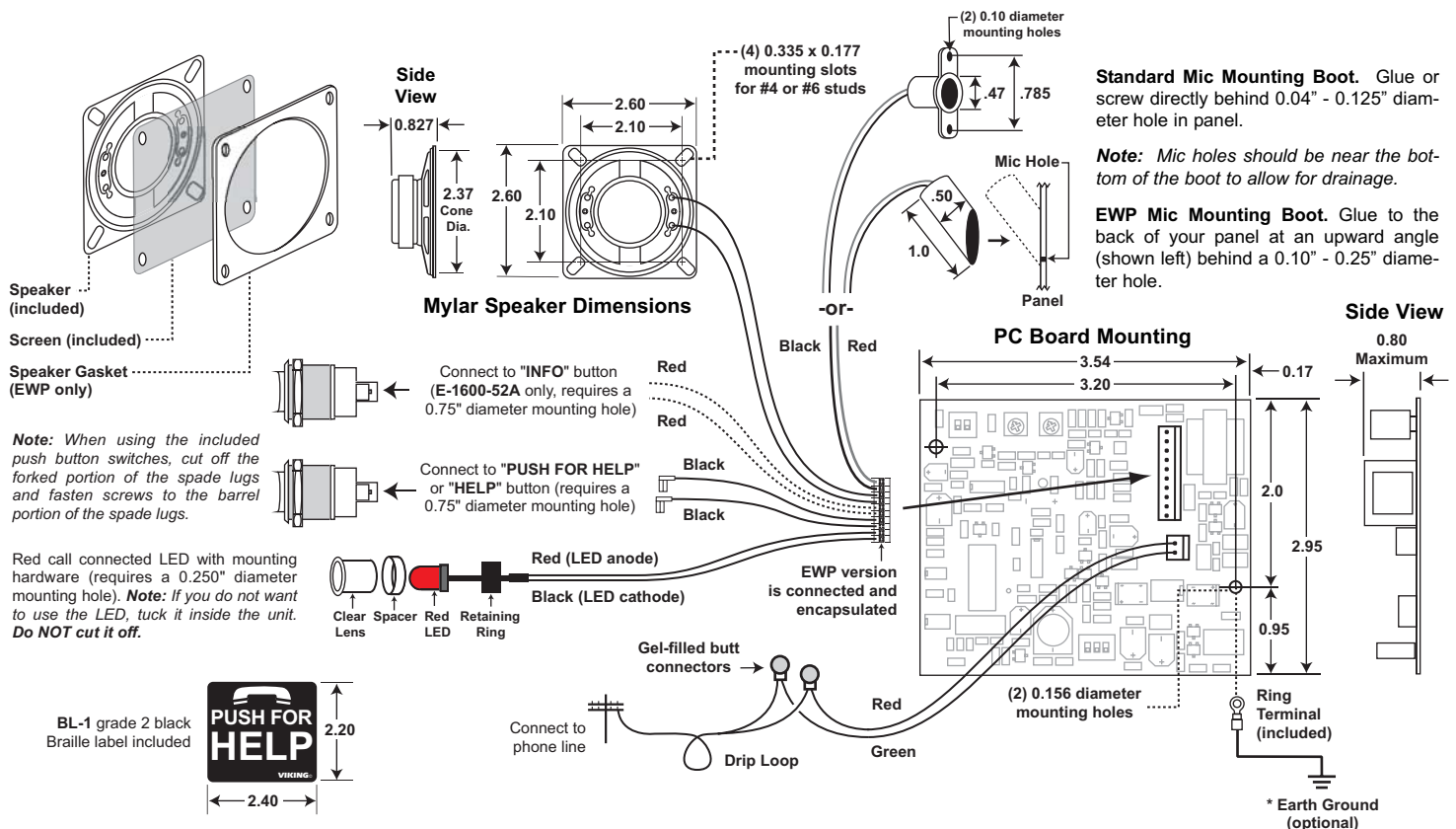
E-1600-50A/52A (optional EWP available)

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

Shipping Weight: .45 kg (1 lb)

Connections: Gel-filled butt connectors

Optional Enhanced Weather Protection (EWP): The optional EWP products feature sealed trim pots, sealed DIP switches, hand soldered and silicon sealed connections, rubber boots and gaskets, urethane potted circuit boards and gel-filled butt connectors.



Important: If installing the EWP version outdoors, apply a non-corrosive silicone to back side of LED and push button switches after making all connections and testing. Completely encapsulate exposed switch connections (screw terminals/stripped wires) and bare wire connections.