



# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**W-3000/  
W-3000-EWP**  
**Vandal Resistant  
Handsfree Doorbox**

November 3, 2011

## Answer Your Door or Gate from any Phone in Your Home or Business



**W-3000**  
Brushed 316 Stainless Steel

### **Answer your door or gate from the safety of your telephone!**

The **W-3000** weather resistant, handsfree doorbox provides an attractive and vandal resistant stainless steel faceplate. It is designed to interface directly with the unused telephone line input of nearly any phone system. One or two doorboxes can also share an existing residential phone line when used with a **C-1000B** doorbox controller.

When the "Call" button is pressed, the doorbox generates a standard or custom ring cadence of an adjustable number of rings. For noisy environments, the doorbox's new louder speaker output and "Push-to-Talk" feature can be used.

The **W-3000-EWP** shares all of the features of the **W-3000** in addition to Enhanced Weather Protection (EWP) for outdoor installations where the unit is exposed to precipitation or condensation. EWP products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy on-site programming. For more information, see **DOD# 859**.



**W-3000 shown  
with optional VE-5x5**

## Features

- **Vandal Resistant Features:** 14 gauge louvered 316 stainless steel faceplate with permanent laser etched graphics, stainless steel speaker/mic screen, heavy duty metal keypad and "Call" button, scratch resistant powder coating (optional **VE-5x5**) and hex drive mounting screws
- **Weather Resistant Features:** Marine grade 316 stainless steel faceplate, screws and push button switch. Switch internally sealed per IP67. Mylar speaker. Self-draining mic mount. Faceplate, mic and speaker gaskets. Weather resistant powder paint on optional **VE-5x5**.
- Yellow call progress / night light LED
- High output speaker amplifier with volume adjustment POT
- Microphone volume adjustment POT
- 24 volt talk battery
- 20 Hz ring generator (3.0 REN ring load maximum)
- Selectable ring cadence (standard or 2 short rings)
- **Selectable number of rings (2, 3, 10 or 30)**
- Selectable "Push-to-Talk" feature for noisy environments
- Extended operating temperature range: -15°F to 130°F
- **W-3000-EWP** is designed to meet IP66 Ingress Protection Rating (see **DOD# 859** for more information)

## Applications

- Ideal for noisy locations in "Push-to-Talk" mode
- Commercial, industrial or residential door security
- Door or gate communication
- Truck stop/gas station fuel island communication
- Use with the **C-1000B** controller for single line residential systems or when the operation of door strikes or gate openers is necessary (see **DOD# 155**)

## Specifications

**Power:** 120V AC/13.8V AC 1.25A UL listed adapter provided  
**Dimensions:** Overall - 127mm x 127mm x 57.2mm (5.0" x 5.0" x 2.25") Plastic Rough-In Box - 102mm x 102mm x 54mm (4.0" x 4.0" x 2.12")  
**Shipping Weight:** 1.81 Kg (4 lbs)  
**Operating Temperature:** -26°C to 54°C (-15°F to 130°F)  
**Humidity:** W-3000 - 5% to 95% non-condensing humidity, W-3000-EWP - Up to 100% condensing humidity  
**Ring Output:** 20 Hz, 3.0 REN load maximum  
**Maximum Loop Length:** 1.9 Km (6300 ft) - 24 AWG twisted pair  
**Maximum Power Run:** 38.1 m (125 ft) - 24 AWG twisted pair  
**Note:** Power run length may be increased, see **Wiring** section  
**Connections:** W-3000 - (4) position screw terminal strip, W-3000-EWP - Gel filled butt connectors

**Phone...715.386.8861**

**<http://www.vikingelectronics.com>**

## 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, Tuesday-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 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. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments.

**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.

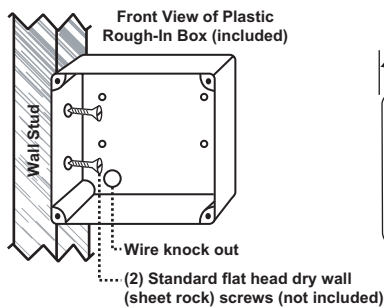
**EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY.** WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS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

# Installation

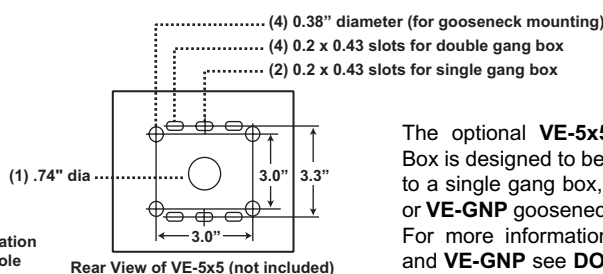
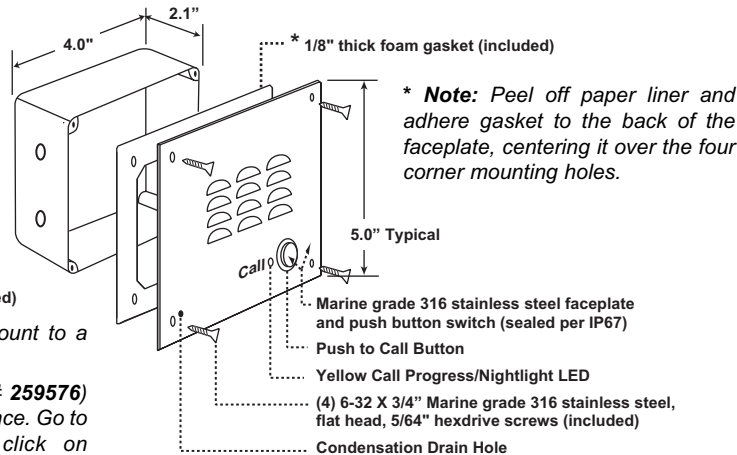
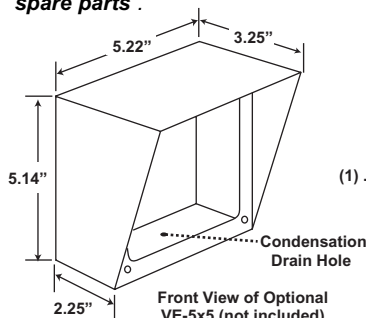
## A. Mounting

**Caution:** When warm air comes in contact with cold surfaces, such as outside walls, it causes condensation. To help prevent condensation from accumulating inside the **W-3000**, bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the plastic rough-in box.



**Important:** The **W-3000** will **NOT** mount to a standard double gang box.

**Note:** The plastic rough-in box (part # 259576) may be purchased separately in advance. Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "spare parts".

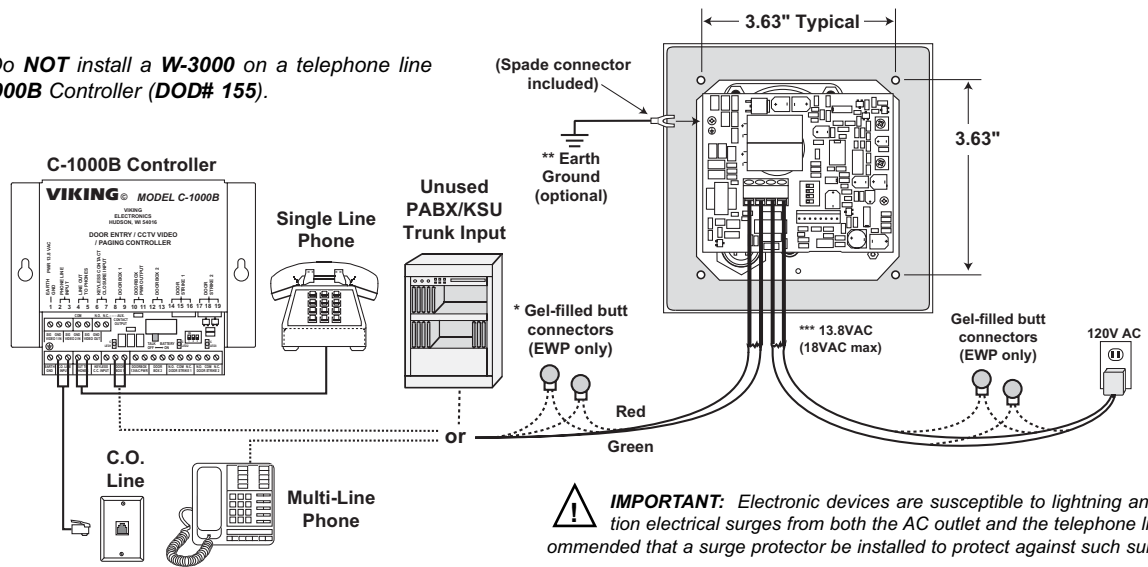


The optional **VE-5x5** Surface Mount Box is designed to be surface mounted to a single gang box, double gang box or **VE-GNP** gooseneck pedestal (right). For more information on the **VE-5x5** and **VE-GNP** see **DOD# 424**.



## B. Wiring

**Important:** Do **NOT** install a **W-3000** on a telephone line without a **C-1000B** Controller (**DOD# 155**).



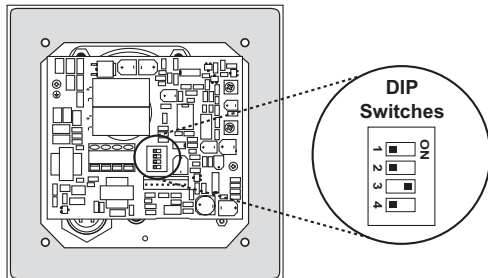
\* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 guage wire with a maximum insulation of 0.082 inches. Cut off stripped wire ends prior to terminating.

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

\*\*\* **Warning:** The power run wire length is limited to 125 ft of 24 AWG wire. Longer power runs will require heavier gauge wire (doubling pairs) and/or a higher voltage power adapter. Power runs from 125 - 250 ft of 24 AWG wire are possible using a Radio Shack 18VAC adapter (part # 273-1690). Voltage at the doorbox power input connections must not exceed 18VAC RMS.

## Programming

### A. DIP Switches



Sw 1	Ring Cadence
OFF	Standard: (1 second ON, 3 seconds OFF)
ON	Custom (2 short rings): 0.5 seconds ON, 0.25 seconds OFF, 0.5 seconds ON, 3 seconds OFF

Sw 2	Sw 3	Ring Output
OFF	OFF	2 Ring
ON	OFF	3 Rings
OFF	ON	10 Rings
ON	ON	30 Rings

Sw 4	Communication Mode
OFF	Normal Handsfree Mode
ON	Push-to-Talk Mode

### B. Handsfree Operation (Dip Switch 4 - OFF)

When the "Call" button is pressed, the call progress LED will turn off and the **W-3000** will begin generating a 20 Hz ring signal. The caller at the **W-3000** will hear an audio ring back signal while the LED flashes. When the inside party has answered, the LED will light until the inside party hangs up. At that point, the LED will turn off for approximately one second and then light steady to illuminate the **W-3000** after dark.

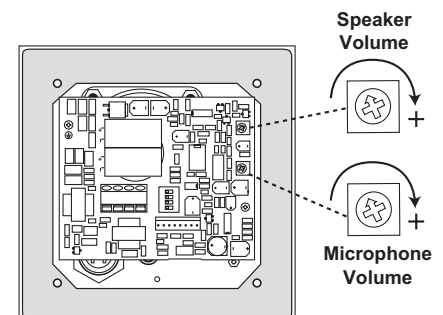
### C. Push-To-Talk Operation (Dip Switch 4 - ON)

In extremely noisy locations, the "Push-to-Talk" mode should be used. To switch to the "Push-to-Talk" mode, place DIP switch 4 in the **ON** position (see **Dip Switch Programming**). To initiate a call, momentarily press the "Call" button to generate the ring signal. After the inside party has answered, press and hold the call button to talk. Release the call button to listen.

### D. Microphone and Speaker Volume Adjustment POTs

In certain noisy locations, the microphone volume may need to be decreased. A microphone POT (see right) is provided on the **W-3000**'s circuit board to increase or decrease the microphone volume. However, in extremely noisy locations the microphone POT adjustment may not be enough to allow two-way talk path. In this case the "Push-to-Talk" mode should be used as shown above (see section **C** above).

**Note:** Both POTs come factory set in the middle position. A speaker volume POT is also provided for increasing or decreasing the speaker audio as needed.



# Operation

In the idle state, the **W-3000** provides 24V DC talk battery. The LED remains lit for night time visibility.

When the "Call" button is pressed, the **W-3000** generates a standard or custom (double) ring cadence (adjustable from 2-30 rings). The LED will turn off and then begin flashing during ringing. When the call is answered, ringing will stop and the LED will light steady. When the called party hangs up, the LED will turn off momentarily and then remain lit for the idle state.

# Other Related Products

## C-1000B Door Entry Controller

The **C-1000B** allows single line phones or phone systems to share a phone line with one or two doorboxes or paging amplifiers. The **C-1000B** provides two Touch Tone controlled relays to operate door strikes or gate openers and provides doorbox triggered CCTV camera switching.

Doorboxes and paging amplifiers can now be used on single line, residential or home office applications as well as on fully loaded systems, because they are no longer limited to installation on unused trunk ports. The **C-1000B** expands the potential installation sites for many peripherals such as doorboxes and paging amplifiers. For more information, see DOD# 155.



## SRC-1 Secure Relay Controller



The **SRC-1** enables a standard touch tone phone to securely operate a set of timed relay contacts to control a doorstrike or gate controller at a remote location. The **SRC-1** is fully user programmable and uses non-volatile memory. The **SRC-1** eliminates the possibility of dialing the activation code through the entry phone using a hand held touch tone dialer.

The **SRC-1** is installed between the entry phone and the secure phone, and will reject touch tones from the entry phone and only operate the relay if the correct activation code (user programmable) is given from the secure phone. The **SRC-1** also provides up to 32 keyless entry codes to operate the relay from the entry phone with 1 to 6 digits. This feature can be disabled in programming for increased security. For more information, see DOD# 409.

## LDB-3 Advanced Ring/Loop Detector

The **LDB-3** Advanced Loop Detector monitors an analog phone line for ringing and/or an off hook condition. A built-in relay can be activated when either of these conditions are detected. This is ideal for monitoring line status or for providing a visual indication of such.

The **LDB-3** can be used with any W-Series doorbox to provide a dry contact closure when the button is pressed on the doorbox and can be maintained while communicating with the doorbox if desired. This contact closure can be used to trigger a security camera or activate a doorbell system. The **LDB-3** comes complete with a 12 VDC power adapter, and can also provide switched 12VDC .35 Amp output to power external lights, etc. during ringing and/or off-hook conditions. For more information, see DOD# 409.



Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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