

# VIKING

# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

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

July 14, 2004

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



**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 installation in harsh environments. EWP products feature rubber gaskets and boots, hand soldered silicon sealed connections, gel filled butt connectors, urethane potted circuit boards with weather sealed, field adjustable trim pots and DIP switches for easy on-site programming.



W-3000 shown with optional VE-5x5

## Features

- Vandal resistant, 14 gauge stainless steel faceplate, heavy-duty metal push button and mounting gasket. Flush mount using the included rough-in box or surface mount using an optional **VE-5x5** backbox
- Yellow call progress/night light LED ? Need More Information on VE-5x5? Call (715) 386-4345 and select 424.
- **New 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
- Compact 45° terminal strip for easy wiring
- **W-3000-EWP has Enhanced Weather Protection** ? Need More Information on EWP? Call (715) 386-4345 and select 859.

## 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

? Need More Information on the C-1000B? Call (715) 386-4345 and select 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.

### 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.

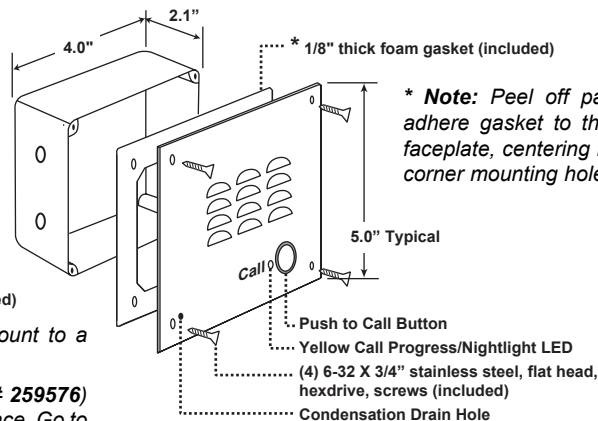
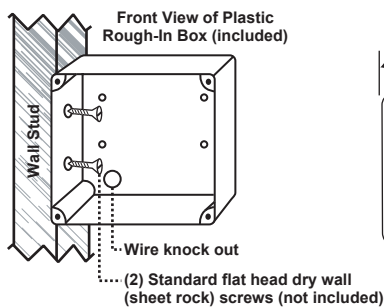
Viking's sole responsibility shall be to repair or replace (at Viking's option) the material within the terms stated above. VIKING SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING DIRECTLY OR INDIRECTLY FROM ANY BREACH OF ANY WARRANTY EXPRESSED OR IMPLIED, OR FOR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXCLUDED BEYOND THE ONE YEAR DURATION OF THIS WARRANTY. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

## Installation

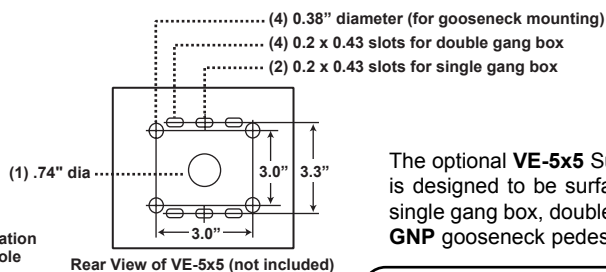
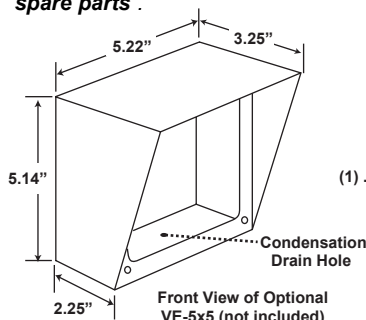
### A. Mounting

**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".



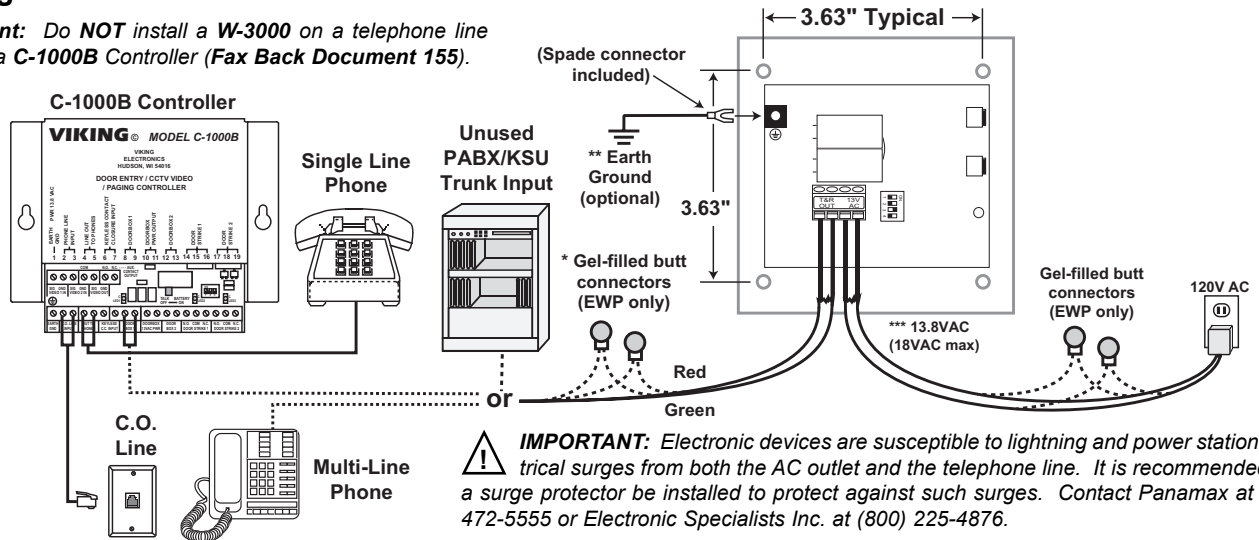
The optional VE-5x5 Surface Mount Box is designed to be surface mounted to a single gang box, double gang box or VE-GNP gooseneck pedestal (right).



**Need More Information on VE-5x5 or VE-GNP?**  
Call (715) 386-4345 and select 424.

## B. Wiring

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



**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.

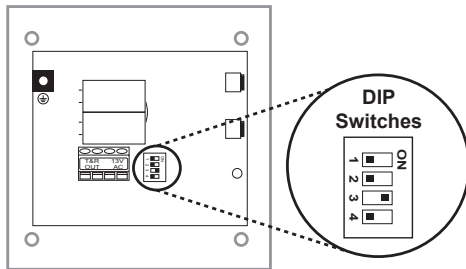
\* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Do not strip wires prior to terminating.

\*\* **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.

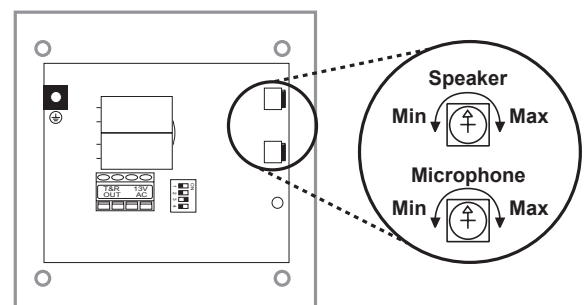
### C. Push-To-Talk Operation (Dip Switch 4 - ON)

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.



**?** Need More Information on the C-1000B?  
Call (715) 386-4345 and select 155.

## RC-2A Remote Touch Tone Controller



The **RC-2A** Remote Controller provides remote relay operation from any standard Touch Tone telephone.

The controller is designed to be installed either locally or remotely. For local installations the **RC-2A** can be installed in series on any analog communications path, such as analog C.O. lines, analog PABX/KSU stations or **Viking's W-Series Doorboxes**, and will passively monitor for Touch Tone commands. For off-premise applications, the **RC-2A** will answer analog C.O. lines or PABX/KSU stations after a selectable ring delay. A field programmable access code can also be programmed to prevent unauthorized usage. The **RC-2A** will then allow remote relay operation.

**?** Need More Information on the RC-2A?  
Call (715) 386-4345 and select 160.

## 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.



**?** Need More Information on the LDB-3?  
Call (715) 386-4345 and select 409.

**Product Support Line...715.386.8666**

**Fax Back Line...715.386.4345**

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