**Vandal Resistant Handsfree Entry Phones with Built-In Keypad**

The K-1700-3 Series entry phones provide a tough and attractive handsfree phone for apartment, and residential door entry or applications requiring a vandal resistant speaker phone. The K-1700-3 Series entry phones are available in two attractive finishes: “brushed stainless steel” and “oil rubbed bronze”.

When the “Call” button is pressed, the K-1700-3 returns dial tone. The keypad may then be used to dial any number. If no Touch Tone is entered within 8 seconds, CPC is detected, a busy signal is detected, or the programmable maximum call time has elapsed, the K-1700-3 will automatically disconnect. Alternatively, the K-1700-3 may be disconnected by pressing the “Call” button again. The K-1700-3 comes complete with a standard, flush mount, rough-in box. In addition, an optional VE-6x7 weather resistant, surface mount box is available (see DOD 424).

The K-1700-3-EWP shares all of the features of the K-1700-3 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 on Enhanced Weather Protection, see DOD 859.

### Features

- **Vandal Resistant Features**: 14 gauge louvered 316 stainless steel faceplate with permanent laser etched graphics, stainless steel “Call” button, heavy duty metal keypad and T-10 Torx security mounting screws, scratch resistant powder coating (model K-1700-BN)
- **Weather Resistant Features**: Marine grade 316 stainless steel faceplate, screws and and push button switch. Switch internally sealed per IP67. Mylar speaker. Self-draining mic mount. Faceplate, mic and speaker gaskets. Weather resistant powder paint (K-1700-3-BN)
- **K-1700-3-EWP** is designed to meet IP66 Ingress Protection Rating (see DOD 859 for more information)
- **Available in 2 standard faceplate finishes**: 316 brushed stainless steel or oil rubbed bronze
- **Blue “in use” LED**
- **Telephone line powered**
- **Volume adjustments for microphone and speaker**
- **Advanced call progress detection: disconnects on busy signal, return to dial tone, CPC, reorder tone, maximum call time out and 40 second silence time out**
- **Selectable auto-answer feature for monitoring**
- **Selectable push button disconnect**
- **Zinc plated steel rough-in box with (2) 3/4” conduit knockouts**
- **Optional VE-6x7 Surface Mount Box available**
- **Selectable VOX switching speed**

### Applications

- **Apartment entry phone** when used with the K-1700-3 Apartment Entry Dialer or C-4000 Apartment/Office Entry Controller or C-3000 Apartment Entry Controller
- **Use with a Viking C-500 (DOD 177) to control 1 or 2 (expandable to 8) K-1700-3’s and door/gate control on a single phone line**
- **Use with a Viking C-2000B to control 1 to 4 K-1700’s and doorgate control on a single phone line (DOD 156)**
- **Courtesy and customer assistance phone**
- **Automated teller (ATM) phone**
- **Security or emergency phone**
- **Hot-Line phone when used with the K-1900-5 Hot-Line Dialer (DOD 317)**
  **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 (DOD 632).
- **Kiosk phone with (100 number speed dialing) when used with the K-1900-9 Multi-Number Dialer (DOD 321)**

### Specifications

- **Power**: Telephone line powered 20V DC/20mA minimum
- **Dimensions**: Overall: 5.5” x 6.5” x 2.6” (140mm x 165mm x 66mm), Rough-in box: 4.5” x 5.5” x 2.5” (114mm x 140mm x 64mm)
- **Shipping Weight**: 3.5 lbs (1.6 kg)
- **Environmental**: -30°F to 150°F (-34°C to 65°C)
- **Humidity - K-1700-3**: 5% to 95% non-condensing
- **Humidity - K-1700-3-EWP**: Up to 100% condensing
- **Speaker Volume**: Approximately 70 db maximum @1m
- **CPC Disconnect Time**: 500ms minimum
- **REN #: 0.5 A**
- **Connections**: Gel-filled tip and ring connectors

www.VikingElectronics.com  
Information: 715-386-8861
Features Overview

Mounting Screws: (4) 6-32 X 3/4” Marine grade 316 stainless steel, flat head, T-10 Torx security screws and drive bit (included).

Faceplate Material: 14 gauge (0.075” thick) 316 stainless steel. The SS model has a #4 brushed finish, the BN model has a powder painted finish.

Blue LED: Lights blue for “in-use” indication.

Condensation Drain Hole

Faceplate Gasket: 1/8” thick closed cell PVC to provide a water-tight seal.

Speaker: Mylar speaker with rubber gasket to maintain water-tight seal and eliminate water deterioration.

Speaker Screen: Speaker screen with 0.018” wide slots to prevent punctures from paperclips, etc.

Microphone: An omni-directional microphone with a water-resistant cloth for protection.

Push Button Switch: Push to initiate call, push again to disconnect. Solid 316 stainless steel, internally sealed per IP67.

Laser Etched Graphics: For long lasting easy to read graphics. Copper metallic on “oil rubbed bronze” model K-1700-3-BN.

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

Installation

A. Mounting

Rough-In Box (included)

3/4” Conduit Knockouts

Mounting Screws: (4) 6-32 X 3/4” Marine grade 316 stainless steel, flat head, T-10 Torx security screws and drive bit (included)

(4) 0.38” diameter
(2) 0.2 x 0.43 slots

(1) .74” diameter

Condensation Drain Hole

Optional VE-6x7 Surface Mount Box (not included)

K-1700-3-EWP shown with VE-6x7 Surface Mount Box and VE-GNP Gooseneck Pedestal (not included)

The optional VE-6x7 Surface Mount Box (above) is designed to be surface mounted to a single gang box, double gang box, or VE-GNP Gooseneck Pedestal (shown right). For more information on the VE-6x7 and VE-GNP, see DOD 424.
B. Wiring the K-1700-3

* 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 (DOD# 632).

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

To Optional Viking Entry Controllers (not included)

<table>
<thead>
<tr>
<th>Model</th>
<th>DOD#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-500</td>
<td>177</td>
<td>Advanced 2 Door Controller (see page 5)</td>
</tr>
<tr>
<td>C-2000B</td>
<td>156</td>
<td>Advanced Door/Gate Controller (see page 6)</td>
</tr>
<tr>
<td>C-3000</td>
<td>162</td>
<td>Multi-Tenant Entry System (see page 7)</td>
</tr>
<tr>
<td>C-4000</td>
<td>164</td>
<td>Apartment/Office Entry Controller (page 7)</td>
</tr>
<tr>
<td>K-1900-3</td>
<td>312</td>
<td>Door Entry Dialer (see page 6)</td>
</tr>
</tbody>
</table>

** 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 stripped wire ends prior to terminating.

Programming

A. DIP Switches

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch 2</th>
<th>Maximum Call Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>Disabled (default)</td>
</tr>
<tr>
<td>ON</td>
<td>OFF</td>
<td>1 Minute</td>
</tr>
<tr>
<td>OFF</td>
<td>ON</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>ON</td>
<td>ON</td>
<td>9 Minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switch 3</th>
<th>Disconnect on Dial Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>Off</td>
</tr>
<tr>
<td>ON</td>
<td>On(default)</td>
</tr>
</tbody>
</table>

Switch 4 VOX Switching Speed

<table>
<thead>
<tr>
<th>OFF</th>
<th>Fast, 0.2 sec. (default)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>Slow, 0.7 seconds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switch 5</th>
<th>Switch 6</th>
<th>Audio Detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>ON</td>
<td>Normal audio detection</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>Increase audio detect sensitivity for low level lines. Useful in applications in which voice or busy signals have trouble breaking over the speaker.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switch 7</th>
<th>Auto Answer Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>Automatic answer disabled</td>
</tr>
<tr>
<td>ON</td>
<td>Automatic answer enabled (default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switch 8</th>
<th>Push Button Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>Connects calls only</td>
</tr>
<tr>
<td>ON</td>
<td>Connects/disconnects calls (default)</td>
</tr>
</tbody>
</table>

Microphone Volume (see section B) Speaker Volume (see section B)

** 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 (DOD# 632).

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

1. Microphone
   Certain noisy locations (background traffic, machinery or wind) may cause one way talk path (only microphone audio is heard). In this case, the microphone volume may need to be decreased as shown.

2. Speaker
   To increase, decrease or turn off the speaker (for monitoring purposes only), adjust the speaker volume control as shown.

C. Auto-Answer Feature (DIP Switch 7)
   With DIP switch 7 in the “ON” position (default), the K-1700-3 will automatically answer the line during the first incoming ring. This feature is useful for monitoring entrances. In the “OFF” position, the K-1700-3 will not automatically answer incoming calls.

D. Push Button Hang Up (DIP Switch 8)
   With DIP switch 8 in the “ON” position (default), the “Call” button alternately connects and disconnects calls. In the “OFF” position, the “Call” button is only used to connect and the K-1700-3 must rely on call progress (busy, return to dial tone, silence time-out, or maximum call time) for an automatic disconnect.

E. VOX (Talk/Listen) Switching Speed (DIP Switch 4)
   With DIP switch 4 in the “OFF” position (default), the VOX switching speed (delay time between talk and listen mode) is set to fast (0.2 seconds). In the “ON” position, it is set to slow (0.7 seconds).

F. Advanced Call Progress Detection
   The K-1700-3 will output 3 beeps and automatically hang-up after detecting any of the following: busy signal (standard or fast/reorder), CPC (short break in line current when called party hangs up), return to dial tone, maximum call time or silence time out.

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Operation

When the push button is pressed, the K-1700-3 phone goes off-hook, much like a standard speaker phone. The keypad may then be used to dial any number. In the event that the line is busy, the K-1700-3 will hang-up. The K-1700-3 will also automatically hang up on CPC, silence, busy signal, return to dial tone or time out. If programmed to auto-answer (DIP switch 7 ON), the K-1700-3 will also answer any incoming call.
A. C-500 Advanced Two Door/Gate Entry Phone Controller with Call Forwarding

The C-500 allows up to 2 entry phones (expandable to 8 entry phones, see DOD# 177) to call into your existing residential or business phones or phone system. Tenants may answer the call, converse with the visitor and activate a contact closure to control electronic gates or door strikes. The C-500 provides user programmable entry phone, “Caller ID,” and “Call Waiting” tone when the phone line is in use. The C-500 also has built in five number dialer to call your cell phone or an outside line if there is no answer on the inside phone. If the outside call is busy or ring no answer, the C-500 can call up to four more numbers. Tenants may gain entry at each gate by entering a Touch Tone keyless entry code. Tenants may call out to each entry phone for monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads.

The C-500 also has a built-in five number dialer to call your cell phone or an outside line if there is no answer on the inside phone. If the outside call is busy or rings no answer, the C-500 can call up to four more numbers. Tenants may gain entry at each gate by entering a Touch Tone keyless entry code. Tenants may call out to each entry phone for monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads.
B. K-1900-3 Apartment/Office Entry Dialer

The K-1900-3 converts any Touch Tone phone into a multi-number auto dialer that will store up to 250 telephone numbers in non-volatile memory. Use with Viking’s K-1700-3 or K-1900-8 phones to provide vandal resistant handsfree or handset communication. When a call initiated by the K-1900-3 is answered by an apartment or business tenant, a built-in contact closure may be activated to control an electric gate or door strike. Up to 250 keyless entry codes may also be programmed, providing tenants with keyless entry. The K-1900-3 can be programmed locally or remotely using a standard Touch Tone phone. The K-1900-3 has built-in user dialing restriction to help prevent unauthorized calls and toll fraud.

C. C-2000B Advanced Door/Gate and Entry Phone Controller

The C-2000B allows up to 4 entry phones to call into your existing residential or business phones or phone system. Tenants may answer the call, converse with the visitor and activate a contact closure to control electronic gates or door strikes. The C-2000B provides “Caller ID,” “Call Waiting ID” and “Call Waiting” tone when the phone line is in use. Tenants may gain entry at each gate by entering a Touch Tone keyless entry code. Tenants may call out to each entry phone for monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads.
D. Provide 4 Door Entry Points with Keyless Entry (or Optional Card Readers) for up to 250 Apartments or Offices

The C-4000 converts any four Touch Tone phones into multi-number auto dialers that will store up to 250 telephone numbers in non-volatile memory. Use with Viking’s K-1700-3 phone to provide vandal resistant handsfree or handset communication from entry points to apartments or offices. When a call initiated by the C-4000 is answered by an apartment or business tenant, a built-in contact closure may be activated to control an electric gate or door strike. Up to 250 entry codes may also be programmed providing tenants with keyless entry or optional 125KHz proximity card readers may be added for proximity card entry. The C-4000 can be programmed locally or remotely using a standard Touch Tone phone. The C-4000 has built-in user dialing restriction to help prevent unauthorized calls and toll fraud.

*Note: Maximum Wiegand run length is 1000 feet using 24 gauge wire when using the Viking model PRX-1 proximity card reader, 300 feet for the PRX-2 card reader/keypad, 1000 feet for the PRX-3 (using 3 wire pairs for power), and 2000 feet for the PRX-4 keypad. Run length is reduced to half if two share the same wire run from the same C-4000 entry point. Run lengths can be doubled by doubling up on the BLACK and RED 24 gauge wire, or using 21 gauge (or larger) wire. Certain electrically noisy locations might require shielded wire.
Warranty

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

Our Technical Support Department is available for assistance Monday through Friday 8:00am - 5:00pm 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).
3. It is best if you are on site.

RETURNINGPRODUCT 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 Department at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. 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 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.

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 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.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. EXCLUSION OF CONSEQUENTIAL DAMAGES, VIKTNG SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR 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, IS 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. On the side of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. The digits represented by ## are the number of devices that may be connected to a line, as determined by the total REN's, contact the call. In most but not all areas, the sum of the REN's should not exceed five (5.0) To be certain of the REN's, contact the service provider. 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 REN's are allocated as follows: connected to the subscriber line by means of a single modular connector. In a single line subscriber facility, the sum of the REN's for all devices should not exceed five (5.0). For a multiple line with a common originating line (i.e., a change in the service provider.), the total REN's assigned to each customer line should not exceed five (5.0). To ensure that the REN's on your lines do not exceed five (5.0), you may take one or more of the following steps: Exclusive of facility-unique connections, the number of devices on the line is five (5.0) or less, or the devices are not REN assigned, or the REN assigned to the devices do not exceed five (5.0).

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.

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.

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