

VIKING

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

K-1900-3
Door Entry
Dialer

June 3, 2004

Provide Door Entry & Keyless Entry for up to 150 Apartments or Offices



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.

Phone...715.386.8861

Features

- Compatible with Viking's vandal resistant **K-1700-3**, **K-1900-8** or any Touch Tone phone
- Non-volatile E² memory (no batteries required)
- Remotely or locally programmable
- **Stores 150 tenant Touch Tone phone numbers and keyless entry codes**
- Programmable tenant's relay activation code
- **Programmable master keyless entry code**
- **Programmable call timer**
- **Multi-number dialer mode (for Kiosks, etc.)**
- **Ring-thru mode for calling the entry phone**
- Normally open and normally closed (DPDT) relay contacts for controlling door strikes, magnetic locks, gates, etc.
- Auxiliary relay input to trigger a timed relay activation for postal locks, etc.
- Touch Tone and pulse dialing toll restriction
- Always allows 911 and 311 outside calls

www.vikingelectronics.com

The **K-1900-3** converts any Touch Tone phone into a multi-number auto dialer that will store up to 150 telephone numbers in non-volatile E² 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 150 keyless entry codes may also be programmed, providing tenants with keyless entry.

Applications

- Complete apartment entry system when used with these Viking products...
 - **K-1700-3** Handsfree Speaker Phone (Fax Back Document 157)
 - or -
 - **K-1900-8** Wall Phone with Handset (Fax Back Document 362)
 - and -
 - **D-Series** Tenant Directories (Fax Back Document 158)
- Multi-tenant, gated communities
- Office parks and multi-business complexes
- Kiosks, ATMs, catalog sales, and interactive point of sale displays
- Reservation phones for hotels, airlines, car rentals, etc.

Specifications

Power: 120V AC/13.8V AC 1.25A, UL listed adapter provided
Dimensions: 89mm x 46mm x 132mm (3.5" x 1.8" x 5.2")
Shipping Weight: .74 kg (1.65 lbs)
Environmental: 0° C to 32° C (32° F to 90° F) with 5% to 95% non-condensing humidity
Talk Battery Output: 32V DC nominal
Door Strike Power Output: 18V DC / 200mA maximum
Connections: (2) RJ11 jacks, 10 pin screw terminal block
DTMF dialing speed: 120ms on/100ms off
Relay contact ratings: 5 Amps @ 30V DC/250V AC

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.**

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.

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.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the 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 the line, as determined by the total REN's, contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. 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 in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact: *Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666*

If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

The K-1900-3 uses the USOC jack RJ11C.

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.

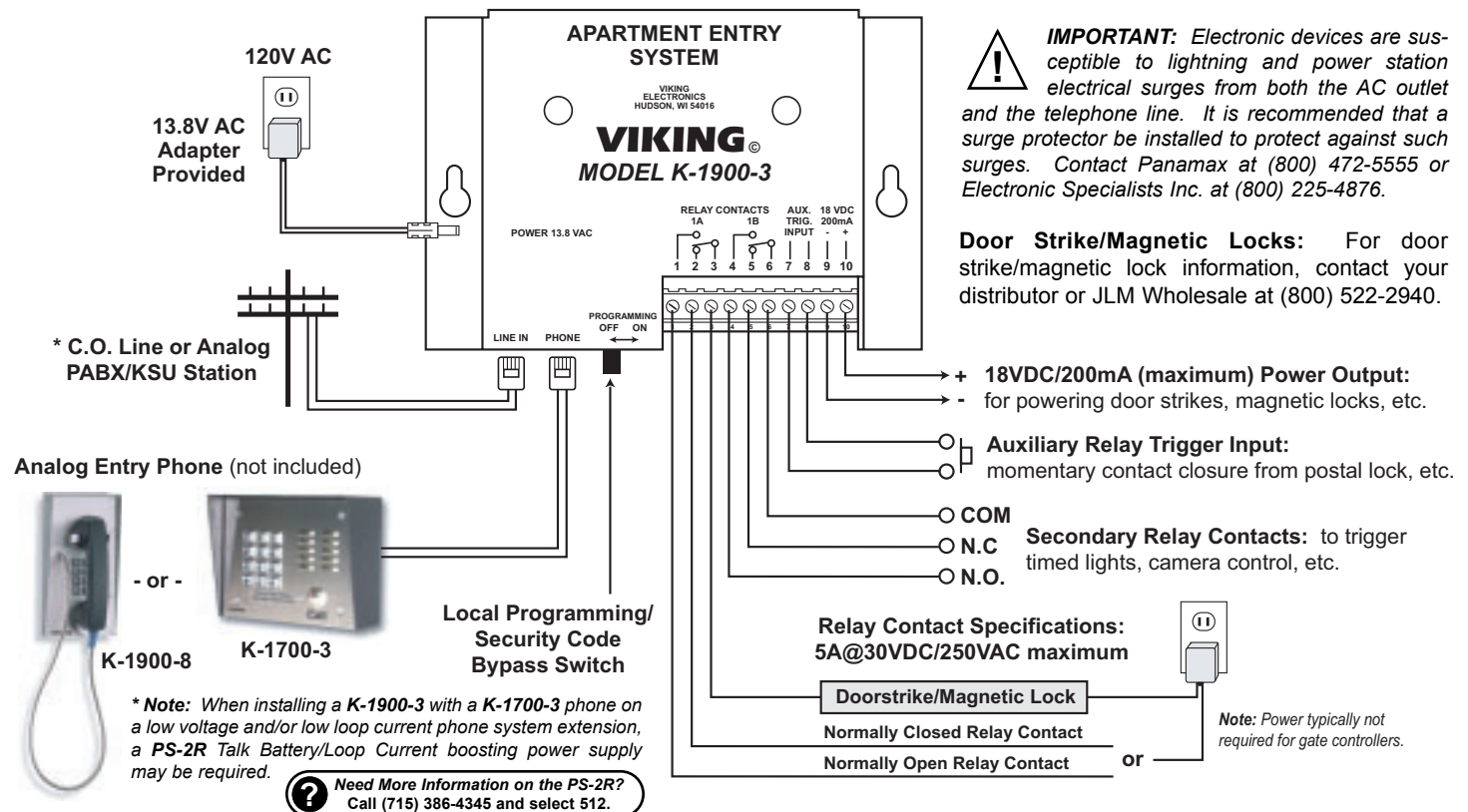
This equipment is Hearing-Aid Compatible (HAC).

The telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

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



Need More Information on the PS-2R?
Call (715) 386-4345 and select 512.

Programming

A. Accessing the Programming Mode

1. Remote Programming

- a. Connect the **LINE IN** port to a C.O. line or analog PABX/KSU station.
- b. From a Touch Tone phone, call the line connected to the **K-1900-3**.
- c. When the **K-1900-3** answers, enter “*” followed by the six digit security code, factory set to **845464** (see section **B** on the following page). A double beep will indicate that programming has been entered.
- d. Program as shown in sections **B - G**.
- e. To exit programming, enter “##7” or do NOT enter any Touch Tones for approximately 20 seconds. Three beeps will be heard, followed by an automatic disconnect.

2. Local Programming Using the Security Code (from entry phone)

- a. Take the phone connected to the **PHONE** port off-hook.
- b. Enter a “*” followed by the six digit security code (see section **B**). A double beep will indicate that programming has been entered.
- c. Program as shown in section **B - G**.
- d. To exit programming, simply hang up the entry phone (push the “Call” button on the **K-1700-3**).

3. Local Programming Without the Security Code (from entry phone)

- a. Move the **PROGRAMMING** switch to the **ON** position.
- b. Take the phone connected to the **PHONE** port off-hook. A double beep will indicate that programming has been entered.
- c. Program as shown in section **B - G**.
- d. When finished, the programming switch must be placed back in the **OFF** position for normal operation.
- e. To exit programming, simply hang up the entry phone (push the “Call” button on the **K-1700-3**).

B. Security Code

A six digit number may be used to access the programming mode. The security code has been factory set to **845464** (V-I-K-I-N-G). It is recommended that you change the security code to a personal 6 digit number as follows:

1. Access programming as shown in section **A**.
2. Enter your new security code followed by **##5**.
3. To exit remote programming, do NOT enter any Touch Tones for at least 20 seconds. To exit local programming simply hang up the entry phone.

Note: The security code must be six digits in length and **MUST NOT** contain a * or #. If you have forgotten your security code, see section “**A. Local Programming Without the Security Code.**”

C. Tenant’s Phone Numbers and Keyless Entry Codes

The **K-1900-3** can be programmed with up to 150 tenant phone numbers and up to 150 keyless entry codes and 1 master keyless entry code. A tenant may activate the door strike from the entry phone by dialing a “#” followed by their keyless entry code. When a given tenant moves out of the complex, the phone number and keyless entry code for that tenant may be cleared without affecting any other tenant’s phone numbers or their keyless entry codes.

Note: The keyless entry codes should all be the same number of digits, either 4, 5 or 6. A keyless entry code may be programmed without a phone number.

1. Programming a Phone Number Only

While in programming, enter the tenant’s phone number + “#” + memory location number (**000 - 149**).

Example: 5551212 # 001

2. Programming a Phone Number and Keyless Entry Code

Note: Keyless entry codes **MUST** be programmed while programming the phone numbers into the memory locations (**000 - 149**).

While in programming, enter the tenant’s phone number + “##” + the keyless entry code for the tenant (4-6 digits) + “#” + memory location number (**000 - 149**). **Example:** 5551212 ## 123456 # 001

3. Programming a Keyless Entry Code Without a Phone Number

You are allowed to program a keyless entry code in a memory location without programming a phone number. This is useful when you need to assign keyless entry codes for people that are not tenants in the complex (guards, maintenance workers, etc.) The memory location then becomes dedicated to keyless entry storage. This is programmed by entering “**” (skipping the phone number entry) + the keyless entry code (4 - 6 digits) + “#” + the memory location (000 - 149). **Example: ** 123456 # 001**

4. Adding a Master Keyless Entry Code

The master keyless entry code is simply an additional keyless entry code in memory position 150. This is useful when you have a full 150 tenants and require one additional entry code for a non-tenant (guard, maintenance worker, etc.) This is programmed by entering “**” (skipping the phone number entry) + the keyless entry code (4 - 6 digits) + “#” + the memory location 150. **Example: ** 123456 # 150**

5. Deleting the Phone Number and/or Keyless Entry Code for One Memory Location

While in programming dial a “#” + memory location (000 - 150) to clear.

Note: *It is not possible to erase only the phone number or the keyless entry number. If either number needs to be changed, BOTH numbers must be reprogrammed.*

6. Deleting All Phone Numbers and Keyless Entry Codes

While in programming, enter “###”.

 **Caution:** *All phone numbers and keyless entry codes will be permanently erased.*

D. Programming Features Quick Reference

Features	Enter Digits	- then -	Memory Location
Tenant’s phone numbers: 000 (0-30 digits), 001-149 (0-14 digits)	phone number	+	#000-149
Tenant’s phone numbers and keyless entry codes	phone number + ** + entry code	+	#000-149
Keyless entry code only (4 - 6 digits)	** + entry code	+	#000-149
Master keyless entry code (4 - 6 digits)	** + entry code	+	#150
Clear all phone numbers and keyless entry codes from memory	### (Caution: Permanently erases ALL programming!)		
Clear one phone number and/or keyless entry code	(no digits)	+	#000-150
PABX line access number: one digit + 3 sec pause (factory disabled)	1 digit (0 - 9)	+	##2
Relay activation time: 1/2-99 sec (00 = 1/2 sec, factory set to 5 sec)	2 digits (00 - 99)	+	##3
Relay activation code: ⁽¹⁾ two digits (factory set to 36)	2 digits (00 - 99)	+	##4
Security code (factory set to 845464)	6 digits (0 - 9)	+	##5
Maximum call time : 0-99 min (00 = disabled, factory set to 2 min)	2 digits (00 - 99)	+	##6
To exit programming	(no digits)	+	##7
Apartment dialer mode (factory setting)	*3		
Multi-number dialer mode	*4		
Ring thru mode OFF (factory setting)	*5		
Ring thru mode ON	*6		
To add a 4 second pause anywhere in the dialing string	*7		
To add a 1 second pause anywhere in the dialing string	*8		
To add a * at any point in the dialing string	**		
To add a # at any point in the dialing string	*#		

⁽¹⁾ The relay may be activated with a single digit, but must be programmed with a “0” + the digit (see section E, example 3). When a single digit relay activation code is programmed (0-9), the activation Touch Tone must be held for a minimum of 150 milliseconds.

Notes: Each pause uses a single digit. To clear a memory location, enter only the location (no digits). A **valid** programming entry will be indicated by a double beep. An invalid entry will be indicated with three beeps.

E. Programming Examples

These examples would be entered after accessing programming as shown in section A.

Programming the K-1900-3...	Enter Digits
1. ...to dial 555-1234 when a "1" is entered at the entrance phone	5551234 #001
2. ...to dial a 9 and pause 3 seconds prior to dialing all numbers	9 ##2
3. ...to activate the door strike/magnetic lock when the tenant dials a "6"	06 ##4
4. ...to set keyless entry code for tenant 3 to "9876" with phone number 555-1234	5551234##*9876 #003
5. ...to set a keyless entry code for tenant 4 to "9876" without a phone number	##*9876 #004
6. ...to delete the keyless entry code and phone number for tenant 5	#005
7. ...to set a maximum call time of 10 minutes	10 ##6
8. ...to set the master keyless entry code to "123456"	##*123456 #150

F. Programmable Maximum Call Time

The **K-1900-3** can be programmed to limit the call time on the entry phone. The maximum call time is programmable from "00" (no maximum call time) to "99" (99 minutes) and is factory set to "02" (2 minutes) (see **Programming**, section D). When the call timer is enabled (programmed to "01-99"), if a call exceeds the programmed time, both phones are provided with three beeps then disconnected, indicating the termination of the call. This limits unnecessary and lengthy conversations. When the call timer is disabled (programmed to "00"), there is no limit to the length of calls from the entry phone. Only a CPC disconnect signal from the telephone line, or hanging up the entry phone will disconnect the call.

G. Built-In Toll Restriction

The **K-1900-3** features built-in toll restriction. When the **K-1900-3** is in the **Apartment Dialer Mode** (factory setting), the unit will disconnect when it detects any Touch Tone or pulse dialing generated by the entry phone, after speed dialing has been completed. With the **K-1900-3** in the **Multi-Number Dialer Mode**, the unit will disconnect when it detects any flashes or pulse dialing generated by the phone after speed dialing has been completed.

Operation

A. Apartment Dialer Mode (factory setting)

When a visitor accesses the entry phone, simulated dial tone is heard. After the visitor enters the appropriate one to three digit tenant number (equal to the memory location in programming), the **K-1900-3** dials the tenant's phone number and bridges the phone line to the entry phone. If an unprogrammed tenant number is entered, a simulated fast busy signal will be heard on the entry phone. When the tenant confirms the visitor's identity, a one or two digit relay activation code may be entered from the tenant's phone. Two beeps will indicate that a valid activation code has been entered. A buzzing sound is then heard on the entry phone to indicate the door strike has been activated. If an incorrect relay activation code is entered, the unit will disconnect. A simulated fast busy signal will also be returned to the entry phone if the telephone line has become disconnected. A tenant may use their personal keyless entry code to let themselves in by taking the entry phone off-hook and entering a "#" followed by their (4 - 6 digit) personal keyless entry code. **Note:** To avoid busy signals on the entry phone, call waiting is recommended on each tenant's phone line.

B. Multi-Number Dialer Mode (relay activation codes ignored after dialing)

This mode is useful when using the **K-1900-3** in applications other than apartment/multi-tenant entry, such as Kiosks or any other user selectable speed dialing application when 150 phone numbers or less are required. An off-hook on the phone port will return simulated dial tone. The user can then enter their one to three digit speed dial memory location. The **K-1900-3** speed dials the phone number programmed in that memory location then bridges the phone to the line. The user is now free to dial any Touch Tone numbers required to steer through automated attendants, etc. If the user attempts to pulse dial or flash the line for fresh dial tone (to make a toll call), the **K-1900-3** will restrict the call by switching the phone back to artificial talk battery with a simulated busy signal. **Note:** If this phone is to receive in-bound calls, select the Ring Thru Mode (see **Operation** section C). Also, keyless entry codes work, but there is no relay activation from the tenant's phone.

C. Ring Thru Mode

If the Ring Thru mode is selected (see **Programming** section D), incoming calls are allowed to ring through the **K-1900-3** to the entry phone connected to the phone port. If the door phone has an auto-answer feature, this will allow the user to “monitor” the entry way. The **K-1900-3** is still watching for the security code and will seize the line if a valid code is detected. In this manner, the **K-1900-3** may still be remotely programmed. In this mode the relay activation code may also be used. If the Ring Thru mode is turned off, the **K-1900-3** will answer all inbound calls. **Note:** To utilize the Ring Thru mode with a **K-1700-3** entry phone, JP2 on the **K-1700-3** must be in the **ON** position. See the **K-1700-3 Technical Practice (Fax Back Document 157)**.

Related Products


K-1700-3 Handsfree Speaker Phone



Viking's **K-1700-3** provides a tough and attractive handsfree phone for apartment, and residential door entry or applications requiring a vandal resistant speaker phone.

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 weather resistant, surface mount box is available (shown).

For outdoor or harsh environments, the **K-1700-3** is available with Enhanced Weather Protection (**EWP**). **EWP** products feature rubber gaskets and boots, closed cell foam gasketing, hand soldered silicon sealed connections, anti-corrosive gel filled butt connectors, as well as urethane encapsulated circuit boards with internally sealed, field-adjustable trim POTS and DIP switches.

 Need More Information on the K-1700-3?
Call (715) 386-4345 and select 157.


Add Door Entry Features to Your Existing Home or Office Phones

The **C-2000** 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-2000** 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.



 Need More Information on the C-2000?
Call (715) 386-4345 and select 156.


Proxy Card Reader and Keypad with Wiegand Output




The **HID-1** Proxy Card Reader (left) allows proxy card entry for select Viking apartment or office entry systems. Using the **HID-1** Proxy Card Reader instead of keyless entry codes, allows the building manager to keep control over the number of people that can let themselves into the building. The **HID-1** features standard 26-bit Wiegand interfacing and a potted enclosure with pigtail connection for indoor or outdoor applications.

The **HID-2** Keypad (right) with Wiegand output allows keyless entry for select Viking apartment or office entry systems. The **HID-2** Keypad features standard 26-bit Wiegand interfacing, a metal enclosure with potted electronics and a pigtail connection for indoor or outdoor applications.



 Need More Information on the HID-1?
Call (715) 386-4345 and select 197.


 Need More Information on the HID-2?
Call (715) 386-4345 and select 199.

K-1900-8 Hot-Line Phone with Built-in Keypad

Viking's **K-1700-3** provides a tough and attractive handsfree phone for apartment, and residential door entry or applications requiring a vandal resistant speaker phone.

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 weather resistant, surface mount box is available (shown).

For outdoor or harsh environments, the **K-1700-3** is available with Enhanced Weather Protection (**EWP**). **EWP** products feature rubber gaskets and boots, closed cell foam gasketing, hand soldered silicon sealed connections, anti-corrosive gel filled butt connectors, as well as urethane encapsulated circuit boards with internally sealed, field-adjustable trim POTS and DIP switches.

 Need More Information on the K-1900-8?
Call (715) 386-4345 and select 362.



Provide 4 Door Entry Points for up to 250 Apartments or Offices



 Need More Information on the C-4000?
Call (715) 386-4345 and select 164.

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** or **K-1900-8** phones 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 **HID-1** Card Readers may be added for Proxy 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.

Add Keyless Entry and/or Card Reader Entry for a Single Door with Up to 250 Users

The **ES-1** is a door controller designed to operate a door strike or magnetic lock upon receiving a valid card read and/or keyless entry code from Wiegand devices. One **ES-1**, one or two Wiegand devices and a door strike or magnetic lock of your choice is required for each entry point. The Wiegand device used may be the **Viking** model **HID-1** Proximity Card Reader and/or the **Viking** model **HID-2** Wiegand Output Keypad or any other card reader, RF transmitter or digital keypad that outputs the 26 bit Wiegand format. Up to 250 valid Wiegand codes can be programmed into the **ES-1**.

Other programmable parameters, like relay activation, mode (normal, off, or open) and facility codes are also stored in non-volatile memory.

All programming is done with a local touch tone phone. Up to three **ES-1**s can be programmed simultaneously if they will be sharing all the same programming codes and parameters. Entry logging is possible with the **ES-1**'s log bus data output.

 Need More Information on the ES-1?
Call (715) 386-4345 and select 193.



Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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