

Door Entry and Access Control Systems Buyers Guide

Universal Door Entry Systems for Key Systems, PABX, or Single Line Phones

Apartment and Office Entry Systems



K-1900-3



C-2000A



C-3000



C-4000

Doorboxes and Doorbox Controller



C-1000B



W-1000



W-2000A



W-3000

Remote DTMF Controllers



RC-2A



RC-3



AES-2000



ES-3

Accessible Entry System

Stand-Alone Systems



ES-1

Entry Phones




E-40-PB



E-40-BN



E-40-SS

Look for this symbol: 
Some models are now CCTV compatible!

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ACCESS CONTROL OVERVIEW

More than just an intercom...

Security is on everyone's mind today and that always means placing some restrictions on who can enter a building. Your customers will most likely be letting in the majority of people who arrive at their door. But you wouldn't know that from reading the ads in security magazines. Those ads tell you to install a high-tech system for every door entry/access application.

In most residential and business applications, the callers at the doors are most likely to be clients, friends, a delivery driver, or the dreaded door-to-door solicitor. Your customers want a system that allows them to screen visitors and open doors and gates with minimum intrusion into their daily lives and business operations.

So, how do you select a door entry/access system that provides the proper level of security for your kind of customer? Read this guide. It's designed to help you understand the terminology, system design, installation practices, and available options for residential and small business door entry and access systems.

Understanding Viking's Systems

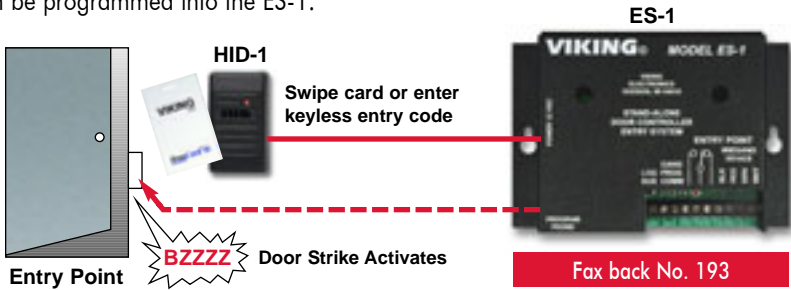
Viking offers a wide range of entry systems, from free standing single door entry systems to fully integrated multi-unit apartment entry systems. The chart below and the following sections will explain the different types of Viking entry systems and specific applications.

Model	Page	Description
ES-1	4	Stand-alone door entry system to operate a doorstrike or magnetic lock, compatible with Viking's HID-1 and HID-2.
Doorboxes	5	Designed for use with single or multi-line phones or Viking's C-1000B controller.
C-1000B	6	Controls 1-2 Viking doorboxes, answer and open a door from a Touch Tone phone, also allows CCTV monitoring.
C-2000A	7	Full-feature door entry system for up to 4 doors or gates, answer and open doors from a Touch Tone phone, compatible with Viking's VC-1000 for CCTV monitoring.
K-1900-3	8	Apartment entry system for up to 150 units, provides keyless entry and allows tenants to "buzz" in visitors via phone.
C-3000	8	Apartment entry system with no C.O. lines required, still allows tenants to "buzz" in visitors, 12 units (expandable to 96).
C-4000	9	Apartment/Office entry system for up to 250 tenants, up to 4 doors or gates may be used, allows keyless or prox-card entry, compatible with Viking's HID-1 and HID-2.
AES-2000	11	Accessible entry system for people with sensory and physical impairments, allows keyless or prox card entry for up to 75 tenants, expandable to 525 tenants.

STAND-ALONE DOOR ENTRY SYSTEM

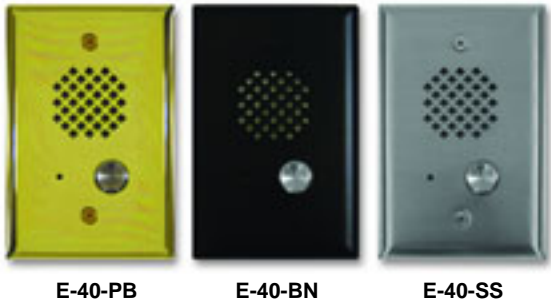
Viking's ES-1 is a door entry controller designed to operate a door strike or magnetic lock upon receiving a valid card read and/or keyless entry code from Wiegand devices. One ES-1, one or two Wiegand devices and a door strike or magnetic lock of your choice is required for each entry point.

The ES-1 is compatible with Viking's HID-1 Proximity Card Reader and/or the Viking's HID-2 Wiegand Output Keypad (see page 12) or any 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.



VIKING DOOR ENTRY PHONES

Viking's E-40 Series of Entry Phones are compact, weather and vandal resistant, telephone line powered speaker phones designed to provide two-way handsfree communication. The E-40's compact size allows it to be mounted in a standard single gang electrical box.



The E-40 is available in three different attractive finishes to match your door hardware, light fixtures, etc. The E-40-PB has a Polished Brass faceplate with an extremely durable U.V. resistant high gloss clear powder paint coating to prevent tarnishing. The E-40-BN has a stainless steel faceplate with Oil Rubbed Bronze (dark brown) color extremely durable U.V. resistant matte finish powder paint. The E-40-SS has a durable Stainless Steel faceplate with a brushed (satin) finish.

One to four E-40 entry phones can share a single phone line with house or small business telephones when used with a Viking model C-2000A Advanced Door/Gate and Entry Phone Controller (see page 7).

Fax back No. 187

VIKING DOORBOXES

Viking's self-contained doorboxes are universal! They are built with all of the supporting communications electronics inside the doorbox itself to provide ringing, talk battery and speakerphone operation. The best part is that they work with all phone systems: single line phones, multi-line phones, No-KSU, Key, and PABX. They are available in a variety of styles, providing not only different decor features, but varying levels of vandal resistance as well. Vandal resistance is a very important consideration, especially in commercial applications. See Viking's selection of doorboxes below.



W-1000

Fax back No. 170



W-2000A

Fax back No. 170



W-3000

Fax back No. 180

Using Viking Doorboxes with a Dedicated Phone

A self contained Viking doorbox can be mounted at the door and be wired directly to a dedicated standard single line phone. The phone can only communicate with the doorbox.

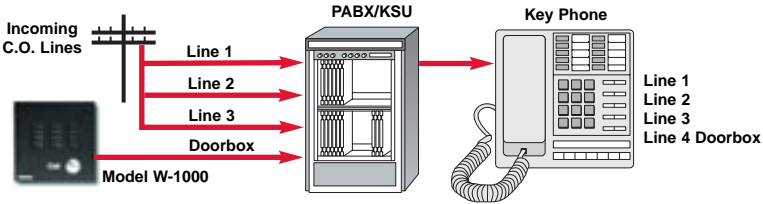
For example: a doorbox is installed at a company receiving door. It is wired directly to a single line phone or the base station of a portable phone in the shipping department. A portable phone allows personnel to answer the doorbox from anywhere within the radius of the base station. A delivery driver pushes the button on the doorbox and it rings the attached phone and provides talk battery. Shipping personnel answer the door simply by picking up the dedicated phone. The speakerphone in the doorbox allows the driver to talk hands-free.

What you have at this point is essentially a private network between the driver at the door and the shipping employee answering the dedicated phone. No other phone users can access the doorbox. The doorbox also works in reverse. In the same example, shipping personnel can pick up the dedicated phone and listen to activity near the outside doorbox. In reverse mode the doorbox does not require push button activation to work.



Using Viking Doorboxes in Multiple Line Applications

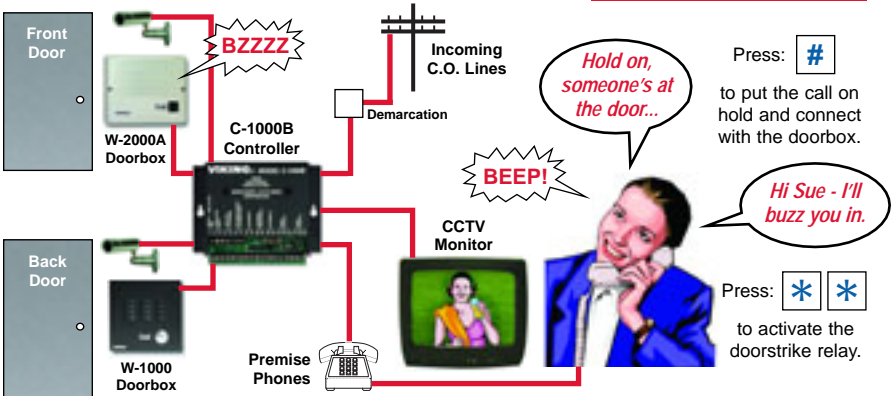
Using the same self-contained Viking doorbox described in the last section, wire the talk pair into an unused trunk input of a multiple-line (No KSU) telephone, PABX, or Key system. The doorbox in this application acts as if it is an ordinary phone line. The doorbox generates ring voltage and talk battery into the multiple-line telephone, PABX, or Key system. Depending on programming, the PABX or Key system can route the call to a specific phone or to all phones in the system. For example: If the doorbox is connected to the previously unused Line 4 input of a KSU and Line 4 is then programmed to ring on all phones, the doorbox ring signal would cause all the phones to ring and the Line 4 light to flash. In this example, any employee could answer the doorbox from any phone in the system. To be trunk compatible, a doorbox must provide ring voltage and talk battery.



SEE Who's at the Door, ANSWER the Door and OPEN the Door... All with a Viking Doorbox!

The C-1000B door entry controller allows Viking doorboxes to share a regular phone line, even if the phone line is in use. It also provides relay contacts for door and gate opening systems-relays that are activated by a Touch Tone security code from the user. When a visitor activates the doorbox, the C-1000B passes the doorbox ring to all premise phones. If the line is in use, the C-1000B initiates a call waiting tone into the conversation. Using Touch Tone commands, the user can switch between their phone call and the visitor at the door and operate relays for door strikes and gate openers. With this type of system, users no longer have to get up to answer the door or open the door.

Fax back No. 168



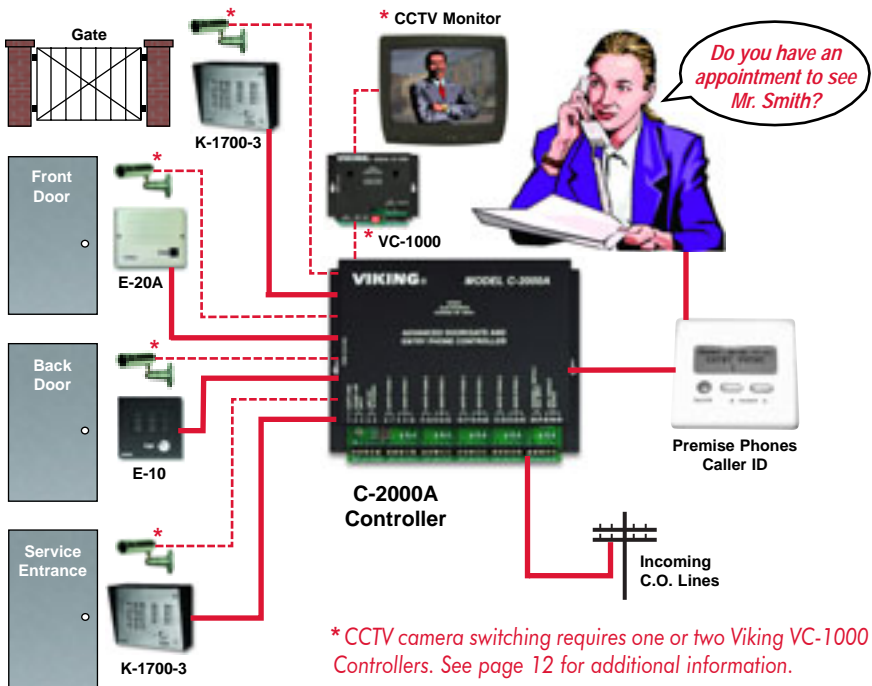
FULL-FEATURE DOOR ENTRY SYSTEM



The most fully featured of all the systems, the C-2000A operates over a regular phone line and provides Caller ID and Call Waiting ID to identify which door phone is calling. If the phone line is in use, the C-2000A initiates a distinctive beep to alert the user that the waiting call is from a door phone. Using Touch Tone commands, the user can alternate between the phone call and the visitor at the door.

An auxiliary set of relay contacts is provided to activate cameras or lighting. Finally, the C-2000A provides the connection of a dry contact closure device such as a garage door opener keypad, or a logic input to operate the auxiliary relay.

Fax back No. 156



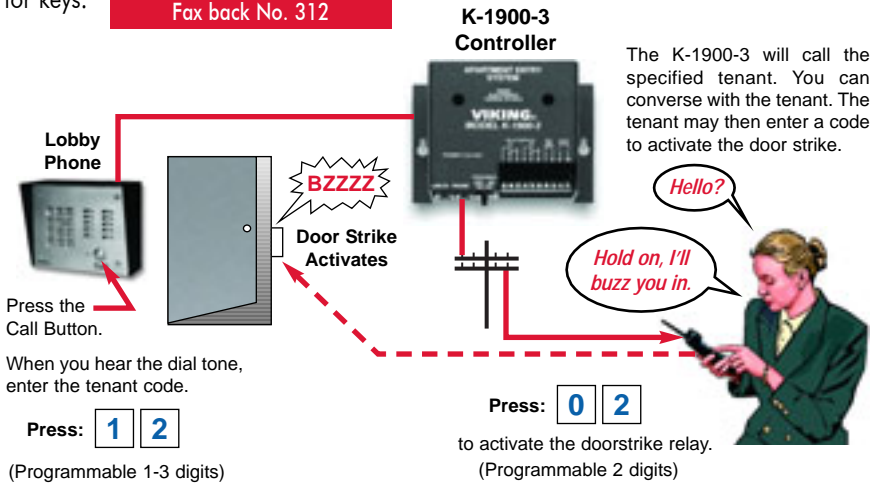
VIKING APARTMENT ENTRY SYSTEMS

You've seen them everywhere, a lobby phone with a built-in dialer to call tenants. The concept isn't new. However, the older systems have become favorite targets for vandals and dial tone pirates. Because these older systems provide phone company dial tone at the lobby phone, pirates using Touch Tone generators can place long distance phone calls and stick the building owner with the charges. A worse scenario happens when vandals pry these older systems off the wall, exposing door strike contacts. A quick short across the contacts and the vandals have access to the building.

The newer apartment entry systems locate operational electronics and relays inside the building. The controller interfaces between the lobby phone and phone line, providing an artificial dial tone at the lobby phone. Users cannot tell the difference and vandals can't perpetrate toll fraud. That's because the controller electronics cannot be fooled by Touch Tone generators or savvy hook-flash experts.

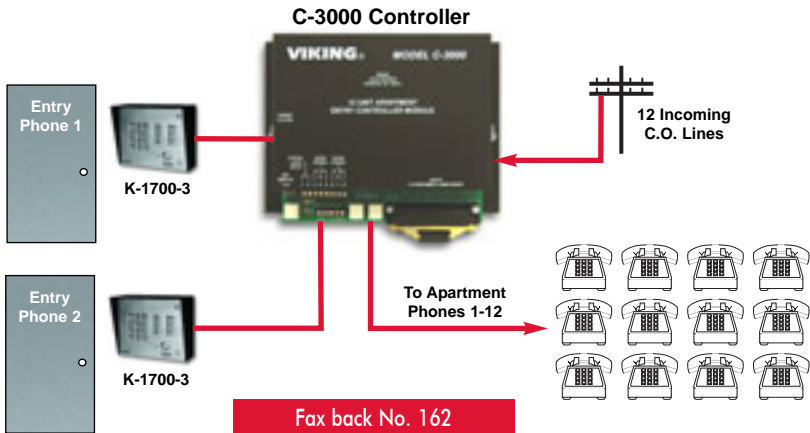
The C-3000 and K-1900-3 also offer a keyless entry feature (see page 9). Tenants can enter a security code into the lobby keypad and unlock the front door without fumbling for keys.

Fax back No. 312



Apartment Entry System with No C.O. Line

The C-3000 allows you to connect 12 apartments to two entry phones (or any touch tone phone). The C-3000 rings apartment phones or provides a call waiting tone. Tenants can "buzz" in the visitor from their touch tone phone. Eliminates the monthly expense of a phone line and adding call waiting to the apartment phones. Two door strike contacts are provided. Expandable to 96 apartments with additional C-3000 controllers.

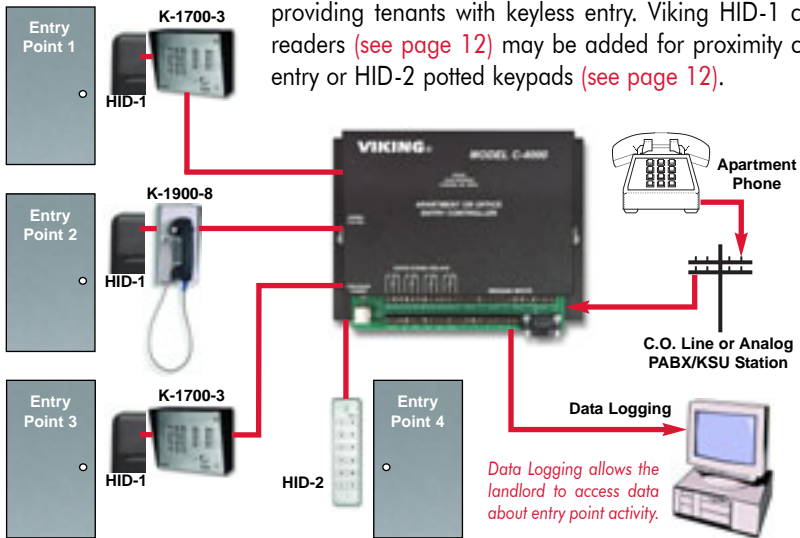


Four Door Keyless Entry or Proxcard Entry System

The C-4000 provides 4 door entry points and keyless entry (or optional card readers) for up to 250 apartments or offices. The C-4000 uses 26-bit Wiegand card readers, keypads or converts 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.

Fax back No. 164

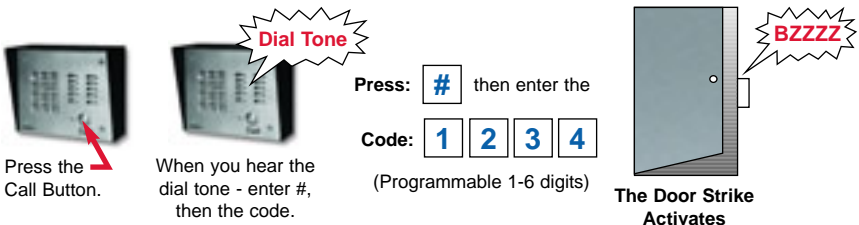
When a call initiated by the C-4000 is answered by an apartment or business tenant, a built-in contact closure may be activated to control an electric gate or door strike. Up to 250 keyless entry codes may also be programmed, providing tenants with keyless entry. Viking HID-1 card readers (see page 12) may be added for proximity card entry or HID-2 potted keypads (see page 12).



ENTRY SYSTEM FEATURES

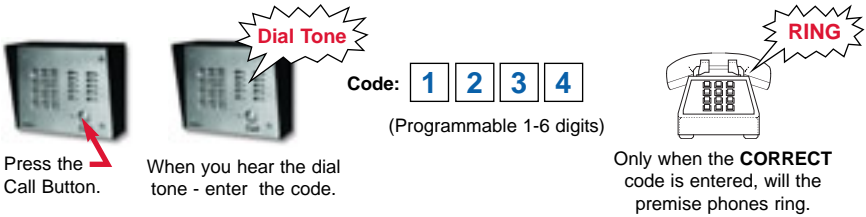
Keyless Entry Feature

Viking's C-2000A, C-3000, C-4000, ES-1, and K-1900-3 offer keyless entry which allows residents or tenants to let themselves in. This feature works particularly well when the user wants to grant access only to authorized persons. The keyless entry feature will work differently for each door entry controller. Below is an example of the C-2000A controller and the K-1700-3 door entry phone using the keyless entry feature.



Privacy Feature (Celebrity Screening)

Only Viking's C-2000A controller provides the celebrity screening feature for screening out nuisance calls at the door phones. With this feature activated, a visitor must enter a private number at the door phone before the system will ring onto the phone line.



Standard and Distinctive Ringing

The W-3000 doorbox, C-1000B and C-2000A controllers can be programmed to provide a distinctive ring cadence to differentiate a door call from an ordinary phone call. The distinctive ringing feature can be used with a dedicated phone, a multiple line KSU-less phone, or household phones attached to the C-1000B and C-2000A controllers. Since most KSU and PABX systems cannot regenerate a distinctive ring input, this feature will not work with those systems.

Push-To-Talk

Speakerphone operation reduces vandalism commonly associated with handsets and cords. However, in noisy environments, speakerphone circuitry has difficulty switching between send and receive modes. The result is known as "clipping," where portions of the conversation are lost. In these high background noise applications, your customer needs a doorbox that can be converted to push-to-talk operation. The W-3000 self-contained doorbox can be programmed to provide push-to-talk operation.

Distance from Phones

Many installers are asked to install doorboxes at driveway gates. These gates can be quite a distance from the business or residence phones. In these applications you need a doorbox with enough power to span the distance without substantial signal loss. Most quality doorboxes allow you a distance of up to 6,300 feet.

Surface Mount and Pedestal Mount Options

All Viking flush mount doorboxes and door phones can be converted to surface mount by using an optional VE-Series backbox. All Viking backboxes utilize heavy duty steel construction and black powder painted techniques for vandal resistance and long life. VE-Series backboxes will mount to standard single gang electrical boxes or Viking's gooseneck pedestals. For more information on Viking backboxes, [see page 14](#).



High Ring Equivalency Number (REN)

This is the amount of energy required to ring a phone. A standard telephone with a mechanical bell usually requires 1 REN. Electronic ringers generally consume less power. REN is important in doorbox applications when the doorbox must ring several single line or multiple line phones. Doorboxes with low REN may not be able to ring more than one or two phones. In most residential applications you want a system with a high REN. However, REN is less important when connecting to a PABX or Key system, since these systems use incoming ring voltage only as a trigger to regenerate a new ring signal within the PABX or Key system. Viking doorboxes provide 3.0 REN. The C-2000A controller provides 8.0 REN. For even more REN, add the Viking RG-10A Ring Booster. The RG-10A provides 15 REN, enough to ring at least 15 phones.

VIKING'S ACCESSIBLE ENTRY SYSTEM



AES-2000S Surface Mount

Fax back No. 202

The AES-2000 Accessible Entry System provides both audio and visual assistance for those with disabilities.

The LCD display with large 1/2" tall characters is back-lit and will display a directory of tenants as well as directions and prompts. A built in voice recorder and announcer can also provide a supporting audio message. When the EZ™ Access button is pressed, instructions on how to use the system are both displayed and announced.

The built in directory can support up to 525 tenant names and phone numbers and will dial a pre-programmed phone number upon selection of a tenant. Once two-way communication has been established, the tenant can activate a remote door strike by entering a Touch Tone command. A second relay is also provided to operate an automatic door. The AES-2000 will also support keyless entry at the door via its built-in keypad. The unit is available in flush (AES-2000F) and surface mount (AES-2000S) configurations and features a highly vandal resistant housing.

Add Access Entry Points to VIKING's AES-2000

Up to 32 additional points of entry can be added to Viking's model AES-2000 Accessible Entry System. One ES-3, one Wiegand device and a door strike or magnetic lock of your choice is required for each additional entry point.



Fax back No. 195

PROXIMITY CARD ACCESSORIES



HID-1 Proximity Card Reader

Fax back No. 197

The HID-1 Proxy Card Reader 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 monitor 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/outdoor applications.

HID-2 Keypad with Wiegand Output

The HID-2 Keypad 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.

Fax back No. 199



Pre-Programmed Proximity Cards

The PROXCARD is a non-contact security card that can be placed in front of the Viking HID-1 Card Reader to allow entrance into a secured area. The cards are made from 0.075" thick plastic and resist bending and folding. A slot is provided at one end to allow a strap to be added for creating a "dog tag" style neck strap.

Fax back No. 198

DOOR ENTRY WITH CCTV CONTROL

Viking's VC-1000 Programmable CCTV Camera Controller consists of two telco interface modules each linked to a CCTV camera input and a combiner for output to a video monitor, television or VCR.



Unlike passive or manual CCTV camera switchers, the VC-1000 continuously monitors for activity on its telco line circuits and instantly switches to the appropriate camera when activity is detected.



Fax back No. 185

During periods of inactivity, the VC-1000 can be programmed to provide no video output, output camera 1, output the last camera activated, or output the cameras sequentially. Two VC-1000's can be stacked to cover four zones. Programming is done easily using dip switches.

ENHANCED WEATHER PROTECTION (EWP)

Viking has developed an Enhanced Weather Protection (EWP) system for selected emergency and entry phones. EWP is designed for phones that are mounted outside, in salty ocean air, high humidity, exposed to corrosive elements or vehicle exhaust. The electronics are completely encapsulated in a urethane material. In addition, the EWP products have mylar speakers, closed cell foam gaskets, sealed DIP switches, trim POTs, push button switches, microphone and LED connections. Tip and ring connections are filled with anti-corrosive gel.



Viking emergency phone with EWP shown operating under water!

Fax back No. 859

EWP Available on These Select Models...

Model	Fax Back #	Description
BLK-3-EWP	653	Line Status Strobe Light Kit
E-10/20A-EWP	210	Speaker Phones
E-1600A-EWP	215	ADA Compliant Handsfree Emergency Phone
E-1600-03B-EWP	215	ADA Compliant Handsfree Emergency Phone
E-1600-20A-EWP	215	ADA Compliant Handsfree Emergency Phone
E-1600-45A-EWP	215	ADA Compliant Handsfree Emergency Phone
E-1600-50A-EWP	215	ADA Compliant Emergency Phone Kit
E-1600-52A-EWP	215	ADA Compliant Emergency Phone Kit
E-1600-55A-EWP	215	Universal Emergency Phone Kit
E-1600A-BLT-EWP	217	Emergency Tower Phone with Strobe Light
E-1600A-TP-EWP	218	ADA Compliant Handsfree Emergency Phone
E-30-EWP	212	Stainless Steel Handsfree Phone
K-1700-3-EWP	157	Stainless Steel Handsfree Phone with Keypad
W-1000/2000A-EWP	170	Handsfree Doorboxes
W-3000-EWP	180	Vandal-Resistant Stainless Steel Doorbox

DOOR ENTRY ACCESSORIES

Remote DTMF Controllers



Fax back No. 160

The RC-2A Remote Controller provides remote relay operation for 1 relay from any standard Touch Tone telephone. Can be installed in series with Viking doorboxes. For applications that require up to 3 relays, use Viking's RC-3.



Fax back No. 165

Backboxes and Gooseneck Pedestals

Viking's VE-5x5, VE-6x7 and VE-5x10 backboxes add vandal and weather resistance, as well as versatility to many Viking products.

The VE-Series backboxes are black powder painted steel, weather resistant boxes designed to be surface mounted to a single gang box, a wall or a gooseneck pedestal.

Viking's gooseneck pedestals are designed to be used in conjunction with any of the VE-Series backboxes.

The VE-GNP is a 4 foot tall gooseneck pedestal for pedestrian or car applications. The VE-GNP-2 is a 6 foot tall gooseneck pedestal with dual heights to allow easy access for either car or truck applications.



VE-GNP-2



VE-5x10



VE-6x7



VE-5x5

Fax back No. 424



VE-GNP

Add Panel Lighting to Your Viking Doorbox or Entry Phone

The VE-LIGHT kit adds bright LED illumination to any doorbox or entry phone that is housed in a Viking VE-5x5 or VE-6x7 enclosure. The stainless steel bracket is easily mounted using existing holes and hardware. Two bright white LEDs are used as the light source, so there are no filaments to break or bulbs to burn out.



VE-LIGHT (shown with W-3000)

Fax back No. 428

If used with the W-1000 or W-3000, the VE-LIGHT can be wired directly to the AC power input of the doorbox, or use the included 12 volt power supply. Any power source between 12 and 24 volts, AC or DC can be used to supply the VE-LIGHT with power.

Enclosures for Installing Viking Products Outdoors

The VE-9x12 and VE-9x20 provide the ultimate in weather protection for your Viking product! These enclosures are constructed of cast aluminum and are made for years of outdoor service. The door is labeled "TELEPHONE" and has a gasket seal and drip guard to keep out the harshest weather. The VE-9x12 allows you to choose between two internal mounting adapter panels.



Fax back No. 413

VIKING's Access Control Phones, Doorboxes and Accessories

Call our Fax Back System to get instant information on Viking products,
24 hours a day, 365 days a year: 715-386-4345.



W-1000 - Handsfree doorbox, flush mount, black powder painted aluminum.

Fax back No. 170



W-2000A - Handsfree doorbox, surface mount, durable plastic construction.

Fax back No. 170



W-3000 - Handsfree doorbox, flush mount, vandal-resistant stainless steel.

Fax back No. 180



K-1700-3 - Vandal resistant stainless steel speaker phone with keypad. Designed especially for apartment and door entry applications. Phone line powered.

Fax back No. 157



HID-2 - Vandal resistant potted aluminum Wiegand keypad. Beeper and LEDs show status. Standard 26-bit Wiegand interface.

Fax back No. 199



HID-1 - Proximity card reader. Potted enclosure for indoor and outdoor applications. Standard 26-bit Wiegand interface. Compatible with Viking Proxcards (below).

Fax back No. 197



VC-1000 - CCTV controller for Viking door entry phones. Automatically switches TV or monitor to appropriate CCTV area when a doorstrike is activated. Monitors 2 CCTV areas, expandable to 4 areas.

Fax back No. 185



C-1000B - Door entry and CCTV camera controller. Allows single line phones or phone systems to share a phone line with 1 or 2 doorboxes. Operate doorstrikes or gate openers and provide CCTV camera switching.

Fax back No. 168



PROXCARD - Pre-programmed proximity cards. No magnetic strips or batteries to wear out. Credit card size.

Fax back No. 198

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