

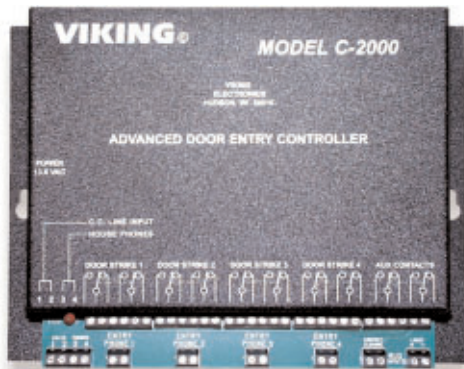


# TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

<b>C-2000</b>
<b>Advanced Door Entry Controller</b>
August 27, 2001

## Add Door Entry Features to Your Existing Home or Office Phones



monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads.

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.

### Features

- Connect up to 4 entry phones
- Compatible with:
  - **E-10, E-15, E-20A** and **E-30** Handsfree Phones
  - **K-1500-7** Stainless Steel Panel Phone
  - **K-1700-3** Handsfree Phone with Keypad
  - **K-1900-8** Stainless Steel Phone with Keypad
  - Any analog phone
- Optional "Privacy Number" allows only selected visitors to call from an entry phone
- Provides "Caller ID" and "Call Waiting ID"
- Produces "Call Waiting" tones
- Two sets of normally open and normally closed contacts available for each entry phone
- Four separate programmable keyless entry codes plus a master entry code
- Programmable contact activation time
- Auxiliary input to activate timed auxiliary contacts
- Realistic call progress tones

### Applications

- Add one to four entry phones to your standard home or office phones to provide:
  - Door communication
  - Door entry
  - Gate entry
  - Keyless entry
- Provide commercial or residential security via two-way handsfree communication at the door and gate

Phone...715.386.8861

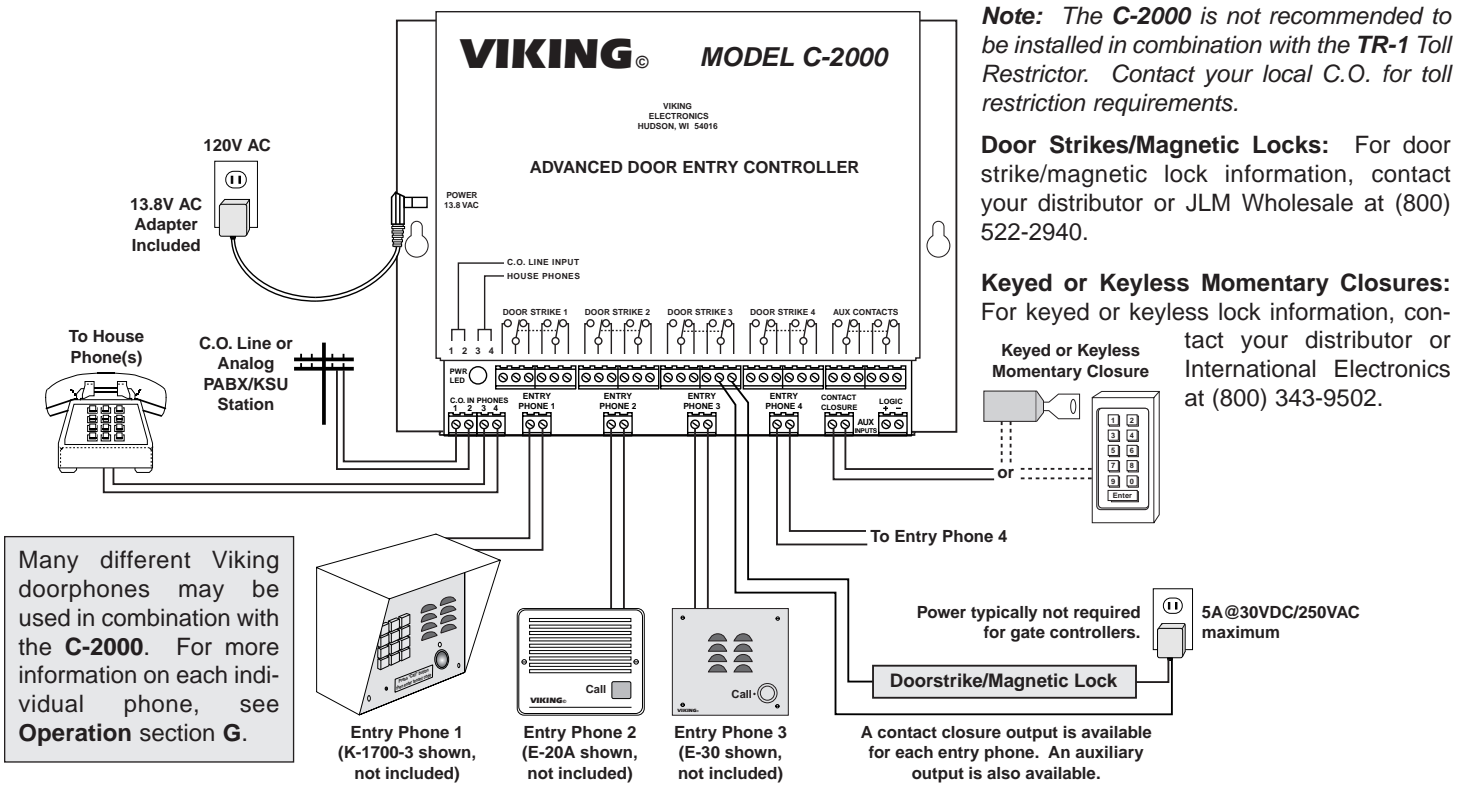
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### Specifications

**Power:** 120VAC / 13.8VAC 1.25A, UL listed adapter provided  
**Dimensions:** 210mm x 159mm x 45mm (8.25" x 6.25" x 1.75")  
**Shipping weight:** 1.5kg (3.2 lbs.)  
**Environmental:** 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity  
**Relay Contacts:** 5A @ 30VDC/250VAC  
**Ring Output:** 8 REN, capable of ringing (8) 1 REN phones  
**Talk Battery:** 40V DC  
**Connections:** (46) cage clamp screw terminals

# Installation



# Programming

## A. Programming Features

	Enter Digits	- then -	Memory Location
* Privacy Number (factory disabled)	(0-6 digits)	+	#00
* Entry phone 1 entry code (factory disabled)	(0-6 digits)	+	#11
* Entry phone 2 entry code (factory disabled)	(0-6 digits)	+	#12
* Entry phone 3 entry code (factory disabled)	(0-6 digits)	+	#13
* Entry phone 4 entry code (factory disabled)	(0-6 digits)	+	#14
* Master entry code (factory disabled)	(0-6 digits)	+	#50
Relay 1 activation time (.5 - 99 seconds, factory set to .5 seconds)	(2 digits)	+	#21
Relay 2 activation time (.5 - 99 seconds, factory set to .5 seconds)	(2 digits)	+	#22
Relay 3 activation time (.5 - 99 seconds, factory set to .5 seconds)	(2 digits)	+	#23
Relay 4 activation time (.5 - 99 seconds, factory set to .5 seconds)	(2 digits)	+	#24
Auxiliary contacts timer (.5 - 99 seconds, factory set to .5 seconds)	(2 digits)	+	#30
Maximum ring count (1 - 99 rings, factory set to 5 rings)	(2 digits)	+	#40
Security code (factory set 845464)	(6 digits)*	+	#47
Enable Caller ID (factory setting)	*1		
Disable Caller ID	*2		
Entry phone calls give double ring	*3		
Entry phone calls give standard ring cadence (factory setting)	*4		
To access C.O. dial tone, dial "9" (factory setting)	*5		
For use with private dial tone (phones will instantly have dial tone)	*6		
Set all programming to factory settings	###		

\* May not contain a "\*" or a "#".

## B. Security Code

A six digit number must 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 C.
2. Enter your new security code followed by "#47".

**Note:** The security code must be six digits in length and can NOT contain a \* or #.

## C. Accessing Programming

Take a house phone off-hook and enter "\*#" followed by the six digit security code (see section B). A double beep will indicate that programming has been entered.

## D. Privacy Number

The "Privacy Number" is factory disabled so an entry phone off-hook will automatically ring the house phones. If a "Privacy Number" is programmed, the visitor must Touch Tone dial the number to be able to call into the house. The "Privacy Number" may be from 1 to 6 digits and is stored in location "#00". To disable the "Privacy Number," clear the number's memory location by entering "#00" without any previous digits.

## E. Entry Codes

Each entry phone may have its own entry code for Touch Tone keyless entry. The entry codes may be from 1 to 6 digits and are stored in locations "#11" through "#14" for entry phones 1 through 4 respectively. A master entry code can be used at any entry phone and is stored in location "#50". To clear any entry codes, simply enter just the location number (ie. "#11") without any previous digits.

## F. Relay Timers

A double pole double throw relay is available for each entry phone, and each may be programmed with its own activation time, programmed in seconds. Each time must be 2 digits (Example: 00 = 1/2 sec.) and is stored in locations "#21" through "#24" for relays 1 through 4 respectively. The auxiliary contacts relay activation time is stored in location "#30". All activation times are factory set to 00 (1/2 sec.)  
**Note:** A short buzz will indicate when a relay has been activated.

Relays	Entry Phones	Memory Position
1	1	#21
2	2	#22
3	3	#23
4	4	#24

## G. Caller ID

The **C-2000** is factory set to send "Caller ID" and "Call Waiting ID" information from the entry phones. If "Caller ID" is not required, enter "\*2" while in programming to disable the **C-2000** from sending Caller ID data to the house phones. Enter "\*1" to enable Caller ID data.

## H. Ring Cadence

Entry phone calls are factory set to ring the house phones in a standard ring cadence (2 seconds on/4 seconds off), "\*4". The **C-2000** can be programmed to give a double ring for entry phone calls (.7 seconds on/.3 seconds off/.7 seconds on/4 seconds off), enter "\*3" when in programming.

## I. Dial Tone

### 1. C.O. Dial Tone (Factory Default)

To program the **C-2000** for C.O. dial tone, enter "\*5" while programming. To gain access to C.O. dial tone, dial a Touch Tone "9".

### 2. Private Dial Tone

To program the **C-2000** for private dial tone, enter "\*6" while programming. House phones will instantly have dial tone on an off-hook.

## J. Maximum Ring Count

The number of times an entry phone call will ring the house phones can be limited in programming. The programmable maximum ring count must be 2 digits and is stored in location "#40". The maximum ring count is programmable from 1 - 99 and factory set to (05) 5 rings.

# Operation

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## A. Visitors

When a visitor presses the call button (comes off hook), the entry phone will ring down to the house phones and "Caller ID" information is sent. If a house phone is on a C.O. call, call waiting tones and "Call Waiting ID" information is sent. A Touch Tone "#" from the house phone will put the C.O. call on hold and the **C-2000** will connect to the entry phone and beep its location number. Enter Touch Tones "\*\*" to momentarily activate that relay and return to the C.O. call or enter "#" to just return to the C.O. call. A 1/2 second buzz will indicate when a relay has been activated.

Entry Phone	Caller ID and Call Waiting ID
1	"Entry Phone 1"
2	"Entry Phone 2"
3	"Entry Phone 3"
4	"Entry Phone 4"

If you require the door strike to remain on continuously (ie: a truck delivery), enter Touch Tones "\*1" to continuously activate that relay and return to the C.O. call. A long buzz will indicate the door strike relay is latched on. When the visitor calls in again (ie: they are finished unloading the truck), enter Touch Tones "\*0" to deactivate the relay. A short buzz will indicate the door strike relay is off.

## B. Monitoring

Tenants may dial out to an entry phone that supports auto-answering capability by dialing "#1", "#2", "#3" or "#4" to call entry phones 1-4 respectively. All recent Viking Handsfree Phones are equipped with an Auto-Answer feature.

### C. Gate/Door Release

Tenants may activate the relay without calling out to the entry phone. Refer to the chart at the right for dialing strings. When a tenant momentarily activates a relay, it will activate for the amount of time specified in **Programming**, section F.

Entry Relay	Activate Momentarily	Latch Relay	Un-Latch Relay
1	#1**	#1*1	#1*0
2	#2**	#2*1	#2*0
3	#3**	#3*1	#3*0
4	#4**	#4*1	#4*0

### D. Privacy Number

If a privacy number has been programmed, an off hook entry phone is given 4 seconds of dial tone to allow the visitor to enter the Touch Tone access code. The correct number will ring the house phones, an incorrect number will be disconnected. If a privacy number is not programmed, then an off-hook entry phone will immediately ring the house phones. **Note:** The "Privacy Number" may be programmed with the first 6 digits of the actual phone number. Visitors may dial the tenant's actual 7-digit phone number as if they are making an actual C.O. call.

### E. Entry Codes

Touch Tone entry codes may be used by the tenants to provide keyless entry. Each entry phone may have its own entry code. There is also a master entry code which is usable at all four entry locations. If an entry code has been programmed, an off-hook entry phone is given 4 seconds of dial tone before ringing the house phone. During this time a Touch Tone "#" + the "entry code" may be entered. A correct entry code will provide a timed relay activation for that entry phone location. **Note:** A short buzz indicates when the relay has been activated.








### F. Auxiliary Inputs/Contacts

A momentary contact closure on the "Aux Contacts Input" or a momentary logic level 1 (5V DC) on the "Aux Logic Input" will produce a timed "Aux Contacts" activation. The auxiliary input contacts may be used to provide an additional relay or may be used to add doorstrike entry to an entry phone that does not have a Touch Tone keypad. The auxiliary input contacts may also be used for timed operation of other devices such as yard lights, etc. and can be triggered by the second set of door entry contacts.

### G. Optional Equipment

The **C-2000** is compatible with all of the following Viking phones, as well as any standard analog phone.

All flush mount models shown right may be surface mounted using an optional back box. For more information, retrieve **Fax Back Document 424**.

Model		Mounting	Handsfree	Entry Keypad	Auto-Answer	Fax Back #	Material
<b>E-10</b> 		Flush	Y	N	Y	210	Aluminum
<b>E-15</b> 		Flush	Y	N	N	210	Aluminum
<b>E-20A</b> 		Surface	Y	N	Y	210	Plastic
<b>E-30</b> 		Flush	Y	N	Y	212	Stainless Steel
<b>K-1700-3</b> 		Flush	Y	Y	Y*	157	Stainless Steel
<b>K-15007 (left)</b> 		Flush	N	N	N	352	Stainless Steel
<b>K-1900-8 (right)</b>		Flush	N	Y	N	362	Stainless Steel

\* Requires K-1700-3 (RD). See serial label to verify.

#### 1. Auto-Answer

If auto-answer is required for monitoring, use Viking models **E-10**, **E-20A**, **E-30** or **K-1700-3** as entry phones.

#### 2. Keyless Entry

If Touch Tone keyless entry is required, use Viking models **K-1700-3** or **K-1900-8**. Alternatively, keyed or keyless entry may be added to entry phones that do not have Touch Tone keypads by utilizing the AUX INPUT and a third-party keypad at the entry location.

#### 3. Camera Control

An **LDB-1** or **LDB-2** loop detect circuit may be added to start and stop camera operation.

**Product Support Line...715.386.8666**

**Fax Back Line...715.386.4345**

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