

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

C-200

**Basic Single Entry
Phone Interface**

August 7, 2006

Add a Viking Entry Phone to an Existing Phone Line

The **C-200** allows single line telephones or a telephone system to share a phone line with a single Viking entry phone. Tenants may answer an entry phone call and converse with the visitor.

The **C-200** provides a "Call Waiting" tone when the phone line is in use.

Tenants may call out to the entry phone for monitoring purposes. Auxiliary contacts are provided to operate a doorbell, or activate a camera, lights, etc.

If additional features (such as doorstrike, multiple entry phones with caller ID, and keyless entry) are needed, use the Viking model **C-2000A**.



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

Features

- Allows single line telephones or a telephone system to share a phone line with a door entry phone
- House phones ring with C.O. line cadence or distinctive ring when the entry phone "Call" button is pressed
- Compatible with these Viking entry phones:
 - **E-10, E-20A, E-30, E-40** Handsfree Phones
 - **K-1500-7** Stainless Steel Panel Phone
 - Or use with any analog phone
- Provide entry phone activated chimes and whole house paging when used with a Viking model **SLP-1** Single Line Paging Controller
- Produces double "Call Waiting" tones if the entry phone is activated when the house phones are already on a call
- One set of normally open and normally closed contacts available for operating a doorbell, camera, lights, etc.
- Add door strike capability with the Viking model **RC-2A** Remote Touch Tone Controller

Applications

- Add an entry phone to your standard home or office phones to provide door communication
- Provide commercial or residential security via two-way handsfree communication at the door or gate
- Connects in series with a single phone line or to a phone system's unused line input (loop start trunk input)

Phone...715.386.8861

<http://www.vikingelectronics.com>

Specifications

Power: 120VAC / 13.8VAC 1.25A, UL listed adapter provided
Dimensions: 133mm x 104mm x 44mm (5.25" x 4.1" x 1.75")
Shipping weight: 0.9kg (2 lbs.)
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
Contacts: .5A @ 125V AC, 1A @ 30V DC
Ring Output: 5 REN, capable of ringing (10) 0.5 REN phones
Auxiliary Power Output: 12VDC @ 300mA maximum
Talk Battery: 32V DC
Connections: (12) cage clamp screw terminals

Warranty

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 to Friday 8am - 5pm central standard 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 P.O. 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.**

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 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.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO 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, ARE 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. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. 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 sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this C-200 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the C-200 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But 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 to maintain uninterrupted service.

If trouble is experienced with the C-200, for repair or warranty information, please contact:

Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

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:

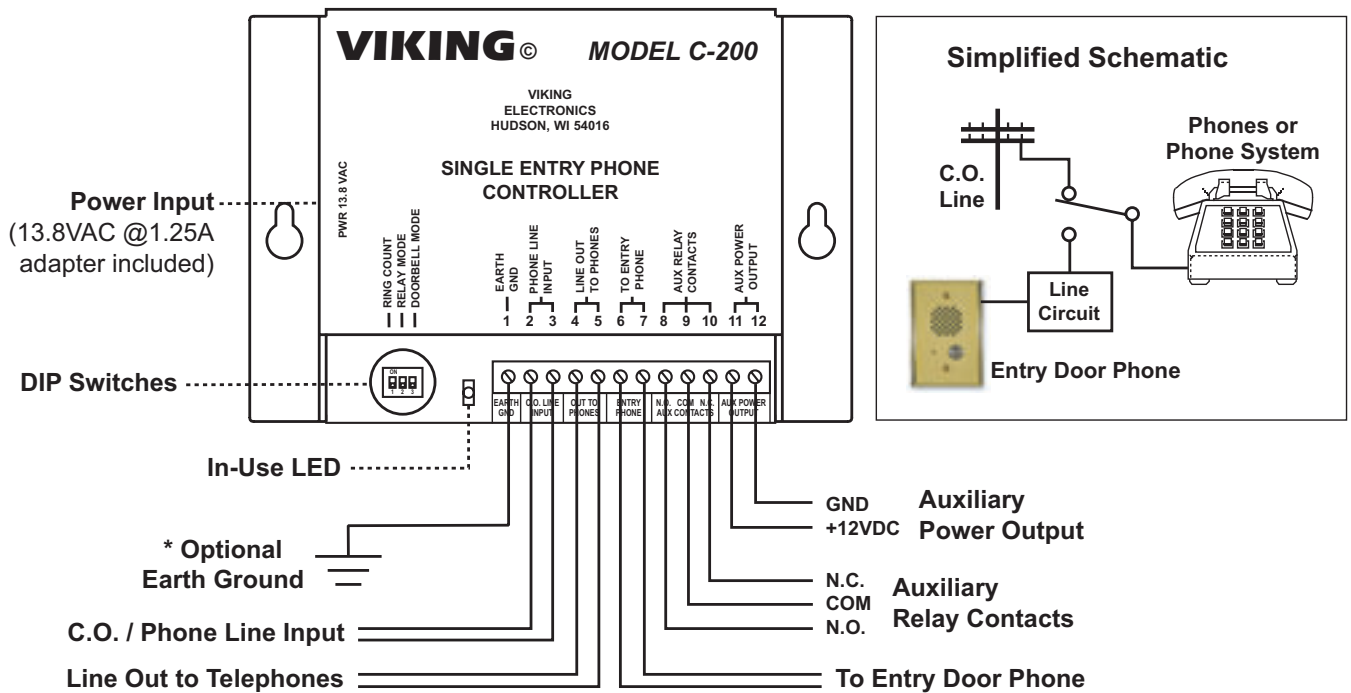
Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

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.

Features Overview



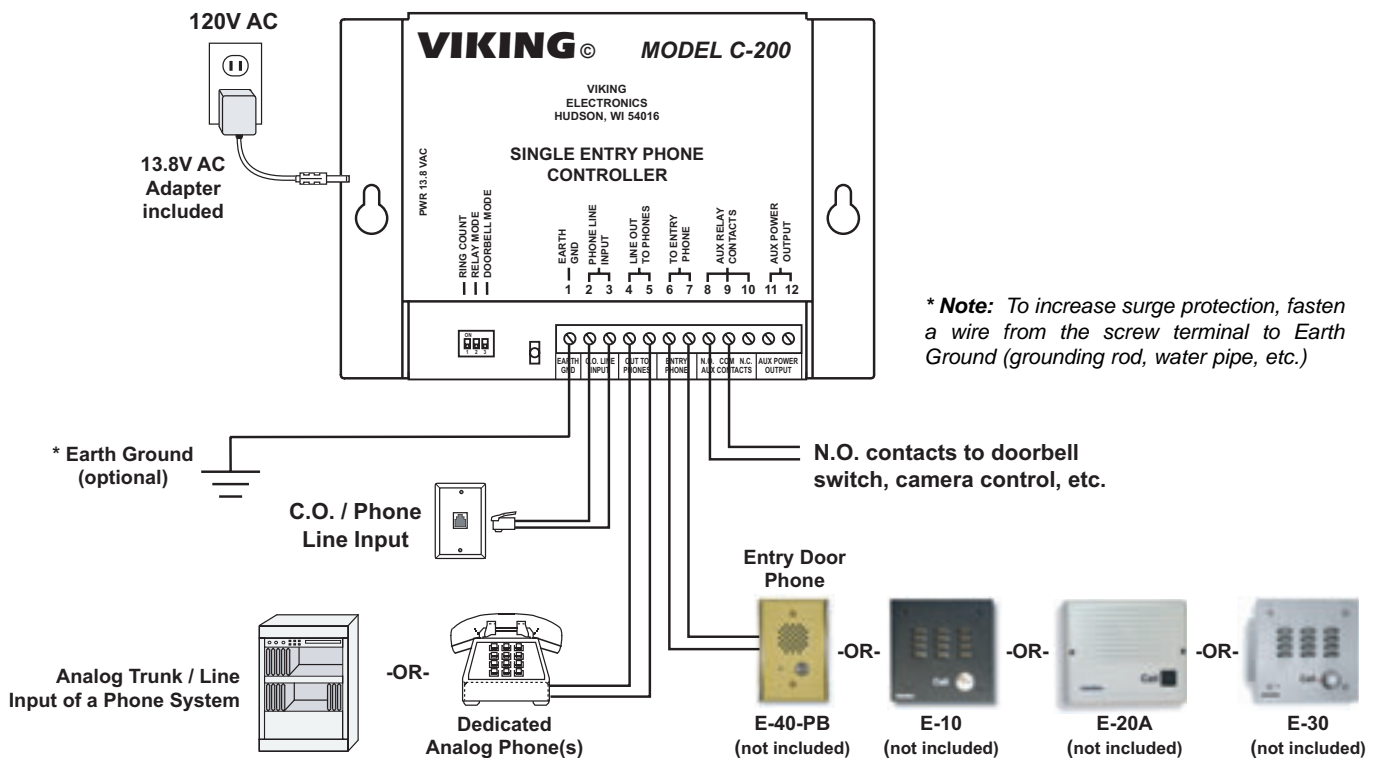
*** Note:** To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)

Installation



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.

A. Basic Installation

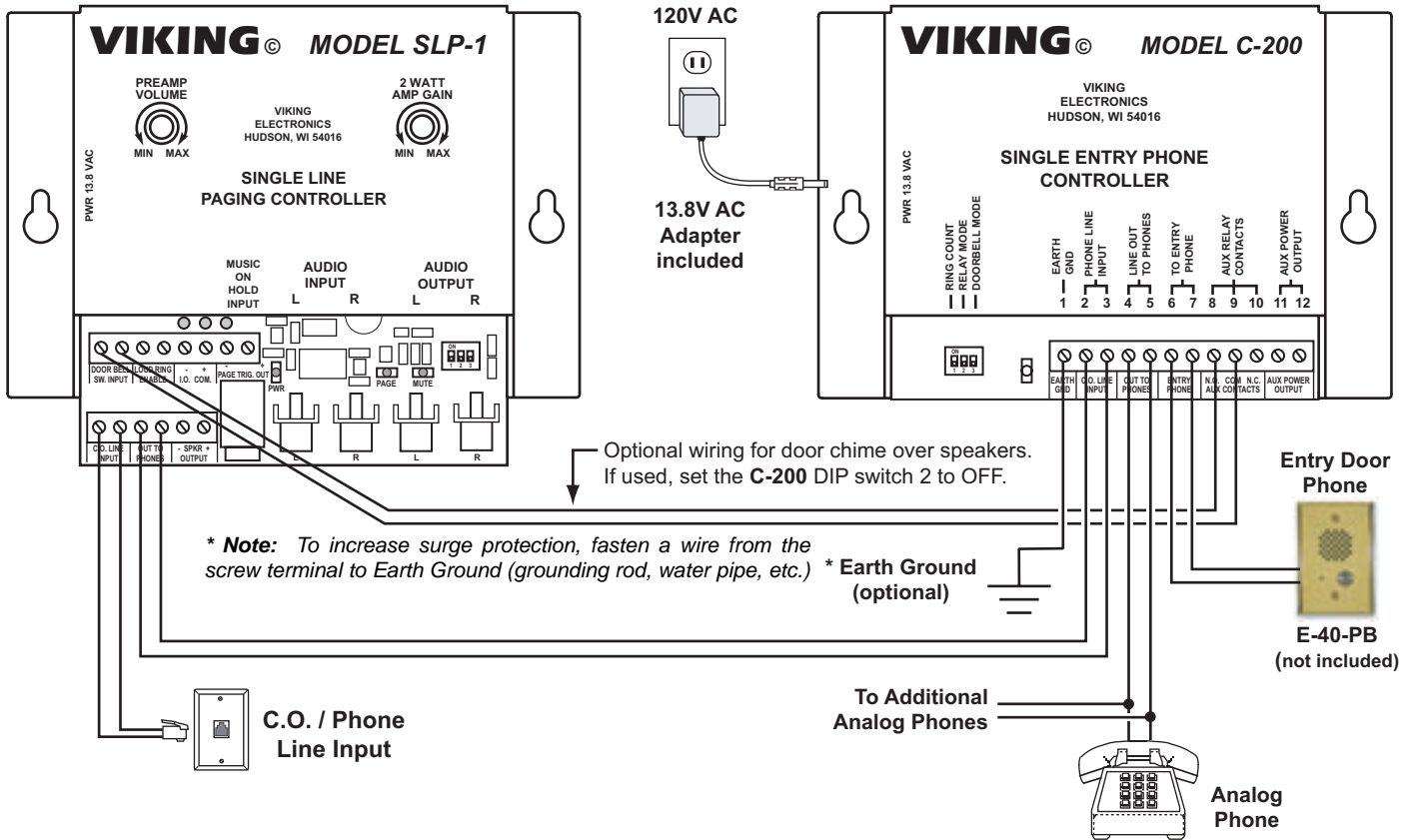


*** Note:** To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)

Note: All of these phones are equipped with an auto answer feature.

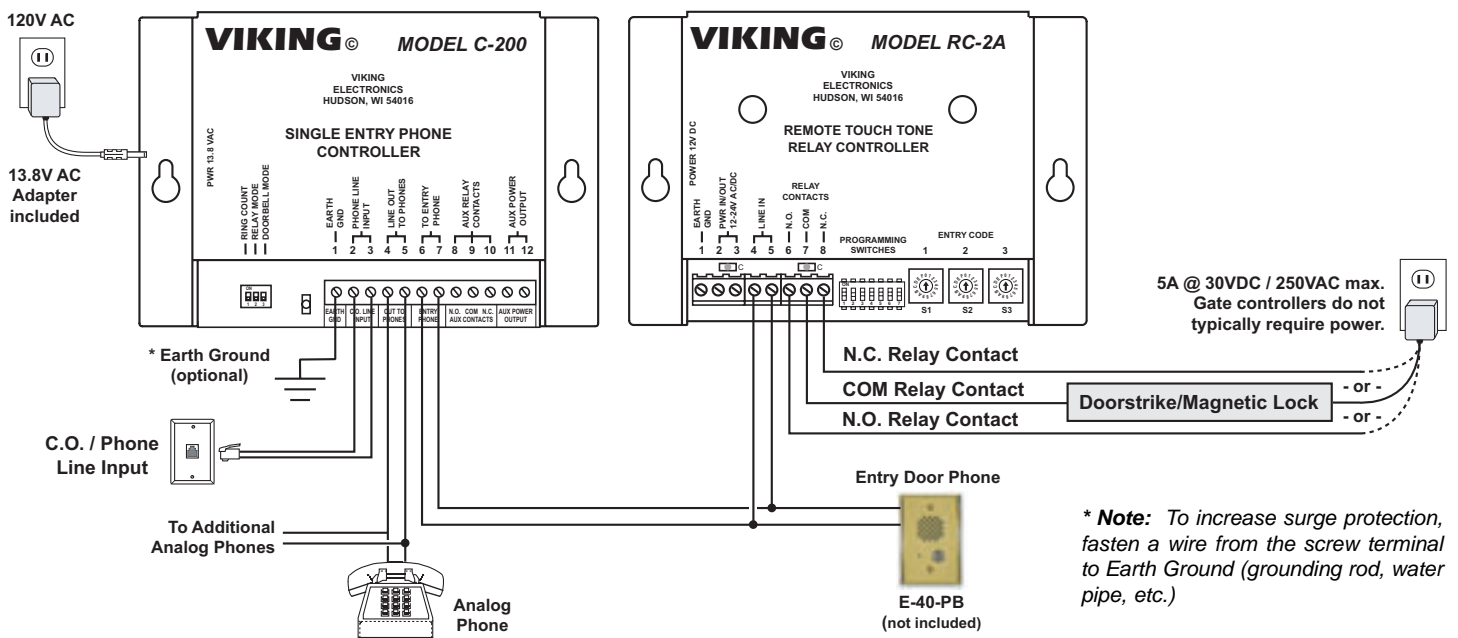
B. Add Paging, Music-On-Hold, and Loud Ringing with a Viking SLP-1

For more information and installation instructions on the **SLP-1**, retrieve **Fax Back Document 478**.



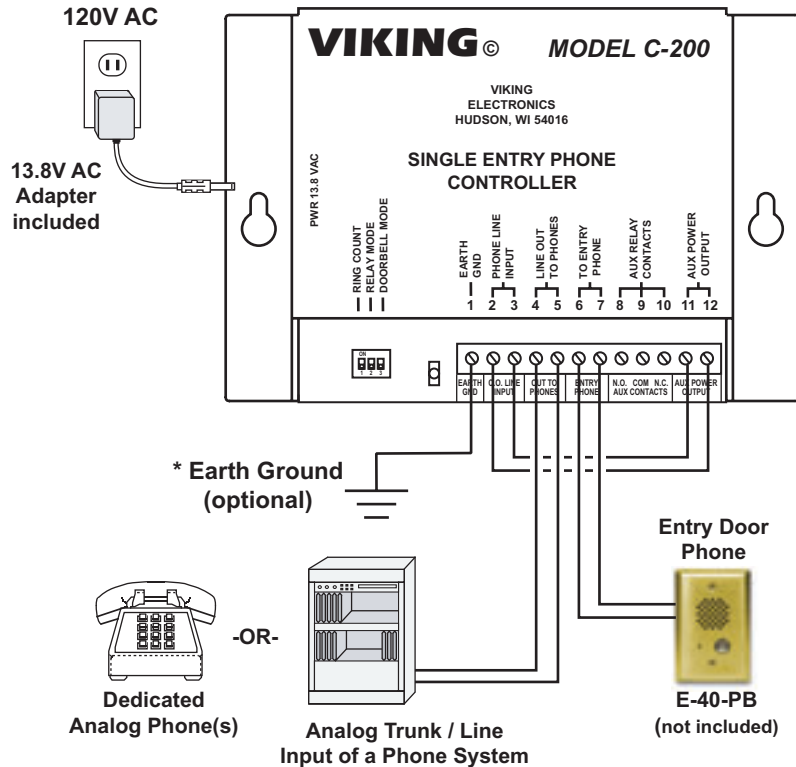
C. Add Door Strike Relay Control with a Viking RC-2A

For more information and installation instructions on the **RC-2A**, retrieve **Fax Back Document 160**.



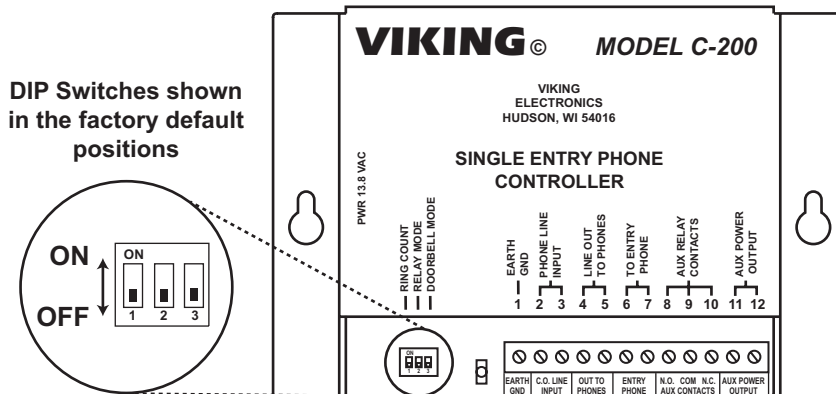
D. Using the C-200 on an Unused Trunk / Line Input

The **C-200** can also be used without a phone line. This is ideal for connecting the **C-200** to an unused trunk/phone line of a phone system, or connecting to phones used only for door communications.



Programming

Switch	Position	Description
1	OFF	Maximum ring count set to 3 rings
1	ON	Maximum ring count set to 10 rings
2	OFF	Auxiliary relay activates a doorbell
2	ON	Auxiliary relay activates a camera or courtesy lights for the duration the door phone is in use
3	OFF	Ringing enabled (normal mode)
3	ON	Ringing disabled (doorbell mode) Note: Aux Relay Contacts must be connected to a doorbell



Operation

A. Visitors

When a visitor presses the call button (comes off-hook) on the Entry Door Phone, the In-Use LED will light and the **C-200** will begin ringing the phones in a custom “double ring” cadence to identify there is a call from the Entry Phone. The tenant may answer any ringing phone to talk to the visitor. The number of times the phones ring can be limited to either 3 or 10 by programming the maximum ring count using DIP switch 1 (see Programming section above).

If the tenant is on a phone call, call waiting tones (double beep) are sent. A momentary hook switch flash on the phone will put the original call on hold and connect the tenant to the Entry Phone. After talking to the visitor, a second momentary hook switch flash will drop the Entry Phone and bring back the original call.

B. Monitoring

Tenants can monitor the Entry Phone (if it supports auto-answering capability) by coming off hook on any phone behind the **C-200**, and within 5 seconds, hook switch flashing the phone. In addition to audible surveying, the monitor feature has another use. If the phones have stopped ringing by the time the tenant reaches a phone, the monitor feature can be used to contact the visitor. **Note:** *All Viking Handsfree Entry Phones are equipped with an Auto-Answer feature.*

C. Auxiliary Relay

The Auxiliary Relay is an option that can be used to activate either an existing doorbell, or a camera or courtesy lights.

1. Doorbell

With the Aux Relay programmed to operate a doorbell (DIP switch 2 set to **OFF**), the relay will provide a momentary closure whenever the Entry Phone is used. This momentary closure can be wired to an existing doorbell circuit (or Viking model **SLP-1**) so the house doorbell rings whenever a visitor presses the Entry Phone call button. The doorbell activation can be used in addition to the “double ring” cadence to further identify the call is from the Entry Phone. Alternatively, phone ringing can be disabled (see Ringing section below), in which the doorbell will be the only indication that a visitor is waiting at the Entry Phone.

2. Camera/Courtesy Light

With the Aux Relay programmed to operate a camera or courtesy lights (DIP switch 2 set to **ON**), the relay will provide continuous closure whenever the Entry Phone is in use. This continuous closure can be wired to activate a camera or courtesy light whenever a visitor is using the Entry Phone.

D. Auxiliary Power Output

A 12V DC power output is provided for installation convenience. The output is limited to 300mA, and can aid in the ease of installing a camera.

Since the **C-200**'s Auxiliary Relay Contacts are limited to switching 1/2 amp of current, a second external 12 volt relay may be added if greater switching power is required. This external 12 volt relay can be driven from the Aux Power Output, switched through the Auxiliary Relay Contacts.

E. Ringing

1. Enabled (Normal Mode)

With ringing enabled (DIP switch 3 set to **OFF**), the **C-200** will ring the phones in a double ring pattern as described above (see **Operation** section **A**).

2. Disabled (Doorbell Mode)

With ringing disabled (DIP switch 3 set to **ON**), the **C-200** will not ring the phones. This may be desirable for installations in which the Aux Relay is activating an existing doorbell. When the doorbell is heard, the tenant can choose to either pick up a phone or open the door to talk to the visitor. Even though ringing is disabled, the **C-200** will still provide call waiting beeps if the tenant is on a phone call. Again, hook switch flashes allow the tenant to switch to the visitor, and back to the original call.

Compatible Products

E-40 Compact Entry Phones Available in Five Attractive Finishes



The **E-40** Series 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 five different attractive finishes to match your door hardware, light fixtures, etc. Replacement **E-40** faceplates (**PNL40**) can be purchased separately and are available in all five standard finishes.

The **E-40** entry phones can share a single phone line with house or small business telephones when used with a **Viking** model **C-200** or **C-2000A** Entry Phone controller. The **E-40** entry phones can also be connected to an unused analog station port (programmed for ring down) on a phone system or connected directly to a telephone line when used with a **Viking** model **K-1900-5** auto dialer. The **E-40** features microphone and speaker volume controls, selectable auto answer for monitoring and intelligent call progress detection for automatic hang-up when the call is completed. For extreme outdoor environments or corrosive atmospheres, the **E-40** Series is available with Enhanced Weather Protection (**EWP**).

For more information on the **E-40**, dial 715-386-4345 and request **Fax Back Document 187**.

E-10 and E-20A Phone Line Powered Speaker Phones



The **E-10** and **E-20A** are telephone line powered speaker phones designed to provide two-way handsfree communication. The **E-10** and **E-20A** can be connected directly to a C.O. line or analog PABX/KSU station when used in conjunction with a Hot-Line Dialer or programmed ring down circuit. The **E-10** and **E-20A** can also be used with Viking's **DLE-200B** ring down circuit. When the "Call" button is pressed, the **E-10** or **E-20A** will come off-hook and will remain off-hook until a CPC is detected or the pre-selected timeout has elapsed, the unit will then automatically disconnect. For outdoor or harsh environments, the **E-10**

and **E-20A** are available with Enhanced Weather Protection (**EWP**). For more information on the **E-10** or **E-20A**, dial 715-386-4345 and request **Fax Back Document 210**.

E-30 Handsfree Speaker Phone with Dialer



The **E-30** handsfree phone is designed to provide quick and reliable handsfree communication and can be connected directly to a C.O. line or analog PABX/KSU station.

The **E-30** features non-volatile memory, a built in dialer, and intelligent call progress detection for automatic hang-up when the call is completed. The **E-30** can be programmed to dial up to 5 different numbers on ring no answer or busy and can be configured to dial these numbers until answered. The **E-30-EWP** shares all of the features of the **E-30** in addition to Enhanced Weather Protection (**EWP**) for installation in harsh environments. For more information on the **E-30**, dial 715-386-4345 and request **Fax Back Document 212**.

K-1500-6 and K-1500-7 Vandal Resistant, Stainless Steel, Panel Telephones



The **K-1500 Series** provides simple vandal resistant, communication in a flush mount, stainless steel, panel telephone. The **K-1500-7** and **K-1500-6** work ideally with Viking's **DLE-200B** line simulator or on a dedicated ring-down circuit. If dialing is necessary, use Viking's **K-1900-7** or combine the **K-1500 Series** phones with Viking's **K-1900-5** Hot-Line Dialer.

The **K-1500 Series** phones consist of a heavy gauge stainless steel panel, an armored cable, a heavy duty black hearing aid compatible amplified handset, and an all metal cradle. Both phones are designed to mount to a standard double gang electrical box. For more information on the **K-1500-6** and **K-1500-7**, dial 715-386-4345 and request **Fax Back Document 352**.

Related Products

Add Paging to Your Existing Phone Line with an SLP-1



The **SLP-1** Single Line Paging controller will allow you to page family members or co-workers from any phone in your home or small office. The pages can be heard over the same speakers that are installed for music distribution.

The **SLP-1** connects in series with a single existing phone line. The unit has a built-in 2 watt amplifier, pre-amp output, music on hold input, intercom features and selectable loud ringing. The **SLP-1** provides an input for a lighted doorbell switch, allowing a door chime to be heard over existing speakers. Page from several different phone lines by connecting multiple units. For more information on the **SLP-1**, dial 715-386-4345 and request **Fax Back Document 478**.

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 parallel 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 be programmed to prevent unauthorized usage, and then the **RC-2A** can be activated to allow remote relay operation. For more information on the **RC-2A**, dial 715-386-4345 and request **Fax Back Document 160**.

Advanced Door/Gate Entry Phone Controller



The **C-2000A** allows single line phones or phone systems to share a phone line with 1-4 entry phones. Tenants may answer an entry phone call, converse with the visitor and activate a contact closure to control electronic gates or door strikes. The **C-2000A** provides "Caller ID" and will also provide "Call Waiting Caller ID" and a "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 lighted doorbell switch, a common garage door opener/receiver or an auxiliary keyless entry keypad. For more information on the **C-2000A**, dial 715-386-4345 and request **Fax Back Document 156**.

Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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.