

# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**C-210**

**Entry Phone  
Call Router**

October 13, 2008

## Add a Viking Entry Phone to an Existing Phone Line

The **C-210** 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.

Use in conjunction with the Viking **K-1900-5** dialer to make an outside call if there is no answer on the inside phone.

The **C-210** provides a "Call Waiting" tone when the phone line is in use.

Tenants may call out to the entry phone for monitoring purposes.



## Features

- **Must be used with a Viking K-1900-5 dialer**
- 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-10A, E-20B, E-30, E-35, E-40** and **E-50** Phones
  - **K-1500-7** Stainless Steel Panel Phone
  - Or use with any analog phone
- Produces "Call Waiting" tones if the entry phone is activated when the house phones are already on a call

## 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  
**Ring Output:** 5 REN, capable of ringing (10) 0.5 REN phones  
**Talk Battery:** 32V DC  
**Connections:** (9) cage clamp screw terminals and (1) RJ-11

# 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-210 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-210 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-210, 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.

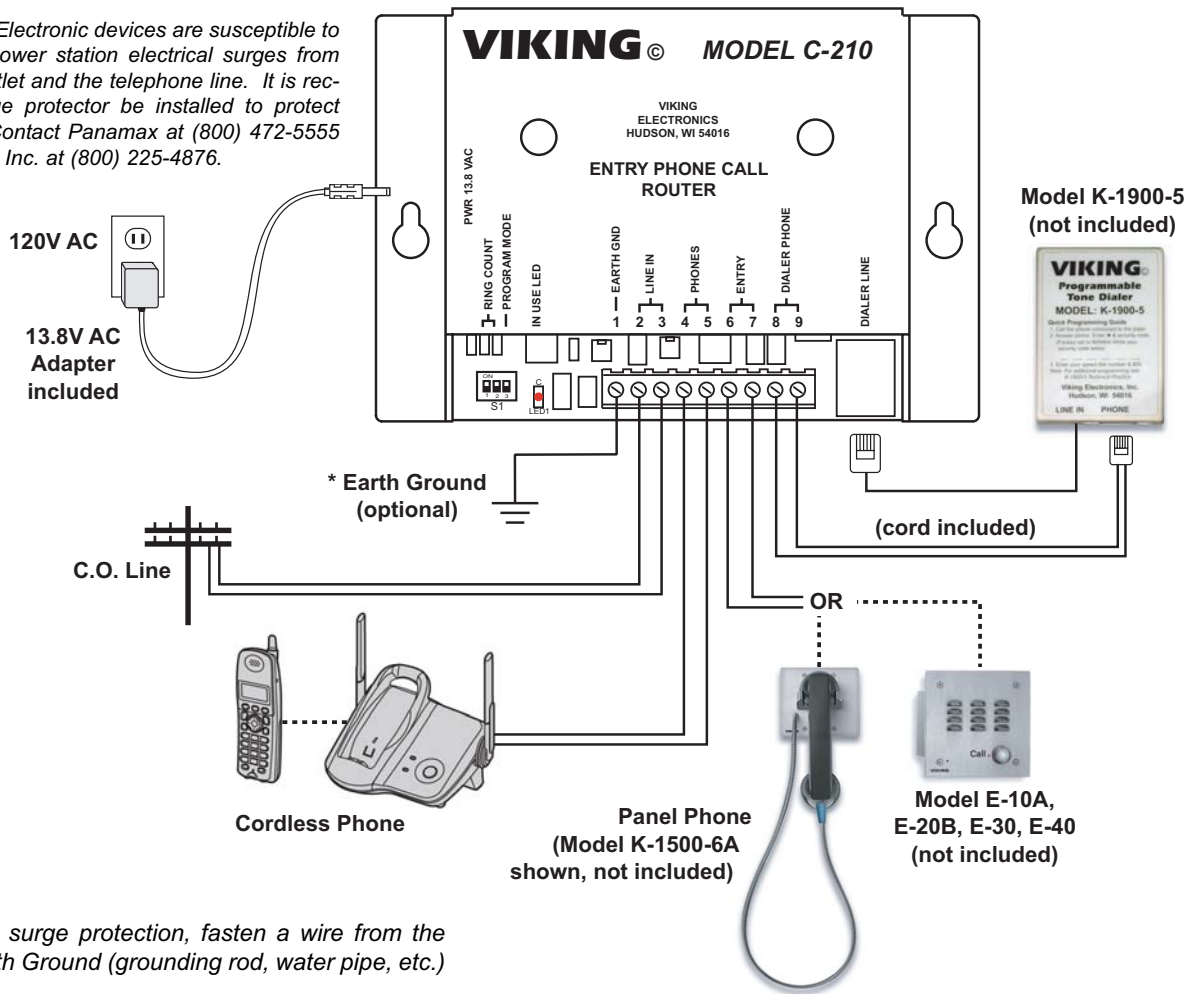
### PART 15 LIMITATIONS

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.

# 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.



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

# Programming

Once the system is installed, the **K-1900-5** and the **E-30** (if used) must each be programmed. This can be done most easily by using a touch tone phone and calling into the line that the **C-210** is connected to. The following is a step by step procedure for programming the system.

**Important:** This technical practice is designed to be used in conjunction with the **E-30** technical practice (DOD# 212) and the **K-1900-5** technical practice (DOD# 317).

## A. Programming a System that has a K-1900-5 and E-30

<b>Step 1</b>	Set the <b>C-210</b> to the programming mode (DIP switch 3 ON).
<b>Step 2</b>	Set the <b>K-1900-5</b> DIP switch 2 to ON.
<b>Step 3</b>	Call into the system from an outside line.
<b>Step 4</b>	After the <b>E-30</b> answers, enter the desired phone number into the <b>K-1900-5</b> .
<b>Step 5</b>	Enter *02 to disable touch tone restriction.
<b>Step 6</b>	Hang-up and wait for the <b>E-30</b> to drop the line (may take up to 40 seconds).
<b>Step 7</b>	Set the <b>K-1900-5</b> DIP switch 2 to OFF.
<b>Step 8</b>	Call into the system from the outside line.
<b>Step 9</b>	After the <b>E-30</b> answers, enter the <b>E-30</b> security code.
<b>Step 10</b>	After 2 beeps, clear all <b>E-30</b> memory positions.
<b>Step 11</b>	Hang-up and wait for the <b>E-30</b> to drop the line (may take up to 40 seconds).
<b>Step 12</b>	Set the <b>C-210</b> DIP switch 3 to OFF.

## B. Programming a System that has a K-1900-5 and E-10A, E-20B, E-40 or E-50

<b>Step 1</b>	Set the <b>C-210</b> to the programming mode (DIP switch 3 ON).
<b>Step 2</b>	Call into the system from an outside line.
<b>Step 3</b>	<b>E-10A/E-20B/E-40/E-50</b> will answer the line.
<b>Step 4</b>	Enter the security code of the <b>K-1900-5</b> .
<b>Step 5</b>	Enter the desired phone number into the <b>K-1900-5</b> .
<b>Step 6</b>	Enter *02 to disable touch tone restriction.
<b>Step 7</b>	Hang up phone and wait for the <b>E-10A/E-20B/E-40/E-50</b> to drop the line (may take up to 40 seconds).
<b>Step 8</b>	On the <b>E-10A/E-20B/E-40/E-50</b> set DIP switch 3 to the ON position.
<b>Step 9</b>	Call into the system from an outside line.
<b>Step 10</b>	The <b>E-10A/E-20B/E-40/E-50</b> will answer the line and give 2 beeps.
<b>Step 11</b>	Enter "0" (beep), "11111" (2 beeps), "00" (beep), "1111" (2 beeps), "000" (beep), "111" (2 beeps).
<b>Step 12</b>	Hang up phone and wait for <b>E-10A/E-20B/E-40/E-50</b> to drop the line (may take up to 40 seconds).
<b>Step 13</b>	Set the <b>C-210</b> and <b>E-10A/E-20B/E-40/E-50</b> DIP switch 3 to OFF.

## C. Programming a System that has a K-1900-5 and a Handset Phone

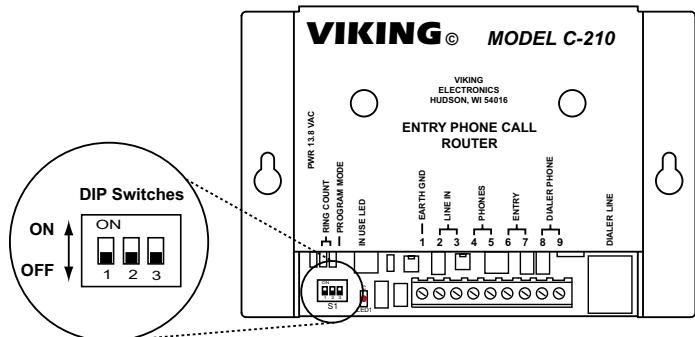
<b>Step 1</b>	Set the <b>C-210</b> to the programming mode (DIP switch 3 ON).
<b>Step 2</b>	Call into the system from an outside line.
<b>Step 3</b>	Pick up the handset of the phone to answer the line (Entry Phone).
<b>Step 4</b>	Enter the security code of the <b>K-1900-5</b> .
<b>Step 5</b>	Enter the desired phone number into the <b>K-1900-5</b> .
<b>Step 6</b>	Enter *02 to disable touch tone restriction.
<b>Step 7</b>	Hang-up the phone.
<b>Step 8</b>	Set the <b>C-210</b> DIP switch 3 to OFF.

## D. DIP Switch Programming

Switch 1	Switch 2	Ring Count
OFF	OFF	4 (factory setting)
ON	OFF	5
OFF	ON	6
ON	ON	7

Switch 3	Mode Selection
OFF	Normal Operation (factory setting)
ON	Programming Mode



## Operation

When the C.O. line rings, the ring is passed through to the cordless phone base. Normal calls are connected from the C.O. to the cordless phone. When the call button on the **E-30** is pressed, or the entrance phone is off hook, the **C-210** sends a custom ring pattern to the cordless phone base. If the cordless phone is on a normal call, it will receive a call waiting tone. To talk to the entrance phone, a hook flash will place the C.O. call on hold and connect the cordless phone to the entrance phone. To return to the original caller, hook flash a second time. If the cordless phone does not answer after the ring count is up (set by the DIP switches 1 and 2), the **C-210** redirects the call through the **K-1900-5** to the C.O. line. The **K-1900-5** then dials its pre-programmed number and connects the entrance phone to the C.O. line. There is a 3 minute maximum call timer for the entrance phone.

**Product Support Line...715.386.8666**

**Fax Back Line...715.386.4345**

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