

VIKING

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

RG-10A **Ring Booster**

February 10, 2010

Boost Ringing Power to up to Twelve Additional Phones



The **RG-10A** ring generator is designed to increase the ringing power of an existing telephone line, PABX extension, FXS port, IP phone system analog port or any other telecom device which provides ringing.

The **RG-10A** duplicates the incoming ring frequency and cadence allowing it to be compatible with custom ringing features.

The **RG-10A** is capable of ringing twelve standard (1 REN) telephones and does not affect normal operation of the telephone line or features provided by the phone company, such as caller ID and call waiting. Multiple **RG-10A**'s may be used for even higher drive output.

Features

- Boosts ring to 12 REN
- Caller ID compatible
- Easy modular installation
- Compatible with distinctive ringing services
- Will not affect normal line operation
- Reshapes troublesome square wave ringing
- Capable of boosting talk battery and loop current
- Made in the USA
- 1 year warranty

Applications

- Boost ringing power of FXS port, or IP phone system analog port
- Use with Viking's doorboxes to increase the number of phones they can ring
- Boost ring power on telephone lines or analog PABX/KSU stations that are weak or fail
- Reshapes troublesome square wave ringing from equipment, such as automatic fax switches

Specifications

Power: 120V AC/ 13.8VAC 1.25 UL listed adapter provided
Dimensions: 127mm x 127mm x 38mm (5" x 5" x 1.5")
Shipping Weight: 1.2 kg (2.8 lb.)
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
Incoming Ring Detection: 40-150 VAC
Ring Generator: 90 VAC nominal, 12 REN max load @ 40VAC
Ringwave Shape: Saw tooth ring wave
DC Talk Battery Boost (if enabled): 20 Volts DC
Connections: (1) RJ11 plug, (1) RJ11 jack

Phone...715.386.8861

info@vikingelectronics.com

http://www.vikingelectronics.com



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.**

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 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.

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 RG-10A 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 RG-10A 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 RG-10A, 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.

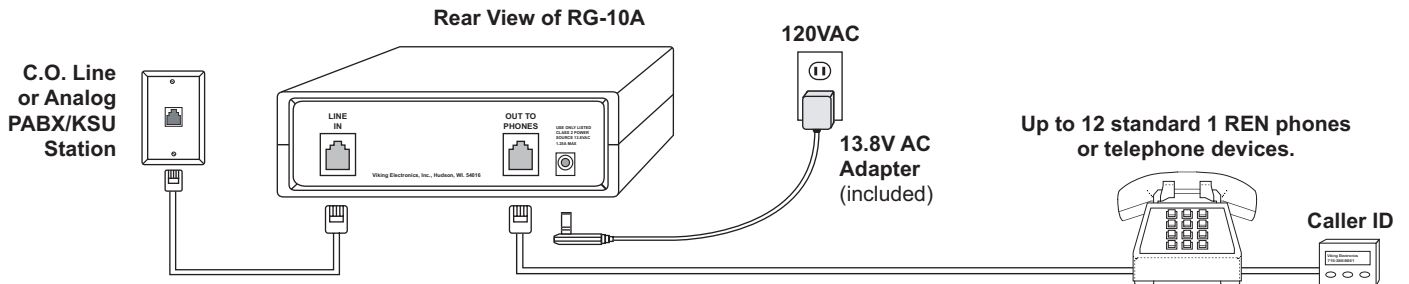
It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

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

Step 1.	Disconnect the phones from the C.O. line.
Step 2.	Connect the phones to the modular jack labeled OUT TO PHONES .
Step 3.	Connect the modular cord labeled LINE IN to the C.O. line.
Step 4.	Plug in the included AC power supply.



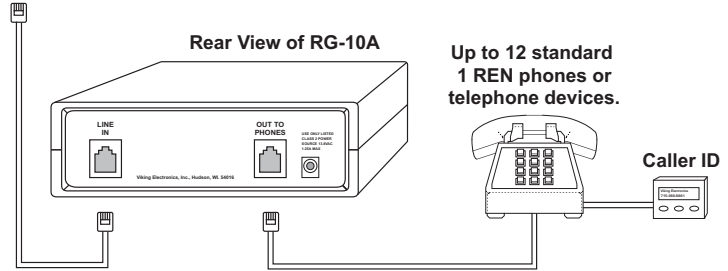
Applications

A. FXS Ports or IP Phone System Analog Ports

Typical IP Phone System Analog Port
(not included)



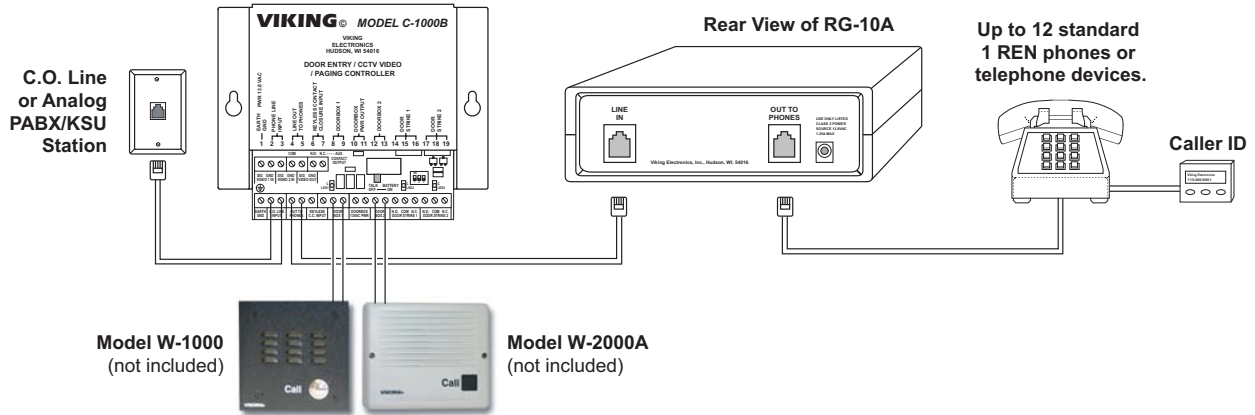
Many analog ports only provide enough power to ring one or two phones. The **RG-10A** will alleviate this problem by boosting the ring voltage to additional devices.



B. Door Boxes

Boost the ringing power of the Viking doorboxes, when used with a **C-1000B** controller on residential systems.

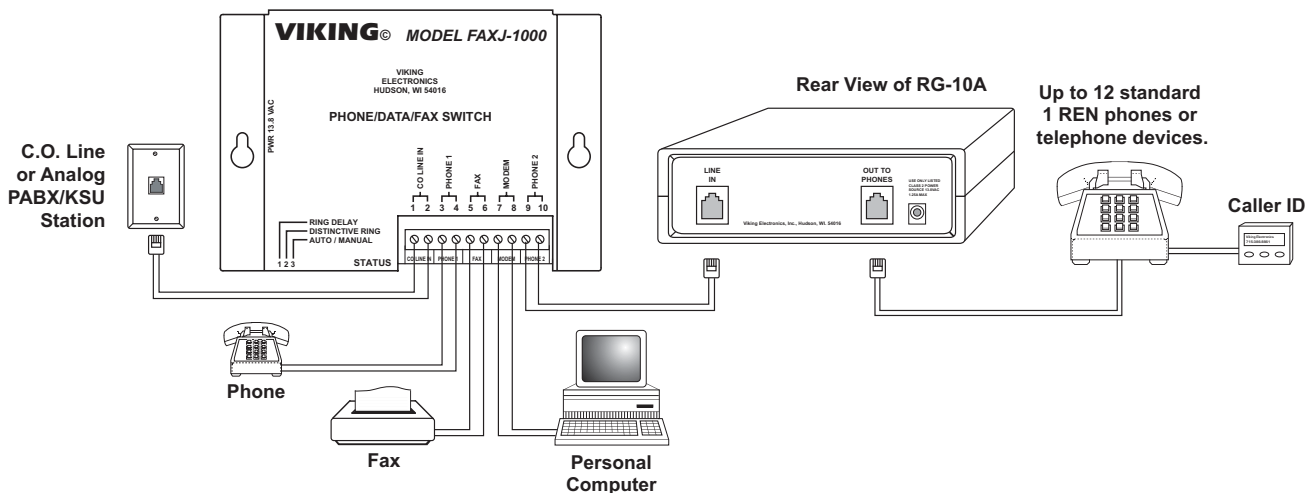
Model C-1000B (DOD# 168)
(not included)



C. Line Sharing Devices

Boost the ringing power of line sharing devices, such as the **FAXJ-1000** (DOD# 478) or **PDF-2** (DOD# 265).

Model FAXJ-1000 (not included)



Programming

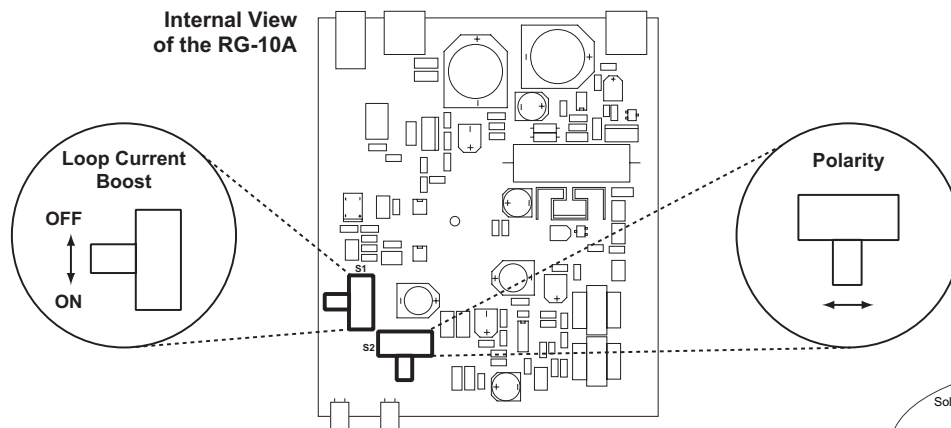
The **RG-10A** can be configured to add loop current to low loop current lines. This feature is not compatible with systems that regulate the loop current.

IMPORTANT: Electronic components are sensitive to static electricity. Personnel and work area should be grounded before handling.

Note: Be very careful when performing this procedure. Only use one hand to change position of switches and only touch the **LOOP CURRENT BOOST** and **POLARITY** switches in the **RG-10A**. Other components in the **RG-10A** can be very high voltage if the telephone line rings while performing this procedure.

Activating the DC Talk Battery and Loop Current Boost

Step 1.	Remove the (2) screws on the bottom of the unit and then remove the top cover.
Step 2.	Connect the telephone line or analog PABX/KSU station to the LINE IN modular cord of the RG-10A .
Step 3.	Connect a single line telephone (or butt set) to the OUT TO PHONES jack on the RG-10A .
Step 4.	Connect power to the RG-10A .
Step 5.	Set the LOOP CURRENT BOOST switch to the ON position.
Step 6.	Go off hook on the single line telephone (or butt set). The LOOP LED will light and dial tone will be heard in the phone.
Step 7.	Set the POLARITY switch to the position that gives you the brightest LOOP LED , while off hook with the phone.
Step 8.	Replace the top cover and screws of the RG-10A .
Step 9.	Reconnect the normal telephones to the OUT TO PHONES jack on the RG-10A .



Other Products

For applications that require only up to 4 REN load ring generation, use Viking models **RG-4** (single line), **RG-204** (4 line), **RG-212** (12 line), and **RG-224** (24 line) ring boosters.



RG-4
(DOD# 416)



RG-204
(DOD# 417)



RG-212 (DOD# 419)



RG-224 (DOD# 418)

Product Support Line...715.386.8666

Fax Back Line...715.386.4345

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