TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

SRC-1

Secure Relay Controller

December 31, 2013

Securely Operate a Doorstrike and Provide Keyless Entry

The **SRC-1** enables a standard touch tone phone to securely operate a set of timed relay contacts to control a doorstrike or gate controller at a remote location. The **SRC-1** is fully user programmable and uses non-volatile memory. The **SRC-1** eliminates the possibility of dialing the activation code through the entry phone using a hand held touch tone dialer.

The **SRC-1** features a switchable 32V talk battery to allow use with any of Viking's entry phones (E Series), door-boxes (W Series) or hot-line/panel phones (K Series).

The **SRC-1** is installed between the entry phone and the secure phone, and will reject touch tones from the entry phone and only operate the relay if the correct activation code (user programmable) is given from the secure phone.

The **SRC-1** also provides up to 32 keyless entry codes to operate the relay from the entry phone with 1 to 6 digits. This feature can be disabled in programming for increased security.

Features

- User touch tone programmable
- Non-volatile memory - retains programming during power outage
- 6 digit programmable security code (to access programming)
- Switchable 32V talk battery
- Programmable relay activation time
- Programmable relay activation code (1-2 digits or **)
- Operates on any 12-24V AC/DC power source
- LED's for power / relay activation
- Programmable allow / restrict for dialing from entry phone
- Programmable allow / restrict for keyless entry from entry phone
- 32 keyless entry codes
- Trigger input for contact closure from postal lock, request to exit, etc.

Applications

Secure control of:

- High security building entry systems
- Door strikes and gates in conjunction with door boxes (**W-1000**, etc.), entry phones (**E-10A**, **E-20B**, **E-30**, **E-40**, **E-50**, **K-1700-3**, etc.) or hot-line/panel phones (**K-1500-7**, **K-1900-7**, etc)

info@vikingelectronics.com
http://www.vikingelectronics.com

Specifications

Power: 12 to 24V AC or DC, 12V DC adapter provided
Shipping Weight: 0.64kg (1.4 lbs)
Dimensions: 133mm x 89mm x 44mm (5.25" x 3.5" x 1.75")
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
Talk Battery Output: 32V DC
Relay Contact Ratings: 5A @ 30V DC / 250V AC maximum
Connections: 9 position screw terminal strip

Phone...715.386.8861

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.**

TWO YEAR 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 two years from the date of purchase from any authorized Viking distributor. 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. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments. This warranty does not cover stainless steel surfaces that have not been properly maintained.

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 SRC-1 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 SRC-1 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 SRC-1, 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

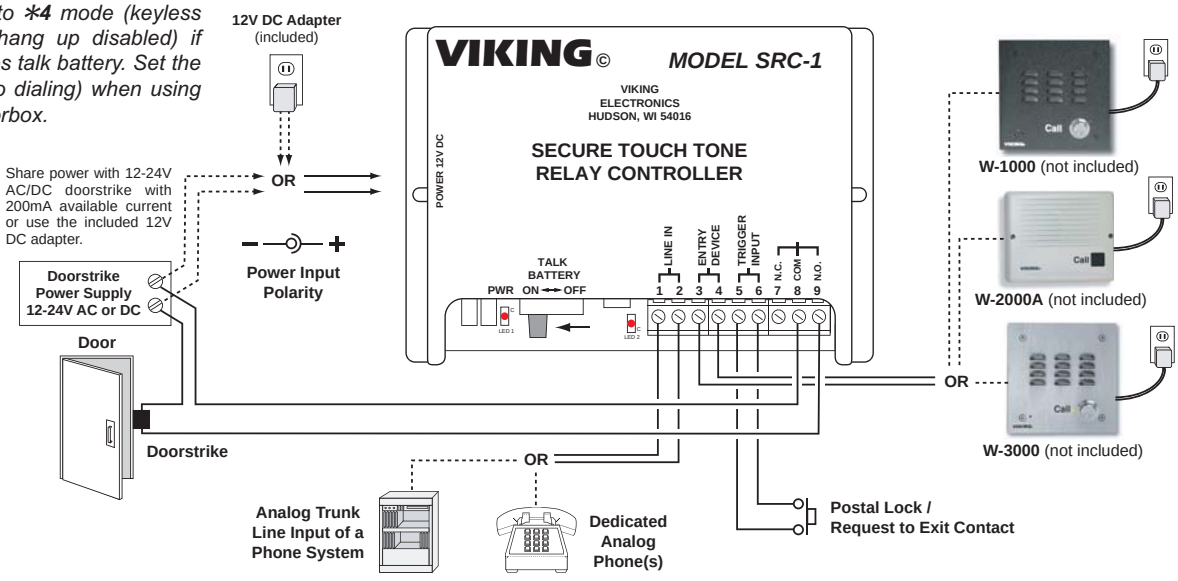
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, 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

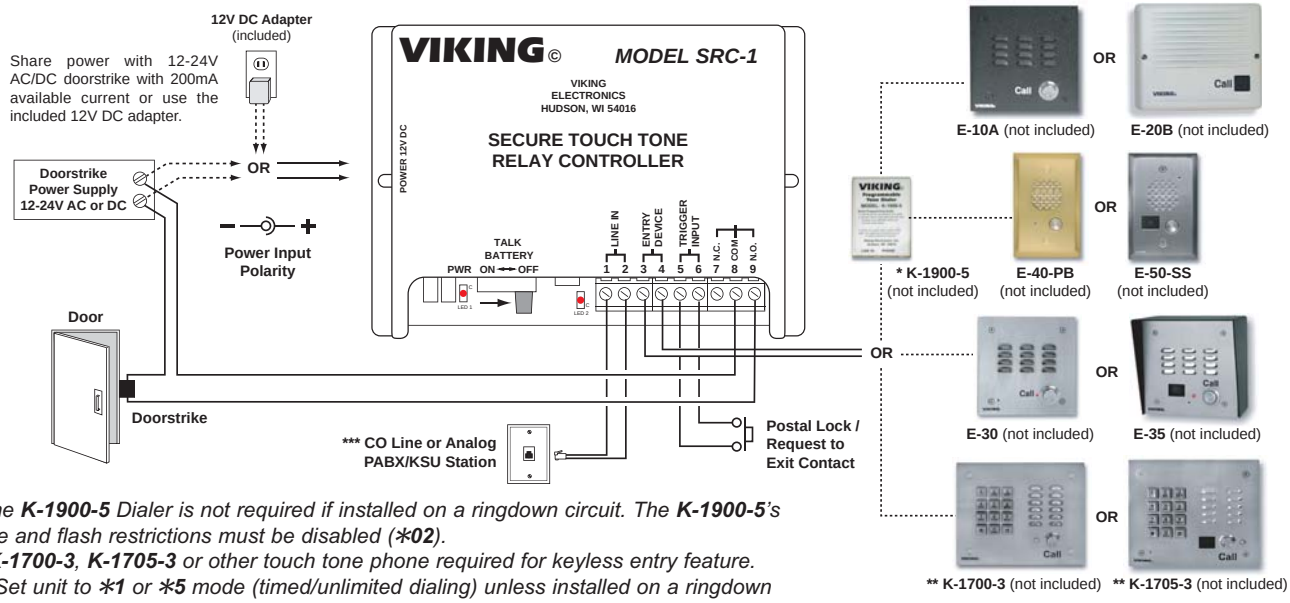
IMPORTANT: *Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.*

A. Adapter Powered Doorbox to Trunk or Standard Analog Phone (Talk Battery Provided by Entry Device)

Note: *Set the unit to ✳4 mode (keyless entry / ring down hang up disabled) if entry device provides talk battery. Set the unit to ✳2 mode (no dialing) when using with a W-Series doorbox.*



B. Line Powered Entry Phone to CO Line or Analog PABX/KSU Station (Talk Battery Provided by Line In)



** **Note:** The **K-1900-5** Dialer is not required if installed on a ringdown circuit. The **K-1900-5**'s touch tone and flash restrictions must be disabled (**∗02**).*

*** **Note:** **K-1700-3**, **K-1705-3** or other touch tone phone required for keyless entry feature.*

**** **Note:** Set unit to **∗1** or **∗5** mode (timed/unlimited dialing) unless installed on a ringdown circuit. Enable keyless entry/ringdown hang-up (**∗3**) when installed on a ringdown circuit.*

Programming

***Note:** To program a product wired to **ENTRY DEVICE**, remove power from the **SRC-1**. This prevents the **SRC-1** from reacting to touch tones and connects **LINE IN** to **ENTRY DEVICE**.*

A. Entering the Programming Mode

***Note:** All programming must be performed from the secure (**LINE IN**) side of the **SRC-1**.*

1. Programming with Line Powered Entry Phone Connected (Talk Battery OFF)

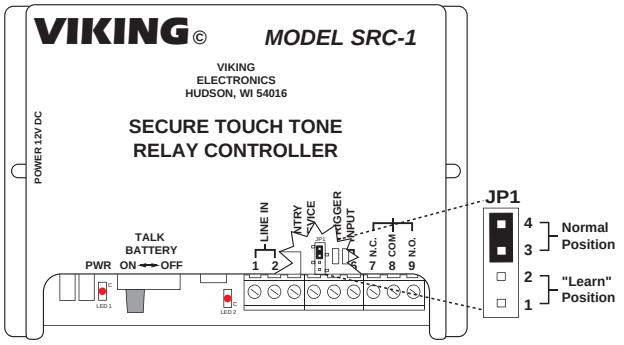
Step 1.	Call into the C.O. line or PABX extension connected to 'Line In' of the unit.
Step 2.	Come off-hook with the entry phone (all Viking handsfree phones can auto answer).
Step 3.	Enter ∗ and the Security Code (factory 845464) from the 'Line In' phone.
Step 4.	Two beeps should be heard, you are now in the programming mode.

2. Programming with Adapter-Powered Doorbox Connected (Talk Battery ON)

Step 1.	Go off-hook or ring from the doorbox, or go off-hook with the 'Line In' phone.
Step 2.	Come off-hook with the 'Line In' phone, or answer with the doorbox.
Step 3.	Enter ∗ and the Security Code (factory 845464) from the 'Line In' phone.
Step 4.	Two beeps should be heard, you are now in the programming mode.

3. Programming without the Security Code

Step 1.	Move **JP1** jumper onto pins 1 & 2, as shown in the diagram right.
Step 2.	Follow steps 1 and 2 from the appropriate procedure above.
Step 3.	Two beeps will be heard on the 'Line In' phone, you are now in the programming mode.
Step 4.	After programming, move **JP1** jumper back to pins 3 & 4.



B. Security Code

This six digit number is used to access the programming mode. It is 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. To change the security code, access programming (see **Programming** section **A**). Enter six digits 0-9 followed by **#47**. If you have forgotten your security code, follow the steps in **Programming** section **A, 3. Programming without the Security Code**.

C. Keyless Entry Codes

The **SRC-1** can be programmed with up to 32 keyless entry codes. This feature allows a user to activate the relay by entering a pre-programmed code on the entry phone keypad. Each keyless entry code can contain 1-6 digits (0-9 or ∗) and is programmed by entering the digits to any of the locations **#00 - #31**. To clear a location, enter # + the position number without any preceding numbers.

D. Quick Programming Features

Features	Enter Digits	- then -	Memory Location
Keyless entry codes	1-6 digits	+	#00 - #31
Relay activation time in sec (00-99, 00 = 0.5 sec, factory set to 05)	2 digits	+	#40
Relay activation code (0-9*, 00-99, or ✻✻, factory set to ✻✻)	1-2 digits	+	#41
Security code (factory set to 845464)	6 digits	+	#47
To enter a ✻ (relay activation or keyless entry codes only)**	✻✻		
Timed dialing mode (factory setting)	✻1		
No dialing mode	✻2		
Keyless entry/ringdown hang-up enabled (factory setting)	✻3		
Keyless entry/ringdown hang-up disabled	✻4		
Unlimited dialing mode	✻5		
Exit programming	##7		
Restore all programming to factory defaults	###		

** When a single digit relay activation code is programmed (0-9), the activation touch tone must be held for a minimum of 100 msec. Most cell phones and some cordless phones produce short touch tones below 100msec in length regardless of the length of time the digit is held, it is recommended to use a 2-digit activation code in these situations.*

*** Entering a ✻ uses one digit location and can only be used in the relay activation code or keyless entry codes.*

***Note:** A double beep indicates a valid complete entry; three beeps indicate an error or that you are leaving the programming mode.*

E. Programming Examples

To Program the SRC-1 to...	Enter Digits:
...operate the doorstrike for 2 seconds	0 2 # 4 0
...activate the doorstrike when touch tones "✻✻" are detected	✻ ✻ ✻ ✻ # 4 1
...activate the doorstrike when touch tone "6" is detected	6 # 4 1
...not allow the entry device to dial through the unit	✻ 2

Operation

A. ✻1 Mode (Timed dialing, any relay activation code)

This mode is used when the entry device needs to dial to connect to the secure phone. Going off-hook with the entry device starts a 5 second timer that is restarted by any touch tone* until timed out. After the timer has timed out, the next touch tone will be interpreted as the first digit of the relay activation code, and will disconnect the entry phone.

*If the relay activation code is set to ✻✻, a ✻ dialed at any point will stop the timer and be interpreted as the first digit of the relay activation code.

B. ✻2 Mode (No dialing, any relay activation code)

This mode is used when the entry device doesn't need to dial to connect to the secure phone. The first touch tone detected will be interpreted as the first digit of the relay activation code, and will disconnect the entry phone.

C. ✻5 Mode (Unlimited dialing, ✻✻ relay activation code only)

This mode ignores all touch tones until a ✻ is detected, which is interpreted as the first digit of the relay activation code, and will disconnect the entry phone. If this mode is selected, the activation code will be set to ✻✻ and you will be unable to change it.

D. Keyless Entry / Ringdown Hang-Up (Enabled with ✻3)

If keyless entry / ringdown hang-up is enabled, and the first touch tone dialed is #, the unit will disconnect the secure phone and listen for a keyless entry code from the entry phone. The unit will also provide talk battery to the entry phone for 2 seconds after a CPC to prevent a false off-hook if installed on a ringdown extension.

E. Trigger Input

A momentary closure across terminals 5 and 6 will activate the relay for the programmed time. If the closure is longer than the programmed relay activation time, the relay will remain activated until the closure is released.

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.