**Provide Switched Relay Contacts when an Analog Phone Line is Down**

The **LVR-1 Line Verification Relay** can be used to monitor the service on analog phone lines or extensions. Phone lines can go out of service at any time and without any warning. You could be paying monthly fees for phone lines that are not in service and not realize it. The **LVR-1** can be a real money saver.

The **LVR-1** Line Verification Relay monitors the voltage on an analog phone line. When that voltage goes below 2 volts for a programmable length of time, an onboard relay is activated. When the voltage of the phone line goes above 2 volts for the same programmable length of time, the relay is deactivated. Selectable times are 5, 10, 15 and 20 seconds. By using the timer, the **LVR-1** makes sure that the line is dead before actuating the relay.

The **LVR-1** is powered by an included 12 volt DC power adapter and has either a RJ-11 jack or a terminal block for connection to the phone line.

**Features**

- On board 2 pole relay with both NO and NC contacts available
- Phone line connection through a RJ-11 or terminal block
- Power connection through a 2.1 mm plug or terminal block
- Power supply included
- DIP switch selectable delay times of 5, 10, 15, and 20 seconds
- Wall mount housing with (2) #6x3/4 panhead screws included

**Applications**

Dead / Disconnected Phone Line Detector for:
- Emergency Phones
- Alarm Systems
- Entry Systems
- Area of Refuge Phones

**Specifications**

- **Power**: 120V AC/12V DC @ 500mA, UL listed adapter included
- **Dimensions**: 4.38" x 2.97" x 1.38" (111mm x 76mm x 36mm)
- **Shipping Weight**: 1.06 lbs (.48 kg)
- **Environmental**: 32°F to 90°F (0°C to 32°C) with 5% to 95% non-condensing humidity
- **Relay Contacts**: 30V DC@1A, 110V DC@0.3A, 125V AC@0.5A
- **Trip Point**: 2VDC
- **Connections**: (10) cage clamp screw terminals, (1) modular RJ-11 jack

www.VikingElectronics.com
Information: 715-386-8861
**Features Overview**

**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.

**Top View**

![Top View Image]

- Removable Cover

**Inside View**

- Cover stays attached when mounting
- Cage Clamp Terminal Blocks
- Programming Dip Switch
- Power and Telecom connections available as Quick Plug In or Terminal Block
The LVR-1 is designed to mount on a wall using the two #6 screws included with the unit. Below is a diagram showing the two methods that can be used for making connections to the LVR-1. The phone line and power connections are available on either the convenient RJ-11 and 2.1 mm jacks, or the four position terminal block. Relay contact connections are made through a six position terminal block.

**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.

**Modular Installation**

![Modular Installation Diagram]

**Hard Wire Installation**

![Hard Wire Installation Diagram]

The LVR-1 is not polarity sensitive to the power or phone line connections.
A. Priority Phone / Entry Device with Backup Phone Line

Model LVR-1 (included)

(2) #6x3/4 panhead screws (included)

Back up CO Line, Analog Station or VoIP Analog Port

- or - Cellular to Analog Converter such as Janus LTE POTSawp

- or - AES-2000 - or - K-1200

Standard Analog Phone (not included)

12V DC Adapter (included)

CO Line, Analog Station or VoIP Analog Port

B. Voice Notification of Dead Phone Line

Model K-202-DVA (not included, see DOD 305 for more info)

Model LVR-1 (included)

(2) #6x3/4 panhead screws (included)

12V DC Adapter included with MTG-10

120V AC

12V DC

20V AC

Model K-202-DVA

TWO INPUT VOICE DIALER ANNOUNCER

VIKING ELECTRONICS HUDSON, WI 54016

POWER 12V DC

PROGNORM TELCO

INPUT SENS

VOLUME INPUT 2

INPUT 1

TWO INPUT VOICE DIALER ANNOUNCER

VIKING ELECTRONICS HUDSON, WI 54016

LEARN

RESET

EARTH GROUND

GROUND

GROUND

C.O. Line or Analog PABX/KSU Station
(Programming switch = NORM)
C. Visual Notification of Dead Phone Line

Model LVR-1 (included)

(2) #6x3/4 panhead screws (included)

CO Line, Analog Station or VoIP Analog Port

12V DC Adapter (included)

BLK-4 Control Module (not included)

Rear View of the SL-2 Strobe Light (included with BLK-4)
Strobe and Beacon wiring

(-) Black with Red stripe
(+) Red with Black stripe

Rear View of the SL-2 Strobe Light (included with BLK-4)
Strobe only wiring:

(+) Red (+)

Rear View of the SL-2 Strobe Light (included with BLK-4)
Strobe only wiring:

(+) Red with Black stripe
(-) Black with Red stripe

D. Audible Notification of Dead Phone Line

Model LVR-1 (included)

12V DC Adapter (included)

12V DC Adapter included with MTG-10

120V AC

Model MTG-10 (not included, see DOD# 482 for more info)

Model PA-2A (not included, see DOD# 485 for more info)

Model PA-2A (not included)

120V AC

13.8 V AC Adapter included with PA-2A

120V AC

See DOD# 497 and 498 for info on all of Viking's speaker options.
The LVR-1 has two internal DIP switches that allow the user to set the amount of time the phone line is out of service before the relay is actuated. Keep in mind the phone line must be down for the entire Detection Time selected. If the phone service returns before the Detection Time is up, the timer is restarted. Likewise, after the phone service returns, the phone line must be continuously in service for the entire Detection Time selected before the relay is deactivated.

When connected to a phone line or analog extension, the relay will remain off when the line is idle, ringing or in-use. If the phone line or extension is damaged or there is an equipment failure, the voltage on the line will go below two volts. This starts the Detection Time set by the DIP switches (see Programming). If the phone service does not return before the Detection Time is up, the relay is activated. Once the phone service returns, the phone service must remain until the Detection Time is up before the relay is deactivated.

*Note: The Detection Time when detecting the loss of service is approximate and can increase as much as 15 seconds depending on the type of equipment that is connected to the phone line. When service is restored, the Detection Time is per the DIP switch selection.*
Related products

Provide Line Powered Visual “Ring”, “Off Hook” and Message Waiting Indication

The Viking model LPL-1 connects to any standard analog phone line or phone system’s analog station port* to provide visual “Ring” Indication, “On The Phone” indication and “Message Waiting**” indication. The LPL-1 won’t have you guessing which phone is ringing in busy offices. The large flashing LED can be seen up to 100 feet away. When used with a headset on an analog phone, you can end those nagging interruptions that occur when associates don’t realize you are on the phone because you are using a headset. The LPL-1 will light steady indicating to everyone that you are on the phone, flash during ringing or fast flash to indicate message waiting**.

*Caution: The LPL-1 is not compatible with digital station ports.
**When installed on phone systems with standard 90VDC message waiting voltage.

Important: The LPL-1 is not designed to recognize stutter dial tone from any analog telephone company line or PABX.

Provide Line Status and Message Waiting Indication

When used with an analog phone line, the VR-1B will provide “ring” indication, “on the phone” indication and “message waiting” indication for both “stutter dial tone” and standard message waiting voltage. In this application the VR-1B connects directly to tip and ring.

When used with electronic or digital phones, the VR-1B won’t have you guessing which phone is ringing in busy offices. The flashing LED can be seen up to 100 feet away. The VR-1B connects directly to the electronic phone’s speaker.

When used with a headset, you can end those nagging interruptions that occur when associates’ don’t realize you are on the phone because you are using a headset. The VR-1B will flash on and off indicating to everyone that you are on the phone and you are not to be disturbed. The VR-1B installs in the handset/headset jack using an included “T” adapter.

Add Loud Ringing to Any Analog Phone

The SR-1 will generate loud ringing from an analog ringing line or from a dry contact closure. There are 4 different ringing sounds to choose from. Loudness is easily adjusted with a volume control and test button.

The SR-1’s unique sounding rings are useful for employees that often work away from their desks, allowing them to instantly recognize when their phone is ringing. A second set of contact inputs will trigger a door chime (doorbell) sound. This can be used to notify that a door has opened or used as a door bell or push for assistance button.

The SR-1 is easy to install and comes complete with a power supply and connections for an optional external speaker.

For more Information
See DOD 640

For more Information
See DOD 697

For more Information
See DOD 477
IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, CONTACT: VIKING TECHNICAL SUPPORT AT: 715-386-8666

Our Technical Support Department is available for assistance Monday 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).
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. Packaging: 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 must 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 Department 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.
3. After obtaining the RA number, return the approved equipment to your distributor. Please reference the RA number on the paperwork being shipped back with the unit(s), and also the outside of the shipping box. The original product boxes are not designed for shipping - an overpack box is required to prevent damage in transit. Once your distributor receives the package, they will replace the product over the counter at no charge. The distributor will then return the product to Viking using the same RA 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 (RA) 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.

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, which 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, the 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 FXI-1A 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 FXI-1A 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 LVR-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.

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.

Product Support: 715-386-8666

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