

VIKING

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

TS-1
**Single Line
Telephone System**

January 16, 2004

Add Phone System Features to Your Single Line Home or Office Phones

The **TS-1** is an inexpensive solution for adding transfer, intercom, and "music on hold" features to your single line home or small office phones.

The **TS-1** produces seven unique ring patterns. By assigning these patterns to each party, the individuals are alerted to answer their unique ring cadence.

To transfer a call, simply dial the party's extension number you wish to reach (1-7) and hang up. The caller is then placed on hold to be answered by caller the individual when their ring cadence is recognized. To move a conversation to another phone, simply dial 8 and hang-up. The call is placed on hold until picked up by another extension. A music input port is available to provide "music on hold."

The internal intercom is used by dialing the individual's extension number twice (11 - 77), hanging up, and listening for the phones to stop ringing, queuing you that the desired party has answered. Then simply pick up the phone to join your caller. During intercom use, a "call waiting" tone is generated to signal an incoming call.



Phone...715.386.8861

<http://www.vikingelectronics.com>

Features

- Works with existing house wiring - no rewiring or home runs required
- Music-on-hold
- Transfer
- "Meet me" intercom
- Seven unique transfer/intercom ring cadences to alert each individual of waiting calls
- Compatible with C.O. provided services such as Caller ID and Call Waiting
- Compatible with Viking's door entry systems

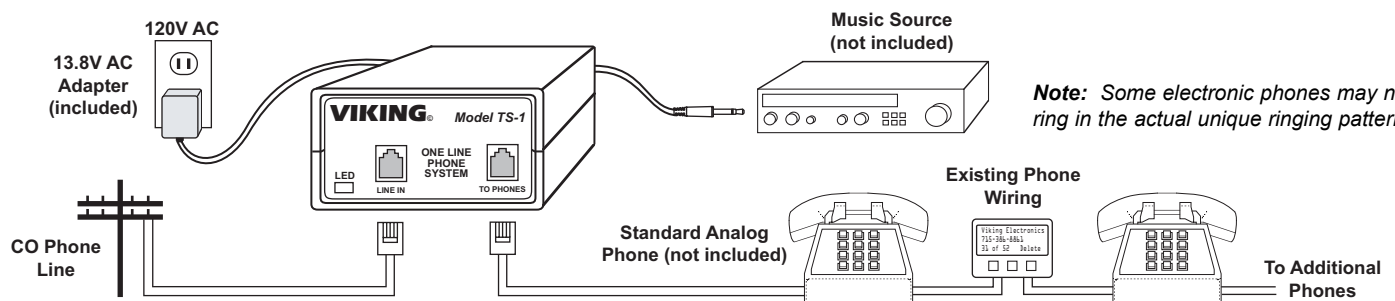
Applications

- Add phone system features such as transfer, intercom and "music on hold" to your single line residential or business phones:
 - Transfer or intercom calls to: other rooms, garages, other offices, warehouses, the production floor, etc.
- Simulate voice mail features by re-ringing your existing answering machine

Specifications

- Power:** 120V AC/13.8V AC, 1.25A UL listed adapter provided
- Dimensions:** 119mm x 71mm x 36mm (4.7" x 2.8" x 1.4")
- Shipping Weight:** 0.45 Kg (1 lb)
- Environmental:** 0°C to 32°C (32°F to 90°F) with 5% to 95% noncondensing humidity
- Ring Output:** 9.0 REN, capable of ringing (9) 1.0 REN phones
- Intercom Talk Battery:** 32V DC
- Connections:** (2) RJ11 jacks, (1) 5.5 ft cord with 3.5mm (1/8") plug

Installation



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.**

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. Vikings sole responsibility shall be to repair or replace (at Viking's option) the material within the terms stated above. **VIKING SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING DIRECTLY OR INDIRECTLY FROM ANY BREACH OF ANY WARRANTY EXPRESSED OR IMPLIED, OR FOR ANY OTHER FAILURE OF THIS PRODUCT.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXCLUDED BEYOND THE ONE YEAR DURATION OF THIS WARRANTY.** Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the 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 the line, as determined by the total REN's, contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs. If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. 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 in order to maintain uninterrupted service.

If trouble is experienced with this equipment, contact: **Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666**
If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

until the problem is resolved.

The TS-1 uses USOC jack RJ11C.

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.

This equipment is Hearing-Aid Compatible (HAC).

The telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

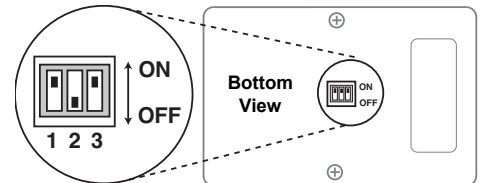
PART 15 LIMITATIONS

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.

Programming

DIP Switch	Position	Description
1	ON	To gain access to C.O. dial tone, dial 9 (default)
1	OFF	For use with private dial tone (phones will instantly have dial tone)
2	OFF	Should remain OFF
3	ON	Normal ringing power (default)
3	OFF	Increased ringing power

Important: Momentarily power down the unit when changing the DIP switch positions.



Operation

A. Ring Patterns

Each party will be assigned a unique ringing extension number. To transfer a call, dial that extension number (1-7) then hang up. Use the chart provided to the right to record the appropriate information.

Name	Extension	Ring Pattern
	1	Single
	2	Double
	3	Three short
	4	Double - Double
	5	One long and two short
	6	Short - long - short
	7	Two short - one long

B. Using the Features

1. Call Hold

To place a call on hold, dial 8, then hang-up.

2. "Meet Me" Intercom

Pick up any phone or while on a phone call, dial the extension number twice (11 - 77), then hangup. Listen for the phones to stop ringing (queuing you that desired party has answered) then pick up the phone to join your caller.

3. Conference

During an intercom, a call on hold may be conferenced in by dialing 8.

4. Call Waiting

While using the intercom, a call waiting tone (two fast beeps) will be given to indicate an incoming phone call. You may dial 8 to answer the call or hang up the phones and allow the call to ring in.

5. To Access the Outside Line

To access the outside line, dial 9 (see **Programming, DIP Switch 1** above).

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.