tellabs
technical manual
76-829903
rev D

practice section 829903

9903 Ringing Interrupter

contents

Section 1	*General Description*	*page 1*
Section 2	*Application Information*	*page 1*
Section 3	*Installation and Alignment*	*page 1*
Section 4	*Circuit Description*	*page 1*
Section 5	*Block Diagram*	*page 1*
Section 6	*Specifications*	*page 1*
Section 7	*Testing & Troubleshooting*	*page 1*

1. general

1.01 The 9903 Ringing Interrupter subassembly provides 2-second on/4-second off ringing interruption for a number of Tellabs modules. A solid state circuit in the 9903 effects interruption. To prevent delays in the inception of ringing that could otherwise occur if the circuit were seized during the *off* period, the ringing cycle is always initiated by the host module at the beginning of the 2-second *on* period.

1.02 As a subassembly, the 9903 Ringing interrupter mounts in "piggyback" fashion to the printed circuit board portion of various Tellabs modules. Mounting to the "host" module is accomplished via two four-pin connectors (one male and one female) that provide electrical as well as physical connection. The 9903 derives input power and start/stop control of ringing from the host module.

2. application

2.01 The 9903 Ringing Interrupter is used in conjunction with various Tellabs modules (2Wire Automatic Ringdown modules, Ringdown Signaling Converters, etc.) to provide interrupted ringing where continuous ringing would otherwise be provided.

2.02 The 2on/4off cycle of the 9903 is always initiated at the beginning of the ring period of the cycle. This allows the 9903 to be applied to circuits where the immediate initiation of ringing is required.

3. installation

3.01 The 9903 Ringing Interrupter should be visually inspected upon arrival in order to find possible damage incurred during shipment. If damage is noted, a claim should immediately be filed with the shipper.

3.02 Installation of the 9903 consists of plugging the unit, via its two, 4-pin connectors, into the host module. Make sure that the connector pins are firmly seated in the receptacles.

3.03 The Ringing Interrupter itself has no options or adjustments. The host module may, however, need to be switch-optioned for use with or without the Interrupter. The Practice of the particular host module associated with your application will describe this switch optioning, if required.

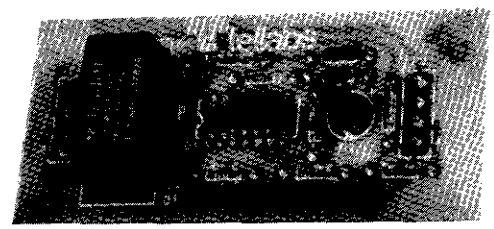


figure 1. 9903 Ringing Interrupter

4. circuit description

4.01 The application of power to the 2SEC/4SEC MULTIVIBRATOR by the host module deactivates the 9903 output relay k1. The MULTIVIBRATOR'S initial timing (relay k1 open) is two seconds, with a subsequent four-second closure, and the cycle repeats. Removal of power by the host module resets the MULTIVIBRATOR to its initial state for subsequent re-initiation of interrupted ringing. See Block Diagram, section 5.

6. specifications

input power
–20 to –36Vdc (derived from host module)

current requirements
off: 0mA
silent: 5mA
ringing: 25mA

cycle
2-seconds on/4-seconds off ±10%

ringing initiation
at beginning of 2-second "on"cycle

relay contacts
1 Ampere, maximum

operating environment
20° to 130°F (–7° to 54°C), humidity to 95% (no condensation)

dimensions
3.7" (9.4cm) x 1.6" (4.1cm) x 1.0" (2.6cm) thick

weight
1 ounce (28 grams)

mounting
mounts as subassembly on various Tellabs modules

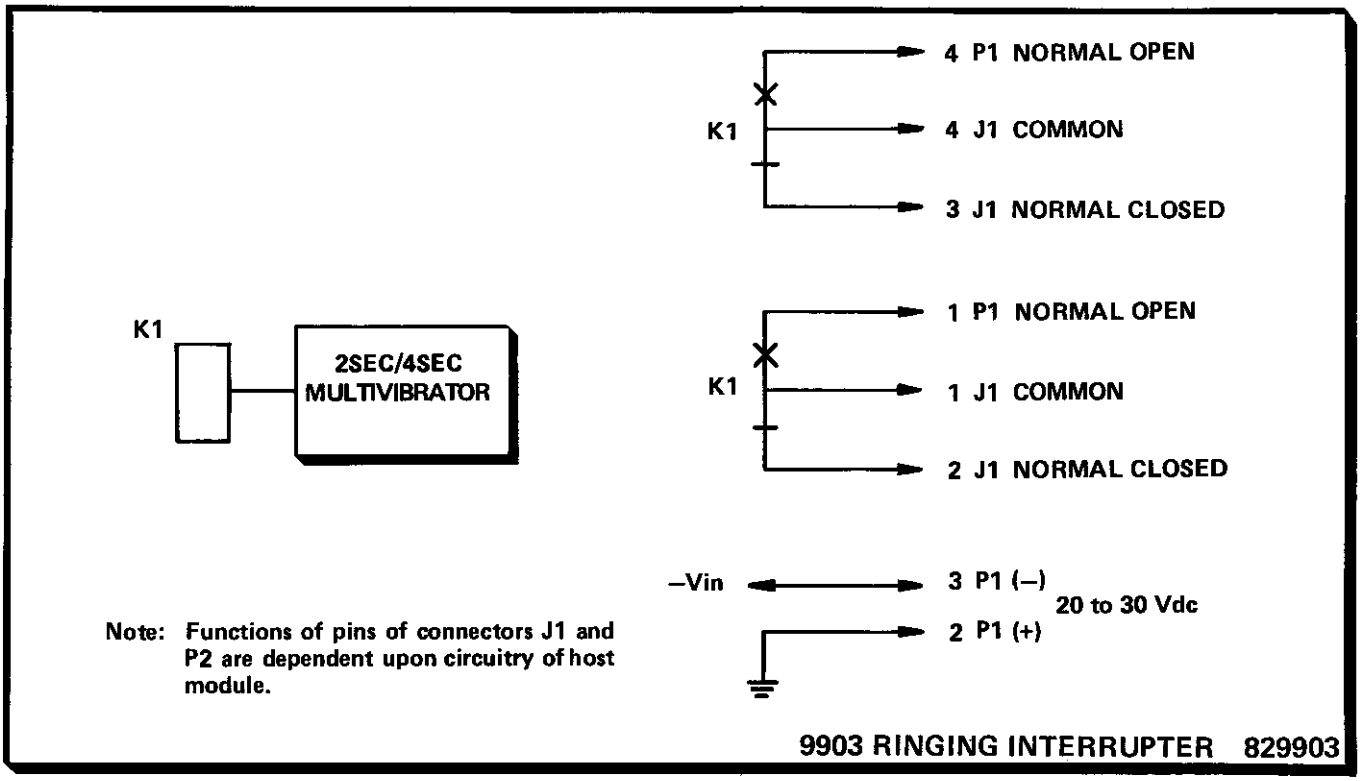
7. testing and troubleshooting

7.01 To verify proper operation of the 9903 Ringing Interrupter subassembly, initiate seizure and observe ringing locally. The 2-second on/4-second off cycle should be in evidence ±10%.

7.02 If a 2-second on/4-second off output is not observed, verify that the 9903 is firmly seated on the host module and that the host module is switch-optioned for use with the Ringing Interrupter. Check also to see that all wire-wrap connections to the host module's mounting shelf are properly made and intact. If these points are verified and proper ringing interruption is still not observed, replace the 9903 and retest. If the circuit continues to malfunction, replace the host module and retest.

7.03 If the 9903 subassembly is suspected of being defective, consult the Testing and Troubleshooting section of the host module's Practice for instructions concerning the replacement or repair of equipment under terms of the Tellabs warranty. It is strongly recommended that no "internal" testing or repair be conducted on this equipment. Unauthorized testing or repair may void the module's or subassembly's warranty.

7.04 If a situation arises that is not covered in this Practice, contact Tellabs Customer Service at (312)969-8800 for further assistance.



5. BLOCK DIAGRAM