

S-64-1* LOOP
DETECTOR
(USOC-LR3)

1. GENERAL

1.01 The S-64-1 is a loop (current) sensing device that can be used to detect that a telephone is off-hook. The S-64-1 can be used where a telephone is not equipped with A and A1 wiring to provide an output ground. The ground can be used as input to a key system line card to indicate that the line has been seized or to an external relay to control a special feature. The A-OUT lead can supply up to 100 milliamperes.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

2. DESIGN FEATURES

2.01 The S-64-1 is connected in series with the line. It detects loop current of over 2ma as an off-hook signal.

2.02 The S-64-1 is not polarity sensitive and adds no more than .5dB loss to the transmission path.

2.03 A 100 msec release delay allows a continuous ground output signal during rotary pulsing.

2.04 Ringing voltage (audible supply) is not detected.

2.05 With a sensing capability as low as 2 milliamperes, the S-64-1 will sense an off-hook with a 70 ohm hold circuit across the line.

2.06 The S-64-1 unit is equipped with one circuit. Mounting is on a backboard. Connections are made to screw terminals on the S-64-1 printed circuit card.

3. INSTALLATION

3.01 Installation can be made anywhere the line appears. Mount the S-64-1 to a backboard with wood or metal screws, then make the following connections to the screw terminals:

- a. Connect the TIP and RING from the central office to the TIP(IN) and RING(IN) terminals.
- b. Connect the TIP and RING to the station to TIP(OUT) and RING(OUT).
- c. Connect 24 volt battery and ground from the power supply to BAT and GRD terminals.
- d. Connect the A (output) screw terminal to the relay or circuit which is to be controlled by the S-64-1 (A output is GRD). The battery supply to the external relay should not exceed 28 volts dc.

4. CONNECTIONS

4.01 The connecting arrangements for the S-64-1 are shown in Fig. 1.

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NOTICE
Not for use or disclosure outside the
Bell System except under written agreement.

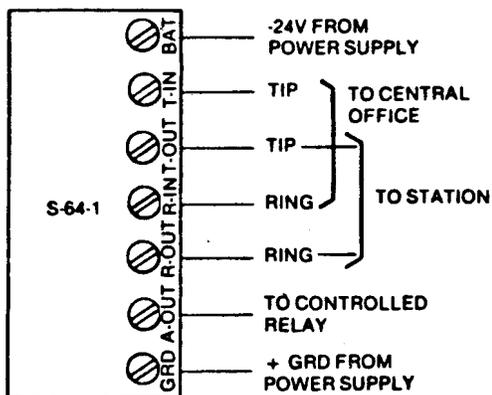


Fig. 1

5. MAINTENANCE

5.01 There is no provision made for field maintenance or repair. If no output is detected, verify all connections.

5.02 This unit is warranted for ninety days. If it becomes defective during that period, return it to your supplier. See the Melco Warranty for replacement conditions.

6. SPECIFICATIONS

6.01 The following is a list of specifications for the S-64-1:

Sensitivity	2 ma dc
Detector	1500 VDC Tip or Ring to ground
Breakdown Voltage	1800 ohms
Loop Limits	28 VDC max.
A Lead Voltage	100 ma max.
A Lead Current	100 msec \pm 10%
On-Hook Delay	100 msec \pm 10%
Off-Hook Delay	One circuit in plastic housing mounts on wall or backboard
Mounting	5.25"x3.125"x1.0"
Dimensions	Ambient Temperature 0 59 50° C

7. ORDERING

7.01 Order the S-64-1 from Western Electric as follows:

(QTY) S-64-1 LOOP DETECTOR

8. SCHEMATICS

8.01 The functional schematic of the S-64-1 unit is shown in Fig. 2

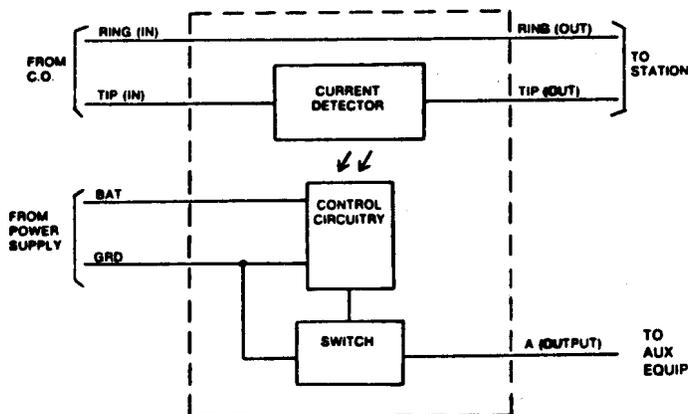


Fig. 2