

TECHNICAL Practice Telecom Solutions for the 21st Century

LDB-2 Ring/Loop Detector

March 23, 2000

Provide a Contact Closure on Ringing or Off-Hook

The **LDB-2** Ring/Loop Detector monitors an analog phone line for ringing or an in-use condition. A built-in relay can be activated when either of these conditions are detected. This is ideal for monitoring line status or for providing a visual indication of such.

When monitoring for ring, an internal pot can be adjusted to allow the relay closure to stay on steady, or follow standard ring cadence.

The **LDB-2** comes complete with a 12 VDC power adapter, and can also provide 12V DC power through its auxiliary 12V DC output terminals.

Features -

- Detects ring voltage and loop connect
- Screw terminal connections
- Wall mountable with foam tape (included) or screws (not included)
- Auxiliary 12V DC output
- Adjustable time-out for relay closure
- · Two sets of relay contacts provided
- Selectable NO (normally open) or NC (normally closed) relay contacts
- · Limited one year warranty

Phone...715.386.8861

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Applications

- Control a strobe light for ring indication
- Provide relay closures on ring and off-hook
- Trigger a security camera
- Trigger a tape recorder
- Phone "In Use" indicator
- "Dead Line" detector

Specifications

Power: 120V AC to 12V DC adapter provided Dimensions: 74mm x 53mm x 25mm (2.9" x 2.1" x 1.0") Shipping Weight: 0.4 kg (0.86 lbs) Environmental: -26° C to 54° C (-15° F to 130° F) with 5% to 95% non-condensing humidity Contact Rating: .5A @ 125V AC/1A @ 30V DC Maximum Current Draw Auxiliary 12V DC Output: 350mA Minimum Loop Current: 15 mA Minimum Ring Voltage: 40Vrms Ringer Equivalence: 0.5 A REN Connections: 10 pin screw terminal block

Installation

A. Mounting

The **LDB-2** is designed to be wall mounted using either screws or the included foam tape.

- 1. Remove the cover from the LDB-2.
- Mount the unit on a wall, using either screws or the included foam tape. Make sure there is easy access to the internal terminal block. The internal board of the LDB-2 can be rotated exposing the two mounting holes in the chassis.
- 3. Once mounted, swing the board back into position.

B. Ring Detection Only

Connect the incoming line to terminal block positions 1 and 2, as shown in the diagram to the right. No terminal device is required. In this manner, the **LDB-2** can monitor for ringing any place along the ringing line.

C. Ring and Loop Detection

If the application requires loop as well as ring detection, the **LDB-2** must be placed between the phone line and the terminal device to be monitored. Connect the incoming line to terminal block positions 1 and 2 and connect the terminal device to positions 3 and 4, as shown in the diagram to the right.

D. Relay Contacts

Relay contacts are available at terminal block positions 5,6 and 7,8. If the contacts are driving an inductive load, be sure to place a suppression device at the load to snub any high voltage spikes.

E. Auxiliary 12V DC Output

12V DC is available for low current applications. The positive side is available at terminal position 10, and the negative side is at position 9. Once all the line and load connections have been made, plug in the 120 V AC wall adapter, and replace the cover.

Programming

A. Adjustable Relay Closure Time Out

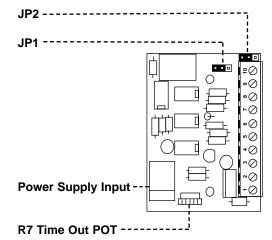
The time out POT (see diagram to the right) can be adjusted from 2 to 6 seconds. Turn the time out POT counter clockwise to decrease the closure time. Turn it clockwise to increase the closure time. When monitoring for ring, turning the time out POT fully counter clockwise will allow the relay closure to follow standard ring cadence, turning it fully clockwise will allow the relay closure to be maintained during the entire off time of the ring signal. When monitoring for loop, the relay closure will be maintained while off-hook and will time out following an on-hook.

B. Relay Contact Selections

The relay contacts located at terminal positions 5,6 and 7,8 can be set for normally open (N/O $\square \square \square$) or normally closed ($\square \square \square \square$ N/C) by repositioning JP1 and JP2 respectively (see diagram to the right).

Product Support Line...715.386.8666

ne ne NoDEL: LDB-2 MODEL: LDB-2 MOUNTING Hole MOUNTING Hole To C.O. Line or Analog PABX/KSU extension To Phone (only required for loop detection) Relay Contact (pins 5,6) Relay Contact (pins 7,8)



Auxiliary 12V DC Output ===

Fax Back Line...715.386.4345

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