

# LABLINE

## PORTABLE TELEPHONE LINE SIMULATOR



- Real line feed
- Selectable line current
- 8 digit display with 64 digit memory
- Tone and Pulse dialled digits displayed
- Digit timings
- Handset for speech

Labline simulates a telephone line and is ideal for the test and repair of telephones, answering machines, DECT products and auto-diallers. The product is simple to use and non-technical staff can be trained in minutes. It can then be used to sort out faulty products from working ones.

Labline is very useful to the telecom technician as well. It provides a virtual telephone line on the bench and different functions can be selected literally at the flick of a switch.

# FEATURES

## MASTER SOCKET

48 V feed is supplied to simulate real conditions. Line polarity can be changed and current switched from High to Low representing a 1 km or 7.5 km line.

Dial tone can be provided when the device seizes the line and is stopped when the first dialled digit is detected. Dial tone is particularly useful for checking auto-diallers that need dial tone to initiate signalling.

## DIGIT DISPLAY

The number dialled by the device under test is displayed on the eight digit display; up to 64 digits can be scrolled. Pulse, Tone or a mixed digit stream can be displayed. Tone digits are shown with a dot underneath.

## BAR GRAPH

This is useful for assessing tone levels during dialling, speech levels to line from an answering machine or data levels during modem transmission. Levels are displayed in dBm.

## RINGING

Realistic ringing signal is a near sinusoid and is DC backed. It has a source impedance of 3 k $\Omega$ , which is typical to those found on the network. The ring level adjusted at the rear of the unit.

## RECALL SIGNALS

Timed Break Recall (TBR) signals greater than 80 mS are detected and shown by an R on the display. Earth Recall signal is displayed as an E on the LCD.

## LINE LOOPED

An LED lights to indicate the line is seized and flashes when ringing is applied to the device under test.

## PULSE DIAL TIMING MEASUREMENTS

Make, Break and Interdigit times are detected and displayed in milliseconds from the last digit dialled (or the last two digits for IDP).

## TONE DIAL TIMING MEASUREMENTS

Tone On and Tone Off times are detected and displayed. The On time is measured from the last digit dialled and the Off time is based on the pause between the last two digits.

## PULSE DIAL TIMING ERROR

During Pulse dialling if the Make or Break times are outside the limits, an error message is flashed on the display.

## LINE BREAK

A momentary line break can be sent to the unit under test by using this switch. This is useful for generating a "calling party clear" signal to clear down answering machines.

## HANDSET

A telephone handset is supplied. This plugs into the rear of the unit and is used to listen to messages from or record messages to answering machines. It can also be used for speech connections.

# SPECIFICATION

## MASTER SOCKET

|               |   |
|---------------|---|
| DC VOLTAGE    | 48 V $\pm$ 5%   |
| FEED BRIDGE   | 2 x 200 $\Omega$ $\pm$ 10%  |
| DC RESISTANCE | 180 $\Omega$ $\pm$ 10% (= 1 km line)<br>1380 $\Omega$ $\pm$ 10% (= 7.5 km line) |

## DIAL TONE

|           |                 |
|-----------|-----------------|
| FREQUENCY | 350 Hz + 440 Hz |
| LEVEL     | -8 / -14 dBm    |

## RINGING

|            |                                      |
|------------|--------------------------------------|
| VOLTAGE    | 70 V $\pm$ 10% rms (factory default) |
| USER LEVEL | Adjustable from 0 V to 95 V rms      |
| FREQUENCY  | 25 Hz                                |
| TYPE       | AC (near sinusoid), DC backed        |
| CADENCE    | PSTN                                 |

## PULSE DIALLING

|          |           |
|----------|-----------|
| MAKE     | 25-41 mS  |
| BREAK    | 50-82 mS  |
| IDP      | >200 mS   |
| ON-HOOK  | >300 mS   |
| OFF-HOOK | >200 mS   |
| TBR      | 80-110 mS |

## TONE DIALLING

|                  |            |
|------------------|------------|
| TONE TIME        | >40 mS     |
| ACCEPT FREQUENCY | $\pm$ 1.5% |
| REJECT FREQUENCY | $\pm$ 3.5% |

## BAR GRAPH

|           |                                  |
|-----------|----------------------------------|
| REFERENCE | Top LED set to - 1dBm $\pm$ 1 dB |
| RANGE     | 3 $\pm$ 1 dB per LED             |

## TOLERANCE

|                            |            |
|----------------------------|------------|
| unless otherwise specified |            |
| FREQUENCY                  | $\pm$ 10%  |
| TIMING                     | $\pm$ 10%  |
| LEVEL                      | $\pm$ 3 dB |

## POWER

|       |                     |
|-------|---------------------|
| MAINS | 230 V, 50 Hz, 50 mA |
|-------|---------------------|

## DIMENSIONS

|        |        |
|--------|--------|
| HEIGHT | 100 mm |
| WIDTH  | 160 mm |
| DEPTH  | 160 mm |
| WEIGHT | 1.5 kg |

TELE PRODUCTS

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