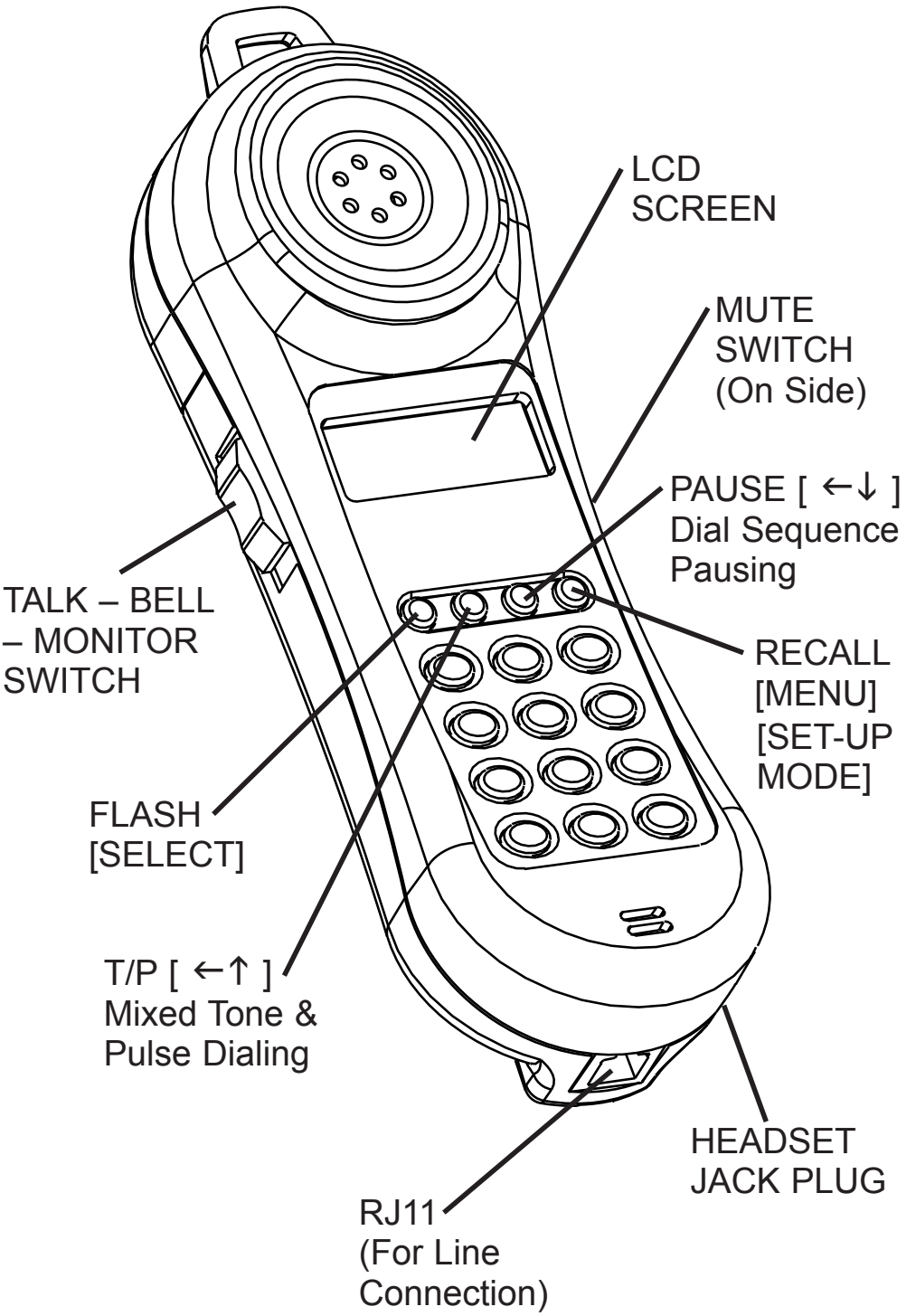

LCD
SCREEN
MUTE
SWITCH
(On Side)
PAUSE [←↓]
Dial Sequence
Pausing
TALK – BELL
– MONITOR
SWITCH
RECALL
[MENU]
[SET-UP
MODE]
FLASH
[SELECT]
T/P [←↑]
Mixed Tone &
Pulse Dialing
HEADSET
JACK PLUG
RJ11
(For Line
Connection)

Caution

Please follow correct safety practices when operating this unit. Do not connect this unit to 110 volt or 220 volt AC electric power lines. Correct operation is entirely the responsibility of the user. Should the Lil' Buttie PRO, intentionally or by accident, be connected to electric power, all warranties are immediately null and void.

Connection

All connections to the Lil' Buttie PRO should be initialized utilizing the recommended cordset for the testing of telephone circuits and services. These cordsets may be inserted into the modular jack located at the base of the unit. See the cordsets section of these instructions for further details.

General Description

The JDSU Lil' Buttie PRO is a self-contained, self-powered, portable telephone test set for use by installers, repair technicians, and other authorized personnel for temporary communications and the operational service and installation of telephone/data lines.

Lil' Buttie Pro Test Set Features

- Compact Size with normal ear piece to microphone spacing
  - Small enough to wear on belt or carry in pocket
  - Comfortable to hold shape
- Liquid crystal display
  - Displays On-hook voltage and polarity in monitor mode
  - Displays Off-hook current and polarity in talk mode
  - Displays number being dialed and dialing mode
  - Displays recalled numbers while dialing
  - Displays setup info: battery low, modes, etc.
- Caller ID
  - Detects and displays caller ID info and faults
  - Detects and displays call waiting caller ID info and faults
- Amplified Monitor Mode
  - Comparable volume levels to off hook
  - Continues polarity indication
  - Auto power down after 15 minutes
  - Battery low icon on LCD

    - High Impedance with small series capacitance
    - No popping or clicking when attaching to line
- Headphone jack and ear-mounted headset — hands free
    - Disconnects internal handset when plugged in
    - Headset is compact enough to fit in shirt pocket
    - Headset can be worn comfortably with hard hat on
    - Headset can be worn on right or left ear
- Continues current and polarity reading when off hook
- Microphone mute button conveniently located
- Pulse and Tone dialing
- 19-digit last number redial plus 5-number recall memory
    - Battery-powered number retention
    - Mixed-tone pulse redialing in pulse mode
    - Pause key function for pbxs
    - Tech support number as 6th recall
- Flash key simulates hook flash

- Electronic Ringer (off in monitor mode)
- Modular plug with cord strain relief
- Automatic over current protection
- DataAlert will not go off hook on low voltage circuits

INDICATORS, BUTTONS, AND SWITCHES

Talk-Bell-Mon (TBM) Switch

The TBM switch is located on the left side of the PRO. The function of each position is as follows:

Talk - The talk or off-hook position, connects the PRO to a POTS phone line. The PRO must measure 10 volts or more on the line it is connected to in order to connect. This stops the PRO from interrupting data lines or POTS lines that are active (off-hook). The PRO informs the user that it has not gone off-hook by displaying the line voltage measured along with "In use??" on the LCD and a prompt on line 2, "Flash to connect". If it is desired to continue and go off-hook at this voltage reading, press the Flash key and the PRO will go off-hook and operate normally. Since the speech circuits are line powered, if there is no power on the line, they will not function. The normal off-hook display has dialing information on the top line and status information on the bottom line. The status information consists of the dialing mode (Tone or Pulse), the measured line current in milliamperes and the line polarity (NRM or REV).

Bell - The bell position is the off state of the PRO. The keyboard is disabled and the PRO is in its lowest power state except when ringing or displaying caller ID information. If the TBM switch is not moved to another mode when ringing, the PRO will return to off in about 30 seconds after the end of ringing.

Mon (Monitor) - The monitor position enables amplifiers that listen to the line without loading it. On hook caller ID is also received in this mode and the information displayed on the LCD. When this mode is first entered and there is no caller ID info on the screen, the battery voltage is measured and an estimate of the remaining battery capacity is displayed for a short time. Line 2 displays the time remaining to automatic power off, the measured line voltage and the polarity.

LCD Display

The PRO has a 2-line by 16 alpha numeric character display with a number of icon flags. The display is a reflective type, super twisted liquid crystal (LCD). The icons are used and defined as follows:

ID - indicates displayed data is caller ID information.

ID (flashing) - indicates Call Waiting Caller ID (CWCID) detection is enabled. Enabling CWCID is an option in the setup menu.

PASS - used with ID to indicate that caller ID information was received with no errors detected.

FAIL - used with ID to indicate that caller ID information was received with errors. Error message will also be displayed.

SETUP - indicates that the PRO is in setup mode.

S - indicates that the PRO is scrolling through list of memory dial numbers.

1 to 6 - indicates the memory dial number selected.

<*battery icon*> - displayed when battery needs replacing.

<*no bell icon*> - indicates that PRO is in monitor mode and the bell is off.

Keyboard

The PRO keyboard has 16 keys. The top row of four keys are command keys, while the remaining 12 keys are arranged in a standard three by four phone keypad layout. The command keys each have two uses, depending on operating mode. The command keys are:

In phone mode:

Flash (Flsh) - The flash key breaks the phone line connection for 0.6 sec. It simulates a hook flash to transfer calls, or to activate special features of a PABX or central office.

T/P (Tone) - When dialing is not in progress, the tone key toggles the dialer between tone (DTMF) and pulse dialing. The current dialing mode is displayed on the bottom line of the LCD. When dialing is in progress, the Tone key can be used to switch from pulse to tone mode for sending tones after connection in pulse mode. The key press shows up on the LCD as "T" in the number being dialed display. It has no effect if dialing in tone mode.

Pause (Pau) - The pause key inserts a delay between dialed digits of 3.8 seconds plus the usual inter-digit delay. The pause key

shows up as "P" in the number being dialed display.

Recall (Rcl) - The recall key is used to recall a stored number or to enter the setup mode or scrolling stored number recall modes. In these other modes, the use of the command keys is different as described below. The recall key is used in a two key sequence to accomplish the various functions. The normal TALK mode display is replaced with a prompt message to help select the second key press. The second key being 0 through 6, dials a stored number: 0 dials the last number dialed manually; 1 through 5 dials one of the five user-stored numbers; 6 dials the JDSU technical support number, which is permanently stored in memory. The second key press being one of the two scroll keys as defined below, causes the PRO to enter the scrolling recall mode (see next section for more information). The second press being the Recall key again will cause the PRO to enter the setup mode. All other key entries are ignored. Setup may also be entered in MON mode by pressing Rcl twice.

In setup and scrolling recall modes the labels in the dark blue area above the command keys are used (legend on keys):

Select (Flsh) - The select key is used to select the line that the ">" symbol is pointing at in setup mode, to select the currently displayed number for dialing in scrolling recall mode, or to end the entry of a memory dial number and return to the number selection screen.

Scroll left or up (Tone) - Move up or left in current mode other than phone mode.

Scroll right or down (Pau) - Move right or down in current mode other than phone mode.

Menu (Rcl) - Go back one menu screen or exit mode if at first menu screen.

Scrolling Recall Mode - The scrolling recall mode allows the user to review all stored numbers and choose the currently displayed number for dialing by pressing Select (Flsh). The "S" icon and the number icon for the memory location being displayed will be on. The scroll keys are used to move up or down in the list, rolling over at the end of the list.

Setup Mode

The setup mode presents a list of items that can be modified. The scroll keys move the ">" symbol up and down to point at each item. The select key enters the selected function:

Memory Dial Setup - On entry, the "Press 1–5" message is displayed Pressing one of the numbers will display the current contents of that memory location. If the memory is blank, "empty" is displayed. If storable characters are entered next, the current number is cleared and the new digits entered. If Select or Recall are entered before any other digits, the current number is preserved and the PRO returns to the appropriate screen. If other digits were entered, these are saved as the new number; entry terminates with Select or Recall.

Call Waiting ID - This screen allows the CWCID feature to be turned on and off. The factory default is off. The selection of on or off is made with the scroll and select keys like the main setup screen above. When on, the CWCID draws considerably more battery current than when off. The "ID" icon flashes on entry to the TALK mode to indicate CWCID is on. To conserve battery power, it

is recommended to leave the CWCID turned off when not being used regularly.

Tech Support - (Memory dial 6) Dials JDSU for help or advice.

Special Features

DataAlert

The PRO measures the voltage on the phone line when being placed in TALK mode and will not connect (go off hook) if the voltage measured is less than 10 volts. This would normally indicate a dead line, data line or a POTS line in use. If this occurs, the measured voltage is displayed along with "In use??" and "Flash to Connect". This gives the user the opportunity to verify the line status before proceeding. If the user still wants to connect, press the Flash key to connect. The voltage is constantly updated, so the leads could be used to search for a line with normal on-hook voltage while in this state.

Automatic Power Off

The PRO has automatic power off for all functions to conserve the battery. The MON mode, being the highest power mode, times out and powers off in 15 minutes. Because it is a relatively short period of time, the time remaining is displayed on the screen in minutes. The TALK mode times out in approximately 60 minutes with CWCID off and 30 minutes with CWCID on. Once timed out and powered off, the TALK-BELL-MON

switch must be moved to another position to wake up the PRO.

Battery State Information

The approximate percentage of remaining battery life is displayed briefly when first entering, or as caller ID info is removed in MON mode.

Over Current Protection

If the PRO senses a current in excess of 120 mA, it displays the current measured and "CURRENT TOO HIGH", then automatically disconnects from the line. Periodically, the PRO reconnects for a short time, displays the current measured, then disconnects if it is still
too high.

On-hook Caller ID

The PRO detects and displays on-hook caller ID information when in BELL or MON modes. The PRO does not block the first ring signal. If the PRO or another phone on the line is taken off-hook before the beginning of the second ring, the caller ID information may not be properly received. Due to screen size limitations, only number and name information is displayed when available. The PRO is capable of receiving

any message type and message length that is properly formatted per Bellcore

GR-30-CORE and verifying the checksum. The following messages other than name, number, "out-of area" and "number blocked" are displayed by the PRO as required:

"Single Msg Type" - A single message format caller ID was received correctly of an unsupported type number.

"Multi Msg Type" - A multiple message format caller ID was received correctly, which only contained unsupported type sections.

"Chksum=xx, Rx=yy" - There is a checksum error. The checksum xx was at the end of the message. The checksum yy was calculated from the received data.

"Lost Carrier" - The caller ID carrier was detected, but lost before the end of the transmission.

Call Waiting Caller ID (CWCID)

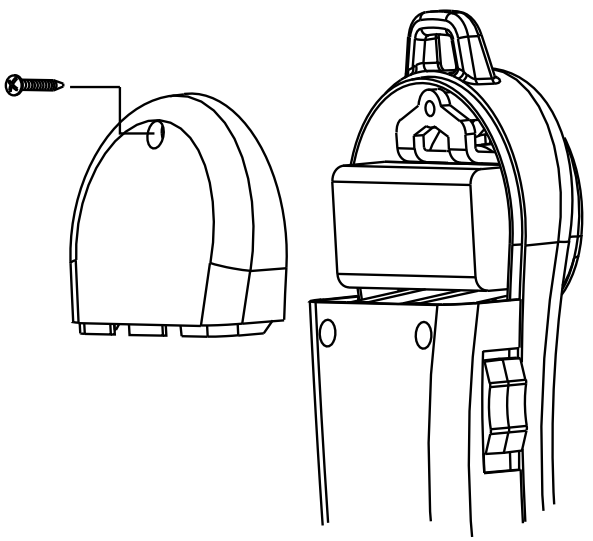
The CWCID operates essentially the same as the on-hook caller ID, displaying the same information and errors. But instead of the first ring alerting the caller ID circuitry, a special CPE Alerting Signal (CAS) tone is

sent immediately after the usual call waiting alert tone. When CWCID is enabled, the PRO detects this tone, mutes the PRO's audio circuits, sends an acknowledgment tone and receives the data before re-enabling the audio circuits. Because the CAS detect circuitry requires considerable battery power (about 6 times the normal TALK mode battery power), the CWCID circuitry default is “off”. It can be enabled by using the setup function.

Battery Replacement

When the battery icon comes on, replace the battery with a 9 volt alkaline. The redial memory will be lost unless the following procedure is followed:

1) Remove the single screw at the top back of the PRO with a #1 Philips head screwdriver, then remove battery door.
2) Be certain that PRO is in BELL mode and the new battery is unpackaged and ready to install.



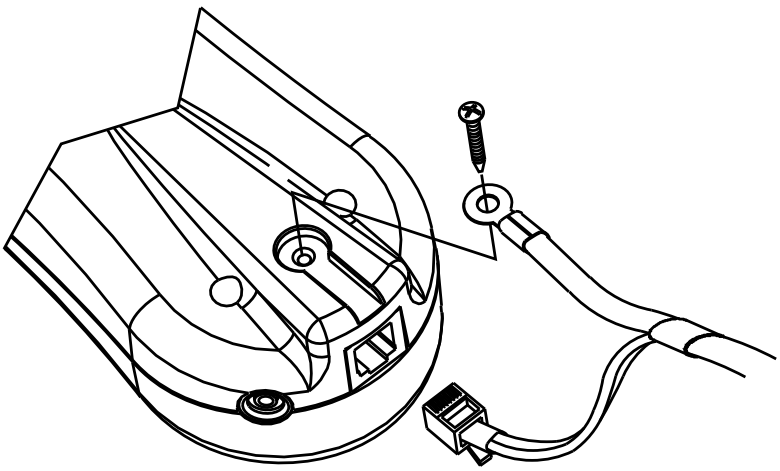
3) Disconnect the existing battery, then replace it with the new battery. ***THIS MUST BE DONE IN LESS THAN 30 SECONDS TO PRESERVE STORED NUMBER MEMORY!***

4) Replace cover and tighten the screw, do not over tighten!

***WARNING**: Do not over tighten the screw — damage to the unit may result. If problems are noted while attempting to close the cover, confirm that the battery is properly seated and the cover is fully interlocked with the body.*

Line Cord Connection

The Lil' Buttie PRO is designed with a standard 6-position modular jack for the quick connection to various cordsets. The jack is located at the base of the unit below the mic. To replace the cordset, simply remove the strain relief attachment screw, then unplug the cordset. Insert the new cordset, then replace the strain relief terminal and screw.



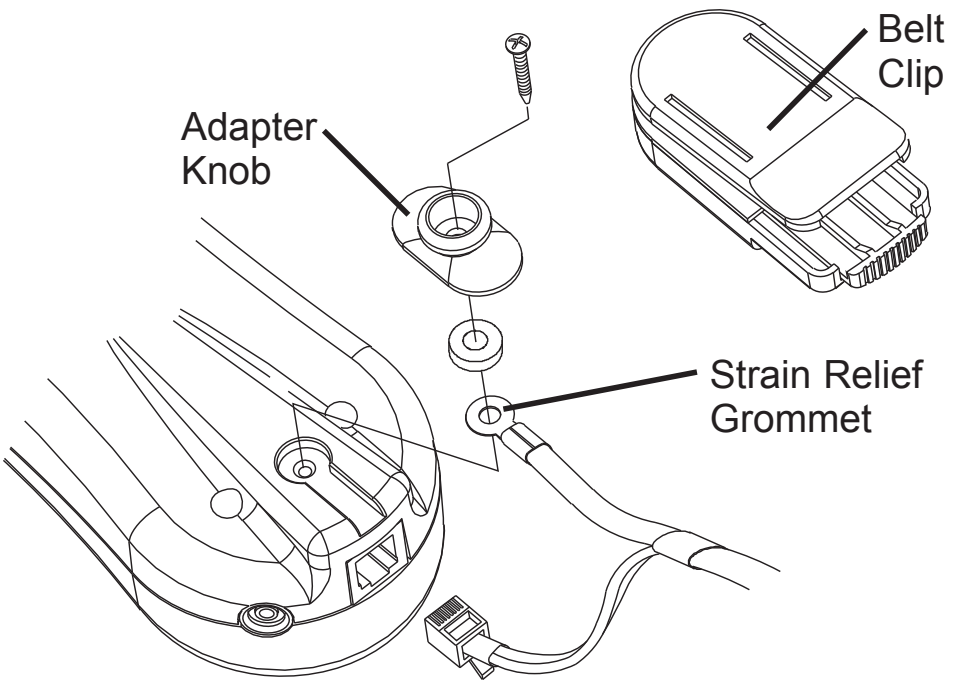
Headset

The included headset can be utilized when a hands-free/off-the-shoulder operation is preferred. Plug the headphone jack into the receptacle located at the base of the unit next to the modular plug receptacle. Headset can be used for either ear by rotating the microphone position by 45 degrees.

***NOTE**: When plugged in, the internal handset is disconnected.*

Belt clip installation

Should the purchaser of the Lil' Buttie Pro prefer an alternate method of carrying or mounting the unit besides the use of the standard lanyard loop, an optional belt clip and adapter knob is provided. (Optional accessorie, if belt clip is supplied follow instructions below)



To install the optional belt clip, remove the strain relief attachment screw, then position the adapter knob and washer as shown. Attach with the 1/2" pan head screw provided in the belt clip kit.

Squeeze top of clip to open for attaching to belt. Then slide knob into channel on front of clip. Press button on top of clip to release knob.

Note: *Take care not to over torque the screw during assembly, or possible damage to the body may result.*

Models, Options & Accessories

Ordering number	Description
LB220	Lil' Buttie Pro telephone test set angled bed-of-nails clips and mini headset
LB220-BT	Lil' Buttie Pro telephone test set with angled bed-of-nails clips and protective rubber boot
LB220UK/AUS	Lil' Buttie Pro telephone test set with angled bed-of-nails clips and protective rubber boot, (non-N. America 100ms hook flash, 37/63 make/break ratio)
LB230	Lil' Buttie Pro telephone test set with angled bed-of-nails clips and rugged hook-type belt clip
LB10B	RJ11 to alligator - 48" cord with strain relief
LB20B	RJ11 to piercing pin clips - 48" cord with strain relief
LB22	Telephone cord adapter with twist resistant connector
LB25	RJ11 to piercing pin - 48" with strain relief
LB30B	RJ11 to angled bed-of-nails clips - 48" with strain relief

LB31B	RJ11 to alligator clip cord set - 48”
LB35	Cloth braided RJ11 to angled bed-of-nails with piercing clips - 48” with strain relief
LB40B	Headset with boom microphone, mini over-the-ear, 2.5mm jack
LB45B	Headset with cushioned ear piece, full over-the-head, 2.5mm jack
LB60B	Belt clip, two-piece swivel (for telephone test sets)
LB64	Modular adapter, 4-position
LB66	Modular adapter, 6-position
LB68	Modular adapter, 8-position
LB75	Belt clip, hook-type for Lil’ Buttie-series telephone test sets
LB80	Nylon pouch for one Lil’ Buttie-series telephone test set
LB81	Protective rubber boot for Lil’ Buttie-series telephone test sets
LB85B	Belt clip, rugged hook-type on battery door (blue) for Lil’ Buttie- telephone test sets

Specifications

Specifications subject to change.

Electrical

Battery current consumption (typical):

BELL (timed out) — 15µA

TALK — CWCID off: 2mA; CWCID on: 12mA

MON — 25mA

Battery life (Alkaline, 450mA-hr):

OPERATING — Min, 18 hrs; Max, 225 hrs
Standby — 3.4 yrs
TYPICAL — 30–50 hrs

Return Loss: 14db @ 600 ohms

Line Current Range: 15 to 120 mA

Apparent Line Resistance: 275 ohms at 20mA

Monitor Mode Impedance: >130 Kohms

Pulse Dialing

Pulse Rate: 10 pps +/-10%

Make/Break Ratio: 60/40% +/-2%

Interdigit Interval: 820 mSec

Resistance in break: 120 Kohms

DTMF Output (into 600 ohms)

Tone Frequency error: +/-1.5%

Tone Level — High group: -6dBm +/-2dB
Low group: -8dBm +/-2dB

High vs Low Difference: 2dB +/-1dB

Memory Dialing

Type: 5 programmed + Last Number Redial

Memory Capacity: 19 Digits

Memory Retention w/bat: >2 ys

Flash Duration: 600 mSec +/- 50mSec

Pause Duration — Tone: 3.0 Sec; Pulse: 3.4 Sec

Ringer Equiv (Bell mode): 0.0 (no ringer load)

Measurement

Voltage: 0 to 128 VDC +/-5%

Current: 10 to 140 mA +/-5%

Environmental

Temperature — Operating: 0 to 50°C; Storage: -20 to 60°C

Physical

Length (w/o lanyard): 7.25 in (18.4 cm)

Width: 2.50 in (6.4 cm)

Height: 1.68 in (4.3 cm)

Weight (with cord set): <10 ozs. (284 gms)

Maintenance

The test set may be cleaned with a damp cloth. If heavy accumulations of dirt are present, a small amount of liquid soap may be applied to the cloth to assist in cleaning. Do not use solvents, scouring powders, or other abrasive cleaners — they may scratch the unit and/or cause malfunctions.

Cordsets should be periodically checked for shorts, continuity, or obvious signs of wear, such as fraying or loose/damaged test clips.

Customer Services

This section provides a description of customer services available through JDSU (including returns policies and procedures) and warranty information.

Customer Service (Standard Services)

Customer Service accompanies the sale of every JDSU product. Customer Service services include:

- Technical Assistance (Business Hour)
- Instrument Repair (Under Warranty Repair, Calibration Services, and Upgrade Services)
- Immediate Return Authorizations

Technical Assistance Expert business hour technical support is included with your product.

Instrument Repair Our service centers provide repair, calibration, and upgrade services for JDSU equipment. JDSU understands the impact of equipment down time on operations and is staffed to ensure a quick turnaround. Available services include the following:

Product Repair — All equipment

returned for service is tested to the same rigorous standards as newly manufactured equipment. This ensures products meet all published specifications, including any applicable product updates.

Calibration — JDSU's calibration methods are ISO approved and based on national standards.

Factory Upgrades — Any unit returned for a hardware feature enhancement will also receive applicable product updates and will be thoroughly tested, ensuring peak performance of the complete feature set.

Equipment Return Instructions Please contact your regional Technical Assistance Center to get a Return or Reference Authorization to accompany your equipment. For each piece of equipment returned for repair, attach a tag that includes the following information:

- Owner's name, address, and telephone number.
- The serial number (if applicable), product type, and model.

- Warranty status. (If you are unsure of the warranty status of your instrument, contact Technical Assistance.)
- A detailed description of the problem or service requested.
- The name and telephone number of the person to contact regarding questions about the repair.
- The return authorization (RA) number (US customers), or reference number (European Customers).

If possible, return the equipment using the original shipping container and material. If the original container is not available, the unit should be carefully packed so that it will not be damaged in transit; when needed, appropriate packing materials can be obtained by contacting JDSU Technical Assistance. JDSU is not liable for any damage that may occur during shipping. The customer should clearly mark the JDSU-issued RA or reference number on the outside of the package and ship it prepaid and insured to JDSU.

Warranty Information

JDSU guarantees that its products will be free of all defects in material and workmanship. This warranty extends for the period of 12 months for test instruments and 3 months for cables from date of manufacture or purchase (proof of purchase required).

All product deemed defective under this warranty will be repaired or replaced at JDSU's discretion. No further warranties either implied or expressed will apply, nor will responsibility for operation of this device be assumed by JDSU.

WEEE Directive Compliance

JDSU has established processes in compliance with the Waste Electrical and Electronic Equipment (WEEE) Directive, 2 002 /96/EC. This product should not be disposed of as unsorted municipal waste and should be collected separately and disposed of according to your national regulations. In the European Union, all equipment purchased from JDSU after 005 -08 -13 can be returned for disposal at the end of its useful life. JDSU will ensure that all waste equipment returned

is reused, recycled, or disposed of in an environmentally friendly manner, and in compliance with all applicable national and international waste legislation. It is the responsibility of the equipment owner to return the equipment to JDSU for appropriate disposal. If the equipment was imported by a reseller whose name or logo is marked on the equipment, then the owner should return the equipment directly to the reseller. Instructions for returning waste equipment to JDSU can be found in the Environmental section of JDSU's web site at www.jdsu.com. If you have questions concerning disposal of your equipment, contact JDSU's WEEE Program Management team at WEEE.EMEA@jdsu.com.