

SAN/BAR CORPORATION

SB 208A PORTABLE LINE CARD TESTER OPERATIONS MANUAL



I.

The San/Bar Model SB208A Portable Line Card Test Set was developed especially for field use so K.T.U. installers and/or maintenance personnel may functionally test K.T.U. Line Cards at the subscriber's location.

The Test Set is fully transistorized, has 20 Volt D.C., 24 Volt D.C. and 26 Volt D.C. output, built in regulated 500mA power supply, is without relays or electro-mechanical components and is self-contained within a hinged lid case complete with carrying handle. The carrying case is approximately 8" x 4" x 4" deep. The A.C. Power Cord is coiled within the hinged lid. The unit is designed to completely simulate all of the key-set circuit operations, via operation of push-button keys which provide the switching for the Line Card Test.

II. SPECIFICATIONS

A.C. Power

Input by three (3) conductor A.C. cords to operate off 115 volt A.C. single phase 50/60 Hz., using approximately 20 watts of power.

D.C. Power

Three (3) different Output Voltages: 20 VDC, 24 VDC or 26 VDC for the lamp and the line card operation.

Ringing Voltage

70 Volt $\pm 10\%$, 60 Hz. applied by Ringing Key operation.

Time Out Test

The 1.0 second lamp flash can indicate total time by ON/OFF count until the flash ceases.

Key-switches

The functional test keys of the push-on/push-off type are mechanically interlocked to simulate all circuit operations and are the only moving parts in the unit.

Line Cards Tested

Any type or manufacture of line cards can be functionally tested.

III. PUSH-BUTTON KEYS

Ringing Key

The Ringing Push-button Key is of the non-locking type with mechanical interlock to restore either the Hold or the Answer Keys if operated. The Ringing Key simulates the incoming call "Ring-in" condition by applying approximately 70 Volts A.C. to the Line Card under test.

Answer Key

The Answer Key is of the locking type, with mechanical interlock to restore the Hold Key if operated. This Answer Key operation simulates the answer and/or originating call condition into the Line Card under test.

Hold Key

The Hold Key is also of the locking type with mechanical interlock to restore the Answer Key. The Hold Key simulates the circuit hold condition after the Answer Key has first been operated.

Hang-Up Key

The Hang-up Key is of the non-locking type with mechanical interlock to restore either the Answer or the Hold Key. The Hang-up Key simulates the replacement of the telephone instrument handset.

Line Reverse Key

The Line Reverse Key is of the locking type, without mechanical interlock and simply reverses the line polarity to test the line card operation in both modes.

Open Loop Key

The Open Loop Key is one of the non-locking type without mechanical interlock and is furnished to simulate the Central office "line disconnect" which can occur during prolonged "Hold" circuit conditions.

Loop Light

The Loop Light indicates the "Off Hook" loop condition of the telephone instrument.

Answer Light

The Answer Light indicates that a call is "in talk" by a steady light. A flashing light indicates either an "Incoming call" (ring-in time out) or a call on "Hold."

Buzzer Light

The Buzzer Light indicates that the Line Card Circuitry would function to operate the telephone buzzer/bell, etc. on an incoming "ring-in" call or from an intercom connection.

Pilot Light

The Pilot Light indicates that 115 Volts A.C. power is "switched-on" and the 20 Volt D.C., 24 Volt D.C. or 26 Volt D.C. Power Supply is available for unit operation.

IV. OPERATIONAL DESCRIPTION

With the A.C. Power Cord plugged into a suitable receptacle, and with the A.C. Switch in the "on" position to light the A.C. Pilot Lamp, select the operation voltage (20 VDC/24 VDC/26 VDC). Insertion of a line card should show no lights or circuits change.

An exception may be the SB 4000 Type Line Card which usually causes a short time out transient (on a one time only basis) to fully charge the timing capacitor.

Ringng Key

Operation of the Ringng Key will apply approximately 70 Volts of 60 Hz. A.C. to the Line Card which should respond by a steady Buzzer Light and the Answer Lamp should flash at an ON/OFF timing period of one second each. To determine the approximate time out, the number of flashes can easily be counted until the flashing ceases. The internal electronic timer operates at approximately one second off to simplify this timing count.

Answer Key

Operation of the Answer Key, with the Answer Light flashing and the Buzzer Light steady, will restore the Buzzer Light and cause the flashing Answer Light to become steady.

If no prior key is operated, the Answer Key will illuminate the Answer and the Loop Lamp.

Hold Key

Operation of the Hold Key alone will have no effect because the Answer Key must first be operated. The Hold Key operation then causes the steady Answer Lamp to flash and the Loop Lamp will extinguish.

Hang-Up Key

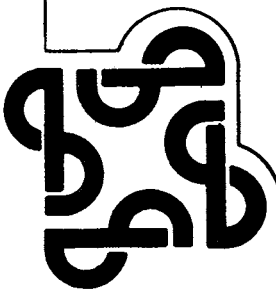
Operation of the Hang-up Key will release the Line Card and restore both the Answer and the Loop Lamps. Operation of the Hang-up Key in the hold condition will also restore the Line Card to normal in the correct sequence of on-hook and the open loop conditions.

Open Loop Key

The operation of the Open Loop Key in the answer condition extinguishes the Loop Light but the Answer Light remains lit. In the hold condition operation, the Open Loop Key releases the Line Card.

Line Reverse Key

For the majority of line cards, the Line Reverse Key should indicate no change in operation. However, some line cards may operate correctly in one or the other modes. For information purposes, with the Reverse Key normal (up) there is positive polarity on the line tip side with the corresponding negative on the line ring side, to the Line Card. In the operated position (down) of the Reversal Key, the line tip side becomes negative with the corresponding positive on the ring side to the Line Card under test.

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SB208A-1178

Printed in USA