

CAUTION

PLEASE READ CAREFULLY

Operation of the polarity button on a busy circuit may cause annoying clicks or service interruptions. Operation of this switch on an idle circuit may cause line seizure.

When testing circuits which are relatively closed to the battery source, the clicks in the receiver may be loud enough to cause some acoustical shock if the receiver is held tightly against the ear.

Connection of this test set or any other equipment to high voltage electrical lines can cause severe shock and personal injury.

TONE CIRCUIT:

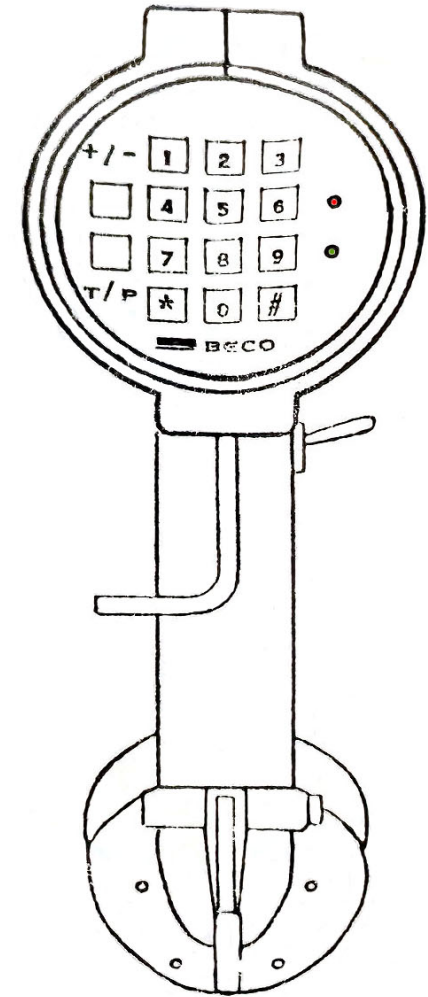
1. Input Keying Rate.....10 digits/sec. max.
2. DTMF Generations

HZ	1209	1336	1477
697	1	2	3
770	4	5	6
852	7	8	9
941	*	0	#

3. DTMF deviation... $\pm 1\%$
4. DTMF distortion.... ≤ -20 dbm
5. DTMF rise time.... ≤ 5 msec.
6. Unwanted frequency components:
 - a) No key down/memory idle mode ≤ -80 dbm
 - b) Speech suppression during DTMF generation ≤ -45 dbm
7. Operating Conditions:
 - a) Line polarity.... normal or reverse
 - b) $20\text{ma} \leq \text{loop current} \leq 100\text{ma}$
 - c) DTMF level with 600 ohm load:
(20ma loop current) ... -5 dbm
 - d) Level difference between the high and low frequency groups... 2.2 dbm ± 1 dbm
8. Terminal Impedance (Across Tip and Ring)
 - a) During ON HOOK ≥ 20 meg. DC, 10K AC
 - b) During DIALING ≥ 550 ohm

PULSE CIRCUIT:

1. Input Keying rate.... 10 digits / sec. max.
2. Sending Performance:
 - a) Pulse Speed – 20pps $\pm .5$ pps
 - b) Pulse Ratio (Break-to-Make) – 40% Make
 - c) Interdigital Pause....852 msec
 - d) Predigital Pause....800 msec
3. Line Conditions During Pulsing:
 - a) Open Loop Voltage....100 volts max.
 - b) Telephone Line Current ... $20\text{ma} \leq \text{loop current} \leq 100\text{ma}$
 - c) Line Transient, Tip to Ring
V Max... ≤ 1500 volts
I Surge ... ≤ 1 amp
T Surge ... ≤ 1 msec
 - d) Line Polarities (push-button activated)
Green LED for Normal
Red LED is ON when line is in reverse.
4. Terminal resistance (across Tip and Ring)
 - a) During ON HOOK.... ≥ 20 meg.
 - b) During Pulsing.... ≥ 50 K
5. Terminal Impedance (across Tip and Ring)
 - a) During ON HOOK 10K (Monitor Mode)
 - b) OFF HOOK = 600 OHMS



TALK / MONITOR SWITCH – Located on the side of the test set. When placed in the (ON) talk position, establishes an off-hook condition for dialing and talking. In this mode the set performs as a common battery telephone. The (OFF) monitor position removes the transmitter from the circuit and provides a high impedance coupling to the line. This allows monitoring without disrupting conversation.

MODE TONE / PULSE SWITCH (T/P) – Located on the keypad bezel selects the signaling output. When set is placed in talk position, set is in pulse mode. For tone mode, depress the (T/P) button once. Tone mode is now locked in. To go back to pulse mode, simply switch to monitor.

POLARITY BUTTON (+/-) – Located on the keypad bezel is used in conjunction with the two LED's on the keypad to check line polarity. Pressing the polarity button with set in either monitor or talk mode and connected to a telephone line or battery source will cause one of the LED's to light. Lights will illuminate brighter in the monitor mode. RED indicates line in reverse. GREEN for normal. Note: The BECO 1011-DTP is not polarity sensitive, allowing the set to function normally in either polarity.

LAST NUMBER REDIAL BUTTON (#) – Automatic mix redialing of pulse and tone modes up to 32 digits. Note: Last number will retain in memory up to 30 minutes without battery.

TEST CLIPS – Black is TIP – Red is RING.

OPERATION ON LOW VOLTAGE OR DRY CIRCUITS – Connect test leads to circuit under test. Verify that the circuit is idle. Set the Talk/Monitor switch to (ON) for two-way communication. Pulse – 3v. Tone – 4v. The test signaling function will not operate in this mode, but all other functions operate normally.

WARRANTY – BECO Mfg. guarantees this test set to be free of all defects in material and/or workmanship and agrees to remedy any such defect at no charge. This warranty extends for a period of one year. In no event will BECO be liable for any incidental or consequential damages. This warranty DOES NOT extend to products which have been subjected to neglect, accident or improper use, nor to units subjected to normal wear or that have been altered by other than authorized BECO personnel. For warranty and / or repair service, send unit to:

