SPECIFICATIONS

7.1 Physical (Including Carrying Bag)

Height ..... 13 in. (330 mm)
Width ..... 7 in. (178 mm)
Depth ..... 3 in. (77 mm)
Weight ..... 5.7 lbs. (2.6 kg)

7.2 Environmental

Storage Temp. .... -40 to 158°F (-40 to 70°C)
Operating Temp. ... -4 to 140°F (-20 to 60°C)
Humidity ..... 100%, water resistant
Altitude ..... 0 to 15,000 ft.

7.3 Powering

Internal Batteries .. 6 Ni-Cad C-cell, 2400 mAH

7.4 Charging (Charger Input)

AC Charger Cord .... 115 VAC, 60Hz, 300 mA
DC Charger Cord ..... 10 to 15 VDC, 300 mA
Charging Interval ..... Approx. 10 Hrs.

7.5 Wire Tests (Physical Parametric)

7.5.1 AC Voltage:

Range ..... 0 to 250 VAC
Resolution ..... 0.1 VAC
Accuracy ..... ± 2% ± 0.5 VAC

7.5.2 DC Voltage

Range ..... 0 to ± 300 VDC
Resolution ..... 0.1 VDC
Accuracy ..... ± 1% ± 0.5 VDC

7.5.3 Resistance

Range ..... 0 to 100 megohms
Resolution ..... 0.1 ohm to 0.1 megohm
Accuracy
0 - 4 kilohms ..... ±1% ± 0.1 ohm
4 Kohm-1 megohm ..... ± 5% ± 1000 ohms
1 - 100 megohms ..... ±10% (Typical)

7.5.4 Leakage

Range ..... 2 kohms to 100 megohms
Resolution ..... 0.1 kohm to 0.1 megohm
Accuracy ..... ± 10% ± 1kilohm (Typical)

7.5.5 R. Fault Locate

Strap Range ..... 10 ft. to 80 kilofeet
Fault Resistance ..... 0 to 40 megohms
Accuracy ..... ± 1% DTS ± 4 ft.
@ R_F= 10K, RTS >1 ohm

7.5.6 Opens

Range ..... 0 to 100 kilofeet
Resolution ..... 1 ft. to 0.1 kilofeet
Accuracy ..... ± 2% ± 6 ft.

7.5.7 Splits

Accuracy ..... ± 10 % of Cable Length

7.5.8 Distance to Load

Range ..... 0 to 30 Kilofeet
Resolution ..... 0.1 Kilofoot
Accuracy ..... ± 10% ± 600 ft.
(Load in near half of cable)

7.5.9 Tracing Tone

Frequency ..... 577.5 Hz
Level ..... 10 V_{PP}
Cadence ..... 0.25 sec. on / 0.25 sec. off
Application ..... Simplex, TR, TG, RG

7.5.10 Fault LocateTone

Freq. Range ..... 350 to 8500 Hz
Level ..... 10 to 150 V_{RMS} , 2W max.
Cadence ..... 0.25 sec. on / 0.25 sec. off
Application ..... Simplex, TR, TG, RG

7.6 Signal Tests (Transmission Meas.)

7.6.1 Load Coil Count: (H88 or D66)

Maximum # 6

Spacing ..... Standard practice ±20%

End Section ..... 3 kilofeet (minimum)

7.6.2 Send Frequency

Range ..... 24 Hz to 20 kHz

Resolution ..... 1 Hz

Accuracy ..... ± 0.1%

Level ..... +3 to -20 dBm, ± 0.5 dB

Impedance ..... 135, 600, 900 ohms

7.6.3 Receive Level (Insertion Loss)

Range ..... -40 to +10 dBm

Resolution ..... 0.1 dB

Accuracy ..... ± 0.5 dB

Frequency Range ..... 100 Hz to 20 KHz

Impedance (ohms) .... 135, 600, 900, Bridged

(Acc. not spec'd.@ 135 ohms below 300 Hz)

7.6.4 Receive Frequency

Range ..... 100 Hz to 20 kHz

Resolution ..... 1 Hz

Accuracy ..... ± 0.1% ± 2 Hz (> -40 dBm)

7.6.5 Metallic Noise

Range ..... 0 to 100 dBrnC

Resolution ..... 0.1 dB

Accuracy ..... ± 1 dB; < 20 dBrn, ± 2 dB

Impedance (ohms) 135, 600, 900

Filters ..... C-msg, P53, 3 kHz, 15 kHz C-notch

7.6.6 Power Influence

Range ..... 40 to 110 dBrnC

Resolution ..... 0.1 dB

Accuracy ..... ± 1 dB; < 60 dBrn, ± 2 dB

Filters ..... C-msg, P53, 3KHz, 15KHz

7.6.7 Bridging Imped. ..... > 50 kilohms

7.6.8 Long. Balance

Range ..... 0 to 70 dB
Resolution ..... 0.1 dB
Accuracy ..... ± 2 dB

7.6.9 DC Loop Current (Into 430 ohms)

Range ..... 0 to 100 mA
Resolution ..... 0.1 mA
Accuracy ..... ± 2% ± 0.3 mA

7.6.10 Caller I.D.:

Rcv. Signal Range ..... -13 to -40 dBm

7.6.11 Telephone # I.D.

Rcv. DTMF Range ..... +3 to -26 dBm
On/Off Time ..... 40 ms/ 40 ms (min.)

7.6.12 DTMF Signalling

Transmit Level ..... -3 ± 1 dBm, 600 ohms
On/Off Time ..... 95 ms / 95 ms

7.7 S.S. INT'FC. (SmartStrap™ Signaling)

DTMF Xmit Level ..... -3 ± 1 dBm, 600 ohms
On/Off Time ..... 95 ms/ 95 ms

7.8 Rem. Downl'd (RS-232, Serial Int'fc. Port)

Baud Rate ..... 19.2 kb / s
Data Structure ..... 8 bits, 1 stop bit, no parity
Protocol ..... XModem

7.9 Printer Int'fc. (RS-232, Serial Int'fc. Port)

Baud Rate ..... 1200 b/s
Data Structure ..... 8 bits, 1 stop bit, no parity
Flow Control ..... H/W handshake (C9929)

7..10 Modem Int'fc. (Via T1,R1 Leads)

Baud Rate ..... 2400 b / s
Xmit Level ..... -10 ± 1 dBm, 600 ohms
Receive Level ..... -10 to -43 dBm, 600 ohms
Compatibility ..... CCITT V.22 bis
("AT" Command Set)

8. PRESET DEFAULT VALUES

8.1	Result Storage	On
8.2	Dialtone Detection	Enabled
8.3	Units of Measure	U.S.
8.4	Rest Timer	1 minute
8.5	Pwr. Down Timer	2 minutes
8.6	Time Clock Mode	12 Hour
8.7	Signal Termination	600 ohm
8.8	Noise Filter	C-Message Weighted
8.9	Fault Limits	
8.9.1	AC volts	A: < 10; U: > 15
		Hazardous : > 60
8.9.2	DC volts	A: < 3; U: > 5
		Hazardous : > 135
8.9.3	Res.Fault (kilohms)	A: > 1000; U: < 150
8.9.4	Leakage (kilohms)	A: > 750; U: < 100
8.9.5	Cap. Balance (%)	A: > 95; U: < 90
8.9.6	Met. Noise (dBrn)	A: < 20; U: > 30
8.9.7	Power Inf. (dBrn)	A: < 80; U: > 90
8.9.8	Noise Bal. (dB)	A: > 60; U: < 50
8.9.9	Long. Balance (dB)	A: > 60; U: < 50
8.9.10	Loop Current (mA)	A: > 23; U: < 20
8.9.11	R-G Current (mA)	A: > 37; U: < 33
8.9.12	Gnd. ohms (ohms)	A: < 25; U: >27
8.9.13	Loop Res. (ohms)	A: < 1400; U: > 1500
8.9.14	T & R Res (ohms).	A: < 700; U: > 750
8.9.15	Unbal. Res.(ohms)	A: < 10; U: > 20
8.9.16	Sig. Level (dBm)	A: > -8.5; U: < -10.0
8.9.17	G-S 404 Hz (dB)	A: -2.0 to +0.5
8.9.18	G-S 804 Hz (dB)	A: -1.0 to +0.5
8.9.19	G-S 1204 Hz (dB)	A: -0.5 to +1.5
8.9.20	G-S 1404 Hz (dB)	A: -0.5 to +1.5
8.9.21	G-S 1604 Hz (dB)	A: -0.5 to +3.0
8.9.22	G-S 1804 Hz (dB)	A: -0.5 to +3.5
8.9.23	G-S 2004 Hz (dB)	A: -0.5 to +4.5
8.9.24	G-S 2804 Hz (dB)	A: 0.0 to +6.5
8.9.25	G-S 3004 Hz (dB)	A: 0.0 to +7.5
8.9.26	Idle POTS DCV	H: -60 to -46.5; L: -4 to +4
8.9.27	Busy POTS DCV	H: -46 to -26; L: -25 to -4

Note: Marginal (M) values occur between "A" & "U" limits.