Appendix A
Specifications

General Specifications

POWER:	**Operating Voltage Range:** Minimum 90 V AC, Maximum 264 V AC. **Line Cords and AC Mains Inlet:** 16 A or greater, 250 V for Class-1 equipment in cold conditions. **Equipment Outlet:** 15 A, 250 V for Class-1 equipment in cold conditions for Australian, European, and United States versions. Reduced to 13 A for the United Kingdom version.
PROTECTION CIRCUITRY:	Signal I/O connections (excluding the RS-232 port and earth connections) withstand a continuous input of 264 V AC, 47-63 Hz, or ± 264 V DC without causing permanent damage.
SIZE:	9.8 L x 3 D x 8.25 W (inches)
WEIGHT:	<= 5 pounds
TEMPERATURE:	**Storage:** -25 to 50 °C. **Operation:** 10 to 40 °C.
MAXIMUM HUMIDITY:	80 % relative humidity up to 31 °C, decreasing linearly to 50 % relative humidity at 40 °C.

Performance Specifications

LEAKAGE-CURRENT MEASUREMENT:

Ranging: Auto

Configuration: RMS current flowing through the IEC 60601-1 test load or ANSI / AAMI ES1 test load (selectable).

Measurement Range: 0 - 8000 µA True RMS

Display Units: µA

Display Resolution: 1 µA

Accuracy: ±1% of reading (±2 µA) @ DC and 25 Hz to 1000 Hz †
±2.5% of reading (±2 µA) 1kHz tp 200 kHz *†
Frequency response DC to 1 MHz (-3dB)†

†Accuracy (Mains-On-Applied-Part Leakage Current): ± 2 % of reading, ± 6 µA

Crest Factor: <3

Input Impedance: Per Figure 15 of IEC 601-1 1995

* Fullscale input

VOLTAGE MEASUREMENT:

Ranging: Auto

Range (Mains Voltage): 90 to 264 V True RMS

Range (Accessible Voltage): 0 to 264 V True RMS

Display Units: V

Display Resolution: 1 V

Accuracy: ± 2 % of reading, ± 2 V

Crest Factor: <3

Frequency Response: DC to 1000Hz (-3dB point)

DC Input Impedance: 1 MΩ

EARTH-RESISTANCE MEASUREMENT:

Ranging: Auto

Display Units: Ω

Range: 0 to 1.999 Ω

Display Resolution: 0.001 Ω

Accuracy: ± 2 % of reading, ± 5 mΩ

Current Source Amplitude: 1 A DC (± 10 %)

INSULATION MEASURMENT:

Ranging: Auto

Display Units: MΩ

Range: 0.5 MΩ to 100 MΩ

Display Resolution: 0.1 MΩ

Accuracy: 0.5 MΩ to 20 MΩ, ± 2 % of reading, ± 200 kΩ;
above 20 MΩ, ± 5 % of reading,, ± 200 kΩ

Voltage Source Amplitude: 500 V DC (± 10 %)

VDE DIFFERENTIAL CURRENT:

Ranging: Auto

Display Units: µA

Range: 10 µA to 10000 µA

Display Resolution: 10 µA

Accuracy: ± 2 % of full scale

MAINS ON APPLIED PARTS:

Voltage: >= 110 % of input Mains voltage (at no load)

Phase: In-phase or 180 ° out-of-phase with Mains voltage

Input/Output Connection Specifications

MAINS INLET:	Standard IEC 60320-1 / C20 Mains inlet rated at 16 A and 250 V for Class-1 equipment in cold conditions
EQUIPMENT OUTLET (TEST RECEPTACLE):	Specific to version of instrument: AS 3112-1993 (Australia) BS 1363A (English – United Kingdom) NEMA 5-15R (English – United States) Schuko CEE7 (English) Schuko CEE7 (French, German, Italian and ROW [International])
SIGNAL CONNECTIONS:	Three safety-style banana jacks: RED – signal input / output connection GREEN – direct connection to Equipment Outlet Earth BLACK – signal input / output connection for Dual-Lead-Voltage and Dual-Lead-Leakage tests
APPLIED-PART CONNECTIONS:	Ten banana jacks that enable the connection of applied-parts (in some cases ECG) leads to the meter circuit: RA (or R and AP1), RL (or N and AP2), LA (or L and AP3), LL (or F and AP4), and V1-V6 (or C1-C6 and AP5 - AP10)
RS-232 SERIAL PORT:	A serial interface to be used with the Ansur ESA601 Plug-in software, or in Remote Mode, enables remote operation of the ESA601, and provides a download port for processor firmware. In Local Mode, this port can be used to output test results to a serial ASCII printer when the PRINT SWITCH is pressed.

Computer-Setup Specifications

SERIAL CABLE	Null modem is required (P/N 75029)
PORT:	Bidirectional (Data Communications Equipment) RS-232
BAUD RATE:	9600
PARITY:	None
START BITS	1
STOP BITS:	1
DATA BITS:	8