MultiPro 2000

User Manual

▶Compact ▶Lightweight ▶Easy to Use

Electrical Safety Analyzer

(and Multi-Parameter Simulator)

NETECH

Innovative Instruments Since 1987

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Notices

Copyright

Quality Assurance

Netech is ISO 9001-2015 Registered. This instrument was thoroughly tested and inspected according to Netech's ISO 9001-2015 quality system and test procedures and found to meet those specifications when it was shipped from the factory. Calibration measurement Instruments are traceable to the NIST (National Institute of Standards and Technology).

Trade Mark

Netech and MultiPro 2000 are trademarks of Netech Corporation. Any other trademark names used in this manual are only for editorial purposes and the benefit of the respective trademark owner with no intention of improperly using that trademark

Unpacking and Inspection of the Unit

Before unpacking the MultiPro 2000, inspect the shipping box for any visual damage. If damage is found, do not unpack the unit and immediately notify the shipping carrier. If no damage is found to the shipping box, open the box and perform a visual inspection of the MultiPro 2000. If any damage to the unit is observed please contact Netech Customer Service.

Technical Support

For technical support questions, either email Techsupport@NetechBiomedical.com or Call 1-800-547-6557 or (1-631-531-0100)

Refunds and Credits

A Return Material Authorization (RMA) number must be obtained from our service or customer service dept, before a product is returned for refund or credit. The RMA number should be clearly marked on the package along with a statement indicating the reason for return.

Restocking Charges

Products returned within 30 days after purchase are subject to a restocking charge of 15%. Products must be shipped prepaid in original shipping cartons with all accessories and parts. Additional charges will be applied for any missing parts or accessories.

Repair and Recalibration

Products returned for repair or recalibration must obtain a RMA (Return Material Authorization) from our service department after completing a service request form our website https://www.NetechBiomedical.com/repair or contact Netech Customer Service Department at CustomerService@NetechBiomedical.com

Calibration

The MultiPro 2000 is factory calibrated, thoroughly tested, and meets Netech's ISO 9001-2015 quality standards.

Any attempt to remove or tamper with the calibration seal will void the warranty.

General Contact Information

Netech Corporation, 110 Toledo St, Farmingdale, NY 11735.

Phone: 631-531-0100, (or) 1-800-547-6557

Website: www.NetechBiomedical.com

Email: sales@NetechBiomedical.com

Warnings

SYMBOL	DESCRIPTION
	Caution: Important Safety Information
	Hazardous Voltage
CE	Conforms to European Union Directive

Warnings

Unauthorized user modifications or improper use beyond the scope and purpose of the unit as published in this manual may result in shock hazard and injury. Netech will not be liable for any injury sustained due to the modifications or improper use.

Do not apply more than the rated input voltage.
Do not connect a device that exceeds the rated current.
Do not use the unit around explosive environments.
Do not use the unit if it is damaged.

Intended User

The MultiPro 2000 is intended to be used by a trained Biomedical Technician who performs preventive maintenance and repair of medical equipments.

It is intended to be used in an environment outside of the patient care area and not to be used to test units while connected to patients.

Introduction

Description

The Multi-Pro 2000 (PN: 560) is a full featured, compact portable analyzer designed for the testing of the electrical safety of medical devices. The analyzer tests to US standards (ANSI/AAMI ES1, NFPA 99) or international standards IEC60601-1 by user selectable patient loads. It is compact, lightweight and user friendly unlike any other safety analyzer in the market. The Analyzer is a measurement device as well as a waveform simulator.

The Analyzer is capable of saving over 5000 test records and can be uploaded to a PC for printing and record keeping using the software shipped with the unit. Optional stand alone "Equipment Maintenance Software" is also available for the PCs.

MultiPro 2000 Features

- Line Voltage.
- Equipment current
- Polarity Check of the inlet AC power.
- Chassis (Enclosure) Leakage.
- Ground wire (Earth) leakage.
- Point to point leakage.
- Ground Wire Resistance.
- Patient leads leakage.
- Patient Isolation leakage test.
- Save and print test results.

The following waveform simulation functions are available.

- ECG – Normal Sinus Rhythm (NSR).
- Performance – SIN, SQUARE, TRIANGLE, PULSE.
- User selectable Amplitude and rate.

The waveform output is through the 10 color coded ECG snap posts marked RL, LL, RA, LA, V1, V2, V3, V4, V5, and V6. All 12 ECG configurations are out put through the 10 outputs.

Preparation for Use

The MultiPro 2000 is shipped with the following items included in the customized hard case:

- MultiPro 2000
- User Manual USB
- Power Cord
- 2 Test Leads
- Kelvin Cable
- Serial to USB Interface Cable
- ProCom Print Software CD
- Calibration Data Sheet
- Calibration Certificate

Specifications

Leakage Current

All Current measurement loads are user selectable to AAM ES1 or IEC60601-1 Load. The meter readings correspond to the RMS value of the current measured.

Measurement Mode: True RMS

Test Load: AAMI ES1 or IEC 60601

Range: Auto range: 0 to 99.9, 100 to 2000 uA.

Accuracy: DC to 100 Hz: + 1% of the reading + 2 uA.
100 Hz to 1 kHz: + 2% of the reading + 3 uA.
1 kHz to 1 MHz: + 10% of the reading + 10uA.

Current Range: 0 – 99.9, 100 - 2000 Micro-Amps.

Power Cord Ground Resistance

Measurement Mode: Two Wire

Test Current: 100 mA DC.

Range: 0 to 99 and 100 to 2400 MilliOhms.

Accuracy: + 2% of the reading + 2 MilliOhms.

Mains Line Voltage Measurement

Range: 90 Volt to 255 V rms.

Accuracy: + 2% of reading +2 V

Device Current

Range: 0.1 A(RMS) AC to 20 A C RMS.

- Accuracy: + 2% of reading +0.1 A

General Specifications

Physical Dimensions: Size: 10.25" X 6.25" X 2.5"
Weight: 4 lbs.

Temperature: Operating range: 15°C - 35°C (59°F -95°F)
Storage Temperature: 0°C - 50°C (32°F -122°F)

Power: 110 Volt Units (PN: 560-110): 90 V AC to 130 V, 50 Hz to 60 Hz, 20 A maximum.

220 Volt Units (PN: 560-220): 180 VAC to 260 V AC to 130 V, 50 Hz to 60 Hz, 16 A Maximum.

Simulator

NSR (Normal Sinus) Rate: 30, 60, 70, 80, 90, 100, 120, 150, 180, 210, 240, 270 and 300 BPM.

Accuracy: +1% (+ /-1 BPM).

Amplitude: User Selectable from 0.1 to 4.5mV.

Accuracy: + 2 % (+0.05mV), peak to peak.

Performance: (SINE, SQUARE, TRIANGLE, PULSE)

Amplitude: Same as NSR.

Accuracy: + 5 % of the reading (+ 0.1mV).

Rates: 0.1 to 0.5 Hz, 1 to 9 Hz, in 1 Hz Increments, 10 to 60 Hz in 5 Hz increments.

Accuracy: +5%

Part Numbers and Ordering Information

Part Number: **560-110:** MultiPro 2000 Electrical Safety Analyzer 110V

Part Number: **560-220:** MultiPro 2000 Electrical Safety Analyzer 220V

Standard Accessories (Included with the Unit):

560-HRD-CASE: Hard Carrying Case

552: AC Power Cord

553: Kelvin Cable

503: Test Lead

Various optional accessories including universal connector kits are available. Visit www.NetechBiomedical.com for more information.

Instrument Familiarization

Before getting started, it is important to get familiar with the control and operation of the unit.

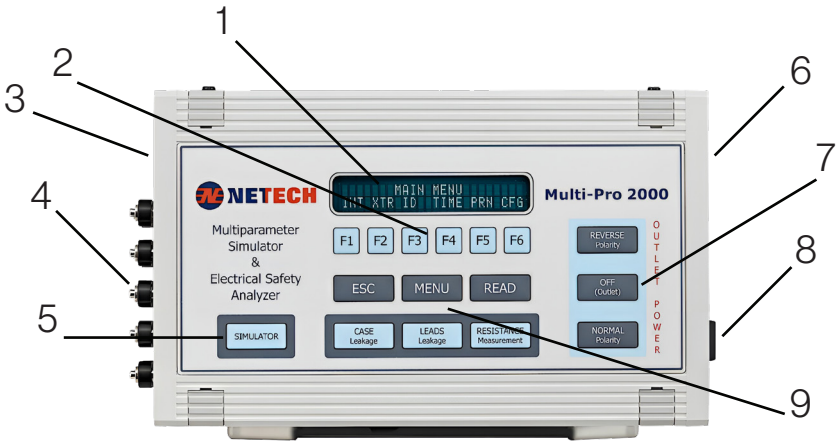


Figure 1. MultiPro 2000 Controls

Number	Description
1	Vacuum Florescent Display
2	Function Keys, F1, F2, F3, F4, F5
3	ECG Input Connectors
4	10 Lead Universal ECG
5	Simulator Menu Key
6	Test Outlet
7	Outlet Power
8	On/Off Switch
9	Keypad

Display

The Multi-Pro 2000 incorporates a vacuum fluorescent display. The display ensures high readability even under the lowest ambient light conditions.

Keypad:

The keypad utilizes soft touch tactile keypads, providing a fluid resistant barrier to the internal circuitry. When a key is pressed a beeping sound will be heard to indicate that the key is activated.

The following are the description of the key functions.

- F1, F2, F3, F4, F5, and F6:- These are interactive keys associated with the menu selections.
- "ESC":- Pressing "ESC" key will get back to the previous menu.
- "MENU":- Pressing "MENU" key will bring back to the "MAIN MENU"
- "READ": "READ" key is associated with the measurement functions as well as to save the displayed test data in to the storage memory.
- "CASE LEAKAGE":- Case Leakage Measurement Function Key. Pressing the key will display the "CASE LEAKAGE" Menu with the prompt "Select Polarity" to enable further measurement options.
- "LEADS LEAKAGE":- Leads Leakage Function Key. Pressing the key enables the "LEADS LEAKAGE" Menu selections.
- "RESISTANCE MEASUREMENT":- Resistance Measurement key enables the power cord ground wire resistance measurement menu with the prompt to connect the Kelvin Cable

  to the chassis or the earth ground point of the unit under test

(UUT).

- "SIMULATOR": Simulator Key enables the Simulator menu selections. Further waveform selections are available with F1, F2, F3, F4 and F5 keys.

Power Switch

The main power switch is located on the right side panel of the Multi-Pro. This switch turns the power on/off to the Multi-Pro 2000.

Test Outlet

The test receptacle used in the Multi-Pro is a Hospital Grade 20 Amp (NEMA-5-20R). It will accept all standard line cords as well as horizontally oriented neutral prongs on 20 Amp line cords.

Various International power outlet configurations are available. Check with factory for the specific Country.

Power to the test receptacle is in the off mode. Manual selection of normal or reverse polarity must be selected using the keypad to energize the test receptacle during leakage measurement functions.

Menu Functions and Operations

The operation of the MultiPro 2000 is Menu driven. It is simple and easy to use following the interactive Menus with soft keys (F1,F2, F3, F4, F5, F6) and dedicated key functions such as "Simulator" "Case Leakage", Leads Leakage", Resistance Measurement".

Main Menu

Following are the abbreviation and description of each "Main Menu" functions.

• "**INT**"- Internal measurements.

Additional menu selections in this category are:-

"**VOL**"- Input Voltage,

"**CUR**"- Device current

"**POL**"- Polarity check of the AC input.

Refer to "Measurement Section for details.

"**EXT**" - External Measurement.

- "**ID**"- For entering a unique (4 Digit) reference ID of the instrument under test.

This option is useful for measuring the leakage current of Hard Wired Units, Non AC Powered (Battery Operated) or any devices.

- "**TIME**" - Setting real time clock.
- "**PRN**" – Printing the test results and Header.
- "**CFG**" – Configuration. (This function is only available for software upgrade and other factory settings)

In addition to the "MAIN MENU" function, dedicated keys are provided for each of the main functions. They are described as follows:-

- "**CASE Leakage**" – Case Leakage current Measurement.
- "**LEADS Leakage**" Leads Leakage current measurement.
- "**RESISTANCE Measurement**"- Ground conductor resistance Measurement.
- "**SIMULATOR**" – Waveform Simulation selection.

• "**ESC**" – ESC key takes back to the previous Menu.

• "**MENU**" – Takes back to the Main Menu.

The power to the outlet of the unit under test is controlled by the "OUTLET POWER" key functions.

• "**NORMAL POLARITY**" – Set polarity to Normal.

• "**OFF**" – Enables the Power the outlet to turn off.

• "**REVERSE POLARITY**" – Set the outlet to reverse.

Getting Started

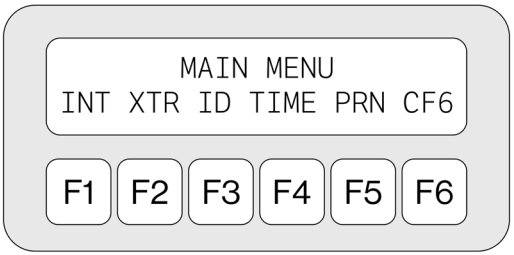
Connect the Analyzer to a grounded three prong outlet. The Analyzer is intended for use with single phase ground power. It is not intended for dual phase power configurations.

Turn the Analyzer on using the rocker switch on the side panel. The Analyzer will perform a series of self tests and momentarily display the model name and the software version followed by the "MAIN MENU" as shown below.

Menu Descriptions

Before connecting the DUT (Device Under Test), it is important to get familiar with the operation of the unit and observe the safety precautions.

The following is the screen shot of the "Main Menu" on power up as shown.



"**INT**" :- Internal Measurement

Line Voltage Measurement

From the "MAIN MENU" select "INT" by pressing F1 Key. The display will change to the "INTERNAL MEASUREMENT "Menu Press F1 Key ("VOL") and the line voltage will be displayed. Press "ESC" to go back to the previous Menu

("INTERNAL MEASUREMENT "Menu).

("CUR"):- Device Current Measurement.

This function measure the current consumed by the DUT. To measure the current, press F2 ("CUR") from the "INTERNAL MEASUREMENT" Menu. Press "READ" to read the device current.

If the out let is off, normal polarity will be activated and the unit (DUT) will turn on. Press "ESC" to go back to the previous Menu

("INTERNAL MEASUREMENT "Menu).

("POL") Polarity Check of the Inlet Power.

From the "INTERNAL MEASUREMENT "Menu select

"POL" by pressing F3. The polarity of the incoming AC power will be checked by measuring the voltage between HOT and Neutral, HOT and Earth ground as well as and Neutral and Earth ground. While

checking polarity the display will indicate “Checking.....” for a brief period and the polarity will then be displayed as “Normal Polarity” or “Reverse Polarity” depending on the result.

If an “Error” message appears either the outlet the Multi-Pro is attached to or the power cord for the Multi-Pro may be defective. Press “ESC” to return to the previous menu or press “MENU” to return to the main menu.

EXR”:- External (Leakage) Measurement

It is also referred to as point to point Leakage.

This function measures Leakage current between two points on the DUT (Device under Test)

“ID”:- Device Identification Input Function.

MultiPro 2000 is capable of storing over 5000 test results in the Non-volatile memory and can be uploaded to a PC, to save or print the records.

The “Save” option is available in all the measurement Menu (refer to Measurement Section).

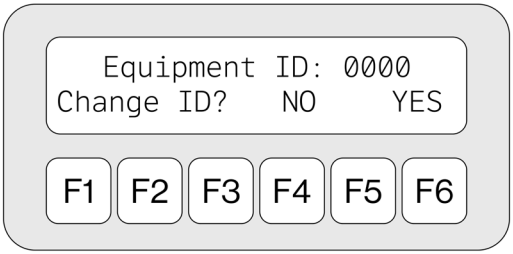
This function is indended for the user for entering a unique 4 digit number for the Device under Test (DUT). This will enable the test data to be stored under this unique ID number. Here is how to enter the Device ID.

From the “MAIN MENU” select “ID” using key F3. The display will change to “Equipment ID: 0000 as shown Screen Shot 2 below. If a Device ID is already entered it will show in the menu.

To change the ID, press F6 (yes). Press F1, F2, F3, F4 keys to enter a

unique ID for the unit under test.

• If an ID is already entered for the unit under test press F4 (N0).



Note:- When testing multiple units it is important to change the ID as the test records are saved under this ID number.

“TIME”:- Time re setting Function.

Pressing F4 from the “MAIN MENU” activates the “Change Time” menu. To change the time use the appropriate keys associated with the menu.

Measurements

Earth Leakage:

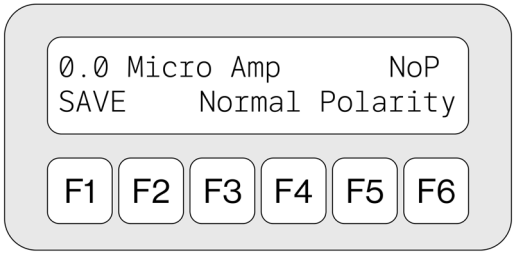
Earth leakage is compliant to IEC 60601 and ANS/AAMI ES1 standard. The default compliant standard is set to AAMI ES1. The Compliant standard can be changed by pressing F1 to toggle between (AAMI “ES1” or “IEC” 60601). This will be saved to the memory until it is changed again.

There are four Leakage measurement options.

- Normal Polarity
- Reverse Polarity
- Open Neutral
- OFF. Select the desired polarity.

The Earth leakage measurement is through the internal ground conductor and the external test lead is not required. To measure the current flowing in the protective Earth circuit, press the key marked “Case Leakage”. The display will indicate “CASE LEAKAGE” and “Select Polarity” and “ES1” /IEC (AAMI ES1) or “IEC” 60601) selection.

Select the desire polarity and press “READ”. The display will indicate the leakage as well as the polarity selected as shown in Screen Shot 3. Press F1 (“SAVE”) to save the results.



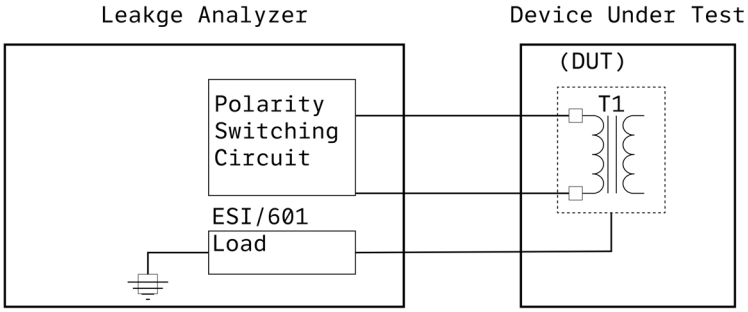
To save the result press F1 (“SAVE”). This will save the test data in the memory under Device ID.

To measure leakage for open neutral conditions first select first select “NORMAL POLARITY” followed by F6 to open the neutral.

The auto-range feature of the MultiPro will select the appropriate range automatically. For reading in excess of 100 micro amps, the decimal point will not be displayed.

The user can switch between Reverse and normal Polarity at any time to verify readings or, to determine if any service action performed on the device under test affects the readings.

The following block diagram shows the electrical connections between The Safety Analyzer and the device under test.



Earth Leakage Measurement Circuit

Case Leakage: Using External Leads

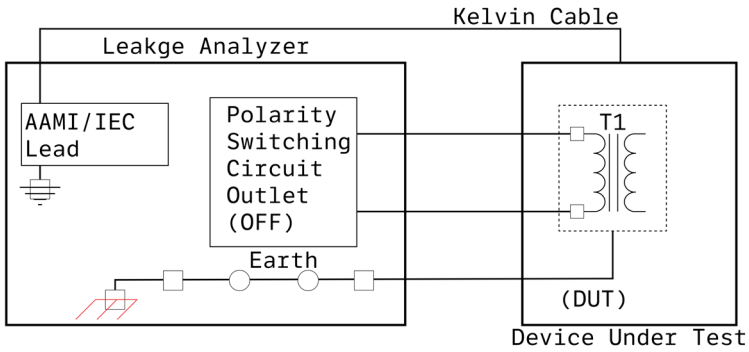
Case /Enclosure leakage measurement is similar to Earth Leakage measurement except the leakage current is measured through the external test Lead.

To measure the case leakage/Enclosure leakage, attach the external Kelvin cable to the case (conductive surface) of the (DUT) device under test. Select the desired polarity and press “READ”.

The display will indicate the leakage as shown in the Screen Shot 4. Press F1 (“SAVE”) to save the results.

Case leakage measurements can be made for various line conditions, power on, off, normal or reverse polarity, closed or open ground, Closed or open neutral.

The following block diagram shows the electrical connections between The Safety Analyzer and the device under test.



Case (Enclosure) Leakge Block Diagram

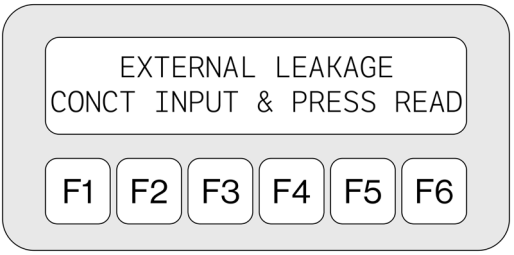
External Leakage: Point to Point Measurement

It is also referred to as point to point Leakage. This function can be used to measure Leakage current flowing from any conductive surface of the DUT and Earth ground.

From the “MAIN MENU” select “XTR” (F3 Key). “EXTERNAL LEKAGE” Menu will be displayed with the prompt to connect the Input Cable (Screen Shot 4). The external input Jacks are on the left panel marked “INPUT”. To measure the leakage between two points,

connect one lead to one point (Earth Ground) of the DUT and the other lead to another conductive point on the DUT and press “READ”.

Press F1 (“SAVE”) to save the results.

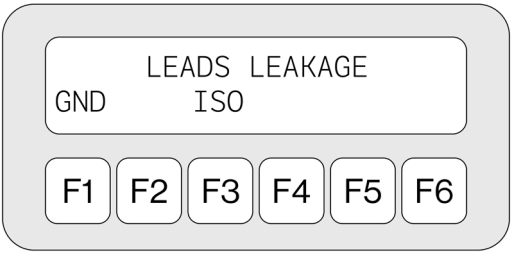


Leads Leakage

This function is only applicable to devices such as ECG (EKG) monitors or DUTs with direct patient connections.

The following two modes of measurement function available as shown in Screen Shot 5.

- “GND” – Measures current flowing through the leads to ground. In this option leakages of individual leads or all leads can be selected.
- “ISO” – Measures current that flows to an isolated AC voltage applied to the leads and the earth ground.



Leads to Ground Leakage

Press F1 “GND” and select the desired leads from the next menu. Press “READ” and the leakage current will be displayed. Press F1 (“SAVE”) to save the results.

Press “ESC” to go back to the previous menu.

The block diagram on the following page represents the electrical connection.

Leads Isolation Leakage

Caution:

In this test an isolated AC voltage equal to or 10% higher is applied to the leads and earth ground. The voltage is current limited but it is lethal. DO not touch the exposed metal parts of the ECG post or the analyzers reference ground.

To measure the isolation leakage current, select “ISO” (F3) and press “READ”. The leakage current will be displayed as shown.

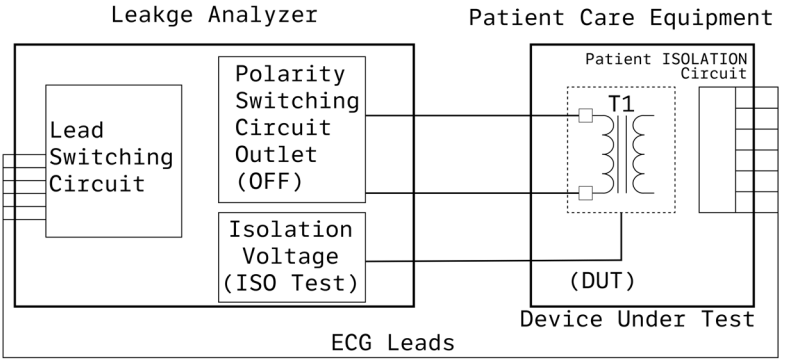
In Isolation leakage test, the Analyzer injects, current limited isolated AC voltage between the earth ground and the patient leads of the DUT (patient monitoring device). Although the voltage is current limited it is lethal.

Patient Safety Precaution:

Since the test method injects potentially hazardous current levels into the electrocardiograph and the related power system, do not conduct tests in an occupied patient location or while the patient is connected to a related power system branch circuit.

This test verifies that the isolation system on the device under test is operating properly.

The following block diagram shows the electrical connections between The Safety Analyzer and the device under test.



Leads Leakge/Isolation Test Circuit Block Diagram

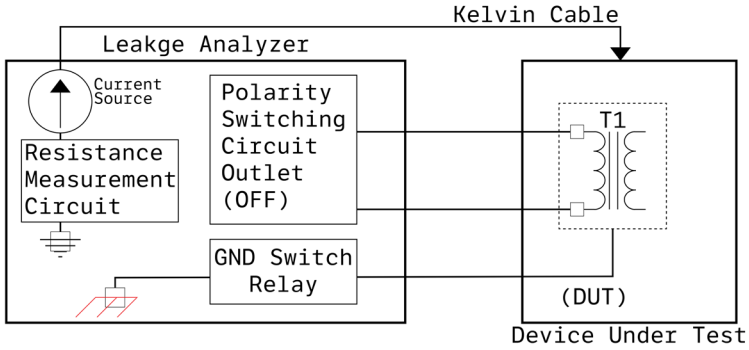
THE EKG ISOLATION VOLTAGE IS EQUAL OR APPROXIMATELY 10% HIGHER THAN THE AC MAINS AND ALTHOUGH IT IS CURRENT LIMITED TO 1 mA, IT IS POTENTIALLY LETHAL.

Power Cord Ground Resistance

To measure line cord ground resistance for the device under test, depress the switch labeled “RESISTANCE Measurement”. The display will read “POWER CORD RESISTANCE/Connect Klvn Cable”. Once Kelvin cable is attached to a suitable ground on the device under test, press the “READ” switch on the front panel the unit will determine the resistance in 3 seconds.

Ground resistance will be displayed in whole numbers “XX mOhms/ Cord Resistance”. An open ground condition will result in the “Check Ground!!!” Error message.

The following block diagram shows the electrical connections between The Safety Analyzer and the device under test



Ground Wire Resistance Measurement Block Diagram

Simulator Function

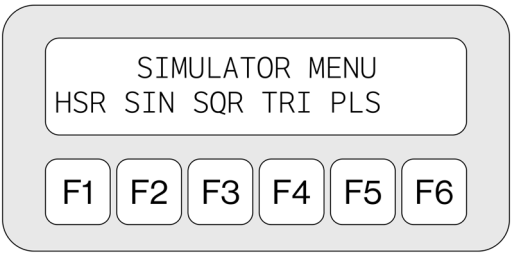
The Simulator function menu is activated by the “Simulator” key. The following is the screen shot of the Simulator Menu (Screen Shot 6). The following simulator selections are the available.

NSR – Normal Sinus Rhythm

- Rates: 30 to 300 BPM.
- Amplitudes: 0.1 to 4.5 mV.

Performance Waveform

- SINE, TRIANGLE, SQUARE, PULSE
- Rates: 0.1 to 60 Hz
- Amplitudes: 0.1 to 4.5 mV.

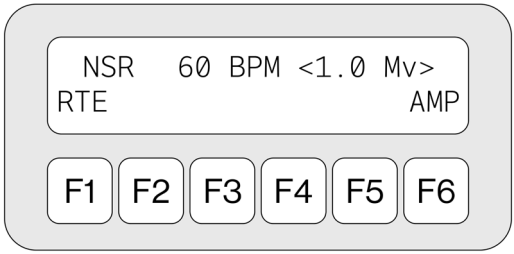


Connect the ECG leads to the respective ECG Snap posts. If the DUT is off, press the Normal Polarity to turn on the unit.

Select the desired waveform using F1, F2, F3, F4 or F5, from the Simulator Menu.

To change the rate, press F1 and select the desired Rate using F1 to F6 keys. The rate selected will be saved in the memory until it is changed again. Press “ESC” to go back to the previous Menu.

The default values of the rate and amplitude of the waveform is displayed as shown in Screen Shot 7. The amplitude and rate selection can be done from this Menu. Amplitude selection can be achieved by using F1 to F6 keys, “<” “>” indicates the additional selections available.



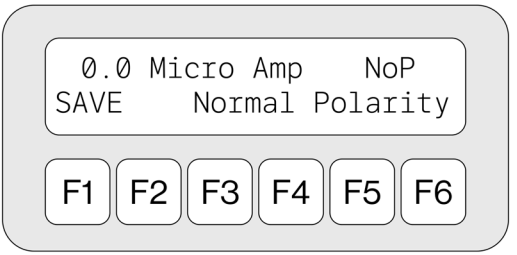
Save and Print Test Results

Test results can be stored into the memory under the user specific "ID" and available to be uploaded to a PC using the serial to USB cable.

Set the device ID (Main Menu), if not set already. Once the measurement is done press save by pressing F1.

Saving Test Results in the Internal Memory

To save the test result Press F1 from the measurement menu as shown Screen Shot 8.



After saving the test results of the DUT's under test, it can be uploaded to the PC. All the test results for the DUT under test is saved under the corresponding ID number entered in the non volatile memory.

To continue testing of another DUT, make sure to change the ID number. Otherwise the new test results will be saved to the previous Equipment ID.

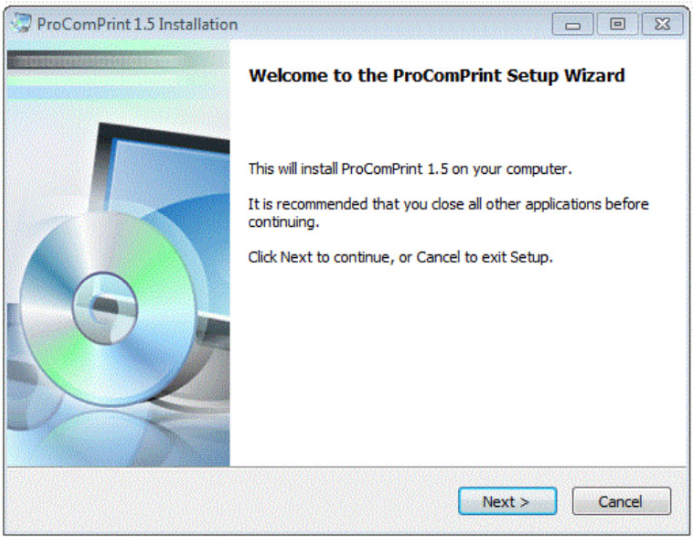
ProComPrint Software Setup

ProComPrint (Ver1.5) included in the CD is a basic version of the ProCom software for quickly configuring a HyperTerminal communication protocol and uploading of the test data to a word format file for printing and saving the test results to a file in the PC.

Note: The advanced ProComPrint (Ver2.0) is a database version customizable to meet individual requirements.

Run the ProComPrint by double clicking the ProComPrintSetup.EXC. Follow the on screen instructions. When the installation is complete a window appears as shown on the following page.

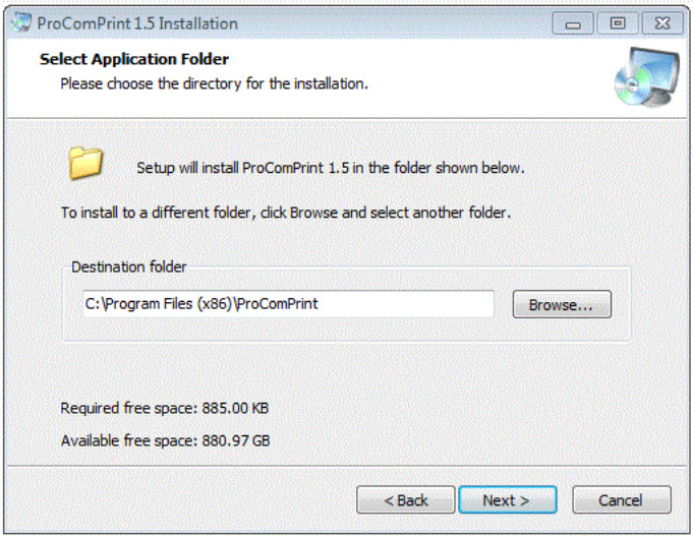
- To setup the software follow the instructions below.
- Insert the ProCom Software CD in the PC.
- Double click on the Setup.Exe
- The following welcome screen will appear



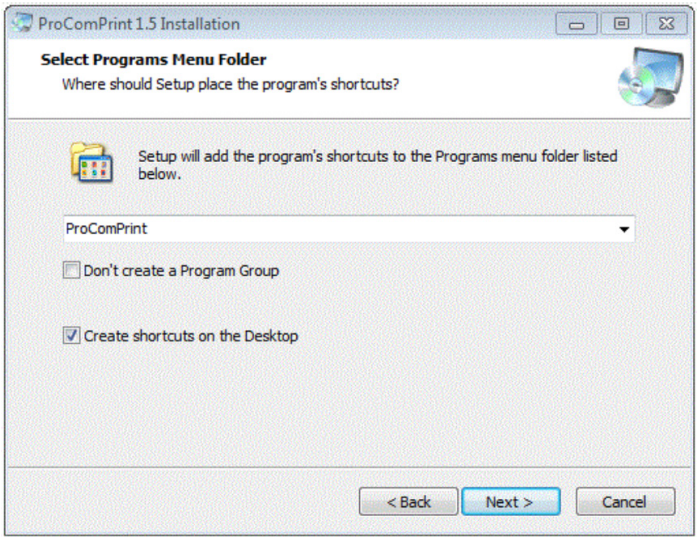
- Click Next.

The following “Select Application Folder” Screen appears as shown below.

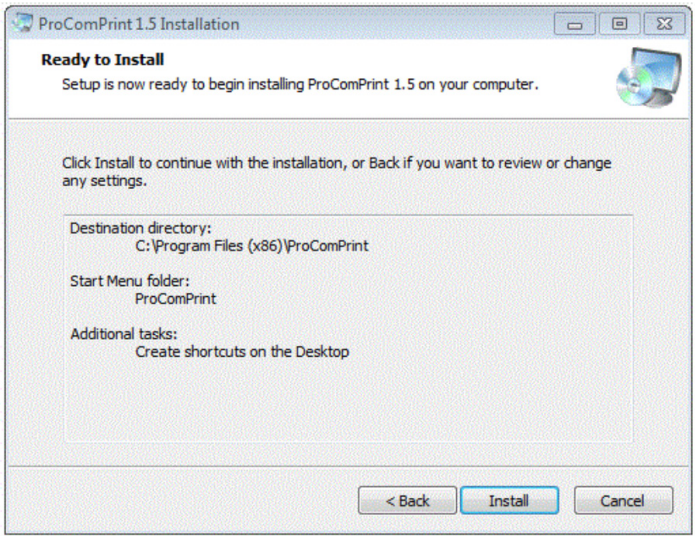
The destination folder to which the results are to be saved need to be set. The default folder is set to C:\ProgramFiles\x86\ProComPrint. To change the folder click, on “Browse” and set the folder in the desired directory.



• Click Next. The following screen will appear.

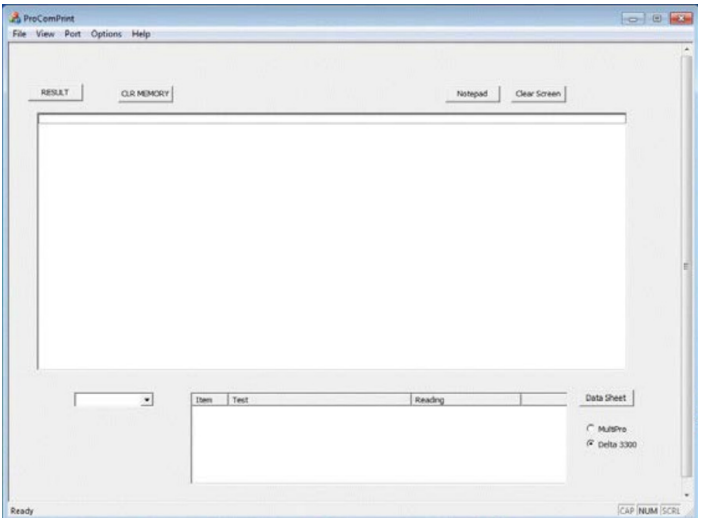


Click Next. The following screen will appear.



- Click Install.
- Click “Finish” in the next screen.

The following ProPrint Main screen will appear.



ProComPrint Software Features

Following are some of the main features of the software.

Standard Pull Down Menu (File, Edit, Port, Help, Options). Only the relevant menus are enabled in the basic ProComPrint Version 1.0.

In addition to pull down menu there are six individual selections:

"**Result**": – Click on this will down load all the saved test results from the MultiPro memory into the top screen.

"**Select Equipment ID**":-If multiple units are being tested, the results of the individual units can be down loaded by selecting the Equipment ID using the "v" arrow.

"**CLR MEMORY**" :  - This will clear all the saved records from the EXPMT 2000 Memory.

"**Notepad**": - The down loaded test results can be opened in the

notepad for filling necessary Device information and save in the PC and print.

"**Clear Screen**":- This will clear the test results displayed in the screen.

"**Data Sheet**":- A sample "Word" template of the printout (as shown in the following page) is included in the "ProComPrint Ver 1.0.

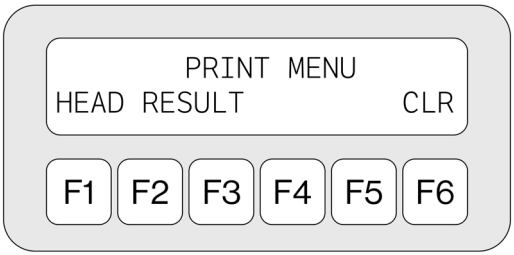
Note: Sample Data Sheet can be opened and printed only if a licensed copy of the word is installed in the PC.

The test results that are saved will be automatically filled in the appropriate fields.

Uploading Test Results

The test results can be uploaded to the PC from the MultiPro 2000.

To upload all the test results, select "PRN" (F5) from the "MAIN MENU". The "Print MENU" will be as shown below (Screen Shot 9).



The following are the Print menu options:-

"HEAD" – Select F1 for uploading a blank header with user editable fields.

"RESULT"- Select F3 for uploading all saved test results.

"CLR" – Select F6 for clearing all the records saved in the memory.

The test records that are uploaded to the PC can be saved in to a text file. As mentioned earlier, the file can be opened on notepad and fill in all relevant DUT information and saved to the PC for printing and record keeping.

Warranty

Netech warrants this instrument to the original purchaser, as purchased from a Netech distributor or dealer, will conform to the written specification as of the date of its manufacture, for two years from the date of purchase. The second-year warranty is contingent upon returning the unit to the factory for the annual recalibration at the end of the first year warranty. Netech warrants this instrument against defects in materials and workmanship. If the instrument fails to conform to these warranties, Netech will repair or replace the unit and/or its components within a reasonable period; if the MULTIPRO 2000 is returned, shipping prepaid, to Netech's facility at Farmingdale, NY, USA within the warranty period as expressed above.

These warranties are made upon the expressed condition that:

1. *The purchaser promptly notifies Netech in writing of any nonconformity with the above warranty including a detailed explanation of the alleged deficiencies.*
2. *The MultiPro 2000 is returned to Netech at the buyer's expenses only after obtaining the proper RMA authorization from Netech.*
3. *Netech will not be liable for any incidental or consequential damages.*
4. *In the opinion of Netech upon inspection, the MultiPro 2000 has not been misused, altered, or damaged due to the abnormal handling and/or operation.*
5. *Repairs to the MultiPro 2000 and/or its components have not been made by anyone other than Netech or one of its authorized repair agents.*
6. *The MultiPro 2000 has not been modified, altered, or changed in any manner by anyone other than Netech or one of its authorized repair agents.*
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Appendix: A

Current Revision: R2 09/23/25

Pages revised from the previous Revision (R1).

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