

USER GUIDE for DATAprobe Tester 1500



The optical continuity DATAprobe Tester for the utility meter reading industry.

Table of Contents

<i>Contents</i>	<i>Page</i>
General Overview	2
Testing Information	2 - 3
Description of Test Fixture	3
Diagrams of Test Fixture	3 - 4
Setup and Software Installation	4
Operating Instructions	4
Specifications	5
Repairs and Warranty	5
Return Material Authorization	5

General Overview

uData Net's, formerly known as US Microtel and Dataacquisition Technologies, DATAprobe Tester 1500 is a customer-operated test-set used for on-site testing of the PM250 and PM500 Series of meter reading optical probes.

The DATAprobe Tester 1500 determines the functionality or non-functionality of the Optical Probe's separately from the performance of commonly used peripheral devices, such as the Itron FS/2 and FS/3 handheld units or laptop computers.

Unpacking

Each DATAprobe Tester 1500 is shipped as a single, complete unit including the tester and adapter (as needed). Care must be taken in opening the packaging to ensure against product damage. If you detect any damage, contact our Manufacturing Office by phone (800-610-6797) or email (ybernal@udatanet.com).

Testing Information

The DATAprobe Tester 1500 performs the following tests. *Please note that not all tests are applicable to all models of the PM250 or PM500 Series of optical probes. Actual number of tests performed may vary slightly.

Pass-through Mode Test

The Pass-Through Mode Testing tests the basic electrical continuity of the DATAprobe. It uses electrical signals to test various switches and components needed for proper operation.

- LED On Test - Verifies the LED properly switches on
- LED Off Test - Verifies the LED properly switches off
- LED DTR Test - Verifies proper operation of the LED DTR transmit pin for the serial port
- LED Intensity - Verifies proper operation within the valid voltage setting range
- Transistor On Test - Verifies the Transistor properly switches on
- Transistor Off Test - Verifies the Transistor properly switches off
- Transistor Sensitivity - Verifies proper operation within valid voltage setting range
- Reflection Test - Verifies proper placement of Optical Lens Cover

DTR Jumper Testing

The DTR Jumper Testing verifies that the transmitter jumper will allow proper communication flow through the serial port.

Diagnostic Mode Testing

The Diagnostic Mode Testing begins a series of tests that run internally through the DATAprobe's microcontroller to determine proper operation.

- Version Match Test determines proper version of software being used by the DATAprobe.
- Checksum Match Test - Runs software corruption test
- LED On Test - Determines if the microcontroller is capable of switching on the LED
- LED Off Test - Determines if the microcontroller is capable of switching off the LED
- Transmitter On Test - Verifies the microcontroller can determine the Optical Transistor is on
- Transmitter Off Test - Verifies the microcontroller can determine the Optical Transistor is off
- Serial Input Test - Verifies the microcontroller can detect information coming from serial connection
- Exit Test - Determines the microcontroller can properly exit back into normal operation

Intelligent Mode Testing

The Intelligent Mode Testing continues w/ a series of tests determining the probes ability to handle data.

- Low Frequency Test - Determines the DATAprobe will not respond to a meters pulse rate below an expected range
- Log On Test - Verifies that the DATAprobe properly handles an Optocom™ “Logon” command
- Write Test - Verifies that the DATAprobe can properly write results to storage
- End Test - Verifies that the DATAprobe properly handles an Optocom™ “End” command
- Read Test - Verifies that the DATAprobe can properly read results from storage

Active Power Supply Testing

The Active Power Supply Testing mode determines the steady electrical current state during the “On” and “Off” modes.

RTS Standby Power Supply Testing

The RTS Standby Power Supply Testing verifies an acceptable electrical current range for the “Standby” mode.

** Not all tests are applicable to all models of the PM500 Series Optical Probe, actual number of tests performed may vary slightly.*

Description of Test Fixture

Please refer to Figures 1A. and 1B. below.

- All connectors required for interfacing to a laptop are provided on the front panel of the main test fixture.
- The front panel of the main test fixture also contains the ANSI TYPE 2 optical interface with magnetic coupling for mounting of the Optical Probe head.
- The DB-9 connector interface to the host computer and the 5-pin DIN connector interface for the plug-in triplet power supply are located on the rear panel.
- The plug-in power supply unit provides +5, +12 and –12 volts DC to operate the test fixture and to supply probe power. Do not attempt to substitute a different type of power supply for the one provided.

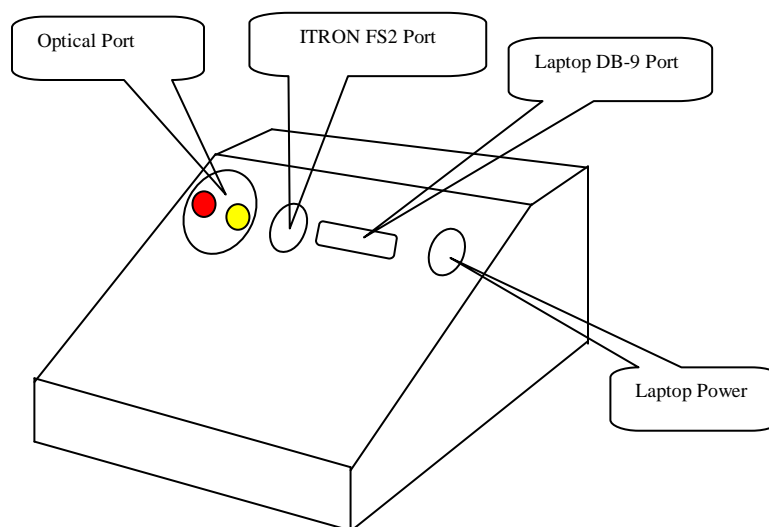


Figure 1A; Main Test Fixture –Front view

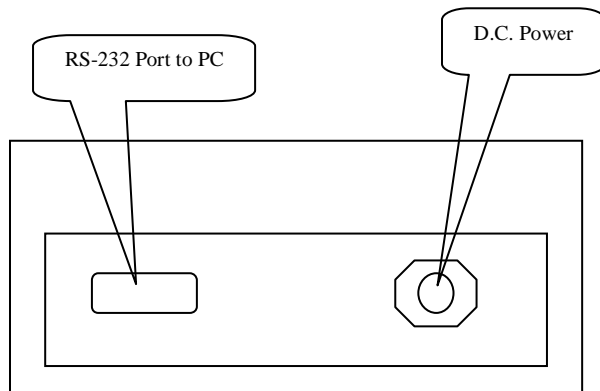


Figure 1B; Main Test Fixture –Rear view

Setup and Software Installation

- Plug the power supply unit into a wall outlet.
- Attach the 5-pin connector (at the opposite end of power cable) into the corresponding receptacle on the rear panel of the test fixture.
- Using a standard computer cable, connect the DB-9 serial interface connector on the rear panel of the test fixture to the COM port of the host computer.
- Attach cabling, for probe to be tested, to either the laptop connectors on the front panel of the main test fixture or to the other connectors on the front panel of the extension box. The laptop connection consists of a DB-9 connector for communication and a 5-pin circular connector for probe power.
- Attach probe head magnetically to ANSI type 2 optical port located in upper left-hand corner of main test set front panel.
- Place 3.5-inch diskette containing test software into drive on host computer.
- From the “START” bar (WINDOWS 95) select “START” then select “RUN”; Type “A: (or the applicable drive name) INSTALL”. Follow the instructions on your screen

Operating Instructions

- To activate the test fixture plug the power supply into any 115vac outlet and place the DC power switch in the up position to turn ON.
- From your desktop, place your mouse pointer over the “PRB TEST” icon and double-click on your mouse. This will launch the Probe Tester program.
- Select the type of probe to be tested from the screen menu listing. The test will run automatically.
- Follow all instructions on the screen.
- After the test is completed, the screen will indicate a PASS or FAIL result and you will be given the option of PRINTING or VIEWING the test results, RETURNING TO THE MAIN MENU or EXITING the program

Technical Specifications

The DATAprobe Tester 1500.

Mechanical Specifications

Physical size: 6.88”W x 2.5”H x 5”D

Weight: 12.2 Oz.

Finish: Black Matte

Electrical Specifications

Power Rqrmts.: 110V

Data Rate: 2400 bps 8/N/1 Between Probe & Tester

Warranty

All DATAprobe Testers from uData Net are fully covered by a two year (24 month) Warranty on Parts and Labor, and a ninety (90) day Warranty on cable assembly and labor. The Warranty is considered void if Purchaser or User subject the unit(s) to negligence, misuse, improper installation, accident or unauthorized repair or alteration.

Repairs

All Repairs, including Warranty repairs, require a Return Materials Authorization (RMA) number and form prior to the return of any item(s). All items sent in to our Manufacturing facility will undergo our routine repair process unless otherwise instructed on the RMA form by the customer. The Billing, Shipping and Product sections of the RMA form must be fully completed by the customer or a delay in processing may occur due to missing and/or inaccurate information. Please send all items to our McAllen Office address only, as uData Net will not be responsible for items lost or sent to a wrong/old address.

Return Materials Authorization (RMA)

All Repairs, including Warranty repairs, require a RMA number and a RMA form prior to the return of any item(s). To obtain a RMA Number, please contact uData Net’s McAllen Office by either calling (800) 610-6797 or by email (vbernal@udatanet.com). The RMA Form may be downloaded from our website at www.udatanet.com or sent to you via facsimile upon request by calling our McAllen Office. The RMA number must be referenced on the RMA form, as well as on any additional documentation accompanying the item(s) being sent in for repair. Should you require a Repair Quote you may request one by simply noting “Repair Quote Needed” on the RMA form and someone will contact you after the initial inspection.

NOTES:

1. All item(s) sent in for repair will be done at Sender’s expense -No C.O.D shipments will be accepted. Once repaired, all items will be returned to Customer via DHL GROUND, unless otherwise specified by the customer on the RMA form.
2. A 25% Restocking Fee may be charged for all returns approved for credit.
3. All repairs will be warranted for a period of ninety (90) days from date of shipment, except for units returned with defects caused by negligence, misuse, abuse, improper installation, accident or unauthorized repair or alteration.