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RB-10 Bantam Lite Getting Started Guide

What this document contains:

- Warranty Information
- Unpacking and inspection
- Safety considerations
- Line fuse removal and installation
- Product panel and connections
- Contact information for your Radian product

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IMPORTANT Register this product

Why it's IMPORTANT to register this product at Radian;

- Allow Radian to contact the end user to provide firmware/ software updates.
- Register model, user & serial number for warranty.
- Provide product application notes.

Register your product at:
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Radian Research warrants each of our products to be free from material defect and workmanship. *Our obligation under this warranty is to repair or replace any instrument or component therein which, within two years after shipment, proved to be defective upon our examination. Radian will pay local domestic surface freight costs for return shipment of the product back to the customer.

If warranty or non warranty service is required contact Radian Research or your local Radian Research Representative and request a Return Material Authorization (RMA) number. You may also submit an RMA request at www.radianresearch.com/rmaform.pdf.

You must provide the model number and serial number (see Figure 1 on page 6 of this document) as well as a detailed description of the problem.

CONTACTING RADIAN RESEARCH

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*One year warranty extended to two year subject to product registration.
Register your product at: www.radianresearch.com/reg

Every effort is taken to ensure that our packing materials and shipment carrier provide the upmost protection for your product. Your product should reach you in perfect condition.

If the product is damaged notify the carrier and your sales representative immediately.

In the box:

- RB-10 Bantam Lite*
- RB-10 Automated Comparator (hand held)
- RB-10 User Test Cable
- Calibration report
- Getting started pamphlet (this document)
- CD-ROM (includes Operational Manual and RB-10-LINK PC software)
- RS-232 cable
- 9V battery
- Spare KLK 5 fuses
- Your optional accessories (if applicable)

* The RD-2x Reference Standard will be installed inside the RB-10 bantam Lite unless the product is ordered without a Reference Standard.

Setting the Date and Time

1. Turn on the RB-10 Automated Comparator by pressing the ON button on the keypad.
2. Wait 10 seconds and the main menu will appear.
3. Scroll using the arrow down button on the keyboard until 4 PREFERENCES is selected.
4. Press the ENTER button on the keyboard.
5. Use the DOWN ARROW button until the 7 Time/Date is selected.
6. Press the ENTER button on the keyboard.
7. Use the ARROW buttons to highlight each number and enter the desired information by using the number buttons on the keyboard.
8. After all information has been entered push the ENTER button on the key board to save your setting.
9. Push the CANCEL button on the keyboard to return to the main menu.
10. The time and date setting in your RB-10 Automated Comparator is now complete.

Use this equipment only as specified in the Operations Manual and within your company's safety guidelines. Information provided on this Getting Started pamphlet and the Operational Manual is intended to supplement your knowledge and that of your company's procedures.

Symbols that appear on this equipment:

 Warning statement that identifies danger of electrical shock

 Caution statement identifies conditions or practices that could result in damage to the standard or equipment to which it is connected.

Warning
This equipment can deliver a lethal electric shock.

Warning
Applying voltage across a current phase can result in an uncontrolled current fault

Fuse removal and installation

There are four fuse holders located on the rear panel of the RB-10 Bantam Lite. The fuse locations are indicated in Figure 1 on page 6 of this document.

1. Make sure all power is disconnected from the RB-10 Bantam Lite.
2. Press in and turn the cap of the fuse holder 1/8 turn counter-clockwise to unlock the cap.
3. Test the fuse. If the fuse is blown, follow the instructions in step 4, otherwise return the fuse to the fuse holder as explained in step 5.
4. Replace the fuse with: Radian Research part# 02710031 or with the following manufactures part # Littelfuse KLK 5 (5 Amp, 600 VAC, fast-acting, 0.406" x 1.50")
5. Insert the fuse into the fuse holder cap. While aligning the bayonets of the cap with the fuse holder, insert the fuse and cap into the fuse holder. Press in and turn the cap of the fuse holder 1/8 turn clockwise to lock the cap in place.
6. Verify that the cap is secure in the fuse holder.

RB-10 Bantam Lite user connections

Turn the RB-10 power switch to the OFF position before making any changes to the test cable connections. The green wire in the user test cable is the safety ground connection for the instrument. The green wire should be connected before any other connections are made.

Be sure the voltage select switch is set to the correct position for the AUX voltage and double-check the connections before turning the power switch to the ON position.

The red and black voltage leads provide the voltage sense and AUX power to the instrument; on most cables, each voltage sense lead will share a test clip with an AUX lead.

Up to 480 V can be applied between current phases A, B and C, but voltage should NEVER be applied to a current source; uncontrolled current could be the result.

Voltage faults

When the RB-10 Bantam Lite power is turned ON, the instrument checks for unexpected voltage across the leads of each current phase. This check is done before closing the relays that complete the current circuits. If a voltage fault is detected, relay closure is delayed until the voltage fault is no longer detected. A voltage fault is indicated by alternately flashing the bargraph and power indicator LEDs. If a voltage fault is indicated, immediately turn the RB-10 Bantam Lite power switch to the OFF position. With the RB-10 Bantam Lite power turned OFF, correct the wiring error.

RB-10 Automated Comparator (hand-held)

The built-in cable from the RB-10 Automated Comparator connects to the front panel of the RB-10 Bantam Lite. This cable provides power, communications and output pulses from the RD-2x.

When power to the RB-10 Bantam Lite is turned on, its internal RD-2x reference standard requires about 20 seconds to complete its initialization sequence. During this initialization, voltage, current, and phase readings from the RD-2x will indicate 000.00000 .

The serial port on the RB-10 Automated Comparator allows a PC to communicate with the RB-10 Automated Comparator or to communicate directly with the RD-2x reference standard inside the RB-10 Bantam Lite.

The RB-10 Automated Comparator is powered by the RB-10 Bantam Lite or by a 9 Volt battery inside the RB-10 Automated Comparator. For maximum battery life, the user should ensure the RB-10 Automated Comparator power is off before storing the RB-10 Automated Comparator.

RD-2x Internal Reference Standard

Measurement accuracy is ensured by the RD-2x Reference Standard inside the RB-10 Bantam Lite.

Connections for data and output pulses are made automatically between the RB-10 Automated Comparator (hand-held) and the RD-2x when the comparator connection is made to the front panel of the RB-10 Bantam Lite.

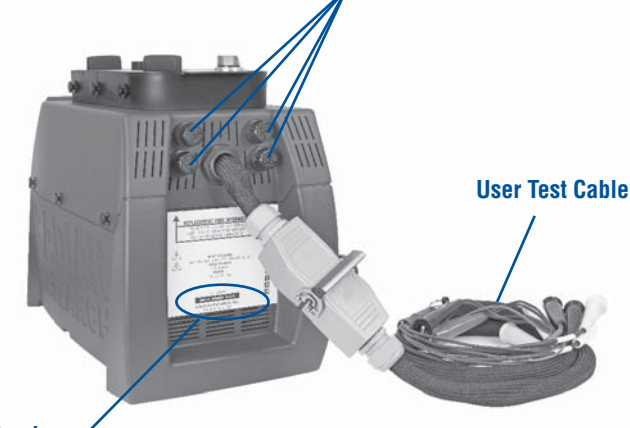

Figure 1

Figure 2