

RT-200

HI-TEST® ROPE TESTER

Operating & Instruction Manual



HDE HD ELECTRIC COMPANY
A Textron Company

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RT-200

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| MANUFACTURING LOCATION - HD Electric Company • Waukegan, Illinois 60085, USA | |

SAFETY INFORMATION

Hi-Test Detection Instruments is now a part of HD Electric Company.

HD Electric Company, located in Waukegan, Illinois, USA is a manufacturer and provider of a wide range of electrical equipment.

At HD Electric Company, we understand the special training and requirements for work on electrical power distribution systems. Please take a few moments to read this manual in its entirety before using your new equipment. Pay special attention to the warnings and cautions both in this manual and on the equipment itself.

NOTICE - This product is designed for use by professionals trained in its use and application in and around high voltage electrical equipment. If you are not trained in the work methods required for safe operation, do not proceed until you obtain training.

CAUTION - This product was tested before leaving the factory but it must be tested prior to and after each use for proper working operation. Be aware that dirt, moisture, mechanical fatigue and other factors reduce the dielectric strength of this product. If any defect of condition is noted, do not use this product. Remove from service and arrange for repair.

WARNINGS - Rigorous hot stick work precautions and OSHA and company work practices must be followed. Always wear approved cover-up and safety equipment. Read and understand instructions prior to use. Misuse or abuse of this product can lead to severe injury or death.

OPERATIONAL IMPAIRMENT - If the RT-200 is used in a manner not described in this instruction manual, the protection and effective operation of this equipment may be impaired.

CLEANING INSTRUCTIONS - To clean the RT-200 wipe with a damp cloth with water. Do not use harsh chemicals or solvents.

Unit Serial No.: _____

Manufacture Date: _____

OPERATING INSTRUCTIONS

1. Insert one end of the rope to be tested in the clamps on the tester by lifting the clamps and inserting the rope.
2. Push the ON button; the ON/CHARGE LED indicator will light green.
3. Hold the tester with one hand and pull the rope continuously through the clamps in one direction at any speed up to 30 centimeters or 1 foot per second. As long as the rope is non-conductive (i.e. good), the green ON/CHARGE LED indicator will remain lit. If the rope (or any section of it) is conductive (i.e. bad), the red BAD LED indicator will light and a buzzer will sound.

- NOTE:** a) The rope can be pulled through the test clamps in either direction;
- b) Ropes of a diameter larger than 3.5 centimeters or 1.25" should be rotated or "spun" as they are pulled through the test clamps. One rotation per 30 to 60 centimeters or 1 to 2 feet will increase the surface contact between the rope and the clamps when the rope is of a larger diameter.
4. After pulling the entire length of rope to be tested through the test clamps, turn the tester OFF by pushing the ON button again. The green ON/CHARGE LED indicator will go out. This will preserve the charge in the battery.

WE RECOMMEND THAT ROPES BE TESTED AS CLOSE TO THE TIME OF USE AS POSSIBLE. Variations in humidity over time make it possible for the same rope to test good at one time and bad at another time.

POSSIBLE SHOCK HAZARD FROM THE ROPE TESTER

1. The operator should avoid getting in series with the two test clamps on the tester.

There is a voltage of 7kVDC between the test clamps and a maximum available current of 40 microamps when the tester is turned ON.

2. The operator should avoid getting in series between either of the test clamps and the contact pins in the battery recharging receptacle on the side of the tester. There is a voltage of approximately 7kVDC between these points and a maximum available current of 40 microamps when the tester is turned ON.




Indicates 7kVDC at clamps

DANGER: HIGH VOLTAGE 7kVDC
Maximum current: 40µA DC
TO BE OPERATED ONLY BY QUALIFIED PERSONNEL

1. Insert one end of the rope to be tested into the clamps of the tester.
2. Push the ON button; verify the ON/CHARGE indicator is Green
3. Hold the tester with one hand and pull the rope continuously through the clamps in one direction at any speed up to 30cm or 1 ft. per second. If any section of the rope is conductive (i.e. BAD) the red BAD indicator will turn on and the buzzer will sound.
NOTE: a) The rope can be pulled through the clamps in either direction.
b) Rotate larger ropes (3cm., 1 1/4 in. and greater) as they are pulled through the test clamps. One rotation per 30-60cm or 1-2 feet will increase surface contact between the larger diameter ropes and the test clamps.
4. After pulling the entire length of the rope to be tested through the test clamps, turn the tester OFF by pushing the ON button again.

SEE DETAILED OPERATING INSTRUCTIONS FOR FURTHER INFORMATION

HD Electric Company www.hdelectriccompany.com  RT-200 Serial No.

BATTERY RECHARGING AND CARE

1. When the LOW BAT. LED indicator lights red, the battery should be recharged using the adapter supplied with the tester. A full charge will require about 6 hours of recharging under typical conditions. After the first hour of charging, a well maintained battery will have enough charge for approximately 10 hours of normal use under typical conditions.
2. When the adapter is connected to the tester, the ON/CHARGE LED indicator will light red to indicate the battery is charging. Once the battery has finished charging, the ON/CHARGE light will turn off.

The tool must be turned off in order to charge the battery. If the adapter is plugged in while the tool is operating, the ON/CHARGE LED will light yellow to indicate that the tool is still on and the battery is not charging.

If the ON/CHARGE LED indicator does not light when plugging in the adapter to the tool, it means the battery is not being charged. Check to ensure that both ends of the adapter are properly connected; check to ensure that there is power at the wall outlet you are using to charge the battery.

3. Charge the battery as required. Typical battery life is 10 hours of use under typical conditions. The battery is a lithium-ion type and cannot be overcharged. As with all batteries, a cold battery will have reduced life under typical conditions.
4. If the instrument will not turn on, try charging it for fifteen minutes. The battery may be drained down too far to be able to power on. If it still will not turn on then the battery may need to be replaced. For battery replacement contact HD Electric Company at 847-473-4980 or sales@hde.textron.com to order a replacement battery. See page 6 for battery replacement instructions.

RT-200 Parts List for Tools with **Lithium-Ion Battery**

Note: The tester will have a 3-pin charger plug

| | |
|-----------------------|---------------------------------|
| RT200C-TOOL | Tester only - CE Approved |
| 075-02020-8VLI | Lithium-Ion Replacement Battery |
| 025-02220-120V | 120VAC Charger |
| 050-02050-12V | 12VDC Charging Cord |
| 050-00310-PRX | 220V Adapter Kit |

RT-200 Parts List for Tools with **Lead-Acid Battery**

Note: The tester will have a 2-pin charger plug

| | |
|-----------------------|-------------------------------|
| 075-IT3-8VX4 | Lead-Acid Replacement Battery |
| 025-02070-120V | 120VAC Charger |
| 050-02000-12V | 12VDC Charging Cord |
| 050-02025-220V | 220V Adapter Kit |

TECHNICAL SPECIFICATIONS

MODELS

RT-200 Rope Tester

RT-200/12V includes RT-200 Tester with 12VDC vehicle charge cord

RT-200 Kit includes RT-200 Tester with 120VAC charger

RT-200/220P Kit includes RT-200 Tester with 220VAC charger

DIMENSIONS 9 in. L x 7.5 in. W x 9 in. H (23cm x 19cm x 23cm)

WEIGHT 3 lbs. (1.36kg)

BATTERY Rechargeable lithium-ion, HD Electric p.n. 075-02020-8VLI,
charging current 875ma. maximum.

OUTPUT VOLTAGE AND CURRENT: 7kVDC maximum open circuit voltage and
40 μ A DC maximum short circuit current.

CURRENT THRESHOLD FOR BAD INDICATION: 15 MICROAMPS

BEEPER SOUND PRESSURE LEVEL: 100 db

ENVIRONMENTAL CONDITIONS

CONDITIONS: Indoor and outdoor use

ALTITUDE: Up to 6,566 ft. (2000M)

OPERATING TEMPERATURE: -25°F (-32°C) to 125° F (52°C)

HUMIDITY: 65% to +52°C (non-condensing)

PRINTED CIRCUIT BOARDS: FR-4 UL 94-V0

ENCLOSURE MATERIAL: ABS UL 94-HB

POLLUTION DEGREE: PD2

OVERVOLTAGE CATEGORY II Non Contact

ENCLOSURE MATERIAL: ABS UL 94-HB

BATTERY REPLACEMENT INSTRUCTIONS

To replace the battery, open the compartment on the bottom of the housing.

See page 5 for battery part numbers.

BATTERY USE AND DISPOSAL

- Charge the battery only with the HD Electric supplied charger.
- Do not disassemble, open, crush, bend, deform, puncture or shred the internal battery.
- Contact your local recycling center or HD Electric for proper battery disposal.
- Improper battery use may result in a fire, explosion or other hazard.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This warranty applies to all products sold by HD Electric Company (the "Products"); provided, however, that the term Products does not include any third party products purchased through HD Electric Company, for which no warranties are made (the "Third Party Products"). Third Party Products may be subject to a separate manufacturer's warranty; [should you have any question regarding whether a separate warranty applies, please contact HD Electric Company].

NOTICE: READ THIS LIMITATION OF WARRANTY AND LIABILITY BEFORE BUYING OR USING THE PRODUCTS CONTAINED HEREIN.

It is impossible to eliminate all risks associated with the use of the Products. Risks of serious injury or death, including risks associated with electrocution, arcing and thermal burns, are inherent in work in and around energized electrical systems. Such risks arise from the wide variety of electrical systems and equipment to which Products may be applied, the manner of use or application, weather and environmental conditions or other unknown factors, all of which are beyond the control of HD Electric Company.

HD Electric Company does not agree to be an insurer of these risks, and shall have no liability for any claims arising from such risks.

WHEN YOU BUY OR USE THESE PRODUCTS, YOU AGREE TO ACCEPT THESE RISKS.

HD Electric Company warrants to the original purchaser that the Products (excluding any third party products purchased through HD Electric Company, for which no warranties are made) will be free from defects in material and workmanship, under normal use and regular service, and preventative maintenance for a period of one (1) year (ten (10) years for HDE Capacitor Controls) from the date of shipment (the "Warranty Period"). Should any failure to conform with this warranty be found during the Warranty Period, you must notify HD Electric Company of your claim within thirty (30) days of discovery, and within the Warranty Period. Your failure to give notice of claims of breach of warranty within the Warranty Period shall be deemed an absolute and unconditional waiver of claims for such defects. HD Electric Company will have no responsibility to honor claims received after the date the applicable Warranty Period expires.

Upon notice of your claim, HD Electric Company will provide a return authorization number, and further instructions on how to return the product for service. You must follow HD Electric Company's instruction. You are responsible for all Product removal, handling, re-installation, and shipping (both to and from HD Electric Company). Products returned for repair, as well as repaired or replacement Products shall be sent postage / freight prepaid. After receipt of a product which HD Electric Company determines is defective, HD Electric will, at its option, either (1) repair (or authorize the repair of) the Product or (2) replace the Product, subject to the following: The Products are made using parts sourced from a variety of manufacturers. Due to the rapidly changing technology environment, parts may become obsolete / unavailable over time (end of life). In the event that a Product cannot be repaired or replaced due to unavailability of parts, HD Electric Company will use commercially reasonable efforts to obtain substitute parts or conduct work around design, but cannot guarantee its ability to do so.

Items not found defective will be returned at your expense, or failing receipt of instruction from you on return of such items within five (5) business days of our notice to you that the product is not defective, HD Electric may dispose of the product at its discretion and with no liability to you. HD Electric Company's determination of defects is final. Products repaired or replaced during the Warranty Period shall be covered by the foregoing warranties for the remainder of the original Warranty Period or ninety (90) days from the date of delivery of the repaired or replaced Products, whichever is longer.

LIMITATIONS:

This warranty is void in the event of misuse, alteration, faulty installation, or misapplication of the product.

This warranty does not cover failure of product or components due to any ACT OF NATURE; lightning, floods, hurricanes, tornadoes or any other such catastrophic events.

HD Electric Company does not warrant any third party products or associated hardware or their performance or suitability for use and application. Such items are provided "as-is".

All repairs must be authorized by HD Electric Company. Unauthorized repairs will not be reimbursed under any circumstances.

HD Electric Company is not required to make replacement or loaner equipment available while Products are being repaired or replaced, or to compensate you for any in/out labor charges or expenses associated with removal, handling or re-installation of the Products.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. HD ELECTRIC EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY AND NON-INFRINGEMENT.

IN NO EVENT SHALL HD ELECTRIC COMPANY BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THESE PRODUCTS. THIS SHALL INCLUDE BUT, NOT LIMITED TO, LOST PROFITS OR REVENUE, LOSS OF USE OF THE PRODUCTS, COST OF SUBSTITUTE PRODUCTS, FACILITIES OR SERVICES, OR DOWNTIME.

IN NO EVENT SHALL HD ELECTRIC COMPANY HAVE ANY LIABILITY FOR ANY THIRD PARTY PRODUCTS OR ASSOCIATED HARDWARE, OR CUSTOMER-OWNED SYSTEMS, EQUIPMENT OR SOFTWARE.

HD Electric Company must have prompt notice of any claim so that an immediate product inspection and investigation can be made. Buyer and all users shall promptly notify HD Electric Company of any claims, whether based on contract, negligence, strict liability, or other tort or otherwise be barred from any remedy.

HD Electric Company is committed to ongoing review and improvement of its product lines, and thus reserves the right to modify product design and specifications without notice.

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