

# PF-50

## CABLE IDENTIFIER

### Operating & Instruction Manual



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A Textron Company

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## IMPORTANT SAFETY INFORMATION

Read and understand these instructions prior to use. These operating instructions are not a substitute for proper training in the use of this equipment. High voltage systems present serious hazards, including the risk of death or serious injury due to arcing, thermal burns and electrocution. HD Electric's products are intended solely for use by professionals with knowledge, training and experience in the use of the equipment and its accessories in and around high voltage systems.

All applicable federal, state, company and OSHA work practices must be followed. If you are unfamiliar with the work practices required, **DO NOT PROCEED**. Call HD Electric Company if you have any questions regarding this equipment.

Important labels are affixed to the products. Read and understand each of them before proceeding.

These tools may require the use of accessory hotsticks, which may or may not be supplied. The minimum hotstick length required for safe use depends upon the particular operation; consult federal, state, company or OSHA specifications for the proper hotstick length for the intended operation.

The users of this device should always be equipped with personal protective equipment including high voltage gloves, flame retardant clothing and eye and face protection. Some applications may require additional protective equipment.

Failure to follow these and other warnings and safety precautions may result in severe injury or death.

**NOTICES** - 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 the training.

**CAUTIONS** - This product was tested before leaving the factory but it must be inspected prior to and after each use for proper working condition. If any defect or condition is noted, do not use this product. Remove from service and arrange for repair.

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

## GENERAL DESCRIPTION

The PF-50 is a cable identifier system designed for identifying overhead and underground cables from one end to the other. The system consists of two similar tools; a Transmitter and a Receiver. The Transmitter is connected on one end of the cable to be identified and the Receiver on the other end. Red lights on both units lights indicate that the signal sent by the Transmitter has been received and that both Transmitter and Receiver are connected to the same cable.

These HD Electric tools are designed for use only on cables that have been verified to be both deenergized and discharged. These tools do not have any capability to withstand any externally applied voltage.

These tools are designed to be hand held with or without voltage insulating gloves. These tools include a universal spline connection for use with hotsticks to allow the user to maintain a distance from the equipment or cable terminals being tested, but use with hotsticks does not allow the application of these tools on energized systems.

The alligator clip on the end of the coil cord must always be connected to ground prior to connecting the tool to the cable and should be removed from ground only after cable testing is completed.

Both Transmitter and Receiver are powered by 9V lithium or alkaline batteries which can be accessed on the top of each unit.

## OPERATING INSTRUCTIONS

**WARNING:** Before using the tools, test and inspect both the Transmitter and Receiver to insure that they are functioning properly and are in safe, working condition. Note that the transmitter supplies 50VDC at the probe. Before making any cable tests inspect the tool as follows:

- 1) Connect the two ground clips to each other.
- 2) Turn on both the Transmitter and Receiver using the front panel switches. Replace the 9V battery if the green light is not on.
- 3) Touch the Transmitter and Receiver probes to each other. Red lights on both units indicate they are working properly.



## CABLE IDENTIFICATION

Before attempting cable identification using the PF-50, isolate, test and ground the cable to be identified.

- 1) Connect the ground clips on each unit to a known system ground. Turn on both the Transmitter and Receiver. The green lights on both units indicate good batteries.
- 2) Touch the Transmitter to one end of the cable to be identified.
- 3) Touch the Receiver to the opposite end of the cable to be identified. Red lights on both units indicate the Receiver is connected to the same cable as the Transmitter.
- 4) After the cable has been identified, remove both the Transmitter and Receiver from the identified cable, remove their ground clips from the ground connection and turn them off.

## SPECIFICATIONS:

**MAXIMUM UNDERGROUND CABLE LENGTH:** 5,000 ft.

**BATTERY:** 9V lithium or alkaline

## 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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