



# Innovative products and solutions for electric power

Test, Measurement and Safety | Controls and System Monitoring





**Quick-Check** 

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# Helping you deliver electric power to your customers efficiently and safely

Thank you for your interest in HDE and our products. Our continuous improvement and innovation in the areas of controlling, testing, measuring and recording of electric power has resulted in the development of leading edge products designed to help you provide electric power to your customers safely and efficiently.

Please take a moment to review this Short Form Product Catalog with an invitation to learn more about the products by visiting us at HDElectricCompany.com. HDE also publishes an expanded catalog in binder format that is available upon request. In addition, our fleet of mobile demonstrators continuously travel the country and HDE is present in virtually all major industry tradeshows and conferences. You are always able to get local support by contacting the sales representative in your area. Just check the *Rep Locator* on our website.

However you choose to contact us, know that it's our intention to provide you with best-inclass service, support and products.

Thank you again for your interest.



# **HDE Product Offering**

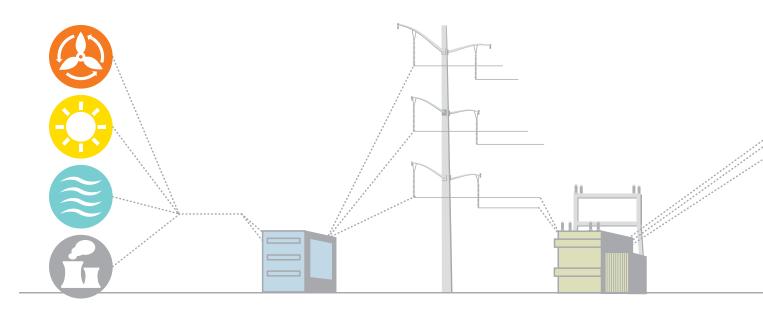
# Test, Measurement and Safety

HDE's state-of-the-art test, measurement and safety products provide safe, accurate and critical information about the electric power system and its associated equipment. All HDE products are built to "utility grade" standards and are designed to improve system reliability; expedite power restoration; and facilitate maintenance procedures safely in the field. HDE's products give you the confidence you need to ensure that electricity is flowing to your customers in a safe and efficient manner.

- Voltmeters and Phasing Sets
- Voltage Detectors
- Personal Voltage Detectors
- Insulator and Arrester/Leakage Testers
- Capacitor Testers
- Transformer and Capacitor Testers
- High Voltage Ammeters
- Additional Test Instruments

- Utility Specialty Products
- Arc Analysis Software
- Fuse Tool
- Switch Blocking Pins
- Extension Clip Cord
- Utility Lighting Products
- Spot and Flood Lights
- Hard Hat Safety Lights

# Serving the Entire Electrical Power System =



GENERATION

**GENERATING SUBSTATION** 

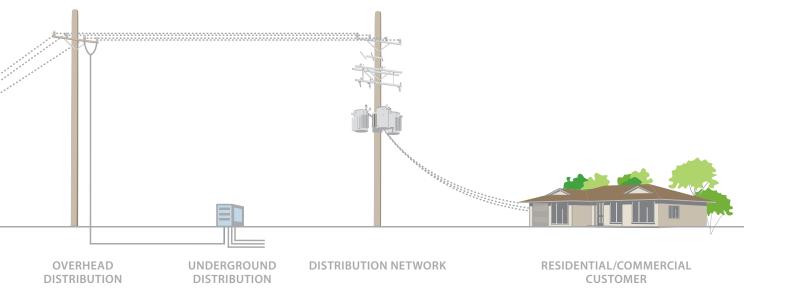
TRANSMISSION

DISTRIBUTION SUBSTATION

# **Controls and System Monitoring**

HDE's comprehensive, innovative products for controlling and monitoring electricity help you manage system efficiencies and obtain maximum performance from the assets you operate. Whether controlling smart grid applications, managing current loading, or collecting customer information, our capacitor controls, ammeters, and portable recording products provide you with the leading-edge products you need.

- Communicating Capacitor Controls
- Local Capacitor Controls
- Electronic Recorders
- Ampere Demand Meters
- Overhead Ammeter Recorders
- Meter Base Recorders



# Mobile demonstrations brought right to your door...



The HD Electric Company mobile demonstrators are designed to bring products directly to the customer and perform live demonstrations. The size and versatility of these vehicles allows a wide range of products to be shown to any size audience and includes live multi-phase high voltage and current sources. Also included are many samples of electrical apparatus that HDE's products test. The HDE mobile demonstrators allow live testing and demonstrations to groups and take only minutes to setup. All of our mobile demonstrators are ideal venues for product training sessions, tool shows and rodeos.

- Display and demonstrate all the latest HD Electric products
- Help train field crews
- Equipped with live high voltage to demonstrate both overhead and underground applications
- Includes high voltage test equipment, controls and lighting products conveniently displayed for viewing
- Travels across the country, from state-to-state and division-to-division

Mobile exhibits are equipped to perform live high voltage demonstrations. Great for product training, tool fairs and rodeos.

#### Schedule a visit by an HDE Mobile Demonstrator

Visit the Rep Locator on our website to contact your local sales representative



# HDElectricCompany.com

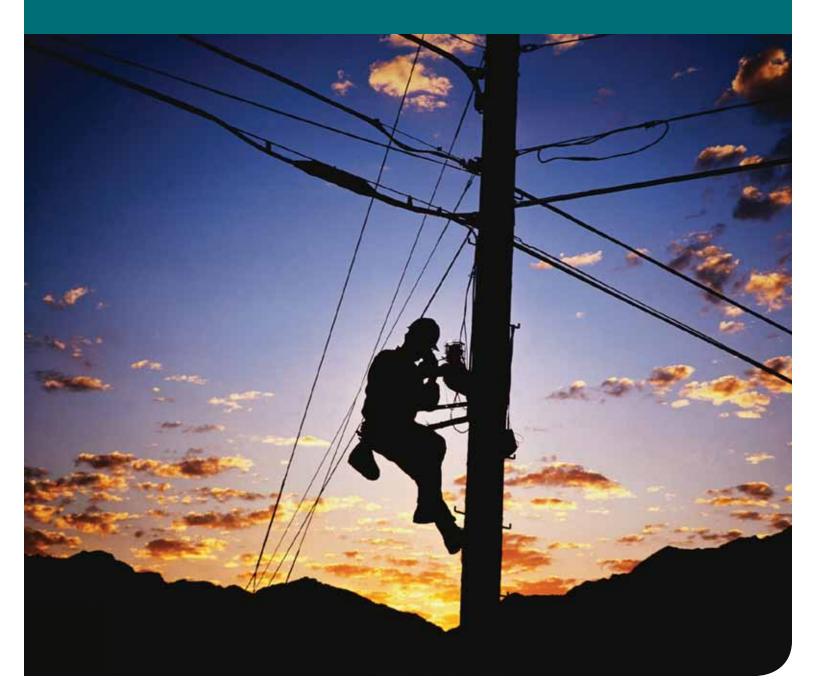
# Your link to in-depth product detail, video product demonstrations, industry news and more on our web site:

- Product updates
- Download literature and manuals
- Contact local sales representatives
- View tradeshows where HDE exhibits
- Read about our sustainability efforts



# Test, Measurement and Safety

HDE's state-of-the-art test, measurement and safety products provide safe, accurate and critical information about the electric power system and its associated equipment. All HDE products are built to "utility grade" standards and are designed to improve system reliability; expedite power restoration; and facilitate maintenance procedures safely in the field. HDE's products give you the confidence you need to ensure that electricity is flowing to your customers in a safe and efficient manner.



# **Digital Voltmeters**

The DigiVolt<sup>®</sup> series of digital voltmeters and phasing sets is designed to take voltage measurements and perform phasing applications on system voltages up to 80kV. There are nine different models.

The DigiVolt-25T is a compact, high accuracy single stick voltmeter with capacitive test point mode and ground lead. The DVM-25T measures voltages up to 25kV and can be used in both overhead and underground applications.

The DVM-5000V is a digital voltmeter/phasing set for low voltage applications from 10V up to 5,000V. The DVM-5000V can be used in both overhead and underground applications when used with the required applicable length hotsticks. The digital meter displays 4-digits, showing the true RMS voltage on the conductor. No decimal points show on the display, only the voltage reading. Fixed contact probes on the end of each stick allow for direct contact voltage measurements.

The DigiVolt-80T is a compact, high accuracy dual stick voltmeter and phasing set with capacitive test point mode and connecting cord. The DVM-80 and DVM-80T units measure voltages up to 40kV and up to 80kV with a pair of optional add-on resistors. The two-stick design can be used in both overhead and underground applications. The DVM-80 units incorporate Phase Accurate Technology, which makes all voltage readings, whether made from line-to-line or line-to-ground, accurate and repeatable to within 1%.

The DVM-I and III are single-stick units with a ground lead designed for taking line-to-ground measurements up to 20kV. The DVM-II and IV are two-stick units for taking line-to-ground and line-to-line measurements up to 50kV. The DVM-III and IV also include a Capacitive Test Point mode. This allows for taking voltage measurements and performing phasing directly from the capacitive test points on the backside of load-break elbow connectors. The less expensive and smaller DVM-V, a two-stick unit for measuring and phasing voltages to 20kV, does not include Peak Hold mode or Capacitive Test Point mode.

#### features

- True RMS voltage measurements up to 80kVAC/DC
- Large auto-ranging LCD (DVM-I through DVM-V)
- Back lit display for low light conditions
- Coiled connecting cord is standard (optional reel cord available on DVM-I through DVM-V)
- Peak hold and track modes (DVM-I through DVM-IV)
- Auto shut-off and low battery indicator
- Capacitive test point mode (DVM-III, DVM-IV, DVM-25T and DVM-80T)
- Universal splines for standard hot stick attachment

(continued)







DVM-5000V



DVM-25T

#### **Digital Voltmeters – continued**

- Powered by 9V alkaline batteries (one battery for DVM-25T, DVM-5000V and DVM-80 units, two batteries for DVM-I through DVM-V)
- All models include a carrying case
- Includes hook style overhead brass probes

#### optional accessories – see page 13

- Bushing probes for use in 15kV, 25kV and 35kV class bushings
- Cable Fault Tester for testing cables for faults
- Proof Tester to verify proper operation of voltmeters/phasers
  prior to use
- Extension hotsticks in various lengths
- Various overhead and underground probes

#### **Digivolt Digital Voltmeters**

PART #	DESCRIPTION
DVM-5000V	Low Voltage Phasing Voltmeter, 10-5,000V
DVM-25T	Single Stick Voltmeter w/Capacitive Test Point Mode, 0-25kV
DVM-80	Dual Stick Phasing Voltmeter, 0-40kV*
DVM-80T	Dual Stick Phasing Voltmeter w/Capacitive Test Point Mode, 0-40kV*
DVM-I	Single Stick Voltmeter, 0-20kV
DVM-II	Dual Stick Phasing Voltmeter, 0-50kV
DVM-III	Single Stick Voltmeter w/Capacitive Test Point Mode, 0-20kV
DVM-IV	Dual Stick Phasing Voltmeter w/Capacitive Test Point Mode, 0-50kV
DVM-V	Dual Stick Phasing Voltmeter, 0-20kV

• The DVM-5000V includes Carrying Case (CS-DVM5000V)

• The DVM-25T, DVM-80 & DVM-80T include Carrying Case (CS-DVM) and an Overhead Probe (025-OLPS-5) for each stick

• All current DVM-I through DVM-V include Metal Carrying Case (CM-100/V) and an Overhead Probe (025-OLPS-5) for each stick

Optional Cord Reel available on DVM-II, DVM-IV, DVM-V – NO EXTRA CHARGE (contact HDE for part number)

 $^{\ast}$  DVM-80 Units have a maximum range of 80kV when used with optional R-80 resistors – sold separately, see page 13

*P* Search Digital Voltmeters @ HDElectricCompany.com

#### **Digivolt Digital Kits**

PART #	DESCRIPTION
DVM-80/K02	Kit Includes DVM-80 with (2) 025-OLPS-5, (2) R-80, (1) PT-5000B and CS-DVM Case
DVM-80/K03	Kit Includes DVM-80 with (2) 025-OLPS-5, (2) R-80 & CS-DVM Case
DVM-80T/K02	Kit Includes DVM-80T with (2) 025-OLPS-5, (2) R-80, (1) PT-5000B and CS-DVM Case
DVM-80T/K03	Kit Includes DVM-80T with (2) 025-OLPS-5, (2) R-80 & CS-DVM Case

• Other DVM-80 Kits are available, contact HDE

# **Universal Voltmeter Kit**

The DVM-80UVK is a new and exciting addition to our phasing voltmeter product line. As the largest supplier of innovative voltage testing and measuring devices in the market today, we have expanded the features of our popular industry-proven DVM-80 series voltmeter and packaged it with an assembly of accessories, offering it as a complete, ready-to-use universal voltmeter kit.

Significant additions to the DVM-80 series voltmeters are:

- New Peak Hold Mode holds the reading for your convenience
- New Triple Auto Range Display reads in kilovolts from 5V to 80kV

#### features

- Digital Meter reads in kilovolts, 3.5 digits with decimal point
- Voltage Range 0-40kV, 0-80kV with add-on resistors
- Use on Secondary Voltages starting at 5V
- Auto-Ranging no range selector switch
- Accuracy highly accurate, within 1% of reading
- Backlit Display for easy reading in bright or dark conditions
- Peak Hold Mode conveniently keeps the peak voltage reading on the display
- Measures AC and DC voltages
- Measures Voltage on Elbow Test Points meter displays system voltage
- Arrester/DC Leakage Tester test arresters and other devices for leakage current
- Underground Cable Testing test underground cables for faults
- Auto-Shutoff prevents battery drain
- Coiled Connecting Cord 3.5' retracted, 12' extended
- Phase Accurate Technology makes all voltage readings, whether line-to-line or line-to-ground, accurate and repeatable to within 1%
- Battery powered by a standard 9V alkaline battery in an easy to change battery case (no tools required)
- Made in the USA

PART #	DESCRIPTION
DVM-80UVK	Kit Includes DVM-80UVM, (2) 025-OLPS-5, (2) R-80,
	(2) ASP-15/25, (1) CFTAT-35, (1) PT-5000B, (2) HSA-2500
	and a Soft-sided, Multi-functional Carrying Bag

Search DVM-80UVK @ HDElectricCompany.com



DVM-80UVK



MARK V



MARK V KIT



**Analog Voltmeters** 

The MARK<sup>®</sup> series of analog voltmeters/phasers is designed to take voltage measurements and perform phasing applications on system voltages up to 75kV. There are numerous versions with single and multiple ranges for use on multiple system voltages. These include one-stick models with a ground lead and two-stick models with a connecting cord. See page 13 for optional accessories.

#### features

- Numerous models with different ranges
- Large 3" meter face for easy reading
- Coiled connecting cord is standard (optional reel cord available)
- Strain relief fittings at end of cords reduce cable damage
- Includes hook style overhead brass probes

PART #	DESCRIPTION
MARK-I-S	Dual Stick Voltmeter, Single Range, 0-15kV
MARK-II-S	Dual Stick Voltmeter, Dual Range, 0-15/0-45kV
MARK-III-S	Dual Stick Voltmeter, Dual Range, 0-15/0-75kV (with included R-75 Resistors)
MARK-IV	Dual Stick Voltmeter, Single Range, 0-5kV
MARK-V	Dual Stick Voltmeter, Dual Range, 0-5/0-15kV
MARK-VI	Dual Stick Voltmeter, Triple Range, 0-5/0-15/0-45kV (with included R-45 Resistors)
MARK-VII	Dual Stick Voltmeter, Dual Range, 0-1/0-15kV
MARK-VIII	Single/Dual Stick Voltmeter, Single Range, 0-15kV, Convertible to 1 Stick/2 Stick
MARK-IX	Dual Stick Voltmeter, Single Range, 0-25kV
MARK-XI	Dual Stick Voltmeter, Dual Range, 0-5/0-25kV
MARK-XII	Dual Stick Voltmeter, Single Range, 0-40kV
EM-1	Single Stick Voltmeter, Single Range, 0-16kV
EM-2	Single Stick Voltmeter, Single Range, 0-25kV
EM-3	Single Stick Voltmeter, Dual Range, 0-1/0-15kV

 All current MARK's include Metal Carrying Case (CM-100/V) and (2) Overhead Probes (025-OLPS-5). Optional Aluminum Cases available at an additional cost – see Cases & Bags
 Optional Cord Reel available on all MARK Series – NO EXTRA CHARGE (contact HDE for part number)

• All EM's include (1) Overhead Probe (025-OLPS-5)

*P* Search Analog Voltmeters @ HDElectricCompany.com

#### **Analog Kits**

PART #	DESCRIPTION
MARK-I-S/KIT	Includes MARK-I-S with (2) 025-OLPS-5, CM-100/V, (2) S-4H, B-6
MARK-II/KIT	Includes MARK-II-S with (2) 025-OLPS-5, CM-100/V, (2) ASP-15/25, PT-5000B, (2) S-6H, B-6
MARK-II-S/KIT	Includes MARK-II-S with (2) 025-OLPS-5, CM-100/V, (2) S-6H, B-6
MARK-III-S/KIT	Includes MARK-III-S with (2) 025-OLPS-5, CM-100/V, (2) S-6H, B-6
MARK-V/KIT	Includes MARK-V with (2) 025-OLPS-5, CM-100/V, (2) ASP-15/25, PT-5000B, (2) S-4H, B-6

# **Voltmeter Accessories**

Hotsticks & Hotstick Adapter
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PART #	DESCRIPTION
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
HV-208	Telescopic Hotstick; Retracted - 26"; Extended - 8'
HV-212	Telescopic Hotstick; Retracted - 58"; Extended - 12'
HV-216	Telescopic Hotstick; Retracted - 60"; Extended - 16' 9"
HV-220	Telescopic Hotstick; Retracted - 62"; Extended - 21'
HV-225	Telescopic Hotstick; Retracted - 64"; Extended - 25' 6"
HV-230	Telescopic Hotstick; Retracted - 66"; Extended - 30'
HV-235	Telescopic Hotstick; Retracted - 68"; Extended - 35'
HSA-2500	Universal Hotstick Adapter (Shotgun)

### Cases & Bags

PART #	DESCRIPTION
C-2	Aluminum Case for EM-2
C-5	Aluminum Case for MARK I - XII*, EM-1, EM-3 and DVM I - V*
B-6	Vinyl Bag for 4' & 6' Hotsticks
B-7	Nylon Bag for MARK I - XII*, EM-1, EM-3 and DVM I - V*
CM-100/V	Metal Case for MARK I - XII,* EM-1, EM-3 and DVM I - V*
CS-DVM	Plastic Carrying Case for DVM-25T and DVM-80 Units
CS-DVM5000V	Plastic Carrying Case for DVM-5000V
C-208	Carrying Bag for HV-208 Telescopic Hotstick
C-30	Carrying Bag for HV-212, HV-216 & HV-220 Telescopic Hotsticks
C-40	Carrying Bag for HV-225, HV-230 & HV-235 Telescopic Hotsticks

\* Current models only. Contact HDE for older model Voltmeter cases

#### **Probes & Add-on Resistor Sticks**

PART #	DESCRIPTION
ASP-15/25	Adapter Bushing, 15 & 25kV Class
ASP-35U	Adapter Bushing, 34.5kV (Universal) Class
CFT-35	Cable Fault Tester, 15, 25 & 35kV Class
EA-15/25	Loadbreak Elbow Adapter, 15 & 25kV Class
GCP-1	General Purpose Insulated Probe
R-45	Add-On Resistor for MARK-VI (Pair Required)
R-75	Add-On Resistor for MARK-III-S (Pair Required)
R-80	Add-On Resistor for DVM-80 Units (Pair Required)
025-OLPS-5	PVC/Brass Overhead Hook Probe
025-OLPS-6	PVC/Brass Overhead Pigtail Probe

#### **Proof-Tester**<sup>®</sup>

PART #	DESCRIPTION
PT-500	DVM-5000V Voltmeter Proof Tester with 500V Output
PT-5000B	Voltmeter Proof Tester with 5,000V Output for other Digivolt and MARK Models







IEP-UD/C

IEP-EA/C

# **Wireless Phasing**

The TAG<sup>®</sup>-5000 Phase-Free<sup>®</sup> Wireless Phaser provides a unique method of phasing across a single-phase or three-phase system to make certain that correct polarity has been established prior to "closing-in" a switch. The TAG-5000 consists of two units, a transmitter and receiver, which communicate via a radio frequency signal, thus eliminating the need for a connecting cord found on traditional phasing sets.

#### features

- Built-in universal splines for hotstick attachment
- Lightweight design
- Both transmitter and receiver powered by 9V alkaline battery
- Audible and visual indications
- All-Check  $\ensuremath{^{\rm M}}$  self-test feature for verifying proper operation prior to use
- Phase through walls and metal enclosures
- Phase conductors on system voltages to 230kV (phase-tophase)
- Foam filled carrying case included

ess Phaser Set 4-230kV; Includes Transmitter leceiver, (1) TAG-AC60, (1) TAG-42029 and 000 Case cludes Transmitter and Receiver, (1) TAG-AC60,
G-42029, (2) IEP-UD/C and CM-5000 Case
nead Suspension Hook Probe
nead "Y" Probe
Case
rground Bushing Probe, 15, 25 & 35kV Class
rground Elbow Probe, 15, 25 & Elastimold® Class
ersal Hotstick Adapter (Shotgun)
ed Length Fiberglass Hotstick
ed Length Fiberglass Hotstick
cement Retaining Nut (GRAY)
cement Housing and Labels for TAG-5000 ver, Blue Color
cement Housing and Labels for TAG-5000 mitter, Gray Color

Elastimold® is a registered trademark of Thomas & Betts Corporation, Memphis, TN • Telescopic Hotsticks are listed on page 13

*P* Search Wireless Phasing @ HDElectricCompany.com

# **Digital Voltage Indicators**

The DVI<sup>™</sup> Digital Voltage Indicators are single point instruments designed to read the voltage on a conductor up to 500kV line-to-ground. The large LED readout is easy to read on the end of a long hotstick and can be used on overhead lines or in underground applications with an underground bushing probe.

The DVI displays the voltage and emits an audible alarm when voltage above 100VAC is detected with no range selector switches or settings to be made – just contact the conductor and read the display. This allows the user to determine if the voltage being read is nominal or a lower induced voltage.

There are four DVI models. The DVI-500 indicates voltage from 0.1kV to 500kV on overhead and underground systems – displaying the voltage on a large 3-digit LED display. The DVI-500T with Test Point Mode has the added feature of indicating voltage on elbow test points. The DVI-100 indicates voltage from 0.1kV to 99kV on overhead and underground systems – displaying the voltage on a large 2-digit LED display. The DVI-100T with Test Point Mode has the added feature of indicating voltage on elbow test points.

#### features

- For use on system voltages up to 800kV
- Large LED display indicates the line-to-ground voltage level
- Display is easy to read in bright or dark conditions
- Voltage readout allows the user to distinguish between nominal and induced voltages
- · Audible indication when voltage is detected
- · Built-in universal spline for standard hotstick attachment
- Auto shutoff with low battery function
- DVI Voltage Detector Tester (PT-DVI, optional) available as a power source to test the DVI before and after use

PART #	DESCRIPTION
DVI-500	Indicates Voltage up to 500kV, Includes (1) HP-DVI-2, (1) HP-DVI-6 and CS-DVI-5 Case
DVI-500T/K01	Indicates Voltage up to 500kV with Capacitive Test Point Mode, Kit Includes DVI-500T, (1) HP-DVI-2, (1) HP-DVI-6, (1) IEP-DVI-5 and CS-DVI-5 Case
DVI-500T/K02	Indicates Voltage up to 500kV with Capacitive Test Point Mode, Kit Includes DVI-500T, (1) HP-DVI-2, (1) HP-DVI-6, (1) IEP-DVI-5 and (1) PT-DVI and CS-DVI-5 Case
DVI-500/K01	Kit Includes DVI-500, (1) HP-DVI-2, (1) HP-DVI-6, (1) IEP-DVI-5 and CS-DVI-5 Case
DVI-500/K02	Kit Includes DVI-500, (1) HP-DVI-2, (1) HP-DVI-6, (1) IEP-DVI-5 and (1) PT-DVI and CS-DVI-5 Case
DVI-100	Indicates Voltage up to 99kV, Includes (1) HP-DVI-2 and CS-DVI Case



(continued)



DVI-500T







DVI-500 Kit (DVI-500T/K02)



PT-DVI



B-30

## Digital Voltage Indicators – continued

PART #	DESCRIPTION
DVI-100T/K01	Indicates Voltage up to 99kV with Capacitive Test Point Mode, Kit Includes DVI-100T, (1) HP-DVI-2, (1) IEP-DVI-5 and CS-DVI Case
DVI-100/K01	Kit Includes DVI-100, (1) HP-DVI-2, (1) IEP-DVI-5 and CS-DVI Case
DVI-100/K02	Kit Includes DVI-100, (1) HP-DVI-2, (1) IEP-DVI-5, (1) PT-DVI and CS-DVI Case
DVI-100T/K02	Kit Includes DVI-100T, (1) HP-DVI-2, (1) IEP-DVI-5, (1) PT-DVI and CS-DVI Case

• Other DVI-500 Kits and DVI-100 Kits are available, contact HDE

**Search •** DVI @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
PT-DVI	Proof Tester for Digital Voltage Indicators
HP-DVI-2	Overhead Hook Probe for Current* DVI Models, 2" Diameter Opening
HP-DVI-6	Overhead Hook Probe for DVI-500, 6" Diameter Opening
IEP-DVI-5	Underground Bushing Probe for Current* DVI Models, 15, 25 and 35kV Class
CS-DVI-5	Rugged Plastic Case for DVI-500
CS-DVI	Rugged Plastic Case for DVI-100
B-30	Carrying Bag with Fluorescent/Reflective Safety Stripes and Carrying Strap
HSA-2500	Universal Hotstick Adapter (Shotgun)
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick

\* Contact HDE for older model DVI-100 accessories

• Telescopic Hotsticks are listed on page 13

# **Electronic Voltage Detectors**

#### TAG®-200 & TAG-200MR

The single range TAG®-200 and multi-range TAG-200MR are electronic voltage detectors designed for detecting distribution voltages. These direct contact type detectors emit both audible and visual indications when placed in contact with an energized conductor. TAG's are designed for overhead applications, but can be adapted for underground use with optional underground bushing probes.

#### features

- · For system voltages up to 69kV (phase-to-phase)
- Designed to physically contact conductor under test
- Rugged polycarbonate housing for heavy field use
- Water resistant/gasketed housing
- All-Check self testing system
- Both audible and visual alarms
- No on/off or range selector switches
- Built-in universal spline for hotstick attachment
- 9V alkaline battery operated
- Compact, lightweight and easy to use
- Optional bushing probes for use in underground applications

PART #	DESCRIPTION
T200-0412	TAG-200, Range*: 4-12kV, (1) TAG-42029, (1) TAG- 41811/B and C-200 Case
T200-1235	TAG-200, Range*: 12-35kV, (1) TAG-42029, (1) TAG- 41811/B and C-200 Case
T200/KIT-0412	Includes T200-0412, (1) IEP-UD/C, (1) TAG-42029, (1) TAG-41811/B and C-200 Case
T200/KIT-1235	Includes T200-1235, (1) IEP-UD/C, (1) TAG-42029, (1) TAG-41811/B and C-200 Case
T200/MR	Multi-Range Detector, Design Range: 4-69kV, (1) TAG-42029, (1) TAG-41811/B and C-200 Case (operating range to be determined with HDE assistance)
TAG-200MR/KIT	Includes TAG-200MR, (1) IEP-UD/C, (1) TAG-42029, (1) TAG-41811/B and C-200 Case

\* Other operating ranges are available, contact HDE

Search > TAG-200 @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
IEP-UD/C	Underground Bushing Probe, 15, 25 & 35kV Class
IEP-EA/C	Underground Elbow Probe, 15, 25 & Elastimold® 35kV Class
PT-DET	Tester for Voltage Detectors up to 69kV
HSA-2500	Universal Hotstick Adapter (Shotgun)
TAG-42029	Overhead "Y" Probe for TAG-200 and TAG-200MR
TAG-41811/B	Overhead Straight Probe for TAG-200 and TAG-200MR

(continued)





TAG-200





TAG-200MR



TAG-330



TAG-330 in Case

#### **Electronic Voltage Detectors – continued**

TAG-EFT200	Retaining Nut for TAG-200 and TAG-200MR (GRAY)
C-200	Plastic Carrying Case for TAG-200 and TAG-200MR and Kits
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
B-2	Padded, Zippered Carrying Bag with Strap for TAG-200 and TAG-200MR
TAG-200WS	Replacement Housing and Labels for TAG-200 and TAG-200MR, White Color

•Telescopic Hotsticks are listed on page 13

#### TAG®-330

The TAG®-330 is a single range electronic voltage detector designed for detecting transmission voltages. This direct contact type detector emits both audible and visual indications when placed in contact with an energized conductor.

#### features

- For system voltages from 69kV up to 765kV (phase-to-phase)
- Designed to physically contact conductor under test
- Rugged polycarbonate housing for heavy field use
- Water resistant/gasketed housing
- All-Check self testing system
- Both audible and visual alarms
- No on/off or range selector switches
- Built-in universal spline for hotstick attachment
- Compact, lightweight and easy to use

PART #	DESCRIPTION
TAG-330	TAG-330, Design Range: 69-765kV, (1) TAG-AD100, (1) TAG-AC60, (1) TAG-AC120 and CM-330 Case (operating range to be determined with HDE assistance)

**P** Search > TAG-330 @ HDElectricCompany.com

#### Accessories

PART #	DESCRIPTION
PT-DET	Tester for Voltage Detectors up to 69kV
HSA-2500	Universal Hotstick Adapter (Shotgun)
TAG-AD100	Overhead 4" Straight Probe
TAG-AC60	Overhead Small Hook Probe
TAG-AC120	Overhead Large Hook Probe
TAG-EFT200	Retaining Nut for TAG-330
CM-330	Metal Carrying Case
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
TAG-330RS	Replacement Housing and Labels, Red Color

• Telescopic Hotsticks are listed on page 13

# **Proximity Voltage Detectors**

The PRX Proximity Voltage Detector is a non-contact detector with nine standard voltage ranges from 120V to 500kV. When voltage is detected, the PRX gives an audible and visual indication with a typical detection distance of 10 inches. The PRX has the ability to detect voltage on most elbow test points at the 120V setting. With a rechargeable internal battery, the PRX can be charged quickly from 12VDC automotive outlets or from 115-240VAC. The battery is sealed inside the device, providing maximum protection.

#### features

- Rechargeable battery with quick recharge if battery is low, a quick 15 minute charge provides over one full day of use
- Nine standard voltage ranges from 120V up to 500kV
- Detects voltages 10" or greater from source
- Detects voltage on most elbow test points
- Dual hotstick connections universal spline & shotgun stick
- Loud beeper and LED lights indicate voltage
- Weighs less than 1 pound
- A full charge takes only 3 hours and gives 1 week of continuous use
- Easy to use electronic touch pad with large buttons
- Custom voltage ranges available upon request
- Can be used on 50Hz and 60Hz systems

PART #	DESCRIPTION
PRX-500/K02	Proximity Voltage Detector with Rechargeable Battery; Includes PRX-CORD and PRX-XF Charge Cords
PRX-500/K03	Proximity Voltage Detector with Rechargeable Battery; Includes PRX-CORD, PRX-XF Charge Cords and B-2 Carrying Bag
PRX-500H	Proximity Voltage Detector with Rechargeable Battery; Includes PRX-HS Holster, PRX-CORD and PRX-XF Charge Cords
PRX-500B	Proximity Voltage Detector with Rechargeable Battery; Includes PRX-HS Holster, PRX-CORD, PRX-XF Charge Cords and B-2 Carrying Bag
PRX-500	Proximity Voltage Detector with Rechargeable Battery; Includes PRX-HS Holster, PRX-CORD, PRX-XF Charge Cords and PRX-CS Carrying Case
PRX-CORD	Charge Cord with 12VDC Automotive Jack
PRX-XF	115-240VAC Transformer to Plug PRX-CORD into 115-240VAC Wall Outlet
PRX-HS	Carrying Holster with Belt Clip and Restraining Strap
PRX-CS	Carrying Case; Holds PRX-500, PRX-HS and Charge Cords
B-2	Padded, Zippered Carrying Bag with Strap; Holds PRX-500, PRX-HS and Charge Cords
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick



PRX-500



PRX-500/K02 Kit

• Telescopic Hotsticks are listed on page 13

• An international version of the PRX-500 is available, contact HDE for details

Search > PRX @ HDElectricCompany.com

APT-1





# **Active Power Tester**

The APT-1 Active Power Tester is designed to give an indication when the absence of full line voltage is detected on overhead conductors, giving an audible and visual alert. The APT-1 is for use on uninsulated overhead conductors with voltages from 7.6 to 13.2kV line-to-ground.

#### features

- Lets the worker know whether the overhead voltage has been disconnected prior to working on the line
- Clampstick installed
- Audible indication and flashing light when the absence of voltage is detected on the line
- Powered by a field replaceable 9V alkaline battery

PART #	DESCRIPTION
APT-1	Indicates Absence of Full Line Voltage on Conductors from 7.6 to 13.2kV Line-to-Ground

Telescopic Hotsticks are listed on page 13

Search > APT @ HDElectricCompany.com

# **Voltage Probe**

The VP-1 Voltage Probe is designed to be used as a hand held direct contact secondary voltage detector from 50VAC to 600VAC. It can also be used as a direct contact voltage detector on primary voltages from 600V up to 21kVAC and also as a proximity voltage detector for voltages exceeding 21kVAC when using appropriately rated electrical insulating gloves.

#### features

- Tests exposed metallic surfaces and conductors for the presence of secondary voltage
- Tests unshielded primary voltage cable insulation
- Tests primary voltage joint and termination test points for the presence of voltage
- Simple indication of voltage flashing red light and beeper
- Compact, lightweight and easy-to-use
- Super bright LED indicator
- · Powered by field replaceable 2AA alkaline batteries

PART #	DESCRIPTION
VP-1/K01	Kit Includes VP-1, PT-VP and B-35 Bag
VP-1	Direct Contact Voltage Detector from 50VAC to 21kV, Proximity Voltage Detector above 21kV
PT-VP	Tester for Voltage Probe
B-35	Padded, Zippered Carrying Bag with Strap

Search > VP-1 @ HDElectricCompany.com

Voltage Probe Kit (VP-1/K01)

# **Stray Voltage Detector**

The Stray Voltage Detector, model LV-S-5, is used to detect low stray voltage which may be present within electrically conducive sources. The Detector operates by holding it with a bare or gloved hand, or by using the optional Extension Handle, creating a "virtual ground" and directly contacting the metal tip of the Detector to the potentially energized source.

Three optional accessories are available for the LV-S-5. The Detector Tester supplies a low voltage AC signal for testing the LV-S-5 before and after use. The Extension Handle extends the reach of the LV-S-5, allowing the Tester to test equipment on the ground or hard to reach locations. The Ground Shield is used in areas where high voltage lines or other energized conductors are present.

#### features

- Low threshold voltage sensing design picks up voltages from 5VAC to 600VAC with direct contact and above 600VAC at a distance
- Ultra bright, long-lasting red LED indicates when voltage is present
- Detector is always on, ready to use, and operates on two AAA alkaline batteries
- Rugged, utility-grade design is waterproof
- Optional Detector Tester supplies a low voltage AC signal for testing before and after use
- Optional Extension Handle extends the Detector's reach for testing equipment on or near the ground or other hard to reach locations
- Optional Ground Shield used in areas where energized conductors are present and interfere with normal voltage tests
- Optional rugged carrying bag holds one LV-S-5 Detector and one Tester

PART #	DESCRIPTION
LV-S-5/K01	Detects Stray Voltage from 5-600VAC. Kit Includes LV-S-5, PT-LV-5 and B-25 Bag
LV-S-5	Detects Stray Voltage from 5-600VAC
PT-LV-5	Tester for LV-S-5
EH-LV	Extension Handle, 30" Long for LV-S-5
GS-LV	Ground Shield with Ground Lead and Alligator Clip for LV-S-5
B-25	Padded, Zippered Carrying Bag for LV-S-5 and PT-LV-5

*P* Search Stray Voltage Detector @ HDElectricCompany.com



LV-S-5



V-WATCH PRO



# **Personal Voltage Detectors**

Worn on the outside of your clothing at mid-torso, the V-Watch® Personal Voltage Detector provides that extra level of safety by detecting and alerting you to the presence of electrical fields or energized electrical equipment. In emergencies, you and your crews can move in safely to quickly restore power to your customers. The V-Watch is available in both a standard model and a pro model with a mute feature. Each comes in a tough nylon carrying case lanyard that is worn around the neck during use.

#### features

- Alerts user to proximity of high voltage
- Audible and visual alarms increase in frequency the closer the user gets to energized equipment
- Typical V-Watch warning distance is about 7 feet (2.13 m) from a 4kVAC conductor
- Provides another level of safety for storm restoration workers and first responders
- Low battery indicator
- Field replaceable 9V battery
- Rugged protective housing
- Built-in self test
- Lightweight
- Carrying case lanyard
- Electrically shielded
- Storage case when the V-Watch is not in use
- Lanyard allows user to adjust to optimum mid-torso position

PART #	DESCRIPTION
VW-20H	V-Watch Personal Voltage Detector with C-10 Carrying Case Lanyard
VW-20H-K	Kit Includes VW-20H, (1) C-10 and VW-K-BAG
VWP-20H	V-Watch Pro Personal Voltage Detector with Mute Button and C-10 Carrying Case Lanyard
VWP-20H-K	Kit Includes VWP-20H, (1) C-10 and VW-K-BAG
C-10	Shielded Carrying Case with Built-in Lanyard
VW-K-BAG	Padded, Zippered Carrying Bag

• Other V-Watch models available with different sensitivites, contact HDE • Other V-Watch Kits are available, contact HDE

*P Search* V-Watch @ HDElectricCompany.com

# **Insulator Tester**

The Hi-Test<sup>®</sup> IT-4 Insulator Tester detects non-visible insulator failures before they cause operations difficulties or safety threats to line crews. The Insulator Tester can be used as a routine maintenance tool to test insulators quickly, safely and reliably. It can be applied to any in-service transmission or distribution insulator and at any voltage, provided there are two or more insulators between conductor and ground. It can also be used to test de-energized insulators prior to installation.

#### features

- Universal spline for attachment to a hotstick
- Built-in gigohmmeter applies a current limited 10kVDC potential across an insulator
- Buzzer provides audible warning of bad insulators
- LED scale displays the condition of the insulator being tested
- Powered by an 8VDC rechargeable battery
- Rugged carrying case included
- Lightweight weighs approximately 3 lbs. (1.35 kg)

PART #	DESCRIPTION
IT-4	Insulator Tester; Includes Battery, (1) Standard Side Bent Probe, (1) Standard Straight Probe, 120VAC Charging Adapter and CS-IT4 Case
IT-4/12V	Insulator Tester; Includes Battery, (1) Standard Side Bent Probe, (1) Standard Straight Probe, 120VAC Charging Adapter, 12VDC Charging Cord and CS-IT4 Case
IT-4/220P	Insulator Tester; Includes Battery, (1) Standard Side Bent Probe, (1) Standard Straight Probe, 220VAC Charging Adapter and CS-IT4 Case – for International Customers

Search Insulator Tester @ HDElectricCompany.com

#### Accessories

PART #	DESCRIPTION
075-IT3-8VX4	Replacement Battery
025-02035-SUB	Standard Side Bent Test Probe
025-02040-SUB	Standard Side Straight Test Probe
025-02045-SUB	Optional Pigtail End Test Probe (MUST BE USED WITH OPTIONAL STRAIGHT END PROBE)
025-02050-SUB	Optional Straight End Test Probe (MUST BE USED WITH OPTIONAL PIGTAIL END PROBE)
025-02070-120V	120VAC Charging Adapter
050-02000-12V	12VDC Charging Cord
050-02025-220V	220VAC Charging Adapter
CS-IT4	Carrying Case
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
HSA-2500	Universal Hotstick Adapter (Shotgun)



#### • Also see Telescopic Hotsticks in Voltmeter Accessories Section page 13



HISAT-15

## **MOV Arrester/Leakage Testers**

The Hi-Test<sup>®</sup> HiSat MOV Surge Arrester and Leakage Testers allow for the non-destructive testing of de-energized surge arresters for non-visible internal breakdown. These self-contained units are lightweight and portable for both shop and field use. The HiSat applies voltage across the arrester and indicates the breakover/conduction point of the arrester. It will determine if an arrester is conducting at lower voltages than specified or not conducting at all. Because of new arrester technology, the testers will not properly test gap or hybrid MOV/GAP type arresters such as Hubbell<sup>®</sup> Optima or Cooper VariGAP<sup>®</sup>.

#### features

- Tests up to 25kV class MOV arresters (up to 18kV rated)
- Self-contained with rechargeable battery
- Easy to read LED's
- Auto shut-off
- Pivoting handle and belt clip
- Lightweight and completely portable
- Includes 120VAC charging adapter

PART #	DESCRIPTION
HISAT-15	Surge Arrester/Leakage Tester for up to 15kV Class Arresters; Includes Battery, Complete Test Lead Set and 120VAC Charging Adapter
HISAT-25	Surge Arrester/Leakage Tester for up to 25kV Class Arresters; Includes Battery, Complete Test Lead Set and 120VAC Charging Adapter
HISAT-15/220P	Surge Arrester/Leakage Tester for up to 15kV Class Arresters; Includes Battery, Complete Test Lead Set and 220VAC Charging Adapter – for International Customers
HISAT-25/220P	Surge Arrester/Leakage Tester for up to 25kV Class Arresters; Includes Battery, Complete Test Lead Set and 220VAC Charging Adapter – for International Customers

*P* Search Arrester @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
075-02000-12V	Replacement Battery
025-02015-SUB	Red High-Voltage Test Lead
025-02190-SUB	Black Ground Return Lead
025-02195-SUB	Black Static Ground Lead
050-02030-SET	Complete Test Lead Set - (1) High Voltage, (1) Ground Return, (1) Static Ground
575-02012-SAT	Wall Mount Rack
025-02070-120V	120VAC Charging Adapter
050-02000-12V	12VDC Charging Cord
050-02025-220V	220VAC Charging Adapter
B-5	Zippered Carrying Bag

Hubbell is a registered trademark of Hubbell Power Systems, Inc. VariGAP is a registered trademark of Cooper Industries, Inc.

# **Arrester Tester**

The AT-100 is a two-stick live line tester designed to test disconnected lightning arresters on a power distribution system. The tester is designed to warn the user that an arrester is damaged or deteriorating and should not be energized.

#### features

- For use on systems from 4kV to 25kV phase-to-phase and up to 69kV with optional R-69 add-on resistor stick pair
- Built-in universal splines for attachment to hotsticks
- Easy to read meter face
- Optional bushing probes allows testing of elbow arresters

# PART #DESCRIPTIONAT-100Lightning Arrester/Leakage Tester 4-25kV, up to 69kV<br/>with Optional R-69 Resistors; Includes (2) Overhead<br/>Hook Probes and CM-100/V CaseAT-100/K1Kit Includes AT-100, (2) 025-OLPS-5, (2) R-69 and<br/>CM-100/V Case

See page 13 for optional accessories

Search > AT-100 @ HDElectricCompany.com

# **DC Leakage Tester**

The PT-5000W is a portable, general purpose dual voltage leakage tester designed to test primary distribution voltage or secondary voltage equipment for faults or high leakage currents. Use only on cables or equipment that have been verified to be both de-energized and discharged. The test voltage can be set by the user to either 500VDC or 5,000VDC. The PT-5000W can be used to check for leakage on cables, transformers, capacitors, joints, terminations, insulators, etc.

#### features

- Portable unit tests de-energized and discharged capacitors, transformers, terminations and insulators
- Use in overhead or underground systems
- User selectable test 500VDC or 5,000VDC
- · Compact, lightweight and easy-to-use
- Super bright LED indicators
- Low battery indicator
- · Powered by field replaceable 9V alkaline battery

PART #	DESCRIPTION	

PT-5000W High Voltage DC Leakage Tester

Search > PT-5000W @ HDElectricCompany.com





PT-5000W



CC-III (Optional Accessories Shown)



CC-I



CC-II/100

# **Capacitor Testers**

The Cap Check® line of capacitor testers is designed to identify internal problems with a capacitor or capacitor bank. The instruments are proven to be a valuable asset in maintaining both pole-mounted and substation capacitors. The testers will identify bad or failing capacitors that may rupture upon energizing. Cap Check I and III are designed for pole mounted and individual capacitors and can enable a two-man crew to check a bank of 12 in about 20 minutes. Cap Check II is based on the same principles and specifically designed for checking capacitor units in substation banks.

#### features

- Quick and easy-to-use
- Allows user to eliminate unnecessary replacement through proper testing
- Tests individual or banks of capacitors
- Prevents costly clean-ups

PART #	DESCRIPTION
CC-I	Overhead Bank Capacitor Checker, Requires 12VDC Power, Includes 4" CT
CC-II/100	Substation Capacitor Checker – Carrying Case Version, Includes 2″ CT
CC-II/102	Substation Capacitor Checker – Console Version, Includes 2" CT
CC-III	Distribution/Substation Capacitor Checker – Portable Version, CT Sold Separately

Search > CC-III @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
СТ002	2" Current Transformer with Plug, Cord and Hotstick Adapter for Cap Check II
CT002/III	2" Current Transformer with Plug and Cord for Cap Check III
СТ004	4" Current Transformer with Plug, Cord and Hotstick Adapter for Cap Check II
CT004/III	4" Current Transformer with Plug and Cord for Cap Check III

# **Transformer & Capacitor Testers**

The TILT II Transformer Testers and the Quick-Check® Transformer and Capacitor Testers provide quick and easy checks for opens or shorts on power distribution systems. They operate with a single push-button and provide clear indications of open circuits, short circuits and confirmation that the test results are OK. The TILT II is a versatile tool for guick and easy checks of transformers and the connections made to them. In the field, the TILT II is used to test the primary and secondary sides of new or reworked, single or three-phase transformer installations for short circuits prior to energizing. In the shop, the TILT II is used for the quick screening of incoming and outgoing transformers for both primary and secondary shorts or opens, including internal fuses and breakers. The Quick-Check performs all the same transformer tests as the TILT II, and also tests capacitors and capacitor banks. A magnet is available to hold the TILT II or Quick-Check in place while testing.

#### features

- Tests transformers or capacitors for major defects before energizing
- Tests the primary and secondary sides of de-energized transformers without disconnecting
- Built-in self-test feature (manual or auto self-test models available)
- Single button automatic testing
- Audible alarm confirms successful test
- Super bright LED indicators

#### PART # DESCRIPTION TL-MAN-N TILT II Transformer Tester with Manual Self-Test TL-MAN-M TILT II Transformer Tester with Manual Self-Test and Magnet TL-AST-N TILT II Transformer Tester with Automatic Self-Test TL-AST-M TILT II Transformer Tester with Automatic Self-Test and Magnet OC-MAN-N Quick-Check Transformer & Capacitor Tester with Manual Self-Test QC-MAN-M Quick-Check Transformer & Capacitor Tester with Manual Self-Test and Magnet OC-AST-N Quick-Check Transformer & Capacitor Tester with Automatic Self-Test QC-AST-M Quick-Check Transformer & Capacitor Tester with Automatic Self-Test and Magnet B-8 Padded Carrying Bag

All TILT and Quick-Check Units include B-8 Carrying Bag

Search > Quick-Check @ HDElectricCompany.com



TL-AST-N





# **High Voltage Ammeters**

The HALO<sup>®</sup> is a high voltage digital ammeter for use on power distribution systems designed to take True RMS AC current measurements. Its open-core design allows the user to quickly hook it over a conductor from the end of a hotstick and obtain a current reading in amperes. The HALO can be used to take spot load measurements on a single phase, as well as take readings on all three phases to determine load balance.

There are two models, the HALO I and the HALO II. The HALO I has a peak-hold mode so the reading is stored on the display until reset. The HALO II includes peak-hold mode and also a tracking mode that allows the user to view continuous changes on the display. The unit can be used on any voltage up to 69kV system voltages. It is available with either a hook-style or fork-style sensing head. The HALO can be used over insulated cable. However, it cannot be used over shielded cable, such as the concentric neutral.

#### features

- For use on voltages up to 69kV class (40kV line-to-ground)
- True RMS reading instrument
- 0-2000 amp auto-ranging LCD display
- Track and peak-hold modes available
- · Hook or fork style sensing heads
- Universal spline for standard hot stick attachment
- Powered by a field replaceable 9V alkaline battery
- Auto shut-off

PART #	DESCRIPTION
8280	HALO I, 0-2000 AMPS AC, True RMS, Peak Hold, Hook Head and B-7 Bag*
8281	HALO I, 0-2000 AMPS AC, True RMS, Peak Hold, Fork Head and B-7 Bag*
9390	HALO II, 0-2000 AMPS AC, True RMS, Peak Hold and Tracking, Hook Head & B-7 Bag*
9391	HALO II, 0-2000 AMPS AC, True RMS, Peak Hold and Tracking, Fork Head and B-7 Bag*

\* To order HALO with metal case, add "/HC-5" to end of part number

*P* Search HALO @ HDElectricCompany.com

#### Accessories

PART #	DESCRIPTION
HC-5	Aluminum Case
B-7	Nylon Carrying Bag
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
HSA-2500	Universal Hotstick Adapter (Shotgun)
025-00001-SUB	Complete Battery Holder Assembly with Spline and Nut Inserts

9391

Also see Telescopic Hotsticks in Voltmeter Accessories Section, page 13

# **Feeder Ammeter Clear Test**

The FACT is used to indicate the presence of grounds or short circuits on the three-phase conductors of a primary feeder or on transformer secondaries. Grounding of feeder cables is a common safety practice and may occur when maintenance is being performed prior to service being restored. If grounds are not removed from the feeder prior to restoring power, damage can occur.

#### features

- Fully automated test procedure
- Display shows instructions, messages and ammeter current
- Internal diagnostics confirm proper operation
- Automatically detects incorrect polarity
- Easy to use
- Portable, one person design
- Built-in self test
- 5 amp output, current limited
- Requires 120VAC, 60Hz power

PART #	DESCRIPTION
FACT-1	Feeder Ammeter Clear Test

**Search** FACT-1 @ HDElectricCompany.com

# Load Box

The LB-5 Load Box helps to prevent the damaging effects of ferroresonance found on lightly or unloaded 3-phase power systems. This situation typically occurs on medium voltage distribution transformers and power cables during single phase switching. As the electric power industry moves towards more efficient transformer design, this condition is becoming more common. If such conditions exist, overvoltage can lead to the breakdown of insulation resulting in damage to the transformer, lightning arresters and other equipment. When using the LB-5 to connect and apply a resistive load on the transformer secondaries, damage to distribution equipment due to ferroresonance can be prevented.

#### features

- Portable, one person design
- Dual voltage, auto voltage selection
- Powered by transformer secondaries 120/277VAC
- 5,000 watt per phase loading
- Resistive load up to 3 phases
- 40A fused disconnect switch
- Blown fuse indicator lamp
- Auto-ranging voltage input no switching required

PART # DESCRIPTION

Load Box

LB-5

Search LB-5 @ HDElectricCompany.com



FACT-1



LB-5



# **Cable Distance Meters**

The Cable Distance Meter is a handheld device for measurement of cable sag, cable height distance and overhead clearance of conductors. It is a modern alternative to telescopic measuring poles. The Cable Distance Meter utilizes ultrasonic signals to determine the height of overhead cables up to 75 feet.

#### features

- Quick measurements save time and money
- · No physical connection to cables or wires
- Simple, three-button operation ensures fast, effective measurements
- · Compact, lightweight and portable
- Low battery indicator

PART #	DESCRIPTION
CDM-50	Cable Distance Meter Measures up to 6 Wires, 50' Range with B-20 Bag
CDM-75	Cable Distance Meter Measures up to 6 Wires, 75' Range with B-20 Bag
CDM3-50HT	Cable Distance Meter Works with Horizontal Target, Measures up to 3 Wires, 50' Range with B-20 Bag
HT-150	Horizontal Target for Use with CDM3-50HT to Determine Horizontal Distances up to 150'
B-20	Padded, Zippered Carrying Bag

Search > CDM @ HDElectricCompany.com

# **Rope Tester**

The Hi-Test® Rope Tester is designed to test hot line ropes, slings and straps for dielectric integrity at the time and location they are being used. Ropes with diameters ranging from 3/8" diameter (9.5 mm) to 1-1/2" diameter (38 mm) can be tested along with slings and straps of various sizes.

#### features

- Continuously test any length of rope or straps
- Dielectric condition is displayed by green (good) or red (bad) LED's
- Powered by an 8VDC rechargeable battery
- Audible buzzer sounds if defective section of rope is found
- Small, portable and easy-to-use

PART #	DESCRIPTION
RT-200	Rope Tester; Includes Battery and 12VAC Charging Adapter
RT-200/220P	Rope Tester; Includes Battery and 220VAC Charging Adapter – for International Customers
075-IT3-8VX4	Replacement Battery
025-02070-120V	120VAC Charging Adapter
050-02000-12V	12VDC Charging Cord
050-02025-220V	220VAC Charging Adapter



RT-200

*P* Search **•** RT-200 @ HDElectricCompany.com

# **Phase Rotation Meter**

The Phase Rotation Meter is a dual range, 0–5kV and 0–15kV, unit that can be used as high as 45kV when resistor sticks are added. It is used to determine which is the leading phase of any two phases of a three-phase conductor system. It consists of two sticks with a connecting cord and ground lead.

#### features

- Large 3" meter face for easy reading
- Coiled connecting cord is standard
- Includes universal splines for hot stick attachment
- Adaptable for underground applications with bushing probes

PART #	DESCRIPTION
PRM-100	Phase Rotation Meter, 0-5/0-15kV, up to 45kV with Optional R-45 Resistor Sticks; Includes (2) 025-OLPS-5 and CM-100/V
R-45	Add-On Resistor Stick (Pair Required)
025-OLPS-5	PVC/Brass Overhead Hook Probe
CM-100/V	Metal Carrying Case
S-6H	6' Fixed Length Fiberglass Hotstick

• Telescopic Hotsticks and other accessories are listed on page 13

Search > PRM-100 @ HDElectricCompany.com

# СССИ СССИ СКАЗАНИИ СКАЗИНИИ СКАЗАНИИ СКАЗИНИИ СКАЗАНИИ СК

# **3 Phase Cable Identifier**

The 3ID Three Phase Cable Identifier identifies the correct phases on long lengths of de-energized and discharged overhead and underground cables. It includes a sender and receiver that are designed to be hand held with or without gloves. Because of its higher test voltage, the 3ID can test up to a mile of cable. LED's on both units indicate that the 3ID units are connected to the same phases on each end of a cable.

#### features

- Identify all three cable phases simultaneously and any shorted phases
- Higher test voltage of 36VDC allows for longer cable lengths to be tested minimum one mile
- Use in overhead or underground systems
- Compact, lightweight and easy-to-use
- Super bright LED indicators
- Large copper alligator clips with heavy duty boots
- Low battery indicator

PART #	DESCRIPTION
3ID-100	Three Phase Cable Identifier, Includes Sender, Receiver and B-5 Carrying Bag
B-5	Zippered Carrying Bag

**Search** 3ID @ HDElectricCompany.com



3ID-100



PF-50

**Cable Identifier** 

The PF-50 identifies the correct phases on long lengths of de-energized and discharged overhead and underground cables. It consists of a Transmitter and Receiver that are designed to be handheld with or without gloves or with optional accessory hotsticks. The PF-50 comes in a zippered carrying bag (B-5) and runs on a 9V alkaline battery in each unit.

#### features

- Small, lightweight and easy-to-use
- Bright LED display indicates phase reference
- 9V alkaline field replaceable batteries
- Rugged plastic enclosures

PART #	DESCRIPTION
PF-50	Phase Flasher Cable Identifier, Includes Transmitter, Receiver and B-5 Bag
B-5	Zippered Carrying Bag for PF-50 Units, Holds Both Transmitter and Receiver
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
HSA-2500	Universal Hotstick Adapter (Shotgun)

Telescopic Hotsticks are listed on page 13

P Search ► PF-50 @ HDElectricCompany.com

# **Phase Sequence Indicator**

The K-7-1 Phase Sequence Indicator indicates the order of succession in time of the different voltage peaks of a multiphase supply. The K-7-1 is used in connection with the making of three-phase circuit installations or alterations, and replacement installations of motors and generators. It can be used for making continuity tests of circuits of polyphase systems. It's also valuable in making connections of power-factor meters, voltampere meters, watt and watthour meters and relays.

#### features

- Voltage Range from 60 600V
- Only 21 ounces, the K-7-1 is lightweight and easy to carry
- Indicates the phase sequence by the direction of the rotor disc

PART #	DESCRIPTION
K-7-1	Phase Sequence Indicator

**P** Search • K-7-1 @ HDElectricCompany.com



# **Secondary Service Tester**

The Test-M-Lite<sup>®</sup> is a tester for determining unintentional electric loads in residential or commercial service entrances. Before connecting a customer's service, it will reveal if an unknown load exists or if it is only a meter potential coil load. Also, it will prevent accidental pickup of any appreciable load connected within the confines of a new building.

#### features

- Voltage Range 110-240V
- Strain reliefs prevent the lead wires from being pulled out
- Heavy duty 120V bulb
- No exposed metal probes and hanging hook are covered with neoprene rubber

PART #	DESCRIPTION
TML-201	Test-M-Lite

Search > Test-M-Lite @ HDElectricCompany.com

# **Voltage & Continuity Tester**

The Candelabra Voltage and Continuity Tester is a general purpose incandescent light bulb voltage indicator for 110-240V. Used for verifying voltage and testing continuity on typical secondary voltage distribution systems. The bulb lights up when the circuit is completed. For use with energized circuits from 110-240V.

#### features

- Voltage Range 110-240V
- Compact design probes stow neatly in the bottom of the tester

PART #	DESCRIPTION
TM-6390032	Candelabra Test Set, 110-240 V Commercial Continuity Tester

Search > Candelabra @ HDElectricCompany.com



TML-201



TM-6390032



# **Arc Analysis Software**

ARCPRO 2.01 is a software program developed to calculate the thermal parameters of electrical arcs. The program is designed to aid in the selection of protective clothing by defining the potential arc hazard for workers who may be accidentally exposed to electrical arcs. The user can then specify clothing that will withstand the level of predicted arc hazards.

#### features

- · Easy to use Windows®-based format
- Clothing database
- Second degree burn criteria

PART #	DESCRIPTION
ARCPRO2.01	Arc Analysis Software, Keyless Version, Includes Manual
ARCPRO-UPGRADE1	Upgrade of ArcPro Software from Version 1.0 to Version 2.01
ARCPRO-UPGRADE	Upgrade of ArcPro Software from Version 2.0 to Version 2.01

• Windows is a registered trademark of Microsoft Corporation

*P* Search ARCPRO @ HDElectricCompany.com

# **Fuse Tool**

The FT-1 Fuse Tool is designed to assist in the installation and removal of most cutout type overhead fuse links. The Fuse Tool provides greater control of the fuse link during installation and removal. By using the Fuse Tool, line crews are able to quickly and safely remove and install most cutout type overhead fuse links found in overhead distribution systems.

#### features

- Heavy duty fuse receiver
- · Corrosion resistant switch hook
- Universal spline for standard hotstick attachment
- · Quickly and easily remove and install fuse links
- Increased safety during fuse link replacement
- Eliminate the danger of falling fuses

PART #	DESCRIPTION
FT-1	Fuse Tool with Instruction Sheet
S-4H	4' Fixed Length Fiberglass Hotstick
S-6H	6' Fixed Length Fiberglass Hotstick
HSA-2500	Universal Hotstick Adapter (Shotgun)

Telescopic Hotsticks are listed on page 13

Search FT-1 @ HDElectricCompany.com



FT-1

# **Switch Blocking Pins**

The Switch Blocking Pin is a non-conductive pin that is placed into the switch blocking location of an air break/ load break switch when the switch is opened for work on the line or equipment. The blocking pin assures the worker that the switch stays open until the pin is removed. It completely blocks the switch from operating due to human error, vibration, wind or any other undesirable actions that would cause the switch to close.

#### features

- The pins can be placed into the switch blocking location of Omni-Rupter® and Scada-Mate® switches
- Can be installed by one worker from the ground using an extension hotstick, keeping the worker away from energized conductors and equipment
- · Switch cannot be closed until the pin is removed
- A hold card or tag can be attached to the pin to easily locate the open switch

PART #	DESCRIPTION
SBP-100	Omni-Rupter <sup>®</sup> Switch Blocking Pin with Magnet – 4.75" High
SBP-200	Scada-Mate® Switch Blocking Pin with Magnet – 5.5" High
SBP-100/KIT	Kit Includes Omni-Rupter® Switch Blocking Pin, Adapter and Storage Box
SBP-200/KIT	Kit Includes Scada-Mate® Switch Blocking Pin, Adapter and Storage Box
050-03050-SBP	Switch Blocking Pin Application Adapter
CS-SBP	Storage Box for Switch Blocking Pin and Adapter with Padlockable Latch - Includes Mounting Hardware

Omni-Rupter® and Scada-Mate® are registered trademarks of S&C Electric Company, Chicago, IL

Search SBP-100 @ HDElectricCompany.com

# **Extension Clip Cord**

The Clip Cord is an extension cord with a built-in GFCI circuit that provides power to any 120V power tools, such as handheld drills, without having to carry a power supply. The Clip Cord attaches to the terminals of a meter socket or a transformer with alligator clips and has a grounded 120V plug at the other end.

#### features

- Convenient source of power eliminates need for separate power supply
- Built-in GFCI allows testing before each use
- · Neon light in GFCI verifies proper operation

PART #

DESCRIPTION

XC-GFCI Clip Cord with GFCI Circuit, 6'-7" Length

Search > GFCI @ HDElectricCompany.com





SBP-200

SBP-100





# **12 Volt Lighting**

The Versa-Lite<sup>®</sup> product line offers a wide variety of spot and flood lights, ranging from a 50,000 candlepower floodlight to a 300,000 candlepower spotlight.

#### features

- Magnetic base supplied on all units
- Straight cord or coil cord (depending on model)
- 12V power cord
- Blue-eye beam (depending on model)
- Optional removable bulb guard

PART #	DESCRIPTION
Model-C	50,000 CP Flood/100,000 CP Spot
Model-C/CC	50,000 CP Flood/100,000 CP Spot, CC
Model-CR	50,000 CP Flood/100,000 CP Spot, CC, R
Model-F	200,000 CP Spot, with Handle
Model-F/CC	200,000 CP Spot, with Handle, CC
Model-J	160,000 CP Spot, with Handle, CC and Halogen Bulb
Model-M	50,000 CP Flood/100,000 CP Spot, with Handle
Model-M/CC	50,000 CP Flood/100,000 CP Spot, with Handle, CC
Model-MR	50,000 CP Flood/100,000 CP Spot, with Handle, CC, R
Model-O	300,000 CP Spot, with Handle, BEB
Model-O/CC	300,000 CP Spot, with Handle, BEB, CC
Model-OR	300,000 CP Spot, with Handle, BEB, CC, Bulb Guard, R
Model-Q	100,000 CP Flood/200,000 CP Spot, with Handle, BEB
Model-Q/CC	100,000 CP Flood/200,000 CP Spot, with Handle, BEB, CC
Model-QR	100,000 CP Flood/200,000 CP Spot, with Handle, BEB, Bulb Guard, CC, R

Legend: CP - Candlepower, BEB - Blue Eye Beam Bulb, CC - Coil Cord, R - Ruggedized Rubber Housing with Booted Switch

Search Versa-Lite @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
100-00003-128	Bulb – Models C, M, CR, MR
100-00006-131	Bulb – Model F
100-00008-148	Bulb – Model J
100-00010-134	Bulb – Model O
100-00012-136	Bulb – Models Q, QR
850-A203	3' Battery Adapter with 15 AMP Fuse
850-A210	10' Battery Adapter with 15 AMP Fuse
850-20CC	20' Coil Cord
050-QRR5	Bulb Guard – Models OR, QR

# **Aerial Bucket Light**

The Aerial Bucket Light is a dual beam 25,000 candlepower spotlight and 3,000 candlepower floodlight that is designed for use on aerial lift buckets. The light swivels and can be aimed in any direction to illuminate the area required, and the mounting bracket allows it to be mounted anywhere on the aerial bucket rim. The ABL-100 uses a 7.5V disposable lantern battery.

#### features

- · Sealed beam bulb housed in thick rubber socket
- Three-way switch housed in neoprene jacket
- Impact resistant housing

PART #	DESCRIPTION	
ABL-100	Aerial Bucket Light with Battery	
Q Soarch N	PL 100 @ HDElectricCompany.com	

Search > ABL-100 @ HDElectricCompany.com



ABL-100



CY3-LED



CY1-HWB

## **Battery Powered Headlamps**

Cyclops® Headlamps mount on the hard hat and allow you to move quickly and efficiently with both hands free. The front mounted design and sealed battery compartment eliminate cumbersome external wiring and allows for the even distribution of weight across the forehead.

#### features

- LED, halogen or long burn bulbs
- Secured to hard hat by rugged rubber strap
- Waterproof to a depth of 1000 feet
- Spot or wide angle reflectors
- Hinged base allows positioning at any angle
- 60 hours of burn time with LED bulb
- 8 hours of burn time with long burn bulb
- 5 hours of burn time with halogen bulb

## Cyclops III (3-AAA) with LED and Rubber Strap

PART #	DESCRIPTION
CY3-LED	Cyclops with 4 Setting LED Bulb (High/Med/Low/Flash), Batteries

• All Cyclops come with rubber strap. Elastic strap available, contact HDE

*P* Search Cyclops @ HDElectricCompany.com

## Cyclops I (4-AA) with Rubber Strap

PART #	DESCRIPTION
CY1-HWB	Cyclops I with Halogen Bulb, Wide Beam Reflector, Batteries
CY1-HSB	Cyclops I with Halogen Bulb, Spot Beam Reflector, Batteries
CY1-HWN	Cyclops I with Halogen Bulb, Wide Beam Reflector, No Batteries
CY1-HSN	Cyclops I with Halogen Bulb, Spot Beam Reflector, No Batteries
CY1-LWB	Cyclops I with Long Burn Bulb, Wide Beam Reflector, Batteries
CY1-LSB	Cyclops I with Long Burn Bulb, Spot Beam Reflector, Batteries
CY1-LWN	Cyclops I with Long Burn Bulb, Wide Beam Reflector, No Batteries
CY1-LSN	Cyclops I with Long Burn Bulb, Spot Beam Reflector, No Batteries

• All Cyclops come with rubber strap. Elastic strap available, contact HDE

Search > Cyclops @ HDElectricCompany.com

(continued)

## Cyclops II (2-AA) with Rubber Strap

PART #	DESCRIPTION
CY2-HWB	Cyclops II with Halogen Bulb, Wide Beam Reflector, Batteries
CY2-HSB	Cyclops II with Halogen Bulb, Spot Beam Reflector, Batteries
CY2-HWN	Cyclops II with Halogen Bulb, Wide Beam Reflector, No Batteries
CY2-HSN	Cyclops II with Halogen Bulb, Spot Beam Reflector, No Batteries
CY2-LWB	Cyclops II with Long Burn Bulb, Wide Beam Reflector, Batteries
CY2-LSB	Cyclops II with Long Burn Bulb, Spot Beam Reflector, Batteries
CY2-LWN	Cyclops II with Long Burn Bulb, Wide Beam Reflector, No Batteries
CY2-LSN	Cyclops II with Long Burn Bulb, Spot Beam Reflector, No Batteries

• All Cyclops come with rubber strap. Elastic strap available, contact HDE • Parts are available for the Cyclops hard hat safety lights, contact HDE

Search > Cyclops @ HDElectricCompany.com

# Disposable Hard Hat & Safety Lights

The Rite-Lite<sup>®</sup> Hard Hat Light conveniently attaches to the hard hat with mounting strips or can be used as a hand held utility flashlight. This allows for quick installation and removal. When the battery is exhausted, simply remove the Rite-Lite and replace with a new one. Rite-Lites have a multitude of uses within the power industry.

#### features

- Compact and self-contained
- Contoured design fits hard hats and bump caps
- Provides a natural fit in your hand
- Ultrasonically sealed assembly won't leak
- Easy-to-use
- Long-life alkaline battery provides over 15 hours of burn time
- "Fly-Eye" reflector provides a bright, even flood of light
- Polycarbonate lens assists in focusing the light and protects the bulb from damage

PART #	DESCRIPTION
78790	Rite-Lite II, Alkaline – Includes Mounting Strips
VE-2X3	2" x 3" Pair Self-Adhesive Mounting Strips

• Rite-Lite's are sold in multiples of 24 or 48 to a box

**Search** Rite-Lite @ HDElectricCompany.com



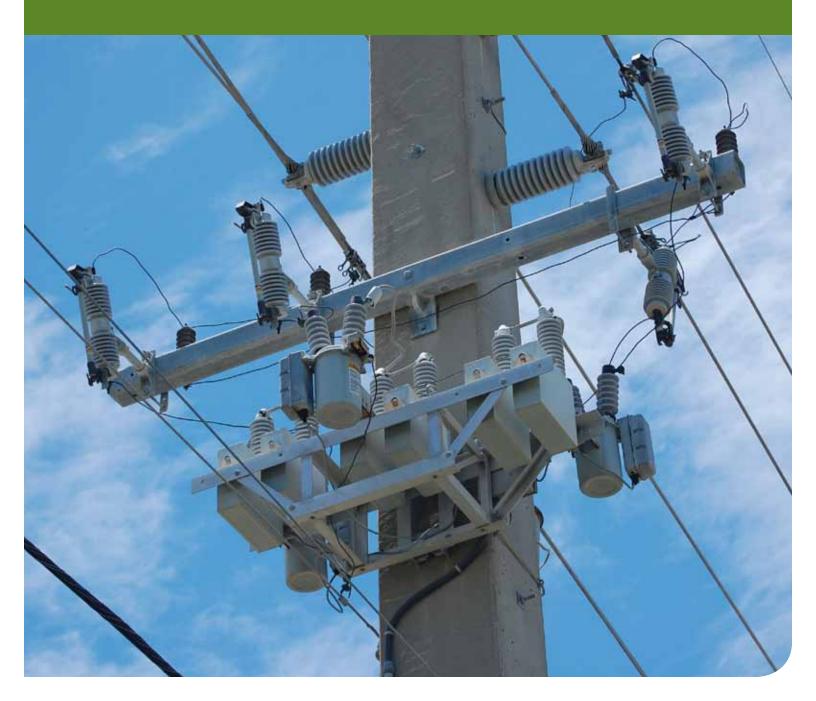
CY2-LSB



78790

# **Controls and Systems Monitoring**

HDE's comprehensive, innovative products for controlling and monitoring electricity help you manage system efficiencies and obtain maximum performance from the assets you operate. Whether controlling smart grid applications, managing current loading, or collecting customer information, our capacitor controls, ammeters, and portable recording products provide you with the leading-edge products you need.



# Communicating Capacitor Controls

Our VarCom Capacitor Controls provide VAR and voltage support on power distribution systems. When installed on switched capacitor banks, these controls help maximize power system efficiencies and improve power factor.

The VarCom<sup>®</sup> Series of Capacitor Controls with ComFlex<sup>™</sup> allow the user the option of deploying controls with communications factory installed, or the option of deploying the control initially as a local control and later upgrading it with communications. VarCom controls are based on the popular NoMax Capacitor Control design, which features a best-in-class local control user interface, while also allowing for the addition of communications.

Communications equipped VarCom Capacitor Controls add new capabilities for monitoring and controlling capacitor banks. Using ComFlex Flexible Communications Technology, communications can be added to any of the VarCom controls. ComFlex adds command and control functions while maintaining all of the features and capabilities for a full function VarCom control.

Communications technologies include basic one-way VHF/ UHF communications using radio, pager, etc., or two-way options using any DNP 3.0 communications interface such as cellular or 900MHz.

#### features

- Multi-schedule local functionality Time/Voltage/Temp
- · Easy to use, field friendly control panel
- · Based on existing, field-proven design
- Select the communications of your choice or upgrade in the field at a later date
- Bluetooth<sup>®</sup> local wireless communications
- Ethernet ready
- VHF/UHF paging for basic one-way communications
- Cellular, 900MHz and other two-way options through DNP 3.0
- Local control default mode never stops controlling capacitor bank even when off-line
- Control provides 12VDC power to communications hardware
- PC software allows data logging and profiles to be uploaded
- USB and RS-232 equipped
- Mounting options available pole, socket

PART #	DESCRIPTION
VCC-950P	Communicating Capacitor Control with Time, Voltage Override and Pager
VCC-1600	Communicating Capacitor Control with Time, Temperature, Voltage Override, Multiple Schedules, Logging and ComFlex™ Communications Ready
VCC-2600	Communicating Capacitor Control with Time, Temperature, Voltage, Current and VAR Override, Multiple Schedules, Logging and ComFlex™ Communications Ready

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VarCom 2600 with Two-Way Communications



VarCom 1600 with Two-Way Communications



VarCom 1600 with Two-Way Communications



VarCom 1600 with One-Way Pager Communications



VarCom 950P with One-Way Pager Communications

## Accessories for All Electronic Capacitor Controls

PART #	DESCRIPTION
LCS-15	15kV Line Current Sensor
LCS-25	25kV Line Current Sensor
LCS-9610/20	20' Cable with Connector for Line Current Sensors
050-USB	RS-232/USB Communications Cable
850-810025	RS-232/DB9 Communications Cable

## Simple One Way or Two Way Control

Communications technologies available include paging, cellular and other radio options. Paging systems include VHF/UHF FLEX™ for one-way communications and two-way REFLEX™ for command confirmation and exception reporting. The communications function is modular for retrofits or changes in communications technologies.

- Cost effective
- Add or remove local VARs to meet overall system demands
- Available on all VarCom local controls
- REFLEX<sup>™</sup> Paging adds basic command verification and trouble reporting
- Full local control functions and capabilities

## **Control and Monitoring**

Options include any DNP 3.0 communications interface, such as Sensus-Telemetric<sup>™</sup> Radio, Silver Spring<sup>®</sup> eBridge Radio, Landis+Gyr Integrated Wangate Radio, Wide Area Network or Broadband Over Power Lines. Two-way communications provides near real time control and monitoring of capacitor banks and the distribution systems they are connected to.

- Two way communications for command and control
- Add or remove local VARs to meet overall system demands
- Can be used as a capacitor bank control and distribution system monitor
- Control status reporting including trouble indicated by high neutral current
- Full local control and override functions and capabilities

# Full Integration with VAR Management Systems (VMS)

- Two way communications for command and control
- Near real time control and monitoring for closed loop VMS
- Add or remove local VARs to meet overall system demands
- Control status reporting including trouble indicated by high neutral current
- Monitoring and control of other system parameters including voltage and power factor
- Local control and override functions and capabilities

# **Local Capacitor Controls**

The NoMax<sup>®</sup> Local Capacitor Controls provide users with best in class local VAR management support and feature a user friendly interface and local programming capability. The NoMax 900 Series Capacitor Controls are smaller and easily field programmable from the front panel. There are three models of the NoMax 900 Series Capacitor Controls available to suit your needs:

- NoMax 900T offers time control only
- NoMax 950 offers time with voltage override
- NoMax 900 offers time with temperature and voltage override

The NoMax 1000/2000 Series Capacitor Controls are field programmable from the front panel, or with a computer. There are three models of the NoMax 1000/2000 Series Capacitor Controls available to suit your needs:

- NoMax 1300 offers time control with voltage override
- NoMax 1600 offers time control with temperature and voltage override
- NoMax 2000 offers VAR control with voltage override

All capacitor controls have an electronic clock with perpetual calendar for leap years, holidays and daylight savings time. A 10-year replaceable battery maintains the clock time through extended power outages. The LCD display confirms all settings and displays the non-resetable operations counter. Front panel lights confirm the proper operation of the control and display the capacitor switch status.

#### features

- Fully field programmable from the front panel or with a computer (for NoMax 1000/2000 Series only)
- Extremely user friendly
- · LCD digital display for measurement and readout of all settings
- Operations counter
- Data logging (NoMax 1000/2000 Series only)
- Security mode (NoMax 1000/2000 Series only)
- Windows-based software (NoMax 1000/2000 Series only)

PART #	DESCRIPTION
NMC-900T	Capacitor Control with Time Only
NMC-950	Capacitor Control with Time and Voltage Override
NMC-900	Capacitor Control with Time, Temperature and Voltage Override
NMC-1300	Capacitor Control with Time, Voltage Override, Multiple Schedules, Logging
NMC-1600	Capacitor Control with Time, Temperature, Voltage Override, Multiple Schedules, Logging
NMC-2000	Capacitor Control with VAR, Voltage Override, Logging (Line Current Sensor Required)

See Accessories listed on page 42

**P** Search NoMax @ HDElectricCompany.com



NMC-2000



OH1600



# **Overhead Ammeter Recorder**

The Ramcorder OH1600 Overhead Line Recorder is a hotstick mountable, battery powered overhead line recorder. It is used on lines up to 69kV (phase-to-phase) and records current and temperature data. A large memory allows for up to six weeks of data storage, and data is not lost if there is a loss of power to the recorder. The Ramcorder is supplied with Windows®-based graphing software to simplify data analysis. The software offers a simple to interpret display of single and three-phase loading profiles.

#### features

- Windows graphing and analysis software allows data from up to four OH1600 units to be merged together into one graph
- Records current from 0 to 1636 amps
- Data storage rates from 1 cycle to 18 minutes
- Memory for over 65,000 data points
- Non-volatile memory
- Built-in support to e-mail graphs and export graphs to other programs

PART #	Description
RC-OH1600	Ramcorder Overhead Line Current and Temperature Recorder, Includes (1) 300-810464, (1) 850-810025 and Windows Software
RC-OH1600K	Ramcorder Overhead Recorder Kit Includes (3) RC-OH1600, (1) CS-810445 Soft-Sided Carrying Case, (1) 300-810464, (1) 850-810025 and Windows Software

Windows is a registered trademark of Microsoft Corporation

Search > OH1600 @ HDElectricCompany.com

#### **Accessories**

PART #	DESCRIPTION
050-USB	RS-232/USB Communications Cable
850-810025	RS-232/DB9 Communications Cable
300-810464	12VDC Power Adapter
CS-810445	Soft-sided Carrying Case

# **Meter Base Recorder**

The Ramcorder RCMB Meter Base Recording Unit is a compact four-channel meter base recorder ideal for customer troubleshooting or end-of-line monitoring applications. It fits most single-phase meter bases and records current and voltage levels. The RCMB provides high sampling rates, superior accuracy and fast data retrieval. The RCMB is supplied with Windows®-based graphing software to simplify data analysis. A large memory allows for data collection of up to one year, and data is not lost due to a loss of power. All four recording channels come standard on the RCMB. True RMS values are calculated for each cycle using 128 samples per cycle, which offers much better resolution than standard 12-bit recorders.

The RCMB is easy to install and is available in a ringed version. The ringed version mimics a ring style meter base and is the most common.

#### features

- Records minimum, maximum and average values for two voltage channels and two current channels
- Powerful 16-bit processor coupled with a 14-bit A/D converter ensures accurate recording to the 64th harmonic with excellent resolution
- 2MB non-volatile memory
- Built-in support to e-mail graphs and export graphs to other programs

PART #	DESCRIPTION
RCMB-RG	Ramcorder Meter Base Recorder, Ringed Style, Four Channels Includes (1) 300-810464, (1) 850-810025 and Windows Software
RCMBK-RG	Ramcorder Meter Base Recorder Kit Includes (3) RCMB-RG, (1) CS-810445 Soft-Sided Carrying Case, (1) 300-810464, (1) 850-810025 and Windows Software

Windows is a registered trademark of Microsoft Corporation

Search RCMB @ HDElectricCompany.com

#### Accessories

PART #	DESCRIPTION
050-USB	RS-232/USB Communications Cable
850-810025	RS-232/DB9 Communications Cable
300-810464	12VDC Power Adapter
CS-810445	Carrying Case, Holds (3) Meter Base Recorders







ADF-81851



ADF-81852

# Flush Mount Ampere Demand Meters

The ADF-7 flush mount ammeter is designed for use in control panel configurations indicating current loading on distribution feeders, transformers, underground distribution systems and other electrical equipment. These meters thermally average line currents and provide readings that represent "steady state" conditions of loading. The readings correspond to the thermal heating curve of electrical equipment, giving the user an accurate picture of what's happening on their system.

#### features

· Easy-to-install, flush mount

Accurate and reliable

PART #	DESCRIPTION
ADF-81851	ADF-7, Single Range Current Rating: 5A
ADF-81852	ADF-7, Single Range Current Rating: 5A – with Instantaneous Ammeter
ADF-81859	ADF-7, Dual Range Current Rating: 2.5/5A
ADF-81860	ADF-7, Dual Range Current Rating: 2.5/5A – with Instantaneous Ammeter)

• Other AD-7 Ampere Demand Meters are available, contact HDE

Search > Ampere @ HDElectricCompany.com

### **Accessory Scale Kits**

PART # DESCRIPTION

Contact HDE	Instantaneous for Socket or Flush Mount
Contact HDE	Non-Instantaneous for Socket or Flush Mount

Scale is factory installed at no additional charge when ordered with meters

# Socket Mount Ampere Demand Meters

The ADS-7 socket mount ammeter is designed for indoor and outdoor socket mount applications indicating current loading on distribution feeders, transformers, underground distribution systems and other electrical equipment. These meters thermally average line currents and provide readings that represent "steady state" conditions of loading. The readings correspond to the thermal heating curve of electrical equipment, giving the user an accurate picture of what's happening on their system.

#### features

- Easy-to-install, socket mount
- Accurate and reliable

PART #	DESCRIPTION
ADS-81865	ADS-7, Single Range Current Rating: 5A
ADS-81866	ADS-7, Single Range Current Rating: 5A – with Instantaneous Ammeter
ADS-81873	ADS-7, Dual Range Current Rating: 2.5/5A
ADS-81874	ADS-7, Dual Range Current Rating: 2.5/5A – with Instantaneous Ammeter

Other AD-7 Ampere Demand Meters are available, contact HDE

Search > Ampere @ HDElectricCompany.com

## **Accessory Scale Kits**

PART #	DESCRIPTION
Contact HDE	Instantaneous for Socket or Flush Mount
Contact HDE	Non-Instantaneous for Socket or Flush Mount

• Scale is factory installed at no additional charge when ordered with meters





## **Order Placement**

Orders may be placed directly with HDE or an authorized HDE representative or distributor. An acknowledgement of each order will be mailed to the bill to address after it has been received. Contact our office or visit our website at **www.HDElectricCompany.com** for the name of a representative or distributor in your area.

# Order Cancellations & Product Modifications

Order cancellation for a standard product will be accepted prior to shipment, subject to HDE approval. Order cancellation for a non-standard product will not be accepted after receipt and acceptance of the order. Modifications to an order or product specification may be subject to terms of cancellation.

## **Minimum Order**

\$100.00 minimum order (for orders less than \$100.00, an additional \$10.00 service charge is applicable).

## **Payment Terms**

1% 10/Net 30 days, unless otherwise specified. 1% discount applies to open account cash payments only.

## **Credit Cards Accepted**

Visa/MasterCard/American Express (1% cash discount not applicable to credit card purchases).

## **Freight Terms**

Prices of all products listed herein are F.O.B. origin, prepaid and add, unless specified otherwise. Freight includes shipping, handling and insurance. Orders will be shipped via Federal Express Ground, UPS Ground, collect motor freight or most economical means. Should a shipment become damaged in transit, immediately contact the carrier for inspection and have them issue an inspection report. The claim should then be filed with the carrier. On damaged shipments, keep the carton. Shortages must be reported within 7 business days of receipt of shipment.

## **Price Policy**

All prices and terms are subject to change without notice. Orders are accepted on the basis that they will be invoiced in U.S. dollars at the price and terms in effect on the date order is received.

## **Volume Discounts**

Volume discounts are available – contact HDE for details.

## Specifications

HDE reserves the right to change specifications without notice in regard to price, design, material, etc., and to improve performance and/or economy.

## **Parts & Repairs**

No discounts or commissions will be paid on repairs, replacements for units that are not repairable, or the sale of parts. Customer is responsible for shipping charges to HDE and back to their location for non-warranty repair items. For warranty merchandise, customer will be responsible for shipping charges if it has been established that merchandise has been damaged due to negligence, abuse, misuse, alteration, faulty installation or application by the Purchaser or Purchaser's agents or employees. Customers are subjected to a minimum evaluation charge in the event the merchandise is not repairable or the customer chooses not to repair.

## **Return Policy**

Authorization for return of equipment must be obtained from HDE. An inspection and electrical testing will be made before credit is granted. A minimum of 20% restocking charge will apply to all standard products returned for credit. A Return Authorization may be granted if requested within 30 days of the date of receipt and conditions specified are met. All shipping charges will be the sole responsibility of buyer.Discontinued items and specially manufactured equipment are not subject to return, as are orders so specified.

## **Limitation of Warranty & 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.

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 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.

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## **HD ELECTRIC COMPANY**

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Headquartered in the Chicago metropolitan area, HDE supports over 70 sales representatives worldwide; manages a field demonstration fleet; and maintains global support for its vast array of industry-proven products.





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