



Tooling solutions for the power utility industry.

4244 - Voltage Detector



4315 Shotgun Adapter



4315 Storage Case



AUDIO/VISUAL VOLTAGE DETECTOR

For overhead A.C. voltages from 240V to 500kV **Verify Live or De-energized Conductors.** Each tester comes complete with batteries and a splined universal end fitting.

It is recommended that the tester be moved progressively closer to conductor or apparatus until warning of voltage is indicated or until it touches the conductor or apparatus.

Part	Dimensions	Settings
4244	11" x 3.5"	Off/240V/4.2kV/15kV 25kV/35kV/69kV/230kV
4344	11" x 3.5"	Off/240V/4.2kV/35kV/69kV 115kV/230kV/345kV/500kV
4356	Complete kit - 4244 unit, case and adaptor	
4367	Complete kit - 4344 unit, case and adaptor	

TIF-8800



UL Classified
MSHA
Approved

TIF - 8800 - LEAK DETECTORS

The TIF8800 series are general purpose combustible gas detectors which may be used where a combustible gas, vapor, or residue needs to be found.

Features:

- Unique flexible 15" stainless probe**
- Automatic warm-up**
- Rechargeable Ni-Cad batteries**
- Low battery indicator**
- Sensitivity Adjust control**
- Audible "Geiger counter" signal**
- Broad band detection**
- Recharger and ABS**
- Carry case included**

TIF-300hv



UL Classified
MSHA
Approved

REL-TIF 300HV TIC TRACER™ AC VOLTAGE DETECTORS

Tic Tracers detect the electrostatic field generated around an AC conductor. This permits safe, non-contact voltage detection.

The REL-TIF 300hv is the deluxe version of the Tic Tracer line. This instrument allows for high voltage testing and adds a visual indicator. Adaptable to TIF's Hot Sticks. Perfect for load-break connectors and checking transmission lines. Low range 30 to 1,500VAC, High range for 1,500 to 122,000VAC!

OPTIONAL

- REL-TIF 303 - CARRY CASE
- REL-TIF 310 - 36" HOT STICK
- REL-TIF 410 - 48" HOT STICK

TO ORDER CALL: 800-966-3530 OR FAX: 215-357-9193



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CHANCE - PHASING TESTERS for Distribution Circuits

Easily determine phase relationships and approximate voltage, line-to-line or line-to-ground.

Testers consists of two fiberglass poles with end fittings threaded for interchangeable probes. The probe fittings couple with a high-impedance component encased in each pole. To complete the test circuit, a 22 foot length of insulated flexible cable stores on the reel affixed to one pole and connects to the voltmeter on the other pole.

Simple to Operate - Tester poles attach to two 6 foot Epoxiglas[®], insulating universal handles (included in each kit for safe working clearances). Then the probes may be brought into contact with the conductors for phase-to-phase or phase-to-ground voltage metering.

To extend any Chance 16 kV Phasing Tester for 48 or 80 kV applications, optional Extension Resistors simply thread on in the field.



For convenience on different systems, toggle on dual-range units can switch calibration between the two scales on the meter face. Plus, it can improve readability for low-end values on the Hi scale. Switched to the Lo range, those values deflect the needle more to give more finite readings.

To check instrument before and after each use, test-point jack in front of meter accepts plug from Phasing Voltmeter Tester (Page #137).

Extension Resistors, as installed.

For URD testing, see Hi-Pot Adapters (Page #135) and Adapters for Elbows and Bushings (Page #137).



Extension Resistors, as installed.





DISTRIBUTION PHASING TESTERS

SINGLE-RANGE UNITS

Part No.	Description	Weight
H1876	16 kV Tester Kit *	27-1/2 lb.
H1876-1	16 kV Tester Hook Probes, Case and Manual	23 lb.
T403-2261	25 kV Tester Kit *	27-1/2 lb.
H1876-7	40 kV Tester, Hook Probes, Case and Manual	23 lb.

DUAL RANGE UNITS

Part No.	Description	Weight
T403-0786	1 & 16 kV Tester Kit*	27-1/2 lb.
T403-2311	5 & 16 kV Tester Kit*	27-1/2 lb.

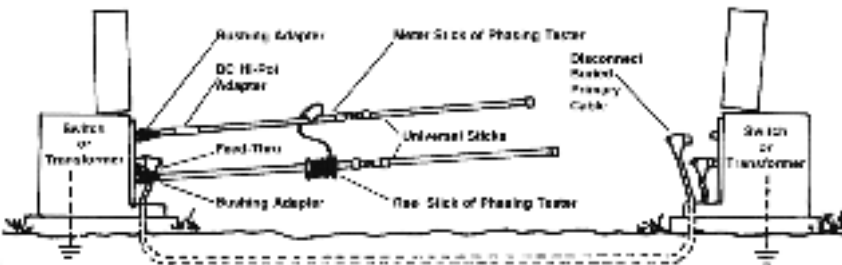
*Each kit includes two 6-ft. x 1-1/4"-dia. Epoxiglas[®] universal handles with storage bag, tester, hook probes, case, and instructional manual.

EXTENSION RESISTORS

Part No.	Description	Weight
H1876-2	Pair of Extension Resistors for up to 80 kV (32-1/4" long)	6 lb.
H1876-4	Pair of Extension Resistors for up to 48 kV (20-3/4" long)	4 lb.
P624-2	Bag for 48 kV Resistors	1 lb.
P624-4	Bag for 80 kV Resistors	1-1/4 lb.

ACCESSORIES

Part No.	Description	Weight
H1760-1	Universal Pole 1-1/4" x 6' -- Two Needed	1-3/4 lb.
P643-6	Bag for Two Poles	1 lb.
H1876-3	Case only for Tester	2 lb.
H1876-6P	Pigtail Hook Probe	1/4 lb.
H1876-6S	Shepherd Hook Probe	1/4 lb.
P403-2422P	Straight Probe	1/8 lb.





D.C. HI-POT URD TEST ADAPTERS

For quick, reliable fault detection on underground cables, two units are available for phase-to-phase system voltages up to 16 kV or 35 kV. By conversion A.C. source voltage to pulsating D.C., these adapters permit testing of cables with a potential level equal to peak source voltage. This field-effective method proves especially beneficial for:

- ˆ Testing new cable before initial energizing.
- ˆ Testing repaired cable before re-energizing.
- ˆ Testing suspect cable spans for faults.

Operation

For metered readout, the Hi-Pot Adapters work in conjunction with Chance Phasing Tool No. H1876. A brass male fitting inside the larger end of either adapter simply threads onto the meter probe of the phasing tool. For testing and subsequent discharging, a brass female fitting at the smaller end of the adapter accepts either Chance Elbow Adapters or Bushing Adapters for 15 through 35 kV.

Illustrated instruction booklet shipped with each Hi-Pot Adapter explains testing and discharging procedures. Units contain high-voltage rectifiers encapsulated in Chance orange 1-1/4- and 1-1/2-inch diameter Epoxiglas[®] housings.



Hi-Pot Adapters measure 13" in length for 35 kV unit, left, & 10" for 16 kV unit.

ORDERING INFORMATION

Part No.	Description	Weight
C403-1762	*16 kV Hi-Pot Adapter	1 lb.
C403-1763	*35 kV Hi-Pot Adapter	1-1/4 lb.

* Maximum phase-to-phase system voltage.



Tooling solutions for the power utility industry.

SPERRY PSI-8031 - PHASE SEQUENCE AND OPEN PHASE INDICATOR

PSI-8031



Meets CE Requirements

C-31 - CARRYING POUCH (INCLUDED)

This palm-size lightweight unit features a broad operating range and an easy to read display. The shock resistant plastic housing (no exposed metal parts), 60" line cord and color coded insulators over alligator clips enhance safety for the user and the unit.

One Year Limited Warranty

SPECIFICATIONS	
Voltage	600V on 3-Phase Power Source
Duty Cycle	Continuous to 500V 5 Min. Max. From 500V to 600V
Frequency	50-60Hz
Insul. Test	2,200 VAC for 1 min.
Dimensions	4.24" H x 3" W x 1.6" D
Weight	12.5 oz.

SPR-300-PLUS



UL Listed
Meets CE Requirements

SNAP 8 PLUS SERIES UL LISTED SNAP-AROUNDS

These units feature broad frequency response (50-400Hz), recessed terminals, large optically clear window, Ohm scale on dial drum, range finder symbols, pointer lock, insulated industry standard safety test leads, tapered jaws, safety wrist strap, and lifetime limited warranty.

The SPR-300 PLUS comes packed with TL-52 Test Leads, (1) F-1 Fuse *installed*, (1) Spare *in back cover*, (1) B-1 Fuse Battery "AA" type 1.5V, Operating Instructions and Warranty Card.

SPECIFICATIONS	
Frequency	SPR-300 PLUS.
Response	500-400Hz
Duty Cycle	Continuous
Max. Conductor	1.2"
Fuse Protection	#F-1 - 1/2A 250V fast acting High Interrupting capacity 1/4" x 1-1/4" Fuse.
Power Supply	#B-1 - 1.5V AA battery
Dimensions	8.7" H x 3.3" W x 1.6" D
Weight	13.8 oz.

NOTE

Instrument designed for current readings on circuits with a maximum of 600VAC.

TO ORDER CALL: 800-966-3530 OR FAX: 215-357-9193



Tooling solutions for the power utility industry.

HASTINGS - DIGITAL HIGH VOLTAGE PHASING METER

Circuit Potential Testing - The digital high voltage meter may be used to measure high voltage on cables, including phase to phase and phase to ground 0-40kV.

Voltages up to 240kV can be obtained in 40kV increments with add on resistors # 6703.

URD Cable Testing - This meter may be used to determine the insulation integrity of buried cables with the use of the D.C. HiPot unit.

FEATURES AND BENEFITS

Digital display reads directly in kilovolts with three 1/2" high digits on sharp contrast liquid crystal display. Readout is given to the nearest 100 volts. Example: A 12,470 volt line phase to phase reads 12.5 on display.

The digital display has a lighted background that can be switched on by the operator during use in poor light conditions. The solid state design eliminates problems associated with analog type meters.

The unit is powered by a 9-volt battery and is field replaceable. If a low battery condition exists, it will be indicated on the display.

The 16" coiled cable is 10' when fully extended.

The rugged plastic case 19" L x 7" W x 5-1/2" H provides compact storage and will also accommodate a pair of add-on resistor extensions.

The meter and coiled cable is attached to two 1-1/4" dia. x 16" long fiberglass sticks. Female universal spines on one end allow attachment on all universal hot sticks. Two 2" dia. conductor hooks are provided on the other end.



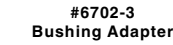
Liquid Crystal Display



#6703 Ext. Resistor



#6702-1 Bushing Adapter



#6702-3 Bushing Adapter



#6702-2 DC HiPot Adapter

6702	0-40kV Digital Volt Meter with conductor hooks. Unit comes complete with carry case, battery and instructions	5.5 lbs.
6703	Pair of Extension Resistors to increase operating range.	1.3 lbs.
6702-1*	5/25kV Loadbreak Bushing Adapter *Also fits Elastimold 35KV Loadbreak Bushing. NOTE: Most testing will require 2 adapters.	0.6 lbs.
6702-3	35kV Loadbreak Bushing Adapter. (Fits RTE 35kV Bushing Only) NOTE: Most testing will require 2 adapters.	0.8 lbs.
6702-2	Qty. of One (1) D.C. HiPot Adapter for use up to 35kV.	0.5 lbs.
A30119	Storage Case Only 19" L x 7" W x 5-1/2" H.	2.1 lbs.
6711	0-40kV Tester Kit - Incl: # 6702 Digital Volt Meter (description above), Two 6' x 1-1/4" dia. universal fiberglass poles and vinyl storage bag.	10. lbs.

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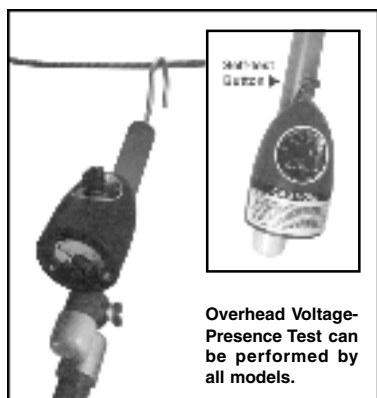
Tooling solutions for the power utility industry.



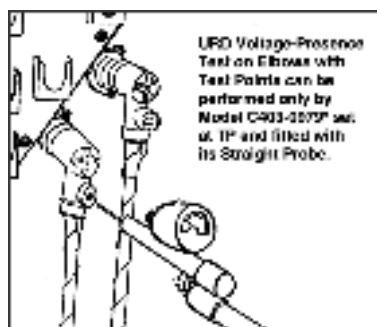
C403-0979*



C403-1029 or C403-1140



Overhead Voltage-Presence Test can be performed by all models.



URD Voltage-Presence Test on Elbow with Test Points can be performed only by Model C403-0979* set at TP and fitted with its Straight Probe.

MULTI-RANGE VOLTAGE DETECTORS For Overhead Systems to 600 kV and URD Elbow Test Points*

Used to confirm that a line is de-energized prior to performing maintenance on it, the Multi-Range Voltage Detector (MRVD) presents field practicality. Actually a field intensity meter, the MRVD is calibrated to read approximate line-to-line voltage when connected to any phase conductor. It responds to the magnitude of the field gradient between its end probe and floating electrode (at the universal hotstick attachment fitting). If the universal fitting is close to a ground, another phase, or another voltage source, the reading should tend to be high; if its close to a jumper or equipment of the same phase, the reading should be low.

The MRVD metered readout is capable of distinguishing actual line voltage from static or feedover from an adjacent line. Readings from an MRVD can be compared with numerical certainty rather than the subjective judgments associated with "fuzz-sticking" or "glow-detecting."

Internal circuit and push button permit check before and after each use to confirm operational condition of instrument and battery.

Switch on C403-0979* includes Test Points.

*For testing URD elbows with test points, only model C403-0979 on this page includes straight probe and "TP" setting on selector switch (as well as hook for overhead uses).

Since the MRVD is not a voltmeter, no specific accuracy is claimed by the manufacturer or can be assumed by the user.

Part No.	Scales	Weight
C403-0979*	1 - 40 kV	5-1/2 lb.
C403-1029	16 - 161 kV	5-1/2 lb.
C403-1140	69 - 600 kV	5-1/2 lb.

*For testing URD elbows with test points.

TO ORDER CALL: 800-966-3530 OR FAX: 215-357-9193



**CHANCE - C403-3070
GROUNDING-SET TESTER**

On a regular basis, each utility needs to re-examine its' temporary grounding practices. As part of the total maintenance program, schedule such routine reviews apart from sessions to set new practices for system upgrades and additions. Among others, include on your review checklist these basics:



1. **Clamp designs specific to each application.**
2. **Cable sized for fault-current potential and min.-slack lengths.**
3. **How construction affects placement of grounds.**
4. **Work procedures outlined above.**
5. **Inspect and test each grounding set.**

The Chance Grounding-Set Tester checks the resistance in a protective ground set and can help locate problems often remedied by simple repairs.

SELECTING GROUND CLAMPS AND CABLE

To serve your particular needs, the Chance grounding line comprises both ready-made sets and separate components for your specifications. Among the options and criteria to consider:

ˆ **Functional Fit--**Sizes of the clamp types in this section appear in ascending order of maximum-main-line size. By design, many clamps serve a wide size range for their conductor type (cable, bus, or tower).

ˆ **Coordinated connectors--**Terminal (either pressure-type or threaded-type) selected for clamps dictates the cable-ferrule type (plain or threaded) to match.

ˆ **Adequate capacity--**Published ratings for both clamps and cable must withstand maximum-potential system fault-current magnitude and full-time duration. Certified test reports are available on request.

ˆ **On-site handling--**Application clearances and fit (for overhead conductors and ground wires, transmission tower shapes, URD apparatus, or substation buswork) affect clamp and cable dimensions.



Meets OSHA 1910.269
(Patent Pending)

HOT STICK TESTER

This portable, lightweight tester has a selector switch for testing "in service" tools (wet test) and new tools (dry test). A dual range scale gives the operator leakage values in microamps.

Utilizing 2,500 volts output, the meter is calibrated to indicate the leakage values that would be present if 75KVAC were applied to a 12" section of the fiberglass tool for the wet test and 100KVAC per foot for the dry test.

Two models are available for use on 120 or 220 volt systems. The tester is designed to protect the operator while in use.

A testing bar is provided to ensure the tester is working properly. The tester comes complete with a padded carrying/storage case and directions for proper use.

Part	Description	Weight
6799	120 Volt - Hot Stick Tester w/ carrying case and test bar.	5.25 lbs.
6781	220 Volt - Hot Stick Tester w/ carrying case and test bar.	8.20 lbs.



Tooling solutions for the power utility industry.

H1990-ST - SUPER TESTER VOLTAGE DETECTOR
Dual Range, Audible & Visible Indicators

The instrument blinks and yelps when placed in an electrostatic field gradient above the trigger threshold. Five flashing red lights alert the operator, and high-pitched tones signal nearby personnel of present voltage that could be dangerous when applying temporary grounds or performing maintenance. It can be used to check overhead lines, in substations, around switchgear, or for underground-system applications. It simply slips over the head of a standard 1-1/4"-diameter disconnect stick. It also may be used on a Chance Grip-All clampstick, universal, telescoping, or positive-grip hot line stick fitted with a M4455-98 special adapter.



Design Features

A handy three-way switch permits selection of either the 0 - 100 kV or the 100 - 800 kV range for the circuit being tested, and turns off the unit to save the battery when not in use. A 9-volt alkaline battery readily installs through a sliding panel without disassembly. A test button checks both the battery and the tester. Depressing the button activates the signal circuits, sounding the tone and lighting the alarm lamps if the battery is good and unit operable. Each unit comes with instructions packed in a lined, reinforced case with carrying handle.



Phase-to-Phase versus Response Distance

kV	(1-100 kV) Distance	(100-800 kV) Distance
2.0	0"	
13.8	4"	
25.0	12"	
34.5	19"	1"
69	39"	3"
115	56"	7"
161		10"
230		20"
345		26"
525		44"

Part No.	Description	Weight
H1990-ST	Super Tester, Battery, Wood Case	4-3/4 lb.
M4455-98	Super Tester Adapter for Grip-All Universal, Telescoping or Positive-Grip hotline tools.	9 oz.

M4455-98 fits tester either way, so it may be used on Grip-all clamp-stick, as well as on a splined fitting of the Universal, Telescoping, or Positive-grip hot-line sticks.

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