

EARTHING SYSTEM

Earthing and short-circuit for MV substations and installations PIMT

Earthing sets

Standard devices are provided for three-phase installations ; they comprise :
1 set of clamps of the same reference MT 535 - MT 516 - MT 525 or MT 416, with AP or bayonet (B) end fixing
1 set of copper cables in an extra flexible sheath equipped with watertight terminals and an insulated junction block, ref. TRIP 8 (6-10 kA) or TRIP 6 (14-20 kA) 3 x 0.75 m between clamp and junction - 1 x 2 m to earth / 1 earth clamp ref. NB 8
1 telescopic earth stick ref. TR 245APV length 0.85 m - 1.50 m / 1 metal box ref. CM 535

MV clamps

These lightweight and compact clamps are equipped with a circumferential brake to prevent it turning during fitting
clamp MT 525 has the speciality of being articulated, which allows it to be fitted in all positions up to 90°
clamps MT 535 and MT 516 can be used on flat bar or conductor / clamps MT 416 is for flat bars Please inquire with us for other set compositions. Approved by EOF- In conformity with standards NF EN 61230 and I EC -61230

To order:



PIMT

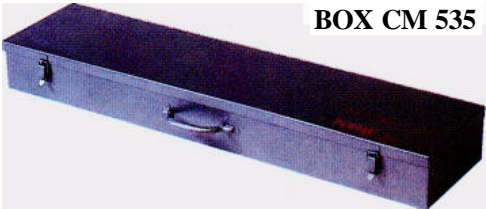
REFERENCES

MT516	MT416	MT525	MT535	6kA Is	10 kA Is	14,5 kA Is
• x3	• x3	• x3		PIMT 16	PIMT 110	
• x3				PIMT 46	PIMT 410	
	• x3			PIMT 56	PIMT 510	
		• x3		PIMT 66	PIMT 610	PIMT 49
			• x3	PIMT 76	PIMT 710	PIMT 48

Max. admissible short - circuit current:

- with 35 mm² copper cable fault current 8 kA Is
- with 50 mm² copper cable fault current 10 kA Is
- with 70 mm² copper cable fault current 14,5 kA Is

All these sets are supplied with AP hexagonal end fixings 12 mm



BOX CM 535

EARTHING SYSTEM

Equipment for earthing and short circuiting from the ground of bare overhead MV Nevers cables

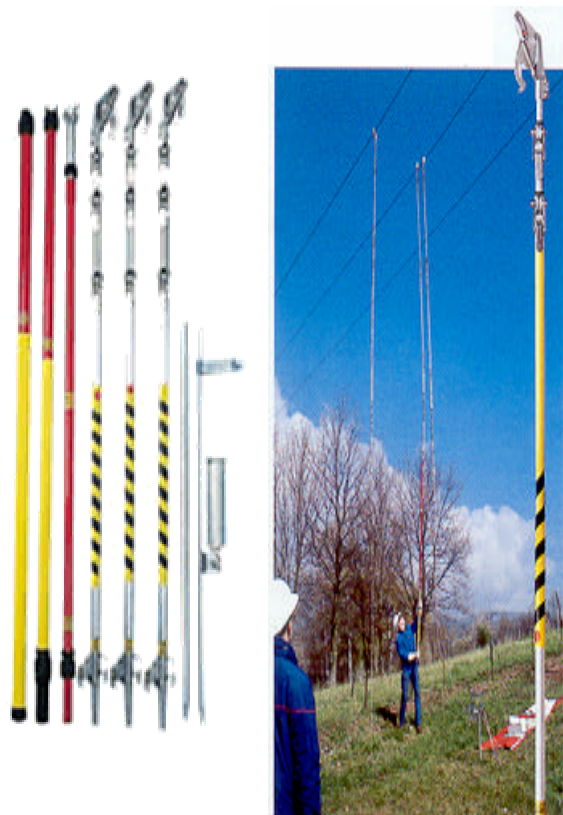
Application/Use :

The NEVERS device enables one man alone to carry out, from the Ground :

- Voltage detection
- Earthing and short –circuiting of overhead lines up to a height of 11.50 m

Specifications:

- Max. fault current 8 kA effective 1 second
- Clamping capacity : Cylindrical conductors from 3 to 22 mm Diameter (7 to 380 mm²)
- Telescopic metal lance fitted with quick release and calibrated Clamping collars, with built in cleaning rings
- Fiberglass insulating sticks in 3 section IEC 60855 with Reinforced slot in connections
- Fitting of the voltage detector at the foot of the metal stick before earthing
- Equipment for use with voltage detector TAG 200 (detector not Supplied)
- Clamp and foot of stick removable



To order:

Nevers device	Unfolded stick	Stored device
PA 3 GTI (TD 3)	10 m	2,20 m
PA 4 GTI (TD 4)	9,50 m	1,65 m

PATENTED
SELF LOCKING
CLAMP



AUTOMATIC COLLAR
WITH SELF-CLEANING RING



TELESCOPIC STICKS

TR > Telescopic sticks

Dielectric resistance 100 kV / 30 cm after exposure to humidity

Consisting of 2 or 3 parts in fiberglass

Locked by push button in folded or unfolded position

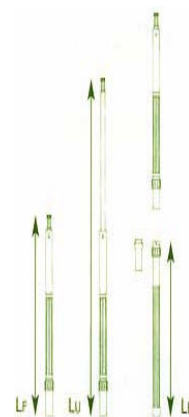
Upper tube interior silicone-treated against damp

Base fitted with a protected connection for optional extension

The standard TR sticks are supplied with APV end fitting (female 12 mm, hexagonal, with automatic lock) or U end fitting (splined universal end fitting) or EAF end fitting (female 21 mm hexagonal Socket with automatic lock), to be specified when ordering.

U

APV



Use : Of Precipitation :

- Checking absence of voltage
- Earthing in MV/LV stations Operating switches
- All operations not requiring important mechanical loads

TR2 Reference		Folded stick LF		Unfolded stick Lu		Weigh	Extension reference LE		Cover	
TR 245	(TP 34B)	0,85 m	25 kV	1.5 m	63 kV	1,05kg	not extendable		HTR 1 950	(TH 5)
TR 275	(TD 23PE)	1,10 m	36 kV	2 m	90 kV	1,2 kg	1 m	RTR100	HTR 11 100	(TH 6)
TR 276		1,10 m	36 kV	2 m	90 kV	1,2 kg	not extendable		HTR 11 100	(TH 6)
TR 2225	(TP 34E)	1,75 m	72 kV	3,2 m	225 kV	1,5 kg	1,8m	RTR180	HTR 11 850	(TH 7)
TR 2245	(TP 34F)	2,15 m	110 kV	4 m	300 kV	2,2 kg	2,15m	RTR215	H 11	(TH 8)
TR 2330		2,65 m	150 kV	5 m	330 kV	3 kg	2,15m	RTR215	HTR 12 750	
TR 3450	(TR 3)	1,65 m	63 kV	4,5 m	150 kV	3 kg	not extendable		HTR 11 850	(TH 7)
TR 3500	(TR 3)	1,85 m	90 kV	5 m	250 kV	4 kg	not extendable		HTR 11 850	(TH 7)
TR 3600	(TR 3)	2,15 m	110 kV	6 m	300 kV	5 kg	not extendable		H 11	(TH 8)

TR

PXV > Insulating sticks tube IEC 60855 dia 32 mm

Use :

-
- Checking absence of voltage
 - Earthing in MV/ LV stations
- All operations not requiring important mechanical loads
- Consisting of 1, 2 or 3 parts with :
 - Screw – on connection dia 32 mm
 - Tube IEC/CEI 60855 quality, 100KV, 30 cm, after treatment against damp.



Standard PXV sticks are supplied with APV end fitting female 12 mm, hexagonal, with automatic lock) or U end fitting (splined universal end fitting) or EAF end fitting (female 21 mm hexagonal Socket with automatic lock), to be specified when ordering.

PRV > optional model similar to PXV but with large hand gard and anti-slip handle

Reference	Total length (m)	Number of parts	Weight (kg)	Cover
PXV 1125	1.25	1	0.9	H 10
PXV 1150	1.5	1	1	H 10
PXV 1200	2	1	1.4	H 11
PXV 1250	2.5	1	1.6	H 12
PXV 1300	3	1	2	H 12
PXV 2200	2	2	1.5	H 30
PXV 2300	3	2	2.1	H 31
PXV 2400	4	2	2.6	H 32
PXV 2500	5	2	3.3	H 20

P D S (*Partial discharge scanner*)

INSULATION FAULT LOCATOR (Medium Voltage)

The PDS is used to detect and locate partial discharges on medium voltage insulated joints, to monitor their condition while in service Or to test for quality just after installation.

Insulation fault detection

Insulation faults are an important factor in degradation and reduction of lifetime of An electrical join r This translates by raised exploitation costs and questioned reliability, while economic performance and reliability are key criterions in The evaluation of an electricity supplier. It is then important that an electro utility has a wide spread, quick and efficient tool to check for quality and health of its electrical network

The market's demands over electric utilities necessarily transfer to their sub contractors, who must comply with higher quality requirements regarding their work As the electric utility for which he works the subcontractor that has tools allowing him monitor and to certify the quality of his job will become an attractive and reliable Choice.

"O.K. but is the PDS for me?"

Whether if you are from an electric company or a subcontracting firm, the Question remains simple' Are we reliable. thus competitive'' The PDS answers this question, short and simple No conversions no interpretation only the answer to the question you are the most concerned with, free of all the useless data.

Intensity level

The PDS indicates the intensity of the partial discharges, converting the electrical charge units (pC) into decibels (dB) So the reading is kept as a simple intensity level indication, proportional to the probability of a fault's presence in The tested joint.

inductive sensor



Close up of the PDS sensor

This insulated and waterproof capacitive Probe catches the electric field sharp Variation that characterizes partial discharges. It integrates both capacitive And inductive sensors.to allow partial Discharges detection in virtually any Cable configuration.

Visual and audio indicators

The visual indicator is a bargraph with eight steps, each step corresponding to twice the intensity (6 dB) of the previous level, For a total range from 6dB to 48dB. An audio indicator which frequency is proportional to the displayed intensity allows the user to locate any fault even if the handling conditions don't allow him to see the display



Easy handling
Easy to use, the PDS can be Handheld or mounted on a two-part Hotstick provided with each unit.

DRM - 40

MICRO-OHMMETER FOR RESISTANCE FROM 0,01 μ to 200 Ω

The DRM40 micro-ohmmeter can be used to measure very low resistances which vary from 0,01 μ to 200 Ω . Its very wide precision range enables the user to accomplish a great variety of measurements without having to own many instruments.

Application example :

- Quality control of the ground settings and power bars.

The ground settings which the teams of net work technicians use in off-tension works are their main guarantee of protection. It is of utmost importance for the manufacturers as well as for the users that the quality of these ground settings be checked on a regular basis. With its relative measurement mode, the DRM-40 allows to take a measurement on a standard ground setting and to compare it to those obtained on other ground settings in order to verify if the deviation observed between the two measurements is acceptable or not. And that, within one hundredth of a micro Ohm, a precision ten times superior to other instruments on the market.



Advantages of the DRM-40

Much lighter and handier than the other equipment of its category. Waterproof and shock resistant, it is suitable for all types of applications: work site or laboratory. (LCD) enables it to be used in dark areas.

Weak current injection for the applications that require small measurement contacts.

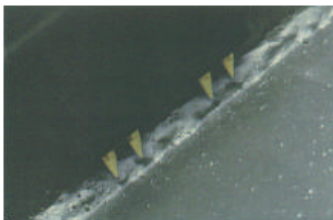
A variety of probes adapted to types of specific measurements such as the inspection of exothermal weldings (Caldwell), are available in option.

Operation

The DRM-40 uses the four-pin resistance measurement system, which consists of injecting a current with two cables connected at each end of the joint to be tested. Then, the cables are installed which allow to read the tension on each side of the part to be tested in order to measure the resistance. This eliminates any uncertainty linked to resistance of the contacts. The instrument is equipped with a microprocessor which allows to eliminate the gaps and parasite voltages. Thanks to its unique filtering system, the DRM-40 can be used in spite of the presence of intense magnetic fields.

Other applications

Quality control of casting parts
Control of the mechanical joints and of the joints welded at high voltage
Control of the exothermal joints (Caldwell)
Control of the electrodes for the aluminum plants
Inspection of the contacts, the circuit breakers and the power fuses



Close-up of the Caldwell probe's contacts

This probe allows to get very accurate measurements on soldered joints.



DRM - 4012

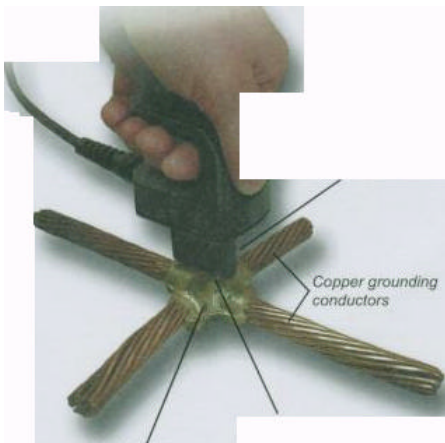
PROBE FOR QUALITY TESTING OF EXOTHERMIC WELDINGS

The exothermic probe DRM4012 is used with the DRM-40 microohmmeter, to allow a non-destructive, fast and Reliable testing of exothermic weldings.

Measuring resistance of a Grounding connection

Grounding conductor are often inter - connected using aluminothermic welding. To measure the resistance of such a connection is the best way to evaluate precisely its quality, when visual inspection is positive. To perform this resistance measurement with the DRM – 4012 probe only takes seconds

Typical measuring example
On a crossshaped welding



Surface probing

A particularly of The DRM-40 is its ability to perform very low resistance measuring using light current input. It gives possibility to the use of surface probes, like the DRM-4012. Also, this precision to test exothermic welding (CADWELD®)

Aluminothermic probe DRM - 4012

Compact and rugged, the DRM – 4012 allows user to test one handed, by simply applying the probe's contacts

Against the surface of the part to be

tested. Then the DRM – 40 detects the four contact presence and displays the Result. Each time the new measurement is required, the probe is taken off and then applied back to the part.

It is also possible to maintain the probe in place and take several measurements of the same area by simply activating the "GO" key of the DRM.

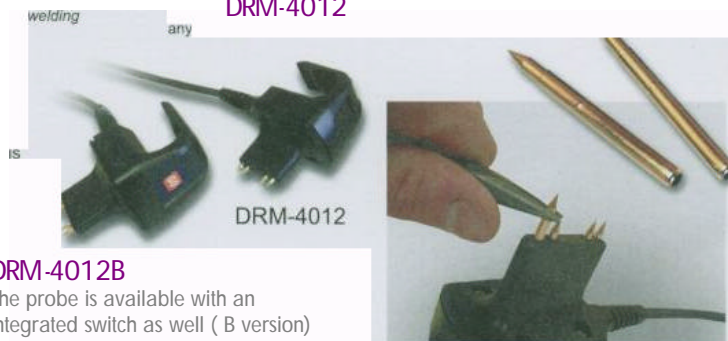
Exothermic
welding

Sharp, spring loaded
Points allow good
Contact on virtually
any surface

Oxydized pieces

The probe has four gold plated contacts that have a very sharp point. This helps to establish good electrical contact by piercing the oxide that is often present at the surface of the part. When the points are done, they are easily replaced

DRM-4012



DRM-4012B

The probe is available with an integrated switch as well (B version)

POWER QUALITY ANALYSERS

ID16M *3-phase event recorder*

ENERDIS

The ID 16M measures line-to-neutral or line-to-line RMS LV or MV voltages.

Swell and sag threshold: from $\pm 3\%$ to 30% (step $\pm 1\%$).

Trough: from -30% to -80% (step $\pm 1\%$).

Cutoff: -80% .

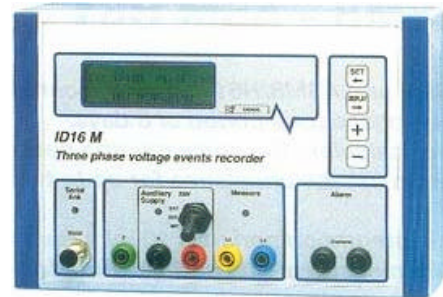
Event duration threshold: from 10 to 990 ms (step $\pm 10\text{ms}$)

Storage capacity: 1500 events or 10 data recording runs.

Display: LCD screen with 4 lines of 20 characters.

Digital output: EIA 232/JBusTM 1200 to 38400 bauds.

Alarm output: dry contact 1A/250V.



ID16 *in carrying case*



Reference IDD6 0001

The ID 16M is delivered in carrying case with :

- One ID 16M unit
- One WIN ID 16 software
- Measuring leads
- PC connection lead



WIN ID 16

ENERDIS

Software analysis

Reference 2000

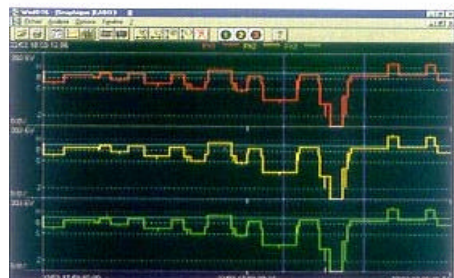
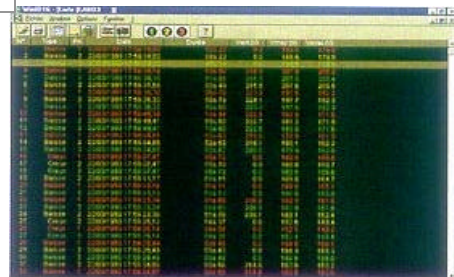
Apart from its programming facility, The WIN ID 16 software retraces all Events on the electrical grid (swells,

Sags, troghs, voltages cuts) chronologically.

Specific faults can be sorted according to user – selected criteria. Close observation can be conducted using the mouse (zoom, scrolling...).

WIN ID 16 can display and analyses several sets of Measurements simultaneously and export your results in to the most widely – used spreadsheet software.

Communication is possible using the telephone network (via a modem). No other software is needed for dialing or establishing the connection.



AT 100 - LIGHTNING ARRESTER & LEAKAGE TESTER



Description

The Lightning Arrester & Leakage Tester is a two stick, live line tester designed to test lightning arresters prior to energizing them on a power distribution system. The tester is designed to warn linemen that an arrester is damaged or deteriorating and should not be energized.

Lightning arresters are designed to protect a power distribution system by shunting to ground the high voltage surges typically caused by lightning. Arresters subjected to the stresses of very high voltages and currents can be damaged by lightning and can deteriorate over time. Eventually, lightning arresters can fail, and when they do it is usually a violent failure resulting in the eventual destruction of the arrester.

Arresters are often installed on an overhead or underground power distribution system while the system is live. Connecting a weak or damaged arrester to a live line can result in an eventual or immediate catastrophic failure. If the failure is eventual, another outage is caused, peripheral equipment is damaged and a service crew must repair the damage and restore power. If the failure is immediate, the line personnel are endangered by the resulting system fault.

The AT-100 tests lightning arresters with high voltage DC. The high voltage DC is equal to the peak AC voltage; for example, on a 15kV system with a line-to-ground voltage of 7200V, the AT-100 DC test voltage is about 10kV. The tester measures and displays the arrester DC leakage current.

It is rated for use on systems from 4kV (2.4kV L-G) up to 25kV (15.2kV L-G).

The instrument can be used on systems up to 69kV (40kV L-G) with the addition of the optional R-69 add-on resistor stick pair. Like a voltmeter, the Lightning Arrester & Leakage Tester has high voltage resistors to limit the current through the tester, and unlike a voltmeter it has a high voltage rectifier to convert AC to DC. An arrester tested with the AT-100 cannot be damaged by the test procedure. In practice, the instrument is connected in series with the lightning arrester between an energized phase and ground.

For overhead arresters two different test connections are possible. First, with the arrester grounded, the AT-100 is connected between an energized phase and the top electrode of the arrester. Secondly, with the arrester connected directly to an energized phase the AT-100 is connected between the bottom electrode of the arrester and ground. The meter displays DC leakage current, if any. Arresters with leakage currents greater than 20 microamps are classified as high leakage and should not be energized.

SURGE ARRESTER TESTER



Description

The Hi-Test family of Arrester/Leakage Testers are fully portable and easy to use. They are current limited high voltage testers that can be used for safe and non-destructive testing of arresters, insulators and a wide variety of other parts and materials. They identify faulty arresters, assist in reducing line losses and reduce customer complaints. Non-visible failures of surge arresters are the source of operational problems that are difficult to locate in the field and costly to utility companies. Surge arresters are subject to both thermal and moisture problems which can produce gradual failures over time with no accompanying external visual evidence.

Radio frequency interference, television interference and blinking light complaints are all common symptoms of non visible failures on distribution circuits.

Benefits

Find non-visible defects in arresters safely and conveniently
Test MOV, Silicon Carbide, gapped and combination types of arresters

Can be used to test bell, distribution class polymer and cross arm pin insulators within the voltage range of the units, as well as fuses, transformer bushings and tank lids by imposing voltage and measuring the current leakage

Use in the field and in the shop

A fully portable and easy-to-use solution for safe and nondestructive testing of arresters

- Stretch your materials budget by testing arresters and insulators for re-use potential
- Increase quality assurance by randomly testing new material purchases
Ideal for transformer rebuild shops and maintenance
- Nondestructive testing makes it extremely valuable
- Trouble shoot service calls and RFI/TVI complaints in the field caused by nonvisible partial shorts in arresters
- Use in training programs to demonstrate the function of arresters and other materials as they respond to increasing voltage

Hi - TEST INSULATOR TESTER



Description

The Hi-Test Insulator Tester tests energized or deenergized insulators for non-visible internal failures at any AC line voltage. These non-visible failures are known causes of Radio Frequency/ Television Interference (RF/TVI), blinking lights, recloser operations and blown fuses. They are also a threat to line crew safety when performing energized maintenance. Detect 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. When testing insulators in service, it can be applied to any porcelain, glass or cap and pin transmission or distribution insulators at any voltage. However, there must be two or more insulators between the conductor and ground. It can also be used to test installed, deenergized insulators prior to energizing and single insulators prior to installation.

The Insulator Tester is a portable instrument that applies a current limited, 10 kV DC potential across an insulator through two probes and displays the condition of the insulator on an LED scale and warning buzzer on its front panel. The unit is easy-to-use as each insulator is tested separately and its condition displayed immediately on an easily viewed LED scale. The tester instantly identifies defective insulators with an audible warning and LED scale indication.

Benefits

Instantly identifies insulators which are defective due to non visible internal crack

Use as a routine maintenance tool to improve system reliability and enhance line crew safety when energized maintenance work is performed

Use as a trouble shooting tool in tracing the sources of ground fault trips and RF/TV interference, which can be caused by faulty insulators

Stretch your materials purchasing dollar by testing insulators for recycling

Use as a maintenance tool to verify insulator string integrity prior to shunting insulator bells when energized maintenance work is performed

Will not promote flashover when used on energized insulators because it functions as an insulator as well as an insulator tester

HIGH VOLTAGE AMMETERS

HALO > HIGH VOLTAGE DIGITAL AMMETERS



DESCRIPTION

HALO is a high-voltage, digital ammeter designed for taking AC current measurements up to 2000 amps. HALO Ammeters have been developed for taking measurements on high voltage conductors. Its unique open-core design allows you to hook it over a conductor and within seconds, obtain a reading. While designed for high voltage applications through 69kV, HALO can be used at 600 volts and below. It virtually provides an instant reading in amperes.

BENEFITS

- Quickly take current readings on conductors up to 69kV (phase-to-phase)
- Use on overhead or underground applications
- Take spot-load checks with ease
- Verify phases are balanced
- Use on conductors up to 2.3" (5.8cm)
- Lightweight and easy-to-manage on an extension hotstick

ULTRASONIC INSPECTION SYSTEM

ULTRAPROBE® 100



Sensing ultrasonic emissions produced by Operating equipment, electric discharges and leaks, The amazing **Ultraprobe 100** finds potential problems Long before they become major headaches.

How ultrasonic Technology work for you

The ultraprobe senses high frequency sounds produced by operating equipment, leaks and electrical discharges. It electronically translates these signals by heterodyning them down into the audible range so that a user can hear these sounds through a headset and see them as intensity increments on the meter. Heterodyning works the same as a radio in that accurately transforms the Sounds so that they are easily recognized and understood.

The advantage of Ultrasound technology is simple to understand. Ultrasound is a high frequency, short wave signal. When compared with the sounds we humans can hear, the size of the sound waves are extremely small. This property provides advantages:

- Ultrasound is very directional
- Ultrasound can be easily blocked or shielded
- Ultrasound instruments can be used in noisy environments
- Ultrasound changes provide early warning Of potential problems
- Ultrasound instruments are easy to use



ULTRAPROBE® ACCESSORIES



MMP-8 MMP-7
Use with All Models

MMP Magnetic Mount

Attaches to metal surfaces. Used with The EXC and either module for hands Free inspection. Great for compressor Valve analysis, bearings, valves, etc.

MP-BNC

Miniphone to BNC Connector

Connect the Ultraprobe with FFT, oscil- Loscopes & other recording devices.

Ultraprobe (all models) . . MP-BNC-2

PC 50 Inverter

For charging Ultraprobe from car cigarette lighter or auxiliary electrical Power output.

All Models (except Ultraprobe 100)

.....PC 50 Inverter

Y-Splitter

For the Heterodyned Output.

Connect headphones and audio/ Vibration cables simultaneously. Miniphone(2) to miniphone jack only.

Ultraprobe (all models) . . Y-Splitter



HTS

Utility Belt Plus Two Holsters

One for the Ultraprobe pisl, one Module and rubber focusing probe; The other for accessories. Keeps Hands free for walking and climbing Up and down ladders

All Models

(except Ultraprobe 100). . . HTS-2

UE Systems

Provides powerful software to

Support steam trap surveys

And bearing maintenance.

EPD Trap Manager

A user friendly program that provides Information about your entire steam System including cost analysis, trap Analysis, historical trending, energy loss calculations and trouble shooting Information.

Spectral Analysis Software

Turn your PC Or Laptop into an FFT" Full FFT function provides comprehensive analysis of heterodyned sounds Recorded from any Ultraprobe. View As Spectrum, Time Series or 3-D



Liquid Leak Amplification

For extremely low level leaks (ranging From $1 \times 10^5 - 1 \times 10^6$ std.cc/sec). When minimal turbulence is pro Duced, UE recommends its patented LLA Method. LLA (Liquid Leak Amplifier) is an ultrasonic" bubble" Test method LLA is a liquid with a Low surface tension. Faster and more Reliable than classic bubble test, LLA Has two basic advantages: 1. Bubbles do not have to be seen for Leak detection's bubbles form and Collapse they produce strong ultra- Sonic signals which are easily detect- Ed by the Ultraprobe.

2. Bubbles form and collapse almost Instantly so waiting time for bubbles In low level leaks is markedly reduced



ULTRAPROBE

Accessory Model Number

Model Number

Ultraprobe	UWC	CFM	LRM	EXC CABLE	VLCM	BP	ADAPTER X2	MMP
100	NA	NA	NA	EXC-1	NA	NA	NA	MMP-7
550	UWC-2	CFM-2	LRM-2	EXC-2	VLCM-2	BP-2	ADAPTER X2	MMP-2,8,7
2000	UWC-2	CFM-2	LRM-2	EXC-2	VLCM-2	BP-2	ADAPTER X2	MMP-2,8,7
9000	UWC-9	CFM-9	LRM-9	EXC-9	NA	BP-9	ADAPTER X2	MMP-2,8,7

ULTRAPROBE® 100

It's easy to find the right Ultraprobe 100 for your application
UE Systems ULTRAPROBE 100 Series Application selection Chart



UP 100 KT

Ultraprobe 100 kit (Comprehensive)

Includes: UP100 pistol with LED bar graph meter, 8 position sensitivity selection, low battery indicator, scanning module, rubber focusing probe, stethoscope module, warble tone generator (WTG-1) with battery charger, lightweight "walkman" style headset, 9 volt alkaline battery (replaceable), nylon Cordura soft carrying case and comprehensive instruction manual.

UP 100 SC

Ultraprobe 100 Stethoscope/Scanner Kit

Includes: all of the UP100KT but does not include a warble tone generator

UP100STG

Ultraprobe 100 Scanner / Tone Generator Kit

Includes: UP100 pistol with LED bar graph meter, 8 position sensitivity selection, low battery indicator, scanning module, rubber focusing probe, warble tone generator (WTG-1) with battery charger, lightweight "walkman" style headset, 9 volt alkaline battery (replaceable), nylon Cordura soft carrying case and comprehensive instruction manual.

UP100S

Ultraprobe 100 Scanner Kit

Includes: all as described in the UP100STG But does not include a Warble tone Generator

UP100C

Ultraprobe 100 Stethoscope Kit

Includes: UP100 pistol with LED bar graph meter, 8 position sensitivity selection, low battery indicator, stethoscope module, lightweight "walkman" style headset, 9 volt alkaline battery (replaceable), nylon Cordura soft carrying case and comprehensive instruction manual.

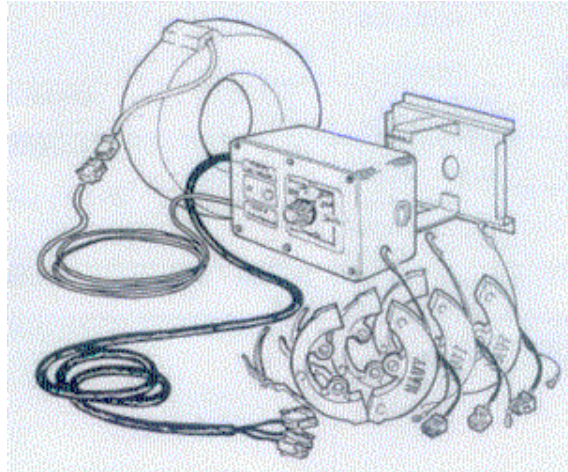
Application	UP100 KT	UP100 SC	UP100 STG	UP100 OS	UP100C
Kit #	✓	✓	✓	✓	
Pressure & Vacuum Leak Detection	✓	✓	✓	✓	
Valve Seat Leak Detection	✓	✓			✓
Exhaust System Leak	✓	✓	✓	✓	
Heat Exchangers, Boilers, Condensers	✓	✓	✓	✓	✓
Steam Trap Inspection	✓	✓			✓
Bearing Testing	✓	✓			✓
Gear/Gear Box Inspection	✓	✓			
Wind Noise/Water Leaks	✓		✓		✓
General Mechanical Inspection & Trouble Shooting	✓	✓			
Tanks, Pipes, Leak Testing, etc	✓	✓	✓	✓	
Electrical Inspection	✓	✓	✓	✓	

ULTRAPROBE 100 Specifications

Construction:	Hand held ABS pistol type ultrasonic processor, stainless steel sensor enclosures
Circuitry:	SMD / Solid state hybrid heterodyne receiver
Frequency response:	Peak response : 36 – 44 kHz
Indicator:	10 segment LED Bar Graph (red)
Sensitivity selection:	8 Position precision attenuation
Power:	9 Volt Alkaline Battery
Low battery	
Voltage Indicator:	LED
Head set:	Weight: 2.5 oz. Operating Temperature Range: -22 to 167° F (-30° to +75° C)
Probes:	Cable: 48" shielded. Cable Pull: 20 lbs. Frequency Range: 300 to 3000 Hz. Impedance 150 Ohm. Molded connector. Scanning module (SCM1) Stainless steel Unisonic (Single transducer)
Rubber Focusing	Piezo electric crystal type: stethoscope/Contact module (STM-1) Stainless
Probe:	Steel plug – in type with 5.5" Stainless Steel Waveguide. Shields stray ultrasonic signals & focuses detected signals
Transmitter:	Patented warble tone transmission
Response time:	300 msec.
Ambient Operating	
Temperature Range:	32° - 120° F (0°-50° C)
Relative Humidity:	10 – 95 % non – condensing at up to 86° F (30° C)
Storage	0° – 130° F (18° – 54° C)
Temperature:	1 year parts/labor standard. (Details available on request)
Warranty:	5 years upon completed registration form
Dimensions:	5.25" x 2" x 8" (13.3 x 5 x 20.3 cm)
Weight:	11 oz (.3 kg)
Carrying Case:	Nylon Cordura soft carrying case
Covered by one or more of the following patents: 4416145, EPO151115, 502674183 additional patents pending.	

Ground Fault Detector (GFD)

Conforming to ^{HN45 S 50} and ^{HN 64 S 44} standards



Designed to Identify the location of Ground Faults on MV

Allows to determine the faulty portion of a network
 If LV auxiliary supply is not available, the autonomy of the device is assured by an integrated Ni Cad Battery – Autonomy on standby exceeds one year.
 An LED signals the presence of a fault.
 Sensing of the current is provided by three open type CT's.

FUNCTIONAL DESCRIPTION

In standby, possibility to simulate a default by pressing the test button, located on the front Part of the GFD, for a duration exceeding 350 ms (or 100 ms) – the front LED and the DEFAULT light start to blink for 3 seconds.

The LYNX detector monitors the current on the MV line - If the current exceeds the values Preset by the operator (Phase: 450A Homopolar: 20/40/80/160 A) the detector shall Memorize the default if the default exceeds 350 ms, and shall activate the led indicator for a Two - hour duration, in the absence of MV current.

The lynx shall return in standby Mode after 2 hours, or as the MV voltage returns – The Reset is made by pressing the TEST buttons for more than 350 ms (or 100 ms)

LYNX – TECHNICAL DATA

➤ **DIMENSIONS:** L : 800 mm H : 125 mm W: 60 mm Weight : approx.1 kg

LYNX - Ground Fault Detector (GFD)

MAIN CHARACTERISTICS

POWER SUPPLY:	- by CT TOROIDAL IPX 2 or Network 230 VAC supply	Non opening type Autonomy in standby : 1.5 years Reloading T< 30 H TOROIDAL CT to accommodate Busbar up to 400A
BATTERY:	-Ni Cad (NiHm on demand)	7 year life span
TRESHOLDS:	-PHASE - HOMOPOLAR -DURATION PRECISION	-450A -20A / 40A /80A / 160A -350 ms +/- 50 ms (100 ms on request) +/- 10%
FILTERING:	-TYPE 2 Detector -ATTENUATION	-50 Hz -> 20 dB at 100 Hz
OVERLOADS:	-1 PHASE - I HOMOPOLAR	-8 kA 1 s -1,5 kA 1s
TIME DELAYS:	-Fault locking -Accuracy -reset after	-3s - +/- 20 % - 2 Hours
LIGHT:	-Blinking Frequency -technology	-1Hz -LED
SENSORS:	-CT -connectors -grounding -cable size -U max at 8 kA	-open type ,500 turns -IP 2X -S2 plug out -95 to 250 mm2 / 300 mm2 HN 33 S 23 - < 1 kV RMS - < 5 kV peak
CAPACITY:	-Max temp -Dielectric	- 10 deg.C to + 55 deg.C - 2 kV RMS 50 Hz – 1 mn 5 kV shock wave 500V – 100 kHz < F < 1 Mhz
BOX:	-protection	IP 65
CONNECTION Cables:	-Length	3.5 or 10m
REFERENCE no.	Complete LYNX with : -3.5 m cables / CT powered - 10 m cables / CT powered -3,5 m cables / 230 Vac -10 m cables / 230 Vac	837208 837222 835209 827223
Options :	- LED signaling	837212
	- LED + Relay	837215
	-external LED	837213
	-external LED + Relay	837214
	-test button	Included
	-Insulating Transformer (in case earth LV different from ground MV)	837220