

# RADIO OHMSTIK

LIVE LINE MICRO-OHMMETER

## FEATURES

- Measure micro-ohm resistance on HV conductors
- Easily view readings on a handheld display
- Directly save data to user's laptop as .csv file
- Accurate readings in environments up to 500kV



## REDUCE CONNECTOR FAILURE RATES

The Radio Ohmstik takes accurate current & micro-ohm measurements from conductors, connectors, splices, & switching devices when positioned directly on the energized asset.

The Radio Ohmstik transmits live-line current and micro-ohm resistance measurements via radio to both a Remote Display Unit and a nearby laptop. The measurements taken provide accurate resistance readings for calculating the ratio and determining the aging of the splice or fitting. This method is more direct than infrared thermography, and is not subject to emissivity, weather, current loading, background, and other influences that cause infrared errors.

It calculates resistance by measuring the AC amperage in the line and the voltage drop due to the resistance of the line segment under test. The AC current in the line ensures realistic current distributions through the connection are being measured.

The instrument is pressed against the splice or connector so the connection under test is between the two electrodes. In a few seconds the current and micro-ohm resistance measurement is taken, and is shown on the display and written to software on the user's laptop.

With the optional GPS device installed on the computer, location, time and date data is automatically written and saved to a .csv file for future review and analysis.

The Radio Ohmstik gives utility engineers data to predict a failure years in advance, allowing for replacement on a planned basis, before failures and line drops occur.



Radio Ohmstik Display Unit

A screenshot of the Radio Ohmstik software interface. The top part shows an LCD display with two large numbers: '90.8' and '115'. Below the numbers are the units 'AMPS' and 'Ω'. The text 'LCD Display' is centered below the numbers. Below the display is a table with two columns: 'Time' and 'Amps'. The table contains several rows of data, with the last row highlighted in blue.

Time	Amps
10/6/2014 2:45:59 PM	88.6
10/6/2014 2:46:07 PM	88.9
10/6/2014 2:46:17 PM	88.7
10/6/2014 2:46:36 PM	87.6
10/6/2014 2:46:57 PM	89.1
10/6/2014 2:47:08 PM	89.8
10/6/2014 2:47:18 PM	90.8

Radio Ohmstik Software

# APPLICATIONS

- Measure and evaluate connections on transmission and distribution conductors
- Verify closing resistance of open switches
- Check taps and jumpers for connection reliability
- Evaluate aging of connections

RADIO OHMSTIK SPECIFICATIONS		
Model Number	6-182	6-184
Description	Radio Ohmstik Kit	Wide Jaw Radio Ohmstik Kit
Kit Includes	8-182 XT Sensor Transmitter & 8-180 Display Unit, Carrying Case, Fused & Adjustable probe, universal angle adapter, Radio Ohmstik Software	8-184 WJ Sensor Transmitter & 8-180 Display Unit, Carrying Case, Fused & Adjustable probe, universal angle adapter, Radio Ohmstik Software
Sensor Opening	2.5 in, 6.35 cm	3.86 in , 9.8cm
Weight	2.4 lbs, 1.10 kg	4.0 lbs, 1.81 kg
Frequency, 50 Hz	47 to 53 Hz	
Frequency, 60 Hz	57 to 63 Hz	
Range of Operation		
Voltage Phase to Phase	500 kV	
True RMS Amps	1-1400 A	
Micro-Ohms	5-2500 $\mu\Omega$	
Resolution		
Amps 0.9-99.9 A	0.1 A	
Amps 100-1400 A	1 A	
Micro-Ohms 1-999	1 $\mu\Omega$	
Micro-Ohms 1000-2500	1.0 m $\Omega$	
Accuracy		
Current	$\pm 1\% \pm 1$ A	
Micro-Ohms Absolute	$\pm 2\%, \pm 2$ $\mu\Omega$	
Micro-Ohms Repeatability	$\pm 1\%, \pm 2$ $\mu\Omega$	
	Accuracy is diminished if the current is less than 15 A while on 0-35kV and when current is less than 50 A while on 36-500 kV	
EEC Standards	Successfully passed international test standards indicated by CE	
Radio		
Frequency	ISM 2.4 GHz	
Power	63 mW, 18dBm, 10 mW in Europe & Japan	
Range	150 feet (46 meters) Line of Sight, 120 feet (36.5 meters) in Europe & Japan Line of Sight	
Mechanical		
Operating Temperature	-22° to +140° F, -30 to +60° C Lithium battery required for temperatures below -4°F (-20°C)	
Display	Graphics Display on Handheld Unit	
Hot Stick Mounting	Universal chuck adapter (Hot stick not included)	
Battery	9V Alkaline or Lithium, one per unit	
Battery Life	6 - 8 hours at 68°F or 20°C, 3 - 4 hours at 32° F or 0°C	



XT Radio Ohmstik Kit + Accessories



WJ Radio Ohmstik Kit + Accessories



SensorLink® Corporation  
 1360 Stonegate Way  
 Ferndale, WA 98248  
 p: +360.595.1000  
 e: info@sensorlink.com  
 www.sensorlink.com