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## DRM-40

### Micro-ohmmeter for resistance from 0.01 micro ohm to 200 ohms

The DRM-40 micro-ohmmeter can be used to measure very low resistances which vary from 0,01  $\mu\Omega$  to 200 $\Omega$ . This is the most accurate on the market in its category.

### Application example

Quality control of the ground settings and power bars

The ground settings which the teams of network technicians use in off-tension work 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 takes a measurement on a standard ground setting and compares it to those obtained on other ground settings in order to verify if the deviation observed between the two measurements is acceptable or not. Its precision, within one hundredth of a micro ohm, is ten times superior to other instruments on the market.



Close-up of the DRM-4012 probe's contacts

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



### Other applications

- Quality control of smelting parts.
- Control of mechanical joints and of joints welded at high voltage.
- Control of exothermic joints (Cadweld®).
- Control of electrodes for aluminum plants.
- Inspection of contacts, circuit breakers and power fuses.



### Advantages of the DRM-40

- Much lighter and handier than other equipment in its category.
- Shock resistant, it is suitable for all types of applications: work site or laboratory.
- Its back-lighting liquid crystal display (LCD) enables it to be used in dark areas.
- Weak current injection for applications that require small measurement contacts.
- A variety of probes adapted to types of specific measurements such as the inspection of exothermal welds. (Cadweld®), are available as options.

### Operation

The DRM-40 uses a 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 reading 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 eliminates 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.

### Technical specifications

- Uses the four point measuring method.
- Displays three measurement currents of 5A, 250mA and 5mA which automatically adjust themselves.
- Automatic stop mechanism of the instrument after 2 min. in idle mode.
- Automatic stop mechanism of the backlighting system after 30 sec.
- The LCD (Liquid Crystal Display) displays the results in letters that are easy to read.
- A set of standard connecting cables with "alligator» clips comes with the instrument.



The DRM display, in relative mode.

We can see at the lower left of the screen, the reference value. In relative mode, the eDRM displays the difference between the reference and the measurement that is being done.

This mode is very useful in quality testing.



Accuracy	0,15% of the reading, +/- 2 counts.
Measurement Range	0,01μΩ to 200Ω
Measuring Scales	20.00 μΩ to 200.00 Ω
Resolution	0.01 μΩ
Running Temperatures	-20°C to +50°C (-4° F to 122° F)
Storage Temperatures	-40°C to +50°C (-40° F to 122° F)
Humidity	0 to 95% non condensed
	Submersible, rain proof
Autonomy	> 5000 measurements, at 5A > 10 000 measurements, for the other currents
Battery	Six (6) 1.2V, 2.1Ah rechargeable "A" NiMh batteries
Charger	12V 1A adapter with sealed connector, available for 110V or 220V
Display	Liquid crystal 128 X 64 dots, wide ranging temperatures 2.36 X 1.62 in. (60 X 41 mm) 2 back-lighting intensities (100%, 50%)
Size & Dimension	8 X 4.5 X 2 in. (203.3 X 114.3 X 50.8 mm)
Weight	1.9 lbs (0.86 kg)

### Optional Equipment

Specific custom-made probes  
Reference Resistance of 9,5 μΩ  
Nylon padded protection case  
ABS transportation case



Standard probes



DRM-4012  
Aluminothermic welding probe  
(optional)