




<p>Bob van Evelingen</p>	<p>Micro-Ohmmeter MOM2</p>
	
<p>www.programmabob.nl</p>	

<p>Main features</p>	<p>Programmabob.nl</p>
<ul style="list-style-type: none"> ■ Truly handheld <ul style="list-style-type: none"> ■ Battery supplied (Rechargeable) ■ Up to 2200 measurements per charge ■ 1 kg (2.2 lbs) without accessories ■ Bluetooth® ■ Testing with both sides grounded <ul style="list-style-type: none"> ■ DualGroundī technology 	

Ultra capacitor technology

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- New technology permit 350 Farads!
- Enough energy to lift 110 kg (242lbs) 1 meter(3ft)



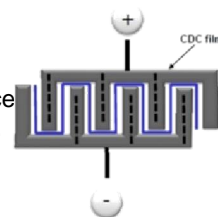
Ultra capacitor technology

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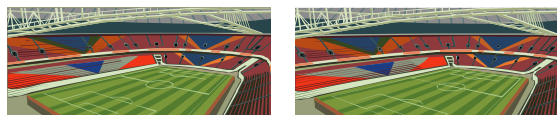
- C: Capacitance (F)
- ϵ_r : Dielectric constant (F/m)
- A: Surface area of plates (m²)
- d: Distance between plates (m)

$$C = \epsilon_r \frac{A}{d}$$

- Laser technology is used to create grooves in the surface of the capacitor plates in order to maximize surface area.



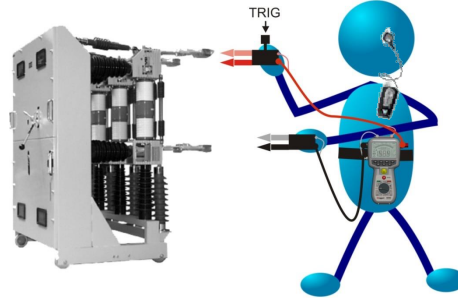
The surface area of the capacitor plates is as big as two soccer fields!



Testing Micro-Ohm

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- Kelvin probes
- Belt clip
- Pass / Fail sound indications
- Data log

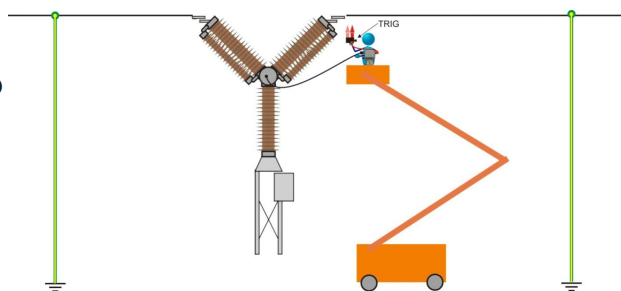


1. Hold probes to CB and press trig button
2. Signal indicates whether test was pass or fail
3. Result logged in unit for later dump to PC

Testing Micro-Ohm

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- DualGround
- Kelvin clamp
- Neck strap

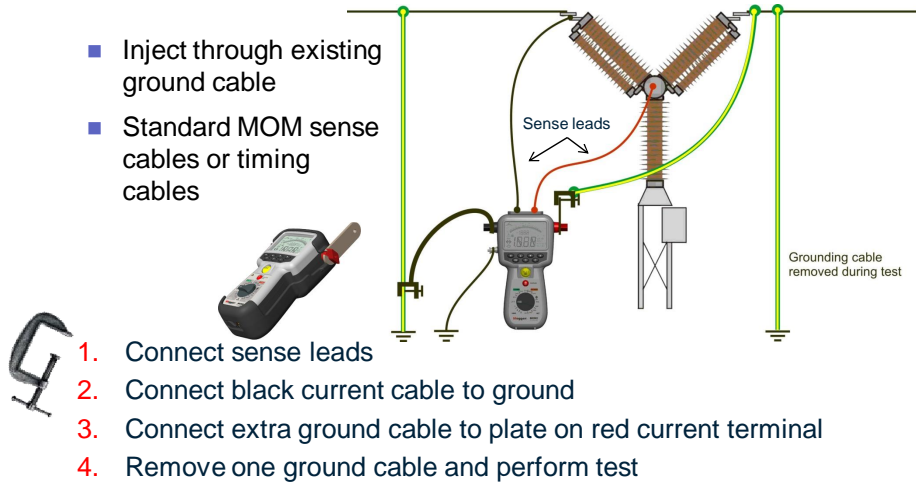


1. Attach Kelvin clamp to one side of CB
2. Travel to other side of CB
3. Hold probe to CB and press trig button

Dual Ground

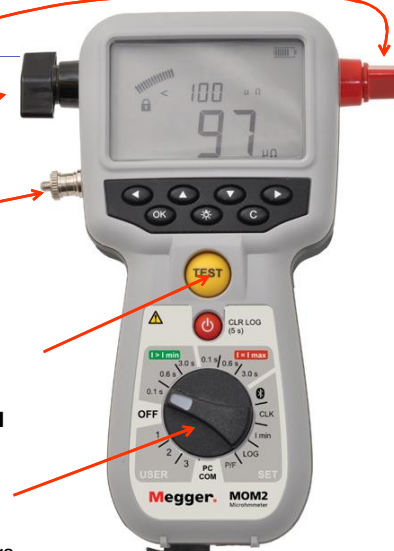
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- Inject through existing ground cable
- Standard MOM sense cables or timing cables



Front

- Red current output terminal (+)
- Black current output terminal (-)
- High Contrast LCD Display with backlight
- Safety ground conductor terminal
- TEST
 - Starts the test if selector switch is in $I > I_{min}$, $I = I_{max}$ or USER position
- Rotary switch selector for test mode and settings



Front

- **Results with Pass/Fail limit indication**
- **Display control keys**
 - <Left>, <Right> used to navigate between characters/digits.
 - <Up>, <Down> used to change individual character/digit.
 - <OK> Press to select and/or confirm
 - <Backlight > Automatic switch off after 20 s.
 - <C> Clear or Cancel
- **Stand by / Wake up button or Clear log** if held 5 seconds



Settings

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OFF		
I>I MIN	0.1 s	min. current. guarantee
	0.6 s	min. current guarantee
	3 s	min. current guarantee
I=I MAX	0.1 s	max. charge
	0.6 s	max. charge
	3 s	max. charge
SET	BT	Head set / PC com (Pair units)
	CLK	Date / Time
	I min	min. current limit: 50 A / 100 A
	LOG	Off / Breaker testing mode / Factory line testing mode
	P/F	Pass / Fail: OFF / Limit
PC COM		Dump data to PC / Set User 1
3		/ Calibration
USER	1	User defined quick settings
	2	User defined quick settings
	3	User defined quick settings



Top / Bottom MOM2

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MOM2 Win

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The screenshot shows the MOM2 Win software interface. The main window displays 'Connected to S/N 4002 on port COM11'. Below this are buttons for 'Retrieve data' and 'User settings'. A 'Measurements' table is open, showing the following data:

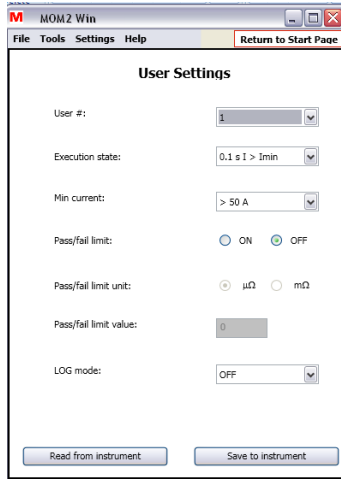
Record	Label	Timestamp	Max current	Min current	Min current limit	Resistance	Pass/fail limit	Measure Time [ms]
1	1	----	118 A	112 A	50 A	501 $\mu\Omega$	660 $\mu\Omega$	100
2	2	----	112 A	107 A	50 A	501 $\mu\Omega$	660 $\mu\Omega$	100
3	3	----	107 A	101 A	50 A	501 $\mu\Omega$	660 $\mu\Omega$	100
4	4	----	103 A	97 A	50 A	501 $\mu\Omega$	460 $\mu\Omega$	100
5	5	----	98 A	93 A	50 A	501 $\mu\Omega$	460 $\mu\Omega$	100
6	6/4/3/2011 13:25:31		63 A	60 A	50 A	501 $\mu\Omega$	460 $\mu\Omega$	100
7	7/4/3/2011 13:25:39		63 A	60 A	50 A	502 $\mu\Omega$	460 $\mu\Omega$	100
8	8/4/3/2011 13:25:52		64 A	61 A	50 A	502 $\mu\Omega$	460 $\mu\Omega$	100
9	9/4/3/2011 13:26:13		65 A	61 A	50 A	502 $\mu\Omega$	460 $\mu\Omega$	100
10	10/4/3/2011 13:26:31		65 A	61 A	50 A	502 $\mu\Omega$	460 $\mu\Omega$	100
11	11/4/3/2011 13:26:43		65 A	62 A	50 A	503 $\mu\Omega$	460 $\mu\Omega$	100
12	12/4/3/2011 13:26:52		65 A	62 A	50 A	502 $\mu\Omega$	460 $\mu\Omega$	100

At the bottom of the table, there is a 'Save to file' button and a progress bar. An arrow points from the 'Save to file' button to the text below.

.CSV format ð . -> MS EXCEL .XLS

MOM2 Win

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MOM2 Win

File Tools Settings Help Return to Start Page

User Settings

User #:

Execution state:

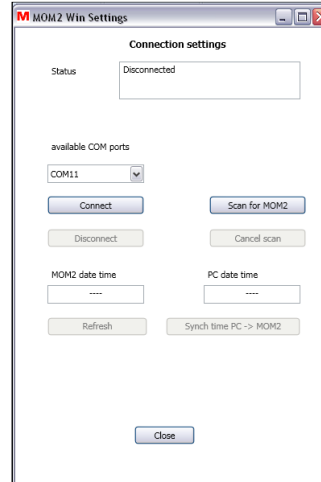
Min current:

Pass/fail limit: ON OFF

Pass/fail limit unit: $\mu\Omega$ m Ω

Pass/fail limit value:

LOG mode:



MOM2 Win Settings

Connection settings

Status:

available COM ports

MOM2 date time:

PC date time:

