

Taifun[®] Ω_{MEGA}

User Manual

english



Dear customer

Thank you for purchasing the precision milliohmmeter "Omega" from SmokerStore.

We offer you a device that allows you to build coils and also measure the coil resistance comfortable and precise at the same time. The annoying on and off screwing, in order to measure the resistance, is no longer necessary. In addition to this, the base looks great and could remain on your table after building the coil.

The device is activated by a light sensor at the bottom of the device. It is not necessary to switch it on or off. But keep in mind that a certain amount of light is required to activate.

After the measurement, please put it back on the table with the bottom down, to turn it off.

To start a new measurement, just turn it again. In this way it is possible to complete a number of 1,000 measurement cycles with a small lithium battery.

If you forget to turn off the device properly (darkening the bottom), the device will switch to idel mode after about 25 seconds.

The idle power consumption is up to 400µA and 10,000 times higher than the proper shutdown and therefore not recommended (battery consumption). To restart the device, put it back on the table to turn off, and lift it again.

Specifications

measuring range:	0.00-3.00 Ω
calibration range:	0.00-1.00 Ω
accuracy:	1% +- 1 Digit
power supply:	replaceable lithium coin cell CR2032 (220mAh)
idle power consumption:	approx. 40nA (0.0000004A)
operating power consumption:	approx. 2-10 mA depending on display

Low-hold display for correct display of resistance despite the variations in the contact.

Before first use



In idle status, please put the machine onto a flat opaque tray.



Screw your atomizer on the device and build the coil on it.



Turn the winding base and you will see the resistance.



After the measurement, please put the device back on the tray.

IMPORTANT

The displayed resistance is made up of the atomizer and your coil. The resistance is added here (eg 0.1Ω atomizer + 0.7Ω coil resistance = 0.8Ω total resistance).

NOTE

If you want to measure your coil or your atomizer accurately, follow the calibration functions first.

Calibration with atomizer



Build a short circuit on your atomizer. Use a very low-resistance wire directly between the contacts.



Turn the atomizer slightly or remove it from the device, so that there is no contact.



Turn the device.

The display shows "---".

Wait 10 seconds until "CAL" appears in the display.



Now mount the atomizer with the short-circuit. If a valid ($<1 \Omega$) resistance is detected, it will be displayed. If the measured value is stable over several seconds, the device will now be calibrated and displays ("0.00").



From now on, the internal resistance of the atomizer is stored permanently in the device.



Now remove the short-circuit of your atomizer and replace it with the proper coil.



Turn the device around, and you will see the exact resistance of the coil.

Place the device again on the tray, to turn it off.

Calibration of the device



To erase the stored calibration, proceed as above, but use the supplied calibration resistor (approx 0,00 Ω).

Now the device is reseted. You will get the total resistance of a screwed atomizer and the coil, in the future.

Low Hold

The device measures the resistance continuously (10 seconds) after activation. It shows, however, always only the lowest measured resistance.

It does not wriggle.

Since it can be assumed that the atomizer has internal resistance (thread + contact) as well as the device itself will get transition resistances (dust layer), which would result in "resistance jumps", over time, the low-hold function is installed.

For physical reasons, only the lowest measured resistance can be correct.

Example

The device measures internally 0.6 / 0.52 / 0.51 / 0.54 Ω
=> correct value = 0.51 Ω

Only this measured value is displayed because only this can be right.

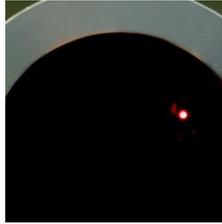
Without this function, you would get different display results, through different firmly screwed atomizers and vibrations.

Display



"---" the device waits for you to screw on a atomizer.

0-3 Ω normal measurement or 0-1 Ω for calibration.



" ." the device will turn off itself soon.

Warning: this is not the proper shutdown!

Please put the device on a flat surface.



"CAL" the device is now waiting for the calibration.



"E01" the measuring device has detected a resistance which is lower than possible by the calibration $<0 \Omega$. Please recalibrate!

This may be passed through an inaccurate prior calibration (dirt, contact difficulties, etc.).



"E02" the measuring device has detected an invalid resistance. The resistance is higher than 3 Ω .



"E03" the measuring device has not detected a calibration resistance or it is outside the range of 0-1 Ω .

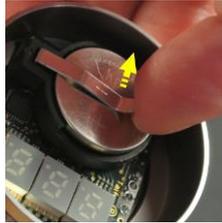


"E04" the measuring device hasn't recognize any stable value during calibration. Please clean all contacts (atomizer and device) and try again.

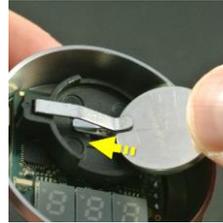
Battery replacement



Please screw off the lower part of the device.



Remove the glass and lift the wire bracket that holds the battery. Use your fingernails and "shake" the battery out. Please don't use any tools.



Now, press the new lithium cell CR2032, with the positive pole visible for you, between the wire bracket and the battery holder until the battery slips into the battery holder. Please don't use any tools.



Screw back the lower part of the device and place it again on a flat surface.

Do not scare you! The unit will turn on during battery replacement.

IMPORTANT

Pay attention to the battery regulation:

- Please return used batteries to a collection point.
- Keep away from children (danger of swallowing).
- Keep away from fire.

We wish you a lot of fun with the device (in operation and as a jewel on your desk).



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