Wheeltest I

USER'S MANUAL

TRANSLATED FROM FRENCH

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1 General information

1.1 Warranty

VOH Ltd guarantees this product against faulty manufacture or material in normal conditions of use and service, for one year from the commissioning at the client's place of business. If at any time during the length of the warranty, the product shall be deemed faulty or break down, VOH Ltd. shall repair or replace it (choice to be made by VOH Ltd.).
If the product is defective, please call the customer service of VOH on +41(32) 945 17 45.
Said warranty shall not apply if VOH Ltd proves that the fault or failure arises from damages which occurred while the product was in the possession of a buyer.
VOH Ltd.'s responsibility is limited to the repair or replacement of the product under the conditions listed hereabove.
VOH LTD. SHALL NOT BE RESPONSIBLE FOR LOSS OR ANY DAMAGES WHATSOEVER, INCLUDING CONSECUTIVE OR ACCESSORY DAMAGES, ARISING DIRECTLY OR INDIRECTLY FROM AN EXPLICIT OR IMPLICIT VIOLATION OF THE WARRANTY, OR FROM ANY OTHER FAULT OF THIS PRODUCT. THIS WARRANTY IS THE ONLY EXPLICIT WARRANTY THAT VOH GRANTS ON THIS PRODUCT.
This warranty only covers the initial buyer and is not transferable.
Should you have questions concerning this warranty, please write to VOH Ltd.:

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1.2 Safety information

Warning

- Do not use the Wheeltest 1 if it is damaged. Before using the Wheeltest 1, inspect its casing and its electrical connections.
- The Wheeltest 1 must be used in the way specified by the manufacturer.
- Do not use the Wheeltest 1 near dust.
- The Wheeltest 1 must only be used by people who have been trained to do so.

- Beware!!!
- Please read the information included in this manual before using this apparatus. Incorrect use may damage the system or cause measurement errors.
- Before connecting the machine for the first time, verify that the supply voltage of the power grid corresponds to that required by the machine.
- In case of prolonged non-use, disconnect the electrical supply cable.
- Do not dismantle the machine. Only the manufacturer is entitled to replace or repair a faulty component.
- Use this machine at a temperature between 10°C and 40°C (140 °F)
- Never place objects other than watch wheels in the device.

1.3 Transportation

If the apparatus is moved, take care not to cause any shocks that could damage its mechanisms. In case of transport over a long distance, it is preferable to use anti-shock packaging.

1.4 Storage

The Wheeltest 1 must be stored in a dry and dust-free place. The storage temperature must be between 10°C and 40°C. It is advisable to wrap up the machine to protect it from dust and humidity.

2 Parts of the machine

A wheel is positioned between the ruby Vs and set to revolve by a belt. The Wheeltest 1 comprises a series of control knobs for the motor, and four screws to adjust the position of the Vs and of the drive.

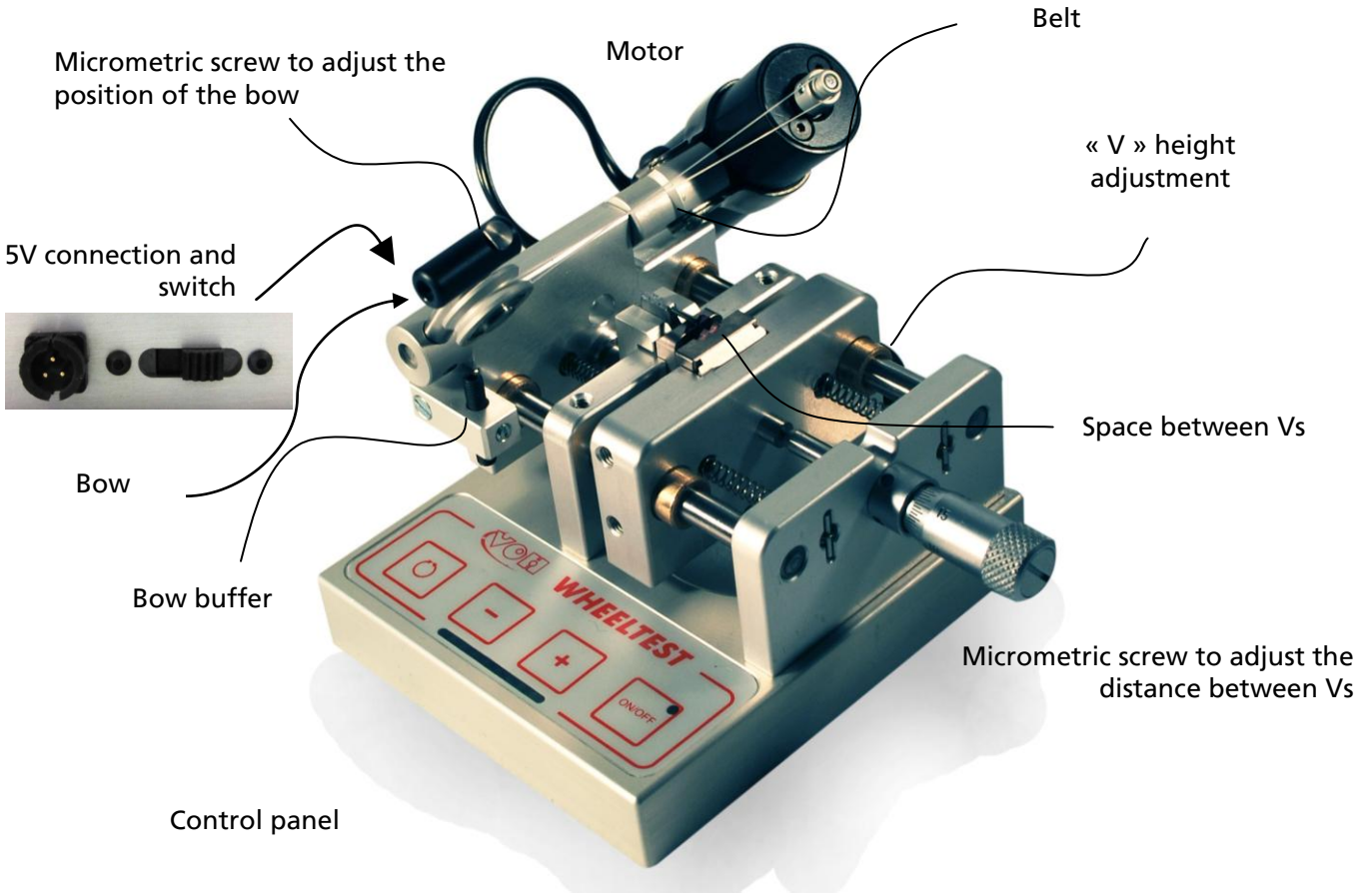


Figure 1: General view of the Wheeltest 1

3 Use

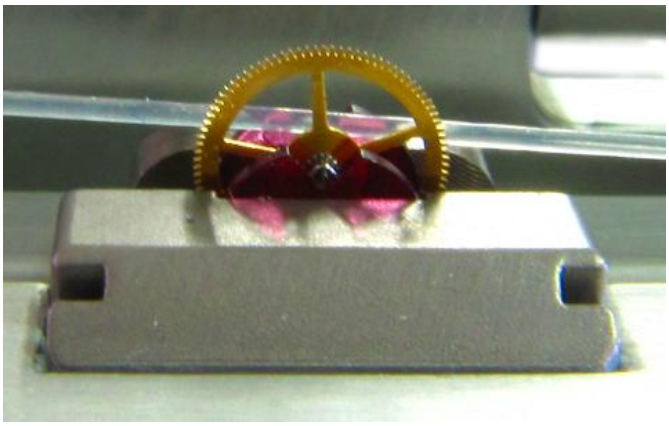
3.1 Start-up

The machine is started by the slide switch next to the power connection. When it is turned on, the motor will not turn, but the last parameters used (speed and direction of rotation) will be restored.

3.2 Use

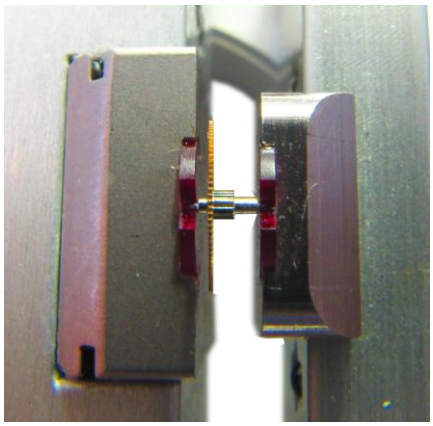
3.2.1 Placing the component on the Wheeltest 1

The component to be measured must be placed between the two Vs of the Wheeltest.

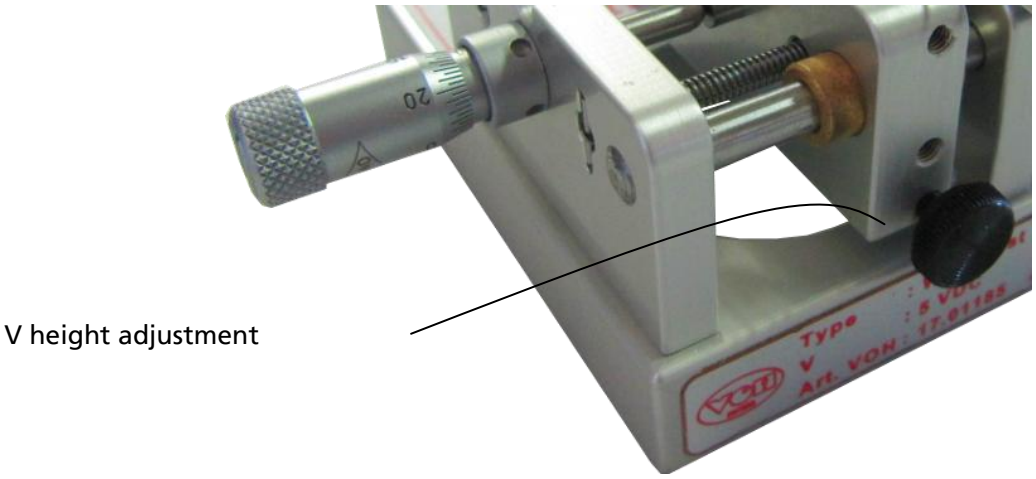


3.2.2 Adjustments

1. Adjust the spacing of the two Vs by means of the micrometric buffer, in order for the wheel to be held in the manner closest to its function once mounted in a watch.



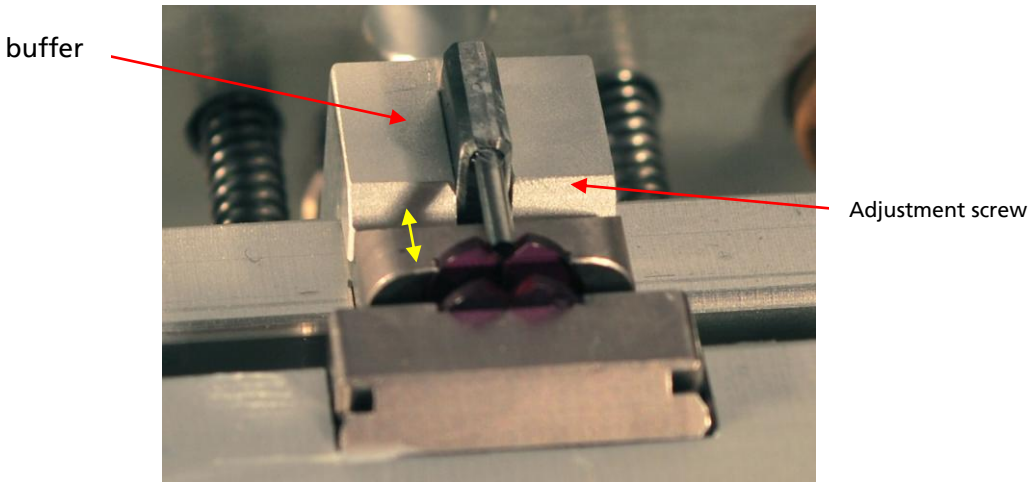
2. The height adjustment of the V closest to the user is made by means of the black knob placed on the right of the Wheeltest. The precise adjustment may be visualised by checking that the part displayed on the screen is seen exclusively from above.



3. The wheel is now correctly placed, and must now be driven. The wheel should rotate at a maximum speed of a one or two revolutions per second, or three teeth per second for slightly toothed wheels.

With buffer option:

The buffer allows the spindle of the wheel to be supported.



The buffer support pin is adjusted by means of the adjustment screw placed on the side of the buffer.

Drive adjustment is thus made by lowering the belt on a part of the wheel without visual measurement. The position of the belt is adjustable, as to depth, by the screw placed at the back of the apparatus; it should be placed on the spindle of the wheel or any other part of the wheel outside of the part to be measured. A height buffer allows the bow to be positioned with a repeatable pressure.

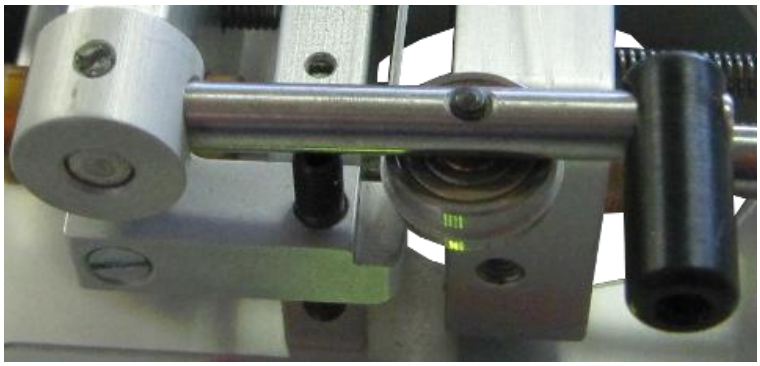


Figure 2 : height buffer bow

Rotation speed is adjusted by the « + » and « - » buttons on the control panel; a lighted bar comprising 8 LEDs allows the speed chosen to be visualised. Rotation is launched by pressing on the « on/ off » for 2 seconds; the LED will turn on at the top of the button. Brief pressure on the « on/ off » button allows step-by-step rotations. The wheel rotation direction is alternated by pressing the button at the far left.

Figure 3 : control panel

4 Resolution of common problems

Type of error	Cause	Resolution
No LED turns on when powered up	Speed was set at minimum during last use	Increase speed to confirm that the Wheeltest 1 is being supplied with power
The wheel is not driven	The bow is badly placed or damaged. The wheel is squeezed against the two Vs	Reposition, or replace the belt Increase space between Vs
The wheel has an abnormal axial beat	Too-wide space between the Vs	Tighten the Vs

5 Exclusion of responsibility/warranty

Damages caused by use, transportation or storage that do not comply with those described in this manual are not taken care of by the manufacturer. Modifications to the machine and opening the casing are forbidden and entail an exclusion of responsibility. The right to a warranty expires when these are demonstrated or if the faults noted cannot be original. Consumables (belts) are not subject to warranty.

6 Maintenance and care

No special care is necessary for the Wheeltest 1, if it is used in a laboratory, except classic cleaning with a dry cloth. The belt is a consumable to be replaced when the user deems necessary.

7 Technical data

Parameter	Value
Supply voltage	5V DC
Power	850 mW
Dimensions	Depth : 80 mm Width : 70 mm Height : 60 mm

8 Representation/distribution

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