

1. THE FIRMWARE UPGRADE

A) HOROTEC® *Flashtest* - Connection PC

HOROTEC® *Flashtest* can be connected to a PC and the Firmware can be downloaded via **HOROTEC® *Flashtest* - PC** connection. For the **HOROTEC® *Flashtest* - PC** connection, download the **HOROTEC® *Flashtest*** PC Application Installer via Internet www.horotec.ch.

B) Downloading HOROTEC® *Flashtest* FIRMWARE

To open the next menu (See figure below), click on the **Support** menu of the website www.horotec.ch (**NOTE** : internet connection is essential for this operation!)

C) Downloading the application SOFTWARE

Click on the FLASHTEST PC Application Installer you can find on the Horometer website (www.horotec.ch) (**NOTE** : Some browsers such as Chrome, do not support downloading from the Internet. If the download does not succeed, check your browser and use Internet Explorer or Mozilla Firefox.)

D) FIRMWARE UPGRADE

HOROTEC® *Flashtest* contains the latest software and documentation available at the time the package was assembled. There may be newer software available or dependencies that require special attention to product version number. To ensure proper installation, operation checks online documentation from the web site www.horotec.ch before using the product. The download of new software versions via internet is simple, quick and free of charge :

1) Switch ON and connect your HOROTEC® *Flashtest* to the PC with the special cable available optionally.

2) Start the FLASHTEST Application Program on your PC (Application Program : you can download it via Internet. See Support menu : FLASHTEST PC Software)

3) Click on *Tools* menu and select *Firmware Upgrade*. The appeared buttons are **Browse** and **Download**. (The Browse is suitable to find and download the saved firmware. This function is the only possibility to download the firmware, when the PC operates in off-line.) When the PC is connected to the internet, click on the Download button and the PC automatically shows the firmware.

4) Click on the Start upgrade button, to start the download. The firmware will be automatically downloaded.

2. CALIBRATION

Switch ON the **HOROTEC® Flashtest** with the right button then press down the two buttons simultaneously and release simultaneously. The display shows the following special INFO :

- **SW version :** like 1.01 - shows the software version,
- **HW version :** like 8.01 - shows the hardware version,
- **Calibration :** like -00.35 - shows the last calibration value for the built-in quartz oscillator,
- **Zeroing :** like +0.16 - shows the last zero adjustment value for voltage and resistance,
- **S/N :** - shows the Serial Number.

A) 'CALIBRATION' of the quartz

Calibration is the authentication of the built-in quartz oscillator of the device. During the development of **HOROTEC® Flashtest** we paid attention to make more reliable accuracy of the device. To ensure this accuracy, there is an option to calibrate the **HOROTEC® Flashtest**. With this calibration you can solve the problem of the oscillator quartz aging. The calibration process of the device is easy and simple :

- Switch ON the **HOROTEC® Flashtest** with the right button then press down the two buttons simultaneously and release simultaneously. The display shows the INFO menu.
- Press once the right button and select the CALIBRAT menu.
- Connect the optionally available “calibrator” unit to the **HOROTEC® Flashtest**.
- Wait a few seconds and the calibrator automatically calibrates the device.
- *When the calibration process is finished the display shows a value, like -00.19, etc (we recommend performing 3-4 cycles before saving the result).*
- After the finishing of the calibration process press down the right button until the value is saved. With this, the calibration is finished.
- Press the left button to return to the **measurement** menu.

B) ‘ZEROING’

Zero adjustment is a process like to tare a scale. The “zeroing” is also easy and simple :

- *Switch ON the **HOROTEC® Flashtest** with the right button then press down the two buttons simultaneously and release simultaneously. The display shows the INFO menu.*
- *Press twice the right button and select the **ZEROING** menu. (The menu shows a value, like -017.)*
- *Press down the right button and a same new value will appear with opposite sign, so the sum of values will be zero and the “zeroing” is already finished. (The INFO menu shows the saved new value.)*
- *Press the left button to return to the **measurement** menu.*