WATCH EXPERT II – Powerful test instrument with new measuring technology for mechanical watches

- New measuring technology for best signal sensing with automatic gain control
- Numerical indication of the rate accuracy, amplitude and the beat error
- Diagram tracing on the LCD graphic display
- Automatic determination of the beat number for conventional watches and watches with a frequency of 3.5 Hz / 4 Hz
- New measuring mode for watches with special escapement system
- Selectable resolution (zoom) for the diagram, step by step, from 1 to 9
- The current screen display can be stopped any time for a more precise analysis
- After switching on the equipment all measuring and system parameters are disposable, which have been stored before turning off
- RS232 interface port for connection of a printer or a calibration system

witschi

Witschi Electronic Ltd

Bahnhofstrasse 26, CH-3294 Büren a.A., Switzerland, Tel. +41 (0)32-352 05 00, Fax +41 (0)32-351 32 92, www.witschi.com

The WATCH EXPERT II is based on our new measuring technology, called Chronoscope. The instrument offers the watchmaker all possibilities for testing mechanical watches.

A diagram of the watch beats is presented completely silently on a LCD graphic display panel. Numeric values for the rate accuracy, amplitude and beat error are automatically calculated and displayed numerically, i.e. the diagram no longer has to be manually evaluated.

Operation for conventional watches is largely automated. The measurement parameters can be manually selected for special watches or for special measurements.

With the new measuring mode, watches with a special escapement system can also be measured.

The WATCH EXPERT II provides all the test facilities that are needed for a competent repair service for mechanical watches. The instrument is mainly intended for use in service centers and in leading specialist watch suppliers.

Technical Data

- Measuring possibilities: rate deviation, amplitude and beat error of mechanical watches. Diagram of the beat noises.
- Beat number: automatic selection of all common beat numbers. Manual beat number selection of less common beat numbers.
  Manual selection of any beat number in the range between 3'600 to 36'0000 b/h. Determination of an unknown beat number.
- Gain control: automatic. Manual control facility for watches with stray or unusual beat noises.
- Diagram: presentation on a LCD graphic display.
  Resolution: 256 x 64 dots.
  Time scale selectable; from 1 up to 9 mm/ms (zoom).
- Recording speed depends on the beat number, 0.56 mm per watch beat.
  Visible diagram length: 143 mm.
- Rate measurement: numerical display in s/d.
  Resolution 1 s/d, measuring range ± 999 s/d or 0.1 s/d, measuring range ± 99.9 s/d.
- Amplitude: numerical display in degrees.
  Resolution 1°, measuring range from 70° to 360°.
  Lift angle adjustable from 10° to 90°.
- Beat error: numerical display in milliseconds.
  Resolution 0.1 ms, measuring range 9.9 ms.
- Selectable measuring time for numerical results: 2, 4, 8,10, 20, 30, 60 s and automatic selection of the shortest possible measuring time.
  Continuous renewal of the average values every 2 s over the measurement period. Display on the screen of the evaluated part of the rate measurement diagram.
- start/stop function: enables the current screen display to be stored as long as required at any time.
- Acoustic check: loudspeaker to hear the beat noises.
- Result print-out: RS232 interface port for the connection of a printer or a calibration system.
  Print-out of the numeric results or a graphic print-out of the displayed diagram.
- Time base: high frequency quartz time base.
  Stability: max. +/- 0.08 s/d between 20° and 40° C.
- Display: LCD graphic display 256 x 64 dots.
- Housing: plastic housing, light grey.
  Dimensions: 250 x 135 x 101 mm.
  Weight: 2.1 kg.
- Mains connection: mains adapter for 230 V~ or 120 V~, 12 VA.
- Stand microphone movable for any test position, suitable for watch movements and watches with or without bracelet.

Accessories

- Clamping microphone for wall clocks.
- Optoelectronic sensor for pendulum clocks.
- Tripod for optoelectronic sensor.
- Printer: DP-1014.0132A, with graphic mode and universal mains adapter, 90 V~ - 264 V~.
- Switchbox: to connect 2 instruments on the printer DP-1014.0132A.
- GPS Receiver.