DermaLab® Combo

technical specifications

MAIN UNIT
Computer: WINDOWs based tablet or laptop. Connectivity: USB and Ethernet, computer to interface unit via Bluetooth®.
Multichannel probe interface.
Application software: Dedicated LabView® based software. Data export: Data may be exported to Excel spreadsheets.
Dimensions: 24 x 23 x 9 cm.
Options: USB connected storage media, USB or wireless printer/keyboard/mouse.

HIGH FREQUENCY ULTRASOUND
Frequency: 20 MHz, focused ultrasound. Resolution: 60 x 200 micrometer (ax x lat). Penetration: 3.4 mm.
Probe: Rotating transducer, scan length 17 mm, footprint 11 mm. Read-out: Display of actual and stored measurements.
SkinLab Combo: Read-out of intensity score, skin thickness, low echogenic band, arbitrary distance. Clinique Combo: Read-out of intensity score.
Gain setting: +/- 10 dB.

ELASTICITY
Principle: Stress/drain by suction. Range: 0 - 4.5 mm elevation, adjustable req. pressure setting 150, 400, 650 mbar.
Probe: Suction aperture: 10 mm. Ultra low weight for minimum skin bias. Adhesive to the skin by double adhesive sticker.
SkinLab Combo: Read-out of continuous real-time curve of elevation vs. req. pressure. Three elasticity parameters. Retraction time, Young’s modulus and ViscoElasticity. Clinique Combo: Read-out of Retraction time.

HYDRATION
SkinLab Combo: Conductivity read-out 0 - 9999 pSiemens, 8 readings with average. Clinique Combo: Read-out of Hydration score 0 - 99, 8 readings with average.

TEWL
Principle: Diffusion gradient. Range: 0 - 250 g/m²/h. Resolution: 0.1 g/m²/h. Accuracy: 5%. Probe: Two combined humidity/temperature sensors in 10 mm c/ylindrical diffusion chamber. Environment check: RH and temperature.
AutoStop: Stops when SD criteria is met. Calibration: Probes with calibration certificate.
SkinLab Combo: Read-out of continuous real-time TEWL curve and sensor display. Clinique Combo: Read-out of continuous real-time TEWL curve and sensor display.

VIDEO SCOPe
Software: Dedicated software for saving/retrieving/comparing captured images.
Connection: USB connected videocamera.

SKIN COLOR
Probe: Color sensor w. 64 active elements, clear front for accurate positioning. Illumination by two angled white LED’s. Optical focusing on 7 mm diam. target area. Insensitive to ambient light.
SkinLab Combo: Read-out of Erythema and Melanin (open ended index), CIELab color values. Four readings with average. Clinique Combo: Read-out of Erythema and Melanin index. Two readings with average.

SEBUM
Collection material: Membranous polymer film. Measurement principle: Translucency characteristics of sebum collecting material. Range: 0.0 - 100.0 %.
Resolution: 0.1 %. Accuracy: 5 %. Measurement: Sequential measurement (zero-calibration/sebum collection/measurements).
SkinLab Combo: Read-out of drop-by-drop sequence status and two measurements with average. Clinique Combo: Read-out of drop-by-drop sequence status and two measurements with average.

SKIN TEMPERATURE
SkinLab Combo: Read-out of up to 8 measurements with average calculation. Clinique Combo: Single value read-out.

SKIN pH
Probe type: Standard gel-filled surface type probe, fast response time. Range: 1.00 - 11.00 pH. Accuracy: 0.01 pH @ 25 deg.
SkinLab Combo: Read-out of up to 8 measurements with average calculation. Clinique Combo: Single value read-out.

SkinLab Combo
State-of-the-art skin analysis

Cortex Technology
Plaavengaet 9 9560 Hadsund Denmark Tel: +45 9857 4100 Fax: +45 9857 2223 cortex@cortex.dk www.cortex.dk
German office: Tel: +49 2361 5444 337 Fax: +49 2361 5444 336 cortex@icom.com
The concept
The new DermaLab® Combo Series presents much more than just a facelift. In fact, it is completely new inside as well as outside. Based on the same concept as its widely acknowledged predecessor, this fully configurable instrument is now entirely controlled from a tablet PC, which connects wirelessly via Bluetooth to the main unit. Just connect application probes as needed.

The list of new features is long and adds two new parameters - skin temperature and a probe for skin pH. This means that a total of ten different skin parameters including high resolution ultrasound skin imaging may be freely combined in one unit.

Also, the measurement of skin elasticity has been completely redeveloped featuring instant application of a preset negative pressure and direct readout of elevation vs. applied vacuum. This principle reduces the measurement time to just a few seconds.

A new line of probe connectors is introduced in order to facilitate the connection of probes, and at the same time several probes now share the same common I/O interface - i.e. they may be freely connected to any compatible connector.

The DermaLab® Combo is easier and more intuitive to operate than ever with new application screens, larger touch-screen and keyboard, and it comes loaded with our dedicated LabView® based application software. Most importantly - it still carries a surprisingly attractive price tag.

SkinLab Combo
For scientific skin research applications and applications within the cosmetic and pharmaceutical industry the SkinLab Combo offers a complete selection of skin parameters, which may be freely configured to fulfill specific testing needs.

The operating principles of the available probes and software application modules are based on measurement principles, for which generally acknowledged guidelines have been established, and measurements are presented in standardized SI-units where applicable.

The broad spectrum of professional applications include claims substantiation, irritancy/allergy testing, rating of moisturizers as well as efficacy testing of topical agents for various skin conditions.

A unique feature of the device is the ability to automatically quantify collagen levels by the implementation of high frequency skin ultrasound technology in its most sophisticated form.

Clinique Combo
The Clinique Combo is the ideal skin analyzer with its appealing design, complete flexibility and ease of operation. The screens allow for pre/post comparison of readings and a summary screen facilitates customized recommendation of appropriate skin care products.

In this configuration the accuracy and reproducibility is the same as in the SkinLab Combo, but here the focus is on the presentation of data - easy to understand and communicate to clients. Due to the flexible software design new and customized solutions may easily be accommodated.