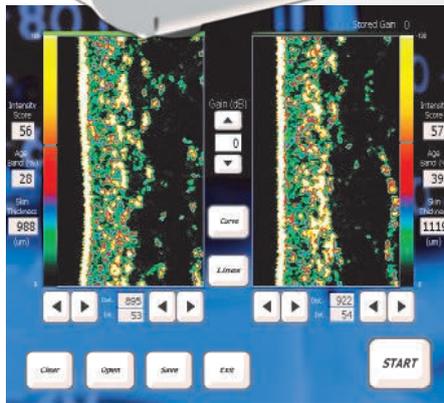
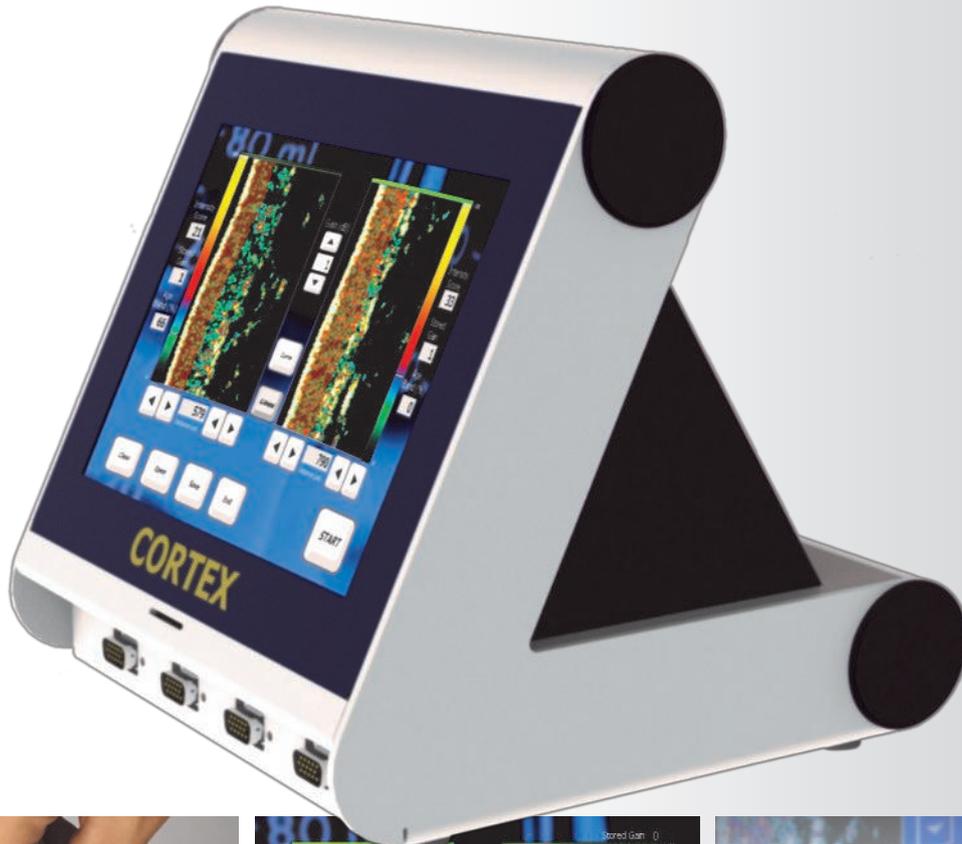


# DermaLab<sup>®</sup> Combo

State-of-the-art skin analysis



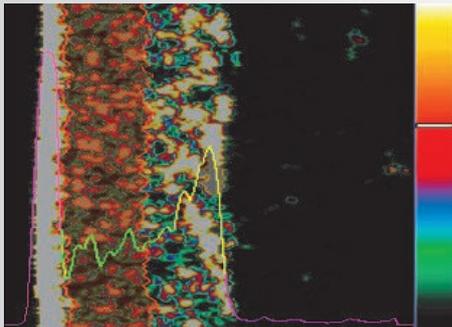
**CORTEX TECHNOLOGY**

# DermaLab

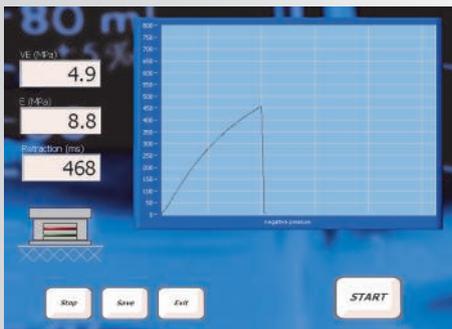
...one concept -



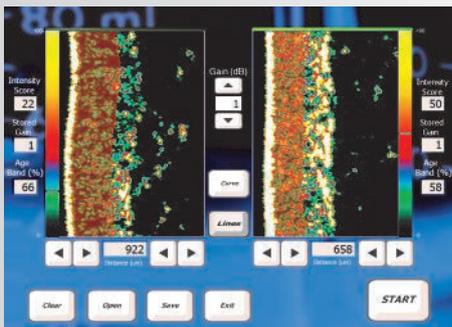
TEWL probe



Age band in high res. ultrasound



Elasticity screen view



Skin ultrasound screen view



Skin elasticity suction cup probe

## The concept

The idea behind our DermaLab® Combo Series is simple: to incorporate all our experience from working in the field of dermatological instrumentation for almost three decades in one platform, which is fully configurable just by connecting application probes as needed.

As such, this idea is not new, but here the traditional skin parameters like TEWL, hydration, elasticity etc. may also be combined with high frequency cross-sectional ultrasound imaging - a technology which previously has been out of reach to many, due to its high price and rather complex operation.

Things have changed - not only is the DermaLab® Combo very easy and intuitive to operate, it also carries an attractive price tag, which will become a pleasant surprise. More importantly, all of this without compromising the measurement quality of the different parameters.

Loaded with different software but with only marginal differences in hardware, the same platform serves both scientific research applications (SkinLab Combo) as well applications within aesthetic skin clinics (Clinique Combo).

Common features include a built-in and touch screen operated WINDOWS-based PC equipped with solid state memory - enough for storing thousands of measurements.

Further, data may easily be exported to Excel spreadsheets, and both configurations provide USB and Ethernet connectivity in order to connect to peripheral devices such as external keyboard/mouse, printers and computer systems.



# o<sup>®</sup> Combo

## two instruments

### SkinLab Combo

For scientific skin research applications as well as 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 the 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

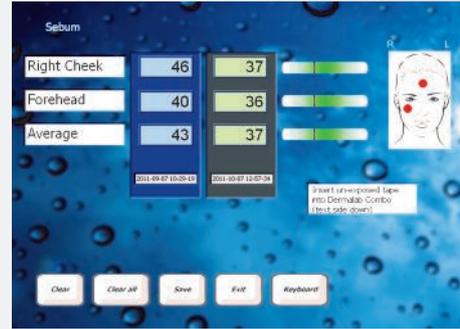
The Clinique Combo is the ideal skin analyzer with its appealing design, complete flexibility and ease of operation - not to mention the attractive pricing.

The screens allow for pre/post comparison of readings and a summary screen facilitates recommendation of appropriate skin care products.

In this configuration the focus is on the presentation of data. The accuracy and reproducibility is the same as in the SkinLab Combo, but here the results are presented as scores - easy to understand, compare and communicate to clients.

Due to the flexible LabView based software design and additional USB ports new and customized solutions may easily be accommodated.

Dermalab<sup>®</sup> is a registered trademark of Cortex Technology ApS.  
LabView<sup>®</sup> is a registered trademark of National Instruments.  
WINDOWS<sup>®</sup> is a registered trademark of Microsoft Corporation.



Sebum screen view



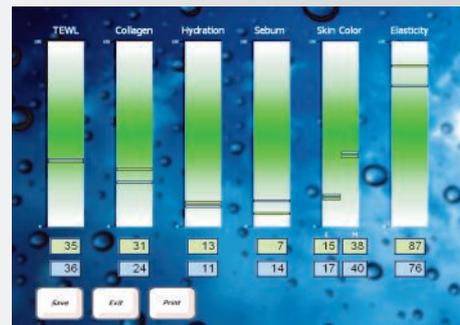
Conductance PIN probe for hydration



Skin color screen view



Sebum specific collector strips



Summary screen view

# DermaLab<sup>®</sup> Combo

## technical specifications



### MAIN UNIT

**Computer:** Single board with embedded WINDOWS operating system. **Storage capacity:** 1 GB RAM, 4 GB solid state disk. **Display:** 8.4" color touch screen, 800 x 600 pixels. **Connectivity:** USB and Ethernet. Multichannel probe interface. **Application software:** Dedicated LabView<sup>®</sup> based software. **Data export:** Data may be exported to Excel spreadsheets. **Dimensions:** 23 x 23 x 24 cm. **Options:** USB connected storage medias, USB printer, USB keyboard, USB mouse.



### HIGH FREQ. 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:** **Measurements:** Intensity score, skin thickness, age band, arbitrary distance. **Gain setting:** Fully adjustable +/- 10dB. **Clinique Combo:** **Measurements:** Intensity score. **Gain setting:** 2 levels (face and body).



### ELASTICITY

**Principle:** Stress/strain by applied vacuum. **Range:** 1.5 mm elevation, 0 - 75 kPa vacuum. **Probe:** Measuring aperture: 10 mm diameter. Ultra low weight (approx. 7 grams) for minimum skin bias. Adheres to the skin by double adhesive sticker. **SkinLab Combo:** **Read-out:** Continuous real-time curve of elevation vs. neg. pressure. Three elasticity parameters: Retraction time, Young's modulus and ViscoElasticity. **Clinique Combo:** **Read-out:** Elasticity score 0 - 99. Display of actual and stored measurements.



### MOISTURE

**Principle:** Conductance, single frequency. **Range:** 0 - 9999 microSiemens. **Resolution:** 1 microSiemens. **Accuracy:** 5%. **Probe:** Pin probe, eight pins minimizing moisture accumulation. Spring loaded action triggers/stops measurement. **Calibration:** Optional calibration checker available. **SkinLab Combo:** **Read-out:** 0 - 9999 microSiemens, 8 measurements with average. **Clinique Combo:** **Read-out:** Hydration score 0 - 99, 3 measurements with average. Display of actual and stored measurements.



### TEWL

**Principle:** Diffusion gradient. **Range:** 0 - 250 g/m<sup>2</sup>/h. **Resolution:** 0.1 g/m<sup>2</sup>/h. **Accuracy:** 5%. **Probe:** Two combined humidity/temperature sensors in 10 mm cylindrical diffusion chamber. **Environment check:** RH and temperature. **Autostop:** Stops when SD criteria is met. **Calibration:** Probes with calibration certificate. Calibration service available. **SkinLab Combo:** **Read-out:** Continuous TEWL (5 sec. mean). Real-time curve and sensor display. **Clinique Combo:** **Read-out:** Continuous TEWL (5 s mean). Real-time curve, display of actual and stored measurements.



### VIDEO SCOPE

**Resolution:** 1.3 megapixel. **Magnification:** 10 - 200x (depends on screen size). **Light:** Polarized/non-polarized setting. **Software:** Dedicated software for saving/retrieving/comparing captured images. **Connection:** USB connected videocamera.



### SEBUM

**Sebum collection material:** Microporous 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:** Sequence status and four readings with average. **Clinique Combo:** **Read-out:** Sequence status and display of actual and stored measurements. Two readings with average.



### 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:** **Readout:** Erythema and melanin (open ended index). CIELab values. Four readings with average. **Clinique Combo:** **Readout:** Erythema and melanin (open ended index), display of actual and stored measurements. Two readings with average.

Specifications may change without further notice

## CORTEX TECHNOLOGY

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