Bodygram PRO® is the new software for the analysis of body composition developed exclusively for Akern BIA devices. Application suitable for experienced and not expert users, Bodygram Pro facilitates the achievement of a full knowledge of the analysis from the vectorial point of view (a section entirely dedicated to the Bioelectric Tests Biavector® and Biagram®) and complete understanding and interpretation of body composition multiple levels derived from estimates, in a simple and intuitive way (reference norms on weight or height of the subject). Up to date with the latest clinical and digital findings, the patient management and follow-up of are intuitive and fast. It's possible to generate individual folders relating to personal information, nomograms, estimates, 3-compartment distribution, graphs, charts and historical analysis.

Bodygram PRO 3.0 providing
Bioelectrical Values (Rz) Resistance (Xc)
Reactance (PA) Phase Angle

Tissue Qualitative Analysis
Vectorial analysis: Biavector® direct assessment of hydration state
Biagram® direct assessment of the intra/extracellular ratios

Multi component quantitative Analysis
Hydration and fluids
TBW Total Body Water - ECW Extracellular Water - ICW Intracellular Water
Nutrition
FFM Fat Free Mass
BCM Body Cell Mass
MM Muscle Mass
FM Fat Mass with distinction between AT Adipose Tissue and EF Essential Fat

Intra/extracellular spaces
ECM Extracellular Mass - ECM/BCM ratios
BMR - Basal metabolic rate in kilocalories and Kjoule

Indexes
Na/K Exchange ratio of extracellular sodium/intracellular potassium
BCMI - Body Cell Mass Index (nutritional ratio)
BMI - Body Mass Index

Age ranges for vectorial analysis: 2 to 85 years
Gender specific equations selected by age:
Adults 16-65 years
Elderly > 65 years
Paediatric population 2-15 years (Vectorial Analysis, TBW, FFM, FM)

AKERN
A STEP AHEAD
IN BODY COMPOSITION

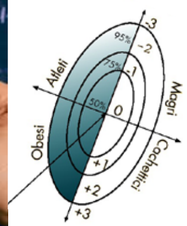
Akern Srl Via Lisbona, 32/34 - 50065 Pontassieve - Florence
Phone: +39.055.8315658 - Fax: +39.055.8323516 www.akern.com - akern@akern.com

*Reliability is a core parameter over empirical assays for a measurement tool: if unreliable, other aspects are irrelevant

AKERN

100% RELIABILITY*
BIA 101 NEW EDITION

The "Gold Standard" for BIA body composition
over 3.000 validation studies
30.000 devices sold worldwide



Vector impedance analyser:

Latest generation BIA analyser, able to identify the physiological changes through bioelectrical parameters.

The forerunner of BIA Analysis

Pioneering bioimpedance analysis, BIA 101 was the first ever "phase-sensitive" device available on the market in the early eighties. The uninterrupted success of this instrument is mainly due to its reliability measurements consistency in association with sizeable validation literature.

BIA 101 New Edition

A real "analysis lab" designed to achieve the greatest degree of accuracy possible.

Validity of the results of the body composition with BIA 101 New Edition is supported by large investigation series.

Measurement reliability: the only system that, thanks to the internal microcontroller, provides a feed back on the intrinsic quality of the electric measurement. A set of alarms warns in presence of artefact affected by non physiological factors.

Concerning the hydration of the patient, with the exclusive Akern nomograms (Biavector®, Biagram®), the device can classify the state of hydration directly from bioelectric measure without the use of estimates.

BIA 101 specifications and equations are supported and validated by the major clinical and research centres worldwide.

The renovated BIA 101 New Edition

Implemented with new hardware and software can guarantee any Specialist on up to date, error-proof body composition monitoring results

A reliable analysis system in physiological and pathological conditions:

Conventional methods of body composition (DEXA, BIA, plicometry, etc.) predict body masses and volumes by means of predictive equations associated with anthropometric parameters. The outcome from any equation are estimates assuming unrealistic steady states.

In absence of hydro-electrolytic alterations, the correlations between the different body compartments are constant and interdependent, allowing reasonably evaluations of the different body compartments (r>0.97 TBW estimate Vs isotope dilution).

However in presence of abnormal conditions (metabolism of the body fluids altered by diseases, syndromes or simply by everyday activities such as training)computation may yield severe estimate errors (on TBW and all the derivative compartments).

The BIA Vector Analysis does not use assumptions or body composition models and it's based on the measure of tissue electrical properties directly related to the hydration and nutrition of the subject:

Making bioimpedance a sensitive technique which can be used in any physiological condition

And allowing to identify in advance the reliability and accuracy of the estimates obtained with the conventional analysis.

TECHNICAL SPECIFICATIONS OF BIA 101

Dimensions: 25 x 15 x 11 cm

Weight: 1,1 Kg

Resistance Range: 0-999 Ohm

Reactance Range: 0-100 Ohm

Power supply: Li-Ion 11,1 V

Autonomy: 10 hours

Max recharge time: 4 hours

Output current: 400µ A @ 50 kHz ± 1%

Complies with the provisions of Directive 93/42EEC and additions.

BIA 101 NEW EDITION shows directly on the display the Resistance (R) and Reactance (Xc) readings, after the injection of a sinusoidal current with a frequency of 50 kHz at 400 µA intensity. The computation of the physiological values is carried out by the dedicated software BODYGRAM PRO 3.0©

Simple, reliable, and flexible, BIA 101 New Edition is the ideal tool for clinical applications or use in professional environments, from Biology and Dietetics to Sports and Fitness and for research purposes (pharmaceutical studies, study protocols).