ACCUNIQ BC310 Specifications

Optional Equipment	ACCUNIQ MANAGER, Fully Automatic Sphygmomanometer, A4 Result Sheet, Thermal Printer, Column (Support)
Printing Logo	Printing logo or the name of hospital, address, contact information on the pre-printed result sheet.
Scale Offset	Compensating measured value of weight scale
Compensating the Clothes weight	Compensating the weight of clothes which the user wears during the measurement.
Date · Time	Setting current date and time
Brightness	Adjust the brightness of Mono Graphic LCD
Thermal Printer	High speed thermal printer with auto cutting function

Model	ACCUNIQ BC310
Measuring Method	Tetra-polar electrode method using 8 touch electrodes
Frequency Range	5, 50, 250kHz
Measuring Site	Whole body, Upper part of the body, Lower part of the body (Selective)
Results Sheet Data	Weight, Standard Weight, Lean Body Mass, Total Body Water, Intra Cellular Water, Extra Cellular Water, B.M.I. (Body Mass Index), Mass of Body Fat, Percent of Body Fat, W.H.R. (Waist to Hip Ratio), Basal Metabolic Rate, Ratio of E.C.W./T.B.W., Segmental Lean Body Mass, Impedance, Body Type, Target to Control, Goal Setter
Power Consumption	60VA
Measuring Current	Approx. within 180μA
Power Consumption	Input (AC 100~240V, 50~60Hz), Output (DC 12V, 5A adapter)
Display	Mono Graphic LCD
Input Device	Key pad, Remote entry to PC
Transmission Device	USB Terminal, RS-232C Port
Printing Device	Thermal Printer with auto-cut and high-speed printing
Dimension	Whole body - Head part 350×216.5×123mm (W×D×H± 10mm) Upper part of the body - Head part 350×216.5×123mm (W×D×H± 10mm) Lower part of the body - Head part 267×216.5×90mm (W×D×H± 10mm), Plate 371×355×106mm (W×D×H± 10mm)
Weight	Whole body Approx. 13.5kg (Including the column) Upper part of the body Approx. 11kg, Lower part of the body Approx. 10kg
Measuring Range	100~950Ω
Measuring Time	Approx. 1 minute
Applicable Height	50~200cm
Measuring Weight	10~200kg
Applicable Age	1~99 years old
Operation Ambient	Ambient temperature range +5 to +40℃, Relative humidity range 15 to 93% (non condensing)
Storage Ambient	Ambient temperature range -25 to +70℃, Relative humidity range lower than 93% (non condensing)

※ For purpose of improvement, specifications and design are subject to change without notice.
   This is a medical device. Read precaution and operation method before use.
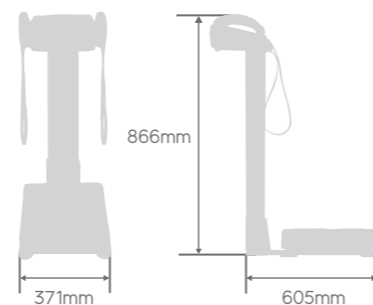
866mm

371mm   605mm

Medical Diagnostic Device

ACCUNIQ
BC310

Body Composition Analyzer

The BC310 is a multi-frequency, whole body and segmental Body Composition Analyzer that utilizes innovative BIA technology to ensure accurate and precise results. This cutting edge technology utilizes harmless, low-level frequencies to offer quick and easy total body composition assessments through the LCD touch screen, printouts and client tracking software.

The results sheet displays an easy-to-read graphical analysis to help maintain healthy body composition and whole body health trending.

ACCUNIQ

www.accuniq.com

+ACCUNIQ

Medical Devices to Help Promote Health & Longevity

ACCUNIQ medical devices are manufactured by SELVAS Healthcare, a global company that incorporates the most advanced technology available to provide accurate and reliable results. We are committed to partner with our customers to provide high quality products to help their patients and clients monitor and improve their health.

Crazy Fit, Incredible Life
Our one and only desire - a perfect body!

History

2016 Corporate name changed to SELVAS Healthcare, Inc., and listed in KOSDAQ

2015 World's first dual-type sphygmomanometer system approved by the US FDA

2014 Grand Prize, 1st People's Happiness Premium IT-incorporated Korean Medical Device Awards

Popularity Award, Analysis and Diagnosis System Segment 2014 Selected by "Health & Beauty," a German fitness magazine

2010 Advanced Venture Company Award

2006 Director's Award by the Korea Food and Drug Administration (KFDA)

2005 Bronze Prize, 13th Republic of Korea Technical Awards

Silver Prize, Venture Design Awards

Bronze Medal of Industrial Effort, 35th Precision Technology Promotion Contest

2004 Body Fat Analyzer Selected as a World-Class Product (Ministry of Commerce Industry and Energy)

2003 Director's Award by the Korea Food and Drug Administration (KFDA)

2001 Prime Minister's Award, Trade Day

KGMP(Korea Good Manufacturing Practice)-Certified

2000 Top Prize, Leaders' Venture Awards

President Kim, Dae-Jung and First Lady visited our company

1999 Presidential Award in National Venture Awards

Selected as a World Top-class Company

Certifications and Awards

GMP Certified   CE Certified   TUV Rheinland Certified   Korea Testing Laboratory

Presidential Award in National Venture Award   Bronze Medal of Industrial Effort in Precision Technology Promotion Contest   GoodDesign Award

ACCUNIQ medical devices have been used globally to measure and analyze overall health results with our healthcare and fitness professionals in mind where accuracy is of the utmost importance. They are currently used globally in hospitals, medical facilities, doctor's offices, weight loss centers, Fitness Centers, nursing homes, public health facilities, and retail locations.

• Monographic LCD

• 3 Available Frequencies: 5,50,250 KHz

• Built in Thermal Printer

• User Configurable Modes-Adult, Athlete, Wrestler and Goal Setter

• Client Tracking Software Provided (ACCUNIQ MANAGER)

• USB and RS232 ports for computer or printer interface

Multi-Use B.C.A. BC310
Desk Type / Wall Type / Stand Type
for Versatile Arrangement
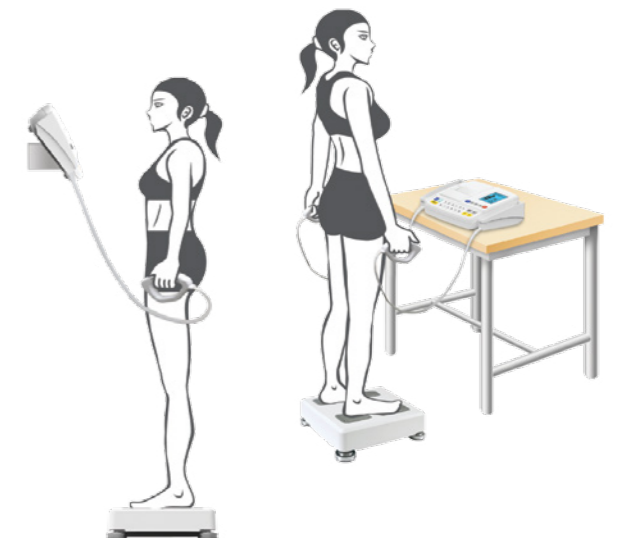
Adjust the brightness of Mono Graphic LCD, Keypad

Measuring...

Whole Body Measurement

Upper part of the body

Lower part of the body

+ Diverse Range of Options

ACCUNIQ body composition analyzers offer multiple options to meet multiple end-user requirements.

ACCUNIQ MANAGER
This easy-to-use software is designed to help a variety of customers keep track of their client and patient results and manage all of that data in a convenient format. It can be used for single or multiple locations with easy accessibility to multiple devices including computers, tablets and phones.

Fully Automatic Sphygmomanometer
Connect our fully automatic sphygmomanometer for hospitals to control your blood pressure in connection with your body fat, which can help you manage your body weight more efficiently.

Thermal Printer
Use the thermal printer to quickly and easily print the analysis.

A4 Result Sheet
The output results are displayed systematically and clearly.

Column (Support)

+ Various Results and Descriptions

ACCUNIQ Result Sheet

ACCUNIQ BC310

ID / NAME : SELVAS HEALTHCARE123 / Michael
Height : 170,6   Age : 35 years Gender : Male   Test Date/Time : 21 – 09 – 2016 09:34

selvas Healthcare

❶ Body Composition Analysis

	values	Body Water	Soft Lean Mass	Fat-Free Mass	Weight
Body Water	32,8 (37,4 ~ 39,7)	32,8			
Proteins	9,1 (10,2 ~ 11,5)		41,9 (44,1 ~ 53,9)		
Minerals	3,1 (3,7 ~ 3,8)			45,0 (51,2 ~ 54,4)	
Body Fat	15,1 (9,0 ~ 13,4)				60,1 (54,4 ~ 73,6)

❷ Muscle/Fat Analysis [kg]

	Under	Normal	Over
Weight			60,1
SMM Skeletal Muscle Mass			25,2
Fat Mass			15,1

❸ Obesity Analysis

	Under	Normal	Over
BMI (kg/m²) Body Mass Index			20,6
PBF (%) Percentage of Body Fat			25,2

❹ Abdominal Obesity Analysis

	Under	Normal	Over
WHR Waist to Hip Ratio		0.75 0.90	0,89

❺ Comprehensive Evaluation

Body Type	over fat class 2	
Biological Age	38	years
Basal Metabolic Rate(BMR)	1340	kcal
Total Daily Energy Expenditure	2063	kcal
Body Cell Mass	30,7	

❻ Control Guide

Target Weight	63,2	kg
Weight Control	+3,1	kg
Muscle Control	+7,1	kg
Fat Control	−3,9	kg

❼ Goal Setter

Target PBF	20	%
Predicted Weight	56,3	kg
Predicted Fat Mass	11,3	kg
Control	−3,8	kg

❽ Obesity Assessment

	underweight	normal	overweight	obese
BMI		✔		
PBF	low-fat	normal	over-fat	✔ obese

Obesity Degree   −6,1 (−10,0~+10,0)   %
Abdominal Circumference   82,0 (Less than 90㎝)   cm

❾ Segmental Lean Mass

Lt.		Rt.
Under 2,95kg		Well 2,79kg
	Over 21,70kg	
Optional 7,13kg		Well 7,03kg

❿ Impedance (584)

Freq	5K	50K	250K
RA.Imp	336	333	308
LA.Imp	335	321	293
Trunk	30	24	24
RL.Imp	292	246	215
LL.Imp	278	220	189

[MEMO]

JUNE 30, 2016 Rev A.0

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❶ **Body Composition Analysis**
This is a measurement of analysis results of body components(e.g., body water, proteins, minerals and body fat) relative to normal ranges.

❷ **Muscle/Fat Analysis**
This graph of the Skeletal Muscle Mass(SMM) and fat mass illustrates the proportion of skeletal muscle and body fat that comprise the total body weight.

❸ **Obesity Analysis**
This graph of percentage of body fat(PBF) and body mass index (BMI), of which the latter is critical in assessing the prevalence of obesity, illustrates clinical data needed for obesity analysis.

❹ **Abdominal Obesity Analysis**
Fat in the body is divided into subcutaneous fat and visceral fat. Visceral fat is closely connected with adult diseases, and measured based on several factors.

❺ **Comprehensive Evaluation**
This item shows your body type, biological age, basal metabolic rate(BMR), total daily energy expenditure (TEE), and body cell mass.

❻ **Control Guide**
This item presents your recommended target weight, weight, and muscle and fat mass control.

❼ **Goal Setter**
It indicates how much fat, weight and Lean Body Mass needs to be controlled. By comparing the current status to the standard weight, the target is to reach the minimum or maximum value of optimal range.
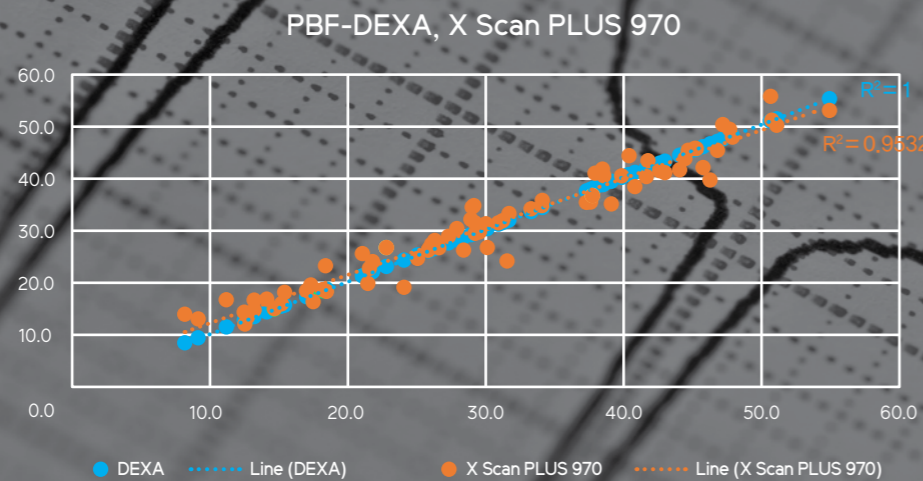
❽ **Obesity Assessment**
This item assesses your BMI, PBF and indicates your obesity degree and abdominal circumference.

❾ **Segmental Lean Mass**
This item assesses the lean mass of 5 body parts (left arm, right arm, left leg, right leg, and trunk) in graphs.

❿ **Impedance**
Impedance using frequency applied to a body part. Impedance is a resistance value when electric current is passed through the body. Each subject has a unique impedance.

+ High Consistency with DEXA

The methods of analyzing your body composition include computed tomography(CT), magnetic resonance imaging(MRI), and underwater weighing. Dual-energy X-ray absorptiometry(DEXA) is currently considered the gold standard since it accurately analyzes your fat, muscles, and bones and does not involve any radiation exposure. ACCUNIQ conducted clinical tests with IHT, a professional clinical organization based in Texas, USA, to verify our product's precision with DEXA. The result shows that our analysis is more accurate than our competitors.
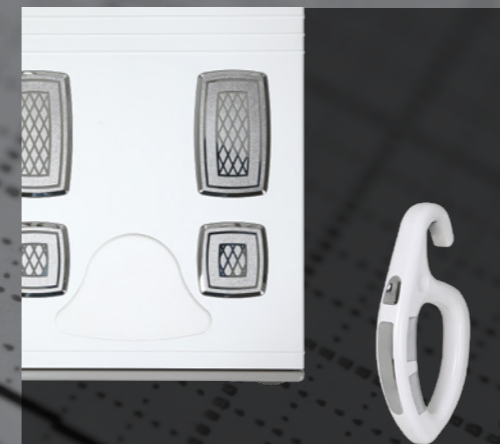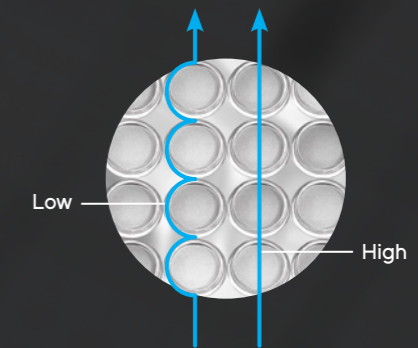
Multi-Frequency Analysis

ACCUNIQ uses 6 frequencies between 1 kHz and 1000kHz to analyze your intracellular water, extracellular water, and total body water accurately. A frequency lower than 100kHz is used to analyze extracellular water since it flows along the cell membrane, whereas a frequency above 100kHz is used to analyze total body water as it flows through the cell membrane.

Low — High

PBF-DEXA, X Scan PLUS 970

$R^2 = 0.9832$

- ● DEXA
- ⋯ Line (DEXA)
- ● X Scan PLUS 970
- ⋯ Line (X Scan PLUS 970)

※ Determination of coefficient(R2) of DEXA is 1, and the accuracy of ACCUNIQ is higher if R2 value is close to 1.

※ The accuracy of X Scan PLUS 970 is proved through clinical study with DEXA at IHT center in USA, and the accuracy of other ACCUNIQ brands are guaranteed by high correlation each other.

Ankle Electrodes

ACCUNIQ provides the ankle electrodes as a convenient option to enable users to proceed with analysis without taking off their socks. This option differentiates ACCUNIQ from all of its competitors.

Eight-Point Touch Electrodes

ACCUNIQ uses the 8-point touch electrodes method, which is highly accurate despite its complexity. Eight electrodes may be placed on the hands and feet or wrists and ankles to analyze body composition stably.

DEXA-ACCUNIQ	Paired T-test Analysis of Body Composition								
	Percent Body Fat(%)			Body Fat Mass(kg)			Lean Body Mass(kg)		
	Mean±SD	p-value	p-value explanation	Mean±SD	p-value	p-value explanation	Mean±SD	p-value	p-value explanation
	-0.4±0.7	0.17	DEXA PBF = ACCUNIQ PBF	-0.4±0.2	0.06	DEXA PBF = ACCUNIQ PBF	0±0.3	0.99	DEXA PBF = ACCUNIQ PBF

Coefficient of Determination between Our Products (X Scan PLUS 970 and ACCUNIQ BCA)	LBM R²		
	BC720	BC510	BC360
	0.9967	0.9949	0.9962