



# BT1500

Fully Automatic Clinical Chemistry Analyzer

## KEY FEATURES

- Clinical Chemistry and Turbidimetry Analyser with various test modes for Random Access, Batch access and STAT analysis.
- Dedicated locations for calibrators or standards, controls and samples.
- The photometer of instrument consists of solid state 10 channel plus reference channel (340, 380, 405, 436, 480, 510, 546, 578, 630, 700).
- Barcode identification system for both reagents and sample.
- Sample tray having position to hold 78 total sample with 62 space for sample and 16 space for Standards/Controls.
- Reagent tray with 48 reagent positions, 24 using 50mL bottles and 24 using 10mL or 20mL bottles.
- Throughput of instrument is up to 250 tests/hour.
- Efficient water consumption of up to 1125 mL/Hr.
- Test directory of upto 500.
- A built in QC program for minimum 2 levels of known and unknown controls.
- Multiple lock-in facility for different level of users.
- Photometric sensitivity of  $\pm 0.001$  ABS.
- Instrument has photometric precision of  $\pm 1\%$  from 0 to 2.000 OD and photometric precision of  $\pm 2.5\%$  at OD 2.000 to 3.000.

## TECHNICAL SPECIFICATIONS

<b>Analysis Type:</b>	Clinical Chemistry and Turbidimetry
<b>Throughput:</b>	Up to 250 Tests/hour
<b>Sampling Cycle:</b>	14.5 seconds
<b>Water Consumption:</b>	1125 mL/hr $\pm 20\%$
<b>Number of Reagents:</b>	48 Total (24 using 50 ml vessels and 24 using 10 or 20 ml vessels).
<b>Refrigerated Reagent Bay</b>	Yes
<b>Reaction volume:</b>	From 180 to 400 $\mu$ l
<b>Sample volume:</b>	From 1.8 to 100 $\mu$ l
<b>Quality Control:</b>	3 Known levels and 3 unknown levels
<b>Reading Cuvettes:</b>	32 Non-disposable optical glass

<b>Sampling Arm:</b>	One for serum and Reagent
<b>Sample tray # of position</b>	78 Total - 62 Samples - 16 Standards and Controls
<b>Test Modes</b>	Random Access, Batch, STAT
<b>Test Directory</b>	Up to 500
<b>Max Volume:</b>	340 $\mu$ l
<b>Linearity F.S:</b>	$\pm$ 0.1% F.S (Full scale)
<b>Accuracy at 3 <math>\mu</math>l:</b>	$\pm$ 1%
<b>Accuracy (Full Scale):</b>	$\pm$ 0.1% from 10 $\mu$ l to 340 $\mu$ l
<b>Reproducibility:</b>	$\pm$ 0.7% at 3 $\mu$ l; $\pm$ 0.6% at > 3 $\mu$ l
<b>Average Life:</b>	1 million operating cycles
<b>Maintenance:</b>	Every 300,000 operating cycles (O-ring seal replacement)
<b>CUVETTE OPERATING TEMPERATURE</b>	
<b>Programmable Temperatures:</b>	Room Temperature, 30°C, 32 °C or 37 °C
<b>Precision:</b>	$\pm$ 0.2 °C
<b>Accuracy:</b>	$\pm$ 0.2 °C
<b>REAGENT CHAMBER TEMPERATURE</b>	
<b>Nominal Temperature:</b>	Between 5°C and 15°C Approx.(depending upon the setting)
<b>OPERATING AMBIENT TEMPERATURE</b>	18 °C to 32 °C, 10% to 90 % RH, Non condensing
<b>DILUTORS TYPE</b>	Biotechnica Dilutor
<b>PHOTOMETER</b>	
<b>Optical System:</b>	Solid state photometry (Patented by Biotechnica instruments S.p.A)
<b>Detectors:</b>	10 UV/VIS photodiodes + Reference channel
<b>PRECISION AND ACCURACY</b>	
<b>Spectral Response:</b>	340,380,405,436,480,510,546,578,630,700 nm
<b>Bandwidth:</b>	$\pm$ 5 nm max
<b>Photometric Precision:</b>	$\pm$ 1 % from 0 to 2.000 O.D., $\pm$ 2.5% AT 2-3 O.D.
<b>Photometric Sensitivity:</b>	$\pm$ 0.001 ABS
<b>Drift:</b>	$\pm$ 0.005 ABS/h (Steady state)
<b>Optical Path:</b>	5.9 mm
<b>Photometric Lamp:</b>	Tungsten Halogen lamp with Dichroic Reflector
<b>Beam Angle:</b>	9°
<b>Power :</b>	35 Watts
<b>Input Voltage:</b>	12 VDC
<b>Average Rated Life:</b>	Approximately 2000 Hours

**NOTE: For optimal results the lamp can be used for about 1,500 hours  
Long-term use will result in the gradual deterioration of the UV emission**

**DIMENSIONS AND WEIGHT**

<b>Instrument Weight :</b>	53 kg (116 lb)
<b>Length:</b>	78 cm (30.7 ")
<b>Diameter:</b>	58 cm (22.8 ")
<b>Height:</b>	5 cm (20 ")

**LIST OF STANDARD ACCESSORIES SUPPLIED ALONG WITH THE INSTRUMENT WITH CAT NOS**

<b>Sr. No.</b>	<b>Components</b>	<b>Quantity</b>
1	10 ml CYLINDRICAL TEST TUBE	2
2	REAGENT CONTAINER 50 ml- WITH CAP	25
3	REAGENT CONTAINER 20 ml- WITH CAP	20
4	REAGENT CONTAINER 10 ml- WITH CAP	20
5	FUSE 250 VOLT , 8A RVT 5x20	2
6	POWER CORDSET	1
7	QUARTZ HALOGEN LAMP 12V, 35W,9°	1
8	TENSIOATTIVO/SURFACTANT	1
9	SOLUZIONE CLEANING/ CLEANING SOLUTION	1
10	SOLUZIONE LAVAGGIO/ WASHING SOLUTION	1
11	CLEANING TOOL FOR SAMPLE NEEDLE	1
12	WASHING PISTON GRIP SLEEVE (TOOL)	1
13	TRANSPARENT SAMPLE CUP 2ml	1000
14	CUBITAINER 10 LITERS WITH BOX	2
15	FUNNEL CAP OPENER <<REV.C>>	1
16	INSTRUCTIONS # FUNNEL CAP OPERNER <<REV.C>>	1
17	SCATOLA DOPPIA ONDA 36X27X19Cm (PACKAGING BOX)	2
18	CASSA IN LEGNO X BT 1500	1
19	IMBALLO IN FOAM X BT 1500	1