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StarDust MC15 User Manual

Version 7

2. PRESENTATION

The analyser for Clinical Chemistry StarDust MC 15 is a spectrophotometer with microprocessor, able to perform sample readings and to process them according to the parameters introduced by the user.

The instrument has a dry thermostated area to incubate 4 strips of 15 muticuvettes and a mixer to obtain a perfect homogenisation of the samples and reagent.

The reading zone allows the analysis of 15 analytical methods automatically.

The programming is done via the keyboard. The instrument asks through the 160 dots display, for the parameters to be introduced. On the display there are also shown the instrument conditions and any flags.

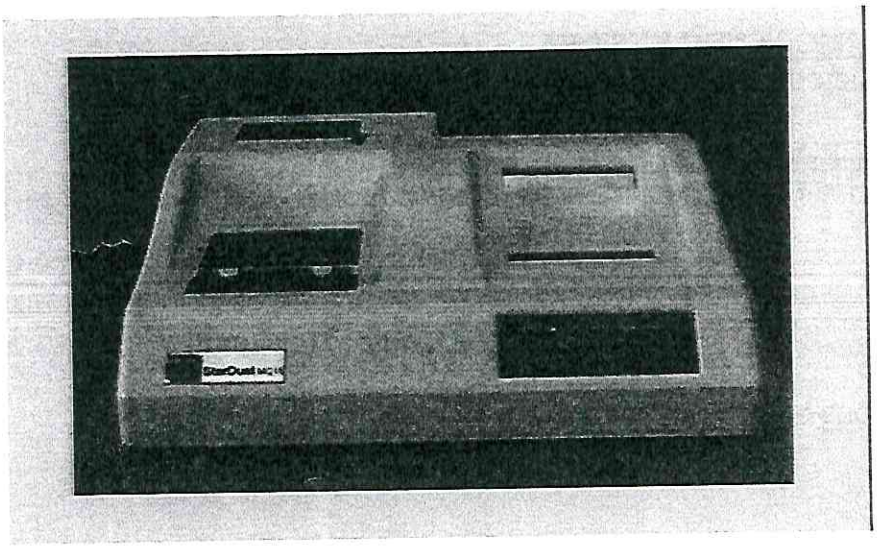
Results are directly given in the measurement units chosen during the programming phase and are printed out on thermosensitive paper. This kind of printing avoids all the maintenance problems so typical with ink printers.

Due to its sophisticated software, it performs 15 assays of one end point method in 60 seconds. For 15 kinetic assays, the time is 4 minutes.

It is also possible to perform different methods readings in a same strip or to perform up to 15 different tests per serum in 5 minutes.

The instrument has 99 free memory positions for methods storage. Once a method is stored it is kept permanently in the instrument.

It is possible to perform multistandard tests, which are directly performed due to the stored corresponding calibration curve.



3. TECHNICAL CHARACTERISTICS

3.1 SPECTROPHOTOMETRIC SYSTEM

Readings mono and bichromatic readings with high resolution.

Spectral field	:	320 - 680 nm.
Differential filters incorporated	:	340, 405, 500, 546, 578, 630 and 670 nm.
Band width	:	Lower than 8 nm
Light source	:	Halogen lamp 20 W.
Detector	:	Solid phase
Maximum photometric noise	:	± 0,001 OD at 1,5 OD at 340 nm.
Drift	:	< 0,005 OD/h.
Photometric linearity	:	Better than 1 %.
Photometric accuracy	:	± 2% from 0 to 2500 of OD.
Repeatability	:	± 1 digit

3.2 DIGITAL OPERATIVE SYSTEM

Measurements:	Absorbances	ABS
	Concentrations	CONC
	Kinetics	KIN
	Fixed Time	FxT
	Ratio	COC
	Differential	DIF
	Multi-Standards	MSTD

Memory capacity	:	99 methods with all the parameters.
Display	:	Alphanumerical LCD of 4 x 40 characters.
Measuring range	:	0 - 2500 OD
Zeroing	:	Automatic.
Totally programmable	:	Directly from the keyboard
External connection	:	Interface RS232 C
Typical reading volume	:	0.5 ml.

3.3 THERMOSTATIC SYSTEM

Thermostated at 37º in pre-incubation and reading zones.

3.4 CONTROL AND REGISTER SYSTEM

Printer of 64 dots per line with thermic paper of 110 mm large and bidirectional reading.

Power : AC 220v 50 Hz 200 VAmp
AC 110v 60 Hz 200 VAmp (optional)

Dimensions : 58 x 57 x 20 cm.
Weight : 20 Kg.