

Blend of Reliability and Accuracy.

SEMI AUTOMATED CLINICAL CHEMISTRY ANALYSER

• Unique and Reliable Diagnostics Solutions.

• Consistent Performance and Easy Operation.

FLEXIBLE

- Storage for 200 user programs and 10,000 test results.
- Create up to 10 customised test profiles.
- Open System (Any Reagents can be used).
- **48 DIRECT DEDICATED ACCESS KEYS ASSAYS**

AFFORDABLE

- Low Reagent Consumption (300UL).
- High Quality Surface coating ensures long filter life.
- Extended lamp life.



2
Years
Warranty

with
**INTERNAL
INCUBATOR &
COAGULATION TESTS
PT/APTT/TT**

OPTIMISED OPTICAL DESIGN

- High Sensitivity measurements for kinetic and turbidimetric assays (RF, CRP, ASO etc.,)

LIGHT SOURCE

- Halogen Quartz Tungsten lamp (6V, 10Watt), Lamp lifesaving mode (programmable sleep interval).
- Unique Lamp Life enhancing circuit).

ASPIRATION

- High Precision Peristaltic Pump. Non Corrosive tubing ensures Long Life and accurate aspiration.
- Aspiration air gap and auto empty function after each sample run. Minimal chances of carry over.

HASSLE FREE MAINTENANCE

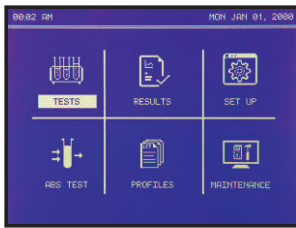
- Self-Diagnosis and system health reporting are integral part of **REFER CHEM 48**.
- Easily set photometer gain and perform pump calibration.

RBS

SOFTWARE FEATURES

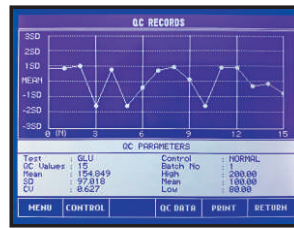
“REFER CHEM 48” Software is designed to simplify daily laboratory routine.

↳ It's simple and intuitive work flow enhances user efficiency and productivity.



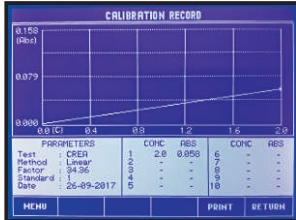
INTUITIVE USER INTERFACE

- Six Informative screens controls operations.
- Easy navigations through submenus. Requires minimal training.



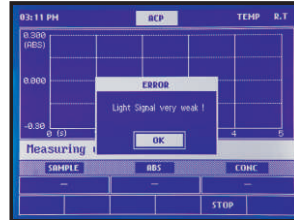
QUALITY CONTROL

- Mean, SD, %CV and R calculated for each assay
- L-J control chart. 3 Levels per Assay. Westgard Rules.



CALIBRATION

- Factor, one-point, point to point and Log to Logit.
- Non-linear multi point calibration.
- Up to 3 replicates per point. Up to 10 calibration points.



ERROR DETECTION

- Early detection & reporting of errors on screen.
- Saves time & avoids faulty test runs which saves reagents.

ANALYSIS MODES

- Absorbance
- Immunospectrometry
- Biochromatic mode Fixed time with standard, factor or multiple standards, with or without reagent blank
- End Point with Factor, Standard or Multiple Standards with or without reagent/sample blank
- Kinetic with factor and Linearity check

TECHNICAL SPECIFICATIONS

PHOTOMETRIC MODULE

- Seven Narrow band Interference Filters.
- Filter wavelengths: **340, 405, 505, 546, 578, 630 and 670nm** (1 open position for optional filter).
- IAD process ensures long filter life.
- Wave length Accuracy: $\pm 2\text{nm}$.
- Silicon Photo Diode detector.
- Abs. Range: 0.0 – 3.0A.
- Resolution: 0.0001 Abs Units.
- Photometric Drift: $<5\text{mAbs}/30\text{min}$.
- CV: $<1\%$

ANALYSIS METHOD

- End Point, Fixed time and Kinetic.
- Sample blank and Reagent Blanking.
- Direct Absorbance measurement mode.
- Coagulation Mode (PT / APTT / TT).

TEST PROFILES

- User defined 10 Test Profiles.
- 10 Tests can be added in each Profile.

TEST CHANNELS

- 48 dedicated assays.
- Direct access keys for dedicated assays.
- Open Channel Capability.
- 200 Programmable Channels.

TEMPERATURE OF FLOW CELL / CUVETTE

- 25°C, 30°C, 37°C
- Temp stability: $\pm 0.2^\circ\text{C}$.

DISPLAY

- 5.7" LCD Display screen.
- High Contrast Display.

DATA MANAGEMENT

- Storage up to 10,000 test results.
- Stores 30 days QC for each Assay.
- Reagent Blank Storage.

REPORTS

- Search by Date, Sample ID or Test Name.
- Calibration Reports, QC Results.

KEYBOARD

- Tactile touch QUERTY Keypad.
- Visual Indication on Keypad during aspiration.

PRINTER

- Internal 57mm thermal printer with full graphics printing.

INTERNAL INCUBATOR

- Positions: 7.
- Temperature: 37 Degrees.

MEASURING MODULE

- Dual Mode (Flow cell and Cuvette).
- High quality QUARTZ flow cell for precise measurements.
- 30µl flow cell volume.
- Peltier – Controlled reaction temperature.
- External Cuvettes (10mm path length).

QC & CALIBRATION

- Daily and Monthly QC with Data Archiving.

UNITS

- 15 pre-defined measurement units.

INTERFACE

- RS Port
- USB Port
- PC Connectivity (Optional)

REACTION VOLUME

- Min Aspiration Vol - 300µl
- Max Aspiration Vol - 5ml

POWER

- Input Volt Range: 88 – 246 VAC.
- Freq Range: 47 – 63Hz.
- Power Consumption: 75W max.

DIMENSIONS

- Length: 422mm
- Height: 176mm
- Width : 324mm
- Weight: 6.5Kg



REFERENCE BIO SOLUTIONS PVT LTD,

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