Labomed introduces an automatic biochemistry analyzer with varying testing capacities. FACA-261-ISE conducts 370 tests/hour with True Random Access and 12 filters as follows: 340nm, 380nm, 405nm, 505nm, 520nm, 546nm, 576nm, 620nm, 670nm, 700nm, 750nm, 800nm.

**Features**
- Each set of FACA will come with one video to train in the installation, operation, and maintenance of the biochemistry analyzer, Random Access and Open System
- Automatic Washing System for Both Sample and Reagent Probe
- Liquid Level Detection and Collision Protection for Both Sample and Reagent Probe
- Reliable Cooling System for Reagent Chamber
- Works with Windows XP and Windows 7
- 80 Cuvette positions, semi-disposable plastic for min 30,000 tests/80 Cuvettes
- 8-step Cuvette wash station with two types of Systemic and special washing solution
- On-board refrigeration of reagents with independent switch (5°C below ambient temperature)
- External sample barcode reader, with positive identification of samples
- Powerful Reaction Cuvette Washing System
- User-Friendly Interface
- ISE module and barcode scanner (optional)
- Enzyme Kinetic GPT and GGT testing
- Automatic pre- and post-dilution
- Primary tubes up to 16 x 100mm and sample cups
- Preinstalled and validity limits for methods and reactions programmable
- Intelligent flagging system and extensive error log
- Reagent integrity check and extensive QC monitor
- Water consumption ≤ 3 liter/h
- Complete reaction curve and statistics for every sample/test—not only QC
- QC control function, based on Levy-Jennings chart analysis

**Accessories**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reagent bottle 1</td>
<td>40ml</td>
<td>50Pcs</td>
</tr>
<tr>
<td>Reagent bottle 2 with holder</td>
<td>15ml</td>
<td>15Pcs</td>
</tr>
<tr>
<td>Reaction cuvette</td>
<td></td>
<td>80pcs</td>
</tr>
<tr>
<td>Serum Cup</td>
<td></td>
<td>1000pcs</td>
</tr>
<tr>
<td>Tube</td>
<td></td>
<td>1 set</td>
</tr>
<tr>
<td>Fuse (4A/8A)</td>
<td></td>
<td>4 sets</td>
</tr>
<tr>
<td>Lamp (13.8V/50W)</td>
<td>1Pc</td>
<td>1Pc</td>
</tr>
<tr>
<td>Power cable</td>
<td></td>
<td>2Pcs</td>
</tr>
<tr>
<td>Com Cable</td>
<td></td>
<td>1Pc</td>
</tr>
<tr>
<td>User manual</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Operation software</td>
<td></td>
<td>1 set</td>
</tr>
<tr>
<td>Tool</td>
<td></td>
<td>1Pc</td>
</tr>
<tr>
<td>Sensor</td>
<td></td>
<td>2Pcs</td>
</tr>
<tr>
<td>Detect Probe,</td>
<td></td>
<td>1Pc</td>
</tr>
<tr>
<td>Sample Probe</td>
<td></td>
<td>Use your local supplier</td>
</tr>
<tr>
<td>Ground Cable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Labomed, Inc. is certified by ISO 9001-2013, has CE Conformity and is FDA Licensed.
1 **Reagent Tray**
- 40 reagent positions for FACA-301 and FACA-261
- 80 reagent positions for FACA-401
- Cooling system may work independently for 24 hours

2 **Sample Tray**
- 60 sample positions for FACA-301 and FACA-261
- 88 sample positions for FACA-401

3 **Cuvette**
- Either high quality UV-transmitted plastic cuvettes or quartz glass cuvettes available.

4 **Independent Mixer**
- 1 mixer for FACA-301 and FACA-261
- 2 mixers for FACA-401

5 **Sample probe & Reagent probe**
- 1 sample probe and 1 reagent probe for FACA-301
- 1 sample probe and 2 reagent probes for FACA-401
- Only 1 sample & reagent probe for FACA-261

6 **ELE Module**
- ELE module available on request.
**Cuvette Washing Station**
8 channels automatic washing station.

**Independent Mixer**
Independent mixer ensuring quick and complete reaction.

**Reaction Cuvette**
High quality UV-transmitted plastic cuvettes, or quartz glass cuvette (optional).

**Sample Probe / Reagent Probe**
With liquid level sensor, anti-collision sensor and automatic cleaning function.

**Reagent Bottle**
More convenient and economical ready to use reagent kits.

**Reagent Tray**
With cooling reagent chamber.
Software

User-Friendly Interface
Compatible with Windows XP, Vista or Windows 7

Variable reading function

Carry Over Control Function

Automatic Alarm for Malfunctions
Automatic Washing Station

An 8-channel washing station ensures complete washing for cuvettes.

Environmental Protection Design

The waste is automatically classified and collected into different containers.

Automatic cuvette washing and blanking makes more precise results

Test O.D. value - Real reagent blank = True O.D. value
**General Features:**
- New concept and more friendly software.
- New techniques and spare parts are used for much better quality and function.
- Automatic washing station for both sample and reagent probe.
- Liquid level detection and collision protection for both sample and reagent probe.
- Reliable cooling system for reagent chamber.
- Powerful reaction cuvette washing system.
- ISE module and barcode scanner (optional).
- Lower waste and more environment friendly.
- New concept test control system available (on request).

Reaction Cure Visible on line.

Independent mixer ensuring full reaction of sample / reagent solution.

Cuvette Washing Station:
8 channels automatic washing station.
FEATURES
- Random-Access with open system.
- 90 Cuvette positions, semi-disposable plastic for min 30,000 tests/80 Cuvettes.
- 8-step Cuvette wash station with two types of Systemic and special washing solution.
- On-board refrigeration of reagents with independent switch [9°C below ambient temp.]
- Automatic pre- and post-dilution.
- Internal sample barcode reader with positive identification of samples.
- Primary tubes up to 16 x 100 mm and sample cups.
- Preinstalled & validity limits for methods and reactions programmable.
- Intelligent flagging si, stem and extensive error log.
- Reagent integrity check & extensive QC monitor.
- Water consumption < 1.6 L/h.
- Complete reaction check & statistics for every sample/test—not only QC

TECHNICAL SPECIFICATIONS FOR FACA-261

ANALYZER TYPE
Analyzer Type: Fully Automated, Bench Top, Discrete, Random-Access with STAT functionality open system, Clinical Chemistry Analyzer.

THROUGHPUT
Throughput: 370 tests/hour with ISE

ON-BOARD SAMPLES
Sample Positions: At least 60 sample positions for Primary tubes & Sample cups and option for additional.
Including standard, control and stat; either serum cup or primary tube available.
Sampling volume: 1 to 100 µL, 0.1 µL/step
Pre-dilution & Post-dilution: Automatic Pre-dilution & Post-dilution of samples.
Simultaneous Parameters: Max 30 different parameters can be performed simultaneously.

ON-BOARD REAGENTS
On-board Refrigeration: Min 30 positions with on-board refrigeration at 90°C below ambient temperature
Reagent Volume: Reagent (R1-R2) Volume: 1 to 350 µL

OPTICAL UNIT
Wavelength Spectral Range: 340-900 nm
Filter Wheel: 9-12 positions filter wheel with 8 pre-installed supplied filters & 01 free position.
Minimum Filters Required: 8 filter with 340-800nm. Additional filters are available upon request.
Absorption Range (Linearity): 0.000 to 2.500 Abs
Accuracy: ±2 nm (wavelength)
Band Pass Precision: ±5 nm

REACTION UNIT
Reaction Volume: 210-350 µL
Reaction Wells Positions: 90 Cuvette positions. semi disposable [> 30,000 tests].
Incubation Temperature & Time: 37°C ± 0.2°C & 792 sec. max incubation including reading time

WASH STATION
8-step Wash Station: 8-step wash station with 8 dispensing needles
Two types of Systemic (20L) & special washing solution (2L; and 20L waste with
2nd cleaning solution & extra washing definable in method.

Water Consumption: Max 1.6L/h

LIQUID HANDLING
Liquid Handling: Liquid transportation through pipetting arm with capacitive liquid level sensors,

METHODOLOGY
Measuring modes: Routine chemistry, Turbidimetry
Methods/Analysis modes: End Point (bichromatic) & Differential end point with self blank,
Fixed Time & Kinetic (Bichromatic),
Immunoturbidimetric, 1-2 reagent, Multistandard, reagent/serum blank, etc.

Calculation modes: Factor
Calculation algorithms: Linear (factor, linear, linear regression, average) and
Non linear (cubic spline, poly-linear, logit-log).
Programmable Test: 50 active Programmable Test methods on instrument with unlimited programmable profiles.
Standard Calibration Method: Up to 8 calibrator standards per test. All positions can be calibrated.
DATA PROCESSING & QUALITY CONTROL (QC)
Memory capacity: Storage in HDD
Memory: For Sample results, calibration, patient data, QC data, error-log, absorbance curves.
Reports: For Patient, single test, complete sample, work sheet, method and QC's, calibration curves, kinetics, continuous printing
QC Level: Up to max 3 levels per test
QC Module: Levey-Jennings plots, Westward multirules, SD, C% & Mean.
Warnings: Analytical limits, reagent and reaction integrity check (blank, linearity, substrate depletion, reaction OD etc) with extensive QC monitor.
Unique versatile user software: New unique versatile touch screen user software with intuitive smart graphical user interface.
Extended walk-away capability: Extended walk-away capability with free choice of execution order.
Digital and Ethernet Connections: ASTM Bi-directional LIS, Ethernet of external PC, polling mode on LAN.

ACCESSORIES
Computer (OPTIONAL) (must be purchased locally): Compatible Brand PC with touch screen min 17 inch LCD monitor, on line appropriate UPS, Thermal Printer & Deionizer (Compatible).
Startup Reagents: Startup reagents with necessary calibrators and controls for installation and functioning of machine.

REAGENTS
Reagents Required For Operation: Urea, Creatinine, total protein, albumin, tri-glyceride, total cholesterol, Glucose (500 test each), Uric acid, S.Bilirubin, SGPf, SGOT, Alkaline phosphate (1000 test each); CKMB, LDH (2m test each)

WARRANTY PERIOD
3 (three) years full warranty including spare parts, repair & servicing after installation & commissioning of the Equipment on terms.
Brand & model is Labomed, Inc. USA, FACA-261.

QUALITY
US-FDA/USA-CE certificate of the offered items must be submitted with the offer

ASSAY ITEMS
40 different diagnostic tests

CHANNELS/FILTERS
340nm, 380nm, 405nm, 505nm, 520nm, 546nm, 576nm, 620nm, 670nm, 700nm, 750nm, 800nm

REAGENT/SAMPLE PROBE
With liquid level sensor, collision sensor, teflon coating and automatic washing station

CUVETTE
High quality UV-transmitted plastic cuvette. Quartz glass cuvette on request

PROBE AND MIXER WASHING
Independent washing station for each sample/reagent probe and mixer

ALARM
Automatic alarm for malfunction (e.g. collision, reagent/sample insufficiency, full waste container, etc.)

ABSORBANCE RESOLUTION
0.0001 A

ABSORBANCE ACCURACY
± 0.0003 A (0 - 2.5 A)

REPEATABILITY (CV %)
≤ 2%

BAR CODE
Optional

PRINTER
Multiple report formats available

TEST CONTROL FUNCTION
New card control system available on request

LANGUAGE
English, French, Spanish, German, Russian, etc.

OPERATING SYSTEM
Windows XP or Vista; Windows 7

POWER SUPPLY
220v / 50 Hz or 110V / 60 Hz (optional)

DIMENSION
85 cm x 72 cm x 53 cm

WEIGHT
85kg
# Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>FACA-261-ISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay Model</td>
<td>Random access with direct reading system</td>
</tr>
<tr>
<td>Method</td>
<td>End point, Kinetic, Fixed time, Immuno turbidimetry, 1-2 reagent, Multistandard, reagent/serum blank, etc</td>
</tr>
<tr>
<td>Assay Item</td>
<td>40 assay</td>
</tr>
<tr>
<td>Throughput</td>
<td>ISE mould (Na⁺, K⁺, Cl⁻, Li⁺) available on request</td>
</tr>
<tr>
<td>Tests/hour</td>
<td>250 tests/hour with one reagent</td>
</tr>
<tr>
<td>With ISE</td>
<td>370 tests/hour with one reagent</td>
</tr>
<tr>
<td><strong>Test Menu</strong></td>
<td><strong>T.BILI</strong></td>
</tr>
<tr>
<td><strong>D.BILI</strong></td>
<td><strong>ALP/AKP</strong></td>
</tr>
<tr>
<td><strong>TP</strong></td>
<td><strong>UREA</strong></td>
</tr>
<tr>
<td><strong>ALB</strong></td>
<td><strong>CREA</strong></td>
</tr>
<tr>
<td><strong>Lactic Acid</strong></td>
<td><strong>ALT/GPT</strong></td>
</tr>
<tr>
<td><strong>LP(a)</strong></td>
<td><strong>AST/GOT</strong></td>
</tr>
<tr>
<td><strong>CHE</strong></td>
<td><strong>LA</strong></td>
</tr>
<tr>
<td><strong>Fe</strong></td>
<td><strong>Cu</strong></td>
</tr>
<tr>
<td><strong>IgM</strong></td>
<td><strong>IgA</strong></td>
</tr>
<tr>
<td>Sample Position</td>
<td>60</td>
</tr>
<tr>
<td>Sample Volume</td>
<td>1~100μl, 0.1μl/step</td>
</tr>
<tr>
<td>Reagent Position</td>
<td>40</td>
</tr>
<tr>
<td>Reagent Volume</td>
<td>R1:1<del>400μl, 1μl/step, R2: 1</del>400μl, 1μl/step</td>
</tr>
<tr>
<td>Reagent / Sample Probe</td>
<td>With liquid level sensor, collision sensor, teflon coating and automatic washing station</td>
</tr>
<tr>
<td>Reaction Time</td>
<td>0~999 seconds</td>
</tr>
<tr>
<td>Cuvette</td>
<td>High quality uv-transmitted plastic cuvette. Quartz glass cuvettes available on request</td>
</tr>
<tr>
<td>Cuvette Washing</td>
<td>8 channels automatic washing system for reaction cuvettes</td>
</tr>
<tr>
<td>Probe And Mixer Washing</td>
<td>Independent washing station for each sample/reagent probe and mixer</td>
</tr>
<tr>
<td>Alarm</td>
<td>Automatic alarm for malfunction (eg: collision, reagent / sample insufficiency, full waste container, etc)</td>
</tr>
<tr>
<td>Calibration</td>
<td>Linear, Non-linear, Multi standard, K factor</td>
</tr>
<tr>
<td>Sample Dilution/Retest</td>
<td>Sample can be diluted and retested if results are out of range or sample is insufficient. Also with calibrator auto diluting function</td>
</tr>
<tr>
<td>Wavelength</td>
<td>340~810nm</td>
</tr>
<tr>
<td>Light Source</td>
<td>Halogen lamp</td>
</tr>
<tr>
<td>Absorbance Resolution</td>
<td>0.0001A</td>
</tr>
<tr>
<td>Absorbance Accuracy</td>
<td>±0.0003A(0~2.5A)</td>
</tr>
<tr>
<td>Repeatability (CV %)</td>
<td>≤2%</td>
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<tr>
<td>Quality Control</td>
<td>Levy Jennings quality control program at 3 levels</td>
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<tr>
<td>Bar Code</td>
<td>Optional</td>
</tr>
<tr>
<td>Printer</td>
<td>Multiple report formats available</td>
</tr>
<tr>
<td>Test Control Function</td>
<td>New card control system available on request</td>
</tr>
<tr>
<td>Language</td>
<td>English, French, Spanish, German, Russian, etc.</td>
</tr>
<tr>
<td>System</td>
<td>Windows XP or Vista ; Windows 7</td>
</tr>
<tr>
<td>Power Supply</td>
<td>220V / 50Hz or 110V / 60Hz (optional)</td>
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<tr>
<td>Dimension</td>
<td>85x75x75 cm (LxWxH)</td>
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<tr>
<td>Weight</td>
<td>145Kg</td>
</tr>
</tbody>
</table>
All FACA Fully Automatic Biochemistry Analyzers have 2 different sample plates:
Standard sample plate for use with serum cup (serum order)

Test tube sample plate for use with 13x75 - 13x100mm test tubes (that is optional)

Labomed, Inc., Mailing Address: 2728 S La Cienega Blvd., Los Angeles, CA 90034 U.S.A.
TEL (310) 202-0811 FAX (310) 202-7286
Email: spectro@labomed.com, labomedinc@gmail.com
**biochemical instrument analyzer SOP**

- **Switch on/Device reset**
  - **Check water**
    - Add enough water
  - **Check waste bottle**
    - Empty waste and waste tube not bend
  - **Daily maintenance (check blank)**
    - Reset → wash needle 4 times → wash cuvette 1 time → affusion water → check blank → empty cuvette
  - **Prepare reagent**
    - Reagent position/volume and fresh
  - **Test QC**
    - Suggestion: test QC every day
  - **Test standard**
    - Suggestion: test standard every week, if QC is out of control
    - Confirm cup or tube
  - **Add sample**
    - Serum is normal and enough (without ester and hemolysis)
  - **Check sample**
  - **Start test sample**
    - Add emergency sample or reagent
  - **Examine result**
    - If some result is not good, or the curve is not correct and smooth, or reaction is faster, please recheck or dilute
  - **Input patient information**
  - **Print result**
  - **End maintenance**

“start work”: online → reset → wash needle 4 times → wash pipeline 4 times → wash cuvette 1 time → affusion → check blank and save → empty → reset

“stop work”: online → reset → wash needle 4 times → wash cuvette 1 time → affusion