BD Phoenix™ M50
Automated Microbiology System

BD

New BD Phoenix™ M50

MODULARITY — **RELIABILTIY** — **EASE OF USE** — **DIVERSE PANELS**

Why BD Phoenix™ M50 ?

- Rapid results
- Accurate results
- Easier workflow for customers
- Offers complete testing to customers
- Advanced Data Management – BD EpiCenter™
- Monitor – Instrumentation and results
- Analyze – Taxonomy notes and BDXpert
- Communicate – Laboratory and beyond

Modularity to adapt to any organisation

As simple as stack, plug and use

Double capacity with small footprint

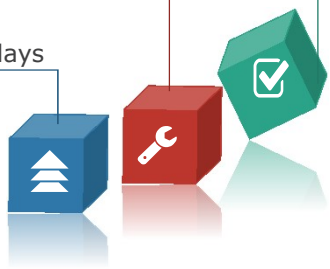
Modularity & Scalability

BD Phoenix™M50–Reliability & Robustness

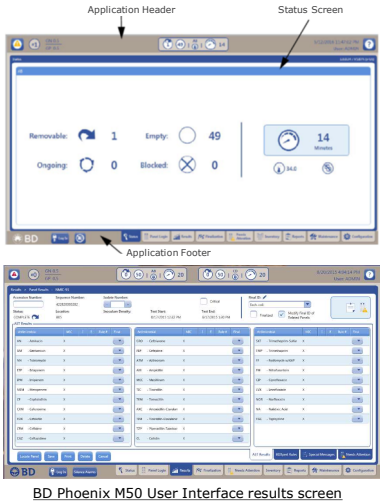
New..!!!! LEDs and Sensors

Improved serviceability

MTBF> 660 days



BD Phoenix™M50 – Ease of use



BD Phoenix M50 User Interface results screen

BD Phoenix M50 Identification

Phoenix M50 uses MPD
Multiple Parameter
Determination

Only system that uses both Colorimetric & Fluorometric detection

No off-line tests with phoenix

Taxonomy notes in Epicenter

45 substrates GN/GP
Leak resistant

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BD Phoenix™M50 Instrument

- 50 Panel/test Capacity
- Free Standing Design
- Direct LIS Connection
- EpiCenter data management
- Minimal Maintenance
- Random Panel Entry as additional scanner available internally
- No Calibration Required- as calibrator panels on board
- Incubates panels and reads every 20 minutes
- Time dependent Identification database
- BDXpert system

BD Phoenix™M50 Panel

- Identification only
- Room temp storage
- Leak Resistant
- 51 ID wells (45 substrates)
- Gram negative organisms
  - Enterics and non fermenters
  - 161
- Gram positive organisms
  - catalase positive and negative
  - 140
- Strep- 32
- Yeast-64

BD Phoenix™ M50 Software

- Log in panels
- View or change results
- Review BDXpert recommendations
- Print lab reports
- Finalize results
- Quality Control

BD Phoenix™ M50 Workflow

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BD Phoenix™ M50 Workflow

Pick Colonies from an overnight culture

Prepare suspension in Phoenix ID broth

1

Standardize suspension in the ID Broth

0.20-0.30(Low inoculum) OR 0.50-0.60 McFarland

2

Pour Broth into Panel and cap

Panel is now ready to put into the instrument

3

Scan the panel sequence number

Place the panel into the instrument

4

BD Phoenix™ Workflow Study (Time required for 50 panels)

Task	Phoenix
Inoculum Prep	N/A
Log-in	3 min 20 sec
Label Panels	7 min 41 sec
Inoculate Panel	14 min 38 sec
Load Panel	3 min 45 sec
Total	29 min 24 sec

Meyer et.al., ASM, May 2000

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Instrument Processing:
What happens behind the closed door?

Inventory scan
- Door locks
- Barcode reader reads panel barcodes
- Scans with red LED's to determine missing panels
- Needs Attention posted for:
  - Missing acc #
  - Unreadable barcodes
  - Missing panels

Reading
- Each well divided into pixels
- Readings taken for each pixel
- Entire process takes 7 minutes

Calculate data
- Pixel data analyzed for each well
- Readings for each well compared to previous reading and baseline
  - Well is complete when specific amount of change is not seen
  - Substrate algorithm dependent
- Instrument will post results when enough data collected

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BD Phoenix ™ M50 -21CFR compliance

- Different user logons capability.
- Current user name is displayed in the upper right corner of application header region and also printed with result.
- After 5 unsuccessful login attempts, the user account will be locked.
- All users will be required to change their passwords.
- Administrator
  - Lab administrator for lab location. All system functionality is accessible including system configuration. Administrators can create and delete other lab administrators and general lab users.
- General User
  - All system functionality is accessible except system configuration, which is read only. Users can reset their own password.
- Lab Administrator Users
  - Users that are at the Lab Administrator level will be able to access the full set of user management features.
- Event log and audit trails- Un-editable event log is available.
- Software backup- Automatic on BD Epicenter, or can be manually taken.

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BD Phoenix ™ M50 -21CFR compliance

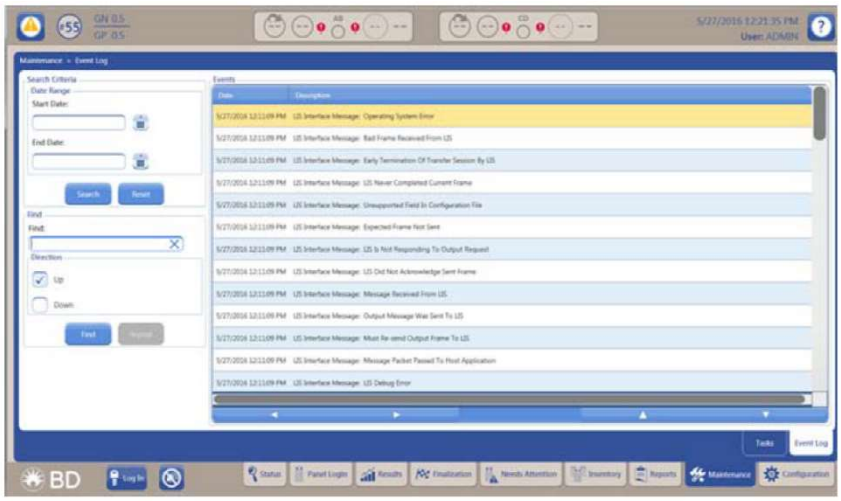

Figure 3-12 – Event Log Screen

Phoenix™ M50 ID

Overview

Media:ID Only

- Trypticase ™ Soy Agar w/o blood
- Trypticase™ Soy Agar with 5% Sheep Blood
- Trypticase Soy Agar with Lecithin and Polysorbate 80
- BBL™CHROMagar™ Orientation Agar
- Chocolate Agar
- Columbia Agar with 5% Horse Blood
- Columbia Agar with 5% Sheep Blood
- Columbia CAN Agar with 5% Sheep Blood
- Bromthymol Blue Lactose Agar
- Cystine-Lactose-Electrolyte Deficient Agar
- Dey/Engley Neutralizing Agar
- Eosin Methylene Blue Agar
- Hektoen Enteric Agar
- MacConkey Agar
- Phenylethanol Agar
- Xylose Lactose Desoxycholate

Phoenix Identification Features

- 45 Substrates GN / 46 Substrates GP/45 substrates Yeast
- Five databases per panel type (GN, GP, Strep)
  - Time specific = 2, 3, 4, 6, 12 hrs (GN, GP)
  - Time specific = 2, 4, 6, 8, 12 hrs (Strep)
- Taxonomy Notes in BD EpiCenter
- Low Inoculum Mode- both 0.25 and 0.50McF
- With 45 substrates and time dependent database, 175 trillion biochemical profiles are created

Phoenix Yeast ID

- Approximately 70 taxa
- 2 Database Options (Sab Dex / TSA)
- Time to Results = 4 to15 hours
- Average TTR for most common species ~ 6 hrs.

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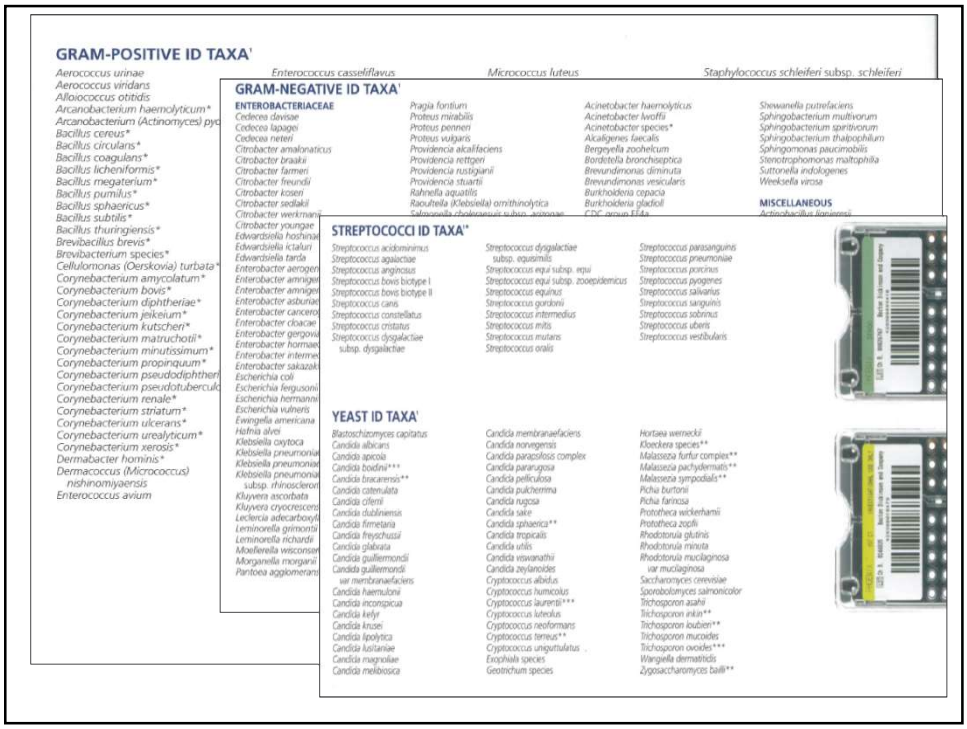

ID Results