

MICROPLATE READER

MANUFACTURER: BIO-RAD LABORATORIES

Manufacturer Model# 680

Manufacturer's PHONE: (510) 741-6683 FAX: (510) 741-4300

Manufacturer's Website: <http://www.bio-rad.com>

Item Web Link:

<http://www.bio-rad.com/prd/en/US/adirect/biorad?cmd=BRCatgProductDetail&productID=180201>

AAC 'L' ITEM NSN 6640-01-508-8526

UAs: 211B

USAMMA POC: Customer Relationship Management 301-619-1288/4301 - DSN 343-1288/4301

UNIT PRICE: \$7,650.00

System Description: The Model 680 microplate absorbance reader provides laboratories that need an economical, high-performance microplate reader with flexible configurations. The onboard software provides user log-in, protocols and data storage, and curve-fit and reporting functions. An onboard graphical thermal printer and precision temperature control are factory options for this reader.

- Features:**
- Capability to read flat-, U-, or V-bottom microplates or 8- or 12-well strip plates
 - Automatic calibration before each reading
 - Broad wavelength range for varied applications
 - Variable-speed plate shaking capability
 - Easy-access 8-position filter wheel, with 4 standard filters provided with each reader
 - RS-232 port for external PC control (with Microplate Manager software in Windows or Macintosh platforms)
 - Clear LCD display — now 5 mm thicker
 - Onboard storage of standard curves and graphs
 - Ability to print graphics on external printer — ASCII or ESCIP formats
 - Self-diagnostic capabilities to detect lamp burnout at startup
 - Includes 415, 450, 490, and 655 nm filters (installed)



**MICROPLATE READER
PART # 168-1000
NSN 6640015088526**

**MICROPLATE READER
PHYSICAL & ENVIRONMENTAL SPECIFICATIONS**

| | | |
|---------------------------|---|------------------------------------|
| Item Dimensions | Height (Inches) | 6 |
| | Width (Inches) | 13 |
| | Length (Inches) | 13.3 |
| | Cube (Cubic Feet) | 0.6003 |
| | Weight | 12.2 lbs |
| Ship Dimensions | Height (Inches) | 0 |
| | Width (Inches) | 0 |
| | Length (Inches) | 0 |
| | Cube (Cubic Feet) | 0 |
| | Weight | |
| Storage Temp | | -4 to 122 °F (-20 to 50 °C) |
| Operating Temp | | 41 to 95 °F (5 to 35 °C) |
| Storage Humidity | | 0 to 95% Non-condensing |
| Operating Humidity | | 0 to 95% Non-condensing |
| Amps | | |
| Watts | | 100 |
| Power Requirements | Universal Input: 100-240 VAC, 50-60 Hz | |
| Notes | Power consumption: 100 VA maximum | |

**MICROPLATE READER
ACCESSORIES & CONSUMABLES - STARTUP**

| NSN | Notes | Nomenclature | MFR PN BIO-RAD Laboratorie s | DIST PN | QTY | UI | Unit Price | Total Price | Shelf Life Mon. |
|------------------|------------------------------|--|---------------------------------------|---------|-----|----|--------------------|--------------------|-----------------------|
| 6640015088526 | | Microplate Reader | 680 | | 1 | EA | \$7,650.00 | \$7,650.00 | N/A |
| | Awaiting NSN | Dust Cover | 100-1546 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Filter 415nm | 168-1013 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Filter 450nm | 168-1020 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Filter 490nm | 168-1028 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Filter 655nm | 168-1061 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | See Additional Note Below | Fuse | 900-0231 | | 2 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Lamp replacement for Model 680 Reader | 168-1006 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Paper Printer | 168-1007 | | 1 | RO | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| | Awaiting NSN | Power Cord | 167-9005 | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |
| NSN Not Required | Download Below | Literature Operator | | | 1 | EA | Incl w/NSN 8526 | Incl w/NSN 8526 | N/A |

**MICROPLATE READER
ADDITIONAL NOTE:**

Fuse comes installed in unit; a spare is included. It cannot be ordered separately; call tech support for free replacement.

**MICROPLATE READER
WEB LINKS**

[Click Below for Product Information](#)

<http://www.bio-rad.com/cmc_upload/Literature/48412/bulletin_2733.pdf>

[Click Below for Operator Manual](#)

<http://www.bio-rad.com/cmc_upload/Literature/49148/4000155E.pdf>

MICROPLATE READER
ITEM TABLES

Microplate Reader Model 680 Specifications
General Operation

| SPECIFICATION | DESCRIPTION |
|---------------------|--|
| Operating panel | Membrane keypad with 4 arrow, 7 function, and 11 number keys |
| Self-diagnosis | Checks filter disk, plate transport, electronics, main PC board, battery, memory, and the internal printer |
| Warm-up time | 3 minutes |
| Reading speed | |
| Fast read mode | 6 second single wavelength, 10 second dual wavelength |
| Step read mode | 15 second single wavelength, 30 second dual wavelength |
| Mixing capability | 3-speed setting, programmable time 0 to 999 seconds |
| Compatible plates | Polystyrene flat-, U-, and V-bottom plates, 8- and 12-well strip plates |
| Assay blanks | User-defined or stored assay template |
| Data storage buffer | Last 10 plate data for endpoint, or last 30 plate data for kinetic reads |
| Report types | Raw, absorbance, matrix, limit, cutoff, concentration, curve fit, difference, and kinetic |
| Internal printer | Thermal printer with 112mm paper width, 40 column, 9 x 8/7 (graphic/text model) dot matrix |
| Computer interface | Bidirectional RS-232C serial communication port, 9-pin D-sub plug |

Optical

| SPECIFICATION | DESCRIPTION |
|---------------------|---|
| Bandwidth | 10 nm |
| Standard filters | 415, 450, 490, and 655 nm |
| Photometric methods | Single and dual wavelength |
| Photodetectors | 8 silicon photodiode detectors for measurement, 1 for reference |
| Light source | Tungsten halogen 20W, 3,000 hr life |
| Spectral range | 400-750 nm |
| Filter capacity | 8 interference filters |

Technical

| SPECIFICATION | DESCRIPTION |
|--------------------------|--|
| Indication range | 0.000 to 3.500 OD |
| Resolution | 0.001 OD |
| Accuracy | ± 1.0%, or 0.010 from 0.000 to 3.000 OD at 490 nm |
| Linearity | ± 1.0% from 0.000 to 2.000 OD ± 2.0% from 2.000 to 3.000 OD |
| Reproducibility | 1.0% or 0.005 OD from 0.000 to 2.000 OD 1.5% FROM 2.000 to 3.000 OD |
| Channel-to-channel error | 1.5%, or 0.005 OD to 3.000 OD |
| Stability and drift | 0.010 OD at OD = 1 with single wavelength reading |