The CARESCAPE™ Monitor B650 can help you manage your patient flow by getting you the right clinical information, when and where you need it. Its intuitive design allows for easy training for all staff experience levels, and upgradeability protects your long-term system investments.

Providing clinical excellence, dependable data continuity and integration
- Combines the best of Marquette® Electronics and Datex-Ohmeda® legacies into one platform
- Wide set of clinical measurements are available with advanced parameter modules
- CARESCAPE Patient Data Module provides consistent hemodynamic measurement during intra-hospital transport and also transfers trend data
- Innovative algorithms aid in accurate diagnoses, including GE EK-Pro, GE DINAMAP® non-invasive blood pressure, and 12 SL™ diagnostic ECG with direct 2-way MUSE® communication
- Advanced airway modules provide for complete respiratory monitoring with gas exchange measurement
- Various parameters can help you assess the adequacy of anesthesia in the OR, and give insight to patients’ readiness for ventilator weaning in the ICU
- Connectivity with the Aware® Gateway enables communications to EMR systems through standard HL7 protocol

Compact, flexible, intuitive design
- Pages & Profiles functionality can increase flexibility and workflow efficiency by allowing you to configure monitors to unit standards and patient populations
- User-controlled views, from eight to 14 waveforms with overlays and insets, allow for flexibility and customization, based on caregivers’ and patients’ needs
- Auto View on Alarm (AVOA) automatically shares high priority alarms within the care unit
- Integrated USB ports allow for a keyboard, mouse, barcode readers and other data entry device attachment
- Trim Knob® control and choice of touch screen or hard keys provide for easy control of key features
- Dedicated software and parameters for the Anesthesia, PACU, Critical Care, Emergency Care and NICU care areas make it easy to configure to your work patterns
- Compact design with pivoting frame fits ergonomically into different environments and allows for customizing with multiparameter modules and other options

Protecting long-term investments
- Backwards compatible with many existing Marquette Electronics and Datex-Ohmeda components
- Structured upgrade programs can lower costs of ownership
- Remote service through InSite™ ExC provides updates and predictive maintenance
### Technical specifications

#### Display

- **Size**: 15 in (diagonal)
- **Type**: Active matrix color TFT LCD
- **Resolution**: 1024 x 768 pixels (XGA)
- **Number of traces**: 8 individual, up to 14 with overlays and insets
- **Sweep speed**: 0.625, 6.25, 12.5, 25, 50 mm/sec
- **Configuration**: Automatic configuration according to parameter availability. Manual configuration with up to 8 user-configurable profiles for care-specific configurations, and up to 6 user-configurable display pages for each profile

#### Controls

- **Trim Knob control**: Standard
- **Touch screen**: Optional, resistive technology
- **Hard keys**: 3 standard keys: ON/Standby, Home, Pause Audio Alarm
  - 11 additional keys in non-touch version: Trends, Monitor Setup, Data & Pages, Alarm Setup, Procedures, Print Waveforms, Freeze/Snapshot, NIBP Auto, NIBP Start/stop, Parameters, Zero All Pressures
- **Remote control**: Ordered separately

#### Pivoting module frame

- **Features**: Can be pivoted to a locked closed position, locked to an open 45° angle, or locked to a 90° open position. Support for CARESCAPE Patient Data Module or Patient Side Module
- **Options**: Two optional E-module slots and optional recorder

### Parameters and modules

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Patient Side Module (E-PSM, E-PSMP)</th>
<th>CARESCAPE Patient Data Module (PDM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG</td>
<td>3, 5, 6 and 10 leadwires</td>
<td>3, 5, 6 and 10 leadwires</td>
</tr>
<tr>
<td>SpO₂</td>
<td>GE SpO₂</td>
<td>Masimo SET®, Nellcor OxiMax®</td>
</tr>
<tr>
<td>NIBP</td>
<td>GE</td>
<td>GE DINAMAP® SuperSTAT algorithm</td>
</tr>
<tr>
<td>InvBP</td>
<td>0 or 2</td>
<td>0 or 4</td>
</tr>
<tr>
<td>Temp</td>
<td>2</td>
<td>2, Optional with C.O.</td>
</tr>
<tr>
<td>Cardiac output</td>
<td>-</td>
<td>Optional with temperature</td>
</tr>
</tbody>
</table>

#### Multi parameter modules

- **Hemodynamics**: E-PRETN, E-PRETN, E-RETN
- **InvBP & Temp**: E-P**, E-PP**, E-PT
- **SvO₂ & C.O.**: E-COP, E-COPsv

#### Single parameter modules

- **SpO₂**: E-NSATX, E-MASIMO
- **NMT**: E-NMT
- **EEG**: E-EEG
- **BIS**: E-BIS
- **Entropy™**: E-ENTROPY

#### Gas modules

- **Sidestream CO₂**: E-miniC
- **Sidestream CO₂ & O₂**: E-CO, E-COV, E-COVX
- **Sidestream CO₂, O₂, Agents & N₂O**: E-CAiO, E-CAiOV, E-CAiOVX
- **Patient Spirometry**: E-COV, E-COVX, E-CAiOV, E-CAiOVX
- **Gas exchange/ metabolics**: E-COVX, E-CAiOVX

Parameter modules are ordered separately.

NOTE: For a complete list of compatible devices, please refer to the CARESCAPE Monitor B650 Supplemental Information Manual.

* Acronyms for the parameters measured are as follows: P=invasive pressure; R=respiration rate, E=ECG; S=SpO₂; T=temperature; N=NIBP; C=CO₂ and N₂O; A=anesthetic agents and nitrous oxide with agent identification; O=O₂; V=Spirometry; X=gas exchange

** Module measures invasive blood pressure only.
Software options

Main software
- Care-area specific software packages to optimize workflows: OR, PACU, ICU, ED, NICU

Other software options
- Extended software options specific to each main software package

Upgradable with the CARESCAPE Life Upgrade Program

Networking

Compatibility
- CARESCAPE Network with peer-to-peer communication
- S/5 Network with iCentral v5.1

Features
- Centralized viewing and remote alarm management with bed-to-bed viewing and AVOA functionality

Network type
- LAN, WLAN (optional)

WLAN communication protocol
- IEEE 802.11a/b/g

I/O connectors

Ethernet
- 1 RJ45 for monitor network
- 3 optional RJ45 for HIS, service and Unity Network™ ID

E-Port
- 1 optional DB9F, for CARESCAPE Patient Data Module

Display
- 1 DVI out (VGA with adapter)

USB port
- 2 USB 2.0
- 2 optional USB 2.0

Mounting
- GCX compatible
- FM quick-mount compatible
- Integrated carrying handle

Paper recorder (optional, built-in)

Method
- Thermal dot array

Horizontal resolutions
- 24 dots/mm (600 dpi)
- @ 25 mm/sec

Vertical resolution
- 8 dots/mm (200 dpi)

Number of waveform channels
- Four

Paper width
- 50 mm (2 in)

Paper length
- 30 m (100 ft)

Paper speed
- 1, 5, 10, 12.5, 25 and 50 mm/sec

Performance specifications

Alarms

Categories
- Patient status and system status

Priority
- 3 levels – High, Medium and Low

In accordance with IEC 60601-1-8

Notification
- Audible and visual

Setting
- Default and individual

Visual alarm notification
- Red, yellow, cyan

Audio pause
- 2 or 5 minutes

Volume
- 79 dB(A) (max) measured at 1m, high priority alarm
### Power specifications

<table>
<thead>
<tr>
<th>Power supply</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal input voltage range</td>
<td>100 to 240 Vac +/-10%, 50/60 Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>140 VA (max)</td>
</tr>
<tr>
<td>Protection class</td>
<td>Class I</td>
</tr>
<tr>
<td>Grounding</td>
<td>Hospital grade</td>
</tr>
<tr>
<td>Cooling</td>
<td>Natural convection – no fans</td>
</tr>
</tbody>
</table>

### Battery (optional)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Exchangeable Lithium-Ion</td>
</tr>
<tr>
<td>Number of batteries</td>
<td>1</td>
</tr>
<tr>
<td>Voltage</td>
<td>11.1 V (nominal)</td>
</tr>
<tr>
<td>Capacity</td>
<td>6.21Ah (typical)</td>
</tr>
<tr>
<td>Charge time (to 90% of full capacity)</td>
<td>2 to 3 hours, depending on configuration</td>
</tr>
<tr>
<td>Run time</td>
<td>1 to 2 hours, depending on configuration</td>
</tr>
<tr>
<td>Battery life</td>
<td>150 cycles to 80% capacity</td>
</tr>
</tbody>
</table>

### Environmental specifications

#### Operating conditions

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>10°C to 35°C (50°F to 95°F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>10% to 90% non-condensing</td>
</tr>
</tbody>
</table>

#### Storage conditions

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>-20°C to 60°C (-4°F to 140°F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>10% to 90% non-condensing</td>
</tr>
</tbody>
</table>

#### Physical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (H x W x D)</td>
<td>36 x 37 x 22 cm (14.2 x 14.6 x 8.67 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>9.8 kg (21.6 lb) without modules (incl. battery, recorder, E-module frame)</td>
</tr>
<tr>
<td>Patient Side Module</td>
<td>+ 0.6 kg (1.3 lb)</td>
</tr>
<tr>
<td>CARESCAPE Patient Data Module</td>
<td>+ 1.1 to 1.3 kg (2.4 to 2.9 lb)</td>
</tr>
<tr>
<td>E-modules</td>
<td>+ 0.3 to 1.6 kg (0.6 to 3.5 lb)</td>
</tr>
</tbody>
</table>

### Warranty

One year.

For accessory information, please refer to CARESCAPE Monitor B650 Supplies and Accessories document.
For upgrade information, please refer to the CARESCAPE Life Upgrade Program.

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