Objective Balance Assessment & Dynamic Training Protocols

Interactive, functional training exercises using visual biofeedback, coupled with sensitive, real-time monitoring of movement motivates patients to achieve greater balance control faster. Exercise protocols available on the SMART Balance Master can be tailored to meet individual patient needs and can be progressed as the patient’s capabilities improve.

Proprioceptive/sensory-motor and visual training can be enhanced as the clinician can independently set the movement of the support surface and/or visual surround:

**Responsive:**
The Force Plate and visual surround move in response to, and as a result of patient movement.

**Variable:**
The Force Plate and visual surround move in response to the patient, but the degree of movement varies each time the patient moves.

**Random:**
The surface and/or visual surround movements are computer driven and are completely unpredictable, so the patient must constantly adjust their balance in response to the changing surface and/or visual environment.

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“*The biggest problem for older people is that their balance issues cause them to restrict activities, which leads to more weakness and puts them at greater risk for falls.*”

— Kevi Ames, PT, DPT Physical Therapist

“We purchased the SMART Balance Master and it has been the talk of Glenaire. Residents are given the opportunity on their birthday month to take a balance assessment. This gives our residents at Glenaire a balance baseline. Residents are excited to have this opportunity; they say it helps them stay independent and active. Some residents have moved to Glenaire because of our programs like The Balance Center.”

— Wendy Heinzmann, Glenaire Retirement Community • Cary, NC

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Technical Specifications

Components Include:

• NeuroCom® Balance Manager Software Suite
• Dynamic forceplate (rotate)
• Moveable visual surround with LCD display and illumination
• Overhead support bar with patient harness set
• Windows®-based computer
• Color printer
• Wireless mouse
• Ergonomic point-of-care cart

Accessories Included:

• B100012-00 Harness Kit (Sizes: S/M/L)
• NCM-FOAM Foam pad: 18 x 18 x 5 in (46 x 46 x 13 cm)
• P102604-00 Blocks for Prepkit include:
  • Rocker board
  • Step-up blocks: 4 in (10 cm) and 6 in (15 cm)
  • Leveling block: 2 in (5 cm)
  • Heel/toe wedges: 6° and 12° A/P
  • Inversion/eversion wedges: 3° and 6° M/L

Options

• NCM-LFP 18“ x 60” static forceplate
• NCM-INV-D inVision software and head tracker
  (PTT, DVA, GST, HS-SOT & VOR Training)
• NCM-GAMES NeuroGames
• NCM-DATA-D Data Acquisition Tool Kit (D.A.T.a) for research

Standard Software Protocols Include:

<table>
<thead>
<tr>
<th>Sensory Impairments</th>
<th>Functional Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Organization Test (SOT)</td>
<td>Unilateral Stance</td>
</tr>
</tbody>
</table>

Motor Impairments

| Adaption Test (ADT)                      | Sequence Training                           |
| Limits of Stability (LOS)               | Weight Bearing Training                     |
| Rhythmic Weight Shift (RWS)             | Custom Training                             |

Physical Dimensions

<table>
<thead>
<tr>
<th>(W x D x H)</th>
<th>in</th>
<th>cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembled dimensions</td>
<td>53 x 61 x 94</td>
<td>135 x 155 x 239</td>
</tr>
<tr>
<td>Base</td>
<td>53 x 61 x 6</td>
<td>135 x 155 x 15</td>
</tr>
<tr>
<td>System cart</td>
<td>25 x 24 x 44-57**</td>
<td>64 x 61 x 112-145**</td>
</tr>
<tr>
<td>Dual Forceplate</td>
<td>18 x 18</td>
<td>46 x 46</td>
</tr>
<tr>
<td>Step height</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Visual surround</td>
<td>42 x 36 x 74</td>
<td>107 X 91 X 188</td>
</tr>
<tr>
<td>Maximum subject height</td>
<td>80</td>
<td>203</td>
</tr>
<tr>
<td>Maximum subject weight</td>
<td>440 lb</td>
<td>200 kg</td>
</tr>
</tbody>
</table>

*Depth extends to 64 in (163 cm) with surround in resting position.
** Minimum-maximum monitor extension height.

Minimum footprint required 96 x 75 244 x 191
Minimum ceiling height 95 242
Total system weight 775 lb 352 kg

Electrical Characteristics

• 100–240 V / 50–60 Hz / 1200 W
Compliant with the latest medical standards.

Performance Characteristics

Rotation of the dual force plate and visual surround is controlled by independent direct current servo motors.
- Force plate rotation ± 10°, maximum velocity 50°/sec
- Visual surround rotation ± 10°, maximum velocity 15°/sec

Count on objective, evidence-based information from the NeuroCom Family of Balance Manager Solutions

Concussion Management – Head Injury

Current recommendations from the NCAA® and NATA® indicate that the best practices in concussion management include a balance assessment.
- Baseline balance test with SOT
- Help make better return-to-play decisions
- Greater understanding of balance issues that can be addressed in training

Vestibular Rehabilitation & NeuroRehabilitation – Dizziness

- Technology from the balance leader
- NeuroCom systems use NASA-based science
- Pose activities specifically based on your patient’s problem level for effectiveness

Fall Prevention – Older Adults

Somewhere today, a person over the age of 65 will likely fall — with serious consequences.
- Identifying fall risk — before a fall
- Improve senior outcomes
- Increase strength and confidence
- Document gains or changes objectively
- Put the care team on the same page
- Bottom line: PREVENT FALLS

Specifications subject to change without notice.

For more information, please contact your local Natus District Sales Manager at 1-800-303-0306 or visit www.natus.com.

Visit our NERVE Center® education portal at nervecenter.natus.com

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