Balance Training Bicycle
Owner’s Manual

CAUTION!

▲ Patient should be monitored at all times while riding the bicycle.

▲ Tilt resistance is to be adjusted by the Physical Therapist ONLY. Patient should not control tilt resistance during riding.

▲ Mount bike only when it is in its upright locked position.

▲ Do not leave spring cartridge in compression after use.
**Maintenance**

Daily Checks:
- Inspection of cable for wear and fraying

Yearly Maintenance:
- Grease the bearings by applying grease to the yellow grease nipple

**Feedback Display**

Features:
- On/Off switch
- LED angle indicators (green – good balance, yellow – need to correct balance, red – tip over threshold exceeded)
**Handlebar and Seat Height Adjustments**

Squeeze button on the side of handlebar hinge. Set to desired position and release button.

Unscrew pin from seat post. Move seat to desired height, and secure screw pin back into post.

**Locked Position Pin**

*Only mount bike when it is in the upright locked position.*

To unlock the bike, pull the pin up and place end of hook into **set hole** on top of bike axle.
On-The-Fly Tilt resistance with Winch Control

White button – Increase tilt resistance
Black button – Decrease tilt resistance

Resistance should be increased to maximum before patient dismounts bike.

Tilt resistance is to be adjusted by the Physical Therapist ONLY. Patient should not control tilt resistance during riding.

Pedal Resistance

Turn black knob clockwise to increase pedal resistance level / counterclockwise to decrease pedal resistance level.
Tilt Resistance Spring Cartridge

Cartridges are color coded by weight class. Use the appropriate spring cartridge corresponding to the patient’s weight.

### Calculated Spring Constants for different heights and weights (lbs)

<table>
<thead>
<tr>
<th>Weight</th>
<th>90-129</th>
<th>130-169</th>
<th>170-229</th>
<th>230-269</th>
<th>270-309</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 5'2&quot;</td>
<td>6.651</td>
<td>7.805</td>
<td>9.976</td>
<td>10.127</td>
<td>11.301</td>
</tr>
<tr>
<td>63 5'3&quot;</td>
<td>6.737</td>
<td>7.917</td>
<td>9.097</td>
<td>10.277</td>
<td>11.457</td>
</tr>
<tr>
<td>64 5'4&quot;</td>
<td>6.831</td>
<td>8.03</td>
<td>9.228</td>
<td>10.427</td>
<td>11.625</td>
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<tr>
<td>65 5'5&quot;</td>
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<td>8.142</td>
<td>9.359</td>
<td>10.577</td>
<td>11.794</td>
</tr>
<tr>
<td>66 5'6&quot;</td>
<td>7.018</td>
<td>8.254</td>
<td>9.49</td>
<td>10.726</td>
<td>11.962</td>
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<tr>
<td>67 5'7&quot;</td>
<td>7.112</td>
<td>8.366</td>
<td>9.621</td>
<td>10.876</td>
<td>12.131</td>
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<tr>
<td>68 5'8&quot;</td>
<td>8.479</td>
<td>9.752</td>
<td>11.026</td>
<td>12.299</td>
<td>13.573</td>
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<tr>
<td>69 5'9&quot;</td>
<td>8.591</td>
<td>9.883</td>
<td>11.175</td>
<td>12.468</td>
<td>13.76</td>
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<tr>
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<td>10.014</td>
<td>11.325</td>
<td>12.636</td>
<td>13.947</td>
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<tr>
<td>72 6'0&quot;</td>
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<td>11.625</td>
<td>12.973</td>
<td>14.321</td>
<td>15.67</td>
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<tr>
<td>73 6'1&quot;</td>
<td>10.407</td>
<td>11.774</td>
<td>13.141</td>
<td>14.508</td>
<td>15.875</td>
</tr>
<tr>
<td>74 6'2&quot;</td>
<td>10.538</td>
<td>11.924</td>
<td>13.31</td>
<td>14.696</td>
<td>16.081</td>
</tr>
<tr>
<td>76 6'4&quot;</td>
<td>12.238</td>
<td>13.647</td>
<td>15.07</td>
<td>16.513</td>
<td>17.916</td>
</tr>
</tbody>
</table>

### Average Spring Constant (K)

- Weight Class 90-129: 7.7741875
- Weight Class 130-169: 10.55114286
- Weight Class 170-229: 13.76413636
- Weight Class 230-269: 17.402
- Weight Class 270-309: 20.7758

### Used Century Spring Model #

- 7.5 lbs/in: CS-863
- 11 lbs/in: CS-853
- 14 lbs/in: CS-4385
- 17 lbs/in: CS-851
- 21 lbs/in: CS-844
To replace spring cartridge,

(1) Bring the winch control to the front of the bike.

(2) Depress the black “down” button on the winch remote control until there is a small amount slack in the cable.

(3) While holding the cartridge upward, remove the hairpin cotter pin so you may then remove the dowel pin from connection at the top of the spring cartridge.

(4) Now, depress the white “up” button on the winch remote until the bottom cartridge connection almost touches the base pulley.

(5) In a similar fashion, remove the pins from the connection at the bottom of the spring cartridge.

Transporting Bike

Use “wheel barrow” technique: stand behind bike and grasp seat post at highest point. Bending your knees, lift the rear of the bike. Roll bike on front wheels.

Caution: to avoid tipping the bike over, do not raise rear leg support of bike above 36 inches from the floor.
**Sensor Calibration**

(1) Ensure Bike is in its “locked” position.

(2) Attach voltmeter (multimeter) to black and green wires on the side of the frame, allowing the existing connections to remain.

(3) Adjust sensor by loosening the bottom screw and rotating it until the meter reads 2.5 Volts while the bike is in its locked position.

(4) Tighten the bottom screw when it reads 2.5 Volts.