# TCS Setup and Calibration Procedure

## 1. Positioning the Unit

- Place the TCS assembly on a **sturdy, flat, and level surface** to ensure system stability and accurate load measurements.

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## 2. Deploying and Securing the Strut Arms

- Fully open both strut arms.
- Install and secure **both locking pins**.

⚠️ **WARNING:**
Failure to engage both pins can result in:

- Inaccurate traction force readings
- Potential structural damage to the TCS system

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## 3. Installing the Traction Unit

- Position the traction unit onto the extension arms.
- Secure the unit using the **clamp-down bar**, ensuring the bar is properly seated **inside the slot at the end of the extension arm frame**.

⚠️ **CAUTION:**
Do **not** position the clamp-down bar beneath the arms.
Although the system may operate, this will compromise stability and create an unsafe condition.

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## 4. Load Cell Attachment

- Attach the load cell to the **TCS** mounting point using the enclosed **carabiner or "S" hook**.
- Verify that the connection is secure before proceeding.

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## 5. Power-On and Utilities Menu Access

- Power **ON** the traction unit.
- For **Chattanooga products**:
    - Press the **Folder** button.
    - Simultaneously press **Folder + Start + Stop** to access the **Utilities Menu**.

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## 6. Zero (Tare) the Load Cell

1. Ensure the traction rope is left free-hanging with approximately **12 inches of slack** resting on the table, free of obstructions.
2. From the Utilities Menu, execute the **Zero Load Cell** function.
    - This process runs automatically and establishes a baseline reference.
3. ⚠️ **Do not connect or use the portable load cell gauge during this step.**

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## 7. Rope Setup

- Attach the **portable load cell gauge** to the **TCS** using the second enclosed **carabiner or “S” hook**.
- Press the **rope release** and remove all remaining slack from the rope.
- Confirm that proper rope tension has been achieved.

⚠️ **IMPORTANT:**
The maximum rated pull for the load cell is **225 lbs**. Do **not** exceed this limit under any circumstances.

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## 8. Calibrate Load Cell Bias

- In the Utilities Menu, select **Load Cell Bias Calibration**.
- Use the **Up/Down arrows** to adjust until the portable gauge reads exactly **100 lbs**.
- Press the **Home** button.
- If further adjustment is necessary, re-enter the Utilities Menu and repeat the process.

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## 9. Calibrate Motor Current

- From the Utilities Menu, select **Motor Current Calibration**.
- Allow the calibration process to run automatically to completion before exiting.

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## 10. Finalization

- Affix a **calibration tag** to the traction unit to document service completion.
- The system is now certified and ready to be returned to the field.

## 11. Additional Notes

- The **metal plate** located at the opposite end of the assembly is designed for use with **Metter** and **Dynatron** traction units.

- The **portable load cell gauge** supplied with this system is a **sealed, fixed-component device** and does **not** require calibration.

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# TCS-201 Traction Calibration System setup

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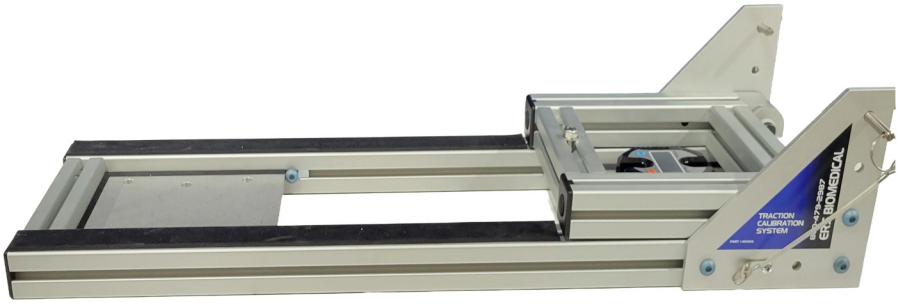


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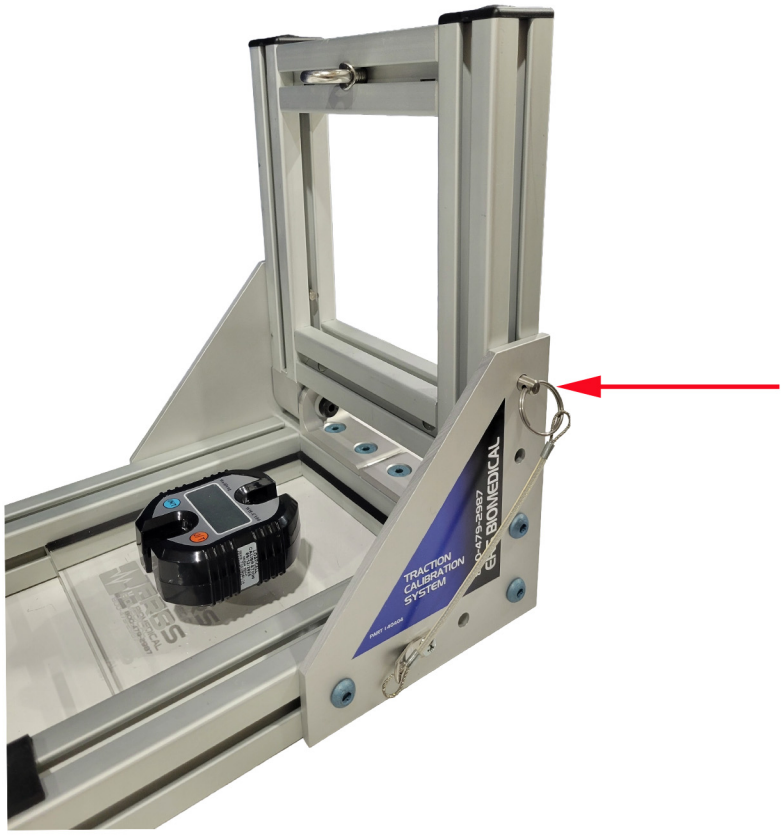


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# TCS-201 Traction Calibration System setup

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# TCS-201 Traction Calibration System setup

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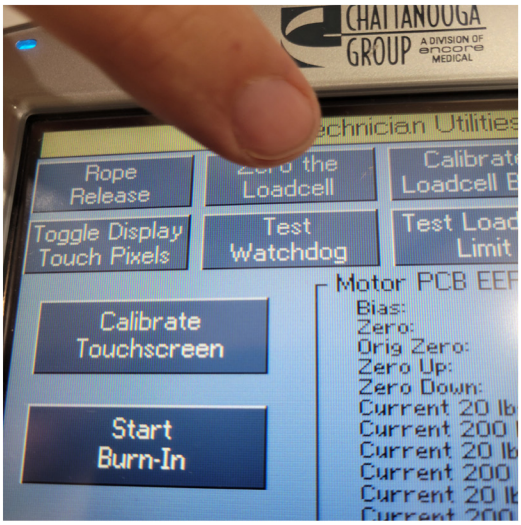


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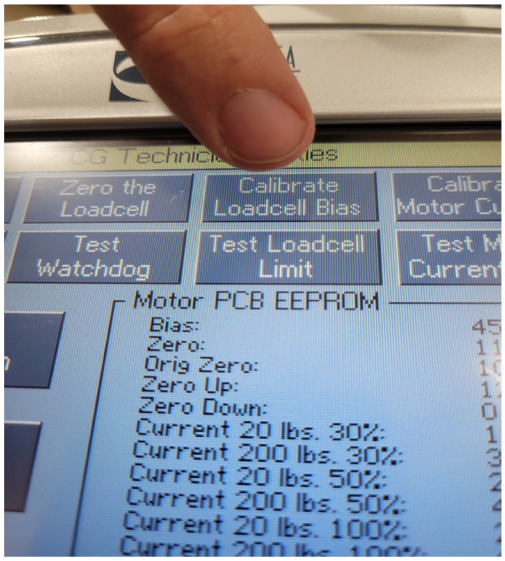

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# TCS-201 Traction Calibration System setup

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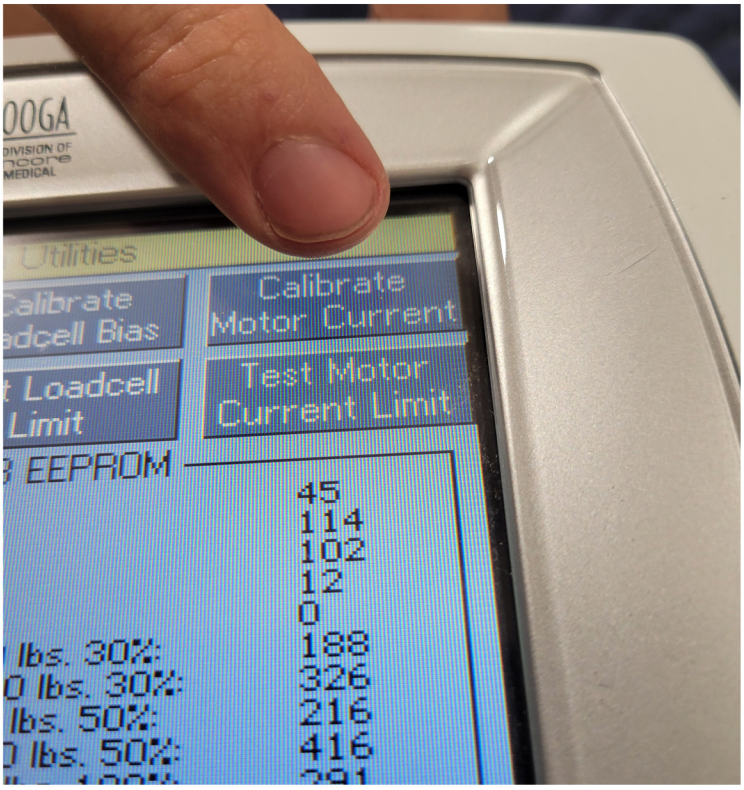


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# Instruction of WH-C100 Series

## Micro Crane Scale

WH-C100 micro crane scale is a high precision and large capacity digital scale. The scale has the characteristics of precision Weighing, easily operating, durable, etc. It is adequate for all kinds of weighing fields

**Range:** 0.2KG-150KG / 0.441lbs - 220.693 lbs

**Dividing:** 0-99KG/0.05KG, 100- 150KG/0.1 KG

**Instruction:**

1. Put in the batteries, with scale *off,* press the • "On/T" key the screen will show '8888', when stable, the screen shows '0.00", then the scale is at the weighing status.
2. Units selecting: Press 'UNIT' key to change 'KG-+JIN-+Lb', three units.
3. Tare(Zero): Lightly press 'on/T key to zero clearing.
4. Lock/Unlock: Press 'UNIT' lasting 2 seconds to select lock/unlock function. 'L-OF' means no locking function, 'L-ON' means at the status of data locked automatically. With 'L-ON', when weighing stably, buzzer will make a sound and display "B' and lock the weighing data. At this moment, if press ·On/T key to unlock. Otherwise it will unlock automatically after 15 seconds.
5. Turn *off* and auto turn *off.* Press · On/T can turn *off* by hand. If turn on without pressing operation or weighing operation in 120 seconds, the scale will turn off automatically.

**Electric Parameter:**

**Operating voltage:** 2.4-3.3V (2 *x* AAA batteries)

**Operating current:** Backlight is on: I< 12mA

Backlight is off: |<5mA

Sleep mode: 1~3uA

**Operating temperature:** 0-40"C

**Notice:**

1. Ensure the scale is hanging firmly and keep away from goods when weighing.
2. Try to avoid impact or shock when using.
3. If 'Lo' or battery sign appears on the screen when turning on the scale, it means the batteries are exhausted. Replace the batteries.
4. If overweight beyond 5% of the capacity, 'O_Ld' will appear on the screen To avoid damage to the scale, reduce the weight.
5. If the scale is not use for a long time, please take out the batteries to avoid leakage and damage to the circuit.

**Warning:**

Due to this products large capacity (micro crane scale), be sure that is fastened to its suspension reliably, the bracket is strong enough to bear the weight, as with any high tension weighing or pulling, use caution not to get too close to either end when using. ERS, Biomedical not responsible for any activities that are outside these instructions.