

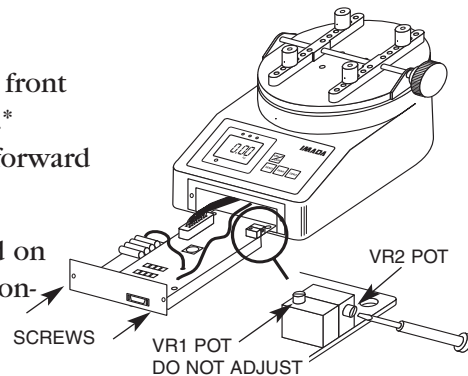
For example on the DTX-40, if the CCW reading is 50.30 and CW reading is 50.50

- Step 1 Determine actual deviation.  $(50.50 - 50.30) \div 2 = 0.10$   
(which is smaller than the allowable tolerance of 0.25).
- Step 2 Calculate target calibration value, which is capacity less actual deviation calculated above.  $50.00 - 0.10 = 49.90$ .
- Step 3 Determine calibration direction (only one direction calibration is required). Take the smaller number's direction, which in this case is CCW (50.30).
- Step 4 Zero the display. Rehang the calibration weight (2.5 kg only for DTX-40) and calibrate in the CCW direction.

### Making Adjustments

1. Remove the 2 screws in the front cover and the warranty seal.\*
2. Gently pull the front cover forward to expose the PC board.

Note: The PC board is mounted on the front cover and cables are connected to it. Do not force.

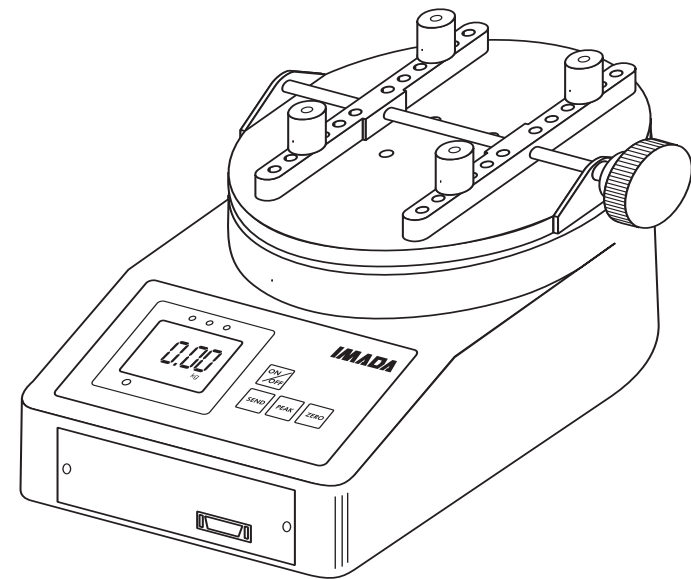


3. Using a small flathead screwdriver adjust the VR2 pot adjustment screw to the appropriate setting (screw faces right).  
**Do not adjust VR1** (screw faces top).
4. After adjustment, slide the PC board back and replace the screws.

\*Note: Removing the warranty seal automatically voids the warranty.

# CALIBRATION MANUAL

## Cap Torque Tester



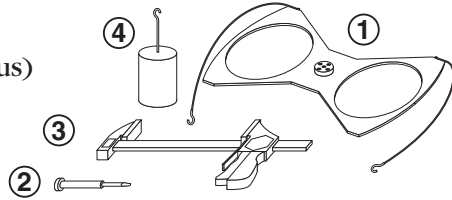
Models:  
DTX and DTX2

# Digital Cap Torque Tester CALIBRATION PROCEDURE

Conditions:  
Temperature: 72° (±15°F)  
Humidity: 10 - 60%

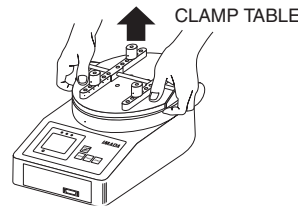
## List of Equipment

- ① Calibration arm (20 cm radius)
- ② Small Screwdriver
- ③ Clamp
- ④ Calibration weight



## Calibration Setup

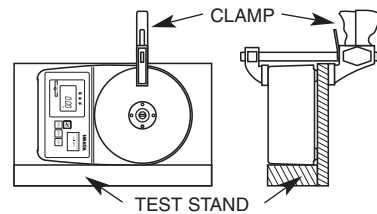
1. Verify the temperature is within the allowable range (32°-100°F) and record it.



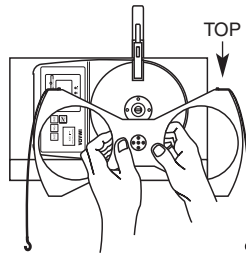
2. Pull up to remove clamp table from cap torque tester.

Do Not Twist or Jerk! Permanent damage may result, whether the unit is on or off.

3. Place the cap torque tester against the vertical wall of the test stand and clamp it to the wall as shown.



4. Place the calibration arm on the cap torque tester with the 2 wires hanging down, engage the coupling and press in firmly (make sure the calibration arm doesn't touch the clamp and allow clearance to hang the calibration weight).



5. Connect AC adapter/charger, plug into 115VAC outlet and turn on the cap torque tester, select Real Time Mode (not Peak Mode) and change units to kg-cm (press unit switch and hold for 4 seconds to select units).
6. Press the Zero switch to zero the display.

Before hanging the calibration weight, refer to the following table to be sure the **correct weight** is used to prevent overload. (kgf-cm)

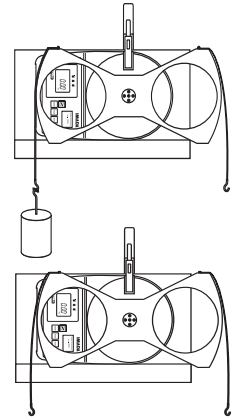
## Specification Table

MODEL	DTX/DTX2-15	DTX/DTX2-40	DTX/DTX2-85
CAPACITY (kgf-cm)	20.00	50.00	100.0
ALLOWABLE RANGE (kgf-cm)	19.90~20.10	49.75~50.25	99.5~100.5
ALLOWABLE TOLERANCE (kgf-cm)	0.10	0.25	0.5
*WEIGHT (kg)	1	2.5	5

\*Weight is appropriate for 20 cm radius calibration arm

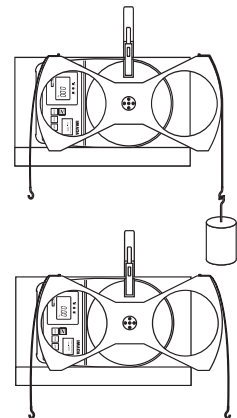
## CCW Calibration

6. Hang the **correct weight** (see Specification Table above) on the left hook and record the torque value (make sure the wire stays on the edge of the calibration arm, use scotch tape if necessary).
7. Remove the weight and see if the display returns to zero.
8. If not, repeat from steps 7 - 9 until it does.



## CW Calibration

9. Zero the display.
10. Hang the weight on the right hook and record the torque value.
11. Remove the weight and see if the display returns to zero.
12. If not, repeat from steps 11 - 13 until it does.



Check the table to make sure the CCW & CW readings are within the allowable range before making adjustments.

13. Subtract the smaller from the larger reading, and divide the result by 2 to determine actual deviation. If actual deviation is larger than allowable tolerance (see Specification Table), the unit needs repair before calibration.

If actual deviation is smaller than allowable tolerance, the unit can be calibrated by the following procedure.