

MODEL C515 BOTTLE CAP TORQUE TESTER INSTRUCTIONS

Specifications:

Accuracy: $\pm 0.5\%$ of full scale ± 1 digit
Sampling Rate: 30 readings per second
Display Rate: 2.5/s in normal mode, 30/s in peak mode
Safe Overload: 150% of gauge capacity. Display shows --- (dashes) above 110%
Power: 9V battery or AC Adapter
Battery Life: 30 hours of continuous operation
Size: Display Unit: 3.84" x 2.63"
Hand Unit: 1.63" (Diam.) x 4.06" (less driver shell)
Cord: 10.0" Retracted Length
Weight: 1.8lb [0.8kg]
Driver Head: ¼ inch drive

Display

The display consists of a 4 ½ digit section and several indicators. Their functions are listed below:

LO BAT	Low battery voltage indicator
CW	Clockwise torque indicator
CCW	Counterclockwise torque indicator
CW PEAK	Peak clockwise indicator
CCW PEAK	Peak counterclockwise indicator

OZIN, LBIN, NCM, KGMM	Units of measurement (Model dependent)
---- (dashes)	Overload (>110% of range)

Controls

C515 cap torque testers have three keys for controlling all functions of the instrument.

POWER	Turns the instrument on and off. Also used in calibration mode
PEAK	Used to select Clockwise Peak or normal (real time) display mode. The actual peak readings are always captured and can be displayed at anytime.
ZERO	Zeros any tare value (up to the full capacity of the gauge) and clears the peak readings stored in memory.

Operation:

The default mode of operation is the normal (real time) mode. If the peak readings are to be observed as they occur, then the mode of operation can be changed by pressing PEAK until desired mode (CW PEAK or CCW PEAK) appears on the display. Please note that this action only affects the display. The peak readings are captured automatically and can be cleared from the memory by either pressing ZERO or shutting off the gauge.

The gauge is equipped with an automatic shutdown feature and it will shut off after approximately 30 minutes of inactivity (readings do not fluctuate more than ± 10 counts and no keys are pressed). The entire display will flash for 5-7 seconds as a warning of the imminent shutdown. To change the default setting of 30 minutes, hold PEAK while turning on the gauge. Press PEAK repeatedly until AOFF appears. Press POWER to select this function. The current setting will flash on the display. Use PEAK to scroll through the displayed choices and POWER to select. Press POWER again at the 'DONE' prompt in order to save the setting.

Changing Units of Measurement

The displayed units of measurement and the default mode of operation (peak or normal) can be changed by entering setup mode as described above, pressing POWER at the 'init' prompt and selecting the desired settings using the PEAK and POWER keys.

IN16.01

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Increasing Torque Reading Accuracy

Flexible Containers: Contortion of threads will often prevent the cap from releasing properly. Grip the container as close to the base as possible to prevent contorting the closure threads. Also consider placing flexible containers on a surface that will prevent the containers from spinning rather than holding them.

Power

The instrument may be powered by the internal 9V battery or by the included AC adapter. The need for battery replacement is indicated by a 3-step sequence: 1- a steady LO BAT appears on the display indicating the last 10% of the battery life, 2- LO BAT begins to flash indicating the need for an immediate battery replacement, 3- the entire display except LO BAT flashes for several seconds and then the instrument shuts off.

Calibration

To properly calibrate this instrument, application of a precise torque value equal to the full capacity of the gauge in lbin of ozin (regardless of the displayed units) will be required.

While holding PEAK, turn the gauge on. When 'CAL' appears on the display, press POWER three times to select the calibration mode. At the 'null' prompt press ZERO. At the 'SPAN' prompt, apply the calibration torque and press power. The display will show 'uuuu' or 'nnnn' if the calibration torque is insufficient or excessive accordingly. If this happens, the only way to terminate the calibration mode is by momentarily disconnecting the battery or connecting the AC adapter without plugging it into wall outlet. This will stop the calibration procedure without making any changes to the previous calibrator data. Successful calibration is indicated by 'DONE' on the display. Press POWER to save the changes and resume normal operation.

Other Capacities and Increments Available

Various units and graduations are available. Please consult the factory to ensure the proper torque tester is matched to your application.

10.00 x 0.01 **ozin**, 7.000 x 0.005 kgmm, 7.000 x 0.005 Ncm

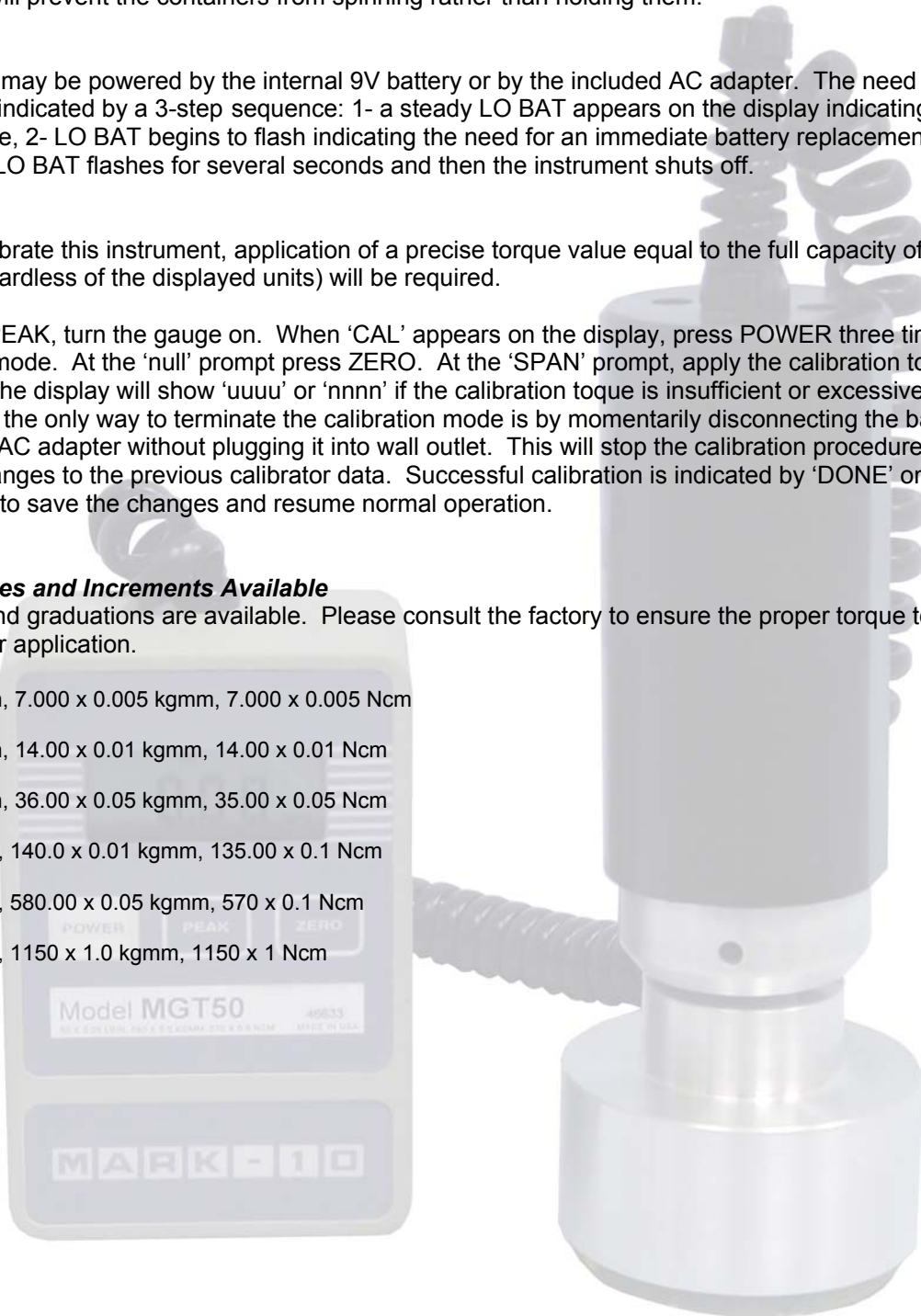
20.00 x 0.02 **ozin**, 14.00 x 0.01 kgmm, 14.00 x 0.01 Ncm

50.00 x 0.05 **ozin**, 36.00 x 0.05 kgmm, 35.00 x 0.05 Ncm

12.00 x 0.01 **lbin**, 140.0 x 0.01 kgmm, 135.00 x 0.1 Ncm

50.00 x 0.05 **lbin**, 580.00 x 0.05 kgmm, 570 x 0.1 Ncm

100.00 x 0.1 **lbin**, 1150 x 1.0 kgmm, 1150 x 1 Ncm



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