

Validator Operation Instructions

Rev 2..6 (1/30/2018)

Mounting the Validator

The torque tester needs to be mounted securely before operating. Immobilizing the Validator is critical for the safety of the operator as well as for the accuracy of torque measurements during operation. A loose torque tester during utilization can impact the validity of torque readings. If the Validator is wall-mounted using the back plate, we recommend inserting washers (provided as part of inbox content) between the wall and backplate. You should use one washer per mounting hole.

Operating the Validator

When the unit is turned **ON** the LCD screen will display and scroll through a list of product information: the name of the product, serial number, the sensor's torque range, along with the unit of measurement. It finishes with displaying the main screen view in the First Peak mode. **Note! Not recommended for power tools or impact wrenches.**

Testing Torque Wrenches

Make sure the torque wrench is within the torque range of the Validator unit. If the wrench is below the torque range, then the accuracy may not be reliable. If the wrench is over the torque range, then you may overtorque the Validator and damage the sensor. Place the square drive of the wrench into the sensor and apply torque. If adapters are used for testing, always make certain the adapters are as short as possible and fit properly, with little "play."

First Peak Mode

The display holds the first detected peak torque applied. While the torque is being applied nothing will be displayed on the screen. Once the **FIRST PEAK** is detected the display will show the torque value. The tester captures the point where the wrench clicks. Always apply torque smoothly to avoid false peak readings. Once the first torque reading is captured on the display, the unit will continue to show that reading until the next torque reading is captured from another pull of force on the wrench. When the unit is turned off, it will clear any reading that is last displayed.

If the torque achieved is within the preset tolerance range of the torque setting, the LED will turn green. If it is outside the tolerance range it turns red. **Note!** - *If in PEAK mode, Press DOWN button to switch to FIRST PEAK mode.*

Peak Mode

Press "UP" button to switch from **FIRST PEAK** mode to **PEAK** mode. In **PEAK** mode, the device displays the maximum value of torque applied to the sensor at that point in time. After the torque is released from the sensor, the screen will retain the peak value detected, until the torque is applied again.

Track Mode

Press "Enter" button & "Down" button simultaneously and hold both for about 2 seconds. After the buttons are released the screen displays **TRACK** mode. Follow the same procedure to switch back to **FIRST PEAK** mode.

In track mode, it displays the current value of torque being applied. The value displayed changes with the change in the torque applied to the sensor.

Setting Target Torque & Tolerance

1. To unlock Target Torque & Tolerance setting, press and hold "Unit" button for 5 seconds. Then "Select unit" will display on the screen.
2. Press "Unit" Button to select between lbf.ft., kgf.m & N.m. Then, Press "Enter" button to move to next setting.
3. Enter "Target Torque" value using the up and down buttons. Press "Enter" button to move to next digit and "Unit" button to move to previous digit.
4. To enter "Tolerance," press "Enter" button once more.
5. The screen displays the "Tolerance". Enter tolerance setting desired by using "Count Up" or "Count Down" button to change the value. Then press "Enter".
6. Press "Enter" button to get out of Target Torque & Tolerance setting and it automatically locks setting.
7. The tester is ready to use and will display "Target & Actual value".

Sleep Mode

When the device is switched ON and not used for more than 3 minutes, the device automatically turns off the LCD and goes to sleep mode saving power and increasing battery life. The device can come out of sleep mode within 1 second by pressing any of these buttons: "Enter", "Unit", "Up" or "Down".

In sleep mode, the LED blinks RED after every 5 seconds just as sleep mode indicator.

Low Battery Indicator

When the battery is low, the device automatically turns off the screen and sensor. The **RED LED** will blink once every 2 seconds to indicate low battery. Plug in the 9V adapter followed by power cycle the device.



Fig 1: First Peak mode screen
Target & Current Value



Fig 2: Peak mode screen
Target & Current Value



Fig 3: Track mode screen
Current Value

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Power On and Battery

When the power button is pressed the LCD screen will illuminate and the unit is switched on. Pressing the on/off button a 2nd time will power the unit off. The Validator is powered with 9V 600mAh Li-ion rechargeable battery or an external power supply. If the battery has been depleted, please allow time for it to fully re-charge.

External Power Supply

On the left side there is slot to plug-in the provided transformer to charge the battery in the unit.

Replacement Information

Model: Universal Charger (100-240 VAC) **Item #** 701210

Calibration

This setup parameter will enable the user to calibrate the Validator. It is password protected to prevent unauthorized access to the calibration process.

The calibration points are 10% full scale, 50% full Scale and 100% full Scale

The tester is calibrated by using a radius wheel or segment arm in conjunction with the appropriate weights for the item to be calibrated.

User Interface

LCD Display Screen

Displays the torque reading, operating mode and torque unit.

Power Button

Turns the Unit On or Off.

LED Light

Turns green when set target torque is reached and red when target torque is not achieved.

Enter

Enter button also used for confirming a selection during the set-up process. It is used to move to next digit.

Unit Selection

Three units of torque measurements: (lbf.ft, kgf.m & N.m). Units can be changed by pressing this button. It is also used to move to the previous digit.

Up/Dn :

Used for setting the target torque and tolerance during setup.

Sensor

1/2" F/Sq

Mounting Holes

Built-in mounting plate provides flexibility for mounting options.

Power Supply

Charger is plugged in this location.

