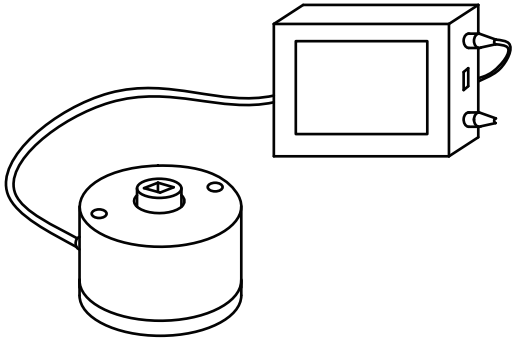




# Instructions

## Torque Tester



# Index

I Before Use	1
II Operations	1
1. Connect Power	1
2. Theme Screen	2
3. Regular Test	3
4. Set Unit of Torque	4
5. Input Serial Number	5
6. Calibrate Torque Wrench	6
7. Delete Data and Save	7
8. Set Parameters	8
9. Preset Test	9
10. Wave Test	9
11. Set Date and Time	10
12. Record Data and Upload	11
III Attentions	12
IV Main Technical Specifications	13

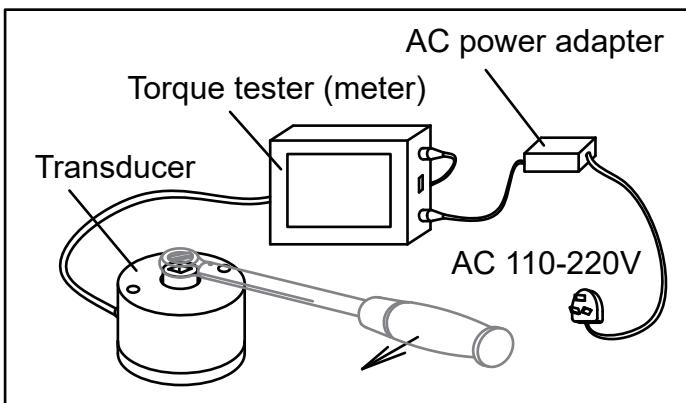
# I Before Use

- The display screen of this torque tester is a touch screen. The buttons are displayed on the screen. Please touch the buttons you need with your finger.
- Before use, check whether the connection between the transducer and the meter is reliable and whether the power adapter lead is in good condition.
- Please use the original power adapter (input AC 110-220V, output DC 12V) supplied with the tester to avoid any potential damages.

# II Operation

## 1. Connect Power

- After confirming the correct voltage of AC power supply, plug in the AC input plug of the power adapter and insert the output plug into the corresponding hole of the meter, as shown in figure 1:



【Figure 1】

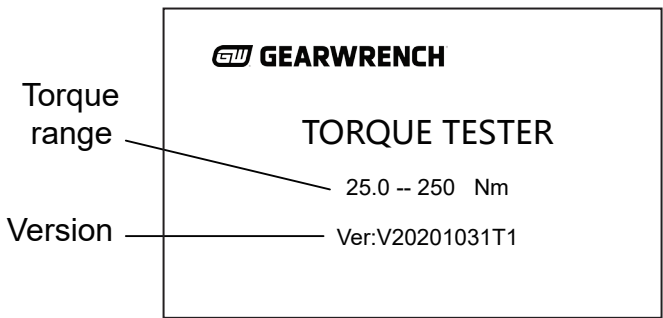
- After power connected, the Logo screen displays, see figure 2:



【 Figure 2 】

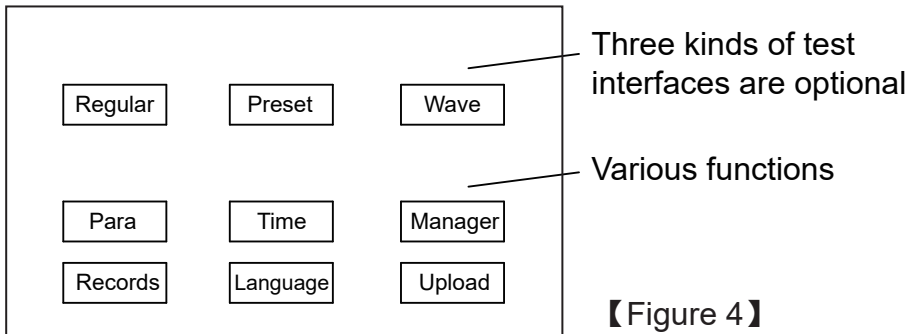
## 2. Theme Screen

- After a few seconds, you will see the Theme Screen with torque range and version number. See figure 3:



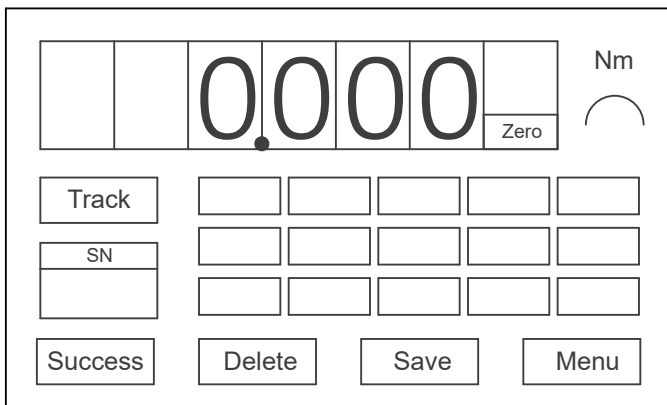
【 Figure 3 】

- After 5 seconds, the system will automatically enter the main menu interface, as shown in figure 4:

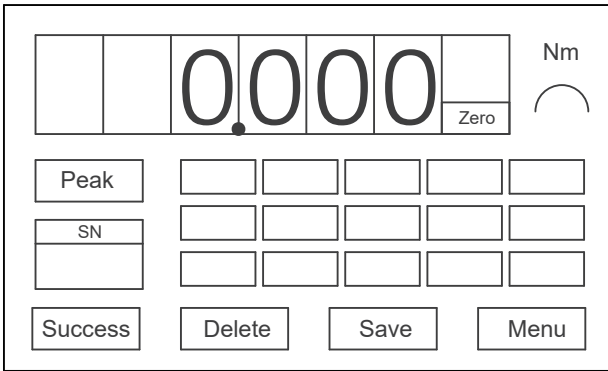


### 3. Regular Test

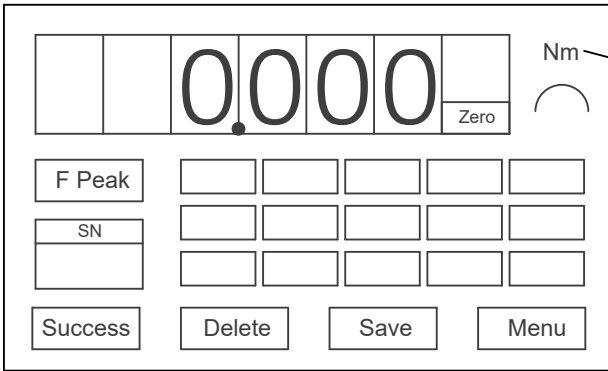
- Tap the “Regular” button on the screen to display the interface as figure 5. If the torque tester and transducer are connected normally, the prompt box at the lower left will display “Success”:



- Under "Track" mode, while testing torque, the reading will change along with torque changing.
- Tap the "Track" key to swift to "Peak" or “First Peak”, see figure 6 & 7, while testing the torque, the reading will be held at Peak value or First Peak value.



【Figure 6】

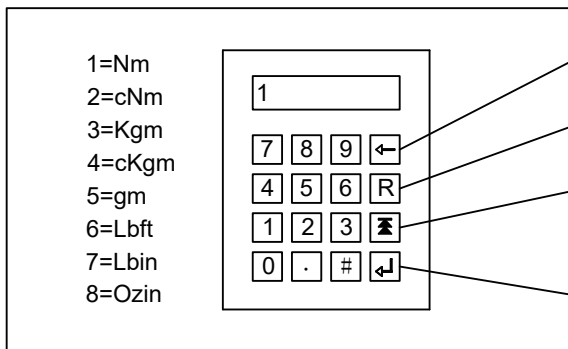


Click torque unit to set torque unit, see figure 8

【Figure 7】

#### 4. Select Unit of Torque

- Tap the unit, see figure 8, input the number of unit, then press enter.



Backspace

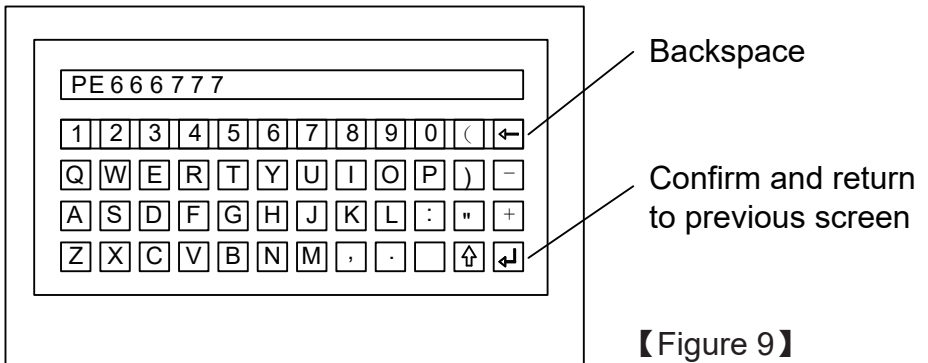
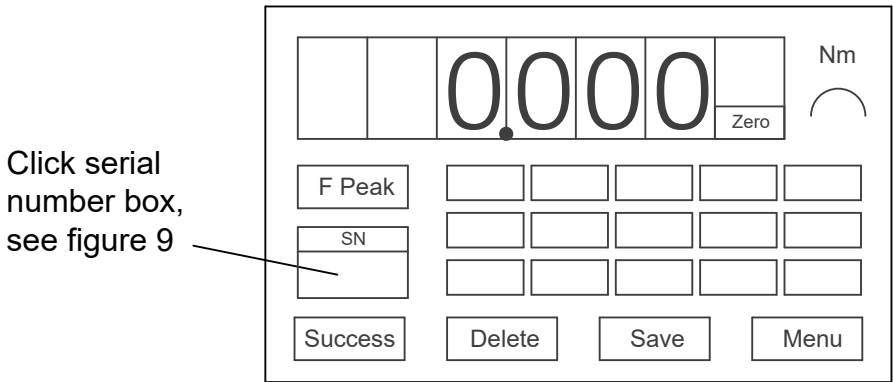
Clear

Return to previous screen

Confirm and return to previous screen

【Figure 8】

## 5. Input Serial Number

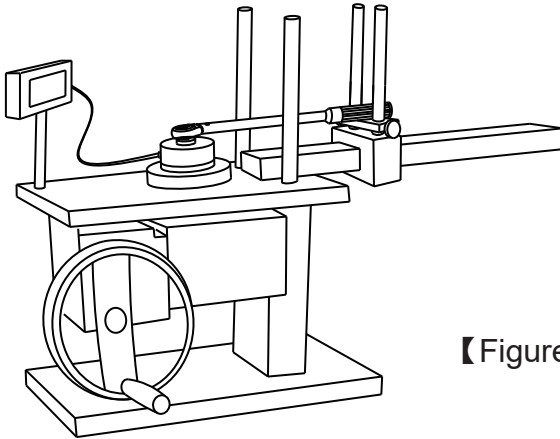


【 Figure 9 】

- The test data will not be saved if there's no serial number.
- To modify serial number, do the same step as above.

## 6. Calibrate Torque Wrench

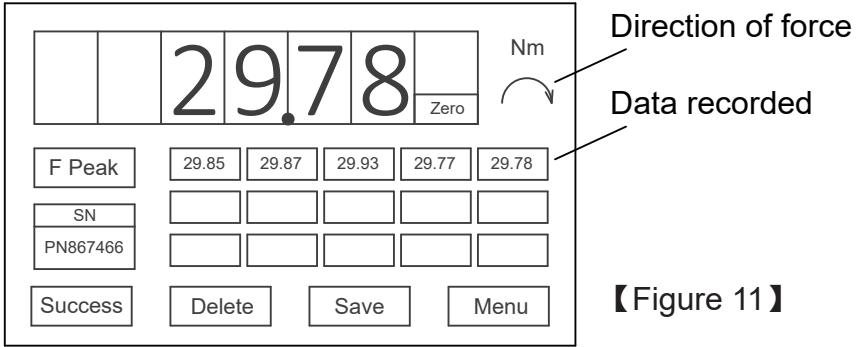
- Insert torque wrench's square driver into transducer's head holder, the force point is the midpoint of handgrip or at the marked position on grip. Direction of force should be vertical with shaft of torque wrench, see figure 10.



【Figure 10】

- To calibrate the “Click” torque wrench, stop loading force when you hear the click sound. The data display area on the screen will record the readings after the force released. One serial number can store up to 15 data.
- Sometimes, if the torque is small, the click sound **can not be heard obviously**, watching the reading while loading the force, if the reading does not increase with the load, it means the internal mechanical structure has already released. The torque tester will catch the first peak value. See figure 11.
- When loading, a directional arrow appears to indicate the direction of force. See figure 11.

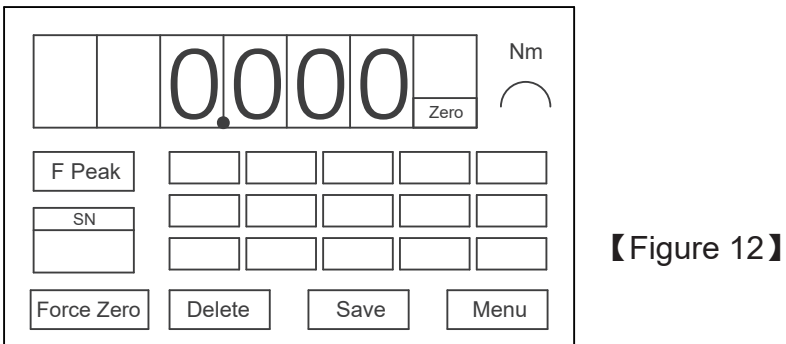




- The torque tester has storage function, test data will be saved after each load. The data display area will be automatically reset when it is reloaded after unloading. You can also press “Zero” to manually reset, the prompt box in lower left corner shows "Force Zero".

## 7. Delete Data and Save

- The test reading is not able to be saved without serial number, there will be a warning to request user to input serial number. The torque tester can save 5000 data.
- If found the data isn't correct and need to be adjusted, press “Delete”.
- Press “Save” to save data, readings on display will be cleared, see figure 12.



## 8. Set Parameters

- Press “Menu” to the main interface, then press “Para” to set parameters, you can set 100 groups of parameters, see figure 13.
- While the error % is set, the display will show the upper and lower limits automatically, see figure 13.
- If error% is 0, you can set any limit data, see figure 14.

ID	2	Unit	Lbft	Mechanical
Set Val	100.00	Error%	3.00	
Min	97.00	Max	103.00	
	Zero	Save	Menu	

【Figure 13】

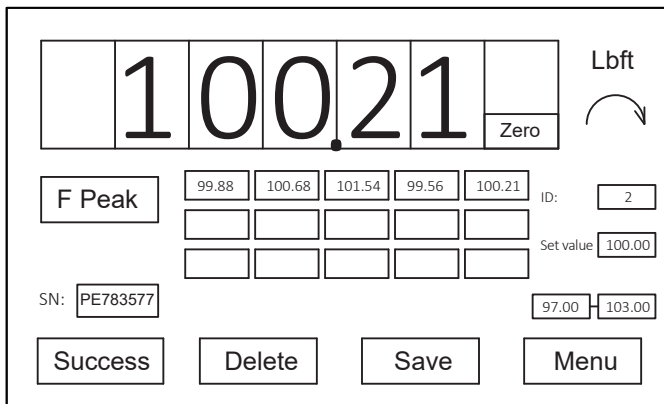
- Please press “Save” to save the settings.

ID	2	Unit	Nm	Mechanical
Set Val	100.00	Error%	0.00	
Min	93.00	Max	105.00	
...	Zero	Save	Menu	

【Figure 14】

## 9. Preset Test

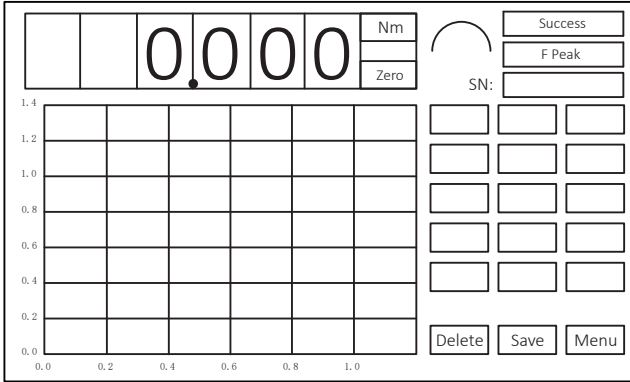
- Press “Preset” on the main interface, see figure 15.
- Tap “ID”, select preset number, the parameters you have saved in “Para” menu will show on the display.
- Input serial number, start to test. If test data is out of accuracy, it will be displayed in red. After test, press “Save” to save the data, or press “Delete” to delete the data.



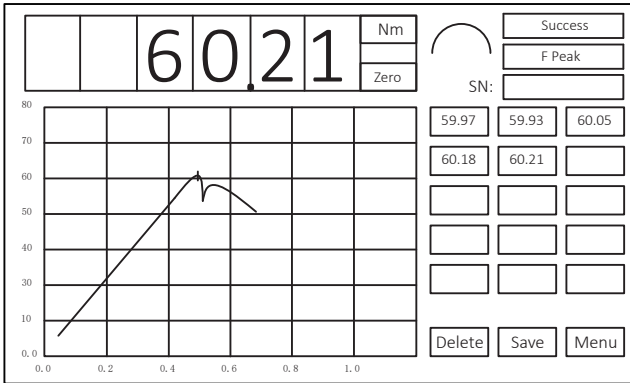
【Figure 15】

## 10. Wave Test

- Press “Wave” on the main interface, see figure 16.
- Select the mode: “First Peak” or “Peak”, select torque unit, and input serial number. The waveform will be shown while testing, maximum 15 data can be recorded, press “Save” to save data, see figure 17.
- During continuous testing, unload and then load, zero clearing will be done automatically. You can also press “Zero” to clear by manual.
- The last test data can be deleted by “Delete” key.



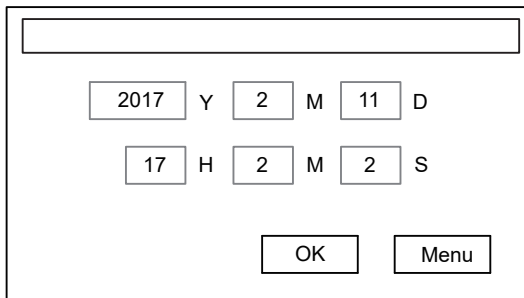
【Figure 16】



【Figure 17】

### 11. Set Date and Time

- Press “Time” on the main interface, see figure 18.
- Press “OK” after date and time is set.



【Figure 18】

## 12. Record Data and Upload

- Press “Upload” on the main interface, see figure 19.

The screenshot shows a main interface with the following elements:

- SN: PE236775
- Test interface: Test interface
- Routine: Routine
- Test mode: F Peak
- Unit: Unit
- Nm: Nm
- Five data points: 40.26, 40.26, 40.26, 40.26, 40.26
- Next button
- Five data points: 121.23, 120.86, 120.75, 120.68, 121.05
- Five data points: 201.51, 202.03, 200.98, 201.22, 201.76
- Last button
- 2017-02-15 15:30:12
- 245
- Menu button

【Figure 19】

- Press “Next” or “Last”, you can see all saved data, serial number, mode and time.
- **Copy the software package from the included USB stick to the computer, and double-click SerialTFT.exe in the software directory.** Connect the meter and computer with the included USB cable. If it’s not connected, display will show “Connection failed” highlighted in yellow, see figure 20. If connected, display will show “Successful connection” highlighted in green, see figure 21.

The screenshot shows the SerialTFT.exe interface with the following elements:

- Serial
- Language
- 1 and 15 (with up/down arrows)
- Read button
- Exit button
- Connection failed (highlighted in yellow)

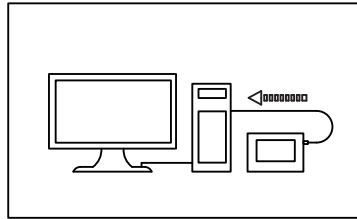
【Figure 20】

The screenshot shows the SerialTFT.exe interface with the following elements:

- Serial
- Language
- 1 and 15 (with up/down arrows)
- Read button
- Exit button
- Successful connection (highlighted in green)

【Figure 21】

- Then click “Read”, data will be saved as Excel file in the "OutputData" folder under the software directory, see figure 22 the uploading interface.



【Figure 22】

### III Attentions

- Testing shall be performed at a temperature not fluctuating by more than 2°F (1°C). This temperature shall be in the range of 64°F (17°C) to 82°F (27°C) (maximum relative humidity 90%).
- Torque tester and transducer should not be struck at will, and should be kept away from vibration source.
- Torque tester and transducer work area should be free from magnetic field interference; otherwise it will affect the accuracy of the torque tester.
- The transducer shall be bolted first, whether on the test rack or elsewhere, to ensure that there is no loosening. When it is found there is loose during operation, it should be repaired in time to avoid personal injury.
- Torque wrench's force point is at the middle point of the grip. If there is a force mark on the grip, the force should be applied at the mark; otherwise the test accuracy will be affected.

- When testing torque wrench applied force, the person should stand in a position conducive to maintaining balance, and take necessary protection.
- When the use of torque tester and transducer is over, the power should be cut off.

## IV Main Technical Specifications

- Test within 10%-100% of Maximum range, accuracy is +/-0.5%
- 7" Color touch screen
- Menu easy to operate
- 8 Units: N.m, cN.m, kgm, ckgm, gm, Lb.ft, Lb.in, Oz.in
- Three modes: First Peak, Peak and Track
- Three interfaces: Regular, Preset, Wave
- During the wrench test, 15 test data will be automatically stored
- 5000 Test data can be stored
- Preset 100 groups of parameters
- Continuous test, automatic reset
- Upload data to computer by USB port
- Attach with power adapter, Input AC 110-220V, Output DC 12V

VE02-A1104T3B