

數位扭力顯示器系列
Digital Torque Adapter Series

使用者手冊
User Manual

Hand Tools Only

中文

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親愛的客戶：

我們非常感謝您購買數位扭力顯示器與對本產品的支持。為了讓您完全享有產品的優點，請在調整任何設定前先閱讀下列指示，並保存本手冊，以供日後參照。

1. 產品概述

由於扭力量測校驗需要做嚴格的認證，儀器本身包括溫度、精確度與解析度，更需要具有抗干擾能力 (ESD 與 EMI)，這些除了周邊零件的特性需要達到規格要求之外，更需要量測晶片的規格能符合要求。因此，如果能夠簡化周邊的被動元件，這時又能夠準確的量測出扭力值，不單是能夠節省成本，相對可以提高維修及組裝品質，更可以降低受用物件之損壞率。

2. 產品特色

簡易多功能操作，具有防震、預設扭力值、單位切換、模式切換、記憶儲存、數字遞增 & 遞減、省電模式、LED 燈號 & 響聲警示等。

2.1 數位扭力值、角度值顯示

2.2 LCD 背光顯示

2.3 順時針及逆時針皆可操作

扭力精度：CW \pm 1.5%(順時針)

CCW \pm 2.5%(逆時針)

角度精度： \pm 2° (角度系列)

2.4 可儲存 30 組設定值

2.5 省電模式 (2 分鐘進入省電模式)

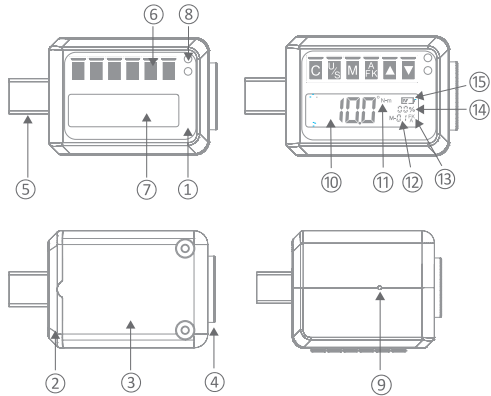
2.6 具有蜂鳴及 LED 燈號警示功能

2.7 低電壓偵測 (提醒使用者電池壽命)

2.8 四種扭力單位，可供選擇切換 Nm、Kg.cm、lb-ft、lb-in

各部件功能及名稱

- ① 上蓋
- ② 下蓋
- ③ 電池蓋
- ④ 扭力接桿方孔
- ⑤ 扭力接桿方頭
- ⑥ 功能按鍵區
- ⑦ LCD 顯示螢幕
- ⑧ LED 指示燈
- ⑨ 蜂鳴器
- ⑩ 扭力值顯示
- ⑪ 單位顯示
- ⑫ 記憶組數顯示
- ⑬ F/K/A (追隨 / 峰值 / 角度)
(A 角度系列)
- ⑭ 百分比顯示
- ⑮ 電池壽命顯示



3. 產品技術規格

型號	General Series	Angle Series
扭力精度*1	CW : ±1.5% CCW : ±2.5%	
角度精度*2	+/- 2°	
最大可測得角度	720°	
LED 警示燈	2 LED(1 綠 + 1 紅)	
操作模式	Track(F) / Peak hold(K) / Angle(A)	
單位選擇	Nm、kgf.cm、lbf.in、lbf.ft	
電池壽命 (連續操作)	48 hrs.	
電池壽命 (待機模式)	1 year	
濕度	Up to 90% non-condensing	

※ *1 精度說明：依據 ISO6789：2003 扭力精度在最大操作值的 20% ~ 100%

※ *2 角度精度說明：角度在每秒 45° 的速度轉 90° 下測量之精度

設定值 儲存容量	30 組
操作溫度	-10°C ~ 60°C
儲存溫度	-20°C ~ 70°C
摔落測試	1m
振動測試	10 G
壽命測試	10000 cycle
環境測試	Pass
電磁相容測試	Pass

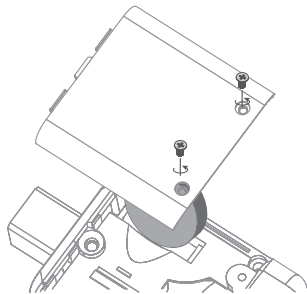
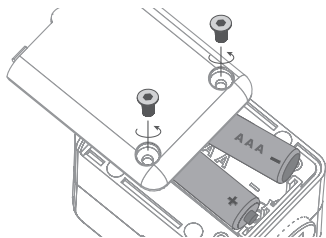
4. 使用前注意事項

4.1 置入電池

4.1.1 打開電池蓋。

4.1.2 置入電池，請注意正負極方向。

4.1.3 裝上電池蓋。



↑ 扭力顯示器使用 CR2032 鋰電池一入。
 ← 角度系列顯示器使用 4 號電池 AAA 兩入。
 (可使用一般碳鋅電池及鹼性電池)

4.2 低電壓通知

如果系統偵測電池電壓低於 2.3V 時，螢幕右上角會出現電池符號，並在數秒之後關機。



5. 產品功能

共有六顆按鍵，表示符號分別如下：



按鍵名稱	按鍵功能說明
C	開關機及歸零
U/S	單位選擇
M	記憶選擇
F/K/A	設定值模式選擇 A 模式角度系列
▲	數字遞增選擇 (UP)
▼	數字遞減選擇 (DOWN)

5.1 開關機及歸零

按下 C 鍵開機，背光亮 LCD 文字全閃，由左至右顯示 0000 後，進入操作模式。

▶角度系列

將顯示器水平靜置，按下 C 鍵開機，背光亮 LCD 文字全閃，由左至右顯示 0000 後，顯示器自動偵測是否有達到靜置狀態，如未靜置，LCD 由左至右持續顯示 0000，直到顯示器完全靜置為止後，四個 0 同時顯示三次，進入操作模式。

第一次使用產品時，進入操作模式時，顯示該產品最小操作值，單位預設為 N-m，顯示記憶為第一組，模式為追隨模式 F，百分比位置顯示 0%，電池刻度依當時偵測到的電壓值顯示該電池刻度 (30 組設定值記憶、預設值皆相同)。

關機：長按 C 鍵 3 秒關機。

歸零：開機狀態下按下 C 鍵歸零。

5.2 單位切換 / 選擇

國際標準公制為 Nm，公制為 Kg.cm，英制為 lb-in 及 lb-ft 等 4 種，每按下一次 U/S 鍵單位便切換，順序為 Nm、Kg.cm、lb-in、lb-ft；預設單位為 Nm。

▶扭力單位換算對照表：

	lb-in	lb-ft	Nm	Kg.cm
1 lb-in	1	0.083	0.113	1.152
1 lb-ft	12	1	1.356	13.83
1 Nm	8.851	0.737	1	10.2
1 kg.cm	0.868	0.072	0.098	1

5.3 設定值記憶功能

所有的設定值記憶組別，第一次預設值皆為範圍最小值，記憶選擇方式，按下 M 鍵後 M-01 最右邊數值開始閃爍，即進入選擇模式，使用▲ (UP) / ▼ (DOWN) 選擇記憶組別，亦可持續按住連續遞增 / 減，選擇完畢後再按 M 鍵確認，停止閃爍即離開選擇模式。

5.4 追隨模式 F/ 保持模式 K/ 角度模式 A (角度系列)

▶ 追隨模式：(第一次開機預設為追隨模式)

數值選定後 (假設選 50Nm)，扳手施力時數值由 0000 往上遞增，當施力者施力，所顯示的值會依施力者的力度不同產生改變，用力就遞增，放鬆遞減，拿起或完全放鬆，顯示值將跳回 50Nm。

▶ 保持模式：

數值選定後 (假設選 50Nm)，扳手施力時數值由 0000 往上遞增，當施力者施力，所顯示的值會依施力者的力度不同產生改變，完全停止施力後，顯示值為最後的扭力值，閃爍 10 秒之後 (此時任何動作及按鈕皆無效)，自動回到設選數值，或按 C 鍵可以回到設選數值，亦可直接施力後，重新由 0000 往上遞增量測扭力值。

▶ 角度模式 (角度系列)：

數值選定後 (假設選 50°)，扳手施力時數值由 0° 往上遞增，當施力者施力，所顯示的值會依施力者的角度不同產生改變，完全停止施力後，顯示值為最後的角度值及扭力值，角度值及扭力值交互顯示，閃爍 10 秒之後 (此時任何動作及按鈕皆無效)，自動回到設選數值，或按 C 鍵可以回到設選數值，亦可直接施力後，重新由 0° 往上遞增量測角度值。

5.5 量測範圍數值選擇

在無施力量測或是設定值記憶選擇之下，數值皆可選擇，任何模式下完成施力測試後，皆會回到顯示選取的數值。

5.6 ▲ (UP) / ▼ (DOWN) 選擇

▲ (UP) 鍵時，按一下由最右邊數值開始遞增，持續按住連續遞增；▼ (DOWN) 鍵，按一下由最右邊數值開始遞減，持續按住連續遞減。

5.7 LED 燈 & 蜂鳴器

LED 燈在每個按鍵按下時綠燈亮且皆有嗶聲。

▶追隨模式下，LED 燈兩顆分別為綠色、紅色，假設當設定的扭力值為 20Nm 時，使用者開始施力，數值由 0000 開始變化數值到達設定值的 80%，此時綠燈亮起開始閃爍，蜂鳴器開始發生聲音，當施力者扭力越接近該設定數值時，綠燈閃爍越快，蜂鳴聲越快，當數值到達設定值 100% 時，綠燈恆亮，蜂鳴聲保持聲響，超過該設定值時 (101%)，紅燈亮起，蜂鳴聲保持聲響，施力放鬆則遞減。

▶保持模式下，同追隨模式，但施力者完全停止施力後，LED 燈及蜂鳴聲停止。

▶角度模式 (角度系列) 下 LED 燈兩顆分別為綠色、紅色，假設當設定的角度值為 20° 時，使用者開始施力，數值由 0° 開始變化數值到達設定值的 80%，此時綠燈亮起開始閃爍，蜂鳴器開始發生聲音，當施力者角度越接近該設定數值時，綠燈閃爍越快，蜂鳴聲越快，當數值到達設定值 100% 時，綠燈恆亮，蜂鳴聲保持聲響，超過該設定值時 (101%)，紅燈亮起，蜂鳴聲保持聲響，施力者完全停止施力後，LED 燈及蜂鳴聲停止。

5.8 LCD 百分比 % 數顯示

一般顯示為 0%

▶追隨模式下，使用者設定值為 50Nm，開始施力由 0Nm 至 25Nm 時，顯示為 50%，以此類推，放鬆後扭力值遞減，直到完全放鬆，跳回扭力設定畫面。

▶保持模式下，效果同追隨模式，但完全停止施力後，顯示值為最後的扭力值 % 數，最高顯示 100%。

▶角度模式 (角度系列) 下，使用者設定值為 50°，開始施力由 0° 至 25° 時，顯示為 50%，以此類推，完全停止施力後，顯示值為最後的角度值 % 數，最高顯示 100%。

5.9 低電壓顯示

LCD 電池顯示有四個刻度，大於等於 3V 時刻度全滿，小於 2.8V 時刻度剩 3 格，小於 2.6V 時刻度剩下 2 格，小於 2.4V 時剩下一格，小於 2.3V 時任何功能皆停止，LCD 電池閃爍 5 秒後關機。

5.10 重置記憶功能

按住 C 鍵 + ▼ (DOWN) 鍵，五秒後，所有記憶數值將回到出廠預設值。



5.11 背光開關

按下 C 鍵 + ▲ (UP) 鍵，背光 ON/OFF，預設為 ON。



5.12 歸零重置

使用產品前都要按 C 鍵，可確保精準數據。勿在施力狀態下按下 C 鍵，將會產生錯誤的初始值。

5.13 省電裝置

無操作時，2 分鐘後進入省電模式，按 C 鍵喚醒。

5.14 過載警示

開機或歸零時若畫面持續出現 110%，表示施力超過最大標準值 110%，可能會造成本品損壞喪失精準度。

正常



過載



6. 保養及注意事項



注意警語



為了維持良好精度，建議大約每年需重新校正一次。

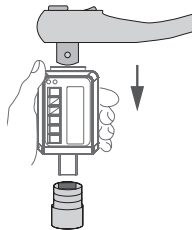
- 6.1 請勿使用有機溶劑清潔本品，如酒精或是油漆稀釋劑。
- 6.2 請勿將本品靠近磁性物體。
- 6.3 請勿重壓 LCD 螢幕。
- 6.4 請勿將本品當作敲擊工具使用。
- 6.5 請勿使用榔頭敲擊本品。
- 6.6 使用超過扭力最大標準值可能會造成本品損壞喪失精準度。(超過最大扭力值 110%)
- 6.7 請勿在靠近水的地方使用本品。
- 6.8 若不慎弄溼，請立即用乾布擦拭乾淨。
- 6.9 請勿將本品放置在高溫、高濕或是太陽直射之處。
- 6.10 請勿將本品暴露充滿灰塵或風沙的環境下，如此可能造成裝置嚴重損壞。
- 6.11 請勿將本品劇烈搖晃或將扳手重摔落地上。
- 6.12 如果長時間不使用本品時，請將電池取出。
- 6.13 請將使用完之電池丟棄在指定回收處。請勿將電池至入火中。

- 6.14 使用本品前請詳閱操作手冊並依照手冊流程進行操作。
- 6.15 關機狀態下禁止使用。
- 6.16 請勿將手把外加延長桿使用。例如：鐵管或塑料管。
- 6.17 在施加扭力時，請勿按任何按鍵。
- 6.18 請勿在通電的物品上使用本品。

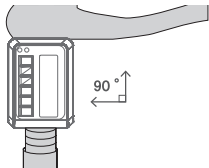
※ 使用方法

■ 數位扭力顯示器

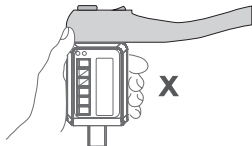
- 請使用正確尺寸之扳手及套筒，並分別垂直套入扭力顯示器兩端，各工件須保持互相垂直的狀態，以確保精度之準確。



• 操作時，請將組合好之工件垂直置於受測物上，方可水平操作扳手測試扭力，數值將顯示於扭力顯示器上。



• 各工件如未保持互相垂直的狀態，且未置於受測物上，切勿直接扭轉各工件，以免造成扭力顯示器之損壞。



P.S: 完成開機程序前 (請參照 5.1 說明)，請勿施力於扭力顯示器。

■ 電池使用相關訊息

1. 若長時間不使用本品，請將電池取下。
2. 若使用於長途旅程或是位於寒冷地區，請多準備備用電池。
3. 請勿將新與舊的電池混合使用。
4. 汗水、油污都會使電池加速老化，為避免此情形發生，請於裝入電池前將電池擦拭乾淨。
5. 請依照當法規回收舊電池，請勿將電池丟入火中。
6. 本品可使用一般碳鋅電池及鹼性電池。
7. 若螢幕畫面無法顯示，請檢查電池是否沒電，必要時請加以更換。

※ 保固說明

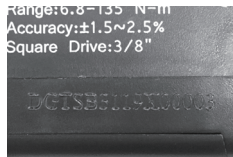
■ 產品保固期限標準

本公司產品透過更完善的保固要求來達到延長產品使用壽命的目的，進而提升消費者使用意願，並提供一年電子零件有限保固與維修服務。

■保固標籤及序號辨識說明

請洽代理商或當地經銷商。

序號標示 →



■保固範圍

於保固期間內，產品因材料或製造上確有瑕疵，致影響產品功能，本公司將以負責維修或以同型號之良品更換之。

■保固除外條款

雖然仍然在保固期限內，若屬於下列任一情況者，則產品不在保固範圍內，消費者須負擔全部維修費用或材料費，收費標準依其代理商或當地經銷商其所指定之維修服務據點規定。

1. 無法證明產品之保固期限或超過產品之保固期限。
2. 產品序號載明不相符者。產品序號不清楚，或被更改、撕毀者。
3. 因消費者未按使用手冊或說明書規定，使用不當而毀損者，產品之毀損係受不可抗力(天災、水災、火災、地震、雷擊、颱風、蟲害等)，人為破壞(刮傷、摔傷、卡榫斷裂、敲打、破裂、重擊等)，人為疏失(遺失、液體入侵、未妥善保管等)或其他非正常因素所致者。
4. 因正常使用時，所造成產品外殼或不需拆解而可接觸部分上之刮傷、磨損。
5. 客戶擅自或使第三人安裝、添附、擴充、修改、修復非本公司授權或認可之零件所致之毀壞。
6. 新品不良換貨服務範圍：
 - 無法正常開啟電源時
 - 按鍵無法操作調整時
 - 無法正常顯示畫面時

■ 控制功能無效時

不符合上述新品換貨原則者，則以維修方式處理。

7. 更換零件時，本公司提供規格相同或更佳之良品；若非雙方另有書面約定，維修更換後之不良零件歸本公司所有。
8. 外觀、外殼及裝飾性的零組件機構受損不包括在本有效保證條款內，將無法提供免費維修服務。
9. 非本公司授權之經銷管道所買之產品。
10. 消費者自行運送過程中所導致之損害。
11. 因機器外之其他產品（設備）所引起之故障。通知個別消費者。

■ 其他建議事項

請確認您的產品規格及配件。

■ 權利保留

本公司保留變更條款內容之權利，日後本條款如有任何變更，本公司將公告之，不另通知個別消費者。

Dear customer,

We appreciate your support purchasing our product – digital torque adapter. In order to learn the advantages of the product well, please kindly read the instruction carefully before you adjusting to any settings. Also please keep this manual for your reference in the future.

1. Product Overview

As a result of torque measurement and calibration requires strict certification, torque instruments must possess good temperature, precision, and resolution capabilities, and must also have the ability to correct for disturbances (ESD and EMI). And while the characteristics of peripheral components must meet specification requirements, measurement chip specifications must also meet requirements. Because of this, the simplification of peripheral passive elements can enable an instrument to accurately measure torque values, which will not only save cost, but also improve maintenance and assembly quality, and lessen the chance of damage to the used objects.

2. Product Features

Simple multifunctional operation, vibration resistance, can preset torque value, unit switching, mode switching, memory & storage, digital up & down increments, power-saving mode, LED flashing & audible alarm, etc...

2.1 Digital torque, angle degree and default value display.

2.2 LCD backlight display.

2.3 Can be used in both clockwise and counterclockwise directions.

Accuracy: CW \pm 2% (clockwise) CCW \pm 3% (counterclockwise)

Angle accuracy: \pm 2° (Angle series)

2.4 Can store 30 memory default values.

2.5 Power saving mode (enters power-saving mode after 2 minutes).

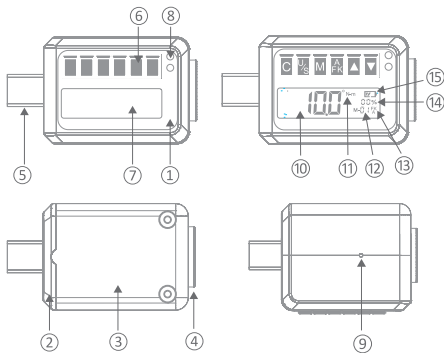
2.6 Have buzzer and LED backlight indicators.

2.7 Low voltage detector (reminds user of battery life).

2.8 Unit : Nm/kgf.cm/lbf.in/lbf.ft

Function and Name for Each Parts

- ① Upper Cover
- ② Down Cover
- ③ Battery cover
- ④ Extension bar square hole
- ⑤ Extension bar square head
- ⑥ Function Button
- ⑦ LCD display monitor
- ⑧ LED indicators.
- ⑨ Buzzer
- ⑩ Torque value display
- ⑪ Unit display
- ⑫ Memory group display
- ⑬ F/K/A(Track/Peak/Angle)
(A mode - Angle series only)
- ⑭ Percentage display
- ⑮ Battery life display



3. Technical Specifications

Model Type	General Series	Angle Series
Torque Accuracy*1	CW : $\pm 1.5\%$	CCW : $\pm 2.5\%$
Angle Accuracy*2		$\pm 2^\circ$
Max. angle measure		720°
LED Indicator	2 LED(1 Green + 1 Red)	
Operation Modes	Track(F) / Peak hold(K) / Angle(A)	
Unit	Nm \ kgf.cm \ lbf.in \ lbf.ft	
Battery life (Continuous operation)	48 hrs.	
Battery life (Standby Mode)	1 year	
Humidity	Up to 90% non-condensing	

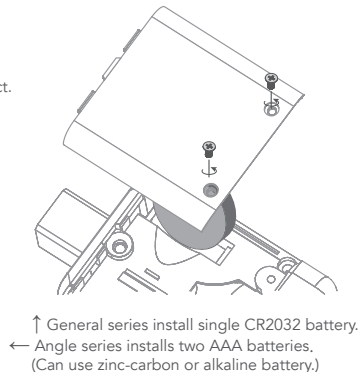
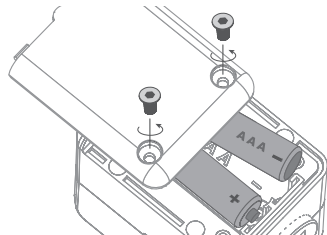
Memory Capacity	30 Sets
Operating Temperature	$-10^\circ\text{C} \sim 60^\circ\text{C}$
Storage Temperature	$-20^\circ\text{C} \sim 70^\circ\text{C}$
Drop Test	1m
Vibration Test	10 G
Life Test	10000 cycle
Environmental test	Pass
EMC Test	Pass

※ *1 Torque Accuracy: According to ISO6789:2003, a specified measuring range from 20% to 100% of the maximum torque value of the respective tool. ※ *2 Angle Accuracy: 1° for 90° rotation at $45^\circ/\text{sec}$.

4. Precautions before Use

4.1 Battery Installation

- 4.1.1 Open battery cover.
- 4.1.2 Insert battery, make sure polarity is correct.
- 4.1.3 Replace the battery cover.



4.2 Low Voltage Notification

If the system detects a voltage level of less than 2.3V, a battery icon will appear at the upper right corner of the screen, and the system will shut down a few seconds later.



5. Product Functions

The function panel have 6 buttons, the function is as follow:



Button	Function
C	Power & Reset
U/S	Unit Selection
M	Memory Selection
F/K/A	Mode Switch A-Mode (Angle series)
▲	Number Increasing (UP)
▼	Number Decreasing(DOWN)

5.1 Power and Reset

Power ON Press the C button to turn on the wrench. Next, the backlight comes up, and all the text on the LCD flashes. After displaying 0000 from left to right, the wrench enters into operation mode.

► Angle series

The adapter horizontally set, press the C key to boot, backlit LCD text full flash, from left to right shows 0000, the adapter automatically detects whether there is to stand still, if such as not standing, LCD from left to right continuous display 0000, until the adapter is completely static, the four 0 at the same time display three times, enter the operating mode.

When this product is used for the first time, it will display the product's maximum operating value after entering the operating mode. The units are preset as N-m, the memory will display the first set, the mode will be tracking mode T, and the battery scale will show the voltage detected at that time (all 30 memory data sets will have the same preset value).

Turn Off : Press C key and hold 3 seconds to switch off.

Clear : Press C key to reset (when device turned on).

5.2 Unit Switching

This product provides international standard metric units of Nm, metric units of Kgf.cm, and British units of lbf.in and lbf.ft. The units will change each time the U/S key is pressed, in the order of Nm, Kgf.cm, lbf.in, and lbf.ft; the preset units are Nm.

► Torque unit conversion table

	lb-in	lb-ft	Nm	Kg.cm
1 lb-in	1	0.083	0.113	1.152
1 lb-ft	12	1	1.356	13.83
1 Nm	8.851	0.737	1	10.2
1 kg.cm	0.868	0.072	0.098	1

5.3 Memory Function

All memory data sets are preset as the maximum value. To set a memory value, press the M key, and the digit on the far right of the M-01 display will begin to flash; use ▲ (up) or ▼ (down) to select the memory data set (up and down keys can be held down for continuous increase or decrease). Press the M key after selected, will stop flash and leave the function.

5.4 (F) Mode/ (K) Mode/(A) Mode (Angle Series)

► (F) Mode: (preset as tracking mode at time of first use)

After setting a value (assuming the value is 50Nm), the force applied by the wrench will gradually increase from 0000. When force is applied, the displayed value will change as the user applies different amounts of force; the reading will increase as force increases, and decrease as force decreases. The reading will jump to 50Nm when the user relaxes his grip and lets up.

► (K) Mode:

After the value is selected (assuming 50Nm is selected), when the wrench is applied with force, the value increases from 0000 upwards. When the force is applied by the force, the displayed value will change according to the force of the applying force, and after the force is completely stopped, the value is displayed. For the final torque value, flashes for 10 seconds. After 10 seconds, continue to apply the torque value will automatically accumulate (at this time, any action and button are invalid). After 10 seconds, no force will continue to return to the selected value, or press C can be returned to the selected value.

► (A) Mode (Angle series):

After setting a degree (assuming is 50°), the force applied by the wrench will gradually increase from 0°. When the force is exerted, the displayed value will change according to the angle of the

force applied, and the force will stop completely. The display value is the final angle value and torque value. The angle value and torque value are interactively displayed. Flashing for 10 seconds. Continue to force the angle value within 10 seconds will automatically accumulate (in this case, any action and buttons are invalid). After 10 seconds, no continue to force automatically return to the selected value, if not press C key to clear, then the next time the force is applied, the angle value will continue to accumulate from the previous value, until over the selected value will automatically clears the accumulated value, switch mode and shutdown it also clears the angle accumulated value.

5.5 Measurement Range Selection

Values can be freely selected as long as force is not being measured or memory selection has not been performed. After completing torque measurement in either mode, the selected value can be displayed.

5.6 ▲ (UP) / ▼ (DOWN) Selection

Pressing the ▲ (up) key once will cause the value on the far right to increase by one; pressing the key continuously will cause the value to increase continuously. Pressing the ▼ (down) key once will cause the value on the far right to decrease by one.

5.7 LCD Backlights Warning & Buzzers

(There will be a beep each time a key is pressed.)

► In Track mode, the two LED light will function as green and red. Assume that the torque value is set at 20Nm. When the user starts applying force to the wrench, the value changes from 0000. When the force reaches 80% of the set value, the green light starts to flash, and the buzzer starts to sound. When the torque value approaches the set value, the green light flashes faster and the buzzer sounds faster. When the force reaches 100% of the set value, the green light comes up permanently, and the buzzer sounds continuously. When the force exceeded the set value(101%), the red light comes up, and the buzzer continues to sound. The value decreases when the force applied to the wrench is decreased.

► The Peak Mode is similar to the Track mode. However, in Peak Mode, the LED light and the buzzer stops after force applied to the wrench is completely removed.

► In Angle mode (Angle series), the two LED light will function as green and red. Assume that the set angle value is 20°. When the user starts applying force to the wrench, the value changes from 0°. When the force reaches 80% of the set value, the green LED starts to flash, and the buzzer starts to sound. When the angle value approaches the set value, the green LED flashes faster and the buzzer sounds faster.

When the force reaches 100% of the set value, the green LED light up permanently, and the buzzer sounds continuously. When the force exceeded the set value(101%), the red LED light up, and the buzzer continues to sound. When force applied stop, the LED lights and the buzzer stop.

5.8 LCD Percentage Display

The display generally shows 0%.

► In Track mode, assume that the user's set value is 50Nm. When force applied as the torque value increase from 0Nm to 25Nm, the screen shows 50%, and so on. When force decreased, the torque value decreases. When force applied is stopped, the display will return to the torque setting screen.

► The effects in Peak Mode are similar to what in the Track mode. However, after force applied is stopped, the display shows the percentage of the last torque value, with the highest percentage being 100%.

► In Angle mode (Angle series), assume that the user's set value is 50°. When force is applied such that the angle value increases from 0° to 25°, the screen shows 50%, and so on. After force applied is stopped, the display shows the percentage of the last angle value, with the highest percentage being 100%.

5.9 Low Voltage Display

The LCD battery display has four increments. Greater or equal to 3V is shown as completely charged; less than 2.8V is shown as 3 increments, less than 2.6V is shown as 2 increments, and less than 2.4V is shown as one increment; when there is less than 2.3V, all functions will cease, and the instrument will turn off after the LCD battery indicator flashes for 5 sec.

5.10 Reset Memory Function

Press and hold the C key + ▼ (down) key; after 5 sec., all values stored in memory reset to the preset factory values.



5.11 Backlight Switch

Press the C key + ▲ (up) key to turn the backlight on or off; the backlight is preset as on.



5.12 Reset

In order to make accurate data, press C key each time before using the device. Force state is prohibited to press C key to avoid get the error initial value.

5.13 Power Saving Mode

Enter power-saving mode after 2 minutes without using the device, press C key to wake up.

5.14 Overload Warning

Switch on or reset when screen continued to appear 110%, it means the device have been forced exceeds the maximum standard torque value 110%, may result in the products' damage or accuracy error.

Normal



Overload



6. Maintenance and Precautions



NOTE THE WARNINGS



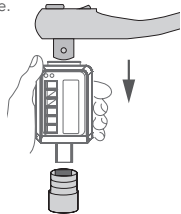
In order to maintain good accuracy, we recommend that you perform calibration around once each year.

- 6.1 Do not utilize any organic solvents to clean the product, such as: alcohol or paint thinner etc.
- 6.2 Do not place the product nearby any magnetic products.
- 6.3 Do not exert heavy force or pressure on the LCD screen.
- 6.4 Do not use the products as striking tools.
- 6.5 Do not hit the products by using hammer or other tools.
- 6.6 Exceeding the largest standard torque value may result in the products' damage or accuracy error(110%).
- 6.7 Do not use near or place in water.
- 6.8 Please wipe the product clean with a dry cloth, if the product is wet.
- 6.9 Do not place the product in the high temperature and damp environment or do not expose the product to sunlight.

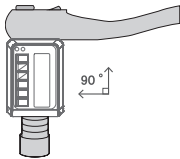
- 6.10 Do not place the product in the full dust or sand environment.
- 6.11 Do not violently shake or drop the product.
- 6.12 Please take out the batteries if the product is not used a long period of time.
- 6.13 Do not throw the batteries into fire, and the batteries have to be recycled.
- 6.14 Please read carefully the operating manual, and then follow the guides of the manual, before using the digital torque adapter.
- 6.15 Shutdown state is prohibited to use.
- 6.16 Do not use the additional tools to extend the length of the handle, such as: iron or plastic pipe.
- 6.17 Do not touch any button when torque is exerted.
- 6.18 Do not use this product on set up an electric items.

※ Method of Use ■ Digital Torque Adapter

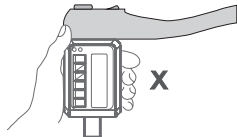
• Please use the correct size of wrench and socket to fit into the both ends of the digital torque adapter, and keep the wrench, digital torque adapter and socket at a mutually vertical state.



• Before using the products, please confirm the wrench, digital torque adapter and socket which is a mutually vertical state, and then you can use the wrench. Next, the torque value will display at digital torque adapter.



• If the wrench, digital torque adapter and socket are not connected or not kept at a mutually vertical state, please do not use the wrench, the situation will cause the digital torque adapter's damage.



P.S: Before completion of the boot process (see section 5.1), do not force in the torque wrench.

■ Warning Note For Using Batteries

1. Please take out the batteries, if the product is not used a long period of time.
2. Please prepare the more backup batteries, when the product is used in other places without electric power.
3. Do not mix old and new batteries.
4. Do not use the soiled batteries with perspiration and greasiness.
5. Do not throw the batteries at fire, and the batteries have to be recovered.
6. The zinc-carbon or alkaline batteries can be used in our products.
7. If the LCD screen cannot display, please check whether the batteries are without electricity, or replace them.

※ Warranty

■ The Standard of Product Warranty

We provide the complete warranty for increasing the product quality and life, as well as provide one year limited warranty with the maintenance of products.

■ Warranty Serial Number

Please consult with the agent or the dealer in local.

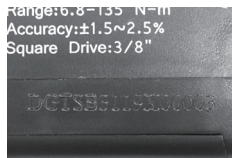
■ Product Warranty Limits

During the warranty period, if the product's material or manufacturing process appears any deficiency, it affects the product function (include: Non-human factors or non-resistant external damage). We will provide the maintenance services with free or replace the qualified product (the same specification).

■ Exclusions From Warranty

If the product belongs to any of the non-normal conditions following, the product warranty will be terminated. These non-normal conditions will require that customers must pay cost in repairing or materials expenses which are formulated by the agent or the dealer in local. These non-normal conditions are displayed as below:

1. The purchased product is not from the indicated authorized distribution channels, and it cannot give the warranty proof.
2. The product serial number is changed, tore and unclear.



↑Serial Number inprinted

3. The customer does not comply with the user guides, it causes improper use to damage the product. In addition, any damage caused by natural disaster (such as: floods disaster, fires disaster, earthquakes, lightning stroke, typhoons, insect damage), human factors (surface scratching, falling, knocking, thumping and liquid infiltrating) and etc.
4. The surface scratching and abrading of any parts of products is regarded as non-warranty in normal use.
5. The faults of the product are caused by the installed, modified and added with other components without our authorization, or from the abnormality of other equipment.
6. The acceptable product exchange conditions include: "the product cannot be turned on the power", "the buttons cannot be operated", "the LCD is unable to display" and "the function of the product is unavailable". Other situations will be served as maintenance services.
7. We will provide the same specification or better products to maintain customers' products, and the defective components which are changed will belong to our company unless customers have to establish a contract for retaining these.
8. The product warranty limit excludes damages of the products' appearance and cover.
9. The product warranty limit excludes the products without the authorized distribution channels.
10. The product warranty limit excludes damages of the product transport.
11. The product warranty limit excludes the product faults caused by the abnormality of other equipment.

■ Other Suggestions

Please confirm your product specifications and accessories.

■ Reserved Rights

We will reserve the rights to changing the content of terms, we will post new terms if it has any changes, but we do not inform individual customers.