



ASG Mini Digital Torque Wrenches and Screwdrivers Operation Manual

Overview

Thank you for choosing an ASG product. We know you had a choice of electric screwdrivers and we are pleased you chose ASG. Please read these instructions and make sure your operators understand how to operate this product properly. Should your tool need to be returned for service in or out of warranty, please contact us at: asginfo@asg-jergens.com or 888-486-6163.

Standard Equipment

The mini digital torque wrenches and screwdrivers are supplied with:

- 1, AAA battery
- Part #728085, Blow molded plastic case,
- Part #728086, USB Communication cable*
- Part #728088, 1/4" hex 5mm insert bit (screwdrivers only)
- Part #728087, 1/4" hex #0 x 65 mm Phillips bit (screwdrivers only)
- Software can be downloaded on the product page at www.asg-jergens.com or www.asg-express.com
- **NOTE:** Uploader software not compatible with and USB cable not included with earlier #65110 and #65111 SP series and #65112 and #65113 DP2 series tools.

Table of Contents

Tool Features Overview	1
Identification of Parts	2
Specifications	2
Installing the Battery	3
Display and Button Features	3
Setting the Target Torque	4
Setting the Torque Units	5
Setting Peak/Track Mode	5
Setting Memory Presets	6
Operating In Peak Mode	6
Store Readings in Memory	6
Operating in Track Mode	7

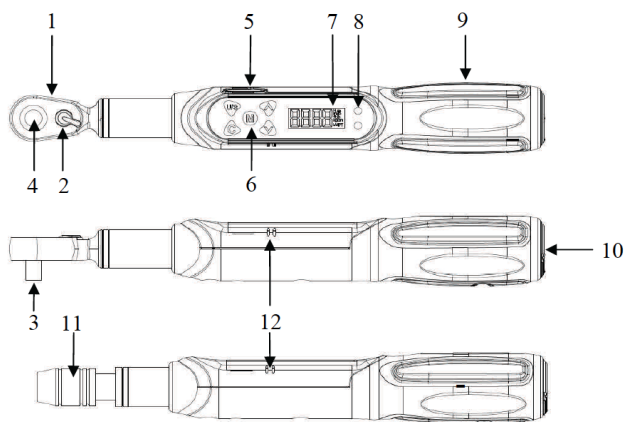
Manage Stored Data in the Wrench	7
View Stored Readings in the Wrench	7
Clear the Memory in the Wrench	7
Manage Stored Data in the Screwdriver	8
View Stored Readings in the Screwdriver	8
Clear the Memory in the Screwdriver	8
Download Data to PC	8

Tool Features Overview

The ASG Mini Digital torque tools are compact light weight electronic torque tools with many standard features. The tools feature an audible alarm to alert the operator when they are close to the desired torque and when the desired torque is reached or exceeded. The tools can be operated in either peak or track mode. The tools can be set up to 9 preset torques allowing the tools to be easily switched from one assembly to another without complicated programming. The tools can store up to 250 torque readings in their memory. These readings can be downloaded to a PC using the included software and USB cable supplied with each tool*. The tools will power off after being idle for about 5 minutes to save battery power (except when the tool is in communication mode).

Identification of Parts

All Parts are common to the wrench or screwdriver except where noted.



Number	Description
1	Reversible Ratchet Head (Wrench Only)
2	Direction Lever, Forward / Reverse (Wrench Only)
3	1/4" Sq. Drive (Wrench Only)
4	Release Button, Press to release socket (Wrench Only)
5	Communication Port. Used to connect tool to PC to download data
6	Programming Buttons
7	LCD Readout
8	LED Indicators
9	Anti-slip Handle
10	Battery Cover
11	1/4" Hex Magnetized Autolock Bit Holder. Press bit into hex to insert, push collar forward to eject bit. (Screwdriver Only)
12	Warning Buzzer

Specifications

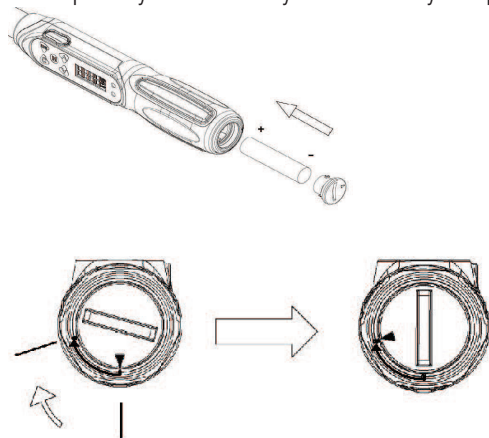
The accuracy of the readout is guaranteed from 20% to 100% of maximum range $\pm 1\%$ increment.

- Data memory size: 250
- Operation Mode: Peak Hold Track
- Head Type (Wrench): 1/4" Square Male
- Gear Teeth (Wrench): 60
- Head Type (Screwdriver): 1/4" Hex Female
- Battery: 1 AAA
- Battery Life (Continuous Operation): 12 hours
- Battery Life (Standby): 1 year

Model Number	ASG Number	Torque Range		Accuracy		Drive Type
		Imperial	Metric	CW	CCW	
ASG-W3	65118	2.65-53.1 lbf.in	0.3-6.0 N.m	$\pm 3\%$	$\pm 4\%$	1/4" Square (M)
ASG-W177	65119	8.8-177 lbf.in	1.0-20.0 N.m	$\pm 3\%$	$\pm 4\%$	1/4" Square (M)
ASG-D4	65115	0.44-4.44 lbf.in	0.5-50 cN.m	$\pm 2.5\%$	$\pm 3.5\%$	1/4" Hex (F)
ASG-D17	65116	0.88-17.7 lbf.in	10.0 -200 cN.m	$\pm 2.5\%$	$\pm 3.5\%$	1/4" Hex (F)
ASG-D35	65117	1.77-35.4 lbf.in	20-400 cN.m	$\pm 2.5\%$	$\pm 3.5\%$	1/4" Hex (F)

Installing the Battery

Remove the battery cap by turning counter clockwise using a coin. Insert one AAA battery matching the +/- polarity of the battery to the battery compartment.

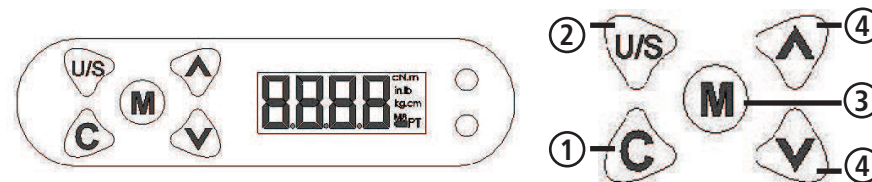


To install the battery cap, with the display facing up, start with the small mark on the battery cap at the 6 o'clock position then turn clockwise to approximately the 8 o'clock position. If a known good battery is installed with the proper polarity and the tool does not operate remove and rotate the cap 180° and reinstall.

CAUTION: Do not over tighten the cap. If the cap is installed in the correct position, and the tool still does not work, check to make sure the metal contact and spring are in place in the cap. The part number for a replacement cap is #728084.



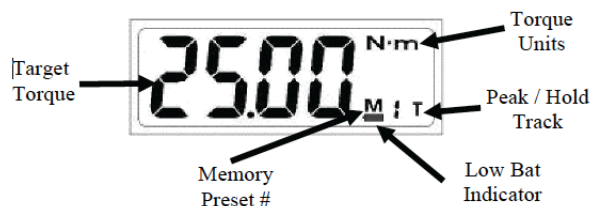
Display and Button Functions



All programming is done with the buttons on the face of the tool.

1. Button #1 is the CLEAR /RESET button. Press "C" to turn the tool on or reset the torque in peak mode. The tool will auto shut off after several minutes of inactivity.*
 2. Button #2 is the UNIT/SET button. Press "U/S" to change the engineering units, enter program mode or advance while in program mode.
 3. Button #3 is the MEMORY button. Press the "M" button to select memory preset or store the reading in peak mode.
 4. Buttons #4 are the UP/DOWN buttons. Press the UP/DOWN buttons to increase or decrease the torque reading seen on the display, or to select a program option.
- The GREEN LED will light up when the applied torque reaches 90% of the TARGET TORQUE. The BUZZER will also beep intermittently. When the applied torque reaches 99.5% of the target torque, the GREEN LED will remain lit and the BUZZER change to a steady tone.
 - The RED LED will light up when the applied torque reaches 99.5% of the target torque.
 - * When [SEnd] is seen on the display auto shut off is canceled.

Display and Button Functions (Cont.)



When the tool is on, the LCD display will show the TARGET TORQUE, the UNITS, the MEMORY PRE-SET# and whether the tool is set to TRACK or PEAK HOLD. When the tool is in use, the display will show the actual torque being applied. In peak mode the display will hold the last torque reading achieved.

The TARGET TORQUE is the torque you wish to apply to the screw. In the example above the target torque is 25.00 Newton meters. The default will be the maximum torque for that particular tool.

The TORQUE UNITS show what scale the tool is currently reading

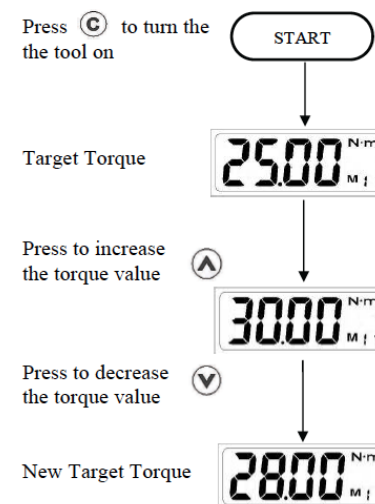
NOTE: Wrenches will display torque in N.m, lb.ft, lbf.in and kgf.cm. while screwdrivers will display torque in cN.m, lbf.in and kgf.cm.

M1 means the tool is showing MEMORY PRESET #1. There are a total of 9 MEMORY PRESETS available. M1~M9

T means the tool is in TRACK MODE. (P would mean the tool is in PEAK MODE)

LOW BATTERY INDICATOR If the battery is low a battery symbol will appear below the M in the memory preset # indicating the battery needs to be replaced.

Setting the Target Torque



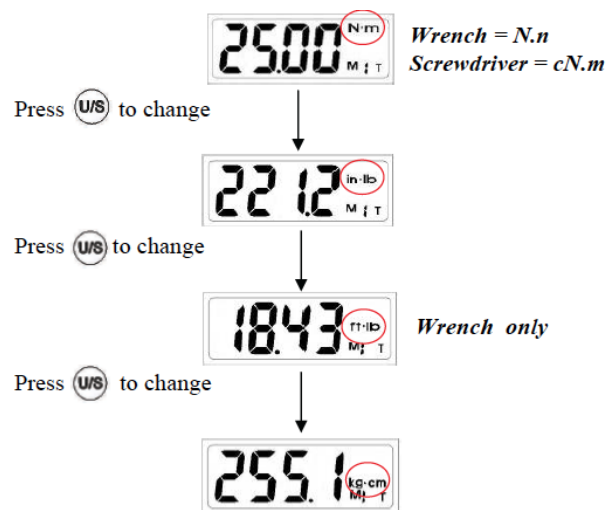
NOTE: The torque value on the display can not be set to less than 10% of the maximum capacity of the tool. When decreasing the torque value below 10% of the maximum capacity of the tool the display will "roll over" to show the maximum capacity of the tool.

When using the tool you can choose to set the target torque to the maximum allowable torque. You will get a warning that the safe limit of the tool is being approached. Or you can set the target torque to alert you that you have achieved the desired torque.



When [Er0] appears on the display it means the tool has been over-torqued and will require repairs.

Setting the Torque Units



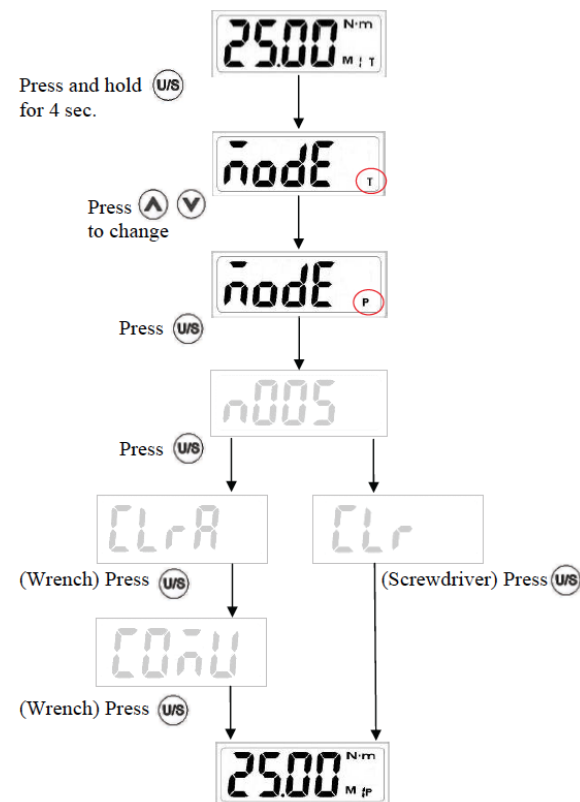
Pressing **U/S** will cycle through the settings in the order shown above. The torque value shown will also be converted to the units selected.

Note: Wrenches show the torque units in N.m, lbf.in, lb.ft and kgf.cm while screwdrivers will show the torque units in cN.m, lbf.in and kgf.cm.

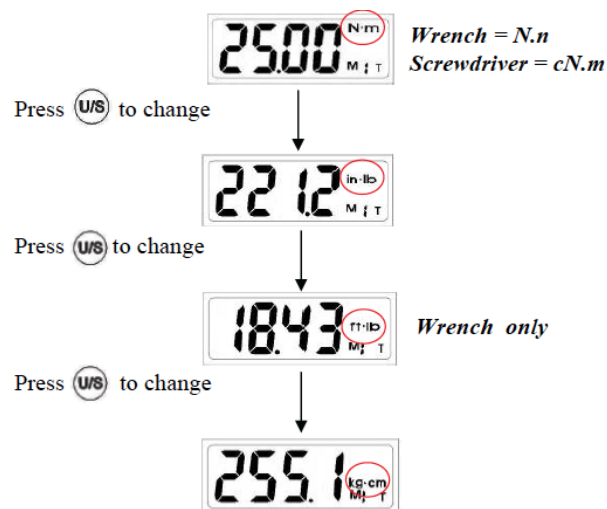
Setting Peak/Track Mode

Note: Wrenches and Screwdrivers have slightly different menus for some functions. In the manual you will see some displays shown as grayed out. In the actual tool menu all displays are the same, the grayed out display means ignore the step as it has no function here and go to the next in the program.

Setting Peak/Track Mode (Cont.)



Setting Memory Preset



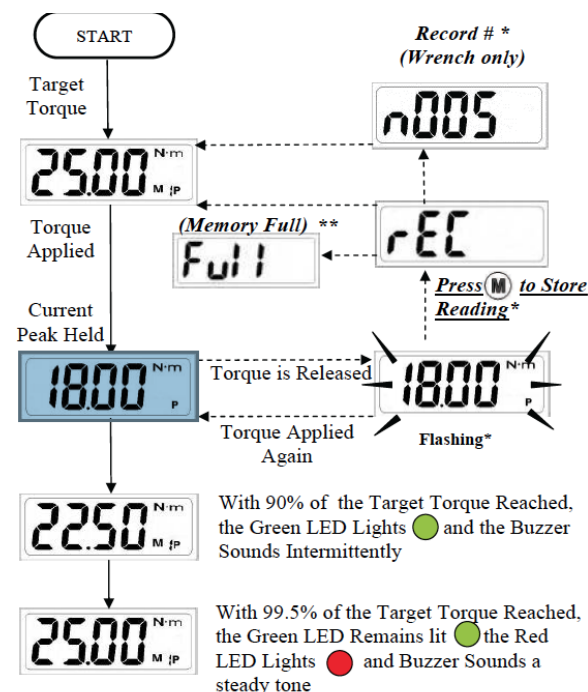
Pressing **M** will cycle through the 9 memory presets in order M1 through M9.

Note: The 9 memory positions can be set to a different torque unit and each can be set to peak or track modes independently of each other.

Operating in Peak Mode

When the tool is operated in peak mode the torque reading on the display will indicate the highest reading achieved and it will remain on the display until torque is once again applied or the "C" button is pressed. Once torque is again applied the reading will be replaced by the new reading. Torque readings may be stored in memory when in Peak Mode - see right column.

Operating in Peak Mode (Cont.)

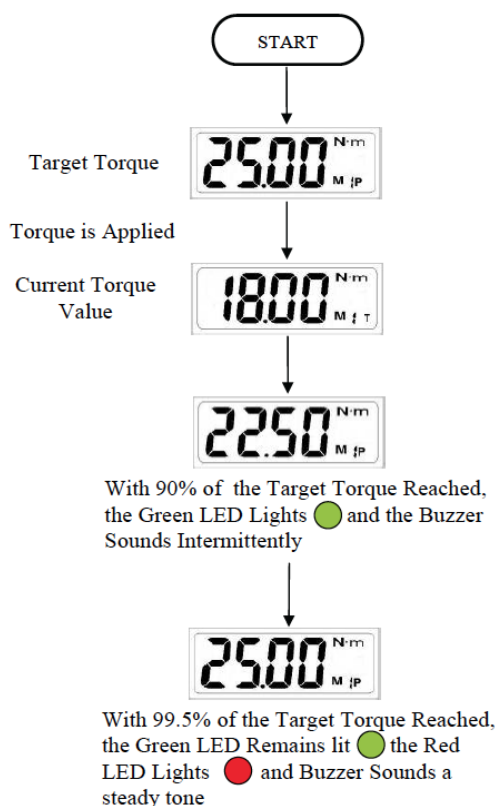


*Seen on Wrench only, the Record Number shows the number of the reading being stored.

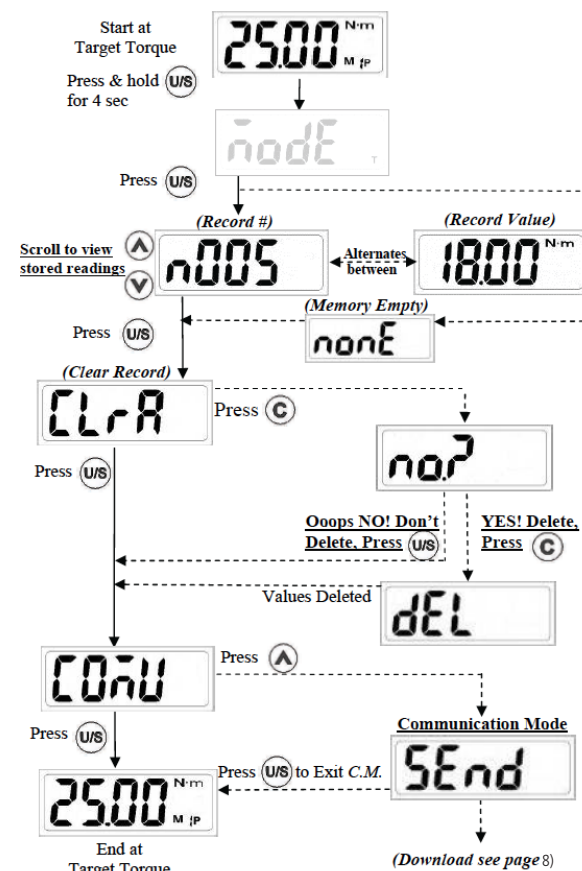
**The memory holds 250 readings. If [Full] is seen, no more readings can be stored until the memory is either cleared or downloaded. See page 7 to manage the wrench memory or page 8 to manage the screwdriver memory.

Operating in Track Mode

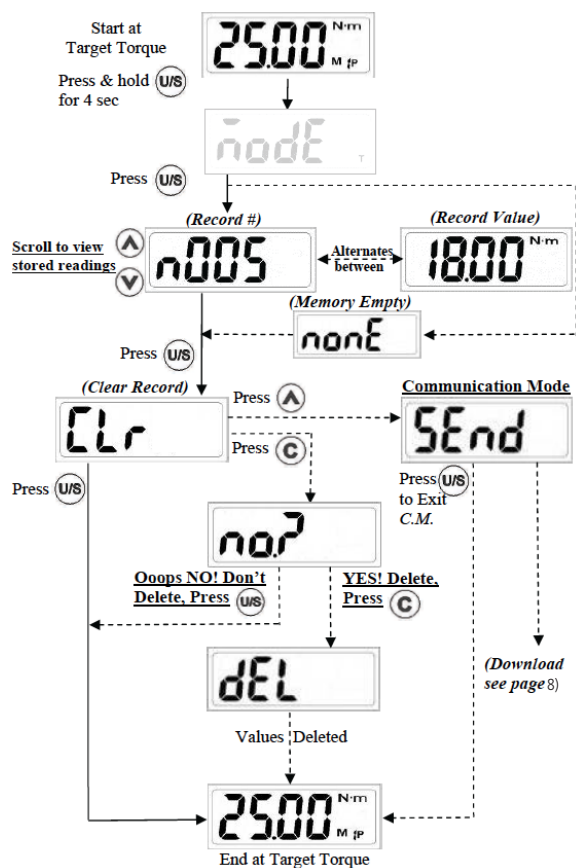
When the tool is operated in Track Mode the torque reading on the display is in real time. As the applied torque increases or decreases the display changes reflecting the actual torque being applied.



Managed Stored Data: Wrench

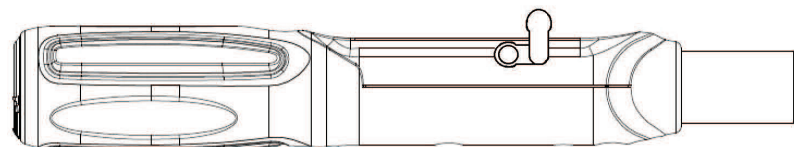


Managed Stored Data: Screwdriver



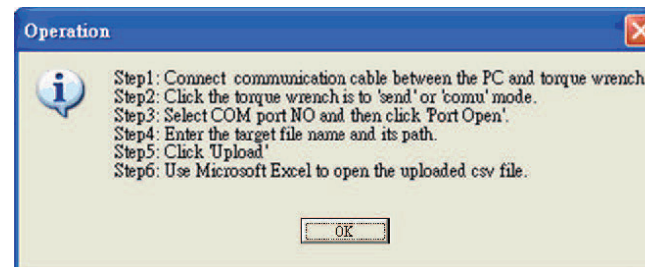
Download Stored Data

Download data to a PC. With the power off connect RCA Plug end of the USB cable to the port on the left side of the tool. The rubber cover can be lifted and rotated to avoid interfering with the plug.



With the power still off, connect the USB end of the cable to your PC. Place the tool in communication mode, see page 7 for instructions for the wrench or page 8 for instructions for the screwdriver. When the tool is in communication mode you will see [SEnd] on the display. NOTE, with [SEnd] showing on the tool the battery saver function is inoperative and the tool will not auto shut down.

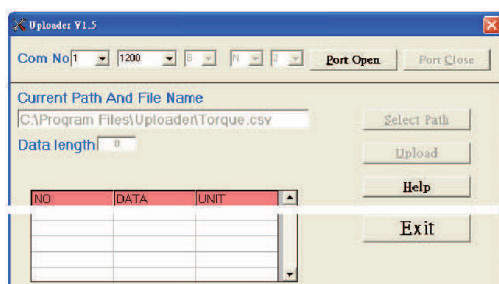
Open the downloader software by clicking on the icon. You will see:



Click OK.

Download Stored Data (Cont.)

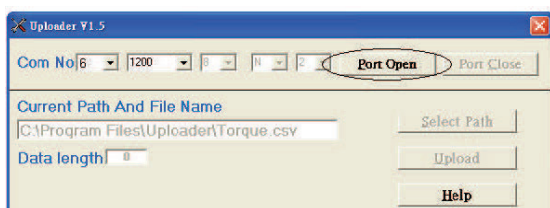
After you click OK, you will see:



Select the Com Port using device manager in your computer. You are looking for the Silicon Labs CP210x USB to UART Bridge. In the example below it is (COM6)

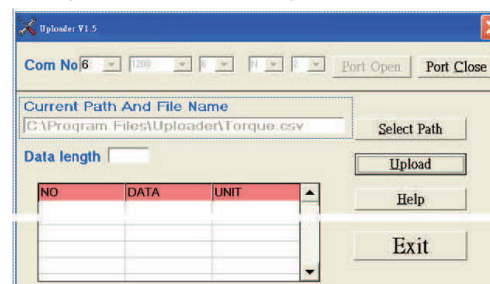


After selecting the COM port, click PORT Open

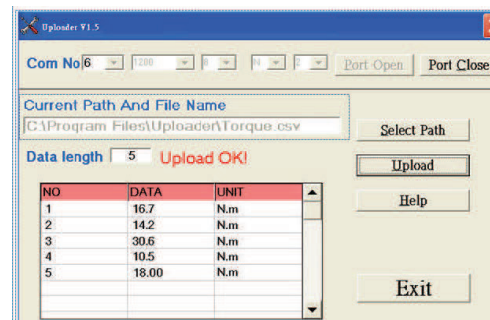


Download Stored Data (Cont.)

After you click PORT OPEN you will see:

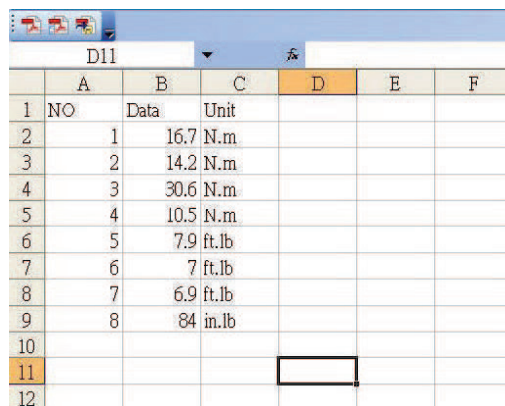


The default path is C:\Program Files\Uploader\Data.csv, to change the path click on SELECT PATH and determine where you want the data stored and what you want the file named. With the Path determined click on UPLOAD to transfer the data to the PC. When the data finishes loading you will see:



Download Stored Data (Cont.)

Go to C:\Program Files\Uploader\Data.csv. to see the saved data.



	A	B	C	D	E	F
1	NO	Data	Unit			
2		1	16.7 N.m			
3		2	14.2 N.m			
4		3	30.6 N.m			
5		4	10.5 N.m			
6		5	7.9 ft.lb			
7		6	7 ft.lb			
8		7	6.9 ft.lb			
9		8	84 in.lb			
10						
11						
12						

The file can now be renamed as desired and then saved like any other Excel worksheet. If the file is not renamed and saved any data will be overwritten the next time data is saved from the tool.

Downloading data does not clear it from the memory. See page 15 to delete data from the wrench and page 16 to delete data from the screwdriver.

The cable supplied with the tool is not a true USB cable. It is a USB to Serial Bridge cable. It requires a software, called a "Driver", to operate properly with your computer. A copy of the driver is included on the CD shipped with your tool. The most current version of the driver is available at:

<http://www.silabs.com/products/mcu/pages/usbtouartbridgevcpcdrivers.aspx>