

# ***Torque Tool Manager 4***

## Installation and Instruction Manual

### ***Sturtevant Richmond***

***Division of Ryeson Corporation***

555 Kimberly Drive

Carol Stream, IL. 60188 USA

1-800-877-1347

857425

# Torque Tool Manager 4

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## **Installation Guide**

This guide is a reference to aid you in the installation of Sturtevant/Richmont's TTM4. For installation, you will need the Torque Tool Manager Setup USB Memory

### ***System Requirements***

In order to run Torque Tool Manager 4 on your computer you must be running Microsoft Windows operating system version 7. The install will take approximately 3MB of disk space on your hard drive. It is also required that you have an available serial port or USB to serial adapter to take full advantage of the serial communications features of TTM4. The System 8 and Torqtronics 2 come with a serial to USB adapter. If you need to purchase a replacement please order Sturtevant Richmont part number 10456. A monitor with a minimum 800x600 resolution is also recommended.

### ***Installation for MS Windows 7***

1. Exit all open applications.
2. Insert the TTM4 setup USB into the USB drive on your PC.
3. Click on the install file. (Note software will install as an administrator).
4. Click on Run...
5. Torque tool Manager Setup Wizard will start.
6. Follow the installation prompts and click Install
7. To Start the program, double click on the TTM4 Icon created by the program at install.

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## **Manual**

### ***Introduction***

TTM4 is designed to enhance the performance of your Digital TorqueTester (DTT) by automatically maintaining a running database of all your torque tools and their calibrated accuracies. It will allow you to print customized calibration certifications for each tool, with custom headers, messages, and identification of the tester, transducer, and operator. TTM4 will also keep track of a tool's last test date and its next scheduled test. It enables a user to control the tester remotely, through the PC, and will tell the user on-screen when a tool has failed a calibration test.

### ***Quick Start***

#### **Station Setup**

To get set up using the DTT via serial connection, follow these steps:

1. Make sure you have the proper serial cable or adapter that is wired for PIN to PIN connection. (DO NOT USE a NULL modem cable)
2. Connect the DTT to your computer's serial port via the cable.
3. Power up the DTT.
4. Start TTM.
5. Connect to the DTT by selecting "Utilities" from the menu bar, and "Check for tester" from this menu.
6. The 'Searching Port for Tester' window will appear and tell you what port it is polling and what type of tester is detected or that 'No Tester' was detected. NOTE: a successful test will report one of the following; "System4", "System5", "System6", "System7" (sold as 'TorqTronics', "System10" sold as 'PTM', System 8, or Torqtronics 2. If you received the 'No Tester' message re-check the cable connection to the torque tester.

#### **Prerequisites to Testing**

##### **Set Up Security – Supervisor Only**

See the 'TTM4 Security' document. The supervisor can create log-ins for authorized operators here. Once this is done all users will need to log in with their initials and a password to have access to the program. The

initials and name of the operator logged-in at test time will appear on Certificates of Calibration.

##### **Add a Cert Header**

Go to 'Files\Cert Headers'. This option will let you custom design a header for Certificates of Calibration (certs). Use the "Insert" button to add the fields that will appear on the printed cert. Use the "Change" button to change an existing header, and "Delete" to remove an entry.

##### **Add a Tester / Transducer**

Go to 'Test Equipment / Testers' to Insert or Add a DTT to your database. If you have more than one tester to be used at this workstation you may add it now. Do the same with all transducers at 'Test Equipment / Transducers'. Before a transducer can be added, the tester to which it is mated will need to be selected. Transducers integrated with 'TorqTronics' testers can be added using the same serial number as the tester itself.

##### **Add a Tool**

There are two ways to add a tool to your database. Using 'Files \Tools – Tests\ Tools Inventory' then Insert, and fill in all fields. Much faster is the next item in the menu, 'New Tool Wizard'. Use of the Wizard will automatically establish the Test Parameters for the PC to communicate with the SR tester. Also, if you are entering an SR tool model number, you will find many fields already completed once you accept the 'Model' field. Note that per ASME testing standards the Wizard will automatically establish the test points at 20%, 60% and 100% of the tool's capacity. You may, for practical purposes wish to change these settings based on your needs. Once you fill in all appropriate values for the tool, click OK and the tool will be added to your inventory. You may then inspect all settings by navigating to the tool inventory and selecting the tool according to its unique serial number.

##### **Finalizing the Preparation for Testing**

Go to 'Local Setup / Test Station Data'. This function is used to tell the program the name of this test station which usually describes the location or a unique identifier for the PC. This is especially useful if you have multiple test stations. For instance you might use 'Tool Crib #1' or

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'Qualibration Lab #9'. This function is also used to begin each test session to identify the tester and transducer being used, the Cert header to use for testing, the transducer shunt value, the default test interval, number of copies of each Cert to print, the mark for temperature ( either Fahrenheit or Celsius ) and on the second Tab labeled 'Adjust Timing', the default AutoClear Time and Delay for the TorqTronics product. These timing settings should not be changed unless advised so by the factory. Complete these selections and you are ready to start testing.

## Running a Test

### 4 Ways to Launch a New Test

1. 'Qwik Test' – presents a field to enter a tool serial. Type in the serial number, or scan a barcode label for the serial number, then hit enter.
2. 'Past Tests' – locate the tool in the table, point to it and click 'New Test'
3. 'Tool Schedule' – locate, point and click 'New Test'.
4. 'Tool Inventory' - locate, point and click 'New Test'.

You are presented with the 'Test Settings' screen which is filled in with data gathered from the Tool Master Record and Test Station files. Fill in the Customer, Order and PO fields if appropriate and click 'Continue Test' or press Enter to advance to the test screen. Alternatively you can change the value of any field on the form which is not greyed out. Also you can click on the tab labeled "Instructions / Cert Comments," and read the comments relevant to the tool. This is also where you add any comments of your own that you wish to appear on the printed cert. If your DTT is connected to the serial port, click on "Continue Test." Otherwise, click on "Manual Cert" to enter test results by typing them in (see Manual Entries).

### Actual Test

1. The testing window will open, and will resemble the front of the DTT. Click on "Set Up Tester." This needs to be done once for each model of tool that is tested during a session.
2. Set the tool for the torque indicated in the "Testing at" field.

3. Click on "CW" under the "As Found" heading. The mouse cursor will change to the busy sign.
4. Now perform the test by torquing the tool on the transducer in the clockwise direction. TTM4 will keep a running count of the tests and values, and will let you know when all trials are completed for "As Found." An asterisk next to a reading indicates failure of the test. If you are not operating in auto mode (as called for in the tool profile), you must click on the "Print / Clear" button after each test. This button will not appear when operating in auto mode.
5. Click on "Next." This will give you the next test value for the tool. Adjust the tool to the value indicated in the "Testing at" field, and repeat steps 4-5 for each test value.
6. Repeat steps 3-5 for "CCW" under "As Found."
7. If the tool passes all trials, add any additional comments by clicking on the "Cert Comment" button. Then click on 'Cert' to print a "Certificate of Calibration" or "Save" to record the test results. You can print the "Cert" later.
8. If the tool fails any of the trials, it must be recalibrated. Click "Save (see below) to save the results and exit.

### During the test

While you are testing a tool, you may take advantage of several features. They are:

**Abandon**, which will allow you to exit a test procedure without saving any information.

**Save**, which will allow you to save a test in progress and exit to the main application. A suspended test can be continued by finding it in 'Past Tests' and clicking 'Resume'.

**Cert**, which will launch a print preview window, from which you may print the cert, save the test info, and exit to the main application.

**Halt** turns off the COM port, allowing you to leave the testing station unattended without worrying about the tester giving erroneous test data.

### Manual Entries

You may also enter certification data manually if you are unable to set up a connection with a DTT or the tool requires other test equipment. Follow the procedure above and then click on "Manual Cert." Enter the test results as though you are moving through a spreadsheet. When finished, click "Print Cert" to print the report (this will launch a print preview) or click "Close" to save the data and exit without printing.

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## **Command Reference**

### Files Menu

### Tools / Tests

#### **Past Tests**

A table of all test results sortable by Model, Customer, Serial# or Manufacturer. Can view test header, details, print cert, launch a new test or resume an incomplete test.

#### **Tool Schedule**

A table of all tools sorted by NextTestDate, LastTestDate, Serial#, Crossref, Model and description. Can deactivate or activate a tool, print a list of active tools in NextTestDate order, review tool test notes, launch a new test or resume an incomplete test.

#### **Tools Inventory**

A table for maintenance of tool master records. Can also launch a new test.

#### **New Tool Wizard**

A quick method to both add a tool master record and establish the appropriate test parameters for communicating with SR testers.

### Test Equipment

#### **Testers**

A table of testers being used. since transducers are mated to testers they may be entered here.

#### **Transducers**

A table of transducers being used with a particular tester.

#### **Cert Headers**

A table of 1 or more text records used to fill-in various fields on a printed Certificate of Calibration.

#### **Manufacturer**

This is where the three-digit code in the MFG column of the Tool and Models files is interpreted. TTM4 will work without this information, but a complete database is suggested for ease in problem solving.

#### **Operators**

This is where all operators' initials are matched with their full names. Both an operator's initials and full name will appear on a printed Certificate of Calibration. These records will be automatically created by the administrator if the security system is being used.

#### **Print Setup**

This allows you to make changes in your default printer settings. If your printer device driver supports multiple copies you can set the number of copies of Certs and other reports to be printed here, or in the 'Setup/Test station Data' area.

#### **Exit**

This item quits the program and returns control to the operating system. Unsaved information and test data will be lost.

### Qwik Test

another way to launch a new test. especially useful for using barcode readers to scan a barcode of a tools' serial number.

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## **Local Setup**

### **Test Station Data**

This area contains information to be printed on the certification certificate. TTM4 can accommodate multiple heading records for different trade names as well as a blank header to print on preprinted letterhead. To change it here, click on the “Change to” field, and select the alternate header. If only the default is available, you must create another (see “Cert Header”). Here, also you will indicate whether TTM4 prints its temperature data in Fahrenheit or Celsius. Note also the “Default Test Interval” field (overridden by tool interval in the master record unless 0). This is where you may change the amount of days in between calibration tests for tools. This field is looked at by TTM4 to calculate the next test date. You can also indicate the number of copies of Certs and reports to be printed. However this is only effective if your printer’s device driver supports multiple copies. And on the ‘Adjust Timings’ tab you can set the tester autoClear time (also over ridden by tool master record setting) or the TorqTronics delay for System7.

## **Reports Menu**

Generating reports about your inventory of tools can be a powerful reference tool. Use these reports to quickly find tool data within your database, and then print it. Each report will launch a print preview.

### **Trace**

This report will search for all tests containing matches to the information you typed, so you can, for example, find all tests on a particular model of tool or all tests performed by a certain operator. Enter only the information you want matched; leave the other fields blank.

### **Manufacturers**

This will give a listing of all the tool manufacturers in your database and their three digit codes.

### **Operators**

This will generate a report of all the operators’ names and initial codes.

### **Export**

Dump test headers and results to dbase3 format files readable by Microsoft Excel and others. Choose to export by serial number or date range. The files created will be found in the TTM program directory and are named ‘THDB.DBF’ for the test header file, and ‘TDDDB.DBF’ for the test details.

## **Security Menu**

### **User Management**

This item addressed separately in the security note for administrators.

### **Change Password**

An operator may change his login password at any time. This should be encouraged.

### **Register License**

Entry to fill in with info from Sturtevant if upgrading from a demo version. See next item.

### **Print Registration Form**

Form to fill in and fax to Sturtevant if you wish to upgrade from a demo license.

## **SetUp Menu**

### **Test Station Data**

This area contains information to be printed on the certification certificate. TTM4 can accommodate multiple heading records for different trade names as well as a blank header to print on preprinted letterhead. To change it

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here, click on the “Change to” field, and select the alternate header. If only the default is available, you must create another (see “Cert Header”). Here, also you will indicate whether TTM4 prints its temperature data in Fahrenheit or Celsius. Note also the “Default Test Interval” field. This is where you may change the amount of days in between calibration tests for tools. This field is looked at by TTM4 to calculate the next test date. You can also indicate the number of copies of Certs and reports to be printed. However this is only effective if your printer’s device driver supports multiple copies.

## **Cert Header**

This option will let you custom design a header for Certificates of Calibration (certs). Use the “Insert” button to add the fields that will appear on the printed cert. Use the “Change” button to change an existing header, and “Delete” to remove an entry.

## **COM Port Settings**

Factory defaults are 4800-baud, No parity, 8 data bits, and 1 stop bit. Do NOT change these settings unless you have also changed the settings on the Digital Torque Tester. Your PC default settings will be overridden when TTM4 accesses a DTT, and will be restored after testing is complete.

## **Utilities Menu**

### **Torque Translator**

Translate any torque value from one Unit of Measure to an equivalent value in another UofM.

### **Test COM Port**

This is a good way to ensure that communication exists between your PC and a DTT. It will produce a message ‘Not Found’ if a DTT is not detected.

## **Terminal**

This opens up communication to the NVRAM within the DTT and allows the user to change the operating modes and units of the DTT. We strongly recommend that you use either the front panel of the DTT or TTM4 do this. This utility is mainly for factory troubleshooting.

## **File Manager**

If your database file becomes corrupt, use this utility to rebuild the search keys within the database by selecting ‘Tag All’ files and clicking ‘Build’.

## **COM Port Settings**

Factory defaults are 4800-baud, No parity, 8 data bits, and 1 stop bit. Do NOT change these settings unless you have also changed the settings on the Digital Torque Tester. Your PC default settings will be overridden when TTM4 accesses a DTT, and will be restored after testing is complete.

## **A quick note about the Edit and Window Menus**

These are standard Windows menus, but are briefly described here for your convenience.

### **Edit**

Copy, Cut, and Paste, will perform exactly those options upon the highlighted text (paste will paste from the current cursor position).

### **Window**

When using multiple windows, these commands will organize your workspace. “Tile” will line them up side by side, “Cascade” will stack them diagonally, and “Arrange Icons” will arrange minimized windows neatly along the bottom of the active area.

## **Help Menu & EzHelp**

At the writing of this manual, there is no help file in place. There is, however, a neat little feature called EzHelp, which will allow you to right-click anything on your screen and bring up an EzHelp box. Clicking on this box will display a help dialog describing the purpose of that item. Windows NT and 95 users will also find that they may drag the ? symbol to

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an item on the screen for help on that item. The F1 key will also access help.

## **The Toolbar**

The toolbar running underneath the pulldown menus is for quickly negotiating the database. The functions are, from left to right:

Go to the first page

Go to the prior page

Go to the prior record

Locate record

Go to the next record

Go to the next page

Go to the last page

Insert a new record

Edit current record

Delete current record

Help

## ***Troubleshooting – Run ‘Check for Tester’***

### **“Error opening port COMx: x”**

Either that port does not exist in your computer, or another Windows program is controlling the COM port. {Is ‘Laplink’ or a handheld sync program running?} Exit the other program.

### **“:E!E” or other such garbage**

This port probably has a modem attached. Change to another port.

### **‘No Tester’ when attempting to detect**

This error occurs when TTM4 cannot detect the DTT. Solutions to this problem include, but are not limited to:

1. Check to see if the tester is on.
2. Make certain you have the proper serial cable and that it is securely fitted to the ports at both ends.
3. Ensure that the cable is connected to the proper COM port.

4. The communications settings in the tester and in TTM4 must be identical. These may be checked in SetUp / COM Port Settings.
5. Another program running on your PC may be utilizing the COM port used by the DTT. If this is the case, you must exit that program.
6. In TTM4 select 'Utilities\Terminal' This will activate the built-in Windows serial communications utility. This file comes preset to access COM1 on your PC with the factory default communications parameters for your tester. From the window area of terminal type in ":E", the keystrokes are "ShiftSemicolon ShiftE", and press 'Enter'. If the connection with the tester is OK you will see a message 'System 4' or 'System 5' or 'System 6' depending on the tester model you have. If you did not see such a message then check that the tester is on and that the cable connection is tight, then retry. The next possibility is to change the COM port setting by exiting Terminal and accessing 'Setup\ComPortSettings'. Change to COM2, etc