

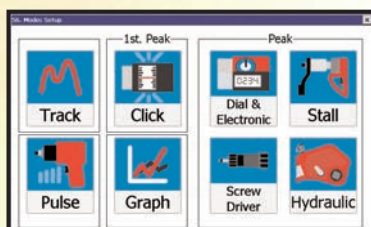
## T-Box XL and TDMS (Torque Data Management System)

The T-Box XL together with Norbar's Torque Data Management System (TDMS) software provides the complete solution for torque tool calibration, data logging and data management and archiving on your PC.

- T-Box XL features a colour 7" (178 mm) touch screen LCD display with graphic on screen icons for simple tool selection. Feature modes include Click Hydraulic, Pulse and Stall tools that enable the most common torque products to be tested by a simple touch of the screen.
- T-Box XL also features a "Pulse Tool Mode" which uses a mathematical algorithm to accurately determine the output torque from Impulse tools.
- T-Box XL comes pre-loaded with Tool Templates for the entire Norbar product range of Torque Wrenches, Pneumotorques and EvoTorques enabling the user to simply assign individual tools to perform calibrations to the relevant ISO standard. Other tool templates can be created by the operator.
- Graphical analysis and display of joint profiles are available using the Graph Mode.
- T-Box XL can connect up to 4 Smart Transducers including transducers with angle capabilities for instant connectivity. Alternatively, non Norbar transducers with a mV/V output can be programmed into the T-Box XL memory.
- T-Box XL has 2 USB ports, one RS232 serial port and an ancillary connection (USB cable supplied as standard).
- T-Box XL can log data at a rate of 5 readings per second or can be set to log torque data at the required angle increment, for example, take a torque reading at every degree.



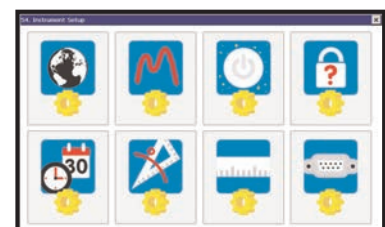
T-Box XL shown with Neck Strap and Mounting Bracket.



T-Box XL mode screen.



T-Box XL Language selection screen.



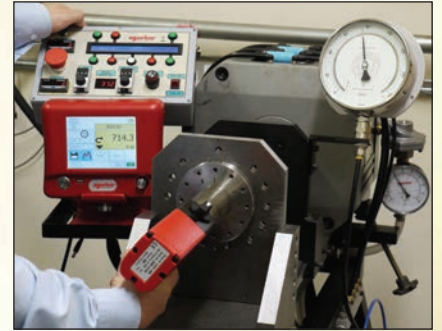
T-Box XL Instrument screen.

## T-Box XL and TDMS

- T-Box XL is supplied with Norbar's new Torque Data Management System software (TDMS) for complete tool data management and archiving on your PC.
- TDMS enables data to be viewed graphically, in an SPC format, or as a Calibration Certificate (available in English, French, German, Italian, Spanish, Russian, Hungarian and Norwegian).
- T-Box XL contains a large capacity memory that will enable a user to collect data and store in excess of 100,000 individual test results directly to the instrument and then synchronise to the TDMS software.

T-Box XL kit includes: -

- T-Box XL instrument complete with UKAS accredited bi-directional calibration certificate
- Carry Case
- Quick Reference Guide
- Mounting foot and bolts
- Neck strap and mounting kit
- Power supply with appropriate local mains supply cable (100 - 240 v)
- USB cable
- USB memory stick pre-loaded with TDMS software
- T-Box XL Operator's Manual
- TDMS Operator's Manual.



## T-Box XL & TDMS

Part No.	Description
43258	T-Box XL Instrument with TDMS Software
61132	TDMS Software (supplied on USB Flash Drive)

## T-Box XL Accessories

Part No.	Description
60216.200	T-Box XL to 10 way lead, for Norbar Rotary Transducers
60217.200	T-Box XL to 6 way lead, for Norbar Static and Annular Transducers
60223.200	T-Box XL to no connector (for non-Norbar Transducers)
60248	Serial Data Lead Kit

## Accuracy:

Input Voltage	Equivalent torque	Accuracy	Calibration uncertainty*
@0.5 mV	5% of capacity	±0.1% of reading	±0.13%
@1.0 mV	10% of capacity	±0.05% of reading	±0.08%
@2.0 to 18.9 mV	20% to 120% of capacity	±0.05% of reading	±0.06%

\*Using a coverage factor of k=2, to give a confidence level of approximately 95%.

Resolution: 5 active digits for all Norbar transducers.  
 Weight (T-Box XL only): 1.9 Kg (4.2 lb).  
 Dimensions: 162 mm high x 205 mm wide x 60 mm deep.



Torque vs Angle graph produced using TDMS software



Torque and Angle vs Time graph produced using TDMS software