



## TCI-2

### Lineside controller for assembly torque wrench management.

The TCI-2 lineside tool controller allows the user to connect and manage up to 5 digital torque wrenches for use in assembly and production applications. All WrenchStar Multi digital torque wrenches can easily be connected to the TCI-2.

Unlike traditional tool controllers, the TCI-2 does not need to be located close to the tools it is managing when connected via Wi-Fi. The TCI-2 also acts as a guaranteed communication point for the end-users MES (Manufacturing Execution System) software.

The TCI-2 can be connected anywhere on a network and if a connected wrench should go offline or out of range, the controller will ensure that the MES will always have an end point to communicate with.

Setting up the wrench with jobs on the TCI-2 is simple. Torque results and readings are communicated back to and stored on the TCI-2, which can then be viewed on a PC or web page browser. The TCI-2 also has a web status page that allows the user to monitor all wrench connections and operations currently underway.

### Key Features

- Controls all WrenchStar Multi and WrenchStar Multi-e digital torque wrenches from Crane
- TCI-2 enables communication with users system or MES
- Communication methods include: Open Protocol, MQTTS, XML and CIFS file transfer
- Commands sent to the network via Ethernet or via selectable Wi-Fi; 5Ghz or 2.4Ghz
- PSK and Enterprise security, encrypted communication and MITM attack prevention
- Can connect to up to 5 wrenches
- Easy Job/Pset configured via a Web Browser
- HTTP content served via an HTTPS encrypted connection

# Ideal for production and component assembly applications, utilising Crane's innovative digital torque wrenches.

- The MES (master system) will always have an end point of communication if a wrench goes offline (e.g. powered off, low battery or out of range).
- If a wrench goes offline, the TCI-2 has access to data such as when it was last online, the battery level, RSSI and the last 10,000 results and 1000 traces recorded for each wrench.
- Real-time IOT dashboard showing the current state of all devices connected and disconnected from the TCI-2.
- The TCI-2 can communicate using MQTT, Open Protocol and many other protocols facilitating Industry 4.0 compliance.



Product Code	Range
TC2XX-0808-CRXXX5	TCI-2 with 12V power supply

## Technical Specification

<b>Operating Temp Range:</b>	+5 to +40°C.
<b>Storage Temp Range:</b>	-20 to +50°C.
<b>Humidity:</b>	10-75% non-condensing.
<b>IP Rating:</b>	IP40 (indoor use only).
<b>Job Storage:</b>	10,000 per tool (FIFO)
<b>Power:</b>	12VDC 3A Power Supply (24V compatible)
<b>Ethernet:</b>	RJ45 Socket
<b>USB:</b>	4 x USB 2.0 Accessory Ports
<b>RF:</b>	2.4GHz RF low power module for torque wrench comms 1MHz non-overlapping channels avoiding Wi-Fi interference
<b>Wi-Fi:</b>	2.4GHz, 5.0GHz IEEE 802.11 b/g/n/ac wireless
<b>Security:</b>	HTTPS, MQTTS, EAP-TLS, Tokenised Access and CA Certs to prevent MITM attacks
<b>Accessory Ports:</b>	Fieldbus module port (enquire for more info)
<b>Dimensions:</b>	246mm (w) x 215mm (h) x 73mm (d)
<b>Weight:</b>	3.4kg (est.)
<b>LEDs:</b>	Power status indicator Activity LED Host (Comms are good, absent or incorrect) Wrench (informs if wrench is paired, in range or has a Job loaded)
<b>I/O:</b>	8 inputs and 8 outputs. 12 / 24V internal voltage supply for external devices (e.g. I/O light stack, button). Switched ground control
<b>Construction:</b>	Steel enclosure

## Curatas Wrench Control

The TCI-2 controller can form part of a stand-alone workstation on an assembly line. The controller connects our WrenchStar Multi digital torque wrenches to our Curatas Wrench Control visual guidance software, allowing users to follow assembly steps on a screen and select the correct wrench for each fastening in the process.

The TCI-2 also communicates the results and data collected by the wrenches and Curatas, back to the manufacturers MES system.



For pricing or further technical info about the TCI-2 please visit [www.crane-electronics.com](http://www.crane-electronics.com) or email us at [sales@crane-electronics.com](mailto:sales@crane-electronics.com).



## Locations

UK - Watling Drive, Hinckley, Leicestershire LE10 3EY, UK  
 USA - 1260 11th Street West, Milan, Illinois 61264, USA  
 Germany - Im Rank 5, 73655 Plüderhausen, Germany

