Crane 1268-02 Tool Controller Interface

Crane 1268-02 Tool Controller Interface Instruction Manual

Contents

Crane 1268-02 Tool Controller Interface

ADDRESS

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UKCA MARKING
Crane Electronics Limited declares that the TCI Multi has been assessed and complies with the UK regulatory requirements.

CE MARKING
Crane Electronics Limited declares that the TCI Multi has been assessed and complies with the requirements of the relevant CE Directives.

COMPLIANCE
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used by the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installations. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

PRODUCT DISPOSAL

Applicable in the EU and other European Countries with separate collection systems

- The symbol shown here and, on the product, means that the product is classed as Electrical or Electronics Equipment and should not be disposed with normal commercial waste at the end of its working life. The Waste of Electrical and
- Electronics Equipment (WEEE) Directive (2012/19/EU) has been put in place to recycle products using the best available recovery and recycling techniques to minimize the impact on the environment, treat any hazardous substances and \ avoid the increasing landfill.
- To enable this product to be disposed of properly i.e., cradle to grave, Crane Electronics is willing to accept the return of your product (at your cost) for recycling or for more detailed information about recycling of this product please contact your local authority or the Distributor / Company where you have purchased the product.
- Battery disposal to take place in line with the AMENDED BATTERIES DIRECTIVE 2013/56/EU. Batteries must not go to landfill. Check with local legislation.
- Crane Electronics declares that this product does not contain any of the 191 Substances of Very High Concern (SVHCs) identified in the REACH Regulation in used articles make-up.

In Countries outside the EU:
If you wish to discard this product, please contact your local authorities and ask for the correct way of disposal.
Signed for & on behalf of Crane Electronics Ltd.

- **Name:** B. M. Etter
- **Title:** Safety & Environmental Advisor
- Signature of Issuer:

ABOUT THIS MANUAL

This manual covers the Tool Control Interface (TCI) working with a WrenchStar Multi (WSM) using RF. Actual screen shots represented in this manual may differ slightly depending on the version. For information on the operation of a WrenchStar Multi please refer to its own manual.

- Actual screen shots or images represented in this manual may differ slightly from those on the actual product, depending on the version.

PACKING LIST

The following items are supplied with the TCI Multi.

- 1 x Tool Control Interface
- 1 x User Manual

- 1 x Quick Start Guide
- 1 x 5V PSU

Please ensure all items are present and notify Crane Electronics Ltd immediately of any shortages.

CARE AND STORAGE

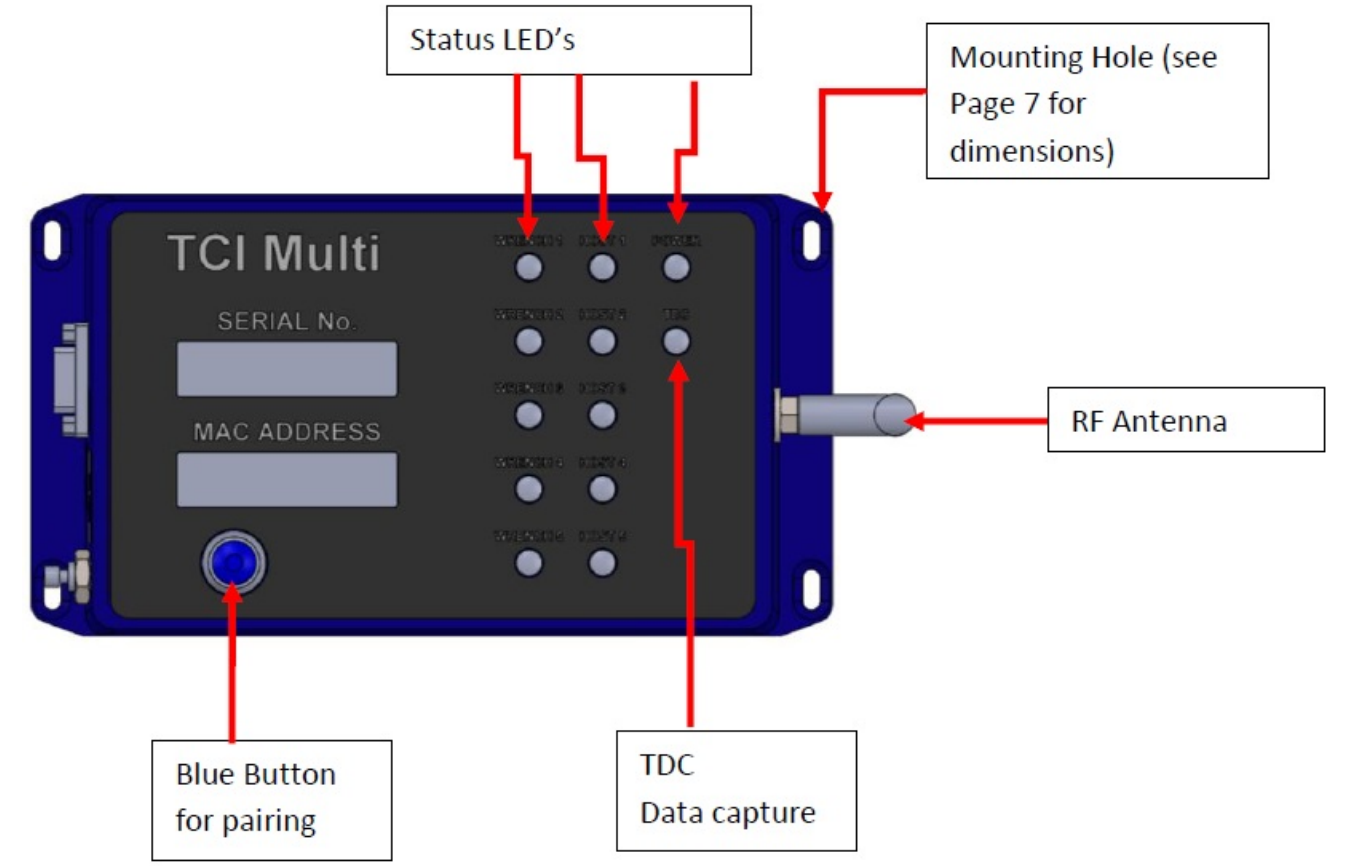
- **Operating temperature range**: -20 to +50 degrees C
- **Storage temperature range**: -20 to +50 degrees C
- **Humidity:** 10-75% non-condensing
- **IP Rating**: IP40 (indoor use only)

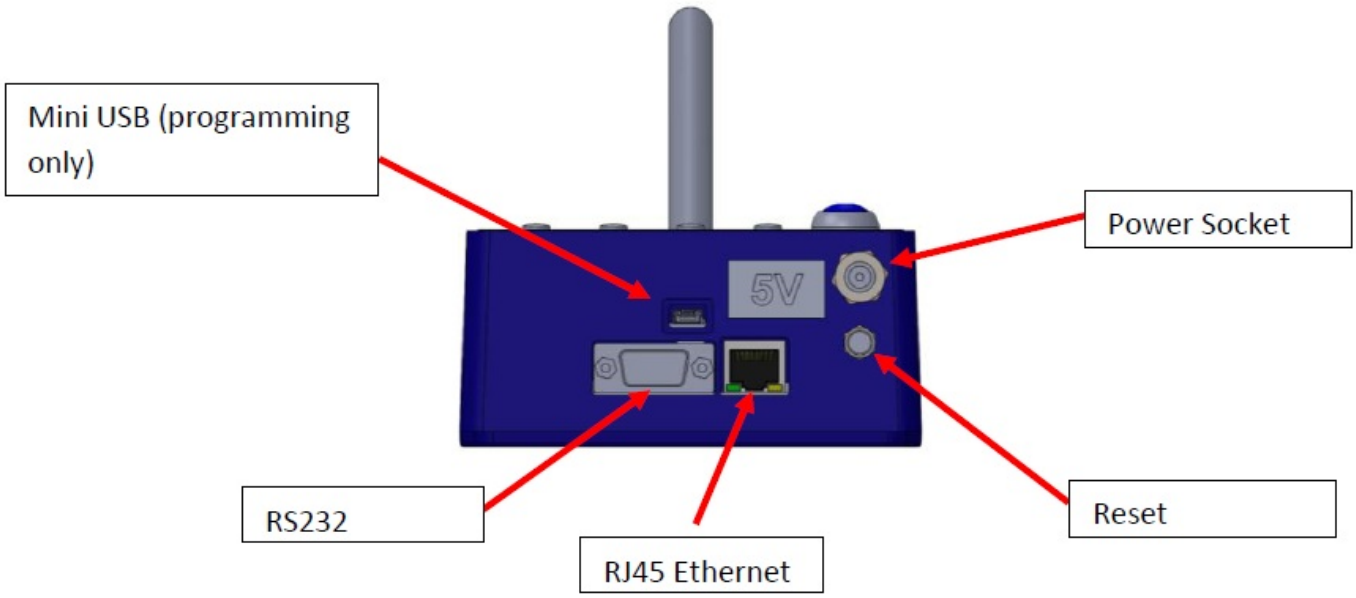
The Tool Control Interface may be wiped clean with a soft cloth.

WARNINGS

- Maintain unit with care. Keep unit clean for better and safer performance.
- Changes or modifications to the Tool Control Interface not expressly approved by Crane Electronics Ltd could void the user's authority to operate the equipment.
- Always operate Tool Control Interface with approved PSU.
- Always operate, inspect, and maintain this unit under all regulations (local, state, federal, and country) that may apply.
- Do not remove any labels.
- Always use Personal Protective Equipment appropriate to the tool used and material worked.
- Keep body stance balanced and firm. Do not overreach when operating with the tool. Anticipate and be alert for sudden changes in motion, reaction torque, or forces during the operation.
- Ensure workpieces are secure. Use clamps or vices to hold work pieces whenever possible. Never use a damaged or malfunctioning tool or accessory with this unit.
- Follow instructions for changing accessories.
- Do not operate this product in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
- This unit contains no user-serviceable parts. Only qualified service personnel should replace or fit parts.

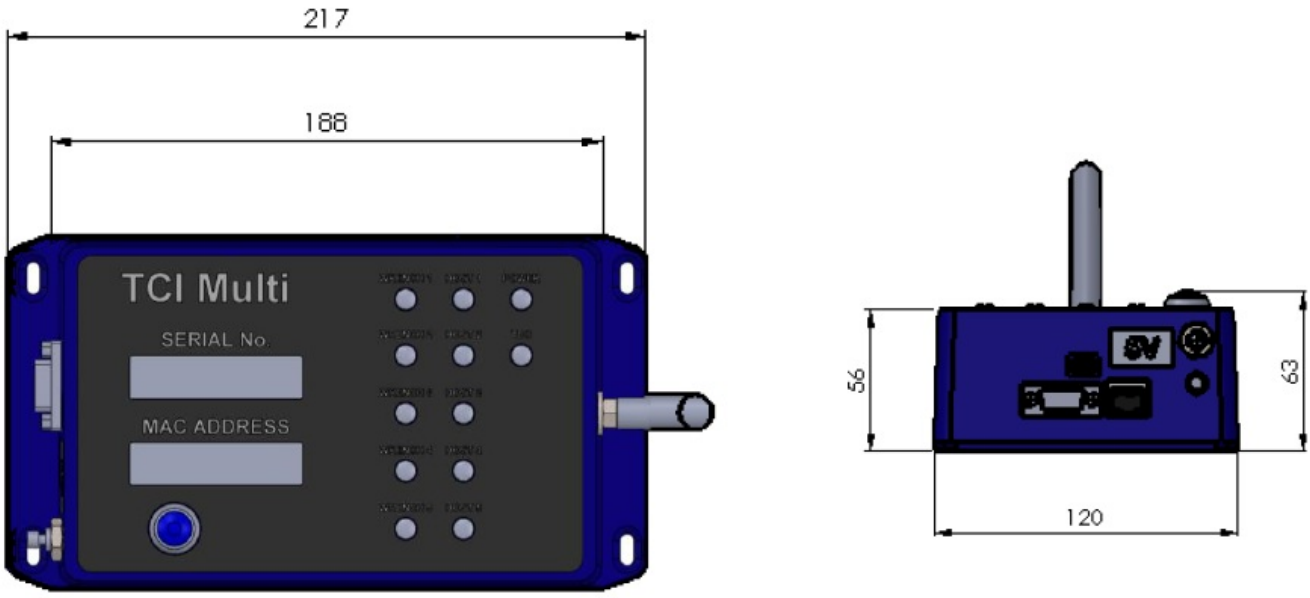
PRODUCT DESCRIPTION



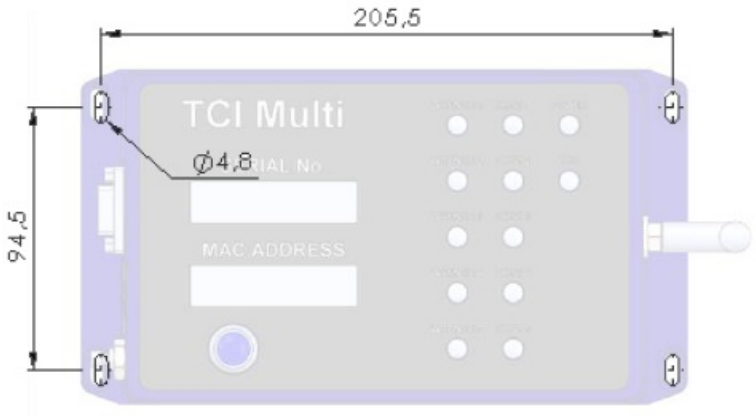


DIMENSIONS

- **Weight:** 760g
- **Construction:** Aluminium housing containing printed circuit boards.



Mounting Details



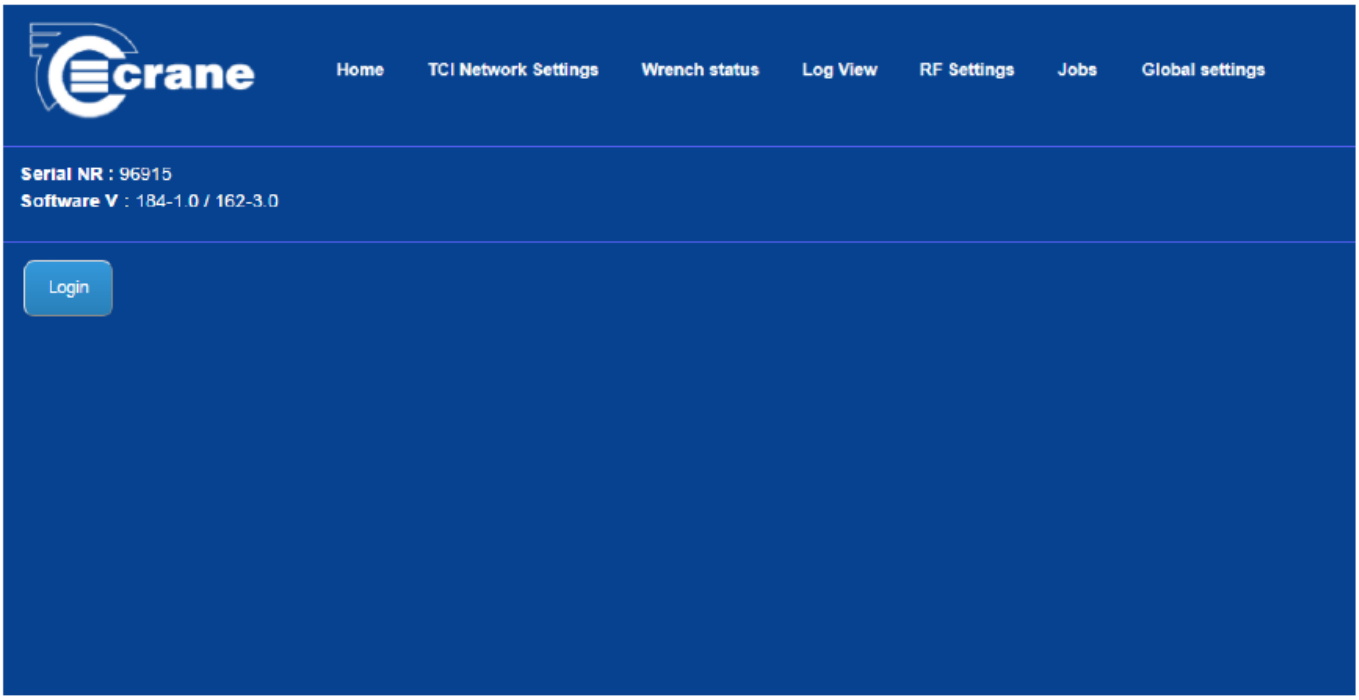
TCI MULTI SPECIFICATION

- **Power:** 5V +/-10% DC power supply 1000mA
- **Ethernet:** Unique MAC Address RJ45 Connection 10/100 MBit/s
- **Serial:** 9-way D-type RS232 socket for serial connection to a PC in standalone mode.
- **USB:** Mini USB Cable for programming firmware.
- **RF:** 2400MHz antenna for RF Wrench communication that can be placed in different orientations. Low power 0dBm and uses worldwide ISM band (2400MHz).
- **Transducer:** WrenchStar Multi. Maximum number 5.
- **Number of Jobs**: Stores 256 different Jobs, any of which can be selected and downloaded to WrenchStar Multi.
- **Offline mode**: Downloads a Job to a WrenchStar Multi and uploads results when the WrenchStar Multi is within range. Polls WrenchStar Multi to see if the results are available.
- **Pairing:** Can be easily Paired with WrenchStar Multi using a single push button operation or via a web Page.
- **Construction:** Aluminium enclosure
- **Dimensions:** 217mm x 120mm x 56mm

- **Weight:** 760g
- **Mounting:** Flange for mounting to a surface with 4 bolts. (See pg. 6)
- **LEDs:** Power Status Host communication (informs whether the communication is good, absent incorrect). Wrench communication (informs whether the WrenchStar Multi is Paired, in range or has a Job loaded). TDC 9TCI Data Collector status – Connected or disconnected.
- **Operation:** Accepts Open Protocol commands via Ethernet to select a Job and use with the Wrench (tool). Has a Web Status Page that allows Ethernet properties, RF properties, logging of messages, and Wrench Status to be monitored.The Wrench Status Web Page mirrors the LED Status on TCI and also shows the last Torque and Angle reading from the Wrench plus its Torque Status (LO, OK, and HI).Standalone mode – Jobs can be selected and results posted to PC or Web Page.
- **Setup:** Via Web Page.
- **Time** / **Date**: Real Time Clock (read and write)

TCI WEB PAGES

When you first login to the browser, you will see the Home Page. You can get back to the Home Page by clicking on the “Home” Icon at any time.



There are 6 Web Pages that can be navigated to:

- TCI Network Settings
- Wrench Status
- Log View
- RF Settings
- Jobs Settings
- Global Settings

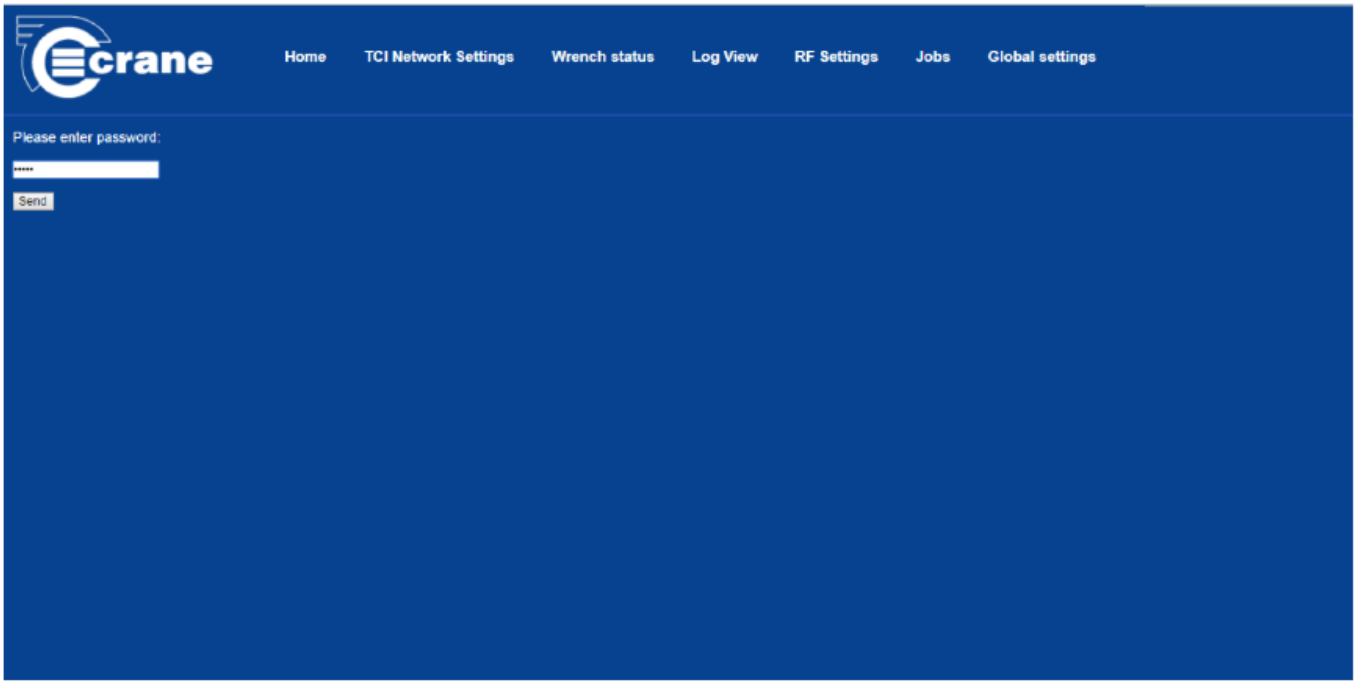
The Home Page will give the serial number of the TCI, and its current software versions for the main processor and RF module.

There are 2 Comms Modes:

- Open Protocol (used by a variety of manufacturing systems)
- Standalone (when the factory network breaks down or if a simple manufacturing system)

The default IP and Port address is 192.168.0.101:80. The TCI returns to this IP address after a Factory Reset. (Selecting Open Protocol variant 2 in global settings changes this default to 192.168.0.165)

Note: Before you plug the TCI into a corporate network, please involve the IT department to avoid IP conflicts. The Web Pages are viewable on common web browsers such as MS Edge, Firefox, and Chrome. Internet Explorer is not recommended. To alter settings then you must “Login”. (See next picture)



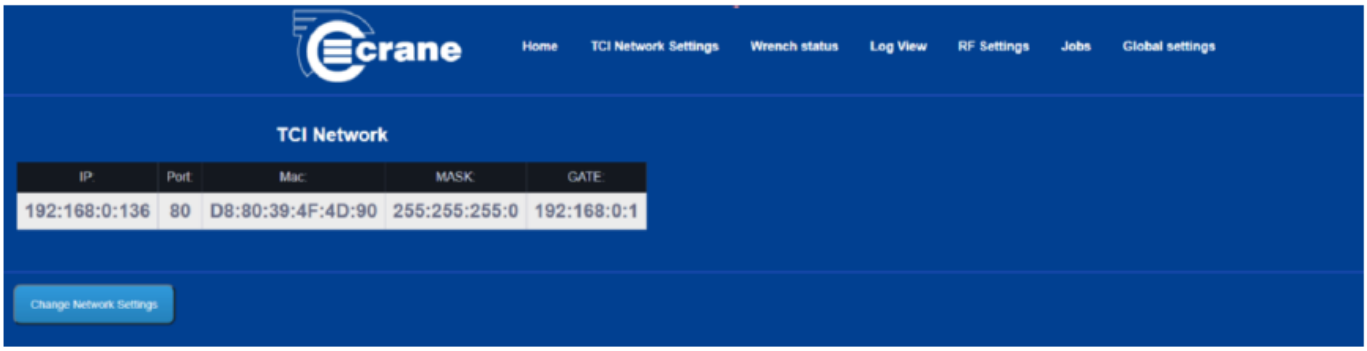
The default password is “Admin” and we advise that you change this by clicking on the “Change password” Icon once logged in as Admin due to the password only remaining active for 5 minutes, after this time it will need to be re-entered to continue Editing.

Once logged in, it is possible to perform a remote Factory Reset of the TCI as well as a change of language. To manually perform a Factory Reset press and hold the Blue Button until all the LEDs are flashing (approx. 30 seconds). Release and re-press the Button within 10 seconds to confirm Factory Reset. Once a Factory Reset has been done the following happens:

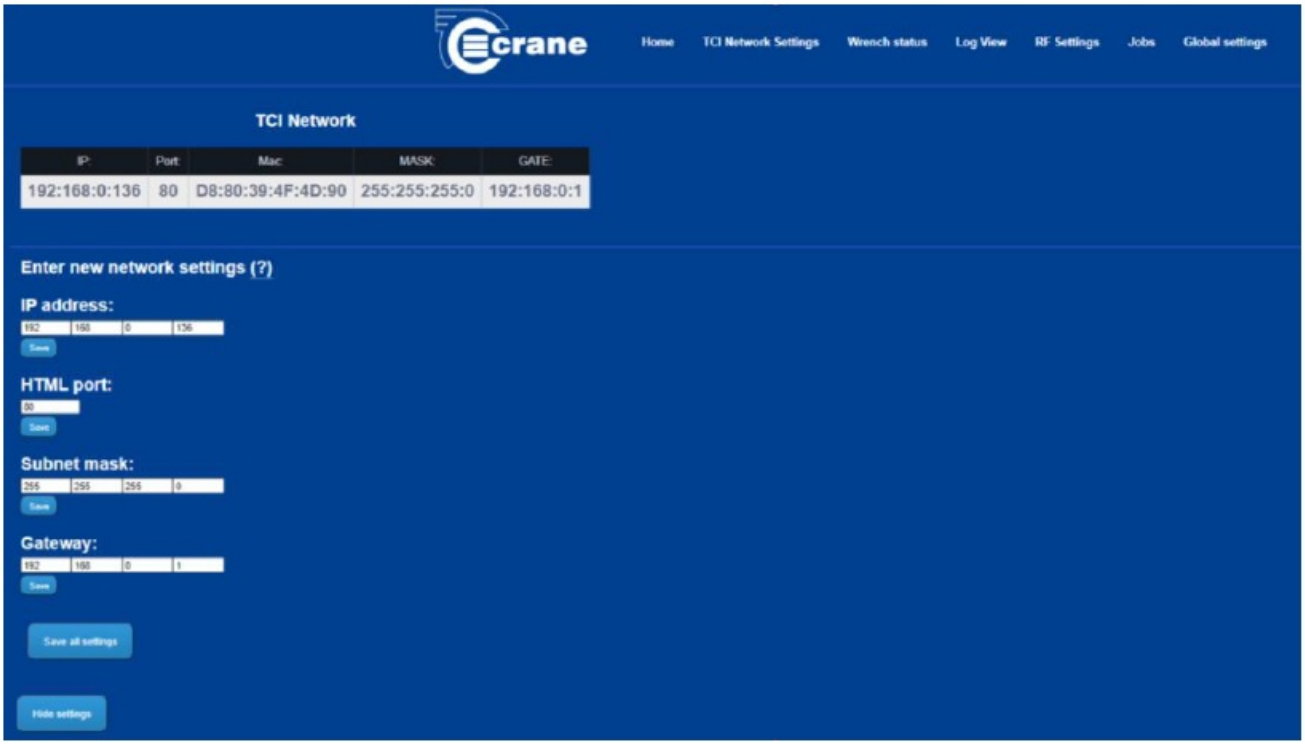
- Job’s list cleared – Jobs will need to be re-entered.
- Sets the password to Admin
- Erases Pairing information – WrenchStar Multi will need to be re-paired.
- In Open Protocol it will be necessary to receive a Comms Start MID
- The browser IP addresses will be 192.168.0.101 and Port 80 for HTML. (Selecting Open Protocol variant 2 in

global settings changes this default to 192.168.0.165)

- Port 4545 is the default Port for the first Wrench (tool).
- Clears log files
- Restores some global settings to default
- Reset backups



It shows the IP and Port address of the Web Pages. The unique MAC address of the TCI is shown. This cannot be changed. This is useful if the IT system needs to check a valid device is connected to a certain network node. If the user is logged in then the Web Page will show a “Change Network Settings” Button.



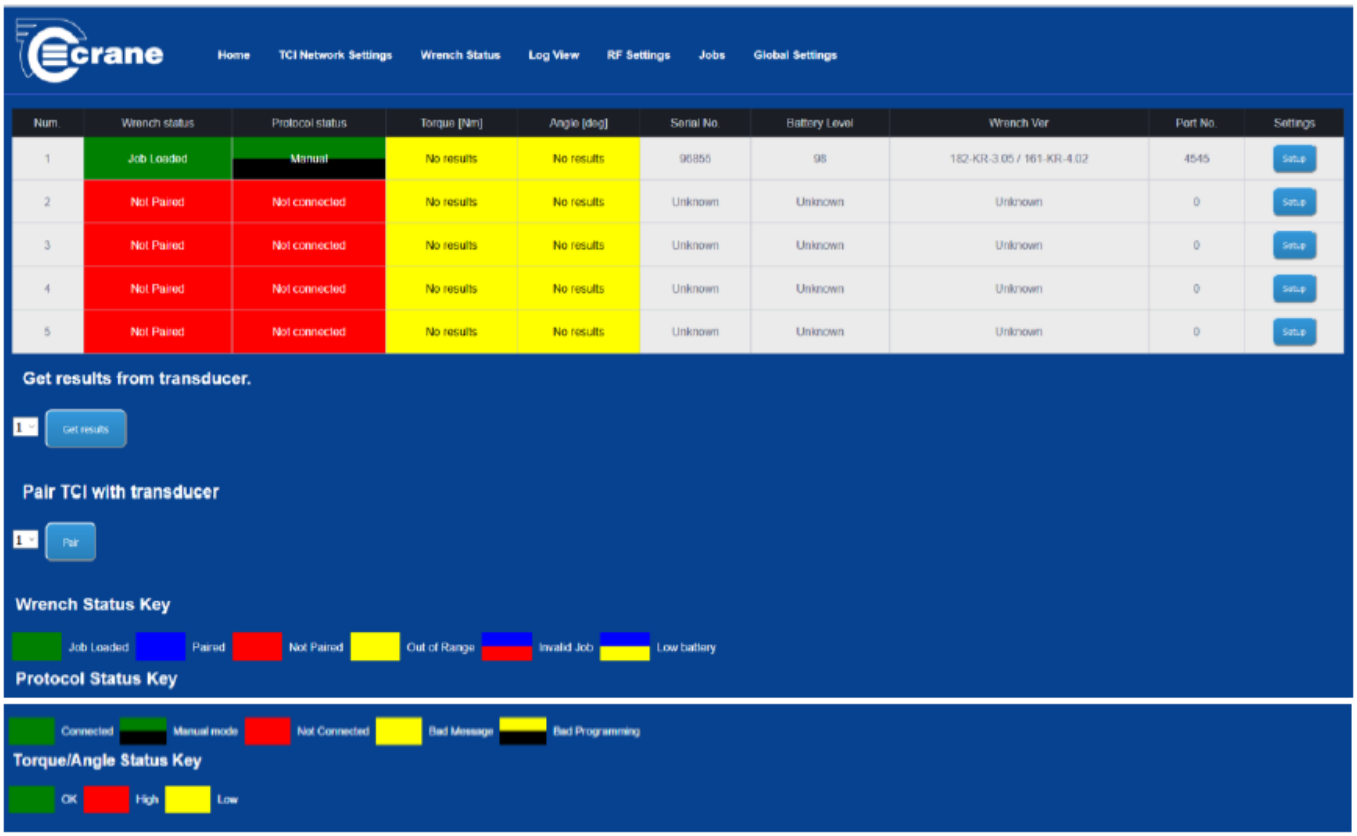
If you click ‘Change Network Settings’ you can edit:

- IP Address
- HTML Port
- Subnet mask
- Gateway.

If the network settings are changed the TCI will re-boot itself which will cause the network connection to be dropped with the browser. The browser will need to be refreshed and of course set to the new IP and Port address. The Edit entry warns you if the number entered is incorrect. IP address entry is from 0 to 255 Port entry is from 0 to 65353

TCI WRENCH STATUS

It shows the Status for up to 5 connected Wrenches. Note: Info on Port 80 can be viewed at the same time as the measurement results are being transmitted to Port 4545.



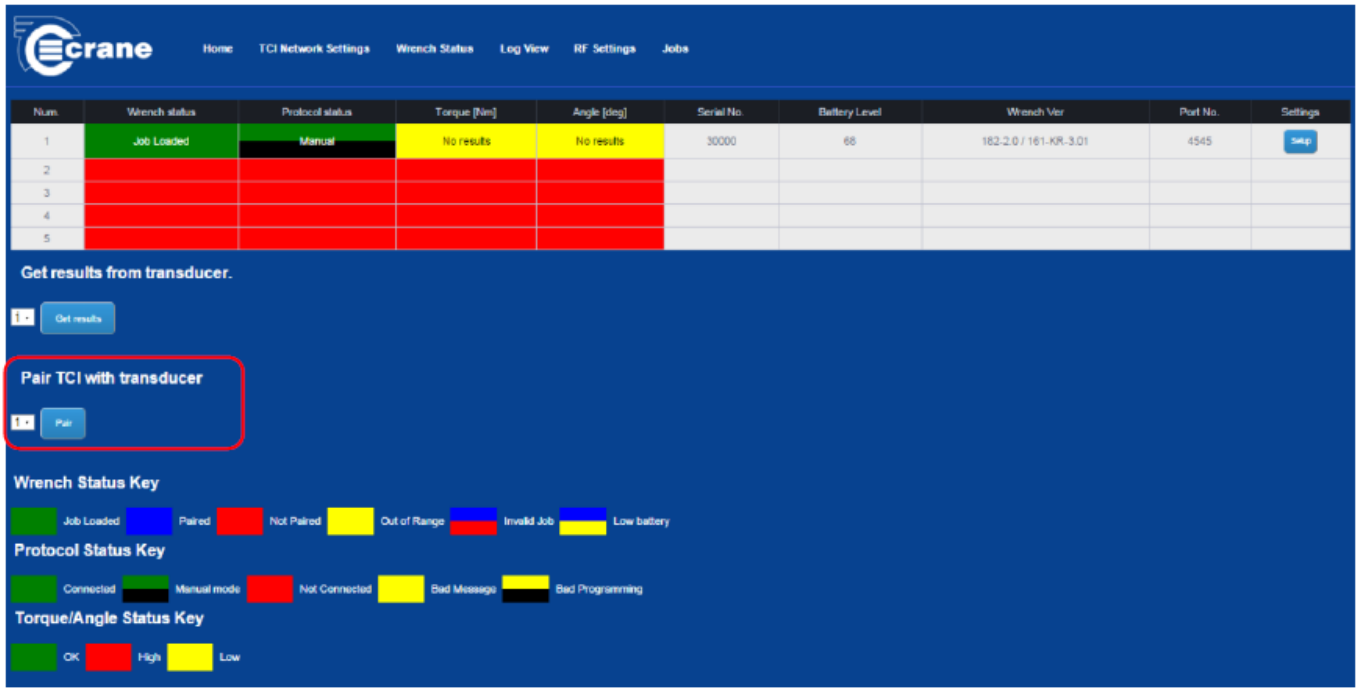
Each column shows different information:

- Wrench Status – gives colour coded information about the current state of the WrenchStar Multi. The key for colours is shown at the bottom of the Page. These colours will match the Wrench Status LED on the TCI.
    - **Note:** The Out of Range – Yellow colour may also be seen if the WrenchStar Multi is turned off. This colour is only seen once a WrenchStar Multi is Paired as it is then regularly polled to check if it's present and has any off-line results.
    - The Red/Blue colour on the TCI indicates that you will see Wrench Status LED flashing between Red and Blue.
- The Protocol Status – gives colour coded information about the current state of the host connection. The key for colours is shown at the bottom of the screenshot above. These colours will match the host Status LED on the TCI.
    - "Bad message" is an unrecognised host message
    - Will be "Connected" if a Start Comm MID was received and it continued to receive messages or a Keep Alive MID message.
- The Torque and Angle result for the last reading will be displayed and colour coded the same as the Light Ring on the WrenchStar Multi
    - **Less than LSL** = Amber
    - **Okay** = Green
    - **Greater than USL** = Red
- The rest of the information is only updated when initially connected to the WrenchStar Multi:
    - WrenchStar Multi serial number
    - WrenchStar Multi battery level

- WrenchStar Multi software version
- **Port number**. The Port which the WrenchStar Multi is communicating to the host on (each WrenchStar Multi has a unique Port ID for communication)

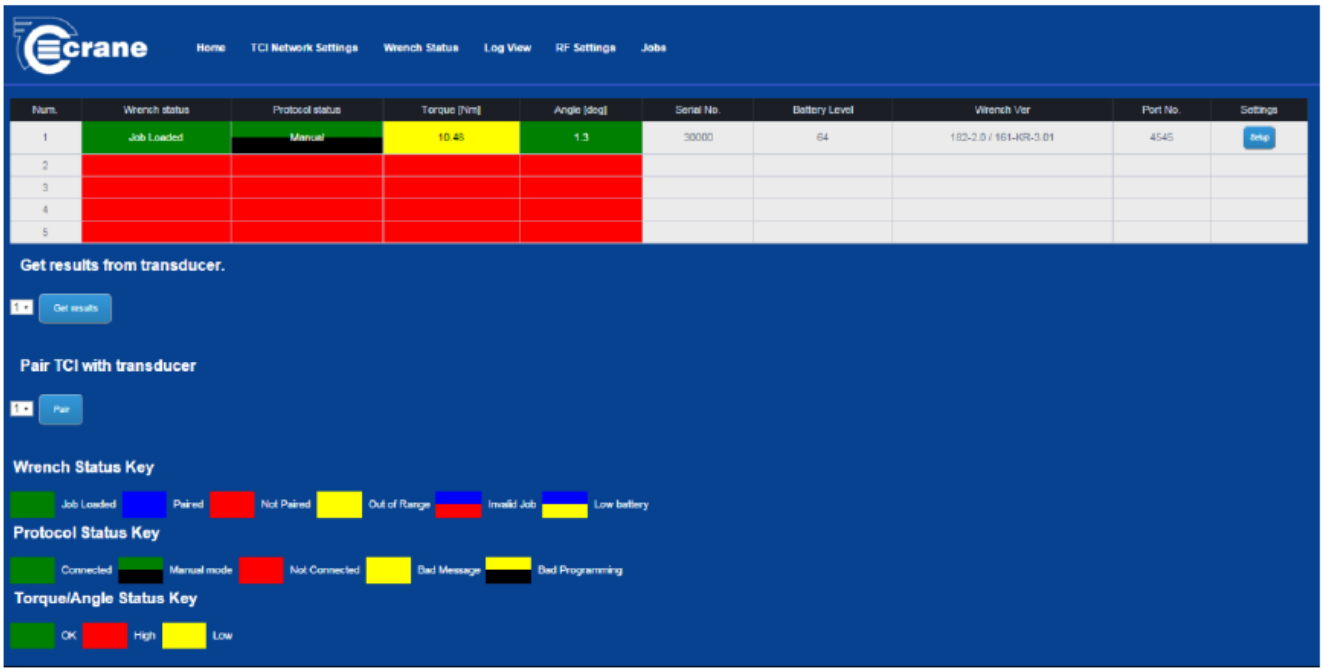
The following example of the Wrench Status Page shows: the Pair Transducer Button.

First set the WrenchStar Multi into Pairing mode by holding its Blue Button until its Status LED turns Purple. Then press the TCI Pair Button. (Please see Wrench Span Pairing in the global settings section for more options on which wrench is paired on which port)



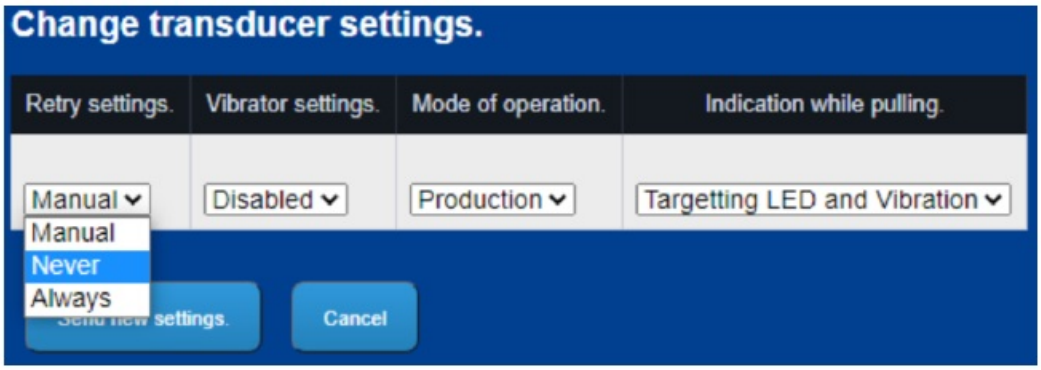
The following example of the Wrench Status Page shows:

- Its last result was a Torque of 10.48 Nm which was lower than LSL (Lower Spec Limit). When pressing the setup button, the TCI will display all current settings stored on the wrench.



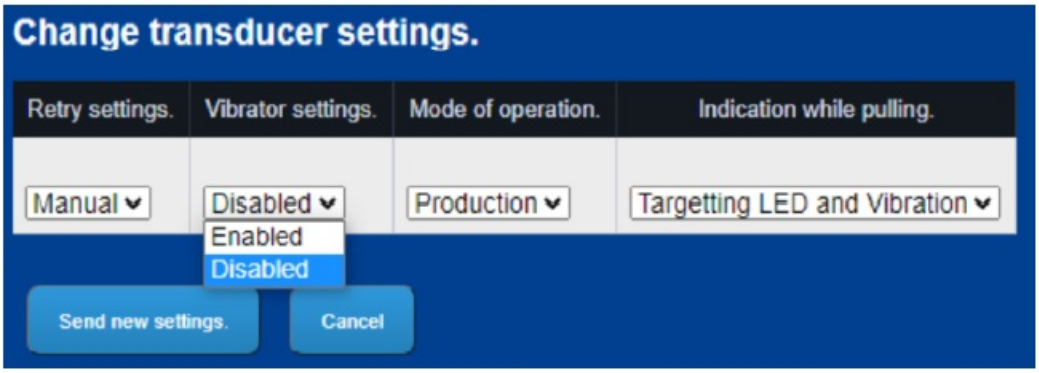
Change Transducer Settings – Retry Settings

This setting controls what happens when there is a NOK reading and when a retry should be triggered. Never – Accepts any reading on the wrench and does not trigger retry. Manual – Screen prompt when NOK giving the user the opportunity to save the reading and cancel the retry. Always – NOK readings will not be excepted and a retry will always be triggered on a NOK.

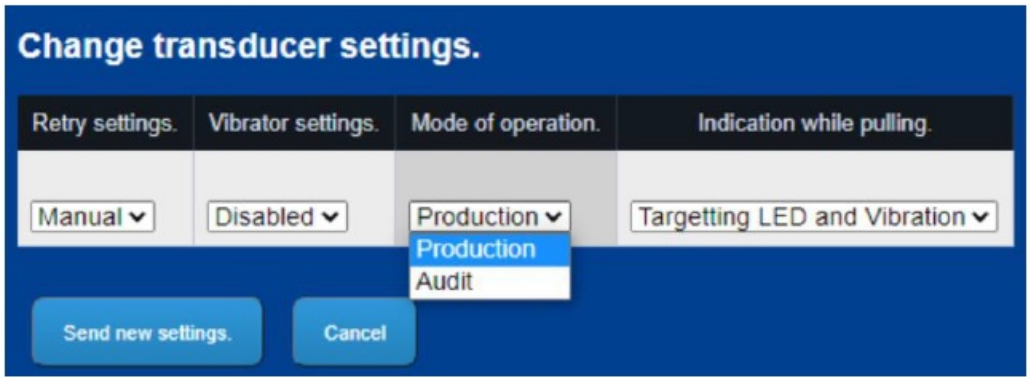


Change Transducer Settings

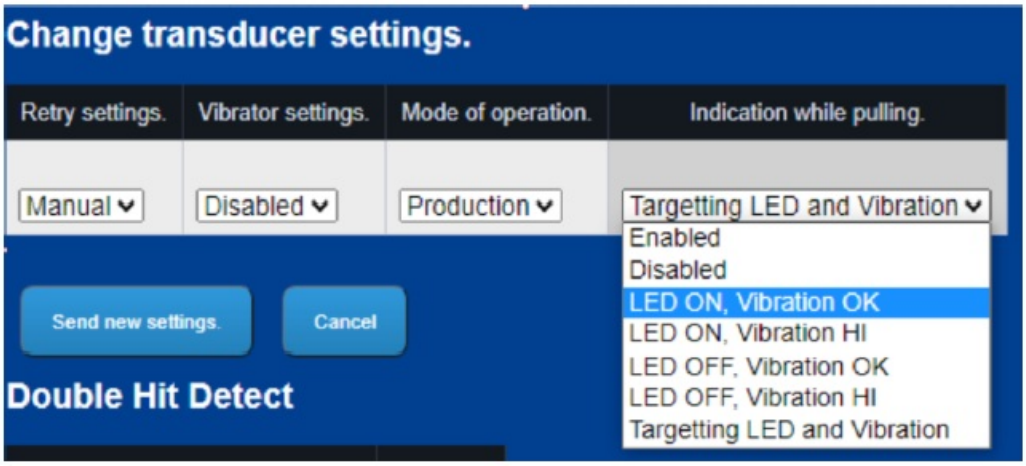
- Vibrator Settings This setting enables/disables the vibrator.



Change Transducer Settings – Mode of Operation
There are two settings available, production and Audit. Audit gives the user more time to read the result on the wrench after each reading and will zero the wrench before every new reading is taken. Production jumps straight to the next job after a reading and only zeros the wrench when it is first turned on.



Change Transducer Settings – Indication while pulling
This setting changes the indication/feedback given by the wrench during the cycle.



Enabled
This setting enables the light ring during the cycle. The light ring will light amber for a low reading, green for an OK reading and Red for a high reading. This setting also enables the 3-vibration points spread out through the cycle. See the “Set vibrator activation point” setting for more details.

Disabled
This disables all Light Ring and Vibration feedback on the wrench.

LED ON, Vibration OK
This setting enables the light ring during the cycle. The light ring will light amber for a low reading, green for an OK reading and Red for a high reading. The vibrator will trigger when the wrench reaches OK status.

LED ON, Vibration HI
This setting enables the light ring during the cycle. The light ring will light amber for a low reading, green for an OK reading and Red for a high reading. The vibrator will trigger when the wrench reaches Hi status.

LED OFF, Vibration OK
This setting disables the light ring during the cycle. The vibrator will trigger when the wrench reaches OK status.

LED OFF, Vibration HI
This setting disables the light ring during the cycle. The vibrator will trigger when the wrench reaches Hi status. Targeting LED and Vibration This is the most advanced feedback setting. For the most part in is like the “Enable” option with the following differences:

- The wrench lights up solid Amber to signify there is a job loaded on the wrench.
- Once over the threshold, the light ring will flash slowly at first and then the speed of the flashing will increase until the Torque passes LSL.
- At LSL the wrench will start flashing green slowly, increasing in speed until the wrench reaches the target.
- At target, the wrench will stay solid green +5%. There will also be a vibration.
- After the target (+ 5%) the wrench will start flashing Green/Red slowly, increasing in speed until USL is reached.
- At USL the light ring will turn solid Red and there will be a hard long pulse vibration.
- 3 vibrations happen between the threshold and Target that can be adjusted like the ‘Enable’ setting however this is set using the “Change Feedback Start Point” setting.

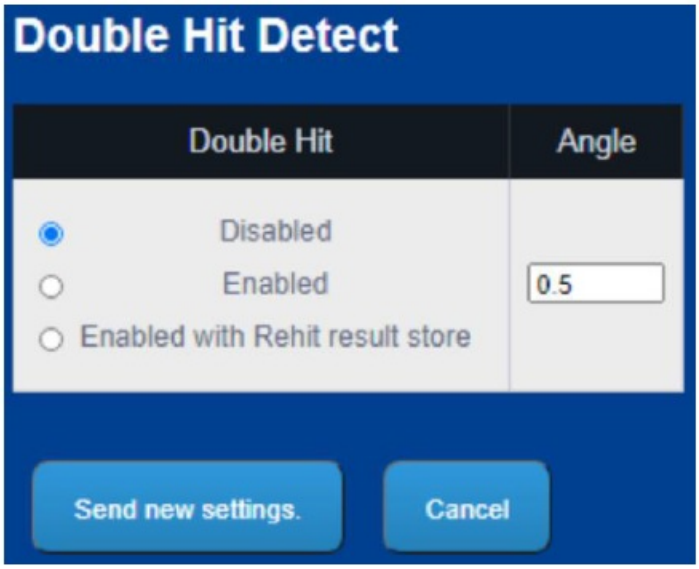
See the following graphic that illustrates this further:

Percent of Torque	Light Colour	Light blinking speed	Haptic Vibration	% of Target Torque
Threshold				
	Amber	Flashing speed increasing	1 quick vibe	10-50%
			2 quick vibe	50-75%
LSL				
	Green	Flashing speed increasing	3 quick vibe	75-90%
Target		Solid	vibe	100%
	Green-Red	Flashing speed increasing		
USL				
>USL	Red	Solid	Pulse vib	

Tightening Feedback

Double Hit Detect

This feature only works when pulling Torque in the clockwise direction. When the angle with the cycle is less than the specified angle when this setting is enabled, there will be a NOK triggered for double hit. When enabled with Rehit result store is selected the results for the NOK will be saved when it occurs.

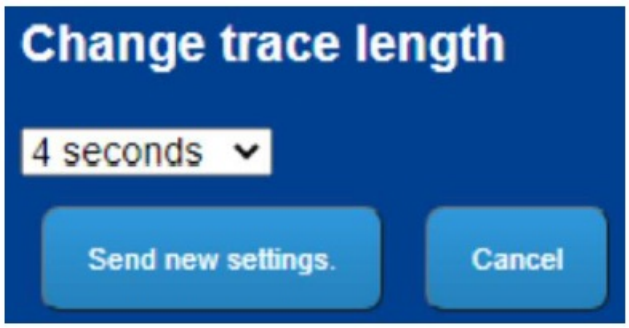


Set Vibrator Activation Point

Controls the point at which the vibrator kicks in within a cycle when the indication while pulling setting is set to ‘Enabled’. There will be 3 vibrations that happen at different times in the cycle. This helps the user understand where in the cycle they are at a given time. The smaller this figure the earlier in the cycle these vibration points begin.

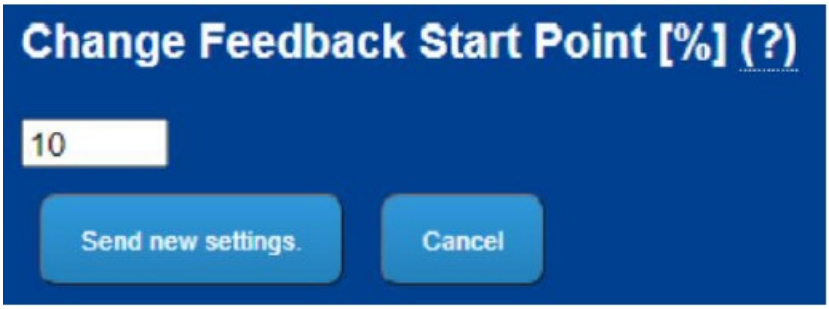
Change Trace Length
The trace length is setting the sample rate and the number of samples take within a given time period. The maximum number of samples take in any cycle will be 1000. To capture the full cycle and obtain the best resolution it is best to set the trace length as close to the time it takes to complete the cycle. See the example below.

- **Case 1** – User pulls for 1 second (cycle length), Trace length set to 4 seconds.
- **Number of samples captured** = 250.
- **Sample Interval** = 4ms
- **Case 2** – User pulls for 1 second (cycle length), Trace length set to 1 second. (Optimum) Number of samples captured = 1000. Sample Interval = 1ms
- **Case 3** – User pulls for 4 seconds (cycle length), Trace length set to 1 second.
- **Number of samples captured** = 1000. (first second measured only)
- **Sample Interval** = 1ms



Change Power Off Time
This setting sets the Auto Power of time on the wrench. This is highly recommended if the wrench isn't docked in the cradle between jobs and if multiple wrenches are being used with 1 TCI. The more wrenches on and paired to the TCI, the greater the RF interference in that area.

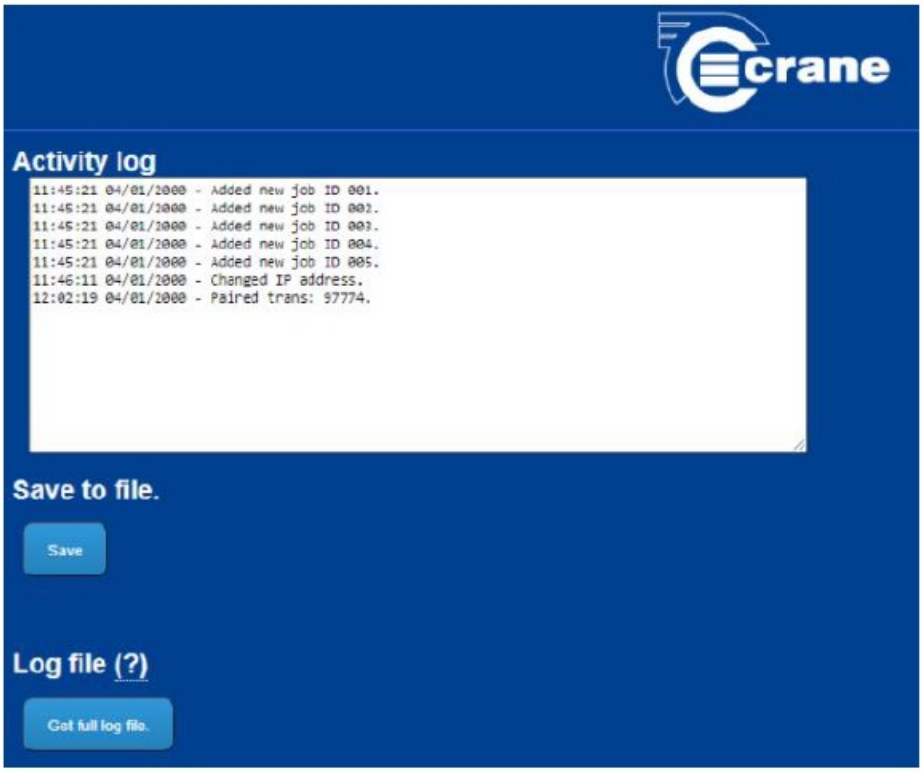
Change Feedback Start Point
When using the "Targeting LED and Vibration" indication while pulling setting this changes at which point the feedback on the wrench begins. This allows the user to delay indication to begin later in the cycle. For the majority of cases the default setting of 10% will be optimal but in rare occasions (for example a really large wrench on a really soft joint) this may be adjusted up to 50% to push all the feedback towards the end of the cycle.



Change Open Protocol Port
This setting changes the TCP/IP port used to connect to the control the TCI via Open Protocol for this particular wrench.

TCI LOG VIEW

TCI Log View Page
The TCI can log message information to help diagnose problems. The TCI has the option of viewing either host messages, or WrenchStar Multi messages, or both. The logging options are setup via TCI Exchange. The log information will appear in the “Log Box” which will display the latest messages or the last 1000 characters of messages if the TCI detects a problem.

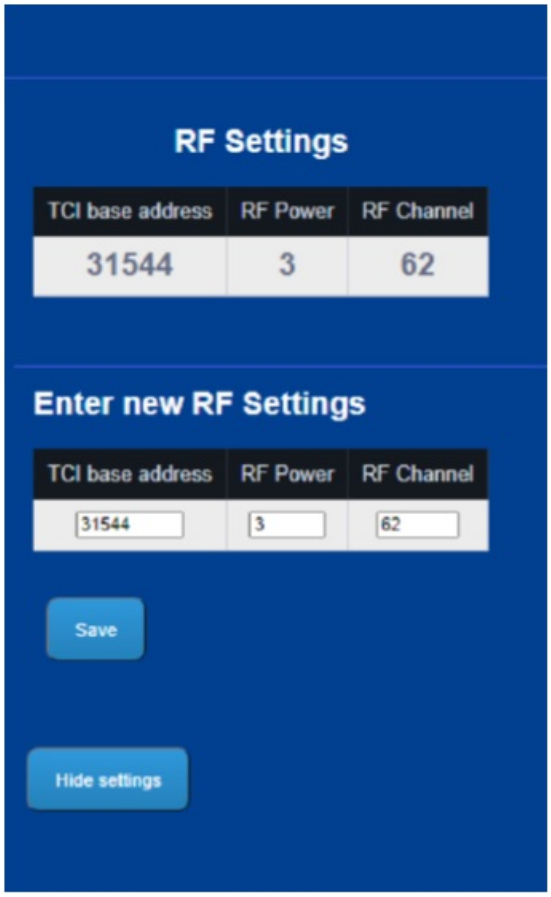


The log text can be saved to a file (browse to the requested folder) with the Save Button.

TCI RF SETTINGS

TCI RF Settings Page:
The RF Settings Page allows the properties of the TCI RF to be altered.

If the password has been entered the settings can be changed.



The TCI base address should be set between 1 and 65353.
Each TCI should be given a unique base address so that WrenchStar Multi's Paired with a particular TCI will only communicate with that TCI and no other.

The RF power typically gives the following ranges:

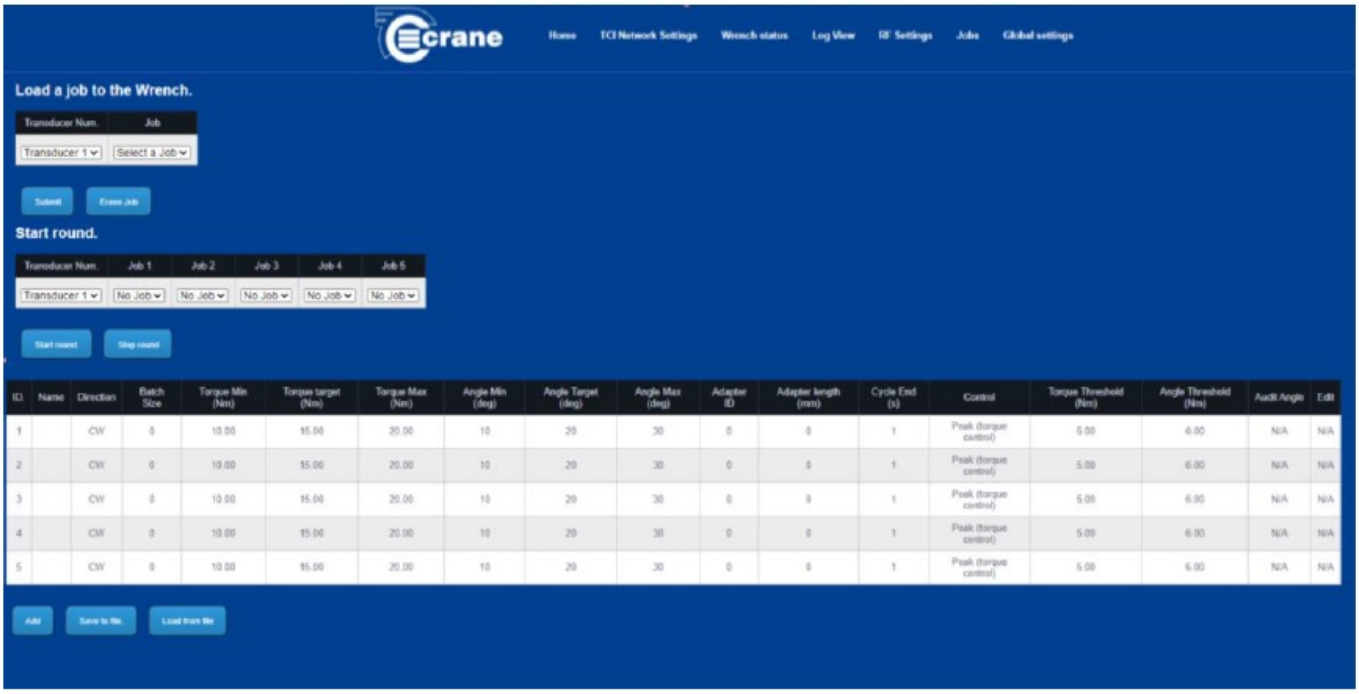
- 0 = 1m
- 1 = 4m
- 2 = 9m
- 3 = 14m
- (Default = 3)

The RF channels refer to the 1MHz frequency band in the region 2400 to 2480MHz and can be 0 to 79. Channel 80 is reserved for Pairing. It is recommended that TCI's which are used in close proximity should be allocated different channels. During Pairing the TCI will allocate a unique ID to each Paired device, the next one available

being shown on the Web Page. The TCI will only remember 5 Paired devices. It is recommended that you only Pair one WrenchStar Multi and TCI at a time to avoid confusion and keep them as close as possible when Pairing.

TCI JOBS

TCI Jobs Page



The TCI can store up to 256 Jobs. The load a job on wrench feature on this page only works in “Website Manual Mode” and “Auto Print Mode” as setup in the global settings. There are two options to load Jobs on TCI, Open Protocol or via the Web Page shown above. By clicking the Edit Button on a particular Job, it is possible to Edit its parameters.

The parameters that can be Edited are:

- Name (up to 25 characters)
- Direction
- Batch Size (The WrenchStar Multi has the ability to remember readings when out of range of the TCI and the Batch Size informs the Wrench the maximum number of readings that it is allowed to take.)
- Torque Min is Torque LSL (Lower Spec Limit)
- Torque Max is Torque USL (Upper Spec Limit)
- Angle can also be Edited. If Angle is not required then set Angle limits to 0. The Angle will be reported as 0 in the results
- **Adapter ID**: It defines which ID head is required to perform that job.
- **Adapter length:** if WSM is used with special Head and need compensation. The value entered is in mm of compensation.
- **Cycle end**: After tightening is finished how many seconds required to save the results?

- **Control**: it defines which is your tightening's primary value.

TCI ROUNDS
It is possible to set up to 5 jobs into a single sequence of jobs. The WSM will auto proceed to next job on completion. the Job must have a batch size greater than zero.

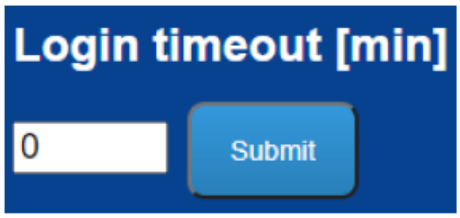
Jobs Export
This feature is used to export these jobs to a CSV file as backup to be uploaded later.

Jobs Import
This feature allows for the import of jobs backup onto the TCI.

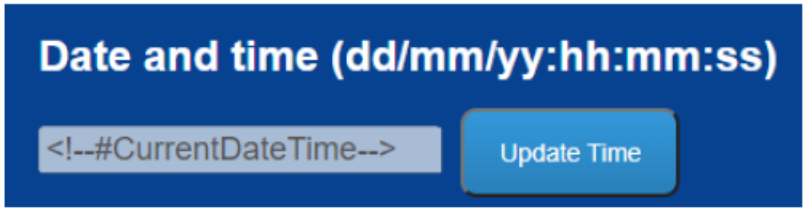
TCI GLOBAL SETTINGS

- All global settings are read only is when a user is not logged. After logging in all settings can be accessed by the user.

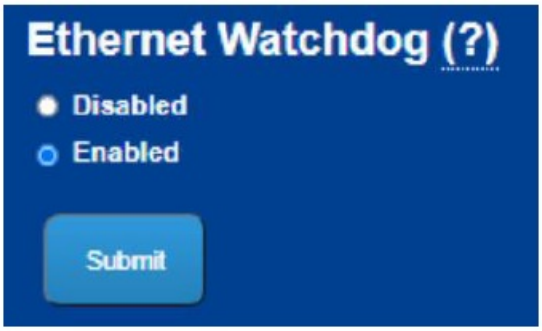
Login Timeout
Setting this to a value between 1 and 60 sets the time in minutes before the TCI will automatically log out. Setting this to 0 will disable the automatic log out.



Date and Time
Clicking the update time button automatically updates the time and date. This will use the time and date of the device connected to the browser.



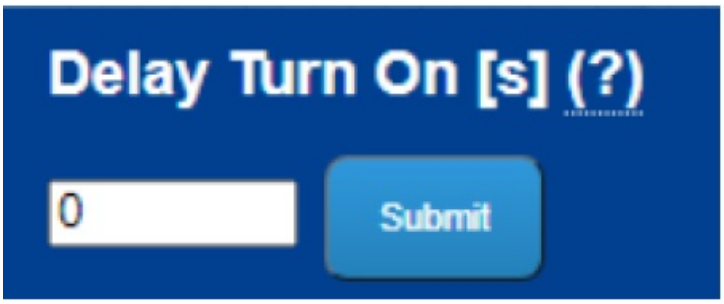
Ethernet Watchdog
Enabling this will force TCI to perform additional Network checks and generate software reset when errors are detected. This may not be suitable for some network setups.



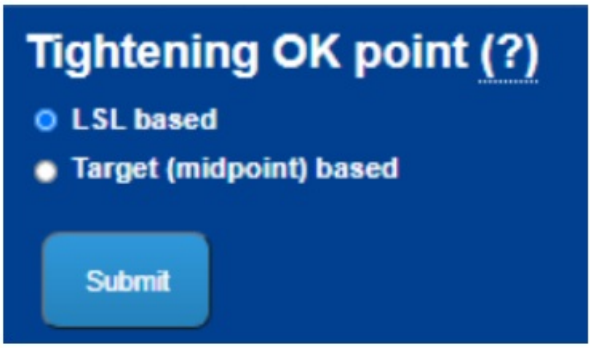
Backup Reading Storage
Enabling this will result in TCI storing backup of each reading in FIFO, allowing them to be printed via serial port whenever requested. The Crane Reading Capture Software can be used to retrieve this data.

RS232 Baud Rate
Changes the baud rate of the RS232 port.

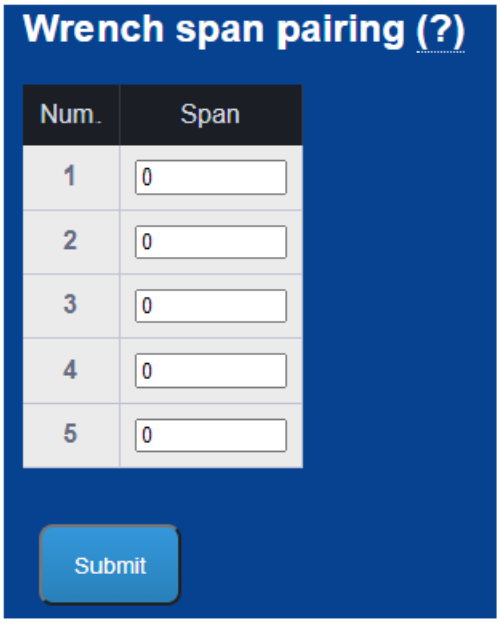
Delay Turn On
When greater than 0, TCI will wait for some time before initialising everything. This can help if network is not available when TCI switches on.



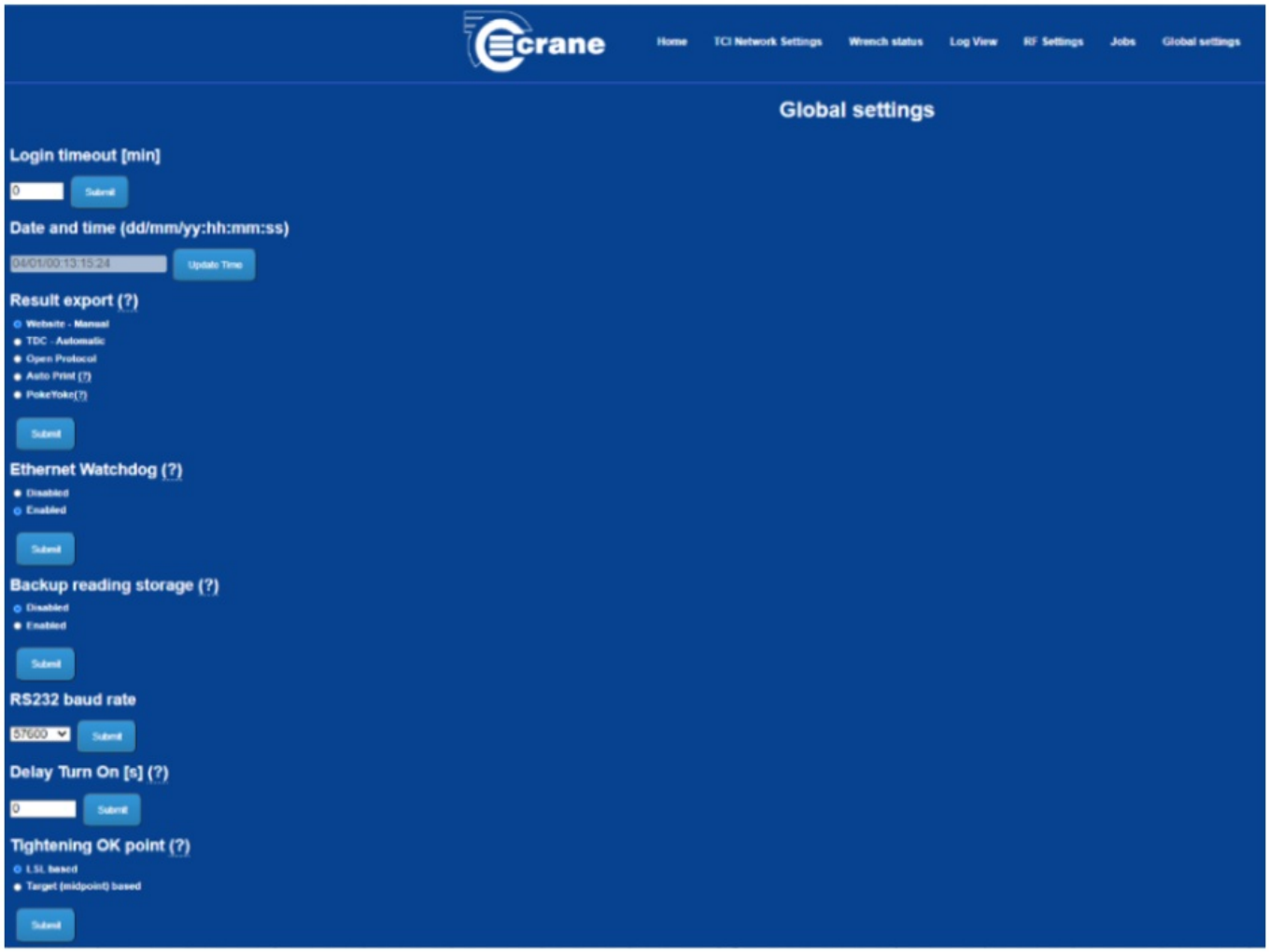
Tightening OK Point
This setting controls at which point in the cycle the setting is considered to be OK.



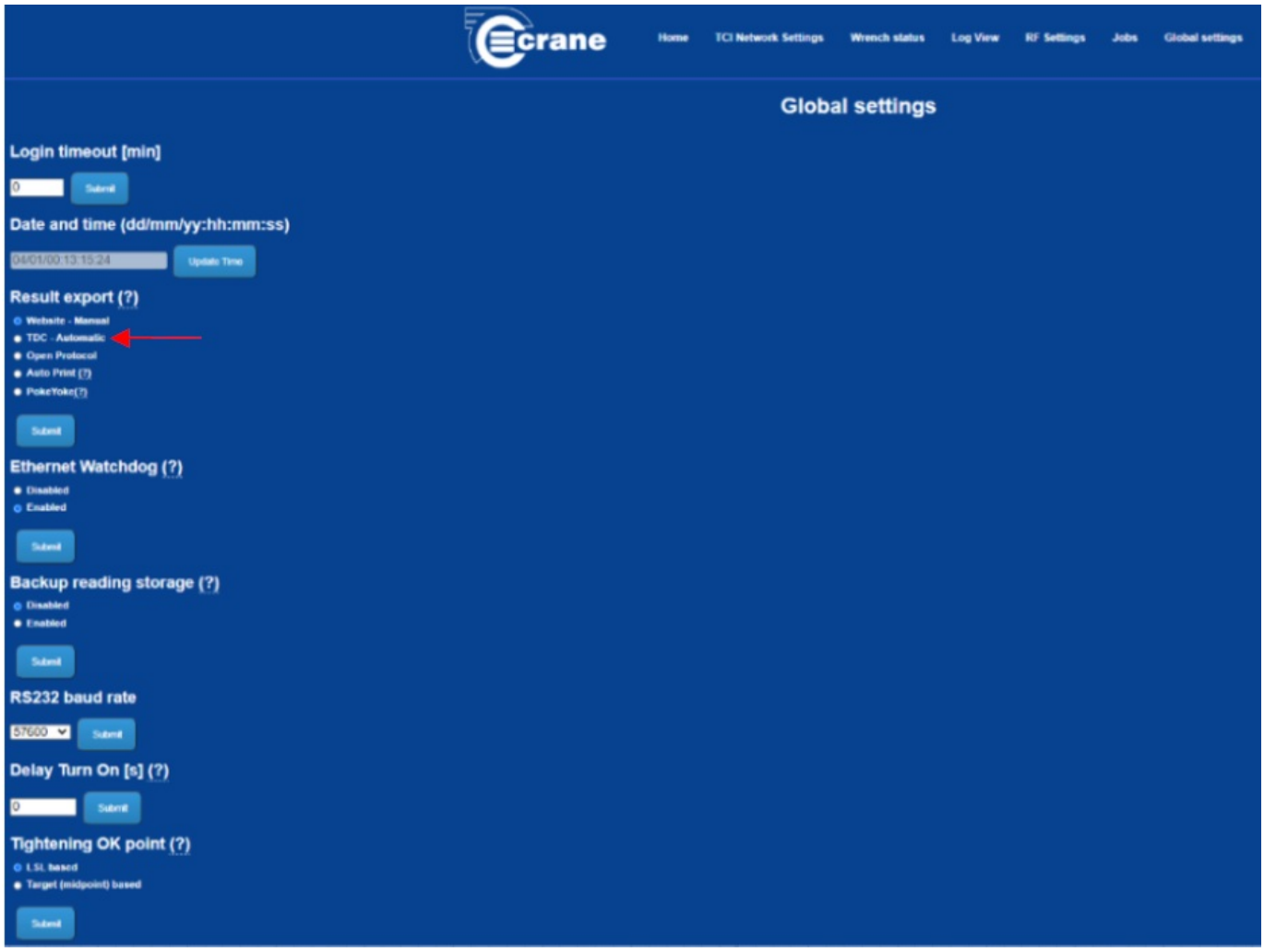
Wrench Span Pairing
If value for given port is not 0, when pairing with blue button TCI will try to pair to a specific port based on span of the Wrench. If all spans are set to 0 then the blue button on the front of the TCI will always pair the wrench to the first port.



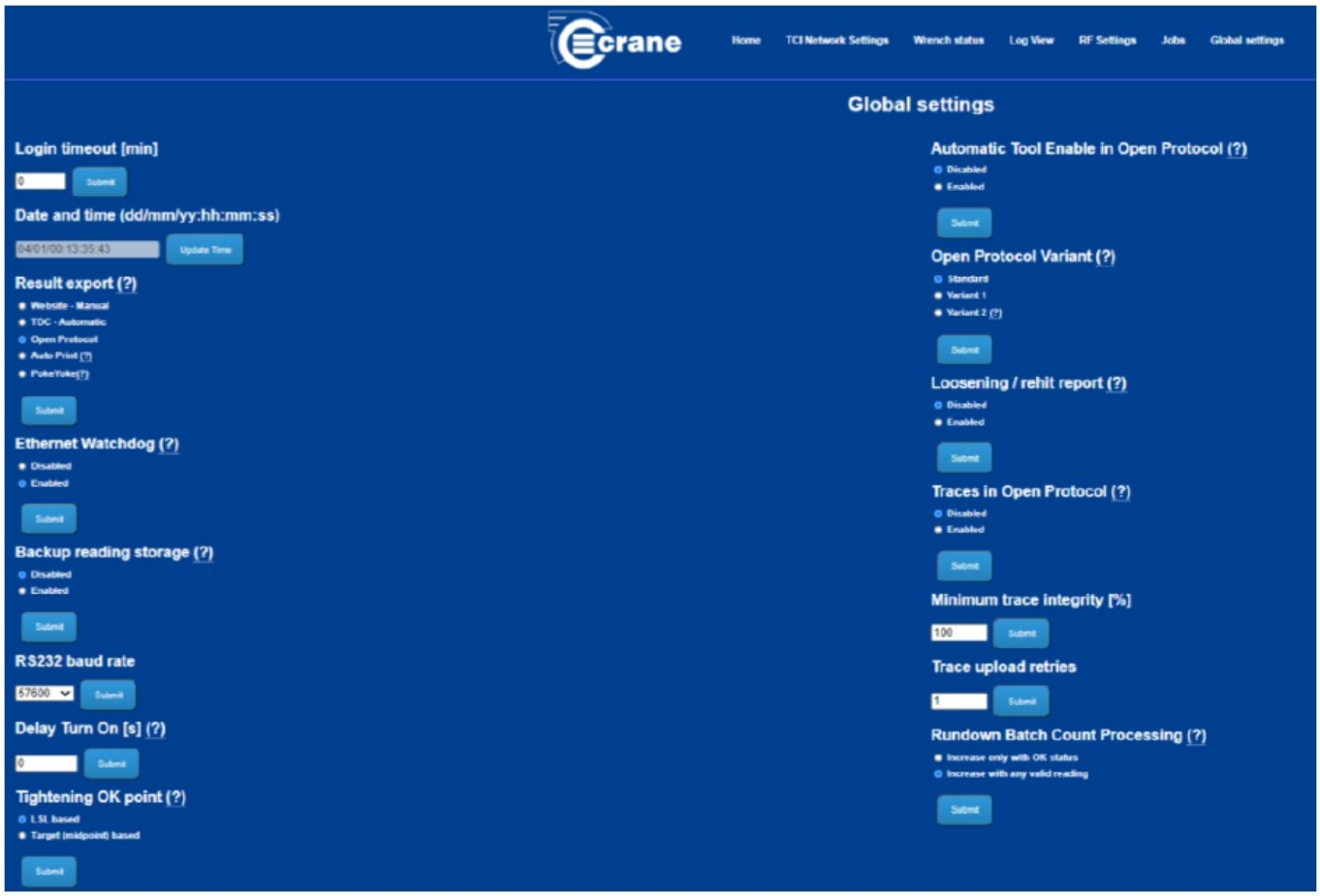
Website Manual Mode



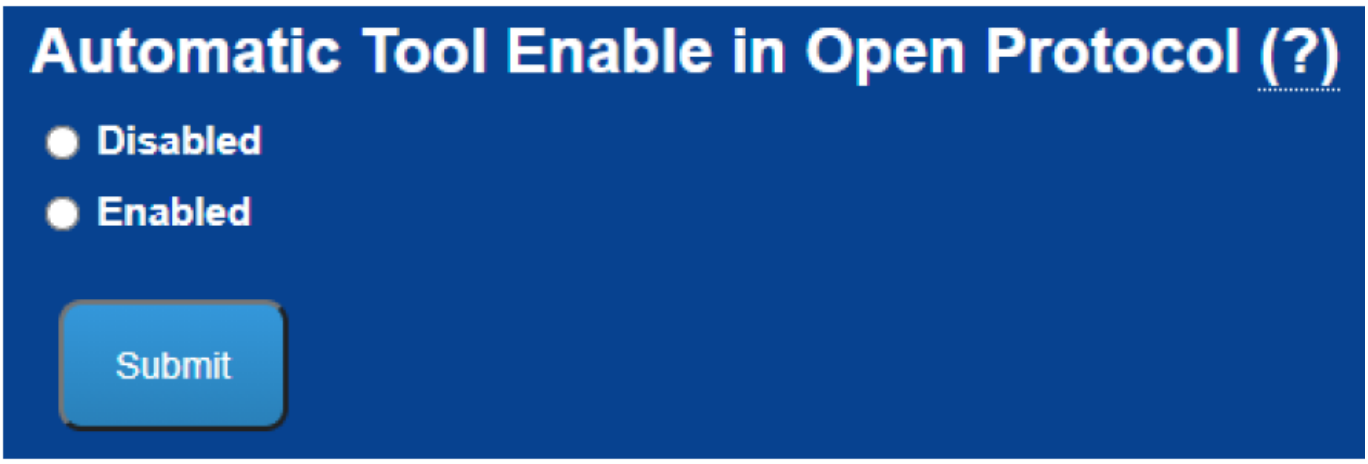
TDC – This is no longer used



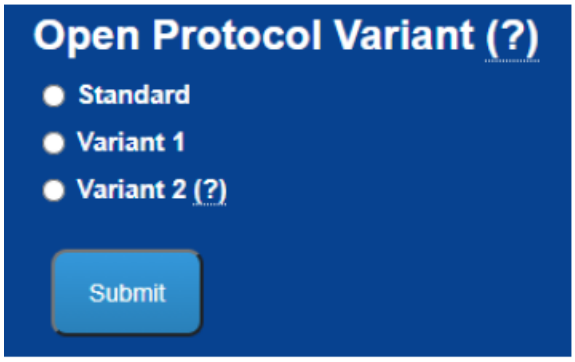
Open Protocol Mode



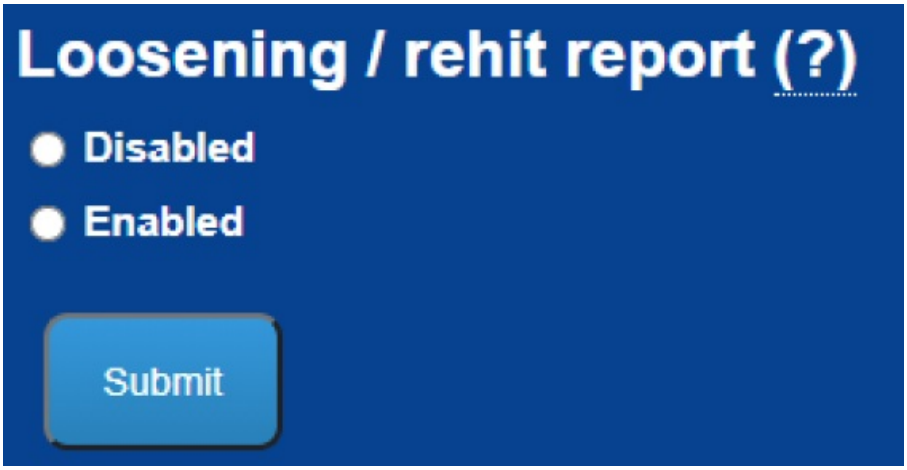
Automatic Tool Enable in Open Protocol
This setting will force TCI to automatically enable tool when previous result has been acknowledged. This should be disabled in systems, which prefer to send Enable Tool after each result.



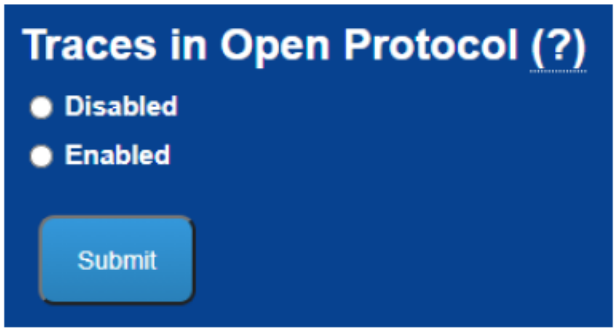
Open Protocol Variant
This setting controls which variant of Open Protocol should be used as different plants use the Open Protocol standard in slightly different ways. Variant 2 also changes some underlying functionality of the TCI. With this variant, first 5 jobs cannot be edited by the web page. Custom messages and message fields will be enabled (MID0061, MID0029)



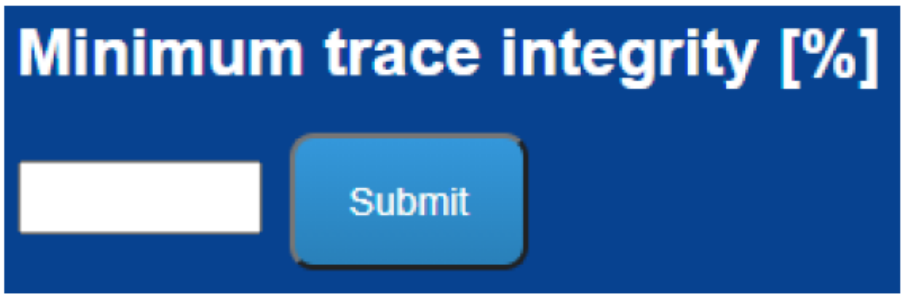
Loosening / Rehit Report
This setting controls if TCI should report Loosening and Rehit results. Loosening result will only be reported if Job direction is set to Auto and the result direction was CCW. Rehit result will only be reported if WSM detects Double Hit and saves result in memory (using Enabled with Rehit result store option of Double Hit). Loosening and Rehit will be reported via Tightening Status field in MID0061.



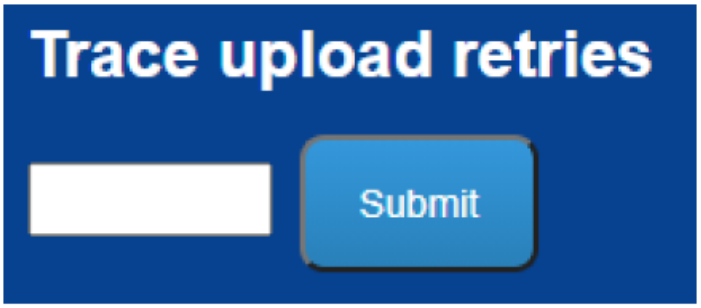
Traces in Open Protocol
Enabling this will allow Traces to be stored inside WSM and then transferred over the RF after each tightening. Traces will be sent over the Open Protocol using MID0900 and MID0901, assuming trace subscription is enabled. User needs to make sure that Wrench Global Setting for Trace Length is set accordingly.



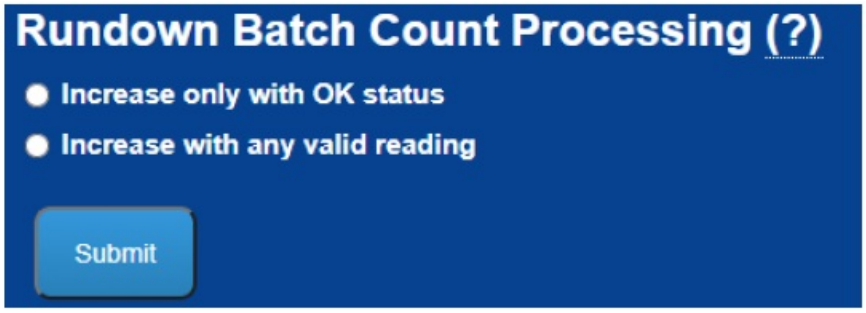
Minimum Trace Integrity
This setting controls minimum % of sample the TCI will except when attempting to fetch the Trace from the wrench via RF. If there is a less-than-optimal RF environment, a lower trace integrity may be desired to prevent the TCI from hanging whilst it attempts to receive all samples. The time taken to retrieve all samples can also be reduced by reducing the number of retries.



Trace Upload Retries
This setting controls maximum number of times the TCI will attempt to fetch the Trace from the wrench via RF. If there is a less-than-optimal RF environment, several retries may be desired to prevent the TCI from hanging while it attempts to receive all samples. The time taken to retrieve all samples can also be reduced by reducing the minimum trace integrity.

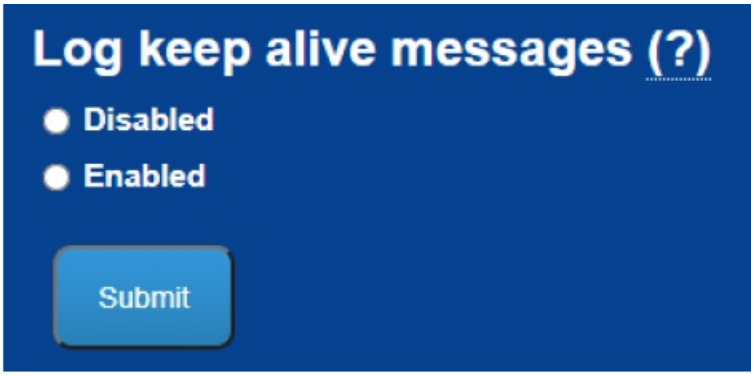


Rundown Batch Count Processing
This setting controls when TCI increments batch count specified using MID0019.

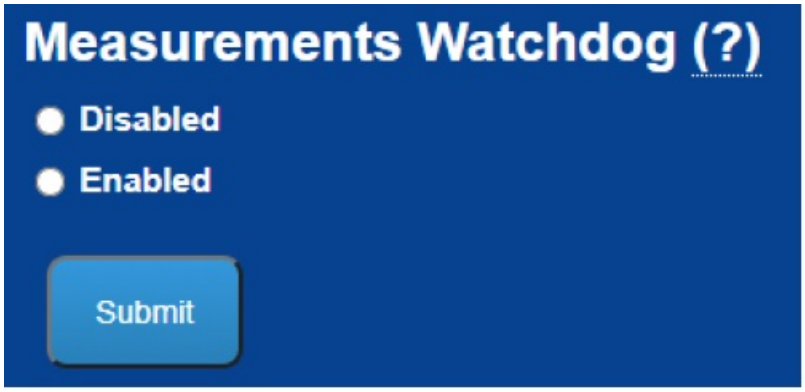


Lock Tool on Batch Complete
Used together with MID0410/0411 and MID0019. If setting is disabled, then TCI will continue even though batch count had been reached and readings were OK.

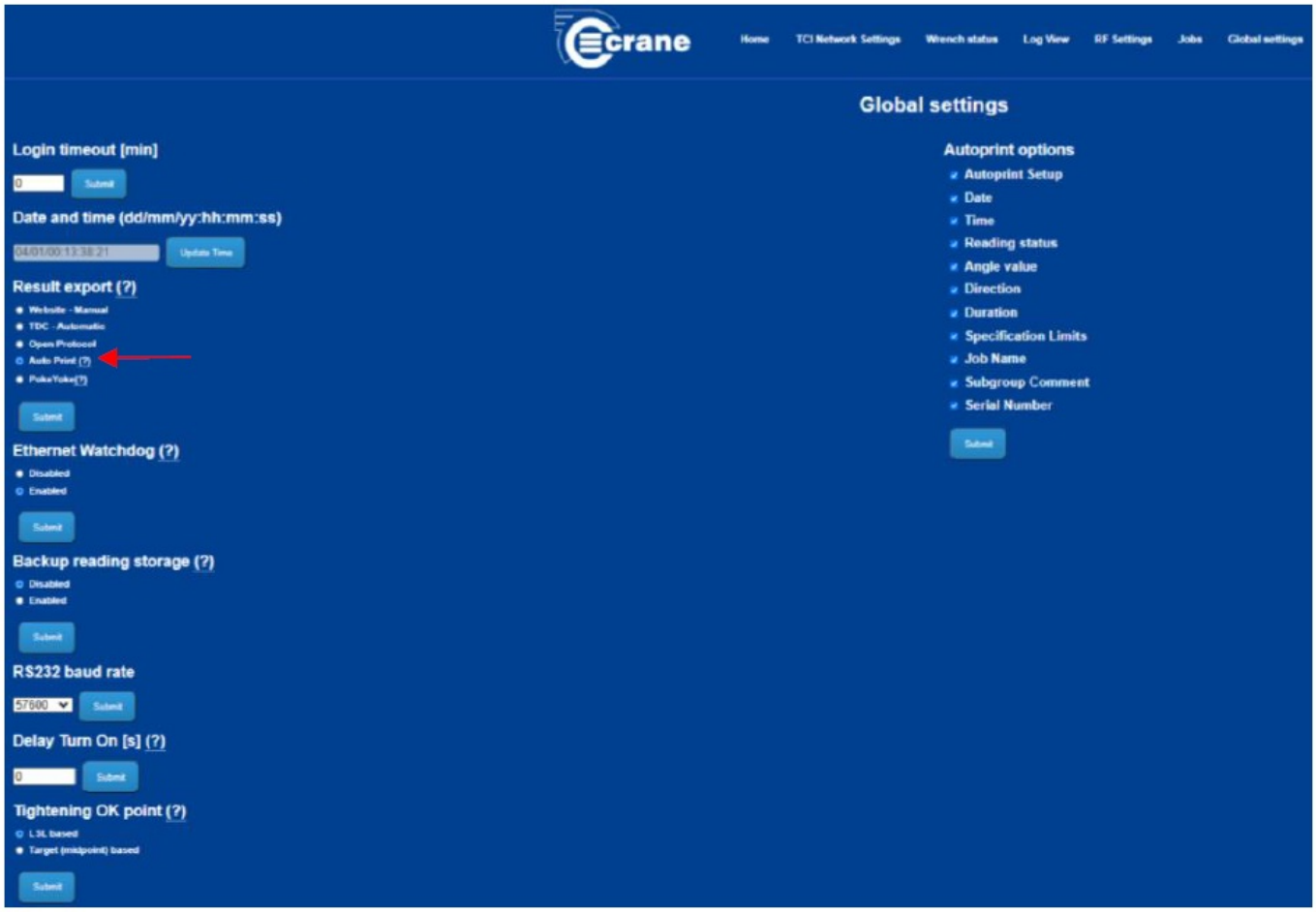
Logs keep alive messages
If disabled, any keep alive messages MID9999 will not be logged in the log file. This dramatically extends the life of the log file. This is a process for troubleshooting client open protocol implementation.



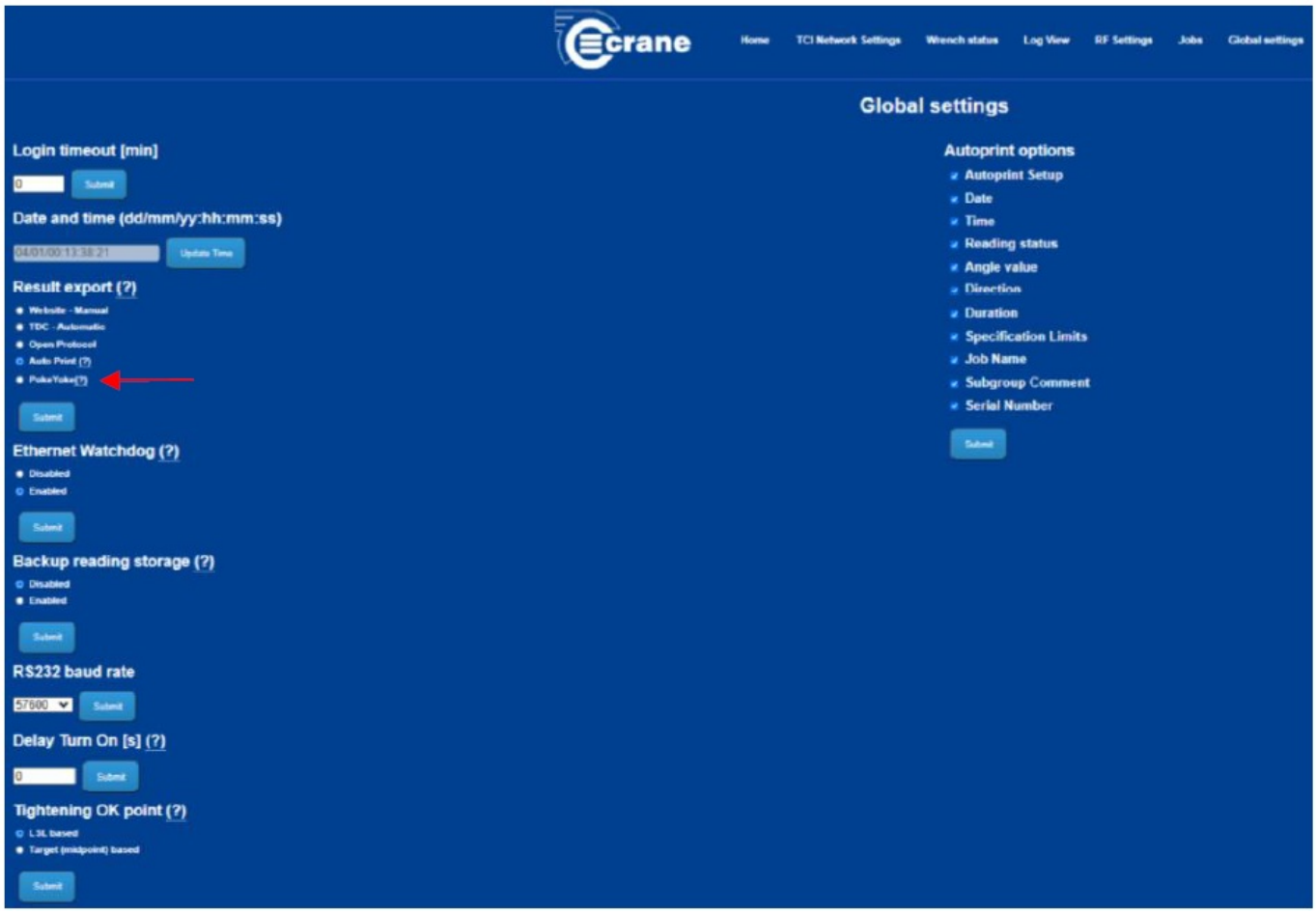
Measurements Watchdog
When enabled, if there are no measurements taken in between 2 PSET select messages (MID0018), TCI will reboot as soon as the second one is received. This is a process for troubleshooting client open protocol implementation.



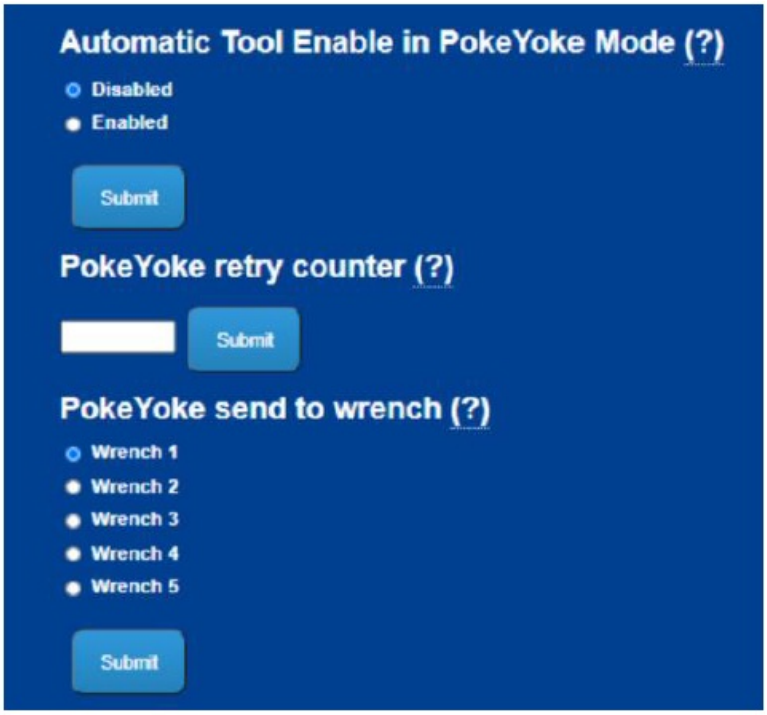
AutoPrint Mode
Auto print allows printing of a string to the RS232 port of the TCI. By changing the AutoPrint options shown below, information can be added/removed from the output string.


crane
Home
TCI Network Settings
Wrench status
Log View
RF Settings
Jobs
Global settings
Global settings
Login timeout [min]
0
Submit
Date and time (dd/mm/yy:hh:mm:ss)
04/01/00 13:38:21
Update Time
Result export (?)
Website - Manual
TDC - Automatic
Open Protocol
Auto Print (?)
PokeYoke(?)
Submit
Ethernet Watchdog (?)
Disabled
Enabled
Submit
Backup reading storage (?)
Disabled
Enabled
Submit
RS232 baud rate
57600
Submit
Delay Turn On [s] (?)
0
Submit
Tightening OK point (?)
L3L based
Target (midpoint) based
Submit
Autoprint options
Autoprint Setup
Date
Time
Reading status
Angle value
Direction
Duration
Specification Limits
Job Name
Subgroup Comment
Serial Number
Submit

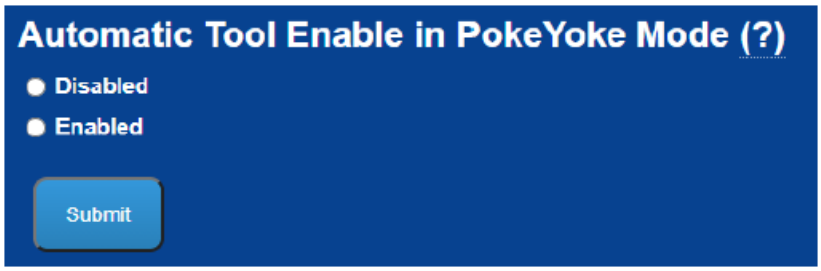
PokeYoke


crane
Home
TCI Network Settings
Wrench status
Log View
RF Settings
Jobs
Global settings
Global settings
Login timeout [min]
0
Submit
Date and time (dd/mm/yy:hh:mm:ss)
04/01/00 13:38:21
Update Time
Result export (?)
Website - Manual
TDC - Automatic
Open Protocol
Auto Print (?)
PokeYoke(?)
Submit
Ethernet Watchdog (?)
Disabled
Enabled
Submit
Backup reading storage (?)
Disabled
Enabled
Submit
RS232 baud rate
57600
Submit
Delay Turn On [s] (?)
0
Submit
Tightening OK point (?)
L3L based
Target (midpoint) based
Submit
Autoprint options
Autoprint Setup
Date
Time
Reading status
Angle value
Direction
Duration
Specification Limits
Job Name
Subgroup Comment
Serial Number
Submit

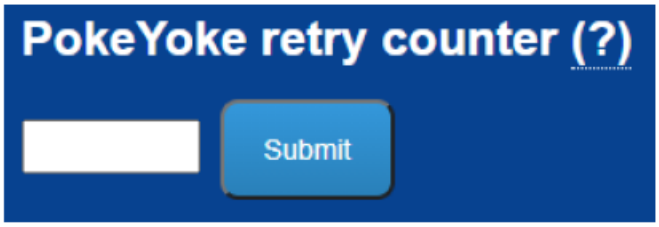
- These settings are to be used when connected to a PokeYoke system and controls which wrench is selected and how many jobs are queued.



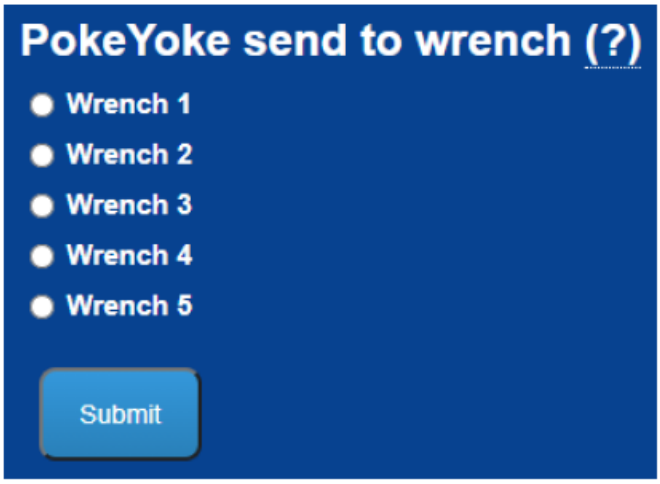
Automatic Tool Enable in PokeYoke Mode
This setting will force TCI to automatically enable tool after result has been sent to PokeYoke. Quality Data ACK need not be sent to re-enable measurements after each reading.



PokeYoke Retry Counter
This setting specifies how many retries of NOK result TCI will perform before closing comms. If it is set to 0 then TCI will accept any result and not perform retries at all.



PokeYoke Send to Wrench
If this setting is populated (from 1 to 5) TCI will send the PokeYoke job to the specified wrench (Wrench 1 by default)]



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- **www.crane-electronics.com**

Documents / Resources

	Crane 1268-02 Tool Controller Interface [pdf] Instruction Manual 1268-02 Tool Controller Interface, 1268-02, Tool Controller Interface, Controller Interface, Interface

References

- electronics.com
- A Global Leader in Powered Torque Wrenches & Management - Crane Electronics
- A Global Leader in Powered Torque Wrenches & Management - Crane Electronics
- Contact Us - Crane Electronics
- User Manual