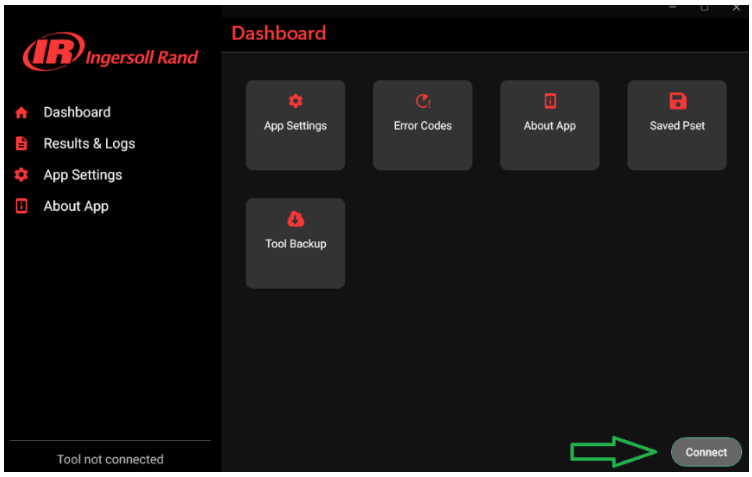
Programming Psets with the INSIGHT Connect App

Note: The QX Connect Series tool can have up to 32 Psets.

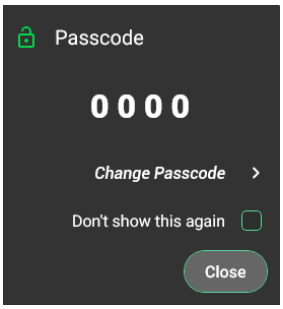
Note: The App cannot be used to program the tool if already paired with a QCX controller.

Connect your QX tool to your computer using the provided USB cable.

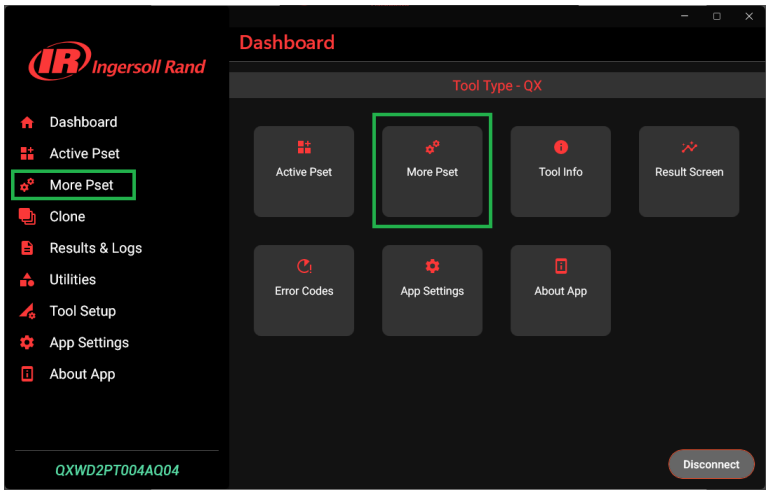
1- Open the Insight Connect app and select “Connect”.



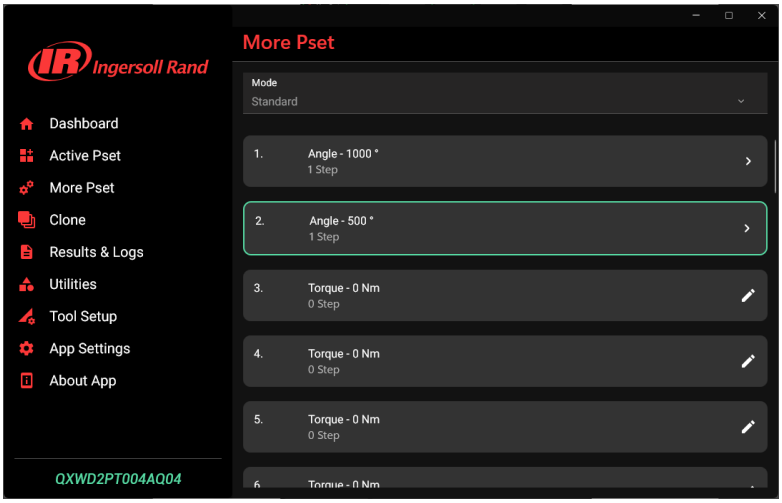
a. Enter the tool password if necessary or just close if the Password is 0000.

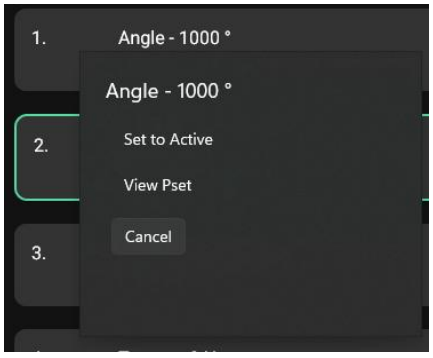


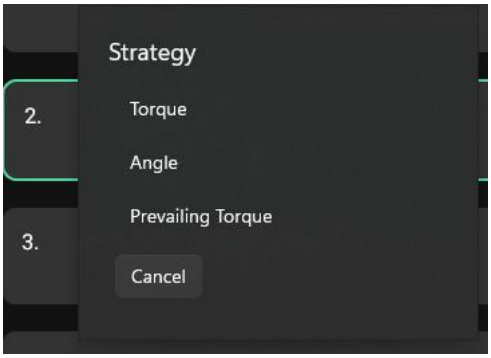
2- Go to the More Pset Menu (or Active Pset if you only want to modify the Pset which is currently selected on the tool).



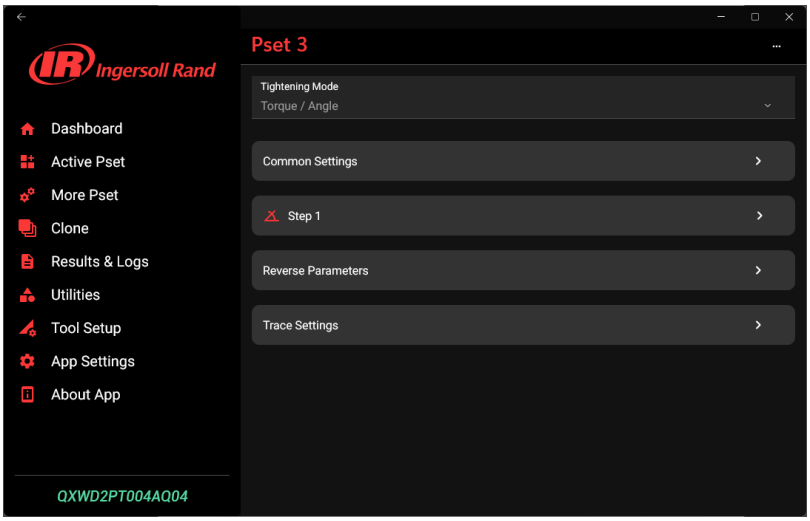
3- When entering the menu, the active Pset is highlighted in green. You can click on it to view the settings. If you click on another Pset, you will get an option to view or to set it as Active if it is already programmed. Or you will be prompted to select a strategy if not already programmed.







4- The main Pset screen will populate:



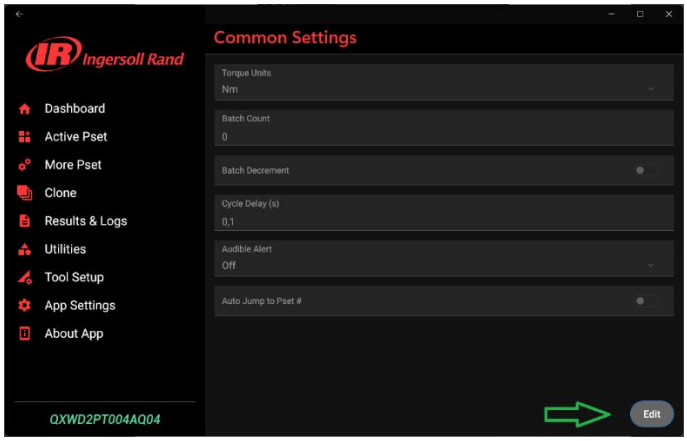
Common settings contain the parameters which are global to the Pset.

Step 1 (You can have up to 8 steps) contains the parameters relative to the step.

Reverse parameters are the values when the operator activates reverse on the tool.

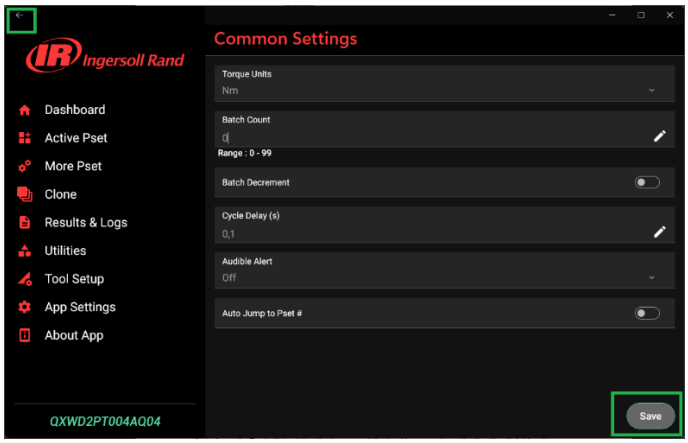
Trace settings contain the parameters to manage the trace transfer (applies to Wi-Fi 6 tools only).

5- Click on Common settings and select Edit if you need to make changes.

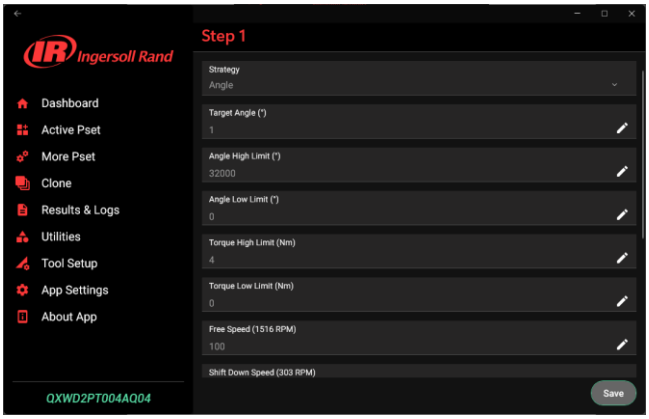


Note: All parameter definitions are at the end of this document.

Note: Pressing the back arrow or saving will get you to the previous screen.



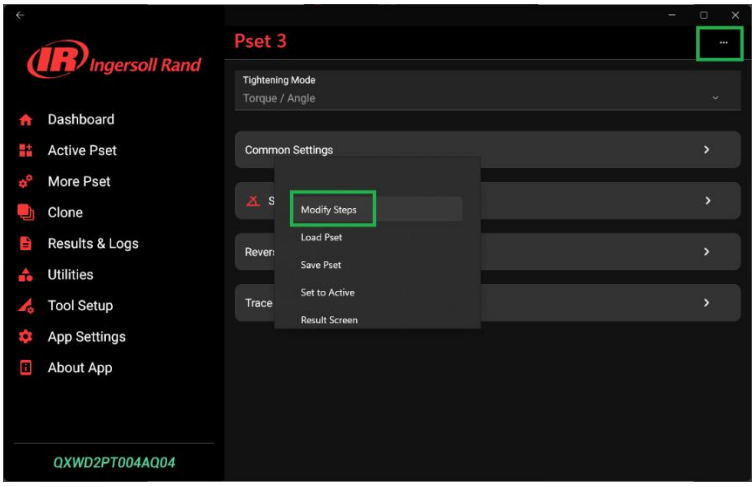
6- Click on the Step number you need to modify and select Edit to make changes.



Note: All parameter definitions are at the end of this document.

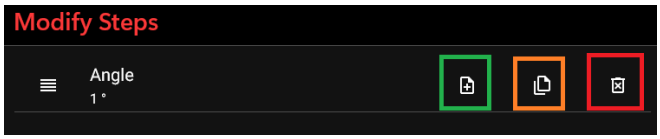
Note: Pressing the back arrow or saving will get you to the previous screen.

Note: If you need to modify the number of steps, from the main Pset screen select the "..." icon at the top right and select modify steps.

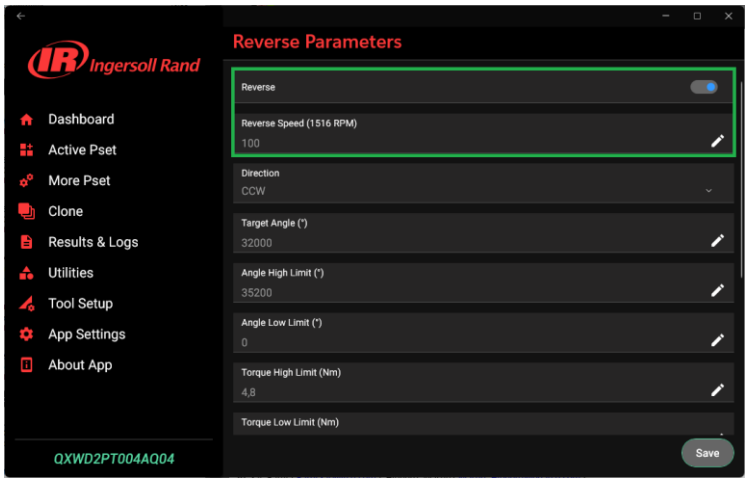


Then you can either:

- Add a step (you will be prompted to select Strategy).
- Duplicate an existing step.
- Delete the step.



7- Click on Reverse Parameters and select Edit to make changes.



a. The first two parameters highlighted are the most used. You can disable reverse for the Pset (enabled by default) or modify the speed. The other parameters must be modified only for a custom reverse application.

8- Click on Trace Settings and select Edit to make changes.

Note: All parameter definitions are at the end of this document.
Note: Pressing the back arrow or saving will get you to the previous screen.

9- Glossary

Common Settings:

Torque Units: Select desired Torque Units (Nm, Ft.lbs, In.lbs, dNm).
Batch Count: Number of bolts you must fasten with the current Pset (0-99).
Batch Decrement: Select slider to allow batch count to be decremented on a reverse cycle.
Cycle Delay (Sec): Enter desired delay between each fastening. Default is 0.1 sec.
Audible Alert: Choose desired buzzer behavior. Off (default), On Failed Cycle only, On Batch Complete only.
Auto jump to Pset: Select the Pset you want the tool to run automatically after finishing the current Pset. Value between None to 32. Default is set to None.

Step Settings:

Step Type: Select Step Type or Strategy from the drop-down list. Each strategy has different default and optional parameters. Step Types are Torque, Angle and Prevailing Torque.
Target: Target Torque for torque step or target angle for angle step. All other parameters are auto generated from this value and can also be modified.

Direction: Default is clockwise (CW) for forward fastening or Right-Hand Thread. Select Anticlockwise (CCW) for Left Hand Thread.
Step Timeout (sec): The fastening will be aborted, and a fault will be generated if the fastening takes longer than the step timeout. Default is 15s, range 1-65s.
Free Speed: Initial speed in percentage, a high speed for quickly advancing through free threads. Default is maximum tool speed.
Shiftdown Speed: Second speed of the step. The transition occurs at the Shiftdown Point. Default is 20% of maximum speed.
Acceleration (%): Range 5 to 100%, default 90%. Set to a lower value for driving a high inertia load.
Torque High Limit: Must be higher than Target Torque. A High Torque fault will be generated if this value is met or exceeded. Default is 20% above Target.
Torque Low Limit: Must be lower than Target. A Low Torque fault will be generated if the Torque Threshold is exceeded, but the torque Low Limit value is not met. The default is 20% less than Target.
Shiftdown point: Torque value where the speed changes from Free Speed to Shiftdown Speed. Default is 20% of Target.
Threshold for Counting Angle: Torque value from which Angle is measured. The default is 50% of Target. Observe the torque trace from several runs and set to the lowest value above Downshift Threshold that achieves consistent results.
Angle High Limit: High Angle Limit, the fastening will be aborted, and a High Angle fault will be generated if this value is exceeded. The default is 32,000 degrees. Observe several fastenings and set the High Angle Limit value above the statistical distribution.
Angle Low Limit: Low Angle Limit, the fastening will generate a fault if the fastening reaches Torque Target, but the Angle Low Limit has not been met. Default is zero degrees. Observe several fastenings and set the Low Angle limit below the statistical distribution. but at a value that will detect special cause process variations.

Trace settings:

Trace Enable: Default is on. Select slider to disable trace transfer at end of each fastening.
Torque Threshold to Capture Trace: In the Threshold field, enter a torque value at which the tool will start counting angle for traces.
Trace Selection: Choose radio button to select which trace variables will be transferred after each fastening. The more variables chosen the longer the transfer will take.
Time (sec): Each trace has 1000 points by default. Select the total time the trace will cover. Choose between 1 to 10 seconds. If the fastening takes longer, only the most recent data will be transferred and stored.
Number of Trace points: User can generate total number of points per trace transferred at completion of fastening.
Complete Curve Transfer: Select this slider to force the complete trace to be transferred at the end of a fastening. During this time, the trigger will be ignored. The default is off, in which case the trace transfer will be aborted on the next trigger pull. The data is transferred last to first, so the final portion of the trace will be transferred as a priority.
Curve Settings for Cycle: Select drop down. Select All Cycles to transfer trace at the end of each fastening. Select Only Fail Cycles to transfer trace only on a FAIL result.