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# N-DAS FOR KL-MCTDS5
# System Operation Manual




Y2F210-1-010
2022/01/26

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# ① User Guide

This manual describes how to quickly operate the “Data Acquisition System” and get started with the KL-MCTDS5 controller.

Diverse and well rounded operation interface, simple and user-friendly design allows users to get quick understanding, and this system can simultaneously work with the four controllers under the **Kilews** brand, and has the functions of report and table printing, data analysis, trend graph, parameter setting, etc. It is very convenient for users.



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## ② System Requirements

- Windows 10, Windows 8, Windows 7, Windows XP or Windows Vista
- Hardware memory at least 768MB/2GBHz processor
- At least 2GB hard disk
- Recommended at least 16-bit color and 1024x768 screen resolution
- .NET Framework 4.0 or above must be installed

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## ③ Hardware

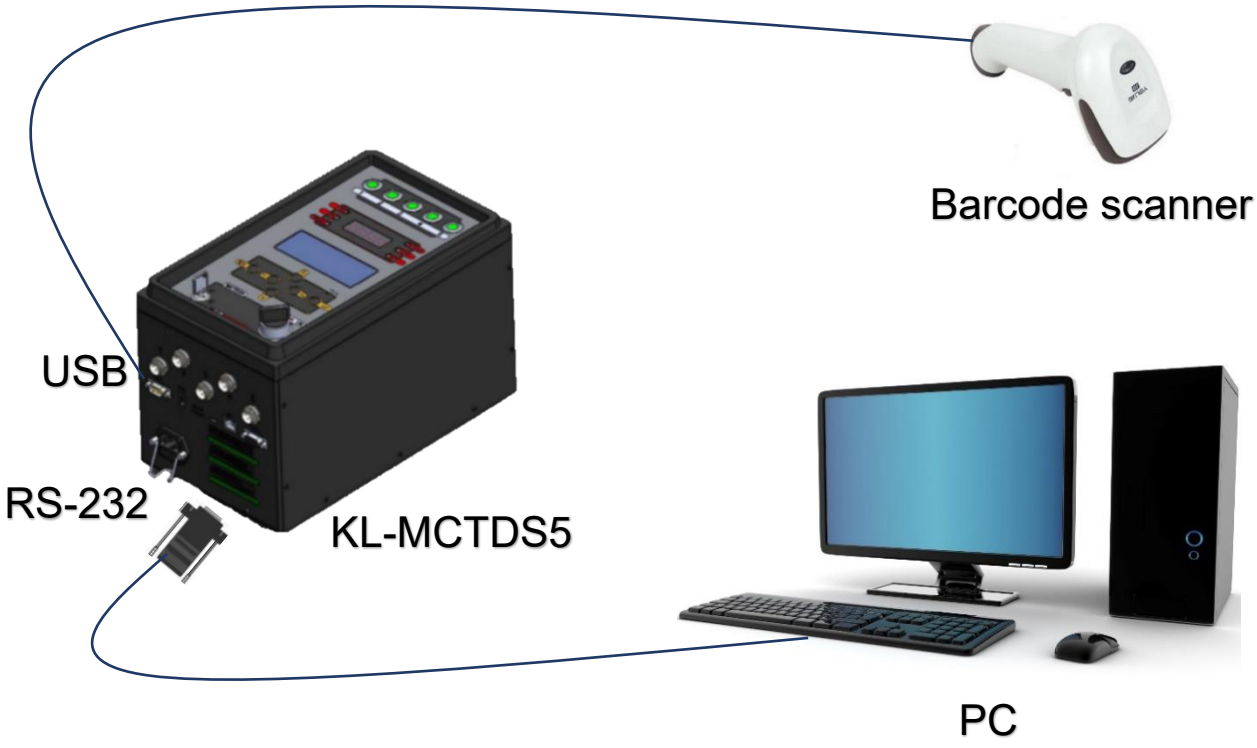
1. The following must be prepared before operating this system:

   - **Kilews** brand controller

     (KL-CTDS, KL-MCTDS5, KL-WSCBSN, KL-TCG).
   - Executable file for the operating

     Data_Acquisition_System.exe.
   - One RS-232 serial port.
   - One 1D(Linear) barcode scanner (*not necessary).

2. Device connection as in the following diagram:

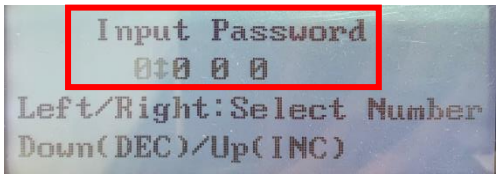


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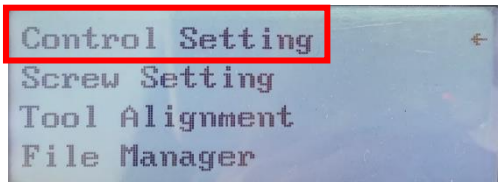
## ④ Controller Preparation

**Step 1:** Press and hold ESC for 3 seconds after power is turned on (ON), enter the password (Input Password) XXXX and press Enter to go into setup.

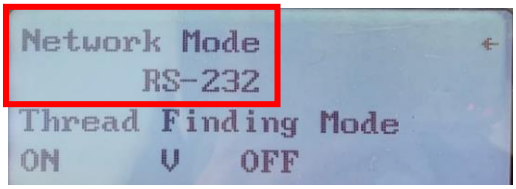
**NOTE:** 0000 as default password.




**Step 2:** Press the down arrow key ( ↓ ) to find the Control Setting and then press Enter.




**Step 3:** Find Network Mode and then press Enter. Use the up and down arrow keys(↑↓) to select the RS-232 setting, and then press Enter to exit the network settings, and then press ESC to return to the previous page to complete the setup.




**NOTE:** This is RS-232 (flashing light indicates successful connection).



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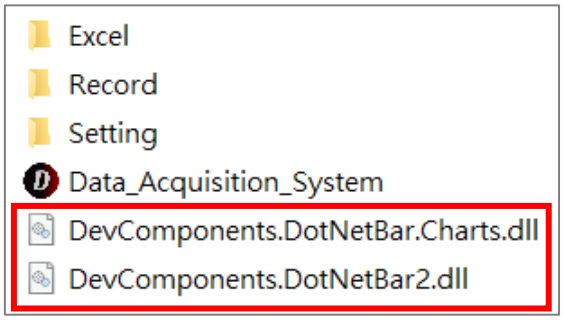
## ⑤ System Connection

**Step 1:** Before log in, it is required to set the date format in the computer system as “YYYY/MM/DD”.

**Step 2:** Download the compressed software

**NOTE:**

For the version: 1.0.0.6 and later on, there must have 2 additional dll files in the folder(shown as below picture) after you decompressed the software. These are required files to run the software.




**Step 3:** Open the executable file Data_Acquisition_System.exe.



**Step 4:** Move the mouse cursor to KILEWS and display the four controllers.

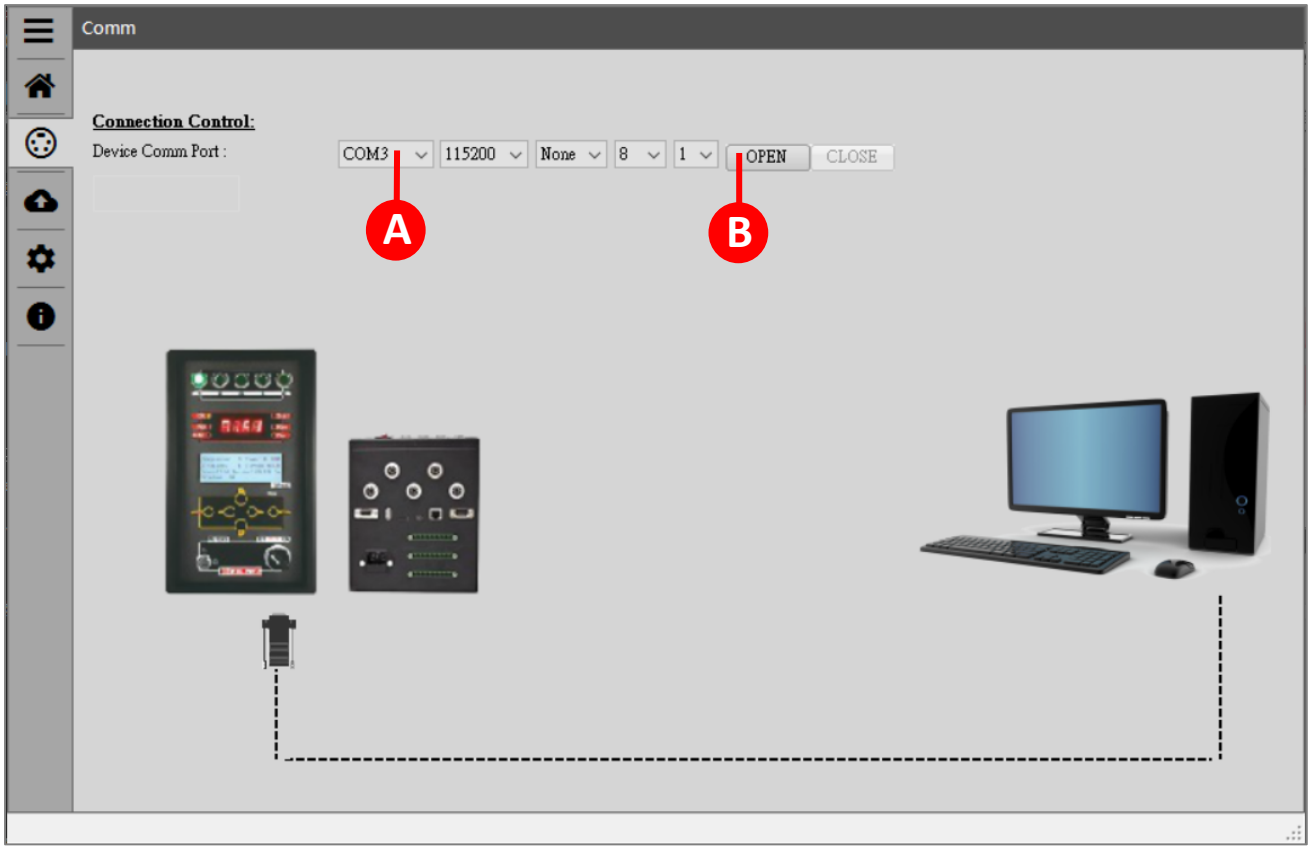



**Step 5:** Controller selection (KL-MCTDS5).



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**Step 6:** Go to Comm page.




A COM3 port to pull down COM3 / COM3

(Connect according to the port of the computer display device)

B And press OPEN and leave controller product testing setup page (communication settings are default, there is no need to modify).

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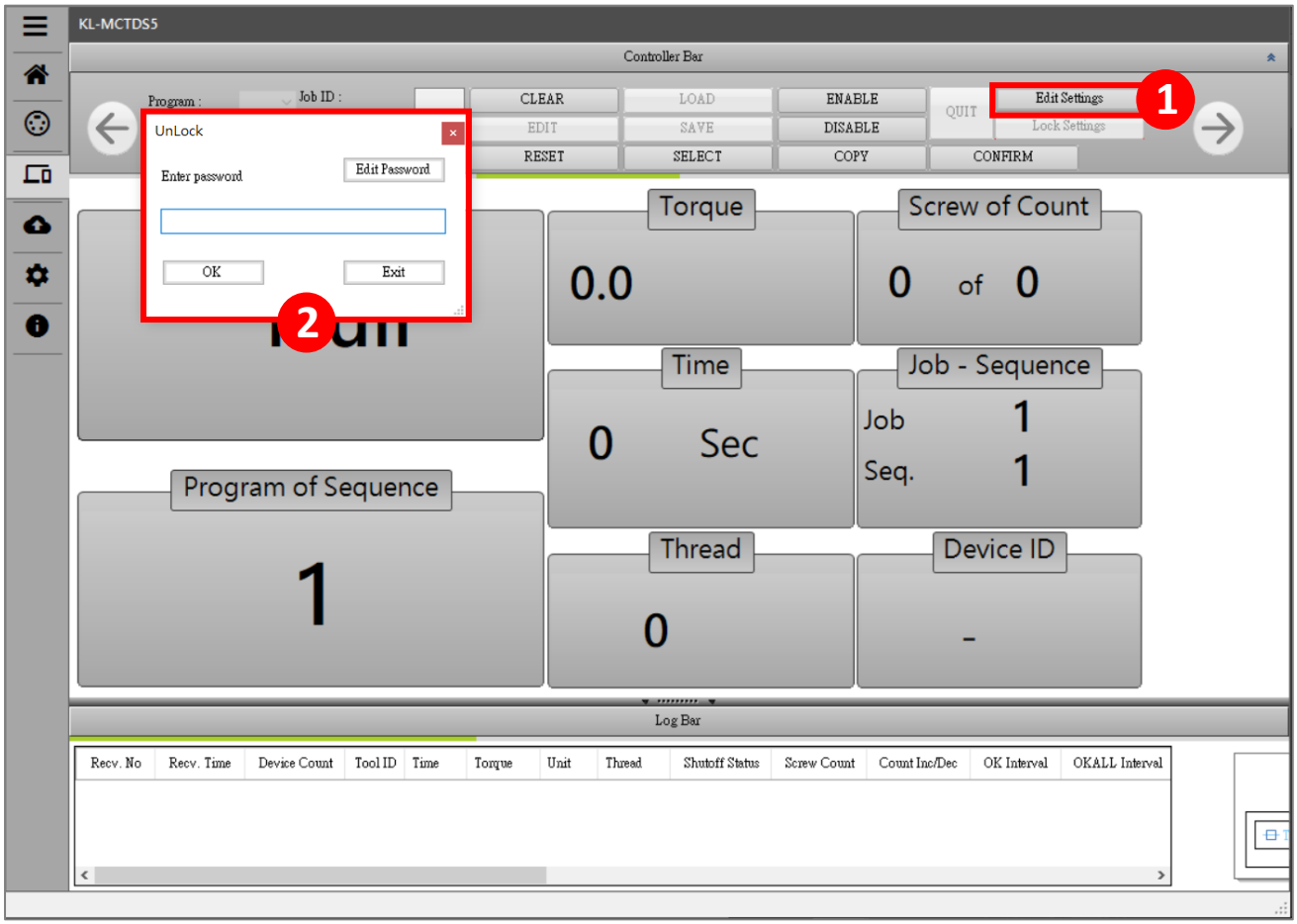
# ⑥ System Screen Introduction

➢ Unlock Settings

The page displayed is Instant data display after entering the screen. At this time, no operation can be performed due to locked setting. You must enter the password first if need to unlock for operation.

**Step 1:** After clicking the button of "Edit Settings", the unlock window will pop up.

**Step 2:** Enter the default password "admin123" and click confirm button.

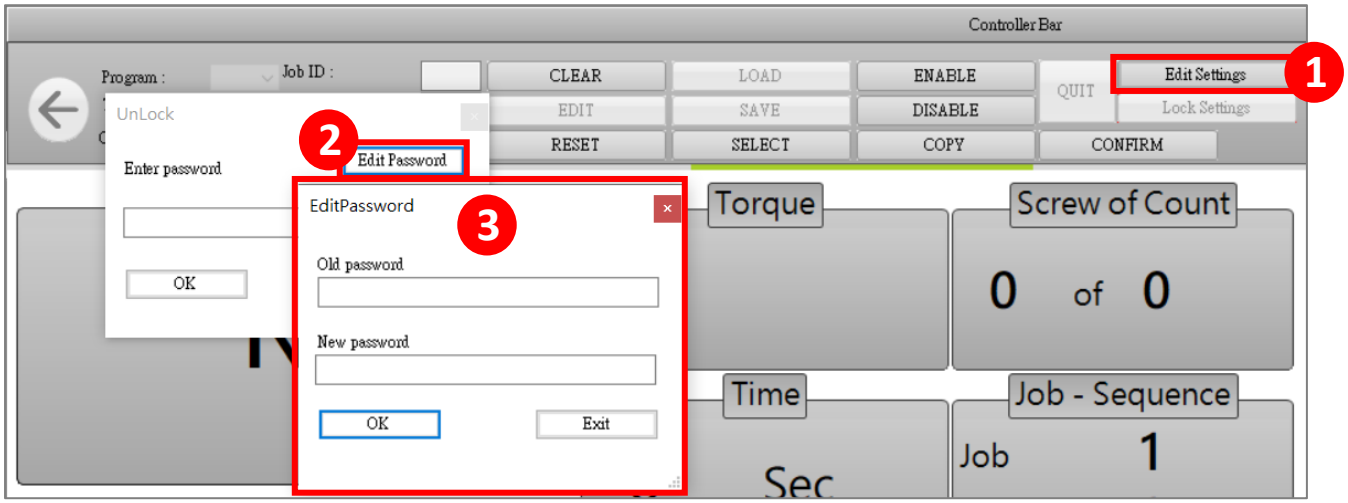


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➢ Password change setting method

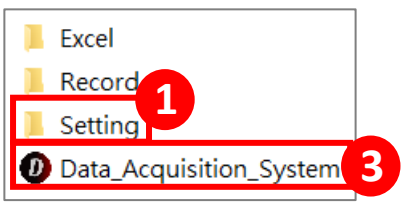
Click "Edit Settings" button → "Edit Password" to enter the old password and the new password, and then click OK button to complete the setting.

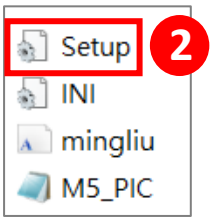
**NOTE:** New password setting: Six to eight characters in length, including English uppercase and lowercase, numbers.




➢ Restore default password

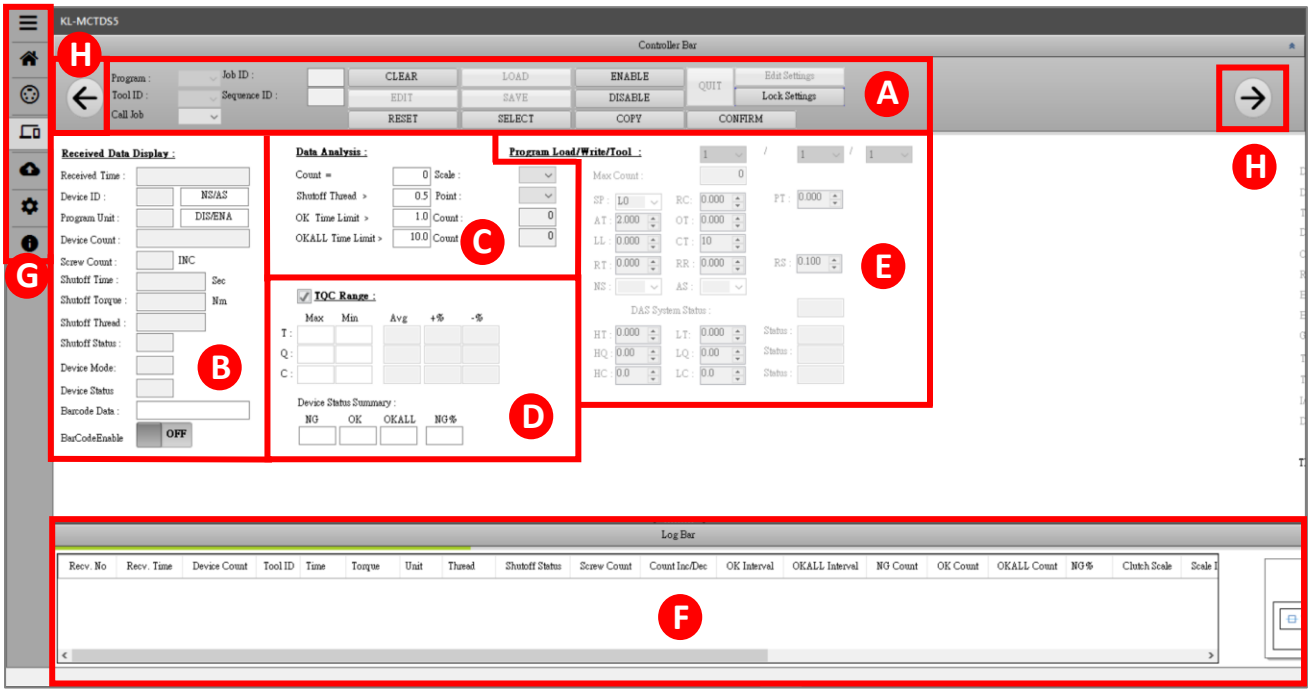
Select to enter the 1 Setting folder, delete the file named 2 Setup and Reopen it 3 Data_Acquisition_System can restore the default password (admin123)



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1. Product setup page: divide the setup page into partitions and introduce them in order.




**NOTE:**

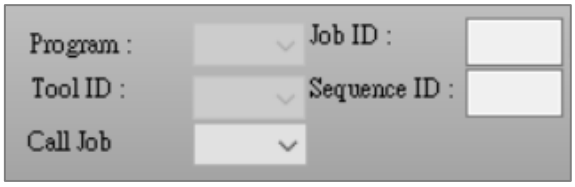
The pages of the system can be operated by sliding left and right , so the software can be operated on the touch screen.

## A Controller device setup



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Introduce the functions for the three zones from left to right in order:




- Program: Display the program group currently used (Program 1~99).
- Tool ID: Display the current number of screwdriver (Tool 1~5) being used.
- Call Job: The specified Job can be executed immediately.
- Job ID: Display the current number of job (Job 1~20) being used.
- Sequence ID: Display the current number of sequence (Sequence 1~20) being used.




- CLEAR: Click 

to reset counting.
- ENABLE: Press 

to immediately allow the screwdriver to run.
- EDIT: Press 

to enter screwdriver condition parameters.
- DISABLE: Press 

to immediately stop screwdriver operation.
- RESET: Press 

to restart the controller and restore factory parameters.
- CONFIRM: Click 

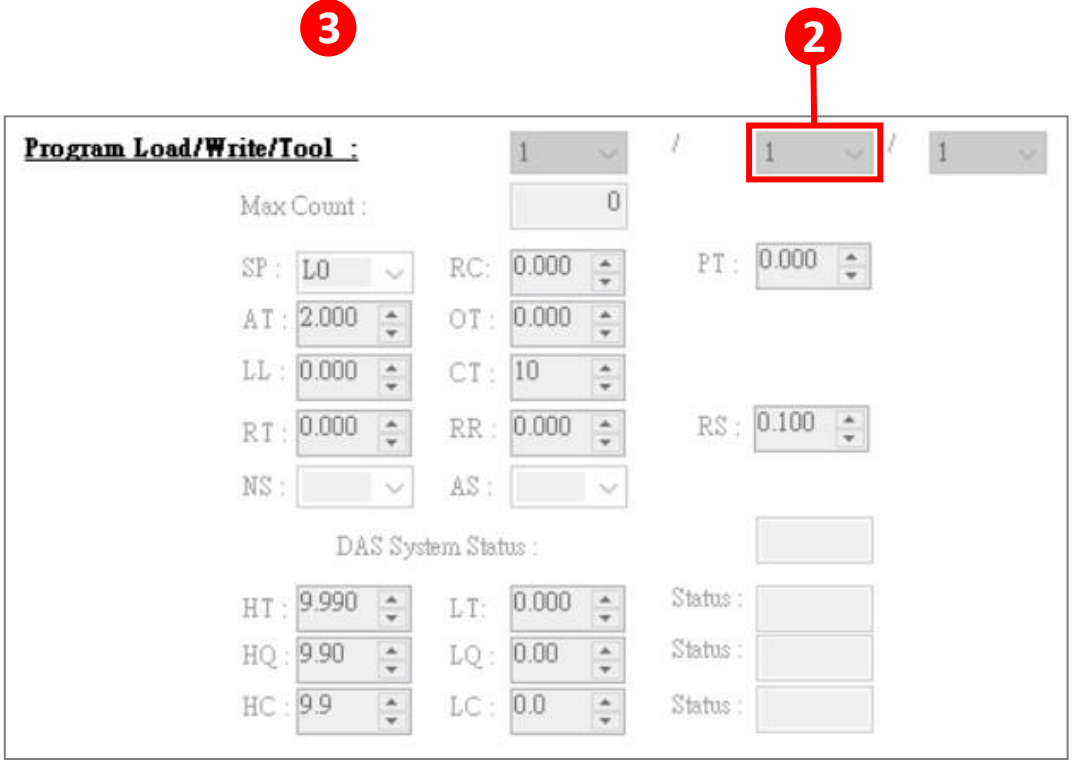
to dismiss controller C3 status.

**(refer to KL-MCTDS5 User Manual for C3 function introduction)**.

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- SELECT: Press EDIT and then input required parameters 1 . Then, press SELECT and QUIT to switch to required program.



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- COPY: Press 

to copy the TQC condition parameter to Program.

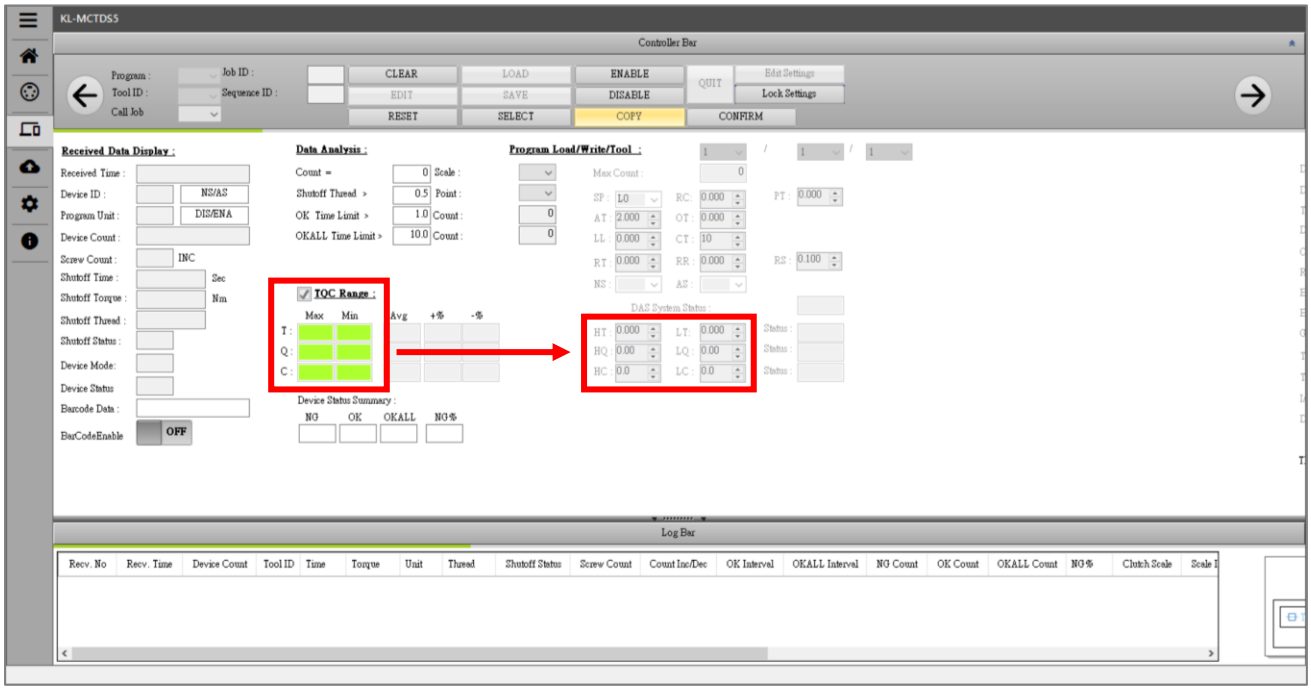
(Procedure: 

→ tightening screws→ 

→ 

→ 

. After done this procedure, the system will copy T, Q, C data to HT/ HQ/HC/LT/LQ/LC as limitations.

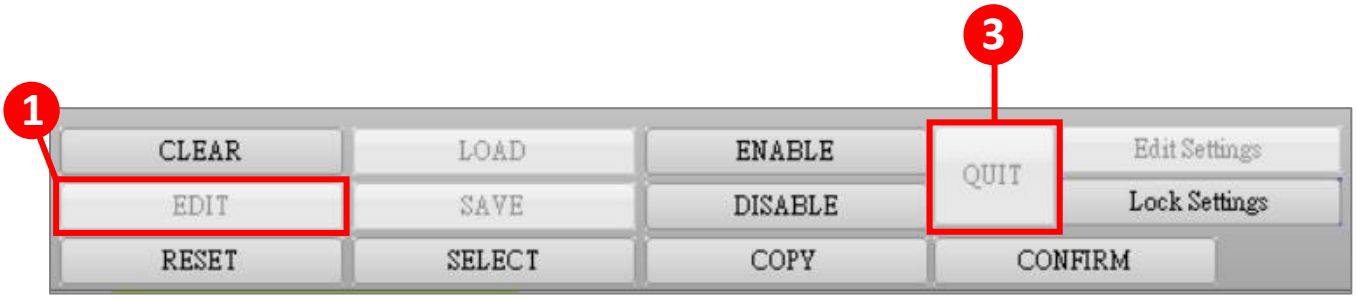


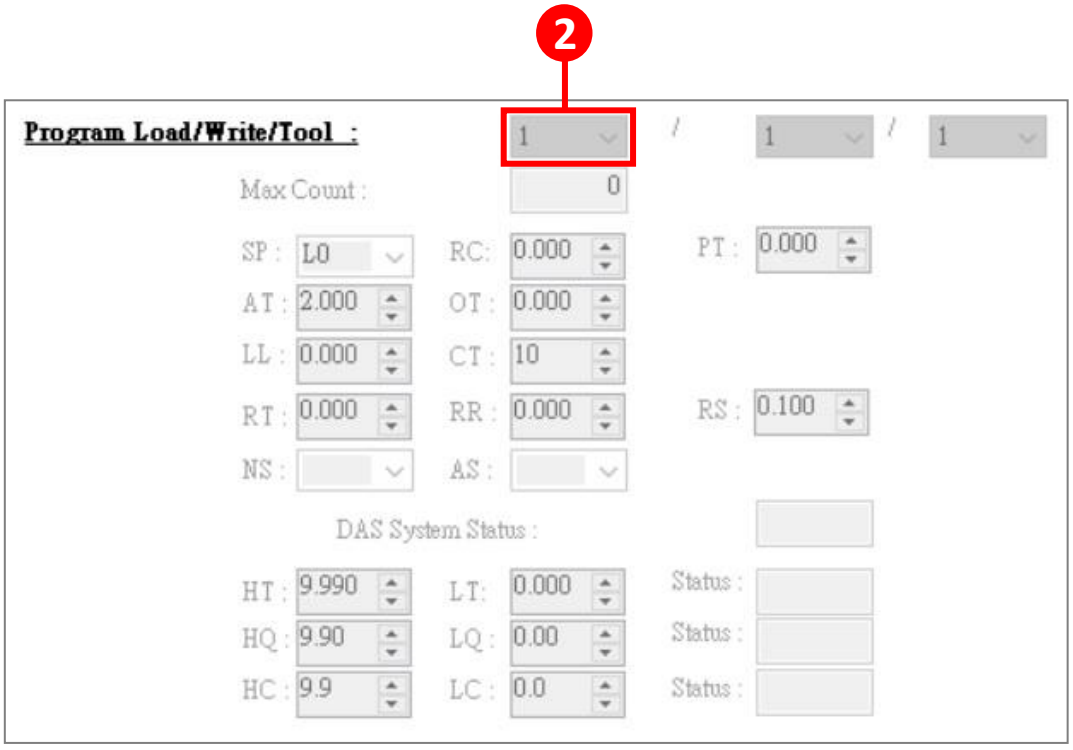
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- LOAD: To load the parameter settings from the KL-MCTDS5 controller.

  Press EDIT and then select program 1 .

  Press QUIT to finish this process.



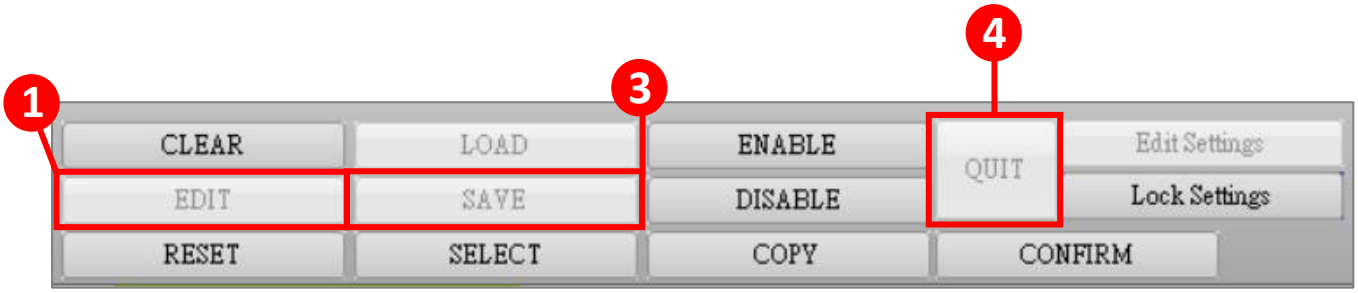



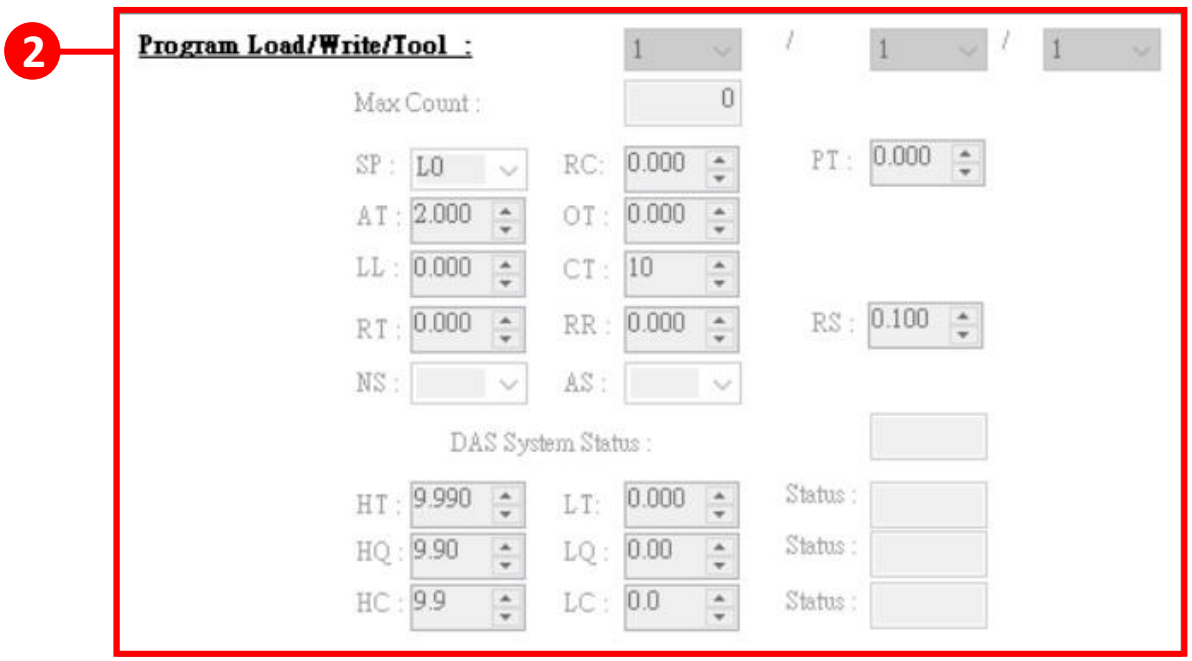
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- SAVE: Save the parameters to KL-MCTDS5 controller.

  Press EDIT and then input required parameters.

  Then, press SAVE and QUIT to finish this process.




**NOTE:**



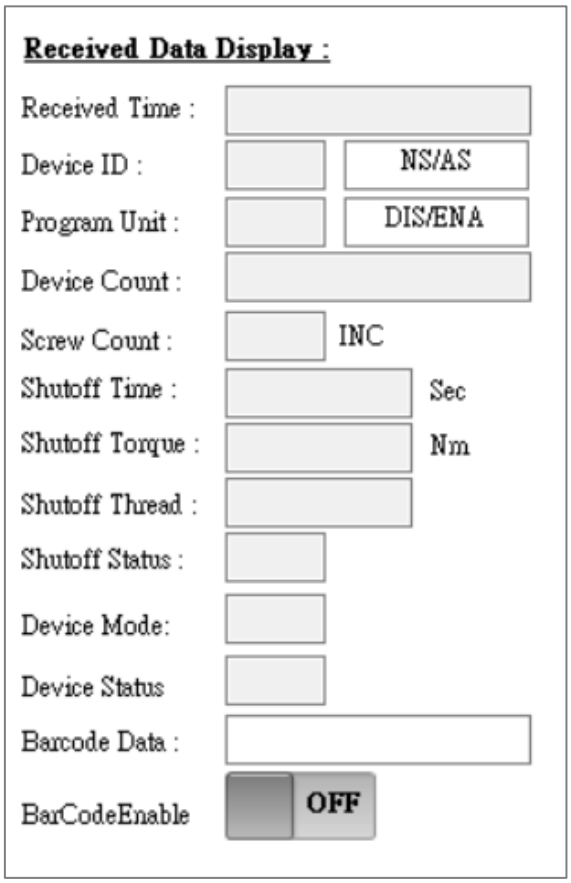

Program Tool: Normally, this function is used to test specific tool No. with specific program No. flexibility. You could assign which tool to run the program No. you load.

* Available only when the Sequence settings is set to OFF.

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- QUIT: Press EDIT to end after pressing QUIT.
- Edit Settings：After entering the system, you must click Edit Settings and enter the password to unlock the screen and switch to other pages. (Please refer to "Password Change Setting Method")
- Lock Settings : Click Lock Settings to automatically jump to the "Instant data display" screen, and no operation can be performed. The lock settings must be unlocked.
  (Please refer to "Instant data display" , "Unlock Settings")

B Received Data Display: All fastened data can be displayed instantly.



- Received Time: The time to fasten the data.
- Device ID: Device ID (1~99).
- Program Unit: This fastened program group (Program).
- Device Count: The total number of times the device is fastened.
- Screw Count: The number of fastened units.
- Shutoff Time: How long driver ran before clutch tripped. (Sec)
- Shutoff Torque: the torque for the fastening.
- Shutoff Thread: Number of rotations at output shaft.
- Shutoff Status: shut off status (OK, NG, OK ALL, REV).
- Device Mode: STD mode, ADV mode.

**(please refer to KL-MCTDS5 manual)**

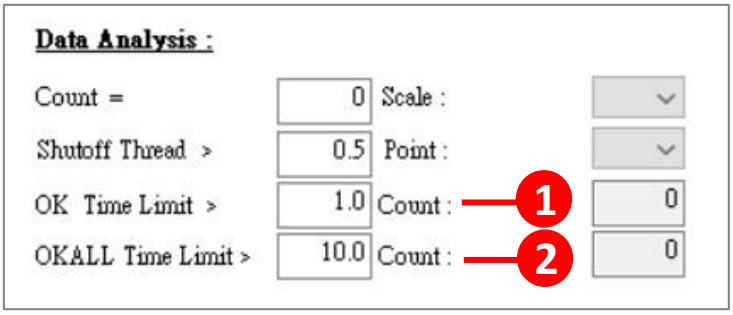
- Device Status: **(Refer to the "Display Status Code Description" in KL-MCTDS5 User Manual)**.
- Barcode Data: barcode data.
- BarCodeEnable: The C3 function will be dismissed when the barcode is scanned.

**(refer to KL-MCTDS5 User Manual for C3 function introduction)**

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C Data Analysis: the number of times, the number of shut off, OK and OKALL interval time can be set. The data which meet the conditions will be shown.

**NOTE:** Data Analysis will be activated when the TQC Range is enable.




- Count: the number of shutoff Thread greater than its setting and also the torque value is greater than 0.
- Scale: 0~8 scale.
- Shutoff Thread: Output shaft must rotate more than displayed value or result will be ignored.
- Point: Clutch scale (1~15).
- OK Time Limit: Set the maximum duration between each OK signal. Once the time over this setting, it will count 1.

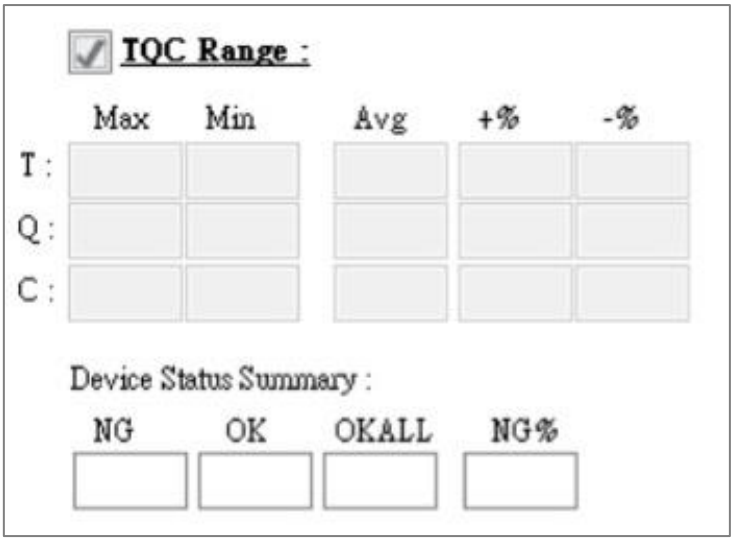
  1 Count: the number of times greater than OK interval.

- OKALL Time Limit: Set the maximum duration between each OKALL signal. Once the time over this setting, it will count 1.

  2 Count: the number of times greater than OKALL interval.

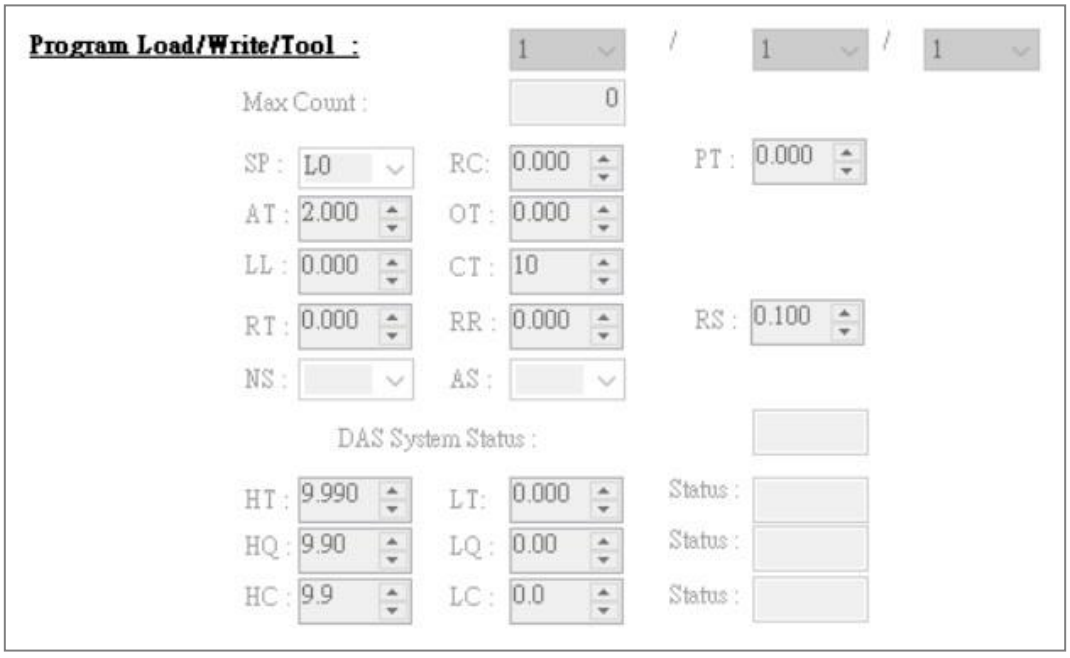
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## D TQC Range: Analyze the average error value



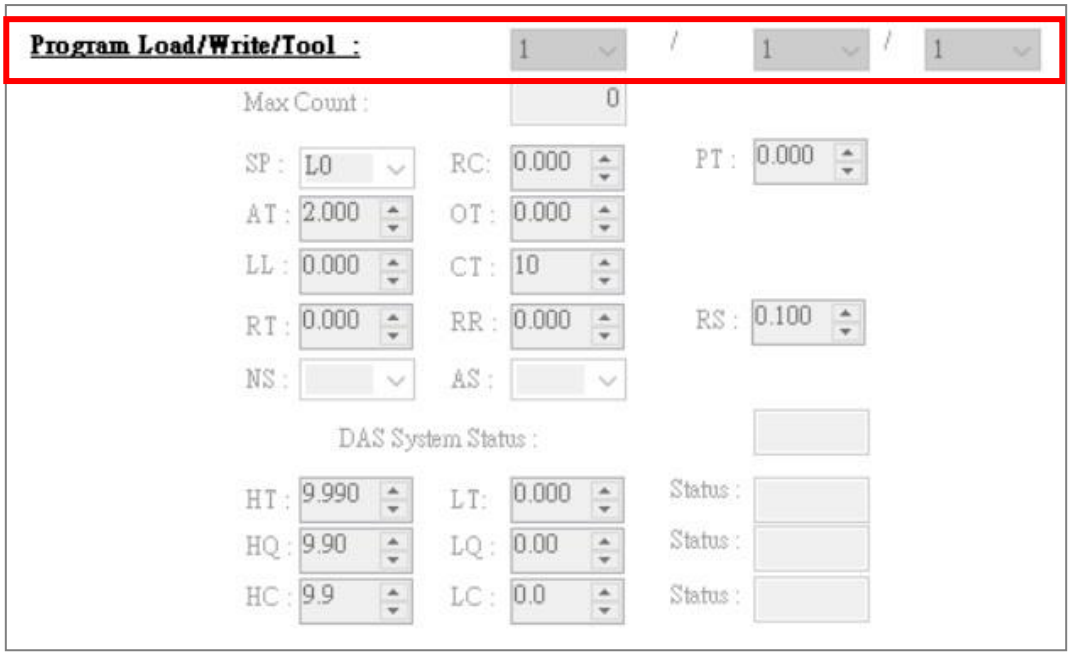

## E Program parameter setup

**(refer to KL-MCTDS5 manual for condition parameters)**



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- Program Load/Write/Tool:

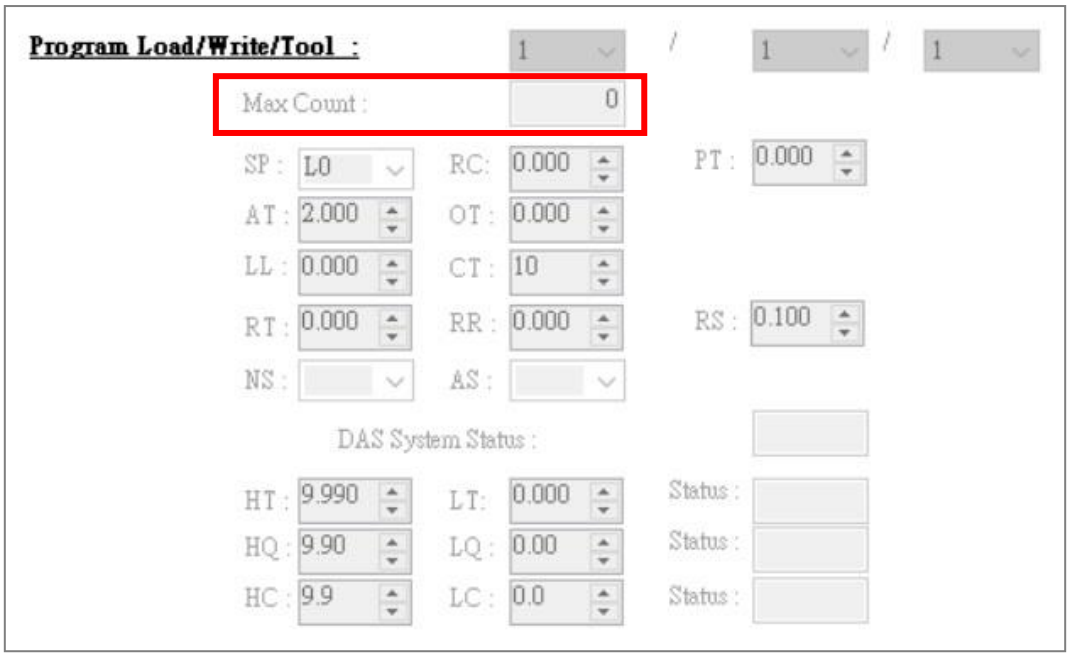



➢ For the “Load” field, please refer to **“ROAD”** .

➢ For the “Write” field, please refer to **“SAVE”** .

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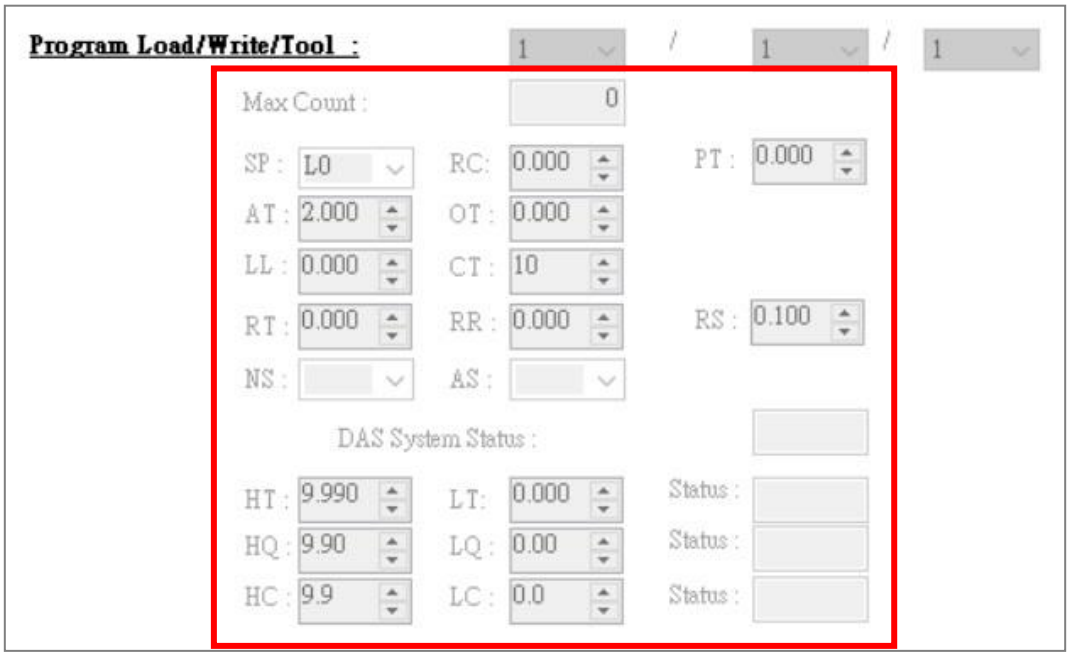
- Max Count:




The field indicates the “required total screw numbers”

- Program parameter setup

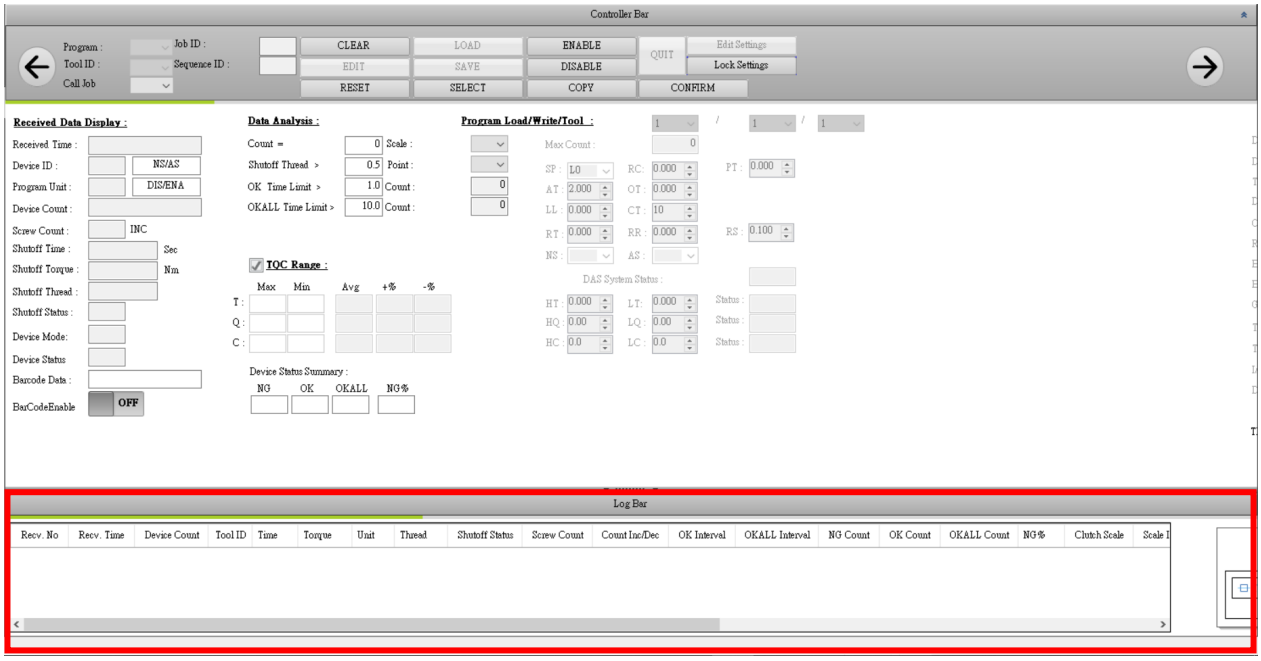
**(refer to KL-MCTDS5 Manual for Condition Parameters)**



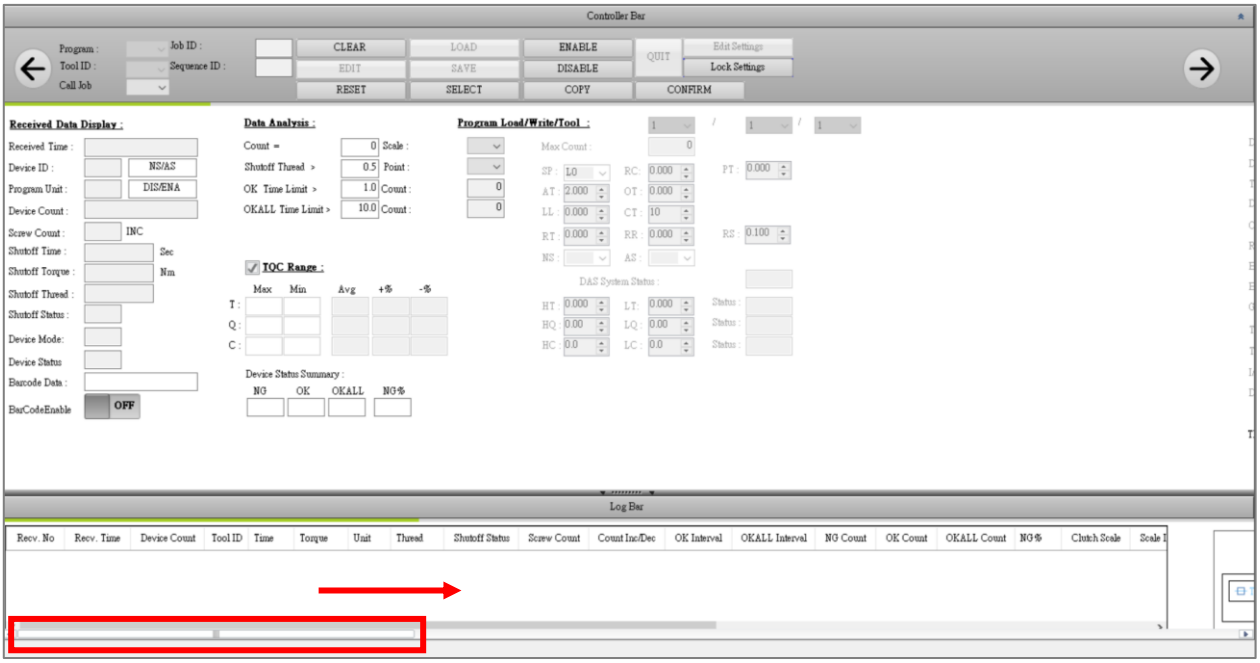
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**F** Data collection: When the fasten tool is started, the data will be displayed in the Log Bar field at the bottom of the page.
(Fasten data sheet, TQC Trend Setting)

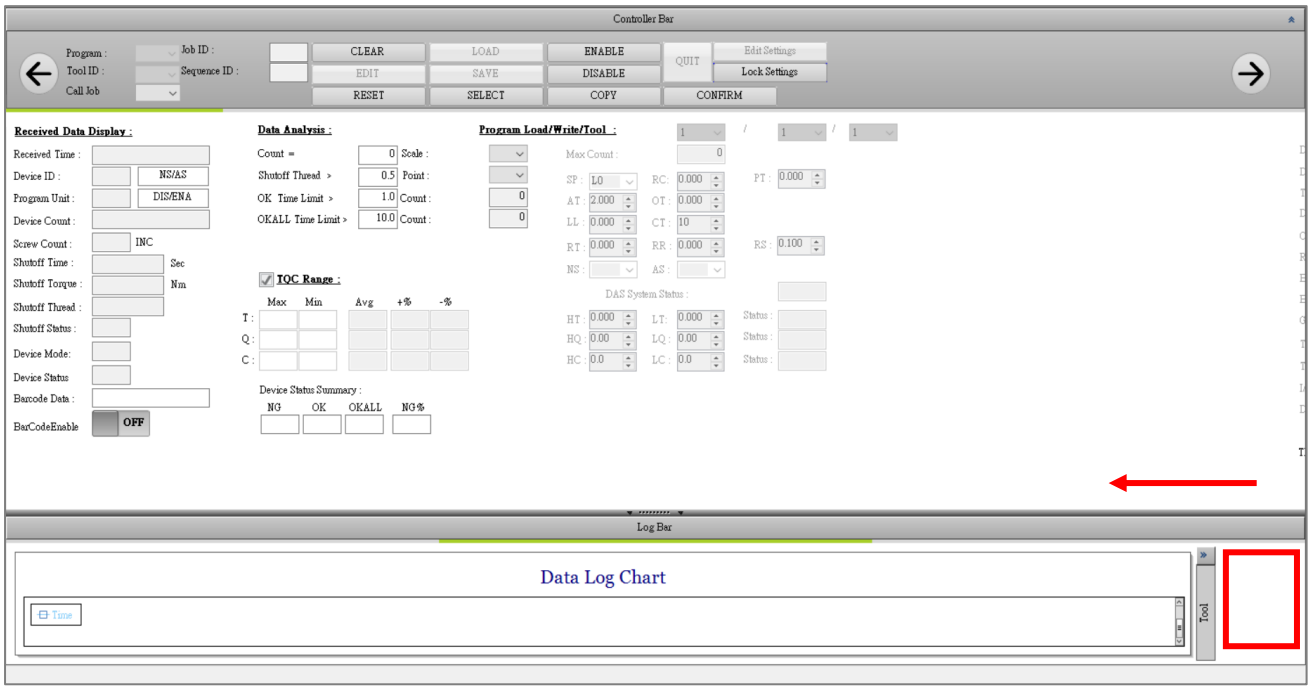
- Fasten data sheet **(If you need to hide or display the received data, please refer to "Item selection").**



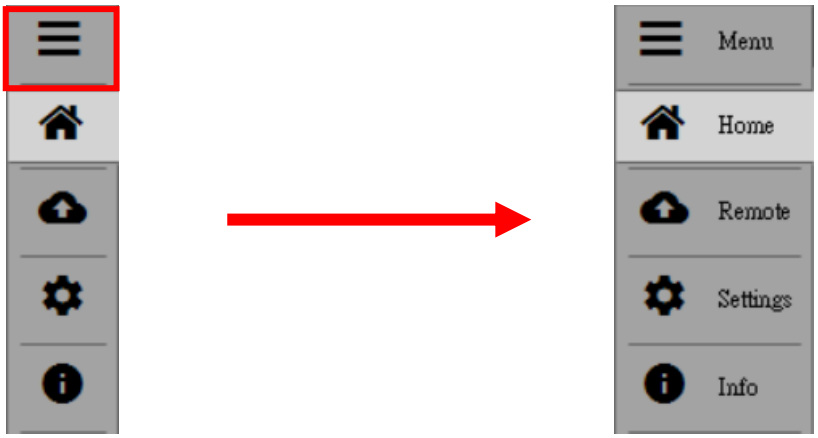

- Depress the scroll bar and swipe to the next page to display TQC Trend Setting **(Please refer to "Trend Setting" for the TQC setting)**



**NOTE:** Touch the red box area and swipe to the next page to display a trend graph.

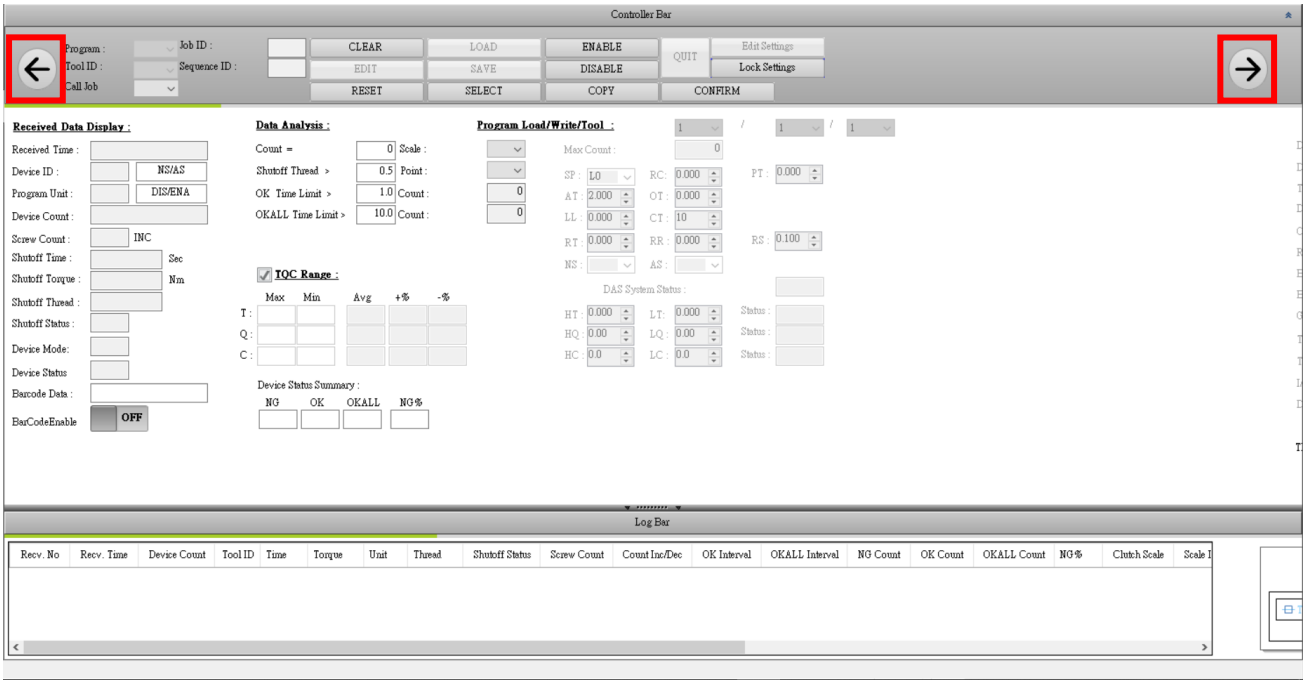



G Main menu: click  to hide or display English title.



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H Go to previous page by pressing  button, next page by pressing  button.

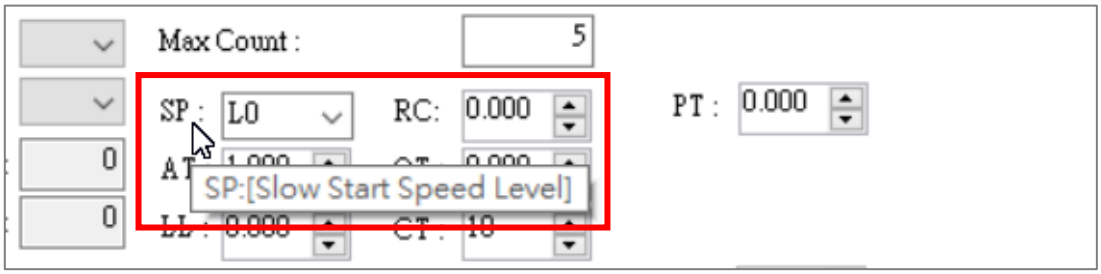



**NOTE:**

Full description will be displayed when the mouse moves to the setting parameter (**please refer to KL-MCTDS5 manual for details**).

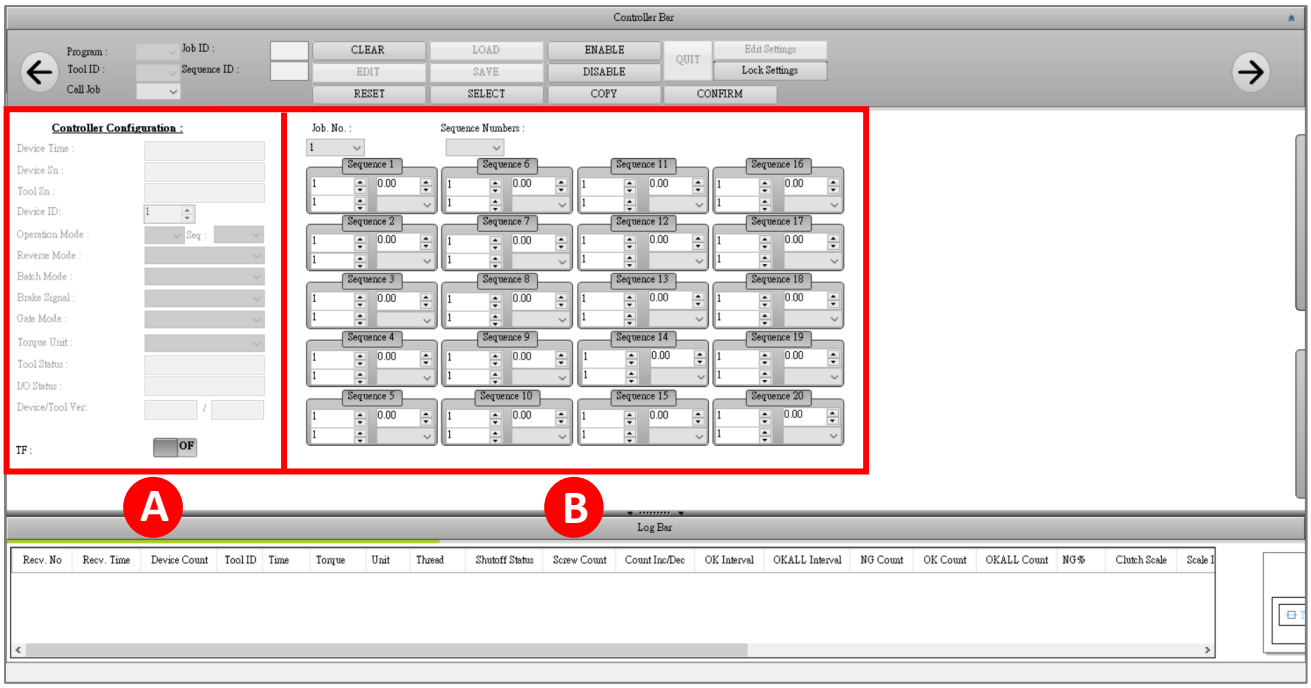
**Example:**

When the mouse moves to “SP”, “SP: [Slow Start Speed Level]” is displayed.



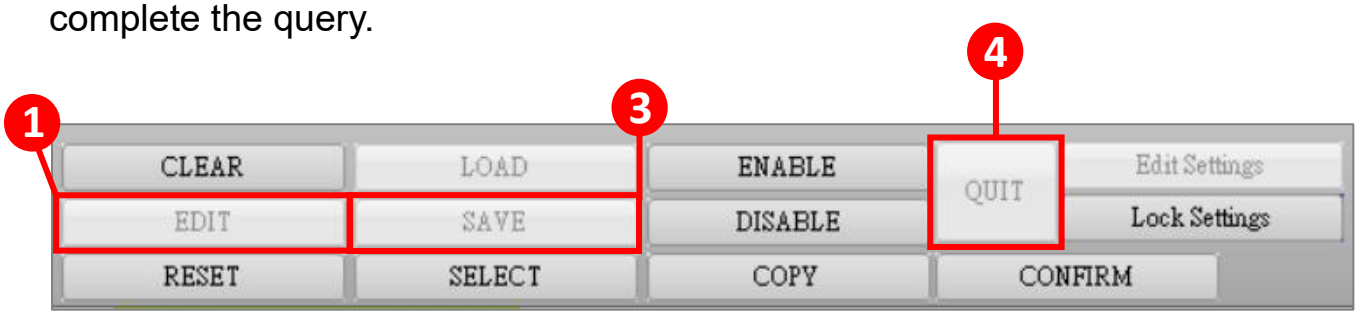
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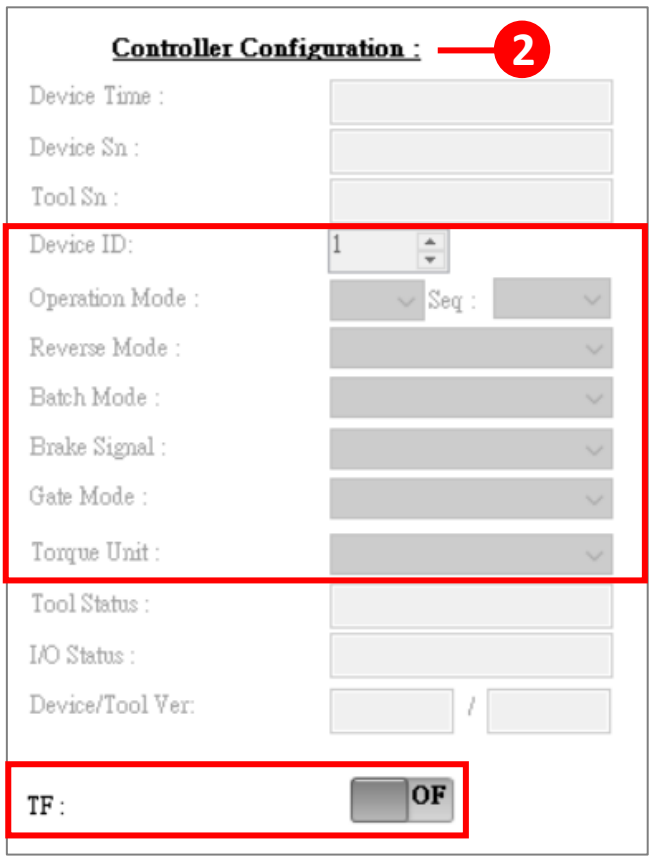
## 2. Controller and Job setup page



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A Controller Configuration: After pressing EDIT, you can modify and query the controller status set by the device (RED rectangle area). After the setup is completed, press the SAVE button and press QUIT to complete the query.




**NOTE:** To query the Controller Configuration ,

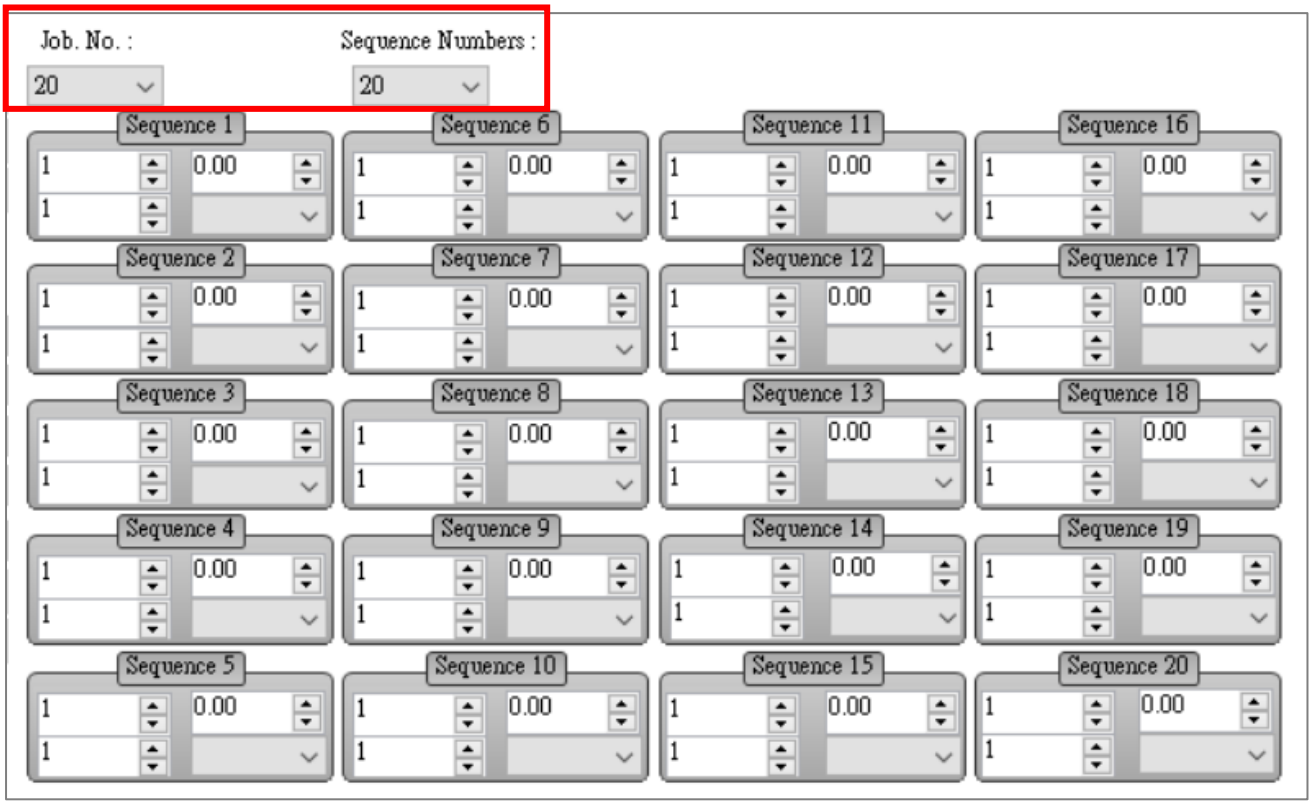
press EDIT → LOAD → QUIT .

**NOTE:** Refer to KL-MCTDS5 instruction manual for device setup conditions.

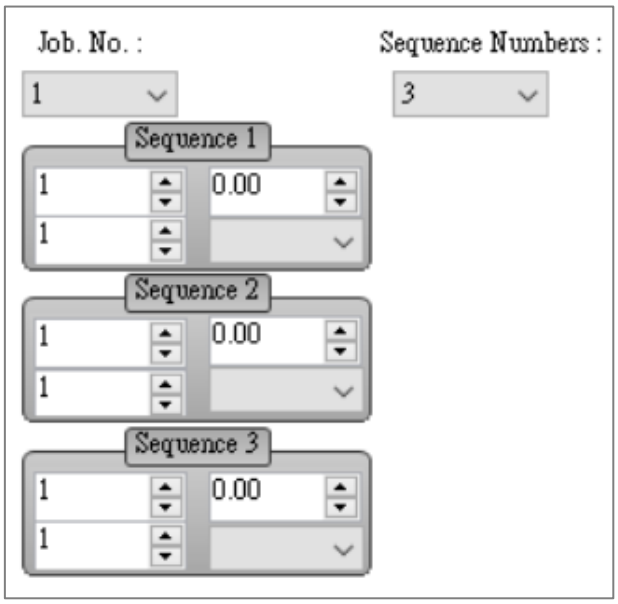
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## B Work Sequence:

You can set up twenty Job. No. : and twenty Sequence Numbers : .

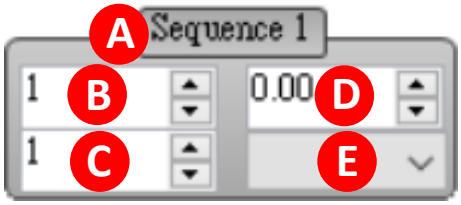



- When Job. No. : selects the first set, after Sequence Numbers : has set up three, you will see the following screen.



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**NOTE:**




A Sequence (Sequence No. 1 ~ No. 20)

B Unit (Unit No.1 ~ No. 99) = Program No. + Tool No.

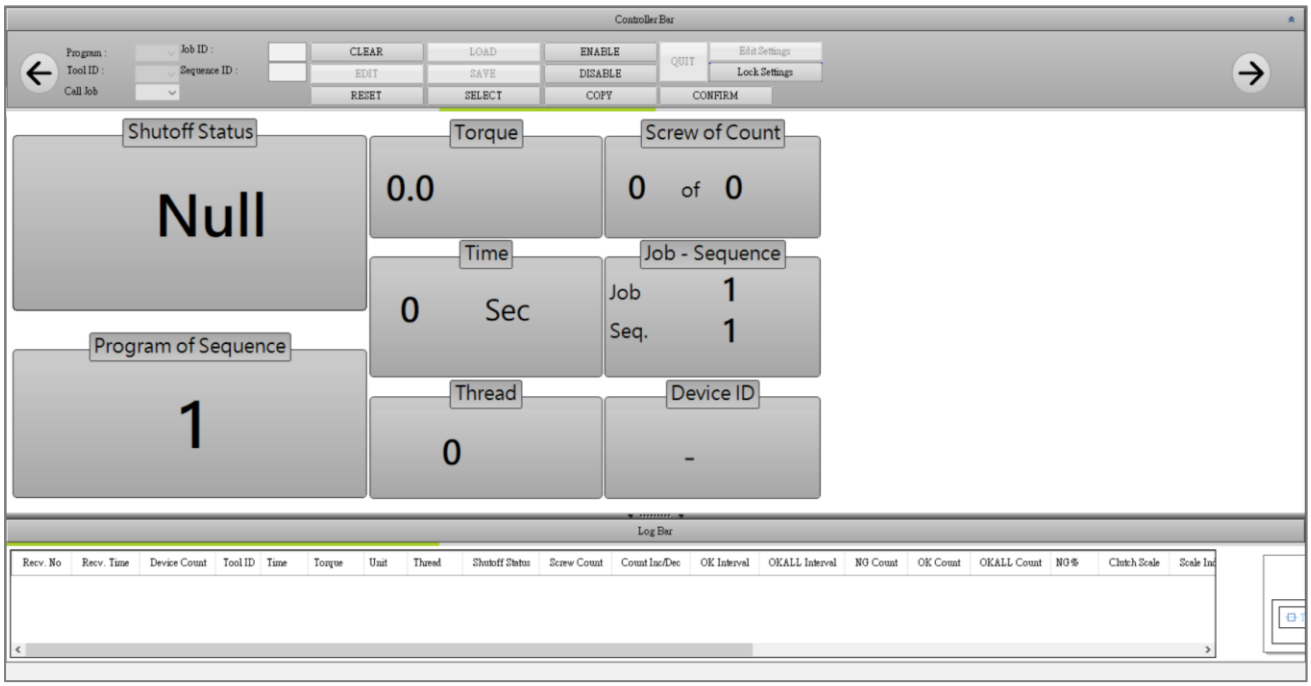
C Program (Program No.1 ~ No. 99)

D Offset (Offset +99.99 ~ -99.99)

E Tool (Tool NO. 1 ~ Tool NO. 5)

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3. Instant data display




- Shutoff Status: Display current complete status of fasten process.
- Program of Sequence: Indicate the current Program of the Sequence.
- Torque: Display fastening torque.
- Time: Display screw fastening time.
- Thread: Display the number of turning screwdriver.
- Screw of Count: Display the number of current screw count status.
- Job-Sequence: Display current fastened tasks and work sequence.
- Device ID: Display controller device number.

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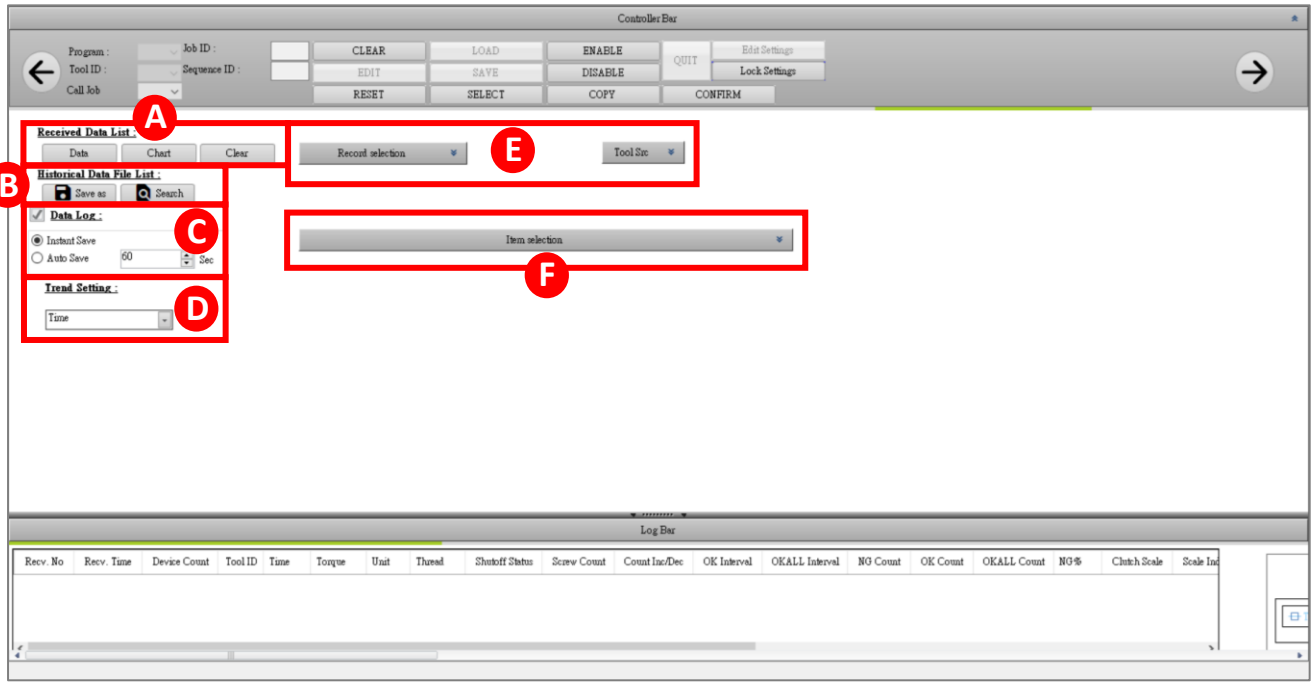
4. Electric screwdriver serial number calibration time page

This page shows the status of the electric screwdriver connection status, tool items, and number of torque filters.



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## 5. Report and trend graph setup page




### A Received Data List




There are two types of display data Data Chart. If you need to clear it, press the Clear button to clear all the data immediately.

## B Historical Data File List




- Excel export: When swiping the Controller Bar to page 4,

  press 

to export the Excel report to the specified location.

- Excel import: When swiping the Controller Bar to page 4,

  press 

and then click the Excel file to import it.

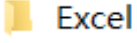
## C Data Log




- Data Log: When 

is checked, there are two ways to automatically export Excel reports (instant archive, automatic archive).

  - When 

is selected, any data fastened will be automatically exported to the bottom of 

. When the system passes the integral time point, the form will be cleared to ensure sufficient memory space.

  - When 

is selected, the data will be recorded in “seconds” as set in 

and the report will be exported below 

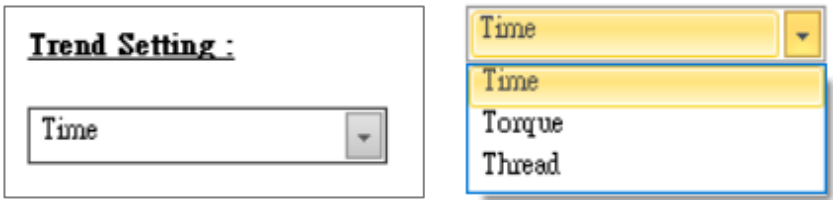
.

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**D** Trend Setting: Time, Torque, Thread

Select one of the Time, Torque, and Thread from the pull-down menu.

It will show the graphic trend chart. (Refer to **"TQC Trend Setting"**)



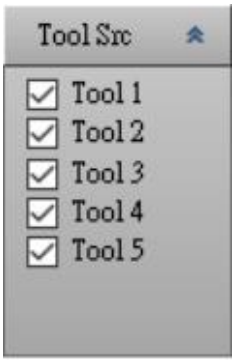

**NOTE:** When changing the "Trend Setting"(T/Q/C) setting, the screen of the chart will be clear and then display again after finished a new tighten.

**E**

- Record selection: Checked items will affect the data recorded in the form. When REV selection is cancelled, the inverted data will no longer be received.



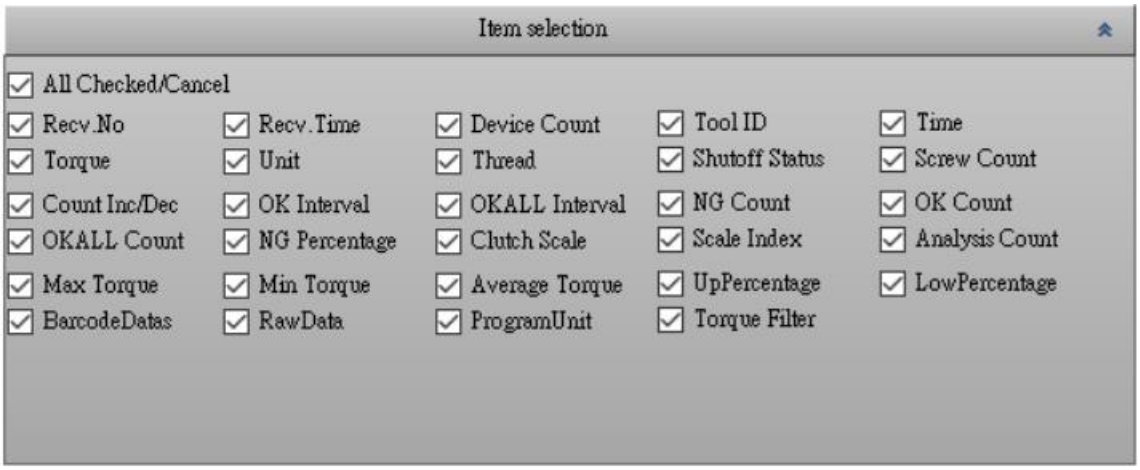

- Tool Src: The selected items will affect the data recorded in the form. When the item is checked, the display data will be displayed; otherwise, it will not be displayed.



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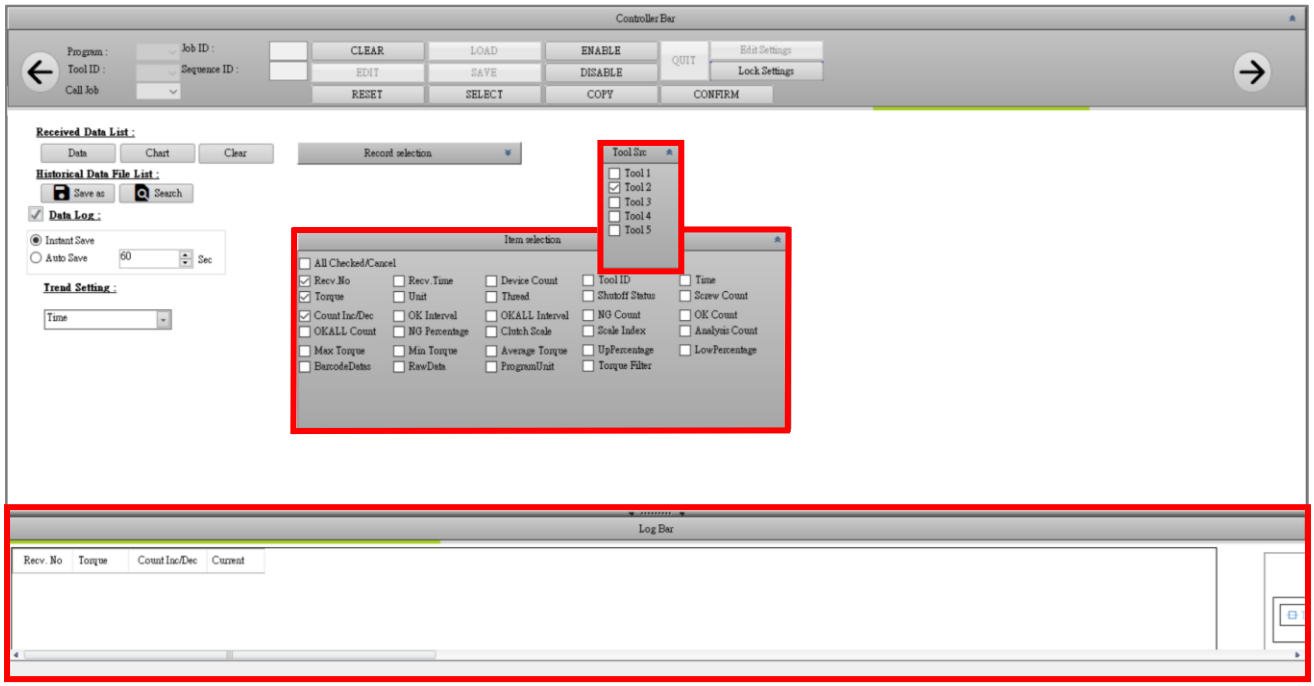
F

- Item selection: The selected items will affect the data recorded in the form. When the item is checked, the display data will be displayed; otherwise, it will not be displayed.




**[Example]**

If you only want to display the “received serial number”, “torque”, and “increase/decrease” for the “second screwdriver”, check “Tool2” in “Tool Source”, and check “Receive Serial Number”, “Torque”, “increment/decrease” in “Record selection”.

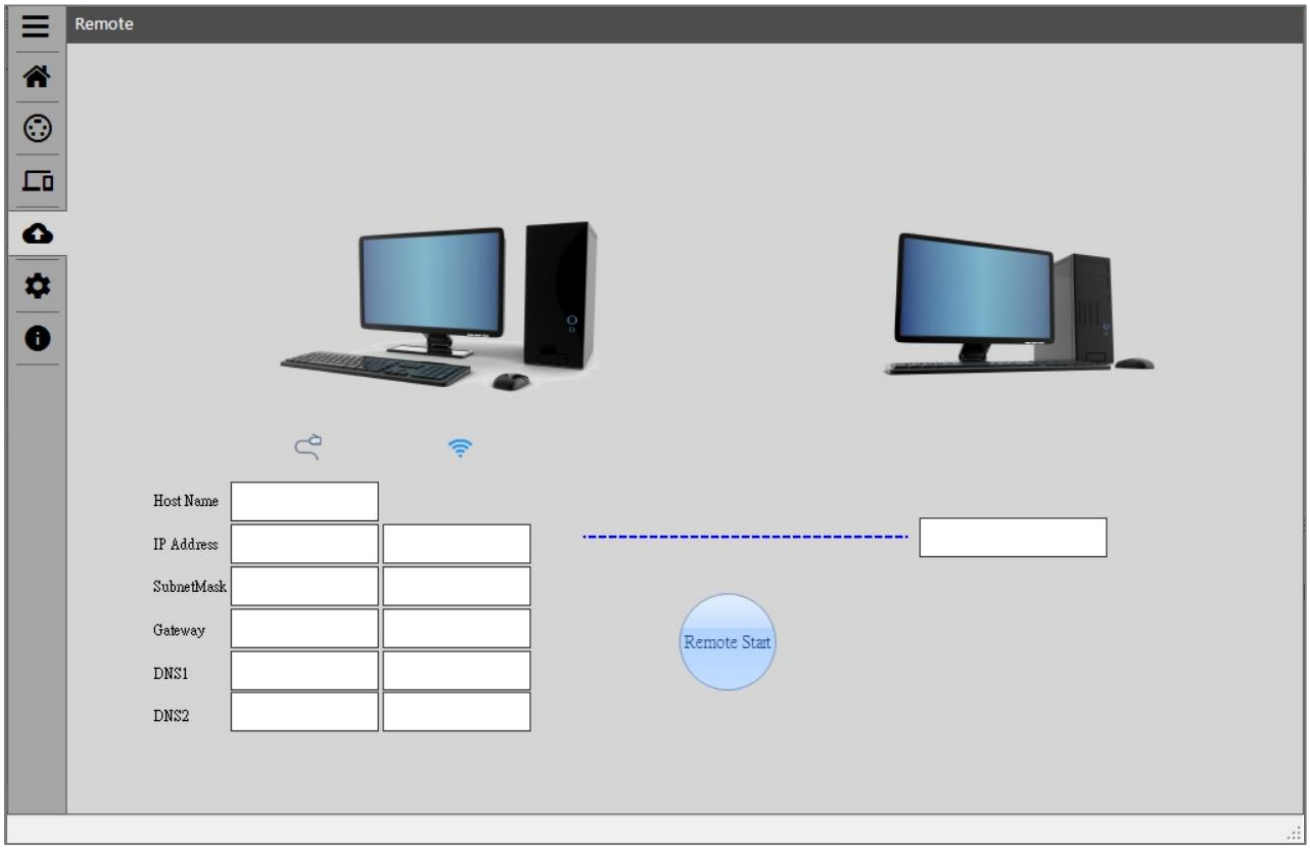


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# ⑦ Remote Screen

The screen image by remote monitoring.

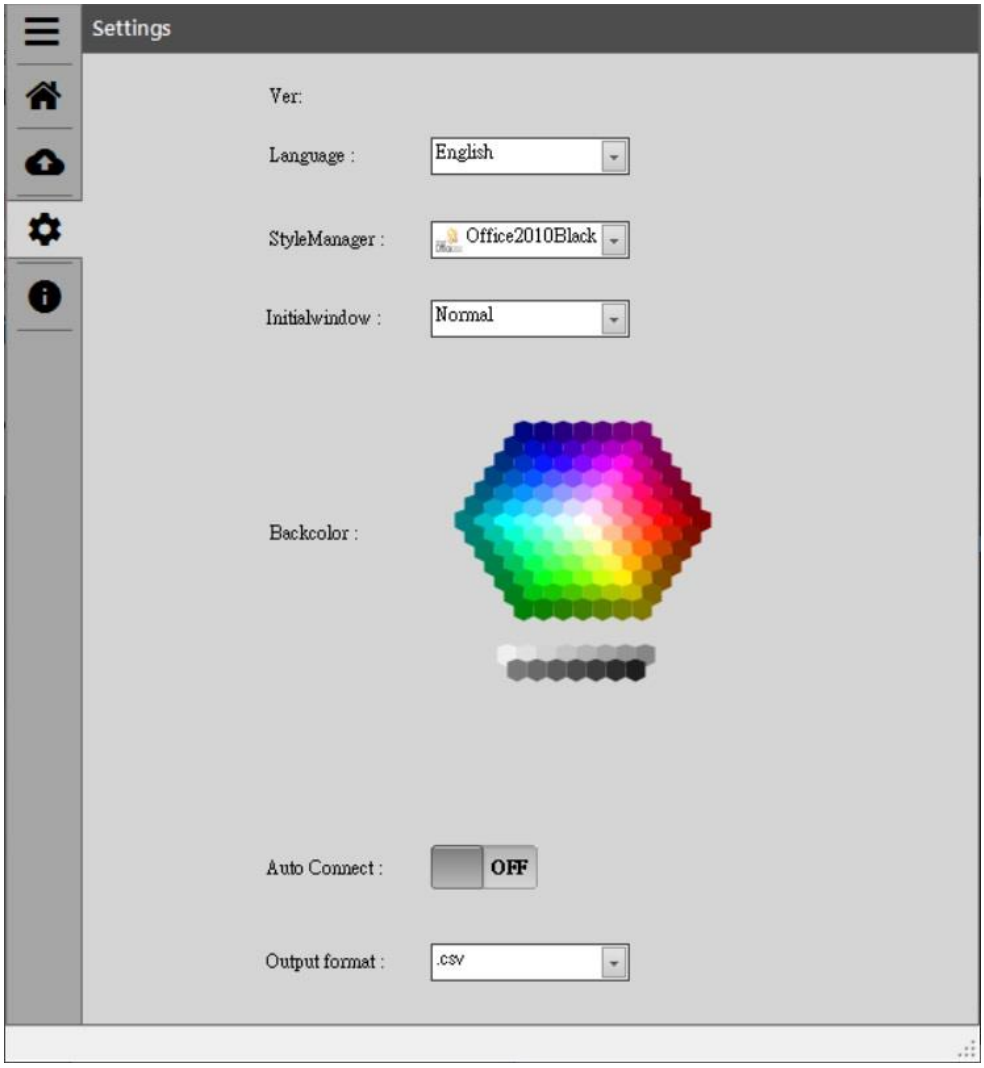
**NOTE:** Please contact with local distributors for the detail information.

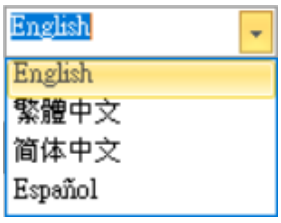


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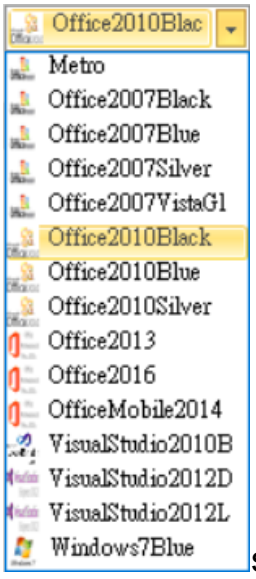
# ⑧ System Function Setup

Switch to Settings page to operate system functions.

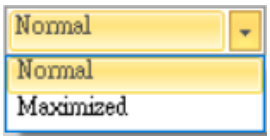


1. Language: 

three language options are available.

2. Style: 

system operating style can be changed.

3. Initialwindow: 

To set the initial windows setting.

4. Background color:  system background color can be selected.

5. Auto connection: When switching 

, the serial port (COM) will automatically connect to the device the next time you start the software.

6. Output format: Different formats for record storage can be select.

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# ⑨ Info Company Website

Switch to Info page to browse **Kilews** official website.



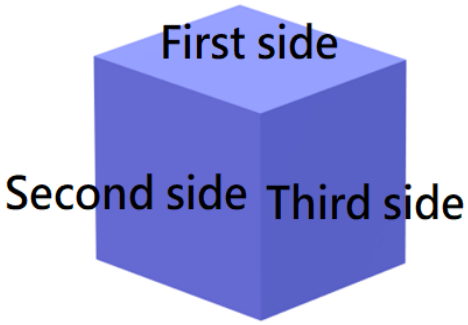
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## ⑩ Example Description

**NOTE:**

1. 1 Job (Job No.1 ~ Job No.20) = Sequence (Sequence *20)
2. 1 Sequence (Sequence No. 1 ~ No. 20) = Unit No. + offset
3. 1 Unit (Unit No.1~ No. 99) = Program No. + Tool No.
4. 1 Program (Program No.1 ~ No. 99) : 99 programs could be set
5. 1 Tool (Tool NO. 1 ~ Tool NO. 5) : Tool NO.1 ~ Tool No.5 could be selected.

When screws are fastened on 3 sides of a product, the condition is as follows:




**Job**

| Fastened (Sequence) | Maximum count value | Condition (kgf.cm) | Tool |
|---|---|---|---|
| First Side (Sequence 1) | 4 pcs | HQ 15, LQ 1 | Tool 1 |
| Second Side (Sequence 2) | 3 pcs | HQ 20, LQ 5 | Tool 2 |
| Third Side (Sequence 3) | 2 pcs | HQ 18, LQ 3 | Tool 3 |

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**Step 1:** Set the Unit 1 ~ Unit 3 condition

(refer to **"Save"** for setting up the parameter condition)

1. Set to Unit 1 when the first side is fastened

Program1 condition = maximum count as 4, maximum fastening torque (HQ) 15 kgf.cm, minimum fastening torque (LQ) 1 kgf.cm, and tool 1.

2. Set to Unit 2 when the second side is fastened

Program2 condition = maximum count as 3, maximum fastening torque (HQ) 20 kgf.cm, minimum fastening torque (LQ) 5 kgf.cm, and tool 2.

3. Set to Unit 3 when the third side is locked

Program3 condition = maximum count as 2, maximum fastening torque (HQ) 18 kgf.cm, minimum fastening torque (LQ) 3 kgf.cm, and tool 3.

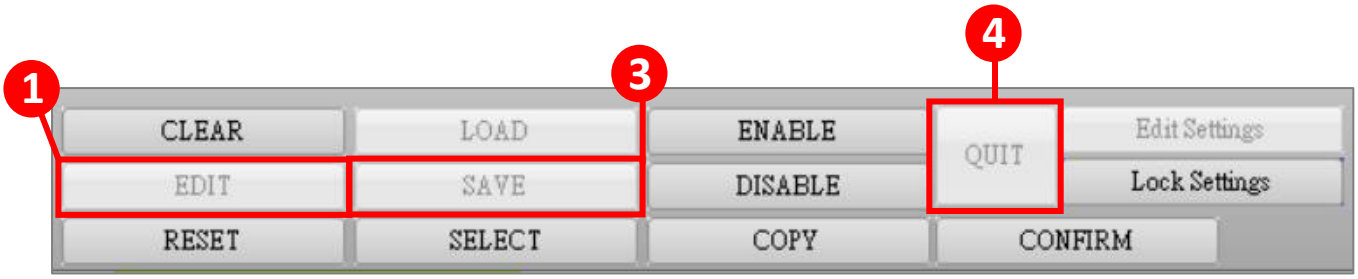
4. After complete setting parameters, press 

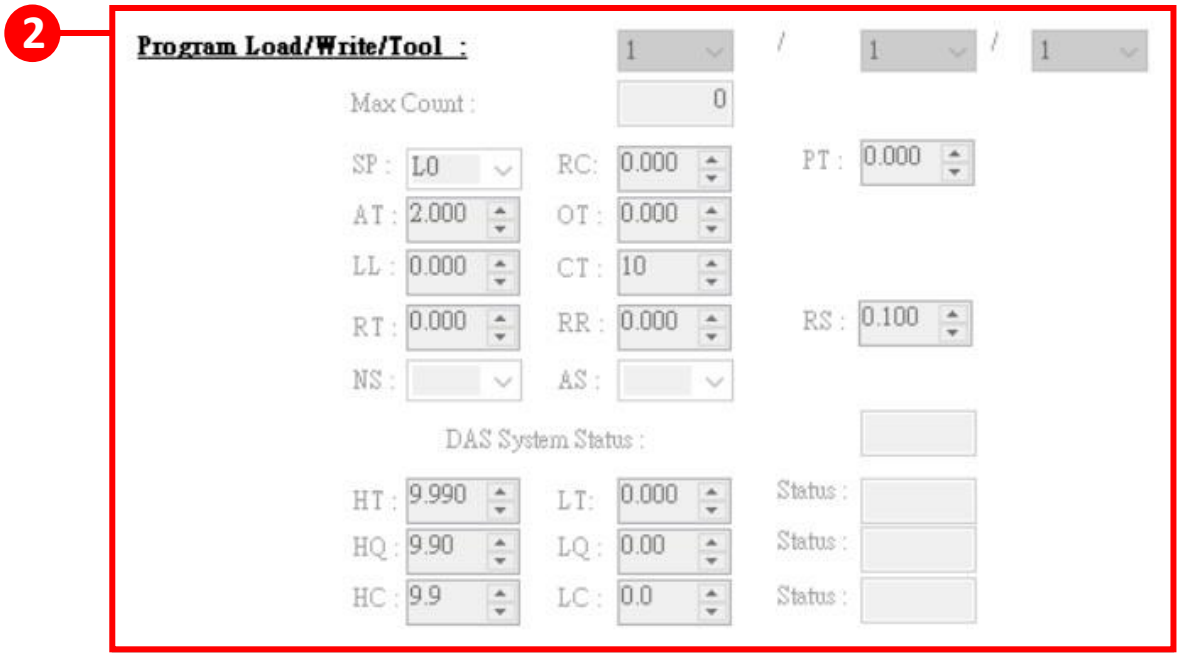
. to save data.

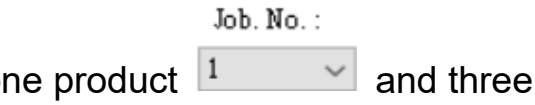
Press  to enter the "Controller and Job setup page"

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- Set condition parameter steps (Unit 1 ~ Unit 3 settings are the same):



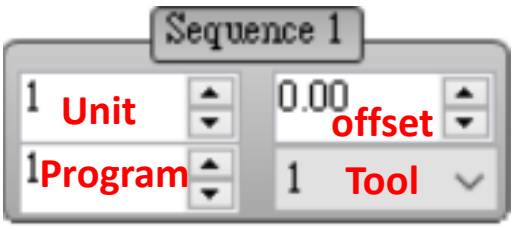



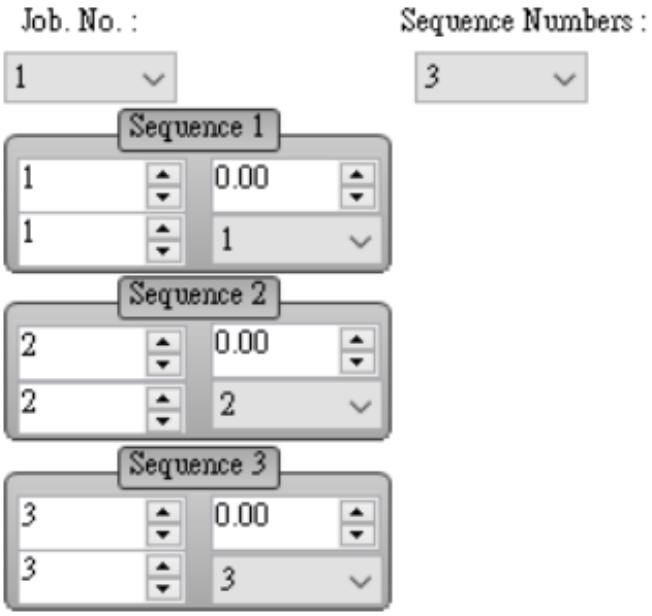




**Step 2:** There is only one product and three processes

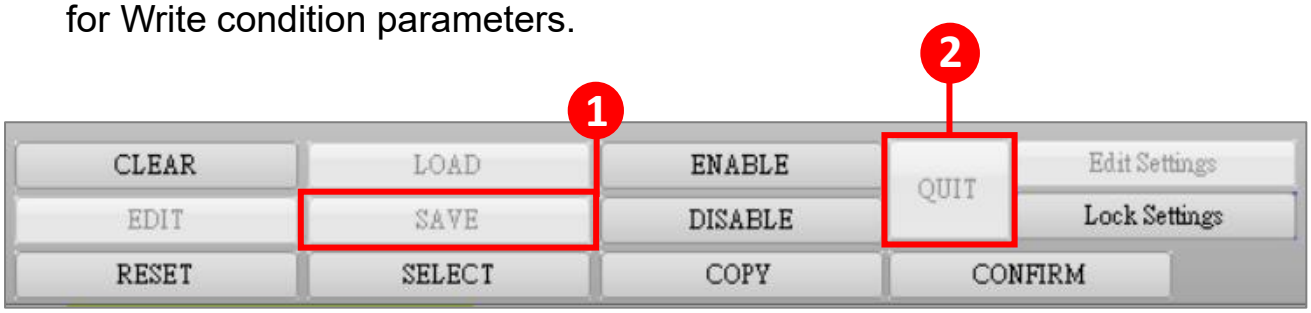



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1. Fasten the first side (Sequence 1) to set Unit 1, Program 1, Tool 1
2. Fasten the second side (Sequence 2) to set Unit 2, Program 2, Tool 2
3. Fasten the third side (Sequence 3) to set Unit 3, Program 3, Tool 3
4. After it is set from the first side Sequence 1 to the third side Sequecne3, press SAVE and then press QUIT to complete the setup for Write condition parameters.



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## ⑪ Statement

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