

Torque Wrench

CETOP-ZC-101W & CETOP-ZC-202W

Manual

Ver. 12. 1 (2018. 10)

Torque Control System USER

File Setting Display Communication Help Torque Angle Poka-yoke Tightening Inspection

Connecting WirelessID: 2

Setting operation

Wrench type	200	Unit code		Total number	0
Wrench name	HTWC-200	Torque Range	±20.0 ~ 200.0	Date	10/26/2018 2:09:42 P

Torque wrench

No.	Lower to...	Upper to...	Control ...	Next PT No.	Memo mode
PT01	20	80	0	0	Invalid
PT02	0	0	0	0	Invalid
PT03	0	0	0	0	Invalid
PT04	0	0	0	0	Invalid
PT05	0	0	0	0	Invalid
PT06	0	0	0	0	Invalid
PT07	0	0	0	0	Invalid
PT08	0	0	0	0	Invalid
PT09	0	0	0	0	Invalid
PT10	0	0	0	0	Invalid

Buzzer ON/OFF	☐ OFF ☒ ON	Sleep timer (mins.)	☐ OFF ☐ 5 ☒ 10 ☐ 30 ☐ 60
Vibration ON/OFF	☐ Invalid ☒ Valid	Auto timer (hrs.)	☐ OFF ☒ 1 ☐ 4 ☐ 8
Date setting	☒ Invalid ☐ Valid	Advance alarm	
Operation lock	☒ Invalid ☐ Valid	Advance alarm 1	0% OFF
Auto mode	☐ Manual ☒ Auto	Advance alarm 2	0% OFF
Control number reset	☐ Manual ☒ Auto	Advance alarm 3	0% OFF
		Advance alarm 4	0% OFF
		Advance alarm 5	0% OFF

Reading completed

- Introduction

Thank you for your purchase of "Digital torque wrench ". This software allows you to save taken out and it is possible to make various settings for the " Digital torque wrench " , work record that has been recorded in the torque wrench . In addition , the software and the "real-time monitor " can be taken out of the torque data and angle data (OP) in real time , you can use a wide variety of data analysis.

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1. Overview

This software is a tool for you to easily take advantage of the traceability management function of the torque wrench.

You can load and save work data and various settings of the torque wrench.

In addition, equipped with Excel conversion function, it is equipped with the easy-to-use function to another.

2. PC software

2-1) Setting operation

Make the various settings of the torque wrench. Describe the function by major setting items below.

- | | |
|---------------------|--------------------------------|
| 1) Torque wrench | 3) Screw tightening inspection |
| (1) Lower torque | (1) Tolerance angle |
| (2) Upper torque | (2) Lower torque |
| | (3) Upper torque |
| 2) Poka-yoke | 4) Angle |
| (1) Specified angle | (1) Snug torque |
| (2) Lower torque | (2) Lower angle |
| (3) Upper torque | (3) Upper angle |

2-2) Data output operation

You can retrieve the data that has been recorded in the torque wrench.

You can save the extracted data, can be converted to "Excel".

In addition, in the online mode, you can see the "torque data" and "angle data" in real-time.



Point

Please use the dedicated software [real-time monitor] of the data collection is when you want to get and store real-time data (How to obtain the software, please contact us.)

2-3) Maintenance operation

Set the basic information of the torque wrench.



Point

You can change the [wireless channel] and [torque wrench ID number] in the wireless option specification.

3. Preparations for PC

3-1) Compatible OS

Microsoft Windows 2000 • Me • XP • XPx64 • Vista • Vistax64

Microsoft Windows 7 • 7x64 • 8 • 8x64 • 8.1 • 10

✖It requires the installation of Microsoft .NET Framework 3.5.

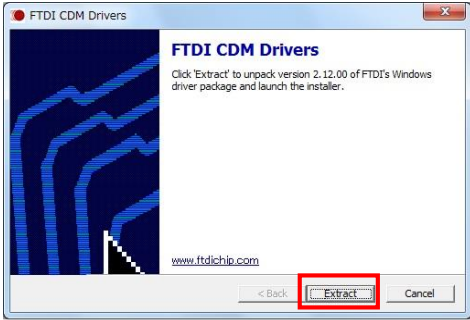
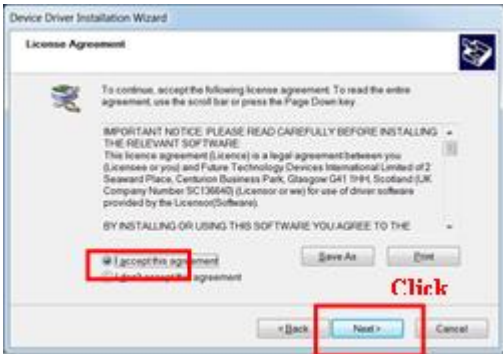


Point Please go on with administrator privileges software installation.

3-2) Installing USB drivers

Installing USB drivers for torque wrench and receiver.

- (1) Load the <installation CD> supplied with the torque wrench.
- (2) Run the < CDM v2. **. ** WHQL Certified_ReleaseDate.exe > program.
- (3) Start the setup while following the on-screen instructions.

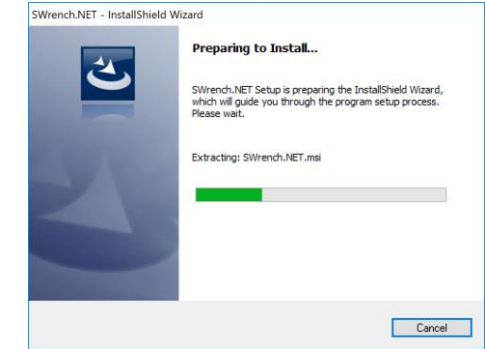
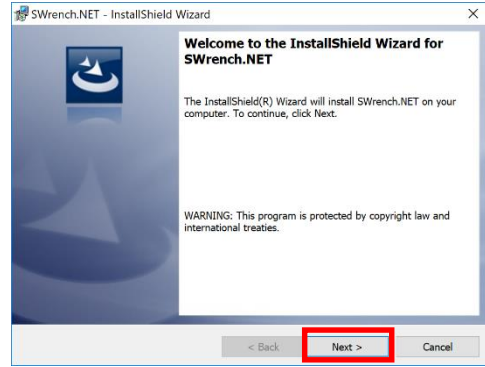
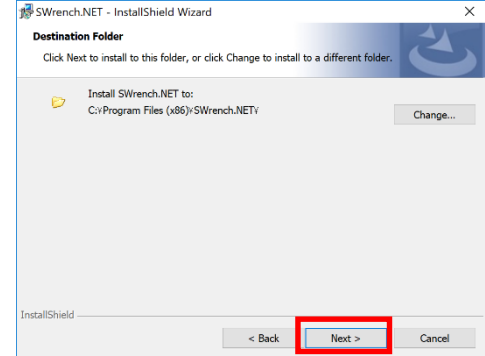
Display	Procedure
	<Extract> Click the button.
	Click the <Next>.
	Check the <Agree> Click the <Next>.

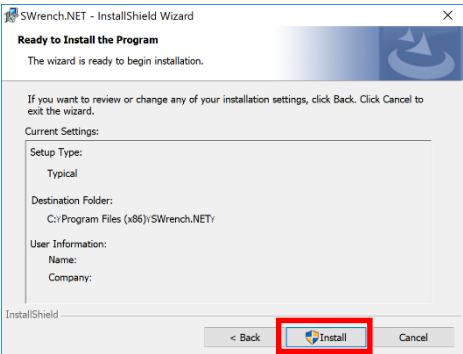
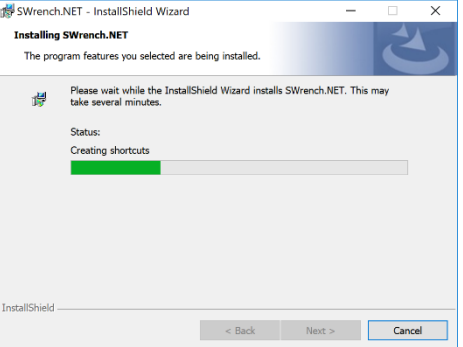
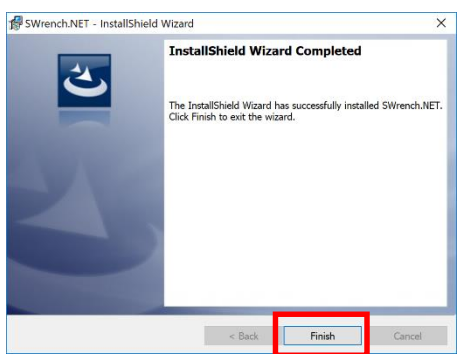
	<Completion> Click <Finish>
---	--

3-3) Installing PC software

Install PC software <SWrench.NET>

- (1) Run the "setup.exe" program of < SWrench.NET_PC Software > folder in the supplied installation CD.
- (2) Start the setup while following the on-screen instructions.

Display	Procedure
	It is Preparing to Install. Please wait.
	Click the <Next>.
	Specify the destination folder. If there are no changes, please click on the "Next" button. If you want to change the destination, click the "Change" button, please specify the destination folder.

Display	Procedure
	Please click on the "Install" button. To start the installation.
	It is during the installation. Please wait.
	The installation is complete. Please click on the "Finish" button.
	If the installation was successful , it is added to the < All Programs > , a shortcut icon is created on the desktop.

4. Communication and connection settings

4-1) Connect the torque wrench(receiver) to the PC with the USB cable



HTW: Grip end



DPW: Inside the cap on the Back



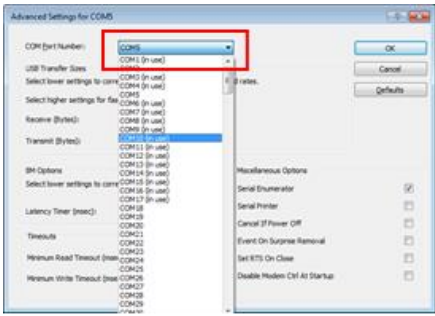
Display	Procedure
	Please connect the torque wrench or wireless receiver. It is recognized automatically.
	Confirmation of the COM number USB Serial Port (COM**) will be created in Ports (COM&LPT).



Point

When COM No. is between 1 and 16, the installation has been complete.
If it is larger than 16, change the number to one between 1 and 16 in the following procedure.

	<Changing COM No.> Right-click the COM No. and click Properties. Properties window will open.
	Click Advanced... on Properties window. Advanced Settings for COM** window will open.

	Select a number on the list of COM Port Number: and click OK button to finish.
---	---

4-2) Type of wireless receiver

ZC-101W	Early type Can be a USB connection to the PC. Can be connected to devices such as PLC / sequencer.	
I/O:USB mini-B/ D-Sub connector		
Shape: Box type		
Size:75×75×28		
ZC-201W	Secure ZC-101W and compatibility. Strong connection terminal.	
I/O:USB Type A		
Shape: Box type		
Size:75×75×28		
ZC-202W	Secure ZC-101W /ZC-201W and Compatibility. To realize miniaturization of a connector.	
I/O:USB Type A		
Shape: USB Dongle		
Size : 70×23×9		

4-3) Communication and connection settings

The communication condition is the following setting (Normally, you do not need to be changed).

Setting item	Wireline connection	Wireless Communication (optional)
Baud rate	19200 bps	115200 bps
Data bit	8	8
Parity bit	Even	None
Stop bit	1	1
Flow control	None	None

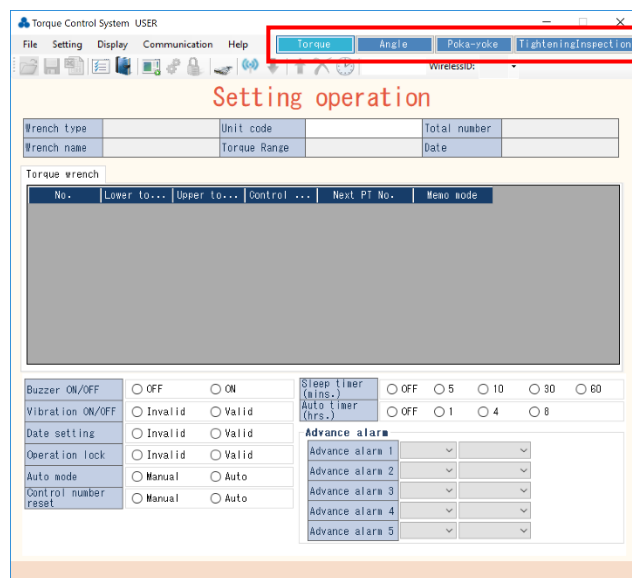
5. PC software and preparation

5-1) Starting the software

Please start <SWrench.NET>.

If you are using a < torque wrench > only the following, it will start directly < setting operation screen >.

If you are using a < option function > at the same time the following, it will be displayed <Switch button>.

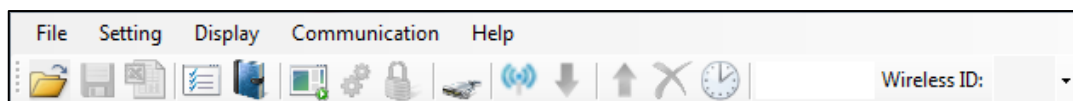


Switch Button

5-2) Preparation of communication

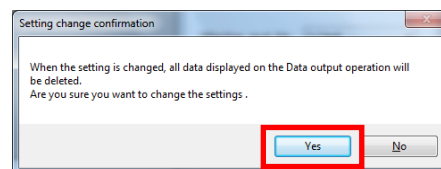
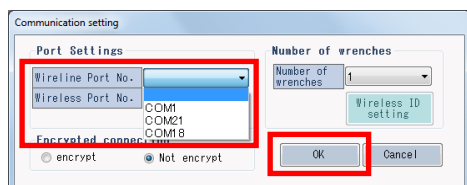
This section describes the procedures for performing communication between the torque wrenches. Start the < setting operation >.

Menu bar



1) Communication settings

[Menu bar・Setting Communication settings] [Communication settings]Icon



- (1) Select the COM number from the pull-down.
- (2) Please click on the <OK> button.
- (3) There is a clear confirmation request of setting data.
Please click on the " Yes (Y) ".



Point

If the [COM number] does not appear in the pull-down menu, please check the Windows Device Manager.

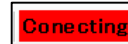
2) Wireline・Wireless communication

[Menu bar・communication Wireline/Wireless]



[Wireline / Wireless]Icon

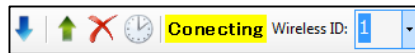
(1) Wired connection completion



(2) Wireless connection completion



Wireless ID setting



*If the communication between the torque wrenches of the appropriate is successful icon is enabled.



Point

If the torque wrench cannot be recognized by wireless communication, the power of the torque wrench is not turned on or the wireless channel is different. Please check it again.

5-3) Menu bar and tool bar icon



Top: Explanation of menu bar Bottom: Explanation of tool bar icon	Detailed function
File—Open Open icon	Opens torque wrench setting and output data files. (Extension: .setting / .dat / .rnd)
File—Save Save icon	Saves torque wrench setting and output data files. (Extension: .setting / .dat / .rnd)
File—Transfer to Excel Transfer to Excel icon	Transfers torque data that is output on<Data output operation> to an Excel file.(Extension: .xls / .csv)
File—Exit 	Ends the program.
Setting—Communication setting Communication property icon	Sets the PC connection port.
Setting—Option Option icon	Sets the parameters on <Data output operation>.
Setting—System time reading System time icon	Reads the time and date information set on the PC.
Display—Setting operation Setting operation icon	Displays <Setting operation> screen.
Display—Maintenance operation Maintenance operation icon	Displays <Maintenance operation> screen.

Display—Data output operation  Data output operation icon	Displays <Data output operation> screen.
Communication—Mode switching	Changes the mode setting on the torque wrench when an operation is switched to another.
Communication—Data reading  Data reading icon	Reads out torque data stored in the memory of the torque wrench.
Communication—Data writing  Data writing icon	Writes in the settings made on the PC to the torque wrench.
Communication—Data Deletion  Data Deletion icon	Deletes torque data on the torque wrench.
Communication—Wireline  Wireline icon	Enables <Wireline connection> when the PC is connected using a cable.
Communication—Wireless  Wireless icon	Enables <Wireless Communication> when the PC is connected by wireless.
Help—Version Information	Displays version details of the traceability control system software.

6. PC software Setting operation

6-1) setting operation

1) Overall

Torque wrench data

Wrench type	200	Unit code		Total number	0
Wrench name	HTWC-200	Torque Range	±20.0 ~ 200.0	Date	10/2

Pattern setting

No.	Lower to...	Upper to...	Control ...	Next PT No.	Memo mode
PT01	20	80	0	0	Invalid
PT02	0	0	0	0	Invalid
PT03	0	0	0	0	Invalid
PT04	0	0	0	0	Invalid
PT05	0	0	0	0	Invalid
PT06	0	0	0	0	Invalid
PT07	0	0	0	0	Invalid
PT08	0	0	0	0	Invalid
PT09	0	0	0	0	Invalid
PT10	0	0	0	0	Invalid

Mode setting

Buzzer ON/OFF: ☐ OFF ☒ ON

Vibration ON/OFF: ☐ Invalid ☒ Valid

Date setting: ☒ Invalid ☐ Valid

Operation lock: ☒ Invalid ☐ Valid

Auto mode: ☐ Manual ☒ Auto

Control number reset: ☐ Manual ☒ Auto

Sleep timer (mins.): ☐ OFF ☐ 5 ☒ 10 ☐ 30 ☐ 60

Auto timer (hrs.): ☐ OFF ☒ 1 ☐ 4 ☐ 8

Advance alarm 1: 0% OFF

Advance alarm 2: 0% OFF

Advance alarm 3: 0% OFF

Advance alarm 4: 0% OFF

Advance alarm 5: 0% OFF

2) <Torque wrench data>

Wrench type	10	Unit code	123	Total number	0
Wrench name	HTW-10	Torque Range	±1.00 ~ 10.00	Date	2/13/2018 11:45:54 A

(1)[Wrench type]

Wrench type shows HTW-nn.

(2) [Wrench name]

The wrench name is set on <Maintenance operation> screen (up to 8 alphanumeric characters).

(3) [Unit code]

The unique unit code can be set for each set of conditions (up to 8 alphanumeric characters).

(4) [Torque range]

The field shows the tightening range that can be set on the torque wrench.

(5) [Total number]

The field shows the number of torque data sets stored in the memory of the torque wrench.

(6) [Date]

The date and time information which the torque wrench has recorded will be displayed.

[Update]



System time icon to display the time and date information on the PC.

Date and time information by writing to the torque wrench will be updated.

(7) [Battery level indicator]

※The right side of the Menu bar



The battery remaining amount of the torque wrench is displayed.

3) <Pattern setting>

Up to 10 operation patterns (PT01 to PT10) can be set on the torque wrench.

Torque wrench					
No.	Lower torque	Upper torque	Control number	Next PT No.	Memo mode
PT01	1	3	0	0	Invalid ▾
PT02	0	0	0	0	Invalid ▾
PT03	0	0	0	0	Invalid ▾
PT04	0	0	0	0	Invalid ▾
PT05	0	0	0	0	Invalid ▾
PT06	0	0	0	0	Invalid ▾
PT07	0	0	0	0	Invalid ▾
PT08	0	0	0	0	Invalid ▾
PT09	0	0	0	0	Invalid ▾
PT10	0	0	0	0	Invalid ▾

Select a cell of a pattern and the following window will appear.

Pattern 1 input

Lower torque	Upper torque	Control number	Next PT No.	Memo mode
1	3	0	0	Invalid ▾

OK Cancel

(1) [Lower torque]

Sets an arbitrary value of the lower limit torque.



Point

* Enter a positive number for a clockwise (CW) direction and a negative number for a counterclockwise (CCW) direction.

(2) [Upper torque]

Sets an arbitrary value of the upper limit torque.

(3) [Control number]

Enter an arbitrary number between 0 and 999.

(4) [Next PT No.]

A tightening condition can be set to automatically follow another condition. Up to 10 conditions can be registered. Enter the number of the pattern.

* To repeat a condition, enter 0 for the condition.

(5) [Memo mode]

Invalid: Torque data will not be stored in the memory of the torque wrench.

Valid: Up to 6,000 sets of torque data will be stored in the memory of the torque wrench.

4) Tightening support functions

This function is used to support the tightening work.

When tightening the set [Control number] of times, automatically transitions to the pattern No registered in the [Next PT No.].

No.	Lower torque	Upper torque	Control number	Next PT No.	Memo mode
PT01	1	3	3	2	Invalid
PT02	2	4	3	1	Invalid

Operation

PT01: Tighten three times with Lower torque of 1.0N·m and Upper torque of 3.0N·m

Upon completion of PT01, start PT02 automatically and repeat the steps.

PT02: Tighten three times with Lower torque of 2.0N·m and Upper torque of 4.0N·m

Upon completion of PT02, start PT01 automatically and repeat the steps.

(PT01→PT02→PT01→PT02→PT01…….)

5) <Mode setting>

Set the various modes of the torque wrench.

Buzzer ON/OFF	☒ OFF ☐ ON	Sleep timer (mins.)	☒ OFF ☐ 5 ☐ 10 ☐ 30 ☐ 60
Vibration ON/OFF	☒ Invalid ☐ Valid	Auto timer (hrs.)	☒ OFF ☐ 1 ☐ 4 ☐ 8
Date setting	☒ Invalid ☐ Valid	Advance alarm	
Operation lock	☐ Invalid ☒ Valid	Advance alarm 1	0% OFF
Auto mode	☐ Manual ☒ Auto	Advance alarm 2	0% OFF
Control number reset	☐ Manual ☒ Auto	Advance alarm 3	0% OFF
		Advance alarm 4	0% OFF
		Advance alarm 5	0% OFF

(1) [Auto mode] (Only for HTW)

Manual: Individual mode (Confirmation is required to move to next tightening operation after completion of previous operation.)

Auto: Continuous mode (Next tightening operation will automatically begin after completion of previous operation.)

(2) [Buzzer ON/OFF]

Set the ON / OFF of the buzzer sound.

(3) [Vibration ON/OFF]

Set the ON / OFF of the vibration motor.

(4) [Control number reset] (Only for HTW)

Manual: After the tightening times have reached the set number, confirmation is required

to move to next operation.

Auto: After the tightening times have reached the set number, next operation will begin automatically.

(5) [Wrench operation lock] (Only for HTW)

Invalid: The settings can be changed on the torque wrench.

(* There are restrictions. For details, see VII. Wrench operation.)

Valid: The settings cannot be changed on the torque wrench.

(6) [Date setting]

Invalid: The time and date information of the set torque wrench is maintained.

Valid: The data on the torque wrench are overwritten by the current time and date information on the PC.

Torque data can be managed on date information.

(7) [Sleep timer (min)] (Only for HTW)

When no operation has been performed on the torque wrench for the set period of time, the torque wrench will switch to sleep mode (power saving mode) automatically.

Lift the torque wrench to restart. No button operation is required.

(8) [Auto off timer (hrs.)]

When the set period of time has elapsed in sleep mode, power will be turned off automatically.

If Sleep timer is turned OFF, when no operation has been performed for the Auto off set time, power will be turned off automatically.

(9) [Advance alarm 1] / [Advance alarm 5]

When the tightening torque value has reached the set percentage of Lower torque, a warning will be given with the buzzer and vibration. Five alarm settings are available.

※ Please set from No. 1 in the order the advance alarm.

6-2) Operating

1) Reading torque wrench setting data

[Menu bar → Communication → Reading]



[Reading]icon

Reads out torque data stored in the memory of the torque wrench.

2) Writing the settings

[Menu bar → Communication → Data writing]



[Data writing]icon

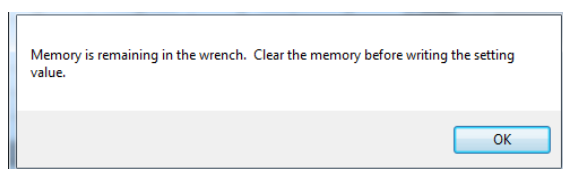
Writes in the settings made on the PC to the torque wrench.



Point

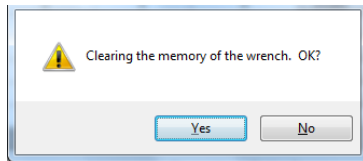
If there are data remaining in the torque wrench body, you cannot change the setting. In advance, please delete the data.

Setting writing warning



3) Deleting torque data

[Menu bar → Communication → Data deletion]  [Data deletion]icon
Deletes torque data on the torque wrench.



4) Saving PC settings

[Menu bar → File → Save]



[Save] icon



Point (Extension: .setting)

5) Reading the settings

[Menu bar → File → Open]



[Open]icon

6-3) Optional feature Description

1) Angle wrench

For angle-controlled bolt tightening.

Angle wrench						
No.	Snug torque	Lower Angle	Upper Angle	Control number	Next PT No.	Memo mode
PT01	5	45	60	0	0	Valid
PT02	0	0	0	0	0	Invalid

Interval timer

Using a ratchet in the angle measurement again rotated in the reverse direction, to set the interval time to move to the measurement.

*If you interrupt the measurement,
not Turning If you do not elapsed time set to the next task .

Sleep timer (mins.)	☒ OFF	☐ 5	☐ 10	☐ 30	☐ 60
Auto timer (hrs.)	☒ OFF	☐ 1	☐ 4	☐ 8	
Interval timer (sec.)					
2					2

The data obtained will be rotated from reaching the snug torque and < peak torque value >< angle value >.

2) Poka-yoke function

Until it reaches a value that the torque value has been set, when the torque wrench in the "Specified angle " or more does not rotate , it is determined that had been tightening already in the " lower torque " , and warning .

Work data is not recorded, will not be sent.

Poka-yoke						
No.	Specified angle	Lower torque	Upper torque	Control number	Next PT No.	Memo mode
PT01	10	5	10	0	0	Valid
PT02	0	0	0	0	0	Invalid



Point

"Specified angle" to be set depends on the conditions of the type and the bearing surface of the screw.



Point

If you tighten directly to the base material, please try to set in about "5 degrees". Please try to set in the "10 degrees" If you are using a flat washer and spring washer.

3) Screw tightening inspection function

It performs a tightening to the specified torque to the screw tightening is complete , if the torque wrench to the "Tolerance angle" or more is rotated , the screw that was carried out inspection leaves a record that was " loose ".

Screw Tightening Inspection						
No.	Tolerance angle	Lower torque	Upper torque	Control number	Next PT No.	Memo mode
PT01	20	5	10	0	0	Valid
PT02	0	0	0	0	0	Invalid

Inspection results

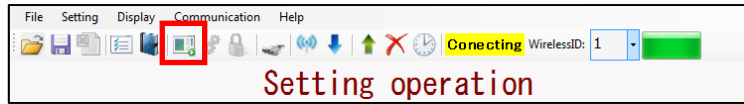
Address	Name	Tolerance angle	Lower torque	Upper torque	Control number	Worker
1	PT01	20	5	10	0	

5 places check the results of the, leaving the record of screws "screw loose" in the < third > . It should be noted and the appropriate screws will be that it has been tightening in the " 8.18N · m " .

7. PC software Data output operation

7-1) Data output operation

1) Display of < output operation >



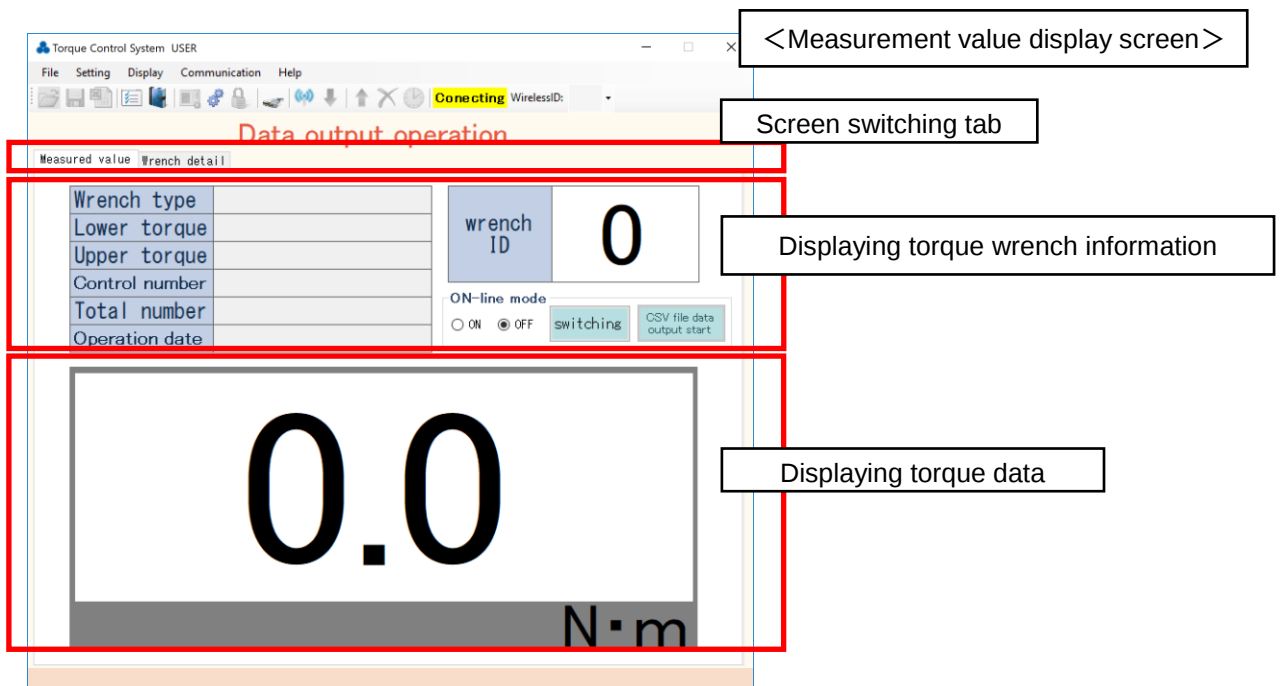
< Menu bar > → Display → Data output operation



< Data output operation > Icon

It will be displayed < output operation > screen.

2) Overall

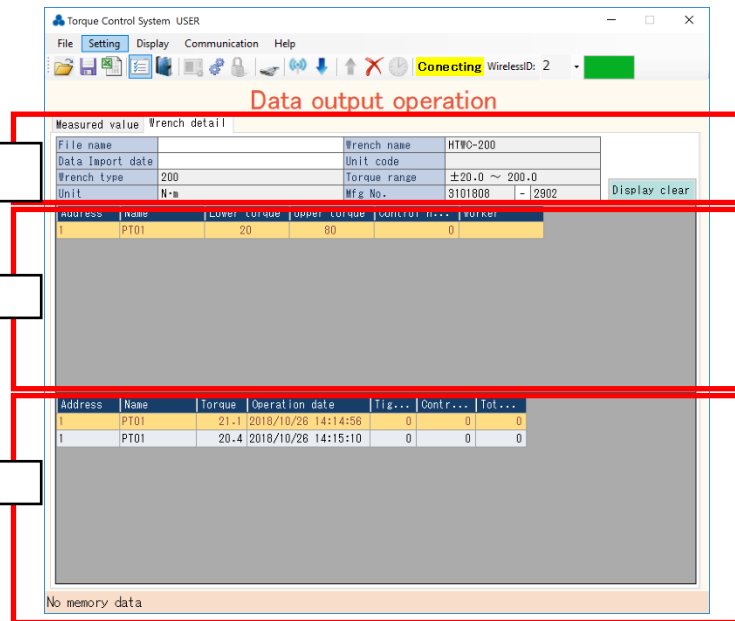


<individual detail of the wrench>

Displaying torque wrench information

Displaying setting conditions

Displaying Data specification



3) <Screen switching tab>

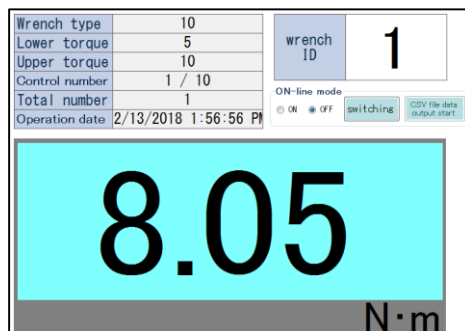
Switch the screen <Displaying torque data> and the screen <individual detail of the wrench> .

4) <Displaying torque wrench information>

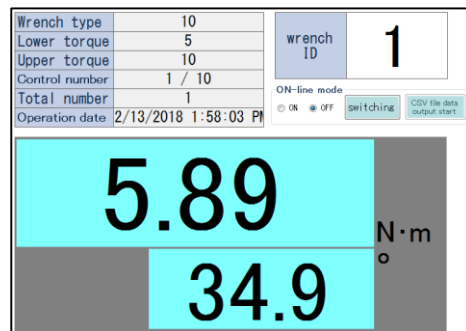
The content is the same as "setting operation".

5) <Displaying torque data>

Work / measured data is displayed.



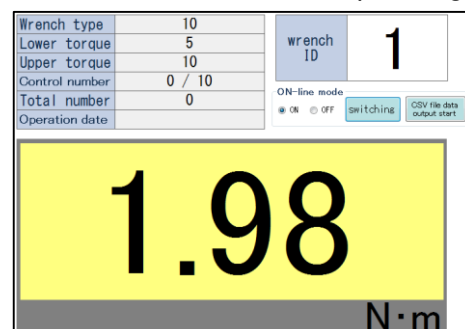
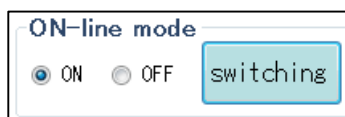
<Torque data>



<torque and angle data>

6) On-line mode

When the < online mode > to "ON", will be able to see the data of the " torque / angle (OP) " in real-time .



7) <Displaying setting conditions>

Setting the content of the data that has been working or measured is displayed.

Address	Name	Lower torque	Upper torque	Control number	Worker
1	PT01	5	10	10	

8) <Displaying Data specification>

Work or measured data items are displayed.

<Torque data>

Address	Name	Torque	Operation date	Tightened number	Control number	Total number
1	PT01	5.49	2018/02/13 13:55:36	1	10	1
1	PT01	6.90	2018/02/13 13:55:39	2	10	2
1	PT01	6.61	2018/02/13 13:55:41	3	10	3
1	PT01	5.89	2018/02/13 13:55:43	4	10	4
1	PT01	7.23	2018/02/13 13:55:45	5	10	5

<Torque and angle data>

Address	Name	Torque	Angle	Operation date	Tightened number	Control number	Total number
1	PT01	5.83	35.9	2018/02/13 16:51:02	1	10	1
1	PT01	6.28	16.6	2018/02/13 16:51:05	2	10	2
1	PT01	5.43	14.5	2018/02/13 16:51:07	3	10	3
1	PT01	7.38	64.3	2018/02/13 16:51:10	4	10	4
1	PT01	6.25	6.1	2018/02/13 16:51:13	5	10	5

7-2) Reading Torque data from torque wrench

1) It reads the data from the torque wrench.



Point

When multiple sets of data are output in <Wireless Communication mode (optional)>, only the wrench data currently displayed on <Data output operation> screen will be transferred.

Select the screen switching tab of the wrench data to transfer.

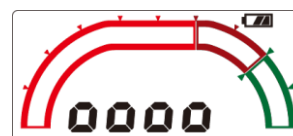
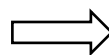
Switch the tab to the <individual detail of the wrench>.

<Menu bar> → communication → Data reading
Data of the torque wrench is loaded.



<Data reading> Icon

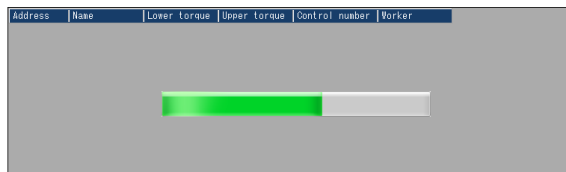
(1) LCD



<Start of <Data output operation> mode>

<Reading torque data>

(2) PC display



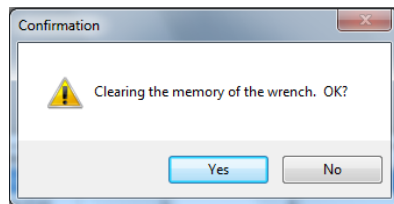
2) Deleting torque data on torque wrench

< Menu bar > → Communication → Memory delete



< Memory delete > icon

Data in the torque wrench will be deleted.



7-3) Data editing and saving

1) Data editing

You can edit the < name > item column or < operator > column of the loaded data.

Address	Name	Lower torque	Upper torque	Control number	Worker
1	PT01	5	10	10	

" PT01 " in the < name > column

Click the < operator > column

2) Editing of work or measurement "name"

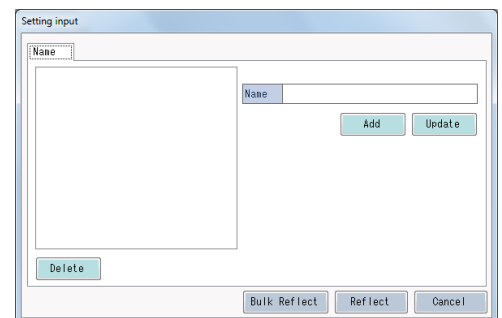
<Setting input> screen for data editing is displayed.

(1) Select

Choose a name that is registered
in the < name > item on the left side of the screen.

(2) Application

When you click the "Apply" button,
the item name you choose will be applied to the data.



3) Add and update content of registration

You can add or change items.

(1) Add

Enter to < name > column on the right side. It will be added when you click the "Add" button.

(2) update

Please select a name that is registered in the < name > item on the left side.

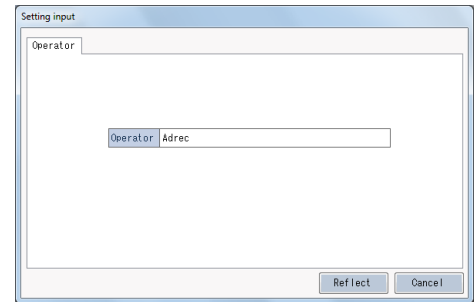
Please edit the < name > column on the right side. Contents click the "Update" button will be updated.

4) Change of the operator name

Click the < operator > column.

< Setting input > screen for data editing is displayed .

Enter the work's name to < operator > item,
will be applied to the data in the "Apply" button.



5) Save the data

< Menu bar > → File → Save



< Save > icon



Point The extension is "****.dat".

6) Reading of the stored data

< Menu bar > → File → Open



< Open > icon

7-4) Optional feature

Configure the settings of the output operation .

< Menu bar > → Setting → Option



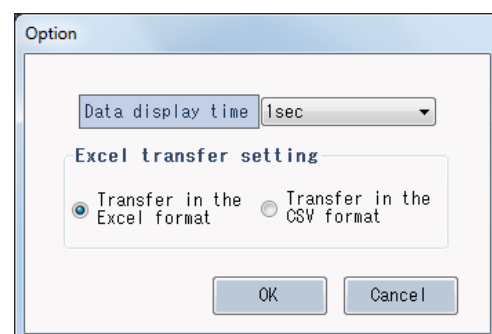
< Option > icon

(1) Setting display time

Set the time to display the measured value on the screen.

(2) Excel transfer settings

Set the format for data output.



7-5) data transfer

output transfer the data.

< Menu bar > → File → Transfer to Excel



< Transfer to Excel > icon

< Excel data >

	A	B	C	D	E	F	G	H	I
1	File name:								
2	Time and date of dat	7/8/2016 16:24							
3	Torque range :	±5.00 ~ 50.00							
4	Lower torque :	5							
5	Upper torque :	10							
6	Control number :	5							
7	Unit:	(N·m)							
8	Unit code :	test							
9	Wrench name :	HTWC-50							
10	Serial number:	2081410-2001							
11	Wrench type :	HTW-50							
12	Name:	PT01							
13	Worker:								
14	PT01	1	2	3	4	5	6	7	8
15		7.74	6.53	6.58	7.01	7.5	8.81	10.23	8.42
16	7/8/2016	4:01:08 PM	4:01:09 PM	4:01:10 PM	4:01:11 PM	4:01:12 PM	4:01:23 PM	4:01:25 PM	4:01:26 PM
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

< CSV data >

	A	B	C	D	E	F	G	H	I	J	K
1											
2	2016/7/8/ 16:34:24										
3	±5.00 ~ 50.00										
4	(N·m)										
5	test										
6	HTWC-50										
7	2081410-2001										
8	PT01										
9	5										
10	10										
11	5										
12											
13	PT01	7.74	2016/7/8/ 16:01:08	1	5	1					
14	PT01	6.53	2016/7/8/ 16:01:09	2	5	2					
15	PT01	6.58	2016/7/8/ 16:01:10	3	5	3					
16	PT01	7.01	2016/7/8/ 16:01:11	4	5	4					
17	PT01	7.5	2016/7/8/ 16:01:12	5	5	5					
18	PT01	8.81	2016/7/8/ 16:01:23	1	5	6					
19	PT01	10.23	2016/7/8/ 16:01:25	2	5	7					
20	PT01	8.42	2016/7/8/ 16:01:26	3	5	8					
21	PT01	8.72	2016/7/8/ 16:01:26	4	5	9					
22	PT01	8.91	2016/7/8/ 16:01:27	5	5	10					
23	PT01	9.97	2016/7/8/ 16:01:50	1	5	11					
24	PT01	9.6	2016/7/8/ 16:01:51	2	5	12					
25	PT01	8.77	2016/7/8/ 16:01:51	3	5	13					
26	PT01	8.36	2016/7/8/ 16:01:52	4	5	14					
27	PT01	9.1	2016/7/8/ 16:01:53	5	5	15					
28	PT01	9.9	2016/7/8/ 16:02:03	1	5	16					
29	PT01	9.13	2016/7/8/ 16:02:03	2	5	17					

8. PC software Maintenance operation



Point

"Maintenance operation" is normally not displayed on the screen. When you start the program first, please start by holding down the "shift key"

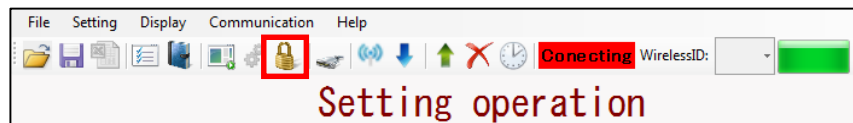


Point

Communication shall be edited in <Wireline connection> mode.

8-1) Maintenance operation screen

1) Running Maintenance operation



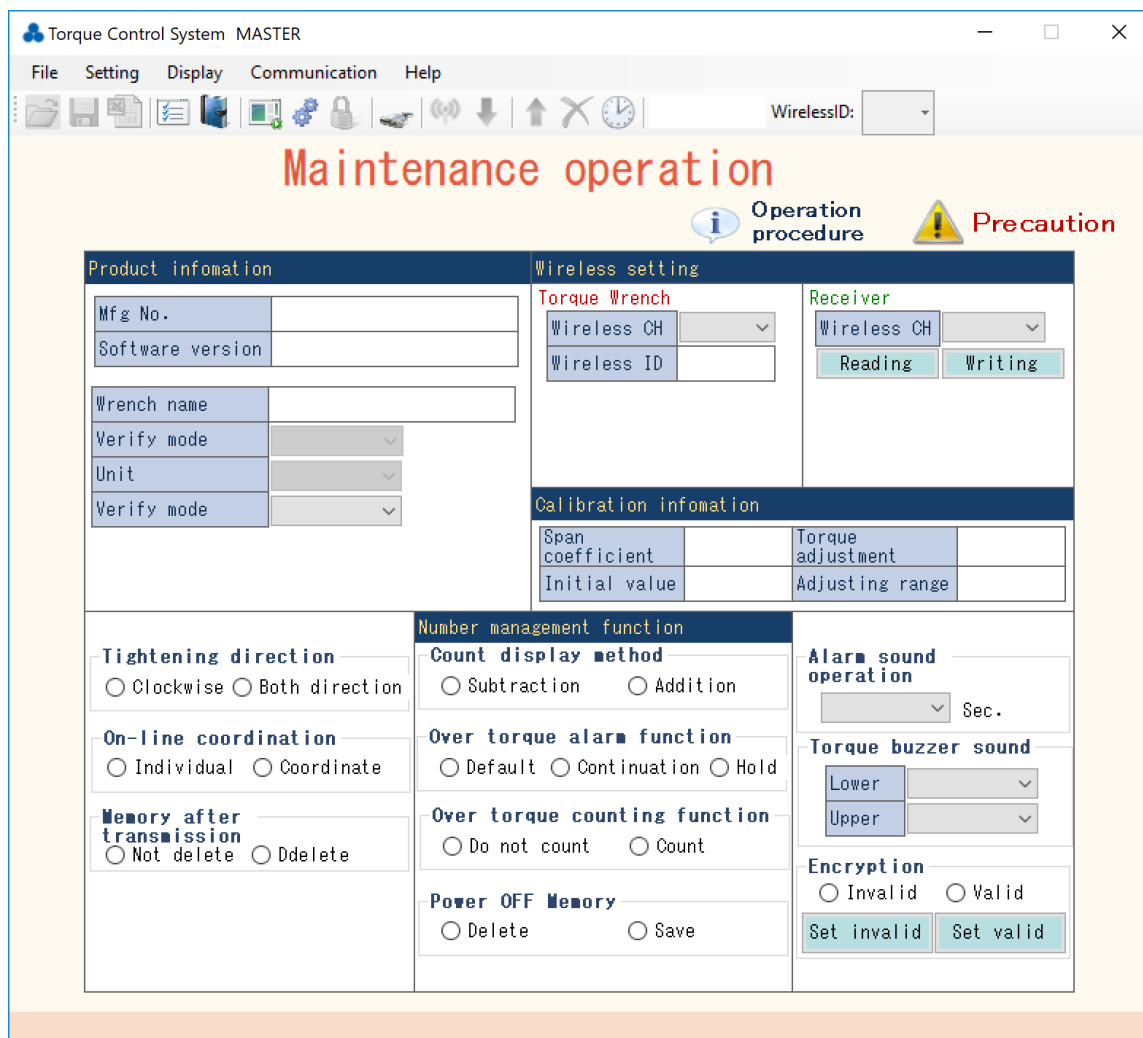
< Menu bar > → Display → Maintenance operation



< Maintenance operation > icon

It will be displayed < Maintenance operation > screen.

2) Overall



8-2) Reading and writing of maintenance data

Call the data from the torque wrench.



Point 1), 2) of the order is required.

- 1) Remove the work data in the torque wrench.
 <Menu bar> → Communication → Data deletion  <Data deletion> icon
 Work and measurement data will be deleted in the torque wrench.
- 2) Reads data
 <Menu bar> → Communication → Reads data  <Reads data> icon
 Maintenance information of the torque wrench is loaded.
- 3) Writing of maintenance data
 <Menu bar> → Communication → Writing of data  <Writing of data> icon
 Maintenance information to the torque wrench is written.

8-3) Description of maintenance data

- 1) Wrench name
 Sets a name for each torque wrench (up to 8 alphanumeric characters).
- 2) Verify mode (Only for HTW)
 It can be measured in the usual < lower torque > below.
 It can be set in the 10% to 90 % of the value for the < lower torque >.
 Record the peak value after exceeding the set value (%).
- 3) On-line coordination < Wireless communication mode >
 Individual: Tightening can be performed without confirmation from the PC after torque data has been sent out in wireless communication mode.



Coordinate: The torque wrench will be on standby until receiving confirmation from the PC after torque data has been sent out in wireless communication mode.

- 4) Wireless setting (Cordless handset) ※Torque wrench setting
 - (1) Wireless CH CH: It will be all 16CH of up to 11 to 26
 - (2) Wireless ID A unique <ID> number that identifies the torque wrench.



Point In case of different channel, you can set the same ID number.

- 5) Wireless setting (Receiver) ※Wireless receiver setting
 Wireless CH After setting, please do write in the "master channel setting" button.
- 6) Over torque alarm function (Only for HTW)
 Default: When torque data has exceeded <Upper torque>, the buzzer and the vibrating alert are activated for the specified time.
 Continuation: When torque data has exceeded <Upper torque>, the buzzer and the vibrating

alert are activated continuously.

Retention : It will work until it is canceled by manual operation.

7) Over torque counting function (Only for HTW)

Do not count: When torque data has exceeded <Upper torque>, <Control number function> does not count.

Count: When torque data has exceeded <Upper torque>, <Control number function> counts.



* Please refer to the next page for details.

8) Power OFF Memory (Only for HTW)

Delete: When power is turned off in the middle of <Control number function>, the number of tightening times already counted is cleared.

Save: When power is turned off in the middle of <Control number function>, the number of tightening times already counted is saved.

9) Count display method

Subtraction: When the counter for <Control number function> is set, the number of times counts down (displays the remaining number of tightening times).

Addition: When the counter for <Control number function> is set, the number of times counts up (displays the number of tightening times given).

10) Tightening direction

Clockwise: Tightening will be completed when the torque has reached the set level only in the direction (+/-) set on <Setting operation>.

Both directions: Tightening will be completed when the torque has reached the set level in either direction regardless of the direction (+/-) set on <Setting operation>. the tightening direction is represented by plus and minus signs.



* Please refer to the next page for details.

11) Alarm sound operation

0.3 sec to 1.2 sec (increment of 0.1 sec) Sets the duration of LCD display, buzzer and vibrating alert to be activated when the torque has reached <Lower torque>.

12) buzzer sound

Lower torque: Sets the buzzer tone between 0 and 10 to use when the torque has reached <Lower torque>.

Upper torque: Sets the buzzer tone between 0 and 10 to use when the torque has reached <Upper torque>.

8-4) Saving and loading of maintenance data

1) Saving of maintenance data

<Menu bar> → File → Save



< Save > icon

2) Loading of maintenance data

<Menu bar> → File → Open

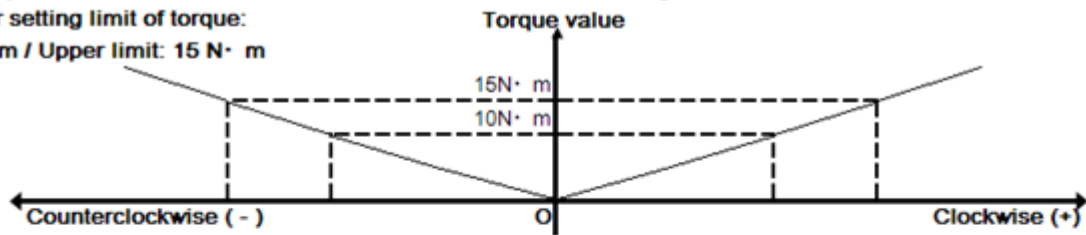


< Open > icon

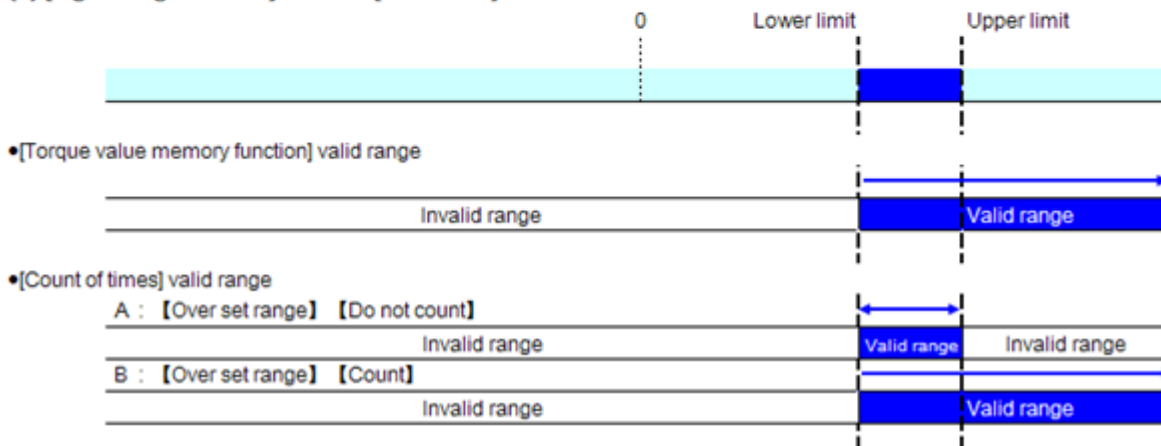
See below for [Over torque counting function] and [Tightening direction].

[Example of Control number function with CW and CCW directions]

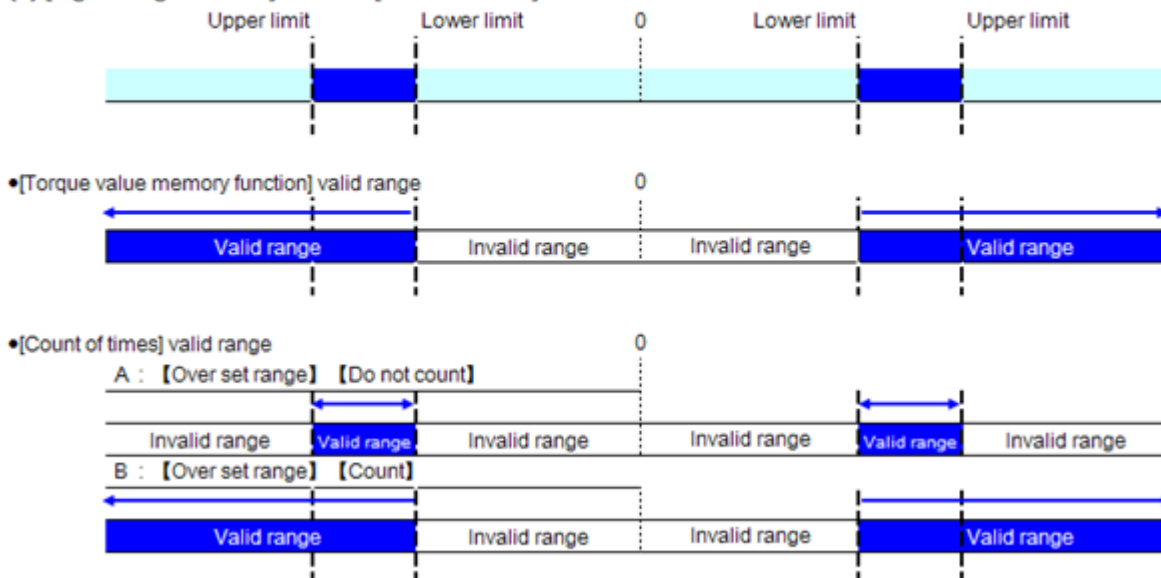
- Lower setting limit of torque:
10 N·m / Upper limit: 15 N·m



(1) [Tightening direction] is set to [Clockwise].



(2) [Tightening direction] is set to [Both direction].



低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

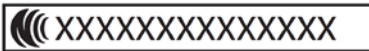
前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

FCC Warning

1. 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.
2. NOTE: the grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.
3. 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 installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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.

RF warning statement: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FC XXX-XXXXXXXXXXXX





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