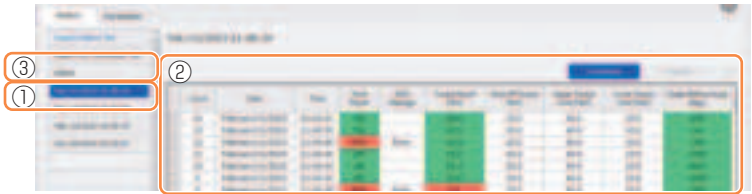


2.2 USING THE TOOL MANAGER SOFTWARE

2.2.12 DISPLAYING AND SAVING THE HISTORY LOG

Browse the History Logs Saved in the Tool Manager software

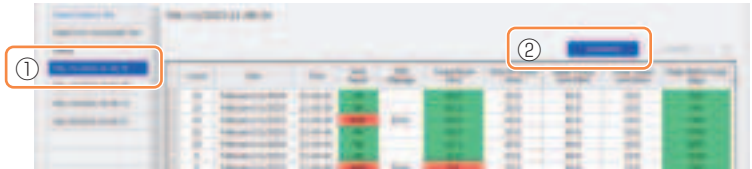
- The history logs saved in the Tool Manager software are displayed on the history list (①). When you select a desired history log, the contents of that will be displayed on the history display screen (②) in the right.
- To browse the history log acquired in offset setting, select [Offset] (③) from the history list. (For how to set offsets, **Refer to 2.2.8**.)
- For the items of [Work Result], [Torque Result], [Angle (Before Snug)], and [Angle (After Snug)], the display will be highlighted in green when there is no problem, or in red if there is any problem.



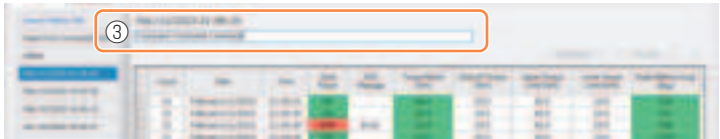
Make a Supplementary Comment on the History Log File

You can make a supplementary comment on the history log file by performing the following procedure.

- 1 Select a desired history log file (①), and click [Comment] (②).**



- 2 When the comment field (③) becomes active, enter a desired comment and press the Enter key.**
The supplementary comment can be up to 25 one-byte characters or 15 two-byte characters long.



2.2 USING THE TOOL MANAGER SOFTWARE

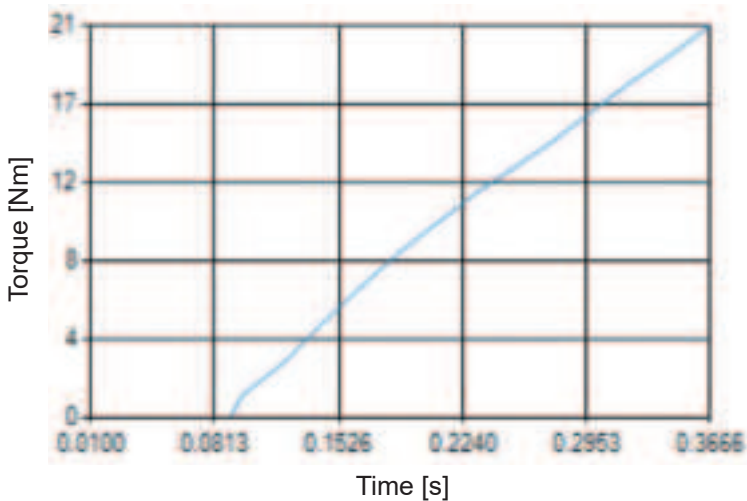
2.2.12 DISPLAYING AND SAVING THE HISTORY LOG

Browse the Graph Data Saved in the Tool Manager software

The graph data of a conducted job is saved in the tool.
After the job, you can view the data from Tool Manager software.

Note

- The Tool Manager software calculates a torque waveform from the voltage information of the torque sensor, independently of the shut-off algorithm of the tool. Therefore, torque values may be displayed differently from those for shut-off judgment of the tool. Use them as reference information that shows how the measured torque tends to change.



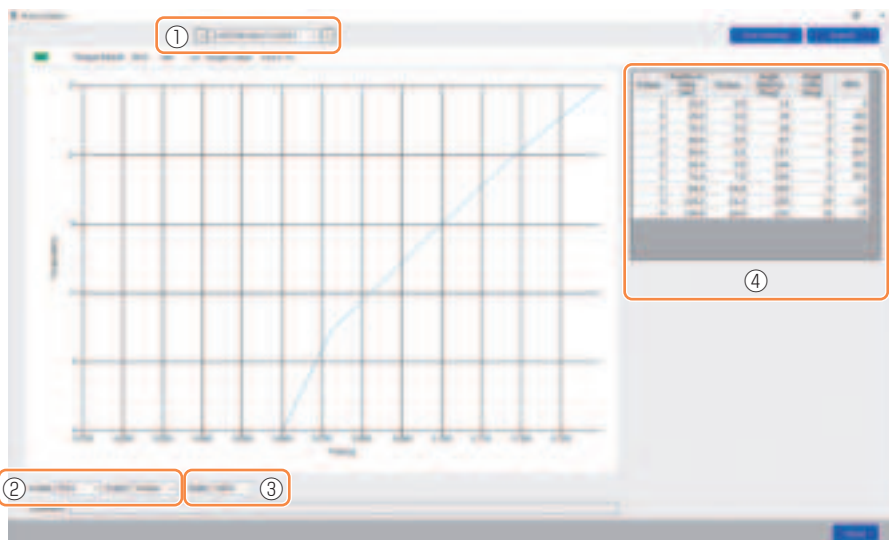
2.2 USING THE TOOL MANAGER SOFTWARE

2.2.12 DISPLAYING AND SAVING THE HISTORY LOG

- Double-clicking the row of a history log displayed on the history display screen will open the history detail window and display the graph data of that history log.



- The graph to display can be changed by using the [<] [>] buttons and pull-down menu (①) above the window. Change history log folders of the selected tool by using [<] and [>], and select a history log to display the graph for from the pull-down menu.
- By selecting pull-down menus (②) under the graph, you can set tightening torque, tightening angle, or speed as a vertical axis of the graph, and set tightening work time, tightening angle, or number of pulses as a horizontal axis.
- By selecting a pull-down menu (③) under the graph, you can change the scale of the graph.
- The data window (④) in the right displays the log data for each sample (every 20 ms in no-load fastening, and every one pulse in pulsing) in one tightening job.
- You can expand the window by dragging the end of the history detail window.

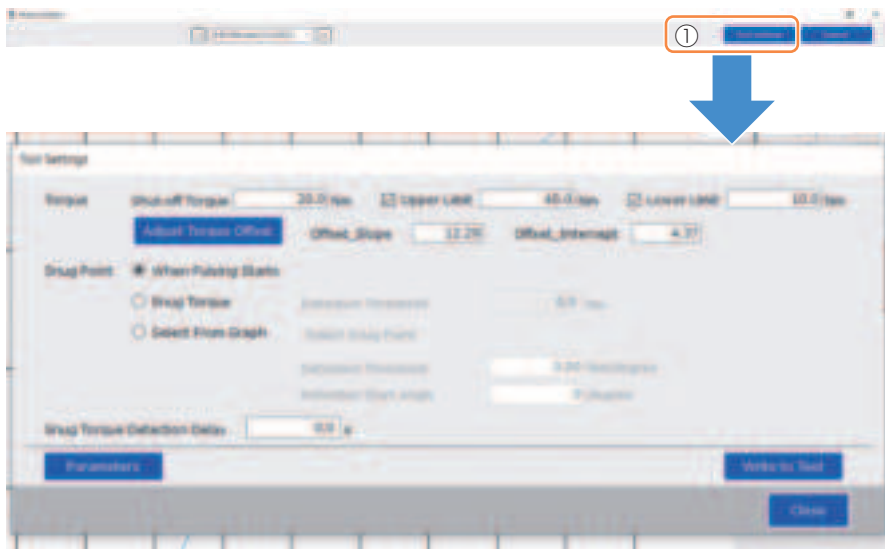


2.2 USING THE TOOL MANAGER SOFTWARE

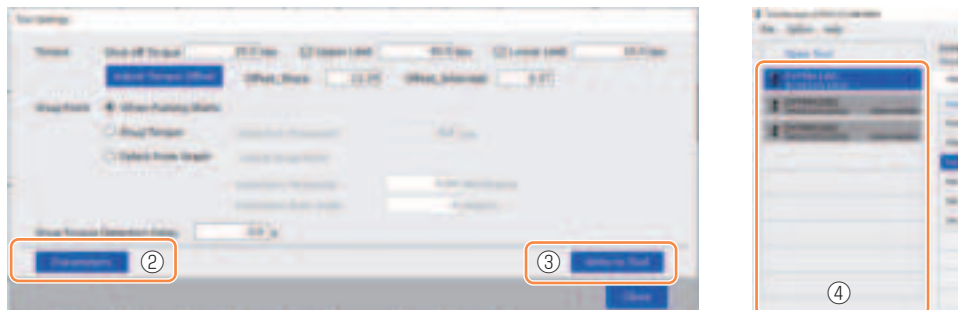
2.2.12 DISPLAYING AND SAVING THE HISTORY LOG

Make a Tool Setting While Browsing the Graph Data

- When you select [Tool Settings] (①) above the window, the setting window will open.



- Some parameters can be configured from the setting window.
(For how to configure each parameter, **Refer to 2.2.8**.)
- To configure parameters that are not displayed on the setting window, click [Parameters] (②) to move to the Parameter tab.
- When you click [Write to Tool] (③), the set parameter file will be registered to the tool selected on the tool list (④).
(The parameters that were not configured in this setting window will remain in their original state, without being changed.)

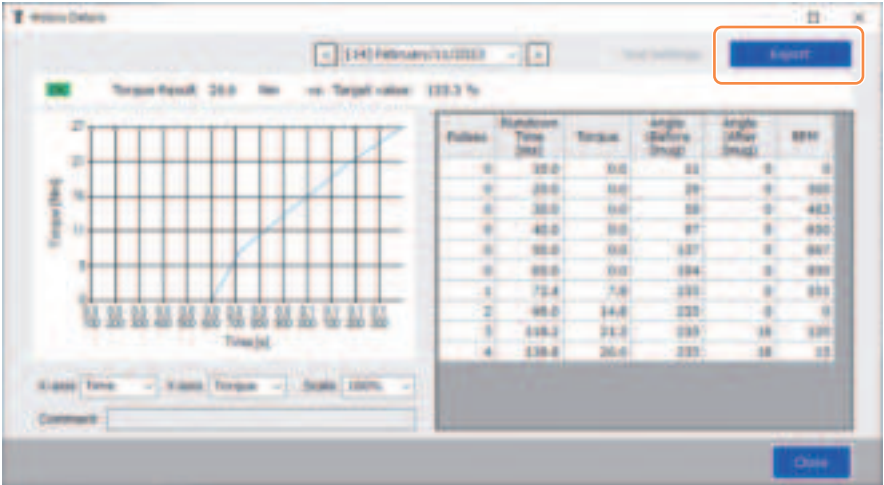


2.2 USING THE TOOL MANAGER SOFTWARE

2.2.12 DISPLAYING AND SAVING THE HISTORY LOG

Export the Graph Data

When you press [Export], the selected graph data will be exported in CSV file format.



2.2 USING THE TOOL MANAGER SOFTWARE

2.2.13 HISTORY LOG ITEM LIST

Count
[Display overview] A number counts up in the order that work was done. The count will be reset when you import history logs from the tool to the Tool Manager software and delete the history logs from the memory of the tool.
Date
[Display overview] This shows the date when work was done.
Time
[Display overview] This shows the time when work was done.
Work Result
[Display overview] The result of work is judged OK or NOK. The OK/NOK judgment criteria are as follows. OK: A shut-off stop made successfully without any error, NOK: A shut-off stop incomplete, or made with an error
NOK Message
[Display overview] When the work result is NOK, the reason for NOK is displayed in the Torque, Angle, or Error category. If the reason for NOK is classified as Error, the details will be displayed in the error message on the last line of the history log.
Shut-off Torque
[Display overview] This shows the configured parameter of torque that makes the tool shut off.
Upper Torque Limit
[Display overview] This shows the configured parameter of the upper limit of torque for judging the work result OK.
Lower Torque Limit
[Display overview] This shows the configured parameter of the lower limit of torque for judging the work result OK.

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.13 HISTORY LOG ITEM LIST

Torque Result
[Display overview] This shows the result value of torque that the tool output at the work concerned.
Upper Angle Limit (Before Snug)
[Display overview] This shows the configured parameter of the upper limit of angle before snug for judging the work result OK. The angle before snug is an anvil turning angle from trigger-on to the snug point set by the snug point parameter.
Lower Angle Limit (Before Snug)
[Display overview] This shows the configured parameter of the lower limit of angle before snug for judging the work result OK. The angle before snug is an anvil turning angle from trigger-on to the snug point set by the snug point parameter.
Angle (Before Snug)
[Display overview] This shows the result value of the angle before snug of the work concerned. The angle before snug is an anvil turning angle from trigger-on to the snug point set by the snug point parameter.
Upper Angle Limit (After Snug)
[Display overview] This shows the configured parameter of the upper limit of angle after snug for judging the work result OK. The angle after snug is an anvil turning angle from the snug point set by the snug point parameter to the end of work.
Lower Angle Limit (After Snug)
[Display overview] This shows the configured parameter of the lower limit of angle after snug for judging the work result OK. The angle after snug is an anvil turning angle from the snug point set by the snug point parameter to the end of work.

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.13 HISTORY LOG ITEM LIST

Angle (After Snug)
[Display overview] This shows the result value of the angle after snug of the work concerned. The angle after snug is an anvil turning angle from the snug point set by the snug point parameter to the end of work.
Number of Pulse
[Display overview] This shows the number of pulses that the tool emitted at the work concerned.
Fastening Time
[Display overview] This shows the time it took from trigger-on to the end of work at the work concerned.
Battery Level
[Display overview] This shows the remaining battery level when the work concerned started in the four levels: 3 to 0. The remaining battery level that each display shows is as follows. 3: Fully charged to adequate remaining battery level, 2: 40% or less, 1: 20% or less, 0: Dead battery.
Offset Slope
[Display overview] This shows the configured parameter of the coefficient for converting the output voltage of the torque sensor into torque.
Offset Intercept
[Display overview] This shows the configured parameter of the coefficient for converting the output voltage of the torque sensor into torque.
Snug Point Detection Method
[Display overview] This shows the configured parameter of the [Snug Point Detection Method].
Snug Point Detection Threshold
[Display overview] This shows the configured parameter of the threshold for determining the snug point. The [Snug Point Detection Threshold] is displayed when the configured parameter of the [Snug Point] is [Snug Torque] or [Select From Graph].

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.13 HISTORY LOG ITEM LIST

Snug Point Detection Start Angle
[Display overview] This shows the configured parameter of the angle for starting the snug point detection. The [Snug Point Detection Start Angle] is displayed when the configured parameter of the [Snug Point] is [Select From Graph].
Angle Error Shut-Off
[Display overview] This shows the configured parameter of the function for stopping the tool when the upper-limit angle is exceeded.
No Load Speed
[Display overview] This shows the configured parameter of the speed at no load.
Disable Reverse
[Display overview] This shows the configured parameter of the function for disabling reverse work.
Rundown Error Detection
[Display overview] This shows the configured parameter of the function for judging work where the tool shut off within the set time after trigger-on to be NOK.
Retightening Prevention
[Display overview] This shows the configured parameter of the function for disabling operation of the tool until the set time has passed since trigger-on.
Cross Thread Reduction
[Display overview] This shows the configured parameter of the operation option for reducing cross threading.
Soft Start Up Shift Timing
[Display overview] When the cross threading reduction function is set for Soft start, the set time is displayed.

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.13 HISTORY LOG ITEM LIST

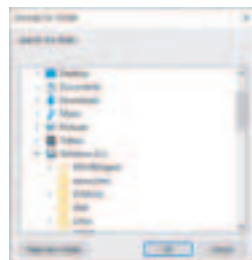
Snug Torque Detection Delay
[Display overview] This shows the configured parameter of the function for the tool ignoring the work load in the middle of tightening before the set time has passed since trigger-on.
Error Message
[Display overview] When the reason for NOK, the work result displayed on the NOK message, is classified as Error, details of the error are displayed. (For details of error messages, Refer to 4.3.1 .)

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.14 MANAGING THE DATA FOLDER

You can manage data folders from [File] on the Tool Manager software.
A management of data folders is made by selecting a desired folder from the folder selection dialog.

Folder selection dialog



Setting Data Folder

- You can specify the folder to which to save the data of history logs and configured parameters.
- Select a destination folder, from the folder selection dialog. When you select a folder, new folders will be created under the name of [History] and [Parameter] in the selected folder.

Data Backup

- You can make a backup of history logs and configured parameters.
- Select a folder to which to save the backup, from the folder selection dialog. When you select a folder, a new backup folder, whose name shows the creation date and time, will be created in the selected folder.

(Example: Folder name 20230415103045 = Created at 10:30:45 on April 15, 2023)

CAUTION

- Do not change the name of the backup folder. If the folder name is changed, the backup data cannot be restored.

Data Restore

- The data of history logs and configured parameters saved as a backup can be imported to the Tool Manager software and restored.
- Select a backup folder from which to restore the backup, from the folder selection dialog. The data in the backup folder will be imported to the Tool Manager software.

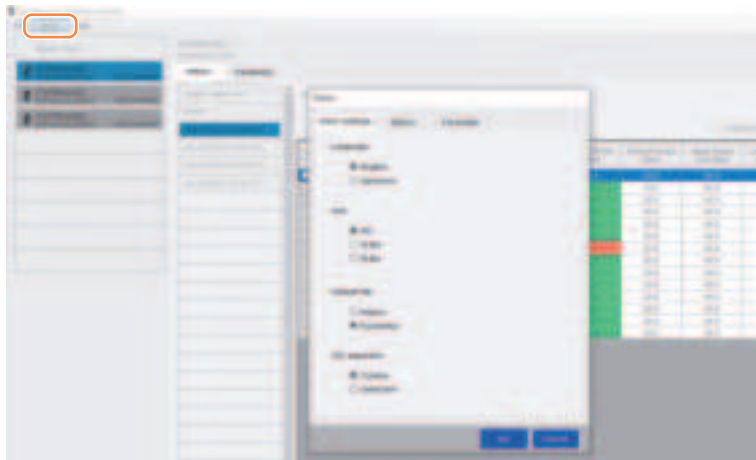
Note

- The same data as the data that is already on the Tool Manager software will not be overwritten.

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.15 SETTING THE DISPLAY OF THE TOOL MANAGER SOFTWARE

Various display settings of software can be made from [Option] of the Tool Manager software. Select [Option] to open the option dialog.



Basic Settings

- You can select “Language,” “Unit,” “Default Tab,” and “CSV separator.”
- For languages, English or Japanese can be selected.
- For a unit of torque, Nm, In.lbs, or Ft.lbs can be selected.
- For default tab, [Parameter] or [History] can be selected.
- You can choose [Comma] or [Semicolon] for the separator in CSV file format to be input and output in the parameter file and the history log file.

History

- You can show or hide each of the items of history logs.
- Items with (✓) in their checkboxes are displayed on the Tool Manager software.
- The history log data of hidden items will not be deleted.
- When you [Acquire] history logs from the tool, the data of hidden items will also be saved to the specified folder.

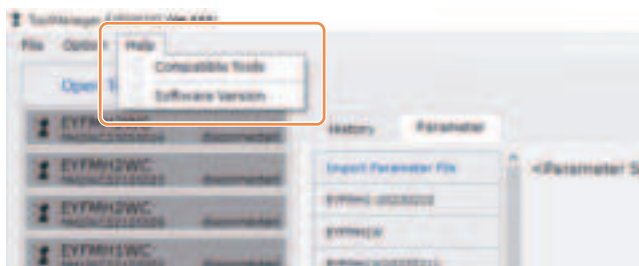
Parameter

- You can show or hide each of the items of configured parameters.
- Items with (✓) in their checkboxes are displayed on the Tool Manager software.
- When you [Apply] configured parameters to the tool, the default values or previously set values of even the hidden items will be registered to the tool.

2.2 USING THE TOOL MANAGER SOFTWARE

2.2.16 HELP FUNCTION

You can refer to various pieces of help information from [Help] of the Tool Manager software.



Compatible Tools

You can check the model number of the tool that can be operated from the Tool Manager software.

Software Version

You can check the version information of the software in use.

3.1 CAPACITY AND SPECIFICATIONS OF THE TOOL

Capacity of the Tool

Model No.	EYFMH1WC	EYFMH1WP	EYFMH2WC	EYFMH2WP
Recommended work (Bolt strength)	M8 (high-strength bolt) M10 (ordinary bolt)		M10 (high-strength bolt) M12 (ordinary to high-strength bolt) M14 (ordinary bolt)	
Torque control functioning range	About 20.0 Nm to 60.0 Nm / 177.0 In.lbs to 531.0 In.lbs / 14.7 Ft.lbs to 44.2 Ft.lbs		About 50.0 Nm to 120.0 Nm / 442.5 In.lbs to 1061.9 In.lbs / 36.9 Ft.lbs to 88.5 Ft.lbs <Recommended range for large component assembly> 50.0 Nm to 80.0 Nm /442.5 In.lbs to 708.0 In.lbs /36.9 Ft.lbs to 59.0 Ft.lbs	
Workload and work speed (with a fully charged pack)	<M8: 23 Nm / 204 In.lbs / 17 Ft.lbs> 940 bolts: About 0.5 s/bolt (EYFB43) 490 bolts: About 0.5 s/bolt (EYFB41) <M10: 43 Nm / 381 In.lbs / 32 Ft.lbs> 670 bolts: About 0.7 s/bolt (EYFB43) 350 bolts: About 0.7 s/bolt (EYFB41)		<M12: 71 Nm / 628 In.lbs / 52 Ft.lbs> 450 bolts: About 0.9 s/bolt (EYFB43) 230 bolts: About 0.9 s/bolt (EYFB41)	

3.1 CAPACITY AND SPECIFICATIONS OF THE TOOL

Specifications of the Tool

Model No.		EYFMH1WC	EYFMH1WP	EYFMH2WC	EYFMH2WP
Wrench size		□12.7 mm			
Motor voltage		14.4 V DC			
No-load speed		0 to about 2300 rotations/minute (The maximum speed can be set from about 1500 to 2300 rotations/minute.)			
Number of pulses		0 to about 2700 rotations/minute		0 to about 2600 rotations/minute	
Dimensions	Overall length	About 215 mm			
	Overall height	EYFB41 used: About 246 mm EYFB43 used: About 264 mm			
	Overall width	About 61 mm (Maximum battery pack width: About 75 mm)			
Mass (Weight)		EYFB41 used: About 1.8 kg EYFB43 used: About 2.05 kg			
Wireless Communication Standard		Wireless LAN (IEEE802.11a/b/g/n) n: HT20 only			
Frequency band		2.412-2.462 GHz / 5.180-5.240 GHz			
Number of channels		2.4 GHz: 1 to 11 channels / 5 GHz: 36, 40, 44, 48 channels			
USB connector specifications		※1 USB Type-C™			
Number of tool history logs that can be saved (in [Stand Alone Mode])		About 45000 bolts (at 1.2 s work)			
Number of tool parameters that can be held (in [Stand Alone Mode])		1 parameter			
Charging time (when EY0L82B battery charger used)		EYFB41; Charging for practical use: 35 minutes, Full charging: 40 minutes EYFB43; Charging for practical use: 45 minutes, Full charging: 60 minutes			

※1 USB Type-C is a trademark of USB Implementers Forum.

3.2 SPECIFICATIONS OF THE TOOL MANAGER SOFTWARE

Tool Manager (Model No.: EYFSW102)	
Compatible OS	Windows10 Home, Windows10 Pro, Windows10 Enterprise (32 bits/64 bits) English version, Japanese version
Supported language	English, Japanese
Recommended hard disk capacity	10 MB or more (Log data excluded)
Communication interface	USB 2.0 or higher

- The minimum OS operation specifications required should be satisfied.

CAUTION

- Some PCs are not available even if they meet the operating environment.
- Depending on the use environment etc. of your PC, the descriptions and screens in this Operating Instructions might be different from the actual descriptions and screens. Please be forewarned.
- The contents of this Operating Instructions are subject to change without prior notice.
- Any reproduction of the contents of this Operating Instructions in whole or in part is prohibited without permission.
- Descriptions on how to operate Windows in this Operating Instructions use the procedures and screens of Windows 10.
- Tool Manager is only available in the Compatible OS.
- Operation is not guaranteed for all the PCs meeting the recommended environment.
- Windows® 3.1, Windows® 95, Windows® 98, Windows® 98SE, Windows® Me, Windows NT®, and Windows® 2000 are not supported.
- Operation is not guaranteed for Windows® XP Media Center Edition, Tablet PC Edition, Windows Vista® Enterprise, and Windows® 7 Enterprise.
- Operation is not guaranteed for 64-bit operating systems of Windows® XP and Windows Vista®.
- Operation is not guaranteed in XP mode of Windows® 7.
- Operation is not guaranteed for operating systems in the upgraded environment.
- The multi-boot environment is not supported.
- The multi-monitor environment is not supported.
- Only the user with system administrator privileges (Administrator) is allowed to conduct installation and uninstallation.
- Before use, log onto it as the user name with an administrator account or a standard user account. The user name with a Guest account cannot use it.
- Operation is not guaranteed in the environment where you have changed the language by using the multilingual user interface (MUI) function of Windows Vista® or Windows® 7 Ultimate.

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- The screenshots are used in accordance with the guidelines of Microsoft Corporation.
- Other names, company names, and product names mentioned herein are either trademarks or registered trademarks of their respective companies.

3.2 SPECIFICATIONS OF THE TOOL MANAGER SOFTWARE

About Handling (Be sure to Read)

<Limitations>

The Tool Manager software is for configuring various settings of EYFMH1/EYFMH2.

CAUTION

Note the following points when using this software.
Using it is construed as an agreement on the [Use conditions] in the right.

[Use conditions]

We give this software no warranty of any kind. We assume no responsibility for direct damage, indirect damage, far-reaching damage, consequential damage, or special damage of any kind resulting from the use or operation of this software. We forbid you from reproducing or distributing this software.

3.3 PAIRING WITH THE CONTROLLER

Enabling Pairing

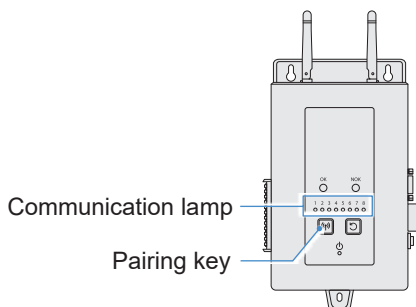
Use the Pairing key on the controller unit (EYFRW2).

Select the communication lamp of the number with no registration (lamp off) and hold the Pairing key down to enter the pairing mode.

During 2 minutes of the pairing mode, start the pairing mode on a tool within the coverage to automatically establish pairing.

If pairing is not established within the time, the pairing mode will end.

- After you attempt to start pairing, it may take some time until the controller enters the pairing mode.



■ To register Tool No. 4

1 Press the Pairing key on the controller 4 times to select Tool No. 4.

Communication lamp No. 4 blinks.



2 While No. 4 is selected, hold down the Pairing key on the controller to enter the pairing mode of Tool No. 4.

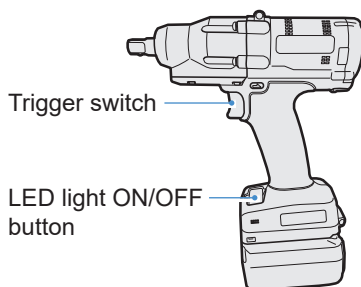
In the pairing mode, Communication lamp No. 4 starts blinking rapidly.



3.3 PAIRING WITH THE CONTROLLER

- 3** Set the battery pack in the tool and while holding down the LED light ON/OFF button, pull the Trigger switch.

The tool enters the pairing mode.



When the tool enters pairing mode, Display on Control Panel indicates the pairing mode.



Wireless communication is automatically established and pairing registration is completed.

When pairing registration is completed, Communication lamp No. 4 on the controller stays lit.

- If pairing fails, cancel pairing on the controller and then try again.



Note

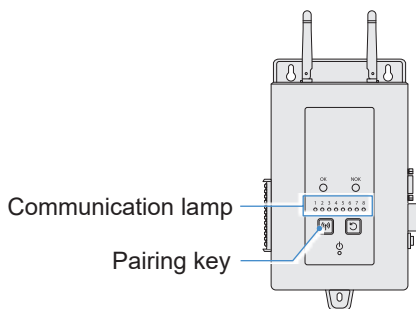
- You can enable pairing by setting in the setting screen in addition to using the key on the unit.
- For how to enable pairing in the setting screen and details on operation of the controller, see the Operating Instructions supplied with the controller.

3.3 PAIRING WITH THE CONTROLLER

Cancelling Pairing

Use the Pairing key on the controller unit (EYFRW2).

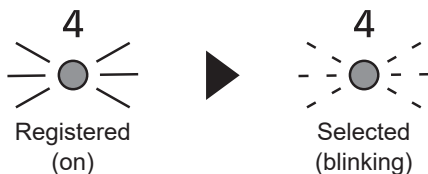
Select the communication lamp of the tool number you want to cancel registration (lamp on) and hold the pairing key down to cancel pairing registration.



■ To cancel Tool No. 4

1 Press the Pairing key on the controller 4 times to select Tool No. 4.

Communication lamp No. 4 blinks.



2 While No. 4 is selected, hold down the Pairing key on the controller to cancel pairing registration of Tool No. 4.

When pairing is cancelled, Communication lamp No. 4 stops blinking and turns off.



Note

- You can cancel pairing by setting in the setting screen in addition to using the key on the unit.
- For how to cancel pairing in the setting screen and details on operation of the controller, see the Operating Instructions supplied with the controller.

3.4 PRECAUTIONS FOR WIRELESS COMMUNICATION

Cautions for using a WLAN device

The device uses a frequency band shared with other types of equipment including industrial, scientific, and medical devices (e.g., a microwave) and radio stations such as a premises radio station (licenced) and low-power radio station (unlicenced) for mobile identification used in factory manufacturing lines and an amateur radio station (licenced).

1. Before using the device, confirm that there is no premises or low-power radio station for mobile identification or no amateur radio station operating in the vicinity.
2. If the device causes harmful interference with a premises radio station for mobile identification, stop use of the band immediately and consult the support centre below for the solution of the interference problem (e.g., installing a partition).
3. If the device causes harmful interference with a premises or low-power radio station for mobile identification or an amateur radio station or such other problems, consult the support centre.

■ There may be noise, shorter radio coverage, or malfunction occurring in the following environmental conditions.

- There is an obstruction (e.g., a metal or reinforced concrete object) that prevents smooth radio propagation between the wireless-enabled tool unit and the controller.
- The antennas of the controller are covered with metal.
- An operator's body is interfering with radio propagation between an operator (the wireless-enabled tool unit) and the controller.
- There is a microwave, PC, or any other device causing noise in the vicinity.
- A cell-phone or PHS phone is used near the wireless-enabled tool unit and the controller.

FCC Caution: To assume continued compliance, install and use in accordance with provided instructions. Use only the battery pack specified in the instructions. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC ID: ACJ-EYFMH IC: ACJ-EYFMH

The enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (i.) this device may not cause harmful interference and (ii.) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

4.1 CLEANING AND STORAGE

How to Clean

■ Wiping with Soft Cloth

Do not use wet cloth, thinner, alcohol, benzine, or other volatile liquids.
(Cause of discoloration, deformation, or crack)



■ For Long Life

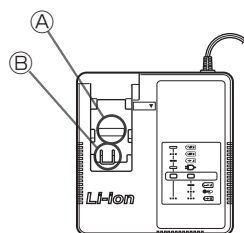
Request maintenance from the dealer or our consultation service periodically.

■ Removing Foreign Bodies from the Battery Pack Seat on the Battery Charger

Pull the power plug out of the outlet.

Lithium-ion battery pack seat

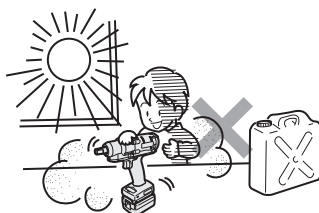
- Hold down the cover to expose the connectors in sections ① and ②.
- ①: Remove foreign bodies with a brush or the like, being careful not to strain the connectors.
- ②: Remove foreign bodies with cloth or the like.



How to Store

Avoid the following conditions during storage.

- Car cabin or other hot places
- Places exposed to direct sunlight
- Places exposed to water or dampness
- Places with a lot of foreign bodies or dust
- Places within reach of children
- Places with gasoline or other flammables



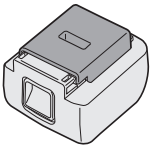
4.2 BATTERY PACK

DANGER

- Use them for our charging tools and our authorized charging tools only.
 - Do not use other rechargeable battery packs than those for our charging tools only. Do not use any modified battery pack (including any battery pack with its internal parts replaced after disassembly), either.
 - Do not put any battery pack into a fire or heat it. Otherwise, it may generate heat, ignite, or burst.
-
- After removing a battery pack from the tool or the battery charger, be sure to attach the pack cover to it. Failure to attach it may cause the battery connectors to short-circuit and ignite.

For Long Life

- After using a lithium-ion battery pack, **store it without charging.**
- When it is not in use, attach a pack cover to prevent dust and a short circuit.
- Remove foreign objects if these are on the connectors.



Life of Battery Pack

The product has come to the end of its life when it delivers only half or so of its performance compared with the initial one even if it is fully charged. Purchase a battery pack for our charging tools only. We assume no responsibility for accidents or failures of any kind resulting from the use of other battery packs than those that we specify.

WARNING

Do not use any recycled battery pack with only its internal storage battery replaced. Otherwise, it may cause an accident or a failure.

About Recycling

Attention

- A Li-ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.



In Not Using a Battery Pack for the Time Being

Before storing	Store without charging
Before reusing	Fully charge

4.2 BATTERY PACK

4.3 ERROR CODES

4.3.1 ERROR CODES ON CONTROL PANEL

If the tool or the battery pack is abnormal, an error code blinks on the control panel.

Before requesting repair, take the following action.

Send it for repair if there is no improvement even after the following action.

Display	Possible cause	Action
	Abnormality in the tool's internal memory or the communication line, wireless communication, etc.	Remove and attach the battery pack once, and then restart the tool. If the problem persists, perform the initialization. (With "E1" displayed, press and hold the LED button for about 10 seconds.) In Wireless Communication Mode, also check the condition of the controller.
	The battery pack is hot.	Interrupt work, and replace the battery pack, or wait for the battery pack temperature to fall before use.
	The motor of the tool is hot.	Interrupt work, and wait for the motor temperature to fall before use.
	Abnormality in the connectors between the tool and the battery pack	Check whether there is any foreign body or wear in the connectors. Or replace the battery pack.
	Overload, failure in the motor, etc.	Check whether the job suits the capacity of the tool.
	Error in USB communication with the Tool Manager software Break in the USB cable, external noise	Check the USB cable for connection. Replace the USB cable. Change the workplace.
	Abnormality, failure, etc. in the tool's circuit	—
	Error in wireless communication with the controller	Restart the tool and the controller. Check for communication, with another normal tool. If the error persists, contact the manufacturer of the controller.
	The operation range limitation function is active (only when using EYFRW2)	• Remove and then set the battery pack within the wireless coverage before using again. • If the problem persists after you remove and then set the battery pack, check the controller and the peripheral devices.
	① Abnormality, failure, etc. in the torque sensor ② Excessive work time (Excessive measurement data) ③ Judged NOK	① : Pull the trigger switch and restart the tool. ②③ : Work again in [Stand Alone Mode], and check the error description from the history log. Reconsider the configured parameters.
	The button battery inside the tool has run out.	—
	Excessive batch workload in [Wireless Communication Mode] (Excess of the capacity of memory temporarily storing communication data)	Reconsider the workload in a batch. Select a setting other than [After Batch Complete] for Set [Graph Sending/Storing Timing].

CAUTION

- Overload protection (E5) may function if you tighten or loosen the bolt that has been tightened up.

4.3 ERROR CODES

4.3.2 ERROR MESSAGES OF HISTORY LOGS

If tightening work is not complete successfully, you can check the error description from the history log displayed on the Tool Manager software. (For how to browse history logs,

Refer to 2.2.12 .)

	Category	Error message	Cause	Action (for unintended cause)
1	Torque	Torque exceeded	- The measured torque of the tool exceeded the upper-limit torque setting. - The member conditions do not suit the tool.	- Check the settings. - Reconsider the member conditions. - Disable the upper-limit torque setting.
2	Torque	Torque insufficient	- The measured torque of the tool at the time of work stop is less than the lower-limit torque. - The member conditions do not suit the tool.	- Check the settings. - Reconsider the member conditions. - Disable the lower-limit torque setting.
3	Angle	Before snug angle exceeded	The angle before snug in the middle of work exceeded the upper-limit setting.	- Check the settings (including the snug point setting). - Reconsider the member conditions. - Disable the upper-limit setting.
4	Angle	Before snug angle insufficient	The angle before snug at the time of work stop is less than the lower-limit setting.	- Check the settings (including the snug point setting). - Reconsider the member conditions. - Disable the lower-limit setting.
5	Angle	After snug angle exceeded	The angle after snug in the middle of work exceeded the upper-limit setting.	- Check the settings (including the snug point setting). - Reconsider the member conditions. - Disable the upper-limit setting.
6	Angle	After snug angle insufficient	The angle after snug at the time of work stop is less than the lower-limit setting.	- Check the settings (including the snug point setting). - Reconsider the member conditions. - Disable the lower-limit setting.
7	Error	Rundown error	A shut-off stop was made within the rundown error time setting.	- Check the settings (shut-off torque and rundown error time setting). - Reconsider the member conditions. (The stop might be caused by an abnormal load.) - Disable the rundown error setting.

4.3 ERROR CODES

4.3.2 ERROR MESSAGES OF HISTORY LOGS

	Category	Error message	Cause	Action (for unintended cause)
8	Error	Stop before shut off	• Work ended before shut-off. - The user turned off the trigger. - The stop was made by another error.	<If a manual stop was made> • Reconsider the work environment. • Check the member conditions. <If another error appears> • Check the error description and take action.
9	Error	Shut off incomplete	• Work ended by both "stop before shut-off" and "occurrence of pulsing." - Stop before shut-off - Work was started.	• Refer to the section of a stop before shut-off. • Reconsider the work procedure.
10	Error	Overcurrent	• Protection stopped because abnormal current was observed in the tool. - Dependence on the work environment - Dependence on the battery or the tool	• Reconsider the work environment (whether there is an abnormal load, and how workers use the tool).
11	Error	Low voltage	• Protection stopped because abnormal voltage was observed around the battery. - Dependence on the work environment - Dependence on the battery or the tool	• Reconsider the battery pack (charging or replacing with a new one). • Clean the connectors (check for dust and wear in the connectors).
12	Error	Motor high temperature	• Protection stopped because the motor of the tool is hot.	• Wait for it to cool down before use (no condensation). <If there are continuous abnormal loads> • Reconsider the work environment. • Check the member conditions.
13	Error	Battery high temperature	• Protection stopped because the battery pack became hot.	• Wait for it to cool down before use. <If there are continuous abnormal loads> • Reconsider the work environment. • Check the member conditions.
14	Error	Battery sensor error	• Abnormality was observed around the battery pack connectors to the tool.	• Reattach the battery pack. • Reconsider the battery pack (charging or replacing with a new one). • Clean the connectors (check for dust and wear in the connectors).

4.3 ERROR CODES

4.3.2 ERROR MESSAGES OF HISTORY LOGS

	Category	Error message	Cause	Action (for unintended cause)
15	Error	Motor sensor error	The motor's temperature sensor detected a low temperature error. Criterion: -30 °C or below	- Reconsider the work environment. - There is a failure if it occurs frequently, because judgment is based on the temperature only.
16	Error	Torque sensor error	A break or a short circuit was detected around the torque sensor.	- Check for frequency. - Request repair if it occurs frequently.
17	Error	Torque sensor protection	In a single job, one of the following items has exceeded the measurable upper limit. - Number of pulses (= 511 times) - Work time (= 13 seconds) - Accumulated angle (= 131071°)	- Reconsider the work environment (including the job and the procedure). - Check the member conditions.
18	Error	Tool locked	- After the trigger was turned on, the motor failed to run. - Hardware failure, abnormal load, etc.	- Reconsider the work environment. - Check for frequency. - Request repair if it occurs frequently.
19	Error	Circuit identification error	The circuit identification switch of the tool has an unacceptable setting.	- Check for frequency. - Request repair if it occurs frequently. (Circuit failure, or mistake in manufacture or repair)
20	Error	Parameter error	Parameters set in the tool are out of the setting range.	- Check the parameter settings. - Set the parameters again to the tool.
21	Error	Data limit exceeded	The recordable data amount per job was reached.	- Reconsider the work environment (including the job and the procedure). - Check the member conditions.
22	Error	Maintenance warning	The accumulated pulsing time has 1 hour to go before the reminder setting.	- Check the setting. - Make the setting again (such as extending, initializing, or disabling the setting).
23	Error	Maintenance protection	The accumulated pulsing time exceeded the reminder time setting.	- Check the setting. - Make the setting again (such as extending, initializing, or disabling the setting).

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Les caractères en rouge montrent ceux qui ne sont pas mentionnés dans une version abrégée (imprimée) des Instructions de Instructions d'utilisation.

1.1 MISE EN ROUTE

1.1.1 OBTENTION DU LOGICIEL TOOL MANAGER

Pour utiliser ce produit, il est nécessaire de configurer ses paramètres à l'aide du logiciel dédié (Tool Manager).

Vous devez tout d'abord obtenir le logiciel Tool Manager en suivant la procédure ci-après.

Préparation:

Préparez un PC ou une tablette avec le système d'exploitation supporté installé.

Systèmes d'exploitation supportés:

Windows10 Home, Windows10 Pro, Windows10 Enterprise

Accédez au site de téléchargement suivant et téléchargez le programme d'installation du logiciel Tool Manager.

(Pour savoir comment installer le logiciel Tool Manager, **Se reporter à 2.2.1**)

Le site de téléchargement du logiciel Tool Manager.

<https://www.panasonic-powertools.eu/fr/construction/documents.htm>



- Veuillez utiliser la version la plus récente.

1.1 MISE EN ROUTE

1.1.2 POUR OBTENIR LES INSTRUCTIONS D'UTILISATION

Accédez au site de téléchargement suivant et téléchargez les Instructions d'utilisation de EYFMH1WC ou EYFMH2WC.

Pour obtenir la version intégrale des Instructions d'utilisation, veuillez consulter le site Web.

<https://www.panasonic-powertools.eu/fr/construction/documents.htm>



1.2 CONSIGNES DE SÉCURITÉ

1.2.1 AVERTISSEMENTS GÉNÉRAUX DE SÉCURITÉ CONCERNANT L'OUTIL MÉCANIQUE

AVERTISSEMENT

Lisez tous les avertissements de sécurité, les instructions, les illustrations et les spécifications fournis avec cet outil mécanique.

Ne pas suivre l'ensemble des instructions ci-dessous peut provoquer une électrocution, un incendie et/ou des blessures graves.

Le terme "outil mécanique" utilisé dans tous les avertissements se réfère aux outils mécaniques fonctionnant sur le secteur (avec un cordon d'alimentation) et aux outils mécaniques fonctionnant sur batterie (sans fil).

Conservez tous les avertissements et les instructions pour référence ultérieure.

1) Sécurité de la zone de travail

a) Gardez la zone de travail propre et bien aérée.

Les endroits encombrés et sombres invitent les accidents.

b) Ne faites pas fonctionner les outils mécaniques dans des atmosphères explosives, comme en présence de liquides inflammables, de gaz ou de poussière.

Les outils mécaniques génèrent des étincelles qui peuvent enflammer la poussière ou les vapeurs.

c) Gardez les enfants et les spectateurs éloignés lors du fonctionnement d'un outil mécanique.

Les distractions peuvent en faire perdre le contrôle.

2) Sécurité électrique

a) La fiche des outils mécaniques doit correspondre aux prises secteur. Ne modifiez la fiche sous aucun prétexte. N'utilisez pas de fiche adaptatrice avec les outils mécaniques mis à la terre.

Des fiches non modifiées et des prises secteur correspondant réduisent les risques d'électrocution.

b) Évitez tout contact physique avec les surfaces mises à la terre telles que tuyaux, radiateurs, micro-ondes et réfrigérateurs.

Il y a un risque d'électrocution supplémentaire si votre corps est mis à la terre.

c) N'exposez pas les outils mécaniques à la pluie ou à des conditions humides.

De l'eau pénétrant dans un outil mécanique augmente le risque d'électrocution.

d) Ne malmez pas le cordon. N'utilisez jamais le cordon pour transporter, pour tirer ou pour débrancher l'outil mécanique. Gardez le cordon éloigné de la chaleur, de l'huile, d'objets aux bords coupants ou de pièces en mouvement.

Les cordons endommagés ou emmêlés augmentent le risque d'électrocution.

1.2 CONSIGNES DE SÉCURITÉ

1.2.1 AVERTISSEMENTS GÉNÉRAUX DE SÉCURITÉ CONCERNANT L'OUTIL MÉCANIQUE

- e) **Lors du fonctionnement des outils mécaniques à l'extérieur, utilisez une rallonge adaptée à l'utilisation à l'extérieur.**

L'utilisation d'un cordon adapté à l'utilisation à l'extérieur réduit les risques d'électrocution.

- f) **Si le fonctionnement d'un outil mécanique dans un endroit humide est inévitable, utilisez une alimentation électrique pour dispositif protégé contre le courant résiduel (RCD).**

L'utilisation d'un RCD réduit les risques d'électrocution.

3) Sécurité personnelle

- a) **Restez alerte, regardez ce que vous faites et faites preuve de bon sens lorsque vous utilisez un outil mécanique. N'utilisez pas un outil mécanique alors que vous êtes fatigué ou sous les effets de drogue, d'alcool ou de médicaments.**

Un moment d'inattention pendant le fonctionnement de l'outil mécanique peut entraîner des blessures graves.

- b) **Utilisez des équipements de protection personnelle. Portez toujours des protections pour vos yeux.**

Des équipements de protection comme un masque antipoussière, des chaussures de sécurité non glissantes, un casque de protection ou des protections pour les oreilles utilisés dans les conditions appropriées réduisent les risques de blessures.

- c) **Évitez tout démarrages accidentel. Assurez-vous que l'interrupteur est en position d'arrêt avant de brancher l'outil à la source d'alimentation et/ou au bloc de batterie ou pour saisir l'outil ou pour le transporter.**

Transporter les outils mécaniques avec le doigt sur l'interrupteur ou le branchement d'outils mécaniques dont l'interrupteur est sur la position de marche invitent les accidents.

- d) **Retirez toute clé d'ajustement ou clé de serrage avant de mettre l'outil mécanique en marche.**

Une clé de serrage ou une clé d'ajustement laissée attachée à une pièce tournante de l'outil mécanique peut entraîner des blessures corporelles.

- e) **Ne vous mettez pas en déséquilibre. Gardez une bonne prise au sol et votre équilibre à tout moment.**

Ceci permet un meilleur contrôle de l'outil mécanique dans des situations inattendues.

- f) **Habillez-vous correctement. Ne portez pas de vêtements lâches ni de bijoux. Gardez vos cheveux, vos vêtements et vos gants éloignés des pièces en mouvement.**

Des vêtements lâches, des bijoux ou des cheveux longs peuvent se faire prendre dans les pièces en mouvement.

- g) **Si des appareils sont fournis pour la connexion d'installations d'extraction et de collecte de la poussière, veillez à les connecter et à les utiliser correctement.**

L'utilisation d'un collecteur de poussière peut réduire les risques liés à la poussière.

1.2 CONSIGNES DE SÉCURITÉ

1.2.1 AVERTISSEMENTS GÉNÉRAUX DE SÉCURITÉ CONCERNANT L'OUTIL MÉCANIQUE

- h) Ne laissez pas l'habitude acquise grâce à l'utilisation fréquente des outils vous faire devenir trop sûr de vous et vous faire oublier les principes de sécurité des outils.**

Une action imprudente peut provoquer des blessures graves en une fraction de seconde.

4) Utilisation et soins de l'outil mécanique

- a) Ne forcez pas l'outil mécanique. Utilisez l'outil mécanique correct pour votre application.**

L'outil mécanique correct exécute mieux le travail dans de meilleures conditions de sécurité s'il est utilisé à l'allure pour laquelle il a été conçu.

- b) N'utilisez pas l'outil mécanique si l'interrupteur ne le met pas en marche ou ne l'arrête pas.**

Tout outil mécanique qui ne peut pas être contrôlé par son interrupteur est dangereux et doit être réparé.

- c) Débranchez la fiche de la source d'alimentation et/ou retirez la batterie autonome, si elle est amovible, de l'outil mécanique avant d'effectuer tout ajustement, de changer d'accessoire ou de ranger des outils mécaniques.**

De telles mesures de sécurité préventives réduisent les risques de faire démarrer l'outil mécanique accidentellement.

- d) Rangez les outils mécaniques inutilisés hors de la portée des enfants et ne laissez personne qui n'est pas familiarisé avec l'outil mécanique ou ses instructions faire fonctionner l'outil mécanique.**

Les outils mécaniques sont dangereux dans les mains des utilisateurs manquant d'entraînement.

- e) Entretenez bien les outils mécaniques et les accessoires. Vérifiez l'alignement ou l'emboîtement des pièces en mouvement, l'intégrité des pièces et toute autre condition pouvant affecter le fonctionnement de l'outil mécanique. S'il est endommagé, faites réparer l'outil mécanique avant de l'utiliser.**

De nombreux accidents sont provoqués par des outils mécaniques mal entretenus.

- f) Maintenez les outils de coupe affûtés et propres.**

Les outils de coupe bien entretenus avec des lames bien affûtées ont moins de chances de gripper et sont plus faciles à contrôler.

- g) Utilisez l'outil mécanique, les accessoires, les mèches etc., conformément à ces instructions, en tenant compte des conditions de travail et de la tâche à exécuter.**

L'utilisation de l'outil mécanique à des fins autres que celles pour lesquelles il a été conçu peut présenter une situation à risque.

- h) Maintenez les poignées et les surfaces de préhension sèches, propres et exemptes d'huile et de graisse.**

Des poignées et des surfaces de préhension glissantes ne permettent pas une manipulation et un contrôle de l'outil en toute sécurité dans des situations inattendues.

1.2 CONSIGNES DE SÉCURITÉ

1.2.1 AVERTISSEMENTS GÉNÉRAUX DE SÉCURITÉ CONCERNANT L'OUTIL MÉCANIQUE

5) Utilisation et soins de la batterie de l'outil

- a) **N'effectuez la recharge qu'avec le chargeur spécifié par le fabricant.**
Un chargeur convenant à un bloc de batterie peut entraîner un risque d'incendie lorsqu'un autre bloc de batterie est utilisé.
- b) **N'utilisez les outils mécaniques qu'avec les bloc de batterie spécialement conçus pour eux.**
L'utilisation de tout autre bloc de batterie peut entraîner un risque de blessure et d'incendie.
- c) **Lorsqu'un bloc de batterie n'est pas utilisé, gardez-le éloigné d'objets métalliques comme agrafes, pièces de monnaie, clés, clous, vis ou tout autre petit objet métallique pouvant établir une connexion entre les deux bornes.**
Si les bornes de la batterie sont mis en court-circuit, cela peut entraîner des brûlures ou un incendie.
- d) **Si elle est malmenée, du liquide peut s'échapper de la batterie. Évitez tout contact. Si un contact accidentel se produit, rincez à l'eau. Si du liquide entre en contact avec les yeux, consultez un médecin.**
Le liquide éjecté de la batterie peut entraîner des irritations ou des brûlures.
- e) **N'utilisez pas de batterie autonome ni d'outil endommagé ou modifié.**
Des batteries endommagées ou modifiées peuvent se comporter de manière imprévisible et provoquer un incendie, une explosion ou un risque de blessure.
- f) **N'exposez pas une batterie autonome ou un outil au feu ou à une température excessive.**
L'exposition au feu ou à une température supérieure à 130 °C (266 °F) peut provoquer une explosion.
- g) **Suivez toutes les instructions relatives à la charge et ne chargez pas la batterie autonome ou l'outil en dehors de la plage de température spécifiée dans les instructions.**
Une charge incorrecte ou à des températures en dehors de la plage spécifiée peut endommager la batterie et augmenter le risque d'incendie.

6) Réparation

- a) **Faites réparer votre outil mécanique par du personnel de réparation qualifié en n'utilisant que des pièces de rechange identiques.**
Ceci assure le maintien de la sécurité de l'outil mécanique.
- b) **Ne réparez jamais les batteries autonomes endommagées.**
L'entretien des batteries autonomes ne doit être effectué que par le fabricant ou des prestataires de service agréés.

Avertissements de sécurité pour les tournevis et les clés à chocs

Tenez l'outil électrique par les surfaces de préhension isolées lorsque vous effectuez une opération dans laquelle la fixation peut entrer en contact avec un câblage caché.
Les fixations qui entrent en contact avec un fil « sous tension » peuvent « énergiser » les parties métalliques exposées de l'outil électrique et pourraient transmettre un choc électrique à l'opérateur.

1.2 CONSIGNES DE SÉCURITÉ

1.2.1 CONSIGNES DE SÉCURITÉ SUPPLÉMENTAIRES

- 1) **Porter des protèges-oreilles lors de l'utilisation de l'outil pendant des périodes prolongées.**
Une exposition prolongée à un bruit de haute intensité peut entraîner une perte auditive.
- 2) N'oubliez pas que cet appareil est toujours prêt à fonctionner, parce qu'il ne doit pas être branché dans une prise électrique.
- 3) Ne touchez pas les pièces rotatives pour éviter toute blessure.
- 4) N'utilisez pas l'outil continuellement pendant une longue période. Arrêtez d'utiliser l'outil de temps en temps pour éviter une augmentation de la température et de surchauffer le moteur.
- 5) Ne laissez pas tomber l'outil.
- 6) Assurez-vous de recouvrir entièrement le connecteur USB avec le cache avant de démarrer le travail.

Symbole	Signification
V	Volts
===	Courant continu
n ₀	Vitesse sans charge
...min ⁻¹	Tours ou mouvements alternatifs par minute
Ah	Capacité électrique de la batterie autonome
	Pour réduire les risques de blessure, l'utilisateur doit lire et comprendre les instructions d'utilisation.
	N'incinerez pas ni ne chauffer le bloc de batterie. Ne pas utiliser ni charger en condition de température élevée. Ne pas exposer à des températures élevées.
	Ne pas démonter ni modifier.
	Ne pas exposer à la pluie ni à l'eau.

1.2 CONSIGNES DE SÉCURITÉ

1.2.1 CONSIGNES DE SÉCURITÉ SUPPLÉMENTAIRES

AVERTISSEMENT

- N'utilisez que la batterie autonome Panasonic conçue pour l'utilisation avec cet outil rechargeable.
- Panasonic décline toute responsabilité en cas de dommage ou d'accident causé par l'utilisation d'une batterie autonome recyclée ou de contrefaçon.
- Ne mettez pas la batterie autonome au rebut dans un feu ou ne l'exposez pas à une chaleur excessive.
- Ne laissez pas d'objets métalliques entrer en contact avec les bornes de la batterie autonome.
- Ne transportez pas ou ne rangez pas la batterie autonome dans un récipient contenant des clous ou tout autre objet métallique.
- Ne chargez pas la batterie autonome dans un endroit où la température est élevée comme à proximité d'un feu ou à la lumière directe du soleil. Sinon la batterie peut surchauffer, prendre feu ou exploser.
- Après avoir retiré la batterie autonome de l'outil ou du chargeur, remettez toujours le couvercle de la batterie autonome en place. Sinon, les contacts de la batterie peuvent se mettre en court-circuit, entraînant le risque d'un incendie.
- Si la batterie autonome s'est détériorée, la remplacer par une batterie neuve. L'utilisation prolongée d'une batterie autonome endommagée peut provoquer des dégagements de chaleur, un départ de feu ou l'explosion de la batterie.
- Pour éviter tout risque de fuite, surchauffe, génération de fumée, incendie et explosion, suivez ces instructions lorsque vous manipulez nos outils rechargeables (corps principal de l'outil/batterie autonome/chargeur).
 - Ne laissez pas les coupes de matériaux ou la poussière se déposer sur la batterie autonome.
 - Avant de ranger l'outil, éliminez les coupes de matériaux et la poussière éventuellement présentes sur la batterie autonome, placez le "cache des bornes" en plastique rouge, puis rangez la batterie dans le coffret de l'outil en l'éloignant des objets métalliques (vis, clous, etc.). Toute détérioration provoquée par des objets épars dans le coffret ne sera pas couverte par cette garantie.
- Ne manipulez pas les outils rechargeables comme indiqué ci-dessous. (Il existe un risque de production de fumée, d'incendie et d'explosion)
 - En les utilisant ou en les rangeant dans des lieux exposés à la pluie ou à l'humidité
 - En les utilisant plongés dans l'eau

1.2 CONSIGNES DE SÉCURITÉ

1.2.2 UTILISATION PRÉVUE

Cet outil est une clé à impulsion mécanique sans fil et peut être utilisé pour serrer des boulons, des écrous et des vis. En outre, il offre une fonction de contrôle de couple qui arrête automatiquement le fonctionnement de l'outil lorsqu'une charge prédéfinie est atteinte pour obtenir un couple de serrage homogène.

UTILISATION INCORRECTE

L'utilisation de l'outil autre que pour L'USAGE PRÉVU est dangereuse et doit être évitée. L'outil ne doit pas être utilisé aux fins suivantes ;

- mélanger des matériaux de peinture ou de construction,
- polissage, meulage, affûtage, gravure.

RISQUES RÉSIDUELS

Certains risques résiduels demeurent même si l'outil est utilisé de manière correcte, à savoir ;

- contact avec la pointe rotative
- contact avec les bords tranchants d'un matériau ou autre.