

INSTRUCTION MANUAL



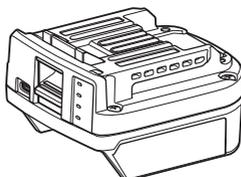
Makita Tool Management

ADP12

INTRODUCTION

Makita Tool Management

- "Makita Tool Management" is an app dedicated to the Communication Connector: ADP12.
- In this manual, "Communication Connector: ADP12" is written as "connector".
- In this manual, "Makita Tool Management" is written as "app".
- This manual is based on the iOS app and Windows OS app.
- App screen is under development. App screen may differ from the actual product.
- This app can be used by downloading the app on iOS smartphones / tablets, Android smartphones / tablets, and Windows PCs.
Refer to the manual included with ADP12 for how to download.



Communication Connector: ADP12 (written as "connector" in this manual)

Non-compatible tools

The tools described below are not compatible with this connector.

- Cordless Lawn Mower
 - LM001G / LM002G
 - GML01
- Cordless Fan
 - CF001G
- Cordless Chain Saw
 - UC021G / UC022G / UC023G / UC024G / UC025G / UC026G / UC027G
- Cordless Scarifier
 - UV001G
 - GVU01

Differences in the button display depending on your OS

(For smartphones / tablets only)

The button figures may differ depending on the smartphones / tablets you use.

Button	iOS	Android
Back		
Done		
Cancel		
Edit		

WHAT YOU CAN DO WITH THE CONNECTOR

NOTE: Some functions are not available depending on the tool or app.

For details on how to set each function, refer to the after-mentioned chapters.

Anti-theft setting

You can set the PIN code for each tool and battery cartridge.
The default PIN code of all tools and battery cartridges are "0000".
By setting PIN code other than "0000", the following anti-theft solutions can be customized.

Product / battery matching

Only the combination of the tool and the battery cartridge with the same PINs can be operated.
If you use the tool and the battery cartridge with different PINs, the tool does not operate and all indicator lamps of the battery cartridge blink.

Battery timer setting

An expiration time / date can be set to battery cartridges according to a construction schedule. The battery cartridges are not usable after the timer is expired.

Owner's name registration

(For PCs only)

You can register the owner's name for the tool and battery cartridge.
Since the correct PIN code is required to register and rewrite the owner's name for the tool and battery cartridge, it makes possible to identify the authorized owner if they are stolen.

Tool checker

You can confirm the operation history of the tool. Confirming those could be utilized for the future work.

Battery checker

You can confirm the usage history and the diagnosis result of the battery cartridge.

Notepad registration

You can take a note about product management, maintenance history, etc.

Stand-alone mode

This is the useful way to register the same setting to multiple tools or battery cartridges.
In the stand-alone mode, by registering the settings in the connector in advance, you can register the settings in the tool or battery just by installing tool or battery to the connector.

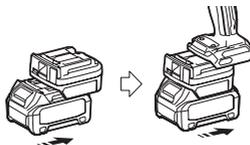
NOTE: "Communication (Comm) Mode" is selected by factory default.

NOTE: In the "Communication (Comm) Mode", register the settings of the product or battery by communicating them with the app one by one.

HOW TO START

Starting the app for smartphones / tablets

1. Before starting the app, install the battery cartridge and the tool to the connector.



NOTICE: If the tool has any main power switch, turn it on. Otherwise you cannot change settings or check status of the tool with the connector.

2. Start the app.
3. Confirm the tutorial and "Terms of use".

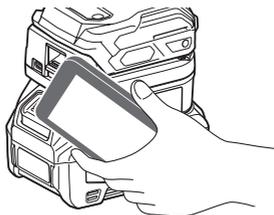
The tutorial and terms of use are shown only when starting the app for the first time.

NOTE: You can check the tutorials and terms of use at any time from "Menu".

Connection settings

1. For the first time, "How to connect" screen is displayed automatically after confirming the terms of use.
2. Tap "Search the connectable device".

When connecting for the first time, bring your smartphone / tablet closer to the connector about 10 cm to 30 cm.



3. Choose the connector you want to connect.



When the connection is completed, the "Connected" message is displayed on the main screen.

From the second time onwards, or if you want to reconnect the tool for such a reason you have failed to connect, you can reconnect from  (link icon) on the upper right of the screen.

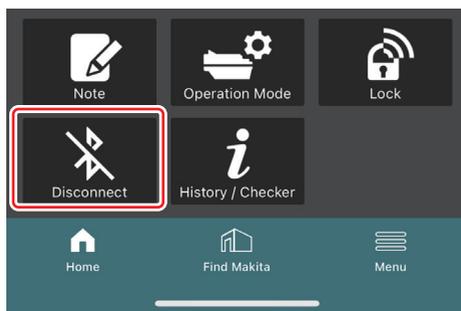
NOTE: If the connection is unsuccessful, for example, the connection is cut off in the middle, close the app once and re-install the battery cartridge to the connector. After that, start the app again.

NOTE: Connectors for which the initial settings have been completed will be connected automatically from the next time onwards.

NOTE: You cannot connect the connector to the smartphone / tablet with Bluetooth connection while the connector is connected to the PC with USB connection. In this case, once disconnect the USB connection and then connect the connector with Bluetooth.

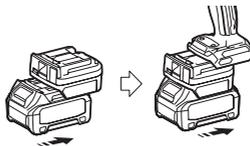
Disconnecting the connection

Tap "Disconnect" icon to disconnect the Bluetooth connection.



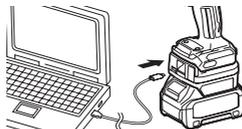
Starting the app for PCs

1. Before starting the app, install the battery cartridge and the tool to the connector.



NOTICE: If the tool has any main power switch, turn it on. Otherwise you cannot change settings or check status of the tool with the connector.

2. Connect the connector and the PC with the app installed using the USB cable.



3. Start the app.

NOTE: You can check the tutorials and terms of use at any time from "Menu".

Communication settings

Click  (arrow mark) on the top right to display the following items:

— **COM port setting**

You can change the target USB (COM port) for communication.

— **Disconnect the device**

Terminate the connection with the connector currently connected.

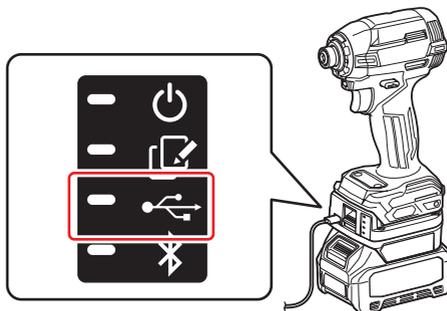
— **Reconnect the device**

Reconnect connector that is connected to the target USB (COM port).

NOTICE: Do not disconnect the USB cable while the USB connection lamp is blinking.

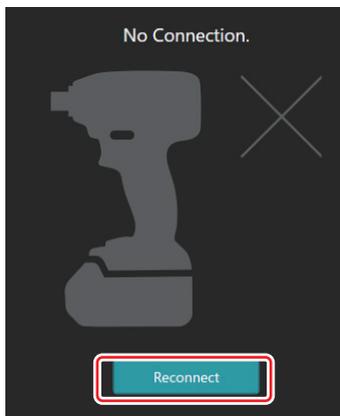
NOTICE: Install the battery cartridge to the connector when you want to connect the tool.

When the connection is completed, the USB communication lamp is on.



NOTE: You cannot connect the connector to the PC with USB connection while the connector is connected to the smartphone / tablet with Bluetooth connection. In this case, once disconnect the Bluetooth connection and then connect the connector with USB.

NOTE: To connect the tool from the next time onwards, you can connect the tool from "Reconnect".



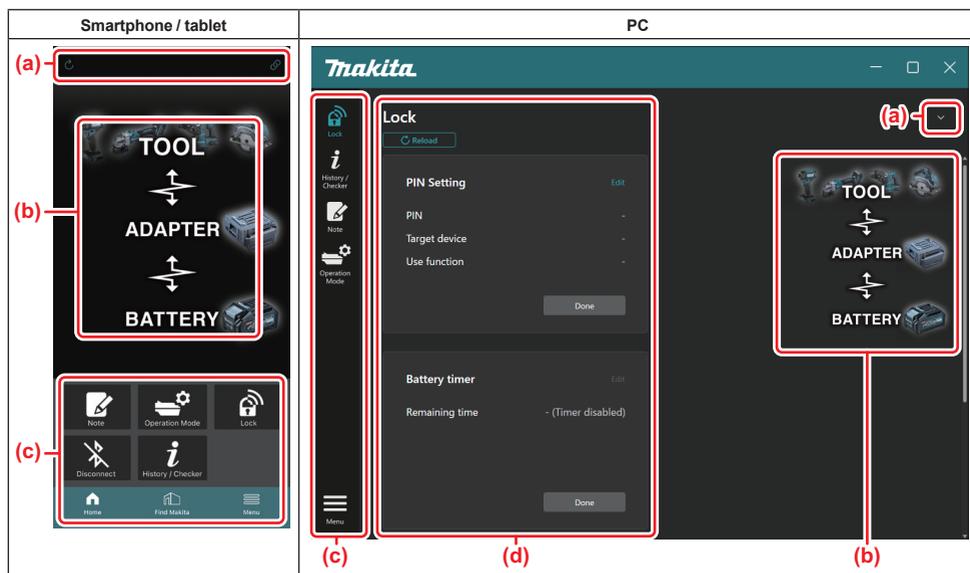
Disconnecting the connection

Follow the steps below to disconnect the USB cable.

1. Click  (arrow mark) displayed in the upper right of the screen, and then click "Disconnect the device".
2. A message that the connection has been terminated will be displayed. Click "OK".
3. Make sure that the USB communication lamp turns off, then disconnect the USB cable.

OVERVIEW

Overview of main page



- a) **Communication settings**
- b) **Connection status**
The device that is connected is displayed in white. The device that is not connected is displayed in gray.
- c) **Function icons**
- d) **(For PCs only)**
Function details

NOTE: The tool will not operate while the connector is attached.

Icon description

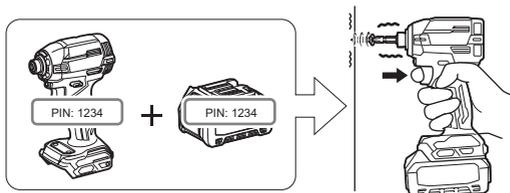
	<i>(For smartphones / tablets only)</i> Tap to update to the latest state.		<i>(For smartphones / tablets only)</i> Disconnect Disconnect the communication with the connector.
	<i>(For smartphones / tablets only)</i> Tap to select a connection device.		<i>(For smartphones / tablets only)</i> Home Display the main page.
	Lock Go to the PIN code setting and the battery timer setting.		<i>(For smartphones / tablets only)</i> Find Makita Go to Makita's corporate list site.
	History / Checker Go to the tool checker and the battery checker.		Menu Display other options about this app.
	Note Go to the notepad registration.		
	Operation mode Go to writing configuration in the stand-alone mode.		

PRODUCT / BATTERY MATCHING AND OWNER'S NAME REGISTRATION *1

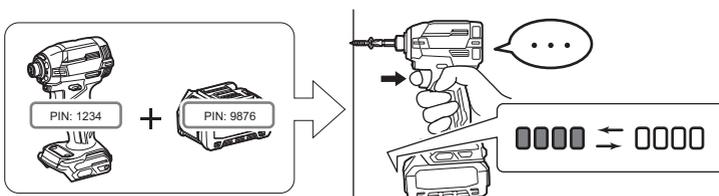
*1: **OWNER'S NAME REGISTRATION is for PCs only.**

By setting PIN code other than "0000" for each tool and battery cartridge, product / battery matching function can be available.

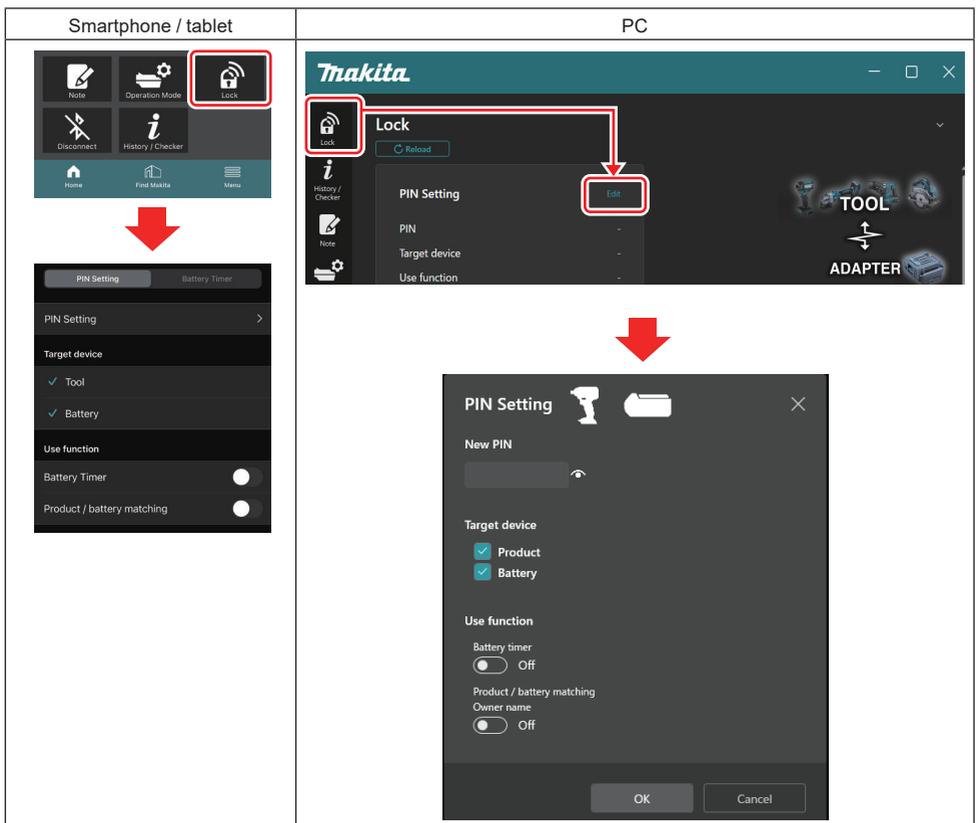
When the product / battery matching function is activated, only the tool and the battery cartridge with the same PINs can be operated together.



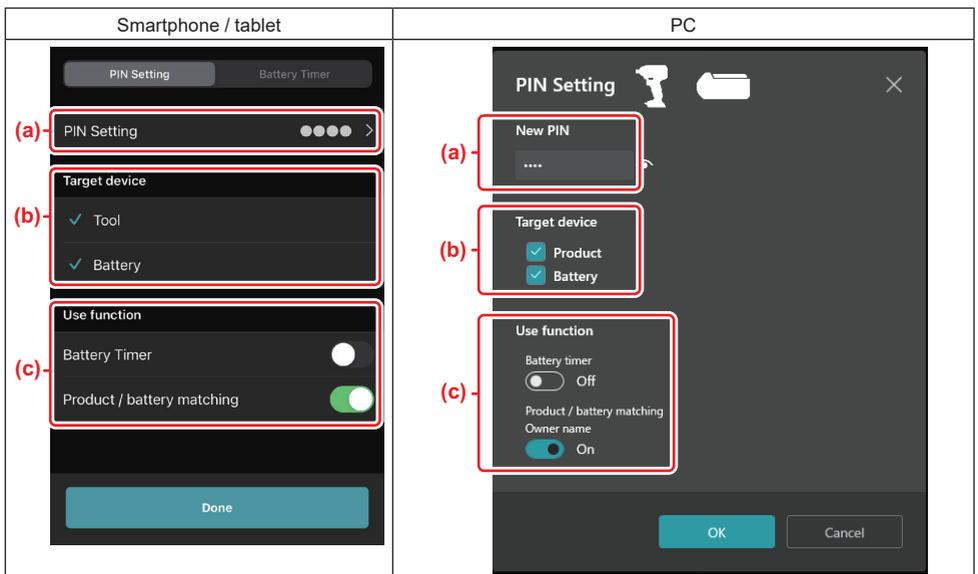
If you use the tool and the battery cartridge with different PINs, the tool does not operate and all indicator lamps of the battery cartridge blink.



1. Display the PIN setting screen according to the procedure shown below.



2. Fill in your configuration details to activate the product / battery matching function.



a) Enter the new PIN code.

- For smartphones / tablets, you may be required to enter the current PIN at this time.

NOTICE: Set the PIN code for both tool and battery other than "0000". Otherwise the product / battery matching function cannot be available.

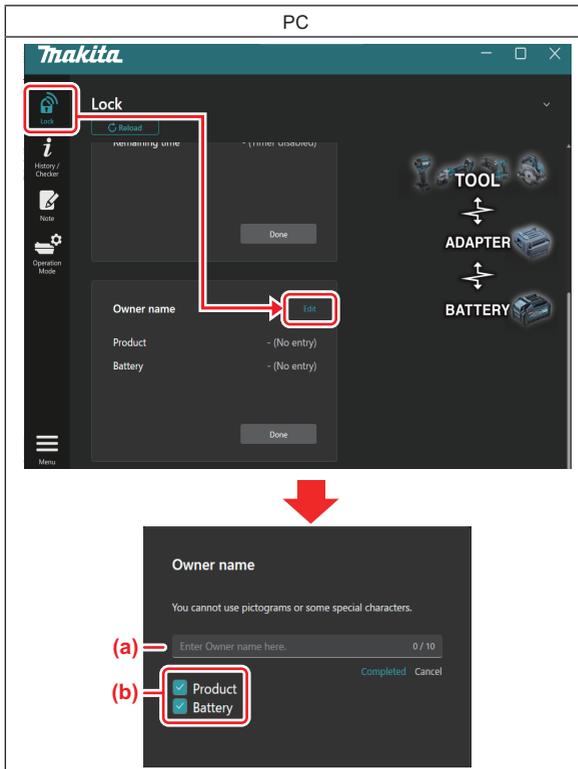
NOTE: The default PIN code of all tools and battery cartridges are "0000".

- Place a check mark next to the device you want to set the product / battery matching function in "Target device" section.
 - Toggle on in "Use function" section.
 - For smartphones / tablets, toggle on "Product / battery matching".
 - For PCs, toggle on "Product / battery matching", "Owner name".
- 3. Register settings.**
- For smartphones / tablets, tap "Done".
 - For PCs, click "OK" and then you may be required to enter the current PIN at this time. After the current PIN code is confirmed, click "Done" in the "PIN setting" field.

NOTE: If the PIN that you entered does not match the PIN already registered in the tool or battery, you will be asked to enter it again.

After you enter wrong PIN 5 times in a row, you will be blocked from entering the PIN for 5 minutes.

- Fill in your configuration details to activate the owner's name function. (For PCs only)



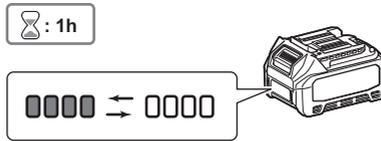
- Enter the owner's name up to 10 characters.
- Place a check mark next to the device for which you want to register the owner's name.

- Register settings.

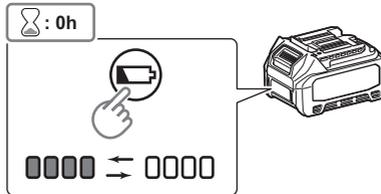
Click "Completed" and then you may be required to enter the current PIN at this time. After the current PIN code is confirmed, click "Done" in the "Owner name" field.

BATTERY TIMER SETTING

An expiration time / date can be set to battery cartridges according to a construction schedule. The battery cartridges are not usable after the timer is expired. When the remaining available time becomes less than one hour, all indicator lamps on the battery cartridge will blink.



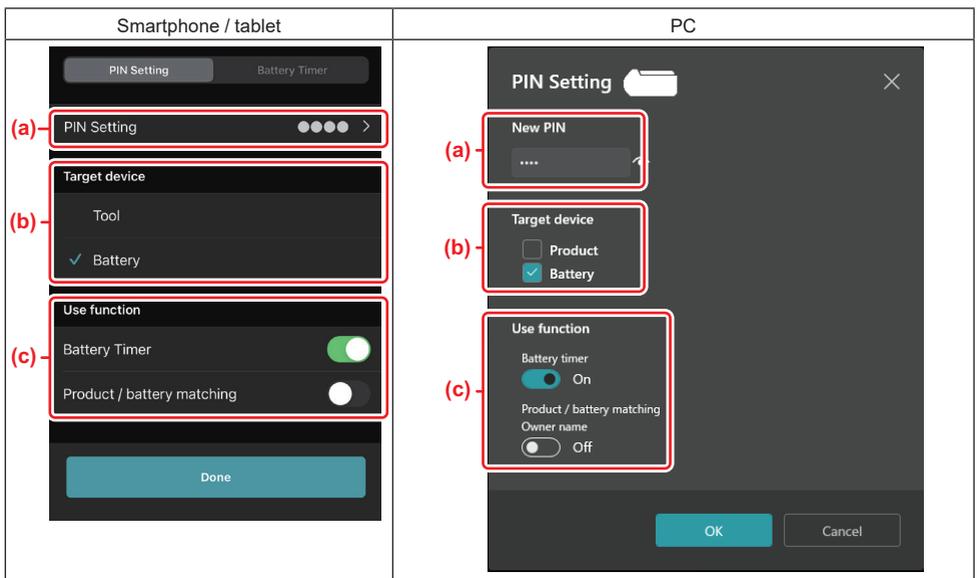
When the remaining available time reaches 0, all indicator lamps on the battery cartridge will turn off. When you press the check button, all indicator lamps blink.



1. Display the PIN setting screen according to the procedure shown below.

Smartphone / tablet	PC

2. Fill in your configuration details to activate the battery timer function.



a) If you want to change the PIN code or the PIN code of the battery cartridge is "0000", enter the new PIN code here.

- For smartphones / tablets, you may be required to enter the current PIN at this time.

NOTICE: Set the PIN code for the battery other than "0000". Otherwise the battery timer function cannot be available.

b) Place a check mark on "Battery" in "Target device" section.

c) Toggle on "Battery timer" in "Use function" section.

3. Save PIN setting in the battery cartridge once.

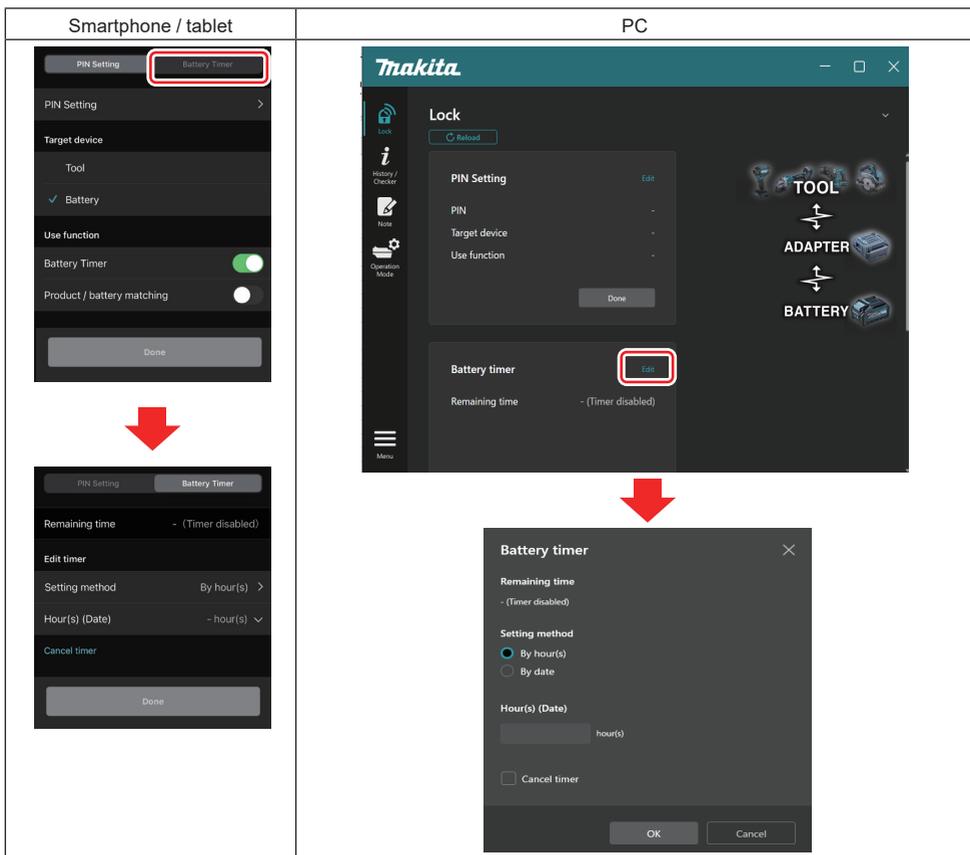
- For smartphones / tablets, tap "Done".

- For PCs, click "OK", and then you may be required to enter the current PIN. After the current PIN code is confirmed, click "Done" in the "PIN setting" field.

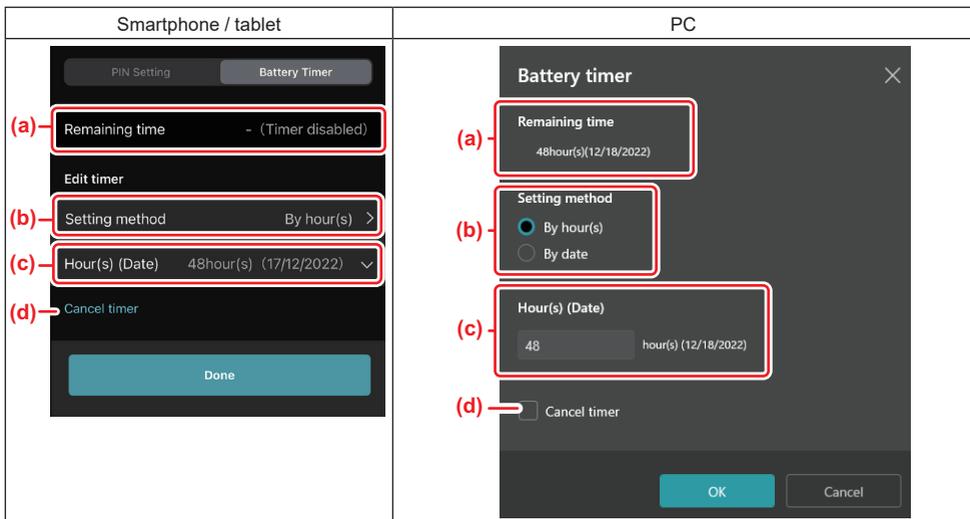
NOTE: You can configure the product / battery matching function at the same time in this screen. Refer to the section for the product / battery matching.

NOTE: For the battery which is already set the battery timer, if you register the new PIN "0000" with "Battery Timer" un toggled, the battery timer setting will be canceled at the same time.

4. Display the battery timer screen according to the procedure shown below.



5. Fill in details of the expiration time / date.



- a) Remaining available time is shown here.
- b) Select the setting method.

— **By hour(s)**

You can set the expiration time in units of remaining hours.

— **By date**

You can set the expiration date.

c) Enter the expiration time or date here.

d) If you want to cancel the battery timer, choose "Cancel timer".

6. Register settings.

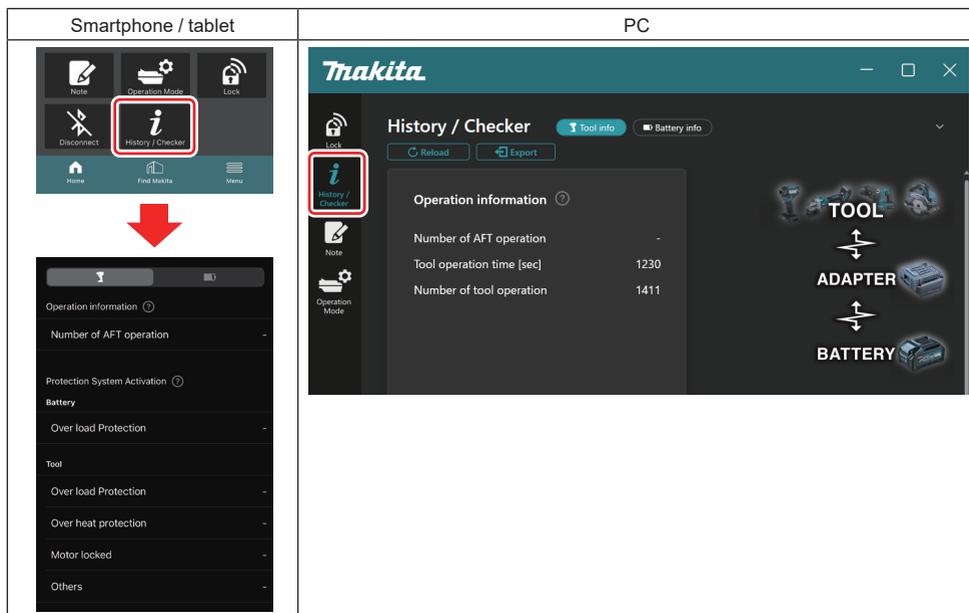
- For smartphones / tablets, tap "Done".

- For PCs, click "OK" and then click "Done" in the "Battery timer" field.

TOOL CHECKER

You can confirm the operation history of the tool, which could be utilized for future work.

Display the screen of the tool history according to the procedure shown below.



NOTE: (For PCs only)

When you install another tool / battery cartridge to the connector while using the app, click "Reload" to refresh the display.

NOTE: (For PCs only)

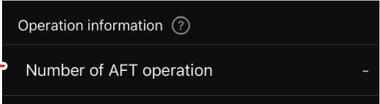
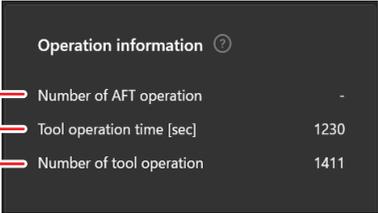
You can save the displayed information in CSV format. Click "Export" to save it.

Description of the screen of the tool history

NOTE: The number of operation history may be displayed even with the brand new tool due to the inspections in factory, etc.

NOTE: The numbers indicated are a guideline and may count up differently depending on usage conditions and environment.

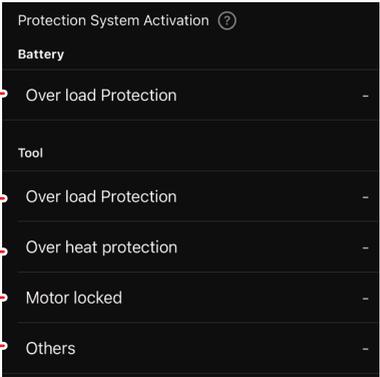
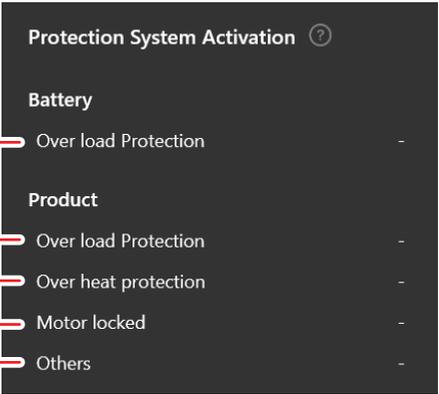
Operation information

Smartphone / tablet	PC
	

- a) **Number of AFT operation**
The number of times AFT (Active Feedback sensing Technology) function is activated. (Only for tools with AFT)
- b) *(For PCs only)*
Tool operation time [sec]
Total tool operation time in seconds.
- c) *(For PCs only)*
Number of tool operation
Total number of tool operations.

Protection System Activation

You can confirm the number of times what kind of protection system worked.

Smartphone / tablet	PC
	

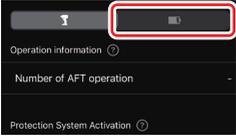
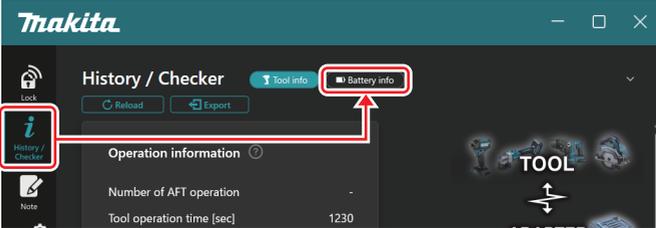
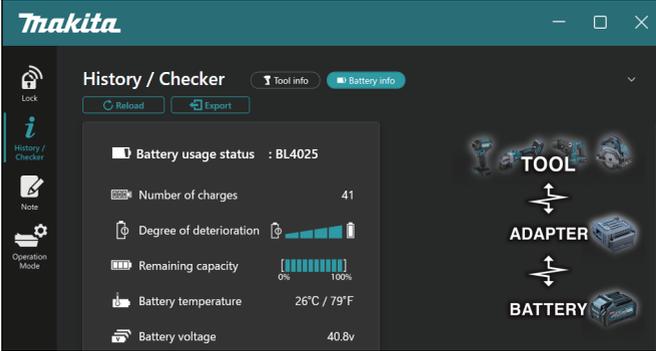
- a) **Over load Protection (battery)**
The number of times the tool stops due to the battery cartridge becoming overloaded.
- b) **Over load Protection (tool)**
The number of times the tool stops due to the tool becoming overloaded.
- c) **Over heat Protection**
The number of times the tool stops due to the tool becoming overheated.
- d) **Motor locked**
The number of times the tool stops due to motor locked.
- e) **Others**
The number of times the tool stops due to other causes (include product-specific protections).

NOTE: The name of protection system may differ among each tool's instruction manual.

BATTERY CHECKER

You can confirm the usage history and the diagnosis result of the battery cartridge.

Display the screen of the battery information according to the procedure shown below.

Smartphone / tablet	PC
 <p>↓</p>  <p>↓</p>  <p>Maximum temperature histogram</p>	 <p>↓</p> 

NOTE: (For PCs only)

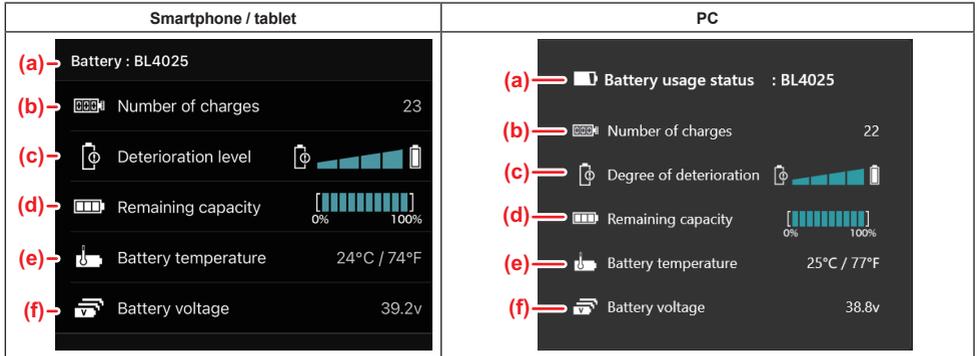
When you install another tool / battery cartridge to the connector while using the app, click "Reload" to refresh the display.

NOTE: (For PCs only)

You can save the displayed information in CSV format. Click "Export" to save it.

Description of the battery checker screen

Battery usage status



- a) The model No. of the battery cartridge.
- b) **Number of charges**
The number of times the battery has been charged.
- c) **Deterioration level / Degree of deterioration**
The guide of the battery deterioration level.
When the battery is new, the bar graph units are filled in up to the far right end, but they diminish in range as the battery deteriorates.
- d) **Remaining capacity**
The remaining capacity of the battery is indicated using a bar graph display. When the bar extends up to the far right end, it means that the battery is fully charged.
The display may not be the same as the remaining capacity indicator on the battery cartridge.
- e) **Battery temperature**
The internal temperature of the battery; both Celsius and Fahrenheit.
- f) **Battery voltage**
The measurements of the battery voltage.

Tools connected

(For PCs only)

PC			
Tools connected			
DF series	6	UC series	135
GA series	1	UH series	17
HM series	12	UR series	55
HR series	98	VC series	7
HS series	3	Unknown	4
HW series	9		
JR series	67		
TD series	47		

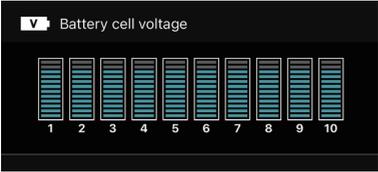
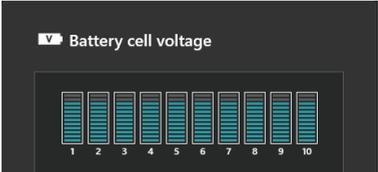
This indicates the tool categories and the number of times to which the battery cartridge has been connected. For example, if you connect the battery cartridge to TD002G and TD003G, each information will be stored under the "TD series" tool category.

Up to 15 tool categories can be registered in the order they are identified. No more than 15 tool categories will be registered.

NOTE: If the battery cartridge cannot recognize the tool category for some reason, it will be stored as "Unknown".

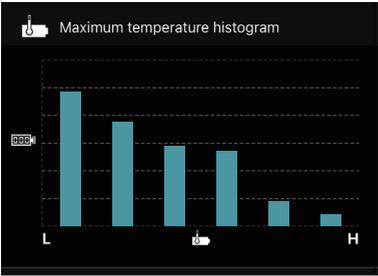
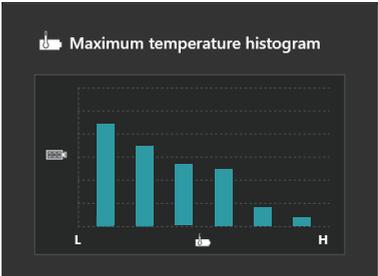
NOTE: The numbers indicated are a guideline and may count up differently depending on usage conditions and environment.

Battery cell voltage

Smartphone / tablet	PC
 <p>The graph displays 10 vertical bars representing battery cell voltages. The bars are numbered 1 through 10. The heights of the bars vary, with bar 1 being the tallest and bar 10 being the shortest. A small 'V' icon is in the top left corner.</p>	 <p>The graph displays 10 vertical bars representing battery cell voltages. The bars are numbered 1 through 10. The heights of the bars vary, with bar 1 being the tallest and bar 10 being the shortest. A small 'V' icon is in the top left corner.</p>

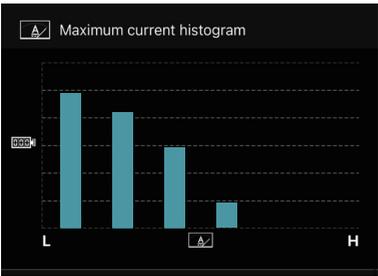
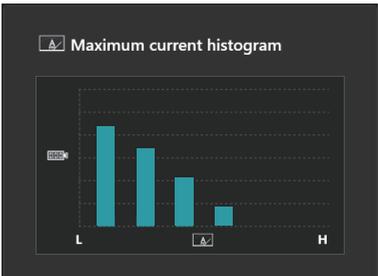
The voltage of each block inside the battery is displayed using a graph. The number of block varies depending on the battery to be diagnosed. A low voltage of a particular block or deviation of three or more scale units between blocks may indicate a problem in the cells concerned or in the circuitry.

Maximum temperature histogram

Smartphone / tablet	PC
 <p>The histogram shows the frequency distribution of battery temperature. The x-axis is labeled 'L' on the left and 'H' on the right. There are five bars of decreasing height from left to right. A small battery icon is in the top left corner.</p>	 <p>The histogram shows the frequency distribution of battery temperature. The x-axis is labeled 'L' on the left and 'H' on the right. There are five bars of decreasing height from left to right. A small battery icon is in the top left corner.</p>

This histogram indicates the frequency distribution of the battery temperature. When the battery has been used with little or no temperature rise, the bar graph near "L" will increase. When the battery has been used with or close to overheat protection, the bar graph near "H" will increase.

Maximum current histogram

Smartphone / tablet	PC
 <p>The histogram shows the frequency distribution of discharge current. The x-axis is labeled 'L' on the left and 'H' on the right. There are four bars of decreasing height from left to right. A small 'A' icon is in the top left corner.</p>	 <p>The histogram shows the frequency distribution of discharge current. The x-axis is labeled 'L' on the left and 'H' on the right. There are four bars of decreasing height from left to right. A small 'A' icon is in the top left corner.</p>

This histogram indicates the frequency distribution of the discharge current. When the battery has been used under a light load such as using with a light, the bar graph near "L" will increase. When the battery has been used under a heavy load such as using with a grinder, the bar graph near "H" will increase.

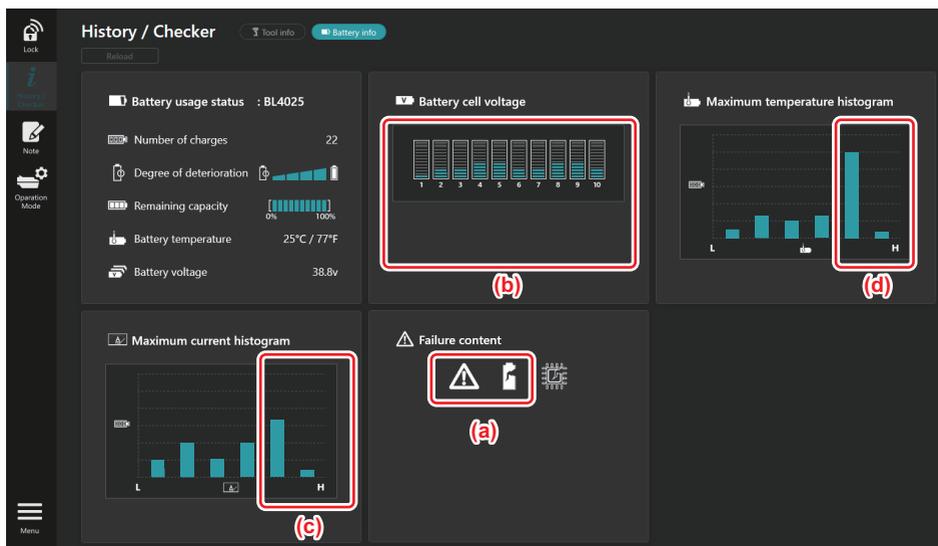
Failure content



These icons indicate the type of battery's malfunctioning. The icon that corresponds to the malfunction is filled in. Regarding failures, ask the store where you purchased the product or Makita Service Center.

- Mark of malfunction
- Mark of malfunction of a battery cell
- Mark of malfunction of circuit inside the battery

Example of diagnosis



[The point of diagnosis]

- The mark of failure and the mark of cell failure are displayed.
- Each block voltage is unbalanced; especially the voltage of block 1 is decreased.
- The battery is used at a relatively large current.
- Battery temperature became high frequently.

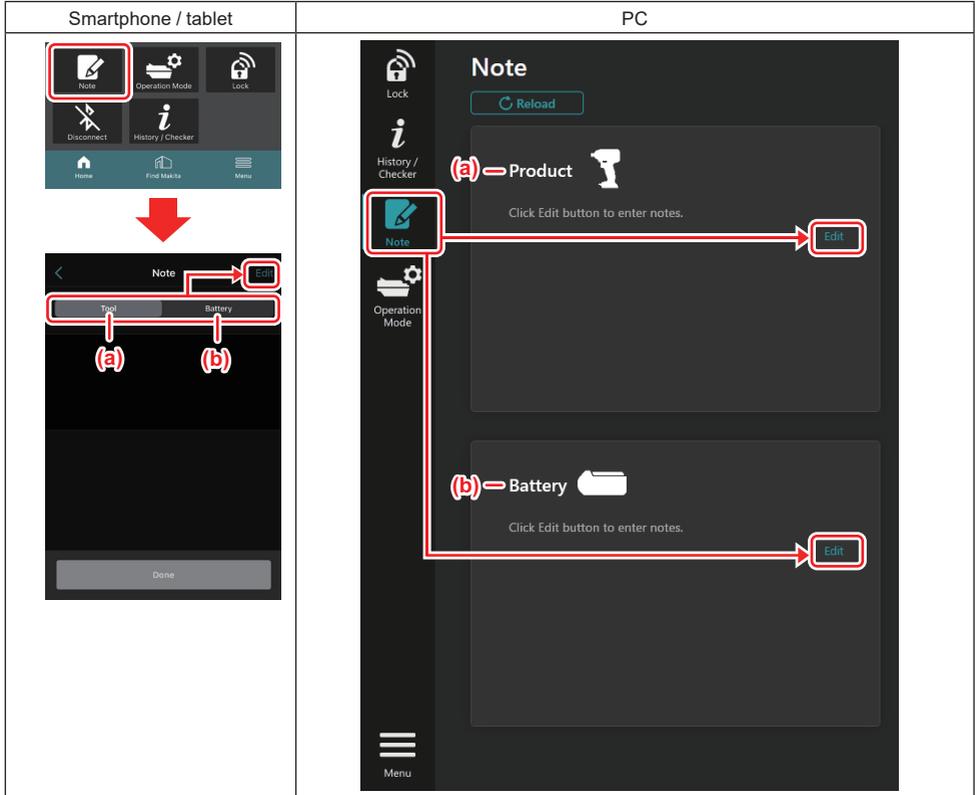
[Diagnosis]

It can be assumed that the cell was damaged by repeated continuous heavy-load work, which led to failure.

NOTEPAD REGISTRATION

You can take a note about product management, maintenance history, etc.

1. Display the note screen according to the procedure shown below, and then select "Edit" which you want to register a note.



- a) Write a note about the tool / product.
- b) Write a note about the battery.

NOTE: (For PCs only)

When you install another tool / battery cartridge to the connector while using the app, click "Reload" to refresh the display.

2. Take notes.
 - The maximum number of characters depends on each tool, battery cartridge, and character type.
 - You cannot enter text exceeding the maximum number of characters.
 - You cannot use pictograms or some special characters.
3. Register notes.
 - For smartphones / tablets, tap "Done".
 - For PCs, click "Completed".

If you enter characters that cannot be saved, such as pictograms, the characters are automatically deleted, and the message "Deleted unusable characters." is displayed.

STAND-ALONE MODE

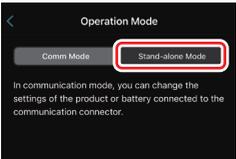
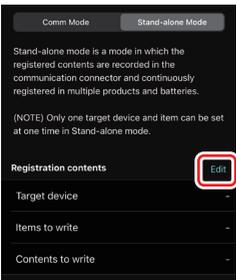
If you want to register the same setting to multiple tools or battery cartridges, change the operation mode to the stand-alone mode.

In the stand-alone mode, by registering the settings in the connector in advance, you can register the settings in the tool or battery just by installing tool or battery to the connector.

In the stand-alone mode, you can set only one setting item for either tool or battery. If you want to configure multiple settings to the tool or the battery, perform the setting one by one.

Preparing the connector

1. Remove the product.
 - For smartphones / tablets, remove the tool from the connector. Keep the battery cartridge installed to the connector.
 - For PCs, remove the tool and battery cartridge from the connector. (Continue the USB connection.)
2. Display the stand-alone mode setting screen according to the procedure shown below.

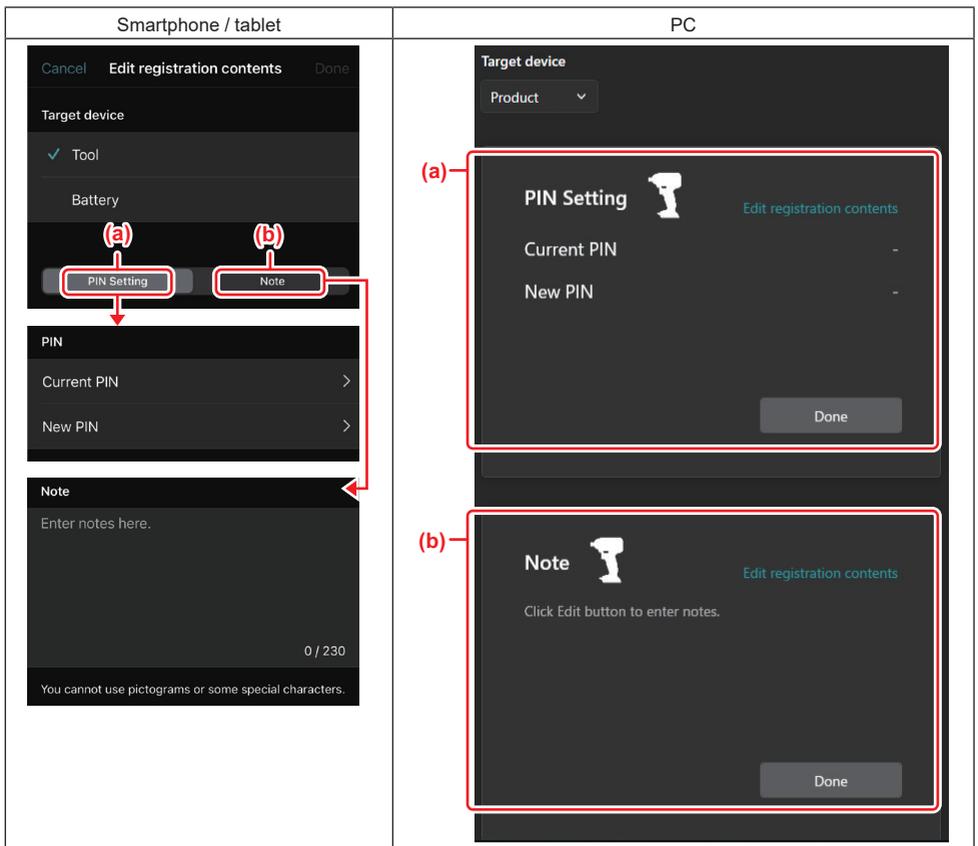
Smartphone / tablet	PC
  	

NOTE: "Comm Mode" is set by default.

In Comm (communication) mode, you can change the settings of the product or battery connected to the connector individually.

3. Choose the target device.
4. Fill in your configuration details.

If you choose the tool / product as the target device, you can set one of the following settings:



a) **PIN setting**

You can set the new PIN code.

— **Current PIN**

Enter the PIN that is already registered to the tool / product to be connected.

NOTE: Enter "0000" if the PIN code have not been registered to the tool / product to be connected.

NOTE: If the current PIN is different from the PIN of the tool / product to be connected, you cannot set the new PIN to the tool / product.

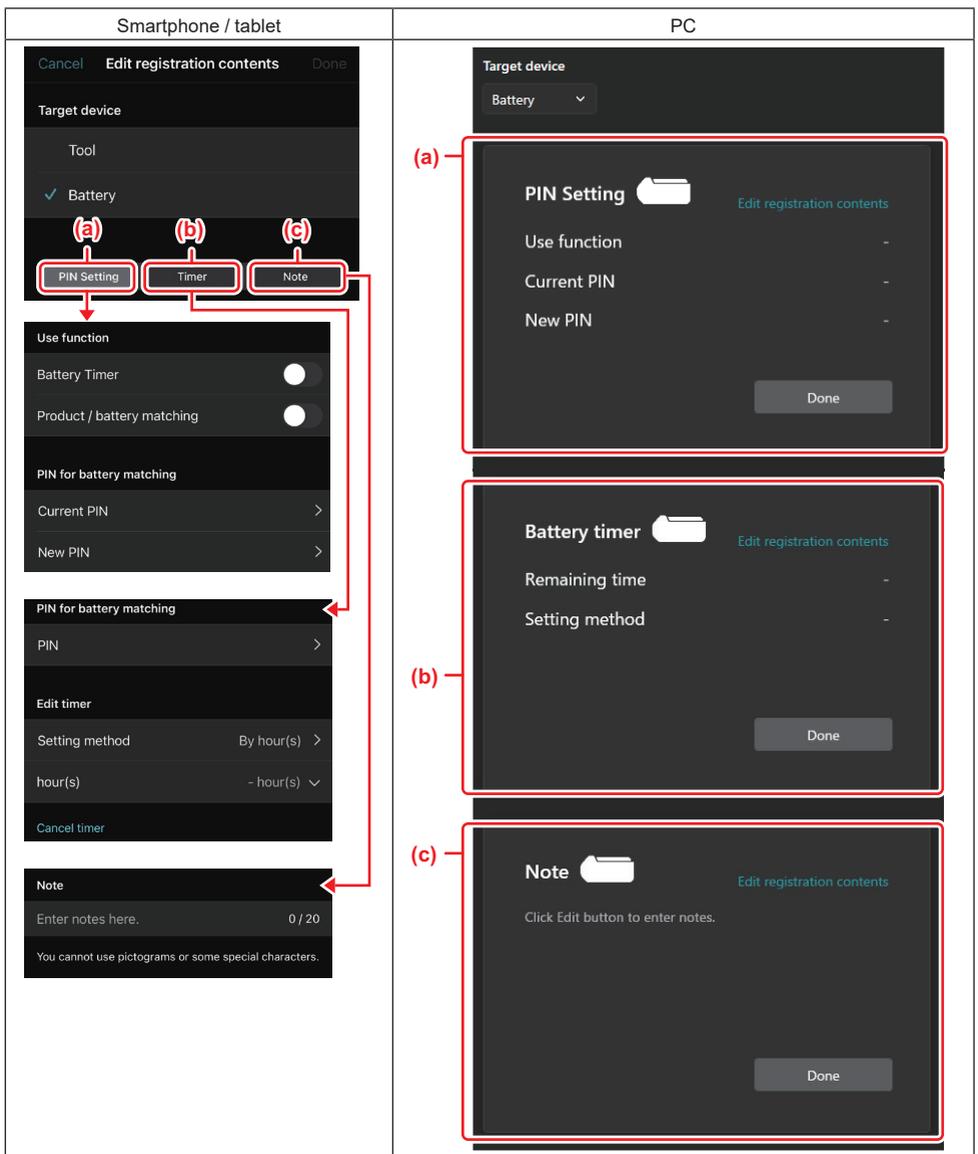
— **New PIN**

Enter the PIN that you are going to overwrite the current PIN.

b) **Note**

You can take a note.

If you choose the battery as the target device, you can set one of the following settings:



a) **PIN setting**

You can set the new PIN code.

— **Use function**

Toggle on the function you want to activate.

— **Current PIN**

Enter the PIN that is already registered to the battery to be connected.

NOTE: Enter "0000" if the PIN code have not been registered to the battery to be connected.

NOTE: If the current PIN is different from the PIN of the battery to be connected, you cannot set the new PIN to the battery.

— **New PIN**

Enter the PIN that you are going to overwrite the current PIN.

b) **Battery timer**

You can set the expiration time / date.

The current PIN is required when setting the battery timer. If the current PIN does not match the PIN of the battery to be connected, the battery timer cannot execute.

c) **Note**

You can take a note.

NOTE: For details on each setting, refer to the corresponding chapter above.

NOTE: The current PIN of the target device is also required for PIN setting and battery timer setting.

5. Confirm settings.

- For smartphones / tablets, tap "Done".
- For PCs, click "OK".

6. Save the settings on the connector.

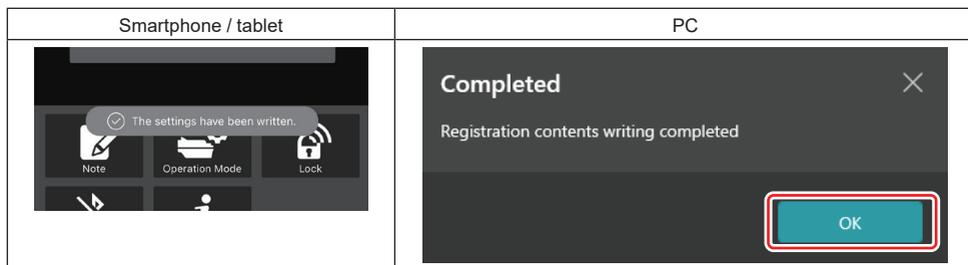
- For smartphones / tablets, tap "Done".

When saving is completed, the message "The settings have been written." is displayed on the main screen.

- For PCs, click "Done".

When saving is completed, the message "Registration contents writing completed" is displayed on the main screen. Click "OK".

* The settings are not registered to the connected battery. The settings have been written to the connector.



7. Make sure the mode lamp on the connector lights up in either red or green. (Green is for the tool / product, and red is for battery cartridge.)



8. End the connection.

- For smartphones / tablets, tap "Disconnect" icon.
- For PCs, disconnect the connector from the USB cable.

Copying the setting from connector to batteries

1. Install the battery cartridge which you want to copy your setting from the connector. (The mode lamp lights up in red.)

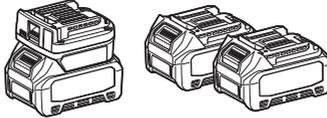
NOTE: If you want to copy your setting to the battery cartridge, which has been used as a power supply during the setting in the stand-alone mode, take it away from the connector and then install it again.

2. The setting that you configured in the stand-alone mode will be copied to the battery cartridge.

NOTE: A beep sounds after the copy has been completed.

NOTICE: A series of short beeps sound when the copy fails. In this case, remove the battery cartridge from the connector. Check the settings such as the current PIN, and then re-install it.

If copying still fails, change the operation mode of the connector to "Comm Mode" once, and check the settings of the battery cartridge.



Copying the setting from connector to tools

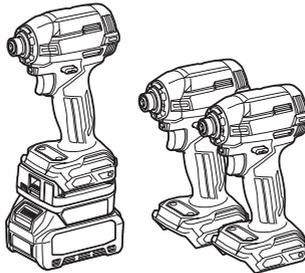
1. Install a battery cartridge to the communication connector. (The mode lamp lights up in green.)
2. Install the tool which you want to copy your setting from the connector.
3. Your setting will be copied onto the tool.

NOTE: A beep sounds after the copy has been completed.

NOTICE: Do not remove the battery cartridge while the setting is being copied to the tool.

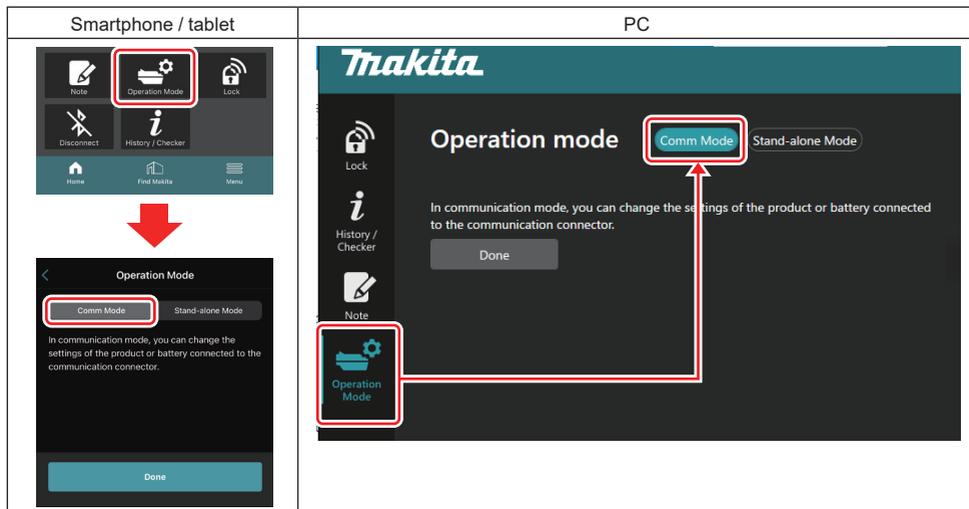
NOTICE: A series of short beeps sound when the copy fails. In this case, remove the tool and battery cartridge from the connector. Check the settings such as the current PIN, and then re-install them.

If copying still fails, change the operation mode of the connector to "Comm Mode" once, and check the settings of the tool.



Switching to "Comm Mode"

1. Select "Comm Mode" in the "Operation mode" screen.



2. Select "Done".

The message "The settings have been written." will appear in the main screen after the switching operation has been completed.

NOTE: If you have already been selecting the "Comm Mode", the "Done" button is deactivated.

3. If you continue to edit the tool / battery settings, connect the tool / battery to the connector.

Edit the tool / battery settings using the appropriate functions in the main screen. When you edit the setting of the tool / battery, the contents of the tool / battery are changed each time.

NOTE: Updated information is not saved in the connector.

MENU

To confirm following contents, select "Menu" icon.

- Terms of use
- *(For smartphones / tablets only)*
License
- Tutorial
- *(For PCs only)*
Error list
- Version information

ERROR MESSAGES

- When the error message appears on the screen, deal with errors in accordance with the table below.
- When you confirm or deal with causes, remove the battery beforehand as necessary.
- If error messages other than below appear, ask the store where you purchased or Makita Service Center.

Error message	Cause	Remedy
Could not communicate. Communication failed.	The data cannot be read or written.	If the error occurs repeatedly, please try again after a while.
Try with charged battery.	There is no remaining battery capacity.	Charge the battery.
Abnormal was detected. Reconnect the tool / battery.	Detected abnormal connection of tool, battery or connector.	If the error occurs repeatedly, please try again after a while.
Abnormal connection has been detected. Remove the tool and battery.	Detected abnormal connection of tool, battery or connector.	It may be possible to fail. Remove the tool and battery.
App was not authenticated. Please reconnect.	Failed to connect the connector to app.	For smartphones / tablets, connect the Bluetooth again. For PCs, close the app, unplug and plug in the USB cable, then restart the app to connect it again. If it does not help, try another USB cable.
Product and/or battery is not connected.	Trying to communicate with an unconnected device or battery.	Install the target device or battery to the connector.

Makita Corporation

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