Help Manual
(General Edition)

Thank you for purchasing Shimano products.

- This instruction manual explains the operation of the E-TUBE PROJECT. Be sure to read this manual before use in order to fully utilize the functions.
- In order to use the E-TUBE PROJECT, either the SM-PCE1, SM-PCE02, or SM-BCR2 interface is required.

Check the following support site for the latest support information.
http://e-tubeproject.shimano.com

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INTRODUCTION

This operating manual contains instructions for operating E-TUBE PROJECT.
In order to fully utilize the functions of E-TUBE PROJECT, please read this manual thoroughly before use.

⚠ Note

- Once a connection check is started, never connect or disconnect the battery or unit before the completion of the operation or E-TUBE PROJECT. If this is not observed, it may damage the SM-PCE1 / SM-PCE02 / SM-BCR2 or the other units.
- Never attempt to change the contents of the firmware files or the filenames. If you do this, it will not be possible to update the firmware correctly, and problems may occur with the units after carrying out firmware updates.

■ NOTE

- When connecting the SM-PCE1 / SM-PCE02 / SM-BCR2 to the PC, connect it directly to the USB port of the PC, without using an intermediate device such as a USB hub.
- Make sure that the PC does not switch into standby while you are carrying out operations such as updating the firmware.
  If the PC switches to standby, E-TUBE PROJECT processing will be interrupted and the screen display will return to the main menu screen.

ABOUT E-TUBE PROJECT

E-TUBE PROJECT is an application for use in the maintenance and error check of the various units.
The following is the supported unit.

<ROAD>

- ULTEGRA 6770 series
- ULTEGRA 6870 series
- ULTEGRA R8050 series
- DURA-ACE 9070 series
- DURA-ACE R9150 series

<MTB>

- FOX Float iCD suspension
- XTR M9050 series
- XT M8050 series

<URBAN/CITY>

- ALFINE S705 series

<E-BIKE>

- SHIMANO STEPS E8000 series
- SHIMANO STEPS E7000 series
- SHIMANO STEPS E6100 series
- SHIMANO STEPS E6000 series
- SHIMANO STEPS E5000 series

<DI2 Adapter for other E-BIKE system>

- DI2 Adapter

The main functions are as follows.
When using SM-PCE1 / SM-PCE02

Functions	Details
Connection check	The function is to check that each unit is connected correctly and is recognized by PC.
Customize	This function allows you to customize the global functions and operations of the system to suit your needs.
Error check	When a single unit or multiple units are connected, this function checks their operation and identifies any units which have a problem. However, this does not mean that all such problems can be discovered. In addition, the function does not fix any problems which are discovered.
Update firmware	This function is used to update the firmware for each unit. (The firmware is downloaded via the Internet.)
Preset	This function allows you to connect one or more units and read or write all the settings of those units at a time. The readout settings can be saved in a file. The settings can also be successively written to multiple bicycles.
Unit log acquisition (only for E-BIKE category)	Acquires various kinds of data from the units and display it in a report format. In the report, you can check the settings of each unit and the battery status.
Complete Setup	Disconnect the unit from the computer. The unit may not operate properly before this operation is completed. Even when E-TUBE PROJECT is exited, the connection to the PC is disconnected.

When using SM-BCR2

Functions	Details
Connection check	The function is to check that each unit is connected correctly and is recognized by PC.
Customize	This function allows you to customize the global functions and operations of the system to suit your needs.
Update firmware	This function is used to update the firmware for each unit. (The firmware is downloaded via the Internet.)
Preset	This function allows you to connect one or more units and read or write all the settings of those units at a time. The readout settings can be saved in a file. The settings can also be successively written to multiple bicycles.
Complete Setup	Disconnect the unit from the computer. The unit may not operate properly before this operation is completed. Even when E-TUBE PROJECT is exited, the connection to the PC is disconnected.

LINKS TO MANUALS (BY CATEGORY)

Click the following link to go to each category.

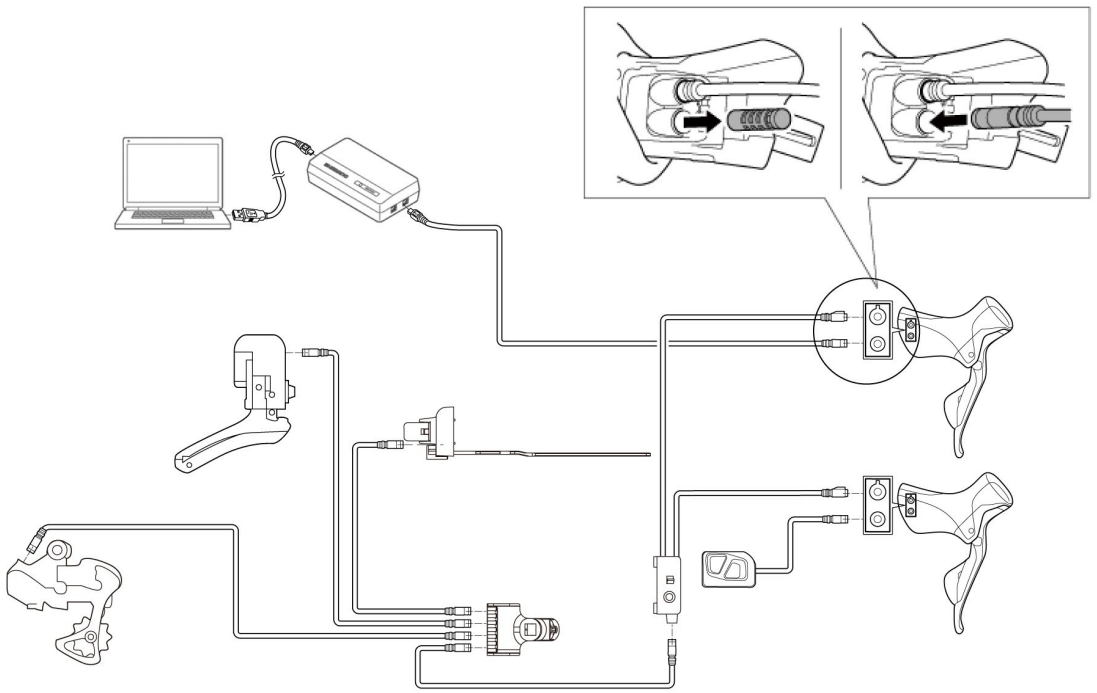
- ROAD
- MTB
- URBAN/CITY
- E-BIKE
- DI2 Adapter for other E-BIKE system

CONNECTING THE SM-PCE1 / SM-PCE02

When connecting the SM-PCE1 / SM-PCE02 to the PC, connect it directly to the USB port of the PC, without using an intermediate device such as a USB hub.

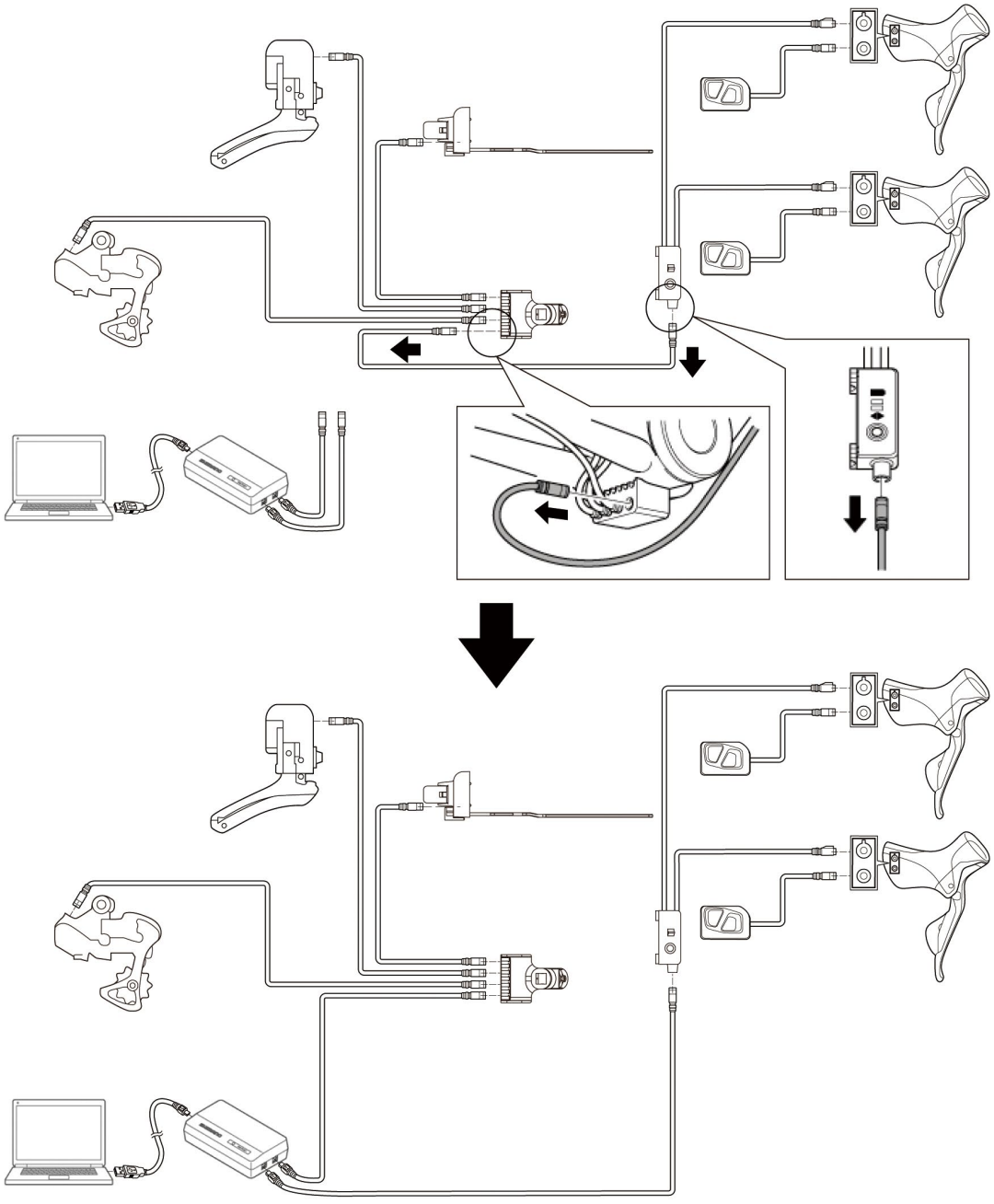
For normal connections

Connect SM-PCE1 / SM-PCE02 to an unused terminal section.



If there are no spare terminals

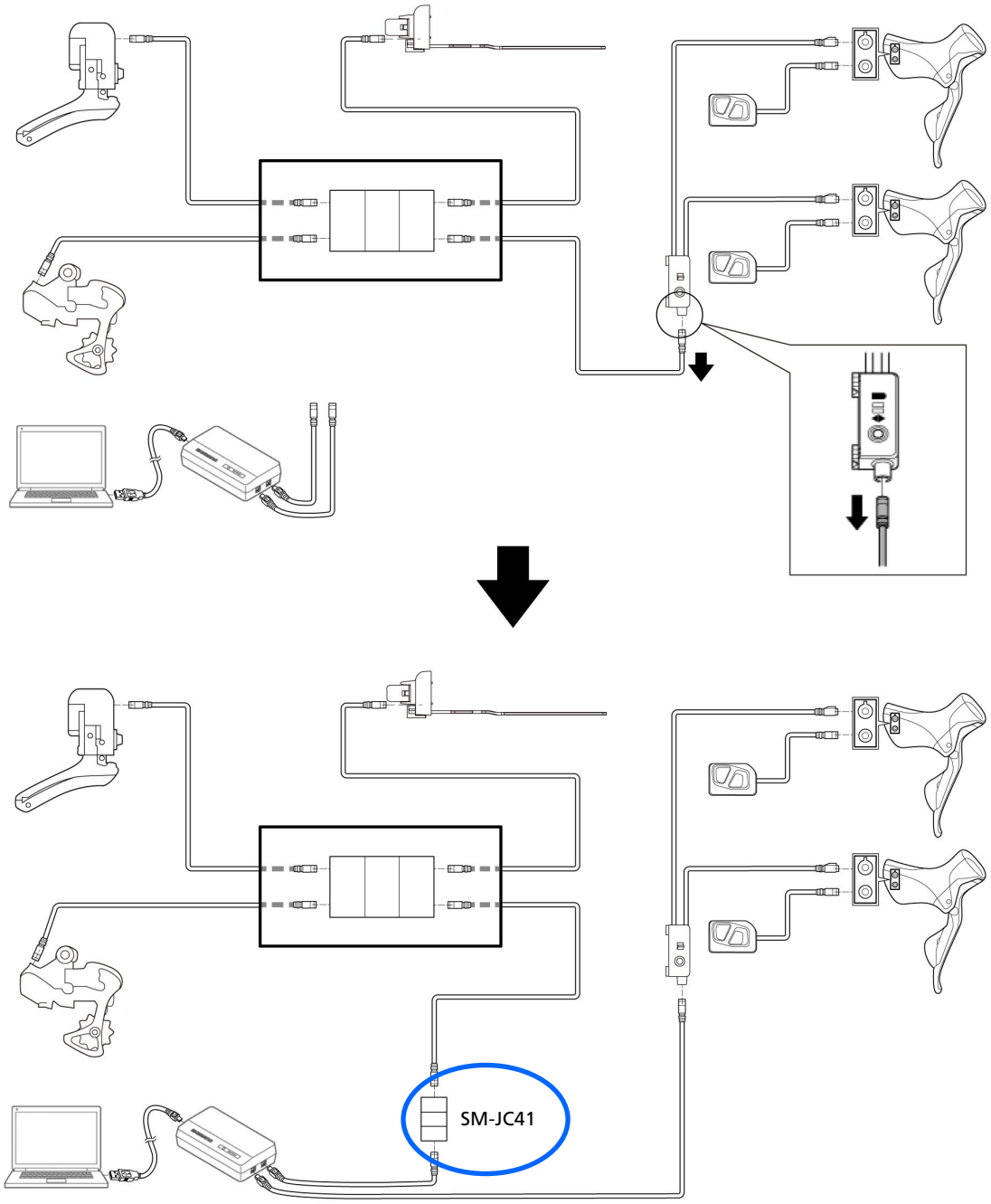
Disconnect one of the cables from the SM-JC40, and connect the SM-PCE1 / SM-PCE02 in its place.



If the cable is built in the frame

Disconnect the cable from SM-EW67-A-E, mount SM-JC41 in its place, and connect SM-PCE1 / SM-PCE02 to the spare terminal.

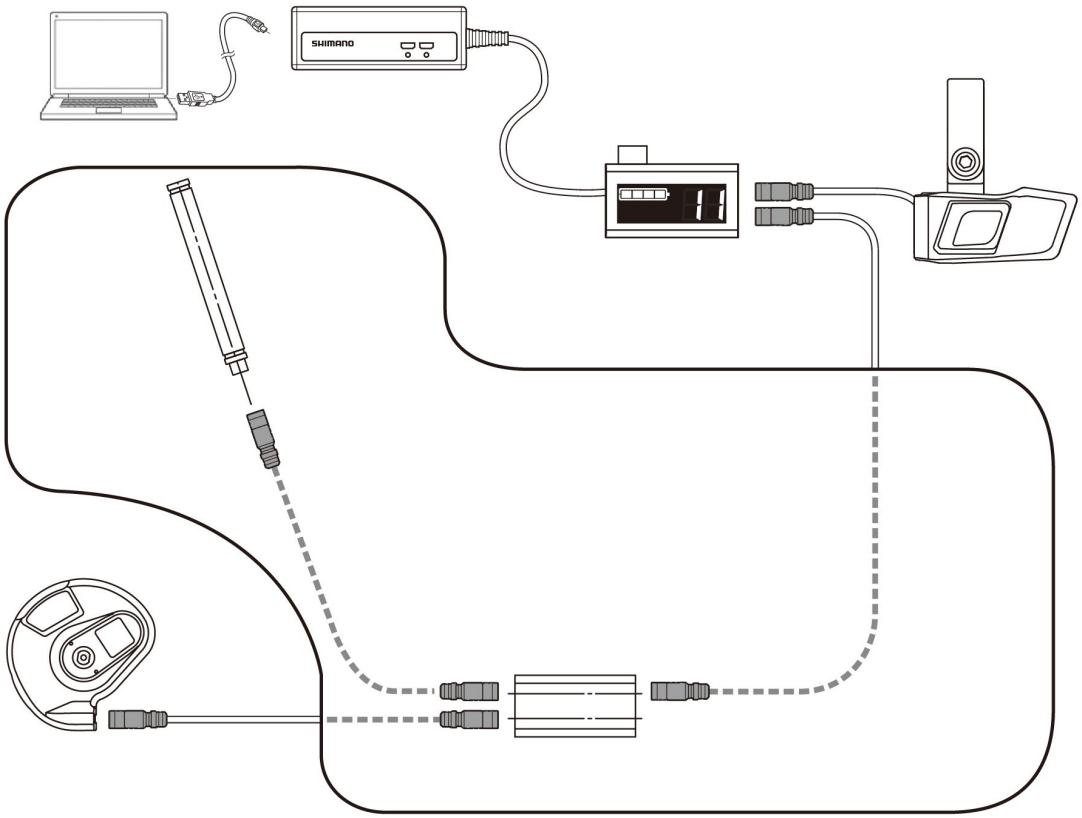
* SM-JC41 to be added is separately required.



HOW TO CONNECT SM-BCR2

When connecting SM-BCR2 to a PC, connect it to a USB port on the PC without using a USB hub or other similar devices.

Connecting to the terminal section



LAUNCHING AND CLOSING THE E-TUBE PROJECT

Launching the E-TUBE PROJECT

After installing E-TUBE PROJECT, double-click the E-TUBE PROJECT shortcut icon on the desktop which was created during the installation procedure.

If the PC is connected to the Internet after bicycle selection, the update information of E-TUBE PROJECT and the firmware of each component is checked. The latest information on E-TUBE PROJECT can be obtained at any time.

Launching requirements

In order to use E-TUBE PROJECT, the SM-PCE1 / SM-PCE02 / SM-BCR2 must be connected to the PC.
When the SM-PCE1 / SM-PCE02 / SM-BCR2 connection request dialog box is displayed, connect the SM-PCE1 / SM-PCE02 / SM-BCR2 to the PC using the USB cable.

Closing the E-TUBE PROJECT

Select [Exit] from the [File] menu on the menu bar. Alternatively, click the close button in the top-right corner of the application screen.
When the Exit confirmation dialog box is displayed, click [OK] to close E-TUBE PROJECT.

* E-TUBE PROJECT cannot be closed while firmware updating is still in progress.

ABOUT THE E-TUBE PROJECT OPERATION SCREENS

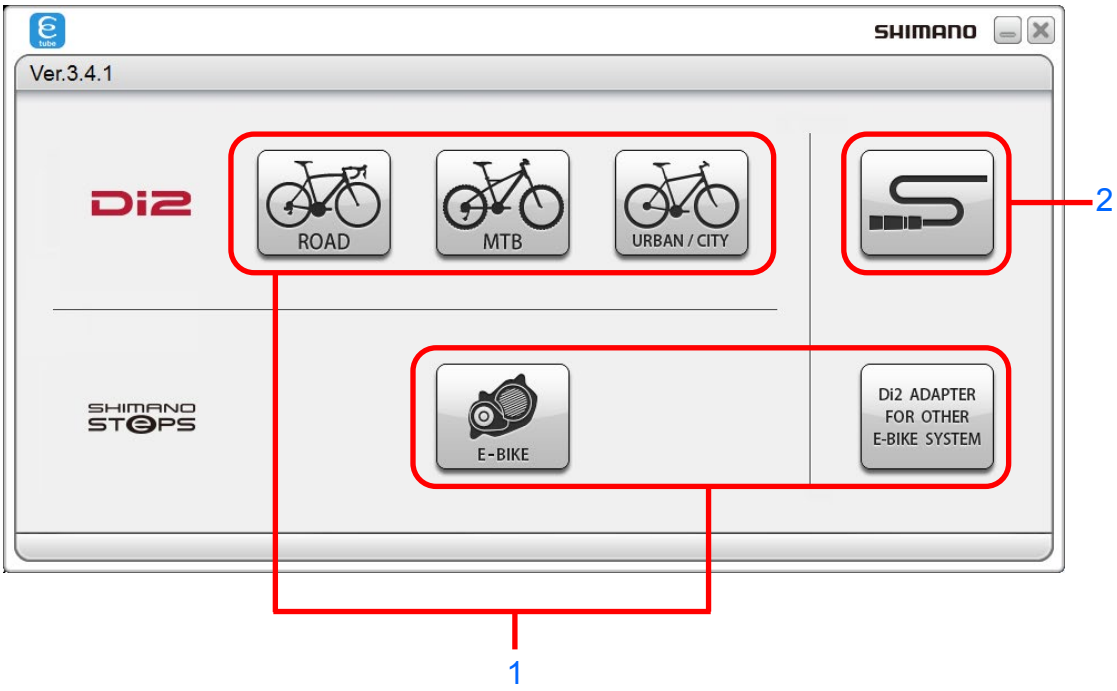
Bicycle selection screen

Refer to the following manual for the operating procedures when using a single unit connection.

- HM-SP.3.4.1-00.pdf

Select the bicycle type used or single unit connection.

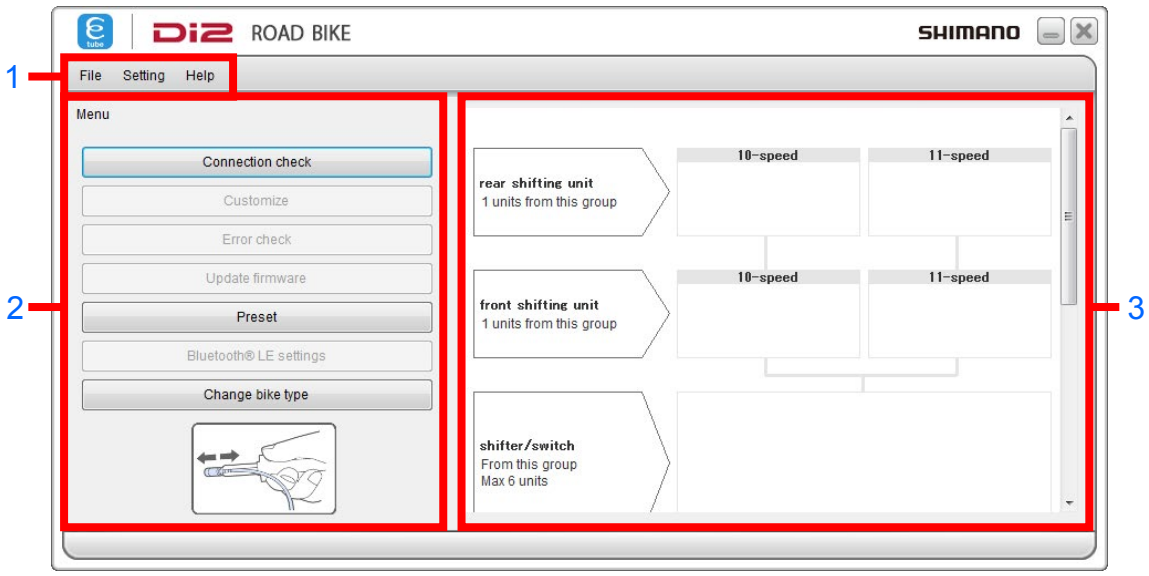
1. Bicycle type
2. Single unit connection



Main menu screen

When a bicycle is selected, the main menu screen will be displayed. The main menu screen is comprised of the following 1 to 3.

1. Menu bar
2. Menu screen
3. Chart window



(Main menu screen)

Menu bar

This contains the various operations that are carried out by the E-TUBE PROJECT.

File

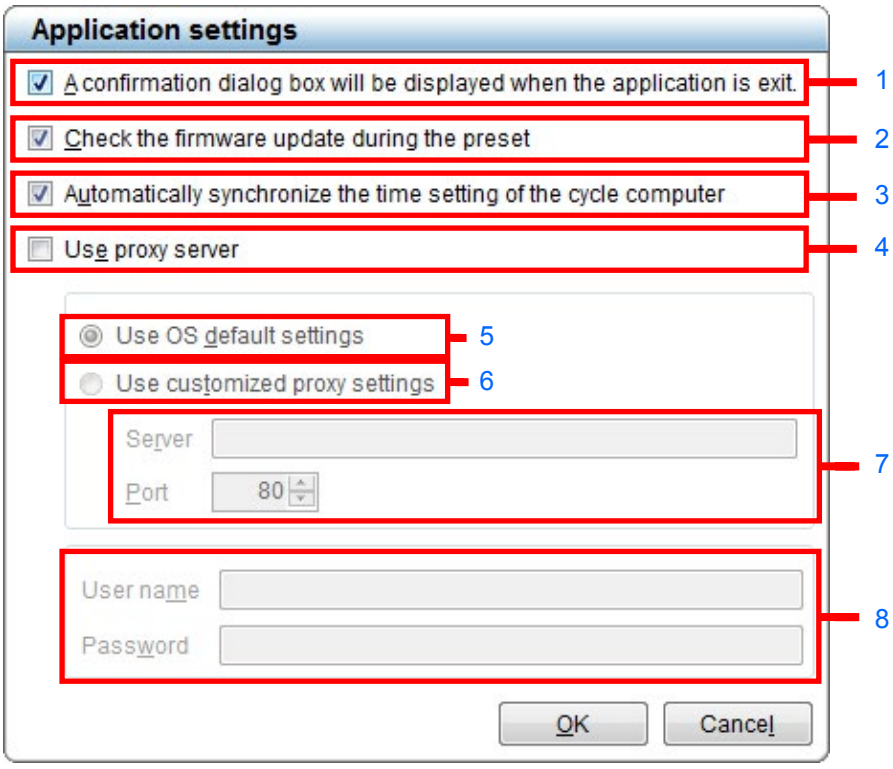
■ Exit

This closes E-TUBE PROJECT.

Setting

■ Application settings

1. Set whether to display the confirm exit dialog box when exiting E-TUBE PROJECT.
2. Set whether to confirm a firmware update when it is below the confirm update value at the preset time.
3. Set whether to automatically set the PC time when the cycle computer is connected.
4. Set whether to use a proxy server for E-TUBE PROJECT API communications.
   When this check box is selected, **5, 6, or 8** can be entered.
5. Use the proxy settings of Internet Explorer.
6. When this radio button is selected, **7** can be entered.
7. Enter the address and port number of the proxy server to be used.
8. Enter the User ID and password for connection to the proxy server.



■ Language setting

Set the language to use in E-TUBE PROJECT.

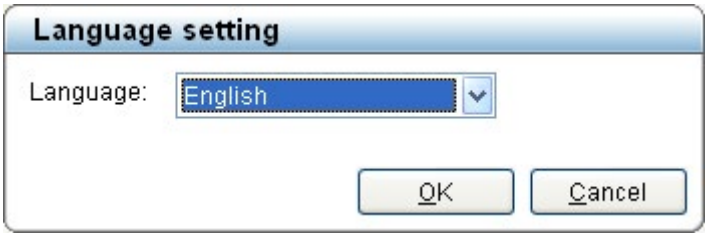
When you change the language, the Re-launch confirmation dialog box will be displayed.

Change the language setting and click [Yes]. E-TUBE PROJECT is then automatically restarted.

If you click [No], the language will be changed the next time you launch E-TUBE PROJECT.

You can select from the following languages.

- English
- French
- German
- Dutch
- Spanish
- Italian
- Chinese
- Japanese



*Depending on the selected vehicle type, the desired language may not be available. In that case, English is used as the language of the screen text.

Help

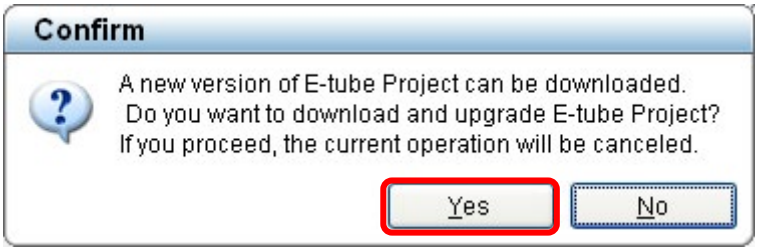
■ Manual help

This displays the E-TUBE PROJECT manual (this document).

■ E-TUBE PROJECT latest version check

This function checks whether an updated version of E-TUBE PROJECT is available for downloading.

When a new version is available, the following screen will be displayed. When [Yes] is selected, the latest version of E-TUBE PROJECT will be downloaded. After that, follow the on-screen instructions to carry out the upgrade.



* The PC needs to be connected to the Internet for this check to be carried out.

If your E-TUBE PROJECT is the latest version, check whether a new version of the firmware of each component has been released. When a new version is available, it will be automatically downloaded.

* When there is no firmware that can be downloaded, the message will be displayed.

The firmware files which have been downloaded will be stored in the following folders.

Firmware can be updated even on a PC that is not connected to the Internet by copying the firmware files.

These folders are created automatically when the E-TUBE PROJECT is installed.

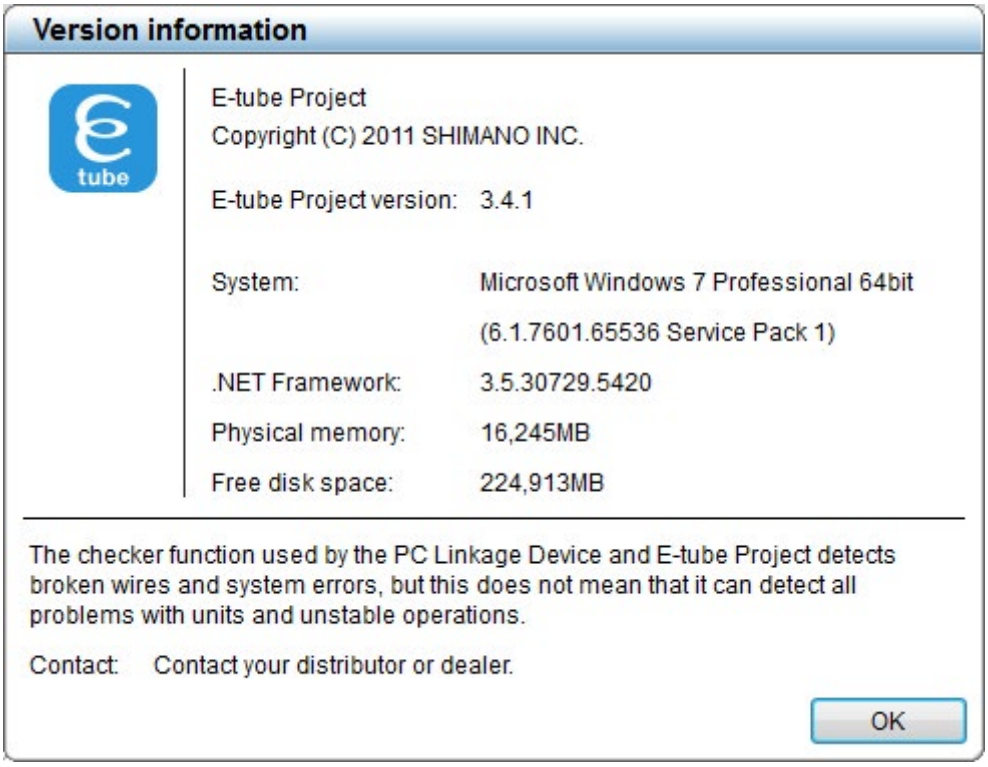
These folders are hidden. To display them, the Windows settings need to be changed.

Version	Save destination
Windows 7	C:¥ProgramData¥E-tube Project¥FW
Windows 8	C:¥ProgramData¥E-tube Project¥FW
Windows 10	C:¥ProgramData¥E-tube Project¥FW

* **Never attempt to change the contents of the firmware files or the filenames. If you do this, it will not be possible to update the firmware correctly, and problems may occur with the units after carrying out firmware updates.**

■ Version information

This displays the version of E-TUBE PROJECT which is currently being used and the operating environment in the [Version information] dialog box.



Menu screen

The description of each operation appears. Following the displayed description, perform the operations of the E-TUBE PROJECT.

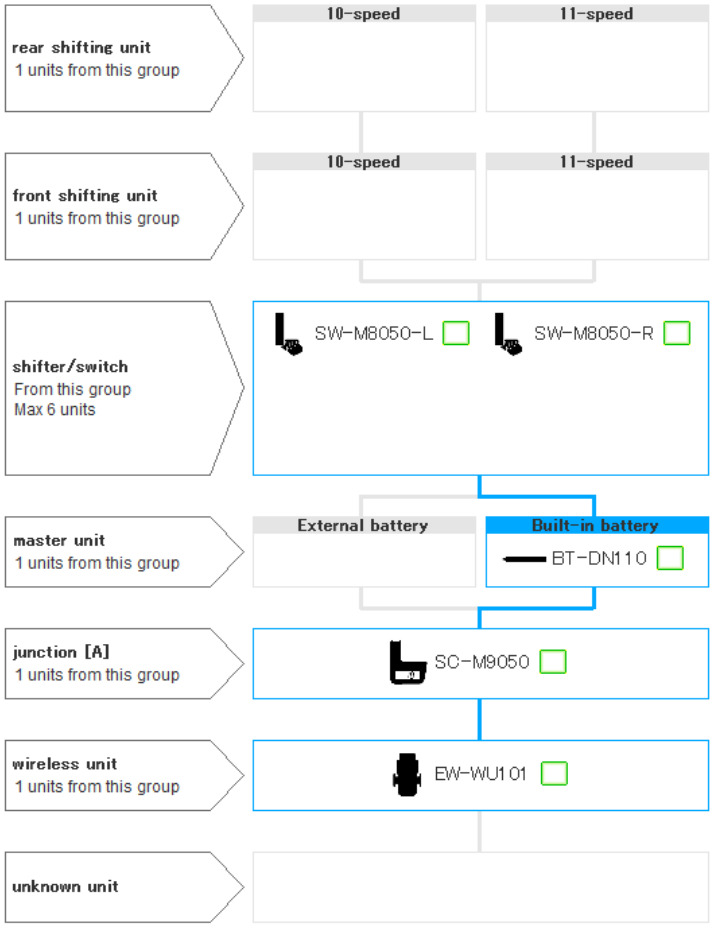
Only connection check and preset are available in the main menu screen. Functions other than connection check and preset become available after connection check is completed successfully.

Chart window

This screen shows the unit status and data while the E-TUBE PROJECT is being used.

Unit status

The statuses of connected units are displayed in the chart.



The unit status displays are as follows.

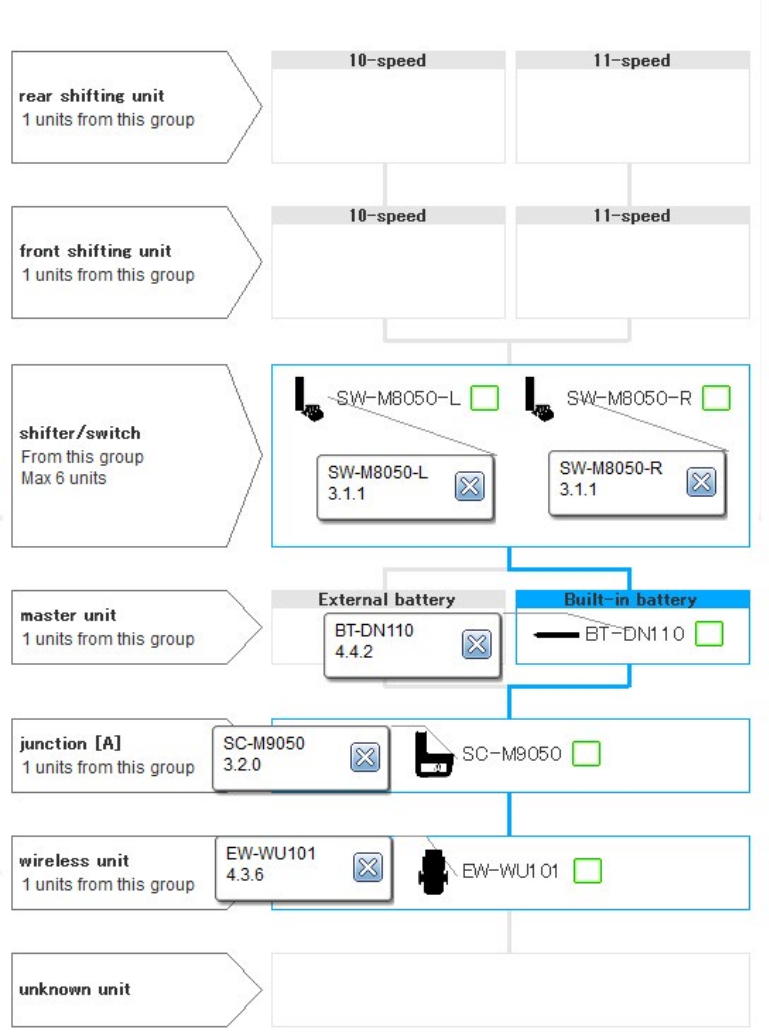
View	Unit status
Illuminated green box	Connected
Flashing green box	Selected
Flashing green	Processing
Illuminated green	Processing result: Normal
Flashing red	Processing result: Problem
Illuminated yellow	Firmware update available

Unit data

The following data for the units which are connected is extracted and displayed.

If you click on the icon for a unit, the unit name (model number) and firmware version for that unit will be displayed.

* The box containing this data can be moved by dragging it with the mouse.

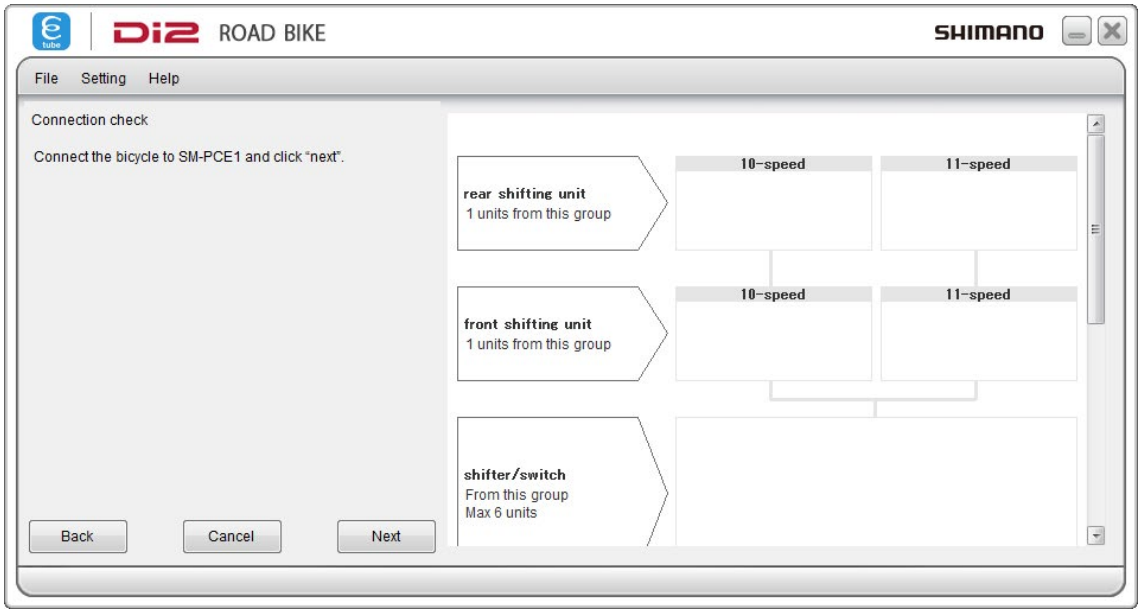


EACH FUNCTION OF E-TUBE PROJECT

Functions available in all series

Connection check

The function is to check that each unit is connected correctly and recognized by PC.
Perform unit recognition and check that all connected units are recognized correctly. When all units are recognized correctly, all functions other than connection check become available. Available functions vary by bicycle type.
If a unit recognition failure occurs, the electric wire may not be connected correctly or may be defective. In that case, the error check is activated consecutively. Perform operations in accordance with the instructions on the screen.



Customize

The function is to make various unit settings. Items that can be set differ depending on each unit.

1. Click [Customize] on the main menu screen.
2. The available menus corresponding to the unit(s) connected to PC appear. For details on each menu, refer to the function description page of each series.

Error check

When a single unit or multiple units are connected, this function checks their operation and identifies any units which have a problem.

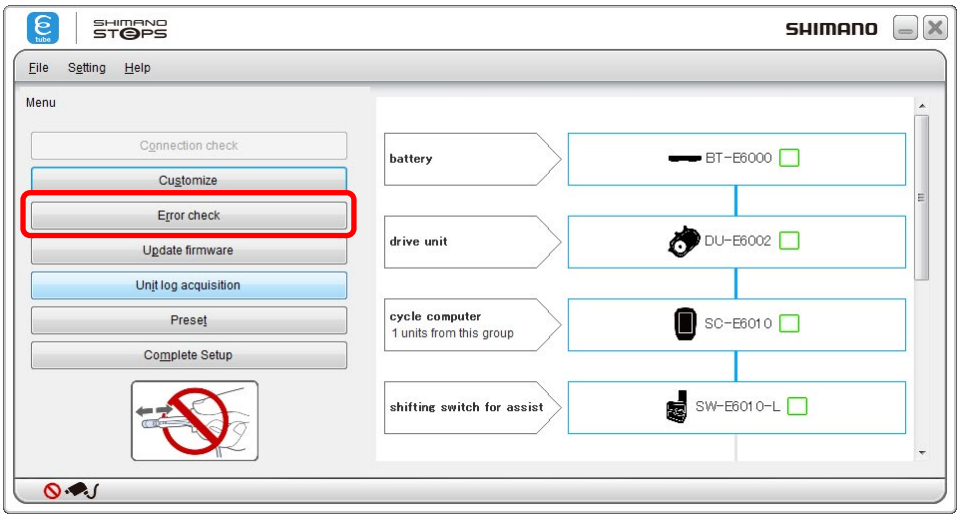
Click [Error check] in the main menu screen to move to the error check screen.

Select the unit where its error check is performed and click [Start diagnosis]. The error check of the selected unit is started. Perform operations following the instructions on the screen.

* If you click [Skip], the diagnosis operations for the unit which is currently being diagnosed will be skipped.

* When performing a wireless function error check, a communication device compatible with ANT connection is necessary as a compatible device. If no communication device is available, please skip diagnosis using the following steps.

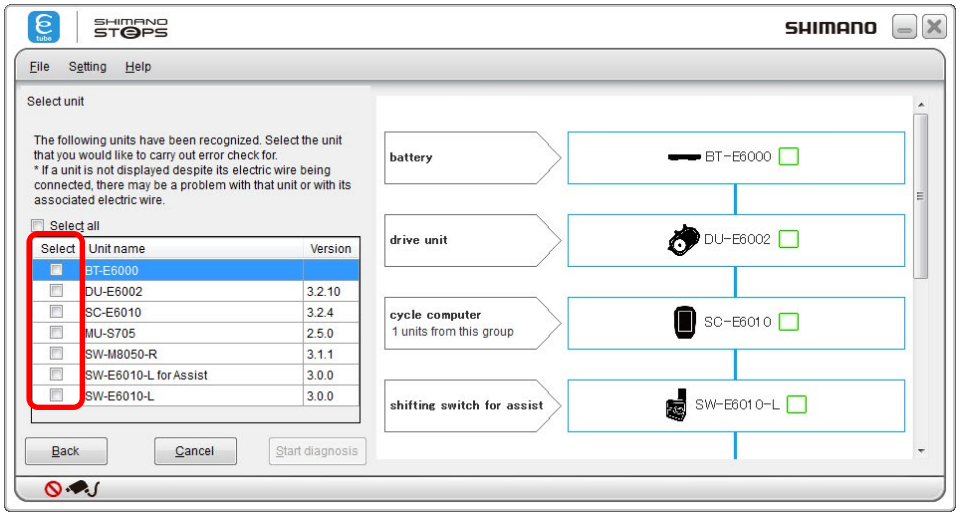
1. Click [Error check] in the main menu screen.



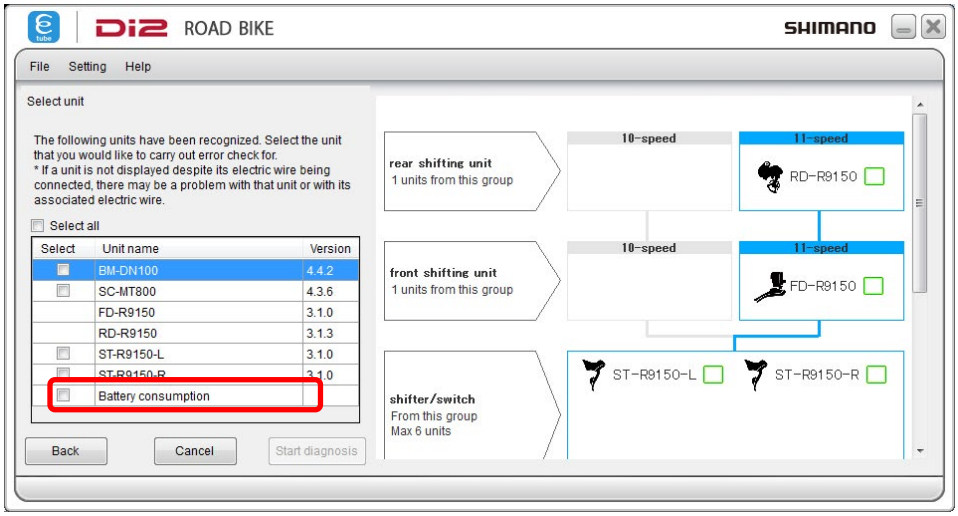
2. Select the unit you want to check and then click [Start diagnosis].

- An error check of the selected unit will start. Perform operations following the instructions on the screen.

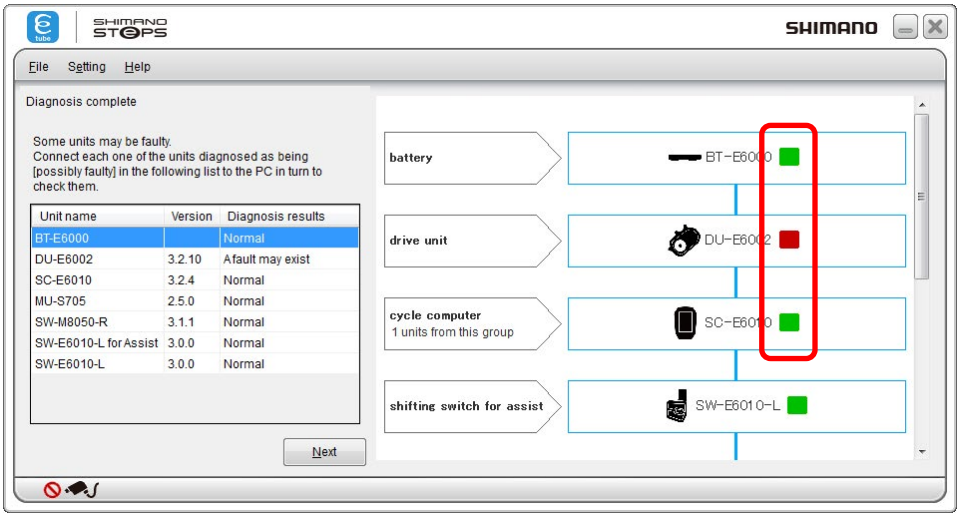
  * When there is no power supply from the battery, the derailleur error check cannot be performed.



  * When connecting with any one of a road, MTB, or urban/city model to the SM-PCE02, [Battery consumption] such as the following screen will be displayed.
    As the final part of the error check, the battery consumption check function confirms whether or not there is an electrical leakage from any part of the connected unit. It is recommended to perform this check not for individual units, but at a system level.
    When performing the battery consumption check, check the [Battery consumption] check box.



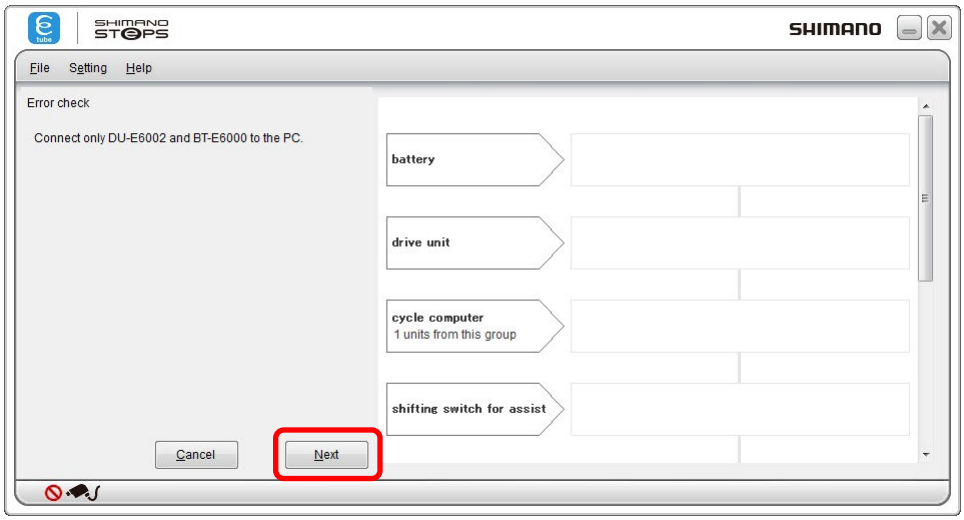
3. When there are no malfunctions, the square icon shown next to the unit name will display in green. If there is a potential malfunction, the icon will flash in red.



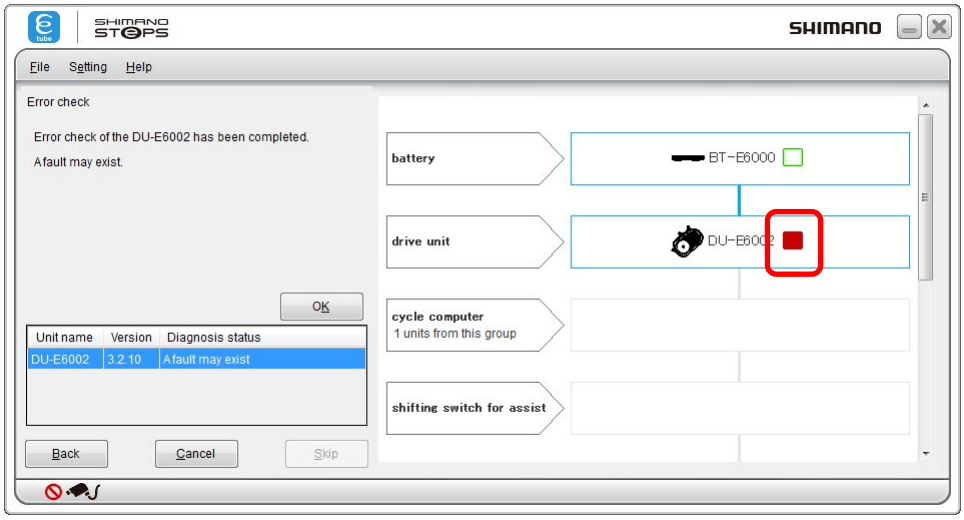
The diagnosis statuses displayed on the screen for each unit are as follows.

Diagnosis status	Description
[Waiting for judgment]	Units for which diagnosis has not yet started
[Diagnosis in progress...]	Unit for which diagnosis is in progress
[Skip]	Units for which diagnosis has been skipped
[Normal]	Units with no problems detected in diagnosis
[A fault may exist]	Units for which a fault may exist based on the diagnosis results

4. If there is a potential malfunction, perform an additional check of the unit connection.



5. If there is a potential malfunction even after performing an additional check, the square icon will continue to flash in red. In this case, consult your dealer or distributor.

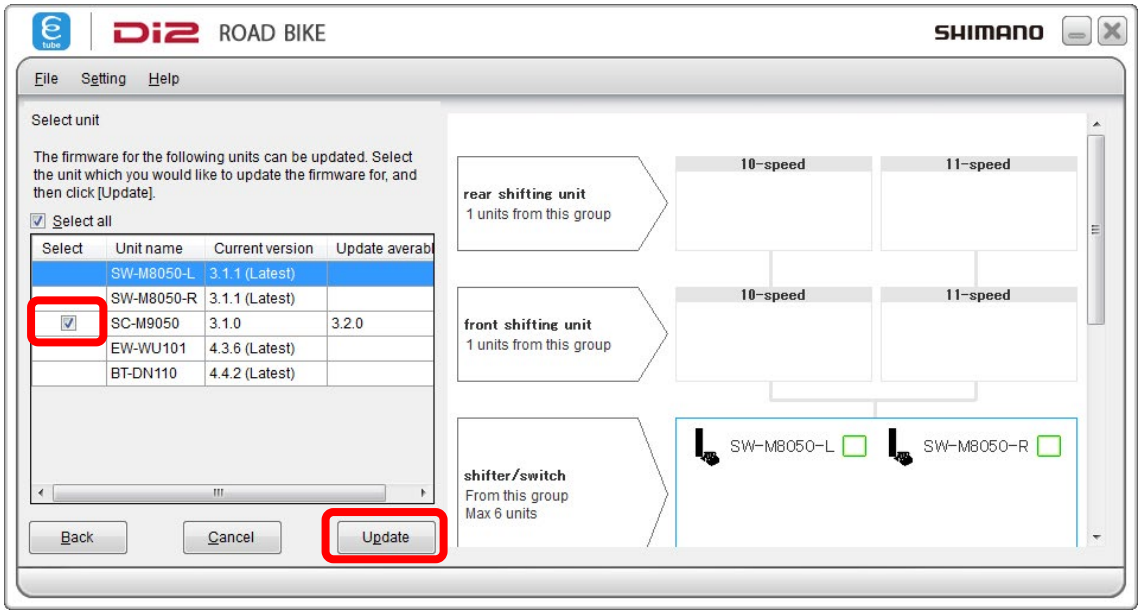


Updating firmware

This function is used to update the firmware for each unit.

* The firmware is downloaded via the Internet.

1. To start updating the firmware, click [Update firmware] in the main menu screen.
2. In the unit selection screen, select the unit of which firmware is updated, and then click [Update].



(Unit selection screen)

3. In the compatibility confirmation screen, check for unit firmware compatibility with the latest firmware and then click [Next].

   For latest firmware compatibility refer to the following manual.

   - HM-CC.3.4.1-00.pdf

4. In the update content confirmation screen, check the content to be updated, and click [Update].

The update statuses displayed in the screen are as follows.

Update status	Description
[Waiting for update]	Units for which updating has not yet started
[Updating in progress...]	Unit for which updating is in progress
[Normal end]	Units for which updating ended normally

* Make sure that the PC does not switch into standby while updating of the firmware is in progress.
  If the PC switches to standby, E-TUBE PROJECT processing will be interrupted and the screen display will return to the main menu screen.

* Do not disconnect the USB cable or the electric wires, remove the battery or turn off the power for the PC while updating of the firmware is in progress.

* When connecting the battery to carry out firmware updating, make sure that the battery is sufficiently charged so that it does not run out of charge while updating of the firmware is in progress.

* If you click the [Cancel] button, updating of the firmware will be canceled. However, it will not be canceled until updating of the firmware for the current unit has finished.

* You cannot shut down the application while updating of the firmware is in progress.

5. When updating of the firmware is complete, the firmware update complete screen will be displayed, and the names of the units which were updated and their firmware versions will also be displayed.

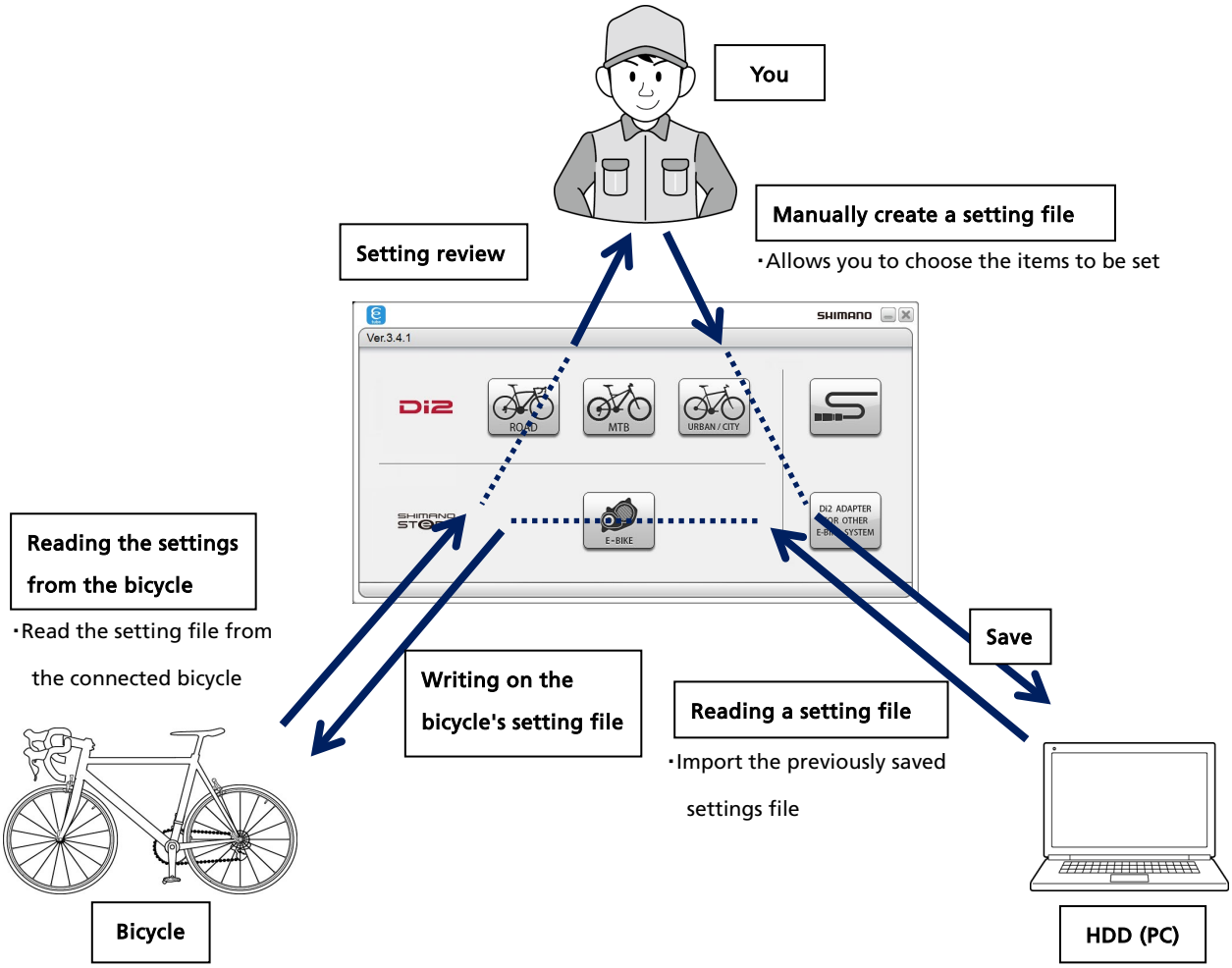
■ If an error occurs while updating firmware

If an error occurs during updating of the firmware, an error screen will be displayed.
The unit may not operate properly when it has failed to update the firmware. Do not use the unit in that condition. Follow the on-screen instructions to restore the firmware.

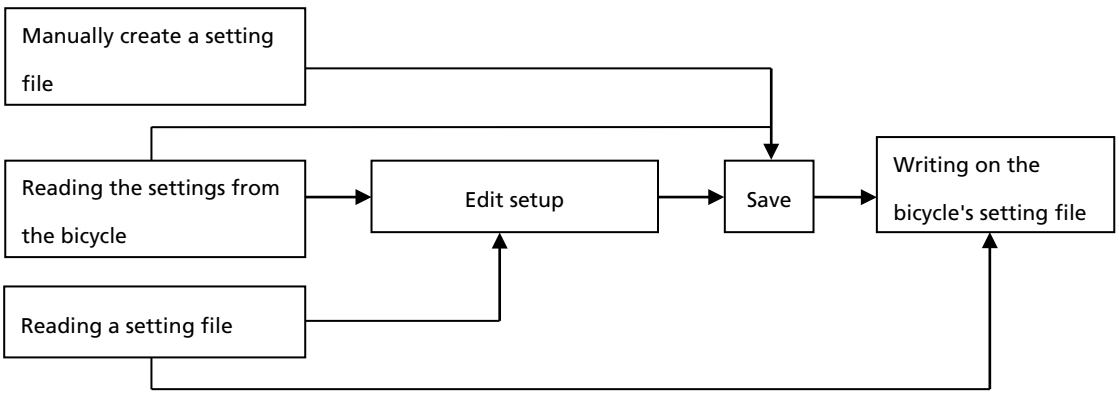
Preset

■ What is preset?

This section gives a brief explanation of the concept of preset.



Flowchart



* Detailed operating procedures are explained starting from the next page.

This function allows you to connect one or more units and read or write all the settings of those units at a time.

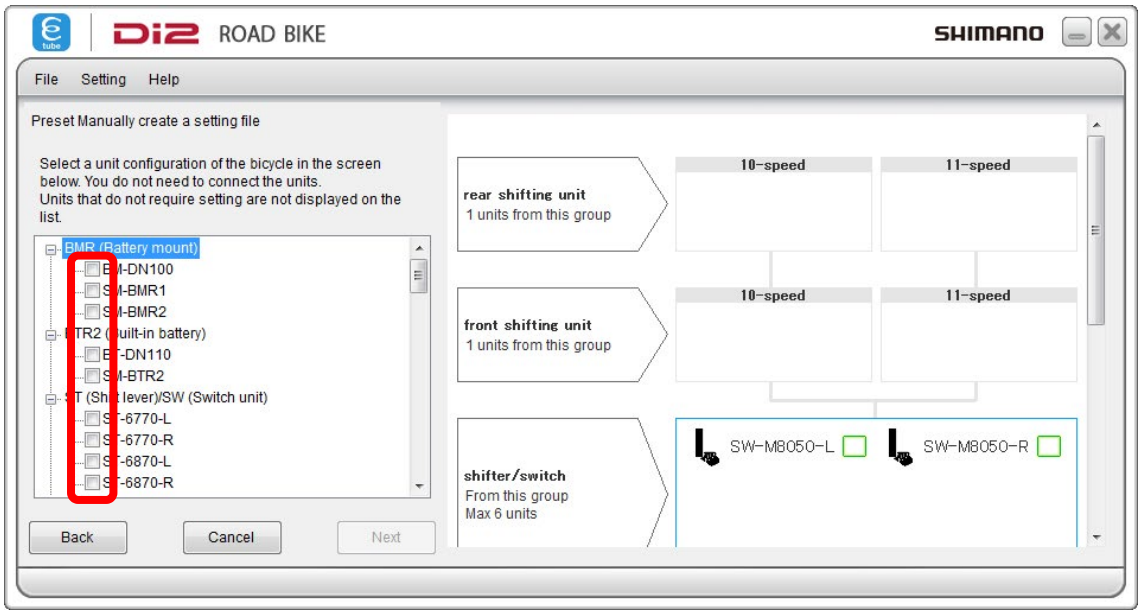
Preset can be performed before connection check.

■ Manually create a setting file

Select [Manually create a setting file] from the preset menu to manually configure setting items.

Select a unit configuration of the bicycle. It is not necessary to connect the units. You do not need to connect the units.

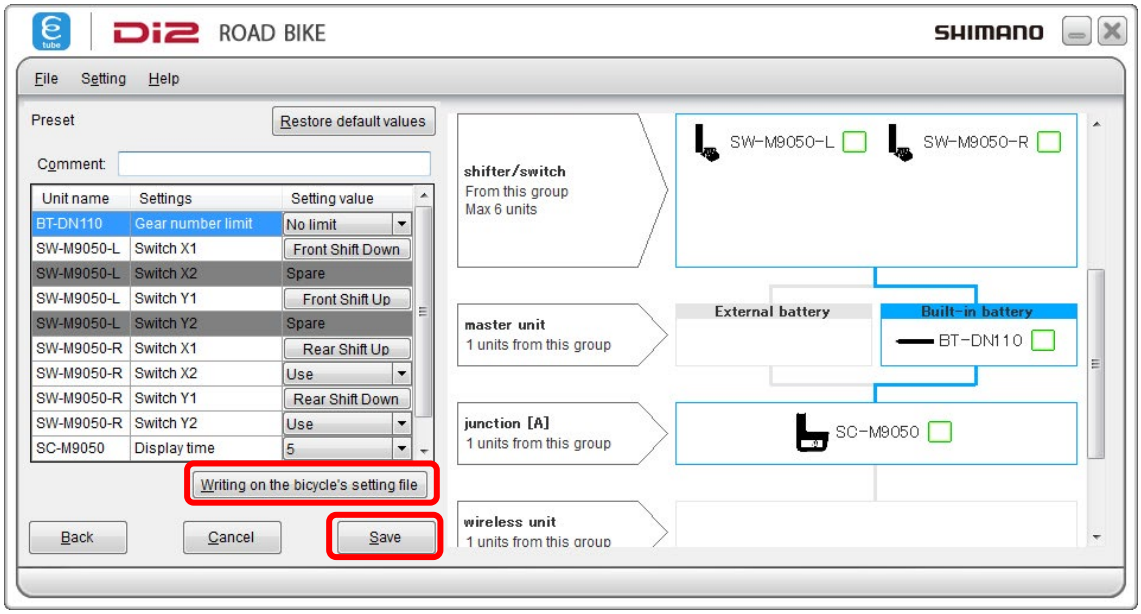
Units that do not require setting are not displayed on the list.



Then, set each item.

Clicking [Save] saves the setting file.

Clicking [Writing on the bicycle's setting file] saves the setting file and starts writing the settings to the bicycle. In this case, connect the bicycle to be set before clicking [Writing on the bicycle's setting file].



■ Reading the settings from the bicycle

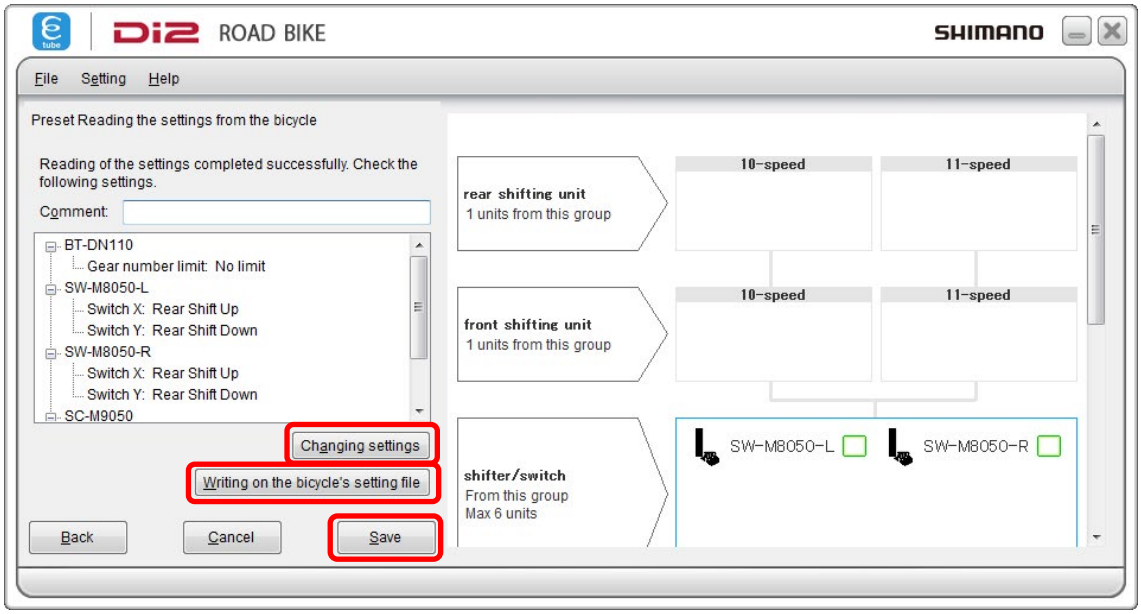
Select [Reading the settings from the bicycle] from the preset menu to read settings from the connected bicycle.

When you read settings, the following screen appears.

Clicking [Save] saves the setting file.

Clicking [Writing on the bicycle's setting file] saves the setting file and starts writing the settings to the bicycle. In this case, connect the bicycle to be set before clicking [Writing on the bicycle's setting file].

Clicking [Changing settings] changes the settings.



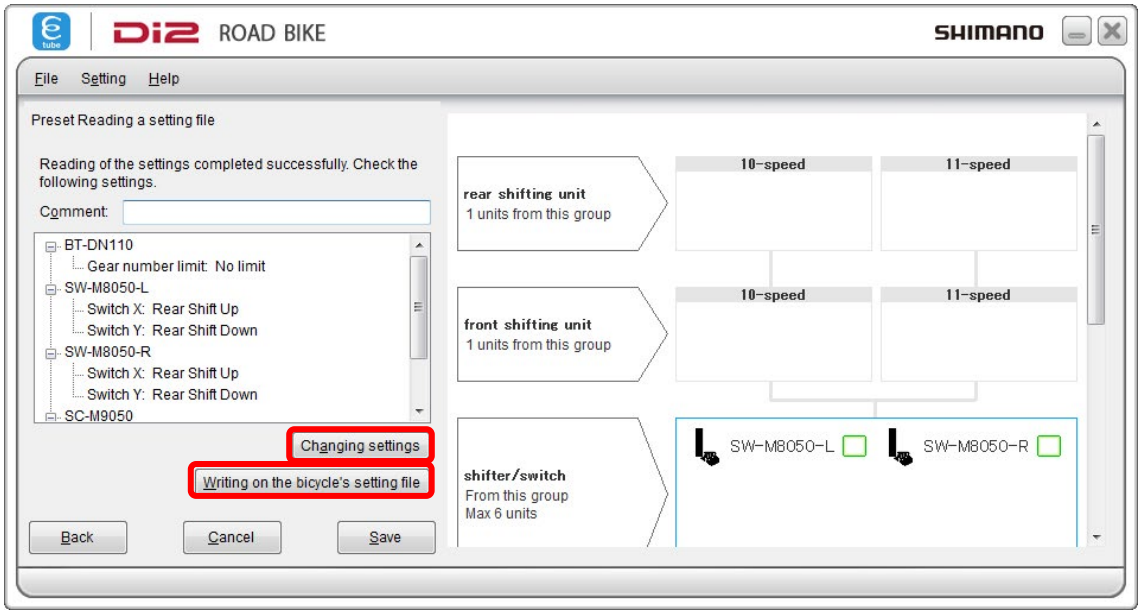
■ Reading a setting file

Select [Reading a setting file] from the preset menu to read a previously saved setting file.

When you select a file, the following screen appears.

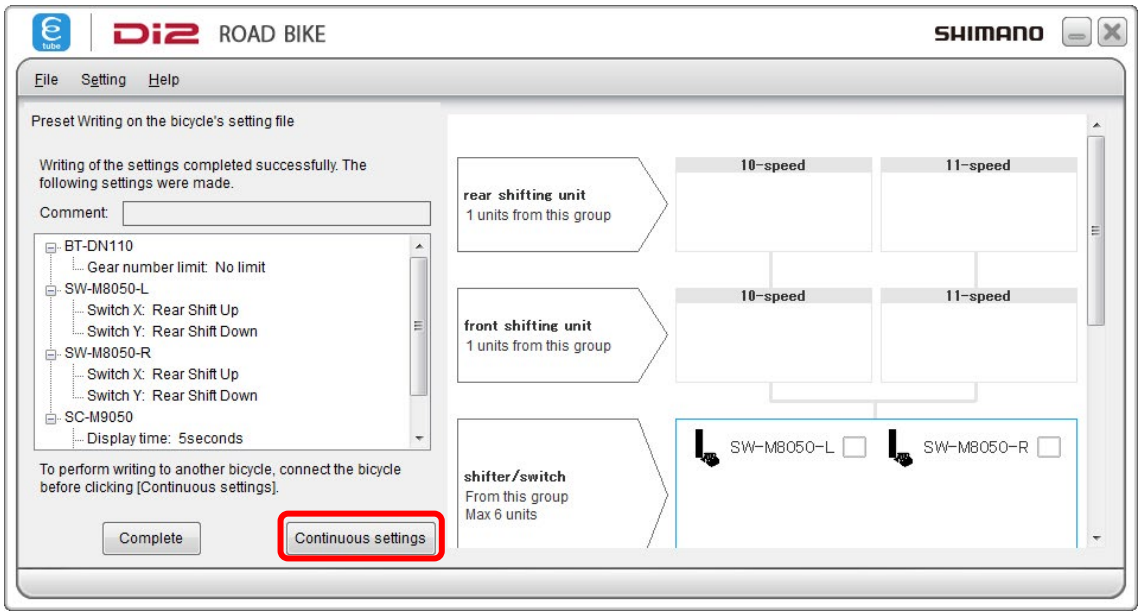
If the displayed settings are correct, click [Writing on the bicycle's setting file]. After you are prompted accordingly on the screen, writing starts.

Clicking [Changing settings] changes the settings.



■ Setting multiple bicycles

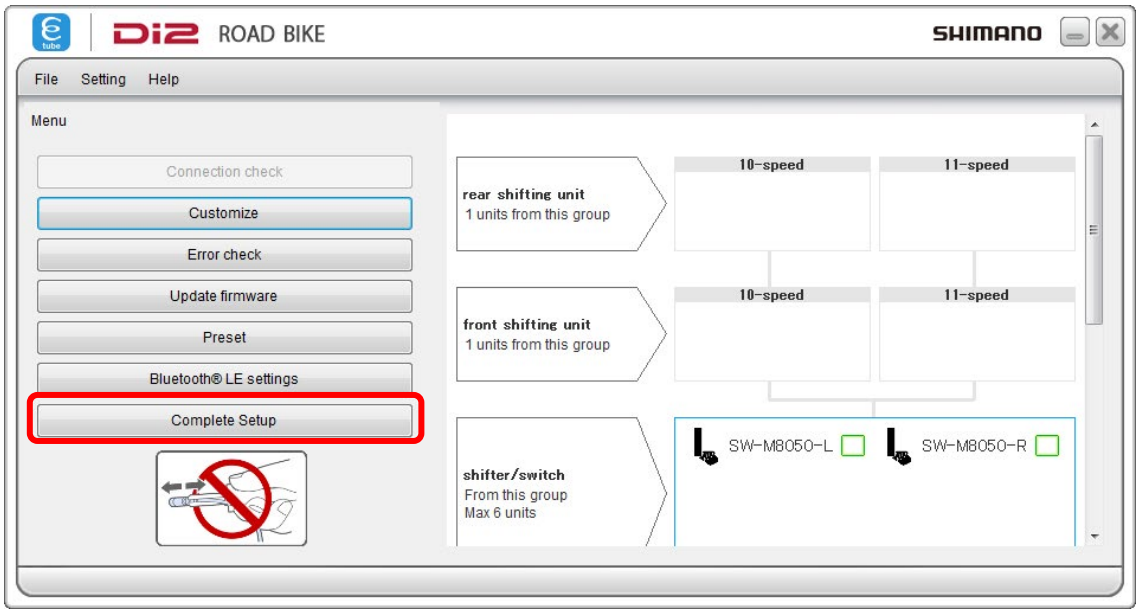
After writing is complete with one bicycle, connect another bicycle and click [Continuous settings].



* If you are using an old version of the E-TUBE PROJECT application, you cannot read or write settings. Update E-TUBE PROJECT before reading or writing.
* Settings files created in E-TUBE PROJECT versions older than 3.4.0 cannot be loaded in this version.
* If you have not updated the firmware for a certain period of time, it is possible that you will not be able to read or write settings. In that case, update the firmware and try again.
* If identical units are connected, you cannot read or write settings.
* Modifying the setting file or the file's extension name may make it impossible to perform setting.
* You can enter up to 256 characters in the [Comment] field. You can enter a description of the settings for future reference.
* Clicking some of the items such as the switch setting displays an image that shows the setting point for the item.

Complete Setup

Disconnect the unit from the computer. The unit may not operate properly before this operation is completed. Also disconnect the unit from the computer when exiting the E-TUBE PROJECT.



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