

Battery Diagnostic / Control Program Update Procedure

This utility updates the Diagnostic / Control Program for battery of Toughbook series. Please read this document carefully before using the utility.

1. Supported models, applicable OS and Installation instructions.

Confirm your computer is one of the following models.
The model name is located on the bottom of your computer.
Embedded Controller (EC) for all models and BIOS for some models are updated after executing the utility.

[Table 1]

Target models	Zip Download file size *1	New EC ver. *2	New BIOS ver.
CF-SX2 series	Approximately 18 Mbytes	V1.50L18	V1.50L16
CF-SX4 series	Approximately 3 Mbytes	V1.00L12	No update
CF-AX2 series	Approximately 12 Mbytes	V1.50L18	V1.50L15
CF-AX3 series	Approximately 3 Mbytes	V2.00L18	No update
CF-C2 series	Approximately 6 Mbytes	V1.00L16 V2.00L16 V2.50L15	V1.00L17 No update No update
All models included	Approximately 60 Mbytes		

*1 When unzipping the downloaded file, the size will be doubled.

*2 "EC" is "Embedded Controller".

2. OS supported

Windows 7 (32bit), Windows 7 (64bit), Windows 8.1 (64bit) and Windows 10 (64bit)

3. CAUTION:

- To run the program, the AC adapter needs to be plugged-in and the battery MUST be charged more than 20%. Therefore, do not remove the AC adapter until the Battery Diagnostic / Control Program update is completed. If computer is shut down during update, BIOS/EC (or only EC) may be damaged.
- The computer restarts multiple times before update procedure completed. **If you see Windows desktop or Start screen before “finished the update” screen appears, you must not operate anything. When this situation continues for 3 minutes, please press Windows key + “L” and continue update procedure.**
- If encryption software except BitLocker is installed, a recovery key might be required

at the first time you boot up the computer after update. Please prepare it in advance.

- Back up important data to other media or an external hard disk before executing the utility.
- Remove USB storage.
- Economy mode (ECO) setting (charge 80% limit setting) will be disabled by applying this program.

As for CF-C2 series, the battery is controlled and functions regardless of the 'Environment' setting.

- Your computer will restart after the program is completed.
Since you need to input BIOS password and/or confirm a result dialog, please be not away from computer while it is running.
- If BIOS/EC version is "V *** L *** M ****", M **** means a customized BIOS/EC.
Since we provide Battery Diagnostic / Control Program Update Utility for customized version of BIOS/EC, please contact with our sales person.

4. **Instructions**

(Step1) Download the software.

- (1) Access to reserved URL by browser and download the software.

Battery Diagnostic / Control Software

Please check the model number list to select and fill in the required items. Check the screen and press "Download" button.

Please click here for installation instructions

[\[English\]](#)

[Note]

After the update finishes, the computer's product number and serial number, and the product number and serial number of the battery, are sent to Panasonic's server. Personal information is not collected.

This data is used to track the update implementation status and to facilitate the update process, and it will not be used for any other purpose.

Check the model to download. (multiple choices allowed) ※Required

- All models included
- CF-S10/N10
- CF-SX1/NX1
- CF-SX2/NX2
- CF-SX3/NX3
- CF-SX4/NX4
- CF-AX2
- CF-AX3
- CF-C2

Country ※Required

Company name ※Required

Division name (Optional)

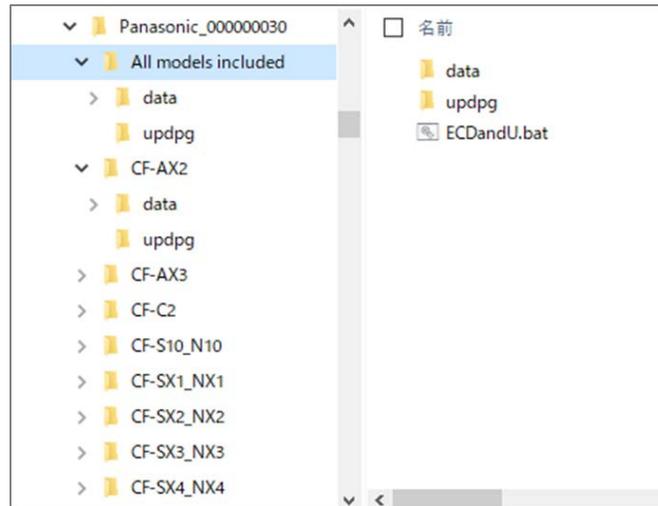
Download

Items	Req	Details
Models	Required	Check the model(s) you need to download the program. You can download it for updating all model(s) you choose. If you need the program for all models, please choose [All models included].
Country	Required	Choose your country from pull-down menu.
Company name	Required	Input your company name correctly.
Division name	Optional	If you need to manage computer individually at the multiple divisions in the same company, please input name of division.

(Step2) Unzip the downloaded file.

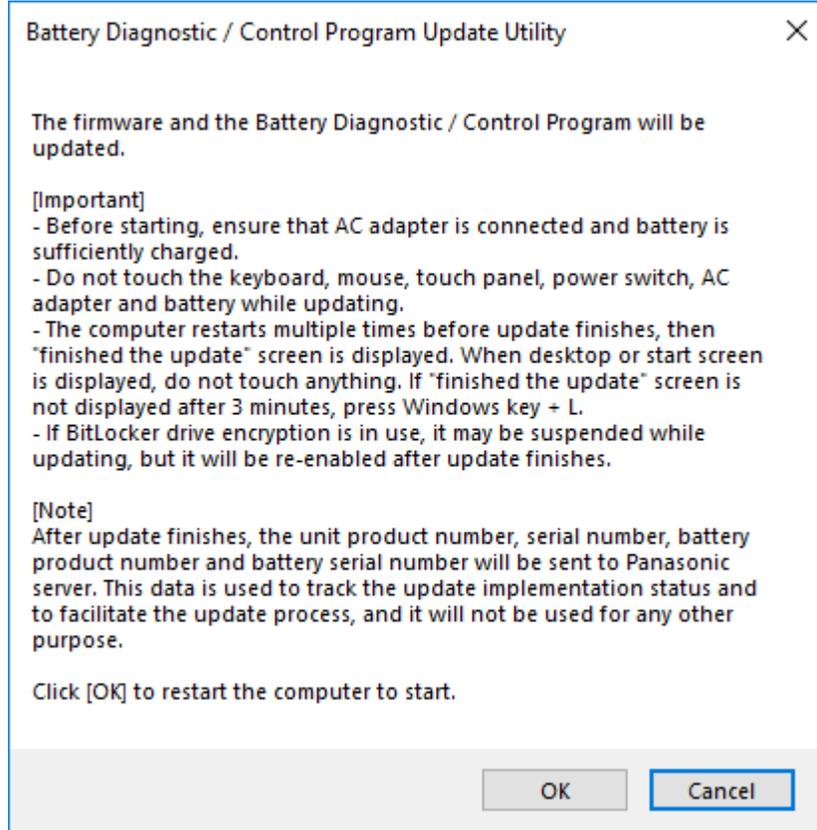
(1) Unzip the downloaded zip file (eg Panasonic_000000030.zip).

Reference: For “All models included” below.



(Step3) Execute the update program in the unzipped file.

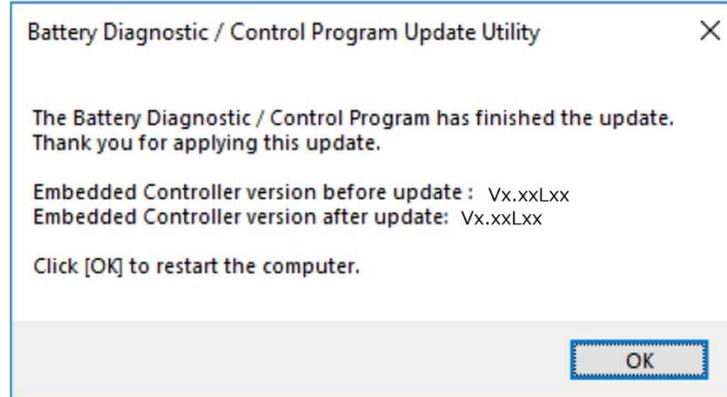
- (1) Plug-in the AC adapter
 1. Battery MUST be more than 20%.
 2. Do not remove the AC adapter during the firmware update.
- (2) Execute “ECDandU.bat” in the destination folder.
- (3) Check the contents displayed on the confirmation screen and click [OK].



After restarting, the update will start.

If desktop or start screen is displayed for 3 or more minutes, press Windows key + L.

- (4) [Only for CF-SX4] Special message window will appear. Check notes carefully, and click [OK] to continue.
- (5) After updating BIOS/EC (or only EC), your computer will restart.
- (6) The following "finished the update" screen will be appeared when the update is successful.
Confirm the value of "Embedded Controller version after update" is the same as that on Page1.
If "finished the update" screen is not displayed for 3 or more minutes, press Windows key + L.



(7) Click [OK] to restart computer.

If a different type of message from the above screenshot is shown, please check “6.Error messages” below.

5. Verification

How to confirm BIOS/EC (or only EC) are installed successfully

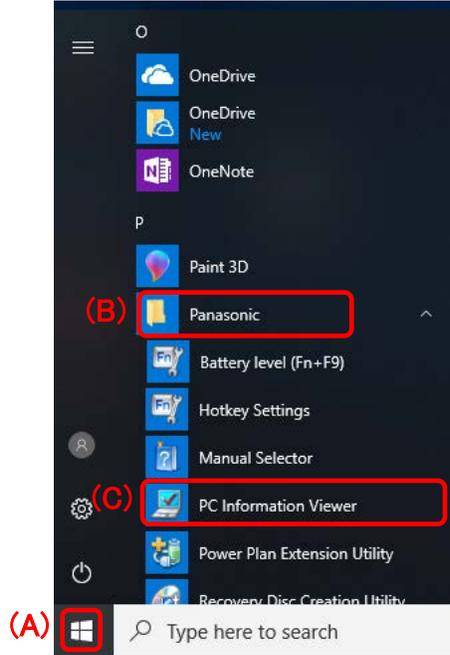
When the BIOS/EC (or only EC) is installed successfully, the following file is output. If the file exists, the installation is finished successfully.

Folder: %ProgramData%\Panasonic\ECDandU\
File name: success_[Model number]_[Serial number].mrk

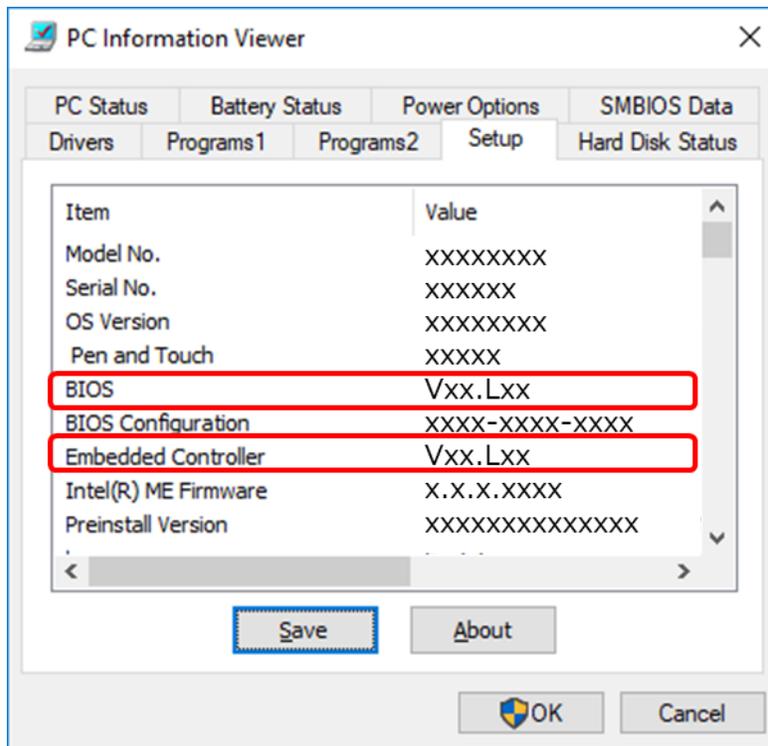
How to confirm the version of BIOS/EC (or only EC) after executing the Battery Diagnostic / Control Program Update Utility

(1) Execute PC Information Viewer

Click (A) , then Click (B) "Panasonic" - (C) "PC Information Viewer".

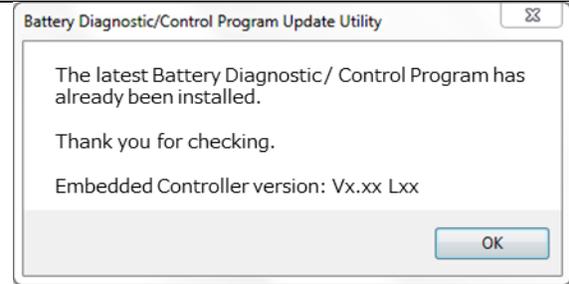
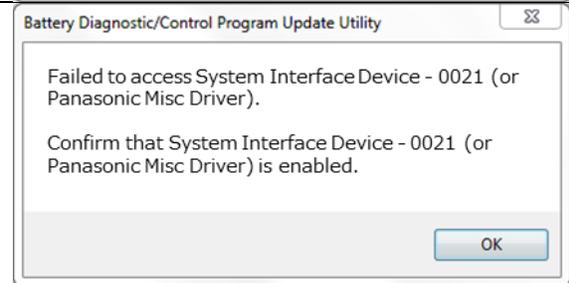
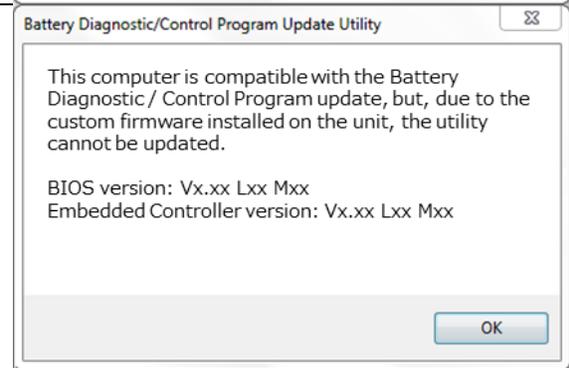
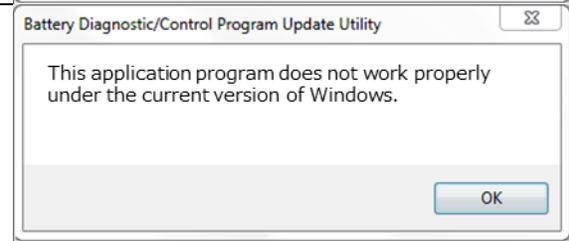
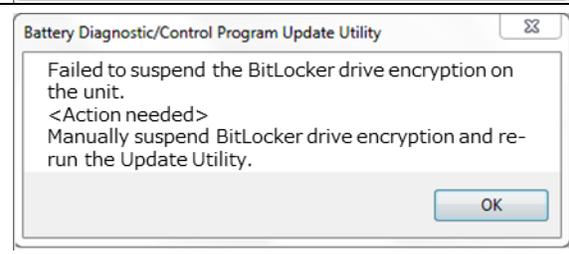


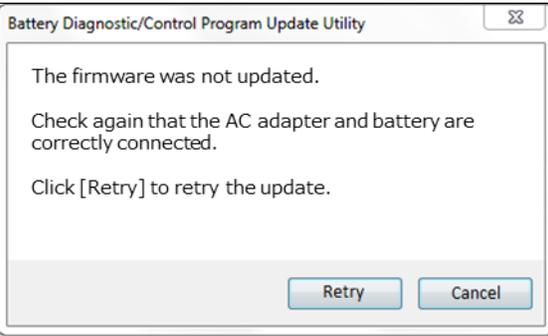
(2) Click the “Setup” tab, and check ”BIOS” and "Embedded Controller” versions to make sure updated.



Please confirm that it is the version described on page 1/9 [Table 1].

6. Error messages

	<p>Update is not needed because the latest Battery Diagnostic / Control Program has already been installed.</p> <p>Click [OK] and close the update utility.</p>
	<p>Mandatory drivers for Panasonic computer may not be installed. Install the System Interface Device Drivers (or Panasonic Misc Driver).</p>
	<p>Please contact your information system department or our sales office.</p>
	<p>Supported OS are Windows7, Windows8.1 and Windows10. Please contact your information system department or our sales office.</p>
	<p>To suspend BitLocker Drive Encryption on an operating system drive</p> <ol style="list-style-type: none"> 1. Click Start, click Control Panel, click System and Security, and then click BitLocker Drive Encryption.

	<p>2. Click Suspend Protection for the operating system drive.</p> <p>3. A message is displayed, informing you that your data will not be protected while BitLocker is suspended and asking if you want to suspend BitLocker Drive Encryption. Click Yes to continue and suspend BitLocker on the drive.</p> <p>If BitLocker Drive Encryption is still suspended after the update is completed, resume encryption by clicking "Resume Protection" in the same procedure as suspending it.</p>
	<p>Please follow the message and retry.</p>

7. Additional Information:

- **ECO Mode:** this mode will be disabled while running this utility, however, if the mode is fixed in advance, it will NOT be disabled by this program.
- After update finishes, the unit product number, serial number, battery product number and battery serial number will be sent to Panasonic server. This data is used to track the update implementation status and to facilitate the update process, and it will not be used for any other purpose.