



Mimaki™

Software RIP

RASTER LINK 6

Firmware Update Manual

This manual explains how to use Firmware Update.

MIMAKI ENGINEERING CO., LTD.

URL: <http://eng.mimaki.co.jp/>

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About this manual

This manual explains how to use Firmware Update.

This document uses Windows Vista as an example.

Unless otherwise specified, use the same procedure for Windows XP and Windows 7.

Notations

Menu items are enclosed in quotation marks like "Latest FW".

Buttons in dialog box are framed like .

Please replace printer names used in this manual with the printer you are using.

Symbols



Indicates a caution you must observe when operating the product.



Describes a useful procedure.



Shows the number of the page that has related contents.

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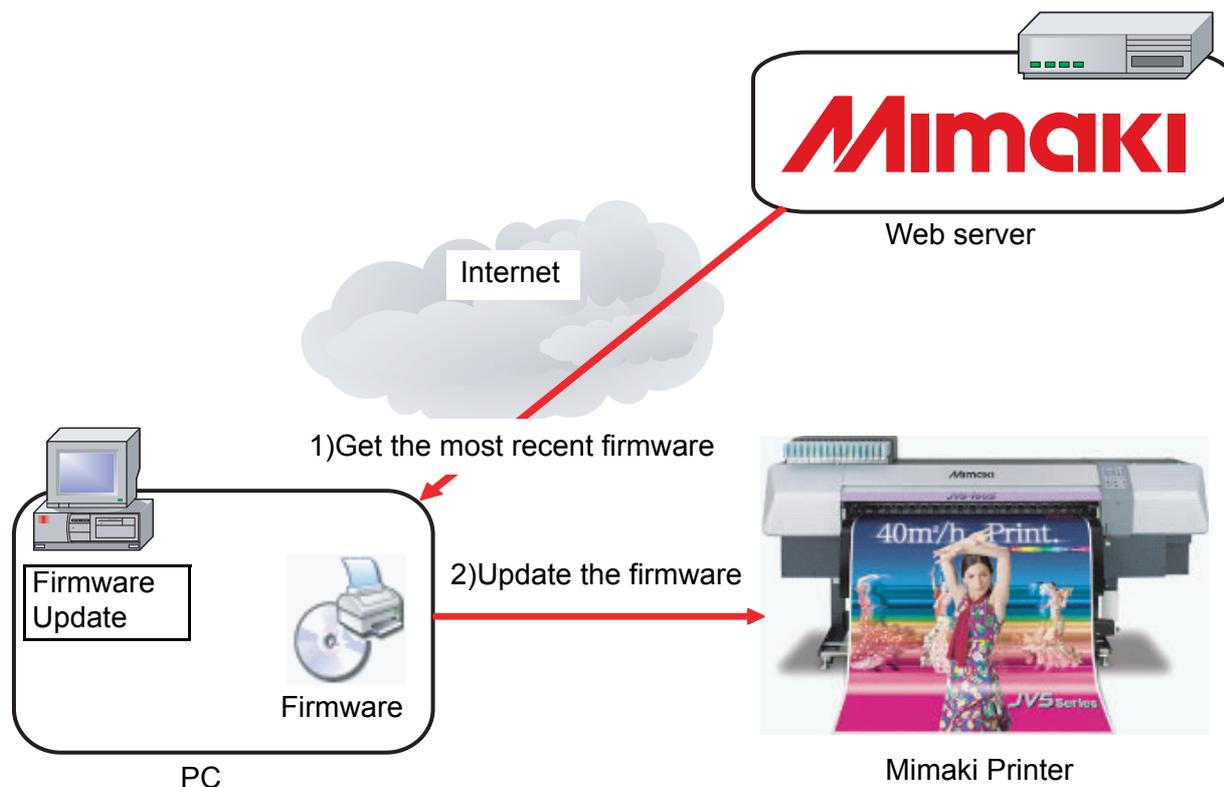
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Outline of Firmware Update

Firmware Update is the software that downloads the most recent firmware for the Mimaki printer connected to PC from Web server, and updates the firmware.


Important!

- When you connect with the printer having the USB2.0 interface, do not use the USB hub or the extension cable.
- When you connect with the printer having the Ethernet interface. Please use one of 100BASE-T (Gigabit).

Precautions for use

Read this manual or the application screen before use. If performing procedures other than those descriptions, or not following those cautions, **serious problem leading to damage of the printer will occur.**

How to use Firmware Update

This chapter describes how to update firmware of your printer with Firmware Update.

The operation after common operation varies by your printer.

Printer Firmware Update (👉 P.8)

Update firmware of your printer.

Printer Firmware Downgrading (👉 P.18)

Downgrade firmware to the version before update.

Printer Firmware Update

Important!

- When Firmware Update is connected to the Web server, Firmware Update firstly checks whether the program itself has the update program or not. If it has the program, it automatically downloads and updates.
- Firmware Update obtains the information from the connected printer, and downloads proper firmware from the Web server.
Then it updates the firmware of the printer. If you operate wrongly, serious damage of the printer will occur. Fully understand the procedures in this manual and follow them.

1 Connect the Firmware Update installed PC and one printer with a cable.

- After connecting, turn on the printer.

Important!

- Firmware Update updates one printer's firmware at a time. If several printers are connected, connect only one printer.

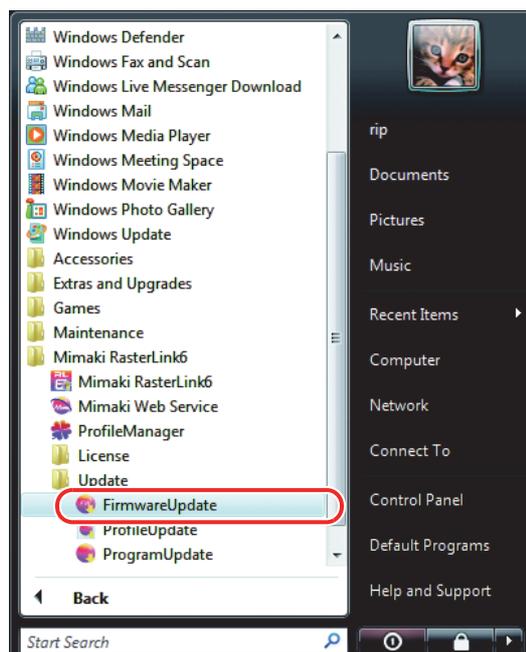
2 When [LOCAL] is displayed on the operation panel of the printer, press [REMOTE] key on the operation panel of the printer.



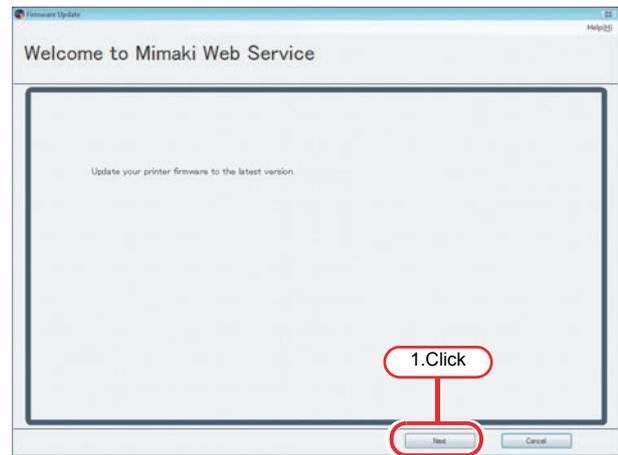
- For preparation of the printer, see the operation manual of your printer.

3 Select [Start]-[All Programs]-[Mimaki RasterLink6]-[Update]-[Firmware Update] to start Firmware Update.

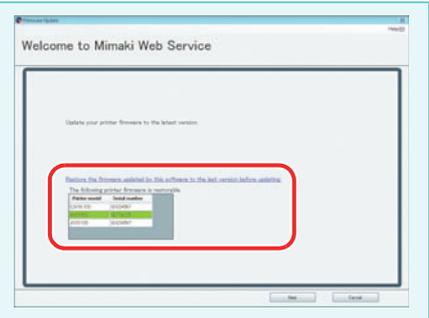
- The start screen appears.



4 Click .



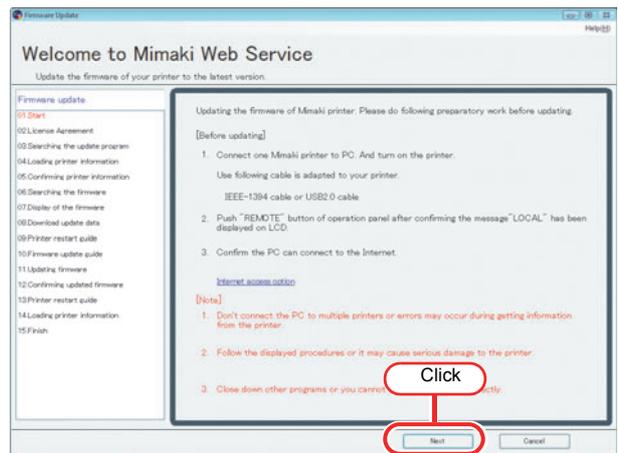
• When the firmware update was performed once and more, the right screen is displayed. If you click, you can downgrade the updated firmware to the version before update. (☞ P.18)



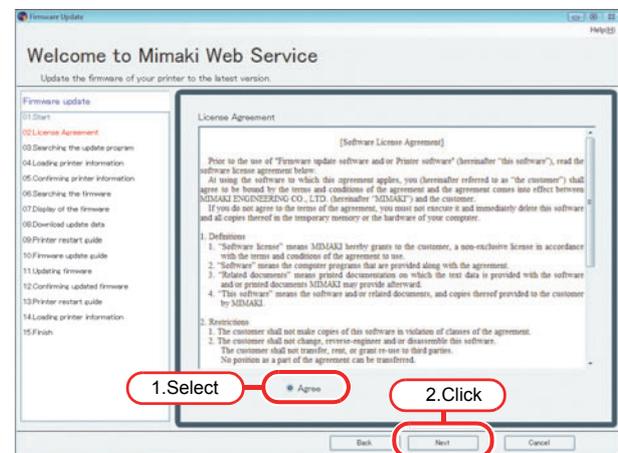
5 Click .



• If you are using a proxy server, click [Internet access option].

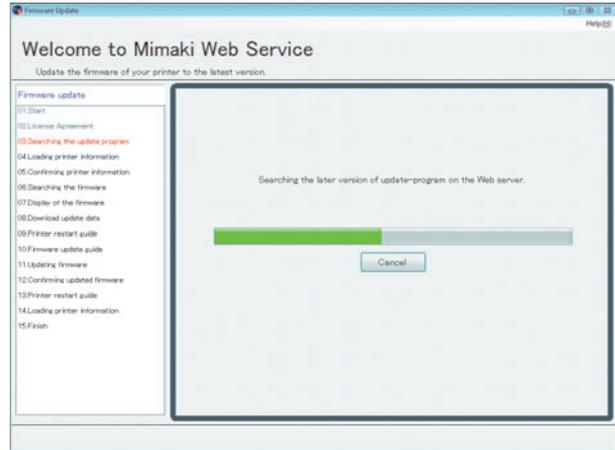


6 Read the license agreement carefully, and select the [Agree]. Click .



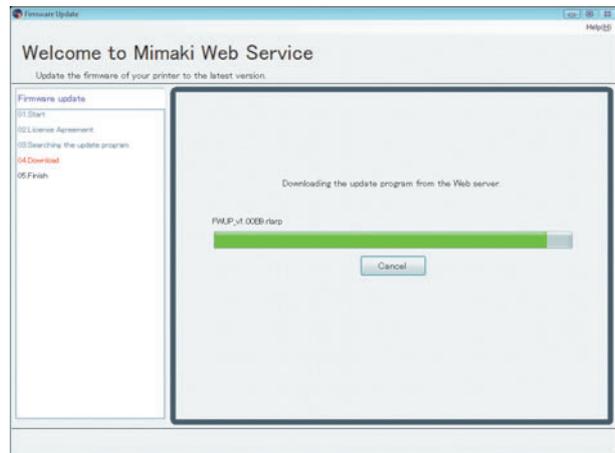
7 To use the latest Firmware Update at all times, confirm an update program of Firmware Update.

- If there is no update program, go to Step 10.



8 When there is an update program

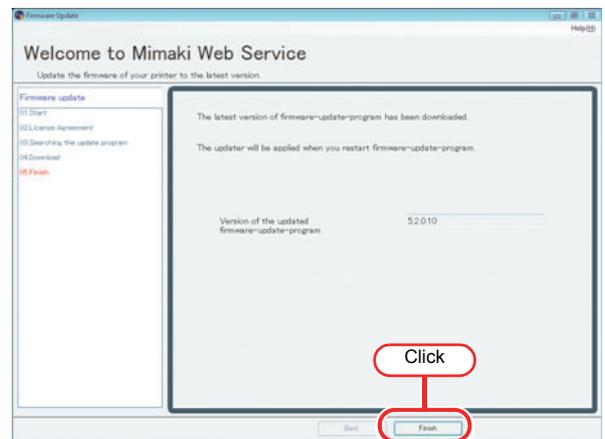
- (1) The update program is downloaded.



- (2) The update program information appears. Click to finish the firmware update.

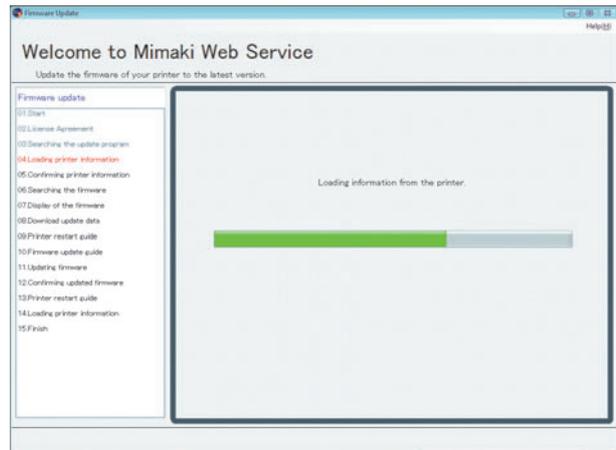
Important!

- By the operation up to here, the update of the firmware update program is completed.
- To update the printer firmware, be sure to perform the operations from the Step 9.



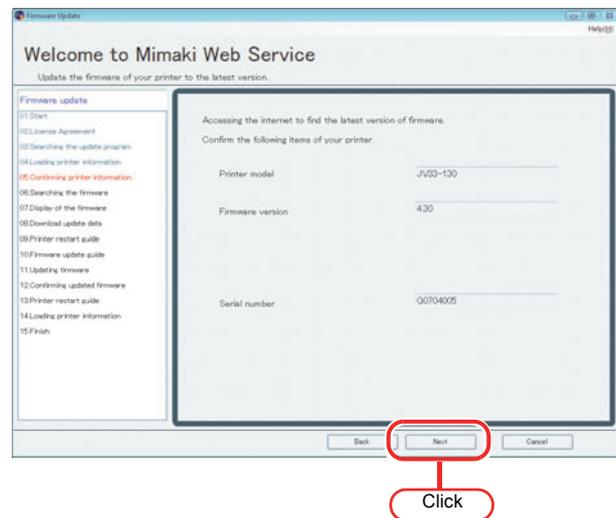
9 Perform the operation of the Step 3 to restart the firmware update.

10 Necessary information for update is obtained from the printer.

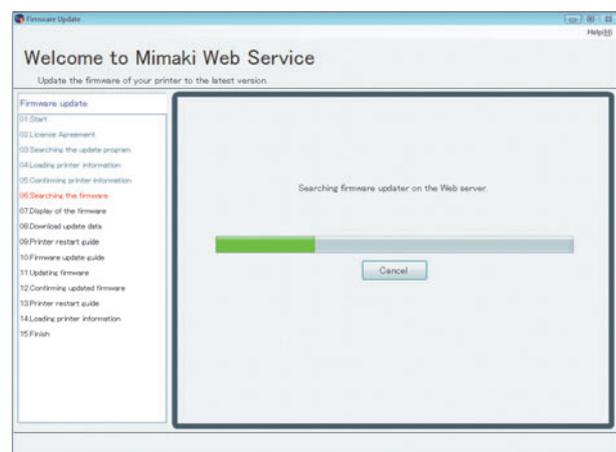


11 The obtained printer information appears. Click .

 • The serial No. is used for linking version of the printer to version of the firmware.



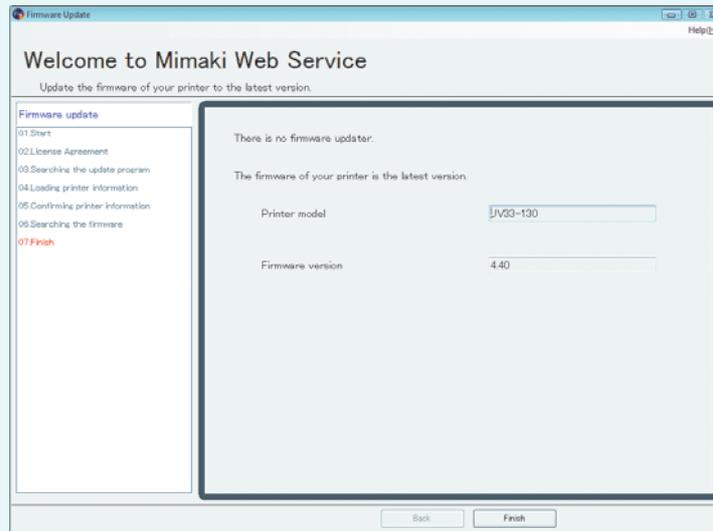
12 It is accessed to the server to confirm firmware update.



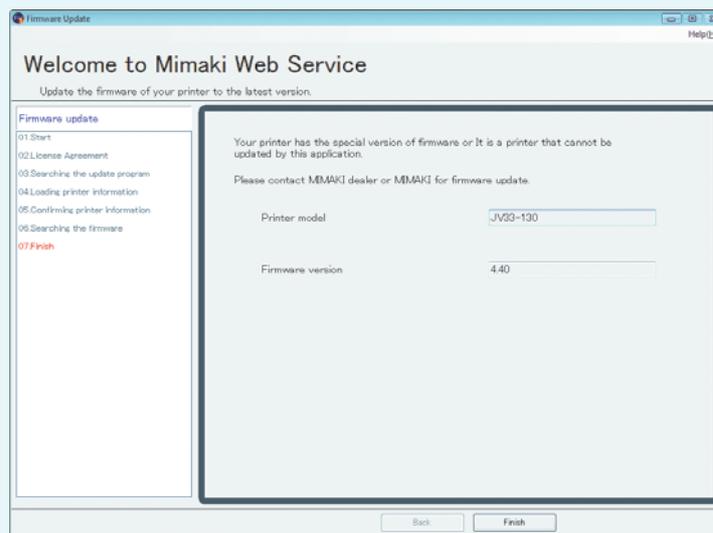


When there is no update firmware

- If there is the latest firmware
The latest firmware is installed on your printer. Update of the firmware is not required.

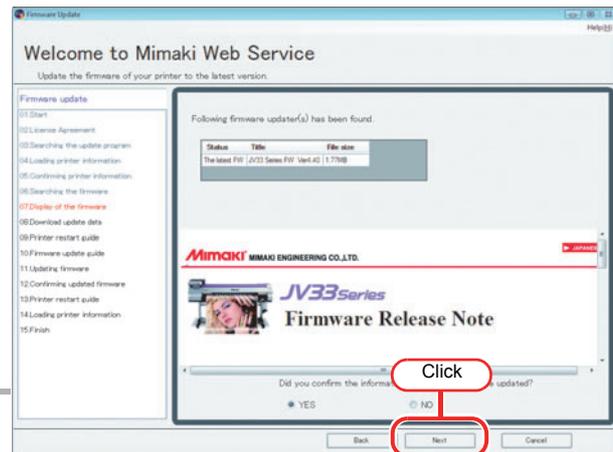


- If there is a special firmware
If the firmware of your printer is a special version, you cannot update firmware with Firmware Update.
To update the firmware, contact our office or distributor in your district.



13 If there is an update firmware, the information of the update firmware appears.

- The detailed information such as update contents of the firmware to update and the change points are displayed in the lower part of the screen.
- Operate the scroll bar and fully check the contents.

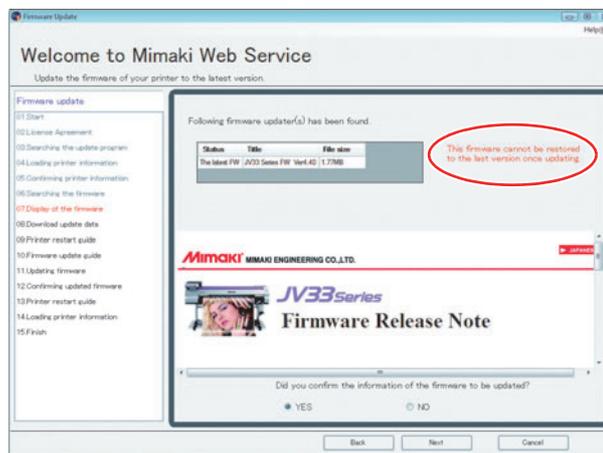


14 After checking information, check the “Yes” box and click

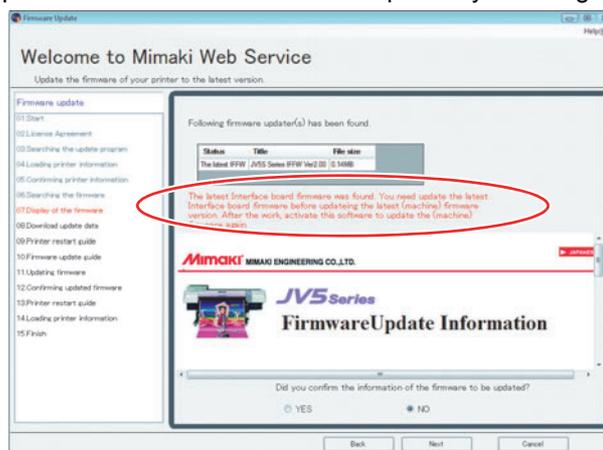
Next .

Important!

- When the firmware before update is too old, the following message may be displayed. If you continue the firmware update, you cannot downgrade it to the version before update.

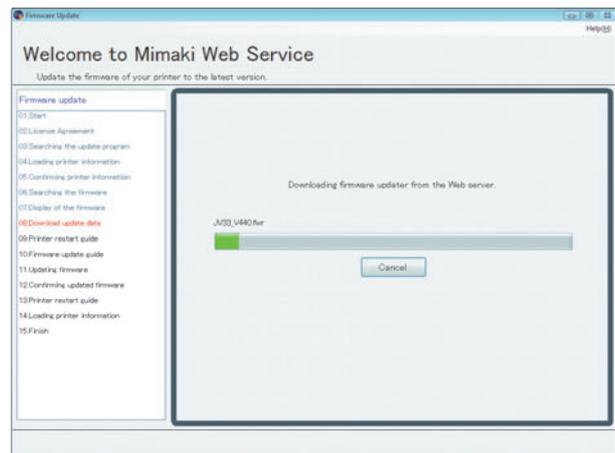


- Depending on your printer, the message prompting you to update the interface PCB firmware may be displayed. At this time, complete the interface PCB firmware update by following the screen contents.

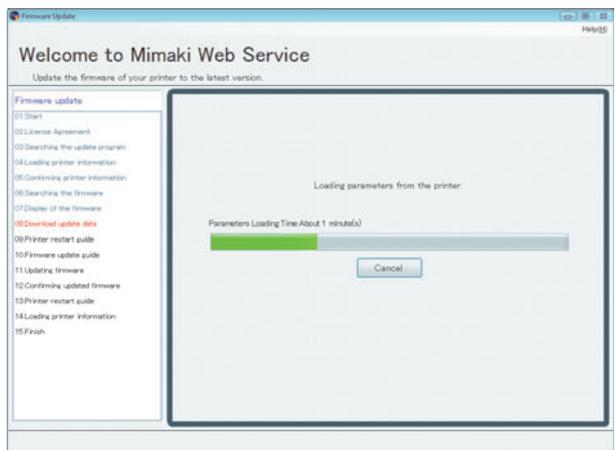


- Even if the interface PCB firmware update is completed, the firmware of the printer main body is not updated. Operate the Step 3 again to start the firmware update to update the firmware of the printer main body.

15 Necessary data for update is downloaded from the server.



16 The parameter before updating firmware is obtained from some printers.



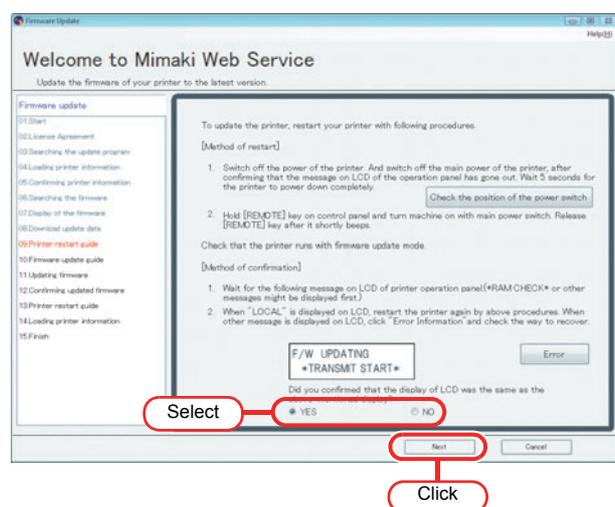
17 When firmware download and parameter acquisition has been completed, the message "The firmware has been downloaded from Web server to the PC." is displayed.



18 Restart the printer as follows to prepare for sending the firmware to the printer.

Important! • For some printers, the restarting procedures are different from the followings. In this case, follow the display.

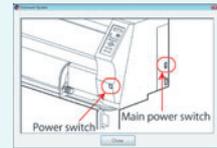
- (1) Turn off the printer, and wait five seconds until the power is completely turned off.
- (2) Turn on the printer, and immediately press-and-hold [REMOTE] key on the operation panel. If buzzer beeps, release the [REMOTE] key.
- (3) Confirm the LCD screen of the printer, and wait until the same screen as the display.
- (4) Check the LCD screen, and select "Yes" if the display is the same as the screen.



(5) Click .



- If error occurred on the printer, the LCD of the printer displays the error message. Click and see the solution for the error. (P.28)
- When you press the button, the position figure of the power supply of the printer is displayed in the separate window. (Depending on your printer, it may not be displayed in some cases.)

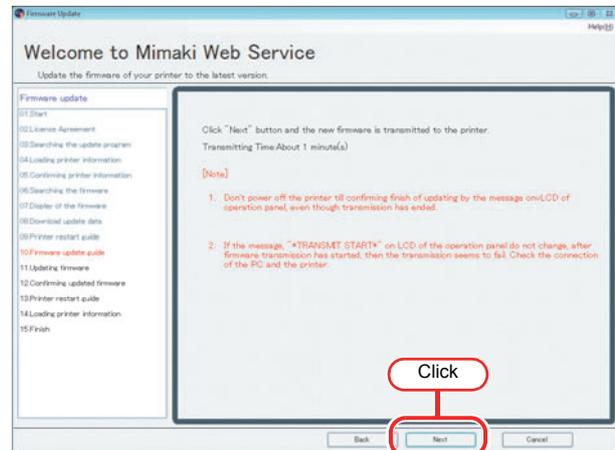


19 Sending the firmware to the printer is ready.

- Read the cautions on the screen carefully.
- Click to start sending the firmware.

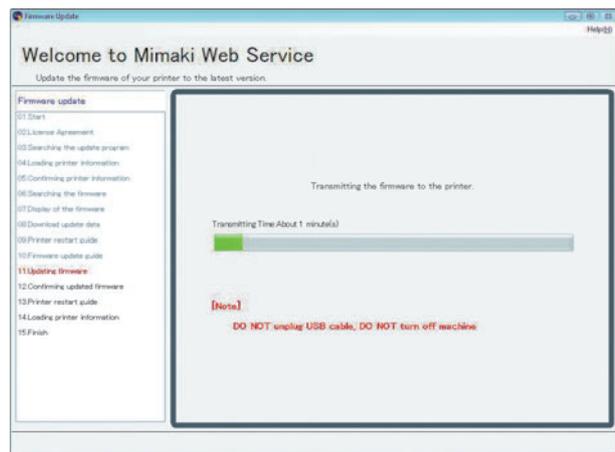
Important!

- Do not pull out the cable or turn off the printer during sending or updating firmware. If so, serious problem leading to the damage of the printer will occur.



20 Firmware is sent to the printer.

Wait until the operation finishes.



21 Firmware is updated.

- Wait until the operation finishes.

Important!

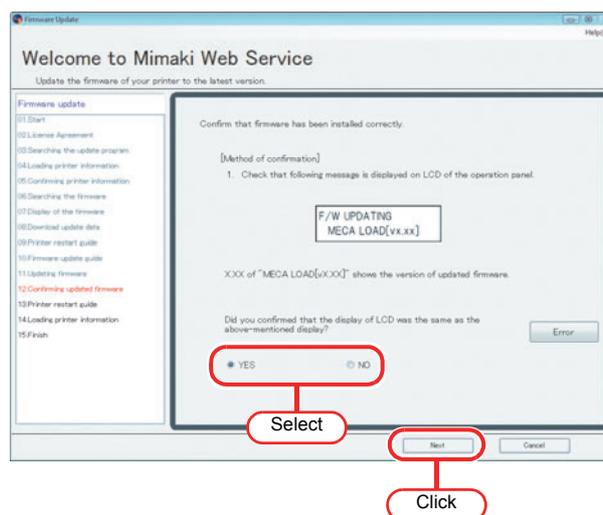
- Do not turn off the printer before finishing the operation. If so, serious problem leading to the damage of the printer will occur.
- When firmware uploading has been completed, the message "The firmware of the printer has been updated." is displayed.

22 Confirm the Firmware Update is finished.

- (1) Confirm the LCD screen of the printer, confirm the same screen as the display.
- (2) Check the LCD screen, and select “Yes” if the display is the same as the screen.
- (3) Click .



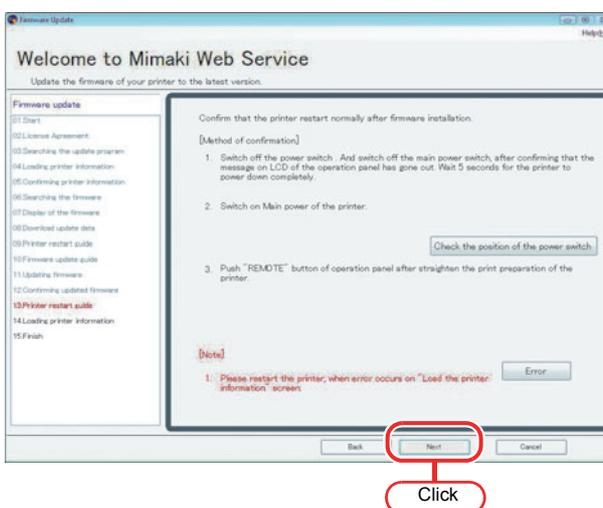
- If error occurred on the printer, the LCD of the printer displays the error message. Click and see the solution for the error. (👉 P.28)



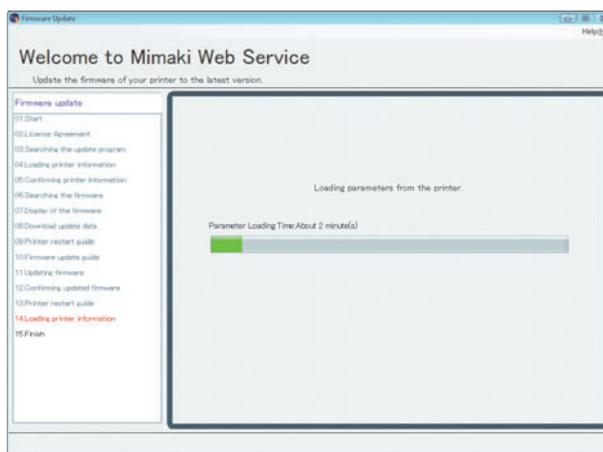
23 Restart the printer as follows, and confirm it starts properly.

- Important!**
- For some printers, the restarting procedures are different from the followings. In this case, follow the displayed application screens.

- (1) Turn off the printer, and wait five seconds until the power is completely turned off.
- (2) Turn on the printer.
- (3) When [LOCAL] is displayed on the operation panel of the printer, press [REMOTE] key on the operation panel of the printer.
- (4) Click .



24 The printer information of post-updating of the firmware is obtained.

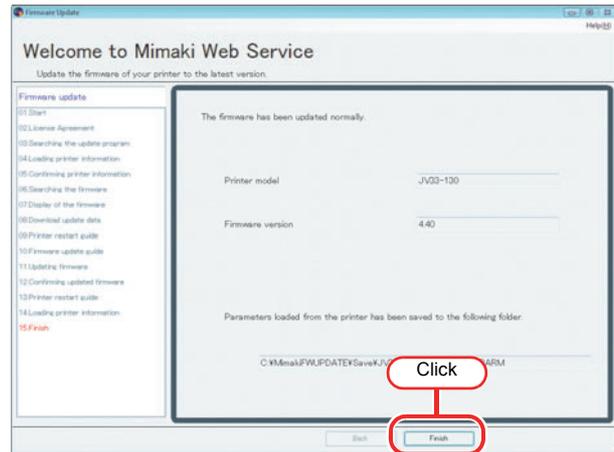


25 The obtained printer information appears.

- Confirm it was updated properly.
- Click to finish the firmware update.



- The place for saving parameter is displayed in the lower part of the screen. If firmware update fails and the printer has troubles, the printer may recover using the parameters. Confirm the destination to save.



Printer Firmware Downgrading

You can downgrade the firmware updated in the firmware update to the version before update.



- If you downgrade the firmware, the version returns to the last version. You cannot downgrade it by selecting the firmware version.
- If you updated the firmware several times, only downgrading to the last version is performed.

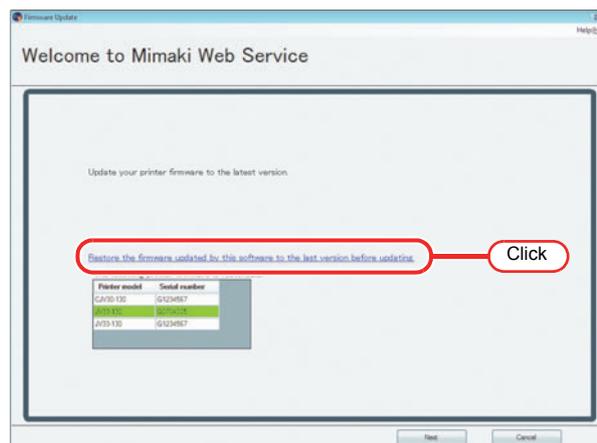
1 Operate procedures in the Step 1 to 3 of “Printer Firmware Update” (☞ P.8)

2 Click “Restore the firmware updated by this software to the last version before updating.”.

- The list of printers whose firmware was updated is displayed.



- This menu is displayed when the firmware was updated once or more.



Important!

After updating the firmware, if the person in charge of the printer maintenance service performs the following works, the firmware cannot be returned to the version before update. (If you updated the firmware of one printer, the menu is not displayed. If you updated the firmware of several printers, the printers on which the work was performed are not displayed in the list.)

- When used ink type is changed (Ex.: from SS21 ink to ES3 ink)
- When changing ink set (Ex.: When white ink is newly added)
- When print head is replaced
- When the firmware was updated again with the method other than this software (In some cases, the firmware may be updated in the service work.)

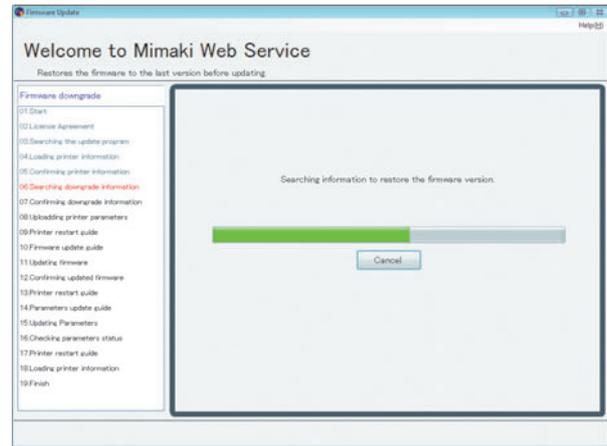
This is because information inside printer does not match the one before firmware update due to the work by the person in charge of the printer maintenance service.

In addition to these conditions, you cannot return the firmware to the version before update depending on the works.

3 Operate the procedures in the Step 4 to 11 of “Printer Firmware Update”. (☞ P.9 ~ P.11)

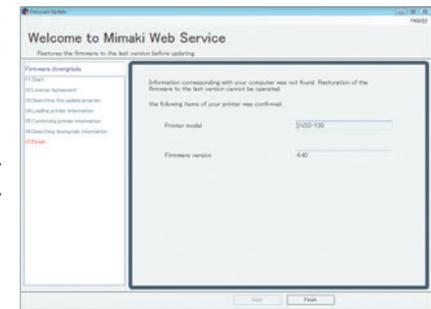
4 To return the firmware to the version before update, search the required information from the PC.

- Search the information obtained at firmware update from the PC and check if you can return the firmware to the version before update.

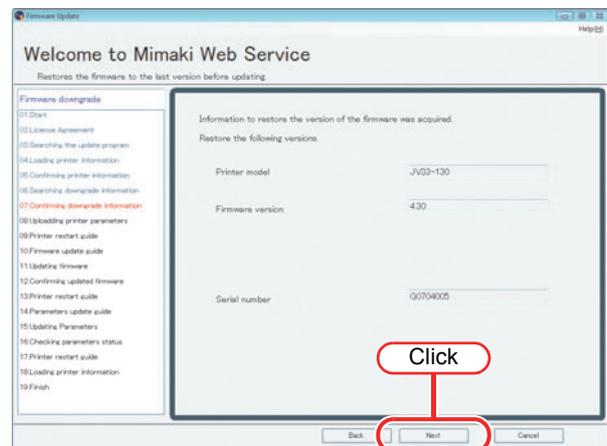


Important!

- If you cannot obtain the required information even if you searched information, the message informing you of that. At this moment, check whether the printer you are connecting is displayed in the printer list displayed in the Step 2.
- If you cannot obtain the information even if your printer is displayed in the list, contact a distributor in your district or our office to call for service.

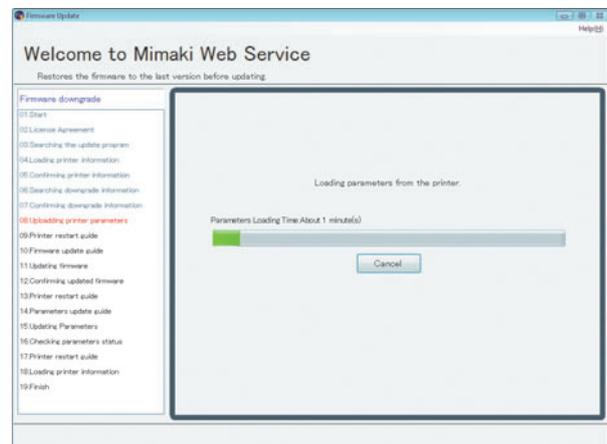


5 Display the firmware information before update.



6 When you click , version downgrading to the displayed firmware starts.

- Obtains the parameter from the printer.



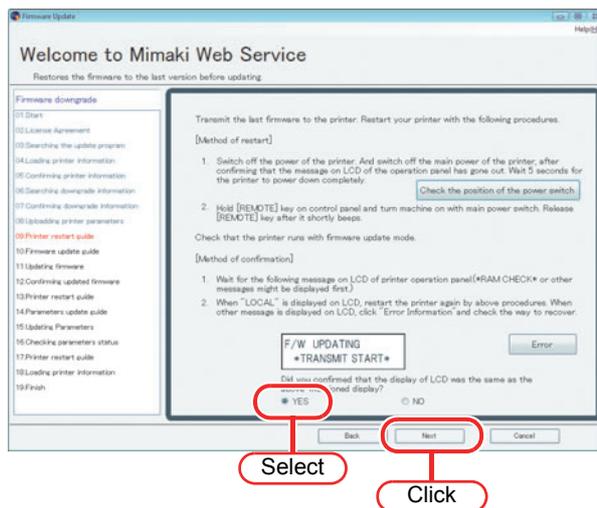
7 Restart the printer by following the procedures below and prepare to send the firmware before update to the printer.

Important!

- For some printers, the restarting procedures are different from the followings. In this case, follow the displayed application screens.

Procedures to restart printer

- (1) Turn off the printer, and wait five seconds until the power is completely turned off.
- (2) Turn on the power supply of the printer while pressing the [REMOTE] key on the printer operation panel. Keep pressing the [REMOTE] key until the buzzer bleeps.
- (3) Confirm the LCD screen of the printer, and wait until the same screen as the display.
- (4) Check the LCD screen, and select "Yes" if the display is the same as the screen.
- (5) Click when it becomes enabled.



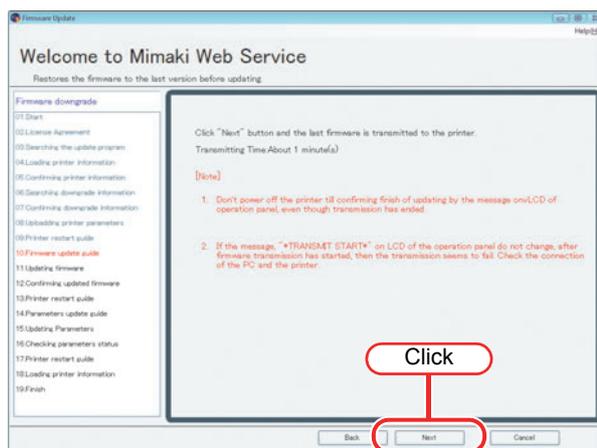
- If error occurred on the printer, the LCD of the printer displays the error message. Click and see the solution for the error. (👉 P.28)

8 Sending the firmware to the printer is ready.

- Read the cautions on the screen carefully.
- Click to start sending the firmware.

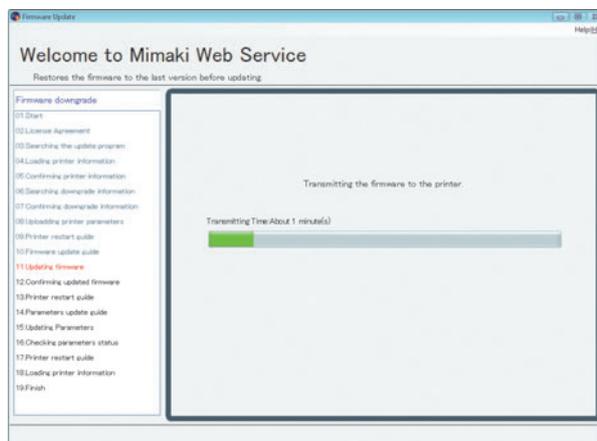
Important!

- Do not pull out the cable or turn off the printer during sending or updating firmware. If so, serious problem leading to the damage of the printer will occur.



9 Firmware is sent to the printer.

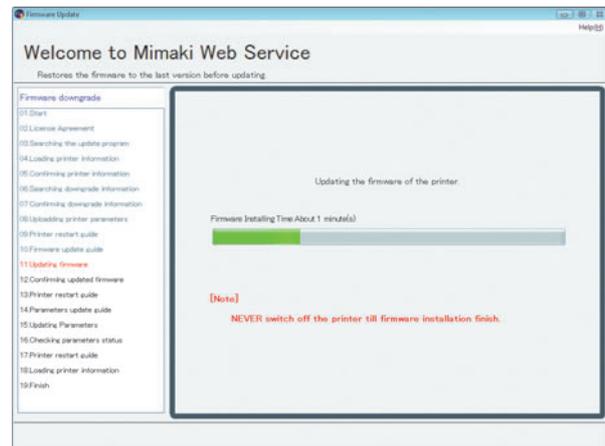
- Wait until the operation finishes.



10 The firmware is updated.

- Wait until the process is completed.

Important! • Do not turn off the printer before finishing the operation. If so, serious problem leading to the damage of the printer will occur.

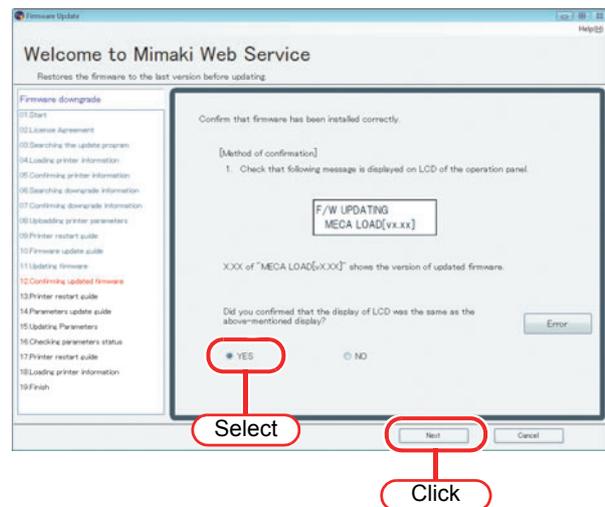


11 Check that the firmware update is completed in the printer.

- (1) Check the LCD screen of the printer to check that the display is the same as the screen.
- (2) Check the LCD screen, and select "Yes" if the display is the same as the screen.
- (3) Click .



• If error occurred on the printer, the LCD of the printer displays the error message. Click and see the solution for the error. (☞ P.28)

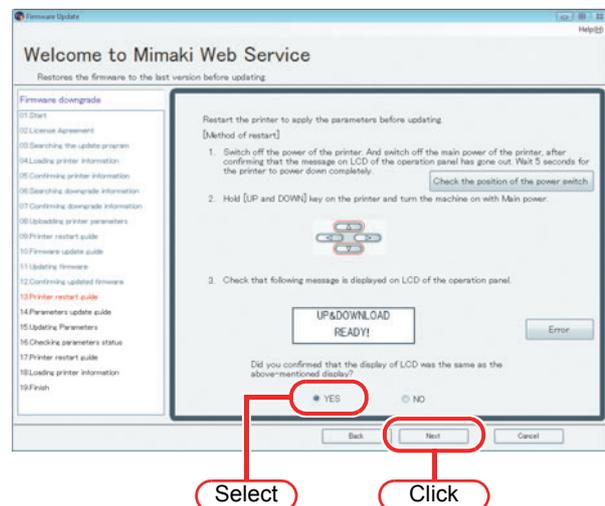


12 To send the parameter before update, restart the printer by following the procedures below.

Important! • For some printers, the restarting procedures are different from the followings. In this case, follow the display.

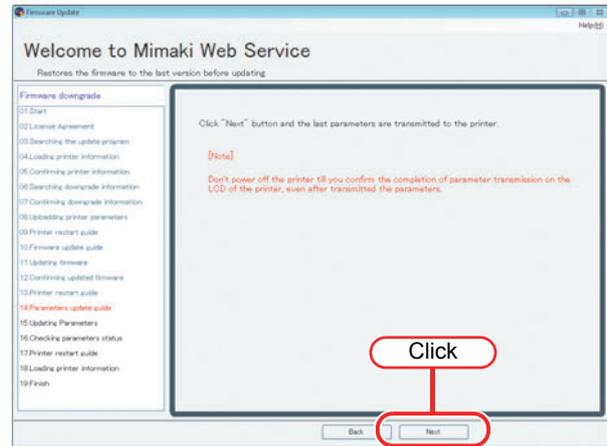
Procedures to restart printer

- (1) Turn off the printer, and wait five seconds until the power is completely turned off.
- (2) Turn on the power supply while pressing the [▲][▼] keys on the printer operation panel. Keep pressing the [▲][▼] keys until the buzzer bleeps.
- (3) Confirm the LCD screen of the printer, confirm the same screen as the display.
- (4) Check the LCD screen, and select "Yes" if the display is the same as the screen.
- (5) Click .



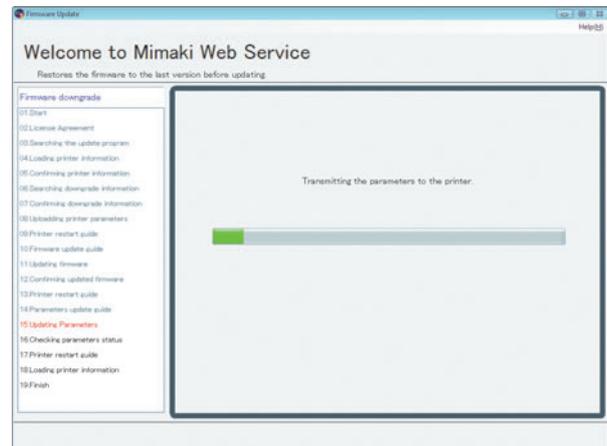
13 The preparation to send the parameter before update to the printer is completed.

- Read the cautions on the screen carefully.
- Click to start sending the firmware.



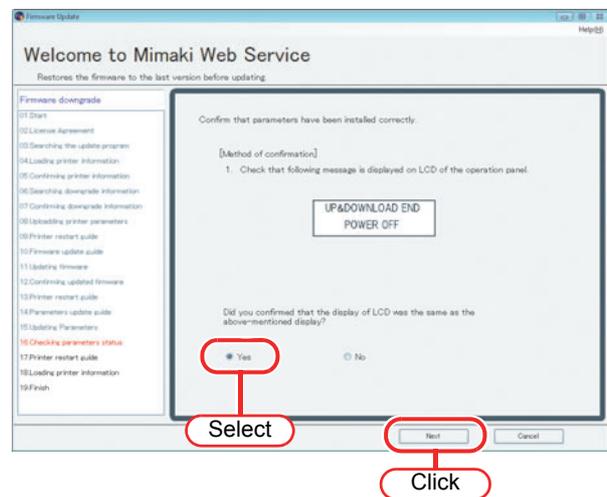
14 Parameter is sent to the printer.

- Wait until the operation finishes.



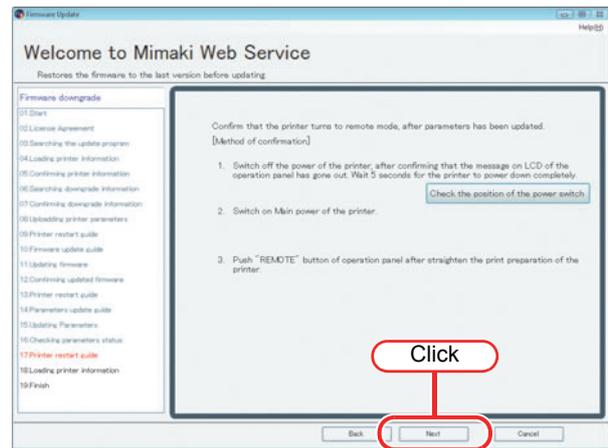
15 Check that the parameter is normally updated in the printer.

- (1) Confirm the LCD screen of the printer, confirm the same screen as the display.
- (2) Check the LCD screen, and select "Yes" if the display is the same as the screen.
- (3) Click .



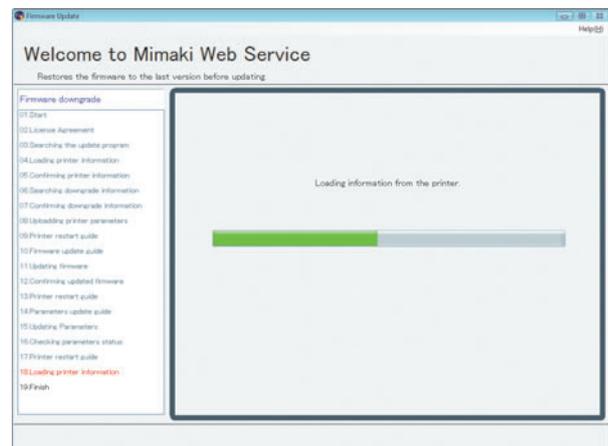
16 Check that the printer is normally updated.

- (1) Restart the printer and when the [Local] is displayed on the printer operation panel, press the [REMOTE] key on it.
- (2) When the [REMOTE] is displayed, click .



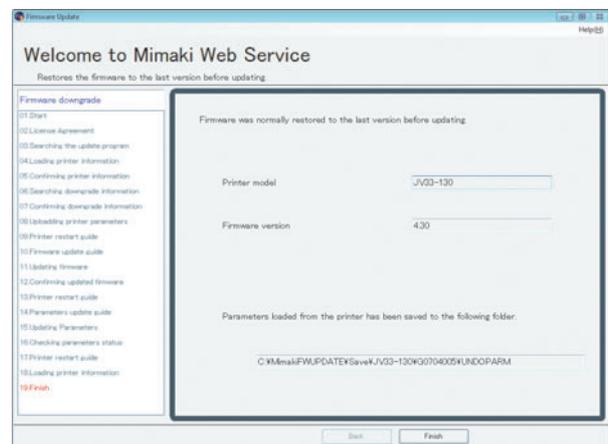
17 Obtain the printer information.

- Obtain the printer information after completing the work and check that the firmware is the one before update.



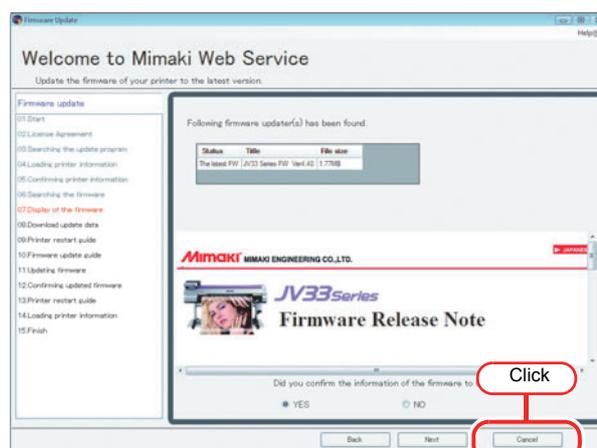
18 Display the obtained printer information.

- Click to finish the firmware update.



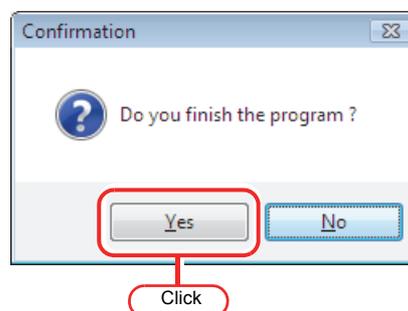
How to cancel the Firmware Update

- 1** Click on the bottom right of the screen.



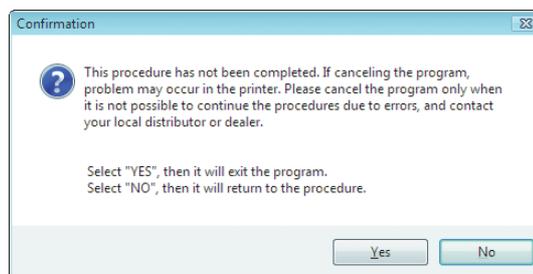
- 2** Click on the confirmation screen of ending.

- Firmware Update ends.



Important!

- After you press in the Step 1, if it is possible that an error occurs in the printer when the operation is terminated without doing anything, the dialog below will be displayed instead of the check completed dialog.

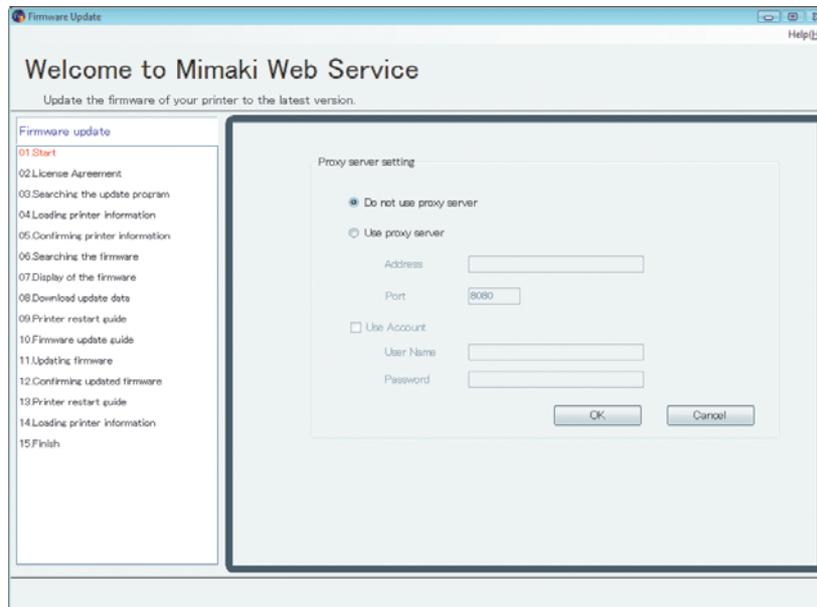


- If this is displayed, we recommend you to press to continue firmware update.
- If you cannot update normally with an error message displayed etc. during update work, press to terminate the work.
- If a trouble occurs in the printer after quitting, contact a distributor in your district or our office to call for service.

Internet Connection Option Setting

Proxy Server Setting

Set this when connecting to Internet via proxy server.



The screenshot shows a web browser window titled "Firmware Update" with the URL "Welcome to Mimaki Web Service". The page instructs the user to "Update the firmware of your printer to the latest version." A progress list on the left side of the page includes steps from 01 Start to 15 Finish. A "Proxy server setting" dialog box is open in the center, containing the following options and fields:

- Do not use proxy server
- Use proxy server
 - Address:
 - Port:
 - Use Account
 - User Name:
 - Password:

At the bottom of the dialog are "OK" and "Cancel" buttons.

Printer Parameter Destination to save

If firmware update fails for any reason and the printer has troubles, the printer parameter is required to recover the printer. The printer parameter is automatically saved in the PC.

The printer parameter is saved in the place under the installation folder.

- Parameter obtained at firmware update
"Save - Printer model name - Serial No. - UPPARM"
- Parameter obtained at firmware downgrading
"Save - Printer model name - Serial No. - UNDOPARAM"



- Printer parameter is saved with serial No., printer model name, or firmware version as a name.

Printer Model Name

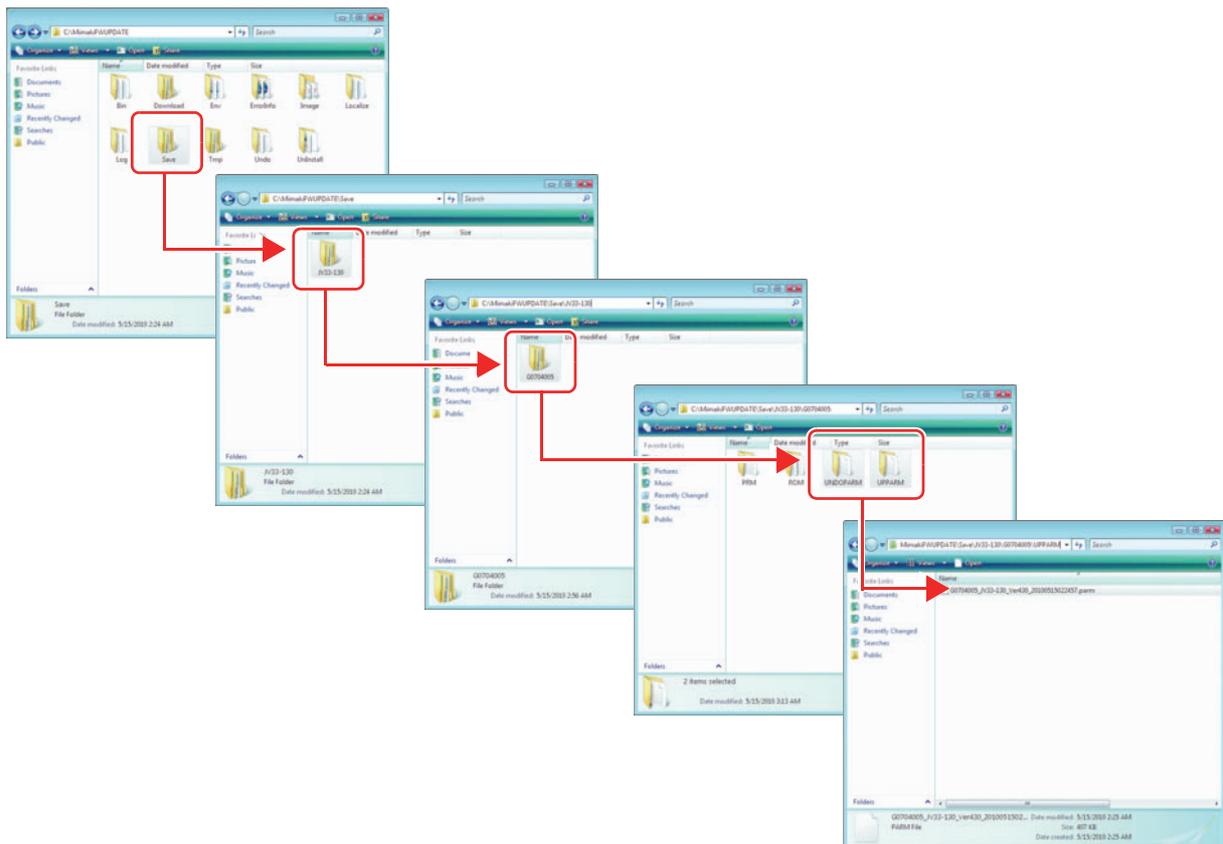
Date

Example: 12345678_CJV30_Ver210_20100101000000.parm

Serial No.

Firmware Version

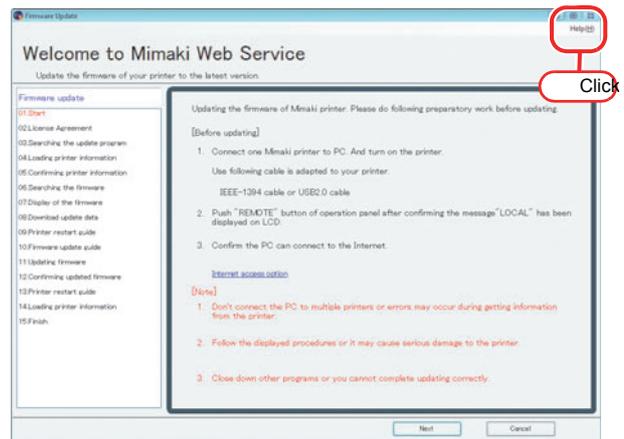
Printer Parameter Destination to save



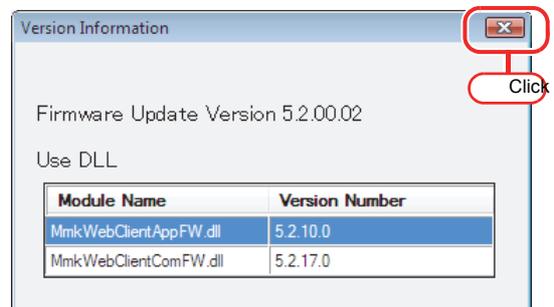
How to confirm the Version Information

1 Click “Help” on the upper of the screen, and click “Version information”.

- The version information of Firmware Update appears.



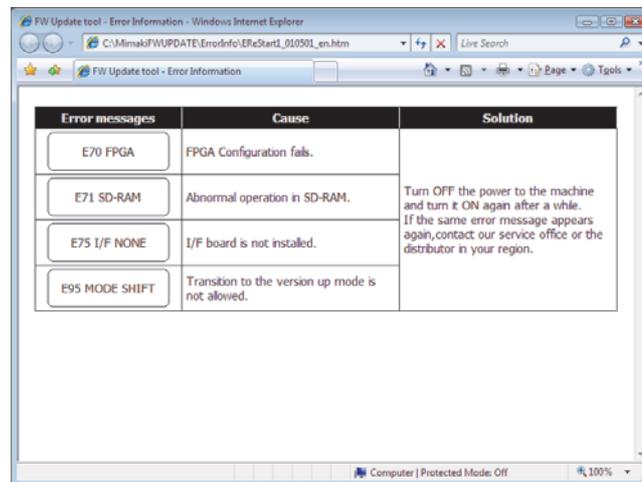
2 Click  to close the version information screen.



Error Information

If the LCD screen display of the printer is different from the application, click button of the application.

The cause and solution of the message on the printer LCD is displayed. Confirm the solution and solve the problem.



The screenshot shows a Windows Internet Explorer browser window titled "FW Update tool - Error Information". The address bar displays the URL "C:\Mimaki\FWUPDATE>ErrorInfo\lReStart_010501_en.htm". The main content area contains a table with three columns: "Error messages", "Cause", and "Solution".

Error messages	Cause	Solution
E70 FPGA	FPGA Configuration fails.	
E71 SD-RAM	Abnormal operation in SD-RAM.	Turn OFF the power to the machine and turn it ON again after a while. If the same error message appears again, contact our service office or the distributor in your region.
E75 I/F NONE	I/F board is not installed.	
E95 MODE SHIFT	Transition to the version up mode is not allowed.	

Other Information

This chapter explains how to solve error messages of Firmware Update.

Error Message (🔗 P.30)

Explains error messages of Firmware Update and how to solve them.

Error Message

This chapter explains the contents of the error messages displayed in the pop up menu at firmware update and its countermeasures.



- For the countermeasure against the errors displayed on the printer side LCD at printer restarting etc., refer to P.28 "Error Information" .

Error Message	When occurred	Solution
An error has been detected during searching firmware information.	When searching the firmware	Check the connection of the network and retry. If recurred, contact our service or distributor in your district.
The version of firmware which transmitted to the printer does not correspond with the version of firmware installed on the printer.	When obtaining printer information	Retry the operation that the error message appears. If recurred, contact our service or distributor in your district.
The file cannot be accessed.	When obtaining update data When obtaining printer information When updating firmware When updating parameter	
A transmitting error has been detected. Check the connection of the PC and the printer.	When updating firmware When updating parameter	
A data receiving error has been detected.	When obtaining update data When obtaining printer information	
A system error has been detected.	When obtaining update data When obtaining printer information	
PRM file is incorrect.	When obtaining update data When obtaining printer information When updating parameter	
A checksum error has been detected.	When obtaining update data When obtaining printer information	
The firmware cannot be downloaded from Web server, by an error.	When obtaining update data	
Received data is incorrect.	When obtaining update data When obtaining printer information	
An error has been detected during loading parameters from the printer. Please restart the printer, then push [REMOTE] key of operation panel after straighten the print preparation of the printer. Select "YES", then it will try to load parameters again. Select "NO", then it will get back to the previous step, and Download update data again.	When obtaining update data	

Error Message	When occurred	Solution
A port open error has been detected. Check the connection of the PC and the printer.	When obtaining update data When obtaining printer information When updating firmware	Check the connection of the printer and check the printer status is the same as the guide. Then retry the step that the error message appears.
The firmware cannot be transmitted to the printer, by an error.	When updating firmware	
An error has been detected during parameter sending. Restart the printer and prepare the parameter update.	When updating parameter	If recurred, contact our service or distributor in your district.
The request failed with HTTP status 407:Proxy Authentication Required.	When confirming update program	It fails to authentication when connecting proxy server. Check the account setting.
An invalid IP address was specified.	When confirming update program	The proxy server setting may have an error. Check the proxy server setting.
Cannot connect to the network. Please check the network setting.	When confirming update program When confirming update firmware	Check it is connected to the network, and retry the step that the error message appears. If recurred, contact our service or distributor in your district.

