




Camera Control API

Operation Guide

Introduction

This manual explains how to activate the Camera Control API (hereafter CCAPI) using the CCAPI Activation Tool, as well as how to connect the camera with a smartphone, tablet or a computer via Wi-Fi once CCAPI has been activated.

Conventions Used in this Manual

- In this manual, the term “access point” indicates wireless LAN access points, wireless LAN routers, etc. that relay a LAN connection.
- These instructions should be followed only after setting up your LAN environments. For information about setting up the environments, refer to the documentation provided with each device or contact the manufacturer.
- The PowerShot SX70 HS is used for operation instructions, illustrations, and sample screens in this manual. Note that the functions, operations, screens displayed on your camera, etc. may differ, depending on the camera model used.
- Read the Camera Instruction Manual and familiarize yourself with operating the camera before following the instructions on camera options.
- : Indicates the precaution notes about the possibility of errors in software or computer operations.

System requirements for the CCAPI Activation Tool.

Windows

OS	Windows 10, Windows 8.1, Windows 7SP1 (32bit/64bit)
CPU	1GHz processor/SoC or higher
RAM	1GB or more (32bit)/2GB or more (64bit)
Interface	USB
Free hard disk space	300MB or more
Display	1024×768 pixels True Color (32bit) or more

Mac

OS	Mac OS X 10.12/10.13/10.14 (64bit)
CPU	2.2GHz quad core Intel Core i7 processor or higher
RAM	1GB or more
Interface	USB
Free hard disk space	300MB or more
Display	1024×768 pixels or more

Enabling CCAPI (Camera Connect API)

Connect the camera to a computer with the interface cable then activate the CCAPI (Camera Control API) function.

Preparation

- Before following these steps, make sure you have saved the required files (Activation Tools) on your computer.
- Start up your computer and connect to the internet. The CCAPI function will not activate if you are not connected to the internet.

1 Connect the camera to a computer with the interface cable (sold separately).

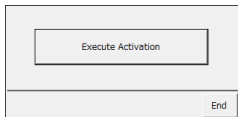
- Turn the camera off.

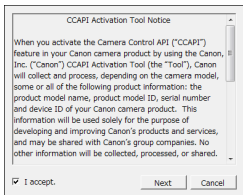
2 Turn the camera on.

3 Launch the Activation Tool.

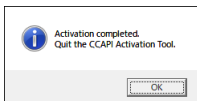
- Double click CCAPI Activation Tool.exe for Windows.
- Double click CCAPI Activation Tool.app for Macintosh.

4 Click [Execute Activation].



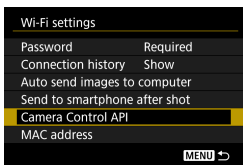


- 5 Please check [I accept.] checkbox to confirm that you have read and agreed to the message displayed then click [Next].**



- 6 Quit the Activation Tool.**

- Click [OK] on the dialog box.
- Turn the camera off and disconnect the interface cable.



- 7 Confirm activation.**

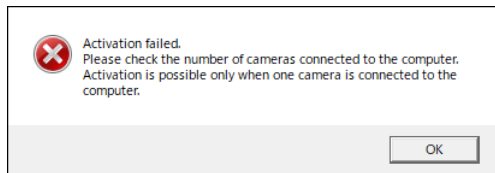
- [Camera Control API] will be displayed on the [Wi-Fi settings] screen when the CCAPI function is activated.



- If the Camera Control API does not activate when all the steps are completed, please contact Canon's staff in your region.

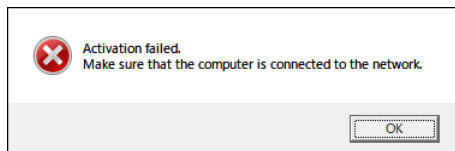
Troubleshooting

An error message will appear if a problem occurs while activating CCAPI. Please follow the on-screen instructions.



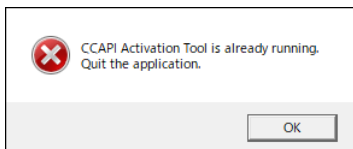
Multiple cameras are connected or there is no camera connected to the computer.

Connect only one camera to activate CCAPI and try activation again.

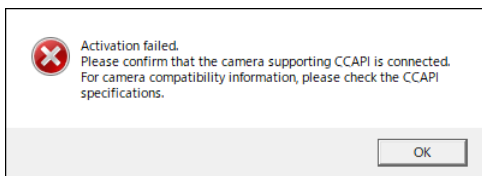


The computer is not connected to the network.

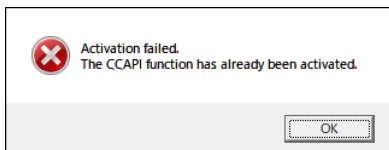
Please confirm your network connection and try again.



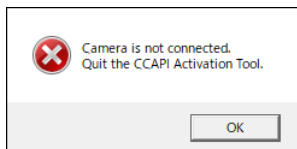
The Activation Tool is already running.
Quit the Activation Tool and try to activate again.



Please confirm that the newly connected camera supports CCAPI.
Please check the CCAPI specification sheet for compatibility information.

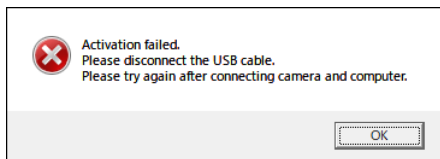


The CCAPI function has already been activated.
CCAPI activation is unnecessary.



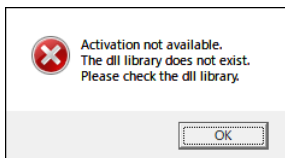
The computer and the camera are not connected properly with the interface cable.

Please confirm the computer and camera are connected and try activation again.



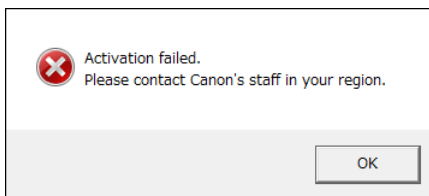
Camera is not connected.

Reconnect the interface cable and try activation again.



Required DLL file was not found.

Please confirm DLL files are properly saved and try activation again.



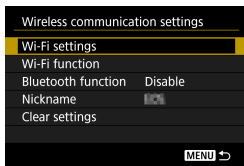
Please contact Canon's staff in your region.

Establishing a Wi-Fi Connection

Connect the camera and a smartphone (tablet)/a computer via Wi-Fi to enable operations using the CCAPI (Camera Control API).

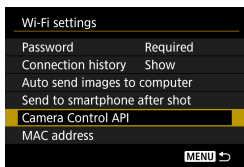
There are two connection methods available via Wi-Fi: connection in Camera access point mode (direct connection) and connection via an access point.

Connecting to Wi-Fi in Camera access point mode



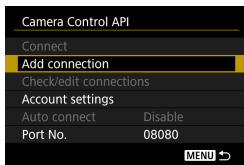
1 Select [Wi-Fi settings].

- The menu screen displaying [Wi-Fi settings] varies depending on the camera. For details, refer to your camera's Advanced User Guide.

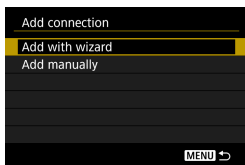


2 Select [Camera Control API].

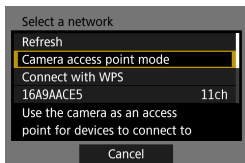
- If the message "Register a nickname to identify the camera." appears, register a nickname for the camera. Regarding the procedure to register a nickname for the camera, refer to your camera's Advanced User Guide.



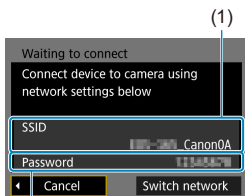
3 Select [Add connection].



4 Select [Add with wizard].



5 Select [Camera access point mode].

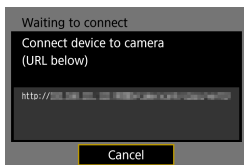


6 Check the SSID (network name) and password.

- Check the SSID (1) and password (2) displayed on the camera screen.

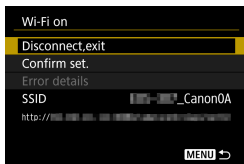
7 Operate the smartphone or computer.

- When connecting to a smartphone, activate the smartphone's Wi-Fi function, then select the SSID checked in step 6. For the password, enter the password checked in step 6.
- When connecting to a computer, on the computer's network setting screen, select the SSID checked in step 6. For the password, enter the password checked in step 6.



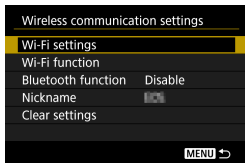
8 Establish a Wi-Fi connection.

- When the screen on the left is displayed on the camera, access the URL shown on the application you created on the smartphone or computer.
- When the screen on the left is displayed on the camera, the Wi-Fi connection is now complete.
- To terminate the Wi-Fi connection, select **[Disconnect, exit]**.
- When the Wi-Fi connection is terminated, a connection destination is registered.



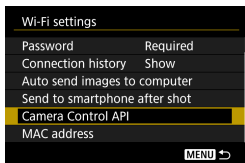
Establishing a Wi-Fi connection via an access point

Before following these steps, make sure the smartphone or computer are connected to an access point via Wi-Fi or a wired connection.



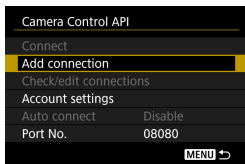
1 Select [Wi-Fi settings].

- The menu screen displaying **[Wi-Fi settings]** may vary depending on the camera. For details, refer to your camera's Advanced User Guide.

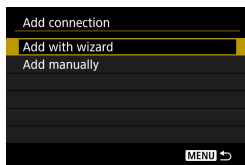


2 Select [Camera Control API].

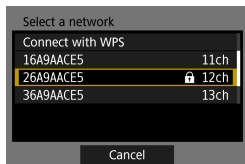
- If the message “Register a nickname to identify the camera.” appears, register a nickname for the camera. Regarding the procedure to register a nickname for the camera, refer to your camera's Advanced User Guide.



3 Select [Add connection].

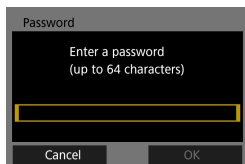


4 Select [Add with wizard].

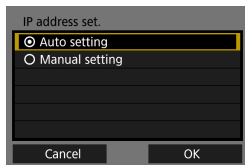


5 Select the SSID.

- Select the SSID of the access point you want to connect to.

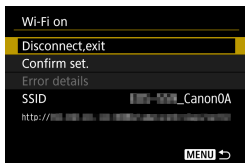
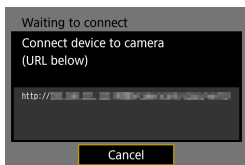


- Enter the password for the access point and select [OK].



6 Set up the IP address.

- To set the IP address automatically, select [Auto setting] and select [OK].
- For details on manual setting, refer to your camera's Advanced User Guide.

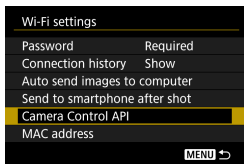


7 Establish a Wi-Fi connection

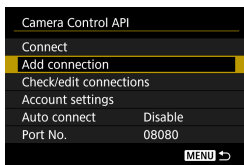
- When the screen on the left is displayed on the camera, access the URL shown on the application you created on the smartphone or computer.
- When the screen on the left is displayed on the camera, the Wi-Fi connection is now complete.
- To terminate the Wi-Fi connection, select **[Disconnect, exit]**.
- When the Wi-Fi connection is terminated, a connection destination is registered.

Adding a connection

Follow these steps to connect the camera and a new device via Wi-Fi.



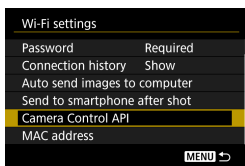
- 1 Select **[Camera Control API]** in **[Wi-Fi settings]**.



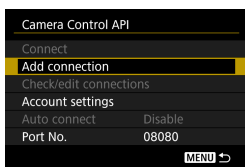
- 2 Select **[Add connection]**.
 - For further instructions, refer to “Connecting to Wi-Fi in Camera access point mode” or “Establishing a Wi-Fi connection via an access point”.

Adding a connection manually

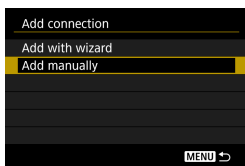
Follow these steps to add a new connection manually.



- 1 Select **[Camera Control API]** in **[Wi-Fi settings]**.

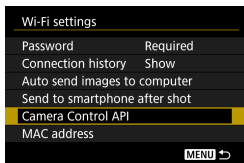


- 2 Select **[Add connection]**.

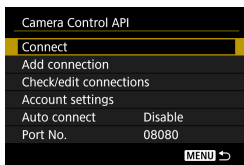


- 3 Select **[Add manually]**.
 - Follow the on-screen instructions to add a connection.
 - For details on reconnecting to a registered Wi-Fi connection, refer to “Reconnecting via Wi-Fi”.

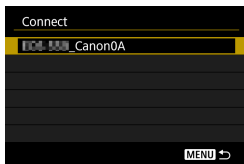
Reconnecting via Wi-Fi



- 1** Select [Camera Control API] in [Wi-Fi settings].



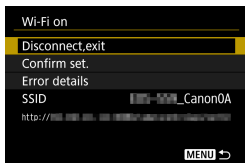
- 2** Select [Connect].



- 3** Select a connection.
- When a connection is established, [Wi-Fi on] is displayed on the camera screen.

[Wi-Fi on] screen

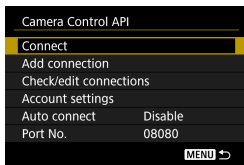
The following operations can be performed on the **[Wi-Fi on]** screen.



- **[Disconnect, exit]**
Terminates the Wi-Fi connection.
- **[Confirm set.]**
Displays the network information of the established connection.
- **[Error details]**
Displays the error details.
- **[SSID]**
Displays the SSID of the current network and the top URL of the CCAPI.

Setting the CCAPI

The following settings can be performed on the **[Camera Control API]** screen.



[Connect]

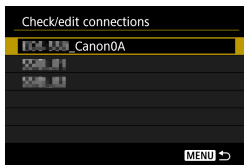
Connect to a registered connection.

[Add connection]

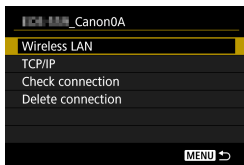
Register a connection.

[Check/edit connections]

Check or edit the connection information.



- Select a connection.



- Select items you want to check or change.

[Wireless LAN]

Change the SSID of the connection.

[TCP/IP]

Change the TCP/IP settings of the connection.

[Check connection]

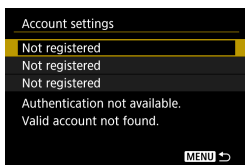
Check the connection settings.

[Delete connection]

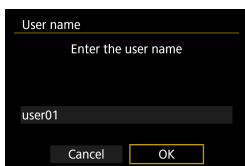
Delete a registered connection.

[Account settings]

You can register up to 3 accounts to be used with the CCAPL.

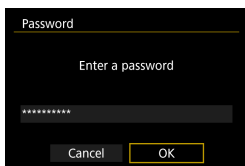


1 Select [Not registered].



2 Set the user name.

- Enter the name and select [OK].



3 Set the password.

- Set the password and select [OK].

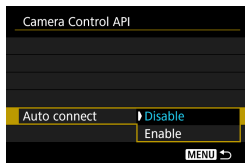
To enable/disable an account, as well as for the edit/delete options, select the user name you want to configure in **[Account settings]**.

[Auto connect]

Enables automatic connection to Wi-Fi.

Select **[Enable]** and turn off the camera.

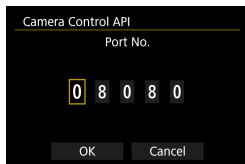
The next time you turn on the camera, it will connect to Wi-Fi automatically.



[Port No.]

Change the port number used for transmission when connecting via the CCAPI.

The default value is set to 08080.



About This Instruction Manual

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Canon may change without notice the software specifications and contents of this Instruction Manual.

The software screens and displays printed in this Instruction Manual may differ slightly from the actual software.

Please note that irrespective of the above-mentioned, Canon does not take responsibility for the outcome of the operation of the software.

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