

# Wireless Network Connection

Setup Guide

Rev. 2.00

PXW-FX9

Software Version 3.0

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## Revision History

This Setup Guide describes the preparation for the use cases listed on the following pages, and the daily checks required when using the Sony PXW-FX9 camcorder.

Common items for use cases are listed in chapters 3 and 5, and individual items for each use case are listed separately in chapters 4 and 6 to 11.

### **Terminology**

"Network RX Station" refers to "PWS-100RX1/PWS-110RX1/PWS-110RX1A" devices.

"CCM" refers to the "Connection Control Manager" of "C3 Portal" or "Network RX Station".

### **Trademarks**

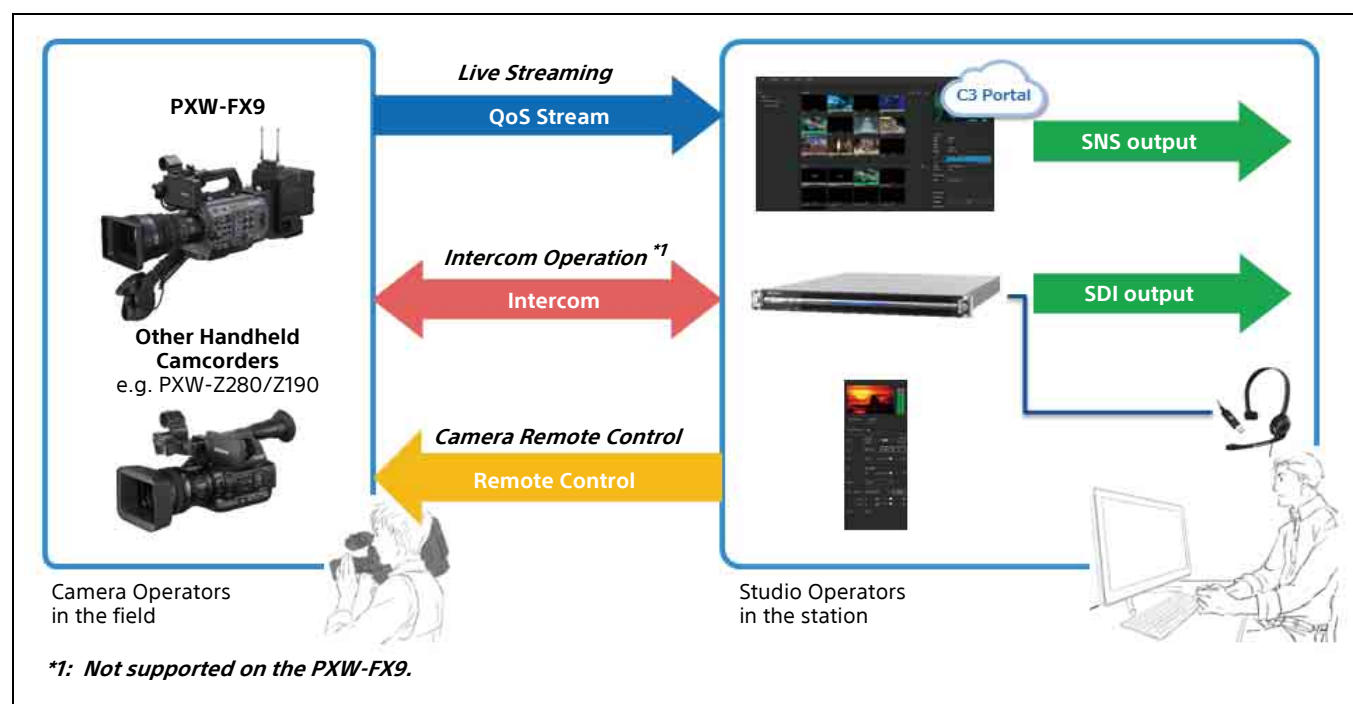
Wi-Fi® is a registered trademark of the Wi-Fi Alliance®.

C3 Portal is a trademark of Sony Corporation.

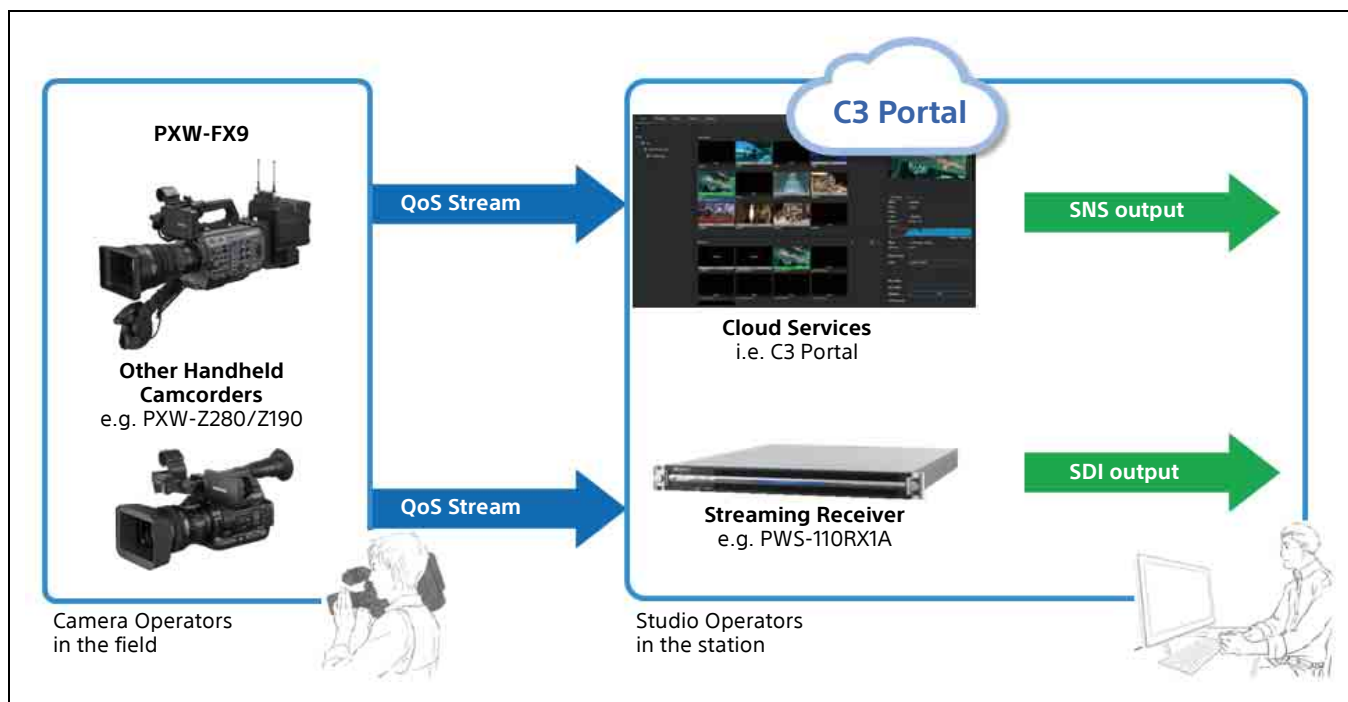
This section shows the typical use cases. Each use case may vary by the number of users. Choose the use case that is most similar to your operation for reference.

## 2.1. Live Workflow in C3 Portal Example Use Cases

The following diagram shows three typical use cases.



## 2.1.1. Live Streaming



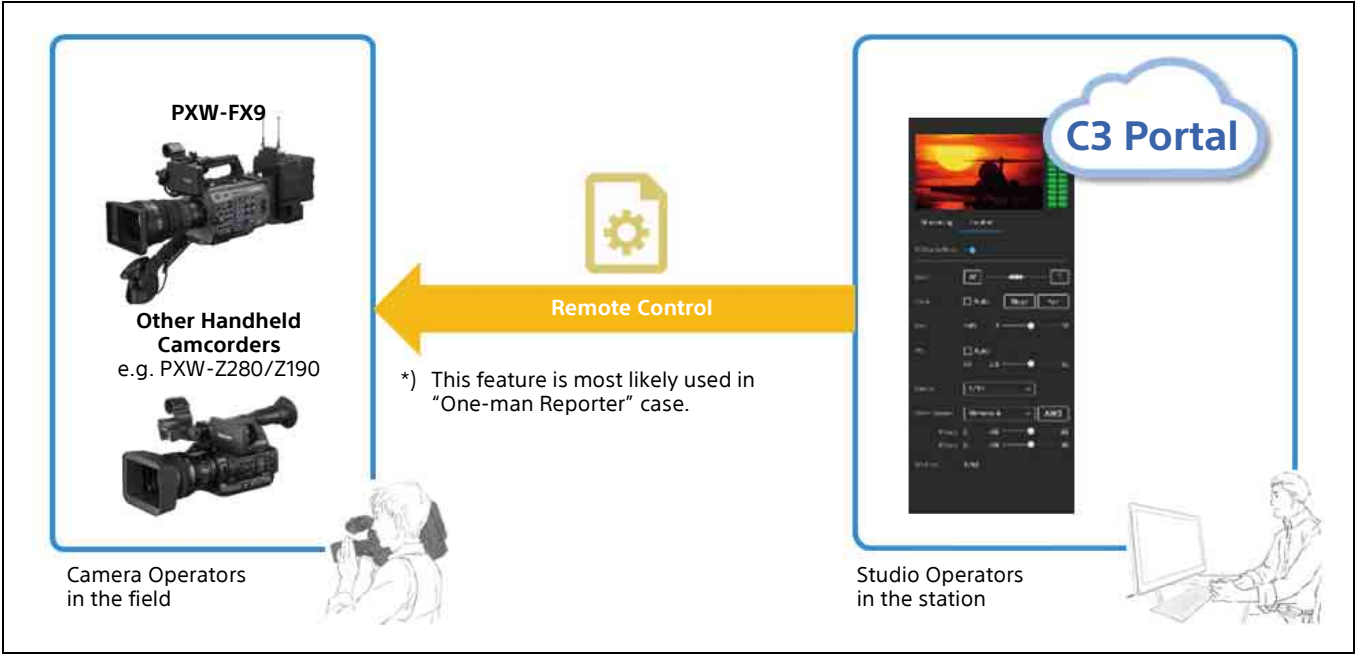
Live streaming with QoS control is supported with C3 Portal or Network RX Station.

| Setup checkpoints |                                                   |
|-------------------|---------------------------------------------------|
| TX side           | Camcorder Settings                                |
|                   | Related Equipment (Wireless LAN/LTE/Wired LAN)    |
|                   | Single or Dual Link                               |
| RX side           | CCM (C3 Portal / Network RX Station)              |
|                   | Network RX Station QoS Streaming receiving server |
|                   | Single or Multi point Distribution                |

## 2.1.2. Intercom Operation

Not supported.

### 2.1.3. Camera Remote Control



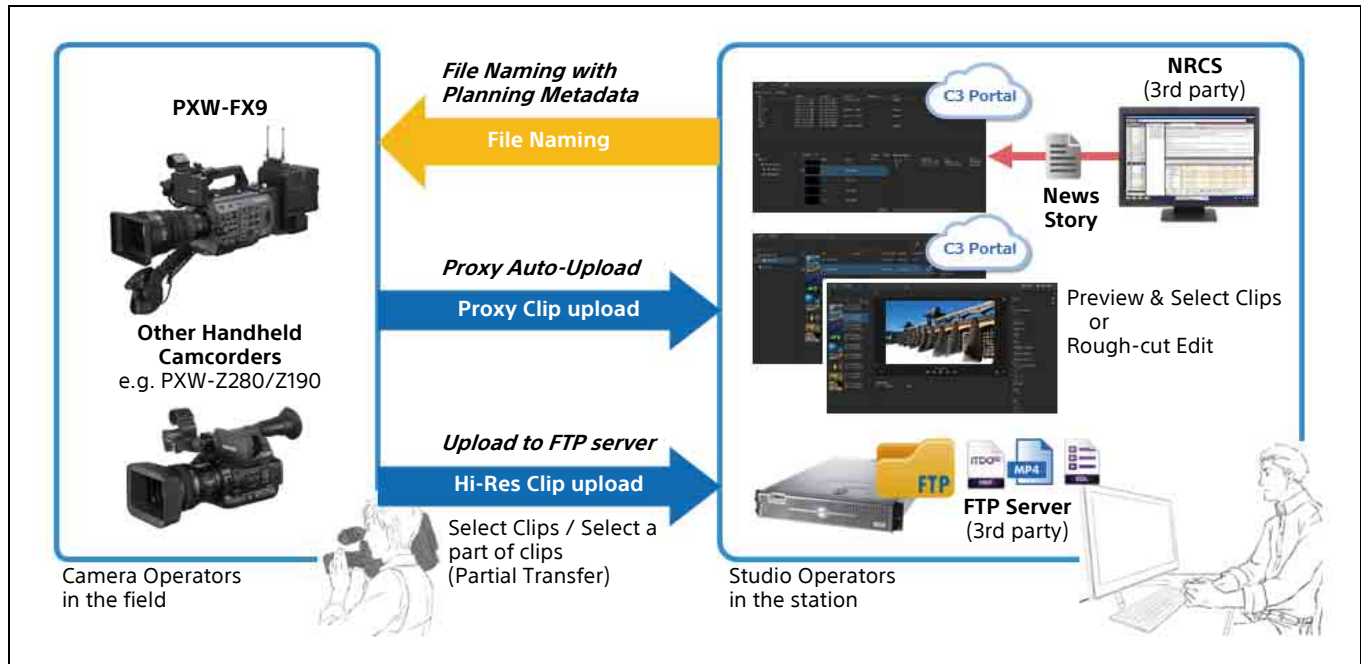
#### Supported camera remote control functions

- Zoom/Iris/etc. control
- "ALL File" management

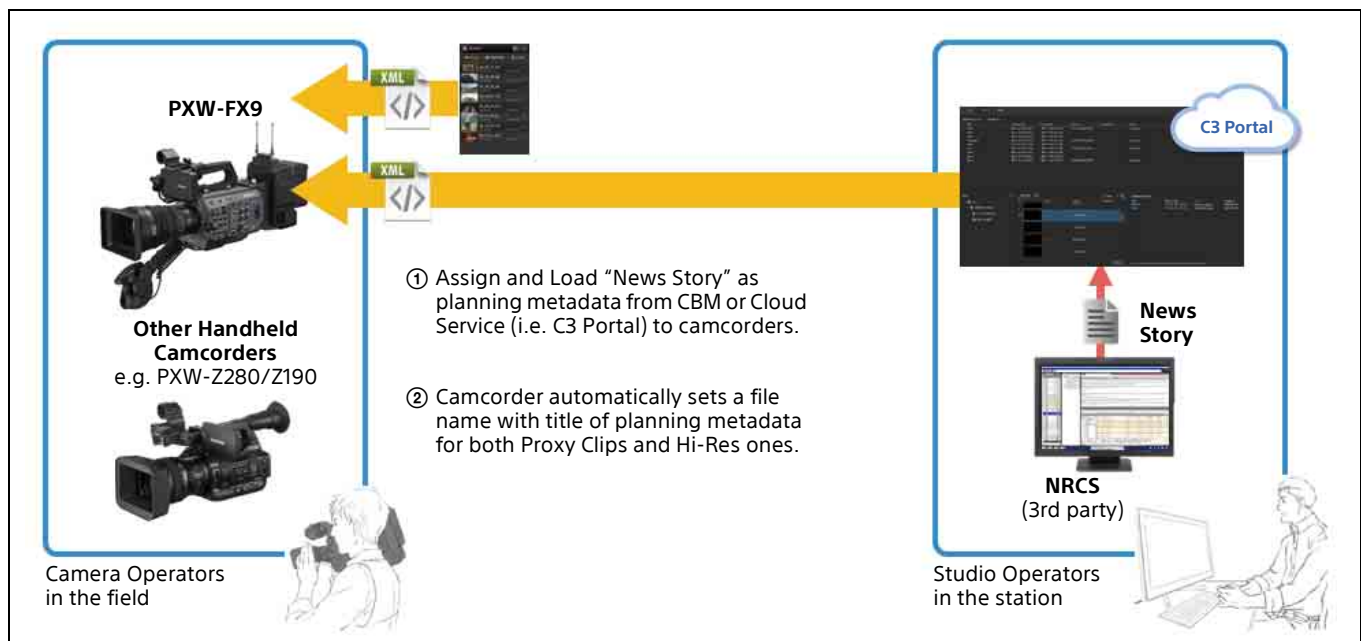
| Setup checkpoints |                                                |
|-------------------|------------------------------------------------|
| TX side           | Camcorder Settings: Lens Settings              |
|                   | Related Equipment (Wireless LAN/LTE/Wired LAN) |
| RX side           | CCM (C3 Portal / Network RX Station)           |
|                   | CCM "ALL File" Management                      |

## 2.2. File Workflow in C3 Portal Example Use Cases

The following diagram shows three typical use cases.

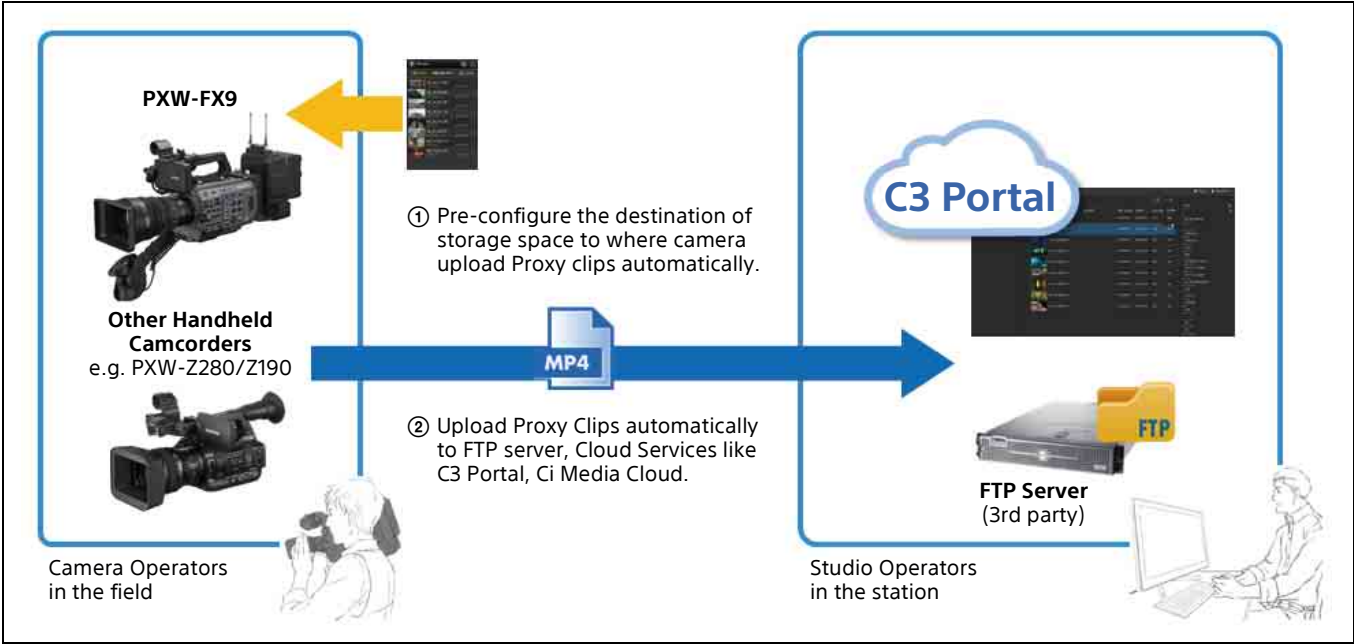


### 2.2.1. File Naming using Planning Metadata



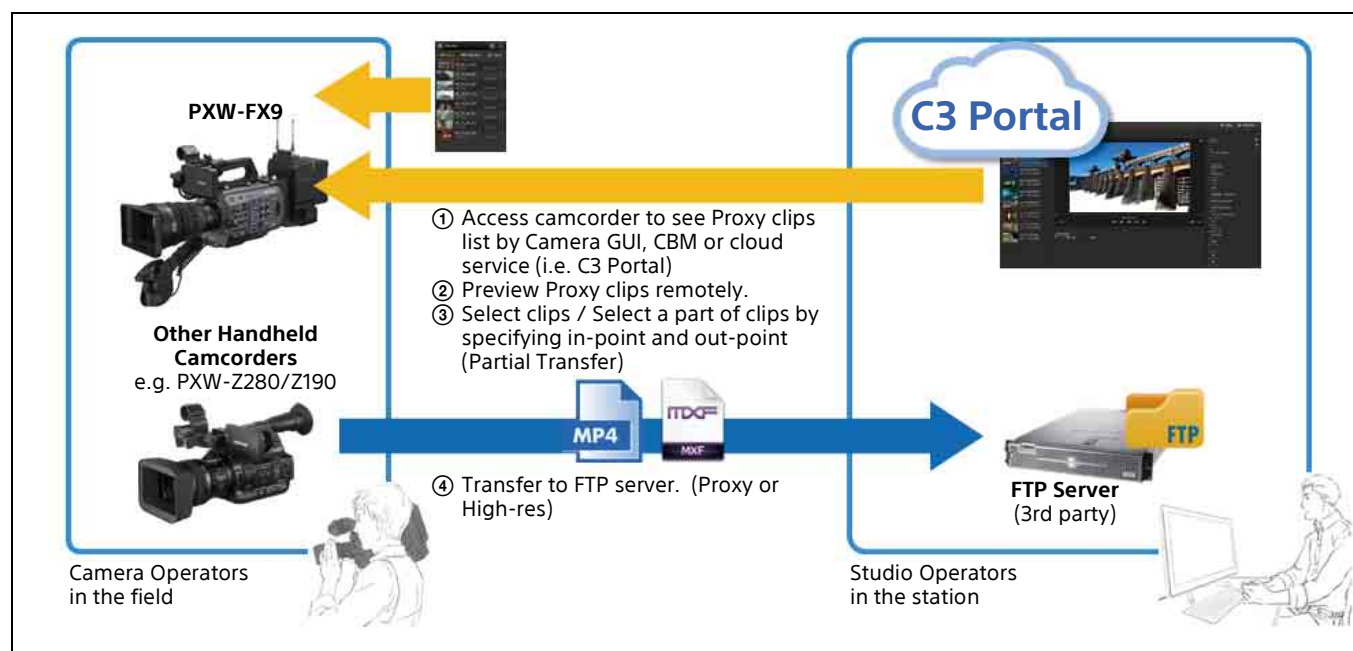
| Setup checkpoints |                                                |
|-------------------|------------------------------------------------|
| TX side           | Camcorder Settings: Clip Naming Setting        |
|                   | Related Equipment (Wireless LAN/LTE/Wired LAN) |
| RX side           | CCM: Planning Metadata Handling                |

## 2.2.2. Proxy Auto-Upload



| Setup checkpoints |                                                |
|-------------------|------------------------------------------------|
| TX side           | Camcorder Settings: Auto Upload (Proxy)        |
|                   | Related Equipment (Wireless LAN/LTE/Wired LAN) |
| RX side           | FTP Server Settings                            |

## 2.2.3. Upload to FTP Server



| Setup checkpoints |                                                |
|-------------------|------------------------------------------------|
| TX side           | Camcorder Settings: Remote File Transfer       |
|                   | Related Equipment (Wireless LAN/LTE/Wired LAN) |
| RX side           | CCM File List UI                               |
|                   | Proxy Playback and Proxy File Pull             |
|                   | CCM Cut Edit using Proxy                       |
|                   | Request to camcorder for Partial File Transfer |

Prepare the following items before setting up your camcorder in each use case.  
Appropriate network settings and Network Client Mode settings are needed for each use case.

---

## 3.1. Network Environment

The supported network environments for internet connection are as follows

- 4G/LTE USB Modem
- Wireless LAN
- Wired LAN
- Connected via smartphone

### Note

An XDCA-FX9 Extension Unit is required in order to use 4G/LTE USB Modem and Wired LAN functions.  
For details, see *"5.1. Equipment for Wireless Solution"*.

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### 3.1.1. 4G/LTE USB Modem

The supported USB modem models vary depending on the country or region.  
For details, contact a Sony professional sales representative.

"Single Link" and "Dual Link" are both supported for the Live Streaming Operation use case.  
"Single Link" uses one network, while "Dual Link" uses multiple networks for streaming.  
"Dual Link" works with two 4G/LTE USB modems. In this case, use of different carriers is recommended for stable network performance.

Before attaching a 4G/LTE USB modem to the camcorder, check the operation on your computer.  
In particular, if you install a new SIM or replace the SIM, check the modem's settings on the computer.  
If you replace the SIM with a SIM from another carrier, you need to reset the APN (Access Point Name).

Connect the 4G/LTE USB modem to a XDCA-FX9 (see *"5.1. Equipment for Wireless Solution"* and *"5.2. Assembling"*).

When the XDCA-FX9 is viewed from the rear, the USB connector on the left is modem 1 and the USB connector on the right is modem 2.

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### 3.1.2. Wireless LAN

Check the wireless LAN router's settings before configuring the camcorder's network settings.  
The following information is required.

- SSID and password
- Whether the IP address is set by DHCP or manually
- Whether DNS is set automatically or manually

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### 3.1.3. Wired LAN

Check Wired LAN settings before configuring the camcorder's network settings.  
The following information is required.

- Whether the IP address is set by DHCP or manually
- Whether DNS is set automatically or manually

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### 3.1.4. Connected via Smartphone

Connect a smartphone to the XDCA-FX9 (see the *"5.1. Equipment for Wireless Solution"* and *"5.2. Assembling"* sections) using a USB cable, and connect to the Internet via the smartphone. Do not connect the smartphone to the camcorder using a USB hub. Refer to the Operating Instructions for details. Use the C3 Portal App (hereinafter referred to as the "C3P App") on the smartphone to configure the connection to the C3 Portal cloud service.

## 3.2. Network Client Mode (NCM)

Check the C3 Portal or Network RX Station settings information before configuring the camcorder's network client mode settings.

The following information is required.

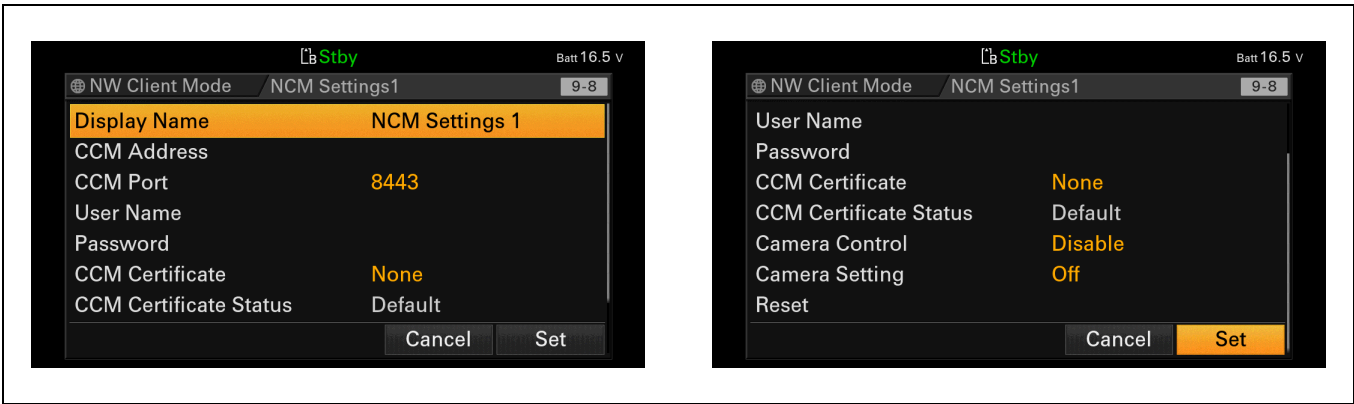
- URL or IP address for Connection Control Manager (CCM)
- Port number
- User name
- Password

The following operations can also be configured.

- Controlling the camera from the CCM UI
- Applying camera settings once only or continuously using an "ALL File".

Network Client Mode can be registered in NCM Settings 1 to 3, and the name to be displayed for each preset can be set.

You can also change the name from the preset number (for example, "MyCCM").

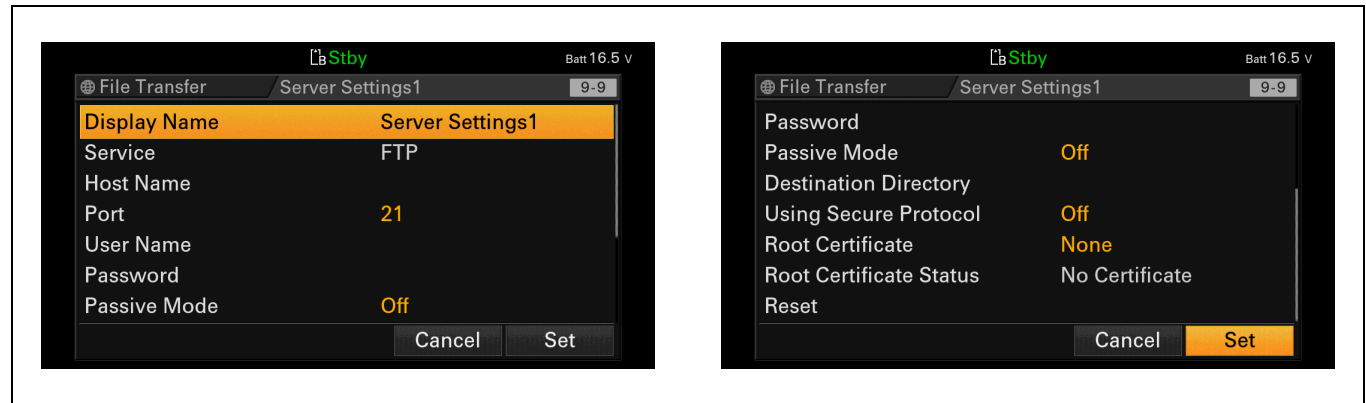


## 3.3. FTP Server

An FTP server must be prepared for file transfers.

The following information is required.

- Server URL or IP address
- User name
- Password
- Whether FTP connection operates in active or passive mode



For secure transfer, the use of FTPS is recommended.

To use FTPS, you must check the encryption method and server certificate revocation checking method, and obtain a root certificate.

### 1 Check the FTP server.

- ① Check the encryption method of the FTP server.  
The PXW-FX9 supports TLS 1.2, 1.1, and 1.0.
- ② Check the server certificate revocation verification method.  
The revocation verification method should be either CRL or OCSP.

### 2 Obtain a root certificate.

- ① Download the root certificate of the server certificate issuer (certificate authority) from the certificate authority site.
- ② Check that the encoding type of the certificate is PEM (base64).

This section describes the “To-Do List” for each use case.

The Network settings and Network Client Mode settings are common to each use case.

---

## 4.1. To-Do List for “Live Streaming”

Table 1. To-Do List for “Live Streaming”

| No. | See                                         |
|-----|---------------------------------------------|
| 1   | 5.2. Assembling                             |
| 2   | 5.3. Network Settings                       |
| 3   | 5.4. Network Client Mode Settings           |
| 4   | 5.5. Network Communication Test             |
| 5   | 5.6. Network Client Mode Communication Test |
| 6   | 6.1. Camcorder Settings                     |
| 7   | 6.2. Streaming Test                         |

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## 4.2. To-Do List for “Intercom Operation”

Not supported.

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## 4.3. To-Do List for “Camera Remote Control”

Table 2. To-Do List for “Camera Remote Control”

| No. | See                                         |
|-----|---------------------------------------------|
| 1   | 5.2. Assembling                             |
| 2   | 5.3. Network Settings                       |
| 3   | 5.4. Network Client Mode Settings           |
| 4   | 5.5. Network Communication Test             |
| 5   | 5.6. Network Client Mode Communication Test |
| 6   | 8.1. Camcorder Settings                     |
| 7   | 8.2. Camera Remote Test                     |

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## 4.4. To-Do List for “File Naming using Planning Metadata”

**Table 3. To-Do List for “File Naming using Planning Metadata”**

| No. | See                                                |
|-----|----------------------------------------------------|
| 1   | <i>5.2. Assembling</i>                             |
| 2   | <i>5.3. Network Settings</i>                       |
| 3   | <i>5.4. Network Client Mode Settings</i>           |
| 4   | <i>5.5. Network Communication Test</i>             |
| 5   | <i>5.6. Network Client Mode Communication Test</i> |
| 6   | <i>9.1. Camcorder Settings</i>                     |
| 7   | <i>9.2. Planning Metadata Handling Test</i>        |

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## 4.5. To-Do List for “Proxy Auto Upload”

**Table 4. To-Do List for “Proxy Auto Upload”**

| No. | See                                                |
|-----|----------------------------------------------------|
| 1   | <i>5.2. Assembling</i>                             |
| 2   | <i>5.3. Network Settings</i>                       |
| 3   | <i>5.4. Network Client Mode Settings</i>           |
| 4   | <i>5.5. Network Communication Test</i>             |
| 5   | <i>5.6. Network Client Mode Communication Test</i> |
| 6   | <i>10.1. Camcorder Settings</i>                    |
| 7   | <i>10.2. FTP Server Settings</i>                   |
| 8   | <i>10.3. FTP Server Communication Test</i>         |

You can also use the C3P App on a smartphone to configure Proxy Auto Upload settings.

**Table 5. To-Do List for “Proxy Auto Upload” using a Smartphone**

| No. | See                                        |
|-----|--------------------------------------------|
| 1   | <i>5.3.4. Connection via Smartphone</i>    |
| 2   | <i>5.5. Network Communication Test</i>     |
| 3   | <i>10.1. Camcorder Settings</i>            |
| 4   | <i>10.3. FTP Server Communication Test</i> |

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## 4.6. To-Do List for “Upload to FTP Server”

**Table 6. To-Do List for “Upload to FTP Server”**

| No. | See                                                |
|-----|----------------------------------------------------|
| 1   | <i>5.2. Assembling</i>                             |
| 2   | <i>5.3. Network Settings</i>                       |
| 3   | <i>5.4. Network Client Mode Settings</i>           |
| 4   | <i>5.5. Network Communication Test</i>             |
| 5   | <i>5.6. Network Client Mode Communication Test</i> |
| 6   | <i>11.1. Camcorder Settings</i>                    |
| 7   | <i>11.2. FTP Server Settings</i>                   |
| 8   | <i>11.3. FTP Server Communication Test</i>         |

You can also use the C3P App on a smartphone to configure Upload to FTP Server settings.

**Table 7. To-Do List for “Upload to FTP Server” using a Smartphone**

| No. | See                                        |
|-----|--------------------------------------------|
| 1   | <i>5.3.4. Connection via Smartphone</i>    |
| 2   | <i>5.5. Network Communication Test</i>     |
| 3   | <i>11.1. Camcorder Settings</i>            |
| 4   | <i>11.3. FTP Server Communication Test</i> |

## 5.1. Equipment for Wireless Solution

**Table 8. Equipment List**

|           |                            |                                                                                    |
|-----------|----------------------------|------------------------------------------------------------------------------------|
| USB modem | 4G/LTE dongle              |  |
| XDCA-FX9  | Extension unit for PXW-FX9 |  |

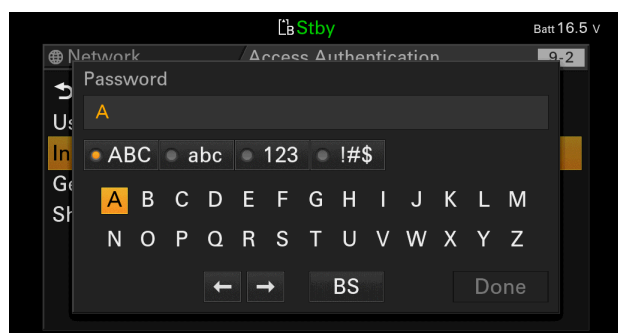
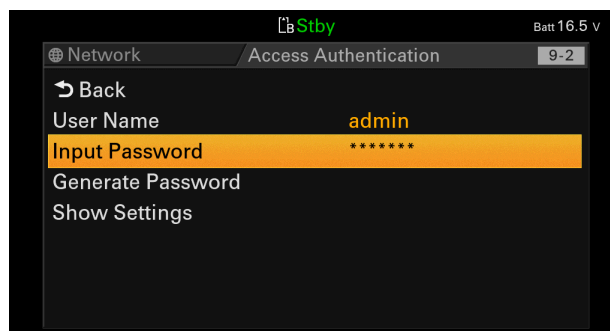
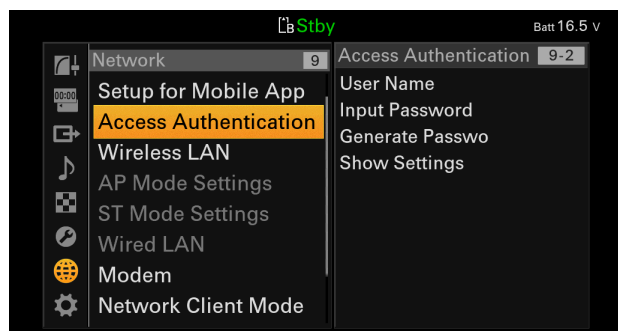
## 5.2. Assembling

To use a 4G/LTE modem or wired LAN, attach the XDCA-FX9 to the PXW-FX9.  
For details about attachment, refer to the Operating Instructions for the PXW-FX9.



## 5.3. Network Settings

- 1 Select Network > Access Authentication in the setup menu, and set User Name and Password.



For security, set the user name and password by yourself.

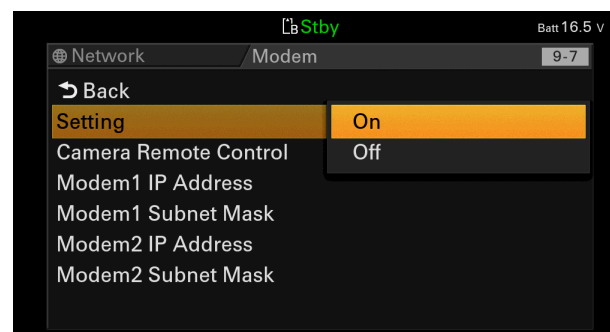
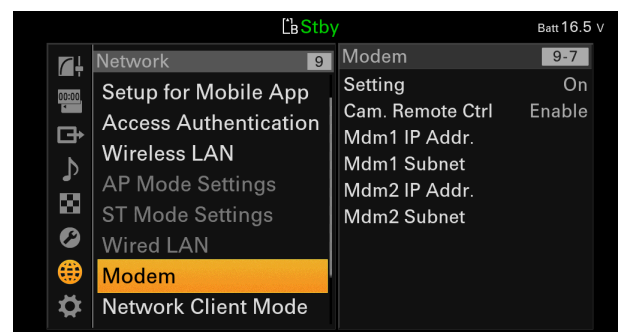
It is recommended that you set a password with a sufficiently long character string that is hard to guess by others, and that you store it safely.

### 5.3.1. 4G/LTE USB Modem

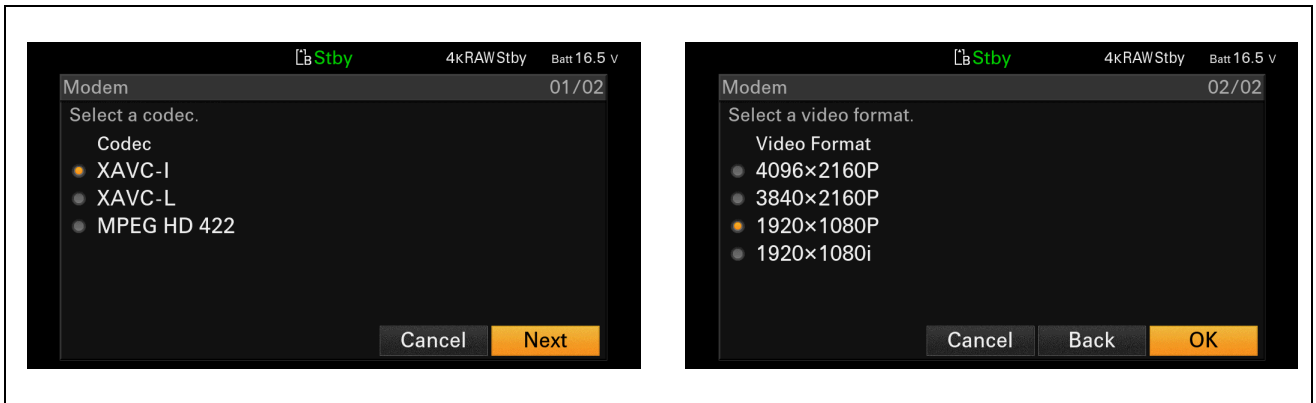
#### Note

Network > Modem in the setup menu is grayed out if an Extension Unit is not attached.

- 1 Select Network > Modem in the setup menu, and set Setting to On.

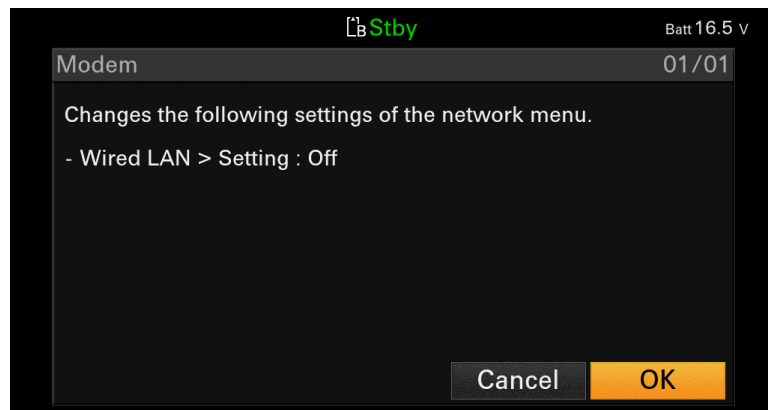


- 2 If a codec that uses RAW is currently selected, the following screens appear prompting you to select a codec that does not use RAW. Select a codec and a video format.



Items whose settings will be changed, other than video output and wireless LAN, are displayed.

- 3 Press the OK button to change the settings and enable the modem.



When a modem is connected, the 3G/4G icon (  ) appears on the LCD panel.  
When using USB tethering, the tethering icon (  ) appears on the LCD panel.

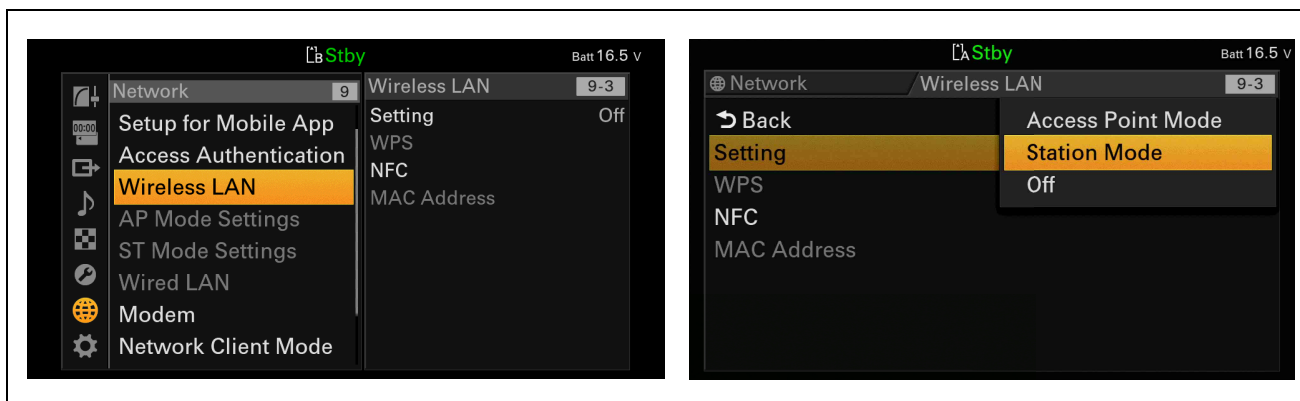


If you experience any difficulty, see "12.1.1. 4G/LTE USB Modem" in the Troubleshooting section.

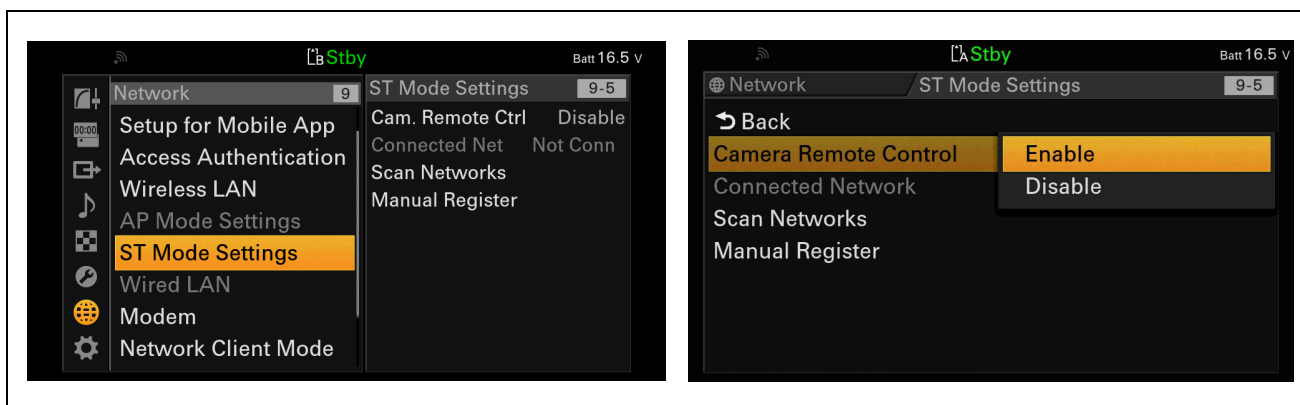
## 5.3.2. Wireless LAN

### 5.3.2.1. Wireless LAN Station mode settings

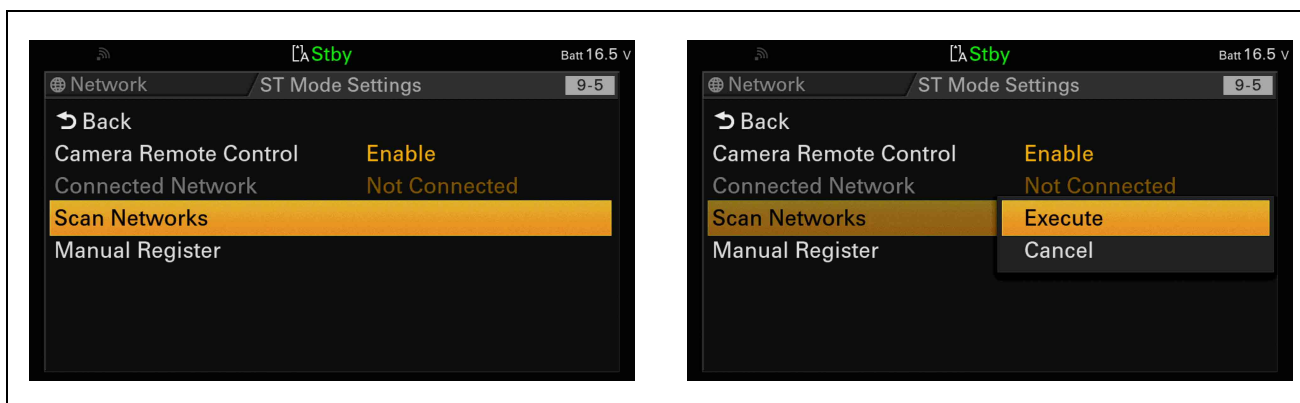
- 1 Select Network > Wireless LAN in the setup menu, and set Setting to Station Mode.



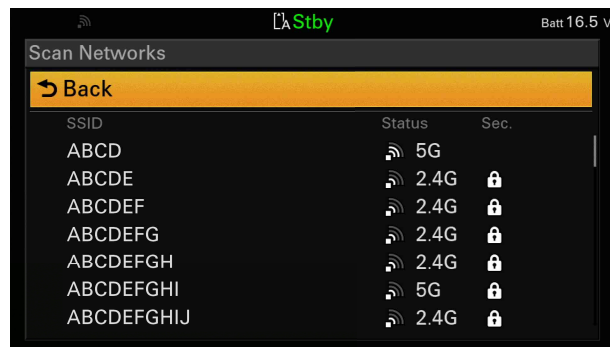
- 2 Select Network > ST Mode Settings in the setup menu, and set Camera Remote Control to Enable.



- 3 Select Network > ST Mode Settings > Scan Networks in the setup menu, then scan for available networks.

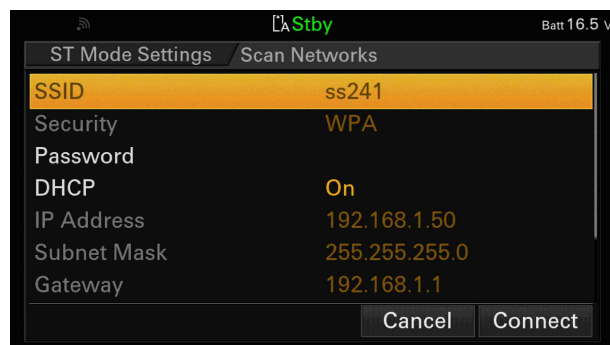


The device scans for networks and displays a list of detected SSIDs.

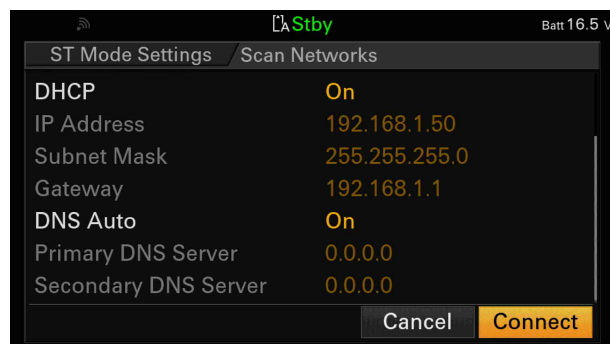


#### 4 Select an SSID.

The destination connection setup screen appears.



#### 5 Check the password, DHCP and DNS settings, select the Connect button, and press the multi-function dial.



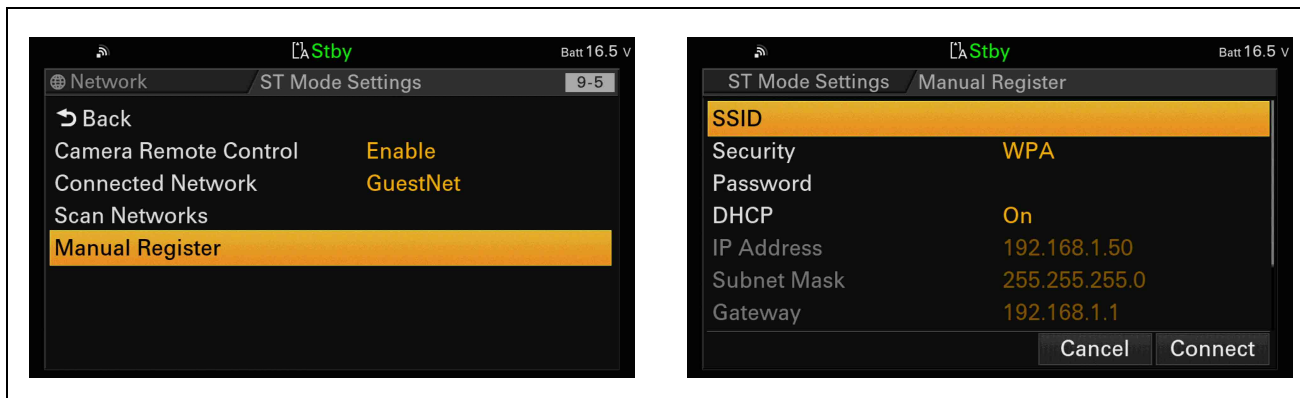
The camcorder starts connecting to the wireless LAN access point.  
When the connection is successful, the Wi-Fi mode status indicator appears.



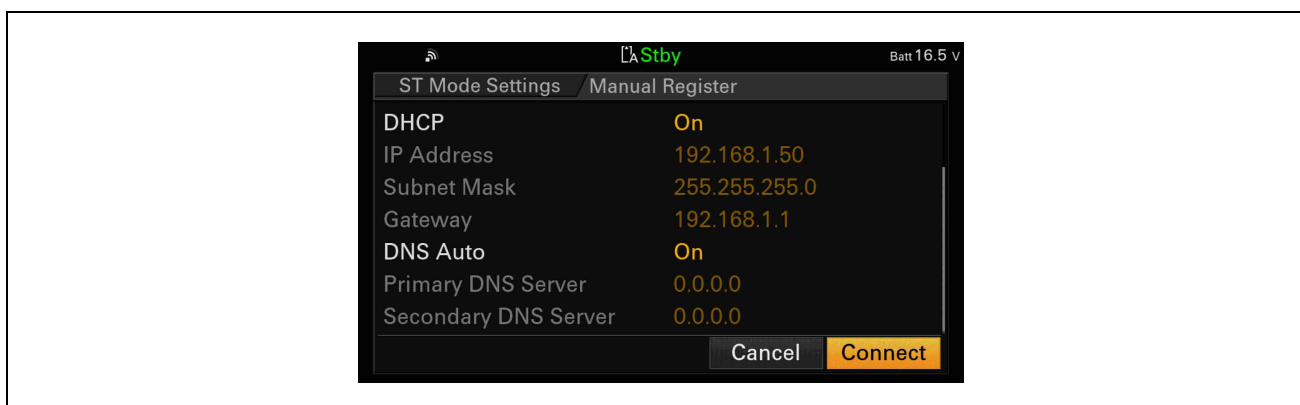
If you experience any difficulty, see “12.1.2. Wireless LAN” in the Troubleshooting section.

### To set the SSID and other settings manually

- 1 Select Network > ST Mode Settings > Manual Register in the setup menu, and enter the SSID, password and other settings.



- 2 Select the Connect button on the menu screen, and press the multi-function dial.



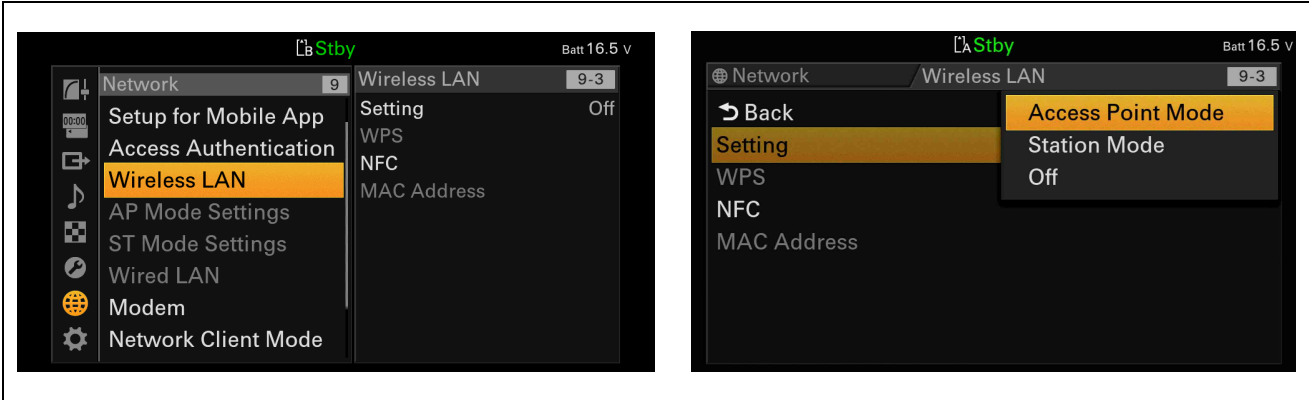
When the connection is successful, the wireless LAN status indicator appears.



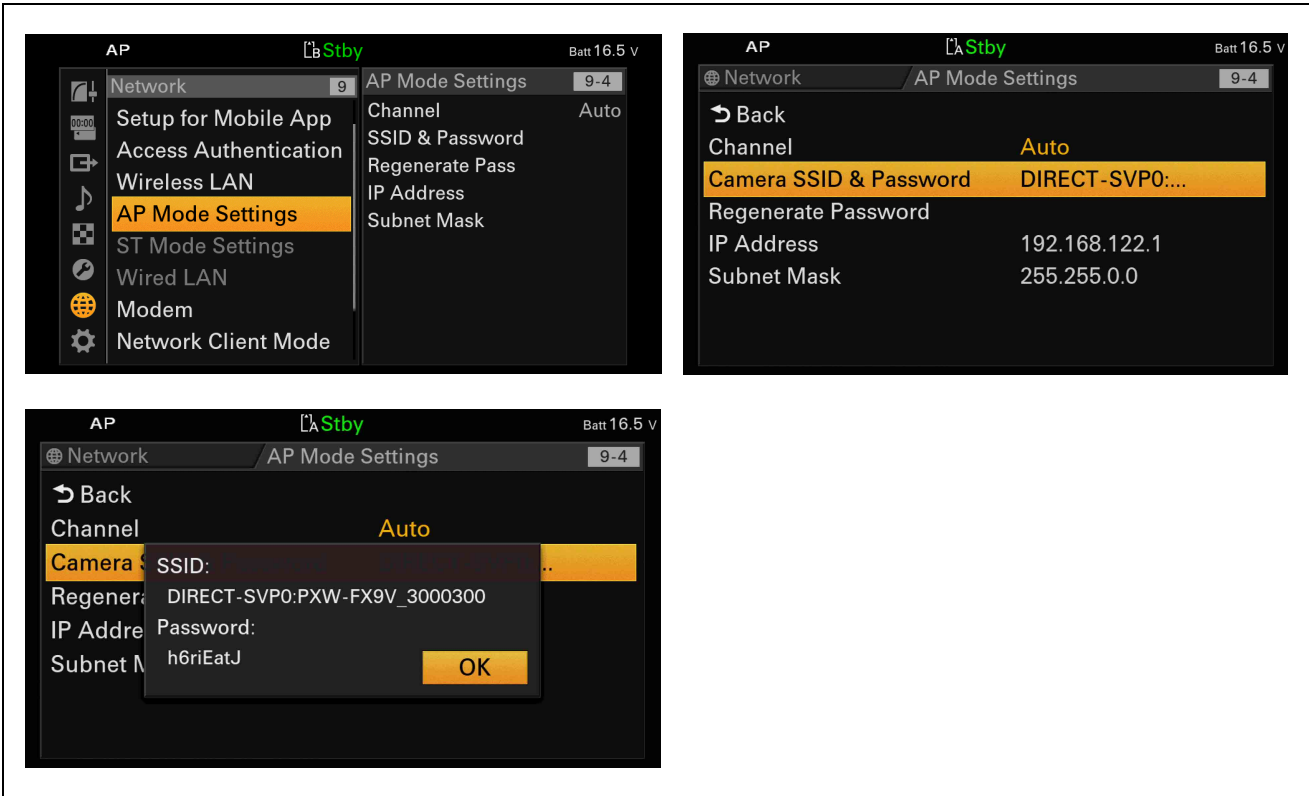
If you experience any difficulty, see “12.1.2. Wireless LAN” in the Troubleshooting section.

5.3.2.2. Wi-Fi Access Point mode settings

1 Select Network > Wireless LAN in the setup menu, and set Setting to Access Point Mode.

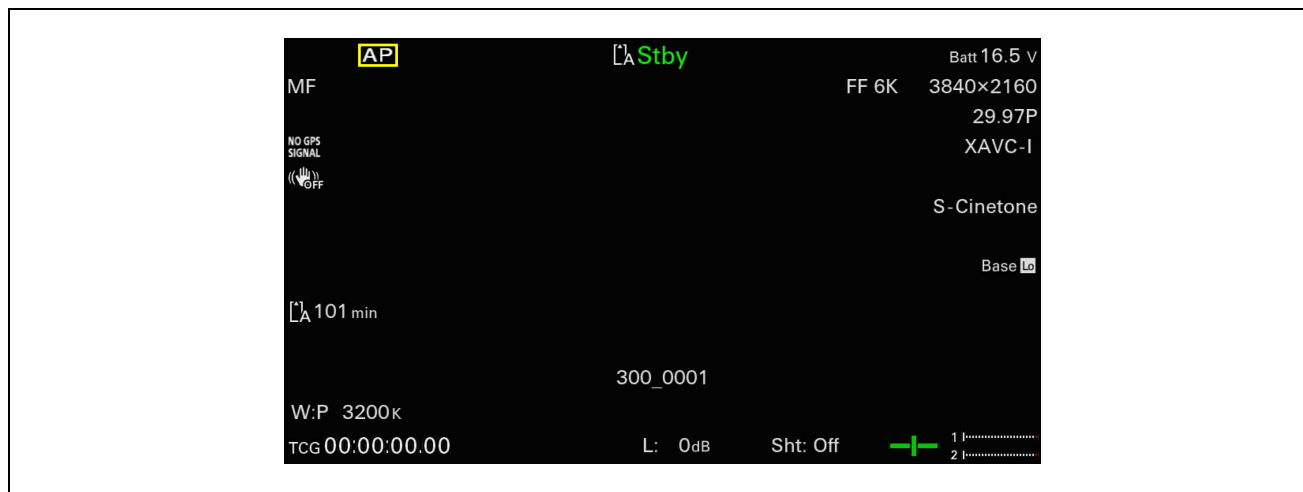


Network > AP Mode Settings > Camera SSID & Password in the setup menu becomes enabled.



## 2 Check the SSID and password.

Other wireless LAN devices can now be connected to the camcorder using the SSID and password.



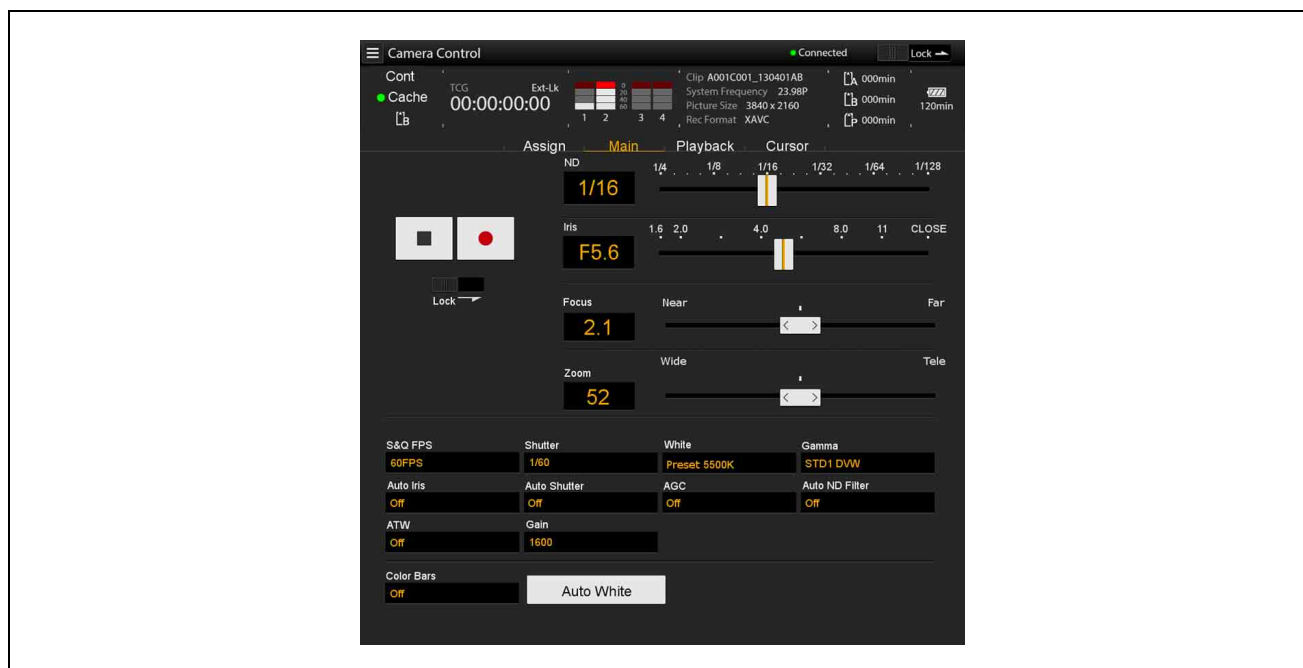
After connecting to the camcorder, you can access the web server of the camcorder using a web browser.

For details, refer to the “Displaying the Web Remote Control” section in “Using Web Remote Control” in chapter 4 “Network Functions” in the PXW-FX9 Operating Instructions.

### Note

You can find the user name and password in Network > Access Authentication > Show Settings.

When the connection is successful, the following screen appears in the web browser.

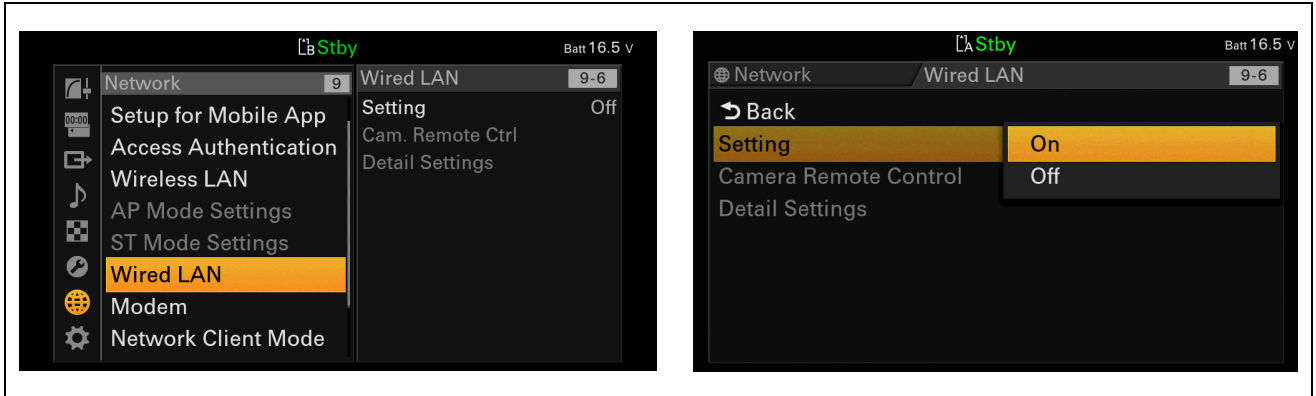


### 5.3.3. Wired LAN

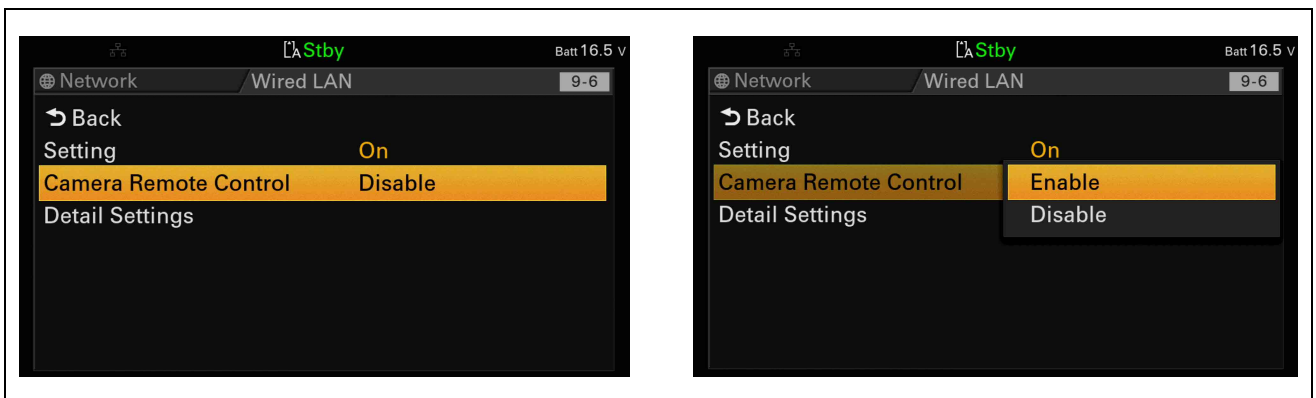
#### Note

Network > Wired LAN in the setup menu is grayed out if an Extension Unit is not attached.

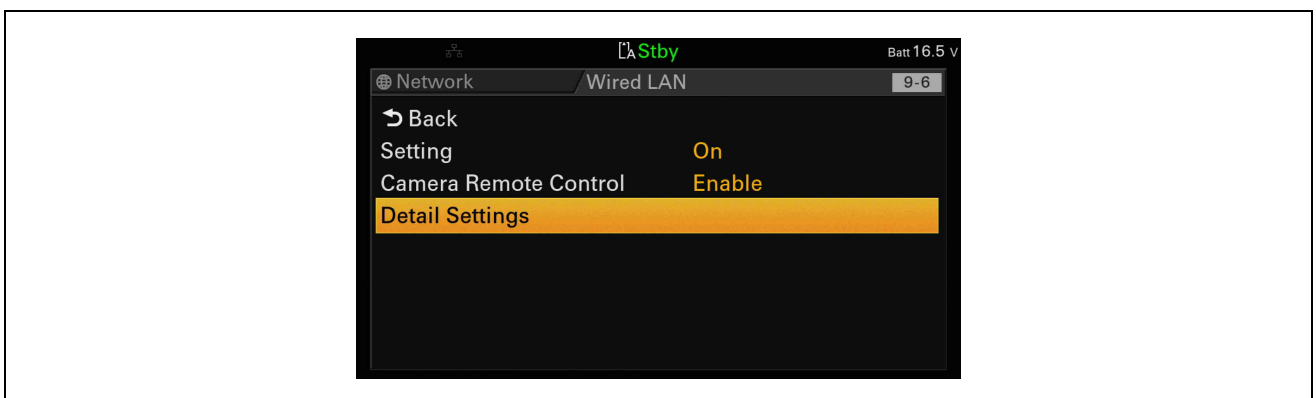
- 1 Select Network > Wired LAN in the setup menu, and set Setting to On.



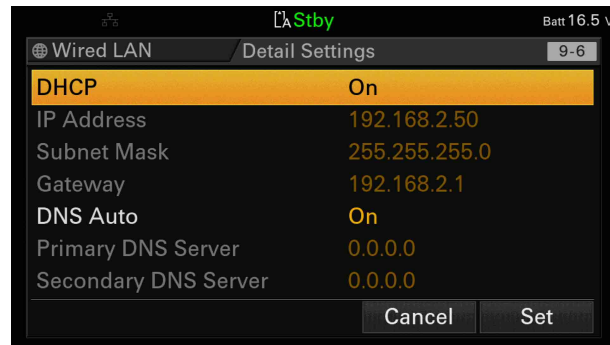
- 2 Select Network > Wired LAN in the setup menu, and set Camera Remote Control to Enable.  
Access to the web server of the camcorder is enabled.



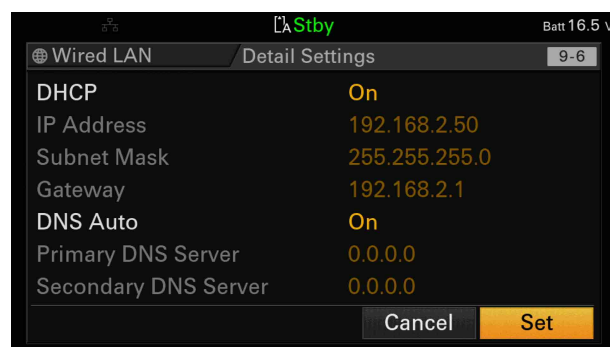
- 3 Select Network > Wired LAN > Detail Settings in the setup menu.



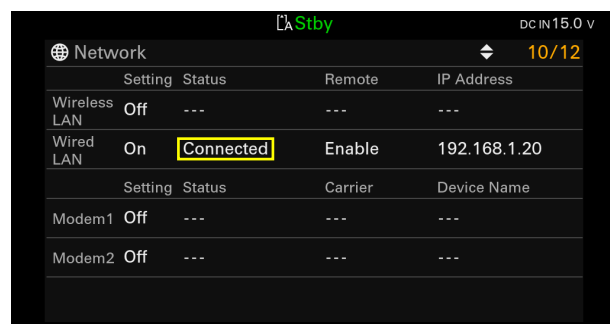
- 4 Select whether to obtain an IP address automatically via DHCP or set the IP address manually, and select whether to obtain DNS automatically or set DNS manually.



- 5 Select the Set button on the menu screen, and press the multi-function dial.



When the connection is successful, "Connected" is displayed for Wired LAN status on the Network Status screen.



If you experience any difficulty, see "12.1.3. Wired LAN" in the Troubleshooting section.

### 5.3.4. Connection via Smartphone

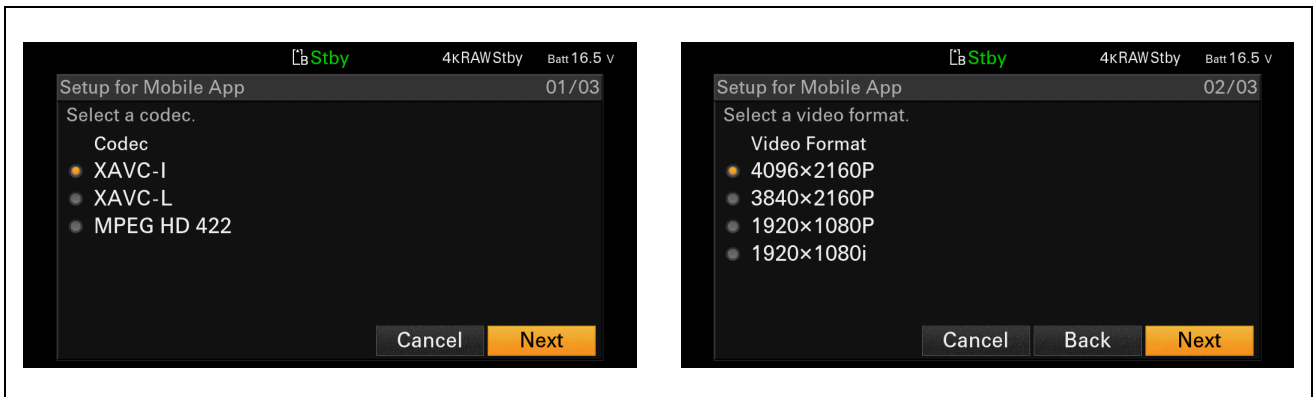
You can configure network settings from a smartphone by installing the C3P App on the smartphone. Follow the on-screen guidance in the C3P App to configure settings.

- 1 Launch the C3P App on the smartphone and start the camcorder connection guidance.

2 Select Network > Setup for Mobile App > Setup in the setup menu.

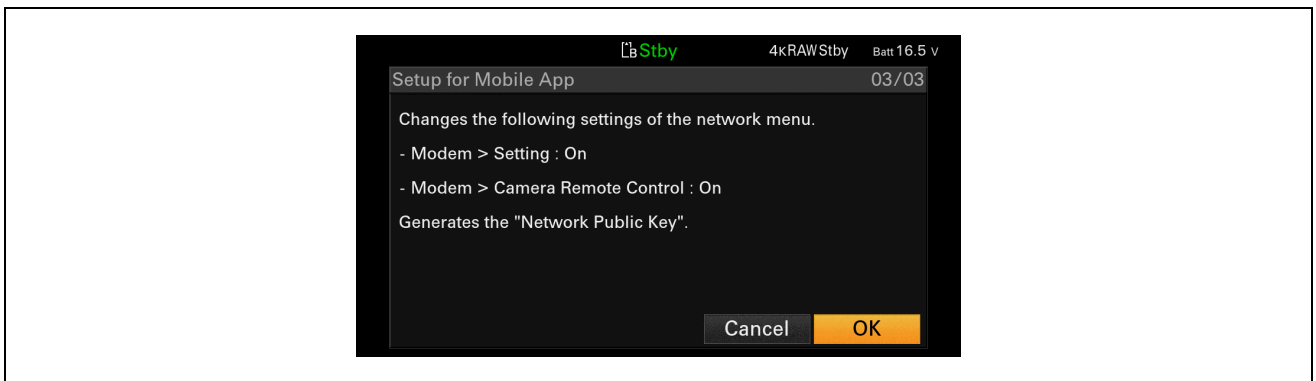


3 If a codec that uses RAW is currently selected, the following screens appear prompting you to select a codec that does not use RAW. Select a codec and a video format.



Items whose settings will be changed for the network connection, excluding function selections, are displayed.

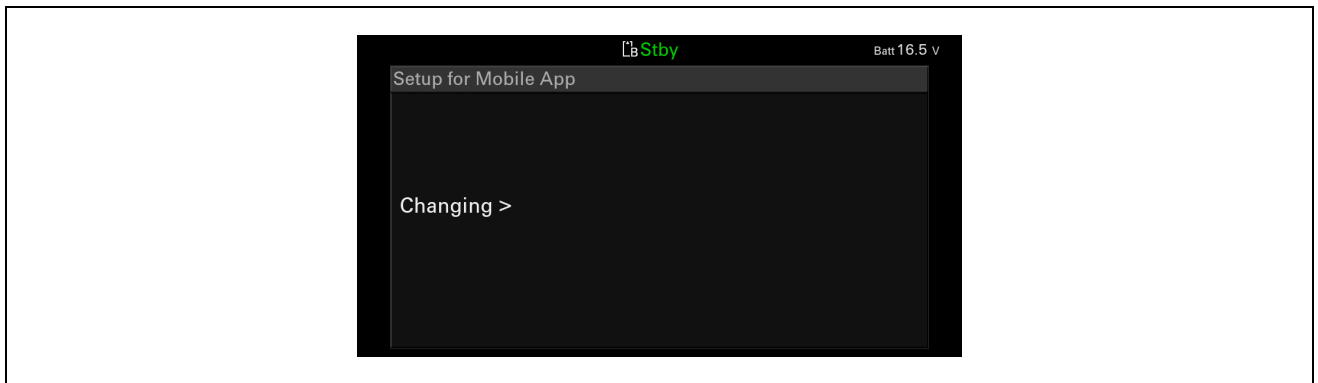
4 Press the OK button to change the settings for the network connection.



#### Note

An access authentication password and network public key are required to connect the C3P App to the camcorder. If a password has not been configured or the public key has not been generated, they will be generated automatically.

The following screen appears.



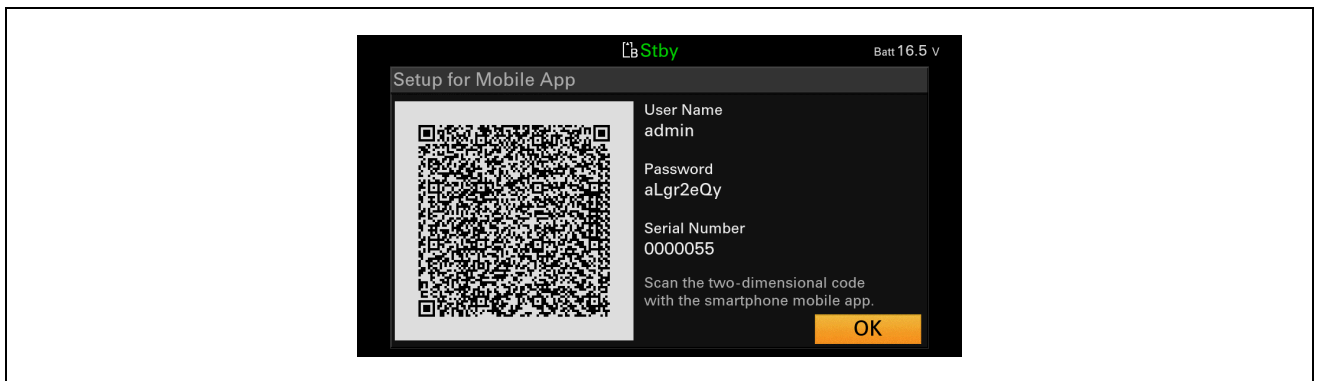
**Note**

Recording and playback operations are not possible while the settings are being changed.

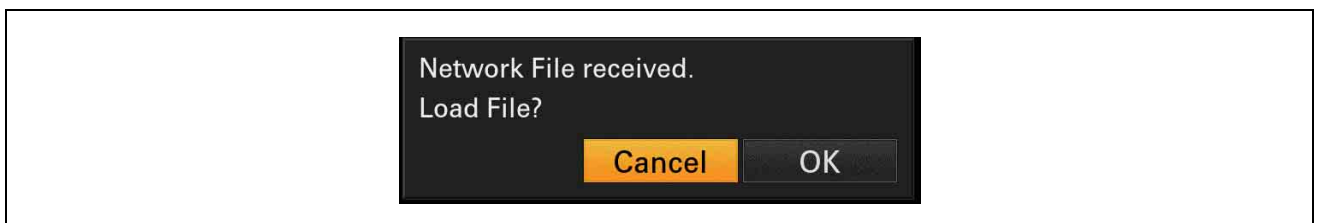
When the configuration is completed, the 2D code, user name, password, and camcorder serial number are displayed.

**Note**

For security, take care that the password and QR code are not revealed to unintended third parties.



- 5 Scan the 2D code using the C3P App installed on a smartphone, or enter the displayed user name and password to connect to the camcorder.
- 6 Send a network configuration file from the C3P App to the camcorder.  
A file received confirmation message appears on the camcorder screen.
- 7 Press the OK button to load the configuration file and apply the settings.



### 5.3.5. Networks Combinations

You can use a wireless LAN and modem, and wireless LAN and wired LAN network interfaces simultaneously.

The following table shows the settings for the use of each interface for network client mode, streaming, and file transfers.

| Modem1 | Modem2 | Wired LAN | Wireless LAN | Operation                                                                                                                              |
|--------|--------|-----------|--------------|----------------------------------------------------------------------------------------------------------------------------------------|
| ON     | ON     | OFF       | ON           | Dual Link: Uses Modem1 and Modem2.<br>Single Link: Uses Modem1.<br>Wireless LAN can be used for Content Browser Mobile remote control. |
| ON     | ON     | OFF       | OFF          | Dual Link: Uses Modem1 and Modem2.<br>Single Link: Uses Modem1.                                                                        |
| ON     | OFF    | OFF       | ON           | Dual Link cannot be used.<br>Single Link: Uses Modem1.<br>Wireless LAN can be used for Content Browser Mobile remote control.          |
| OFF    | ON     | OFF       | ON           | Dual Link cannot be used.<br>Single Link: Uses Modem2.<br>Wireless LAN can be used for Content Browser Mobile remote control.          |
| ON     | OFF    | OFF       | OFF          | Dual Link cannot be used.<br>Single Link: Uses Modem1.                                                                                 |
| OFF    | ON     | OFF       | OFF          | Dual Link cannot be used.<br>Single Link: Uses Modem2.                                                                                 |
| OFF    | OFF    | ON        | ON           | Dual Link cannot be used.<br>Single Link: Uses Wired LAN.<br>Wireless LAN can be used for Content Browser Mobile remote control.       |
| OFF    | OFF    | ON        | OFF          | Dual Link cannot be used.<br>Single Link: Uses Wired LAN.                                                                              |
| OFF    | OFF    | OFF       | ON           | Dual Link cannot be used.<br>Single Link: Uses Wireless LAN.                                                                           |
| OFF    | OFF    | OFF       | OFF          | Network function is disabled.                                                                                                          |

### 5.3.5.1. IP address conflicts

IP address conflicts may occur when using multiple network interfaces simultaneously, depending on the settings. IP addresses within the same segment may overlap, preventing successful communication.

The following table shows the IP address conflict pattern and the operation that results.

| No. | IF connection (startup) order |                         |                       | Operation                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|-------------------------------|-------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | 1                             | 2                       | 3                     |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1   | Modem 1                       | Modem 2                 | –                     | If the segment IP address ranges overlap between modems, an address conflict error is displayed.                                                                                                                                                                                                                                                                                                                              |
|     | Modem 2                       | Modem 1                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2   | AP mode                       | Modem 1                 | Modem 2               | ① If the segment IP address ranges overlap between the AP and the modem, the AP mode address is automatically changed to another segment and an AP mode address change message is displayed.<br>② If the second segment IP address ranges overlap between the AP and the modem, an address conflict error is displayed.<br>③ If the segment IP address ranges overlap between modems, an address conflict error is displayed. |
|     |                               | Modem 2                 | Modem 1               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3   | Modem 1                       | AP mode                 | Modem 2               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|     | Modem 2                       |                         | Modem 1               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4   | Modem 1                       | Modem 2                 | AP mode               | ① If the segment IP address ranges overlap between the AP and the modem, the AP mode address is automatically changed to another segment and an AP mode address change message is displayed.<br>② If the segment IP address ranges overlap between modems, an address conflict error is displayed.                                                                                                                            |
|     | Modem 2                       | Modem 1                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5   | ST mode (Auto/Manual)         | Modem 1                 | Modem 2               | ① If there is an IP conflict between the modem and the ST, an address conflict error will be displayed and the user will be prompted to change it.<br>② If the segment IP address ranges overlap between modems, an address conflict error is displayed.<br>③ If the IP address of the ST is included in the modem subnet, an address conflict error is displayed.                                                            |
|     |                               | Modem 2                 | Modem 1               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6   | Modem 1                       | ST mode (Auto/Manual)   | Modem 2               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|     | Modem 2                       |                         | Modem 1               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7   | Modem 1                       | Modem 2                 | ST mode (Auto/Manual) |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|     | Modem 2                       | Modem 1                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 8   | AP mode                       | Wired LAN (Auto/Manual) | –                     | If the segment IP address ranges overlap between the AP and the wired LAN, the AP mode address is automatically changed to another segment, and an AP mode address change message is displayed.                                                                                                                                                                                                                               |
| 9   | Wired LAN (Auto/Manual)       | AP mode                 | –                     |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10  | ST mode (Auto/Manual)         | Wired LAN (Auto/Manual) | –                     | If there is an IP conflict between the wired LAN and the ST, an address conflict error is displayed and the user is prompted to change it.                                                                                                                                                                                                                                                                                    |
| 11  | Wired LAN (Auto/Manual)       | ST mode (Auto/Manual)   | –                     |                                                                                                                                                                                                                                                                                                                                                                                                                               |

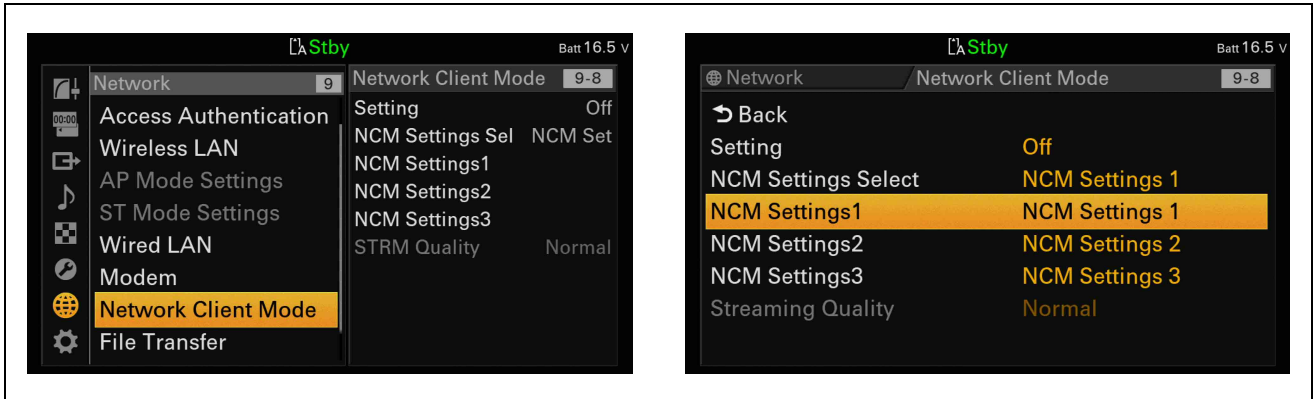
## 5.4. Network Client Mode Settings

Check that the Date Time settings in System > Clock Set are correct before configuring the Network Client Mode settings.

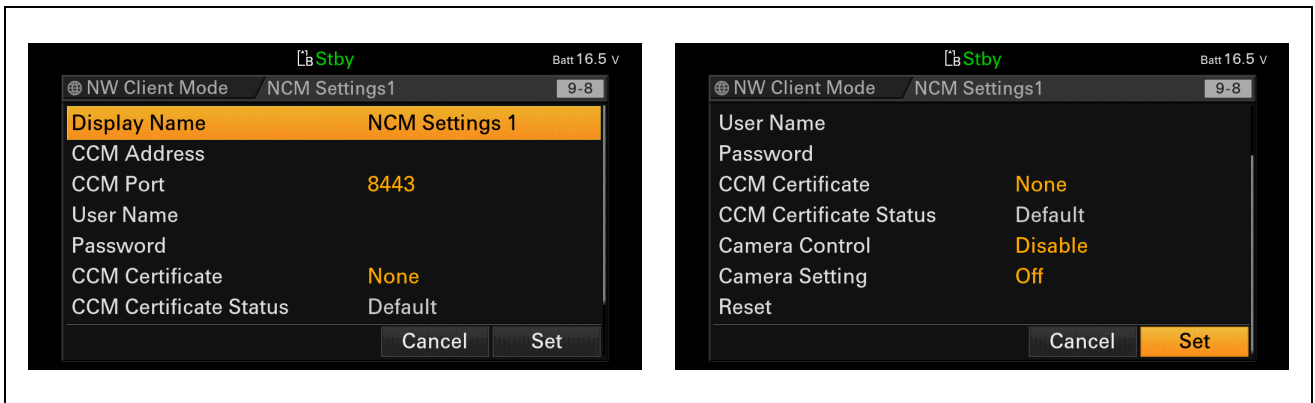
Network Client Mode presets can be configured in NCM Settings 1 to 3.

The following procedure describes how to set NCM Settings1 as an example.

- 1 Select Network > Network Client Mode > NCM Settings1 in the setup menu.



The registration dialog appears.



- 2 Enter the URL or IP address for Connection Control Manager (CCM), and specify the port, user name, and password.
- 3 Select the Set button on the menu screen, and press the multi-function dial.

NCM Settings detail settings:

[Camera Control]: Enables camera control from the CCM UI.

[Camera Setting]: Enables "ALL File" operations from the CCM UI

After loading an ALL file from the CCM, the camcorder will reboot.

After rebooting:

Always: Enables "ALL File" operations continuously.

Onetime: Enables "ALL File" operation once only, then the setting changes to "Off".

Presets can be selected based on your use case.

For example, you can set [NCM Settings1] for C3 Portal and [NCM Settings2] for Network RX Station.

## 5.5. Network Communication Test

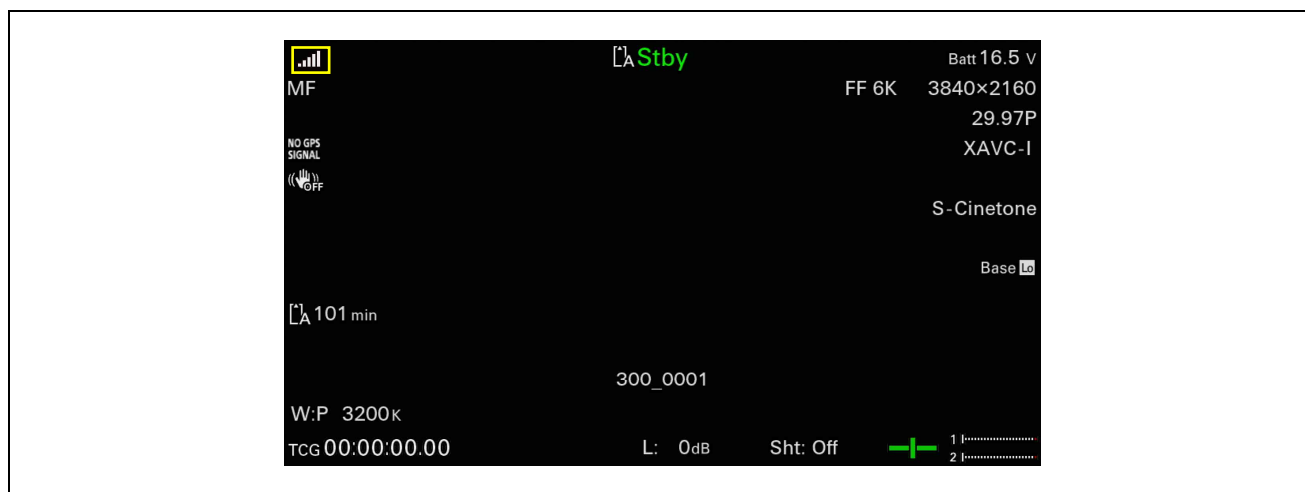
### 5.5.1. 4G/LTE USB Modem

After attaching and configuring a 4G/LTE USB modem, the next step is test for network communication via the USB modem.

It is recommended that you test the USB modem using a computer beforehand (see “3.1.1. 4G/LTE USB Modem”).

- 1 Turn on the camcorder, and check that the modem icon appears on the camcorder LCD screen.

When the network connection is working correctly, the modem icon appears.



If you experience any difficulty, see “12.1.1. 4G/LTE USB Modem” in the Troubleshooting section.

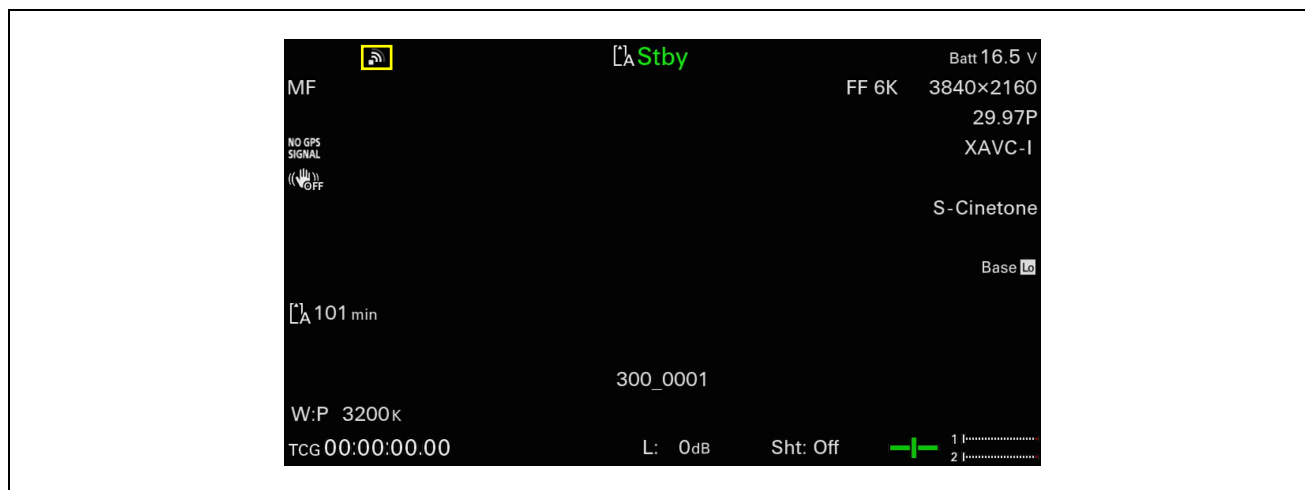
A signal strength unknown icon (  ) is displayed if the signal strength from the modem cannot be determined.

### 5.5.2. Wireless LAN

After configuring a wireless LAN, the next step is to test for network communication via the wireless LAN.

- 1 Turn on the camcorder, and check that the wireless LAN status indicator appears on the camcorder LCD screen.

When the network connection is working correctly, the wireless LAN status indicator appears.



If you experience any difficulty, see “12.1.2. Wireless LAN” in the Troubleshooting section.

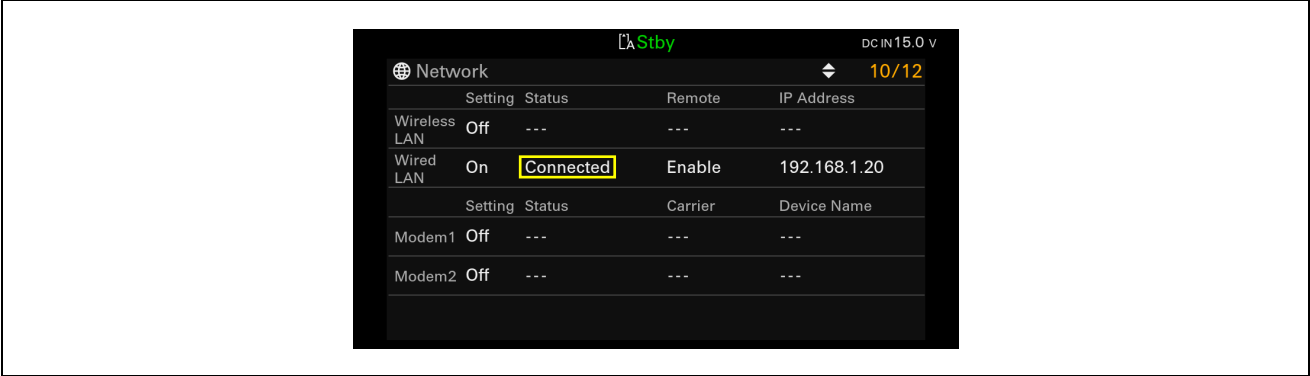
---

### 5.5.3. Wired LAN

After configuring a wired LAN, the next step is to test for network communication via the wired LAN.

- 1** Turn on the camcorder, and check the Wired LAN status on the camcorder LCD screen.

When the network connection is working correctly, “Connected” is displayed for Wired LAN status on the Network Status screen.



If you experience any difficulty, see “12.1.3. Wired LAN” in the Troubleshooting section.

---

### 5.5.4. Connection via Smartphone

When connected using the C3P App, the network connection is managed by the C3P App. Check the connection status on the C3P App screen.

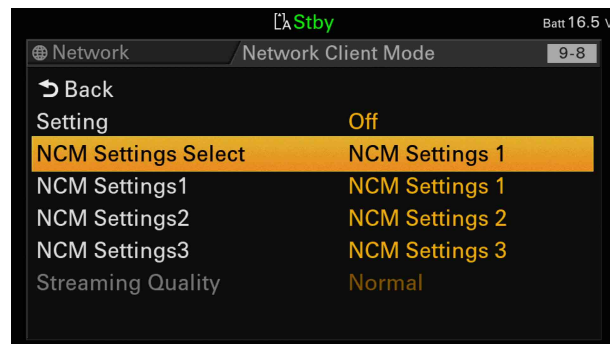
## 5.6. Network Client Mode Communication Test

After the network communication test is successful, the next step is to test Network Client Mode.

- 1 Select Network > Network Client Mode > NCM Settings Select in the setup menu, and select NCM Settings1.

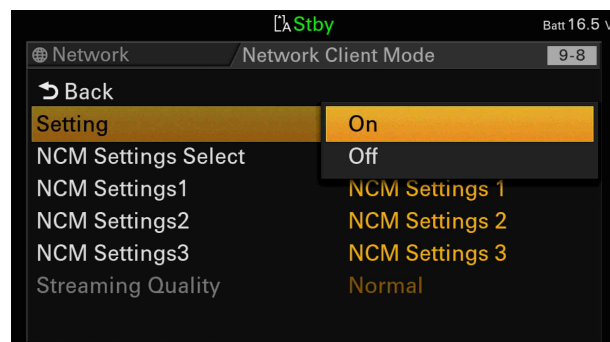
### Note

NCM Settings1 is used as an example.



### 5.6.1. C3 Portal

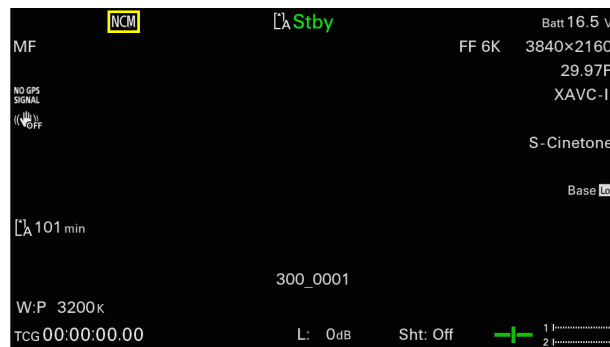
- 1 Select Network > Network Client Mode in the setup menu, and set Setting to On.



- 2 Start communication with the CCM of C3 Portal.

When C3 Portal is accessed for the first time from a device, you must activate the device after connecting to the CCM of C3 Portal.

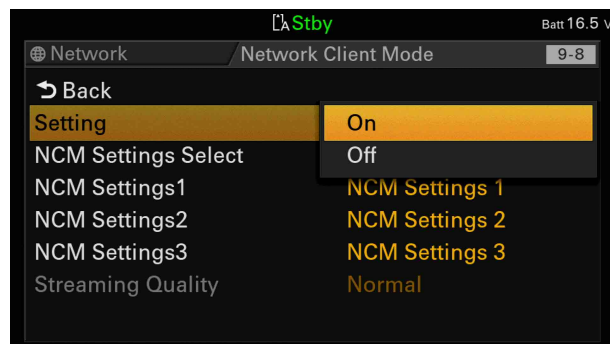
In this case, the  icon appears on the camcorder LCD screen, and Network Client Mode status displays "Connecting" and then "Connected" with the CCM name. Check the CCM UI of C3 Portal. After activation, the  icon appears on the camcorder LCD screen and thumbnails appear on the CCM UI screen.



If you experience any difficulty, see “12.2. Network Client Mode” in the Troubleshooting section.

## 5.6.2. Network RX Station

- 1 Select Network > Network Client Mode in the setup menu, and set Setting to On.



- 2 Start communication with the CCM of Network RX Station.

When communication is successful, the **NCM** icon appears on the camcorder LCD screen and thumbnails appear on the CCM UI screen.



If you experience any difficulty, see “12.2. Network Client Mode” in the Troubleshooting section.

## 6.1. Camcorder Settings

Streaming is not supported when S&Q Motion or Interval Rec is set to On. Set both S&Q Motion and Interval Rec to Off.

## 6.2. Streaming Test

After checking that Network Client Mode communication is successful, you can check QoS streaming. This test is controlled from the CCM UI.

- 1 Select the camcorder and set the Network Range and destination receiver (Network RX Station).
- 2 Issue the Start command for QoS streaming from the CCM.

The camcorder starts streaming.

When streaming is successful, the **STRM** icon appears on the camcorder LCD screen and the streaming picture appears in the CCM UI preview area.



If you experience any difficulty, see “12.3.1. Live Streaming” in the Troubleshooting section.

Not supported.

---

## 8.1. Camcorder Settings

For camera remote operation, set Camera Control to Enable in the Network Client Mode settings.  
For details, see “5.4. Network Client Mode Settings”.

---

## 8.2. Camera Remote Test

After checking that Network Client Mode communication is successful, you can check camera remote operation.

This test is controlled from the CCM UI.

- 1** Select a camcorder and set the Network Range and the destination receiver (Network RX Station).
- 2** Issue the Start command for QoS streaming from the CCM.

The camcorder starts streaming.

When streaming is successful, the **STRM** icon appears on the LCD screen and the streaming picture appears in the CCM UI preview area.

If you experience any difficulty, see “12.3.1. Live Streaming” in the Troubleshooting section.

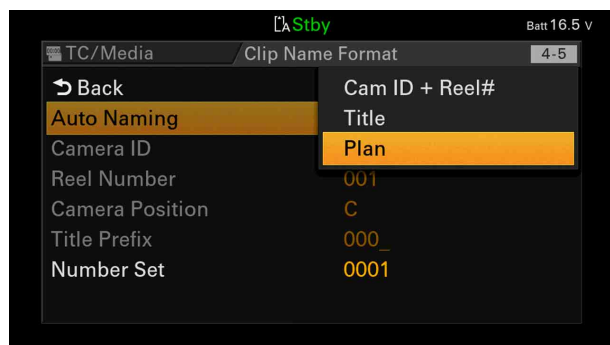
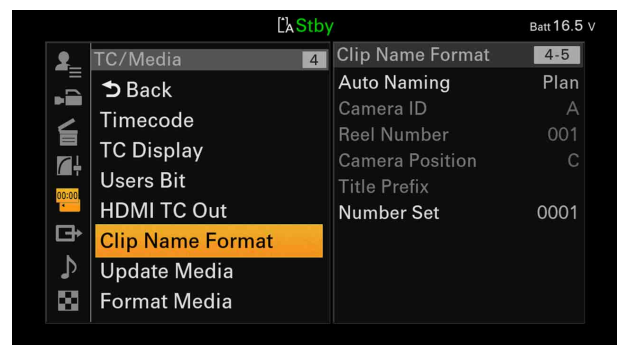
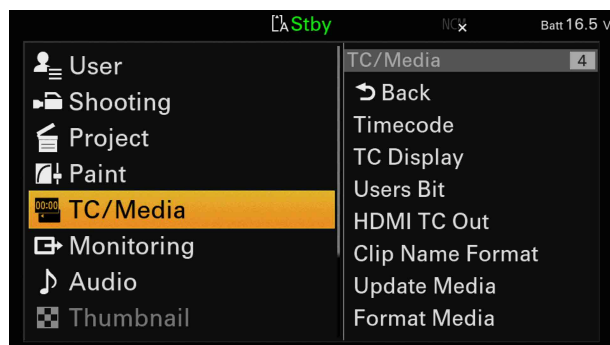
- 3** Select the Remote tab on the CCM UI screen.
- 4** Check that the CCM can control camera zoom, iris, focus, etc.

If you experience any difficulty, see “12.3.2. Camera Remote Control” in the Troubleshooting section.

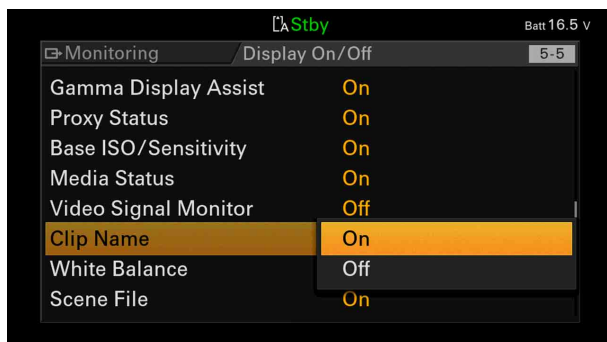
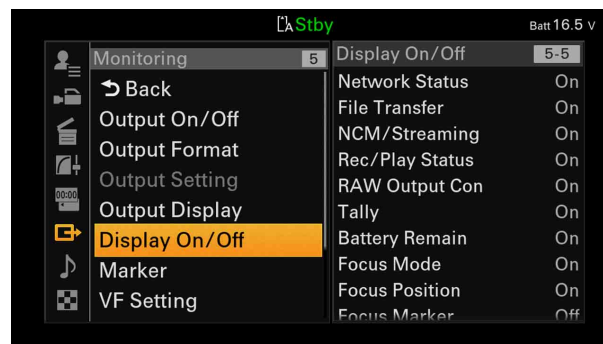
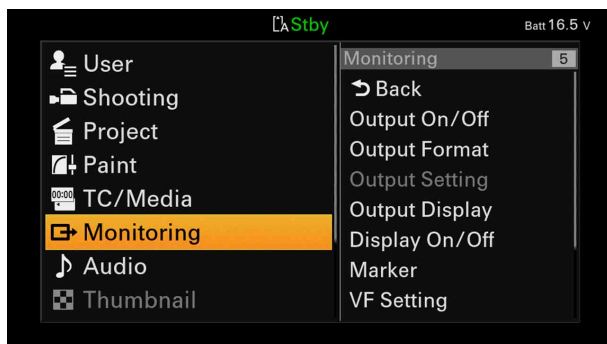
## 9.1. Camcorder Settings

For setting file names using planning metadata, the following settings must be configured on the camcorder.

- 1 Select TC/Media > Clip Name Format in the setup menu, and set Auto Naming to Plan.



2 Select Monitoring > Display On/Off in the setup menu, and set Clip Name to On.



---

## 9.2. Planning Metadata Handling Test

After communication with the CCM using Network Client Mode is successful, planning metadata files can be downloaded using the CCM UI.

When a planning metadata file is downloaded to your camcorder, clip names change to the content of the Title element of the planning metadata file.

If the Title element contains characters which cannot be used in file names, the characters are replaced by “\_” (underscore) characters.

The following characters cannot be used in file names:

\ / : \* ? " < > |

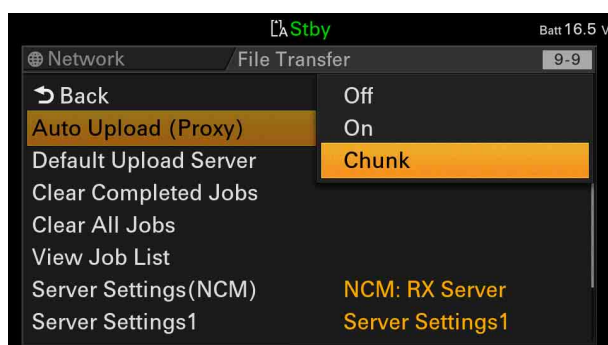
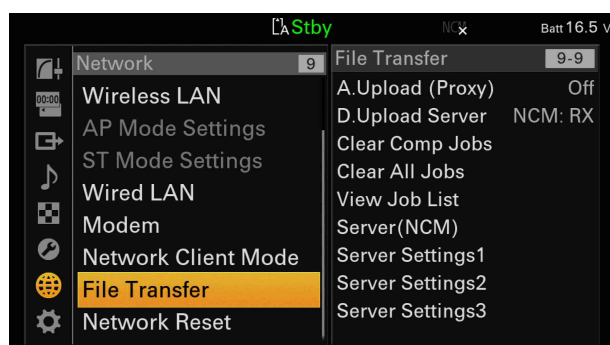
For example, if the Title element is “TodayNews<123>”, clip names will be “TodayNews\_123\_” + numeric suffix.

## 10.1. Camcorder Settings

For automatically uploading proxy files, the following setting must be configured on the camcorder. Select Network > File Transfer in the setup menu, and set Auto Upload (Proxy) to On or Chunk.

When Auto Upload (Proxy) is set to On, the uploading of proxy files to a destination server occurs after recording ends.

When Auto Upload (Proxy) is set to Chunk, the uploading of proxy files to a destination server occurs in chunks during recording.



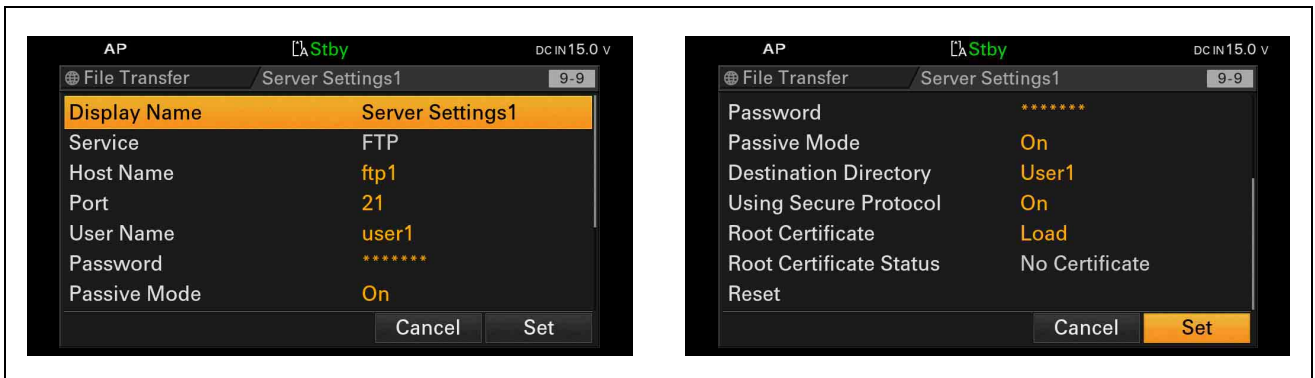
## 10.2. FTP Server Settings

Configure the FTP server settings for uploading proxy files.

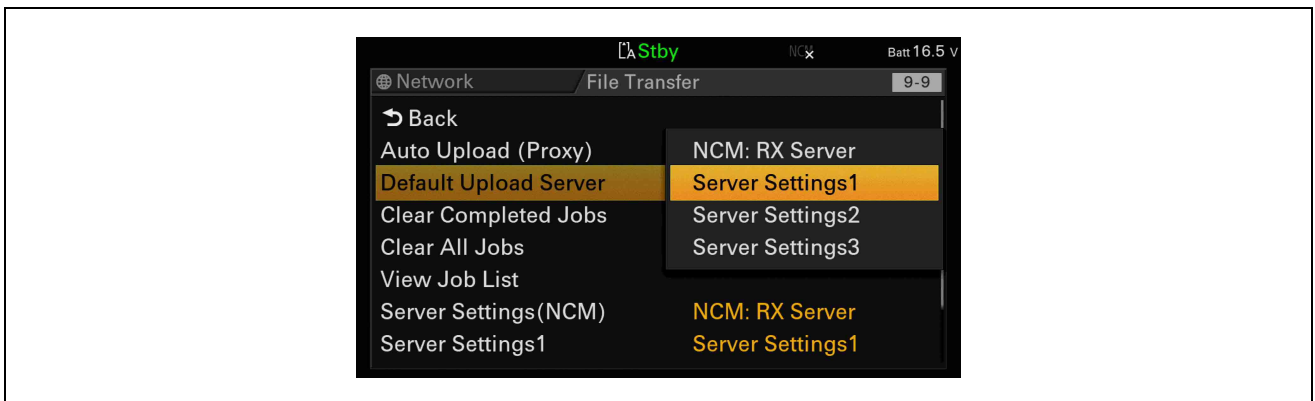
Several FTP servers can be registered on the camcorder.

The following procedure describes the settings for Server Settings1 as an example.

- 1** Select Network > File Transfer > Server Setting1 in the setup menu, and enter the server information items.
  - ① Configure [Display Name], [Host Name], [User Name], [Password], and other settings as described in the “Uploading Files” section in chapter 4 “Network Functions” in the PXW-FX9 Operating Instructions.
  - ② If using FTPS, load the root certificate for the FTP server into the PXW-FX9 and change the name of the root certificate to “certification.pem”.
  - ③ Set [Passive Mode] to “On”.  
However, set to “Off” if the corresponding setting on the FTP server is set to OFF.



- 2** Select Network > File Transfer > Default Upload Server in the setup menu, and set Server1 (item in the list box is the value of Display Name).

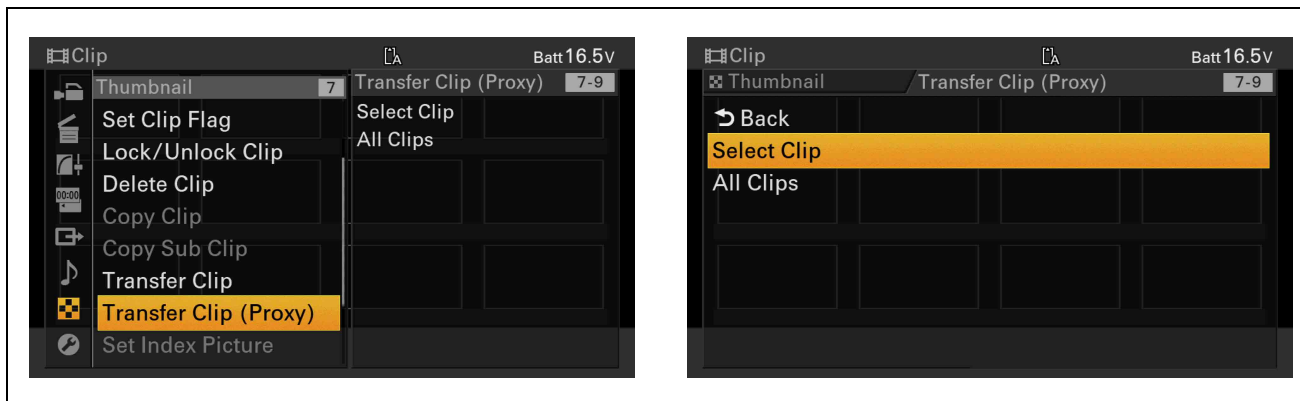


## 10.3. FTP Server Communication Test

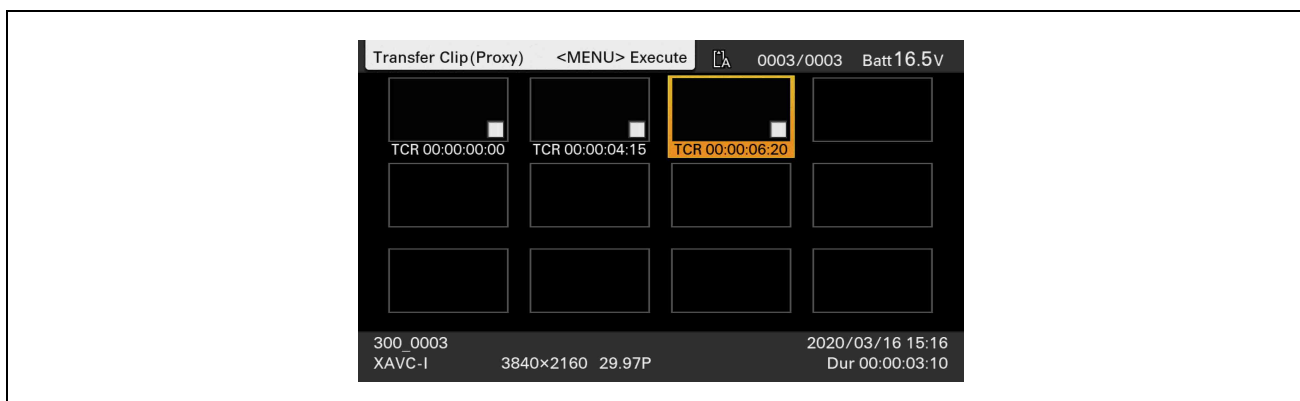
Check communication with the FTP server.

### 10.3.1. Checking Operation using the Menu

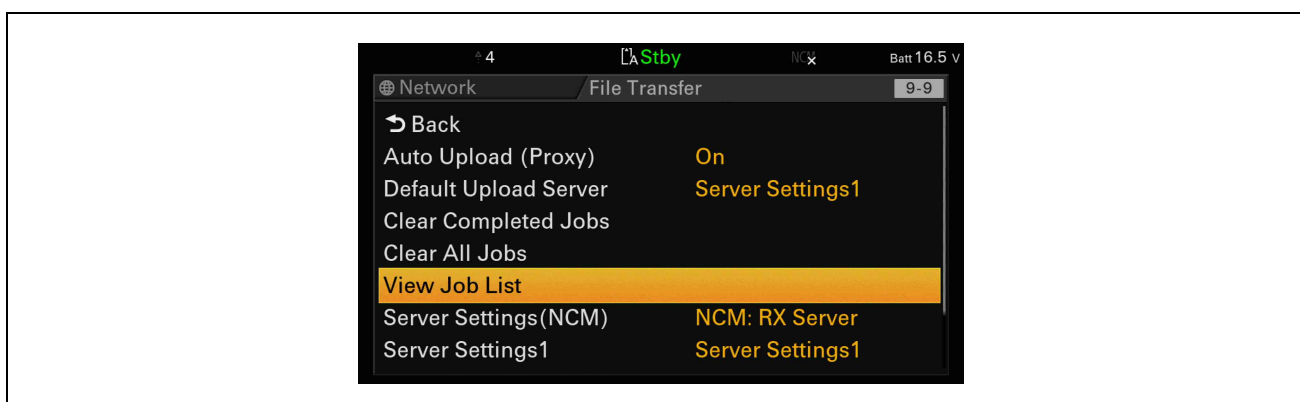
- 1 Select Thumbnail > Transfer Clip (Proxy) > Select Clip in the setup menu.



- 2 Select a clip, and start the file transfer.



- 3 Select Network > File Transfer > View Job List in the setup menu.



- 4 Check that the specified clip is being transferred.

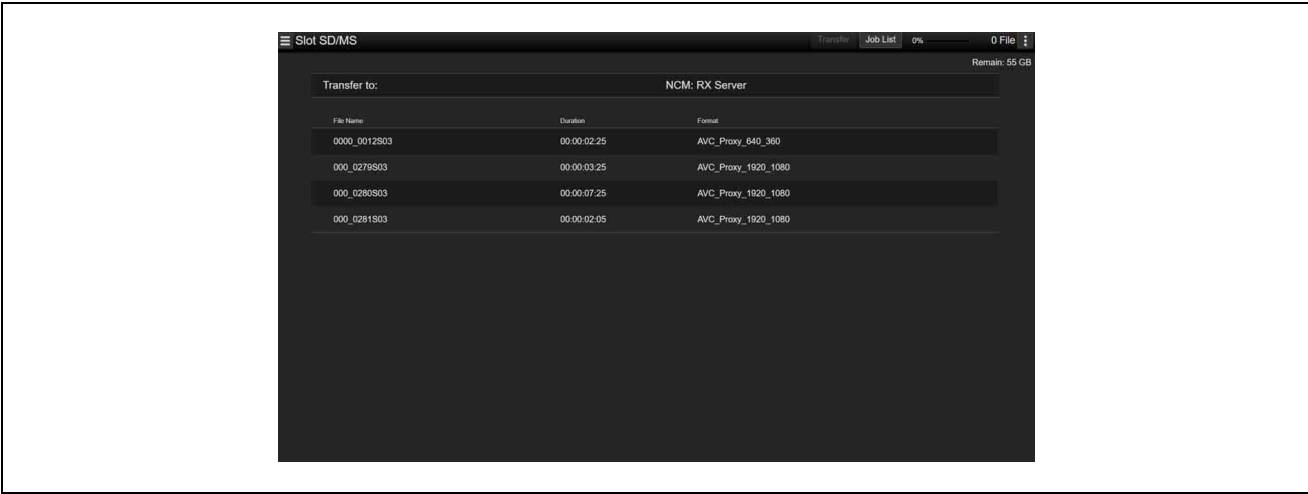
Status: "Waiting" indicates that file transfer is pending.

If a problem arises, an error message is displayed.

"Completed" indicates that the transfer was successful.

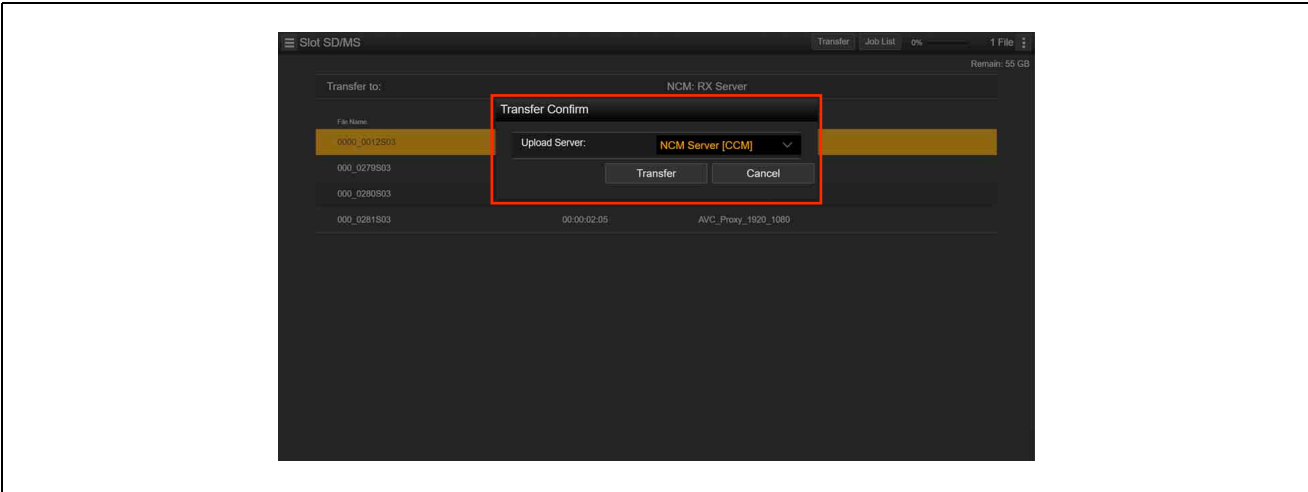
10.3.2. Checking Operation using a Web Browser

1 Access the camcorder using a web browser, and open the Slot SD/MS page.



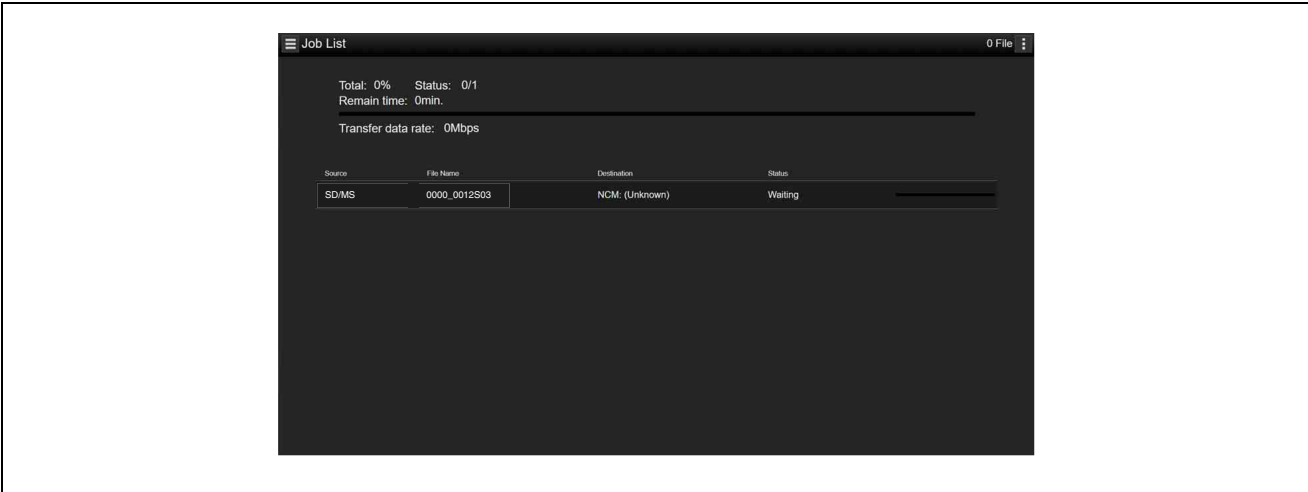
2 Select clips and click the Transfer button on the web page.

The Transfer Confirm dialog appears.



3 Select Upload Server, enter the destination directory, and click the Transfer button.

4 Display the Job List screen.



Status: "Waiting" indicates that the transfer is pending.  
When a problem arises, error message is displayed.  
"Completed" indicates that the transfer was successful.

---

## **11.1. Camcorder Settings**

No specific settings need to be configured on the camcorder.

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## **11.2. FTP Server Settings**

See *“10.2. FTP Server Settings”*.

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## **11.3. FTP Server Communication Test**

See *“10.3. FTP Server Communication Test”*.

## 12.1. Network

### 12.1.1. 4G/LTE USB Modem

| Problem: Cannot connect to network via modem.                                                                                                            |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                                                                       | Reason & Solution                                                                                                                                                               |
| Modem connection error icon is displayed<br>                            | Cannot connect to carrier communication network.<br>Check that there is a SIM in the modem (see "3.1.1. 4G/LTE USB Modem").<br>Check that there is a carrier radio wave signal. |
| Modem not connected to network icon is displayed<br>                    | During startup.<br>Searching for carrier communication network.<br>Unable to connect to network.                                                                                |
| Modem icon is not displayed                                                                                                                              | Cannot detect USB modem device.<br>Check whether the modem is a supported model or not (see "3.1.1. 4G/LTE USB Modem").                                                         |
|                                                                                                                                                          | Modem is not working.<br>Check that Network > Modem > Setting in the setup menu is set to On (see "3.1.1. 4G/LTE USB Modem").                                                   |
|                                                                                                                                                          | Network status icon indicator is not displayed.<br>Check that Monitoring > Display On/Off > Network Status in the setup menu is set to On.                                      |
| Modem signal strength icon is displayed<br>                           | The network is connected properly.                                                                                                                                              |
| Problem: Cannot access information from Network > Modem in the setup menu                                                                                |                                                                                                                                                                                 |
| Display or Message                                                                                                                                       | Reason & Solution                                                                                                                                                               |
| Network > Modem > Modem1<br>Device Name is set to "---" in the setup menu.<br>Network > Modem > Modem2<br>Device Name is set to "---" in the setup menu. | Cannot detect USB modem device.<br>Check whether the modem is a supported model or not.<br>Check whether the modem is working properly or not (see "3.1.1. 4G/LTE USB Modem").  |
|                                                                                                                                                          | Check that the USB connector of the camcorder works with another USB device.                                                                                                    |
|                                                                                                                                                          | USB modem device is not attached.                                                                                                                                               |
| Problem: Network > Modem in the setup menu is grayed out                                                                                                 |                                                                                                                                                                                 |
| Display or Message                                                                                                                                       | Reason & Solution                                                                                                                                                               |
| Network > Modem in the setup menu is grayed out                                                                                                          | An Extension Unit is not attached.                                                                                                                                              |

## 12.1.2. Wireless LAN

| Problem: Cannot connect to network via Wi-Fi                                                                                                |                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                                                          | Reason & Solution                                                                                                                                                                                                                                                                                                                   |
| Only lower left dot of Wireless LAN icon is displayed.<br> | SSID or Key (Password) is incorrect.<br>(See "5.3.2. Wireless LAN").<br><br>Searching for an access point.<br>Check the Wi-Fi access point.<br>Check whether other devices can connect to this access point or not.                                                                                                                 |
| Wireless LAN icon is displayed.<br>                        | Initializing before starting the connection.<br>Cannot connect to network.<br>Check the settings of Network > Wireless LAN > Setting and Network > ST Mode Settings items in the setup menu.                                                                                                                                        |
| Wireless LAN icon is not displayed                                                                                                          | Wi-Fi is not working.<br>Check that Network > Wireless LAN > Setting in the setup menu is set to Station Mode.<br><br>Network status indicator icon is not displayed.<br>Check that Monitoring > Display On/Off > Network Status in the setup menu is set to On.                                                                    |
| Wireless LANx icon is displayed<br>                        | Communication error.<br>Check whether other devices can connect to this access point or not.                                                                                                                                                                                                                                        |
| AP icon is displayed<br>                                   | Network > Wireless LAN > Setting in the setup menu is set to Access Point Mode.<br>In this case, the camcorder is connected to the local network, and cannot connect to the Internet.                                                                                                                                               |
| AP icon is not displayed                                                                                                                    | Initializing before starting the connection.<br><br>Wireless LAN is not working.<br>Check that Network > Wireless LAN > Setting in the setup menu is set to Access Point Mode.<br><br>Network status indicator icon is not displayed.<br>Check that Monitoring > Display On/Off > Network Condition in the setup menu is set to On. |

## 12.1.3. Wired LAN

| Problem: Cannot connect to network via wired LAN                                                              |                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                            | Reason & Solution                                                                                                                                                                                                                                    |
| LANx icon is displayed<br> | Cannot connect to local area network.<br>Check the LAN cable and that other LAN devices are working.                                                                                                                                                 |
| LAN icon is displayed<br>  | Initializing before starting the connection.<br>Cannot connect to local area network.<br>Check Network > Wired LAN > Detail Settings in the setup menu.                                                                                              |
| LAN icon is not displayed                                                                                     | Wired LAN is not working.<br>Check that Network > Wired LAN > Setting in the setup menu is set to On.<br><br>Network status icon indicator is not displayed.<br>Check that Network > Display On/Off > Network Status in the setup menu is set to On. |
| Problem: Network > Wired LAN in the setup menu is grayed out                                                  |                                                                                                                                                                                                                                                      |
| Display or Message                                                                                            | Reason & Solution                                                                                                                                                                                                                                    |
| Network > Wired LAN in the setup menu is grayed out                                                           | An Extension Unit is not attached.                                                                                                                                                                                                                   |

## 12.2. Network Client Mode

| Problem: Cannot connect to CCM                                                                                                                                                                           |                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                                                                                                                       | Reason & Solution                                                                                                                                                                                                                                |
| NCM icon is displayed<br>                                                                                               | Camcorder has not been activated from the CCM UI of C3 Portal.<br>Check whether Settings > Resource > Transmitter > TX setting is set to Pending in the CCM UI. If it is set to Pending, change the setting to Registered.                       |
|                                                                                                                                                                                                          | Camera license count "Used" has reached "Total".<br>Check Settings > Resource > Transmitter in the CCM UI.                                                                                                                                       |
|                                                                                                                                                                                                          | NCM settings are incorrect.<br>Check the following settings: URL of CCM, IP address of CCM, Port number, and other settings (see "5.4. Network Client Mode Settings"). Also, check that the DNS server setting is correct (see "12.1. Network"). |
|                                                                                                                                                                                                          | Network is not working properly.<br>Check the network settings (see "12.1. Network").                                                                                                                                                            |
|                                                                                                                                                                                                          | Camcorder version does not match with CCM.<br>Check the camcorder firmware version.                                                                                                                                                              |
| NCM× icon is displayed<br><br>Message "Authentication Failed" is displayed on the NW Client Mode Status screen.         | Password is incorrect.<br>Set the clock to the correct date and time using System > Clock Set in the setup menu.                                                                                                                                 |
| NCM× icon is displayed<br><br>Message "Certificate is not yet valid" is displayed on the NW Client Mode Status screen. | Date is incorrect (see "5.4. Network Client Mode Settings").                                                                                                                                                                                     |
| NCM× icon is displayed<br><br>Message "Destination Address Error" is displayed on the NW Client Mode Status screen.   | Cannot get host name from DNS.<br>Check the DNS settings in the setup menu: Network > ST mode settings > Manual Register or Network > Wired LAN > Detail Settings.<br>CCM address is incorrect (see "5.4. Network Client Mode Settings").        |
| NCM× icon is displayed<br><br>Message "No Network Access" is displayed on the NW Client Mode Status screen.           | Current network environment is not connected to the Internet.<br>Check network condition (see "12.1. Network").                                                                                                                                  |
| NCM icon is not displayed                                                                                                                                                                                | Wired LAN is not working.<br>Check that Network > Network Client Mode > Setting in the setup menu is set to On.                                                                                                                                  |
|                                                                                                                                                                                                          | Network status indicator icon is not displayed.<br>Check that Monitoring > Display On/Off > NCM/Streaming Status in the setup menu is set to On.                                                                                                 |

## 12.3. Use Cases

### 12.3.1. Live Streaming

| Problem: Cannot start streaming                                                                      |                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                   | Reason & Solution                                                                                                                                                                                                                                                                                                                                      |
| STRM icon is not displayed                                                                           | Streaming cannot start in the following cases. <ul style="list-style-type: none"><li>• Camcorder is operating in S&amp;Q mode (Shooting &gt; S&amp;Q Motion &gt; Setting is set to On)</li><li>• Camcorder is operating in interval recording mode (Project &gt; Interval Rec &gt; Setting is set to On)</li></ul>                                     |
| Problem: Cannot reach target bitrate for QoS streaming                                               |                                                                                                                                                                                                                                                                                                                                                        |
| Display or Message                                                                                   | Reason & Solution                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                      | APN setting may be incorrect after changing a SIM card.<br>Check the APN setting using a computer.                                                                                                                                                                                                                                                     |
|                                                                                                      | Carrier network environment is not good.                                                                                                                                                                                                                                                                                                               |
| Problem: Streaming Quality cannot be set to "Very High" or "High" on Network RX Station or C3 Portal |                                                                                                                                                                                                                                                                                                                                                        |
| Display or Message                                                                                   | Reason & Solution                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                      | When Network > Network Client Mode > Streaming Quality in the setup menu is set to "Normal" on the PXW-FX9, only "Middle" or lower can be selected for QoS Streaming > Network range on Network RX Station or C3 Portal.                                                                                                                               |
|                                                                                                      | Set Network > Network Client Mode > Streaming Quality in the setup menu to "High" on the PXW-FX9. Note that "High" may not be available for selection depending on other settings. For details, see the "Setting the Streaming Quality" section in "Using Network Client Mode" in chapter 4 "Network Functions" in the PXW-FX9 Operating Instructions. |

### 12.3.2. Camera Remote Control

| Problem: Cannot control zoom/iris, etc.   |                                                                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                        | Reason & Solution                                                                                                                                         |
| Zoom/iris control from CCM UI is disabled | Network > Network Client Mode > NCM Settings[1,2,3] > Camera Control in the setup menu is set to Disable.<br>Change the Camera Control setting to Enable. |

### 12.3.3. Intercom Operation

Not supported.

### 12.3.4. File Naming using Metadata

| Problem: Cannot set file name                                 |                                                                                                                                                       |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                            | Reason & Solution                                                                                                                                     |
| "123_0001" is displayed as the clip name on the camcorder LCD | Media > Clip Naming > Auto Naming in the setup menu is set to Title.<br>Change the setting in the setup menu to Plan (see "9.1. Camcorder Settings"). |
|                                                               | No planning metadata has been loaded.<br>Check Media > Planning Metadata > Properties in the setup menu (see "9.1. Camcorder Settings").              |

## 12.3.5. Proxy Auto Upload

| Problem: Cannot get proxy files                                                                                                                                                  |                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                                                                                               | Reason & Solution                                                                                                                                                                                                                            |
| "Waiting" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)                                                                      | While streaming, uploading of files is disabled.<br>Check whether streaming is working or not (see "6 Setup for "Live Streaming").                                                                                                           |
| Job List on View Job List screen has no entries (Network > File Transfer > View Job List)                                                                                        | Auto upload setting of camcorder is set to Off.<br>Check that Network > File Transfer > Auto Upload (Proxy) in the setup menu is set to On.                                                                                                  |
| "ET04-0406" is displayed in Job List status of CCM UI.<br>"Dest. Conn. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | FTP Server Settings are incorrect.<br>Check the FTP server settings (see "10.2. FTP Server Settings").<br>Network or FTP server is not working.<br>Check the network environment and FTP server (see "10.3. FTP Server Communication Test"). |
| "ET04-0401" is displayed in Job List status of CCM UI.<br>"Dest. Auth. Failed" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List) | User name or password for FTP server is incorrect.<br>Check the FTP server settings (see "10.2. FTP Server Settings").                                                                                                                       |
| "ET04-0404" is displayed in Job List status of CCM UI.<br>"Dest. Cert. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | A certification error occurred.<br>Check the date setting or the CA certificate of the FTP server (see "10.2. FTP Server Settings").                                                                                                         |
| "ET04-0403" is displayed in Job List status of CCM UI.<br>"File Access Err." is displayed in Job List status of View Job List screen (Network > File transfer > View Job List).  | Cannot read specified files.<br>Check whether the specified files exist on the memory card.<br>SD card is not loaded in the SD card slot.<br>Check that an SD card is loaded in the SD card slot.                                            |
| "ET04-0405" is displayed in Job List status of CCM UI.<br>"Media Access Err." is displayed in Job List status of View Job List screen (Network > File transfer > View Job List)  |                                                                                                                                                                                                                                              |

## 12.3.6. Upload to FTP Server

| Problem: Cannot get proxy files                                                                                                                                                  |                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Display or Message                                                                                                                                                               | Reason & Solution                                                                                                                               |
| "Waiting" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)                                                                      | While streaming, uploading of files is disabled.<br>Check whether streaming is working or not (see "6 Setup for "Live Streaming"").             |
| Job List in View Job List screen has no entries (Network > File Transfer > View Job List)                                                                                        | Auto upload setting of the camcorder is set to Off.<br>Check that Network > File Transfer > Auto Upload (Proxy) in the setup menu is set to On. |
| "ET04-0406" is displayed in Job List status of CCM UI.<br>"Dest. Conn. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | FTP server settings are incorrect<br>Check the FTP server settings (see "10.1. Camcorder Settings").                                            |
|                                                                                                                                                                                  | Network or FTP server is not working.<br>Check the network environment and FTP server (see "10.3. FTP Server Communication Test").              |
| "ET04-0401" is displayed in Job List status of CCM UI.<br>"Dest. Auth. Failed" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List) | User name or password for FTP server is incorrect.<br>Check the FTP server settings (see "10.2. FTP Server Settings").                          |
| "ET04-0404" is displayed in Job List status of CCM UI.<br>"Dest. Cert. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | A certification error occurred.<br>Check the date setting or CA certificate of the FTP server (see "10.2. FTP Server Settings").                |
| "ET04-0403" is displayed in Job List status of CCM UI.<br>"File Access Err." is displayed in Job List status of View Job List screen (Network > File transfer > View Job List)   | Cannot read specified files.<br>Check whether the specified files exist on the memory card.                                                     |
| Problem: Cannot get original files                                                                                                                                               |                                                                                                                                                 |
| Display or Message                                                                                                                                                               | Reason & Solution                                                                                                                               |
| "Waiting" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)                                                                      | While streaming, uploading of files is disabled.<br>Check whether streaming is working or not (see "10.1. Camcorder Settings").                 |
| "ET04-0406" is displayed in Job List status of CCM UI.<br>"Dest. Conn. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | FTP settings are incorrect<br>Check the FTP server settings (see "10.2. FTP Server Settings").                                                  |
|                                                                                                                                                                                  | Network or FTP server does not work.<br>Check the network environment and FTP server (see "10.3. FTP Server Communication Test").               |
| "ET04-0401" is displayed in Job List status of CCM UI.<br>"Dest. Auth. Failed" is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List) | User name or password for FTP server is incorrect.<br>Check the FTP server settings (see "10.2. FTP Server Settings").                          |
| "ET04-0404" is displayed in Job List status of CCM UI.<br>"Dest. Cert. Err." is displayed in Job List status of View Job List screen (Network > File Transfer > View Job List)   | A certification error occurred.<br>Check the date setting or CA certificate of the FTP server (see "10.2. FTP Server Settings").                |
| "ET04-0403" is displayed in Job List status of CCM UI.<br>"File Access Err." is displayed in Job List status of View Job List screen (Network > File transfer > View Job List)   | Cannot read specified files.<br>Check whether the specified files exist on the memory card.                                                     |

## 13.1. Certificate Format for FTPS

- File format (encoding)
  - PEM
- File name
  - “certification.pem” (all lower-case letters)
- File structure
  - Root certificate only, between the following delimiters. An intermediate certificate is not included.  
 -----BEGIN CERTIFICATE-----  
 (Your Root certificate)  
 -----END CERTIFICATE-----
- Revocation status verification of certificate must be either CRL or OCSP.

## 13.2. Status Displayed on View Job List Screen

| Status display     | Description                                           |
|--------------------|-------------------------------------------------------|
| Completed          | Transfer completed                                    |
| Transferring       | Transfer in progress                                  |
| Aborted            | Transfer aborted                                      |
| Waiting            | Transfer pending                                      |
| File Access Err.   | File access error                                     |
| Media Access Err.  | Media access error                                    |
| Dest. Conn. Err.   | Transfer destination connection error                 |
| Dest. Server Err.  | Transfer destination server error                     |
| Dest. Auth. Failed | Transfer destination authentication error             |
| Dest. Cert. Err.   | Transfer destination certificate error                |
| D. Cert. not Valid | Transfer destination certificate not valid            |
| D. Cert. Expired   | Transfer destination certificate expired              |
| Upload Error       | Transfer destination server upload error              |
| PASV not Support   | The destination server does not support passive mode. |
| Chunk Trans. Err.  | Chunk file transfer error                             |
| Other Error        | Errors other than the above                           |

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## 13.3. Precautions Regarding Specifications

- Specifications are subject to change without notice.
- Always make a test recording, and verify that it was recorded successfully. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF FAILURE OF THIS UNIT OR ITS RECORDING MEDIA, OR WIRELESS NETWORK OR CONNECTION TO A WIRELESS NETWORK.
- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.
- SONY WILL NOT BE LIABLE FOR CLAIMS OF ANY KIND MADE BY USERS OF THIS UNIT OR MADE BY THIRD PARTIES.
- SONY WILL NOT BE LIABLE FOR THE LOSS, REPAIR, OR REPRODUCTION OF ANY DATA RECORDED ON THE INTERNAL STORAGE SYSTEM, RECORDING MEDIA, EXTERNAL SERVER OR ANY OTHER MEDIA OR STORAGE SYSTEMS.
- SONY WILL NOT BE LIABLE FOR THE TERMINATION OR DISCONTINUATION OF ANY SERVICES RELATED TO THIS UNIT THAT MAY RESULT DUE TO CIRCUMSTANCES OF ANY KIND.

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## 13.4. Precautions Regarding Security

- Use behind a firewall designed to be secure. Do not use networks that may connect to untrusted devices.
- The FTP protocol does not encrypt content, user names, or passwords. Where possible, use FTPS.
- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM A FAILURE TO IMPLEMENT PROPER SECURITY MEASURES ON TRANSMISSION DEVICES, UNAVOIDABLE DATA LEAKS RESULTING FROM TRANSMISSION SPECIFICATIONS, OR SECURITY PROBLEMS OF ANY KIND.
- Depending on the operating environment, unauthorized third parties on the network may be able to access the unit. When connecting the unit to the network, be sure to confirm that the network is protected securely.
- Communication content may be unknowingly intercepted by unauthorized third parties in the vicinity of the signals. When using wireless LAN communication, implement security measures properly to protect the communication content.
- From a security standpoint, when using the unit connected with the network, it is strongly recommended to change the access limitation settings from the factory preset values. Take extra precautions when connecting to an open network. Also, it is recommended that you change the password regularly.
- Do not browse any other website in the Web browser while making settings or after making settings. Since the login status remains in the Web browser, close the Web browser when you complete the settings to prevent unauthorized third parties from using the unit or harmful programs from running.

# ***Revision History***

| <b>Date</b>     | <b>Description</b> | <b>Revision</b> |
|-----------------|--------------------|-----------------|
| September, 2020 | 1st Revision       | 1.00            |
| November, 2021  | 2nd Revision       | 2.00            |