

SONY®

NETWORK RX STATION

PWS-110RX1A

V1.20.3

Software Update Guide

1st Edition

Table of Contents

Software Update

[1] Purpose of this manual

[2] Preparation

Updating the PWS System

[3] PWS-100 Suite and MSQ Firmware

Windows Settings

[4] Update the Graphics Driver

Updating RX1 Applications

[5] Connection Control Manager and Receiver

[6] Registering Receivers

Appendix

[A] Windows Update

[B] Recreate and import the certificate

[C] Port Check

[D] Diagnose the receiver system

[E] Initializing receiver application settings

[F] Set up the license

[G] Set up the USB audio interface driver

[H] Troubleshooting

[I] Back up and restore CCM software settings

[J] Point-to-point streaming settings

[K] How to do a clean install of Connection Control Manager and Receiver

Purpose of this manual

This document describes how to update the PWS-110RX1A application software programs to the latest version as follows.

- PWS-100_Suite: Version 01.56.01.00
- Sony HKP Service PWS-100: Version 01.56.00.00
- Sony SNMP PWS-100: Version 01.30.00.02
- Sony Web_Application_PWS-100: Version 01.21.05.9009
- Sony MSQ-S321 PWS-100 PWS-300 for Win10: Version 01.50.00.00
- RX1 Connection Control Manager: Version 1.20.3.12070
- RX1 Streaming Receiver: Version 1.20.3.11080
- Intel Graphics Driver: Version 26.20.100.7263

Note

- If the version of the unit is **V1.13.0 or earlier**, update the unit to **V1.14.0** first, and then perform this installation.

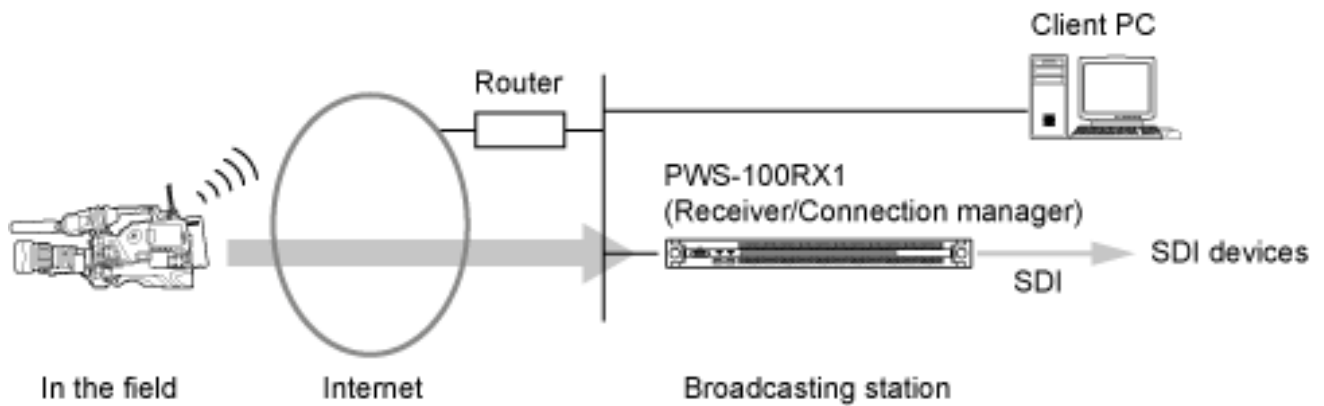
Trademarks

- Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.
- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- Google and Google Chrome are registered trademarks of Google LLC.
- All other product names and brand names are registered trademarks or trademarks of their respective owners. Trademarked items are not indicated by ® or ™ symbols in the text.

Remarks

- Network services, content, and the operating system and software of this Product may be subject to individual terms and conditions and changed, interrupted or discontinued at any time.

- When you connect the product to the Internet, please pass through the router or connect to the LAN port with router function. If you connect it without router function, security issue might occur.
- Please use with Microsoft Windows Firewall enabled.



Note

Once a security issue occurs, your product might suffer damages caused by malware (malicious software) via the Internet and be exposed to security threat such as extraction or tampering of content or customer's information. Not only that, your product might cause damages to the network services without your knowing.

- The Remote Desktop Protocol (RDP) is disabled in the factory settings. When RDP is enabled and necessary port (TCP 3389 as default) is opened to allow access from the Internet, it is easy to be attacked from outside.

Preparation

Note

- Please keep all camcorders and wireless adapters offline and close all web browser screens when doing this update.

Equipment required

- A USB mouse
- A USB keyboard
- A HDMI monitor
- A USB flash memory (commercially available, 1GB or more recommended)

Required file

- Data file for update (installation package): PWS-110RX1A_V1.20.3.zip

Procedure

1. Connect the mouse and the keyboard to the USB connectors.
2. Connect the monitor to the HDMI connector.
3. Copy the data file "PWS-110RX1A_V1.20.3.zip" to the USB flash memory.
4. Connect the USB flash memory to the USB connector on the unit.
5. Copy the data file to the Desktop, then select "PWS-110RX1A_V1.20.3.zip" and right click, and then select "Extract All..." (Do NOT double click to open).

PWS-110RX1A_V1.20.3

- PWS-MSQ_Updater_1.20.3
- RX1_App_1.20.3
- Utility

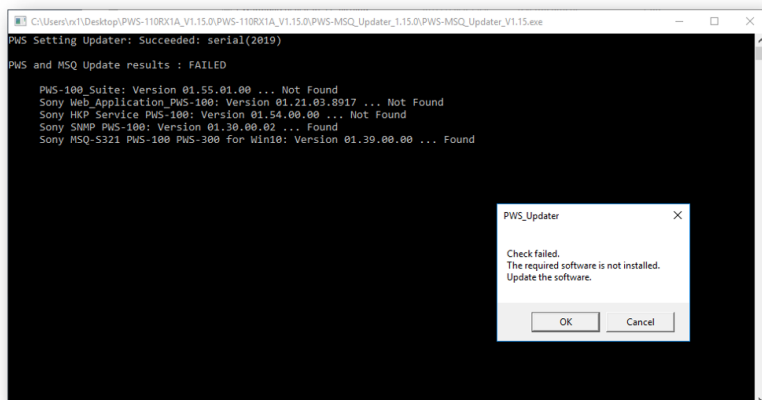
PWS-100 Suite and MSQ Firmware

Use the PWS_Updater.exe utility to check the installed version of PWS suite software and MSQ firmware, and update to the appropriate version if necessary.

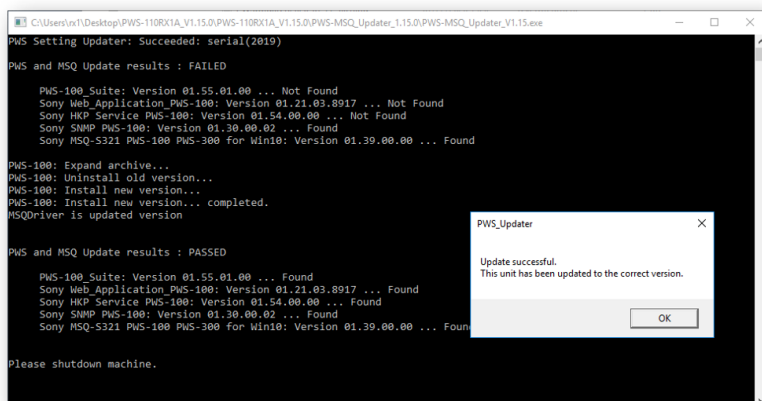
Procedure

1 Installing the PWS-100 Suite and the MSQ firmware.

1. Open the Install package folder "PWS-MSQ_Updater_1.20.3".
2. Run the "PWS-MSQ_Updater_V1.20.exe".
3. If User Account Control dialog is displayed. Click [Yes] to start.
4. The installed PWS suite and MSQ firmware versions are checked.
5. If you need to update PWS suite and MSQ firmware, click [OK] to start the wizard. Follow the wizard to uninstall and install. For details on wizard operations, refer to ["Updating the PWS Suite"](#) and ["Updating the MSQ firmware"](#).



6. Click [OK] to exit.



7. Turn off the unit.
8. **Remove the power cord.**
9. Wait for at least 10 seconds, connect the power cord, and then turn on the unit.
10. Sign in to Windows 10.

Note

If the installation wizard terminates abnormally, or if the error message "Update failed. Refer to the Software Update Guide and update manually." is displayed after updating, refer to "[Updating the PWS Suite](#)" and "[Updating the MSQ firmware](#)" and update manually.

2 Software Version Check after Update.

1. Hold down the [Windows] button and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, check the version of applications.

- PWS-100_Suite: Version 01.56.01.00
- Sony HKP Service PWS-100: Version 01.56.00.00
- Sony SNMP PWS-100: Version 01.30.00.02
- Sony Web_Application_PWS-100: Version 01.21.05.9009
- Sony MSQ-S321 PWS-100 PWS-300 for Win10: Version 01.50.00.00

Update the Graphics Driver

When using a streaming function, you need to update the Graphics driver.

Intel Graphics Driver 26.20.100.7263 is supported. You can skip this step if you have already updated the driver to the version 26.20.100.7263.

Procedure

1 Run Windows Update.

1. Hold down the [Windows logo] key and press the [i] key on the keyboard.
2. From the displayed Windows Settings menu, select [Update & security].
3. Click [Windows Update] on the left menu.
4. Click [Check for updates] button.
5. Click [Restart now] button if displayed.

Note

Windows Update may take more than an hour. Make sure you have enough time to update.

6. Getting Windows ready. Don't turn off the unit.
7. Sign in to Windows 10.

2 Software version check after Windows Update.

1. Hold down the [Windows logo] key and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, check the version of applications.

- Intel Graphics Driver: Version 26.20.100.7263

Connection Control Manager and Receiver

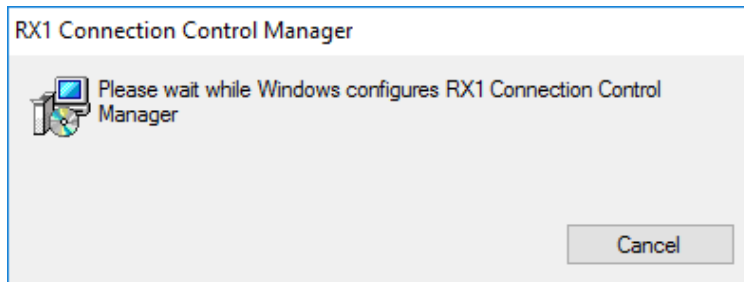
Note

- If the version of the unit is **V1.13.0 or earlier**, update the unit to **V1.14.0** first, and then perform this installation.

Procedure

1 Installing the Connection Control Manager.

1. Open the Install package folder "RX1_App_1.20.3\CCM_V1.20.3.12070".
2. Run the "RX1CCMInstallHelper.exe".
3. If the User Account Control dialog box is displayed, check that "RX1 Connection Control Manager" is displayed and click [Yes] to start the installation. Need to wait for a while.



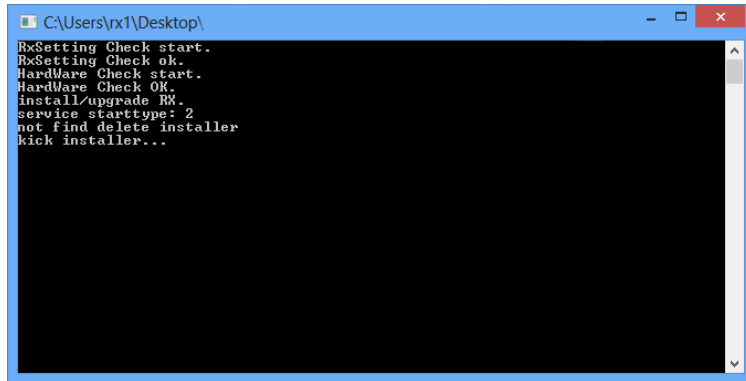
4. If the Windows Security dialog is displayed, click [Install].



5. A command prompt opens and closes during the installation. Wait until the command prompt closes.

2 Installing the Streaming Receiver.

1. Open the Install package folder "RX1_App_1.20.3\RX_V1.20.3.11080".
2. Run the "RX1 Streaming Receiver.exe".
3. If the User Account Control dialog box is displayed, check that "StreamingReceiverAppInstallHelper" is displayed and click [Yes] to start the installation.
4. A command prompt opens and closes during the installation. Wait until the command prompt closes.



```
C:\Users\rx1\Desktop>
RxSetting Check start.
RxSetting Check ok.
Hardware Check start.
Hardware Check OK.
Install/upgrade RX.
service starttype: 2
not find delete installer
kick installer...
```

3 Turn off the unit and then turn it on.

1. Turn off the unit.
2. Turn on the unit.
3. Sign in to Windows 10.

4 Software version check after update.

1. Hold down the [Windows logo] key and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, check the version of applications.

- RX1 Connection Control Manager: Version 1.20.3.12070
- RX1 Streaming Receiver: Version 1.20.3.11080

Installing USB Audio Interface Driver

If you use an intercom function, refer to [Appendix G](#) and install the USB audio interface driver. If you do not use the intercom function, skip this step.

Registering Receivers

Register the unit in the system using the Initialization Tool. This operation is required for all units configured to receive streaming content.

Procedure

1 Login to the CCM UI.

1. Enter "<https://localhost>" in the address field of the browser.

Note

- If a warning screen for SSL authentication appears, follow the procedure in [Appendix B](#) to import the certificate.
- It takes about 3 minutes to start up the CCM application. Please wait for a while if loading screen is displayed.

2. Enter the user name and password to log in.

Note

- If a password change is requested, set a new password.

2 Confirm that username and password are set.

1. Click [Settings] tab in the global header.
2. Select [CCM] tab, click [Connection].
3. Confirm [Username] and [Password] in [RX Connection] field.
4. Click [Streaming] tab in the global header.

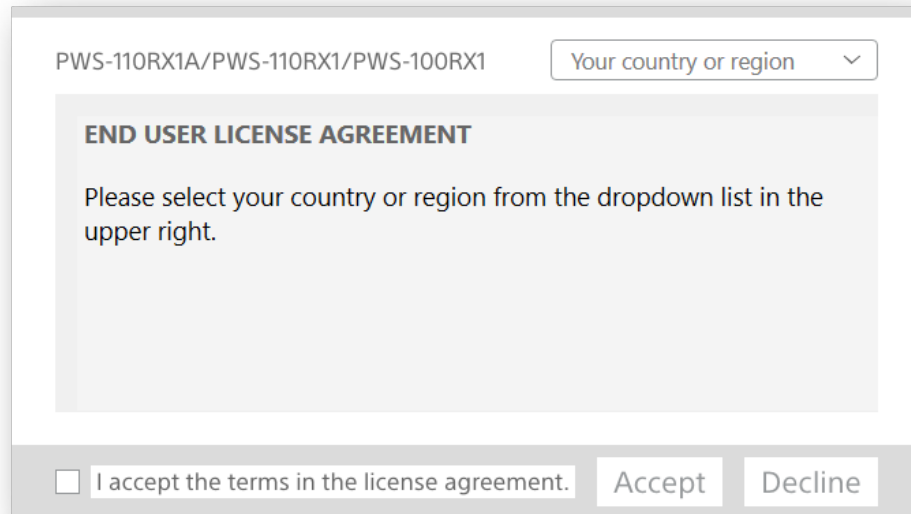
3 Launch the Initialization Tool.

Note

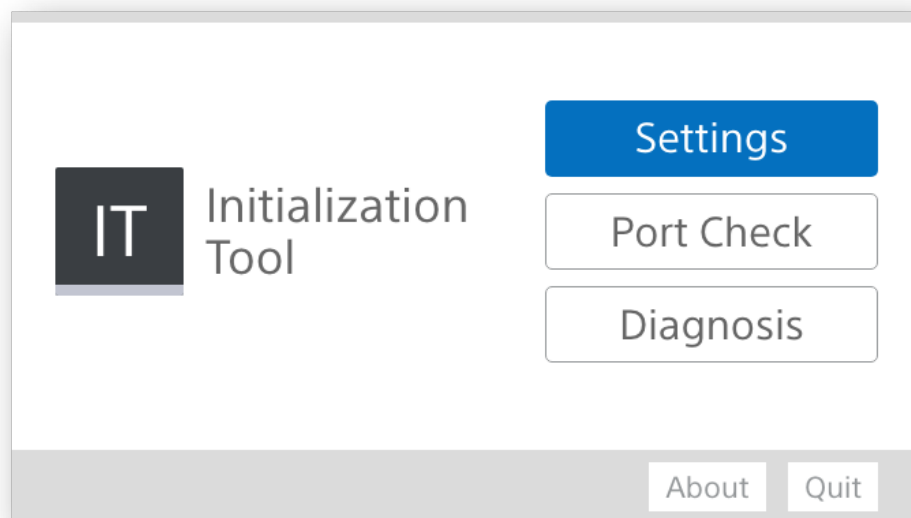
- If you want to use the intercom function, please connect the USB audio interface to the unit and then launch the initialization tool.

1. Click [RX1 Streaming Receiver] > [Initialization Tool] icon in the Start menu.

2. User Account Control dialog box is displayed. Click [Yes] to launch.
3. The "End User License Agreement" appears the first time you launch the Initialization Tool. Select your country or region, and then check and accept the terms of the agreement in order to use the system. Click [Accept].



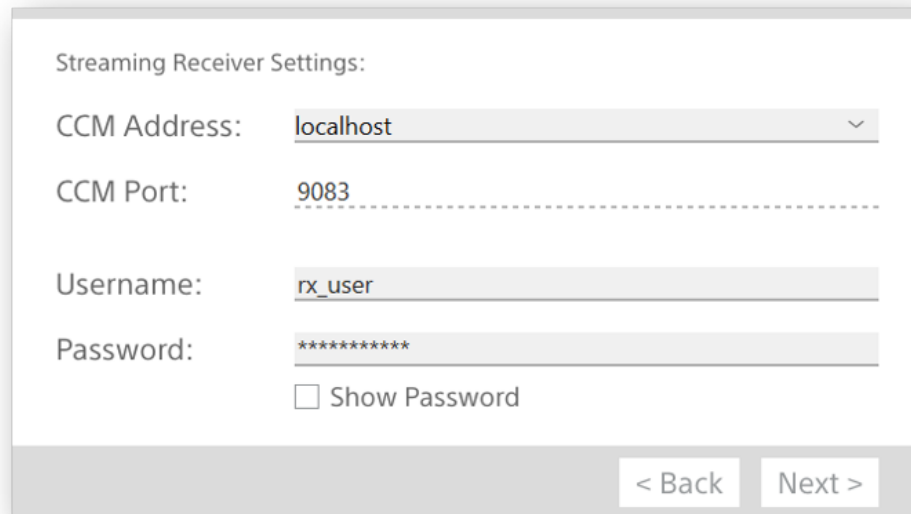
4. Click [Settings].



4 Enter connection settings for the Connection Control Manager.

1. [CCM Address]: Enter the IP address or host name (FQDN) of the Connection Control Manager.
If connecting to localhost or C3 Portal, select a preset address from the drop-down list.
2. [CCM Port]: The port number "9083" of the Connection Control Manager is set.
If the C3 Portal address is selected in [CCM Address], the port number changes to "443".
3. [Username] and [Password]: Enter the username and password to log in to the Connection Control Manager from a streaming receiver.

Enter the registered user name and password in [Settings] screen > [CCM] tab > [Connection] tab > [RX Connection] in the Connection Control Manager.
When using C3 Portal, enter the configured username and password in [Settings] screen > [System] > [Credential] > [Receiver] in C3 Portal.



Streaming Receiver Settings:

CCM Address:

CCM Port:

Username:

Password:

☐ Show Password

< Back Next >

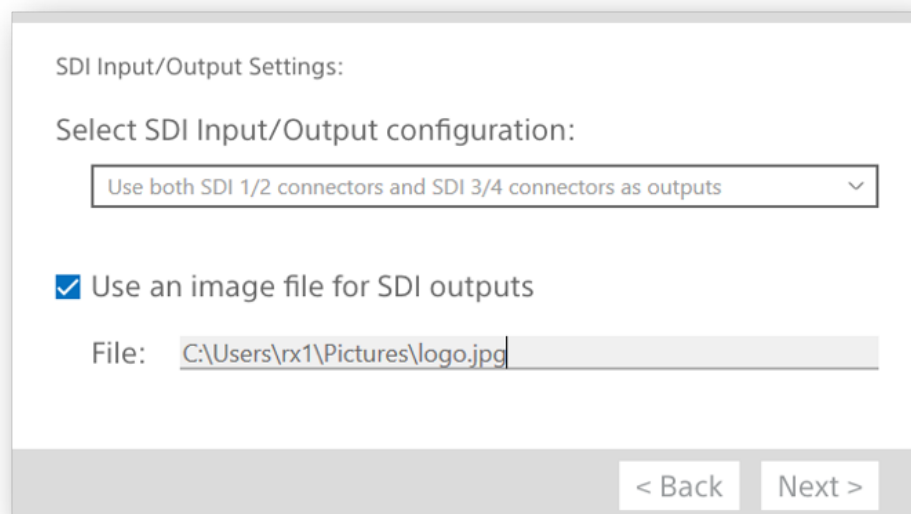
4. Click [Next].

Note

- If you use the unit with C3 Portal, refer to the "C3 Portal Help Guide (Setup)".

5 Enter optional settings. (This step can be set later.)

1. Check the box [Use an image file for SDI outputs] when outputting a still image to SDI output while streaming is stopped. To use an image file, specify the path to the file (1920x1080 resolution JPEG or BMP image) in [File].



SDI Input/Output Settings:

Select SDI Input/Output configuration:

☒ Use an image file for SDI outputs

File:

< Back Next >

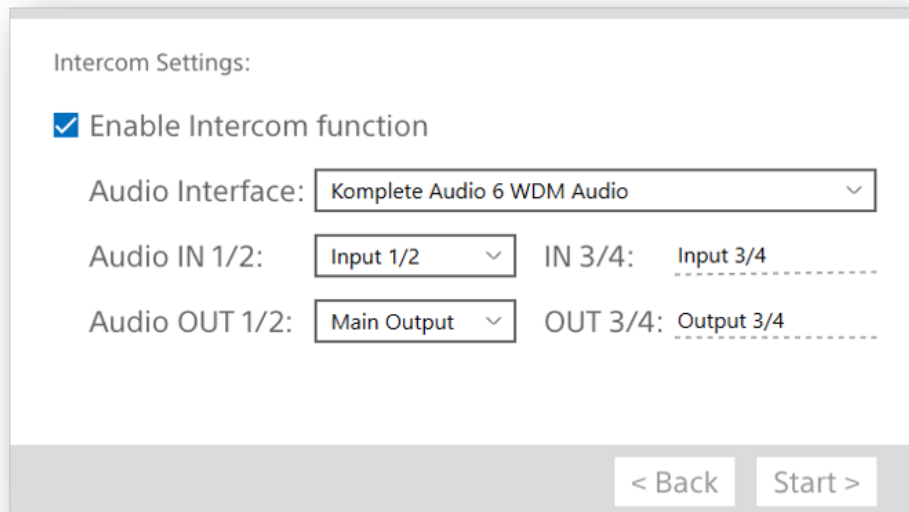
Note

- If you use the Point-to-point streaming function, please refer to [Appendix J](#).

2. Click [Next].
3. Check the box [Enable Intercom function] when using the receiver with an intercom function. Select your audio interface from the drop down menu.

Note

- The [Audio IN] and [Audio OUT] choices show the names found in the [Sound] settings in the windows control panel.



Intercom Settings:

☒ Enable Intercom function

Audio Interface:

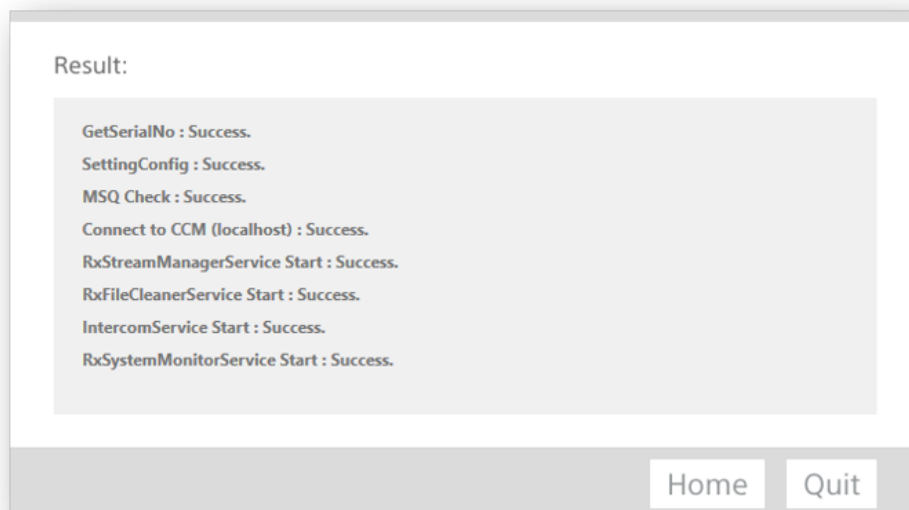
Audio IN 1/2: IN 3/4:

Audio OUT 1/2: OUT 3/4:

< Back Start >

4. Click [Start].

6 The result is displayed, then click [Quit].



Result:

```
GetSerialNo : Success.
SettingConfig : Success.
MSQ Check : Success.
Connect to CCM (localhost) : Success.
RxStreamManagerService Start : Success.
RxFileCleanerService Start : Success.
IntercomService Start : Success.
RxSystemMonitorService Start : Success.
```

Home Quit

7 Return to web browser screen and check the settings.

1. Select [Streaming] tab, then confirm that the receiver appears in the receiver area.
2. Click [Settings] tab in the global header.
3. Select [CCM] tab, click [Maintenance].
4. Check [CCM Software Version]. Version 1.20.3.12070
5. Click [RX] tab, then select the unit.
6. Check [Software Version]. Version 1.20.3.11080

Note

You can back up your CCM settings. It is recommended that you create a backup file after the update has completed successfully. Refer to [Appendix I](#).

Windows Update

You can manually run Window Update in the following way. It is recommended to update regularly.

Note

Windows Update may take more than an hour. Make sure you have enough time to update.

Windows 10 IoT 2016 LTSC Lifecycle Policy

Please check the Microsoft website.

<https://docs.microsoft.com/en-us/lifecycle/products/windows-10-iot-enterprise-ltsb-2016>

Extended End Date: October 13, 2026

1 Launch Windows Settings.

1. Turn on the unit, and sign in to Windows 10.
2. Hold down the [Windows logo] key and press the [i] key on the keyboard.
3. From the displayed Windows Settings menu, select [Update & security].

2 Check for updates.

1. Click [Windows Update] on the left menu.
2. Click [Check for updates] button.

Note

Automatic Updates feature is disabled. You can check the setting in the following way.

1. Turn on the unit, and sign in to Windows 10.
2. Hold down the [Windows logo] key and press the [R] key on the keyboard.
3. Enter "gpedit.msc", and then click [OK].
4. Open [Local Computer Policy] > [Computer Configuration] > [Administrator Templates] > [Windows Components] > [Windows Update].
5. Check [Configure Automatic Updates].

Recreate and import the certificate

Recreate the certificate

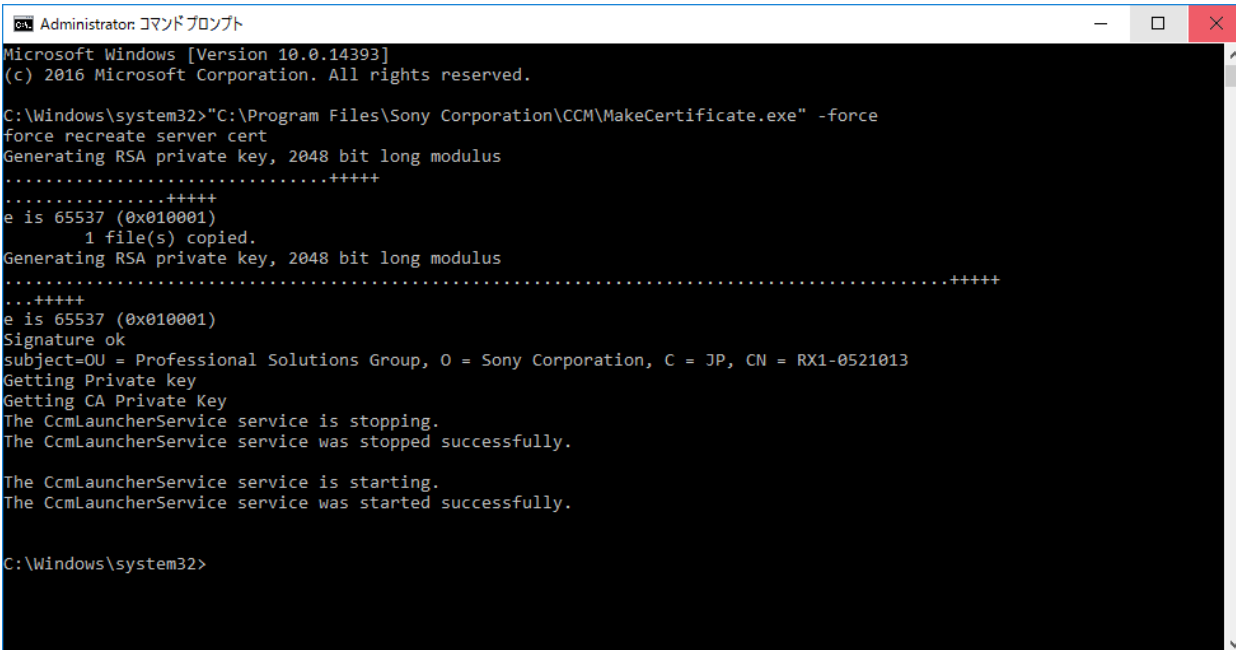
If you change the host name of the unit, or if the certificate expires, you must recreate the certificate by the following procedure, then perform the procedure to import the certificate (C:\CCM-Server\ca.crt).

1 Launch command prompt as administrator.

1. Turn on the unit, and sign in to Windows 10.
2. Close all web browser windows.
3. Hold down the [Windows logo] key and press the [X] key on the keyboard.
4. From the displayed Quick Access menu, select [Command Prompt (Admin)].

2 Enter command.

1. Type "'C:\Program Files\Sony Corporation\CCM\MakeCertificate.exe" -force'.



```
Administrator: コマンドプロンプト
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Windows\system32>"C:\Program Files\Sony Corporation\CCM\MakeCertificate.exe" -force
force recreate server cert
Generating RSA private key, 2048 bit long modulus
.....+++++
.....+++++
e is 65537 (0x010001)
1 file(s) copied.
Generating RSA private key, 2048 bit long modulus
.....+++++
.....+++++
e is 65537 (0x010001)
Signature ok
subject=OU = Professional Solutions Group, O = Sony Corporation, C = JP, CN = RX1-0521013
Getting Private key
Getting CA Private Key
The CcmLauncherService service is stopping.
The CcmLauncherService service was stopped successfully.

The CcmLauncherService service is starting.
The CcmLauncherService service was started successfully.

C:\Windows\system32>
```

3 Import the new certificate.

Import the certificate

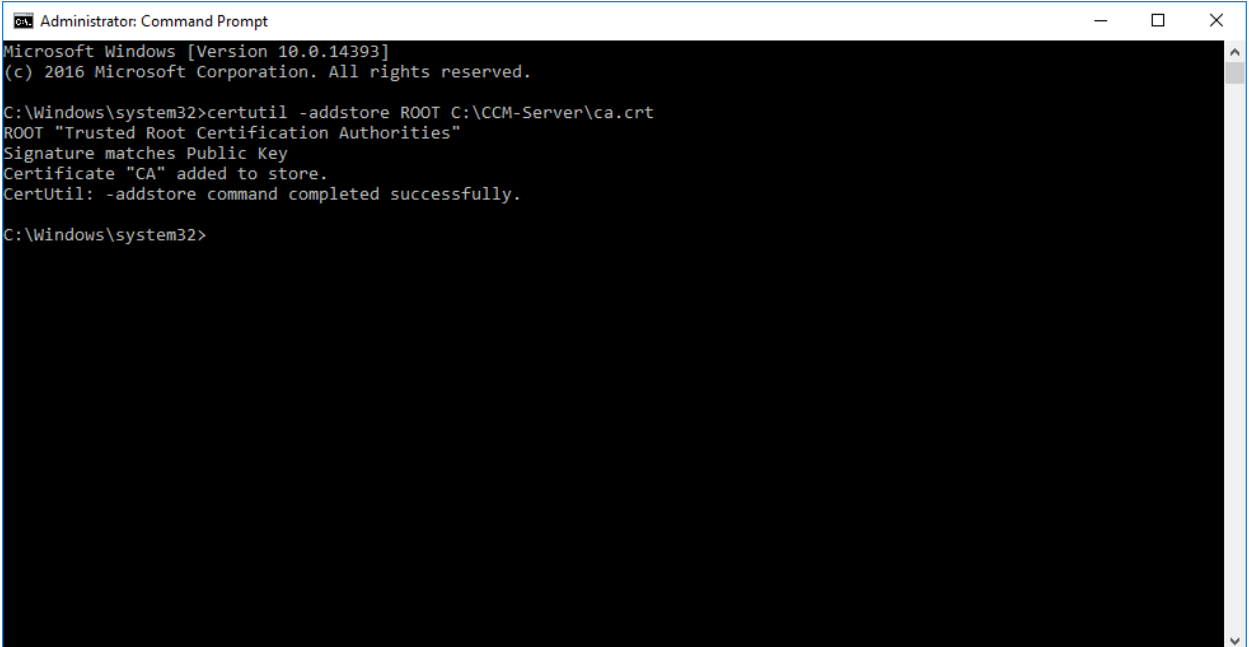
If you performed this update as a clean installation, please follow the steps below.

1 Launch command prompt as administrator.

1. Turn on the unit, and sign in to Windows 10.
2. Close all web browser windows.
3. Hold down the [Windows logo] key and press the [X] key on the keyboard.
4. From the displayed Quick Access menu, select [Command Prompt (Admin)].

2 Enter command.

1. Type 'certutil -addstore ROOT C:\CCM-Server\ca.crt'.



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Windows\system32>certutil -addstore ROOT C:\CCM-Server\ca.crt
ROOT "Trusted Root Certification Authorities"
Signature matches Public Key
Certificate "CA" added to store.
CertUtil: -addstore command completed successfully.

C:\Windows\system32>
```

Using a client PC

When accessing the system from a web browser, an SSL authentication message may be displayed.

If using a client PC, use the following procedure on the client PC. The following procedure is applicable to Windows. For details about importing a certificate, refer to the manual for the corresponding OS.

1 Check host name on the unit.

1. Hold down the [Windows logo] key and press the [X] key on the keyboard.
From the displayed Quick Access menu, select [Command Prompt].

2. Type 'hostname', then host name of your unit is displayed.

2 Copy the certificate file (C:\CCM-Server\ca.crt) on the unit to any location on the client PC.

3 Temporarily close all browsers on the client PC.

4 Register the host name of the unit in the hosts file (C:\Windows\System32\drivers\etc\hosts) on the client PC.

5 Import certificate on the client PC.

6 Check that you can access "https://hostname_of_your_unit".

Port Check

Check that you can access the receiver ports from outside the router.

Note

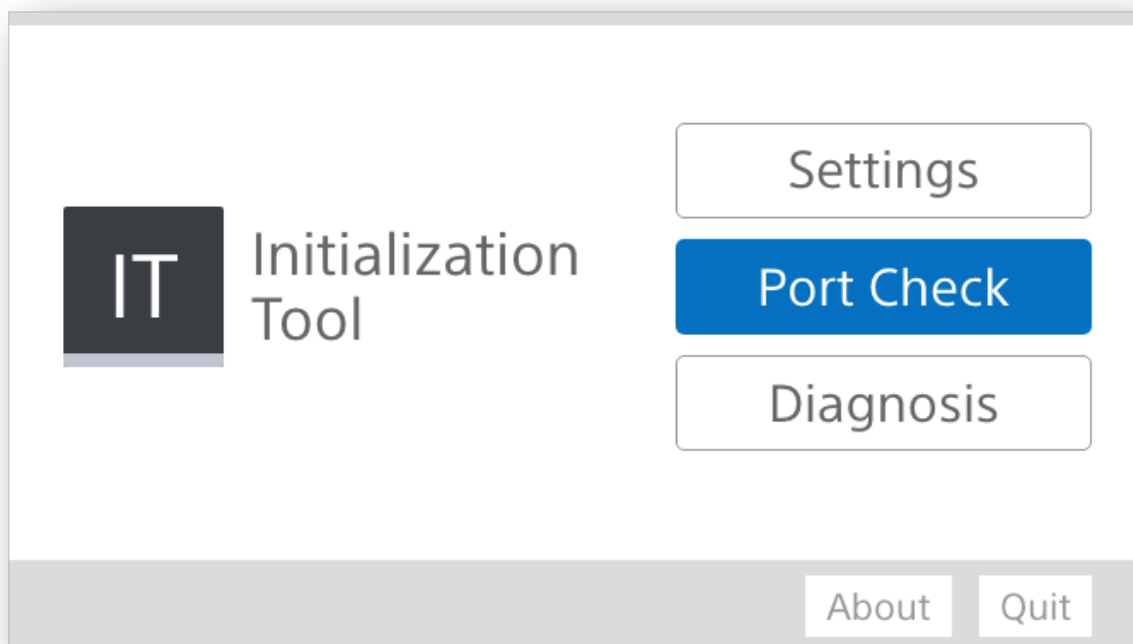
To run the Port Check tool you need:

- The DNS server setting is correct.
- System clock setting is correct.
- The outbound access of the TCP 9084 port to the router is permitted.

Procedure

1 Launch the Initialization Tool.

1. Launch the Initialization Tool.
2. Click [Port Check].



2 Enter the address and port for the unit.

You can test CCM (TCP) ports by placing a check mark in the [CCM] checkbox.

1.

Note

Uncheck the [CCM] checkbox when using with XDCAM air, and then skip steps 2 and 3 below.

2. Enter the hostname (FQDN) or IP address to access from outside the router to the unit in [Host Name].
3. Enter the TCP port number used to communicate with the Connection Control Manager in [TCP Port].
4. You can test streaming (UDP) ports by placing a check mark in the [RX] checkbox.
5. Enter the hostname (FQDN) or IP address to access from outside the router to the unit in [Host Name].
6. Enter the UDP port number to use for streaming in [UDP Port].
7. Click [Start].

Port Check

☒ CCM

Hostname:

TCP Ports: , (2 ports)

☒ RX

Hostname:

UDP Ports: ~ (20 ports)

Home Start >

3 The result is displayed.

Note

Be sure to quit the Initialization Tool before starting the streaming.

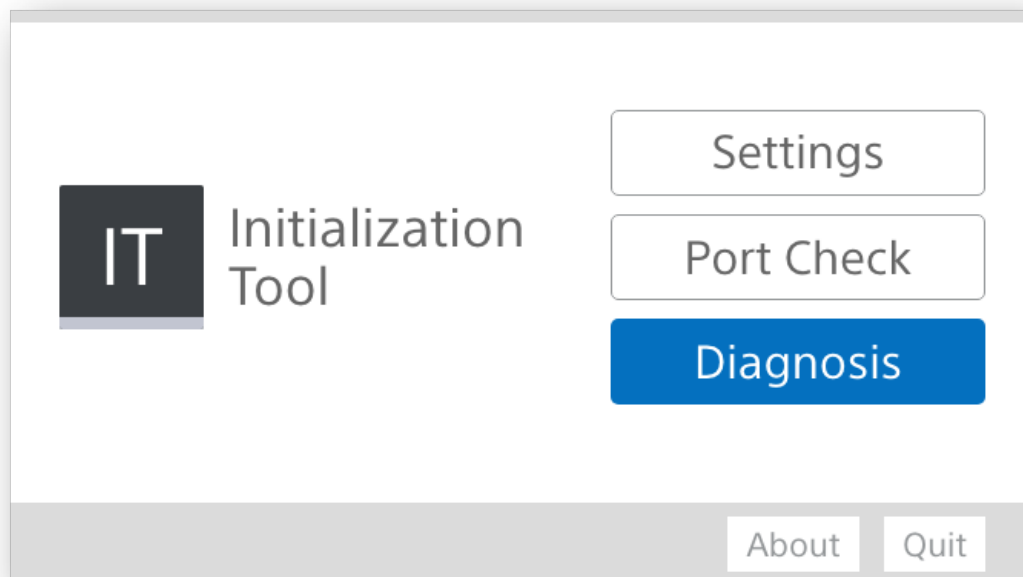
1. Click [Home].
2. Click [Quit].

Diagnose the receiver system

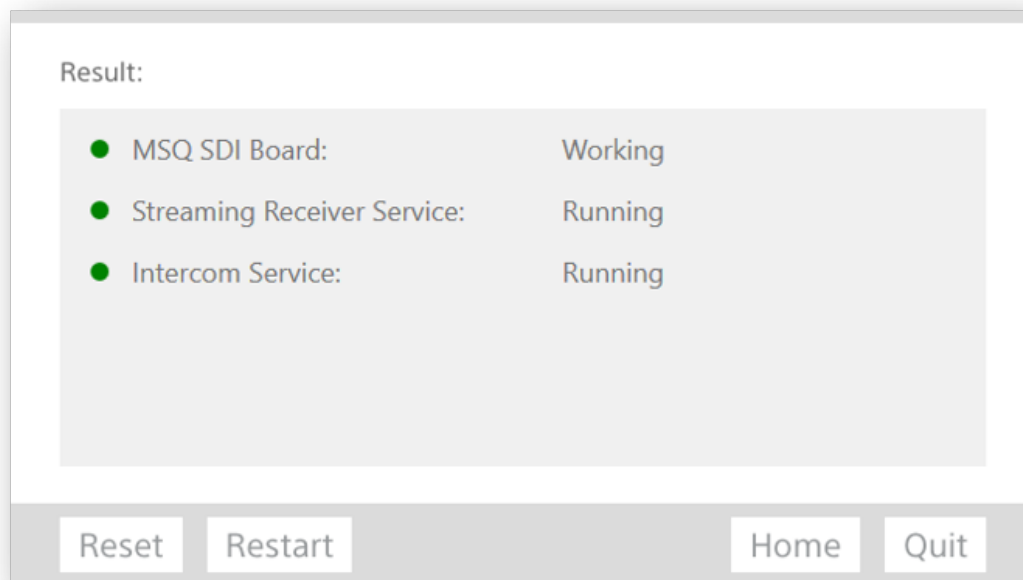
Check if the register of the MSQ (SDI) board can be accessed and the receiver process is running.

Procedure

- 1 Launch the Initialization Tool. Click [Diagnosis].



- 2 The result is displayed. Click [Quit].



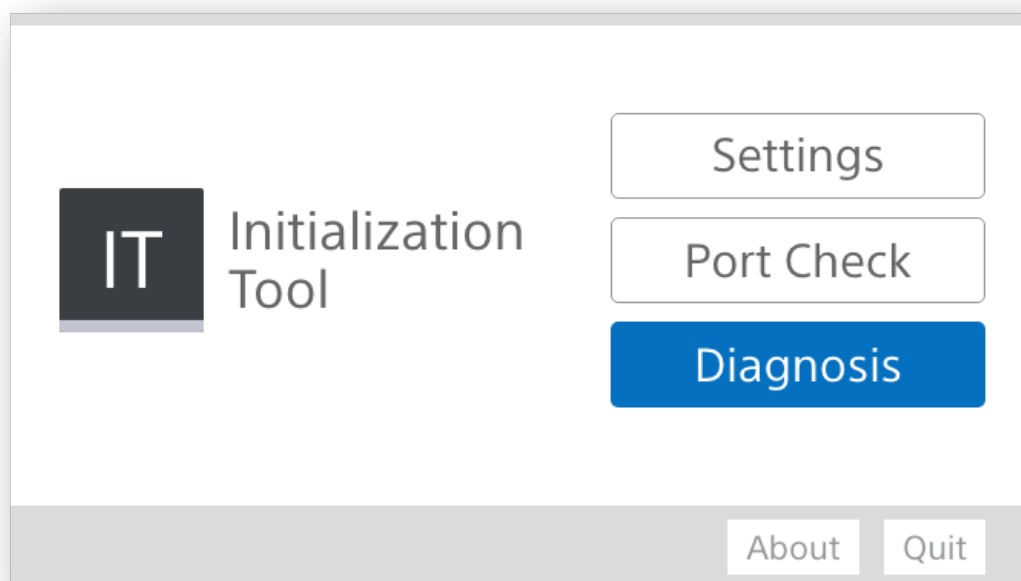
Note

Press [Restart] button to restart the receiver process.

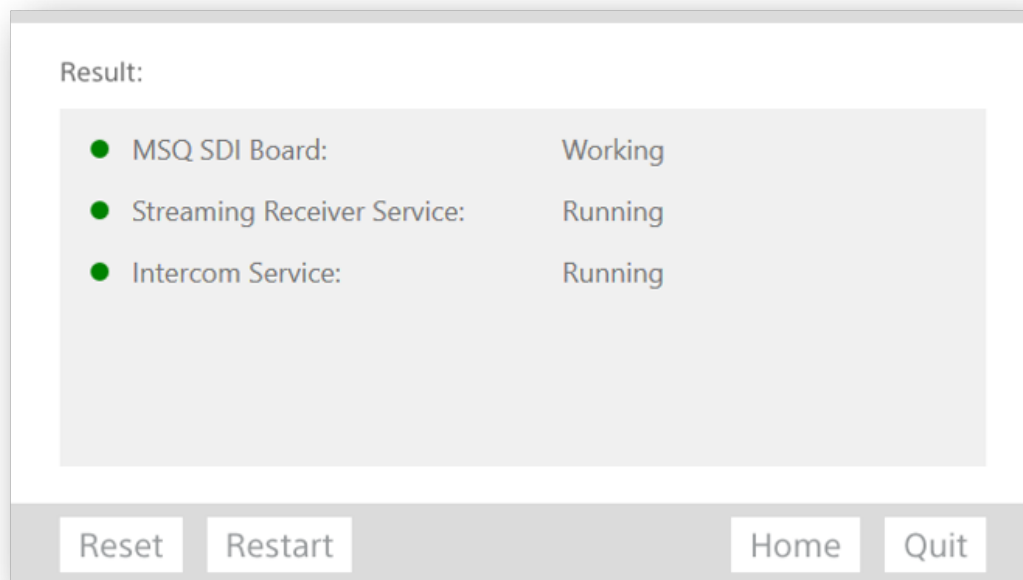
Initializing receiver application settings

Procedure

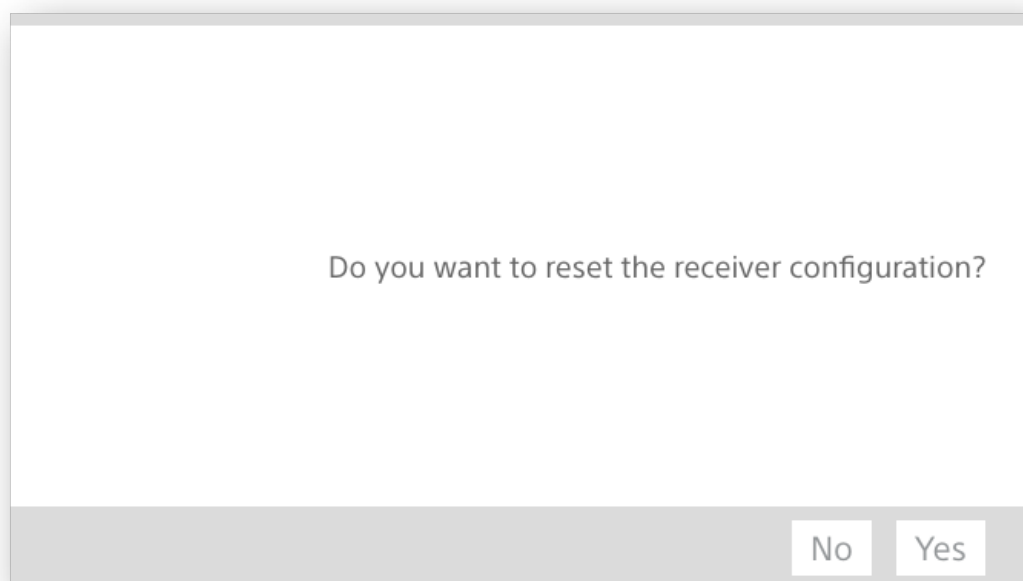
- 1 Launch the Initialization Tool. Click [Diagnosis].



- 2 The diagnostic result is displayed. Click [Reset].



3 The confirmation dialog appears. Click [Yes].



4 The result is displayed. Click [Quit].

Set up the license

For details, refer to the "License Setup Guide" attached to each license.

Procedure

1 Check the "Unique Device ID" of the device on which to use the license.

1. Open [Settings] > [CCM] > [License] tab.
2. Confirm that the model name and serial number of the device is listed.
3. Check the "Unique Device ID" of the device.

2 Access the "Upgrade and License Management Suite" in a web browser.

1. [URL] <https://ulms.sony.net>.
2. Enter the purchase code obtained when purchasing the license.
3. Register the "Unique Device ID".
4. Save the installation key file to any folder.

3 Import the installation key file.

1. Go back to the Connection Control Manager, then open [Settings] > [CCM] > [License] tab.
2. Click the [Add Licenses] button.
3. Click [+] button.
4. Select the installation key file.
5. Click [Import] button.
6. Confirm that "Imported" is displayed in the status and click the [Close] button.
7. Confirm that "Activated" is displayed in the status of the device on the [License] screen.

Set up the USB audio interface driver

When using an intercom function, you need to install the USB audio interface driver. Please refer to the manual of each device for details.

Supported USB audio interface

- M-AUDIO M-Track 2X2M
- Native Instruments Komplete Audio 6
- Roland Rubix22
- Sennheiser SC 30 USB ML
- Sennheiser SC 60 USB ML

Note

M-AUDIO M-Track 2X2 (without M model) is not supported.
Native Instruments Komplete Audio 6 MK2 (2019 model) is not supported.

M-AUDIO M-Track 2X2M

1 Download the driver file.

1. Download the driver file ("Install M-Audio M-Track 2X2M 1.0.14.zip") from M-AUDIO site (<https://m-audio.com/support/download/drivers/Install-M-Audio-M-Track-2X2M-1-0-14>).
2. Save the driver file in the download folder ("C:\Users\rx1\Downloads").

Note

Keep the file in this place in case you need to reinstall it.

2 Check and extract the driver (zip) file.

1. Drag the driver file "C:\Users\rx1\Downloads\Install M-Audio M-Track 2X2M 1.0.14.zip" and drop it on the utility ("Utility\MA_IntercomDriverInstallHelper_1.0.14.exe") application. The file is checked automatically.

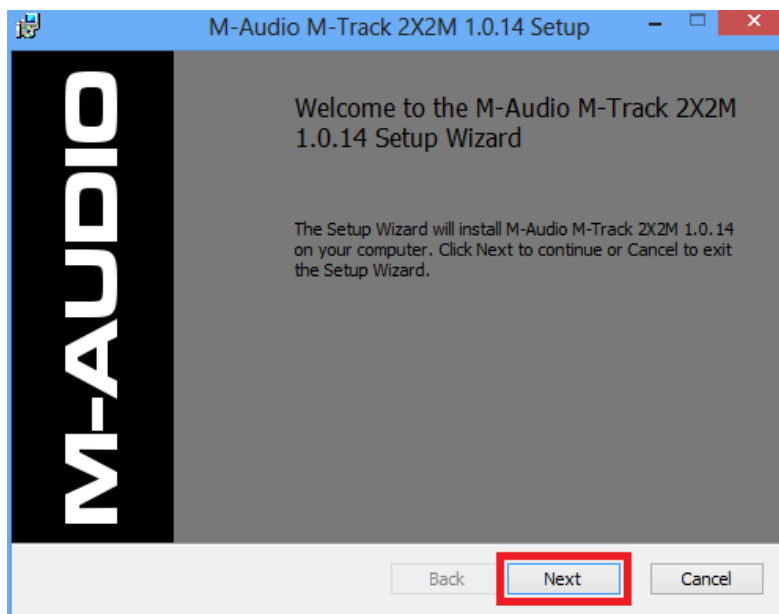
Note

Do NOT extract the zip file directly. Don't double click. Don't right click and extract all...

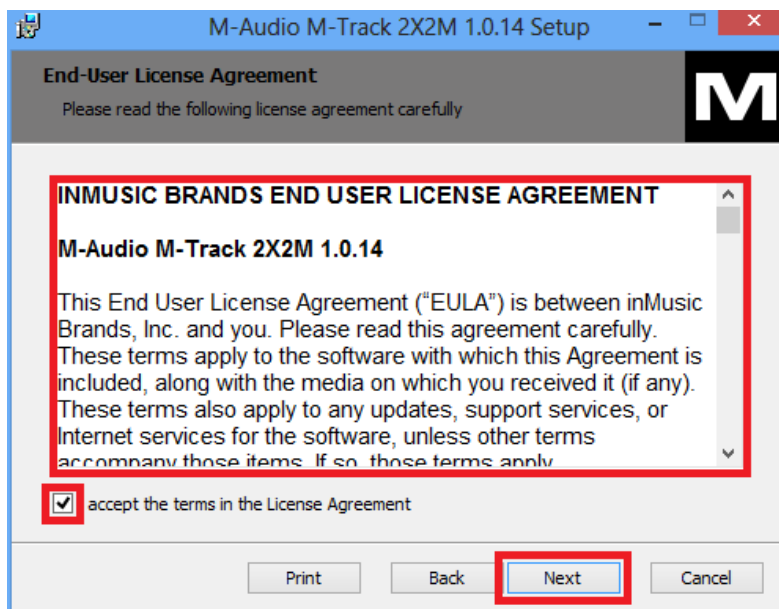
2. If the User Account Control dialog box is displayed, click [Yes] to start the program.
3. If the driver file is valid, it will be extracted to the folder
"C:\Users\rx1\Downloads\Install M-Audio M-Track 2X2M 1.0.14".

3 Install the driver.

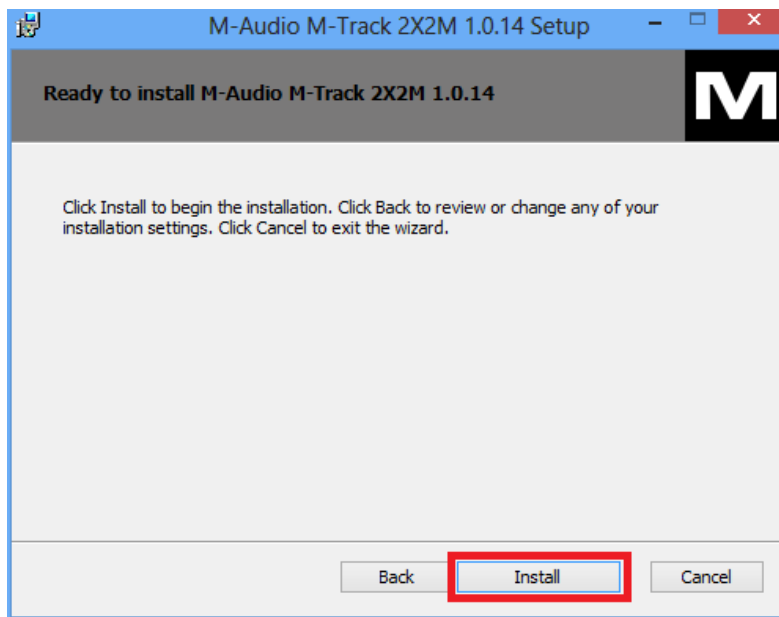
1. Open the folder "C:\Users\rx1\Downloads\Install M-Audio M-Track 2X2M 1.0.14".
2. Run the "Install M-Audio M-Track 2X2M 1.0.14.exe".
3. Installation of Microsoft Visual C++ 2012 Redistributable will start automatically.
4. Installation wizard is opened, then click [Next].



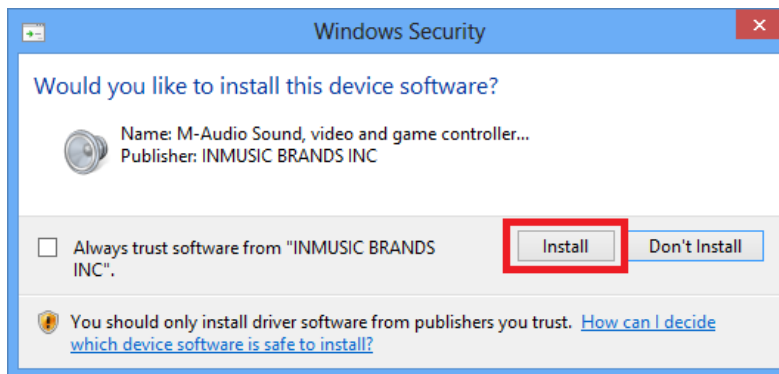
5. Accept the terms in the license agreement. Check and click [Next].



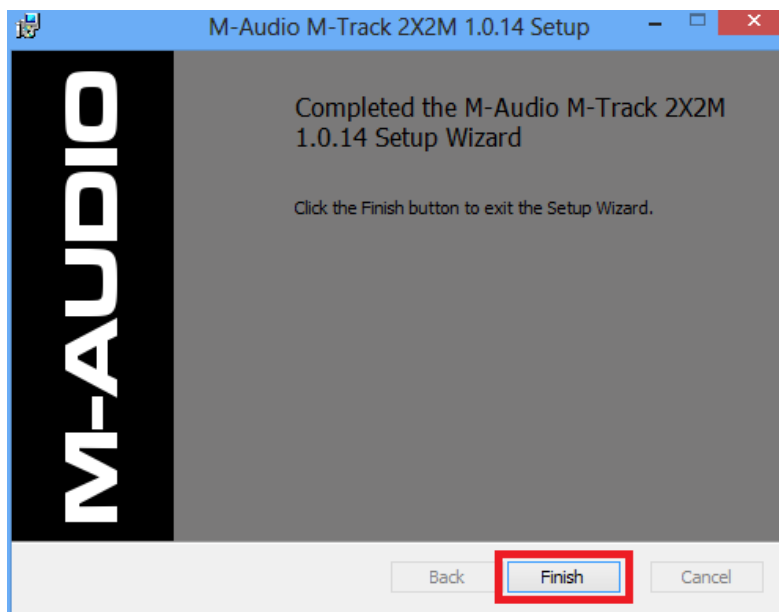
6. Click [Install].



7. If the Windows Security dialog is displayed, click [Install].



8. Click [Finish].



4 Software version check after installation.

1. Hold down the [Windows logo] key and press the [X] key on the keyboard.

2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, check the version of applications.

- M-Audio M-Track 2X2M 1.0.14: Version 1.0.14

Native Instruments Komplete Audio 6

1 Download the driver file for "KOMplete AUDIO 6".

1. Select "Komplete Audio 6 Driver 4.2.0 - Windows 7 and above" and download the driver file ("Komplete_Audio_6_420_PC_p.zip") from Native Instruments site (<https://www.native-instruments.com/en/support/downloads/drivers-other-files/>).
2. Save the driver file in the download folder ("C:\Users\rx1\Downloads").

Note

Keep the file in this place in case you need to reinstall it.

2 Check and extract the driver (zip) file.

1. Drag the driver file "C:\Users\rx1\Downloads\Komplete_Audio_6_420_PC_p.zip" and drop it on the utility ("Utility\KA_IntercomDriverInstallHelper_4.2.0.exe") application. The file is checked automatically.

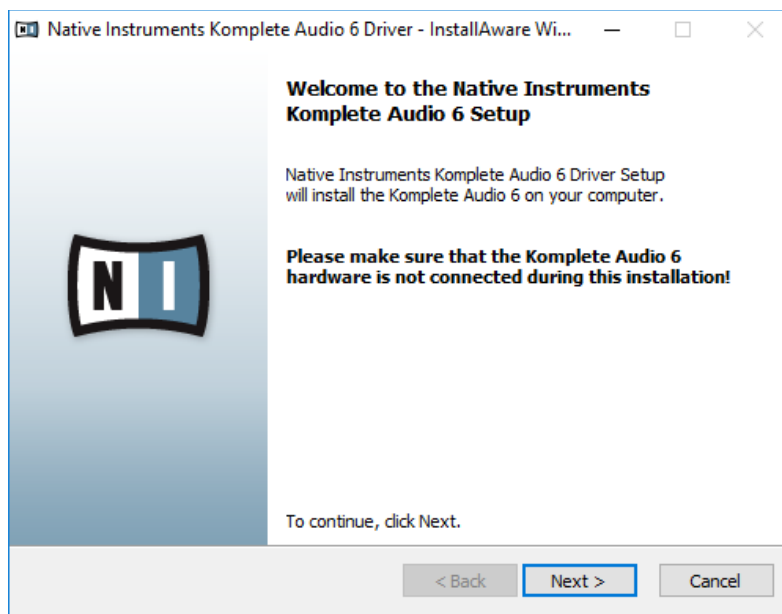
Note

Do NOT extract the zip file directly. Don't double click. Don't right click and extract all...

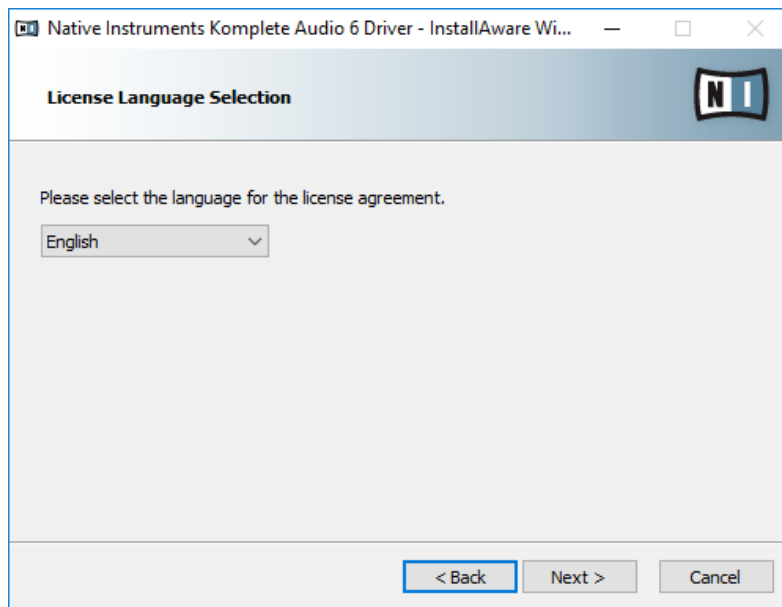
2. If the User Account Control dialog box is displayed, click [Yes] to start the program.
3. If the driver file is valid, it will be extracted to the folder "C:\Users\rx1\Downloads\Komplete_Audio_6_420_PC_p".

3 Install the driver.

1. Open the folder "C:\Users\rx1\Downloads\Komplete_Audio_6_420_PC_p".
2. Run the "Komplete Audio 6 Driver Setup PC.exe".
3. If the User Account Control dialog box is displayed, click [Yes] to start.
4. Installation wizard is opened, then click [Next].



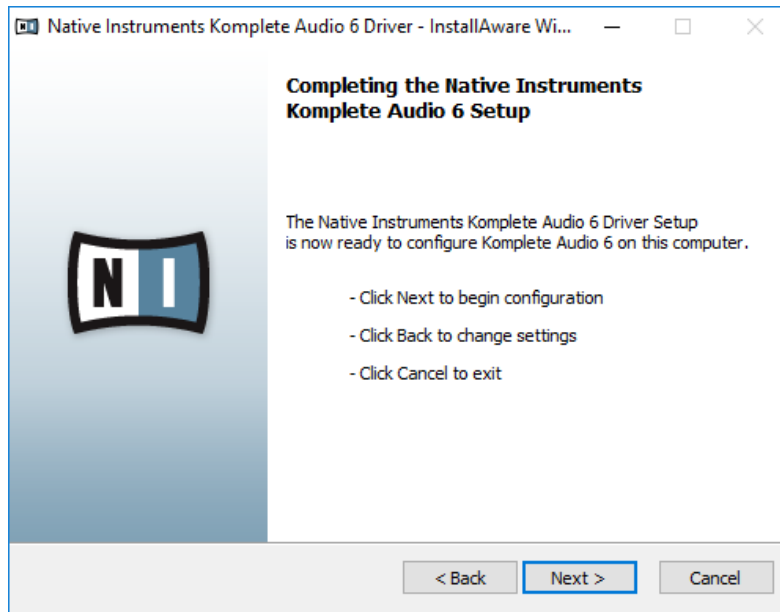
5. Select the language, click [Next].



6. Accept the terms in the license agreement. Check and click [Next].

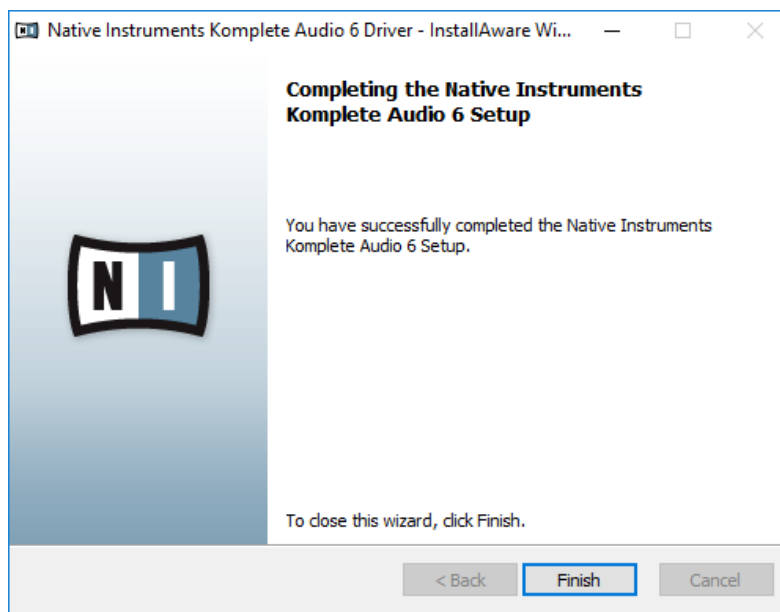


7. Click [Next].



8. Installation of Microsoft Visual C++ 2013 Redistributable will start automatically.

9. Click [Finish].



4 Change the USB buffer setting.

1. Open the [Komplete Audio Control Panel] in the start menu.
2. Set "2 ms" or more in [USB Buffer] setting.

Roland Rubix22

Your PWS-110RX1A (Windows 10) automatically downloads the Windows 10 driver from the Internet when a product requiring the driver is connected to the computer. Connect the unit to the Internet, then connect the Rubix22.

Sennheiser SC 30 USB ML and SC 60 USB ML

Your PWS-110RX1A (Windows 10) automatically downloads the Windows 10 driver from the Internet when a product requiring the driver is connected to the computer.

Connect the unit to the Internet, then connect the SC 30 USB ML or SC 60 USB ML.

Troubleshooting

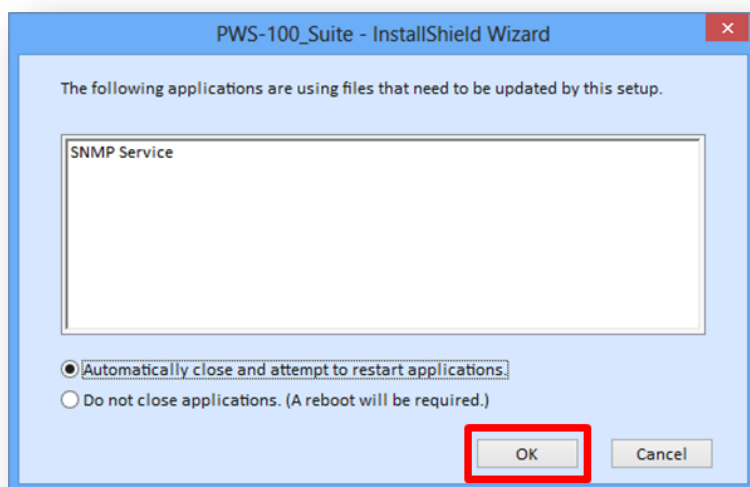
This chapter shows some troubleshooting examples.

- [Updating the PWS Suite manually](#)
- [Updating the MSQ firmware manually](#)
- [RX1 Connection Control Manager update fails](#)
- [RX1 Connection Control Manager uninstallation fails](#)
- [The intercom service could not be stopped](#)
- [File preview cannot be displayed when using the intercom](#)
- [Camcorder does not come online](#)
- [CCM screen is not displayed correctly after updating the web browser](#)

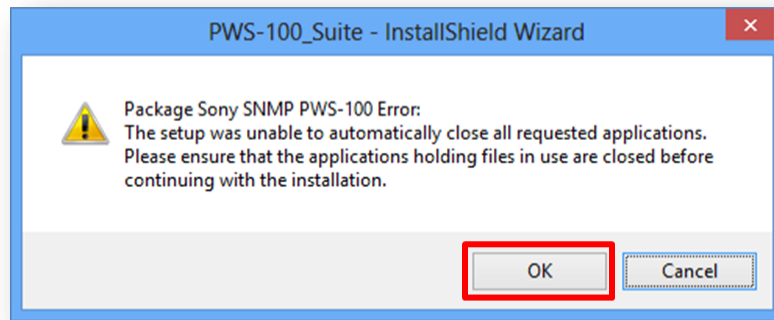
Updating the PWS Suite manually

1 Uninstallation of the PWS-100 Suite.

1. Hold down the [Windows] button and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, select [PWS-100_Suite] and then click [Uninstall].
4. The InstallShield Wizard is started. Click [Remove].
5. If SNMP Service dialog box is displayed. Click [OK] to continue.



6. If SNMP PWS-100 Error dialog box is displayed. Click [OK] to continue.



7. When software uninstallation has been completed, click [Finish].

2 Check the installation status.

1. Open the [Programs and Features] screen.
2. Press [F5] key to update the screen.
3. Make sure PWS applications (PWS-100_Suite, Sony HKP Service PWS-100, Sony SNMP PWS-100 and Sony Web_Application_PWS-100) are uninstalled. If these remain, uninstall them individually.

3 Installing the PWS-100 Suite.

1. Open the Install package folder "PWS-MSQ_Updater_1.20.3", then select "PWS-100_pkg_v01.56.01.00.zip" and right click, and then select "Extract All..." (Do NOT double click to open).
2. Run the "Setup.exe".
3. The InstallShield Wizard is started. Click [Install].
4. If User Account Control dialog is displayed. Click [Yes] to start the installation.
5. A command prompt opens and closes during the installation. Wait until the installation finishes.
6. After the installation is complete, click [Finish].

4 Software Version Check after Update.

1. Turn off the unit, and **remove the power cord**.
2. Wait for at least 10 seconds, connect the power cord, and then turn on the unit.
3. Sign in to Windows 10.
4. Hold down the [Windows] button and press the [X] key on the keyboard.
5. From the displayed Quick Access menu, select [Programs and Features].
6. On the displayed window, check the version of applications.

- Sony HKP Service PWS-100: Version 01.56.00.00
- Sony SNMP PWS-100: Version 01.30.00.02
- Sony Web_Application_PWS-100: Version 01.21.05.9009

Updating the MSQ firmware manually

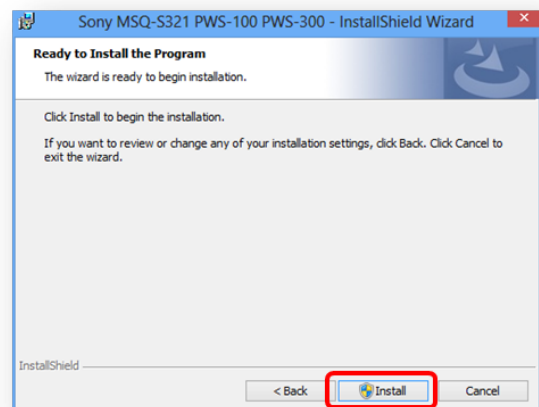
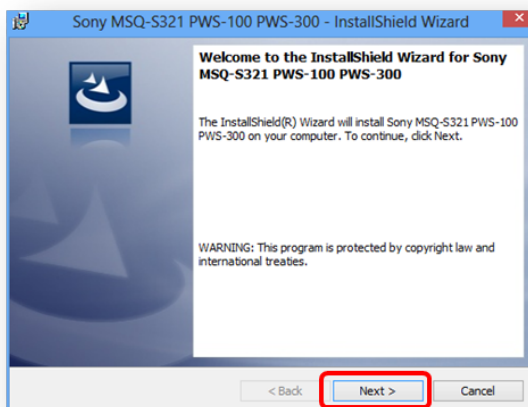
1 Uninstallation of the MSQ firmware.

1. Select [Sony MSQ-S321 PWS-100 PWS-300 for Win10] and then click [Uninstall].
2. The InstallShield Wizard is started. Click [Uninstall].
3. If a dialog box is displayed. Click [Yes] to continue.
4. If User Account Control dialog is displayed. Click [Yes] to start the uninstallation.

- When uninstalling, you may be asked to restart Windows.
- If uninstallation fails, refer to [Appendix E](#) and reset the Streaming Receiver, and then uninstall the MSQ Firmware again.

2 Installing the MSQ Firmware.

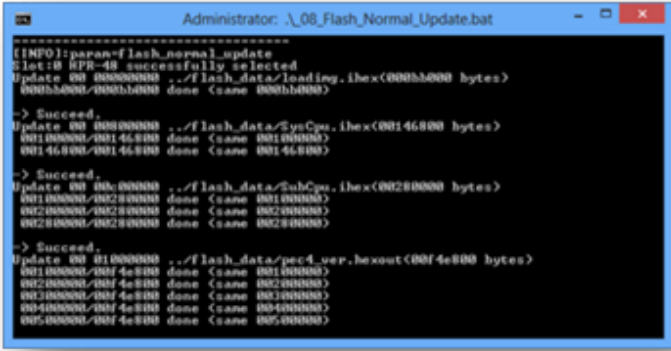
1. Open the Install package folder "PWS-MSQ_Updater_1.20.3\MSQ_v1.50.00".
2. Run the "Sony MSQ-S321 PWS-100 PWS-300 for Win10_v01.50.00.00.msi".
3. The InstallShield Wizard is started. Click [Next] and then click [Install].



4. If User Account Control dialog is displayed. Click [Yes] to start the installation.
5. If the "Windows Security" dialog box is displayed, click [Install].



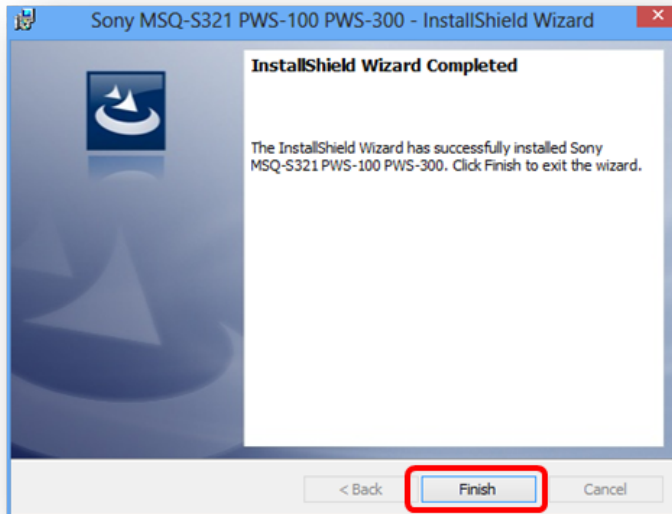
6. A command prompt opens and closes during the installation. Wait until the installation finishes.



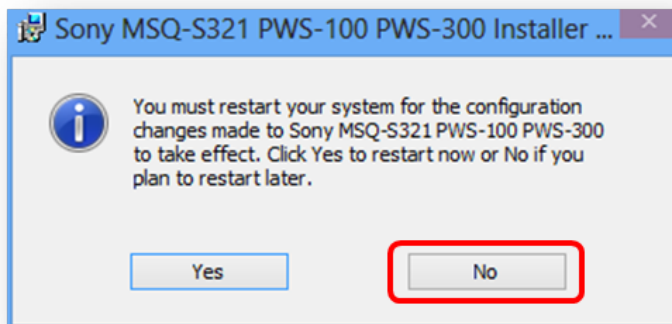
7. Since only one MSQ board (CARD-0) is attached to the unit, an error will be issued to CARD-1, but please ignore it.



8. After the installation is complete, click [Finish].



9. If the "restart" dialog box is displayed, click [No].



3 Software Version Check after Update.

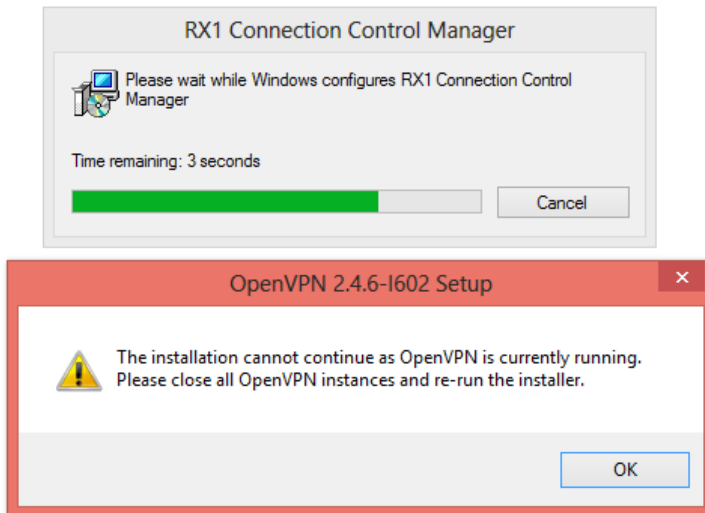
1. Turn off the unit, and **remove the power cord**.
2. Wait for at least 10 seconds, connect the power cord, and then turn on the unit.
3. Sign in to Windows 10.
4. Hold down the [Windows] button and press the [X] key on the keyboard.
5. From the displayed Quick Access menu, select [Programs and Features].
6. On the displayed window, check the version of applications.

- Sony MSQ-S321 PWS-100 PWS-300 for Win10: Version 01.50.00.00

RX1 Connection Control Manager update fails

In rare cases, OpenVPN service may not stop normally during RX1 CCM updating process.

1 If the OpenVPN Setup dialog box is displayed, click [OK].



2 If the RX1 Connection Control Manager dialog box is displayed, click [OK].



3 The RX1 CCM update will be rolled back.

4 Restart the unit.

1. Shutdown the unit. [Start] > [Power] > [Shutdown].
2. Turn on the unit.

5 Run the "RX1CCMInstallHelper.exe" again.

RX1 Connection Control Manager uninstallation fails

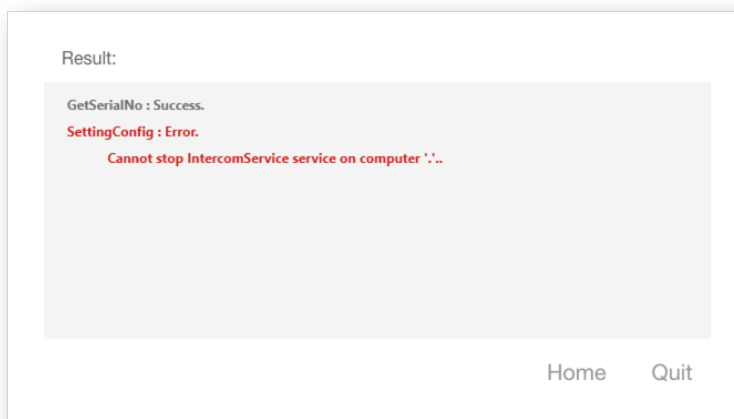
If you uninstall OpenVPN alone by mistake, the RX1 CCM may not be uninstallable. In such a case you can uninstall it with the utility ("Utility\rx1removehelper_2019.08.exe") included in the update file.

- 1 **Select the utility ("Utility\rx1removehelper_2019.08.exe").**
- 2 **Right click, and then select [Run as administrator].**
- 3 **The RX1 CCM will be uninstalled.**

The intercom service could not be stopped

In rare cases, the intercom service may not stop normally during Initialization Tool process.

- 1 **If the message "Cannot stop IntecomService" is displayed, click [Quit].**



- 2 **Disconnect the USB cable with the USB audio interface.**
- 3 **Restart the unit.**
 1. Shutdown the unit. [Start] > [Power] > [Shutdown].
 2. Turn on the unit.
- 4 **Run the Initialization Tool again.**

File preview cannot be displayed when using the intercom

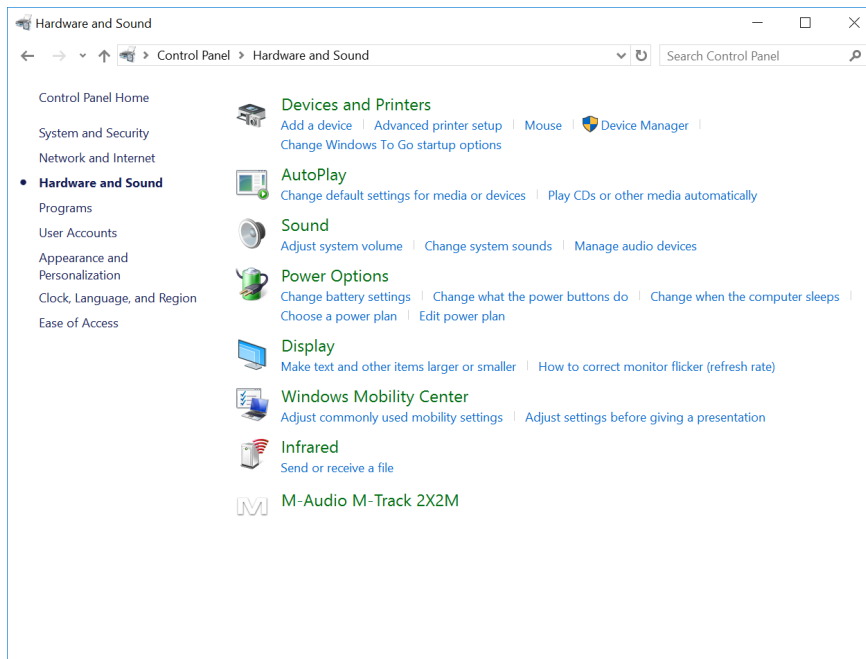
If the audio device used by the web browser for file preview conflicts with the device used by the intercom function, the browser will not be able to preview and an error dialog will appear.

1 Open Hardware and Sound menu in the Control Panel.

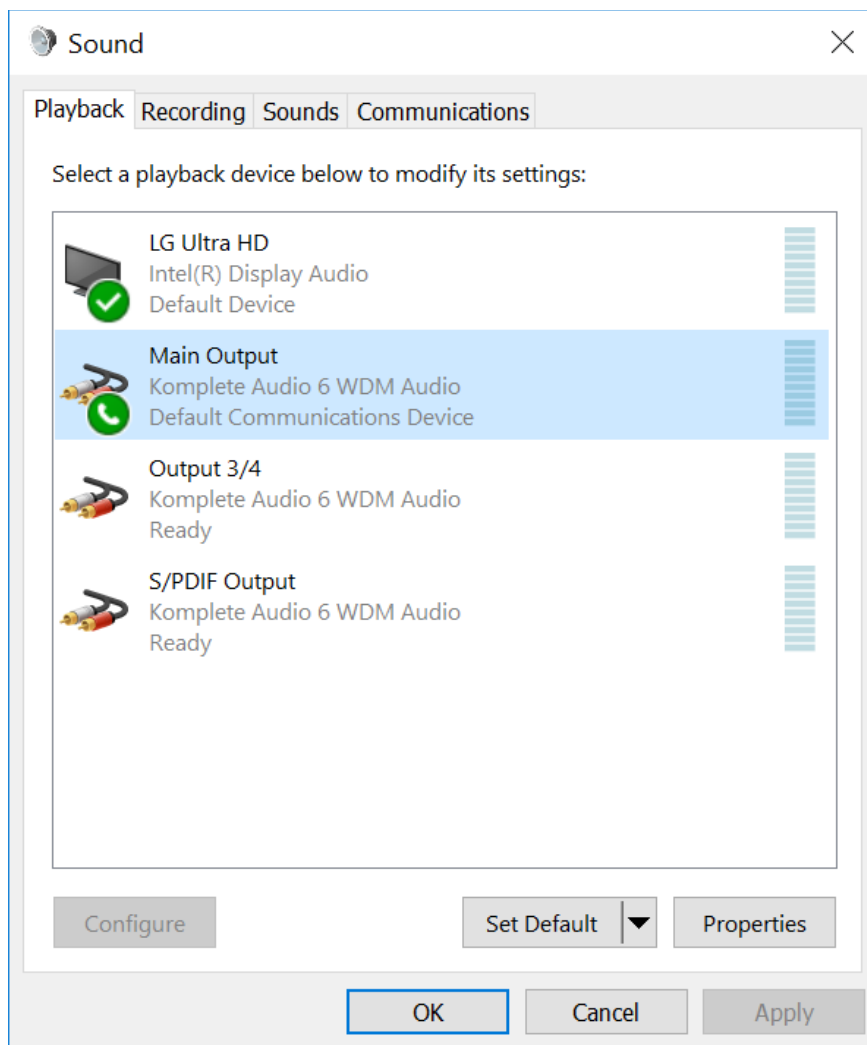
1. Hold down the [Windows] button and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Control Panel].
3. Click [Hardware and Sound].

2 Change sound settings.

1. Click [Sound].



2. Select the HDMI monitor and select [Set as Default Device] in the right-click menu. The audio of the file preview is output from the HDMI monitor.
3. Select the audio device to be used with intercom, and select [Set as Default Communication Device] in the right-click menu.

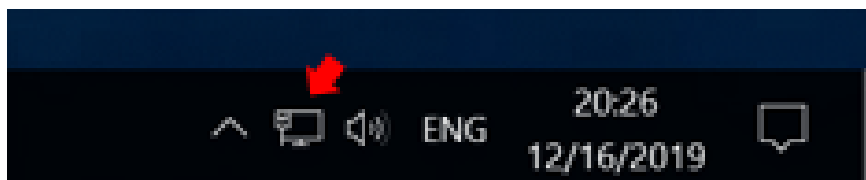


Camcorder does not come online

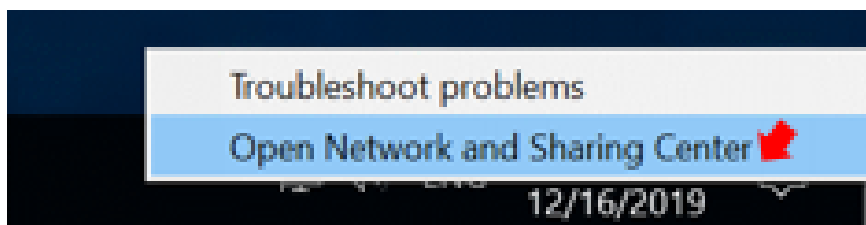
In rare cases, the virtual device for VPN service is disabled and the camcorder cannot connect to the CCM.

1 Open Network and Sharing Center.

1. Select the network icon on the taskbar and right click.



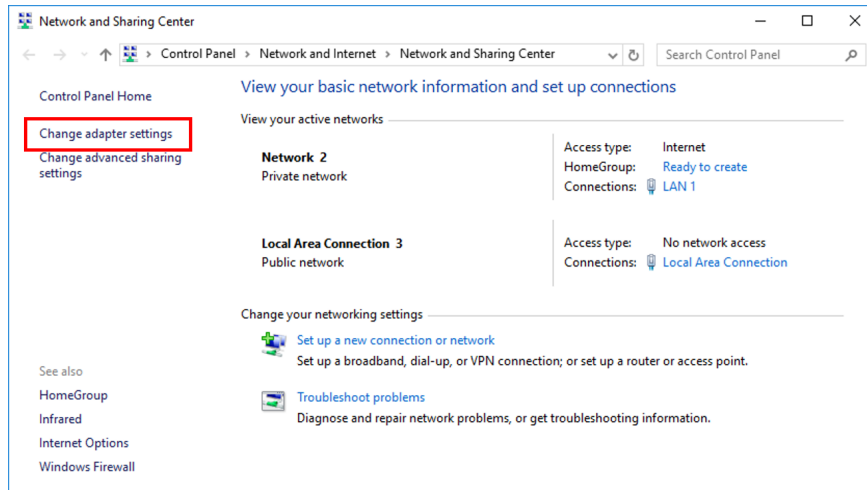
2. Select [Open Network and Sharing Center] this from the menu.



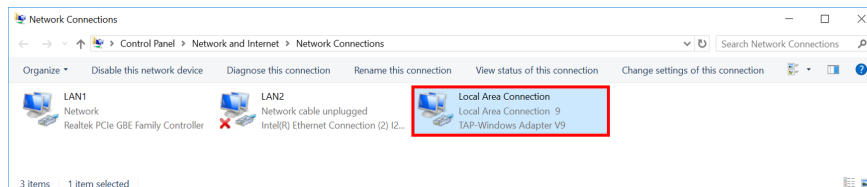
2

Open adapter settings.

1. Click [Change adapter settings] in the menu item on the left.



2. Select [TAP-Windows Adapter V9], and then right click. Select [Enabled].



3

Restart the unit.

1. Shutdown the unit. [Start] > [Power] > [Shutdown].
2. Turn on the unit.

CCM screen is not displayed correctly after updating the web browser

If the screen is not displayed correctly (only displayed as "Loading ...") when the web browser is automatically restarted after updating, close the all browser screens and relauch the browser.

Back up and restore CCM software settings

This chapter shows how to back up CCM software settings and how to restore them. This function is supported by RX1 Connection Control Manager: Version 1.10.0 or later.

Note

- You can back up and restore CCM settings except license information.
- If you replace or recover the system drive (SSD), you need to reissue the license. Please consult your Sony sales or service representative.
Also, in this case, the port setting for the connection returns to the default value, so check the value in the [Settings] > [Connection] menu.

Back up CCM settings

1 Login to the CCM UI.

2 Open the maintenance screen.

1. Click [Settings], and then click [CCM].
2. Click [Maintenance].

3 Click [Backup] button of [CCM Software Settings] item.

Note

- The backup file (.dat) is output in the folder "C:\CCM-Server\backup\". You can copy the .dat file to an external USB drive.
- Up to 10 backup files can be saved. When the number of files exceeds 10, the oldest file is deleted.

Restore CCM settings

Note

- Please keep all camcorders and wireless adapters offline and close all web browser screens when doing this procedure.

1 Drag the backup file(.dat).

2 Drop it to the "C:\Program Files\Sony Corporation\CCM\utilities\rx1dbrestore.exe".

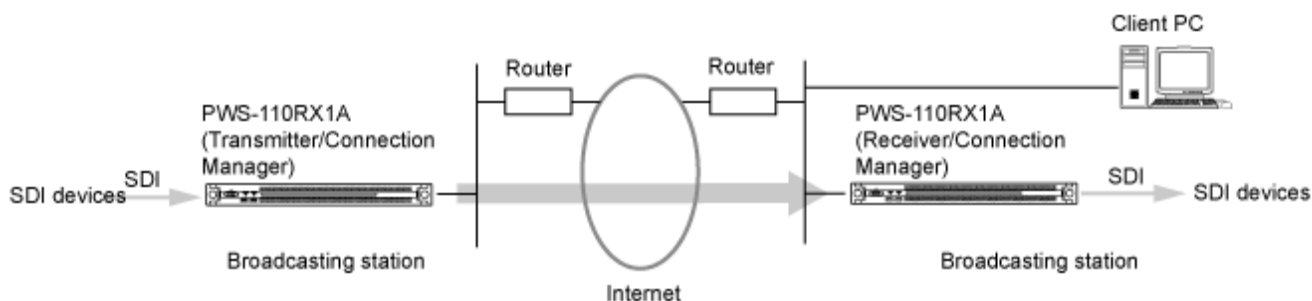
Note

- Restore processing starts automatically.
- CCM services are temporarily stopped and then will be restarted automatically.

3 If a dialog is displayed, click [OK].

Point-to-point streaming settings

You can stream the SDI input of a PWS-110RX1A unit to another PWS-110RX1A unit.



Note

- This function is supported on the PWS-110RX1A only.

Set point-to-point connection settings to CCM on the receiving side.

Note

- This operation is performed on the PWS-110RX1A at the receiving station.

1 Login to the CCM UI.

1. Enter "<https://localhost>" in the address field of the browser.
2. Enter the username and password to log in.

2 Set point-to-point connection settings.

1. Click [Settings] tab, and then click [CCM] > [Connection] tab.
2. Enter the username and password for "Point to Point Connection".
3. Check the port number.
4. Click [Save CCM Settings].

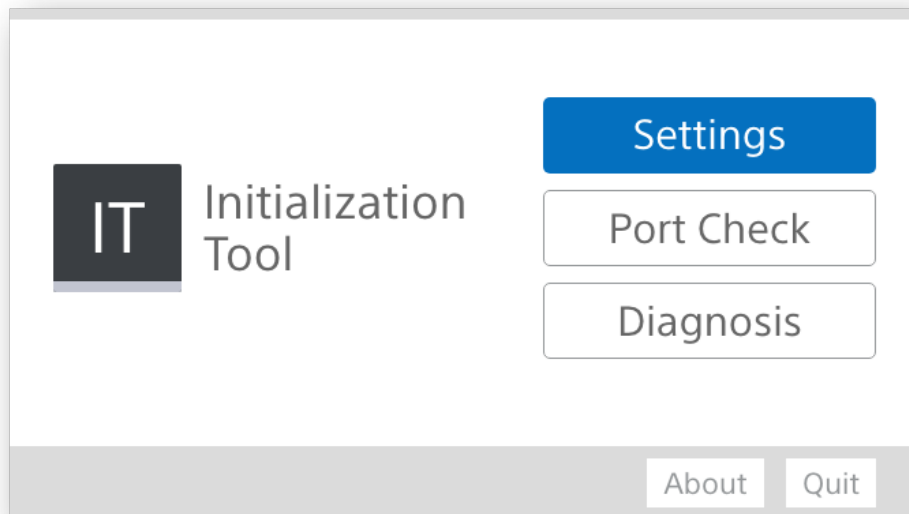
Initializing PWS-110RX1A to be used as a transmitter and receiver. (Point-to-point transmitter side)

Note

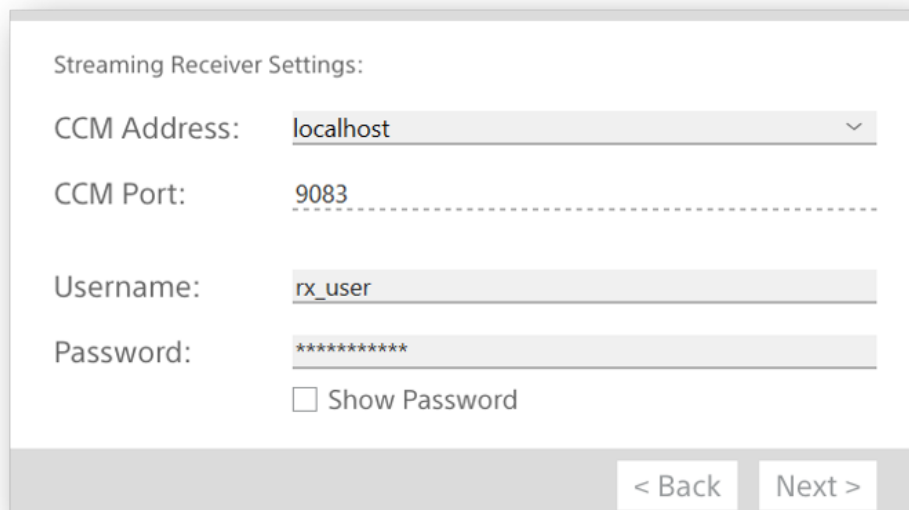
- This operation is performed on the PWS-110RX1A of the broadcasting station on the transmitter side.

1 Launch the Initialization Tool.

1. Click [RX1 Streaming Receiver] > [Initialization Tool] icon in the Start menu.
2. If User Account Control dialog box is displayed. Click [Yes] to launch.
3. Click [Settings].



4. Enter connection settings for the Connection Control Manager (CCM). Specifies the CCM controlling this unit as a receiver.

The screenshot shows the 'Streaming Receiver Settings' dialog box. It contains the following fields and controls:

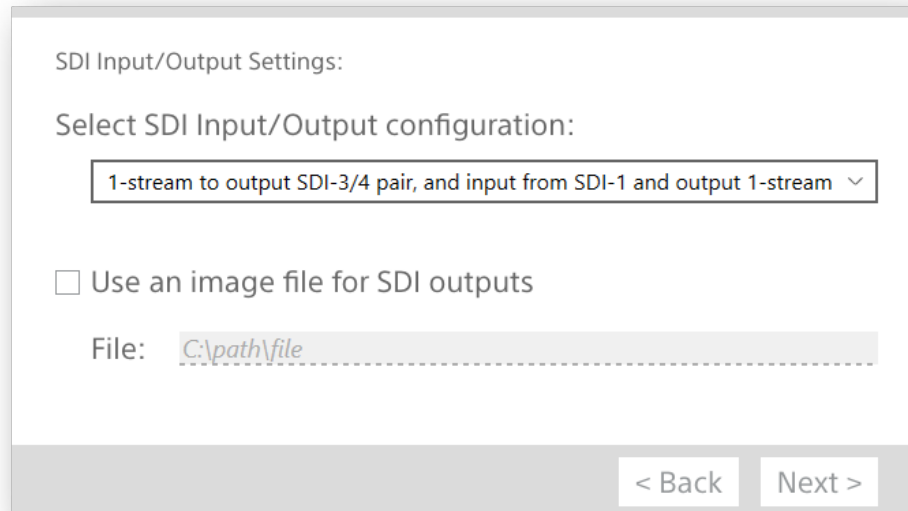
- 'CCM Address:' with a dropdown menu showing 'localhost' and a small downward arrow.
- 'CCM Port:' with a text field containing '9083' and a dashed line below it.
- 'Username:' with a text field containing 'rx_user'.
- 'Password:' with a text field containing '*****'.
- A checkbox labeled 'Show Password' which is currently unchecked.

At the bottom right, there are two buttons: '< Back' and 'Next >'.

5. Click [Next].

2 Enter SDI Input/Output optional settings.

1. Select [1-stream to output SDI-3/4 pair, and input SDI-1 and output 1-stream]. This selection will allow you to send streaming with SDI-1 as the input source.



SDI Input/Output Settings:

Select SDI Input/Output configuration:

1-stream to output SDI-3/4 pair, and input from SDI-1 and output 1-stream ▾

☐ Use an image file for SDI outputs

File:

< Back Next >

2. Click [Next].

3 Enter connection settings for the CCM controlling this unit as a transmitter.

1. [CCM Address (2)]: Enter the IP address or host name (FQDN) of the Connection Control Manager.
The CCM specified on this screen controls this unit as a transmitter and controls reception of streaming from this unit.
2. [CCM Port (2)]: Enter the port number displayed on the [Connection] tab of the CCM setting screen. See [Settings] > [CCM] > [Connection] > [Point to Point Connection].
3. [Username (2)] and [Password (2)]: Enter the username and password to log in to the Connection Control Manager from this unit.
See the registered username and password in [Settings] screen > [CCM] tab > [Connection] tab > "Point to Point Connection" in the Connection Control Manager.

Streaming Transmitter Settings:

CCM Address (2):

CCM Port (2):

Username (2):

Password (2):

☐ Show Password

< Back Next >

4. Click [Next].
5. (Optional) Check the box [Enable Intercom function] when using the receiver with an intercom function. Select your audio interface from the drop down menu.

Intercom Settings:

☒ Enable Intercom function

Audio Interface:

Audio IN 1/2: IN 3/4:

Audio OUT 1/2: OUT 3/4:

< Back Start >

6. Click [Start].
7. The result is displayed, then click [Quit].

4 Input the SDI signal to the SDI-1 connector.

Note

- When connecting an input signal to an SDI connector, connect an input signal with the same format as the SDI output.
- Set the reference lock to Free Run. Or when locking to an external syncsignal, input a synchronized SDI signal on the reference input.

Operate point-to-point streaming

Note

- This operation is performed on the PWS-110RX1A at the receiving station.

1 Login to the CCM UI.

1. Enter "<https://localhost>" in the address field of the browser.
2. Enter the username and password to log in.

2 Enable manual setting of target bitrate.

1. Click [Settings] tab, and then click [CCM] > [Streaming] tab.
2. Check the box for [Use Target Bit Rate setting].
3. Click [Save CCM Settings].

3 Start streaming.

1. Click [Streaming] tab.
2. Select the PWS-110RX1A that is online in the source area.
3. Drag and drop onto the PWS-110RX1A in the receiver area to start streaming.

Note

- We use SRT for point-to-point streaming, unlike streaming from a camcorder (Camcorders use Sony's unique technology).
- If you experience lossy or noisy SDI output, try manually lowering the target bitrate in the streaming control panel.

How to do a clean install of Connection Control Manager and Receiver

If Connection Control Manager or Receiver cannot be installed normally, you can try a clean install.

Clean install Connection Control Manager.

1 Uninstall Connection Control Manager.

1. Hold down the [Windows] button and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, select [RX1 Connection Control Manager] and then click [Uninstall].
4. Remove "C:\CCM-Server" folder.

2 Install Connection Control Manager again.

Clean install Receiver.

1 Uninstall Receiver.

1. Hold down the [Windows] button and press the [X] key on the keyboard.
2. From the displayed Quick Access menu, select [Programs and Features].
3. On the displayed window, select [RX1 Streaming Receiver] and then click [Uninstall].
4. Remove "C:\RX-Server" folder.

2 Install Receiver again.

NETWORK RX STATION
PWS-110RX1A
V1.20.3

Software Update Guide
1st Edition

Copyright 2023 Sony Corporation