



Flex Signal Setup Manual

Ver. 8.4

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Introduction

This document summarizes how to set up Flex Signal.

Revision History

Ver.	Date	Revision details
1.0	Oct. 27, 2014	First edition
1.1	Mar. 25, 2015	Modified the language.
2.0	Sep. 3, 2015	Changed the procedure because the installer was added.
2.1	Jun. 21, 2016	Added the contact email address for inquiries about authentication key issuance.
2.2	Jan. 6, 2017	Added notes for users who perform installation. Added a description about signal lamp settings.
2.3	Feb. 22, 2017	Added a description about the recommended operating environment.
3.0	May 25, 2017	Changed and added descriptions about how to display the menu. Added the uninstallation procedure.
4.0	May 7, 2018	Changed the description about the recommended operating environment. Added the procedures for Windows 10 and Windows Server 2016 to the IIS settings. Modified screenshots.
4.1	Jun. 28, 2018	Changed the menu screenshot.
4.2	Aug. 1, 2018	Modified the language.
4.3	Aug. 16, 2018	Added details about preparation checks. Added FAQs.
5.0	Jun. 1, 2019	Modified the language.
6.0	Jun. 1, 2020	Added contents to FAQs.
6.1	Jun. 5, 2020	Changed the Basic settings screen.
7.0	Jul. 31, 2020	Changed license authentication method to on website.
8.0	Mar. 1, 2021	Added LA6-POE setup method. Added license authentication for the case installing from CD-ROM. Deleted the address and the home page links.
8.1	Aug. 31, 2021	Changed the menu screenshot.
8.2	Dec. 8, 2022	Changed the framework of operating environment to .NET Framework 4.6. Added description about ASP.NET and .NET Extensibility versions on IIS settings.
8.3	Feb. 8, 2024	Added Windows11 and WindowsServer2019 to recommended OS
8.4	Jun. 3, 2024	Framework / Browser version update

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List of Setup Items

	No.	Setup item	Chapter
<input type="checkbox"/>	1	Operating Environment	1.
<input type="checkbox"/>	2	Preparation for Setup	2.
<input type="checkbox"/>	3	Setting Up IIS	3.
<input type="checkbox"/>	4	Installing the System	4.
<input type="checkbox"/>	5	Checking System Operation	5.
<input type="checkbox"/>	6	Authenticating the License	6.
<input type="checkbox"/>	7	Specifying Signal Lamp Settings	7.
		- End -	

* Check off completed items.

1. Operating Environment

Prepare the following PC environment to install the product.

Table 1: Recommended environment

No.	Item	Environment
1	Recommended OS	Windows10, Windows11 Windows Server2016 Windows Server2019
2	IIS	IIS 7.0 or later
3	Framework	.NET Framework 4.8
4	Browser	Chrome
5	User performing the installation	User with administrator privileges

2. Preparation for Setup

The following preparation is required before setup.

(1) Before setup

Be sure to confirm that the following operations are possible.

Table 1: Points to check before setup

No.	Item	
1	Communication between transmitters and receivers	<input type="checkbox"/>
2	Communication between receivers and the PC where you will install the product (*1)	<input type="checkbox"/>

*1: USB connection is not supported. Use a LAN connection.

(2) Items required for setup

Be sure to confirm that you have the following items at hand.

Table 2: Items required for setup

No.	Item	Description	
1	FSSetup_x.x.x.x.exe (FlexSignal installer)	FlexSignal installer downloaded from the FlexSignal website	<input type="checkbox"/>
2	Customer key	Key that was sent to you by TOKAI-SOFT in the email [ユーザー情報登録完了のお知らせ] at the time of registration as a user of FlexSignal *Customer key indicated on the license certificate if you have a CD-ROM installer (license certificate)	<input type="checkbox"/>

* Flex Signal cannot be used with PATLITE WDS-AUTO2 and WDS - Win01. Exit WDS-AUTO2 before using Flex Signal.

3. Setting Up IIS

(1) Windows10

1. Select "Start Menu" - "Windows System" - "Control Panel."
2. Select "Programs"

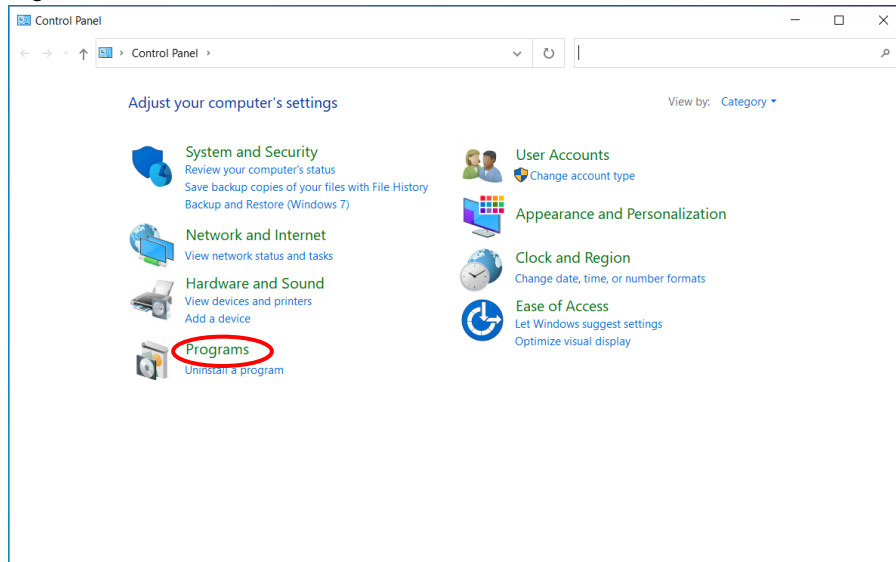


Figure 1: Programs

3. Select "Turn Windows features on or off"

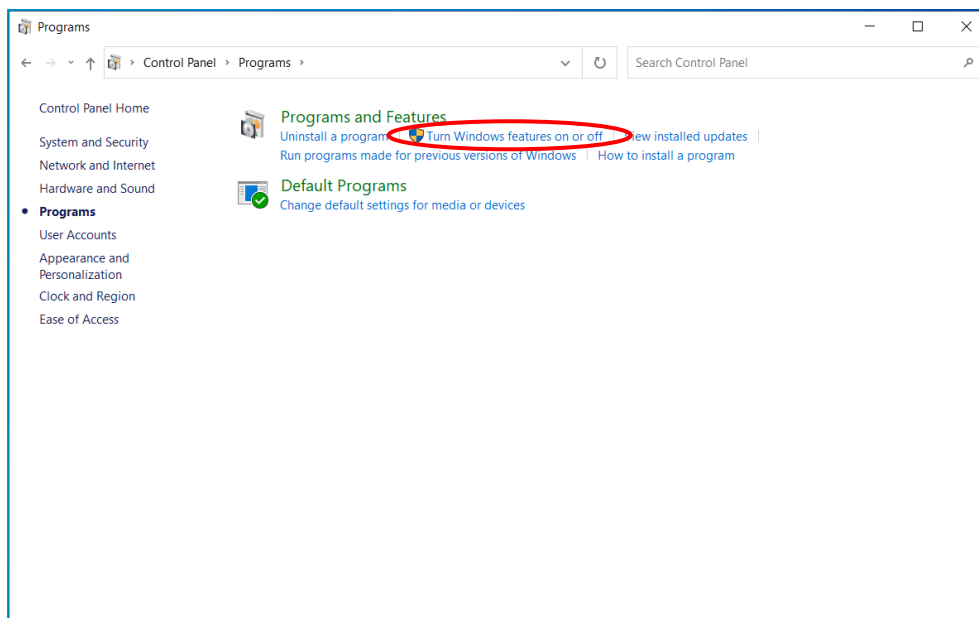


Figure 2: Turn Windows features on or off

Check the following items one by one and select "OK."

- (1) IIS Management Console
- (2) ASP.NET4.8 (ASP.NET 4.6 or later is fine.)
- (3) HTTP Errors
- (4) HTTP Redirection
- (5) Directory Browsing
- (6) Default Document
- (7) Static Content
- (8) .NET Extensibility 4.8 (.NET Extensions or .NET Extensibility 4.6 or later is fine.)
- (9) ISAPI Filters
- (10) ISAPI Extensions

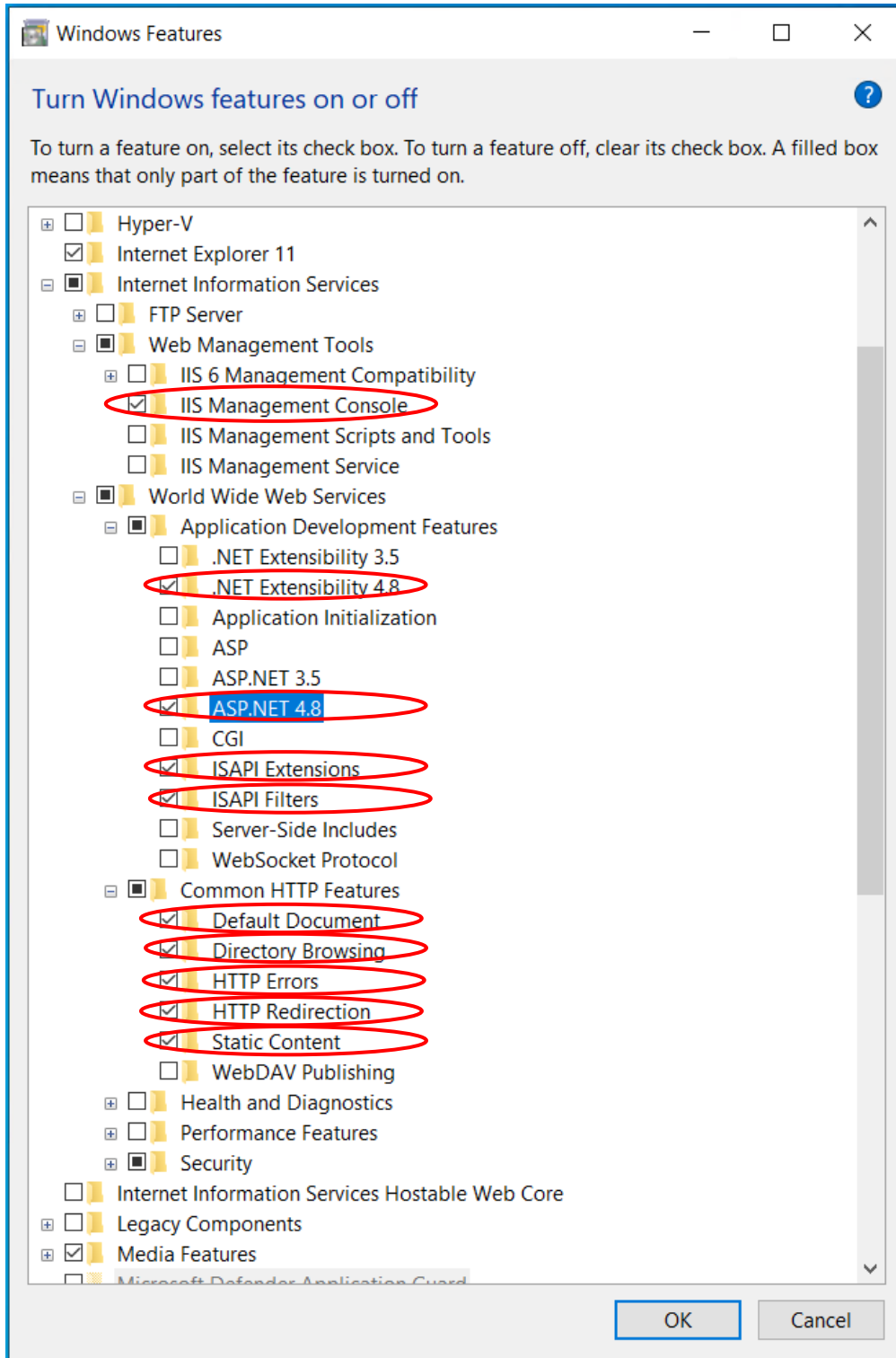


Figure 3: Items set by IIS settings

(2) Windows Server 2016

1. Select "Start" - "Windows System" - "Control Panel."
2. Select "Turn Windows features on or off."



Figure 4: Control Panel

3. Select "Server Roles."
- * If this item cannot be selected, click "Server Selection." This item will then become selectable.
4. Select the "Web Server" check box and click "Next."



Figure 5: Add Roles and Features wizard

5. Click "Add Features."

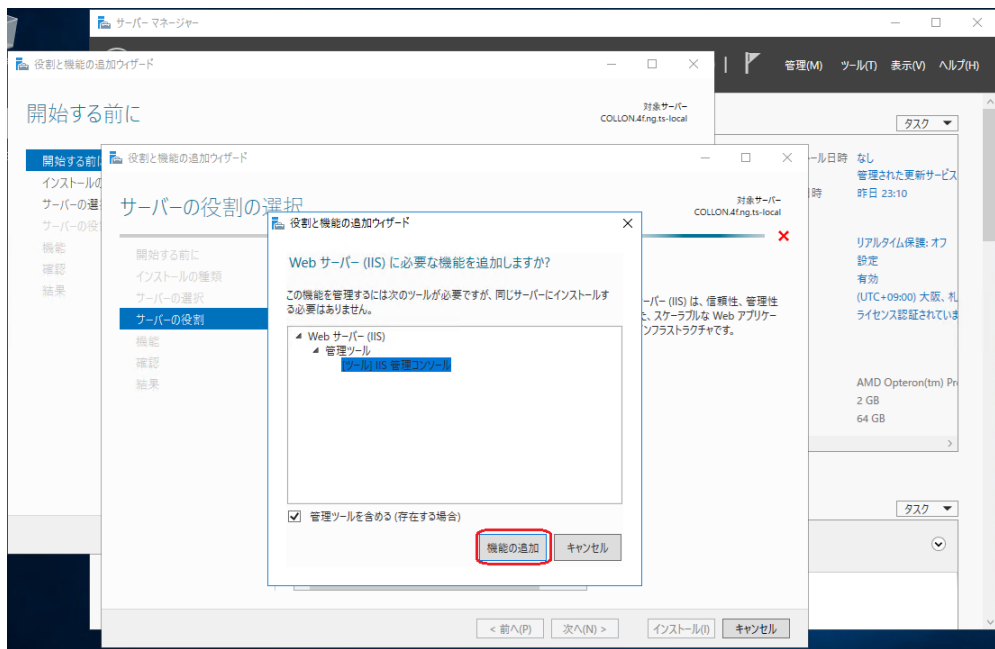


Figure 6: Adding a web server

6. Select "Role Services" and select the following check boxes one by one.
 - (1) HTTP Errors
 - (2) Directory Browsing
 - (3) Default Document
 - (4) Static Content
 - (5) HTTP Redirection

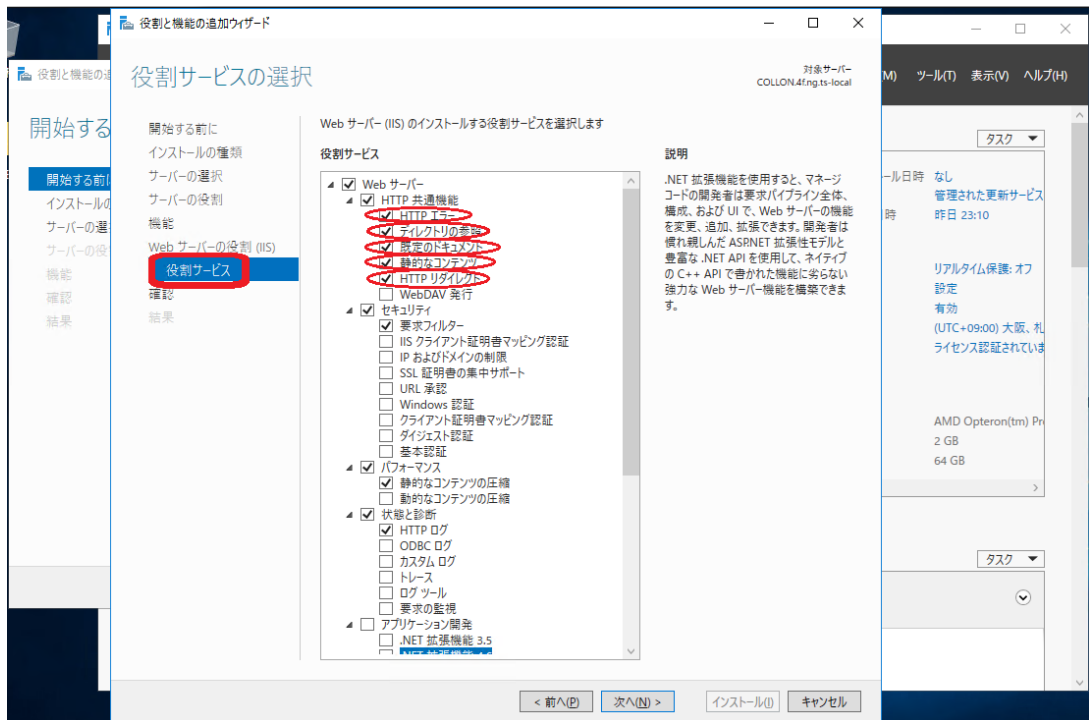


Figure 7: Items added for common HTTP features

7. Click "Application Development" - ".NET Extensibility 4.6."
(.NET Extensions or .NET Extensibility 4.6 or later is fine.)
8. Click "Add Features."



Figure 8: Adding the .NET Extensibility 4.6

9. Click "Application Development" - "ASP.NET 4.6."
(ASP.NET 4.6 or later is fine.)
10. Click "Add Features."



Figure 9: Adding ASP.NET 4.6

11. Click "Next."

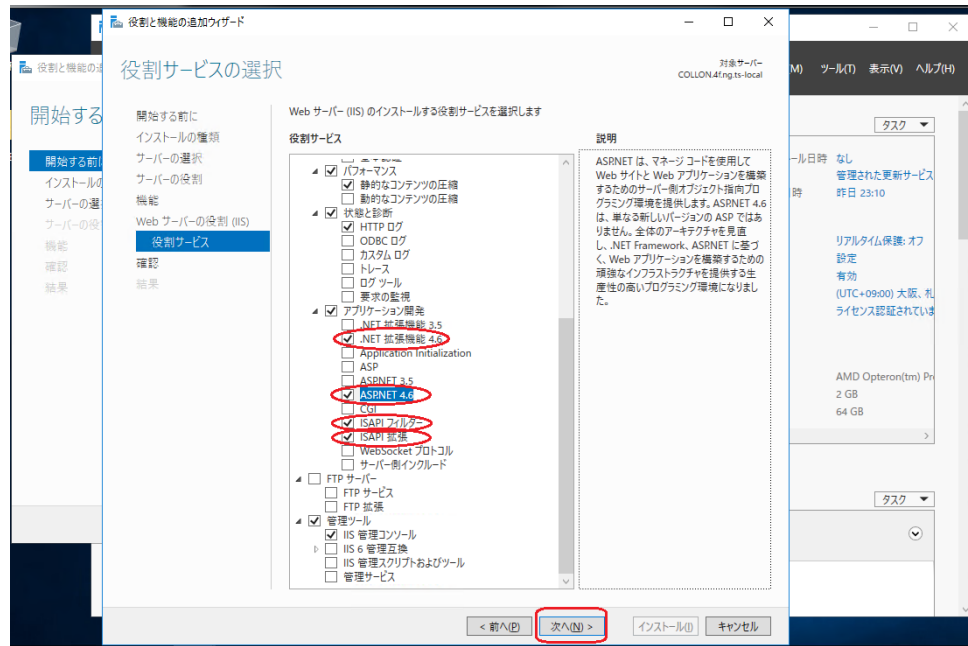


Figure 10: Items added for application features

12. Confirm that the following items are selected.

- (1) IIS Management Console
- (2) ASP.NET 4.6 (ASP.NET 4.6 or later is fine.)
- (3) ISAPI Extensibility
- (4) ISAPI Filters
- (5) .NET Extensibility 4.6 (.NET Extensions or .NET Extensibility 4.6 or later is fine.)
- (6) Default Document
- (7) Directory Browsing
- (8) HTTP Errors
- (9) HTTP Redirection
- (10) Static Content

13. Click "Install."

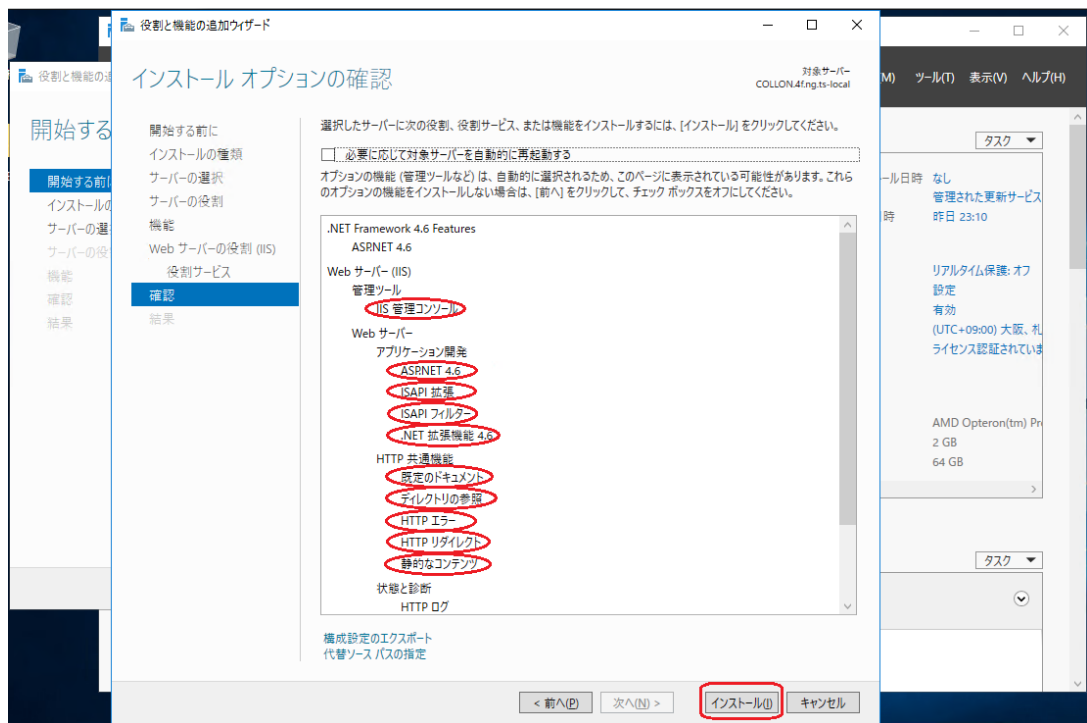


Figure 11: Installation check

14. When the installation is completed, click "Close."

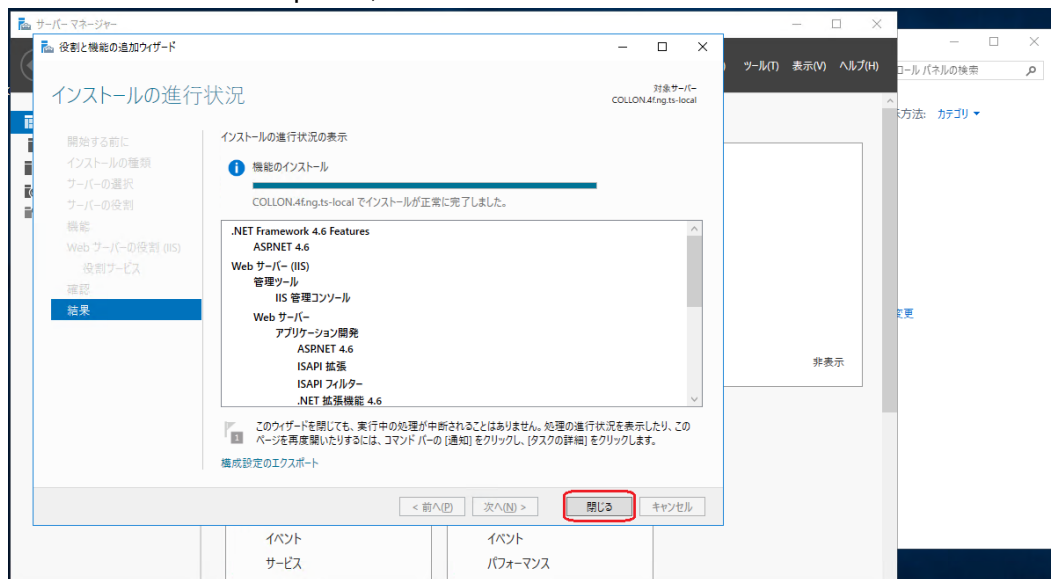


Figure 12: Completion of installation

15. Click "Install." When installation is completed, click "Close."

4. Installing the System

1. Run "FSSetup_x.x.x.x.exe" downloaded from the download website.

*If you install the system from CD-ROM, insert the media and then run "FSSetup_x.x.x.x.exe".

The screen shown in "Figure 1: Setup screen" opens.

* Perform this operation as a user with administrator privileges.

* The x's in "FSSetup_x.x.x.x.exe" file to select represent numbers.

(Example: FSSetup_2.0.0.0.exe)

2. Select "Next."



Figure 1: Setup screen

3. Enter your customer key and select "Next."

*Please check the email “ユーザー情報登録完了のお知らせ” for the “customer key.”

*If you install the system from CD-ROM, please check “license certificate.”

* When the license is already authenticated, the screen shown in "Figure 2: Setup screen for entering the customer key" does not appear.

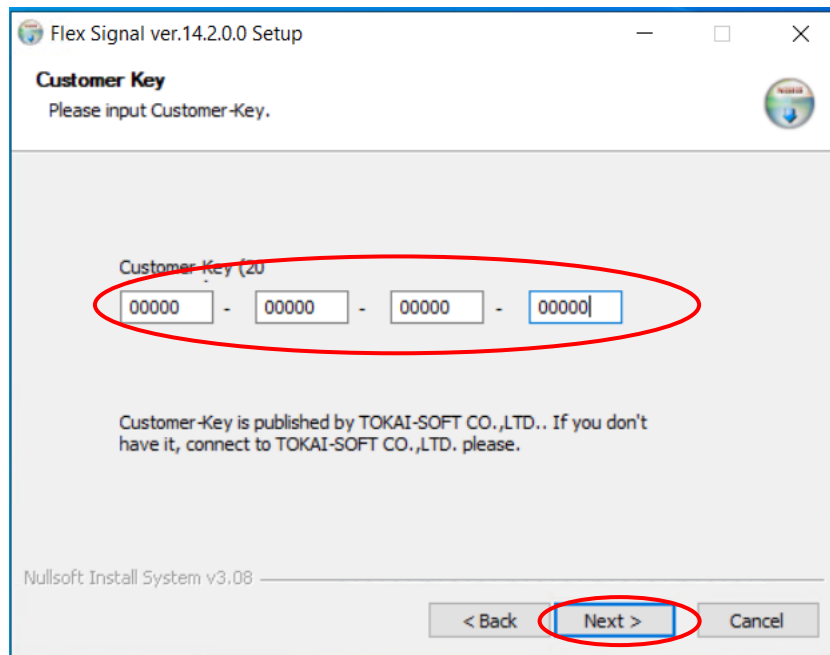


Figure 2: Setup screen for entering the customer key

4. Select "Install."

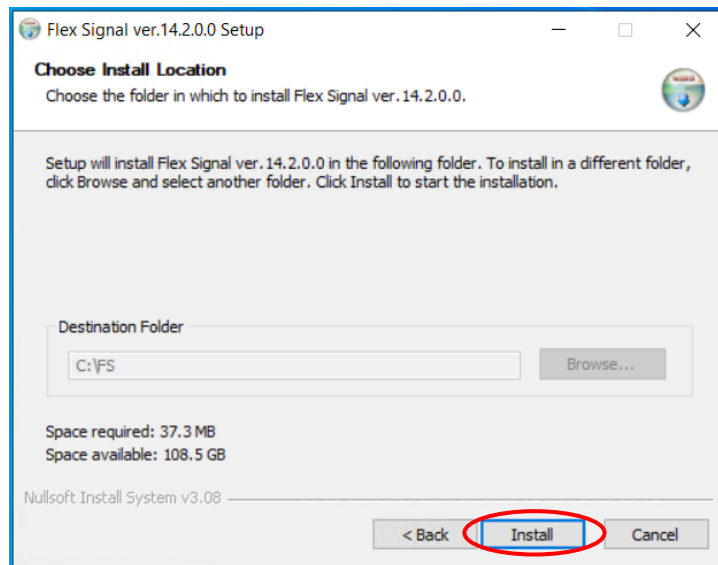


Figure 3: Setup screen for specifying the installation destination

5. Installation starts.

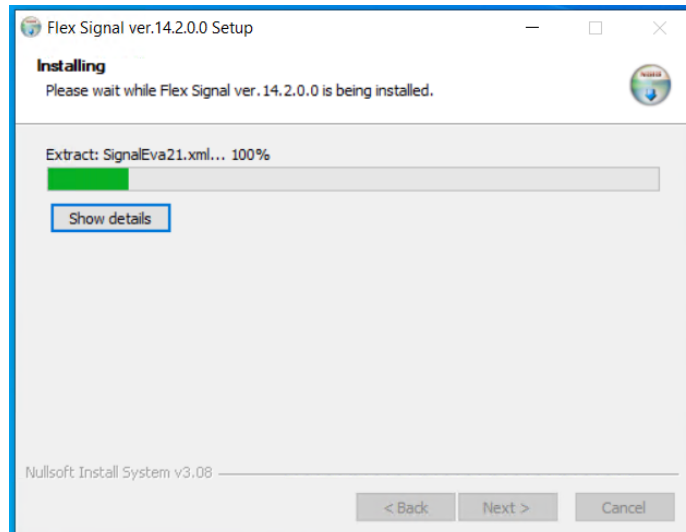


Figure 4: Screen displayed during setup installation

- The FlexSignal receiver communication setup tool starts up during installation. Enter the IP address of your receiver and save the setting.

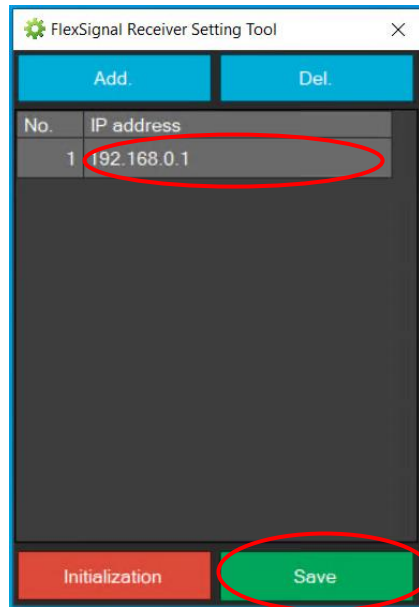


Figure 5: FlexSignal receiver communication setup tool

When you perform setup later, close the screen with the "x" without performing any operations.

* For details on the FlexSignal receiver communication setup tool, see the FSConfManager Manual.

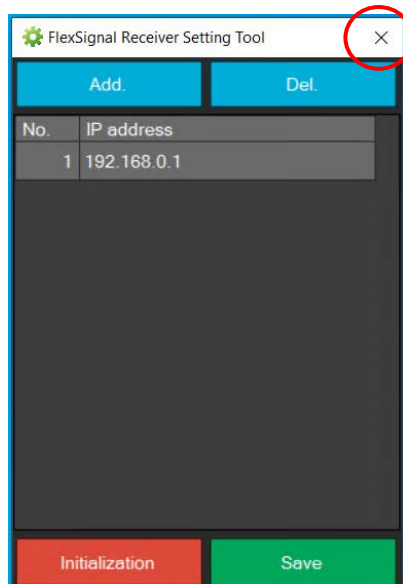


Figure 6: FlexSignal receiver communication setup tool

7. When the setup completion screen appears, select "Reboot now."
* If you select "Reboot later," be sure to manually restart the PC.

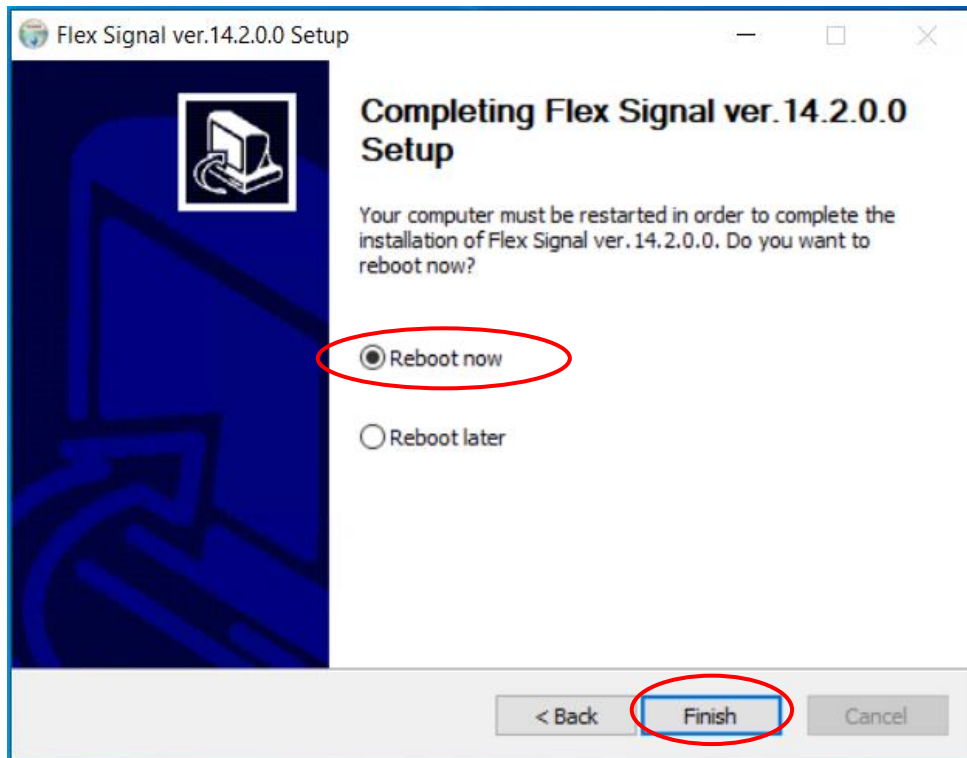


Figure 7: Setup completion screen

5. Checking System Operation

(1) Confirming that the system starts up

1. Confirm that the screen shown in "Figure 1: FSStart" appears after you restart the PC.

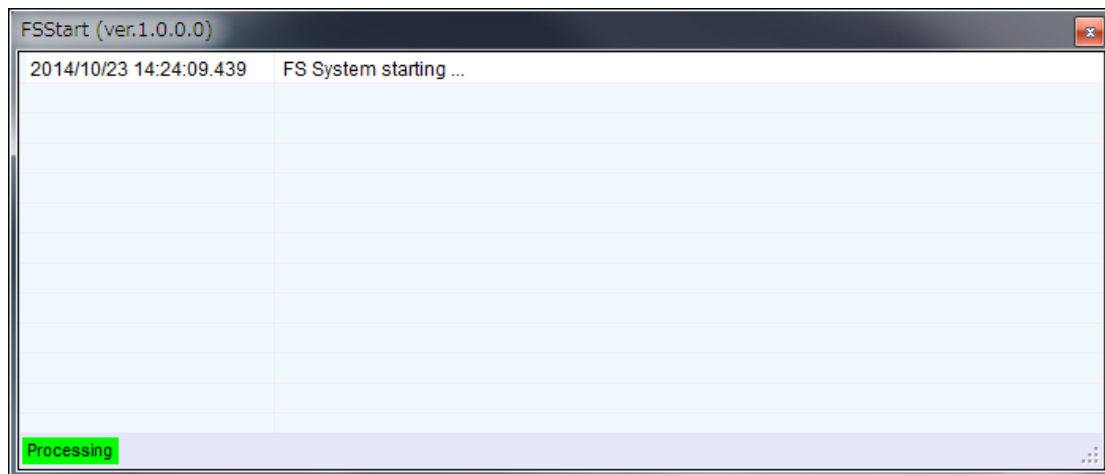


Figure 1: FSStart

2. Confirm that the screen shown in "Figure 1: FSStart" automatically closes after about one or two minutes.

(2) Checking the website

1. Select "Start" - "All Programs" - "Flex Signal" - "FlexSignal."

* If "FlexSignal" does not exist in the start menu, start the browser and enter "localhost/fs" in the URL.

Confirm that the screen shown in "Figure 2: Initial website screen" is displayed.



Figure 2: Initial website screen

* If "HTTP error" is displayed, please check "this booklet 9. FAQs (7)".

2. Access "http://IP address/FS" from another PC on the same network as the PC where you installed Flex Signal.

* Enter the IP address of the PC where you installed Flex Signal.

Example: `http://192.168.0.10/FS`

Confirm that the screen shown in "Figure 2: Initial website screen" is displayed.

3. Select "MENU" - "group1" - "Options" – "Basic settings" at the top of the web page.

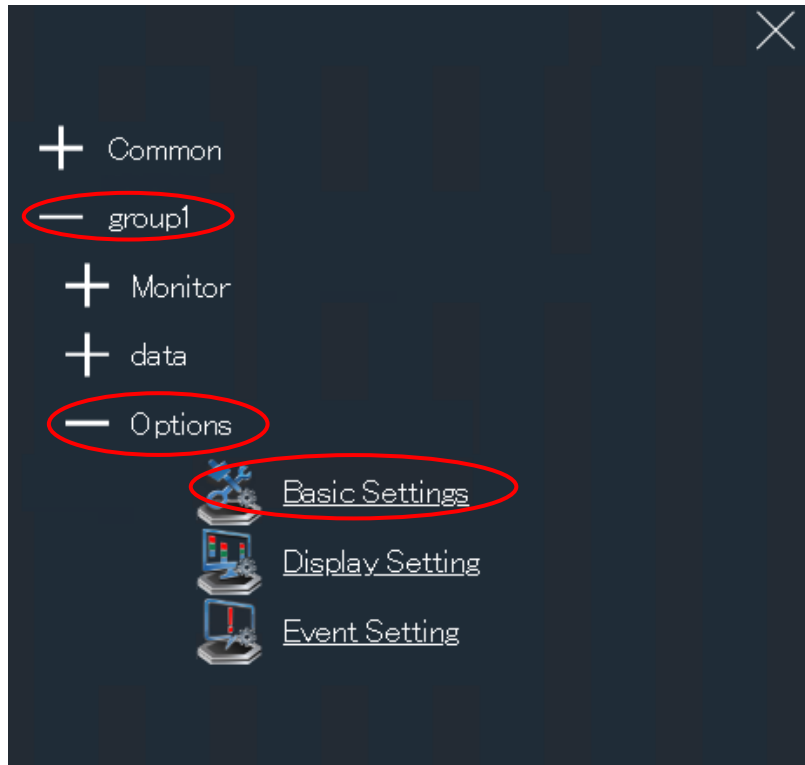


Figure 3: Basic settings selection screen on the website menu

4. Enter admin in "Password" in the "Administrator authentication" dialog box and select "OK."

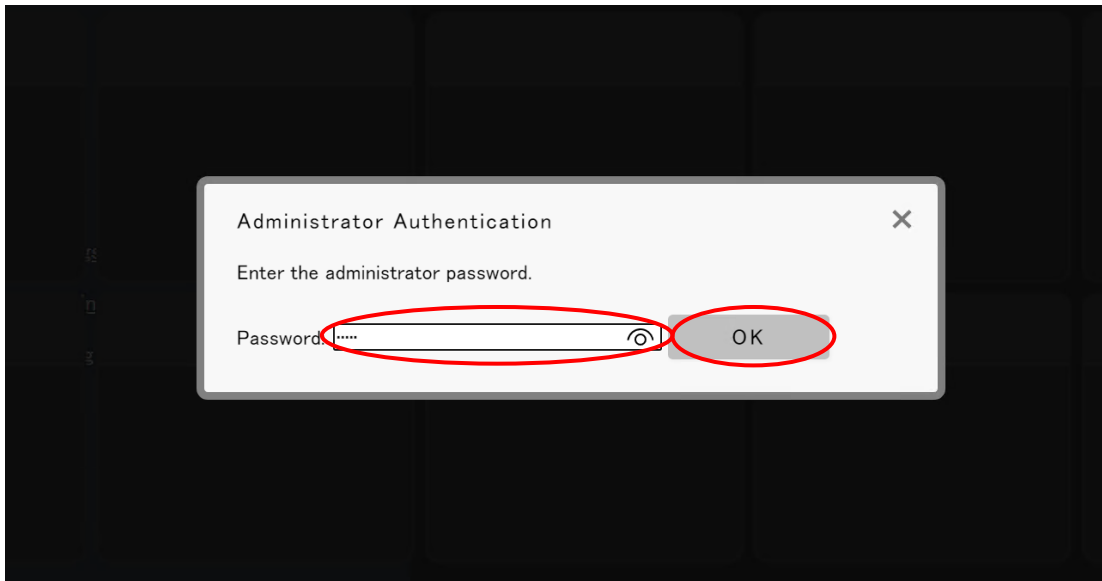


Figure 4: Website administrator authentication screen

5. Execute "Save" in "Basic settings."

The screenshot shows the 'Basic Settings' page of the Flex Signal web interface. The page is divided into several sections for configuration:

- Basic Settings:** Includes 'Management group' (mobile monitoring), 'Start time (origin time)' (00:00), and a note about one-day handling.
- Monitor Settings:** Includes 'Telop' fields for Telop 1, 2, and 3.
- Administrator Settings:** Includes 'Current Password', 'New Password', and a confirmation input field.
- Auto Output Settings:** Includes 'Use auto output' (checked), 'Output type' (Only once), 'Periodic interval (min)' (60), 'Output time' (00:10), and 'Output Folder'.
- Shift Settings:** Includes 'ShiftType' (None) and a table for 'Shift More' with columns for Shift Name and Start/End Time.
- Break time Settings:** Includes a table for 'Break time' with columns for No., Start time, Ending time, and Signal information valid/invalid setting.

At the bottom of the page, there are three buttons: 'Save' (circled in red), 'Cancel', and 'Initialize'.

Figure 5: Basic website settings screen

6. Confirm that The basic settings was saved. is displayed on the screen.

Flex Signal MENU 稼働監視

Basic Settings

You can set the basic options of Flex Signal.

The basic settings was saved.

Basic Settings

Management group: 稼働監視

Start time (origin time): 00 : 00
Note: The default setting, 00:00. One-day handling will change by the time that you specify morning or afternoon. If you specify a 9:00, 9:00 - 8:59 the next day will be handled as one day. If you specify a 9:00, the day before 21:00 - 20:59 will be handled as one day.

Monitor Settings

Telop: Telop 1: _____, Telop 2: _____, Telop 3: _____

Administrator Settings

Administrator password: Current Password: _____, New Password: _____ (Confirmation input) _____
Note: Please specify 5 or more characters of single-byte character.

Auto Output Settings

Use auto output. You can set enable.

Output type: Only once Periodic

Periodic interval (min): 60

Output time: 00 : 10
Note: The default setting, 00:10. That output the day before setting time.

Output Folder: _____

Shift Settings

ShiftType: None Ordinary Two shift Three shifts

Shift More	Shift Name		StratTime - EndTime
	Shift1	Shift2	Shift3
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Break time Settings

No.	Stat time	Ending time	Signal information valid/invalid setting
1	00 : 00	00 : 00	<input type="checkbox"/> To enable
2	00 : 00	00 : 00	<input type="checkbox"/> To enable
3	00 : 00	00 : 00	<input type="checkbox"/> To enable
4	00 : 00	00 : 00	<input type="checkbox"/> To enable
5	00 : 00	00 : 00	<input type="checkbox"/> To enable
6	00 : 00	00 : 00	<input type="checkbox"/> To enable
7	00 : 00	00 : 00	<input type="checkbox"/> To enable
8	00 : 00	00 : 00	<input type="checkbox"/> To enable
9	00 : 00	00 : 00	<input type="checkbox"/> To enable
10	00 : 00	00 : 00	<input type="checkbox"/> To enable

Save Cancel Initialize

Figure 6: Basic website settings save completion screen

7. Select "MENU" - "Common" - "Other" – "Help" at the top of the web page.

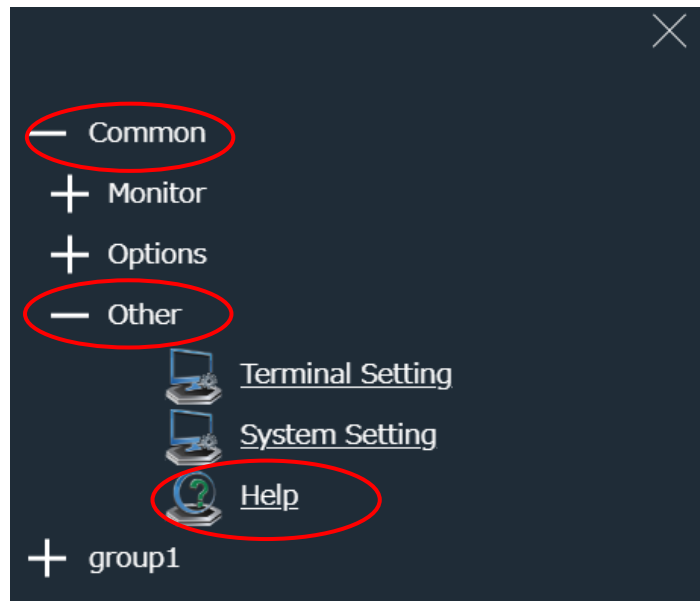
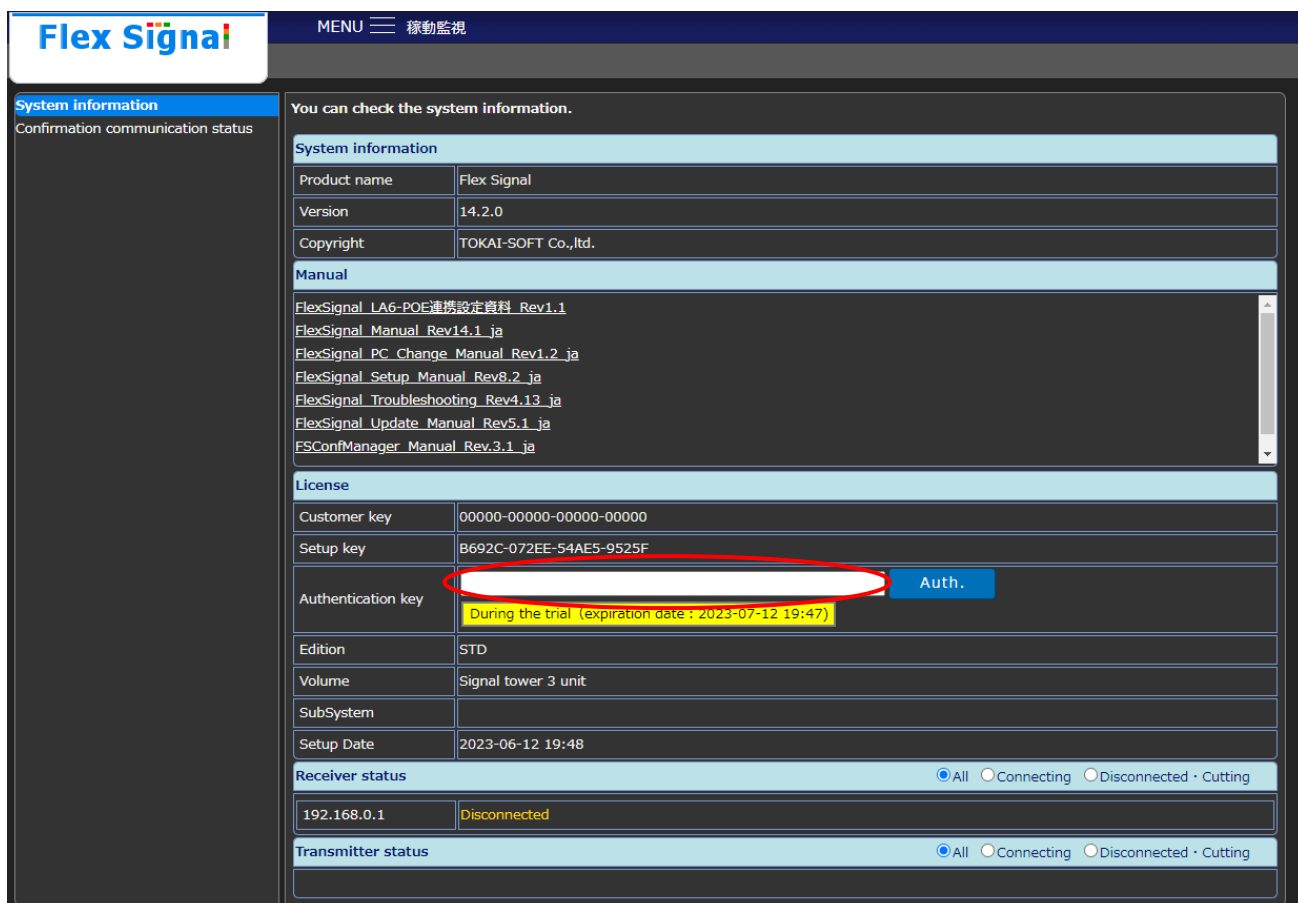


Figure 7: Help selection screen on the website menu

8. Confirm that "Customer key" in "Help" matches the key written on the email [ユーザー情報登録完了のお知らせ] sent from TOKAI-SOFT.

*If you install the system from CD-ROM, please confirm that "Customer key" in "Help" matches the key on the license certificate.



The screenshot displays the Flex Signal website interface. The top navigation bar includes the Flex Signal logo and a menu icon labeled '稼働監視'. The main content area is titled 'System information' and contains several sections:

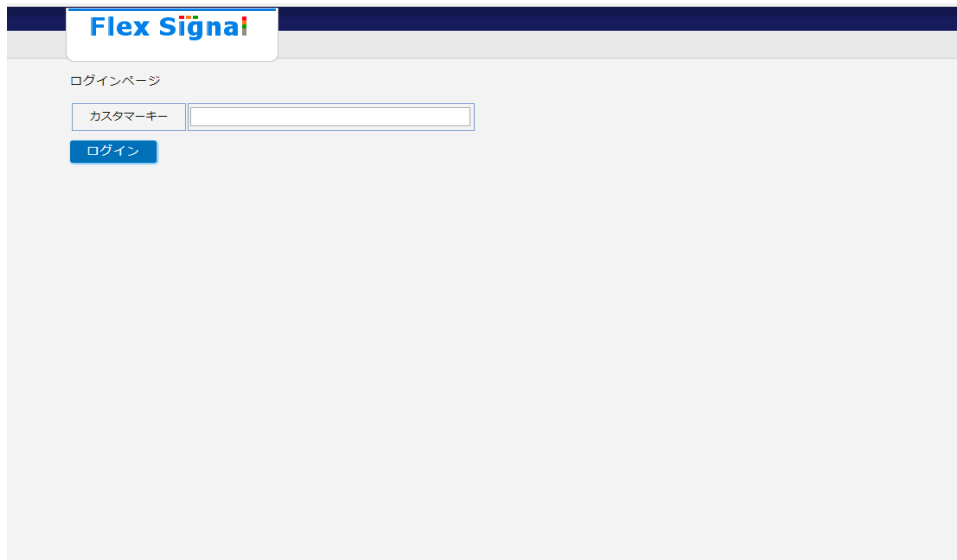
- System information:** A table with fields for Product name (Flex Signal), Version (14.2.0), and Copyright (TOKAI-SOFT Co.,Ltd.).
- Manual:** A list of manual files including FlexSignal_LA6-POE接続設定資料_Rev1.1, FlexSignal_Manual_Rev14.1_ja, FlexSignal_PC_Change_Manual_Rev1.2_ja, FlexSignal_Setup_Manual_Rev8.2_ja, FlexSignal_Troubleshooting_Rev4.13_ja, FlexSignal_Update_Manual_Rev5.1_ja, and FSConfManager_Manual_Rev.3.1_ja.
- License:** A table with fields for Customer key (00000-00000-00000-00000), Setup key (B692C-072EE-54AE5-9525F), Authentication key (During the trial (expiration date : 2023-07-12 19:47)), Edition (STD), Volume (Signal tower 3 unit), SubSystem, and Setup Date (2023-06-12 19:48). A red circle highlights the Authentication key field, and a blue 'Auth.' button is visible to its right.
- Receiver status:** A section with radio buttons for All, Connecting, and Disconnected - Cutting. Below it, a table shows the IP address 192.168.0.1 with a status of Disconnected.
- Transmitter status:** A section with radio buttons for All, Connecting, and Disconnected - Cutting.

Figure 8: Website help screen where you can check the customer key

6. Authenticating the License

1. Prepare the email [アクティベーション登録のご案内] sent from TOKAI-SOFT.

* If you install the system from CD-ROM, ask TOKAI-SOFT (flexsignal@tokai-soft.co.jp) to issue the authentication key by email. Be sure to include the customer key and setup key in the body of the email. We issue the authentication key after checking the customer key and setup key. After the authentication key is issued, proceed with the procedures up to the authentication work in 5.
2. Access the URL for activation registration written in the email [アクティベーション登録のご案内], enter the customer key and log in.



The screenshot shows the Flex Signal login interface. At the top, there is a dark blue header with the 'Flex Signal' logo. Below the header, the text 'ログインページ' (Login Page) is displayed. There is a text input field labeled 'カスタマーキー' (Customer Key) and a blue button labeled 'ログイン' (Login).

*If you cannot log in, please contact our support team (flexsignal@tokai-soft.co.jp), including the message displayed in red on the screen in the email.

3. After entering the “customer key” and “setup key”, click 登録 (register) button.

(the customer key is automatically input when logging in.)

Flex Signal

アクティベーション登録

操作手順

1. FlexSignalヘルプ画面を確認し、カスタマーキー・セットアップキーを半角英数字で入力してください。
2. 入力後、登録ボタンをクリックしてください。
3. 「登録完了しました。」と表示されることをご確認ください。
4. 完了後、メールにて認証キーをご案内いたします。
5. FlexSignalヘルプ画面内にある認証キーエリアに認証キーを入力し、認証を行ってください。

登録情報 ※入力必須

カスタマーキー	<input type="text"/>
セットアップキー	<input type="text"/>

登録

お問い合わせ先
FlexSignalサポート係
E-mail : flexsignal@tokai-soft.co.jp
Tel : 052-563-3596
※弊社営業日9:00~17:00

*You can find “customer key” and “setup key” from "MENU"(at the top of the FlexSignal website) - "Common" - "Other - Help". (This is not a website for activation registration.)

4. After registration is completed, you will receive an email [アクティベーション登録完了のお知らせ・認証キーのご案内] sent by TOKAI-SOFT.

5. The authentication key is written in the email [アクティベーション登録完了のお知らせ・認証キーのご案内] described in 4. above. Enter the authentication key in the authentication key field on the screen that is displayed by selecting "MENU" - "Common" - "Other - Help" and select the "Authenticate" button.
- *If you install the system from CD-ROM, the authentication key is issued via email. Please check 1.

License	
Customer key	00000-00000-00000-00000
Setup key	B692C-072EE-54AE5-9525F
Authentication key	<input type="text"/> <input type="button" value="Auth."/>
	During the trial (expiration date : 2023-07-12 19:47)
Edition	STD
Volume	Signal tower 3 unit
SubSystem	
Setup Date	2023-06-12 19:48

Figure 2: License authentication screen

When the authentication is completed, on the license authentication screen shown in Figure 2 changes to Confirm that the number of purchased licenses is displayed in "Volume."

If you enter an incorrect authentication key, enter the correct authentication key and retry the authentication.

* Before authentication, "Expiration date for trial use" shows the date one month after the product was installed on the PC.

7. Specifying Signal Lamp Settings

See "Specifying signal lamp settings" in the Flex Signal Instruction Manual and specify the settings.

Refer to “FlexSignal - LA6-POE 連携設定資料” for the detail of LA6-POE.

* Data is not displayed until signal lamp settings are specified.

8. Uninstallation

1. Start the uninstaller by selecting "Start" - "Flex Signal."
 - * Perform this operation as a user with administrator privileges.
2. Select "Next."

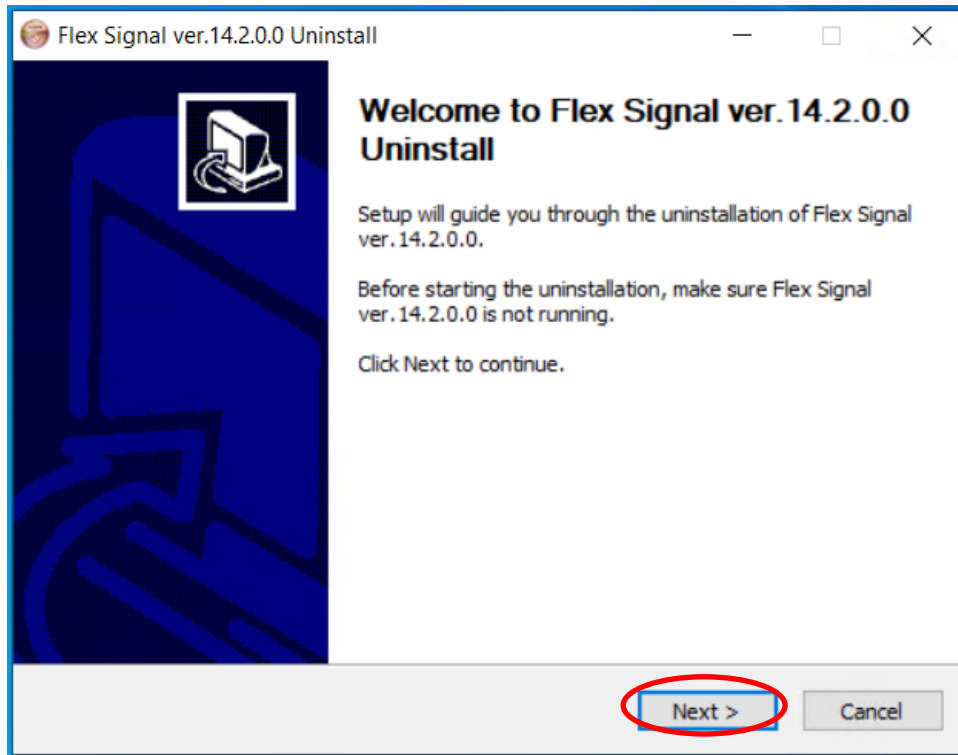


Figure 1: Uninstallation screen

3. Select "Uninstall."

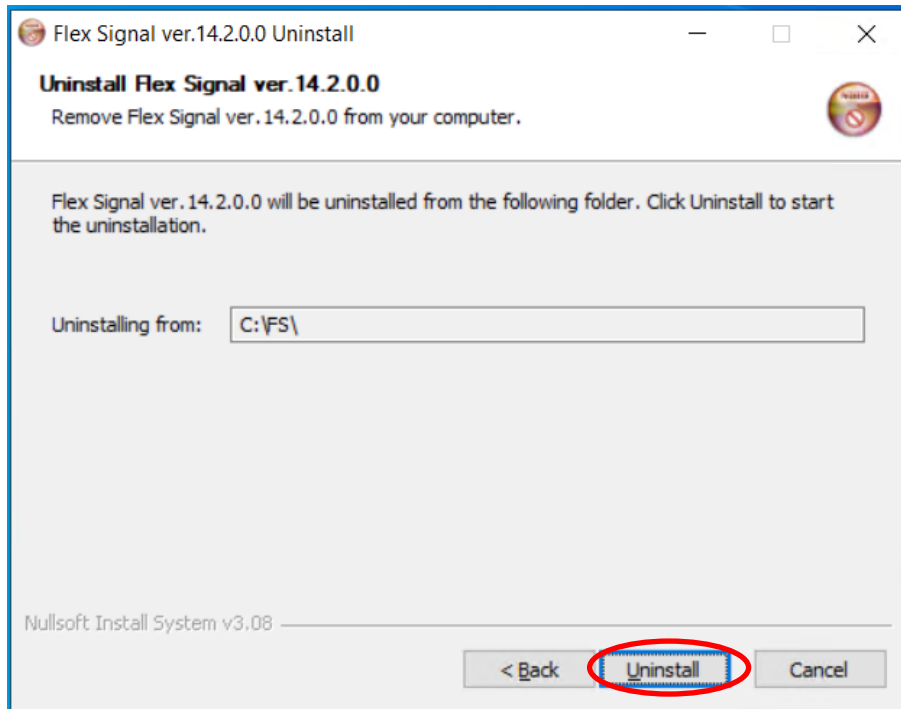


Figure 2: Uninstallation folder screen

4. Uninstallation starts. Wait until installation has successfully completed.

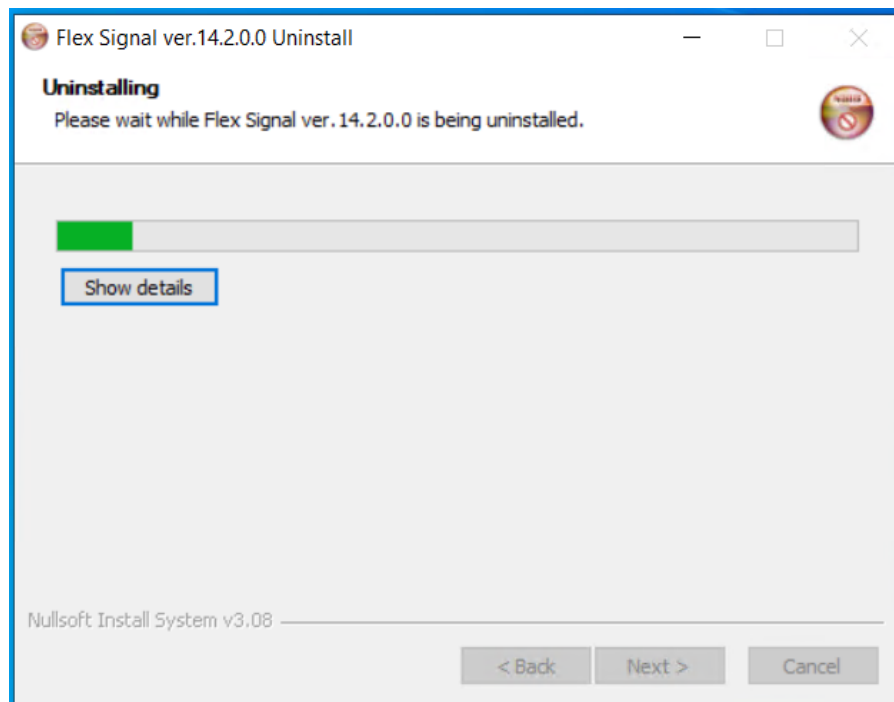


Figure 3: Screen during uninstallation

5. When the uninstallation completion screen appears, select "Reboot now."
* If you select "Reboot later," be sure to manually restart the PC.

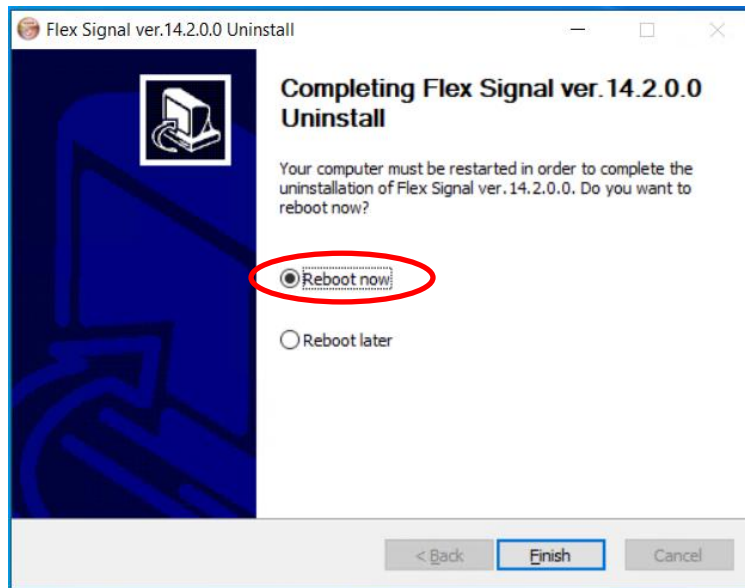


Figure 4: Uninstallation completion screen

9. FAQs

(1) "Next" cannot be clicked on the installation screen.

There might not be enough IIS setting items.

(i) Check the IIS setting items.

(2) Setup does not complete successfully.

The FlexSignal receiver communication setup tool, which should start up during installation, might already be running.

(i) Confirm that the FlexSignal receiver communication setup tool is not running. If the FlexSignal receiver communication setup tool is running, click the "x" to close the setup tool.

(ii) If you are prompted to cancel the installation, make sure that the network adapter is enabled.

(iii) Uninstall Flex Signal once and install again.

(3) Data is not displayed even though installation is completed.

Signal lamp settings might not be specified.

- (i) Download "FlexSignal_Manual_RevX.X_en" from "MENU" - "Common" - "Other - Help" and specify signal lamp settings referring to "Individual signal lamp settings".

(4) Authentication fails.

- (i) Confirm that the customer key on the email [ユーザー情報登録完了のお知らせ] sent from TOKAI-SOFT is the same as the customer key on the Help screen in Flex Signal.
- (ii) Confirm that the PC where you installed the product has not been disconnected from the network.

(5) Data is not displayed even after signal lamp settings are specified.

The receiver might not be communicating with the PC where you installed the product.

- (i) Confirm that the connection method between the receiver and the PC where you installed the product is a LAN connection.
- (ii) Confirm the receiver status on the screen displayed by selecting "MENU" - "Common" - "Help". If the status of the receiver shows "Disconnected" or "Cutting", confirm the connection status with the receiver.
- (iii) Confirm that the IP address is set to the connected LAN.
- (iv) Confirm that an application from PATLITE or other software is not running.
- (v) Confirm that the port number setting of the receiver has not been changed.

- (vi) Select the transmitter MAC address of the target equipment displayed when you select the Select button rather than manually filling in "ID" under the individual signal lamp settings.
- (vii) Confirm that the equipment is on.
- (viii) Restart the PC and confirm that FS Start automatically starts and automatically closes after a few minutes.

(6) I want to display Flex Signal on another PC.

- (i) See item 2 in "(2) Checking the website" in Chapter 5 of this manual.

(7) "HTTP error" is displayed.

The response method differs depending on the error type.

- HTTP Error 500.21 ⇒ It need to enter a command.

- (i) Select "Start Menu" - Enter "cmd" in "Find programs and files" to start command prompt.
- (ii) Enter the following command at the command prompt and press the "Enter".

Command when the installation destination PC : 32 bits

```
C:¥Windows¥Microsoft.NET¥Framework¥v4.0.30319¥aspnet_regiis -i
```

Command when the installation destination PC : 64 bits

```
C:¥Windows¥Microsoft.NET¥Framework64¥v4.0.30319¥aspnet_regiis -i
```

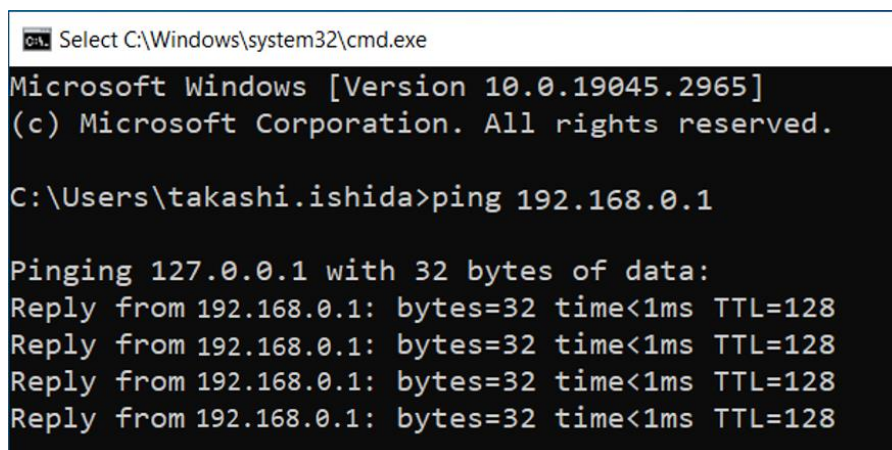
- (iii) If "Install of ASP.NET (4.0.30319) is complete" is displayed, it is complete. Close the command prompt and check the FlexSignal screen.

- HTTP Error 500.19 ⇒ There is a possibility that ASP.NET 4.7 is not checked. Please check the settings of IIS again.

(8) Identification ID list is not displayed in the signal lamp settings.

The communication environment between the PC and the receiver might not be prepared.

- (i) Confirm that the IP address of the receiver is registered in FlexSignal. *See “FlexSignal receiver communication setup manual” for the description of checking / adding / changing the IP address of the receiver.
 - (ii) Select "Start Menu" - Enter "cmd" in "Find programs and files" to start command prompt.
 - (iii) Enter “ping receiver IP address” at the command prompt and press the “Enter”.
(Example: ping 192.168.0.1)
- (I) If the response from the receiver's IP address is not normal as shown in the figure below and an error like "Request timed out" is displayed, please check the communication environment.



```

C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Users\takashi.ishida>ping 192.168.0.1

Pinging 127.0.0.1 with 32 bytes of data:
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128

```

(9) Total of the operation status graph exceeds 100%.

The monitoring time which is used as a denominator might be less than the total time of each component color.

- (i) Please confirm that the check box for any of the colors is checked in “Monitoring light” item in Signal Tower Settings. If any of the check box is checked, the time when the color of the unchecked check box is in on or flash state is not included in the monitoring time, which may cause the rate to exceed 100%.
 - (ii) Confirm the monitoring time which is specified as a fixed value in “monitoring light” item in Signal Tower Settings. If the time for which the signal was in on or flash state is longer than planned, it may cause the rate to exceed 100%.
- (10) I want to use LA6-POE.
- (II) see “FlexSignal - LA6-POE 連携設定資料” for the detail of LA6-POE.

