

AX2500S/AX1250S/AX1240S License Installation Guide

■ Preface

This manual describes how to install the licenses required to use optional Switch functionality. Use this guide when you install a license. The licenses are required to use added functionality.

This manual covers the following licenses:

AX2500S : advanced software upgrade license

AX1250S/AX1240S : optional license

They are referred to as *the license(s)* in this manual.

Unless otherwise specified, the descriptions of this manual apply equally to all models in the AX2500S, AX1250S, and AX1240S series. However, any part that is particular to one or more specific models is indicated by the following marks:

[AX2500S]

This indicates that the part only applies to AX2500S.

[AX1250S]

This indicates that the part only applies to AX1250S.

[AX1240S]

This indicates that the part only applies to AX1240S.

For example, a combination of [AX1250S] and [AX1240S] accompanying a description indicates that it applies only to AX1250S and AX1240S or describes a function that is only supported by those models.

■ Trademarks

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■ Edition history

August 2010 (Edition 3) AX1240S-SOFT-005_R2X

■ Conventions: The terms "Switch" and "switch"

The term Switch (upper-case "S") is an abbreviation for any or all of the following models:

- AX2500S series switch
- AX1250S series switch
- AX1240S series switch

The term switch (lower-case "s") might refer to a Switch, another type of switch from the current vendor, or a switch from another vendor. The context decides the meaning.

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■ Note

Information in this document is subject to change without notice.

■ History of Amendments

[For Edition 3] Summary of amendments

#	Location and title	Changes
1	Front cover	• A description of AX2500S support has been added.

In addition to the above changes, minor editorial corrections were made.

[For Edition 2] Summary of amendment

#	Location and title	Changes
1	Front cover	• A description of AX1250S support has been added.

In addition to the above changes, minor editorial corrections were made.

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1. Overview

1.1. License overview

The expression *license* refers to a license that is required to use additional Switch functionality. A license is required for each added function. If the corresponding license has not been installed, the added function cannot be used. A license is provided in the form of a sheet containing the license key information, called:

[AX2500S]

Software License Agreement and License Sheet

[AX1250S] [AX1240S]

Optional License Agreement

The license is subject to the following rules:

- The license must be for the appropriate Switch.
- A license can be installed on only one Switch.
- A license for a function can be added on a Switch on which a license for another function has already been installed. [\[AX1250S\]](#) [\[AX1240S\]](#)
- Installation information about a license is stored on the Switch. If the Switch is replaced or new software is installed, all licenses must be re-installed. It is not necessary to re-install licenses if the software is upgraded.
- When a license has been installed, the Switch must be restarted for the license to take effect.

1.2. Supported license types

The tables below show the license types supported by each of the Switches.

[AX2500S]

Supported license types

Abbreviation	License type	Included functions
OS-L2A-U	Advanced software upgrade license for AX2500S	Secure Wake-on-LAN
		One-time password authentication
		SML (Split Multi Link)

[AX1250S] [AX1240S]

Supported license types

Abbreviation	License type	Included functions
OP-WOL	Optional license for AX1250S/AX1240S Secure Wake-on-LAN	Secure Wake-on-LAN
OP-OTP	Optional license for AX1250S/AX1240S Collaboration with RSA SecurID	One-time password authentication

2. Installing a License

2.1. Introduction

To install a license, use the license key provided in the form of the sheet below and execute the command that sets the license information.

[AX2500S]

Software License Agreement and License Sheet

[AX1250S] [AX1240S]

Optional License Agreement

2.2. How to install a license

To install a license:

- (1) Log in to the Switch, using the login user ID (for example, `operator`).
- (2) Enter the login password. (If a password has not been set, the **Password** text box is not displayed.)
- (3) Enter the `enable` command.
- (4) Enter the `show license` command.
- (5) When the current installation status of licenses is displayed, check the information (see (1) in the figure).
- (6) Enter `set license key-code <License key>` to set the license information (see (2) in the figure).

Example:

```
set license key-code 0250-03e4-1000-1000-0a36-b5e3-fed8-a71c
```

```
set license key-code 025003e4100010000a36b5e3fed8a71c
```

 (Hyphens can be omitted.)

If you specify the wrong license key, the `Invalid license key` message appears. Enter the correct license key.

- (7) Enter the `show license` command.
- (8) Make sure the license is displayed. (The first 16 digits of the license key are displayed.) (See (3) in the figure.)
- (9) Execute the `reload` command to restart the Switch. (The license key takes effect when the Switch is restarted.) (See (4) in the figure.)
- (10) After the restart, log in to the Switch again.
- (11) Execute the `show license` command to make sure the license has taken effect. (See (5) in the figure.)

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- (12) Execute the `show version` command to make sure that `OS-L2A` is displayed in the `S/W` section. (See (6) in the figure.)

This ends the procedure.

The next page shows an example of the procedure, using the AX1240S as a sample.

2.3. How to delete a license

To delete a license:

- (1) Log in to the Switch, using the login user ID (for example, `operator`).
- (2) Enter the password. (If a password has not been set, the **Password** text box is not displayed.)
- (3) Enter the `enable` command.
- (4) Execute the `show license` command.
- (5) When the current installation status of licenses is displayed, check the information. (See (1) in the figure.)
- (6) Enter `erase license <Serial#>` to delete a license. (The serial number is the first 16 digits of the alphanumeric characters displayed by executing the `show license` command.) (See (2) in the figure.)

Example:

```
erase license 0250-03e4-1000-1000
```

```
erase license 025003e410001000 (Hyphens can be omitted.)
```

If you specify the wrong serial number, the `Invalid serial number` message appears. Enter the correct serial number.

- (7) When a confirmation message appears, enter `y`. (See (3) in the figure.)
- (8) Enter the `show license` command.
- (9) Make sure the license information has been deleted. (See (4) in the figure.)
- (10) Execute the `reload` command to restart the Switch. (The deleted license key is no longer valid when the Switch restarts.) (See (5) in the figure.)
- (11) After the restart, log in to the Switch again.
- (12) Execute the `show license` command to make sure the license no longer exists. (See (6) in the figure.)

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- (13) Execute the `show version` command to make sure that `OS-L2B` is displayed in the `S/W` section (see (7) in the figure).

This ends the procedure.

The next page shows an example of the procedure, using the AX1240S as a sample.

3. Operation Command Reference

Command name	Operation
<code>set license</code>	Sets a license key code or license key file.
<code>erase license</code>	Deletes a license key.
<code>show license</code>	Displays information about licenses.

set license

This command registers a license key code or license key file on the Switch.

Then, after the Switch is restarted, the function covered by the license can be used.

Input format

```
set license { key-code <License key> | key-file ramdisk <File name> }
```

Input mode

Device administrator mode

Parameters

`key-code` <License key>

Specify the license key code to be registered.

You can specify a maximum of 39 characters, which can be alphanumeric characters and hyphens.

The alphabetic characters used in a license key are case sensitive.

`key-file ramdisk` <File name>

Specify the name of the license key file to be registered.

You can specify a maximum of 64 alphanumeric characters.

Alphabetic characters used in a file name are case sensitive.

Execution example

Specify a license key code:

```
# set license key-code 0250-03e4-1000-1000-0a36-b5e3-fed8-a71c
# set license key-code 025003e4100010000a36b5e3fed8a71c (Hyphens can be
omitted.)
```

Specify a license key file:

```
# set license key-file ramdisk lcs.dat
```

Displayed items

None

Response messages

List of response messages for the `set license` command

Response message	Description
<code>Invalid license key.</code>	The license key is invalid.
<code>There is no corresponding function.</code>	The function corresponding to the license key was not found.
<code>This license is already registered.</code>	The license key is already registered.
<code>A license key cannot be added any more.</code>	No more license keys can be registered.

Error: String too long.	The specified license key code exceeds the maximum allowed length. The specified license key file name exceeds the maximum allowed length.
It failed in writing the FROM file.	Writing of the file to internal flash memory failed.
File open error.	When a license key file was specified, the specified file could not be opened.
Invalid contents of <File name>.	When a license key file was specified, the license key set in the file contained inappropriate information.

Notes:

- This command cannot be used concurrently by multiple users.
- If a license key has been set by using this command, the target function can be used after the Switch has been restarted.
- To use a license key file, the file must be transferred to the RAMDISK of the Switch from a memory card (SD card) or via FTP beforehand. Note, however, that restarting the Switch deletes the file because the RAMDISK is only a temporary storage area.

erase license

This command deletes a license registered on the Switch by specifying its serial number.
Then, after the Switch has been restarted, the deleted license is no longer valid.

Input format

```
erase license <Serial#>
```

Input mode

Device administrator mode

Parameter

<Serial#>

Specify the serial number of the license key code to be deleted.

You can specify a maximum of 19 alphanumeric characters and hyphens (-).

The alphabetic characters used in a serial number are case sensitive.

Execution example

```
# erase license 0250-03e4-1000-1000
This serial number enable OP-OTP
Erase OK ? (y/n): y
#
```

Displayed items

None

Response messages

List of response messages for the `erase license` command

Response message	Description
<code>Invalid serial number.</code>	The serial number is invalid.
<code>There is no corresponding serial number.</code>	There are no entries that correspond to the specified serial number.
<code>It failed in writing the FROM file.</code>	Writing of the file to internal flash memory failed.
<code>Error: String too long.</code>	The specified serial number exceeds the maximum allowed length.

Notes:

- This command cannot be used concurrently by multiple users.
- If a license is deleted by using this command, the target function can no longer be used after restarting of the Switch.

show license

This command displays information about the licenses registered on the Switch.

Input format

```
show license
```

Input mode

User mode and Device administrator mode

Parameters

None

Execution example

When information is displayed: **[AX2500S]**

```
# show license
```

```
Date 2010/08/05 01:23:29 UTC
```

```
Available: OS-L2A-U
```

Serial Number	Licensed software
0ddd-1234-5678-0000	OS-L2A-U(AX-P2530-22AU)

```
#
```

When information is displayed: **[AX1250S] [AX1240S]**

```
# show license
```

```
Date 2008/11/12 14:42:31 UTC
```

```
Available: OP-WOL OP-OTP
```

Serial Number	Licensed software
0250-03e4-4000-1000	OP-WOL(AX-P1240-F1)
0250-03e4-1000-1000	OP-OTP(AX-P1240-F2)

```
#
```

When no information is displayed:

```
# show license
```

```
Date 2008/11/12 15:33:23 UTC
```

```
Available: -----
```

```
-----
```

```
#
```

Displayed items

Items displayed by the `show license` command:

Displayed item	Description
<code>Available</code>	Enabled license in abbreviated form
<code>Serial Number</code>	License serial numbers
<code>Licensed software</code>	Registered license information

Response messages

None

Note:

This command cannot be used concurrently by multiple users.