Doc. no.LEC-OM04901

Operation Manual

PRODUCT NAME

Controller setting kit Software (ACT Controller) version upgrade procedure

MODEL/ Series

LEC-W Series

SMC Corporation

Contents

ACT Controller/Setting software
1. Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage.
These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.”
They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC), Japan Industrial Standards (JIS)*1) and other safety regulations*2).

*1) ISO 4414: Pneumatic fluid power -- General rules relating to systems
ISO 4413: Hydraulic fluid power -- General rules relating to systems
IEC 60204-1: Safety of machinery -- Electrical equipment of machines (Part 1: General requirements)
ISO 10218-1992: Manipulating industrial robots -- Safety
JIS B 8370: General rules for pneumatic equipment.
JIS B 8361: General rules for hydraulic equipment.
JIS B 9960-1: Safety of machinery – Electrical equipment for machines. (Part 1: General requirements)
JIS B 8433-1993: Manipulating industrial robots - Safety. etc.

*2) Labor Safety and Sanitation Law, etc.

Caution	Operator error could result in injury or equipment damage.
Warning	Operator error could result in serious injury or loss of life.
Danger	In extreme conditions, there is a possibility of serious injury or loss of life.

Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results.

The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product.

This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly.

The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.

The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.

When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.

Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

1) Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.

2) Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.

3) An application which could have negative effects on people, property, or animals requiring special safety analysis.

4) Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

ACT Controller/Setting software
Safety Instructions

⚠ Caution

The product is provided for use in manufacturing industries.
The product herein described is basically provided for peaceful use in manufacturing industries.
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.
If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”.
Read and accept them before using the product.

Limited warranty and Disclaimer

The warranty period of the product is 1 year in service or 1.5 years after the product is delivered.*3)
Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.

For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.

Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

***3) Vacuum pads are excluded from this 1 year warranty.**
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

When the product is exported, strictly follow the laws required by the Ministry of Economy, Trade and Industry (Foreign Exchange and Foreign Trade Control Law).

2. Outline

The controller setting kit software (ACT Controller) can be upgraded using the upgrade tool.
The version upgrade contents and upgrade procedure are shown below.

[File configuration]

UpdateJP (Ver1200)	Japanese version upgrade tool
UpdateEN (Ver1200)	English version upgrade tool

Applicable OS for ACT Controller are followings. Use the communication cable (LEC-W2) in case of windows 7 (64bit).

- Windows® XP (32bit)
- Windows® 7 (32bit)
- Windows® 7 (64bit)

Applicable controllers or driver for ACT Controller are followings.

- LECP6 series : Step Motor Controller (Servo/24VDC)
- LECA6 series : Servo Motor Controller (DC24V)
- LECPA series : Step Motor Driver (Pulse input type)

3. Version upgrade contents

This section explains the functions that have been added and revised.

3.1 Motor driver (pulse input type)

For a motor driver (pulse input type), position, speed, acceleration, and deceleration are controlled by pulse signals (not step data). The following function cannot be used.

- ・Editing of “Speed”, “Position”, “Accel”, and “Decel” in step data
- ・Drive test by step data

Therefore a motor driver (pulse input type) is limited as follows.

(1) Button limited

For a motor driver (pulse input type), the [Safe Speed], [Go], [Step], [Stop], [Hold], and [Drive test] buttons cannot be clicked.

Motor controller

Motor driver (pulse input type)

(Example of Normal mode window)

Motor controller

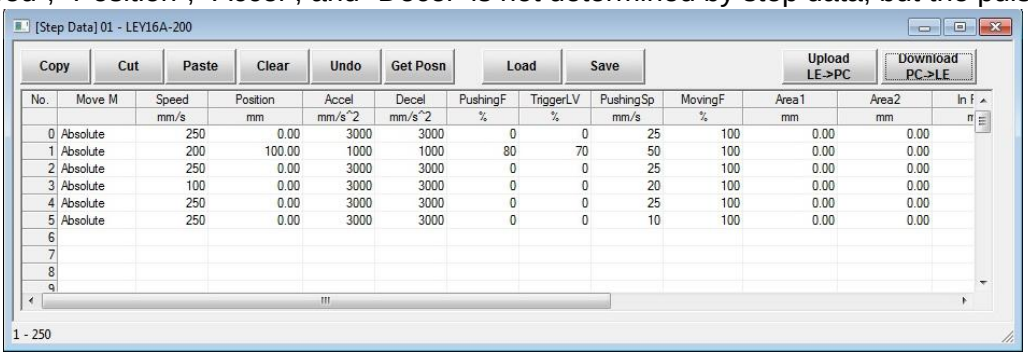
Motor driver (pulse input type)

(Example of Normal mode window)

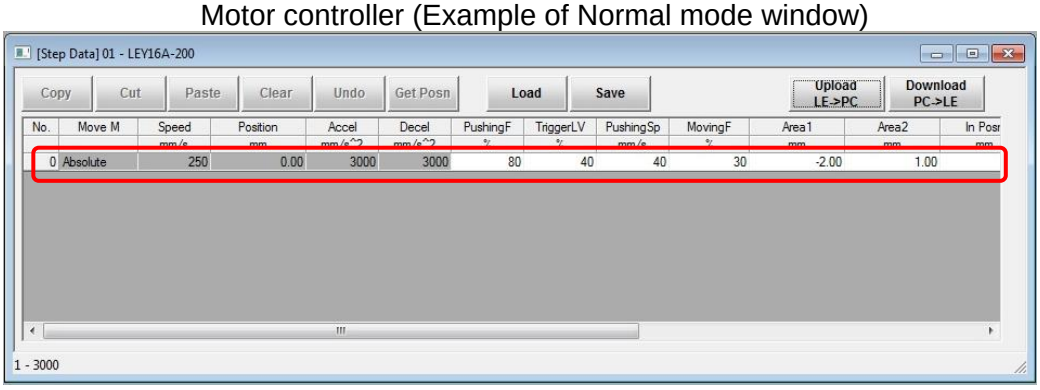
(2) Step data window

For a motor driver (pulse input type), step data is limited as follows.

- ・Only step data No.0 can be edited.
- ・Only “Pushing F”, “Trigger LV”, “Pushing Sp”, “Moving F”, “Area1”, “Area2”, and “In Posn” can be edited.
- ・“Move M” is fixed as “Absolute”.
- ・“Speed”, “Position”, “Accel”, and “Decel” is not determined by step data, but the pulse signal.



Motor controller (Example of Normal mode window)



Motor driver (pulse input type) (Example of Normal mode window)

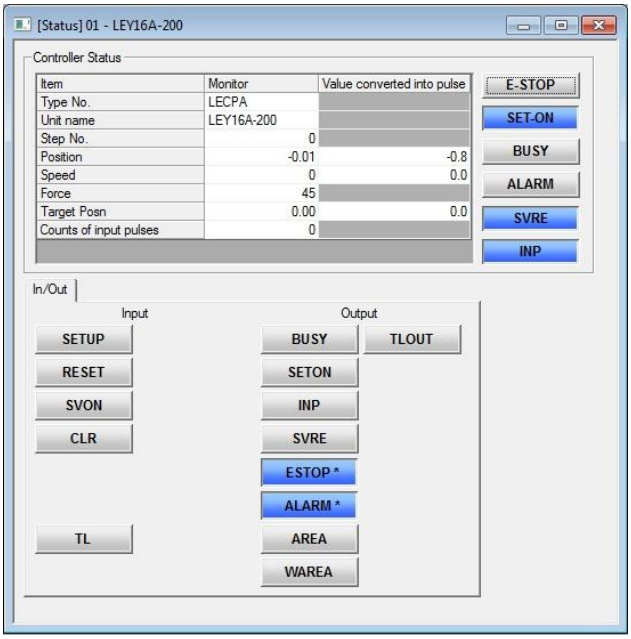
(3) Status window

For a motor driver (pulse input type), the status window is changed. The status window is shown as follows. Refer to the motor driver (pulse input type) operation manual for details.

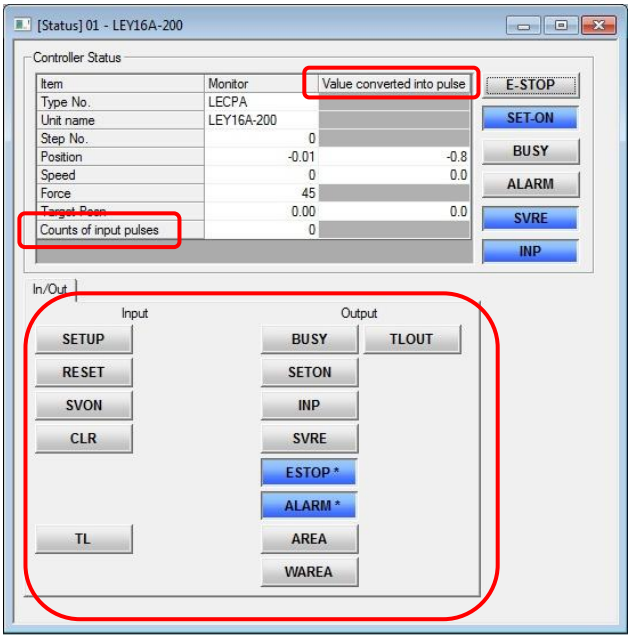
<Counts of input pulses> : Counts of pulses input from PLC, etc. are displayed.

<Value converted into pulses> : Converted values into pulse counts are displayed for the current position, current speed and target position.

Refer to the motor driver (pulse input type) operation manual for the signals [CLR], [TL], [WAREA], and [TLOUT].



Motor controller

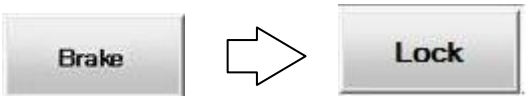


Motor driver (pulse input type)

(Example of Normal mode window)

3.2 Brake button

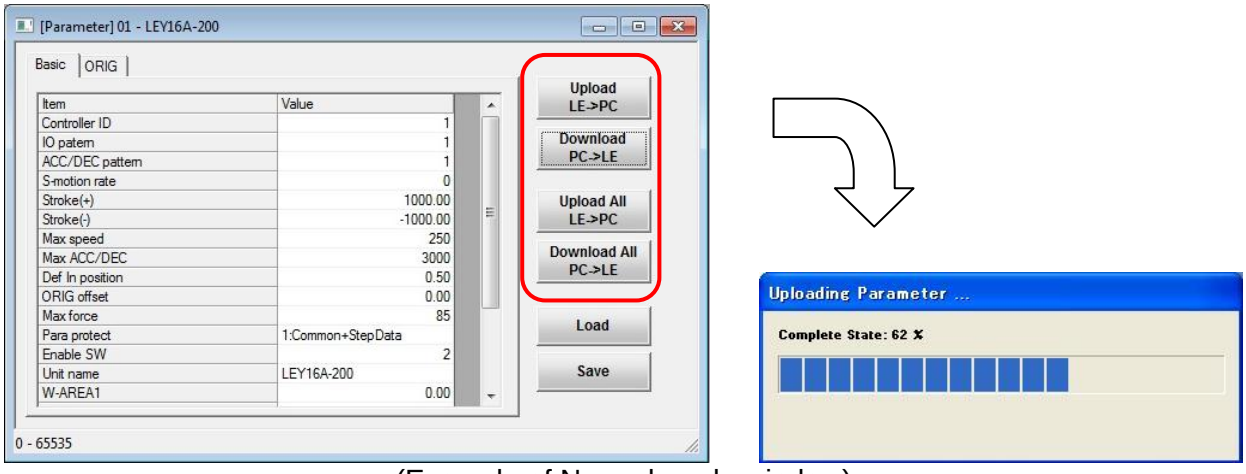
[Brake] is change to [Lock] on the display.



(Example of Normal mode window)

3.3 Progress meter for parameter upload and download

The progress meter is displayed, when [Upload], [Download], [Upload All], and [Download All] buttons are clicked.



(Example of Normal mode window)

3.4 The “Enable switch” function activated

When the “Enable switch” of the basic parameter is set to "1.Enable" and when it moves into the test mode, the display shown in the Fig. is displayed. When the “Enable switch” is activated, the servo cannot be turned on, and the actuator cannot be operated.
When the display shown in the Fig. is displayed, move into the monitor mode. Turn “Enable switch” to “2.Disable” and then move into test mode.

(Example of Normal mode window)

3.5 Previous versions file

When the previous version (Version 1.0.0.5) parameter and step data is read, the display shown in the Fig. may be displayed. When the display shown in the Fig. is displayed, check and set the data again.

(Example of Normal mode window)

4. Precautions for version upgrade

4.1 Parameter and step data files

Files saved with the controller setting kit before the upgrade (parameters, step data) can be used with the controller setting kit after the upgrade.

However, files saved with the controller setting kit after the upgrade cannot be used with the controller setting kit before the upgrade. Files saved after the upgrade can only be used with upgraded controller setting kit.

4.2 Preparation for version upgrade

The upgrade is done for setting software that has already been installed (ACTContoller), so please install the setting software beforehand.

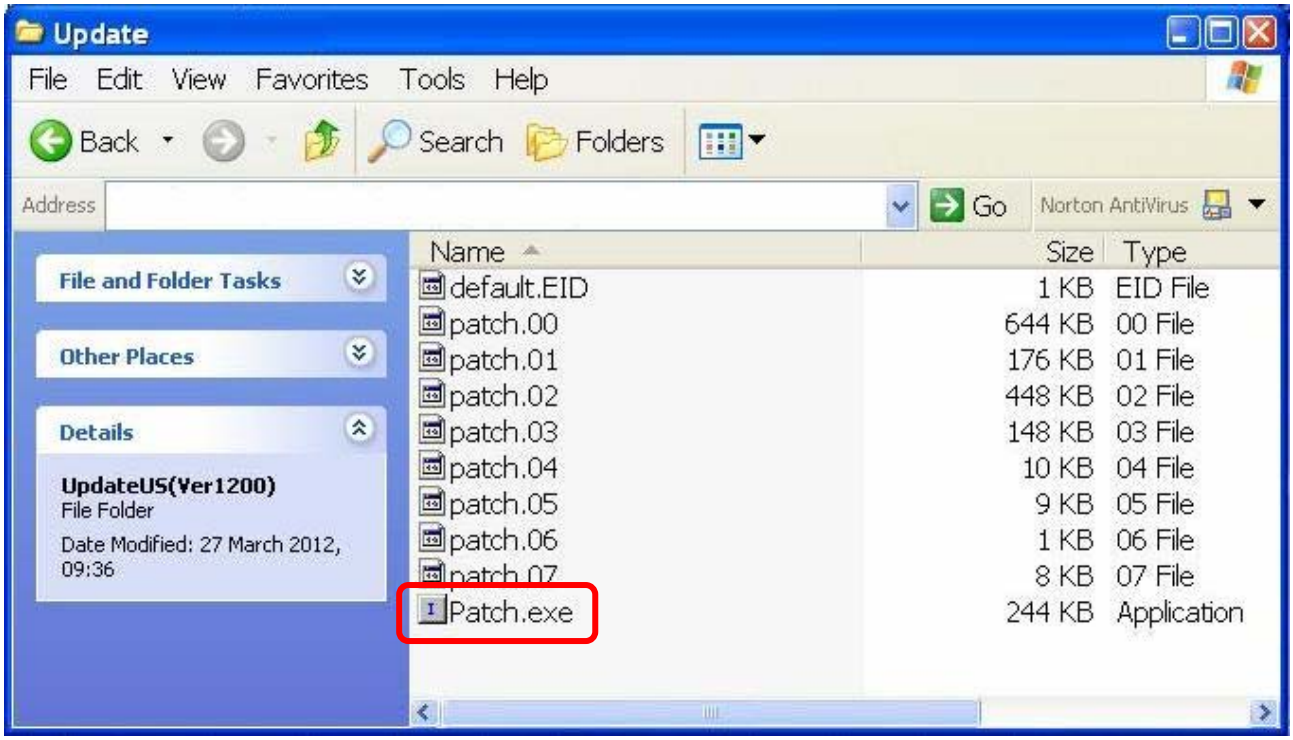
4.3 Method of returning to setting software before upgrade

To return to the setting software before the upgrade, un-install the setting software and then install it again from the controller setting kit (LEC-W1 or LEC-W2) CD-ROM.

5. Version upgrade procedure

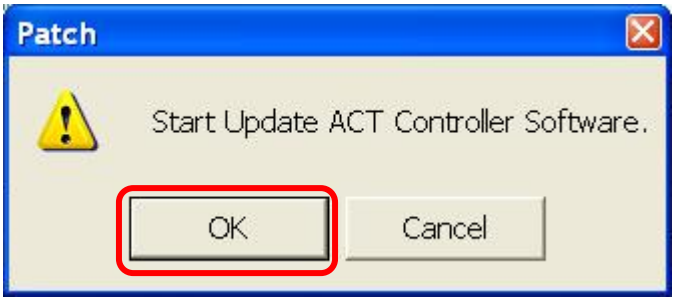
5.1 The installed setting software (ACTController) is upgraded. Please confirm that the setting software is installed to the PC.
If the setting software is the Japanese version, please unzip UpdateJP (Ver1200) and if it is the English version, please unzip UpdateEN (Ver1200).

5.2 When it is unzipped, the files shown below will appear. (Example of Windows XP)
Start up the file Patch.exe.



5.3 The window shown below will open. Confirm the folder where it will be installed to, and click on [Update].

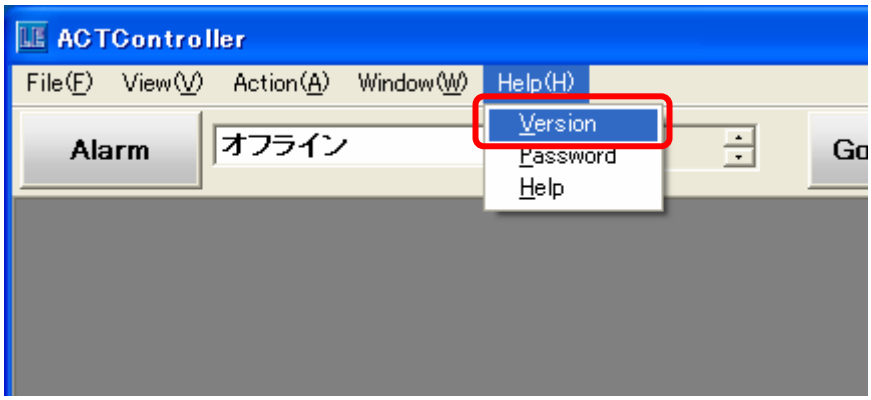
5.4 The window shown below will be displayed. When you click on [OK], the upgrade will start.



5.5 When the upgrade is finished, the window shown below will be displayed. When you click on [OK], the upgrade is completed.

5.6 Confirmation after version upgrade

After the upgrade is complete, run the installed setting software (ACTController.exe) in normal mode. Click on [Help] then [Version] from the menu bar.



The version information is displayed as shown below. Confirm that Version 1.2.0.0 is displayed.

Revision history
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SMC Corporation

4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021 JAPAN
Tel: + 81 3 5207 8249 Fax: +81 3 5298 5362
URL http://www.smcworld.com