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# ASLVER

## Instruction Manual

 <b>CAUTION</b>	<ul style="list-style-type: none"><li>• The manual describes the correct handling method of the system and provides cautions in order to avoid accidents. Read this manual carefully beforehand use the system correctly.</li><li>• After reading the manual, store it in a location where you can refer to it at any time.</li></ul>
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**HAMAMATSU PHOTONICS K.K.**

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## Contents

<b>1. INTRODUCTION .....</b>	<b>2</b>
1-1 SYSTEM REQUIREMENTS.....	2
1-2 TRADEMARKS.....	2
<b>2. METHOD OF APPLICATION FOR ASLVER .....</b>	<b>3</b>
2-1 PREPARTION.....	3
2-2 STARTING METHOD.....	3
2-3 HOW TO USE .....	6
2-4 CHANGING THE CAMERA INITIAL SETTING .....	8
2-5 CHANGING THE COOLING FUNCTION .....	12
2-6 UPDATE OF THE FRAMEGRABBER .....	15
<b>3. OTHER DIALOG BOX INDICATION .....</b>	<b>22</b>
3-1 WHEN THE CAMERA IS NOT RECOGNIZED .....	22
<b>4. CONTACT INFORMATION .....</b>	<b>23</b>

# 1. INTRODUCTION

ASLVER is a software tool to display the information of connected camera and frame grabber board, and also it is a tool to change camera parameter settings. This document is mentioned about the software specification and how to use.

## 1-1 SYSTEM REQUIREMENTS

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The system requirements for this software are as follows.

Type of computer	PC-AT compatibles
OS	Windows 7/8/8.1/10
Interface	Camera Link
Frame Grabber Type	Active Silicon FireBird or Phoenix
Drive	Optical Disk Drive
DCAM-API	DCAM-API 18.11 or later

**Note**

- This software may not work satisfactorily on some computers. This software may fail to operate due to inappropriate operating system or system requirements.

## 1-2 TRADEMARKS

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Windows 7/8/8.1/10 are the registered trademarks of Microsoft Corporation in the United States and other countries. DCAM-API is the registered trademarks of HAMAMATSU PHOTONICS K.K. Other brand names are the trademarks or registered trademarks of their respective companies.

## 2. METHOD OF APPLICATION FOR ASLVER

### 2-1 PREPARTION

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- (1) Make sure the camera and the personal computer are correctly connected by using the Camera Link cable.
- (2) Please turn on the camera main power supply.

### 2-2 STARTING METHOD

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Those who have already been installed “ASLVER”, please click the following icon.

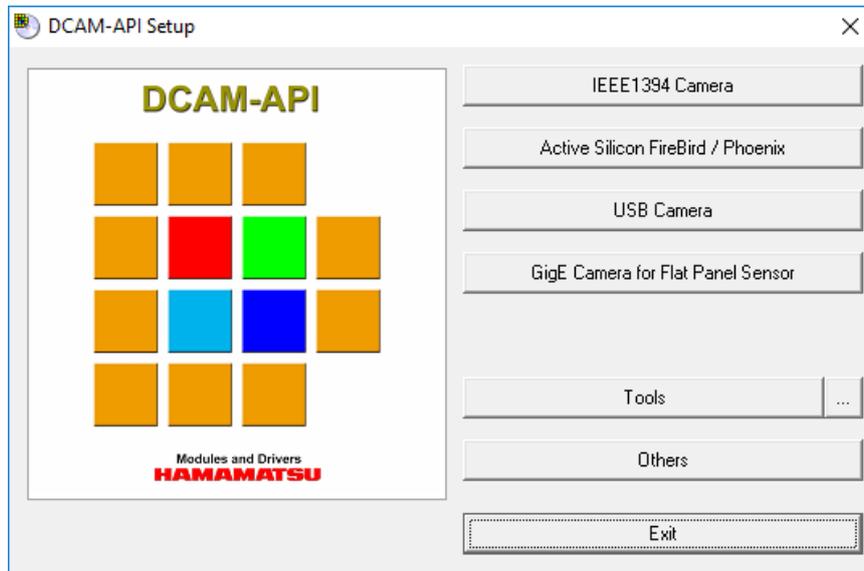


aslver.exe

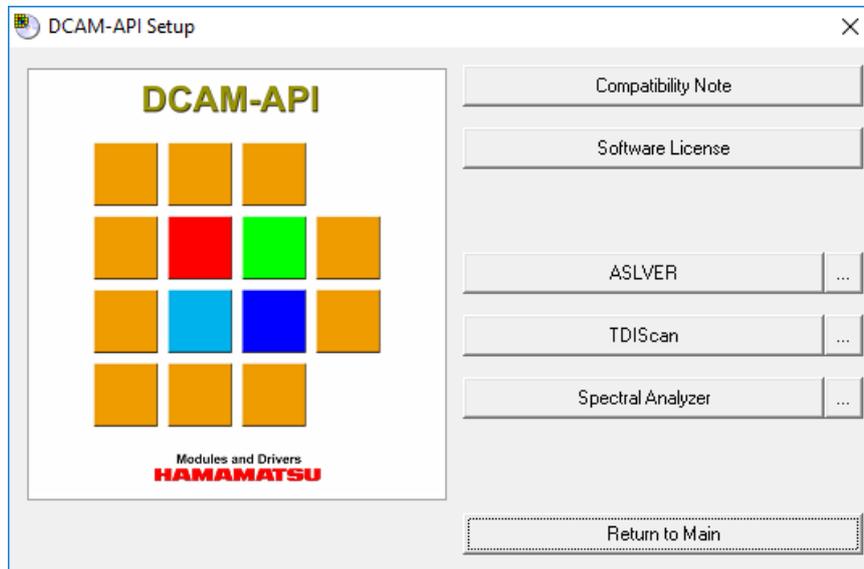
When starting from the setup window of DCAM-API or specifying path, please start according to the procedure of the next page.

## 2-2-1 START FROM SETUP WINDOW

- (1) When CD of DCAM-API is set to PC, the following window will appear. Even if CD sets, the following window do not appear, please start "Setup.exe" in CD.



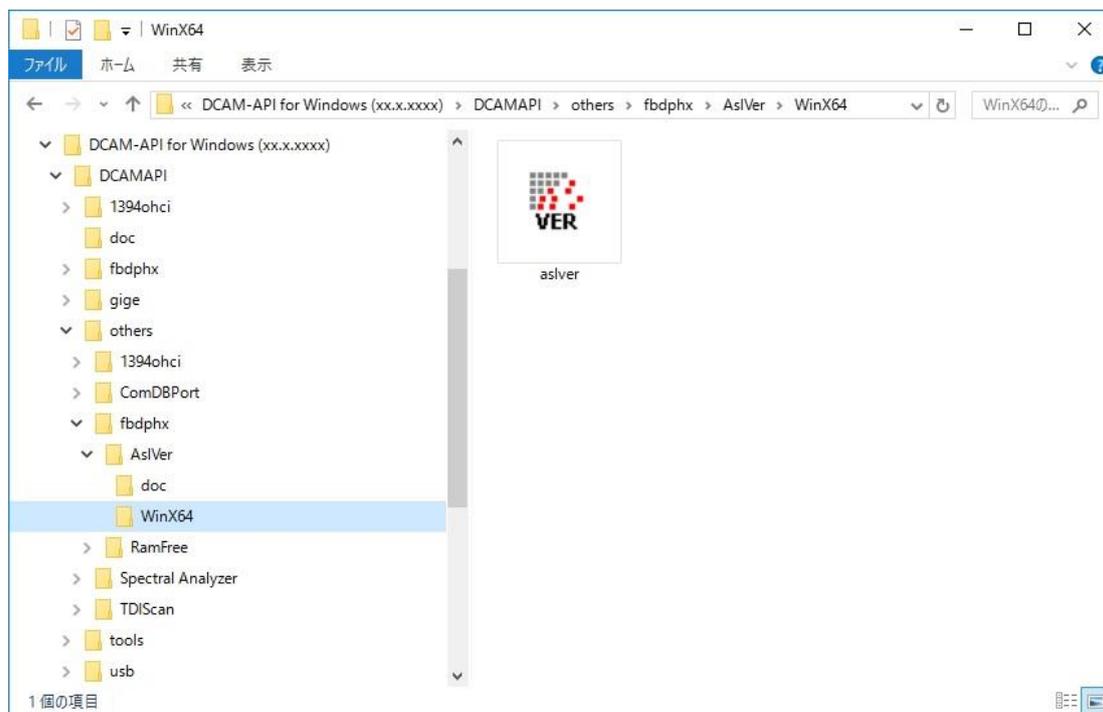
- (2) It will become the following window if the [Others] button is clicked.



- (3) When you click [ASLVER] button, ASLVER starts.

## 2-2-2 START BY SPECIFYING PATH

Locate salver.exe under the DCAMAPI folder inside install image includes DCAM-API.



## 2-3 HOW TO USE

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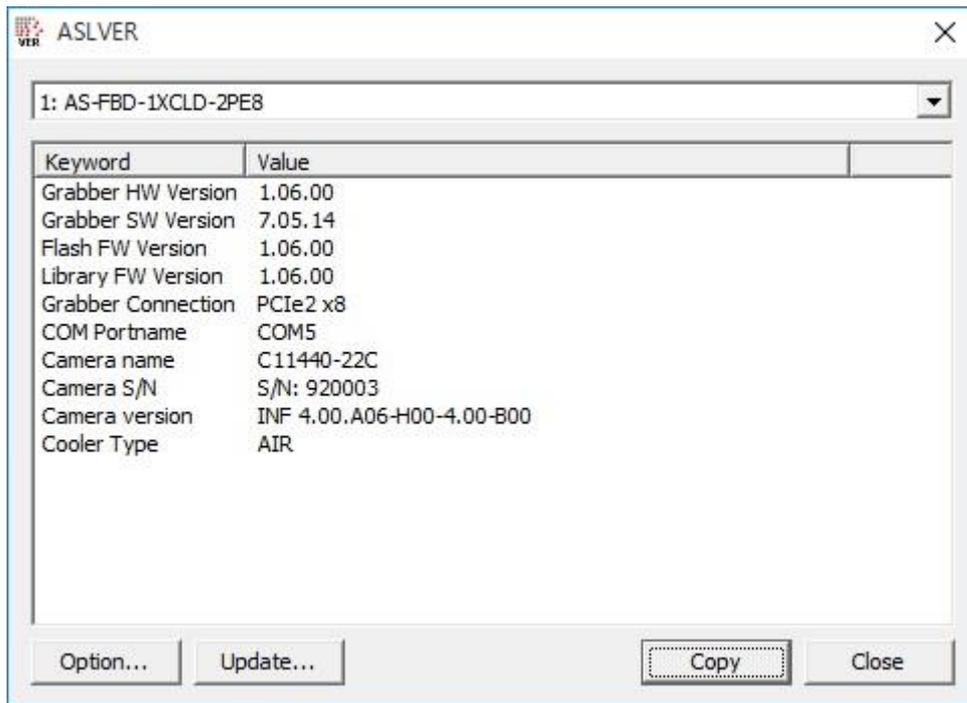
(1) A screen similar to the following is displayed.

When click the [Close] button, the program is terminated.

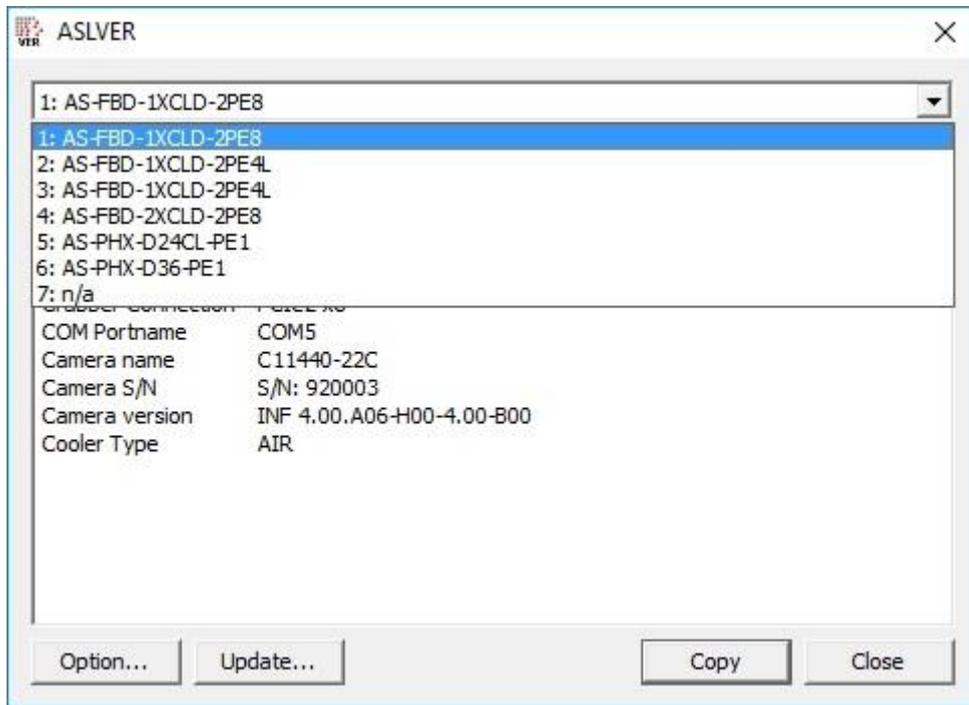
When click the [Copy] button, a current setting is copied on the clipboard.

When click the [Option...] button, please refer to page 8 to 14.

When click the [Update...] button, please refer to page 15 to21.



- (2) When there are multiple frame grabber boards on the PC, select one from the list.

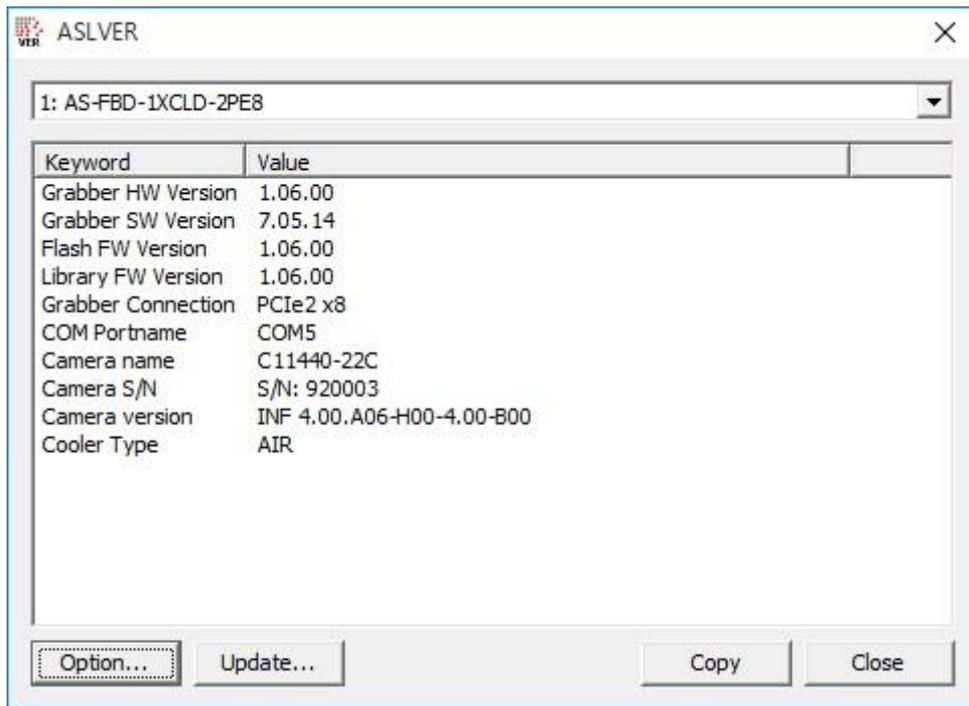


## 2-4 CHANGING THE CAMERA INITIAL SETTING

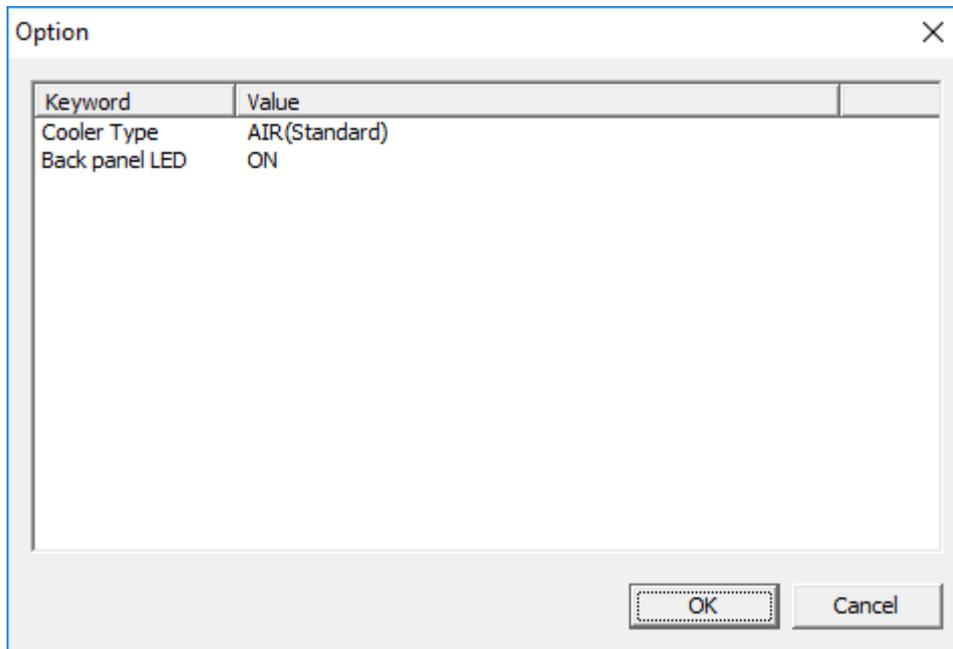
- (1) Click the [Option...] button on the first display.

**Note**

The [Option...] button cannot be pressed when the connected camera cannot change the initial setting.



(2) After the following screen is displayed, possible to change the camera setting.



**Cooler Type**

The camera has three cooling methods, Standard air-cooling mode, Rapid air-cooling mode and Water-cooling mode.

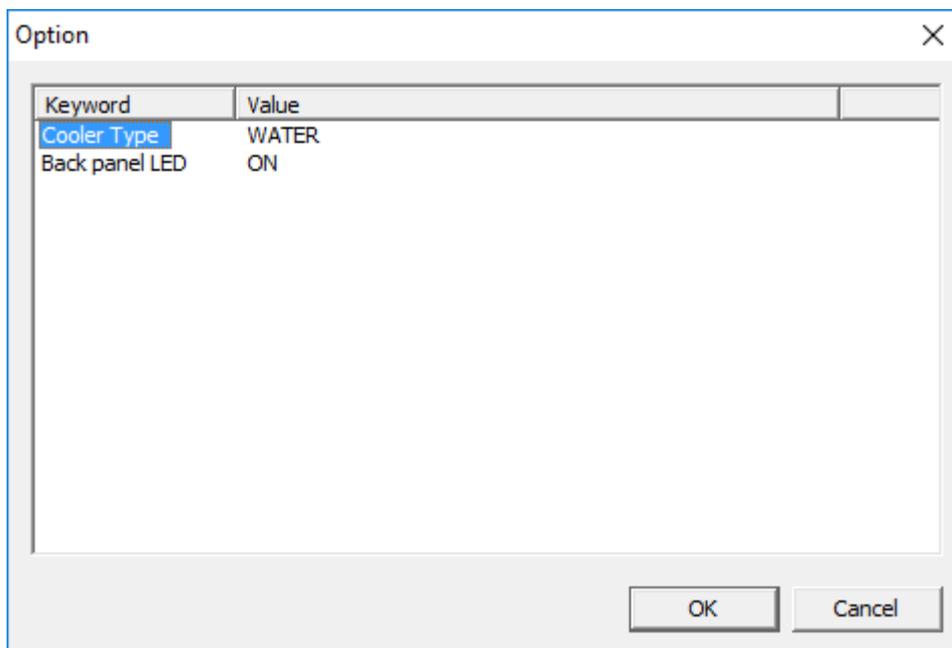
Cooling method	Cooling mode	Detail
Air-cooling	Standard air-cooling mode (Default)	When the camera is turned on, the camera starts cooling. It takes approximately 10 minutes. For that 10 minutes fan does not work and STATUS lamp's light is blinking. (While cooling is progressing (when STATUS lamp's is blinking), it is possible to acquire images however those are not appropriate images to use for measurement.)  After 10 minutes when cooling became stable, fan starts working and the STATUS lamp stays on, the camera is ready for acquisition.
	Rapid air-cooling mode	When the camera is turned on, the camera is rapidly cooled. As soon as the camera is turned on, fan starts working and STATUS lamp lights up. The camera will be ready for acquisition quicker than Standard air-cooling mode.
Water-cooling	Circulating water cooler (Optional) is required for water-cooling. When camera is turned on, STATUS lamp lights up however fan does not work.	

\*When "Back panel LED" is "OFF", LED on backside of the camera is neither lighting nor blinking.

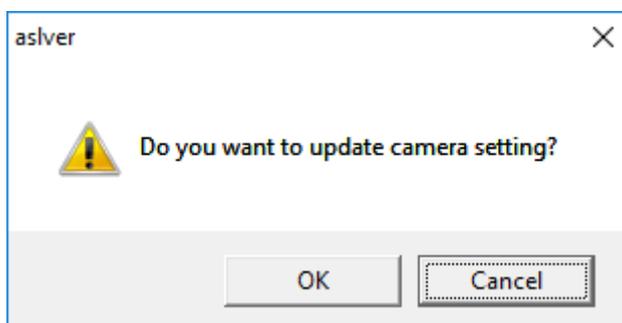
**Back panel LED                      ON/OFF**

Possible to turn on and off LED on backside of the camera. Initially, the ON mode has been set.

- (3) Double-click the keyword, such as Cooler Type, and change the required value

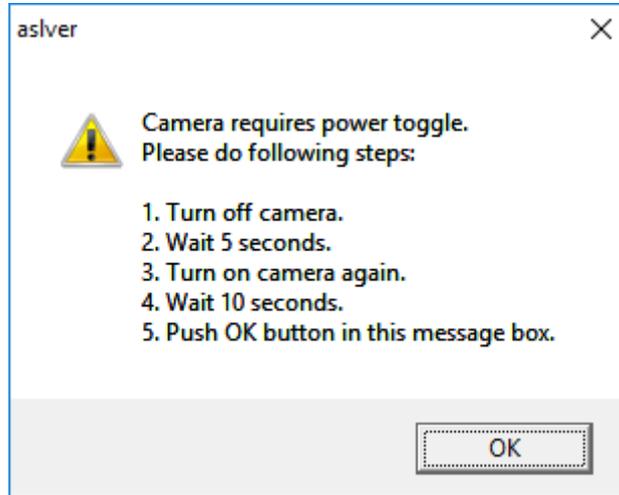


- (4) The following screen is displayed after click the [OK] button at 2-4(3), click the [OK] button if it is OK. When click the [Cancel] button, 2-4(3) will be displayed again.



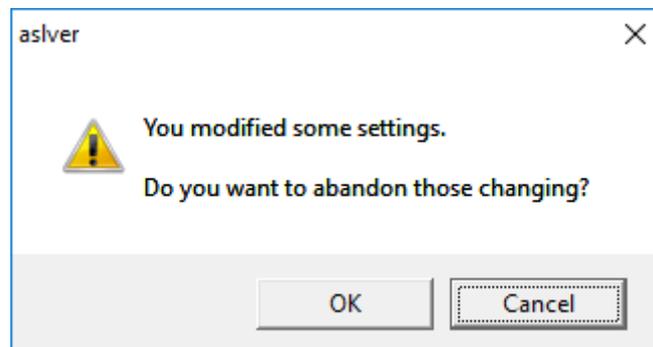
(5) **Please confirm and follow the instruction surely when following is displayed.**

With wrong steps, it could be seen that the camera is not recognized or impossible to see the correct information. In this case, please restart the software or turn off and on the camera itself.



(6) The screen of 2-4(1) is displayed when click [OK] or [Cancel] button without any change at 2-4(3).

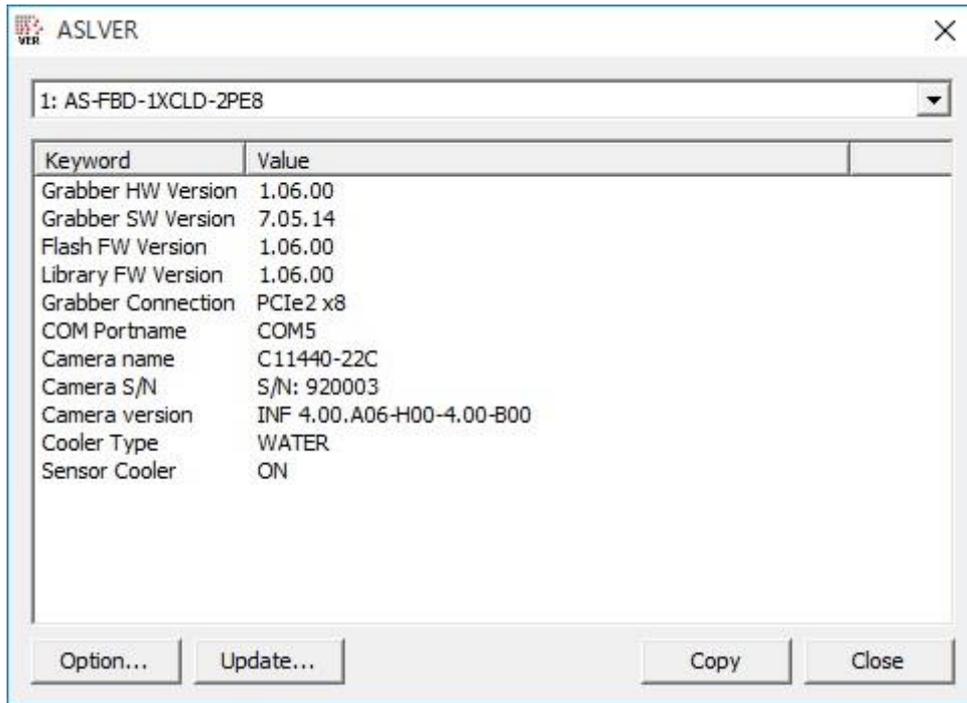
On the other hands, click [Cancel] button after changing any setting, following is displayed. In this case, 2-4(3) screen after [Cancel] or 2-4(1) display is seen after [OK] with abandon input value



## 2-5 CHANGING THE COOLING FUNCTION

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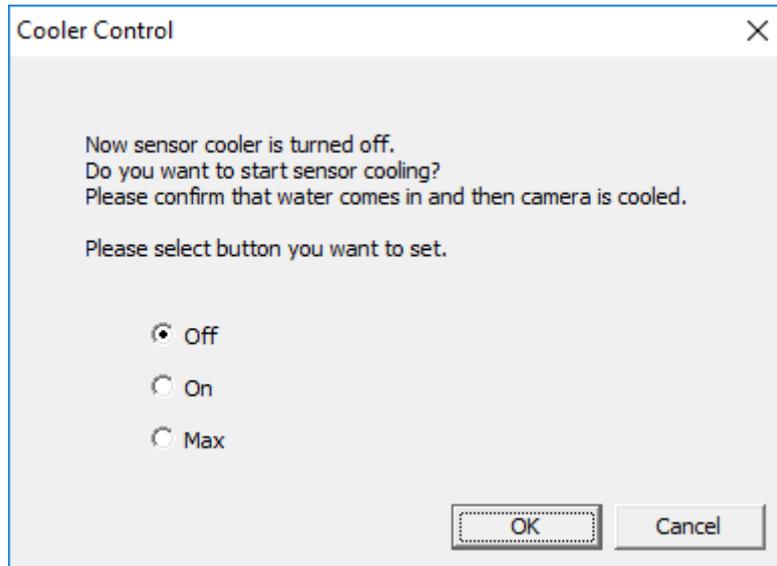
- (1) In case the camera with water cooling mode, Cooler Type=WATER, the Keyword of Sensor Cooler is added, and double click the Sensor cooler, and possible to switch the ON/OFF the cooling function.



- (2) The following screen is displayed when double click the Sensor Cooler at OFF value, or when Cooler type is WATER and Sensor Cooler is OFF with starting the ASLVER. Click [OK] button after selecting the cooling function.

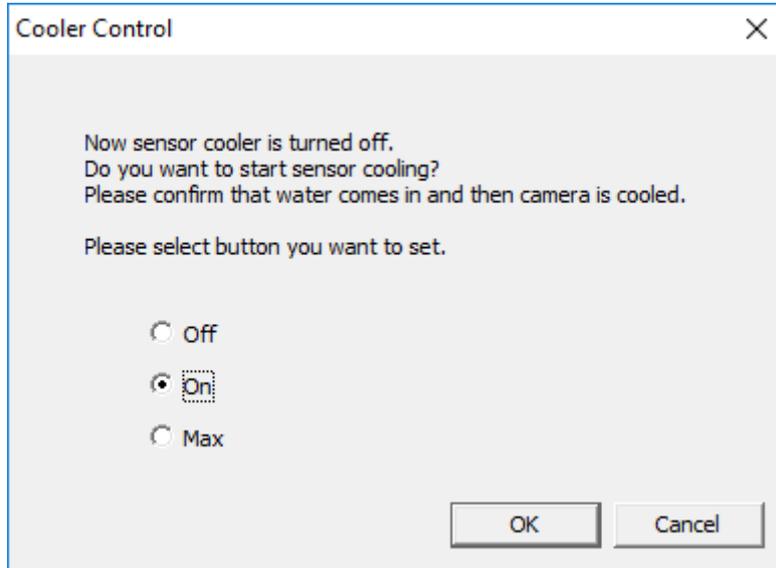
**Please confirm if water is circulated properly before starting sensor cooling.**

- OFF – Keep no cooling.
- ON – The sensor cooled up to the cooling temperature.
- MAX – The sensor is as cooled as possible.

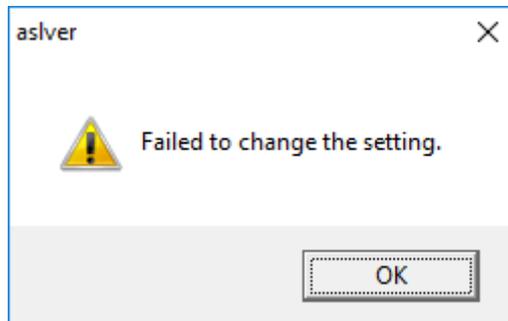


(3) The following screen is displayed when Sensor Cooler is ON or MAX. Click [OK] button after selecting the cooling function.

- OFF – The sensor cooling is turned off.
- ON – The sensor cooled up to the cooling temperature.
- MAX – The sensor is as cooled as possible.



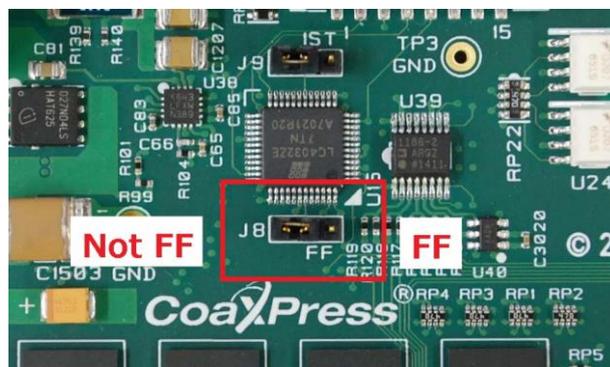
(4) The following screen is displayed when the setting is not changed properly at 2-5(2) or 2-5(3). In this case, retry the change, restart the software or turn on and off the camera.



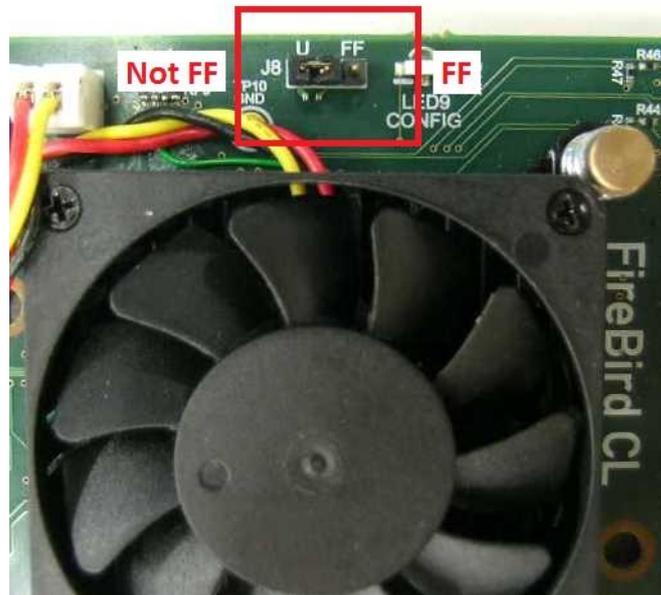
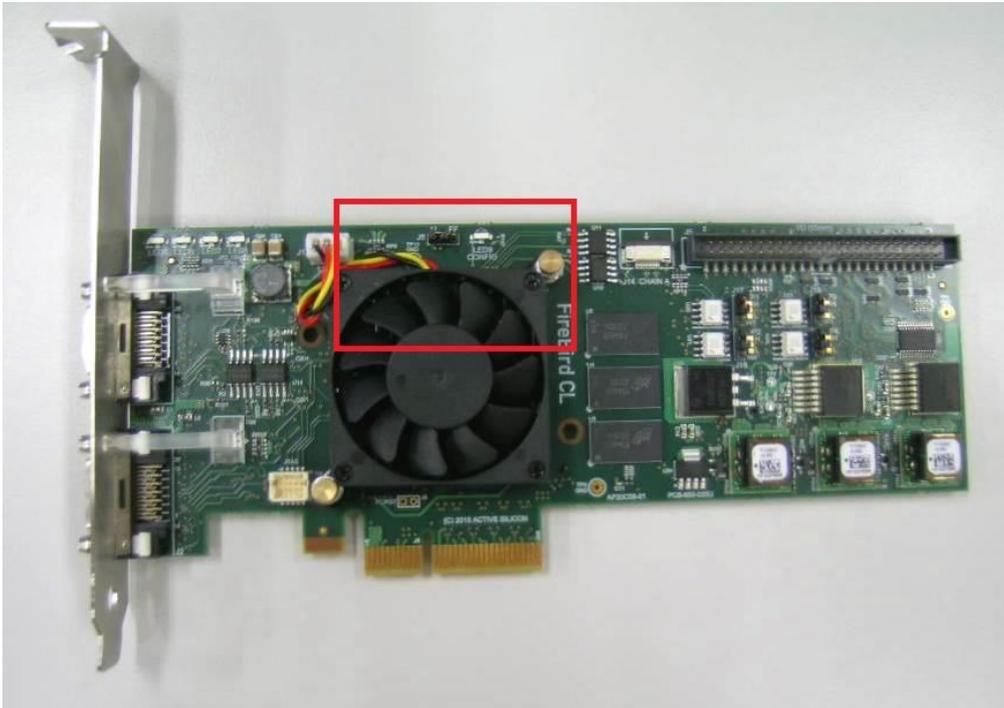
## 2-6 UPDATE OF THE FRAMEGRABBER

- (1) Confirm pin position before update.

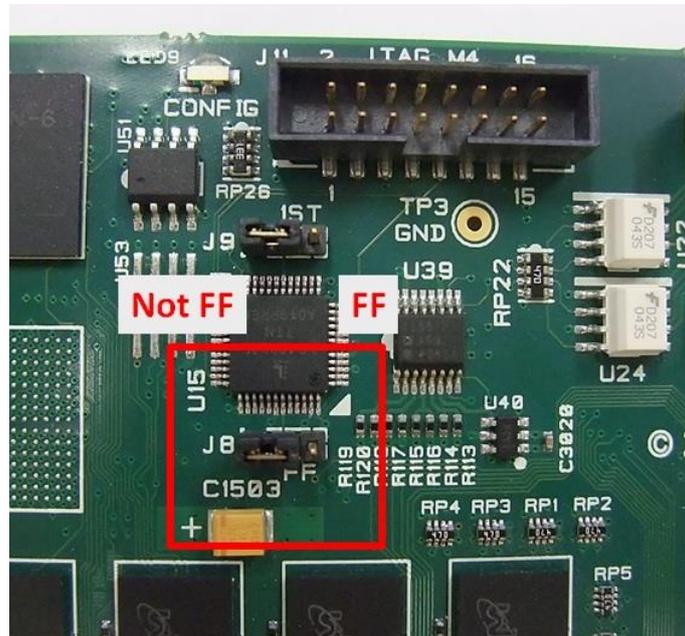
In the case of AS-FBD-2XCXP6-2PE8 or AS-FBD-4XCXP6-2PE8, please make sure that the pin position of the J8 is a "Not FF" side. The figures below shows the pin position about AS-FBD-2XCXP6-2PE8.



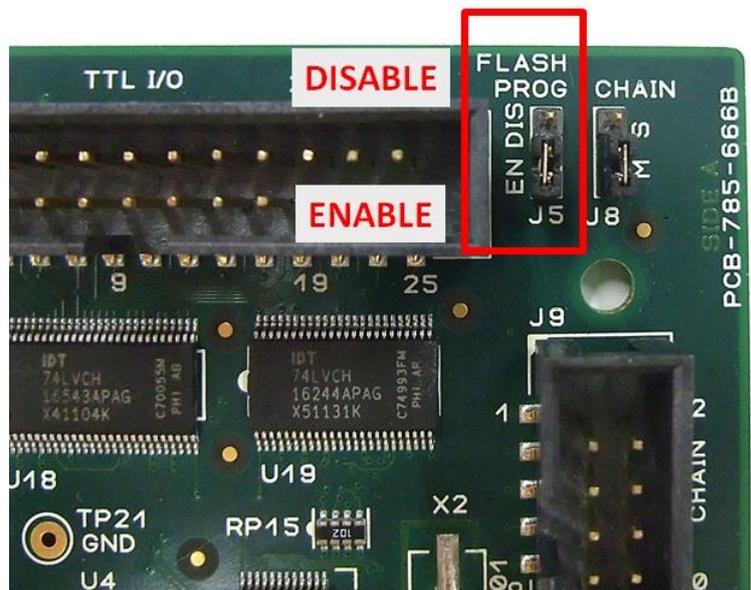
In the case of AS-FBD-1XCLD-2PE4L, please make sure that the pin position of the J8 is a "Not F" side. The figures below shows the pin position about AS-FBD-1XCLD-2PE4L.



In case of AS-FBD-1XCLD-2PE8 or AS-FBD-2XCLD-2PE8, please make sure that the pin position of the J8 is a "Not FF" side. The figures below shows the pin position about AS-FBD-1XCLD-2PE8.



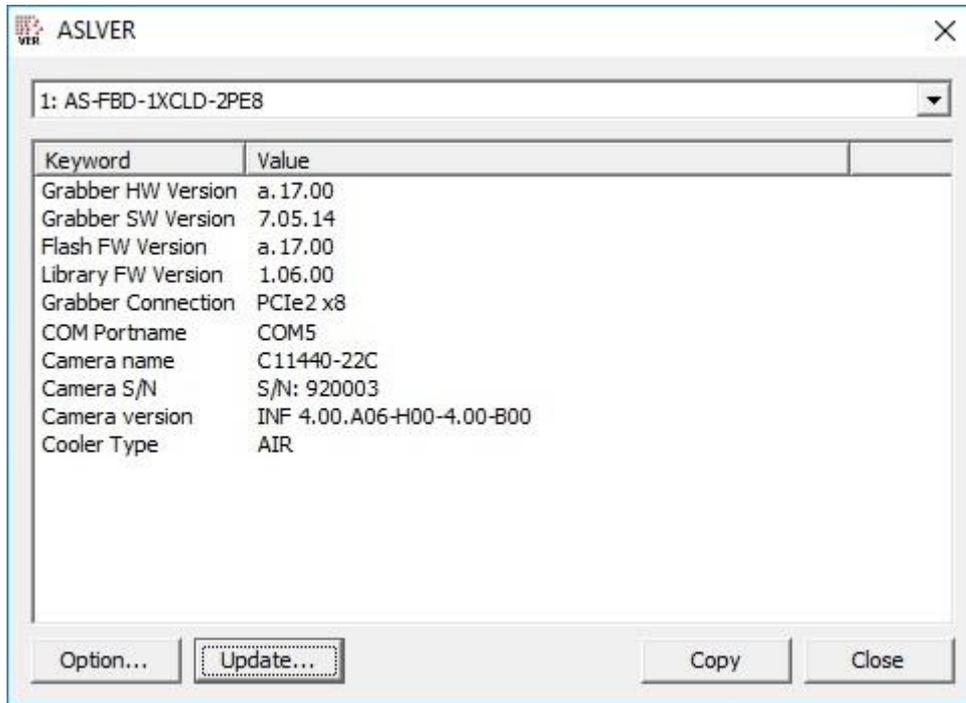
In the case of AS-PHX-D24CL-PE1 or AS-PHX-D48CL-PE1 or AS-PHX-D36-PE1, please make sure that the pin position of the FLASH PROG is a "ENABLE" side. The figures below shows the pin position about AS-PHX-D24CL-PE1.



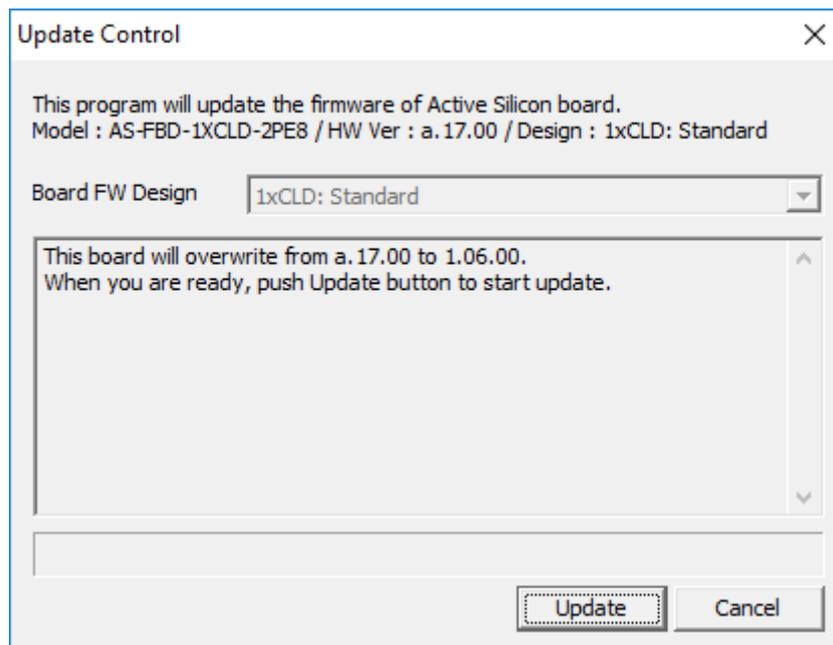
- (2) Click the [Update...] button on the first display.

**Note**

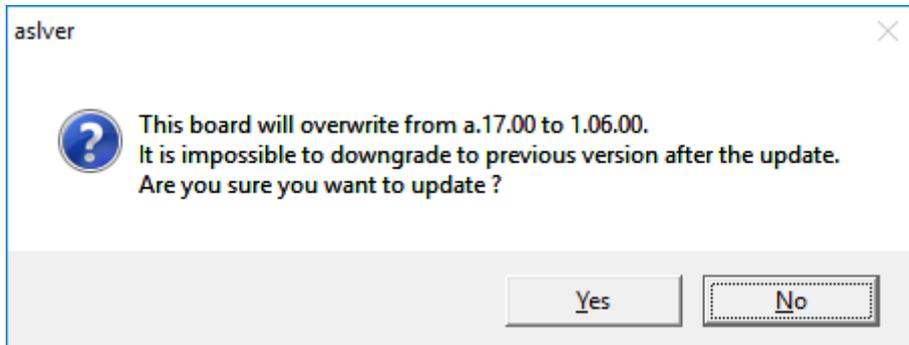
The [Update...] button cannot be pressed when the selected frame grabber cannot update.  
Frame grabber update is possible without connecting camera.



- (3) After a screen similar to the following screen is displayed, it is possible to update the frame grabber.

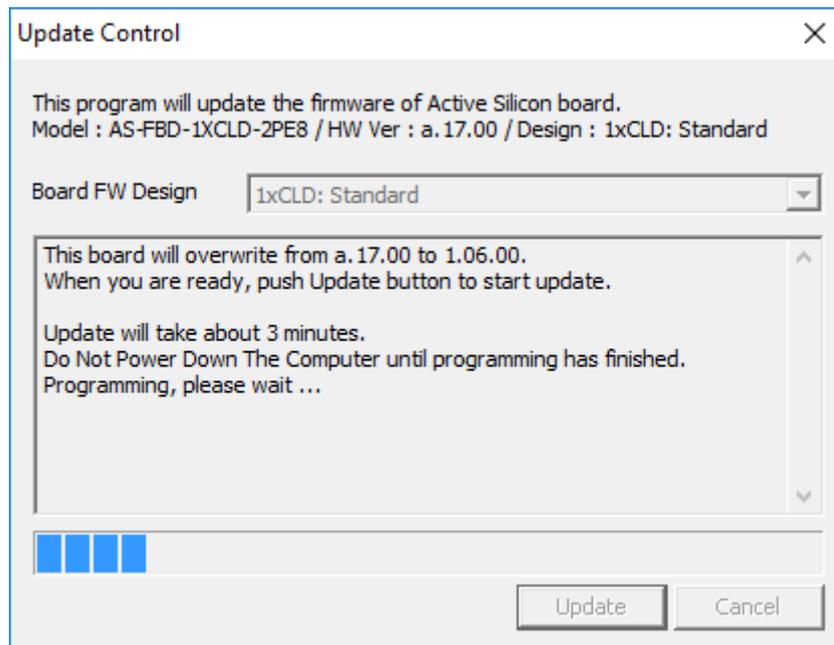


- (4) A screen similar to the following is displayed after clicking the [Update] button at 2-6(3), Click the [Yes] button if it is OK. When click the [No] button, 2-6(3) will be displayed again.

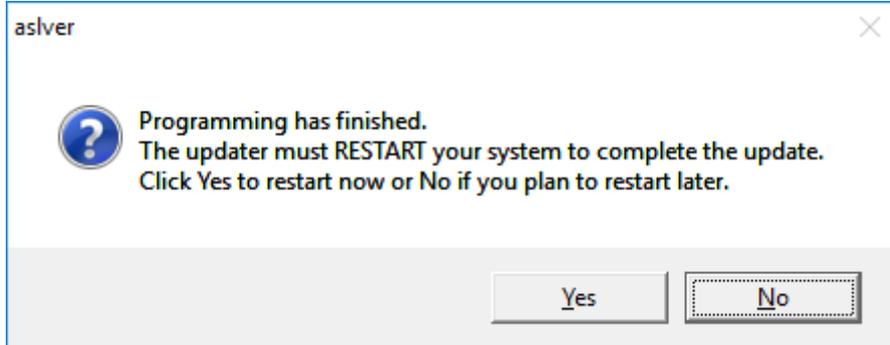


- (5) The time for completion of the update varies depending on the frame grabber conditions. It will take a few minutes.

 <b>CAUTION</b>	<ul style="list-style-type: none"><li>• The frame grabber will be malfunction if the main power of camera is turned off or shut down the PC until the window (7) or (8) appears.</li><li>• In such case, the update by the guest cannot be continued and frame grabber cannot work correctly.</li></ul>
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- (6) When the frame grabber update is complete, a dialog is indicated as shown below.  
When click the [Yes] button, the PC restarts automatically.  
When click the [No] button, the PC does not restart. In order to complete the update, please go to restart the PC by the customer.

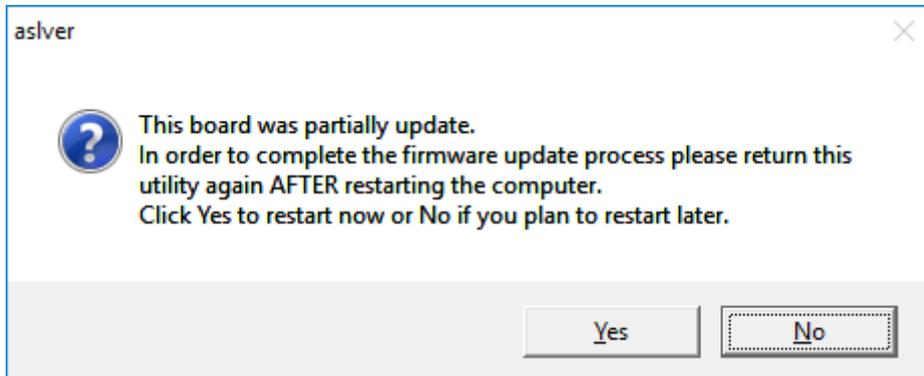


- (7) For the FireBird only, the frame grabber may need an additional update to be done AFTER restart. For example, in the case of AS-FBD-1XCLD-2PE8, updating from a.17.00 firmware to 1.x or higher firmware requires this additional step. A dialog similar to the below is shown in this case. After the PC restarts, please update the frame grabber again by using the ASLVER.

**\*\* VERY IMPORTANT:** Do not forget to update again after restart or you may not be able to capture data to the PC with the frame grabber!

When click the [Yes] button, the PC restarts automatically.

When click the [No] button, the PC does not restart. In order to complete the update, please go to restart the PC by the customer.

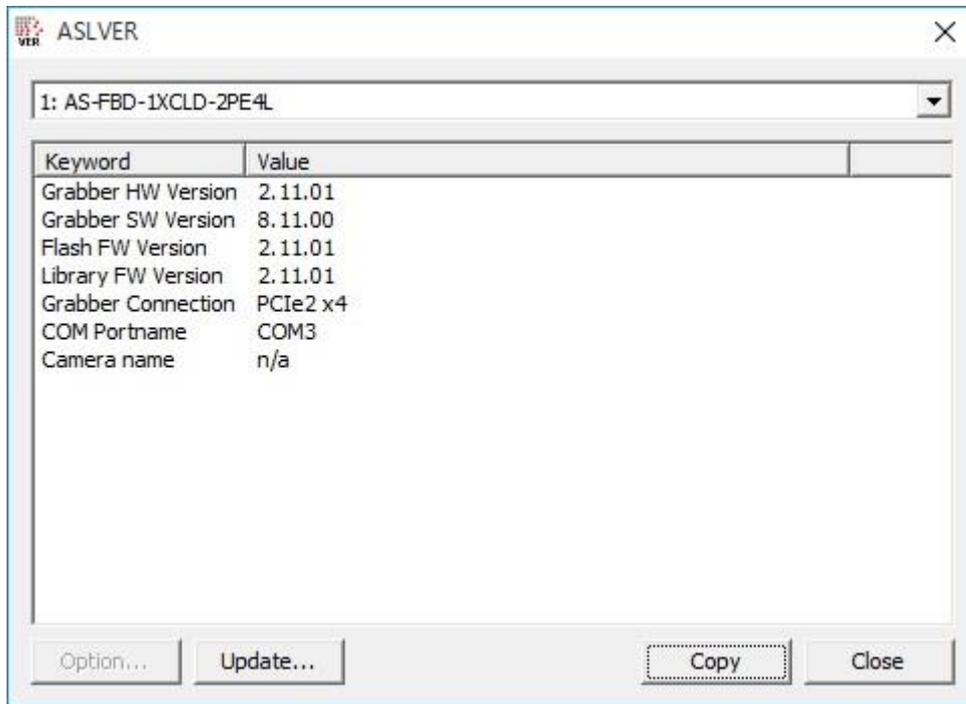


## 3. OTHER DIALOG BOX INDICATION

### 3-1 WHEN THE CAMERA IS NOT RECOGNIZED

When following screen is displayed, close the ASLVER once and restart it sometime later or make sure the camera and the personal computer are correctly connected.

This can be seen when there is not enough time between turning on the camera and starting the ASLVER or the camera is not recognized.



## 4. CONTACT INFORMATION

### Manufacturer

**HAMAMATSU PHOTONICS K. K., Systems Division**

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E-mail: [export@sys.hpk.co.jp](mailto:export@sys.hpk.co.jp)

Local contact information worldwide could be found under:

[www.hamamatsu.com](http://www.hamamatsu.com)

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- *The unauthorized reproduction or distribution of parts or all of this manual is prohibited.*
- *If one of the following problems occurs, please contact Hamamatsu Photonics.  
(See the CONTACT INFORMATION.) We will deal with the problem immediately.*
  - *Some contents of the manual are dubious, incorrect or missing.*
  - *Some pages of the manual are missing or in the wrong order.*
  - *The manual is missing or dirty.*