

SMART Breaker Configuration Tool Instruction manual

This software is a configuration tool that allows you to easily change the configurations for overcurrent protection and advanced protection on the TemPower PRO Smart-Type OCR (overcurrent relay) AOX-ISI+ and AOX-LSIG+ via a computer.

[Table of contents]

1. Preparation	2
2. How to start the configuration tool.....	2
3. Description of each section	5
4. Load settings	7
4.1 Load ACB settings	7
4.2 Load ACB settings	9
4.2.1 Load all settings	9
4.2.2 Partial loading of configuration data	11
5. Change settings.....	13
6. Write settings.....	15
6.1. Unlock the Write command.....	15
6.2 How to Write Settings	17
6.2.1 Write all configurations.....	17
6.2.2 Partial writing of configuration data.....	19
6.3 Exporting and importing of configuration data.....	21
6.3.1 Exporting all configurations.....	21
6.3.2 Importing all configurations to use CSV file.....	22
7. How to change Password	24

1. Preparation

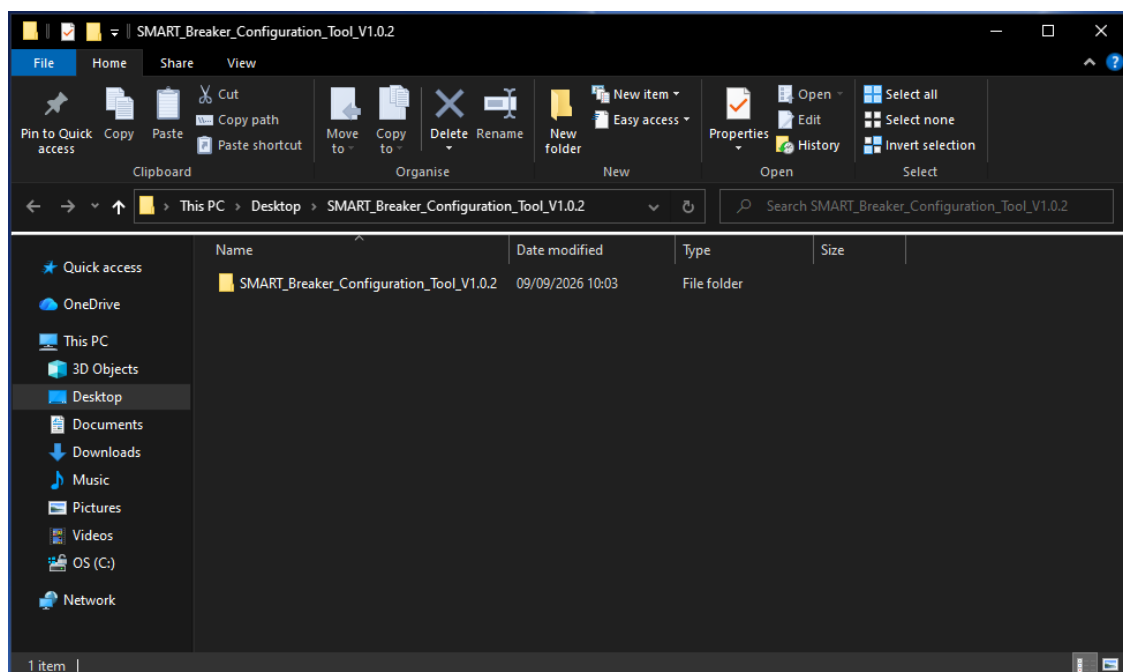
When using the Smart Breaker Configuration Tool (hereinafter referred to as the “Configuration Tool”) to write configuration settings to the TemPower PRO overcurrent relay (hereinafter referred to as the “OCR”) or to load the OCR’s configuration settings, OCR must be connected to computer with USB cable (Type-C).

Please connect the USB-C port located under the OCR’s control panel to the computer using a USB cable capable of data transfer.

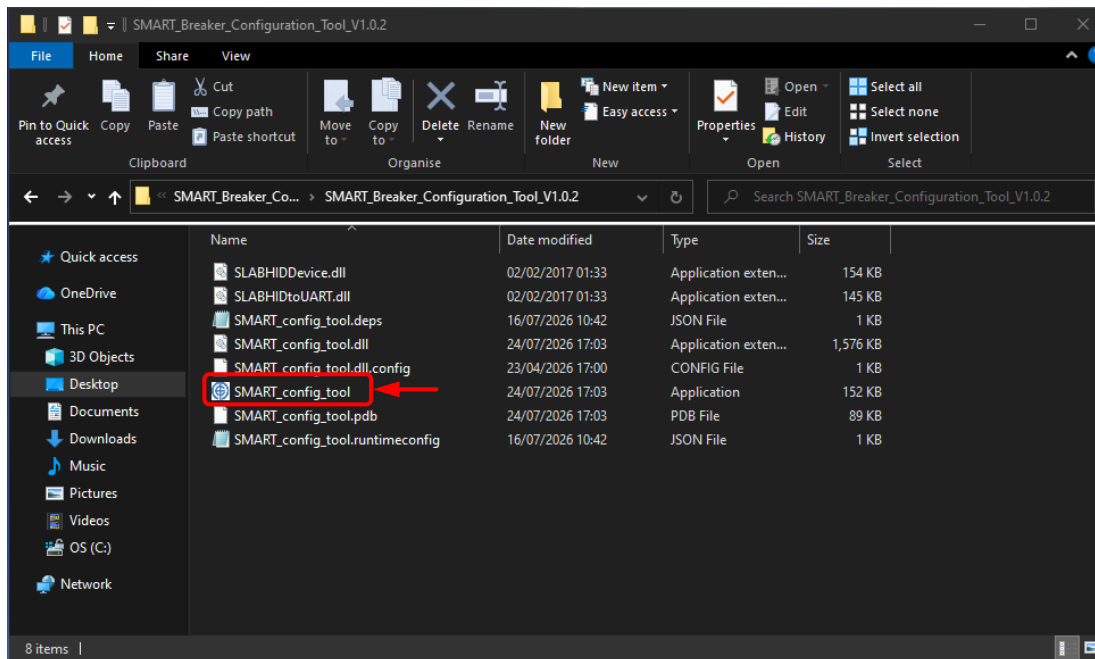


2. How to start the configuration tool

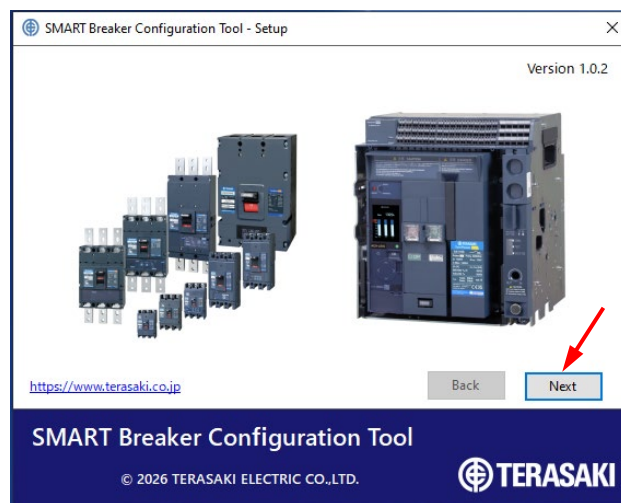
- 1) Please unzip the downloaded configuration tool ZIP file.
(SMART_Breaker_Configuration_Tool_V1.0.2.zip)
- 2) Open the unzipped folder.



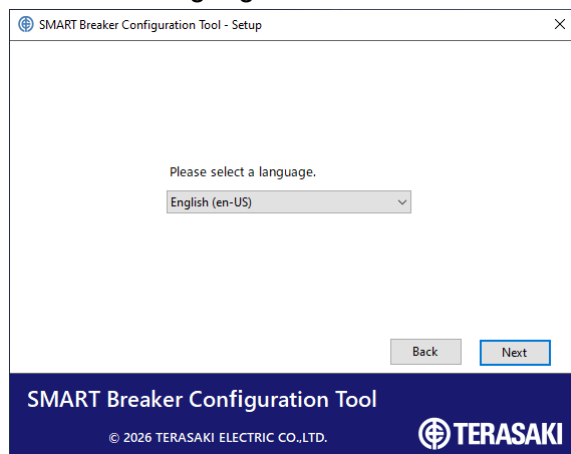
3) Double-click "SMART_config_tool.exe" in the folder.



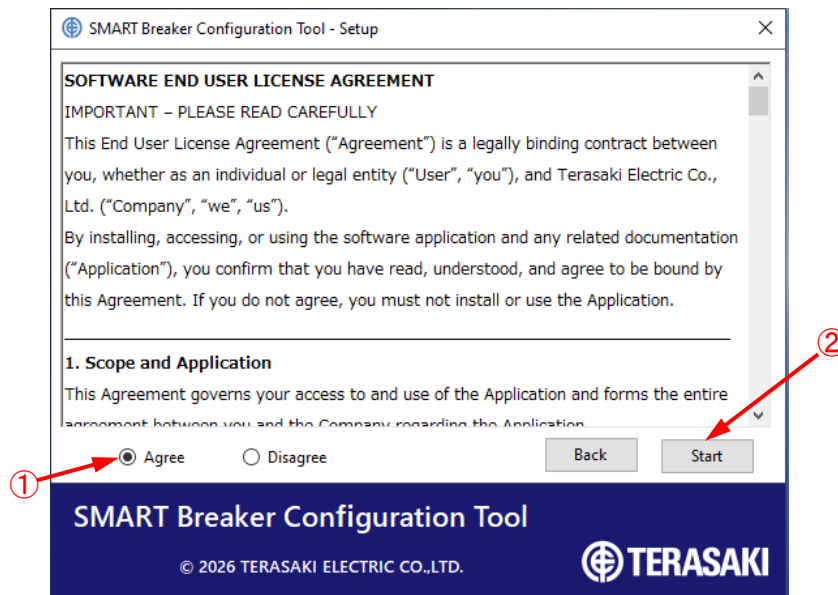
4) The setup menu for the configuration tool will open. Click "Next".



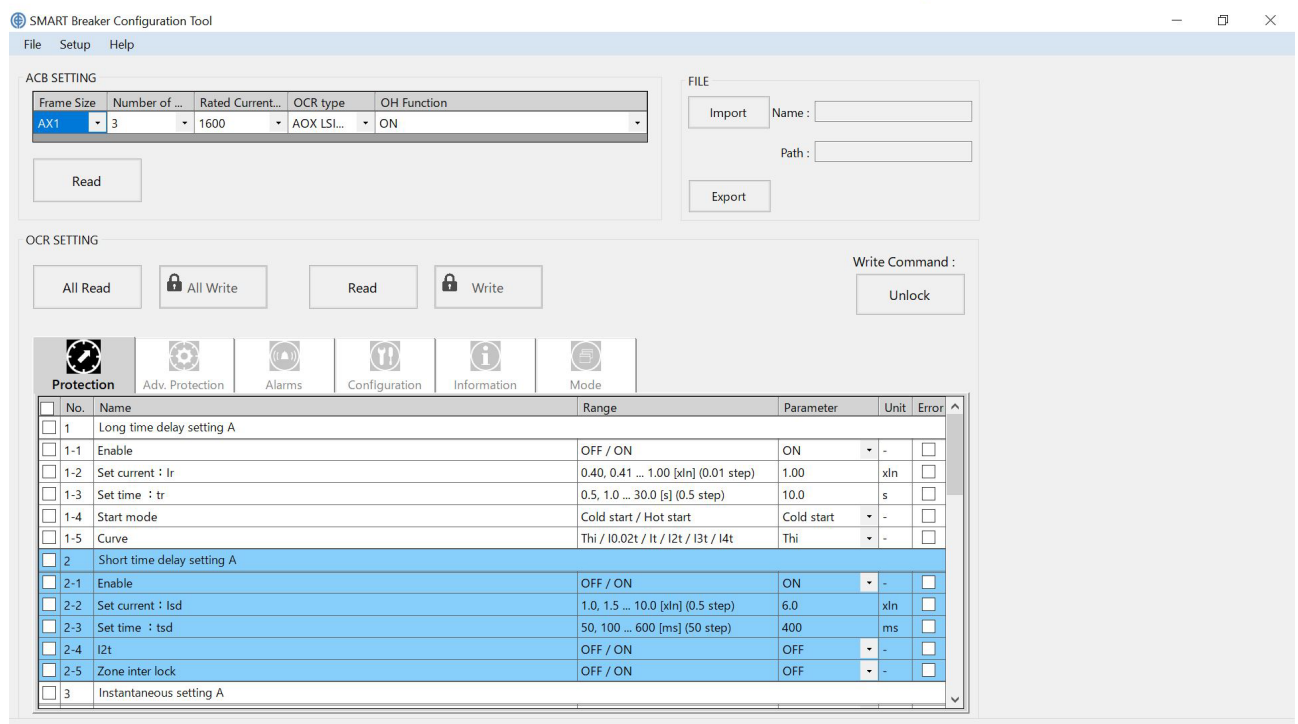
6) Select the language and click "Next".



5) Please read the terms of the “Software Licence Agreement”, then click “Agree” and followed by “Start”.



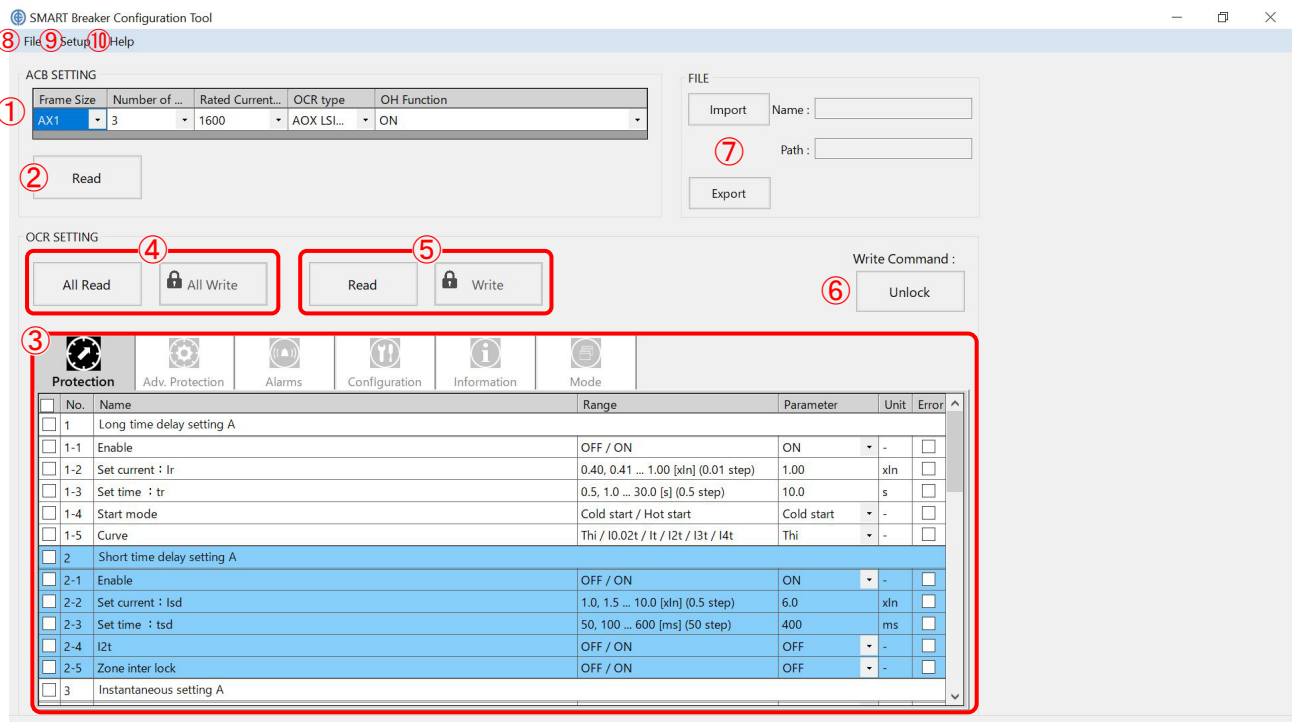
6) The screen of configuration tool will be open.



*These are steps to follow when launching the configuration tool for the first time.

If configuration tool is launched for the second time or thereafter, simply follow steps 3) to open the configuration tool screen.

3. Description of each section



①: ACB setting window

Displays the number of poles, rated current, OCR type and the ON/OFF status of the OH (contact temperature monitoring function) for the ACB to which the USB cable is connected.

②: ACB settings load button

Indicate the ACB specification on the ACB setting window if this button is clicked.

③: OCR setting window

Display OCR settings. Information of each respective category is able to check to click the “Protection”, “Adv. Protection”, “Alarms”, “Configuration”, “Information” or “Mode” tabs.

And also protection settings for “Protection” and “Adv. Protection” are able to change in this window.

④: Button to load and save all OCR settings

If “All Read” button is clicked, all settings for the connected OCR will be loaded into the OCR setting window.

If “All write” button is clicked, all settings displayed in the OCR settings window will be written to the OCR.

⑤: Button to load and save OCR settings

If “Read” button is clicked, only the configurations those are selected items in the OCR Settings window is loaded from the connected OCR to the OCR Settings window.

If “Write” button is clicked, only the configurations those are selected items in the OCR Settings window is written to the connected OCR.

⑥: Unlock button

Unlock the OCR write restriction by clicking this button and entering the password.

⑦: "Export" and "Import" button.

"Export" button: The information configured in the configuration tool is able to save as a CSV file to the computer.

"Import" button: Load the CSV data that is saved on the computer and displays the configurations in the OCR settings window.

⑧: "File" menu

Clicking here will open the same menu as the "Import" and "Export" buttons.

⑨: "Set up" menu

"Change Language" menu (Japanese or English), "Unlock Writing Restrictions" menu, and "Change Unlock Password" are selectable in this menu.

⑩: "Help" menu

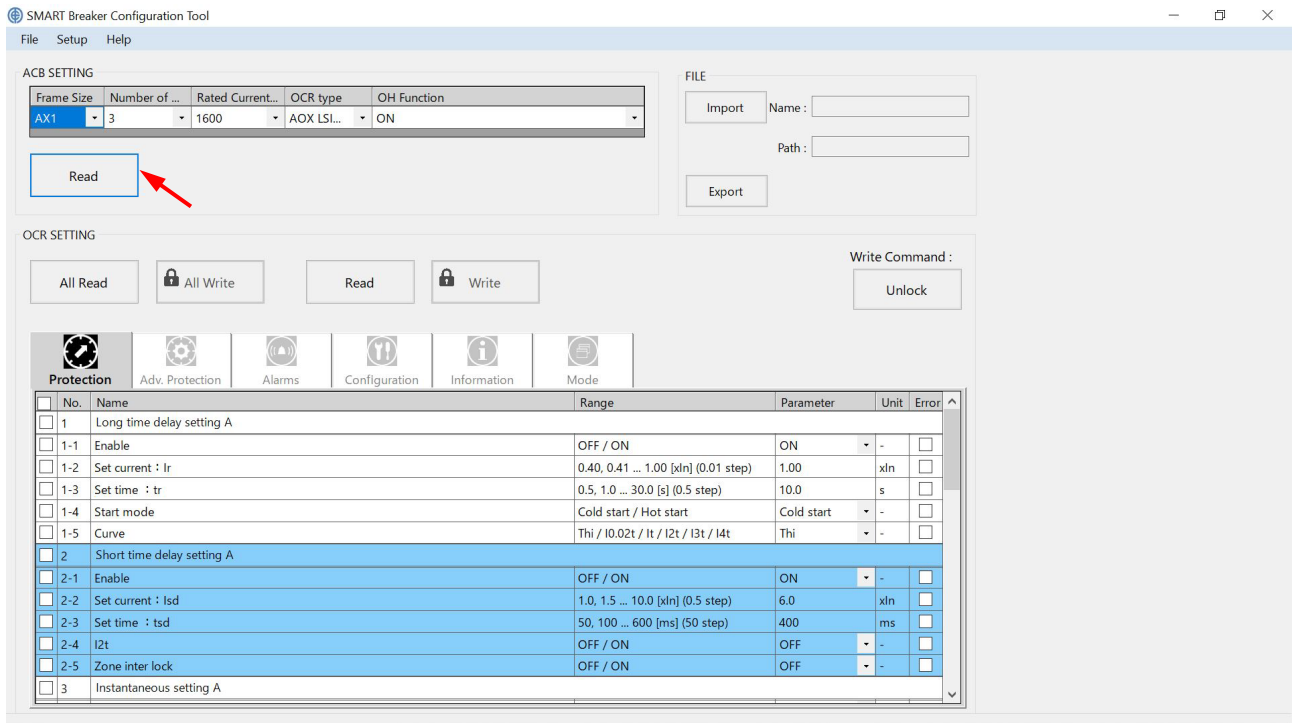
The version information for this tool and the software license agreement are able to see.

4. Load settings

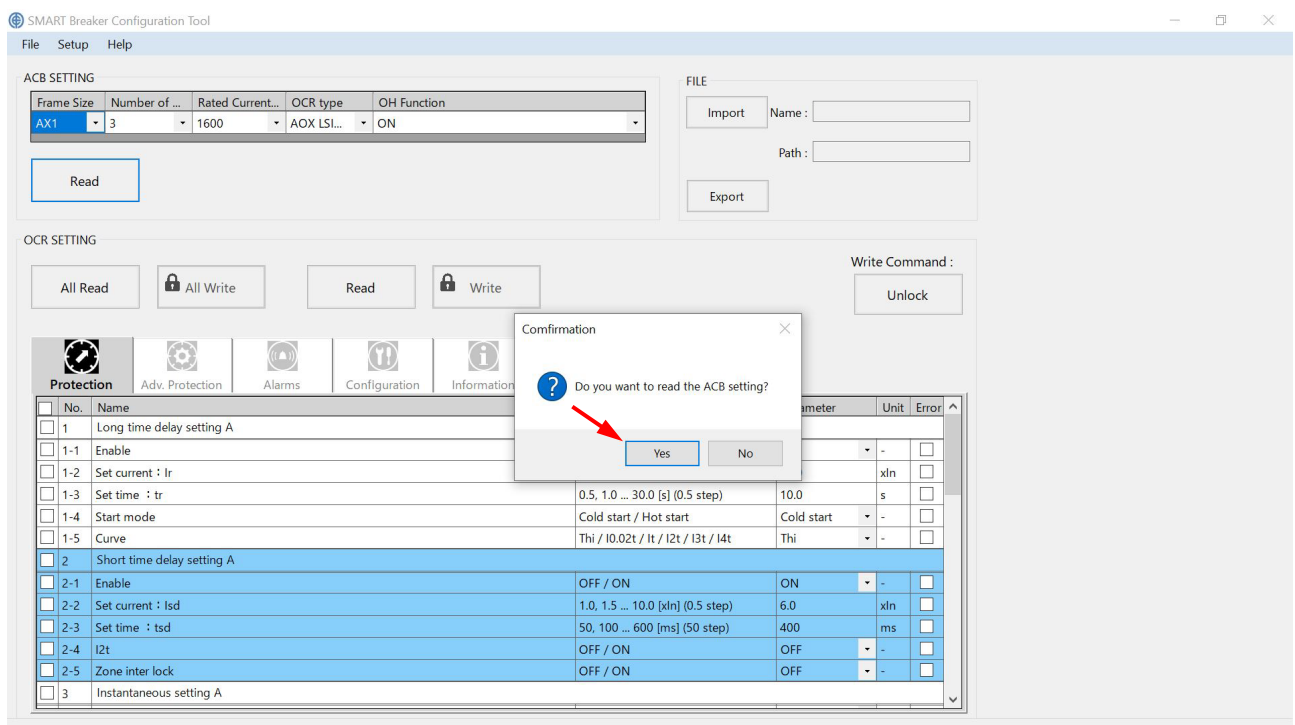
To proceed with this operation, please connect the OCR to your computer using a USB cable (Type-C) capable of data transfer.

4.1 Load ACB settings

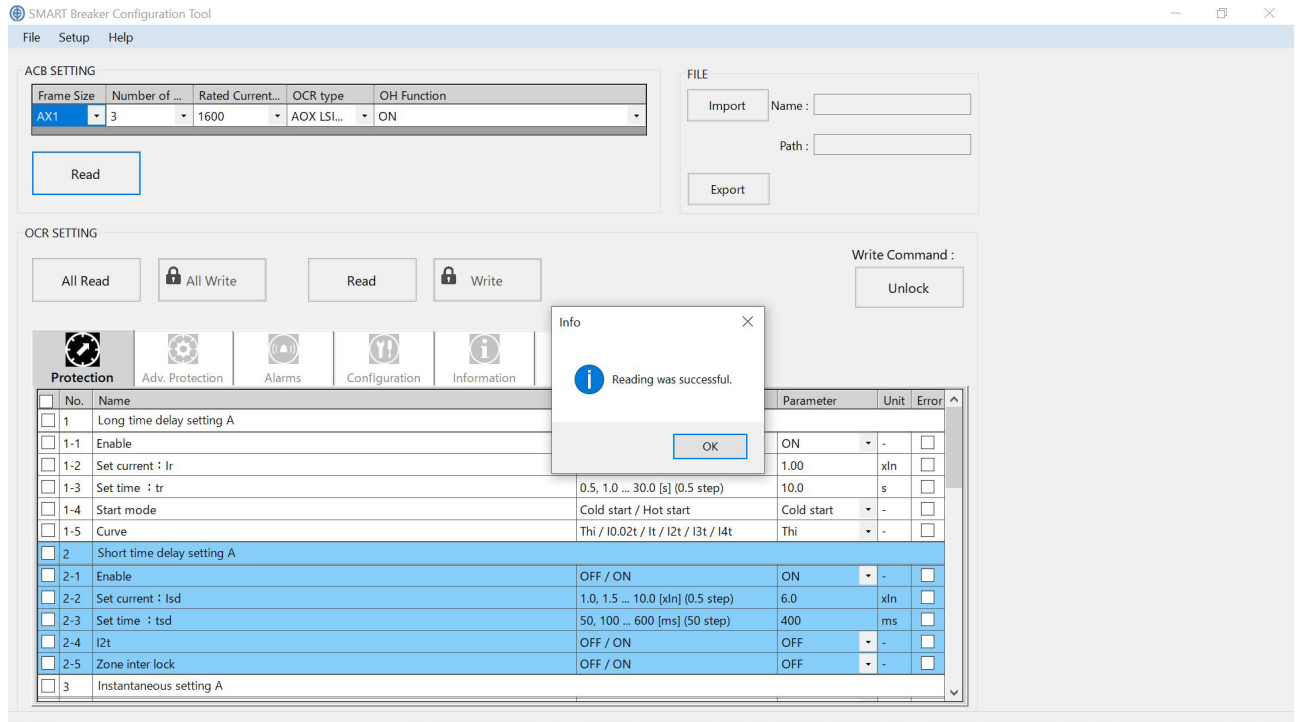
1) Click “Read” button.



2) Click “Yes” button.



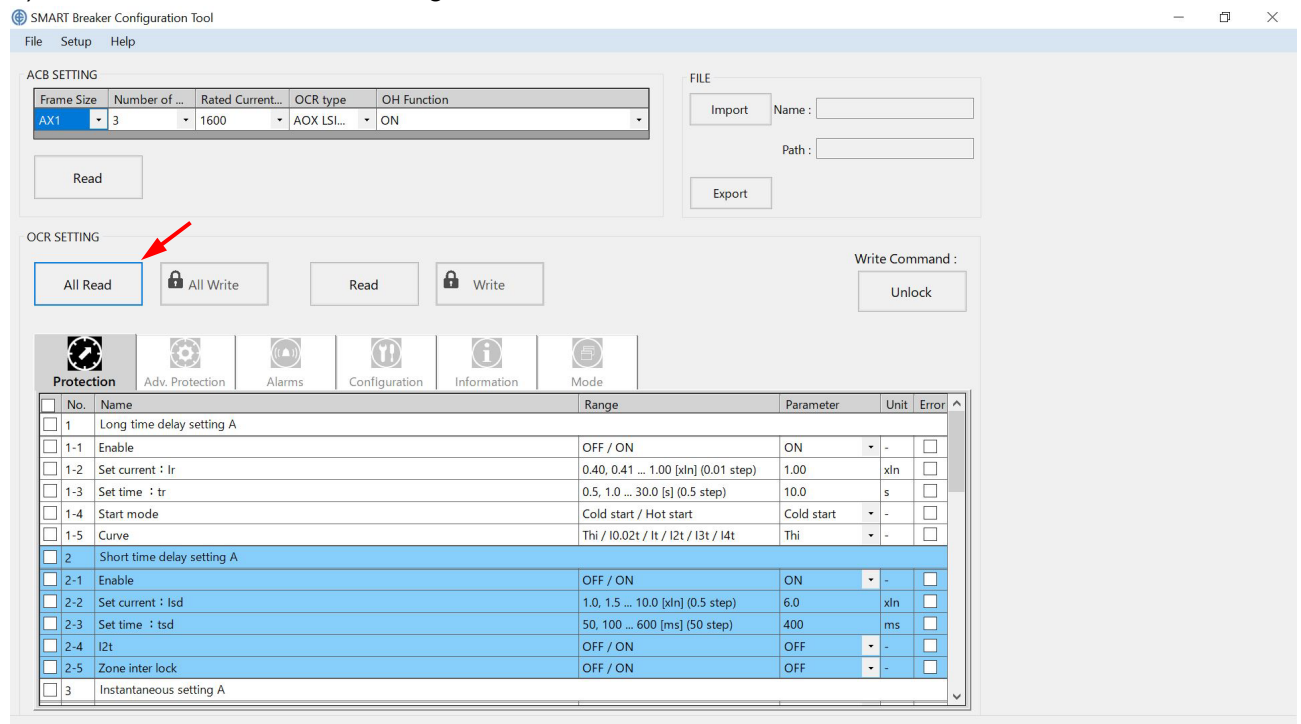
- 3) Click “OK” button after the message “Reading was successful” is appeared, the ACB setting information is loaded from the OCR connected to the computer.



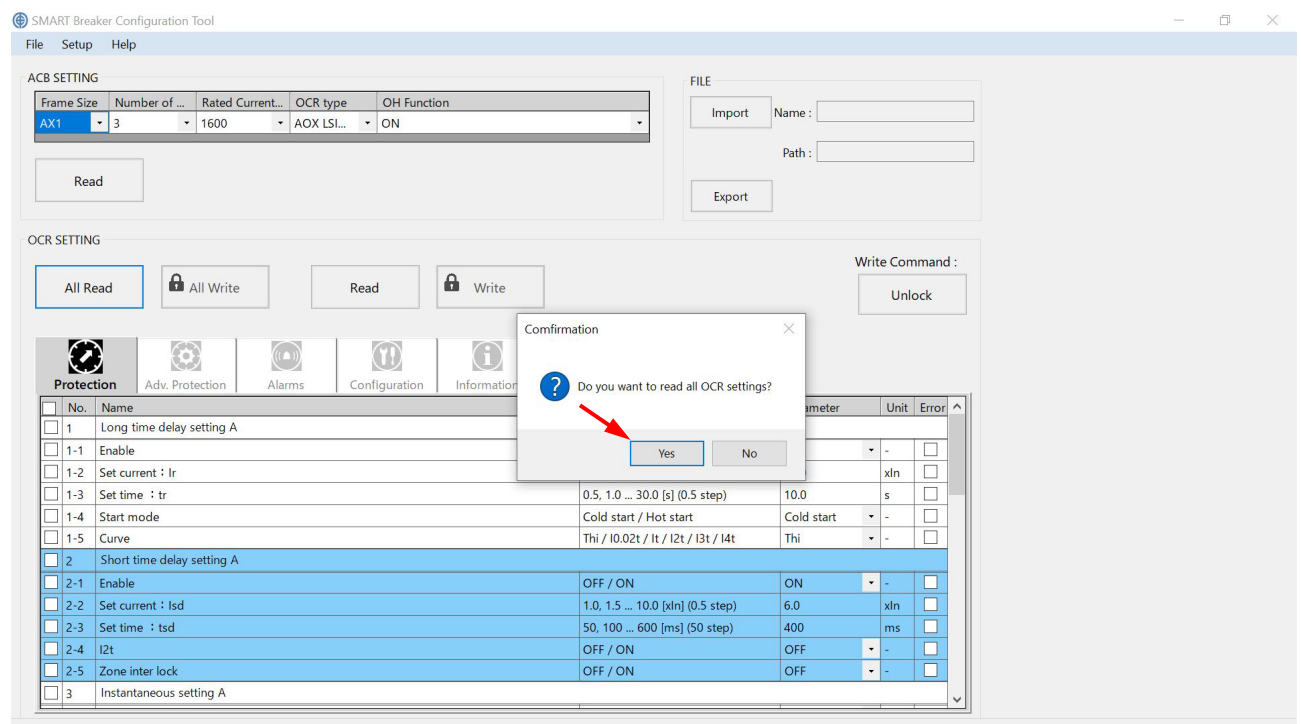
4.2 Load ACB settings

4.2.1 Load all settings

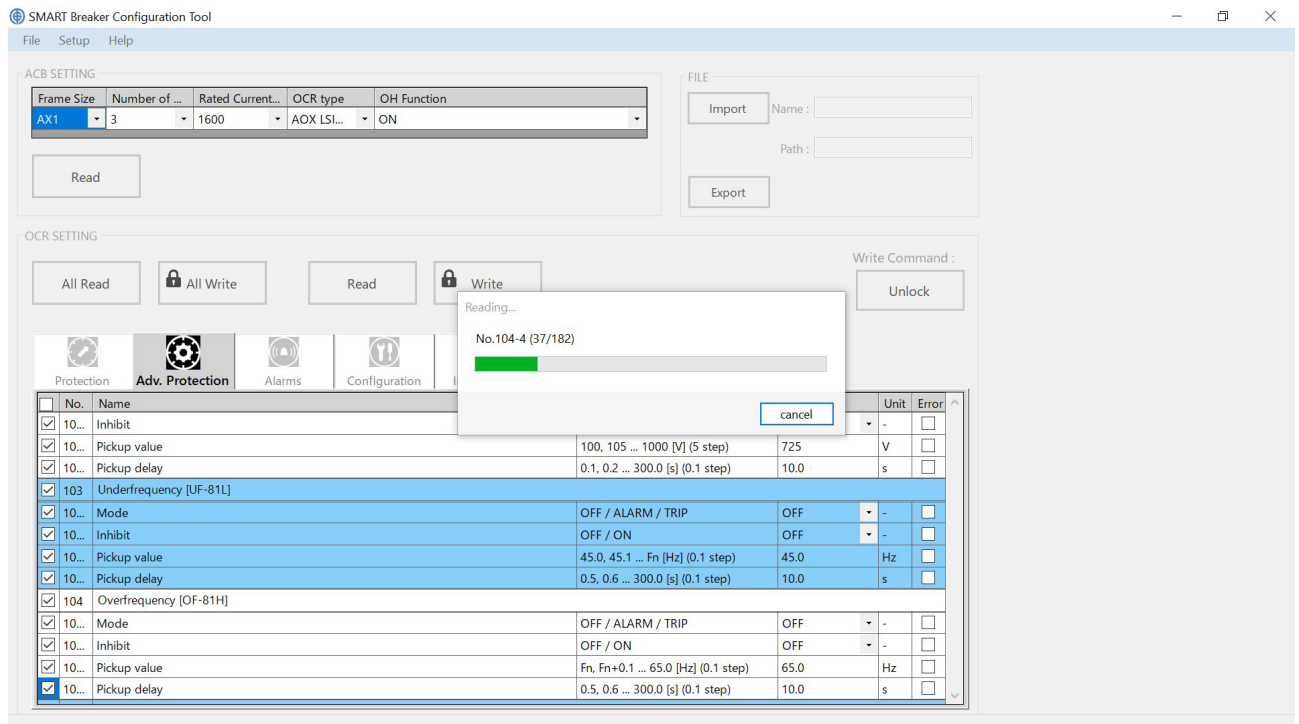
1) Click “All Read” in OCR setting window.



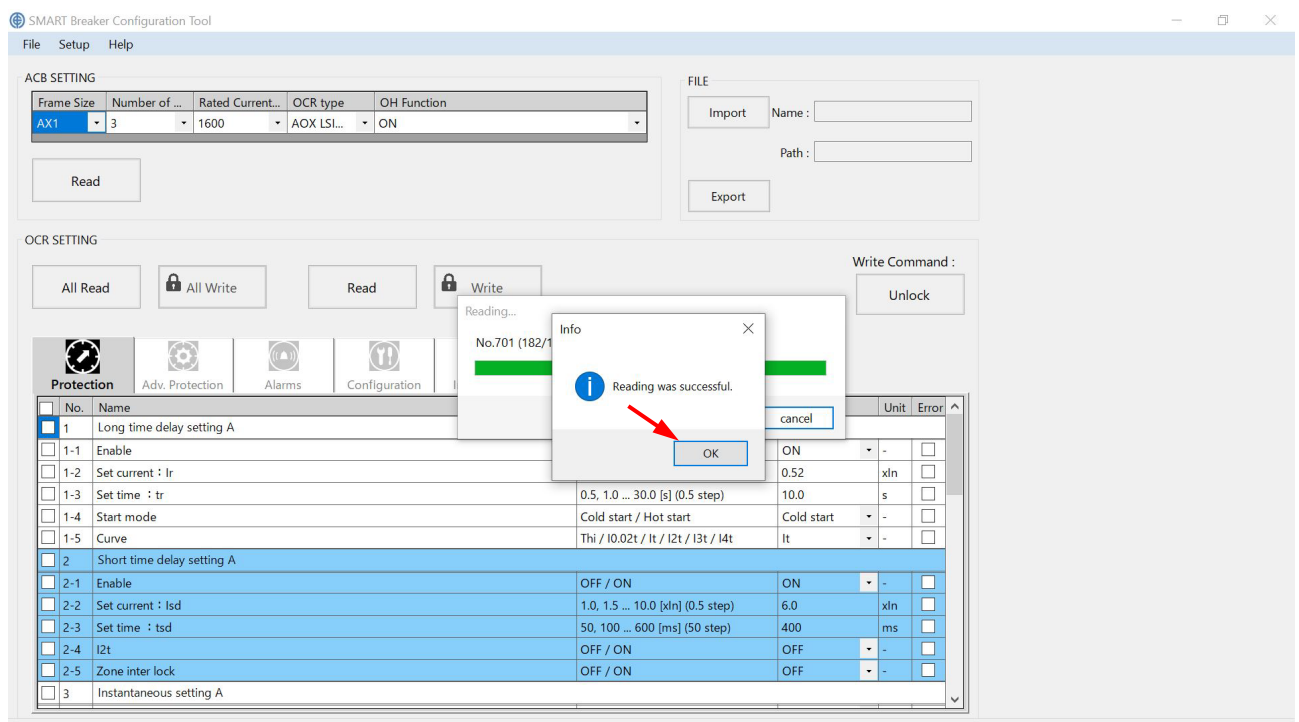
2) Click “Yes” button.



3) Start the loading of all OCR settings from the OCR connected to the computer

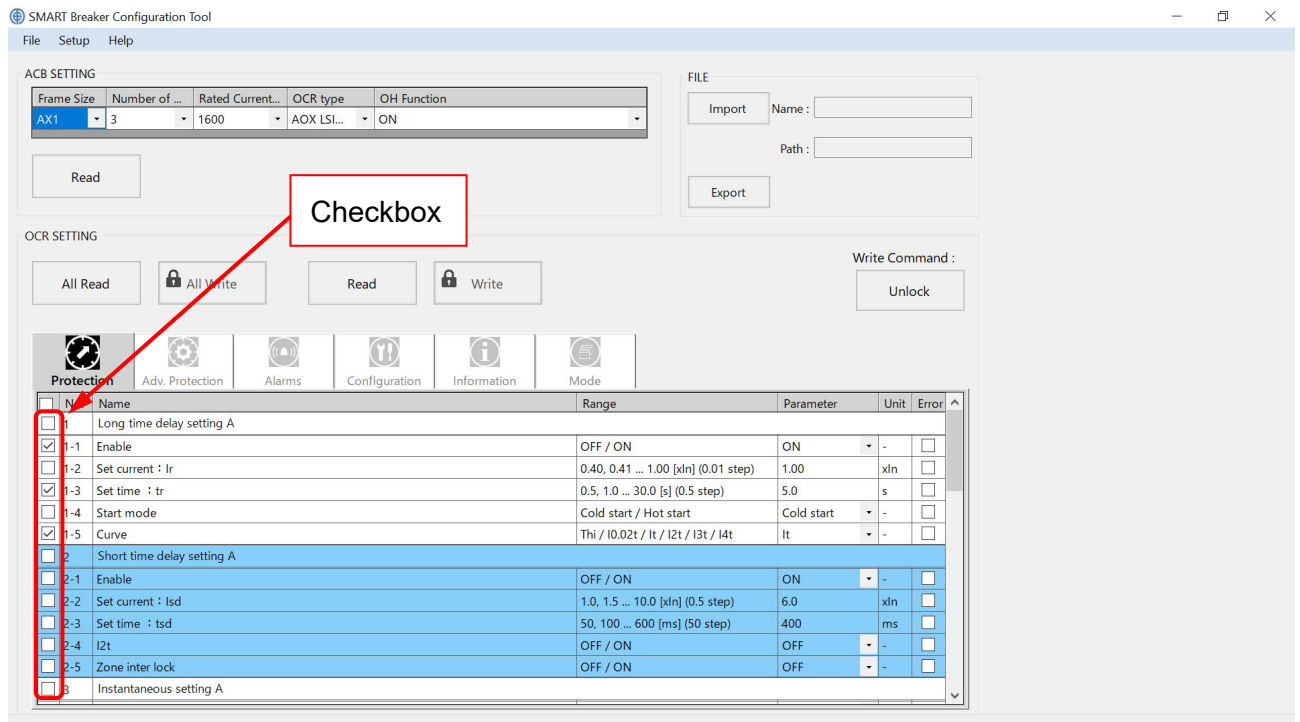


3) Click “OK” button after the message “Reading was successful” is appeared, loading of all settings is completed and the OCR settings window will display all settings.

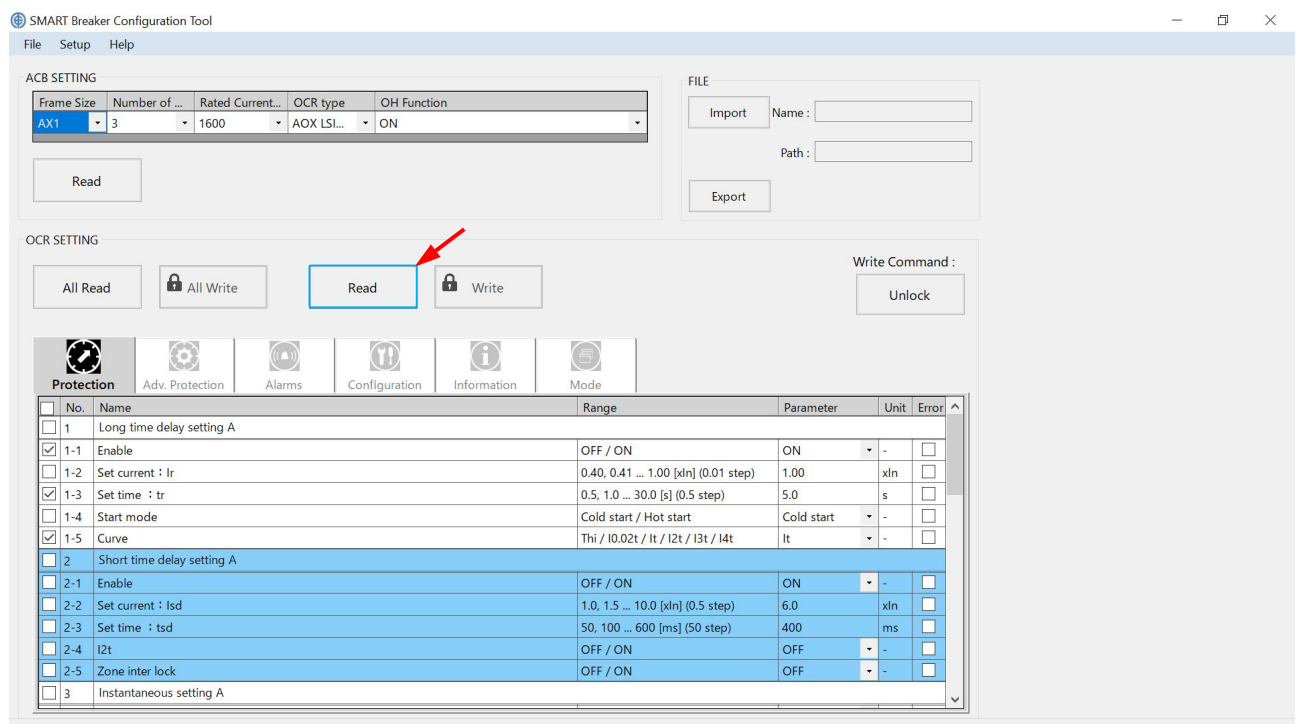


4.2.2 Partial loading of configuration data

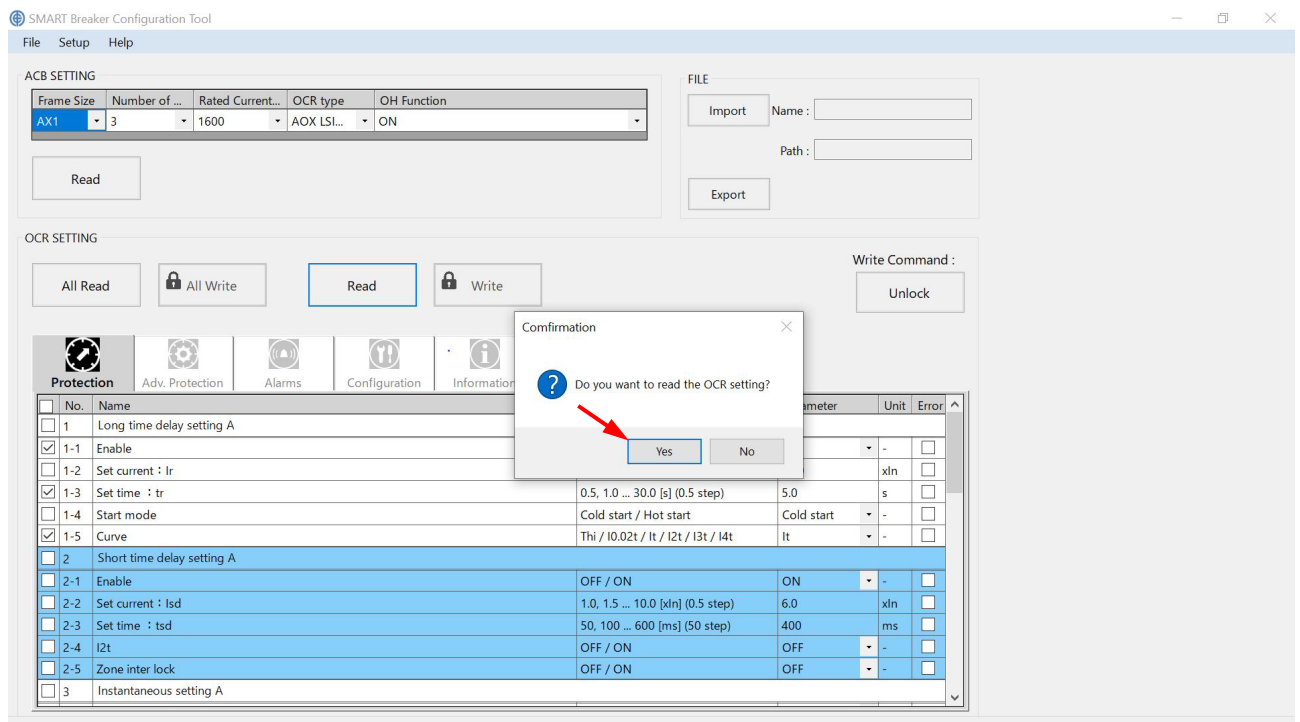
- 1) In the settings under “Protection” and “Advanced Protection”, click the checkboxes those are necessary to load partially.



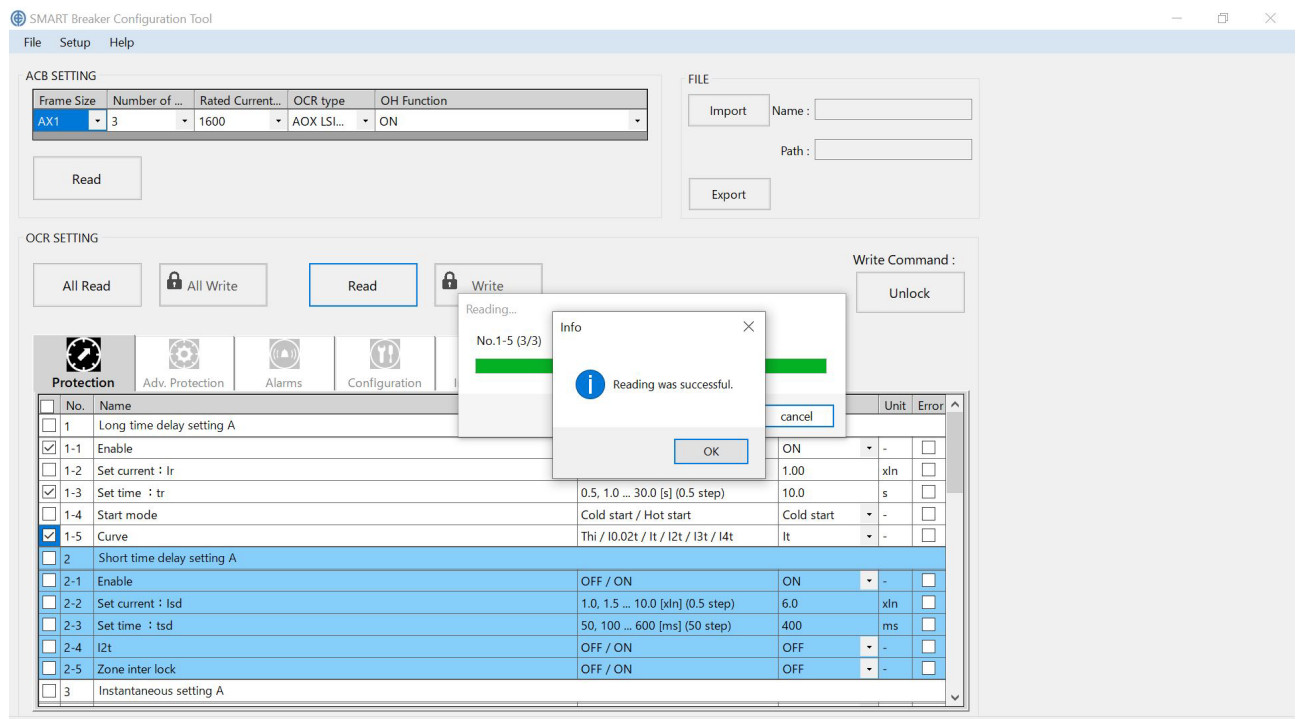
- 2) Click “Read” button.



3) Click “Yes” button.

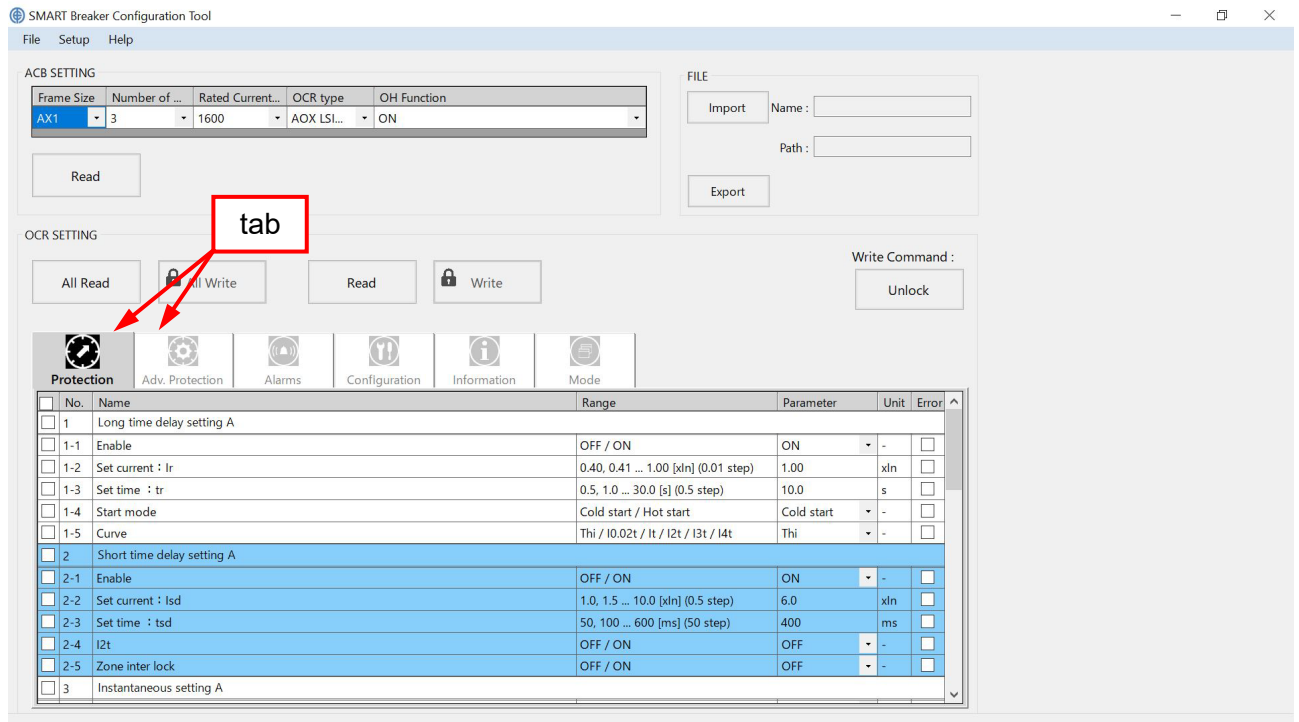


4) Click the “OK” button after the message "Reading was successful" appeared, only the settings for the items with checkmarks in their checkboxes will be loaded from the OCR connected to computer. And then partial load is completed.

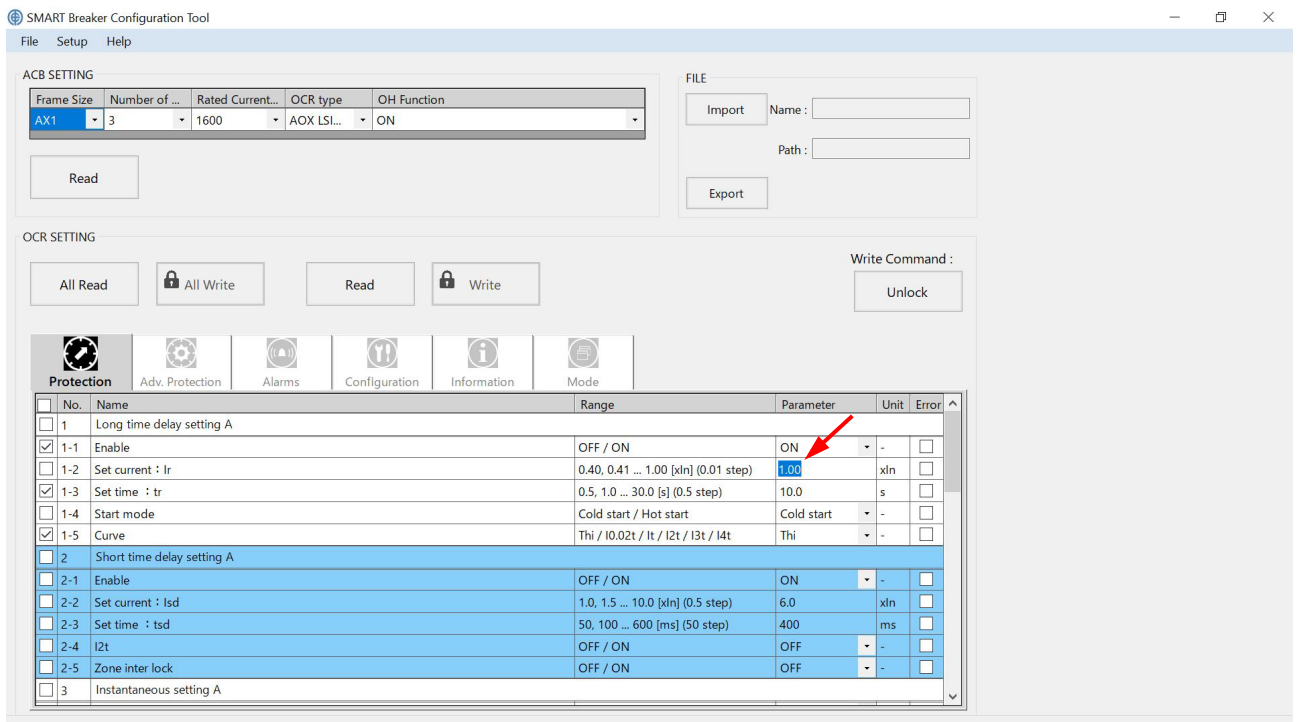


5. Change settings

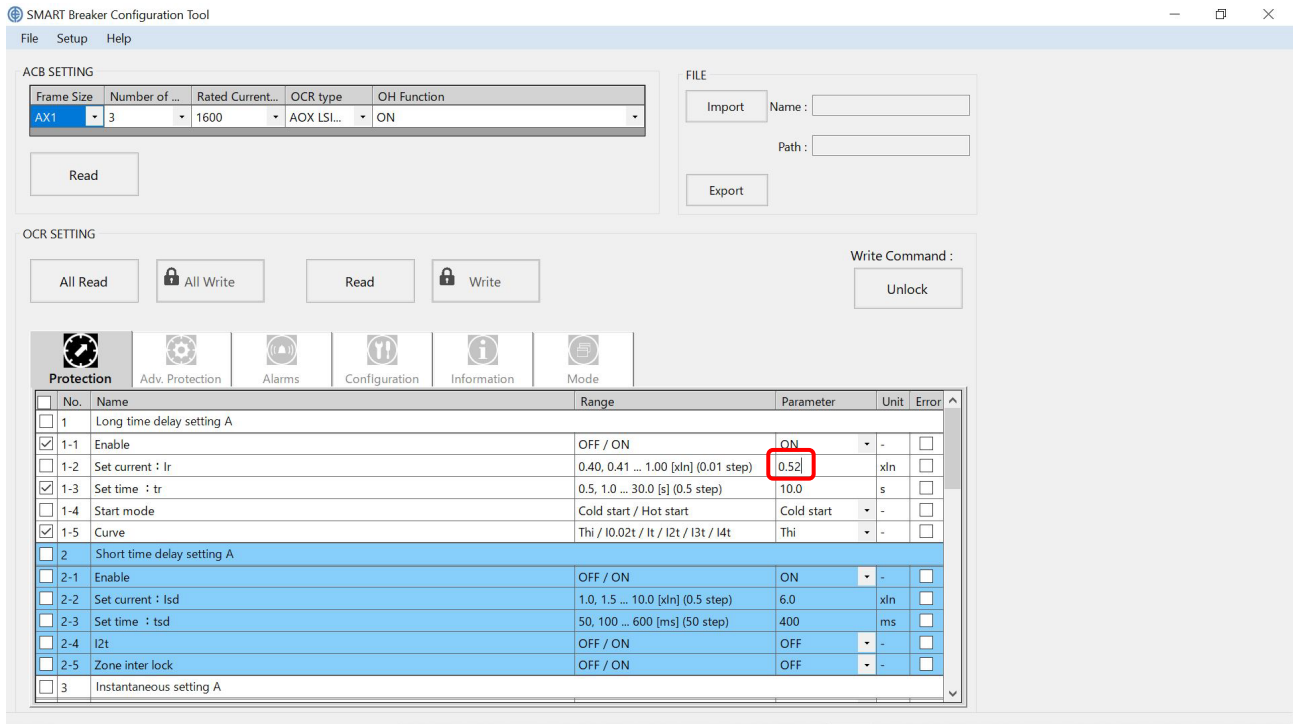
1) Click the “Protection” or “Advance protection “ tab in the OCR setting window.



2) Click the setting value displayed in the “Parameter” column for the items those are necessary to change setting. The selected setting value will be highlighted.



3) Enter the setting value in accordance with the “Range” in the column next to “Parameter”.



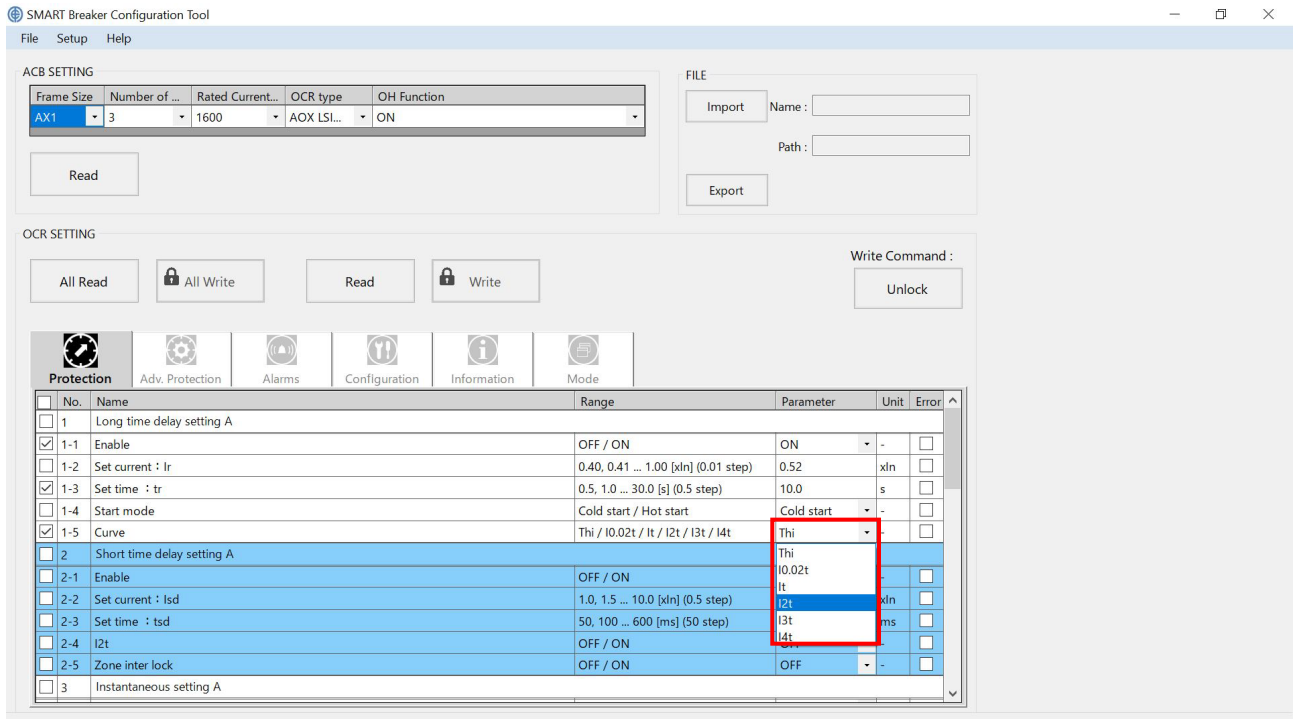
The screenshot shows the SMART Breaker Configuration Tool interface. The ACB SETTING section includes a table with the following data:

Frame Size	Number of ...	Rated Current...	OCR type	OH Function
AX1	3	1600	AOX LSI...	ON

The OCR SETTING section includes a table with the following data:

No.	Name	Range	Parameter	Unit	Error
1	Long time delay setting A				
1-1	Enable	OFF / ON	ON	-	
1-2	Set current : Ir	0.40, 0.41 ... 1.00 [xIn] (0.01 step)	0.52	xIn	
1-3	Set time : tr	0.5, 1.0 ... 30.0 [s] (0.5 step)	10.0	s	
1-4	Start mode	Cold start / Hot start	Cold start	-	
1-5	Curve	Thi / I0.02t / It / I2t / I3t / I4t	Thi	-	
2	Short time delay setting A				
2-1	Enable	OFF / ON	ON	-	
2-2	Set current : Isd	1.0, 1.5 ... 10.0 [xIn] (0.5 step)	6.0	xIn	
2-3	Set time : tsd	50, 100 ... 600 [ms] (50 step)	400	ms	
2-4	I2t	OFF / ON	OFF	-	
2-5	Zone inter lock	OFF / ON	OFF	-	
3	Instantaneous setting A				

For items marked with “▼”, click the “▼” symbol and follow the drop-down menu that appears to select a setting.



The screenshot shows the SMART Breaker Configuration Tool interface with the dropdown menu open for the OCR SETTING table. The dropdown menu displays the following options:

- Thi
- I0.02t
- It
- I2t
- I3t
- I4t

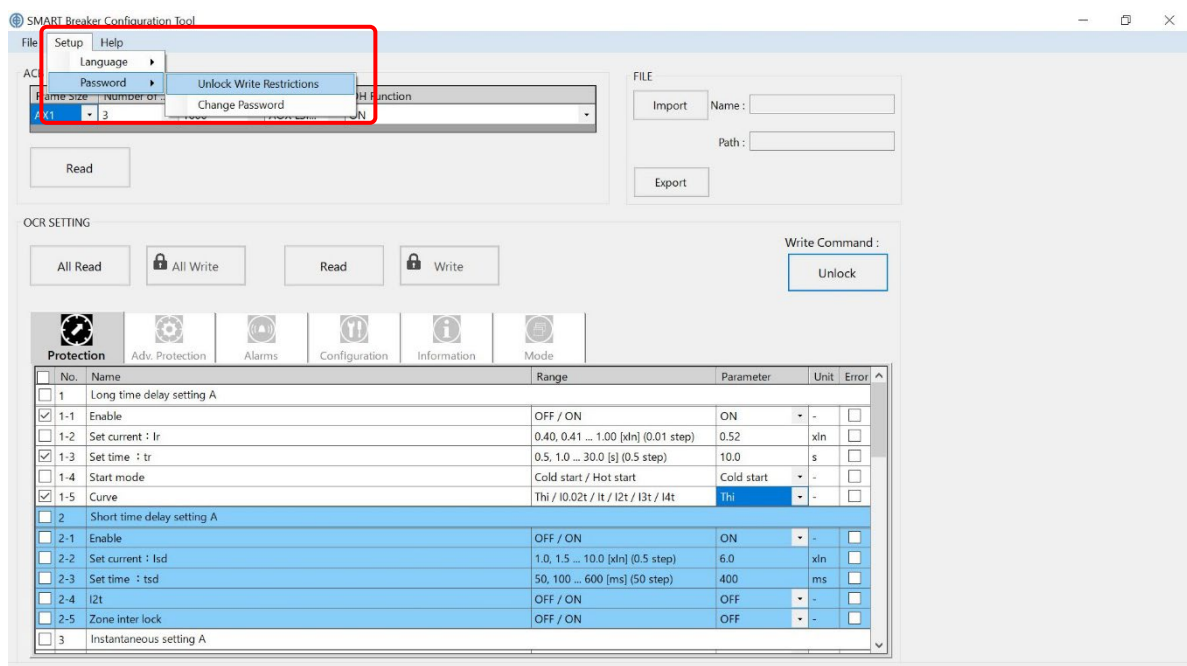
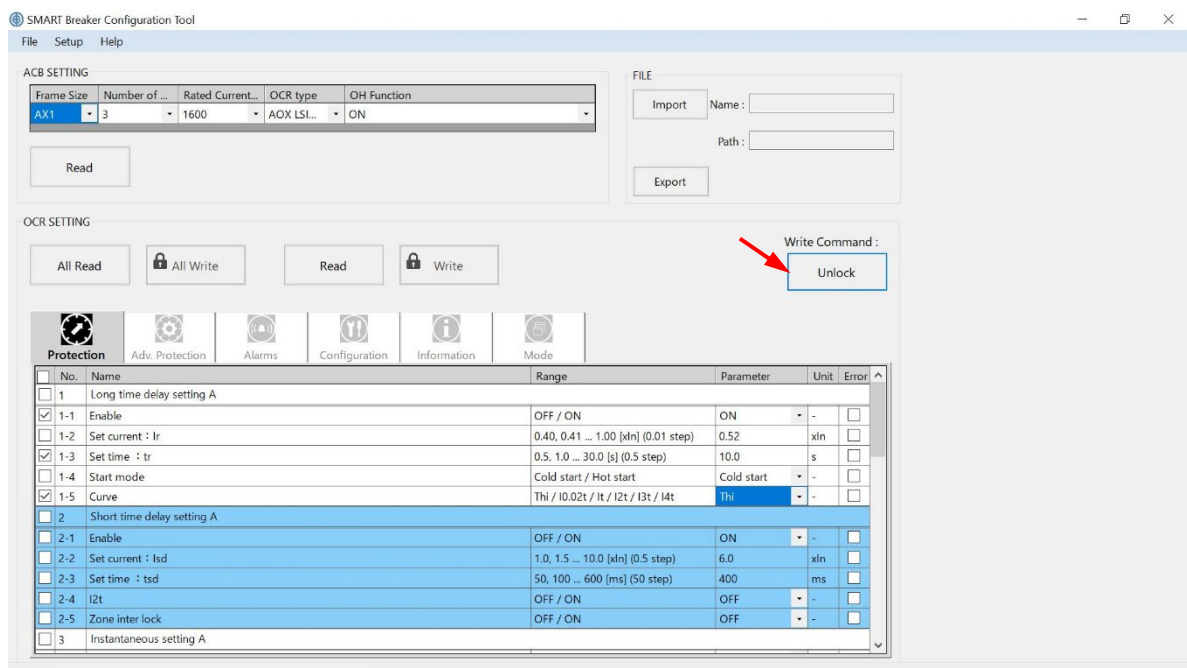
6. Write settings

To proceed with this operation, please connect the OCR to your computer using a USB cable (Type-C) capable of data transfer.

6.1. Unlock the Write command

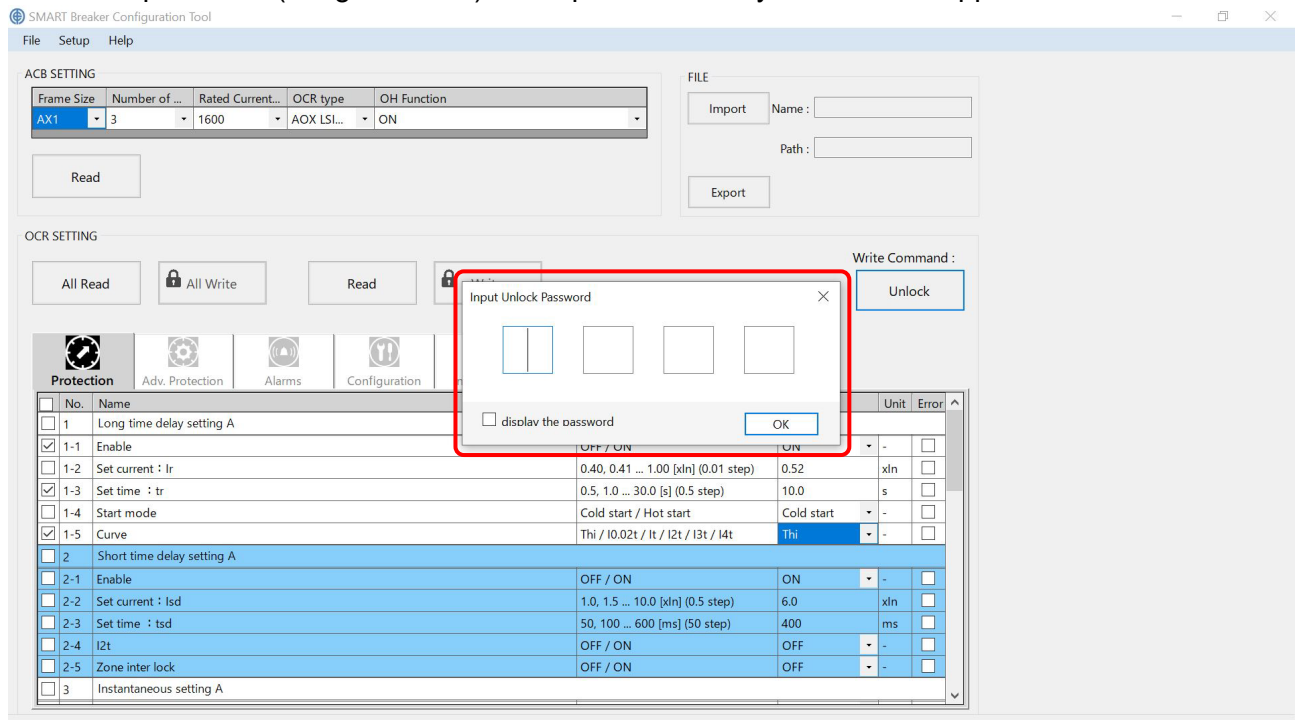
This procedure is required when writing configuration data to the OCR. Please complete this procedure before proceeding the steps in section 6.2 and onwards.

- 1) Click the “Unlock” button, or select “Password” =>”Unlock Write Restrictions” after click the “Setup” menu.



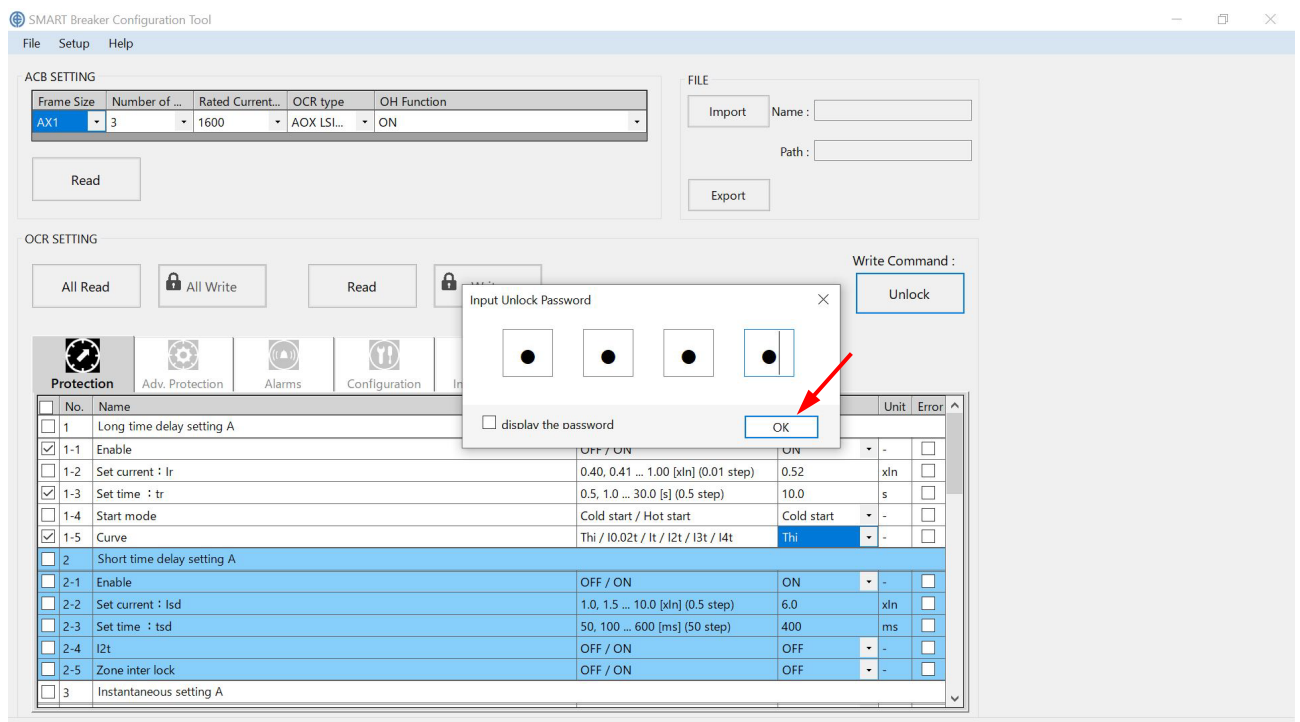
2) Enter the password

Enter the password (4-digit number) in the password entry window that appears.

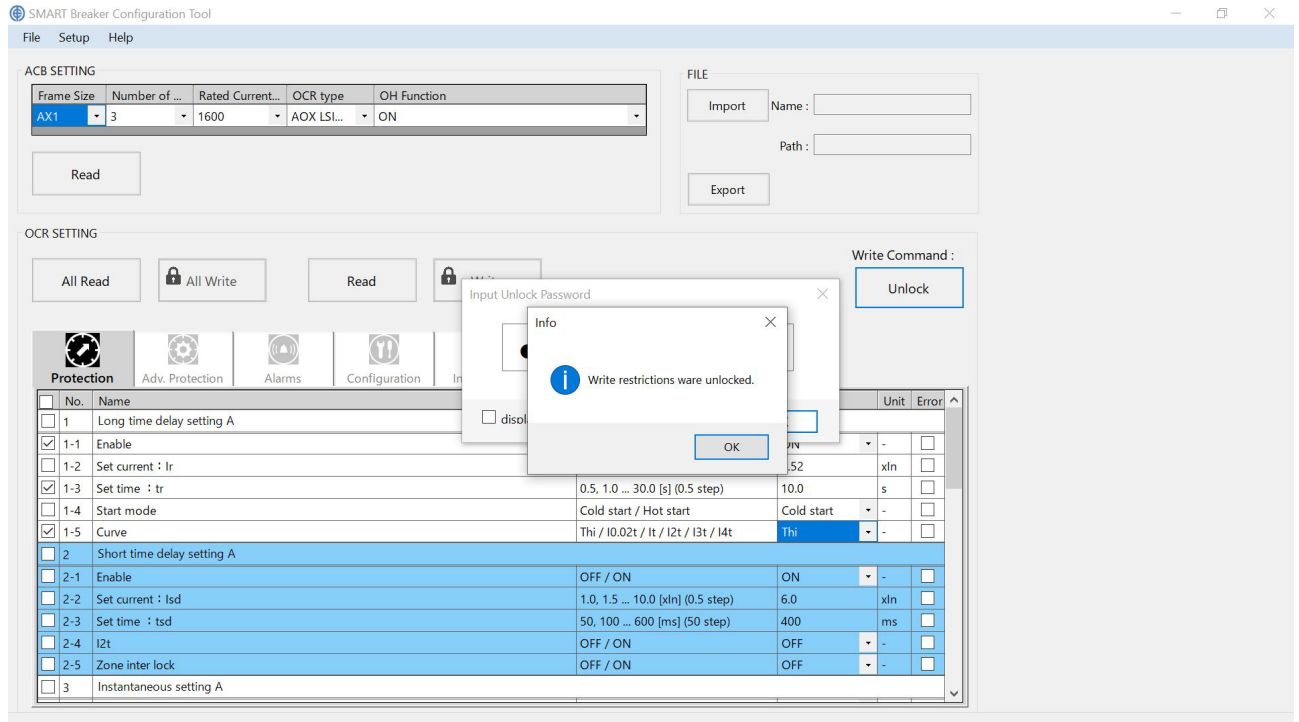


*The default password is set to “0000”. If it is necessary to change the password, please change the password according to the instructions in “7. How to change password”.

3) Click “OK” button after enter the password.



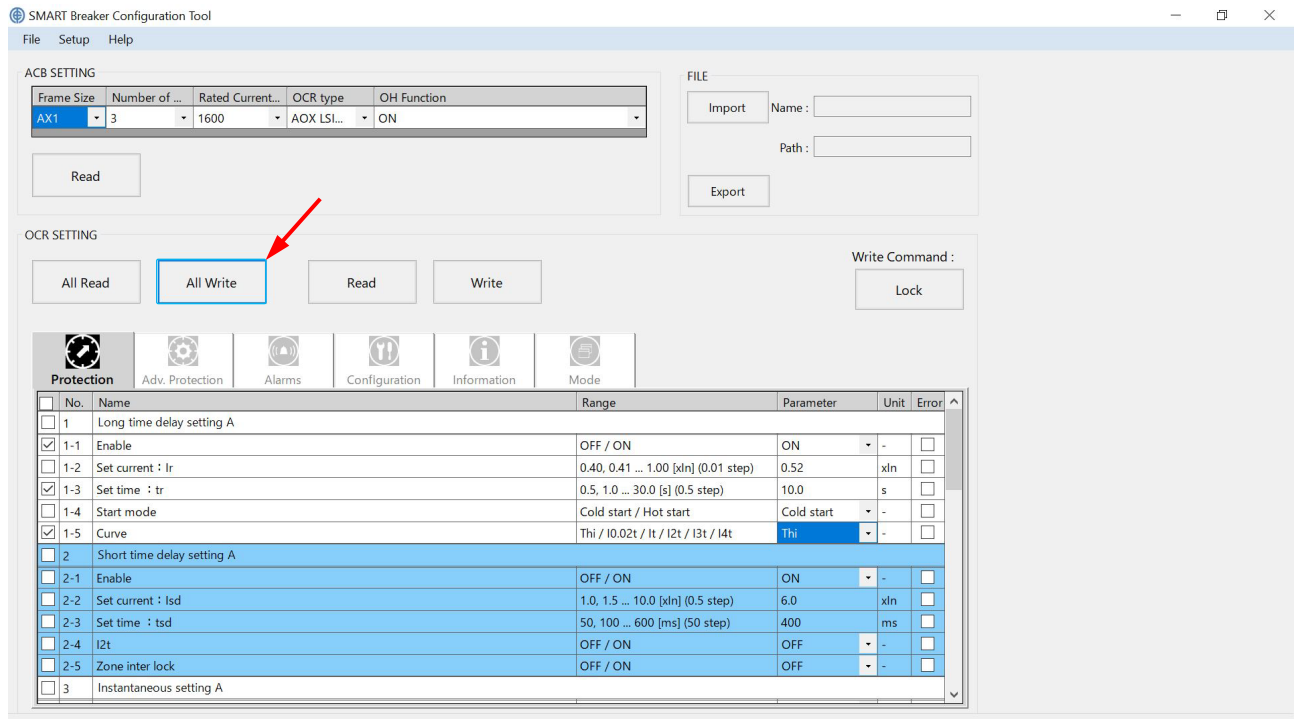
- 4) Click "OK" button after the message "Write restrictions were unlocked" appeared, write restrictions are unlocked.



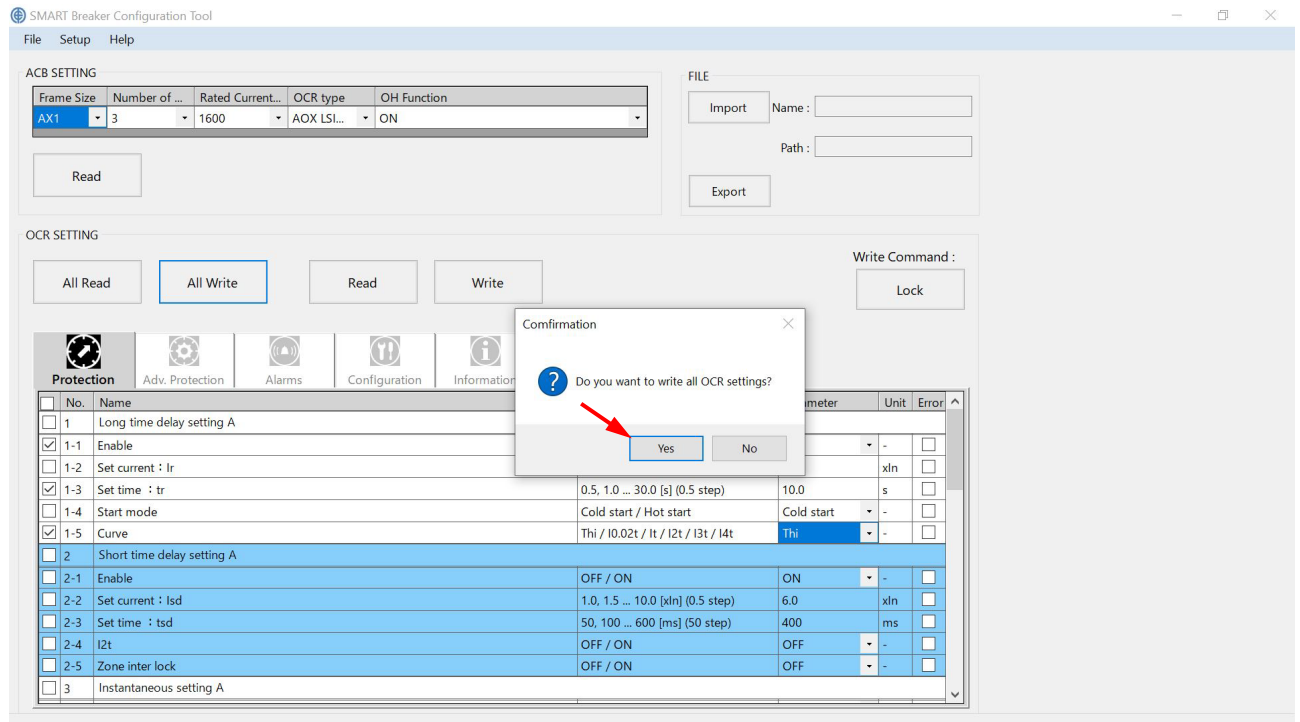
6.2 How to Write Settings

6.2.1 Write all configurations

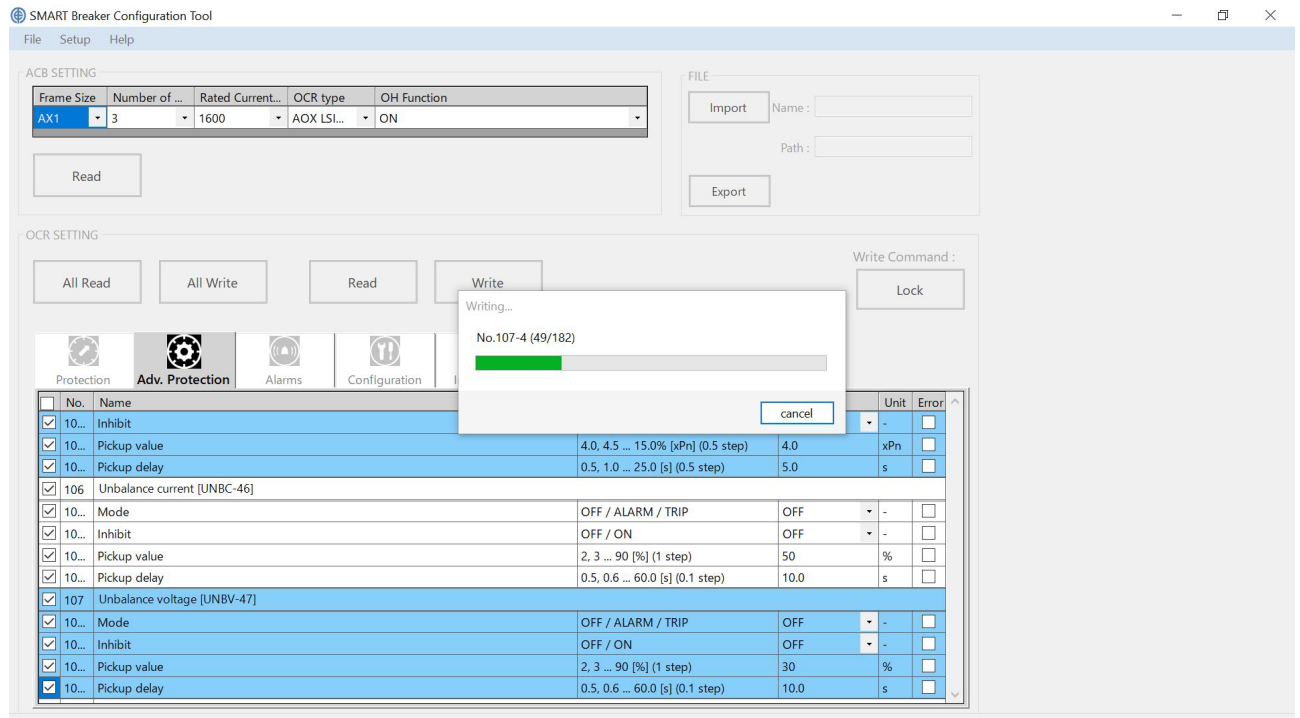
- 1) Click the "All Write" button.



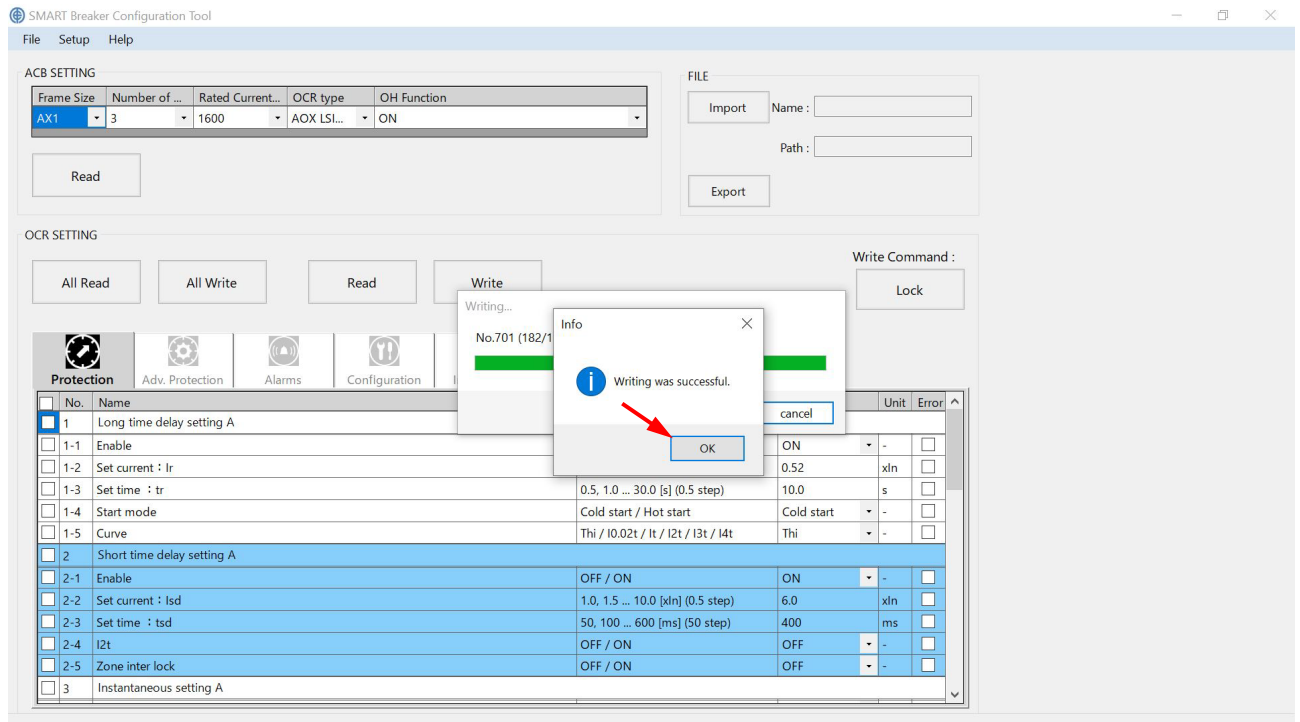
2) Click “Yes” button.



3) Start to write all setting data from the computer to connected OCR.

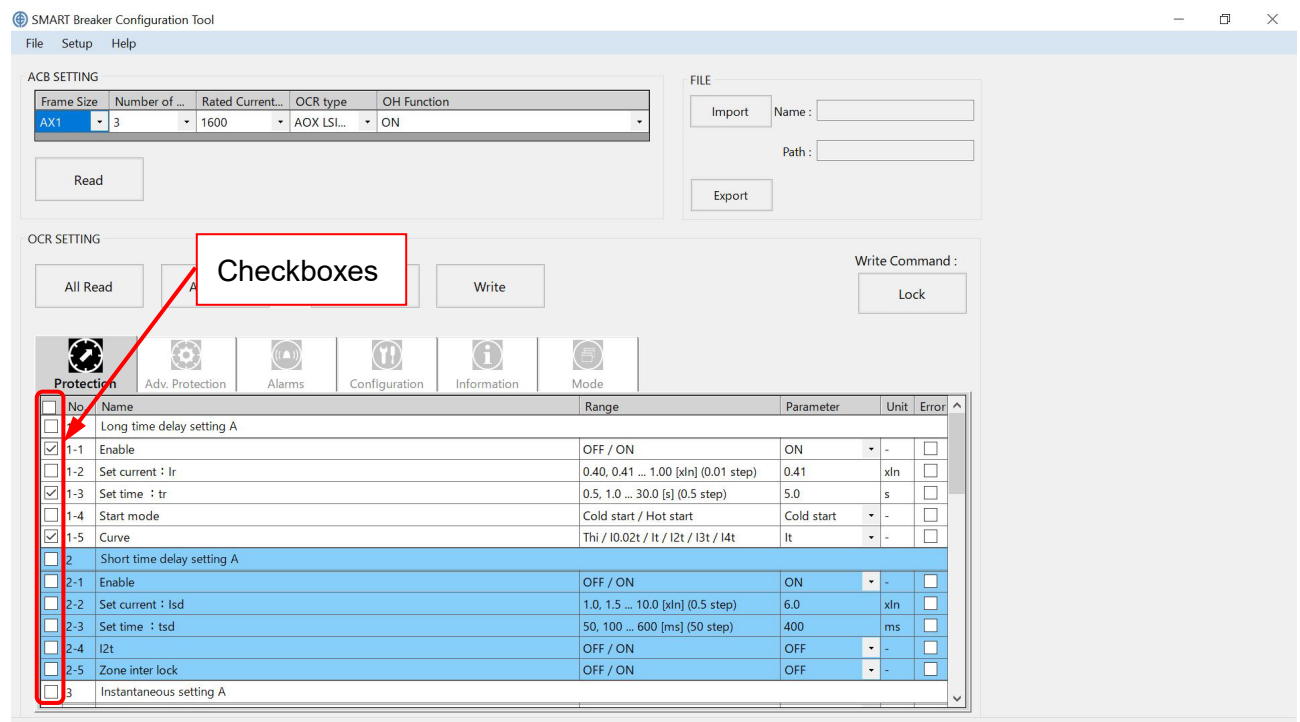


- 4) Click "OK" button after the message "Writing was successful" appeared, procedure to write all configurations are completed.

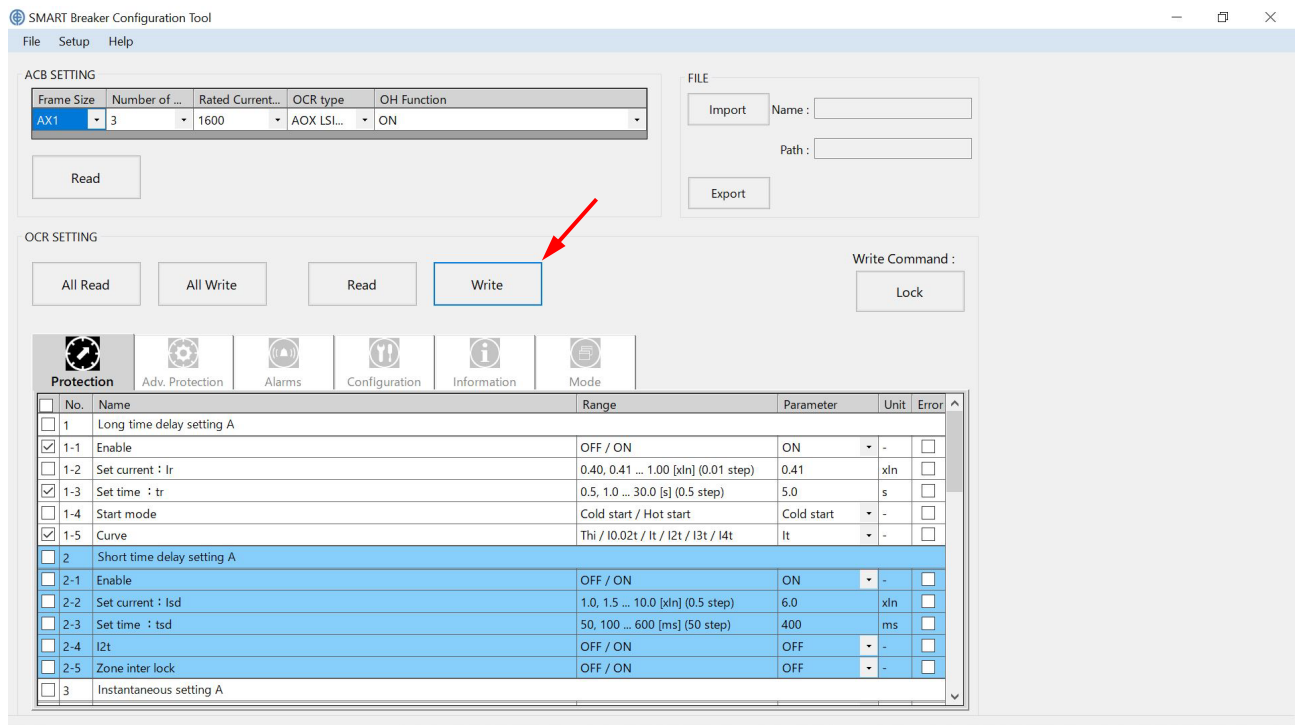


6.2.2 Partial writing of configuration data

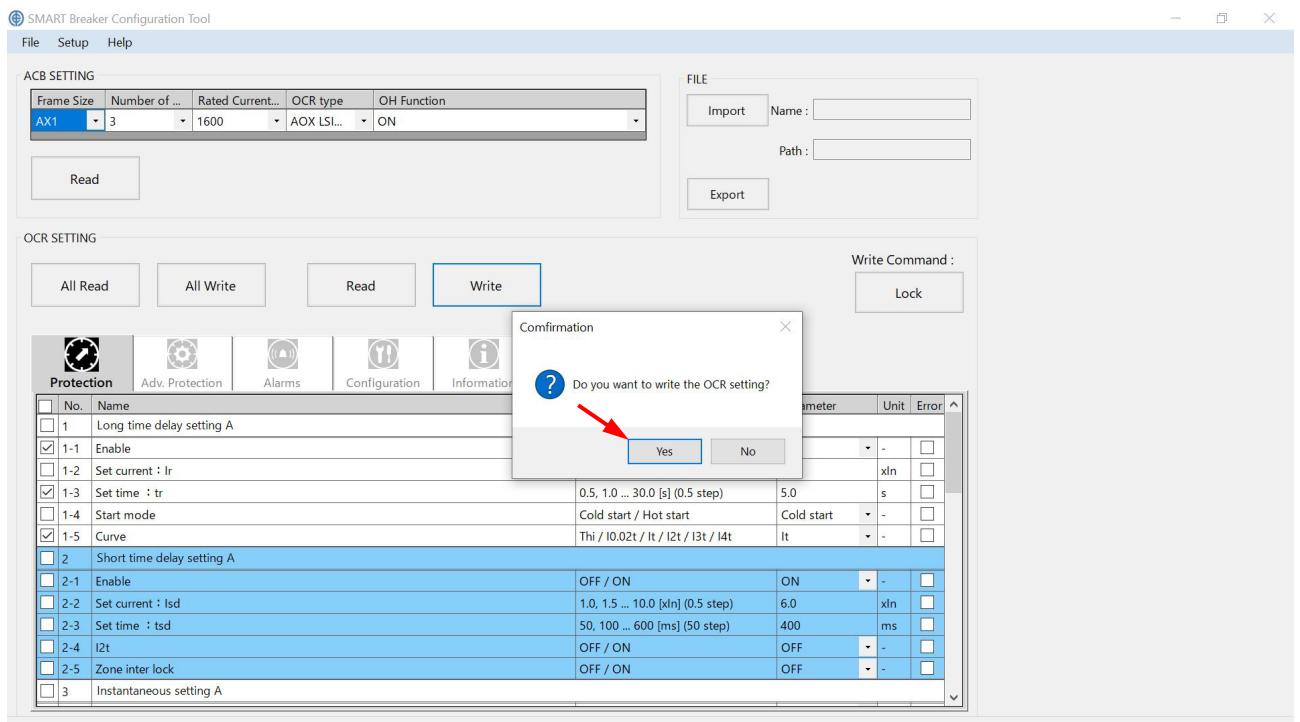
- 1) In the settings under "Protection" and "Advanced Protection", click the checkboxes those are necessary to write partially.



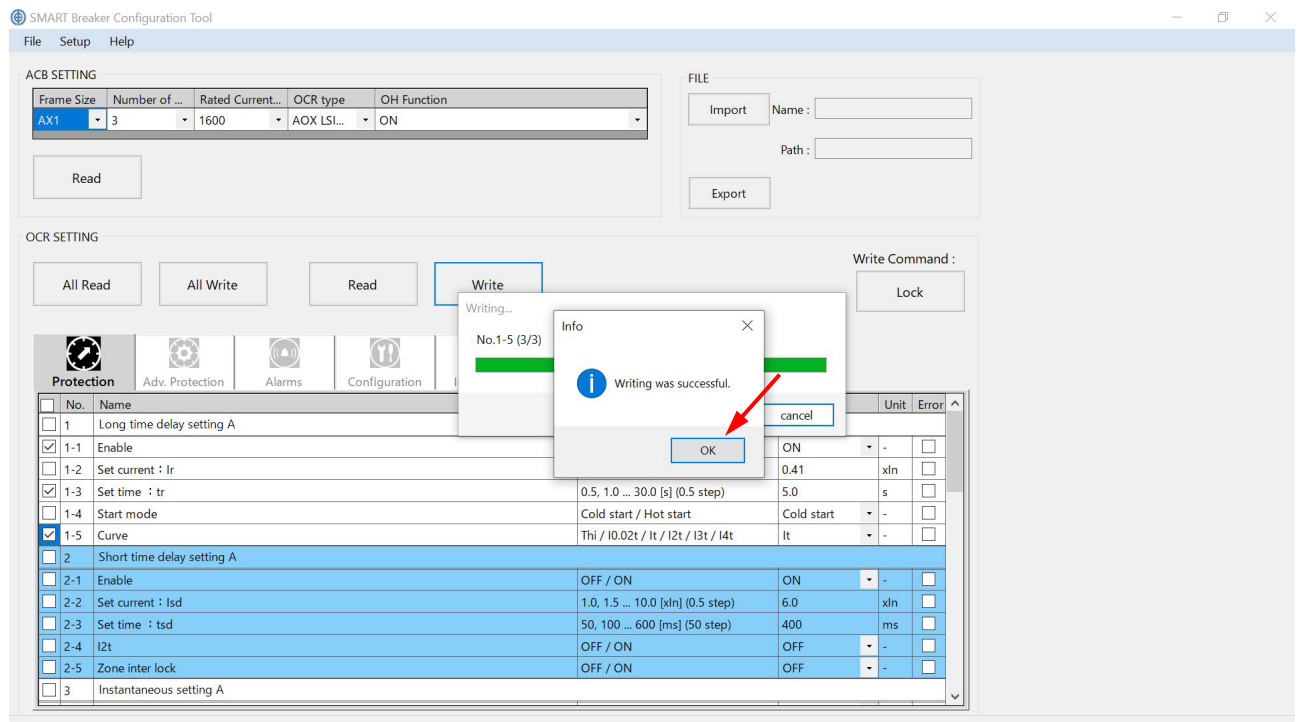
2) Click "Write" button.



3) Click "Yes" button.



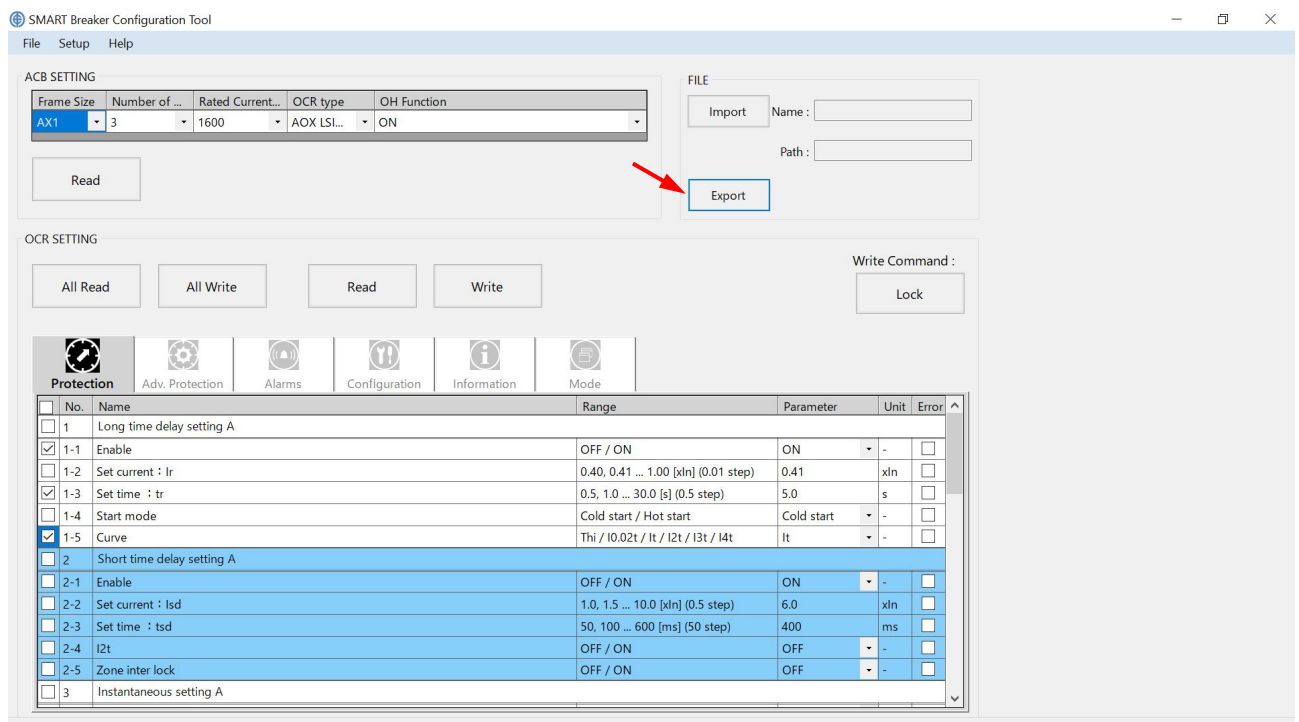
- 4) Click "OK" button after the message "Writing was successful" appeared, procedure to write partial setting data is completed.



6.3 Exporting and importing of configuration data

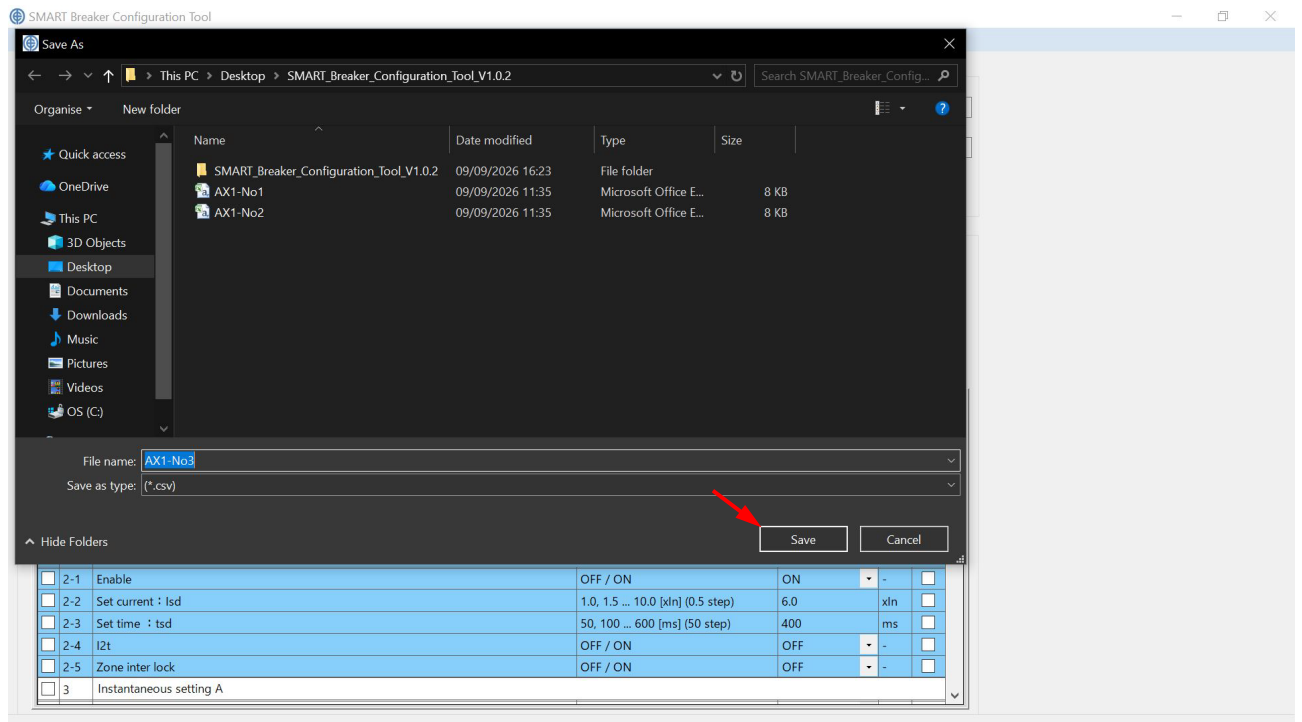
6.3.1 Exporting all configurations

- 1) Click "Export" button.



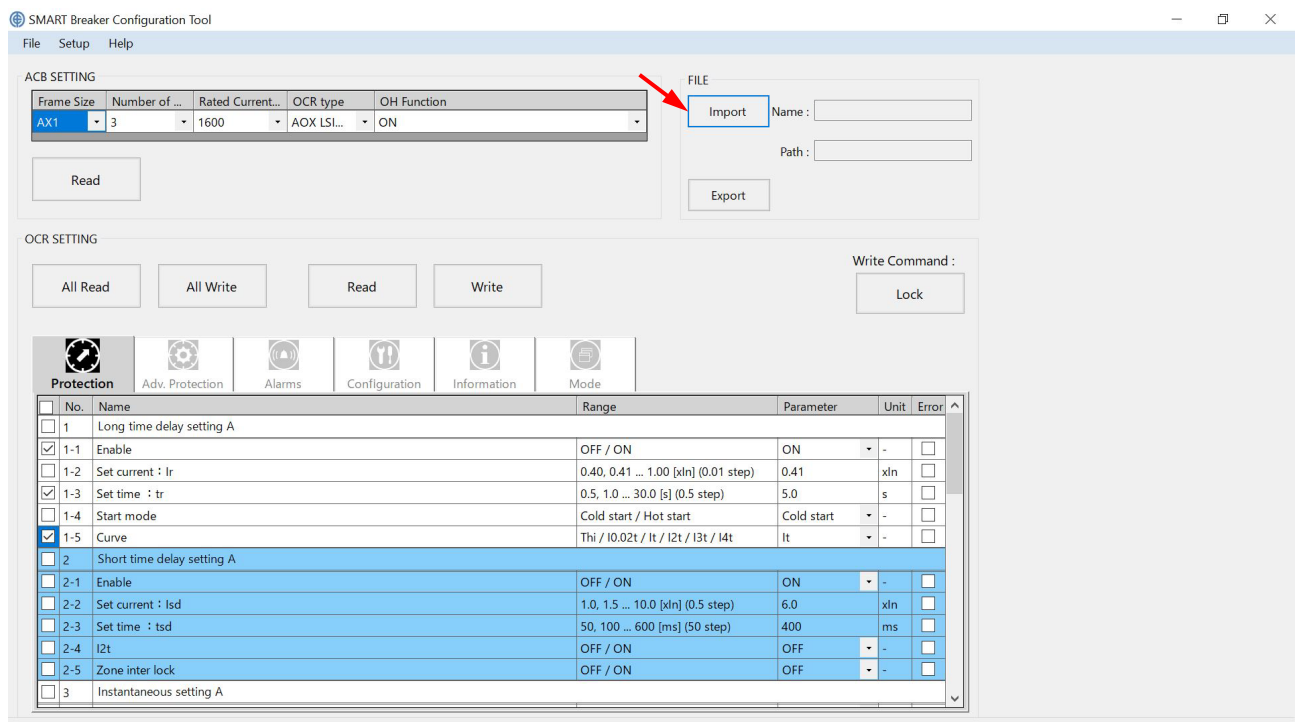
2) Click "Save" button after select any folder and enter any file name.

Save all configurations those have be loaded into the configuration tool as a CSV file.

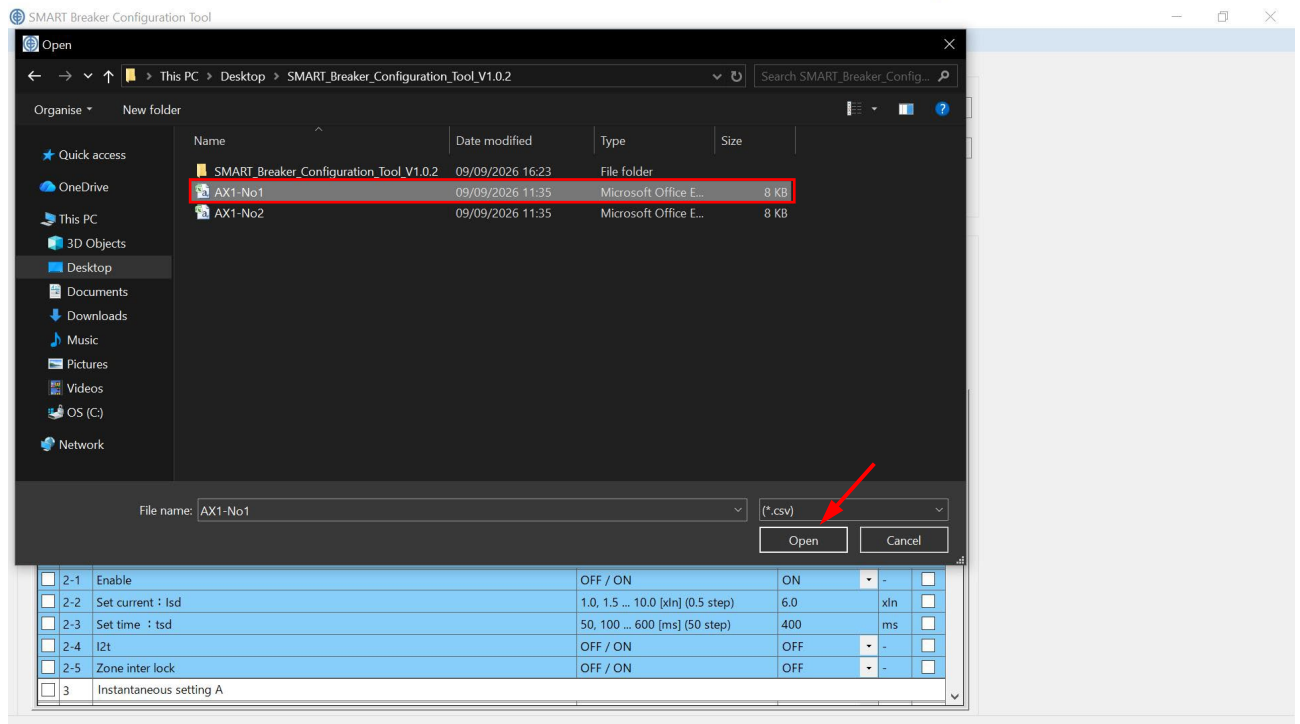


6.3.2 Importing all configurations to use CSV file

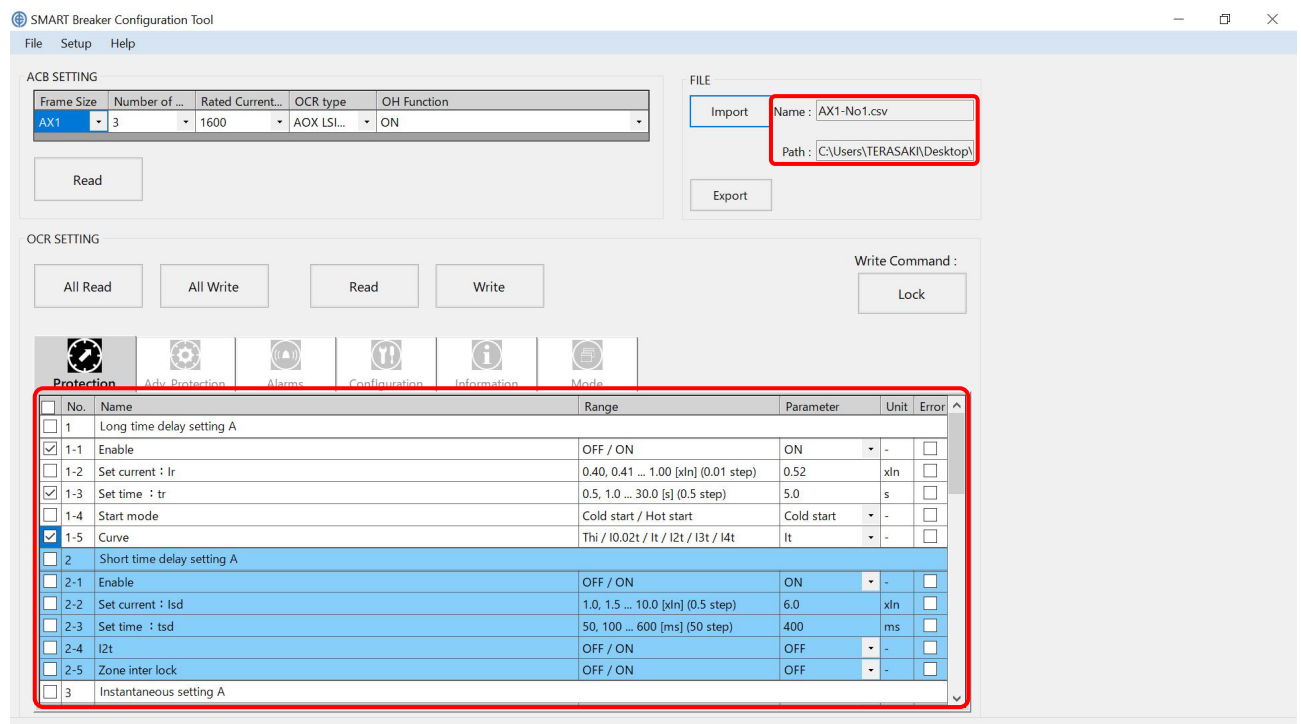
1) Click "Import" button.



- 2) Select the CSV file that is necessary to load to Configuration tool from the CSV files those have be saved previously and click "Open" button.

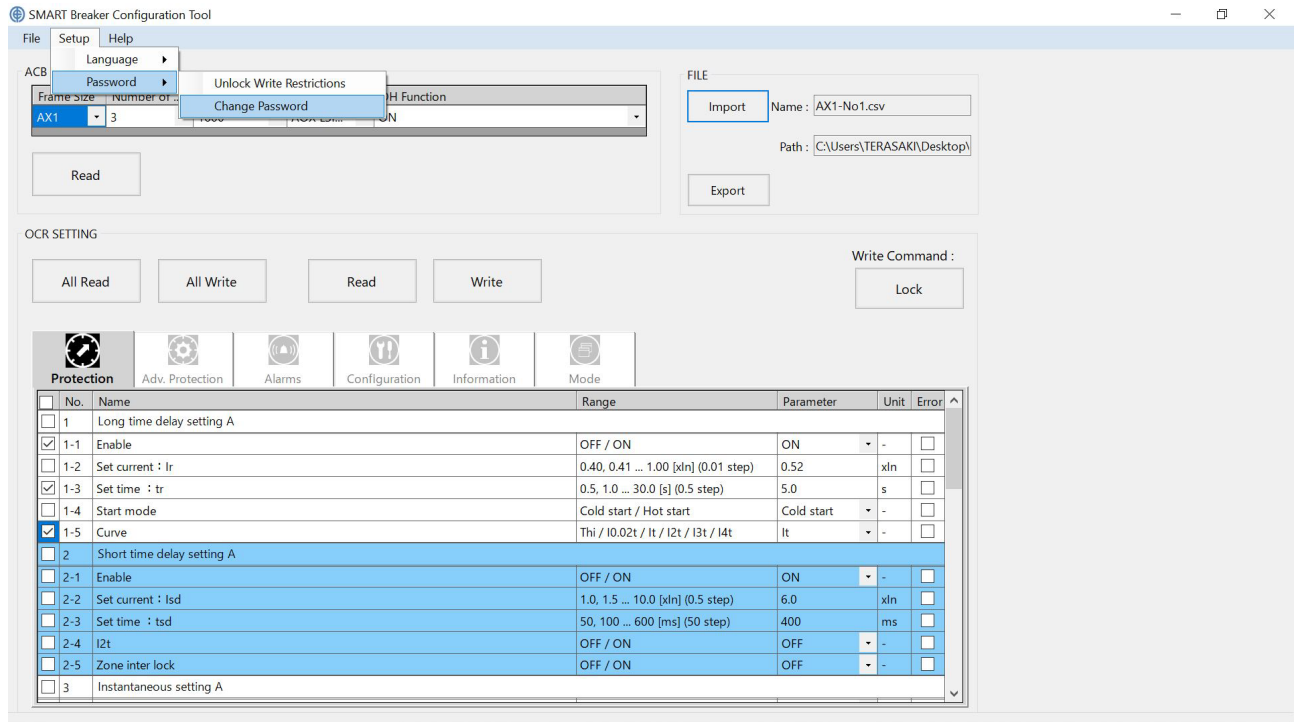


- 2) The configurations saved as the CSV file is loaded into the configuration tool and displayed in the OCR settings window.

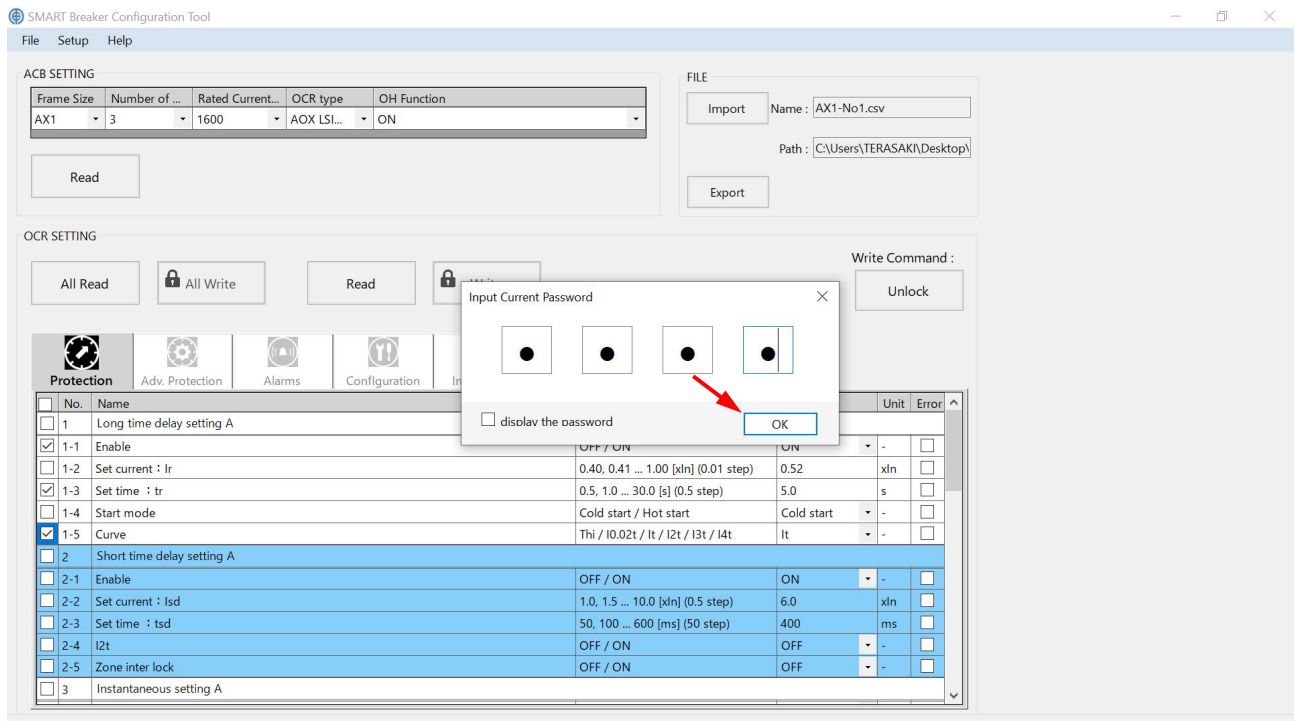


7. How to change Password

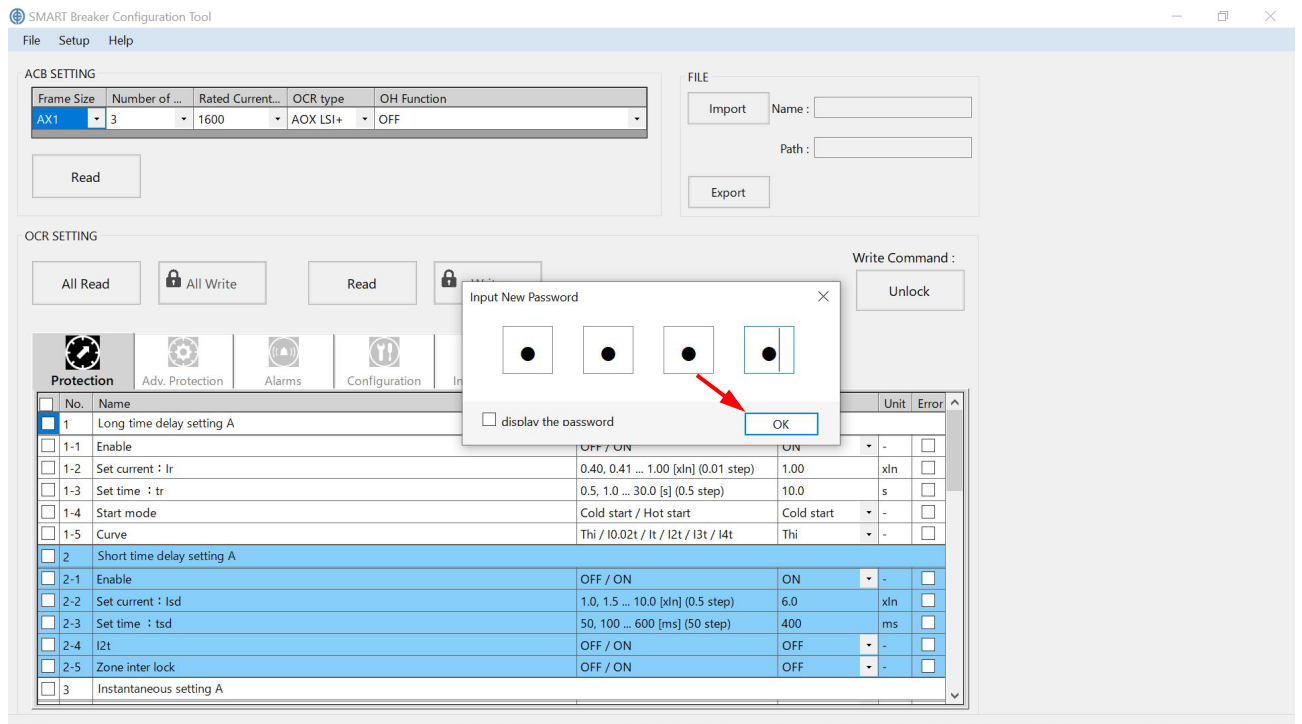
1) Click “Settings” => “Password” => “Change Password”.



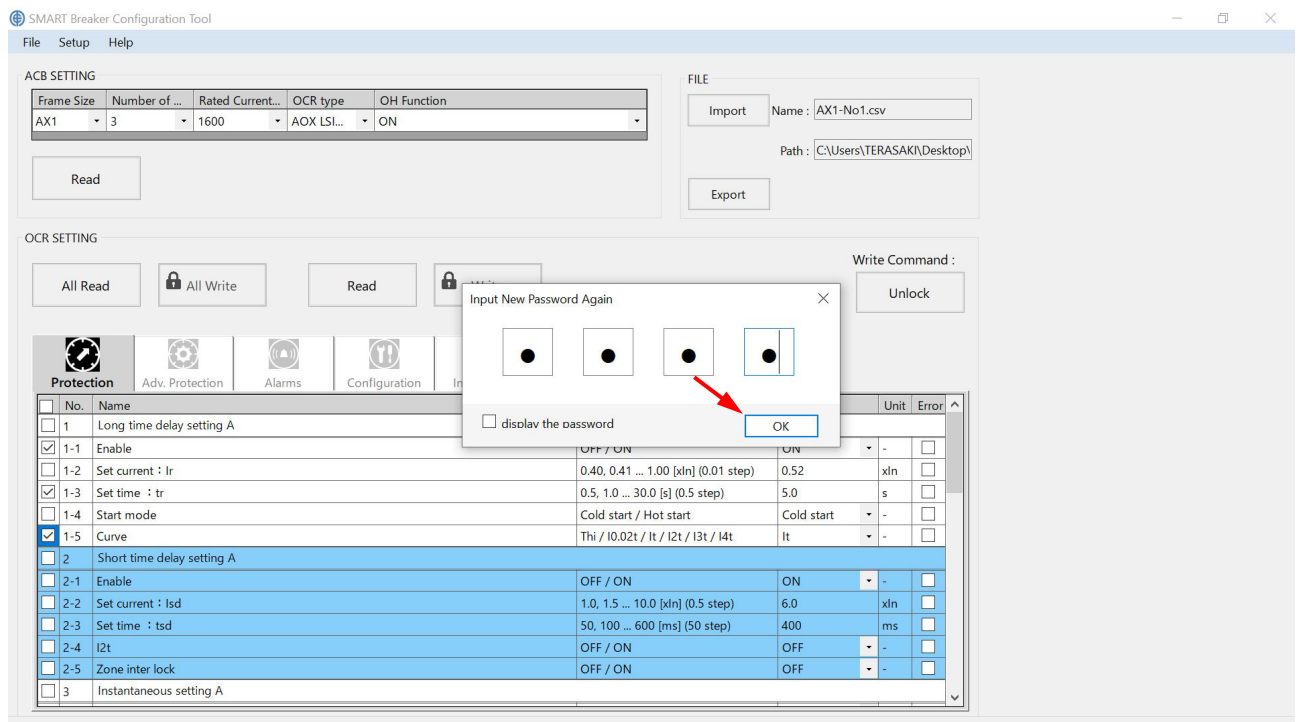
2) Enter the current password (4-dijit number) and click “OK” button.



2) Enter new password and click “OK” button.



2) Enter new password again and click “OK” button.



4) Click "OK" button after the message "Password changed." Appeared.

