PAC28/PAC18/PAC18A
Series PAC Loader Instruction Manual

Thank you for purchasing a Shimaden product.
After making sure the product fits the desired description, you should carefully read the instructions and get a good understanding of the contents before attempting to operate the equipment.

Request

The instruction manual (hereinafter referred to as "this manual") should be kept in a handy place where the end user can refer to it when necessary.

Preface

This manual concerns PAC loaders for the PAC28/PAC18/PAC18A Series.
The manual does not contain precautions for handling, mounting method, wiring, description of functions or operation method for the PAC28/PAC18/PAC18A Series. For information on those topics you should refer to the instruction manual for the PAC Series power regulator used.

⚠ WARNING

You should provide protective/safety circuits, etc., to ensure the safety of the system used in the unlikely event of product failure or malfunction, or in the case there is a defect in the program. You should also take measures to ensure safety to avoid an accident that could potentially result in injury, death or serious damage.
The contents of this manual are subject to change without prior notification.
Attention has been paid to ensure the accuracy of the contents. Shimaden shall, however, bear no responsibility whatsoever for damages of any type, including indirect damage, incurred as a result of clerical errors, incomplete information, or use of information contained herein.

The equipment may not operate properly according to the way it is used and/or usage environment (system, etc.).
Operation is not guaranteed on PCs that were not made by a commercial manufacturer (self-constructed PC, etc.).

■ Recommended operation environment
Supported operating systems: Windows 7, 10
Hard disk open space   : 1MB
Memory capacity   : Windows recommended

* Windows, Windows 7, Windows 10 are registered trademarks of Microsoft Corporation in the United States and other countries.

Contents

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1. Install and uninstall

1-1. Install
You can install PAC Loader to your PC using the following procedure.
(1) Please download the [PAC Loader] software and the [USB setup software S5009] from Shimaden website http://www.shimaden.co.jp.
* [USB setup software S5009] is required when installing a USB driver.
(2) Launch the Setup.Exe located in the downloaded [PAC Loader] folder. Then, please install it by following the instructions on the screen.

1-2. Uninstall
You can uninstall PAC Loader from your PC using the following procedure.
(1) Launch "Install/uninstall programs" from the control panel and uninstall "PAC Loader."

2. USB Cable connection

2-1. This instruction is for Windows 7
Connect a USB port on your PC and the S5009 main unit with a USB cable.

(1) If the dialog below appears when connecting a USB port on your PC and the S5009 main unit, install the driver from the [Device manager].
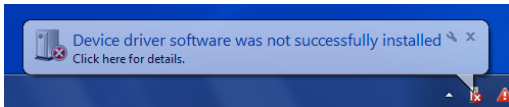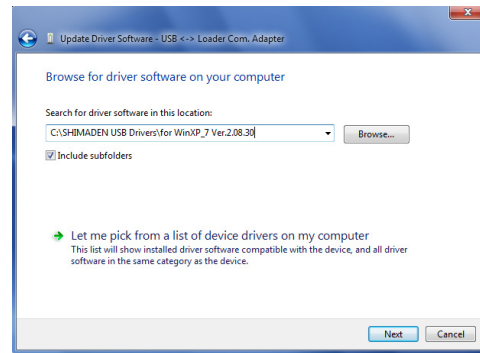

(2) "USB <-> Loader Com. Adapter" can be found in [Other devices] in the Device manager. Display the menu by right-clicking it and select the [Update Driver Software].
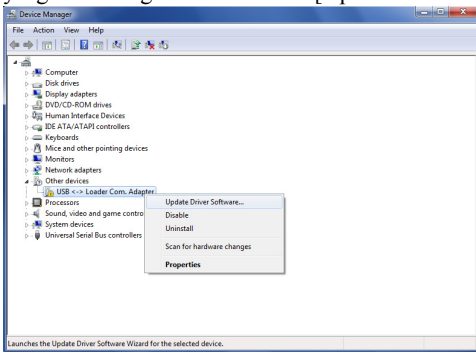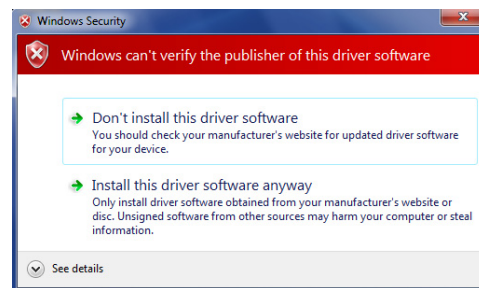

(3) Select [Browse my computer for driver software].
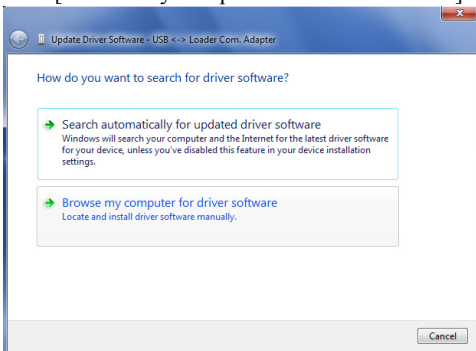
(4) Specify the driver software to update and click the [Next] button.

Example: C:¥SHIMADEN USB Drivers¥ WinXP_7 Ver2.08.30
*[Browse] may differ according to the PC you have.

(5) When a warning dialog appears, select [Install this driver software, anyway].

(6) The dialog for updating driver software will appear. Click the [Close] button.
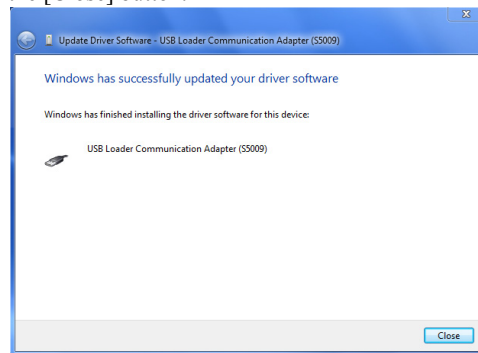
(7) "USB Serial Port" can be found on [Other devices] in Device manager. Display the menu by right-clicking it and select [Update Driver Software]. Then repeat the same procedure from (2) to (6).

3. Launch/exit
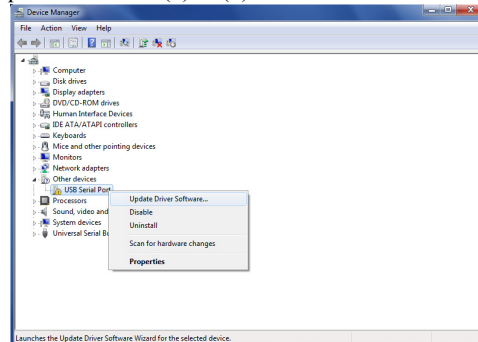
3-1. Launch
You can launch PAC Loader using the following procedure.
(1) Launch the parameter setting tool by [Start] menu →
    [Shimaden Soft] → [PAC Loader].

3-2. Exit
You can exit PAC Loader using the following procedure.
(1) Exit the parameter setting tool by [File] menu → [Exit].

4. Menus

Functions of the menus are as follows.

4-1. File
(1) New   : Creates new file.
(2) Open   : Opens saved file.
(3) Read from PAC: Reads parameters from PAC connected.
(4) Write in PAC   : Writes parameters in PAC connected.
(5) Save   : Saves parameters set.
(6) Save as   : Saves parameters set by designated name.
(7) Exit   : Exits PAC Loader.

4-2. Tools
(1) Communication settings: Sets communication settings.
(2) Communication log   : Opens communication log file.
(3) Monitor   : Monitors target PAC.
(4) Record data   : Opens record data file created
                            by monitoring.

4-3. Model
(1) PAC28 : Sets screen display contents to PAC28.
(2) PAC18 : Sets screen display contents to PAC18.
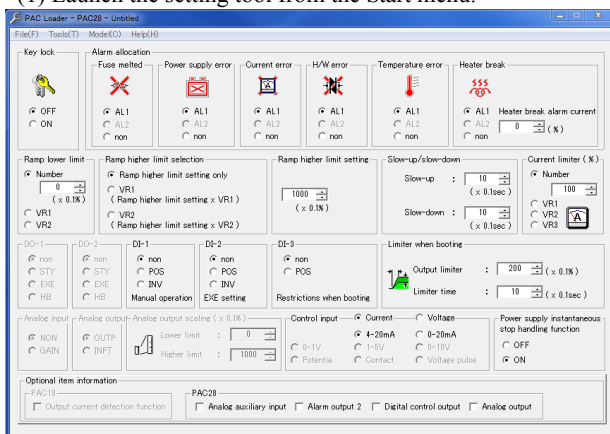(3) PAC18A: Sets screen display contents to PAC18A.

4-4. Help
(1) Manual   : Displays the instruction manual.
(2) Version information: Displays software version.

5. New

Use the following procedure to create a new parameter
setting screen.
(1) Launch the setting tool from the Start menu.

The PAC Loader dialog box is then displayed.

(2) Select PAC28, PAC18 or PAC18A from the Model menu.
(3) Change the necessary parameters.

6. Read and save

You can read and save parameters created using the following
procedure.

6-1. Save
(1) Select [Save] from the [File] menu, and the file save dialog
    box appears for you to provide a file name and save it.

* Once saved, the file is overwritten without the dialog box being
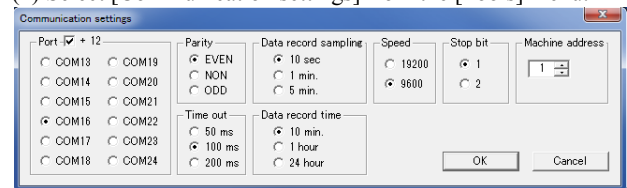 displayed. To save under a different name:
  Select [Save as] from the [File] menu.

6-2. File read
(1) Select [Open] from the [File] menu, and the file open dialog
    box is displayed for you to select a file name and read it.

7. Communication settings

(1) Select [Communication settings] from the [Tools] menu.

Set communication conditions according to the main unit for
which parameters are to be set.

Communications settings for communication using the PAC
unit and PAC communication adapter are fixed as follows.
    Communication speed: 9600   Data length: 7 bits
    Parity: EVEN   Stop bit: 1   Equipment address: 1
Check port number with the "Device manager" of the PC, etc.

* The "Communication settings" dialog box is displayed even
  if [Read from PAC], [Write in PAC] or [Monitor] is selected.
  If communication settings have not been set, you can change
  them before clicking the [OK] button.

7-1. Data record sampling and data record time
You can save data of the monitor item selected by the monitor
function. The format in which it is saved is "xsl."
When doing so, set the data record sampling time and data
recording time.

8. Read and write data from/in
  PAC28/PAC18/PAC18A Series

You can read and write parameter values from the
PAC28/PAC18/PAC18A Series main unit using the following
procedure.
Parameters cannot be read or written when any screen other
than the Parameter setting screen is displayed.

8-1. Read
(1) Select [Read from PAC] from the [File] menu.
(2) The communication settings dialog box is then displayed.
    Change the communication settings if necessary and click
    the [OK] button.

(3) When read is complete, a dialog box such as the one shown in the following figure is displayed.
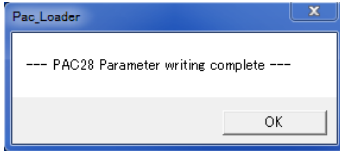
8-2. Write

(1) Select [Write in PAC] from the [File] menu.
(2) The communication settings dialog box is then displayed. Change the communication settings if necessary and click the [OK] button.
(3) When write is complete, a dialog box such as the one shown in the following figure is displayed.
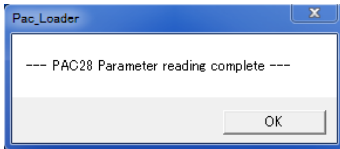
8-3. Communication log browsing

By selecting [Communication log] from the [Tools] menu, you can browse the communication log.
You can browse errors that occurred when reading from and writing to the main unit.
If there is no communication log, you cannot select from the menu.

9. Parameter setting screen

For setting range of various parameters, see the instruction manual and communication function instruction manual for PAC28/PAC18/PAC18A.

10. Monitor function

The device is equipped with a monitor function in addition to the parameter setting function.
Contents that can be monitored are as follows:

  (1) Output   (2) Load voltage
  (3) Load current   (4) Load power
  (5) Control input   (6) VR1 operation amount
  (7) VR2 operation amount (8) VR3 operation amount
  (9) AL/DO output status (10) DI input status
  (11) Analog input   (12) Analog output

* Some items may not be displayed depending on the model.

(1) By selecting [Monitor] from the [Tools] menu, you can display the Monitor dialog box.
(2) The communication settings dialog box is then displayed. Change the communication settings if necessary and click the [OK] button.
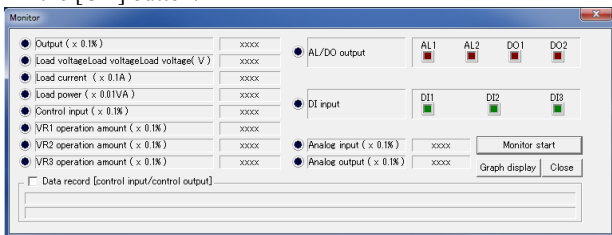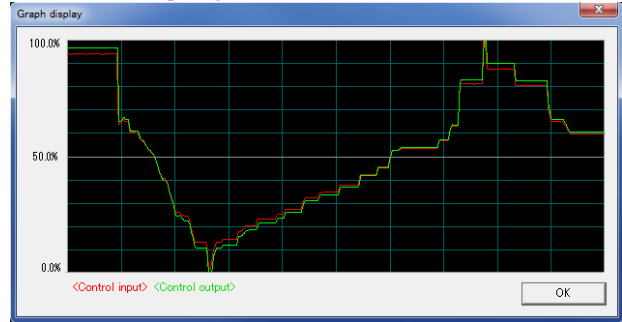

10-1. "Monitor" screen

You can start monitoring by clicking the [Start monitor] button. You can also quit monitoring by clicking the [End monitor] and [Close] buttons.

10-2. Trend graph display

You can display the trend graph by clicking the [Graph display] button.
* The trend graph contains the following 2 items:
  ・Control input (red)
  ・Control output (green)

10-3. Save measurement data

You can write control input and output values in a file by placing a check in the "Data record" checkbox in the "Monitor" dialog box.
Set file writing time and writing interval in the "Communication settings" dialog box.

10-4. Open measurement data

By selecting [Record data] from the [Tools] menu, you can browse recorded measurement data.
If there is no record data, you cannot select from the menu.

Temperature and Humidity Control Specialists

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