VA-1831 Utility Soft

Instruction Manual

Ver.1.00

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ASTRODESIGN,Inc

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Version change history

Ver.	Date	Page	Section no.	Description
1.00	2009/11/17			First version

BEFORE OPERATION

Introduction

Thank you very much for purchasing the model VA01831 HDMI protocol analyzer. The VA-1831 Utility is the software application which is used to control the VA-1831 from a personal computer.

This manual contains details on how the product is operated as well as the precautions to be heeded. Be absolutely sure to read through it before using the product since incorrect operation can give rise to trouble.

After reading this manual, please keep it in an accessible place for future use.

Safety Precautions

- **For details on such aspects as the product's installation precautions and its maintenance methods, refer to the operating instructions that were provided came with the computer and the operating instructions that came with the operating system.**
- **Astrodesign will accept no liability whatsoever for any damages which result from the use of the product.**
- **It is strictly forbidden to copy these instructions, either in part or in their entirety, without written permission.**
- **It is forbidden to copy the software application, either in part or in its entirety, except for backup purposes.**
- **The specifications of the product and the contents of these operating instructions are subject to change without notice since the policy of Astrodesign is one of continuous improvement.**

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1 CONCERNING THE VA-1831 UTILITY

1.1 Overview

The VA-1831 Utility is the software application which is designed for use with the VA-1831 protocol analyzer and which is run in the Windows operating system. It enables all the analyzer's operations to be carried out from the personal computer and for its data to be stored in files.

1.2 Features

1.2.1 Software compatible with Windows

The VA-1831 can be controlled from the personal computer by performing operations over the GUI.

1.2.2 Operating environment

Processor:	Pentium4 1 GHz or faster recommended
Memory:	256MB or more recommended
Free space on hard disk:	At least 1 GB must be provided.
Display resolution:	1024 x 768 or more recommended.

Operating systems

Windows 2000	Japanese-language version
Windows XP	Japanese-language version
Windows Vista	Japanese-language version

1.3 Installing the software

This section describes the method which is used to install the files for running the VA-1831 Utility in Windows.

*** The system must be logged in under the authority of the administrator before the installation of the VA-1831 Utility is attempted.**

The description below supports the following disk:

Windows version VA-1831 Utility installation CD … 1 disk

1.3.1 How to install the VA-1831 Utility

(1) Insert the VA-1831 Utility installation CD in the CD drive, and in Windows select [Start] → [Settings] → [Control Panel] → [Add or Remove Programs] → [Install]. The installer now starts up, and setup begins.

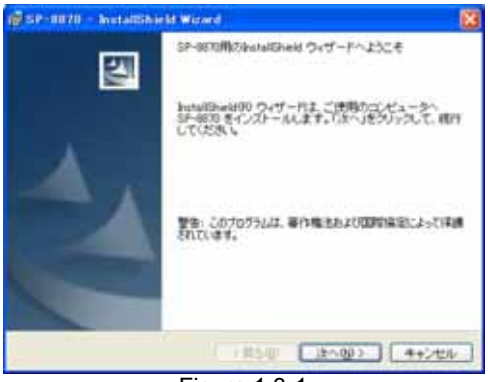


Figure 1.3-1

(2) First, the “Welcome” dialog box is displayed. At any point, you can click the [Next] button to move ahead to the next step or click the [Back] button to move back to the previous step. You can use the [Cancel] button to abort the setup.

Click the [Next] button.

(3) On the “Select installation destination” dialog box, select the directory into which the application is to be copied. As the default, the “ProgramFiles¥Astrodesign¥VA-1831” directory is created on the C: drive, and the files are copied into this directory. The copy destination directory can be changed to the directory of the user’s choice. Click the [Browse] button, and select the directory.

Figure 1.3-2

(4) Select the [Install] button. The file installation dialog box appears, and installation begins.

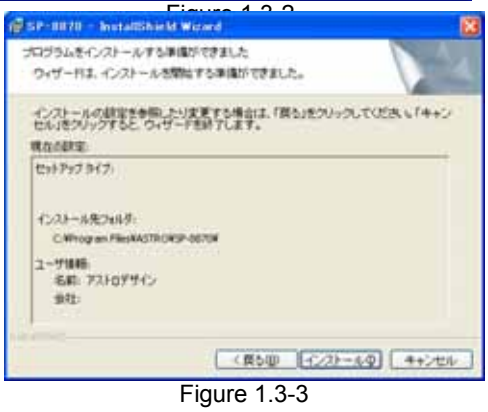


Figure 1.3-3

(5) Setup is now completed. Press the [Finish] button.

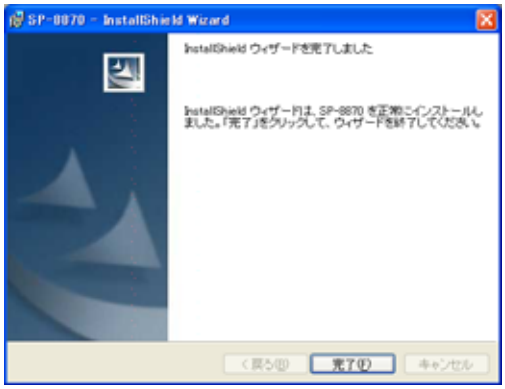


Figure 1.3-4

(6) Installation is now complete. In Windows, select [Start] → [Programs] → [VA-1831 Utility] → [VA-1831 Utility].

1.3.2 How to uninstall the software application

In Windows, select [Start] → [Settings] → [Control Panel] → [Add or Remove Programs],and then follow the on-screen instructions to uninstall the application.

*** Concerning the deletion of all the files**

Due to such factors as the operating environment of the personal computer and the Windows system statuses, not all the files may be deleted at the uninstallation stage so that some related files may be left without their being completely deleted.

Follow the steps below for complete uninstallation including the deletion of the files related to the VA-1831 Utility and registry editing.

<Complete uninstallation>

(1) Press [Start] followed by [Settings] and [Control Panel].

(2) Select [Add or Remove Programs].

(3) Uninstall the VA-1831 Utility.

(4) Delete the remaining files. Select [Start] → [Programs] → [Accessories] → [Explorer], and delete the “VA-1831 Utility” folder in the “Program Files” folder.

*** Note: The following steps concern system registry editing.**

*** Proceed with all due caution when deleting registry data by manual means If the wrong data is deleted, Windows itself may no longer start up.**

*** The user is responsible for the results of deleting registry data manually. Astrodesign will bear absolutely no responsibility, either directly or indirectly, for the results produced by registry data deletion.**

(5) Press [Start], and select [Run].

(6) Input “regedit,” and press OK.

(7) Delete the “VA-1831” key if it is under HKEY_CURRENT_USER¥SOFTWARE¥Astrodesign.

(8) Close the registry editor.

This ends the procedure.

Login under the authority of the administrator is recommended before carrying the steps above.

1.3.3 Registry registration

Register in the following registry:

HKEY_CURRENT_USER
¥Software¥Astrodesign¥ VA1831 ¥

*** Proceed with all due caution when deleting registry data by manual means. If the wrong data is deleted, Windows itself may no longer start up.**

*** The user is responsible for the results of deleting registry data manually. Astrodesign will be absolutely no responsibility, either directly or indirectly, for the results produced by registry data deletion.**

1.4 Communication specifications

1.4.1 LAN

■ **Communication conditions**

• 10BASE-T、100BASE-TX

• UDP/IP

■ **Connector**

RJ-45

1.5 Connection configuration

1.5.1 LAN

■ **When connecting the host computer and VA-1831 via a hub**

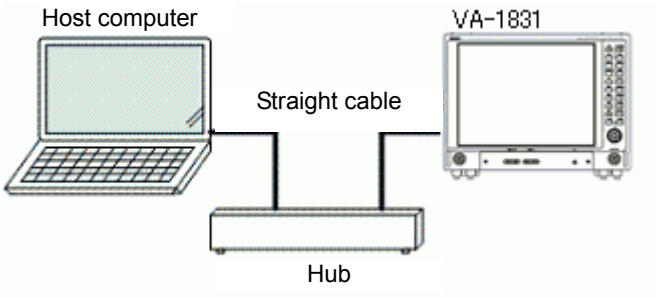
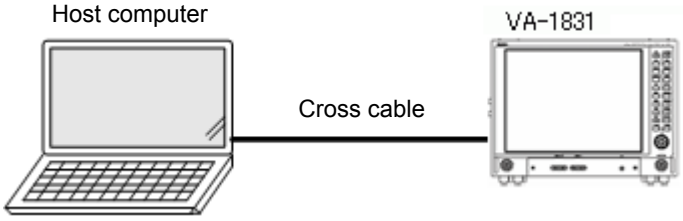


Figure 1.5-1

■ **When connecting the host** computer **and VA-1831 not via a hub but directly**

Figure 1.5-2

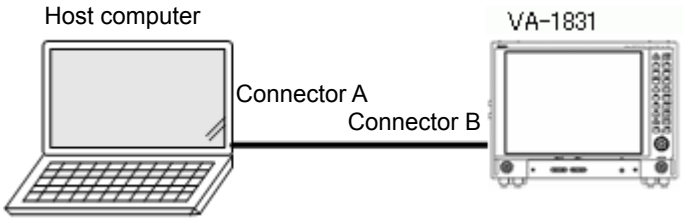


With LAN connections, use straight cables when connecting the host computer and VA-1831 through a hub. When connecting the computer and VA-1831 directly, use a crossover cable.

When connecting the computer and VA-1831 directly, the IP address will not be acquired automatically using the internet protocol of the computer so set the applicable IP address, subnet mask and default gateway.

1.5.2 USB

Figure 1.5-3



■ Installing the USB driver

(1) When connection has been made to the VA-1831 for the first time, the system will recognize the VA-1831, and the "Add Hardware Wizard" dialog box is displayed. Select the [Next] button.

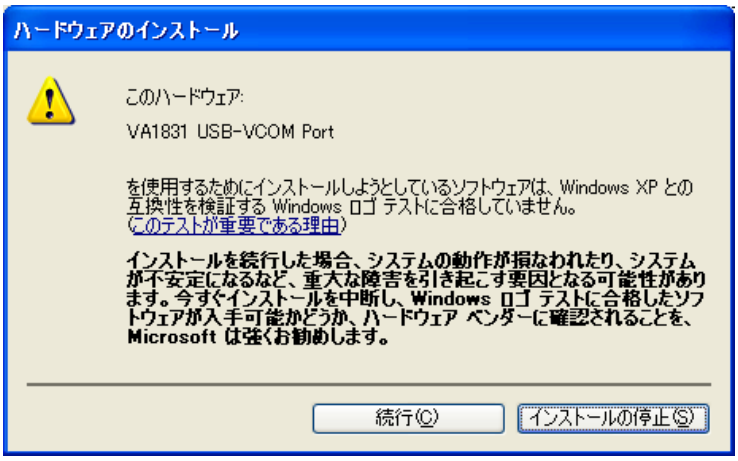
(2) Select "Search optimum driver for device used (Recommended)" as the search method, and select the [Next] button.

(3) Insert the VA-1831 Utility installation disk in the CD drive, check "CD Drive" or "Specify Location," select the driver in the "USB" – "WIN2K" – "USB" – "WIN989" folder on the CD, and select the [Next] button.

(4) When [Next] is selected after "ITFUSBDV.sys" has been detected, installation will start.

(5) Follow the on-screen instructions.

*** With a Windows XP installation, the dialog box shown below which provides a recommendation from Microsoft concerning certification appears so simply press the [Continue] button.**



2 OPERATION METHOD

2.1 Starting up the VA-1831 Utility

2.1.1 Startup method

(1) Connect the VA-1831 and personal computer using the connecting cable (LAN or USB).

(2) Select [Start] → [Programs] → [VA-1831 Utility] → [**VA-1831 Utility**].

(3) The VA-1831 Utility now starts, and the communication setting screen "**Communication**" appears. This software application allows connection only to the VA-1831.

(4) Select the settings for communication with the VA-1831, and establish communication by pressing the Apply button.

(5) Communication with the VA-1831 is now established, and when the "**Communication**" screen is closed, the VA-1831 Utility screen appears.

2.2 Descriptions of screens

2.2.1 Communication setting screen

■ **LAN**

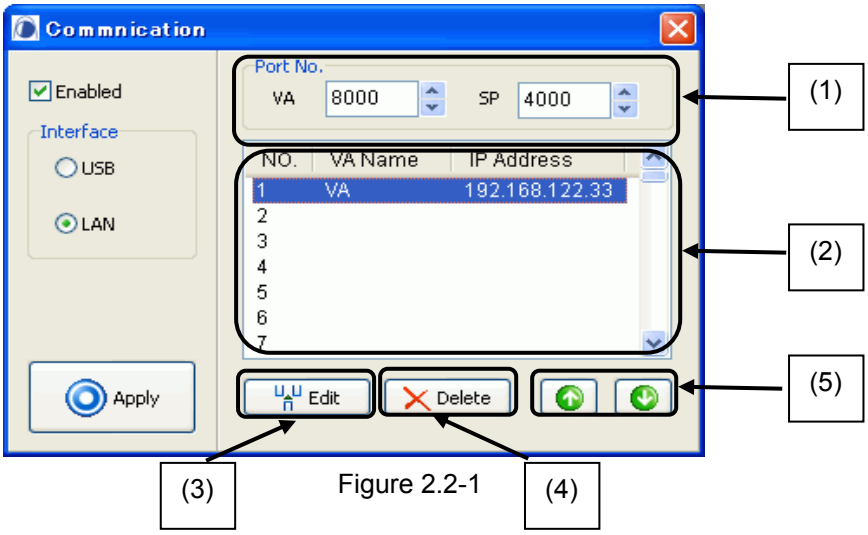


Figure 2.2-1

Table 2-1

No.	Item	Details
(1)	Enabled	“Enabled” or “Disabled” of the communication itself is selected here.
(2)	Interface	The type of communication is selected here. The setting screen now changes depending on which t ype has been selected.
(3)	Apply button	By pressing this button, the communication settings are made to take effect and actually changed. In the case of the USB type of communication, communication is tried at the same time as the Apply button is pressed.
(4)	Port No.	The port number of the VA is set here. The default setting is 8000. (*1)
		The port number of the SP is set here. The default setting is 4000. (*1)
(5)	IP Address list	The IP address settings are listed here.
(6)	Edit button	By pressing this button, the IP address setting dialog box is displayed.
(7)	Delete button	By pressing this button, the VA selected on the list is deleted.
(8)	Up/Down buttons	By pressing these buttons, the numerical sequence of the IP addresses on the list is reversed (top to bottom → bottom to top).

CAUTION

***1 As a general rule, use the default value for the port number. If this value cannot be used because of the network to be connected, change the port number, and use a different number.**

■ Configuration window

When the Edit button is pressed (or when the list is double-clicked), the following IP address setting dialog box appears.

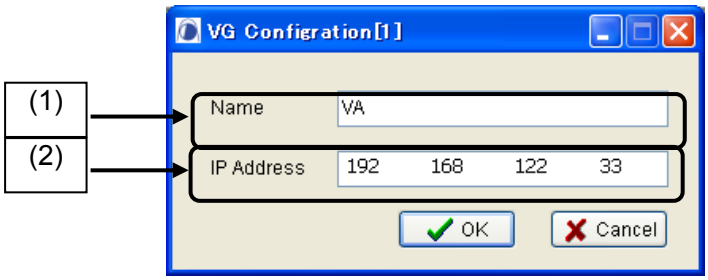


Figure 2.2-2

Table 2-2

No.	Item	Details
(1)	Name	The IP address name appears and is set here.
(2)	IP Address	The IP address appears and is set here.

CAUTION

Bear in mind that if the [Apply] button is not clicked after a setting has been changed and if the screen is then closed, the change will be ignored.

■ USB

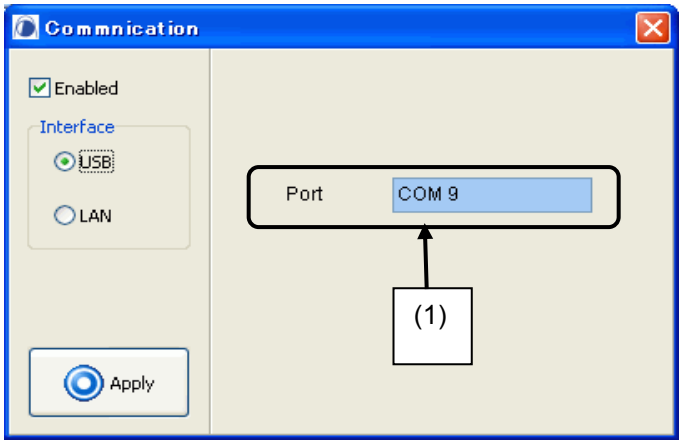


Figure 2.2-3

Table 2-3

No.	Details
(1)	The port number is selected here.*

*** Check the port setting of the personal computer. Right-click on [My Computer], select [Properties] → [Hardware] → [Device Manager], check that "VA1831 USB-VCOM Port" is the communication port on [Port (COM and LPT)], and set the port number shown.**

■ Basic operations

(1) Select the type of communication from "Interface." Depending on the type selected, the display switches to the corresponding setting screens.

(2) On the setting screens, select the communication settings.

- LAN
  Connect with the VA-1831 through LAN communication. Select the IP Address and other settings.
- USB
  Connect with the VA-1831 through USB communication.

(3) Press the [Apply] button so that the settings take effect.

(4) When [x] at the top right of the screen is pressed, the Communication screen is closed, and the VA-1831 Utility main screen appears.

2.2.2 EDIT editing screen

The EDID data of the VA-1831 can be sent, received and edited on this screen.

■ **Main screen**

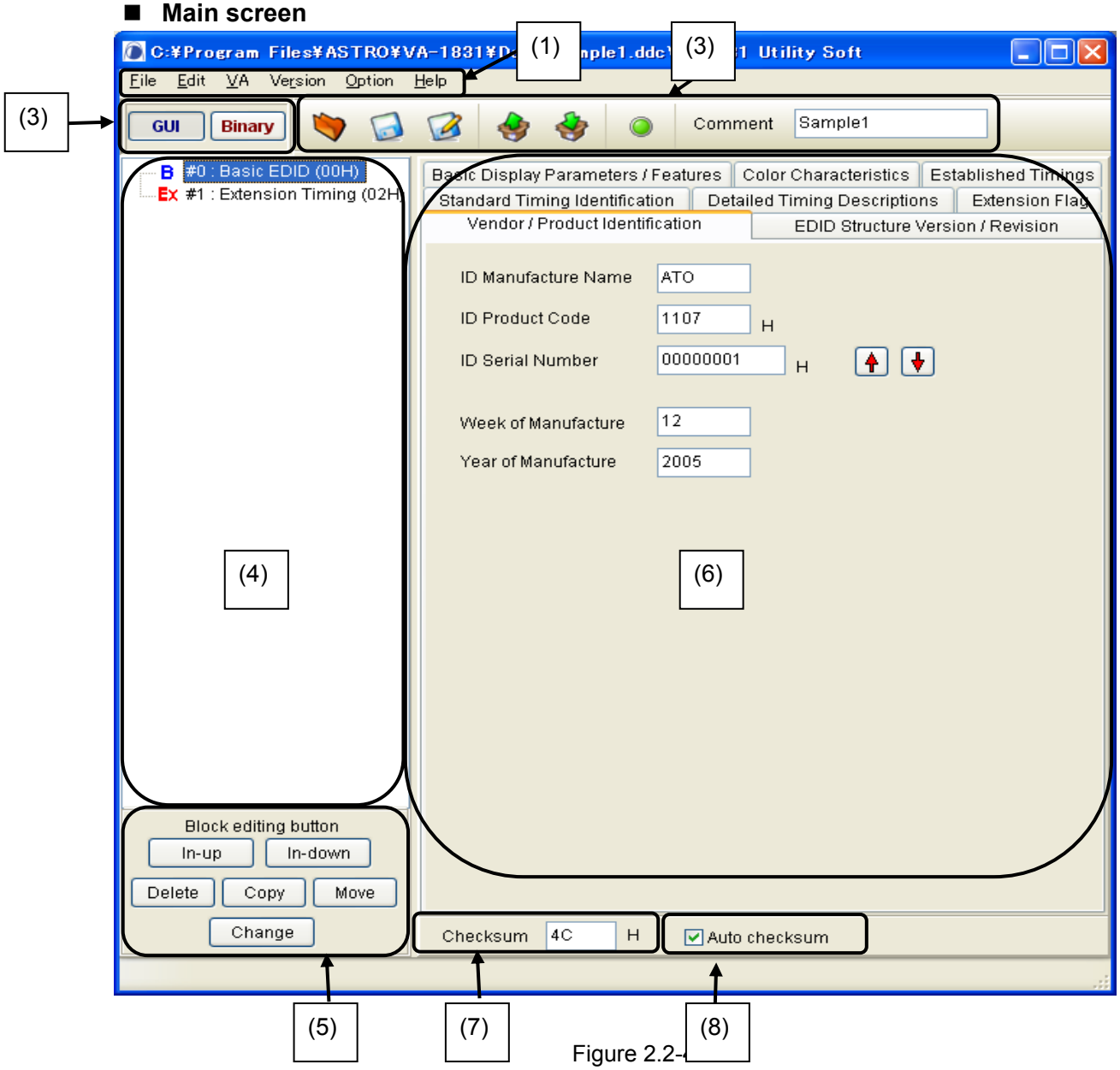


Figure 2.2-

Table 2-4

No.	Item	Details	
(1)	Menu bar	The settings and processing are selected from these menus.	
(2)	DispMode switching	The display mode is switched here between GUI and Binary. • **GUI display mode** The displays are shown in this mode with graphics on an easy-to-read screen in accordance with the block type. For block types which are not supported, the binary display appears. • **Binary display mode** 128-byte binary displays are shown in this mode.	
(3)	Tool bar	The settings and processing are selected from this bar.	
(4)	Block type list	A list of the block types is displayed, and the block number and block type (block code of first byte) for one block are displayed.	
(5)	Block editing Button	Int-up	This is used to insert a new block before an existing block.
		In-down	This is used to insert a new block before an existing block.
		Delete	This is used to delete a block.
		Copy	This is used to copy a block.
		Move	This is used to move a block.
		Change	This is used to change the block type.
(6)	Data display	The block data selected on the block type list at the left is displayed in this areas.	
(7)	Checksum	The checksum value is displayed here. The value of the last byte in the block is used as the checksum. When “Auto checksum” is checked, the checksum is automatically updated each time the data is changed.	
(8)	Auto checksum	When this is checked, the checksum is automatically updated each time the data is changed.	

(1) Menu bar

Table 2-5

Menu	Item	Description
File	New	Creates new EDIT data.
	Open	Loads the EDID data from the files.
	LoadOne-Block	Loads the data from the files in 1-block increments.
	Save	Saves the EDID data in a file by overwriting the existing data in the file in the process.
	Save As	Saves the EDID under a filename.
	Close	Closes the file.
	File history	Displays a history of the files loaded so far. The selected files can be loaded. Up to 5 files can be displayed.
	Exit VA-1831 Utility Soft	Exits the VA-1831 Utility software application.
Edit	Insert-upBlock	This is used to insert a new block before an existing block.
	Insert-downBlock	This is used to insert a new block before an existing block.
	Delete Block	This is used to delete a block.
	Copy Blcok	This is used to copy a block.
	Move Block	This is used to move a block.
	Change Block Type	This is used to change the block type.
VA	Send To VA	Sends the DDC data being edited to the VA.
	Receive From VA	Receives the EDID data from the VA.
Version	EDID1.3	Displays the BasicEDID using the EDID1.3 setting items.
	EDID1.4	Displays the BasicEDID using the EDID1.4 setting items.
Option	Binary Byte	Divides the data into 1-byte increments for display in the Binary display mode.
	Binary Short	Divides the data into 2-byte increments for display in the Binary display mode.

	Binary Long	Divides the data into 4-byte increments for display in the Binary display mode.
Help	About	Displays the Editor version.

(2) Tool bar

Table 2-6

Button, etc.	Item	Description
	Open	Loads the EDID data from the files.
	Save	Saves the EDID data in a file by overwriting the existing data in the file in the process.
	Save As	Saves the EDID under a filename.
	Send	Sends the EDID data being edited to the VA.
	Receive	Receives the EDID data from the VA.
	Convert	Converts the EDID files created by the VA-1809A Utility into VA-1831 data.
Comment	Comment	Displays the EDID data names and other comments.

■ Data transfer screen

When the EDID send/receive button is pressed, a screen such as the one shown below appears.

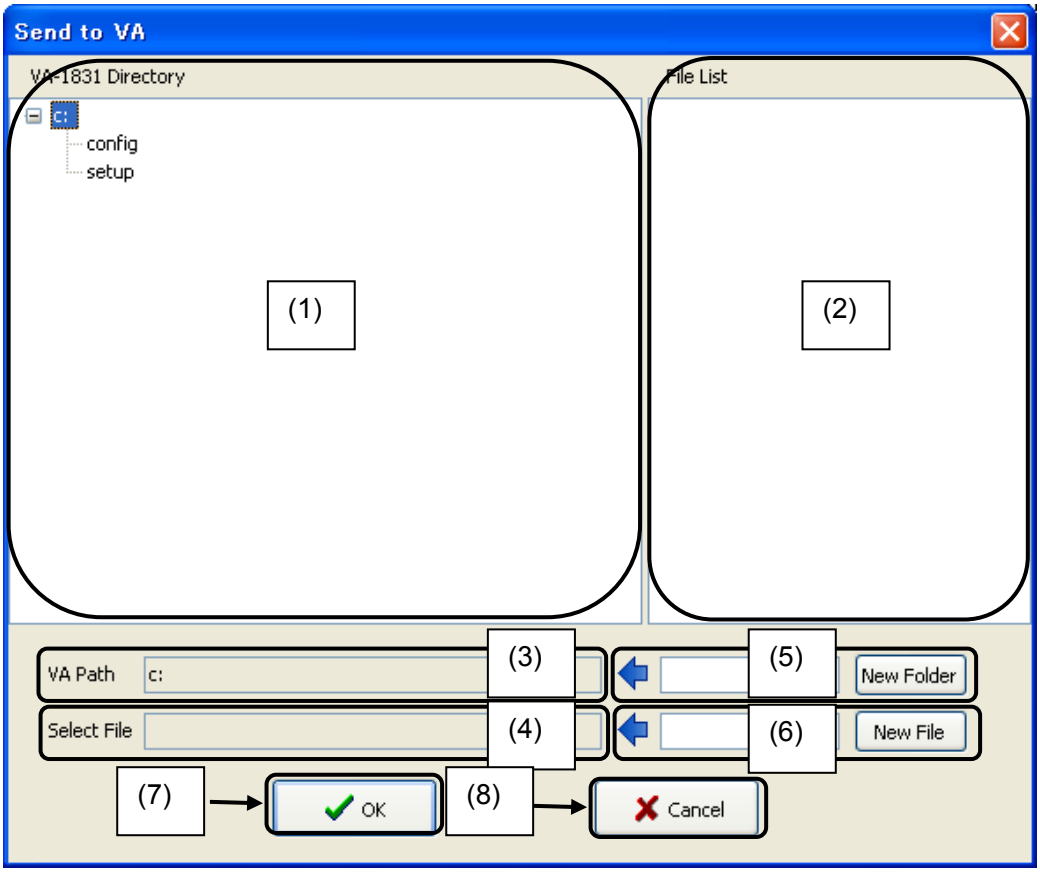


Figure 2.2-5

Table 2-7

No.	Item	Details
(1)	VA-1831 Directory	The data directory structure of the VA-1831 is displayed in this area using a tree format.
(2)	File List	The files in the selected folder are displayed in this area.
(3)	VA Path	The path from the directory on the tree display to the selected folder is displayed here.
(4)	Select File	The name of the file selected on File List is displayed here.
(5)	New Folder	This is used to create a new folder. The name of the folder input in this field is added after the path displayed in VA Path.
(6)	New File	This is used to create a new file. The file input in this field is created on the path displayed in VA Path. *** When EDID data is to be sent, the file must be selected without fail. If the file does not exist at the send destination, use this function to create a new file, and then send the data.**
(7)	OK button	By pressing this button, EDID data transfer is commenced. *** When EDID data is to be sent, the file must be selected without fail.**
(8)	Cancel button	Cancels the EDID data transfer.

■ Basic operations

(1) Creating new EDID data

1. Click [New] on the [File] menu.

   A dialog box on which to select the number of blocks to be created is displayed.

2. Select the number of blocks to be created, and press the OK button. The designated number of blocks is now created. All the default values for the data are 0.

* The number of blocks can also be changed after new data has been created.

(2) Opening files

Open one of the saved files, and load the EDID data.

1. Click [Open] on the [File] menu.
2. Select the file, and press the OK button.
3. The selected file is opened, and the EDID data is displayed.

(3) Editing the EDID data

First, decide on the block type, and then edit the data.

1. Decide on the block type. Select the block to be edited, and then click [Change Block Type] on the [Edit] menu. The dialog box on which to select the block type now appears. Select the target block type, and press the OK button.
2. When the GUI display mode is established, the display type is switched in accordance with the block type.
   When the Binary display mode is established, 128 bytes are dumped and displayed. For details of the data, refer to the reference document.

(4) Saving files

Save the displayed data in a file.

1. When [Save] on the [File] menu is selected, the data is saved in the selected file which is overwritten in the process.
2. When [Save As] on the [File] menu is selected, the file selection dialog box is displayed. Input the filename, and press the OK button. The displayed characters are saved in the new file.

(5) Sending the EDID data to the VA-1831

Write the EDID data in the VA-1831.

1. When the button is pressed, the send dialog box is displayed.
2. On the send dialog box, select where inside the VA-1831 the data is to be sent and in which config data file it is to be set.
3. Decide on the numbers of the blocks to be sent (from block #1 up to which number block).
4. Press the OK button to send the EDID data.

(6) Receiving the EDID data from the monitor

1. When the button is pressed, the receive dialog box is displayed.
2. On the receive dialog box, select where inside the VA-1831 the EDID data is to be obtained from the config data file.
3. Decide on the numbers of the blocks to be received (from block #1 up to which number block). When the OK button is pressed, reception of the EDID data is commenced.
4. The received EDID data is displayed on the screen.

■ Block operations

(1) Inserting a new block before an existing block

Click the block immediately below the position where the new block is to be inserted. Click [Insert-up Block] on the [Edit] menu.

(2) Inserting a new block after an existing block

Click the block immediately above the position where the new block is to be inserted. Click [Insert-down Block] on the [Edit] menu.

(3) Deleting blocks

Click the blocks to be deleted. Click [Delete Block] on the [Edit] menu.

(4) Copying blocks

Click the blocks to be copied. Click [Copy Block] on the [Edit] menu.

(5) Moving blocks

Click the blocks to be moved. Click [Move Block] on the [Edit] menu.

(6) Changing the block type

Click the block whose type is to be changed. Click [Change Block Type] on the [Edit] menu.

2.2.3 VA-1809A EDID Converter

■ Conversion screen

A screen such as the one below is displayed when the button is pressed. The EDID data files created by the VA-1809A Utility are converted into data files to be used with the VA-1831.

CAUTION

In the VA-1831, the EDID data is stored among the config data. What happens when the data is converted using this function is that config data files in which the EDID data created by the VA-1809A Utility is saved are generated.

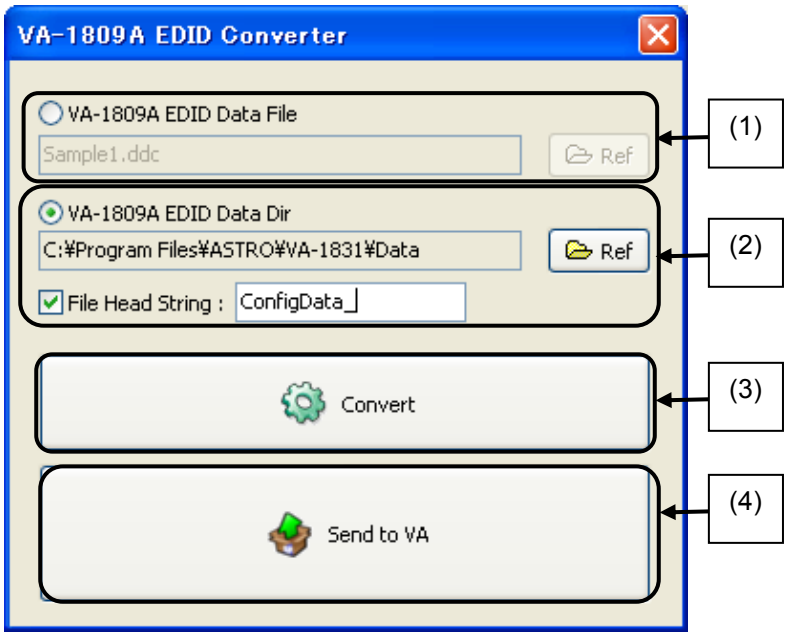


Figure 2.2-6

Table 2-8

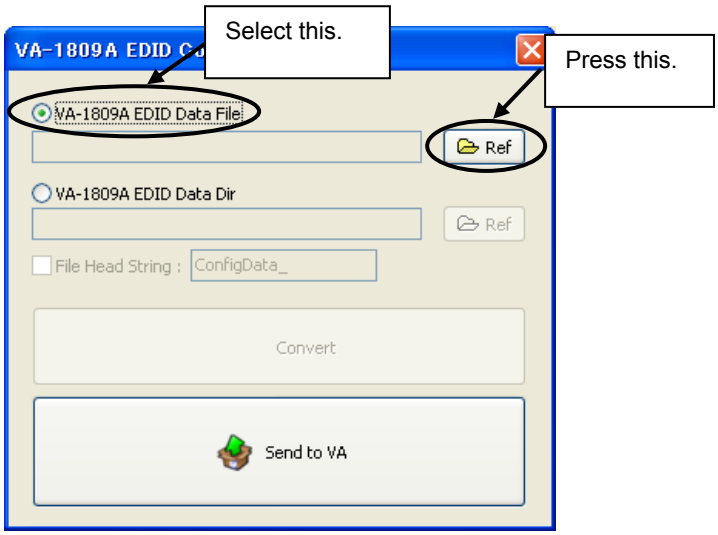
No.	Item		Details
(1)	1-file unit conversion	Selection button	This is the button used to select 1-file conversion. The file selection button and filename display area are now enabled.
		Filename display	The name of the file to be converted is displayed here.
		File selection button	This is used to display the screen on which to select the file to be converted.
(2)	Multiple-file unit conversion	Selection button	This is the button used to select multiple-file conversion. The folder selection button as well as the path display and filename conversion area are now enabled.
		Path display	The path as far as the folder containing the file to be converted is displayed here.
		Data directory selection button	This displays the screen on which to select the folder containing the file to be converted.
		Filename conversion check	Use this to select whether to change the name of the file to be converted after conversion or to keep the same name as before conversion.
		Conversion filename	Input here the new name to which the file is to be changed after conversion. If a multiple number of files are involved, a numerical value is entered after the name which has been input.
(3)	Convert button		Conversion processing is initiated by pressing this button. When a file is converted, a file with the *.cfg extension is created. This becomes the config data of the VA-1831.

(4)	Send to VA (data transfer) button	This is used to send the config data generated to the VA-1831. A multiple number of files can be sent at the same time. By pressing this button, the "■ Data transfer screen" is displayed, and the files can be sent to the desired location.

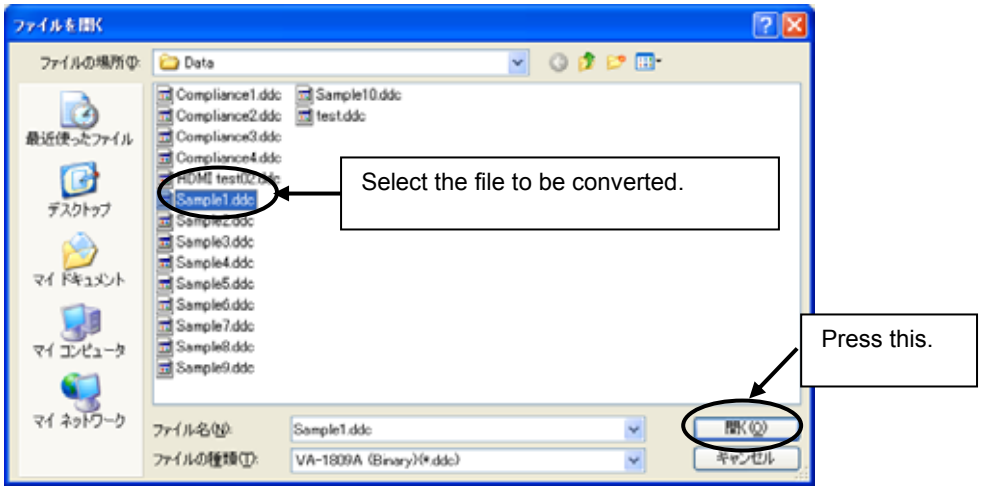
■ Basic operations

(1) 1-file unit conversion

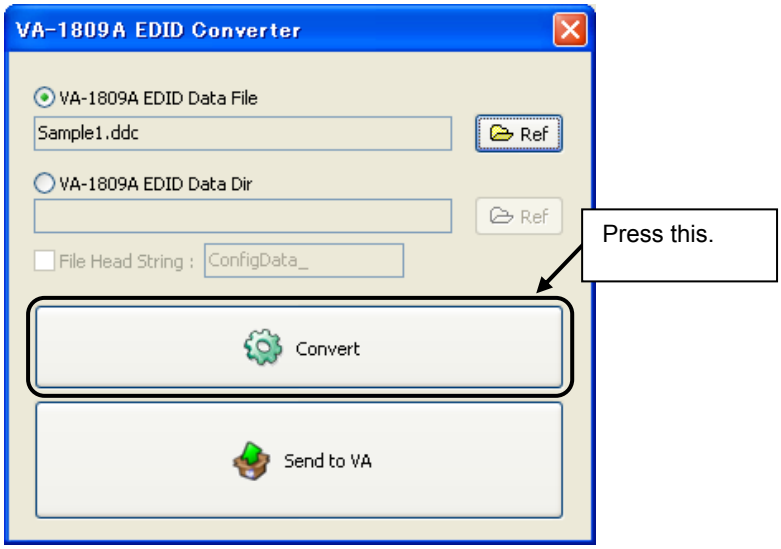
1. Select "VA-1809A EDID Data File," and press the Ref button which has become active. The file selection dialog box now appears.

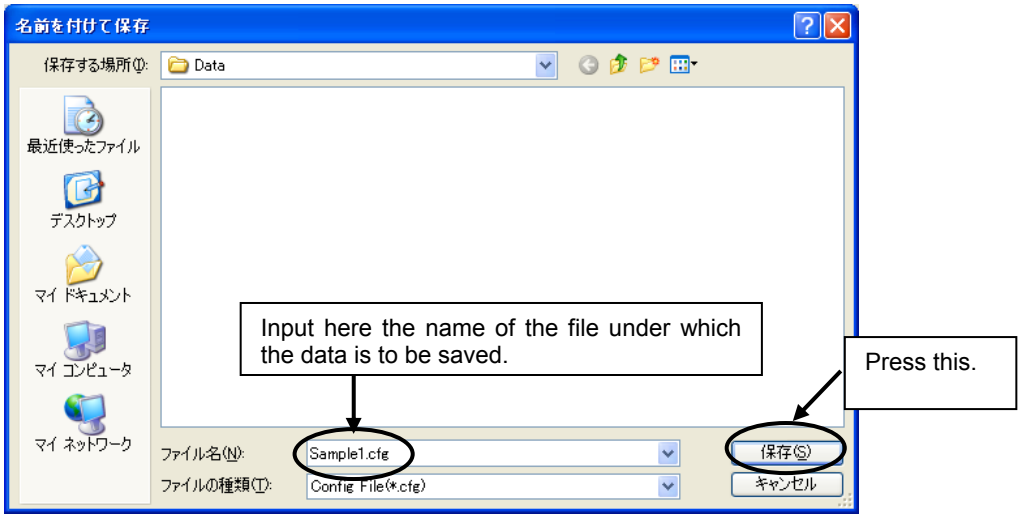


2. Select the file to be converted.



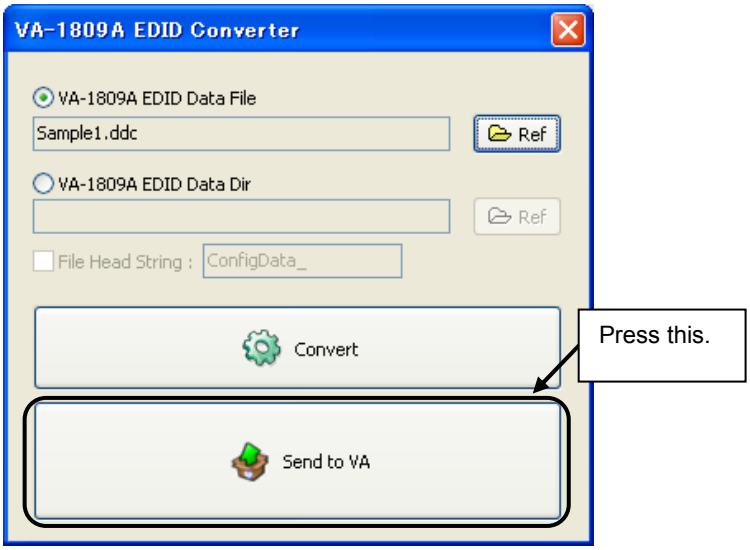
3. When the file to be converted has been selected, press the Convert button. The screen on which to provide the filename and save the file is displayed.

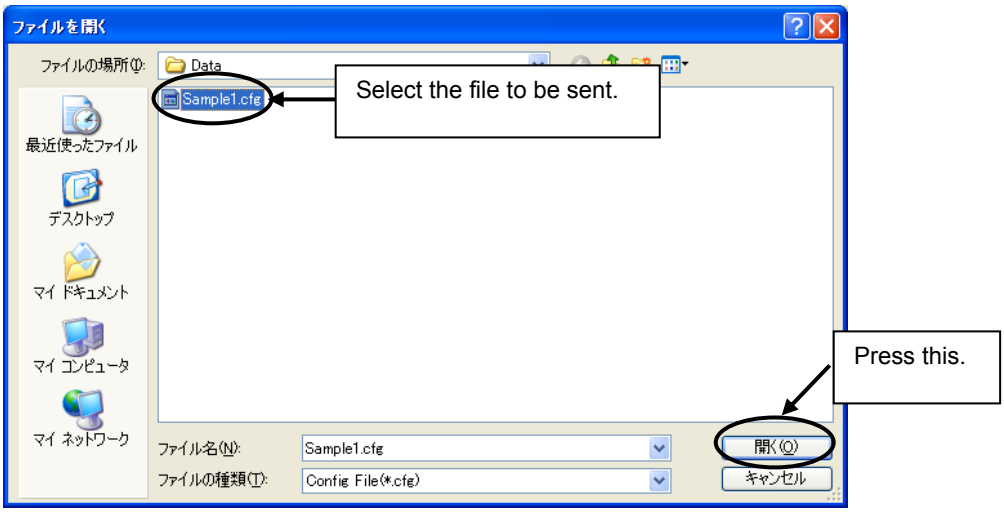




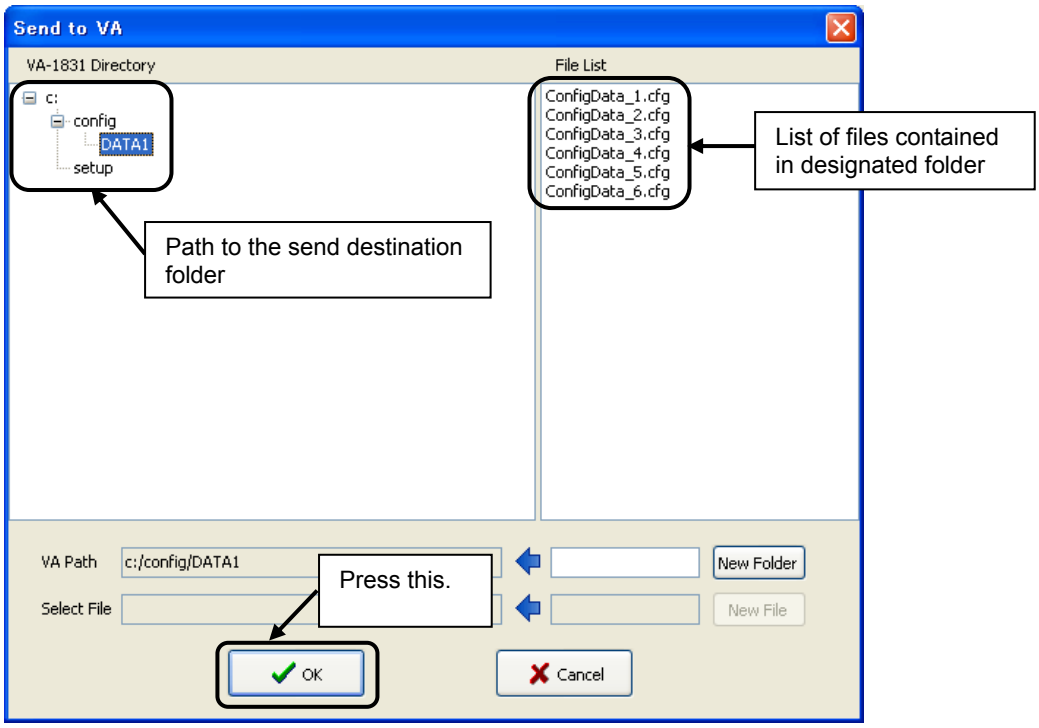
4. When the Save button is pressed, the conversion processing is commenced. Conversion is completed in an instant.

5. Press the Send to VA button. The screen on which to select the file to be sent is displayed.

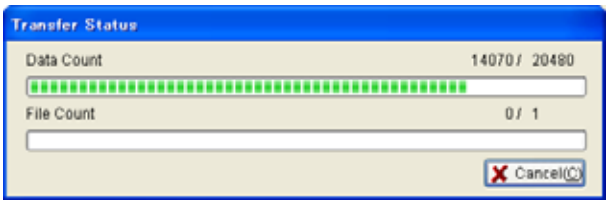




6. When the Open button is pressed, the screen on which to select the transfer destination is displayed. Select the folder to be sent, and press the OK button.



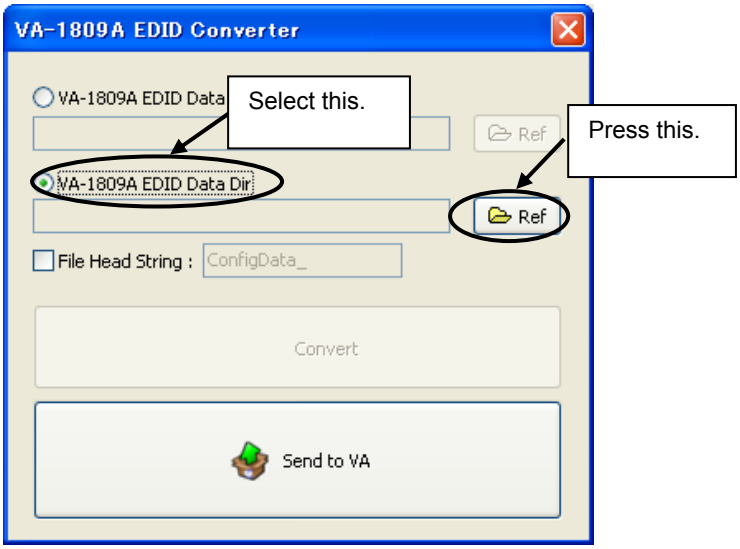
7. By pressing the OK button, the transfer processing is commenced. The transfer status screen is displayed.



8. If the transfer status screen closes successfully, it means that the transfer has been completed.

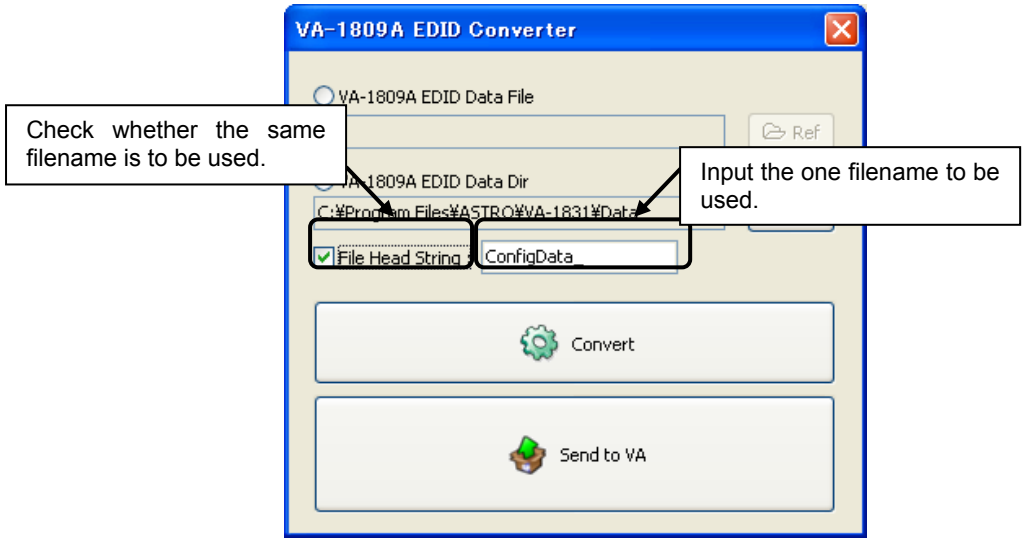
(2) Multiple-file unit conversion

1. Select “VA-1809A EDID Data Dir,” and press the Ref button which has become active. The directory selection dialog box now appears.

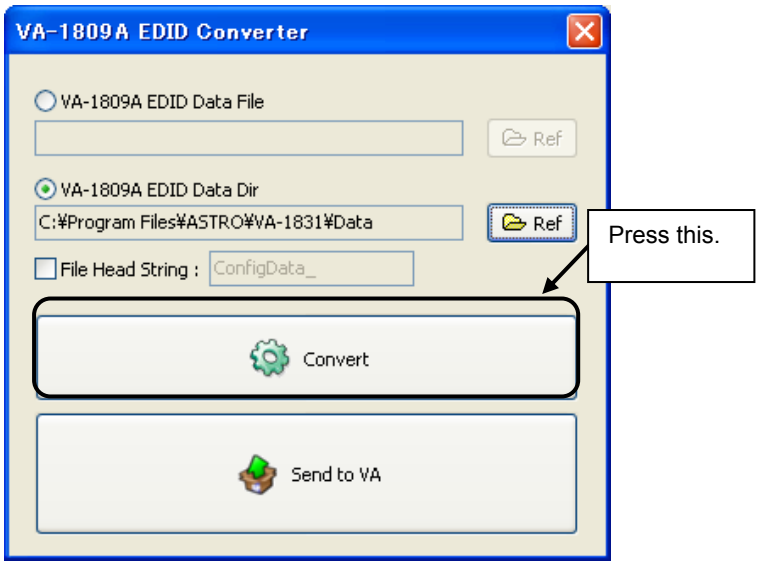


2. Select the folder containing the files to be converted.

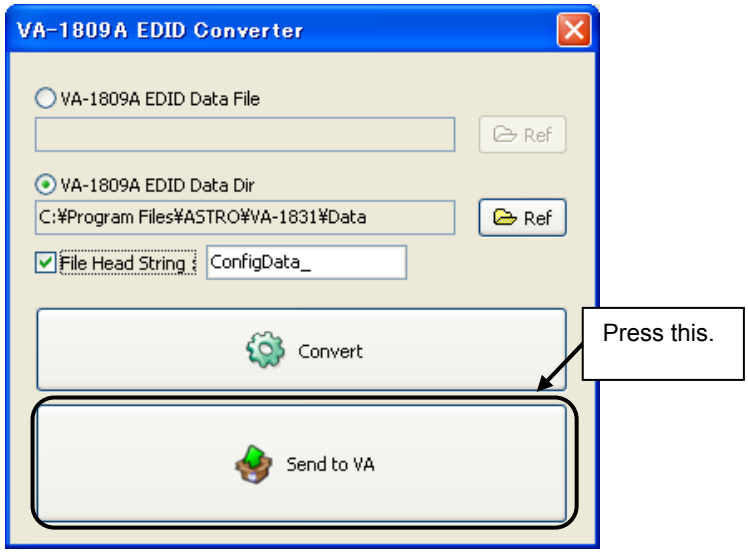
3. When the files to be converted have been selected, select whether to generate the files with the same filenames as the pre-conversion files or use the same filename consistently for all the files which will be generated. If the same filename is to be used for all of the files, numbers are assigned after the filename which has been set.



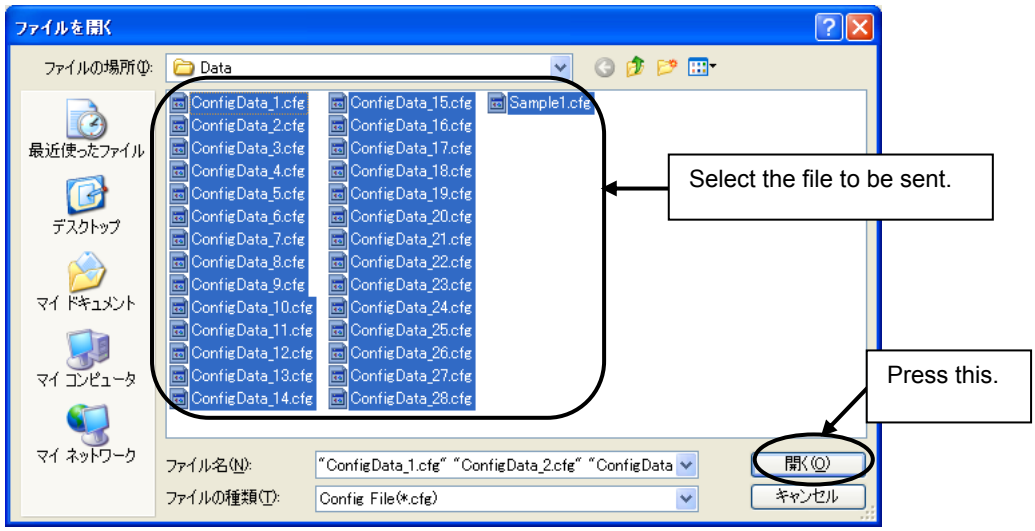
4. When the Convert button is pressed, the conversion processing is commenced. Conversion is completed in an instant.



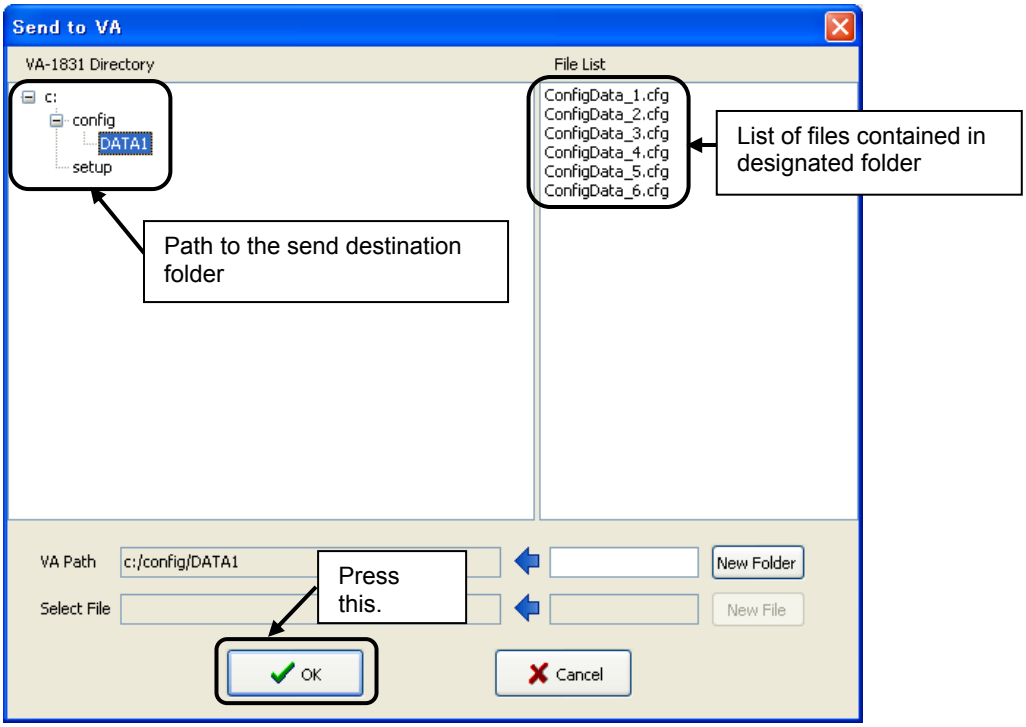
5. Press the Send to VA button. The screen on which to select the files to be sent is displayed.



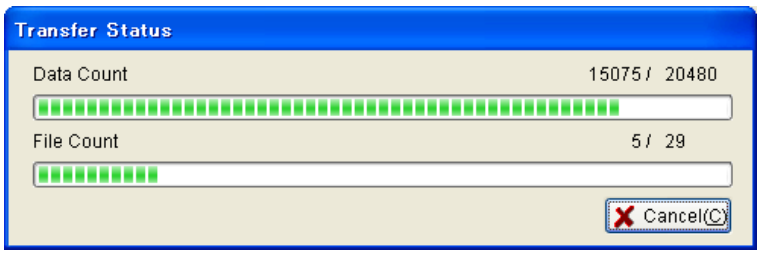
6. Select the files to be transferred. A multiple number of files can be selected. When the Open button is pressed, the screen on which to select the transfer destination is displayed.



7. Select the folder to be sent, and press the OK button.



8. By pressing the OK button, the transfer processing is commenced. The transfer status screen is displayed.



9. If the transfer status screen closes successfully, it means that the transfer has been completed.

VA-1831 Utility Instruction Manual

Notes

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