

# **PLUS**

# Captureboard C-20S/C-20W

# **User's Manual**



Thank you for your purchase of the PLUS Captureboard. Please read this User's Manual carefully before use to take full advantage of the functions of this product. After you have finished reading the manual, please keep it for future reference.

## Introduction

This manual is for both the C-20S and C-20W models.

The captureboards come in two sizes: standard size (model C-20S) and wide size (model C-20W).

The descriptions and diagrams in this manual refer to the model C-20S.

\* When functions or operations are specific to a certain model of captureboard, the model name is specified.

### Cautions on using networks

#### About the network connection environment

- The required operating environment is subject to change without notice. Also, PLUS does not guarantee all operations.
- Even if all required operating environment conditions are met, it may happen that operations do not work properly or that some problems arise. Depending on the communications status, displays may be delayed and communication errors may occur.

#### **Disclaimer**

- PLUS will accept no responsibility whatsoever for any consequences of problems of communication impediments in connected devices due to the network functions.
- PLUS will accept no responsibility whatsoever for impediments incidental to usage of or the inability to use the network functions (loss of business profits, losses due to interruption of activities, etc.).
- PLUS will accept no responsibility whatsoever for malfunctions due to combinations with connected devices or the software
  used, nor for damages arising from hang-up, etc.

#### NOTE

#### Do not use ruled type tapes.

Do not move the sheet with tape, etc., attached to it. Doing so could result in malfunction.

Do not attach template sheets or paper to the sheet.

Do not copy while film-type objects or papers are attach to the sheet. Doing so could result in malfunction.

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- (3) Great care has been taken in the creation of this manual; however, should any questionable points, errors, or omissions be apparent, please contact us.
- (4) Notwithstanding Section (3), this company will not be responsible for any claims of loss or profit or other matters deemed to be the result of using this unit.
- (5) The use of a printer as the peripheral device of the PLUS Captureboard is taken to be a prerequisite; therefore, operation will not be guaranteed when the printer is used with a direct connection to a personal computer.
- (6) Manuals with incorrect collating or missing pages will be replaced.

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#### Meaning of the Terms Used in this Manual

- Main unit (or set): This refers to the captureboard.
- USB memory: refers to USB flash memory.
- USB memory storage: means the saving of sheet surface data using MEMORY (i.e., the USB port) of the operation panel.
- · Memory for computer storage: indicates a temporary saving location of the image that has been read.
- "copy": Both "print" and "USB memory saving" mean to "copy."

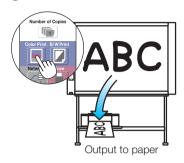
computer......E-25

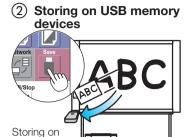
- "Sheet surface": refer to the drawing portion.
- "Scroll" or "move": indicates feeding of the sheet
- Memory for network storage: Memory used for network storage.
- Network: The communications network on which devices are interconnected in net fashion for communication (exchange of data) between the devices. For this captureboard, the "network" indicates the LAN below.
- LAN (Local Area Network): A closed communications network for communicating within a restricted area, such as within a company.
- FTP (File Transfer Protocol): The protocol (communications rules) used when transferring files on a TCP/IP network.

# Functions of the Captureboard

## **Basic Functions**

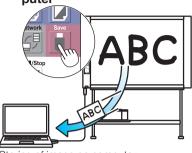
(1) Printing





USB memory device

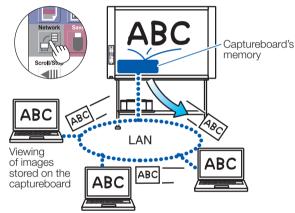
3 Capturing images on a computer



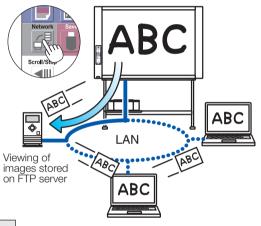
Storing of image on computer

## **Network Functions**

 Viewing images stored on the captureboard via a network

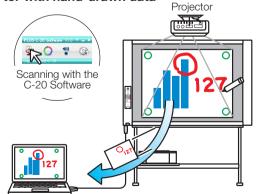


(5) Viewing images stored on an FTP server via a network



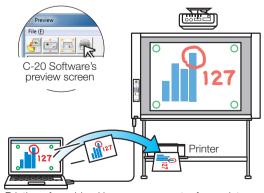
# Functions specific to the captureboard

Combining images projected from a projector with hand-drawn data



Combining of image on computer with board's hand-drawn data

Printing computer data on printer connected to board



Printing of combined image on computer from printer connected to captureboard

#### Note

• For details on operating the "PLUS C-20 Software" and on connecting the equipment, see the separate "Software Operation Manual".

# **Operation Steps**

## When used as a Copyboard

The captureboard uses an image scanner to scan characters or diagrams drawn using special markers (four colors). When the Color Print or B/W Print button is pressed, the image on the screen is printed out to the printer. When a USB memory device or computer is connected, the image on the screen is saved as image data when the Save button is pressed. (For the memory for computer storage, one sheet's worth of data is saved, overwriting previously saved data.)

Furthermore, when network settings are made, image files can be saved on the captureboard or FTP server.

#### Preparation

- Set up the newly purchased captureboard and connect a printer. See a separate manual titled "Assembly and Setup Manual."
- Plug the AC power plugs of the captureboard and printer into wall power outlets.
- After purchase, be sure to set the captureboard's clock. If not, the proper date and time will not be displayed on prints or in image files. See page E-12.

#### Draw on the Sheet Surface

Please draw with the dedicated markers that have been supplied.

If anything other than the dedicated markers or eraser are used, it may be impossible to erase the sheet or the sheet could get dirty.

To move the sheet manually, see "Moving the sheet surface manually" on page E-16.

#### **Printing**

- Set A4 or letter size paper.
   Do not set anything other than A4 or letter size paper.
- (2) Press the ON/Standby & button of the captureboard and switch on the power.
- (3) Switch on the printer power.
  For instructions on operating the printer, see the printer's operating instructions.
- (4) Press the Color Print or the B/W Print button. The captureboard will move a one-screen portion of sheet, read the image, and start the copy operation\*. See "Printing" on Page E-14.

#### Saving to USB Memory





- Insert USB memory into the Memory for (USB A port) of the captureboard.
- (3) Press the Save button.
  See "Using USB Memory" on Page E-17.

#### Saving on a computer

- (1) Press the captureboard's ON/Standby ( $^{\circ}$ ) button to turn the power on.
- (2) Connect the captureboard to the computer using the PC dedicated USB port.
- (3) Press the Save ( <sup>1</sup> ) button.
- (4) The image is saved on the computer.

#### Using a network (via LAN)

- Check that the captureboard is connected to a LAN port on the network.
- (2) Press the captureboard's ON/Standby  $\circ$  button to turn on the power.

#### When Not Using the Captureboard

- (1) By all means, cleanly erase the drawing from the sheet surface with the dedicated eraser. (Leaving the drawing for a long period will make it harder to erase.)
- (2) Press the ON/Standby  $\circ$  button of the captureboard and switch off the power (standby mode). The power cannot be switched off while the USB memory remains installed. (This is a prevention function against forgetting to unplug the USB memory.)
- (3) Switch off the printer power.

#### Note

- When turning on the power, wait about 5 seconds or more after the power plug has been connected before pressing the ON/Standby  $\circ$  button.
- The color of the images when printed in color or when saved in USB memory will differ somewhat from the marker colors.
- Blurred characters, thin lines, overlapping of markers and other factors can cause colors to differ in places and can also result in portions that cannot be scanned successfully.
- The data in the memory for computer storage is deleted when the ON/Standby  $\circ$  button is turned off (standby mode) or the connection with the computer is cut. The data in the memory for network storage is not deleted.

## When used as a Captureboard

The Captureboard uses a image sensor to read the text and drawings that have been written down with dedicated (4-color) markers, and accumulates the image data in internal memory.

The "PLUS C-20 Software" software on the included CD-ROM can be used to combine the image of the projector projected onto the sheet surface with the words or diagrams drawn on the sheet surface.

#### Write and Draw on the Sheet Surface

Please use the supplied dedicated markers for drawing. To erase something, erase it with the supplied dedicated eraser.

If anything other than the dedicated markers or eraser are used, it may be impossible to erase the sheet or the sheet could get dirty.

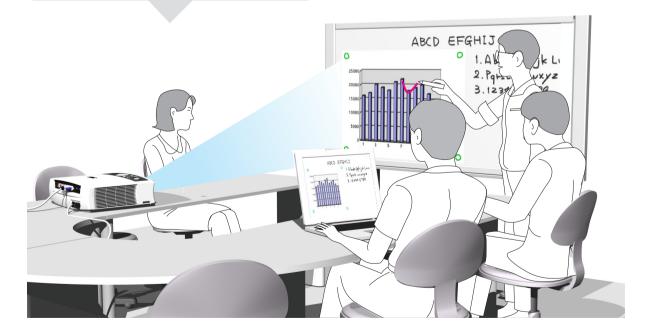


# When combining the sheet surface drawing with a projector image

- Connect the computer on which "PLUS C-20 Software" is installed to the captureboard.
- (2) Project the image of the personal computer with the projector.
- (3) Adjust the projected image for a suitable size.
- (4) Use the supplied dedicated marker to draw a circle "o" at the four corners of the projection image.
- (5) The image of the sheet screen will be read. Check that there is a combined image on the computer screen.
- (6) Save the combined image on the personal computer.

#### Note

 For details on operating PLUS C-20 Software and on connecting devices, refer to the separate "Software Operation Manual".



#### When Not Using the Captureboard

- (1) By all means, cleanly erase the drawing from the sheet surface with the dedicated eraser. (Leaving the drawing for a long period will make it harder to erase.)
- (2) When disconnecting the USB cable of the Captureboard and personal computer, first disconnect the USB at the personal computer side.
- (3) Press the ON/Standby (b) button of the Captureboard and switch off the power (standby mode).

# **Specifications**

| BOARD TYPE (Model name)  |                                       |                      | Standard (C-20S)  | Wide (C-20W)                                       |
|--------------------------|---------------------------------------|----------------------|---|--|
| Installation method      |                                       |                      | Self-standing (T-shaped legs), or wall mounting   |  |
| Form                     | External dimensions (T-shaped legs*1) |                      | W1480 × D675 × H1947*2 mm   | W1980 × D675 × H1947*2 mm                          |
|                          | Main unit                             | weight               | 20 kg*³   | 25 kg*³  |
|                          | T-shaped legs weight                  |                      | 12.5 kg   |  |
| BOARD                    | Panel Size                            |                      | H910 × W1300 mm   | H910 × W1800 mm                                    |
|                          | Effective reading size                |                      | H900 × W1280 mm   | H900 × W1780 mm                                    |
|                          | Number of Pages                       |                      | 2   |  |
|                          | Paging                                |                      | Endless in one direction (Horizontal scrolling)   |  |
|                          | Drive method                          |                      | Sheet movement  |  |
|                          | Reading method                        |                      | CIS (Contact Image Sensor)  |  |
|                          | Reading illumination light source     |                      | RGB LED   |  |
|                          | Reading resolution                    |                      | Main scanning direction (vertical sheet surface) 1.92 dots/mm (50 dpi or equivalent) Sub scanning direction (horizontal sheet surface) 1.92 dots/mm (50 dpi or equivalent)  |  |
|                          | Reading ti                            | me                   | Black & white: approx. 15 s<br>Color: approx. 15 s  | Black & white: approx. 21 s<br>Color: approx. 21 s |
|                          |                                       | File format          | JPEG, PN  | NG, PDF  |
|                          | Board                                 | Screen size          | Standard type: Standard 864 $\times$ 1248 dots, High resolution 1728 $\times$ 2496 dots Wide type: Standard 864 $\times$ 1728 dots, High resolution 1728 $\times$ 3456 dots   |  |
|                          | External<br>memory                    | Туре                 | USB Flash memory  |  |
| Interface                |                                       | Compatible FAT types | FAT 16, 32  |  |
|                          |                                       | Interface            | USB1.1 or USB2.0 *4   |  |
|                          | Network                               | LAN port             | RJ-45 (10Base-T/100Base-TX)   |  |
|                          | Printing                              | Printing resolution  | 300 dpi or equivalent   |  |
|                          |                                       | No. print colors     | 16 or grayscale   |  |
|                          |                                       | Printer interface    | Conforming to USB 2.0 standards   |  |
| Added functions          | Clock                                 |                      | Used for the timestamp and for file dating properties   |  |
| Added functions          | PC connection                         |                      | Images can be acquired and device settings made via USB (using a browser)   |  |
| Power supply             | AC power adapter                      |                      | Input : AC100–240V/50–60 Hz, Max 0.75 A<br>Output : DC 12 V, 3.0 A  |  |
|                          | Power consumption                     |                      | In standby: 3 W, During operation: 12 W (not including printer)   |  |
| Operating                | Temperature:                          |                      | 10-35°C   |  |
| conditions               | Humidity:                             |                      | 30-85% (No condensation)  |  |
| Miscellaneous            | Miscellaneous                         |                      | Dedicated markers (black, red, blue, and green)   |  |
| Operating<br>environment | os                                    |                      | Fully IBM PC/AT compatible computer equipped with standard USB port XP (Home Edition /Professional Edition, Service Pack 2 or greater)/ Vista (32-bit version)/Windows 7 (32- or 64-bit version) Or, Apple Macintosh computer with standard USB port Mac OS X 10.5 or greater |  |
|                          | Web browser                           |                      | Windows: Internet Explorer 8.0 or greater Macintosh: Safari 5 or greater * Enable JavaScript.   |  |

#### Remarks

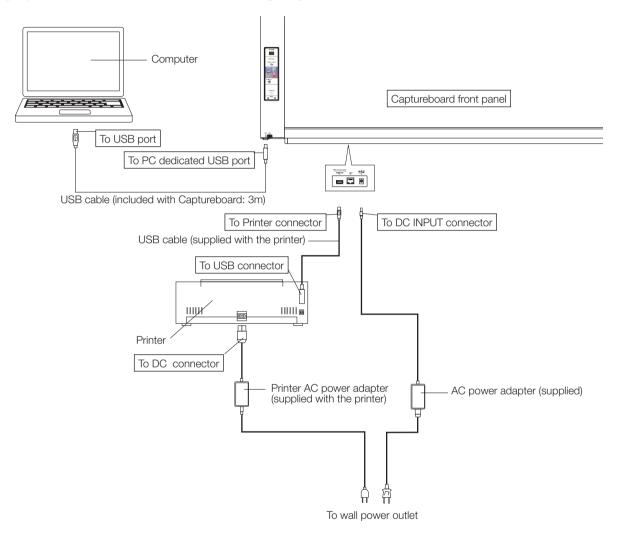
- \*1: The height is adjustable at 1747, 1847 and 1947 mm.
- \*2: The value indicated for "H" (height) is the maximum height.
- \*3: Not including the weight of the printer.
- \*4: USB memory device not included. The memory capacity corresponds to 32GB or less.
- Please note that for quality improvement purposes, specifications and design are subject to change without prior notice.

# **Appendix**

## **Connections and Wiring Diagram**

• The connections and wiring diagram below is included here for checking the connections.

#### [Captureboard and Printer Connections Diagram]



<sup>\*</sup> Appearance of printer is for illustration purposes.

#### Note

- The AC power adapters of accessories and printers that have been verified to be operation many differ from the ones shown on the connections diagram (they may be of the built-in or mounted-on type).
- When "Print from captureboard printer" in the captureboard's device settings ("CB Setup") is set to "Enable"
   When the computer and captureboard are connected, you are asked to install the printer driver.
   Use the CD-ROM included with the printer, etc., to install the printer driver on the computer.

# **PLUS Corporation**

ISO 14001 certification.

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