

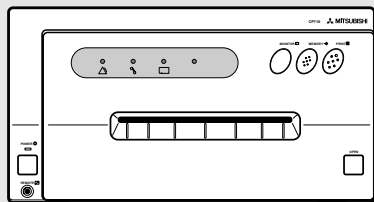


COLOUR VIDEO COPY PROCESSOR

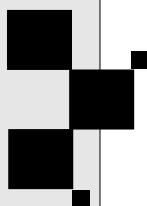
MODEL

CP710E

OPERATION MANUAL



THIS OPERATION MANUAL IS IMPORTANT
TO YOU.
PLEASE READ IT BEFORE USING YOUR
COLOUR VIDEO COPY PROCESSOR.



COLOUR VIDEO COPY PROCESSOR

This video copy processor complies with the requirements of the EC Directive 89/336/EEC, 73/23/EEC, 93/42/EEC and 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

2. Precautions

In the interest of safety, please observe the following precautions:

POWER REQUIREMENT

This Colour Video Copy Processor is designed for operation on 220V-240V, 50Hz AC. Never connect to any outlet or power supply having a different voltage or frequency.

WARNING: THIS APPARATUS MUST BE EARTHED.

AVERTISSEMENT: CET APPAREIL DOIT ETRE MIS A LA TERRE.

PROTECTIVE MEASURES

IF ABNORMAL ARISE,

Use of the unit during emission of smoke or abnormal sounds (without adopting countermeasures) is dangerous. In such a case, unplug the power cord from the source outlet immediately, and request maintenance service from the sales dealer.

NEVER INSERT ANY OBJECT INTO THE UNIT

Foreign objects of an kind inserted into this unit constitute a safety hazard and can cause extensive damage.

DO NOT PLACE ANYTHING ON THE COLOUR VIDEO COPY PROCESSOR

Heavy objects placed on the Colour Video Copy Processor can cause damage or obstruct proper ventilation.

PROTECT THE POWER CORD

Damage to the power cord may cause fire or shock hazard. When unplugging, hold by the plug only and remove carefully.

DO NOT PLACE WATER CONTAINERS ON THE UNIT

Do not place flower vases, and other water-holding containers on the device. If, for some reason, water seeps to the inside of the unit, unplug the power cord from the source outlet, and contact the sales dealer. If used without corrective measures, the unit may be damaged.

"In the interest of safety, avoid handling of liquids near the unit."

DO NOT REMOVE THE CABINET

Touching internal parts is dangerous, besides, it may lead to malfunction. Contact the sales dealer to carry out internal checks and adjustments. Before opening the cover for eliminating a jammed paper, etc., be sure to disconnect the power cord plug.

UNPLUG THE POWER CORD DURING A LONG ABSENCE

Turn off the MAIN power switch and unplug the power cord during a long absence.

WHEN TRANSPORTING THE UNIT

When transporting the unit, remove the sheet cartridge and paper from the paper cassette, and insert the protective cushion into its compartment. Make sure to screw the printing unit down.

BE CAREFUL AROUND PRINT PAPER EXIT SLOT

Don't insert your hand or any material into the paper exit slot during printing.

Don't touch the cutter blade inside the paper exit slot.

Otherwise, your finger will be injured.

DO NOT TOUCH THE THERMAL HEAD

Do not touch your hand to the thermal head (located inside the unit).

The thermal head is heated to high temperature.

This may cause injury.

USE THE LITHIUM BATTERY CORRECTLY

If the lithium battery is used incorrectly, it may cause injury or fire.

- Be sure to observe the correct polarity while installing the battery.
- Keep away from children.
- Do not disassemble or burn the battery.

2. Precautions

BE CAREFUL WITH THE PRINTING UNIT

Don't move the unit while the printing unit is sliding out. This may cause injury.
Be careful not to catch your finger in the printing unit while the printing unit is being retracted into the unit.

CONNECTION CABLES

Use the provided power cord and the composite video signal cable.

INSTALLATION LOCATIONS

MAINTAIN GOOD VENTILATION

Ventilation slots and holes are provided on the top, sides and bottom of this unit. Place the unit on a hard and level surface and locate at least 10 cm from walls to insure proper ventilation. When putting the unit on the system rack, take a space between the unit and the back of the rack.

UNSUITABLE LOCATIONS

Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.

PLACES WITH HIGH HUMIDITY AND DUST

Do not place the unit locations with high humidity and dust. They can cause extensive damage. Avoid places where unit is likely to be exposed to oily fumes and vapours.

PLACES NOT LIKELY TO BE EXTREMELY HOT

Places exposed to direct sunlight, or near heating appliances can attain extremely high temperatures, which may deform the cabinet, or can become a prime cause of damage.

PLACE THE UNIT ON A HORIZONTAL LEVEL

The unit is likely to be affected if it is placed in slanted conditions or in unstable places.

PROTECT AGAINST DEW FORMATION

In extremely cold regions, if the unit is moved quickly from an extremely cold place to warmer one, dew is likely to be formed.
If dew is formed, printing is not possible.

OPERATING AMBIENT TEMPERATURE RANGE

The operating ambient temperature range is 5°C- 40°C, and humidity of 20-80%. When using the unit on the system rack, be sure to keep this ambient temperature inside the rack.

FOR LONG OPERATING LIFE

UNSUITABLE MATERIALS FOR THE COLOUR VIDEO COPY PROCESSOR

Coat flaking and deformation are likely to occur if the unit is wiped with chemical dusters, benzene, thinner or any other solvent, if rubber or PVC items are left in contact with the unit for extended duration, or if the unit is sprayed with insecticide.

CARE OF THE CABINET

Unplug and clean with a soft cloth slightly moistened with a mild soap and water solution. Allow to dry completely before operating. Never use petroleum base solutions or abrasive cleaners.

HEAD ABRASION

The thermal head, like the video head, wears out. When it is abraded, it becomes hard to print out fine details of the picture. In such a case, it is necessary to replace the thermal head. Consult with the sales dealer for replacing the head.

CONNECTING DEVICES

Read thoroughly "Operating Precautions" of the instruction booklets for the devices connected with the Colour Video Copy Processor.
The power cord must be disconnected after printing is over.

CAUTION ON RELOCATING

When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage. Further, make sure to disconnect the power cord from the power outlet, and the cables from the connected devices.

SAFETY CHECKS

Periods: According to the recommendations of the manufacturer of medical device.

Scope: a) Visual inspection

Housing, leads, controls, displays, labels/ markings, accessories, operation manual.

b) Functionality test

Testing of functions (according to operation manual) as well as compatibility and usability of device and accessories.

c) Electrical test

Testing of electrical safety of the system according to EN60601-1.

High humidity or dust

Avoid locations with high humidity and dust in order to avoid malfunctioning of the device.

Also avoid locations subject to corrosive gasses and smoke.

Heat

Direct sunlight, heaters or other heat sources may deform the housing and subsequently cause malfunctioning.

TECHNICAL DESCRIPTION

The supplier will make available on request such circuit diagrams, component part lists, descriptions, calibration instructions or other information which will assist the USER's appropriately qualified technical personnel to repair those parts of the EQUIPMENT which are classified by the manufacturer as repairable.

The use of ACCESSORY equipment not complying with the equivalent safety requirements of this equipment may lead to a reduced level of safety of the resulting system. Consideration relating to the choice shall include:

- use of the accessory in the PATIENT VICINITY

- evidence that the safety certification of the ACCESSORY has been performed in accordance to the appropriate EN60601-1 and/or EN60601-1-1 harmonized national standard.

The transportation and storage environmental conditions are:

Temperature : -20°C - +60°C (-4°F - +140°F)

Humidity : 90%RH or less at 40°C(104°F)

Note : The above transportation environmental conditions indicate the storage environmental conditions during transport.

OTHER CAUTIONS

Dust or other foreign matter adhering to the print paper or the sheet cartridge, or deformation resulting from exposure to extremely low or high temperatures could cause loss of colour, uneven colour or lines, or wrinkles in the print images.

If there is noise or vibration in the VCR still-image or playback picture, the print image may be distorted or the upper part may be crooked.

NOTE:

YOUR UNDERSTANDING IS REQUESTED FOR THE LOSS OF IMAGES IN MEMORY DUE TO THE SUDDEN OCCURRENCE OF A MALFUNCTION.

As for paper sheet set, refer to page 5 "Installing print paper and ink sheet".

This product is to be employed with medical equipment, just for reference purpose, not for medical diagnostic purpose.

3. Preparations before operation

1 Removing the fixed screw on the printing unit and protective cushion

Pages 4-5

2 Installing the print paper and ink cassette

Pages 5-8

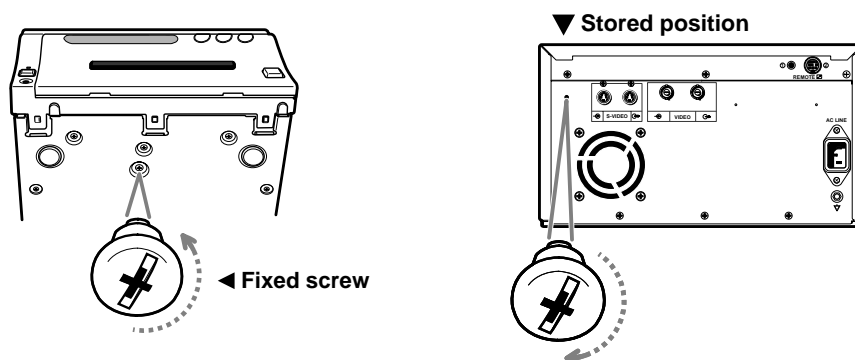
- Install the print paper.
- Install the cassette with ink sheet.

1 Removing the fixed screw on the printing unit and protective cushion

When using the unit for the first time, remove the fixed screw on the printing unit and protective cushion.

Remove the fixed screw on the printing unit.

- There is a fixed screw at the bottom of the printing unit.
- ① Remove the fixed screw with a screwdriver or coin.
- ② Set the removed screw to the hole on the rear panel to keep the screw.



Attention:

- Keep the removed fixed screw by setting it to the hole on the rear panel. This screw is required when transporting this unit.
- Make sure you set the fixed screw to the bottom of the unit when transporting the printer.

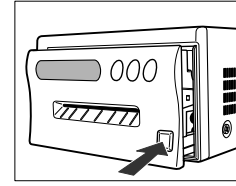
3. Preparations before operation

Remove the protective cushion.

Note: Unplug the power cord from outlet for safety.

- 1 Press the OPEN button on the front panel.

Printing unit advances to the front.



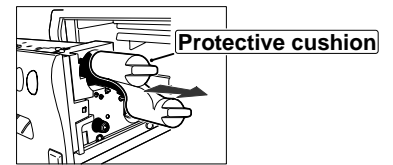
Attention ▼

- Do not touch the thermal head.
Fingerprints or dust on the thermal head will degrade the print quality.

- 2 Pull out the protective cushion from the right side.

Attention ▼

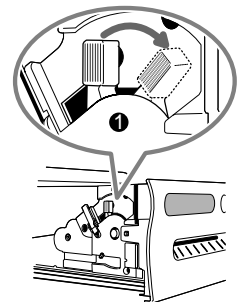
- Keep the protective cushion for transporting this unit.
- It is very important to transport this printer with the protective cushion installed so as not to damage the printing unit.



2 Installing print paper and ink sheet

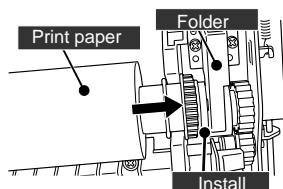
Installation procedure of print paper

- 1 Move the knob on the printing unit to the direction indicated by the arrow.

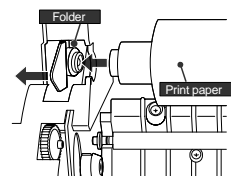


- 2 Insert the print paper in the position as shown below.
Place the gear to the right side.

Right side



Left side

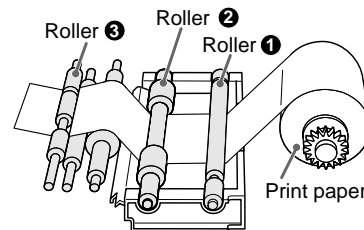
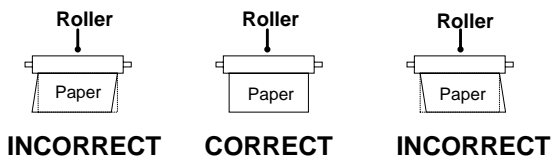


- Set the paper roll first on the right side paper holder.
- Then, set the paper roll on the left side paper holder.

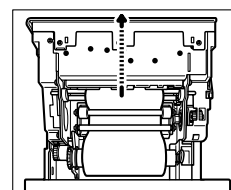
3. Preparations before operation

③ Insert the print paper between roller 1 and 2.

④ Insert the edge of the print paper to roller 3.
Be sure to insert the paper straight.

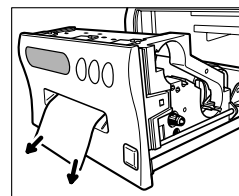


⑤ Feed the print paper through the exit slot straight with your hand.

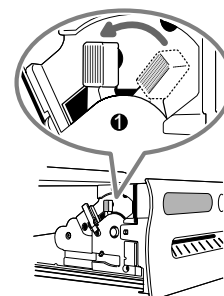


⑥ Pull the print paper to eliminate slack.

Note: If too much paper is fed, an error may occur. ("PAPER JAM12" is indicated on the monitor screen.) In this case, press the MEMORY button while holding the MONITOR button for a second.



⑦ Move the knob on the side of the printing unit to the direction as indicated by the arrow.



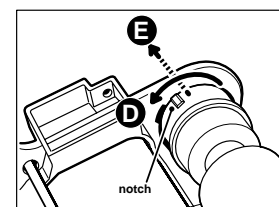
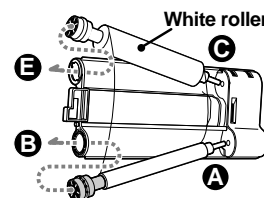
■ Installing the ink sheet

Install the ink sheet to the ink cassette before installing the sheet cassette to the unit.

- ① Set the roller of the ink sheet to ink cassette as shown right (A, B).
- ② Set the thin stick of white roller to the ink cassette as shown right (C).
- ③ Set the thick stick of white roller of the ink cassette as shown right (D, E).

In the step ③, turn the roller and set the notch of the roller side to the hole of the cassette .

The roller can be installed when notch is put through the hole.

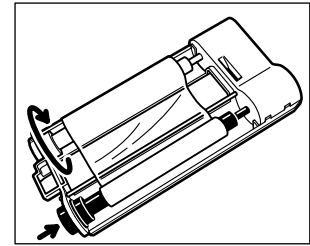


3. Preparations before operation

■ Install the ink cassette

- 1 Eliminate any slack of the ink sheet.

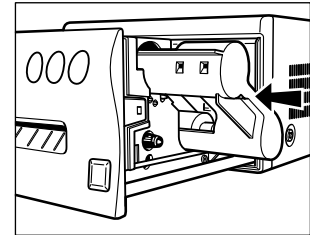
Hold the roller ① and ② and turn the white roller.



- 2 Insert the ink cassette with the ink sheet into its compartment.

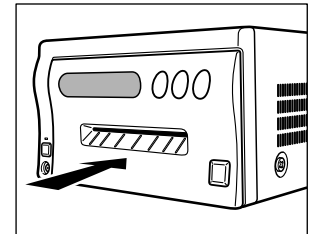
Insert the ink cassette with the knob side toward you until it is locked into place.

- When taking the ink cassette out of the compartment, press the ink cassette locking holder to release the lock. Refer to page 12.



■ Set the printing unit

- 1 Push the printing unit until it is locked into place.



- 2 After plugging the power cord, press the " POWER" button on the front panel.

- 3 Press the MEMORY button for about 1 second while holding the MONITOR button on the front panel .

- The print paper is automatically cut after sending by about 10cm.

- 4 Repeat 3 step.

(Fingerprints and dust can be removed by feeding the print paper. The printing unit is initialized.)

Attention ▼

- When setting the print paper, the set paper is a little pulled into the unit. Take care that any object is not pulled into the unit with the print paper.
- In 3 to 4 steps, press the "MONITOR" button first. If MEMORY button is pressed first, the image stored in memory may be cleared.
- Do not feed the print paper (3 to 4 steps) more than 2 times. Doing so will not allow the number of prints indicated on page 8 to be printed.
- If the print paper is pulled out too much at installing, an error may occur with the indication "PAPER JAM 12". In this case, initialize this unit again.
- The installation of the print paper and ink sheet is completed.

3. Preparations before operation

Print paper and ink sheet

Attention ▼

- Listed below is the print paper and ink sheets available for the CP710E. Make sure you use only these consumables.

Ink sheet

Product name	Ink sheet size	Number of prints	Usage
PK700S	S size	200 sheets	For 3 color use
PK700L	L size	125 sheets	For 3 color use

Print-paper

Product name	Print size	Number of prints	Usage
CK700	S/ L size	S size: 200 sheets L size: 125 sheets	For 3 color use

Print-paper/ Ink sheet

Product name	Print size	Number of prints	Usage
CK700L4P	L size	75 sheets	For 3 color use (Surface-coated paper)
CK710SPC	S size	200 sheets (S size)	For 3 color use (pre-cut sticker)

Note:

- Please observe the following precautions.

Precautions before printing

- Fingerprints or dust on the paper's printing surface may degrade print quality and cause paper jams. Immediately after the paper is replaced, 2-3 images may be printed with a blank part due to hand's dust or oil.
- When print paper is rapidly transferred from a cool place to a hot place, vapor or dew is generated on the paper's surface causing paper jams or degraded print quality. Leave the print paper in the room to stabilize its temperature before using it.
- When print paper or ink sheet runs out during printing, the printing operation stops and the error message "PAPER EMPTY" or "SHEET CARTRIDGE EMPTY" is displayed on the monitor screen. Replace the print paper and ink sheet with a new one.
- If paper feeding is repeated while installing the print paper, the indicated number of prints may not be done.

After printing

- When the printed paper is touched by a wet hand, the print may be discolored.
- If the paper absorbs nonvolatile organic solvents (alcohol, ester, ketone etc.) the print may be discolored.
- Discoloration of prints will be accelerated if the print paper comes into contact with soft vinyl chloride such as transparent tape etc.

Storage

- Store the prints in a place with low humidity free from direct sunlight.
- Leaving the print paper in contact with PVC-based materials causes color of print paper to come off and to be stained.
- Avoid direct sunlight and placing the printed paper near a heater.

Note:

- If the print paper is installed for two or more days in the unit, the prints may be rolled after printing. There is no cause for alarm because the print paper is rolled on the inside of the printing unit.

4. Connection with external equipment

The functions of this unit can be set with the menu screens displayed on the monitor.

1 Connection with Monitors

Page 9

Explains how to connect with a monitor.

2 Connection with VIDEO/S-VIDEO (Y/C separate VIDEO) signal equipment

Page 10

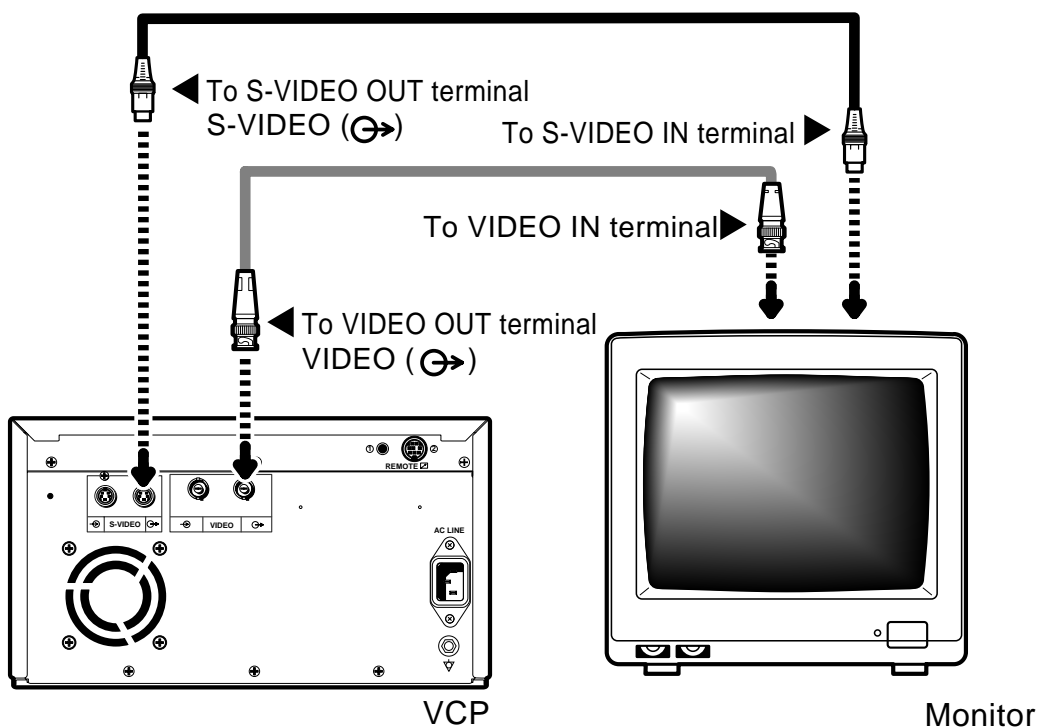
Explains how to connect with a video signal equipment.

Explains how to connect with a S-video signal equipment.

1 Connection with Monitors

Connect this unit with a monitor to check the images to be printed and the images stored in memory. The following example shows the connection with a video signal and a S-video signal equipment. Connect with the necessary signal equipment.

When connecting the unit with a monitor, make sure to set the power of each equipment to "OFF".

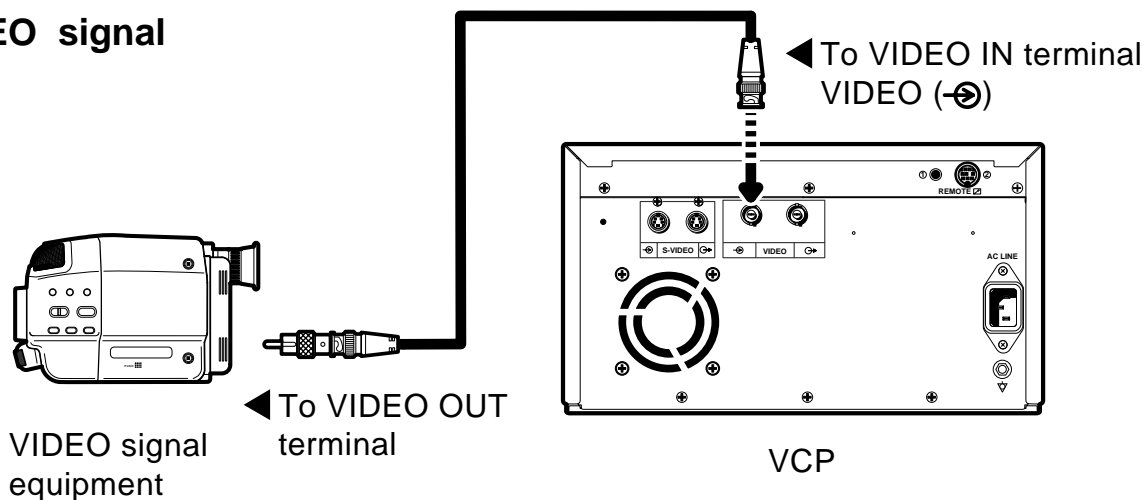


4. Connection with external equipment (VIDEO/S-VIDEO)

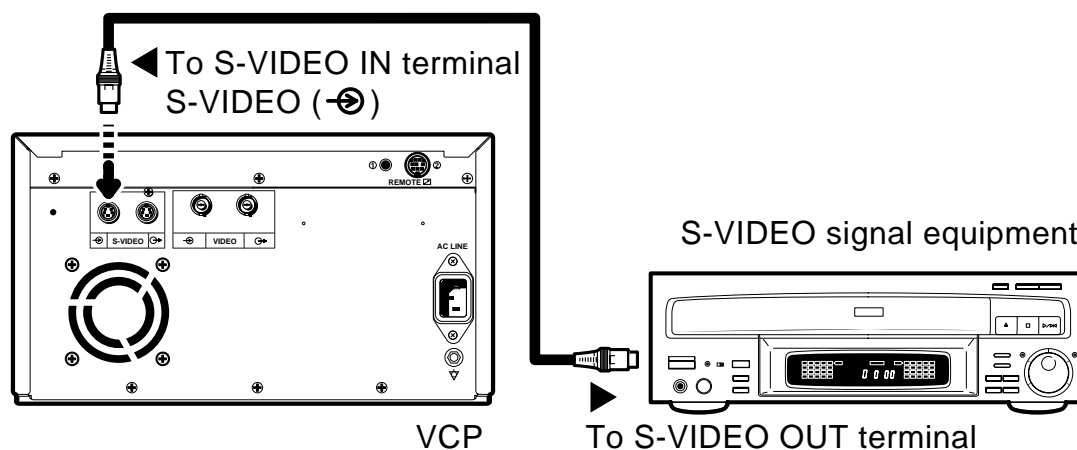
2 Connection with VIDEO signal, S-VIDEO (Y/C separate VIDEO) signal equipment

When connecting the unit with another equipment, make sure to set the power of each equipment to "OFF".

VIDEO signal



S-VIDEO signal



5. Features and functions

1 FRONT PANEL

pages 11 - 12

Explains the buttons and terminals, etc. on the front panel.

2 INSIDE OF PRINTING UNIT

page 12

Explains the installation of the ink cassette and print paper inside the unit.

3 REAR PANEL

page 13

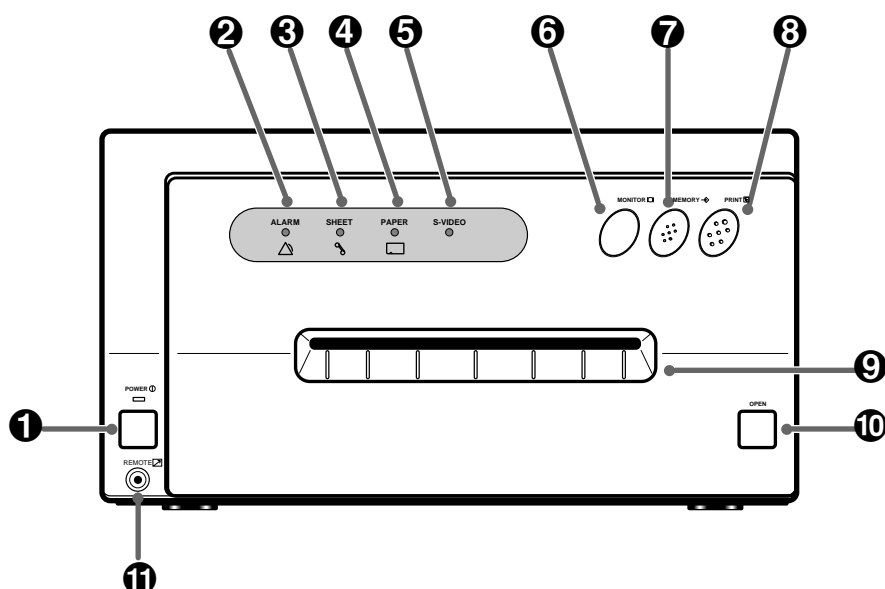
Explains input/output terminals on the rear panel.

4 REMOTE CONTROL

pages 14 - 15

Explains the functions of the buttons on the remote control.

1 FRONT PANEL



1 Power button [POWER]

Press this button to turn on and off the power. When power is turned on, the indicator lights up. Do not turn off the POWER during transferring data. This may cause damage.

2 Alarm indicator [ALARM]

When this unit is overheated, this indicator goes on and off. When other error occurs, it lights up.

3 Sheet error indicator [SHEET]

When an error concerning ink sheet occurs, this indicator lights up.

4 Paper error indicator [PAPER]

When an error concerning print paper occurs, this indicator lights up.

5 Input signal indicator [S-VIDEO]

While S-Video signal is selected, this lamp lights up.

5. Features and functions

6 Monitor button [MONITOR]

Switches the display on the monitor. When this button is pressed, the picture on the monitor screen switches between the picture of the input signal (source image) and the memorized image.

7 MEMORY button [MEMORY]

This enables memorization of the image to be printed.

8 PRINT button [PRINT]

Press this button to print the images memorized by the MEMORY button. A green lamp will light during printing. The screen switches to the picture of the input signal.

9 Print outlet

The printed paper come out here.

10 OPEN button [OPEN]

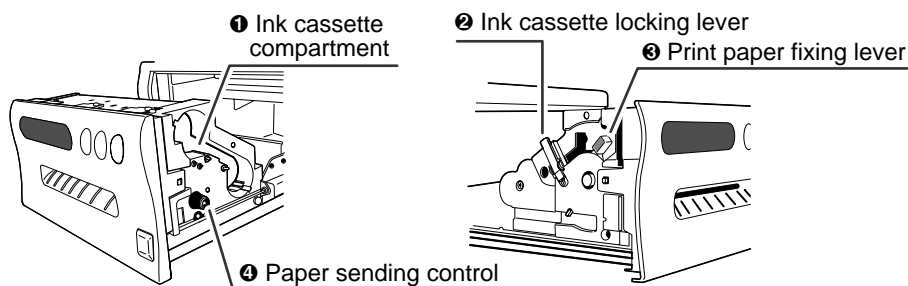
When this button is pressed, the printing unit advances to the front. The printing unit is used when loading ink cassette and printing paper or overcoming paper jams.

11 Remote terminal [REMOTE]

Connect the remote control of the printer in this terminal.

The remote control cannot work when connecting to the remote terminals on the rear panel.

2 INSIDE OF PRINTING UNIT



1 Ink cassette compartment

Load the cassette with ink sheet.

2 Ink cassette locking lever

Push this lever to take the ink cassette out.

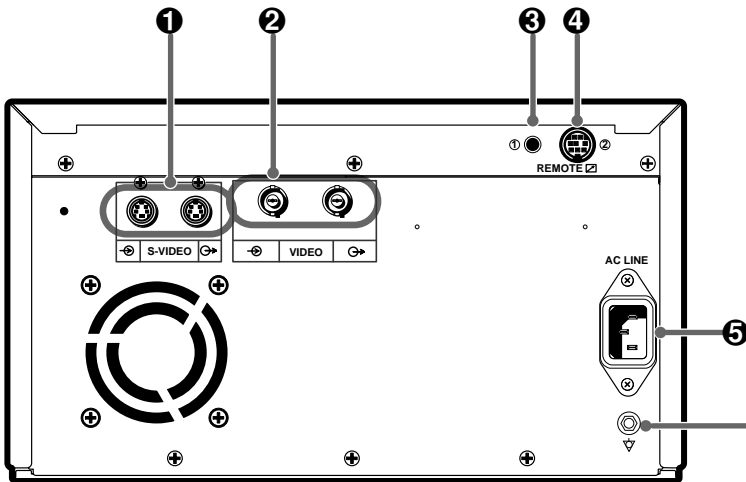
3 Print paper fixing lever

Use this lever when inserting print paper.

4 Paper sending control

Turn this control clockwise to rewind the print paper.

3 REAR PANEL



Potential equalization connector

This is used to equalize the potential of the equipment connected to the unit.
For details, refer to the installation instruction of the equipment to be connected.

❶ S-VIDEO SIGNAL INPUT/OUTPUT TERMINALS [S-VIDEO]

Use these terminals to connect this unit to S-VIDEO signal equipment.
Refer to page 10 for connection.

❷ VIDEO SIGNAL INPUT/OUTPUT TERMINALS [VIDEO]

Use these terminals to connect this unit to VIDEO signal equipment.
Refer to page 10 for connection.

❸ EXTERNAL REMOTE TERMINAL [REMOTE 1]

Memorizing images are available by the remote signal inputted through this terminal. When "MEM&PRINT" in the MEMORY SW menu is set to ON, memorizing and printing images is available. It is necessary to make a circuit for remote control to use the function.
Refer to page 64.

❹ EXTERNAL REMOTE TERMINAL [REMOTE 2]

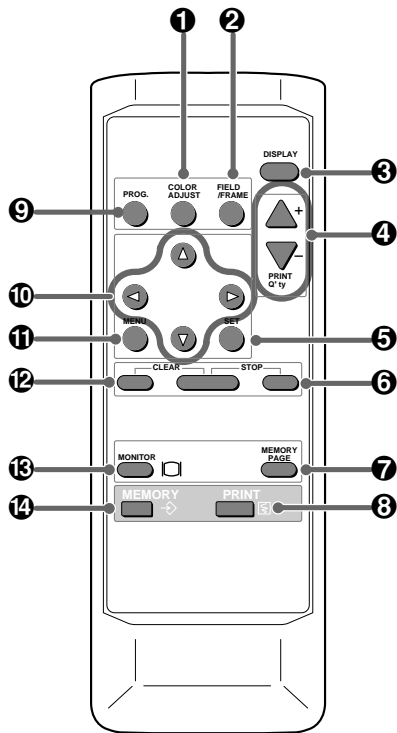
Memorizing images and printing are available by the remote signal inputted through this terminal. It is necessary to make a circuit for remote control to use the function.
Refer to pages 65-66.



❺ POWER SOCKET [AC LINE]

This socket connects to the power cord (accessory).
Insert the cord firmly.

5. Features and functions

4 REMOTE CONTROL



- 1 COLOR IMAGE ADJUSTMENT button [COLOR ADJUST]**
When this button is pressed, a screen for adjusting the video image is displayed. Use this button to set the various functions of this unit. (The menus displayed on the monitor is used to set the various settings. Refer to Pages 26-27.)
- 2 FIELD/FRAME button [FIELD / FRAME]**
Press this button to switch the input signal between the FRAME or FIELD mode.
Every time this button is pressed, the mode is switched in the order of "FIELD", "FRAME" and "FIELD".
- 3 DISPLAY button [DISPLAY]**
When this button is pressed, the set conditions are displayed on the monitor screen. Press it again so that the display is not shown.
- 4 PRINT QUANTITY button [PRINT Q'ty]**
This button is used to set the number of prints. Press  button to increase the number and  button to decrease.
- 5 SET button [SET]**
Use this button to set the various functions of this unit. For example, use it to fix the setting and return to the normal display from the menu screen. (The menus displayed on the monitor is used to set the various settings. Refer to pages 26-27.)
- 6 STOP button [STOP]**
Press this button and the button to the left side of STOP button at the same time to cancel the printing process. The image is printed out in the state when the printing was cancelled.
- 7 MEMORY PAGE button [MEMORY PAGE]**
This button is used to select the image memorized by the MEMORY button. Every time this button is pressed, the memory page is switched.

5. Features and functions

⑧ PRINT button [PRINT]

Press this button to print the image memorized by the MEMORY button.

⑨ PROGRAM button [PROG.]

Press this button to select the images memorized in the program of this unit and various settings such as printing.

Each time this button is pressed, the program is switched. This unit has 3 kind of programs and they can be changed and stored voluntarily.

Programs cannot be changed during printing.

⑩ SHIFT buttons

These buttons are used to change settings, such as selecting a function and moving to the next menu. (The menus displayed on the monitor is used to set the various settings. Refer to pages 26-27.)

⑪ MENU button [MENU]

Press this button to display the main menu.

This button is used to set the various settings. (The menus displayed on the monitor is used to set the various settings. Refer to pages 26-27.)

⑫ CLEAR button [CLEAR]

Press this button and the right side button at the same time to eliminate all or a part of memorized images.

⑬ MONITOR button [MONITOR]

When this button is pressed, the picture on the monitor screen switches between the picture of the input signal and the memorized image.

⑭ MEMORY button [MEMORY]

This enables memorization of the image to be printed.

6. Printing procedures (Basic prints)

One picture image can be printed on one sheet.



▲ S size printing



▲ L size printing

1 Printing

Pages 17 - 23

Explains storing an image in the memory and printing

2 Continuous printing

Page 24

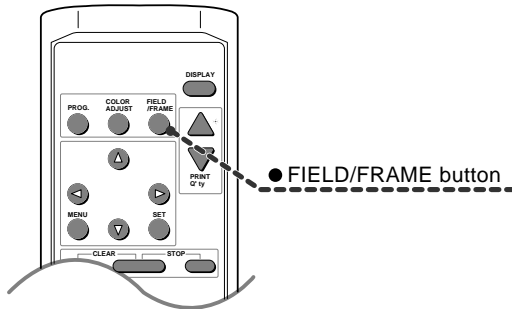
Explains the continuous printing of the same image.

6. Printing procedures (Basic prints)

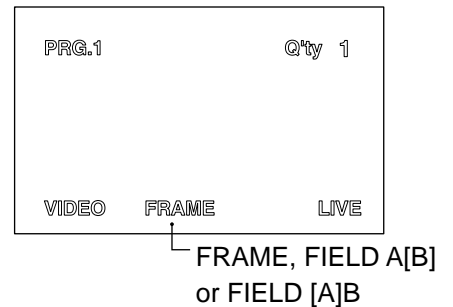
1 Printing

Selecting FIELD or FRAME

1 Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.



- Select the FRAME mode for a high resolution still image printing. Select the FIELD mode for a picture of quickly moving objects.
- When the FIELD mode is selected, the print image will be lower in resolution. The selected mode is displayed on the monitor screen of this unit.



FIELD/FRAME

FIELD image



+

FIELD image



=

FRAME image




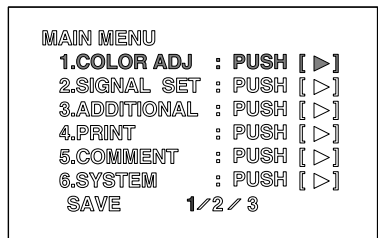
- A video picture is normally composed of two slightly lower resolution images ("FIELD" images) to form a single image ("FRAME" image).



6. Printing procedures (Basic prints)

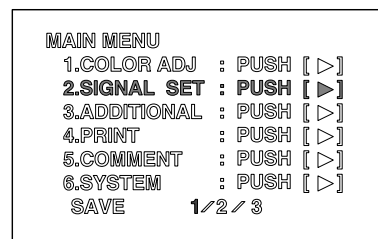
■ Selecting input signal




- Select " VIDEO " or " S-VIDEO " according to the input signal.
- The input signal can be set on the menu screen displayed on the monitor.
- It is not necessary to select the input signal every time you print unless the input signal is changed.

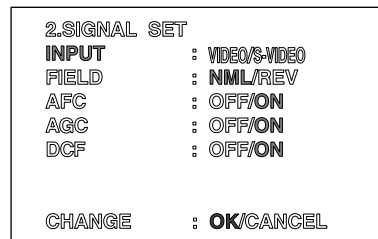
- ① Press the MENU button .
- " MAIN MENU " is displayed.





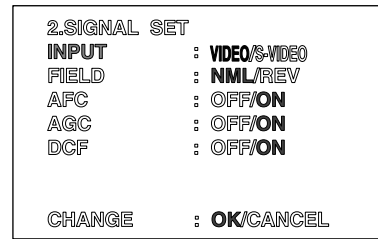
- ② Press the DOWN  or UP  shift button to select " 2. SIGNAL SET [>] ".



- ③ Press the RIGHT  shift button.
- " 2. SIGNAL SET " menu screen is displayed.
 - Normally, "INPUT " is selected when opening the "2. SIGNAL SET [>] " on step ②. When other item is selected, press the UP  or DOWN  shift button to select "INPUT ".





- ④ Press the RIGHT  or LEFT  shift button to select "VIDEO" or "S-VIDEO" .



6. Printing procedures (Basic prints)

5 Press the SET  button.

- " CHANGE : OK " is selected.
- When changing the input signal selected at step 4, press the RIGHT  shift button to select " CANCEL ". Press the SET  button to select "INPUT" in " 2.SIGNAL SET " again.


```
2.SIGNAL SET
INPUT      : VIDEO/S-VIDEO
FIELD     : NML/REV
AFC       : OFF/ON
AGC       : OFF/ON
DCF       : OFF/ON

CHANGE    : OK/CANCEL
```

6 Press the SET  button.



- The MAIN MENU is displayed.

```
MAIN MENU
1.COLOR ADJ : PUSH [ > ]
2.SIGNAL SET : PUSH [ >> ]
3.ADDITIONAL : PUSH [ > ]
4.PRINT     : PUSH [ > ]
5.COMMENT  : PUSH [ > ]
6.SYSTEM   : PUSH [ > ]
SAVE       1/2/3
```

7 Press the SET  button.

- " SAVE 1/2/3 " is selected.
- This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

```
MAIN MENU
1.COLOR ADJ : PUSH [ > ]
2.SIGNAL SET : PUSH [ > ]
3.ADDITIONAL : PUSH [ > ]
4.PRINT     : PUSH [ > ]
5.COMMENT  : PUSH [ > ]
6.SYSTEM   : PUSH [ > ]
SAVE       1/2/3
```

8 Press the RIGHT  or LEFT  shift button to select the program number 1, 2 or 3 to store the setting.

- The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.

9 Press the SET  button.

- The source image (image from the input signal) is displayed.
- The selection of input signal is completed.

6. Printing procedures (Basic prints)

Setting print size (S/L)

- Set the print size to "S" or "L" according to the ink sheet installed.
- The print size can be set on the menu screen displayed on the monitor.
- It is not necessary to set the size every time you print unless the size of the ink sheet is changed.

① Press the MENU button.

- "MAIN MENU" is displayed.

```



MAIN MENU
1.COLOR ADJ : PUSH [▷]
2.SIGNAL SET : PUSH [▶]
3.ADDITIONAL : PUSH [▷]
4.PRINT     : PUSH [▷]
5.COMMENT   : PUSH [▷]
6.SYSTEM    : PUSH [▷]
SAVE        1/2/3
    
```

② Press the UP  or DOWN  shift button to select "4. PRINT PUSH [▶]".

```

MAIN MENU
1.COLOR ADJ : PUSH [▷]
2.SIGNAL SET : PUSH [▷]
3.ADDITIONAL : PUSH [▷]
4.PRINT     : PUSH [▶]
5.COMMENT   : PUSH [▷]
6.SYSTEM    : PUSH [▷]
SAVE        1/2/3
    
```

③ Press the RIGHT  shift button.

- "Print Menu" is displayed.
- When the power is turned on, "MODE:S/L" is already selected in "4. PRINT PUSH [▶]" at step ②. If other item is selected, press the UP  or DOWN  shift button to select "MODE:S/L".

```

4.PRINT
MODE      : S/L
GRAD      : NML/DEEP
APT       : S/N/H1/H2
COMMENT   : OFF/ON

MIRROR    : OFF/ON

CHANGE    : OK/CANCEL
    
```

④ Press the RIGHT  or LEFT  shift button to select "S" or "L" in the "MODE".

```


4.PRINT
MODE      : S/L
GRAD      : NML/DEEP
APT       : S/N/H1/H2
COMMENT   : OFF/ON


MIRROR    : OFF/ON

CHANGE    : OK/CANCEL
    
```

6. Printing procedures (Basic prints)

5 Press the SET  button.

- " CHANGE : OK " is selected.
- When changing the size setting selected at step 4 , press the RIGHT  shift

button to select " CANCEL " . Press the SET  button to select "MODE : S/L" in " 4.PRINT " again.

4.PRINT	
MODE	: S/L
GRAD	: NML/DEEP
APT	: S/N/H1/H2
COMMENT	: OFF/ON
MIRROR	: OFF/ON
CHANGE	: OK/CANCEL

6 Press the SET  button.



- The MAIN MENU is displayed.

MAIN MENU	
1.COLOR ADJ	: PUSH [>]
2.SIGNAL SET	: PUSH [>]
3.ADDITIONAL	: PUSH [>]
4.PRINT	: PUSH [>]
5.COMMENT	: PUSH [>]
6.SYSTEM	: PUSH [>]
SAVE	1/2/3


7 Press the SET  button.

- " SAVE 1/2/3 " is selected.
- This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

MAIN MENU	
1.COLOR ADJ	: PUSH [>]
2.SIGNAL SET	: PUSH [>]
3.ADDITIONAL	: PUSH [>]
4.PRINT	: PUSH [>]
5.COMMENT	: PUSH [>]
6.SYSTEM	: PUSH [>]
SAVE	1/2/3

8 Press the RIGHT  or LEFT  shift button to select the program number 1, 2 or 3 to store the setting.

- The setting will be overlaid. When keeping the stored program, do not select the program number in which the setting is stored.

9 Press the SET  button.

- The source image (image from the input signal) is displayed.
- The selection of input signal is completed.

6. Printing procedures (Basic prints)

MEMORY PAGE

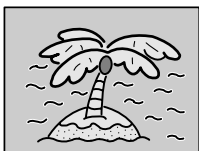
The following image memorization function is available.

When storing one image in the memory:

- When FRAME is selected, one image can be memorized in FRAME mode.



- When FIELD is selected, each one image can be memorized in FIELD A and FIELD B.

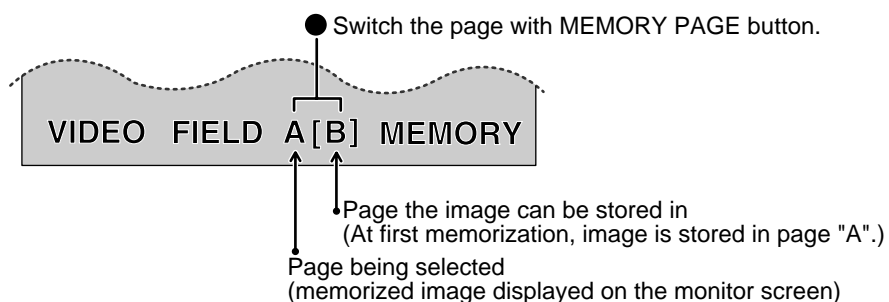


One image in FIELD A



One image in FIELD B

- "FIELD A[B]" or "FIELD [A]B" is displayed on the lower part of the monitor screen.
- Each time the MEMORY PAGE button on the remote control is pressed, the mode can be switched between FIELD A and B.
- The character without [] mark shows the page under selected.
- When pressing the MONITOR button to display MEMORY on the monitor screen, the memorized image being selected is shown on the monitor screen.
- When selecting FIELD, an image is stored in "A" first. After that, image is stored in the memory page with [] mark.



6. Printing procedures (Basic prints)

Image memorizing with PAGE INC (Page Increment) function

PAGE INC (Page Increment) : When the "automatic memory page turning" function is valid, the image memorizing is done as follows:

- After selecting FIELD, the image is stored in "A" first. After that, each time the MEMORY button is pressed, the images will be memorized in the order of B, A, B.... (in the page with [] mark)
- In case of memorizing an image on a memory page, select the previous page by pressing the MEMORY PAGE button. Then, press the MEMORY button to memorize the image.
Example : Select page B to memorize an image in page A.
- When PAGE INC is set to OFF, an image will be stored in the page without [] mark. When memorizing image in another page, press the MEMORY PAGE button to switch the page.

The various functions of this unit are set on the menu screens. Refer to pages 28 - 29 for setting this function. Refer to page 37, "6.SYSTEM" on system setting menu.

Note

- ▶ An image may not be printed correctly when a VCR plays back in special effects playback mode (such as speed search) during printing. The special effects playback should not be made during printing.
To memorize and print the images of special playback mode, memorize the desired image first. Then, stop the special playback and start printing. Do not play back image in special playback mode after starting printing.

Storing images in memory / Printing the images

- 1 Display the image to be printed on the screen.
- 2 Press the MEMORY button.
 - When selecting FIELD, select the memory page by pressing the MEMORY PAGE button.
The image is stored in memory page with [] mark. (when PAGE INC is set to ON.)
- 3 Display the memorized image on the monitor.
 - When displaying "MEMORY" on the monitor by pressing the MONITOR button, the image of the memory page being selected is displayed on the monitor.
 - When selecting FIELD, press the MEMORY PAGE button to select the image stored in FIELD A or B.
The image in the memory page without [] mark will be displayed on the monitor.
- 4 Press the "PRINT" button.
 - The memorized image is printed.
 - The memory page under printing is indicated on the monitor screen.





6. Printing procedures (Basic prints)

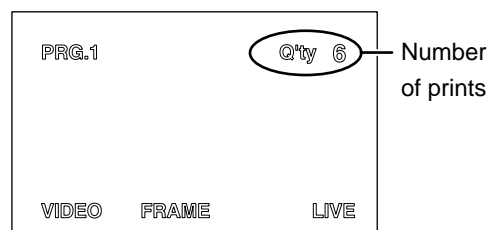
2 Continuous printing

The desired number of memorized images can be printed continuously when the desired number is set before printing. The number of prints can be changed during printing. The continuous printing also can be cancelled by setting the number of prints to 1 during printing.

■ Setting the number of prints

Press the PRINT Q'TY buttons , , to set the number of prints.



- Press  button to increase and  button to decrease the number.
- The number of prints will be switched in the order of
1↔2 ↔ ...↔9 ↔ 10 ↔20 ↔30↔40↔50↔100 ↔200 ↔ C ↔1
When "C" is selected, this unit continues printing until the print paper or ink sheet is used up.
- The set number of prints is displayed on the monitor screen.
- During continuous printing, whenever one sheet is printed, the set number is counted down.* The number is displayed on the monitor screen.
- After the continuous printing is completed, the set value returns to "1".



* When "C" is selected, the number is not counted down.





■ Cancelling continuous printing

- When cancelling continuous printing:
 - Ⓐ Cancelling after printing of an image is completed.

Press the PRINT Q'ty buttons , , to set the number of prints to 1.

 - After the image being printed is printed out correctly, the continuous printing is cancelled.
 - Ⓑ Cancelling before printing of an image is completed
Press the STOP button on the remote control.
 - The continuous printing is cancelled not completing the print, and the sheet comes out.

■ Changing the number of prints during printing

- When changing the number of prints during printing:
 - ① Press the PRINT Q'ty buttons , , to set the number of prints to 1.
 - ② After the image being printed is printed out, press the PRINT Q'ty ,  buttons, to change the number of prints.

Note :

- If blackish image is continuously printed, the internal temperature may rise and cause the unit to switch to a standby condition during printing.
An error message "OVER HEAT" is displayed on monitor screen.
In this case, wait until the error message goes off.
Continuous printing resumes when the temperature drops and error message goes off.

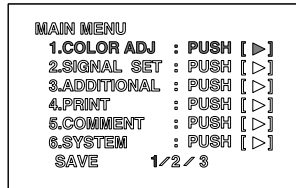
7. Setting the functions

Setting each function on the menu display.

There are 2 functions menus.

- ❶ " MAIN MENU " → Sub menu
- ❷ " MEMORY SW MENU " → Sub menu

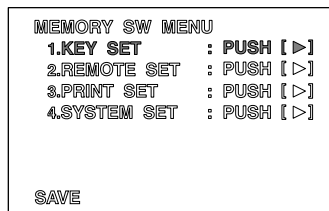
- ❶ MAIN MENU is used to open the sub menu. Setting the following with the sub menu.
When selecting "SAVE", the setting can be stored.



Monitor display

- 1.COLOR ADJ Adjust color of printing image
- 2.SIGNAL SET Selecting the input signal, reverse of odd and even field lines, automatic frequency control, automatic gain control, separating composite video signal, etc.
- 3.ADDITIONAL Setting the number of images in a print, strobe print, photo print, separate print
- 4. PRINT Selecting paper size, comment printing method, Adjusting image outline, Adjusting print image density, mirror print (left/ right inverted)
- 5.COMMENT Making a comment
- 6.SYSTEM Setting print area and printing size, turn the memory page, buzzer sound
- SAVE Storing the above setting in 3 kinds of memories.

- ❷ Memory SW MENU is used to open the sub menu.



Monitor display

- 1. KEY SET The function of button is invalid, setting the function of memory button and clear button
- 2. REMOTE SET ... Setting the BUSY signal level and definition of the external terminal (1, 2)
- 3. PRINT SET Print direction, printing speed, cutting position, vertical position, "extra" size print
- 4. SYSTEM SET Initializing user setting, Inform the number of remaining paper
- SAVE Storing the above setting in 3 kinds of memories.

7. Setting the functions

Operation

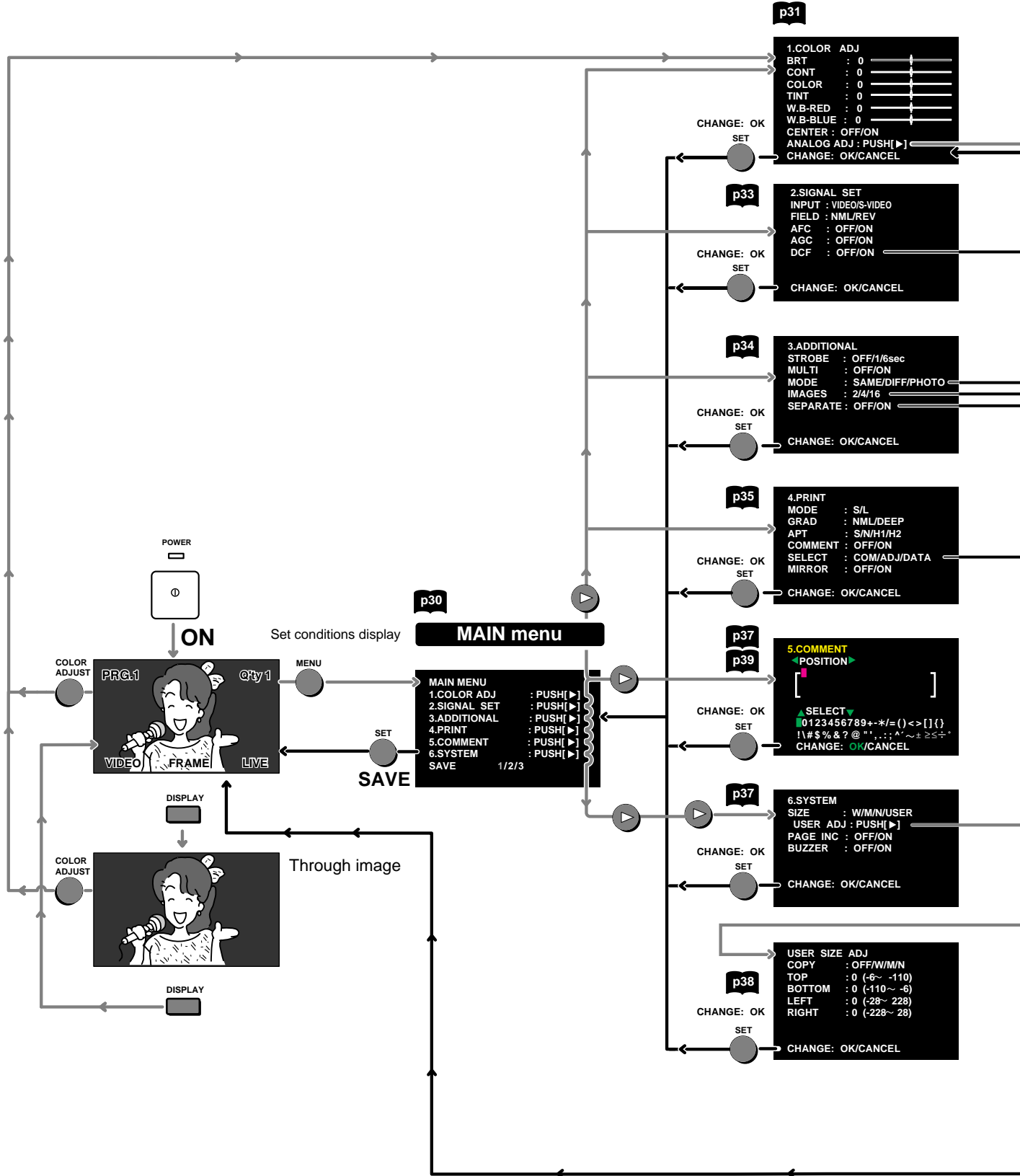
```

3.ADDITIONAL
STOROB : OFF/1/15 sec
MULTI  : OFF/ON
MODE   : SAME/DIFF/PHOTO
IMAGES : 2/4/16
SEPARATE : OFF/ON
CHANGE : OK/CANCEL
    
```

Monitor display

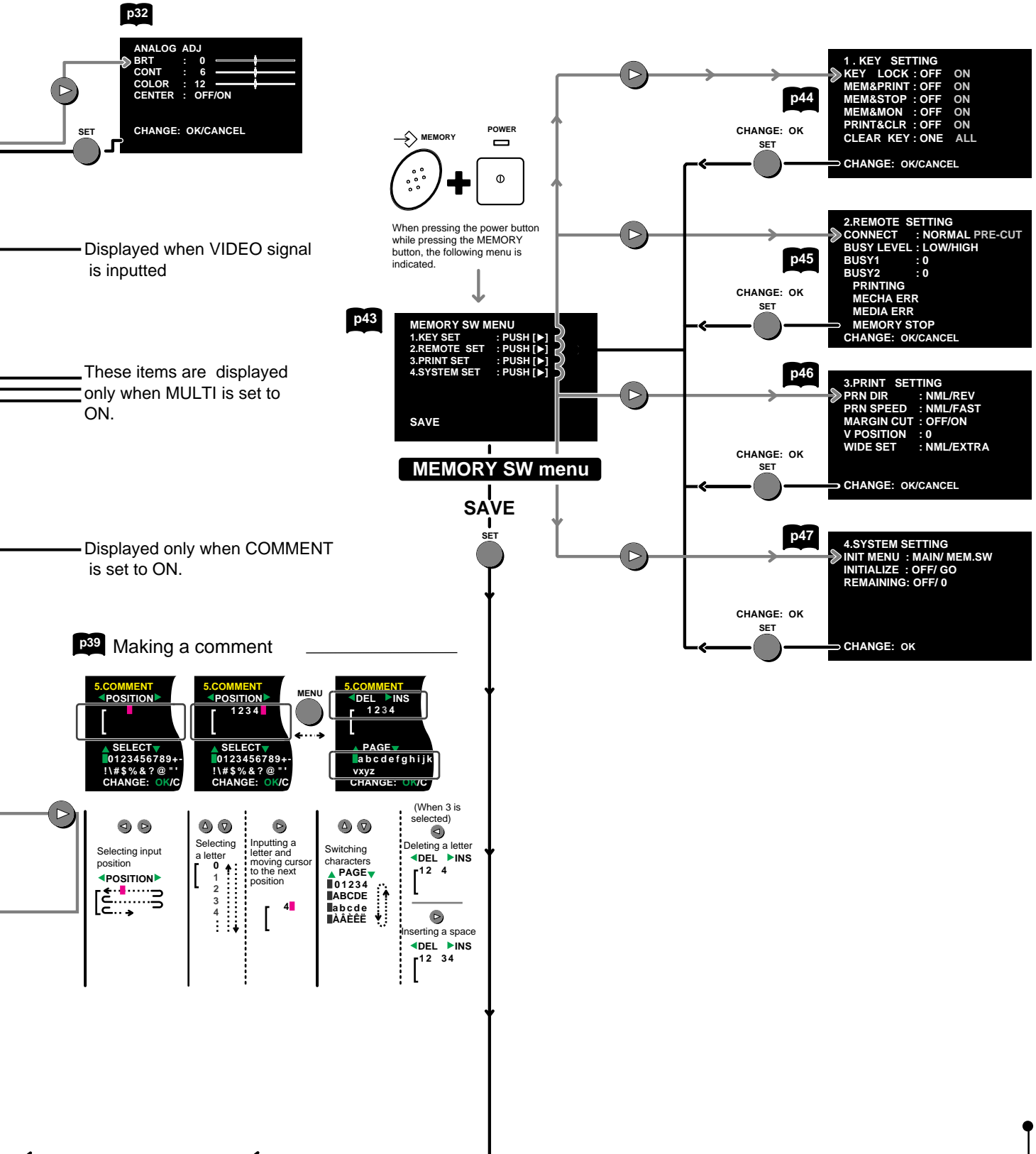
The menu is selected by pressing the shift buttons .

Changing a value, selecting mode, switching ON or OFF is switched by pressing .



7. Setting the functions

p shows the reference page.



7. Setting the functions

■ Displaying menu screen

- All functions are operated with the remote control.

① Main menu – sub menu display

- Press the MENU  button to display Main menu.

② MEMORY SW MENU – sub menu display

- Press the POWER button while pressing MEMORY button to display MEMORY SW menu.
- Make sure to turn the POWER OFF before the above operation.


■ Displaying the sub menu

- Select the sub menu for each function setting to display from MEMORY SW MENU or MAIN MENU.

- ① Press the UP  or DOWN  shift button to select the menu.

```
MEMORY SW MENU
1.KEY SET      : PUSH [ > ]
2.REMOTE SET  : PUSH [ > ]
3.PRINT SET   : PUSH [ > ]
4.SYSTEM SET  : PUSH [ > ]

SAVE
```

- ② Press the RIGHT  shift button to display the sub menu of the item selected.

```
1.KEY SETTING
KEY LOCK      : OFF/ON
MEM&PRINT    : OFF/ON
MEM&STOP     : OFF/ON
MEM&MON      : OFF/ON
PRINT&CLR    : OFF/ON
CLEAR KEY    : ONE/ALL



CHANGE : OK/CANCEL
```

■ Procedure for selecting and setting the menu

- ① Press the UP  or DOWN  shift button to select the menu.

```
1.KEY SETTING
KEY LOCK      : OFF/ON
MEM&PRINT    : OFF/ON
MEM&STOP     : OFF/ON
MEM&MON      : OFF/ON
PRINT&CLR    : OFF/ON
CLEAR KEY    : ONE/ALL


CHANGE : OK/CANCEL
```

- ② Press the RIGHT  or LEFT  shift button to select the item or change the value.

```
1.KEY SETTING
KEY LOCK      : OFF/ON
MEM&PRINT    : OFF/ON
MEM&STOP     : OFF/ON
MEM&MON      : OFF/ON
PRINT&CLR    : OFF/ON
CLEAR KEY    : ONE/ALL

CHANGE : OK/CANCEL
```



7. Setting the functions

④ Press the SET  button.

- "CHANGE : OK/CANCEL " is selected.

```
1.KEY SETTING
KEY LOCK : OFF/ON
MEM&PRINT : OFF/ON
MEM&STOP : OFF/ON
MEM&MON : OFF/ON
PRINT&CLR : OFF/ON
CLEAR KEY : ONE/ALL

CHANGE : OK/CANCEL
```

- Select "OK" to close the menu. Select "CANCEL" to cancel the setting again by the RIGHT  or LEFT  shift button.



④ Press the SET  button.

- The function is set and the Main menu display or Memory SW menu is shown.

```
MEMORY SW MENU
1.KEY SET : PUSH [ > ]
2.REMOTE SET : PUSH [ > ]
3.PRINT SET : PUSH [ > ]
4.SYSTEM SET : PUSH [ > ]

SAVE
```

⑤ Press the SET  button.

- In the Main menu, "SAVE : 1/2/3" is selected.
Store the setting of function on the sub menu 1-6 to program 1.2 and 3. (Refer to "SAVE" on the next page.)
- In the Memory SW menu, "CHANGE : OK/ CANCEL" is selected. When closing the menu, select "OK" by pressing the RIGHT  or LEFT  shift button.

⑥ Press the SET  button.

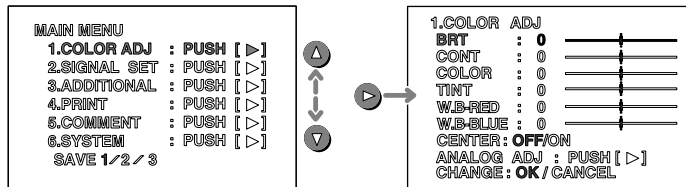
- The function is set and the set condition is displayed.

7. Setting the functions (Main menu)

Function

1 MAIN MENU

Open the sub-menu from Memory menu.



e.g. Monitor display 1. COLOR ADJ → BRT





Items and setting displayed are shown below.

- 1.COLOR ADJ Adjust color of printing image
- 2.SIGNAL SET Selecting the input signal, reverse of odd and even field lines, automatic frequency control, automatic gain control, separating composite video signal, etc.
- 3.ADDITIONAL Setting the number of images in a print, strobe print, photo print, separate print
- 4. PRINT Selecting paper size, comment printing method, Adjusting image outline, Adjusting print image density, mirror print (left/ right inverted)
- 5.COMMENT Making a comment
- 6.SYSTEM Setting print area and printing size, turn the memory page, buzzer sound
- SAVE Storing the above setting in 3 kinds of memories.

SAVE

This menu is shown in the lowest position on the " MAIN MENU " .


- Function ▶ Storing the setting value on the menu 1-6.
 ▶ Store the setting of function on the sub menu 1-6 to program 1,2 and 3.
- Operation ▶ Set each function and then display MAIN MENU.

1. Press the SET button  .
 - " SAVE " is displayed on the monitor screen indicated in red.
2. Press the RIGHT  or LEFT  shift button to select the memory bank number 1, 2 or 3.
3. Press the SET  button to store the setting to the selected program number.
 - The set conditions display or the source image is displayed.
 - As the program is replaced, it is recommended that the previous program number is not selected in step 2.
 - Press the program button to select the memory 1,2, or 3 . The display according to each setting is displayed. The setting cannot be changed during printing.
 - The image can be printed according to the selected memory program.

7. Setting the functions (Main menu)

① COLOR ADJ Adjusting the color of the image

• With this menu, the color of the source image and memorized image can be adjusted.

• This menu is also displayed by pressing COLOR ADJUST  button.

BRT (Bright)

Function ► Adjust the brightness of printing image.

CONT (Contrast)

Function ► Adjust the contrast of printing image

COLOR

Function ► Adjust the color of printing image

TINT

Function ► Adjust the tint of printing image

W•B-RED (White balance - Red)

Function ► Adjust the red-subcontrast (including white) of printing image

W•B-BLUE (White balance - Blue)

Function ► Adjust the blue-subcontrast (including white) of printing image


• The each function and setting area is as follows.

display	adjusting	- 64	adjusting area	+63
BRT	Brightness	Darker		Brighter
CONT	Contrast	Less contrast.....		More contrast
display	adjusting	- 32	adjusting area	+ 31
COLOR	Color	Light.....		Deep
TINT	Tint	Add red		Add green
display	adjusting	- 16	adjusting area	+ 15
W•B-RED	Red-subcontrast	add cyan		add red
W•B-BLUE	Blue-subcontrast	add yellow		add blue

CENTER


Function ► Each setting value in "COLOR ADJ" is initialized.
 ► When CENTER is set to "ON" , the setting value of BRT, CONT,COLOR, TINT, W•B-RED and W•B-BLUE are reset to "0".

ANALOG ADJ. (Analog Adjust)

Function ► Image adjustment menu of analog input signal is displayed.
 ► When pressing RIGHT shift button  , "ANALOG ADJ " menu is displayed.

7. Setting the functions (Main menu)

ANALOG ADJ The adjustment image of analog input signal display

- This menu is used to adjust the image of analog input signal display before storing in the memory.
- This menu is opened when pressing RIGHT  shift button on "ANALOG ADJ : PUSH [▶]".

BRT (Bright)

Function ▶ Adjust the brightness of printing image.

CONT (Contrast)

Function ▶ Adjust the contrast of printing image.

COLOR


Function ▶ Adjust the color of printing image

- The each function and setting area is as follows.

Item	Adjustment	-32	Adjusting area	+31
BRT	Brightness	Darker		Brighter
CONT	Contrast	Less contrast		More contrast
COLOR	Color	Light		Deep

CENTER

Function ▶ The setting value of " COLOR ADJ " is initialized.
When this function is set to " ON " , the setting value of BRT, CONT and COLOR is reset to 0.

- When pressing the SET  button after selecting " OK " on the lower position "CHANGE : OK/CANCEL", "1.COLOR ADJ " menu is displayed.

7. Setting the functions (Main menu)

② SIGNAL SET Signal selecting menu

INPUT

- Function ► Select the signal from inputting signal terminal on the rear panel.
- VIDEO Signal from VIDEO input terminal
 - S-VIDEO Signal from S-VIDEO input terminal

FIELD

- Function ► The odd/even field lines will be reversed depending on the input interlaced signal.
- Printing image is not clear so that the odd and even field lines may be reversed depending on the input interlaced signal. In this case, set FIELD to "REV" and store the image in memory again.
 - The image status cannot be checked on the monitor display.
 - NML(Normal) Not reversed
 - REV (Reverse) Reversed the field lines.

AFC

- Function ► Automatic frequency control
- This function is used to automatically correct the image of a weak signal or in VCR special playback . If the image is not printed correctly because of a weak TV signal, set the AFC function to "ON".
 - The image distortion on the top may occur when the VCR image is input in pause, field-by-field playback, or FF playback mode. In this case, AFC function is set to "OFF".
 - ON AFC available
 - OFF AFC invalid

AGC

- Function ► Automatic gain control (Making the image brighter and stressing the contrast.)
- This function is used to automatically adjust a dark picture in brightness and prints with sharp contrast. Peak level of an input signal is detected and signals width is standardized to the appropriate value.
 - ON AGC is available
 - OFF AGC is invalid

DCF


- Function ► Select whether separating the composite video signal or not.
- When inputting the monochrome signal, set this function to OFF. This function is for high quality of monochrome image so that input signal is not through DCF circuit.
 - When inputting the color signal, set this function to "ON". Input signal is through DCF circuit and the composite video signal is separated.
 - ON when inputting color signal
 - OFF when inputting monochrome signal
- ▲ This function is invalid in S-VIDEO input signal.

Note: When "DCF" is set to "OFF", the letter may not be colored on the monitor display.

7. Setting the functions (Main menu)

③ ADDITIONAL Special print setting

STROBE

- Function ▶ This function is used to repeat storing the image in the memory according to the selected time interval.
- ▶ When MULTI is set to "ON", the image is stored in order of image number .
 - ▶ When MULTI is set to "OFF", every one image is stored in the memory.
- The image is stored in the memory every time as shown below.
 - 1/6 sec → 1/3 sec → 1 sec → 2 sec → 5sec → 10 sec → 30 sec every second
 - 1 min → 2 min → 5min → 10min → 30 min every minutes
 - 1hr every hour
 - Press the RIGHT  shift button to select the interval.
 - The image is automatically printed after storing the image in the memory when " MEM&PRINT " function is set to " ON" on " MEMORY SW MENU " → " KEY SETTING " menu. Refer to pages 59-63. (STROBE MEMORY)
- Note:** The monitor display may not be correctly shown when setting the time interval to lower value.

MULTI

- Function ▶ Switching the multi-image print
- ON Multi-image prints are available
 - OFF Multi-image prints are not available
- ▶ Set the number of images (2, 4, 16 image) in a print.
Set the number of images in a print and the size with MULTI, MODE, IMAGES, and SEPARATE menus.
 - ▶ Refer to pages 49-53 for multi-image print.

MODE

- Function ▶ Setting the print mode
- SAME Print the image of the same scenes in a print.
 - DIFF (Different) Print the image of the different scenes in a print.
 - PHOTO Portrait-like print
- When "MULTI" is set to "ON", this function is displayed.

IMAGES

- Function ▶ Selecting the number of image
- ▶ "IMAGES" menu is changed depending on selecting the "MODE" function.
 - When "MULTI" is set to "ON", this function is displayed.

When selecting "SAME" or "DIFF" in the "MODE" function

- 2 2-images in a print (When printing on a L size paper, the image can be printed fully in width.
But the top and bottom of printed image will be lacked.)
- 4 4-images in a print
- 16 16-images in a print

When selecting "PHOTO" in the "MODE" menu

- CARD 16-multi images in a print
- 3*4 4-multi images in a print (3.0 x 4.0cm size image)
- 5*5 2-multi images in a print (5.0 x 5.0cm size image)
- 3*3.5 6-multi images in a print (3.0 x 3.5cm size image)

7. Setting the functions (Main menu)

SEPARATE

- Function ▶ Switching the white frame
 ▶ Separate the each image in multi-image print with white frame
 ON White frame print
 OFF Normal print

• When "MULTI" is set to "ON", this function is displayed.

④ PRINT Print setting 1

MODE

- Function ▶ Selecting the paper size
 ▶ Selecting the paper size depending on the installed the ink sheet.
 L L-size ink-sheet (model: PK700L)
 S S-size ink-sheet (model: PK700S)
 • When installing L-size ink sheet and selecting "S", the image can be printed on S-size. Also the number of prints is as follows.

Ink sheet \ Print mode	S	L
S	S size print (200 sheet)	S size print (200 sheet)
L	S size print (125 sheet)	L size print (125 sheet)

• When S size ink sheet is set, S-size printing is made even if "L" is selected in print mode.

GRAD (Gradation)

- Function ▶ Change the gamma curve of the image
 ▶ Selecting the gamma curve from 2 types
 NML Normal
 DEEP Deep

APT

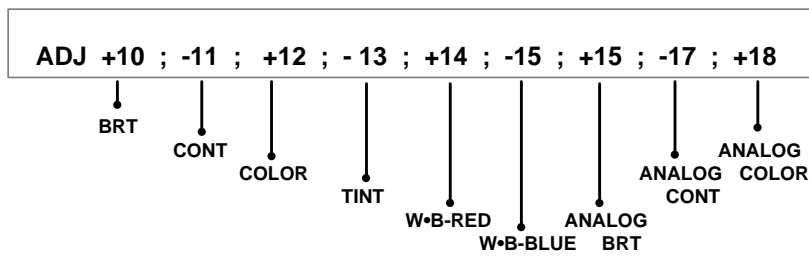
- Function ▶ Adjusting image outline.
 ▶ This function is to control aperture and to reinforce or soften the contour.
- SOFT [S] Soften the contour
 NML [N] Do not perform APT
 HARD [H1] Reinforce the contour
 HARD [H2] More reinforce the contour

7. Setting the functions (Main menu)

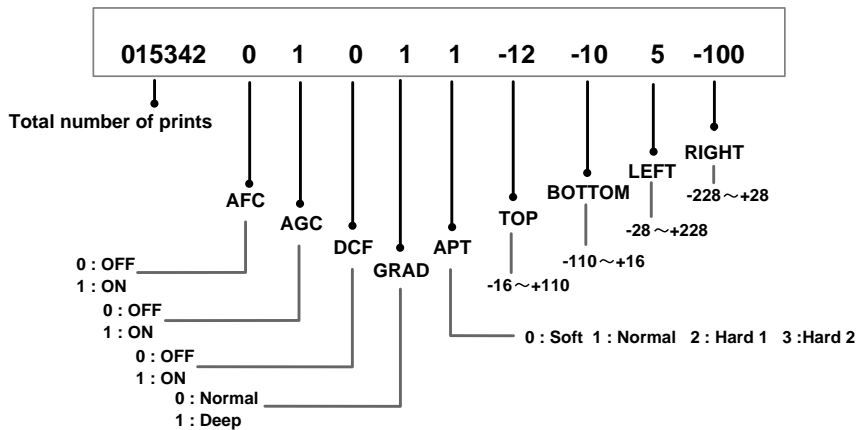
COMMENT

- Function ► Selecting the comment
- Selecting the comment on printing from 5 types.
 - OFF Comment is not printed.
 - ON Print the made comment.
- The following is displayed only when COMMENT is set to ON.
- SELECT COM Printing the made comment
- ADJ Printing the set value in the " 1.COLOR ADJ " menu.
- DATA ... Printing the total number of prints, filter or image size etc..

- When selecting "ADJ", the following information is printed.



- When selecting "DATA", the following information is printed.



- When selecting "ON" in "3. ADDITIONAL MULTI" function and "2", "4" or "16" in "IMAGE" function, " ADJ" and " DATA" of the last memory image is printed.

MIRROR

- Function ► Selecting mirror (left/right inverted) prints
- The left/light inverted image can be printed.
- ON Mirror print
- OFF Normal print

7. Setting the functions (Main menu)

5 COMMENT Making a comment

- Function ▶ Making a comment on print
▶ Refer to pages 39-42 for details.

6 SYSTEM System setting 1



SIZE

- Function ▶ Selecting a print area of printing image
▶ Selecting the print size and user print size setting

Picture element	printing size	
	(S size)	(L size)
W 808 X 584 dot (808 X 600 dot)	100 X 73mm 100 X 75 mm	130 X 96 mm 130 X 99 mm)*
M 760 X 568 dot	94 X 71 mm	122 X 93 mm
N 736 X 544 dot	91 X 68 mm	118 X 89 mm
USER	user can set print size	

- The image is not correctly printed depending on printing size.
- * When "WIDE SET : EXTRA" is selected in "3. PRINT SETTING" in MEMORY SW MENU

USER ADJ (User Adjustment)

- Function ▶ This menu is used to display USER SIZE ADJ menu.
▶ Press the RIGHT  shift button to display USER SIZE ADJ menu .
" CHANGE : OK/CANCEL "is displayed on the lower position.
When selecting" OK " and pressing SET  button, SYSTEM menu is displayed.

PAGE INC (Page Increment)

- Function ▶ Turn the memory page automatically.
▶ Each time the MEMORY button is pressed, the memory page is turned automatically and the image is stored in the memory on its page.

BUZZER


- Function ▶ Sounds the buzzer
▶ The buzzer sounds when one of the control buttons is pressed, so that the setting can be checked.
ON Sounds the buzzer
OFF Does not sound the buzzer


7. Setting the functions (Main menu)

■ USER SIZE ADJ Setting the image size

The printing area can be changed and stored in memory as a user setting.

- ▶ When selecting " USER ADJ " on the "6.SYSTEM" menu . Press the RIGHT shift button, then, USER SIZE ADJ menu is displayed.

When pressing the SET  button after setting, " CHANGE : OK/CANCEL " is selected.

- When selecting " OK " and pressing the SET  button, SYSTEM menu is displayed.

COPY

Function ▶ Copy "SIZE" in the " 6.SYSTEM" menu.

- ▶ Display an image size set at W, M, N in the "6.SYSTEM" menu.
The selected value is displayed in TOP, BOTTOM , LEFT and RIGHT .
The value is the basis of change.

- When "MODE : PHOTO" is selected in "3. ADDITIONAL", "SIZE" is not displayed and setting can not be changed.

TOP/BOTTOM/LEFT/RIGHT

Function ▶ Setting the print area


- ▶ By adjusting print area, the image size to be printed can be limited. Printing area adjustment can be operated with the setting menu on the screen.

TOP Top adjustment (setting area -6 to +110)

BOTTOM Bottom adjustment (setting area -110 to +6)

LEFT Left adjustment (setting area -28 to +228)

RIGHT Right adjustment (setting area -228 to +28)

- Select "OK" on "CHANGE : OK/CANCEL " and press the SET  button, then, "6.SYSTEM" menu is displayed.

NOTE : When monochrome signal is inputted, the characters on the monitor screen may not be colored.

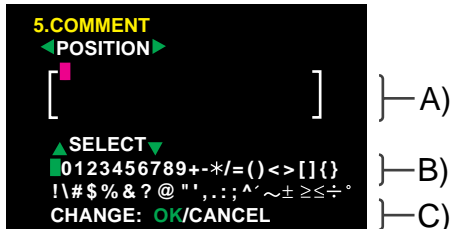
7. Setting the functions (Making a comment)

■ Making a comment

Select the making a comment menu "COMMENT".


This functions are operated with the remote control using the menus displayed on the monitor screen.

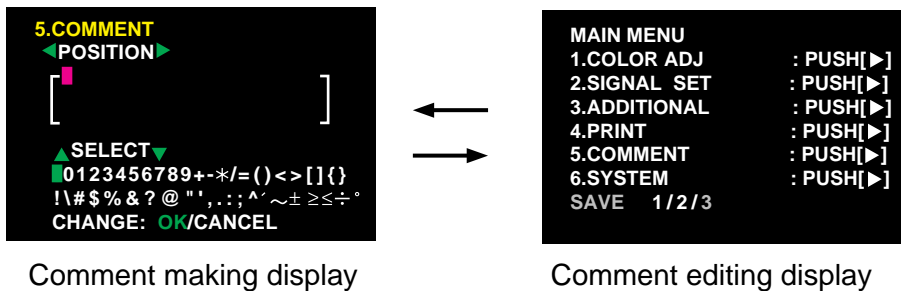
Explanation







- Listed below are the three comment displays.

- A) Comment display block..... Displaying inputted letter, Setting the input position
- B) Character block..... Selecting the letter to be inputted
- C) CHANGE : OK/CANCEL A block to fix the set comment :
When fixing the comment, select "OK" .
When the comment is not set and inputting or changing a letter or changing,
select "CANCEL" .

- Press the MENU  button to switch the menu screen.






Comment making displayUse these buttons for the following operation.

Shift button , , ,  Selecting a letter inputting position, Selecting letters and Fixing comments

Comment editing display.....Use these buttons for the following operation.



Shift button  Deleting a letter

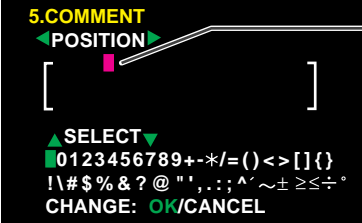
Shift button  Inserting a space

Shift button ,  Selecting the character

7. Setting the functions (Making a comment)

■ Comment making procedure

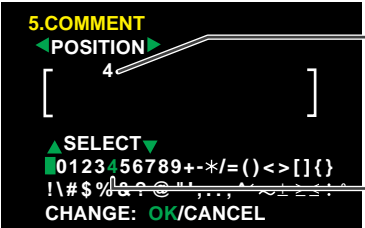
- ① Press the RIGHT  or LEFT  shift button to select the position where a letter is inputted.



• Select position is indicated in red.

Comment making display

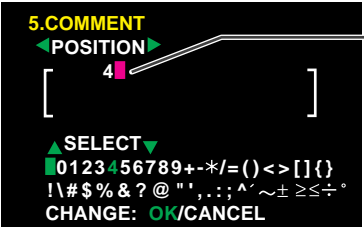
- ② Press the UP  or DOWN  shift button to select the inputting letter.



• The selected letter is indicated in red in upper comment block.

• The selected letter is indicated in green in the character table.

- ③ Press the RIGHT  shift button.



• The letter is inputted in the comment block and the red cursor moves to the next position.

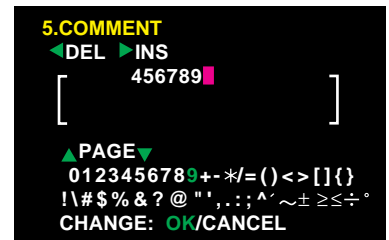
- ④ Repeat the above steps ①, ② and ③.



- Changing character type Page 41
- Deleting a letter or inserting a space Page 41
- Close the comment menu Page 42

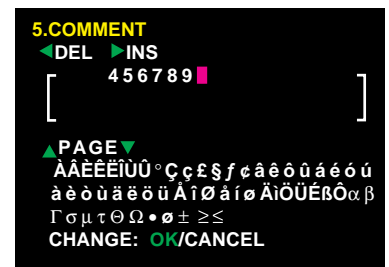
7. Setting the functions (Making a comment)


Changing character type

- 1 Press the MENU  button.
 - Comment editing display is shown.




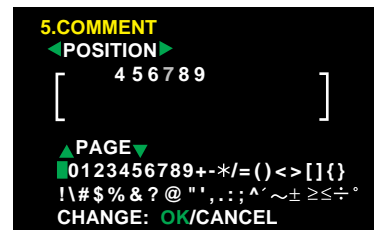
- 2 Press the UP  or DOWN  shift button to select the character type.
 - The characters in the character block change.



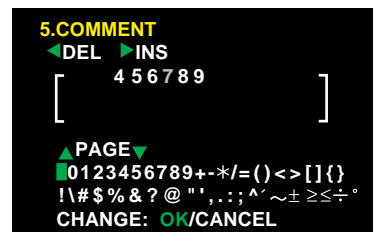
- 3 Press the MENU  button.
 - Comment making display is shown.
 - Comment can be made.





Deleting a letter or inserting a space


- 1 Press the RIGHT  or LEFT  shift button to select the position to be edited.
 - The selected letter or space will be deleted.
 - A space will be inserted to the previous position of the selected position or letter.



- 2 Press the MENU  button.
 - The comment editing display is shown.





- 3 Press the RIGHT  or LEFT  shift button.
 -  Deleting a letter
 -  Inserting a space


- 4 Press the MENU  button.
 - The comment making display is shown.
 - The comment can be made.


7. Setting the functions (Making a comment)


Close the comment menu


- Press the SET  button to select " CHANGE : OK/CANCEL ".
 - " CHANGE : OK/CANCEL " is displayed in red.

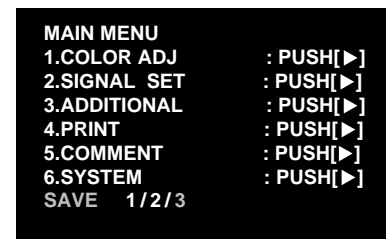
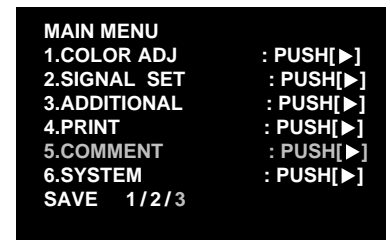
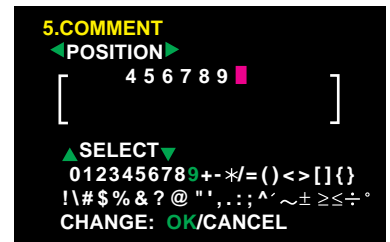
- Press the shift  button to select "OK".
 - In case of changing a comment , select the "CANCEL".

When pressing the SET  button after selecting "CANCEL", the comment previously memorized is shown.

- Press the SET  button.
 - " MAIN MENU " display is shown.

- Press the SET  button.
 - " SAVE : 1/2/3 " is selected.

- Press the SET  button.
 - The made comment is stored in the memory.
 - Set the "COMMENT" in MAIN MENU.



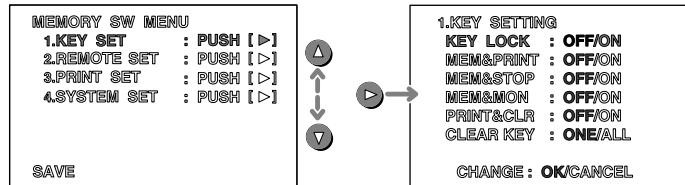
NOTE : When printing in FIELD mode, the comment is a little lower in quality.

7. Setting the functions (Memory SW menu)

SETTING FUNCTIONS

2 MEMORY SW MENU

When pressing the POWER button while pressing the MEMORY button on the front panel with the POWER turned off the MEMORY SW MENU is displayed.



(e.g.) MEMORY SW MENU → 1. KEY SET → KEY LOCK



Item and setting are as shown below.

- 1. KEY SET The function of button is invalid, setting the function of memory button
- 2. REMOTE SET Setting the BUSY signal level and definition of the external terminal (1, 2)
- 3. PRINT SET Print direction, printing speed, cutting position, vertical position, "extra" size print
- 4. SYSTEM SET Initializing user setting, inform the number of remaining paper
- SAVE Storing the above setting in memory.

SAVE

This menu is shown in the lowest position on the "MEMORY SW MENU".

- ▶ Selecting "OK" or "CANCEL" on the setting value of the menu 1-4.
- ▶ Close the menu 1- 4 and normal display is shown.

- ① Press the SET  button.
 - " SAVE " is indicated in red.
- ② Press the SET  button.
 - The selected command is executed.

7. Setting the functions (Memory SW menu)

① KEY SETTING Setting the buttons' function

KEY LOCK

- Function ► The function on the remote control buttons and all of the buttons of the unit except POWER button are not available.
- ON The function on the remote control buttons except MEMORY, PRINT, MONITOR are not available.
- OFF All of the buttons on the remote control are available.
- To set KEY LOCK to OFF, turn off the power and on, then set KEY LOCK again.

MEM&PRINT (Memory and Print)

- Function ► When pressing the MEMORY button, the image is automatically printed after the image is stored in the memory. In the case of multi-image of different scenes, printing is executed after the last image is stored in the memory.
- ON Storing the image and automatically printing
- OFF The MEMORY button functions individually. The image memorized without being printed.

MEM&STOP (Memory and Stop)

- Function ► When setting to "ON", the next image is not overlaid in the memory after the last image is stored in the memory .
- ON The image is not overlaid in the memory.
- OFF The next image is overlaid in the memory.
- When setting to "ON ", the image is stored in the memory again by pressing the PRINT or CLEAR button. (If PAGE INC is set to OFF, the image will be overlaid even if MEM&STOP is set to ON.)

MEM&MON (Memory and Monitor)

- Function ► Switching the monitor display to the source image or memory image.
- ON Display the memory image.
- OFF Display the source image.

PRINT&CLR (Print and Clear)

- Function ► After printing, the printed memory image is cleared.
- ON Clear the printed memory image.
- OFF Does not clear the printed memory image.

CLEAR KEY (Memory and Clear)

- Function ► Setting the CLEAR button function on the remote control.
- ONE Pressing the CLEAR button on the remote control, the memorized image being selected is cleared.
- ALL Pressing the CLEAR button on the remote control, all of the stored memorized images are cleared.

7. Setting the functions (Memory SW menu)

② REMOTE SETTING Remote terminal setting display

CONNECT

- Function ▶ Setting the No. 2 pin function of the remote terminal 2 on the rear panel.
- NORMAL No. 2 pin functions as "MEMORY".
- PRE-CUT No. 2 pin functions as "PHOTO".
- ▶ "PRE-CUT" is a menu for printing on the pre-cut sheet.
- By setting the PHOTO signal level of the remote terminal 2, each setting for printing on pre-cut sheet can be done automatically.
- Refer to pages 64-66.

BUSY LEVEL

- Function ▶ Setting the active level of BUSY signal.
- LOW Output "LOW" signal
- HIGH Output "HIGH" signal
- ▶ Selects "LOW" or "HIGH" of BUSY signal output from remote terminal 1 and 2 on the rear panel. (Refer to the next item BUSY1 and BUSY 2.)

BUSY 1

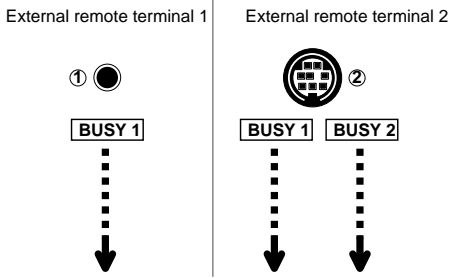
BUSY 2

- Function ▶ Sets the definition of BUSY signal output from remote terminal 1 or 2.
- Select "BUSY 1" or "BUSY 2" menu and press the right or left shift button to change the menu.
- In each number, busy signal is defined as shown in the following table.

Selected No.	1	2	3	4	5	6	7	8
Selected item	PRINTING	MECHA ERR	MEDIA ERR	MEMORY STOP	PRINTING MECHA ERR	PRINTING MEDIA ERR	PRINTING MEMORY STOP	MECHA ERR MEDIA ERR
Definition of signal	• During printing	• Mechanical error	• Print paper or ink sheet error	• Memorization is impossible.	• During printing or • Mechanical error	• During printing or • Print paper or ink sheet error	• During printing or • Memorization is impossible.	• Mechanical error or • Print paper or ink sheet error
Selected No.	9	10	11	12	13	14	15	
Selected item	MECHA ERR MEMORY STOP	MEDIA ERR MEMORY STOP	PRINTING MECHA ERR MEDIA ERR	PRINTING MEDIA ERR MEMORY STOP	PRINTING MECHA ERR MEMORY STOP	MECHA ERR MEDIA ERR MEMORY STOP	PRINTING MECHA ERR MEDIA ERR MEMORY STOP	
Definition of signal	• Mechanical error or • Memorization is impossible.	• Print paper or ink sheet error or • Memorization is impossible.	• During printing or • Mechanical error or • Print paper or ink sheet error	• During printing or • Print paper or ink sheet error or • Memorization is impossible.	• During printing or • Mechanical error or • Memorization is impossible.	• Mechanical error or • Print paper or ink sheet error or • Memorization is impossible.	• During printing or • Mechanical error or • Print paper or ink sheet error or • Memorization is impossible.	

NOTE : The signals are output during printing, displaying menu and mechanical initializing.

7. Setting the functions (Memory SW menu)

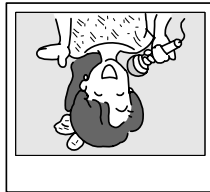


- The signal defined in BUSY 1 is output from Remote terminal 1.
- The two signals defined in BUSY 1 and 2 are output from Remote terminal 2.
- The individual definition is available in BUSY 1 and BUSY 2.
- Make the necessary signal definition.
- The active level signal in BUSY 2 will also be output at buzzing when you set "REMAINING" function (refer to next page).

③ PRINT SETTING Print setting 2

PRN DIR (Print Direction)

- Function ▶ Selecting the print direction.
- NML The margin is made on the lower position.
- REV The margin is made on the upper position.



REV



NML

- ▶ This function is available on S-size paper except 2-image print, PHOTO print (3*4,) and CARD print, and also available on L-size paper of 2-image print and PHOTO (5*5, 3*3.5) print.

PRN SPEED (Print Speed)

- Function ▶ Selecting the print speed.
- NML (Normal) Normal speed
- FAST High speed
- ▶ When setting to " FAST " , the color of printing image may be light.

MARGIN CUT

- Function ▶ Cut the print paper so that the upper margin is small.
- ON Small margin
- OFF Behind the margin



ON

Margin cut



OFF

- ▶ This function is convenient when putting the print on prints on records or non-PVC sleeves for print achieving. This feature also saves paper.

7. Setting the functions (Memory SW menu)

V POSITION

- Function ▶ Adjusting the vertical position of printing image.
Setting area - 28 to +28 (Change each 2 lines)
- ▶ When 2-image printing (selected "2" in IMAGES) on L size print paper, the top and bottom of the image may not be fully printed depending on memory size. It may be necessary to adjust part of the image in the UP, DOWN, RIGHT or LEFT direction.
V POSITION function is to adjust the position for UP and DOWN direction of the memorized image and to print it correctly.
This function is available only when printing 2 multi-image on L size paper and selecting "2" in "IMAGES".

WIDE SET

- Function ▶ Enlarging print possible area.
NML Normal print
EXTRA Enlarging the print area
- ▶ The top or bottom of the image cannot be printed depending on the input signal. In this case, select "EXTRA".
When "EXTRA" is selected, comments are not printed.

4 SYSTEM SETTING System setting 2

INT MENU (Initial menu)

- ▶ All settings of 3 memory programs to store each function are initialized.
MAIN The memorized settings in MAIN MENU are initialized.
MEM.SW The memorized settings in MEMORY SW MENU are initialized.
- ▶ Select MAIN or MEM.SW to initialize the settings. When INITIALIZE is set to "GO", initializing is carried out.

INITIALIZE (Initializing)

- Function ▶ Initializes the menu selected in "INIT MENU".
GO Initializing is carried out.
OFF Initializing is not carried out.
- Normally, this menu is set to OFF. When GO is selected, initializing is carried out and returns to OFF after initializing.

REMAINING

- Function ▶ Inform the number of remaining paper by a buzzer tone.
OFFThis function is not available.
0The buzzer sounds five times as the point you set after printing.
The setting area is 0 to 10.
The buzzer sounds five times after every printing and the active signal in BUSY 2 will also be output.
- ▶ Please observe the following precautions when you use this function.
- If a paper jam occurs, the remaining paper may not be informed correctly.
 - Do not change the ink sheet size S to L (or L to S) in the middle of using ink sheet.
 - Make sure to replace the print paper and ink sheet at the same time.
 - Make sure to use the new one when you set the ink sheet and print paper.
 - Do not feed the print paper after you set the print paper.

8. Printing procedures (Special prints)

Storing multi-image in memory

The multi-image can be stored in memory as follows.

2-image mode		
FIELD	SAME	DIFF
	FIELD A	FIELD B
FRAME		

The images of FIELD A and FIELD B are printed on a sheet.

FRAME can not be selected. The image of FIELD mode is displayed.

SAME (The same two images are printed on a sheet.)

- 1 image is stored in FIELD A.
- 1 image is stored in FIELD B.
- 1 image is stored in FRAME.
- 2-image print consists of the memorized one image.

DIFF (Different two images are printed on a sheet.)

- 1 image is stored in FIELD A.
 - 1 image is stored in FIELD B.
 - 2-image print consists of the two images memorized in FIELD A and B.
 - Images can not be stored in FRAME.
- The mode display on the monitor screen will be "FIELD A[B]" or "FIELD [A]B".

4-image mode		
FIELD	SAME	DIFF
	FIELD A	FIELD B
FRAME		

FIELD can not be selected. The display on the monitor screen is:

```

1  2
3  4

```

SAME (The same 4 images are printed on a sheet.)

- 1 image is stored in FIELD A.
- 1 image is stored in FIELD B.
- 1 image is stored in FRAME.
- 4-image print consists of the memorized one image.

DIFF (Different 4 images are printed on a sheet.)

- 4 images are stored in FRAME.
 - 4-image print consists of the memorized 4 images.
 - Images can not be stored in FIELD.
- The mode display on the monitor screen will be "1 2 3 4".

16-image mode		
FIELD	SAME	DIFF
	FIELD A	FIELD B
FRAME		

FIELD can not be selected. The display on the monitor screen is:

```

1  2  3  4
5  6  7  8
9 10 11 12
13 14 15 16

```

SAME (The same 16 images are printed on a sheet.)

- 1 image is stored in FIELD A.
- 1 image is stored in FIELD B.
- 1 image is stored in FRAME.
- 16-image print consists of the memorized one image.

DIFF (Different 16 images are printed on a sheet.)

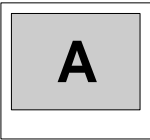
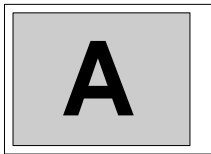
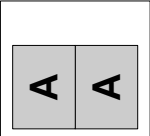
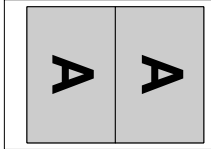
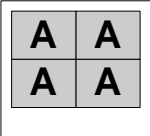
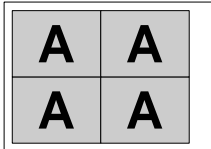
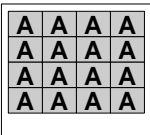

- 16 images are stored in FRAME.
 - 16-image print consists of the memorized 16 images.
 - Images can not be stored in FIELD.
- The mode display on the monitor screen will be "1 2 3 ... 16".

8. Printing procedures (Special prints)

1 MULTI PRINTS

2, 4 or 16 images can be printed on a sheet.

- The following prints are available.

Setting of the No. of images	S size prints	L size prints
One image printing		
2		
4		
16		




example : "W" is selected on "SIZE" in 6.SYSTEM. "OFF" is selected on "SEPARATE" in 3.ADDITIONAL.

"A" shows the direction of images.








OPERATION

Setting the multi-print menu








Setting the multi-print function

- Press the MENU button. Then, Press the DOWN  or UP  shift button to select " 3. ADDITIONAL PUSH [▶]".
- Press the RIGHT  shift button to open "3. ADDITIONAL".

8. Printing procedures (Special prints)

- ③ Press the DOWN  or UP  shift button to select "MULTI : OFF/ON ". Then, press the RIGHT  shift button to select "ON".
 - "MODE : SAME/DIFF/PHOTO " is displayed on the menu screen.
 - "IMAGES : 2/ 4/ 16 " is displayed on the lower line.
- ④ Press the DOWN  shift button to select " MODE : SAME/DIFF/PHOTO ". Then, press the RIGHT  shift button to select SAME " or " DIFF ".
 - When " SAME " is selected, a multi-image (2, 4 or 16 images) of the same image can be printed.
 - When " DIFF" is selected, a multi-image (2, 4 or 16 images) of the different images can be printed.
- ⑤ Press the DOWN  shift button to select "IMAGES : 2/4/16". Then press the RIGHT  shift button to select 2, 4 or 16.
 - The multi-image setting is completed.
 - When "2" is selected, 2 images can be stored in memory.
 - When "4" is selected, 4 images can be stored in memory.
 - When "16" is selected, 16 images can be stored in memory.

■ Displaying the image from input signal (source image) or the memorized image

- ① Press the SET  button.
 - " CHANGE : OK/CANCEL " is selected.
 - When changing the multi-print function, select "CANCEL" and then press the SET  button.
- ② Press the SET  button.
 - The MAIN MENU is displayed.
- ③ Press the SET  button.
 - "SAVE 1/2/3" is selected.
 - This menu is used to store the setting in any one of 3 programs (1, 2 or 3).
- ④ Press the RIGHT  or LEFT  shift button to select the program number 1, 2 or 3 to store the setting.
 - The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.
- ⑤ Press the SET  button.
 - The source image (image from the input signal) or memorized image is displayed.

8. Printing procedures (Special prints)

■ Storing images in memory

- ❶ Press the DISPLAY button to display the set conditions.
- ❷ Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.
- ❸ Press the MONITOR button and select the source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.
- ❹ Press the MEMORY button to store the image to be printed.

■ Storing 2-multi-image in memory "IMAGES : 2"

- When "MODE" is set to "SAME"
FIELD 1 image is stored in "FIELD [A]B" or "FIELD A[B]".
The image is stored in the memory page with [] mark.
Display "FIELD [A]B" to store image in FIELD A and "FIELD A[B]" to store in B. (When PAGE INC is set to ON.)
2-multi-image consists of either one image of FIELD [A]B or FIELD A[B].
FRAME ... 1 image is stored in memory.
2-multi-image consists of the memorized image.
- When "MODE" is set to "DIFF"
FIELD Each one image is stored in "FIELD [A]B" and "FIELD A[B]".
2-multi-image consists of images of FIELD [A]B and FIELD A[B].
The image is stored in the memory page with [] mark.
FRAME ... Image can not be stored in memory.
The mode display will be switched to "FIELD [A]B" or "FIELD A[B]".

■ Storing 4-multi-image in memory "IMAGES : 4"

- When "MODE" is set to "SAME"
FIELD 1 image is stored in "FIELD [A]B" or "FIELD A[B]".
4-multi-image consists of the image of FIELD [A]B or FIELD A[B].
FRAME ... 1 image is stored in memory.
4-multi-image consists of the memorized image.
- When "MODE" is set to "DIFF"
4 images are stored in memory.
"FRAME" and "FIELD" are not displayed.
4-multi-image consists of the memorized 4 images.

■ Storing 16-multi-image in memory "IMAGES : 16"

- When "MODE" is set to "SAME"
FIELD 1 image is stored in "FIELD [A]B" or "FIELD A[B]".
16-multi-image consists of the image of FIELD [A]B or FIELD A[B].
FRAME ... 1 image is stored in memory.
16-multi-image consists of the memorized image.
- When "MODE" is set to "DIFF"
16 images are stored in memory.
"FRAME" and "FIELD" are not displayed.
16-multi-image consists of the memorized 16 images.

8. Printing procedures (Special prints)

Storing an image in any position

When "MODE" is set to "DIFF" and "IMAGES" to 4 or 16

- ❶ Press the DISPLAY button to display the set conditions.
- ❷ Press the MONITOR button. Select source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.
- ❸ Press the DISPLAY button to display the set conditions.
 - The memory page number where the image can be stored is indicated.
 - The position number where the image can be stored is indicated in red.
- ❹ Press the shift buttons to determine the position to store the image.
- ❺ Press the MEMORY button to store the image to be printed.
 - The image is stored in the selected position.

Printing the images

- ❶ Press the MONITOR button to display the memorized image. ("MEMORY" is displayed on the monitor.).
 - When MODE is set to SAME at FIELD, press the MEMORY PAGE button to select the memorized image to be printed.
 - The image in page without []mark is selected. The image of selected page is displayed on the monitor screen.
 - The image displayed on the monitor screen is printed.
- ❷ Press the PRINT button.
 - The memorized multi-image is printed.

Note :

- When 2 images are printed (selected "2" in IMAGES) on a L size paper, the images may not be fully printed. In this case, adjust the position of the images by "V POSITION" of "3. PRINT SETTING" of "3. PRINT SET" in memory SW menu. Refer to page 47.
- At 2-multi-image printing of SAME or DIFF mode, 36 letters of comment can be printed.

8. Printing procedures (Special prints)

2 PHOTO PRINTS

- PHOTO print is a function to print the images on the photo size (3x4cm, 3x3.5cm, 5x5cm) and card size.
- CARD size print is suited to stick on a business card.
- The following prints are available.

Setting the No. of prints	Memorized image on the monitor	S size prints		L size prints	
		Separate ON	Separate OFF	Separate ON	Separate OFF
PHOTO 5 X 5					
3 X 4					
CARD					
3 X 3.5					

example : W" is selected on "SIZE" in 6.SYSTEM
"A" shows the direction of images.



Setting PHOTO print menu

Setting PHOTO function








- Press the MENU button. Then press the DOWN or UP shift button to select " 3. ADDITIONAL PUSH [▶] ".
- Press the RIGHT shift button to select "3. ADDITIONAL".
- Press the DOWN or UP shift button to select "MULTI : OFF/ON ". Then press the RIGHT shift button to select " ON ".
 - " MODE : SAME/DIFF/PHOTO " is displayed on the menu screen.
 - " IMAGES : 2 / 4 / 16 " is displayed on the lower line.
- Press the DOWN or UP shift button to select " MODE : SAME/DIFF/PHOTO ". Then, press the RIGHT shift button to select " PHOTO ".
 - "IMAGES : CARD / 3*4/ 5*5 / 3*3.5 " is displayed on the menu screen.

8. Printing procedures (Special prints)

■ Selecting the size

- 1 Press the DOWN  shift button to select "IMAGES : CARD / 3*4 / 5*5 / 3*3.5" menu.
- 2 Press the RIGHT  shift button to select "CARD", "3*4", "5*5" or "3*3.5".

■ Displaying the image from input signal (source image) or the memorized image

- 1 Press the SET  button.
 - "CHANGE : OK/CANCEL" is selected.
 - When changing the PHOTO print setting, select "CANCEL" and press the SET  button.
- 2 Press the SET  button.
 - The MAIN MENU is displayed.
- 3 Press the SET  button.
 - "SAVE 1/2/3" is selected.
 - This menu is used to store the setting in any one of 3 programs (1, 2 or 3).
- 4 Press the RIGHT  or LEFT  shift button to select the program number 1, 2 or 3 to store the setting.
 - The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.
- 5 Press the SET  button.
 - The source image (image from the input signal) or memorized image is displayed.

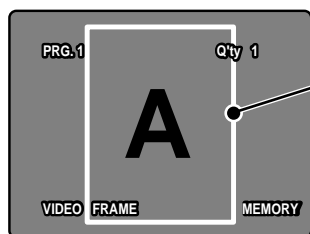
■ Storing images in memory

- 1 Press the DISPLAY button to display the set conditions.
- 2 Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.
- 3 Press the MONITOR button and select the through image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.
 - In FIELD mode, press the MEMORY PAGE button to select the memory page to store the image. The image will be stored in the memory page with [] mark. (when PAGE INC is set to ON)
- 4 Press the MEMORY button to store the image in memory to print.

8. Printing procedures (Special prints)

■ Printing the images

- Press the MONITOR button to display the memorized image. ("MEMORY" is displayed on the monitor.)
 - A blue frame is indicated on the displayed image.
 - The image within the blue frame is photo-printed.



The blue frame moves with the SHIFT buttons.

example : When "3x4" or "CARD" is selected.

In FIELD mode, press the MEMORY PAGE button to select the memory page to print.

- The selected memory page is indicated without [] mark.

- Press the shift , , , buttons to move the blue frame to determine the print area.

- Press the PRINT button.
 - The set PHOTO-image is printed.

■ Printing on pre-cut sticker

Pre-cut sticker is a pre-cut sheet for sticking on a business card, etc.

16-images can be printed on a S size sheet.

16-multi-image printing and PHOTO size printing are available.

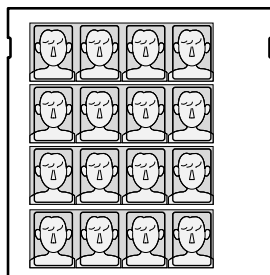
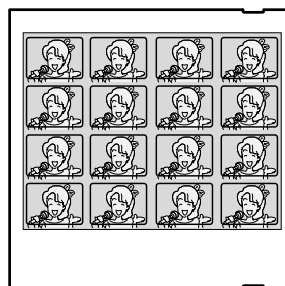


PHOTO size



16-multi-image

Setting

Sheet size	6. SYSTEM SIZE	MAIN MENU 3. ADDITIONAL MULTI	MODE	IMAGES	SEPARATE	MEMORY SW MENU 3. PRINT SETTING WIDE SET	Print
S	USER TOP -4 BOTTOM 4 LEFT -24 RIGHT 24	ON	SAME DIFF	16 16	OFF	NML	
S	W	ON	PHOTO	CARD	OFF	EXTRA	

Make sure to select NML in PRN DIR in MEMORY SW MENU.

8. Printing procedures (Special prints)

Refer to pages 50-53 (16-Multi-image) and pages 54-57 (PHOTO PRINTS) for storing image in memory.

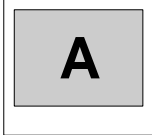
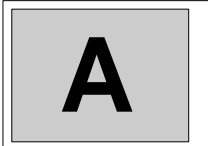
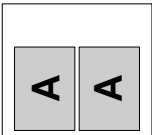
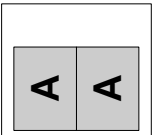
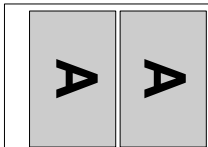
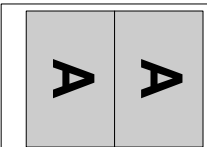
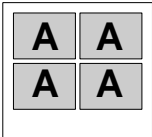
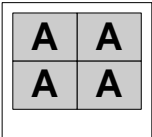
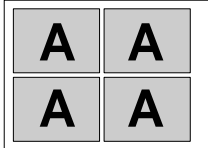
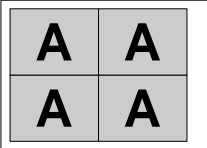
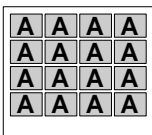
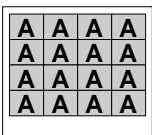

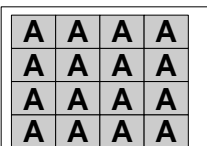
The menu only for pre-cut PHOTO size printing can be used.

- Set the function of No. 2 pin of the remote terminal 2 on the rear panel to "HIGH" level. Refer to page 65. (When the remote terminal 2 is not used, "HIGH" level is set.)
- Set "CONNECT" in "2. REMOTE SETTING" in MEMORY SW MENU to "PRE-CUT". Refer to page 45. (If "NORMAL" is selected, the image is printed according to the set conditions.)

3 SEPARATE PRINT

■ A white frame can be inserted between two or more images.

- The following prints are available.

Setting of the No. of prints	S size prints		L size print	
	Separate ON	Separate OFF	Separate ON	Separate OFF
1				
2				
4				
16				

example : "W" is selected on "SIZE" in 6.SYSTEM






"A" shows the direction of images.

8. Printing procedures (Special prints)



OPERATION

Setting the multi-print and photo-print menus







Setting multi-print and photo-print functions

- 1 Press the MENU button. Then, press the UP  or DOWN  shift button to select "3. ADDITIONAL PUSH [▶]".
- 2 Press the RIGHT  shift button to select "3. ADDITIONAL".
- 3 Press the DOWN  shift button to select "MULTI : OFF/ON". Then press the RIGHT  shift button to select "ON".
 - "MODE : SAME/DIFF/PHOTO" is displayed on the menu screen.
 - "IMAGES : 2/ 4/ 16" is displayed on the lower line.
- 4 Set the multi-image type (2, 4 or 16) or photo print size.
 - Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16 or CARD/3*4/5*5/3*3.5" menus.
 - Refer to **1** MULTI PRINT and **2** PHOTO PRINT for the multi-image type.


Setting the SEPARATE function

- 1 Press the DOWN  shift button to select "SEPARATE : OFF/ON".
- 2 Press the RIGHT  shift button to select "ON".

Displaying the source image (image from the input signal) or the memorized image

- 1 Press the SET  button.
 - "CHANGE : OK/CANCEL" is selected.
 - When changing the setting, select "CANCEL" and press the SET  button.
- 2 Press the SET  button.
 - The MAIN MENU is displayed.
- 3 Press the SET  button.
 - "SAVE 1/2/3" is selected.
 - This menu is used to store the setting in any one of 3 programs (1, 2 or 3).
- 4 Press the RIGHT  or LEFT  shift button to select the program number 1, 2 or 3 to store the setting.
 - The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.

8. Printing procedures (Special prints)

- ⑤ Press the SET  button.
- The source image (image from the input signal) or memorized image is displayed.

■ Storing images in memory / Printing the images

- ① Store the images to be printed in memory.
- Refer to ① MULTI PRINT or ② PHOTO PRINT for storing images in memory.
- ② Press the PRINT button.
- The set SEPARATE images are printed.

Note :








- The distance between images in multi-print is different between on the monitor and the printed image.
- The image size changes according to the "SIZE" in "6. SYSTEM MENU".
When the images of different size are memorized in one page, the margin is determined according to the largest width of the image in the page.

4 STROBE PRINTS

■ OPERATION

■ Selecting FIELD or FRAME

■ Setting STROBE function.

- ① Press the MENU button. Then press the UP  or DOWN  shift button to select "3.ADDITIONAL PUSH[▶]".
- ② Press the RIGHT  shift button to select "3. ADDITIONAL".
- ③ Press the UP  shift button to select "STROBE : OFF".
- ④ Press the RIGHT  shift button to select "STROBE : 1/6 1hr".
- Each time the RIGHT  or LEFT  shift button is pressed, the interval of image memorization is switched.
 - 1/6 sec • 1/3 sec • 1 sec • 2 sec • 5 sec • 10 sec • 30 sec every second
 - 1 min • 2 min • 5 min • 10 min • 30 min every minute
 - 1hr every hour
 - Images can not be memorized during printing.
The interval of memorization may be a littel vaied.

8. Printing procedures (Special prints)

■ Setting 1-image/multi-image memory

■ When memorizing 1 image in STROBE mode

This setting is used to memorize 1 image in FRAME, FIELD A or FIELD B.




- ❶ Set the mode to 1-image.
Select "OFF" in "MULTI : OFF" in "3. ADDITIONAL".
- ❷ Set the page increment function to ON.
Set the "PAGE INC" to ON in "6. SYSTEM". (The initial setting is "ON".)
 - In FIELD mode, the image is memorized in the stored in memory page in order of page [A] → page [B] → page [A]...
 - To memorize images in page [A] and [B] only once, (not memorizing images repeatedly) set "MEM&STOP" to "ON" in "1. KEY SET" from MEMORY SW MENU.
 - When "PAGE INC" is set to OFF, images are memorized in page [A] repeatedly.

■ When memorizing multi- image (2, 4 or 16 images) in STROBE mode



This setting is used to memorize multi-image in order in one memory page.

- ❶ Set the mode to MULTI.
Select "ON" in "MULTI " in "3. ADDITIONAL".
- ❷ Set the number of images and print size.
Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16" in "3. ADDITIONAL".
 - Refer to **1** MULTI PRINT for setting the number of multi-image.
 - When "DIFF" is selected in "MODE" and 2, 4 or 16 is selected in "IMAGES", 2, 4 or 16 images are stored in memory in order at the set interval.
When the images are fully stored in memory page, the strobe memorization stops.
 - When "MODE" is set to "SAME" or "PHOTO", the memorization status is as same as one image memorization.

■ Displaying the source image (image from the input signal) or the memorized image

- ❶ Press the SET  button.
 - " CHANGE : OK/CANCEL " is selected.
 - When changing the setting, select "CANCEL" and press the SET  button.
- ❷ Press the SET  button.
 - The MAIN MENU is displayed.

8. Printing procedures (Special prints)

- ③ Press the SET  button.
 - "SAVE 1/2/3" is selected.
 - This menu is used to store the setting in any one of 3 programs (1, 2 or 3).
- ④ Press the RIGHT or LEFT shift button to select the program number 1, 2 or 3 to store the setting.
 - The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.
- ⑤ Press the SET  button.
 - The source image (image from the input signal) or memorized image is displayed.

■ Storing images in memory

- ① Press the DISPLAY button to display the set conditions.
- ② Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.
- ③ Press the MONITOR button and select the source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.
- ④ Press the MEMORY button.
 - The set strobe memory starts.
 - When the strobe memory is set on multi-image, the position of image memory is automatically set.
 - To store the images in strobe memory again while "MEM&STOP" is set to ON at multi-image and strobe memory setting, press the CLEAR button or press the MEMORY button after completing printing.
 - When "MODE" is set to "SAME" in FIELD mode, the images are stored in FIELD A or FIELD B repeatedly.
When "MODE" is set to "DIFF", "IMAGES" to "4", 4 images are stored in memory and then image memorization stops.
Images can be stored in memory again by pressing the MEMORY button.
When "MODE" is set to "DIFF" and "IMAGES" to "16", the images can be stored in one memory page.
After storing 16 images in memory, image memorization stops.
When pressing the MEMORY button again, images are stored in memory again.

■ Interrupting strobe memory

- When any buttons on the remote control except MEMORY button is pressed, the strobe memory is interrupted.

■ Pressing the PRINT button

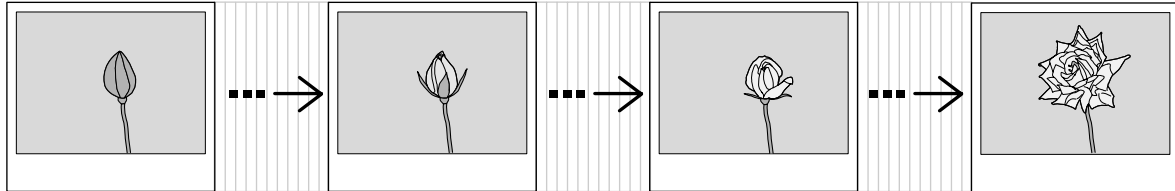
To print the images stored in the strobe memory, follow the following procedures after interrupting the strobe memorization.

- ① Display the desired image on the monitor.
- ② Press the PRINT button.
 - The image stored in memory is printed.

8. Printing procedures (Special prints)

Setting the automatic interval printing

By combining STROBE printing and MEMORY printing, automatic interval printing is available. This is the function where the images are stored in memory at the set interval and printed repeatedly.



Automatic interval prints (1 image)

This is the function to store the image in memory page FRAME, FIELD A or FIELD B in order at set interval and print repeatedly.

- ❶ Set 1 image mode.
Set "MULTI : OFF/ON" to "OFF" in "3. ADDITIONAL" from the MAIN MENU.
- ❷ Set the PAGE INC to "ON".
Set the "PAGE INC : ON/OFF" to "ON" in "6. SYSTEM" from the MAIN MENU.
- ❸ Set the "MEM&PRINT" to "ON".
Set the "MEM&PRINT : OFF/ON" to "ON" in "1. KEY SETTING" from the MEMORY SW MENU.






Automatic interval prints (multi- image)

This is the function to store the set number of multi-images in memory page (FRAME , FIELD A or FIELD B) in order at set interval and print repeatedly.

- ❶ Set multi-image mode.
Set "MULTI : OFF/ON" to "ON" in "3. ADDITIONAL" from the MAIN MENU.
- ❷ Set the number of images in a memory page and print size
Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16" in "3. ADDITIONAL".
 - When "MODE" is set to "SAME" or "PHOTO", the image is stored and printed as the same status as 1-image memory.
 - When "MODE" is set to "DIFF" and "IMAGES" to 2, 4, or 16, the images are stored in a memory page at the set interval.
 - The strobe memory does not function while the images are being printed with fully memorized status. After completing printing, memorizing and printing images starts again.
- ❸ Set the PAGE INC to "ON".
Set the "PAGE INC : ON/OFF" to "ON" in "6. SYSTEM" from the MAIN MENU.
- ❹ Set the "MEM&PRINT" to "ON".
Set the "MEM&PRINT : OFF/ON" to "ON" in "1. KEY SETTING" from the MEMORY SW MENU.

8. Printing procedures (Special prints)

Displaying the source image (image from the input signal) or the memorized image

- ❶ Press the SET  button.
 - "CHANGE : OK/CANCEL" is selected.
 - When changing the setting, select "CANCEL" and press the SET  button.
- ❷ Press the SET  button.
 - The MAIN MENU is displayed.
- ❸ Press the SET  button.
 - "SAVE 1/2/3" is selected.
 - This menu is used to store the setting in any one of 3 programs (1, 2 or 3).
- ❹ Press the RIGHT or LEFT shift button to select the program number 1, 2 or 3 to store the setting.
 - The setting will be overlaid. When keeping the stored program, do not select the program No. in which the setting is stored.
- ❺ Press the SET  button.
 - The source image (image from the input signal) or memorized image is displayed.

Pressing the MEMORY button

- ❶ Display the desired image for the automatic interval printing on the monitor.
- ❷ Press the MEMORY button.
 - The set automatic interval printing starts.

Interrupting automatic interval prints

- When the STOP button on the remote control is pressed, the automatic interval print is interrupted.

Note :

- "MEM&STOP" and "MEM&PRINT" function after the last image of the multi-image is stored in memory.
- Even if the number of prints is set to more than 1 at strobe print, STROBE is applied to the first page only.

8. Printing procedures (Special prints)

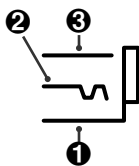
External remote 1 or 2 terminals on the rear panel

The images can be stored in memory and printed by sending the remote signal through the external remote terminal on the rear panel. When "MEM & PRINT" function is set to "ON", the images can be printed after storing.

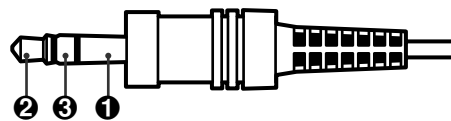
- Switching High/Low of BUSY signal and defining BUSY signal can be done in "2.REMOTE SET" in MEMORY SW MENU.
- Make out the necessary circuit to use this function by referring to the following.

External REMOTE 1 terminal

■ Circuit in the unit and Pin No.



■ Plug Pin No.



External remote terminal Signal allocation Connector REMOTE 1

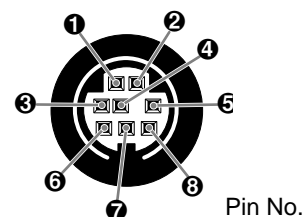
Pin No.	Function	Transmission/ Destination	Description
①	Ground	-	Earth
②	MEMORY	VCP	Memory: When the signal becomes "LOW" from "HIGH", the image is stored in memory. (When the signal has been "LOW" for 60msec. or more, the image is stored in memory.)
③	BUSY	PC	When "REMOTE BUSY" is set to "HIGH": " HIGH " : The VCP cannot accept the MEMORY signal. " LOW " : The VCP can accept the MEMORY signal. When "BUSY LEVEL" in Memory SW Menu is set to "LOW", the setting of "HIGH" and "LOW" becomes inverse. Refer to page 45. BUSY signal can be defined with BUSY 1 and BUSY 2, too. This terminal functions according to only BUSY 1 definition.

- When memorizing image through MEMORY terminal, use TTL level of 74LS series or mechanical switch.
- When the signal from BUSY terminal is received with TTL level, keep the following.
 $|1_{OL}| = 2\text{mA}$ or less, $|1_{OH}| = 1\text{mA}$ or less
 $|1_{OL}|$ shows the current flowing into the unit at Low output, $|1_{OH}|$ shows the current flowing out of the unit at High output.

8. Printing procedures (Special prints)

External REMOTE 2 terminal

- Make out the necessary circuit to use this function by referring to the following.



External remote terminal Signal allocation Connector MINI DIN8PIN

Pin No.	Function	Transmission/ Destination	Description
①	Ground	---	Earth
②	MEMORY	VCP	Memory: When the signal becomes "LOW" from "HIGH", the image is stored in memory. (When the signal has been "LOW" for 60msec. or more, the image is stored in memory.)
	PHOTO	VCP	When the signal is switched to "HIGH" level* or "Open" status* during not printing, the setting will be switched to the mode for pre-cut sheet. (Refer to page 56.) When the signal is switched to "LOW" level*, "3.ADDITIONAL" in MAIN MENU is set to the set conditions.
③	BUSY 2	PC	" HIGH " : The VCP cannot accept MEMORY, PRINT and PHOTO signals. " LOW " : The VCP can accept MEMORY, PRINT and PHOTO signals. When "BUSY LEVEL" in REMOTE SETTING is set to "LOW", the setting of "HIGH" and "LOW" becomes inverse. Refer to page 45. BUSY signal can be defined with BUSY 2.
④	BUSY 1	PC	" HIGH " : The VCP cannot accept MEMORY, PRINT and PHOTO signals. " LOW " : The VCP can accept MEMORY, PRINT and PHOTO signals. When "BUSY LEVEL" in REMOTE SETTING is set to "LOW", the setting of "HIGH" and "LOW" becomes inverse. Refer to page 45. BUSY signal can be defined with BUSY 1.
⑤	PRINT	VCP	PRINT :When the signal becomes "LOW" from "HIGH", the image stored in memory is printed. (When the signal has been "LOW" for 60 msec. or more, the image is printed.)
⑥	REMOTE	VCP	The same functions as the remote control can be controlled.*
⑦	Unused	---	
⑧	DC3V	---	Power supply for the remote control DC 1mA MAX

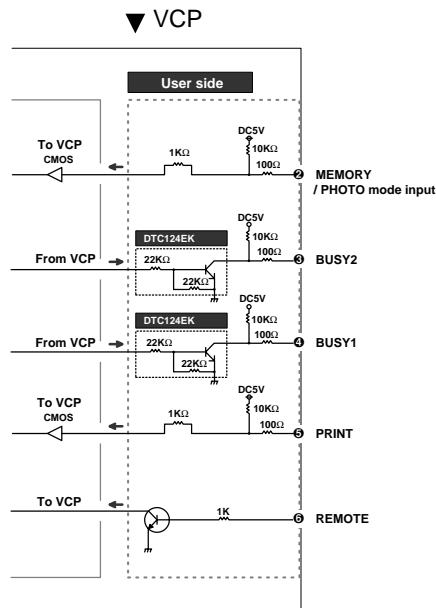
* This unit recognizes the signal of 60msec. or more.

- Refer to page 66 for this function.

- When carrying out MEMORY, PRINT or PHOTO command through this terminal, use TTL level of 74LS series or mechanical switch.
- Select the function of Pin No. 2 (MEMORY or PHOTO*), with 2. REMOTE SETTING in MEMORY SW MENU.
NORMAL..... MEMORY function
PRE-CUT PHOTO function
- When the signal from BUSY terminal is received with TTL level, keep the following.
|1_{ol}| =2mA or less, |1_{oh}| =1mA or less
|1_{ol}| shows the current flowing into the unit at Low output, |1_{oh}| shows the current flowing out of the unit at High output.

8. Printing procedures (Special prints)

Circuit inside the VCP



Pin No. 6 REMOTE terminal

By sending the following remote control codes from Pin No. 6, the same functions as the wired remote control (accessory) can be controlled.

Code	Function	Code	Function
01	LEFT SHIFT button	02	RIGHT SHIFT button
03	DOWN SHIFT button	04	UP SHIFT button
08	PRINT Q'ty button (increase)	09	
0A*	MENU button	0B*	CLEAR button
0C	PRINT Q'ty button(decrease)	0D	
0E*	SET button	0F*	STOP button
12*	PROG. (Program) button	13*	PRINT button
15*	FIELD/FRAME button	16*	COLOR ADJUST button
17*	MEMORY button	18*	DISPLAY button
1C*	MEMORY PAGE button	1D*	MONITOR button

In case of the codes with * mark, 5 words are sent.

TIMING CHART

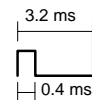
Input signal level : TTL

Input timing : 1 word 38.4 ms

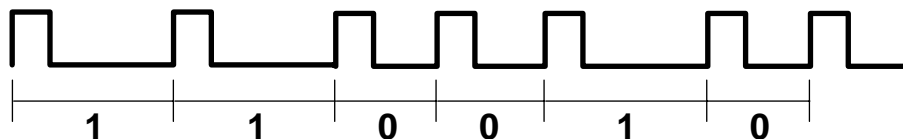
Input timing : Code : " 0 "



Input timing : Code : " 1 "



Example : print code = 13=010011



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