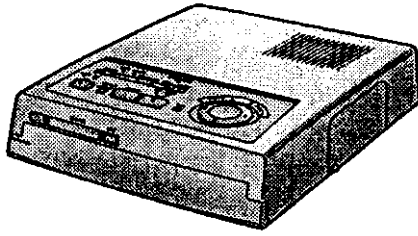


Exhibit #4
FCC ID: ACJ9TCTV083
Operating Instructions

Panasonic

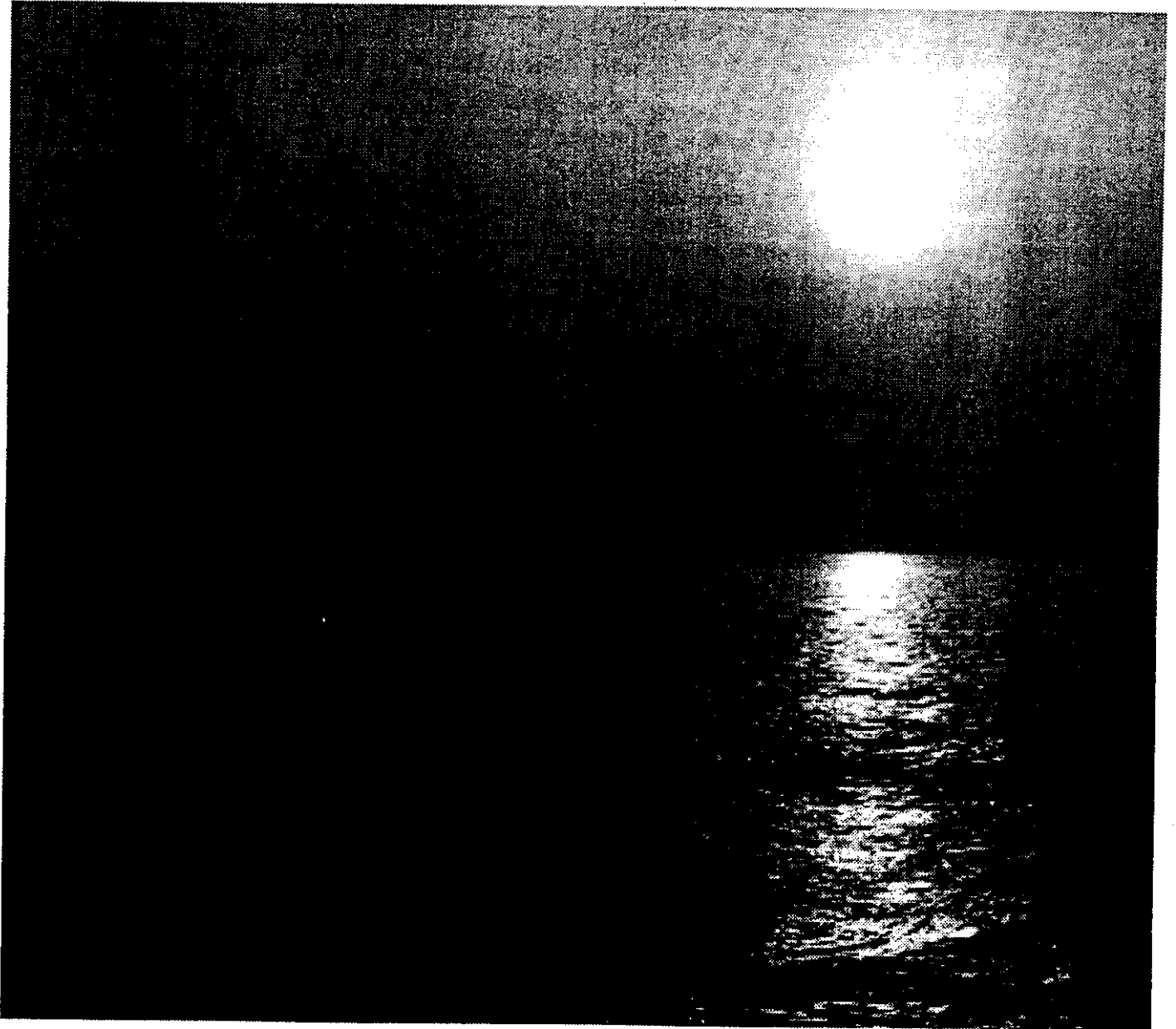
Digital Photo Printer

PV-PD2100



Operating Instructions

(DP340-MK II)



For assistance, call 1-800-272-7033.
Please read these instructions thoroughly before operating this product.

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Photo Printer. Please read these Operating Instructions carefully and keep them handy for future reference.

■IMPORTANT

Please respect all copyrights.

Whatever you have recorded and created can be used for your personal entertainment only. Under copyright laws, it cannot be used without obtaining permission from the holders of the copyrights.

- "Microsoft Windows" is a trademark of Microsoft Corporation in the United States.
- The name "Apple", Macintosh and System are either registered trademarks or trademarks of Apple Computer Inc.
- Other model names, company names, product names, etc. mentioned in this manual are either the trademarks or registered trademarks of the companies.

Information for Your Safety

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES AND DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

DO NOT REMOVE THE COVER (OR BACK); THERE ARE NOT USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- As this equipment gets hot during use, operate it in well ventilated place; do not install this equipment in a confined space such as a book case or similar unit.

(U.S. only)

This device complies with Part 15 of the FCC Rules. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS :

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE. AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

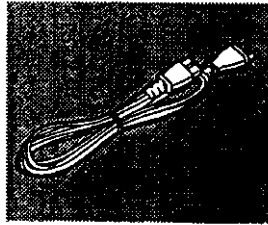
FCC NOTE: (U.S. only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

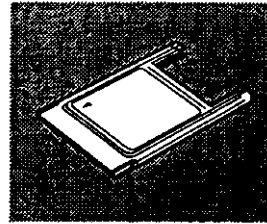
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution : To assure continued compliance, follow the attached installation instructions and use only shielded cables when connecting to computer or other devices. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

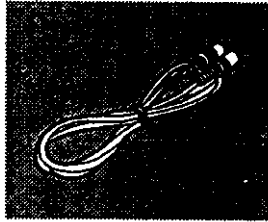
Standard Accessories



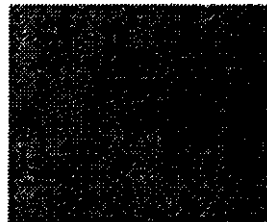
Power Cable
(p.0)



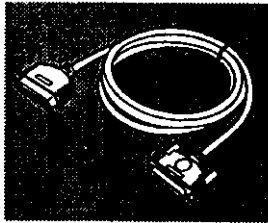
PC Card Adapter
(p.0)



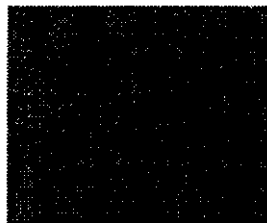
Video Cable
(p.0)



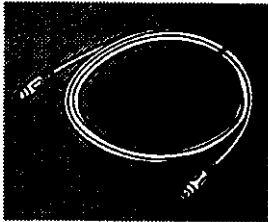
Standard Paper
(p.0)



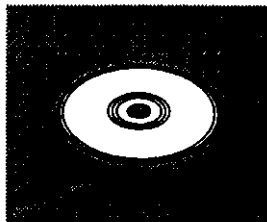
PC Connection Cable for
Windows
(p.0)



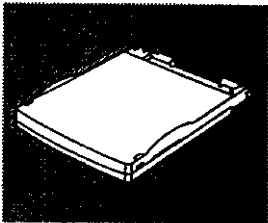
Ink Cassette
(p.0)



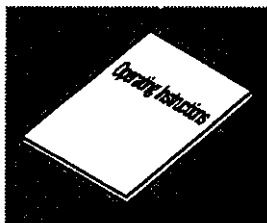
PC Connection Cable for
Macintosh
(p.0)



Printer Driver Software
CD-ROM





Paper Cassette
(p.0)



Operating Instructions

Usable Paper for Printing

Use Print Sets that either bear the  mark or  mark, or have been designated by Panasonic as suitable for this Digital Photo Printer.

■ Standard paper

The Print Set (PV-MPS50; 50 sheets) is required (sold separately).

This paper can be used as a postcard if you affix the proper postage.

Contents

Preparations

Controls and Components	0
Connections	0
Automatic Printing for Panasonic Digital Video Camera	00
Paper That Can Be Used for Printing	00
Inserting the Printing Paper	00
Inserting the Ink Cassette	00

Video Input

Printing from Video Input	00
Using MENU Mode	00
For Optimum Printing Results	00
Printing a Series of Different Pictures on the Same Print	00
Printing the Same Picture Repeatedly on the Same Print	00
Printing a Sequence of Pictures on the Same Print	00

Inserting a PC Card	00
Printing from a PC Card	00
Printing Multiple Images at Once from a PC Card	00
Using MENU Mode	00
Printing a Series of Different Pictures on the Same Print	00
Printing the Same Picture Repeatedly on the Same Print	00
Erasing the Images on the PC Card	00
Recording the Video Input Image on the PC Card	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00

Advanced Operations

Printing with Title or Trimming Frame	00
Printing with Trimming Frame	00
Printing with a Title	00
Connections When Using as Personal Computer Printer	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00
XXXXXXXXXX	00

Driver Software

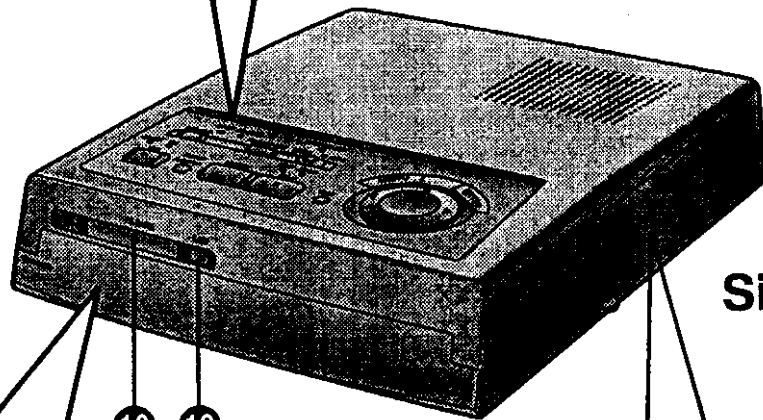
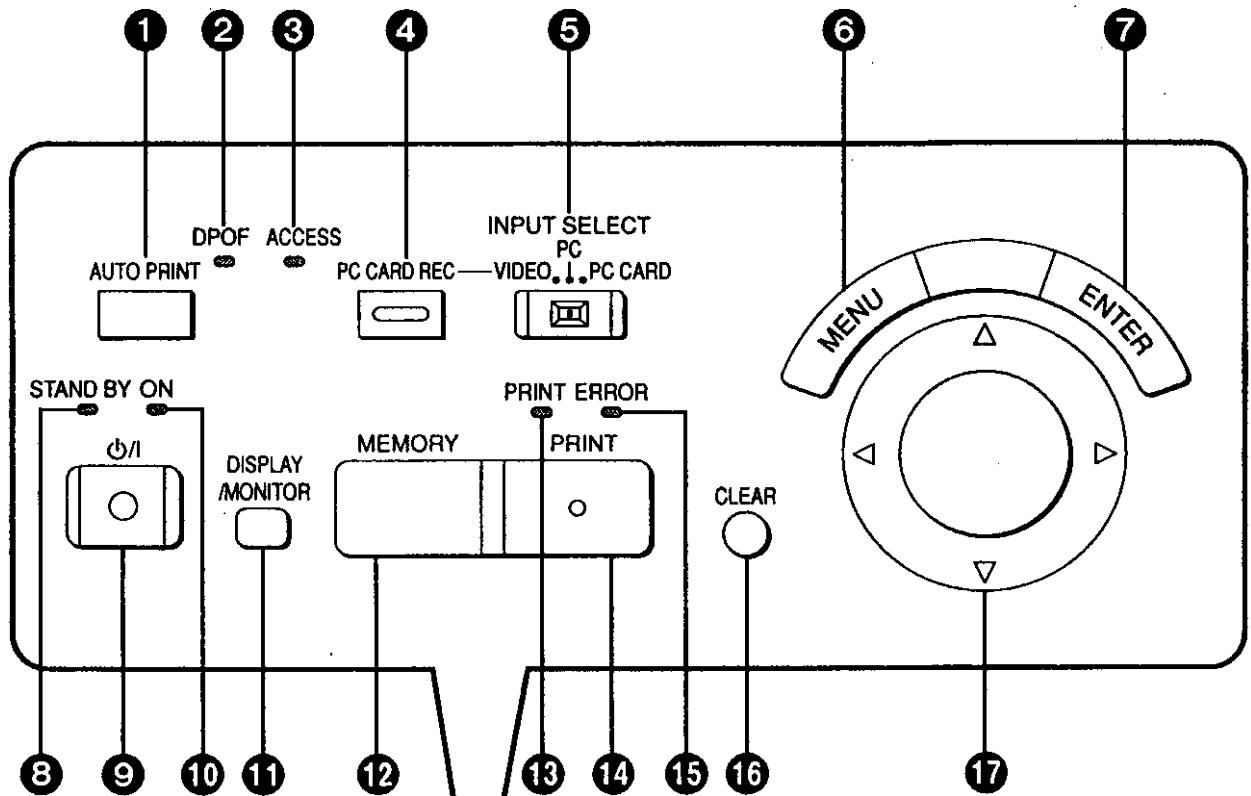
Windows	Operating Environment	00
	Connecting the PC Connection Cable	00
	Installing the Printer Driver	00
	Setting the Default Printer	00
Macintosh	Operating Environment	00
	Connecting the PC Connection Cable	00
	Installing the Printer Driver	00
	Setting the Default Printer	00

Precautions, etc.

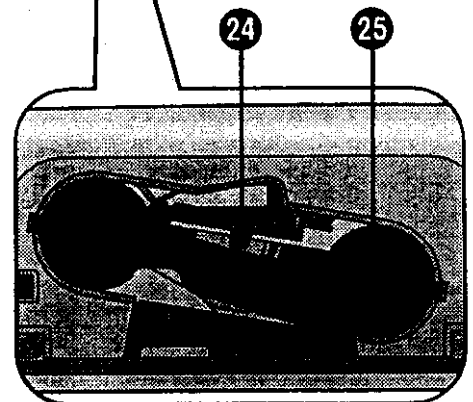
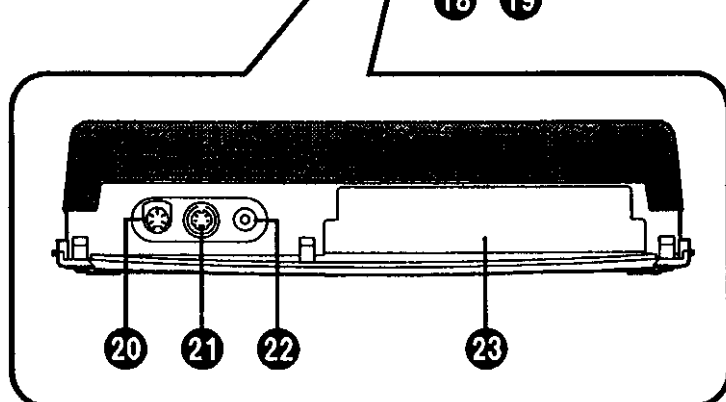
Precautions	00
Before Requesting Service	00
Error Messages	00
Specifications	00
Warranty / Servicenter Directory	00
Index	

Controls and Components

Front

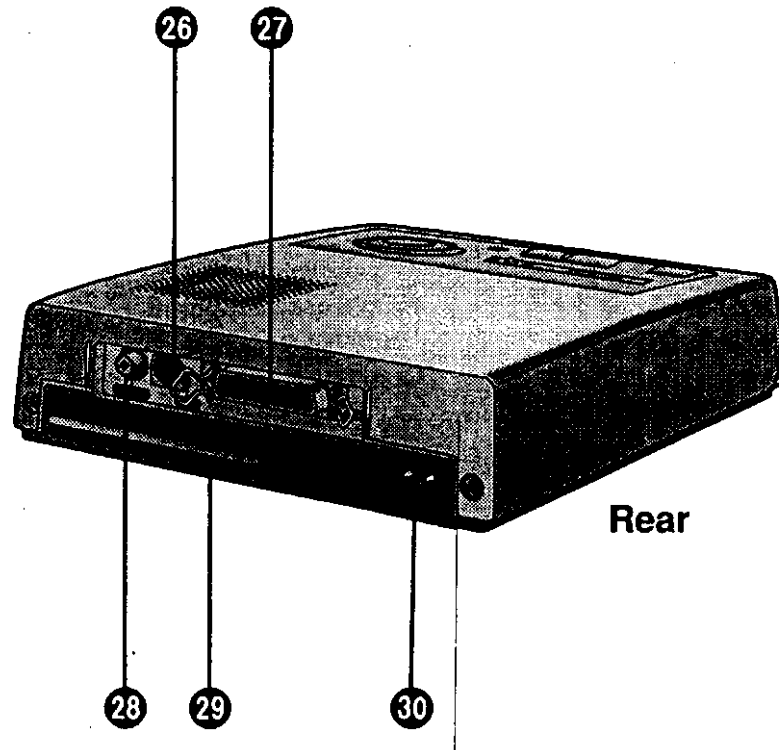


Side



- 1 AUTO PRINT Button (p.00)**
Use this lever to batch print the images stored in the PC Card.
- 2 DPOF Lamp (p.00)**
This lamp lights up.
- 3 ACCESS Lamp (p.00)**
This lamp lights up when image data from an inserted PC Card is being read or stored.
- 4 PC CARD REC Button (p.00)**
Use this button to record the image from the VIDEO IN (or S-VIDEO IN) Socket to the PC Card.
- 5 INPUT SELECT (VIDEO / PC / PC CARD) Switch (p.00)**
Use this switch to select either VIDEO IN (or S-VIDEO IN) Socket or PC CARD for input of the image to be printed. Either setting can be used when printing from a computer.
- 6 MENU Button (p.00)**
Use this button to display the MENU Screen. Various printer functions can be selected at the MENU Screen. The ◀▶▲▼ Buttons, ENTER Button, INPUT SELECT Switch, and the ⏻ / I (Power) Button are the only buttons and switches that function while the MENU Screen is displayed.
- 7 ENTER Button (p.00)**
Use this button to execute the items selected in MENU Mode.
- 8 STAND BY Lamp (p.00)**
This lamp lights up when the Printer is plugged into the outlet and the ⏻ / I (Power) Button is set to off.
- 9 ⏻ / I (Power) Button (p.00)**
Use this button to turn the Printer on and off. When the Printer is turned off, all data stored in the memory is lost.
- 10 ON (Power) Lamp (p.00)**
This lamp lights up when the ⏻ / I (Power) Button is pressed and the Printer is turned on. When the power is turned off, the Printer goes into STAND BY Mode and the STAND BY Lamp lights up.
- 11 DISPLAY / MONITOR Button (p.00)**
Use this button to switch between the Single-image and Index Screen when displaying the images stored in the PC Card. During video input, this button switches between the image from the video source and the image stored in memory.
- 12 MEMORY Button (p.00)**
Use this button to store the image currently displayed on the television screen in memory. Use this button when storing a fast-moving image in memory or when the image stored in memory is blurred.
- 13 PRINT Lamp (p.00)**
This lamp lights up when the MEMORY Button is pressed. This lamp flashes while printing is in progress.
- 14 PRINT Button (p.00)**
Use this button to print pictures. No buttons function while printing is in progress.
- 15 ERROR Lamp (p.00)**
This lamp flashes when a problem that prevents normal printing has occurred, such as paper jamming or running out of printing paper or ink. A corresponding error message also appears on the television screen.
- 16 CLEAR Button (p.00)**
Use this button to erase the image stored in memory, cancel printing of multiple prints, cancel batch printing, or cancel the settings.
- 17 ◀▶▲▼ Button (p.00)**
Use these buttons to select the menu contents or select the PC Card image.
- 18 PC Card Slot (p.00)**
The PC Card is inserted here.
- 19 PC Card EJECT Button (p.00)**
Use this button to eject the PC Card.
- 20 EDIT Socket (p.00)**
Connecting this Printer to the Panasonic Digital Video Camera using the System Cable (sold separately) lets you automatically search for and print still images that were recorded with the digital photo-shot function. For details, refer to the Operating Instructions for the Digital Video Camera.
- 21 S-VIDEO IN Socket (p.00)**
Use an S-VIDEO Cable to connect this socket to the S-VIDEO OUT Socket on video equipment. High-quality images are obtained from the S-VIDEO IN Socket. If the device you are using has an S-VIDEO OUT Socket, it is recommended that you use this socket.
- 22 VIDEO IN Socket (p.00)**
Use a VIDEO Cable to connect this socket to the VIDEO OUT Socket on video equipment.
- 23 Paper Cassette Slot (p.00)**
The Paper Cassette is loaded here.
- 24 Ink Cassette EJECT Lever (p.00)**
Raise this lever to eject the Ink Cassette.
- 25 Ink Cassette Slot (p.00)**
The Ink Cassette is inserted here.

Controls and Components (Cont.)



- ②⑥ **SERIAL Socket** (p.00)
Use this socket to connect the printer cable for Macintosh computers (available at computer stores).
- ②⑦ **PARALLEL Socket** (p.00)
Use this socket to connect the printer cable (available at computer stores). The PC should have a bidirectional parallel socket conforming to Centronics standards.
- ②⑧ **VIDEO OUT Socket** (p.00)
Use this socket to connect the cable from the VIDEO Socket (VIDEO IN Socket) on the television.
- ②⑨ **Paper Removal Port** (p.00)
Remove paper from here if a paper jam occurs.
- ③⑩ **AC IN Socket** (p.00)
Connect the supplied Power Cable here.

Preparations

Connections

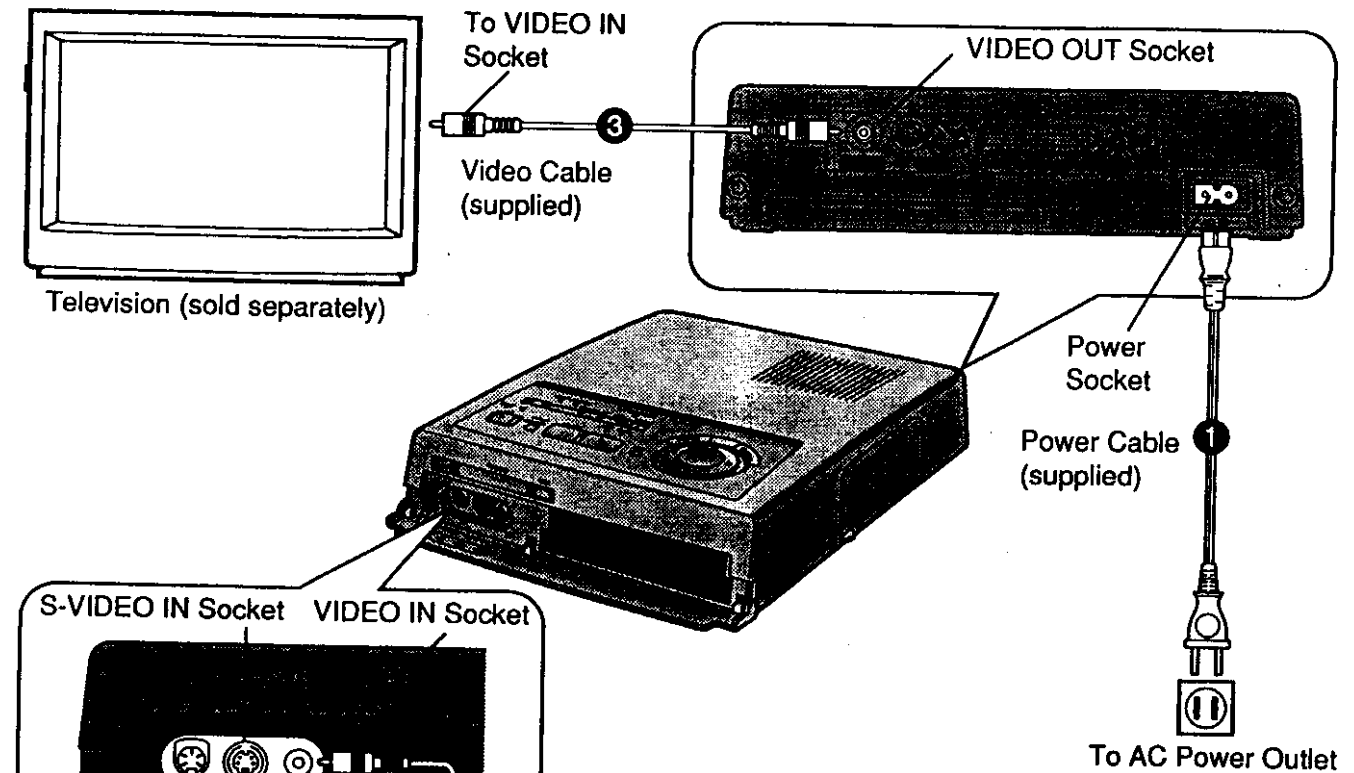
(Connecting to the VCR or Camera)

Connect with the S-Video Cable if the VCR or Camera has an S-VIDEO OUT socket.

- Connecting to a VCR with an S-VIDEO OUT socket will allow wide-screen images to be automatically printed out in wide dimensions.
(When "AUTO" is set for "WIDE" in MENU Mode)
(p.00)

Connect using a Video Cable if the VCR or Camera has no S-VIDEO OUT socket.

- To listen to sound from the VCR or Video Camera, connect the audio output from the VCR or Video Camera directly to the television AUDIO IN socket.
- If different video sources are connected simultaneously to the S-VIDEO IN Socket and the VIDEO IN Socket, the video for the S-VIDEO IN Socket takes precedence.



THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

Installation Notes:

The temperature inside this printer can become extremely hot due to the thermal sublimation transfer printing system. For this reason, the printer should be used in a well-ventilated location. Also, objects should not be placed on top of the printer. Be sure to leave at least 10 cm behind the printer so that paper can be removed from the Paper Removal Port if a paper jam occurs.

Preparations (Cont.)

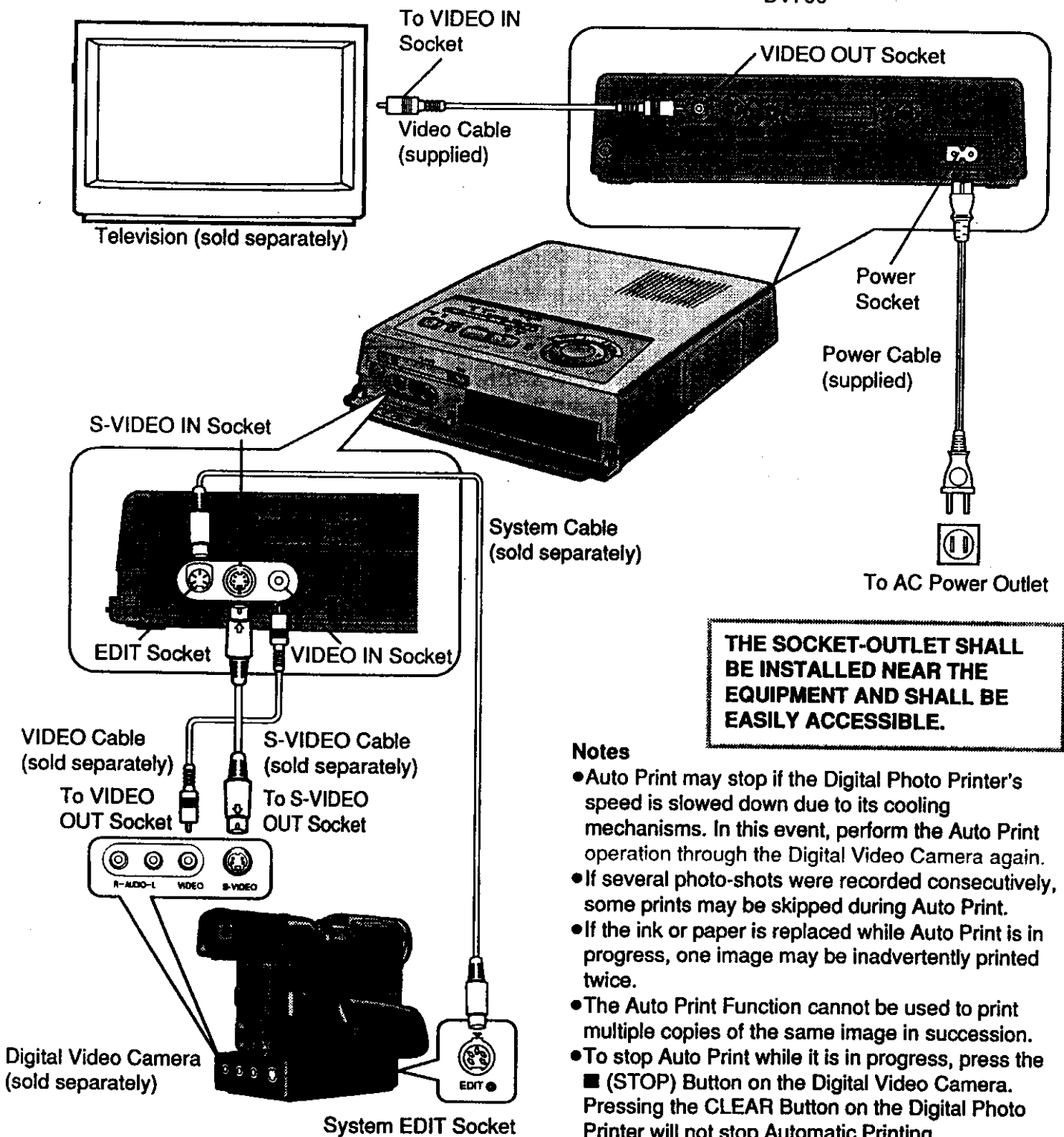
Automatic Printing for Panasonic Digital Video Camera

(Automatic printing requires a Digital Video Camera (sold separately) with a System (EDIT) Socket.)

Using a Video Cable (sold separately) or an S-Video Cable (sold separately), connect the Digital Video Camera to the Digital Photo Printer.

If the System Cable (sold separately) is also used to connect the System (EDIT) Socket on the Digital Video Camera to the EDIT Socket on the Digital Photo Printer, you can automatically search for and print still images that were recorded with the digital photo-shot function.

Important Caution : This Automatic Printing feature is not available for models : PV-DV1000, PV-DV710, and PV-DV700





Notes

- Auto Print may stop if the Digital Photo Printer's speed is slowed down due to its cooling mechanisms. In this event, perform the Auto Print operation through the Digital Video Camera again.
- If several photo-shots were recorded consecutively, some prints may be skipped during Auto Print.
- If the ink or paper is replaced while Auto Print is in progress, one image may be inadvertently printed twice.
- The Auto Print Function cannot be used to print multiple copies of the same image in succession.
- To stop Auto Print while it is in progress, press the ■ (STOP) Button on the Digital Video Camera. Pressing the CLEAR Button on the Digital Photo Printer will not stop Automatic Printing.

Paper That Can Be Used for Printing

The Digital Photo Printer can use the following three types of paper.

(Use Print Sets that either bear the  mark or  mark, or have been designated by Panasonic as suitable for this Digital Photo Printer.)

■ Standard coated paper

The Print Set PV-00000 is required.

(Sold separately: Ink Cassette and paper [50 sheets])

- This paper can be used as a postcard if a postage stamp is affixed.
- Do not affix stamps or adhesive paper to the paper or print on it with a word processor before printing. The paper may become curled, or the stamp may come off, resulting in a paper jam or malfunction in the Photo Printer.
- Do not write on the paper before printing on it with the Photo Printer.
- When writing on a printed surface, use a permanent marker (oil-based). In this case, do not allow printed surfaces to come into contact with each other.
- Permanent markers, washable markers, pencils, and ballpoint pens can all be used to write on the back of the printed images. However, be careful not to apply too much pressure when writing on the back since this will leave marks on the printed surface.

■ Standard paper

The Print Set PV-MPS50 is required.

(Sold separately: Ink Cassette and paper [50 sheets])

- This paper can be used as a postcard if a postage stamp is affixed.
- Do not affix stamps or adhesive paper to the paper or print on it with a word processor before printing. The paper may become curled, or the stamp may come off, resulting in a paper jam or malfunction in the Photo Printer.
- Do not write on the paper before printing on it with the Photo Printer.
- When writing on a printed surface, use a permanent marker (oil-based). In this case, do not allow printed surfaces to come into contact with each other.
- Permanent markers, washable markers, pencils, and ballpoint pens can all be used to write on the back of the printed images. However, be careful not to apply too much pressure when writing on the back since this will leave marks on the printed surface.

■ Adhesive paper

The Print Set PV-MPAS25 is required.

(Sold separately: Ink Cassette and adhesive paper [25 sheets])

- Do not peel off the adhesive before printing. This can cause a paper jam or malfunction in the Photo Printer.
- When affixing the adhesive paper to another surface (paper, glass, plastic, metal, etc.), carefully clean the surface of all dirt and foreign matter.
- When cutting off adhesive paper after printing, use a "one-sheet cutter" (available at stores) to cut the adhesive paper with the backing paper still in place.

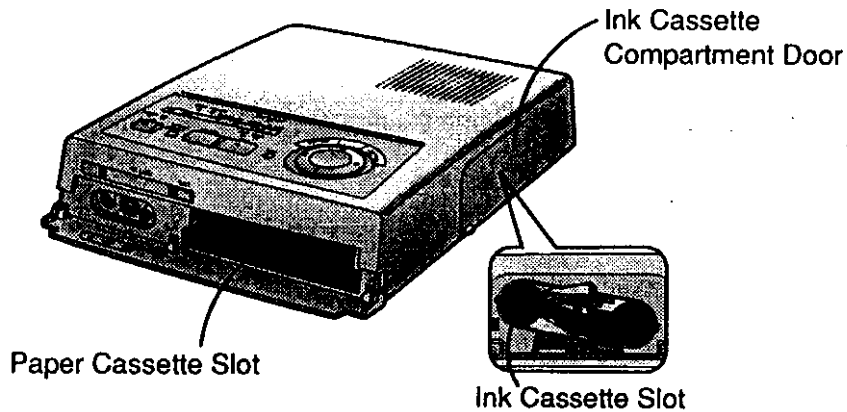
■ 16 Pre-Cut Adhesive paper

The Print Set PV-MPAS16 is required.

(Sold separately: Ink Cassette and 16 Pre-Cut Adhesive paper [25 sheets])

- Do not peel off the adhesive before printing. This can cause a paper jam or malfunction in the Photo Printer.
- When affixing the adhesive paper to another surface (paper, glass, plastic, metal, etc.), carefully clean the surface of all dirt and foreign matter.
- This paper cannot be used for wide-mode printing.

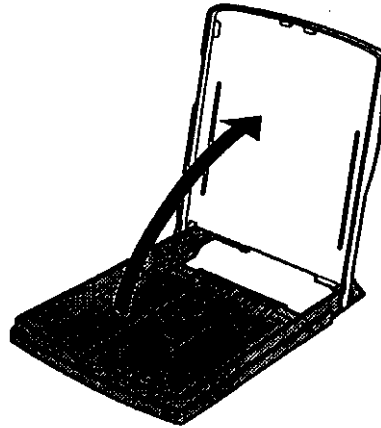
Preparations (Cont.)



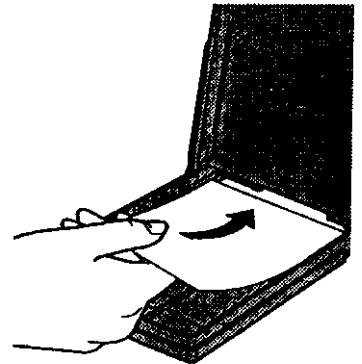
Title

Inserting the Printing Paper

1
Open the cover of the Paper Cassette (supplied).



2
Place the paper in the Paper Cassette with the blank side to be printed facing up.

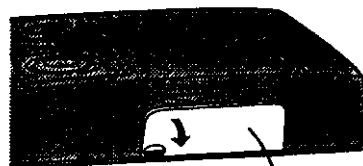


- The Paper Cassette can hold up to 25 sheets. Tuck the paper under the two tabs.
- Close the cover.

Title

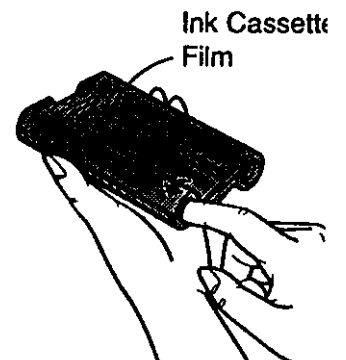
Inserting the Ink Cassette

1
Open the Ink Cassette Compartment Door.



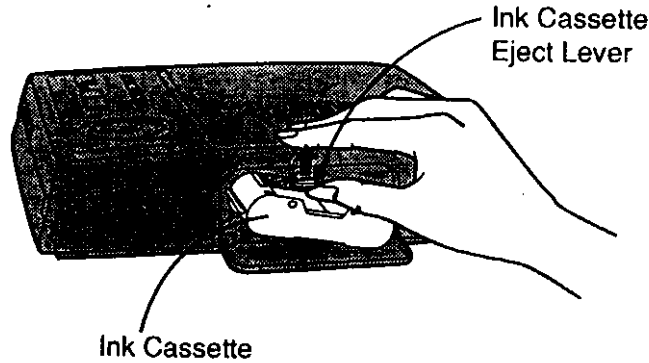
Ink Cassette Compartment Door

2
Take up any slack in the Cassette Film.



- Insert a finger in a spool turn it in the direction indicated by the arrow.
- Ink Cassettes are included in the Print Sets (sold separately). (p.00)

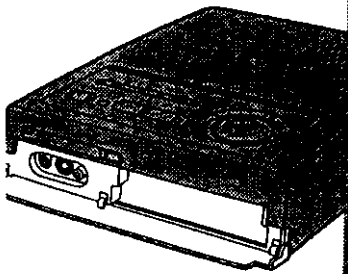
Removing the Ink Cassette



Push up the Ink Cassette EJECT Lever, and then pull the Ink Cassette straight out.

3

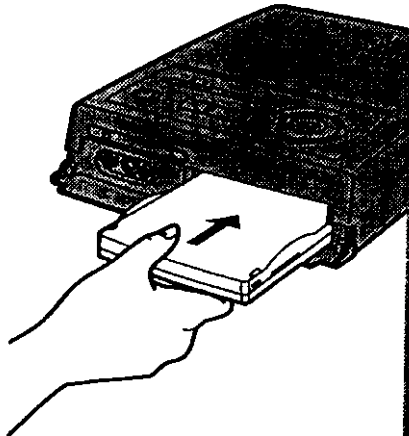
Open the cover of the Paper Cassette Slot.



When open, press "PUSH OPEN" at the top right of the cover.

4

Push the Paper Cassette into the Photo Printer as far as it will go.

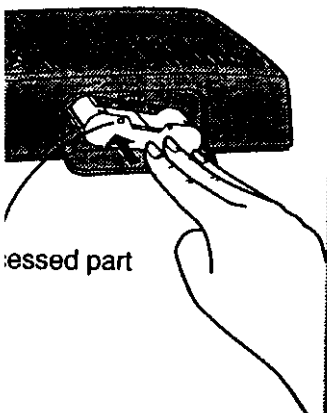


Remarks, etc.

- Do not bend or fold the paper or place it in the cassette with the wrong side facing upward.
- Do not soil the printing side (blank side) of the paper.
- Fan the paper before placing it in the Paper Cassette.
- The front end of the Paper Cassette Slot becomes the left side of the image to be printed.
- Do not remove the Paper Cassette while printing is in progress.
- After printing, remove the Paper Cassette and close the cover of the Paper Cassette Slot.

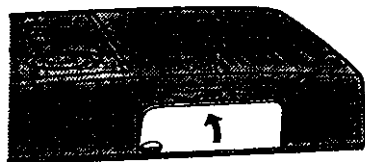
3

Push the recessed part of the Ink Cassette into the Photo Printer as far as it will go.



4

Close the Ink Cassette Compartment Door.

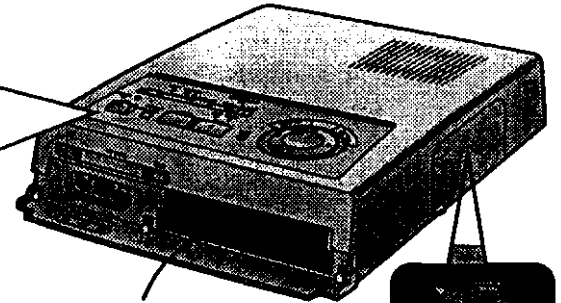
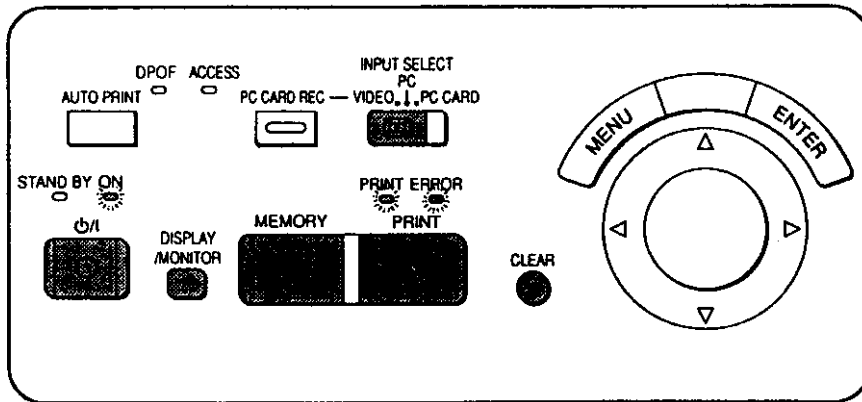


Check that the Ink Cassette has been inserted all the way before closing the Compartment Door.

Remarks, etc.

- Do not touch the ink film in the Ink Cassette, and do not try to pull it out of the cassette.
- Do not peel off the label on the Ink Cassette.
- The "ink film" refers to the wide tape that is inside the Ink Cassette.
- When all of the ink film in an Ink Cassette has been used up, replace the Ink Cassette with a new one. Used Ink Cassettes cannot be reused.
- For best printing results, use only the printing paper and Ink Cassette packaged together as a Print Set.

Video Input



Paper Cassette Slot

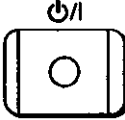


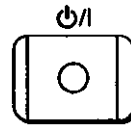
Ink Cassette Slot

Title

Printing from Video Input (Printing an Image from the VIDEO IN or S-VIDEO IN Socket)

- Before printing, check that an Ink Cassette has been inserted in the Ink Cassette Compartment.
- Check that paper has been placed in the Paper Cassette, and then start the printing procedure.

1
Press the  (Power) Button to turn the printer on.



- The POWER Lamp lights up.

2
Set the INPUT SELECT (VIDEO / PC / PC CARD) Switch to "VIDEO".



Blur Reduction

Use this button when the picture stored in memory is blurred because the subject is moving. "FIELD" appears on the screen when the FIELD/FRAME Button is pressed.

- The television may make the picture stored in memory appear slightly blurry. However, this does not affect the printing.

MEMORY



While printing is in progress, the only button on the Photo Printer that functions is the CLEAR Button for canceling the printing of multiple sheets.

If a Paper Jam Occurs

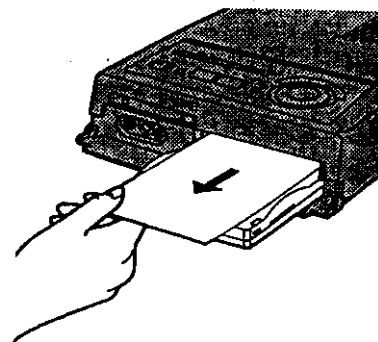
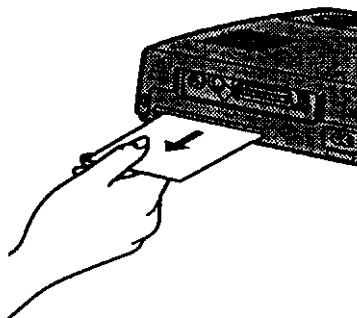
If a "REMOVE JAMMED PAPER" error message is displayed, and the ERROR Lamp flashes. When this happens, remove the paper where it has jammed (1 or 2 in the figure above).

If the paper cannot be removed, turn off the printer. Then, turn the printer on again and remove the paper from either 1 or 2.

If the Paper Cassette is removed while printing is in progress, paper will become jammed in the Print Exit (above the Paper Cassette) and be unable to be pulled out. Insert the Paper Cassette and turn the printer on again to discharge the paper.

① Rear Paper Removal Port

② Print Exit (above the Paper Cassette)



3

While watching the television screen, press the MEMORY Button at the scene that you want to print.

MEMORY

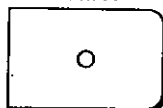


When the PRINT Lamp lights up, press the MEMORY Button to store a new scene in memory. Then, press the MONITOR Button so that the PRINT Lamp turns off. Then, press the MEMORY Button again to store a new image in memory.

4

Check that the PRINT Lamp on the Photo Printer is lit, and then press the PRINT Button.

PRINT



- Printing starts.
- During printing, the picture that is being input from the memory appears on the television screen.
- When printing is finished, the picture that is being input from the video source appears on the television screen again.

Remarks, etc.

- When printing starts, the "----" display shown at the top right of the screen changes to "☆--".
- "☆--": Printing in progress
- "☆☆-": Printing in progress
- "☆☆☆": Printing is completed when the ☆ mark flashes and then lights up. (The ☆ mark indicates the printing progress.)
- Do not pull the paper while it is moving during the printing operation.
- Do not remove the Paper Cassette while printing is in progress.
- Do not take out the Ink Cassette while printing is in progress.
- If there is no paper in the Paper Cassette or if the paper is not inserted properly, the "SET PAPER AND PUSH (PRINT)" message may appear after the PRINT Button is pressed (after approx. 25 seconds). When this happens, reinsert the paper correctly.
- Printing may take more time for continuous printing of two or more sheets or when printing at high or low temperatures. Also, if the Photo Printer becomes hot, the edges of the printed images may be slightly discolored.
- Please note that if the paper is bent or folded, the prints may fall from the Print Exit (above the Paper Cassette).
- To prevent paper jams, do not allow more than 10 sheets of paper to accumulate at the Print Exit.

Remarks, etc.

Print the Same Image Again

When printing is finished, press the MONITOR Button again so the image displayed on the television screen is stored in the memory. Then, press the PRINT Button to print the same image again.

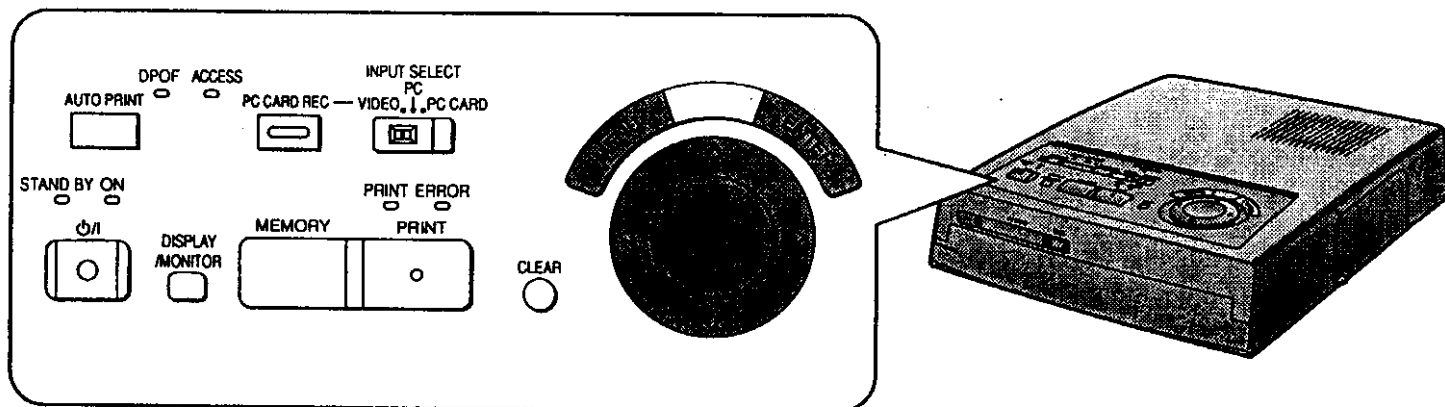
Printing Multiple Copies of the Same Image

The number of prints on the MENU Screen (up to 10 sheets).

The remaining sheets to be printed are shown at the top right of the television screen. This number includes the sheet being printed.

To cancel continuous printing when two or more sheets remain, press the CLEAR Button.

Video Input (Cont.)

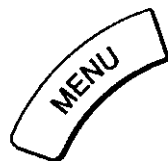


Title

Using MENU Mode

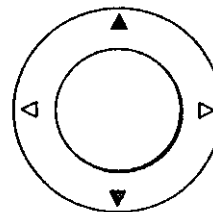
The settings for the functions in the Photo Printer are made at the MENU Screen.


1 Press the MENU Button.



- The MENU Screen is displayed on the television screen.

2 Use the ▲ and ▼ Buttons to select the desired menu.



- The  mark indicates the selected item.

Menu Description

- ① **PRINT** :Use the F and E Buttons to set the number of prints (from 1 to 10) desired.
- ② **FORMAT** :If [SET] is selected, use the L and M Buttons to select each print function. (p.00 - 00)
- ③ **TITLE** :If [SET] is selected, you can make your own titles (p.00)
- ④ **PICTURE** :If [SET] is selected, you can adjust the picture quality. (p.00)
- ⑤ **OSD (On Screen Display)** :Use the F and E Buttons to select [ON] or [OFF] for the screen display.
 - Error messages, menus, and the preset title menu are still displayed even when [OFF] is selected for OSD.
 - (The setting for OSD is still stored even when the INPUT SELECT Switch is set to "PC CARD").

MENU

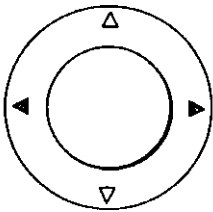
1	PRINT	:	1	
2	FORMAT	:	[STD]	SET
3	TITLE	:	[OFF]	SET
4	PICTURE	:	[STD]	SET
5	OSD	:	[ON]	OFF
6	WIDE	:	[AUTO]	ON OFF

[◀▶]CHANGE

[◆]SELECT [ENTER]END

3

Use the ◀ and ▶ Buttons to select the desired setting.



The selected setting is indicated by brackets [].

4

Press the ENTER Button to complete the setting.



• The MENU Screen disappears from the television screen.

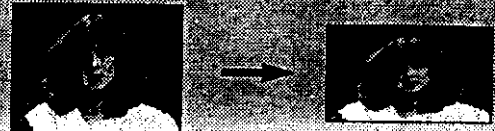
Remarks, etc.

- The ◀▶▲▽ Buttons, ENTER Button, and H/I (Power) Button are the only buttons that function while the MENU Screen is displayed.
- Once you set "PICTURE," [ADJ] is displayed on the MENU Screen. The previous settings are maintained in memory until you select [SET] to implement the new settings.
- Once you set "FRAME" or "TITLE," [ON] is displayed on the MENU Screen. The previous settings are maintained in memory until you select [SET] to implement the new settings.
- The stored settings are erased when the power cable is unplugged.
- If the letters are blurred and difficult to read when the MENU Screen is displayed, go to the MEMORY Screen and then return to the MENU Screen to make the settings.

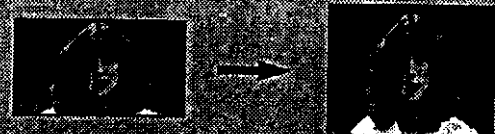
- WIDE** [AUTO] :The wide video signal from the S-VIDEO IN socket is automatically identified and printed in wide dimensions (62 × 107 mm).
- [ON] :All pictures are printed in wide dimensions.
- [OFF] :All images, including wide images, are printed in normal dimensions.

Wide images

- When normal-sized images are printed as wide images, the printed picture is stretched horizontally.

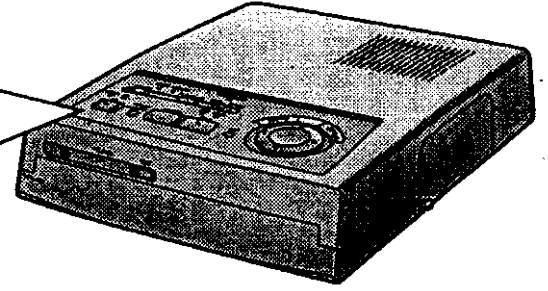
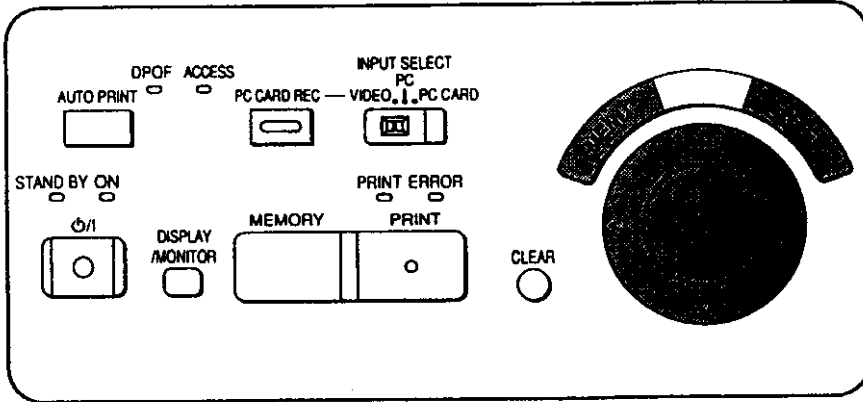


- When wide images are printed as normal-sized images, the printed picture is stretched vertically.



- Wide images can be automatically identified only when the Photo Printer and the video device are connected with an S-Video cable.

Video Input (Cont.)



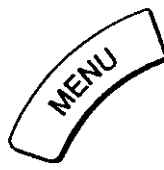
Title

For Optimum Printing Results (PICTURE)

Although the picture quality of an image that you want to print can be adjusted before storing the image in memory, for optimum results we recommend that you adjust the picture quality of the image after you have stored it in memory.

1

Press the MENU Button.

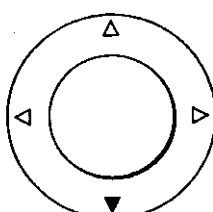


MENU		
PRINT	:	1
FORMAT	:	[STD] SET
TITLE	:	[OFF] SET
PICTURE	:	[STD] SET
OSD	:	[ON] OFF
WIDE	:	[AUTO] ON OFF

[◀▶]CHANGE
[▲]SELECT [ENTER]END

2

Use the ▼ Button to select "PICTURE".

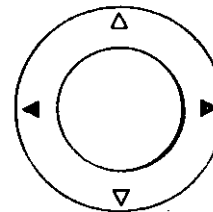


MENU		
PRINT	:	1
FORMAT	:	[STD] SET
TITLE	:	[OFF] SET
PICTURE	:	[STD] SET
OSD	:	[ON] OFF
WIDE	:	[AUTO] ON OFF

[◀▶]SELECT [ENTER]END

5

Use the ◀ and ▶ Buttons to adjust the level.

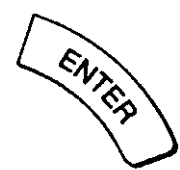


COLOR	:	+2
-------	---	----

[◀▶]ADJUST
[▲]SELECT [ENTER]OK

6

Press the ENTER Button.

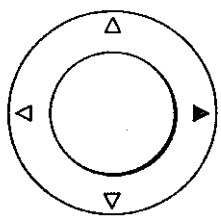


Picture Quality Adjustment Procedure

1. Set "PICTURE" to [STD] in MENU mode, and then print an image with contrasting bright and dark areas.
2. In television picture quality adjustment, adjust the television screen to nearly the same color as the printed picture.
3. At "PICTURE" in MENU mode, adjust the television screen to the desired color balance.
Printing after making these adjustments will produce a print with almost exactly the same colors as the screen.

3

the ► Button to select [].



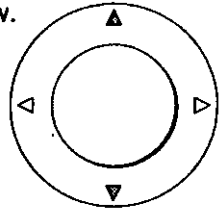
MENU	
PRINT	: 1
FORMAT	: [STD] SET
TITLE	: [OFF] SET
PICTURE	: [STD] SET
DSD	: [ON] OFF
WIDE	: [AUTO] ON OFF

◀▶]SELECT [ENTER]END

4

Use the ▲ and ▼ Buttons to select the picture quality item that you want to adjust.

- See the adjustment items below.



COLOR	0	-	+
----- -----			
[◀▶]ADJUST			
[▲▼]SELECT	[ENTER]OK		

Remarks, etc.

- For PC Card input, follow the same procedure shown above.
- If it is necessary to re-adjust the picture quality, start over from Step 1.
- The picture will not be displayed in black and white even if COLOR is set to -9.
- Adjusting SHARPNESS has no effect on television picture quality.
- Images are stored in the PC Card without the setting adjustments made to the picture quality.

When using video input, one of the most important factors in printing images of high quality is skillful video camera work. When printing, it is recommended that you use an S-VIDEO IN Socket for best results. When shooting a scene from a Video Camera, keep the following points in mind.

- If at all possible, shoot with the light source at your back.
- When shooting a scene outdoors that includes motion, either put the Video Camera into "sports mode" or, if the camera is equipped with an electronic shutter function, set it to about 1/500. Doing so will allow you to print images without blurring.
- When shooting indoors, make sure that there is enough illumination.

Picture Quality Adjustment Items

COLOR ↔ TINT ↔ BRIGHTNESS ↔ SHARPNESS ↔ CONTRAST

adjustments shown below change in the following order.

OR: This setting lets you adjust to the desired colour intensity.

: This setting lets you reproduce colors with the correct balance.

BRIGHTNESS: This setting lets dark parts become more visible.

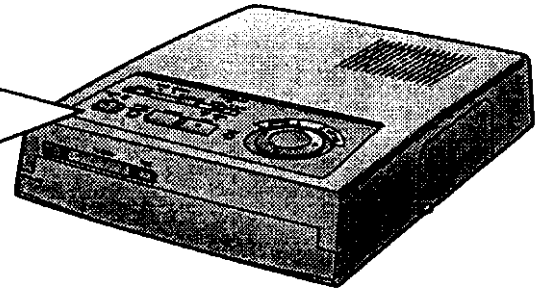
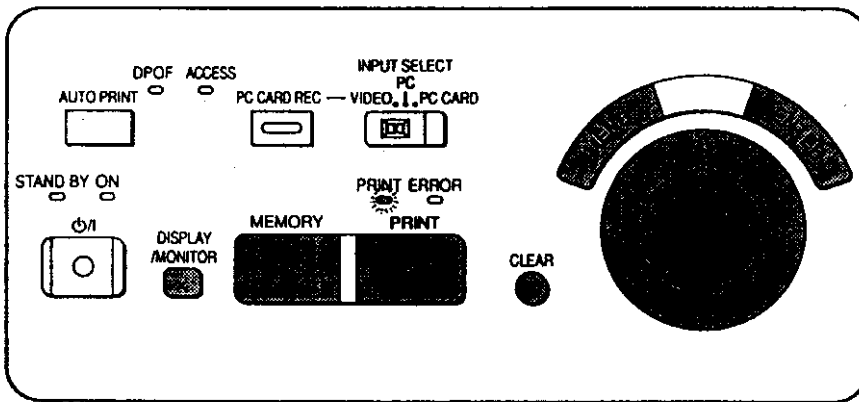
CONTRAST: This setting lets you adjust the difference between the light and dark parts of the picture.

SHARPNESS: This setting lets you adjust the contours.

COLOR, TINT, BRIGHTNESS, and CONTRAST settings be adjusted from -9 to +9 using the ◀▶ Buttons.

level of SHARPNESS can be set to L (Low), M (Medium), H (High) using the ◀▶ Buttons.

Video Input (Cont.)



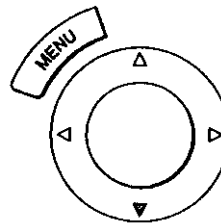
Title Printing a Series of Different Pictures on the Same Print (ALBUM)



- This printing function allows you to divide the screen into 4, 9, or 16 mini-frames containing different pictures, and then print them all together on the same print.
- This feature is useful for printing a variety of scenes from a vacation on a single print.
- When using the 16 Pre-Cut Adhesive paper, PV-MPAS16 (sold separately), select ALBUM [16] in Step 4.

1

Press the MENU Button, and then use the ▼ Button to select "FORMAT".

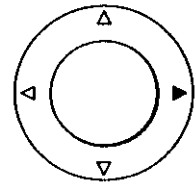


MENU			
PRINT	: 1		
FORMAT	: [STD]	SET	
TITLE	: [OFF]	SET	
PICTURE	: [STD]	SET	
OSD	: [ON]	OFF	
WIDE	: [AUTO]	ON	OFF

[◀▶]SELECT [ENTER]END

2

Use the ► Button to select [SET].

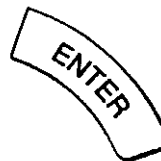


MENU			
PRINT	: 1		
FORMAT	: [STD]	SET	
TITLE	: [OFF]	SET	
PICTURE	: [STD]	SET	
OSD	: [ON]	OFF	
WIDE	: [AUTO]	ON	OFF

[◀▶]SELECT [ENTER]END

5

Press the ENTER Button.



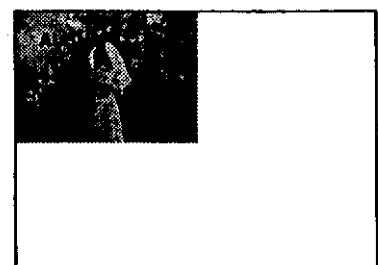
ALBUM 4	
---------	--

6

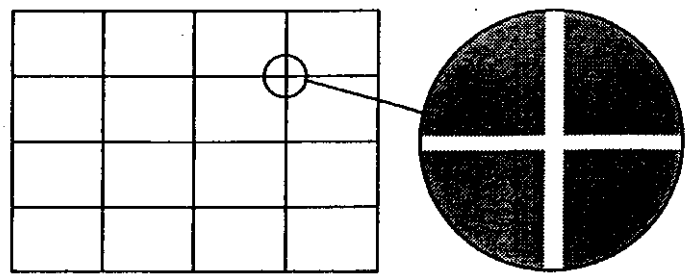
Press the MEMORY Button.



- After the image stored in memory is displayed for about one second, the display returns to the input screen.

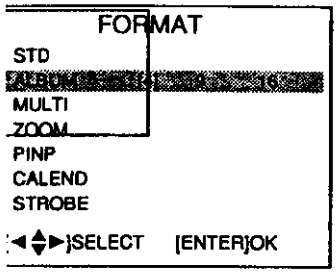
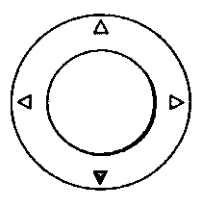


Printing for 16 Mini-frame Pictures
 16 mini-frame pictures are printed separated by white lines.
 (These lines are also displayed on the television screen.)



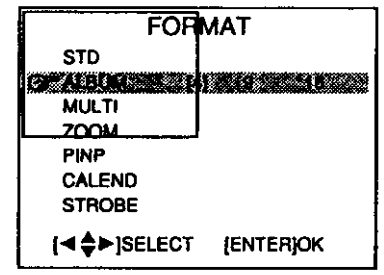
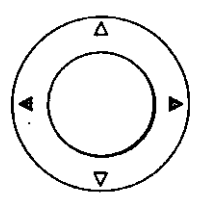
3

Press the **▼** Button to select "ALBUM".



4

Use the **◀▶** Buttons to select the desired number of mini-frames.



Remarks, etc.

To Erase Stored Pictures
 Press the CLEAR Button when the PRINT Lamp is lit. One frame is erased each time the CLEAR Button is pressed.
 (To store new pictures to replace the erased pictures, press the MONITOR Button so that the PRINT Lamp turns off, and then press the MEMORY Button.)

Storing Pictures Again after All the Pictures Are Stored
 Press the MONITOR Button so that the PRINT Lamp turns off, and then press the MEMORY Button. (See Step 6 on the previous page.)

To Abort the Setting Process
 Press the CLEAR Button twice when the PRINT Lamp is turned off.

- Hints for Use**
- The PRINT Lamp lights up and turns off each time the MONITOR Button is pressed.
 - If you press the MONITOR Button again after printing is complete, the display returns to the MEMORY Screen, allowing you to print the same pictures again.
 - To allow printing without the entire ALBUM Screen stored in memory, press the MONITOR Button to light up the PRINT Lamp. The ALBUM Screen will be printed with white spaces where no image was saved. (In this case, the pictures are still stored in memory starting from the upper left corner. There is no editing operation that makes it possible to print images interspersed with blank (white) images.)

7

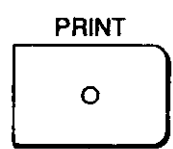
Check that the PRINT Lamp is lit up.

When the entire ALBUM Screen is stored in memory, press the MONITOR Button to light up the PRINT Lamp.



8

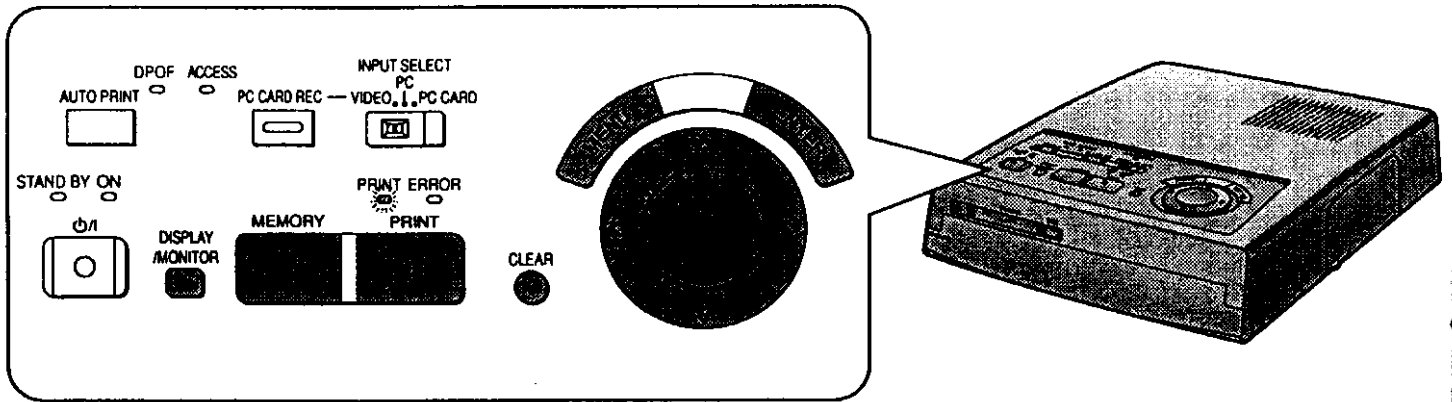
Then press the PRINT Button.



• Printing starts.



Video Input (Cont.)



Title

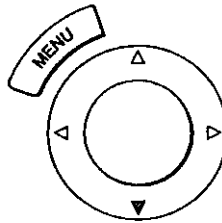
Printing the Same Picture Repeatedly on the Same Print (MULTI FRAME)



- This feature allows you to divide the paper into 4, 9, or 16 mini-frames, and then print the same stored image, reduced in size, in each mini-frame.
- This feature is useful for printing head portraits for business cards when using the Print Set for adhesive paper.
- When using the 16 Pre-Cut Adhesive paper PV-MPAS16 (sold separately), select MULTI: [16] in Step 4.

1

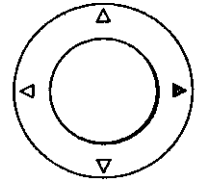
Press the MENU Button, and then use the ▼ Button to select "FORMAT".



MENU			
PRINT	: 1		
FORMAT	: [STD]	SET	
TITLE	: [OFF]	SET	
PICTURE	: [STD]	SET	
OSD	: [ON]	OFF	
WIDE	: [AUTO]	ON	OFF
[◀▶]SELECT [ENTER]END			

2

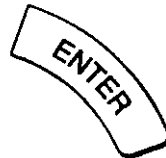
Use the ► Button to select [SET].



MENU			
PRINT	: 1		
FORMAT	: [STD]	SET	
TITLE	: [OFF]	SET	
PICTURE	: [STD]	SET	
OSD	: [ON]	OFF	
WIDE	: [AUTO]	ON	OFF
[◀▶]SELECT [ENTER]END			

5

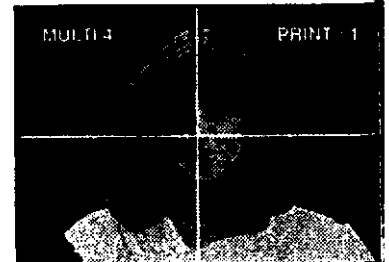
Press the ENTER Button.



MULTI 4	

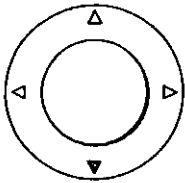
6

Press the MEMORY Button.



3

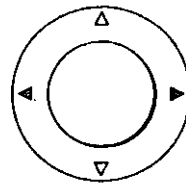
Use the **▼** Button to select "MULTI".



FORMAT	
STD	
ALBUM	
MULTI	1 2 3 4 5 6
ZOOM	
PINP	
CALEND	
STROBE	
[◀▶]SELECT	[ENTER]OK

4

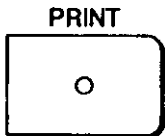
Use the **◀▶** Buttons to select the desired number of mini-frames.



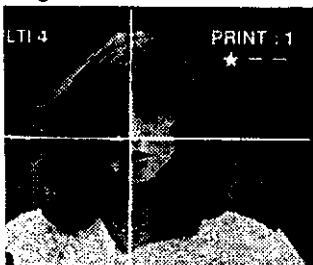
FORMAT	
STD	
ALBUM	
MULTI	1 2 3 4 5 6
ZOOM	
PINP	
CALEND	
STROBE	
[◀▶]SELECT	[ENTER]OK

7

Press the **PRINT** Button.



Printing starts.



Remarks, etc.

To Erase Stored Pictures

Press the **MONITOR** Button when the **PRINT** Lamp is lit.

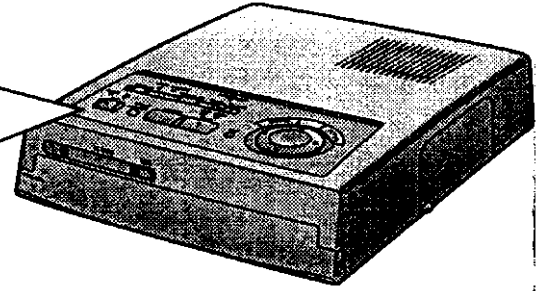
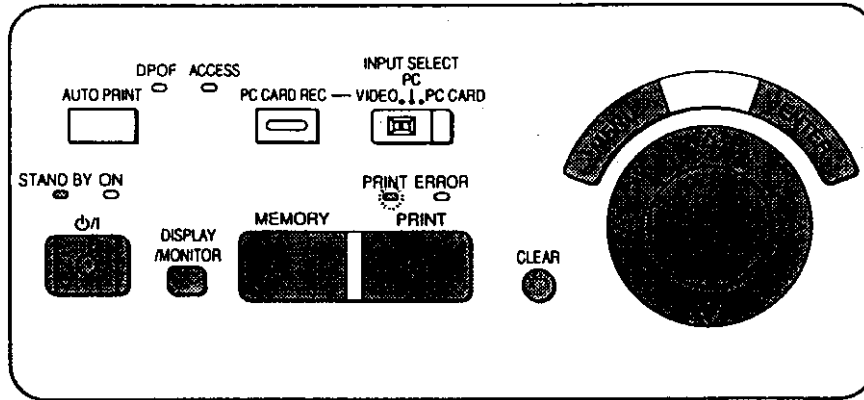
(To store new pictures to replace the erased pictures, press the **MONITOR** Button so that the **PRINT** Lamp turns off, and then press the **MEMORY** Button.)

To Abort the Setting Process

Press the **CLEAR** Button once when the **PRINT** Lamp is turned off.

- The **PRINT** Lamp lights up and turns off each time the **MONITOR** Button is pressed.
- If you press the **MONITOR** Button again after printing is complete, the display returns to the **MEMORY** Screen, allowing you to print the same pictures again.
- It is also possible to store the image that you want to print in memory first, and then select the "MULTI" printing settings on the **MENU** Screen.

Video Input (Cont.)



Title

Printing a Sequence of Pictures on the Same Print (STROBE)

This feature allows the screen to be divided into 4, 9, or 16 mini-frames, allowing you to print a series of freeze-frames on a single sheet. This feature is useful when studying, for instance, a golfer's swing or a tennis player's shot.

- One of three strobe speeds can be selected.

The memory storage time is determined by the MODE and SPEED settings.

1

Press the MENU Button, and then use the ▼ Button to select "FORMAT". Use the ► Button to select [SET].

MENU			
PRINT	: 1		
FORMAT	: STD	[SET]	
TITLE	: [OFF]	SET	
PICTURE	: [STD]	SET	
OSD	: [ON]	OFF	
WIDE	: [AUTO]	ON	OFF

[◀▶]SELECT [ENTER]END

2

Use the ▼ Button to select "STROBE", and then press the ENTER Button.

FORMAT	
STD	
ALBUM	
MULTI	
ZOOM	
PINP	
CALEND	
STROBE	

[◀▶]SELECT [ENTER]OK

Title

After Printing

1

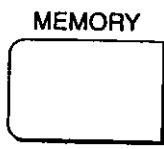
Remove the printed paper.

2

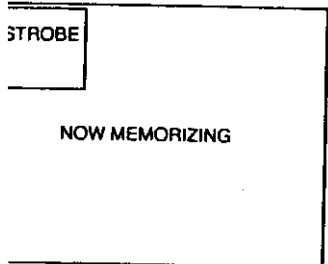
Take out the Paper Cassette

3

Press the MEMORY Button when you want the desired size-frames to start.

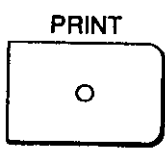


The screen goes blank while these frames are being stored in memory.

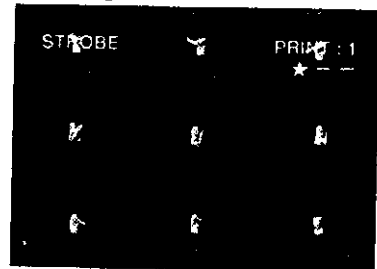


4

Press the PRINT Button.



•Printing starts.



Remarks, etc.

To Erase Stored Pictures

Press the CLEAR Button when the PRINT Lamp is lit. One frame is erased each time the CLEAR Button is pressed. (To store new pictures to replace the erased pictures, press the MONITOR Button so that the PRINT Lamp turns off, and then press the MEMORY Button.)

To Resume Storing Pictures Again

Press the MONITOR Button so that the PRINT Lamp turns off, and then press the MEMORY Button.

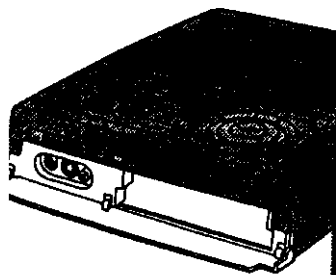
To Abort the Setting Process

Press the CLEAR Button twice when the PRINT Lamp is turned off.

•If you press the MONITOR Button again after printing is complete, the display returns to the MEMORY Screen, allowing you to print the same pictures again.

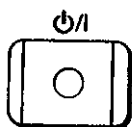
3

Remove the cover of the Paper cassette slot.



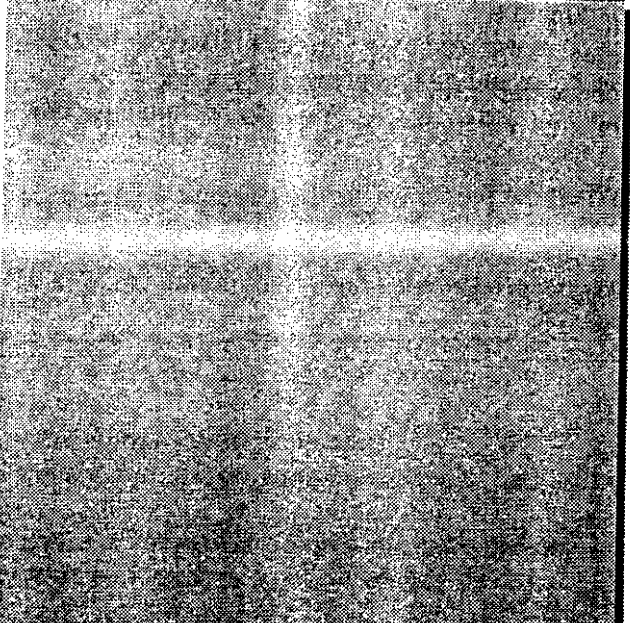
4

Turn the printer off by pressing the O/I (Power) Button.



•The STAND BY Lamp lights up.

Remarks, etc.



Precautions

Precautions when using the Digital Photo Printer

- If the Photo Printer emits smoke, becomes unusually hot, or gives off an unusual smell, turn off the printer and unplug it.
- If water or other foreign matter gets inside the printer, turn off the printer and unplug it.
- If the surface of the printer becomes broken or cracked, turn off the printer and unplug it.
- If the power cable is damaged (such as the core wires being exposed), turn off the printer and unplug it.
- Do not use the Photo Printer in any way which overloads the electric outlet or wiring. Also, only AC 120 V should be used as the power supply for the Photo Printer.
- Make sure the plug is properly plugged in when using the Photo Printer.
- Do not damage the power cable or plug.
- Remove dust or other foreign matter adhering to the power plug.
- Do not place the Photo Printer on unsteady, inclined, or other unstable surfaces.
- Do not place flower vases, containers with water, or small metal objects on the Photo Printer.
- Do not drop or insert metal or flammable objects inside the Photo Printer.
- Do not splash or wet the Photo Printer.
- Do not disassemble or remodel the Photo Printer.
- Do not touch the metal parts on the Photo Printer or the plug during a thunderstorm.
- Do not unplug with wet hands.
- Do not place the Photo Printer in locations with smoke, steam, high humidity, large amounts of dust, or severe vibrations.
- Do not install the Photo Printer in such a way that the power cable is forcibly bent.
- Do not cover the ventilation holes on the Photo Printer.
- Do not place heavy objects on the Photo Printer.
- Do not move the Photo Printer with the power cable plugged in.
- Do not unplug by pulling on the power cable.
- Remove the plug from the outlet as a safety measure when cleaning the Photo Printer or when the Photo Printer will not be used for a long period of time.
- Do not touch any internal components other than those specified.
- Do not remove the Paper Cassette while printing is in progress.
During printing, the paper moves forward and backward three times. You can be cut if you touch the paper during this operation.

Notes on Handling the Digital Photo Printer

- Do not spray insecticides or other volatile materials on the printer.
If such materials come into contact with the printer, they can damage the surface of the printer or cause the finish to peel. Also, do not leave rubber or vinyl materials in contact with the printer for an extended period of time.
- When the printer will not be used for an extended period of time:
To conserve electric power, turn off the printer and unplug it.
- Leaving the printer idle for long periods can impair its functionality. Be sure to turn the power on and operate the printer once every six months.
- When transporting the printer by car or truck:
Pack the printer carefully in its original packing materials. If you did not retain the packing materials, wrap the printer carefully in a blanket or other cushioning material to protect it.
(Before transporting the Photo Printer, be sure to first remove the Paper Cassette and Ink Cassette, and then close the cover.)

Maintenance Notes

- Do not use benzene, paint thinner, or other solvents to clean the printer.
Most of the printer surface is plastic. Do not use solvents such as benzene and paint thinner to wipe the printer since they can damage the surface of the printer and cause the surface to peel.
To clean the printer surface, wipe up any dust with a soft, dry cloth.
If the Photo Printer is particularly dirty, soak the cloth in kitchen detergent (neutral) diluted with water and wring out thoroughly. Then, wipe off the

dust with the cloth, and wipe again with a dry cloth. When using a synthetic cloth, follow the precautions in the usage instructions.

- When dust accumulates around the ventilation holes on top of the printer:
After removing the Ink Cassette, use a vacuum cleaner to clean the dust from the ventilation holes. Dust that enters the printer through the ventilation holes can adhere to the ink film, making high-quality printing impossible. In this event, remove the Ink Cassette, and then clean the dust off the ink film.

Installation Notes

- Install the Photo Printer away from devices that generate magnetic fields
The magnetic fields generated by stereo speakers or large monitors will distort the image produced by the Photo Printer.

Electromagnetic waves produced in this Photo Printer and in televisions, video game machines, and other devices can cause mutual interference, disrupting both the display on the television screen and the print image.

Internal Temperature

- Although it varies with the ambient temperature, if the internal temperature of the Photo Printer rises above a certain level, the ERROR Lamp will flash and the error message "WAIT: COOLING" will appear on the television screen. In this situation, the printing operation will halt temporarily. This is not a malfunction. After waiting for a few minutes for the temperature to drop (four or five minutes at the most), the Photo Printer will automatically resume printing.
- The printing operation may be halted temporarily in

any of the following cases, which will result in a longer than normal printing time:

- When printing images continuously
- When the ambient temperature is high
- When the internal temperature of the printer rises quickly because the ventilation holes or other parts are blocked.
- Note that if two or more of these conditions exist, printing will take even longer. Therefore, make every effort to find a well-ventilated location for installing this printer.

Condensation

- When a bottle is taken out from a refrigerator in summer and left to stand for a while for instance, droplets of water will form on it. This phenomenon is known as condensation.
- Conditions for condensation
Condensation will form if the printer or Print Set is moved to a location with a considerable difference in temperature or humidity, such as:
 - A high-humidity location, such as one filled with

steam

- When suddenly moved from an air-conditioned environment to one with high temperatures and high humidity
- A room that has just been heated

In this event, turn the power on and wait for two hours.
If the paper or rollers are damp with condensation, the printed surface that is produced may be dirty.

Precautions (Cont.)

Notes on Handling the Ink Cassettes, Ink Cassette Film, Paper Cassette, and Paper

To ensure high-quality, precise printing, always observe the following points.

Failure to observe these points can not only result in poor-quality prints, but also paper jams or breakdown of the Photo Printer.

- Use only the specified paper.
Use Print Sets that carry the mark or that have been specified for use with this Photo Printer by Panasonic.
- Use the Ink Cassette with the paper provided in the same box.
One Ink Cassette is designed to provide enough ink film to print the number of sheets provided in that Print Set.
- Do not remove the label from the Ink Cassette.
Doing so could lead to mistaken operation.
- Before loading an Ink Cassette, take up any slack in the ink film (wide tape inside the Ink Cassette).
The slack can be taken up by turning the spool in the direction of the arrow.
- Make sure that the Ink Cassette is oriented properly and insert it all of the way in.
- Do not touch or pull on the ink film.
- Do not get fingerprints or dust on the ink film or on the paper.
- Do not get the ink film or the paper wet.
- Do not touch the Ink Cassette or the Paper Cassette while printing is in progress.
The Ink Cassette cannot be taken out while printing is in progress.
Forcibly pulling out the Ink Cassette, loading too much paper, or applying strong pressure or vibrations to the Paper Cassette could result in a paper jam or other malfunction.

(Do not take out the Paper Cassette and add paper while printing is in progress.)

- Do not attempt to reuse an empty Ink Cassette or paper which has already been printed on.
Doing so could result in malfunction or breakdown of the Photo Printer.
- Fan the paper thoroughly before placing it in the Paper Cassette.
Sheets that adhere to other sheets can cause a paper jam.
- Do not fold or bend the paper.
If a postcard is curled, remove the curl before attempting to use the postcard in the printer.
- Do not load the paper upside-down.
The glossy side of the paper with no markings on it is the printing side. The paper should be loaded with this side facing up.
- Do not write on the paper before printing on it.
This could lead to mistaken operation.
- Do not load too much paper in the Paper Cassette.
No more than 25 sheets should be loaded.
- Allow the Print Set to adjust to the ambient temperature before using it.
If the Print Set has been stored at a low temperature, condensation could form on the paper when brought into a warmer room. Do not open the Print Set package until it has reached the room temperature.
- Do not leave printed paper above the Paper Cassette (in the Print Exit).
Do not allow more than 10 sheets to accumulate above the Paper Cassette.
- Do not place foreign objects above the Paper Cassette (in the Print Exit).

Notes on Print Set Storage

- Do not store the Ink Cassettes or paper under high temperatures or high humidity.
Doing so could result in a deterioration of printing quality.
- Do not store the paper on end.
Store the paper flat in its original silver bag.
- Do not store Ink Cassettes or paper in a location exposed to direct sunlight.
Doing so will result in a deterioration of printing quality. The Ink Cassette and paper could even

become unusable.

- After using the Photo Printer, remove the Ink Cassette and paper and put them back in storage.
If the Ink Cassette is left in the Photo Printer, slack will develop in the ink film and dust will collect, which may make high-quality printing impossible.
In order to keep leftover paper in optimum condition for as long as possible, remove the paper from the Photo Printer, and then place it in the original silver bag for storage.

Notes on Handling Finished Prints

In order to preserve finished prints in the best condition, always observe the following points. Failure to observe these points could result in a deterioration of print quality or a slight injury.

- Do not affix cellophane tape to the printed surface.
- Do not touch the printed surface with your fingers.
- Do not let the printed surface come into contact with other objects.

Do not let the following materials in particular come into contact with the printed surface:

- Desk pads or business card cases made of vinyl
 - Erasers made of plastic
- Do not spill or apply volatile solvents such as alcohol to the printed surface. Doing so could result in discoloration or fading.
 - Do not leave printed surfaces in contact with one another.

Doing so could cause color transfer between the two images. Color transfer could also occur if a printed surface is left in contact with any other type of paper under pressure for an extended period of time.

- Do not store prints under conditions of high temperature or high humidity. Leaving prints under such conditions for an extended period of time could cause a deterioration in print quality. Do not leave prints exposed to direct sunlight.
- When prints are to be stored in an album, select an album that has nylon pockets. Other materials could cause color transfer or discoloration. (Polypropylene and cellophane are also acceptable materials.)

Before Requesting Service

Symptom	Cause / Remedy
The power cannot be switched on.	<ul style="list-style-type: none">● Insert the power plug all the way into a wall outlet.
No picture appears on the television screen. (Video Input)	<ul style="list-style-type: none">● Connect the external video source correctly. (p.9)● A device is connected to an S-VIDEO IN Socket, but you are attempting to use a VIDEO IN Socket. → Unplug the S-Video Cable connected to the S-VIDEO IN Socket.● The INPUT SELECT (VIDEO / PC / PC CARD) Switch is set to "VIDEO".
The printer does not print.	<ul style="list-style-type: none">● The Ink Cassette is not oriented properly, or was not pushed all of the way in.● There is slack in the ink film. → Take up the slack in the ink film. (p.00)● The Paper Cassette is not oriented properly, or was not pushed all of the way in.● The paper was loaded upside-down.● The internal temperature of the printer is too high. → Wait.
Printing is not of the expected quality.	<ul style="list-style-type: none">● The paper being used is not of the specified type.● The paper was not loaded correctly.● The ink film or paper is dirty.● Condensation has formed. → Wait.
The printed colors are not right.	<ul style="list-style-type: none">● The print image has not been adjusted correctly.
The printed pictures are distorted.	<ul style="list-style-type: none">● The printer is located near a television, video game machine or other source of electromagnetic waves. → Move the printer so that it is at least one meter away from the television, video game machine, etc.● The printer is located near a stereo speaker, large motor, or other source of a strong magnetic field. → Move the printer away from the device generating the magnetic field.
Pressing the MEMORY Button does not store the picture in memory.	<ul style="list-style-type: none">● The MENU Screen is displayed. → Press the ENTER Button.● A picture stored in memory is displayed on the television screen due to the MONITOR Button settings. → Press the DISPLAY/MONITOR Button to display the video source picture on the screen. (p.00)
The printer does not respond when buttons are pressed.	<ul style="list-style-type: none">● The internal temperature of the printer is too high. → Wait.● Printing is in progress. → Wait until printing is complete.
Paper jams occur frequently.	<ul style="list-style-type: none">● More than 25 sheets of paper have been loaded in the Paper Cassette.● More than 10 sheets of paper have accumulated in the Print Exit.● The paper is creased or curled.
The MENU Screen does not appear.	<ul style="list-style-type: none">● The Photo Printer is not connected properly to the television.● Printing is in progress. → Wait until printing is complete.

Symptom	Cause / Remedy
No picture appears on the television screen. (PC Card Input)	<ul style="list-style-type: none"> •The CF Card, Multi Media Card or Smart Media is not correctly inserted in the adapter. •The PC Card is not correctly inserted in the printer. •The INPUT SELECT (VIDEO / PC / PC CARD) Switch is set to "PC CARD". •A card with an incompatible format is being used. →This card cannot be used with this printer.
It takes time for the image to appear.	<ul style="list-style-type: none"> •Depending on the image system for storing the images in the PC Card and its capacity, it can take 20 to 30 seconds to display the image. →This is not a malfunction.
Multiple images from the PC Card cannot be all printed at once.	<ul style="list-style-type: none"> •Multiple images are not stored in the PC Card.
Images in the PC Card cannot be erased, or cannot be all erased at once.	<ul style="list-style-type: none"> •There are no images stored in the PC Card. •The image is set to write-protect in the camera or computer. →Change the write-protect setting in the camera or computer, and then erase. •Images can only be erased one at a time.
Video images cannot be recorded in the PC Card.	<ul style="list-style-type: none"> •The INPUT SELECT (VIDEO / PC / PC CARD) Switch is set to "VIDEO". •The PC Card is set to write-protect. •The PC Card is full. →Either erase unneeded images (p.00) or use another PC Card with sufficient capacity.
The video image was stored in the PC Card, but the image is not clear.	<ul style="list-style-type: none"> •In some cases, image compression may deteriorate the quality of image when storing. →This is not a malfunction.
The printer cannot be used as a computer printer.	<ul style="list-style-type: none"> •The printer and computer are not connected correctly. •You are not using the proper PC Connection Cable for your computer. •The printer driver software is not installed or is not installed correctly.

Error Messages/Specifications

Error Messages

When an error occurs, an error message appears in the center of the television screen to notify you. The ERROR Lamp also flashes.

Error Message	Remedy
SET PAPER AND PUSH [PRINT]	Insert the printing paper correctly. (p.12, 13)
SET PAPER (when using as a computer printer)	Insert the printing paper correctly. (p.12, 13)
CHECK PAPER TYPE REMOVE JAMMED PAPER	Remove the jammed paper (p.15) and insert the specified printing paper (p.11).
CHECK PAPER TYPE SET PAPER PROPERLY AND PUSH [PRINT]	Insert the specified printing paper (p.11) correctly. (p.12, 13)
NO PAPER CASSETTE	Insert the Paper Cassette. (p.13)
REMOVE JAMMED PAPER	Remove the jammed paper. (p.15)
NO INK	Replace the Ink Cassette with a new one. (p.13)
CHECK INK TYPE	Use the specified Ink Cassette. (p.11)
NO INK CASSETTE	Insert the Ink Cassette. (p.13)
WAIT	Wait for a moment.
WAIT:COOLING	Internal temperature (p.49)
NO CARD	Insert the card. (p.27)
CAN NOT USE THIS CARD	Insert a card which can be used. (p.26)
CAN NOT RECORD	Either the card is full or an incompatible card is being used. Either erase unneeded images (p.38), or use another card.
CAN NOT DELETE	No images are recorded on the card.
NO IMAGE IN THIS CARD	Use a card with images recorded on it.

• If F00 or other error message appears, contact your nearest Panasonic dealer.

Specifications

Information for Your Safety

Power Supply	AC 120 V 50 / 60 Hz
Power Consumption	During printing: Approx. 1.1 A
Printing System	Thermal sublimation transfer printing system
Printing Speed	Approx. 83 sec./ sheet, Standard coated paper prints: Approx. 110 sec / sheet
Picture Memory	8-bit, 1 frame
Print Media	
• Ink Film	Cassette type (exclusive), 3 color field successive printing (yellow, magenta, cyan)
• Printing Paper	Cut sheets 100×148 mm (postcard size) Screen dimensions: Video mode: 82×107 mm Card mode: 85×120 mm Computer mode: 85×114 mm

Paper Feeding System	Automatic paper feed (holds 25 sheets of standard coated paper, standard paper or adhesive paper)
Picture Quality	256 color gradations
Number of Printing Pixels	Video mode: 990 × 1296 dots, 306 × 306/dpi Card mode: 1024 × 1450 dots, 306 × 306/dpi Computer mode: 1024 × 1380 dots, 306 × 306/dpi
Number of Copies	Video/Card mode: Max. 10 sheets Computer mode: Max. 99 sheets
Functions	Video mode: Single Screen, Album Print, Strobe Print, Multi Frame Print, Title, Zoom, PinP, Calender, Wide, Card Storage, Text Card mode: Single Screen, Album Print, Multi Frame Print, Title, Zoom, Card Erase, Auto Print, Text Computer mode: Single Screen, Multi Frame Print DPOF (Digital Print Order Format)
Print Head	Film Thermal Head 12.05 dots/mm
Input Socket	
•S-VIDEO IN Socket	Y (luminance signal) 1 Vp-p, 75 ohm, C (color signal) 0.3 Vp-p, 75 ohm (front: 1)
•VIDEO IN Socket	RCA pin socket 1 Vp-p, 75 ohm (front: 1)
•EDIT Socket	DVC linking mini DIN 5 pin (front: 1)
•PARALLEL Socket	Centronics standard 36 pin (rear: 1)
•SERIAL Socket	Macintosh serial port 8 pin (rear: 1)
•PC Card	PC Card type II (CF card and Smart Media are compatible with the adapter.) (front: 1)
•Input Switch	Video mode: S-VIDEO takes precedence when both S-VIDEO and VIDEO are connected. Computer mode: When both the SERIAL Socket and PARALLEL Socket are connected, you can switch to the side to be used.
Output Socket	
•VIDEO OUT Socket	RCA pin socket 1 Vp-p, 75 ohm (rear: 1)
Compatible Computers	
•Windows	PC/AT compatible system with 80486SX or faster CPU OS: Windows 98, Windows 95 Memory: 32 MB or more (Windows 98, Windows 95)
•Macintosh	Macintosh series with 68030 or faster CPU OS: System 7.1 or later Memory: 16 MB or more (Power Macintosh 32 MB or more)
Compatible PC Cards	
•Standards	PCMCIA2.1 / JEIDA4.2 and PCMCIA ATA 1.02 standard
•Format	DOS Format
•Image Format	JPEG baseline system (JFIF, EXIF, DCF [Design rule for Camera File System], CIFF, SISRIF) TIFF (Baseline TIFF Rev.6.0 RGB Full Color Images standard)
•Number of Readable Pixels	320 × 240 (QVGA) to 3072 × 2048 (4BASE) Sampling ratio 4:4:4, 4:2:2, 4:2:0, 4:1:1
•Recorded Image	JPEG baseline system (DCF [Design rule for Camera File System] standard) Sub sampling 4:2:2
•Number of Recorded Images	Approx. 12 images (2-MB card)
•Decompression Time	Approx. 7 seconds (VGA image)
Allowable Operating Temperature	5 °C - 35 °C (41 °F - 95 °F)
Allowable Operating Humidity	35% - 80%
External Dimensions	Approx. 8 7/8" (W) × 2 1/2" (H) × 10 15/16" (D) [Approx. 225 (W) × 62 (H) × 277 (D) mm]
Weight	Approx. 3.96 lbs (1.8 kg)

Warranty

Panasonic Consumer Electronics
Company, Division of Matsushita
Electric Corporation of America
One Panasonic Way Secaucus,
New Jersey 07094

Panasonic Sales Company, Division of
Matsushita Electric of Puerto Rico, Inc.
Ave. 65 de Infantería. Km. 9.5
San Gabriel Industrial Park, Carolina, Puerto
Rico 00985

PANASONIC / QUASAR Video Products Limited Warranty

Panasonic Consumer Electronics Company of Panasonic Sales Company (collectively referred to as "the Warrantor") will repair this product with new or refurbished parts, free of charge, in the USA or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of the original purchase):

<u>PRODUCT</u>	<u>PARTS</u>	<u>LABOR</u>
DIGITAL PHOTO PRINTER	ONE (1) YEAR	NINETY (90) DAYS

Batteries (if included) - New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days. Non-rechargeable batteries are not warranted.

Tape (if included) - New video cassette tape in exchange for a defective video cassette tape for five (5) days. In-home, carry-in or mail-in service, as applicable, in the USA can be obtained during the warranty period by contacting a Panasonic Services Company (PASC) Factory Servicer listed in the Service Directory.

Or call toll free 1-800-272-7033, to locate an authorized PASC Servicer. Carry-in or mail-in service in Puerto Rico can be obtained during the warranty period by calling the Panasonic Sales Company telephone number listed in the Servicer Directory. This warranty is extended only to the original purchaser.

A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered.

This warranty only covers failures due to defects in materials and workmanship which occur during normal use and does not cover normal maintenance, including, but not limited to, video and audio head cleaning, and does not cover consumable materials such as printing paper and ink cassette. The warranty does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a PASC Factory Servicer or a PASC authorized Servicer, or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES) RESULTING FROM THE USE OF THIS PRODUCTS, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicer. If the problem is not handled to your satisfaction, then write to the Customer Satisfaction Center at the Panasonic Consumer Electronics Company address above.

SERVICE CALLS WHICH DO NOT INVOLVE DEFECTIVE MATERIALS OR WORKMANSHIP AS DETERMINED BY THE WARRANTOR, IN ITS SOLE DISCRETION, ARE NOT COVERED. COSTS OF SUCH SERVICE CALLS ARE THE RESPONSIBILITY OF THE PURCHASER.

warvid 10/24/97

30 30

Servicenter Directory

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:

1-800-272-7033, Monday-Friday 9am-8pm EST.

Web Site: <http://WWW.Panasonic.com>

You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Product Repairs

Centralized Factory Servicenter

MAIL TO:

Panasonic Services Company
6550 Katella Avenue
Cypress, CA 90630

Attention: Digital Photo Printer

Please carefully pack and ship, prepaid and insured, to the Cypress centralized repair Factory Servicenter. While there will be added handling delays, you may bring your unit to one of the following locations who will then forward the unit to Cypress for repair.

Customer's in Puerto Rico, please ship or carry in to location below ("Service in Puerto Rico").

Factory Servicenter Locations

CALIFORNIA

800 Dubuque Avenue
S. San Francisco,
CA 94080

20201 Sherman Way
Suite 102
Canoga Park, CA 91306

3878 Ruffin Road
Suite A
San Diego, CA 92123

COLORADO
1640 South Abilene Street
Suite D
Aurora, CO 80012

FLORIDA
3700 North 29th Avenue
Suite 102
Hollywood, FL 33020

GEORGIA

8655 Roswell Road
Suite 100
Atlanta, GA 30350

ILLINOIS
1703 North Randall Road
Elgin, IL 60123
(Pick-up / Drop-off only)

9060 Golf Road
Niles, IL 60714

MARYLAND
62 Mountain Road
Glen Burnie MD 21061

MASSACHUSETTS
60 Glacier Drive,
Suite G
Westwood, MA 02090

MICHIGAN

37048 Van Dyke Avenue
Sterling Heights, MI 48312

MINNESOTA
7850-12th Avenue South
Airport Business Center
Bloomington, MN 55425

OHIO
2236 Waycross Road
Civic Center Plaza
Forest Park, OH 45240

PENNSYLVANIA
2221 Cabot Blvd. West
Suite B
Langhorne, PA 19047

Chartiers Valley
Shopping Center
1025 Washington Pike
Bridgeville, PA 15017

TENNESSEE

919-8th Avenue South
Nashville, TN 37203

TEXAS
7482 Harwin Drive
Houston, TX 77036

13615 Welch Road
Suite 101
Farmers Branch,
TX 75244

WASHINGTON
20425-84th Avenue South
Kent, WA 98032

HAWAII

99-859 Iwaiwa Street
Aiea, Hawaii 96701
Phone (808) 488-1996
Fax (808) 486-4369

Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company / Factory Servicenter:
Ave. 65 de Infanteria, Km. 9.5 San Gabriel Industrial Park Carolina. Puerto Rico 00985
Phone (787) 750-4300 Fax (787) 768-2910

Accessory Purchases:

Customer orders Only 1-800-272-7033

Precautions, etc.

Index

A

ACCESS lamp (p.00)
Adhesive paper (p.00)
ALBUM (p.00, 00)

B

Blur Reduction (p.00)
BRIGHTNESS (p.00)

C

CF Card (p.00)
COLOR (p.00)
CONTRAST (p.00)

E

Error Messages (p.00)

F

FRAME (p.00)

I

Ink Cassette (p.00)
INPUT SELECT (VIDEO / PC CARD) Switch
(p.00, 00)
INSIDE (p.00)

M

Macintosh (p.00)
MENU Mode (p.00, 00)
MULTI FRAME (p.00, 00)

O

OSD (p.00, 00)
OUTSIDE (p.00)

P

Paper Cassette (p.00)
Paper Jam (p.00)
PARALLEL Socket (p.00)
PC Card Adapter (p.00)
PICTURE (p.00)
Preset title (p.00)
Print Set (p.00)

S

SERIAL Socket (p.00)
SHARPNESS (p.00)
Smart Media (p.00)
Standard Paper (p.00)
STROBE (p.00)

T

TINT (p.00)
TITLE (p.00)

W

WIDE (p.00)
Windows (p.00)

