

Roland

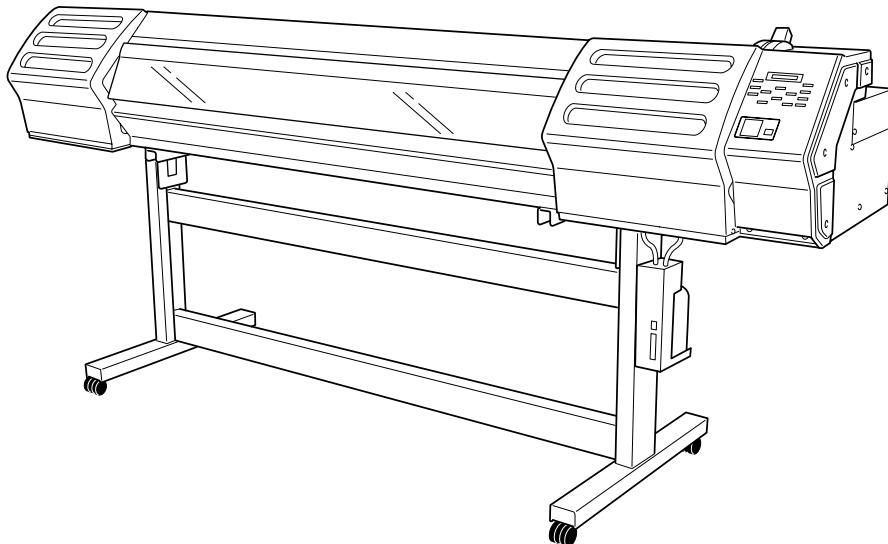
SOLJET PRO II V

Sign Maker by Roland DG Corporation

SJ-745EX

SJ-645EX

User's Manual



Thank you very much for purchasing the product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely and store it in a safe location.
- Unauthorized copying or transferral, in whole or in part, of this manual is prohibited.
- The contents of this operation manual and the specifications of this product are subject to change without notice.
- The operation manual and the product have been prepared and tested as much as possible. If you find any misprint or error, please inform us.
- Roland DG Corp. assumes no responsibility for any direct or indirect loss or damage which may occur through use of this product, regardless of any failure to perform on the part of this product.
- Roland DG Corp. assumes no responsibility for any direct or indirect loss or damage which may occur with respect to any article made using this product.

Roland DG Corporation

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.

NOTICE

Grounding Instructions

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Check with qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn out cord immediately.

For Canada

CLASS A

NOTICE

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

CLASSE A

AVIS

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



ROLAND DG CORPORATION

1-6-4 Shinmiyakoda, Hamamatsu-shi, Shizuoka-ken, JAPAN 431-2103

MODEL NAME : See the MODEL given on the rating plate.

RELEVANT DIRECTIVE : EC LOW VOLTAGE DIRECTIVE (73/23/EEC)

EC ELECTROMAGNETIC COMPATIBILITY DIRECTIVE (89/336/EEC)

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Contents

Features of the SJ-745EX/645EX	4
To Ensure Safe Use	5
Pour utiliser en toute sécurité	9
Chapter 1: Getting Started.....	15
1-1 Checking Accessories	16
1-2 Part Names	17
1-3 Assembling and Installing	20
Installation Environment	20
Step 1: Assemble the Stand	21
Step 2: Install the Included Items	23
Step 3: Install the Drain Bottle	24
Step 4: Remove the Protective Media	26
1-4 Connecting the Cables	27
Connecting the Power Cord	27
Connecting to the Computer	28
1-5 Switching On the Power for the First Time	30
Install Ink Cartridges	30
Chapter 2: Basic Operation	33
2-1 Switching the Power On and Off	34
Switching On the Power	34
Switching Off the Power at the End of the Day	35
2-2 Loading Media	36
Loading Roll Media	36
Loading Sheet Media	40
When Loading Thick Media	41
When Loading Media That Warps Easily	42
Separating the Media	43
Removing the Media	43
2-3 Printing	44
To Perform Printing	44
Performing a Printing Test	45
Downloading Printing Data	45
Chapter 3: Using the Print Heater	47
3-1 Switching the Print Heater On and Off	48
Switching On the Print Heater	48
Switching Off the Print Heater	48
3-2 Loading Media	49
About the Ambient Temperature During Print Heater Use	49
Points to Observe When Loading Media	49
3-3 Printing	50
Printing	50

Chapter 4: A Wide Variety of Operations	51
4-1 Replacing the Ink Cartridges	52
Care and Handling of Ink Cartridges	52
Replacing with New Ink Cartridges	53
If Ink Runs Out During Printing	54
4-2 Checking the Remaining Ink Level	55
4-3 Setting the Location Where Printing Starts	56
Setting the Start Location	56
Specifying a Location in the Feed Direction	57
Specifying a Location in the Scan Direction	58
4-4 Setting the Margins	59
Setting the Margins in the Feed Direction	59
Setting the Margins in the Scan Direction	60
4-5 Using Transparent Media	62
4-6 Making Corrections for Printing	63
Feed Correction	63
Bidirectional Correction	64
4-7 Stopping Printing Operations	67
Stopping Printing Operations	67
Pausing Printing Operations	67
4-8 Recording the Amount of Remaining Media	68
Displaying the Amount of Remaining Media on the Screen	68
4-9 Changing the Type of Ink	69
4-10 When Not in Use for a Prolonged Period	71
Chapter 5: Maintenance	73
5-1 Cleaning the Print heads	74
Cleaning the Print heads	74
If Drop-out Persists Even After Carrying Out Cleaning Several Times	75
If Performing POWERFUL Cleaning Several Times Does Not Correct the Drop-out Problem	75
5-2 Cleaning Using the Cleaning Kit	76
5-3 Replacing the Wiper	79
5-4 Other Cleaning Tasks	80
5-5 Disposing of Discharged Ink	81
5-6 How to Replace the Separating Knife	82
5-7 When Moving the Unit	83
Procedures from Preparing to Move Through Reinstalling	83
Chapter 6: Menus and Keys	85
6-1 Menus Flowchart	86
6-2 Description of Menus	91
6-3 Description of Keys	94
Chapter 7: What to Do If...	97
7-1 What to Do If...	98
The Machine Doesn't Run	98

Clean, Attractive Printing Is Impossible	99
Media Wrinkles or Warps	101
The Media Becomes Jammed.....	101
What to Do If the Print-head Carriage Does Not Operate	102
7-2 What to Do If an Error Message Appears	104

Chapter 8: Specifications 107

8-1 Media Conditions	108
Usable Media	108
Acceptable Media Widths	108
8-2 Printing Area	109
8-3 The Media-cutoff Location During Continuous Printing	110
8-4 Locations of the Power Rating and Serial Number Labels	111
8-5 Specifications	112

SOLJET™ and ECO-SOL INK™ are trademarks of Roland DG Corporation.
Other company names and product name are trademarks or registered trademarks of their respective holders.

Features of the SJ-745EX/645EX

What Is the SJ-745EX/645EX?

The SJ-745EX/645EX is a large-format printer combining high speed with high print quality. It can be loaded with many different types of media. It also achieves better weatherability through the use of ECO-SOL INK.

Built-in Print Server

This machine has a built-in print server (Roland-PrintServer) as a network interface. When you use the print server, you can send printing data to the machine from anywhere on the network.

Built-in Print Heater

This machine has a built-in print heater to improve ink adhesion and speed up drying. This enhances productivity by enabling support for more types of media.

Includes a Software Raster Image Processor (RIP)

Software RIP, which is included with the machine, lets you use your computer to perform raster image processing for printing data such as PostScript files exported from a program and output the data to the machine.

To Ensure Safe Use

About **⚠WARNING** and **⚠CAUTION** Notices

⚠WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠CAUTION	Used for instructions intended to alert the user to the risk of injury or media damage should the unit be used improperly. * Media damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. The symbol at left means "danger of electrocution."
	The symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. The symbol at left means the unit must never be disassembled.
	The symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. The symbol at left means the power-cord plug must be unplugged from the outlet.

⚠WARNING



Do not disassemble, repair, or modify.

Doing so may lead to fire or abnormal operation resulting in injury.



Do not use while in an abnormal state (i.e., emitting smoke, burning odor, unusual noise, or the like).

Doing so may result in fire or electrical shock. Immediately switch off first the sub power, then the main power, unplug the power cord from the electrical outlet, and contact your authorized Roland DG Corp. dealer or service center.



Do not operate in a location exposed to open flame, sparking, or static electricity, or in a location exposed to high temperatures, such as in the immediate vicinity of a heater. Also, do not place undried media in such locations.

Doing so may result in fire due to combustion of ink or cleaning liquid.



Do not store ink cartridges, cleaning liquid, or discharged ink in locations such as the following.

- Near open flame
- Locations exposed to high temperatures, such as in the immediate vicinity of a heater
- Near bleach, chemicals, explosives, or the like

Doing so may cause fire.



Do not place any potentially flammable object on the platen while the print heater is in operation.

Doing so may cause fire.



Do not spill combustible liquid over the platen.

Doing so may cause fire.

⚠️ WARNING



Do not use with any electrical power supply that does not meet the ratings displayed on the unit.

Use with any other power supply may lead to fire or electrocution.



Ground the unit with the ground wire.

Failure to do so may result in risk of electrical shock in the even of a mechanical problem.



Use only with the power cord included with this product.

Use with other than the included power cord may lead to fire or electrocution.



Do not connect the power cord with other electrical loads on a single electrical outlet.

Doing so may generate heat and cause fire.



Do not use with a damaged power cord or plug, or with a loose electrical outlet.

Use with any other power supply may lead to fire or electrocution.



Do not damage or modify the electrical power cord, subject it to excessive bending, twisting, pulling, binding, or pinching, or place any object or weight on it.

Doing so may damage the electrical power cord, leading to fire, electrical shock, or electrocution.



Do not attempt to unplug the power-cord plug with wet hands.

Doing so may result in electrical shock or electrocution.



When unplugging the electrical power cord from the power outlet, grasp the plug, not the cord.

Unplugging by pulling the cord may damage it, leading to fire, electrical shock, or electrocution.



Do not allow liquids, metal objects or flammables inside the machine.

Such medias can cause fire.

⚠️ CAUTION



Ensure adequate ventilation for the work area.

Failure to do so may result in odor, physical distress, or fire.



Do not allow ink or cleaning liquid to come into contact with eyes or skin. Do not drink or deliberately smell ink or cleaning liquid.

Doing so may be hazardous to your health.



If ink or cleaning liquid comes in contact with the eyes, immediately flush with running water for at least 15 minutes. If eye irritation continues, seek treatment by a physician.



If ink or cleaning liquid is accidentally swallowed, do not induce vomiting, and immediately seek treatment by a physician.



If ink or cleaning liquid comes in contact with the skin, immediately wash well with soap and water. If irritation or inflammation occur, seek treatment by a physician.



If the odor of the ink or cleaning liquid causes physical distress, move to a well-ventilated location and rest quietly. If dizziness or nausea persists, seek treatment by a physician.



When storing discharged ink temporarily, place in the included drain bottle or a durable sealed container such as a metal can and polyethylene tank, and cap tightly.

Leakage of discharged ink or its vapor may result in odor, physical distress, or fire.



Store ink cartridges out of the reach of children.

CAUTION



Install in a level and stable location.

Failure to do so may result in the unit tipping over, leading to injury.



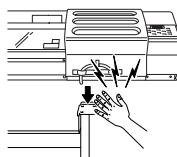
Unpacking, and installation must be carried out by four or more persons.

Otherwise the machine or the stand may fall, resulting in injury.



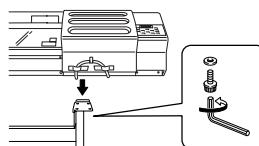
Use care to avoid pinching the fingers when placing the unit on the stand.

Doing so may result in injury.



Use the joining screws to secure the unit to the stand.

Failure to do so may result in falling of the unit, leading to injury.



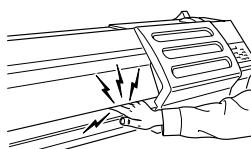
Before switching on the power, be sure to install the drain bottle.

Otherwise discharged fluid may leak from the machine.



Do not place hands within the space to the front of the unit while in operation.

Doing so may result in injury.



Do not touch the platen when the print heater is operating.

Doing so may cause burns because the platen is hot.



Do not touch the tip of the separating knife with your fingers.

Doing so may result in injury.



Be sure to install the media guide when loading roll media.

Otherwise the roll may fall and cause injury.



Load roll media at the proper position.

Otherwise the roll may fall, resulting in injury.



Be sure to use the media with a width of 500 mm (19-11/16 in.) or more.

Failure to do so may cause overheating of the print heater, leading to fire.



When the reinforcement pipe is inserted into the paper tube, do not angle the roll media.

The reinforcement pipe may protrude from the roll media and cause injury.



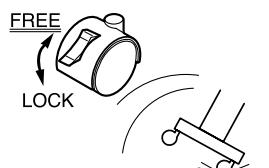
Do not press the [SEL] key.

Doing so may cause malfunction of the print heater, leading to fire.



Release the caster locks for the stand before attempting to move.

Otherwise the unit may tip over and cause injury.



Do not touch the control panel while head cleaning or other cleaning is in progress.

The print-head carriage may move and cause injury.



When cleaning the unit, be sure to wait approximately 30 minutes or more after switching off the power until the temperature of the platen falls sufficiently.

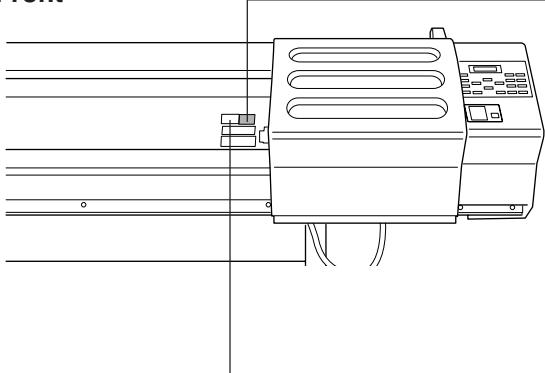
Doing so may cause burns because the platen is hot.

About the Labels Affixed to the Unit

These labels are affixed to the body of this product.

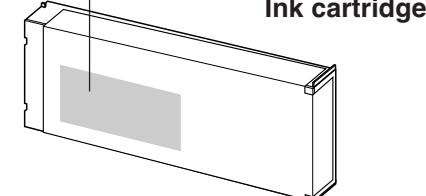
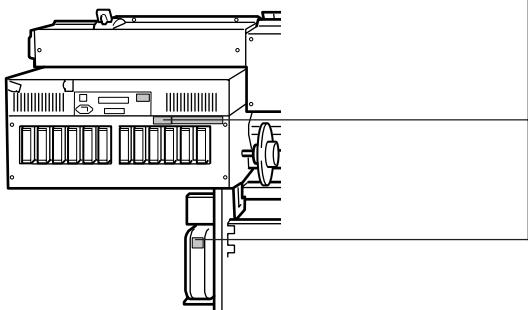
The following figure describes the location and content of these messages.

Front



Do not place hands within the space to the front of the unit while in operation.

Rear



Ink cartridge

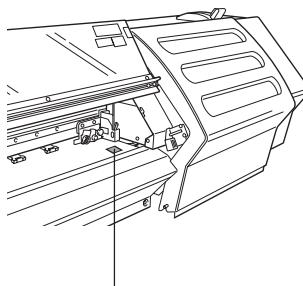
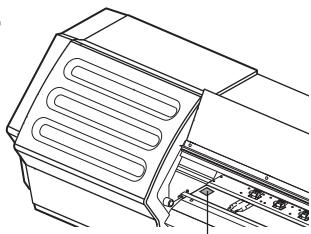


Ink and discharged ink are flammable.
Keep away from open flame.



Ink and discharged ink are toxic.
Avoid contact with the body. Use only
in a well-ventilated area.

Inside the front cover



Do not touch the platen. It is hot when
the print heater is operating.

In addition to the **WARNING** and **CAUTION** symbols, the symbols shown below are also used



Notice : Indicates information to prevent machine breakdown or malfunction and ensure correct use.



Point : Indicates a handy tip or advice regarding use.

Pour utiliser en toute sécurité

Avis sur les avertissements

!ATTENTION	Utilisé pour avertir l'utilisateur d'un risque de décès ou de blessure grave en cas de mauvaise utilisation de l'appareil.
!PRUDENCE	Utilisé pour avertir l'utilisateur d'un risque de blessure ou de dommage matériel en cas de mauvaise utilisation de l'appareil. * Par dommage matériel, il est entendu dommage ou tout autre effet indésirable sur la maison, tous les meubles et même les animaux domestiques.

À propos des symboles

	Le symbole attire l'attention de l'utilisateur sur les instructions importantes ou les avertissements. Le sens précis du symbole est déterminé par le dessin à l'intérieur du triangle. Le symbole à gauche signifie "danger d'électrocution".
	Le symbole avertit l'utilisateur de ce qu'il ne doit pas faire, ce qui est interdit. La chose spécifique à ne pas faire est indiquée par le dessin à l'intérieur du cercle. Le symbole à gauche signifie que l'appareil ne doit jamais être démonté.
	Le symbole prévient l'utilisateur sur ce qu'il doit faire. La chose spécifique à faire est indiquée par le dessin à l'intérieur du cercle. Le symbole à gauche signifie que le fil électrique doit être débranché de la prise.

!ATTENTION



Ne pas démonter, réparer ni modifier.

Démonter, réparer ou modifier l'appareil risque de provoquer un incendie ou de causer un fonctionnement anormal entraînant des blessures.



Ne pas utiliser si l'appareil est dans un état anormal (c'est-à-dire s'il y a émission de fumée, odeur de brûlé, bruit inhabituel etc.).

Le non-respect de cette consigne pourrait provoquer un incendie ou des décharges électriques.

Couper immédiatement l'alimentation secondaire et ensuite l'alimentation principale. Débranchez le fil électrique et contacter votre revendeur ou votre centre de service de la société Roland DG autorisé.



Ne pas utiliser près d'une flamme nue, dans un endroit où se produisent des étincelles ou de l'électricité statique, ni dans un endroit où les températures sont élevées, par exemple à proximité d'un appareil de chauffage.

De plus, il ne faut pas placer le support humide dans de tels endroits car la combustion de l'encre ou du liquide nettoyant peut créer un risque d'incendie.



Ne pas entreposer les cartouches d'encre, le liquide nettoyant ou l'encre usée dans les endroits suivants :

- près d'une flamme nue,
- dans des endroits où les températures sont élevées, par exemple à proximité d'un appareil de chauffage,
- près de javellisants, de produits chimiques, d'explosifs ou autres produits semblables.

ATTENTION



Ne jamais poser d'objets potentiellement inflammables sur la plaque d'exposition lorsque le chauffage fonctionne.

Cela crée un risque d'incendie.



Ne pas répandre de liquide combustible sur la plaque d'exposition.

Cela crée un risque d'incendie.



Ne pas utiliser avec une source d'alimentation électrique non conforme à la norme indiquée sur l'appareil.

Utiliser l'appareil avec une autre source d'alimentation risque de provoquer un incendie ou de causer une électrocution.



Mettre l'appareil à la terre avec le fil de mise à la terre.

Ne pas respecter cette consigne peut créer un risque d'électrocution en cas de panne mécanique.



Utiliser l'appareil uniquement avec le fil électrique fourni.

Utiliser l'appareil avec un autre fil risque de provoquer un incendie ou une électrocution.



Ne pas brancher d'autres appareils dans la même prise que l'appareil.

Ne pas respecter cette consigne risque de causer une surchauffe et de provoquer un incendie.



Ne pas utiliser si le fil ou la fiche électriques sont endommagés; ne pas brancher dans une prise mal fixée.

Négliger de suivre cette consigne risque de provoquer un incendie ou decauser une décharge électrique ou une électrocution.



Ne pas endommager ni modifier le fil électrique. Ne pas le plier, le tordre, l'étirer, l'attacher ou le serrer de façon excessive. Ne pas placer d'objet ou de poids sur le fil.

Négliger de suivre cette consigne peut endommager le fil électrique, ce qui risque de provoquer un incendie ou de causer une décharge électrique ou une électrocution.



Ne pas débrancher le fil avec des mains mouillées.

Ne pas respecter cette consigne risque de provoquer des décharges électriques ou une électrocution.



Pour débrancher l'appareil, saisir la fiche et non le fil électrique.

Tirer sur le fil peut l'endommager, ce qui risque de provoquer un incendie ou de causer une décharge électrique ou une électrocution.



Ne pas introduire de liquide, d'objet métallique ou inflammable dans l'appareil.

Ce genre dematériel peut provoquer un incendie.

PRUDENCE



S'assurer que le lieu de travail est bien aéré.

Si non, des odeurs fortes peuvent se dégager et il y a risque de malaises physiques ou d'incendie.



Ne pas mettre le liquide nettoyant en contact avec les yeux ou la peau. Ne pas boire ou ni respirer délibérément l'encre ou le liquide nettoyant.

Cela est dangereux pour la santé.



Si de l'encre ou le liquide nettoyant viennent en contact avec les yeux, rincer immédiatement à l'eau courante pendant au moins 15 minutes. Si les yeux sont toujours irrités, consulter un médecin.



Si de l'encre ou du liquide nettoyant sont avalés accidentellement, ne pas provoquer le vomissement, et consulter un médecin immédiatement.



Si de l'encre ou du liquide nettoyant entrent en contact avec la peau, immédiatement laver à fond avec de l'eau et du savon. Si la peau devient irritée ou inflammée, consulter un médecin.



Si l'odeur de l'encre ou du liquide nettoyant cause un malaise physique, amener immédiatement la personne dans un endroit bien aéré et la laisser se reposer. Si l'étourdissement ou les nausées persistent, consulter un médecin.



Pour entreposer temporairement l'encre usée, la placer dans un solide contenant scellé, par exemple un contenant en métal et un réservoir en polyéthylène, et fermer hermétiquement.

Les fuites d'encre usée ou la vapeur qui s'en échappe peuvent causer des odeurs fortes, des malaises physiques ou un incendie.



Ranger les cartouches d'encre hors de portée des enfants.



Installer sur une surface stable et de niveau.

Si non, l'appareil risque de se renverser et de causer des blessures.



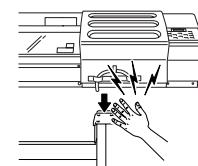
Le déballage, l'installation et le déplacement de l'appareil doivent être effectués par quatre personnes ou plus.

Le non-respect de cette consigne pourrait causer des défauts dans l'appareil entraînant des blessures.



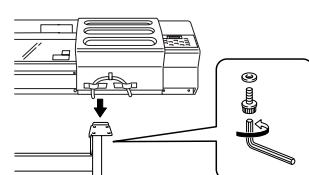
Manipuler avec précaution pour éviter de se coincer les doigts lors de l'installation de l'appareil sur le support.

Une négligence à ce niveau pourrait provoquer des blessures.



Utiliser les vis fournies pour bien fixer l'appareil sur le support.

Le non-respect de cette consigne pourrait causer des défauts dans l'appareil entraînant des blessures.

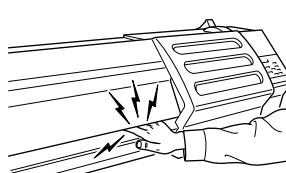


Avant de mettre la machine sous tension, installer la bouteille de vidange, sinon du liquide peut fuir de la machine.



Ne pas mettre les mains dans l'espace du devant quand l'appareil est en marche.

Une négligence à ce niveau pourrait provoquer des blessures.



⚠ PRUDENCE



Ne pas toucher la plaque d'exposition lorsque le chauffage fonctionne.

La plaque étant très chaude, il est possible de se brûler.



Ne pas toucher le bout de la lame séparatrice avec les doigts.

Une négligence à ce niveau pourrait provoquer des blessures.



Ne pas oublier d'installer la barre quand un rouleau est chargé.

Le rouleur peut tomber et causer des blessures.



Le rouleau doit être placé quand la barre est en position adéquate.

Une négligence à ce niveau pourrait provoquer la chute du rouleau et causer des blessures.



Toujours utiliser un support d'au moins 500 mm.

Le chauffage risque sinon de trop chauffer, ce qui peut entraîner un incendie.



Lorsque le tuyau de renforcement est inséré dans le tube de papier, ne pas placer le guide de média à angle.

Le tuyau de renforcement peut dépasser du guide de média et causer des blessures.



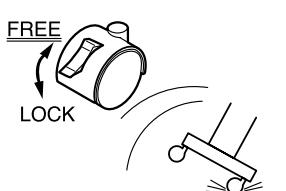
Ne pas appuyer sur la touche [SEL].

Ceci peut causer une panne de chauffage et entraîner un incendie.



Débloquer le mécanisme d'arrêt des roulettes du support avant de le déplacer.

Sinon l'appareil pourrait se renverser et provoquer des blessures.



Ne pas toucher le panneau de commande pendant le nettoyage des têtes ou d'autres pièces.

Le chariot d'impression peut bouger et causer des blessures.



Avant de nettoyer le bloc de chauffage, attendre au moins 30 minutes après l'extinction du chauffage et de l'alimentation secondaire de l'imprimante pour que la température de la plaque d'exposition soit suffisamment basse.

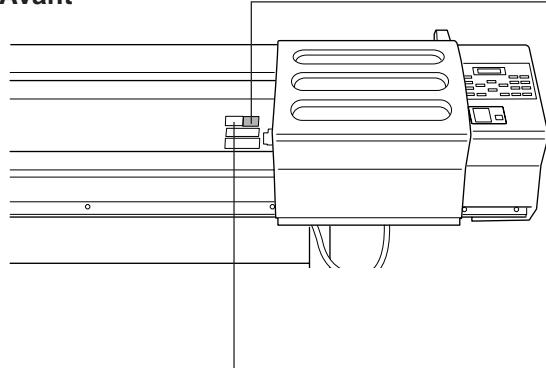
La plaque étant très chaude, il est possible de se brûler.

À propos des étiquettes collées sur l'appareil

Ces étiquettes sont collées à l'extérieur de l'appareil.

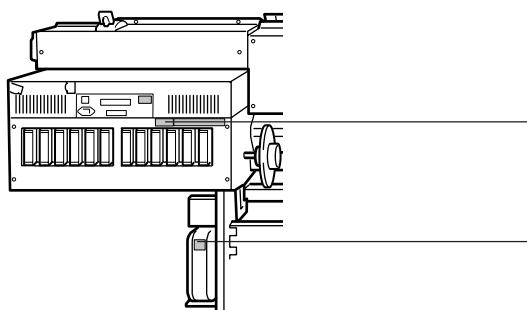
Les dessins suivants indiquent l'endroit et le contenu des messages.

Avant



Ne pas mettre les mains dans l'espace devant l'élément quand celui-ci est en marche.

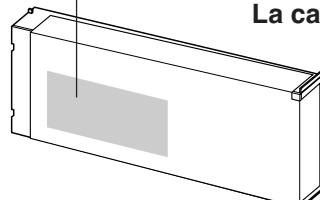
Arrière



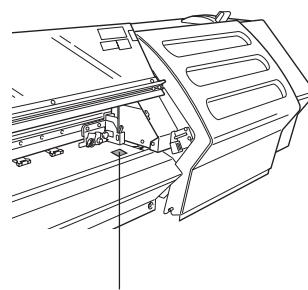
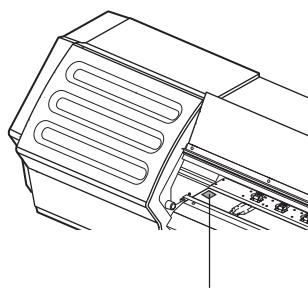
L'encre et l'encre usée sont inflammables. Les garder loin de toute flamme nue.



L'encre et l'encre usée sont toxiques. Éviter tout contact avec le corps. Utiliser uniquement dans un endroit bien aéré.



Intérieur de le couvercle de l'imprimante



Ne pas toucher la plaque d'exposition lorsque le chauffage fonctionne. La plaque étant très chaude.

Chapter 1:

Getting Started

This section describes what to do when you first open the packing carton, including installing the machine and connecting it to a computer.

1-1 Checking Accessories

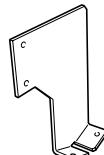
The following items are packed together with the unit. Make sure they are all present and accounted for.



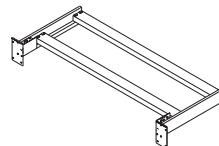
Power cord : 1



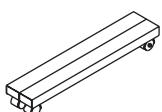
Stay (Right) : 1



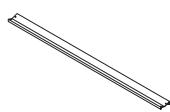
Stay (Left) : 1



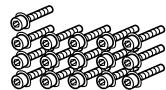
Stand leg : 1



Casters : 2



Media guide : 1



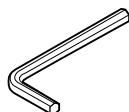
Bolts (Large) : 16



Bolts (Small) : 14



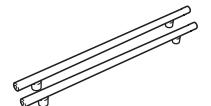
Washers : 6



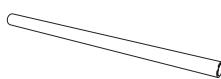
Hexagonal wrench : 1



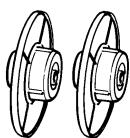
Pipe : 1



Transport bars : 2



Media reinforcement pipe : 1



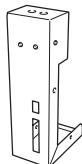
Media flanges : 2



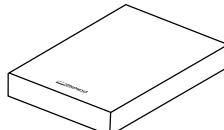
Flange retaining pins : 2



Drain bottle : 1



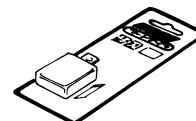
Bottle stand : 1



Software RIP : 1



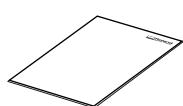
User's manual : 1



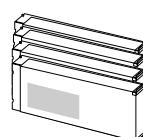
Replacement blade for separating knife : 1



Roland-PrintServer
CD-ROM : 1



Roland PrintServer
Network Settings Guide : 1

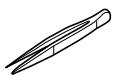


SOL INK Cleaning
cartridges : 4

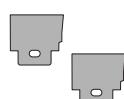
Cleaning kit



Cleaning sticks : 10



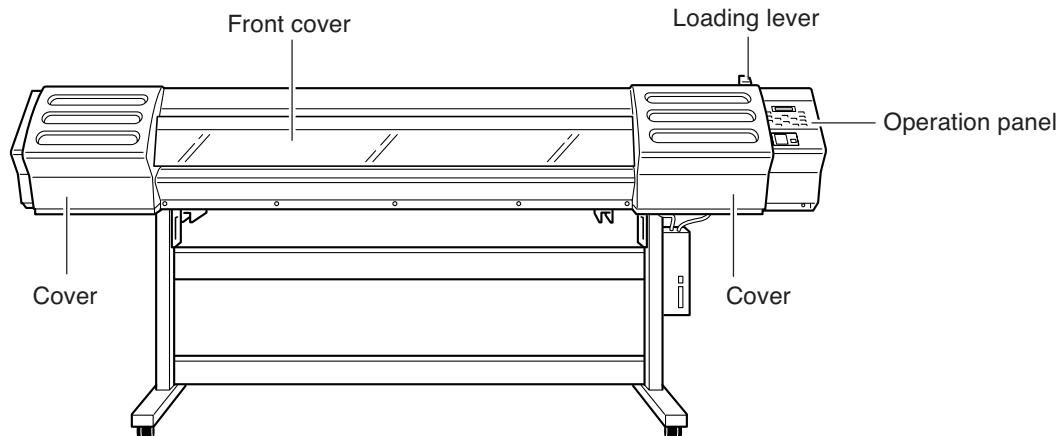
Tweezers : 1



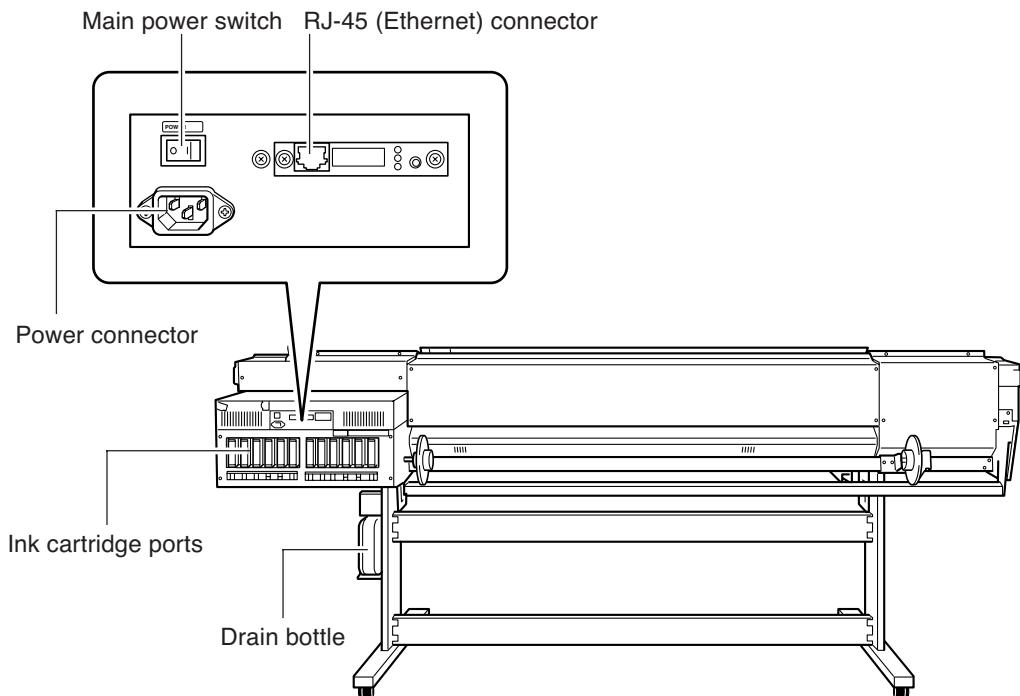
Wipers : 2

1-2 Part Names

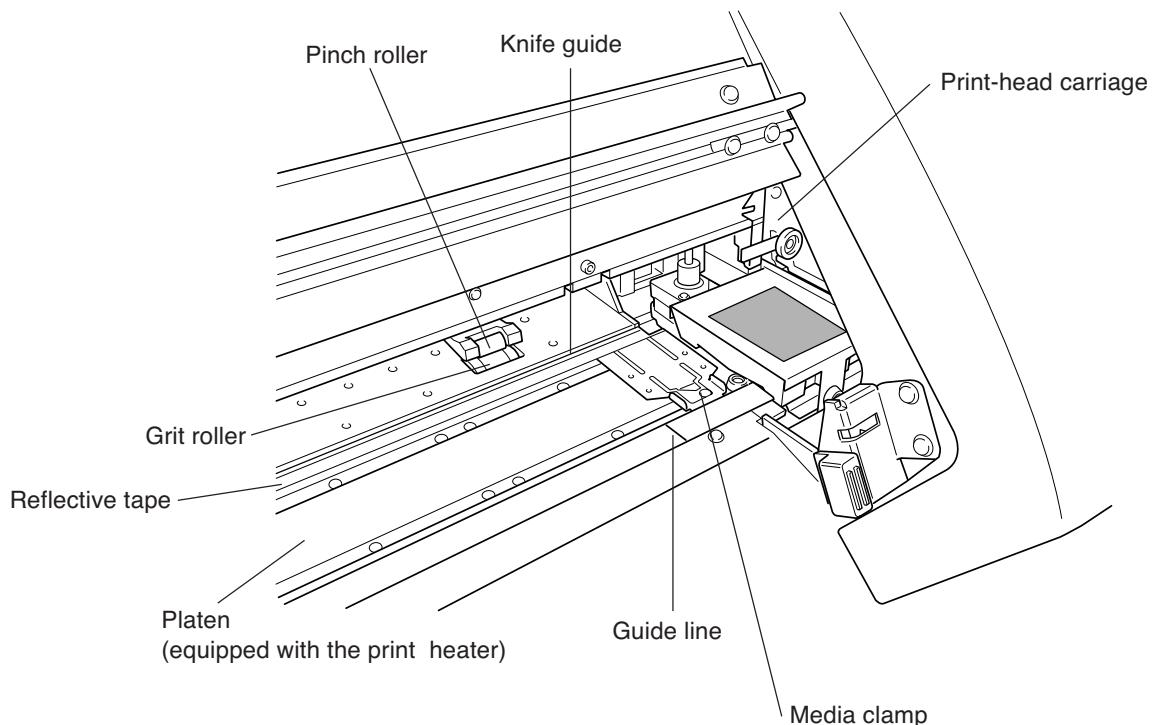
Front View



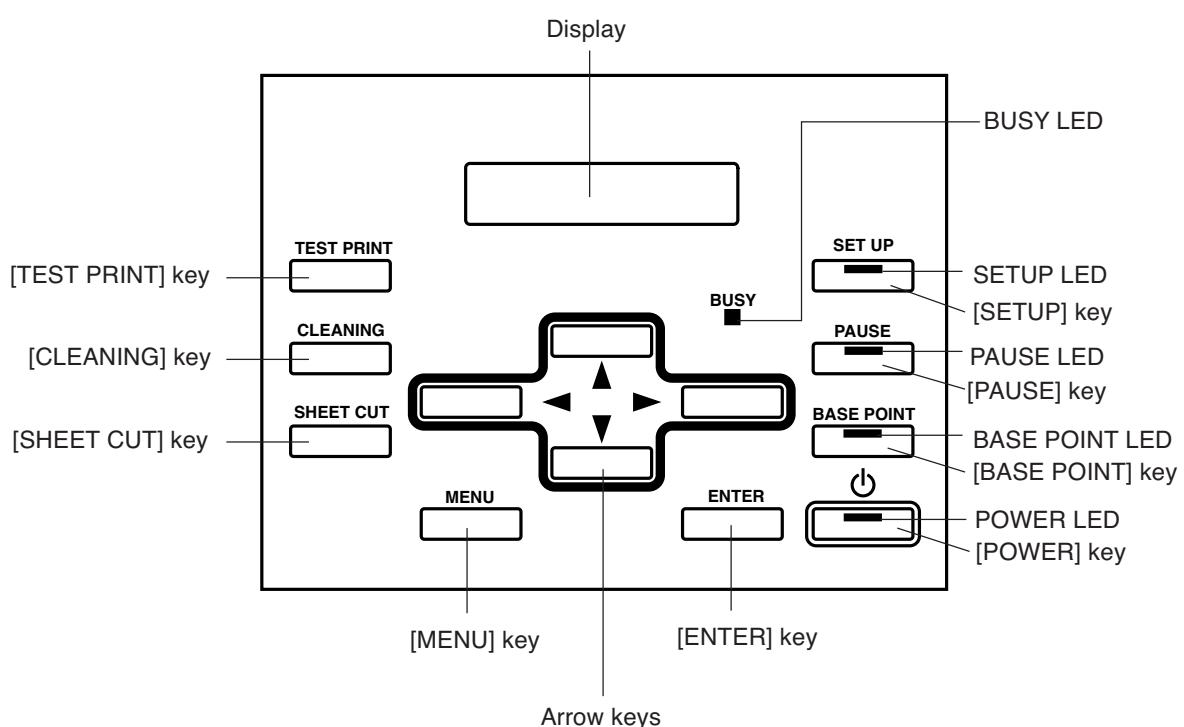
Rear View



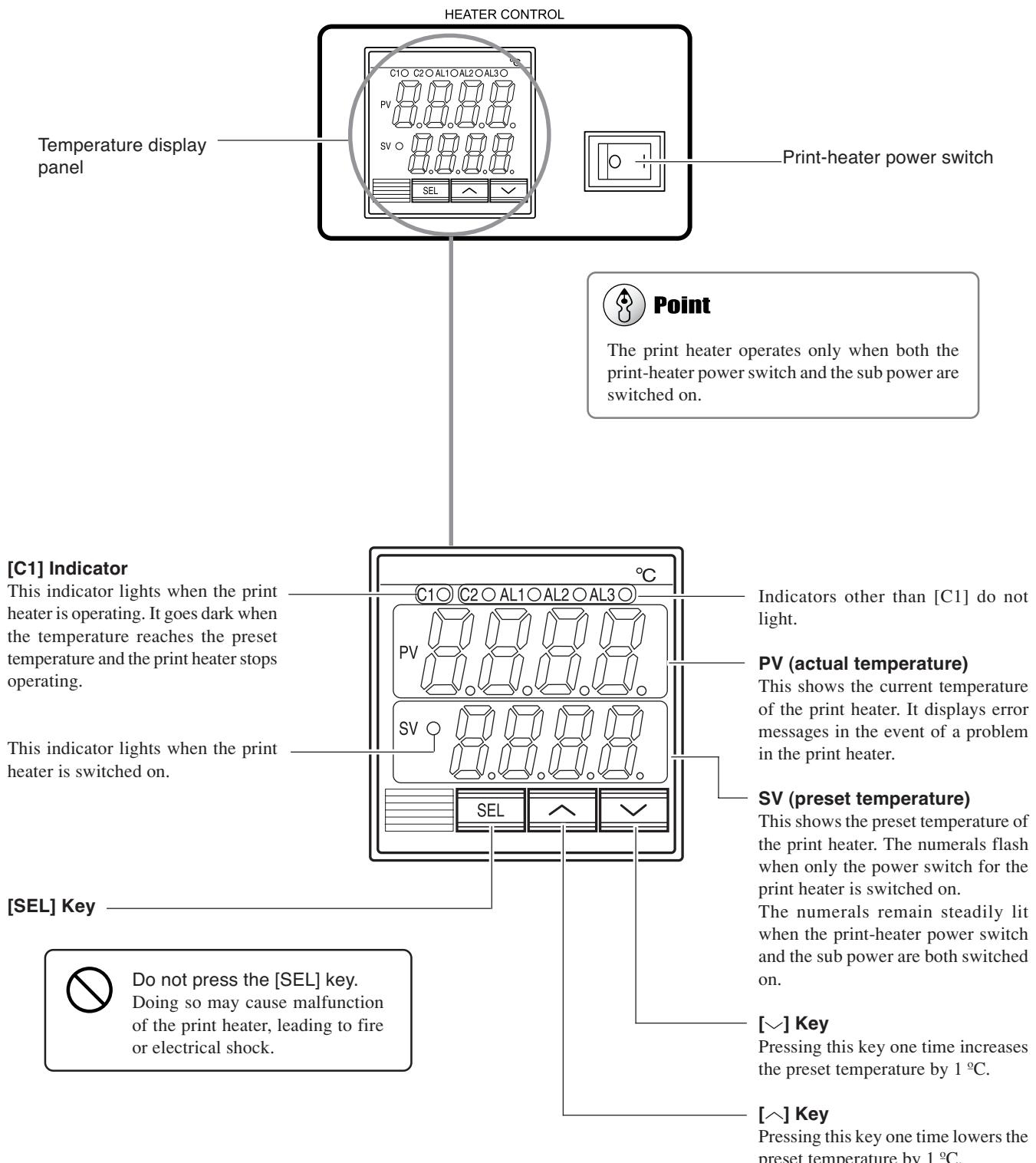
Inside the Front Cover



Operation Panel (1)



Operation Panel (2)



1-3 Assembling and Installing



Do not operate in a location exposed to open flame, sparking, or static electricity, or in a location exposed to high temperatures, such as in the immediate vicinity of a heater. Also, do not place undried media in such locations.

Doing so may result in fire due to combustion of ink or cleaning liquid.



Ensure adequate ventilation for the work area.

Failure to do so may result in odor, physical distress, or fire.



Unpacking, and installation must be carried out by four or more persons.

Otherwise the machine or the stand may fall, resulting in injury.



Install in a level and stable location.

Otherwise the unit may tip over and cause injury.



Use care to avoid pinching the fingers when placing the unit on the stand.

Doing so may result in injury.



Use the joining bolts to secure the unit to the stand.

Failure to do so may result in falling of the unit, leading to injury.

Installation Environment



Notice

Never install the unit in any of the following situations, as it could result in breakdown or faulty operation:

- Places with excessive electrical noise.
- Places with excessive humidity or dust.
- Places with poor ventilation, because this machine generates considerable heat during operation.
- Places with excessive vibration.
- Places exposed to strong illumination or direct sunlight.

Never stand on the stand legs. Doing so may damage them.

Do not place objects on the unit, as doing so may result in breakdown.

The required installation spaces for this model is below.

SJ-745EX : 4200 (W) x 2000 (D) x 1800 (H) mm (165-3/8 (W) x 78-3/4 (D) x 70-7/8 (H) in.)

SJ-645EX : 4000 (W) x 2000 (D) x 1800 (H) mm (157-1/2 (W) x 78-3/4 (D) x 70-7/8 (H) in.)

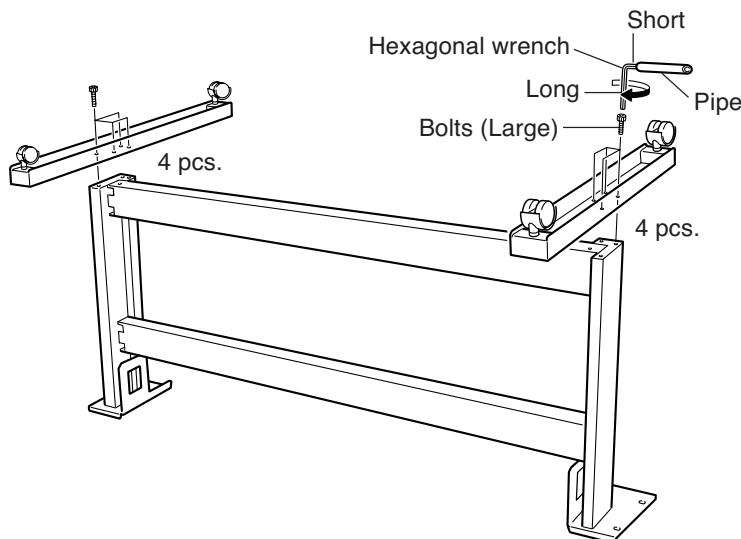
Step 1: Assemble the Stand

First assemble the stand, then mount the machine on top of the stand.

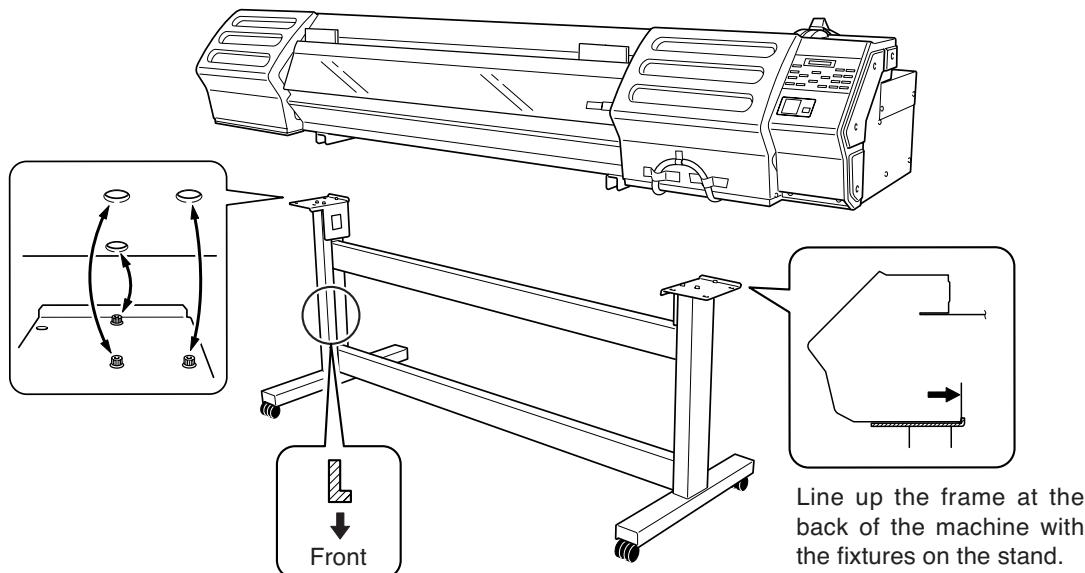
- Invert the stand legs as shown in the figure. While supporting the stand legs with your hand, attach the left- and right-hand casters.



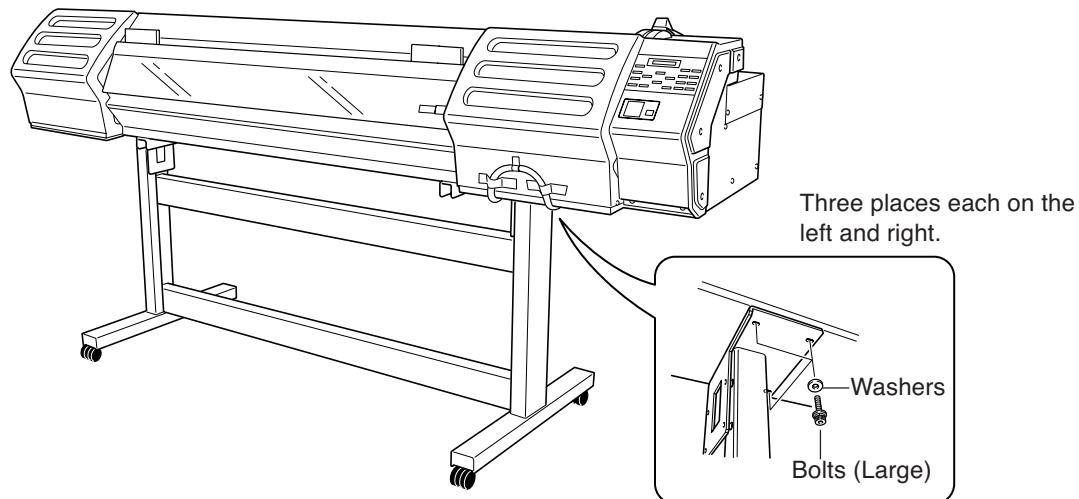
Tighten the bolts securely. Loose bolts may cause the stand to wobble.



- Set the stand upright so that the casters are at the bottom, and place the machine on the stand. The front and rear of the stand are as shown in the figure.

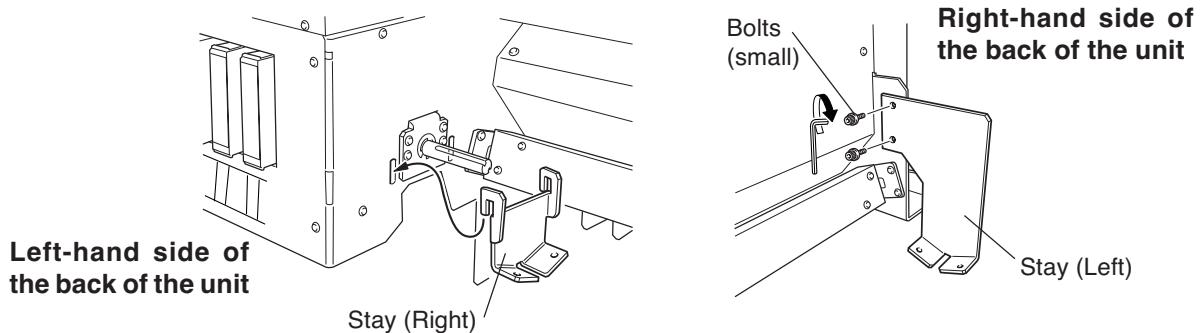


- 3** Use the included large bolts to secure the machine to the stand.

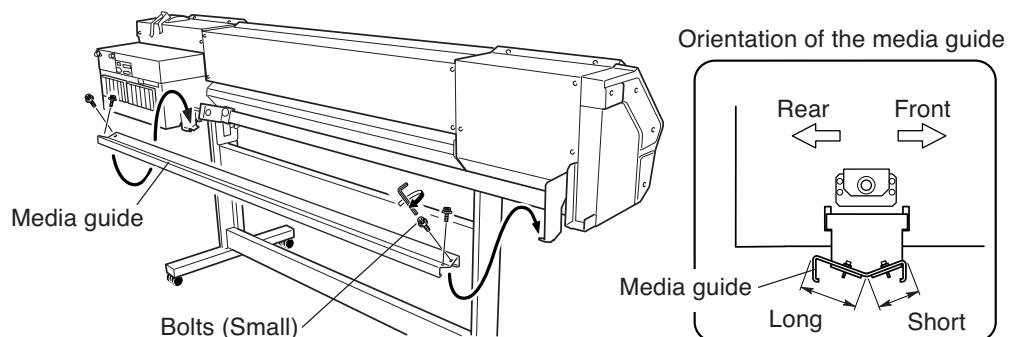


Step 2: Install the Included Items

- 1** Attach the stays onto the back of the machine at the locations shown in the figure.

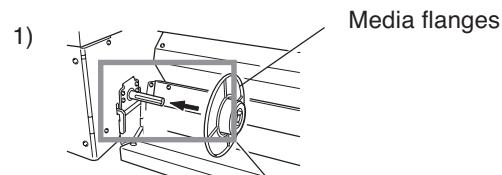


- 2** Place the media guide on the stays and secure it in place using the included small bolts.

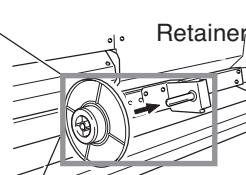


- 3** Pass the media flanges onto the retainers and secure in place with the flange retaining pins.

Left-hand side of the back of the unit



Right-hand side of the back of the unit

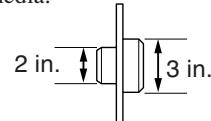


Line up the ridges and grooves.

2)



Orient the media flange so that it's lined up with the core diameter of the loaded roll media.



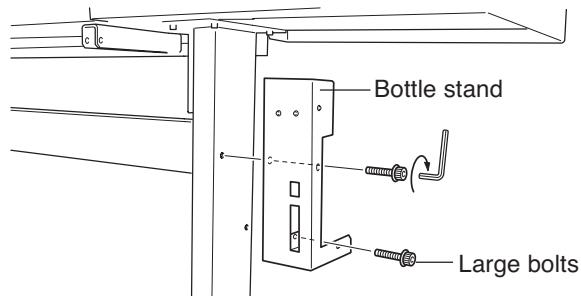
Step 3: Install the Drain Bottle



Point

Leave the drain bottle attached at all times, removing it only when moving the machine or disposing of collected ink.

- 1 Use the included large bolts to secure the bottle stand in place.

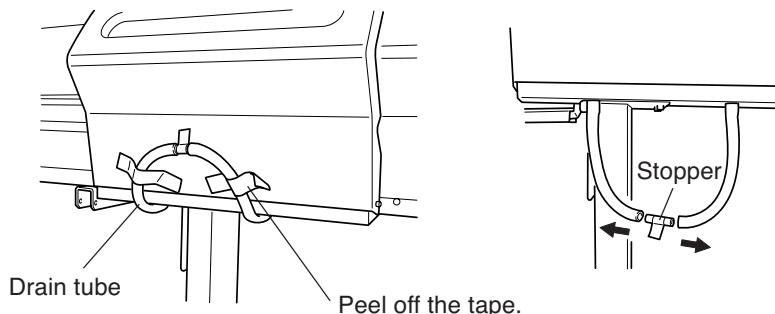


- 2 Remove the stopper from the drain tube.

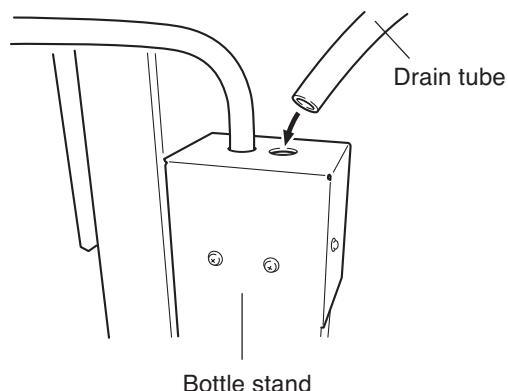


Notice

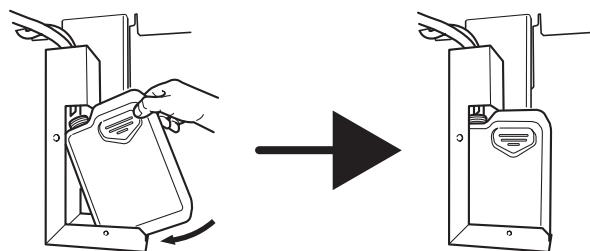
When you remove the stopper from the drain tube, discharged fluid used in shipping inspection may be released from inside the tube. Exercise caution.



- 3 Insert the drain tube securely into the bottle stand.



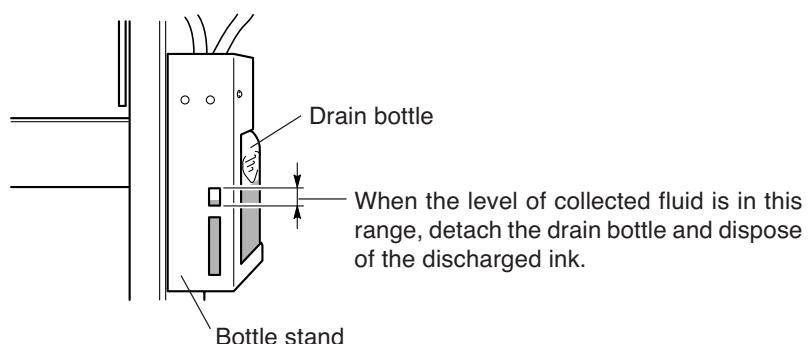
- 4 Remove **BOTH** the lid and the inner cover from the drain bottle.
Attach the drain bottle to the back of the machine.



Point

For more information about how to dispose of discharged ink.

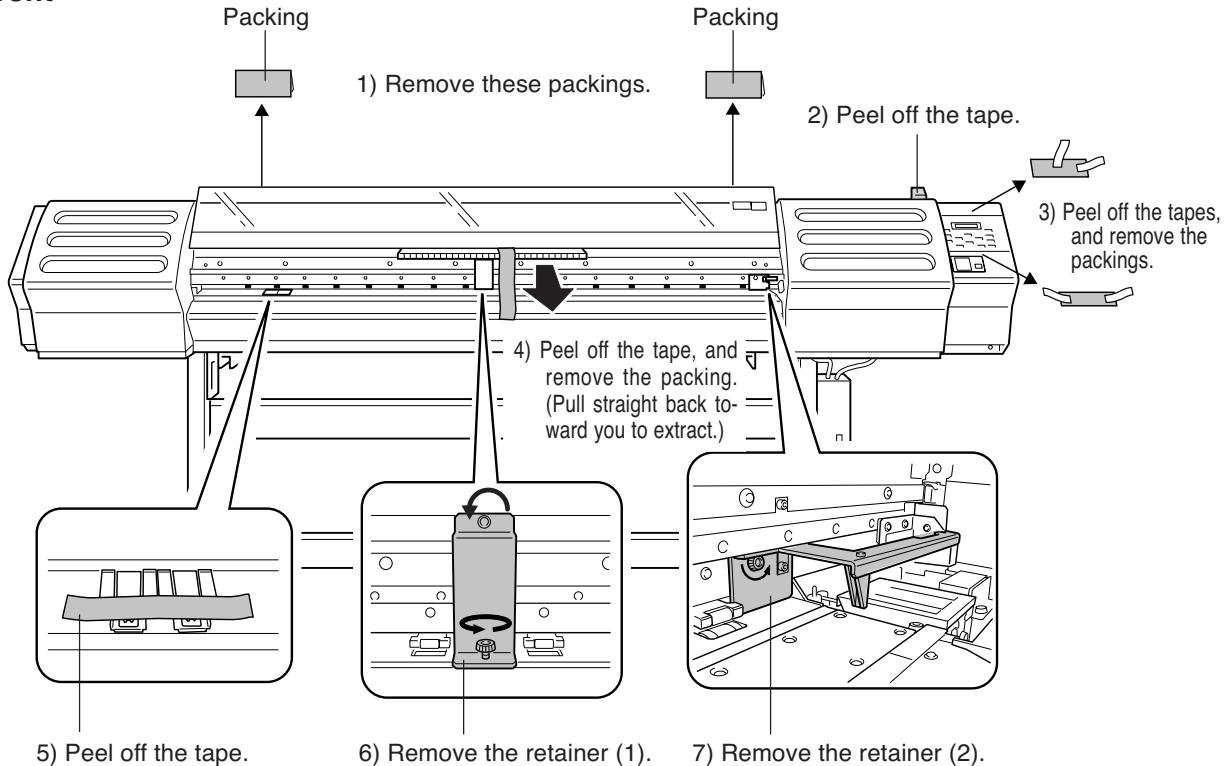
☞ "5-5 Disposing of Discharged Ink"



Step 4: Remove the Protective Media

The protective media shown below is attached to this machine when it is shipped from the factory. When you have finished installing the machine, remove all protective media.

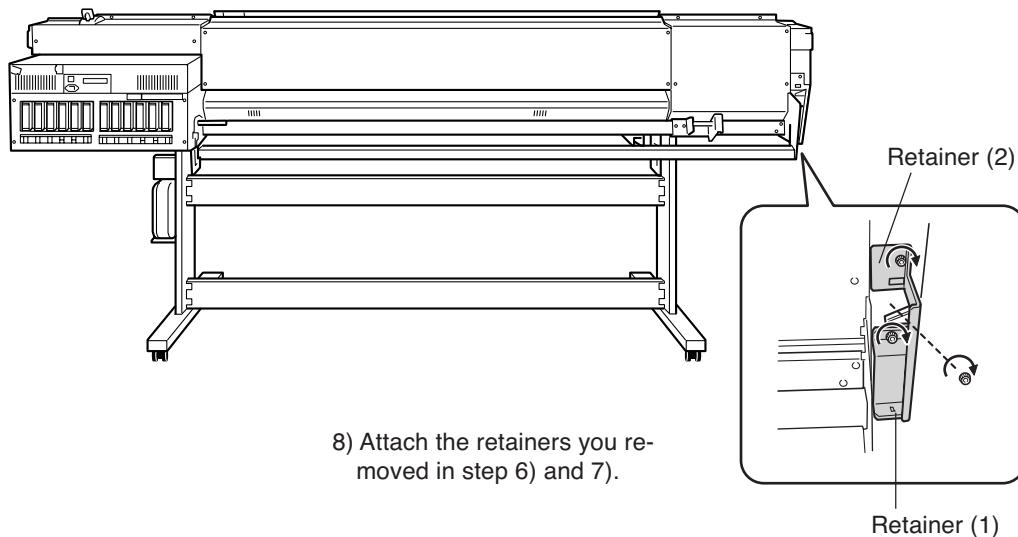
Front



Point

If the screw for the retainer is difficult to loosen, use a screwdriver to remove it.

Rear



1-4 Connecting the Cables



Use only with a power supply of the same rating as indicated on the unit.
Use with any other power supply may lead to fire or electrocution.



Ground the unit with the ground wire.
Failure to do so may result in risk of electrical shock in the even of a mechanical problem.



Use only with the power cord included with this product.
Use with other than the included power cord may lead to fire or electrocution.



Do not connect the power cord with other electrical loads on a single electrical outlet.
Doing so may generate heat and cause fire.

Connecting the Power Cord



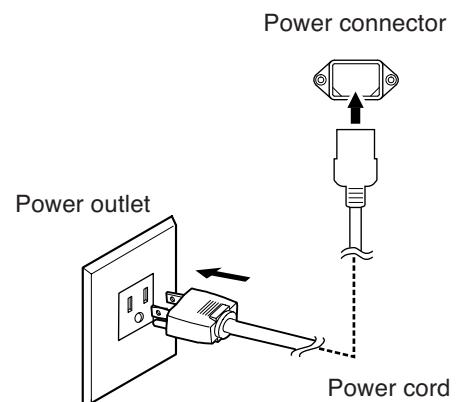
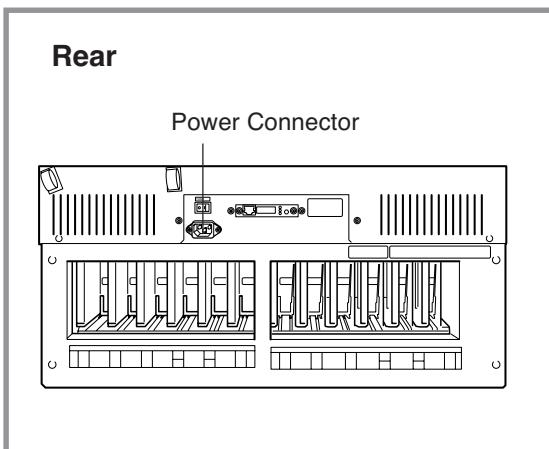
Notice

Be sure to use an electrical outlet for the power supply. Also, do not connect multiple electrical loads on a single electrical outlet. Low or unstable voltage may result in inadequate print heater performance. If the temperature of the print heater fails to rise adequately even when used correctly, check the voltage of the power supply.

Securely connect the power cord, computer I/O cable and so on so that they will not be unplugged and cause failure during operation. Doing so may lead to faulty operation or breakdown.

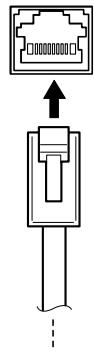
Before connecting the cable, make sure the computer's power and the main power switch of the unit are switched off.

Arrange the power cord and interface connection cable to prevent tripping when moving around the unit.



Connecting to the Computer

RJ-45 (Ethernet) connector



Notice

Do not connect a telephone cable to the RJ-45 (Ethernet) connector.

Ethernet (10Base-T or 100 Base-TX)

Network cable (category 5)

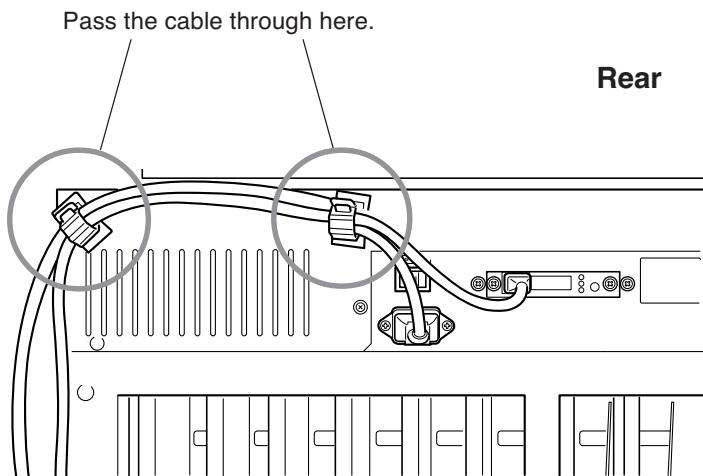
Various settings are required when using this machine in a network environment. For more information, see the "Roland PrintServer Network Settings Guide".

* Cables are available separately. One which you are sure matches the model of computer being used should be selected.

■ Securing the Cable

! Notice

Pass the cable through the established location, making sure that it does not touch the loaded media.
If the cable touches the media during printing, media feed may be obstructed, resulting in poor printing accuracy.



1-5 Switching On the Power for the First Time

Install Ink Cartridges



Store ink cartridges out of the reach of children.



If ink or cleaning liquid comes in contact with the eyes, immediately flush with running water for at least 15 minutes.



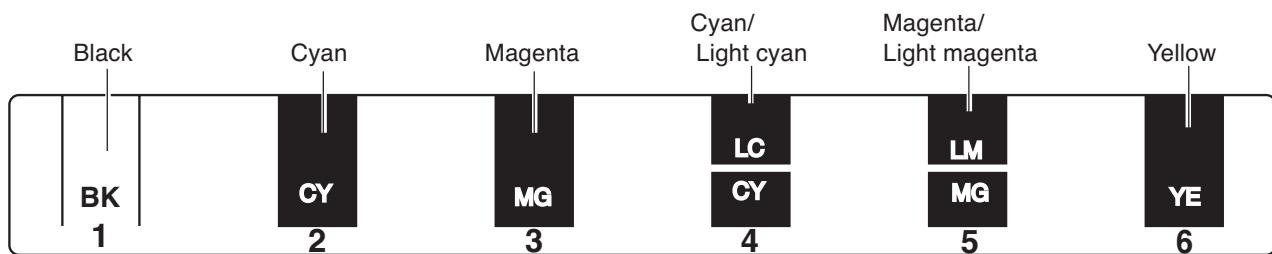
Notice

If an ink cartridge is dropped, the shock due to the fall may damage the ink cartridge and make it unusable.

When installing and removing an ink cartridge, do not rush. Detach the cartridge gently. Sudden movement when detaching may cause ink to be spilled.

Use only ECO-SOL INK. Do not insert any other type of ink cartridge.

Confirming the Ink-insertion Sites

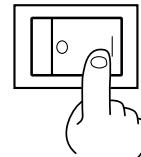


Filling Ink

Make the setting for the ink type to install. You can make the setting for the ink type when you switch on the power for the first time, or when you switch on the power after removing ink.

Installing ink cartridges for the first time after purchase requires four unused SOL INK cleaning cartridges. This is also the case when you are draining ink in preparation for transport, then reinstalling the ink cartridges.

- 1 Switch on the main power on the back of the machine.



- 2 Press the [POWER] key on the operation panel.

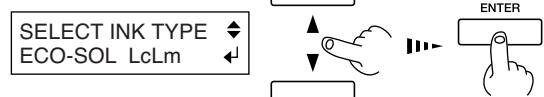
- 3 Select the ink type and press the [ENTER] key.

ECO-SOL CMYKMC

= Four colors (cyan/magenta/yellow/black)

ECO-SOL LcLm

= Six colors (cyan/magenta/yellow/black/light cyan/light magenta)



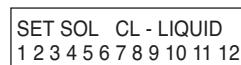
- 4 Follow the messages to make sure the drain bottle is installed at the back of the machine.



- 5 Insert cleaning cartridges into the ink-cartridge ports shown by flashing on the display.

Cleaning starts. The cartridges are inserted and removed while the operation is in progress. Follow the messages on the display to carry out the procedure.

Cleaning may take some time.



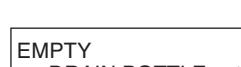
- 6 When cleaning ends, the following message appears. Follow the instructions given in the message to remove the cleaning cartridges.



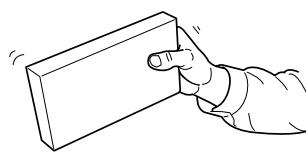
- 7 Empty the drain bottle and press the [ENTER] key.



For more information about how to dispose of discharged ink, see "5-5 Disposing of Discharged Ink."



- 8 Before you insert the ink cartridges for each color, gently shake the cartridges.

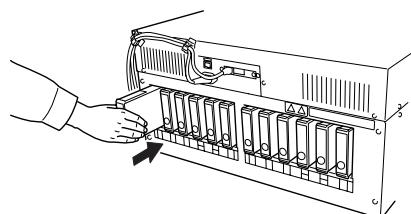


- 9** Firmly insert the ECO-SOL INK cartridges for each of the colors as far as they will go.

Ink filling starts. When this screen appears, filling ink is finished.

SETUP SHEET

SET SOL CRT.
1 2 3 4 5 6 7 8 9 10 11 12



Chapter 2:

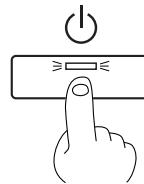
Basic Operation

This describes the sequence of basic operations from switching on the power to performing printing.

2-1 Switching the Power On and Off

Switching On the Power

Leave the main power switch turned on, and use the [POWER] key to switch the power on and off in day-to-day use.



Notice

Points to Keep in Mind When Switching the Power On and Off

Do not switch off the main power while the sub power is switched on. The print heads may be left uncapped (that is, the print-head carriage may remain over the platen). If the machine is allowed to stand with the print heads uncapped for a prolonged period, the print heads may become irreversibly clogged.

Before switching off the main power, be sure to hold down the [POWER] key for one second or longer to switch off the sub power.

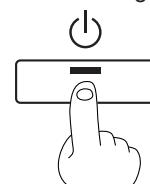
If the print-head carriage stops while over the platen, press the [POWER] key to reset the power. The print-head carriage moves and the print heads are capped.

If the print-head carriage does not move even when you reset the power using the [POWER] key, refer to "7-1 What to Do If" and see "What to Do When the Print-head Carriage Does Not Move."

Switching Off the Power at the End of the Day

Press and hold down the [POWER] key for one second or longer to switch off the sub power.

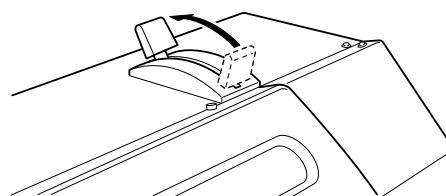
The POWER LED goes out



! Notice

Leave the pinch rollers raised when not in use.
Deformation may occur if left lowered for a prolonged period.

Raise



2-2 Loading Media



Be sure to install the media guide when loading roll media.

Otherwise the roll may fall and cause injury.



Load roll media at the proper position.

Otherwise the roll may fall, resulting in injury.



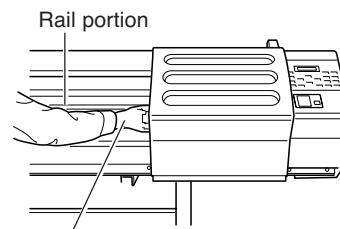
When the reinforcement pipe is inserted into the paper tube, do not angle the roll media.

The reinforcement pipe may protrude from the roll media and cause injury.



Notice

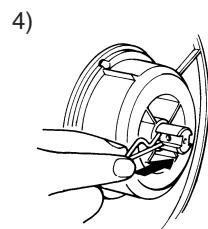
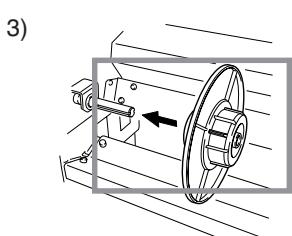
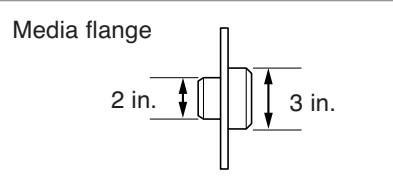
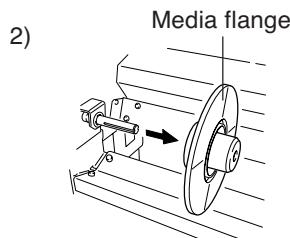
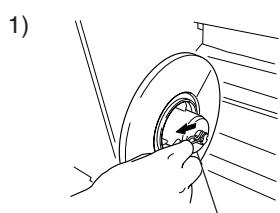
Do not touch the rail or the inner side of the left and right cover. Touching the area shown may cause the fingers to be soiled by grease or ink, and may result in diminished image quality.



Do not put hands inside

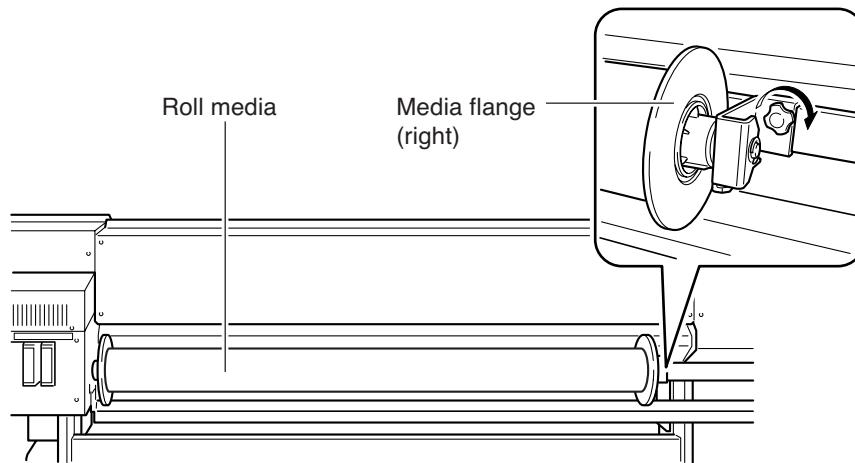
Loading Roll Media

- 1** Open the front cover.
- 2** Line up with the core diameter of the loaded roll media and refit the left- and right-hand media flanges.



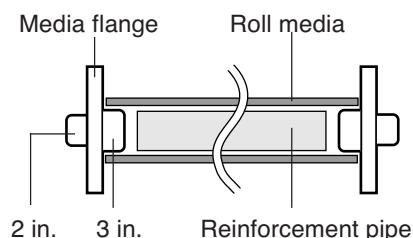
- 3** Fit the hole on the left side of the roll media all the way onto the left-hand media flange.

- 4** Fit the right-hand media flange all the way into the hole on the right-hand side of the roll media, and tighten the retainer screw to secure in place.

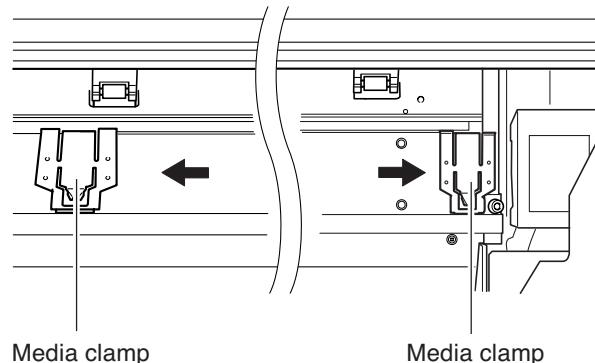


 **Point**

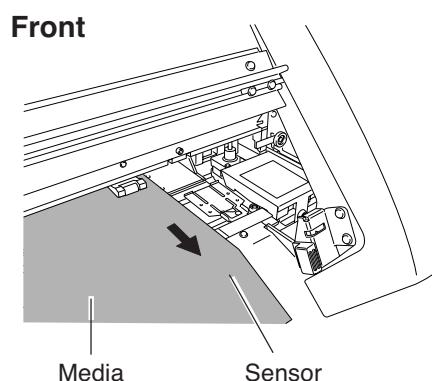
When roll media sag severely, use the reinforcement pipe inserted into the roll media. After use, remove the reinforcement pipe from the paper tube.



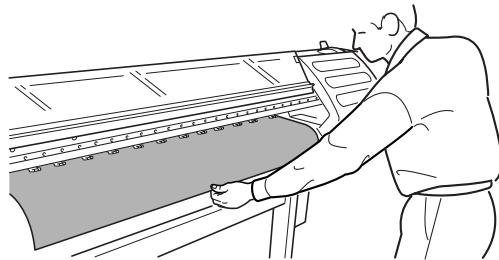
- 5** Move the media clamps to the two ends of the platen.



- 6** Pass the end of the media from the back of the machine to the front.
Pull out the media until the sensor is hidden from view.

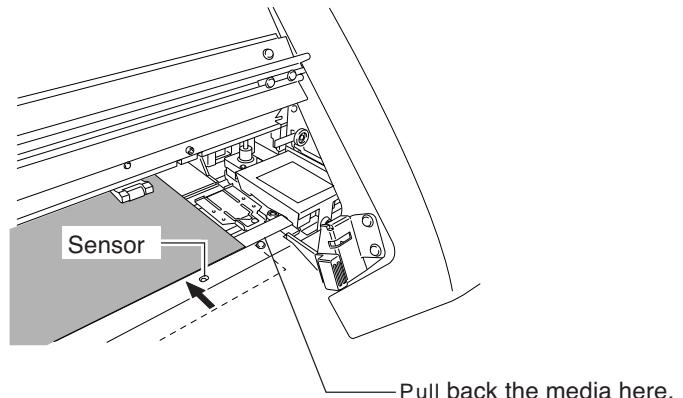


- 7** Grasp the center of the end of the media at the front of the machine, and slowly pull the media out straight to the position shown in the figure.



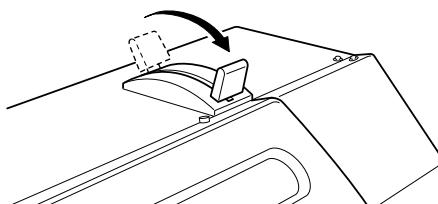
- 8** Slowly turn the media flanges at the back of the machine to pull back the media to the position shown in the figure.

When you roll back the media until the sensor comes into view, a tight seal is formed between the media and the platen, and the media is stretched taut.



- 9** With the media pulled out from the roll stretched taut with no slack, move the loading lever toward LOAD.

The pinch rollers lower to hold the media in place.



- 10** Close the front cover, and press the [SETUP] key. This detects the width of the media and displays the printable width.

The SETUP LED lights up



 **Notice**

When the machine will remain unused for an extended period, remove roll media from the machine and store it. If roll media is left mounted on the machine for an extended period, these entire roll may warp, resulting in poor printed image quality or motor errors.

 **Point**

When transparent media is loaded, it is necessary to set [SHEET TYPE] to [CLEAR]. For more information, see "4-5 Using Transparent Media."

When changing to a different type of media, it may be necessary to perform feed correction or bidirectional correction. For more information, see "4-6 Making Corrections for Printing."

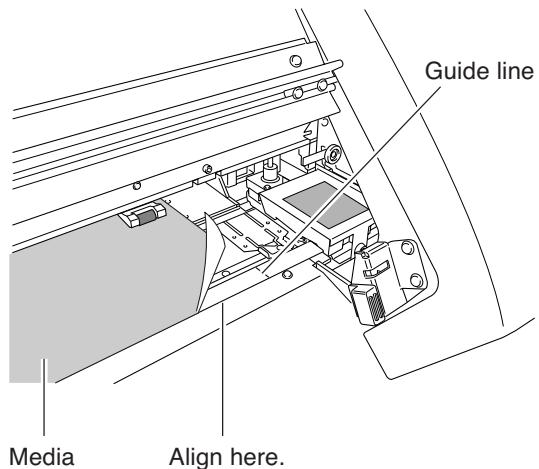
For information about the conditions of media that can be used and loadable media widths, see "8-1 Media Conditions."

Loading Sheet Media

Before attempting to load sheet media, check the following points.

Front View

Line up the right edge of the media with the guide line, and align the front edge with the location shown in the figure. If the front edge of the media is cut at an angle, load the media so that its edge is lined up straight with the guide line.



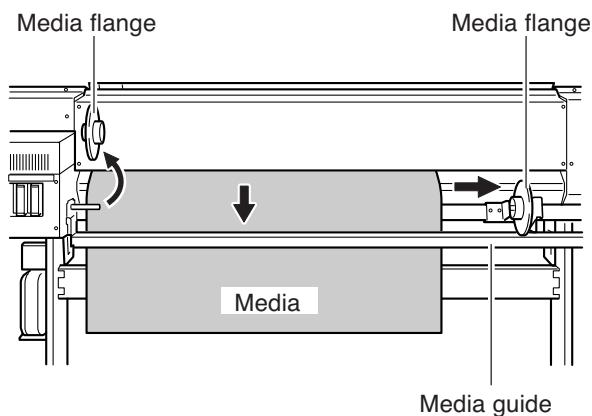
Point

Be sure to line up the right-hand edge of the media with the guide line.

If the media is not positioned correctly when you press the [SETUP] key, the message "SHEET SET ERROR SET AGAIN" appears on the display.

Rear View

Remove the left-hand media flange at the back of the unit. Move the right-hand media flange at the back of the unit to a position where it does not touch the loaded media. Drape the pulled-out media at the back between the machine and the media guide.



When Loading Thick Media

Media that is thick or that warps easily may lead to problems with media feed or jamming. When you are using such media, adjust the height of the print heads.



Point

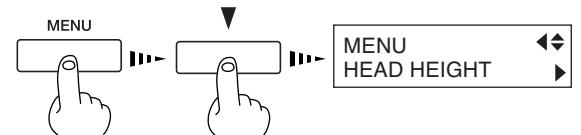
When the height of the print head has been adjusted, it is necessary to perform bidirectional correction. For more information about bidirectional correction, refer to "4-6 Making Corrections for Printing" and see "Bidirectional Correction."

For more information about the thicknesses of media that you can load, see "8-1 Media Conditions."

Adjusting the Head Height

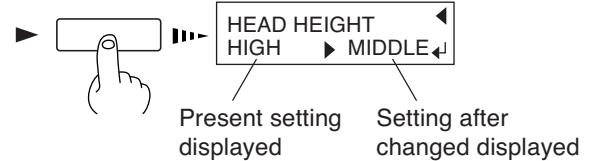
The head height is setting at position 2 (middle) when shipped from the factory.

- 1** Open the front cover.
- 2** Press the [MENU] key, and press the [▼] key to display the screen shown in the figure.



- 3** Press the [▶] key to display the screen shown in the figure.

When the screen shown in the figure appears, the carriage simultaneously moves to the left.

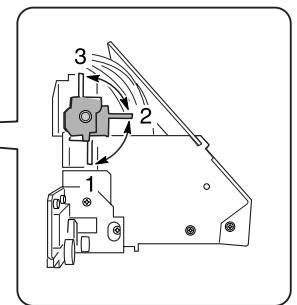
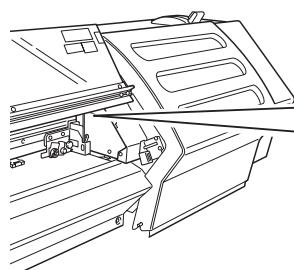


- 4** Move the lever to adjust the height of the head.
When you move the lever, the machine beeps and the screen display changes.

- Position 1 (low): One beep
- Position 2 (middle): Two beeps
- Position 3 (high): Three beeps



Move the lever until it stops. If it is not at position 1, position 2 or position 3, bidirectional printing may be misaligned.



3 (high) : When media that is thick or prone to warping is loaded

2 (middle) : Standard

1 (low) : Suitable for high image quality

- 5** Close the front cover.
The print-head carriage return to the standby position.

When Loading Media That Warps Easily

When you are loading media whose left and right edges are prone to warping, use the media clamps. The media clamps can be used to secure media that is up to 0.7 mm (0.027 in.) or so in thickness.

Notice

The following media cannot be used even when secured in place by the media clamps.

- Media whose warping is not corrected by securing it in place
- Media that deforms the media clamps when it is secured in place
- Media that is prone to warping and that has a thickness of 0.7 to 1 mm (0.027 to 0.039 in.)
- Media with a strong tendency to curl

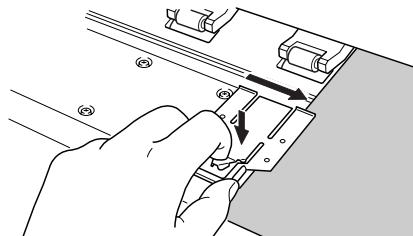
Attempting to force such media to be loaded may result in malfunction.

Do not use the media clamps when performing printing with the height of the print heads set at position 1. The media clamps may scrape the print heads.

Securing in Place Using the Media Clamps

1 Position the print heads at 2 (middle) or 3 (high).

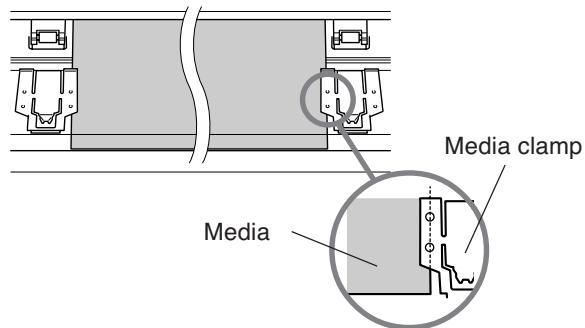
2 With your finger, lightly press down on each media clamp at the location shown in the figure to move it and make it grip the media.



3 Line up the holes in the media clamps with the left and right edges of the media.

Point

Set the media clamps at the correct locations. If they are not set at the correct locations, the media may catch or cause other problems.



Notice

When you cut off media while using the media clamps, then depending on the media, it may come loose from the media clamps. After you cut off the media, check to make sure that the media has not come loose from the media clamps.

As printing proceeds, the media may move to the left right and touch or come loose from the media clamps. After about 1 m (3 ft.) of media has been fed, check the positioning of the media clamps. If the media looks like it may come loose from the media clamps, adjust the positioning of the media clamps.

The media clamps are designed to press down on a space 10 mm (7/16 in.) inward from either edge of the media. Do not perform printing within these areas.

Separating the Media

Make sure the [SETUP] LED lights up.

To cut off a printed portion from the roll, hold down the [SHEET CUT] key for at least one second.

The piece is cut off at the present location of the printing-start line. This step is not necessary when cutoff is performed automatically by sending a media-cutoff command from the computer.

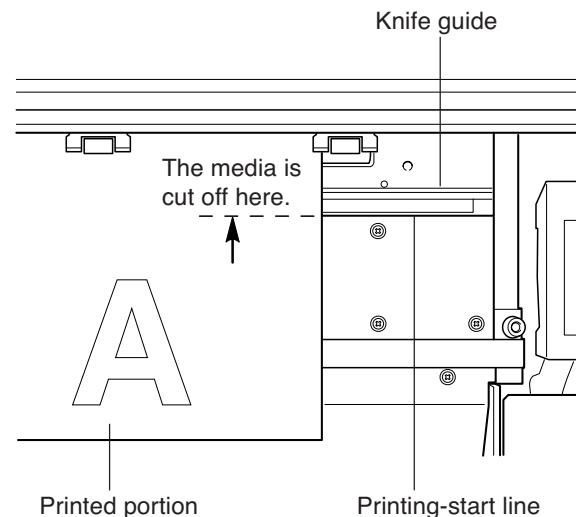


Point

Depending on the composition of the media, cutoff may not be possible.

Depending on the composition of the media may remain on the platen after cutoff. If this happens, remove it by hand.

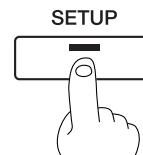
When you're performing cutoff, do not use the [▲] key to pull the media back. Unless the end of the media has been pulled out to a location to the front of the platen, cutoff may not be performed smoothly.



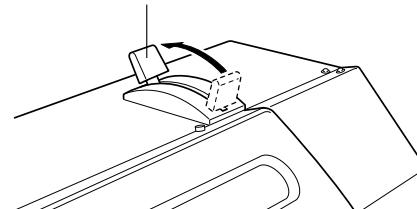
Removing the Media

- 1** Refer to the previous section, "Separating the Media," and cut off the media.
- 2** When the SETUP LED is lighted, hold down the [SETUP] key for at least one second.
- 3** Move the loading lever toward the back of the unit.
The pinch rollers rise to release the media.
- 4** Remove the media.

The SETUP LED goes out



Loading lever



2-3 Printing

Notice

Do not open the front cover. Opening the front cover while printing is in progress causes an emergency stop. This means that printing may not be carried out correctly even if operation is resumed, due to drop-out or misalignment of the image.

During printing, do not touch the portion of the media that's already been discharged.

Doing so may obstruct media feed or cause the media to rub against the heads, which may result in a paper jam or damage to the heads.

The print heads may be left uncapped (that is, the print-head carriage may remain over the platen). If the machine is allowed to stand to with the print heads uncapped for a prolonged period, the print heads may become irreversibly clogged.

Also, if the print-head carriage stops while over the platen, press the [POWER] key to reset the power. The print-head carriage moves and the print heads are capped.

If the print-head carriage does not move even when you reset the power using the [POWER] key, refer to "7-1 What to Do If" and see "What to Do When the Print-head Carriage Does Not Move."

To Perform Printing

Before performing a printing test or starting printing, make sure the following two points have been carried out.

- Media is loaded and the front cover is closed.
- The SETUP LED is illuminated.

Pressing the [SETUP] key detects the width of the media and displays the printable width.

Point

How to Load Media

For information on how to load media, refer to "2-2 Loading Media."

The [SETUP] Key

Pressing this for one second or longer clears the media setup.

If another menu screen is displayed, the media setup is not cleared simply by pressing the [SETUP] key.

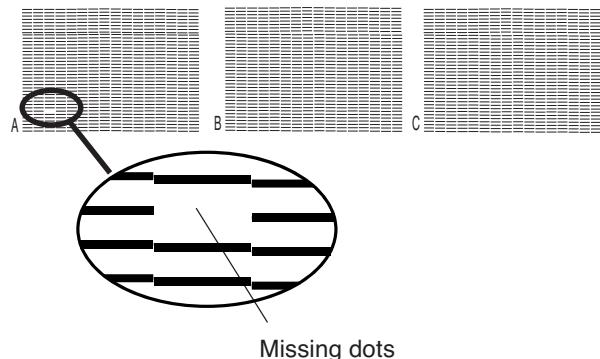
Performing a Printing Test

Before starting to print, carry out a printing test to check the state of the head.
Problems such as missing dots may reduce the printing quality.
If the test results show a problem, carry out head cleaning to restore the head to its normal state.

- 1 Press and hold the [TEST PRINT] key for at least one second to carry out a printing test.
The test pattern is printed.



- 2 If dot drop-out is present, clean the heads.
For more information about head cleaning, see "5-1 Cleaning the Print heads."



Downloading Printing Data

Printing is started when data is sent.

If the top menu isn't displayed, printing doesn't start even when data is sent from the computer. If another menu screen is displayed, press the [SETUP] key, and display the top menu.



Point

Conditions for starting printing

- The media must be already set up (with the SETUP LED lighted).
- The display must show the top menu.

Top menu

W 1234 mm

Chapter 3:

Using the Print Heater

This section describes how to print while using the print heater and the like.

3-1 Switching the Print Heater On and Off

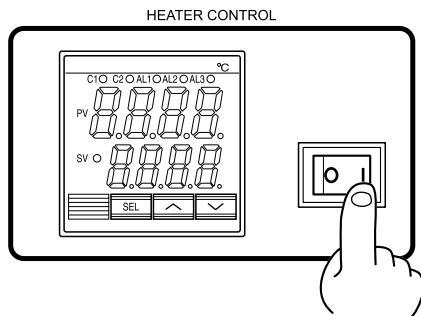
Switching On the Print Heater

- 1 Switch on the power switch for the print heater.

After the temperature display panel flashes for a short interval, both [SV] and [PV] light up and indicate their values.

- 2 The [C1] indicator lights up.

The print heater starts operating.



! Notice

When the temperature display panel shows characters other than numerical figures, such as UUUU or LLLL, immediately switch off the print heater and contact your authorized Roland DG Corp. dealer or service center.

Point

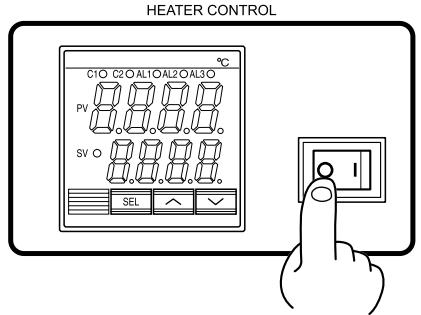
Power Source for the Print Heater

The print heater is connected to the sub power for the printer.

The print heater operates only when both the power switch and the sub power are switched on.

Switching Off the Print Heater

Switch off the power switch for the print heater.



! Notice

When you're not using the print heater, switch off the power to it.

Point

The preset temperature for the print heater is saved in memory even when the power is switched off.

3-2 Loading Media

About the Ambient Temperature During Print Heater Use

To ensure stable printing quality, we recommend use in an environment where the ambient temperature is 20°C (68°F) or higher.

At low temperatures, warm-up may take a long time, or the temperature may fail to reach the preset value, or large differences in temperature may occur. Inadequate temperature may result in coarse printing.

If the media fails to warm up sufficiently, try setting the print heater to a higher temperature. If this fails to resolve the problem, raise the temperature of the room.

Points to Observe When Loading Media

Check and observe the following points when loading media.

■ Use Media With a Width of about 1 m (40 in.) or More

We recommend using media having a width of about 1 m (40 in.) or more. Media of narrower width may take a long time to heat, or may fail to reach the preset temperature.

Also, in no event should media having a width of 50 cm (19-11/16 in.) or less be used. Doing so may lead to danger of overheating.

■ Before Loading Media, Allow the Platen to Cool Down to 30°C (86°F) or Lower

Before loading media, switch off the print heater or set the preset temperature to 30°C and allow the print heater to cool down. Loading media when the print heater is 30°C (86°F) or more may cause the media to wrinkle or warp due to the sudden rise in temperature.

■ When Printing, Use the Media Clamps

Set the height of the print heads to either "Middle" or "High," then engage the media clamps. Depending on the media, the edges of the media may warp due to heat or the media may strike the print heads, causing jams or malfunction.

3-3 Printing

Printing

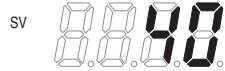
Before performing printing, set the preset temperature to 40°C (104°F) and wait until media becomes sufficiently warm.

! Notice

The recommended ambient temperature for ensuring acceptable quality when performing printing is 20 to 32°C (68 to 89.6°F). When the ambient temperature is less than 20°C, the media doesn't heat up enough to ensure acceptable quality. In such cases, set the preset temperature to higher value.

- 1 After loading media, set [SV] to 40°C.

It may take from few minutes to approximately 30 minutes to reach the preset temperature, depending on the ambient temperature.



- 2 To heat the media sufficiently, wait for five minutes after making sure that the [PV] reaches 40°C. Then perform printing.



Point

The setting range of preset temperature is 30 to 50°C (86 to 122°F).

Performing printing as soon as the temperature reaches 40°C may result in coarse printing because the media is not warm enough.

When the print heater reaches the preset temperature, the [C1] indicator goes dark and the print heater stops operating. The print heater is switched on and off automatically to maintain the preset temperature. Meanwhile the [C1] indicator lights up and goes dark to indicate the status of the print heater.

Chapter 4:

A Wide Variety of

Operations

This section describes a wide variety of operations and functions, grouped by task.

4-1 Replacing the Ink Cartridges

Care and Handling of Ink Cartridges

Notice

- Do not use anything other ECO-SOL INK cartridge. Do not attempt to refill and reuse an empty ink cartridge.
- Do not attempt to disassemble an ink cartridge.
- If an ink cartridge is dropped, the shock due to the fall may damage the ink cartridge and make it unusable.
- Store ink cartridges unopened at a temperature of -20°C (-4°F) to 40°C (104°F) in a well-ventilated location.
- Do not remove any ink cartridges except when shipping the machine.
- Do not allow a removed ink cartridge to sit out for any length of time. Doing so may result in clogging of the heads.
- If ink runs out, replace immediately with an ink cartridge designed especially for the machine.
- Do not attempt to refill and reuse an empty ink cartridge. If an ink cartridge is removed, replace it immediately with a new one.
- When removing an ink cartridge, do not rush. Detach the cartridge gently. Sudden movement when detaching may cause ink to be spilled.
- Once an ink cartridge has been installed, do not remove it until the ink has been used up. Frequent insertion and removal may allow air to enter the ink tube and result in a drop in printing quality due to dot drop-out or the like.

Replacing with New Ink Cartridges

Replacing an Ink Cartridge

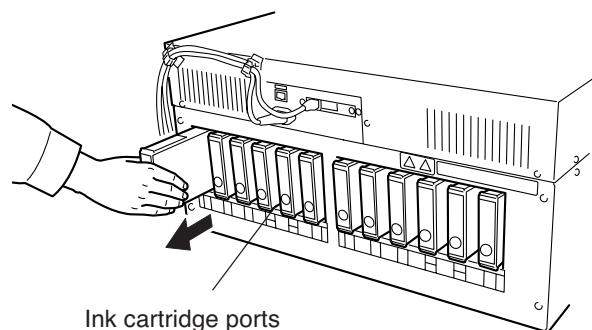
Before you attempt to replace an ink cartridge, check the following two points.

- The machine is switched on.
- Operation is stopped or paused.

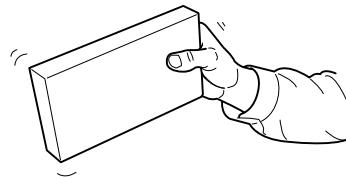
! **Notice**

Removing or inserting an ink cartridge while operation is in progress may cause air to get inside the cartridge, resulting in poor image quality.

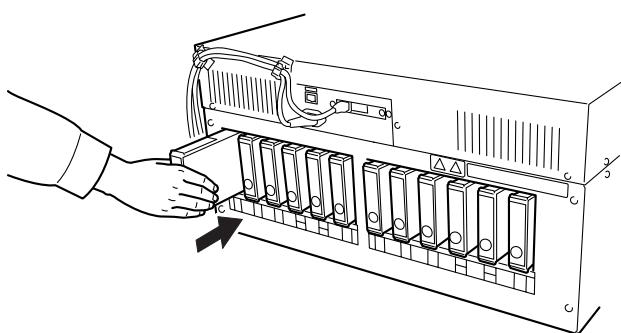
- 1 Remove the ink cartridge from the ink-cartridge port.



- 2 Gently shake the new cartridge.



- 3 Insert new ink cartridge.



! **Notice**

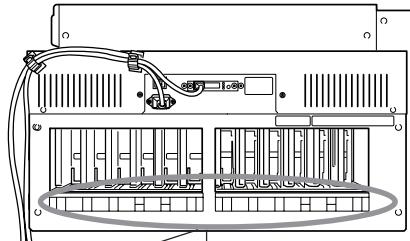
Be sure to use genuine ECO-SOL INK cartridges from Roland DG Corp. Installing other types of ink may result in breakdown or faulty operation.

If Ink Runs Out During Printing

If ink runs out during printing, a warning beep sounds and the screen shown in the figure appears. Replace the ink cartridge. Ignoring the message and continuing printing without replacing the ink may adversely affect image quality, resulting in faintness or other problems.

1	2	3	4	5	6
7	8	9	10	11	12

The "_" for the ink that has run out flashes. The number indicates the number of the ink cartridge.



The flashed number indicate the ink cartridges at the locations shown in the figure.

1	BK	2	CY	3	MG	4	LC CY	5	LM MG	6	YE	7	BK	8	CY	9	MG	10	LC CY	11	LM MG	12	YE

Replacing Ink (When Set to the [STOP] Mode)

- 1 Pull out the ink cartridge indicated by the flashing number on the display.
- 2 Gently shake the new cartridge.
- 3 Insert new ink cartridge.



Point

The behavior that occurs when it becomes necessary to replace ink while printing is in progress differs according to whether the selection for [EMPTY MODE] under [INK CONTROL] is set to [CONT.] or to [STOP]. (The default setting is [STOP].)

When Set to [STOP] (Pause)

[STOP] causes operation to pause immediately when ink needs to be replaced. Printing is resumed by replacing the cartridge. Note, however, that the colors of an image in progress may no longer match perfectly. When performing long printing, replace with sufficient ink cartridge to print.

When Set to [CONT.] (Continue Printing)

Select this when ink cannot be replaced immediately while printing in progress, such as during unattended operation at night. When the machine is set to [CONT.], an alarm sounds approximately 1 m² before ink runs out, but printing continues without pausing. Because printing continues with only a small amount of remaining ink, the printed ink may be faint. As a general guide, about 1 m² of printing is possible with the remaining ink, but the amount of ink used varies greatly depending on the image. Printing can be continued only for the data for which printing is currently in progress. The machine stops when it finishes outputting one image.

4-2 Checking the Remaining Ink Level

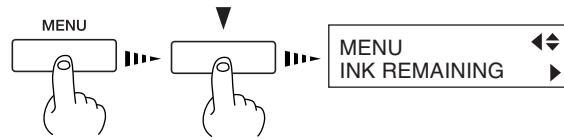
You can use [INK REMAINING] on the menu to check how much ink is left after the ink cartridges have been installed. Use this information as a guide for replacing the ink cartridges.

Point

In situations such as the following, the installed ink cartridge is taken to be an unused cartridge and the default amount of remaining ink is displayed, which does not match the actual amount of ink remaining.

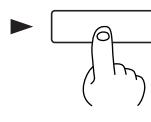
- When an ink cartridge is removed and reinstalled while printing is in progress
- When a partly used ink cartridge is installed

- 1** Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.

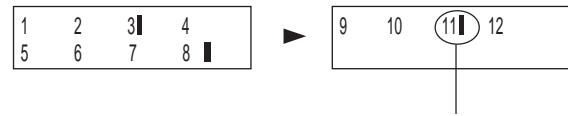


- 2** Press the [▶] key to make the following screen appear on the display.

You can check the amount of remaining ink for ink cartridges 1 through 8.



- 3** Continuing by pressing the [▼] key lets you check the amount of remaining ink for ink cartridges 9 through 12.



The fewer the markers, the less is the amount of ink left.

<Remaining ink > **Much**

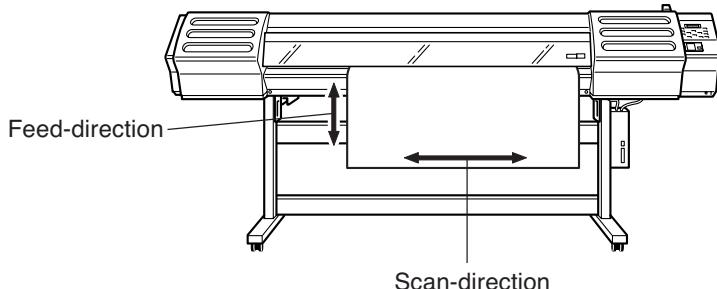
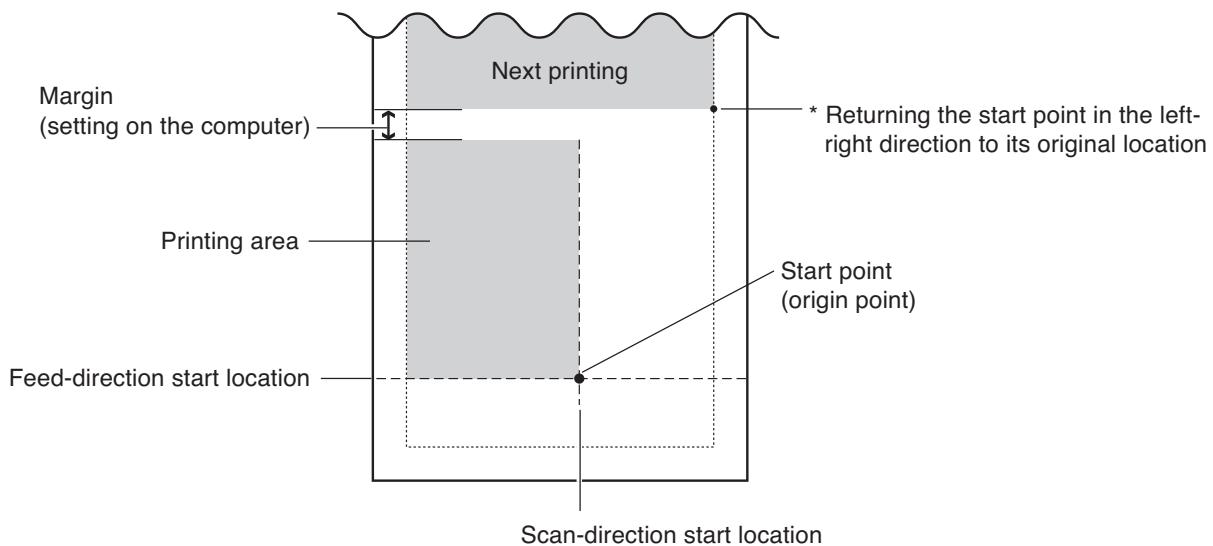


4-3 Setting the Location Where Printing Starts

Setting the Start Location

Set the location where printing starts at the desired place.

[▲], [▼], [▶], and [◀] keys and the [BASE POINT] key to set the start points (origin points) for the feed direction (the direction of forward and backward movement) and the scan direction (the direction of movement of the print-head carriage).

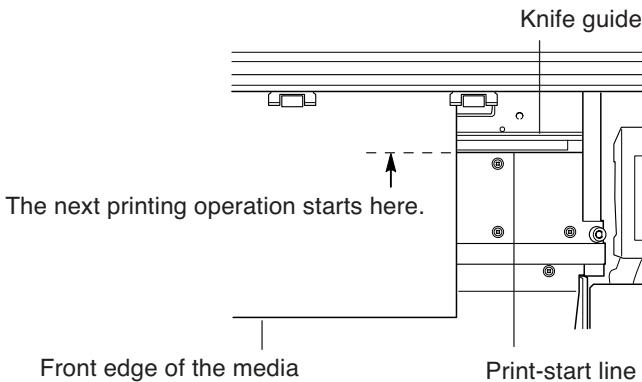


Point

When using [BASE POINT] key to change the print-start location, check the size of the data to print before you set the start position.

Specifying a Location in the Feed Direction

Use the [▲] [▼] keys to move the media to the location where you want to start printing.
In the figure, the next printing operation starts from the location shown.



Notice

Whenever possible, avoid using the [▲] key to pull back the media. Otherwise the following may occur.

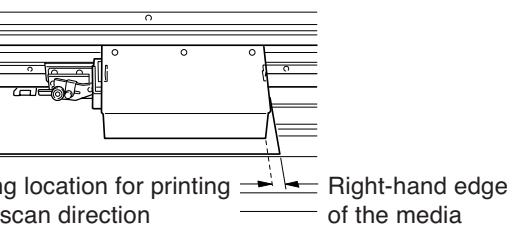
- The pinch rollers may pass over the printed surface and smudge the ink.
- The grit rollers may leave tracks on the media, reducing printing accuracy.
- Printing may sag.

Point

For roll media, when the media has been returned toward the back of the unit with the [▲] key, manually roll the media back onto the roll so that all of the media at the back of the unit is stretched taut.

Specifying a Location in the Scan Direction

- 1** Press the [\blacktriangleleft] key to move the print-head carriage to the present starting location for printing in the scan direction.



- 2** Use the [\blacktriangleleft] and [\triangleright] keys to move the marker to the new print-start position.

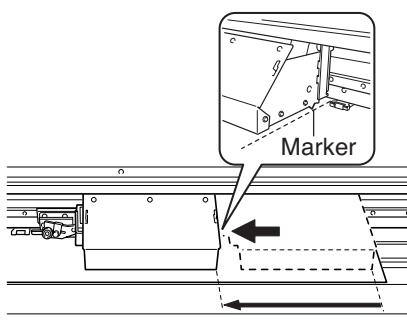
The printable width appears on the display.



Point

If the print-head carriage moves away from the standby position when not printing, problems such as drying-out of the print heads or dot drop-out during printing may occur. For this reason, about 60 seconds after pressing the [\blacktriangleleft] key to move the print-head carriage, the print-head carriage returns to the standby position.

Also, the print-head carriage returns to the standby position when about 30 seconds passes during this interval after the [\blacktriangleleft] and [\triangleright] key is released. If the setting could not be made in within the time limit, then do the setting over again from the beginning.

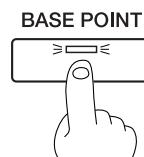


Top menu

W 782 mm

- 3** Press the [BASE POINT] key.

The BASE POINT LED lights up



- 4** Press the [ENTER] key.

The print-head carriage moves to the standby position.



Canceling the Setting

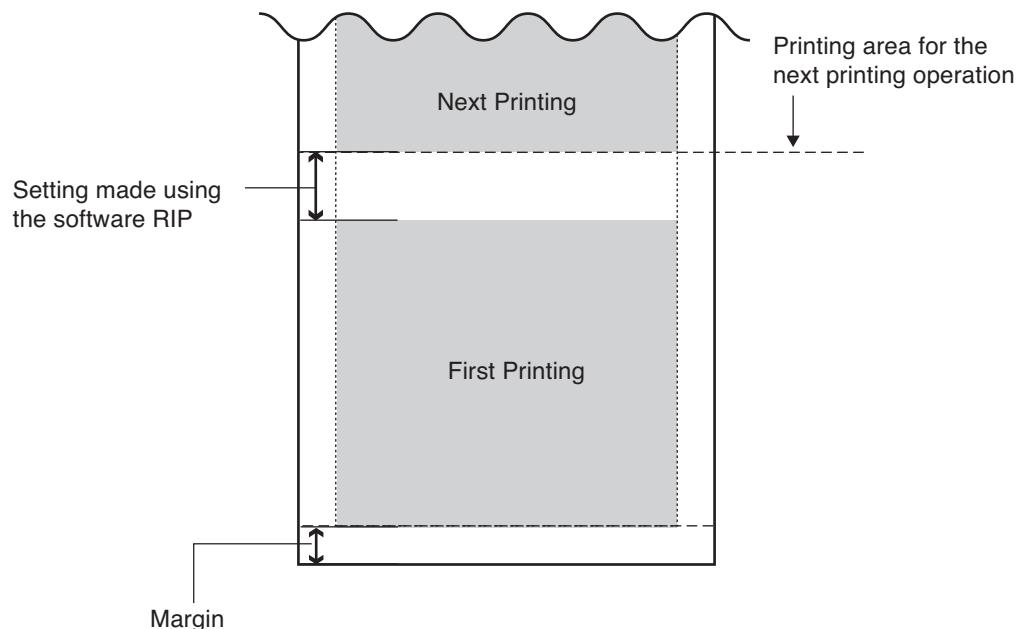
A position set using [BASE POINT] key is canceled in situations like the following.

- When one page was printed
- When media setup is canceled by pressing the [SETUP] key

4-4 Setting the Margins

Setting the Margins in the Feed Direction

You can set the margins in the feed direction using the software RIP (raster image processor). For information about how to make the settings for the margins, refer to the documentation for the RIP you're using.



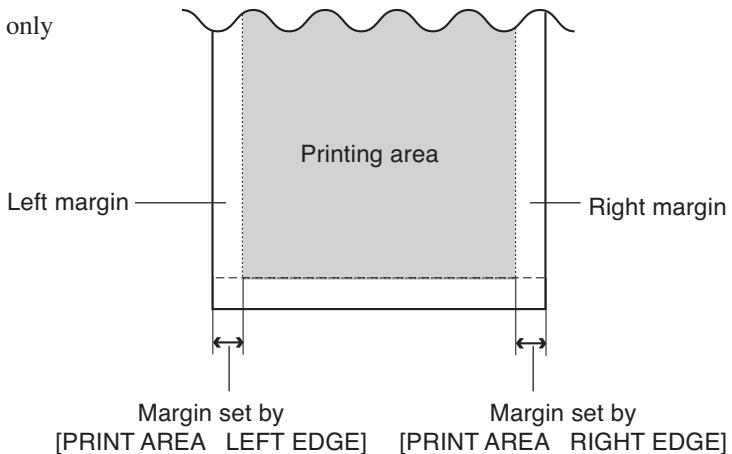
Point

When a media-cutoff command is sent from the computer during continuous output, the value for the margin between the first printing and the next printing differs. For more information about margins, see "8-3 The Media-cutoff Location During Continuous Printing."

Setting the Margins in the Scan Direction

Set the left and right margins for the printing area.

You can set the scan-direction (left and right) margins only at the time of media setup.



Notice

If the print-head carriage moves away from the standby position when not printing, problems such as drying-out of the print heads or dot drop-out during printing may occur. For this reason, about 60 seconds after pressing the [\blacktriangleleft] key to move the print-head carriage, the print-head carriage returns to the standby position.

Also, the print-head carriage returns to the standby position when about 30 seconds passes during this interval after the [\blacktriangleleft] and [\triangleright] key is released. If the setting could not be made in within the time limit, then do the setting over again from the beginning.

When the printing area is set to the full width of the media, fluctuations in media-width detection or slight crookedness of the media may result in printing outside the media, causing soiling of the platen. If this happens, then do not specify a printing area. Instead, use the default printing area in effect when the media is set up.

When the media clamps are used, then do not specify a printing area. Instead, use the default printing area in effect when the media is set up. The media clamps hold down a 10 mm (7/16 in.) edge on either side of the media. When the media clamps are

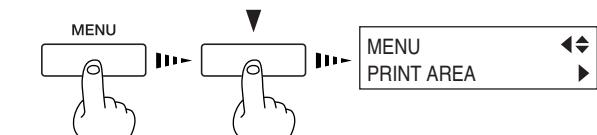


Point

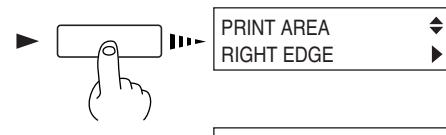
After setting the printing area, pressing the [SETUP] key to cancel the setup for the media (making the SETUP LED go out) cancels the printing area that has been set.

Using [PRINT AREA] to set the printing area when the starting location in the scan direction has been specified with the [BASE POINT] key, the setting made with the [BASE POINT] key is canceled.

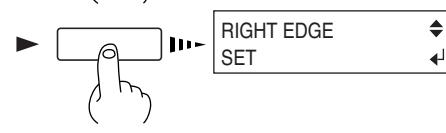
- 1** Press the [MENU] key, and press the [▼] key to display the screen shown in the figure.



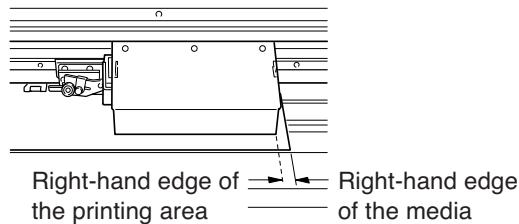
- 2** Press the [▶] key to display the screen shown in the figure.



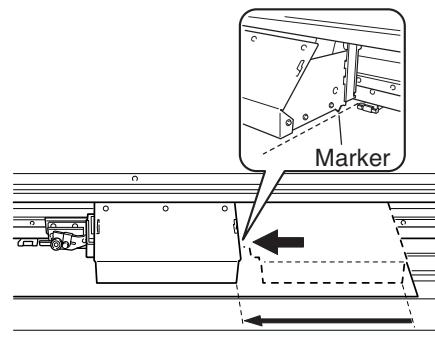
- 3** Press the [▶] key to display the screen shown in the figure.



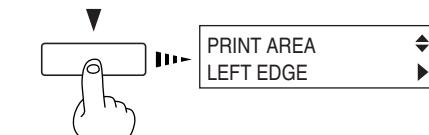
When you do this, the print-head carriage moves to the right edge of the printing area.



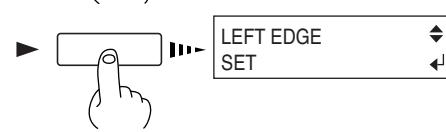
- 4** Use the [◀] and [▶] keys to move the marker at the right edge of the print-head carriage to the location that you want to make the right edge of the printing area. Press the [ENTER] key to lock in the setting the right-hand edge with an audible beep.



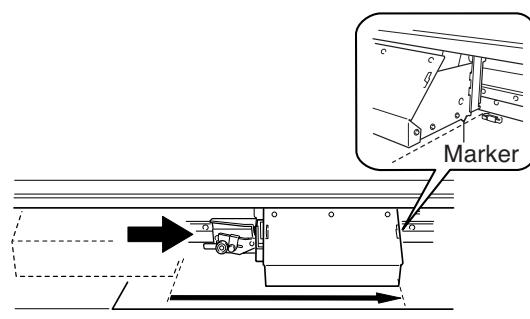
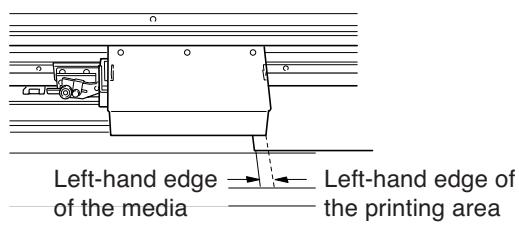
- 5** Press the [▼] key to display the screen shown in the figure.



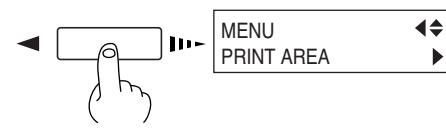
- 6** Press the [▶] key to make the following screen appear on the display.



When you do this, the print-head carriage moves to the left edge of the printing area.



- 7** Use the [◀] and [▶] keys to move the marker at the right edge of the print-head carriage to the location you want to make the left edge of the printing area. Press the [ENTER] key to lock in the setting the left-hand edge with an audible beep.



- 8** Press the [◀] key to display the screen shown in the figure.

When you do this, the print-head carriage returns to the standby position.

4-5 Using Transparent Media

If the media loaded on the unit is transparent, then at the [SHEET TYPE] menu, select [CLEAR].



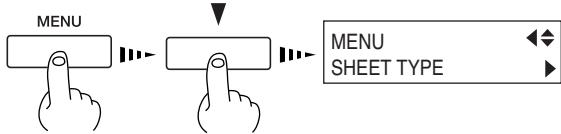
Point

When [SHEET TYPE] is set to [CLEAR], the media width is not detected during media setup. This means it is necessary to specify a printing area that matches the actual width of the media.

When only set to [CLEAR], the printable width is set to the maximum. For more information about printing area, see "8-2 Printing Area."

[SHEET TYPE] Selection Procedure

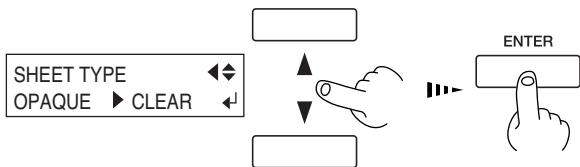
- 1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



- 2 Press the [▶] key to make the following screen appear on the display.



- 3 Use the [▲] and [▼] key to select [CLEAR], then press the [ENTER] key.



- 4 Specify a printing area for the left-right direction (the direction of print-head carriage movement) that matches the width of the media.

For more information, refer to "4-4 Setting the Margins" and see "Setting the Margins in the Scan Direction."



Notice

When [SHEET TYPE] is set to [CLEAR], the machine cannot detect when media runs out. In such cases, printing operation does not stop when the media runs out, and there is a chance that the platen may become soiled by ink or that ink may get inside and damage the machine. If the media while printing is in progress, immediately press the [PAUSE] key to quit printing.

4-6 Making Corrections for Printing

Feed Correction

This corrects for errors in the amount of feed of the grit rollers due the type of media. Be sure to make this setting when you have replaced the media with a different type. Correcting the amount of feed improves the dot-positioning accuracy in the feed direction, which can help enhance image quality.



Point

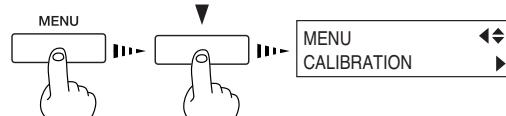
When correcting the amount of feed, set the same conditions for the type of media used and the configuration of the media (roll media or sheet media) as when actually performing printing.

When performing test printing for feed correction, load the media correctly (see "2-2 Loading Media"). If the media is not loaded correctly, an accurate correction value may not be output.

When you can set the error for the amount of feed for the grit rollers on the computer, the computer's setting takes priority. To make the machine's setting take priority, turn off the computer's setting.

Feed Correction

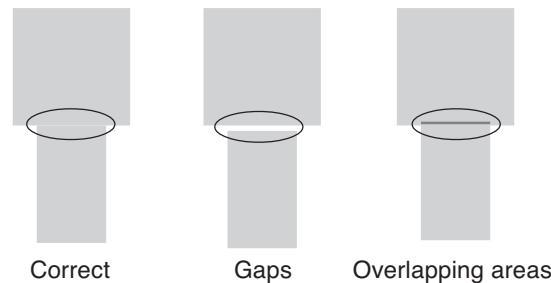
- 1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



- 2 Press the [▶] key to make the following screen appear on the display.



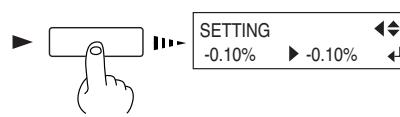
- 3 Press the [ENTER] key to start printing a test pattern.



- 4 Press the [▼] key to make the following screen appear on the display.

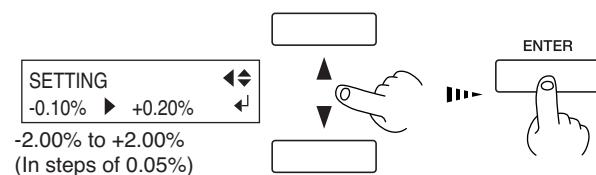


- 5 Press the [▶] key to make the following screen appear on the display.



- 6 Use the [▲] and [▼] keys to set the value, then press the [ENTER] key.

Perform correction to ensure uniform dot spacing: If there are gaps in the test pattern, reduce the value. If there are overlapping areas in the test pattern, increase the value.



Bidirectional Correction

This adjusts for misalignment that occurs during bidirectional printing. Perform adjustment for bidirectional correction in situations such as the following.

- When media is replaced with a different type
- When the head height has been adjusted
- When using in a location subject to large changes in temperature

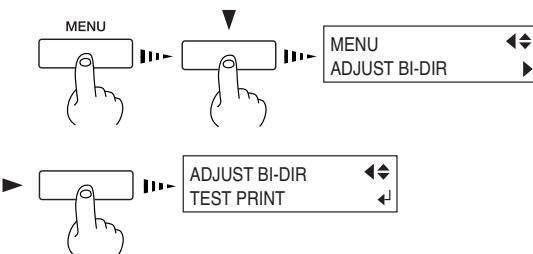


Point

Bidirectional correction is enabled only when performing bidirectional printing.

Setting Adjustment Value

1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.

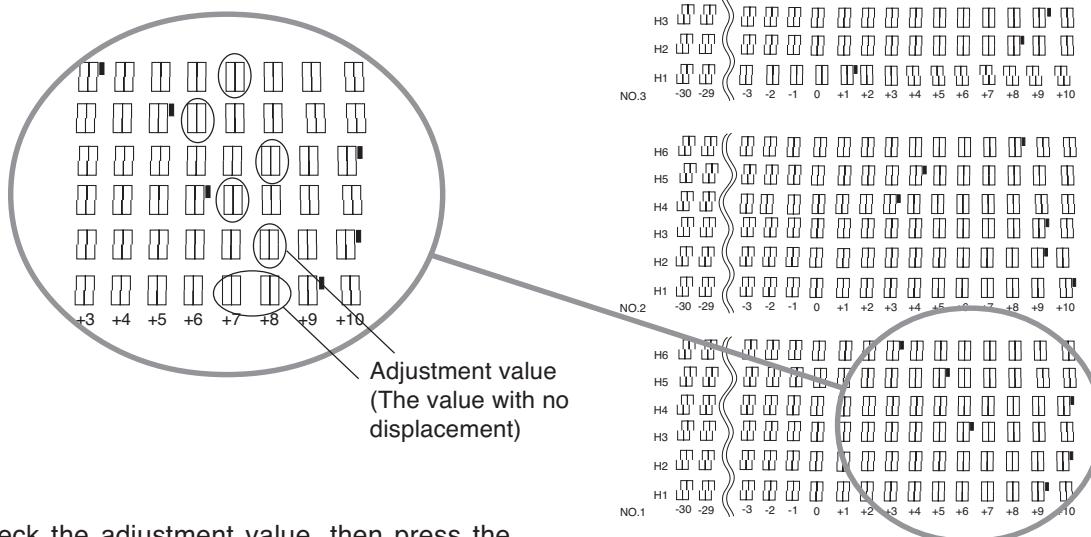


2 Press the [▶] key to make the following screen appear on the display.

3 Press the [ENTER] key to start printing a test pattern.

After the printing test has finished, the media is fed to a position that lets you to view the test pattern.

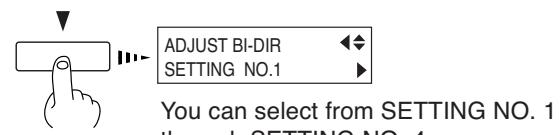
4 Check the test pattern and choose adjustment value (a value with no displacement).



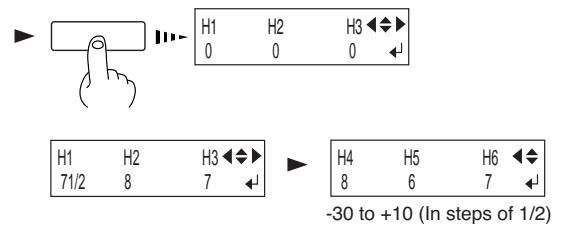
5 Check the adjustment value, then press the [ENTER] key.

The media returns to its position when the printing test ended.

- 6** Press the [▼] key to make the following screen appear on the display.

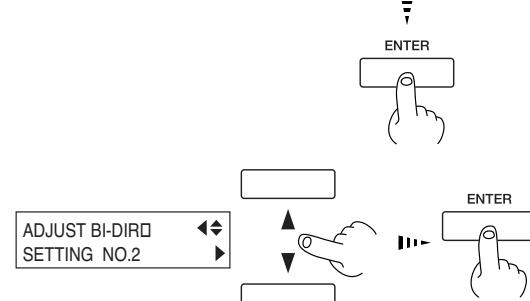


- 7** Press the [▶] key to make the following screen appear on the display.



- 8** Use the [◀], [▶], [▲] and [▼] keys to set the value you checked in step 4, then press the [ENTER] key.

In case of [SETTING NO.1], enter H1=71/2, H2=8, H3=7, H4=8, H5=6, and H6=7.



- 9** Use the [▲] and [▼] keys to choose "Setting No.2". [SETTING NO. 2] appears. In the same way as in step 6 and step 8, enter the value you checked in step 4, then press the [ENTER] key.

Enter values in the same way for [SETTING NO. 3] and [SETTING NO. 4].

Saving and Loading a Bidirectional-correction Value

You can take adjustment values for bidirectional correction that you've set and save them in memory. You can save up to eight types. Saving different adjustment values for different types of media lets you load the adjustment value simply and easily when you change the media type.

Saving an Adjustment Value

- 1** Follow the steps in the previous section, "Setting Adjustment Value," to enter adjustment values.

- 2** Press the [▼] key to make the following screen appear on the display.



- 3** Press the [▶] key to display the screen shown in the figure. Choose a number to save to from among [PRESETTING 1] through [PRESETTING 8], then press the [ENTER] key.



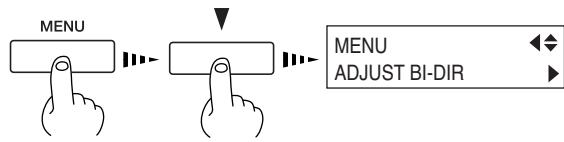
The adjustment values are saved in the memory number you selected.



Point
It may be a good idea to keep notes of the memory numbers and the kind of media whose adjustment value is saved in each number.

Loading an Adjustment Value

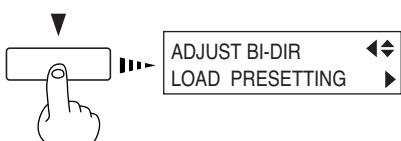
- 1** Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



- 2** Press the [▶] key to make the following screen appear on the display.



- 3** Press the [▼] key to make the following screen appear on the display.



- 4** Press the [▶] key to display the screen shown in the figure.

Choose the memory number to load, then press the [ENTER] key.

The selected adjustment value is loaded.



Point

This operation deletes adjustment values that are not saved in memory. If there are adjustment values that you want to keep, save them in memory first.

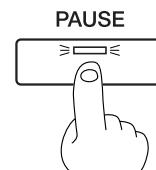
4-7 Stopping Printing Operations

Stopping Printing Operations

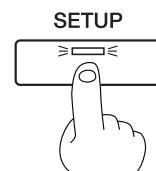
Stopping Printing

- 1 Press the [PAUSE] key.
- 2 Halt transmission of printing instructions from the computer.
- 3 Hold down the [SETUP] key for one second or longer. Any remaining data is cleared.

The PAUSE LED lights up



The SETUP LED flashes



Pausing Printing Operations

Press the [PAUSE] key. The PAUSE LED lights up.

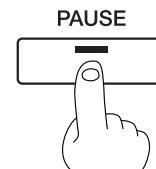
The PAUSE LED lights up



To resume printing

Press the [PAUSE] key again. The PAUSE LED goes out.

The PAUSE LED goes out



4-8 Recording the Amount of Remaining Media

Displaying the Amount of Remaining Media on the Screen

You can display how much of the media in use is left.

Once you set the amount of media remaining, the amount remaining is displayed at the top menu until it reaches zero. If you cancel the setup such as by removing the media or raising the loading lever, the amount remaining at that time flashes on the screen.

* The remaining amount that is displayed is only an estimate, and its accuracy is not assured.



Point

The amount of media remaining is not updated automatically when you change the media. Redo the setting whenever you change the media.

- 1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.

MENU SHEET REMAIN

- 2 Press the [▶] key to make the following screen appear on the display.

SHEET REMAIN PRINT MEMO

- 3 Press the [▼] key to make the following screen appear on the display.

SHEET REMAIN SET LENGTH

- 4 Press the [▶] key to make the following screen appear on the display.

Use the [] and [] keys to set the amount of media remaining, then press the [ENTER] key.

SET LENGTH 0.0 m 20.0 m

- 5 Press the [MENU] key, then the [] key to go back to the original menu screen.

The amount of media remaining that you set is displayed.

W1234mm L20.0m

or

SETUP SHEET
L20.0m



Point

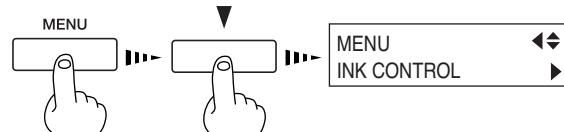
You can also make this menu appear automatically when you change the media. In addition, you can print the amount of media remaining for later reference. For more information, go to "6-2 Description of Menus" and refer to "SHEET REMAIN."

4-9 Changing the Type of Ink

When changing the type of ink in use, follow the steps below to replace the ink.

Ink replacement requires four SOL INK cleaning cartridges. You can change the type of ink three times per four cleaning cartridges.

- 1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



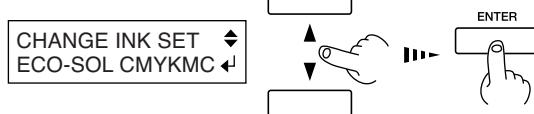
- 2 Press the [▶] key to make the following screen appear on the display.



- 3 Use the [▼] key to select [CHANGE INK SET], then press the [▶] key.



- 4 Use the [▲] and [▼] keys to select the new type of ink to use, then press the [ENTER] key.



ECO-SOL CMYKMC

= Four colors (cyan/magenta/yellow/black)

ECO-SOL LcLm

= Six colors (cyan/magenta/yellow/black/light cyan/light magenta)

- 5 When the display shown in the figure appears, empty the drain bottle and press the [ENTER] key.



Point

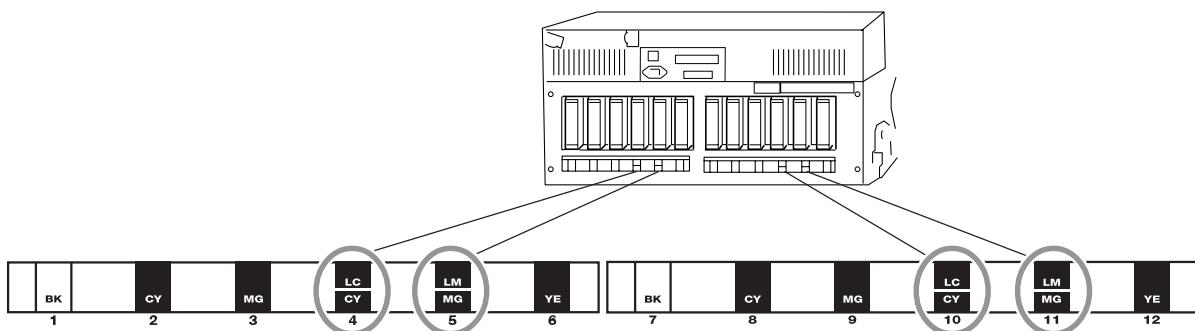
Be sure to discard the discharged ink.

Attempting to replace the ink while discharged ink remains may cause discharged ink to overflow from the bottle.

- 6** Pull out the ink cartridges indicated by the flashing number.

Replacement of ink starts.

REMOVE SOL CRT.
1 2 3 4 5 6 7 8 9 10 11 12



- 7** Follow the on-screen instructions to insert and remove the cleaning cartridges.

SET SOL CL-LIQUID
1 2 3 4 5 6 7 8 9 10 11 12

Insert the cleaning cartridge indicated by the flashing number.

REMOVE SOL CL
1 2 3 4 5 6 7 8 9 10 11 12

Remove the cleaning cartridge indicated by the flashing number.

- 8** When the display shown in the figure appears, empty the drain bottle and press the [ENTER] key.

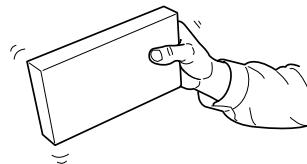
EMPTY
DRAIN BOTTLE ↵



Point

Be sure to discard the discharged ink. Attempting to replace the ink while discharged ink remains may cause discharged ink to overflow from the bottle. For more information about how to dispose of discharged ink, see "5-5 Disposing of Discharged Ink."

- 9** Gently shake the new cartridge.



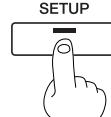
- 10** When the display shown in the figure appears, insert the ink cartridge to be newly used.

SET SOL CRT.
1 2 3 4 5 6 7 8 9 10 11 12

- 11** When the display shown in the figure appears, ink replacement is finished.

Press the [SETUP] key to go back to the top menu.

CHANGE INK SET ↵
ECO-SOL CMYKMC ↵



4-10 When Not in Use for a Prolonged Period

When the machine is out of use for an extended period, then once a month, switch on the power and perform cleaning. When the machine's main power switch is left on, a warning beep sounds about once a month to remind you to perform cleaning. We recommend switching off only the sub power and leaving the main power on even when the machine is out of use for an extended period.

- 1 When the machine is out of use for about a month, a warning beep sounds and the following message appears on the display.

PRESS THE POWER
KEY TO CLEAN

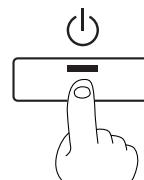
- 2 Press the [POWER] key to switch on the sub power.

Cleaning is performed automatically.



The POWER LED
lights up

- 3 After cleaning has finished, hold down the [POWER] key for 1 second or longer to switch off the sub power.



The POWER LED
goes out

! Notice

Even when not in use, keep the machine in an environment where the temperature is 5 to 40 °C (41 to 104 °F) and the humidity is 20 to 80 % (no condensation). In particular, be careful to make sure not to expose the machine to high temperatures of 40 °C (104 °F) or more.

This machine has features for draining internal ink and for performing washing using washing cartridges, but they should never be used except in special cases. When you're using ECO-SOL ink, allowing the machine to stand without ink for a prolonged period may damage the heads, even if internal washing is performed. Once ink has been filled, then as a rule the ink should never be drained.

Chapter 5:

Maintenance

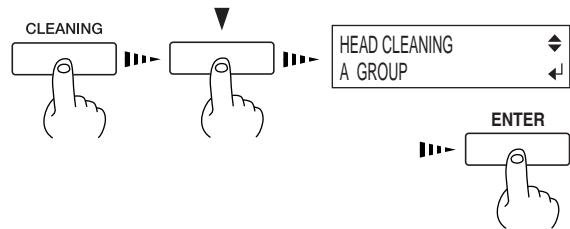
This section describes how to clean the print heads, daily care and maintenance, and the like.

5-1 Cleaning the Print heads

Switching on the sub power automatically performs maintenance operations, including cleaning of the print head. This means that there is normally no need to perform cleaning otherwise. If drop-out occurs with printed images, clean the print head.

Cleaning the Print heads

- 1** Load media for printing-test use.
- 2** Press the [CLEANING] key, and press the [▼] key to select the printing-head group to clean.
Press the [ENTER] key to start head cleaning.
Also, holding down the [CLEANING] key for at least one second starts head cleaning for all heads.

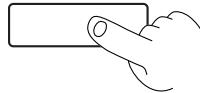


Printing-head Groups

A Group : Cyan, Magenta
B Group : Yellow, Black
C Group : Light magenta, Light cyan or Magenta, Cyan

- 3** After head cleaning has ended, holding down the [TEST PRINT] key for one second or longer starts a printing test.
- 4** Refer to "2-3 Printing" and see "Performing a Printing Test" and check the printing-test results.
If a problem is found, repeat the cleaning.

TEST PRINT



If Drop-out Persists Even After Carrying Out Cleaning Several Times



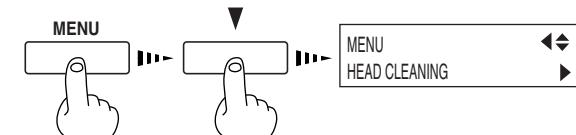
Point

Perform head cleaning only when there is dot drop-out (gaps) or printing becomes faint.

Performing head cleaning more than necessary subjects the heads to wear and consumes ink. In particular, cleaning performed at the [POWERFUL] menu for [HEAD CLEANING] can cause premature head wear and consume large amounts of ink.

1 Load media for printing-test use.

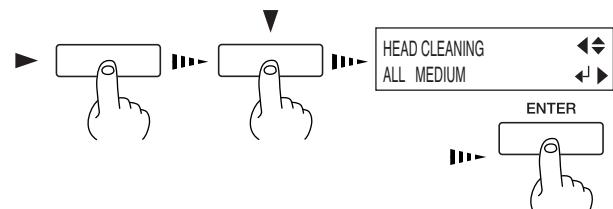
2 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



3 Press the [▶] key and [▼] key to select [MEDIUM] or [POWERFUL].

You can choose to perform cleaning of only the A group heads, B group heads, or C group heads by pressing the [▼] key more times.

Press the [ENTER] key to start head cleaning.



4 When head cleaning finishes, perform a printing test to check the results.



If Performing POWERFUL Cleaning Several Times Does Not Correct the Drop-out Problem

If performing cleaning several times at the [POWERFUL] menu does not correct the image drop-out problem, use the included cleaning kit. For information on how to use the cleaning kit, refer to the following section, "Cleaning Using the Cleaning Kit."

5-2 Cleaning Using the Cleaning Kit

Cleaning using the cleaning kit should be carried out when automatic cleaning and forced cleaning from the [HEAD CLEANING] menu fail to correct image drop-out. Remove any ink buildup of dust or grime around the print heads, which can cause image drop-out or ink drips. We also recommend performing periodic cleaning using the cleaning kit to prevent problems like these during printing.

If image drop-out persists even after performing cleaning with the cleaning kit, or if the cleaning kit is used up, contact your authorized Roland DG Corp. dealer or Roland DG Corp. service center.

The heads are consumable parts. The useful life is six billion shots per nozzle.

! Notice

Before starting cleaning, read through this section carefully to familiarize yourself with the procedures, then carry out the cleaning operations quickly and accurately.

Cleaning is performed while the caps on the print heads are detached, so cleaning must be completed before the heads dry out. It is suggested that cleaning be completed in thirty minutes or less.

If it appears that cleaning operations may take more than thirty minutes, stop the cleaning operations and follow the steps below.

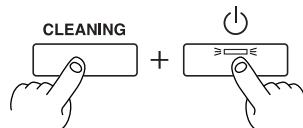
1. Attach the cover and tighten the screws.
2. Press the [ENTER] key. (Cleaning of the print heads starts.)
3. Again carry out cleaning using the cleaning kit.

Cleaning Using the Cleaning Kit

- 1** Switch on the main power switch on the back of the machine.

Leave media unloaded at this time.

- 2** While holding down the [CLEANING] key, switch on the [POWER] key.



- 3** Press the [\blacktriangle] and [\blacktriangledown] keys to select [CLEANING].



- 4** Press the [ENTER] key.

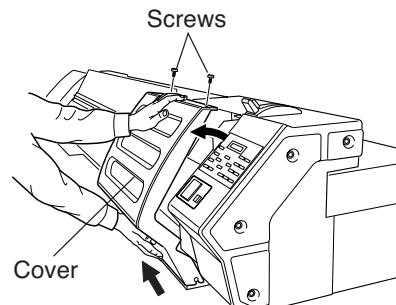
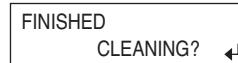
The screen shown in the figure appears, and the print-head carriage moves to the middle of the left cover.



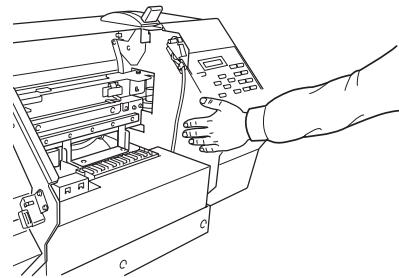
- 5** Make sure the screen shown in the figure is displayed, then remove the four screws and open the left and right covers.

! Notice

Take care not to drop the covers when removing them. If dropped, the impact may cause them to break.



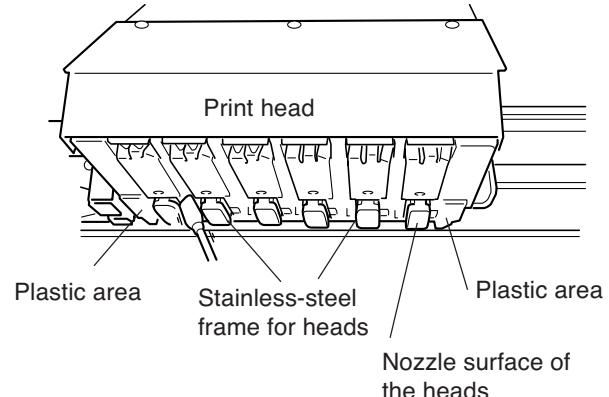
- 6** To discharge static electricity from your body, touch the location shown in the figure.



- 7** Clean the heads and the area around the heads on the left side of the machine. Use a cleaning stick to wipe off any grime from the stainless-steel frame for the heads and the plastic areas on either side of the heads.

! Notice

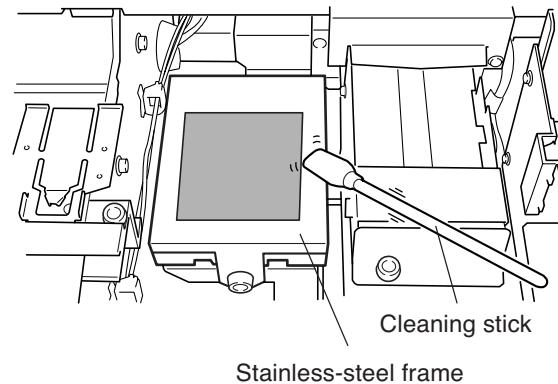
Be sure to use one of the included cleaning sticks. Do not touch the nozzle surface of the heads.



- 8** Clean the surface of the stainless-steel frame on the right side of the machine. Use a cleaning stick to wipe away any buildup of dust and ink from the surface of the stainless-steel frame. If there is dust on the sponges, wipe it off with the cleaning stick.

! Point

Give special attention to removing the fibrous dust that tends to build up on the heads.

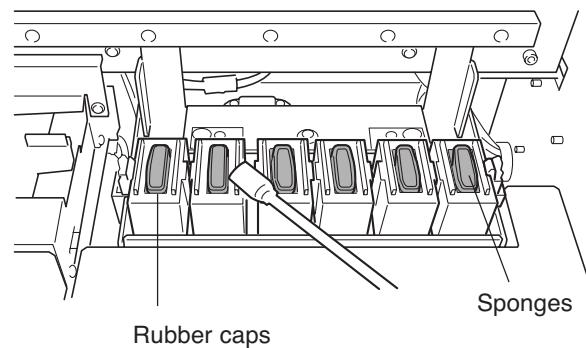


- 9** Clean the rubber caps and the area around them. Use a cleaning stick to wipe off any buildup of dust or grime from the rubber caps. If there is dust on the sponges, wipe it off with the cleaning stick.

! Notice

If no grime is present, do not touch the sponges inside the rubber caps.

When removing grime adhering to the sponge inside a rubber cap, touch the sponge gently with the tip of the cleaning stick to pick up the grime. Rubbing forcefully may damage the surface of the sponge.

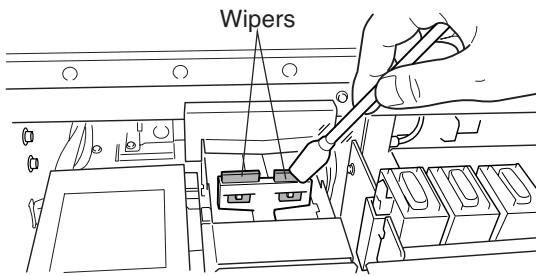


- 10** Clean the wiper. Use a cleaning stick to wipe away any buildup of dust and grime from the wiper.

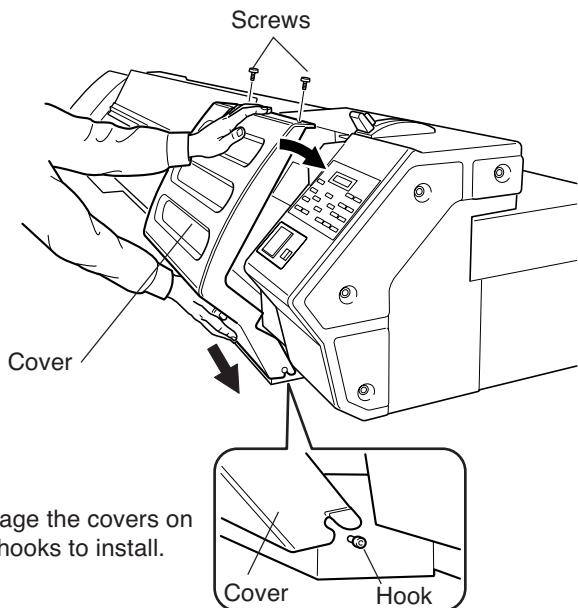


Replacing the Wiper

If the message [REPLACE WIPER] appears on the display, replace the wiper with a new one. As a rule of thumb, the message prompting you to replace the wiper appears when cleaning has been performed 500 times (with [ALL] selected for head cleaning). For information on how to replace the wiper, see "5-3 Replacing the Wiper."



- 11** Attach the left and right covers and secure them closed by tightening the screws.



- 12** Press the [ENTER] key.

The screen shown in the figure appears, the print heads return to the standby position, and head cleaning starts automatically. After cleaning has finished, switch off the sub power.



- 13** Again press the [POWER] key to switch on the sub power.

- 14** Load media, and carry out a printing test.

Examine the results of the printing test and make sure that all dots are printed attractively. If necessary perform head cleaning to make the dots clean and even.

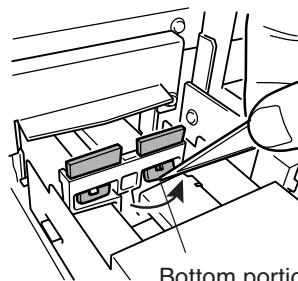
5-3 Replacing the Wiper

If the message shown in the figure appears, replace the wiper with a new part.

TIME FOR
WIPER REPLACE ↵

- 1 Follow steps 1 through 3 in "5-2 Cleaning Using the Cleaning Kit" to display the screen shown in the figure, and press the [ENTER] key.
- 2 Follow steps 5 and 6 in "5-2 Cleaning Using the Cleaning Kit" to detach the right cover, and discharge static electricity from your body.
- 3 Using tweezers, grasp the bottom portion of the wiper and take it off the hook.

MAINTENANCE ↴
WIPER REPLACE ↵



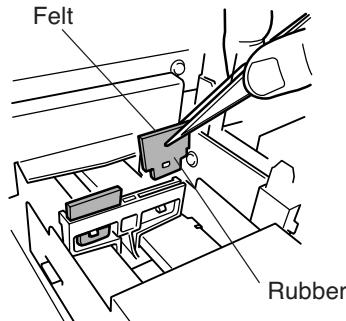
Bottom portion of the wiper

- 4 Remove the wiper.



Point

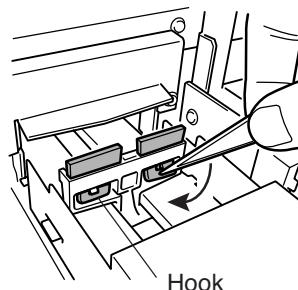
The wiper has a rubber surface and a felt surface. Attach it so that the rubber surface faces the front.



- 5 Install the new wiper.
Use the tweezers to press the area shown in the figure and engage the wiper on the hook.



When installing the wiper, be sure to engage it on the hook. If the wiper is not hooked, it may fall off during use. Use the included tweezers to install and detach the wiper.



- 6 Follow steps 11 through 13 in "5-2 Cleaning Using the Cleaning Kit" to attach the right cover and carry out a printing test.

5-4 Other Cleaning Tasks



When cleaning the unit, be sure to wait approximately 30 minutes or more after switching off the power until the temperature of the platen falls sufficiently.

Doing so may cause burns because the platen is hot.



Never clean with solvents (such as benzine or thinners).

Doing so may cause fire.



Notice

- When carrying out any cleaning other than cleaning using cleaning sticks, switch off the main power. Before turning off the main power, press the [POWER] key to switch off the sub power.
- Never lubricate the mechanisms.
- Periodically clean the platen, grit rollers, and media clamps.
- Do not touch the print heads or allow the print heads to come in contact with anything except ink.

The machine and the inside of the front cover may become soiled with ink during printing. The cleaning methods described below let you continue printing without affecting the printed media or the machine.

Cleaning the Body

Use a cloth moistened with water then wrung well, and wipe gently to clean. Wipe the operation panel and display gently with a clean, soft cloth.

Cleaning the Platen

Moisten a cloth with neutral detergent diluted with water, wring dry, and wipe gently.

Cleaning the Grit Rollers

Use a commercially available brush to remove dust and other detritus.

Any adhering grime may prevent the media from being held in place securely.

Cleaning the Pinch Rollers

Moisten a cloth with neutral detergent diluted with water, wring dry, and wipe gently.

Cleaning the Reflective Tape

If the tape becomes dirty, moisten a cloth with neutral detergent diluted with water, wring dry, and wipe gently.

Cleaning the Front Cover

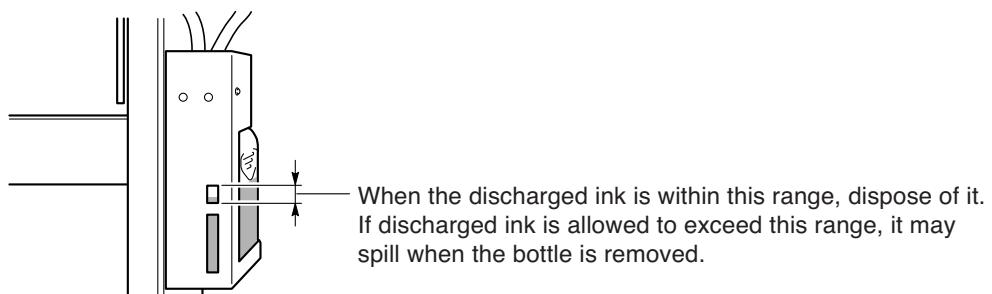
Use a cloth moistened with water then wrung well, and wipe gently to clean.

Cleaning the Media Clamps

If there is buildup of ink or dust, moisten a cloth with neutral detergent diluted with water, wring dry, and gently wipe the surface.

5-5 Disposing of Discharged Ink

The bottle stand for the drain bottle is provided with a window to help determine when discharged ink needs to be disposed.



Dispose of ink in the drain bottle as described below.

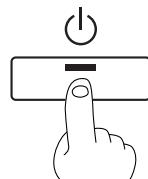
! Notice

Discharged ink is flammable and contains toxic ingredients. Do not attempt to incinerate discharged ink or discard it with ordinary trash. Also, do not dispose of it in sewer systems, river, or streams. Doing so may have an adverse impact on the environment.

Procedure for Disposing of Discharged Ink

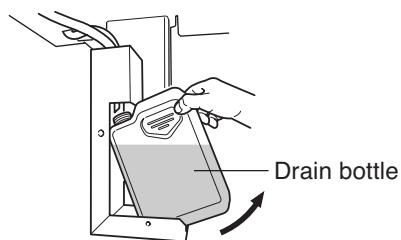
- 1 Press the [POWER] key at least one second to switch off the sub power.

The POWER LED goes out



- 2 Remove the drain bottle.

- 3 Dispose of discharged ink properly, in accordance with regional laws and regulations.



Point

If any ink gets on your hands or clothing, wash it off as soon as possible. Ink stains may become difficult to remove if allowed to stand.

5-6 How to Replace the Separating Knife



Do not touch the tip of the separating knife with your fingers.

Doing so may result in injury.



Do not touch the control panel while head cleaning or other cleaning is in progress.

The print-head carriage may move and cause injury.



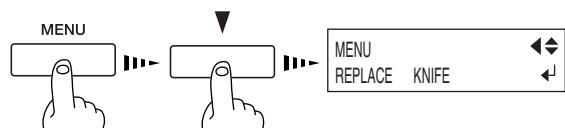
Notice

Do not try to pull out the print-head carriage by hand. The print-head carriage is pulled out automatically through menu operation.

If the machine is allowed to stand for a prolonged period with the print-head carriage pulled out, head clogging or even damage

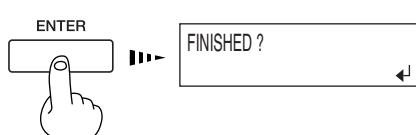
If the separating knife becomes dull, replace with the included replacement blade.

- 1 Press the [MENU] key, and press the [▼] key to make the following screen appear on the display.



- 2 Press the [ENTER] key to make the following screen appear on the display.

When the screen shown in the figure appears, the print-head carriage simultaneously moves to the left.

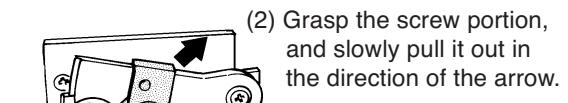


- 3 Open the front cover, and then remove the separating knife.



Point

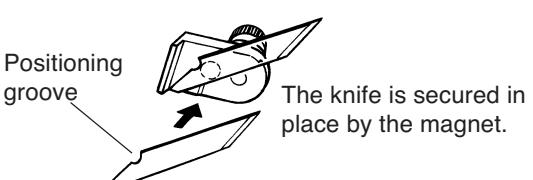
If a blade remains in the print-head carriage, use the tweezers in the cleaning kit to remove it.



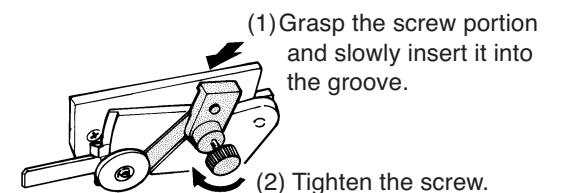
(1) Loosen the screw until it slips out.

(2) Grasp the screw portion, and slowly pull it out in the direction of the arrow.

- 4 Replace with a new knife.



- 5 Install the separating knife.



- 6 Close the front cover and press the [ENTER] key.

5-7 When Moving the Unit

Procedures from Preparing to Move Through Reinstalling

To move the machine, you must completely drain all ink inside the machine and secure the print heads in place with retainers to protect them. Attempting to move the machine without first doing this may result in damage to internal components due to leaking ink or damage to the heads.

This operation requires eight unused SOL INK cleaning cartridges. Have these on hand before you start.

! Notice

Be sure to use SOL INK cleaning cartridges. Use of any other type may result in breakdown.

Once the preparations for moving are complete, move the machine and fill it with ink with as little delay as possible. Allowing the machine to stand without ink may damage the heads.

When moving the machine, keep it at a temperature between 5 to 40°C (41 to 104°F) and at relative humidity between 20 to 80% (with no condensation). Failure to do so may result in breakdown.

Handle the machine with care when moving, keeping it level (not tilted at an angle) and preventing it from striking other objects.

1. Drain the ink and wash the interior.

1 Press the [MENU] key.

Press the [▼] key several times to select [INK CONTROL].

MENU
INK CONTROL

2 Press the [▶] key.

Press the [▼] key several times to select [HEAD WASH].

Press the [ENTER] key.

INK CONTROL
HEAD WASH

3 Discard the discharged ink in the drain bottle.

Attach the drain bottle and press the [ENTER] key.

EMPTY
DRAIN BOTTLE

Be sure to discard the discharged ink. For more information about how to dispose of discharged ink, see "5-5 Disposing of Discharged Ink."

4 Follow the on-screen instructions to insert and remove the cartridges.

Ink discharge and washing are performed over the course of several minutes. When the process ends, the sub power is switched off.

This procedure requires four unused cleaning cartridges.

REMOVE SOL CRT.
1 2 3 4 5 6 7 8 9 10 11 12

Remove the ink cartridge indicated by the flashing number.

SET SOL CL-LIQUID
1 2 3 4 5 6 7 8 9 10 11 12

Insert the cleaning cartridge indicated by the flashing number.

REMOVE SOL CL
1 2 3 4 5 6 7 8 9 10 11 12

Remove the cleaning cartridge indicated by the flashing number.

5 Turn off the main power switch.

2. Secure the print heads in place.

- 1** Remove the drain bottle and discard the discharged ink. (Refer to "5-5 Disposing of Discharged Ink.")

Pull out the drain tube from the bottle stand and attach the stopper.

- 2** Flip the loading lever to the rear.

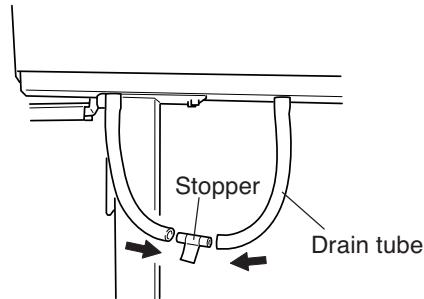
- 3** Secure the print heads in place using the retainers.

For information on how to secure in place, go to "1-3 Assembling and Installing" and refer to "Step 4: Remove the Protective Media."

- 4** Lower the roll media from the printer.

If necessary, also detach the media flanges, left and right stays, media guide and the stand.

The machine is now ready to be moved.



3. Immediately move the machine and fill it with ink.

- 1** Once the preparations are complete, move the machine with as little delay as possible.

- 2** Immediately reinstall the machine and fill with ink.

To reinstall and fill with ink, carry out "1-3 Assembling and Installing" through "1-5 Switching On the Power for the First Time." When filling with ink, four unused cleaning cartridges are required.

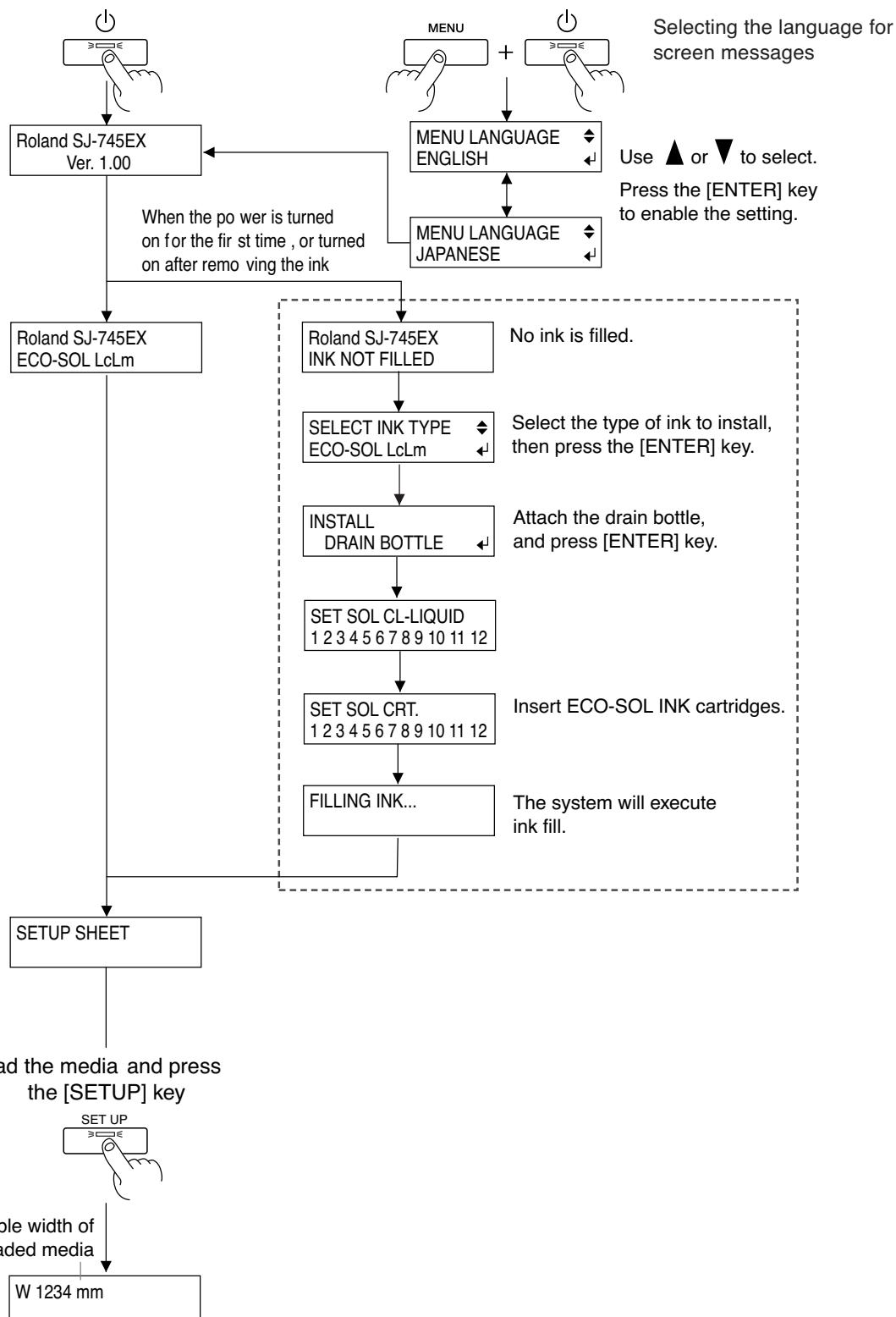
Chapter 6:

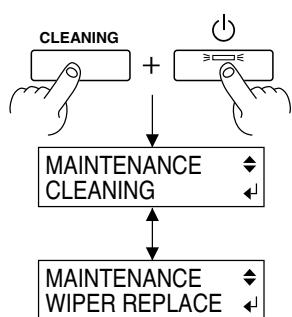
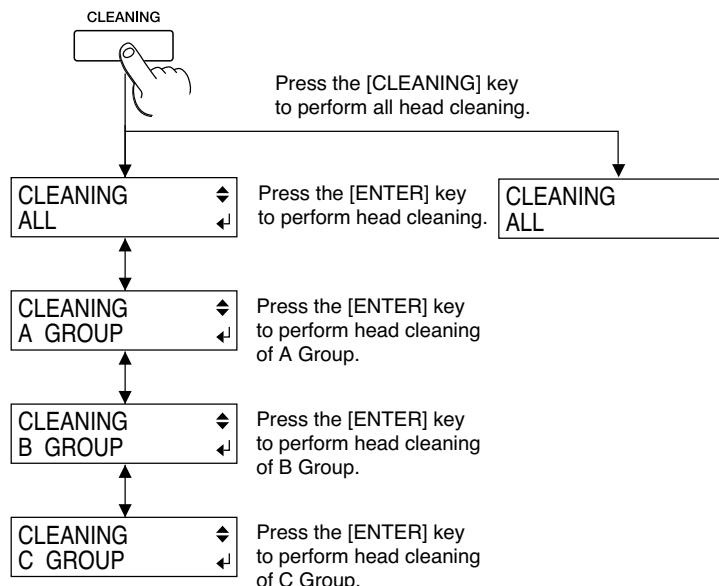
Menus and Keys

This section contains a flowchart of the menus and describes the operation-panel keys and the menu items.

6-1 Menus Flowchart

For details about each of the menus, see the "6-2 Description of Menus."





◀ • Go back to the previous menu screen.

▶ • Advance to the next menu screen (or move down one level).

◀◆ • Select an item.
• Select the value for a setting

◀ ─ • Executes the menu
• Locks in the value for a setting

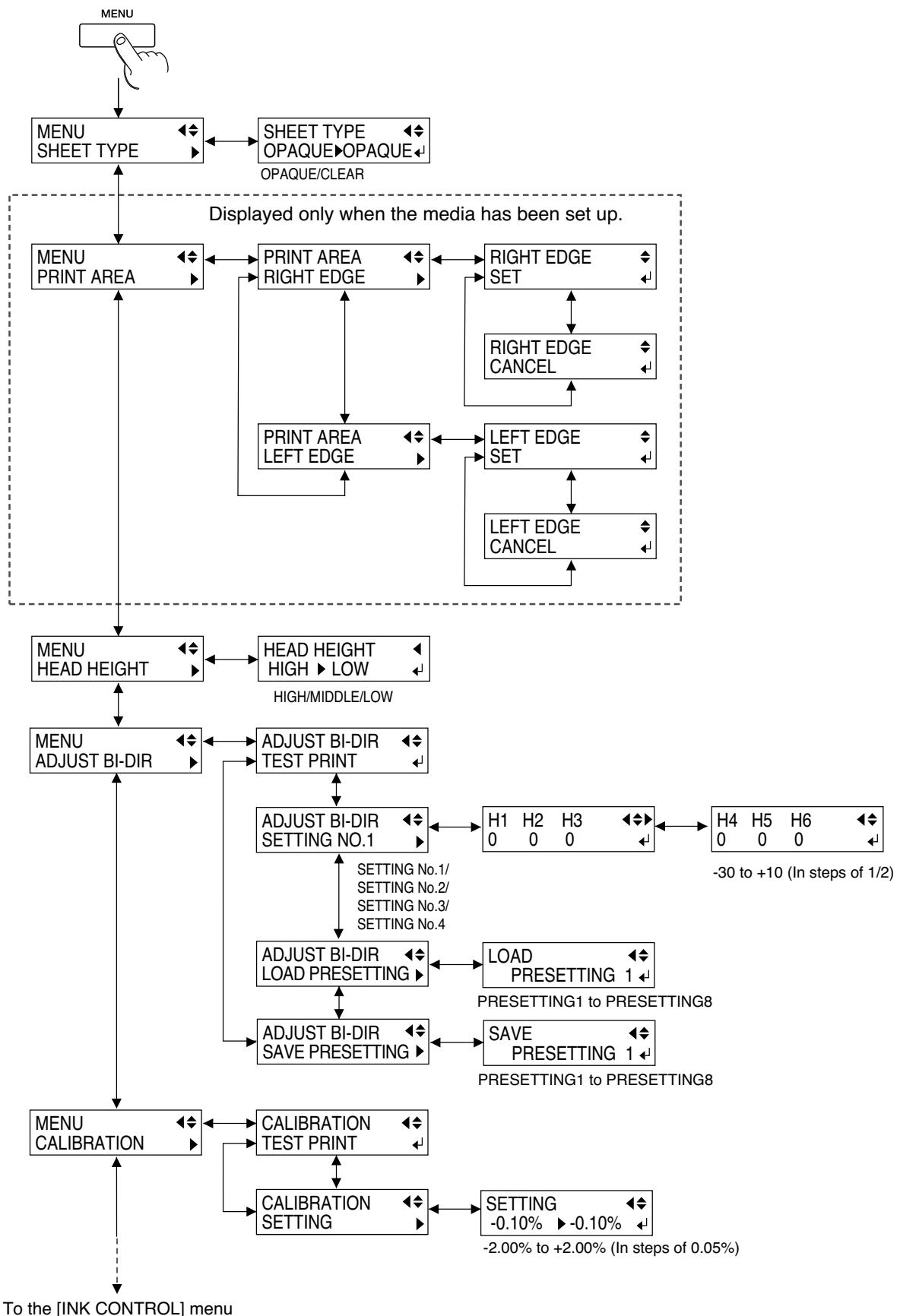
▼ ─ • Move to the previous menu screen or the next menu screen
• Select the value for a setting
• Moves the media (when specifying the printing location)

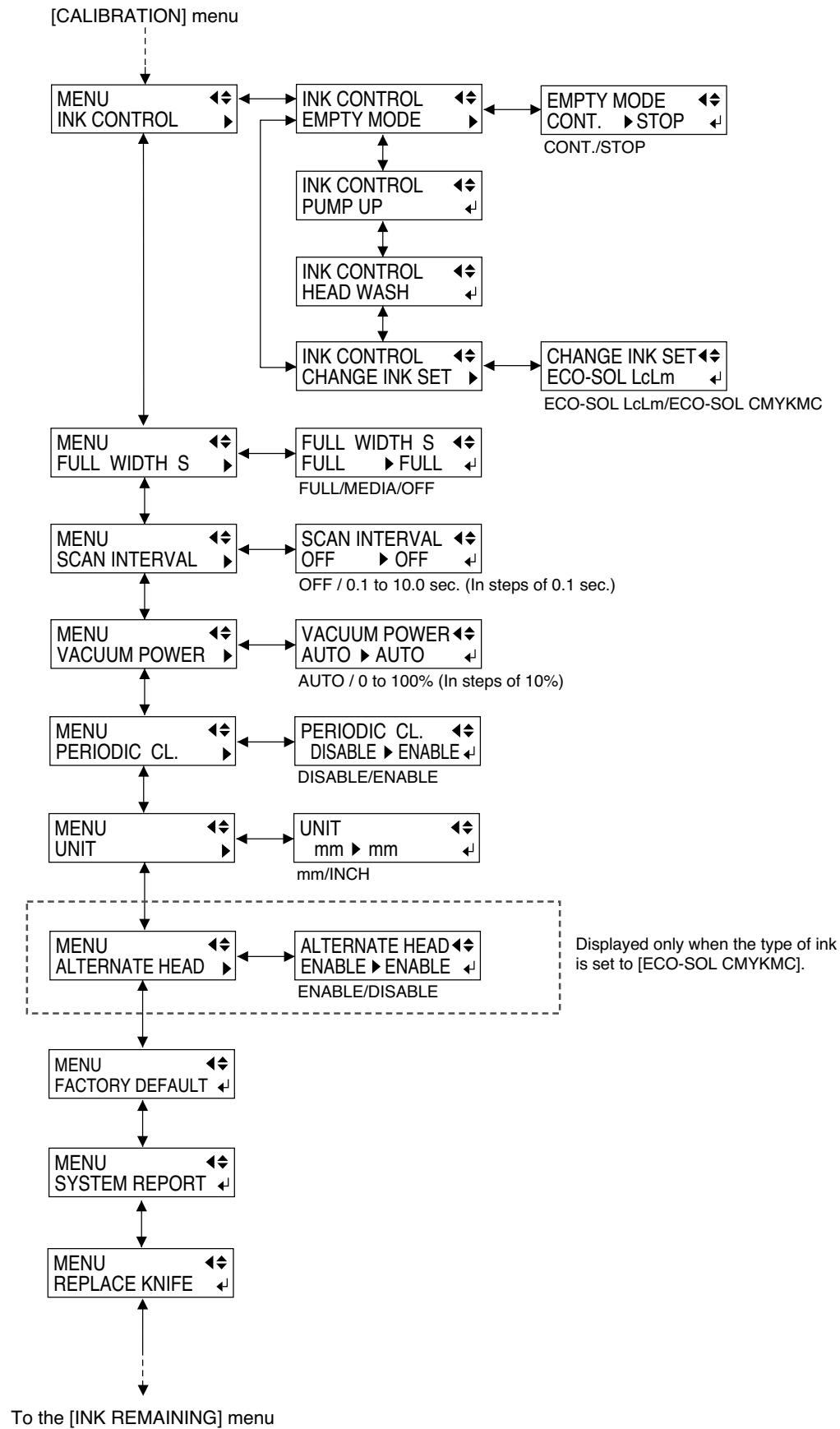
► ─ • Move to a submenu screen
• Moves the print-head carriage (when specifying the printing location)

◀ ─ • Move to the previous menu screen
• Moves the print-head carriage (when specifying the printing location)

ENTER ─ • Executes the menu
• Locks in the value for a setting

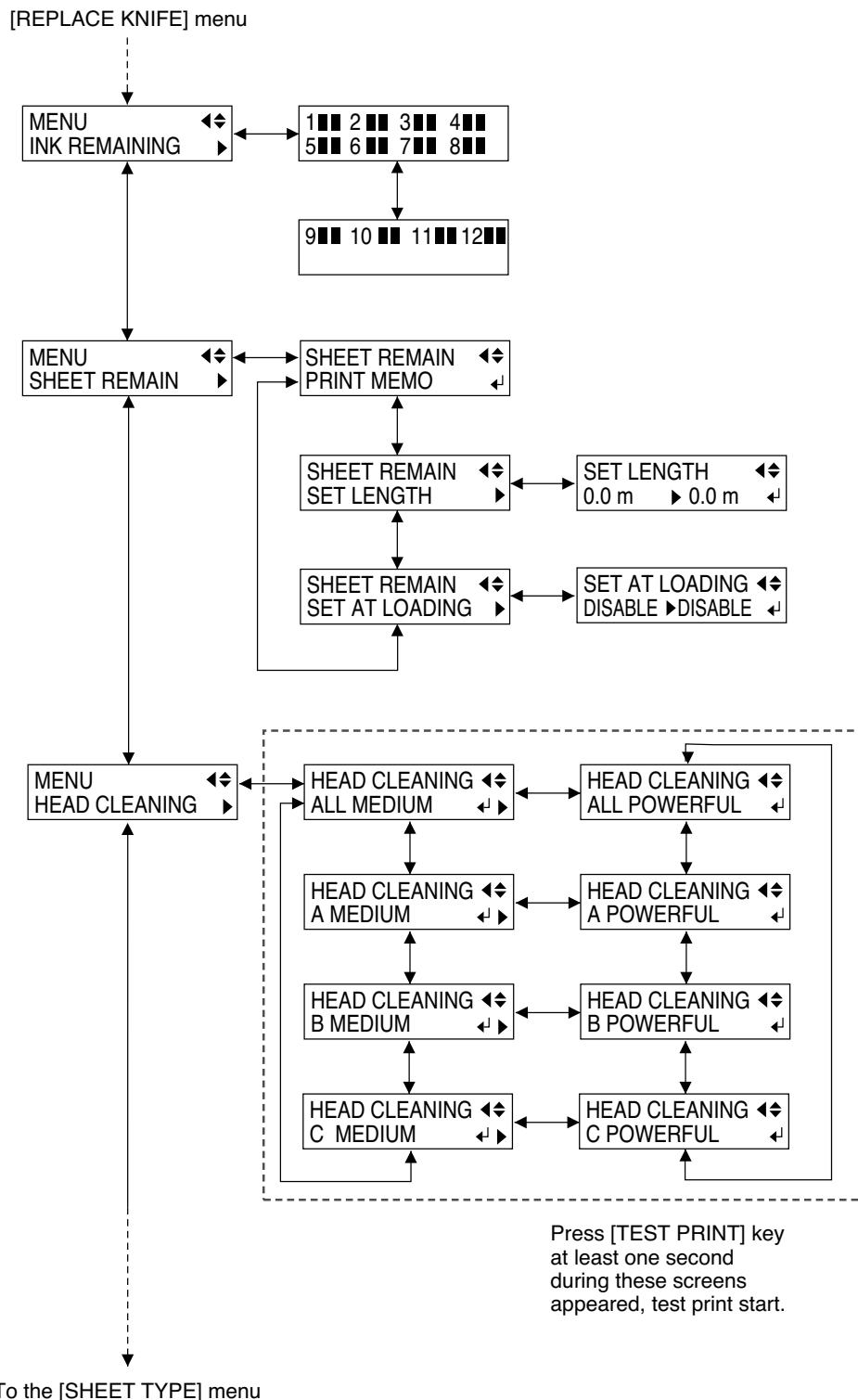
6-1 Menus Flowchart





To the [INK REMAINING] menu

6-1 Menus Flowchart



6-2 Description of Menus

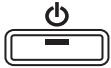
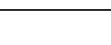
Top menu	Submenu	Function	Setting range	Default value
SHEET TYPE	—	This is used to select either transparent or opaque media. Select [OPAQUE] when the media loaded on the unit is not transparent. When you are using transparent media or the printing area cannot be detected, select [CLEAR]. For more information, see "4-5 Using Transparent Media."	OPAQUE/CLEAR	OPAQUE
PRINT AREA	RIGHT EDGE LEFT EDGE	* This appears only when the media is in a loaded state. This sets the printing area in the left-right direction (the direction of print-head carriage movement) of the loaded media. With transparent media, automatic detection of the media width is not performed. In such cases, use the [PRINT AREA] menu to specify the printing area in the left-right direction. Even when using opaque media, this can be specified when printing in a specific area. For more information, refer to "4-3 Setting the Location Where Printing Starts" and see "Specifying a location in the feed direction."	—	—
HEAD HEIGHT	—	This sets the height of the print heads. To make the setting, display this menu, then move the lever on the side of the unit's print-head carriage. For more information, refer to "2-2 Loading Media" and see "When Loading Thick Media."	H I G H / M I D D L E / LOW	MIDDLE
HEAD CLEANING	ALL MEDIUM A MEDIUM B MEDIUM C MEDIUM ALL POWERFUL A POWERFUL B POWERFUL C POWERFUL	If print shows a problem, clean the print head. Because cleaning subjects the head to wear and consumes ink, it should only be performed when absolutely necessary. Performing cleaning from the Powerful menu in particular subjects the head to early wear and used up large amounts of ink. [ALL MEDIUM]/[A MEDIUM]/[B MEDIUM]/[C MEDIUM]: Performs cleaning of the printhead. After cleaning, carry out a printing test to make sure there are no problems with printing quality. Normally, head cleaning should be performed by pressing the [CLEANING] key. [ALL POWERFUL]/[A POWERFUL]/[B POWERFUL]/[C POWERFUL]: Used when performing cleaning with Medium several times does not restore the printing quality. After cleaning, carry out a printing test to make sure there are no problems with printing quality. For more information, refer to "2-3 Printing" and see "Performing a Printing Test," and refer to "5-1 Cleaning the Print Heads."	—	—
INK CONTROL	EMPTY MODE PUMP UP HEAD WASH CHANGE INK SET	[EMPTY MODE]: When replacement of the ink cartridge becomes necessary while printing is in progress, this setting determines whether printing continues or pauses. This setting is used when the ink cartridge cannot be changed immediately during printing, such as during unattended operation at night. [CONT.] causes printing to continue without pause even if ink refilling becomes necessary. To replace an ink cartridge, press the [PAUSE] key to pause operation, then replace with a new cartridge. Pressing the [PAUSE] key again resumes printing. Printing continues with the small amount of ink remaining, so the printed image may become faint as the ink runs out. In general, it should be possible to perform about 1 m ² (10 ft ²) of printing once this message appears, although the actual varies widely according to the amount of ink needed for the particular image. Printing is continued only for the data currently being printed. Operation stops after one image is output. [STOP] causes operation to pause immediately when the ink cartridge needs to be changed. Printing is resumed by replacing the cartridge. Note, however, that the colors of an image in progress may no longer match perfectly. When performing long printing, replace with sufficient ink cartridge to print. [PUMP UP]: Drains ink from the print heads. [HEAD WASH]: This washes the print heads with optionally available cleaning cartridges. For more information, see "5-7 When Moving the Unit." [CHANGE INK SET]: Performs the [HEAD WASH] and [FILL INK] operations. This is used when switching the ink type. Before running this, choose the type of ink to be used after the change. For more information, see "4-9 Changing the Type of Ink."	[EMPTY MODE] C O N T . / STOP [CHANGE INK SET] E C O - S O L LcLm/ E C O - S O L CMYKMC	[EMPTY MODE] STOP

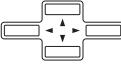
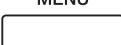
6-2 Description of Menus

Top menu	Submenu	Function	Setting range	Default value
ADJUST BI-DIR	TEST PRINT SETTING NO.1 SETTING NO.2 SETTING NO.3 SETTING NO.4 LOAD PRESETTING SAVE PRESETTING	This adjusts for slippage when performing bidirectional printing. This must be readjusted when you have replaced the media with a different type or adjusted the head height. [TEST PRINT]: This menu is for verifying the adjustment. [SETTING NO.1], [SETTING NO.2], [SETTING NO.3], [SETTING NO.4] : This sets the correction value. [LOAD PRESETTING] : This loads adjustment values set in memory 1 through 8. [SAVE PRESETTING] : This takes the adjustment values set for No. 1 through No. 4 and saves them as [PRESETTING 1] through [PRESETTING 8]. You can save up to eight adjustment-value patterns.	[SETTING NO.1], [SETTING NO.2], [SETTING NO.3], [SETTING NO.4] -30 to +10 (In steps of 1/2)	0
CALIBRATION	TEST PRINT SETTING	This corrects for errors in the amount of feed of the grit rollers due to the type of media. Be sure to make this setting when you have replaced the media with a different type. Make this setting again when horizontal stripes are plainly visible on printing results. [TEST PRINT]: This menu is for verifying the adjustment. [SETTING]: This sets the correction value. When you can set the error for the amount of feed for the grit rollers on the computer, the computer's setting takes priority. For more information, refer to "4-6 Making Corrections for Printing" and see "Feed Correction."	-2.00% to +2.00% (In steps of 0.05%)	0.00%
FULL WIDTH S	—	This sets the movement width of the print-head carriage when printing. Using this function may improve printing quality by maintaining a uniform speed for media feed. However, printing may take more time. When using the print heater, be sure to set this menu item to [FULL]. [FULL]: The movement width of the print-head carriage is always the full width. [MEDIA]: The width changes depending on the width of the media. [OFF]: The width changes according to the printing data.	FULL/MEDIA/OFF	FULL
SCAN INTERVAL	—	This sets the ink-drying time. If problems with ink stains occur, setting this value to a longer time may improve printing quality.	OFF/ 0.1 to 10.0 sec (in steps of 0.1 sec)	OFF
VACUUM POWER	—	This adjusts the suction force of the fan installed under the platen to make the media contact the platen. Adjust this value when the media warps due to heat or sticks to the platen. Increasing the value makes the suction force stronger, but because it lowers the temperature of the platen, the media may become difficult to warm. [AUTO]: The suction force is adjusted automatically according to the width of media. [0 to 100%] (in steps of 10%): The suction force remains constant at the set value.	AUTO/ 0 to 100% (in steps of 10%)	AUTO
PERIODIC CL.	—	This specifies whether the automatic cleaning during printing is enabled or disabled. When set to [ENABLE], automatic cleaning is performed during printing, and prevents drop-out and ink drips. Because automatic cleaning is performed during printing, printing may take more time. The lower the temperature of the work area, the greater is the number of times that automatic cleaning is performed. Also, because printing is interrupted temporarily during automatic cleaning, horizontal stripes may occur in the printing.	DISABLE/ENABLE	DISABLE
UNIT	—	This selects millimeters or inches as the unit of measurement for the width displayed on the top menu after setting up the media. When inch display is used, values are displayed to the first digit to the right of the decimal point.	mm/INCH	mm

Top menu	Submenu	Function	Setting range	Default value
SYSTEM REPORT	—	This prints the current status of settings and other system information.	—	—
REPLACE KNIFE	—	This prompts you to replace the separating knife.	—	—
ALTERNATE HEAD	—	This setting determines whether priority is given to efficient ink use or to image quality. It is displayed only when four-color inks are used (cyan, magenta, yellow, and black). This setting is valid only when using four-color inks and performing bidirectional printing. Also, some high-speed print modes may not be affected by this setting. When set to [ENABLE], ink is used more efficiently, with nearly no sacrifice in image quality. When set to [DISABLE], priority is given to image quality over efficient use of ink.	ENABLE/ DISABLE	ENABLE
FACTORY DEFAULT	—	This returns all menu settings to their original values when shipped from the factory. For more about the factory defaults for the various settings, see the "Default value" entry for each menu setting in this section.	—	—
INK REMAINING	—	This shows the amount of ink left after each of the ink cartridges has been installed. The fewer the markers ("■"), the less ink is left. * If a partially used ink cartridge is removed and reinstalled, or if a partially used ink cartridge is installed, the cartridge is taken to be unused, and the displayed amount of remaining ink is not true. For more information, see "4-2 Checking the Remaining Ink Level."	—	—
SHEET REMAIN	SET LENGTH SET AT LOADING PRINT MEMO	You can display how much of the media in use is left. Once you set the amount of media remaining, the amount remaining is displayed at the top menu until it reaches zero. If you cancel the setup such as by removing the media or raising the loading lever, the amount remaining at that time flashes on the screen. The amount of media remaining is not updated automatically when you change the media. Redo the setting whenever you change the media. You can also make the setting to display this menu automatically whenever you change the media. The remaining amount that is displayed is only an estimate, and its accuracy is not assured. Setting this to [ENABLE] automatically displays [SHEET REMAIN] whenever you change the media and finish setup. This makes it impossible to go on to the next operation unless you redo the setting for the amount remaining. This can be useful for keeping you from forgetting to redo the setting when you change the media. When you set this to [ENABLE], however, be sure to also set the [SHEET TYPE] menu item to [OPAQUE]. When [SHEET TYPE] is set to [CLEAR], then [SHEET REMAIN] is not displayed automatically, regardless of the setting for [SET AT LOADING]. This prints the amount of media remaining that is displayed at the top menu. You use this when you want to make a record of the remaining length of the media now in use. Printing the amount of media remaining before you change the media enables you to refer to the printed record and use the value to make the setting for the remaining amount the next time you use the media. Note, however, that continuing by performing the next output starts the output on top of the portion where the amount of remaining media is printed. After you print the amount remaining, we recommend using [SHEET CUT] key to cut off the media.	[SET LENGTH] 0.0 to 99.9 m (in steps of 0.1 m) [SET AT LOADING] ENABLE/ DISABLE	[SET LENGTH] 0.0 m (not displayed) [SET AT LOADING] DISABLE

6-3 Description of Keys

Key	Top menu	Function	Setting range	Default value
	—	This switches on and off the sub power . When the power is switched on, the POWER LED lights up.	—	—
	—	This detects the presence and the width of the media, and displays the printable width. The SETUP LED flashes while detection of media width is in progress. When setup finishes, the SETUP LED lights up continuously. Also press this key when removing the media. Pressing this key when any of the various menu screens is displayed returns you to the top screen. (When this is done, media setup cannot be canceled.)	—	—
	—	The [PAUSE] key pauses printing. The PAUSE LED lights up while paused. Pressing this key again cancels the paused state. Holding down the [SETUP] key for about 1 second while paused causes remaining data to be cleared and cancels the media's setup state.	—	—
	—	This sets the print-start location in the scan direction (the direction of print-head carriage movement). For more information, refer to "4-3 Setting the Location Where Printing Starts" and see "Specifying a location in the scan direction."	—	—
	—	This is used to accept, execute, or save the item shown on the display.	—	—
	—	Holding down the [TEST PRINT] key for one second or longer while the SETUP LED is lit performs a printing test.	—	—
	—	This enters the [HEAD CLEANING] menu for cleaning the print heads. Cleaning can be performed while in any state. [ALL], [A GROUP], [B GROUP], or [C GROUP]: Begins cleaning of the print heads. Holding down for one second carries out cleaning for all the heads. After cleaning, carry out a printing test to make sure there are no problems. For detailed information, refer to "2-3 Printing" and see "Performing a Printing Test," and refer to "5-1 Cleaning the Print Heads."	—	—

Key	Top menu	Function	Setting range	Default value
SHEET CUT 	—	Pressing and holding the [SHEET CUT] key for one second or longer cuts off the media at the location of the present print-start line. Press this to separate the portion that has been printed from the roll. You cannot sever a piece of media while printing is in progress.	—	—
MENU 	—	This enters the menu mode. When a menu is displayed, the [▲] and [▼] keys move to the next menu, the [▶] moves to a submenu, and the [◀] key moves to the previous screen.	—	—
	—	These move the media and the cartridge. When a menu is displayed, these move among the menu items.	—	—
MENU  + 	MENU LANGUAGE	This sets the language for screen messages. You can select either English or Japanese.	ENGLISH/JAPANESE	ENGLISH

Chapter 7:

What to Do If...

This section describes error messages that may appear on the display and how to resolve problems that can occur during operation.

7-1 What to Do If...

The Machine Doesn't Run

The power does not switch on.

Is the main power switched on?

If the power does not come on when you press the [POWER] key, make sure the main power is switched on, then press the [POWER] key again.

Printing doesn't start when data is sent.

Are the network settings correct?

Make sure there are no errors in the network settings. For more information about making the connection to a network, see "Roland-PrintServer Network Settings Guide."

Has media been loaded (the SETUP LED is lit)?

If the SETUP LED is not illuminated, make sure the media is loaded correctly and press the [SETUP] key to illuminate the SETUP LED.

Is the top menu displayed?

If the top menu isn't displayed, printing doesn't start even when data is sent from the computer.

Top menu

W 1234 mm

Is the PAUSE LED illuminated?

If the [PAUSE] key has been pressed and the PAUSE LED is lighted, the unit has been paused.

To resume printing, press the [PAUSE] key again. The PAUSE LED is extinguished, and printing resumes.

To terminate printing, first stop the transmission of printing instructions from the computer to this machine. Then press the [SETUP] key. Hold down for about 1 second. This deletes the printing instructions that have already been sent from the computer to this machine, and printing is stopped.

Has ink run out?

When printing data is sent while the screen shown in the figure is displayed, a message appears and a warning beep sounds.

At the same time, operation pauses. When the ink cartridge is replaced with a new one, printing starts.

1	2	3	4	5	6
7	8	9	10	11	12

This screen show cartridge No.1 and No.7 is run out.

The media width cannot be detected, even when the [SETUP] key is pressed.

Is [SHEET TYPE] set to [CLEAR]?

When [SHEET TYPE] is set to [CLEAR], the width of the media is not detected during media setup (and the printable width is set to maximum).

When transparent media is loaded, specify a printing area that matches the actual width of the media. (Refer to "4-5 Using Transparent Media")

If opaque media is loaded, set [SHEET TYPE] to [OPAQUE].

Is the width of the loaded media 210 mm or less?

When media having a width of 210 mm or less is loaded, the width is not detected during media setup. Load media that is at least 210 mm wide and perform setup again.

Clean, Attractive Printing Is Impossible

If drop-out occurs with printed images.

Clean the print heads (see "5-1 Cleaning the Print Heads").

The printed images are not clean.

Clean the platen and pinch rollers. (See "5-4 Other Cleaning Tasks")

The print heads scrape the surface of the media.

Is the loaded media very thick?

If media feed is not smooth because the media catches on the head, then adjust the height of the print heads. (Refer to "2-2 Loading Media" and see "When Loading Thick Media.")

When the height of the print head has been adjusted, it is necessary to perform bidirectional correction. For more information about bidirectional correction, refer to "4-6 Making Corrections for Printing" and see "Bidirectional Correction." If you are using media that becomes uneven when printed, then perform unidirectional printing. With unidirectional printing, unevenness is less conspicuous than bidirectional printing.

Also, if the print heads scrape the media even when the heads are raised, then do not use that media.

Doing so may not only cause paper jams, but may soil the media (the printing surface) and impair printing accuracy.

The results of printing are coarse.

Has feed correction been performed?

Correcting the amount of feed improves the dot-positioning accuracy in the feed direction, which can help enhance image quality.

If the type of media was changed, refer to "4-6 Making Corrections for Printing" and see "Feed Correction," and perform correction for feed.

Has bidirectional correction been performed?

If misalignment like in the example occurs when performing bidirectional printing, then carry out correction at the [BIDIRECTION] menu. (Refer to "4-6 Making Corrections for Printing" and see "Bidirectional Correction.")

Be sure to make this setting when you have replaced the media with a different type, or if you have adjusted the head height and printing is misaligned.

[EXAMPLE]



Not OK: Single lines not produced

Has the media warmed up sufficiently?

The results of printing may be coarse when the media is not warm enough. In particular, the edges of the media tend not to become as warm as the center, which may result in ink drips or unevenness, depending on the printing data. If this happens, increase the preset temperature and perform printing again. If the printing results don't improve even when you increase the preset temperature, the ambient temperature may be too low. Be sure to perform printing in the recommended operating environment.

Setting the [SCAN INTERVAL] menu item may improve printing quality. Please refer to "Chapter 6: Menus and Keys."

The printing length is not accurate

Has feed correction been performed?

To correct the amount of feed, refer to "4-6 Making Corrections for Printing" and see "Feed Correction," and make the correction to match the media you're using.

■ During printing, ink drips from the print-head carriage and soils the media (the printing surface)

The following may cause ink to drip on the media during printing.

- Dust or fiber-containing grime around the heads may have absorbed ink.
- The heads scraping the media may have caused ink to fail to be discharged, resulting in ink buildup in the heads.

If this happens, refer to "5-2 Cleaning Using the Cleaning Kit" and clean the heads.

We recommend carrying out periodic head cleaning.

Also, before you start printing, perform a printing test to make sure there is no dot drop-out.

■ Printing goes beyond the loaded media

Is the reflective tape dirty?

If the reflective tape becomes soiled, the width of the media cannot be detected correctly. If the tape becomes dirty, moisten a cloth with neutral detergent diluted with water, wring dry, and wipe gently.

Has the media been loaded at an angle?

If the loaded media is not straight, it may extend outside the printing area.

Refer to "2-2 Loading Media" and load the media correctly.

Has the printing area been set to fill the media entirely?

When setting the printing area in the scan direction (the direction of print-head carriage movement) at the [PRINT AREA] menu, leave a margin on either side. If the printing area is set to extend all the way to the left right and right edges, a small amount of misalignment may result in printing beyond the edge of the media.

■ Media feed is not smooth (slippage occurs)

Is thick media being used?

If the surface of the media rubs against the print heads and smooth feed is impossible, then adjust the height of the print heads. (Refer to "2-2 Loading Media" and see "When Loading Thick Media.")

When the height of the print head has been adjusted, it is necessary to perform bidirectional correction (only when performing bidirectional printing). For more information about bidirectional correction, refer to "4-6 Making Corrections for Printing" and see "Bidirectional Correction."

If using sheet media, does the loaded media contact areas such as the stand's media flange?

If the sheet media contacts the media flange or the like at the back of the unit, shift the retainer to a location where the media doesn't make contact.

If the media touches an obstruction while printing is in progress, normal media feed is not performed, and image quality may suffer or the media may jam.

Is the sheet media loaded at an angle? Are the left and right edges of the media not straight?

If the media is loaded at an angle or if the left and right sides of the media are not cut straight, the location of the edges may shift as feed is carried out. This may cause the media to rub against the inner side of this machine or be displaced from the printing area.

Is the roll media loaded correctly?

If the roll media is not loaded correctly, the media may come loose or advance at an angle. Refer to "2-2 Loading Media" and see "Loading Roll Media," and load the media correctly.

Media Wrinkles or Warps

Media Wrinkles When Performing Printing

Was the media allowed to stand while heated?

Depending on the type of media, it may wrinkle when performing printing after it is left on the platen for 30 minutes to an hour with the print heater temperature at 40°C. When you are not printing continuously, remove the media or reduce the preset temperature to 30°C.

Media Warps Before Performing Printing

Is the temperature of the room too low?

Depending on the type of media, it may tend to warp when there is a large difference between the ambient temperature and the print heater temperature.

If the left and right edges of the media warp: use media clamps.

If the front edge of the media warps: reduce the print heater temperature or increase the ambient temperature.

It may be possible to prevent media from warping by setting the [VACUUM POWER] menu item. Please refer to "Chapter 6: Menus and Keys."

The Media Becomes Jammed

If [MOTOR ERROR : TURN OFF POWER] Appears and Operation Stops

Follow the steps below to clear the error.

- 1** Press the [POWER] key to switch off the sub power.
- 2** Remove the jammed media. Cut off any creased or torn portions.
- 3** Press the [POWER] key to turn on the sub power.
- 4** Correct whatever caused the media to jam.
(For example, if thick media has been loaded, then adjust the height of the print heads.)
- 5** Load the media and carry out setup.
- 6** Press the [CLEANING] key to perform head cleaning and a printing test (see "5-1 Cleaning the Print heads").
- 7** Send the printing data and perform printing.



Point

Jammed media may damage or soil the print heads. Be sure to perform head cleaning first before sending the printing data.

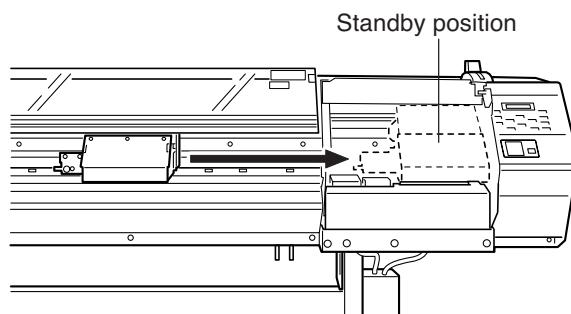
What to Do If the Print-head Carriage Does Not Operate

During operation, if for some reason the print-head carriage does not return to the standby position, then following the procedure, cap the print heads, and contact the your authorized Roland DG Corp. dealer or service center.

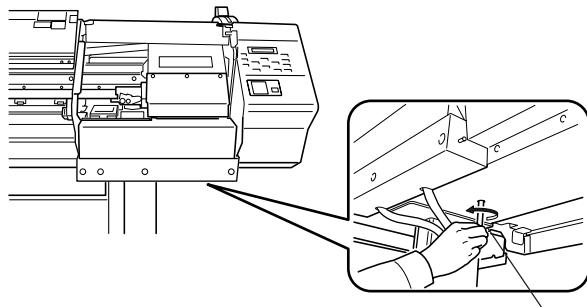
If the print-head carriage is allowed to stand for a prolonged period with the print heads uncapped (that is with the print-head carriage over the platen), the heads may become clogged or even damaged.

Capping the Print Heads

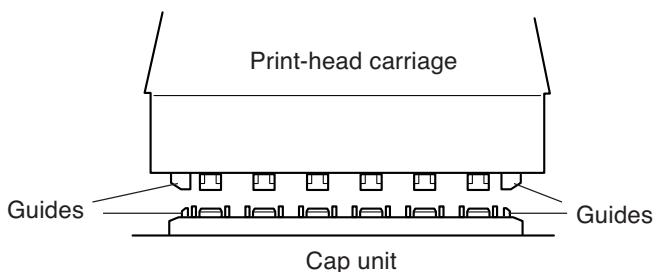
- 1** Make sure the main power is switched off, then open the cover on the right side of the machine.
- 2** Open the front cover and move the print-head carriage to the standby position by hand.



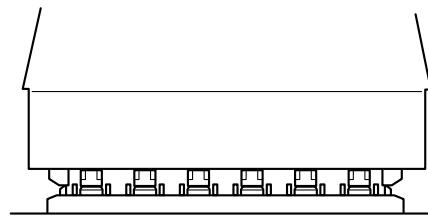
- 3** Insert the oval end of the pipe included with the machine into the hole in the bottom of the machine, then rotate the pipe.
The cap unit rises.



- 4** Align the guides at the two ends of the cap unit with the guides at the two ends of the print-head carriage.
Turn the pipe more bring the cap unit close to the print-head carriage.



- 5** When the print-head carriage comes into contact with the caps, rotate the pipe one or two turns more.



Make sure the print-head carriage and the caps are touching, then contact your authorized Roland DG Corp. dealer or service center.

7-2 What to Do If an Error Message Appears

Messages	Meaning	Action
CLOSE THE COVER	An operation command was given while the cover or front cover is open.	Close the cover or front cover.
SHEET NOT LOADED PRESS SETUP KEY	Test printing was attempted with no media loaded.	Load the media and try again. Press the [ENTER] key to continue.
1_ 2█ 3█ 4█ 5█ 6█ 7_ 8█ 9█ 10█ 11█ 12█	Ink has been used up. * The message at left indicates that the cartridge No.1 and No.7 have been used up.	Replace the empty ink cartridge.
SET SOL CRT. 1 2 3 4 5 6 7 8 9 10 11 12	An ink cartridge was removed. A request to insert an ink cartridge was made from this machine.	Insert the specified ink cartridge.
REMOVE SOL CRT. 1 2 3 4 5 6 7 8 9 10 11 12	A request to remove an ink cartridge was made from this machine.	Take out the specified ink cartridge.
SET SOL CL-LIQUID 1 2 3 4 5 6 7 8 9 10 11 12	A request to insert a cleaning cartridge was made from this machine.	Insert the specified cleaning cartridge.
REMOVE SOL CL. 1 2 3 4 5 6 7 8 9 10 11 12	A request to remove a cleaning cartridge was made from this machine.	Take out the specified cleaning cartridge.
EMPTY DRAIN BOTTLE	Discard discharged ink. * This message appears before operations that will discharge large amounts of ink. There is a chance of discharged ink overflowing if operations are carried out while the drain bottle is full.	Remove the drain bottle from this machine, discard the collected ink, then reinstall the drain bottle. Press the [ENTER] key to continue.
INSTALL DRAIN BOTTLE	Check that the drain bottle is set in position.	Set the drain bottle in place. Press the [ENTER] key to continue.
TO CANCEL, HOLD DOWN SETUP KEY	Operation was paused by pressing the [PAUSE] key, but there is still some remaining data.	Pressing the [PAUSE] key again to resume operation. Press the [SETUP] key to clear the data.
DRY-UP OF HEAD MAY GIVE DAMAGE	Emergency stop was effected. * "CLOSE THE COVER" is also displayed repeatedly. Audible alert each 10 sec. After 1 min., audible alert goes continuously.	Close the cover or front cover. * When restarting print, such detect like raster line or shift of band may happen.
DO NOT USE MEDIA CLAMPS	Do not use media clamps. *This message appears when position the print head at 1 (low).	Detach media clamps to the media. Press the [ENTER] key to continue.

* [1 2 3 4 5 6 7 8 9 10 11 12] indicate the numbers of the ink-cartridge ports. The character indicating the number of the ink-cartridge port flashes when action is necessary.

[Example]

SET SOL CRT.
123456789101112

If "4, 5, 10, 11" is flashing:

Install ink cartridges in ink-cartridge ports 4, 5, 10, and 11.

Messages	Meaning	Action
MOTOR ERROR TURN OFF POWER	A motor error occurred.	Recovery from this problem is impossible. Use the [POWER] key to switch the power off and back on again. After rectifying the cause of the error (a media jam or the like), switch on the power. Do not leave the unit with the print-head carriage not in standby position.
TEMPERATURE IS TOO LOW	The air temperature where installed is lower than the ambient temperature at which the unit can operate (approx. 5°C (41°F) or more lower).	Recovery from this problem is impossible. Use the [POWER] key to switch the power off. First raise the temperature of the area where installed, then switch on the power.
TEMPERATURE IS TOO HIGH	The air temperature where installed is higher than the ambient temperature at which the unit can operate (approx. 40°C (104°F) or more higher).	Recovery from this problem is impossible. Use the [POWER] key to switch the power off. First drop the temperature of the area where installed, then switch on the power.
SHEET SET ERROR SET AGAIN	<p>The [SETUP] key was pressed even though no media is loaded. Setup was performed with no media at the correct location.</p> <p>[SHEET TYPE] is set to [OPAQUE], but transparent media was loaded.</p> <p>An attempt was made to load media that is too small.</p> <p>The reflective tape is dirty.</p>	<p>Load media at the correct location and press the [SETUP] key again (see "2-2 Loading Media").</p> <p>When using transparent media, set [SHEET TYPE] to [CLEAR] (see "4-5 Using Transparent Media").</p> <p>Replace with media of loadable size.</p> <p>Wipe off the grime on the reflective tape, then perform setup again.</p>
PINCHROLL ERROR LOWER PINCHROLL	The [SETUP] key was pressed with the pinch rollers up. The pinch rollers were raised during setup.	Move the loading lever toward "LOAD" and lower the pinch rollers, then press the [SETUP] key (see "2-2 Loading Media").
AVOIDING DRY-UP TURN OFF POWER	The print head was returned to its standby position to be capped, canceling current printing job. Because emergency stop was effected more than 10 min.	Turn power off by pressing [POWER] key to reset. Interrupted printing is not resumed. Repeat printing from the beginning.
CANCELED FOR PROTECTING MOTOR	Continuous operation caused the pump motor to become hot, so operation was paused to prevent damage to the motor.	Press any key to cancel the message. Allow the unit to stand for about 40 minutes, then resume operation.
SERVICE CALL No: * * * *	<ul style="list-style-type: none"> A problem occurred that resulted in an error that cannot be canceled. Correct operation became impossible because an error occurred. The useful life has ended for a component that must be replaced by a service technician. 	Check the number shown on the display, then press the [POWER] key to switch off the power. After you switch off the power, inform your authorized Roland DG Corp. dealer or service center of the number that appeared on the display.
DATA ERROR CANCELING ...	A problem was found in the data received.	Make sure the cable is attached securely.
SET HEAD HEIGHT TO - - -	The head height and the loaded media do not match.	Change the head height to the specified height and press the [ENTER] key.

Chapter 8:

Specifications

8-1 Media Conditions

Usable Media

Use genuine media from Roland DG Corp.

A) Maximum media thickness

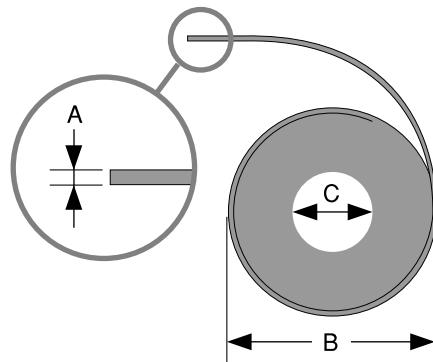
1.0 mm (39 mil)

B) Maximum diameter for roll media

180 mm

C) Paper tube (core) inner diameter

50.8 mm or 73.2 mm (2 inches or 3 inches)



Maximum weight for roll media

20 kg (44 lb.)

Other conditions

Media such as the following cannot be used.

- Media having an inward curl (i.e., media whose print surface is on the inner side of the roll)
- Media whose end is attached to the paper pipe (core)
- Media which is severely warped or which has a strong tendency to reroll
- Media that cannot withstand the heat of the print heater
- Media whose paper pipe (core) is bent or crushed

Acceptable Media Widths

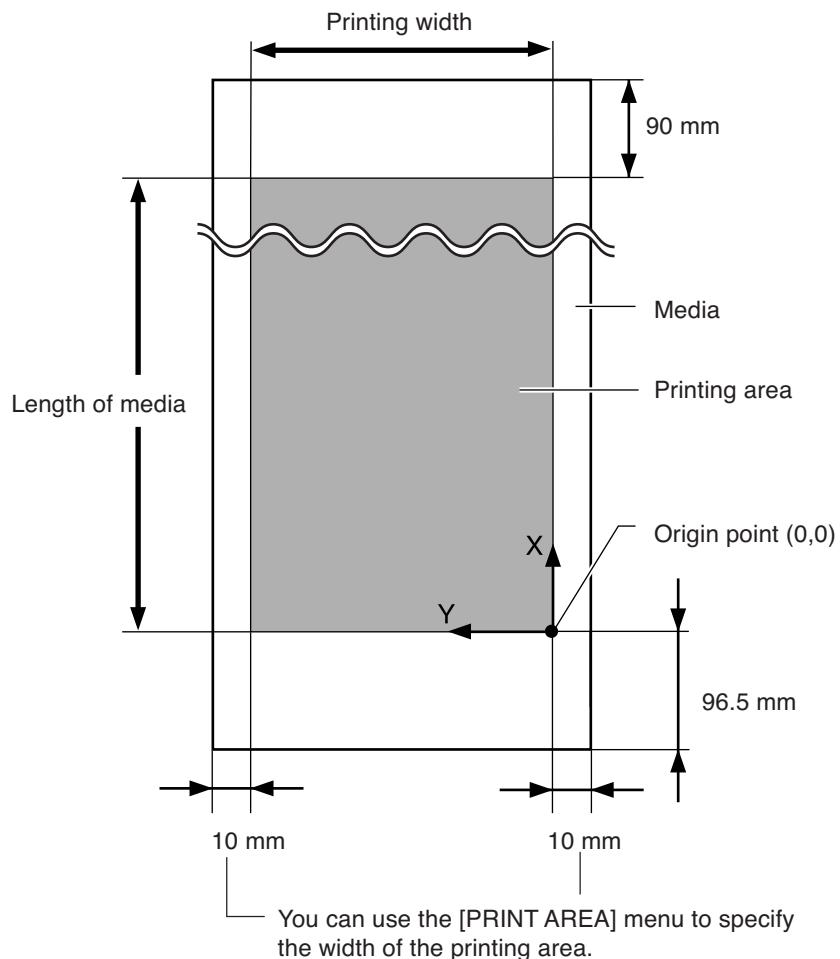
SJ-745EX: 210 to 1879 mm (8-5/16 to 74 in.)

SJ-645EX: 210 to 1625 mm (8-5/16 to 64 in.)

8-2 Printing Area

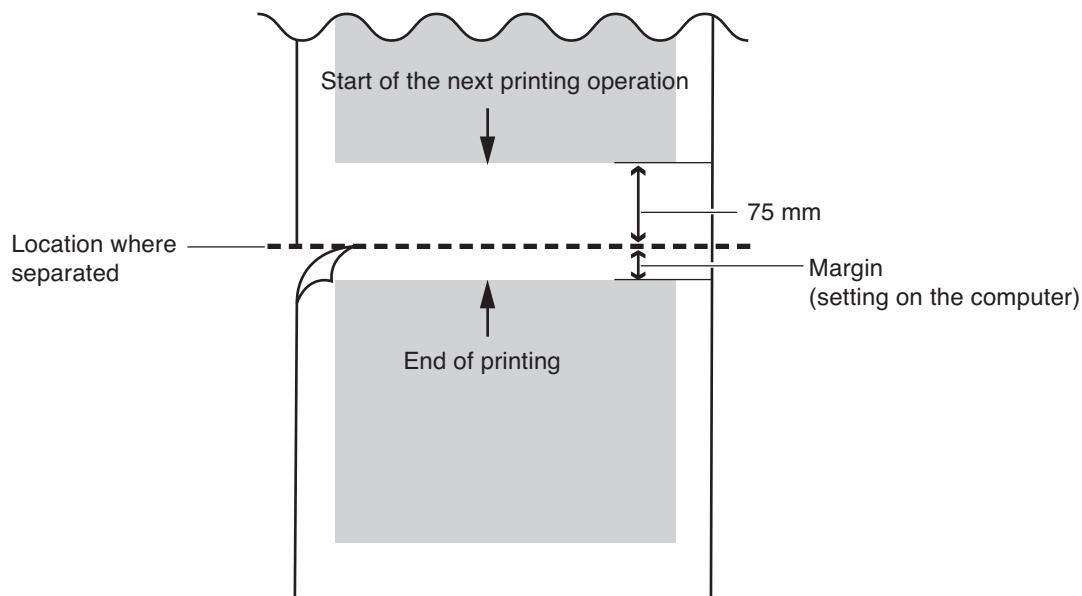
The media's printable width (the direction of print-head carriage movement) is determined by the width of the loaded media. When the [SETUP] key is pressed after loading the media, the width of the media is detected and the printing area appears on the display. The printing area is normally 10 mm (3/8 in.) inward from the respective left- and right-hand edges of the media.

When the printable width have been specified with the [PRINT AREA] menu, the margins are in accordance with these setting values.



8-3 The Media-cutoff Location During Continuous Printing

The media-cutoff location that is used when a media-cutoff command is sent from the computer is determined as follows.



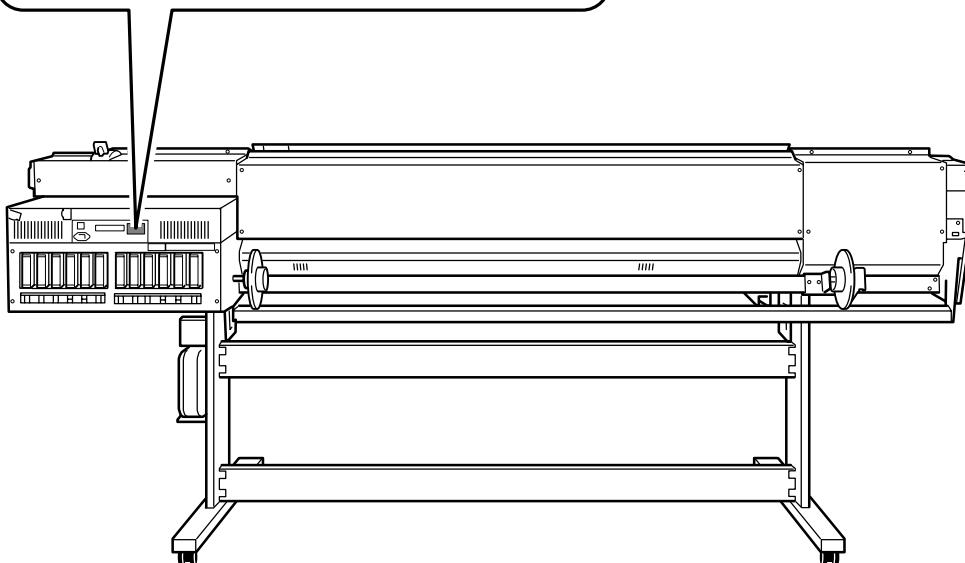
8-4 Locations of the Power Rating and Serial Number Labels

Serial Number

This is required when you seek maintenance, servicing, or support. Never peel off the label or let it get dirty.

Power Rating

Use an electrical outlet that meets the requirements for voltage, frequency, and amperage given here.



8-5 Specifications

		SJ-745EX	SJ-645EX
Printing method		Piezo ink-jet method	
Acceptable media widths	While the print heater is running	500 to 1879 mm (19-11/16 to 74 in.)	500 to 1625 mm (19-11/16 to 64 in.)
	While the print heater is not running	210 to 1879 mm (8-5/16 to 74 in.)	210 to 1625 mm (8-5/16 to 64 in.)
Printing width		Maximum 1869 mm (73-9/16 in.)	Maximum 1615 mm (63-9/16 in.)
Ink cartridges	Type	Exclusive ECO-SOL INK cartridge	
	Capacity	220 cc ±5 cc	
	Color	Six colors (cyan, magenta, yellow, black, light cyan and light magenta), or four colors (cyan, magenta, yellow and black)	
Printing resolution (Printing dot resolution)		Maximum 1440 dpi	
Distance accuracy (*1)(*2)		Error of less than ±0.3% of distance traveled, or ±0.3 mm, whichever is greater	
Ink -fixing device (*3)		Print heater, Setting range for the preset temperature: 35 to 50°C (96 to 122°F)	
Interface		Ethernet (10BASE-T/100BASE-TX, automatic switching)	
Power-saving function		Automatic sleep feature	
Power supply	Voltage and frequency	AC 117 V ±10%, 50/60 Hz or AC 220 to 240 V ±10%, 50/60 Hz	
	Required power capacity	6.5 A (117 V) or 3.3 A (220 to 240 V)	5.8 A (117 V) or 2.7 A (220 to 240 V)
Power consumption	During operation	Approx. 770 W	Approx. 640 W
	Sleep mode	Approx. 55 W	Approx. 55 W
Acoustic noise level	During operation	65 dB (A) or less (according to ISO 7779)	
	During standby	40 dB (A) or less (according to ISO 7779)	
Dimensions (With stand)		3134 (W) x 742 (D) x 1300 (H) mm (123-7/16 (W) x 29-1/4 (D) x 51-3/16 (H) in.)	2953 (W) x 742 (D) x 1300 (H) mm (116-5/16 (W) x 29-1/4 (D) x 51-3/16 (H) in.)
Weight (With stand)		174 kg (384 lb.)	170 kg (375 lb.)
Packed dimensions		3270 (W) x 850 (D) x 1005 (H) mm (128-3/4 (W) x 33-1/2 (D) x 39-5/8 (H) in.)	3090 (W) x 850 (D) x 1005 (H) mm (121-11/16 (W) x 33-1/2 (D) x 39-5/8 (H) in.)
Packed weight		252 kg (556 lb.)	236 kg (520 lb.)
Environment	Power on (*4)	Temperature: 15 to 32°C (59 to 89.6°F) (20°C (68°F) or more recommended), humidity: 35 to 80% (no condensation)	
	Power off	Temperature: 5 to 40°C (41 to 104°F), humidity: 20 to 80% (no condensation)	
Included items		Power cord: 1, exclusive stand: 1, hexagonal wrench: 1, pipe: 1, media flanges: 2, flange retaining pins: 2, drain bottle: 1, bottle stand: 1, transport bars: 2, media reinforcement pipe: 1, Software RIP: 1, user's manual: 1, replacement blade for separating knife: 1, Roland-PrintServer CD-ROM: 1, Roland-PrintServer Network Settings Guide: 1, SOL INK cleaning cartridges: 4, cleaning kit: 1 (cleaning sticks: 10, tweezers: 1, wipers: 2)	

*1

Media type: Roland PET film, print travel: 1 m

*2

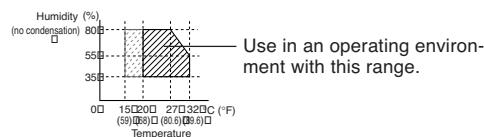
Not assured when the print heater is used.

*3

The print heater temperature may not reach the preset temperature depending on ambient conditions or the width of the media.
Unevenness in temperature may be larger depending on ambient conditions or the width of the media.

*4

Operating environment





26015502-R2

R3-060829