



SOLJET

Sign Maker by Roland DG Corporation

SJ-600/500

USER'S MANUAL

This User's Manual is intended for SJ-600 and SJ-500.

Thank you very much for purchasing this machine.

- 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.

The I/O cables between this equipment and the computing device must be shielded.

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.

Operating Instructions

KEEP WORK AREA CLEAN. Cluttered areas and benches invites accidents.

DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and like.

REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure the switch is in off position before plugging in.

USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.

NEVER LEAVE TOOL RUNNING UNATTENDED.
TURN POWER OFF. Don't leave tool until it comes to a complete stop.

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 Shimmiyakoda, 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

To Ensure Safe Use	2
About the Labels Affixed to the Unit	6
Pour utiliser en toute sécurité	8
À propos des étiquettes collées sur l'appareil	12
What to Do upon Opening the Carton ...	14
1 Checking Accessories	14
2 Assembling the Stand and the Machine	15
3 Setting Up and Connection	18
4 Installing Ink Cartridges	20
Part Names	23
Front View	23
Rear View	24
Inside the Front Cover	24
Operation Panel	25
Five Modes.....	26
Setup for Printing	27
1 Loading the Material	28
2 Test Printing	32
3 Setting the Printing Mode and Printing Direction ...	33
Downloading Printing Data	34
Remove the Material	36
Remove the Material From the Machine	36
Cut the Material From the Roll	36
When Operations Are Finished	38
Maintenance	39
Replacing the Ink Cartridges	39
Check How Much Ink Remains	41
Cleaning the Printing Heads	42
Disposal of Discharged Ink	43
How to Replace the Separating Knife	44
When the Product Needs Cleaning	45
When Not in Use for a Prolonged Period...	46
When Moving the Unit...	47
User's Reference	49
Printing at the Desired Location	49
Making Corrections for Printing	53
Performing Overprinting	55
Setting the Page Margins	56
Adjusting the Height of the Printing Head	57
Materials	58
About the Printing Area	59
Description of Keys	60
Description of Menu Items	62
Description of Menus	62
Display Menus Flowchart	65
What to Do If...	68
Error Messages	72
Specifications	73

SOLJET™ and SOL INK™ are trademarks of Roland DG Corporation.

COLORCHOICE® is a registered in the U.S. Patent Office.

Windows® is a registered trademark or trademark of Microsoft® Corporation in the United States and/or other countries.

IBM is a registered trademark of International Business Machines Corporation.

Macintosh is a registered trademark or trademark of Apple Computer, Inc. in the USA and other countries.

Other company names and product names are trademarks or registered trademarks of their respective holders.

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 material damage should the unit be used improperly. * Material 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.



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.



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.



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.

⚠ WARNING



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.

⚠ 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.

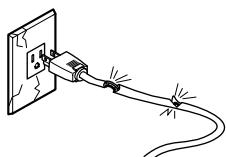


When storing discharged ink temporarily, place in the included drain bottle or a durable sealed container such as a metal can and polyethylene tank, and cap tightly. Leakage of discharged ink or its vapor may result in odor, physical distress, or fire.



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.



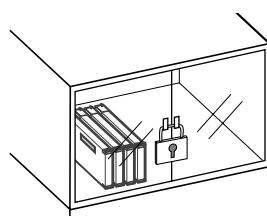
If ink or cleaning liquid comes in contact with the skin, immediately wash well with soap and water. If irritation or inflammation occur, seek treatment by a physician.



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.

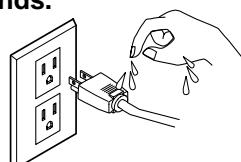


Store ink cartridges out of the reach of children.



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

Doing so may result in electrical shock.

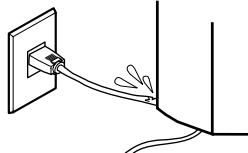


⚠ CAUTION



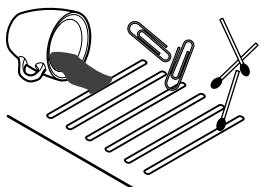
Do not injure or modify the electrical power cord, nor subject it to excessive bends, twists, pulls, binding, or pinching, nor place any object of weight on it.

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



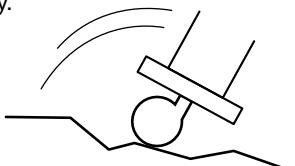
Do not allow liquids, metal objects or flammables inside the machine.

Such materials can cause fire.



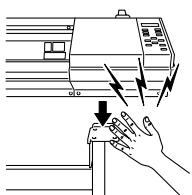
Install in a level and stable location.

Otherwise the unit may tip over and cause injury.



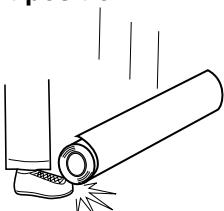
Use care to avoid pinching the fingers when placing the unit on the stand.

Doing so may result in injury.



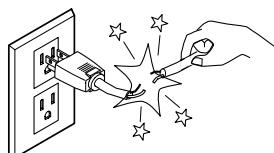
Roll material must be placed at a predetermined shaft position.

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



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 or electrocution.



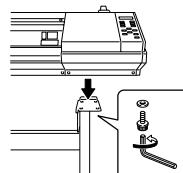
Unpacking, installation, and moving must be carried out by four or more persons.

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



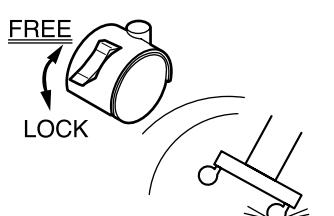
Use the joining screws to secure the unit to the stand.

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



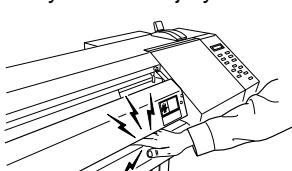
Release the caster locks for the stand before attempting to move.

Otherwise the unit may tip over and cause injury.



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

Doing so may result in injury.



⚠ CAUTION



Do not touch the tip of the separating knife with your fingers.
Doing so may result in injury.



Make sure the power to the unit is off before attempting to replace the separating knife.

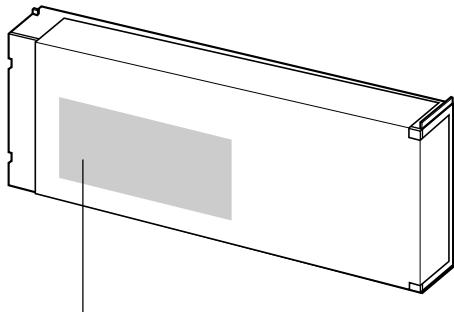
Doing so may result in injury.

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.

Ink cartridge



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



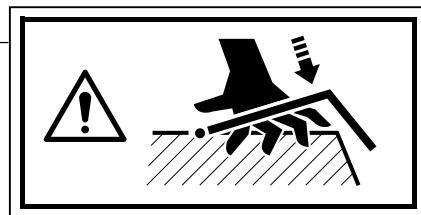
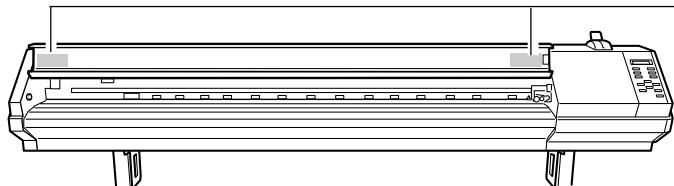
**Ink and discharged ink are toxic. Avoid
contact with the body. Use only in a
well-ventilated area.**

Do not dismantle the cartridge.

Keep out of reach of children.

Do not store the cartridge in high or freezing temperatures.

Use only models that support SOL INK. Do not insert this cartridge into a model that does not support SOL INK.



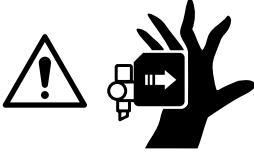
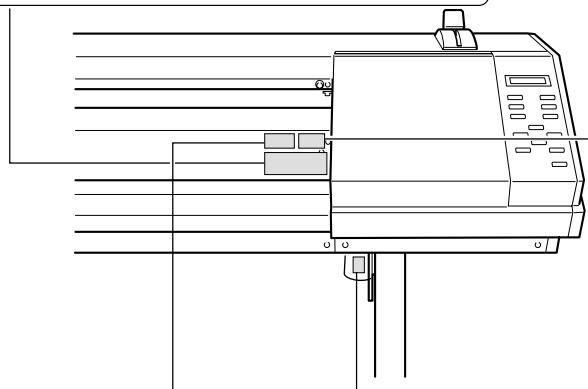
**When closing the front cover,
be careful not to pinch your
fingers.**

Opening the front cover while printing is in progress causes an emergency stop.

To pause printing for any other reason than an emergency stop, press the [PAUSE] key.

印刷中にフロントカバーを開けると緊急停止します。

緊急停止以外の一時停止は、[PAUSE]キーを押してください。



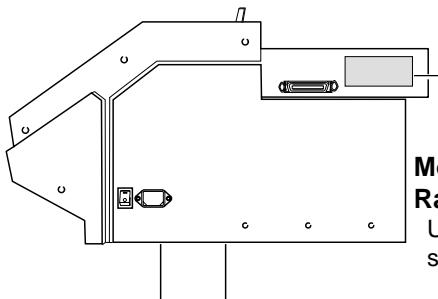
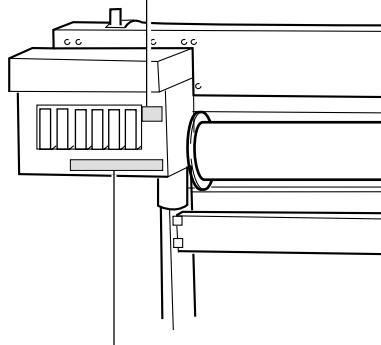
Do not place hands within the space to the front of the unit while in operation.



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.



Model name
Rating label
Use a rated power supply.

Use only SOL INK. Do not insert any other type of ink cartridge.
SOL INK専用です。他のインクカートリッジを挿入しないでください。

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.



: 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 ou modifier.

Le non-respect de cette consigne pourrait causer un incendie ou provoquer des opérations anormales entraînant des blessures.



Utiliser seulement avec une alimentation de mêmes caractéristiques électriques que celles indiquées sur l'appareil.

Une négligence à ce niveau pourrait provoquer un incendie ou une électrocution.



Mettre l'appareil à la masse avec une prise de terre.

Le non-respect de cette consigne pourrait entraîner des décharges électriques en cas de problème mécanique.



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.



N'utilisez que le cordon d'alimentation fourni avec ce produit.

L'utilisation avec un autre cordon d'alimentation que celui fourni pourrait entraîner un risque d'incendie ou d'électrocution.

⚠ ATTENTION



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.

Cela crée un risque d'incendie.

⚠ PRUDENCE



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

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



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.



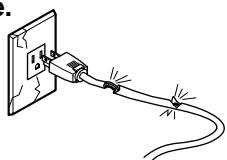
Pour entreposer temporairement l'encre usée, la placer dans un solide contenant scellé, par exemple un contenant en métal et un réservoir en polyéthylène, et fermer hermétiquement.

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



Ne pas utiliser avec une fiche ou un fil électrique endommagé ou avec une prise mal fixée.

Une négligence à ce niveau pourrait provoquer un incendie ou une électrocution.



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.



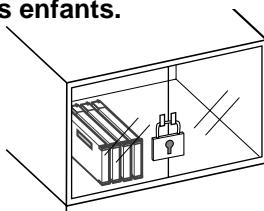
Si de l'encre ou du liquide nettoyant entrent en contact avec la peau, immédiatement laver à fond avec de l'eau et du savon. Si la peau devient irritée ou inflammée, consulter un médecin.



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.

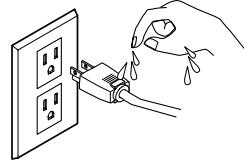


Ranger les cartouches d'encre hors de portée des enfants.



Ne pas essayer de débrancher le fil avec des mains mouillées.

Une négligence à ce niveau pourrait provoquer des décharges électriques.

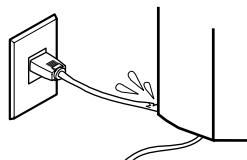


⚠ PRUDENCE



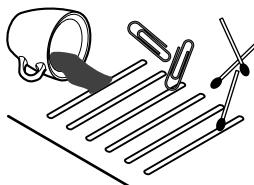
Ne pas endommager ou modifier le fil électrique. Ne pas le plier, le tordre, l'étirer, l'attacher ou le serrer de façon excessive. Ne pas mettre d'objet ou de poids dessus.

Une négligence à ce niveau pourrait endommager le fil électrique ce qui risquerait de provoquer une électrocution ou un incendie.



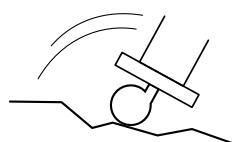
Ne pas introduire de liquide, d'objet métallique ou inflammable dans l'appareil.

Ce genre de matériel peut provoquer un incendie.



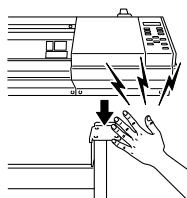
Installer dans un endroit stable et de niveau.

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



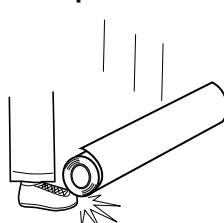
Manipuler avec précaution pour éviter de se coincer les doigts lors de l'installation de l'appareil sur le support.

Une négligence à ce niveau pourrait provoquer des blessures.



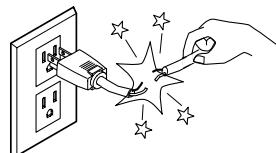
Le rouleau doit être placé quand la barre est en position adéquate.

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



Saisir la fiche et non le fil électrique lorsque vous débranchez.

Débrancher en tirant sur le fil pourrait l'endommager et risquer de provoquer un incendie ou une électrocution.



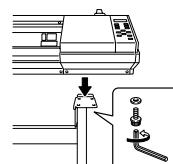
Le déballage, l'installation et le déplacement de l'appareil doivent être effectués par quatre personnes ou plus.

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



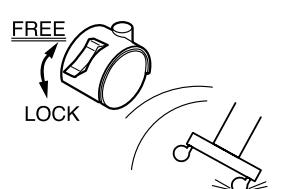
Utiliser les vis fournies pour bien fixer l'appareil sur le support.

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



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 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 le bout de la lame séparatrice avec les doigts.
Une négligence à ce niveau pourrait provoquer des blessures.



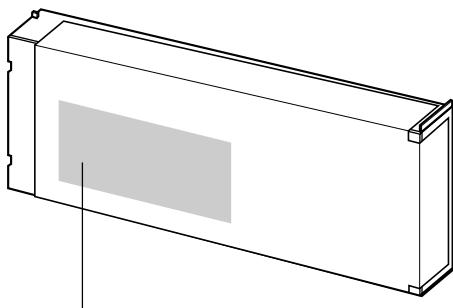
S'assurer que l'appareil est hors tension avant d'essayer de remplacer la lame séparatrice.
Une négligence à ce niveau pourrait provoquer des blessures.

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.

la cartouche d'encre



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



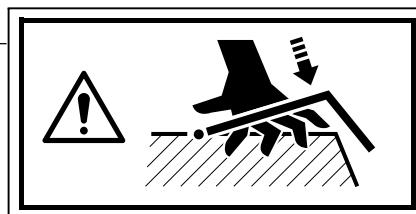
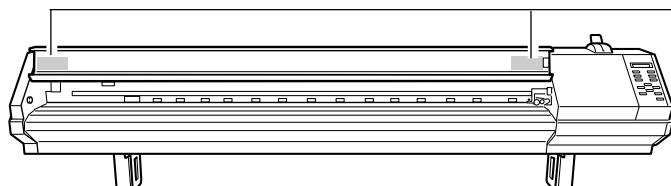
L'encre et l'encre usée sont toxiques. Éviter
tout contact avec le corps. Utiliser uniquement
dans un endroit bien aéré.

Ne pas démonter la cartouche.

Conserver hors de la portée des enfants.

Ne pas emmagasiner à des températures hautes ou basses.

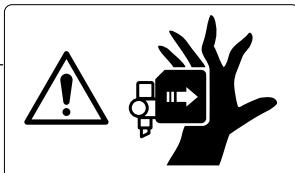
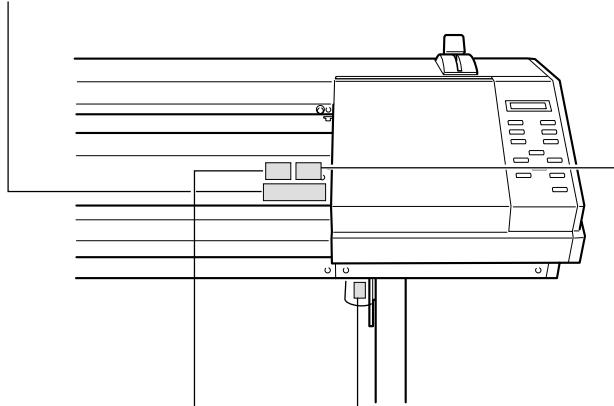
À n'utiliser que sur les modèles acceptant SOL INK. Ne pas insérer cette cartouche dans
les modèles n'acceptant pas SOL INK.



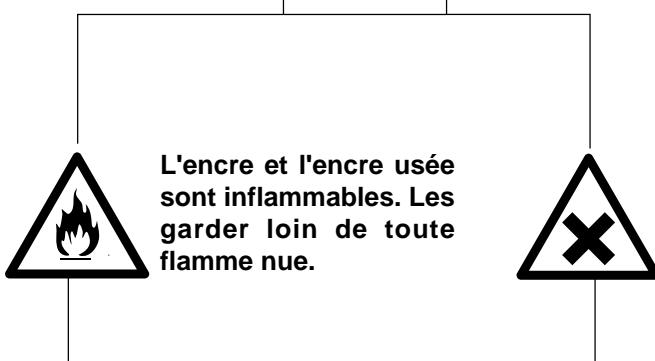
Manipuler avec précaution pour
éviter de se coincer les doigts
lors de la fermeture du couvercle
de devant.

Opening the front cover while printing is in progress causes an emergency stop.
To pause printing for any other reason than an emergency stop, press the [PAUSE] key.
印刷中にフロントカバーを開けると緊急停止します。
緊急停止以外の一時停止は、[PAUSE]キーを押してください。

Ouvrir la plaque avant pendant l'impression provoque un arrêt d'urgence.
Appuyer sur [PAUSE] si, pour toute autre raison qu'une urgence, vous désirez suspendre momentanément l'impression.

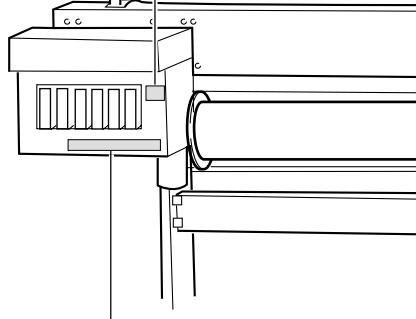


Ne pas mettre les mains dans l'espace devant l'élément quand celui-ci est en marche.



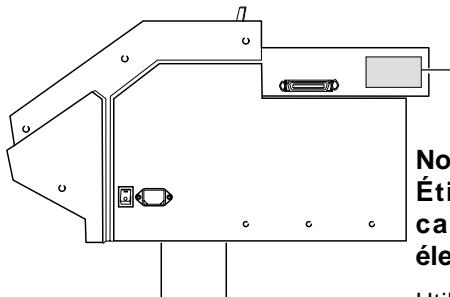
L'encre et l'encre usée sont inflammables. Les garder loin de toute flamme nue.

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



Use only SOL INK. Do not insert any other type of ink cartridge.
SOL INK専用です。他のインクカートリッジを挿入しないでください。

Utiliser uniquement l'encre SOL INK. Ne pas utiliser d'autres types de cartouches d'encre.



Nom du modèle
Étiquette des caractéristiques électriques

Utiliser l'alimentation appropriée

What to Do upon Opening the Carton

In this manual, sections that explain common points for the SJ-600/500 use only illustrations of the SJ-600. Some details of the SJ-500 differ from the figure.

1 Checking Accessories

Check the following to make sure that you received all the items that were shipped along with the unit.



Power cord: 1



Stays : 2
(For place the media guide)



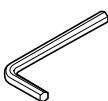
Bolts (Large) : 14
(For assembling stand)



Bolts (Small) : 4
(For assembling stand)



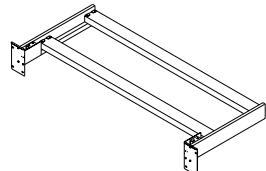
Washers : 6
(For assembling stand)



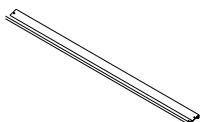
Hexagonal wrench (M6) : 1
(For assembling stand)



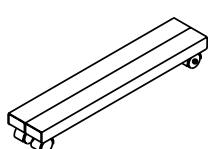
Pipe : 1
(For assembling stand)



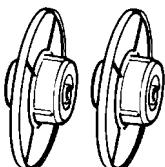
Stand leg : 1



Media guide : 1



Caster : 2



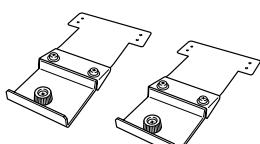
Media flanges : 2



Flange retaining pins : 2



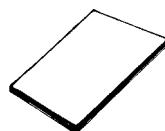
Drain bottle: 2



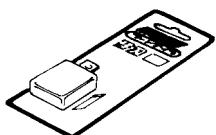
Media clamps : 2



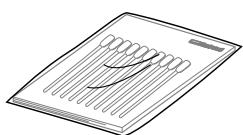
Roland ColorChoice® : 1



User's manual: 1



Replacement blade for
separating knife: 1



Cleaning kit: 1

2 Assembling the Stand and the Machine

⚠ WARNING



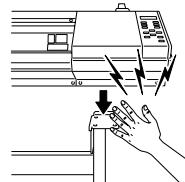
Unpacking, installation, and moving must be carried out by four or more persons.

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



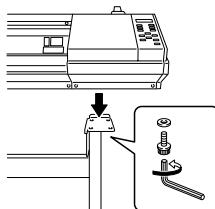
Use care to avoid pinching the fingers when placing the unit on the stand.

Doing so may result in injury.



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

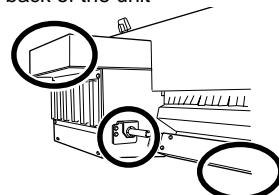
Failure to do so may result in falling of the unit, leading to injury.



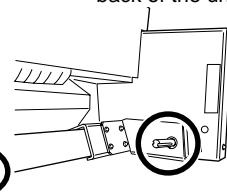
NOTICE When lifting the machine, do not grasp the areas shown in the figure.

Doing so may damage the equipment.

Left-hand side of the back of the unit



Right-hand side of the back of the unit



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

The external dimensions of the assembled machine and stand are as follows.

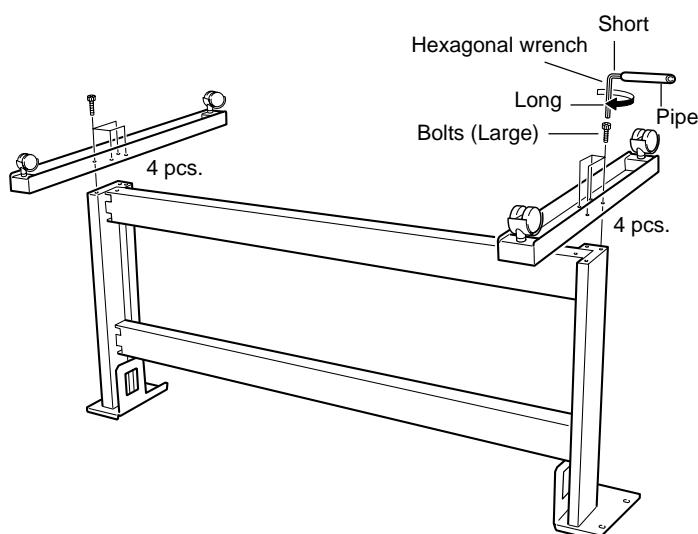
SJ-600: 2500 mm [W] x 758 mm [D] x 1241 mm [H] (98-7/16 in. [W] x 29-7/8 in. [D] x 48-7/8 in. [H])

SJ-500: 2246 mm [W] x 758 mm [D] x 1241 mm [H] (88-7/16 in. [W] x 29-7/8 in. [D] x 48-7/8 in. [H])

1

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.

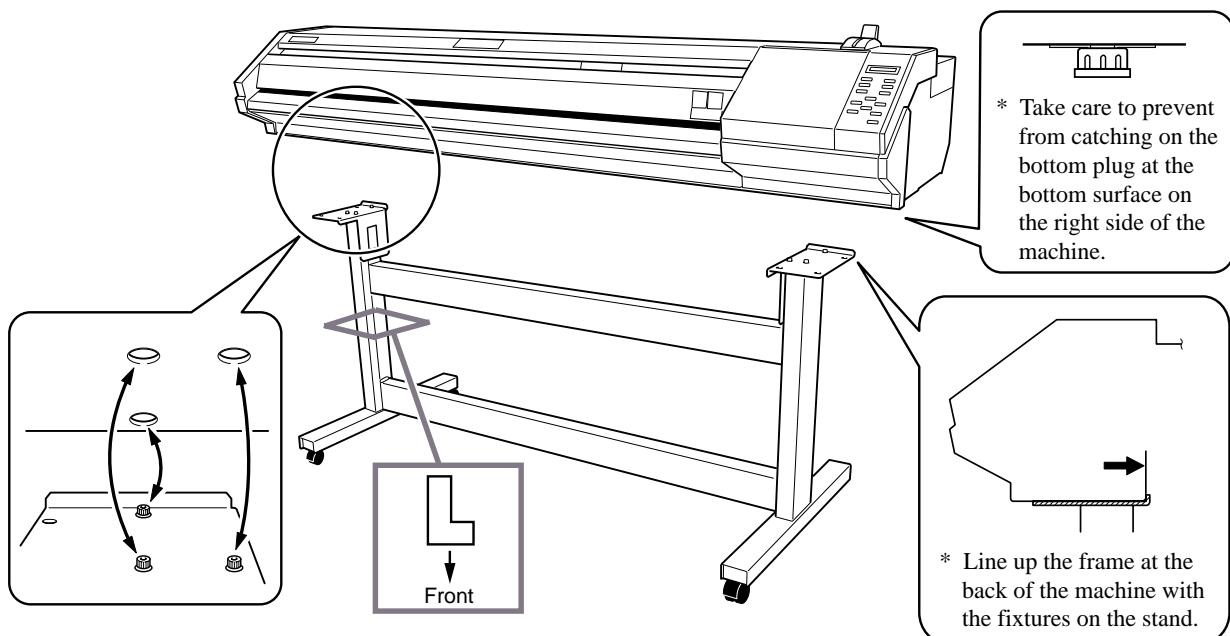


Continued on the next page.

What to Do upon Opening the Carton

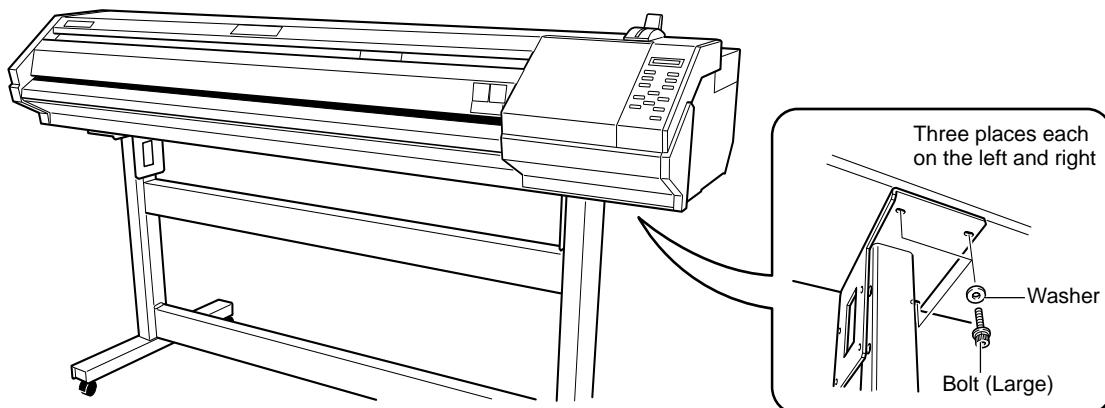
2

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

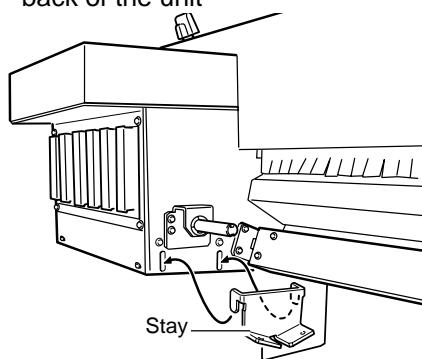
Use the included large bolts to secure the machine to the stand.



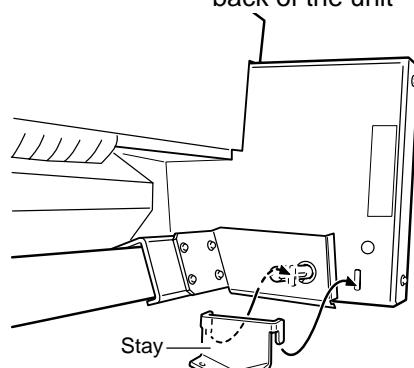
4

Fit the stays onto the back of the machine at the locations shown in the figure.

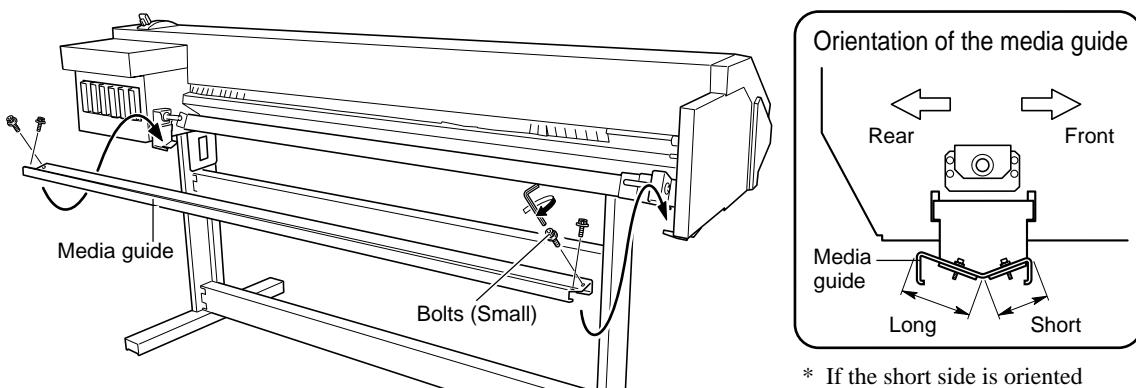
Left-hand side of the back of the unit



Right-hand side of the back of the unit



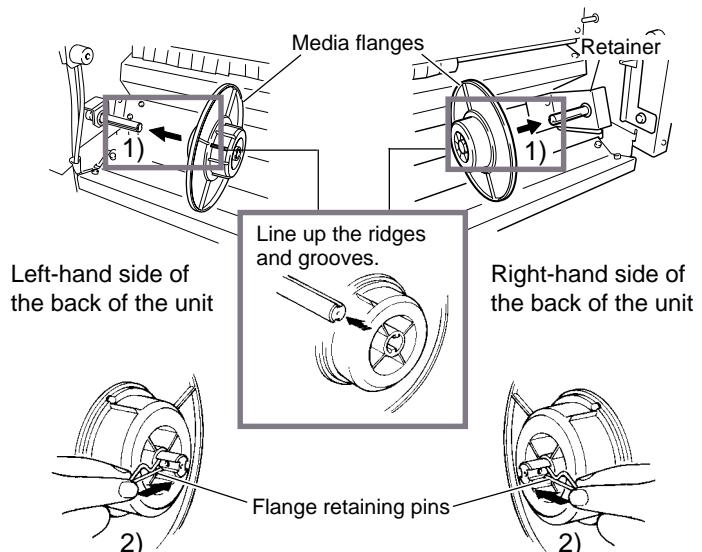
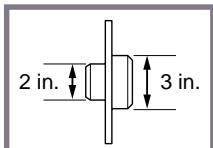
- 5** Place the media guide on the stays and secure it in place using the included small bolts.



* If the short side is oriented toward the back of the machine, roll material may fall.

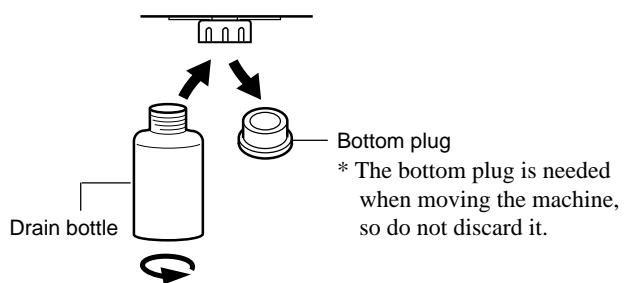
- 6** Pass the media flanges onto the retainers and secure in place with the flange retaining pins.

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



- 7** Remove the bottom plug from the bottom surface on the right side of the machine, then screw in the drain bottle in the direction indicated by the arrow. When threading the bottle onto the machine, turn the bottle without applying excessive force.

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



The machine comes with a spare drain bottle. Use it for storing discharged ink temporarily.

3 Setting Up and Connection

Setting Up

⚠ CAUTION

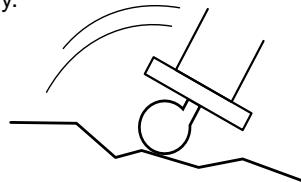


Unpacking, installation, and moving must be carried out by four or more persons.

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.



NOTICE

Be sure to install the drain bottle before switching on the power.

Use in the following environment.

- Temperature: 15 to 35 °C (59 to 95 °F), humidity: 35 to 80 % (no condensation)

Also, take care to ensure that the following conditions are not exceeded even when the machine is not in operation. In particular, be careful to make sure not to expose the machine to high temperatures of 40 °C (104 °F) or more.

- Temperature: 5 to 40 °C (41 to 104 °F), humidity: 20 to 80 % (no condensation)

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

- Places where the installation surface is unstable or not level.
- Places with excessive electrical noise.
- Places with excessive humidity or dust.
- Places with poor ventilation, because the unit generates considerable heat during operation.
- Places with excessive vibration.
- Places exposed to strong illumination or direct sunlight.

Never step or stand on the stand legs, as 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 are listed below.

SJ-600: 3500 mm [W] x 2000 mm [D] x 1700 mm [H]
(137-13/16 in. [W] x 78-3/4 in. [D] x 66-15/16 in. [H])

SJ-500: 3300 mm [W] x 2000 mm [D] x 1700 mm [H]
(129-15/16 in. [W] x 78-3/4 in. [D] x 66-15/16 in. [H])

Connection

⚠ WARNING



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.



Use only with the power cord included with this product.
Use with other than the included power cord 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

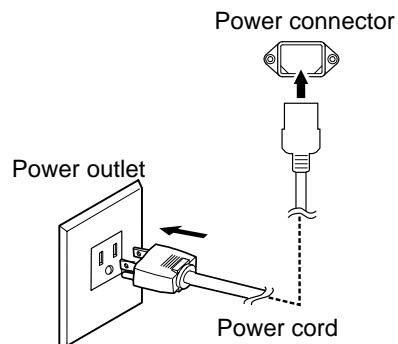
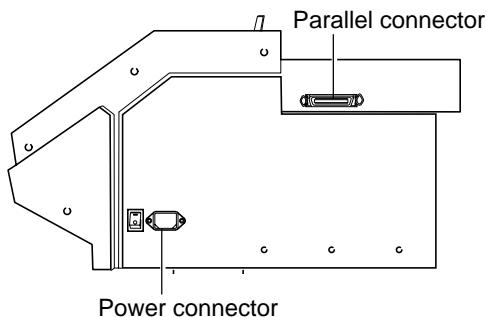
NOTICE

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

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.

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

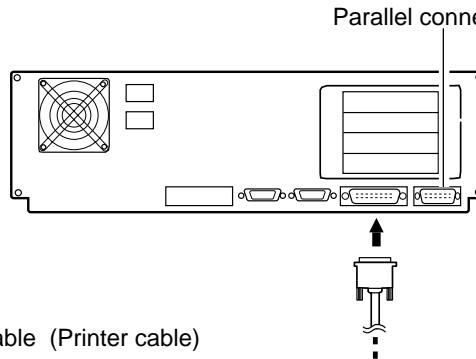
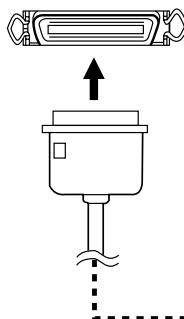
Side View



For IBM PC or PC compatibles

Parallel connector

Secure the cable in place with the clips.



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

For Macintosh

Connection to a Macintosh requires optional items such as special cable. For more information on the required optional items and connection settings, contact a Roland DG Corp. dealer.

4 Installing Ink Cartridges

⚠️ WARNING



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.

⚠️ 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.



Store ink cartridges out of the reach of children.

NOTICE

Do not use anything other SOL INK cartridges. Do not attempt to refill and reuse an empty ink cartridge.

Do not remove any ink cartridges except when shipping the machine.

If ink runs out, replace immediately with the same type and the same color ink cartridge (see "Maintenance - Replacing the Ink Cartridges"). If an ink cartridge is removed, replace it immediately with a new one.

Do not attempt to disassemble an ink cartridge.

Store ink cartridges unopened at a temperature of -20 to 40 °C (-4 to 104 °F) in a well-ventilated location.

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.

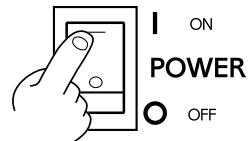


Once an ink cartridge has been installed, do not remove it until the ink has been used up. Frequent insertion and removal may allow air to enter the ink tube and result in a drop in printing quality due to dot drop-out or the like.

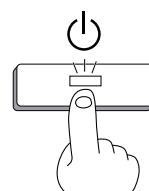
Installing ink cartridges for the first time after purchase requires three SOL INK cleaning cartridges. This is also the case when you are draining ink in preparation for transport, then reinstalling the ink cartridges.

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

- 1 Turn on the main power switch at the back of the unit.



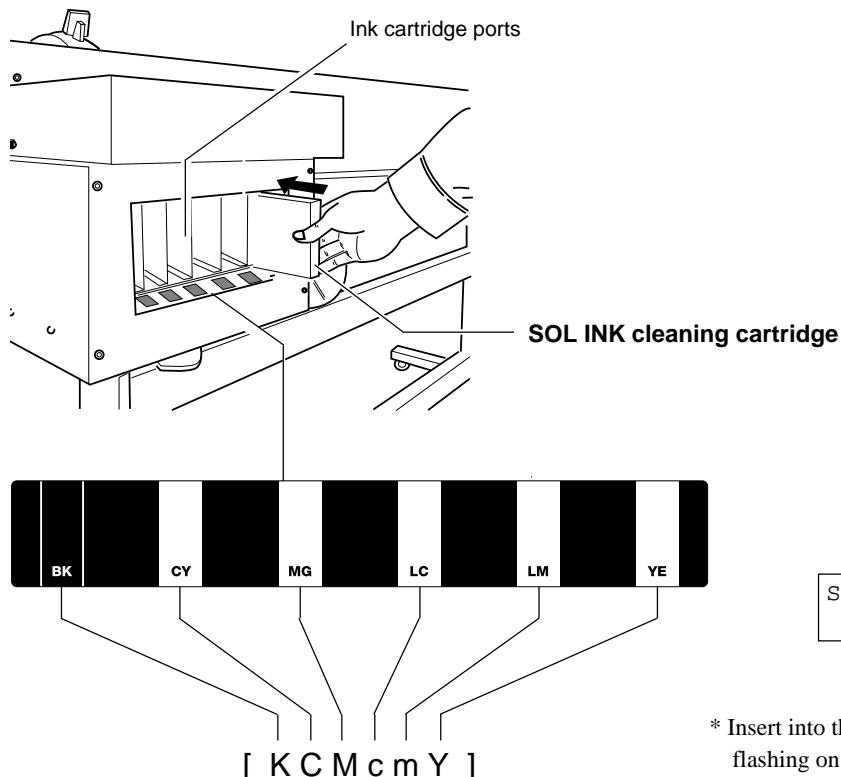
- 2 Press the [POWER] key on the operation panel.



- 3 The display appears. Make sure an empty drain bottle is installed, then press the [ENTER] key on the operation panel.

INSTALL
DRAIN BOTTLE ↵

- 4 Insert cleaning cartridges into the ink-cartridge ports shown by flashing on the display. Insert the three cartridges firmly, as far as they will go. Washing starts. While the operation is in progress, remove the cartridges and insert them again. Follow the messages on the display to carry out the procedure. Ink washing may take some time.



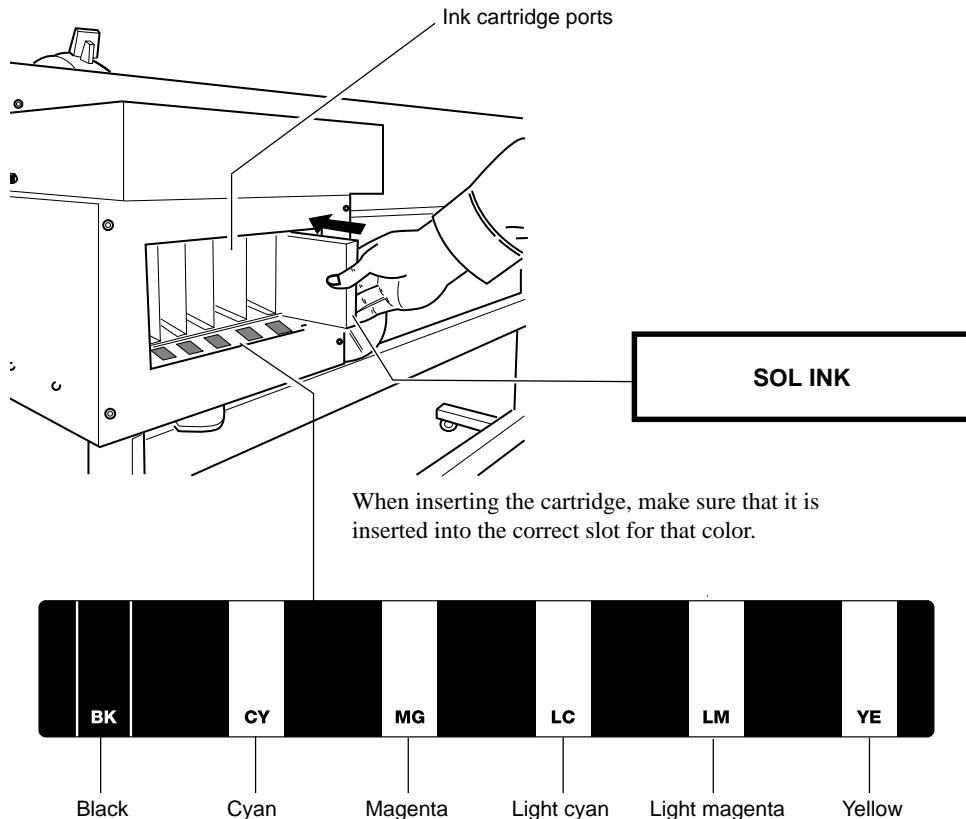
* Insert into the ink cartridge ports shown by flashing on the display.

Continued on the next page.

What to Do upon Opening the Carton

- 5** When washing ends, the following message appears on the display.
Firmly insert the SOL INK cartridges for each of the colors as far as they will go.

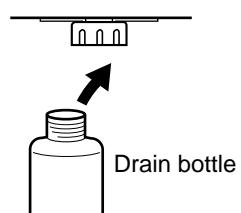
SET CARTRIDGE
[KCMcM_Y]



- 6** Make sure the following message is displayed, then press the [ENTER] key. Ink filling starts.

SELECT INK TYPE
SOL CMYKLcLm ↵

- 7** When ink filling ends, replace the drain bottle with an empty one, then press the [ENTER] key. This completes the installation of the ink cartridges.



Part Names

Front View

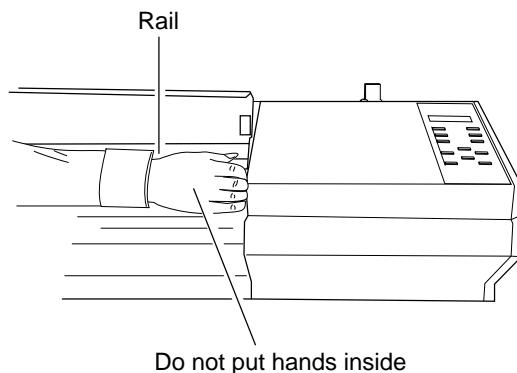
NOTICE

If you will leave the printing head being uncapped for a long time (for example, open the front cover while printing is made on the middle of platen), printing heads may get clogging and, in some case it results unrecoverable damage to the printing head.

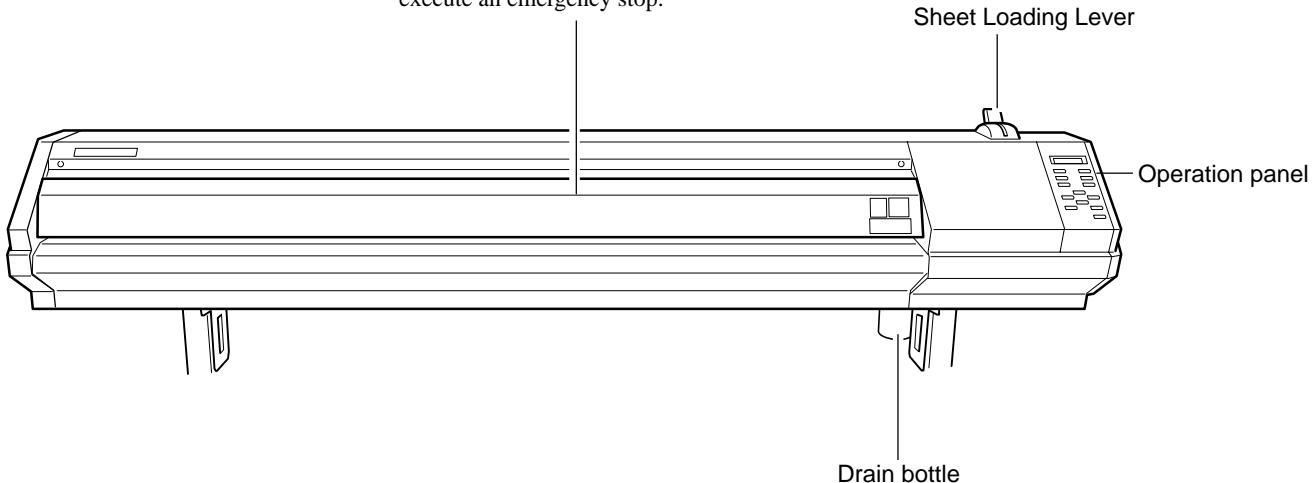
When the carriage is stopped on the platen, press the [POWER] key to reset the power. The carriage moves and the printing head is capped.

Do not touch the rail or place the hands inside the right-hand cover.

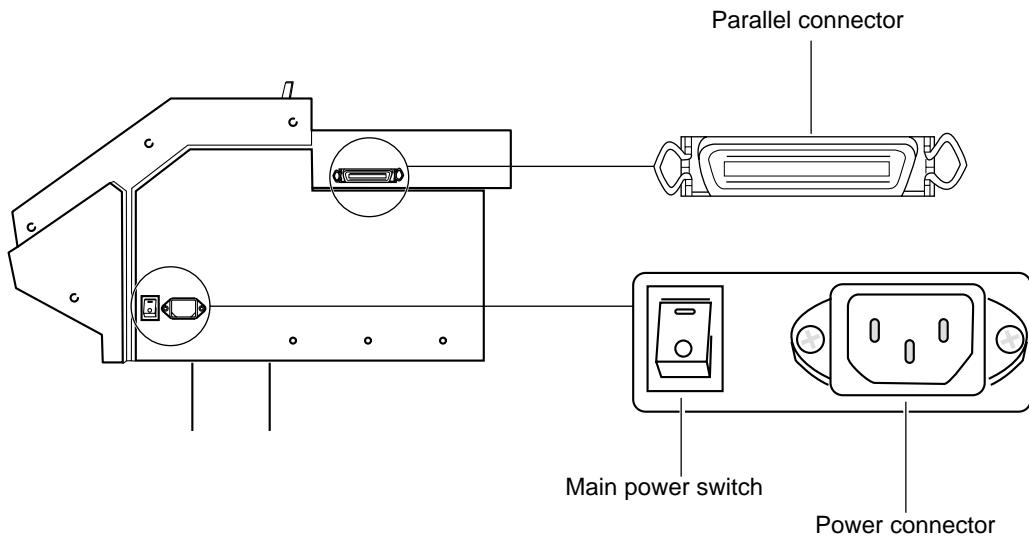
Touching the area shown may cause the fingers to be soiled by grease or ink, and may result in diminished image quality.

**Front cover**

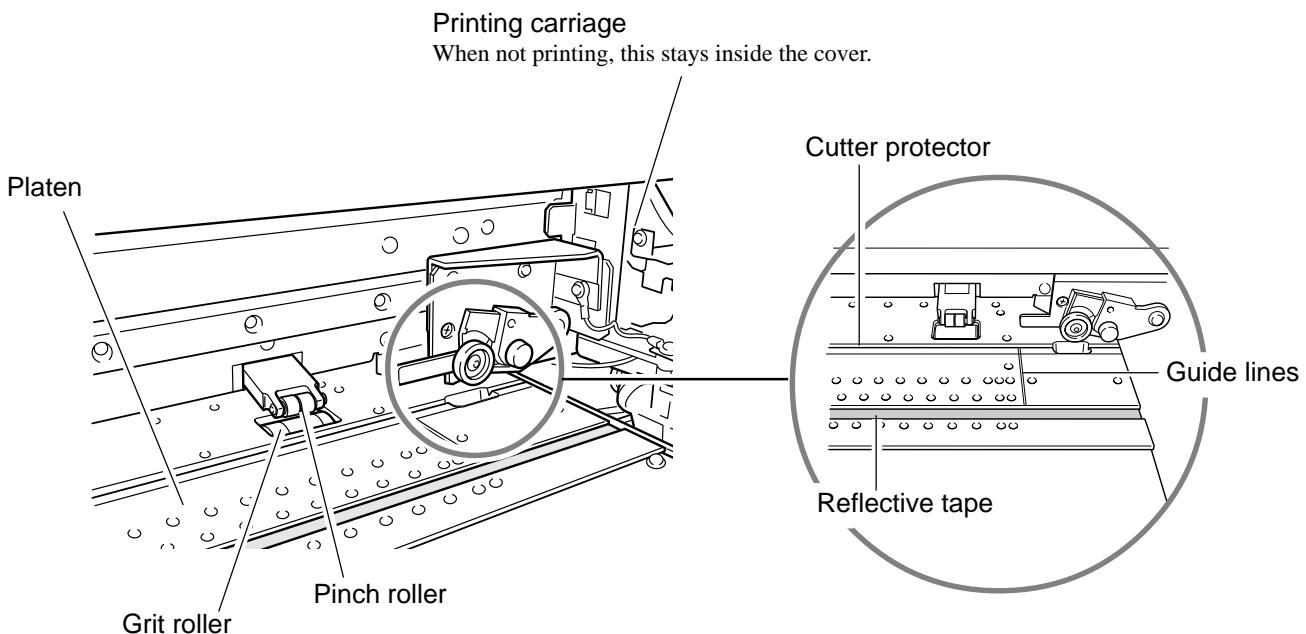
If the cover is opened while the printing, it will execute an emergency stop.



Rear View

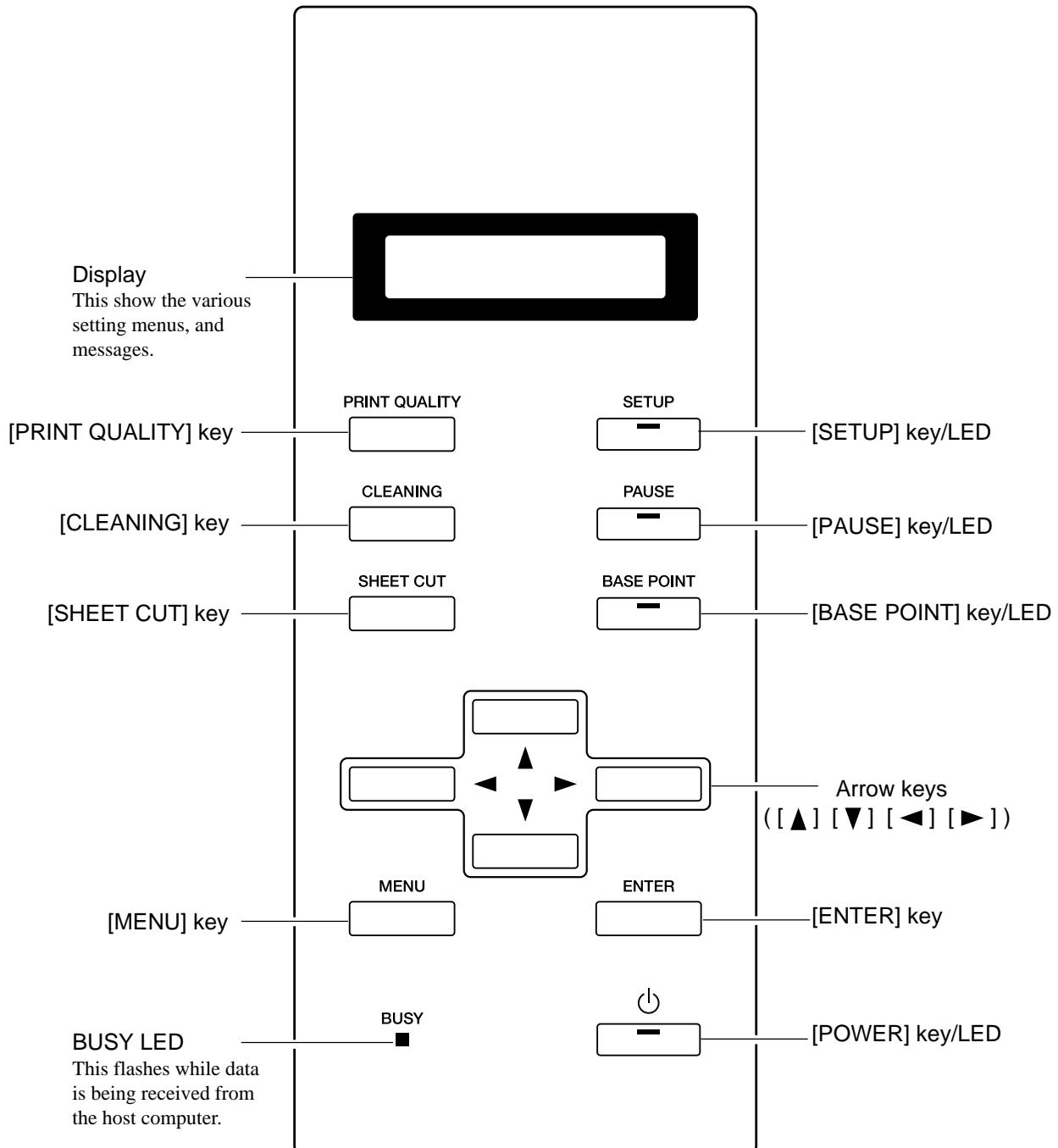


Inside the Front Cover



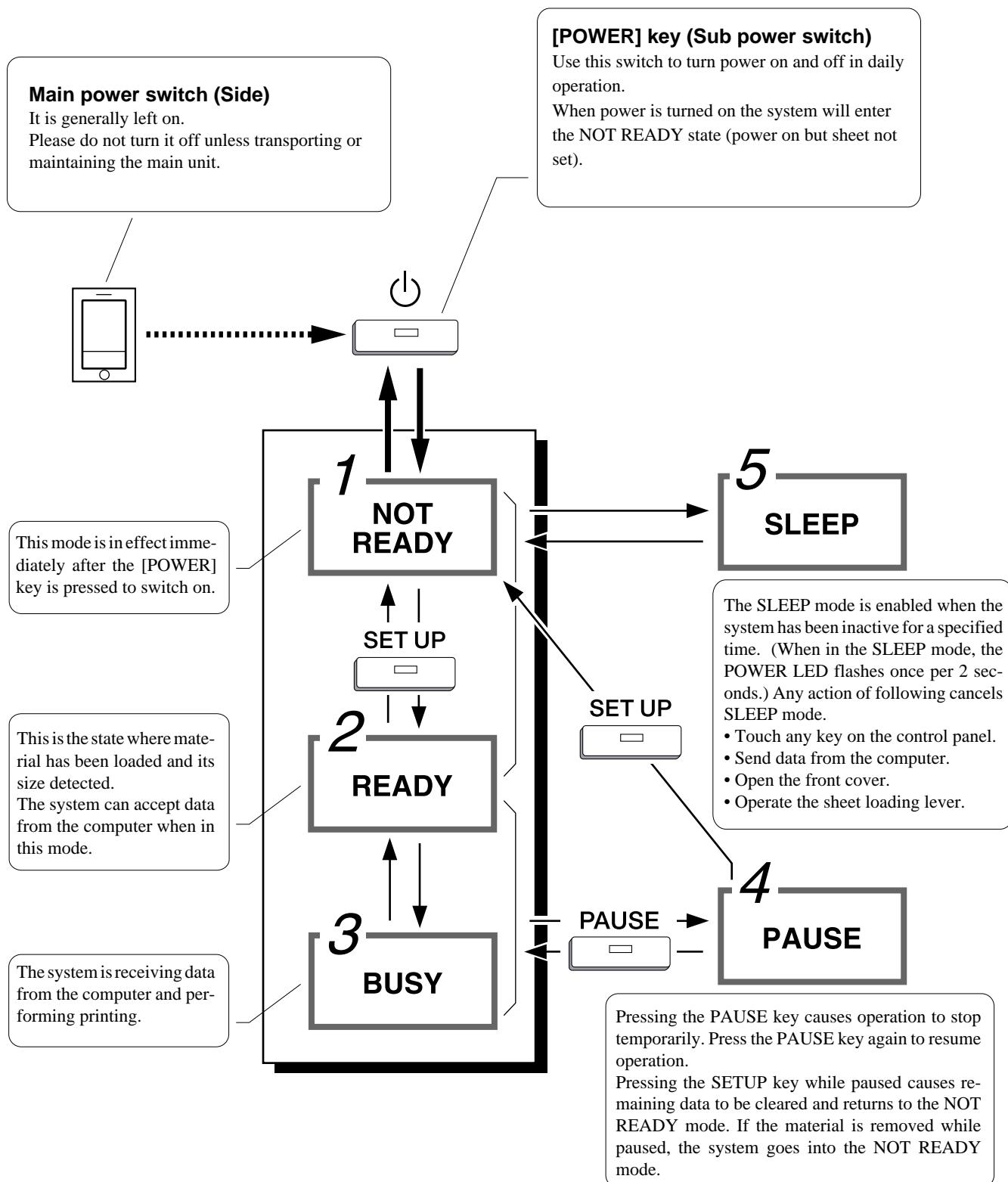
Operation Panel

For more information about the keys, take a look at "Description of Keys".



Five Modes

This machine has the following five modes (operating states).



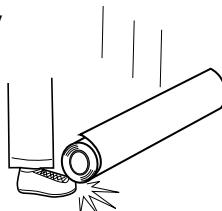
Setup for Printing

⚠ CAUTION



Load roll material at the proper position.

Otherwise the roll may fall, resulting in injury.



When closing the front cover, be careful not to pinch your fingers.

Doing so may result in injury.

NOTICE

Before loading roll material, be sure to install the media guide.

When the machine will remain unused for an extended period, remove roll material from the machine and store it.

If roll material is left mounted on the machine for an extended period, these entire roll may warp, resulting in poor printed image quality or motor errors.



- When transparent material is loaded, it is necessary to set [SHEET TYPE] to [CLEAR]. For more information, see "What to Do If..." ([SHEET SET ERROR SET AGAIN] appears and the material cannot be detected even when the [SETUP] key is pressed).
- When loading thicker material or material that is prone to warping, it may be necessary to adjust the head height. For more information, see "User's Reference -- Adjusting the Height of the Printing Head."
- When changing to a different type of material, it may be necessary to perform feed correction or bidirectional correction. For more information, see "User's Reference -- Making Corrections for Printing."
- When the left or right edges of the material are warped, use the media clamps. Performing printing without using the media clamps may result in scraping of the heads or jammed material. Scraping of the heads and jammed material may damage or soil the printing heads, resulting in poorer printing accuracy. Do not use material that is so strongly warped that the media clamps are lifted.

Acceptable material widths

-SJ-600 210 to 1625 mm (8-5/16 to 64 in.)

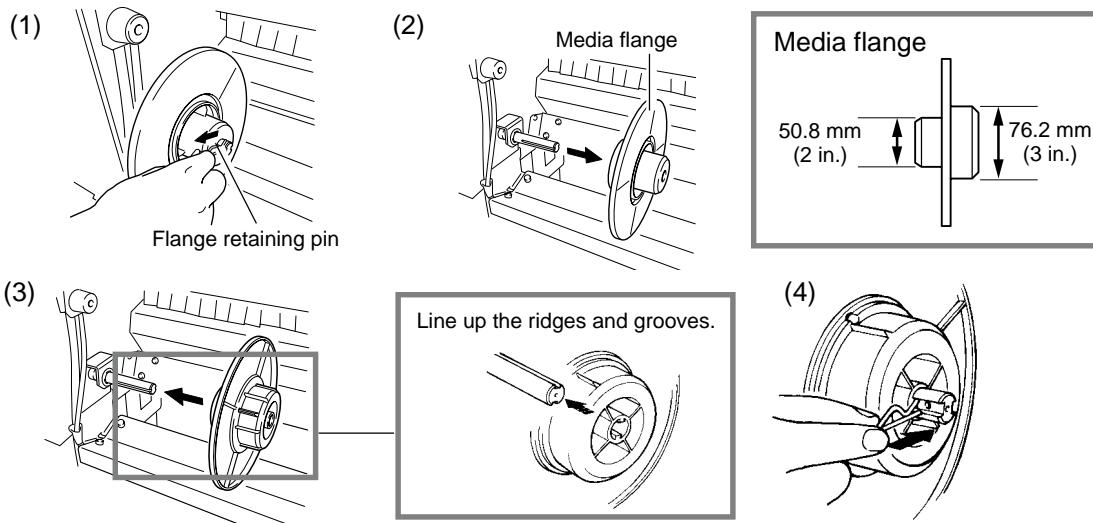
-SJ-500 210 to 1371 mm (8-5/16 to 54 in.)

1 Loading the Material

Loading Roll Material

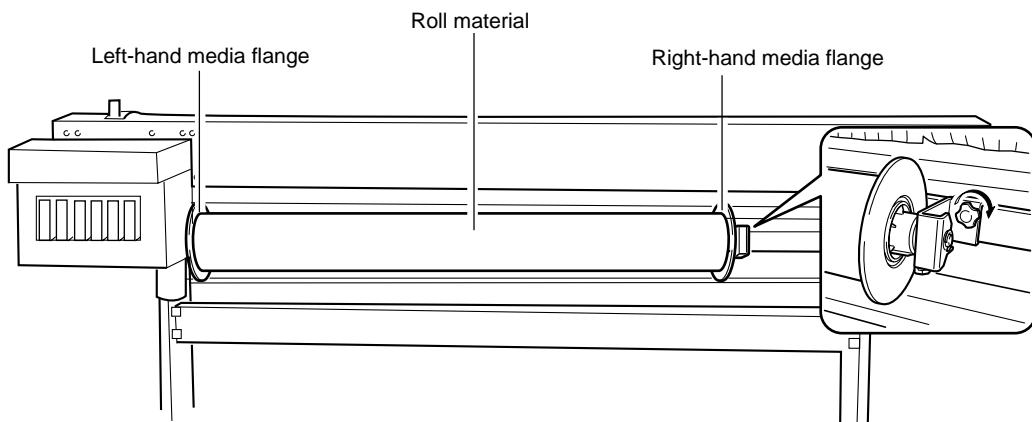
1 Open the front cover.

2 Line up with the core diameter of the loaded roll material and refit the left- and right-hand media flanges.

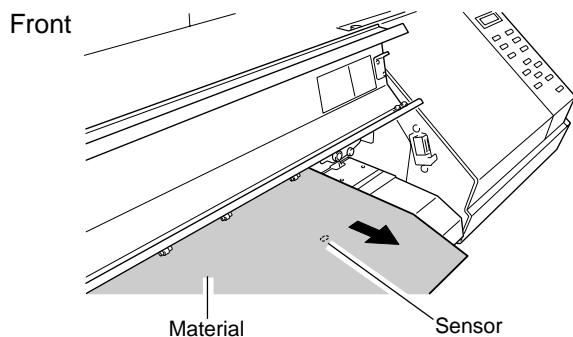


3 Fit the hole on the left side of the roll material all the way onto the left-hand media flange.

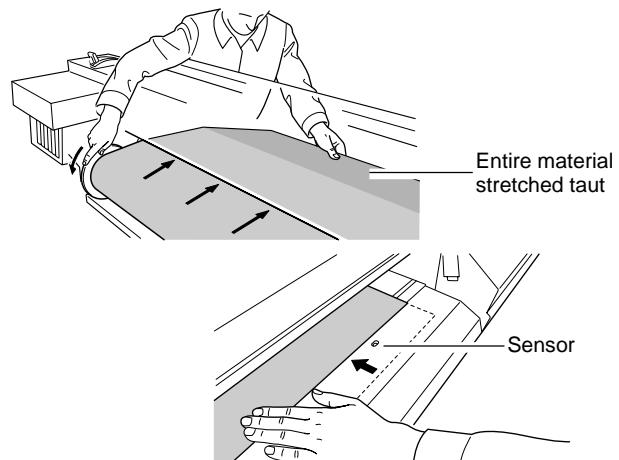
4 Fit the right-hand media flange all the way into the hole on the right-hand side of the roll material, and tighten the retainer screw to secure in place.



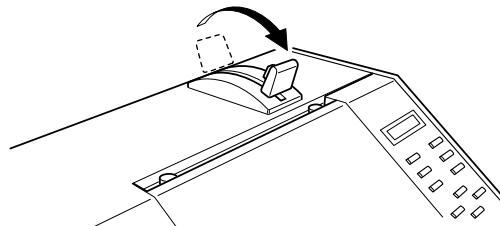
- 5** Pass the end of the material through the unit from back to front.
Pull out material until the sensor is hidden from view.



- 6** Grasp the front edge of the material at the front of the machine and turn the media flanges at the back of the unit to roll back the media.
When you roll back the material until the sensor comes into view, a tight seal is formed between the material and the platen, and the material is stretched taut.

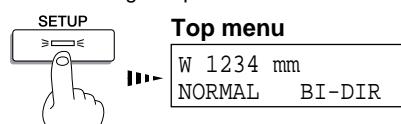


- 7** With the material pulled out from the roll stretched taut with no slack, move the sheet loading lever toward LOAD.
The pinch rollers lower to hold the material in place.



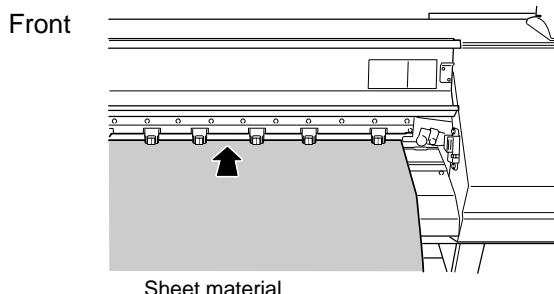
- 8** Close the front cover, and press the [SETUP] key. This detects the width of the material and displays the printable width.

The SETUP LED lights up



Loading Sheet Material

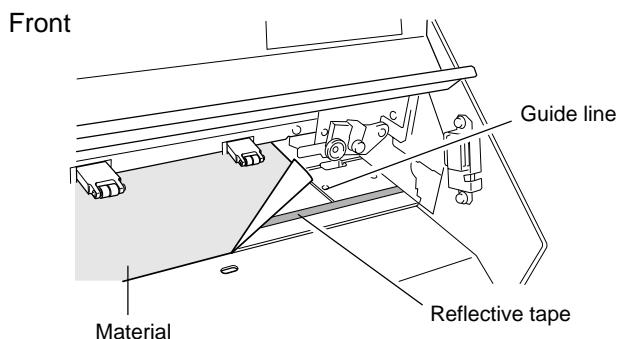
- 1** Remove the left-hand media flange at the back of the unit.
Move the right-hand media flange at the back of the unit to a position where it does not touch the loaded material.



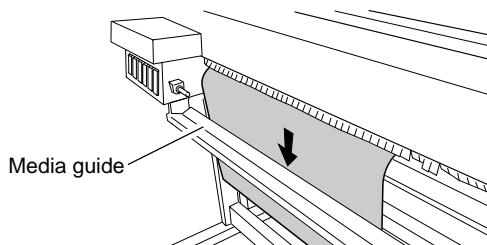
- 2** Pass the material between the pinch rollers and the grit rollers.

- 3** Line up the right-hand side of the material with the guide line, and line up the front edge of the material with the reflective tape.
If the front edge of the material has been cut at an angle, pull out the material so that all of the material covers the reflective tape.

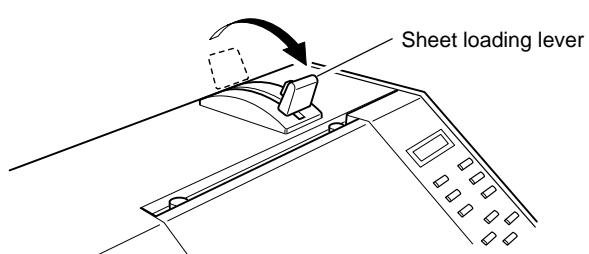
* Be sure to line up the right-hand edge of the material with the guide line.
If the material is not positioned correctly when you press the [SETUP] key, the message "SET AGAIN" appears on the display.



- 4** Drape the pulled-out portion at the back between the unit and the media guide.

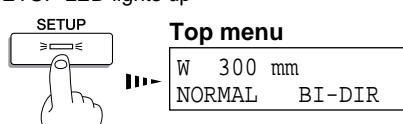


- 5** Move the sheet loading lever toward "LOAD".
The pinch rollers lower to hold the material in place.



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

The SETUP LED lights up

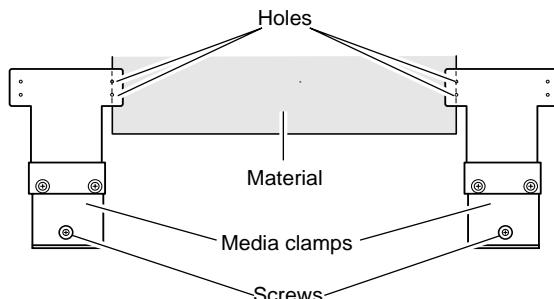


Loading Material Prone to Warping

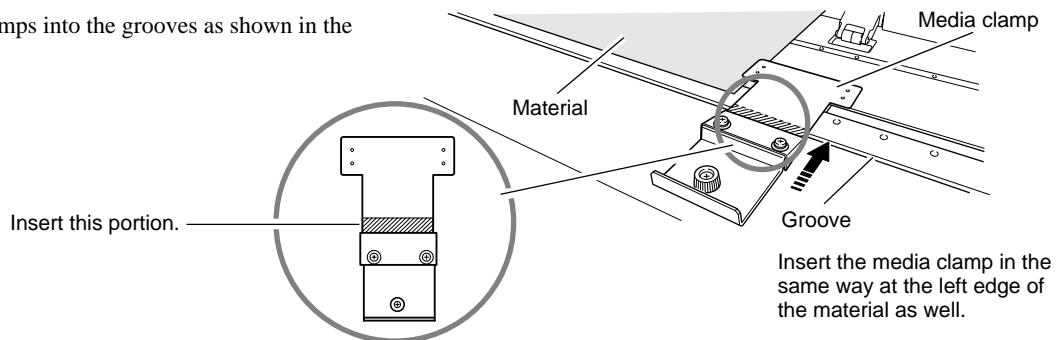
When you are loading material whose left and right edges are prone to warping, use the media clamps. At such times, perform printing with the printing heads positioned at "3" (high). For more information about the height of the printing heads, refer to "User's Reference - Adjusting the Height of the Printing Head."

Installing the Media Clamps

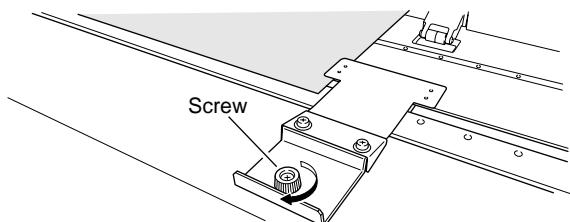
- Line up the holes in the media clamps with the left and right edges of the material. At this time, loosen the screws on the media clamps, but do not loosen them so much that they come off completely.



- Insert the media clamps into the grooves as shown in the figure.



- Tighten the screws to secure the media clamps in place.



- When you are using the media clamps, attempting to cut off the material causes the material to come loose from the media clamps. If this happens, reinstall the media clamps.
- When you are not using the media clamps, remove them from this machine.
- As printing proceeds, the material may move to the left right and touch or come loose from the media clamps. After about 1 m (39-3/8 in.) of material has been fed, check the positioning of the media clamps. If the material 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 material. Do not perform printing within these areas.

2 Test Printing

Printing quality is greatly affected by the state of the printing heads.

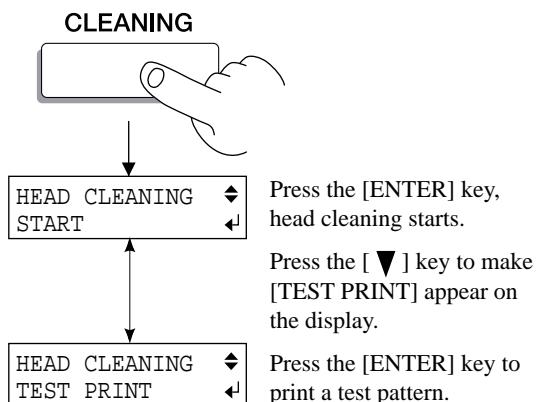
Before starting to print, you can carry out a printing test to check the state of the printing heads.

If the printing heads are in a poor state and problems such as dot drop-out occur, printing quality drops.

If the test results show a problem, carry out head cleaning to restore the head to its normal state.

1 Load a material, then close the front cover.

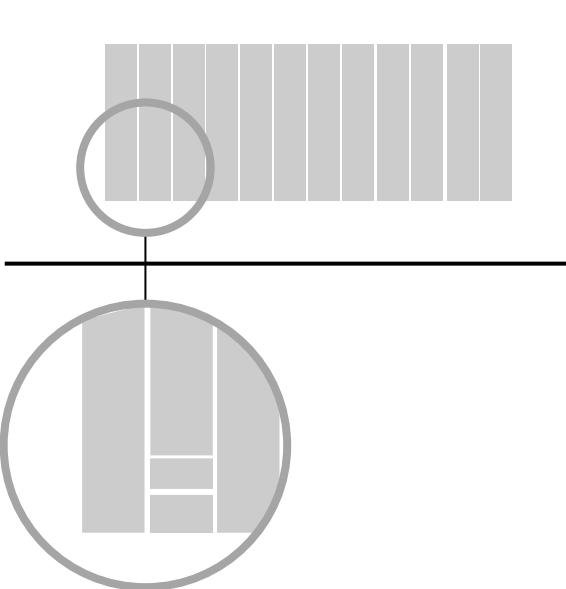
2 Press the [CLEANING] key to execute [TEST PRINT].



Press the [ENTER] key,
head cleaning starts.

Press the [▼] key to make
[TEST PRINT] appear on
the display.

Press the [ENTER] key to
print a test pattern.



If there are any missing dots or other evidence
of a drop in printing quality, clean the head
(see "Maintenance -- Cleaning the Printing
Heads").

3 Setting the Printing Mode and Printing Direction

Before start to print, set the printing mode and printing direction.

On the control panel, press the [PRINT QUALITY] key and specify the printing mode and direction of printing.



- Printing quality and output time vary according to the printing mode. Choose a mode that matches the task. Note that when the printing mode can be set on the computer, the computer's setting takes priority.
- The printing time for the same original data becomes increasingly longer in this sequence: DRAFT, FAST, NORMAL, FINE2/FINE, SUPER, and PHOTO. Also, with this procedure the size of the output file generally grows larger, and the processing time for creating the output file also becomes longer. It's also necessary to ensure enough memory on the computer.

Printing Mode

- PHOTO:** This is suitable for printing photographs.
- SUPER:** This is suitable for output with high image quality, such as posters.
- FINE:** This is suitable for output with comparatively high detail, such as posters.
- FINE2:
(Factory
default)** This is suitable for outputting posters and the like on various materials.
- NORMAL:** This is suitable for printing large-size items with comparatively high quality in a short time.
- FAST:** This is suitable for printing large-size items in a short time.
- DRAFT:** This can produce output in the shortest time. It is suitable for checking layout and the like.

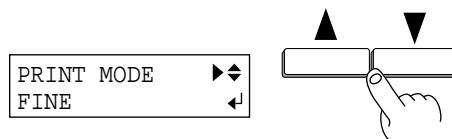
Printing Direction

- UNI-DIRECTION:**
Unidirectional printing.
Printing is performed as the carriage moves from right to left. Printing quality is better than with [BI-DIRECTION].
- BI-DIRECTION (factory default):**
Bidirectional printing.
Printing is performed as the carriage moves from right to left, and also as it returns from left to right. Printing speed is faster than with [UNI-DIRECTION].

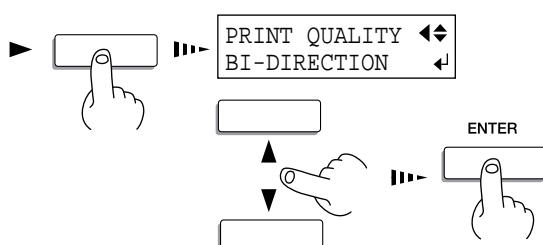
- 1** Press the [PRINT QUALITY] key.



- 2** Use the [\blacktriangle] and [\blacktriangledown] keys to choose the printing mode.



- 3** Press the [\blacktriangleright] key to make the setting for the printing direction. Use the [\blacktriangle] and [\blacktriangledown] keys to display the printing direction, then press the [ENTER] key.



Downloading Printing Data

NOTICE

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.

To pause printing for any other reason than an emergency stop, press the [PAUSE] key.

Note pressing the [PAUSE] key to pause operation may result in differing image quality before and after the pause. It is a good idea to avoid pausing operation while printing is in progress whenever possible.

If you will leave the printing head being uncapped for a long time (for example, open the front cover while printing is made on the middle of platen), printing heads may get clogging and, in some case it results unrecoverable damage to the printing head.

Do not use the [**▲**] key to return a portion of the material that's already been printed. The pinch rollers may pass over the printed surface, smudging the ink.

Also, do not use the [**▲**] and [**▼**] keys to feed and return unprinted portions many times. The grit rollers may make tracks on the material, resulting in poor printing precision.

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.

Conditions for starting printing

The material must be already set up (with the SETUP LED lighted), and the display must show the top menu.

Top menu

W1234mm	L ---mm
FINE	BI-DIR

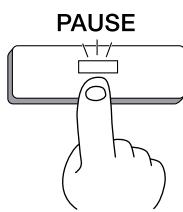
If another menu screen is displayed, press the [SETUP] key to go back to the top menu.

(Pressing the [SETUP] key when another menu screen is displayed does not cancel the set-up for the material.)

Pausing Printing Operations

Press the [PAUSE] key.

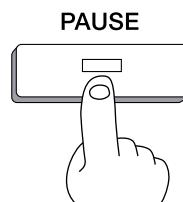
The PAUSE LED lights up



To resume printing

Press the [PAUSE] key.

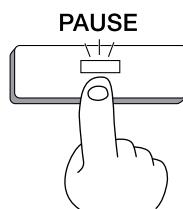
The PAUSE LED goes out



Stopping Printing Operations

1 Press the [PAUSE] key.

The PAUSE LED lights up



2

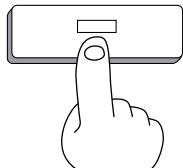
Halt transmission of print instructions from the computer.

Continued on the next page.

- 3** Hold down the [SETUP] key for one second or longer.
Any remaining data is cleared.

The SETUP LED goes out

SETUP



* Clearing the data
may take some
time.

If the "INK EMPTY" Message Appears While Printing

If it becomes necessary to replace the ink cartridge while printing is in progress, the buzzer sounds and the following message is displayed.
Please replace the ink cartridge.

If this message is ignored and printing is continued without replacing the ink cartridge, image quality may be adversely affected and exhibit faintness or other problems.

INK EMPTY
[KCMcmY]

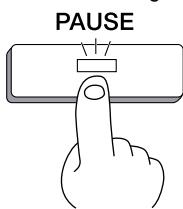
This indicates the ink color.
The color for which ink has run out flashes.

K = Black / C = Cyan / M = Magenta /
c = Light Cyan / m = Light Magenta /
Y = Yellow

When [INK CONTROL]'s [EMPTY MODE] is set to [LATER]

- 1** Press the [PAUSE] key to pause printing.

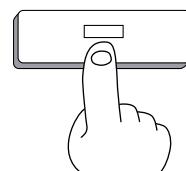
The PAUSE LED lights up



- 2** Pull out the cartridge for the ink color that has run out, and replace with a new cartridge (see "Maintenance -- Replacing the Ink Cartridges").

- 3** Press the [PAUSE] key to resume printing.

The PAUSE LED goes out
PAUSE



When [INK CONTROL]'s [EMPTY MODE] is set to [PROMPT]

The unit pauses automatically.

About the [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. [LATER] causes printing to continue without pause even if ink refilling becomes necessary. 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 m² (10 ft²) 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.

[PROMPT] causes operation to pause immediately when the ink cartridge needs to be changed. Printing is resumed by replacing the cartridge and pressing the [PAUSE] key. Please note, however, that the colors of an image in progress may no longer be perfectly matched if the unit is allowed to remain paused for two or three hours before resuming printing.

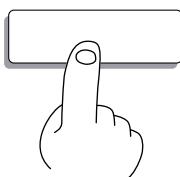
Remove the Material

Remove the Material From the Machine

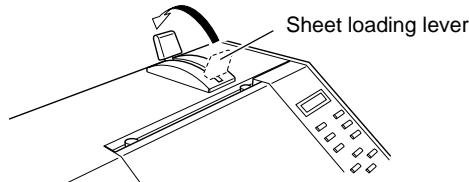
- 1** If you wish to cut off the piece of the rolled material containing the printed area, press the [SHEET CUT] key. Hold down for about 1 second or longer. The piece is cut off at the present location of the printing-start line.

SHEET CUT

* This operation isn't necessary when sending a material-cutting command from the computer to separate the material automatically.



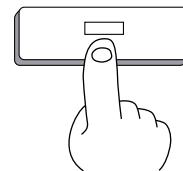
- 3** Move the sheet loading lever toward the back of the unit.
The pinch rollers rise to release the material.



- 2** Press the [SETUP] key. Hold down for about 1 second or longer.

The SETUP LED goes out

SETUP



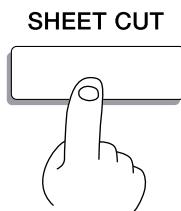
- 4** Open the front cover to remove the material.

Cut the Material From the Roll

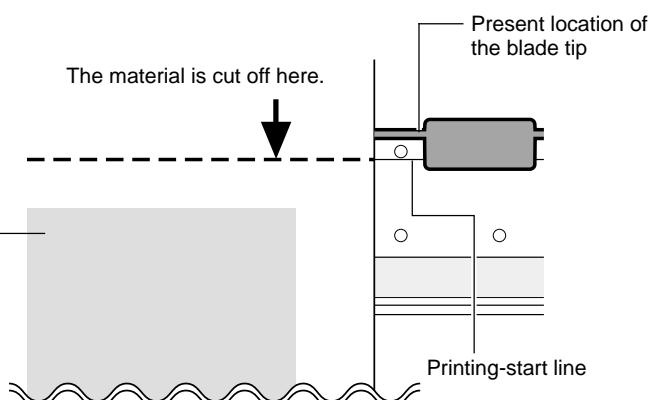
Either of two methods can be used to separate a portion that's already been cut or printed from the roll. One method is to press the [SHEET CUT] key. The other method is to perform separation automatically by sending a material-cutting command from the computer.

When separating the material by pressing the [SHEET CUT] key

Holding down the [SHEET CUT] key for 1 second or longer severs the material at the present location of the blade tip.



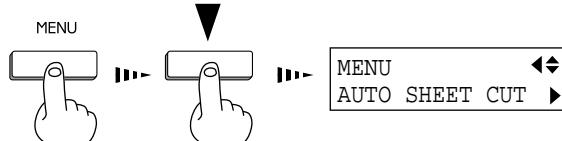
* This operation isn't necessary when sending a material-cutting command from the computer to separate the material automatically.



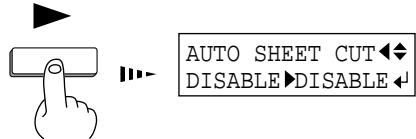
When sending a material-cutting command from the computer to separate the material automatically

* When the material-cutting command has not been set to "enabled" at the computer, automatic separation of the material is not performed, even when the following setting is made.

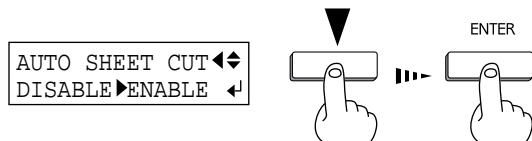
- 1 Press the [MENU] key and [▼] key to make the following screen appear on the display.



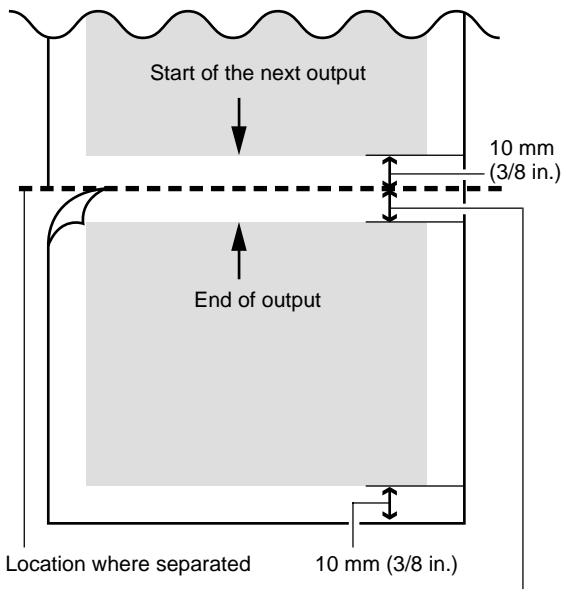
- 2 Press the [▶] key to make the following screen appear on the display.



- 3 Use the [▼] key to select [ENABLE], then press the [ENTER] key.



The material-separating location during continuous output



Attempting to return or cut off material that has not been allowed to dry sufficiently after printing may soil or damage the printed surface. Make sure the printed surface has dried sufficiently before you return or cut off the material.

When Operations Are Finished

NOTICE

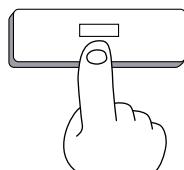
Even when not in use, keep the machine in an environment where the temperature is 5 to 40 °C (41 to 104 °F) and the humidity is 20 to 80 % (no condensation). In particular, be careful to make sure not to expose the machine to high temperatures of 40 °C (104 °F) or more.

When operations are finished, move the sheet loading lever toward the back of the unit to raise the pinch rollers. The pinch rollers may be deformed if allowed to remain in the lowered state.

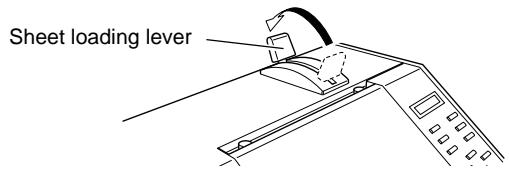
- 1** If the SETUP LED is lighted, press the [SETUP] key.
Hold down for about 1 second or longer.

The SETUP LED goes out

SETUP

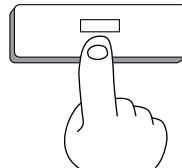


- 2** Move the sheet loading lever toward the back of the unit and remove the material.

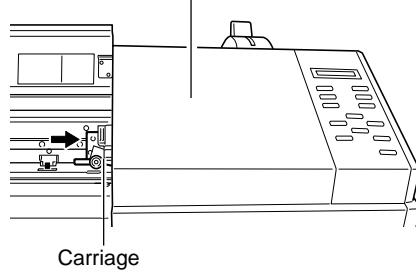


- 3** Press the [POWER] key to switch off the power.
The carriage moves to the standby position and the head is capped.
If the carriage is already at the standby position, no movement takes place.

The POWER LED goes out



Standby position



Maintenance

Replacing the Ink Cartridges

⚠️ WARNING



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.

⚠️ 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.



Store ink cartridges out of the reach of children.

NOTICE

Do not use anything other SOL INK cartridges. Do not attempt to refill and reuse an empty ink cartridge.

Do not remove any ink cartridges except when shipping the machine.

If ink runs out, replace immediately with the same type and the same color ink cartridge. If an ink cartridge is removed, replace it immediately with a new one.

Do not attempt to disassemble an ink cartridge.

Store ink cartridges unopened at a temperature of -20 to 40 °C (-4 to 104 °F) in a well-ventilated location.

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.

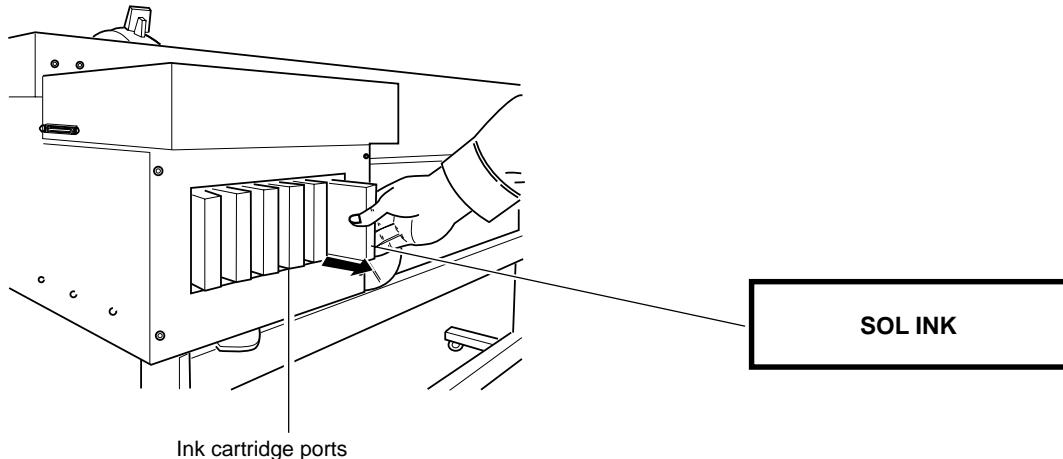


Once an ink cartridge has been installed, do not remove it until the ink has been used up. Frequent insertion and removal may allow air to enter the ink tube and result in a drop in printing quality due to dot drop-out or the like.

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

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

2 Insert new ink cartridge.



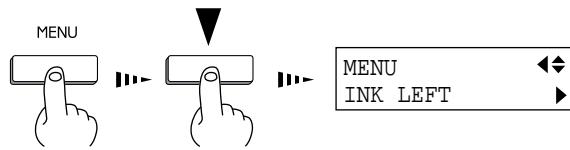
Check How Much Ink Remains

You can use [INK LEFT] on the display menu to check how much ink is left after the ink cartridges have been installed.

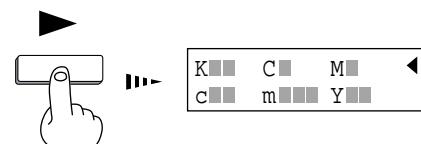
Use this information as a guide for replacing the ink cartridges.

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 displaced amount of remaining ink is not true.

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

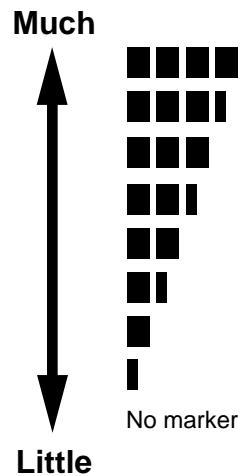


- 2** Press the [▶] key to make the following screen appear on the display.
The fewer the markers, the less is the amount of ink left.



K = Black / C = Cyan / M = Magenta /
c = Light Cyan / m = Light Magenta /
Y = Yellow

Remaining ink



Cleaning the Printing Heads

Switching on the sub power automatically performs maintenance operations, including cleaning of the printing head. This means that there is normally no need to perform cleaning otherwise.

If drop-out occurs with printed images, clean the printing head.

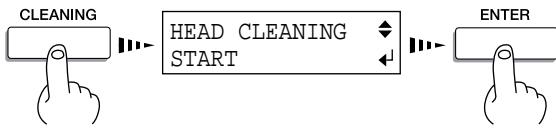
* After cleaning, carry out a printing test. Load material.



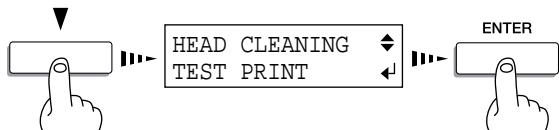
The cleaning causes a certain amount of head wear and also consumes a certain amount of ink, so use should be kept to a minimum.

[POWERFUL] results in faster head wear and also uses up much ink. (Performing cleaning from the [POWERFUL] menu uses up about 57 cc of ink for six colors. This is because the process discharges all ink in the ink tube and replaces it with fresh ink.)

- 1 Press the [CLEANING] key to make the following screen appear on the display.
Press the [ENTER] key, head cleaning starts.



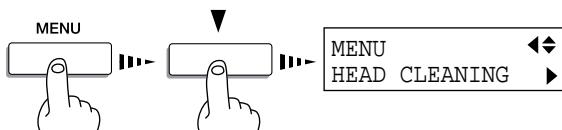
- 2 When head cleaning ends, press the [▼] key to display the screen shown in the figure. Press the [ENTER] key to start the printing test.



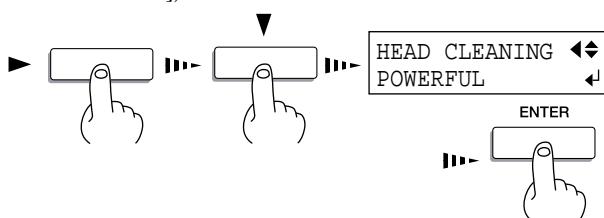
- 3 Check the printing-test results.
If a problem is found, repeat the cleaning.

If drop-out persists even after carrying out cleaning several times

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



- 2 Press the [▶] key to make the following screen appear on the display.
Press the [ENTER] key, head cleaning starts ([POWERFUL]).



- 3 When head cleaning ends, press the [▼] key to display the screen shown in the figure. Press the [ENTER] key to start the printing test.



- 4 Refer to "Setup for Printing -- 2 Test Printing" and check the printing-test results.
If a problem is found, repeat the cleaning.

(The [NORMAL] menu item for [HEAD CLEANING] does the same thing as [HEAD CLEANING] - [START] displayed when the [CLEANING] key is pressed.)

If image drop-out is not corrected even when cleaning has been performed several times from the [POWERFUL] menu

If image drop-out is not corrected even when cleaning has been performed several times from the [POWERFUL] menu, use the included cleaning kit. For information on how to use the cleaning kit, refer to the documentation included with the kit. If cleaning with the cleaning kit does not correct image drop-out, consult your authorized Roland DG Corp. dealer or service center.

Disposal of Discharged Ink

When the ink is about to exceed the “Upper Limit” line on the drain bottle, or when moving the machine, follow the steps below to discard the ink.

⚠ CAUTION



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.

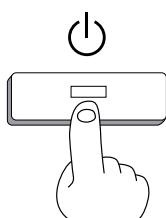
NOTICE

When removing the bottom plug from the machine, pull the plug straight down, without tilting it. Otherwise discharged fluid that has collected inside the bottom plug may spill.

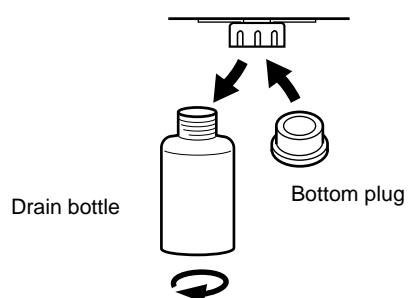
Discharged ink is flammable and contains toxic ingredients. Do not attempt to incinerate discharged ink or discard it with ordinary trash. Also, do not dispose of it in sewer systems, rivers, or streams. Doing so may have an adverse impact on the environment.

- 1 Press the [POWER] key to switch off the power.

The POWER LED goes out



- 2 Remove the drain bottle and attach the bottom plug to the tube tips instead.



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

How to Replace the Separating Knife

⚠ CAUTION



Do not touch the tip of the separating knife with your fingers.
Doing so may result in injury.

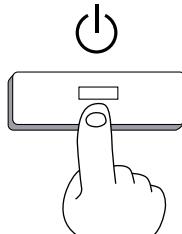


Make sure the power to the unit is off before attempting to replace the separating knife.
Doing so may result in injury.

If the separating knife, replace it with the replacement blade.

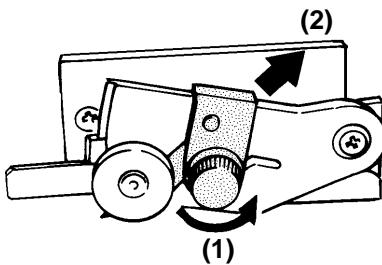
- 1** Press the [POWER] key to switch off the power.

The POWER LED goes out



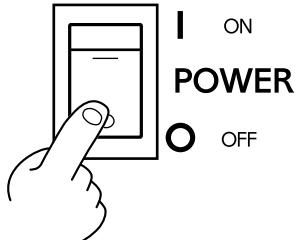
- 3** Remove the separating knife.

- (1) Loosen the screw until it slips out.
 - (2) Grasp the screw portion, and slowly pull it out in the direction of the arrow.
- * Do not pull back while doing this.

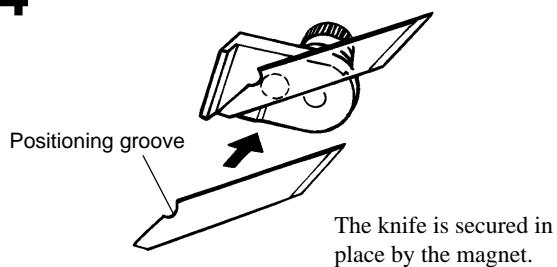


* If the blade remains in the carriage, use commercially available tweezers to remove it.

- 2** Turn off the main power switch.

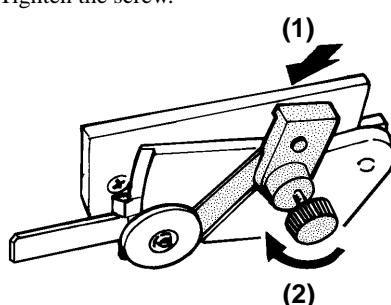


- 4** Replace with a new knife.



- 5** Install the separating knife.

- (1) Grasp the screw portion and slowly insert it into the groove.
- * Take care to ensure that the knife does not slip
- (2) Tighten the screw.



When the Product Needs Cleaning

NOTICE

When performing cleaning, turn off the main power switch.

* Before turning off the main power, press the [POWER] key to switch off the sub power.

Never lubricate the mechanisms.

Do not clean with solvents (such as benzine or thinners).

Periodically clean the platen. Attractive printing may become impossible if the platen is soiled.

Do not touch the printing heads or allow the printing heads to come in contact with anything except ink.

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, dry, and soft cloth.

Cleaning the platen

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

Cleaning the grit rollers

Use a commercially available brush to remove dust and other detritus. Brush horizontally while rotating the grit rollers. Any adhering grime may prevent the material from being held in place securely.

Cleaning the pinch rollers

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

Cleaning the reflective tape

If the tape becomes dirty, use a cloth moistened with water then wrung well, and wipe gently to clean.

Cleaning the front cover

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

When Not in Use for a Prolonged Period...

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.

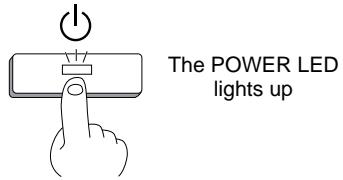
When not in use, move the sheet loading lever toward the back of the unit to leave the pinch rollers in the up position state. The pinch rollers may be deformed if allowed to remain in the lowered state.

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.

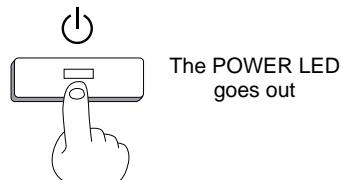
- 1** When the machine is out of use for about a month, a warning beep sounds and the following message appears on the display.

PRESS THE POWER KEY TO CLEAN

- 2** Press the [POWER] key to switch on the sub power. Cleaning is performed automatically.



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



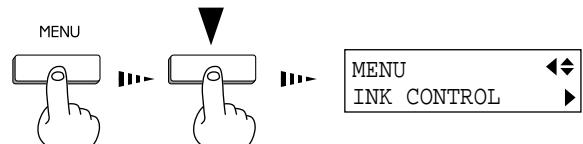
When Moving the Unit...

NOTICE When moving the unit, first carry out head washing, then secure the carriage in place.

Head cleaning requires three SOL INK cleaning cartridges, which are optionally available. Be sure to use SOL INK cleaning cartridges. Use of any other type may result in breakdown.

- 1** If there is material loaded, hold down the [SETUP] key for 1 second or longer to cancel setup, then remove the material (see "Remove the Material").

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



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



- 4** Use the [▼] key to select [HEAD WASH], then press the [ENTER] key.

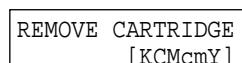


- 5** When the display shown in the figure appears, discard the discharged ink in the drain bottle.
* Be sure to discard the discharged ink.

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



- 6** Mount the drain bottle and press the [ENTER] key to display the screen shown in the figure.



- 7** When all ink cartridges have been removed, head washing starts. Follow the messages on the display to carry out the procedure.

Messages appearing during head washing



Insert a cleaning cartridge into the ink cartridge port for the flashing color.

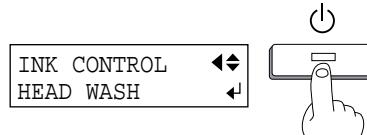


Remove the cleaning cartridge from the ink cartridge port for the flashing color.

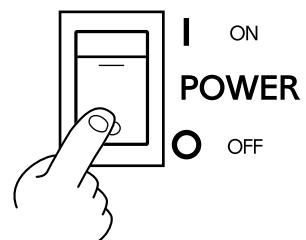
K = Black C = Cyan M = Magenta c = Light Cyan
m = Light Magenta Y = Yellow

- 8** When the display shown in the figure appears, head washing is finished.
Press the [POWER] key to switch off the sub power.

The POWER LED goes out



- 9** When the POWER LED goes out, turn off the main power switch.

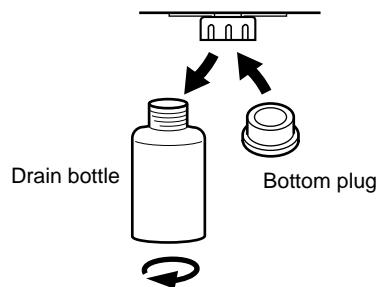


Continued on the next page.

Maintenance

10 Detach the power cord and the cable connecting the unit to the computer.

11 Remove the drain bottle.



12 Referring to "Unpacking and Repacking" on the packing carton, secure the carriage in place and pack the unit in the carton.

User's Reference

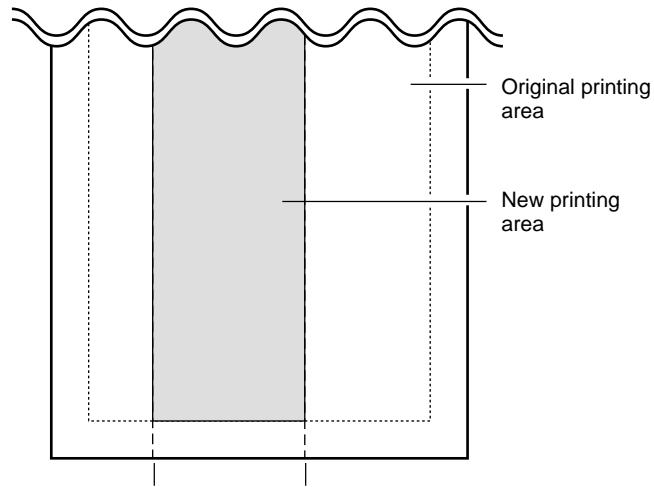
Printing at the Desired Location

This sets the location where printing starts.

Normally the origin point is set at the lower-right point of the printing area.

When [SHEET TYPE] is set to [OPAQUE], the width of the printing area is set automatically (see "User's Reference -- About the Printing Area").

To determine the desired printing area, follow the steps in "Setting the printing area in the left-right direction (the direction of carriage movement)" to set the width of the printing area. When [SHEET TYPE] is set to [CLEAR], the printing area is not set automatically, so set the printing area in the same way. If this setting is not made, the printing area uses the maximum value for the machine. Canceling setup cancels the printing area.



Left-hand edge of the printing area Right-hand edge of the printing area
Setting the printing area in the left-right direction (the direction of carriage movement)

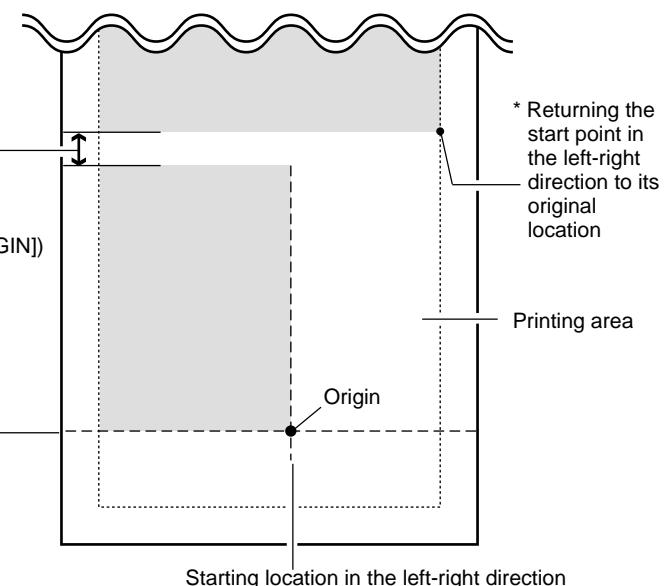
To change the start point for printing, use the [BASE POINT] key. At this time, the printing area does not change.

Follow the step in both "Specifying a location in the lengthwise direction" and "Specifying a location in the left-right direction (the direction of carriage movement)" to set the start point.

Margin (value set for [PAGE MARGIN])

Starting location in the lengthwise direction
"Specifying a location in the lengthwise direction"

* Returning the start point in the left-right direction to its original location

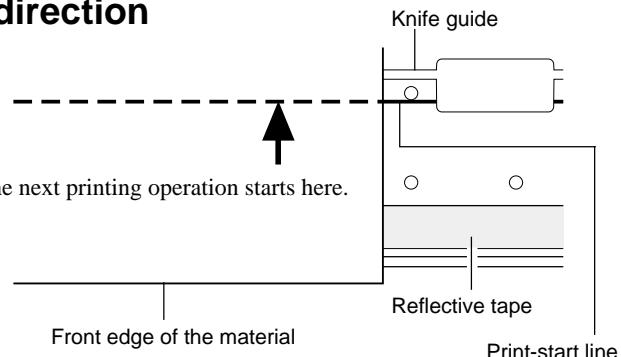


Starting location in the left-right direction
"Specifying a location in the left-right direction (the direction of carriage movement)"

Specifying a location in the lengthwise direction

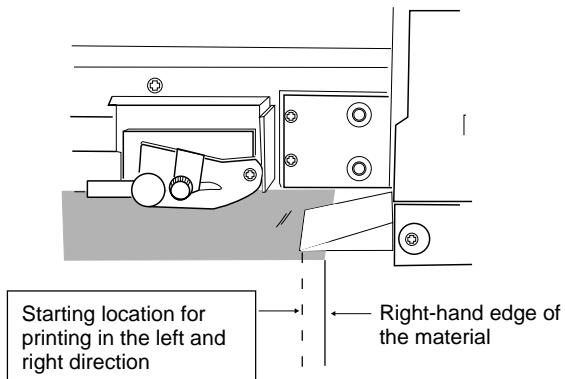
Use the [▲] and [▼] keys to move the material to the location where you want to start printing.
In the figure, the next printing operation starts from the location shown.

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

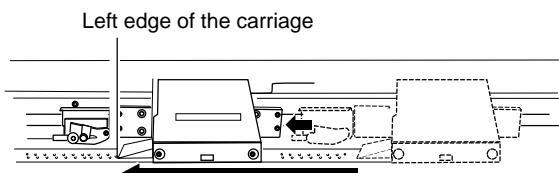


Specifying a location in the left-right direction (the direction of carriage movement)

1 Press the [◀] key to move the carriage to the present starting location for printing in the left-right direction.

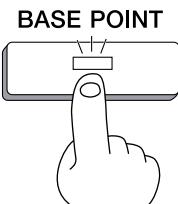


2 Use the [◀] and [▶] keys to line up the new starting location for printing with the left edge of the carriage.



3 Press the [BASE POINT] key.

The BASE POINT LED lights up



→ The origin point is set.

To release the starting location that has been set...

- Set a new starting location in a different location.
- Press the [SETUP] key to cancel the setup for the material (making the SETUP LED go out).

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

Also, the carriage returns to the standby position when about 20 seconds passes during this interval after the [◀] and [▶] key is released.

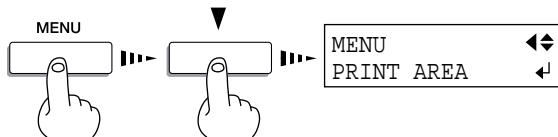
If the setting could not be made in within the time limit, then do the setting over again from the beginning.

- The starting location set by pressing the [BASE POINT] key is released after printing one page.

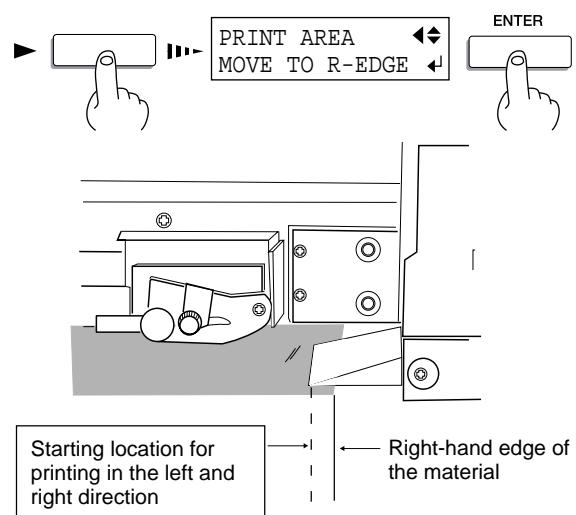
Setting the printing area in the left-right direction (the direction of carriage movement)

* This can be set only at the time of material setup.

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



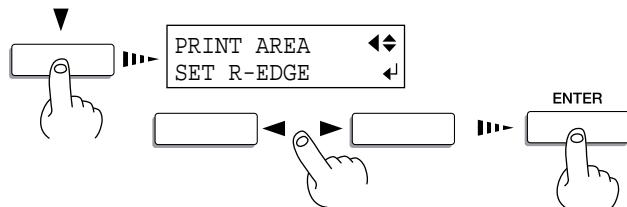
- 2** Press the [ENTER] Key.
The carriage indicates the present location of the right-hand edge of the printing area.
The following screen appear on the display.



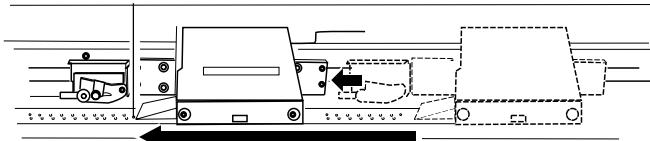
- 3** Press the [▼] key to make the following screen appear on the display.

Setting the right-hand edge

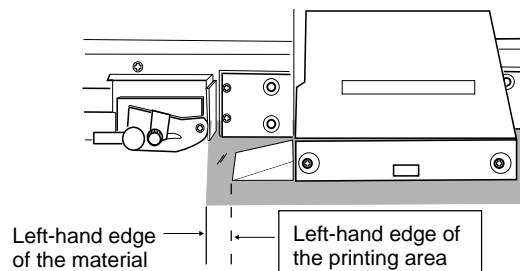
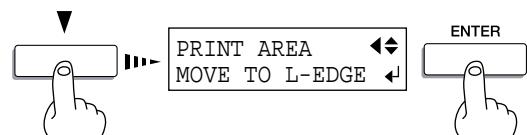
Use the [◀] and [▶] keys to move the left edge of the carriage to the location that you want to make the right-hand edge of the printing area. Press the [ENTER] key to lock in the setting with an audible beep.



Left edge of the carriage



- 4** Press the [▼] key to make the following screen appear on the display.
The carriage indicates the present location of the left-hand edge of the printing area.

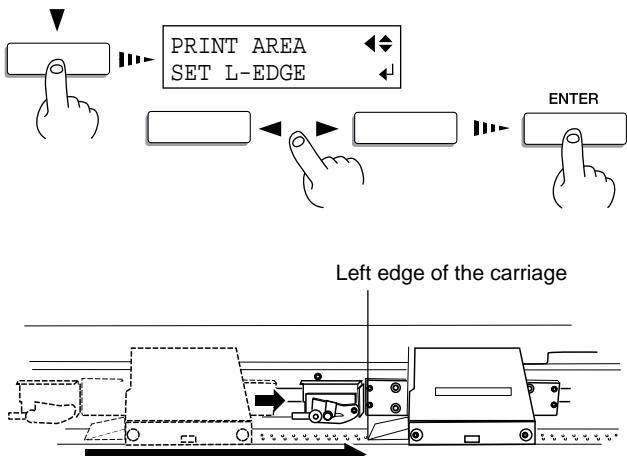


Continued on the next page.

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

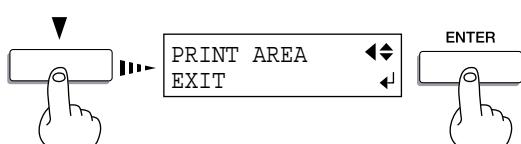
Setting the left-hand edge

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



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

Press the [ENTER] key.



When the location of the right- or left-hand edge could not be set at the specified place, [PRINT R-EDGE (or L-EDGE) SET ERROR] appears on the display. The problem may be one of the two situations described below.

- The location specified for the left-hand edge was farther to the right than the location of the right-hand edge.

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

Also, the carriage returns to the standby position when about 20 seconds passes during this interval after the [◀] and [▶] key is released.

If the setting could not be made in within the time limit, then do the setting over again from the beginning.

- After setting the printing area, pressing the [SETUP] key to cancel the setup for the material (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 left-right direction has been specified with the [BASE POINT] key, the setting made with the [BASE POINT] key is canceled.

Making Corrections for Printing

Feed Correction

This corrects for errors in the amount of feed of the grit rollers due the type of material.

Be sure to make this setting when you have replaced the material with a different type.

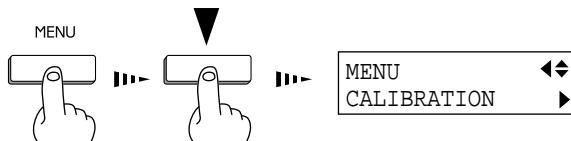
Correcting the amount of feed improves the dot-positioning accuracy in the feed direction, which can help enhance image quality.



When performing test printing for feed correction, load the material correctly (see "Setup for Printing -- 1 Loading the Material"). If the material is not loaded correctly, an accurate test pattern may not be output.

When you use the program to set a correction value for the amount of feed, the program's setting takes priority. The setting made with the control panel for the machine takes effect only in cases where the program does not perform correction of the amount of feed.

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



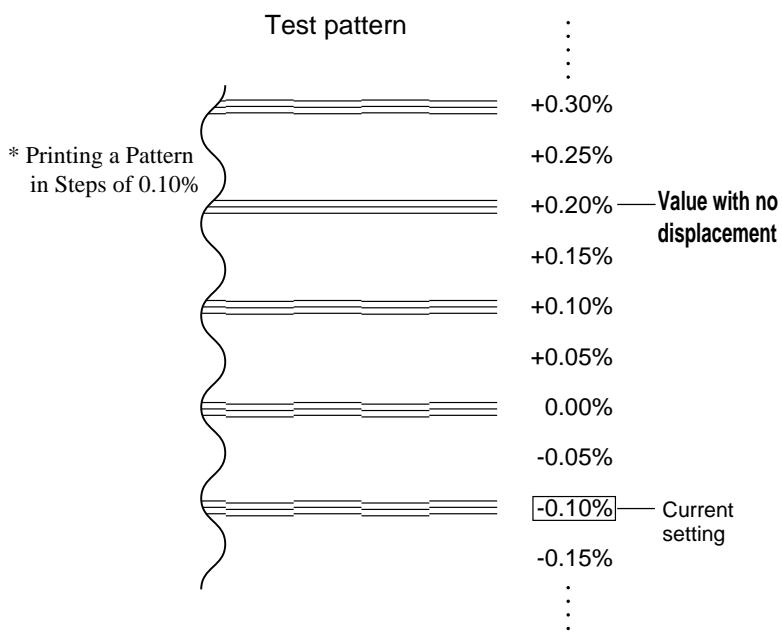
- 2** Press the [▶] key to make the following screen appear on the display.



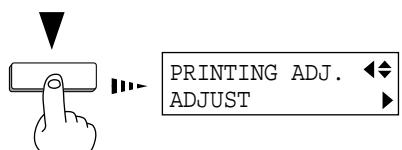
- 3** Press the [▶] key to make the following screen appear on the display.



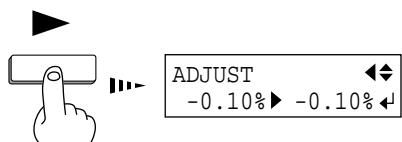
- 4** Press the [ENTER] key to start printing a test pattern.



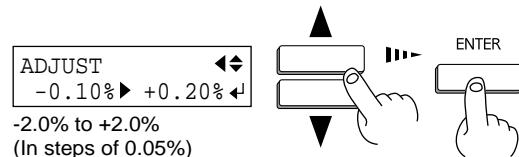
- 5** Check the test pattern and choose a value with no displacement.



- 6** 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.



* Test printing prints the pattern in steps of 0.10%.

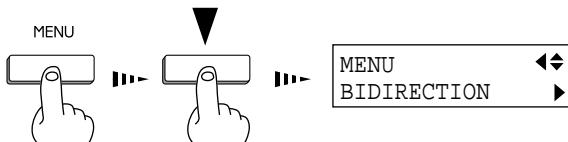
Bidirectional Correction

* Only when the printing direction at the [PRINT MODE] menu has been set to [BI-DIRECTION] (bidirectional)

This adjusts slippage when performing bidirectional printing.

Make this adjustment when you have replaced the material with a different type or adjusted the head height.

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

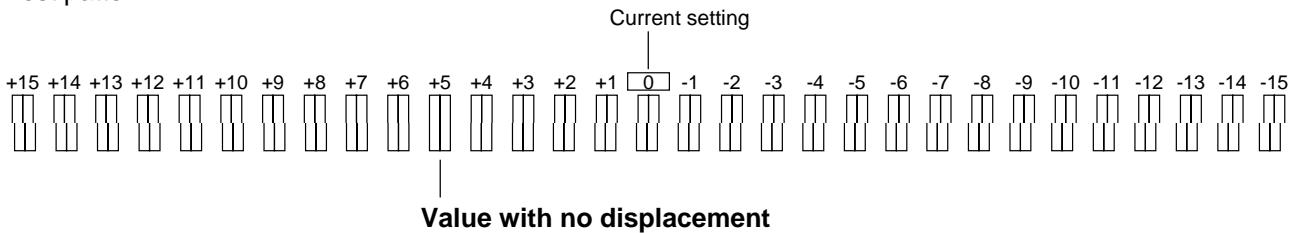


- 2** Press the [▶] key to make the following screen appear on the display.



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

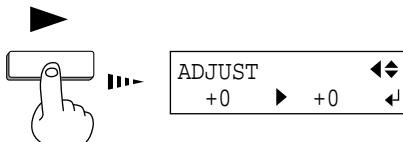
Test pattern



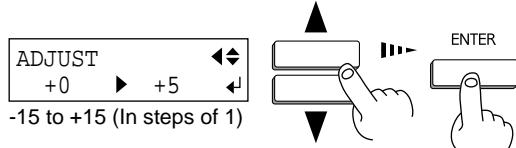
- 5** Press the [▼] key to make the following screen appear on the display.



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



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



Performing Overprinting

This prints the same image superimposed over the same location a number of times.

When printing materials such as fabric, colors may not come out well with just a single printing pass. Overprinting can achieve darker printing results.

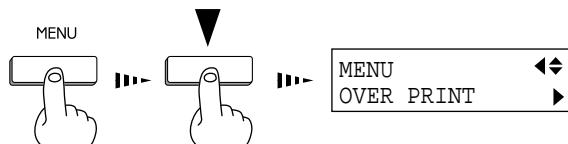
You can choose either [2] (two passes) or [3] (three passes) as the number of passes for overprinting.

Performing overprinting may result in ink smudges or stretch the fabric.

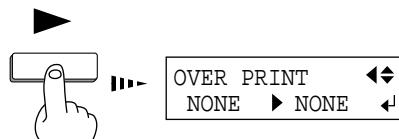


When you use the program to set the number of passes for overprinting, the program's setting takes priority. The setting made with the control panel for the machine takes effect only in cases where the setting for the number of overprinting passes is not made with the program.

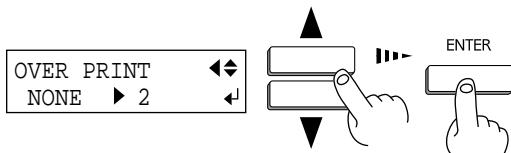
- 1** Press the [MENU] key and [▼] key to make the following screen appear on the display.



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



- 3** Use the [▲] and [▼] keys to choose the number of passes (two or three), then press the [ENTER] key.



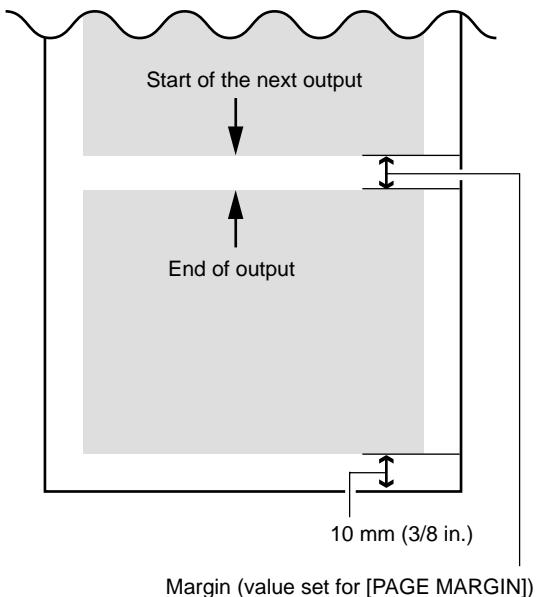
Setting the Page Margins

This makes the setting for the margin between pages.

When outputting a number of pages continuously, you can establish a margin between the pages.

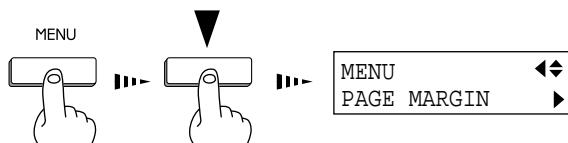
You can set this in a range of 0 mm to 100 mm (in 10 mm steps).

This is set at 20 mm when shipped from the factory.

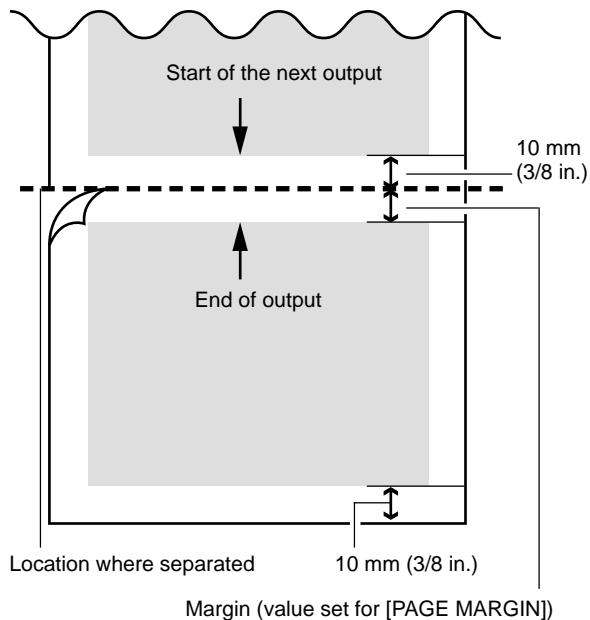
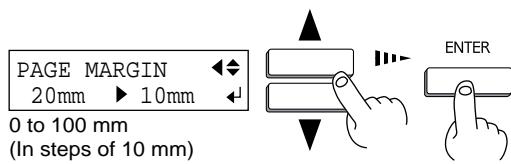


[When the material is not cut off]

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

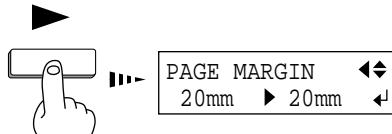


- Use the [▲] and [▼] keys to set a margin, then press the [ENTER] key.



[When the material-cutting command is enabled]

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



When separating the material with the margin set at [0], the position where the material is separated and the end of printing may not match.

When performing continuous printing with the margin set at [0], image quality just after starting to print may be poor on the second page or after. Also, dot drop-out or overlap may occur at the page borders.

When you use the program to set the page margins, the program's settings take priority. The setting made with the control panel for the machine takes effect only in cases where the settings for page margins are not made with the program.

Adjusting the Height of the Printing Head

You adjust the height of the printing head to match the thickness of the mounted material. You can adjust the head height by moving the lever shown in the figure to any of the positions (1 through 3), where it clicks into place.

The height of the printing head may normally be left set at 3. If the loaded material is thin, lowering the height to the 1 or 2 position may produce better printing results.

NOTICE

- Do not attempt to lower the printing head when any of the following kinds of material is loaded.
The head may strike the material during printing, resulting in a paper jam or causing breakdown or faulty operation.
- Thick material
- Material that may come loose or warp during printing

1

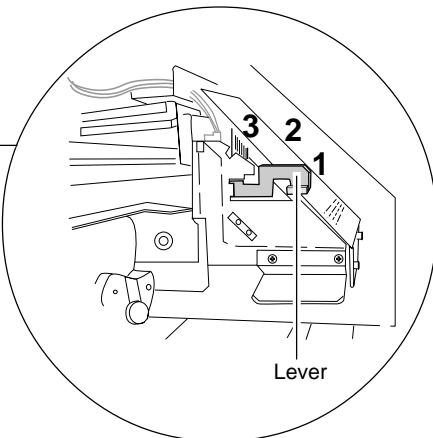
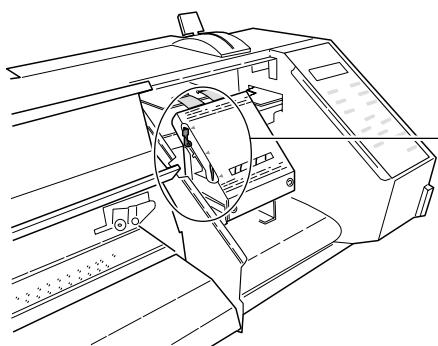
Detach the cover from the machine.

For information on how to detach the cover, refer to the Cleaning Kit User's Manual that comes with the cleaning kit. See "Performing Cleaning," steps 1 through 3.

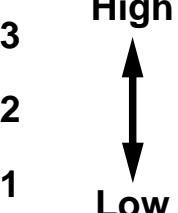
Before you begin the task, be sure to read the cautions printed on the cleaning kit.

2

Move the lever to adjust the height of the printing head.



Height of the printing head



* Be sure that the carriage is in standby position before attempting to move the lever.

3

Attach the cover on the machine.

For information on how to attach the cover, refer to the Cleaning Kit User's Manual -- "Performing Cleaning," step 22.

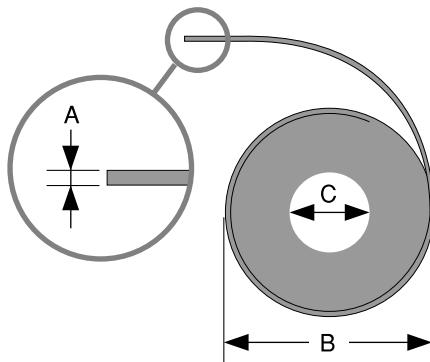


When the height of the printing head has been adjusted, it is necessary to perform bidirectional correction (only when the printing direction for [PRINT MODE] has been set to [BI-DIRECTION]). For more information about bidirectional correction, see "User's Reference -- Making Corrections for Printing -- Bidirectional Correction."

Materials

Conditions for Usable Materials

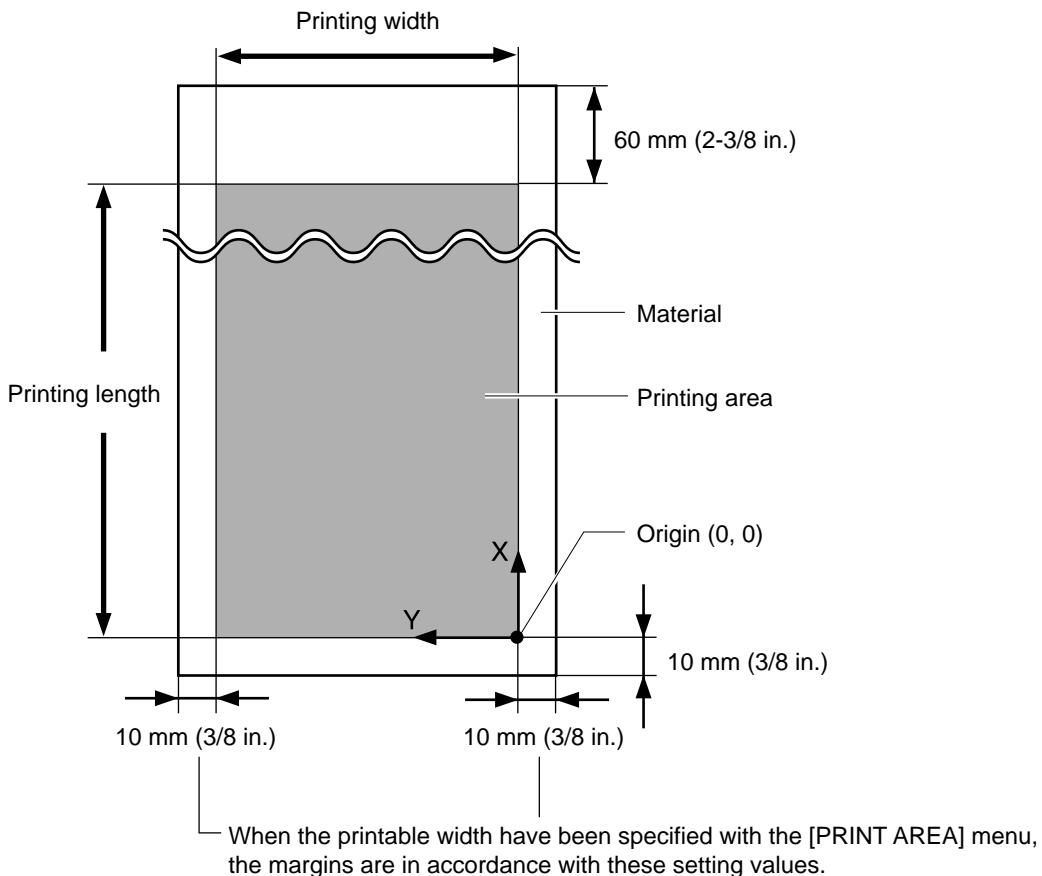
- A) Maximum material thickness : 1.0 mm (0.039 in.) (When head is raised)
- B) Maximum diameter for roll material : 180 mm (7-1/16 in.) (surface to be printed must face outward)
- C) Core inner diameter for roll material : 50.8 or 76.2 mm (2 in. or 3 in.)
- D) Maximum weight for roll material : 20 kg (44.1 lb.)
- E) Roll material with a starting edge that is not taped down



Side view of roll material

About the Printing Area

The material's printable width (the direction of carriage movement) is determined by the width of the loaded material. When the [SETUP] key is pressed after loading the material, the width of the material 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 material. When the printable width have been specified with the [PRINT AREA] menu, the margins are in accordance with these setting values.



Below are listed the widths of material that can be mounted on the SJ-600/500 and the printing widths of the SJ-600/500.

-Acceptable material width

SJ-600: 210~1625 mm (8-5/14 ~ 64 in.)

SJ-500: 210~1371 mm (8-5/14 ~ 54 in.)

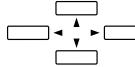
-Printing width

SJ-600: 210 ~ 1615 mm (8-5/14 ~ 63-9/16 in.)

SJ-500: 210 ~ 1361 mm (8-5/14 ~ 53-9/16 in.)

Description of Keys

Key	Top menu	Submenu	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 of material, and its dimensions, and shows the printable size on the display. The SETUP LED flashes while detection of material width is in progress. When setup finishes, the SETUP LED lights up continuously. Also press this key when removing the material.	—	—
	—	—	The [PAUSE] key pauses operation. 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 material's setup state.	—	—
	—	—	This sets the print-start location in the horizontal direction (the direction of carriage movement). For more information, see "User's Reference -- Printing at the Desired Location -- Specifying a location in the left-right direction (the direction of carriage movement)."	—	—
	PRINT MODE	—	This displays the [PRINT MODE] menu for setting image quality. This is used to specify the printing quality and unidirectional or bidirectional printing. Settings cannot be made while printing is in progress. To exit the [PRINT MODE] menu screen, press the [MENU] key or the [CLEANING] key or the [SETUP] key. For more information, see "Setup for Printing -- Setting the Printing quality and Printing direction."	[PRINT MODE] PHOTO SUPER FINE FINE2 NORMAL FAST DRAFT [PRINT DIRECTION] UNI-DIRECTION BI-DIRECTION	[PRINT MODE] FINE2 [PRINT DIRECTION] BI-DIRECTION
	—	—	This displays the [HEAD CLEANING] menu for cleaning of the printing head. Before starting to print, you can carry out a printing test to check the printing quality. You can perform cleaning while in any state. Note that [TEST PRINT] is not displayed while the printing is in progress. [TEST PRINT]: Performs a printing test within an area of approximately 108 mm (4-5/16 in.) by 18 mm (6/8 in.). If there is a problem, then continue by carrying out cleaning from the [START] menu. [START]: Begins cleaning of the printing heads. After cleaning, carry out a printing test to make sure there are no problems. For more information, see "Setup for Printing -- 2 Test Printing" and "Maintenance -- Cleaning the Printing Heads."	—	—

Key	Top menu	Submenu	Function	Setting range	Default value
SHEET CUT 	—	—	This cuts off the material at the present location of the printing-start line. Press this to cut off the portion already printed from the roll. You cannot sever a piece of material while printing is in progress. For more information, see "Remove the Material."	—	—
	—	—	These move the material and the carriage. When a menu is displayed, these move among the menu items.	—	—
ENTER 	—	—	This is used to accept, execute, or save the item shown on the display.	—	—
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.	—	—
MENU  + 	MENU LANGUAGE	—	This sets the language for screen messages. You can select either English or Japanese.	ENGLISH JAPANESE	ENGLISH

Description of Menu Items

Description of Menus

Pressing the [MENU] key enters the menu mode.

Top menu	Submenu	Function	Setting range	Default value
SHEET TYPE	—	<p>This is used to select either transparent or opaque material. Select [OPAQUE] when the material loaded on the unit is not transparent. When using transparent material or when the printing area cannot be detected, select [CLEAR].</p> <p>For more information, see "What to Do If... -- [INVALID SHEET] appears and the material cannot be detected even when the [SETUP] key is pressed."</p>	OPAQUE CLEAR	OPAQUE
PRINT AREA	MOVE TO R-EDGE SET R-EDGE MOVE TO L-EDGE SET L-EDGE EXIT	<p>* This appears only when the material is in a loaded state.</p> <p>This sets the printing area in the left-right direction (the direction of carriage movement) of the loaded material.</p> <p>With transparent material, automatic detection of the material 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 material, this can be used to specify a specific area for performing printing.</p> <p>Pressing the [ENTER] key while [MOVE TO R-EDGE] or [MOVE TO L-EDGE] is displayed moves the carriage to the currently set right- or left-hand edge of the material.</p> <p>When setting a new printing area, make the setting with [SET R-EDGE] or [SET L-EDGE].</p> <p>For more information, see "User's Reference -- Printing at the Desired Location -- Specifying a location in the left-right direction (the direction of carriage movement)." Press [EXIT] to quit this menu.</p>	—	—
HEAD CLEANING	TEST PRINT NORMAL POWERFUL	<p>Before starting to print, you can carry out a printing test to check the printing quality.</p> <p>If the printing test shows a problem, clean the printing head.</p> <p>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.</p> <p>[TEST PRINT]: Performs a printing test within an area of approximately 108 mm (4-5/16 in.) by 18 mm (6/8 in.). If a problem is found, then continue by carrying out cleaning.</p> <p>[NORMAL]: Performs cleaning of the printing heads. After cleaning, carry out a printing test to make sure there are no problems with printing quality.</p> <p>You should usually choose [NORMAL]. ([CLEANING] does the same thing as [HEAD CLEANING] - [START] displayed when the [CLEANING] key is pressed.)</p> <p>[POWERFUL]: Used when performing cleaning with [NORMAL] 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.</p> <p>For more information, see "Setup for Printing -- 2 Test Printing" and "Maintenance -- Cleaning the Printing Heads."</p>	—	—

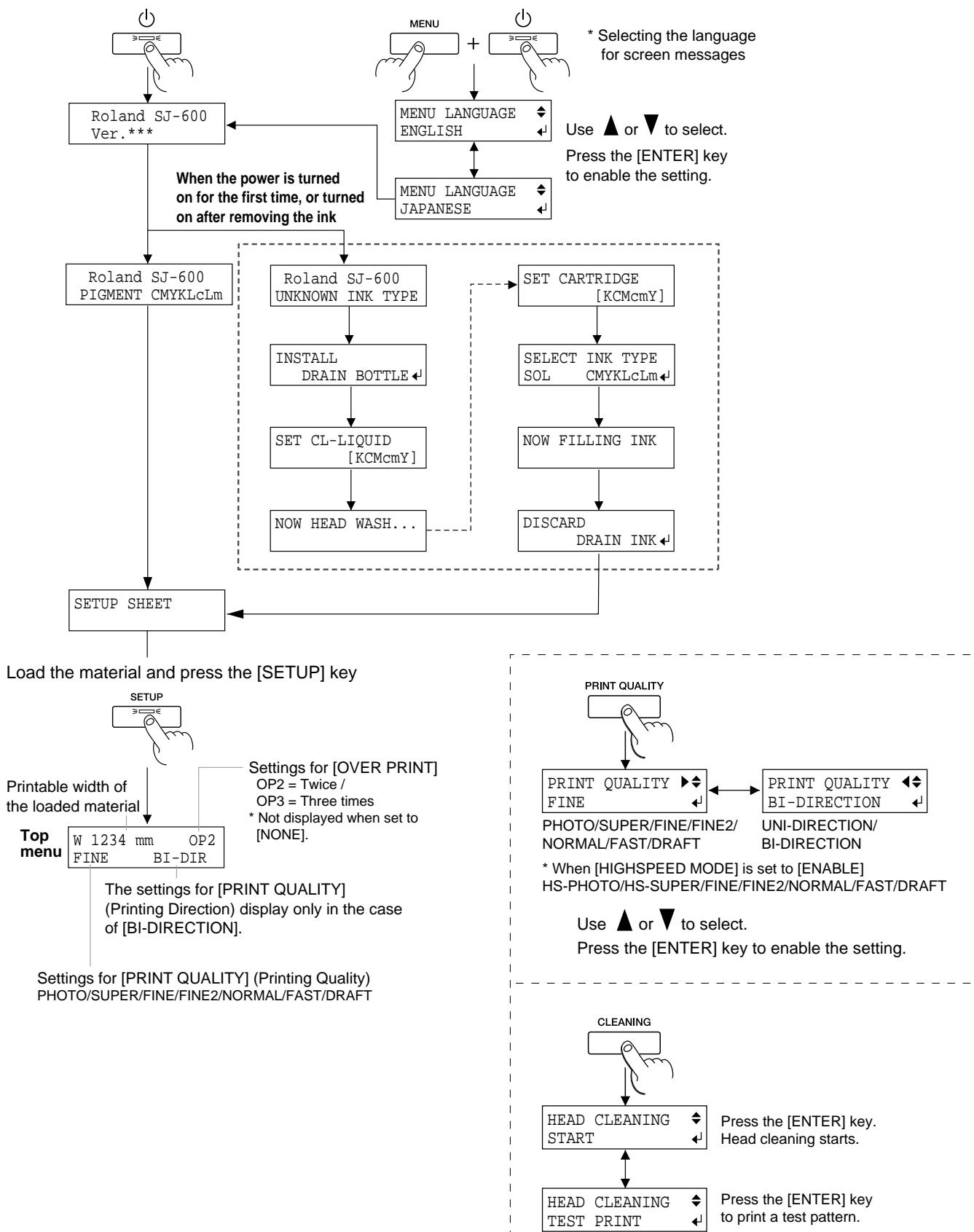
Top menu	Submenu	Function	Setting range	Default value
INK CONTROL	EMPTY MODE FILL INK PUMP UP HEAD WASH CHANGE	<p>When replacement of the ink cartridge becomes necessary while printing is in progress, this setting determines whether printing continues or pauses.</p> <p>This setting is used when the ink cartridge cannot be changed immediately during printing, such as during unattended operation at night.</p> <p>[LATER] causes printing to continue without pause even if ink refilling becomes necessary. 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 m² (10 ft²) 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.</p> <p>[PROMPT] causes operation to pause immediately when the ink cartridge needs to be changed. Printing is resumed by replacing the cartridge and pressing the [PAUSE] key. Please note, however, that the colors of an image in progress may no longer be perfectly matched if the unit is allowed to remain paused for two or three hours before resuming printing.</p> <p>[FILL INK] : Refills the printing heads with ink. Normally there is no need to do this, because refilling is automatic.</p> <p>[PUMP UP] : Drains ink from the printing heads.</p> <p>[HEAD WASH] : This washes the printing heads with optionally available cleaning cartridges. For more information, see "Maintenance -- When Moving the Unit... ."</p>	[EMPTY MODE] LATER / PROMPT	LATER
BIDIRECTION	TEST PRINT ADJUST	<p>This adjusts for slippage when performing bidirectional printing. This must be readjusted when you have replaced the material with a different type or adjusted the head height.</p> <p>[TEST PRINT]: This menu is for verifying the adjustment.</p> <p>[ADJUST]: This sets the correction value.</p> <p>For more information, see "User's Reference -- Making Corrections for Printing -- Bidirectional Correction."</p>	[ADJUST] -15 to +15 (In steps of 1)	Correction value when shipped from the factory
CALIBRATION	TEST PRINT ADJUST	<p>This corrects for errors in the amount of feed of the grit rollers due to the type of material.</p> <p>Be sure to make this setting when you have replaced the material with a different type.</p> <p>Make this setting again when horizontal stripes are plainly visible on printing results.</p> <p>[TEST PRINT]: This menu is for verifying the adjustment.</p> <p>[ADJUST]: This sets the correction value.</p> <p>For more information, see "User's Reference -- Making Corrections for Printing -- Feed Correction."</p>	-2.0% to +2.0% (In steps of 0.05%)	0%
OVER PRINT	—	<p>You can carry out the same printing superimposed over the same location. When printing materials such as fabric, colors may not come out well with just a single printing pass.</p> <p>This should normally be set to [NONE].</p> <p>For more information, see "User's Reference -- Performing Overprinting."</p>	NONE / 2 / 3	NONE
SLEEP	—	<p>This sets the time that elapses before the unit enters the SLEEP mode. The SLEEP mode is enabled when the machine has been inactive for a specified time. (When in the SLEEP mode, the POWER LED flashes once per second.)</p> <p>To release the SLEEP mode...</p> <ul style="list-style-type: none"> - Touch any key on the control panel. - Send data from the computer. - Open the front cover. - Move the sheet loading lever toward the back of the unit. 	NONE / 15 min to 120 min (In steps of 15 min)	15 min

Description of Menu Items

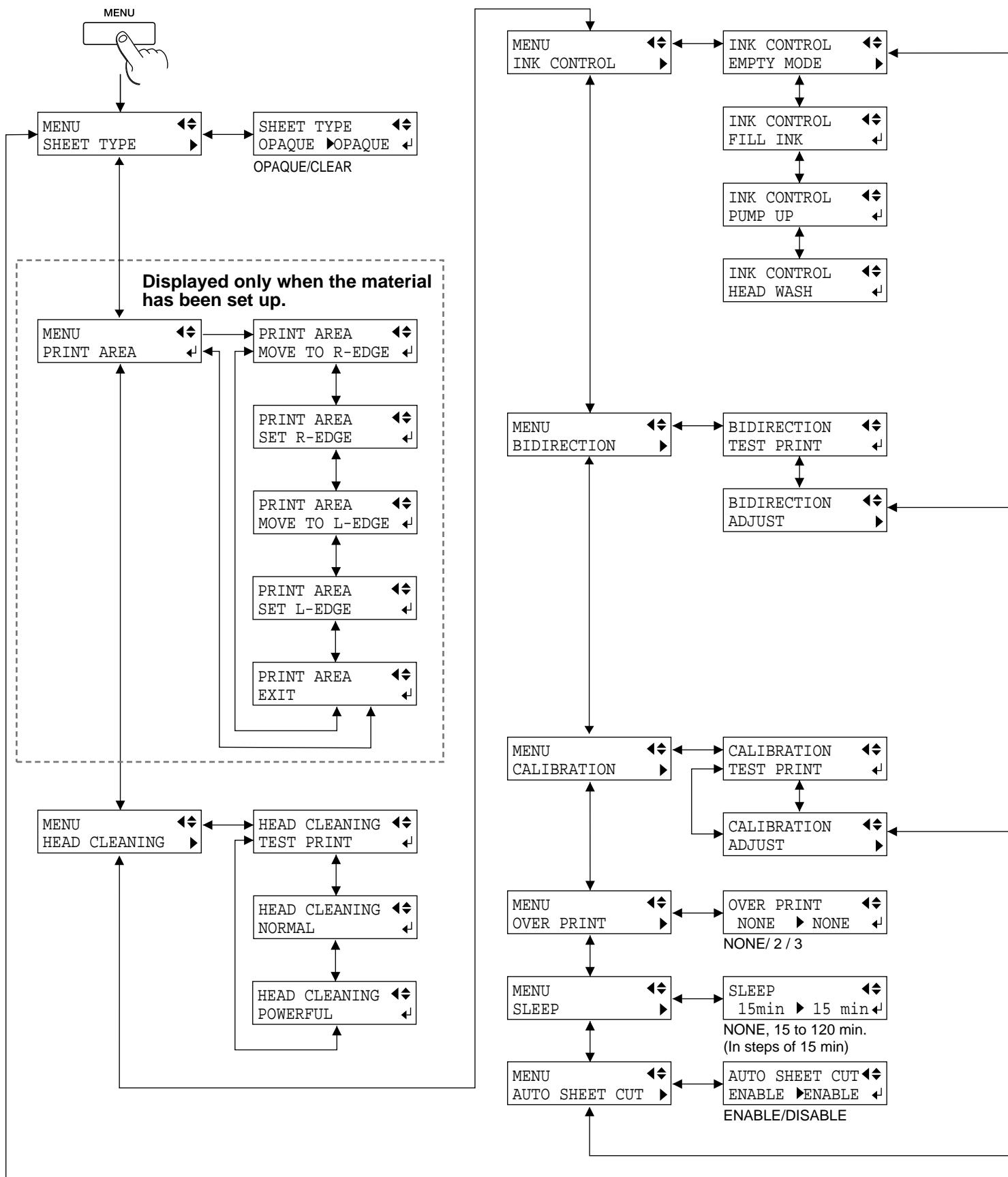
Top menu	Submenu	Function	Setting range	Default value
AUTO SHEET CUT	—	<p>This selects whether the material-cutting command is enabled or disabled.</p> <p>When set to [ENABLED], the material is cut automatically when the computer sends a material-cutting command.</p> <p>For more information, see "Remove the Material -- Cut the Material From the Roll -- When separating the material by pressing the [SHEET CUT] key."</p>	ENABLE / DISABLE	ENABLE
PAGE MARGIN	—	<p>This makes the setting for the margin between pages.</p> <p>When outputting a number of pages continuously, you can establish a margin between the pages.</p> <p>For more information, see "User's Reference -- Setting the Page Margins."</p>	0 to 100 mm (In steps of 10 mm)	10 mm
MENU UNIT	—	This selects millimeters or inches as the unit of measurement for the width displayed on the top menu after setting up the material. When inch display is used, values are displayed to the first digit to the right of the decimal point.	mm / INCH	mm
SYSTEM REPORT	—	This prints the current status of settings and other system information.	—	—
FACTORY DEFAULT	—	<p>This returns all menu settings to their original values when shipped from the factory.</p> <p>For more about the factory defaults for the various settings, see the "Default value" entry for each menu setting in this section.</p>	—	—
INK LEFT	—	<p>This shows the amount of ink left after each of the ink cartridges has been installed.</p> <p>The fewer the markers ("■"), the less ink is left.</p> <p>* 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.</p> <p>For more information, see "Maintenance -- Check How Much Ink Remains."</p>	—	—

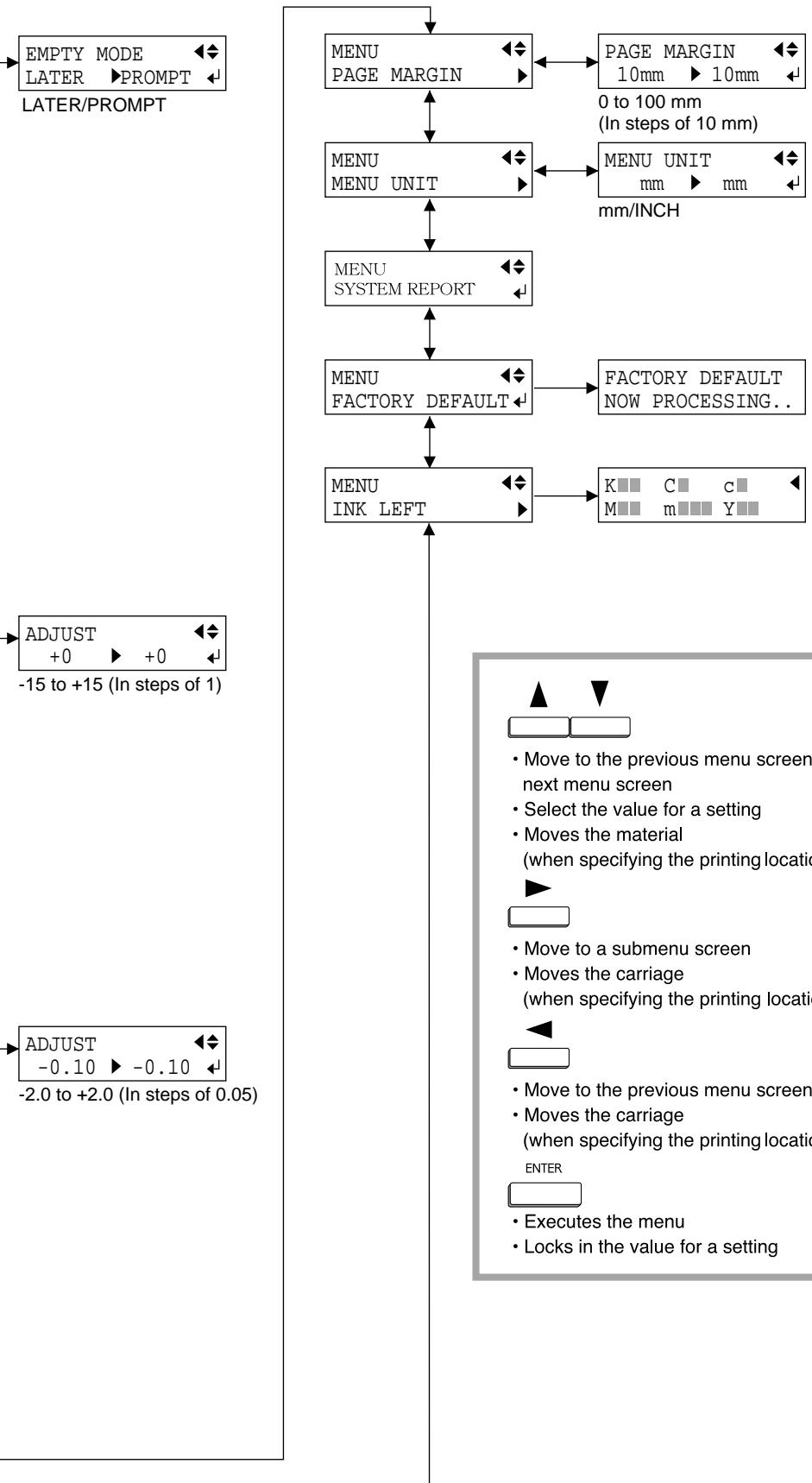
Display Menus Flowchart

For details about each of the menus, see the "Description of Display Menus."



Description of Menu Items





- Move to the previous menu screen or the next menu screen
- Select the value for a setting
- Moves the material (when specifying the printing location)



- Move to a submenu screen
- Moves the carriage (when specifying the printing location)



- Move to the previous menu screen
- Moves the carriage (when specifying the printing location)



- Executes the menu
- Locks in the value for a setting

What to Do If...

If the machine doesn't run...

Is the power cord connected correctly?

Connect the power cord to the unit, and plug the other end securely into an electrical outlet. (See "What to Do upon Opening the Carton -- 3 Setting Up and Connection".)

Is the machine power on?

Turn on the power. (See "What to Do upon Opening the Carton -- 4 Installing Ink Cartridge".)

Has material been loaded (the SETUP LED is lighted)?

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

Is the PAUSE LED lighted?

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. Then press the [SETUP] key. Hold down for about 1 second. This deletes the printing instructions that have already been sent from the computer, and printing is stopped.

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

W1234mm	L ---mm
FINE	BI-DIR

Conditions for starting printing

The material must be already set up (with the SETUP LED lighted), and the display must show the top menu. If another menu screen is displayed, press the [SETUP] key to go back to the top menu. (Pressing the [SETUP] key when another menu screen is displayed does not cancel the set-up for the material.)

Are the computer and the machine linked with the right cable ?

The type of cable you need is determined by your computer. One which you are sure matches the model of computer being used should be select.

Is the cable making a secure connection?

Connect securely. (See "What to Do upon Opening the Carton -- 3 Setting Up and Connection".)

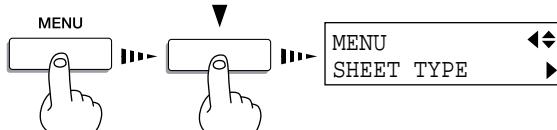
Has the correct driver selection been made for the application software?

Select the appropriate driver.

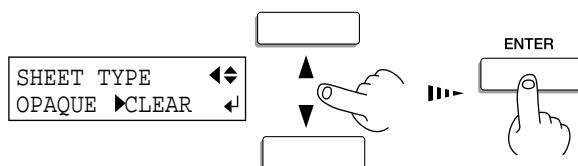
[INVALID SHEET] appears and the material cannot be detected even when the [SETUP] key is pressed

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

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



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



- When the setting for [SHEET TYPE] is changed after setup for the material has been performed, the setup for the material is automatically canceled. If this happens, set up the material again.
- When using opaque material, return the [SHEET TYPE] setting to [OPAQUE].

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



- 4 Specify a printing area for the left-right direction (the direction of carriage movement) that matches the width of the material. For more information, see "User's Reference -- Printing at the Desired Location -- Setting the printing area in the left-right direction (the direction of carriage movement)."



When [SHEET TYPE] has been set to [CLEAR], no detection of the material is performed when material is loaded. This means it is necessary to specify a printing area that matches the actual width of the material.
When only set to [CLEAR], the printable width is set to the maximum (SJ-600:1605 mm (63-3/16 in.), SJ-500:1351mm (53-3/16 in.)).

If the "INK EMPTY" message appears

A cartridge has run out of ink, and printing cannot be started.

If printing data is being sent, this message is displayed and the buzzer sounds. At the same time, operation is paused and the PAUSE LED flashes. Replace the empty cartridge with a new one and press the [PAUSE] key to start printing.

Clean, attractive printing is impossible

If drop-out occurs with printed images.

Clean the printing heads (see "Maintenance -- Cleaning the Printing Heads").

Is the surface of the platen dirty or scratched?

Clean the platen (see "Maintenance -- When the Product Needs Cleaning").

Is the material dirty?

Remove superficial soiling, then load the material.

Is the material damaged?

Clean, attractive printing is not possible if the material is damaged or warped.

Use care to keep materials from being damaged while in storage.

Continued on the next page.

What to Do If...

During printing, was the front cover opened (executing an emergency stop) or the [PAUSE] key pressed?

If operation is stopped or paused while printing is in progress, the quality of the image before and after the interruption may differ. It is a good idea to avoid pausing operation while printing is in progress whenever possible.

Is thick material in use, or does the surface of the material rub against the printing heads?

If material feed is not smooth because the material catches on the head, then adjust the height of the printing heads (see "User's Reference -- Adjusting the Height of the Printing Head").

When the height of the printing head has been adjusted, it is necessary to perform bidirectional correction (only when the printing direction for [PRINT MODE] has been set to [BI-DIRECTION]). For more information about bidirectional correction, see "User's Reference -- Making Corrections for Printing -- Bidirectional Correction."

If the type of material was changed, was feed correction 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 material was changed, refer to "User's Reference -- Making Corrections for Printing -- Feed Correction" and perform correction for feed.

Printing goes beyond the loaded material

Is [SHEET TYPE] set to [CLEAR]?

When [SHEET TYPE] has been set to [CLEAR], no detection of the material width is performed when material is loaded (printable width set to maximum).

If transparent material has been loaded, specify a printing area that matches the actual material width (see "User's Reference -- Printing at the Desired Location -- Setting the printing area in the left-right direction (the direction of carriage movement)").

If opaque material has been loaded, set [SHEET TYPE] to [OPAQUE].

Is the reflective tape dirty?

If the reflective tape becomes soiled, the width of the material cannot be detected correctly.

If the tape becomes dirty, wipe gently with a cloth moistened with water.

Has the material been loaded at an angle?

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

Refer to "Setup for Printing -- 1 Loading the Material" and load the material correctly.

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

When setting the printing area in the left-right direction (the direction of 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 material.

Material feed is not smooth (slippage occurs)

Is thick material being used?

If the surface of the material rubs against the printing heads and smooth feed is impossible, then adjust the height of the printing heads (see "User's Reference -- Adjusting the Height of the Printing Head").

When the height of the printing head has been adjusted, it is necessary to perform bidirectional correction (only when the printing direction for [PRINT QUALITY] has been set to [BI-DIRECTION]). For more information about bidirectional correction, see "User's Reference -- Making Corrections for Printing -- Bidirectional Correction."

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

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

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

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

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

Is the roll material loaded correctly?

If the roll material is not loaded correctly, the material may come loose or advance at an angle. Refer to "Setup for Printing -- 1 Loading the Material" and load the material correctly.

The material becomes jammed

If [MOTOR ERROR : TURN OFF POWER] appears and operation stops

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

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

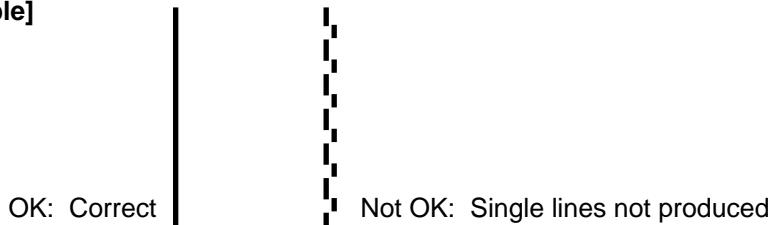
When printing was continued, but should be started over

- (1) Press the [PAUSE] key to pause operation.
- (2) Stop sending data from the computer.
- (3) Press the [SETUP] key. Hold down for about 1 second (making the SETUP LED go dark).
- (4) Press the [POWER] key to switch off the sub power.
- (5) Remove the jammed material. Cut off any creased or torn portions.
- (6) Correct whatever caused the material to jam.
(For example, if thick material has been loaded, then adjust the height of the printing heads.)
- (7) Press the [POWER] key to turn on the sub power.
- (8) Load the material and carry out setup.
- (9) Press the [CLEANING] key to perform head cleaning (see "Maintenance -- Cleaning the Printing Heads").
- (10) Press the [TEST PRINT] key to perform a printing test (see "Maintenance -- Cleaning the Printing Heads").
- (11) Send the printing data and perform printing.

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

Printed lines are misaligned

[Example]



If misalignment like in the example occurs when the printing direction for [PRINT QUALITY] has been set to [BI-DIRECTION] (bidirectional), then carry out correction at the [BIDIRECTION] menu (see "User's Reference -- Making Corrections for Printing -- Bidirectional Correction").

Be sure to make this adjustment when you have replaced the material with a different type or adjusted the head height.

The material cannot be separated

Is a blade installed in the separating knife?

If no blade is installed, then install one (see "Maintenance -- How to Replace the Separating Knife").

Is the blade dull or broken?

If the blade has become dull or broken, replace it with the replacement blade included with the unit (see "Maintenance -- How to Replace the Separating Knife").

* Some materials cannot be separated due to their composition.

Has the [AUTO SHEET CUT] menu item been set to [ENABLE]?

If the material-cutting command has been set to "enable" with the driver, then set [AUTO SHEET CUT] to [ENABLE] (see "Remove the Material -- Cut the material from the roll").

Has the material-cutting command been set to "enable" with the driver?

When the material-cutting command has not been set to "enable" with the driver, automatic separation of the material is not performed, even when [AUTO SHEET CUT] has been set to [ENABLE].

Error Messages

Error 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 material jam or the like), switch on the power. Do not leave the unit with the carriage not in standby position.
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.
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.
INVALID SHEET SET SHEET AGAIN	The [SETUP] key was pressed even though no material is loaded. Setup was performed with no material at the correct location. [Sheet Type] is set to [OPAQUE], but transparent material was loaded.	Load material at the correct location and press the [SETUP] key again. When using transparent material, set [SHEET TYPE] to [CLEAR] (see "What to Do If... (If the "INK EMPTY" message appears during setup)").
SHEET TOO SMALL SET SHEET AGAIN	An attempt was made to load material that is too small. The reflective tape is dirty.	Replace with material of loadable size. Wipe off the grime on the reflective tape, then perform setup again.
PINCHROLL ERROR DOWN PINCHROLL	The [SETUP] key was pressed with the pinch rollers up. The pinch rollers were raised during setup.	Move the sheet loading levers toward "LOAD" and lower the pinch rollers, then press the [SETUP] key (see "Setup for Printing -- Loading the Material").
BASE POINT ERROR	An attempt was made to set the print-start location at a position beyond the material.	Use the arrow keys to move the carriage marker to a place within the printing area, then press the [BASE POINT] key (see "User's Reference -- Printing at the Desired Location").
PRINT R-EDGE SET ERROR	The setting for the right-hand edge was not made correctly at the [PRINT AREA] menu. An attempt was made to set the right-hand edge to the left of the left-hand edge, or at the same location as the left-hand edge.	Use the arrow keys to move the carriage marker to a correct position, then make the setting (see "User's Reference -- Printing at the Desired Location -- Setting the printing area in the left-right direction (the direction of carriage movement)").
PRINT L-EDGE SET ERROR	The setting for the left-hand edge was not made correctly at the [PRINT AREA] menu. An attempt was made to set the left-hand edge to the right of the right-hand edge, or at the same location as the right-hand edge.	Use the arrow keys to move the carriage marker to a correct position, then make the setting (see "User's Reference -- Printing at the Desired Location -- Setting the printing area in the left-right direction (the direction of carriage movement)").
HEAD DRY-UP WARNING	The printing 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.

Specifications

		SJ-600	SJ-500
Printing method		Piezo ink-jet method	
Printing width		210 mm to 1615 mm (8-5/16 in. to 63-9/16 in.)	210 mm to 1361 mm (8-5/16 in. to 53-9/16 in.)
Acceptable media widths		210 mm to 1625 mm (8-5/16 in. to 64 in.)	210 mm to 1371 mm (8-5/16 in. to 54 in.)
Width of media that can be cut off		210 mm to 1625 mm (8-5/16 in. to 64 in.)	210 mm to 1371 mm (8-5/16 in. to 54 in.)
Conditions for usable media		Maximum media thickness: 1.0 mm (0.039 in.) (When head is raised) Maximum diameter for roll: 180 mm (7-1/16 in.) Core inner diameter for roll: 50.8 mm (2 in.) or 76.2 mm (3 in.) Maximum weight for roll: 20 kg (44.1 lb.)	
Ink cartridges	Type	Exclusive SOL INK cartridges	
	Capacity	220 cc ±5 cc	
	Color	Six colors: cyan, magenta, yellow, black, light cyan and light magenta	
Apparent colors		16.7 million colors	
Printing resolution (Printing dot resolution)		1440 dpi x 720 dpi / 720 dpi x 720 dpi / 540 dpi x 540 dpi / 360 dpi x 720 dpi / 180 dpi x 720 dpi	
Distance accuracy		Error of less than ±0.3% of distance traveled, or 0.3 mm, whichever is greater (at Roland PET-film, print travel: 1 m (39-3/8 in.))	
Printing heads cleaning		Automatic cleaning and manual cleaning	
Interface		Bidirectional parallel interface (compliant with IEEE 1284: nibble mode)	
Instruction system		RD-RTL, RD-PJL	
Power-saving function		Auto-sleep	
Power consumption	Printing mode	Maximum: 1.3A/100V to 240V ±10% 50/60 Hz	
	Standby mode	Maximum: 0.4A/100V to 240V ±10% 50/60 Hz	
Acoustic noise level	Printing mode	60dB (A) or less	
	Standby mode	40dB (A) or less (According to ISO7779)	
Dimensions	Main unit	2500 mm [W] x 671 mm [D] x 410 mm [H] (98-7/16 in. [W] x 26-7/16 in. [D] x 16-3/16 in. [H])	2246 mm [W] x 671 mm [D] x 410 mm [H] (88-7/16 in. [W] x 26-7/16 in. [D] x 16-3/16 in. [H])
	With stand	2500 mm [W] x 758 mm [D] x 1241 mm [H] (98-7/16 in. [W] x 29-7/8 in. [D] x 48-7/8 in. [H])	2246 mm [W] x 758 mm [D] x 1241 mm [H] (88-7/16 in. [W] x 29-7/8 in. [D] x 48-7/8 in. [H])
Packed dimensions		2664 mm [W] x 860 mm [D] x 960 mm [H] (104-15/16 in. [W] x 33-7/8 in. [D] x 37-13/16 in. [H])	2410 mm [W] x 860 mm [D] x 930 mm [H] (94-15/16 in. [W] x 33-7/8 in. [D] x 36-5/8 in. [H])
Weight	Main unit	111 kg (244.7 lb.)	100 kg (220.4 lb.)
	With stand	128 kg (282.2 lb.)	115 kg (253.5 lb.)
Packed weight		178 kg (392.4 lb.)	163 kg (359.3 lb.)
Environment	Power on	Temperature: 15°C to 35°C (59°F to 95°F), Humidity: 35% to 80% (non-condensing)	
	Power off	Temperature: 5°C to 40°C (41°F to 104°F), Humidity: 20% to 80% (non-condensing)	
Accessories		Power cord: 1, Stays: 2, Bolts (Large): 14, Bolts (small): 4, Washers: 6, Hexagonal wrench (M6): 1, Pipe: 1, Standleg: 1, Media guide: 1, Caster: 2, Media flanges: 2, Flange retaining pins: 2, Drain bottle: 2, Media clamps: 2, Roland ColorChoice®: 1, User's manual: 1, Replacement blade for separating knife: 1, Cleaning kit: 1	

Interface Specifications

Standard	Bidirectional parallel interface (compliant with IEEE 1284: nibble mode)
Input signals	<u>STROBE</u> (1BIT), DATA (8BITS), <u>SLCT IN</u> , <u>AUTO FEED</u> , <u>INIT</u>
Output signals	<u>BUSY</u> (1BIT), <u>ACK</u> (1BIT), <u>FAULT</u> , <u>SLCT</u> , <u>PERROR</u>
Level of input output signals	TTL level
Transmission method	Asynchronous

Parallel Connector (in compliance with specifications of Centronics)

Signal number	Terminal number	Signal number
<u>SLCT IN</u>	36	18
HIGH*	35	17
NC	34	16
GND	33	15
<u>FAULT</u>	32	14
<u>INIT</u>	31	13
	30	PERROR
	29	BUSY
	28	<u>ACK</u>
	27	D7
	26	D6
GND	25	D5
	24	D4
	23	D3
	22	D2
	21	D1
	20	D0
	19	<u>STROBE</u>

Pin Connection

