First Step Guide

VersaSTUDIO
SIGN MAKER BN-20

Note : Please read accompanying sheet "To Ensure Safe Use" beforehand.

Roland DG Corporation

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Thank you very much for purchasing the BN-20.
This document describes the procedure of "First Time Printing and Cutting," from installation and setup of this machine to the actual printing.

About Roland OnSupport
Using OnSupport allows you to receive your printer's ink status and error information as an email sent to your PC and mobile phone. You can also receive product updates and other support information from OnSupport.
To install OnSupport, download from the following URL.
http://download.rolanddg.jp/en/bn_onsupport.html

Thank you for purchasing this product.

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Accessories

The following items are included with this machine. Check that all items are present.

Power cord (1)	USB cable (1)	Jig for inserting cartridges (1) **
Blade holder, blade, Pin (1 each)	Cleaning sticks	Cleaning fluid (1) **
Media flanges (2), Media bar (1), Mounting pin (1)	Tweezers (1)	Label for cartridge slot (one each for ECO-SOL MAX and FPG)

Wiper (1)	SOL INK cleaning cartridge (1)** and dummy cartridge(4) **	
Felt wiper (1)	Inkjet printer maintenance guide (1)**	
Roland Software Package (1)	Operation manuals (4)*	Software RIP***(1)

* "To Ensure Safe Use," "First Step Guide" (this document)," "MASTER GUIDE," "BN-20 VersaWorks Metallic Silver Ink Guide"
** Included only in ECO-SOL MAX ink type machines, *** Roland VersaWorks (with Quick Start Guide)

Important

Leave the main power switched on at all times.
Never switch off the main power. By switching on the main power, the automatic maintenance function is carried out periodically. If the automatic maintenance is not carried out, it may result in a machine breakdown, e.g. damage to the print heads.

Never switch off the main power or unplug the power cord during operation.
Switching off the main power or unplugging the power cord during operation may damage the print heads. Be sure to first switch off the sub power. If the main power is accidentally switched off, immediately turn the main and sub power back on.

Periodic use of the machine is recommended.
We recommend using the machine at least once a week. If left unused for a long period of time, the ink may settle, resulting in unstable discharge (and dot drop-out). Any dry ink will need to be discharged.

Allow the ink to dry completely.
After output, allow the ink to dry completely. In particular, metallic silver ink must be printed with a high concentration and takes longer to dry than CMYK ink.

Lamination of metallic silver ink is strongly recommended.
Because metallic silver ink may not be as weather resistant as CMYKCLm ink, depending on conditions, we strongly recommend laminating output of metallic silver ink.

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STEP 2: Making Adjustments Before Output

Before output, perform printing tests and test cuts, and make the necessary adjustments. This is required to make the most of BN-20's printing and cutting capabilities. Perform this task before daily operations and when changing the media type.
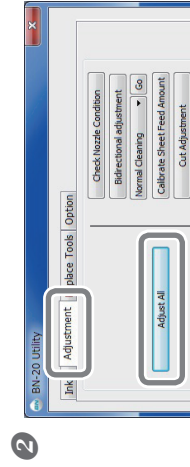
> **Important**
> The components of the metallic silver ink can separate easily, so gently shake this ink cartridge each day before operations. The other color cartridges do not have to be shaken each day, but be sure to shake them when replacing. Failure to shake the ink

1. Starting the adjustment

1

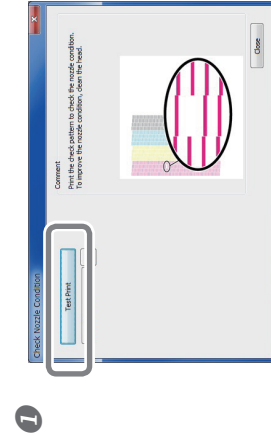Click [BN-20] in the computer's task tray.

The BN-20 utility is displayed.

2

In the [Adjustment] tab, click [Adjust All].

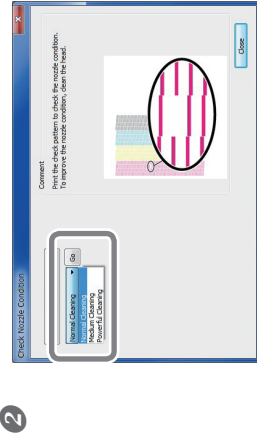**3** Click [Next] on the displayed screen.

2. Check for nozzle clogging

1

Click [Test Print].

The test pattern is printed.
Follow the on-screen instructions to check for nozzle clogging.

2

Nozzle is clogged ⇨ Proceed to **2** .
Nozzle is not clogged ⇨ Proceed to **4** .

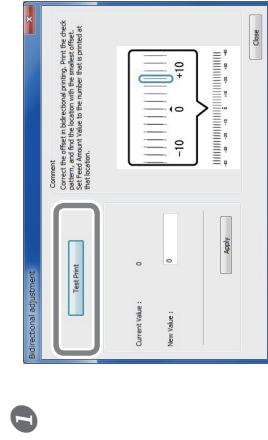Select [Normal Cleaning] and click [Go].

Normal cleaning starts.

3 To check for nozzle clogging again ⇨ Return to **1** .
If the nozzle clogging is not fixed, perform "Normal Cleaning" again. For information about "Medium Cleaning" and "Powerful Cleaning," refer to pages regarding maintenance in "BN-20 Master Guide."

4 Click [Next] on the displayed screen.

3. Bidirectional adjustment

1

Click [Test Print].

The test pattern is printed.

2 Read the on-screen instructions and then enter a value in the [New Value] box.

3 Click [Apply].

The value in [Present Value] changes to the entered value.

4 Click [Close].

5 Click [Next] on the displayed screen.

4. Media feed correction

1

Click [Test Print].

The test pattern is printed.

2 Read the on-screen instructions and then enter a value in the [New Value] box.

3 Click [Apply].

The value in [Present Value] changes to the value entered.

4 Click [Close].

5 Click [Next] on the displayed screen.

5. Adjusting cutting

1
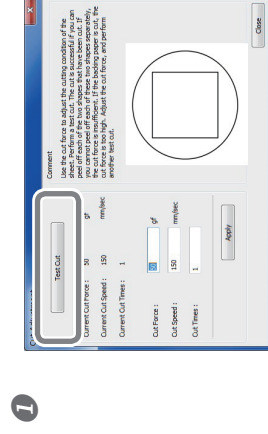
Click [Test Cut].

Test cutting is performed.

2 Read the on-screen instructions and then enter values in the [Cut Force] box.

3 Click [Apply].

Repeat **1** **2** **3** until adjustment is done to allow the two shapes to peel off separately.

4 Click [Close].

5 Click [Next] on the displayed screen.

6. Adjusting printing & cutting

1
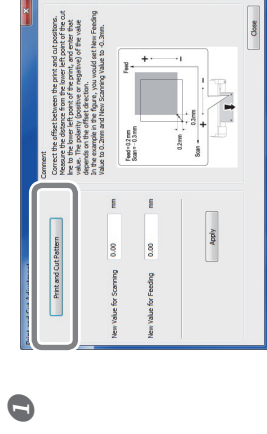
Click [Print and Cut Pattern].

The test pattern is printed.

2 Follow the on-screen instructions and enter the values for [New Value for Scanning] and [New Value for Feeding].

3 Click [Apply].

The values in [New Value for Scanning] and [New Value for Feeding] change to "0."

4 Click [Close].

5 Click [Skip] on the displayed screen.

"Crop cut adjustment" will not be done here. It is not necessary for printing and cutting.

6 Click [OK] on the displayed screen.

Adjustment is completed.

Cutting off the media
Use a commercially-available utility knife to cut the media.

STEP 3: Output Printing & Cutting Data

This section describes how to output printing and cutting data using R-Works.

1 From the Start menu, click [Programs] (or [All Programs]) > [R-Works] > [R-Works].

R-Works starts.
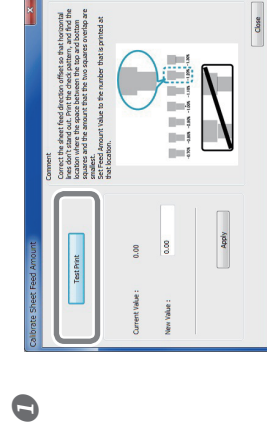
2 Click [Help] > [Table of Contents].

"R-Works Help" is displayed.

3 From the contents on the left, click [Operation Procedures].

Follow the instructions from "Introduction" to "Step 4: Output the data" to perform each operation and test the output of printing and cutting.

Operation Procedures

Introduction
: Step 1: Create a new project
: Step 2: Create the print data
: Step 3: Add cutting lines
: Step 4: Output the data

Installation

Installation Location

Temperature and Humidity

Maintain the specified temperature and humidity even when the machine is not in use. If temperatures are too high or too low, it may cause the machine to malfunction.
➢ During operation: Temperature 20 to 32°C (68 to 90°F), relative humidity 35 to 80% (no condensation)
➢ During non-operation: Temperature 5 to 40°C (41 to 104°F), relative humidity 20 to 80% (no condensation)

Installation Space

1000 mm
300 mm
1400 mm
1010 mm
600 mm
350 mm

(Rear)
Unit Space
(Front)
Work Space

Provide space as shown in the figure on the left.

Height of Installation

The height of installation should be 0.6 m (23.7 in.) or higher above the work floor. This machine is desktop type. Please decide the height of installation so that you can easily reach the emergency stop button when operating this machine.
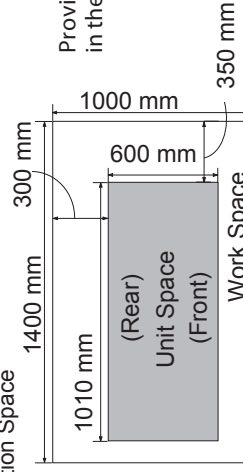
Installing and Setting Up the Software

System requirements

Operating system	Windows XP/Vista/7 (32- or 64-bit)
CPU and RAM	CPU of 2.0-GHz or faster Core 2 Duo, and RAM of 2 GB or more
Optical drive	CD-ROM drive
Video card and display	Recommended: 1024 x 768 dots or higher, 256 colors or more

For the latest information, see the Roland DG Corp. website (http://www.rolanddg.com).
➢ This software is a 32-bit application and uses WoW64 (Windows 32-bit On Windows-64) when run on a 64-bit Windows system.
➢ Operations have not been confirmed in Windows XP mode.

1. Installing the software

1 Insert the Roland Software Package CD-ROM into the computer.
Windows Vista or 7 : When the automatic playback window appears, click [Run Setup.exe].

2

Click [Install] for either "Driver & Utility" or "R-Works."
The order of the installation is not important.
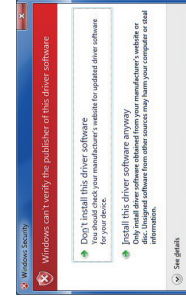Windows Vista or 7: When the [User Account Control] appears, click [Allow] or [Yes].

Driver & Utility
Installs the BN-20 driver and utility software.

Select [Install], Model name [Roland BN-20], Port [USB], and then click [Start].
Installation of the BN-20 driver starts. Proceed with the installation by following the on-screen instructions.
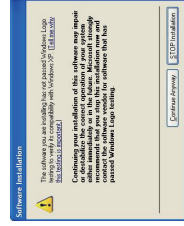
Windows Vista / 7 :
If the screen shown in the figure appears, click [Install this driver software anyway].
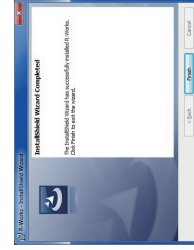
Windows XP:
If the screen shown in the figure appears, click [Continue Anyway].

After completing the installation of the driver, continue to install the utility software.
When the screen shown on the left appears, the installation is complete.

R-Works
Installs R-Works.

Proceed with the installation by following the on-screen instructions.
When the screen shown on the left appears, the installation is complete.

3 Remove the Roland Software Package CD-ROM from the computer.
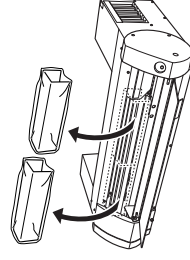
Removing and storing the retainer

⚠WARNING

Carry out these operations before you connect the power cord.
Inadvertent powerup may result in pinched hands or other injury.
➢ Be sure to remove the retainer. Failure to do so may cause faulty operation or breakdown when the power is switched on.
➢ The retainer is required when moving the machine to a different location. Store it carefully so that it does not get misplaced.
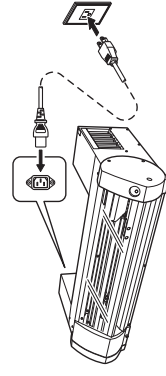
Installation software

BN-20 drive	Driver required for sending data from a computer to this machine.
Utility	Software for operating the machine, checking its status, and performing maintenance.
R-Works	Software for creating output data.

* For information on how to install software RIP (Roland VersaWorks), refer to "Roland VersaWorks Quick Start Guide."

Important
Do not connect the machine with a computer using a USB cable before installing the BN-20 driver. If you do so, you may not be able to install the BN-20 driver.

2. Setting up the printer

1 Place the label for the ink type that will be used.
Mixing different types of ink may cause a malfunction. Please make sure to affix this label.

Use only ECO-SOL MAX, Do not use only ECO-SOL MAX専用です。他のインク

2 ① Close the front cover, press ② Main power, and then press ③ POWER key.
When the POWER key indicator changes from flashing to steady, startup is completed.

3 Connect the machine to the computer by USB cable.
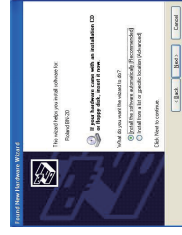Use the supplied USB cable.
Do not use a USB hub.
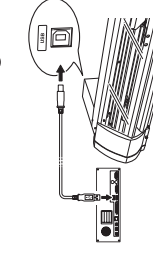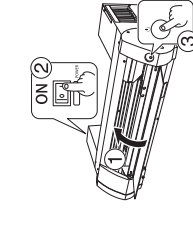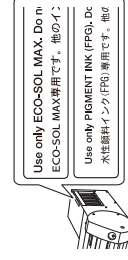
Windows Vista / 7 :
The driver is installed automatically. Go to Procedure 4 .

Windows XP:

1
Select [No, not this time], and then click [Next].

2
If the screen shown in the figure appears, click [Install this driver software anyway].

3
Select [Install the software automatically], and then click [Next].

4
Click [Finish].

Connecting the Power Cable

⚠WARNING

Perform this task with all power switches left switched off.
Otherwise sudden movement of the machine may cause injury.

If this screen appears during installation

Click [Continue Anyway].

Remove the Roland Software Package CD-ROM from the computer, click [Back], and start over from the previous screen.

Select [No, not this time], and then click [Next].

Select [Install the software automatically], and then click [Next].

* When having difficulty pulling out the dummy cartridges which is used for filling with ink, insert the Jig for inserting cartridges into the slots to make the task easier.

When the message of "The ink tanks have been filled" appears, filling with ink is completed. Click [Close], and then continue to "Printing and Cutting for the First Time" on the back.

Printing and Cutting for the First Time

STEP 1 : Installing the Blade and Roll Media

Prepare roll media for printing and cutting that meets the following criteria:
- Width: 150 - 515 mm (5.9 - 20.27 in.). Paper tube inner diameter: 3 or 2 inches.
* In this manual, the paper wound onto the paper tube is called "roll media."
* To purchase these media, contact your authorized dealer or Roland DG.

1. Installing the Blade

1
① Insert the pin into the blade holder. Insert until the tip protrudes about 3 - 5 mm (0.12 - 0.20 in.).
② Insert the blade.

2
Open the front cover.
Loosen the screw shown in the figure.

3
Support the screw from below and insert the blade holder. Installing it without supporting the screw from below can adversely affect the cutting quality.

Tighten the screw.
Tug the blade holder upward to make sure it does not come loose.

4

> **Important Note on the Handling and Use of the Cutting Carriage**
> Leave the cutting-carriage screw loose when no blade holder is installed. Keeping the screw tightened causes the blade-holder insertion hole to become gradually smaller, making installation difficult.

* For detailed information about how to install sheet media, such as standard-sized media, and usable media for this machine, refer to "BN-20 Master Guide."

2. Loading the Roll Media

1
Push the loading lever backward.
② Move the left media guide to the left.

2
Media bar
Hole
Media flange
Mounting pin
Insert the side of the media bar with a hole into the media flange, and secure it with the mounting pin. Use one of the two media flanges. The inside should be the one that fits the inner diameter of the roll media paper tube.

3
Push in
Push in
Make sure that there are no gaps.
Insert the fixed media flange at the bottom, so that the media feeds in a clockwise direction when looking from above. You cannot set the media correctly if the feed direction is not right.

4
Unit
Media feeding direction
Media bar
Place the fixed media flange at the bottom, so that the media feeds in a clockwise direction when looking from above. You cannot set the media correctly if the feed direction is not right.

5
① Move the roll media to the right so the media flange touches the right media guide.
Media flange
Right media guide
Left media guide
② Slide the left media guide and press it to the media flange.
Media flange

6
Pull the media straight to keep it taut, and let it pass beneath the media clamps.

7
① Make sure the left media guide is pressed against the media flange.
OK
NG
Media clamp
③ Pull the loading lever forward.

② Close the front cover.
Initialization starts when the front cover is closed and the loading lever is raised. Initialization is complete when the POWER key stops flashing and remains lit.

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