OA-NS-400

User's Manual

Thank you very much for purchasing this product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely.
- Unauthorized copying or transferal, in whole or in part, of this manual is prohibited.
- The specifications of this product and the contents of this operation manual 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 misprints or errors, please inform us.
- Roland DG Corporation assumes no responsibility for any direct or indirect loss or damage that may occur through use of this product, regardless of any failure to perform on the part of this product.
- Roland DG Corporation assumes no responsibility for any direct or indirect loss or damage that may occur with respect to any article made using this product.

Copyright © 2026 Roland DG Corporation

R1-260924

https://www.rolanddg.com/

Roland DG Corporation

Contents

Introduction 2
Features of This Machine 3
Using the Machine 4
Step 1: Setting This Machine 4
Step 2: Setting Up the Object 5
Maintenance and Troubleshooting 6
Cleaning the Machine 6
Troubleshooting 7

Introduction

Features of This Machine 3
Using the Machine 4
Step 1: Setting This Machine 4
Step 2: Setting Up the Object 5
Maintenance and Troubleshooting 6
Cleaning the Machine 6
Troubleshooting 7

Features of This Machine

This machine is an optional unit that can be installed on the IO-300.

This machine is a non-contact sensor whose use provides the following advantages.

- It becomes easier to set up objects to be printed on, leading to more efficient work.
- The object to be printed on can be set up without having to bring the head gap sensor in contact with it.

IMPORTANT

It is difficult for this machine to detect the height of objects with materials or shapes such as those shown below. To set up such objects, use the head gap sensor. In this explanation and its figures, "Feed" indicates the forward/backward direction.

- Objects to be printed on that do not block laser beams
- Objects to be printed on that have an overhang at the top

  Side



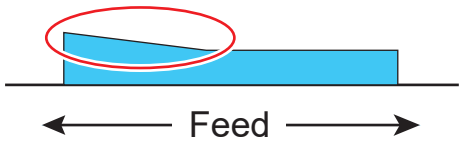
- Objects to be printed on that have small protrusions

  Side



- Objects to be printed on that have a slope in the Feed direction

  Side



Using the Machine

⚠ WARNING

Because there is the risk of causing harm to the human body (eyes, skin, etc.), observe the following items.

Relating to the Class 1 laser

This product is not equipped with a mechanism that stops emission of the laser beam when the product is disassembled. Never attempt to disassemble the product.

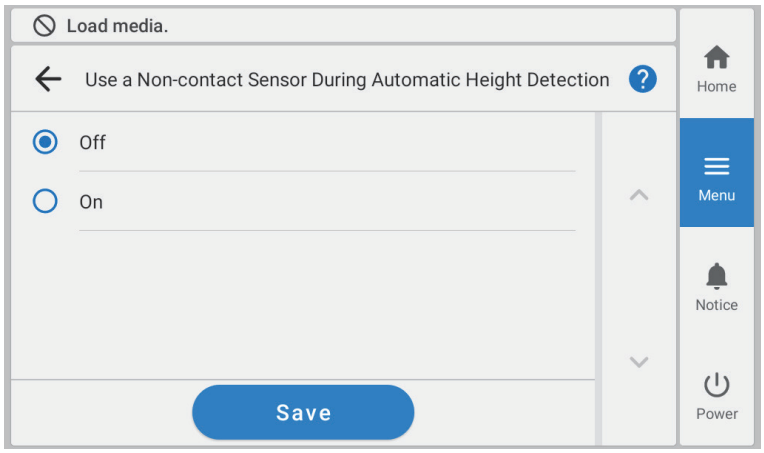
Do not stare into the laser beam or its specular reflection.

Step 1: Setting This Machine

You can switch this machine on/off from the operation panel of the printer. Use this machine appropriately according to factors such as the materials and shape of the object to be printed on.

Procedure

1. **Tap ☰.**
2. **Tap [Preferences]>[Use a Non-contact Sensor During Automatic Height Detection].**
3. **Tap [Off] or [On].**



[Use a Non-contact Sensor During Automatic Height Detection]	Description
[Off]	Use the head gap sensor to set up the object to be printed on. Select this option when setting up an object to be printed on whose materials and shape make it difficult to detect the height.
[On]	Use this machine to set up the object to be printed on. Select this option when you do not want to bring the head gap sensor in contact with the object to be printed on.

4. **Tap [Save].**
5. **Tap ⌂ to return to the home screen.**

Step 2: Setting Up the Object

You can use this machine to detect the height of the object to be printed on and automatically set up the table height.

MEMO

You can also use this machine to automatically set up the table height when performing a nozzle drop-out test or when using a rotary axis unit.

Procedure

1. **See Determining the Print Surface Height and Printing Position in the IO-300 User's Manual and carry out the steps up to the entering of the media name.**

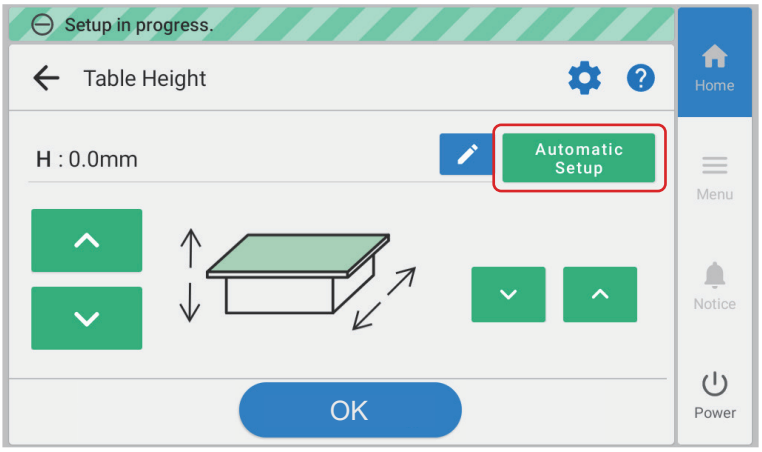
   MEMO

   It is assumed that this is your first object to be printed on.

2. **Tap [Change] next to [Table Height].**

3. **Tap [Automatic Setup].**

   This machine will automatically detect the height of the object to be printed on, and the height of the object to be printed on will be set automatically to a position about 1 mm (39.4 mil) away from the print head's ink emission surface.



4. **Tap [OK].**

5. **See Determining the Print Surface Height and Printing Position in the IO-300 User's Manual and set the print origin and the printing area.**

   When setup is finished, proceed with the work according to the "IO User's Manual."

Maintenance and Troubleshooting

Cleaning the Machine

If the non-contact sensor emitter or receiver is dirty, it may not be possible to accurately measure the height of the object to be printed on. If it is dirty, blow off the dirt using clean air. If the dirt is stubborn, wipe it off using a soft cloth moistened with alcohol.

Procedure

1. Tap .
2. Tap [Maintenance]>[Cleaning of Non-Contact Sensor].
3. Tap [Execute].
4. Follow the instructions on the operation panel to clean the non-contact sensor.
5. Tap [Finish].
6. Tap  to return to the home screen.

Troubleshooting

The Non-Contact Sensor Does Not Detect the Object to Be Printed On

Is the non-contact sensor dirty or is there an object obstructing it?

- If the non-contact sensor emitter or receiver is dirty, clean this sensor.

P. 6 Cleaning the Machine

IMPORTANT

If the non-contact sensor emitter or receiver is dirty, correct height measurement may not be possible. If it is dirty, blow off the dirt using clean air. If the dirt is stubborn, wipe it off using a soft cloth moistened with alcohol.

- Remove any obstructions you find.

When the object to be printed on cannot be detected even after you clean the non-contact sensor

Use the following procedure to register the standard waveform.

1. Remove any objects on the flat table.
2. Tap .
3. Tap [**Preferences**]>[**Register Standard Waveform of Height Sensor**].
4. Tap [**Execute**].
5. A dialog box appears. Check that there is nothing on the flat table, and then tap [**OK**].
   The standard waveform is registered, so once more set up the object to be printed on.
6. Tap  to return to the home screen.

RELATED LINKS

- P. 6 Cleaning the Machine


Roland