# Diffi 203iD User Manual





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#### **The Printer**

#### Introduction

Thank you for choosing the DiTi<sup>™</sup> direct thermal printer.

The new direct thermal printer from GA International can print our growing line of direct thermal labels designed for various applications throughout the lab, without the need for additional ink sources. This affordably priced direct thermal printer will also work with other third-party labels and standard direct thermal labels.

Small and lightweight, the DiTi printer can be easily moved and set up anywhere in the lab, with an easy loading design for quick roll replacement. The printer can accommodate three label roll core sizes and can also be used with an optional external roll holder for larger label rolls.

The printer comes with a free software and templates are available upon request.

#### Instructions for Proper Use and Precautions

- The printer should only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the printer in an explosive atmosphere (under atmospheric conditions with a mixture of dangerous substances in the air).
- The printer should not be used close to high-voltage power lines.
- If operating the printer with the cover open, ensure that any clothing, hair, jewelry, etc., does not contact exposed rotating parts.
- Printer operation should be limited to only those actions outlined in the user manual. Work beyond this may only be performed by trained personnel or certified service technicians.
- The printer should always be stored and operated under the recommended environmental conditions (Please see page 5 of this manual).
- · This product may cause radio interference, and users may need to take adequate preventive measures.
- The user must take proper care to avoid potential electric shock hazards.
- Precautions should be taken by the user to prevent possible burn risks (e.g., the printhead may become hot and cause severe burns. Allow the printhead to cool before manipulating it).
- Care should be taken when handling the product to ensure it is not damaged (e.g., dropping the printer, spilling liquids/chemicals into the printer, using different power voltage than specified).

#### **Limitation of Liability**

In no event shall GA International Inc., its affiliates, or any of the parties involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any loss, inconvenience, or damage whatsoever, whether direct, indirect, special, incidental, consequential or otherwise (including, without limitation, consequential damages including loss of business profits, business interruption, or loss of business information/data) arising out of the use of, the results of the use of, or inability to use the product, even if GA International Inc. has been advised of the possibility of such damages.

## **Product Features**

# Standard Equipment

Product Standard	203DPI
Direct Thermal Printing	✓
ABS Plastic Housing	✓
Gap Sensor	✓
Out of Media Detection	✓
Cover Open Sensor	✓
USB 2.0 Communication Interface	✓
2 MB RAM	✓
2 MB FLASH	✓
LED Indicators	✓
Characters and Barcodes Can be Printed in Four Degrees of Rotation (0, 90, 180, 270)	✓

Can Print text, Barcodes, and Pictures

Supported	d Barcodes	Supported Picture Formats	
1D Barcodes	2D Barcodes		
UPC-A, UPC-E UPC-Supplemental, EAN8, EAN13, JAN13, CODE39, CODE39 Extended, CODE39 Mod43, ITF, CODEBAR, PostNet, Bookland, CODE11, CODE128, CODE128A, CODE128B, CODE128C, CODE93, Logmars, MSI Mod10, Interleaved 2of5, Standard 2of5, Telepen, FIM, Pharmacode, GS1_128	PDF417, Datamatrix code, QR code, Micro PDF417, and Aztec code,	PNG, JPG	✓

# **Specifications**

Model	DiTi™
Printer Size	Length: 7.4" (188mm) Height: 5.9" (150mm) Width: 5.27" (134mm)
<b>Printer Weight</b>	1.94lbs (0.88Kg)
Power Supply	Input: AC 100-240V, 50-60Hz, 1.5A Output: 12V, 2A
Operating Conditions	Work environment: 41°F to 122°F (5°C to 50°C); 25-85%RH, non-condensing Storage environment: -40°F to 140°F (-40°C to 60°C); 10-90%RH, non-condensing

# **Print Specifications**

Printhead Resolution	203 dots/inch (8 dots/mm)
Print Speed (Inches/Second)	up to 4 inch/s (102mm/s)*
Maximum Print Width	3.35" (85mm)
Minimum Print Length	0.59" (15mm) <b>*</b>
Maximum Print Length	11.8" (300mm)

<sup>\*</sup>Minimum print height and maximum print speed specifications can be dependent on non-standard variables such as label type, thickness, spacing, liner construction, etc.

# **Media Size**

Maximum Media Roll Diameter	3.54" (90mm) OD
Media Type	Continuous, gap (die-cut), black mark, notch
Media Width	Min 1" (25.4mm)/Max 3.54" (90mm)
Media Thickness	Min 2.36mil (0.06mm)/Max 9.84mil (0.25mm)
Roll Core Diameter	1" / 25.4mm and other sizes too
Label Length	0.59"-11.8" (15-300mm)
Media Gap Height	Min 0.118" (3mm)

## **Product Introduction**

#### What's in the Box

- **1.** DiTi<sup>™</sup> Direct Thermal Printer
- 2. Power adapter
- 3. Power cord
- 4. USB cable
- 5. Cable retention clip
- 6. Flash drive with software and driver installation instructions





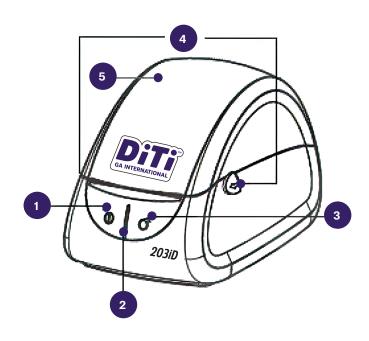


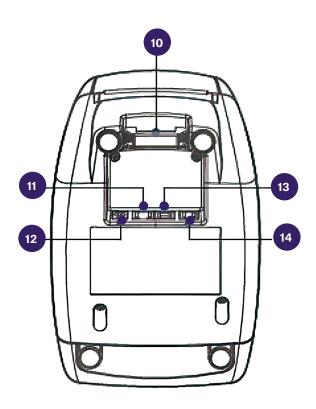


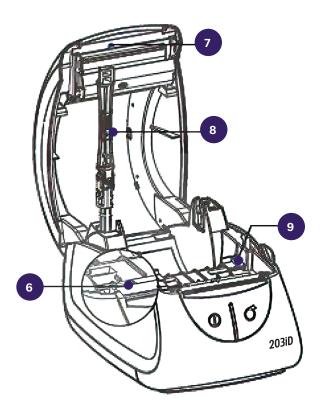




# Printer Components







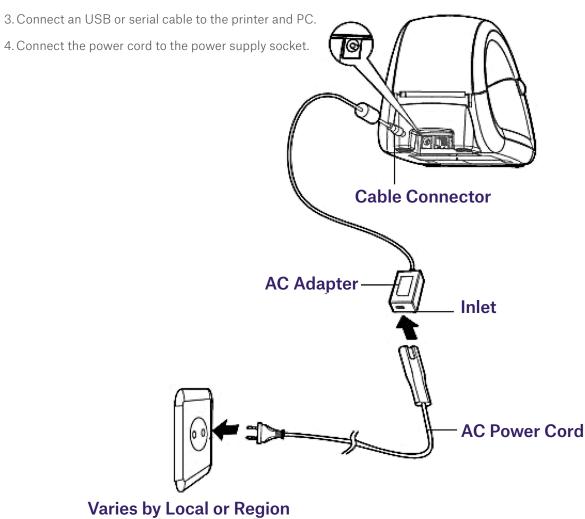
- 1 Power Button
- 2 LED Indicator
- 3 Feed Button
- 4 Cover Open Lever
- 5 Top Cover
- 6 Media Sensor (Movable)
- 7 Thermal Print Head
- 8 Media Roll Shaft
- 9 Media Guides (Movable)
- 10 Cables Retention Clip
- 11 Cash Draw Interface
- 12 Power Interface
- 13 USB Interface
- 14 Serial Interface

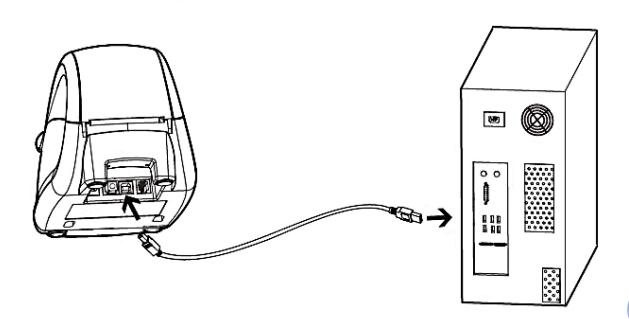
#### Installation

#### **Installing the Printer**

- 1. Place the printer on a stable surface.
- 2. Make sure the power is turned off.

  Do not plug in the power cord when the printer is turned on.

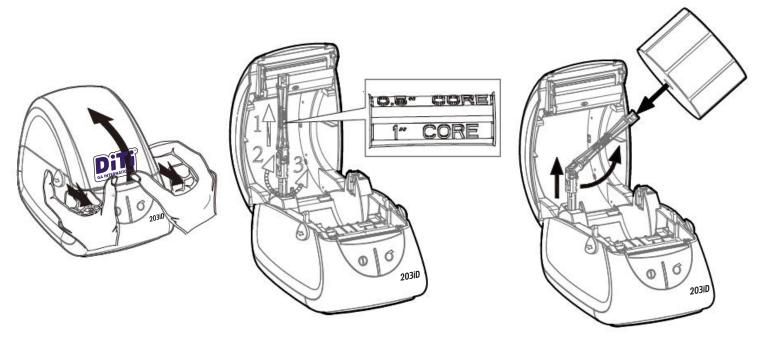


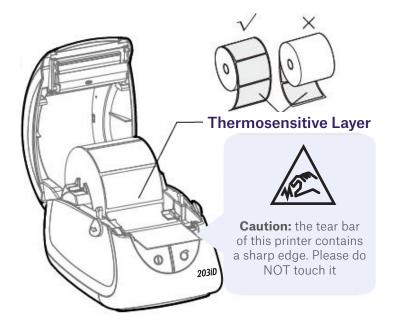


#### Installing the Media

- 1. Pull the catches on the left and the right towards the front to unlock and open the printer cover.
- 2. Pull out the media roll holder.
- **3.** Insert the media roll into the holder, and then lock the holder.
- **4.** Pull some media out, adjust the media guide to fix the media.
- **5.** Close the cover and tear off the excess media.

**Note:** Please position the sensor in the middle when not printing on labels with a black mark.

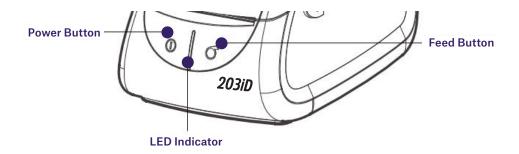






#### **Printer Settings and Control**

#### **Operation Panel**



#### **Power Button**

This button is used to turn the printer on/off. If you want to power on the printer, please hold and press the power button for approx. 1-2 seconds and the LED indicator turns blue. If you want to power off the printer, please press and hold the power button for approx. 1-2 seconds. The LED indicator is green if the printer works normally. The LED indicator is red if the printer is out of media or in case of any other error.

#### **Feed Button**

This button is used to feed media manually and for self-test printing. When the printer is ready, press the feed button for approx. 1 sec to feed one label. When using continuous media, press the feed button once to send out a predetermined length of media.

- 1. Make sure media is loaded properly.
- 2. Make sure the printer is powered off and the top cover is closed properly.
- 3. Press the feed button and power on the printer simultaneously. The printer will now print the self-test page.

LED Indicator		
Color	Status	Remarks
BLUE	ON	The printer is ready
DLUE	FLASH	Did not pass the RAM test
GREEN	ON	The printer is feeding/printing
RED	ON	Limit switch not in place
CYAN	ON	The printer is ready to print on continuous media
CYAN	FLASH	Out of media
YELLOW	ON	The printer is ready to print on continuous media
PURPLE	ON	The print head is overheated
WHITE	ON	The printer is ready to print on labels with black mark

#### Cleaning the printer

Adhesives and coatings can transfer onto the printer parts over time along the media path, including the print head and media sensor. This build-up can accumulate dust and debris. Failure to clean the print head, media path, and media sensor could result in the loss of print quality, label jams and possible damage to the printer.

#### **CAUTION**

Make sure to turn the printer off prior to cleaning.

The print head gets very hot during printing. Please turn the printer off and wait approx. 2 to 3 minutes before cleaning if you intend to clean the print head.

When cleaning the print head, take care not to touch the heated portion of the print head since the print head is susceptible to damage from static electricity.

Take care not to allow the print head to become scratched and/or damaged in any way.

#### **Cleaning Media Sensor**

Debris or dirt on the media sensor can cause a miss-read or unstable detection of the label gap. Clean with a cotton swap dampened with alcohol.

#### **Cleaning Print Head**

Clean the print head with ethanol or isopropyl alcohol and a cotton swap. Do not touch the heating elements with your fingers.

- 1) Open the Printer Cover and then use the cotton swap to clean the head from the center of the head towards the outside.
- 2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (approx. 1 to 2 minutes) and the printer has completely dried.

Perform the cleaning process each time the media roll is replaced to prevent print quality deterioration.

#### Cleaning the Roller or Media path

- 1) Open the printer cover and remove the media.
- 2) Using a dry cloth or cotton swab, remove any dust or foreign substance.
- 3) Soak the cloth or cotton swab in ethanol or isopropyl alcohol and use it to remove adhesive, foreign substances or other materials.
- 4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (approx. 1 to 2 minutes) and the printer has completely dried

Clean the parts when there is a degradation of print quality or media detection.

#### **WARNING**

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