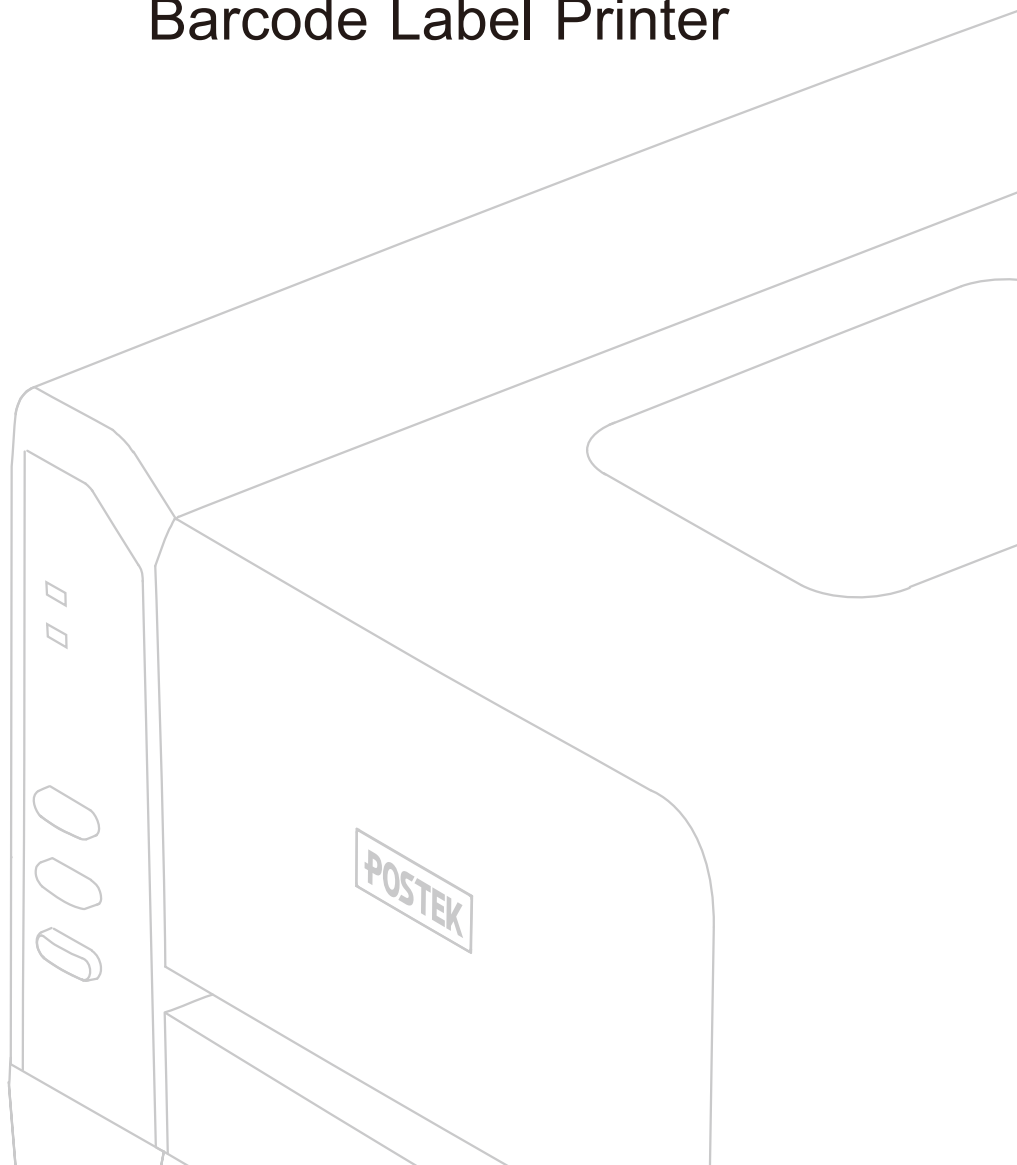




User's Manual

iQ Series

Barcode Label Printer



FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment may generate, use and/or radiate radio frequency energy. If not installed and used in full accordance with this User's Manual, interference to radio communications may occur. This equipment complies with the limits for a Class A Information Technology Equipment pursuant to Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may also cause interference. In such case the user, at his/her expense, will be required to correct the interference using whatever means necessary.

Trademarks

POSTEK is a registered trademark by POSTEK Electronics Co., Ltd.

ARM is a registered trademark of Advanced RISC Machines Ltd.

Microsoft, Windows are registered trademarks of Microsoft Corporation.

Copyright

© 2006-2015 by Postek Electronics Co., Ltd. All rights reserved. Under the copyright laws, this manual cannot be reproduced in any form without the prior written permission of Postek. No patent liability is assumed, with respect to the use of the information contained herein.

POSTEK iQ Label Printer User's Manual

1st edition February 2015

Disclaimer

This manual has been validated and reviewed for accuracy. The instructions and descriptions it contains are accurate for the Postek iQ label printer at the time of this manual's distribution. However, succeeding printers and manuals are subject to change without notice. Postek assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between the printer and this manual.

Although this manual describes and details many issues which could possibly occur, the manufacturer cannot warrant against unpredictable conditions during the printing process. For problems such as the printer not working, lost or unclear print content, etc., the manufacturer and resellers are responsible for correcting these issues (according to Postek Printer Warranty Clauses). In no event shall the manufacturer or the resellers involved be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising from the use of, the results of use or inability to use this product, even if the manufacturer has been advised of the possibility of such damages.

Important Safety Instructions

- ◆ Only qualified and trained service technicians should attempt to repair the printer.
- ◆ Do not place the printer on or near a heat source.
- ◆ Be sure that the output of the power adapter is 24VDC and your power source matches the rating listed on the power adapter. Be certain your power source is grounded.
- ◆ To avoid getting an electric shock, do not use a worn or damaged power cord. If the power cord becomes damaged or frayed, replace it immediately.
- ◆ Do not insert anything into the ventilation slots or openings on the printer.
- ◆ The printer and power adapter should never be operated in a location where either one can get wet. Personal injury may result.
- ◆ The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead.
- ◆ To get increased printhead longevity and higher quality printouts, always use approved labels, tags and thermal transfer ribbons. Approved supplies can be ordered from your Postek authorized reseller.
- ◆ Static electricity that accumulates on the surface of the human body or other surfaces can damage or destroy the printhead or electronic components in this device. DO NOT touch the printhead or the electronic components with bare hands.
- ◆ Place the printer on a flat, firm, solid surface.
- ◆ Never operate in a high temperature environment.
- ◆ Turn off the power when not in use for extended periods.
- ◆ Follow all recommendations and setup instructions included in this manual.

Warnings:

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 (see FCC Notice).

Static electricity that accumulates on the surface of the human body or other objects can damage the print head or electronic components in the iQ printer. Observe proper electrostatic safety precautions when handling.

Table of Contents

Preface	1
Important Notice, Read Me First.....	1
Chapter 1: Introduction.....	2
Printer Specifications	2
Specifications for Power Adapter	2
Contents of Box	2
Packing List	3
Chapter 2: Setup and Use	5
Setting up the Printer	5
Main Parts and Structures	5
Connecting the Printer	7
Interface Connection.....	8
Loading the Media.....	9
Standard Mode	9
Cutting Mode	14
Adjusting the Position of Media Sensor	16
Chapter 3: Operations and Settings.....	20
Basic Operations	20
Power Switch	20
The Front Panel.....	20
Advanced Functions	21
Windows Driver.....	23
Label Software	23
Chapter 4: Maintenance	24
Cleaning the Printhead.....	24
Cleaning the Platen Roller	24
Cleaning the Printer Interior	25
Chapter 5: Troubleshooting.....	26
Error Indications	26
Miscellaneous	27
Vertical Blank Lines Appear	27
Printer Timeout Error Message.....	27
Data Sent but Not Printing.....	27
Poor Printing Quality	27
Recovery	28
Appendix A: Interface Specifications	29
Appendix B: ASCII Table	31

Preface

This manual explains how to set up and begin using your iQ printer. It also provides detailed information on configuring your printer, basic operations, care and troubleshooting.

Please read this manual carefully before using the POSTEK iQ printer.

Important Notice, Read Me First

The thermal printhead can be easily damaged due to its precision construction. A printhead damaged by misuse is not covered under the terms of the warranty. To ensure longevity of the printhead, please note the following:

1. DO NOT scrape or use tools that might damage the printhead surface.
 2. To protect from corroding the printhead, DO NOT touch the printhead with bare hands.
 3. DO NOT use thermal paper or thermal transfer ribbons which contain Na, K or Cl.
 4. Keep printhead from any form of liquid or dampness.
 5. Only use a cotton swab dipped in anhydrous isopropyl alcohol to clean the printhead.
 6. Always use high-quality consumables:
 - When the printhead module is closed, pressure is placed directly onto the printhead; dirt such as paper scraps, sand, dust and glue can scrape or damage the printhead.
- Therefore, please always inspect consumables for high quality before purchasing. Any printhead damage caused by poor quality consumables is not covered under warranty.

Chapter 1: Introduction

Printer Specifications

Mode	iQ/200
Printing method	Direct Thermal
Printing resolution	203 dpi (8 dots/mm)
Max printing speed	5 ips (127 mm/s)
Max printing width	4.09"(104 mm)
Max printing length	40" (1016 mm)
Memory	8 MB FLASH ROM, 16 MB SDRAM
Media	Thermal paper Width: 4.72" (120 mm) max., 0.98" (25 mm) min. Supply roll: OD 5" (127 mm) max., ID 1" (25.4 mm) min. Thickness: 0.003"~0.006" (0.08~0.15 mm), including liner
Fonts	Five built-in dot matrix ASCII fonts, user-downloadable TrueType Fonts
Bar Code Types	1D Barcode: Code 39, Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5, UPC A/E 2 and 5 add-on, EAN-13/8/128, UCC-128. 2D Barcode: MaxiCode, PDF417, Data Matrix, QR Code.
Media sensor	Reflective (Adjustable)/Transmissive (Adjustable)
Interfaces	WIFI , RS-232 Serial, USB 2.0,
Power rating*	24 VDC, 2.5 A
Weight	1.8 kgs
Dimensions	W 8.3 x D 10.0 x H 5.9 inches (W 210 x D 255 x H 150 mm)
Operation environment	Temperature: 32° F ~ +104° F (0° C ~ 40° C) Relative humidity: 5% - 85% non condensing
Storage environment	Temperature: -40° F ~ +140° F (-40° C ~ 60° C) Relative humidity: 5% - 85% non condensing
Optional items	Guillotine Cutter, External Rewinder, Media Guide Adaptor, Bluetooth

Specifications for Power Adapter

Input	AC 100~240 V, 50~60 Hz
Output	DC 24 V, 2.5 A
Environment	0° C ~ 40° C

Contents of Box

Inspect the shipping carton(s) for possible shipping damage, if damage is discovered, notify the shipping company to

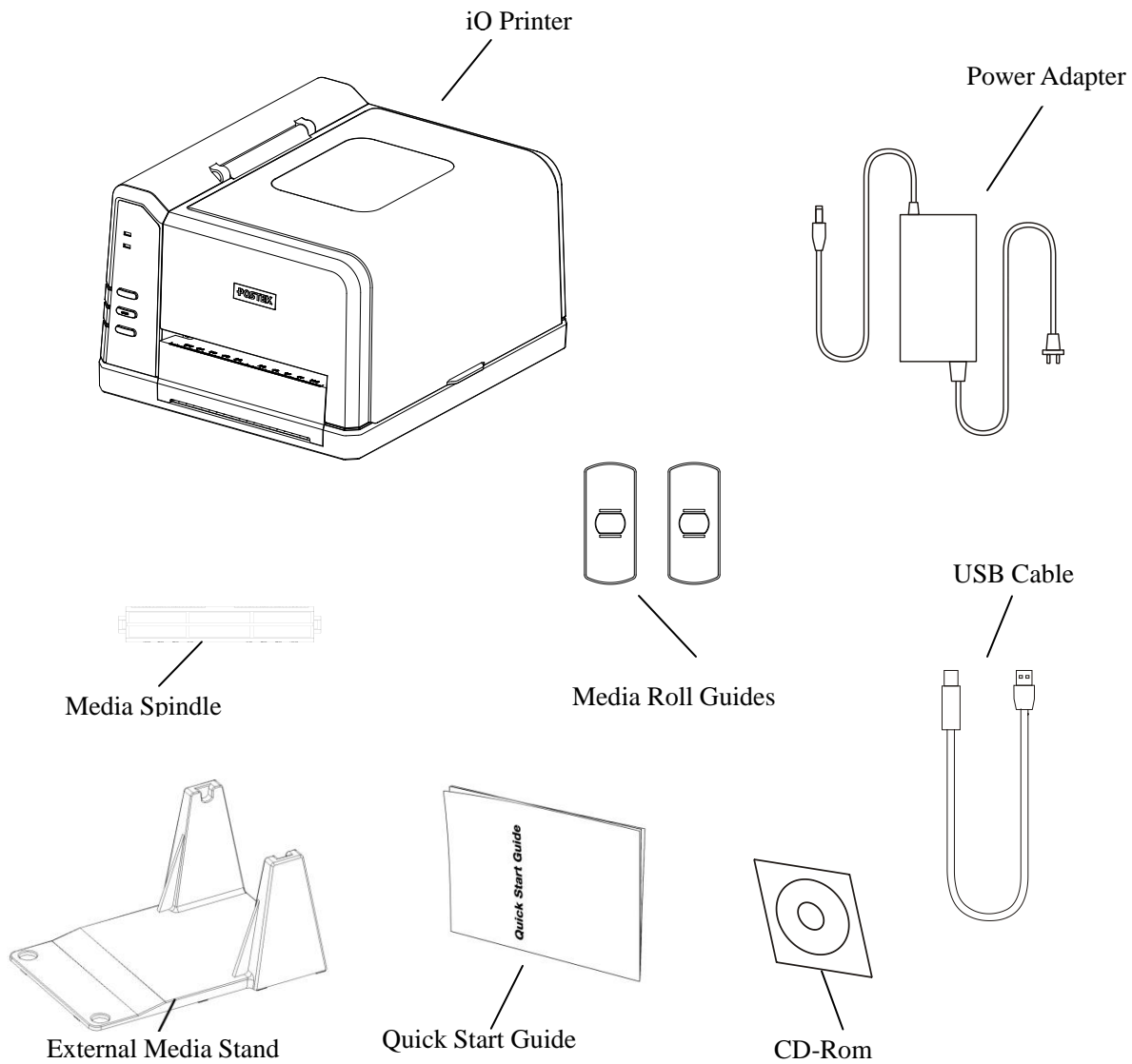
report the nature and extent of the damage.

Please check the items according to the Packing List. If there are any items missing, notify your authorized reseller.

Packing List

iQ Printer	1 pc
Power Adapter	1 pc
USB interface cable	1 pc
Media Spindle	1 pc
Media Roll Guides	2 pcs
Quick Start Guide	1 pc
*CD-ROM pack	1 pc

***Note:** CD-ROM pack includes the printer driver, label software, iQ User's Manual, "How to install" video and Programming Manual.

**Figure 1: Printer and Accessories**

Chapter 2: Setup and Use

Setting up the Printer

Before setting up the printer consider the following:

1. Make sure there is adequate space around the printer for loading consumables and proper ventilation.
2. Make sure the printer is close to the host so the interface cable is easily accessible at either end.

Main Parts and Structures

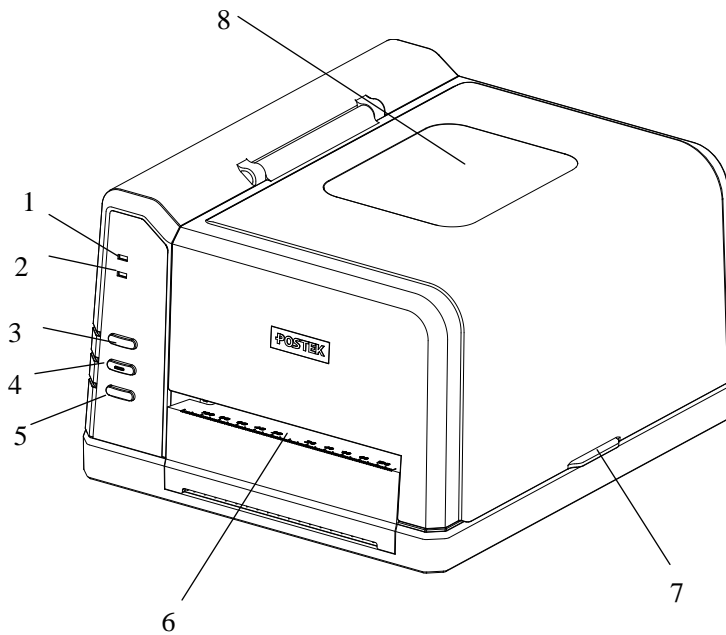
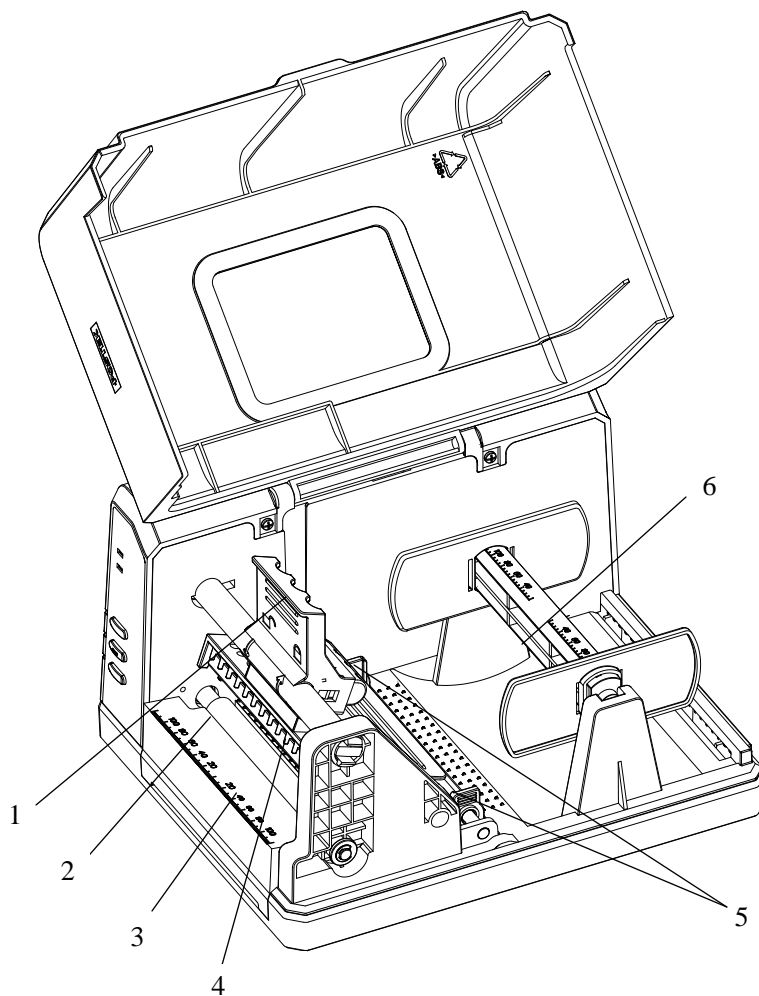
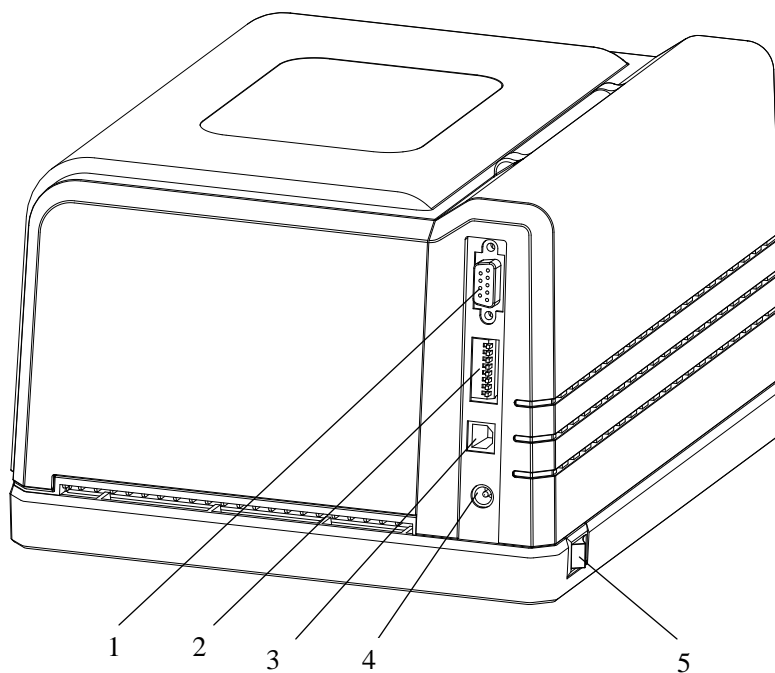


Figure 2

- | | | |
|--------------------|------------------|-----------------------|
| 1. READY Indicator | 4. FEED Button | 7. Cover Handle |
| 2. MEDIA Indicator | 5. CANCEL Button | 8. Observation Window |
| 3. PAUSE Button | 6. Media Exit | |

**Figure 3**

- | | | |
|------------------|---------------------|----------------------|
| 1. Handle | 3. Tearbar | 5. Media Guide |
| 2. Platen Roller | 4. Printhead Module | 6. Media Compartment |

**Figure 4**

- | | | |
|----------------------|---------------|-----------------|
| 1. RS232 Serial Port | 3. USB Port | 5. Power Switch |
| 2. DIP Switches | 4. DC IN Port | |

Connecting the Printer

Warnings:

- (1) Do not use the printer near liquids or corrosive chemicals.
- (2) Using the wrong power adapter may cause damage to your printer. POSTEK assumes no liability for any damage in such cases. The rating for the printer is 24VDC.

1. Make sure the printer is switched OFF.
2. Connect the power cord to the Power Adapter
3. Connect the Power Adapter's DC output plug to the DC IN port on the back of the printer.
4. Plug the power cord into a live wall outlet.

Interface Connection

The iQ supports WIFI, RS-232 Serial, USB interface connections.

Note: When connecting the iQ printer to a computer via the USB interface cable, make sure to utilize the same USB port used during the driver installation process, which enables the printer to retrieve needed commands or data from the PC. If the same USB port is not available or not known, then in the printer's Properties Dialogue Box, under the Ports tab, ensure the current port location is checked.

To connect:

1. Make sure the printer is powered OFF.
2. The printer will identify the communication port automatically.
3. The default values of printer port can be obtained from the self-test report. (See Chapter 2: Operation Basics/ Advanced Functions/ Self Test)
4. Cable configurations for Serial (RS-232C) interface is found in Appendix A of this guide.
5. Please take the following measures to reduce cable noise.
 - Restrict the length of the interface cable to less than 6' (1.83 M) if possible.
 - Keep the interface cable separate from power cords.

Loading the Media

iQ printers can be operated in two different modes: Standard mode and Cutting mode.

- In Standard mode, each printed label remains on the backing liner.
- In Cutting mode, the printer automatically cuts the label after it is printed.

Standard Mode

To load media into the iQ while using Standard Mode:

1. Lift up the top cover to expose the media compartment (see Figure 5-1).
2. Lift the Handle of the Printhead.
3. Take out the Media Spindle.
4. Load a roll of media (labels facing up) on the Media Spindle.
5. Slide the two Media Roll Guides, with smooth sides facing toward the media, onto the Media Spindle from each end until snug against the media.
6. Insert the entire unit into the media compartment in the printer.
7. Position the media roll in the middle of the Spindle, using the scale for guidance.
8. Slide the Media Guide to the edge of the media.
9. Route the media through the bottom of the Media Guide Rod, and slide the Media Guides to the edge of the media; don't squeeze the labels, make sure they remain flat (see Figure 5-3).
10. Lead the media over and pass the Platen Roller to the front of the printer, and position the media in the middle of the Platen Roller, using the scale for guidance.
11. Press down the Handle of the Printhead to lock the Printhead (see Figure 5-4).
12. Close the cover and press the "Feed" button to feed the media and ensure proper tracking. If the printer does not correctly sense each label, it may be necessary to perform the Media Calibration procedure (found in the Operation Basics section.)

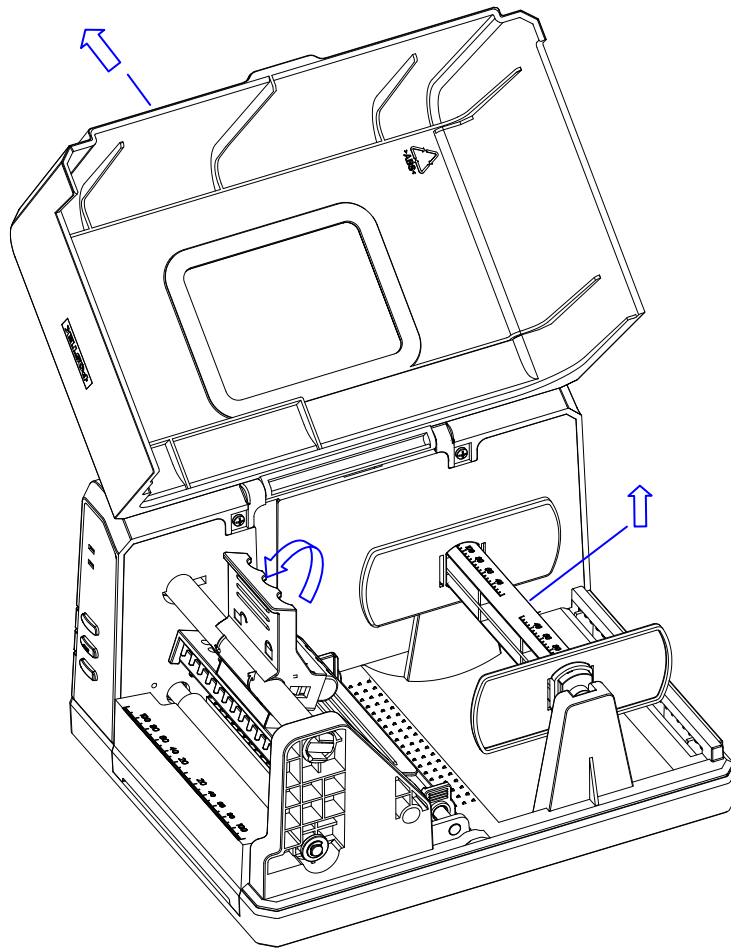
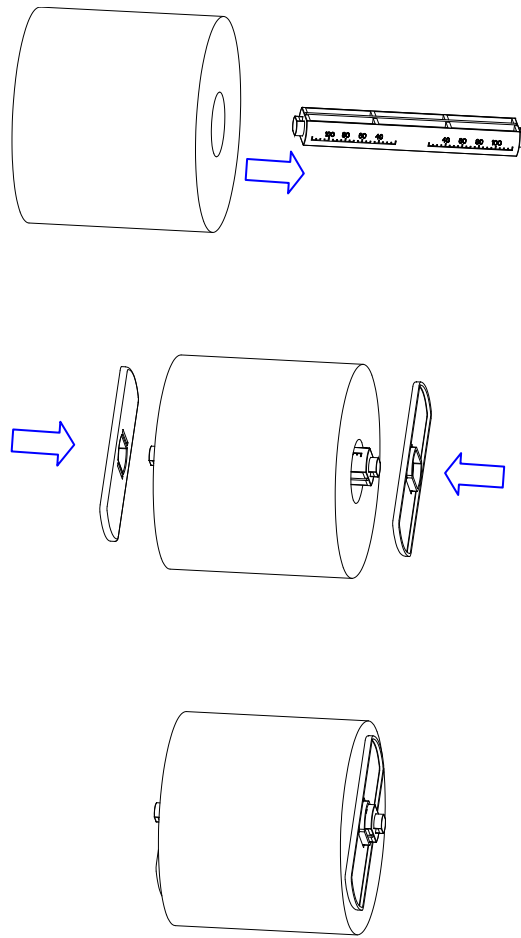
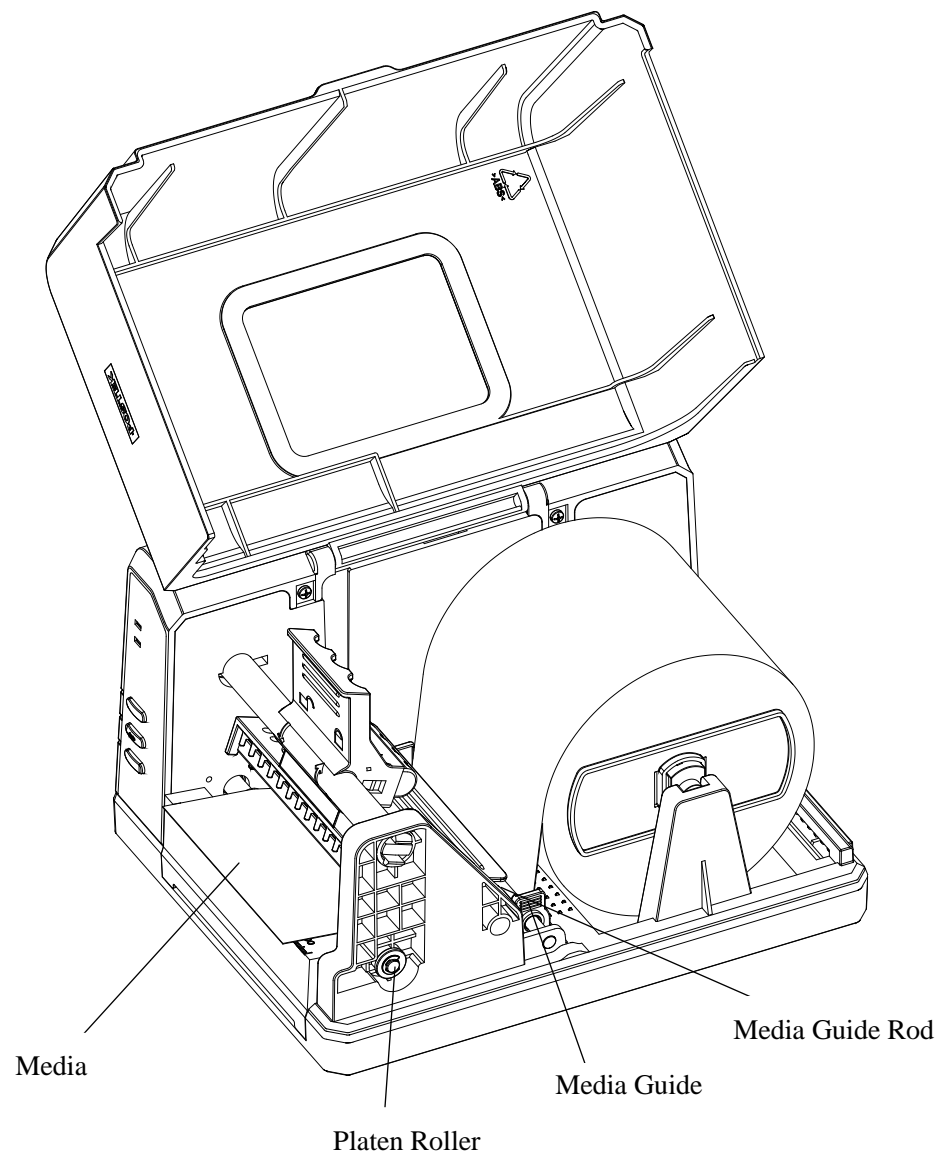
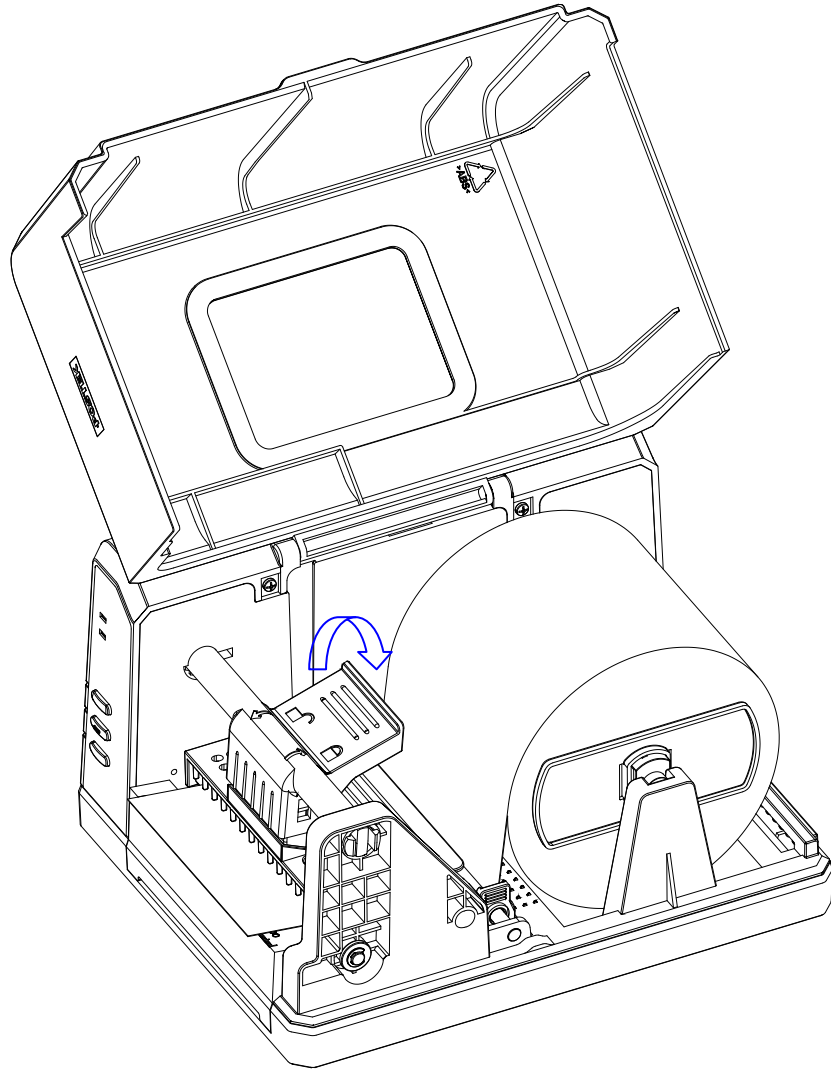


Figure 5-1

**Figure 5-2**

**Figure 5-3**

**Figure 5-4**

Cutting Mode

Note: Operating the printer in Cutting mode requires the optional Guillotine Cutter.

1. Set the 3rd DIP Switch to the ON position to enable the cutter function (see Figure 5-5).
2. Turn on the printer.
3. Reset the printer: Press and hold the “Cancel” button for 2 seconds, until the 2 indicator lamps begin to blink simultaneously. Release the “Cancel” button and press it again one more time. The 2 indicator lamps stop blinking and remain lit. Reset is complete.
4. Load media as shown in Figure 5-7. The Guillotine Cutter is now ready to use.

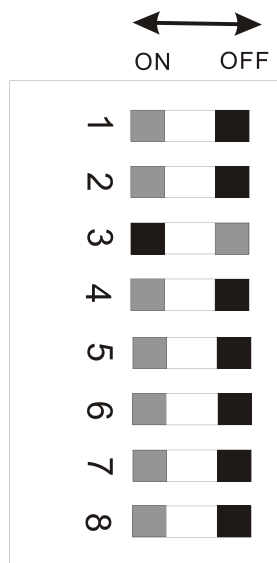


Figure 5-5

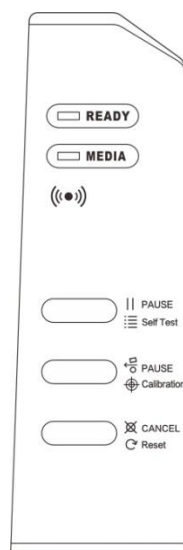
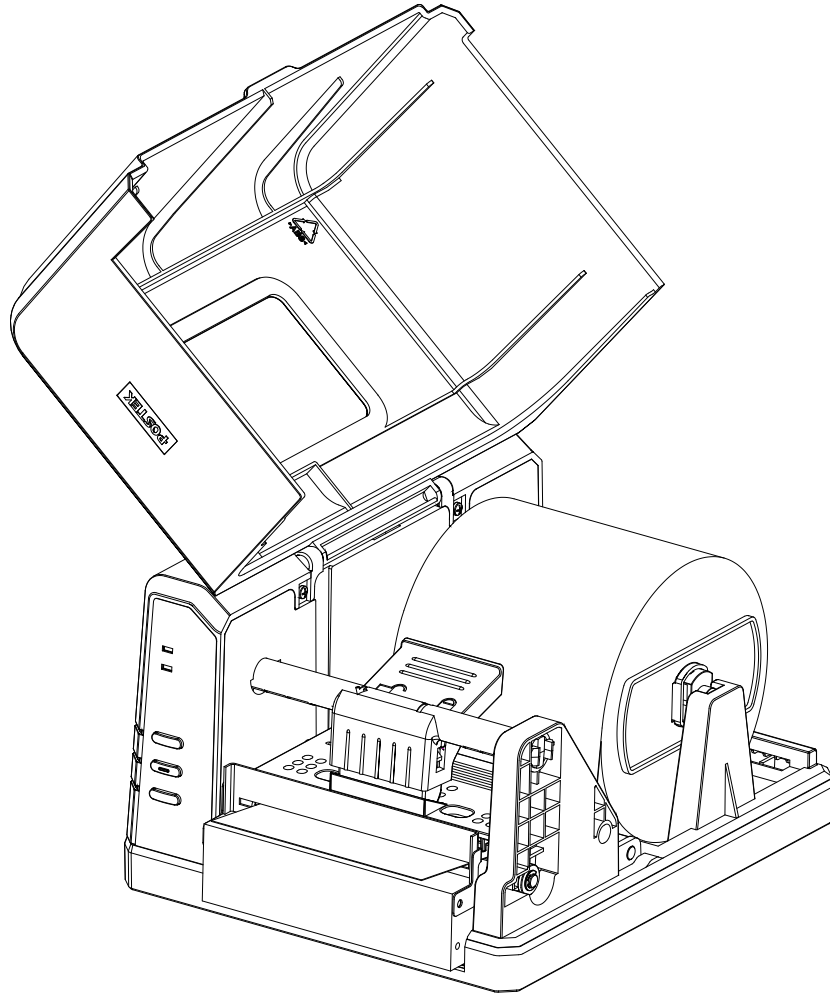


Figure 5-6

**Figure 5-7**

Adjusting the Position of Media Sensor

1. Lift the top cover (see Figure 6-1).
2. Lift the Handle of the Printhead to release the Printhead Module, then lift the Printhead Module to expose the Media Sensor cover (see Figure 6-2).
3. Refer to Figure 6-3, 6-4 and 6-5, make sure the location of the Media Sensor.
4. Remove the Media Sensor cover(see Figure 6-6), remove the screw, adjust the Media Sensor to the appropriate position, then fix the screw back (see Figure 6-7).
5. Replace the Media Sensor cover.

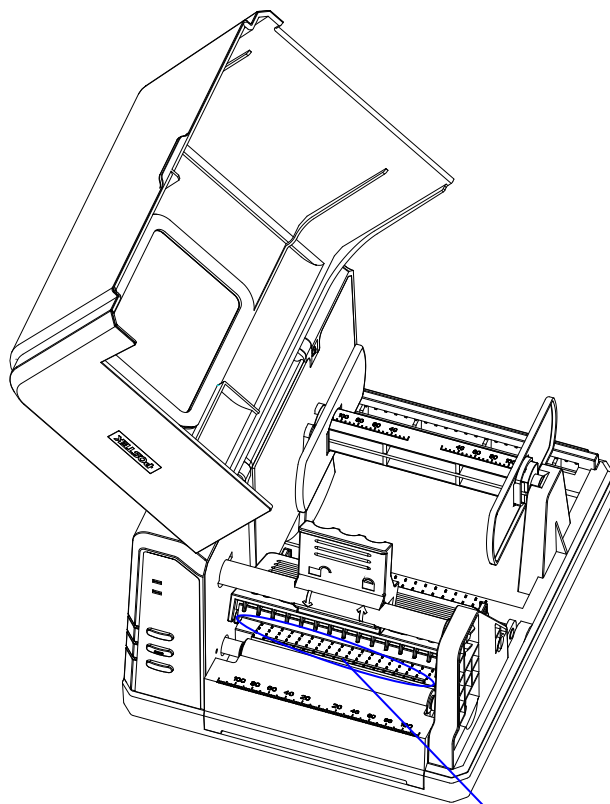
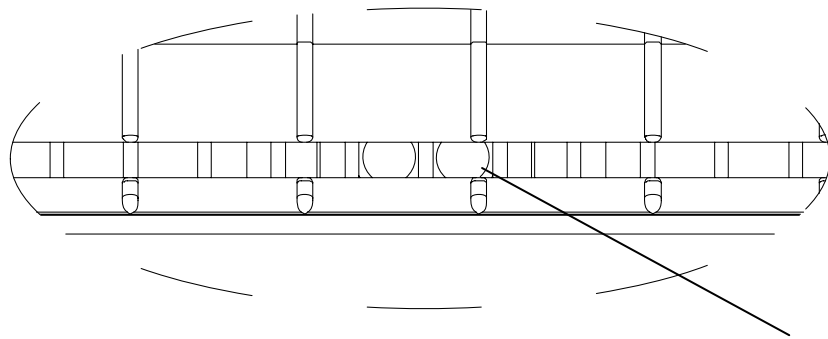
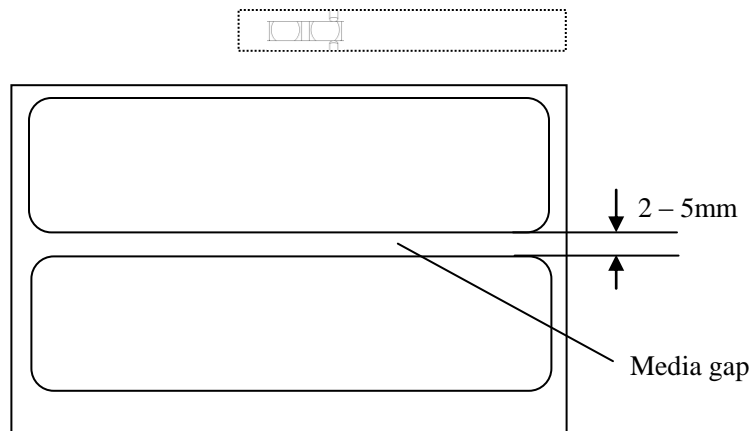


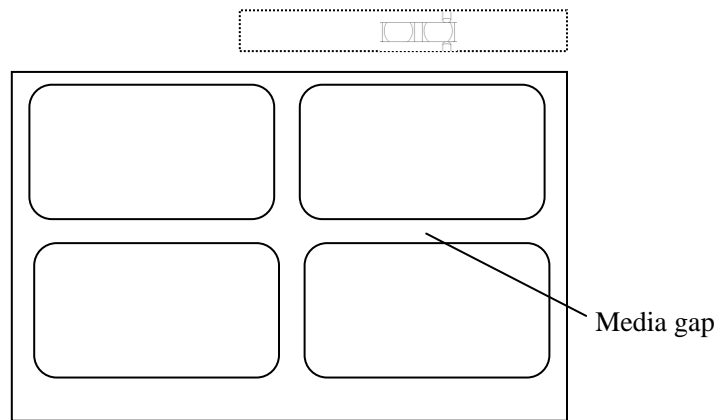
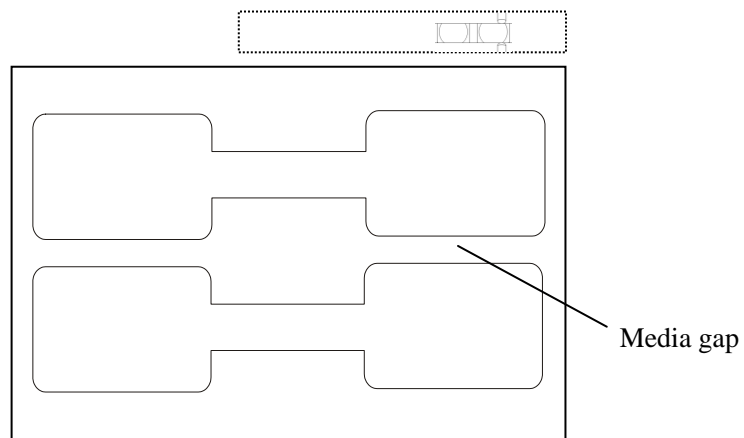
Figure 6-1

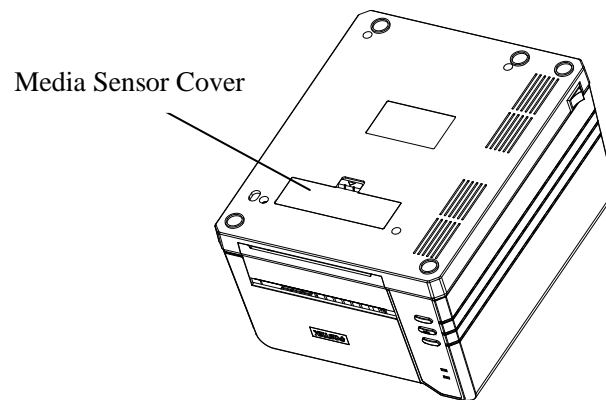
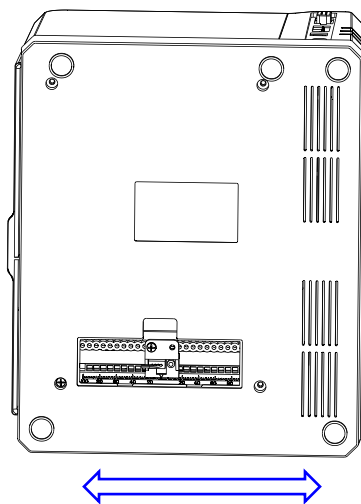
Media Sensor cover

**Figure 6-2**

Media Sensor

**Figure 6-3**

**Figure 6-4****Figure 6-5**

**Figure 6-6****Figure 6-7**

Chapter 3: Operations and Settings

Basic Operations

Power Switch

The power switch is on the back panel of the printer. The symbols on the switch are defined as follows:

— — ON

○ — OFF

The Front Panel

The Front Panel of the iQ printer consists of:

- Two Indicator Lamps: READY and MEDIA
- Three multi function buttons: PAUSE, FEED and CANCEL

Indicator Lamps

The two lamps indicate the status of the printer (please refer to Chapter 4: Troubleshooting, for error indicators).



- **Solid:** Indicates the printer is in the normal state.

- **Blinking:** Indicates the printer is in the 'PAUSE' state.



- **Solid:** Indicates the printer is in the normal state.

- **Blinking simultaneously with READY:** Running out of media.

Panel Buttons

The three buttons have different functions based on the mode of the operation is performed.

Mode	Basic Functions	Advanced Functions (see Advanced Functions below)
Feed/Calibration	Feed one label	Media Sensor Calibration
Pause/Self Test	<ul style="list-style-type: none"> - Press once to pause current print job - Press a second time to resume printing 	Self-test: The printer performs a self-test and prints out a configuration report
Cancel/Reset	<ul style="list-style-type: none"> - Cancel current batch of labels - Forces the printer to continue working after an error has been corrected 	Reset: Resets the printer to factory default settings

Advanced Functions

Media Sensor Calibration

It is necessary to accomplish Media Sensor Calibration after a new roll of media has been loaded.

1. Press and hold the Feed/Calibration button for about 2 seconds.
2. The printer will feed approximately 200mm of media.
3. The two indicators stop blinking and remain lit; the printer is back to a normal state.

Self Test

1. Press and hold the Pause/Self Test button for about 2 seconds.
2. The printer will print out a configuration report and the 2 indicators will stop blinking and remain lit. The printer is back to a normal state.

The following information will be printed on the self-test report:

- Font list
- Hardware configuration and status
- DIP switch settings
- Label parameters
- Firmware version

Reset – Reset the Printer to the Factory Default Settings

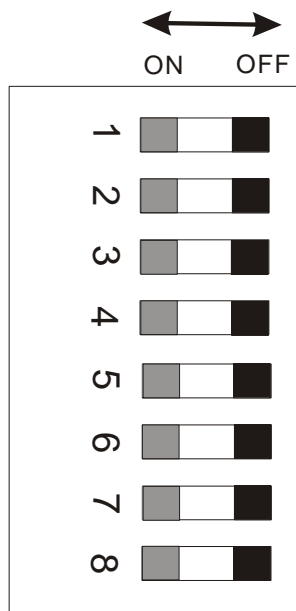
1. Press and hold the Cancel/Reset button for 2 seconds, the two lamps will blink simultaneously (the printer will return to normal state automatically if no operations are performed within 2 seconds).
2. Release and press the Cancel/Reset button again.
3. The two indicators stop blinking and remain lit. The printer is now in its normal state.

The following parameters have automatically been reset:

- Label
- Print darkness
- Speed
- Others

Note: The number of printed labels and printed length may not be reset.

DIP Switch Panel



Note: Turn off printer before setting DIP switches.

DIP Bit	Functions	Remarks
1	Reserved and not available	/
2	ON: Tear off position OFF: Edge of next label	Stop position setting Default: OFF
3	ON: Cutter installed OFF: Cutter not installed	Cutter setting Default: OFF
4	Reserved and not available	/
5	Reserved and not available	/
6	Reserved and not available	/
7	<u>8</u> <u>7</u> 0 | 0 – 9600,n,8,1 0 | 1 – 19200,n,8,1	RS232 Serial Port baud rate setting 0: OFF, 1: ON Default: 00
8	1 | 0 – 38400,n,8,1 1 | 1 – 57600,n,8,1	

Windows Driver

The iQ printer driver is packaged with the iQ in the CD-ROM pack, and is compatible with the following operating systems:

- Windows 8
- Windows 7
- Windows 2000
- Windows Vista
- Windows NT
- Windows 98
- Windows XP
- Windows 2003
- Windows ME

Drivers can also be downloaded from www.postek.com.cn and www.postektechnologies.com

Note: Before updating a driver, always first remove the old version(s) that may be loaded on your computer.

Label Software

Each iQ printer is packaged with powerful barcode label editing software.

Note: Before downloading the software, always first remove any old version that may be loaded on your computer.

Chapter 4: Maintenance

Warnings:

- (1) Make sure the printer is powered off before performing maintenance operations.
- (2) The Printhead may be hot due to recent printing. Wait until the Printhead cools before performing maintenance.
- (3) Use only anhydrous isopropyl alcohol to clean the print head.

Cleaning the Printhead

The Printhead is the mechanism that enables the ink to impact the label. Due to the Printhead's precision construction and necessary location in the printer, it comes into contact with consumables and therefore is susceptible to dirt accumulation. If dirt is not removed, the Printhead may be damaged. To ensure longevity of the Printhead, follow the recommended maintenance guidelines below:

Note: A Printhead damaged by misuse is not covered under warranty.

Clean the Printhead after every (3) rolls of label media use. To clean the Printhead:

1. Turn off the printer;
2. Open the top cover of iQ printer;
3. Lift the Handle to release the Printhead, and lift the Printhead Module.
4. Use a cotton swab dipped in anhydrous isopropyl alcohol. Rub the swab along the Printhead until the swab no longer accumulates ink.
5. Let the Printhead dry before using the printer again.

Cleaning the Platen Roller

The Platen Roller, located at the exit point and underneath labels, supports the labels as they feed out of the printer. The roller can accumulate debris from consumables, such as dirt, sand, dust or glue. To ensure longevity of the Platen Roller, follow the recommended maintenance guidelines below:

Clean the Platen Roller after every (3) rolls of label media used. To clean the Platen Roller:

1. Turn off the printer;
2. Open the top cover;
3. Lift the Handle of the Printhead, and then lift the Printhead Module to expose the Platen Roller;
4. Remove the media;
5. Use a cotton swab dipped in anhydrous isopropyl alcohol. Rub the swab along the Platen Roller while rotating the roller until the swab no longer accumulates debris.

Cleaning the Printer Interior

Over time, the printer's interior may collect dust or debris from the consumables. It is advised to periodically clean the printer's interior in order to prevent the accumulated debris from damaging internal parts.

To clean the printer interior, use a cotton swabs dipped into anhydrous isopropyl alcohol and remove any debris.

Chapter 5: Troubleshooting

Occasionally situations occur that require some troubleshooting. Possible issues and potential solutions are listed in this section. While not every situation is addressed, you may find some of these tips useful.

Error Indications

Typically, when the printer is not functioning, one or two of the two indicator lamps will begin blinking. The possible situations addressed by the status of the two indicator lamps are listed below.

READY and MEDIA Lamps blink simultaneously:

Possible Cause	Recommended Solutions
Media sensor cannot detect labels	a) Check and confirm the media has been loaded correctly; b) Check the position of the media sensor and confirm it could detect the media gap or black line; c) Calibrate the media sensor. Note: If using continuous media, ensure correct Media Type settings in chosen in the label software.
Media ran out	Load a new roll of media.
Media jammed	Clear the jam.
The Media Roll Guides are not firmly positioned against the Media or have not been installed.	Install the Media Roll Guides correctly and slide them close to the edge of media (see Figure 5-2, Page 11).
Media sensor is broken	Contact an authorized POSTEK service provider for technical support.

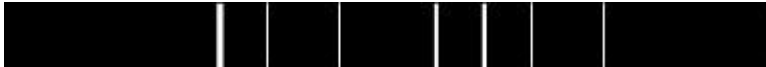
Only READY Lamp blinks:

Possible Cause	Recommend Solutions
Memory overflow	a) Restart the printer; b) Reset the printer.

Miscellaneous

Vertical Blank Lines Appear

If the printer prints vertical blank lines as shown in the below picture, it may be due to a dirty or defective Printhead. See the table below for possible causes and solutions.



Cause	Corrective Action
The Printhead is dirty.	Clean the Printhead. Follow the recommended maintenance guidelines for cleaning the Printhead.
Vertical lines still appear after cleaning the Printhead.	Contact an authorized POSTEK service provider for technical support.

Printer Timeout Error Message

Execute following corrective actions:

1. Check the interface cable for proper connection.
2. Ensure the printer is powered on.

If the trouble still exists, please contact an authorized POSTEK service provider for technical support.

Data Sent but Not Printing

1. Ensure the correct driver is chosen in the label software.
2. Reset the printer.

If the trouble still exists, please contact an authorized POSTEK service provider for technical support.

Poor Printing Quality

When experiencing poor print quality, check the following:

1. Adjust print darkness setting value.

2. Adjust print speed setting value.
3. Clean the Printhead and the platen roller.
4. Poor quality printing may be caused from using low quality media. Change to higher quality media.

Recovery

After the miscellaneous has been cleared, press the CANCEL button to clear the alarm or restart the printer to resume the printing automatically.

Note: For errors not listed here, please contact an authorized POSTEK Service Provider for further assistance.

Appendix A: Interface Specifications

The RS232 connector on the printer is a DB9F:

Pin	Direction	Definition
1	/	/
2	Out	TX
3	In	RX
4	In	CTS
5	-	Ground
6	Out	RTS
7	In	DSR
8	Out	DTR
9	/	/

Connection with host:

Host 25S	Printer 9P	Host 9S	Printer 9P
TX 2	..... 3 RX	RX 2	..... 2 TX
RX 3	..... 2 TX	TX 3	..... 3 RX
DSR 6	..... 8 DTR	DTR 4	..... 7 DSR
DTR 20	..... 7 DSR	DSR 6	..... 8 DTR
RTS 4	..... 4 CTS	RTS 7	..... 4 CTS
CTS 5	..... 6 RTS	CTS 8	..... 6 RTS
GND 7	..... 5 GND	GND 5	..... 5 GND

Alternately you can just connect the 3 wires as follows:

Host 25S	Printer 9P	Host 9S	Printer 9P
TX 2	..... 3 RX	RX 2	..... 2 TX
RX 3	..... 2 TX	TX 3	..... 3 RX
GND 7	..... 5 GND	GND 5	..... 5 GND
pin 4	<input type="checkbox"/>	pin 4	<input type="checkbox"/>
pin 5	<input type="checkbox"/>	pin 6	<input type="checkbox"/>
pin 6	<input type="checkbox"/>	pin 7	<input type="checkbox"/>
pin 20	<input type="checkbox"/>	pin 8	<input type="checkbox"/>

- Baud rate: 9600, 19200, 38400, 57600
- Data format: always 8 data bits, 1 start bit and 1 stop bit.
- Parity: always non parity.
- Flow control: RTS/CTS (Hardware flow control).

If you are using software or drivers under the Windows environment, the flow control must be set to “hardware.”

- Any communications port can transmit data from the host (RS232, Ethernet, or USB). Preliminary communications settings are not required since the printer will automatically detect which port is active.

Note: Never send data from 2 ports at the same time. Data cannot be sent to more than one port simultaneously or data corruption and print errors may occur.

Appendix B: ASCII Table

	0	1	2	3	4	5	6	7
0	NUL			0	@	P	`	p
1	SOH	XON	!	1	A	Q	a	q
2	STX		“	2	B	R	b	r
3		XOFF	#	3	C	S	c	s
4			\$	4	D	T	d	t
5		NAK	%	5	E	U	e	u
6	ACK		&	6	F	V	f	v
7	BEL		‘	7	G	W	g	w
8	BS		(	8	H	X	h	x
9			)	9	I	Y	i	y
A	LF		*	:	J	Z	j	z
B		ESC	+	;	K	[	k	{
C	FF		,	<	L	\	l	|
D	CR		-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

Note: The € sign is included in the embedded table at DEC128 or HEX 80