TOSHIBA

Portable Printer

B-FP3D-GH30/40-QM-R
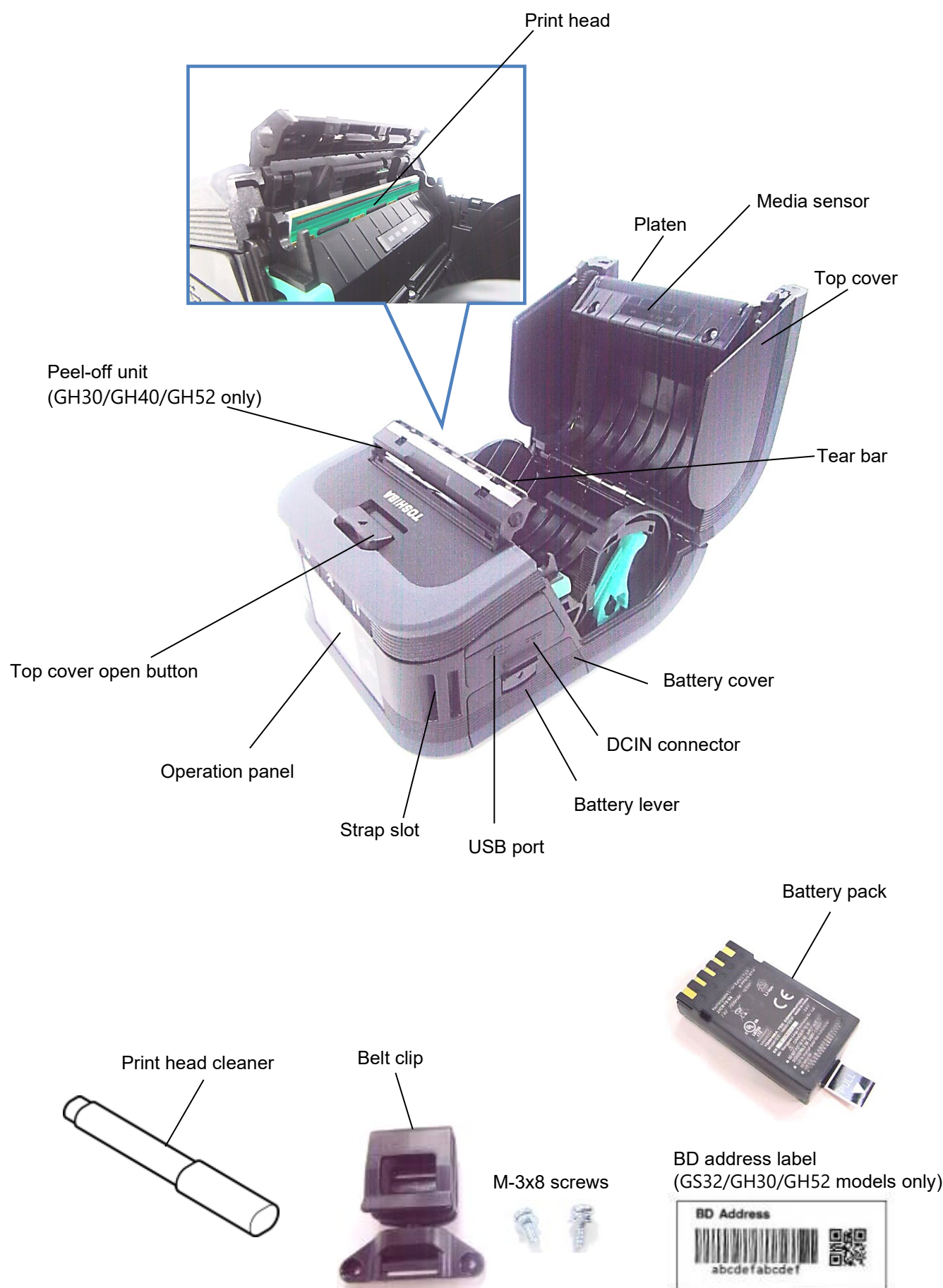# B-FP3D-GS32/42-QM-R
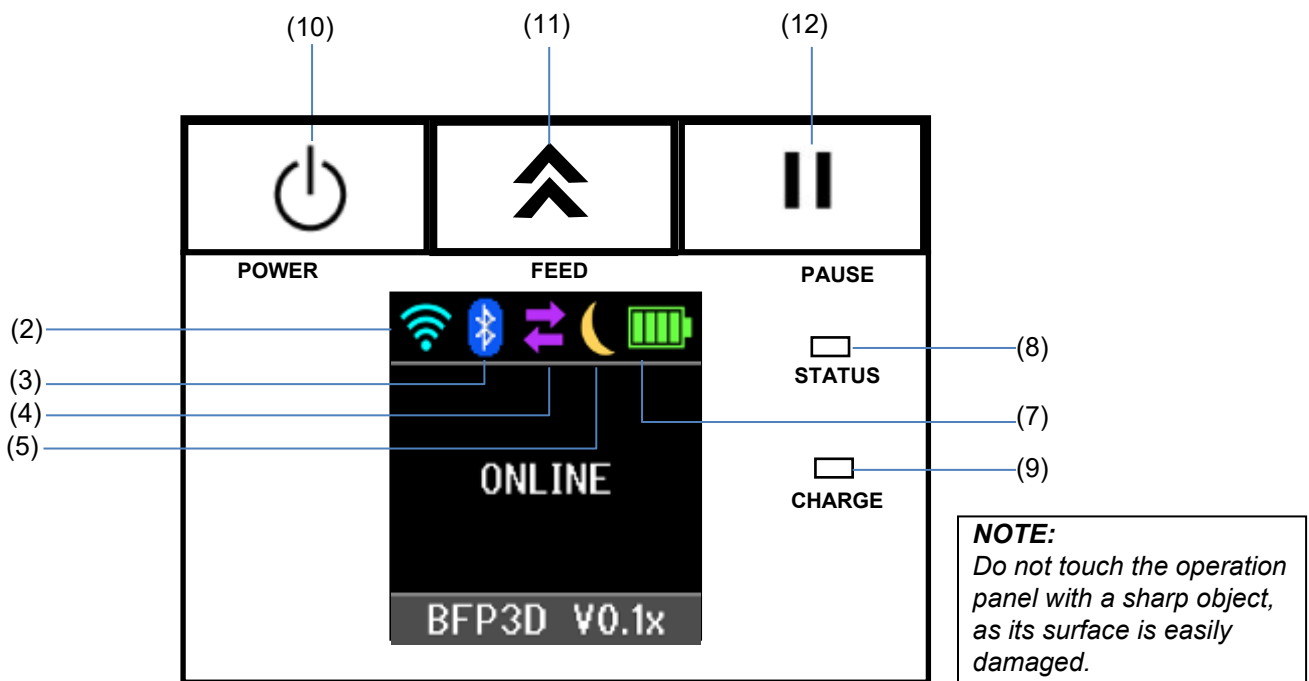# B-FP3D-GH52-QM-R

Owner's Manual

Part Names

Print head

Media sensor

Platen

Top cover

Peel-off unit
(GH30/GH40/GH52 only)

Tear bar

Top cover open button

Battery cover

DCIN connector

Operation panel

Battery lever

Strap slot

USB port

Battery pack

Print head cleaner

Belt clip

M-3x8 screws

BD address label
(GS32/GH30/GH52 models only)

BD Address

abcdefabcdef

Operation Panel Functions

NOTE:
Do not touch the operation panel with a sharp object, as its surface is easily damaged.

No.	Name/Icon	Function/Usage	
(1)	Liquid Crystal Display	Icons indicating the printer statuses, such as the radio intensity, battery level, etc. are displayed. Printer status is indicated in alpha numerals or symbols.	
	LCD Message	ONLINE	The printer is ready for an issue command from the host.
		PAUSE	The printer is in pause state. When the printer is paused during printing, the number of unprinted labels is displayed.
		COVER OPEN	The top cover is open.
		LBL PRESENT ****	The printer is waiting for a printed label to be removed from the media outlet. "****" indicates the number of unprinted labels.
		WAITING(XXXX)	The printer is waiting for the recovery of the battery voltage or the temperature decrease of the print head or motor.
(2)	WLAN Signal strength	Indicates the WLAN intensity in 4 levels	
(3)	Bluetooth	Bluetooth connected	Indicates the Bluetooth connection status
		Bluetooth not connected	
(4)	Transmission	Data reception by the printer	Indicates the data transmission status.
		Data transmission to the host	
(5)	Sleep	Displayed while the printer is in the power saving mode.	

| (6)	Error	Displayed when an error has occurred in the printer.
(7)	Battery level	Indicates the battery level in 5 levels.
(8)	STATUS lamp	Lights or blinks in green, red or orange to indicate the printer status. • Lights up in green: Normal state • Lights up in orange: Low-battery warning state (Operable) • Lights up in red: Low-battery state • Blinks in green or orange: Communicating or internal processing is in progress or a printed label is waiting to be removed. • Blinks in red: Error state
(9)	CHARGE lamp	Lights up in orange while the battery pack is charging and goes out when the battery charge is completed.
(10)	[POWER] button	Turns the printer on or off. **How to turn on the printer** While the printer is off, hold down the POWER button for a few seconds. When "ONLINE" is displayed on the LCD, the printer is ready. **How to turn off the printer** Hold down the POWER button until the LCD goes off.
(11)	[FEED] button	Feeds media or reprints a previously printed data items. The function of the [FEED] button differs depending on the issue mode.
(12)	[PAUSE] button	Temporarily stops media issuing or restarts printing. Used to recover the printer after the clearing of an error

Loading a Battery Pack

WARNING!
1. If the battery pack leaks liquid or gives out smoke or a bad smell, immediately stop using it and keep it away from fire. Failure to do this may cause combustion or even an explosion.
2. In the United States, used lithium ion batteries should be returned to the store where you bought the machine. (USA only)
3. LITHIUM ION BATTERIES MUST BE DISPOSED OF PROPERLY. **Caution: Do not handle any damaged batteries or any leaking lithium ions.**
4. To avoid injury, be careful not to drop the battery pack on your feet.

Press the battery lever to open the battery cover and insert the battery pack into the printer right up to the end. The battery pack is locked in by the battery cover. Be careful of the orientation of the battery pack.

NOTE:
- *Be sure to use only the battery pack designed and manufactured for use with the printer B-FP3D series: B-FP803-BTH-QM-R*

- *When unpacked, the battery level of the supplied battery pack is not full. Therefore, charge the battery pack with an optional battery charger or load the battery pack in the printer and connect an optional adapter before using it.*

[B-FP3D Series]

◆ 1-slot battery charger:	B-EP800-CHG-QM-R
◆ 6-slot battery charger:	B-EP800-CHG6-QM-R
◆ AC adapter:	B-FP800-AC-QM-S
◆ Cigarette lighter adapter:	B-EP802-DC12-QM-R
◆ DC Jack plug adapter:	B-FP800-DCJA-QM-R

Battery lever

Tab
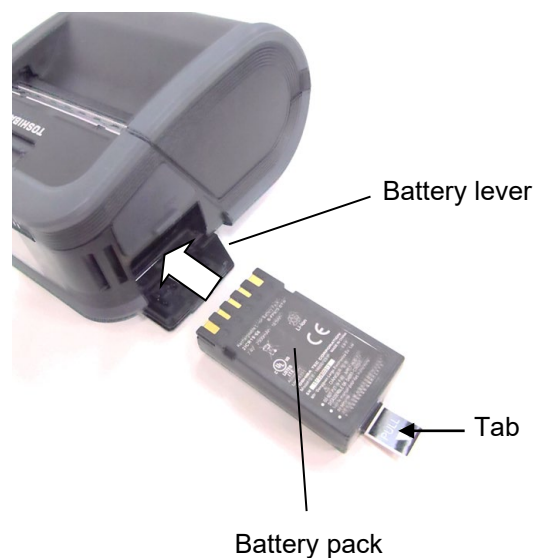
Battery pack

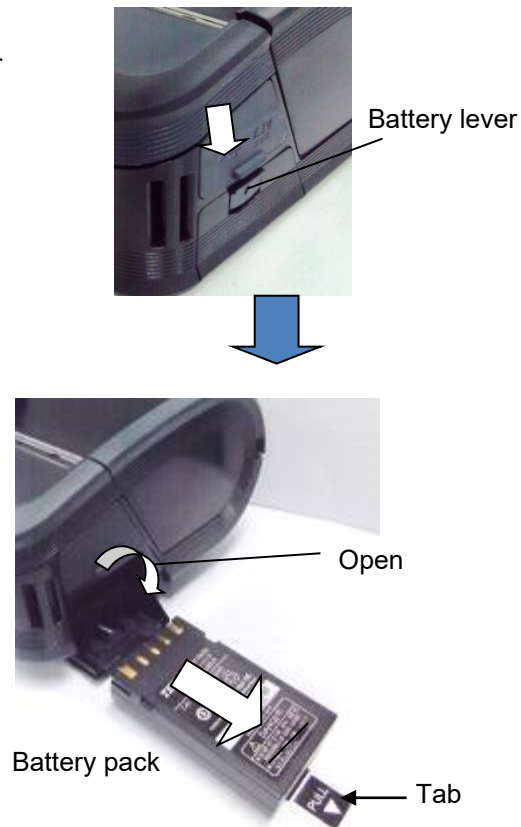| CAUTION! |
|---|
| *DO NOT CONNECT any device other than the above to the printer.* |

Removing a Battery Pack

Push the battery lever down in the direction of the arrow, and remove the battery pack from the printer by pulling on the tab.

Battery lever

Open

Battery pack

Tab

# Charging the Battery Pack with an Optional Adapter

When charging the battery pack in the printer using an optional AC adapter, cigarette lighter adapter, or DC adapter, insert the plug of the adapter into DCIN connector of the printer.

NOTE:
*For details, please refer to the Owner's Manual of respective optional adapters.*

When using an optional battery charger to charge the battery packs, please refer to the Owner's Manual of respective models of battery charger.

Even if the ambient temperature is within the operating temperature, the battery pack may not be charged for safety depending on the temperature of the battery pack.

Cover

Plug of the power adapter
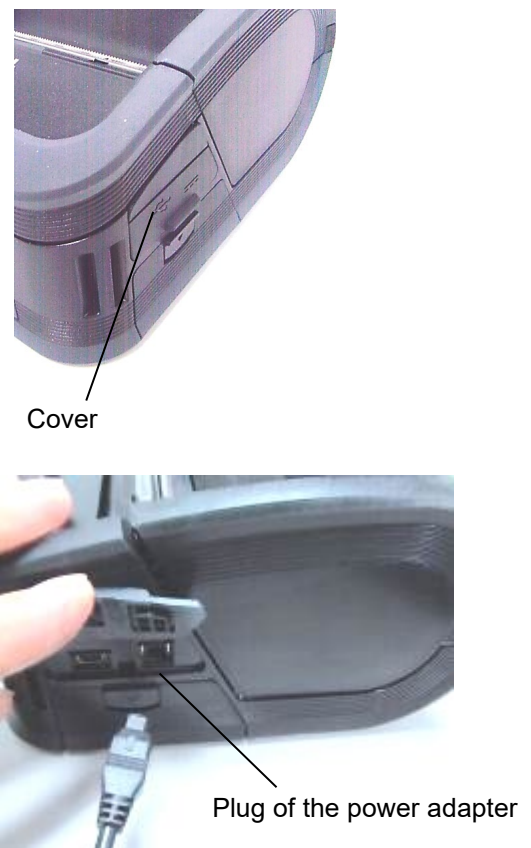
Loading the Media

1. Push the top cover open button to open the top cover.

Top cover

Top cover open button
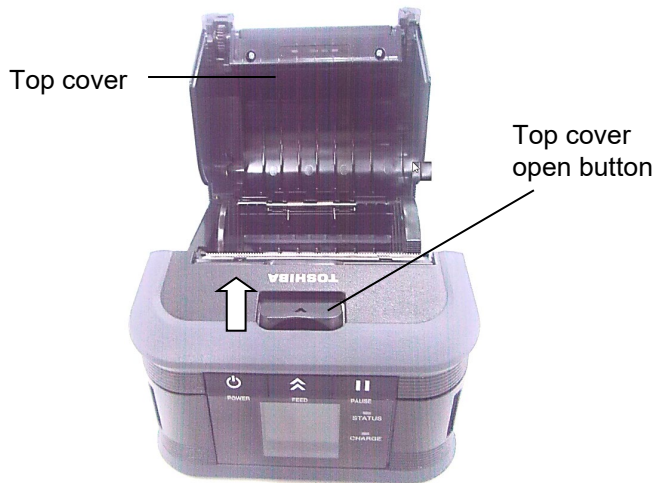
> **CAUTION!**
> *The print head has become hot immediately after printing. Therefore, cool it down before loading the media.*

2. Move the paper guide lever toward the operation panel and the paper guides outward.

> **NOTE:**
> *Do not move the paper guides without unlocking the paper guide lever. Doing this may break the paper guides.*
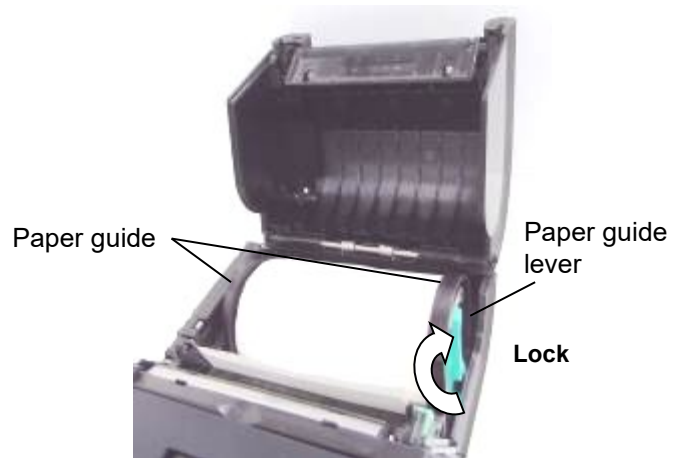
3. Place a media roll in the printer. Only outside wound media can be used in the printer.

Release

Paper guide

Paper guide lever

> **NOTE:**
> *Be careful when working with the tear bar. Its edge is sharp.*

4. Adjust the paper guides to the media roll width.

5. Push back the paper guide lever to lock the paper guides.

Paper guide

Paper guide lever

Lock

6. Pull the top edge of the media toward the operation panel, and close the top cover removing slack of the media.


Top cover

Media

> **NOTE:**
> - *Use Toshiba Tec approved media only. We are not responsible for any print result due to the use of other media.*
> - *When you order media, contact the nearest Toshiba Tec representative.*

Before using a Peel-off Unit (GH30, GH40, GH52 models only)

When issuing labels in the peel-off mode, pull out the peel-off roller before loading a label roll.

1. Open the top cover, and push the lock lever in the direction of the arrow.

Peel-off unit

Lock lever
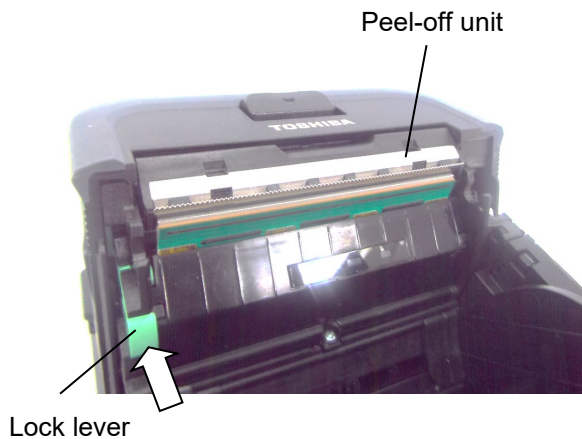
2. The peel-off unit is lifted.
   Refer to "Loading the Media" on the previous page and set a label roll.

Peel-off unit

NOTES:
1. *DO NOT PULL the center of the peel-off roller strongly. Doing so may break the peel-off roller.*
2. *Do not forcibly pull out the peel-off roller or push it into the printer, otherwise the peel-off roller may break.*
3. *Be careful when working with the tear bar. Its edge is sharp.*

■ **How to put away the peel-off roller**

1. Gently press the peel-off roller unit down and push it into the printer in the direction indicated by the arrow until it clicks.

Peel-off unit

Peel-off unit
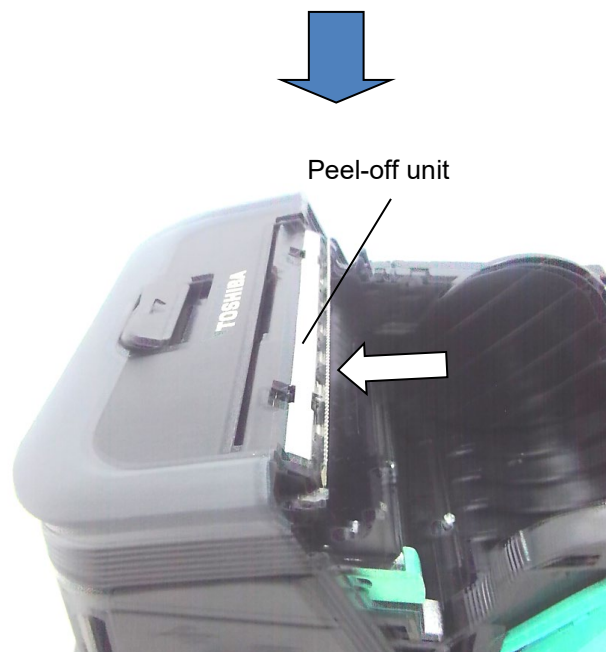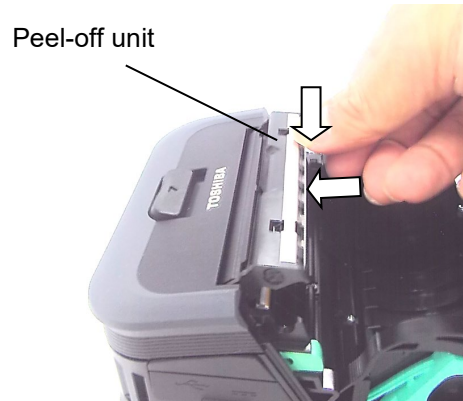
How to Attach the Accessories

> **CAUTION!**
> 1. Care should be taken not to drop the printer when securing it to your waist or slinging it over your shoulder.
> 2. For fixing the printer to your belt, the belt width should be 40 mm or less. The use of the other belts may cause the printer to fall.

■ Belt Clip

When you want to use the printer on belt, first secure the supplied belt clip to the rear of the printer.

1. Secure the belt clip to the printer back with the two screws.

NOTE:
Only use the supplied screw to secure the belt clip. The use of another screw may damage the inside of the printer.
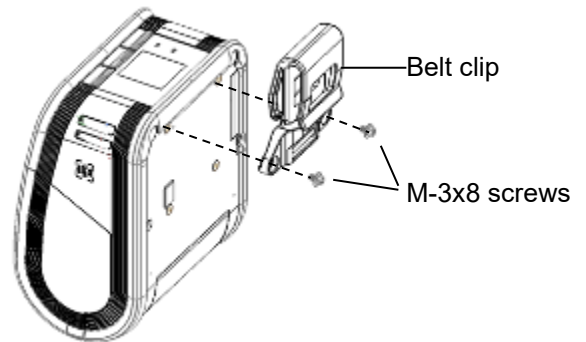
2. Fasten the belt clip to your belt.
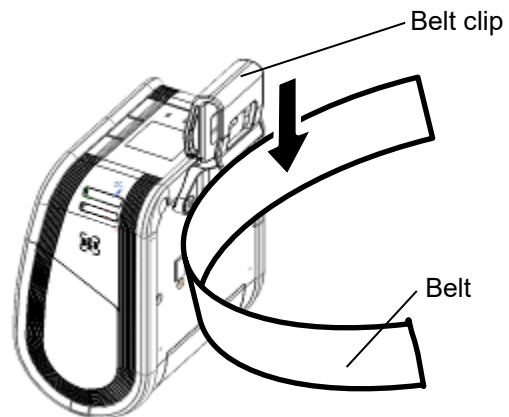
■ Shoulder Strap (Option)

Use the following procedure to fasten an optional shoulder strap (B-EP900-SS-QM-R) to the printer.

1. Pass either end of the shoulder strap through the strap slot on the front of the printer.

2. Pass the end of the shoulder strap through the buckle. Slide the buckle to adjust the length of the shoulder strap.

3. Repeat for the other end of the shoulder strap.

Data Transmission

■ USB

1. Turn on the host and start the system.

2. Turn on the printer and connect a USB cable to the printer.

3. Connect the USB cable to the host.

4. Send data from the host to the printer.

NOTE:
- *For details of the interface cable, consult the nearest Toshiba Tec representative.*
- *When disconnecting the USB cable, follow the instructions of the system on the host.*

USB port   USB cable
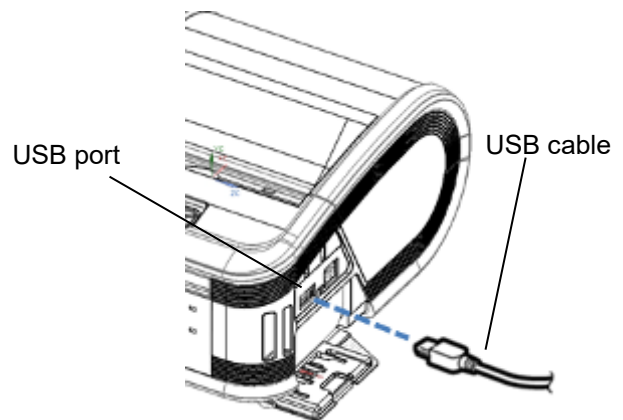
■ Wireless

1. When using Bluetooth, ensure the printer within 3m of the host.
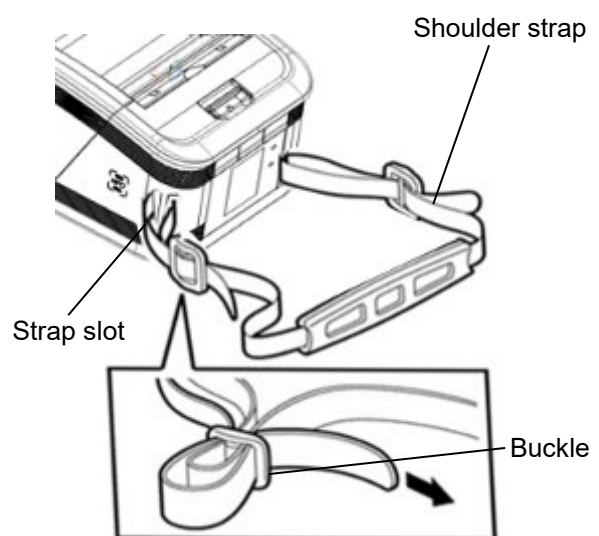   In the case of wireless LAN, place the printer within a wireless coverage area.

2. Turn on the printer and the host, and send data from the host to the printer.

Bluetooth 4.0

PC host
(via Bluetooth)

Handy terminal   [Bluetooth]
(via Bluetooth)

NOTE:
- *Be sure to read "Precautions for Handling of Wireless Communication Devices" before operating the printer.*

- *Confirm that there are no obstacles between the printer and the host. Obstacles may cause a communication failure.*
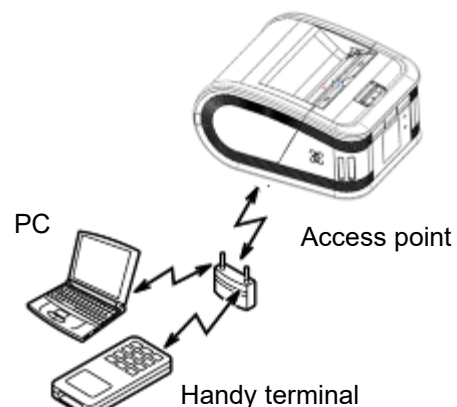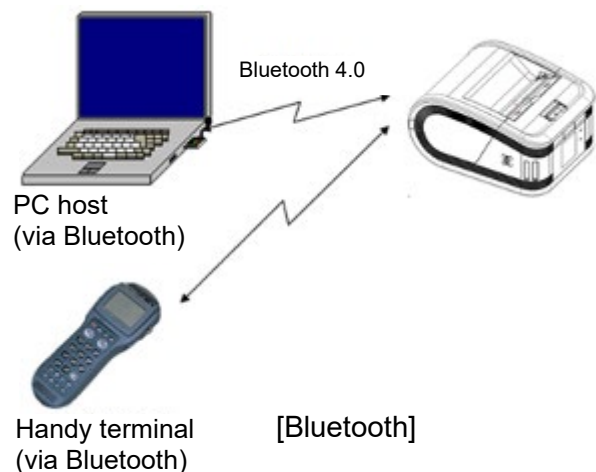
The radio connectivity is affected by the operating environment. Especially, metal obstacles, metal powder or locations enclosed by metal walls may prevent proper communication.
For the installation location of access points, consult the nearest Toshiba Tec representative.

PC   Access point

Handy terminal

[Wireless LAN]

Daily Maintenance

To maintain the high quality and performance of the printer, regular cleaning is required.

CAUTION!
- *DO NOT USE a sharp object to clean the print head or various rollers, as this may cause a print failure or even lead to the breakdown of the printer.*
- *NEVER USE any volatile solvent including thinner and benzene, as this may cause a print failure or breakdown of the printer.*
- *Do not touch the print head element with your bare hands, as static electricity may damage the print head.*
- *The print head becomes hot immediately after printing. Allow it to cool before performing any maintenance.*

■ Print head

Clean the print head element with a supplied print head cleaner.

When linerless labels are used, wipe off the dirt of residual glues from the print head each time one or two media rolls are used up.

NOTE:
Be careful when working with the tear bar. Its edge is sharp.

Print head element

Print head cleaner
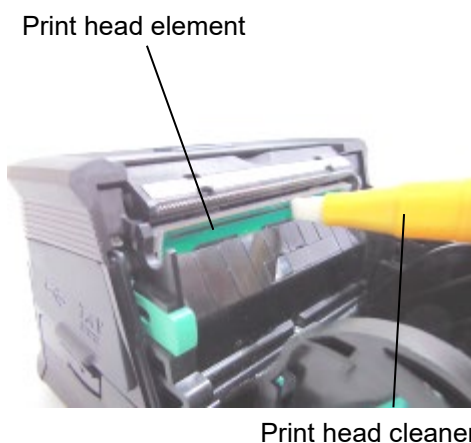
■ Platen and peel-off shaft

While rotating the platen, clean it with a soft cloth slightly moistened with absolute ethyl alcohol.

Clean the peel-off shaft with a soft cloth slightly moistened with absolute ethyl alcohol

Clean the platen of the linerless label kit in the same way. Cleaning should be performed each time one or two media rolls are used up.

Platen   Peel-off shaft
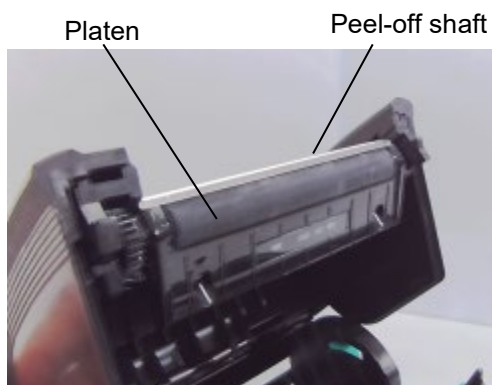
■ Media sensor window and media path

Remove dust or dirt from the media sensor window with a commercially available soft, dry brush.

Clean the media path with a soft dry cloth.

When linerless labels are used, wipe off the dirt of residual glues from the media guides each time one or two media rolls are used up.

Media sensor window

Media path
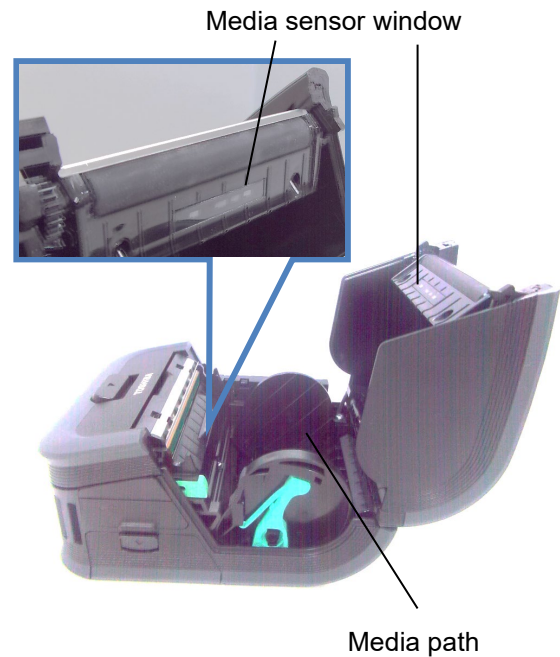
■ Top cover and operation panel

Clean the top cover and operation panel with a soft dry cloth slightly moistened with absolute ethyl alcohol.

Remove any dirt or residual glues from the media outlet with a cotton swab slightly moistened with absolute ethyl alcohol.

When linerless labels are used, wipe off the dirt of residual glues from the top cover or media outlet each time one or two media rolls are used up.

Media outlet

Top cover

Operation panel

Troubleshooting

When a problem occurs during operation, check the following troubleshooting guide and take the corrective action suggested.
If you cannot solve a problem by means of the following, do not attempt to repair it by yourself. Turn off the printer, remove the battery pack, then contact a Toshiba Tec service representative for assistance.

When an error message is displayed

When an error message is displayed, follow the respective instruction then press the [PAUSE] button.

Error Message	Cause	Solution
COMMS ERROR	A parity error or framing error has occurred during communication.	Turn the power and then back on. Send data from the host to the printer again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
PAPER JAM	The media is not loaded properly.	Load the media properly.
	The media is jammed in the printer.	Remove the jammed media and load the media properly. Press the [PAUSE] button.
	The media is not fed correctly.	Load the media correctly and press the [PAUSE] button.
	The reflective sensor does not detect black marks.	Load the correct media with black marks and press the [PAUSE] button.
	The transmissive sensor does not detect gaps between the labels.	Load the correct media. If the problem recurs, set a threshold.
NO PAPER	The printer ran out of media.	Load a new media roll and press the [PAUSE] button.
COVER OPEN	The top cover is opened.	Close the top cover.
HEAD ERROR	A part of the print head element is broken.	Turn off the printer and contact your Toshiba Tec service representative for the replacement of the print head.
FLASH WRITE ERROR	A flash memory write error occurred.	Turn the power off and then back on. Send data from the host to the printer again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
FORMAT ERROR	A flash memory format error occurred.	Turn the power off and then back on. Send data from the host to the printer again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.

Error Message	Cause	Solution
FLASH MEMORY FULL	The flash memory has insufficient area for storing data.	Turn the power off and then back on. Send data from the host to the printer again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
LOW BATTERY	The remaining battery capacity is low.	Turn off the printer and replace the battery pack with a fully charged one.
EXCESS HEAD TEMPERATURE	The print head temperature reached the upper limit of the operating temperature.	Stop printing and wait until the printer is automatically restored. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
AMBIENT TEMP ERROR	The ambient temperature reached the upper limit of the operating temperature.	Stop printing until the ambient temperature falls within the printer's operating temperature range.
BATTERY TEMP ERROR	The battery is extremely hot.	Turn off the printer. If the power adapter is connected, disconnect it and wait until the battery temperature falls within the printer's operating temperature range.
HIGH VOLT. ERROR	The battery voltage is abnormal.	Turn off the printer, remove the battery, reload it and turn the printer on again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
CHARGE ERROR	An error was detected while charging the battery.	The battery life have reached the end. Replace the battery pack with a new one.
Command error example PC001;0A00,0300,	When a command error occurs, up to 16 alphanumeric or symbol digits are displayed on the upper line of the LCD.	Turn the power off and then back on. Send data from the host to the printer again. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.
Other error messages	A hardware or software failure occurs.	Turn the power off and then back on. If the problem reoccurs, turn off the power and contact your Toshiba Tec service representative.

****: Number of unprinted labels: 1 to 9999 (in units of label)

When the printer does not operate properly

In the case of the following symptoms, check the respective points and take corrective action.

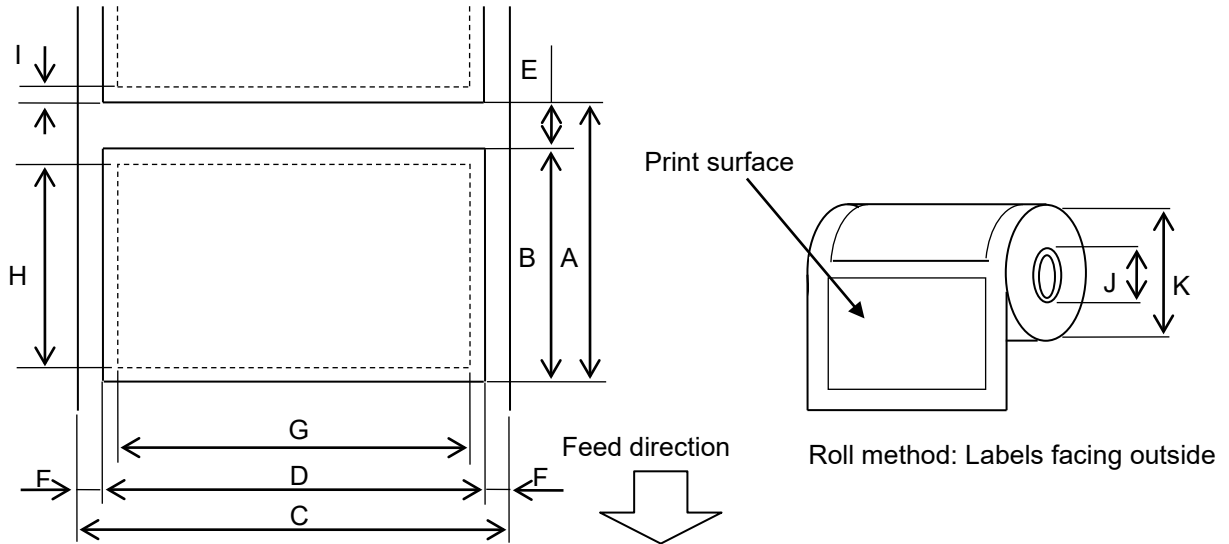| Symptom	Point to check (Cause)	Solution
The printer is not turned on by pressing the [POWER] button.	The battery pack is not loaded correctly.	Load a fully charged battery pack.
Fully charged battery is loaded but the operating time is short.	The battery life has expired.	Load a fully charged new battery pack
The printer cannot communicate via USB.	The printer is not turned on.	Turn on the printer.
	The printer is communicating via the wireless communication.	Terminate the wireless communication
	The issue mode is incorrect.	Select a correct issue mode.
The printer cannot communicate via Bluetooth. (GS32/GH30/GH52 only)	The printer is not turned on.	Turn on the printer.
	Distance to the host is too far.	Move the printer closer to the host within 3 m.
	The printer is used in a location where it is subjected to noise or interference.	Avoid such locations.
	The printer address is not correctly set on the host.	Correctly set the print address on the host.
	The issue mode is incorrect.	Select the correct issue mode.
The printer cannot communicate via the wireless LAN. (GS42/GS40/GH52 only)	The printer is not turned on.	Turn on the printer.
	Distance to the host is too far.	Move the printer within a wireless coverage area.
	Obstacles block the radio wave.	Use the printer in a location with no obstacles.
	The printer is used in a location where it is subjected to noise or interference.	Avoid such locations.
	The printer address is not correctly set on the host.	Correctly set the print address on the host.
	The channel setting for the access point or host is incorrect.	Avoid using a channel which interferes with adjacent access points.
	The issue mode is incorrect.	Select the correct issue mode.
The printout is light.	The print head is dirty.	Clean the print head.
	The media is not loaded properly.	Load the media properly.
	Damaged media is used.	Load a new media roll.
	The media is not a Toshiba Tec approved one	Use a Toshiba Tec approved media.
The printer received print data but does not print.	The [STATUS] lamp is lit or blinking.	Clear the error
	The media is not loaded correctly.	Load the media correctly.

Printer Specification

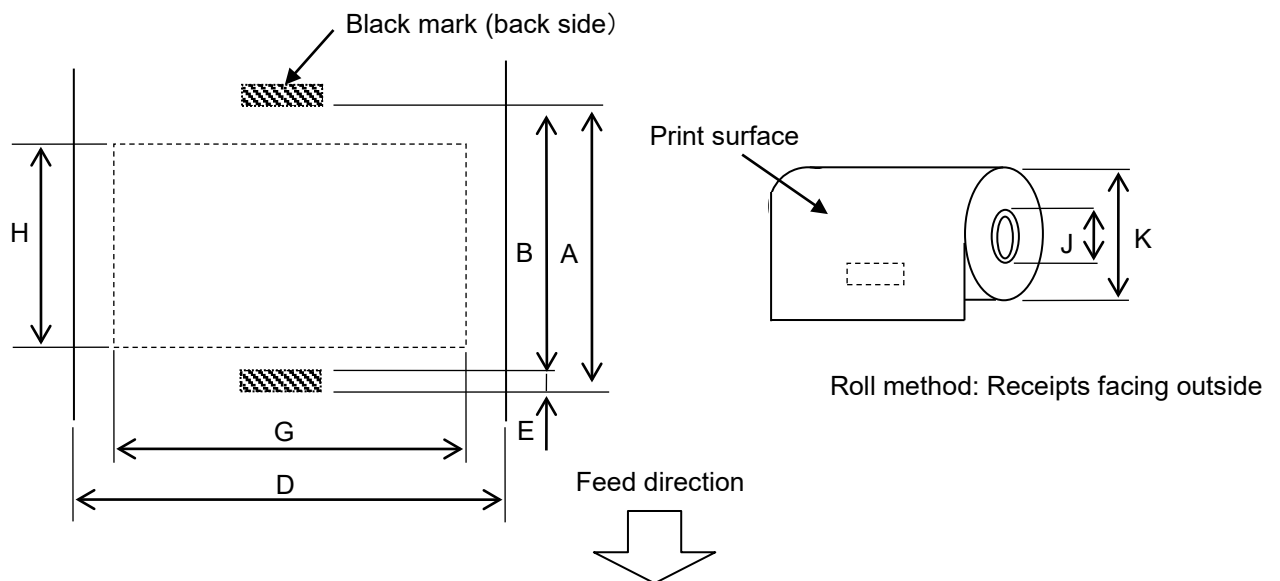| Model	B-FP3D-GS32-QM-R	B-FP3D-GS42-QM-R	B-FP3D-GH30-QM-R	B-FP3D-GH40-QM-R
Media types	Label / Tag / Receipt			
Print method	Direct Thermal			
Resolution	203dpi (8dots/mm)			
Print speed	Max. 6 inch/s (152 mm/s) (Depending on the operating environment, print conditions, battery condition, etc.)			
Effective print width	72mm (2.9")			
Issue mode	Batch		Batch / Peel-off	
Barcode	UPC-A/E, EAN8/13,UPC-A/E add on 2&5, EAN-8/13 add on 2&5, Code39, Code93, Code128, EAN128, NW7, MSI, Industrial 2 of 5, ITF, Postnet, RM4SCC, KIX-code, GS1 Databar			
Two Dimensional Code	Data Matrix, PDF417, Maxicode, QR code, Micro PDF417, Micro QR, GS1 Data Matrix			
Font	Bitmap: Alpha numeric 25types, Simplified Chinese 24x24(GB18030), Japanese gothic 16x16, 24x24, mincho 32x32 Outline: 5 types Open Type Font: Noto Hans Sans (CJK)			
LCD	TFT Color LCD, 128 x 128 dots with the backlight			
Battery	7.2V 2500mAh (Nominal capacity)			
Dimension	116 (W) x 150 (D) x 80 (H) mm (Excluding the project parts)			
Weight (with battery)	630 g	640 g	660 g	
Operating temperature	-15°C to 50°C (5°F to 122°F)			
Operating humidity	25 to 85% RH (No condensation)			
Charging temperature	AC adapter: 0°C to 40°C (32°F to 104°F)			
Memory	Flash ROM: 64MB, SDRAM: 32MB			
Interface	Bluetooth 4.0 (Bluetooth Smart Ready: BR/EDR, BLE)	Wireless LAN (802.11b/g/n)	Bluetooth 4.0 (Bluetooth Smart Ready: BR/EDR, BLE)	Wireless LAN (802.11b/g/n)
	USB 2.0 (Full speed)			
NFC	ISO/IEC14443 Type A, NFC Forum Type2, 144 bytes			
Media sensors	Label gap Black mark Paper end		Label gap Black mark Paper end Peel-off	
Option	1-slot battery charger (B-EP800-CHG-QM-R) 6-slot battery charger (B-EP800-CHG6-QM-R) AC adapter (B-FP800-AC-QM-S) Cigarette lighter adapter (B-EP800-DC12-QM-R) DC Jack plug adapter (B-FP800-DCJA-QM-R) Shoulder strap (B-EP900-SS-QM-R) Spare battery (B-FP803-BTH-QM-R)			

Model	B-FP3D-GH52-QM-R
Media types	Label / Tag / Receipt
Print method	Direct Thermal
Resolution	203dpi (8dots/mm)
Print speed	Max. 6 inch/s (152 mm/s) (Depending on the operating environment, print conditions, battery condition, etc.)
Effective print width	72mm (2.9")
Issue mode	Batch / Peel-off
Barcode	UPC-A/E, EAN8/13,UPC-A/E add on 2&5, EAN-8/13 add on 2&5, Code39, Code93, Code128, EAN128, NW7, MSI, Industrial 2 of 5, ITF, Postnet, RM4SCC, KIX-code, GS1 Databar
Two Dimensional Code	Data Matrix, PDF417, Maxicode, QR code, Micro PDF417, Micro QR, GS1 Data Matrix
Font	Bitmap: Alpha numeric 25types, Simplified Chinese 24x24(GB18030), Japanese gothic 16x16, 24x24, mincho 32x32 Outline: 5 types Open Type Font: Noto Hans Sans (CJK)
LCD	TFT Color LCD, 128 x128 dots with the Backlight
Battery	7.2V 2500mAh (Nominal capacity)
Dimension	116 (W) x 150 (D) x 80 (H) mm (Excluding the project parts)
Weight (with battery)	660 g
Operating temperature	-15°C to 50°C (5°F to 122°F)
Operating humidity	25 to 85% RH (No condensation)
Charging temperature	AC adapter: 0°C to 40°C (32°F to 104°F)
Memory	Flash ROM: 64MB, SDRAM: 32MB
Interface	Bluetooth 4.0, 2.1 (Bluetooth Smart Ready: BR/EDR, BLE) Wireless LAN (802.11a/b/g/n)
	USB 2.0 (Full speed)
NFC	ISO/IEC14443 Type A, NFC Forum Type2, 144 bytes
Media sensors	Label gap Black mark Paper end Peel-off
Option	1-slot battery charger (B-EP800-CHG-QM-R) 6-slot battery charger (B-EP800-CHG6-QM-R) AC adapter (B-FP800-AC-QM-S) Cigarette lighter adapter (B-EP800-DC12-QM-R) DC Jack plug adapter (B-FP800-DCJA-QM-R) Shoulder strap (B-EP900-SS-QM-R) Spare battery (B-FP803-BTH-QM-R)

Media Specification

<Labels>

Print surface

Feed direction

Roll method: Labels facing outside

<Tag>

Black mark (back side)

Print surface

Roll method: Receipts facing outside

Feed direction

Item		Media type	Label		Receipt	
		Mode	Batch	Peel-off	With black marks	Without black marks
A	Label pitch	Min.	10.0	13.0	10.0	–
		Max.	999.9	67.0	999.9	–
B	Label length	Min.	7.0	10.0	7.0	–
		Max.	997.0	60.0	997.0	–
C	Backing paper width	Min.	26.0		–	
		Max.	80.0		–	
D	Label width	Min.	24.0		–	
		Max.	78.0		–	
D	Media width	Min.	–		24.0	
		Max.	–		80.0	
E	Label-to-label gap	Min.	3.0		–	
		Max.	7.0		–	
E	Black mark length	Min.	3.0			–
		Max.	7.0			–
F	Vertical gap width	Min.	1.0		–	–
		Max.	7.0		–	–
G	Effective print width	Max.	72.0			
H	Effective print length	Min.	5.0	8.0	5.0	–
		Max.	995.0	58.0	995.0	–
I	Unprintable area		1.0 from the upper/lower label edge			–
J	Outer diameter of paper core	Min.	Φ12.0 +0/-0.5		Φ12.0 +0/-0.5 (No paper core: Φ18)	
K	Outer roll diameter	Max.	Φ67.0 +0/-1.0			
	Roll direction		Outside only			

Care and Handling of the Media

> **CAUTION!**
> *Be sure to read carefully and understand the Supply Manual. Use only media that meets the specified requirements. Use of non-specified media may shorten the head life and result in problems with bar code readability or print quality. All media should be handled with care to avoid any damage to the media or printer. Read the following guideline carefully.*

- Do not store the media for longer than the manufacturer's recommended shelf life.
- Store media rolls on the flat end, not store them on the curved sides as this might flatten that side causing erratic media advance and poor print quality.
- Store the media in plastic bags and always reseal after opening. Unprotected media can get dirty and any extra abrasion from any dust and dirt particles will shorten the print head life.
- Store the media in a cool and dry place. Avoid areas where they would be exposed to direct sunlight, high temperatures, high humidity, dust or gas.
- The thermal paper used for direct thermal printing must not have specifications which exceed Ca^{++} 800 ppm, Na^+ 800 ppm, K^+ 800 ppm and Cl^- 600 ppm.
- Some ink used on pre-printed labels may contain components which shorten the print head's product life. Do not use labels pre-printed with ink which contains hard substances such as carbonic calcium ($CaCO_3$) and kaolin (Al_2O_3, $2SiO_2$, $2H_2O$).

For further information, contact your local distributor or your media manufacturer.

Toshiba Tec Corporation