

Toshiba Portable Printer

# B-EP4DL-GH20/32/42-QM-R

# **Owner's Manual**



### Part Names



## **Operation Panel Functions**



No.	Name/Icon	Function/Usage		
	Liquid Crystal Display (16 lines x 2 lines)	Upper line: Icons indicating the printer statuses, such as the radio		
(1)		Intensity, battery level, etc. are displayed. Lower line: Printer status is indicated in alpha numerals or symbols.		
		ONLINE	The printer is ready for an issue command from the host.	
		PAUSE	The printer is in the pause state. When the printer is paused during printing, the number of unprinted labels is displayed.	
		COVER OPEN	The top cover is open.	
	LCD Message	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)	Radio intensity	Indicates the radio intensity in 4 levels (B-EP4DL-GH42-QM-R)		
(3)	Connection	Indicates an access point connection status (B-EP4DL-GH42-QM- R)		
(4)	Sleep	Displayed while the printer is in the power saving mode.		
(5)	Transmission	Indicates the data transmission status.		
(6)	Error	Displayed when an error has occurred in the printer.		
(7)	External power source	Displayed when the printer is charged with an optional device.		
(8)	Battery level	Indicates the battery level in 5 levels.		
(9)	<ul> <li>Lights or blinks in green, red or orange to indicate the print</li> <li>Lights up in green: Normal state</li> <li>Lights up in orange: Near a low-battery state (Operable)</li> <li>Lights up in red: Low-battery state</li> <li>Blinks in green or orange: Communicating or internal p is in progress or a printed label is waiting to be removed.</li> <li>Blinks in red: Error state</li> </ul>		green, red or orange to indicate the printer status. n: Normal state ge: Near a low-battery state (Operable) _ow-battery state or orange: Communicating or internal processing a printed label is waiting to be removed. or state	

No.	Name/Icon	Function/Usage
(10)	CHARGE lamp	Lights up in orange while the battery pack is charged and goes out when the battery charge is completed.
(11)	[POWER] button	Turns the printer on or off. <b>How to turn on the printer</b> 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. <b>How to turn off the printer</b> Hold down the POWER button until the LCD goes off.
(12)	[FEED] button	Feeds media or reprints a previously printed data items. The function of the [FEED] button differs depending on the issue mode.
(13)	[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.

Pushing aside the battery lever with the battery pack, insert it into the printer right up to the end. The battery pack is locked by the battery lever. Be careful of the orientation of the battery pack.

#### NOTE:

- Be sure to use a battery pack designed and manufactured for use with the specific model. B-EP4DL series: B-EP804-BT-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.
- ◆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

### CAUTION!

DO NOT CONNECT any device other than the above to the printer.



### **Removing a Battery Pack**

Slide the battery lever in the direction of the arrow, and remove the battery pack from the printer.



### Charging the Battery Pack with an Optional Adapter

When charging the battery pack in the printer using an optional AC adapter, insert the plug of the adapter into the 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, refer to the Owner's Manual of the 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.



DCIN connector

### Loading the Media

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



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 guide.

3. Place a media roll in the printer. Only outside wound media is acceptable.



- 4. Adjust the paper guides to the media roll width.
- 5. Push back the paper guide lever to lock the paper guides.



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

When issuing labels in the peel-off mode, pull out the **How to put back the peel-off roller** peel-off roller before loading a label roll.

1. Open the top cover, and push the peel-off roller cover by the  $\blacktriangle$  marks with your thumbs in the direction of the arrow.



2. Pull out the peel-off roller until both edges completely come out with a click Refer to "Loading the Media" on the previous page and set a label roll.



#### 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.

1. Slightly hold down the peel-off roller cover and insert the peel-off roller under the peel-off roller cover.



2. Hold down the peel-off roller cover and push it into the printer in the direction indicated by the arrow until it clicks.



### 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 use the printer fixing to your belt, secure the supplied belt clip to the printer back.

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

#### NOTE:

Only use the supplied screw to secure the belt clip. Use of other screw may damage the printer inside.

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 of the printer as shown in the figure below.
- 2. Pass the end of the shoulder strap through the buckle. Slide the buckle to adjust the length of the shoulder strap.
- 3. Do the same to the other end of the shoulder strap.

### Data Transmission



#### ■ IrDA

- 1. Place the printer close to the host so that their IrDA windows face each other within a 20 cm distance.
- 2. Turn on the printer and the host and send data from the host to the printer.

#### NOTE:

While communicating, avoid locations where the IrDA window is subjected to direct sunlight. A communication failure may occur.

- To communicate with the host via IrDA, it is required to configure the printer settings on the host.
- The communicable distance and angle are shown in the figure on the right. Note that this performance is obtained under 1000 lux or less of fluorescent lamp light.





#### ■ 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.



#### ■ Serial (RS-232C) (B-EP4DL-GH20-QM-R)

- 1. Connect the serial interface cable to the RS-232C port on the printer.
- 2. Connect the other end of the serial interface cable to the host.
- 3. Turn on the printer and the host and send data from the host to the printer.

#### NOTE:

For details of the interface cable, please consult the nearest Toshiba Tec representative.

#### ■ Wireless (B-EP4DL-GH32-QM-R, B-EP4DL-GH42-QM-R)

- In the case of Bluetooth, place the printer within 3 m from the host.
   In the case of wireless LAN, place the printer within a wireless coverage area.
- 2. Turn on the printer and the host. Then send data from the host to the printer.

#### 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.









[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 may damage the print head.

#### Print head

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

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.



Print head cleaner pen



#### Peel-off roller

While rotating the peel-off roller, clean it with a soft cloth slightly moistened with absolute ethyl alcohol.

#### Platen

While rotating the platen, clean it 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.



#### Media guide roller and peel-off shaft

While rotating the media guide roller, clean it with a soft cloth moistened with absolute ethyl alcohol. Clean the peel-off shaft with a soft cloth slightly moistened with absolute ethyl alcohol.

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



#### 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 dirt of residual glues from the media guides each time one or two media rolls are used up.

#### ■ Top cover, operation panel, and IrDA window

Clean the top cover, operation panel and IrDA window 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 path



### Troubleshooting

When a problem occurs during operation, check the following troubleshooting guide and take an appropriate corrective action.

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. The error will be cleared.

Error Message	Cause	Solution	
COMMS ERROR	A parity error or framing error has occurred during communication by RS- 232C.	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.	
	The media is not loaded properly.	Load the media properly.	
	The media has jammed in the printer.	Remove the jammed media and load the media properly. Press the [PAUSE] button.	
Error MessageCOMMS ERRORA parity error of occurred during 232C.The media is regarded of the media is regarded	The media is not fed properly.	Load the media properly and press the [PAUSE] button.	
	The reflective sensor does not detect black marks.	Load the media properly.	
	The transmissive sensor does not detect gaps between the labels.	Load the media properly. If the problem reoccurs, set the threshold again.	
NO PAPER ****	The printer ran out of media.	Load a new media roll and press the [PAUSE] button.	
COVER OPEN ****	The top cover is open.	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 ERR.	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 MEM 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 TEMP	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 ERR	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.
BATT. 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 on the printer again If the problem recurs, please turn off the power and contact 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 digits of alphanumeric or symbol 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

	j symptoms, check the respective poin	ILS AND LAKE CONECLIVE 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 correctly.	
The fully charged battery is loaded but the operating time is short.	The battery life has expired.	Load a fully charged new battery pack correctly.	
	The printer is not turned on.	Turn on the printer.	
	The distance to the host is too far.	Move the printer closer to the host so that their IrDA windows face each other within 10 cm.	
The printer cannot	The angle of the IrDA window is not proper.	Move the printer so that the IrDA window faces that of the host.	
communicate via IrDA. Direct sunlight is coming in window The IrDA window is dirty. The serial interface cable	Direct sunlight is coming into the IrDA window	Avoid direct sunlight.	
The IrDA window is dirty.     CI       The serial interface cable is connected. (B-EP4DL-GH20-QM-R)     Di pr       The printer is communicating via the windows communicating via the     The printer is communicating via the		Clean the IrDA window.	
	The serial interface cable is connected. (B-EP4DL-GH20-QM-R)	Disconnect the RS-232C cable from the printer.	
	The printer is communicating via the wireless communication. (B-EP4DL-GH32-QM-R, B-EP4DL-GH42-QM-R)	Terminate the wireless communication.	
The printer cannot	Communication conditions are incorrect.	Set the communication conditions correctly.	
communicate via IIDA.	The issue mode is incorrect.	Select a correct issue mode.	
	The transmission speed is incorrect.	Send data at the correct transmission speed.	
	The printer is not turned on.	Turn on the printer.	
	The serial interface cable is connected. (B-EP4DL-GH20-QM-R)	Disconnect the RS-232C cable from the printer.	
The printer cannot communicate via USB.	The printer is communicating via the wireless communication. (B-EP4DL-GH32-QM-R, B-EP4DL-GH42-QM-R)	Terminate the wireless communication	
	Issue mode is incorrect.	Select a correct issue mode.	
	The printer is not turned on.	Turn on the printer.	
The printer cannot communicate via the serial interface (B-EP4DL-GH20- QM-R)	The interface cable is not connected properly.	Connect the interface cable correctly.	
	The issue mode is incorrect.	Select a correct issue mode.	
~ ,	Communication conditions are improper.	Set the communication conditions properly.	
	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 cannot communicate via Bluetooth.	The printer is used in a location where it is subjected to noise or interference.	Avoid such locations.	
(B-EP4DL-GH32-QM-R)	The printer address is not correctly set on the host.	Correctly set the print address on the host.	
	Issue mode is incorrect.	Select a correct issue mode.	

#### 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.	Turn on the printer.	
	Distance to the host is too far.	Move the printer within a wireless coverage area.	
The printer cannot	Obstacles block the radio wave.	Use the printer in a location with no obstacles.	
communicate via the wireless LAN.	The printer is used in a location where it is subjected to noise or interference.	Avoid such locations.	
(B-EP4DL-GH42-QM-R)	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 printer is not turned on. Distance to the host is too far. Obstacles block the radio wave. The printer is used in a location where is subjected to noise or interference. The printer address is not correctly se on the host. The channel setting for the access po or host is incorrect. The print head is dirty. The media is not loaded properly. Damaged media is used. The media is not a Toshiba Tec approved one The [STATUS] lamp is lit or blinking. The media is not loaded properly.	Select a correct issue mode.	
	The print head is dirty.	Clean the print head.	
	Point to check (Cause)The printer is not turned on.Distance to the host is too far.Obstacles block the radio wave.The printer is used in a location where i is subjected to noise or interference.The printer address is not correctly set on the host.The channel setting for the access poin or host is incorrect.The print head is dirty.The media is not loaded properly.Damaged media is used.The media is not a Toshiba Tec approved oneThe ISTATUS] lamp is lit or blinking.The media is not loaded properly.	Load the media properly.	
The printout is light.	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 but The media is not loaded prop	The [STATUS] lamp is lit or blinking.	Clear the error	
	The media is not loaded properly.	Load the media properly.	

### Media Specification

### ■ Label



■ Tag/Receipt



				(Unit: mm)	
Itom Modia	Label		Tag/Receipt	Receipt	
	Batch mode	Peel-off mode	Tag/Receipt         -off mode       With black mark         .0 - 67.0       10.0 – 999.9         .0 - 60.0       7.0 - 997.0         .0 - 60.0       7.0 - 997.0         .0 - 60.0       7.0 - 997.0         .0 - 60.0       7.0 - 997.0         .0 - 58.0       7.0 - 995.0         Min. 1.0       Φ68 (max.)	No black mark	
(A) Label/Receipt pitch	10.0 - 999.9	13.0 - 67.0	10.0 – 999.9		
(B) Label/Receipt length	7.0 - 997.0	10.0 - 60.0	7.0 - 997.0		
(C) Backing paper width	50.0 -	- 115.0		-	
(D) Media width	48.0 -	48.0 - 113.0		50.0 – 115.0	
(E) Gap/black mark length		3.0 - 7.0	) - 7.0		
(F) Vertical gap	1.0	- 7.0			
(G) Effective print width		10	04.0		
(H) Effective print length	7.0 - 995.0	8.0 - 58.0	7.0 - 995.0		
(I) Top and bottom margin	Min. 1.0				
Outer roll diameter	Ф68 (max.)				
Roll direction	Outside				

**NOTE:** Do not use the media other than the above to ensure print quality and print head life.

## **Printer Specification**

Model	B-EP4DL-GH20-QM-R	B-EP4DL-GH32-QM-R	B-EP4DL-GH42-QM-R		
	• Lithium ion battery 14.	8V, 2600 mAh (Nominal	value) (Battery pack model		
Driving power source	name: B-EP804-BT-QM	R       B-EP4DL-GH32-QM-R       B-EP4DL-GH42-QM-R         14.8V, 2600 mAh (Nominal value) (Battery pack model QM-R)       (Battery pack model 2450 mAh (Battery pack 50Z (B-EP804-BT-QM-R)))         ge       rating environment, print conditions, battery condition, etc.)			
	• Lithium ion ballery 14.8 model name: 4-186507	V, Nominal 2600 mAn, Rai (B-EP804-RT-OM-R))	led 2450 mAn (Ballery pack		
	Approx 100m/Full charge				
Printable count	(It depends on the operating	a environment, print conditio	ns, battery condition, etc.)		
Life cvcle	300 cycles				
Print method	Direct thermal				
Resolution	8 dots/mm (203 dpi)				
	Max. 105.0 mm/sec.				
Print speed	(It depends on the operating	g environment, print conditio	ns, battery condition, etc.)		
Issue mode	Peel-off, Batch				
Effective print width	Max. 104.0 mm				
	[Bitmap font]				
	Times Roman, Helvetica, P	Presentation, Letter Gothic, P	restige Elite, Courier, OCR-A,		
Font	OCR-B, GOTHIC725 Black, Standard character, Bold character, Price font 1,				
	Price font 2, Chinese character, Writable character				
	[Outline font]				
	Helvetica (w/wo proportional), Price font 1, Price font 2, Price font 3				
	JAN8/EAN8, JAN13/EAN13, UPC-A/E, CODE39, CODE93, CODE128/EAN128, MSI,				
Barcode	NW-7, ITF, Customer barcode,				
	GS1 Databar (Omnidirectio	nal/ I runcated/Stacked/Stack	ked Omnidirectional/Limited/		
	xpanded/Expanded Stacked) R code, Data Matrix, PDF417, Maxicode, MicroPDF417				
2-dimensional code	UK code, Data Matrix, PDF417, Maxicode, MicroPDF417				
IrDA (IrDA V/1 2 Low power)	Available	Available	Available		
$\frac{110}{110} = \frac{110}{100} = \frac{110}{100} = \frac{110}{100} = \frac{100}{100} = $	Available	Available	Available		
RS-232C	Available				
Bluetooth		V2.1+EDR			
Wireless LAN			IEEE802.11a/b/g/n		
	-15°C	to 50°C	0°C to 50°C		
Operating temperature	- During battery charge: 0°C to 40°C				
- LCD display: 0°C to 50°C					
Operating humidity	10%RH to 90%RH (No con	densation)			
Storage temperature	-25°C to 60°C				
Storage humidity	10%RH to 90%RH (No condensation)				
Dimensions (Unit: mm)	150.0 (W) x 145.0 (L) x 75.0 (D) (Excluding the projecting parts)				
	B-EP4DL-GH20-QM-R, B-E	EP4DL-GH32-QM-R: Approx	. 860 g		
Weight	B-EP4DL-GH20-QM-R, B-EP4DL-GH32-QM-R. Approx. 800 g B-EP4DL-GH42-QM-R: Approx. 890 g (Battery pack included, media and other accessories excluded)				
	Battery pack (1pg) Drint	dia and other accessories ex	Cluded)		
Accessories	Ballery pack (Tpc.), Print nead cleaner (Tpc.), Belt clip (Tpc.), Belt clip moun				
(Battery pack included, media and other accessories excluded)Battery pack (1pc.), Print head cleaner (1 pc.), Belt clip (1 pc.), Belt clip (1 pc.), Belt clip (1 pc.), BD AddressAccessoriesscrew (2 pcs.), Ferrite core (1 pc.), Owner's Manual (1 pc.), BD Address(P EP4PL CH22 OM P)	c.), BD Address label (2 pcs.)				
	1-slot battery charger (R	-EP800-CHG-OM-R) 6-elot	battery charger (R-EP800-		
Options CHG6-QM-R) AC adapter (B-EP800-AC-QM-S) Battery pack (B			ry pack (B-EP804-BT-OM-R)		
	Shoulder strap (B-EP900-SS-QM-R)				

**Supplement** Specification of this printer may be changed without prior notice.

## 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 manufactures 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, 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<sup>++</sup> 800 ppm, Na<sup>+</sup> 800 ppm, K<sup>+</sup> 800 ppm and Cl<sup>-</sup> 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<sub>3</sub>) and kaolin (Al<sub>2</sub>O<sub>3</sub>, 2SiO<sub>2</sub>, 2H<sub>2</sub>O).

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

# **Toshiba Tec Corporation**

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