Wavecom

WCM-TT040-50BB

Bluetooth Ready Battery Powered Printer

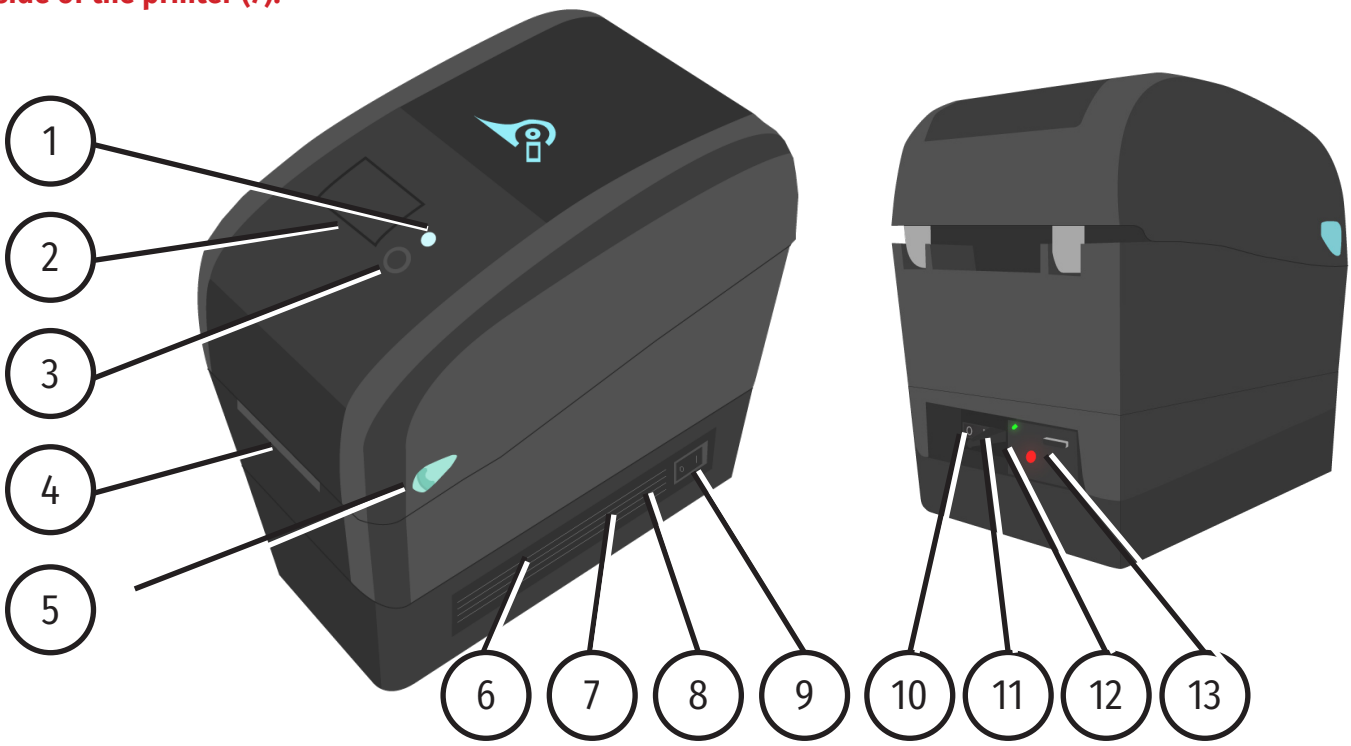
User Manual

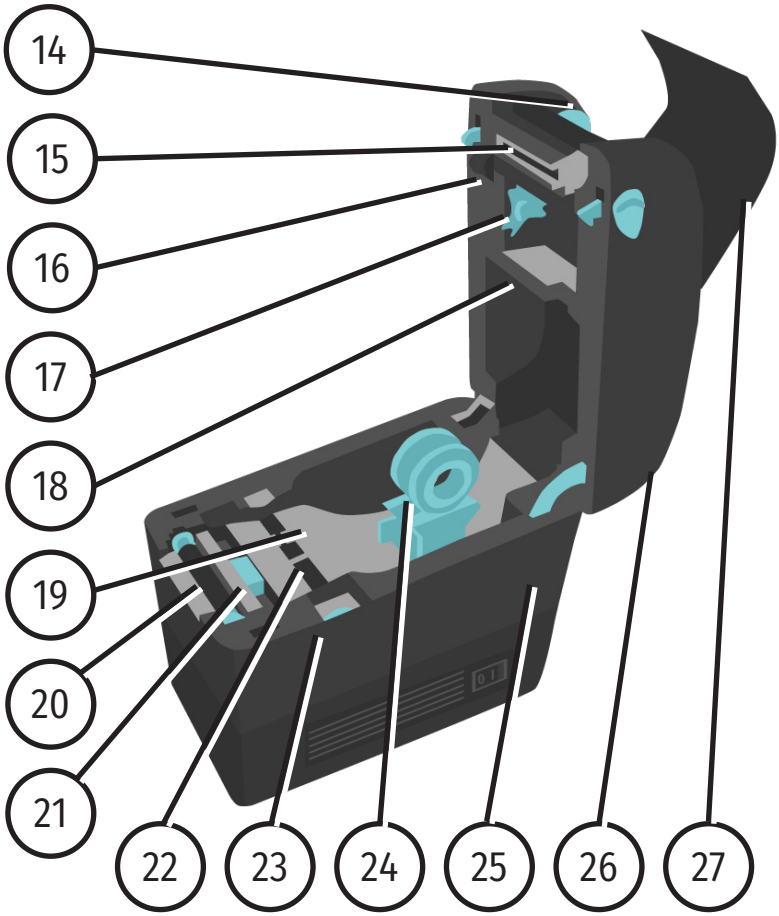
+ Certificate of Warranty and Product Support Information

Wavecom Thermal Transfer Printer

The TT040-50-BB printer is powered by a Lithium Ion Battery and features Bluetooth connectivity.

Important: Do not turn off the rear power switch on the TT040-50-BB. Always use the Power Button on the side of the printer (7).



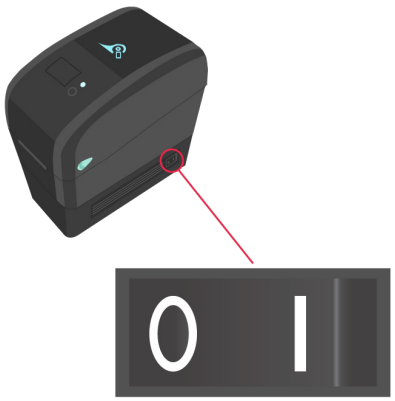


1. LED Indicator
2. Media view window
3. Feed Button
4. Label Exit Chute
5. Top Cover Release Lever
6. Battery Indicator
7. Power Button
8. Power Socket
9. Isolation Switch
10. Power Switch *(Leave On)*
11. Battery-Printer Power Cable *(Do not remove)*
12. USB-B Port
13. Bluetooth Module
14. Ribbon Rewind Hub
15. Print Head
16. Ribbon Rewind Gear
17. Ribbon Supply Hub
18. Gap Sensor (Receiver)
19. Gap Sensor (Transmitter)
20. Platen Roller
21. Black Mark Sensor
22. Media Guide
23. Media Guide Adjuster Knob
24. Media Holders
25. Top Cover Hinge
26. Top Cover
27. Ribbon Access Cover

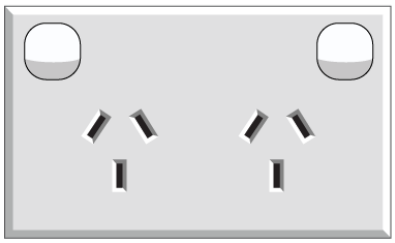
Charging the Printer

Using this method to charge the printer will avoid any issues with inrush current when the charging cable is plugged in, which can occur if the battery is not isolated. **Ensure the isolation switch is turned on once the charging cable is plugged in, otherwise the battery will not charge**.

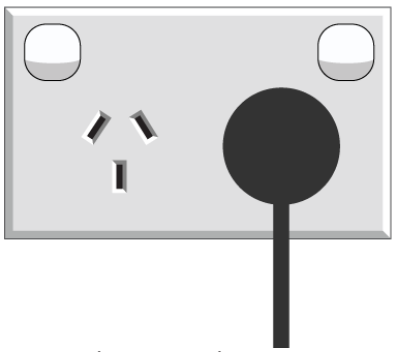
The TT040-50-BB battery will take approximately eight hours to fully charge. Do not leave unattended while charging.



1. Turn off the battery isolation switch on the side of the printer.

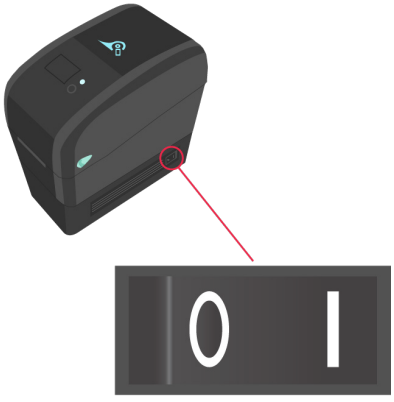


2. Turn off the switch at the power point.

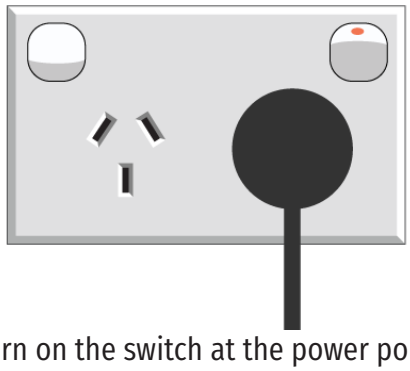


3. Plug the charging cable into the power point.

4. Plug the charging cable into the printer.



5. Turn on the isolation switch on the side of the printer.



6. Turn on the switch at the power point.

Operating the Printer

Turning on the Printer

1. Before turning on the printer, ensure the battery is charged, and the battery isolation switch on the side of the printer is switched ON.

2. Press and hold the power button on the side of the printer for three to five seconds. The Battery Status indicator (next to the power button) will light up when the printer has turned on.

Connecting the Printer via the WinPATS App

Once the printer is on, you can connect your printer to your tablet via the WinPATS app.

1. First, ensure the Bluetooth module on the rear of the printer is displaying a green light, indicating that the module is powered. If the module isn't powered, ensure it has not unplugged by gently pressing it into the rear of the printer.

2. Open the WinPATS App, and tap the PRINT icon at the top of the screen.

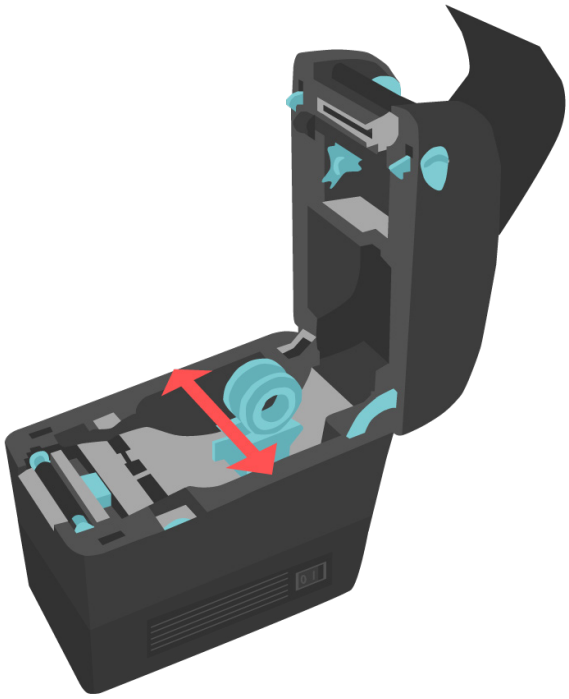
3. You will be prompted to connect to a printer via Bluetooth - select your printer from the popup menu.

4. The printer should connect - you can verify this connection by checking the Bluetooth module on the rear of the printer, which should display a Blue light. There should also be a Blue line under the Print icon in the WinPATS app, at the top of the screen.

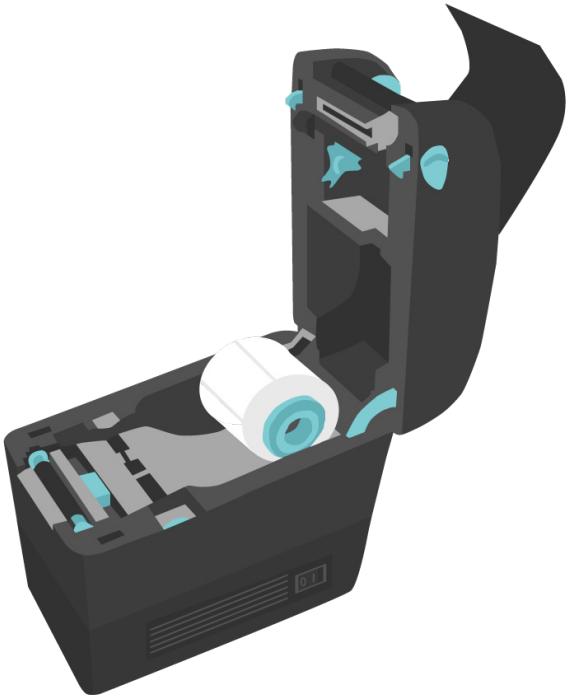
5. Once you have connected your printer, you will be able to print tags directly from your tablet, either from the Inventory or during your test procedures.

Loading the media

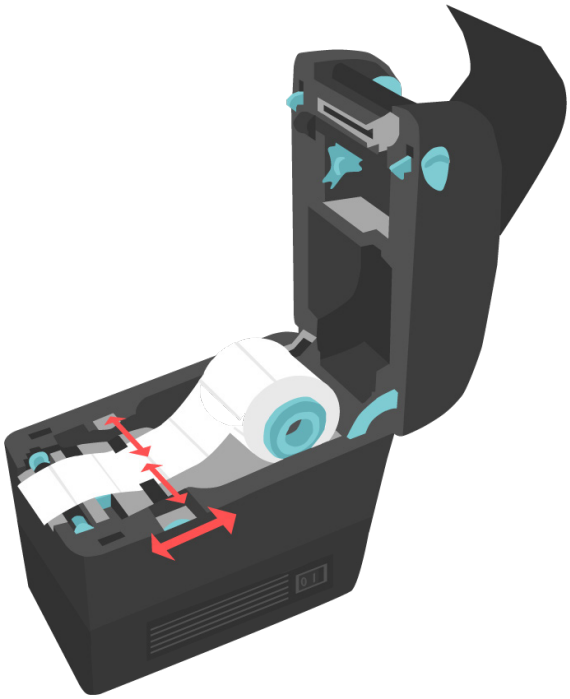
Loading media into the TT-040-50 Printer is quick and easy. To begin, open the printer top cover by pulling the tabs located on each side towards the front of the printer, and then lift the top cover to the maximum open angle.



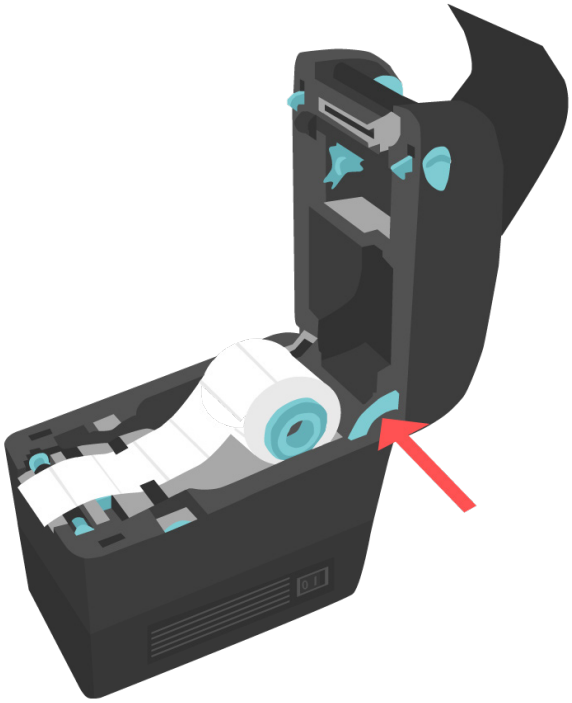
1. Separate the Label Holders by gently pulling them in opposite directions



2. Insert the media between the label holders as shown



3. Using the Media Guide Adjuster Knob, adjust the Media Guide until it is flush but not tight against the media.

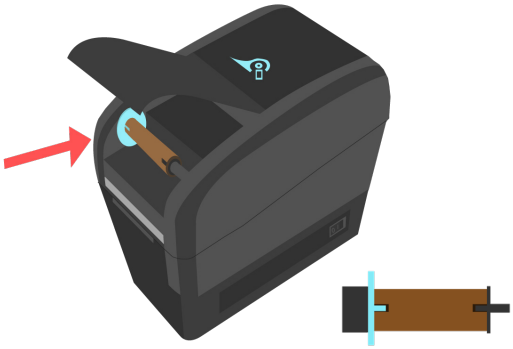


4. To shut the printer, push the support hinge in, then gently shut the printer, ensuring it latches shut. Press the Feed button on the printer before printing, to ensure the tag is printed correctly.

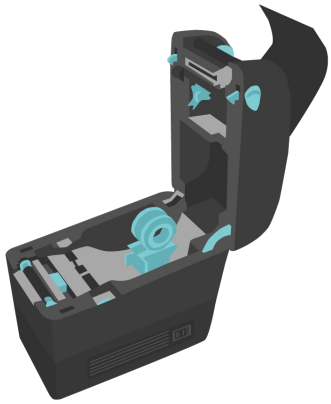
Loading the Ribbon

To begin, open the printer top cover by pulling the tabs located on each side towards the front of the printer, and then lift the top cover to the maximum open angle. You will also need to remove the old ribbon (which will be spooled under the top cover shown in step 1) before loading a new ribbon. To remove this ribbon, simply hold the ribbon roll and move it to the right (away from the blue gear).

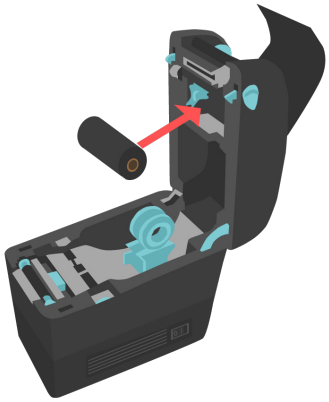
1. Open the top cover of your Printer



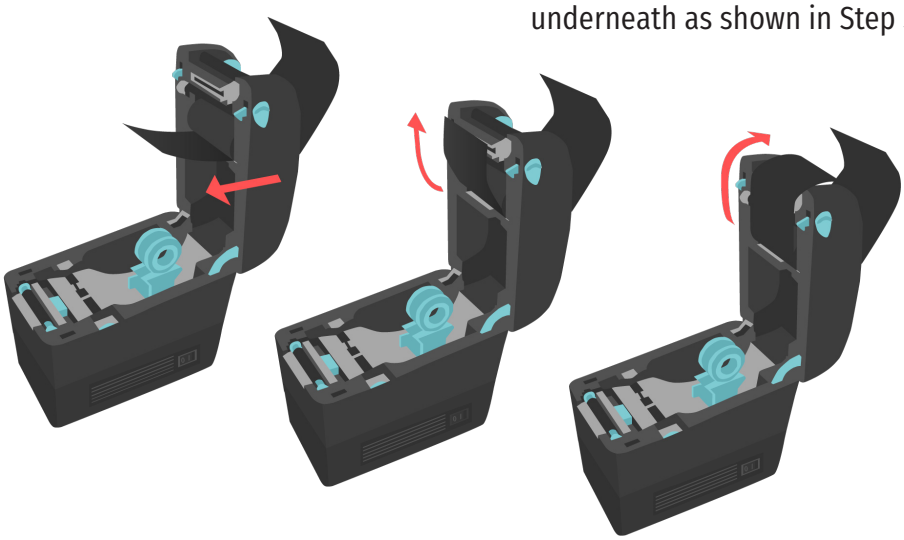
2. Insert an empty core between the gear and the axle - ensure the notches align as shown



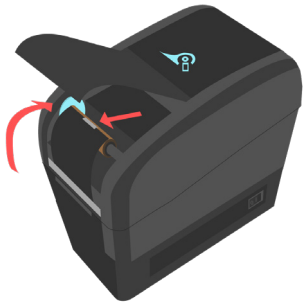
3. Open the printer. and get the thermal transfer ribbon ready. Ensure the ribbon unwinds from underneath as shown in Step 5



4. Push the ribbon into the right axle (black), then align the notches on the left and insert the ribbon onto the gear (blue)



5. Next, gently pull the ribbon out, up and over the print head, around to the empty core.



6. Attach the ribbon to the empty roll uising a piece of tape - try to attach the ribbon as straight as possible.

7. Use the ribbon rewind gear to tighten the ribbon against the print head, then close the printer.

Printer Functions

LED and Button Functions

This printer has one button and one three-colour LED indicator. By indicating the LED with different colour and pressing the button, printer can feed labels, pause the printing job, select and calibrate the media sensor, print printer self-test report, reset printer to defaults (initialization). Please refer to the button operation below for different functions.

LED Colour	Description
Solid Green	This indicates that the power is on and the device is ready to use.
Flashing Green	This indicates that the system is downloading data from PC to memory or the printer is paused.
Amber	This indicates that the system is clearing data from printer.
Solid Red	This illuminates printer head open, cutter error.
Flashing Red	This indicates a printing error, such as head open, paper empty, paper jam or memory error etc.

Regular Button Function

Feed labels

When the printer is ready, press the button to feed one label to the beginning of next label.

Pause the printing job

When the printer is printing, press the button to pause a printing job. When the printer is paused, the LED will be green flashing. Press the button again to continue the printing job.

Power on Utilities

There are six power-on utilities to set up and test printer hardware. To use these utilies follow this procedure:

1. Turn off the power switch.
2. Hold the Feed button then turn on the power switch.
3. The printer LED will cycle through the following options. Release the button when the LED reaches the relevant utility.

	LED Colour & Action						
Functions	**Amber**	**Red (5 Flashes)**	**Amber (5 Flashes)**	**Green (5 Flashes)**	**Green/ Amber (5 Flashes)**	**Red/ Amber (5 Flashes)**	**Solid Green**
Gap/Black Mark Sensor Calibration		Release					
Gap/Black Mark Sensor Calibration, Self Test and Enter Dump Mode			Release				
Printer Initialisation				Release			
Set Black Mark Sensor as Media Sensor and Calibrate the Black Mark Sensor					Release		
Set Gap Sensor as Media Sensor and Calibrate the Gap Sensor						Release	
Skip AUTO.BAS							Release

Gap/Black Mark Sensor Calibration

Gap/black mark sensor sensitivity should be calibrated in the following circumstances:
1. A brand new printer
2. Change label stock
3. Printer initialization

Please follow the steps below to calibrate the gap/black mark sensor.
1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED becomes red and flashing. (Any red will do during the 5 flashes).
4. It will calibrate the gap/black mark sensor sensitivity.
   - The LED colour will be changed as following order:
     1. Amber
     2. Red (5 flashes)
     3. Amber (5 flashes)
     4. Green (5 flashes)
     5. Green/amber (5 flashes)
     6. Red/amber (5 flashes)
     7. Solid green

Note: Sensor calibration can be done by the power on utility.
Note: Please select gap or black mark sensor type prior to calibrate the sensor.

Gap/Black Mark Calibration, Self-test and Dump Mode

While calibrating the gap/black mark sensor, printer will measure the label length, print the internal configuration (self-test) on label and then enter the dump mode. To calibrate gap or black mark sensor depends on the sensor setting in the last print job.

Please follow the steps below to calibrate the sensor.
1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED becomes amber and flashing. (Any amber will do during the 5 flashes)
   - The LED colour will be changed as following order.
     1. Amber
     2. Red (5 flashes)
     3. Amber (5 flashes)
     4. Green (5 flashes)
     5. Green/amber (5 flashes)
     6. Red/amber (5 flashes)
     7. Solid green
4. The printer will calibrate the sensor and measure the label length and then print the internal settings. Then it enter Dump Mode.

Note: Sensor calibration can be done by power on utility.
Note: Please select gap or black mark sensor type prior to calibrate the sensor.

Dump mode

Printer will enter dump mode after printing printer configuration. In the dump mode, all characters will be printed in 2 columns as following. The left side characters are received from your system and right side data are the corresponding hexadecimal value of the characters. It allows users or engineers to verify and debug the program. Dump mode requires 2" wide paper width.

Note:
1. Turn off / on the power to resume printer for normal printing.
2. Press FEED button to go back to the previous menu.

Printer Initialization

Printer initialization is used to clear DRAM and restore printer settings to defaults. Printer initialization is activated by the following procedures.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns green after 5 amber flashes. (Any green will do during the 5 flashes).
   - The LED colour will be changed as following:
     1. Amber
     2. Red (5 flashes)
     3. Amber (5 flashes)
     4. Green (5 flashes)
     5. Green/amber (5 flashes)
     6. Red/amber (5 flashes)
     7. Solid green

Printer configuration will be restored to defaults as below after initialisation.

Parameter	Default setting
Speed	127 mm/sec (5 ips) (203DPI) 76.2 mm/sec (3 ips) (300DPI)
Density	8
Label Dimensions	2" (50.8 mm) x 2" (50.8 mm)
Sensor Type	Gap sensor
Gap Setting	0.12" (3.0 mm)
Print Direction	0
Reference Point	0,0 (top left corner)
Offset	0

Parameter	Default setting
Tear Mode	On
Peel off Mode	Off
Cutter Mode	Off
Serial Port Settings	9600 bps, none parity, 8 data bits, 1 stop bit
Code Page	850
Country Code	001
Clear Flash Memory	No
IP Address	DHCP

Set Black Mark Sensor as Media Sensor and Calibrate the Black Mark Sensor

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns green/amber after 5 green flashes. (Any green/amber will do during the 5 flashes).
   - The LED colour will be changed as following:
     1. Amber
     2. Red (5 flashes)
     3. Amber (5 flashes)
     4. Green (5 flashes)
     5. Green/amber (5 flashes)
     6. Red/amber (5 flashes)
     7. Solid green

Set Gap Sensor as Media Sensor and Calibrate the Gap Sensor

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns red/amber after 5 green/amber flashes. (Any red/amber will do during the 5 flashes).
   - The LED colour will be changed as following:
     1. Amber
     2. Red (5 flashes)
     3. Amber (5 flashes)
     4. Green (5 flashes)
     5. Green/amber (5 flashes)
     6. Red/amber (5 flashes)
     7. Solid green

Troubleshooting

The following guide lists the most common problems that may be encountered when operating this bar code printer. If the printer still does not function after all suggested solutions have been invoked, please contact the Customer Service Department of your purchased reseller or distributor for assistance.

LED Status / Colour	Printer Status	Possible Cause	Recovery Procedure
OFF	No response	No power	* Turn on the power switch. * Check if the green LED is lit on power supply. If it is not lit on, power supply is broken. * Check both power connections from the power cord to the power supply and from the power supply to the printer power jack if they are connected securely.
Solid Green	ON	The printer is ready to use	* No action necessary.
Flashing Green	Pause	The printer is paused	* Press the FEED button to resume for printing.
Flashing Red	Error	The out of labels or the printer setting is not correct	**1. Out of labels** - Load a roll of label and follow the instructions in loading the media then press the FEED button to resume for printing. **2. Printer setting is not correct** - Initialise the printer by instructions in “Power on Utility”.

Bluetooth & Battery Problems

Problem	Possible Cause	Recovery Procedure
Bluetooth Module not connecting or is dropping out after being connected	The Bluetooth Module may not be plugged in properly.	Ensure the Bluetooth Module at the rear of the printer is still plugged in properly. A green light should appear on the module, which will change to blue when connected to a device.
	Your tablet may be going to sleep, which may end the Bluetooth connection to save power.	Go to your tablet’s settings, open Display settings, and set the ‘Sleep’ or ‘Screen Timeout’ setting to the maximum, usually 30 minutes.
Printer shuts down intermittently	The printer may not be fully charged	Charge the printer fully for at least eight hours.
	Your tablet may be going to sleep, which may end the Bluetooth connection, which may cause the printer to enter Standby mode.	Go to your tablet’s settings, open Display settings, and set the ‘Sleep’ or ‘Screen Timeout’ setting to the maximum, usually 30 minutes. Printer timeout is 30mins when unused.

Print Problems

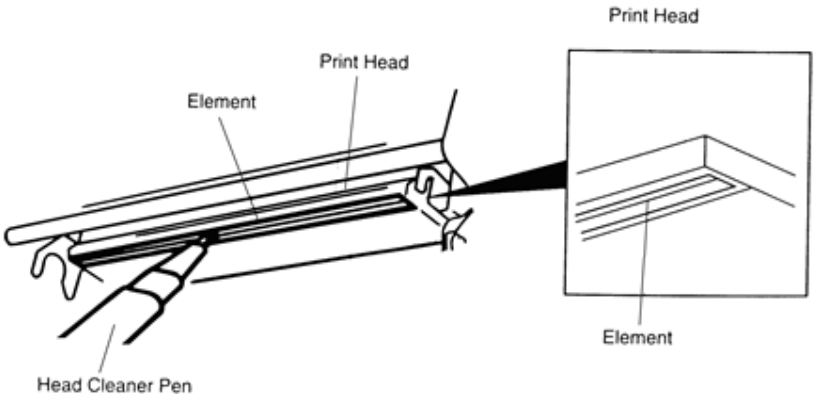
Problem	Possible Cause	Recovery Procedure
Not Printing	Check if interface cable is well connected to the interface connector.	Re-connect cable to interface.
	The serial port cable pin configuration is not pin to pin connected.	Please replace the cable with pin to pin connected.
	The serial port setting is not consistent between host and printer.	Please reset the serial port setting.
	The port specified in the Windows driver is not correct.	Select the correct printer port in the driver.
	The Ethernet IP, subnet mask, gateway is not configured properly.	Configure the IP, subnet mask and gateway.
No print on the label	Label loaded not correctly.	Follow the instructions in loading the media.
Continuous feeding labels	The printer setting may go wrong.	Please do the initialization and gap/black mark calibration.
Paper Jam	Gap/black mark sensor sensitivity is not set properly (sensor sensitivity is not enough)	Calibrate the gap/black mark sensor.
	Make sure label size is set properly.	Set label size exactly as installed paper in the labelling software or program.
	Labels may be stuck inside the printer mechanism near the sensor area.	Remove the stuck label.
Poor Print Quality	Top cover is not closed properly.	Close the top cover completely and make sure the right side and left side levers are latched properly.
	Wrong power supply is connected with printer.	Check if 24V DC output is supplied by the power supply.
	Check if supply is loaded correctly.	Reload the supply.
	Check if dust or adhesives are accumulated on the print head.	Clean the print head.
	Check if print density is set properly.	Adjust the print density and print speed.
	Check print head test pattern if head element is damaged.	Run printer self-test and check the print head test pattern if there is dot missing in the pattern.

Maintenance

This session presents the clean tools and methods to maintain your printer.

Please use one of following material to clean the printer.

- Cotton swab (Head cleaner pen)
- Lint-free cloth
- Vacuum / Blower brush
- 100% ethanol

Printer Part	Method	Interval
Print Head	1. Always turn off the printer before cleaning the print head. 2. Allow the print head to cool for a minimum of one minute. 3. Use a cotton swab and 100% ethanol to clean the print head surface.	Clean the print head when changing a new label roll
		
Platen Roller	1. Turn the power off. 2. Rotate the platen roller and wipe it thoroughly with 100% ethanol and a cotton swab, or lint-free cloth.	Clean the platen roller when changing a new label roll
Tear Bar/Peel Bar	Use the lint-free cloth with 100% ethanol to wipe it.	As needed
Sensor	Compressed air or vacuum	Monthly
Exterior	Wipe it with water-dampened cloth	As needed
Interior	Brush or vacuum	As needed

Note:

- *Do not touch printer head by hand. If you touch it accidentally, please use ethanol to clean it.*
- *Please use 100% Ethanol. DO NOT use medical alcohol, which may damage the printer head.*
- *Regularly clean the print head and supply sensors when changing media to keep optimal performance and extend printer life.*
- *The maximum printing ratio per dot line is 15% for this printer. To print the full web black line, the maximum black line height is limited to 40 dots, which is 5mm for 203 DPI resolution printer and 3.3mm for 300 DPI resolution printer.*

Wavecom Tags & Accessories

To support our test and print units we offer to you our range of electrical test tags that are made of the highest grade polypropylene and polyester label materials. These materials are robust and resistant to tearing and will cope with harsh Australian environments. It is recommended in extreme external conditions you use UV resistant tags.

Wavecom Printable Tags

The test tags/labels we offer come in the full range of colours, each tag comes with a clear white area where a barcode can be printed into ensuring easy and accurate scanning, this results in the user being able to conduct fast scanning without issues.

All of the Wavecom tags are suitable for printing using every brand of thermal transfer printers available from around the world. The adhesive used on our tags is most aggressive and comes highly recommended for use in the electrical test and tag industry, there should be no butterflying once applied.

Order Information:

Lightweight ATT Tags (250 Tags)	Suitable for most environments	Part no: WCM-ATT-TAGS-(B, BLK, BUR, GN, O, R, Y)
Medium Duty TT Tags (100 Tags)	Suitable for indoor and outdoor use	Part no: WCM-TT-TAGS-(B, BLK, BUR, GN, O, R, Y, RAIN)
Heavy Duty TM Tags (100 Tags)	Suitable for all but the most extreme environments	Part no: WCM-TM-TAGS-(B, BLK, BUR, GN, O, R, Y)
Super Heavy Duty TA Tags (100 Tags)	Suitable for all industrial and outdoor sites	Part no: WCM-TA-TAGS-(B, BLK, BUR, GN, O, R, Y)

Optional Accessories

500mm Metal Braid for Earthing Appliances	Part No: TnT-ES 500
3-Phase Adaptor 20A & 32A 5pin + 5pin	Part No: WCM-3PH-MADP
HBC Fuse	Part No: WCM-HBC10AM205
Isolation Transformer for RCD testing	Part No: WCM-ISOT
Probe Kit	Part No: WCM-Probe
WinPATS Extended Support (12 months)	Part No: WCM-WinPATS Support
IEC 20amp-10amp Current Limited Adapter Cable	Part No: WCM-IEC2010 *(Suitable for TnT RCD 20A Models Only)*

Disclaimer – E&OE

All specifications may be subject to be change by Wavecom Pty. Ltd. without prior notice.

Updated Specifications & Model changes may be found on the Wavecom website: - www.wavecom.com.au
At the time of developing this manual, all care and consideration for accuracy has been implemented. Wavecom accepts no responsibility for any errors or omissions in this document. This is partly based on the fact that Electronics & Electrical testing and specifications worldwide are constantly changing and that Local, State and National Regulatory Authorities may also have differing or additional requirements. It is strongly recommended the Purchaser check Local Regulatory Standards that may be applicable in your region.

Purchase Information

Date of Purchase

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