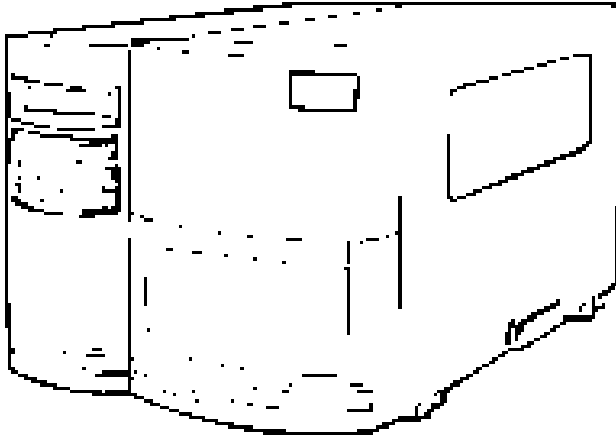


W-600 Thermal Label Printer User's Guide

**for Wasp Bar Code Technologies®
DT/TT Printer**



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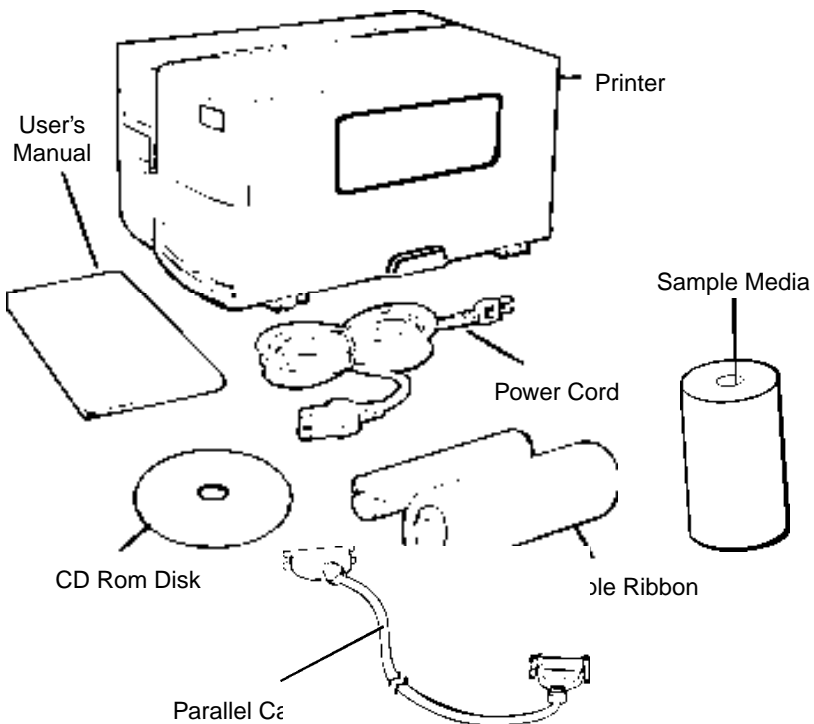
Quick Setup Guide

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Inspecting the Printer

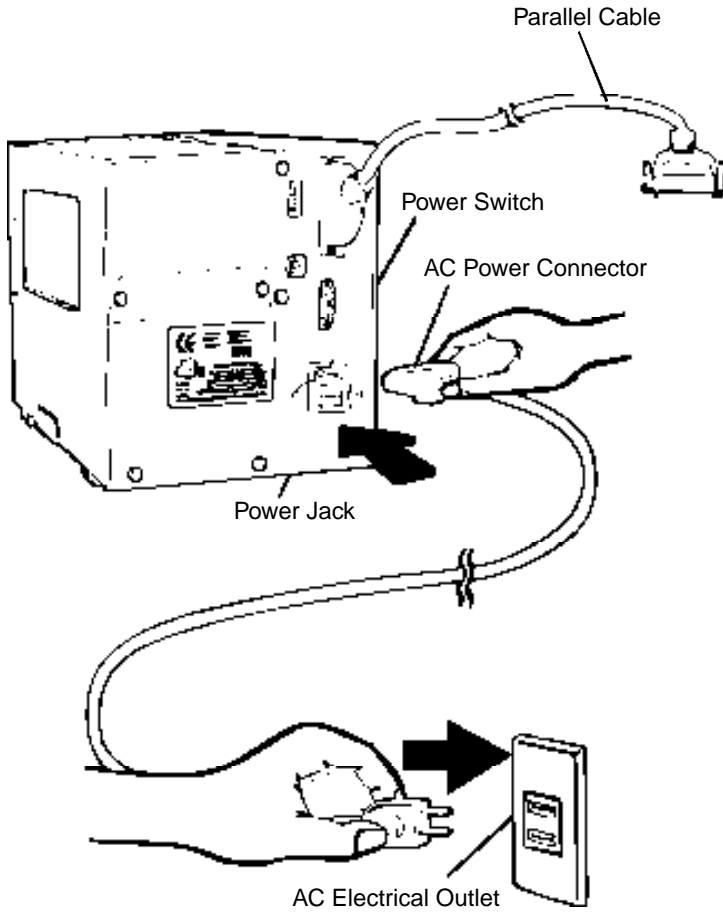
After removing the printer from the packaging material, check the contents of the package. The following items should be included:

- Wasp Bar Code Printer
- Power Cord
- CD Rom Disk
- Sample Media
- Sample Ribbon
- Parallel Printer Cable



Quick Setup Guide

Connection Diagram



Power Supply

Note: Before setting up the printer you should consider the following:

1. Find a flat surface with adequate room for the printer. Make sure there is enough room on the top side for media and ribbon access.
2. The location should be near the PC. Consider the distance between PC and printer for the communication cable (parallel cable).

Parallel Interface Requirements

Note: This printer complies with FCC “Rules and Regulations”, Part 15, for Class B Equipment, using fully shielded six-foot data cables. Use of longer cables or unshielded cables may increase radiated emissions above the Class B limits.

The included cable (IEE 1284-compliant) has a standard 36-pin parallel connector on one end, which is plugged into the parallel port located on the back of the printer. The other end of the parallel interface cable connects to the parallel port on the host computer.

Data cables must be of fully shielded construction and fitted with metal or metalized connector shells. Shielded cables and connectors are required to prevent radiation and reception of electrical noise.

To minimize electric noise pickup in the cable:

1. Keep data cables as short as possible (6 feet recommended).
2. Do not tightly bundle the data cables with power cords.
3. Do not tie the data cables to power wire conduits.

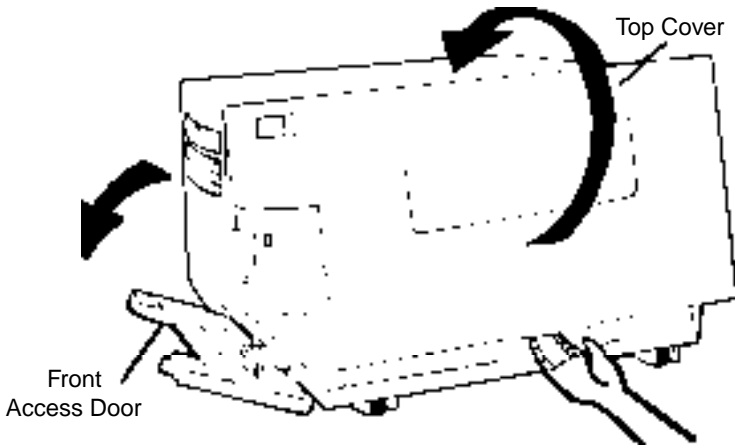
Quick Setup Guide

Loading the Ribbon

Loading the Ribbon

Note:

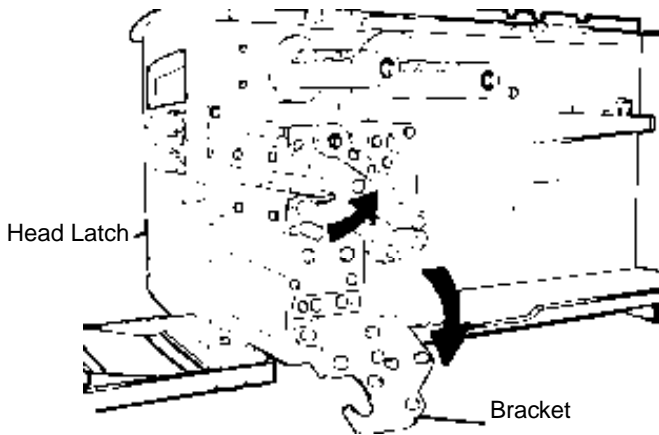
This section is not applicable to Direct Thermal (DT) printing.



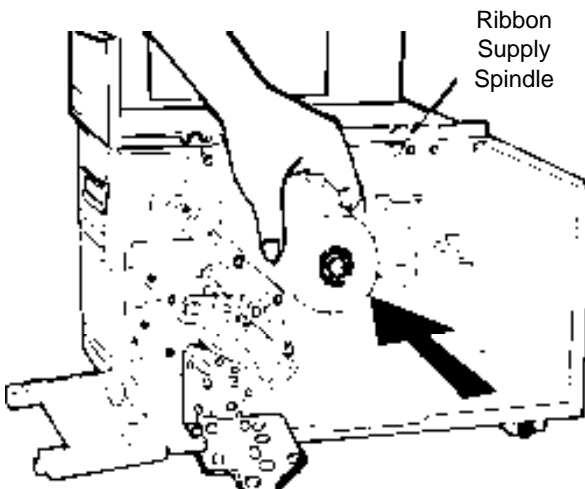
1. Lift top access door and front access door to expose compartment.

Quick Setup Guide

Loading the Ribbon



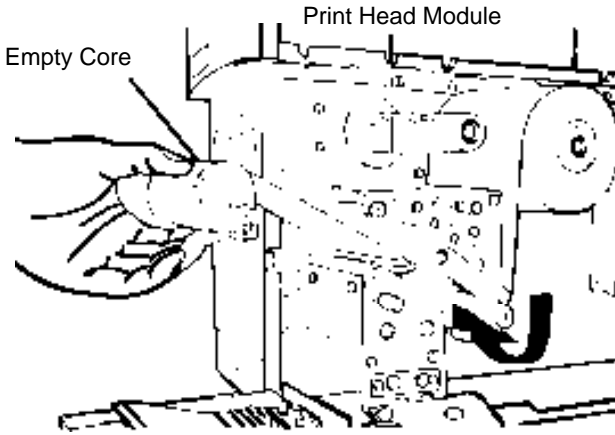
2. Push the head latch counter-clockwise, then push down the bracket.



3. Unwrap the ribbon roll pack and separate the ribbon roll and the empty core. Insert the ribbon core onto the ribbon supply spindle.

Quick Setup Guide

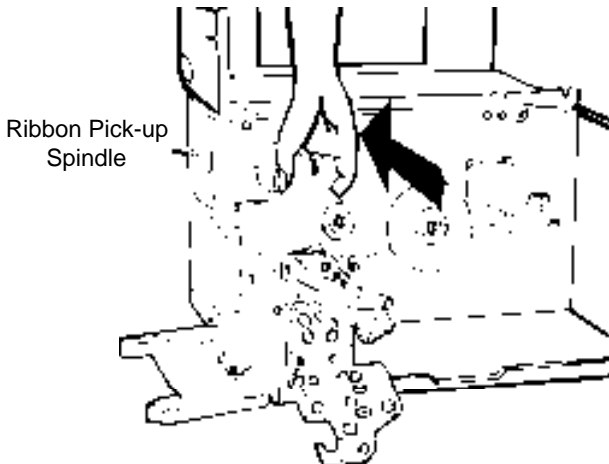
Loading the Ribbon



4. Attach the edge of the ribbon onto the empty core and wind a few turns. Lead the empty core through print head module.

Note:

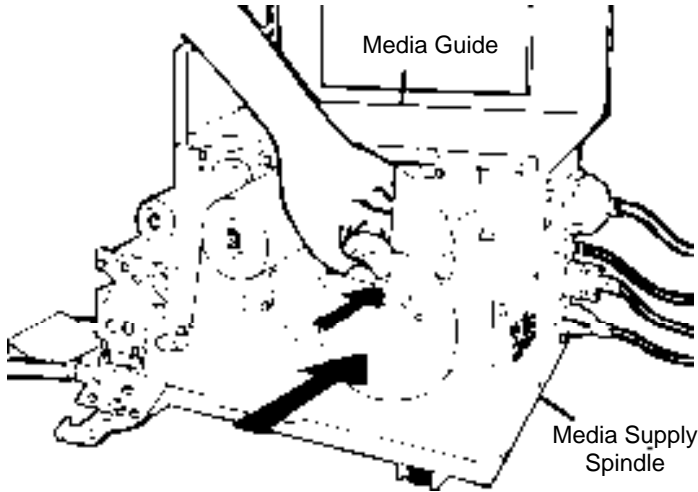
The dull side of the ribbon should face down.



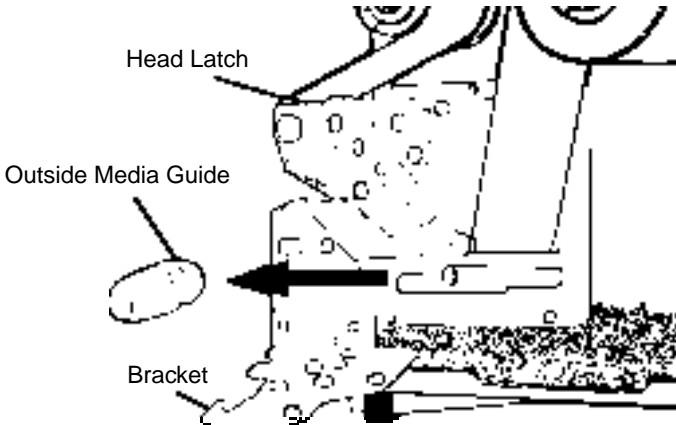
5. Insert the empty core onto the ribbon pick-up spindle. Turn the pick-up spindle to insure the ribbon is tightly wound.

Quick Setup Guide

Loading the Media



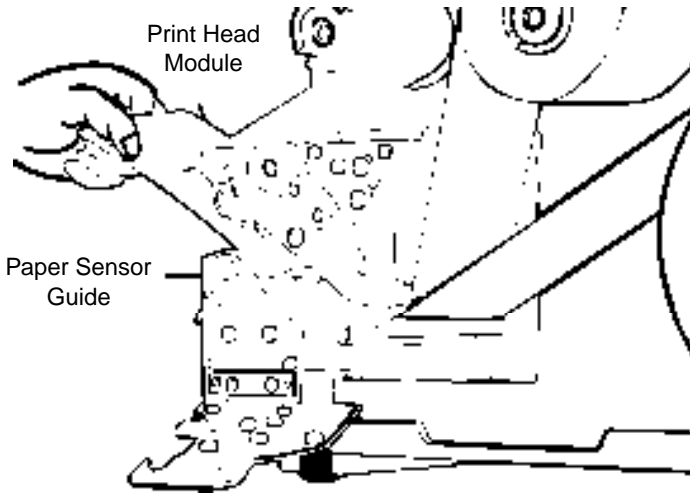
1. Insert the media roll onto the media supply spindle and move the media guide to the inside.



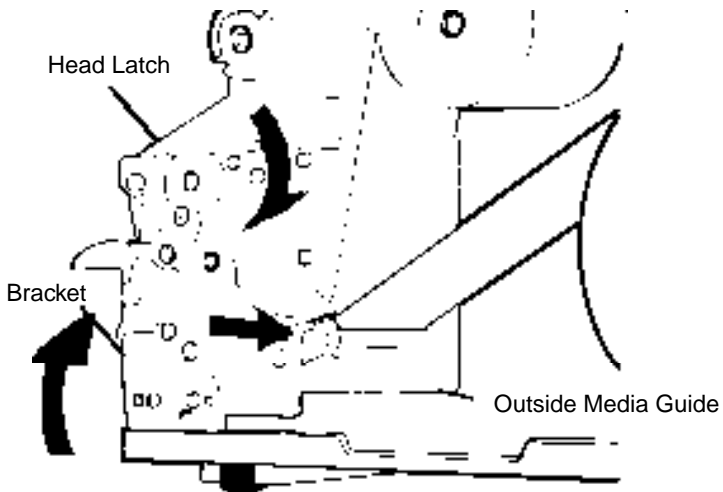
2. Push the head latch counter-clockwise, and then push down the bracket. Remove the outside media guide.

Quick Setup Guide

Loading the Media



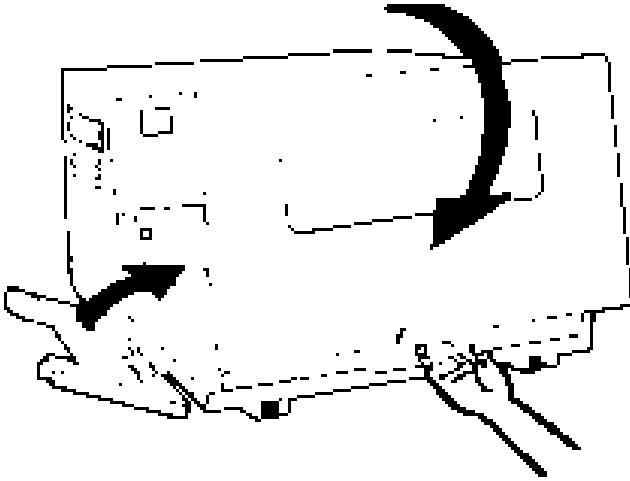
3. Lead the media through the print head module and under the paper sensor guide.



4. Reconnect the outside media guide, close the bracket, and close the head latch.

Quick Setup Guide

Loading the Media



5. Close the top access door and front access door and then turn on the printer or press "FEED" button if the printer is already on.

Performing Calibration

Note: This step is very important and must always be carried out whenever media is being changed. Failure to do so will result in mis-detection of the label size.

1. Press and hold the “PAUSE” button.
2. Turn on power.
3. When the message “CALIBRATION” is displayed on the LCD, both READY and MEDIA indicators will blink. At this point, release the button.
4. The printer will then feed 12 inches of label media.
5. When the “READY” message is displayed, the READY and MEDIA indicators will stop blinking and remain illuminated.

Printing Configuration Report

1. Turn off the printer. Press and hold the FEED button.
2. Turn on the power.
3. When the message “SELF TESTING....” is displayed on the LCD and the READY indicator blinks, then release the button.
4. The printer will print out a configuration report.
5. When the “READY” message is displayed and the READY indicator stops blinking and lights up, then the following information will be printed:
 - Font list
 - DIP switch settings
 - Hardware configuration status
 - Label parameters
 - Firmware version

Operator Controls

Power Switch - Controls printer power

On - normal operation

Off - the power should be turned off before connecting or disconnecting the communication cables and power cables

Feed Button - Advances the media to the printing position

Press - to advance a label

Press - takes the printer out of a "pause" condition

Press and hold while turning on the power to print out the configuration profile

Pause Button - Stops the printing process

Press - to resume printing process

Press - to perform media calibration

Cancel Button - Terminates the printing process

Press - to force printer to continue after an error

Press - to reset to factory defaults

LED Indicators

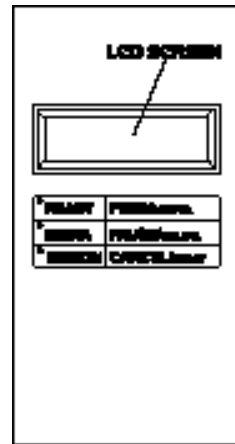
Ready - The Ready indicator is illuminated at all times except:

1. The printer is in a PAUSE state
2. Error condition

Media - The Media indicator will remain on under normal operating conditions except when blinking = out of media

Ribbon - The Ribbon indicator is illuminated under thermal transfer mode with ribbon installed except when in direct thermal mode with no ribbon installed

Blinking = out of ribbon



Resetting the Printer to Factory Default Settings

1. Turn off the printer. Press and hold the CANCEL button.
2. Turn on the printer.
3. When the message “E2PROM RESET...” is displayed on the LCD and READY indicator blinks, release the button.
4. When the “Ready” message is displayed, the READY indicator will stop blinking and light up.
5. The following parameters automatically reset:
 - Label parameters
 - Heat (Darkness)
 - Speed
 - Symbol set (language)
 - Others for specific emulation

Note:

1. All settings are stored in non-volatile EPROM and cannot be erased when the printer is turned off.
2. The DIP switch settings cannot be reset.
3. It is necessary to perform a label sensitivity calibration after resetting.
4. The printed label count cannot be reset.

Printer Driver

The bundled printer driver is compatible with Windows 9x, 2000, ME, XP, and Windows NT. Through this driver you may print using any Windows software application that supports Windows printing.

Installing Driver

1. Click the **Start**, point to **Settings**, click **Printers**, and then double-click **Add Printer**.



2. Click **Network** or **Local** and then click **Next**.
3. Click **Have Disk**, click the pull-down menu to select CD ROM (or floppy disk) drive path.
4. Click **Browse**.
5. Select the proper operating system for installation:
 - WIN9x
 - WIN2000
 - WINME
 - WINXP
 - NT4.0
6. The driver name will appear in the “List of Printers,” click **Next**.
7. Select the communication port for the label printer. For parallel port, select “LPT1:,” “LPT2:” or “LPT3:,” for serial port, select “COM1:” or “COM2:.”
8. After the related files have been copied to your system, the installation is complete.

Chapter 4

Setting Printer Properties

Setting Printer Properties

After installing the driver, follow the steps below to modify the printer properties:

1. Click **Start**, point to **Settings**, and then click **Printers**.
2. Right-click the icon for the printer you are using and then click **Properties**.



The properties include:

Ports

Select the IO port you are printing to. This port may be parallel (LPT), serial (COM), network port or file.

Paper Size

Select your label size from the menu. If your size is not listed, select "Custom" to define your paper size.

Orientation

Set portrait or landscape according to the print direction.

Paper source (Media type)

T/T stands for Thermal Transfer (ribbon) mode and D/T for Direct Thermal mode (without ribbon).

Media choice (Darkness)

Some printing applications require changes to the darkness setting. This setting actually controls the heat intensity of the printhead. The lowest setting is 0; the highest intensity setting is 15.

Note: In most cases, direct thermal media requires a higher printhead heat than thermal transfer printing.

Note: Use the lowest intensity setting possible for your application. Printing at the lowest intensity will reduce the printhead wear.

Copies

This function designates the number of printed copies of each page.

Device options (Speed)

Use the pull down menu to choose the appropriate speed for your printing application. Speed is measured in inches per second from 1.0 ips to 6.0 ips.

Note: Speed will directly affect print quality: the slower the speed the longer the media will travel under the print head. For example, direct thermal media is heat activated; therefore, the label will be more reactive the longer the print head makes contact with the media.

Note: In most cases, use the slowest speed to achieve the highest print quality.

Troubleshooting

Normally, when the printer has an error, the “Ready” LED indicator will blink.

To understand the problem, please check LEDs first:

A. Ready and Media LEDs blink at the same time

Possible Problems	Solutions	Refer to Pages
Mis-detected the label gap.	<ul style="list-style-type: none">• Check the label path• Check the label sensor	10-14
Label stock empty	<ul style="list-style-type: none">• Reload labels	10-14
Label stock not installed properly	<ul style="list-style-type: none">• Reinstall the label roll	10-14
Label jam	<ul style="list-style-type: none">• Check media path and print head for possible media errors	10-14

B. Ready and Ribbon LEDs blink alternately

Possible Problems	Solutions	Refer to Pages
Ribbon empty	<ul style="list-style-type: none">• Reload ribbon	5-9
Ribbon jam	<ul style="list-style-type: none">• Reload labels• Check media and ribbon	5-9
Ribbon sensor error	<ul style="list-style-type: none">• Call tech support	214-547-4100

C. Only the Power LED blinks

Possible Problems	Solutions
Serial IO error	<ul style="list-style-type: none">• Check the baud rate
Memory full	<ul style="list-style-type: none">• Close all applications that are not needed for printing
Hardware error	<ul style="list-style-type: none">• Call tech support

Chapter 5

Troubleshooting

D. Miscellaneous

The PC says "Printer Time Out"

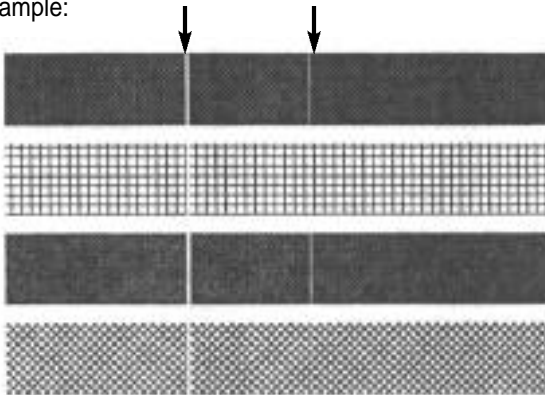
1. Make sure the communications cable (parallel or serial) is connected securely to the parallel or serial port on the PC and the printer.
2. Make sure the printer power is turned on.

If the data has been sent, but there is no output from the printer

Check the active printer driver and make sure the label printer has been selected.

Vertical streaks in the printout usually indicate a dirty or faulty print head

Example:



Clean the print head first. If the lines still persist, then the print head may need to be replaced.

Poor print quality

1. Adjust the Darkness (heat temperature) in the Windows printer driver.
2. Slow down the print speed.
3. Refer to the next chapter and clean the related spare parts.



Clean the following areas of the printer after 8 rolls of labels have been used. In each case, use a cotton swab dampened with alcohol. Do not soak the cotton swab excessively. These supplies can be purchased from Wasp Bar Code Technologies. Please call 214-547-4100 for details.

Note: Always switch off the power before cleaning.

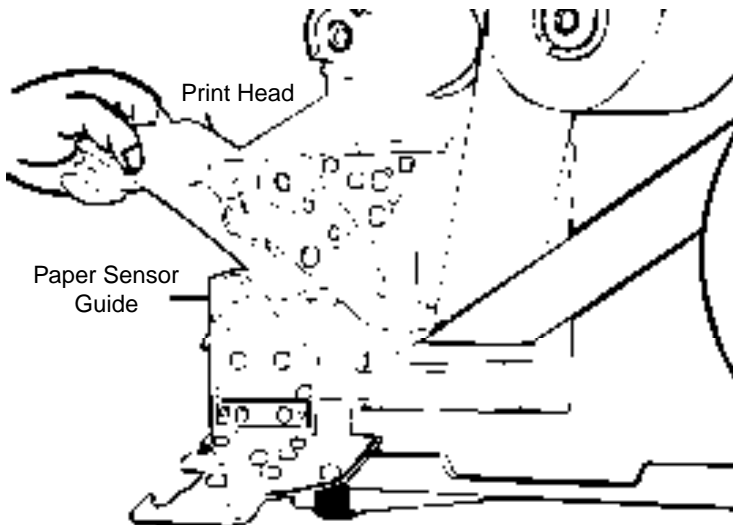
Cleaning

Thermal Print Head

Thermal paper stock and ribbons will release debris on the print head and degrade printing quality. Clean the print head with methanol or isopropyl alcohol with a cotton swab. Do not touch the heater element with your fingers.

Paper Sensor

Debris or dirt on the paper sensor will cause a mis-read or incorrect detection of the label gap. Clean with a cotton swab dampened with alcohol.



Chapter 7

Technical Specifications

Model	W-600 Thermal Transfer Printer
Print Method	Direct Thermal or Thermal Transfer
Resolution	203 DPI
Print Width	Up to 4.09"
Maximum Length	45"
Print Speed	6 IPS (Inches Per Second)
Memory	2M of DRAM, 1M Flash ROM Standard
CPU	32 bit RISC Microprocessor
Dimensions	9.8" W x 16" D x 10.2" H
Weight	24.6 lbs
Electrical	FCC Class A/B 110/220 VAC 50/60 Hz (CE, UL and CUL Approved)
Operating Temperature	40°F – 100°F (4°C – 38°C)
Storage Temperature	-40°F – 140°F (-4°C – 60°C)
Humidity	15 – 85% RH
Ribbons	Wax, Wax Resin, and Resin
Labels	Direct Thermal and Thermal Transfer (various)
Label Sensor	Gap and black stripe

Product Support

If you experience any problems with your Wasp W-600 Printer that you are unable to resolve, call for technical assistance at (214) 547-4100, Monday through Friday, 8:00 AM - 5:00 PM Central Standard Time. Our web site is

www.waspbarcode.com

You may also contact us in writing at:

Wasp Bar Code Technologies
1400 10th Street
Plano, TX 75074
(214) 547-4100
(214) 547-4101 Fax

Warranty Information

Wasp W-600 Printer is warranted against defects in workmanship and materials for a period of one year from the date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions.

Note: W-600 print heads are warranted for 90 days against defect in workmanship. Print heads will be replaced during the 90 day period once it is determined that the print head is defective.

This warranty is limited to repair or replacement at Wasp Technologies' option, with reasonable promptness after being notified. These provisions do not prolong the original warranty term for any product which has been repaired or replaced by Wasp Technologies.

This warranty applies to the original owner and does not extend to any product which has been subject to misuse, neglect, accidental damage, unauthorized repair, or tampering.

No other express warranty is given. The replacement or repair of a product is your exclusive remedy. Any other implied warranty of merchantability or fitness is limited to the duration of this written warranty. Some states, provinces, and countries do not allow how long an implied warranty lasts, so the above limitation may not apply to you.

In no event shall Wasp Technologies be liable for consequential damages. Some states, provinces, and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.