DRESSER
Wayne

DW-10 Dispenser
Printer P/N 890477-001

OPERATION

READ THIS MANUAL BEFORE YOU BEGIN

Dispensers have both electricity and a hazardous, flammable and potentially explosive liquid. Failure to follow the below precautions and the Warning and Caution instructions in this manual may result in serious injury. Follow all rules, codes and laws that apply to your area and installation.

SAFETY PRECAUTIONS

Make sure that you know how to turn OFF power to the dispenser and submersible pumps in an emergency.

Be sure to adhere to the list of cautions contained in this manual for the DW-10 Printer.

HOW TO CONTACT WAYNE

Trouble with the installation and operation of the printer should be referred to your authorized Wayne service personnel or the Wayne Help Desk (1-800-289-2963).

Contents

ii

1   INTRODUCTION

This manual explains the operation of the Dresser Wayne DW-10 thermal printer used in Wayne Vista and Ovation dispensers. The manual contains typical operator's maintenance procedures, which includes loading paper, use of the proper paper, clearing paper jams and a list of printer precautions.

Once the printer door on the dispenser is unlocked and opened, the DW-10 printer will appear as shown in the photo below.

1.1 Paper Type

The recommended paper is the Dresser Wayne thermal printer paper, part number 7000701 for 1 Roll and 7000703 for Box of 48 Rolls. Paper used in the DW-10 printer should comply with specifications of the Dresser Wayne paper.

Other printer papers that meet our paper specification include Kansaki P-300 and Koehler KT55F18 papers with the following:

Inside Core Diameter	.68"-.79"
Core Annular Thickness	.10"-.28"
Paper and Core Width	2.32"-2.36"
Finished Roll Diameter	3.80"-4.00"

Paper should not be stuck to the core with adhesive.

See cautions concerning paper types on the next page.

1.2   Paper Type, continued

Adhere to the cautions below when using or when storing the paper.

⚠ **Caution:**

⚠ Avoid allowing the surface of the paper to contact with chemicals or oils as this may cause the paper to become colored or the printed data on it may become erased.

⚠ Avoid scraping on the paper surface with your nail or a metal object as this may cause the surface of heat-sensitive paper to become colored.

⚠ Do not expose the paper to the effects from heat, humidity, or sunlight as heat-sensitive paper starts getting colored at approx. 70 degrees.

2   PRINTER OPERATION

2.1   Controls and Indicator Lights

Front Door Lock

Front Door Pull
Down Handle

FEED Button
Feeds paper while
button is pressed.

ERROR Light
Red light is on steady
or blinks to show
different errors.

TEST Button
Prints test receipt
with pump CAT data or
printer info depending
on which is being
received when button
is pressed.*

POWER Light
Green light is on
steady when printer
power is on.

Paper Exit

* HEXADECIMAL DUMP mode:
If the TEST button is held for more than 2 s DW-10 will switch to HEX-DUMP mode.
POWER light starts flashing and all received data will be printed as a hexadecimal codes.
To exit the mode, hold the TEST button for more than 2 s again.

PRINTER INFO:
When the printer door is opened and then closed, the Dresser Wayne print out shown above is
printed. This printout includes printer Model name, Firmware version, baud rate, DIP switches,
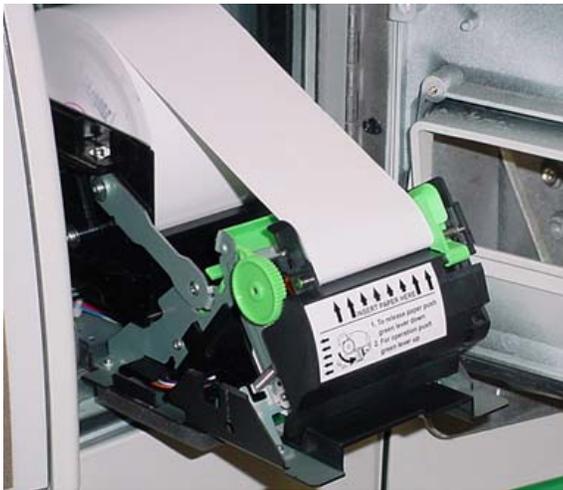and built-in fonts.

2.2 Opening/Closing Front Panel Door

1. At the top of the printer, pull the front door handle down to open the printer door as shown below.

2. Push the printer door up and close until a click is heard which locks the door. The printer will then begin the test print.
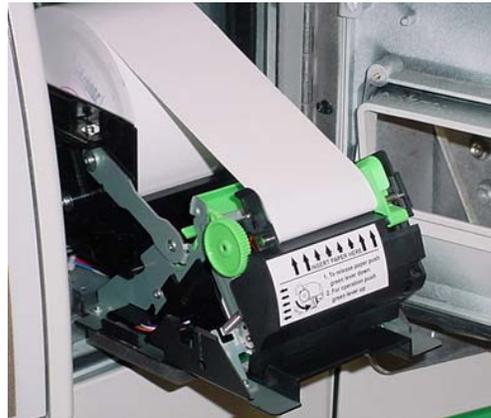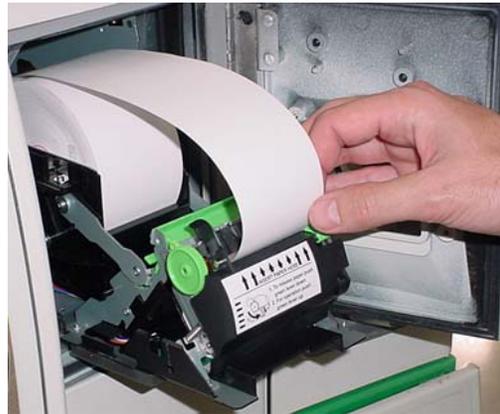

Door closed position

Door open position

2.3 Loading Paper

Follow the instructions below and refer to the photos on the next page for loading paper.

1. Unlock the printer access door on the front of the dispenser.

2. Pull down the print door.

3. Remove old paper core.

4. Insert a paper roll with paper feeding from the top of the roll as shown in the photos and pull out the paper.

5. Insert the paper in the paper inlet as shown and the paper will feed several cm automatically.

6. Push up the printer door until a click is heard.
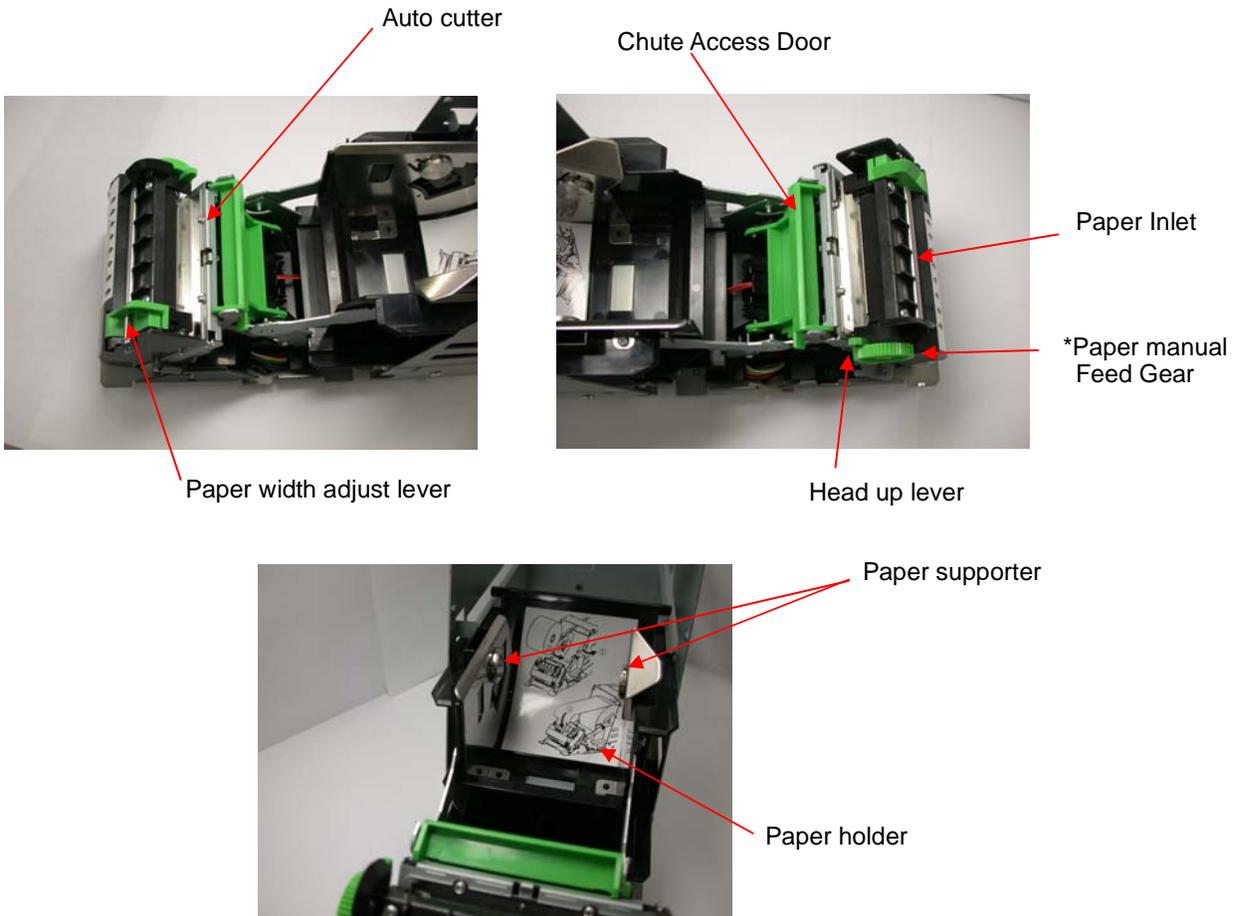
7. Close and lock printer access door.

Printer Door Lock

LOADING PAPER

2.4 Internal Components

Auto cutter

Chute Access Door

Paper Inlet

*Paper manual Feed Gear

Paper width adjust lever

Head up lever

Paper supporter

Paper holder

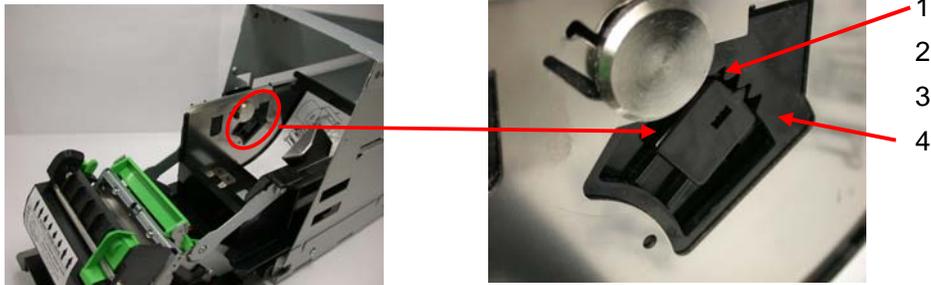* With power on, the paper feeds automatically when inserted into the paper inlet.

2.5 Setting the Paper Width Adjust Lever

The printer is set to 60mm paper width when shipping. Wayne supplied paper is 60mm. If the 58 mm paper width is used, adjust the paper width lever as shown below.

Paper width adjust lever

2.6 Low Paper Sensor Position

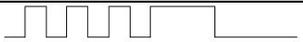| Position	Paper diameter	Length of the remaining paper
1	About 23.5	Not used
2	About 28.0	About 2 meters
3 Default Setting	About 33.0	About 6 meters
4	About 37.5	About 11 meters

The DW-10 printer has adjustable paper near end (low paper) sensor. Set the sensor to the appropriate position depending of the paper roll core diameter and the length of the remaining paper when you wish to be notified of the low paper. The factory setting is the position 3 default is the factory setting.

3   ERROR LIGHTS AND PAPER JAMS

3.1 Error Lights

- Paper end:
  Paper empty is detected in two steps: paper end and paper near end.
  In either case, the ERROR lamp is lit. If paper end is detected, replace the paper roll.

- Front door open:
  If the printer door is opened accidentally, the ERROR light will go on and the print will be continued even though the door is opened.

- Head up:
  The ERROR light blinks when the Head Up lever is lowered while printing. The lever should be in the up position after clearing a jam. The print restarts automatically. The ERROR light goes to the On state if the lever is lowered.

- Thermal head over heat:
  When printing dense characters or dark images, the head temperature rises. If the head temperature exceeds a specified level, the printer stops printing and waits until the head temperature cools off. During waiting, the ERROR light blinks slowly. When the head temperature goes back to normal operating range, printing resumes automatically.

- Cutter lock:
  If the auto cutter blade stops operating due to a jam, the ERROR light blinks. Clear the jam and press the FEED button. If the blade does not move, refer to section 3.1.

- Paper jam:
  When paper is fed by 75 mm, the receipt sensor detects it. After the paper is cut, it is determined to be a jam when the paper doesn't reach the sensor position at that time.
  The printer memorizes whether there is paper on the receipt sensor when the print begins.

The status of the Power light and the Error light for detected symptoms is as follows:

Symptom Detected	POWER Light Status	ERROR Light Status
Paper end	ON	ON
Paper near end	ON	ON
Front door open	ON	ON
Head up	ON	ON
Head up *1	ON	Blinking
Cutter lock	ON	⎍⎍⎍⎍
Paper jam	ON	⎍⎍⎍⎍
Head overheat	ON	Slow blinking
Memory check error	Quick blinking	OFF
Low voltage error	ON	⎍⎍⎍⎍
High voltage error	ON	⎍⎍⎍⎍⎍

*1 While the printer is printing.

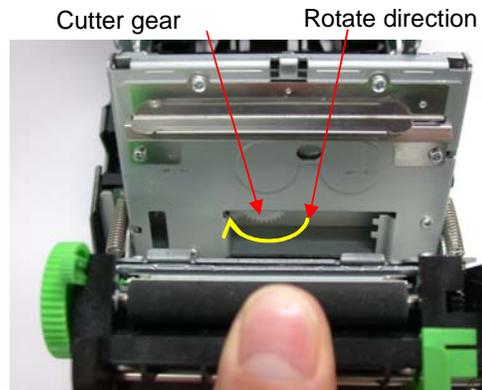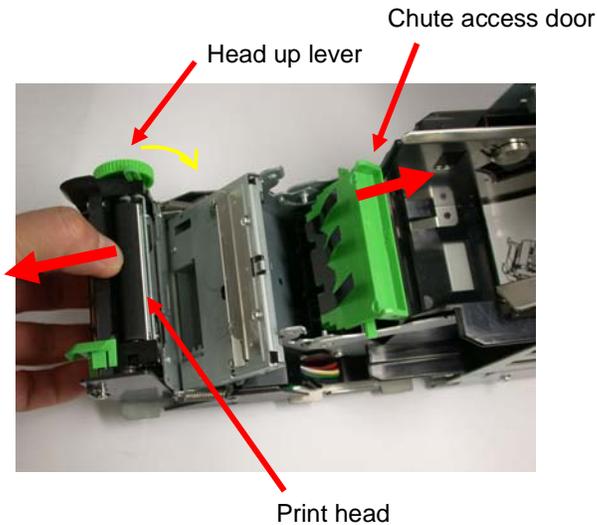⎍⎍⎍⎍   Indicates two short blinks and a long blink

3.2 Clearing Paper Jams

If paper exit is blocked, the paper is bent and stored in the paper chute. Three receipts will be stored in the chute before a jam occurs.

Follow the steps below and the numbered photos on the adjacent page to clear a paper jam:

1. Open the printer door. **1**

2. Open the paper chute access door by pressing the door towards the rear with both thumbs. **2** and **3**

3. Remove the jammed paper. **4** and **5**

4. Close the paper chute access door and the auto cutter mechanism should initialize and the alarm should clear. Reload paper. **6**

5. If the auto cutter is jammed with paper or any other reason, press the FEED button first.

6. If the auto cutter error continues, turn the cutter gear manually as shown below.

⚠️ CAUTION:
The print head is hot immediately after printing. Do not touch

.

Note: If the print head is jammed, open the print head as shown above and wipe off any debris on the heating element of the head using a cotton swab.

⚠️ CAUTION:
The print head is hot immediately after printing. Do not touch.
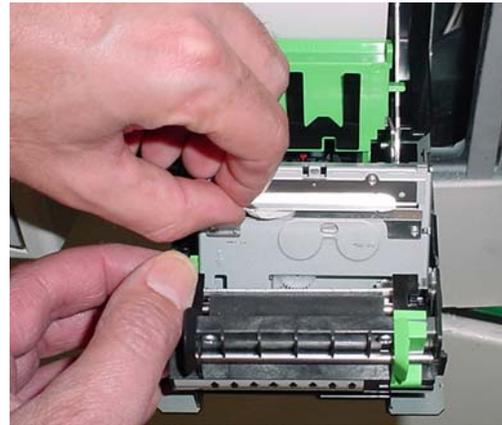
3.2   Clearing Paper Jams, continued

1

2

3

4

5

6

4   SAFETY PRECAUTIONS

Before using this printer for the first time, carefully read these "Safety precautions". Incorrect operation may result in unexpected accidents (fire, shock, or injury).

Neglecting the warnings below may result in printer failure, overheating, emission of smoke, fire, or electric shock.

⚠ Warnings:

Do not use this printer other than for its intended application in the dispenser.
Do not use or store this product in place where it will be exposed to: ● Flames or moist air   ● Direct sunlight   ● Hot airflow or radiation from a heating device   ● Reactive chemicals   ● Airborne oil, steel particles, or dust   ● Static electricity or strong magnetic field
Do not drop any foreign object or spill liquid into the printer. Do not place any object on the printer. A metallic foreign object, if accidentally dropped into the printer, may cause printer failure, fire, or electric shock.
Do not handle the printer in the following ways: ● Do not allow the printer to sustain strong impacts, e.g., dropping, striking with a hard edge.   ● Never attempt to disassemble or modify the printer.
Use or store the printer out of the reach of children.   ● Electric appliances could cause an unexpected injury or accident if they are handled or used improperly.
Please observe the following precautions for power source and power cord: ● Do not plug or unplug the power cord with wet hand.   ● Check to make sure that the supply outlet from which the printer is powered has a sufficient capacity. An overload may cause the power cord to overheat or fire or the circuit breaker to trip.   ● Do not move the printer while the printer power is on.   ● Do not attempt to modify the power cord.

⚠ **Cautions:**

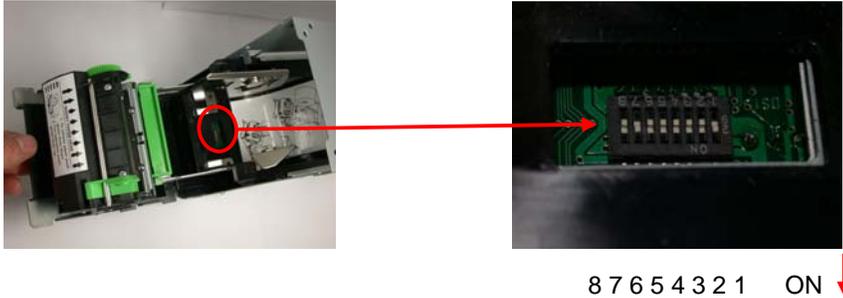| |
|---|
| Do not use the printer under conditions where the printer ventilation holes are blocked, where any object is placed on the printer or where the printer is covered or wrapped by a cloth or other materials.

 The printer may have an adverse effect on nearby radio or TV transmissions.

 There may also be cases when nearby electrical appliances adversely affect the printer, causing data errors or malfunction.

 Avoid using the printer near a radio or TV set or supplying it from the same outlet as these appliances.

 Avoid using the printer interconnected with a cable or cord that has no protection against noise.

 Avoid using the printer with a device that is a strong source of noise. |
| Use the printer with its grounding post connected to an appropriate grounding facility.

 Before connecting or disconnecting the grounding lead to or from the printer, always unplug it from supply outlet.

 If leakage occurs electric shock may result.

 Do not connect the grounding post onto any of the following facilities:

     Utility gas piping. (A gas explosion could result.)
     Telephone line ground
     Lighting rod
     Utility water pipes (Plastic water pipes should not be used for grounding.) |
| To prevent possible malfunction or failure, observe the following.

     Avoid operating the printer without paper properly loaded.
     Avoid the use of paper not complying with specifications.
     Avoid using torn pieces of paper or spliced with plastic adhesive tapes.
     Avoid forcibly pulling already loaded paper by hand.
     Avoid wedging the paper in by the paper cover or others.
     Avoid using a sharp pointed device to operate panel keys. |
| Be sure to firmly insert the cable plug into its mating socket.

 A cross connection may damage the printer's internal electronics or the host system's hardware. |
| To prevent injury and further printer failure, observe the following:

     Do not touch the printing surface of the thermal head. The thermal head is at a dangerously high temperature immediately after printing

     Do not touch any of moving parts (e.g., paper cutter, gears, active electrical parts) while the printer is working. |
| In case of trouble, do not attempt to repair the printer. Refer to you qualified service personnel. |

⚠ **Caution:**

When cleaning the printer, use a soft, dry cloth for cleaning the front surface of the printer door. For severe stains, use a soft cloth slightly dampened with water. Never use organic cleaning solvent such as alcohol, paint thinner, trichloroethylene, benzene, or ketone. Never use a chemically processed cleaning cloth. To remove paper chips, use a soft brush.

5   SERVICE TECHNICIAN INFORMATION

5.1 DIP Switch Settings

DIP switches are on the control board as shown below. Turn off the power before setting DIP switches.
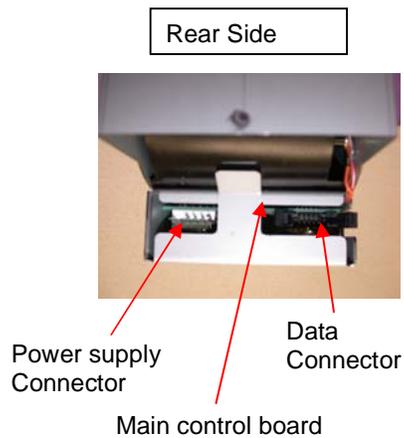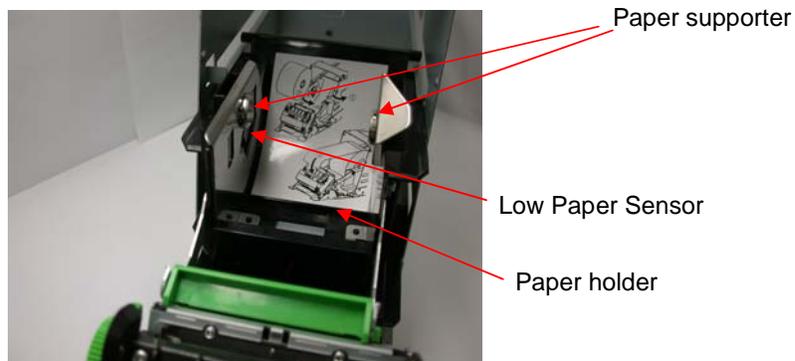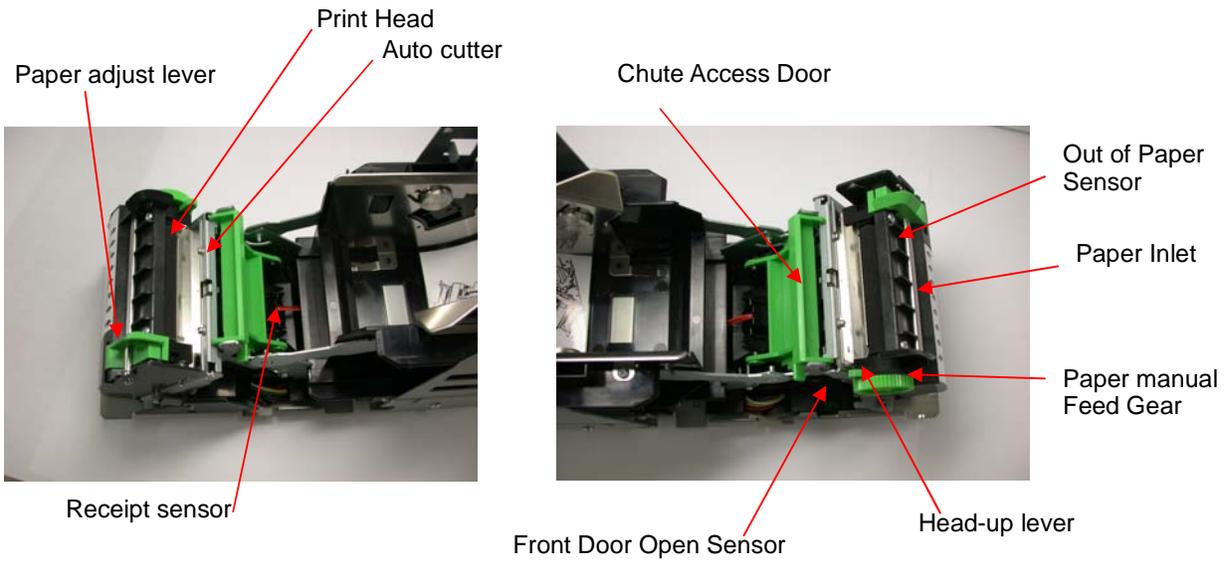

8 7 6 5 4 3 2 1   ON

The function of each switch is as follows:

Switch No.	Function	ON	OFF	Initial Settings
1	Auto Cut	Enabled	Disabled	ON
2	Hand shake	XON/XOFF	DTR/DSR	ON
3	Bit length	7 bits	8 bits	OFF
4	Parity check	With parity	None	OFF
5	Parity selection	Even parity	Odd parity	OFF
6	Baud rate selection	See Table below		OFF
7				ON
8	Print density selection	Dark	Standard	OFF

Baud rate selection

Baud rate (bps)	Switch No.	
	6	7
9600	OFF	OFF
19200	ON	OFF
38400	OFF	ON
115200	ON	ON

5.2 Component Locations

Print Head

Auto cutter

Paper adjust lever

Chute Access Door

Out of Paper Sensor

Paper Inlet

Paper manual Feed Gear

Receipt sensor

Front Door Open Sensor

Head-up lever

Paper supporter

Low Paper Sensor

Paper holder

Rear Side

Power supply Connector

Data Connector

Main control board

OPERATION MANUAL

DW-10 Dispenser Printer

This manual was produced on a personal computer using Adobe® FrameMaker® and Photoshop®

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Dresser Wayne, Dresser, Inc., is located at 3814 Jarrett Way, Austin TX 78728.
Wayne's general telephone number is (512)-388-8311.

NOTE: "This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense."

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