EZ Manual DR300/310

- Electric Checks and Adjustments
- Setting of Dip Switch
- Ribbon Tension Adjustment
- Head Alignment Adjustment
- Head Balance Adjustment
- Head Position Adjustment


DR300

This explains how to check levels of DC power supply, I-Mark sensor level and Gap sensor. First ensure that the printer power is off. Then perform the following steps.

Additional equipment required
TP Test Module
Digital Multimeter

STEPS

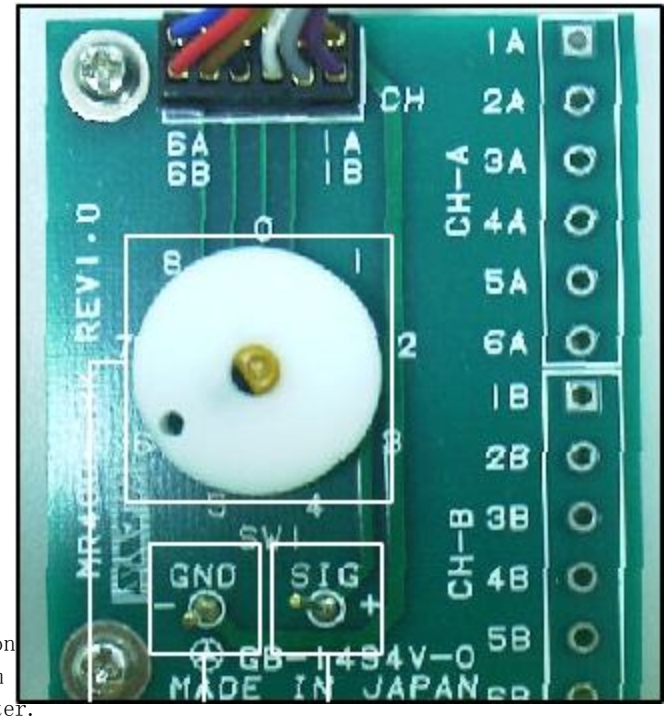
1 Attach the connector from the TP Test Module to the test port on the MAIN PCB. Note correct positioning of connector. Nibs on the connector are placed down on the PCB in the forward position.

2 Attach the ground probe of the Digital Multimeter to the TP Test Module ground pin (GND PIN).

3 Attach positive probe of the Multimeter to the + SIG PIN on the TP Test Module terminal.

4 Turn printer power on and rotate the dial to a position 0-5 on the TP Test Module by referring to the diagram on the next page. Record the values from the Multimeter.

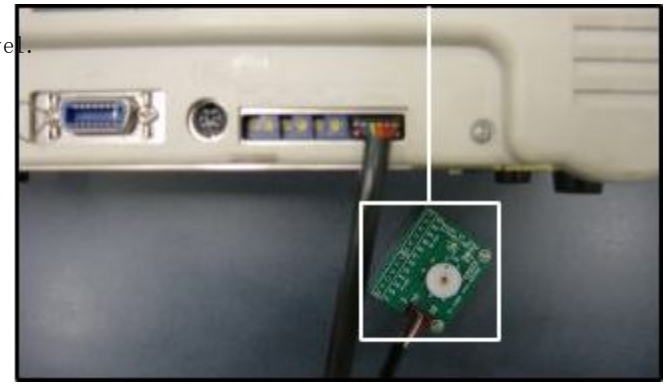
5 Confirm the recorded voltages are within the voltage range. If not, replace parts or adjust the sensor level. Refer to Check and Adjustment chart.



TP Test Module

Cable to PCB

Dial



TP TEST POINT CHART

Dial test point	Comment	Voltage	Voltage Range	Check pin on TP Test Module and Main PCB	Adjustment to VR
0	DC Power Supply	+5.0 VDC	+4.8V to +5.2V	CH3A(+5.0V) - CH1A(GND)	N/A
1		+10.0 VDC	+8.5V to +11.5V	CH4A(+10.0V) - CH1A(GND)	N/A
2		-10.0 VDC	+8.5V to -11.5V	CH5A(-10.0V) - CH1A(GND)	N/A
3		+24.0 VDC	+23.5V to +24.5V	CH6A(+24.0V) - CH1A(GND)	N/A
4	I-Mark Sensor Level	Low level (Set the no I-mark point on the I-mark sensor): +0.8V max High level (Set the I-mark on the I-mark sensor): +2.8V min		CH1B - CH1A(GND)	VR1
5	Gap Sensor Level	Low level (Set the label backing liner or the center hole tag in the sensor' s): +0.8V max High level (Set the label and tag on the Gap sensor' s): +2.5V min		CH2B - CH1A(GND)	VR2

Setting of Dip Switch

DSW1

DIP Switch No.	Setting	Contents
1	ON	Data Bit = 7
	OFF	Data Bit = 8
2	Fig. 1	Parity Setting
3		NONE, ODD, EVEN
4	ON	Stop Bit = 2
	OFF	Stop Bit = 1
5	Fig. 2	Baud Rate Setting
6		(2400, 4800, 9600, 19200 bps)
7	Fig. 3	Protocol Setting
8		(Ready/Busy, Xon/Xoff, Status

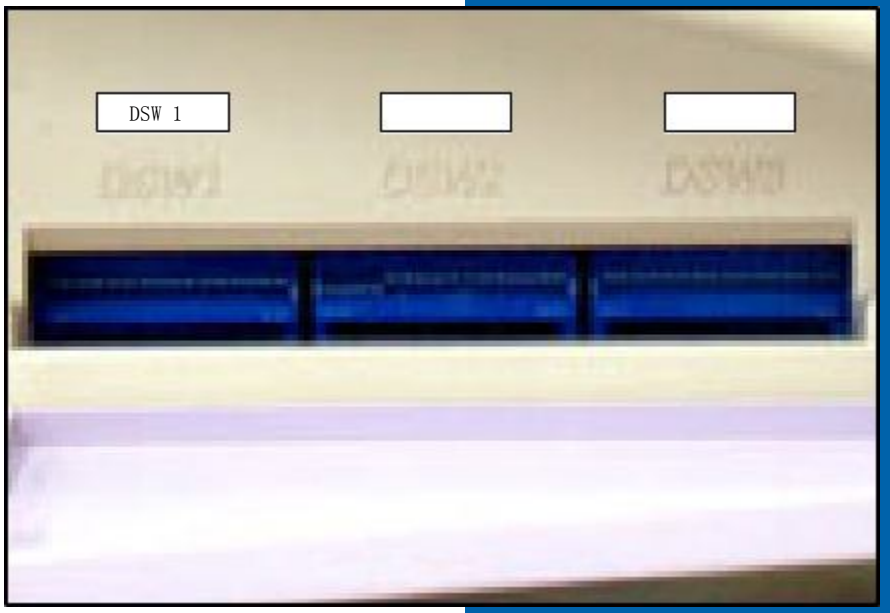


Fig. 1

Fig. 2

DSW1-2	DSW1-3	Settin
OFF	OFF	No
OFF	ON	Even
ON	OFF	Odd
ON	ON	Not Used

DSW1-5	DSW1-6	Settin
OFF	OFF	9600
OFF	ON	19200
ON	OFF	4800
ON	ON	2400

DSW1-7	DSW1-8	Settin
OFF	OFF	Ready/Bus
OFF	ON	Xon/Xof
ON	OFF	Status
ON	ON	Reserve

Setting of Dip Switch
continued

DSW2

DIP Switch No.	Setting	Contents
1	ON	Direct Thermal
	OFF	Thermal Transfer
2	ON	Reserved
	OFF	Reserved
3	ON	Head Check Enabled
	OFF	Head Check Disabled
4	ON	Hex Dump Enabled
	OFF	Hex Dump Disabled
5	ON	Multi job
	OFF	Single Job
6	ON	Reserved
	OFF	Reserved
7	ON	Size Check Enabled
	OFF	Size Check Disabled
8	ON	Tear off (Dispenser) Enabled
	OFF	Tear off (Dispenser)

DSW3

DIP Switch No.	Setting	Contents
1	ON	Reserved
	OFF	Reserved
2	ON	Sensor Ignorance Enabled
	OFF	Sensor Ignorance Disabled
3	ON	Reserved
	OFF	Reserved
4	ON	Reserved
	OFF	Reserved
5	ON	Reserved
	OFF	Reserved
6	ON	Reserved
	OFF	Reserved
7	ON	Non-Standard Code
	OFF	Standard Code
8	ON	Zero Slash Disabled
	OFF	Zero Slash Enabled

Excessive ribbon unwind and rewind tension will result in variable motion and could be the cause of print quality problems.

Ensure the ribbon rewind and unwind tensions are within specifications or adjustment of either clutch is necessary.

Required equipment

1 Empty Ribbon Core and String

2 12mm Wrench

3 1kg or 2kg Tension Gauge

4 “+” Screwdriver (JIS No.2 equivalent)

STEPS

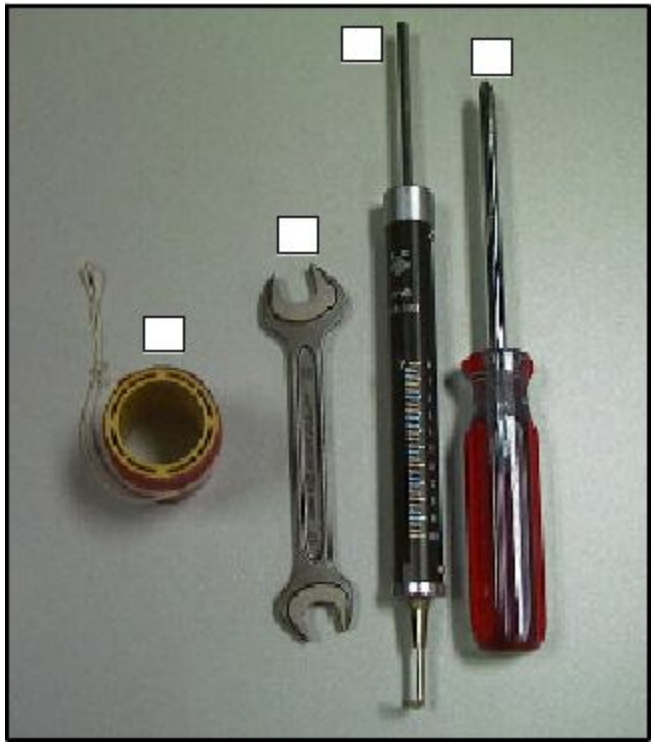
1 Switch the printer OFF and disconnect the power cable.

2 Open the top and front access door. Remove the ribbon and label stock if installed.

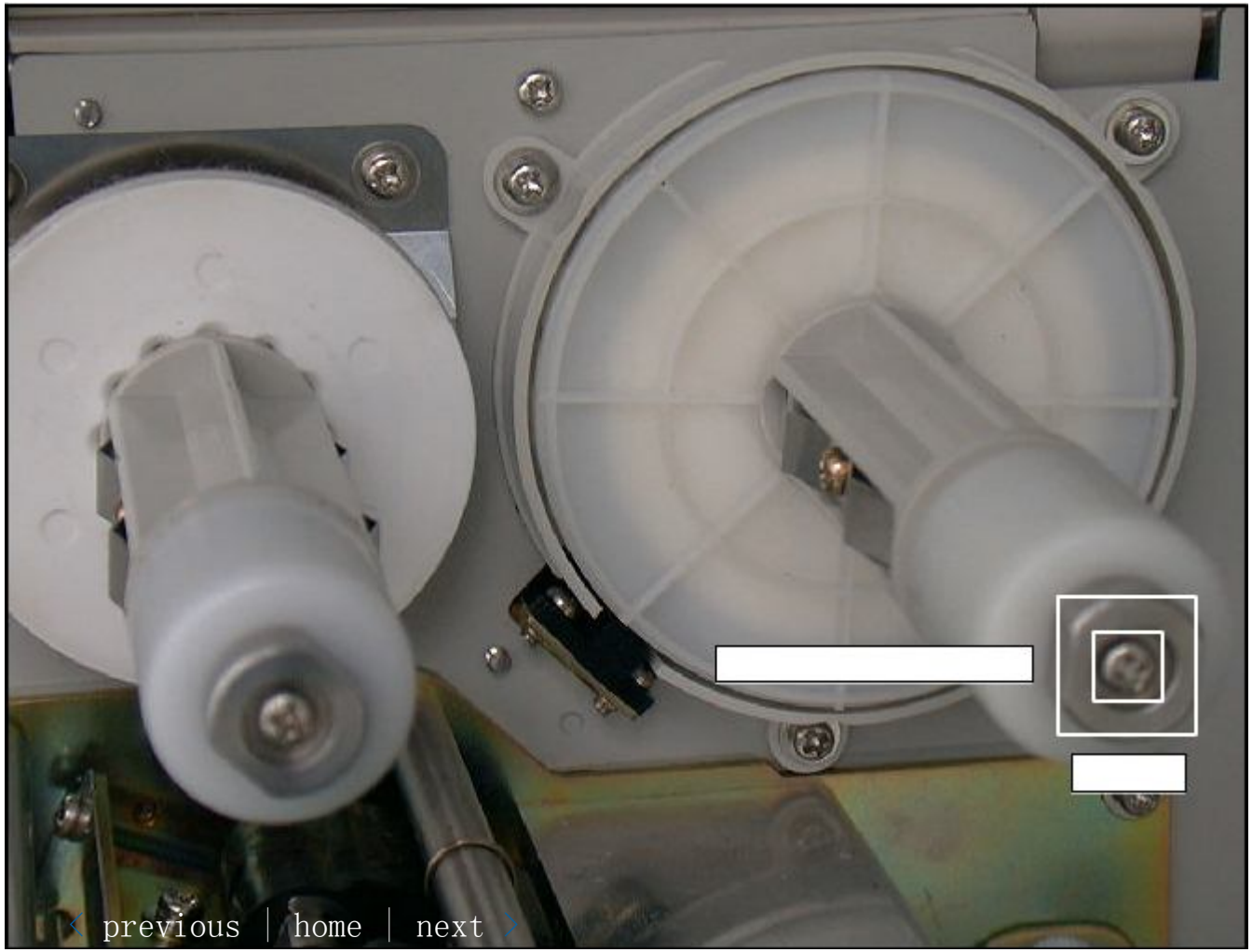
3 Attach string to an empty ribbon core and place on the Ribbon Spindle. Wind the string tightly around the ribbon core in single layer and in clockwise direction. Attach the end of the string to the tension

gauge.

1



Ribbon Rewind Clutch
600g-800g Rewind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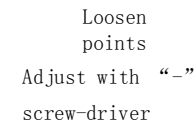
Minor Adjustment

Required equipment
“+” & “-” Screwdriver (JIS No.2 equivalent)

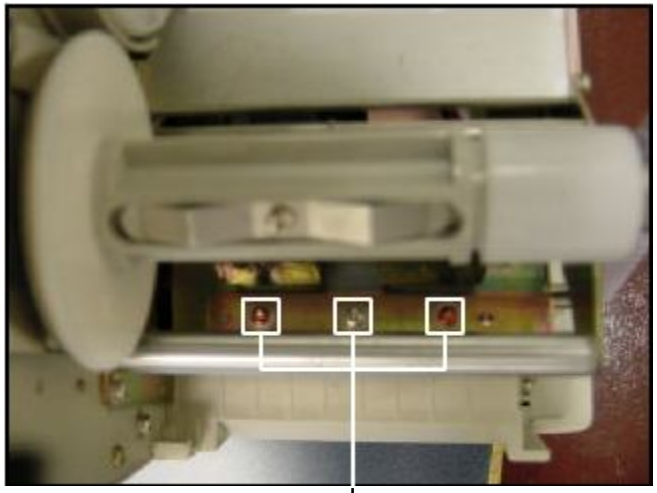
To adjust the print head alignment and consistent quality across label, perform the following steps:

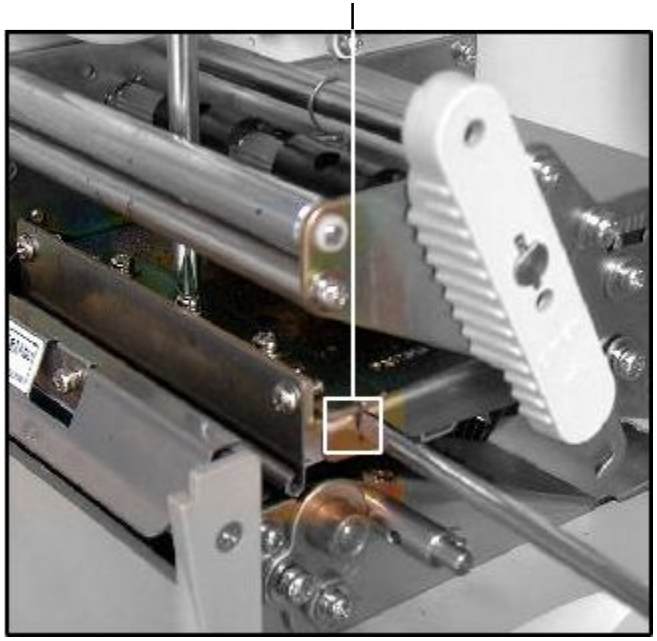
STEPS

1 Loosen 3 screws on the upper right picture. Print the user test pattern. Realign the right side of print head by prying the adjust plate forward or backward with the minus screwdriver. Refer to illustrations and note adjustment marks.



2 Tighten the screws.





Minor Adjustment

Required equipment
10mm Wrench
“+” Screwdriver (JIS No.2 equivalent)

To optimize print quality, perform the following steps to adjust the Print Head Balance using Factory Test Print. Proper adjustment is necessary to avoid ribbon wrinkle.

STEPS

1 Load the ribbon and label stock into the printer.

2 Hold collar with 10mm wrench and loosen holding screw.

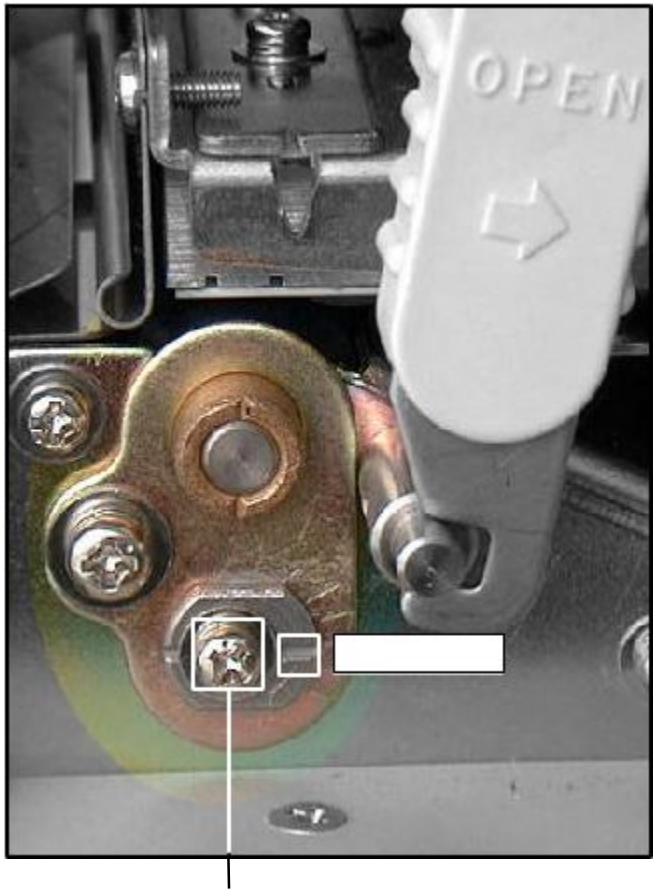
3 Adjust collar by rotating CW or CCW.

4 Tighten screw to secure eccentric nut in place.

5 Loosen and adjust screw along slot to move the indexing pointer for maximum print quality.

Indexing Marks

Use the 10mm wrench to adjust eccentric nut CW or CCW and tighten screw.



Major Adjustment

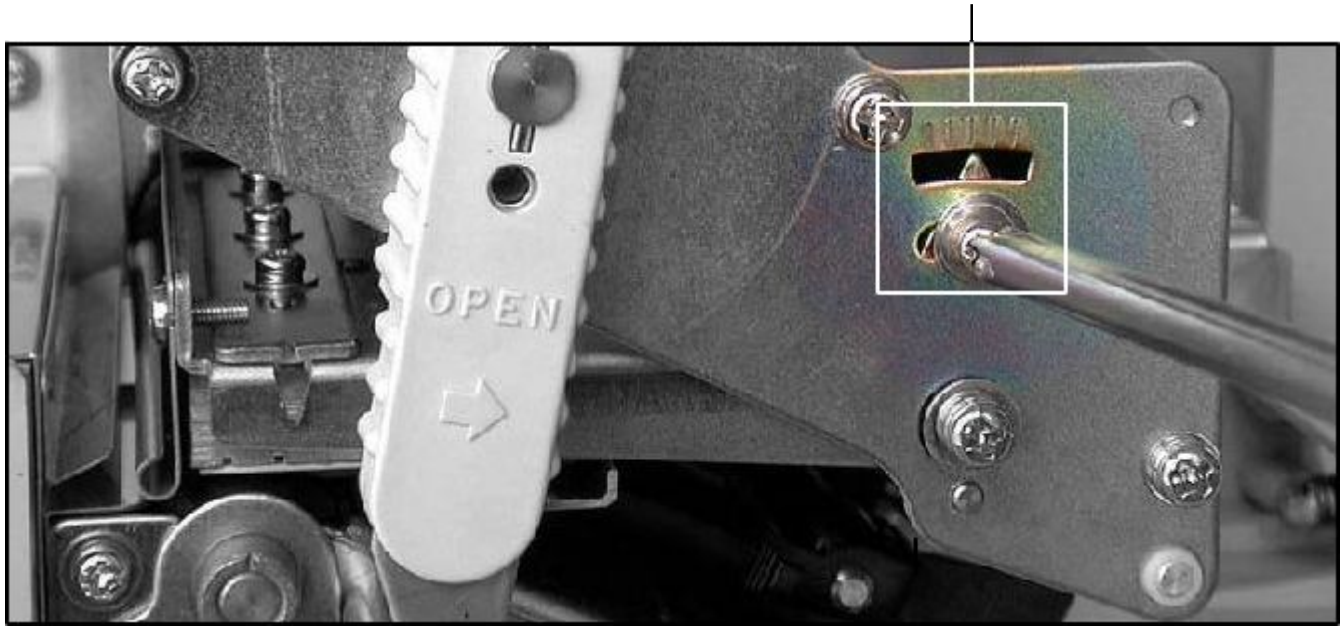
Required equipment
“+” Screwdriver (JIS No.2 equivalent)

To optimize print quality, especially when using thick label stock (more than 0.19mm), adjustments are possible.
Perform the following steps using head pattern as a guide.

STEPS

1 Load the ribbon and label stock into the printer.

2 Loosen and adjust screw along slot to move the indexing pointer for maximum print quality.



Loosen the screw. Then indexing pointer shifts head BACKWARD/FORWARD