




Jus' Bill

Your Friendly Bill Printer





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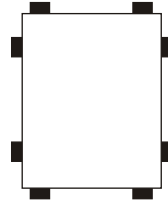
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Toll free number : **1800 200 5123**



Warranty Card and Customer Feedback Card

Postage
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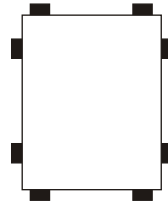


BUSINESS REPLY CARD

TN / CH (S) - 144
Guindy Post Office, Chennai - 600 032.

TVS Electronics Limited
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Industrial Estate, Guindy, Chennai - 600 032.
Ph: +91-044-2232 5506

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Note: On receipt of filled in warranty registration card and customer feedback card, you will receive a surprise gift from TVS-E



Warranty Registration Card

(Warranty Valid only on Registration)

Purchase Date:

Name:
 Company Name:
 Address:
Pin:.....
 Ph: Email:
 Product Model: Serial No.:

Please answer the following questions:

1. What printing do you intend to do with this printer?

2. Is this a new or replacement purchase?

New (first time) Replacement Additional

3. How did you get to know about this product:

Advertisements Dealer / Salesperson recommendation Referral - Friends / relatives

Exhibition / Road show Store display Others

4. What is the nature of your business?

Retail Manufacturing Travel, Transportation & Logistics Hotel and Hospitality

Education Institutions Banking, Insurance & Financial Trade, Dealership and Distribution

Dealer Name & Address:

Paste Serial Number Sticker Here



Customer Feedback Card

Name:
 Company Name:
 Address:
Pin:.....
 Ph: Email:
 Product Model: Serial No.:

i. How is the print quality of the printer?

Excellent Very Good Good Bad Poor

ii. How is the speed of the printer?

Excellent Very Good Good Bad Poor

iii. How is the paper loading in the printer?

Excellent Very Good Good Bad Poor

iv. How was the installation of the printer done?

Excellent Very Good Good Bad Poor

v. Do you wish to get roll paper directly from TVS-E?

Yes No if NO, where do you buy from?

vi. Do you wish to get ribbon Cassette on contract from TVS-E?

Yes No

vii. Which software do you use for billing?

.....

viii. Who is your software provider?

1. Name of provider:*

2. Contact number and city:*

3. e-mail id:*

*Mandatory fields.

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1. FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or any authorized service person for help.

The Manufacturer is not responsible for any radio or television interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

2. Energy Star Compliance

As an Energy Star Partner, TVS Electronics has determined that this product meets the Energy Star guidelines for energy efficiency. The International Energy Star Office Equipment program is a voluntary partnership with the computer and office equipment industry to promote the introduction of energy-efficient Personal Computers, Monitors, Printers, Fax machines, Copiers and Scanners in an effort to reduce air pollution caused by power generation.

3. About TVS Electronics

TVS Electronics, founded in 1986, started as an IT peripherals manufacturer in India and has today transformed itself to Transaction Products and Solutions group

True to its credo “Productivity through Intelligence”, the organization has over the years made significant investments in organizational development, in creating a transparent and entrepreneurship driven culture with a vibrant team of people. Its commitment to quality and innovation has won many accolades over the years. TVS Electronics is implementing one of the most advanced quality control processes in the country - Six Sigma, to ensure all products and services provide complete customer satisfaction while meeting world standards. For this reason, TVS Electronics' Quality Policy is customer-focused and places strong emphasis on continuous improvement with deep employee involvement. Based on these initiatives, the company has received a number of awards and recognition for its manufacturing facilities and superior services. Its offerings include:

1. Transaction Automation Products and Solutions
 - a. Dot Matrix Printers (business printers & transaction printers)
 - b. Thermal Printers
 - c. Keyboards
 - d. Programmable Keyboards
 - e. Barcode Scanners
 - f. Pole display
 - g. Supplies
2. Contract Customer Services
 - a. Field Support
 - b. Tech Support
 - c. Auction Services

For more details, log on to www.tvs-e.in

4. Important Safety Instructions

Your TVS Jus' Bill has been carefully designed to give you years of safe, reliable performance. However, there are a few basic precautions you should take to avoid hurting yourself or damaging the unit:

- Read the setup and operation instructions in the manual carefully. Be sure to save it for future reference.
- Do not place the printer on an unstable surface or near a radiator or heat source.
- Use only the type of power source indicated on the printer's label.
- Do not use a damaged or frayed power cord.
- If you use an extension cord with the printer, make sure the total ampere rating of all devices plugged into the extension cord does not exceed the cord's ampere rating.
- During long printing hours, the printhead may get hot. Do not touch the printhead until it cools down.
- Unplug the printer before cleaning and use only damp cloth for cleaning.
- Do not spill liquid on the printer.
- Except as specifically explained in this guide, do not attempt to open or repair the printer yourself.

5. TVS-E Jus' Bill- Your Friendly Bill Printer

Presenting the all new Jus' Bill- not just a simplified bill printer, but a friendly one too.

Everything about Jus' Bill is friendly - from its user-friendly settings, multiple options in connectivity to flexibility in printing, not just on 2.25" & 3" roll paper but on 4" too. These innovative features make printing convenient like never before.

Jus' Bill is compact and stylish yet rugged and reliable. Moreover, its unique inkbank refills ensure more bills per ribbon cassette thus saving up to 70% of your printing costs! All the more reason you'll love billing now more than ever.

Jus' Bill belongs to the 9 wire, 40-column Dot Matrix printers category. It was designed by incorporating new technologies. Valuable customer feedback collected over the years has gone into the design process.

Global Technology in India

- The World's first 4" Mini Dot Matrix Printer
- The first to provide multiple interface options as standard feature
- Rugged and reliable for Indian conditions

6. Printing Applications

Jus' Bill can be used for various applications and in various segment.

6.1 Applications

- Bills
- Receipts
- Vouchers
- Gate Pass
- Tickets
- Coupons
- Tokens & Acknowledgements
- Transaction Reports
 - ◆ Daily, Weekly and Monthly

6.2 Segments

Food Retail

- Restaurants & Bars
- Fast Food Joints
- Juice shops
- Café's
- Grocery shops
- Supermarkets
- Bakery Shops
- Sweet Shops



Product Retail

- Pharmacy
- Apparels
- Jewellers
- Footwear
- Book Stores
- Stationery



Service Retail

- Courier Service
- Toll Gates
- Parking Lots
- Bus Tickets
- Petrol Pumps
- Beauty Parlors
- Clinics & Labs



7. What makes Jus' Bill a friendly printer?

- **Wider Roll Paper Capability**
 - ◆ Jus' Bill has the unique advantage of printing on 2.25", 3" and even 4" roll paper.
 - ◆ It has better clarity by virtue of greater width of the roll paper.
- **Turbo Speed**
 - ◆ 6.8 lps @ 16 cpi, 30 column - Print faster than ever before!
 - ◆ 5 lps @ 16 cpi, 40 column - Fastest in its category.
- **4-in-1 Connectivity**
 - ◆ USB, serial and parallel interface as standard feature
 - ◆ Supports cash drawer
- **Inkbank Refills**
 - ◆ Unique inkbank refill technology- Easy refills
 - ◆ No more dirty hands
 - ◆ Print 5 times more!
- **User-friendly Menu Settings**
 - ◆ Jus' Bill provides the unique advantage of changing its settings through the front operation panel
 - ◆ Interactive menu of the printer guides the user on how to change the settings, thus making it a self-help process
 - ◆ No need to use complicated DIP switches
- **2-in-1 Emulation**
 - ◆ Jus' Bill comes with both ESC P and ESC POS emulations
 - ◆ Eliminates the need to change an existing 80-column software application when upgrading to a 40-column point of sale application

- **Availability of Multiple Fonts**

- ◆ Jus' Bill provides the user with a choice of 3 different fonts - Draft, High-speed draft and Roman
- ◆ It also prints 5 types of barcode fonts - EAN 13, EAN 8, Code 3 of 9, Interleaved 2 of 5, UPC-A

- **Quiet Printing**

- ◆ Low noise while printing

- **Small Footprint**

- ◆ Occupies limited space on the retailer's billing counter

- **Aesthetics**

- ◆ Jus' Bill's attractive design suits the contemporary retail formats
- ◆ Ruggedness of the printer makes it reliable for harsh conditions

- **Software Compatibility**

- ◆ Jus' Bill has been tested with all the top selling softwares in retail

- **Energy Star Compliance**

8. Installing Jus' Bill

8.1 Unpacking Jus' Bill

Unpack your Jus' Bill and make sure you have all the items mentioned in the checklist below:

- Printer
- Power Adapter
- USB, Parallel & Serial Interface Cable
- Ribbon Cassette
- Inkbank Refill
- User Manual
- Printer Software CD
- Roll Paper

If any of the above mentioned items are missing, please call us at our toll free number 1800 425 4566 (for BSNL & MTNL subscribers) or 3030 1717 (for other users. Please prefix your city STD code while dialing from mobile)

Please follow the below instructions before using the printer:

- Remove all the protective materials packed around and inside your printer first and then place the printer on the table.
- Save all packing and protective materials in case you need to ship the printer in future. It must be transported in its original packaging or equivalent materials.

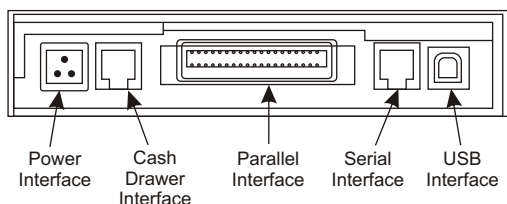
8.2 Choosing a right place for the printer

Jus' Bill has been designed to withstand rugged environmental conditions. But to get the best performance from the printer, kindly take care of the following points:

- Make sure you place your TVS Jus' Bill on a flat, clean surface.
- Do not forget that your printer will not function properly if it is kept tilted or at an angle.
- Always place the printer at connecting distance to the network interface cable.
- Leave sufficient free space around the printer for easy operation and maintenance.
- Avoid using or keeping the printer in places subject to rapid changes in temperature and humidity. Keep it away from direct sunlight, strong light, heat sources, excessive moisture or dust.
- Do not keep the printer near places subject to shocks and vibrations.
- Make sure your electrical outlet is not controlled by wall switches or automatic timers. Even a simple power interruption can erase information in your printer/ computer memory.
- Do not use the printer electrical outlet for operating large motors or other appliances as these can cause voltage fluctuations.
- Always keep the printer and computer system away from loudspeakers or the base unit of cordless telephones as these are potential sources of electromagnetic interference.

8.3 To Connect Your Jus' Bill

- Plug in the power cable in the slot provided on the rear side of the printer as indicated



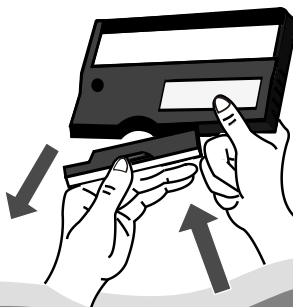
- Connect the interface cable (Parallel, Serial or USB) as per your choice in the slots provided.



- In case of parallel connection, lock the interface by using the metal clip on top and bottom to prevent loose connection or disconnection, as shown in the picture.
- The resistance of the Cash drawer (solenoid) must be 24 Ohms or more, If a device with a resistance of less than 24 ohms is used, the resulting over current may damage the device

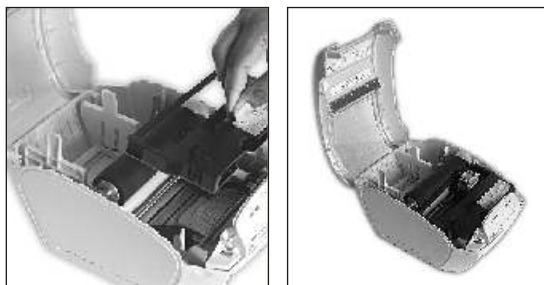
8.4 Loading Inkbank in the Ribbon Cassette

- Place in the new inkbank by inserting the right side of the inkbank first as shown in the figure



8.5 Loading the Ribbon Cassette in Jus' Bill

- Open the printer cover
- Slide the printhead to the middle of the printer as shown below
- Tighten the ribbon by rotating the knob in the direction as indicated on the cassette
- Place the ribbon in front of the printhead nose as shown below
- Place the ribbon cassette in the groove on the left side and then press both sides of the cassette firmly to fit the plastic hooks in the printer slots to set it in its position



8.6 Switching on Jus' Bill

- Switch ON your printer using the ON/OFF switch located at the front side of the printer



9. Paper Loading

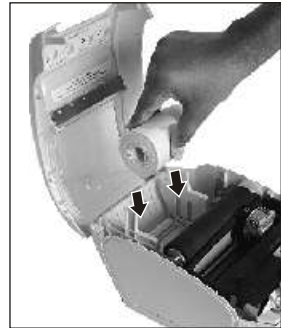
9.1 Paper Loading

- Open the top cover of the printer from the front side only by holding the grooves provided on both sides as indicated

Note: Remove the protective material placed near the printhead.



- Place the roll paper in the slot provided, as indicated

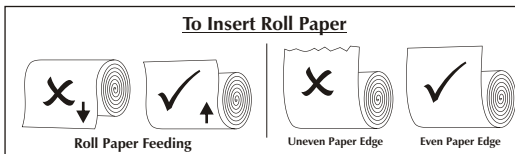


- Adjust the right hand roll paper plate (movable) to suit the width of the roll paper.



9.2 Inserting Roll paper

- Insert the roll paper in the paper path (below the platen) as shown in the figure.
- The printer automatically senses the paper and loads it.
- Close the top cover.



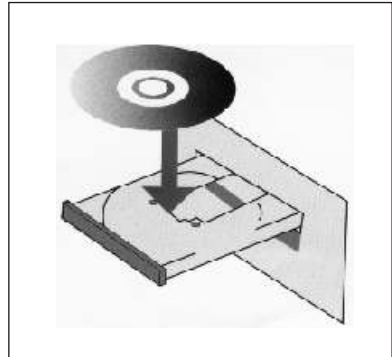
Note: Ensure that the edge of the roll paper is even as indicated

9.3 Ready to Print

- Press the line feed button repeatedly till the paper comes out of the tear-off slot
- The Printer is ready to Bill.

10. Installing the driver CD

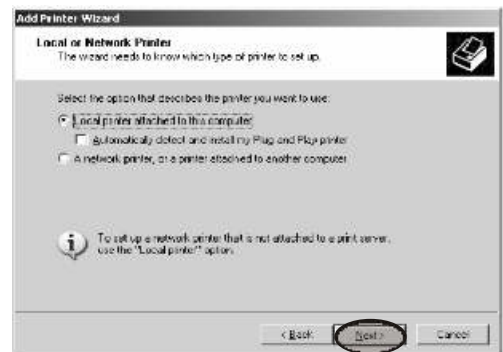
1. Insert the CD into the Drive.



2. Go to Control Panel --> Printer and Faxes --> Add Printer. Click on “Next”.

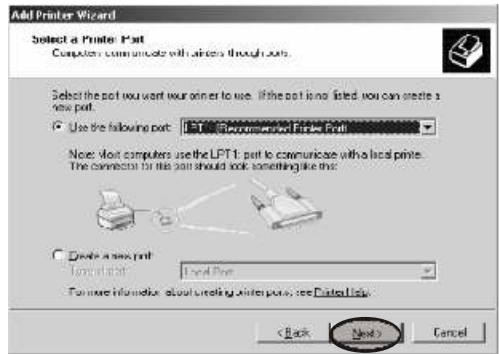


3. “Local or Network Printer” window will appear. Select the option shown. Click on “Next”.



4. For Connecting through various Interface available:

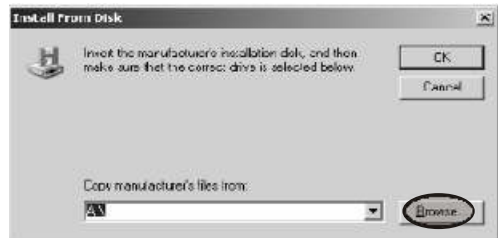
- a. Select **“LPT1 Port”** for Parallel Communication. Click **“Next”** to install.
- b. Select **“COM1: (Serial Port)”** for Serial Communication. Click **“Next”** to install.
- c. Select **“USB Port”** for Communication through USB. Click **“Next”** to install.



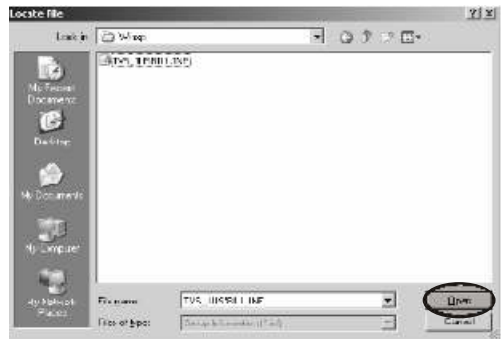
5. Click on **“Have Disk”**.



6. Click **“Browse”** and Select CD-ROM.



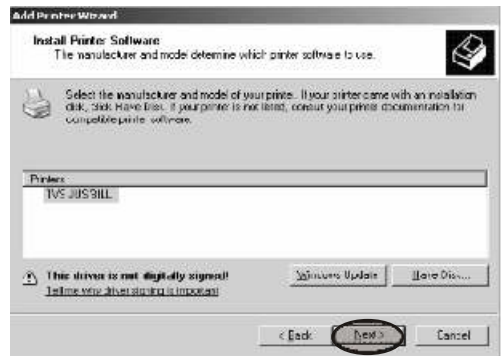
7. Select “TVS_JUS'BILL. inf” in the respective OS folder.
For e.g.:
TVS_JUS'BILL\Printer_Drivers\Winxp\TVS_JUS'BILL.inf. The following screen will appear. Click on “Open”.



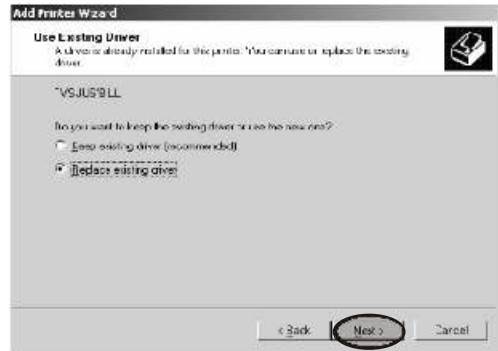
8. Click “OK”.



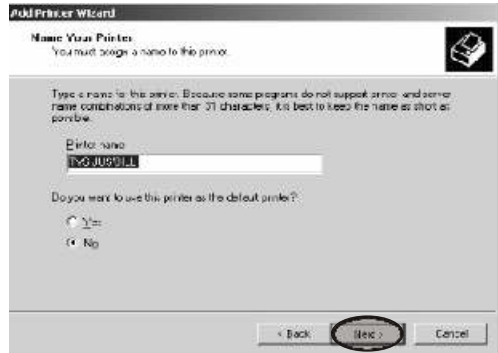
9. Select the Model and Click “Next”.



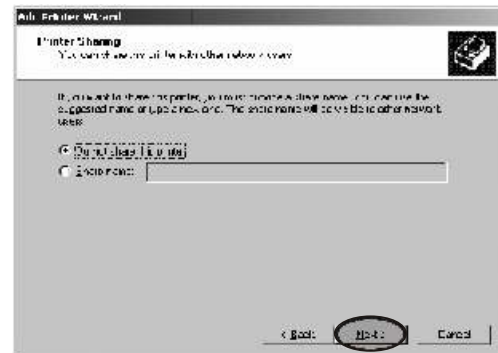
10. Select **“Replace existing driver”** option and then click **“Next”**.



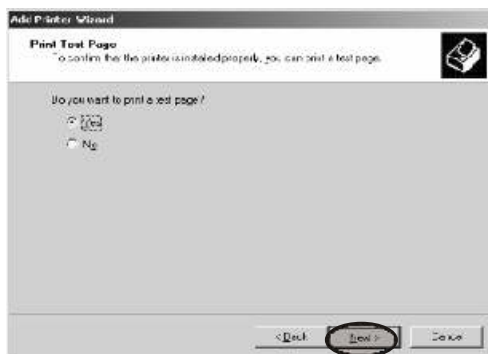
11. Decide the name for your Printer, then Click **“Next”**.



12. Select the option shown and Click on **“Next”**.



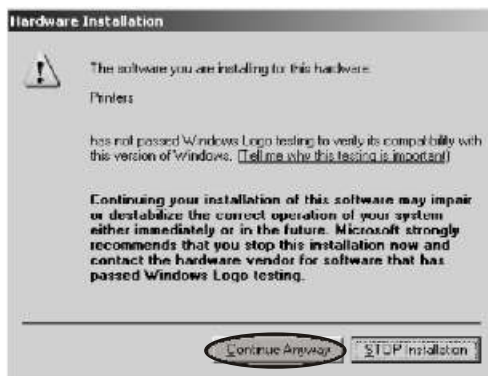
13. Select the Model and Click “Next”.



14. Click “Finish” to complete.



15. Click on “Continue Anyway” to finish. Now the Printer Driver is installed.

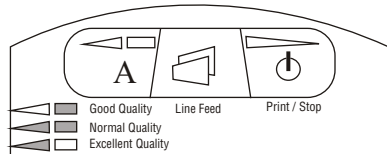


11. Operation Panel Usage

11.1 Operation Panel Switches

The operation panel has 3 switches:

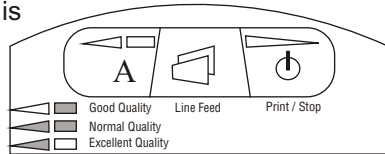
- “A” represents FONT switch
- Line Feed
- Print / Stop



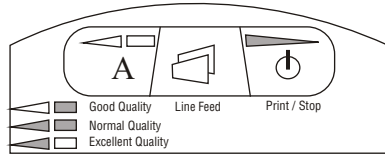
The **FONT** Switch is used to change the letter style. Jus' Bill provides you the option to print in 3 different styles.

- For Good quality print (DRAFT), the right LED of FONT switch will glow as indicated in the panel (DRAFT is available in both ESC P and ESC POS emulation)
- For Normal quality print (HS DRAFT), both the LEDs of FONT switch will glow as indicated in the panel (HS DRAFT is available only in ESC P emulation)
- For Excellent quality print (ROMAN), the left LED of FONT Switch will glow as indicated in the panel (ROMAN is available only in ESC P emulation)

Note: The font style can be changed directly through the font switch without entering the Settings mode.



Line Feed switch is used to feed the paper once it is loaded to bring it to the required tear-off position



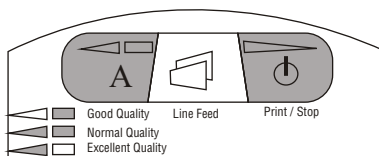
- The **Print/ Stop** button is used to switch between print mode and stop mode.
- **Print Mode:** This mode is used to print a bill. In this mode, the print LED glows.
- **Stop Mode:** The printer does not print in this mode. Also, the Print LED does not glow in this mode

11.2 Paper Eject

- To eject the paper from the paper path when changing the roll, press the FONT and PRINT switch together in STOP mode.

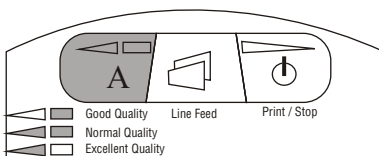
11.3 To Change Settings

Jus' Bill gives you the convenience to change the settings from front operation panel.



To enter the settings of the printer, press the FONT switch for 5 seconds in STOP mode (*i.e. when the Print / Stop LED is not glowing*)

When the printer is in settings mode, you can navigate through the various settings by following the below mentioned steps:



1. To move from one settings to the other, press the FONT switch
2. To change the option in particular settings, press the Line Feed switch in steps until the printhead moves to the desired setting. The Printhead is positioned at the first option at any given setting by default
3. To save a particular setting, press the Print / Stop switch. The Printhead then moves to the next settings in the menu.
4. To exit the settings, press the Print / Stop Switch.
5. The current settings of the printer are shown by the options underlined.

The various options available in the Settings Mode are mentioned below:

1. **MACRO SETTING:** It is used to set some pre-defined settings for the printer. You can set up to three pre-defined settings (Macro-1, Macro-2 and Macro-3) in the printer. This can be used when you wish to change the settings to print different applications in the same printer. The default is set to MACRO-1

2. **FONT:** Jus' Bill gives you the option to print in three different types of font styles.

- **Draft:** This font gives you good quality print. To choose this option, press the FONT switch. The right LED of the Switch glows to indicate this. In this FONT, the printer prints at the given specification speed. This font is available in both Esc P and Esc POS emulation
- **High Speed Draft:** This font gives you normal quality print. To choose this option, press the FONT switch. Both the LEDs of the FONT switch will glow to indicate this. In this FONT, the printer prints faster than in DRAFT. This font is available only in Esc P emulation
- **Roman:** This font gives you excellent quality print. To choose this option, press the FONT switch. The Left LED glows to indicate this. In this font, the printer prints slower than in DRAFT. This font is available only in Esc P emulation

Default FONT is set at DRAFT. You can change the font without entering the settings page, directly through the front operation panel.

3. **PITCH:** It is defined as the number of characters that can be printed in one inch (CPI). To print more characters in one line choose higher value of CPI; to print less number of characters in one line, choose lower value of CPI depending on your bill format. However, the following options of CPI are available.

- Esc P Emulation: 12 cpi, 15 cpi, 17 cpi, 20 cpi
- Esc POS: 13.3 cpi, 16.1 cpi

Default PITCH is set at 16 cpi at POS emulation

4. **LINE SPACING:** It is defined as number of lines that can be printed in one inch (LPI). To print more lines in one inch i.e. less space between two lines, choose a higher value of LPI; to print less number of lines i.e. more space between lines, choose a lower value of LPI. The following are the options available.

- 4 LPI, 5 LPI, 6 LPI & 8 LPI

Default line spacing is set to 6 LPI

5. **EMULATION:** Jus' Bill provides you the option to print from ESC P, IBM or ESC POS Emulation. Each of these emulations uses different set of commands for the printer. Choose the option based on your software application. The default is set to ESC POS.
6. **GRAPHIC DIRECTION:** The printer gives you the option to print in either unidirectional mode or Bidirectional mode. In unidirectional mode, the printhead starts printing from left to right and then again starts printing from left to right. In bidirectional printing, the printhead moves first from left to right and then right to left thus saving time. Hence, the printing is faster in bidirectional mode. The default is set to bidirectional mode.
7. **AUTO LINE FEED:** This option allows you to give one line spacing after every line. To use this option, you must set it to "Enable". The default is set to "Disable".
8. **PAPER TEAR:** This option allows you to tear the paper either immediately after the last line on the bill or after leaving some space. To tear-off the bill immediately after the last line, set the status to "W/OUTOUT". To leave some space after the last line, set the status to "TIMEOUT". The default is set to "TIMEOUT"
9. **FONT LOCK:** This function allows you to change the font either directly through the operation panel or by entering into Settings. To Change the font style through the operation panel, choose the "Disable" option. To change the font style through settings only, choose "Enable" option. Default is set to "Disable".
10. **AUTO ONLINE:** This option allows you to keep to printer in "PRINT" mode automatically once the paper is loaded. To choose this option, "Enable" this mode. Default is set to "Disable".
11. **ZERO PRINTING:** This function allows you to print the number zero either with a slash or without a slash in the center. To choose the zero with a slash, select the "slash" option; to select the zero without a slash, select the "Normal" option. Default is set to "slash".
12. **PRINT WIDTH:** This option allows you to fix the print position of the bill depending on the width of your roll paper. If your bill is of 3", set the option to 3" inches. If your bill is of 4", set the option to "4 inches". Default is set to '3 inches'

13. **BAUD RATE:** This setting is required while using a serial interface. Set the baud rate of the printer and the Port settings through the computer at the same level. You can choose the number based on your requirement. The following options are available: 9600, 4000, 2400, 1200, 19200. Default is set to 9600
14. **PARITY:** This setting is required while using a serial interface. Set the Parity of the printer and the Port settings through the computer at the same level. You can choose the number based on your requirement. The following options are available: NONE, ODD, EVEN. Default is set to None
15. **DATA BIT:** This setting is required while using a serial interface. Set the Data Bit of the printer and the Port settings through the computer at the same level. You can choose the number based on your requirement. The following options are available: 8 BIT, 7 BIT. Default is set to 8 Bit
16. **STOP BIT:** This setting is required while using a serial interface. Set the Stop Bit of the printer and the Port settings through the computer at the same level. You can choose the number based on your requirement. The following options are available: 1 BIT, 2 BIT. Default is set to 1 Bit
17. **PROTOCOL:** This setting is required while using a serial interface. Set the Parity of the printer and the Port settings through the computer at the same level. You can choose the number based on your requirement. The following options are available: XON/OFF, DIR

11.4 COPY MODE

Jus' Bill gives you the option to print on 1 + 1 copy. The printer has a white colored groove at the right-hand side, just next to the ribbon cassette. The ribbon cassette has two options on the right i.e. "0" & "1". To use 1 + 1 copy, set the position of the groove to "1". While using a single stationery, the position to be set is "0"

11.5 FACTORY SETTINGS

To set the factory settings of the printer, first press FONT, Line feed and PRINT buttons together and then switch ON the printer using ON/OFF switch.

11.6 HEX DUMP MODE

To enter this mode, first press FONT switch & then switch ON the printer using ON/ OFF button. Please use a 4” roll paper to view this.

11.7 DEFAULT SETTING REPORT

To get the default settings report, first press the Print / Stop switch and then switch ON the printer using ON/OFF button.

11.8 ASCII SLIDE

This mode is used for self- test of the printer. In this mode, the printer prints continuously all the characters. To enter in this mode, first press the Line Feed switch and then switch ON the printer using ON/OFF switch.

11.9 DEMO PAGE

To print the Jus' Bill Demo page, hold the FONT and PRINT switch together and then switch ON the printer using the ON/OFF switch. Please use a 4” roll paper to see the demo.

For further assistance, please call 1800 425 4566 (for BSNL & MTNL subscribers) or 3030 1717 (for other users. Please prefix your city STD code while dialing from mobile)

12. Maintenance

12.1 Cleaning your printer

To keep your Jus' Bill operating at its best, you need to clean it periodically.

Before cleaning:

- a. Make sure the printer is switched off. Also switch off the main power supply and unplug the power cord from the electrical outlet.
- b. Unplug the external power adaptor and interface cable from the printer.
- c. Remove paper/print media from the printer.

For cleaning:

- a. Open the top cover. Carefully brush away the dust from the roll paper and the plate below the printhead using a soft brush.
- b. Clean the outer case with soft, clean cloth.

Note:

- a. *Do not use a hard or abrasive brush.*
- b. *Do not use alcohol or thinner to clean the printer since these chemicals can damage the printer components as well as the printer surface.*
- c. *Do not spill liquid/water on the printer mechanism or any other electronic components.*
- d. *Do not spray lubricants/oil on the carriage rail since this may gather dust and may affect the printhead movement.*

12.2 Preserving the ribbon cassette

To ensure a long life for your cassette and optimum performance from your Jus' bill, please follow the below instructions:

- a. Keep the new ribbon cassette in its packaging until you are ready to install it.
- b. Remove the ribbon and TVS inkbank only if necessary.
- c. For best results, always use genuine TVS-E ribbons and inkbanks.
- d. Once the inkbank is removed from the carton, place it into the ribbon cassette as early as possible to avoid ink from drying up

Caution: *Be careful not to touch the printhead, it may be HOT!*

12.3 Shifting the printer

The following steps should be followed for shifting / transporting the printer from one location to another.

- a. Unplug the power supply.
- b. Detach the external power adapter.
- c. Detach interface cable from the printer.
- d. Remove any paper loaded in the printer.
- e. Make sure the printhead is not HOT. Then remove the ribbon cassette.
- f. Repack it carefully in the original carton using the packing material.

12.4 DOs and Don'ts

Dos:

- a. Place the printer on uniform surface.
- b. Use only TVS-E Genuine Ribbons and Inkbanks for better print quality and long printhead life.
- c. Rotate the ribbon only in the direction shown on the ribbon cassette.
- d. Remember to adjust head gap while using 1+1 stationery.
- e. Close the top cover while printing to guide the paper properly to exit path. This also prevents dust from entering into the printer.

Don'ts:

- a. Avoid exposing your printer to direct heat or sunlight.
- b. Do not print on platen / paper when the ribbon is not installed.
- c. Do not unplug / plug the interface cable when the printer is ON.
- d. Do not lubricate the plastic parts, printhead or paper moving paths.
- e. Do not hold or rotate the platen knob when the printer is ON.
- f. Do not use abrasive cloth, alcohol, paint thinner or similar agents to avoid discoloration and scratching.
- g. Do not move the printhead when the printer is ON.

13. Technical Specifications

Print Method	9-pin, Serial Impact Dot Matrix
Printing Speed	5 lps @ 16 cpi; 40 col 6.8 lps @ 16 cpi; 30 col
Print Font	7 X 9
Character sets	95 Alphanumeric characters
Barcode font	EAN 13, EAN 8, Code 3 of 9, Interleaved 2 of 5, UPC-A
Character per Inch	
Esc P	
Draft	12, 15, 17, 20
High speed draft	12
NLQ	12, 15, 17, 20
Esc POS	
Draft	13.3, 16
Interface	USB, Parallel, Serial
Cash Drawer Support	1 port (RJ 11 Socket)
Copy Capability	1 original + 1 copy
Roll paper Dimensions	
Width	57 mm to 105 mm (2.25" to 4.13")
Diameter	83 mm max
Core inner diameter	10 mm min
Paper tear	Stainless steel tear bar
Input Buffer Capacity	10 KB

Ribbon Cassette	
Color	Black
Life	15 Mn Characters in Draft mode with 2 additional inkbanks.
Refill mode	Through TVS Inkbank
Inkbank life	5 million characters in Draft mode
Emulation	Esc POS, Esc P, IBM
Input Power Voltage	25 V DC & 5V DC
Power supply	External PSU
Reliability	
Mechanism	20 Million Lines MCBF
MTBF	10,000 POH @ 33% print density
Print Head	PTFE Coated, 200 Million Characters in Draft mode
Drivers	Windows ME/2000/NT4.0/XP, Vista, Linux
Physical dimensions(mm)	185(W) x 260(D) x 135(H)
Weight	Approx 2.5 Kg
Color	Bone Grey, Black
Noise Level	< 49 dB (A)
Safety / EMC standard	FCC Class B, CE compliant, IEC 950
Standard Configuration	Printer TVS Ribbon Cassette with Inkbank External Power Adapter USB, Parallel & Serial Interface cables Printer Software CD-ROM
Consumables	Ribbon Cassette, Inkbank
Accessories	Cash Drawer cable

14. Frequently Asked Questions

1. How is Jus' Bill different from any other competitor models?

Jus' Bill has been designed after taking inputs from the customers. This printer is not just a simplified but a friendly one too. It is the only printer that gives you an option to print on 2.25", 3" & 4" roll paper. In addition, the printer gives you the convenience to connect USB, Serial or Parallel interface. Moreover, Jus' bill gives you the unique benefit of inkbank refills that make your operating costs very low!

2. My bill is bigger than the usual 3" bill. Will I be able to print on your printer?

Jus' Bill is the only mini dot matrix printer that gives you the flexibility to print even on a 4" roll paper.

3. My bill is smaller than the usual 80 column bill. Will I be able to print on your printer?

Jus' Bill is the only mini dot matrix printer that gives you the flexibility to print even on a 4" roll paper. You can adjust your bill to 4" by changing the CPI (font width/ size) to 16. Alternatively, you can ask your solution provider to give an option of 4" paper width.

4. Why do you say your print head is rugged?

The print head was designed after studying the Indian printing conditions. We, in our tests for the last ten years have found the print head good even after 200 million characters! Additionally, the printhead comes with a PTFE coating and heat sink that absorbs heat that allows the printer to run non-stop.

4. I am currently using an 80 col printer for my applications. Do I need to change my software to use Jus' Bill?

Jus' Bill has been designed to suit all the needs of all kinds of retail applications. The printer comes with the unique advantage that allows it to work with both ESC P (80 Col) emulation and ESC POS (POS Applications). Hence, you need not change your application, just switch the printer!

5. Will Jus' Bill be compatible with my software?

Softwares are largely built on either ESC P or ESC POS emulation. Jus' Bill allows you to use any of these emulations, and hence the printer is compatible.

6. I print on an average 300 bills a day. How often will I have to change the ribbon cassette?

TVS-E ribbon cassette life is 15 million characters, which translates to 45000 bills when used with TVS-E inkbank refills. In comparison to competition model, it prints 5 times!

7. How many inkbanks can I use with one ribbon cassette?

You can use up to a maximum of three inkbanks with a ribbon cassette. This means that you can refill your ribbon cassette thrice with the TVS-E inkbanks.

8. What are printer drivers?

A printer driver is a part of the application software that translates the software features to the printer features. A well written driver program also brings the best out of your printer.

9. What is unique in Jus' Bill power supply and how will it help me?

The power supply has been designed for Indian power conditions. The printer can print even if power fluctuates anywhere between 150V and 270V. AC. Moreover, the printer comes with an external power adapter that stops any EMI.

10. Do you offer a serial interface card?

Jus' Bill comes with Serial, Parallel & USB interface as standard feature. It also supports cash drawer that comes as a standard port with the printer.

11. What about service?

TVS-E has a nation-wide authorized service network. The network covers all major cities and towns of the country. In the unlikely event of any failure, our authorized service centers are well equipped with spares and can offer an excellent service. The ASC engineers are trained at our works by our service executives.

12. What does the warranty cover?

The warranty covers all the manufacturing and workmanship defects of the printer. It also covers the print head. The warranty is two year from the date of manufacture including the printhead. However, the warranty is onsite for the first year and back to bench in case of second year.

15. Troubleshooting

Most printer problems have simple and easy solutions. You can use the troubleshooting tips provided here to solve your problems.

The following problems have been dealt with:

15.1 Power supply problems

a. Printer power switch is ON but light on the front panel remains OFF

- Turn off the printer and make sure the power cord is firmly plugged into the electric outlet and the printer.
- Make sure the adaptor is properly connected to the printer.
- Now turn ON the printer.

b. The operation panel lights come ON briefly and go OFF

- Check the printer and outlet voltage ratings.
- If the voltage does not match, unplug the printer immediately and contact your dealer.

Warning: Do not reconnect the power cord to an electric outlet that has the wrong voltage for your printer.

c. Paper Eject problems

- Check if the printer is in Stop mode while ejecting the paper.

d. Printing or printout quality problems

- Problems in printing with computer
 - ◆ Check for proper connection of interface cables between the printer and computer.
 - ◆ Make sure the interface cable meets the requirements of both the printer and the computer.
 - ◆ Make sure the software is properly set up for your printer.
 - ◆ If necessary, install or reinstall the printer driver software.

- The printout is faint
 - ◆ Set the paper thickness lever to correct position.
 - ◆ Insert the ribbon properly.
 - ◆ Change the ribbon if found defective.
- The printout has gaps
 - ◆ Make sure the paper thickness lever is set to correct position
- Part of the print out is missing
 - ◆ Make sure the ribbon cassette is installed properly.
 - ◆ Replace the ribbon cassette if worn out.
 - ◆ Make sure the ribbon does not contain any slack.
- Lines of dots are missing in the printout
 - ◆ The printhead may be damaged.
 - ◆ Stop printing and contact your dealer to have the printhead replaced.

Caution: *Never replace the printhead yourself; you may damage the printer. Other parts of the printer must also be checked when the printhead is replaced.*

- The printer prints inappropriate characters or incorrect fonts.
 - ◆ Make sure that you are using the correct interface cable and communication protocol is correct.
 - ◆ Choose the correct printer from the Windows desktop or in your application before printing.
 - ◆ Make sure the application software is set up correctly for your printer.
 - ◆ If necessary, install or reinstall the printer driver software as described in the manual.
 - ◆ To avail Online Support visit us at: www.tvs-e.in or mail to consumercare@tvs-e.in
 - ◆ DO NOT TRY TO REPAIR THE PRINTER YOURSELF

16. ESC Sequences

16.1 The following section lists ESC P sequences supported by Jus' Bill.

COMMAND	COMMAND DESCRIPTION
Setting the page format ESC C ESC C NUL ESC N ESC O ESC Q ESC I	 Set page length in lines Set page length in inches Set bottom margin Cancel bottom margin Set right margin Set left margin
Moving the print position CR LF FF ESC \$ ESC \ ESC J ESC j HT VT ESC f BS	 Carriage return Line feed Form feed Set absolute horizontal print position Set relative horizontal print position Advance print position vertically Reverse paper feed Tab horizontally Tab vertically Horizontal / Vertical Skip Backspace
Setting the Units ESC 0 ESC 2 ESC 3 ESC A ESC 1	 Select 1/8 inch line spacing Select 1/6 inch line spacing Set n/216 inch line spacing Set n/72 inch line spacing Select 7/72 inch line spacing

COMMAND	COMMAND DESCRIPTION
ESC B ESC b ESC / ESC e ESC a	Select vertical tabs Set vertical tabs in VFU channels Select vertical tab channel Set fixed tab increment Select justification
Selecting characters ESC t ESC x ESC k ESC M ESC g ESC p ESC SP ESC E ESC F ESC R ESC & ESC: ESC% ESC 4 ESC 5 ESC ! ESC G ESC H ESC - ESC S ESC T SI ESC SI	Select character table (Italic) Select LQ or draft Select typeface Select 10.5 point, 12 cpi Select 10.5 point, 15 cpi Turn proportional mode on / off Set intercharacter space Select bold font Cancel Bold font Select a character set Define user - defined characters Copy ROM to RAM Select user - defined set Select italic font Cancel Italic font Master select Select double strike printing Cancel double strike printing Turn underline on / off Select superscript / subscript printing Cancel superscript / subscript printing Select condensed printing Select condensed printing

COMMAND	COMMAND DESCRIPTION
DC 2 SO ESC SO DC4 ESC W ESC w	Cancel condensed printing Select double - width printing (one line) Select double - width printing (one line) Cancel double - width printing (one line) Turn double - width printing on / off Turn double - height printing on / off
Control-code Character Printing ESC 6 ESC 7 ESC I ESC m	 Enable upper control code printing Enable upper control codes Enabling printing of control codes Select printing of upper control codes
Mechanical Control ESC EM ESC U ESC <	 Control paper to adding / ejecting Turn unidirectional mode on/off Unidirectional mode (one line)
Printing color and graphics ESC r ESC * ESC ? ESC K ESC L ESC Y	 Select printing colour Select bit image Reassign bit image mode Select 60 dpi graphics Select 120 dpi graphics Select 120 dpi, double speed graphics

COMMAND	COMMAND DESCRIPTION
ESC ^ ESC z	Select 60 / 120 dpi, 9 pin graphics Select 240 dpi graphics
Data and Memory Control ESC @ CAN DEL ESC # ESC = ESC > DC 1 DC 3	Initialize printer Cancel Line Delete last character in buffer Cancel MSB control Set MSB to 0 Set MSB to 1 Select printer Deselect printer

16.2 ESC POS Sequences supported by JUS' BILL

COMMAND	COMMAND DESCRIPTION
Print Position HT ESC D ESC a	Horizontal tab Set horizontal tab positions Select justification
Print LF CR ESC J ESC K ESC d ESC e	Print and line feed Print and carriage return Print and feed paper Print and reverse feed Print and feed n lines Print and reverse feed n lines
Miscellaneous ESC @	Initialize printer
Character ESC SP ESC ! ESC % ESC & ESC - ESC E ESC G ESC M ESC t ESC?	Set right-side character spacing Select print mode(s) Select/cancel user-defined character set Define User-Defined characters Turn underline mode on/off Turn emphasized mode on/off Turn double-strike mode on/off Select character font Select character code table Cancel user-defined characters

COMMAND	COMMAND DESCRIPTION
<p>Line Spacing</p> <p>ESC 2 ESC 3</p>	<p>Select default line spacing Set line spacing LINE</p>
<p>Mechanism Control</p> <p>ESC < ESC U ESC p</p>	<p>Return home Turn unidirectional printing mode on/off Cash drawer</p>
<p>Bit-image</p> <p>ESC *</p>	<p>Select bit-image mode</p>

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