



# QUICK REFERENCE GUIDE

*Taking IT to the heart of India*

Dear Customer

Greetings to you from TVS-E!

Thank you for choosing a TVS-E product. We have provided this Quick Reference Guide for you to have a better understanding about our product, its installation and operating procedures. We at TVS-E constantly strive to simplify our customers' printing experience and this guide will help in achieving the same.

You will also find a warranty card (Business Reply Card) enclosed along with this product. We request you to fill-in the same with required details and mail it to us. **Warranty for your product is valid only on receipt of this filled-in warranty card.**

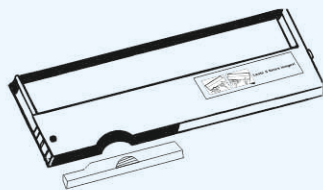
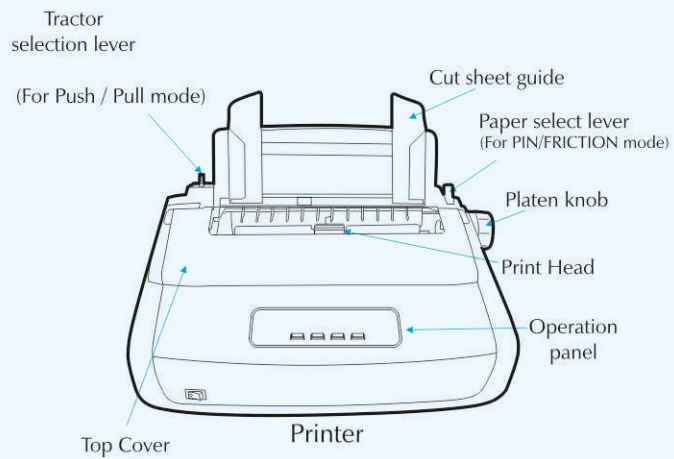
Wish you a happy printing experience!!

If you seek any clarifications, please email us at [consumercare@tvs-e.in](mailto:consumercare@tvs-e.in)

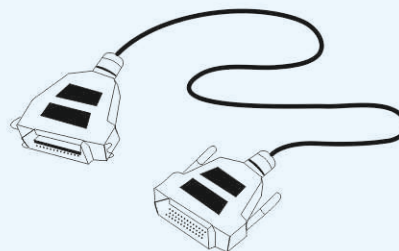
Best Regards

**Team TVS-E**

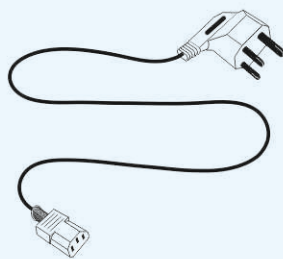
## Printer Components



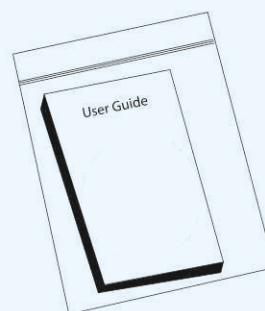
Ribbon Cassette with Inkbank



Parallel Interface Cable



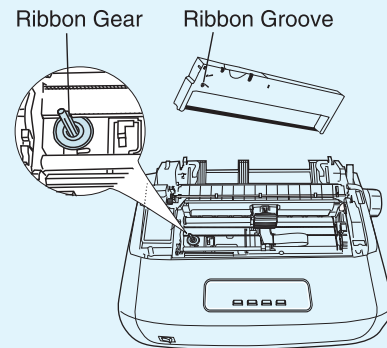
Power Cord



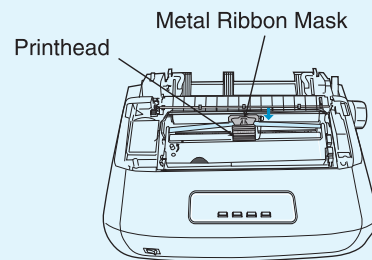
User Guide

## Installing the Ribbon Cassette

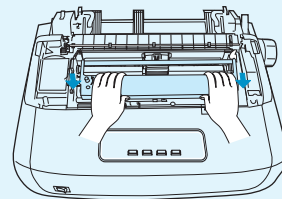
1. Position the ribbon cassette such that ribbon groove is placed exactly above the ribbon gear.



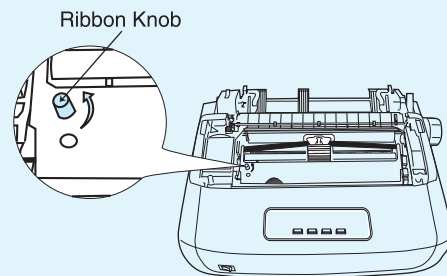
2. Ensure the ribbon fabric is positioned in between the printhead and the metal ribbon mask.



3. Lower the ribbon cassette into place and snap it down.



4. Turn the ribbon knob in the direction as shown.



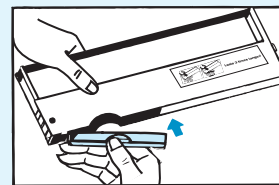
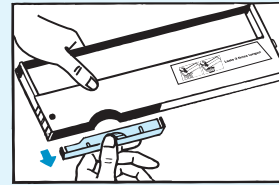
5. Move the printhead to and fro a few times to ensure that it moves smoothly without sagging the ribbon.



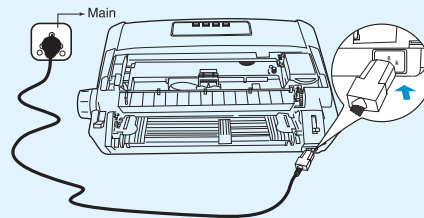
## Installing the Inkbank

Your printer comes with a patented Inkbank. It is a refilling mechanism with a life of 10 Million Characters. To insert the Inkbank in the cassette follow the indications given below:

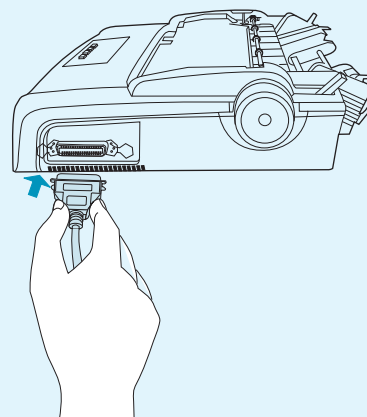
To replace the Inkbank, pull the Inkbank out and insert the new one.



## Connecting the Printer to Power



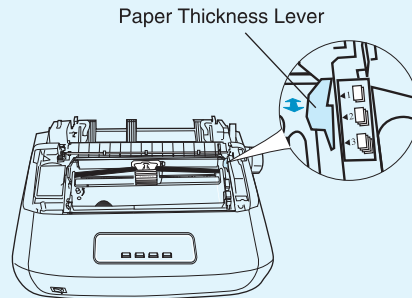
## Connecting the printer to your computer



## Paper Handling

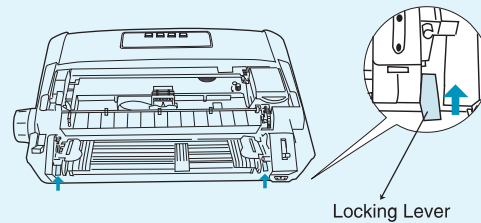
### Multi-Part or Multi-Copy Printing

Set the paper thickness lever according to the required multi-part printing as indicated in the printer.

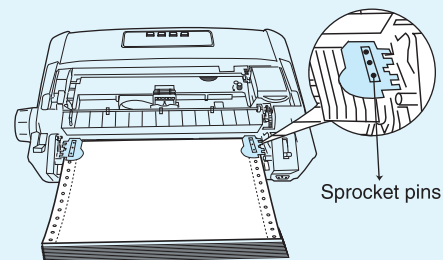


### Adjusting Paper Width

Flip the locking levers forward and adjust the tractors to the approximate paper width. You can use the small arrow on the edge of the top cover as an indicator to place the left side of the paper.



Fit the punched holes of the paper over the sprocket pins on the tractors. Close the tractor covers.



## Paper Loading

The printer has a ability to load either single sheet or continuous paper automatically.

### Cut Sheet:

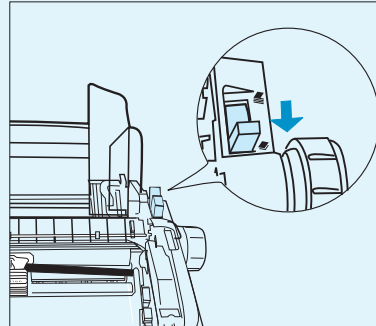
- Turn the printer ON.
- Move the paper select lever to "FRICTION" (🔧) (Refer Fig-2b) mode and position the single sheet guide (Refer Fig-1). The tractor select lever should be in the position as indicated in Fig-2a.
- Insert a sheet of paper into the sheet guide behind the platen. The paper should be kept inserted for about 1 second.
- After about 1 second, the paper will automatically advance around the platen and position itself in front of the print head as shown in Fig-3.
- If necessary make adjustment for paper alignment with paper select lever in the "PIN" (📌) mode and then return it to the "FRICTION" (🔧) position.

### Continuous Sheets:

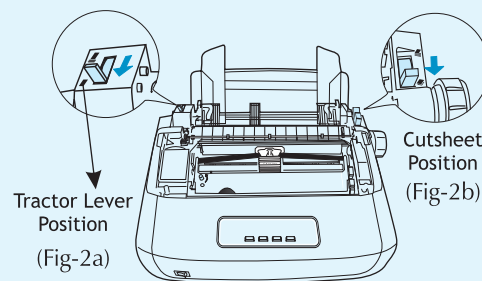
The placement of Continuous paper stack is important for smooth operation. The paper stack may be placed either behind or below the printer but must not interfere with the flow of printed output.

### Tractor in push position:

- Install the tractor in PUSH position as shown in Fig-4.
- Move the paper select lever to "PIN" (📌) position and the select lever on the tractor continuous forms.

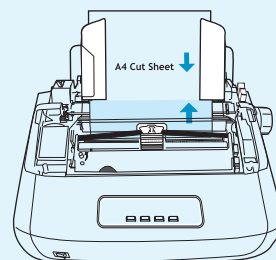


(Fig-1)

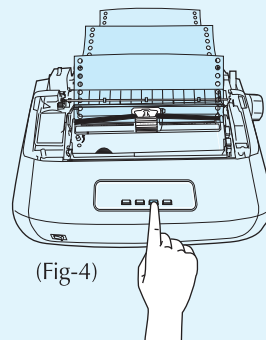


Tractor Lever  
Position  
(Fig-2a)

Cutsheet  
Position  
(Fig-2b)



(Fig-3)



(Fig-4)

- c) Open the tractor covers. Flip the left & right tractor locking levers forward and adjust the tractor to the appropriate paper width. You can use the small arrow on the edge of the top cover as a guide for the left edge of the paper. Adjust the paper supports so that they are evenly placed.

- d) Place the stack of paper on a level surface behind the printer. Bring the top sheet of paper forward and fit the punched holes of paper over the sprocket pins.

Move the tractor as needed to accommodate the paper width. Close the tractor covers. (Refer Fig-5)

- e) When the paper is positioned, lock the tractor in place by flipping the locking levers towards the back. (Refer Fig-6)

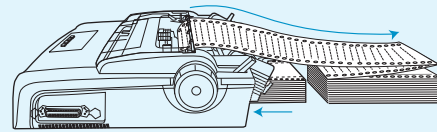
- f) Power on the printer. Press the PAPER LOAD/FORM FEED key for about 3 seconds. The paper will load automatically to the top of the form position, in front of the print head.

- g) If you want to adjust Top of Form position, use the Micro line feed option in operation panel. (Refer Steps 8 & 9 in "Operation Panel Functions").

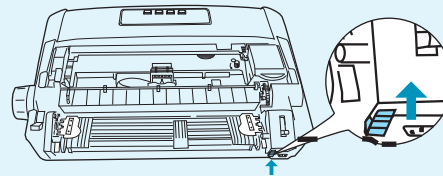
- h) Close the top cover. When you close the cover, be sure it snaps shut on the edges marked "LIFT". Leaving the cover open, even slightly will reduce the print quality.

#### Tractor in pull position:

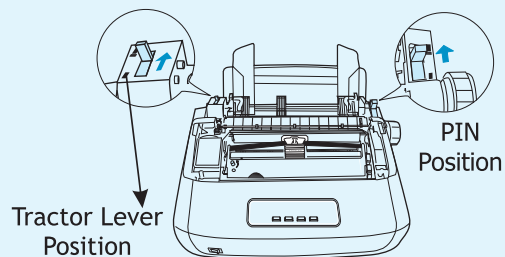
- a) Install the tractor in PULL position (Refer Fig-7)
- b) Move the paper select lever to "PIN" position & the select lever on the tractor to continuous forms.



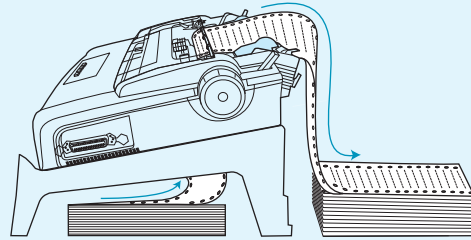
(Fig-5)



(Fig-6)



- c) Open the tractor covers. Flip the left & Right tractor locking levers forward and adjust the tractor to the appropriate paper width. You can use the small arrow on the edge of the top cover as a guide for the left edge of the paper. Adjust the paper supports so that they are evenly placed.
- d) Place a stack of paper on a level surface behind the printer. (Refer Fig-8) Bring the top sheet of the paper forward and fit the punched holes over the sprocket pins, moving the tractor as needed to accommodate the paper width. Close the tractor covers.
- e) Turn paper feed knob until the paper advances past the print head.
- f) Turn the paper feed knob again. Lining up the perforation in line with the top of the ribbon guide. This will ensure that you start printing at the same place on consecutive pages.
- g) Adjust the paper left or right as needed by sliding the tractors. When the paper is positioned lock the tractor in place by flipping the locking levers towards the back.
- h) Close the top cover. When you close the cover, be sure it snaps shut on the edges marked "LIFT". Leaving the cover open, even slightly will reduce the print quality.
- i) Printers which support 1+5 copy capability, Only PULL Tractor mode should be used. **(Note: PUSH Tractor mode should not be used for 1+5 copy capability)**



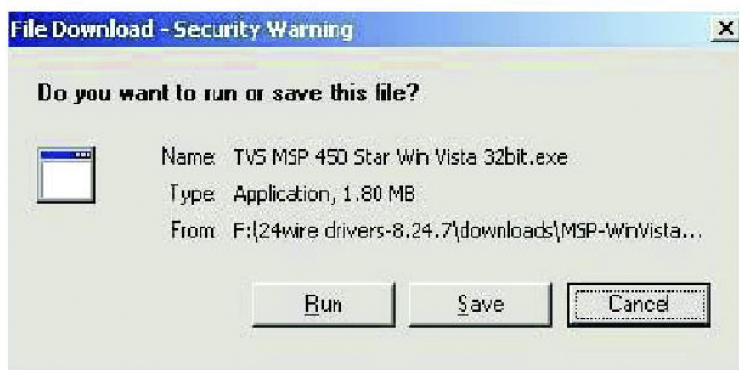
(Fig-8)

#### 4.16 Driver Installation (Windows OS)

Step 1: Download the Printer Driver from the website ([www.tvs-e.in](http://www.tvs-e.in)) for the respective model and OS.

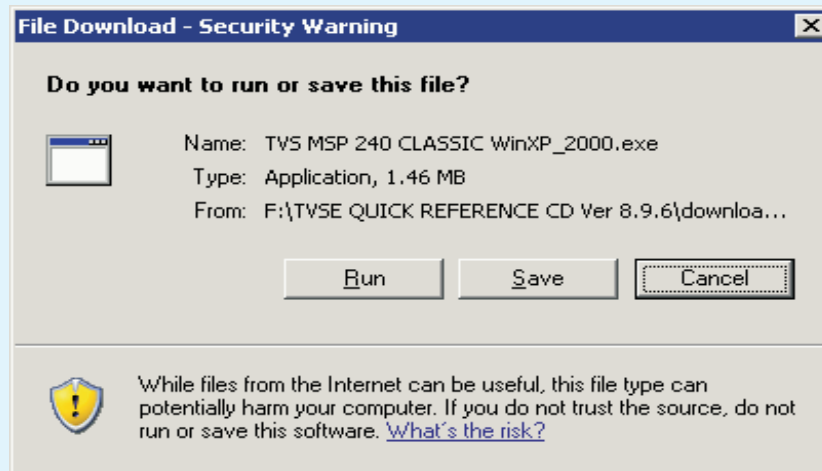


Step 2: Click ON save Button and select the path to save the Driver File. Extract the driver File.



## Driver Installation (Windows OS)

Step 3: Click ON save Button and select the path to save the Driver File. Extract the driver File.

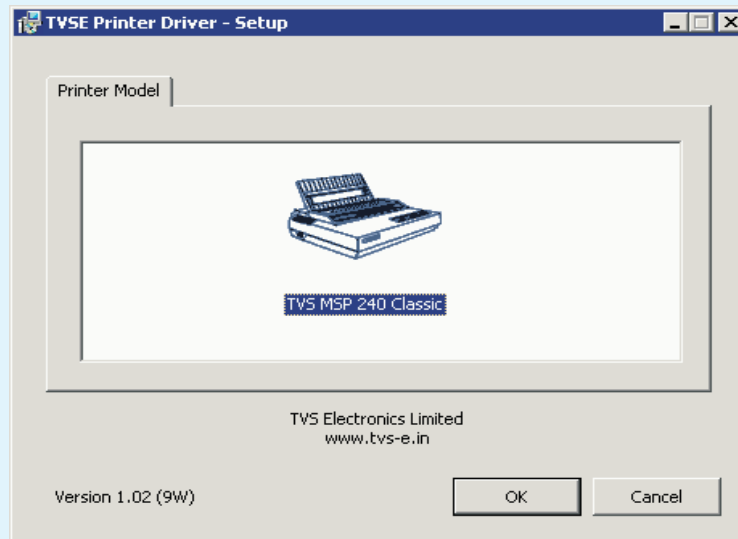


Step4: Open the Extracted Driver Folder, Click Setup to Install the Driver

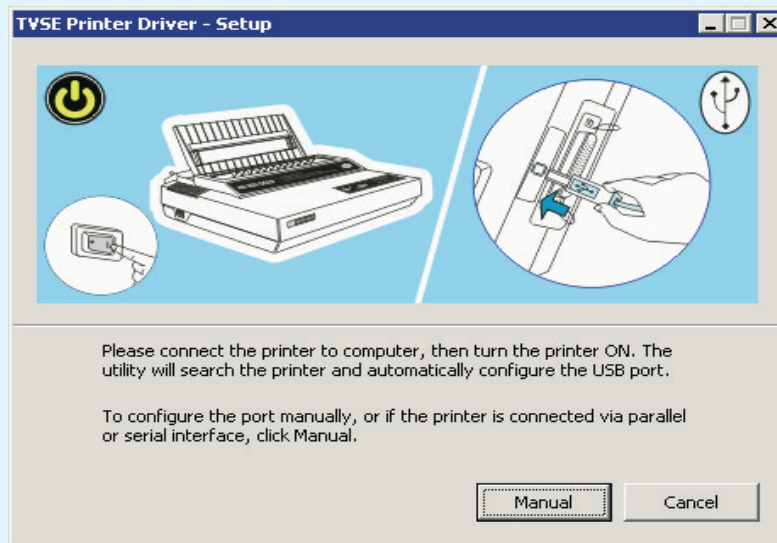
Name	Size	Type	Date Modified
STM		File Folder	23/03/2012 04:48 PM
MSP240CL.gpd	30 KB	GPD File	09/11/2009 11:33 AM
Readme - Driver Installation Procedure.pdf	309 KB	Adobe Acrobat 7.0 Document	26/11/2009 09:53 AM
Setup - MSP 240 Classic.exe	573 KB	Application	19/12/2009 12:19 PM
stdnames.gpd	14 KB	GPD File	24/03/2005 03:50 PM
TVSE9pin.dll	30 KB	Application Extension	09/12/2009 12:47 PM
TVSEMSP240CL.INF	2 KB	Setup Information	16/09/2009 01:21 PM
UNIDRV.DLL	242 KB	Application Extension	05/03/2009 08:27 PM
UNIDRV.HLP	21 KB	Help File	05/03/2009 08:27 PM
UNIDRVUI.DLL	193 KB	Application Extension	05/03/2009 08:27 PM
Uninstall.exe	365 KB	Application	19/12/2009 12:28 PM
UNIRES.DLL	605 KB	Application Extension	05/03/2009 08:27 PM

## Driver Installation (Windows OS) Method -II

Step 5: Click “OK” to install Driver Setup



Step 6: Click “Manual” to configure the port manually for Parallel or Serial, if USB then turn on the printer with USB connected

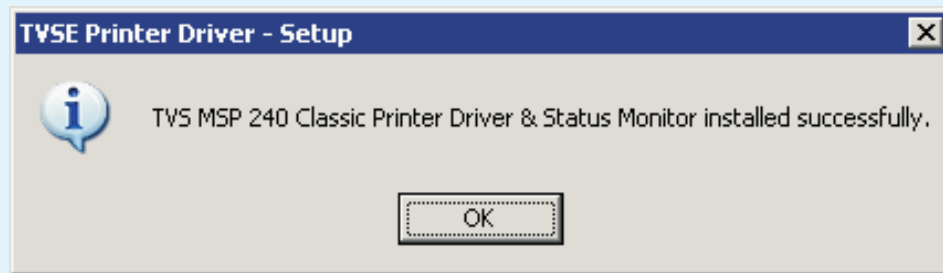
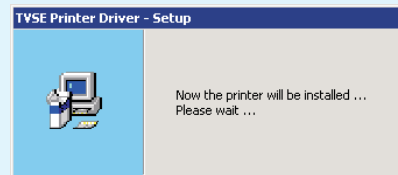
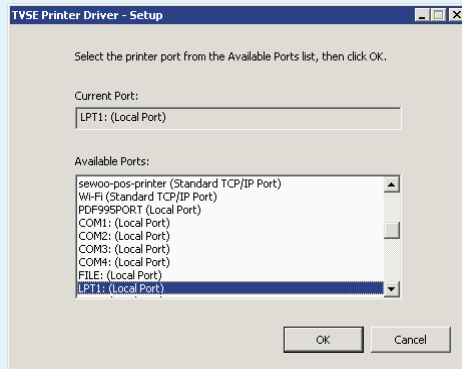




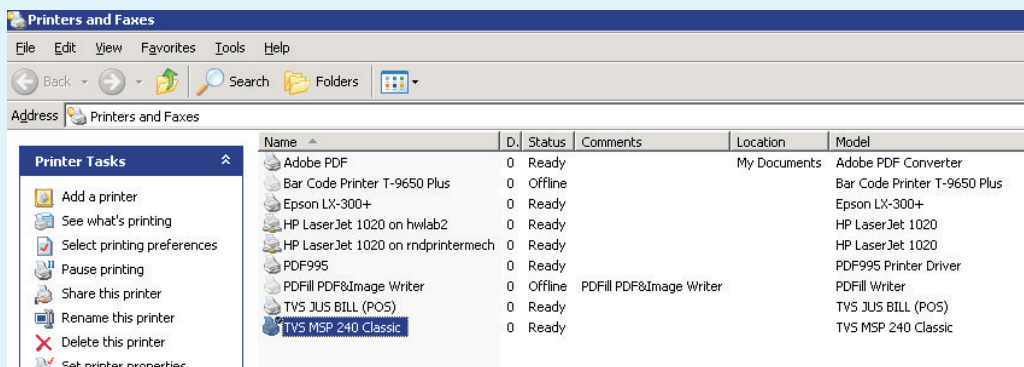
## Driver Installation (Windows OS) Method -II

**Step-7: Select the Port LPT or COM.**

**Note : If USB port is used , Driver will be automatically installed**



**Now Installed Driver will be shown in “Printer and Faxes”**



#### 4.11 Driver Installation – Linux OS

The following procedure helps you in configuring TVS-E Dot Matrix Printers in LINUX Operating systems.

**Hardware Requirement :**

1. Pentium PC 700 MHz and Higher
2. 10 GB Hard disk
3. 128 MB RAM
4. Parallel port/USB Port/RS 232C Port

**Software Requirement:**

LINUX —Fedora/RedHat7.x / 8.0 / 9.0 /RHEL 3 / 4 /SuSE 10/Ubuntu/BOSS Operating System.

CUPS module loaded (This module is integrated in Red Hat version 9.0. For versions 8.0 / 7x we may need to load this by downloading from website ([www.cups.org](http://www.cups.org))).

**LOGIN rights required: root**

**Step by Step Installation Procedure**

1. Login as root and enter the password
2. Go to Main Menu t in the desktop}
3. Go to System Tools
4. Go to Terminal
5. To verify CUPS is installed, type the following command  
[root@localhost root]# /usr/share/cups  
[root@localhost root] # ls-l (This will list the files installed under CUPS)
6. If you do not see any files under /cups directory, then you will require to install the CUPS from the above-mentioned site with the help of system administrator.

**To install TVS-E printer**

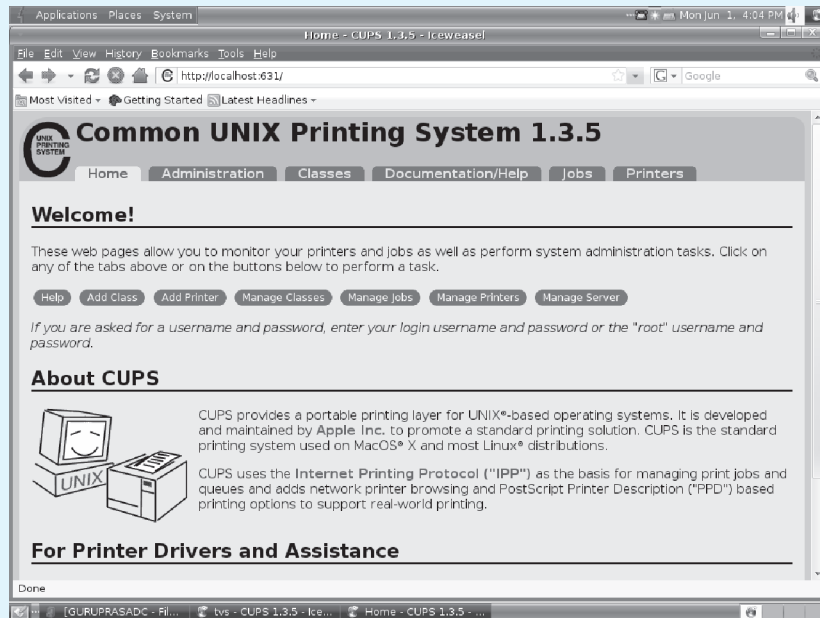
1. Now, copy the TVS-E Linux driver [TVSE9w.ppd] to Desktop. (The file will be available in "Pro Series\Linux Drivers\" Folder)
2. Now we need to initialise the CUPS by issuing the command  
[root@localhost root]#/etc/init.d/cups restart and press ENTER. Now, the following line will appear.  
Starting CUPS: [OK]

After successfully initializing the CUPS,

- Open Linux web-Browser (Mozilla or any other in-built web browser)
- Type in the address bar- <http://localhost:631/> you will see the following screen.

After successfully initializing the CUPS,

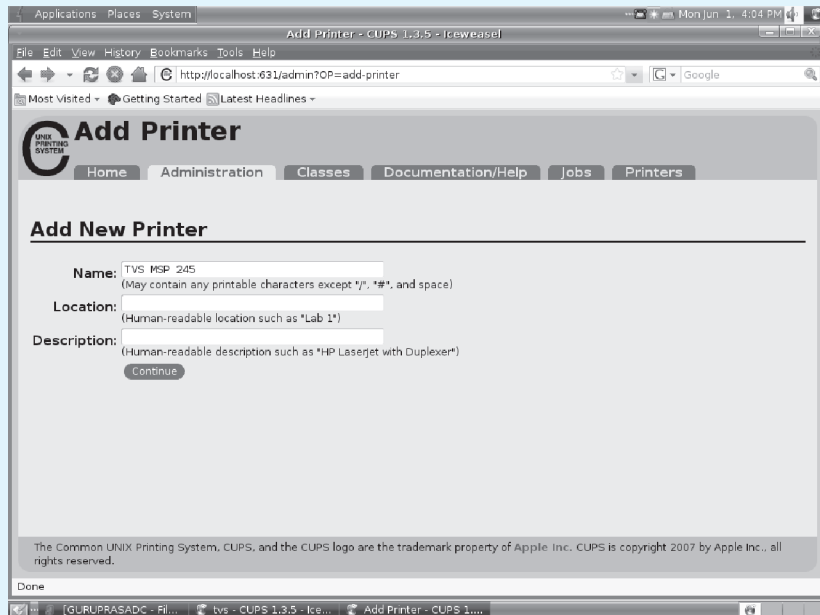
- Open LINUX Web-Browser (Mozilla or any other in-built web browser)
- Type in the address bar - `http://localhost:631/` you will see the following screen.



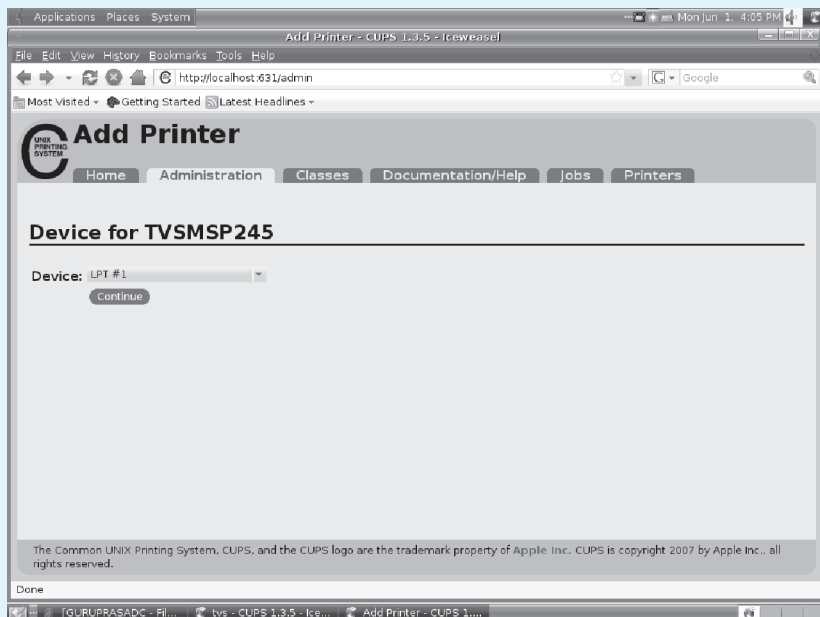
- Click on “Add Printer” to add a new printer. If you are prompted for authentication; enter username and password. (Note: Login as root and provide password)



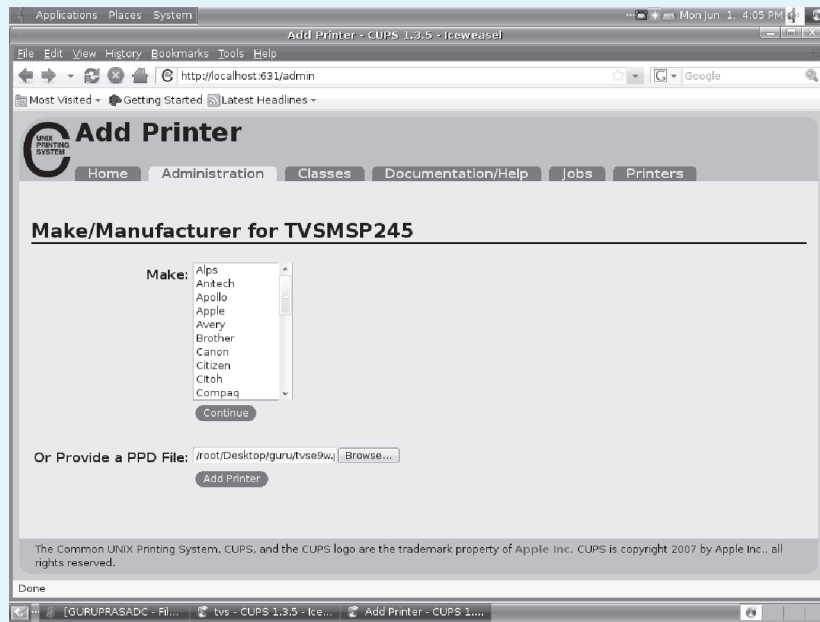
- Type name for the printer (Ex:TVS). Also fill in the other optional location and description fields



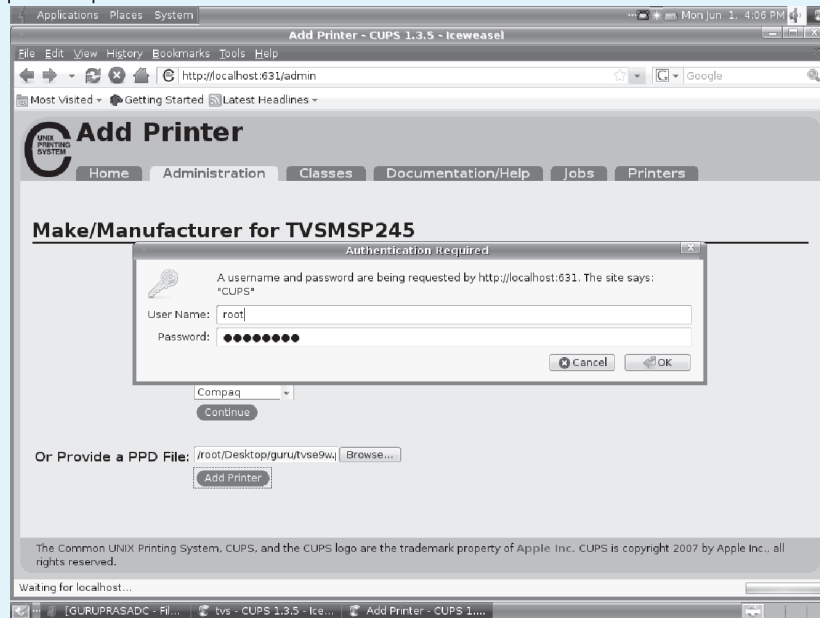
- Now Set the printer port to "PARALLEL PORT #1" and Continue.



- In the field “Provide a PPD File” Select the PPD file which is copied in the desktop and Click “Add Printer”.



- For authentication; enter username and password. (Note: Login as root and provide password)

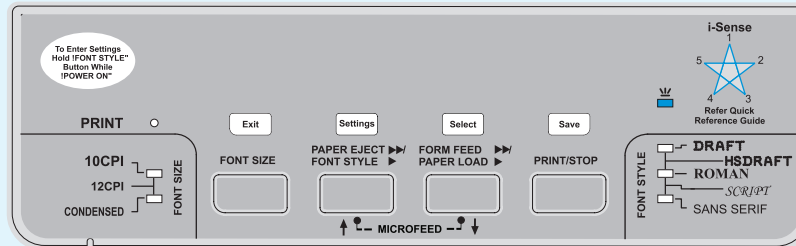


- Printer TVS has been added successfully.
- Click TVS (printer model name) and click Configure printer to change the page length settings & graphics settings.

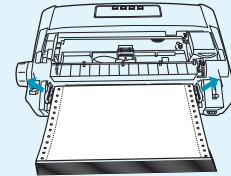


- Now you are ready to print with TVS-E dot matrix printer in LINUX.

## Operation Panel Functions for 9 WIRE Printers



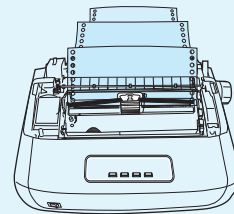
1. To print a document, the printer should be in PRINT mode.
  - a. To enter PRINT mode, switch ON the printer. Ensure PRINT **LED** glows. Else press PRINT/STOP button to make PRINT **LED** glow.
  - b. STOP Mode: This mode is used to change the settings of the printer. To enter this mode, press the PRINT switch again. The PRINT **LED** doesn't glow in this mode and the printer cannot print while in this mode. It is also called OFFLINE mode.
2. **Loading Paper:** The printer must be in STOP (OFFLINE) mode. Place the paper on the paper path properly and press PAPER LOAD/FORM FEED switch once to load it.
3. **Setting the First Line Position:** This helps you fix the position of the first line that the printer should print on the paper. This can be adjusted by using MICROFEED function(as described in point 8 & 9). To save this setting, press the PRINT switch once.



### USING YOUR PRINTER

4. **PAPER LOAD/ FORM FEED:** This switch is used to move the paper up by one line or one page. For these functions, the printer must be in STOP (OFFLINE) mode.
  - a. To move **one line up**, press PAPER LOAD/ FORM FEED switch once.
  - b. To move **one page up**, press PAPER LOAD/FORM FEED switch for 5 seconds.
5. **FONT STYLE**

**9 WIRE** This switch is used to change the style of the letter. You can choose one of the 5 options given on the operation panel. To choose the options, press the FONT STYLE switch in the STOP (OFFLINE) mode. The respective LEDs will glow to indicate the style selected.



## Operation Panel Functions for 9 WIRE Printers

### 6. FONT SIZE:

**9 WIRE** This switch is used to change the size of Letter. You can choose from the 3 options given. To choose the options, press the FONT SIZE switch in STOP (OFFLINE) mode. The respective **LEDs** will glow to indicate the size selected.

7. **PAPER EJECT:** This switch is used to eject the paper from the printer. To eject, the printer must be in STOP (OFFLINE) mode. Next, press the FONT STYLE switch for 3 seconds. The PRINT LED blinks to indicate that the paper is out.

8. **↑MICROFEED:** This option is used to move the paper up in small increments. This is used to adjust the printing position.

1. Ensure that the printer is in PRINT (ONLINE) mode only.
2. Hold FONT STYLE + PAPER LOAD / FORM FEED switch for 3 sec to enter Micro line feed mode, the FONT STYLE LEDs will blink.
3. Now press FONT STYLE switch, till you reach the required distance.
4. To save this setting, press the PRINT switch once.

9. **↓MICROFEED:** This option is used to move the paper down in small increments. This is used to adjust the printing position.

1. Ensure that the printer is in PRINT (ONLINE) mode only.
2. Hold FONT STYLE + PAPER LOAD / FORM FEED switch for 3 sec to enter Micro line feed mode, the FONT STYLE LEDs will blink.
3. Now press PAPER LOAD / FORM FEED switch, till you reach the required distance.
4. To save this setting, press the PRINT switch once.

10. **ECO DRIVE:** This will enter into Paper Saving Mode. After confirming that the power switch is OFF turn it ON, while pressing the FONT SIZE + PAPER LOAD / FORM FEED switch.

11. **BUFFER CLEAR:** This is used to clear the data that is stored in the printer memory. To use this option, press the FONT SIZE switch for 5 seconds in STOP (OFFLINE) mode.

12. **TEST PRINTING:** After confirming that the power switch is OFF Turn it ON While pressing the PAPER LOAD / FORM FEED Switch. Confirm that the Printer unit prints out the test pattern as shown in the figure below.

```

***-*** TEST PRINT MODE ***-***

!@#$%^&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_`"abcdefghijklmnopqrstuvwxyzklmno
!@#$%^&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_`"abcdefghijklmnopqrstuvwxyzklmnop
!@#$%^&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_`"abcdefghijklmnopqrstuvwxyzklmnopq
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!@#$%^&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_`"abcdefghijklmnopqrstuvwxyzklmnopqrs
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!@#$%^&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN0PQRSTUVWXYZ[\]^_`"abcdefghijklmnopqrstuvwxyzklmnopqrstuvw

```



## Operation Panel Functions for 9 WIRE Printers

13. **MENU MODE:** This is used to change the printer settings like page length, font size, font style, etc... To enter into menu mode.

1. Ensure paper is loaded in the printer.
2. Ensure the power switch is OFF, turn it ON while pressing the FONT STYLE switch, this will enter into the menu mode.

```

TVS MSP 250 STAR
  SETUP MENU SYSTEM

Press the PAPER LOAD/FORM FEED key to point the print head to desired set
Press the PRINT MODE key to store the new setting and go to the next menu
Press the FONT STYLE key to go to the next menu without storing a new set
Press the FONT SIZE key to save and exit this mode at any time. * *
Current settings are UNDERLINED.      New settings will be FILLED.

MACROS
MACRO SETTING  MACRO-1  MACRO-2  MACRO-3

STYLE SELECTION
FONT            DRAFT    HSDRAFT  ROMAN    SANSERIF  SCRIPT
PITCH           10 CPI   12 CPI   15 CPI   17 CPI    20 CPI    PROP.SP
FONT LOCK       DISABLED  ENABLED
CHARACTER SET   ITALICS  GRAPHICS

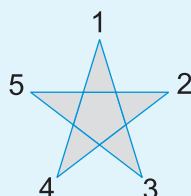
PAGE LAYOUT
PAGE LENGTH     3 INCH   3.5 INC  3.6 INC  4 INCH   5.5 INC   6 INCH   7 INCH
                8 INCH   8.5 INC  11 INC   11.6 IN  12 INC   14 INCH  17 INC
LINE SPACING    4 LPI    5 LPI    6 LPI   7 LPI    8 LPI
PAPER TEAR      DISABLED  ENABLED  TIMEOUT
SKIP OVR PERF   DISABLED  ENABLED

CONTROL
COPY MODE       DISABLED  ENABLED
GRAPHIC PT DR   UNI-DIR   BI-DIR
EMULATION       EPSON    IBM
PAPER LD+PARK   ENABLED  DISABLED
AUTO LINE FD    DISABLED  ENABLED
AUTOONLINE      DISABLED  ENABLED
HOST BI-DIR     ENABLED  DISABLED
HOT_COMP        OLD      NEW
CASE PARTS      OLD      NEW

CHARACTER SET
ZERO PRINTING   NORMAL   SLASHED
INT. CHAR SET   INDIA    USA      FRANCE  GERMANY  ENGLAND  DENMARK1  SWEDEN
  
```

## Operation Panel Functions for 9 WIRE Printers

### 14. i-Sense (Built in Self Diagnostic Tool)



#	LED Indications	Self Diagnostics Pointing to "Non-functioning" of...
1	ONLINE LED blinking	Paper Sensing <ul style="list-style-type: none"> <li>Ensure paper is loaded; if not, reload the paper once again.</li> </ul>
2	FONT SIZE LEDs blinking	Control Board <ul style="list-style-type: none"> <li>Call Customer Care.</li> </ul>
3	DRAFT LED blinking	Print Head Hot <ul style="list-style-type: none"> <li>This is the safety mechanism for the Print Head, the printer will resume printing after the Print Head temperature drops below the permissible limit.</li> </ul>
4	ROMAN LED blinking	Carriage Home Position <ul style="list-style-type: none"> <li>Check the Home Position sensor for any dust accumulation &amp; clean if necessary. If problem still persists, Call Customer Care.</li> </ul>
5	SANSERIF LED blinking	Paper Feed Motor <ul style="list-style-type: none"> <li>Call Customer Care.</li> </ul>

### 15. Procedure to Print Rupee Symbol in Text mode

For Text Printing, Send a Hex Value 81 for printing ₹ from PC or other devices to TVSE printer

Ex: To print ₹500 [i.e Rs 500] , Send the Hex Value as 81 35 30 30

81 to print ₹

35 to print 5

30 to print 0

30 to print 0

## Creating User-Defined paper size

The following steps are to be followed to set user-defined paper size.

1. Click **Start** → Click **Control panel** → Double click **Printers and Faxes**.
2. Click **File menu** → Select **Server Properties**.

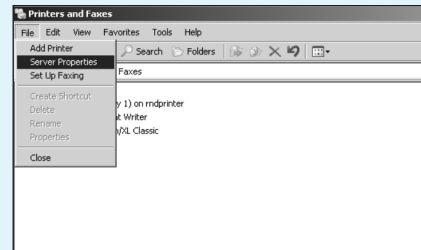


Figure1: File menu under Printers and Faxes Window

3. Select **“Create new form”** option under Printer Server properties.

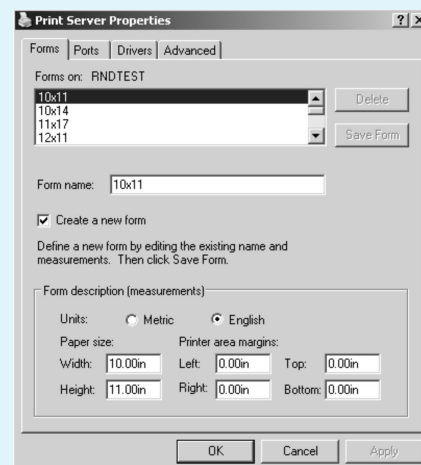


Figure2: Print Server properties Window

## Creating User-Defined paper size

- Specify the required paper size under “**Form name**” (Example: 8 x 3.67) and enter the required **Width** (Example: 8.00in) and **Height** (Example: 3.67 in) fields in inches.

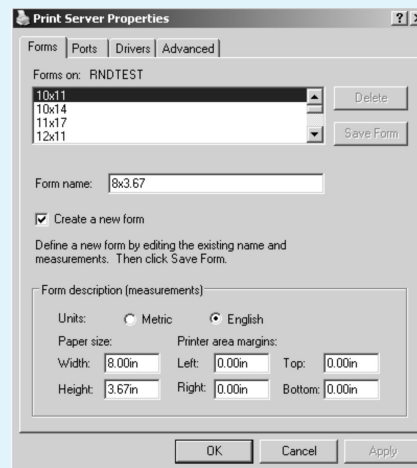


Figure3: Creating new form for setting user-defined paper size

- Click **Save Form** Button.
- Now the user-defined paper size will be displayed under “Paper Size” tab of Page setup menu (Under Notepad, Word, etc). Select the required size and give ‘Print’.
- Follow steps 1 to 5 for creating user-defined paper sizes.

Note: The “Paper size” list box will display only the paper sizes under printer specified range.

To create custom page length in Windows 98 go to

Printer Properties → Paper → Custom size → User defined size and enter your page size.

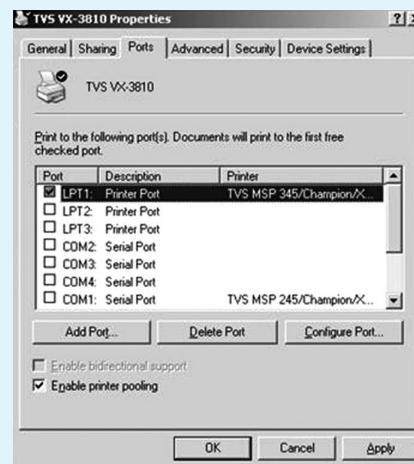
## For DOS Based Printing through USB

Computer which has Parallel Port use Method #1 - Pooling Concept.

Laptop/Computer which doesn't have Parallel Port use Method #2 - Networking Concept.

### Method #1 - Pooling Concept

- Install the Driver to the virtual port (ex USB001:)
- Go to Printer properties -> Ports.
- Click Enable Printer Pooling and choose LPT1: also.
- Now you have selected both LPT1: and USB001: with printer pooling
- Go to command prompt and give the syntax as: copy<space>file\_name<space>prn



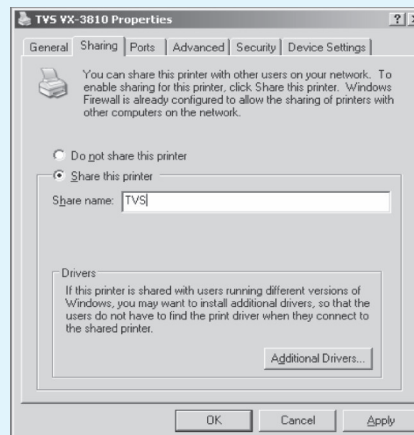
### Method #2 - Network Concept

#### Step 1:

Install the Printer Driver (say TVS PRO VX3810) to the USB port and verify the Test Page.

#### Step 2:

- Right click the printer driver and go to Sharing Tab
- Create the Share Name as TVS



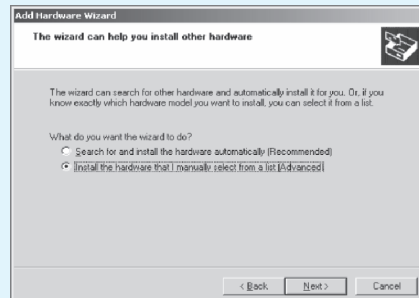
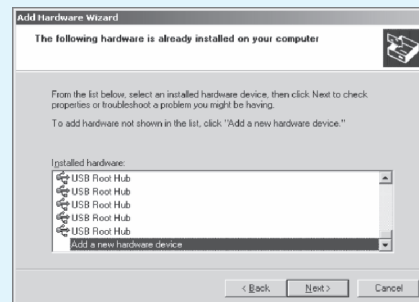
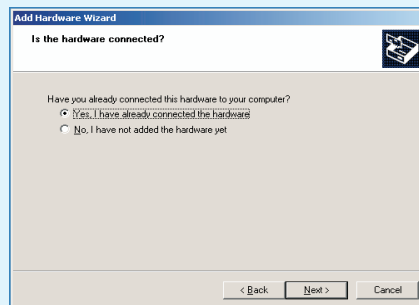
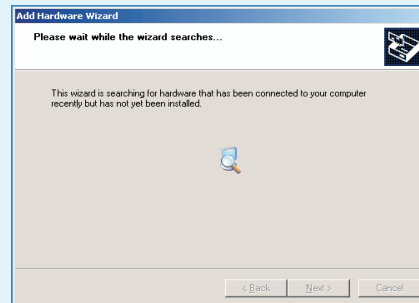
#### Step 3: Install Microsoft Network Loopback Adapter.

- Go to Control Panel and open Add Hardware
- Click Next.



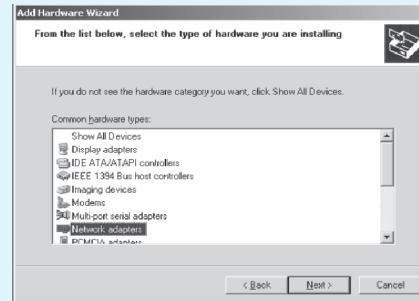
## For DOS Based Printing through USB

- The wizard will search for hardware. Stay idle for some moments till the next window appears.
- Select the option Yes, I have already connected the hardware and click next.
- Select Add a new hardware device and click Next.
- Select the second option Install the hardware that I manually select from a list (Advanced) and click next.

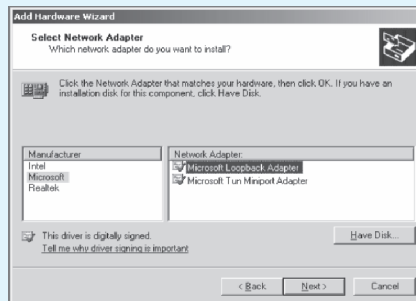


## For DOS Based Printing through USB

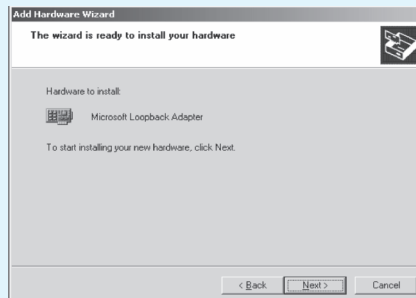
- Select Network adapters and click Next.



- Choose the Manufacturer as Microsoft and Network Adapter as Microsoft Loopback Adapter and click next.



- Click Next.

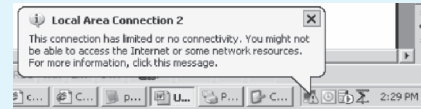


- Click Finish to complete the Add Hardware Wizard.



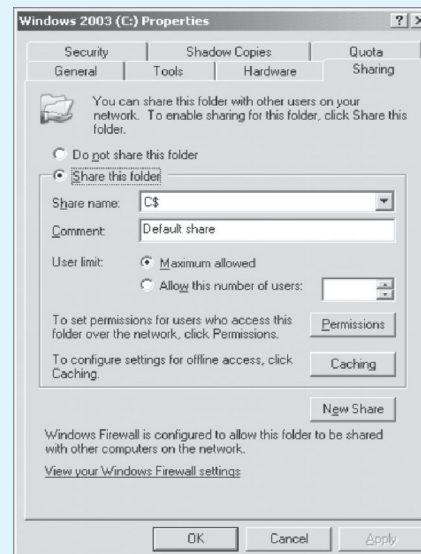
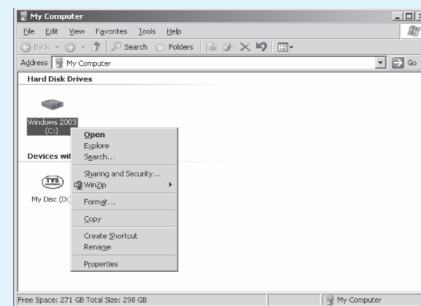
## For DOS Based Printing through USB

- After installing the Network Loopback Adapter it will give a warning as in the picture. Ignore the warning.



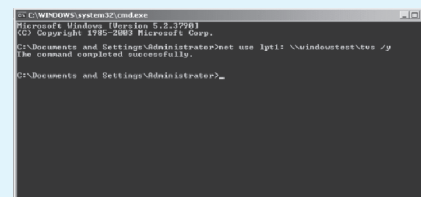
### Step 4: Share the OS Partition Hard Disk.

- Suppose the Windows XP is loaded in C: drive
- Right Click and select Sharing and Security



### Step 5: Route the LPT1 port to the driver.

- Go to command prompt.
- Type the command as net use lpt1: \\computer\_name\share\_name /y
- computer\_name must be your 'Computer Name' & share\_name refer Step 2.





## Helpful Hints

- Use Normal Density MSP Ribbons for 9 wire Printers. Use of improper ribbon may damage the print head and invalidate the warranty.
- Use only High Density MSP Ribbons for 24 wire Printers. Use of improper ribbon may damage the print head and invalidate the warranty.
- If you are replacing a ribbon be sure the printer is OFF and the print head has cooled.
- Carefully read the instructions for correct ribbon placements. Improper placement can cause smudged printing and may jam the ribbon.
- PRINT is the printer's normal operating mode. When the printer is in PRINT mode, it can receive data from your computer and print. When the printer is in STOP mode, it stops printing and responds only to control-panel instructions, such as moving the paper.
- To completely cancel the print job, first cancel the job in your software application. Then clear the data from the printer buffer.
- Because of advanced paper-handling features it is seldom necessary to turn the paper feed knob. More frequently turning the paper feed knob causes misalignment. Use the Control panel instead.
- Paper tear off, top-of-form adjustment and paper parking are not available when using tractor in PULL mode. .
- Do not rotate the PLATEN KNOB when the printer is in power ON condition.
- The top margin is usually set by your software. You may not need to change the top-of-form setting very often.
- For serial interface connection you need to install an optional serial interface board. Please contact your nearest TVS-E dealer. Serial interface cable comes with a board.
- If the printer is used heavily or in a dusty environment consult TVS-E service centre for advice on periodic cleaning and lubrication.

### **Eco-friendly Culture:**

Being an ISO 14000 organization, we are committed to protect the environment.

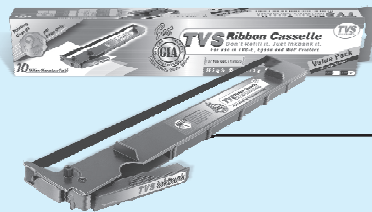
Please visit our website for product specifications, [www.tvs-e.in](http://www.tvs-e.in)

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## TVSE Take-Back & Recycling Program



### Overview

The new E-waste (Management) Rules, 2016 have been notified by the Ministry of Environment, Forest and Climate Change, Govt. of India vide notification dt.23.03.2016 and shall come into force with effect from 1st Oct, 2016. According to these Rules, the Producer shall be responsible for channelization of waste electrical and electronic equipment (popularly known as "WEEE"). This will ensure that the e-waste is disposed of in an environmentally friendly manner and will address the leakage to the informal sector.

Phase wise collection targets have been set for Producers to collect e-waste (either in number or weight) and shall be 30% of the quantity of waste generation during first two 2 years of implementation of the Rules, 40% during 3rd & 4th year, 50% during 5th & 6th year and 70% from 7th year onwards.

### TVS-E Commitment

TVS-E is committed to environmentally sound management of e-waste taking all steps required to ensure that e- waste are managed in a manner which shall protect health and environment against any adverse effects which may result from hazardous substance contained in such wastes. TVS-E assures that the covered products& Accessories, Consumables and spares do not contain lead, mercury, cadmium, hexavalent chromium, poly- brominated biphenyls or poly-brominated di-phenyl ethers above a specified threshold. The threshold for cadmium is 0.01% by weight in homogeneous material, for all other substances, the threshold is 0.1% by weight in homogeneous material.

## Introduction

E-waste is any electrical/electronic product or an accessory which is not useable and it is at its end of life for example old defective products like Printers, Keyboards, Mouse, User terminal etc.

E-waste has been defined as “waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded”. Whereas Electrical and electronic equipment has been defined as “equipment which is

dependent on electrical currents or electro-magnetic fields to fully functional”. E-waste generally consists of those substances contained in an electronic product which can bring adverse effects to the atmosphere and hence managing it in a proper way is important. Apart from affecting the environment it can also affect the health of the people.

## Waste Collection

TVS-E has put in place a pan India collection mechanism to assist its customers in depositing their e-waste as per the new E-waste (Management) Rules, 2016 effective from 1st October, 2016.

You can deposit the WEEE at the nearest Collection Point. Details of the location of Collection Points and Collection Centres are also available on this website.

TVS-E assures all its customers that all its e-waste collected under these Rules will be recycled/ disposed of by an authorized e-waste Recycler as per the E-waste Management Rules, 2016.

## Do's and Dont's



### Do's:

- Always drop your used electronic products& Accessories/ Consumable/ spares, batteries and packaging materials after the end of their life at the nearest collection point.
- Separate the packaging material according to responsible waste disposal options and sorting for recycling.
- Keep the product in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage

**Dont's:**

- The product is not meant for re-sale of any unauthorized agencies/scrap dealers
- Never dump e-waste in garbage bins
- Do not dispose off your product in at municipal waste bins
- Do not throw used batteries into household waste.

**FAQs****1. What is e-waste?**

E-waste means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

**2. What is end-of-life of product?**

End-of-life of the product means the time when the product is intended to be discarded by the user.

**3. How can you dispose of your e-waste?**

You can deposit your e-waste at any of our Collection Points mentioned on our website.

**4. WHAT CAN I RECYCLE?**

Under E-Waste Management & Handling Rules 2016, we will accept and recycle all TVS-E products like Printers, Keyboards, Mouse, User terminal, Cartridges are accepted for recycling.

**5. What is EPR (Extender Producer Responsibility)?**

EPR means responsibility of any producer of electrical and electronic equipment, for channelization of e-waste to ensure environmentally sound management of such waste.

**6. Do consumers have to pay for getting their electronics recycled?**

Consumers do not have to pay any fee for recycling of TVS-E products

7. Is there any monetary benefit/discount linked to this take-back and recycling program?

As of now there is no monetary benefit/discount linked to this program. The main benefit of this program is cleaner, safer and green environment.

8. What will happen if the product is not properly handled and is given/sold to scrap dealer like any other ordinary scrap?

In case eWaste is sold to unauthorized dealers, they don't have scientific tools to recycle the products and therefore they are not authorized by the Pollution Control Board. In open area they burn the plastic parts, break the seal of parts which carries gases and try to extract metals. Such smoke and gases pollute the environment. Also hazardous residual are thrown in landfills which is dangerous for land, water, air and living beings.

9. How can you participate in the TVS-E Recycling Program?

You can dispose of a used TVS-E product very easily and responsibly. Simply call at 1800 425 4528 and drop it at your nearest Collection point's. All these E-waste will be consolidated and forwarded to Tumkur Collection point for final disposal through Authorized E-waste Recycler

10. What are the negative effects of improper recycling and dismantling of old electrical & electronic items?

- If the material is disposed off in open, then it may cause health risks and damage to environment
- Presence of heavy metals such as cadmium, lead etc and other toxic substances may pose risk to health and environment
- Burning of rubber & Plastic in open area causes air pollution.
- Batteries contain hazardous elements which may affect the health & environment, if not disposed off properly.

11. How to safely handle the product while disposing off?

- Old defective product should be kept separately from other products.
- Product should not be dropped in garbage bins containing municipal waste.
- It should be handed over to authorized recycler for safe recycling.
- Product should not be handed over to any recycler who does not have proper recycling facilities

12. What are health hazards and effects on environment if the product is dismantled by the consumer themselves?

All the electronic products are safe to use, but if the consumer dismantles or breaks them, they might be exposed to health hazards due to the chemical substances present in the products, which further can pollute the environment.

**Manufacturing Address:**  
TVS Electronics Limited,  
No.E12, Selaqui Industrial Area,  
Dehradun, Uttarakhand – 248197