

TSP600, TSP700 and TSP800

"FREQUENTLY ASKED QUESTIONS / TROUBLE SHOOTING GUIDE"

UPDATED JANUARY 2002

INTRODUCTION

These are the FAQ (Frequently Asked Questions) for the Star TSP600, TSP700 and TSP800 high speed thermal receipt / ticket and label printers.

Question Index

A. PRINTER SPECIFICATIONS

1. [What is the maximum paper width that I can use?](#)
2. [Can I use narrower paper rolls \(such as tickets I already have for the TSP400\)?](#)
3. [What paper thickness can be used?](#)
4. [Is two colour printing supported?](#)
5. [Does the printer support printing onto pre-printed ticket rolls?](#)
6. [Does it support label printing?](#)
7. [Can it print barcodes?](#)
8. [What interfaces are available for the TSP600, TSP700 and TSP800?](#)
9. [Is there a USB interface available?](#)
10. [Can the printer be wall mounted?](#)

B. Windows Drivers

1. [Where can I get the Windows Drivers?](#)
2. [What versions of Windows are supported?](#)
3. [Is there a Windows 2000 and XP driver available?](#)
4. [Why will my printer not print at full speed?](#)
5. [How can I get rid of the white lines that run horizontally across the page?](#)
6. [The Printer does not cut at the end of a printout and feeds some extra paper.](#)
7. [When using printer resident \(built in\) fonts some special characters \(such as £, Ü and ß\) are not right. What's wrong?](#)

C. General Problems

1. [How do I set-up the printer to recognise the black marks on my tickets or labels? \(TSP700/800 only\)](#)
2. [Why is the printer not picking up the black marks on my labels – instead it just feeds several labels and then gives a paper out error? \(TSP700/800 only\)](#)

ANSWERS

A. PRINTER SPECIFICATIONS

1. What is the maximum paper width that I can use?

TSP600

The maximum paper width is 80mm although the printer is supplied configured.

TSP700

The maximum paper width is 82.5mm although the printer is supplied configured for 80mm rolls by default.

TSP800

The correct paper width is 111.5mm \pm 0.5mm. Please note that it is better to be 0.5mm to 1mm too narrow than to be slightly too tight which can put extra strain on the printer mechanism.

We have tested and can recommend paper from the following manufacturers:

Tungate Group: Tel. +44 (0) 1793 871676

Premiere Rolls: Tel. +44 (0) 1943 466199

Mepyrus Ltd (UK Office of Nakagawa MFG) +44 (0) 1923 211655

Nakagawa MFG. Deutschland GmbH: Tel. +49 (0) 2151 728900 Fax. +49 (0) 2151 7289060 Email. info@nakagawa.de

2. Can I use narrower paper rolls (such as tickets I already have for the TSP400)?

TSP600

An optional paper guide can be fitted to support 58mm paper widths. The TSP600 does not have a black mark sensor fitted and can, therefore, not be used to print on to labels or pre-printed ticket stock.

TSP700

The default configuration is for 80mm wide paper rolls, however by removing the supplied paper guide you can use 82.5mm paper and by moving the paper guide to its alternate position 58mm paper rolls are supported.

TSP800

It is possible to use 82.5mm / 80mm wide paper stock by using the optional "Paper Guides" that are available from Star UK **However**, it should be noted that the "Black Mark" (if used) may not be correctly positioned. The positioning requirement for the TSP800 Black Mark are very similar to the TSP400 requirements, but it is strongly advised to check the operation of the Paper / Printer before converting TSP400 paper for use in the TSP800. It should also be noted that the paper is Outside wound on the TSP800 and Inside wound for the TSP400.

3. What paper thickness's can be used?

The TSP600 supports paper thicknesses of 0.065mm to 0.085mm.

On the TSP700 and TSP800 paper thickness can range from 0.063mm (paper) to 0.15mm (thin card). The lifespan of the built in Autocutter will be affected according to the following table:

0.063mm to 0.075mm: 1 million cuts

0.075mm to 0.1mm: 0.6 million cuts

0.1mm to 0.13mm: 0.3 million cuts

0.13mm to 0.15mm: 0.15 million cuts

4. Is two colour printing supported?

Yes. The TSP600 and TSP700 both have full support for two colour thermal printing (from Firmware version 2.0 onwards). You will need suitable two colour thermal paper and software with support for the Star two colour commands (or use a Star driver with two colour support).

The TSP800 does not have a dedicated two colour command set but there are commands to vary the head temperature which can be used to print different colours onto special red/black or blue/black thermal paper. For the best results the printer should be slowed down to the 'Low Speed 2' (50mm/second) setting.

A separate 'Two Colour Printing FAQ' document should be available from the same place as this document.

5. Does the printer support printing onto pre-printed ticket rolls?

Yes, the TSP700 and TSP800 can both print onto tickets. When in 'Start of page detect' mode it will search for a black mark on the underside of your labels/tickets which are used to indicate the start of the next page. This way you can print onto pre-printed tickets or labels and never lose alignment.

The correct dimensions for the black marks are given in the User Manual. You can use the TSP700/800 set-up utility to enable 'Start of page detect' mode.

The TSP600 model does not have a black mark sensor and can, therefore, not print onto pre-printed ticket paper.

6. Does it support label printing?

Yes the TSP700 and TSP800 both support label printing. Your labels must have a black mark printed on the underside, which the printer uses to guarantee alignment. See the answer above for more information.

7. Can it print bar codes?

Yes. There are 9 types of barcode that can be generated by the printer with PDF417 2D bar code support following soon.

8. What interfaces are available for the TSP600, TSP700 and TSP800?

The TSP700 and TSP800 are supplied with either a Centronics style Parallel interface or an RS232 compatible 25pin Serial interface. Optional 9pin serial or USB interfaces can also be bought separately. All interfaces are fully bi-directional.

9. Is there a USB interface available?

Yes, USB is now available for the TSP600, TSP700 and TSP800. For the TSP700 your printer must have firmware version 1.3 or later, for the TSP800 you must have 2.2 or later and the TSP600 must have version 1.2 or later. Please contact your distributor if you require a firmware upgrade. The Windows drivers for the Star USB interface are included with the Raster Printer Drivers on our web site (<http://www.starmicronics.co.uk>).

10. Can the printer be wall mounted?

Yes. All three printer models can be wall mounted or mounted vertically in a desktop boot. A wall mounting kit and / or a desk boot is will be available from your distributor which includes everything you will need.

B. WINDOWS DRIVERS

1. Where can I get the Windows Drivers?

The current Windows Drivers can be downloaded from the [Star Micronics UK web site](#). You should also be able to obtain them from your distributor.

2. What versions of Windows are supported?

Currently there are Windows 95/98/ME/NT4/2000 and XP drivers available.

3. Is there a Windows 2000 and XP driver available?

Yes, Windows 2000 is supported from version 1.5 onwards. Windows ME is also supported by the Windows 9x version of the driver. The Windows 2000 driver is fully compatible with XP.

4. Why will my printer not print at full speed?

There are many cases where the communication speed is not high enough for the TSP700 or TSP800 to maintain full print speed. When printing graphics, a large amount of data is required which takes longer to transmit to the printer than it takes to print. This means that the printer has to stop and wait for the data stream to catch up. There are several ways of improving performance:

- If you are using a serial interface then see if you can configure your PC for a faster baud rate. The default is usually 9600 baud which will be extremely slow when printing graphics. Parallel ports already work as fast as they can (and are faster than the fastest RS232 serial interface) so they are recommended for use with Windows drivers and heavy graphics printing.
- Use printer resident fonts instead of TrueType's. TrueType fonts must be sent to the printer as graphics data and are just as intensive as printing a large picture. Resident fonts are fonts that are built into the printer which means that much less data needs to be transmitted and the printer does not have to stop and wait.
- If you are printing one or two (up to ten) graphics or logo's then use the printer's logo store facility. Graphics that are reused can be stored within the printer's FlashROM and printed later with just a single command or via the 'control' font, which is built into the driver.
- Use a 'raster' version driver. The 'raster' drivers are dedicated graphics drivers for the TSP600, TSP700 and 800 under Windows, they use a compressed graphics format to increase the print speed dramatically. Generally reaching the full print speed of 100mm/s on the TSP600, 150mm/s on the TSP800 and 180mm/s on the TSP700 even for a full page of graphics. The only sacrifice is that you can no longer use special 'control' fonts which means that there are no barcode fonts and no resident fonts.

5. How can I get rid of the white lines that run horizontally across the page?

When you are printing graphics under Windows (this includes TrueType fonts) the PC can not supply data to the printer quickly enough and so the printer has to stop and wait frequently during a print. When the printer stops the paper can slip slightly, this slippage causes the white lines (banding). Banding is not evident when using stored logo's and resident fonts as much less data needs to be sent and so the printer never has to stop and wait. You may wish to redesign your page to take advantage of these features (and also give a very large speed boost). If your page is entirely graphics based (including graphical fonts such as TrueType) then you may also wish to use a 'raster' printer driver which is much faster and does not suffer from banding.

If you absolutely must print graphical data via Windows (TrueType fonts and images which

are not stored logo's) then the only solution is to slow the printer down to the minimum speed (50mm/s on the TSP800 and 60mm/s on the TSP700) using the Set-up Tool.

If you are printing graphics then slowing the printer will **not** reduce the overall print time of your page as, even at this speed, the printer is still faster than a PC can supply the graphics data. The difference is that the printer will not slip at this speed even when it stops and so the banding will disappear.

6. The Printer does not cut at the end of a printout and feeds some extra paper.

This problem is eliminated with printer driver release 1.6 and later, if you wish to use an older driver revision then please read the advice below:

At the end of a printout from the TSP800 (Receipt Type) driver a <FF> (Form Feed) code is sent to the printer which causes the feed. For Windows driver use you should use the TSP800 Set-up Tool (or dtool.exe which is supplied with the drivers) to configure the printer for either a full or partial cut when it receives a <FF>. With a TSP700, you will not get this extra feed as long as you are using the correct driver.

7. When using printer resident (built in) fonts some special characters (such as £, Ü and ß) are not right. What's wrong?

The TSP600, TSP700 and TSP800 support a wide variety of character sets, you should use the printers Set-up Tool (or dtool.exe for the TSP700 and TSP800, which is supplied with the drivers) to set the printer to use the same Code Page as your version of Windows (leave the International Character Set as USA). Western versions of Windows 95 / 98 all use Code Page #1252 (Windows Latin 1).

C. GENERAL PROBLEMS

1. How do I set-up the printer to recognise the black marks on my tickets or labels? (TSP700/800 only)

Use the Set-up utility to set 'Start Position Detect' to 'On'. When this is switched on the printer will automatically seek for the start of the next ticket or label by searching for a black mark. When you print a self test (Switch on with the FEED button held) you should see a line which reads

'<1> 8 = Black Mark Detect : Valid'

Now that the printer is searching for black marks you should be able to feed one ticket/label at a time by pressing the FEED button.

2. Why is the printer not picking up the black marks on my labels – instead it just feeds several labels and then gives a paper out error? (TSP700/800 only)

First check that the black marks are in the correct place to be seen by the printer (refer to the Users Manual for the correct measurements).

If the black marks are positioned correctly and the printer is still not picking them up then it probably needs to be calibrated to your paper.

To calibrate the black mark sensor:

- Insert your tickets or labels so that there is no black mark over the sensor (The sensor is on the left of the lid, about 6mm underneath the paper feed roller).
- Remove the DIP Switch cover underneath the Printer and set DIP Switch 1-4 (bank 1 switch 4) to OFF.
- Switch on the Printer, Either the red error light or the green power light will come on.
- Using a flat jewellers screwdriver, adjust the pot, VR2, (which is underneath the printer next to the banks of DIP switches) until both the error light and power light are lit.
- Switch off the printer
- Reset DIP switch 1-4 to ON.

- Switch on the printer and test the calibration by pressing the FEED button. The printer should feed one ticket or label at a time.