



Phoenix UNV Thermal Printer Configuration

PHOENIX THERMAL PRINTER



About

The Phoenix Thermal printer by Pyramid Technologies provides a wide range of features that can reliably serve many types of markets. The latest series of firmware for the Phoenix Printer is called Universal firmware and extends your reach even further. This document will help you choose the right configuration for your system.

Our Universal firmware, designated by the UNV code on your printer, adds support for printing over USB using virtual serial ports or standard desktop printing mode. This is in addition to the pulse and serial printing that the Phoenix has always supported.

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Configuration

The UNV features of the Phoenix Thermal printer are controlled by the white dip switch located on the side of the printer.



- The switches are number 1-4, from left to right
- The ON position is when the switch is pulled down
- Dip 1 only controls your paper cut mode (full or partial), Full Cut is recommended.
- This configuration guide supersedes the sticker shown on your printer

Tip: It is recommended that your cycle power after modifying your dip switch configuration.



Operation Modes

Each mode of operation that Phoenix supports is described below.

Pulse Printer

In pulse mode, your Phoenix Thermal printer receives data on the 7-pin harness. Refer to the [Phoenix User's Manual](#) for more details on the pinout of this harness.

Dip 1	Dip 2	Dip 3	Dip 4
Any	Off	Off	Off

Normal POG

In this mode, your Phoenix Thermal printer operates in 2400 baud POG mode over RJ-45.

Dip 1	Dip 2	Dip 3	Dip 4
Any	Off	Off	On

Normal ESC/POS

In this mode, your Phoenix Thermal printer operates at 9600 baud ESC/POS over RJ-45.

Dip 1	Dip 2	Dip 3	Dip 4
Any	Off	On	Off



Special Emulation

In this special mode, your Phoenix Thermal printer emulates printers running 38400 baud printers for serial configuration of pulse tickets. This mode uses the RJ-45 port for serial communication.

Note: Not recommended for new development

Dip 1	Dip 2	Dip 3	Dip 4
Any	Off	On	On

RESERVED

This mode of operation is not defined. Do not use this configuration.

Dip 1	Dip 2	Dip 3	Dip 4
Any	On	Off	Off

RESERVED

This mode of operation is not defined. Do not use this configuration.

Dip 1	Dip 2	Dip 3	Dip 4
Any	On	Off	On



ESC/POS over USB

In this mode, your Phoenix printer enumerates as a USB serial port. On Windows 10 and newer, you do not need a driver. For older versions of Windows, please install [our driver](#). No drivers are required for Linux or Mac systems. Note that on some Linux systems, Phoenix may enumerate as a CDC-ACM modem which is expected. This is still a virtual serial port and will work in your application.

Dip 1	Dip 2	Dip 3	Dip 4
Any	On	On	Off

True USB Printer

In this mode, the Phoenix operates as a traditional desktop printer. You can use operating systems APIs and libraries to send print jobs through the spooler (Windows) or CUPS (Linux). On Windows, this will show as a printer in the device manager. On Linux, this will enumerate as a USB line printer device. The Windows drivers are available through Windows update or from our [website](#). Linux and Mac drives are available exclusively on our [website](#). On Linux system, this mode will enumerate as *usb/lp*.

Note: Return all dip switches to the off position to use Phoenix Tools for firmware updates or diagnostics.

Dip 1	Dip 2	Dip 3	Dip 4
Any	On	On	On



Complete Table

Mode	Dip 1	Dip 2	Dip 3	Dip 4	Notes
Normal Pulse	Any	Off	Off	Off	
Normal POG	Any	Off	Off	On	
Normal ESC/POS	Any	Off	On	Off	
Special Emulation	Any	Off	On	On	
Reserved	Any	On	Off	Off	Phoenix Tools Disabled
Reserved	Any	On	Off	On	Phoenix Tools Disabled
USB ESC/POS	Any	On	On	Off	
True USB Printer	Any	On	On	On	Phoenix Tools Disabled