WPL printers: Scan-to-Print: Connect a WDI7500 scanner via serial cable

Scott Leonard - 2025-03-07 - Printers

Main article: "WPL printers: Scan-to-Print: scan a barcode to print a label with that barcode" (linked in Related Pages below)

This article has specifics about how to set up the WDI7500 with the serial cable and connect it to a printer's serial port (e.g. WPL305 which doesn't have a USB port).

Required additional cabling accessories:

Model CAB-448 serial cable
Null modem cable (ideally with two 9-pin male plugs)
serial gender changers as needed

Purchase cable CAB-448 from Wasp Barcode or a reseller such as System ID. This has a female RS232/serial plug at one end and a 10-connector RJ-50 modular plug at the other. It must be this specific cable model number, not a generic "serial to RJ-45" since that's not what this is. Note: Although there is a barrel connector on the serial plug, no power adapter is needed since the base station has its own power.

If there is an existing data cable installed, remove it from the base station: On the top of the base station, below the LED indicators, there is a hole. Insert a straightened paperclip or similar, in order to gently press down on the plastic tab that holds the cable in. While pressing, gently tug on the cable to remove it.

Insert the RJ-50 plug into the base station's data cable jack. When oriented correctly and gently but firmly inserted, you should hear a click when it locks into place.

The serial plug must be connected to a null modem cable, which in turn connects to the printer's female serial port. Depending on the plugs on your null modem cable, you may also need serial gender changers and/or adapters to get the cable chain to connect properly all the way from the base station to the printer.

==========

Connect the printer to a PC via USB cable (you don't have to disconnect the serial cable for this).

Run DiagTool, which should should show the printer model number and other information on the default screen (Printer Configuration tab). If needed, set the Paper Width and Paper Height to your measured label size, then click the Set button toward the bottom right corner.

In the middle of this screen, the Common tab is active. In this list of tabs, click onto RS-232. If the Baud Rate is not set to 9600, set it to that, then click the Set button toward the bottom right corner.

In the top set of tabs, click onto the Command Tool tab.
Back in this document, select the code below starting with KILL and ending with EOP (do not include the dashes).
Right-click and copy the text.
In DiagTool's Command Tool tab, click into the large blank box, then on the keyboard press Ctrl-V (to paste).
If the cursor is blinking after EOP, press the Enter key one time so the cursor goes to the next line.
Click the Send button below. (If you accidentally clicked Send File, just click Cancel.)
Click onto the Printer Configuration tab, then click the Reset Printer at the right. This will automatically load the programming you just sent to the printer.

```
KILL F,"*"
DOWNLOAD F,"AUTO.BAS"
DENSITY 8
SPEED 3
```

```
DIRECTION 1
REFERENCE 10, 0
SET CUTTER OFF
SET PEEL OFF
CLS
:START
CLS
A$=""
INPUT "Enter the code", A$
BARCODE 20,20,"128",48, 1, 0, 2, 8, A$
PRINT 1
GOTO START
EOP
----------
```

==========

In the WDI7500 Programming Reference Guide, scan the following configuration barcodes (the WDI7500 will read off the screen when sufficiently zoomed in):

Page 29:
Enter/Exit Programming Mode
Baud Rate = 9600
Enter/Exit Programming Mode

At this point, you should be able to scan a barcode, and receive a label with a Code 128 symbology barcode with the same data.

==========

Note: This setup will work with the scanner set to the default interface of USB Keyboard. There is no need to change to the RS232-STD interface, though it will work with that too. If you need to change the interface, those configuration barcodes are on page 19 of the WWS750 Programming Reference Guide (linked in Related Pages below).

Related Content

- Scanner User Manuals, Programming Reference Guides, Quick Reference Guides, Quick Start Guides (multiple models) manual
- WPL printers: Scan-to-Print: scan a barcode to print a label with that barcode