Installation Guide

Frontier S DX100 Printer
P-Module Installer with DarkRoom Pro™ Software

DarkRoom Pro Version 9.20.2174 or higher
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Introduction

This guide will provide you with the necessary steps that need to be taken to install the Frontier DX100 with DarkRoom Pro software Version 9.20.2174 or higher. First: If you need to upgrade your DarkRoom Pro License version please visit http://www.darkroomsoftware.com/products/ select your product upgrade.

DarkRoom Pro software uses Frontier S DX100 Printer Installer to install Fujifilm P-Module driver integration to communicate with the DX100 printer.

Fujifilm P-Module software is an advanced Frontier Printer management tool. The P-Module Printer Information GUI gives users “at a glance” feedback on details of: Printer(s) Queue; Printer(s) Status; Paper Loaded; Ink Levels; and job progress by printer on up to four DX100 Printers. Printer Management can be accomplished through use of Printer Information GUI and through DarkRoom Pro/Set Up/Printer Configuration.

Darkroom Pro and Frontier S DX100 Printer Installer software is installed on a client supplied PC (System PC) that meets the following specifications:

- **Windows 7 Professional Service Pack 1, 32 or 64 Bit**
  - For DX100 32 bit the P-Module version is 4.0-0E-022 or higher.
  - For DX100 if on a 64 bit system, the P-Module version is 4.0-0E-022 or higher.
- **From the Windows Start Menu/ Control Panel/ User Accounts/ Change User Account Control Settings** Set User Account Notify Level to: Never Warn

![User Account Control Settings]

It is important that the software is installed on a computer that has the ability to accommodate the workload of both software and the video graphics requirements of an imaging workstation.

The DX100 Printer(s) connect directly to the DarkRoom Pro Workstation/PC via USB cable(s). A total of 4 printers has been tested and is supported with the use of Fujifilm P-Module.
General System Information

Notes on Printer USB Ports: The DX100 printer connects to DarkRoom Pro computer with USB connections, one computer to multiple printers. It is important to understand that Fujifilm does not recommend installation of printers to USB Hubs for printer connection.

Use only USB ports resident to the computer for printers. Note location, port number and printer number when installing. If a printer is disconnected or replaced connect only to the port that the printer was originally installed on. When swapping or replacing a printer, refer to the Frontier S Printer Driver Operation Guide EN 1st edition.pdf and use of DX100 Maintenance Tool for correct registration of the printer.

In the event that you do not have enough USB Ports to accommodate other USB devices such as Keyboard, Mouse, Media Card Reader, external hard drive, the use of a USB Hub is suggested for those connections.

See Topology Illustration on Page 7.

Minimum requirements for the DarkRoom PC computer (Client PC) are that it will need to support the Operating System installed with RAM, (4Gb) Hard Drive Space (200 Gb). The system must be capable of handling advanced image processing applications.

Operating Systems supported is Windows 7 Professional Service Pack 1 / 32 or 64 Bit.
System Topology

The illustration below shows a Client PC which meets minimum configuration outlined in the DX100 Installation Manual. Frontier S DX100 Printer Installer and DarkRoom Pro are installed on the Client PC.

DX100 Connected via USB to the DarkRoom Pro Computer

**DX100 Installation/Topology**

- **Model Name**: FRONTIER-S DX100
- **Print Method**: Piezo-electric Inkjet System
- **Print Capacity**: Approx. 360 Prints/hr 4R (4"x6") Approx 120 Prints/hr 5R (8"x10")
- **Print Size**: 3 1/2" x 5" - 8" x 35" Processing time (dry to dry) Approx 45 seconds (fastest time) Print Resolution 720 x 720dpi 1440 x 720dpi (HQ mode)
- **Paper**: Roll Paper - 5"x213', 6"x213', 8"x213'
- **Paper Type**: Glossy / Lustre – FUJIFILM Quality Dry Photo Paper for the DX100
- **Ink Cartridges**: 6 Color (Y, M, C, BK, Pink, Sky Blue) of dye-based VIVIDIA™ Ink (Volume 200mls per color)
- **Back Printing**: N/A
- **Print Sorter**: N/A
- **Floor Space**: Approx 2.13 SqFt Total Installation Space Approx 2.13 SqFt Dimensions (In) L 18.11” x W 16.93” x H 13.94” Weight DX100 PRINTER body (including paper and ink cartridges) weight 51 lbs
Software, hardware and documents needed for this installation:

- Computer (customer supplied) which matches minimum specifications outlined in General Information.
- Fujifilm DX100 Printer(s)
- DarkRoom Pro installer software and license/ USB Dongle that has been upgraded to support DarkRoom Pro Version 9.20.2174 or higher, supplied by FUJIFILM NAC Marketing/Sales, or purchased directly from DarkRoom Software LLC.
- DarkRoom Pro Installation Guide and Quick Start Guide, supplied with the DarkRoom software package
- Frontier S DX100 P-Module Printer Installer Disk Version 2.0.5 or higher with Windows Driver Software v 2.0.5 or higher.
- Frontier S DX100 Printer Installer Guide – this guide.

Setting up the DX100 Printer

Installation Preparation and unpacking the printer
Unpack and install the DX100 Printer as described in the DX100 Installation Manual supplied with the printer.

Before Proceeding it is important to note:
1. When registering printers to the Fujifilm P-Module that you will have to Re-start your computer as instructed at each step.
2. After “Adding Printer(s)” to DarkRoom Pro/Add Printer function it is important to close DarkRoom Pro and allow the Fujifilm Printer Information Screen to close fully before you attempt to print. This allows DarkRoom Pro and P-Module to connect properly.

Continue with Printer Installation
Continue with the Printer installation of the Windows Driver following directions in Frontier S DX100 Printer Installer - Pages 8- 13 of this manual.
Installation of the Frontier S DX100 Printer Software:

Before proceeding please be sure that you are logged into the computer with Administrator Privileges. Be sure that you intend to install the Frontier S DX100 Printer Installer to be used with DarkRoom Pro Software. This is an advanced user Frontier Printer management tool that will only work when using DarkRoom Pro version 9.20.2174 or higher.

**NOTE:**
If at any point you get a message stating: “Firmware Upgrade in Progress” accompanied by a progress bar and all Orange Lights on the printer illuminated, WAIT while the firmware upgrades in the printer- Do Not Turn Off the computer or printer. Wait until Orange Lights go off one at a time, right to left and the Blue printer ready light is on constantly.

**Step**

1. Insert the Frontier S DX100 Printer Installer Disk into the CD Rom of your computer. IF AutoPlay dialog opens, please close it.

2. Navigate to the CD Drive and select SetUp.exe and Double Click.

3. Select language and then Next.
4. Activity bar follows progress of the installation.

5. When you arrive at Welcome to the InstallShield Wizard select Next.

6. Confirm you would like to begin your installation by selecting Install.

7. You will see this message. Wait while the installer continues...
8. to this screen... followed by...

9. Installing Redistributable 2008 C++ and wait. Two separate windows may be visible.

10. Once finished you will be brought to the DX100 Set Up Wizard, Select Next.

11. At Ready to install select Install.
12. A progress screen will show progress bar as the DX100 Printer Driver installation continues.


15. Installation of Adobe RGB Profile at Wizard Complete, Click Finish.

16. Driver Install/Printer: At this step check the box Always Trust and then Install.

17. Setup Installs DX100 Software

18. As driver installation progress bar completes, a new dialog box will appear in the upper left corner of your desktop. Follow the prompts and plug in a turn on the first printer that you wish to install at this time. Connect ONLY ONE printer at a time.
19. Once your first printer is discovered the dialog box text will change to the “The target printer has been identified…” wait for the dialog message to dismiss.

20. You will notice that in the lower right Task Bar you will receive the message “Installing device driver software”. Wait for this message to self-dismiss.

21. **Wait.** You may see this next message if your printer firmware needs to be updated.

If at any point you get a message stating: “Updating Firmware” or “Firmware Upgrade in Progress” may be accompanied by a progress bar and all **Orange Lights** on the printer illuminated, **WAIT** while the firmware upgrades to the printer.

**Do Not Turn Off the computer or printer.** Wait until **Orange Lights** go off one at a time, right to left and the **Blue Printer Ready Light** is on constantly.
22. The lower Right hand corner of your screen will display the Windows message Your device is ready to use. Click Finish and at this point wait.

23. Once finished the Install Wizard Complete dialog box appears. Click Finish and remove the CD from your D+CD Rom drive.

24. Once the D1X00 Set Up Wizard closes you will notice the following message on your screen. Wait for this message to self-dismiss. Wait for a minute and if your computer does not restart remove the CD and Restart the computer manually. You do not need to turn off the printer.

25. Once the D1X00 Set Up Wizard closes you will notice the following message on your screen. Wait for this message to self-dismiss. Wait for a minute and if your computer does not restart remove the CD and Restart the computer manually. You do not need to turn off the printer.

26. Once your computer has fully restarted, confirm installation of your printer(s) with the Fujifilm/ DX Printer Maintenance Tool.
27. Launch From Windows Start Menu /Programs/ Fujifilm/DX Printer Maintenance Tool.

28. The DX Printer Maintenance Tool Menu will open. The first printer installed will show up in Printer Name registered in the application.

Note that the first printer installed the Serial Number will appear below and to the right of the Printer Name Drop Down.

29. To add another printer, Turn On and Plug In the next printer. Once you have received the message that the printer is ready to use.
30. Go to the DX100 Maintenance Menu/Printer select Register/Delete Printer.

Connect one printer at a time and Select Printer Management.

31. Select Execute

32. While the application searches for printers you will see a progress bar.
33. Once a printer is found and Registered you will see a message similar to the one at the right. Click OK and restart your computer.

34. If printers you are adding require Firmware Upgrades you may/will see this message. Click OK. The printer will respond by going to a condition where all lights are on.

**Do Not Turn Off the computer or printer.** Wait until **Orange Lights** go off one at a time, right to left and the **Blue Printer Ready Light** is on constantly.

**Repeat this process Steps through 21 through 33 for each printer you wish to add to your system.**

35. While the second printer is being updated you will get the Firmware Update in Progress Bar.

**Repeat this process Steps through 21 through 33 for each printer you wish to add to your system.**
36. Return to the DX100 Maintenance Tool to perform other printer settings.

37. If/Once you have more than one printer registered you can select other printers access them by using the drop down box to select other printers. In this case the second printer has automatically been named Fujifilm DX100 (Copy1), (Copy2, etc.) and the corresponding Serial Number will appear beneath the drop down box.
38. With the DX Printer Maintenance Tool Menu open, select one printer at a time and then Paper Settings. This will confirm correct connection of your printers.

39. In the Paper Type drop down box select the Paper Surface for the roll that you have loaded in the printer. Note that in this case the roll width loaded automatically is set by the P-Module. This printer shows a 6 Inch Roll Loaded. Set the Paper Level for a new Roll to 213 Feet.

Select the Set Button to Register the Paper Surface and Paper level.

40. Note that in this case the roll width loaded automatically is set by the P-Module. This printer shows a 8 Inch Roll Loaded. Set the Paper Level for a new Roll to 213 Feet.

Select the Set Button to Register the Paper Surface and Paper level.
41. Once the Set Button is selected you will get a message that the Settings are completed.

42. To further confirm correct connection of your printers select the Head Maintenance Button.

43. After making that selection the Head Maintenance Menu appears. Select Nozzle Check.
44. Select the Print Check Pattern Button to print a Nozzle Check Print. Your printer will now cycle to printing mode.

45. You will receive confirmation and progress bar as the Nozzle Check Print prints.

46. Once completed you will receive the message as shown and you can inspect the quality of the print head nozzles as described in the DX100 Printer Operation Manual. Click the Back Button twice to return to the Maintenance Menu Main Screen.
47. Set your printers Power Saving Mode by selecting the Operating Conditions Button.

48. In the next dialog box select Power Saving.

49. Using the Drop down menu select the interval that you would like your printer to go into Power Saving Mode. To finish your set up select 1 Hour. (After Set Up you can return to this menu to adjust Power Saving Mode that is appropriate for your workflow. Note that once in the Power Saving Mode the printer will take a little bit of time to wake up or come out of Sleep Mode if jobs are placed after the printer has gone to sleep. You will get a confirmation message that Power saving has been applied. Click the Back Button to exit this menu.)
50. After completing the last steps, click the Back Button to return to your desktop. Proceed to Installation of DarkRoom Pro.
Installing DarkRoom Pro software on the System PC

The Frontier DX100 S should be set up following instructions found in General Information and Frontier S Printer Driver Operation Guide EN 1st edition.pdf.

To Install DarkRoom Pro on your host computer:
1. Insert the DarkRoom Pro installation disk into the DVD drive
2. If the Dvd does not automatically from the Windows Menu Select Run/Browse to the file location
3. From the Windows Start/Run Menu navigate to your installer and Select SetupDRPROxxxx.exe
4. Click OK to run the installer. The version number will be higher than shown below.

5. Click OK

6. The Install Shield Wizard will start
7. When the DarkRoom Professional installer starts, Click Next

8. Select the Radio button to “Accept the terms in the license agreement” and Click Next
9. Use the Default Settings shown, do not change and Click Next

10. Click Install
11. The progress of the installation will be shown as in the illustration below.

12. Click Finish

13. Remove the DVD from the drive, and reboot the system.
Setting up the DX100 printer(s) on the DarkRoom PC

1. Be sure that DX100 is connected to the computer USB, and properly registered to the Fujifilm DX100 Maintenance Menu. The printer should be up and running. Insert DarkRoom USB Dongle in Client PC. Double Click on DarkRoom Icon on your desktop. If you are setting up multiple printers, set up one printer at a time including Configuration of Various Settings.

2. Click on Start

3. DarkRoom software will launch.
4. In the lower Tabs of the DarkRoom UI Select the Setup Tab.

5. From the Set Up Tab Click on “Printer Options”

6. Click on “add printer”
7. Select the FUJIFILM DX100 (P-Module) and Select “Add Printer” (Note: Do Not Select FUJIFILM DX100 as this is an option for Windows Driver Only.)

8. The Printer Setup dialog box will appear with printer(s) found connected to the computer. Select the printer that you wish to install and Click “OK”.

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9. In the DarkRoom DX100 (P-Module) Set Up Dialog Box / Main Tab Check the box for “Enable Driver”. If the printer information Serial Number; Firmware Version; Paper Settings are not shown in the Status Box Click the Refresh Button.

10. In the DarkRoom DX100 (P-Module) Set Up Dialog Box / Roll Sizes Tab be sure that Paper Widths to be used in the printer are present. If a Roll width is not present you can add that width by using the New Button. You can also delete roll widths not planned for use in the printer if you will only be using one or two roll widths. By selecting the roll width that you will be using you can also specify what Print Sizes will be sent to that printer. High light the roll width you would like to Edit Print Sizes on and click the Edit Button.
11. Next be sure to select the proper paper surface has been selected in the

a. Media Type box (Red) and that

b. Desired Print Sizes appear in the Allowed Box (Orange).

c. If you would like to manually edit print sizes for this printer Un Check
   Automatically select sizes (Green) and Click the Edit Arrangements Button
   (Green).

d. Edit Print Sizes: When finished manually selecting desired print sizes click OK

   e. You may Apply Custom Color ICC Output Profiles in Roll Set Up at the Roll Level
      by checking the box Use Custom Profile and Using the Browse Button (Blue) to
      select the desired ICC Color ICC Output Profile. The alternate method of
      applying a generic profile is at the Machine Level. (See Appendix/Page 45 Step 10
      for Machine Level ICC Profile application.) **Do not apply profiles in both
      places.** Generic Profiles are installed during installation of the DX100 P-
      Module/Driver installation. **See Appendix for reliable set up for correct
      application of ICC profiles.**
12. When Finished Select the Main Tab and Click the OK Button to return to the DarkRoom Printer Set Up Options panel.

13. Once you have configured your first printer the Fujifilm Printer Information Screen will launch as shown below.

14. Use ALT/TAB to return focus to the DarkRoom Pro UI or Minimize the Printer Information Screen to continue setting up more printers or to move on to test printing from DarkRoom Pro. If you minimize the P-Module you can always return focus by clicking on the icon in your taskbar. If you use ALT/TAB you can return focus to the P-Module.
15. In this screen you see the printer you just finished adding and configuring for your system. You may add additional DX100 Printers connected and registered to the P-Module by repeating Steps 6-13.

16. Once finished adding Printers you may edit their settings by using the Configure Printer Button.
17. This will bring up the DX100 (P-Module) Dialog Box. To perform Printer Maintenance you can select the Maintenance Button.

19. To access the the P-Module Printer Information Screen Print Queue Click the Printer Queue Button.

Note: After “Adding Printer(s) to DarkRoom Pro/Add Printer function it is important to close DarkRoom Pro and allow the Fujifilm Printer Information Screen to close fully before you attempt to print. This allows DarkRoom Pro and P-Module to connect properly.

Note: After Re-launching DarkRoom Pro the Printer Information Screen will need to be moved, minimized, ALT/TAB’d each time to access the Start Button of DarkRoom Pro.

When jobs are being printed you can monitor progress of jobs. After selecting Print Queue the P-Module Printer Information Screen is shown. In the UI a user can also switch between Tabs A, B, C, and D to check Status of the Printers installed. The Print Queue Waiting for Printing and Processed shows Status of Print Jobs.
“Basic Functions of P-Module Quick Start:”

1. The Printer Information Screen is an application that allows the operator to see and manage all registered printers and one printing Queue for all those.

- The END and SETUP Buttons (Red) are Disabled in this application of P-Module for DarkRoom Pro.

2. A Printer Tab at the top right of the application allows identifies each registered printer. In the illustration to the right two printers are registered, Tab A shows Printer A (highlighted Red).

Orange highlighted area is divided into two Sections:
- **Paper Loaded Panel** shows Surface and Roll Width Loaded.
- **Printer Status Panel** shows Active Jobs in Queue: Waiting/In Printer/Processor

General Status/Feeder Status/Processor Status/ Tempature/Sorter.

3. Clicking on the Printer B Tab reveals, Orange highlighted area, same information as above for Printer B.
4. The central panel, highlighted in Green is the Printer Queue for all printers. The Upper portion shows Jobs Waiting in the Queue, the lower portion shows jobs Processed. Column Headers shown are for both Waiting For Print and Processed: Order Number; Status; Print Size/Name; Paper Width; Paper Length; Quantity; Prints Made; YYYY/MM/DD Time Received; Printer A, B, C, or D.

5. To place the Job Queue on Hold you can use the Next Order Pause Button (High Lighted Red) to “pause” print jobs that have not yet started printing. You may use the Stop Printing Button (High Lighted Green) to Stop Printing jobs that have not yet been started.

6. Click the Pause/Restart Button to Resume printing.
7. You may use the Stop Printing Button (High Lighted Green) to Stop Printing jobs that have not yet been started.

8. Once you confirm by Selecting OK that you would like to Stop Printing the order is removed from the Queue and all printing stops. It’s important to note that this will stop prints that have not started to process yet. It will stop a multi print job at the point where it was used.

9. Orders that have been Stopped will show up as Status: Cancelled in the Processed Orders panel.
10. You can use the Delete Order Button to Delete Orders to clean up your Processed Orders Queue.

11. You may also Delete Orders placed, by mistake, from the Waiting from Printing Queue that are set to the Status of Waiting.

12. You need to confirm with OK to Delete an Order.
13. Selecting the Maintenance Button allows the User to access the Fujfilm DX Printer Maintenance Program directly from the Printer Information Screen.

Refer to DX100 Printer Maintenance section of the DX100 Operator's Manual.
Setup and Use of DarkRoom Pro
Follow instructions provided on the DarkRoom Pro operation manual which can be found in the DarkRoom Pro Set Up Tab in the Left Hand Column under Help. There is also a Quick Start Guide and Support Contact Information.

For assistance with DarkRoom Pro Set Up, Training and Support please contact:  
http://www.darkroomsoftware.com/support
Appendix:

Operation Notes:

- Setting Sleep Mode in Fujifilm DX100 Maintenance Menu: When starting your system and printing your first job or after printers have gone into Sleep Mode it is normal to experience a delay of up to two minutes for printers to accept a new job. Once printers are in StandBy Mode, printing of orders will progress normally. For sporadic high volume production Printer Maintenance/Adjust Settings of Sleep Mode to Longest Sleep Time practical for your workflow. Setting longer intervals will mean increased energy consumption.
- DX100/DarkRoom/Printer daily operation: Turn Printers on first before launching Darkroom Pro.
- When Printing different Rolls Sizes already in DarkRoom Printer Queue/Orders/ New Orders with Roll Widths other than Roll Widths loaded: After Loading new Roll Width paper, use Printer Maintenance to register new roll of paper.

Color Management Preparation with Windows Drive, SDK P-Module and DarkRoom.

1. Even though you are working with Fujifilm P-Module it is important to disable color management policies in the Windows Driver. From Windows start Menu go to: Devices and Printers Right Click on the DX100

2. After Right Clicking scroll down to Printing Preferences to select.
3. In the Printing Preferences Main Dialog Box select the Radio Button next to No Color Management. This disables Color Management at the Windows Driver level.

5. Launch DarkRoom Pro go to the lower Settings Tab/Printer Options and select the Fujifilm DX100 (P-Module) Printer Set Up

6. From the list of enabled printers Double Click on the Printer you wish to set up.

7. Note that in the lower left portion of the Main Set Up Tab of the Printer Set up dialog box you have a Color Mode selection that you can make. “Auto”... The following panels 8 & 9 show different selections that can be made.
8. Note that in the lower left portion of the Main Set Up Tab dialog box you have a Color Mode selection that you can make... “InkJet Like” and...

9. Note that in the lower left portion of the Main Set Up Tab dialog box you have a Color Mode selection that you can make... “Silver Halide Like”.

The Color Mode settings are a matter of personal preference based on making test prints and changing your settings to match your color output preferences.

10. Navigate to the Color Tab of the Printer Set up dialog box.

In the lower portion of this dialog box there is a box to check for Use Custom Profile.
11. To Use Custom Profile, check that box and then click the Browse Button.
12. Select from the list the appropriate Standard Profile or a custom profile that you have created and installed in your Windows System.

13. Click OK once you have made the ICC Profile selection and you are ready to make your color test prints.

15. Repeat steps 6-13 to make changes to your ICC Profile for your printer.