

2.4 Printer Calibration

For Color critical customers, Imation recommends daily calibration and recalibration each time the printer is serviced.

Printer calibration can be performed internally by using the DocuColor 12™ built-in scanner or by using the Spectrostar™ Spectrocam™, an external measurement device, on the DocuColor 12™ LP. Both procedures are described in this section. If calibration is to be performed using the Spectrocam, please go through the following **Spectrocam™ Setup** instructions before beginning the calibration process.

If calibration is to be performed using the DocuColor 12 scanner, please skip to the section titled, **Calibration Procedure**.

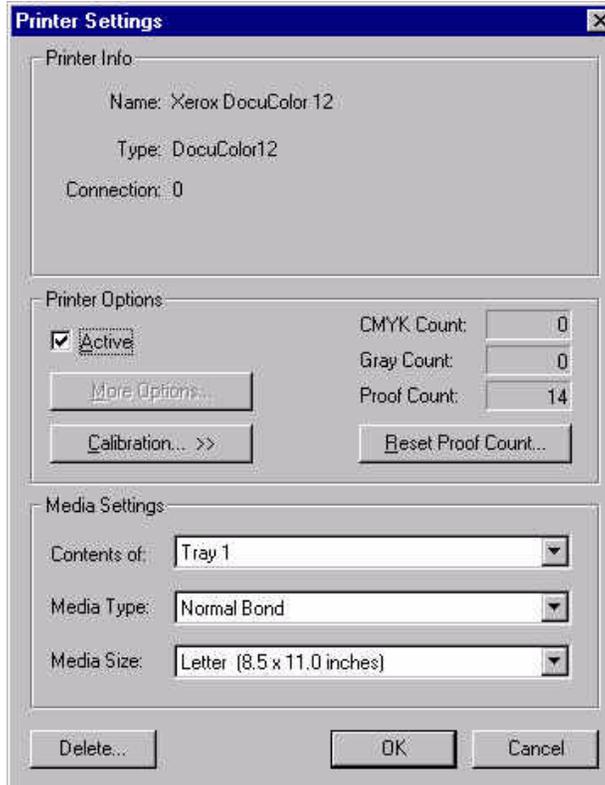
Spectrocam™ Setup

1. Shut down the computer.
2. Connect the Spectrocam™ to the COM 1 (or appropriate) serial port on the back of the **Imation Matchprint™ Professional Server**.
3. Plug the Spectrocam power connector into the AC adapter and then plug the AC adapter into a power outlet.
4. Power on the computer.
5. Launch the **Imation Matchprint™ Professional Server** software.

Note: Always disconnect the Spectrocam™ from the AC power supply before removing the Spectrocam™ from the Imation Matchprint Professional Server.

Calibration Procedure

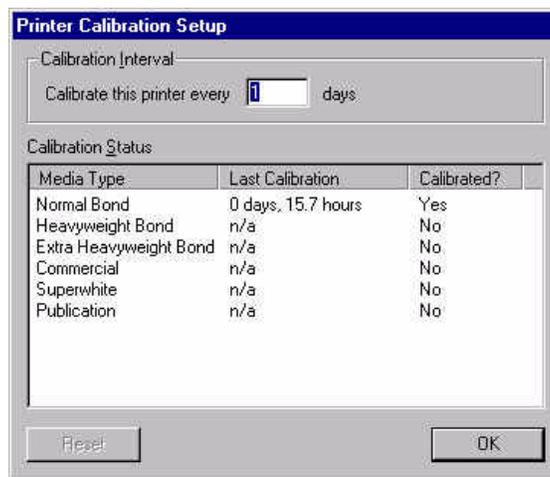
1. From the **Printer** menu, select **XeroxDocuColor 12** (or the name of the printer requiring calibration). The Printer Settings window displays.



2. Click on **Calibration** to display menu selections **Perform Printer Calibration** and **Printer Calibration Setup**.



3. Select **Printer Calibration Setup** to display the following setup screen:



4. Enter how often the printer requires calibration.

The **Last Calibration** column displays the time elapsed since a particular media has been calibrated. Uncalibrated medias display "n/a" in this column. If the time

elapsed is longer than the calibration interval, the "Calibrated?" column will say No.

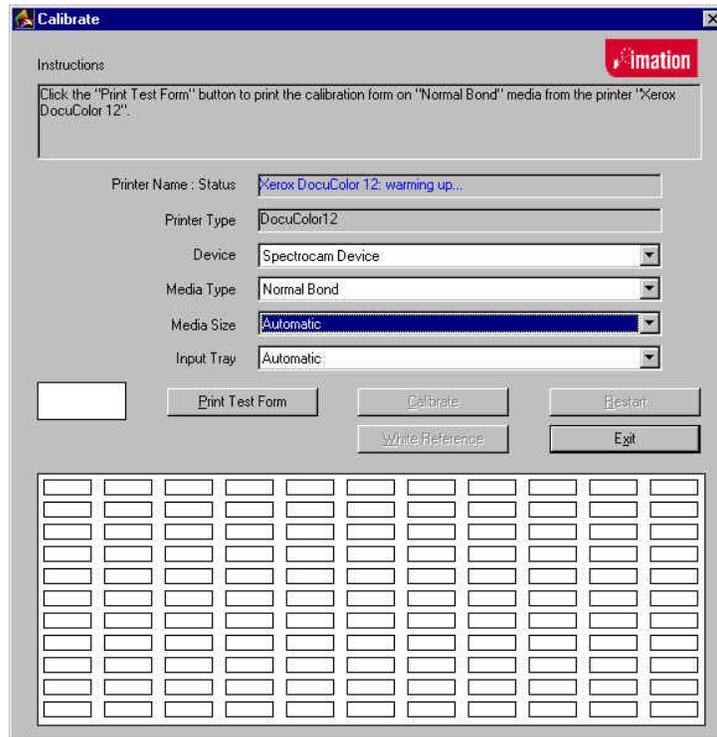
Notes:

- Selecting the **Reset** button, nullifies the most recent calibration and returns the selected media to its default setting.
- The "Calibrate this printer every ___ days" is specific to the printer only. The "Last Calibration" number indicates when the printer was last calibrated with specified media. For example, if the printer is set to be calibrated every 3 days, it may have been 6 days since it was last calibrated with commercial paper and 2 days since it was last calibrated with bond. However, regardless of the media type, the printer is set to be calibrated every 3 days.

5. Click **OK**.

6. From the **Calibration** menu, select **Perform Printer Calibration**. The following screen appears:

Note: All jobs in the queue are put on hold during calibration except the jobs currently printing.



7. From the **Device** drop-down list box, choose either the **DocuColor 12 Scanner** or the **Spectrocam Device**.

8. From the **Media Type** drop-down list box, select the media to be calibrated.

Note: Transparency media cannot be calibrated.

9. From the **Media Size** drop-down list box, select the media size on which to print the calibration form.
10. From the **Tray** drop-down list box, select the input tray containing the specified media.

The input tray can be specified if the user wants to calibrate the media contained in a specific tray of the DocuColor 12. An **Automatic** selection chooses the input tray if no input tray is specified. If ExtraHeavyweight or an Imation/Xerox co-branded media is selected, the input tray defaults to Manual Feed. In this case, the user is not able to change the input tray.

11. Click on **Print Test Form** button. A progress bar appears as the form prints:



12. When the form printing is complete:
 - Go to **Calibrating with the DocuColor12 Scanner** for scanner calibration.
 - Go to **Calibrating with the Spectrocam** for Spectrocam calibration.

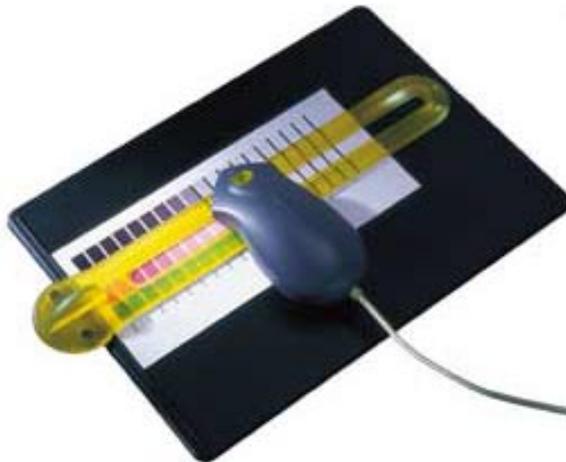
Calibrating with the DocuColor12 Scanner

1. Place the calibration form on the platen of the DocuColor 12 and click **Calibrate**.
2. If the calibration is successful, the screen display says, "The calibration process was successful. You may now calibrate another media."
3. Click **OK** to go back to the calibration window.

Note: If the calibration process fails, check to make sure the test page is properly positioned on the platen. The scanable area is 11"x 17". If the calibration test form is outside this area, calibration will fail.

Calibrating with the Spectrocam™

1. Place the test form and ruler on the black scanner plate and position the measurement device on the first patch on the upper, left corner.
2. Click on the **Calibrate** button.

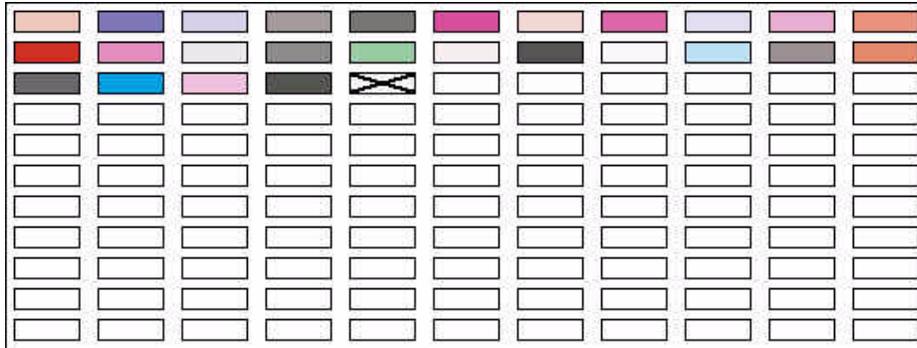


If the Spectrocam was not previously calibrated, a prompt directs you to calibrate the white reference. Place the measurement device on the white target reference and touch the green sensor to calibrate. After calibrating with the white reference, reposition the measurement device on the first patch on the upper, left corner of the test form.

3. Touch the green sensor and move the device slowly down the first row. When you complete the first row, reposition the Spectrocam over the first patch of the second row and touch the green sensor again to begin measuring the second row. Continue in this fashion until all rows are read.

Important Note on Calibrating the Spectrocam™: Every Spectrocam™ needs to be calibrated against its own unique White Reference Target (an absolute white point) before taking measurements. Take good care of your Reference Target. For additional information, please see the Spectrocam™ user documentation.

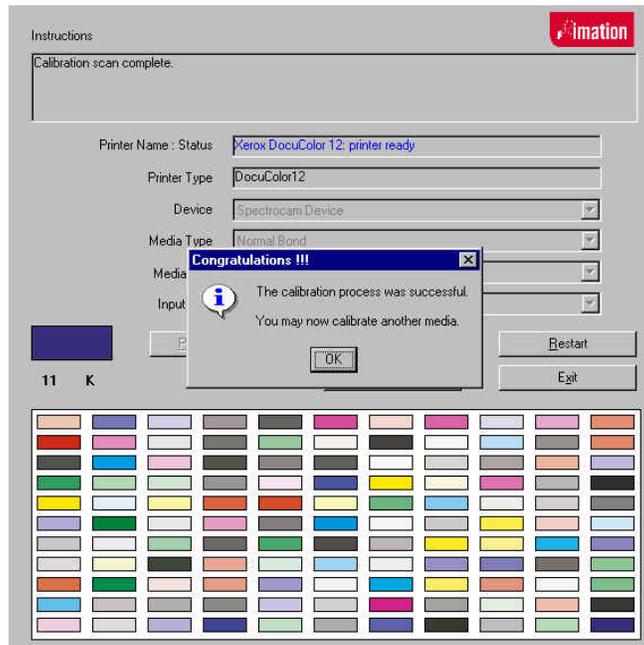
- Patches are read from left to right in a *slow, steady* manner. The color patches appear on the screen as they are measured. It should take approximately 6 to 8 seconds to completely scan one row.
- If you move too slowly or too rapidly, patches are not read correctly. Within the calibrate dialog an X appears on any patch that is miss-read. If this happens, reposition the device on the first patch of that row and touch the sensor to start the patch reading of that row again. The Instruction box at the top of the window will indicate any action you must take regarding measurement readings.



To read the last two rows, you will need to move the test form up so the Spectrocam rests on the black scanner plate.

Note: The system times out after 10 minutes of inactivity. Instructions appear directing the user to restart calibration.

If the calibration is successful, the following message appears: "The calibration process was successful. You may now calibrate another media."



4. Click on **OK** to return to the calibration window.

Spectrocam TIPS and Troubleshooting

Calibrating the Spectrocam

- Make sure the Spectrocam is calibrated with the white target reference that was shipped with your Spectrocam. The serial numbers on the bottom of the white target reference target and the Spectrocam must match. Setting the white reference to a different target can result in inaccurate printed color.
- When measuring the white target reference, be sure the device is seated correctly.

Scanning the Test Form

- Make sure the printed test form is properly aligned to the black scan plate. The Spectrocam must read the first patch directly in the center. If a white edge is detected, calibration will fail.
- Make sure the Spectrocam is securely seated in the guide ruler and not tipped while you read patches. Tipping or miss-aligning the Spectrocam while on the guide ruler will cause errors.
- The green sensor on the top of the Spectrocam responds to transitions from light to dark. The sensor must be activated to measure each row. Inadvertently covering the sensor can prematurely initiate the measurement sequence.
- Listen for the flashlamp before you move off the first patch. Sometimes there is a slight delay before it begins to measure.
- Reading patches too rapidly is a common error. Scanning one row should take about 6 to 8 seconds.