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## 5 Service Calibrations

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# Service Calibrations

The Printer has several calibration procedures that must be performed under certain conditions.

The following is a list of all internal service calibrations available in the Printers. [See page 141](#) for instructions on how to enter the service calibrations menu.



**NOTE:** REMEMBER THAT CERTAIN CALIBRATIONS ARE REQUIRED EVEN IF AN ASSEMBLY HAS BEEN DISASSEMBLED TO GAIN ACCESS TO ANOTHER ASSEMBLY OR COMPONENT.

1. Scan Axis Calibration ⇒ [See page 142](#)

The purpose of this Service Calibration is to carry out a PWM check, and calibrate the intensity of the Line Sensor.

2. Paper Advance Calibration ⇒ [See page 146](#)

The purpose of this Service Calibration is to calibrate the nominal advance of the media. This calibration is necessary to control the exact movement of the media in order to avoid print quality problems like banding.

3. Drop Detector Calibration ⇒ [See page 151](#)

The purpose of this Service Calibration is to calibrate the Drop Detector (located in the Service Station) in relation to the Carriage Assembly.

4. Line Sensor Calibration ⇒ [See page 152](#)

The purpose of this Service Calibration is to calibrate the intensity of the Line Sensor. An incorrect calibration can result in edge-detection failures during media loading and incorrect reading of prints that are used for alignment or calibration.

5. Vacuum Calibration ⇒ [See page 156](#)

The purpose of this Service Calibration is to set the default nominal and real values of the Vacuum Fan.

6. OMAS Calibration ⇒ [See page 156](#)

The purpose of this Service Calibration is to calibrate the Optical Media Advance Sensor.

7. Primer Calibration ⇒ [See page 162](#)

8. The purpose of this Service Calibration is to calibrate the Primer.

9. Platen Blue Line Calibration ⇒ [See page 166](#)

The purpose of this Service Calibration is to calibrate the blue line which is marked on the Print Platen.



**NOTE:** If ALL the Calibrations need to be performed (for example, when both the HDD and the ISS PCA have been replaced), you must perform them in the following order:

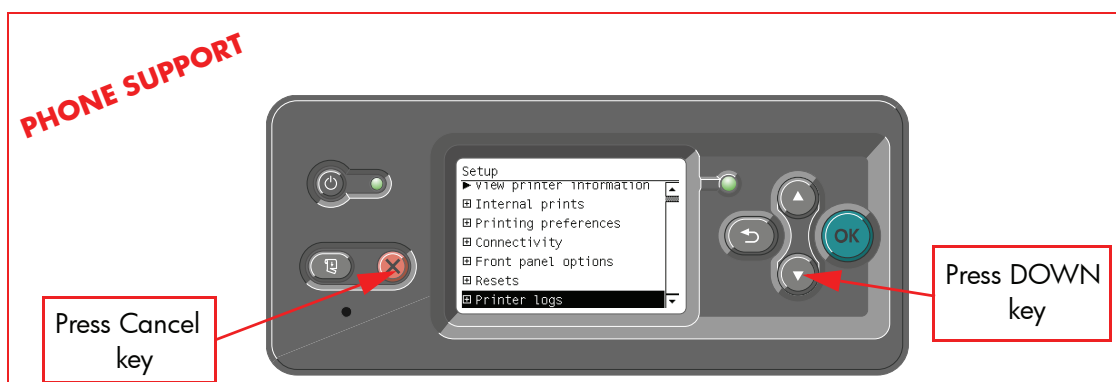
- Vacuum Calibration.
- Drop Detector/Service Station Calibration.
- Line Sensor/Scan Axis Calibration.
- Paper Advance Calibration.
- Platen Blue Line Calibration.

## Entering the Service Calibrations Menu

1. Once the message “Ready” is displayed on the front-panel, scroll to the “Printer Setup Options” icon and press the **Enter** key.



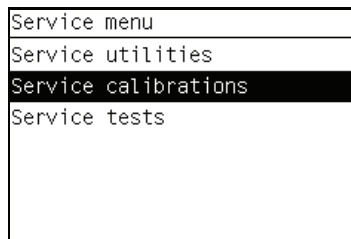
2. Once inside the “Printer Setup Menus” menu, press the **UP or Down** arrow key and the **Cancel** key together. You are now in the **Service Tools** Menu.



3. For On-Site Engineers, once inside the “Setup” menu, press the **Up** arrow key and the **Cancel** key together. You are now in the **Service Tools** Menu.



4. Use the **Arrow** keys to scroll to the “Service Calibrations” menu and press the **Enter** key.



5. Use the **Arrow** keys to scroll through the “Service Calibrations” selections and press the **Enter** key to begin a specific operation when the required Service Calibration is highlighted.



**NOTE:** If the printer is not used for 135 seconds, the printer exits out of the Service Calibrations Menu and you must repeat the above steps to enter Service Calibrations again.

## 1. Scan Axis Calibration

The purpose of this Service Calibration is to carry out a PWM check, calibrate the intensity of the Line Sensor and calibrate the Line Sensor position to the Black Printhead.

Perform the Scan Axis Calibration whenever:

- Carriage is disassembled or replaced.
- Encoder Strip is disassembled or replaced.
- Center Platen is disassembled or replaced.

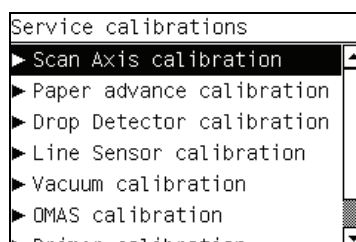
Perform the Scan Axis Calibration as follows:



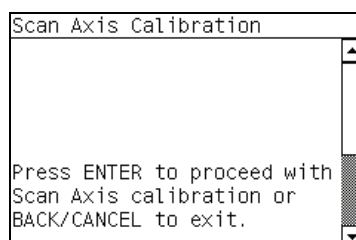
**NOTE:** Make sure you load one of the following media into the Printer before performing this calibration:

- HP Bond Paper.
- HP Glossy Media.
- HP Coated Paper.
- HP Productivity Photo Gloss.
- HP Heavyweight Coated Paper.
- HP Super Heavyweight Coated Paper.
- HP Bright White Inkjet Paper.

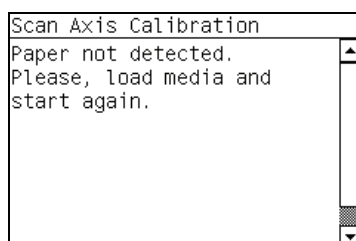
1. In the Service Calibrations submenu, scroll to “Scan Axis Calibration” and press **Enter**.



2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



3. If media is not loaded, the following message appears on the front panel. Load media in to the Printer and start again from **step 1**.



Before continuing, the Printer will check the following:

- The Media Lever is in the lowered position.
- The correct paper type is loaded (check list on previous page).
- The correct paper size (minimum paper size 24 inches).

If these conditions are **not** met, a warning will be displayed on the Front Panel and you will need to restart the Calibration from **step 1**.



**NOTE:** In order to perform this Calibration, you should order the Paper Advance Calibration Kit (Part Number Q1273-60125) which contains two sheets of HP Productivity Gloss Media.



**WARNING!:** Make sure you keep your hands away from the Print Platen as the Carriage will be moving at high speed and you could injure yourself or damage the Carriage Assembly.

4. The Printer will start to check the PWM. Once the PWM has been checked, the results will be displayed on the Front Panel. Press **Enter** to continue or press **Back** or **Cancel** to exit the calibration.

```
Scan Axis Calibration
PWM avg range: 0 to 90000
PWM avg got: 31722.2
PWM min diff limit: 2000
PWM min diff got: 15888

Press ENTER to accept or
CANCEL to reject values.
```

5. The Printer will start to calibrate the Line Sensor. Once the Line Sensor has been calibrated, the results will be displayed on the Front Panel. Press Enter to continue or press **Back** or **Cancel** to exit the calibration.

```
Scan Axis Calibration
(VBLACK-VWHITE) RANGE
B: 831 Min range: 700
R: 857 Min range: 700
O: 851 Min range: 700
G: 817 Min range: 700

Press ENTER to accept or
CANCEL to reject values.
```

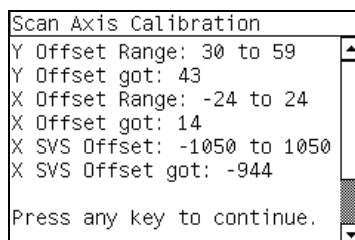
If the values are not within the range specified, an error will appear on the Front Panel. In this case, try the following:

- Try the Scan-Axis Calibration again.
- Replace the Line Sensor ⇒ [See page 372](#).

6. The Printer will start to calibrate the Line Sensor position to the Black Printhead. It will print a line of black dots and then scan them:

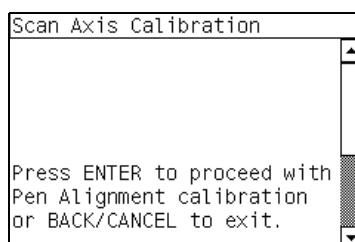


7. Once the Line Sensor has been calibrated, the results will be displayed on the Front Panel. Press **Enter** to finish the calibration or press **Back** or **Cancel** to exit the calibration.



```
Scan Axis Calibration
Y Offset Range: 30 to 59
Y Offset got: 43
X Offset Range: -24 to 24
X Offset got: 14
X SWS Offset: -1050 to 1050
X SWS Offset got: -944
Press any key to continue.
```

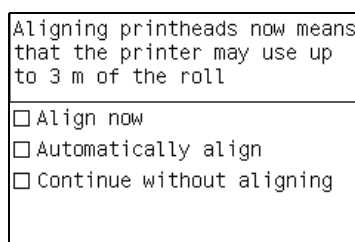
8. The Printer will now perform the Printhead Alignment. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



```
Scan Axis Calibration

Press ENTER to proceed with
Pen Alignment calibration
or BACK/CANCEL to exit.
```

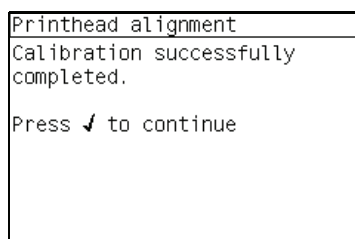
9. Before continuing with the Printhead Alignment, the following message will be displayed on the Front Panel. To continue with the Printhead Alignment, select "Align now" and press the **Enter** key.



```
Aligning printheads now means
that the printer may use up
to 3 m of the roll

☐ Align now
☐ Automatically align
☐ Continue without aligning
```

10. Once the Printhead Alignment is completed, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.



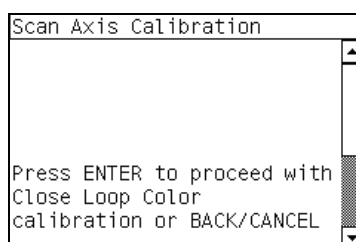
```
Printhead alignment
Calibration successfully
completed.

Press ✓ to continue
```

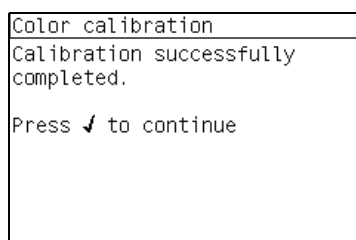
If the Printhead Alignment fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

- Enter the Front Panel menu and retry the Printhead Alignment. If the Alignment completes successfully, then perform the Color Calibration.
- If the Alignment fails again, check the Alignment pattern to see if any of the Print-heads are printing incorrectly. If necessary, perform a Printhead Recovery through the Front Panel and retry the Printhead Alignment.

11. The Printer will now perform the Color Calibration. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



12. Once the Color Calibration is completed, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.



All CLC profiles are deleted so you will need to perform Color Calibration again for every new media that is loaded in to the Printer.

If the Color Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

- Enter the Front Panel menu and retry the Color calibration.
- If the Calibration fails again, check the Calibration pattern to see if any of the Print-heads are printing incorrectly. If necessary, perform a Printhead Recovery through the Front Panel and retry the Calibration.

13. Once the complete Scan Axis calibration is completed successfully, OK will be displayed on the Front Panel.

## 2. Paper Advance Calibration

The purpose of this Service Calibration is to calibrate the nominal advance of the media. This calibration is necessary to control the exact movement of the media in order to avoid print quality problems like banding.



**NOTE:** In order to perform this Calibration, you should order the Paper Advance Calibration Kit (Part Number Q1273-60296) which contains two cut sheets of HP Universal Instant-dry Gloss Photo media (36-inches wide by 42-inches long).

Perform the Service Accuracy Calibration whenever:

- Banding is detected in prints.
- Drive Roller is disassembled or replaced.
- Paper-axis Assembly is disassembled or replaced.

The Paper Advance Calibration is split into three parts and should **always** be done in this order:

- Print Calibration Pattern - The Printer first calibrates the Analog Encoder and then prints the Paper Advance Calibration pattern.



- Scan Calibration Pattern - The Printer scans the Paper Advance Calibration pattern in order to calibrate the nominal advance of the media.



**NOTE:** Only scan the Calibration Pattern in the Printer that was used to actually print it. Using the Calibration in a different Printer could cause it to experience media advance problems. After scanning the Calibration Pattern, it should be discarded.

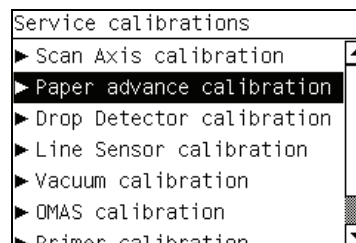
- Clean Drive Roller - After loading media that the customer will use, the Printer “prepares” the media path to prevent any future advance problems.

Perform the Paper Advance Calibration as follows:

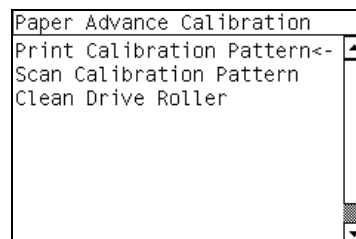


**NOTE:** Make sure that you unload media from the Printer before performing the Paper Advance Calibration.

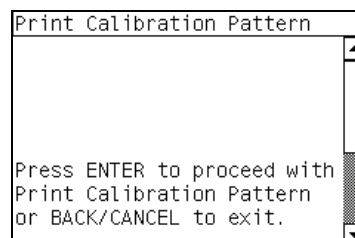
1. In the Service Calibrations submenu, scroll to “Paper Advance Calibration” and press **Enter**.



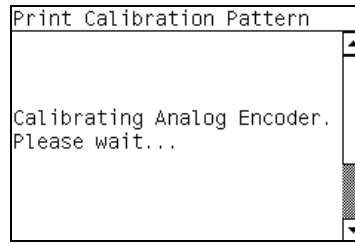
2. In the Paper Advance Calibration submenu, scroll to “Print Calibration Pattern” and press **Enter**.



3. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.

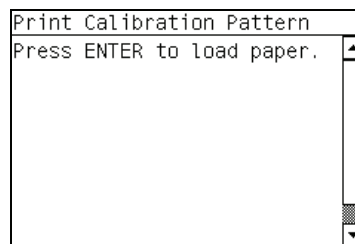


4. The Printer will start to calibrate the Analog Encoder and the following message will be displayed on the Front Panel.

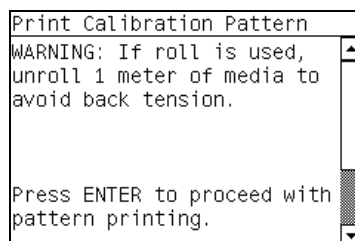


If the Calibration is not done or if the values are out of the limits, a warning message will appear on the Front Panel. In this case, try the following:

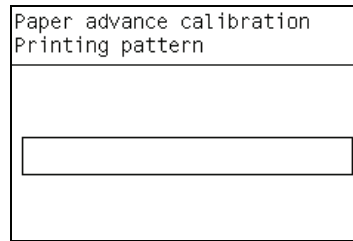
- Check that the Printer has the latest Firmware version. If not, update the Firmware to the latest version.
  - Retry the Paper Advance Calibration.
  - If the problem continues, replace the Encoder Strip and Encoder Sensor ⇒ [See page 315](#).
5. Once the Analog Encoder has been calibrated correctly, the following message will appear on the Front Panel. Press the **Enter** key in order to start the media load process.



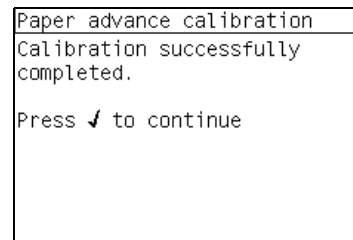
6. Load a sheet of HP Universal Instant-dry Gloss Photo media (product number Q6575A) that was included in the Paper Advance Calibration Kit (Part Number Q1273-60296) following the instructions on the Front Panel. If the kit is not available, then cut a piece of HP Universal Instant-dry Gloss Photo media that is 36-inches wide and at least 42-inches long.
7. Once the media is loaded into the Printer, the following message will appear on the Front Panel. If roll media has been used instead of cut sheet media, then you will need to unroll a minimum of 1 meter of media in order to prevent any back tension which could cause any media advance problems. Press the **Enter** key to continue.



8. The Printer will start to print the Paper Advance Calibration Pattern. This could take several minutes during which the following message will be displayed on the Front Panel.



9. Once the Accuracy Calibration Pattern has been printed successfully, the following message will be displayed on the Front panel. Press the **Enter** key to continue.



If the Paper Advance Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

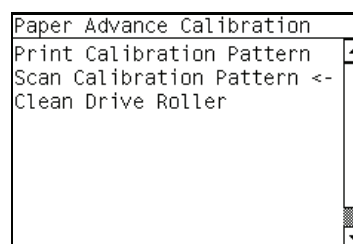
- Retry the Paper Advance Calibration.
- If necessary, perform a Printhead Recovery through the Front Panel and retry the Calibration.



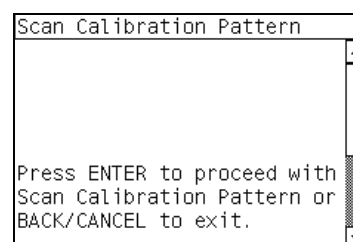
**NOTE:** Remove the pattern from the printer and leave it to dry for a few minutes before continuing with the Calibration.

**NOTE:** MAKE SURE NO MEDIA IS LOADED INTO THE PRINTER BEFORE STARTING TO SCAN THE CALIBRATION PATTERN.

10. You will need to re-enter the Paper Advance Calibration submenu and scroll to "Scan Calibration Pattern" and press **Enter**.



11. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



12. A message will appear advising you that you will need to load the Calibration Pattern in to the Printer. Make sure that you rotate the printed pattern 90° clockwise and reload it printed-side down, so that the black arrows go into the printer first. Press the **Enter** key to continue.



**NOTE:** Take note that the Calibration Pattern will be loaded as a Roll and NOT as a Sheet.

```
Scan Calibration Pattern
Press ENTER to proceed with
the load of the printed
pattern cut sheet as roll
for scanning. Rotate the
sheet 90 degrees clockwise
and press ENTER to proceed.
```



**NOTE:** Only scan the Calibration Pattern in the Printer that was used to actually print it. Using the Calibration in a different Printer could cause it to experience media advance problems. After scanning the Calibration Pattern, it should be discarded.

**NOTE:** When Loading the Calibration Pattern, use the Cutter blade on the Print Platen to align the edge of the sheet. If you follow this advise, you will prevent the cutter from cutting a section of the Calibration Pattern, which could cause the Calibration to fail.

13. Load the Calibration Pattern following the instructions on the Front Panel. Once the Calibration Pattern is loaded correctly, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.

```
Scan Calibration Pattern
Press ENTER to proceed with
pattern scanning.
```

14. The Printer will scan the Calibration Pattern which could take several minutes. Once the calibration is completed successfully, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.

```
Paper advance calibration
Calibration successfully
completed.
Press ✓ to continue
```

If the Paper Advance Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

- Check that the Calibration Pattern was not incorrectly cut (trimming the actual pattern) during the media load process. If this is the case, perform the Paper Advance Calibration again from **step 1**.

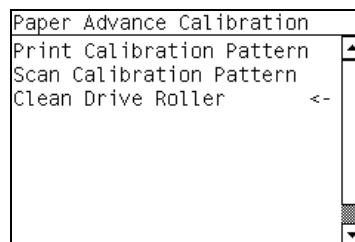
- Perform a Line Sensor Calibration (⇒ [See page 152](#)) and then re-scan the Calibration pattern.
- Replace the Line Sensor ⇒ [See page 372](#).
- If the problem continues, replace the Media-Axis Motor ⇒ [See page 333](#).



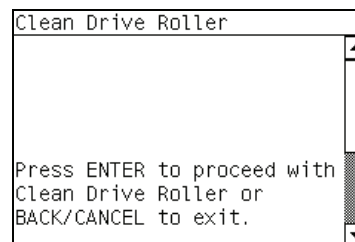
**NOTE:** After the Paper Advance Calibration has been performed correctly, you **MUST** perform the Clean Drive Roller procedure. If this is **NOT** done, the Printer will not perform correctly and could cause Print Quality problems.

**NOTE:** Before starting the Clean Drive Roller procedure, make sure you first load media into the Printer that the customer will normally use to print.

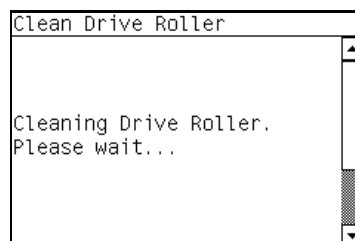
15. You will need to re-enter the Paper Advance Calibration submenu and scroll to “Clean Drive Roller” and press **Enter**.



16. When the following message appears on the front panel, you must select whether you would like to continue with the cleaning of the Drive Roller by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



17. The Printer will begin the Drive Roller Cleaning procedure. This could take several minutes during which the following message will be displayed on the Front Panel.



### 3. Drop Detector Calibration

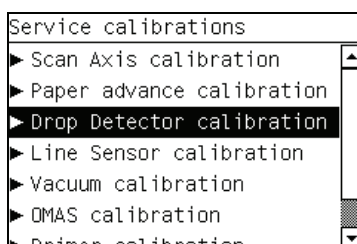
The purpose of this Service Calibration is to calibrate the Drop Detector (located in the Service Station) in relation to the Carriage Assembly.

Perform the Drop Detector Calibration whenever:

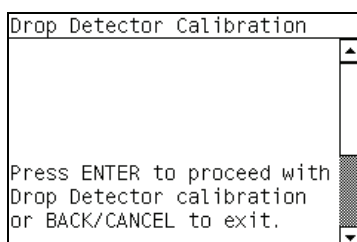
- Drop Detector is disassembled or replaced.

Perform the Drop Detector Calibration as follows:

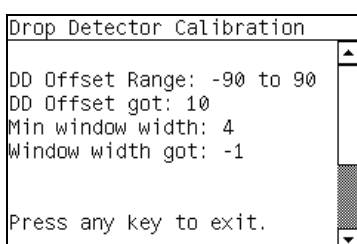
1. In the Service Calibrations submenu, scroll to “Drop Detector Calibration” and press **Enter**.



2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



3. The Printer will start to calibrate the Drop Detector. Once the Drop Detector has been calibrated, the results will be displayed on the Front Panel. Press any key on the Front Panel to finish the calibration.



4. Once the calibration is completed, OK will be displayed on the Front Panel.

## 4. Line Sensor Calibration

The purpose of this Service Calibration is to calibrate the intensity of the line sensor in the Carriage PCA. An incorrect calibration can result in edge-detection failures during media loading and incorrect reading of prints that are used for alignment or calibration.

Perform the Line Sensor Calibration whenever:

- Edge detect procedure fails during media loading.
- Carriage is disassembled or replaced.
- Line Sensor is disassembled or replaced.
- Banding is detected in prints.
- Misalignment between colors is detected.

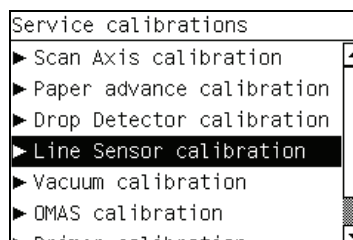
Perform the Line Sensor Calibration as follows:



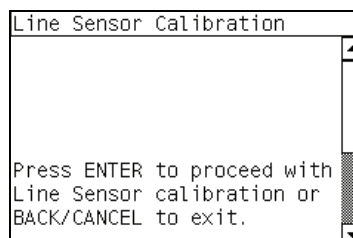
**NOTE:** Make sure you load one of the following media into the Printer before performing this calibration:

- HP Bond Paper.
- HP Glossy Media.
- HP Coated Paper.
- HP Productivity Photo Gloss.
- HP Heavyweight Coated Paper.
- HP Super Heavyweight Coated Paper.
- HP Bright White Inkjet Paper.

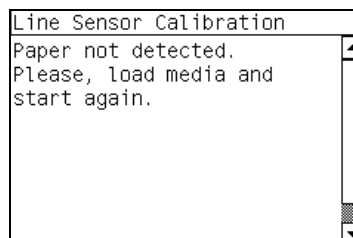
1. In the Service Calibrations submenu, scroll to “Line Sensor Calibration” and press **Enter**.



2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



3. If media is not loaded, the following message appears on the front panel. Load media in to the Printer and start again from **step 1**.



Before continuing, the Printer will check the following:

- The Media Lever is in the lowered position.
- The correct paper type is loaded (check list on previous page).
- The correct paper size (minimum paper size 24 inches).

If these conditions are **not** met, a warning will be displayed on the Front Panel and you will need to restart the Calibration from **step 1**.



**NOTE:** Make sure you keep your hands away from the Print Platen as the Carriage will be moving at high speed and you could injure yourself or damage the Carriage Assembly.

4. The Printer will start to calibrate the Line Sensor. Once the Line Sensor has been calibrated, the results will be displayed on the Front Panel. Press Enter to continue or press **Back** or **Cancel** to exit the calibration.

Line Sensor Calibration		
(VBLACK-VWHITE)		RANGE
B:	864	750-950
R:	839	750-950
O:	868	750-950
G:	857	750-950
Press ENTER to continue or BACK/CANCEL to exit.		

If the values are not within the range specified, an error will appear on the Front Panel. In this case, try the following:

- Try the Scan-Axis Calibration again.
- Replace the Line Sensor ⇒ [See page 372](#).

5. The Printer will start to calibrate the Line Sensor position to the Black Printhead. It will print a line of black dots and then scan them:



6. Once the Line Sensor has been calibrated, the results will be displayed on the Front Panel. Press **Enter** to finish the calibration or press **Back** or **Cancel** to exit the calibration.

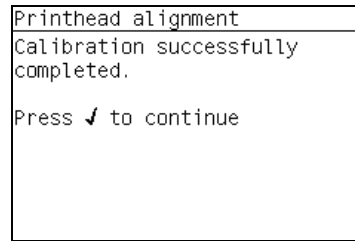
Line Sensor Calibration	
Y Offset Range: 30 to 59	
Y Offset got: 43	
X Offset Range: -24 to 24	
X Offset got: 14	
X SVS Offset: -1050 to 1050	
X SVS Offset got: -944	
Press any key to exit.	

7. The Printer will now perform the Printhead Alignment. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.

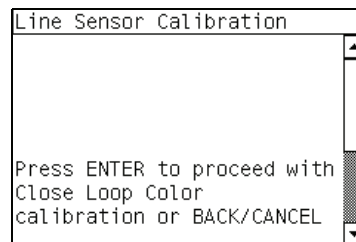
Line Sensor Calibration	
Press ENTER to proceed with Pen Alignment calibration or BACK/CANCEL to exit.	



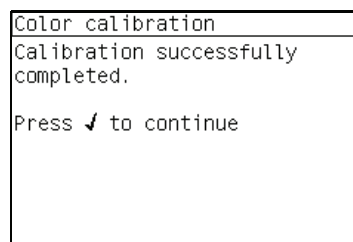
8. Once the Printhead Alignment is completed, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.



- If the Printhead Alignment fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:
  - Enter the Front Panel menu and retry the Printhead Alignment. If the Alignment completes successfully, then perform the Color Calibration.
  - If the Alignment fails again, check the Alignment pattern to see if any of the Print-heads are printing incorrectly. If necessary, perform a Printhead Recovery through the Front Panel and retry the Printhead Alignment.
9. The Printer will now perform the Color Calibration. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



10. Once the Color Calibration is completed, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.



All CLC profiles are deleted so you will need to perform Color Calibration again for every new media that is loaded in to the Printer.

- If the Color Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:
- Enter the Front Panel menu and retry the Color calibration.
  - If the Calibration fails again, check the Calibration pattern to see if any of the Print-heads are printing incorrectly. If necessary, perform a Printhead Recovery through the Front Panel and retry the Calibration.
11. Once the complete Line Sensor calibration is completed successfully, OK will be displayed on the Front Panel.

## 5. Vacuum Calibration

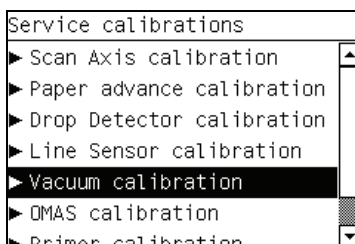
The purpose of this Service Calibration is to set the default nominal and real values of the Vacuum Fan Assembly.



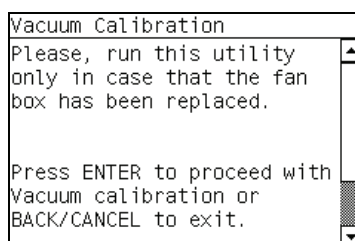
**NOTE:** This Service Calibration should ONLY be performed when the Vacuum Fan Assembly has been replaced.

Perform the Vacuum Calibration as follows:

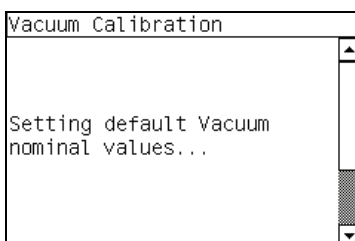
1. In the Service Calibrations submenu, scroll to “Vacuum Calibration” and press **Enter**.



2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



3. The Printer will set the default nominal and real values of the Vacuum Fan.



4. Once the calibration is completed, OK will be displayed on the Front Panel.

## 6. OMAS Calibration

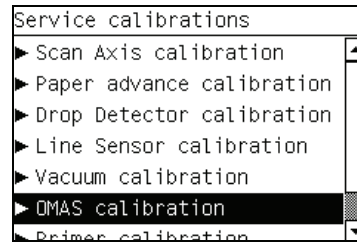
The purpose of this Service Calibration is to calibrate the OMAS Module. The calibration process consists of printing a special calibration plot and then scanning it with the printer. The scanned result values are compared with the actual printed values to obtain a PASS/FAIL result.

Perform the OMAS Module Calibration as follows:



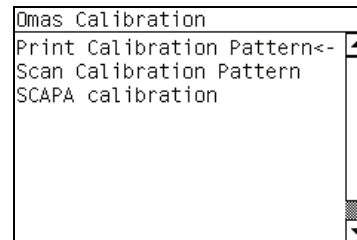
**NOTE:** In order to perform this Calibration, you should order the Paper Advance Calibration Kit (Part Number Q1273-60296) which contains two cut sheets of HP Universal Instant-dry Gloss Photo media (36-inches wide by 42-inches long).

- In the Service Calibrations submenu, scroll to “OMAS Calibration” and press **Enter**.

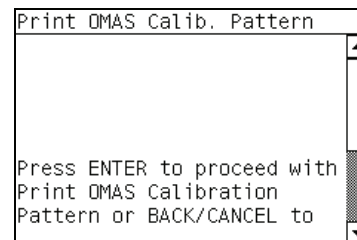


### Print OMAS Calibration Pattern

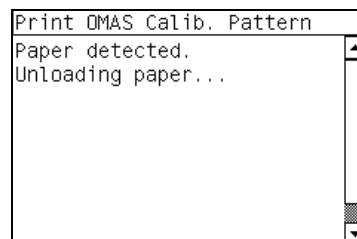
1. In the OMAS Calibration submenu, scroll to “Print Calibration Pattern” and press **Enter**.



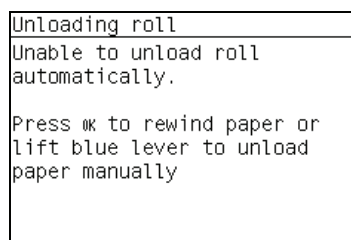
2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



3. If media is already loaded, the following message appears on the front panel and the media is unloaded.



4. If the media cannot be unloaded automatically, the Front Panel will show the following message.

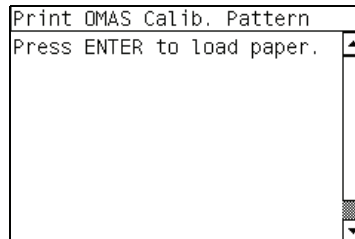


5. Follow the instructions and unload the media.

6. The Front Panel prompts you to load media.

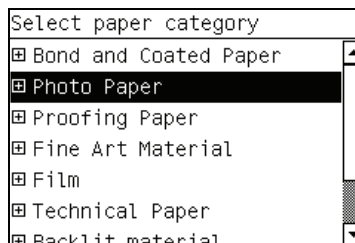


**NOTE:** During this calibration process you have to load the media with the Carriage positioned in the print path.

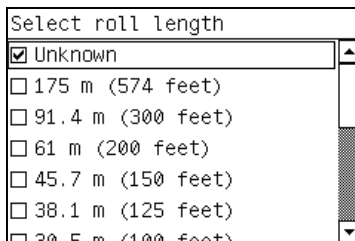


- Raise the Media Lever.
- Load the media.
- Lower the medial lever.

7. Select the media (HP Universal ID gloss).



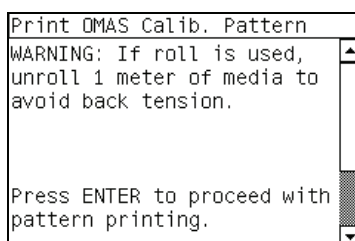
8. Select the media length.



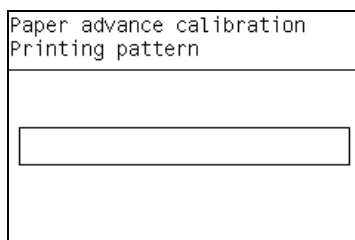
9. The media calibration process starts and front panel shows the following messages:

- Calibrating paper advance.
- Trimming roll edge. Please wait.

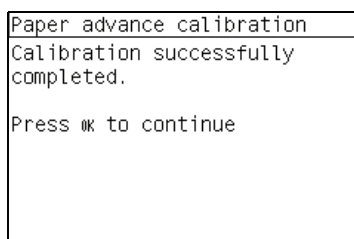
10. The Front Panel then prompt you to unroll 1 meter of media to avoid back tension. Unroll 1 meter of media and press **Enter**.



11. The Printer will start to print the OMAS Calibration Pattern. This could take several minutes during which the following message will be displayed on the Front Panel.



12. Once the OMAS Calibration Pattern has been printed successfully, the following message will be displayed on the Front panel. Press the **Enter** key to continue.



If the OMAS Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

- Retry the Paper Advance Calibration.

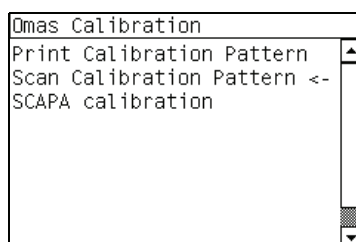


**NOTE:** Remove the pattern from the printer and leave it to dry for a few minutes before continuing with the Calibration.

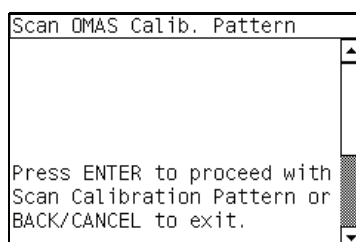
**NOTE:** MAKE SURE NO MEDIA IS LOADED INTO THE PRINTER BEFORE STARTING TO SCAN THE OMAS CALIBRATION PATTERN.

### Scan OMAS Calibration Pattern

1. You will need to re-enter the OMAS Calibration submenu and scroll to "Scan Calibration Pattern" and press **Enter**.



2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



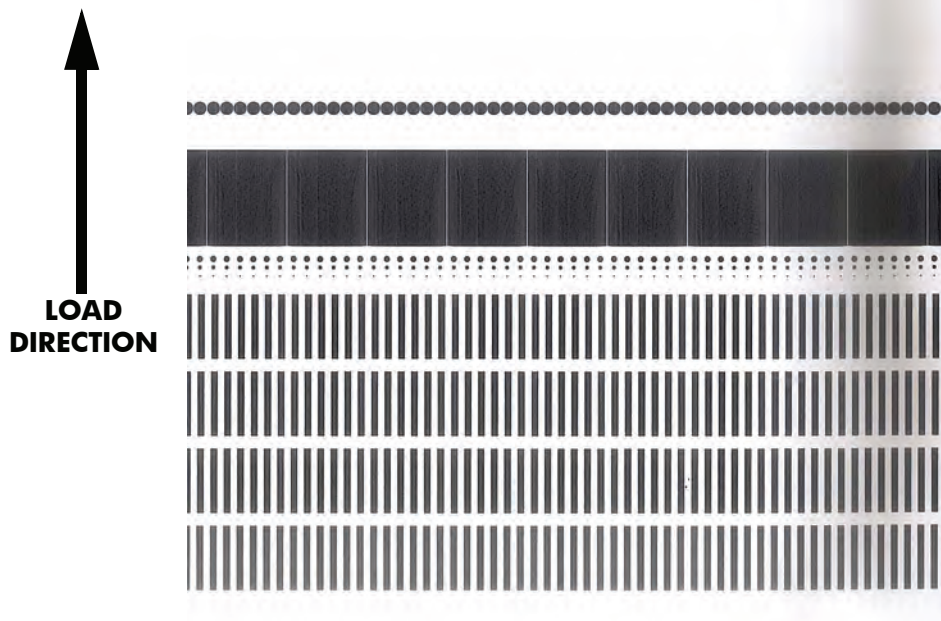
3. A message will appear advising you that you will need to load the OMAS Calibration Pattern in to the Printer. Make sure that you rotate the printed pattern 90° clockwise and reload it printed-side down. Press the **Enter** key to continue.



**NOTE:** Take note that the OMAS Calibration Pattern will be loaded as a Roll and NOT as a Sheet.

```
Scan Calibration Pattern
Press ENTER to proceed with
the load of the printed
pattern cut sheet as roll
for scanning. Rotate the
sheet 90 degrees clockwise
and press ENTER to proceed.
```

4. Load the OMAS Calibration Pattern following the instructions on the Front Panel.



5. Once the OMAS Calibration Pattern is loaded correctly, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.

```
Scan Calibration Pattern
Press ENTER to proceed with
pattern scanning.
```

6. The Printer will scan the OMAS Calibration Pattern which could take several minutes. Once the calibration is completed successfully, the following message will be displayed on the Front Panel. Press the **Enter** key to continue.

```
Paper advance calibration
Calibration successfully
completed.

Press ✓ to continue
```

If the OMAS Calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

- Check that the OMAS Calibration Pattern was not incorrectly cut (trimming the actual pattern) during the media load process. If this is the case, perform the OMAS Calibration again from **step 1**.
- Replace the OMAS Sensor ⇒ [See page 335](#).
- Replace the OMAS Controller Card ⇒ [See page 346](#).
- If the problem continues, replace the Media-Axis Motor ⇒ [See page 333](#).

## SCAPA Calibration

The purpose of this calibration is to calibrate the Scan Axis Pen Alignment (SCAPA) compensation/adjustment factor.



**NOTE:** For this calibration process you will need to have media loaded in the Printer.

1. You will need to re-enter the OMAS Calibration submenu and scroll to “Scan Calibration Pattern” and press **Enter**.

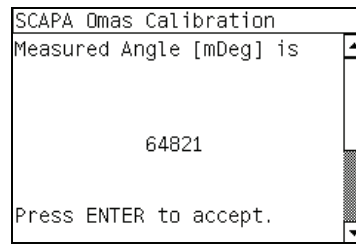
```
Omas Calibration
Print Calibration Pattern
Scan Calibration Pattern
SCAPA calibration <-
```

2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.

```
SCAPA Omas Calibration

Press ENTER to proceed with
SCAPA Omas calibration or
BACK/CANCEL to exit.
```

3. The calibration process will execute and the front panel will display the result in mDeg.



4. Press Enter to accept the result.

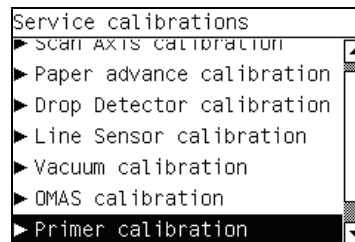
## 7. Primer Calibration

The purpose of this Service Calibration compute the offset error between the optimum position of the Primer Assembly with respect to the Carriage.

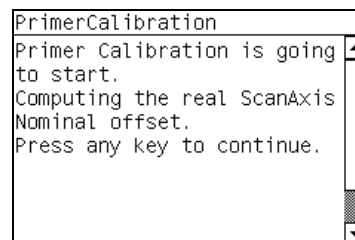
The calibration is a visual procedure so you will have to remove the Right Hand cover before starting.

Perform the Primer Assembly as follows:

1. Remove the Right Cover ⇒ [See page 248](#)).
2. Block the Maintenance Cartridge door switch in the closed position.
3. In the Service Calibrations submenu, scroll to "Primer Calibration" and press **Enter**.



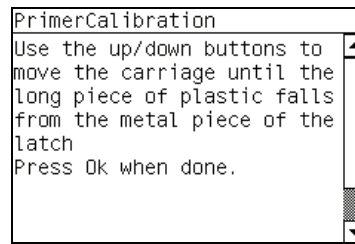
4. When the following message appears on the front panel, you must press any key to continue.



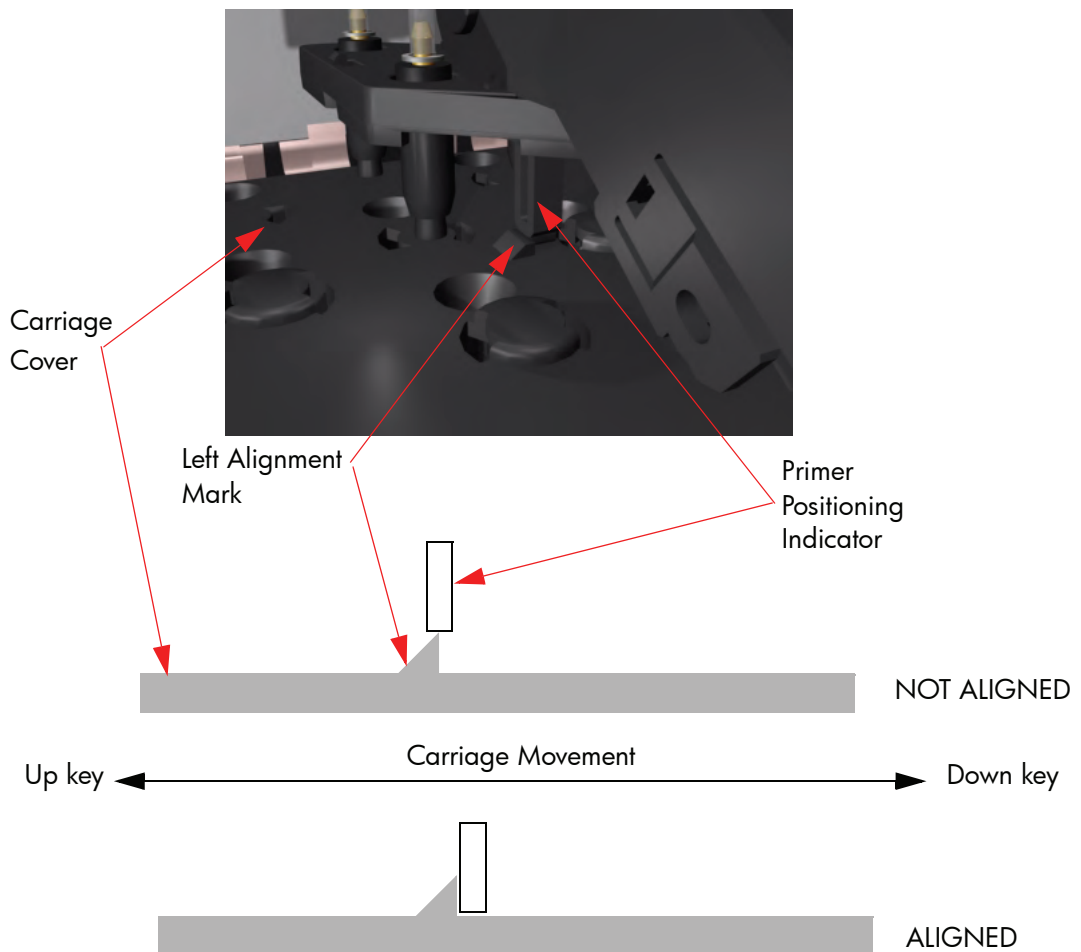
5. The calibration process starts and front panel shows the following messages:
  - Homing Primer.
  - Uncapping SVS.
  - Homing Carriage.
  - Computing the Left Scan-Axis Offset.



6. Once the Left Scan-Axis Offset has been calculated the Front Panel prompts you use the **Up/Down** keys to move the carriage until the RIGHT edge of the Left Alignment Mark on the Carriage Cover is perfectly aligned with the Primer positioning indicator.

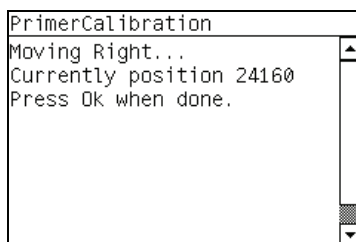


7. Use the **Up** (move left) and **Down** (move right) keys to move the Carriage until the RIGHT edge of the Left Alignment Mark is correctly aligned with the Primer Positioning Indicator and press **ENTER**.

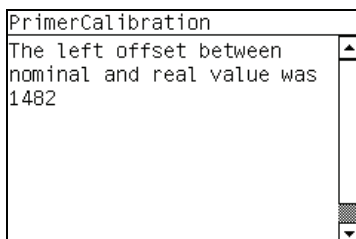


**NOTE:** To more easily detect the exact position while aligning the Carriage to the Primer it is a good idea to lightly press down on the Primer while you are moving the Carriage.

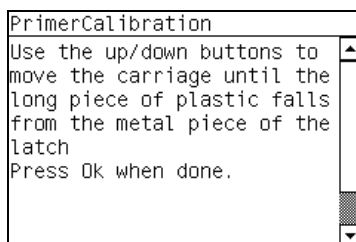
While the Carriage is moving the Front Panel shows the actual position and the direction of movement and prompts you to press **ENTER** when done.



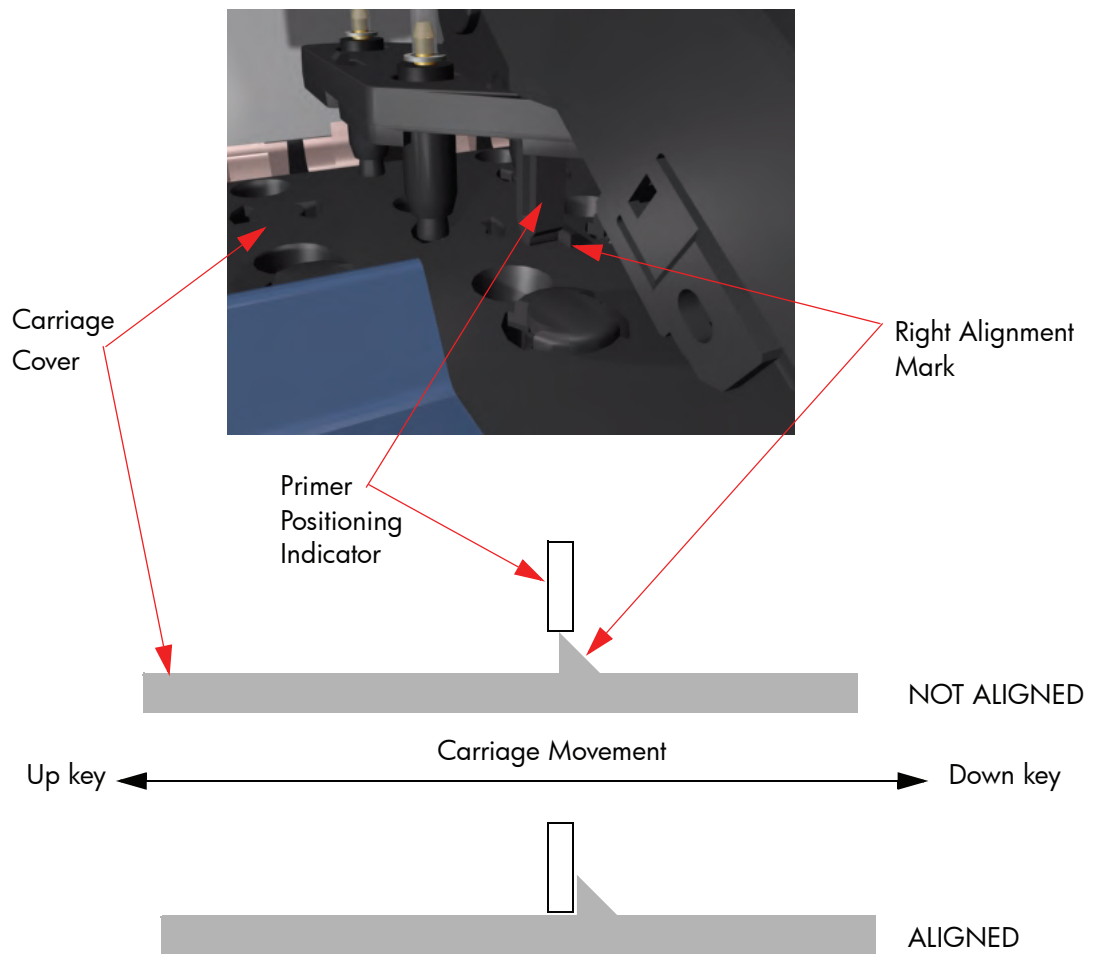
8. The Front Panel shows the actual left offset value and the system calculates the Fight Scan-Axis Offset.



9. Once the Right Scan-Axis Offset has been calculated the Front Panel prompts you use the **Up/Down** keys to move the carriage until the **LEFT** edge of the Right Alignment Mark is correctly aligned with the Primer Positioning Indicator and press **ENTER**.

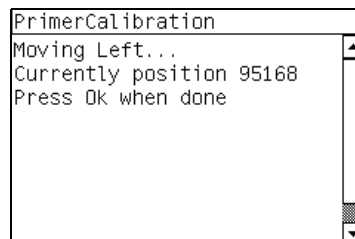


10. Use the **Up** and **Down** keys to move the Carriage until the LEFT edge of the Right Alignment Mark is correctly aligned with the Primer Positioning Indicator and press **ENTER**.

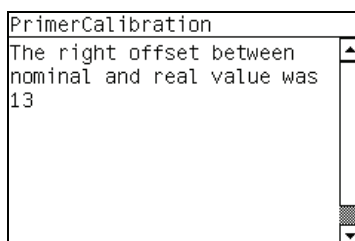


**NOTE:** To more easily detect the exact position while aligning the Carriage to the Primer it is a good idea to lightly press down on the Primer while you are moving the Carriage.

While the Carriage is moving the Front Panel shows the actual position and the direction of movement and prompts you to press **ENTER** when done.



11. The Front Panel shows the actual right offset value.



12. The calibration process continues and front panel shows the following messages as the new nominal offset value is read and saved to NVM:

- Reading Nominal Offset.
- New Nominal Offset is [ActualValue].
- Saving to nvm.
- Saved.

13. Once the calibration is completed, OK will be displayed on the Front Panel.

14. Replace the Right Hand Cover ([See page 248](#)).

## 8. Platen Blue Line Calibration

The purpose of this Service Calibration is to calibrate the blue line which is marked on the Print Platen.



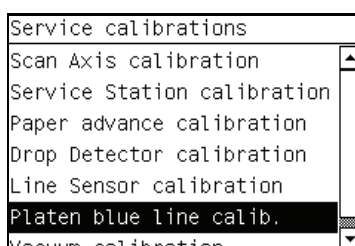
**NOTE:** Make sure you unload media before performing this calibration.

Perform the Platen Blue Line Calibration whenever:

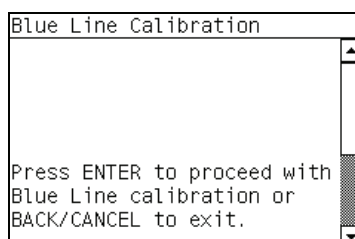
- Center Platen is disassembled or replaced.

Perform the Platen Blue Line Calibration as follows:

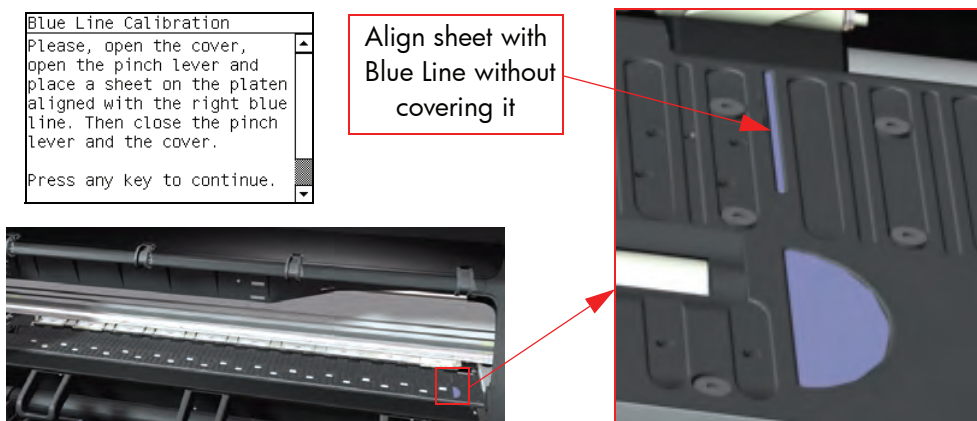
1. In the Service Calibrations submenu, scroll to "Platen blue line calib." and press **Enter**.



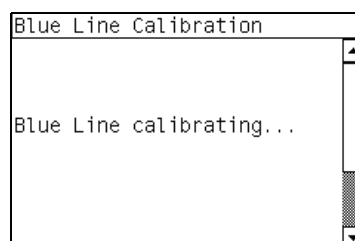
2. When the following message appears on the front panel, you must select whether you would like to continue with the calibration by pressing the **Enter** key. Press **Back** or **Cancel** to exit the calibration.



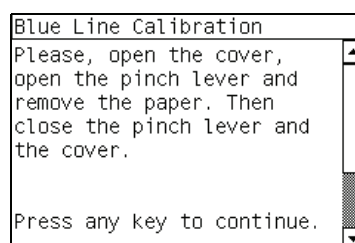
3. A message will appear on the Front Panel requesting you to raise the Media Lever and to place a sheet of white media on the Print Platen aligned with the Blue Line. Press the **Enter** key to continue once the sheet is in placed.



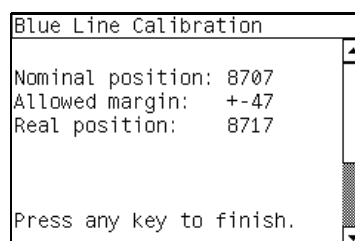
4. The Printer will start to calibrate the Blue Line and the following message will be displayed on the Front Panel.



5. Once the Blue Line has been calibrated, the following message will be displayed on the Front Panel. Open the Window and remove the sheet of media that you had placed on the Print Platen. Press any key on the Front Panel to continue once the sheet of media has been removed.



6. The results of the calibration will be displayed on the Front Panel. Press any key on the Front Panel to finish the calibration.



7. Once the calibration is completed, OK will be displayed on the Front Panel.

