NanoDrop Ultra Spectrophotometers and Fluorometers

Intensity check

Materials needed

- Lint-free laboratory wipes

Pedestal intensity check procedure

1. From the home screen, select the **Diagnostics** icon ✂, followed by **Intensity Check**.

2. Ensure that **Pedestal** is selected from the dropdown at the top of the screen.

3. Lift the instrument arm and clean the upper and lower pedestal with a new laboratory wipe.

4. If **Auto-Measure** feature is OFF 🚶, select **Measure** to begin the measurement. If **Auto-Measure** feature is ON 🏃, the measurement will begin automatically after the arm is lowered.

5. After the sample has been measured the overall result of the Intensity Check will be displayed on screen. Below is an example of what would be seen after a passing test. Select **OK** or **Close** to see a more detailed summary of the results.
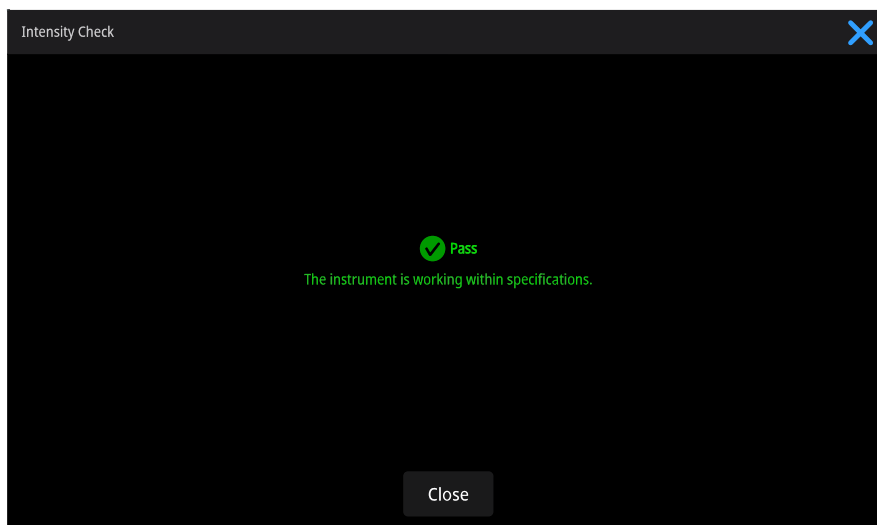
6. Select **End Experiment** when done.

7. The experiment name can be changed at this time and up to five unique identifiers/tags can be added, once complete, select **Next**.

8. Results can be exported and printed at this time by selecting **Continue** or at a later time from the History.

   – After exporting or printing, select **OK** to go back to the Diagnostics screen.

9. If results do not need to be exported or printed, select **Finish** to return to the Diagnostics screen.

10. To review results from a previous Intensity Check, select the **History** icon 📄 from the home screen and locate the Intensity Check results from the list of experiments.

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Cuvette intensity check procedure

1. From the home screen, select the **Diagnostics** icon 🔧, followed by **Intensity Check**.

2. Ensure that **Cuvette** is selected from the dropdown at the top of the screen and that the cuvette holder is empty. The dropdown menu must be closed for the change to take effect.

3. Select **Measure** to begin the measurement.

4. After the sample has been measured the overall result of the Intensity Check will be displayed on screen. Select **OK** or **Close** to see a more detailed summary of the results.

5. Select **End Experiment** when done.

6. The experiment name can be changed at this time and up to five unique identifiers/tags can be added, once complete, select **Next**.

7. Results can be exported and printed at this time by selecting **Continue** or at a later time from the History.

   – After exporting or printing, select **OK** to go back to the Diagnostics screen.

8. If results do not need to be exported or printed, select **Finish** to return to the Diagnostics screen.

9. To review results from a previous Intensity Check, select the **History** icon 📋 from the home screen and locate the Intensity Check results from the list of experiments.

Interpreting the results

1. The results will be displayed as purple (UV) and orange (Visible) spectra with a horizontal green line indicating the Bias.

2. When using the local control software, a green check mark will be seen adjacent to the "UV", "Visible", and "Bias" notations if they are within specification. If they are not in specification, an orange exclamation mark will display.

   – Select any green check mark or orange exclamation mark to prompt additional insight on the result.

   – If an orange exclamation mark appears next to the Bias indicator, make sure the room is within the temperature specifications for the instrument.

   – When using the NanoDrop Ultra PC control software, the status column in the results table will display "Pass" or "Fail" for each criterion and the details column beside it will display any applicable details.

3. A green "Pass" icon will appear at the top of the screen if the UV intensity, Visible intensity, Bias, and Maximum single offset are all within specification.

4. A red "Fail" icon will appear at the top of the screen if one or more of the criteria mentioned above are not in specification. If any parameter has failed, clean the pedestals with deionized water and then repeat the Intensity Check.

5. When using the local control software, slide your finger to the left across the screen or press the right bubble ⬤⬤ at the bottom of the screen to display a second screen showing more detailed information including: integration times, detector bias, Xe monitored peaks, and wavelength accuracy.