

# NanoDrop Lite Quick Reference Guide

The NanoDrop™ Lite comes with preloaded software and can be used as a standalone instrument or with the optional printer. This document is intended to provide basic instructions for using the NanoDrop Lite without the optional printer.

## Installation

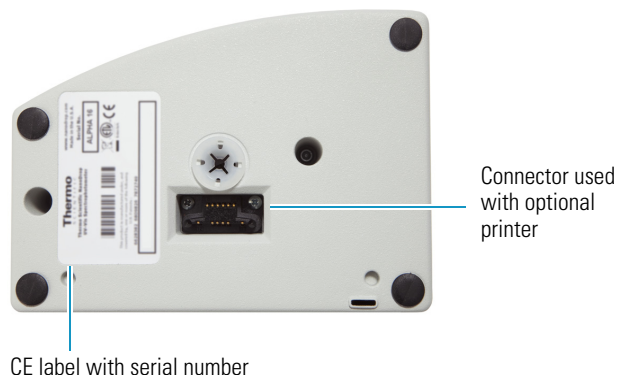
**Figure 1.** Back view



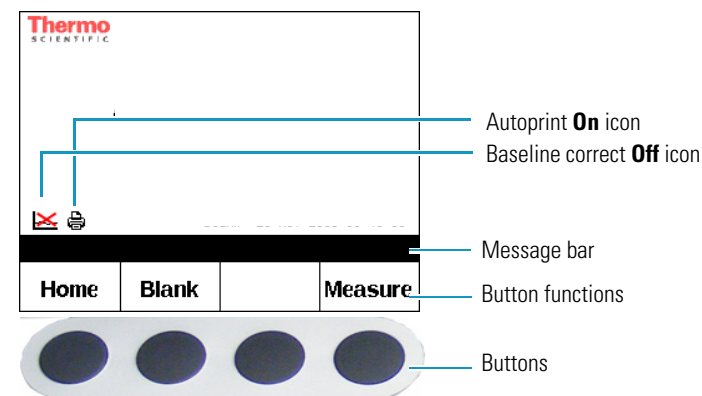
**Figure 2.** Left side view



**Figure 3.** Bottom view



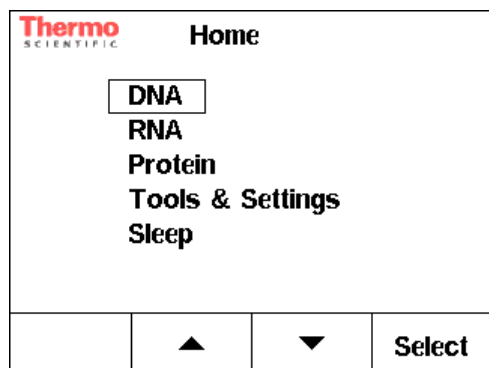
**Figure 4.** Basic screen features



Key or button	Function
	<ul style="list-style-type: none"> <li>When pressed, initiates a specific function as displayed above each button</li> <li>Functions will change depending on the screen</li> </ul>
	<ul style="list-style-type: none"> <li>Arrow keys that control the direction of the cursor</li> </ul>
Select	<ul style="list-style-type: none"> <li>Accepts entered or selected values</li> <li>Advances to the next parameter or screen</li> </ul>
Home	<ul style="list-style-type: none"> <li>Returns to the main menu</li> </ul>
Blank	<ul style="list-style-type: none"> <li>Initiates blank measurement</li> </ul>
Measure	<ul style="list-style-type: none"> <li>Initiates sample measurement</li> </ul>
Change	<ul style="list-style-type: none"> <li>Allows you to change settings</li> </ul>
Back	<ul style="list-style-type: none"> <li>Returns to previous screen</li> </ul>

## Menu Selection

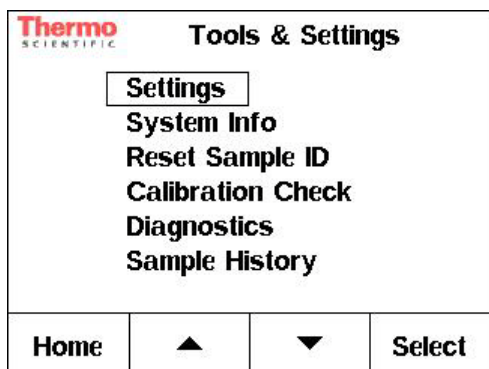
Figure 5. Home screen



DNA	
dsDNA	factor = 50
ssDNA	factor = 33
RNA	
RNA	factor = 40
Protein	
Protein (1A/cm = 1 mg/ml)	Default general reference setting
Protein (IgG)	E1%=13.7
Protein (BSA)	E1%=6.7

Tools & Settings	Function
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Figure 6. Tools & Settings screen



Settings	
Autoprint: On/Off	<ul style="list-style-type: none"> <li>• <b>Off</b> is the default state.</li> <li>• When <b>Autoprint On</b> is selected, and the NanoDrop Lite is docked onto the printer, a label will print automatically every time a measurement is made.</li> <li>• Labels will not be printed automatically if <b>Autoprint Off</b> is selected.</li> </ul>

Tools & Settings	Function
Baseline correct: On/Off	<ul style="list-style-type: none"> <li>• <b>On</b> is the default state.</li> <li>• It is best to keep <b>Baseline correct</b> setting <b>On</b>.</li> <li>• If you turn <b>Baseline correct Off</b>, the instrument no longer uses the 365 nm correction.</li> </ul>
Date & Time	<ul style="list-style-type: none"> <li>• Set at the factory for Eastern Standard Time, USA.</li> <li>• Upon instrument installation, ensure the time and date is set for the local time zone.</li> </ul>
System Info	
Product	• NanoDrop Lite
Serial Number	• Instrument identification.
Firmware Version	• Version number of firmware currently installed.
Calibration Date	• Date shown is the last date the calibration was checked on the NanoDrop Lite.
Reset Sample ID	
Reset Sample ID? Yes/No	• When <b>Yes</b> is selected, the instrument will reset sample ID number back to #1.
Calibration Check	
	<ul style="list-style-type: none"> <li>• Verifies that the pathlengths are within tolerance.</li> <li>• It is recommended that a pedestal calibration check be performed every six months to verify that the instrument is performing within specifications.</li> </ul>
New Cal. Check	<ul style="list-style-type: none"> <li>• Follow on-screen directions to perform new calibration check using the CF-1 Calibration Check solution.</li> <li>• See <i>NanoDrop Lite Calibration Check Procedure</i> for more details.</li> </ul>
View Previous Cal. Check	• Displays data from last calibration check.
Diagnostics	
	<ul style="list-style-type: none"> <li>• Follow on-screen directions. Test checks the LED output and ensures that arm sensor and pedestals are operating correctly.</li> <li>• Results will be Pass/Fail.</li> </ul>
Sample History	
	<ul style="list-style-type: none"> <li>• Displays previous measurements</li> <li>• Print option available.</li> <li>• The instrument memory holds data for 500 samples. Sample data #501 overrides sample data #1.</li> </ul>

Sleep	Function
	<ul style="list-style-type: none"> <li>When <b>Sleep</b> is selected, the instrument enters a low-power state.</li> <li>The screen will go black and the blue LED below the keypad will pulse.</li> <li>To wake the instrument, push any button or raise the arm.</li> </ul>

## Measurement Basics



1. Raise the arm and pipette the sample onto the lower pedestal.
2. Lower the arm and initiate a measurement.

The sample column is automatically drawn between the upper and lower pedestals and the measurement is made. The formation of the liquid column during measurement may be viewed through the aperture on the side of the NanoDrop Lite arm.

3. When the measurement is complete, raise the arm and wipe the sample from both the upper and lower pedestals using a dry, lint-free laboratory wipe.

**Tip** Simple wiping with a dry laboratory wipe is sufficient to prevent sample carryover in subsequent measurements.

## Taking Measurements

### Blanking the Instrument

1. Select the assay type from the **Home** screen.
2. Establish a blank by pipetting 1-2  $\mu\text{l}$  of the blanking buffer onto the bottom pedestal, lower arm and press **Blank**.
3. When measurement is complete, raise the arm and wipe buffer from both upper and lower pedestals using a dry laboratory wipe.
4. Confirm blank measurement by pipetting a fresh aliquot of blanking buffer onto the bottom pedestal, lower the arm and press **Blank**.
5. When measurement is complete, raise the arm and wipe buffer from both the upper and lower pedestals using a dry laboratory wipe.

## Measuring a Sample

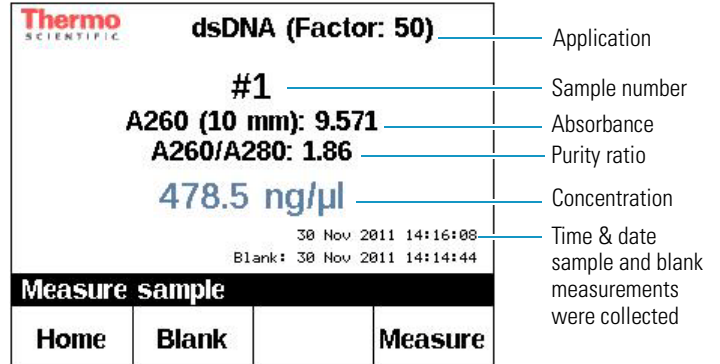
Pipette 1-2  $\mu\text{l}$  of sample onto lower pedestal and press **Measure**.

**Note** A fresh aliquot of sample should be used for each measurement.

Although it is not necessary to blank between each sample, it is recommended that a new blank be taken every 30 minutes when measuring many samples.

**Note** When measuring more than one sample, be sure to wipe the upper and lower pedestal before loading the next sample.

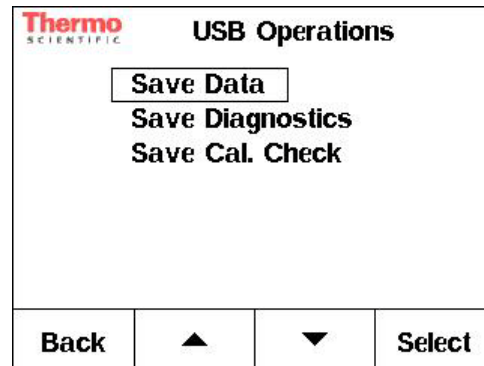
Figure 7. Sample measurement screen



## Transferring Data From Instrument to Computer

These options appear when a USB device is inserted.

Figure 8. USB Operations



USB Operations	Function
Save Data	Saves all data currently in instrument's memory to USB memory device.
Save Diagnostics	Appends diagnostic data to sample measurements and saves to USB memory device.
Save Cal. Check	Saves the last calibration check data to USB memory device.

The sample data is automatically saved on the instrument. To transfer data from the instrument to USB memory device, insert the device and then from the **USB Operations** menu select **Save Data**. This file can be transferred to a computer and opened in Microsoft Excel®. The **Save Data** will only appear when a USB device is inserted.

**NOTICE** A maximum of 500 samples will be saved in the instrument and are available to be transferred to a USB memory device at any time. Sample #501 will replace sample #1.

## Cleaning the Pedestals

The primary maintenance for the NanoDrop Lite is to keep the pedestal surfaces clean.

1. Pipette 3  $\mu$ l of deionized water ( $dH_2O$ ) onto the bottom pedestal.

Do not use a squirt bottle to apply  $dH_2O$  or any other liquid to the surface of the instrument.

2. Lower the arm to form a liquid column; let it sit for approximately 2-3 minutes.
3. Wipe away the water from both the upper and lower pedestals with a dry, lint-free lab wipe.

**Between measurements:** Wipe the sample from both the upper and lower pedestals with a clean, dry, lint-free lab wipe, to prevent sample carryover and avoid residue buildup.

**Between users:** A final cleaning of both measurement surfaces with  $dH_2O$  is recommended after the last sample measurement.

See the *Pedestal Cleaning and Reconditioning* guide for more details.

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