



VeriLink[®]_x

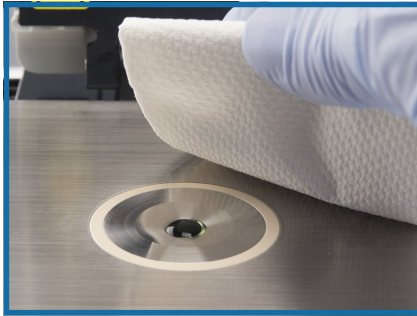
TPN AND DRUG DIVERSION SYSTEM

Validation of System (Basic Test each Day)



1.) Clean Prism

Clean prism three times with distilled water, dry lint free towel or Kimwipe between rinses



2.) Zero

Place USP sterile water on prism (**BLUE STATUS BAR** indicates proper amount of sample loading).

Monday, 06/26/2023 15:47:03

Smart Measure™

Please remove sample and clean prism.

Sample Quality : Good

Method: Reference Refractive Index

Live Reading	1.333005	Sample Temp	20.00°C
Set Temp	20.00°C		

Methods: Measurement, Reference, Refract Index 20 Smart Disp, More...

Buttons: Start, Zero, Menu, Data, Validation, Performance, Readings

Press Zero Button

2b.) Zero Zero with USP water before Validation. ****Note the RI of USP water is 1.332987.**
****Clean the prism if the zero is abnormally offset ca. +/- 0.000010, as there may have been residual salts on the prism**

Air Zero will calibrate the SmartMeasure™ system and cleanliness detection.

Water Zero will Calibrate the measurement system on water.

Please do not substitute a front screen ZERO for one done as part of a Reference or Measurement. Front Screen zeroes are not captured in the Measurement or Reference Report.

Do you want to calibrate on:

Buttons: Air, Water, Cancel

Choose Water

Place pure water on sample dish.

Expected RI: 1.332987

Zero Point Temperature: 20.00

Calculation From: Use ICUMSA

Live Reading Previous: 1.332986

Buttons: Cancel, Continue, Change

Choose Continue

Active Value: 1.332987

New Zero: 1.332987

Buttons: Cancel, Save

3.) Daily Calibration Validation

Smart Measure™

Please load sample.

Sample Quality : Poor

Method: Measurement Refractive Index

Live Reading		Sample Temp	20.00°C
Set Temp	20.00°C		

Buttons: Start, Zero, Menu, Data, Validation, Performance, Readings

Choose Validation

Live Reading : 1.332989 Current Temp : 20.00°C

Validation : Validation

Scale : RI Set Temp : 20.00 °C

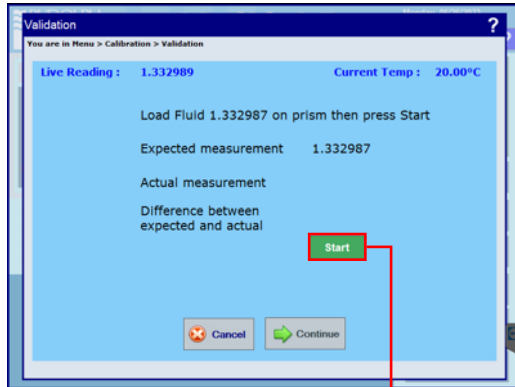
Fluid : 1.332987 Fluid ID : Water

Buttons: Cancel, Continue

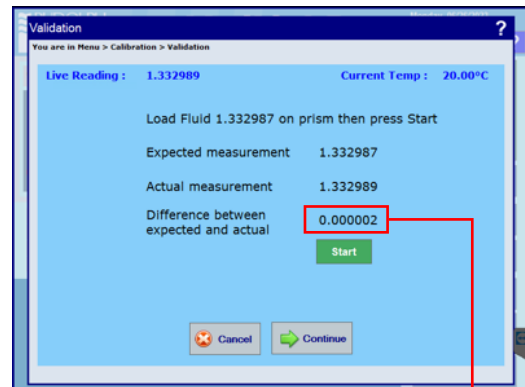
Load Water onto clean prism.

VeriLink[®]_X Validation of System (Basic Test each Day)

TPN AND DRUG DIVERSION SYSTEM

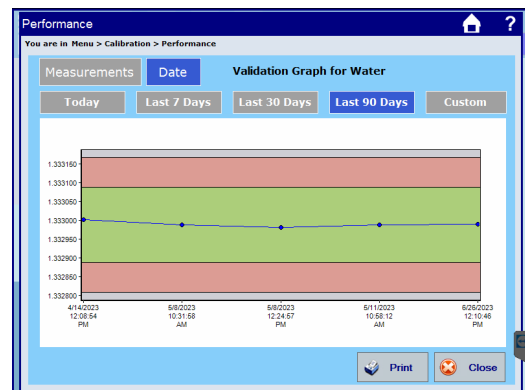
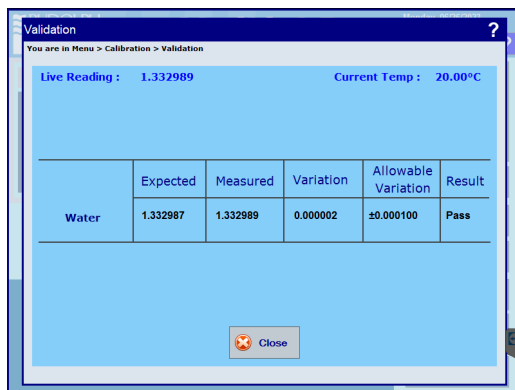


Press Start



Observe difference between Expected and Actual (Must be less than 0.00001)

Validation Pass and Performance (Choose Performance > Choose Historical Graph)



If validation fails, clean the prism with water and alcohol wipes.

1.) Add test sample

Place sample on prism

2.) Highlight Measurement Method Push Start.

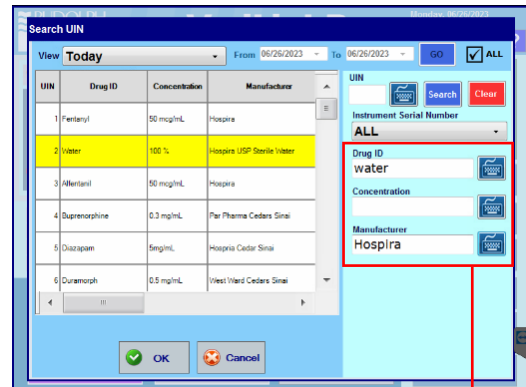
List of sample types appears.

Choose the sample type and concentration.

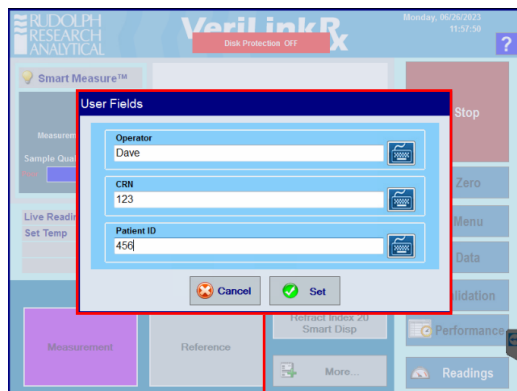


Highlight Measurement

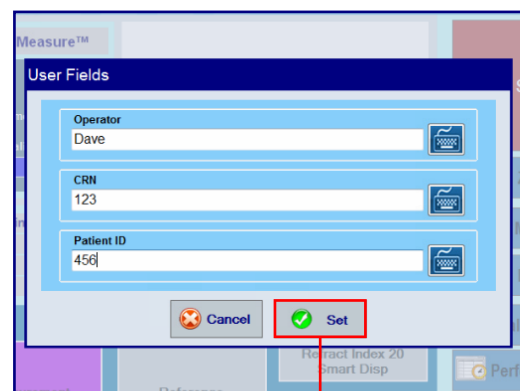
Press Start



Type in Drug ID, Concentration, and Manufacturer of tested sample.



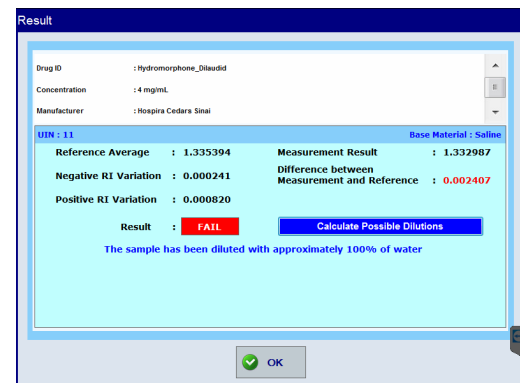
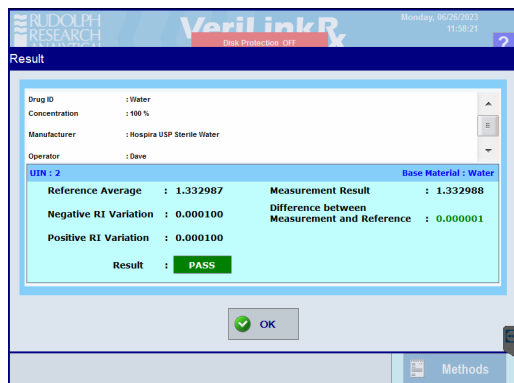
Type in Tester's name, ID, Patient ID, or any other identifiers.



Push Set. Wait for results screen to appear. (Measurement delay dependent on sample being tested—10 to 60 seconds)

Sample Pass Screen

Sample Fail Screen



1.) Clean Prism

Clean prism three times with distilled water, wipe thoroughly with Alcohol wipe. Allow to dry.

2.) Zero

Zero the instrument on water as per page 1.

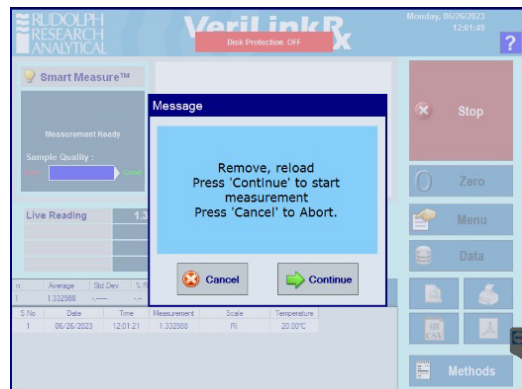
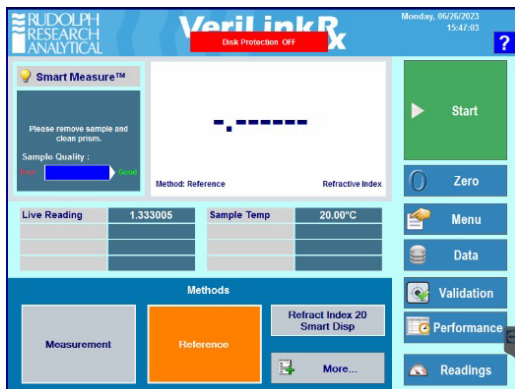
3.) Add Reference Sample

A.) Place pure sample on prism from. Fill entire prism area with sample.

B.) Select **Reference** method. Push **Start**.

C.) Follow screen instructions, and reload sample 3 times.

D.) All three measurements must be nearly identical in RI value.

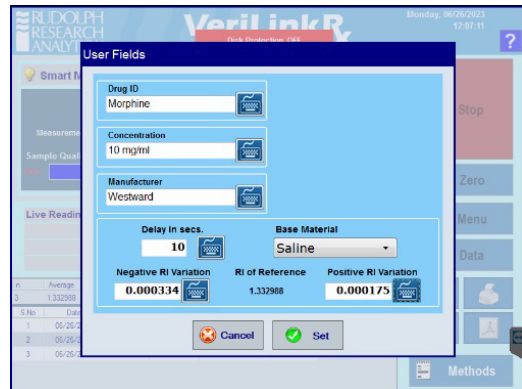
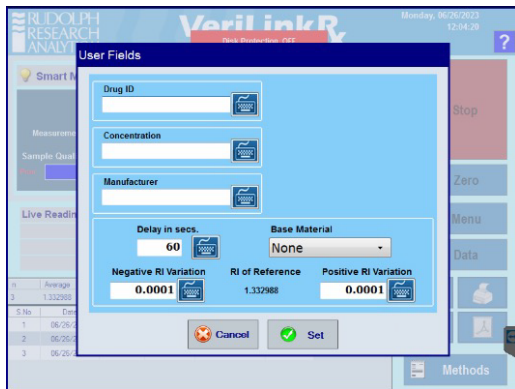


After first measurement, this box appears. Clean and reload the sample.

4.) Add information for new reference drug.

Type in Drug ID, Concentration, Manufacturer and other custom field.

Add the base solution of the drug (water or saline).



5.) To Determine Alarm conditions

Drug ID	CONC	Manufacturer	RI of Drug	water	water dif	saline	saline dif	Alarm (-) RI 10 % water dilution ** do not set alarm below 0.000008	Alarm (+) RI 10 % saline dilution **do not set alarm below 0.000008	t1	t2	Final Delay set (s)	Background Solution
Duramorph	1 mg/mL	West Ward Cedars Sinai	1.334572	1.332987	-0.001585	1.334578	0.000006	0.000159	0.000001	10	40	40	saline
Ephedrine	5 mg/mL	QuVa Pharma	1.335267	1.332987	-0.002280	1.334578	-0.000689	0.000228	0.000069	10	10	10	saline
Fentanyl	50 mcg/mL	Hospira, West Ward, Akorn, Par	1.333007	1.332987	-0.000020	1.334578	0.001571	0.000002	0.000157	40	10	40	water
fentanyl dilution	10 mcg/ml	hospirs/mmc Good Samaritan	1.33427	1.332987	-0.001283	1.334578	0.000308	0.000128	0.000031	10	10	10	saline

A.) Record the Average RI, and input into the VeriLinkRx Narcotics and Alarm conditions calculator (Excel)

B.) Drag down water and salt values, drag rows for calculations. Use these values as the positive and negative alarm conditions for your new sample

C.) Record the base material solution of drug.

D.) **Note. Do not set an alarm condition less than 0.000008

6.) Populate custom fields

Populate custom fields, and save these values into VeriLinkRx software. These can be later updated and/or corrected later in Library Manager.

The screenshot shows the 'Edit Reference Measurement' dialog box. It contains the following fields and values:

Drug ID	Fentanyl	User-Defined Ref 4	
Concentration	50 mcg/mL	User-Defined Ref 5	
Manufacturer	Hospira	User-Defined Ref 6	
Delay in secs.	60	Base Material	Undefined
Negative RI Variation	0.000008	RI of Reference	1.333007
Positive RI Variation	0.000150		

At the bottom of the dialog are 'Save' and 'Cancel' buttons.