




Arometrix EXTRACTION FINDER

USER MANUAL



YOU MUST READ THIS MANUAL BEFORE USE | WARNINGS ON PAGE 3

TABLE OF CONTENTS

Section 1: Warnings 	3
Section 2: Overview	7
Section 3: Fundamentals	7
Section 4: Unpacking & Inspecting	8
Section 5: Installation & Operation	8
Section 6: Understanding the Interface	12
Section 7: Application Note - Ethanol Extraction - Solvent Saturation	16
Section 8: Maintenance	17
Section 9: Issues	17
Section 10: Software Update Instructions	18
Section 11: Terms and Conditions	19

Section 1: Warnings

The complete contents of this manual must be reviewed to ensure that the product is used safely. When integrating the EXTRACTION FINDER, the total extraction system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user. Below are Arometrix's warnings about safe operating conditions for the EXTRACTION FINDER:

1. Ensure the system and installation conform to all applicable laws and ordinances, including Fire Marshall code certifications.
2. Ensure all supporting electronics are installed in a compliant matter.
3. Ensure all connections are properly installed and specifications are appropriate.
4. Ensure extraction equipment is equipped with appropriate warning labels for solvent.
5. If you have any indications of malfunction, return to the manufacturer immediately by emailing brains@arometrix.com.
6. Tampering with this equipment is prohibited, and will result in a void of warranty.
7. Never look directly into the light source.
8. Proper care should be taken when setting up and operating this equipment, as **MISUSE MAY CAUSE SEVERE INJURY OR DEATH.**
9. Never install valves or shut off devices on either side of the EXTRACTION FINDER as this **MAY CAUSE SEVERE INJURY OR DEATH.**

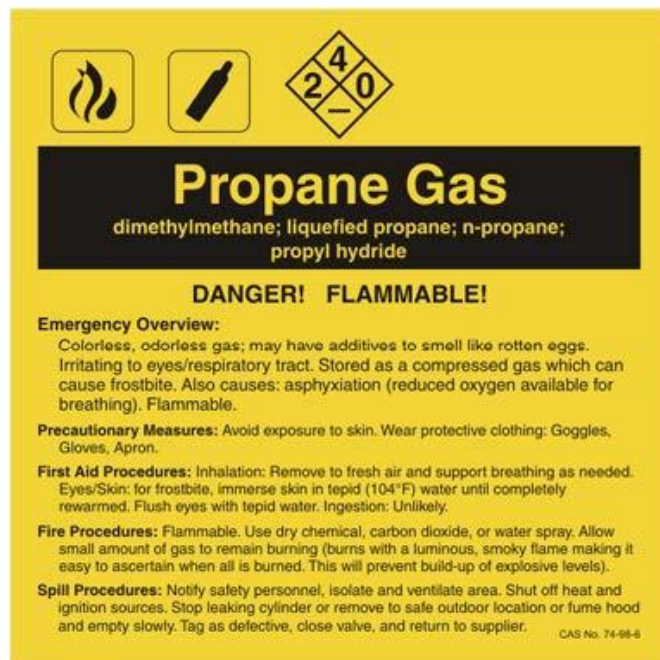


Figure 1 : Sample Propane Warning Label (Right to Know Label) Figure 2 : Sample Propane NFPA 704 Hazard Rating Placard

n-Pentane
Amyl Hydride; 2-methylbutane; isopentane; Skellysolve-A

DANGER!

Precautionary Measures:
Avoid inhalation and exposure to skin. Keep container closed. Use only with adequate ventilation to maintain airborne concentrations below hazardous levels. Wear appropriate gloves, goggles, and personal protective clothing.

Emergency Overview:
Clear, colorless liquid with a gasoline-like odor. Irritating to eyes/skin/respiratory tract. Also causes: dizziness, drowsiness, fatigue, muscle weakness, hallucinations. Causes skin, eye and respiratory tract burns. May cause blindness. Exposure to high levels may be fatal. Potential explosion hazard in confined space. Use sufficient ventilation to prevent vapor build-up.

First Aid Procedures:
Inhalation: Remove to fresh air and support breathing as needed. Eyes/Skin: Remove contaminated clothing. Flush eyes with plenty of water for at least 15 min. Thoroughly wash skin with soap and water. Ingestion: Do not induce vomiting. Consult physician.

Fire Procedure:
Flammable. Can form explosive mixtures in the air. Use water as fog, dry chemical, carbon dioxide, or foam. Water spray may be ineffective.

Spill Procedures:
Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Phone: 800-555-1212
CAS No. 109-66-00

Figure 3 : Sample Pentane Warning Label (Right to Know Label)

n-Pentane

A clear colorless liquid with a petroleum-like odor. Flash point 57°F. Boiling point 97°F. Less dense than water and insoluble in water. Hence floats on water. Vapors are heavier than air.

CAS No. 109-66-00

Figure 4 : Sample Pentane NFPA 704 Hazard Rating Placard

Methanol
carbinol; methyl alcohol; methyl hydroxide; methylol; monohydroxymethane; wood alcohol

WARNING! TOXIC! FLAMMABLE!

Emergency Overview:
Colorless, volatile liquid; slight alcohol odor. Irritating to eyes/skin/respiratory tract. Toxic. Also causes: headache, nausea, convulsions, kidney damage, visual disturbances including blindness. Chronic: visual impairment. Flammable!

Precautionary Measures: Avoid exposure to skin. Wear protective clothing: Goggles, Gloves, Full Suit, Boots.

First Aid Procedures: Inhalation: Remove to fresh air and support breathing as needed. Eyes/Skin: Remove contaminated clothing. Flush with plenty of water for at least 15 minutes. Ingestion: Do not induce vomiting! Consult physician.

Fire Procedures: Highly flammable. Can form explosive mixtures in the air. Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

Spill Procedures: Notify safety personnel, isolate and ventilate area, deny entry, stay upwind. Shut off heat and ignition sources. Take up with inert material such as sand or vermiculite. Damp mop residue. Cleanup personnel should protect against exposure.

CAS No. 67-66-1

Figure 5 : Sample Methanol Warning Label (Right to Know Label)

Methanol

Colorless, volatile liquid; slight alcohol odor. Irritating to eyes/skin/respiratory tract. Toxic. Also causes: headache, nausea, convulsions, kidney damage, visual disturbances including blindness. Chronic: visual impairment. Flammable.

CAS No. 67-56-1

Figure 6 : Sample Methanol NFPA 704 Hazard Rating Placard

Isopropyl Alcohol
dimethyl carbinol; 2-hydroxypropane; IPA;
isopropanol; rubbing alcohol

WARNING! FLAMMABLE! IRRITANT

Emergency Overview:
Colorless liquid; slight odor. Irritating to the eyes/skin/respiratory tract. Eye exposure may cause corneal burns. Also causes: drowsiness, dizziness, and incoordination. Chronic: dermatitis. Flammable!

Precautionary Measures: Avoid exposure to skin. Wear protective clothing: Goggles, Gloves, Apron.

First Aid Procedures: Inhalation: Remove to fresh air and support breathing as needed. Eyes/Skin: Remove contaminated clothing. Flush with plenty of water for at least 15 minutes. Ingestion: Do not induce vomiting! Consult physician.

Fire Procedures: Highly flammable. Can form explosive mixtures in the air. Use water as fog, dry chemical, carbon dioxide, or alcohol-resistant foam. Solid streams of water may spread fire.

Spill Procedures: Notify safety personnel, isolate and ventilate area, deny entry, stay upwind. Shut off heat and ignition sources. Take up with inert material such as sand or vermiculite. Cleanup personnel should protect against exposure.

CAS No. 67-63-0

Figure 7 : Sample Isopropyl Alcohol Warning Label

Isopropyl Alcohol

Colorless liquid; slight odor. Irritating to the eyes/skin/respiratory tract. Eye exposure may cause corneal burns. Also causes: drowsiness, dizziness, and incoordination. Chronic: dermatitis. Flammable.

CAS No. 67-63-0

Figure 8 : Sample Isopropyl Alcohol NFPA 704 Hazard Rating Placard

n-Hexane
dipropyl; Gettysolve-B; hexyl hydride; Skellysolve-B

DANGER! FLAMMABLE! IRRITANT

Emergency Overview:
Colorless, volatile liquid; sweet/gasoline odor. Irritating to eyes/skin/respiratory tract. Also causes: dizziness, fatigue, muscle weakness, hallucinations. Chronic: peripheral neuropathy (muscle weakness, motor loss, sensory disturbances). Flammable.

Precautionary Measures: Avoid exposure to skin. Wear protective clothing: Goggles, Gloves, Apron.

First Aid Procedures: Inhalation: Remove to fresh air and support breathing as needed. Eyes/Skin: Remove contaminated clothing. Flush with plenty of water for at least 15 minutes. Ingestion: Do not induce vomiting! Consult physician.

Fire Procedures: Flammable. Can form explosive mixtures in the air. Use water as fog, dry chemical, carbon dioxide, or foam. Water spray may be ineffective.

Spill Procedures: Notify safety personnel, isolate and ventilate area, deny entry, stay upwind. Shut off heat and ignition sources. Take up with inert material such as sand or vermiculite. Cleanup personnel should protect against exposure.

CAS No. 110-54-3

Figure 9 : Sample Hexane Warning Label (Right to Know Label)

n-Hexane

Colorless, volatile liquid; sweet/gasoline odor. Irritating to eyes/skin/respiratory tract. Also causes: dizziness, fatigue, muscle weakness, hallucinations. Chronic: peripheral neuropathy (muscle weakness, motor loss, sensory disturbances). Flammable.

CAS No. 110-54-3

Figure 10 : Sample Hexane NFPA 704 Hazard Rating Placard



Figure 11 : Sample Heptane Warning Label (Right to Know Label)

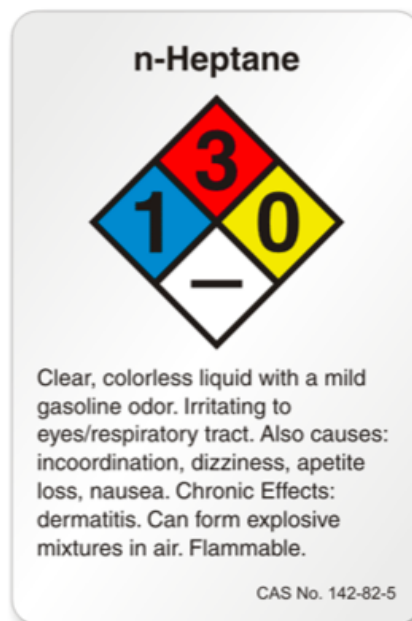


Figure 12 : Sample Heptane NFPA 704 Hazard Rating Placard

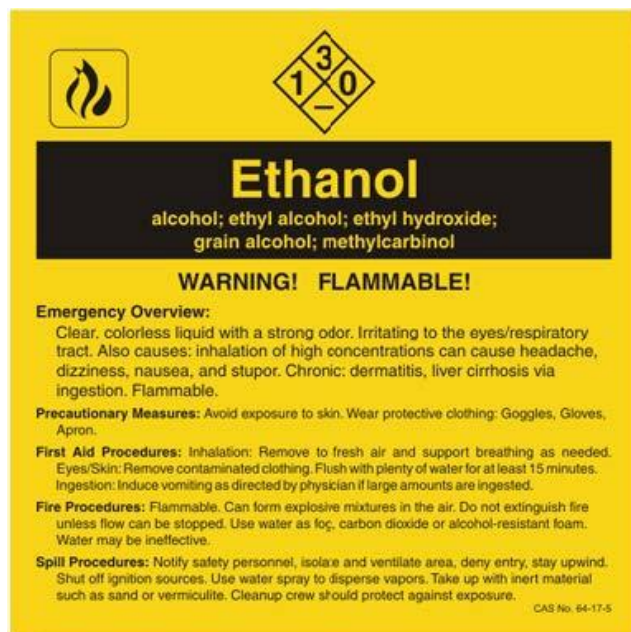


Figure 13 : Sample Ethanol Warning Label (Right to Know Label)



Figure 14 : Sample Ethanol NFPA 704 Hazard Rating Placard



Figure 15 : Sample Butane Warning Label (Right to Know Label)

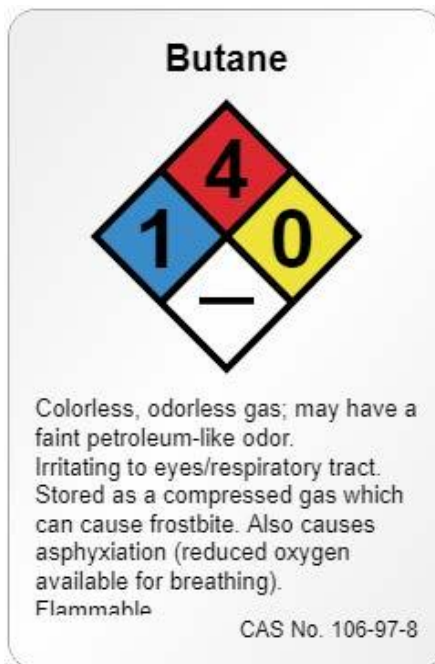


Figure 16 : Sample Butane NFPA 704 Hazard Rating Placard

Section 2: Overview

What the EXTRACTION FINDER is:

The EXTRACTION FINDER is Arometrix's real-time molecular monitoring system for botanical extraction. The technology uses induced fluorescence to detect the presence and track the levels of molecules, such as Cannabinoids, Chlorophyll, and Lipids in-line. This helps operators optimize extraction process efficiency.

What the EXTRACTION FINDER is not:

The EXTRACTION FINDER is not a quantitative measure. It provides qualitative process information that directly tracks the relative concentration of Cannabinoids. It is Arometrix's goal to amass enough spectral data from the EXTRACTION FINDER to eventually be able to determine quantitative purity *in the future*.

The EXTRACTION FINDER cannot replace good laboratory practice and experience. The EXTRACTION FINDER's data, in combination with good lab practice, will help technicians further perfect their craft.

Section 3: Fundamentals

The Arometrix EXTRACTION FINDER is primarily composed of the **Extraction Finder Monitor** and the **Extraction Finder Sensor**.

Arometrix Digital Monitor: The *monitor* is the "brains" of the system. This 10" LCD TFT monitor creates a visualization for the user. The monitor has a stand.

Arometrix Sensor: The ultra-sensitive *sensor*, which can be installed in-line, is the "eyes" of the system. It connects and transmits data to the monitor.

Design Notes: The sensor electronics are bathed in an inert nitrogen environment to further insulate them from any risk of exposure, even though the sensor is intrinsically safe. Solvent will not touch the electronics. The 30' sensor cable and 10' power cord allows the monitor to be easily placed away from the C1D1 area.

Section 4: Unpacking & Inspecting

After the instrument is received, it should be carefully unpacked and inspected for damage during shipment and to confirm that all components are present.

Each EXTRACTION FINDER package comes with:

- Extraction Finder Sensor
- Arometrix Monitor
- Sensor Cable, 30'
- Power Supply, 10'

Each EXTRACTION FINDER 2022 and newer package comes with:

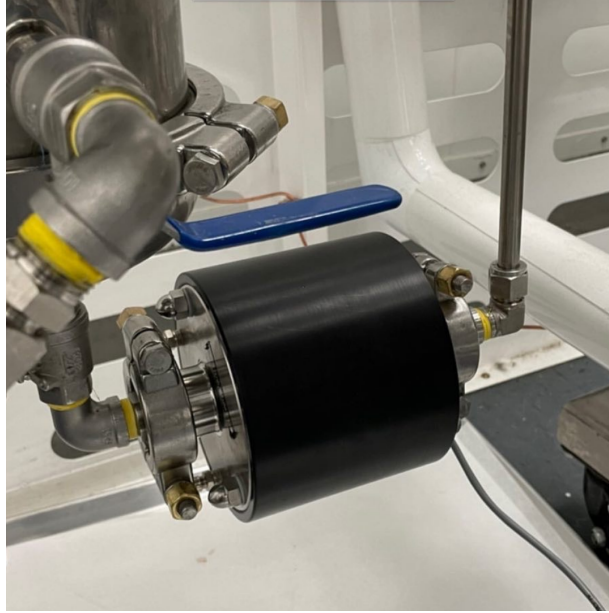
- Extraction Finder Sensor
- Arometrix Monitor
- Sensor Cable, 30'
- Power Supply, 10'
- Adapter (*optional*)

Section 5: Installation & Operation

Warning: Installing a valve or any device that could cause isolation in the line violates NFPA 58. Piping that can contain liquid LP-Gas and that can be isolated by valving requires a hydrostatic relief valve, as specified under Section 6.15.

Installation of the Extraction Finder Sensor involves the following steps (also depicted in our Quick Start Guide):

1. **First**, mount the Extraction Finder Sensor to the frame of the equipment. An example is shown.



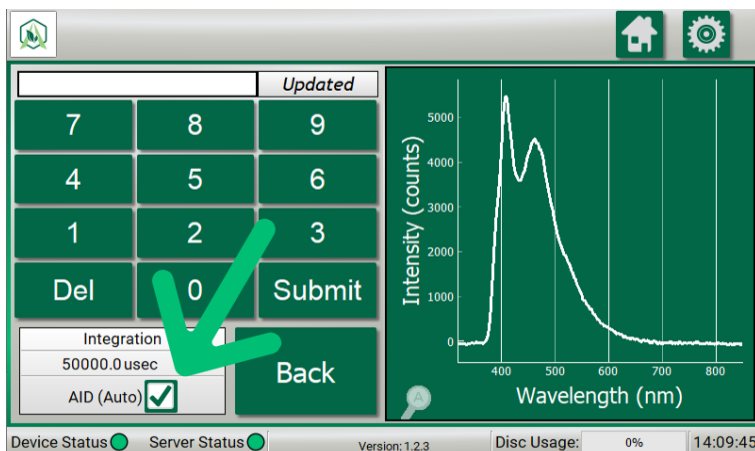
2. **Next**, connect the hoses.



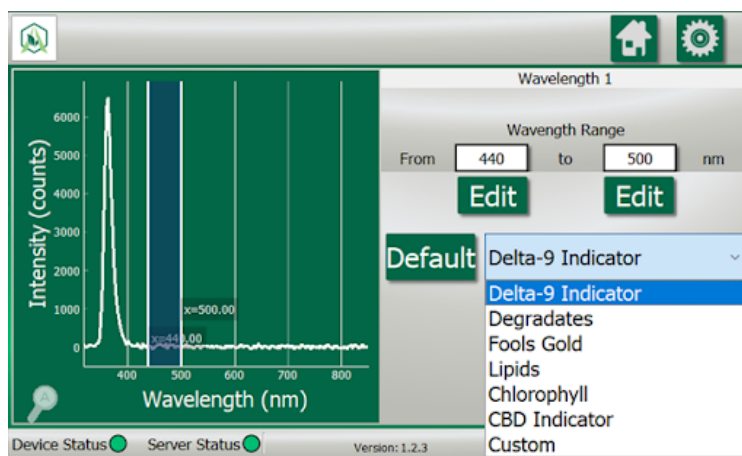
3. **Then**, ensure all connections are properly installed.
4. **Finally**, ensure the system and installation conform to all applicable laws and ordinances.

Installation of the Extraction Finder Monitor involves the following steps:

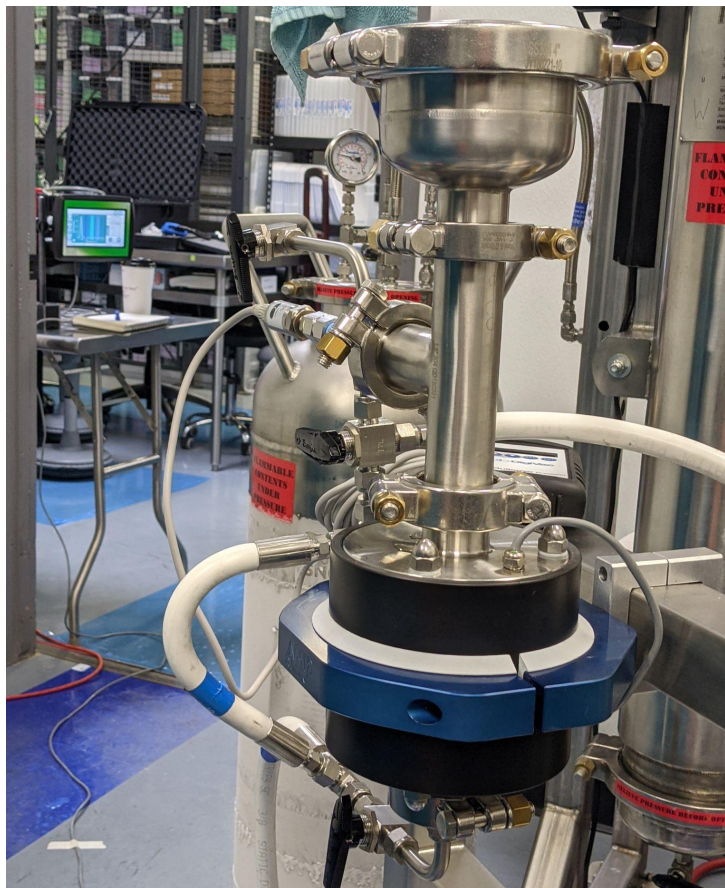
1. **Install the Extraction Finder monitor** outside of the C1D1-designated area. Use the supplied 10' power cord to power your monitor.
2. Connect the **sensor cable** to the **monitor**. The monitor will take a few seconds to turn. You will see splash screens, followed by the interface screen. It will boot up in 5 minutes or less.
3. In the **Settings** section on the monitor's UI, ensure the following:
 - a. Set Auto Integration by checking the AID (Auto) checkbox



- b. Set Scans to Average: 5
- c. Ensure that the Device Status and Server Status indicators on the bottom left-hand side of the UI are green – If not, make sure the cords are properly connected.
- d. Ensure that the “Light On/Light Off” toggle button is turned on. The light above it should be green.
- e. To set ranges, go to Settings, select “Wavelength Settings” to track specific molecules. For extraction, we recommend setting:
 - i. Region 1: Delta-9 (or CBD Indicator)
 - ii. Region 2: Lipids
 - iii. Region 3: Chlorophyll
 - iv. *Pro-tip: Once you return back to the homescreen, check each region’s checkbox for easier tracking during the process.*

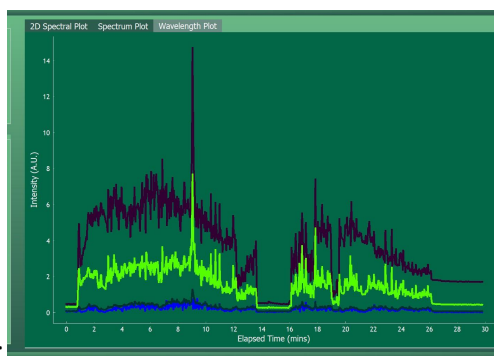


4. **Record on (optional) at the start of the run:** Toggle the Record button to On. Ensure the Record indicator is green.
5. Once the Extraction Finder system is safely in operation, **prepare extraction** as you typically would.

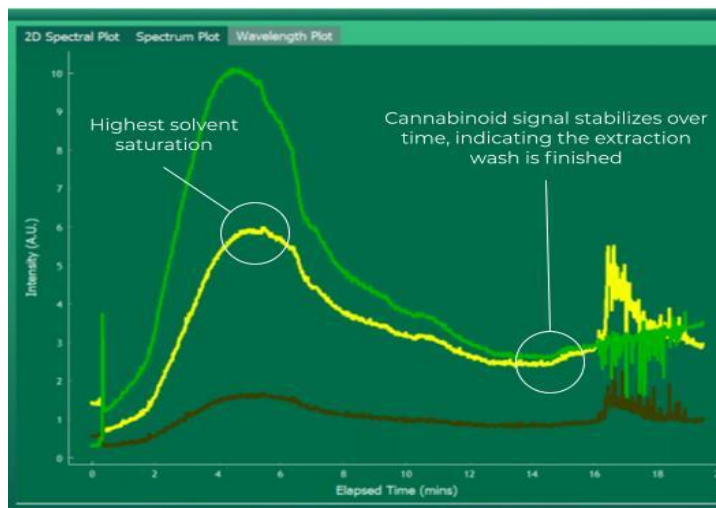


6. Monitor molecular signals during your extraction process.

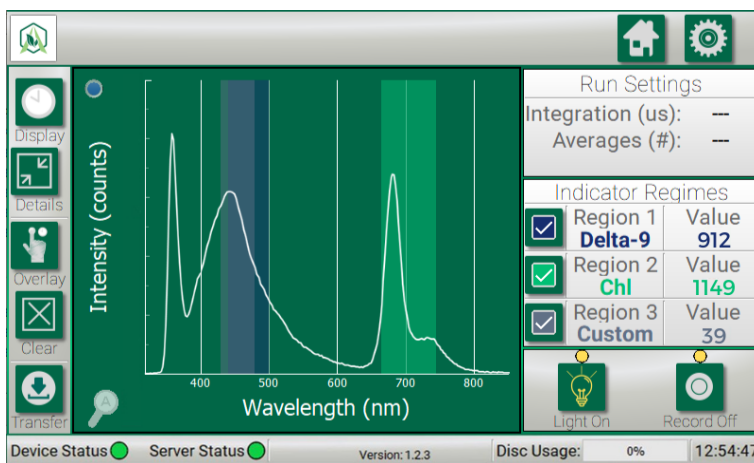
- a. Observe no signal or noisy signal on XF from reverberations during initial startup. Example of a noisy signal below.



- b. Identify XF signal spiking you should see a high signal which indicates a high concentration of cannabinoids in your solvent then a drop in the signal indicating low concentration after initial fluid flow.
- c. Identify XF signal equilibrate during full flow



- d. Observe Delta-9, Lipid, and Chlorophyll levels on the monitor. Switch views by tapping the “display” button. Use the changes in relative potency levels in order to inform your extraction process decisions.



7. **Record off (optional) after the run is finished:** Toggle the Record button to Off to save XF data. Ensure the Record indicator is red. Remove SD Card to transfer files.

Pro-tip: Once done, upload your logged data file(s) into our [DAB \(Data Analysis Breakdown\) App](#).



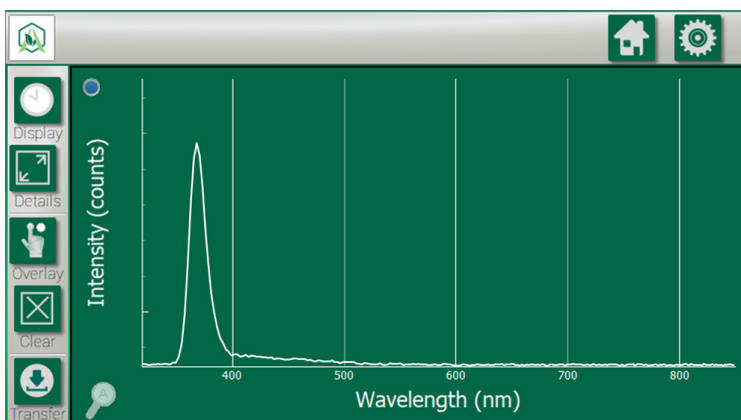
Section 6: Understanding the Interface

After installation, the system is ready for immediate operation.

Different Viewing Options

There are currently two viewing options: the **Spectrum view** and the **Wavelength view**. These display options can be toggled between each other by tapping the “display” button (located in the top-left corner).

Spectrum View (Spectrograph) - *Instantaneous Tracking*



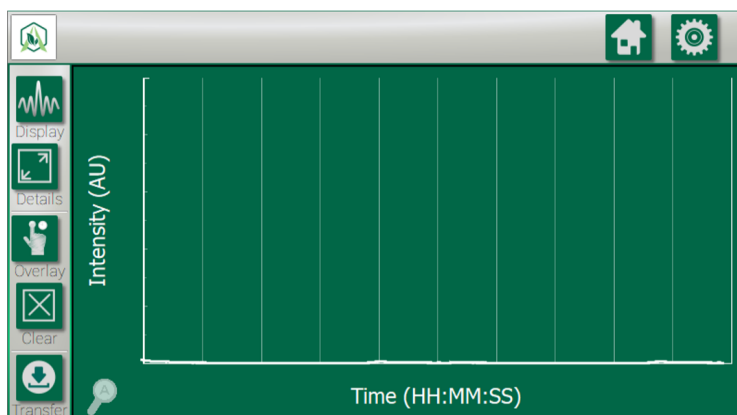
What it does: This is an instantaneous representation of the current spectral state. It displays the current background/ambient light corrected spectral measurement.

Important Note: The peak at 360-390nm is an internal excitation/reference peak (not a process indicator); tap the small circle on the top-left corner of the graph if you wish to remove this peak.

Understanding the Graph (X-Y Axis)

- **X-axis = Wavelength (nm):** The location of where the line shoots up (or fluoresces) indicates the molecule(s) passing through; different molecules have different wavelength regions
- **Y-axis = Intensity (counts):** The height of this line, *in general*, indicates how much of that substance is present at that moment relative to earlier.

Wavelength View - Time Tracking

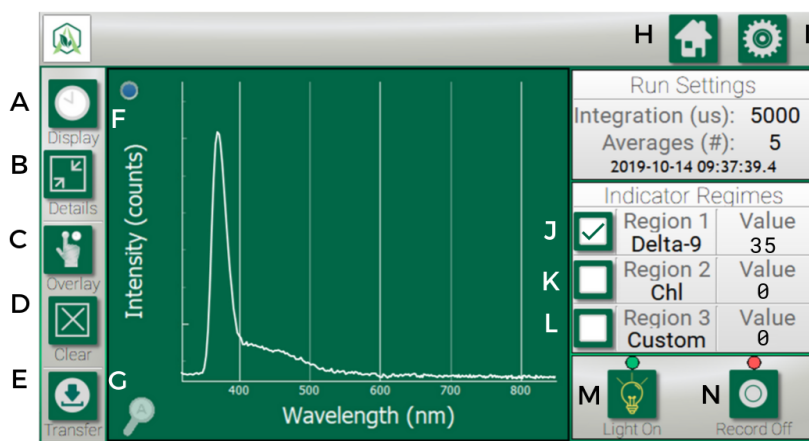


What it does: Displays and tracks the interpreted values from your measurement. This plot reduces the raw data and shows you the “highlights” of the run. This view is especially useful for seeing how molecular levels changed over time. **Arometrix recommends that Extraction Finder users prioritize this view.**

Understanding the Graph (X-Y Axis)

- *X-axis = Time (HH:MM:SS):* As opposed to the Spectrum view, this tracks molecular levels for pre-set ranges as a function of time.
- *Y-axis = Intensity (AU):* The height of this line indicates how much of that substance is present at that moment relative to earlier. (Note: These are AU as in Arbitrary Units; this is not quantification of potency.)

Setup Screen Tutorial



List of buttons:

- Display: Toggles between the two viewing options (Spectrum View & Wavelength View)
- Details: Expands the graph and removes the data on the right-hand side
- Overlay: Traces or “overlays” a peak of interest so you can compare it to a future peak
- Clear: Clears an “overlay” that you no longer want to track
- Transfer: Remove SD Card to transfer to another device
Data from older models can be transferred by inserting a USB drive. Data from older models can be transferred by inserting a USB drive and using the transfer button

- F. Reference Peak Remover: Removes the internal reference/excitation peak from Spectrum view
- G. Auto-Zoom: Returns zoom view to normal. You can zoom with 1 finger by drawing a bounding box.
- H. Home: Returns you to the Home if you are in Settings
- I. Settings: Allows you to adjust settings, such as Auto Integration Time, Scans to Average, and the Wavelength Tracker
- J. *Region 1-3 Checkboxes: For Wavelength View - By checking this box, it will populate the Wavelength plot with the corresponding molecule tracking. For Spectrum View - By checking this box, it will highlight the Spectrum plot with the region that molecule fluoresces at. For Wavelength View - By checking this box, a color-coordinated line will track the molecules' intensity levels.*
- K. *Region 2 Checkbox: See I.*
- L. *Region 3 Checkbox: See I.*

The following information is for the 2022 models and later:

- M. *Region 1-3 Checkboxes: For Wavelength View - These will automatically be checked and applied to the Wavelength plot*
- N. Light on/off: Turns the light on. This toggles between states.
- O. Record on/off: Turns the recording mode on. This toggles between states.

Settings Tutorial

When you tap the *Settings* button, you will see:

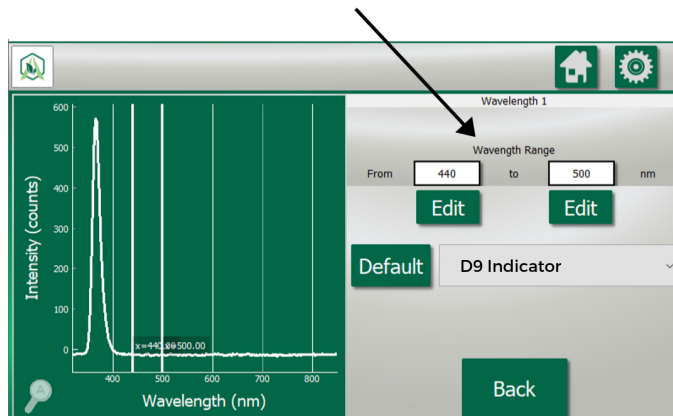
- Wavelength Settings
- Set Integration Time
- Set Scans to Average
- Clock Settings
- System Data

Wavelength Settings

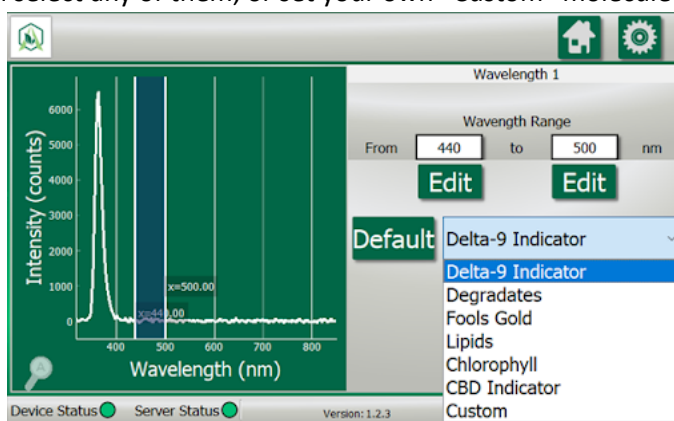
In this tab, you will see:

- Edit Wavelength 1
- Edit Wavelength 2
- Edit Wavelength 3

These correspond with the Region 1, Region 2, and Region 3 that are shown on the plots. When you press one of these, you will see a Wavelength range. These will come preset with manufacturer's defaults; however, you can edit the *From* and *To* how you see fit. *See below.*



Click “Default” to return back to the manufacturer default. Next to the “Default” button, you will see a molecule dropdown. When you press the Molecule Indicator dropdown, you will see different molecule tracking options. You can select any of them, or set your own “Custom” molecule and region. *See below.*



Set Integration Time

This is meant to enable “AID (Auto)” by clicking the checkbox in the bottom-left corner of the screen. Auto integration ensures that the signal from the spectrometer is maximized. Some more advanced users *can* manage integration time manually.

Set Scans to Average

This sets how many optical readings the sensor takes before plotting and displaying a result. More readings that are averaged imply less noise, but less information. Arometrix recommends that you select 5.

Clock Settings

This should be set during initial acquisition. Set the Date Settings and the Time Settings. Then, Submit.

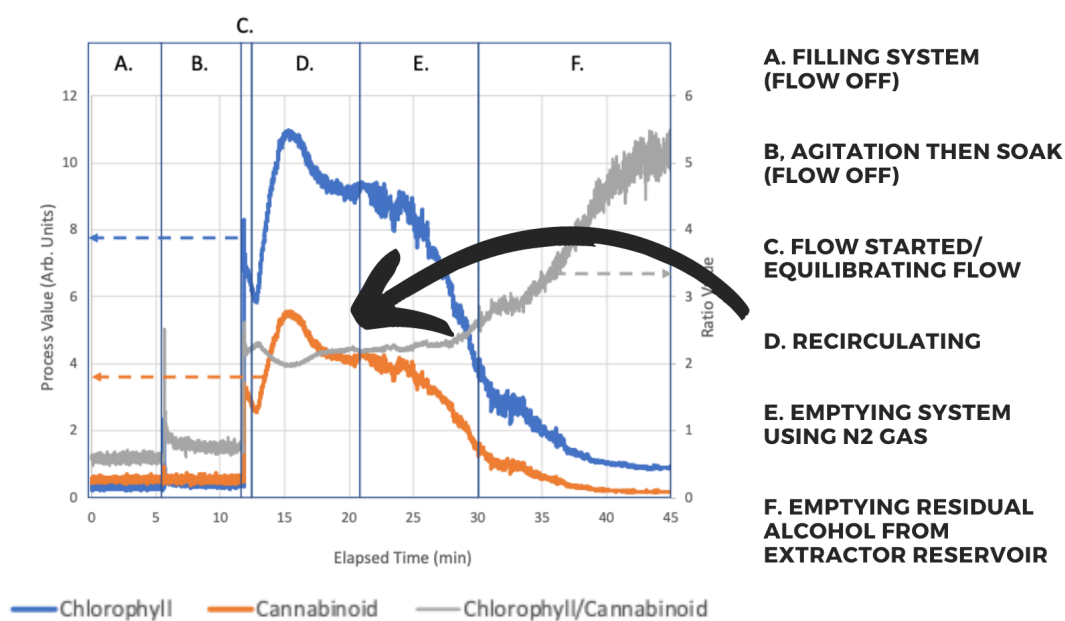
System Data

This will display “Bytes Available”, “Bytes Used”, and “Bytes Total”. It will also show you % memory used, and give you an option to “Clear Data”.

Section 7: Application Note - Ethanol Extraction - Solvent Saturation

Below is a real graph of a full extraction run using the Extraction Finder in Wavelength View. The Extraction Finder tracked Chlorophyll (blue) and Cannabinoid (orange) signals. *Note: The Chlorophyll/Cannabinoid ratio (grey) signal is for the purposes of this manual only.*

Cryo-Ethanol Extraction Run - Recirculation - Extraction Finder Logged Run Data



- A. Filling System** - *The extractor was being filled with ethanol*
 - a. No flow over sensor; no signal
- B. Agitation Then Soak** - *The extractor was agitated then went through a soak cycle*
 - a. No flow over sensor; initial signal noise due to mechanical vibrations
- C. Flow Started/Equilibrating Flow** - *The flow for recirculation began*
 - a. Full flow over sensor; signal spikes then drops after initial fluid flow

- D. Recirculating** - *Extractor recirculated ethanol over system*
- Full flow over sensor; signal increases/decreases as Cannabinoid concentration equilibrates and becomes homogeneous in ethanol
 - End point determined by both Cannabinoid and Chlorophyll signals (and their ratio) becoming stable/unchanging
- E. Emptying System using N₂ Gas** - *Endpoint detected (solvent saturated)*
- Extractor being emptied with nitrogen gas and system no longer chilled; Signal of both Cannabinoids and Chlorophyll decrease
- F. Emptying Residual Alcohol from Extractor** - *Extractor reservoir emptied*
- Decrease in both Cannabinoid and Chlorophyll signals; increase in ratio of Chlorophyll to Cannabinoid from system heating (ethanol preferentially extracting Chlorophyll in reservoir)

Pictured here is the **Spectrum View**, which tracks molecules as a function of **Intensity over Wavelength**.



Pictured here is the **Wavelength View**, which tracks molecules as a function of **Intensity over Time**.



Section 8: Maintenance

The EXTRACTION FINDER is designed to be maintenance free. For maintenance, visually inspect the Sensor for leaks, or signs of wear. If there is any question or any concern at all about the unit's function, kindly send it back to Arometrix for inspection and analysis. If any modifications are needed or if any part of the equipment appears to need service, please contact Arometrix and our engineers will evaluate the unit.

Section 9: Issues

- If the signal is an abnormally low signal, a few things should be checked:
 - Ensure that the EXTRACTION FINDER system is properly installed.
 - Ensure that the integration time is set correctly by using the AID (Auto Integration) AUTO in Settings. The checkbox should be checked off.
 - Ensure that the Scans to Average is set to 5.

- d. If none of the above seem to be the origin of the problem, please take a photo of both your spectrum plot and your wavelength plot, then email brains@arometrix.com.
- 2) If the signal looks sporadic and very abnormal, a few things should be checked:
 - a. Is there turbulent flow going through the Extraction Sensor tube? Turbulent flow is not ideal. For the best signal possible, ensure consistent, full flow. The addition of a small sight glass on top of the Extraction Sensor might help you ensure this.
 - b. If the pressure is still changing quickly, wait for the pressure to become more constant.
 - c. Ensure that the integration time is set correctly by using the AID AUTO.
 - d. Increase the scans to average:
 - i. This should not be set significantly higher than 5 - keep the value below 15
 - e. Ensure that the Extraction Sensor is not in a location with a high amount of vibration
 - f. Ensure that the Extraction Sensor is not in a location monitoring the vapor phase
 - g. If none of the above are the problem – ensure that liquid is still flowing
 - h. If none of the above seem to be the origin of the problem, please take a photo of both your spectrum plot and your wavelength plot and contact customer service by emailing brains@arometrix.com or submitting the Support Request form on our website
- 3) If the system is not detecting the sensor (bottom left light on panel is red or yellow)
 - a. If the system was turned on, give the system up to 5 minutes, it may detect
 - b. Ensure that all cables are connected securely – especially the cable connecting the monitor unit to the sensor
 - i. It may be easier just to disconnect and reconnect the cables from the monitor unit and the sensor unit
 - c. Try identifying and using a new source of power to power the EXTRACTION FINDER monitor.
 - d. If none of the above seem to be the origin of the problem, please take a photo of both your spectrum plot and your wavelength plot and email brains@arometrix.com.

Other suggestions:

- 1) We have all of our EXTRACTION FINDER resources (including different application notes and our popular Chemical Cheat Sheet) available at arometrix.com/resources.
- 2) We are constantly working to fix any issues with the system, and appreciate you reporting any abnormal behavior, we will not leave you hanging and will address any issues you have ASAP.
- 3) If you find anything in this manual confusing or unclear, please **email us at brains@arometrix.com**; we are more than happy to assist you, and do our best to do so in a timely manner.
- 4) If you want to see something new in the software please let us know and give your suggestion, we strive to make the EXTRACTION FINDER the tool that works for you!

Section 10: Software Update Instructions

At Arometrix, we strive to tailor-make all our products to our customers' needs. As we advance our algorithms, add features, fix bugs, etc., we release software/firmware updates. These are field-updatable. If you own an EXTRACTION FINDER, you can download our latest Firmware update to your software in the field: Version 1.2.4 - (if you do not already have it). This update will make EXTRACTION FINDER systems more cohesive and user-friendly. **Please visit arometrix.com/software to update your software.**

Arometrix plans to release an extraction-specific software update *in the future* and encourages users to provide feedback on what they would like to see in that release: brains@arometrix.com

Section 11: Terms and Conditions

TERMS OF USE, LIMITED WARRANTY & LIABILITY WAIVER

TERMS OF USE, LIMITED WARRANTY, and LIABILITY WAIVER

Arometrix offers all of its products with the following terms and conditions and notices as follows. By accepting and/or using an Arometrix product, you hereby acknowledge and agree to the following terms and conditions, and acceptance of these terms and conditions are a condition precedent to any purchase/sale agreement between you and Arometrix. YOU MAY NOT ORDER OR OBTAIN PRODUCTS OR SERVICES FROM AROMETRIX IF YOU (A) DO NOT AGREE TO THESE TERMS, OR (B) ARE NOT THE OLDER OF (i) AT LEAST 18 YEARS OF AGE OR (ii) LEGAL AGE TO FORM A BINDING CONTRACT WITH AROMETRIX.

EXCLUSIVE OBLIGATION: The Arometrix product you are purchasing has been designed for a specific use within a set of suitable operating conditions, as set forth in its User Manual, or as indicated otherwise by Arometrix. Any use of the Arometrix Product for any purpose or under any conditions, other than those specified, shall render any limited warranty void, and shall expressly invalidate any liability of Arometrix for damages as a result of such misuse.

USER LIMITATION: You may not modify, copy, distribute, transmit, display, perform, reproduce, publish, license, create derivative works from, transfer, or sell, any information, software, products or services obtained from or created by Arometrix to any third party, without the express written consent of Arometrix to do otherwise. Any violation of this provision shall give rise to an indemnification of Arometrix by you, for any third party claims arising out of such violation.

THIRTY (30) DAY LIMITED WARRANTY: All Arometrix products are warranted against any manufacturing defect for a period of thirty (30) days from the date of purchase, unless such product is a custom-work for you and not a standard Arometrix product. This limited warranty extends only to the original purchaser of the Arometrix products. It does not extend to any subsequent or other owner or transferee of the product. The responsibility of Arometrix for defective products is limited to repair, replacement or refund as set forth in this warranty statement. Any product qualifying as a custom-work shall not be warranted against any defects for any purpose, and your acceptance of such custom-work shall relieve Arometrix of any liability for any purpose. WITH THE EXCEPTION OF THE LIMITED WARRANTY ABOVE, YOU AGREE ANY AROMETRIX PRODUCT IS PROVIDED AS IS, EXCLUSIVE OF ANY WARRANTY, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED.

LIMITATION OF LIABILITY: You agree and acknowledge, Arometrix shall have no liability to you whatsoever for any direct, indirect, punitive, incidental, special consequential damages arising out of or connected with the use or misuse of its products. In particular, given the nature of Arometrix products, you agree and acknowledge, under no circumstances whatsoever shall Arometrix be liable to you for any consequential damages for damage to any non-Arometrix product or service, arising from the failure, use or misuse of a Arometrix product, including, but not limited to, any vacuum system, engine, vehicle, factory, or the like. In the event, a court of law with proper jurisdiction finds Arometrix liable to you for any purpose, you agree and acknowledge Arometrix's maximum liability shall not exceed the purchase price of one unit of product giving rise to such liability, or \$250.00, whichever is greater.

ENTIRE OBLIGATION: These terms and conditions express the entire obligation of Arometrix with respect to its products. If any part of these terms and conditions are deemed void, invalid, unenforceable or illegal, including, but not limited to, the warranty disclaimers, liability disclaimers and liability limitations set forth above, then the unenforceable clause or sentence may be disregarded with the remainder of these terms and conditions valid and enforced. In the event the unenforceable clause or sentence leaves a void in these terms and conditions, a provision closely matching the intent of the unenforceable provision should be deemed inherent within these terms and conditions, slightly modified to render such provision valid and enforceable.

GENERAL: These terms and conditions are governed by the laws of the State of New Jersey, USA. All claims and disputes arising under or relating to this Agreement are to be settled by binding arbitration in the state of New Jersey. An award of arbitration may be confirmed in a court of competent jurisdiction. Use of this product is unauthorized in any jurisdiction that does not give effect to all provisions of these terms and conditions.

MODIFICATION OF TERMS AND CONDITIONS: Arometrix reserves the right to change the terms, conditions, and notices under which their products are offered.