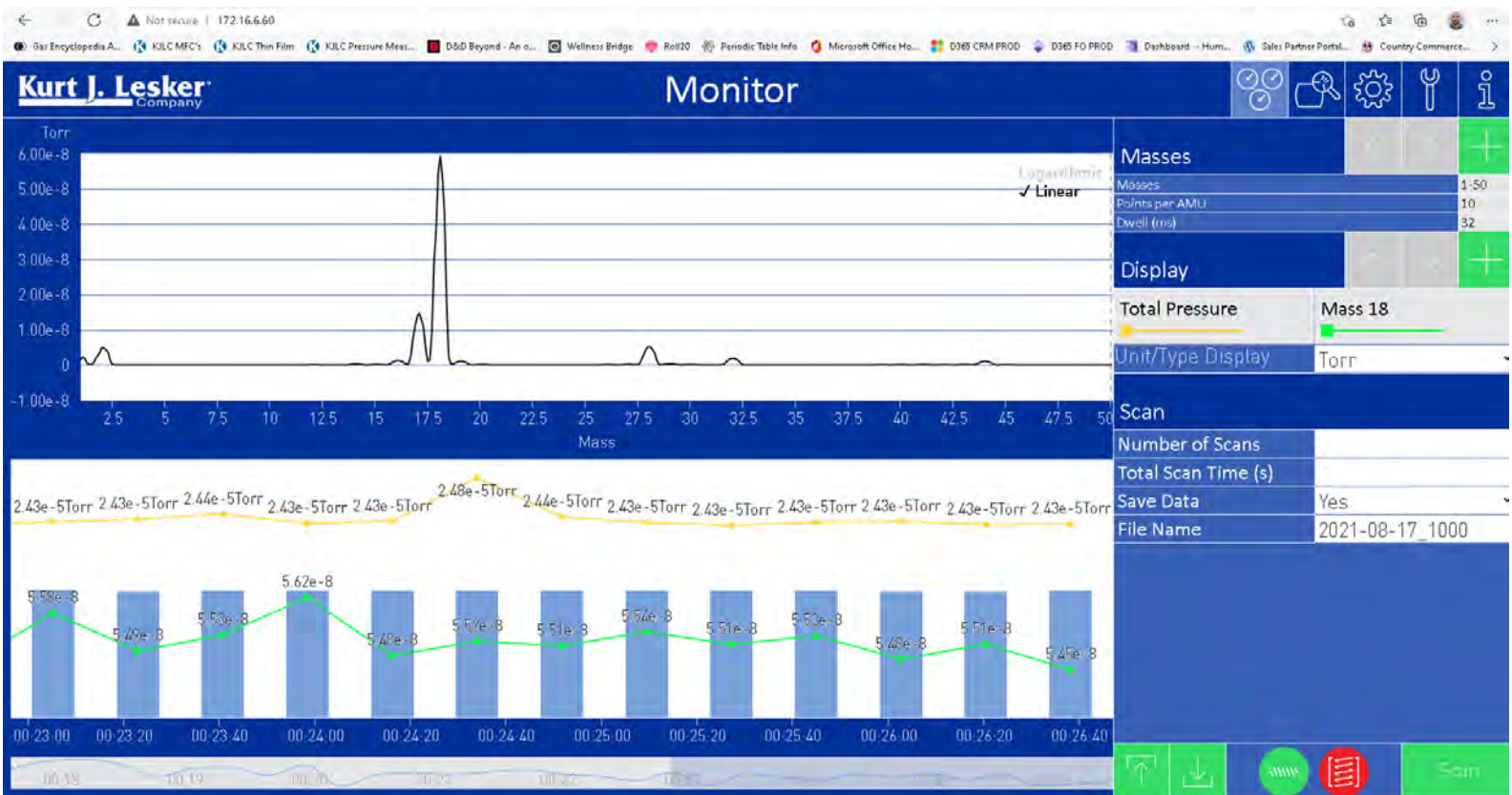


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1. What you see when you first log in, minus the data



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2. Screen Selection – Top Right



Monitor Screen

- Main screen
- Monitor mass range or specific masses
- Trend analysis of a specific mass / masses, total pressure, and diagnostics
- Save Data
- Import or Export saved data



Leak Detection Screen

- Trend analysis for leak detection
- User selectable gases (most common is Helium)
- Set audible thresholds / alarms based on partial pressure of selected gas



Settings Screen

- Sensor, firmware, and network settings
- Update firmware here
- Tuning
- Reset to factory default



Diagnostics Screen

- System information for troubleshooting
- System error log (downloadable)



Info Screen

- Manual, API guide, Python, and MatLab downloads
- Sensor Pinout photo for troubleshooting

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3. Monitor Screen



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Info Screen

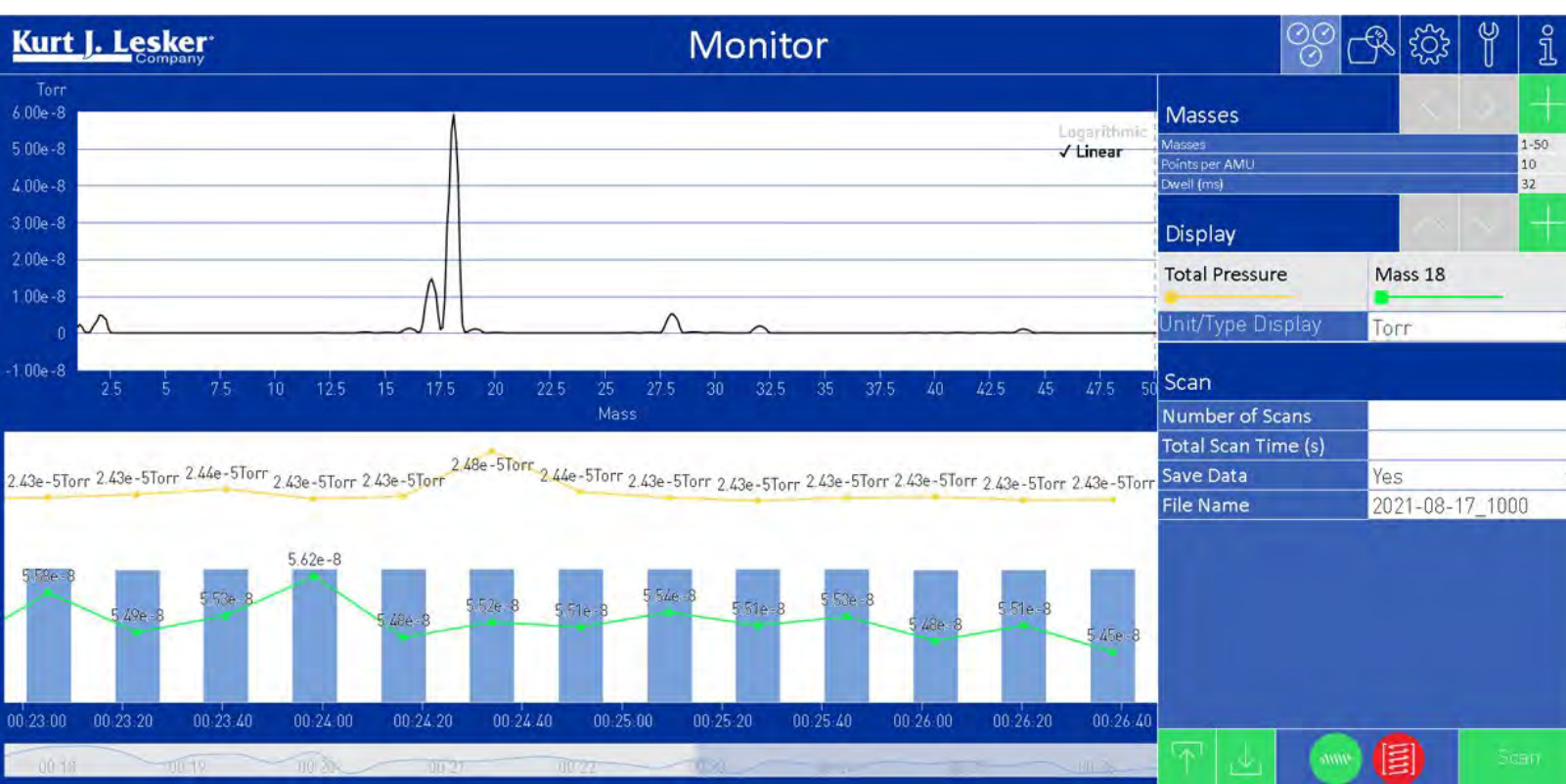
- Manual, API guide, Python, and [MatLab](#) downloads
- Sensor Pinout photo for troubleshooting

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4. Monitor Screen

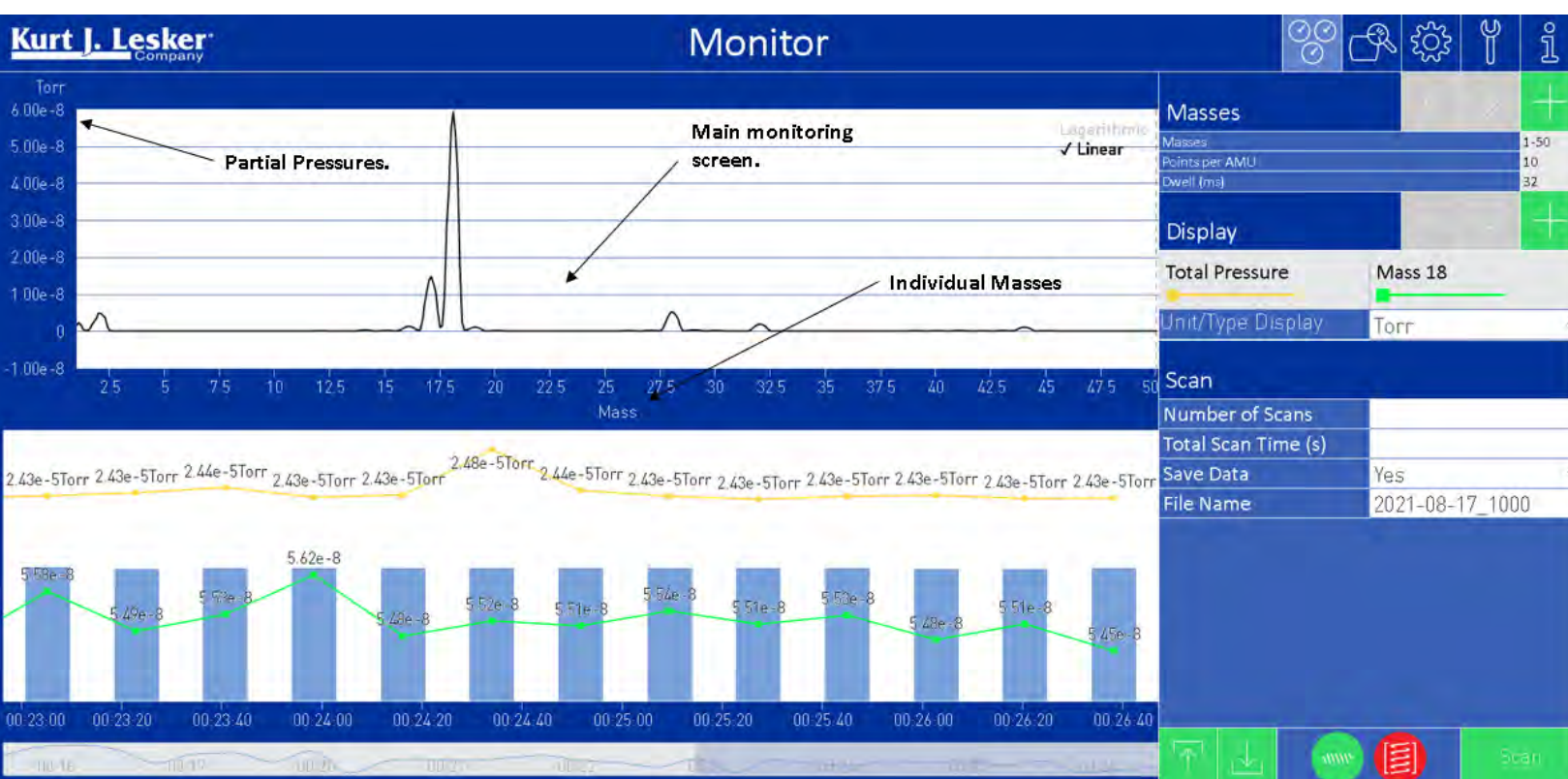


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5. Monitor Screen

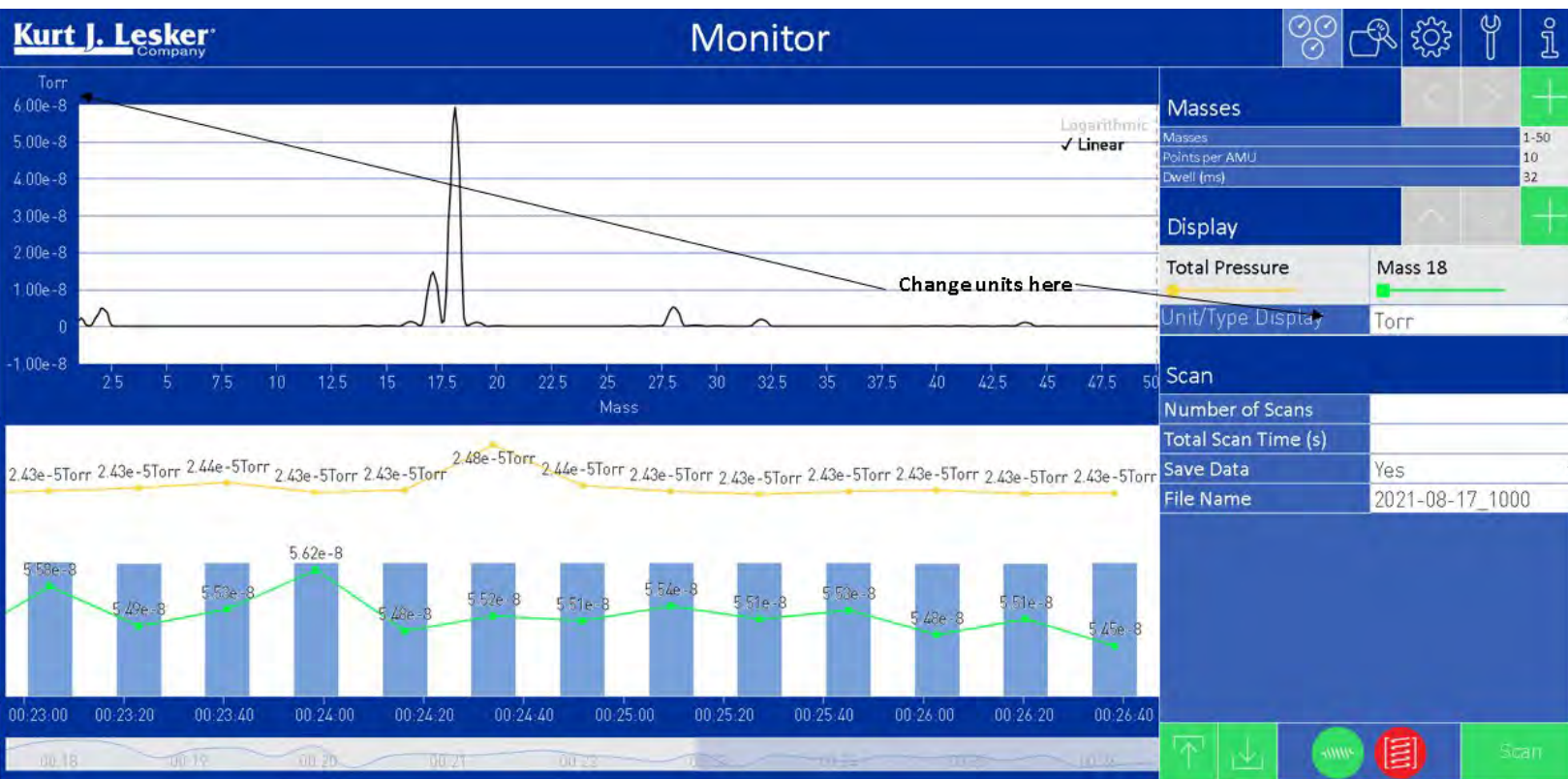


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6. Monitor Screen - Units

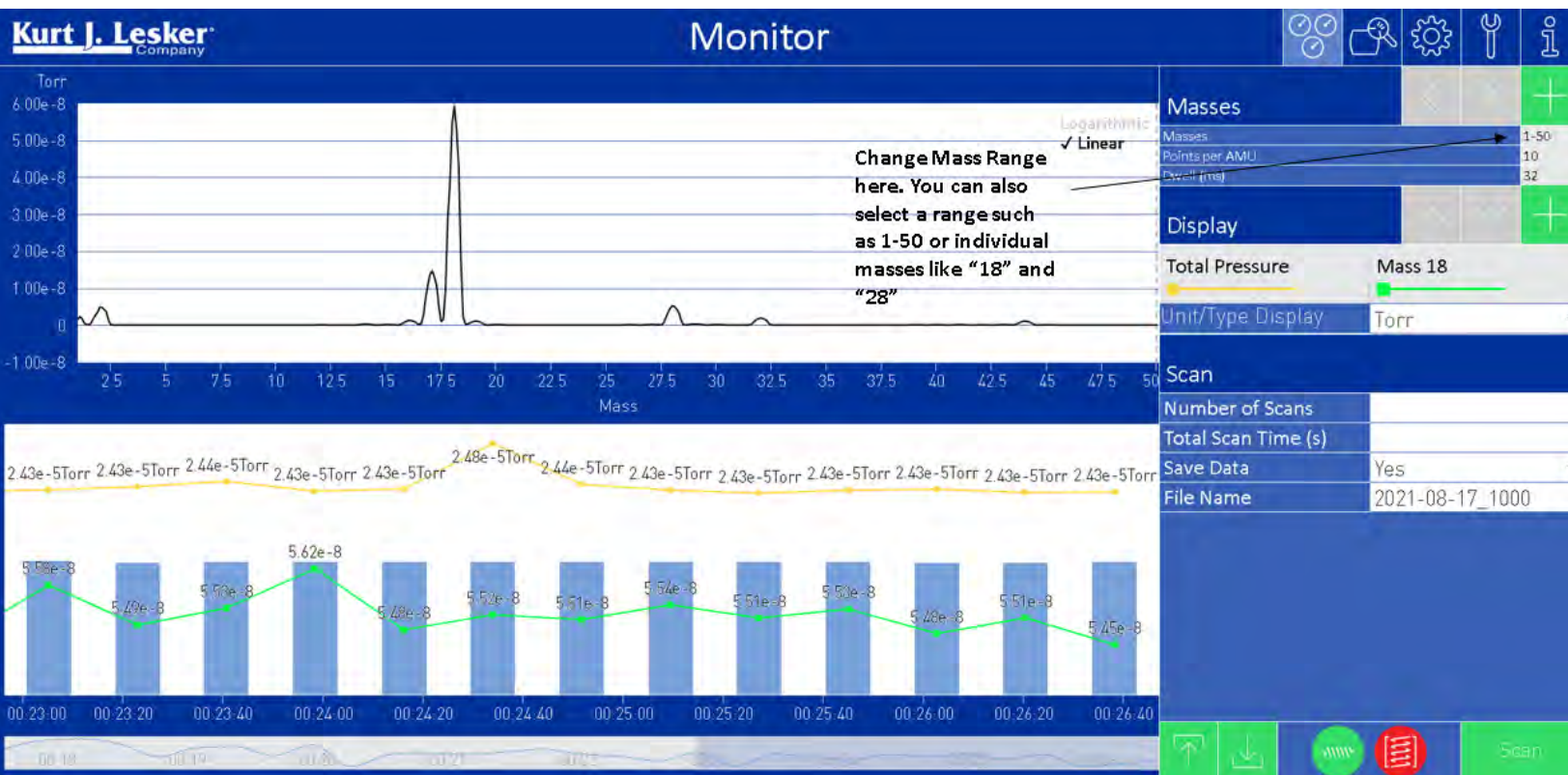


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7. Monitor Screen – Mass Range

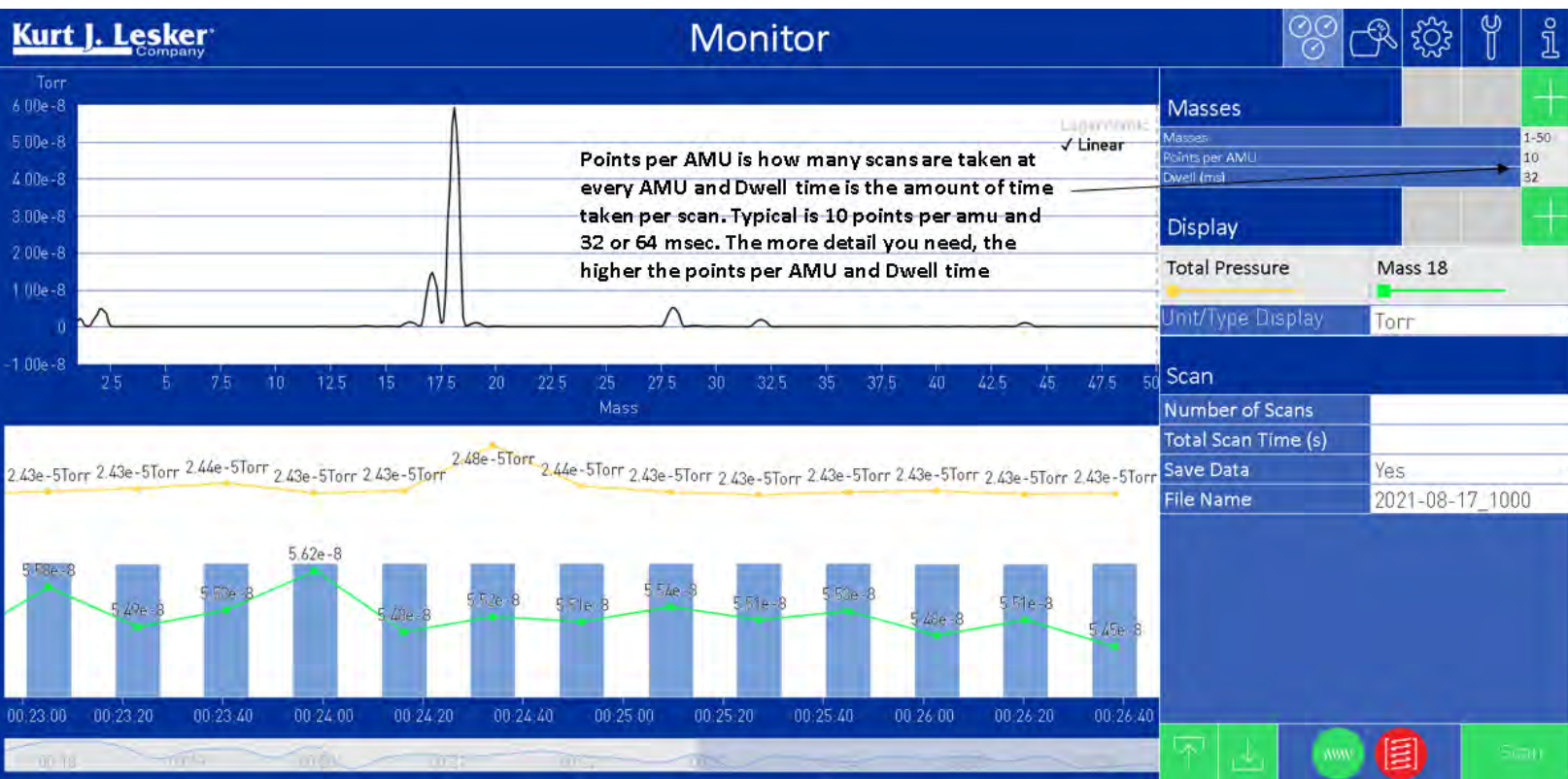


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8. Monitor Screen – Points per AMU and Dwell Time

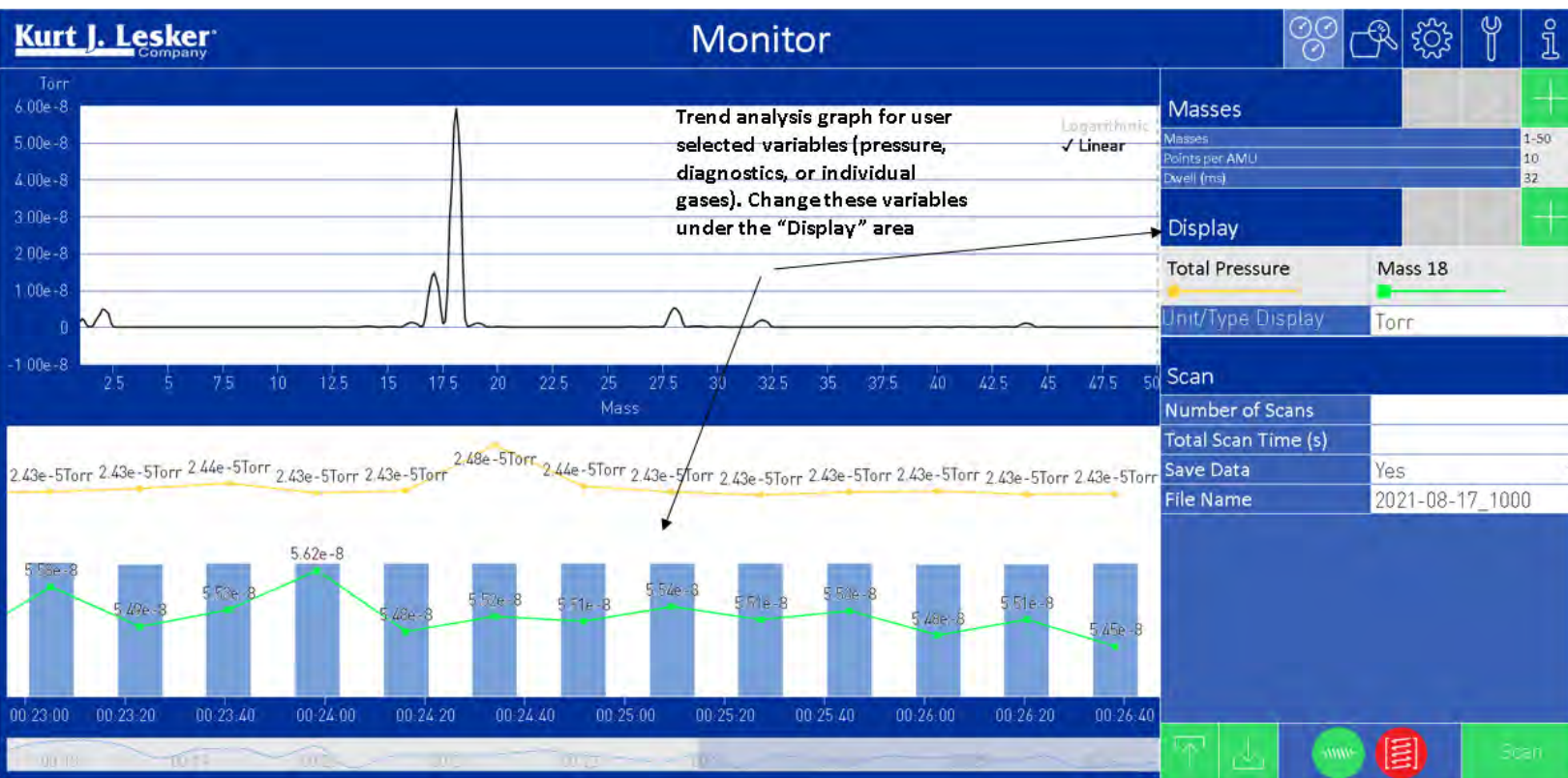


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9. Monitor Screen – Trend Analysis Graph

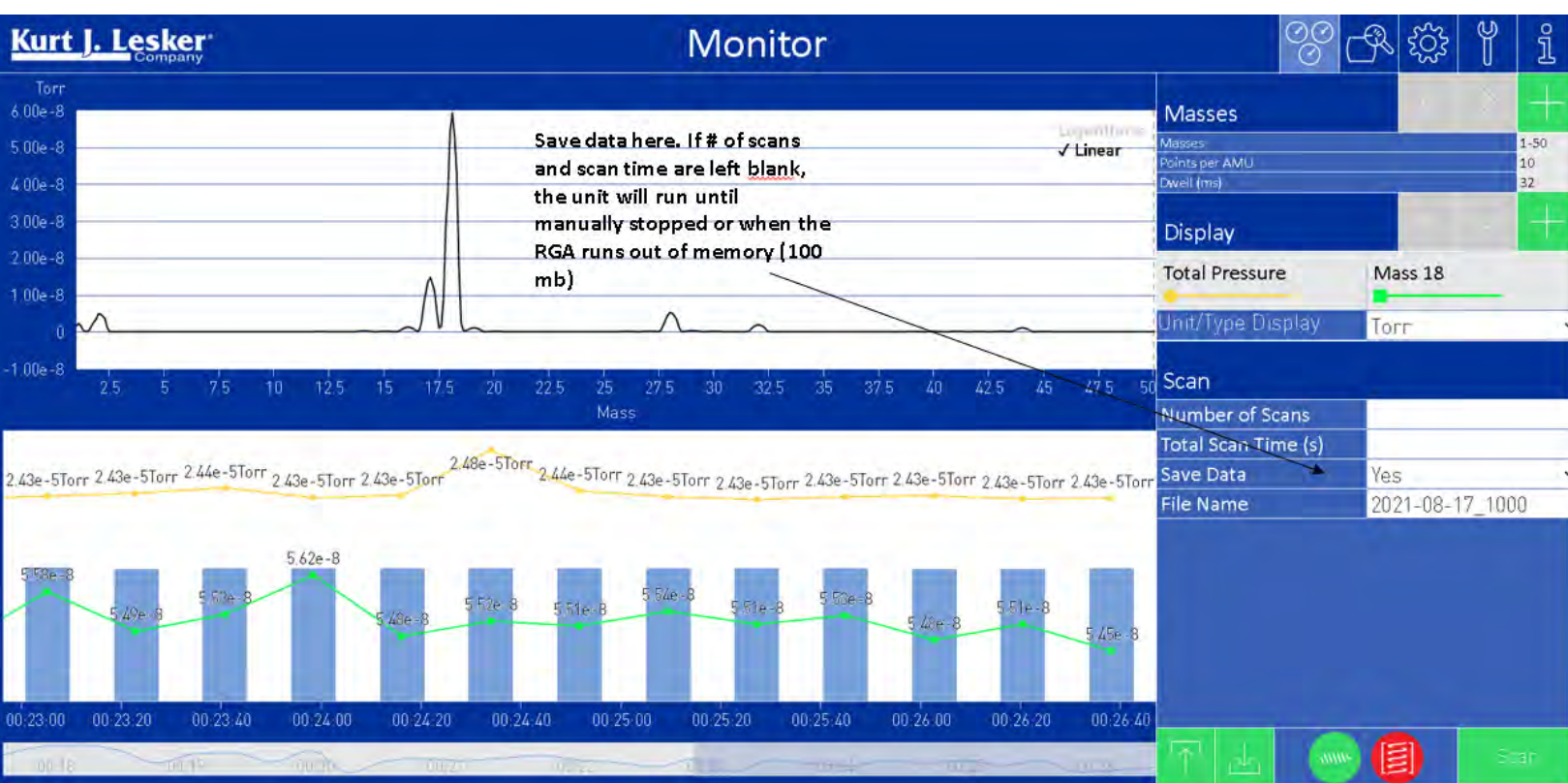


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10. Monitor Screen – Save Data

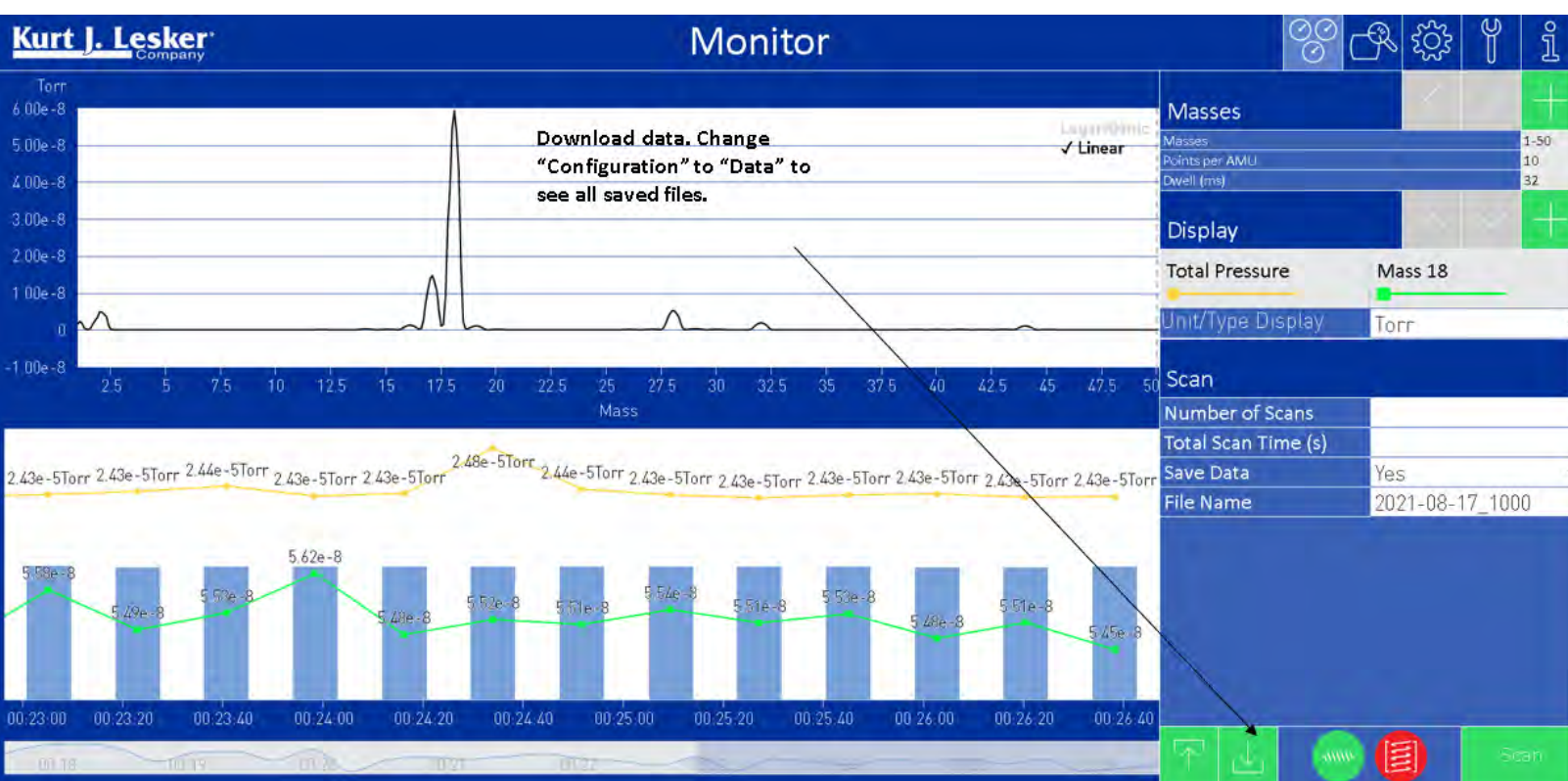


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11. Monitor Screen – Download Saved Data

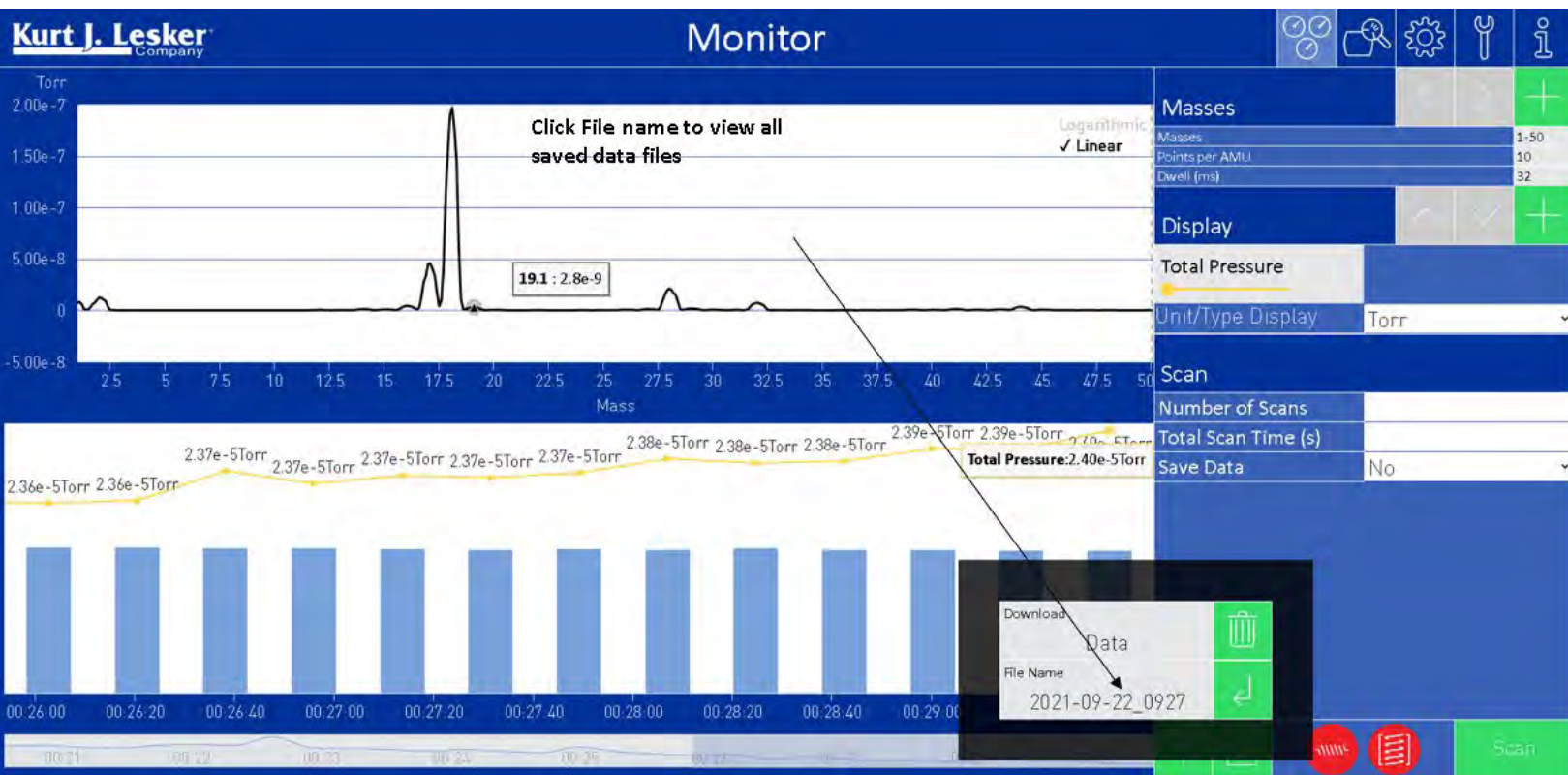


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12. Monitor Screen – Download Saved Data



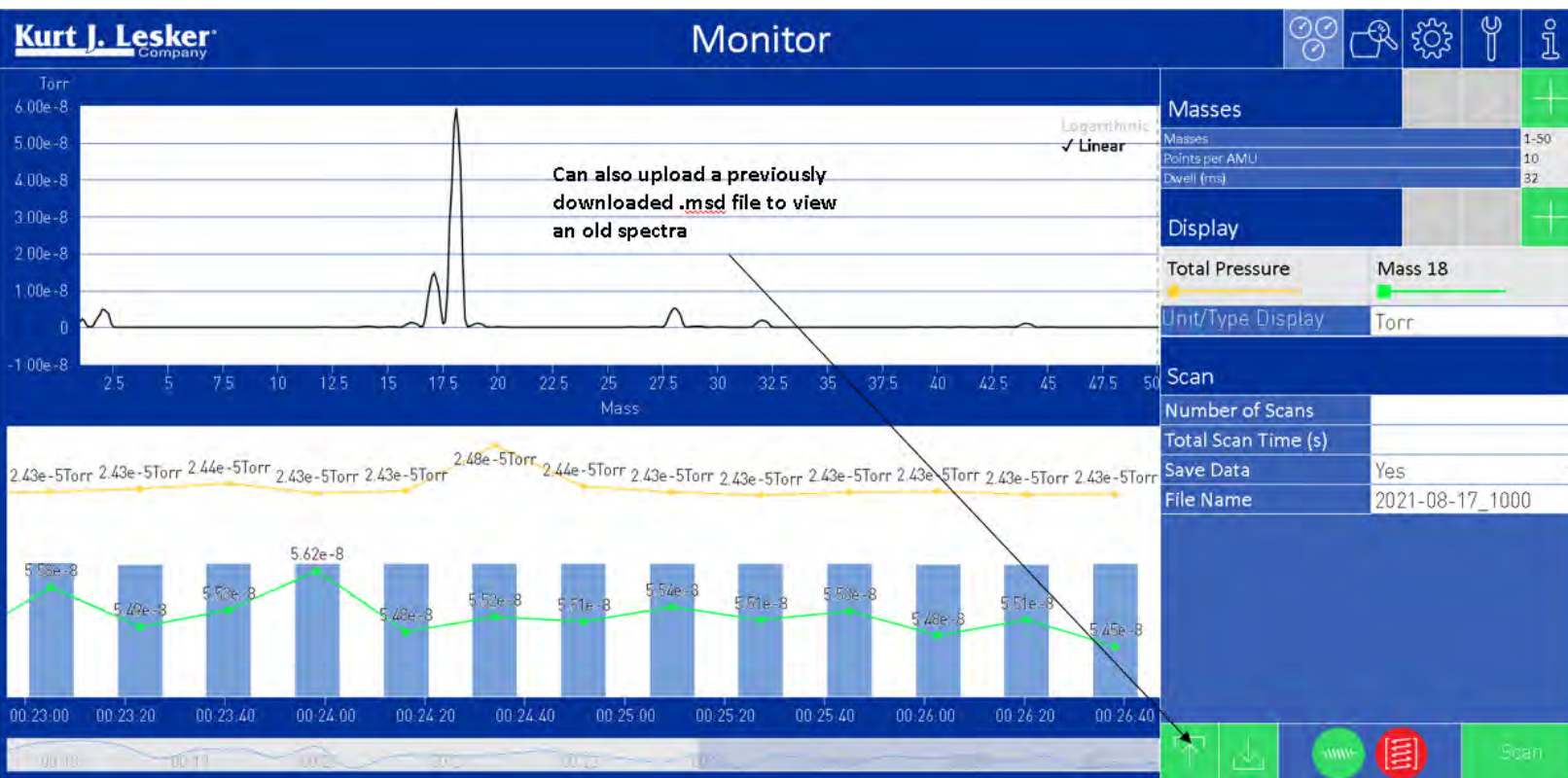
Note: Download will currently be a .MSD file. You will need to use the Python script that can be downloaded from the RGA to convert the .MSD file to a .CSV file.

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13. Monitor Screen – Uploading an MSD file

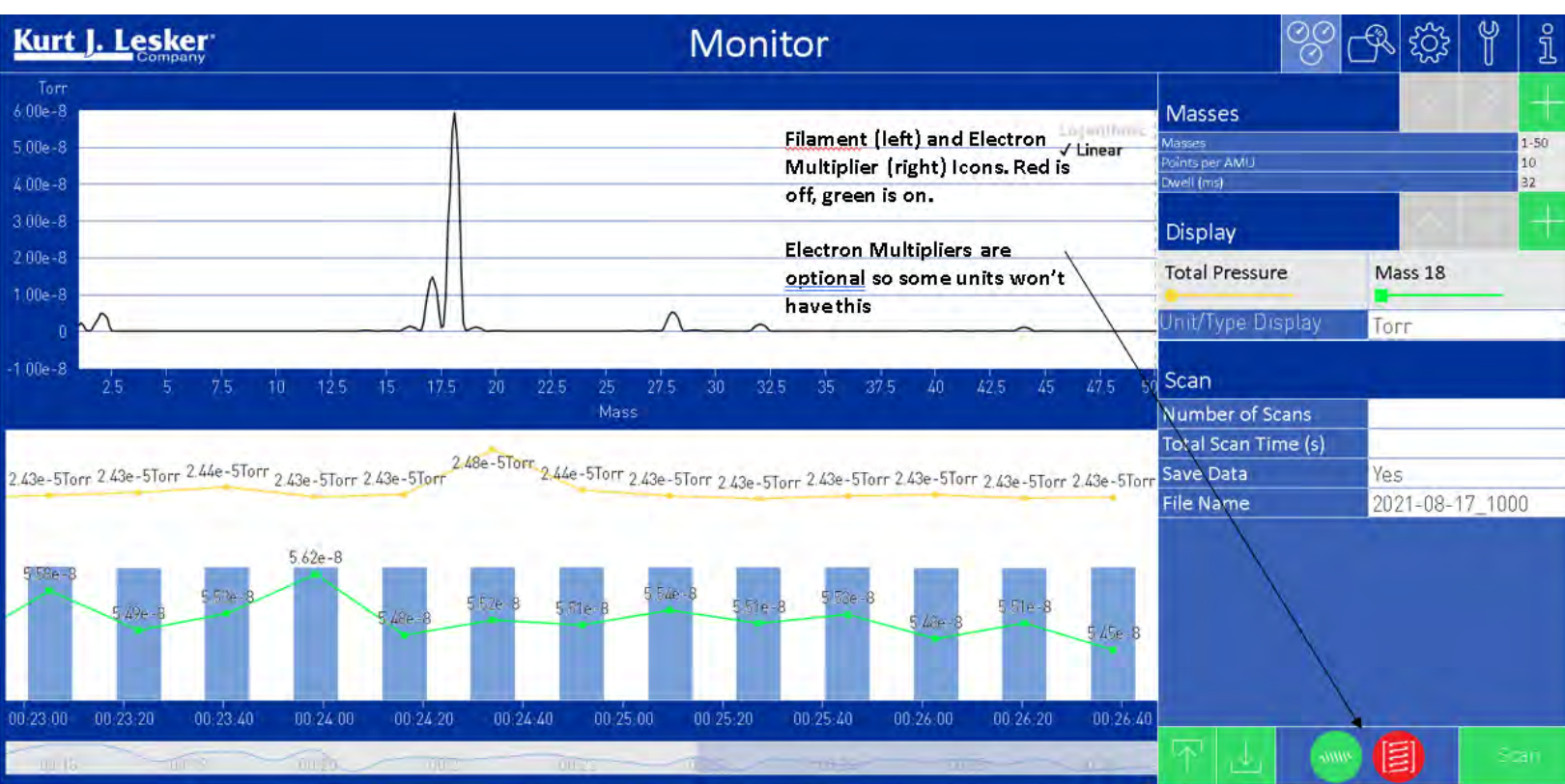


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14. Monitor Screen – Filament turn on and Electron Multiplier



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15. Leak Detection Screen



Monitor Screen

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Settings Screen

- Sensor, firmware, and network settings
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Diagnostics Screen

- System information for troubleshooting
- System error log (downloadable)



Info Screen

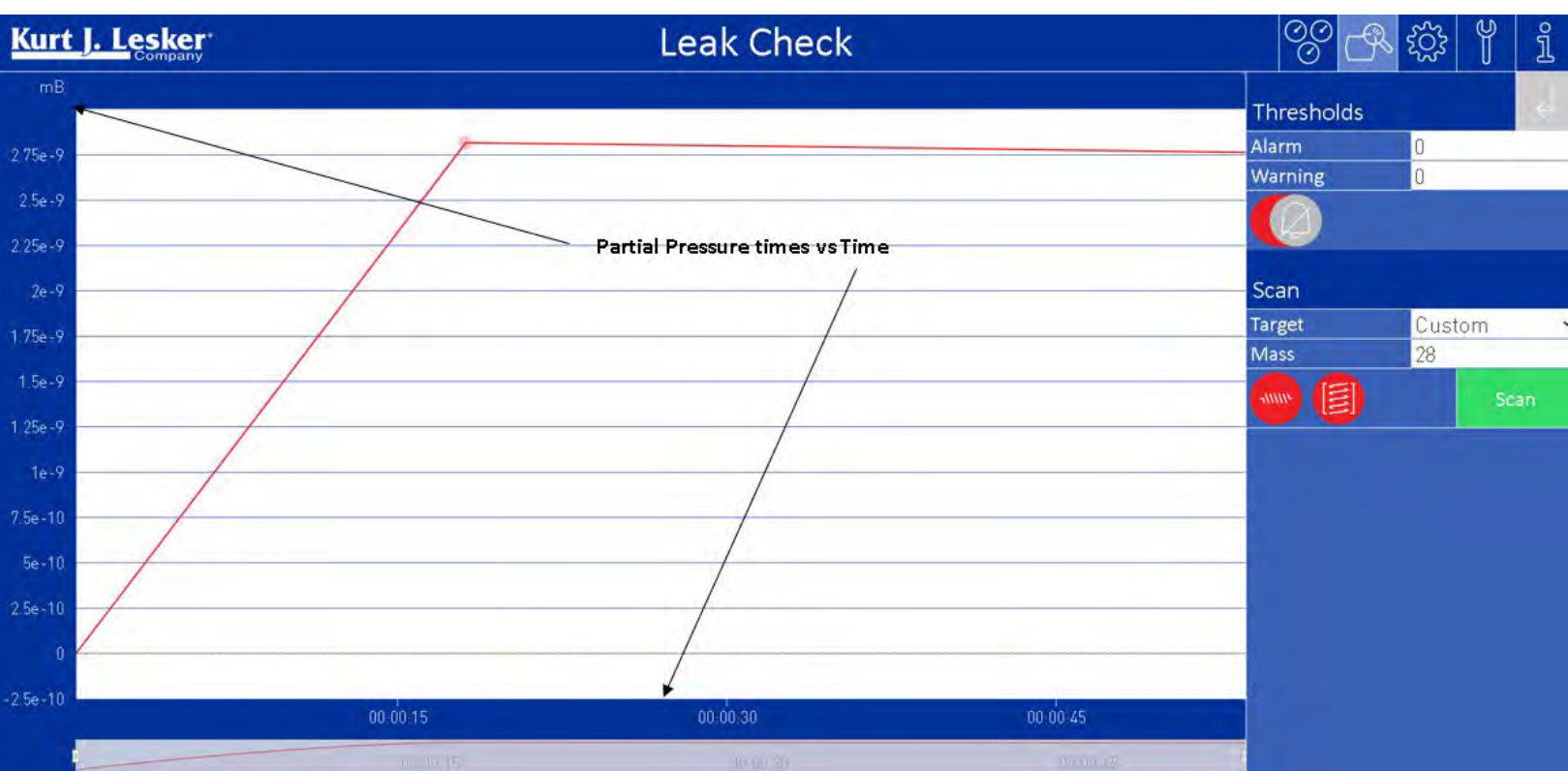
- Manual, API guide, Python, and MatLab downloads
- Sensor Pinout photo for troubleshooting

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16. Leak Detection Screen – Units

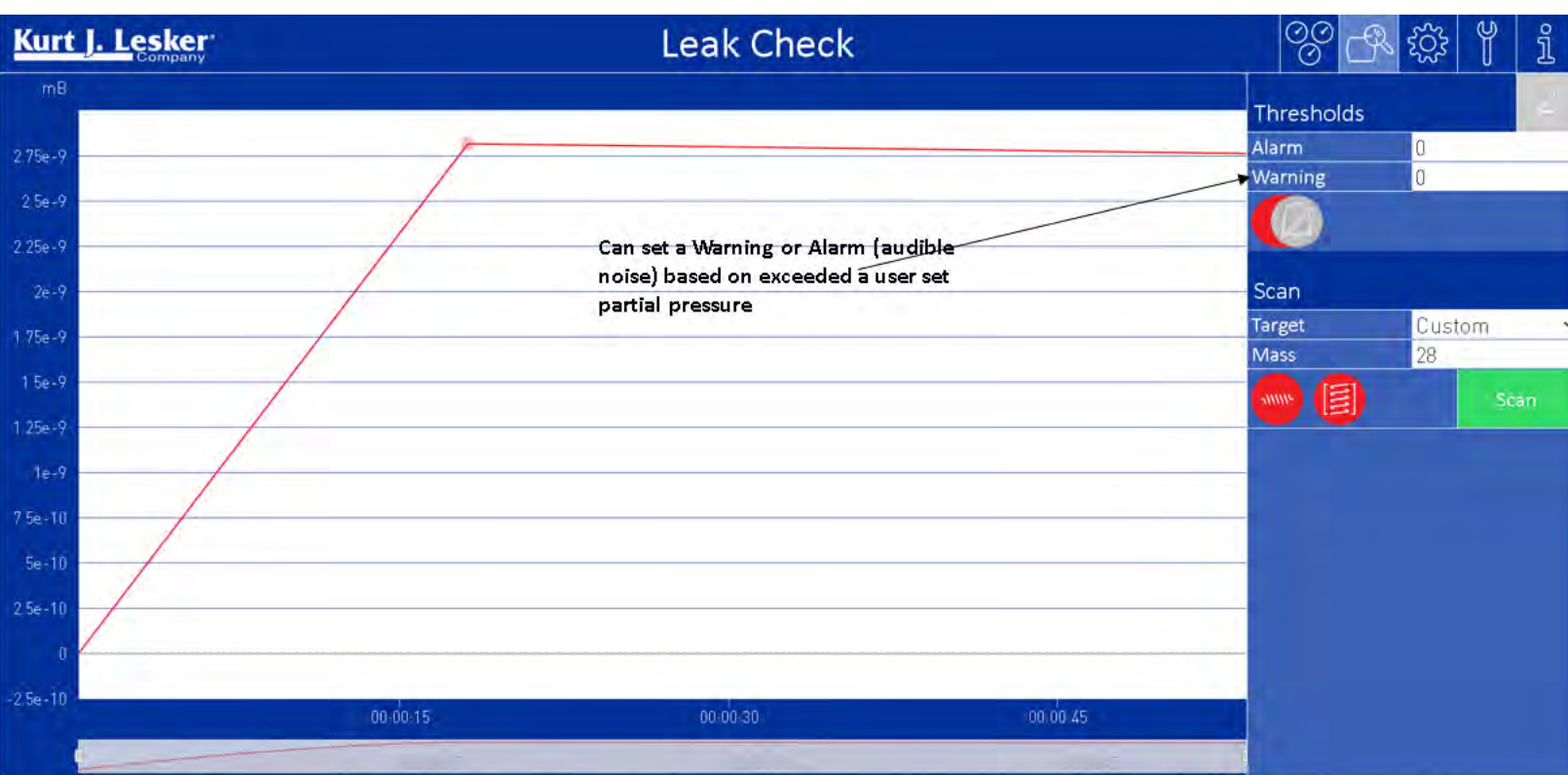


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17. Leak Detection Screen – Warning and Alarm

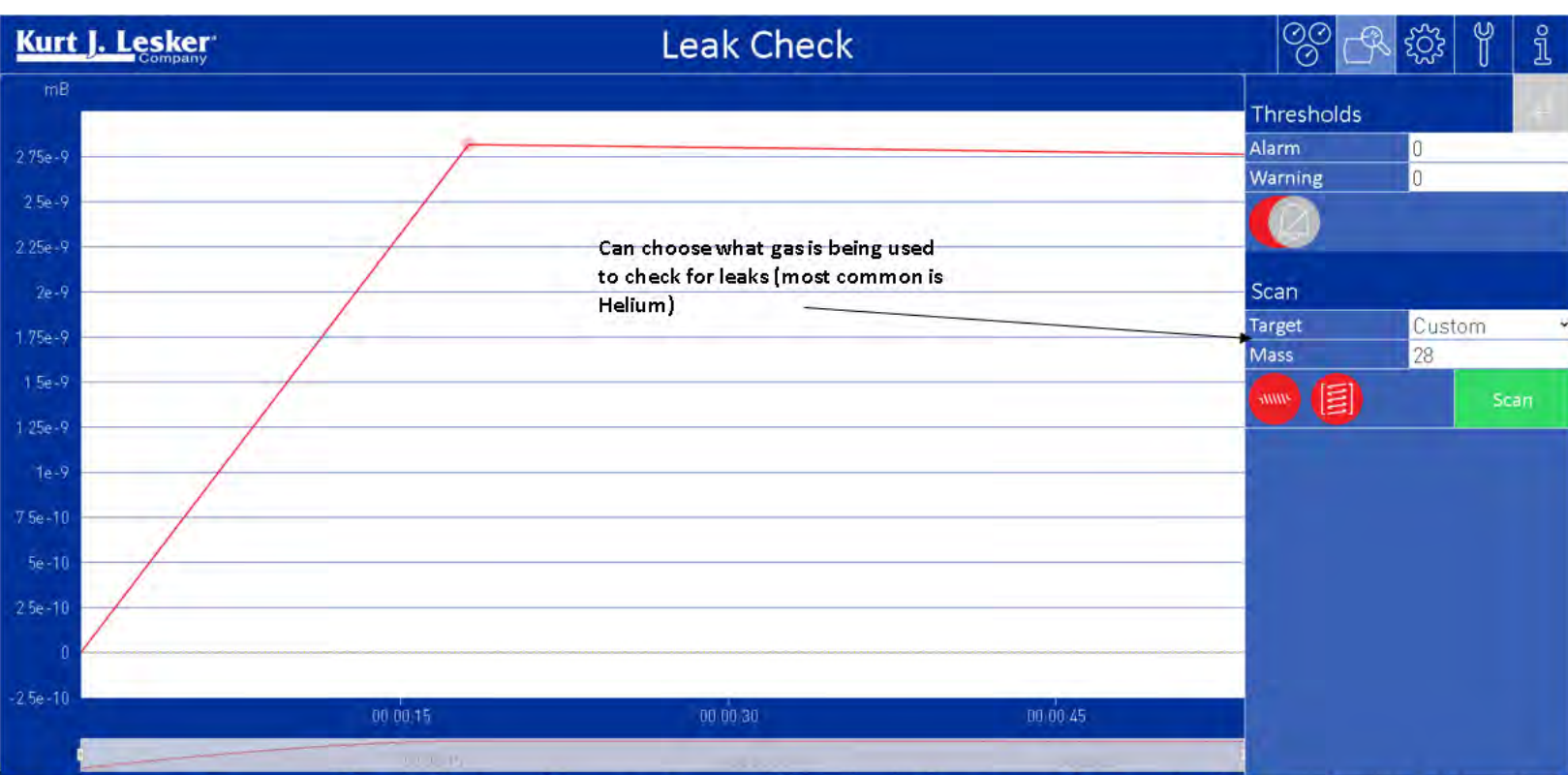


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18. Leak Detection Screen – Target Mass



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19. Settings Screen



Monitor Screen

- Main screen
- Monitor mass range or specific masses
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20. Settings Screen

The screenshot displays the 'Settings' interface for the Kurt J. Lesker software. It is divided into three main sections: Sensor, Network, and Tune. The Sensor section contains fields for Serial Number, Mass Range, Detector Type, and MAC Address. The Network section includes Electronics ID, Description, IP Address, Subnet Mask, Gateway, Port Number, and DHCP. The Tune section features a 'Revert to Factory' button. Annotations with arrows point to specific elements: 'Sensor Info (amu range and optional EM or not)' points to the Mass Range field; 'Upload new firmware (if available)' points to a green upload icon in the Firmware section; and 'Change network settings; should discuss with internal IT before changing' points to the IP Address field.

Sensor		Network		Tune
Serial Number	0	Electronics ID	LE-B20P	Revert to Factory
Mass Range	200	Description	Linxon	
Detector Type	CDEM	IP Address	172.16.6.60	
MAC Address	00:A0:41:02:FC:4C	Subnet Mask	255.255.248.0	
Firmware		Gateway	172.16.1.1	
LINXON.bin	99.99.99.202002060653	Port Number	80	
httproot.mar	1.09.00.202010201620	DHCP	Off	

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21. Settings Screen

The screenshot shows the 'Settings' screen with the following data:

Sensor		Network		Tune
Serial Number	0	Electronics ID	LE-B20P	Revert to Factory
Mass Range	200	Description	Linxon	
Detector Type	CDEM	IP Address	172.16.6.60	
MAC Address	00:A0:41:02:FC:4C	Subnet Mask	255.255.248.0	
		Gateway	172.16.1.1	
		Port Number	80	
		DHCP	Off	

Firmware	
LINXON.bin	99.99.99.202002060653
httproot.mar	1.09.00.202010201620

Tuning – used when the RGA is showing signs of drift (i.e. control gas, such as N₂, is showing up at a mass other than 28). Should contact gauging@lesker.com before tuning if it is your first time.

Revert to Factory Default is tuning is done incorrectly

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22. Diagnostics Screen



Monitor Screen

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Settings Screen

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Diagnostics Screen

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- System error log (downloadable)



Info Screen

- Manual, API guide, Python, and [MatLab](#) downloads
- Sensor Pinout photo for troubleshooting

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23. Diagnostics Screen

The screenshot displays the 'Diagnostics' screen of the RGA software. The interface is divided into several sections:

- Header:** Kurt J. Lesker Company logo and 'Diagnostics' title. Navigation icons for home, search, settings, tools, and help are visible on the right.
- Versions Table:** Lists software components and their version numbers.

Component	Version
LINXON.bin	99.99.99.202002060653
httproot.mar	1.09.00.202010201620
Power Supply FW	4.01.00
Power Supply Rev	B
Motherboard Rev	B
CPU Board Rev	B
RF Board Rev	B
- System Status Table:** Displays various operational parameters.

Parameter	Value
Emission Current	11µA
Electron Energy	32.39V
Ion Energy	10000mV
Focus Potential	25.00V
Anode Potential	1.43V
Filament Potential	0.01V
Filament Current	0.09A
RF Frequency	2.17MHz
RF Power	0mW
Box Temperature	34.0°C
Filament 1 On Time	231h
Filament 2 On Time	1h
EM On Time	187h
Box On Time	1060h
IS TP Trips	6
- System Events Table:** Lists recent system events with timestamps.

Event	Timestamp
Current	Aug 17, 2021 10:44 AM
Scan Stopped Immediate	Aug 17, 2021 10:42 AM
Current	Aug 17, 2021 10:42 AM
Scan Started	Aug 17, 2021 10:42 AM
Current	Aug 17, 2021 10:42 AM
Dwell outside the bounds	Aug 16, 2021 9:30 AM
DSP AIS PDS seq fail	Aug 16, 2021 9:30 AM
- Downloadable System Events Legend:**
 - White – general message
 - Yellow – warning message
 - Red – error message
- General Diagnostics:** A section at the bottom of the screen.

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24. Info Screen



Monitor Screen

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Info Screen

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- Sensor Pinout photo for troubleshooting

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25. Info Screen

Kurt J. Lesker
Company
Info

Documentation

Web UI Manual

API Guide

Quick Start Guide

Python Examples

MATLAB Examples

API – open access to API so end user can integrate into their system

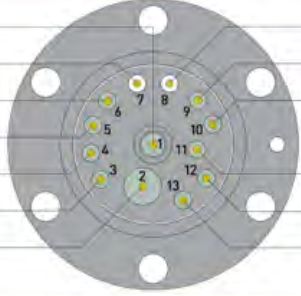
Python script – convert saved [.msd](#) to [.csv](#)
Must have python downloaded on computer
Download saved [msd](#) file, drag it over the python file, and drop. This will automatically convert [msd](#) to [csv](#).

Sensor Pinout

To check filament continuity:

- Use a multimeter to measure the resistance of Pins 3 and 10 for Filament #1
- Use a multimeter to measure the resistance of Pins 4 and 10 for Filament #2
- Resistance should be around 0.8 Ohms

1 PP	8 GND
7 GND	9 RF+
6 RF-	10 Filament Common
5 Anode	11 Reserved
4 Filament 2	12 Focus
3 Filament 1	13 TP
2 EM	



Sensor pinout for troubleshooting. If “open”, filaments are physically damaged. If over 0.8 ohms, filaments are contaminated, and sensor should be baked out.

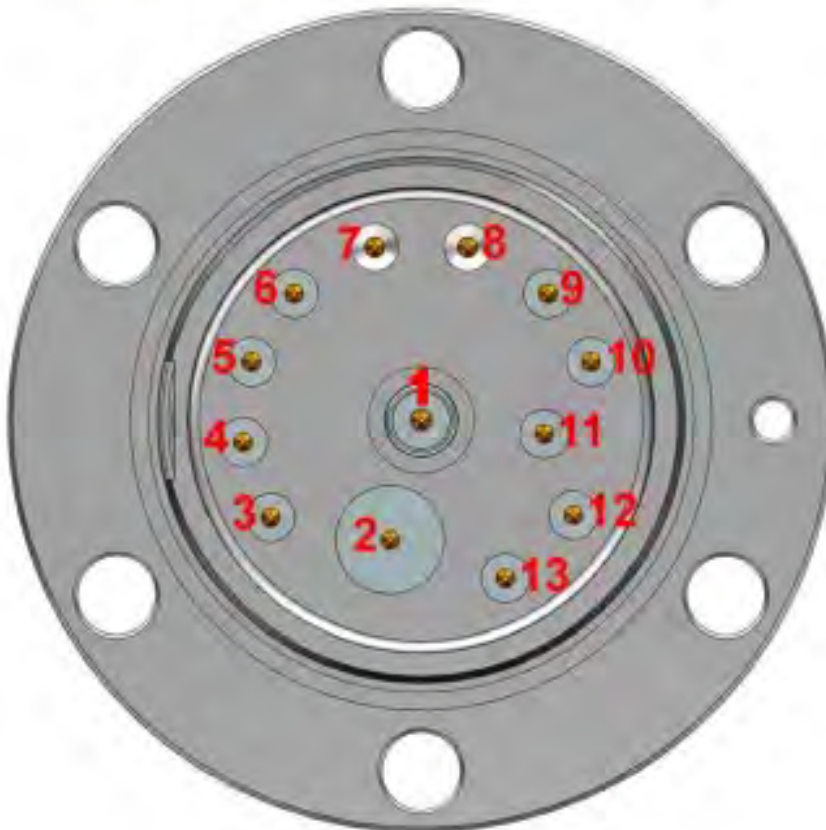
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KJLC Element RGA Pin Resistances

- 1 Measure the resistance of each filament. This can be accomplished while the sensor is under vacuum by measuring the resistance between pins 3 and 10 for filament 1 and pins 4 and 10 for filament 2. A failed filament will measure open while an intact filament will measure 0.3Ω.

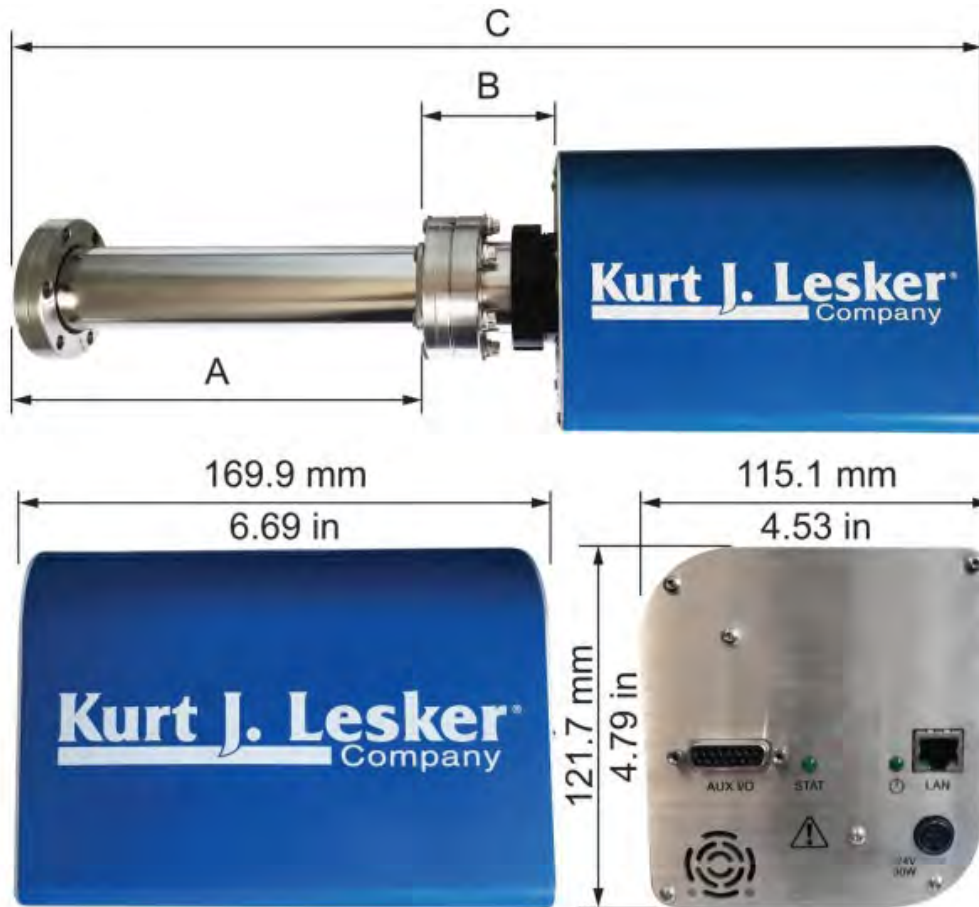


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Dimensional Drawings



Element	(A)	(B)	(C)
100F, 200F	143 mm (5.63 in.)	50 mm (1.98 in.)	365.7 mm (14.40 in.)
100M, 200M	199 mm (7.83 in.)	50 mm (1.98 in.)	421.6 mm (16.60 in.)

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Replacement Parts

ELE163312: REPLACEMENT PART, FILAMENT KIT, DUAL YTTRIA-COATED IRIIDIUM
ELE163311: REPLACEMENT PART, FILAMENT KIT, DUAL TUNGSTEN
ELE163212: REPLACEMENT PART, ION SOURCE KIT, DUAL YTTRIA-COATED IRIIDIUM
ELE163211: REPLACEMENT PART, ION SOURCE KIT, TUNGSTEN
ELE163500: REPLACEMENT PART, EM KIT
ELE163604: CABLE, ETHERNET COMMUNICATIONS, 7m
ELE163605: CABLE, ETHERNET COMMUNICATIONS, 15m
ELE163600: POWER SUPPLY KIT, RGA, 80-250 VAC, 4ft (1.2m), US PLUG
ELE163601: POWER SUPPLY KIT, RGA, 80-250 VAC, 4ft (1.2m), EU PLUG
ELE163602: POWER SUPPLY KIT, RGA, 80-250 VAC, 4ft (1.2m), UK PLUG
ELE163603: POWER SUPPLY KIT, RGA, 80-250 VAC, 4ft (1.2m), IL PLUG
EL-A10S: ELECTRONICS BOX, FC, 100 AMU, STANDARD I/O
EL-A11S: ELECTRONICS BOX, FC, 100 AMU, EXTENDED I/O
EL-A20S: ELECTRONICS BOX, FC, 200 AMU, STANDARD I/O
EL-A21S: ELECTRONICS BOX, FC, 200 AMU, EXTENDED I/O
EL-B10S: ELECTRONICS BOX, EM / FC, 100 AMU, STANDARD I/O
EL-B11S: ELECTRONICS BOX, EM / FC, 100 AMU, EXTENDED I/O
EL-B20S: ELECTRONICS BOX, EM / FC, 200 AMU, STANDARD I/O
EL-B21S: ELECTRONICS BOX, EM / FC, 200 AMU, EXTENDED I/O
EL-1FAS: SPARE RGA SENSOR, 100 AMU, FC, DUAL YTTRIA-COATED IRIIDIUM FILAMENTS
EL-1MAS: SPARE RGA SENSOR, 100 AMU, EM /FC, DUAL YTTRIA-COATED IRIIDIUM FILAMENTS
EL-2FAS: SPARE RGA SENSOR, 200 AMU, FC, DUAL YTTRIA-COATED IRIIDIUM FILAMENTS
EL-2MAS: SPARE RGA SENSOR, 200 AMU, EM /FC, DUAL YTTRIA-COATED IRIIDIUM FILAMENTS
EL-1FBS: SPARE RGA SENSOR, 100 AMU, FC, DUAL TUNGSTEN FILAMENTS
EL-1MBS: SPARE RGA SENSOR, 100 AMU, EM /FC, DUAL TUNGSTEN FILAMENTS
EL-2FBS: SPARE RGA SENSOR, 200 AMU, FC, DUAL TUNGSTEN FILAMENTS
EL-2MBS: SPARE RGA SENSOR, 200 AMU, EM /FC, DUAL TUNGSTEN FILAMENTS
FN-C3113080: EXTENSION TUBE, DN35CF-DN40CF (2.75" OD), THRU HOLES, 8"OAL, 1.5" OD TUBE
HBS25028138: BOTL SET FOR DN35CF-DN40CF (2.75" OD) FLANGE, 2.25" LENGTH, 25 SETS
SA0150MCCF: ANGLE VALVE, MANUAL, METAL, COPPER BONNET BELLOWS SEALED, DN35CF-DN40CF (2.75" OD)
SA0150PCCF: ANGLE VALVE, PNEUMATIC, METAL, COPPER BONNET BELLOWS SEALED, DN35CF-DN40CF (2.75" OD)



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You can also view much of our service and support offerings on our website at www.lesker.com.