

# 736 Series

*Oxygen/Nitrogen by Inert Gas Fusion*



**LECO**  
EMPOWERING RESULTS

# 736 Series Oxygen/Nitrogen by Inert Gas Fusion

The 736 family of Elemental Analyzers is designed for routine measurement of oxygen and nitrogen content of inorganic materials, ferrous and nonferrous alloys, and refractory materials using the inert gas fusion technique.

These instruments feature our Cornerstone® brand software, a custom interface designed specifically for touch-screen operation. Developed by combining long-term research with customer feedback, this easy-to-use software gives you complete access to instrument control, analysis settings, diagnostics, reporting, and more—without sacrificing valuable bench space.



# User-Friendly Cornerstone Brand Software

LECO's exclusive Cornerstone brand software with touch-screen interface enables complete access to analysis control, method settings, diagnostics, reporting, and more in a highly organized, intuitive, and immersive environment. Designed through a collaboration of customer feedback and innovative engineering, Cornerstone features all of the routine day-to-day operations within a single Analysis screen designed for speed and ease-of-use. Our innovative grouping of sample data into sets and replicates simplifies the data output and automatically calculates relevant statistics, alleviating the need for additional data processing.





# Software Features & Benefits

Cornerstone brand software is divided into four main sections—Analysis, Diagnostics, Settings, and Instrument—for simplified navigation and organization. Toolbars, sliders, and drop-down menus make it easy to set parameters for calibration and data processing. The software also includes real-time ambient monitors, with fully animated system diagrams. Advanced diagnostic features include a thorough digital on-board manual, maintenance animations, photo illustrations, and screen captures that quickly provide the direction needed without having to refer to multiple manuals. Cornerstone also supports extended data archiving and flexible reporting capabilities.

**ANALYSIS**

ID	Weight	Gas Composition	Date
4	802-468 0748	0.35520 % O 0.006 % N	2/18/2022 2:07:01 PM
1	102-887 0739-3	0.1425 % O 0.01351 % N	2/18/2022 2:12:37 PM
1	802-467 0739-3	0.14487 % O 0.01386 % N	2/18/2022 2:42:23 PM
2	0.1152 g	0.14279 % O 0.01366 % N	2/18/2022 2:52:28 PM
2	0.1156 g	0.14279 % O 0.01366 % N	2/18/2022 2:52:28 PM
3	0.1148 g	0.14284 % O 0.01360 % N	2/18/2022 2:52:28 PM
4	0.1164 g	0.14217 % O 0.01368 % N	2/18/2022 2:52:28 PM
1	802-467 0740	0.14145 % O 0.01335 % N	2/18/2022 2:57:01 PM
1	NCS NS 11090	0.29256 % O 0.00481 % N	2/18/2022 2:33:28 PM
1	NIST 173c	0.028 % O 0.02719 % N	2/18/2022 2:37:38 PM

Gas Concentration: 0.1425 ± 0.001235, 0.01351 ± 0.0005193

**DIAGNOSTICS**

Item	Description	Status	Date/Time
Air Filters	Inspect for clogging. Clean and replace as needed.	Expired	2/23/2022 10:42:28 AM
Balance Check	Check with certified weight or calibrant.	Expired	2/23/2022 10:42:28 AM
Condant Water	Check level and quality of condant water.	Expired	2/23/2022 10:42:28 AM
Crackle Bucket	Empty crackle bucket.	Disabled	2/23/2022 10:42:28 AM
Databank Backup	Backup databank regularly to guard against data loss.	Disabled	2/23/2022 10:42:28 AM
Lock Filter	Inspect regularly for color change and quality to ensure they are not expired.	Expired	2/23/2022 10:42:28 AM
Electrode O-rings	Inspect for damage and replace as needed.	Expired	2/23/2022 10:42:28 AM
Heated Inlet	Inspect regularly for color change and quality to ensure they are not expired.	927 Analyzes	2/23/2022 10:42:28 AM
Incoming Particle Filter	Inspect for buildup of particles. Replace as needed. Check quality of gas supply if replacement occurs.	41 Days	2/23/2022 10:42:28 AM
Incoming Purifier	Inspect regularly for color change and quality to ensure they are not expired.	60 Days	2/23/2022 10:42:28 AM
Incoming Scrubber	Inspect regularly for color change or clogging that indicate consumption. Replace as needed.	60 Days	2/23/2022 10:42:28 AM
Leak Check	Perform a system or segmented leak check to verify integrity of flow path. Correct any leaks if they check trace and zero.	Expired	2/24/2022 8:30:47 AM
Massair Scrubber	Inspect regularly for color change or clogging that indicate consumption. Replace as needed.	934 Analyzes	2/23/2022 10:42:28 AM
Oxygen and Moisture Indicators	Check regularly for color change indicating consumption. Replace tube as needed.	122 Days	2/23/2022 10:42:28 AM
Particle Filter or Anhydrous Tubing	Inspect for caking, discoloration, or powder past filter. Replace or clean as needed.	133 Days	2/23/2022 10:42:28 AM

Not Ready To Analyze.

**SETTINGS**

Oxygen, Nitrogen

ID	Weight	Oxygen %	Nitrogen %	Date	
502-928 0427	No	0.0043 %	0.0043 %	0.0000 %	8/26/2022 9:41:23 AM
502-856 (0460)	No	0.0032 %	0.0032 %	-0.0000 %	8/26/2022 10:01:56 AM

New Calibration, Existing Calibration

**DIAGNOSTICS**

Flow, Ambient, Digital I/O, Valve States, Leak Check, System Check

Start Time: 11/9/2022 1:49:18 PM, Duration: 00:05:00

Not Ready To Analyze.

**DIAGNOSTICS**

Flow, Ambient, Digital I/O, Valve States, Leak Check, System Check

Start Time: 11/9/2022 1:58:20 PM, Duration: 00:05:00

SYSTEM LEAK CHECK, SYSTEM/FURNACE BRP/AS LEAK CHECK, PNEUMATIC LEAK CHECK

Gas Off.

**SETTINGS**

Selected Fields

Name	Type	Description	Set ID
Analysis Date	Date	Time	Include/Exclude State
Recalculation Date	Number of Included Analyzes	Number of Analyzes	Product 1
Oxygen Average	Oxygen Check Standard	Oxygen Certified	Oxygen Certified (1)
Oxygen Lower Control Limit	Oxygen Upper Control Limit	Oxygen Std. Dev.	Oxygen NIST02
Oxygen Compensation			

Not Ready To Analyze.

## *Instrument Highlights and Features*

### **Features and Benefits**

- LED light ring illuminates the furnace area
- Choice of either argon or helium carrier gas
- Novel electrode design increases heat transfer efficiency for increased stability
- Non-touch interface systems are also available
- User-friendly Cornerstone brand software



*Shown with touch-screen monitor.*



*Shown with optional autocleaner and stand-alone touch-screen monitor.*



### **High-Performance Detector Design**

- Thermostatic construction provides increased protection from ambient temperature fluctuations
- Optimized emitter control and detection circuitry improves the IR cell lifetime and long-term stability, resulting in superior accuracy and precision
- Infrared detection for the determination of oxygen, thermoconductivity detection for the determination of nitrogen

### **Optional Features**

- Optional boom-mounted touch-screen interface package (M) promotes an ergonomic workspace
- Optional Performance Package (P) adds a three-stage carrier gas purification system, and a dual-loop gas dose module
- Optional Dual Cooling Package (D) adds an integrated liquid-to-air radiator with dual DC cooling fans. This option gives the user the choice of liquid-to-liquid cooling, liquid-to-air cooling, or a combination of both
- Optional integrated autocleaner (H) automatically cleans the upper electrode and lower electrode tip
- Optional 20-sample shuttle loader available



*Shown with optional autocleaner and autoloader.*

## Models

ON736 Oxygen/Nitrogen

O736 Oxygen

N736 Nitrogen

## Options

Gas Regulators	Printer	<b>SmartLine</b> <sup>®</sup> Remote Diagnostics
Recirculating Chiller	Power Purifier	Interfaced Balance Kit

NOTE: Multiple configurations of options are available. Please contact your local LECO Sales Engineer for more details.

## LECO—Your source for total analytical solutions

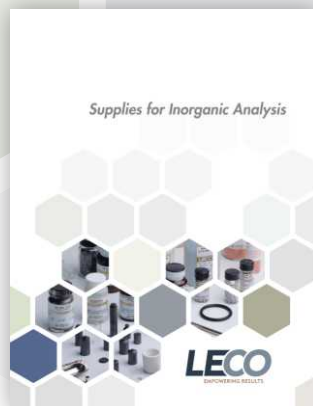


### CS844 Series: Carbon/Sulfur by Combustion

- Carbon and sulfur determination by combustion infrared detection
- Quick, accurate, and affordable determination for both production control and research
- Calibration, analysis, evaluation, and diagnostic functions accessible via user-friendly Cornerstone brand software

### GDS900 Atomic Emission Spectrometers

- Spectral range from 120 to 800 nm
- Continuous profile of concentration/thickness
- Large, dynamic range with concentrations from ppm to 100% by weight
- Short analysis time (minutes)



### Inorganic Consumables

Get the best results from your LECO instrument by using genuine LECO consumables. Visit [www.leco.com](http://www.leco.com) for featured items, specials, and ordering information. (Form number 203-959)



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