

# **APPLICATION GUIDE**

# REFRIGERANT ANALYZERS & ACCESSORIES

OCTOBER 2018

# **Neutronics Refrigerant Analysis**

456 Creamery Way

Exton, PA 19341

**USA** 

PH: (+1) 610-524-8800

Fax: (+1) 610-524-8807

Email: <a href="mailto:info@Refrigerantid.com">info@Refrigerantid.com</a>

Web: www.Refrigerantid.com

INDEX	PAGE
Portable Automotive Identifier for R-134a	4
<ul> <li>Mini ID R-134a Automotive Refrigerant Identifier</li> <li>Mini ID R-1234yf Automotive Refrigerant Identifier</li> </ul>	4 5
Portable Automotive Analyzers for R-1234yf, R-134a & R-12	. 6
<ul><li>Legend Base Automotive Refrigerant Analyzer</li><li>Legend-P Automotive Refrigerant Analyzer</li></ul>	6 7
Internal Automotive Analyzers for R-1234yf & R-134a	8
<ul> <li>Internal R-1234yf Analyzer (VDA Europe)</li> <li>Internal R-1234yf Analyzer (SAE J2927)</li> <li>Internal R-1234yf / R-134a Analyzer (SAE J2912)</li> <li>Internal R-134a Analyzer (SAE J1771)</li> </ul>	8 9 10 11
Portable Commercial HVAC Analyzers	12
<ul> <li>RI-2004HV HVAC Refrigerant Analyzer</li> <li>RI-2004HVP HVAC Refrigerant Analyzer</li> <li>RI-700H HVAC Refrigerant Analyzer</li> <li>Mini ID R-22 Refrigerant Identifier</li> </ul>	12 13 14 15
Sealant Detectors for Automotive Applications	16
Spare Parts	17

#### Portable Automotive Identifier for R-134a

Mini ID R-134a (P/N 7-08-1000-62-0)

Application: R-134a Vehicle & Virgin Cylinder Testing

The Neutronics Mini ID R-134a Refrigerant Identifier will provide an easy and accurate means to determine if the R-134a refrigerant in vehicle air conditioning systems or Virgin refrigerant cylinders is 95% pure or greater.

#### Features

Refrigerants: R-134a

Test Time: 100 Seconds

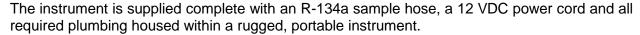
Calibration: Manual

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F

Power: 12 VDC Warranty: One Year

A "GREEN" PASS LED is illuminated for R-134a purity greater than 95% while a "RED" FAIL LED is illuminated for R-134a with a purity of less than 95%.



#### Certifications

UL, CE, SAE J1771

# **Available Accessories**

4-03-5004-07-0 R-134a Tank Adapter

# Spare Replacement Parts

6-01-6001-23-1 Replacement Flow Restrictor Hose

6-01-6001-26-0 Replacement Flow Restrictor Hose (3 Pack)

6-01-6000-75-0 12 VDC Battery Clips



# Portable Automotive Identifier for R-1234yf

Mini ID R-1234yf (P/N 7-08-1000-64-0)

Application: R-1234yf Vehicle & Virgin

Cylinder Testing

The Neutronics Mini ID R1-234yf Refrigerant Identifier will provide an easy and accurate means to determine if the R-1234YF refrigerant in vehicle air conditioning systems or Virgin refrigerant cylinders is 95% pure or greater.

#### **Features**

Refrigerants: R-1234yf

Test Time: 100 Seconds

Calibration: Manual

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F

Power: 12 VDC Warranty: One Year



A "GREEN" PASS LED is illuminated for R-1234yf purity greater than 95% while a "RED" FAIL LED is illuminated for R-1234YF with a purity of less than 95%.

The instrument is supplied complete with an R-1234yf sample hose, a 12 VDC power cord and all required plumbing housed within a rugged, portable instrument.

# Certifications

UL, CE, RoHS

# **Available Accessories**

6-02-6001-37-0 R-1234yf Tank Adapter

# Spare Replacement Parts

6-02-6001-53-1 Replacement Flow Restrictor Hose

6-01-6000-75-0 12 VDC Battery Clips

# Portable Automotive Analyzers for R-1234yf, R-134a & R-12

Legend Base (P/N 7-08-1234-33-0)

Application: R-1234yf, R-134a & R-12 Vehicle & Virgin Cylinder Testing

The Neutronics Legend Automotive Refrigerant Analyzer takes refrigerant analysis to a new level. A sealed control panel, large LCD color screen and multiple languages highlight the latest features in this latest design. The Legend incorporates customer feedback in its design to provide a fast, easy and accurate means to determine refrigerant purity in refrigerant storage cylinders or directly in a vehicle air conditioning system. It is one tool for all automotive refrigerant analysis applications.

#### Features

Refrigerants: R-134a, R-1234yf, R-12, R-22, HC,

Unknown Refrigerant, Air

Test Time:

90 Seconds Automatic

Calibration: Interface:

USB (SAE J2843 Compliant)

Sample Type: Vapor Only 500 psig max.

Temperature: 50 – 120 F

Warranty:

One Year



The instrument is supplied complete with couplers for both R-134a and R-1234yf, (2) R-1234yf sample hoses, (2) R-134a sample hoses, sample hose extensions, an AC power supply, tank adapters for both R-134a and R-1234yf, an internal rechargeable battery, internal air sensor and all required plumbing housed within a rugged, portable, storage case.

# Certifications

UL, CE, SAE J2912

# **Available Accessories**

6-02-6001-54-0 1/4" flare (R-12) Fitting

# Spare Replacement Parts

6-02-6001-42-0 Replacement R-134a Hose

6-02-6001-43-0 Replacement R-1234yf Hose

4-03-5004-07-0 Replacement R-134a Tank Adapter

6-02-6001-37-0 Replacement R-1234yf Tank Adapter

6-01-6000-74-0 Replacement AC Power Supply

# Portable Automotive Analyzers for R-1234yf, R-134a & R-12

Legend-P (P/N 7-08-1234-30-0)

Application: R-1234yf, R-134a & R-12 Vehicle & Virgin Cylinder Testing

The Neutronics Legend Automotive Refrigerant Analyzer takes refrigerant analysis to a new level. A sealed control panel, large LCD color screen and multiple languages highlight the latest features in this latest design. The Legend incorporates customer feedback in its design to provide a fast, easy and accurate means to determine refrigerant purity in refrigerant storage cylinders or directly in a vehicle air conditioning system. It is one tool for all automotive refrigerant analysis applications.

#### Features

Refrigerants: R-134a, R-1234yf, R-12, R-22, HC,

Unknown Refrigerant, Air

Test Time: Calibration:

90 Seconds Automatic

Interface:

USB (SAE J2843 Compliant)

Sample Type: Vapor Only 500 psig max.

Temperature: 50 – 120 F Warranty: One Year



The instrument is supplied complete with couplers for both R-134a and R-1234yf, (2) R-1234yf sample hoses, (2) R-134a sample hoses, sample hose extensions, an AC power supply, tank adapters for both R-134a and R-1234yf, **built-in printer**, an internal rechargeable battery, internal air sensor and all required plumbing housed within a rugged, portable, storage case.

# **Certifications**

UL, CE, SAE J2912

# **Available Accessories**

6-02-6001-54-0 1/4" flare (R-12) Fitting

# Spare Replacement Parts

6-02-6001-42-0 Replacement R-134a Hose

6-02-6001-43-0 Replacement R-1234yf Hose

4-03-5004-07-0 Replacement R-134a Tank Adapter

6-02-6001-37-0 Replacement R-1234yf Tank Adapter

6-01-6000-74-0 Replacement AC Power Supply

# Internal Automotive Analyzers for R-1234yf & R-134a

EID-1234yf-VDA (P/N 7-08-1234-00-2)

Application: Installation into VDA Compliant AC Service Machines

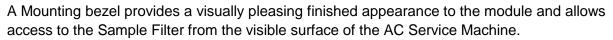
Designed to meet the requirements of the German VDA, the EID-1234yf-VDA internal analyzer is an OEM product supplied to the AC Service Machine Manufacturers.

#### Features

Refrigerants: R-1234yf
Set point: 95.0%
Output: Pass/Fail
Test Time: 60 Seconds
Calibration: Automatic
Interface: USB, RS232

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F Warranty: One Year





UL, CE, VDA

# **Available Accessories**

N/A

# **Spare Replacement Parts**

6-02-6000-08-0 Replacement Sample Filter

6-02-6001-18-1 Replacement R-1234yf Flow Restrictor Hose



# EID-1234yf-SAE (P/N 7-08-1234-02-2)

# Application: Installation into SAE J2843 Compliant AC Service Machines

Designed to meet the requirements of SAE J2927, the EID-1234yf-SAE internal analyzer is an OEM product supplied to the AC Service Machine Manufacturers.

#### **Features**

Refrigerants: R-1234yf Set point: 98.0%

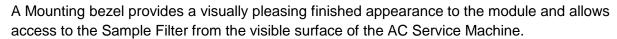
Output: R-1234yf, R-134a, R-22, HC,

Air

Test Time: 60 Seconds
Calibration: Automatic
Interface: USB, RS232

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F Warranty: One Year



#### <u>Certifications</u>

UL, CE, SAE J2927

# **Available Accessories**

N/A

# Spare Replacement Parts

6-02-6000-08-0 Replacement Sample Filter

6-02-6001-18-1 Replacement R-1234yf Flow Restrictor Hose

1-16-1013-00-2 Replacement Air Sensor



# EID-1234yf/134a-SAE (P/N 7-08-1234-26-1)

# <u>Application:</u> Installation into SAE J2843 or J3030 Compliant AC Service Machines

Designed to meet the requirements of SAE J2912, the EID-1234yf/134a-SAE internal analyzer is an OEM product supplied to the AC Service Machine Manufacturers.

#### **Features**

Refrigerants: R-1234yf, R-134a

Set point: 98.0%

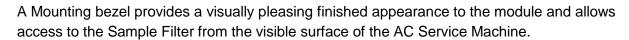
Output: R-1234yf, R-134a, R-22, HC,

Air

Test Time: 60 Seconds
Calibration: Automatic
Interface: USB, RS232

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F Warranty: One Year



#### Certifications

UL, CE, SAE J2912

# **Available Accessories**

N/A

# Spare Replacement Parts

6-02-6000-08-0 Replacement Sample Filter

6-02-6001-18-1 Replacement R-1234yf Flow Restrictor Hose

1-16-1013-00-2 Replacement Air Sensor



# EID-134a (P/N 7-08-1000-70-0)

#### Application: Installation into R-134a AC Service Machines

Designed for installation into R-134a AC Service Machines, the EID-134a internal analyzer is an OEM product supplied to the AC Service Machine Manufacturers.

#### **Features**

Refrigerants: R-134a Set point: 98.0%

Output: R-12, R-134a, R-22, HC, Air

Test Time: 60 Seconds
Calibration: Automatic
Interface: USB, RS232

Sample Type: Vapor Only 300 psig max.

Temperature: 50 - 120 FWarranty: One Year



A Mounting bezel provides a visually pleasing finished appearance to the module and allows access to the Sample Filter from the visible surface of the AC Service Machine.

#### Certifications

UL, CE

# **Available Accessories**

N/A

# Spare Replacement Parts

6-02-6000-08-0 Replacement Sample Filter

6-02-6001-32-0 Replacement R-134a Flow Restrictor Hose

1-16-1013-00-2 Replacement Air Sensor

# **Portable Commercial HVAC Analyzers**

RI-2004HV (P/N 7-08-1000-60-0)

Application: R-12, R-134a & R-22 System, Virgin & Recovered Cylinder Testing

The Neutronics Ultima ID Model RI-2004HV Refrigerant Analyzer will provide a fast, easy and accurate means to determine refrigerant purity in AC Systems as well as both Virgin and Recovered refrigerant cylinders.

#### **Features**

Refrigerants: R-134a, R-12, R-22, HC, Air

Test Time: 60 Seconds
Calibration: Automatic

Sample Type: Vapor Only 300 psig max.

Temperature: 50 – 120 F Warranty: One Year

The instrument will also indicate if the refrigerant tested matches the profile of pure R-410A. (Not for use with R-404A or R-507.)

The instrument is supplied complete with a ¼" Flare sample hose, an AC power supply and all required plumbing housed within a rugged, portable, storage case.





#### Certifications

UL, CE

# Available Accessories

6-02-6001-04-1 Rechargeable Battery Kit w/ Charger 6-02-6001-04-0 Spare Battery

# Spare Replacement Parts

6-02-6000-08-0 Replacement Sample Filter

6-02-6000-02-0 Replacement R-12 Hose (1/4" Flare)

6-01-6001-13-0 Replacement AC Power Supply

#### RI-2004HVP (P/N 7-08-1000-60-1)

# Application: R-12, R-134a & R-22 System, Virgin & Recovered Cylinder Testing

The Neutronics Ultima ID Model RI-2004HVP Refrigerant Analyzer will provide a fast, easy and accurate means to determine refrigerant purity in AC Systems as well as both Virgin and Recovered refrigerant cylinders

#### Features

Refrigerants: R-134a, R-12, R-22, HC, Air

Test Time: 60 Seconds
Calibration: Automatic

Sample Type: Vapor Only 300 psig max.

Temperature: 50 - 120 FWarranty: One Year

The instrument will also indicate if the refrigerant tested matches the profile of pure R-410A. (Not for use with R-404A or R-507.)

The instrument is supplied complete with a <u>Built In</u> <u>Printer</u>, a ¼" Flare sample hose, an AC power supply and all required plumbing housed within a rugged, portable, storage case.





# Certifications

UL, CE

# Available Accessories

6-02-6001-04-1 Rechargeable Battery Kit w/ Charger 6-02-6001-04-0 Spare Battery

# **Spare Replacement Parts**

6-02-6000-08-0 Replacement Sample Filter

6-02-6000-02-0 Replacement R-12 Hose (1/4" Flare)

6-01-6001-13-0 Replacement AC Power Supply

5-03-1000-08-0 Replacement Printer Paper Roll

#### RI-700H (P/N 7-08-1000-71-0)

Application: For Testing Multiple Commercial Refrigerants in Systems or

Virgin & Recovered Cylinders

The Neutronics Ultima ID Pro Model RI-700H Refrigerant Analyzer will provide a fast, easy and accurate means to determine refrigerant purity in AC Systems as well as both Virgin and Recovered refrigerant cylinders.

#### **Features**

Analyzed Refrigerants: R-22, R-32<sup>1</sup>, R-134a, R-404A,

R-407C, R-410A, HC (Hydrocarbons), Air

Test Time: 180 Seconds
Calibration: Automatic

Sample Type: Vapor or Liquid.

Temperature: 50 – 120 F Warranty: One Year

In addition, the instrument has the capability of identifying pure R-12, R-1234yf, R-408A, R-409A, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-427A and HC (R-600, R-600a, R-290).





The instrument is supplied complete with a Built-In Printer, a  $\frac{1}{4}$ " Flare sample hose, an AC power supply, internal LiFe Battery and all required plumbing housed within a rugged, portable, storage case. A USB port is provided for remote software updating of the instrument.

# **Certifications**

UL, CE

# Available Accessories

N/A

# **Spare Replacement Parts**

6-02-6000-08-0 Replacement Sample Filter

6-01-6001-13-0 Replacement AC Power Supply

6-01-6001-26-0 Replacement Flow Restrictor Hose (3 Pack)

5-03-1000-08-0 Replacement Printer Paper Roll

6-02-6001-11-0 Replacement 1/4" Flare LP Sample Hose

6-02-6001-17-0 Oil Trap Syringe

<sup>&</sup>lt;sup>1</sup> R-32 analysis is a feature only available in analyzers manufactured after December 2014. Analyzers manufactured before this date may require additional modifications. Contact the factory for details.

# Mini ID R-22 (P/N 7-08-1000-63-0)

# Application: R-22 HVAC System & Virgin Cylinder Testing

The Neutronics Mini ID R-22 Refrigerant Identifier will provide an easy and accurate means to determine if the R-22 refrigerant in an air conditioning systems or Virgin refrigerant cylinders is 95% pure or greater.

#### **Features**

Refrigerants: R-22

Test Time: 100 Seconds
Calibration: Automatic

Sample Type: Vapor Only 300 psig max.

Temperature: 50 - 120 F

Power: 9 VDC Lithium Battery (not included)

Warranty: One Year

A "GREEN" PASS LED is illuminated for R22 purity greater than 95% while a "RED" FAIL LED is illuminated for R-22 with a purity of less than 95%.

The instrument is supplied complete with a 1/4" Flare sample hose, and all required plumbing housed within a rugged, portable instrument.



UL, CE

# **Available Accessories**

6-01-6000-74-0 AC Power Supply

# Spare Replacement Parts

6-01-6001-23-1 Replacement Flow Restrictor Hose

6-01-6001-26-0 Replacement Flow Restrictor Hose (3 Pack)



#### **Automotive Sealant Detection Kit**

ACSD (P/N 7-08-1000-51-0)

Application: R-12 and R-134a Passenger Vehicle Testing

The Neutronics ACSD Sealant Detection kit is an inexpensive way to determine if active harmful sealant is present in the A/C System. The device mimics a small leak on the High Side service port. A flow meter is used to measure the flow of refrigerant through a calibrated orifice. A reduction of flow over the 3-minute test time indicates the presence of active sealant with the potential to harm AC service machines.

The kit comes complete with High Side couplers for both R-12 and R-134a systems, 10 disposable cartridges, a flow meter, syringe, and hose, housed in a storage case.

Replacement cartridges are available in 25 packs.

#### Certifications

None

#### **Available Accessories**

None

# **Spare Replacement Parts**

7-08-1000-52-0 Replacement Cartridges 25 Pack 6-02-6001-00-0 Spare R-134a Coupler Assembly 6-02-6001-01-0 Spare R-12 Coupler Assembly 6-02-6001-02-0 Spare Flow meter





**1-16-1013-00-0:** ID Jr. Oxygen Sensor

Compatible Models: ID Jr.



1-16-1013-00-2: YF Air Sensor Compatible Models: EID-SAE



2-06-7000-36-1: Replacement USB Cable

Compatible Models: RI-2012yf/yfp, Legend Base,

Legend-P



4-03-5004-07-0: R134a Tank Adapter

Compatible Models: RI-2012yf/yfp, Mini ID R134a,

RI-2004DX/DXP



5-03-1000-08-0: Printer Paper Roll

Compatible Models: RI-2004DX/DXP, RI-2004HV/HVP,

RI-2012yfy/yfp, RI-700H



**6-01-6000-74-0:** Legend AC Power Supply **Compatible Models:** Legend Base, Legend - P



**6-01-6000-75-0:** Mini ID 12 VDC Battery Clips **Compatible Models:** R-134a Mini ID, R-1234yf Mini ID, and Robinair 16900.



**6-01-6001-08-0**: Ultima ID 12 VDC Battery Clips **Compatible Models**: RI-2004DX/DXP



**6-01-6001-13-0:** Ultima ID AC Power Supply **Compatible Models:** RI-2004DX/DXP, RI-2004HV/HVP, RI-700H, RI-2012yf/yfp



**6-01-6001-26-0:** Flow Restrictor 3 pack **Compatible Models:** Mini ID R-134a, Mini ID R-22, RI-700H



**6-02-6000-02-0:** Replacement R-12 Hose **Compatible Models:** RI-2004DX/DXP, RI-2004HV/HVP



**6-02-6000-08-0:** White Sample Filter **Compatible Models:** RI-2004DX/DXP, RI-2004HV/HVP, RI-2012yf/yfp, RI-700H, EID-SAE, EID-VDA, EID-J2912, EID-ACR14



**6-02-6000-09-0:** Replacement R-134a Hose **Compatible Models:** RI-2004DX/DXP



6-02-6001-00-0: Replacement ACSD Sealant Detector

R-134a Coupler

Compatible Models: Quick Detect ACSD Sealant

Detector



6-02-6001-01-0: Replacement ACSD Sealant Detector

R-12 Coupler

Compatible Models: Quick Detect ACSD Sealant

Detector



6-02-6001-02-0: AC Sealant Detection Replacement

Flowmeter

**Compatible Models:** Quick Detect ACSD Sealant

Detector



**6-02-6001-04-0:** Spare Battery

Compatible Models: RI-2004DX/DXP, RI-2004HV/HVP



6-02-6001-04-1: Battery Kit (Smart Charger and Spare

Battery)

Compatible Models: RI-2004DX/DXP, RI-2004HV/HVP



**6-02-6001-11-0:** 1/4 Inch Flare Hose Assembly

Compatible Models: RI-700H



**6-02-6001-17-0**: Oil Trap Syringe **Compatible Models**: RI-700H



6-02-6001-18-1: R-1234yf 1.5M Replacement Flow

Restrictor

Compatible Models: EID-SAE, EID-VDA, EID-J2912



6-02-6001-18-4: R-1234yf 2M Replacement Flow

Restrictor

Compatible Models: RI-2012yf/yfp



6-02-6001-32-0: R-134a 2M Replacement Flow Restrictor

Compatible Models: RI-2012yf/yfp, EID-ACR14



**6-02-6001-37-0**: YF Tank Adapter

Compatible Models: RI-2012yf/yfp, Legend Base,

Legend - P



6-02-6001-42-0: Legend R-134a Hose

Compatible Models: Legend Base, Legend - P



6-02-6001-43-0: Legend R-1234yf Hose

Compatible Models: Legend Base, Legend - P



**6-02-6001-53-1:** Mini ID R-1234yf Hose **Compatible Models:** Mini ID R-1234yf



**6-02-6001-54-0**: Legend R-12 Adapter

Compatible Models: Legend Base, Legend - P



**7-08-1000-52-0:** ACSD Sealant Detection 25 Pack

Replacement Plugs

Compatible Models: Quick Detect ACSD Sealant

Detector



7-08-1000-53-0: ACSD Sealant Detection Replacement

Plugs and Flowmeter

Compatible Models: Quick Detect ACSD Sealant

Detector

