



Agilent Technologies

Vacuum Products Division

***Wireless
Remote Base
Unit for VS
Series and
G8610, G8611,
or G8612
Series Leak
Detectors
(G8600-68001)***

*FIELD INSTALLATION
INSTRUCTIONS*

Part Number 699910002
Rev. D
August 2017



699910002

Wireless Remote Base Unit for VS Series and G8610, G8611, or G8612 Series Leak Detectors

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Wireless Remote Base Unit for VS Series and G8610, G8611, or G8612 Series Leak Detectors

Preface

Document Standards

This manual uses the following documentation standards:

NOTE



Notes contain important information.

CAUTION



Cautions appear before instructions, which if not followed, could cause damage to the equipment or data loss.










WARNING



Warnings appear for a particular procedure or practice which, if not followed correctly, could lead to serious injury or death.

Hazard and Safety Information

The common international symbols used in this manual and on the equipment are defined below.

	OFF Supply (Power)		Earth (Ground) Terminal
	ON Supply (Power)		Caution, Hot Surface
	AC – Alternating Current		Caution, Risk of Electrical Shock
	Warning, Risk of danger		Protective Conductor Terminal
	Frame or chassis Terminal		



Operators and service personnel must be aware of all hazards associated with this equipment. They must know how to recognize hazardous and potentially hazardous conditions, and know how to avoid them. The consequences of unskilled, improper, or careless operation of the equipment can be serious. Every operator or service person must read and thoroughly understand operation/maintenance manuals and any additional information provided by Agilent. All warning and cautions must be read carefully and strictly observed. Consult local, state, and national agencies regarding specific requirements and regulations. Address any safety, operation, and/or maintenance questions to your nearest Agilent office.

NOTE



To clean the leak detector plastic enclosure, the LCD display and Front Panel buttons, use only a soft cloth slightly dampened with water or a mild soap.

Do NOT use excess water or cleaning solvents of any kind.

Avoid splashing any liquids into the unit through the ventilation openings or Front Panel buttons. Wipe the surface with a dry lint-free cloth.

CAUTION



The PCB's are static sensitive devices. Wear a grounding strap when performing any maintenance on these units and especially when performing maintenance of static sensitive parts.

This manual includes two sections. The first gives instructions for installation with a VS series leak detector. The second section gives instructions for operation with a new G8610, G8611, or G8612 series leak detector.



Section One: Installation on VS Series Leak Detector

Equipment Required	Kit Includes
Extended Length M5 Allen Wrench	Wireless Base PCB
Metric Allen Wrench Set	Wireless Remote Label
M3 Philips Head Screw Driver	RS232 Cable
Adjustable Wrench	Antenna
	M3 Screw (Qty. 4)

Installation Procedure

For clarity, some items have been omitted from views.

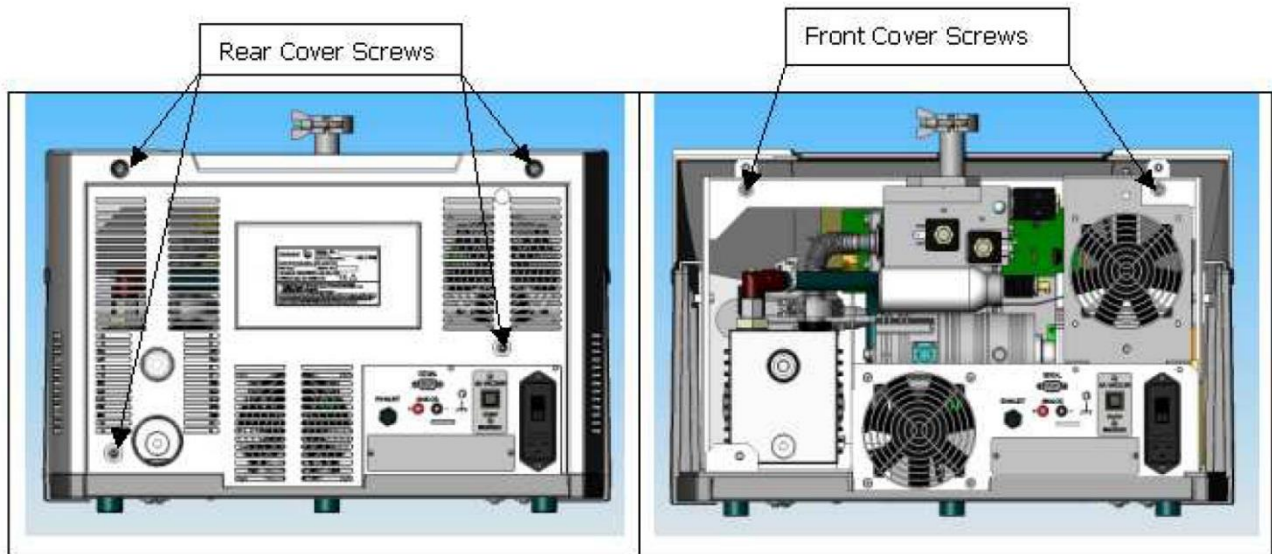


Figure 1: Rear and Front Cover Screws

WARNING



Disconnect power from the unit before performing any maintenance procedure that requires physically disconnecting any part of the system.

NOTE



Prior to wireless PCB installation, ensure that the software is revision 4.02 or higher by navigating from the Home screen menu to System Information. If not, contact Agilent customer services, see the back cover of this manual for a listing of our sales and service offices.



- 1) Turn off the power switch located on the back of the unit and unplug.
- 2) Wait 30 seconds for the high voltage to dissipate.
- 3) Using an extended length M5 Allen wrench, remove the four screws holding the rear plastic cover (Figure 1: Rear and Front Cover Screws) and detach the rear plastic cover from the unit.
- 4) Remove the four screws holding the front plastic cover and detach the cover from the unit. Two screws are situated at the front of the unit (not shown) and two screws are positioned inside the unit (Figure 1: Rear and Front Cover Screws).

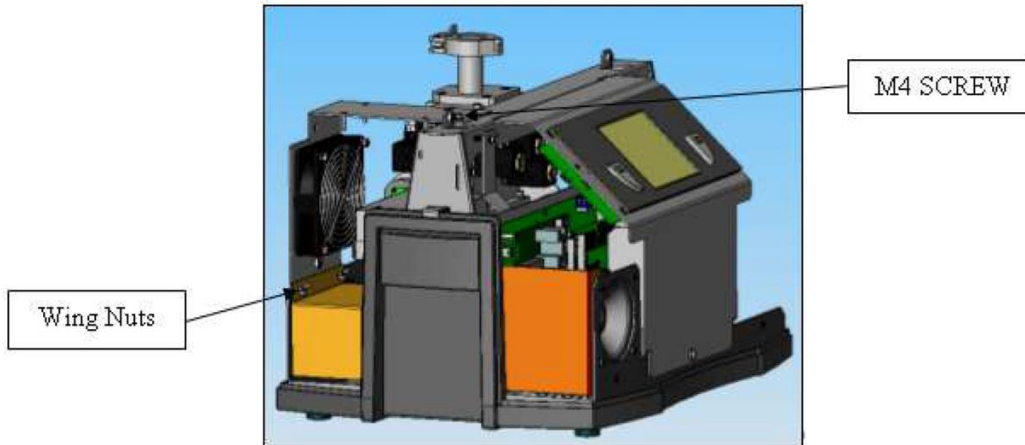


Figure 2: Fan Assembly and Socket Head Cap Screw

- 5) Disconnect the fan connector from the 24 V cable harness.
- 6) Detach the fan assembly by removing the M4 socket head cap screw and loosening the two wing nuts (Figure 2: Fan Assembly and Socket Head Cap Screw). Place the fan assembly on a flat surface on its back.

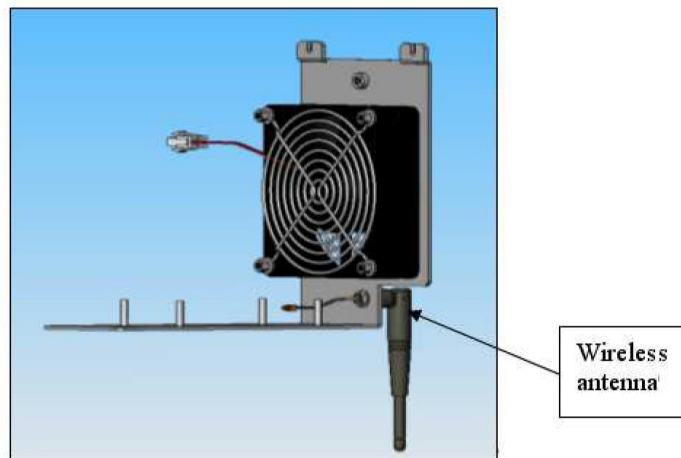


Figure 3: Wireless Antenna

- 7) Hand tighten the antenna to the fan bracket, and then apply a ½ turn using an adjustable wrench (Figure 3: Wireless Antenna).



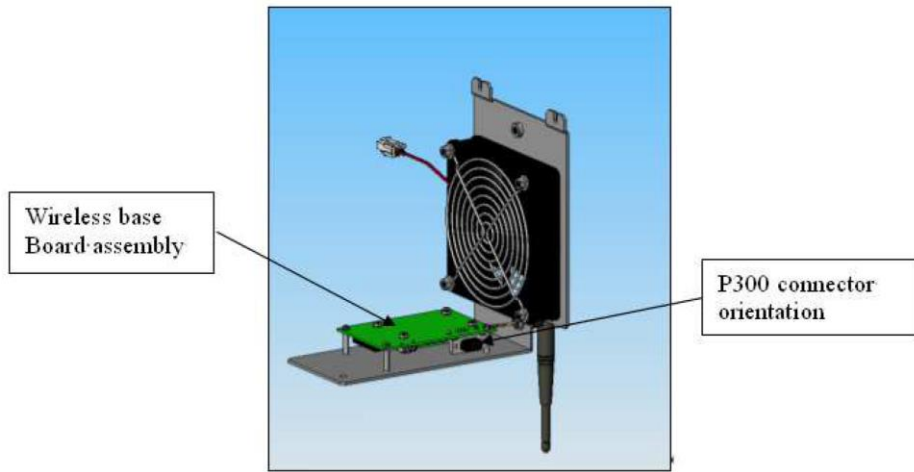


Figure 4: Base Board Assembly with Posts

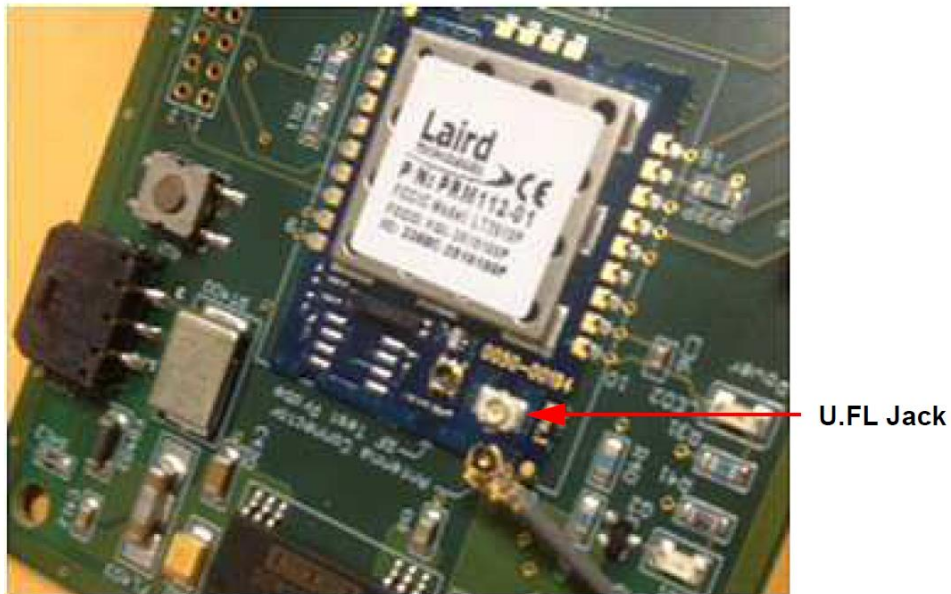


Figure 5: Antenna Connector

CAUTION



Use proper ESD safety techniques when performing a PCB card install.



- 8) Place the wireless board assembly on the four fan bracket standoffs. Note the correct orientation of the wireless base board P300 connector (Figure 4: Base Board Assembly with Posts).
- 9) Connect the antenna cable to the U.FL (Color: silver) on the wireless base board (Figure 5: Antenna Connector). Carefully center the connector on the jack and press the connector onto the jack until it snaps into place. Rotate the antenna cable to ensure the connector is firmly seated in the jack.
- 10) Secure the wireless base board to the fan bracket using the four M3 Phillips screws provided with the kit.
- 11) Unfurl the black/red wire (P1-RF) with the 24 V three-pin connector and the ground lug (Figure 6: 24 V Power Cable), which is tie rapped at the base of the leak detector, and:
 - Plug the 24 V connector labeled P1-RF into the three-pin connector on the wireless board.
 - Attach the 24 V ground lug to one of the bracket screws.
 - Reinstall the fan assembly by tightening the M4 socket head cap screw and the two wing nuts (Figure 2: Fan Assembly and Socket Head Cap Screw).

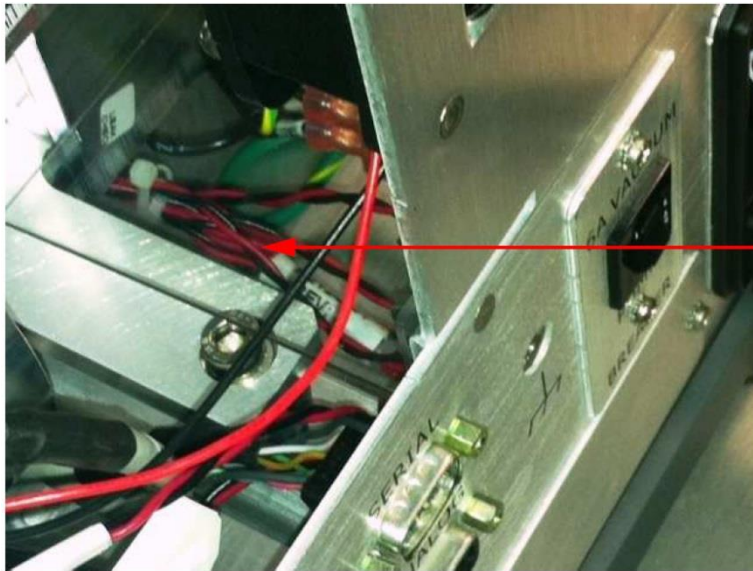


Figure 6: 24 V Power Cable

- 12) Connect the RS-232 cable end labeled J300-1 to P300 on the wireless board using its two slotted screws (Figure 5: Antenna Connector).



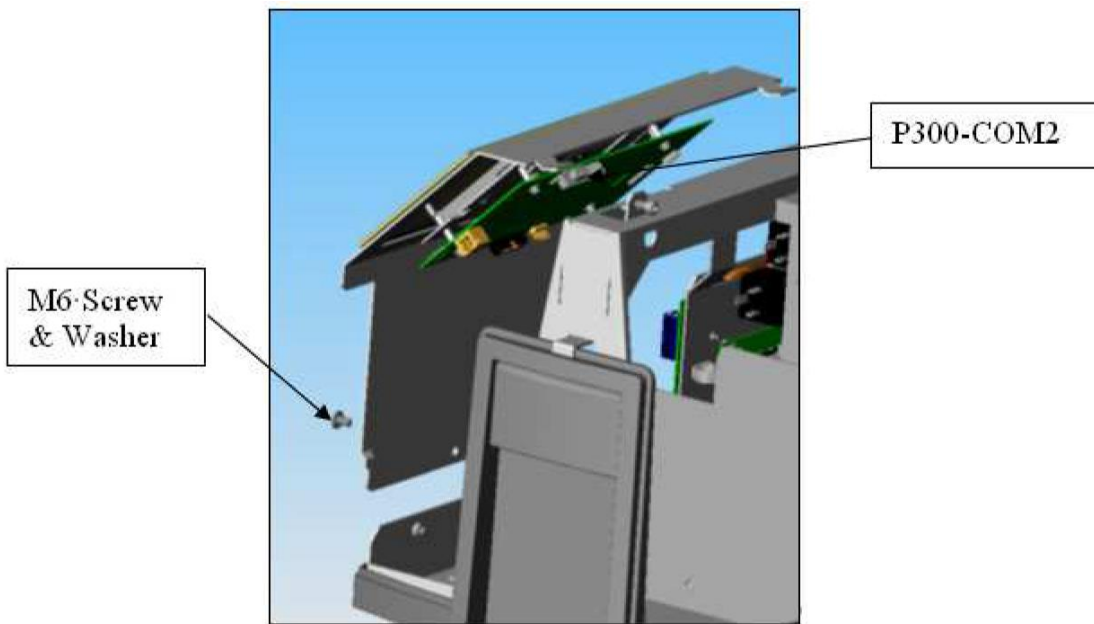


Figure 7: Front Panel Display

- 13) Dress the RS-232 cable through the leak detector to the front panel display.
- 14) Remove the M6 screw and washer from the front panel display and detach the display (Figure 7: Front Panel Display).
- 15) Connect the RS-232 cable end labeled J300-2 to P300-COM2 on the front panel display board using its two slotted screws (Figure 8: RS232 Cable).

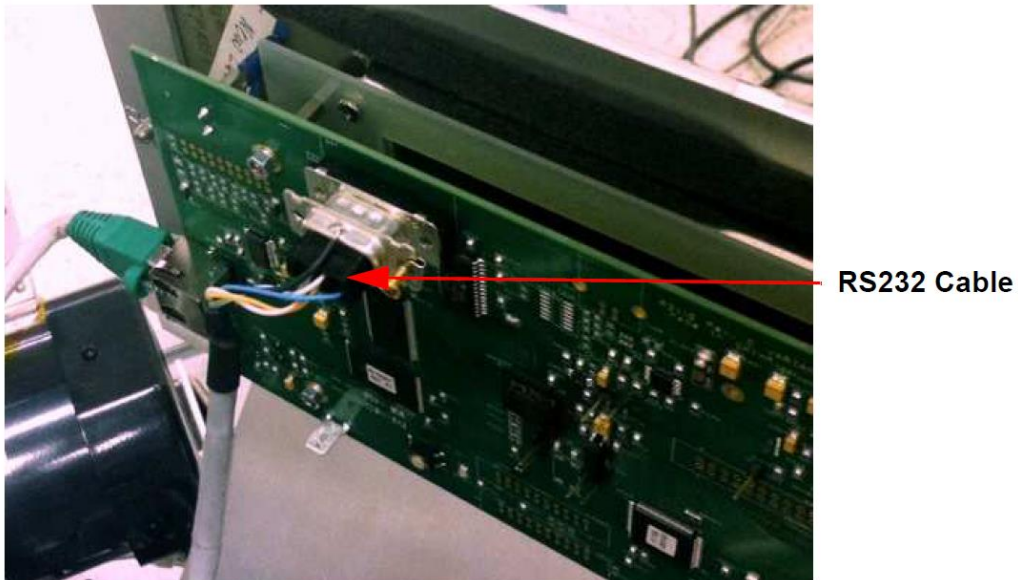


Figure 8: RS232 Cable

- 16) Reattach the display by inserting the tabs into their slotted positions and secure using the M6 screw and washer.
- 17) Attach the front cover and secure to the frame using existing hardware.



18) Rotate the antenna to its horizontal locked position.

19) Guide the antenna through its location hole in the rear cover. Then secure the rear cover to the frame using existing hardware.

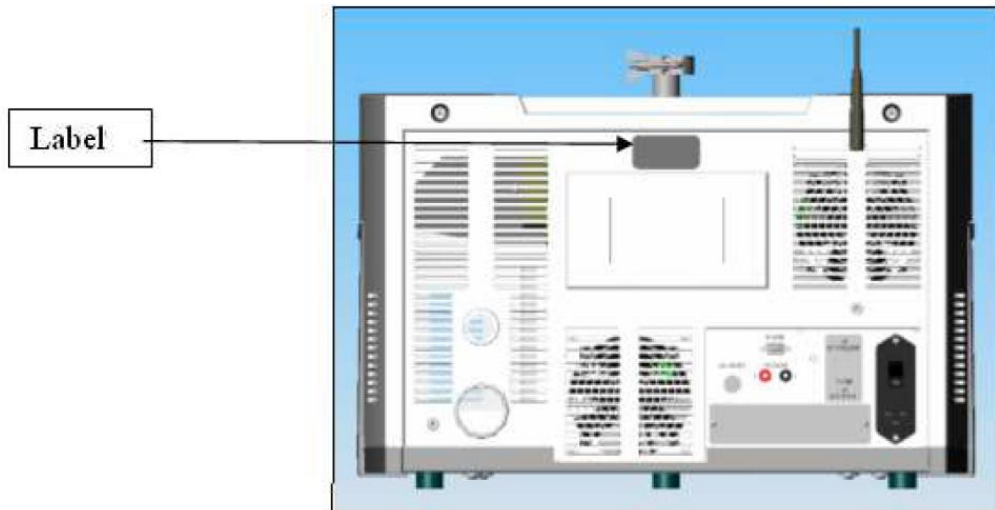


Figure 9: Label

20) Attach the label to the rear cover in location shown (Figure 9: Label).

21) Connect the power cord and power up the unit.

22) Watch the home screen to verify the *Spectube Pressure Wait* message progresses to *Stabilization Wait* and *System Ready* within ten minutes.

Refer to the operator's manual if the system fails to reach the *System Ready* mode.

23) After installation refer to the VS Series leak detector manual (P/N # 699909942) Section 3, for leak detector activation of the wireless remote.

24) Refer to the wireless remote user's manual (P/N # 699909945) for operational instructions.

25) Agilent recommends a full calibration of the unit prior to leak test operations.



Section Two: Installation on G8610, G8611, or G8612 Series Leak Detector

Equipment Required	Kit Includes
Slotted Screw Driver	Wireless Base PCB
Metric Allen Wrench Set	Wireless Remote Label
M3 Philips Head Screw Driver	RS232 Cable
Adjustable Wrench	Antenna
	M3 Screw (Qty. 4)

Installation Procedure

For clarity, some items have been omitted from views.

WARNING



Disconnect power from the unit before performing any maintenance procedure that requires physically disconnecting any part of the system.

- 1) Turn off the power switch located on the back of the unit and unplug.
- 2) Wait 30 seconds for the high voltage to dissipate.

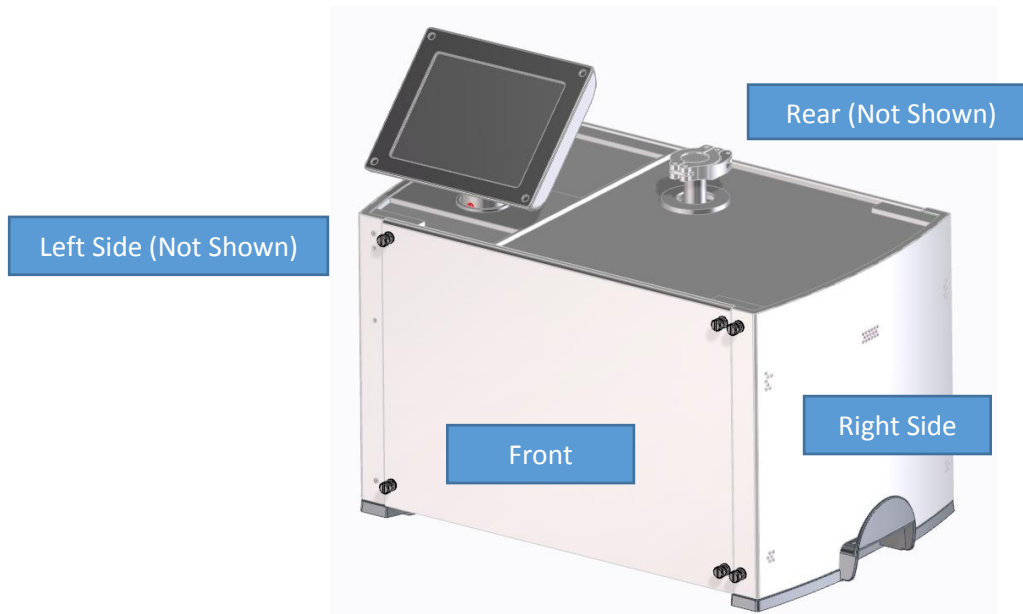
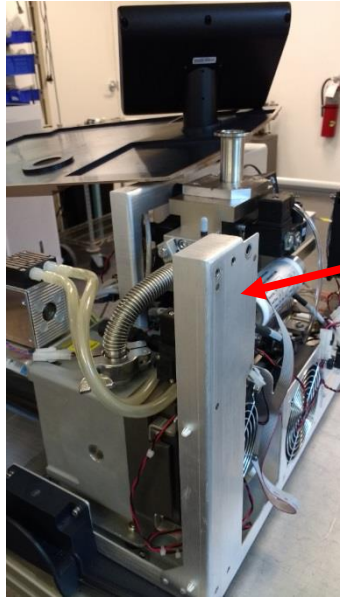


Figure 1: Orientation

- 3) Using slotted screw driver, unfasten the four screws holding the front, rear and right side covers (Figure 1: Covers) and detach. The left side cover is secured with hex-head screws.





PCB to mount to
opposite side of this
aluminum support

Figure 2: Covers

- 4) Rotate the lid 90° to give better access to the area where the antenna will be installed (Figure 2: Lid).

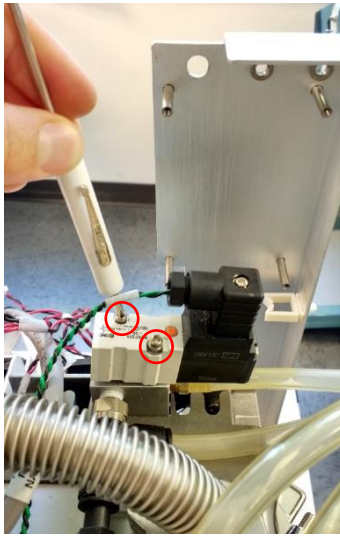


Figure 2: Removing Valve

- 5) If the leak detector configuration has a valve in front of the bottom left post, move that valve aside by unscrewing the two screws circled (Figure 2: Removing valve). Keeping the wiring connected, set valve aside. This valve is only used on certain models of leak detectors. If the valve is not present, ignore this step.



- 6) Mount the printed circuit board to the four posts, noting the correct orientation. Fasten with screws (Figure 3. Base Board Assembly with Posts).



Figure 3: Base Board Assembly with Posts

- 7) Using the provided washer and nut, hand tighten the antenna to the outside of the leak detector wall, and then apply a ½ turn using an adjustable wrench (Figure 4: Wireless Antenna).

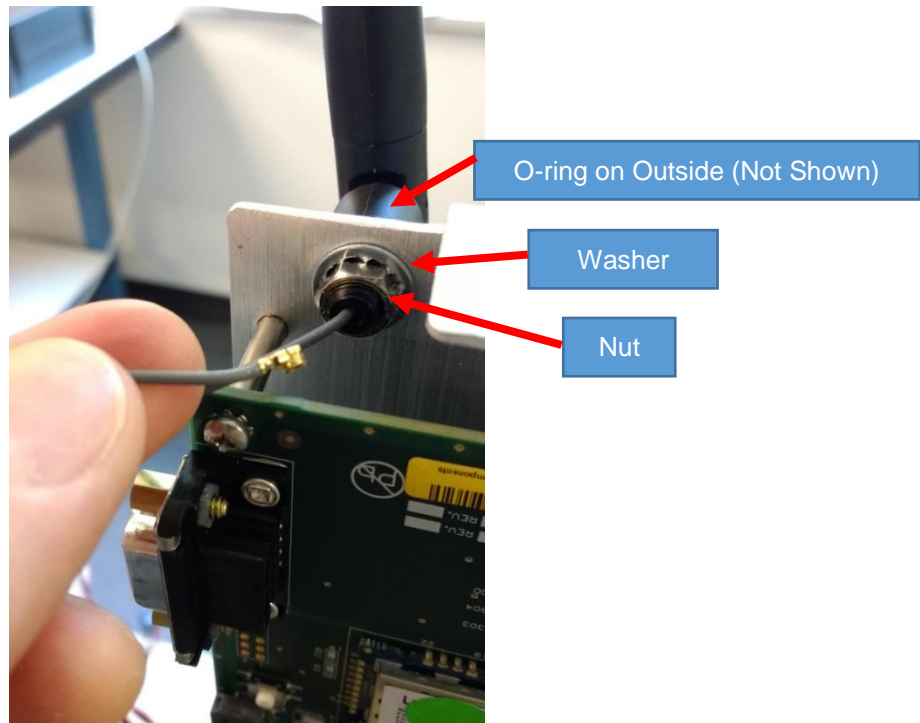


Figure 4: Wireless Antenna





Figure 5: Antenna Connector

CAUTION



Use proper ESD safety techniques when performing a PCB card install.

- 8) Connect the antenna cable to the U.FL on the wireless base board (Figure 5: Antenna Connector). Carefully center the connector on the jack and press the connector onto the jack until it snaps into place. Rotate the antenna cable to ensure the connector is firmly seated in the jack.
- 9) Connect the RS-232 on the wireless board using its two slotted screws (Figure 6: RS232 Connection, left side). Plug in the other side of the ribbon cable to the green port on the CPU board, located on the front side of the leak detector, away from the antenna's printed circuit board (Figure 6: RS232 Connection, right side).

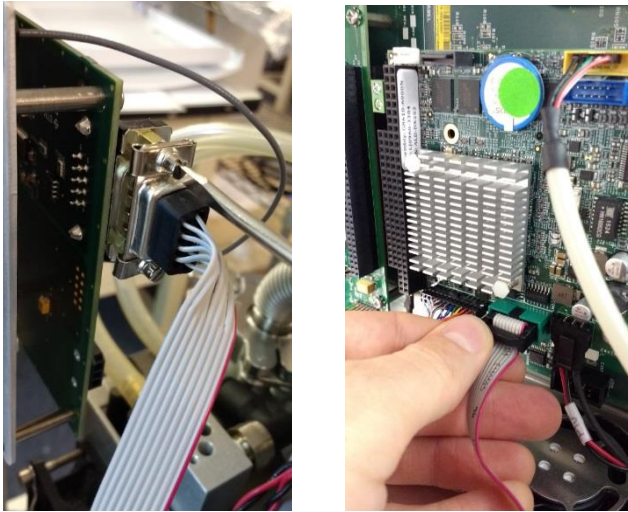


Figure 6: RS232 Connection

10) Unfurl the black/red wire (P1-RF) with the 24 V three-pin connector and the ground lug (Figure 7: 24 V Power Cable), which is tie rapped at the base of the leak detector, and:

- Plug the 24 V connector labeled P1-RF into the three-pin connector on the wireless board.
- Attach the 24 V ground lug to one of the bracket screws.

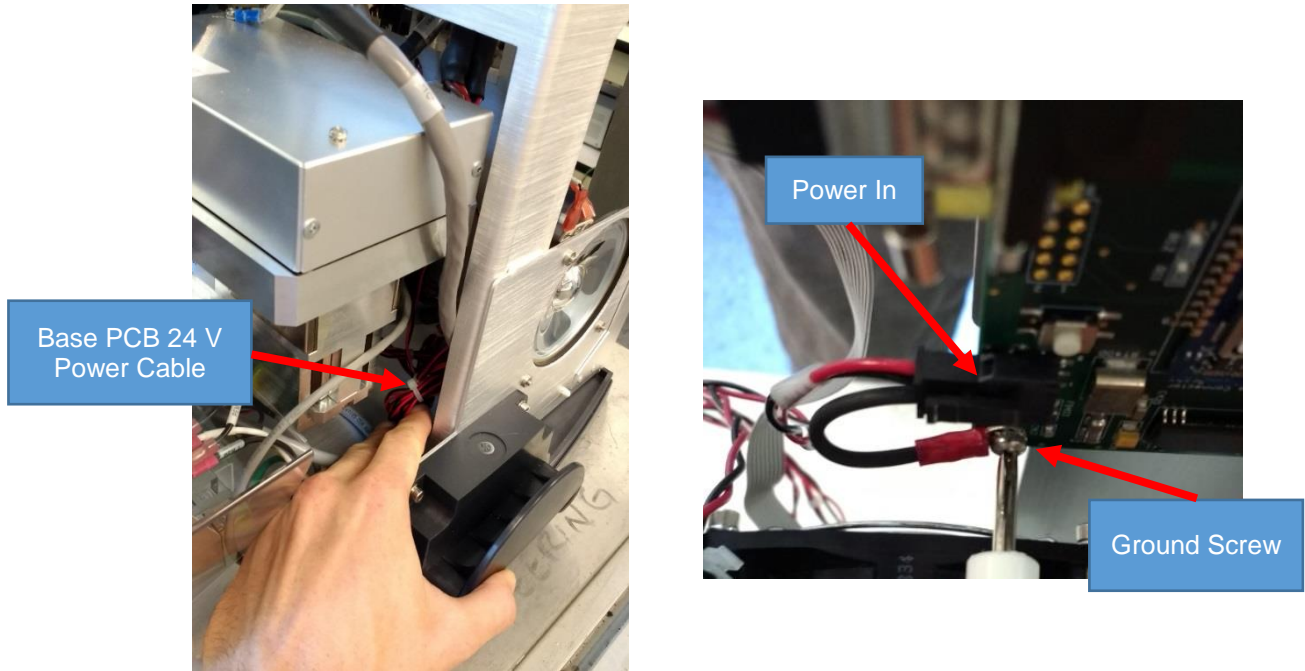


Figure 7: 24 V Power Cable

- 11) Reinstall the valve and dress internal wires inside of leak detector (Figure 2: Removing Valve).
- 12) Reattach front and side (Figure 1: Covers).
- 13) Rotate the antenna to its horizontal locked position.
- 14) Guide the antenna through its location hole in the rear cover. Then secure the rear cover to the frame using existing hardware.





Figure 9: Label

- 15) Attach the label to the rear cover in location shown (Figure 9: Label). This new label will help service identify the equipment used. Do not cover the existing label on the leak detector.
- 16) Connect the power cord and power up the unit.
- 17) Watch the home screen to verify the *Spectube Pressure Wait* message progresses to *Stabilization Wait* and *System Ready* within ten minutes.
Refer to the operator's manual if the system fails to reach the *System Ready* mode.
- 18) After installation refer to the Leak Detector manual section for leak detector activation of the wireless remote.
- 19) Refer to the wireless remote user's manual (P/N # 699909945) for operational instructions.
- 20) Agilent recommends a full calibration of the unit prior to leak test operations.



Vacuum Products Division Instructions for returning products

Dear Customer,

Please follow these instructions whenever one of our products needs to be returned.

Complete the attached **Request for Return form** and send it to Agilent Technologies (see below), taking particular care to include the completed **Health and Safety** declaration Section. No work can be started on your unit until we receive a completed copy of this form.

After evaluating the information, Agilent Technologies will provide you with a **Return Authorization (RA) number** via email or fax, as requested. Note: Depending on the type of return, a Purchase Order may be required at the time **the Request for Return is submitted**. We will quote any necessary services (evaluation, repair, special cleaning, eg).

Product preparation

- Remove all accessories from the core product (e.g. inlet screens, vent valves).
- Prior to shipment and if applicable for your product, drain any oils or other liquids, purge or flush all gasses, and wipe off any excess residue.
- If ordering an Advance Exchange product, please use the packaging from the Advance Exchange to return the defective product.
- Seal the product in a plastic bag, and package product carefully to avoid damage in transit. You are responsible for loss or damage in transit.
- Include a copy of the Health and Safety Declaration in the shipping documentation on the outside of the shipping box of your returning product.
- Clearly label package with RA number. Using the shipping label provided will ensure the proper address and RA number are on the package. Packages shipped to Agilent without a RA clearly written on the outside cannot be accepted and will be returned.
- Return only products for which the RA was issued.

Shipping

- Ship to the location specified on the printable label, which will be sent, along with the RA number, as soon as we have received all of the required information. Customer is responsible for freight charges on returning product.
- Return shipments must comply with all applicable Shipping Regulations (IATA, DOT, ADR, etc.) and carrier requirements.

RETURN THE COMPLETED **REQUEST FOR RETURN** FORM TO YOUR NEAREST LOCATION:

EUROPE:

Fax: 00 39 011 9979 330

Fax Free: 00 800 345 345 00

Toll Free: 00 800 234 234 00

vpt-customer@agilent.com

NORTH AMERICA:

Fax: 1 781 860 9252

Toll Free: 800 882 7426

vpl-ra@agilent.com

PACIFIC RIM:

please visit our website for individual
office information

<http://www.agilent.com>



TERMS AND CONDITIONS

Please read the terms and conditions below as they apply to all returns and are in addition to the Agilent Technologies Vacuum Product Division – Products and Services Terms of Sale.

- Unless otherwise pre-negotiated, customer is responsible for the freight charges for the returning product. Return shipments must comply with all applicable **Shipping Regulations** (IATA, DOT, etc.) and carrier requirements.
- Agilent Technologies is not responsible for returning customer provided packaging or containers.
- Customers receiving an Advance Exchange product agree to return the defective, rebuildable part to Agilent Technologies **within 15 business days**. Failure to do so, or returning a non-rebuildable part (crashed), will result in an invoice for the non-returned/non-rebuildable part.
- Returns for credit toward the purchase of new or refurbished Products are subject to prior Agilent approval and may incur a restocking fee. Please reference the original purchase order number.
- Units returned for evaluation will be evaluated, and a quote for repair will be issued. If you choose to have the unit repaired, the cost of the evaluation will be deducted from the final repair pricing. A Purchase Order for the final repair price should be issued within 3 weeks of quotation date. Units without a Purchase Order for repair will be returned to the customer, and the evaluation fee will be invoiced.
- Products returned that have not been drained from oil will be disposed.
- A Special Cleaning fee will apply to all exposed products
- If requesting a calibration service, units must be functionally capable of being calibrated.



Vacuum Products Division
Request for Return Form

Customer information
Company :
Address:
Contact Name:
Tel:
Fax:
Email:

Equipment
Product description
Agilent PartNo
Agilent Serial No
Original Purchasing Reference
Failure description
Type of process (for which the equipment was used)

Type of return
Non Billable
Billable
Exchange
Repair
Upgrade
Consignment/Demo
Calibration
Evaluation
Return for Credit

Health and safety
Substances (please refer to MSDS forms)
The product has been exposed to the following substances:
Toxic
Harmful
Corrosive
Reactive
Flammable
Explosive (*)
Radioactive (*)
Biological (*)
Oxidizing
Sensitizer
Other dangerous substances

Goods preparation
If you have replied YES to one of the above questions. Has the product been purged?
If yes, which cleaning agent/method:
Has the product been drained from oil?
I confirm to place this declaration on the outside of the shipping box.

I declare that the above information is true and complete to the best of my knowledge and belief.
I understand and agree to the terms and conditions on page 2 of this document.

Name:
Position:
Date:
Authorized Signature:

NOTE: If a product is received at Agilent which is contaminated with a toxic or hazardous material that was not disclosed, the customer will be held responsible for all costs incurred to ensure the safe handling of the product, and is liable for any harm or injury to Agilent employees as well as to any third party occurring as a result of exposure to toxic or hazardous materials present in the product.

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