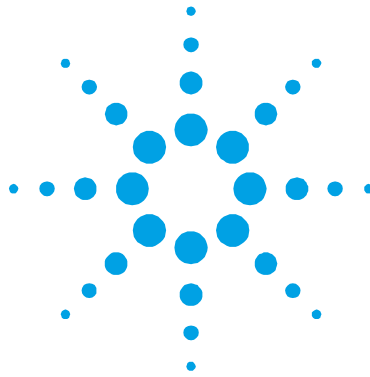




Ion Pump Battery Power Supply

Models

7290800, 7290801, 7290802

8290800, 8290801, 8290802

**Manuale di Istruzioni
Bedienungshandbuch
Notice de Mode d'Emploi
User Manual**

87-900-111-01 (F)

10/2015



Agilent Technologies

Notices

© Agilent Technologies, Inc. 2015

No part of this manual may be reproduced in any form or by any means (including electronic storage and retrieval or translation into a foreign language) without prior agreement and written consent from Agilent Technologies, Inc. as governed by United States and international copyright laws.

Manual Part Number

Publication Number: 87-900-111-01 (F)

Edition

Edition 10/2015

Printed in ITALY

Agilent Technologies Italia S.p.A.

Vacuum Products Division

Via F.lli Varian, 54

10040 Leini (TO)

ITALY

Warranty

The material contained in this document is provided “as is,” and is subject to being changed, without notice, in future editions. Further, to the maximum extent permitted by applicable law, Agilent disclaims all warranties, either express or implied, with regard to this manual and any information contained herein, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Agilent shall not be liable for errors or for incidental or consequential damages in connection with the furnishing, use, or performance of this document or of any information contained herein. Should Agilent and the user have a separate written agreement with warranty terms covering the material in this document that conflict with these terms, the warranty terms in the separate agreement shall control.

Technology Licenses

The hardware and/or software described in this document are furnished under a license and may be used or copied only in accordance with the terms of such license.

Restricted Rights Legend

If software is for use in the performance of a U.S. Government prime contract or subcontract, Software is delivered and licensed as “Commercial computer software” as defined in DFAR 252.227-7014 (June 1995), or as a “commercial item” as defined in FAR 2.101(a) or as “Restricted computer software” as defined in FAR 52.227-19 (June 1987) or any equivalent agency regulation or

contract clause. Use, duplication or disclosure of Software is subject to Agilent Technologies’ standard commercial license terms, and non-DOD Departments and Agencies of the U.S. Government will receive no greater than Restricted Rights as defined in FAR 52.227-19(c)(1-2) (June 1987). U.S. Government users will receive no greater than Limited Rights as defined in FAR 52.227-14 (June 1987) or DFAR 252.227-7015 (b)(2) (November 1995), as applicable in any technical data.

Trademarks

Windows and MS Windows are U.S. registered trademarks of Microsoft Corporation.

Safety Notices

CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

Ion Pump Battery Power Supply



Contents

1 Istruzioni per l'uso 7

Procedura per l'installazione dell'alimentatore ion pump HV P.S. 8

Generalità 8

Preparazione per l'installazione 9

Caratteristiche tecniche 10

Installazione 14

Smaltimento 17

Ricerca guasti 17

Modello numero descrizione 18

2 Gebrauchsanleitung 21

Installationsanweisung für die Ionengetterpumpen
Hochspannungsstromversorgung 22

Allgemeines 22

Installationsvorbereitungen 23

Technische Eigenschaften 24

Installation 28

Entsorgung 31

Fehlersuche 31

Modell Nummer Bezeichnung 32

3 Mode d'emploi 35

Procédure pour l'installation de
l'alimentateur ion pump HV P.S. 36

Generalite 36

Préparation pour l'installation 37

Caractéristiques techniques 38

Installation 42

Mise au rebut 45

Recherche pannes 45

Description de la référence modèle 46

4 Instructions for Use 49

Ion Pump HV P.S. Power Supply Unit Installation Procedure 50

Overview 50

Preparation for Installation 51

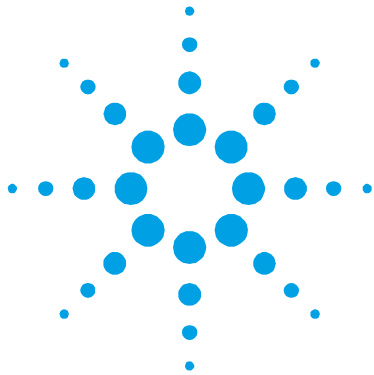
Technical Data 52

Installation 56

Disposal 59

Troubleshooting 59

Model Number Description 60



1

Istruzioni per l'uso

Procedura per l'installazione dell'alimentatore ion pump HV P.S.	8
Generalità	8
Principio di funzionamento	8
Preparazione per l'installazione	9
Caratteristiche tecniche	10
Unità di controllo	10
Installazione	14
Smaltimento	17
Ricerca guasti	17
Modello numero descrizione	18

Traduzione delle istruzioni originali



Procedura per l'installazione dell'alimentatore ion pump HV P.S.

Generalità

Questa apparecchiatura è destinata ad uso professionale.

L'utilizzatore deve leggere attentamente il presente manuale di istruzioni ed ogni altra informazione addizionale fornita dalla Agilent prima dell'utilizzo dell'apparecchiatura. La Agilent si ritiene sollevata da eventuali responsabilità dovute all'inosservanza totale o parziale delle istruzioni, ad uso improprio da parte di personale non addestrato, ad interventi non autorizzati o ad uso contrario alle normative nazionali specifiche

L'apparecchiatura Ion Pump HV P.S. è un alimentatore e viene utilizzato per alimentare le pompe ioniche durante le fasi di trasporto, al fine di impedire l'ingresso di aria all'interno della pompa stessa.

L'alimentatore utilizza una pila non ricaricabile da 9 V, posizionata al suo interno o in alternativa può essere collegato ad una sorgente esterna in grado di fornire una tensione continua di 9 V con maggiore autonomia.

Nei paragrafi seguenti sono riportate tutte le informazioni necessarie a garantire la sicurezza dell'operatore durante l'utilizzo dell'apparecchiatura.

Principio di funzionamento

L'unità è in grado di determinare se la pompa collegata è attiva o meno. Quando l'HV è acceso, l'unità misura la corrente della pompa:

se la corrente è inferiore a 50 nA, la scarica all'interno della pompa è spenta (LED L1 rosso lampeggiante); se la corrente è superiore a 50 nA, la pompa è operativa (LED L2 verde lampeggiante).

L'unità genera l'HV che alimenta la pompa ionica quando l'interruttore di alimentazione è posto su ON.

Preparazione per l'installazione

Il dispositivo viene fornito in un imballo protettivo speciale; se si presentano segni di danni, che potrebbero essersi verificati durante il trasporto, contattare l'ufficio vendite locale. Durante l'operazione di disimballo, prestare particolare attenzione a non lasciar cadere l'alimentatore e a non sottoporlo ad urti. Non disperdere l'imballo nell'ambiente. Il materiale è completamente riciclabile e risponde alla direttiva CEE 85/399 per la tutela dell'ambiente.

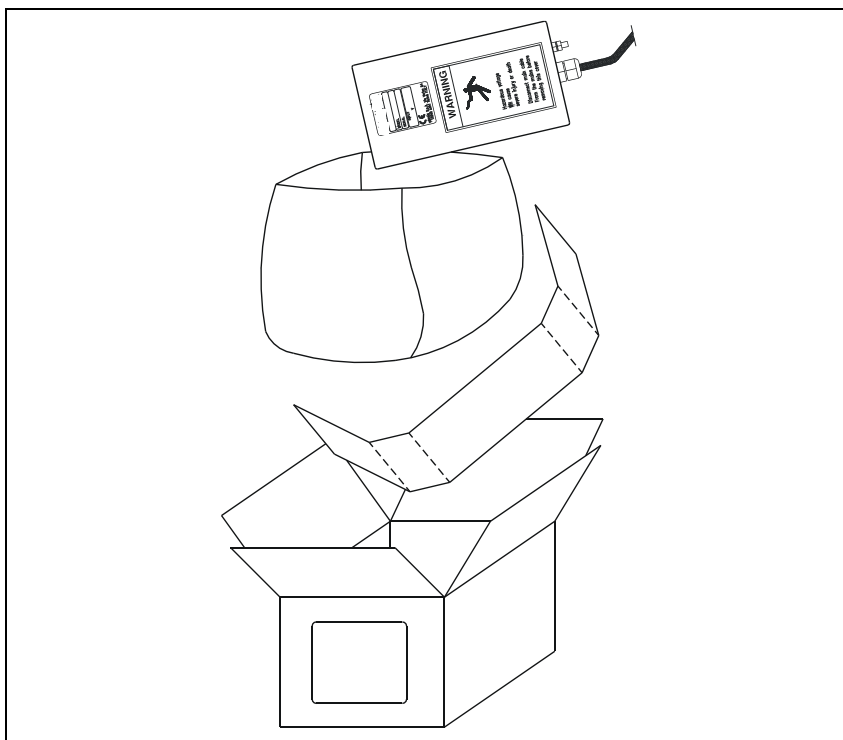


Figura 1 Imballo dell'alimentatore

Caratteristiche tecniche

Unità di controllo

Alimentazione:

- una batteria non ricaricabile di tipo PP3 da 9 V (6AM6, MN1604, 6LR61) disponibile commercial-mente (tipo consigliato Duracell Plus).
- un connettore di ingresso per il collegamento ad un convertitore CA/CC con uscita CC a 9 V (+/- 10 %)

AVVERTENZA!



**Il negativo dell'alimentazione a 9 V è sul pin centrale
Il positivo dell'alimentazione a 9 V è sul collegamento esterno.**

Uscita:

- Tensione non regolata da 3,0 a 1,5 kV per 829XXXX e da -3,0 a -1,5 kV per 729XXXX secondo il livello di carica della batteria
- Corrente massima in uscita: 1 μ A (corrispondente a 5 e -9 mbar in una pompa ionica 55 L/S)
- Potenza massima in uscita: 3 mW

Pannello di controllo:

- Interruttore di alimentazione
- Due LED: L1 rosso
L2 verde

La tabella fornisce il significato delle configurazioni assunte dai LED.

Tab. 1

	L1	L2
HV ACCESO POMPA ACCESA	SPENTO	LAMPEGGIANTE
HV ACCESO POMPA SPENTA	LAMPEGGIANTE	SPENTO
BATTERIA SCARICA	SPENTO	SPENTO

I due LED lampeggiano con un periodo di 2 secondi
(1.8 secondi spento, 0.2 secondi acceso).



Figura 2 Pannello

Vita: Minimo 30 giorni di operatività con una corrente di uscita pari a 1 μ A

Collegamento Cavo HV collegato internamente

Dimensioni: 150 x 80 x 55 mm

Condizioni ambientali:

- Temperatura di immagazzinamento: da -40 a +85 °C
- Temperatura operativa uguale alla temperatura operativa della batteria
- Umidità relativa: da 10 % a 90 %

1 Istruzioni per l'uso

Caratteristiche tecniche

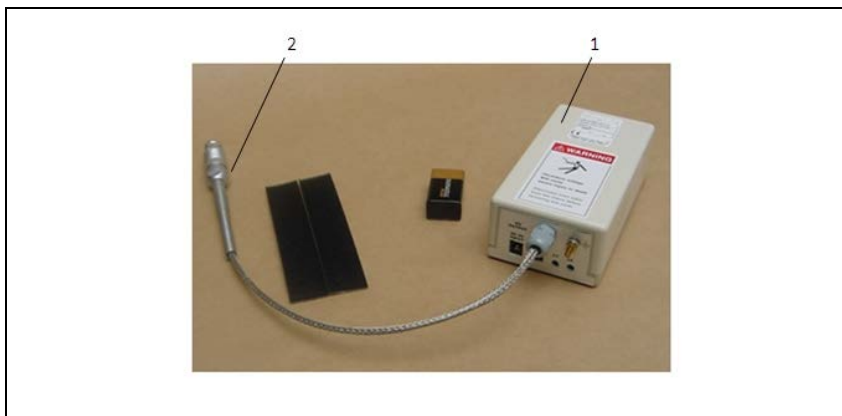


Figura 3

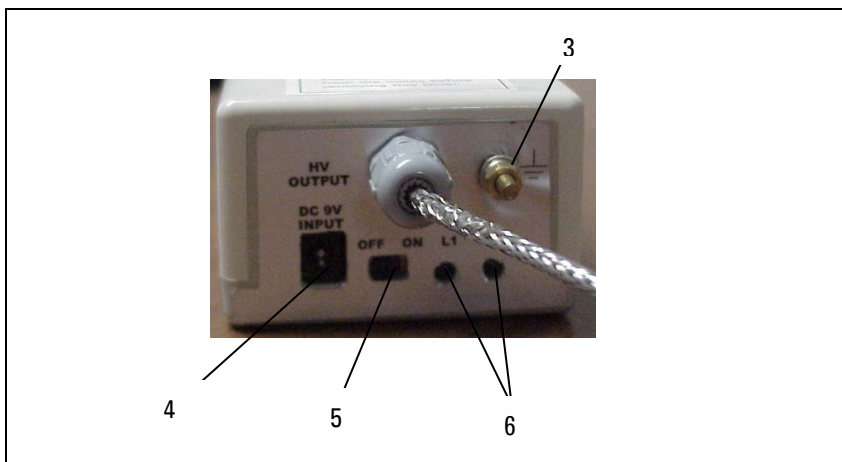


Figura 4

1	Gruppo alimentatore
2	Connettore di alimentazione pompa
3	Morsetto di terra
4	Connettore ingresso tensione esterna
5	Interruttore ON/OFF
6	Led di segnalazione stato operativo

La figura seguente riporta le dimensioni di ingombro dell'alimentatore.

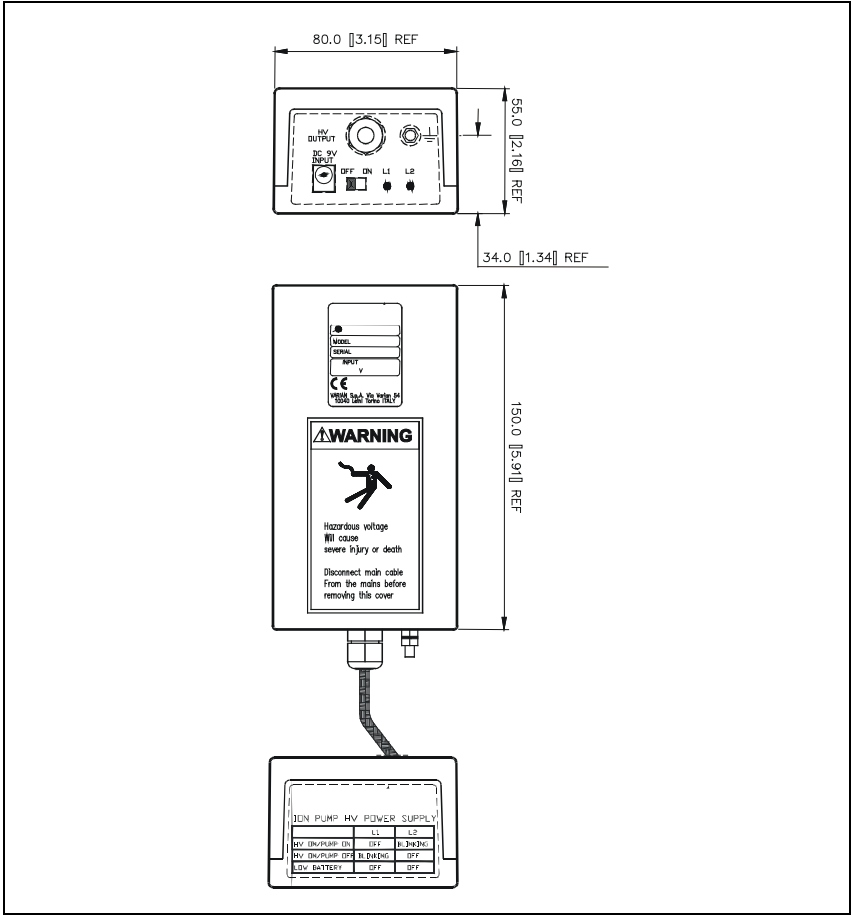


Figura 5 Dimensioni in mm [pollici]

Installazione

In figura sono riportati i vari componenti presenti nel Kit Ion Pump HV P.S.

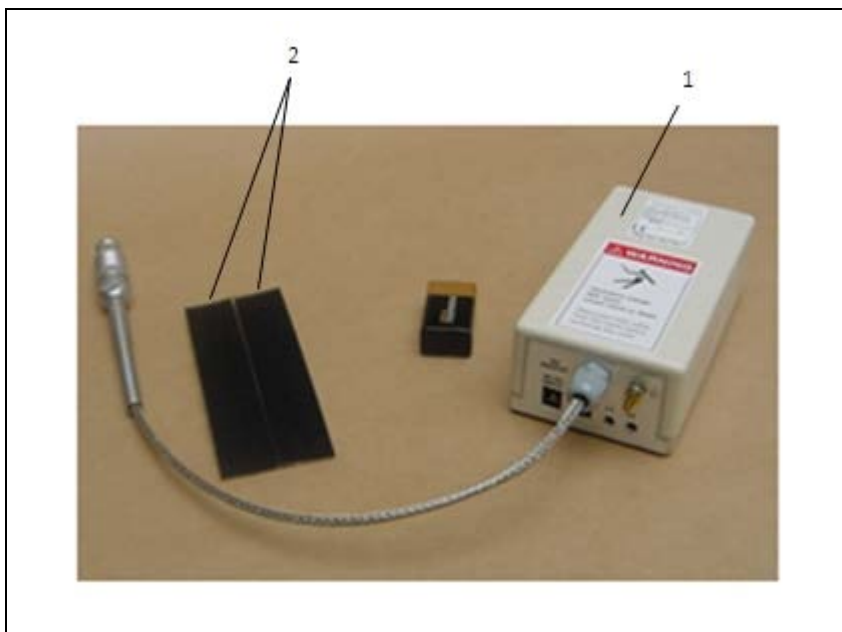


Figura 6 Kit Ion Pump HV P.S.

1	Ion Pump HV P.S.
2	Strisce di velcro adesivo per fissaggio Ion Pump P.S. al corpo pompa

Il dispositivo è spedito con la batteria inserita nella sua sede, ma con i contatti isolati da una striscia di mylar isolante.

Per stabilire il contatto fra i terminali della batteria e il circuito del dispositivo eseguire le seguenti operazioni:

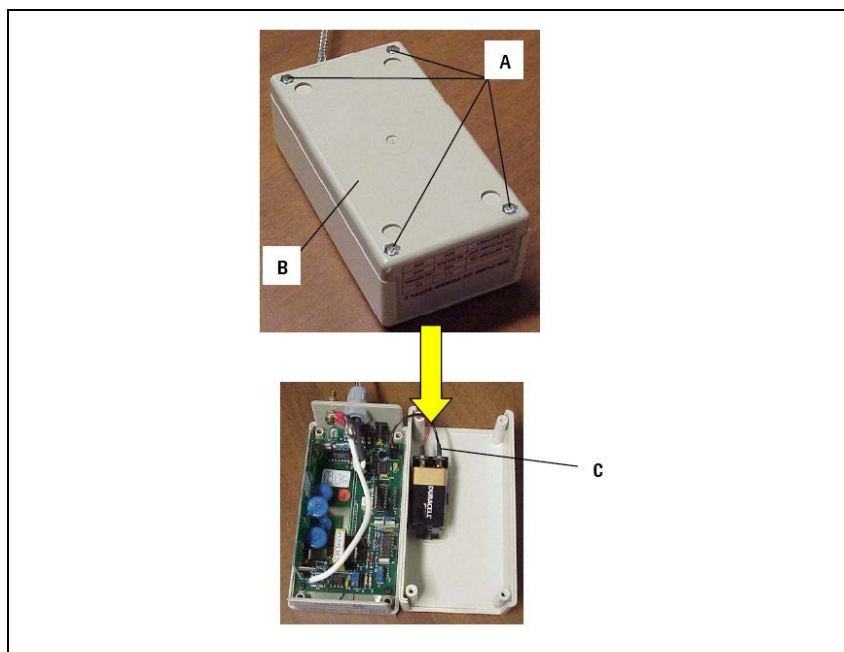


Figura 7 Posizionamento batteria

1. Accertarsi che l'interruttore ON/OFF sia in posizione OFF.
2. Svitare le 4 viti A.
3. Aprire il coperchio dell'unità.
4. Sfilare la striscia di mylar inserita fra i terminali della batteria C e i contatti del portabatteria.
5. Riposizionare il coperchio dell'unità e reinserire le 4 viti A.

1 Istruzioni per l'uso

Installazione

Procedere adesso con il posizionamento sulla pompa.

6. Incollare le due strisce di velcro **A**, una sulla pompa **B** e l'altra sull'alimentatore **C**, quindi fissare tra loro i due dispositivi.

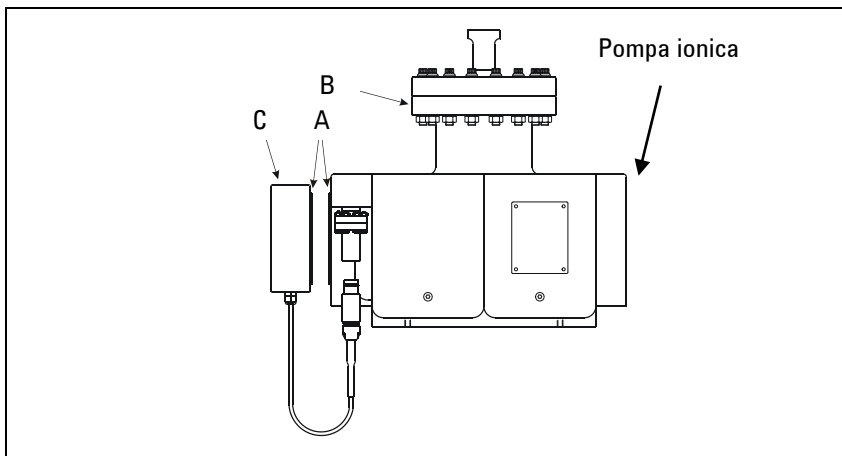


Figura 8

7. Connettere elettricamente alimentatore e pompa.
8. Portare l'interruttore **D** in posizione ON.

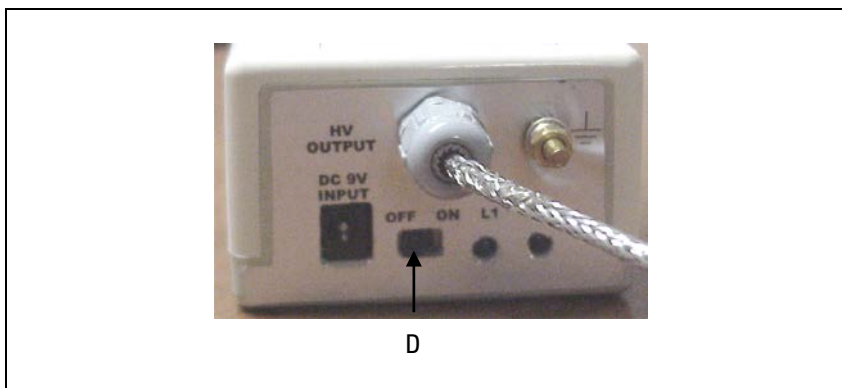


Figura 9

Smaltimento

Significato del logo "WEEE" presente sulle etichette.
Il simbolo qui sotto riportato è applicato in ottemperanza alla direttiva CE denominata "WEEE".
Questo simbolo (**valido solo per i paesi della Comunità Europea**) indica che il prodotto sul quale è applicato, NON deve essere smaltito insieme ai comuni rifiuti domestici o industriali, ma deve essere avviato ad un sistema di raccolta differenziata. Si invita pertanto l'utente finale a contattare il fornitore del dispositivo, sia esso la casa madre o un rivenditore, per avviare il processo di raccolta e smaltimento, dopo opportuna verifica dei termini e condizioni contrattuali di vendita.



Per maggiori informazioni riferirsi a:
<http://www.agilent.com/environment/product/index.shtml>

Ricerca guasti

Tab. 2

ANOMALIA	POSSIBILE CAUSA	AZIONE CORRETTIVA
1. Con l'interruttore in posizione ON, i LED sono tutti spenti	▪ Batteria scarica.	▪ Sostituire la batteria
2. Con l'interruttore in posizione ON, il LED 1 lampeggia e il LED 2 è spento.	▪ La corrente che alimenta la pompa è < 50 nA. La scarica non è avviata e la pompa non è operativa.	▪ Aumentare la pressione all'interno della pompa (es. riscaldando la pompa) fino a quando la scarica non è attivata; a questo punto il LED 1 si spegne e il LED 2 inizia a lampeggiare.

Modello numero descrizione



Figura 10 Feedthrough pompa ionica - Connettore Fischer

Tab. 3

N. ART. COMPONENTE ALIMENTATORE	POLARITÀ
8290800	Positiva
7290800	Negativa



Figura 11 Feedthrough pompa ionica - Connettore OLD USA

Tab. 4

N. ART. COMPONENTE ALIMENTATORE	POLARITÀ
8290801	Positiva
7290801	Negativa

1 Istruzioni per l'uso

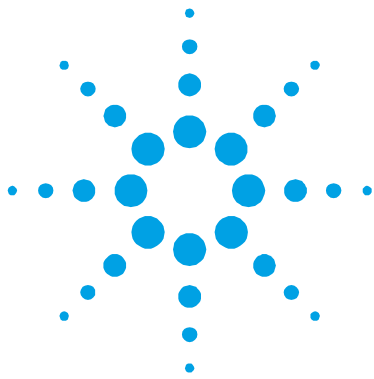
Modello numero descrizione



Figura 12 Feedthrough pompa ionica - Connettore STAR CELL

Tab. 5

N. ART. COMPONENTE ALIMENTATORE	POLARITÀ
8290801	Positiva
7290801	Negativa



2

Gebrauchsanleitung

Installationsanweisung für die Ionengetterpumpen
Hochspannungsstromversorgung 22

Allgemeines 22

Funktionsprinzip 22

Installationsvorbereitungen 23

Technische Eigenschaften 24

Steuereinheit 24

Installation 28

Entsorgung 31

Fehlersuche 31

Modell Nummer Bezeichnung 32

Übersetzung der Originalanleitungen



Installationsanweisung für die Ionengerterpumpen Hochspannungsstromversorgung

Allgemeines

Dieses Gerät ist für professionellen Gebrauch bestimmt. Der Benutzer muss vor seiner Anwendung diese Anleitung und jede andere von Agilent gelieferte zusätzliche Information sorgfältig lesen. Agilent übernimmt keine Haftung für Schäden wegen völligen oder teilweisen Nichtbefolgens dieser Anleitungen, falschen Gebrauch durch nicht ausgebildetes Personal, nicht genehmigte Eingriffe oder Einsatz im Gegensatz zu den spezifischen nationalen Normen

Die batteriegespeiste Hochspannungsversorgung dient dem Zweck Ionengerterpumpen während des Transports zu versorgen, um das Vakuum aufrecht zu erhalten.

Es wird entweder eine interne nicht wieder aufladbare 9 V Batterie eingesetzt oder alternativ eine externe Stromquelle, die 9 V Gleichstrom liefern kann.

Die folgenden Abschnitte enthalten alle nötigen Informationen für die Sicherheit des Bedieners beim Gebrauch des Geräts.

Funktionsprinzip

Das Gerät kann feststellen, ob die angeschlossene Ionengerterpumpe arbeitet ist oder nicht, hierzu wird der Pumpenstrom gemessen.

Falls der Strom unter 50 nA liegt, wird von der Hochspannungsversorgung angenommen, daß die Entladung in der Pumpe erloschen ist. Dies wird durch ein rotes Blinken von LED L1 signalisiert.

Liegt der Strom über 50 nA, wird durch das grüne Blinken von LED L2 ein einwandfreier Betrieb angezeigt.

Hochspannung zum Betrieb der Ionengetterpumpe liegt sofort nach dem Einschalten des Gerätes, Schalterstellung „ON“, am Hochspannungskabel an.

Installationsvorbereitungen

Das Gerät wird in einer speziellen Schutzverpackung geliefert. Wenn Zeichen von Transportschäden entdeckt werden, das lokale Verkaufsbüro verständigen. Beim Auspacken besonders darauf achten, dass die Stromversorgung nicht fallen gelassen oder Stößen ausgesetzt wird. Die Verpackung nicht einfach wegwerfen. Sie ist völlig recyclebar und entspricht der EWG Umweltschutz-Richtlinie.

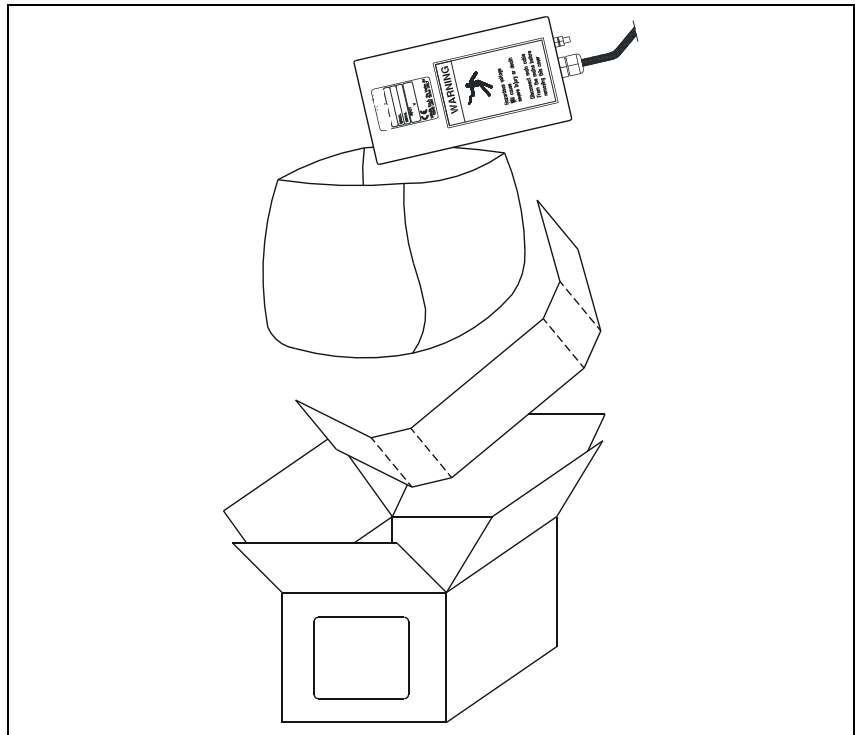


Abbildung 1 Verpackung der Stromversorgung

Technische Eigenschaften

Steuereinheit

Stromversorgung:

- eine handelsübliche nicht wiederaufladbare 9 V Batterie vom Typ PP3 (6AM6, MN1604, 6LR61) - empfohlene Marke Duracell Plus
- ein Eingangsstecker zum Anschluss an einen Gleichrichter mit einem Ausgang von 9 V= (+/- 10 %)

WARNUNG!



Der negative Pol der 9 V Versorgung ist auf dem mittleren Stift, der positive Pol ist auf dem Außenmantel.

Ausgang:

- unregelmäßige Spannung zwischen 1,5 und 3 kV, je nach Ladungsstand der Batterie; Positive Ausgangsspannung bei 829xxxx Modellen; Negative Ausgangsspannung bei 729xxxx Modellen.
- max. Ausgangsstrom: 1 μ A (entspricht $\sim 5 \cdot 10^{-9}$ mbar bei einer Ionenpumpe 55 l/s)
- max. Ausgangsleistung 3 mW

Bedienfeld:

- Ein-/Ausschalter
- zwei LEDs: L1 rot
L2 grün

Tab. 1

	L1	L2
HS AN PUMPE AN	AUS	BLINKEND
HS AN PUMPE AUS	BLINKEND	AUS
BATTERIE LEER	AUS	AUS

Beide LEDs blinken im 2 Sek. Rhythmus (1,8 Sek aus, 0,2 Sek an).



Abbildung 2 Bedienfeld

Einsatzdauer: Im Betrieb mit einem Ausgangsstrom von 1 μ A mind. 30 Tage

Anschluss: HS Kabel innen angeschlossen

Abmessungen: 150 x 80 x 55 mm

Umgebungsbedingungen:

- Lagertemperatur: -40 bis +85 °C
- Betriebstemperatur gleich der Betriebstemperatur der Batterie
- rel. Luftfeuchtigkeit: 10 % bis 90 %

2 Gebrauchsanleitung

Technische Eigenschaften

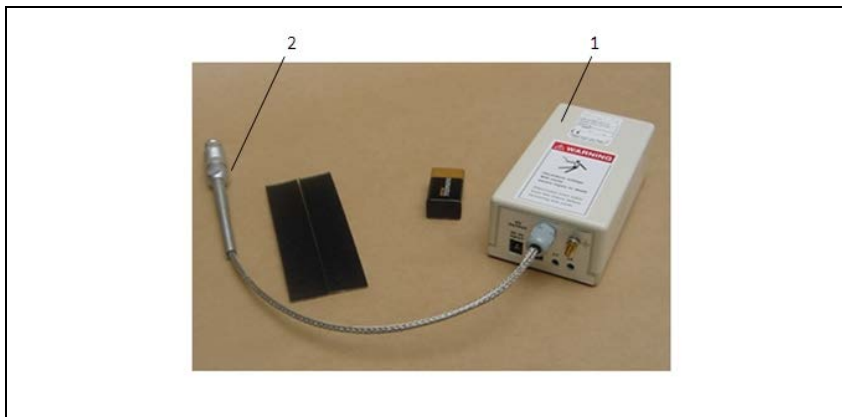


Abbildung 3

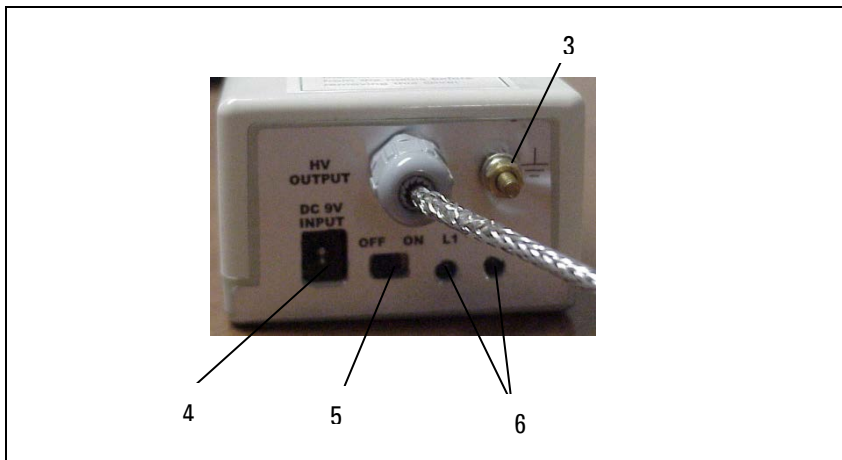


Abbildung 4

1	Hochspannungsstromversorgung
2	Hochspannungsstecker pumpseitig
3	Erdungsklemme
4	Anschluß für externe Spannung
5	Ein-/Ausschalter
6	LEDs für die Betriebszustandsanzeige

Die folgende Abbildung zeigt die Abmessungen der Hochspannungsstromversorgung.

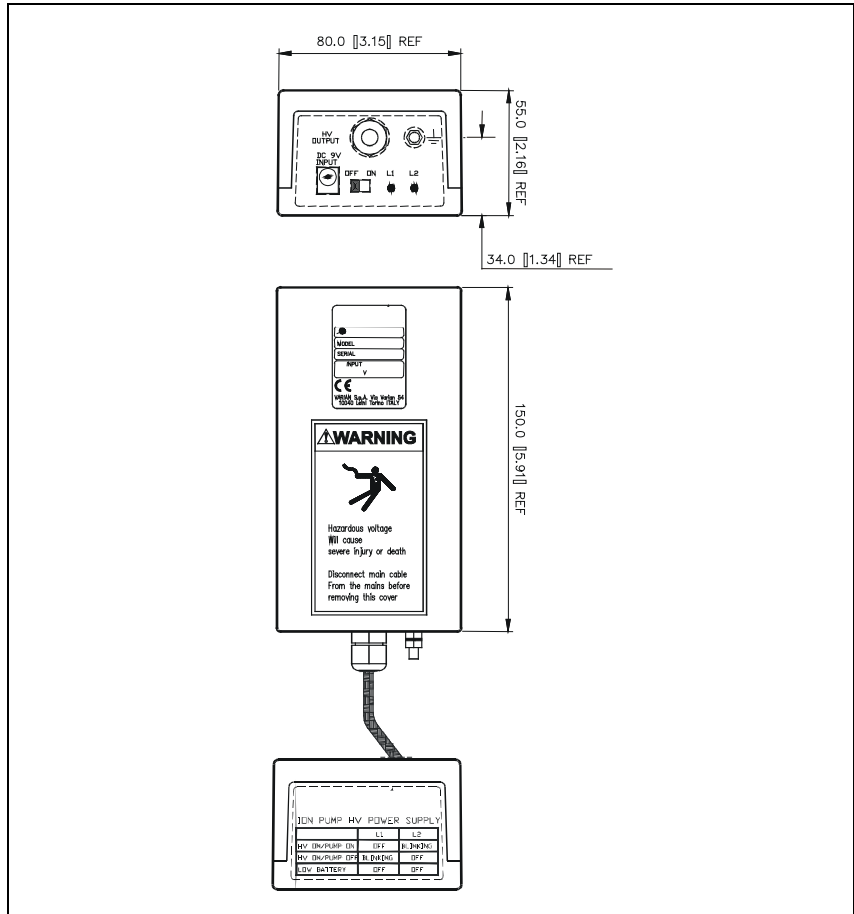


Abbildung 5 Abmessungen in mm [Zoll]

Installation

Die Abbildung zeigt den Lieferumfang der batteriebetriebenen Hochspannungsstromversorgung.

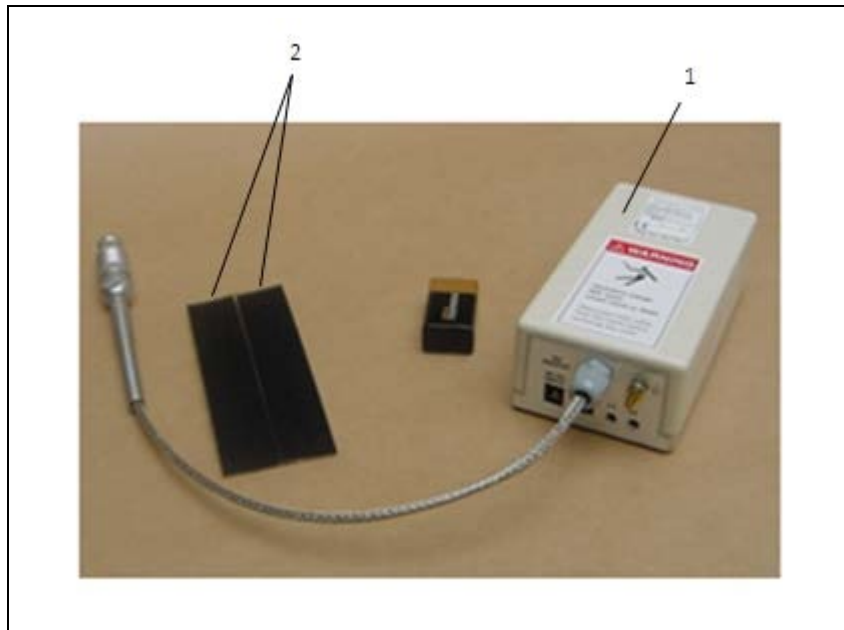


Abbildung 6 Abmessungen in mm [Zoll]

1	Hochspannungsstromversorgung
2	Klettstreifen zur Befestigung der Stromversorgung am Pumpkörper der Ionengetterpumpe.

Das Gerät wird bereits mit eingesetzter Batterie geliefert. Die Kontakte sind jedoch mit Mylarstreifen isoliert.

Um das Gerät in Betrieb zu nehmen ist es notwendig diese Mylarstreifen zu entfernen. Hierzu befolgen Sie bitte die folgenden Arbeitsschritte:

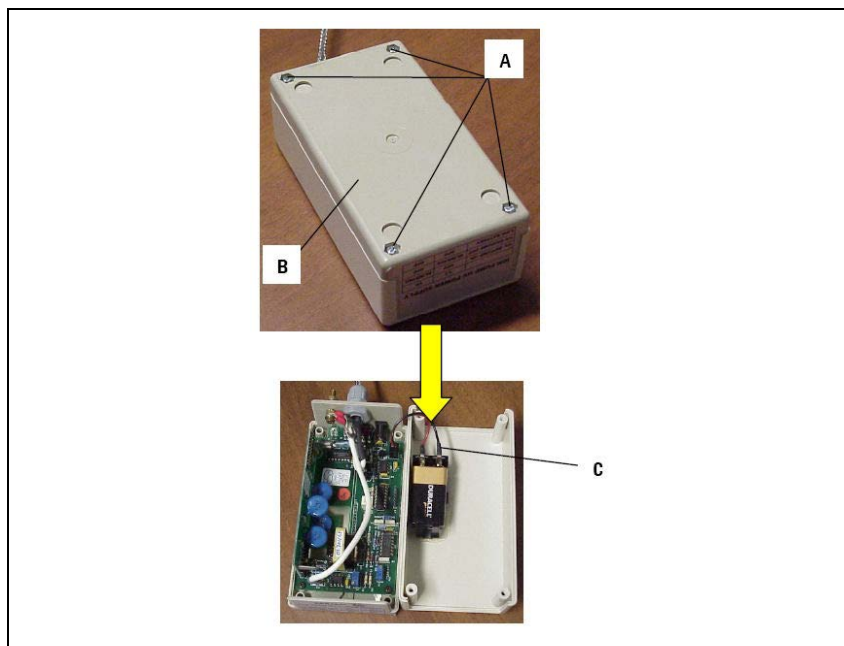


Abbildung 7 Positionieren der Batterie

1. Stellen Sie sicher, daß das Gerät ausgeschaltet ist
2. Die 4 Schrauben A abschrauben.
3. Den Deckel des Gerätes öffnen.
4. Den Mylarstreifen zwischen den Batteriekontakten und denen der Batteriehalterung C herausziehen.
5. Den Deckel der Einheit wieder aufsetzen und die 4 Schrauben A wieder einsetzen und festschrauben.

2 Gebrauchsanleitung

Installation

Anschließend das Gerät auf der Pumpe positionieren.

6. Einen Klettstreifen auf der Pumpe **B** festkleben, den anderen auf der Stromversorgung **C**, dann die beiden Einheiten zusammenheften.

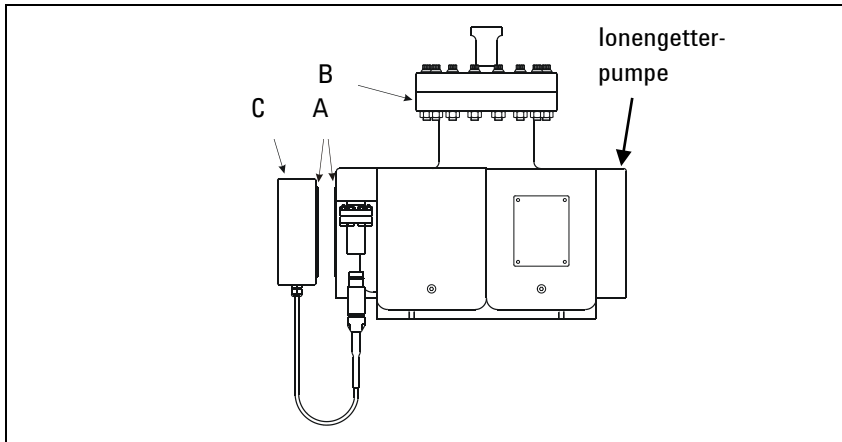


Abbildung 8 Befestigung an der Pumpe

7. Das Hochspannungskabel an die Ionengerätpumpe anschließen
8. Den Schalter **D** auf ON stellen.

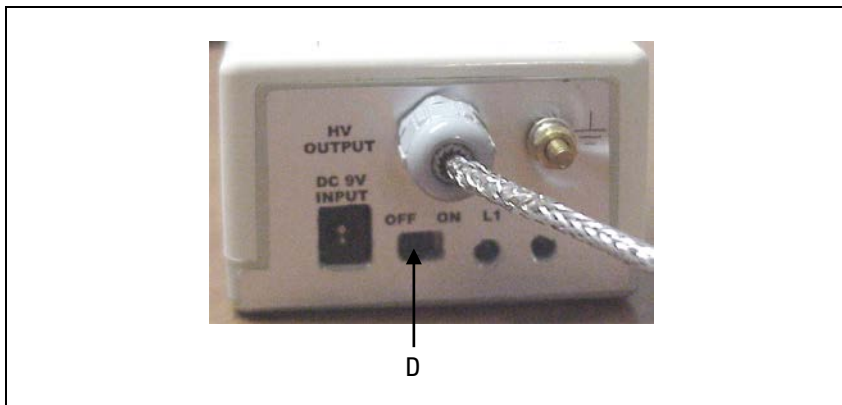


Abbildung 9

Entsorgung

Bedeutung des "WEEE" Logos auf den Etiketten.

Das folgende Symbol ist in Übereinstimmung mit der EU-Richtlinie WEEE (Waste Electrical and Electronic Equipment) angebracht. Dieses Symbol (**nur in den EU-Ländern gültig**) zeigt an, dass das betreffende Produkt nicht zusammen mit Haushaltsmüll entsorgt werden darf sondern einem speziellen Sammelsystem zugeführt werden muss. Der Endabnehmer sollte daher den Lieferanten des Geräts - d.h. die Muttergesellschaft oder den Wiederverkäufer - kontaktieren, um den Entsorgungsprozess zu starten, nachdem er die Verkaufsbedingungen geprüft hat.



Weitere Informationen finden Sie unter:

<http://www.agilent.com/environment/product/index.shtml>

Fehlersuche

Tab. 2

STÖRUNG	MÖGLICHE URSACHE	BEHEBUNG
3. Bei eingeschaltetem Gerät (Schalter auf ON) sind beide LEDs dunkel.	▪ Batterie leer.	▪ Batterie ersetzen
4. Bei eingeschaltetem Gerät blinkt LED 1 und LED 2 ist.	▪ Der Versorgungsstrom der Pumpe ist < 50 nA. Die Entladung hat wahrscheinlich nicht eingesetzt und die Pumpe arbeitet nicht.	▪ Den Innendruck der Pumpe erhöhen (z.B. durch Erwärmen der Pumpe), bis die Entladung startet; an diesem Punkt geht LED 1 aus und LED 2 beginnt zu blinken.

Modell Nummer Bezeichnung



Abbildung 10 Pumpseite Hochspannungsdurchführung -
Fischer Hochspannungsdurchführung

Tab. 3

STROMVERSORGUNG TEIL NR.	POLARITÄT
8290800	Positiv
7290800	Negativ



Abbildung 11 Pumpseite Hochspannungsdurchführung -
OLD USA Hochspannungsdurchführung

Tab. 4

STROMVERSORGUNG TEIL NR.	POLARITÄT
8290801	Positiv
7290801	Negativ

2 **Gebrauchsanleitung**

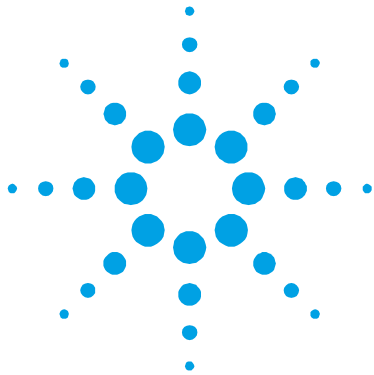
Modell Nummer Bezeichnung



Abbildung 12 Pumpseite Hochspannungsdurchführung -
StarCell Hochspannungsdurchführung

Tab. 5

STROMVERSORGUNG TEIL NR.	POLARITÄT
8290802	Positiv
7290802	Negativ



3 Mode d'emploi

Procédure pour l'installation de l'alimentateur ion pump	
HV P.S.	36
Generalite	36
Principe de fonctionnement	36
Preparation pour l'installation	37
Caracteristiques techniques	38
Unité de contrôle	38
Installation	42
Mise au rebut	45
Recherche pannes	45
Description de la référence modèle	46

Traduction de la mode d'emploi originale



Procédure pour l'installation de l'alimentateur ion pump HV P.S.

Generalite

Cet appareillage est destiné à un usage professionnel. L'utilisateur doit lire attentivement le présent manuel d'instructions et toute information supplémentaire fournie par Agilent avant d'utiliser l'appareillage. Agilent décline toute responsabilité quant à l'inobservance totale ou partielle des instructions, à l'utilisation abusive de la part d'un personnel non préparé, ainsi qu'aux interventions non autorisées ou à l'utilisation contraire aux réglementations nationales spécifiques.

L'appareillage ION Pump HV P.S. est un alimentateur et il est utilisé pour alimenter les pompes ioniques durant les phases de transport, afin d'empêcher l'entrée de l'air à l'intérieur de la pompe même.

L'alimentateur utilise une pile non rechargeable de 9 V, placée à l'intérieur ou en alternative, il peut être branché à une source extérieure en mesure de fournir une tension continue à 9 V avec une majeure autonomie.

Dans les paragraphes suivants sont reportées toutes les informations nécessaires pour garantir la sécurité de l'opérateur durant l'utilisation de l'appareil.

Principe de fonctionnement

L'unité est en mesure de déterminer si la pompe branchée est active ou pas. Lorsque le HV est allumé, l'unité mesure le courant de la pompe:

si le courant est inférieur à 50 nA, la décharge à l'intérieur de la pompe est éteinte (voyant LED L1 rouge clignotant); si le courant est supérieur à 50 nA, la pompe est opérationnelle (voyant LED L2 vert clignotant). L'unité génère l'HV qui alimente la pompe ionique lorsque l'interrupteur de l'alimentation est placé sur ON.

Préparation pour l'installation

Le dispositif est fourni dans un emballage de protection spécial; si l'appareil a subi des endommagements qui ont pu avoir lieu durant le transport, contacter le bureau d'achats local. Durant l'opération de déballage, faire attention à ne pas faire tomber l'alimentateur et à ne pas le soumettre à des heurts. Ne pas laisser l'emballage dans la nature. Le matériau est complètement recyclable et répond à la directive CEE 85/399 pour la sauvegarde de l'environnement.

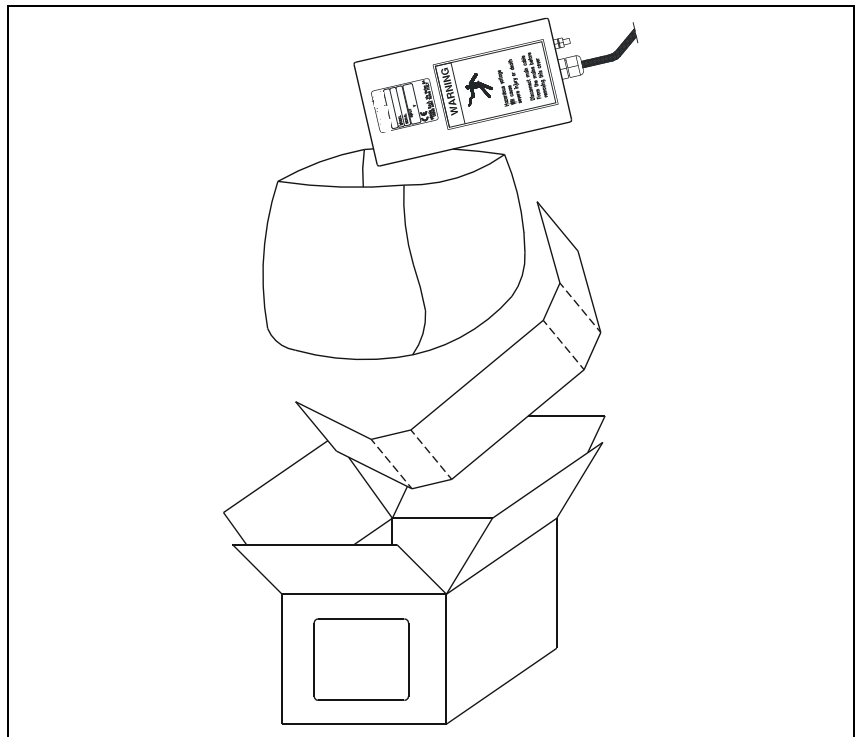


Figure 1 Emballage de l'alimentateur

Caracteristiques techniques

Unité de contrôle

Alimentation:

- une batterie non rechargeable du type PP3 à 9V (6AM6, MN1604, 6LR61) disponible commercialement (type conseillé Duracell Plus).
- un connecteur d'entrée pour le branchement à un convertisseur CA/CC avec sortie CC à 9 V (+/- 10 %)

AVERTISSEMENT!



l'électricité négative à 9 V est sur la broche centrale
l'électricité positive à 9 V est sur le branchement externe.

Sortie:

- Tension non réglée de 3.0 à 1.5 kV pour 829XXXX et de -3,0 à -1,5 kV pour 729XXXX selon le niveau de chargement de la batterie
- Courant maximum en sortie: 1 μ A (correspondant à 5 e - 9 mbar dans une pompe ionique 55L/S)
- Puissance maximum en sortie: 3 mW

Tableau de contrôle:

- Interrupteur d'alimentation
- Deux voyants LED: L1 rouge
L2 vert

Le tableau suivant fournit la signification des configurations prises par les voyants LED.

Tab. 1

	L1	L2
HV ALLUME POMPE ALLUMEE	ETEINT	CLIGNOTANT
HV ALLUME POMPE ETEINTE	CLIGNOTANT	ETEINT
BATTERIE A PLAT	ETEINT	ETEINT

Les deux voyants clignotent toutes les deux secondes (1.8 secondes éteint, 0.2 secondes allumé).



Figure 2 Tableau

Vie: Minimum 30 jours d'activité avec un courant en sortie égal à 1 μ A

Branchement Câble HV branché à l'intérieur

Dimensions: 150 x 80 x 55 mm

Conditions ambiantes:

- Température d'emmagasinement : de -40 à +85 °C
- Température opérationnelle égale à la température opérationnelle de la batterie
- Humidité relative: de 10 % à 90 %

3 Mode d'emploi

Caracteristiques techniques

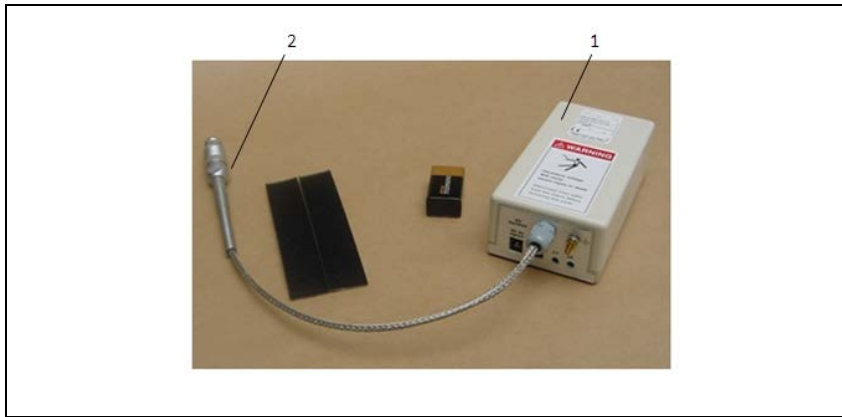


Figure 3

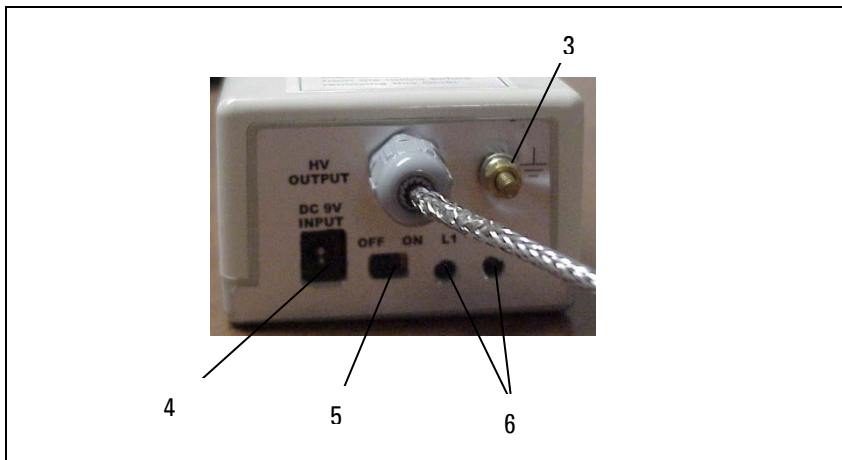


Figure 4

1	Groupe alimentateur
2	Connecteur d'alimentation pompe
3	Borne au sol
4	Connecteur entrée tension externe
5	Interrupteur ON/OFF
6	Voyant Led de signalisation condition opérationnelle

La figure suivante reporte les dimensions d'encombrement de l'alimentateur.

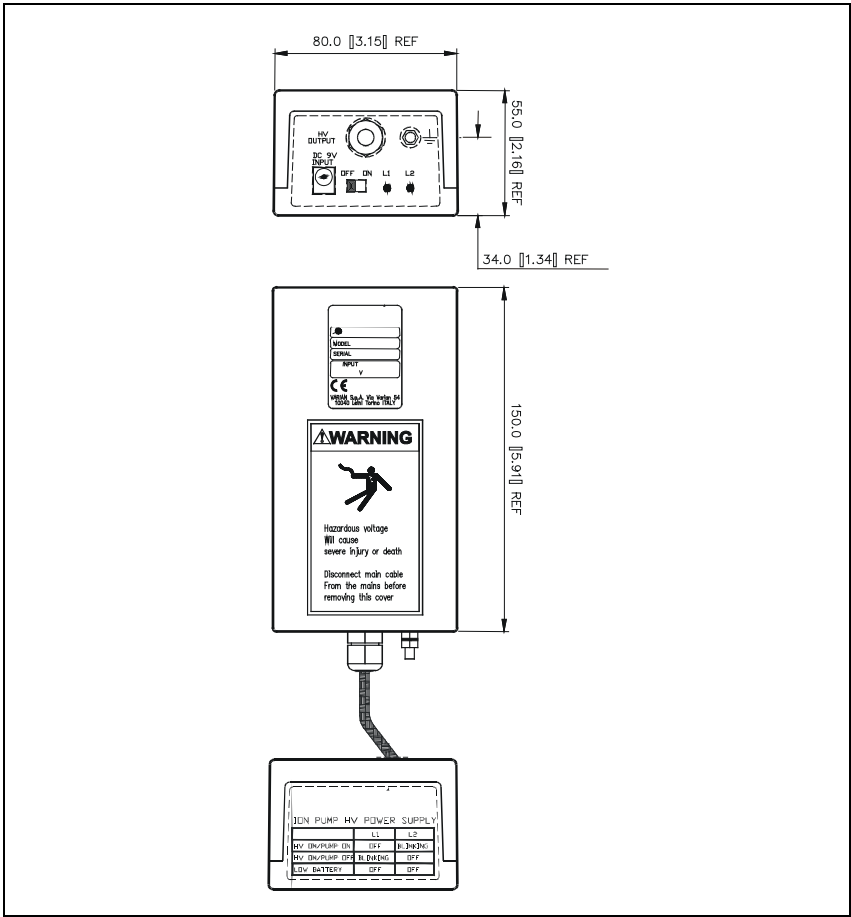


Figure 5 Dimensions in mm [pouces]

Installation

Dans la figure sont reportés les différents composants présents dans le kit Ion Pump HV P.S.

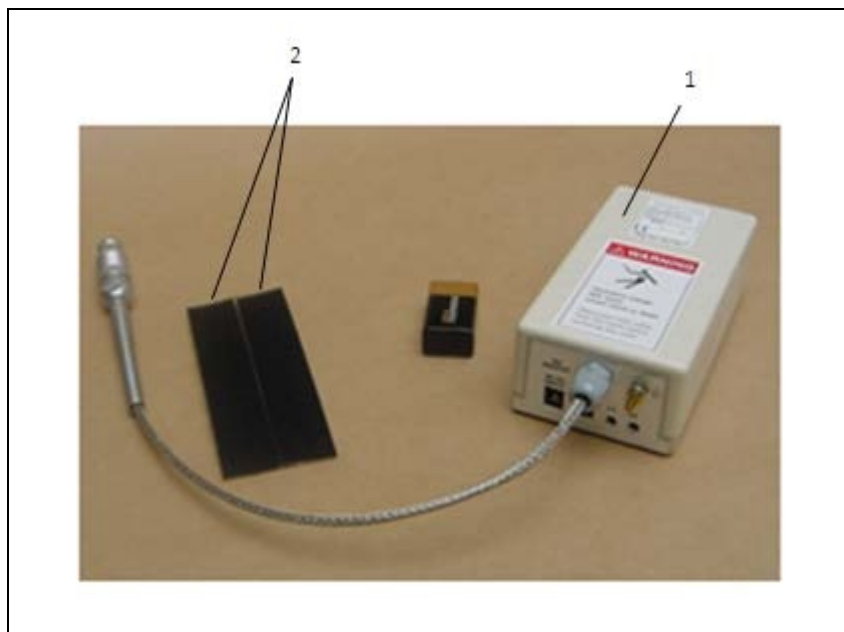


Figure 6 Kit Ion Pump HV P.S.

1	Ion Pump HV P.S.
2	Bandes velcro pour fixation Ion Pump P.S. au corps pompe

Le dispositif est expédié avec la batterie insérée dans le logement mais avec les contacts isolés par une bande de mylar isolante.

Pour établir le contact entre les bornes de la batterie et le circuit du dispositif, effectuer les opérations suivantes:

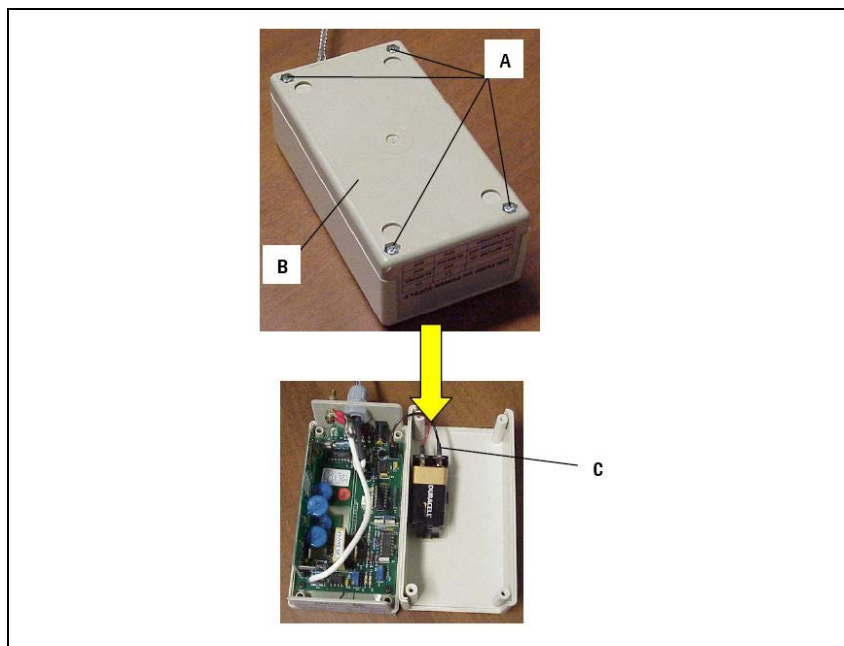


Figure 7 Posizionamento batteria

1. Vérifier que l'interrupteur ON/OFF soit sur la position OFF.
2. Dévisser les 4 vis **A**.
3. Ouvrir le couvercle de l'unité.
4. Enlever la bande en mylar insérée entre les bornes de la batterie **C** et les contacts du porte-batterie.
5. Repositionner le couvercle de l'unité et réinsérer les 4 vis **A**.

3 Mode d'emploi

Installation

Effectuer maintenant le positionnement sur la pompe.

6. Coller les deux bandes de velcro **A**, une sur la pompe **B** et l'autre sur l'alimentateur **C**, ensuite fixer entre eux les deux dispositifs.

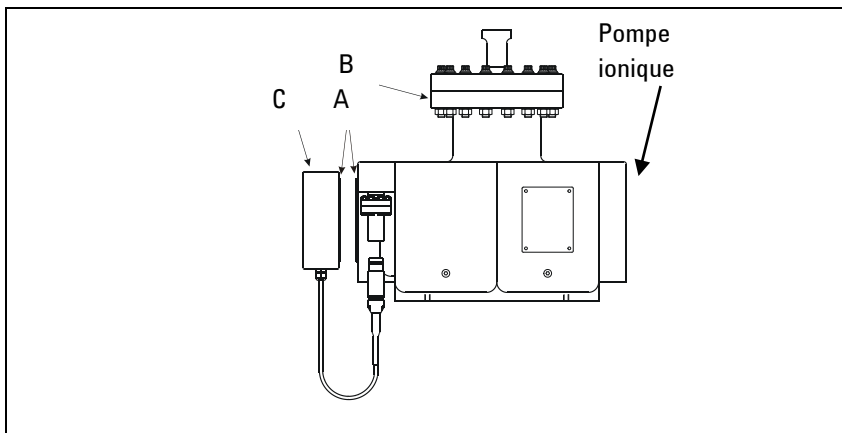


Figure 8 Fixage sur la pompe

7. Relier électriquement l'alimentateur et la pompe.
8. Porter l'interrupteur **D** sur la position ON.

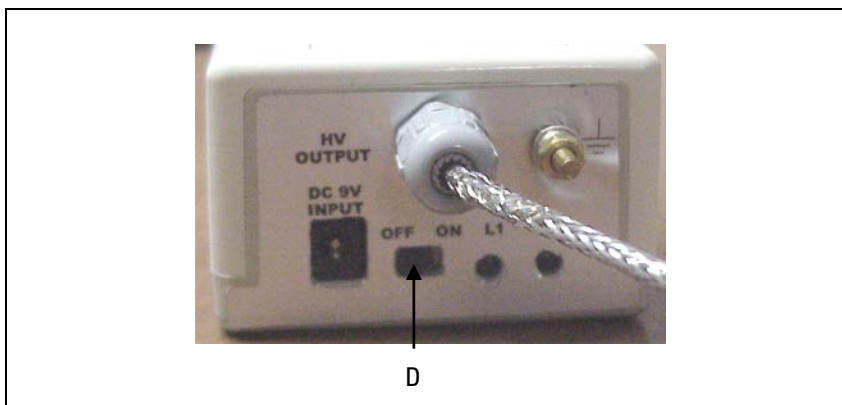


Figure 9

Mise au rebut

Signification du logo "WEEE" figurant sur les étiquettes.

Le symbole ci-dessous est appliqué conformément à la directive CE nommée "WEEE".

Ce symbole (**uniquement valide pour les pays de la Communauté européenne**) indique que le produit sur lequel il est appliqué NE doit PAS être mis au rebut avec les ordures ménagères ou les déchets industriels ordinaires, mais passer par un système de collecte sélective. Après avoir vérifié les termes et conditions du contrat de vente, l'utilisateur final est donc prié de contacter le fournisseur du dispositif, maison mère ou revendeur, pour mettre en œuvre le processus de collecte et mise au rebut.



Pour en savoir plus, consulter :

<http://www.agilent.com/environment/product/index.shtml>

Recherche pannes

Tab. 2

ANOMALIE	CAUSE POSSIBLE	ACTION DE CORRECTION
1. Avec l'interrupteur en position ON, les voyants LED sont tous éteints	Batterie à plat.	Remplacer la batterie
2. Avec l'interrupteur en position ON, le voyant LED 1 clignote et le voyant LED 2 est éteint.	Le courant qui alimente la pompe est < 50 nA. La décharge ne démarre pas et la pompe n'est pas opérationnelle.	Augmenter la pression à l'intérieur de la pompe (par ex. en réchauffant la pompe jusqu'à ce que la décharge n'est pas activée; c'est alors que le voyant LED 1 s'éteint et que le voyant LED 2 commence à clignoter.

Description de la référence modèle



Figure 10 Passage h.t. de pompe ionique - Connecteur Fischer

Tab. 3

ALIMENTATION RÉFÉRENCE PIÈCE	POLARITÉ
8290800	Positive
7290800	Négative



Figure 11 Passage h.t. de pompe ionique - Connecteur OLD USA

Tab. 4

ALIMENTATION RÉFÉRENCE PIÈCE	POLARITÉ
8290801	Positive
7290801	Négative

3 Mode d'emploi

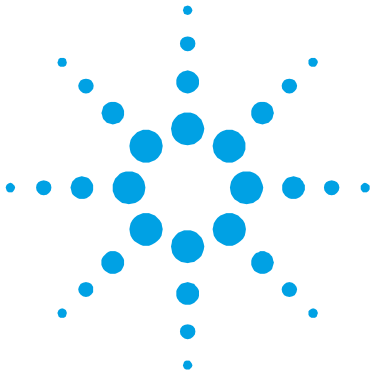
Description de la référence modèle



Figure 12 Passage h.t. de pompe ionique - Connecteur STAR CELL

Tab. 5

ALIMENTATION RÉFÉRENCE PIÈCE	POLARITÉ
8290802	Positive
7290802	Négative



4

Instructions for Use

Ion Pump HV P.S. Power Supply Unit Installation	
Procedure	50
Overview	50
Principle of Operation	50
Preparation for Installation	51
Technical Data	52
Control Unit	52
Installation	56
Disposal	59
Troubleshooting	59
Model Number Description	60

Original Instructions



Ion Pump HV P.S. Power Supply Unit Installation Procedure

Overview

This appliance is intended for professional use only. Before using the appliance, the user must read this instructions manual carefully and any other additional information provided by Agilent. Agilent declines any responsibility for total or partial non-compliance with the instructions, improper use by untrained personnel, unauthorized operations or use contrary to specific national regulations.

Ion Pump HV P.S. is a power supply that is used to power ion pumps during transportation phases in order to prevent air entering the pump.

The power supply uses a 9 V non-rechargeable battery positioned inside or, alternatively, may be connected to an external power source able to provide a DC voltage of 9 V with greater autonomy.

All the information required to guarantee operator safety during use of the appliance is provided below.

Principle of Operation

The unit is able to determine whether or not the pump connected is active. When the HV is ON, the unit measures pump current:

if the current is less than 50 nA, the discharge inside the pump is OFF (red LED L1 blinking); if the current exceeds 50 nA, the pump is operative (green LED L2 blinking).

The unit generates the HV that powers the ion pump when the power switch is set to ON.

Preparation for Installation

The device is furnished in special protective packaging; if there are any signs of damage to this packaging during transport, contact your local sales office. When unpacking the unit, take particular care to prevent any yielding of the power supply and any impacts. Do not dispose of the packaging in the environment. The material is fully recyclable and complies with EC Directive 85/399 for protection of the environment.

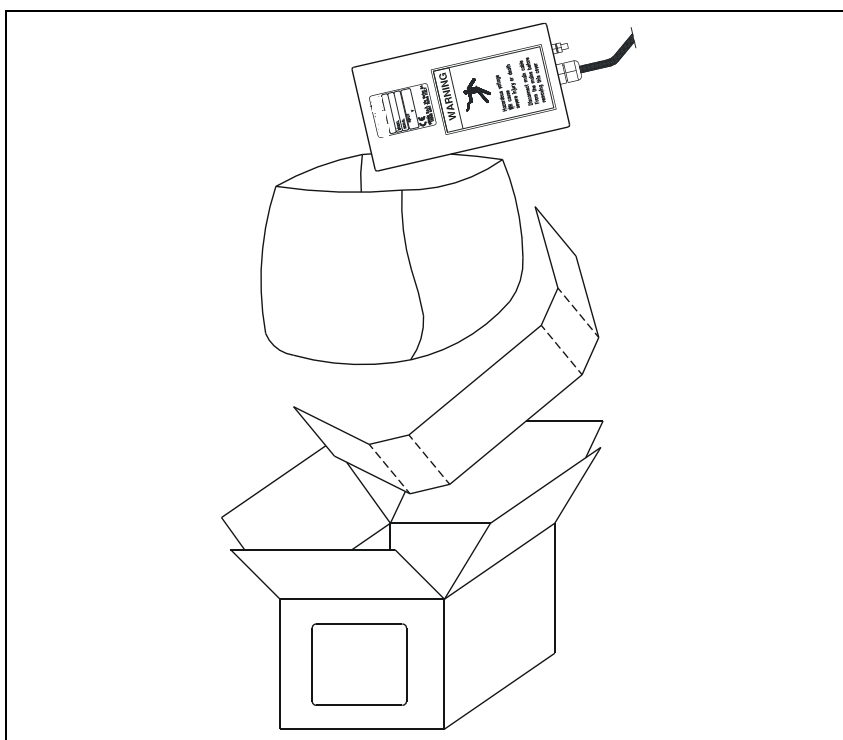


Figure 1 Packaging of the power supply

Technical Data

Control Unit

Power supply:

- a commercially available 9 V PP3 type non-rechargeable battery (6AM6, MN1604, 6LR61) (recommended type Duracell Plus).
- an input connector for connection and a 9 V AC/DC converter (+/- 10 %)

WARNING!



**The negative of the 9V power supply is on the central pin
The positive of the 9V power supply is on the external connection.**

Output:

- Non regulated voltage of between 3.0 and 1.5 kV for 829XXXX and from -3,0 to -1,5 kV for 729XXXX according to battery charge level
- maximum output current 1 μ A
(corresponding to 5 and - 9 mbar in a 55/LS ion pump)
- Max. output power: 3 mW

Control panel:

Power ON/OFF switch

- Two LEDs: L1 red
L2 green

The meaning of the configurations of the LEDs is shown in the table.

Tab. 1

	L1	L2
HV ON PUMP ON	OFF	BLINKING
HV ON PUMP OFF	BLINKING	OFF
BATTERY DISCHARGED	OFF	OFF

The two LEDs blink at a frequency of 2 seconds (1.8 second off, 0.2 seconds on).



Figure 2 Panel

Life: Minimum 30 days of operation with an output current of 1 μ A

Connection: HV cable connected internally

Dimensions: 150 x 80 x 55 mm

Environmental conditions:

- Storage temperature: from -40 to $+85$ $^{\circ}$ C
- Operating temperature equal to the operating temperature of the battery
- Relative humidity: from 10 % to 90 %

4 Instructions for Use

Technical Data

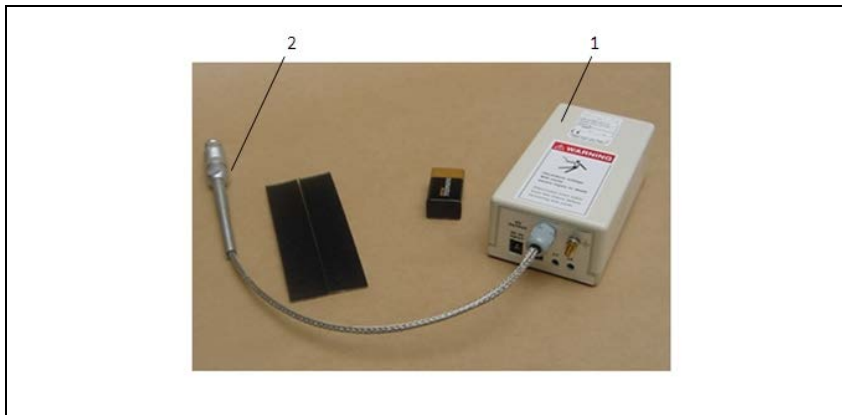


Figure 3

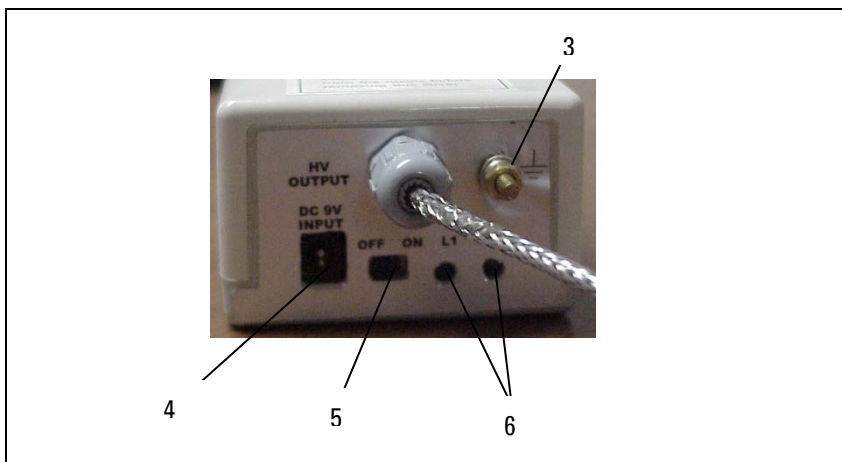


Figure 4

1	Power supply unit
2	Pump power connector
3	Ground terminal
4	External voltage input connector
5	ON/OFF switch
6	Operating state readout led

The overall dimensions of the power supply are shown in the figure below.

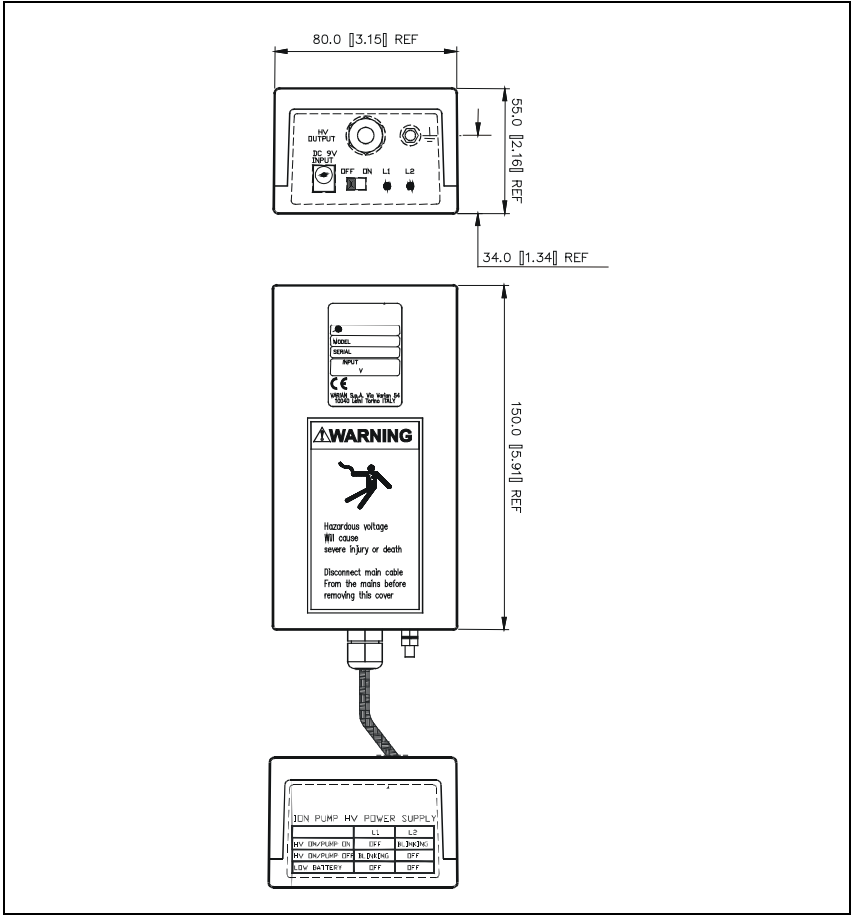


Figure 5 Dimensions in mm [inches]

Installation

The various components of the Ion Pump HV P.S. kit are shown in the figure below:

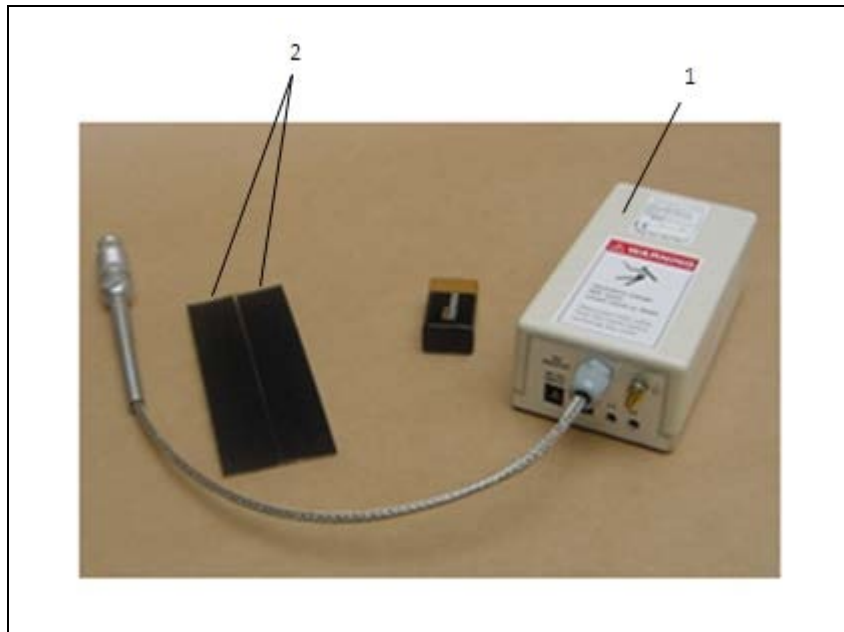


Figure 6 Ion Pump HV P.S. Kit

1	Ion Pump HV P.S.
2	Strip of Velcro to fasten the Ion Pump P.S. to the pump body

The device is dispatched with the battery inserted in its housing but with the contacts isolated by a strip of insulating Mylar.

To establish contact between the terminals of the battery and the circuit of the device, proceed as follows:

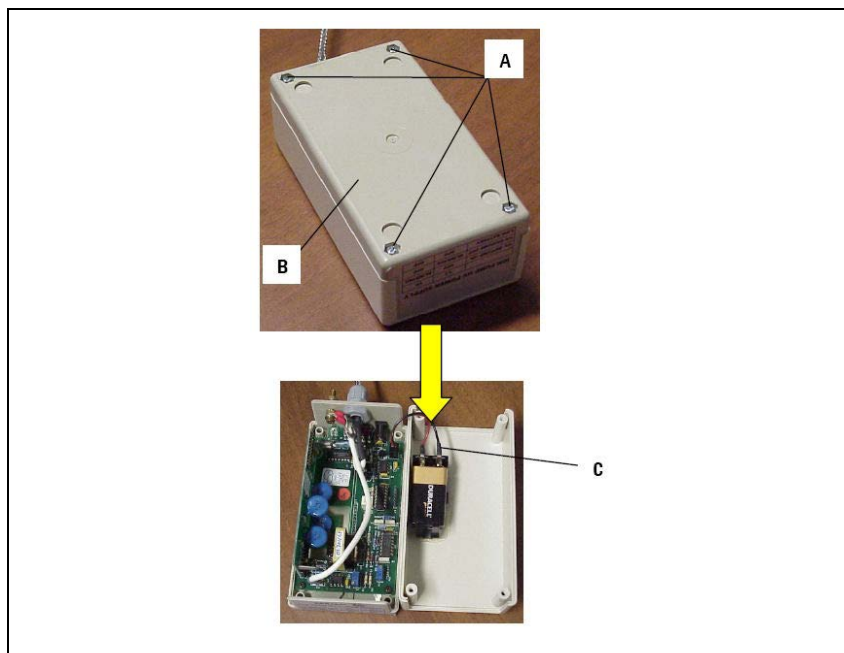


Figure 7 Posizionamento batteria

1. Check that the ON/OFF switch is set to OFF.
2. Back off the 4 screws **A**.
3. Open the cover of the unit.
4. Remove the strip of Mylar inserted between the terminals of the battery **C** and the contacts of the battery-holder.
5. Replace the cover of the unit and re-insert the four screws **A**.

4 Instructions for Use

Installation

Proceed with positioning on the pump.

6. Glue two strips of Velcro **A**, one on the pump **B** and the other on the power supply **C**, and then fasten the two devices together.

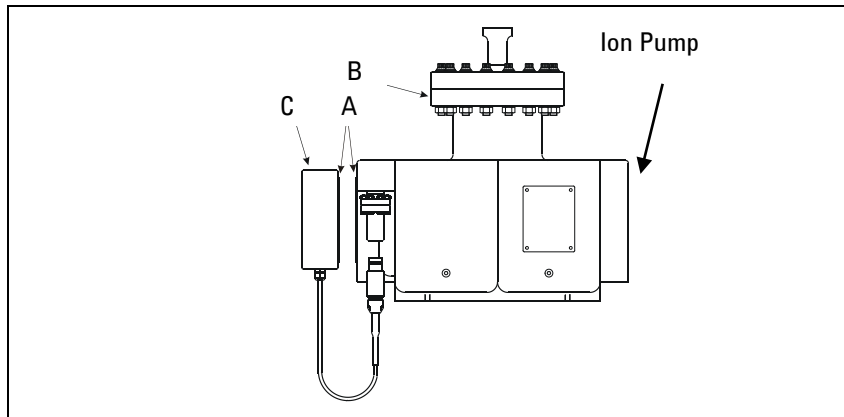


Figure 8 Fastening on the pump

7. Make the electric connection between the power supply and pump.
8. Turn switch **D** to ON.

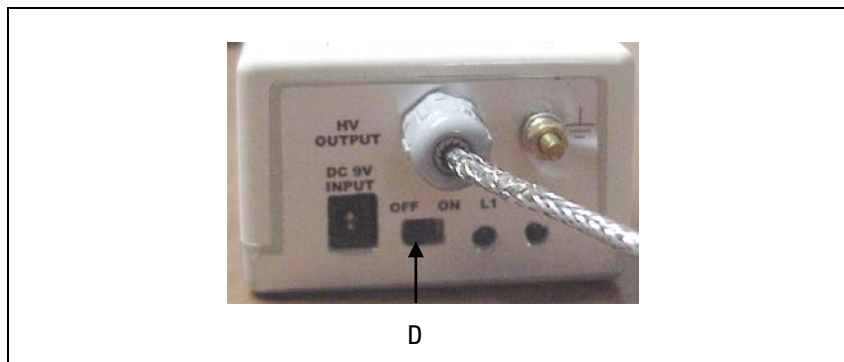


Figure 9

Disposal

Meaning of the "WEEE" logo found in labels.

The following symbol is applied in accordance with the EC WEEE (Waste Electrical and Electronic Equipment) Directive.

This symbol (**valid only in countries of the European Community**) indicates that the product it applies to must NOT be disposed of together with ordinary domestic or industrial waste but must be sent to a differentiated waste collection system.

The end user is therefore invited to contact the supplier of the device, whether the Parent Company or a retailer, to initiate the collection and disposal process after checking the contractual terms and conditions of sale.



For more information refer to:

<http://www.agilent.com/environment/product/index.shtml>

Troubleshooting

Tab. 2

SYMPTOM	POSSIBLE CAUSE	FIXING
3. With the switch in ON position, no LED are ON.	▪ The battery is exhausted.	▪ Change the battery.
4. With the switch in ON position, the LED L1 is blinking and L2 is OFF.	▪ The current that supplies the pump is < 50 nA. Discharge is not activated and the pump does not work.	▪ Increase the pressure inside the pump (ex. by heating the pump), discharge is activated and L1 goes OFF and L2 starts blinking.

Model Number Description



Figure 10 Ion pump feedthrough - Fischer Connector

Tab. 3

POWER SUPPLY PART NUMBER	POLARITY
8290800	Positive
7290800	Negative



Figure 11 Ion pump feedthrough - OLD USA Connector

Tab. 4

POWER SUPPLY PART NUMBER	POLARITY
8290801	Positive
7290801	Negative

4 Instructions for Use

Model Number Description



Figure 12 Ion pump feedthrough - STAR CELL Connector

Tab. 5

POWER SUPPLY PART NUMBER	POLARITY
8290802	Positive
7290802	Negative



Vacuum Products Division

Dear Customer,

Thank you for purchasing an Agilent vacuum product. At Agilent Vacuum Products Division we make every effort to ensure that you will be satisfied with the product and/or service you have purchased.

As part of our Continuous Improvement effort, we ask that you report to us any problem you may have had with the purchase or operation of our products. On the back side you find a Corrective Action request form that you may fill out in the first part and return to us.

This form is intended to supplement normal lines of communications and to resolve problems that existing systems are not addressing in an adequate or timely manner.

Upon receipt of your Corrective Action Request we will determine the Root Cause of the problem and take the necessary actions to eliminate it. You will be contacted by one of our employees who will review the problem with you and update you, with the second part of the same form, on our actions.

Your business is very important to us. Please, take the time and let us know how we can improve.

Sincerely,

A handwritten signature in black ink, appearing to read "Giampaolo LEVI".

Giampaolo LEVI

*Vice President and General Manager
Agilent Vacuum Products Division*

Note: Fax or mail the Customer Request for Action (see backside page) to Agilent Vacuum Products Division (Torino) – Quality Assurance or to your nearest Agilent representative for onward transmission to the same address.

CUSTOMER REQUEST FOR CORRECTIVE / PREVENTIVE / IMPROVEMENT ACTION

TO: AGILENT VACUUM PRODUCTS DIVISION TORINO – QUALITY ASSURANCE FAX

N°: XXXX-011-9979350

ADDRESS: AGILENT TECHNOLOGIES ITALIA S.p.A. – Vacuum Products Division –

Via F.lli Varian, 54 – 10040 Leini (TO) – Italy

E-MAIL: vpd-qualityassurance_pdl-ext@agilent.com

NAME	COMPANY	FUNCTION
ADDRESS:		
TEL. N° : FAX N° :		
E-MAIL:		
PROBLEM / SUGGESTION :		
REFERENCE INFORMATION (model n°, serial n°, ordering information, time to failure after installation, etc.):		
DATE		
CORRECTIVE ACTION PLAN / ACTUATION (by AGILENT VPD)		LOG N°

XXX = Code for dialing Italy from your country (es. 01139 from USA; 00139 from Japan, etc.)

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

- o Remove all accessories from the core product (e.g. inlet screens, vent valves).
- o 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.
- o If ordering an Advance Exchange product, please use the packaging from the Advance Exchange to return the defective product.
- o 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.
- o Include a copy of the Health and Safety Declaration in the shipping documentation on the outside of the shipping box of your returning product.
- o 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.
- o Return only products for which the RA was issued.

Shipping

- o 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.
- o 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

NORTH AMERICA:

Fax: 1 781 860 9252
Toll Free: 800 882 7426, Option 3

PACIFIC RIM:

Please visit our website for individual office information

vpt-customer@agilent.com

vpl-ra@agilent.com

<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.

- o 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.
- o Agilent Technologies is not responsible for returning customer provided packaging or containers.
- o 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.
- o 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.
- o 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.
- o Products returned that have not been drained from oil will be disposed.
- o A Special Cleaning fee will apply to all exposed products.
- o If requesting a calibration service, units must be functionally capable of being calibrated.



Customer information		
Company :		Contact Name:
Address:		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  New PO # (hard copy must be submitted with this form): _____	
☐ Exchange ☐ Repair ☐ Upgrade ☐ Demo ☐ Calibration ☐ Evaluation ☐ Return for Credit	

Health and safety		Substances (please refer to MSDS forms)			
The product has been exposed to the following substances: (by selecting 'YES' you MUST complete the table to the right)		* Agilent will not accept delivery of any product that is exposed to radioactive, biological, explosive substances or dioxins, PCB's without written evidence of decontamination.			
		Trade name	Chemical name	Chemical Symbol	CAS Number
Toxic	☐ YES ☐ NO				
Harmful	☐ YES ☐ NO				
Corrosive	☐ YES ☐ NO				
Reactive	☐ YES ☐ NO				
Flammable	☐ YES ☐ NO				
Explosive (*)	☐ YES ☐ NO				
Radioactive (*)	☐ YES ☐ NO				
Biological (*)	☐ YES ☐ NO				
Oxidizing	☐ YES ☐ NO				
Sensitizer	☐ YES ☐ NO				
Other dangerous substances	☐ YES ☐ NO				

Goods preparation	
If you have replied YES to one of the above questions. Has the product been purged? ☐ YES ☐ NO	
If yes, which cleaning agent/method:	
Has the product been drained from oil? ☐ YES ☐ NOT APPLICABLE	
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:	Authorized Signature:
Position:	
Date:	
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.	

Agilent Vacuum Products Division/Sales and Service Offices

United States

Agilent Technologies

121 Hartwell Avenue
Lexington, MA 02421 - USA
Tel.: +1 781 861 7200
Fax: +1 781 860 5437
Toll-Free: +1 800 882 7426
vpl-customerservice@agilent.com

Benelux

Agilent Technologies Netherlands B.V.

Groenelaan 5, 1186 AA Amstelveen
The Netherlands
Tel: +31 20 547 2000
Fax: +31 20 547 2093

Brazil

Agilent Technologies Brasil

Avenida Marcos Penteado de Ulhoa
Rodrigues, 939 - 6° andar
Castelo Branco Office Park
Torre Jacarandá - Tamboré
Barueri, Sao Paulo CEP: 06460-040
Toll free: 0800 728 1405

China

Agilent Technologies (China) Co. Ltd

No.3, Wang Jing Bei Lu, Chao Yang District
Beijing, 100102, China
Tel: +86 (0)10 64397888
Fax: +86 (0)10 64391318
Toll free: 800 820 3278
vacuum.cnmarketing@agilent.com
vpc-customerservice@agilent.com

France

Agilent Technologies
Parc Technopolis - Z.A. de Courtaboeuf
3, avenue du Canada - CS 90263
91978 Les Ulis cedex, France
Tel: +33 (0) 1 64 53 61 15
Fax: +33 (0) 1 64 53 50 01
vpf.sales@agilent.com

Germany and Austria

Agilent Technologies

Sales & Services GmbH & Co. KG

Lyoner Str. 20
60 528 Frankfurt am Main
GERMANY
Tel: +49 69 6773 43 2230
Fax: +49 69 6773 43 2250

India

Agilent Technologies India Pvt. Ltd.

Unit Nos 105-116
First Floor, Splendor Forum,
Plot No.-3 , District Centre, Jasola
New Delhi-110025
Ph: +91 11 4623 7100
Fax: +91 4623 7105
Toll Free: 18001801517

Italy

Agilent Technologies Italia S.p.A.

Via F.lli Varian, 54
10040 Leini, (Torino) - Italy
Tel: +39 011 9979 111
Fax: +39 011 9979 350
Toll free: 00 800 234 234 00
vpt-customerservice@agilent.com

Japan

Agilent Technologies Japan, Ltd.

8th Floor Sumitomo Shibaura Building
4-16-36 Shibaura Minato-ku
Tokyo 108-0023 - Japan
Tel.: +81 3 5232 1253
Fax: +81 3 5232 1710
Toll-Free: 0120 655 040
vpj-customerservice@agilent.com

Korea

Agilent Technologies Korea, Ltd.

Shinsa 2nd Bldg. 2F, 966-5 Daechi-dong
Kangnam-gu, Seoul
Korea 135-280
Tel: +82 (0)2 2194 9449
Fax: +82 (0)2 3452 3947
Toll free: 080 222 2452
vpk-customerservice@agilent.com

Mexico

Agilent Technologies

Concepcion Beistegui No 109
Col Del Valle
C.P. 03100 – Mexico, D.F.
Tel.: +52 5 523 9465
Fax: +52 5 523 9472

Singapore

Agilent Technologies Singapore Pte. Ltd.

1 Yishun Avenue 7,
Singapore 768923
Tel : (65) 6215 8045
Fax : (65) 6754 0574
Toll free: 1 800 2762622
vps-customerservice@agilent.com

Southeast Asia

Agilent Technologies Sales Sdn Bhd

Unit 201, Level 2 uptown 2,
2 Jalan SS21/37, Damansara Uptown
47400 Petaling Jaya,
Selangor, Malaysia
Tel : +603 7712 6106
Fax: +603 6733 8121
Toll free: 1 800 880 805
vps-customerservice@agilent.com

Taiwan

Agilent Technologies Taiwan Limited

20 Kao-Shuang Road Ping-Chen City
Tao-Yuan Hsien,
32450 Taiwan, R.O.C.
Tel: +886 3 4959004
Toll free: 0800 018 768
vpw-customerservice@agilent.com

UK and Ireland

Agilent Technologies UK, Ltd.

6 Mead Road Oxford Industrial Park
Yarnton, Oxford OX5 1QU – UK
Tel.: +44 (0) 1865 291570
Fax: +44 (0) 1865 291571

Other Countries

Agilent Technologies Italia S.p.A.

Via F.lli Varian, 54
10040 Leini, (Torino) - Italy
Tel.: +39 011 997 9111
Fax: +39 011 997 9350
Toll-Free: 00 800 234 234 00

Customer Support & Service

NORTH AMERICA:

Toll Free: 800 882 7426
vpl-ra@agilent.com

EUROPE:

Toll Free: 00 800 234 234 00
vpt-customer-care@agilent.com

PACIFIC RIM:

please visit our website for individual office
information

<http://www.agilent.com/chem/vacuum>

Worldwide Web Site, Catalog and Order

On-line:

www.agilent.com/chem/vacuum

Representatives in most countries

12/13

© Agilent Technologies, Inc. 2013

Printed in ITALY

10/2015

Publication Number: 87-900-111-01 (F)



Agilent Technologies



Agilent Technologies