

ROTHENBERGER

NITROGEN-KIT

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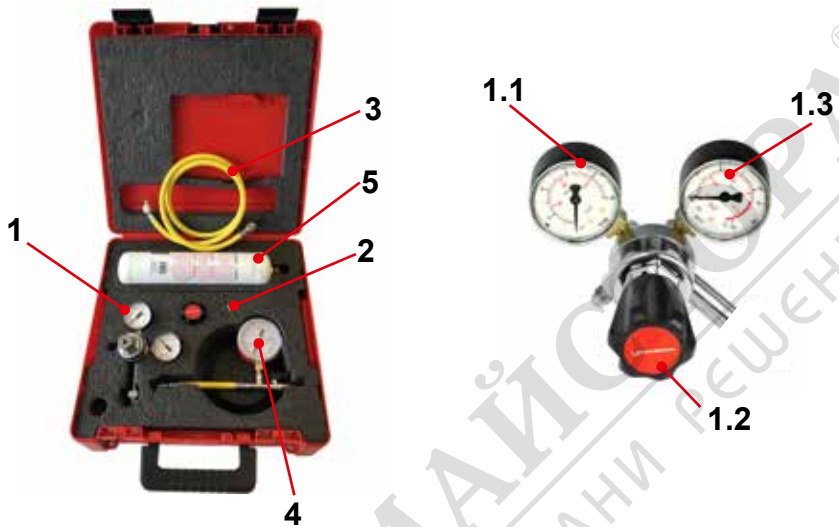
DE Bedienungsanleitung
EN Instructions for use
FR Instruction d'utilisation
ES Instrucciones de uso
IT Istruzioni d'uso

NL Gebruiksaanwijzing
PL Instrukcja obsługi
ET Kasutusjuhend läbi
LT Naudojimo instrukcija
LV Lietošanas pamācība

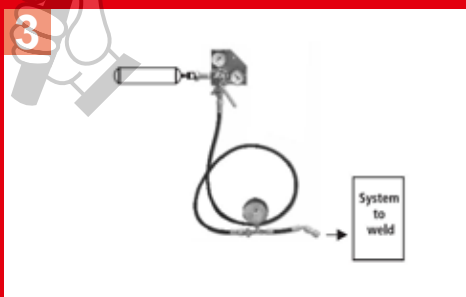
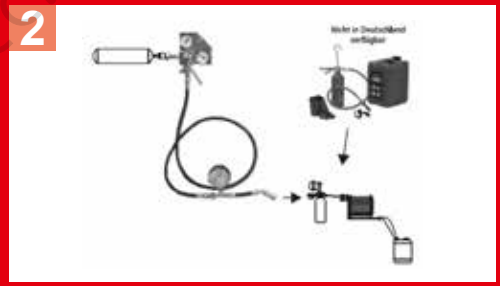
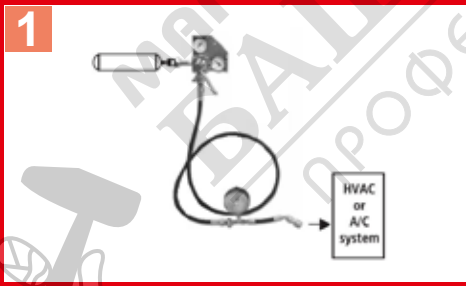


rothenberger.com

A Overview



B Description



Intro

DEUTSCH - Originalbetriebsanleitung! Bedienungsanleitung bitte lesen und aufbewahren! Nicht wegwerfen! Bei Schäden durch Bedienungsfehler erlischt die Garantie! Technische Änderungen vorbehalten!	Seite 2
ENGLISH Please read and retain these directions for use. Do not throw them away! The warranty does not cover damage caused by incorrect use of the equipment! Subject to technical modifications!	Page 7
FRANÇAIS Lire attentivement le mode d'emploi et le ranger à un endroit sûr! Ne pas le jeter! La garantie est annulée lors de dommages dus à une manipulation erronée! Sous réserve de modifications techniques!	Page 12 ☒
ESPAÑOL ¡Por favor, lea y conserve el manual de instrucciones! ¡No lo tire! ¡En caso de daños por errores de manejo, la garantía queda sin validez! Modificaciones técnicas reservadas!	Página 17
ITALIANO Per favore leggere e conservare le istruzioni per l'uso! Non gettarle via! In caso di danni dovuti ad errori nell'uso, la garanzia si estingue! Ci si riservano modifiche tecniche!	Pagina 22
NEDERLANDS Lees de handleiding zorgvuldig door en bewaar haar goed! Niet weggooien! Bij schade door bedieningsfouten komt de garantieverlening te vervallen! Technische wijzigingen voorbehouden!	Bladzijde 27
POLSKI Instrukcję obsługi proszę przeczytać i zachować! Nie wyrzucać! Przy uszkodzeniach wynikających z błędów obsługi wygasa gwarancja! Zmiany techniczne zastrzeżone!	Strony 32
ESTU Palun lugege kasutusjuhend läbi ja hoidke alles! Ärge visake ära! Käsitsemisvigadest tingitud kahjustuste korral kaotab garantii kehtivuse! Õigus tehnilisteks muudatusteks reserveeritud!	Lehekülg 37
LIETUVOS Perskaitykite naudojimo instrukciją ir pasilikite ją! Neišmeskite! Garan-tija nebus taikoma gedimams, atsiradusiems dėl netinkamo naudojimo! Pasilieka ma teisė daryti techninius pakeitimus!	Pusla-pis 41
LATVIESU Lūdzu, izlasiet un uzglabājiet lietošanas instrukciju! Nemest prom! Ja ir bojājumi ekspluatācijas kļūdas dēļ, garantija zaudē spēku! Paturēt tehniskas izmaiņas!	Lappuse 46



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Markings in this document:



Markings in this document!

This sign warns against the danger of personal injuries.



Caution!

This sign warns against the danger of property damage and damage to the environment.



Call for action



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 ПРОФЕСІОНАЛНИ РЕШЕННЯ

1 Safety Notes



Carefully read and keep this user's manual before using the kit. The manual gives all necessary information for the correct use in order to avoid risks and damage to the kit!



ROTHENBERGER declines all responsibility for accidents caused by the improper use of the regulator or by modifications made to it!

Pressure regulator

- An incorrect use can cause serious damage. It is necessary that the end users are trained by professional technicians.
- The pressure regulator must be considered as a precision instrument, you must protect it from accidental knocks and from dust, oil and other impurities.
- Do not use the regulator in case of malfunctioning.

1.1 Intended use

This device may only be used correctly as described.

2 Function of the device

2.1 Overview (A)

- | | | | |
|-----|--|---|---|
| 1 | Pressure regulator equipped with Over pressure valve and protection Plate: Connection: 1/4" SAE for testing hose | 2 | Device port adapters 5/16"SAE F x 1/4"SAE M (Code 1700 RD) |
| 1.1 | Output pressure: gauge 0 - 5 MPa | 3 | "Heavy Duty" flexible hose, 1/4" SAE 1500mm |
| 1.2 | Regulating knob | 4 | Hose with ø 80 pressure gauge, class 1.0 with function sectors |
| 1.3 | Bottle pressure gauge 0 - 20 MPa | 5 | Nitrogen cartridge, 950 cc., 110bar (11MPa), disposable and not refillable or 5 lt nitrogen bottle - full |

2.2 Description

Suitable for:

- Testing for leaks in pressure of HVAC & A/C systems
- Flushing of HVAC & A/C systems
- Fluxing during soldering in HVAC & A/C systems
- Pressure switches calibration
- Gauges calibration

Available models:

1000003865 with connections for Germany

The pressure regulator reduces and stabilizes the pressure of a gas, by bringing it from the value with which it is contained in a bottle to the value necessary for use.

The pressure regulator has been created to be used **only and exclusively with nitrogen**.

It is dangerous to try and use the pressure regulator with other types of gases and with higher pressures than those it has been designed for.

2.3 Commissioning

Connecting the pressure regulator to the bottle

- Rotate the regulating knob anti-clockwise in order to be sure that the pressure regulator valve is closed.
- Replace the gasket when it is damaged or if it has been lost.
- Make sure that the valve connection on the bottle is clean.
- Screw the valve input connection of the bottle, fixing it well.

- Successively, connect the flexible hose (3) and the hose with valve and the check pressure gauge (4) and valve closed.

Opening

- Rotate clockwise very slowly the regulating knob in order to reach the desired value of the output pressure. The output pressure gauge on the regulator will indicate the value.



If the valve is opened too fast, this may damage the gauges!

- Slowly open the valve on the bottle: the high pressure gauge will indicate the pressure inside the bottle (only for bottles from 5 - 10 L)

- Make sure that all connections are correctly made.



The output pressure must not, be higher than the pressure necessary for the operation to be performed and must never rise above the red pointer on the regulator low pressure gauge!



Before opening the bottle valve, make sure that the regulator is open (rotate the regulating knob anti-clockwise)!

Regulating the pressure

- To increase the pressure: slowly rotate the regulating knob clockwise.
- To lower the pressure: slowly rotate the regulating knob anti-clockwise.

Closing

- Close the bottle valve and disconnect the 950cc cartridge.
- Have the gas discharged until zero setting of the regulator pressure gauges. Rotate the regulating knob anti-clockwise until complete closing.

2.4 Operating

1. Tightness test in pressure and checking for leaks with an electronic or a spray leak detector



Before performing any test. A pressure to high may cause serious damage to persons and to the equipment on which you operate. Differently, a pressure to low may be useless for reaching the pre-established goals!

- Check the correct test pressure (supplied by the manufacturer of the system or of the component).
- After the starting and after having checked the correct test pressure, connect the kit to the system on which you operate (open ball valve on the hose with (4) pressure gauge).
- By means of the regulator regulating valve, slowly reach the test pressure wanted.
- Close the intermediate ball valve on the hose. Superimpose the red pointer to the pressure gauge (4) pointer and let the whole for about 5-15 seconds (according to the dimensions of the system) in this condition.
- During these seconds, check the tightness by means of special detectors in the areas of possible leaks.
- After this short period of time and after having checked that there were no leaks, disconnect the equipment until complete discharge

Using 950cc cartridges, it may be that the pressure in the bottle is insufficient to reach the test pressure required by the system. Use a new bottle in order to reach the correct pressure test. The residual contents in the bottle may be used for operations for which only a low pressure is required (fluxing during welding) or to perform a successive pressurization at lower values.

2. Fluxing with nitrogen during welding/brazing



The presence of oxygen during welding/brazing causes the forming of oxides inside the hose, which are very noxious for the refrigeration and conditioning systems. All this can be avoided with the usage of nitrogen!

- Make connections as in the diagram.

- After having made the connections and opened the pressure regulator at the lowest pressure (0,5MPa), regulate the correct pressure value (~ 0,02 – 0,05 MPa) for welding by means of the valve situated on the hose with gauge.
- Close the valve on the bottle or disconnect the 950 cc cartridge after having completed the operations and go on with disconnection.

3. **Checking the correct calibration of pressure gauges and pressure switches**

The kit being equipped with a pressure gauge with scale – 0,1 + 5,3 Mpa, class 1, it is possible to check the correct calibration of pressure gauges (4) and pressure switches by connecting them to the ends of the hose with pressure gauge.

2.5 Storage

- The pressure regulator must be stored as a precision instrument. It must be stored in its case so that to be protected from accidental shocks or from dust, oil, or any other impurity.

3 Care and Maintenance

- **Replacement parts are available on request. If you notice something wrong in the regulator, which cannot be repaired following these instructions, send it back to your distributor.**
- **Do not clean the gauges glasses with petrol, solvents or detergents of any type.**

Malfunctionings

- In case of malfunctioning (for ex. leaks from the gauges or from the safety valve), stop using the pressure regulator and immediately close the bottle valve.
- If no damage can be seen on the outside of the regulator, we suggest to send it back to your distributor, so that it can be checked and repaired.

Do not use the pressure regulator if there are the following malfunctionings

- The seal gaskets used for the connection to the bottle are damaged or missing.
- The regulator or some of its parts (gauge, input or output connection) are damaged or contaminated by dirt.
- Joints are leaking.
- The safety valve regulation has been modified or gas is coming out of the valve.

Safety valve

For safety reasons, the pressure regulator is equipped with an overpressure valve.

In case of functioning defects, this valve lets the excess gas pressure flow towards the outside.



It is absolutely forbidden to modify the safety valve calibration!

Tightness check

- To check the pressure regulator tightness, operate in the open air with soapy water or with special detectors.
- Spray the detector on the area that must be checked.
- The detection of gas leaks is enhanced by the forming of bubbles or foam.

4 Customer service

The ROTHENBERGER service locations are available to help you (see listing in catalog or online) and replacement parts and service are also available through these same service locations. Order your accessories and spare parts from your specialist retailer or using RO SERVICE+ online: ☎ + 49 (0) 61 95/ 800 8200 📠 + 49 (0) 61 95/ 800 7491 ✉ service@rothenberger.com - www.rothenberger.com

5 Accessories

You can find suitable accessories in the main catalog or at www.rothenberger.com

Parts of the unit are valuable materials and can be recycled. Approved and certified recycling companies exist for this purpose. Metals must be sorted and delivered separately to a disposal company.

Please consult your responsible refuse disposal authority for how to dispose of unusable parts in an environmentally responsible way (e.g. electronic scrap).



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