Rothenberger rorec

Rothenberger ROREC Refrigerant Recovery Unit

Model 168605 User Manual

1. Introduction

This manual provides essential instructions for the safe and efficient operation, maintenance, and troubleshooting of your Rothenberger ROREC Refrigerant Recovery Unit, Model 168605. This device is designed for the recovery of various refrigerants from refrigeration and air conditioning systems. Please read this manual thoroughly before operating the unit to ensure proper usage and to prevent personal injury or damage to the equipment.

2. Safety Information

Always adhere to the following safety guidelines to prevent accidents and ensure safe operation:

- **Electrical Safety:** Ensure the unit is connected to a properly grounded 230V power supply. Do not operate with damaged cords or plugs. Disconnect power before performing any maintenance.
- **Refrigerant Handling:** Refrigerants can cause frostbite and other injuries. Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when handling refrigerants.
- **Pressure Safety:** The unit operates under pressure. Do not exceed the maximum operating pressure of 38.5 bar. Ensure all hoses and connections are secure and in good condition.
- **Ventilation:** Operate the unit in a well-ventilated area to prevent the accumulation of refrigerant vapors, which can displace oxygen.
- **Flammable Refrigerants:** Exercise extreme caution when recovering flammable refrigerants. Ensure no ignition sources are present.
- **Authorized Personnel:** Only qualified and trained personnel should operate and service this equipment.

3. Product Overview

The Rothenberger ROREC 168605 is a robust refrigerant recovery unit designed for professional use. It features a compact design with integrated controls and gauges for easy operation.

Figure 3.1: Front view of the Rothenberger ROREC Refrigerant Recovery Unit. This image displays the main control panel, including two pressure gauges, input and output valves, a power switch, a circuit breaker, and a reset button. The 'INPUT' and 'OUTPUT' ports are clearly labeled, along with 'RECOVER' and 'PURGE' settings for the valves.

Figure 3.2: Rear view of the Rothenberger ROREC Refrigerant Recovery Unit. This image shows the integrated storage compartment, which typically houses the power cord and connection hoses, ensuring convenient transport and organization.

Key Components:

- **Pressure Gauges:** Monitor system and tank pressures.
- **Input/Output Valves:** Control refrigerant flow into and out of the unit.
- **Power Switch:** Turns the unit on and off.
- **Circuit Breaker/Reset:** Provides electrical overload protection.
- **Hose Connections:** Standard fittings for refrigerant hoses.

4. Setup

Follow these steps to prepare your ROREC unit for operation:

1. **Unpacking:** Carefully remove the unit from its packaging. Inspect for any shipping damage.

2. **Placement:** Place the unit on a stable, level surface in a well-ventilated area, away from direct sunlight or heat sources. Ensure adequate clearance around the unit for airflow.
3. **Electrical Connection:** Connect the power cord to a grounded 230V AC, 50/60Hz electrical outlet. Verify the power supply matches the unit's requirements.
4. **Hose Connections:** Connect the appropriate refrigerant hoses from the system to be serviced to the 'INPUT' port of the recovery unit, and from the 'OUTPUT' port to the recovery tank. Ensure all connections are tight to prevent leaks.

5. Operating Instructions

This section outlines the general procedure for refrigerant recovery. Specific procedures may vary based on the refrigerant type and system configuration.

1. **Preparation:** Ensure all safety precautions are observed. Connect the unit as described in the 'Setup' section. Open the valves on the recovery tank.
2. **Power On:** Turn the main power switch to the 'ON' position. The unit should start.
3. **Valve Settings:** Set the 'INPUT' and 'OUTPUT' valves on the unit to the 'RECOVER' position.
4. **Monitor Recovery:** Observe the pressure gauges. The input pressure should gradually decrease as refrigerant is recovered from the system. The output pressure will indicate the pressure in the recovery tank.
5. **Liquid/Vapor Recovery:** The unit is capable of both liquid and vapor recovery. For faster recovery, especially with large systems, start with liquid recovery if the system allows.
6. **Completion:** Recovery is complete when the input pressure gauge reads a vacuum (typically -0.5 to -0.8 bar, depending on refrigerant and ambient temperature) and no more refrigerant is being transferred.
7. **Purging (Self-Cleaning):** After recovery, set the valves to the 'PURGE' position to clear any remaining refrigerant from the unit's internal components. This prevents cross-contamination between different refrigerants.
8. **Power Off:** Once purging is complete, turn the power switch to 'OFF'. Close the valves on the recovery tank and disconnect hoses.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your recovery unit.

- **Filter Replacement:** The unit may contain an internal filter/dryer. Consult the specific product documentation or Rothenberger support for recommended replacement intervals and procedures. A clogged filter can reduce recovery efficiency.
- **Cleaning:** Keep the exterior of the unit clean. Use a damp cloth to wipe down surfaces. Do not use harsh chemicals or solvents. Ensure ventilation grilles are free from obstructions.
- **Hose Inspection:** Regularly inspect all refrigerant hoses for cracks, wear, or damage. Replace any compromised hoses immediately.
- **Storage:** When not in use, store the unit in a clean, dry environment, protected from extreme temperatures. Utilize the integrated storage compartment for hoses and the power cord.

7. Troubleshooting

Refer to this section for common issues and their potential solutions.

Problem	Possible Cause	Solution
Unit does not start	No power, tripped circuit breaker, faulty power switch	Check power connection, reset circuit breaker, contact service if issue persists.
Slow recovery rate	Clogged filter, partially closed valves, low ambient temperature, system restriction	Check/replace filter, ensure valves are fully open, allow unit to warm up, check system for blockages.
High discharge pressure	Overfilled recovery tank, non-condensable gases in tank, high ambient temperature	Check tank weight, vent non-condensables (if safe and permitted), cool recovery tank.
Unit shuts off during operation	Overload, high pressure shutdown, low voltage	Allow unit to cool, check for blockages, verify power supply. Reset unit.

If troubleshooting steps do not resolve the issue, contact Rothenberger customer support or an authorized service center.

8. Specifications

Feature	Detail
Model Number	ROREC (168605)
Voltage	230V
Power	370W
Maximum Operating Pressure	38.5 bar
Item Weight	41.8 pounds
Product Dimensions	0.04 x 0.07 x 0.22 inches *(Note: These dimensions may refer to packaging or a specific component, not the full unit.)*
Manufacturer	Rothenberger

9. Warranty and Support

Your Rothenberger ROREC Refrigerant Recovery Unit is covered by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Rothenberger website. For technical assistance, spare parts, or service inquiries, please contact Rothenberger customer support directly. Always provide the model number (168605) and serial number when seeking support.

Rothenberger Contact Information: Please refer to the official Rothenberger website or product packaging for the most current contact details in your region.