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Berdsen BD-520

Berdsen BD-520 Compressor Dehumidifier

User Manual

Introduction

This manual provides essential information for the safe and efficient operation of your Berdsen BD-520 Compressor Dehumidifier. Please read it thoroughly before first use and retain it for future reference. The BD-520 is designed to reduce excess humidity in indoor environments, helping to prevent mold, mildew, and unpleasant odors, thereby improving air quality and comfort.
The Berdsen BD-520 operates on the condensation principle, effectively removing moisture from the air. It features an antibacterial particulate filter, automatic defrost function, and a user-friendly control panel with an LCD display.

Safety Instructions

- Always ensure the dehumidifier is placed on a stable, level surface.
- Do not block the air inlet or outlet. Maintain at least 20 cm clearance around the unit.
- Do not operate the unit near heat sources or in direct sunlight.
- Ensure the power supply matches the specifications on the rating label.
- Do not immerse the unit, power cord, or plug in water or other liquids.
- Unplug the unit before cleaning, maintenance, or when not in use.
- Keep out of reach of children and pets.
- If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.
- This appliance uses R290 refrigerant, which is flammable. Handle with care and ensure proper ventilation.

Product Overview

Figure 1: Front-side view of the Berdsen BD-520 Dehumidifier, showcasing its compact design and integrated wheels.

Figure 2: Top view of the dehumidifier, highlighting the digital display and control buttons.

Figure 3: Side view showing the removable water tank compartment.

Setup

1. **Unpacking:** Carefully remove the dehumidifier from its packaging. Retain packaging for future storage or transport.
2. **Placement:** Place the unit upright on a firm, level surface. Ensure there is at least 20 cm of space around the air inlet (rear) and outlet (front) for proper airflow. The unit is equipped with wheels and handles for easy movement. It is suitable for rooms up to 60 m^3.
3. **Power Connection:** Plug the power cord into a grounded electrical outlet that matches the voltage specified on the unit's rating label.

4. **Water Tank:** Ensure the water tank is correctly inserted into the unit. For continuous drainage, refer to the 'Continuous Drainage' section.

Operating Instructions

The control panel is located on the top of the unit and features an LCD display and several buttons for easy operation.

Figure 4: Detailed view of the control panel, showing the digital humidity display and function buttons.

Control Panel Functions:

- **Power Button:** Turns the unit ON or OFF.
- **Humidity Setting Button (%):** Allows you to set the desired humidity level between 30% and 80%. The unit will operate until this level is reached and then cycle on/off to maintain it. The LCD display shows the current room humidity.
- **Mode Button (Water Droplets):** Switches between Dehumidification and Ventilation modes.
- **Timer Button (Clock Icon):** Sets the operating timer for up to 12 hours.

Operating Modes:

- **Dehumidification Mode:** The compressor and fan operate to remove moisture from the air. The unit will automatically stop when the set humidity level is reached or the water tank is full.
- **Ventilation Mode:** The fan operates without the compressor, circulating air without removing moisture. This mode is automatically activated when the water tank is full.

Automatic Functions:

- **Automatic Shut-off (Full Water Tank):** When the 2.2-liter water tank is full, the compressor will automatically stop, and the unit will switch to ventilation mode. An audible signal will alert you. Empty the tank and reinsert it to resume dehumidification.
- **Automatic Defrost:** The unit features an automatic defrost function to prevent ice buildup on the evaporator coils, ensuring efficient operation in cooler environments (minimum operating temperature 5°C).

Continuous Drainage:

For extended operation without needing to empty the water tank, connect the included drainage hose. Locate the continuous drainage outlet on the back of the unit (refer to Figure 5). Attach the hose and direct the other end into a suitable drain, such as a floor drain, large bucket, or sink. Ensure the hose is positioned downwards to allow gravity to drain the water.

Figure 5: Diagram illustrating the unit's dimensions and the location of the continuous drainage port.

Maintenance

Emptying the Water Tank:

When the water tank is full, the unit will alert you and switch to ventilation mode. Carefully pull out the water tank, empty the collected water, and slide it back into place until it clicks securely. The unit will then resume normal operation.

Cleaning the Air Filter:

The dehumidifier is equipped with a washable antibacterial particulate filter. Regular cleaning is essential for optimal performance and air quality.

1. Turn off and unplug the dehumidifier.
2. Remove the air filter from its housing (typically located at the rear or side air intake).
3. Clean the filter using a vacuum cleaner to remove dust and debris. For more thorough cleaning, wash it gently with lukewarm water and a mild detergent.
4. Rinse the filter thoroughly and allow it to air dry completely before reinserting it into the unit. Do not use the unit without a dry filter.

Cleaning the Exterior:

Wipe the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the surface.

Troubleshooting

If you encounter issues with your Berdsen BD-520 dehumidifier, please consult the following table before contacting customer support.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Unit does not turn on	No power supply; Power button not pressed; Water tank full or incorrectly inserted.	Check power cord connection and outlet; Press power button; Empty and correctly reinsert water tank.
No water collected	Room humidity too low; Temperature too low; Air filter clogged; Unit in ventilation mode.	Check current humidity level; Ensure room temperature is above 5°C; Clean air filter; Switch to dehumidification mode.
Unit is noisy	Unit not on a level surface; Air filter clogged; Obstruction in fan.	Place unit on a level surface; Clean air filter; Check for and remove any obstructions.
Poor dehumidification performance	Room size too large; Doors/windows open; Air filter clogged; Set humidity too high.	Ensure unit is suitable for room size; Close doors and windows; Clean air filter; Lower desired humidity setting.

Specifications

Feature	Specification
Brand	Berdsen
Model	BD-520 (352000)
Dehumidification Capacity	10 Liters/24 hours
Airflow	120 m^3/hour
Power Consumption	200 W
Humidity Adjustment Range	30% – 80%
Noise Level (Max)	45 dB
Voltage/Frequency	220 – 240 V / 50 Hz
Water Tank Volume	2.2 Liters
Power Cord Length	1.85 m
Recommended Room Size	Up to 60 m^3 (25 square meters floor area)
Dimensions (W x D x H)	24 x 29 x 46 cm (Product); 28 x 24 x 47 cm (Overall)
Weight	9.5 kg
Minimum Operating Environment	5°C

Feature	Specification
Special Features	Water level indicator, Timer, Removable water tank, Continuous drainage, Digital display, Automatic defrost
Included Components	Hose for permanent water drainage

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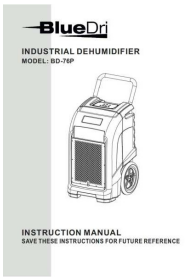
Related Documents - BD-520

	Berdsen BD-583 Portable Air Conditioner Manual User manual for the Berdsen BD-583 portable air conditioner, covering installation, operation, features, and maintenance. Includes safety warnings and troubleshooting.
	BlueDri BD-76P Industrial Dehumidifier: Instruction Manual, Setup, Operation, Maintenance, Troubleshooting & Warranty This instruction manual provides detailed information for the BlueDri BD-76P Industrial Dehumidifier. It covers general information, important safety instructions, product identification, setup procedures, control panel operation, maintenance tasks like cleaning the air filter and replacing the battery, troubleshooting common problems and fault codes, technical specifications for model BD-65L, and the BLUEDRI warranty policy. Essential for safe and effective use in water damage restoration and mold remediation.
	Secop BDN45F 12/24V DC Compressor: Technical Data, Performance & Specifications Detailed technical specifications, performance data, error codes, and brazing instructions for the Secop BDN45F 12/24V DC compressor, compatible with R134a and R1234yf refrigerants. Includes single pack details and application information.
	Secop BD35F-HD.2 12/24V DC PM Compressor Technical Data and Performance Detailed technical specifications, performance data, operational error codes, and accessory information for the Secop BD35F-HD.2 Heavy Duty Direct Current Compressor, suitable for R134a and R1234yf refrigerants. Includes application, cooling, motor, design, dimensions, and standard battery protection settings.

	Secop BD250GH.2 12/24V DC PM Compressor Technical Datasheet Comprehensive technical datasheet for the Secop BD250GH.2 12/24V DC R134a compressor. This document details performance specifications, capacity tables (EN 12900, ASHRAE LBP), power consumption, current draw, cooling requirements, dimensions, electrical data, operational errors, and accessories for LBP, MBP, and HBP applications. Includes information on single pack contents and service/repair notes.
	Costway EP23704US Mini Air Compressor User Manual User manual for the Costway EP23704US Mini Air Compressor, detailing features, specifications, operation, and maintenance.