Della 27K+D918

DELLA 28K BTU Dual Zone Mini Split AC System User Manual

Model: 27K+D918

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your DELLA 28K BTU Dual Zone Mini Split AC System. This system includes one outdoor condenser unit and two indoor air handlers (9,000 BTU and 18,000 BTU), designed to provide cooling and heating for up to 1400 square feet across two distinct zones. Please read this manual thoroughly before installation and use, and retain it for future reference.

Proposition 65 Warning: This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

2. Safety Information

Always adhere to the following safety guidelines to prevent injury or damage to the unit:

- **Professional Installation Required:** This system mandates professional installation. It is not a DIY mini split AC. Improper installation can lead to electric shock, fire, water leakage, or other hazards.
- **Electrical Safety:** Ensure the unit is connected to a dedicated power circuit with the correct voltage (208-230V) and a maximum fuse size of 30A. Do not operate with wet hands.
- **Refrigerant Handling:** The unit uses R454B refrigerant. Line-set vacuuming is required during installation. Any alteration of line-set length requires adjusting refrigerant levels by a qualified technician.
- **Clearance:** Maintain adequate clearance around both indoor and outdoor units for proper airflow and maintenance.
- **Children and Pets:** Keep children and pets away from the unit, especially during operation and maintenance.
- **Emergency Shutdown:** Familiarize yourself with the location of the main power switch for emergency shutdown.

3. Product Overview and Components

Your DELLA Dual Zone Mini Split AC System consists of the following main components:

- **Outdoor Unit (Condenser):** The primary unit responsible for heat exchange.
- **Indoor Units (Air Handlers):** Two units (9,000 BTU and 18,000 BTU) for individual room climate control.
- **Remote Controls:** Separate controllers for each indoor unit.
- **Installation Kits:** Includes 2 pcs 16ft copper pipes (1/4" & 3/8" outer dimension) and other necessary installation hardware.



Figure 3.1: System Components. This diagram illustrates the various parts included with your DELLA Mini Split AC system, including the indoor units, outdoor unit, refrigerant pipes, drain lines, remote controls, and installation accessories.



Figure 3.2: Complete System View. A comprehensive view of the DELLA 28K BTU Dual Zone Mini Split AC system, showcasing the outdoor condenser, two indoor air handlers, remote controls, and the included installation kit components.

4. Setup and Installation

Important: This system requires professional installation. Attempting to install the unit without proper training and tools can void the warranty and lead to serious injury or damage.

4.1 Pre-Installation Considerations

- **Location:** Select appropriate locations for the outdoor unit and each indoor unit, ensuring proper airflow and drainage.
- **Electrical Supply:** Verify that the electrical supply meets the unit's requirements (208-230V, 30A fuse).
- **Line Set Length:** The system includes 16ft copper pipes. The unit is pre-charged for standard line lengths. Any deviation from this length requires a qualified technician to adjust refrigerant levels.

4.2 Installation Steps (Overview for Professional Technicians)

1. Mount indoor units and outdoor unit securely.
2. Connect refrigerant lines between indoor and outdoor units. Ensure proper flaring and tightening.

3. Connect drain lines. The length for the drain pipe is 78.7 inches.
4. Perform a vacuum pull on the line sets and indoor units to remove air and moisture. This is a critical step.
5. Connect electrical wiring according to the wiring diagram provided in the full installation manual.
6. Check for leaks and verify proper refrigerant charge.
7. Test the system's operation in all modes.

5. Operating Instructions

Your DELLA Mini Split AC system offers various modes and smart features for optimal comfort and energy efficiency.

5.1 Remote Control Operation

Each indoor unit is controlled by its own remote. The remote allows you to adjust temperature, mode, fan speed, and access special functions.



Figure 5.1: Remote Control Functions. This image details the buttons and their corresponding functions on the DELLA remote control, including power, mode selection, temperature adjustment, fan speed, and special features like ECO mode and Sleep mode.

- **Power On/Off:** Press the power button to turn the unit on or off.
- **Mode Selection:** Cycle through modes such as Cooling, Heating, Dry (dehumidifying), Fan Only, and Auto.
- **Temperature Adjustment:** Use the up/down arrows to set your desired temperature (60-90 degrees Fahrenheit).
- **Fan Speed:** Adjust fan speed (e.g., Low, Medium, High, Auto).
- **4D Air Flow:** Control the vertical and horizontal swing of the air louvers for even air distribution.
- **Turbo Function:** Activates maximum cooling or heating for rapid temperature change.
- **ECO Energy Saving Mode:** Optimizes operation for reduced energy consumption.
- **Sleep Mode:** Adjusts temperature automatically during sleep for comfort and energy saving.
- **24 Hour Timer:** Program the unit to turn on or off at specific times.
- **I Feel Mode:** The remote control senses the temperature around it and adjusts the unit's operation for localized comfort.

5.2 Smart Control with Della+ App and Voice Assistants

The system is compatible with Alexa and Wifi, allowing for remote control via the Della+ app.

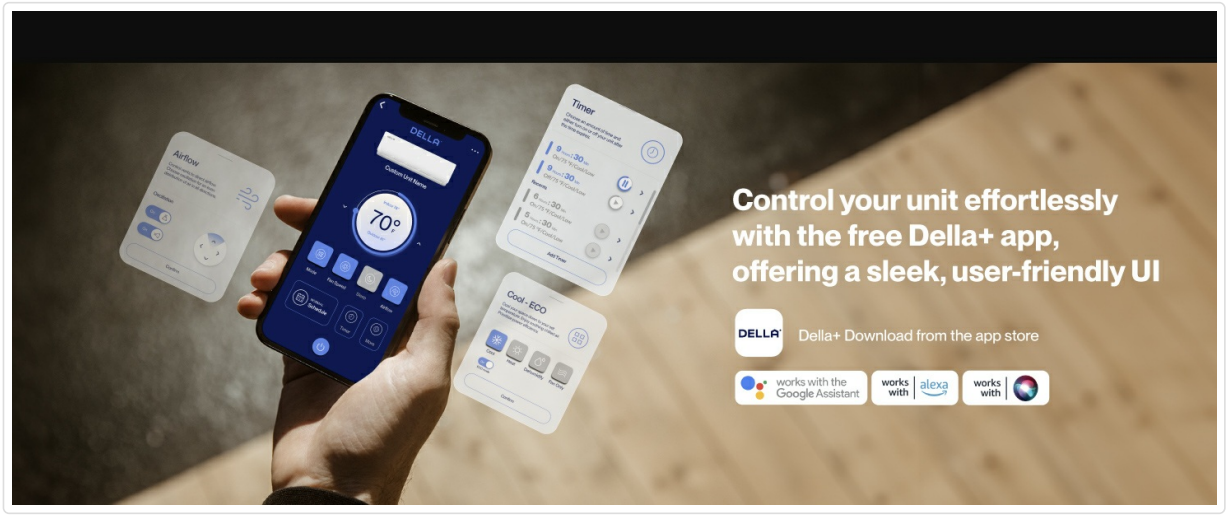


Figure 5.2: Della+ App Interface. This image displays the user-friendly interface of the Della+ app, enabling comprehensive wireless control of your AC unit from a smartphone, including mode selection, fan speed, and scheduling.

- **Della+ App:** Download the free Della+ app to control your unit from anywhere. Features include scheduling, timer functions, and mode selection.
- **Smart Geo Location:** The Della+ app can automatically turn your AC unit on or off based on your location, providing hands-free control as you approach or leave your home.
- **Voice Control:** Seamlessly integrates with voice assistants like Alexa and Google Assistant for convenient voice commands.

6. Maintenance

Regular maintenance ensures optimal performance and longevity of your DELLA Mini Split AC system. Always disconnect power before performing any maintenance.

- **Air Filter Cleaning:** Clean the indoor unit's air filters regularly (e.g., every 2-4 weeks, depending on usage). Dirty filters reduce efficiency and airflow.
- **Outdoor Unit Cleaning:** Keep the outdoor unit free from debris, leaves, and dirt. Ensure the coils are clean for efficient heat exchange.

- **Drain Line Check:** Periodically check the drain lines for blockages to prevent water leakage.
- **Professional Inspection:** It is recommended to have a qualified HVAC technician perform an annual inspection and tune-up to check refrigerant levels, electrical connections, and overall system health.

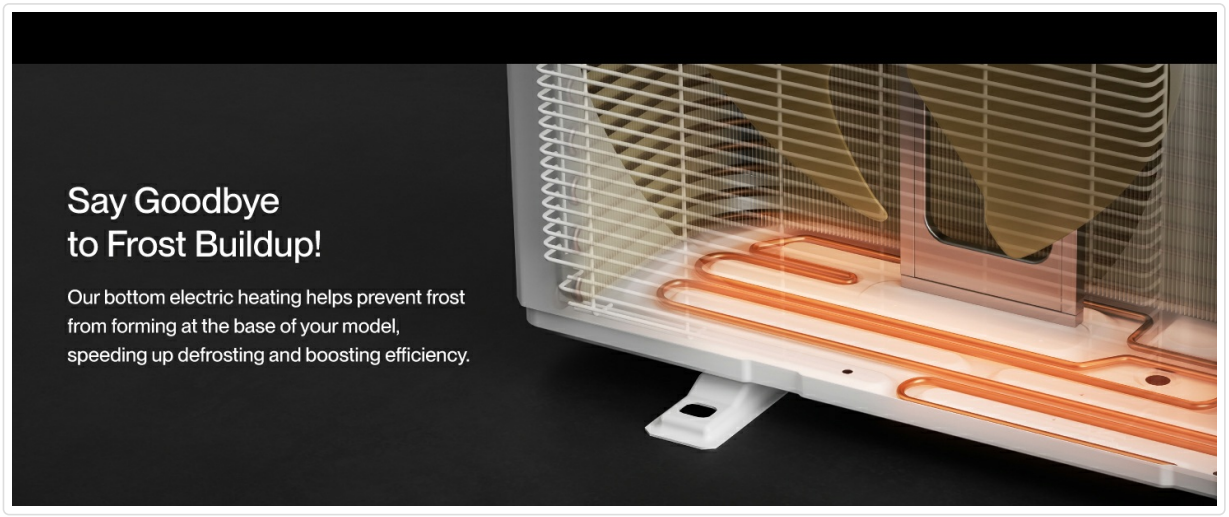


Figure 6.1: Frost Prevention Feature. The outdoor unit features a bottom electric heating element designed to prevent frost buildup, which helps maintain efficiency and speeds up defrosting in cold conditions.

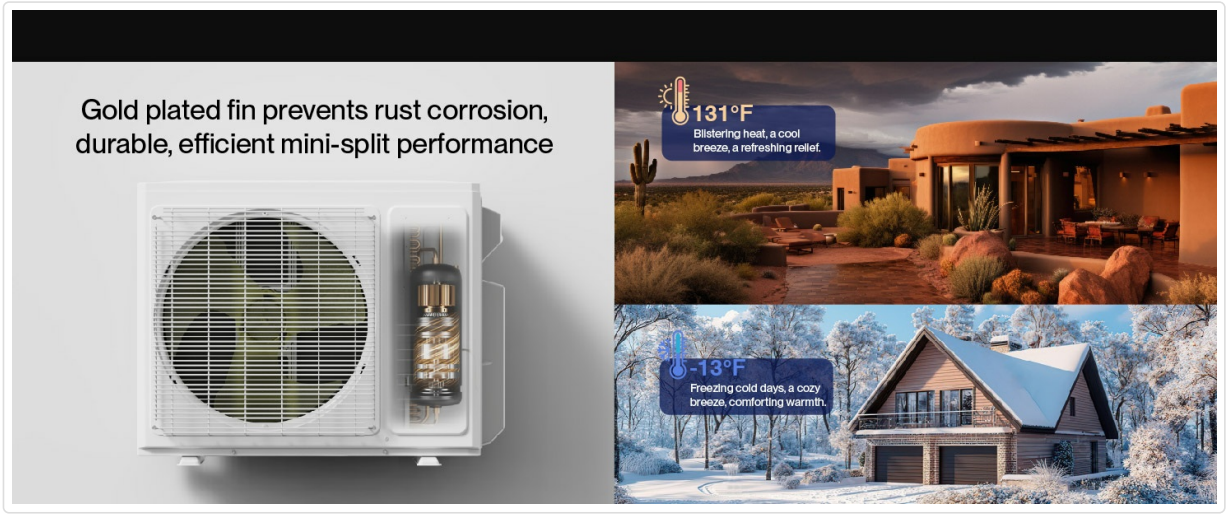


Figure 6.2: Gold-Plated Fins. The outdoor unit is equipped with gold-plated fins, which are designed to prevent rust and corrosion, contributing to the durability and efficient performance of the mini-split system.

7. Troubleshooting

If you encounter issues with your DELLA Mini Split AC system, consider the following basic troubleshooting steps. For complex problems or error codes, contact professional support.

- **No Power:** Check the circuit breaker and ensure the unit is properly plugged in.
- **Not Cooling/Heating Effectively:** Verify the correct mode is selected and the temperature setting is appropriate. Check if air filters are clean and not obstructed. Ensure outdoor unit is not blocked.
- **Unusual Noises:** Minor noises during operation are normal. Loud or unusual noises may indicate a problem and require professional inspection.
- **Water Leakage:** Check if the drain line is clogged or kinked. Ensure the indoor unit is properly leveled.
- **Remote Control Not Working:** Replace batteries. Ensure there are no obstructions between the remote and the indoor unit.

For persistent issues or error codes displayed on the unit, please refer to the full technical manual or contact DELLA customer support.

8. Specifications

Feature	Specification
Brand	Della
Model Number	27K+D918
System Type	Dual Zone Ductless Mini-Split Heat Pump
Outdoor Unit BTU	28,000 BTU/h
Indoor Unit 1 BTU	9,000 BTU/h
Indoor Unit 2 BTU	18,000 BTU/h
SEER2 Rating	20
Voltage	208-230V
Refrigerant Type	R454B
Heating Operating Range	Down to -13℉ (-25℃)
Cooling Operating Range	Up to 131℉
Coverage Area	Up to 1400 Sq. Ft (400 Sq. Ft + 1000 Sq. Ft)
Indoor Unit Noise Level	32 dBa
Outdoor Unit Noise Level	50 dB
Special Features	Dehumidifier, Remote Controlled, Wi-Fi, Alexa/Google Assistant Compatible, 4D Air Flow, ECO Mode, Sleep Mode, I Feel Mode
Item Weight	172 pounds
Product Dimensions	8.07 x 31.92 x 11.49 inches (Indoor Unit)

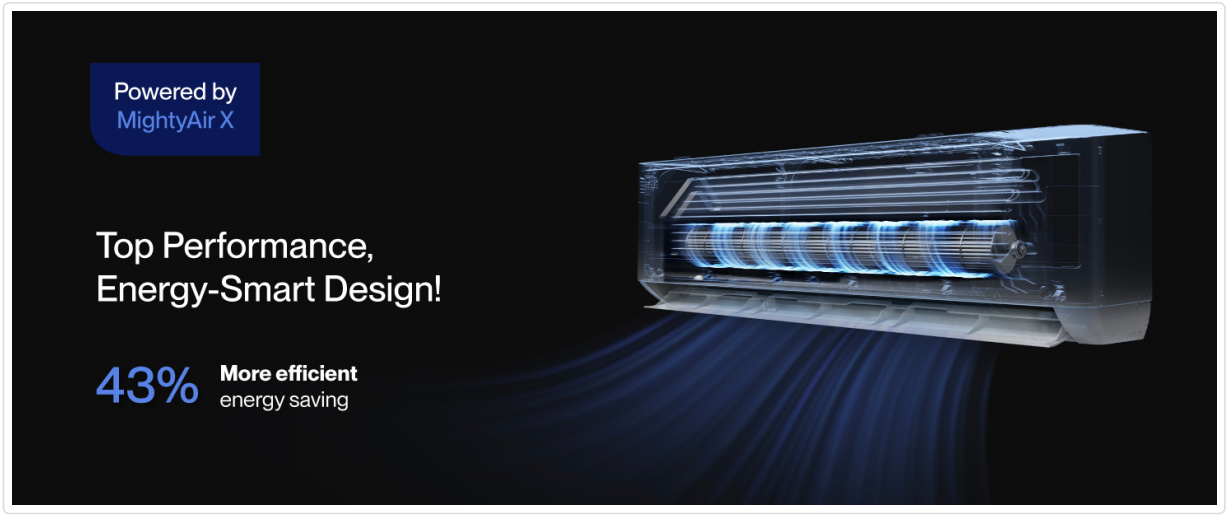


Figure 8.1: Energy Efficiency Comparison. This graph illustrates the energy savings achieved with a 20 SEER2 rated system compared to a 14 SEER2 system, indicating up to 43% energy savings based on 2,000 hours of operation and government SEER2 requirements.

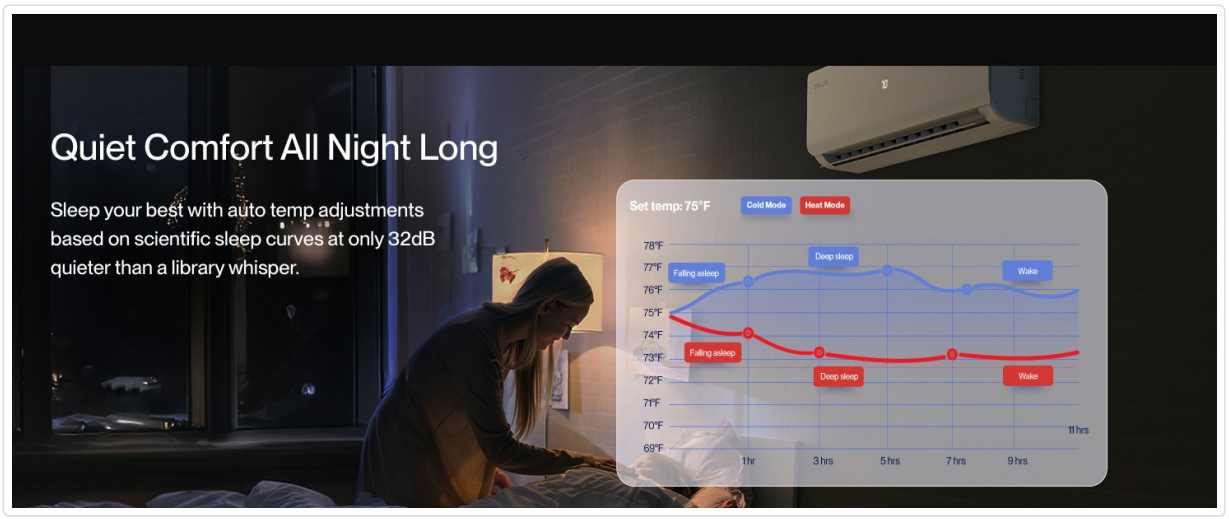


Figure 8.2: Quiet Operation and Sleep Mode. The DELLA system operates quietly at 32 dBa, comparable to a library whisper. The image also shows a sleep curve graph, illustrating how the unit automatically adjusts temperature for optimal comfort during sleep.

9. Warranty and Support

DELLA is committed to providing reliable products and customer service.

9.1 Warranty Information

Your DELLA Mini Split AC system comes with a lifetime coverage warranty, providing peace of mind against manufacturing defects and operational issues under normal use. Please refer to the warranty card included with your product for specific terms and conditions.

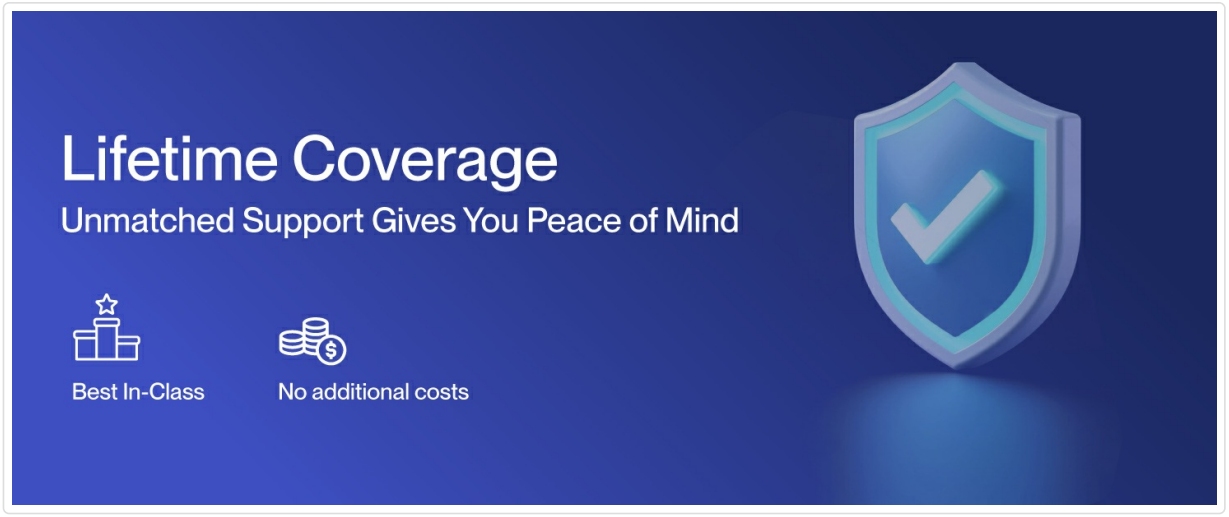


Figure 9.1: Lifetime Coverage. This graphic highlights the lifetime coverage warranty provided by DELLA, emphasizing its best-in-class nature and absence of additional costs.

9.2 Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact DELLA customer support:

- **Phone Support:** Available Monday to Friday, 6 AM - 4 PM PST.
- **Live Chat:** Available 24/7 for immediate assistance.

When contacting support, please have your model number (27K+D918) and purchase information ready.

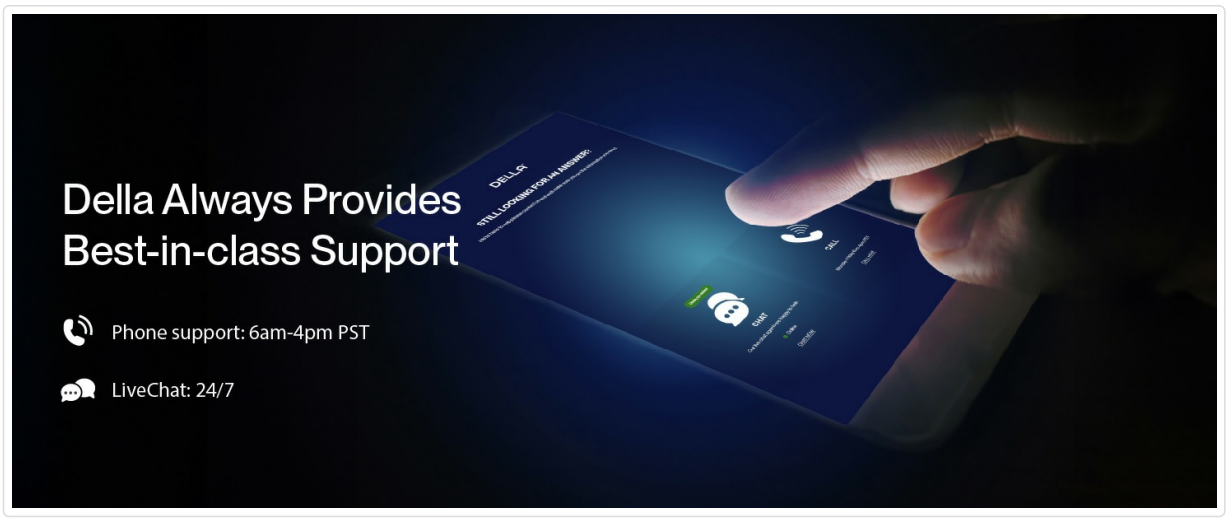


Figure 9.2: Best-in-Class Support. This image illustrates the availability of DELLA's customer support, including phone support during business hours and 24/7 live chat options.