

[Manuals.plus](#) /

› [BRAVO](#) /

› BRAVO 42,000 BTU 4-Zone Concealed Duct Mini Split AC & Heat Pump User Manual

BRAVO 9+9+9+12 42000 BTU

BRAVO 42,000 BTU 4-Zone Concealed Duct Mini Split AC & Heat Pump User Manual

Model: 9+9+9+12 42000 BTU

1. INTRODUCTION AND SYSTEM OVERVIEW

This manual provides essential information for the installation, operation, and maintenance of your BRAVO 42,000 BTU 4-Zone Concealed Duct Mini Split AC & Heat Pump system. This advanced inverter system offers efficient cooling and heating for multiple zones, featuring a 24 SEER2 rating and smart control capabilities. It is designed for professional installation to ensure optimal performance and safety.

The system includes a multi-zone outdoor condenser and four concealed duct indoor air handlers, providing flexible climate control for various spaces. Each indoor unit can be controlled individually via remote or a smartphone app.



Figure 1.1: Multi-Zone System Overview. This diagram illustrates how the BRAVO multi-zone system can provide climate control to up to five distinct areas within a building, connecting multiple indoor units to a single outdoor condenser.

2. INCLUDED COMPONENTS

Your BRAVO 42,000 BTU 4-Zone Mini Split AC & Heat Pump system includes the following main components and accessories:

- One BRAVO 42,000 BTU Multi-Zone Outdoor Condenser (24 SEER2, 230V)
- Four Concealed Duct Air Handlers (9,000 BTU x 3, 12,000 BTU x 1)
- Four Remote Controls for individual air handler operation
- Four Thermostats for individual air handler operation
- Smart Port Adapters for smartphone control (Wi-Fi enabled)
- Hi-Grade Installation Kit:
 - 25ft Pre-Flared and Insulated Copper Line Sets
 - Communication Wires
 - 16ft Drainage Extension with small accessories
 - 4/16 AWG Connecting Cables



Figure 2.1: Included System Components. This image displays the complete set of items provided with your BRAVO 4-zone mini split system, including the outdoor unit, indoor concealed duct units, controls, and installation accessories.



Figure 2.2: No Kink Drainage Extension. The included drainage extension features a rubberized hose with plastic coil inserts to prevent kinking, ensuring proper water drainage from the indoor units.

3. SETUP AND INSTALLATION

Professional installation is required for this system. Attempting to install the unit without proper training and tools can lead to damage, void the warranty, and pose safety risks. Consult a certified HVAC technician for installation.

3.1 Outdoor Condenser Placement

The outdoor condenser should be placed on a level, stable surface, away from direct sunlight and obstructions that could impede airflow. Ensure adequate clearance around the unit for proper ventilation and maintenance access. The condenser is pre-charged with R-32 refrigerant.



Figure 3.1: BRAVO Outdoor Condenser Unit. This image shows the exterior of the multi-zone outdoor unit, which houses the compressor and heat exchange coils.

3.2 Indoor Unit Installation (Concealed Duct)

The concealed duct indoor units are designed to be hidden within ceilings or attics, distributing conditioned air through ductwork to various rooms. Proper duct sizing and insulation are crucial for efficient operation. Each indoor unit requires connection to the outdoor condenser via the provided copper line sets and communication wires.

NO KINK DRAINAGE EXTENSION



INCLUDED: RUBBERIZED HOSE
WITH PLASTIC COIL INSERTS



OTHER BRANDS:
ONLY PLASTIC HOSE

Figure 3.2: Concealed Duct Indoor Unit and Controls. This image displays one of the concealed duct indoor units along with its wired thermostat and a handheld wireless remote control.



Figure 3.3: Indoor Unit Connection Detail. A close-up of the side of a concealed duct indoor unit, showing the refrigerant line connections (red and black caps) and electrical wiring ports.

3.3 Electrical Connections

The system operates on 208-230V power. All electrical wiring must comply with local codes and regulations. Ensure proper grounding and circuit protection. The communication wires facilitate control between the indoor and outdoor units.

4. OPERATING INSTRUCTIONS

Your BRAVO mini split system offers various operating modes and features for optimal comfort and energy efficiency.

4.1 Basic Operation Modes

- **Cooling Mode:** Provides cooling to maintain your desired temperature.
- **Heating Mode:** Provides heating, effective even in ambient temperatures as low as -13°F.
- **Fan Mode:** Circulates air without heating or cooling.

- **Dry Mode:** Reduces humidity in the air.
- **Auto Mode:** Automatically selects cooling or heating based on the set temperature and room conditions.

4.2 Remote Control and Thermostat

Each indoor unit comes with a dedicated remote control and a wired thermostat. Use these to adjust settings such as temperature, fan speed, operating mode, and timer functions for each zone independently.



Figure 4.1: Wireless Remote Control. The handheld remote allows convenient adjustment of settings for each indoor unit.

4.3 Special Features

- **Whisper Technology:** Ensures quiet operation, suitable for bedrooms and living areas.
- **Inverter Compressor:** Provides efficient and consistent temperature control, reducing energy consumption.
- **Sleep Mode:** Adjusts temperature settings automatically during sleep for enhanced comfort and energy savings.

5. SMART CONTROL & APP

The BRAVO system includes smart port adapters, enabling you to control each air handler individually using your smartphone and the BRAVO Remote app. This feature allows you to manage your system from anywhere with an internet connection.

5.1 Downloading the BRAVO Remote App

To download the BRAVO Remote app, scan the QR code below with your smartphone or visit the provided link. The app is available for both iOS and Android devices.



**DOWNLOAD THE
BRAVO REMOTE APP**

Scan the following intelligent
QR code to download SMART
APP for iOS or Android



Figure 5.1: BRAVO Remote App Interface and QR Code. This image shows the smartphone application for controlling your BRAVO mini split system, along with a QR code for easy download.

Scan this QR code or visit: <http://cloud.broadlink.com.cn/soft/aux/download.html>

5.2 App Features

The BRAVO Remote app allows you to:

- Turn units On/Off
- Adjust temperature settings
- Change operating modes (Cool, Heat, Fan, Dry, Auto)
- Set fan speed
- Program timers and schedules
- Monitor system status

6. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your BRAVO mini split system. Always disconnect power before performing any maintenance.

6.1 Filter Cleaning

The indoor units are equipped with air filters that should be cleaned regularly (typically every 2-4 weeks, depending on usage and air quality). Refer to your installer for instructions on accessing and cleaning the filters for your concealed duct units.

6.2 Outdoor Unit Cleaning

Keep the outdoor condenser unit free from debris, leaves, and other obstructions. Periodically clean the coils with a soft brush or vacuum cleaner. Ensure the area around the unit remains clear for proper airflow.

6.3 Professional Servicing

It is recommended to have a qualified HVAC technician perform annual inspections and maintenance. This includes checking refrigerant levels, electrical connections, and overall system performance.

7. TROUBLESHOOTING

If you encounter issues with your BRAVO mini split system, refer to the following basic troubleshooting steps. For complex problems, contact a qualified technician.

7.1 No Power

- Check the circuit breaker for the unit.
- Ensure the power cord is securely plugged in.

7.2 Insufficient Cooling/Heating

- Verify that the correct operating mode is selected (Cooling or Heating).
- Check if the temperature setting is appropriate.
- Clean or replace air filters in the indoor units.
- Ensure outdoor unit coils are clean and not obstructed.
- Check for any blockages in the ductwork.

7.3 Unusual Noises or Odors

- Minor noises during operation are normal.
- If loud or unusual noises occur, turn off the unit and contact a technician.
- Persistent unusual odors may indicate a need for professional cleaning or inspection.

7.4 Remote Control Not Working

- Replace the batteries in the remote control.
- Ensure there are no obstructions between the remote and the indoor unit.

8. SPECIFICATIONS

Below are the technical specifications for the BRAVO 42,000 BTU 4-Zone Concealed Duct Mini Split AC & Heat Pump system.

8.1 General System Specifications

Feature	Specification
Brand	BRAVO
Capacity	3.5 tons (42,000 BTU)
Cooling Power	42,000 British Thermal Units
Seasonal Energy Efficiency Ratio (SEER)	24.0
Voltage	230 Volts (AC)
Refrigerant	R-32
Power Source	Corded Electric
Installation Type	Split System
Controller Type	App Control, Remote Control
Product Dimensions (D x W x H)	48"D x 40"W x 40"H (Outdoor Unit)
Operating Temperature Range (Heating)	Down to -13°F

8.2 Indoor Unit Specifications (Concealed Duct)

Indoor Model			BRV-M09DT-230VI	BRV-M12DT-230VI	BRV-M18DT-230VI	BRV-M24DT-230VI
Power Supply		V-Ph-Hz	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60
Cooling	Capacity	Btu/h	9,000	12,000	18,000	24,000
	Rated Capacity	Btu/h	10,000	12,000	19,000	24,600
Max Fuse		A	5	5	5	5
Indoor Air Flow		CFM	353	353	530	795
Indoor Noise Level		dB(A)	34	34	39	42
Indoor Unit	Dimensions (WxDxH)	in	27.56x17.72x7.8	27.56x17.72x7.8	27.56x27.56x9.65	39.37x27.56x9.65
	Packing (WxDxH)	in	34.25x21.3x10.24	34.25x21.3x10.24	36.61x32.68x11.81	48.43x32.68x11.81
	Net/Gross Weight	lbs.	27.6/33.1	27.6/33.1	47.4/56.2	59.5/70.5
Refrigerant Piping		Liquid Side / Gas Side	in	1/4" / 3/8"	1/4" / 1/2"	1/4" / 5/8"
Operation Temperature Range		°F	60.8-89.6	60.8-89.6	60.8-89.6	60.8-89.6

Figure 8.1: Indoor Unit Technical Specifications. This table provides detailed specifications for various BRAVO concealed duct indoor unit models, including power, capacity, airflow, and dimensions.

8.3 Outdoor Unit Specifications

Outdoor Model			BRV-M18-230VO	BRV-M24-230VO	BRV-M30-230VO	BRV-M36-230VO	BRV-M42-230VO
Power Supply		V-Ph-Hz	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60
Cooling	Capacity	Btu/h	17,700 (3,800-19,800)	24,000 (4,900-31,400)	30,000 (6,000-38,200)	36,000 (6,350-38,500)	42,000 (8,350-46,000)
	EER2	Btu/h	3.60	3.66	3.66	3.60	3.66
	SEER2	Btu/h	22	23	23	23	24
Heating	Rated Capacity	Btu/h	18,000 (4,200-22,000)	24,000 (5,200-32,000)	30,000 (6,300-36,000)	36,000 (7,000-43,000)	42,000 (8,450-53,000)
	HSPF2-4	Btu/h	10	10	10	10	10.5
	COP2	W/W	3.8	4.0	3.9	4.0	3.9
Minimum Circuit Ampacity		A	20	30	40	45	45
Max Fuse		A	20	30	40	45	45
Outdoor Air Flow		CFM	1529	2235	2353	2353	4235
Outdoor Side Noise Level		dB(A)	54	57	58	59	60
Outdoor Unit	Dimensions (Wx-DxH)	in	34.65x13.90x21.93	38.58x15.28x27.56	41.18x17.91x31.81	41.18x17.91x31.81	39.80x15.75x51.97
	Packing (WxDxH)	in	35.55x15.04x24.21	39.96x16.73x30.00	43.50x19.49x34.84	43.50x19.49x34.84	42.52x16.93x56.69
	Net Weight	lbs.	75.0/80.5	102.5/109.1	148.8/157.6	154.3/163.1	205.0/224.9
Refrigerant Type / Volume		oz	R32/38.8	R32/51.2	R32/67.0	R32/81.2	R32/ 05.8
Refrigerant Precharge		ft	24.6	24.6	24.6	24.6	24.6
Refrigerant Piping	Liquid Side / Gas Side	in	1/4" / 3/8"	1/4" / 3/8"	1/4" / 3/8"	1/4" / 3/8"	1/4" / 3/8"
	Max Refrigerant Pipe Length	ft	82	98	115	115	115
Ambient Temperature	Outdoor (Cooling)	*F	-13~ 125.6	-13~ 125.6	-13~ 125.6	-13~ 125.6	-13~ 125.6
	Outdoor (Heating)	*F	-13~ 75.2	-13~ 75.2	-13~ 75.2	-13~ 75.2	-13~ 75.2

Figure 8.2: Outdoor Unit Technical Specifications. This table details the specifications for BRAVO Milano outdoor condenser units, covering power, cooling/heating performance, efficiency ratings, and physical dimensions.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

This BRAVO product is covered by a manufacturer's warranty. Please refer to the warranty documentation included with your purchase for specific terms, conditions, and duration. Keep your proof of purchase for warranty claims.

9.2 Technical Support

Free US-based technical support is available should you require assistance with your BRAVO mini split system. For support, please contact the BRAVO customer service team. Contact information can typically be found in your warranty documentation or on the official BRAVO website.

For more information about BRAVO products, visit the [BRAVO Store on Amazon](#).

10. PRODUCT VIDEOS

Watch these official videos for additional information and visual guides on BRAVO Multi-Zone Mini Split AC/Heating Systems.

Your browser does not support the video tag.

Video 1: BRAVO Multi Zone Mini Split AC/Heating Systems. This video provides an overview of the BRAVO multi-zone mini split systems, showcasing their features and benefits.

Your browser does not support the video tag.

Video 2: BRAVO Mini Split AC Heat Pump - More than a Compliment. This video highlights the aesthetic and performance aspects of the BRAVO mini split AC heat pump systems.

© 2024 BRAVO. All rights reserved.

This manual is for informational purposes only. Specifications are subject to change without notice.