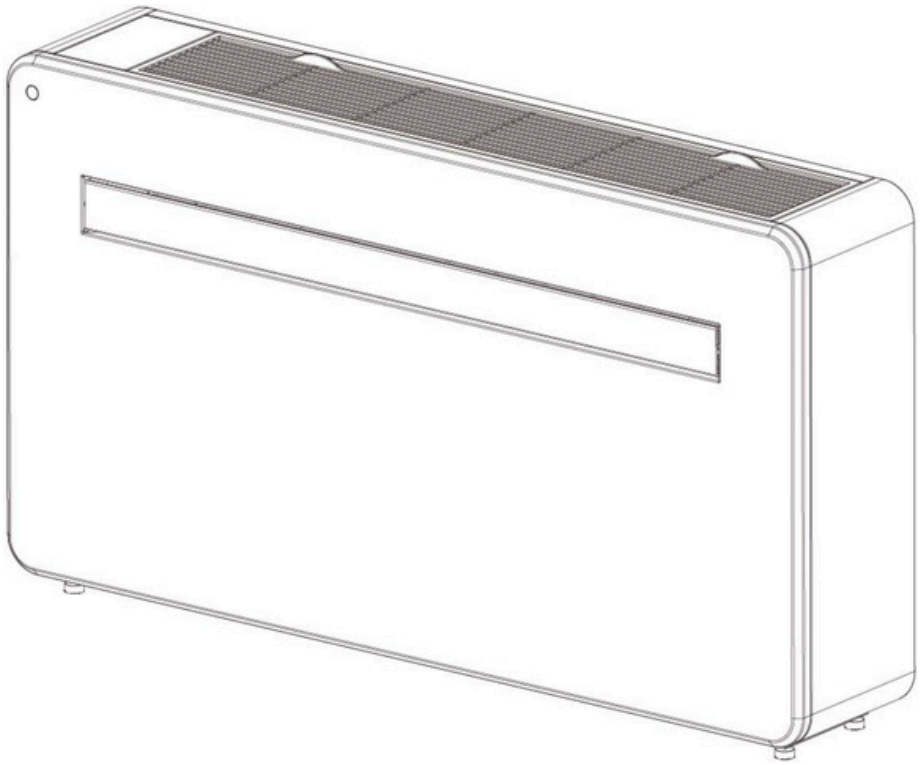
WAYSOS



COMPACT-AIRE PRO 2K

THROUGH-WALL HEAT PUMP

MODEL: COMPACT-AIRE **PRO 2K**

KEY FEATURES

High-Efficiency Through-Wall Heat Pump with No Outdoor Unit Required

The Waysos Compact-Aire PRO 2K delivers a reliable, energy-efficient, and architecturally discreet HVAC solution for multi-residential, hospitality, and retrofit applications. With a compact design, it offers year-round comfort without the need for exterior equipment or refrigerant line sets.

4-in-1 Functionality

Cooling, Heating, Dehumidification, and Fan-Only operation for versatile, year-round indoor climate control.

Compact, Self-Contained Design

No outdoor unit or mechanical room equipment required. All refrigeration components are factory sealed and contained within the indoor chassis.

Heat Pump with 2kW Electric Back-Up Heat

2kW electric resistance heater, functioning as auxiliary heat to support the heat pump during low ambient conditions.

Eco-Friendly R32 Refrigerant

Utilizes next-generation R32 refrigerant with Low Global Warming Potential (GWP = 675)

Whisper Quiet, Inverter-Driven Variable Speed Technology

High-efficiency DC inverter compressor and fan motor for whisper-quiet and energy-saving operations.

100% Powder-Coated Metal Design and Airflow Control

Durable all-metal casing with a motorized swing louvre for consistent, balanced room airflow.

Integrated Condensate Management System — Energy-saving, self-evaporative condensate removal in cooling mode. With a heated condensate drain pan in heat mode that prevents ice formation and an integrated overflow safety switch providing added protection to ensure reliable, year-round drainage.

Integrated Control Options

- On-board LED display with temperature control
- Handheld remote control
- Wi-Fi connectivity via Smart Life app (iOS/Android)
- Optional - third-party 24V wall thermostats available

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(C/W Additional 2kW Electric Back-up Heater)

SPECIFICATIONS

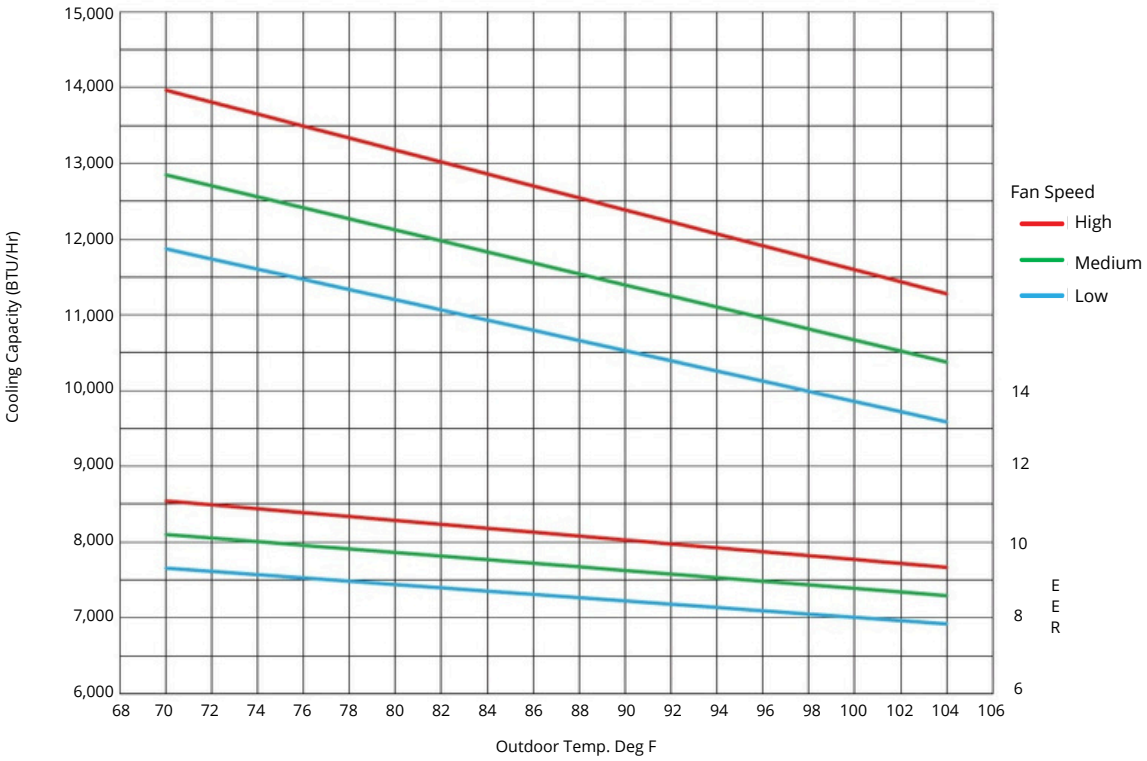
Cooling Capacity		
Rated Cooling Capacity (95°F)	Btu/h	10,000
	Watts	2,930
Cooling Capacity Range	Btu/h	3,000 - 14,000
Outdoor Cooling Operating Range	°F/°C	32F/0C ~ 113F/45C
Energy Efficiency Ratio (EER2)	Btu/h	9.9
Seasonal Energy Efficiency Ratio (SEER2)	Btu/(W.h)	15.0
Heating Capacity		
Rated Heating Capacity (47°F)	Btu/h	9,000
	Watts	2,637
Heating Capacity Range	Btu/h	3,000 - 11,200
Electric Heating Capacity	Btu/h	6,824
	Watts	2,000
Outdoor Heating Operating Range	°F/°C	5F/-15C ~ 75F/24C
Coefficient Of Performance (COP)	Btu/(W.h)	3.2
Heating Seasonal Performance Factor (HSPF2)	Btu/(W.h)	7.5
Heating Performance / Energy Efficiency		
Nominal Heating Capacity @47°F / 8°C Heat Pump Only	Btu/h	9,000
	COP	3.2
Nominal Heating Capacity @17°F / -8°C Heat Pump Only	Btu/h	6,500
	COP	2.24
Nominal Heating Capacity @5°F / -15°C Heat Pump Only	Btu/h	5,000
	COP	1.73
Sound Pressure Levels		
Indoor Range	dBA	32 - 46
Dehumidifier		
Moisture Removal	Kg/Hr	1.2
	Pints/Hr	2.5

Electrical		
Power Supply	V-Ph-Hz	208/230-1-60
Rated Input for Cooling (95°F)	Watts	1020
Rated Input for Heating (47°F)	Watts	850
Rated Current for Cooling	A	4.7
Rated Current for Heating	A	3.9
Rated Current for Electric Heating	A	9.6
Total Input Current	A	13.5
Minimum Circuit Ampacity (MCA)	A	19
Maximum Overcurrent Protection (MOP)	A	24
Recommended Breaker Size	A	20
Fan		
Type	- -	DC Variable
Speed	- -	3
Indoor Fan Range	CFM	200 - 320
Outdoor Discharge	MPa	4.5
Outdoor Suction	MPa	1.8
Max. Allowable Pressure	MPa	5.3
Compressor		
Type	- -	DC Inverter
Speed Range	Hz	30 - 80
Refrigerant		
Type	- -	R32
Factory Charge	Oz	19.4
	Kg	0.55
Dimensions		
Body Size (W/H/D)	Inches	39x23x8
	mm	1000x585x335
Weight		
Body Weight	Kg	42.5
	lbs	93.5
Safety Standard		
ETL / UL/ CSA		

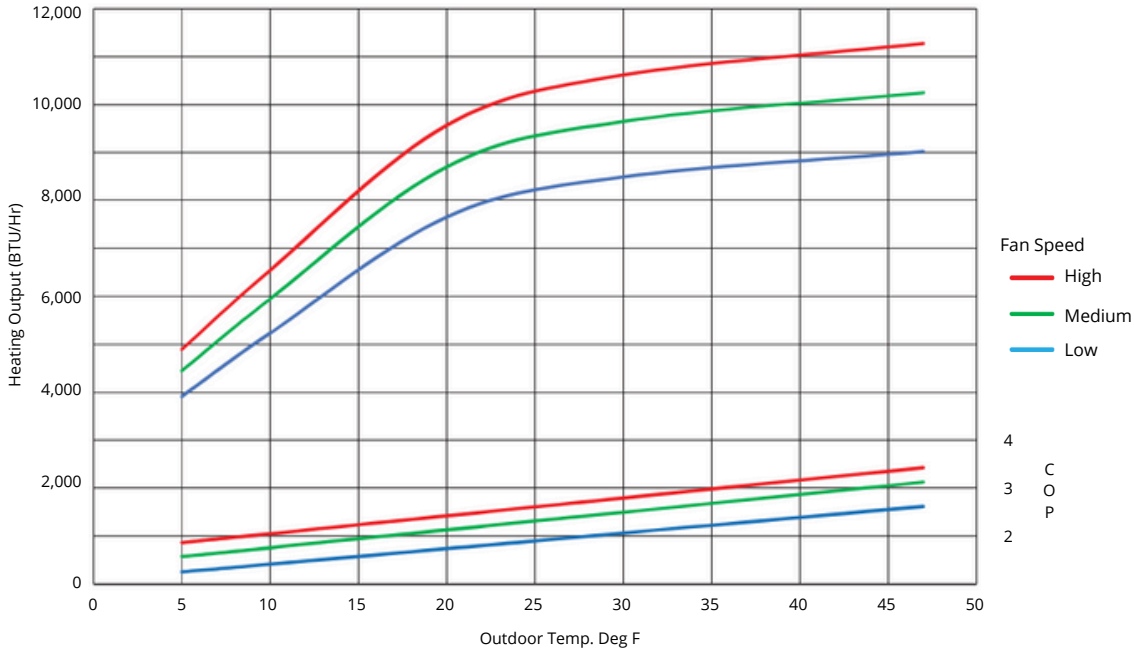
The manufacturer reserves the right to modify product specifications at any time without prior notice. Users are advised to consult the latest technical documentation to ensure accurate and up-to-date information.

MODEL: COMPACT-AIRE **PRO 2K**

COOLING PERFORMANCE



HEATING PERFORMANCE
(HEAT PUMP ONLY)



MODEL: COMPACT-AIRE **PRO 2K**

CONTROLS & OPERATIONS

Modes of Operation

- **Cooling Mode**
  - Adjustable between 60°F (16°C) and 86°F (30°C)
  - Fan speed selectable (Low/Med/High)
  - Silent mode available
- **Heating Mode**
  - Adjustable between 60°F (16°C) and 86°F (30°C)
  - Fan speed selectable
  - Additional PTC electric heating can be activated via remote control or app
  - Silent mode available
- **Dehumidification (Dry) Mode**
  - Temperature setting is fixed; fan speed is locked for optimized moisture removal
  - Condensate is drained via the external pipe
- **Fan Mode**
  - Recirculates room air without heating, cooling, or dehumidification
  - Adjustable fan speed (Low/Med/High)
  - Temperature setting is disabled in this mode
- **Fan Speed Control**
  - Fan speed is adjustable between Low, Medium, and High in Cooling, Heating, and Fan modes
  - Speed control is unavailable in Dry and Silent modes

Additional Functions

- **Silent Mode**
  - Activated via app or remote
  - Available in Cooling and Heating modes only
  - Lowers fan speed and compressor frequency for quieter operation
- **Swing Louvre Control**
  - Motorized louvre can be enabled via remote control or mobile app to automatically distribute airflow evenly throughout the space
- **Temperature Setting**
  - Adjustable using UP and DOWN controls on the unit, remote, or app within each mode's range
  - Display can toggle between °F and °C by pressing UP and DOWN buttons together
- **24-Hour Timer Function**
  - Programmable Shutdown Timer (while unit is running) and Delayed Start Timer (while in standby), adjustable in 1-hour increments from 1 to 24 hours
  - When timer reaches zero, the unit starts or stops based on the user's setting
- **LED Display Light Control**
  - Display backlight can be turned on or off via remote control or app for sleep mode

"PTC" Electric Heating Function

The Compact-Aire PRO 2K includes an auxiliary electric heater (PTC heater) that activates under specific conditions to provide additional warmth during cold conditions. The system starts with the PTC turned off by default and needs to be manually turned on via the remote or app. The system will reset to default mode whenever the unit is turned off or changed to other modes (Cooling/Dehumidifier/Fan).

PTC will work after the system carries out self-testing and the following points are satisfied at the same time:

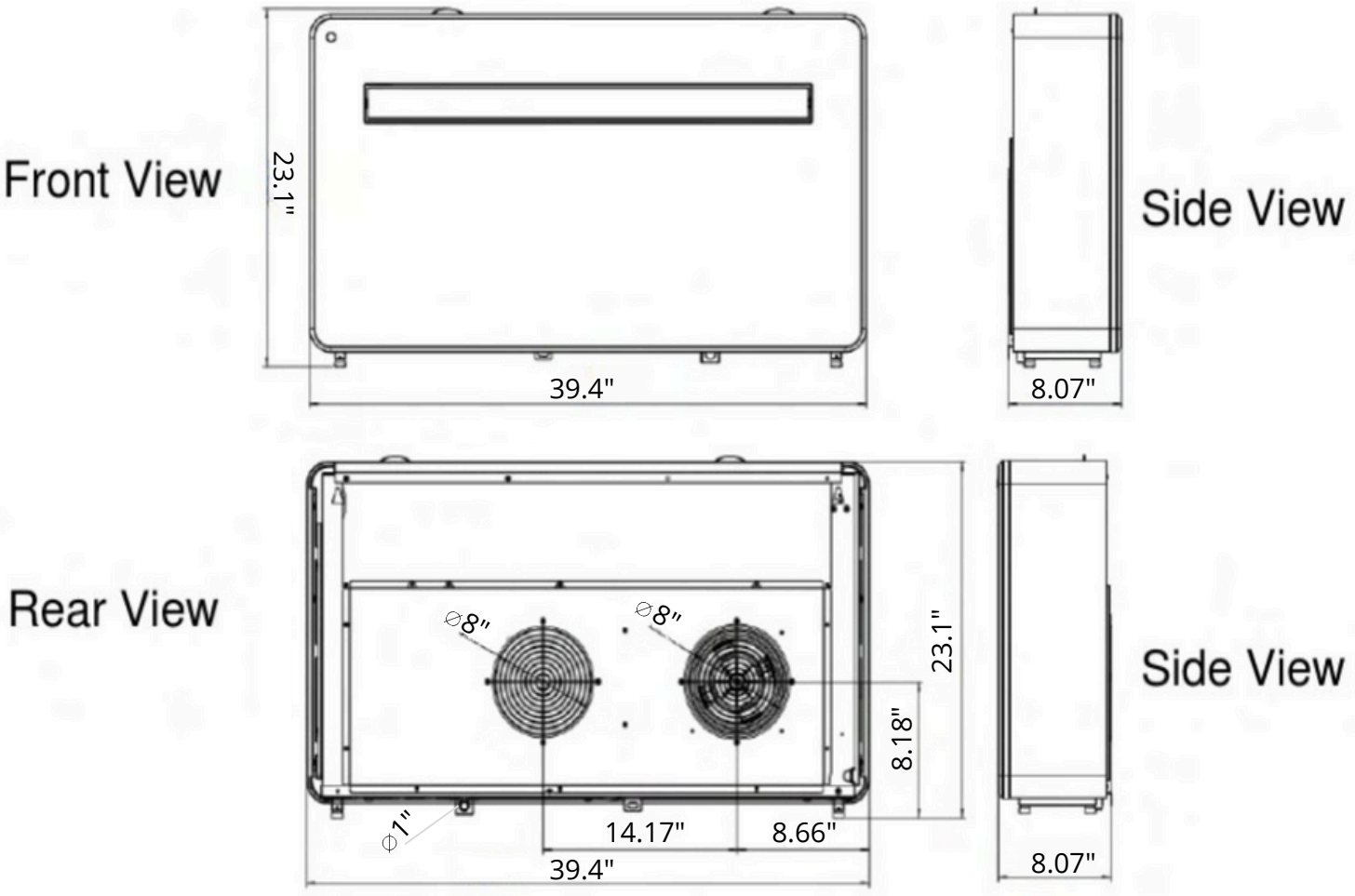
- Unit is in heating mode
- Compressor has been working for 3 minutes
- Below data is collected from 20 seconds of continuous monitoring of operation
- Tw<25℃/77℉ (outdoor temperature keeps lower than 25℃/77℉ for 10 seconds)
- Ts-Tr≥5℃/41℉ (The Set temperature is more than 5 degrees higher than the Room temperature)
- Room temperature Tr≤18℃/64℉
- Coil Temperature of evaporator Te ≤48℃/118℉

PTC will stop working when the system self-testing detects one of the following points:

- Unit didn't work in heating mode
- Unit is in defrost function
- Compressor stops working
- Outdoor temperature stays higher than 28℃/82℉ for 10 seconds
- The room temperature is greater than the setpoint
- Room temperature Tr ≥23℃/73℉
- The ventilation stops or the fan is faulty
- 4-way valve gets disconnected
- Coil Temperature of evaporator Te≥54℃/129℉ or sensor error

MODEL: COMPACT-AIRE **PRO 2K**

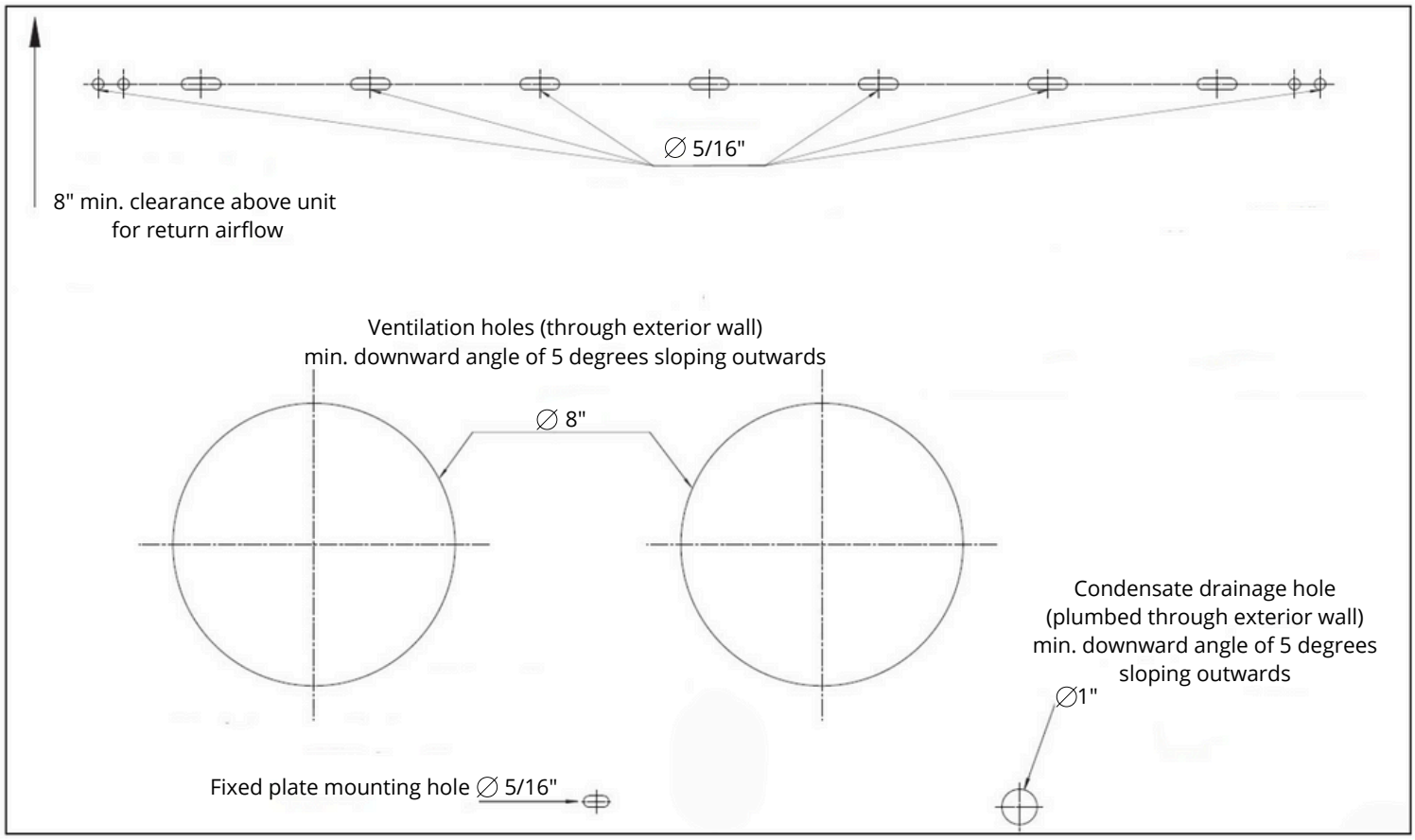
DIMENSIONS



Width	39.4"
Height	23.1"
Depth	8.07"
Outdoor Air Supply & Exhaust Diameter	8"
Condensate Drain Diameter	1"
Weight	93.8 lbs

MODEL: COMPACT-AIRE **PRO 2K**

WALL MOUNTING TEMPLATE

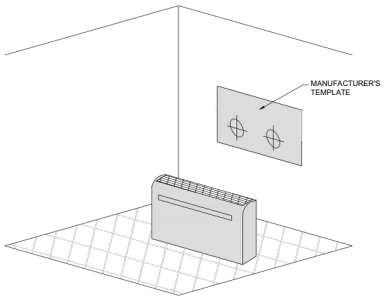


MODEL: COMPACT-AIRE **PRO 2K**

INSTALLATION SUMMARY

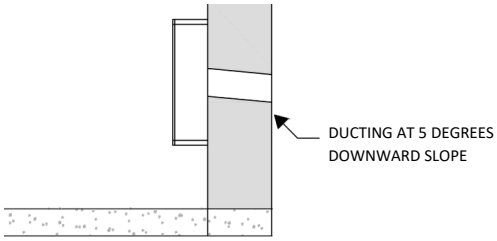
1. Wall Positioning & Template Preparation

- Install the unit on a structurally sound, flat, exterior wall
- Ensure adequate space around the unit to allow for proper airflow
- Use the manufacturer-supplied template and a spirit level to mark bracket and duct positions
- Avoid locations with external obstructions



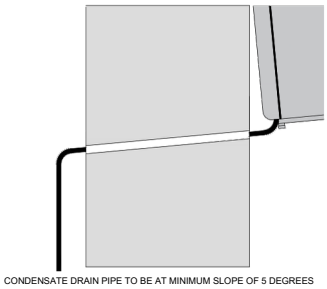
2. Core Hole Drilling & Duct Installation

- Drill two wall cores with a consistent 3-5 degree downward slope to the outside
- Insert supplied duct sleeves or plastic vent tubes with seam side up
- Trim duct sleeves flush to the wall interior



3. Condensate Drainage

- Route the drain line from the base of the unit through its dedicated hole
- Maintain consistent 3-5 degree downward slope to prevent water backup
- Drainage options include: sanitary tie-in, floor drain, riser to outside, or direct to exterior wall

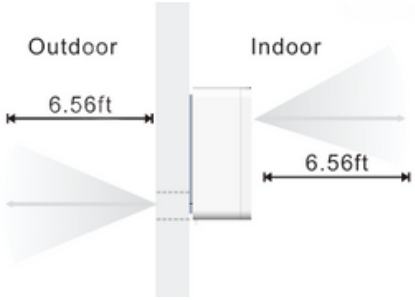


4. Wall Caps & Vents

- Install provided vent covers from the interior using the folding method and chain system if external access is limited
- Alternatively install optional wall caps from the outside if access is possible
- Ensure a flush, vibration-free fit against the wall

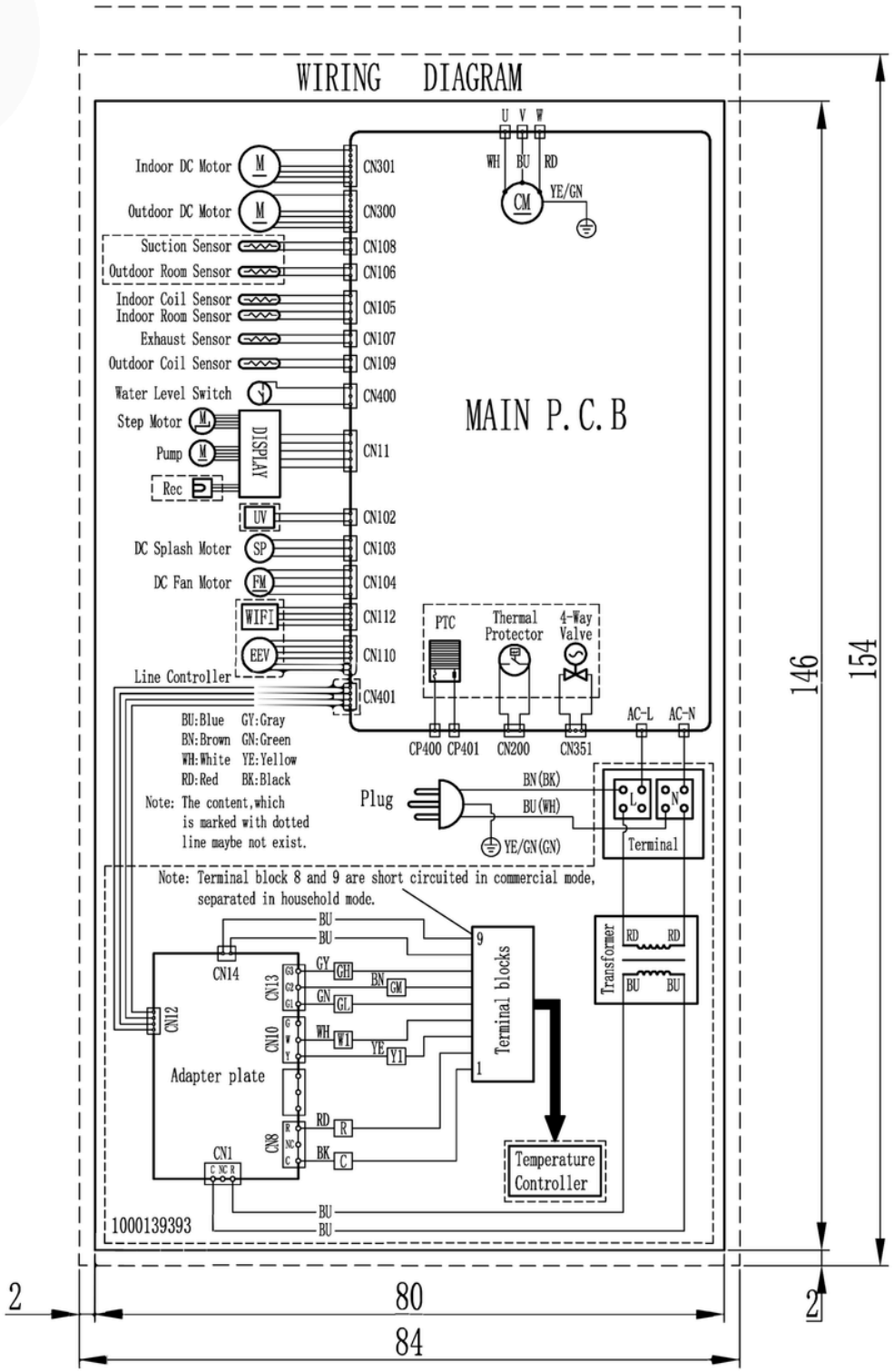
5. Final Unit Installation & Power Connection

- Hang the unit on the pre-installed wall bracket
- Align the duct connections and route the drain line
- Plug-in or hardwire based on model type
- Ensure compliance with national wiring standards



MODEL: COMPACT-AIRE **PRO 2K**

WIRING DIAGRAM



MODEL: COMPACT-AIRE **PRO 2K**

LIMITED WARRANTY SUMMARY

WARRANTY COVERAGE

Component	Warranty Term	
Comprehensive Coverage	1 Year	(All Parts & Labour)
Compressor	3 Years	(Parts Only)
Optional Extended Warranty on Compressor	5 Years*	(Parts Only) *Available at additional costs

COVERAGE DETAILS

- Comprehensive 1-Year Warranty covers all factory installed components, parts, and labour associated with repair or replacement of defective components
- 3-Year Compressor Warranty covers replacement of the original compressor only, exclusive of labour charges after the first year
- Optional 5-Year Extended Compressor Warranty covers compressor parts only, beginning on the date of original installation

WARRANTY CONDITIONS

- Unit must be installed and commissioned in accordance with Waysos installation instructions and local codes
- Warranty applies to equipment installed in Canada or the United States
- Service, maintenance, and repairs must be performed by licensed HVAC professionals
- Warranty coverage begins on the date of original installation
- Use of non-Waysos parts or unauthorized modifications voids warranty
- Routine maintenance is the responsibility of the owner/operator

EXCLUSIONS

- Cosmetic damage, corrosion, or surface finish deterioration
- Damage caused by improper installation, misuse, power issues, or acts of nature
- Accessories and consumables such as filters, remote batteries, grilles, or Wi-Fi setup
- Consequential or incidental damages

WARRANTY CLAIM

- Unit model and serial number
- Date of original installation
- Description of fault or issue
- Proof of commissioning if applicable

Claims should be submitted through the original supplier, distributor, or directly to support@waysos.com

WAYSOS

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