




Honeywell Home DR65A3000 65-Pint Dehumidifier with On-Board Control Installation Guide

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Honeywell

Honeywell Home DR65A3000 65-Pint Dehumidifier with On-Board Control



Product Information

The DR65A3000 is a dehumidifier designed to remove excess moisture from the air. It comes with a MERV 11 filter for improved air quality. The dehumidifier requires professional installation, and the installation guide provides detailed instructions on how to set it up.

Included in the Box

- A DR65A3000 dehumidifier (1)
- A MERV 11 filter (1)
- An installation guide

Optional Controls (Sold Separately)

- D1 Prestige IAQ Kit
- D2 VisionPRO Smart or VisionPRO RedLINK
- D3 H6062 digital control
- D4 T10 or T10+ Pro Smart Thermostat

Product Usage Instructions

To install the DR65A3000 dehumidifier, you will need the following tools:

- 3/8 hex drive

- Drill or duct cutting tool
- Wire stripper/cutter
- Standard screwdriver
- T20 Torx screwdriver
- Duct tape
- 8" round duct and starter collar
- 18-22 gauge, 5 conductor thermostat wire
- 1/2" diameter drain line (8')
- 1/2" drain clamps (2)
- 3/4" male NPT drain outlet

Optional components that may be required for installation include:

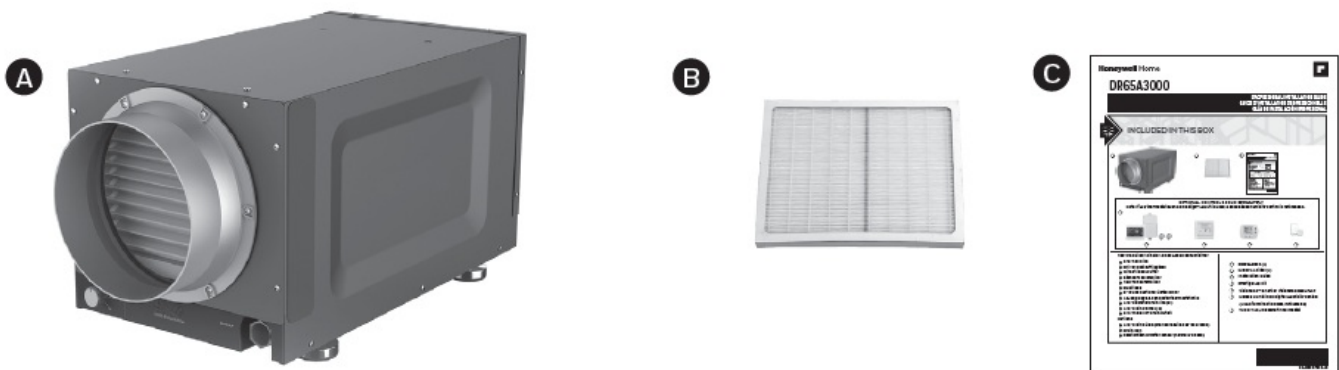
- 1/2" drain p-trap (may be required by local code)
- Drain pan
- Float switch or water sensor (normally closed)

Follow the steps below to install the DR65A3000 dehumidifier:

1. Use the 3/8 hex drive, drill, or duct cutting tool to create a hole for the dehumidifier installation.
2. Strip and cut the wires as necessary using the wire stripper/cutter.
3. Connect the wires according to the provided wiring diagram in the installation guide.
4. Secure the dehumidifier in place using screws and a screwdriver.
5. If using a drain line, connect the 1/2" diameter drain line to the 3/4" male NPT drain outlet.
6. If required by local code, install a 1/2" drain p-trap in the drain line.
7. If using a drain pan, place it under the dehumidifier to collect any condensate.
8. If using a float switch or water sensor, install it according to the provided instructions.
9. Complete the installation by securing the duct with duct tape and attaching the starter collar.

Note: If using an IAQ thermostat such as the Prestige IAQ Kit, a separate dehumidity control is not needed.

INCLUDED IN THIS BOX



- **A** DR65A3000 (1)
- **B** MERV 11 Filter (1)
- **C** Installation Guide

OPTIONAL CONTROLS SOLD SEPARATELY

Note: If IAQ thermostat such as Prestige™ IAQ kit is used, a separate dehumidity control is not needed.

D



- **D1:** Prestige IAQ Kit
- **D2:** VisionPRO™ Smart or VisionPRO RedLINK® H6062
- **D3:** HumidiPRO Digital Humidity Control (HVAC fan wired to DR65, not H6062)
- **D4:** T10 or T10+ Pro Smart Thermostat

Tools required

Tools required to install DR65A3000 dehumidifier

- 3/8" hex drive
- Drill or duct cutting tool
- Wire stripper/cutter
- Standard screwdriver
- T20 Torx screwdriver
- Duct tape
- 8" round duct and starter collar
- 18-22 gauge, 5 conductor thermostat wire
- 1/2" diameter drain line (8')
- 1/2" drain clamps (2)
- 3/4" male NPT drain outlet

Options

- 1/2" drain p-trap (may be required by local code)
- Drain pan
- Float switch or water sensor (normally closed)

Warning: Installation must be performed by a qualified service technician and must comply with local codes. Remove power to the device before installing or servicing the device. Failure to connect the device according to these instructions may result in damage to the device or the controls.

INSTALLATION INSTRUCTIONS BEGIN ON PAGE 2

- The DR65A3000 is designed to be installed indoors in a space that is protected from rain and flooding.
- Install the unit with space to access the front panel for maintenance and service.
- Avoid directing the discharge air at people, or over the water in pool areas.
- If used near a pool or spa, be certain there is no chance the unit could fall into the water or be splashed, and

that it is plugged into a ground fault interrupt (GFI) outlet.

- To ensure quiet operation, do not place the device directly on the structural supports of the home.
 - A drain pan must be placed under the unit if installed above a living area or above an area where water leakage could cause damage.
 - DR65 should be installed on a stationary base or sitting on the floor. It should not be mounted above other HVAC components such as the A-coil.
1. Never operate a unit with a damaged power cord. If the power cord is damaged it must be replaced by the manufacturer, its service agent, or similarly qualified person in order to avoid a hazard.
 2. The appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

NEED HELP? For assistance with this product please visit

<http://www.customer.resideo.com> or call Customer Care toll-free at 1-800-468-1502.

About the DR65A3000 Dehumidifier

The DR65A3000 ensures the home is maintained at proper humidity levels through its high performance and efficiency.

Benefits

- Removes up to 65 pints (30.8 l) of water per day from the indoor air.
- Built-in humidity control requires no additional wiring to an external control. Just plug in and go! Choice of external control options also available for centrally ducted control.
- Electrocoating reduces coil corrosion and helps prevent refrigerant leaks
- Built-in transformer and fuse.

Maintaining Ideal Humidity

Dew points and relative humidity (RH) affect the way your body senses heat. Higher humidity levels cause the air to feel much hotter than the actual temperature. When maintained properly, you can run your cooling equipment less because dehumidified air feels cooler.

Ideal humidity is defined by industry experts* as being between 40-60% on an average annual basis.

Capacity:

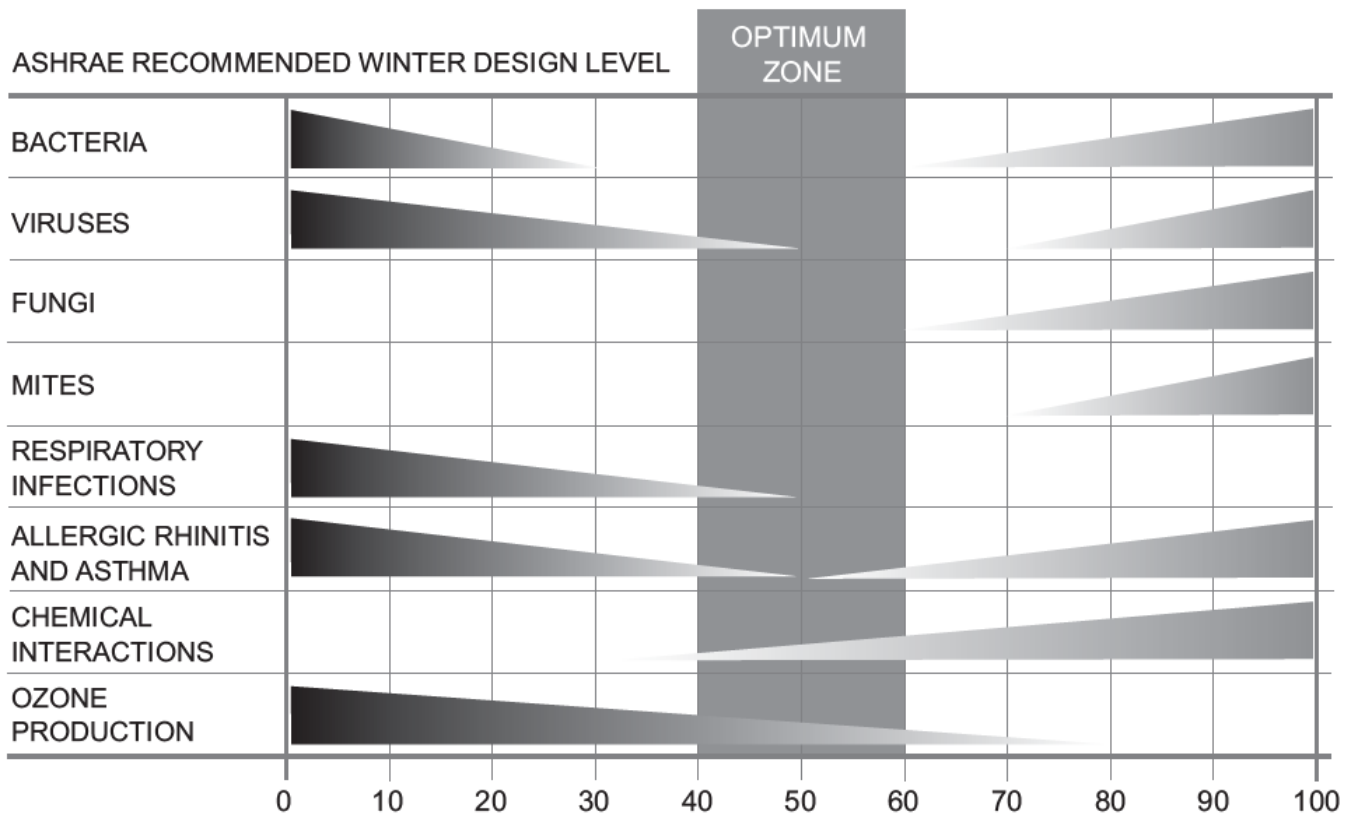
34 pints/day (60 °F [15.6 °C], 60 %RH)

47 pints/day (70 °F [21.1 °C], 60 %RH)

65 pints/day (80 °F [26.7 °C], 60 %RH)

When indoor humidity exceeds 60%, the home is more susceptible to mold and mildew growth. DR65A3000 safeguards against excessive humidity in the home year-round.

*American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).



Setting the Controls

BUILT-IN HUMIDITY CONTROL: An intuitive 'set and forget' humidistat is built into the DR65A3000 to set the humidity level right on the device. Optional external control wiring is also available. If an external dehumidistat is used, the on-board dehumidification control must be set to the Off position.



Control Options

The DR65A3000 may be used with one of the following external controls:

T10 or T10+ Pro Smart Thermostat (T10 models begin with THX321WF. T10+ kits begin with YTHM1004R)



- Controls heating/cooling and dehumidification.
- Advanced dehumidifier setting options to run system fan with dehumidifier or lock out dehumidifier if cooling is running.

Prestige IAQ Thermostat Kit (kit numbers start with YTHX9421R)



- Controls heating/cooling, dehumidification, and ventilation.
- Wireless sensor for displaying outdoor temperature and humidity.
- Advanced dehumidifier setting options to run system fan with dehumidifier or lock out dehumidifier if cooling is running.
- Maintenance and service reminders.
- High definition color display.
- RedLINK Wireless technology

VisionPRO Smart or VisionPRO RedLINK Thermostat



- WiFi (TH8321WF1001) or RedLINK Wireless technology (TH8321R1001)
- Controls heating/cooling and dehumidification.
- Display outdoor temperature and humidity.
- Advanced dehumidifier setting options to run system fan with dehumidifier or lock out dehumidifier if cooling is running.

HumidiPRO Digital Control (H6062A1000)



- Manual dehumidification control
- Dehumidifier compressor protection
- RH% and outdoor temperature calibration
- Adjustable high and low range stops (10-90%)

Specifications

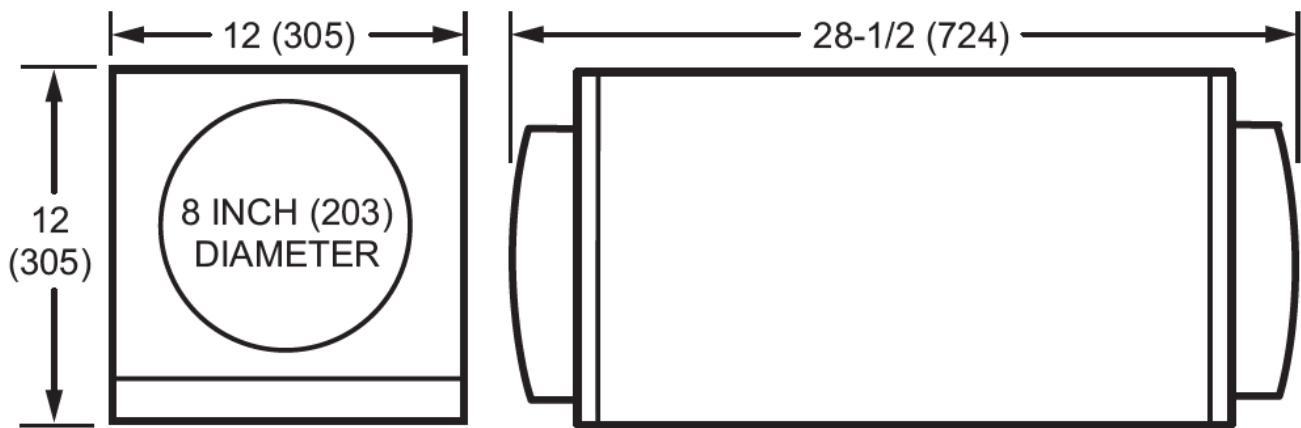
Install DR65A3000 according to National Electric Codes.

Dry-Bulb Temp	Intake Humidity	Capacity (Pints/Day)
80°F (26.7°C)	60% RH	65
70°F (21.1°C)	60% RH	47
60°F (15.6°C)	60% RH	34

Home Size (square ft) @ 8 ft ceiling	Dehumidifier Capacity Required to Maintain Desired Indoor RH*		
	60% RH Indoor (pints/day)	50% RH Indoor (pints/day)	40% RH Indoor (pints/day)
2080	49–54	55–58	71–78
2600	61–68	65–72	90–97
3120	75–82	79–86	95–110

Based on extreme climates where outdoor humidity is 70-90% RH. For less extreme climates, larger homes can be adequately served with less capacity. Actual requirements may vary.

Dimensions in inches and (mm):



- **Product weight:** 60lb (27 Kg)
- **Shipping weight:** 68lb (31 Kg)
- **Shipping dimensions:** 16.7" H x 17" W x 32.9" L Media Filter: MERV 11, 9" H x 11" W x 0.75" D
- **Drain connection:** 3/4" threaded female NPT connection.
- **Duct connections:** 8" round inlet and outlet. ABS plastic, compatible for connection to rigid or flexible ducting with sheet metal screws and/or tape.
- **Cabinet:** 20 gauge galvanized steel powder-coat painted.
- **Insulation:** R value 1
- **Compressor:** Rotary-style, 6.1 KBTU Refrigerant: R-410A, 15 oz.
- **Operating Temp Range (outside cabinet):** 34°F to 135°F (1.1°C to 57.2°C)
- **Operating Humidity Range:** 0-99% RH

Airflow versus external static pressure (0–1" water pressure) with collars attached

0"	160 CFM
0.2"	140 CFM
0.4"	120 CFM
0.6"	100 CFM

Input ratings

- Electrical input voltage: 120 VAC, 60 Hz nominal
- Input current: 5.2 A

Output ratings

- Power transformer to R/C terminals: 24 VAC, 0.85 A
- Energy Performance: 2.22 liters (4.7 pints) per kilowatt hour (KWH)

Standards and approval body requirements

ETL Listed per UL 474 and CSA C22.2 No 92

Install to Fit Your Application

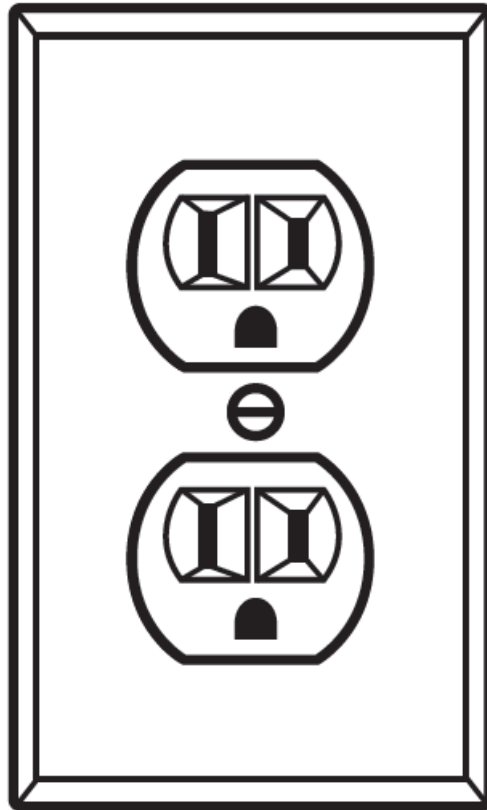
Flex duct is recommended in connecting to the DR65A3000 collars to reduce vibration noise.

Duct Sizing: Use minimum 8" diameter round for duct lengths up to 25' Minimum 10" required for lengths longer than 25' Duct branches from the main inlet/exhaust should be minimum 8" round for 2-3 branches, and 8" round or larger for 4 branches or more.

Isolated Areas: Effective dehumidification may require ducting to isolated or stagnant air flow areas.

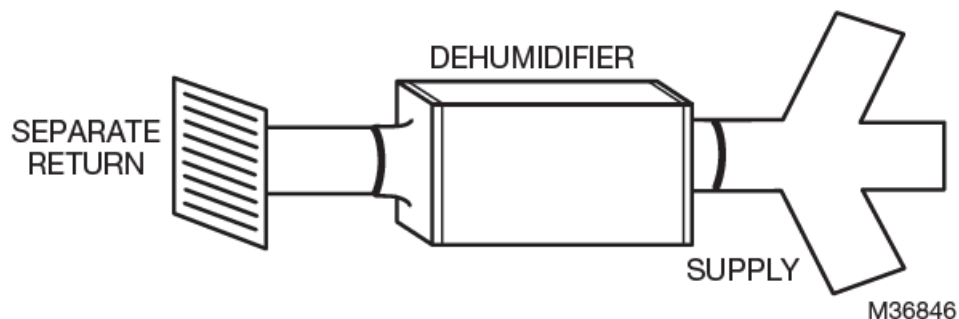
Electrical requirements:

115 VAC outlet. Ground fault interrupter (GFI) recommended.



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- A: Dedicated Return to Dedicated Supply

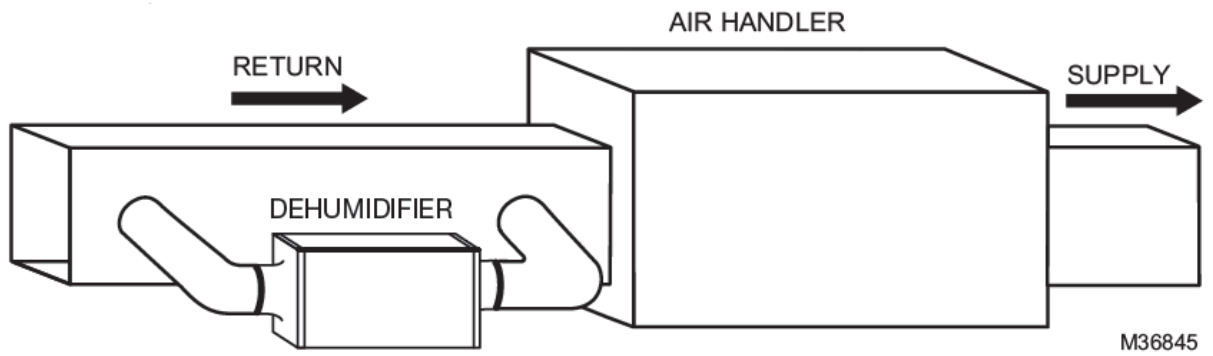


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Ideal when...

- DR65A3000 will not be ducted to a forced air HVAC system.

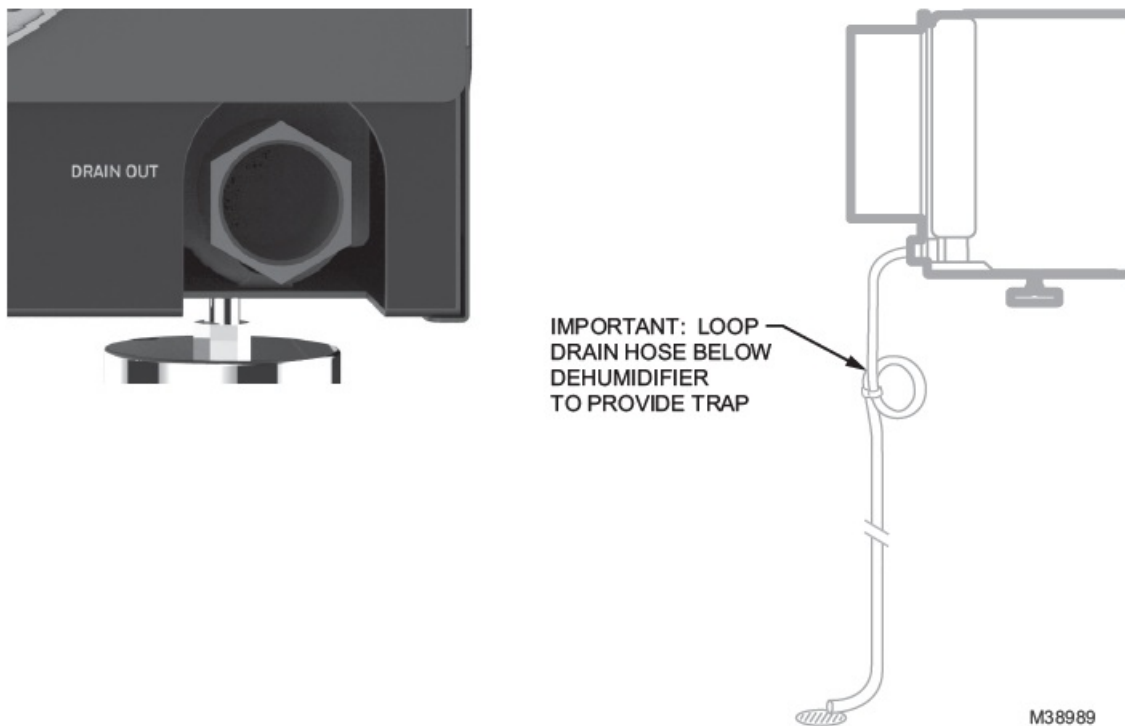
- **B:** Main Return to Main Return



Ideal when...

- Running DR65A3000 with A/C operation.
- System fan must run with dehumidifier.
- Minimizing discharge air temperature (DAT) increase is preferred.
- Access to a dedicated central return for DR65A3000 is not available.

Plumbing

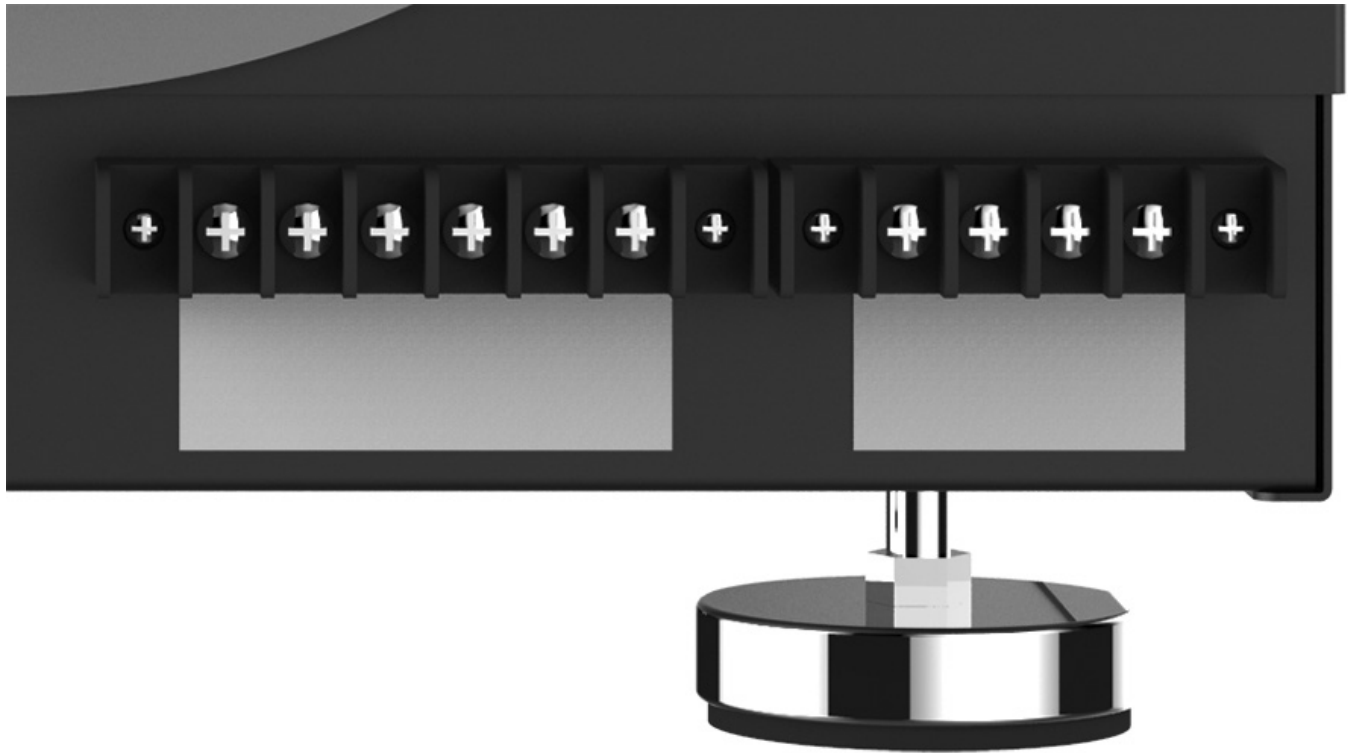


Attach 3/4" male NPT PCV drain nozzle (use teflon tape if needed). Do not over-tighten.
 Connect 1/2" drain tube to male connection drain outlet.
 Secure drain tube to connector with hose clamp.
 Run drain hose continuously downhill to an approved drain or condensate pump.
 The drain line must include a water trap to prevent air from entering or exiting the dehumidifier.
NOTE: It is important that the DR65 is leveled for drain line to work properly.

Terminal Description

CAUTION: Low voltage hazard.
 Can cause equipment damage.
 Disconnect HVAC equipment before beginning installation.

Two wiring terminal blocks are located on the exhaust end of the dehumidifier.



The six terminals for the left hand terminal block are: FLOAT (2): External low-voltage water sensor or float switch

- **DHUM:** Compressor and fan operation for dehumidification
- **R:** 24V hot (output)
- **FAN:** Fan activation only for ventilation
- **C:** 24V common (output)

External 24V devices can be powered from R and C terminals (20VA max.)

NOTE: The outer screws on each terminal block secure the block to the chassis. They are not used for wiring.

The right hand terminal block in the above image is used only for interlocking a DR65A3000 with an equipment fan. These terminals are needed if:

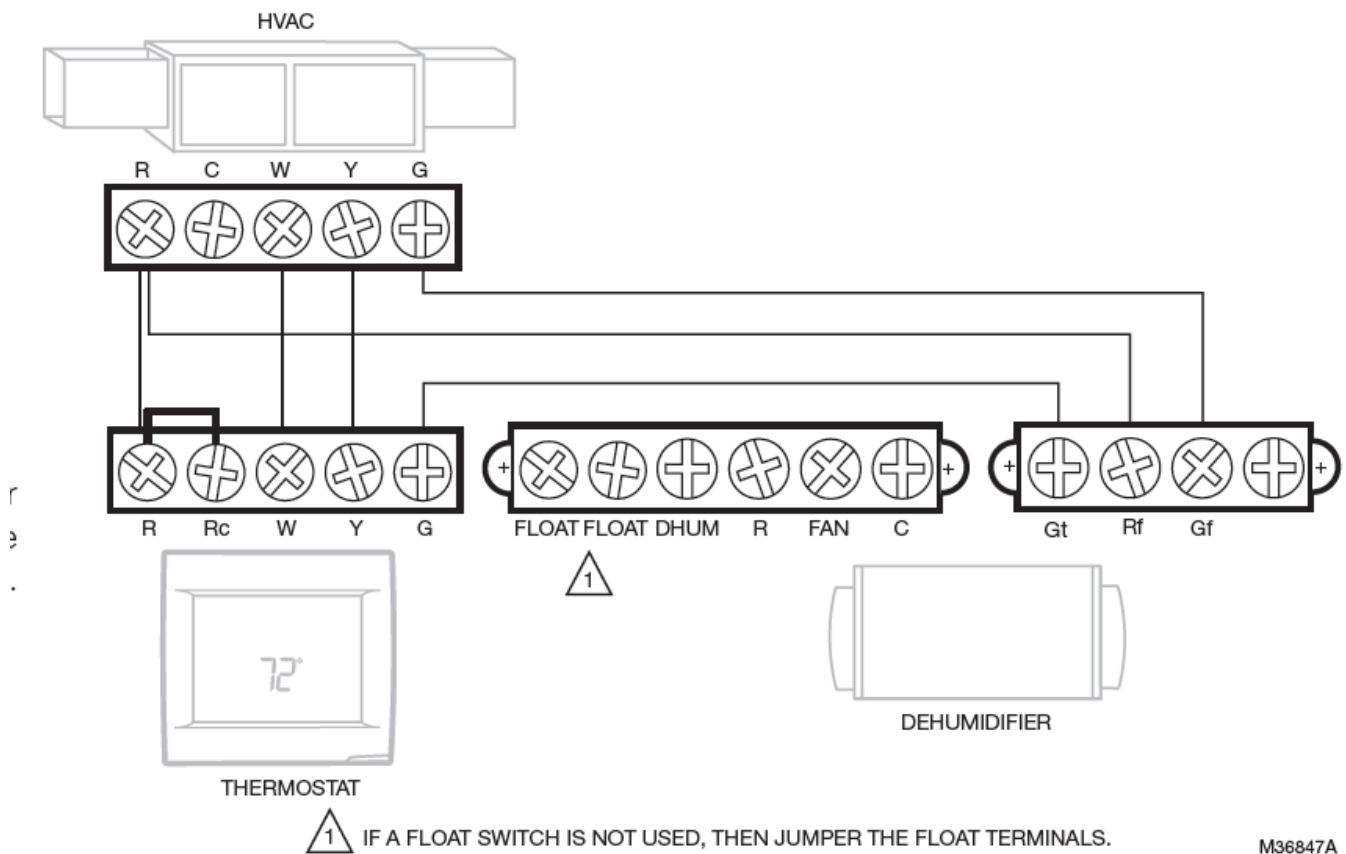
- **A:** The dehumidifier is mounted on the HVAC ducting.
- **B:** The dehumidifier control cannot turn on the blower fan with a call for dehumidification (H6062, H8908).

The three terminals are:

- **Gt:** Wires to G at thermostat
- **Rf:** Wire to R at HVAC (furnace/air-handler)
- **Gf:** Wire to G at HVAC (furnace/air-handler)

Wiring

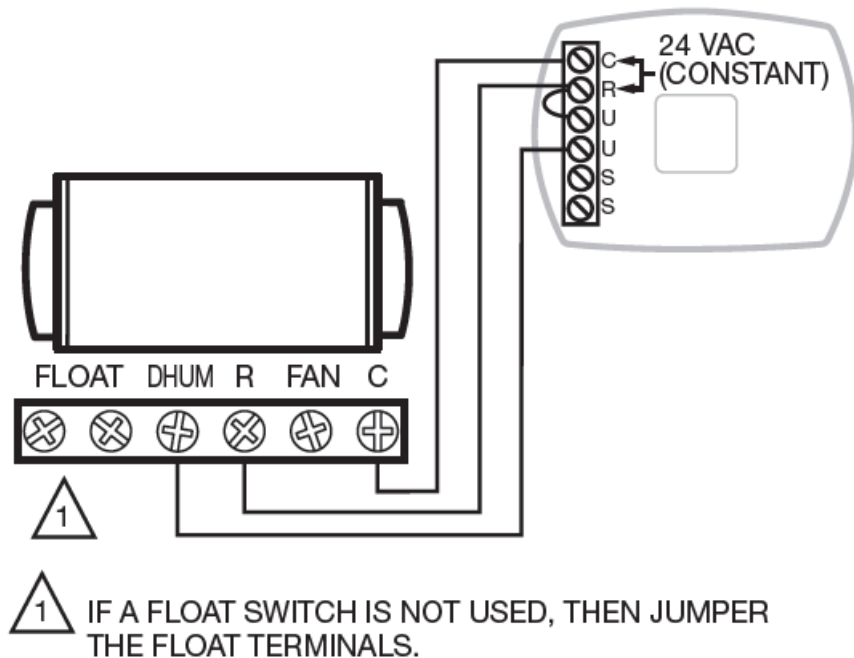
Wire the DR65A3000 according to the diagram that applies to your desired operation.



Follow this diagram for ducted operation with the onboard dehumidistat.

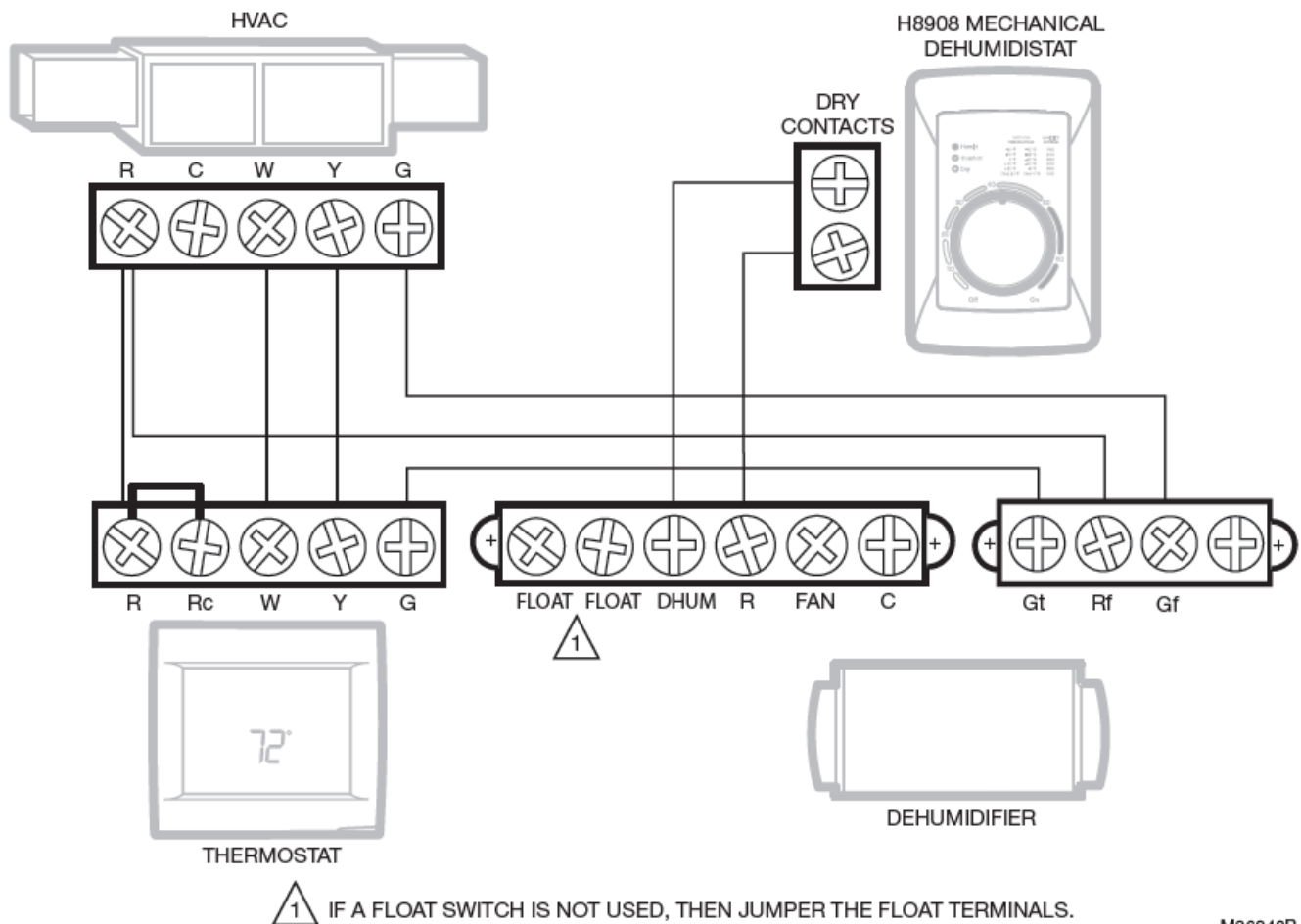
Follow this diagram if using the H6062 Digital Humidity Controller.

NOTE: When H6062 control is used with a DR65 connected to HVAC ducting, make sure to wire the Rf, GT, and GF as shown in the diagram for the mechanical dehumidistat below.



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Follow this diagram if using an external manual dehumidistat.



M36848B

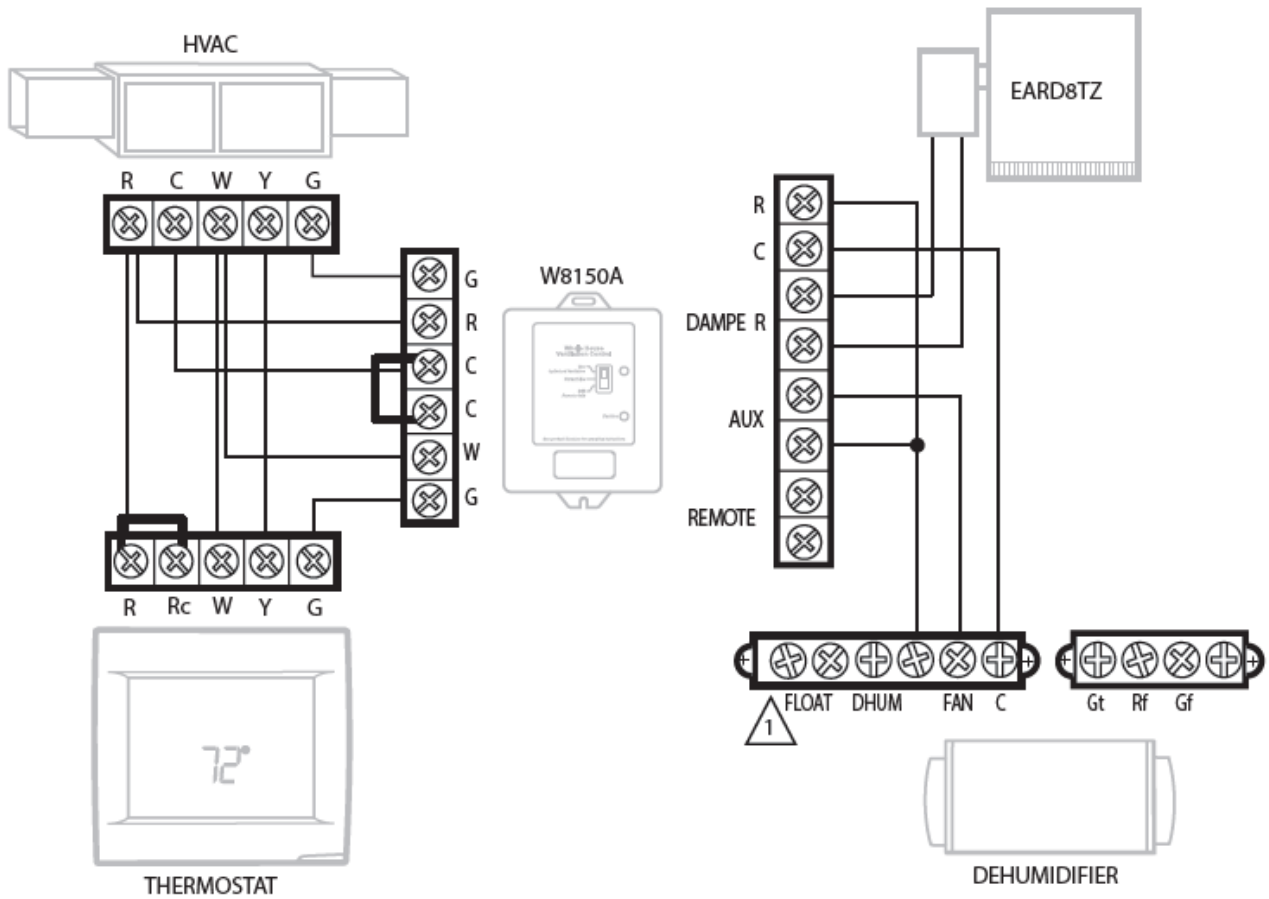
Dehumidifier with zoning

When a DR65 is used with a zoned system, wire Rf and Gf from DR65 to R and G at HVAC (furnace/air-handler). Wire Gt from DR65 to G on equipment terminals of zone panel. Set the dehumidity control to dehumidify independent of system fan (the DR65 will be turning on the fan).

Usually only one control is used for the dehumidifier in a zoned system. That could be an IAQ thermostat from a central zone or a stand alone dehumidity control. This control is wired to the R and DHUM on the DR65 as shown in any of the diagrams in this file.

Follow this diagram for ducted operation with external ventilation control.

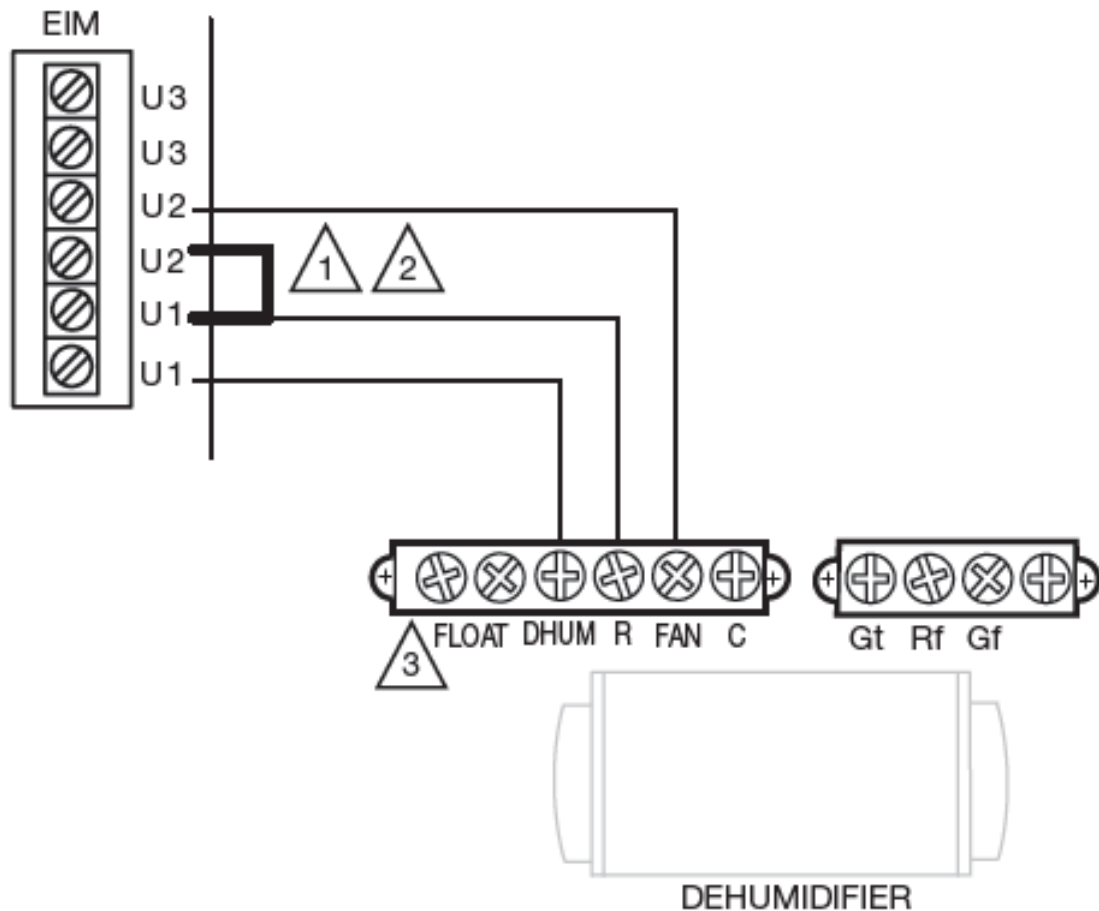
NOTE: Dehumidity control circuit not shown in this diagram.



1 IF A FLOAT SWITCH IS NOT USED, THEN JUMPER THE FLOAT TERMINALS.

M36849A

Follow this diagram if using DR65A3000 with either a Prestige or TH8321R1001 RedLINK VisionPro & EIM.



IN THIS DIAGRAM, U1 CONTROLS THE DR65A FOR DEHUM AND U2 CONTROLS THE DR65A FOR VENTILATION.

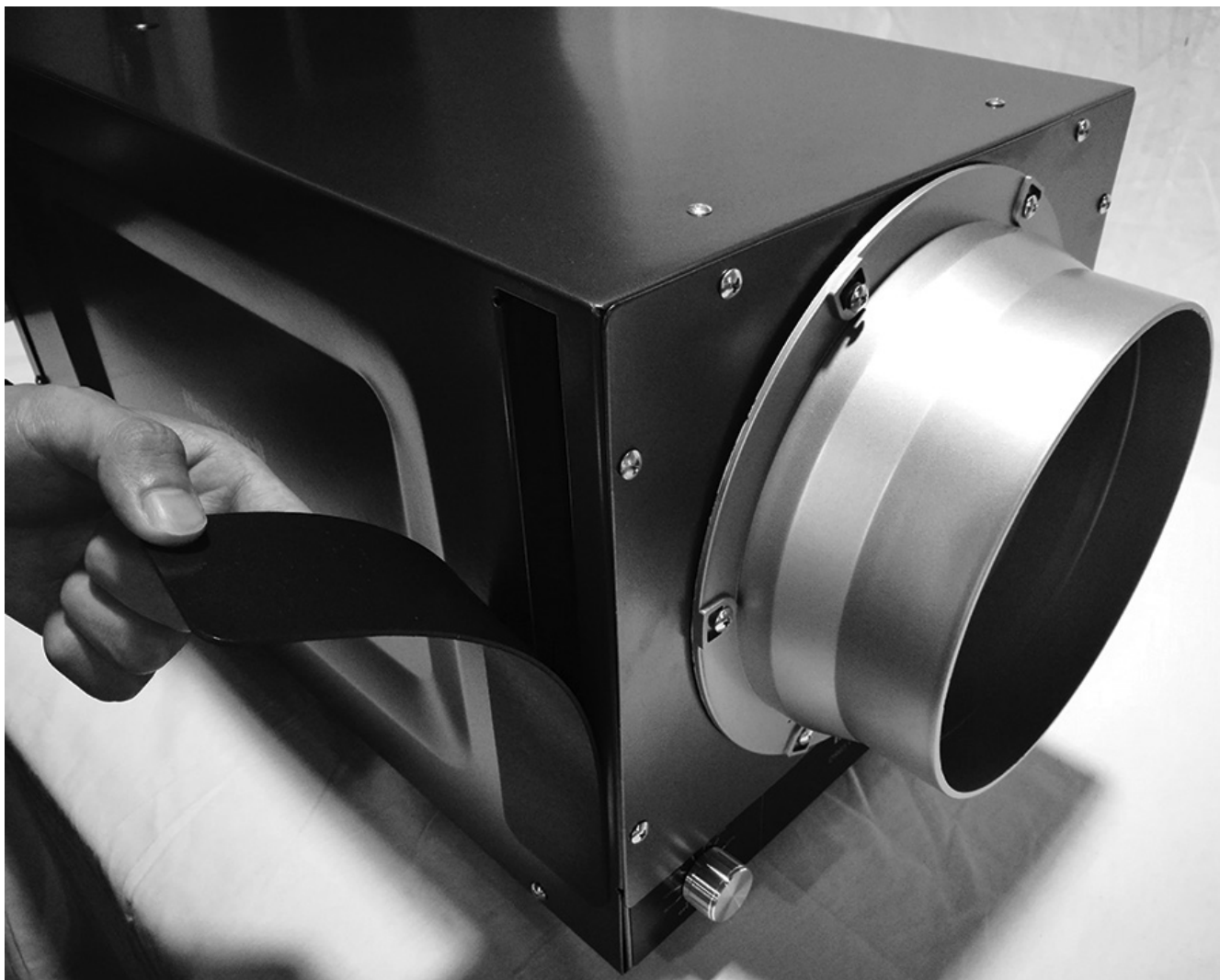
Checkout

Apply power to DR65A3000. Turn the humidity control to a low RH% level to initiate a dehumidification call. Confirm that the DR65A3000 compressor and fan turn on. The furnace blower will also turn on to circulate air. This will take up to two minutes. Be sure to turn the control to the desired RH% or to Off when checkout is complete. Turning the humidity control to Off will turn the DR65A3000 off.

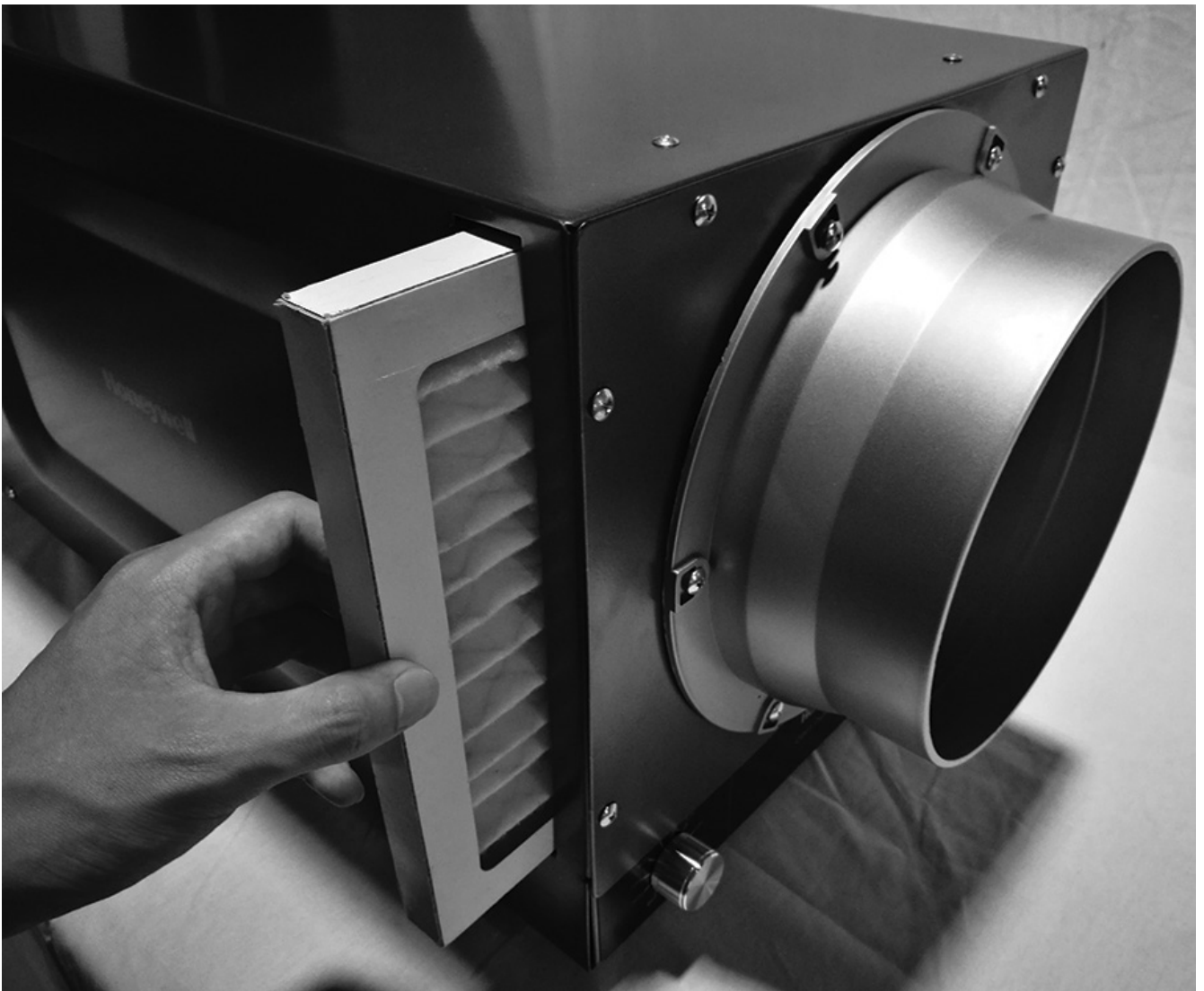
Cleaning

On an annual basis, perform the following maintenance requirement to ensure the dehumidifier runs at peak efficiency.

1. Unplug the dehumidifier before beginning service. Remove magnetic access panel to access the filter.



2. Remove filter and replace with new filter. Reinstall magnetic access panel.



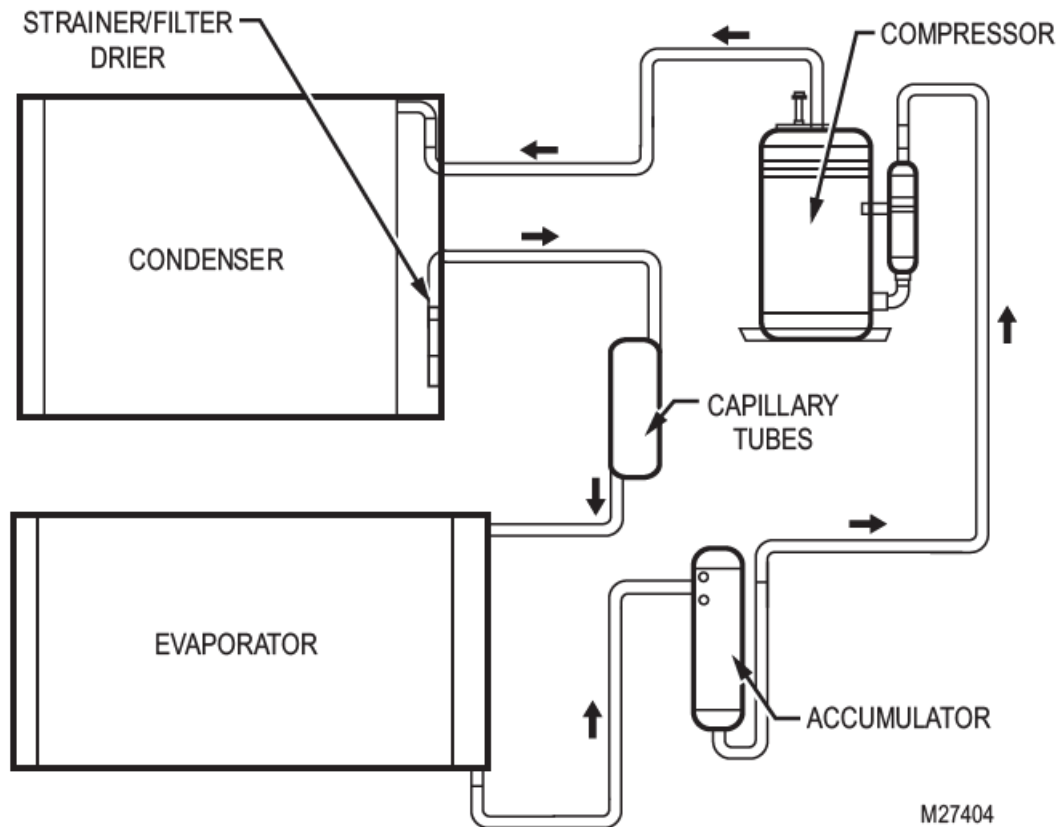
3. Check the drain connection and drain line to ensure it is clear of debris and sludge. Ensure all hose connections are secure once maintenance of the drain lines is complete.



4. When service is complete, initiate a call for dehumidification and check that the compressor and fan activate. If your thermostat has maintenance reminders, reset those. All thermostats listed in this file have optional maintenance reminders.

Technical Description

DR65A3000 uses a refrigeration system similar to an air conditioner to remove heat and moisture from incoming air and add heat to the air that is discharged. Hot, high-pressure refrigerant gas is routed from the compressor to the condenser coil. The refrigerant is cooled and condensed by giving up its heat to the air that is about to be discharged from the unit. The refrigerant liquid then passes through a filter drier and capillary tubing which causes the refrigerant pressure and temperature to drop. It next enters the evaporator coil where it absorbs heat from the incoming air and evaporates. The evaporator operates in a flooded condition, which means that all the evaporator tubes contain liquid refrigerant during normal operation. A flooded evaporator should maintain nearly constant pressure and temperature across the entire coil, from inlet to outlet.



Troubleshooting

Troubleshooting videos are available on the Resideo Pro YouTube channel playlist.

CAUTION: Servicing the DR65A3000 with its high pressure refrigerant system and high voltage circuitry presents a health hazard which could result in death, serious bodily injury, and/or property damage. Service should only be performed by a qualified service technician.

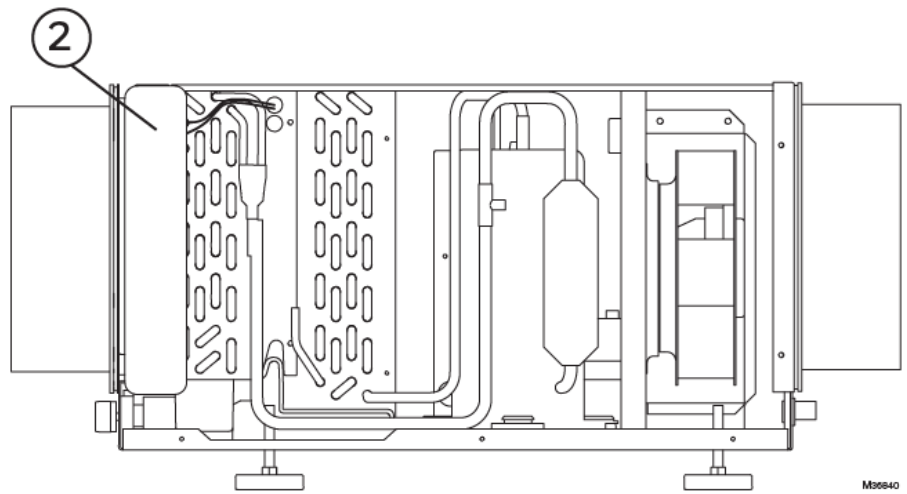
Problem	Recommended Troubleshooting Steps
No dehumidification. Neither fan nor compressor run and the ventilation timer is OFF.	<ol style="list-style-type: none"> 1. Unit unplugged or no power to outlet. 2. Humidity control set too high or defective. 3. Loose connection in internal or control wiring. 4. Defective compressor relay. 5. Defective control transformer. 6. Optional Condensate Pump Safety Switch open.
No dehumidification. Compressor does not run but fan runs when there is a call for dehumidification and the ventilation control is OFF.	<ol style="list-style-type: none"> 1. Defective compressor run capacitor. 2. Bad connection in compressor circuit. 3. Defective compressor overload. 4. Defective compressor. 5. Defrost thermostat open. 6. Optional Condensate Pump Safety Switch open.
Fan runs when there is a call for dehumidification and the ventilation control is OFF, but the compressor cycles on and off too frequently.	<ol style="list-style-type: none"> 1. Low ambient temperature and/or humidity causing unit to cycle through defrost mode. 2. Defective compressor overload. 3. Defective compressor. 4. Defrost thermostat defective. 5. Dirty air filter(s) or airflow restricted. 6. Low refrigerant charge, causing defrost control to cycle. 7. Bad connection in compressor circuit. Fan does not run with fan switch in either position.

Problem	Recommended Troubleshooting Steps
<p>Fan does not run with ventilation activated.</p> <p>Compressor runs briefly but cycles on & off with humidity control turned to ON.</p>	<ol style="list-style-type: none"> 1. Loose connection in fan circuit. 2. Obstruction prevents fan rotation. 3. Defective fan. 4. Defective fan relay. 5. Defective fan capacitor.
<p>Evaporator coil frosted</p> <p>continuously, low dehumidifying capacity.</p>	<ol style="list-style-type: none"> 1. Defrost thermostat loose or defective. 2. Low refrigerant charge. 3. Dirty air filter(s) or airflow restricted.

Unit not providing ventilation.	<ol style="list-style-type: none"> 1. Check control wire connections (check connections at fresh air damper also). 2. Defective fresh air damper. 3. Dirty air intake. Clean outside intake hood.
Unit removes some water, but not as much as expected.	<ol style="list-style-type: none"> 1. Air temperature and/or humidity have dropped. 2. Humidity meter and or thermometer used are out of calibration. 3. Unit has entered defrost cycle. 4. Dirty air filter. 5. Defective defrost thermostat. 6. Low refrigerant charge. 7. Air leak such as loose cover or ducting leaks. 8. Defective compressor. 9. Restrictive ducting. 10. Optional Condensate Pump Safety Switch open.
Unit Test to determine problem:	<ol style="list-style-type: none"> 1. Detach field control wiring connections from main unit. 2. Connect the R and FAN contacts from the main unit together; only the impeller fan should run. Disconnect the wires. 3. Connect the R and DHUM contacts from the main unit together; the compressor and impeller fan should run. 4. If these tests work, the main unit is working properly. You should check the control panel and field control wiring for problems next. 5. Remove the control panel from the mounting box and detach it from the field installed control wiring. Connect the blue, yellow, and green wires from the control panel directly to the corresponding colored pigtails on the main unit. Leave the violet, white, and red wires disconnected! 6. Turn on the humidity control. The compressor and impeller fan should run. 7. If these tests work, the problem is most likely in the field control wiring.

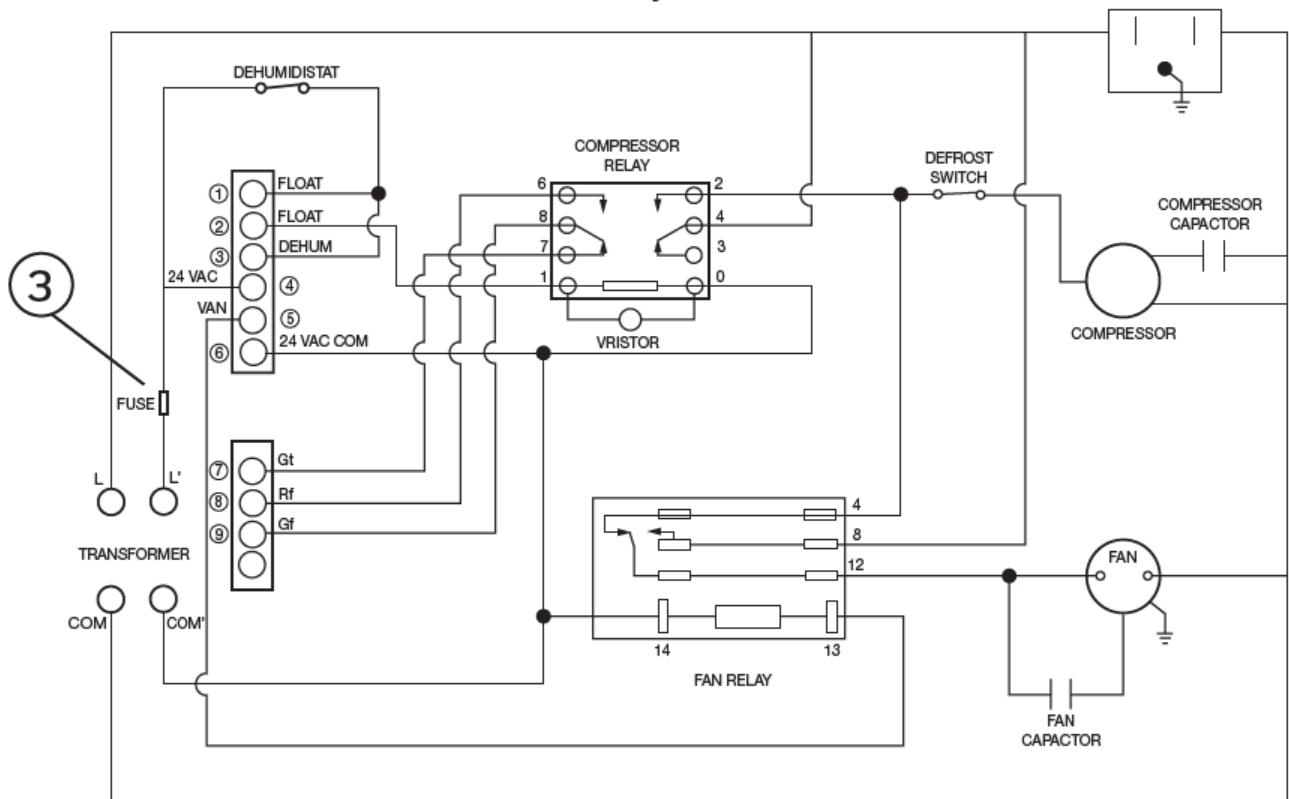
Parts List

Figure Reference	Base and Accessory Parts	Part Number
1	Dehumidifier	DR65A3000/U
2	Filter	50049537-005
3	Replaceable fuse	T2.5A L 250V (NOT SOLD BY RESIDEO)



For reference only.

M36840



M36433

5-Year Limited Warranty

Resideo warrants this product to be free from defects in workmanship or materials, under normal use and service, for a period of five (5) years from the date of first purchase by the original purchaser. If at any time during the warranty period the product is determined to be defective due to workmanship or materials, Resideo shall repair or replace it (at Resideo's option).

If the product is defective,

1. return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or
2. call Resideo Customer Care at 1-800-468-1502. Customer Care will make the determination whether the product should be returned to the following address: Resideo Return Goods, 1985 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by

Resideo that the defect was caused by damage which occurred while the product was in the possession of a consumer.

Resideo's sole responsibility shall be to repair or replace the product within the terms stated above. RESIDEO SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY RESIDEO MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE FIVE YEAR DURATION OF THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you have any questions concerning this warranty, please write Resideo Customer Care, 1985 Douglas Dr, Golden Valley, MN 55422 or call 1-800-468-1502.

Resideo Technologies Inc.

1985 Douglas Drive North, Golden Valley, MN 55422

1-800-468-1502

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Documents / Resources

	<p>Honeywell Home DR65A3000 65-Pint Dehumidifier with On-Board Control [pdf] Installation Guide</p> <p>DR65A3000 65-Pint Dehumidifier with On-Board Control, DR65A3000, 65-Pint Dehumidifier with On-Board Control, Dehumidifier with On-Board Control, On-Board Control, Control</p>
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