



INSTALLATION INSTRUCTIONS

FOR

8330-72 AND**

8370-72**

COOL ONLY AND HEAT/COOL

REMOTE CONTROL CEILING ASSEMBLIES

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This booklet is intended as a general information guide for installing the remote control ceiling assembly. For specific wiring and unit information, refer to the Data Sheet published for your series air conditioner.

IMPORTANT NOTICE

1. These instructions are intended for use by qualified technicians specially trained and experienced in the installation of this type of equipment and related system components.
2. Installation and service personnel are required by some states to be licensed. **PERSONS NOT QUALIFIED SHALL NOT INSTALL NOR SERVICE THIS EQUIPMENT.**

WARNING

3. **Improper installation may damage equipment, can create a hazard and will void the warranty.**
4. **The use of components not tested in combination with these units will void the warranty, may make the equipment in violation of state codes, may create a hazard and may ruin the equipment.**

WARNING — SHOCK HAZARD

5. **To prevent the possibility of severe personal injury or equipment damage due to electrical shock, always be sure the electrical power source to the appliance is disconnected during installation or service.**
6. **CAREFULLY FOLLOW ALL INSTRUCTIONS AND WARNINGS IN THIS BOOKLET TO AVOID DAMAGE TO THE EQUIPMENT, PERSONAL INJURY OR FIRE.**

NOTE

The words “Shall” or “Must” indicate a requirement which is essential to satisfactory and safe product performance.

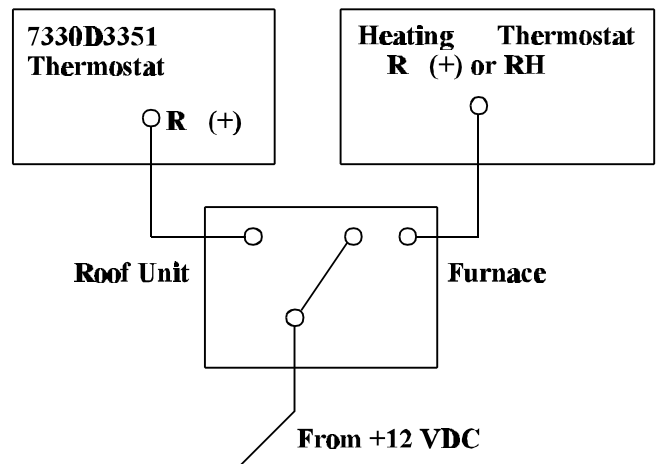
The words “Should” or “May” indicate a recommendation or advise which is not essential and not required but may be useful or helpful.

Section I — General Information

This ceiling assembly is specifically designed to allow the consumer to operate the RV Products roof top air conditioning system from a 12 VDC wall mounted thermostat. All manual controls have been removed from the ceiling plenum and have been replaced with 12 VDC control relays. All air conditioning functions are controlled by the wall mounted thermostat.

The thermostats that RV Products supplies for this system are Heat/Cool thermostats. The cool function of the thermostat will operate the 12 VDC relays in the ceiling plenum, thus operating the air conditioning system. Operational characteristics are explained in Section IV.

When using a heat/cool ceiling assembly, a 7330*3401 thermostat sub-base may be installed to select between upper unit electric heat or furnace heat. If the sub-base is not used, then a separate heating thermostat must be supplied to operate the furnace. An interlock switch must be installed between the heat/cool thermostat and the heating thermostat to prevent simultaneous furnace and air conditioner operation. See diagram below.



Section II — Application

The cool only ceiling plenum was designed to operate any 8000 series roof top unit 115V or 220V with a 7330D3351 thermostat. The 8330 heat/cool ceiling plenum will operate only 115V systems. The 8370 heat/cool ceiling plenum will operate only 240V systems.

There are separate installation instructions for mounting the roof top unit and the thermostat package. These instructions are supplied with the product and must be followed when installing that product.

IMPORTANT

The wall mount thermostat system requires thermostat wiring to communicate between the thermostat and the ceiling assembly of the air conditioner. Allowances must be made for this wiring before ceiling and wall panels are in place. Thermostat wiring must be routed into the air conditioner 14" x 14" opening in the same manner as the 115 VAC supply wiring.

All wiring must conform to local and national code ordinances.

Route all wiring to prevent possible contact with nails, screws or staples in order to prevent shorted circuits or open circuits caused by wire penetration.

RV Products recommends a minimum thermostat wiring size of 18 gauge. RV Products requires thermostat wiring to be no smaller than 22 gauge. Stranded wire is preferred.

RV Products recommends that you do not hi-pot test this system. Hi-pot testing can result in possible damage to the low voltage circuits.

Section III — Installation Instructions

NOTE

Be sure all electrical power has been disconnected from both the air conditioner and thermostat before beginning these instructions.

A. Installing The Roof Top Unit and the Ceiling Plenum —

Mount the roof top unit and ceiling plenum per the instructions provided with the roof top unit air conditioner. When routing the high voltage wiring, give consideration to, and also route the thermostat 12 VDC wiring into the 14" x 14" opening. When routing the supply or thermostat wiring, be sure not to pinch or cut into the wiring jacket.

Allow 24" of supply wiring and thermostat wiring through the support frame. After the roof top unit and ceiling plenum have been mounted to one another, refer to these instructions for proper wiring of both the high voltage supply and the 12 VDC thermostat wiring.

B. High Voltage Wiring —

Route the high voltage supply wiring through the strain relief into the High Voltage Area allowing 4-6 inches. Strip the wiring approximately 5/8 inches. Pigtail the black to black wires and white to white wires with the wire nuts provided. Using a U.L. approved electrical tape, secure the wire nuts to the wire. Secure the ground supply wire under the grounding screw. Tighten the strain relief clamp to secure the high voltage supply wire.

C. Installing The Thermostat —

Refer to the installation instructions supplied with the thermostat for mounting the thermostat and wiring the thermostat sub-base.

D. Low Voltage Wiring —

IMPORTANT

Disconnect all electrical power to the thermostat before wiring to the ceiling plenum. Do not short relay terminals or wires to test the system. Shorting the wires will damage the thermostat.

Route the low voltage thermostat into the ceiling plenum "Low Voltage Area" through the low voltage entrance. Allow 4-6 inches of thermostat wiring inside the low voltage area and strip each end approximately 3/8 inches.

The wires already found inside the low voltage area are color coded and identified in the low voltage wiring chart. Pigtail the thermostat wiring to the proper internal low voltage wiring with the wire nuts provided. Using a U.L. approved

LOW VOLTAGE WIRING CHART

Ceiling Assembly Pigtail Color	Wire Function	Connect To Thermostat Terminal
Yellow	Operates Compressor	Y
Green	Operates High - Fan	GH
Gray	Operates Low - Fan	GL
Blue	Completes 12 VDC (-) Cir.	B
*White	Operates Electric Heat	** W

* On Heat/Cool Models

** Or to sub-base if used

electrical tape, secure the wire nuts to the wire.

Section IV — Operation

With the wiring completed, reinstall the voltage box cover and the ceiling shroud. Connect the power supply (both the 12 VDC and high voltage). For operation checkout, refer to the operation chart located below. For details concerning the functions of the air conditioner, refer to the Operation And Maintenance Instructions packed with the roof top unit.

Section V — Maintenance And Warranty

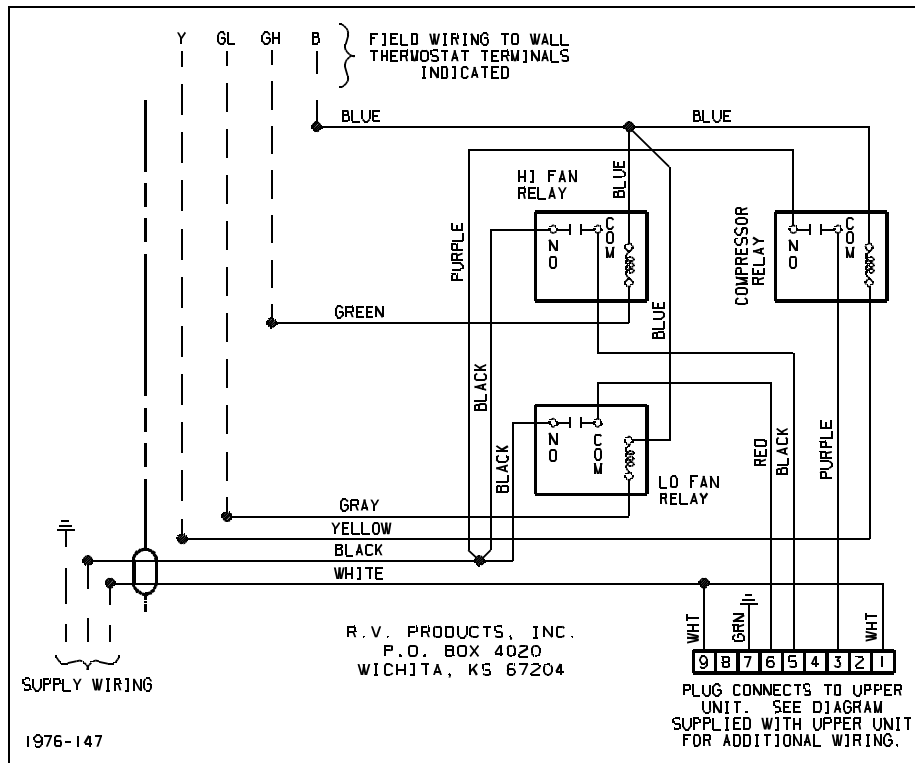
Maintenance and Operation Instructions packed with the roof top unit.

SYSTEM		FAN				OPERATION		
HEAT	COOL	OFF	FAN	AUTO			ON	
				HI	LO	LO	HI	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OPERATION CHART No functions occur.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air conditioner fan runs at high speed continuously regardless of fan switch setting or setpoint. No other functions occur.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air conditioner compressor and high speed fan cycle to satisfy setpoint.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air conditioner compressor and low speed fan cycle to satisfy setpoint.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air conditioner compressor cycles to satisfy setpoint. Air conditioner low speed fan runs continuously.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Air conditioner compressor cycles to satisfy setpoint. Air conditioner high speed fan runs continuously.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All a/c operations remain off. Fan switch has no effect on any blower operations. On 7330-720: Furnace cycles from thermostat. On 7330A726: Electric heat strip and low speed fan cycle from thermostat. If sub-base is used, furnace will cycle as called for by switch.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All a/c operations remain off. Fan switch has no effect on any blower operations. On 7330-720: Furnace cycles from thermostat. On 7330A726: Electric heat strip and low speed fan cycle from thermostat. If sub-base is used, furnace will cycle as called for by switch.

All cooling functions controlling to setpoint have a short cycle protection time delay of 3 minutes. There will be no delay if the cycle **OFF** time exceeds 3 minutes.

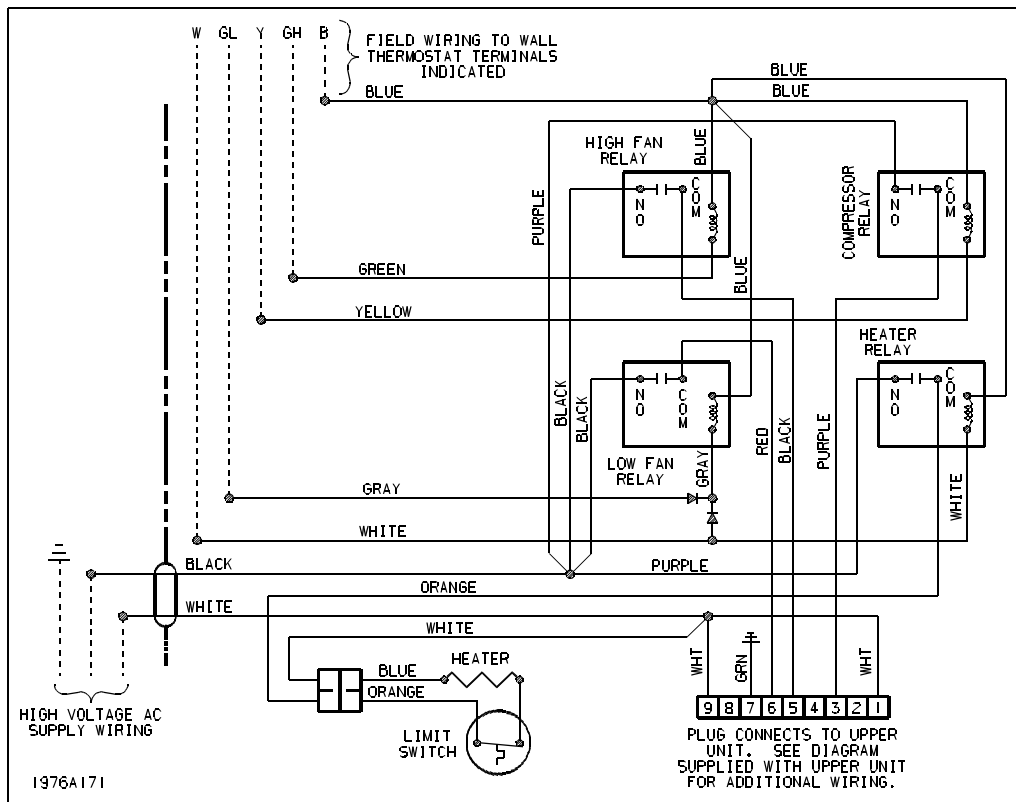
WIRING

Cool Only



DIAGRAM

Heat/Cool





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