



OPERATION & MAINTENANCE INSTRUCTIONS

FOR

Coleman[®]-Mach[®]

230/240 VAC, 1 ϕ , 50Hz

476XX*XXX5 SERIES

RV ROOF TOP AIR CONDITIONER



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These instructions are a general guide for operating and maintaining the 47000 Series, 230/240 VAC, 50Hz, Coleman®-Mach® roof top air conditioner.

This 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 and Cleaning and user maintenance shall not be made by children without supervision.

I. MODEL AND SERIAL NUMBERS

Your air conditioner has been designed for years of safe, dependable operation. These instructions contain a general description on the operation of the unit and a list of routine maintenance items.

The first thing you should do is to write down the model number and serial number of the unit. Both numbers can be found on the data label on the unit.

Model No. _____ Serial No. _____

II. OPERATING GUIDELINES

The air conditioner is designed to provide cooling and dehumidification. A heat pump reverses the refrigerant cycle to provide heating in cool weather. An optional electric coil provides heating in cool weather. **Note: The electric heating assembly is intended to take the chill out of the indoor air when the air is a few degrees too cool for comfort. The heating assembly is an effective “chill chaser”. It is not a substitute for a furnace.** The performance can be optimized by following the simple guidelines:

- Keep doors and windows closed to prevent the loss of conditioner air.
- Keep the curtains closed to reduce heat gain.
- Set the temperature to a reasonable temperature.
- A low fan speed will reduce sound level and improve dehumidification when the unit is cooling.
- Properly adjust the air flow with the slides on the front and rear of the ceiling assembly.
- Never obstruct the air flow to the ceiling assembly.
- Do not spray water or any cleaning fluid into the ceiling assembly. The ceiling assembly should be cleaned with a damp cloth.
- Do not put any object, including your hands, into the openings of the ceiling assembly.

III. CONTROL PANEL

This RV air conditioner is operated from the control panel located in the ceiling assembly; there are three controls on the ceiling assembly that help you control the air conditioner. They are as follows:

- A. The Selector Switch – The selector switch determines mode of operation. By rotating the selector switch, the operator can obtain any system function desired. Figure 1 shows selector switch and lists all available functions. 9600 ceiling assemblies will have the knobs at the bottom of the ceiling assembly (See Figure 2).

The “Operation” section explains the operational characteristics of each mode of operation.

- B. The Thermostat (temperature control) – In the cooling mode, the thermostat regulates the “ON” and “OFF” temperature setting at which the compressor will operate. The thermostat also controls the “ON” and “OFF” temperature settings of the heater assembly (See Figure 1).
- C. Louvers – The louvers are located at both ends of the ceiling assembly shroud and are used in throttling the discharge air from the unit.

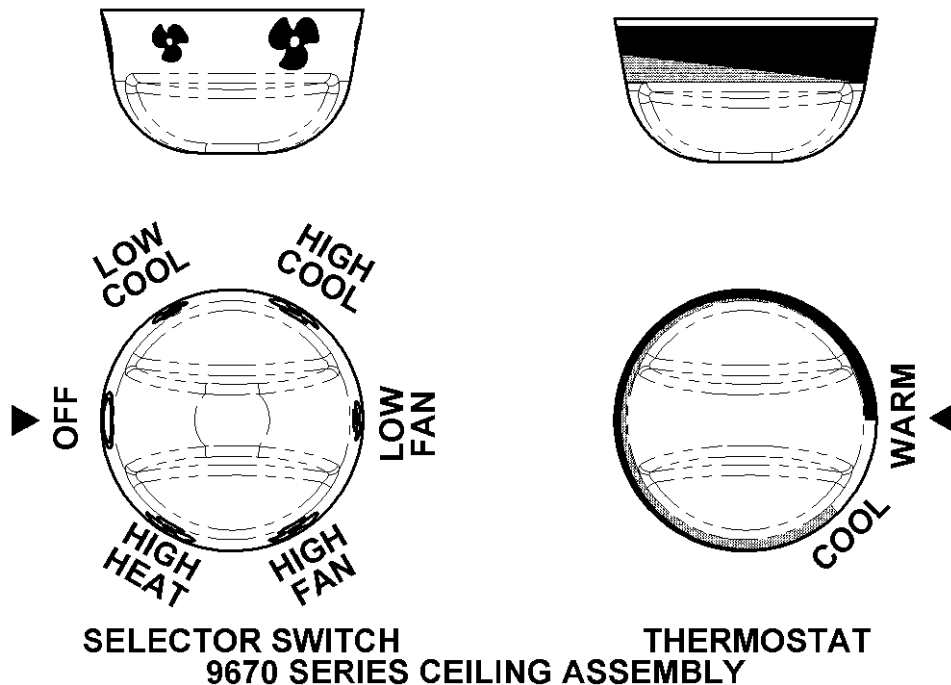


FIGURE 1

IV. OPERATION

I. For Cooling (Refer to Figure 1, page 3).

- A. Turn the selector switch to the “LOW COOL” or “HIGH COOL” position.
- B. Rotate the thermostat (temperature control) to the position that is the most comfortable to you. The thermostat will turn the compressor on when the temperature of the air entering the air conditioner rises a few degrees above the setting you have selected. The temperature of the air entering continues to cycle the compressor on and off in the above mentioned fashion until the selector switch is turned to another mode of operation.
- C. Position the end louvers to the desired amount of discharge air flow.

Note: The fan operation is constant, only the compressor cycles on the thermostat.

II. Operation During Cooler Nights (Cooling Operation).

It is important, when the outdoor temperature drops in the evening or during the night to below 75°F (24°C), that the thermostat (temperature control) be set at a midpoint between “Warmer” and “Cooler”. If the setting is at “Cooler”, the evaporator coil may become iced-up and greatly reduce the amount of air delivery. During the day when the temperatures have risen above 75°F (24°C), reset the thermostat switch to the desired setting.

Note: Should icing occur, it is necessary to let the cooling (evaporator) coil defrost before normal cooling operation is resumed. During this time, operate the unit in the “HIGH FAN” position with the system at maximum air flow. When increased or full air flow is observed, the cooling coil should be clear of ice.

III. Short Cycling

When an air conditioner is in operation, its compressor circulates refrigerant under high pressure. Once off, it will take two to three minutes for this high pressure to equalize.

The air conditioning compressor is unable to start against high pressure. Therefore, once the air conditioner is turned off, it is important to leave it off for two to three minutes before restarting.

Short cycling the compressor (or starting it before pressures have equalized), will in some instances, kick the circuit breaker or overload.

IV. Heat Operation (Refer to Figure 1, page 3)

NOTE

The heat pump will operate on reverse cycle refrigerant heating at outdoor temperatures above freezing. When the outdoor temperature is below freezing, the heat pump compressor will shut down to prevent outdoor coil freeze-up. At this time, if the optional auxiliary electric resistance heater has been installed, it will be energized to take the chill out of the indoor air. The electric resistance heater is not a substitute for a furnace at these low outdoor temperatures.

- A. Turn the selector switch to the “HIGH HEAT” position. At “HIGH HEAT”, the fan operates on high speed with heat output at maximum.

- B. Rotate the thermostat (temperature control) switch to the position that is the most comfortable to you. The thermostat will turn the compressor/heater on when the temperature of the air entering the heat pump unit drops below this setting a few degrees, and automatically turns off when the temperature of the air entering the heat pump rises a few degrees above this setting. The compressor/heater will continue to cycle on and off in this fashion until the selector switch is turned to another mode of operation.
- C. Position the end louvers to the desired amount of discharge air flow.

Discharge air temperature can be controlled to some extent by opening or closing the louvers. When the louvers are closed, the warmest localized discharge air is achieved. Fully opened louvers will throw the warm discharge air to the back and front of the vehicle for more efficient circulation and faster warm-up. **Although the air temperature is lower with the louvers fully opened, the heating capacity is still the same.**

If dirty filters or overly restricted louver position results in a cessation of heat from the optional electric heater, turn off power to the unit at the mode selector switch. Wait ten minutes and restore power. The heater is equipped with a safety lock-out switch. Correct the low air event to insure proper operation.

V. For Air Circulation Only (Refer to Figure 1, page 3).

- A. Turn the selector switch to “LOW FAN” or for maximum air flow, to “HIGH FAN”.
- B. Position the louvers to the desired direction the discharge air is to flow.

NOTE

When the selector switch is in the “LOW FAN” or “HIGH FAN” position, the blower motor will operate continuously.

V. ROUTINE MAINTENANCE

I. Owner

One of the biggest advantages to your new Coleman-Mach air conditioner is that the maintenance needed to keep the unit in good care is minimal. In fact about the only thing you, the owner, must take care of is the cleaning and replacement of the filters.

Filters are made from long life non-allergenic natural fibers or foam which can be cleaned and reused, and which completely filter the circulated air when the air conditioner is in operation. If the filters are not cleaned at regular intervals, they may become partially clogged with lint, dirt, grease, etc. A clogged filter will produce a loss of air volume and may eventually cause an icing-up of the cooling (evaporator coil).

IMPORTANT

Do not operate your air conditioner for extended periods of time without the filter installed. An

even more serious condition occurs when the air conditioner is operated without a filter. When this happens the lint, grease, etc. that are normally stopped by the filter are now accumulating in the cooling coil. This not only leads to a loss of air volume and a possible icing-up of the cooling coil, but could also result in serious damage to the operating components of the air conditioner.

We recommend that the filters be cleaned or changed at least every two weeks when the air conditioner is in operation.

I. Cleaning and/or changing the filters:

1. Pull down on the grille tabs until they snap out of place to remove the grilles from the ceiling assembly (See Figure 2).
2. Lower the grille and filters from the ceiling assembly.
3. Take filters out and either clean or exchange them with other filters (See Figure 2).

Note: If replacement filters are necessary, the filters can be purchased from your local dealer or distributor.

II. Service Person

- A. Electrical – All electrical work and/or inspection should be performed only by qualified service personnel. Contact your nearest Coast to Coast authorized Service Center if electrical problems should arise.
- B. Check Points – Failure to start or to cool the air are sometimes problems with air conditioning units. The Coleman-Mach RV air conditioner is designed to operate on 230-240 volt, 50 Hz electrical power. If the compressor on the air conditioner fails to start, check with your Coast to Coast authorized Service Center to determine that the proper wire size is connected to the unit, the proper circuit breakers are installed as protection devices on the electrical circuit and the proper sized extension cord is being used for the distance covered from the utility outlet to the RV.

If the air conditioner continues to trip the circuit breakers, have an electrician check the starting amperage and running amperage on the unit. If the circuit breakers continue to trip and the electrical consumption is found to be normal, it will require the replacement of the faulty circuit breaker.

If all electrical power to the air conditioner is normal but neither the fan nor the compressor will operate, the connector plug located behind the ceiling assembly control box should be checked to determine whether it is faulty.

On the heating-cooling air conditioner models, if all electrical power to the unit is normal and the fan runs but you never get any heated air, even after momentarily removing power and waiting ten minutes per Item IV (Heat Operation) above, then the electrical plug to the optional heating unit should be checked for a

secure connection. If this does not correct the malfunction, the heating thermostat or limit switch may be faulty.

- C. Mechanical Integrity – The air conditioner should be inspected periodically to be sure that the bolts which secure the unit to the roof are tight and in good shape. Also, an examination of the plastic shroud covering the air conditioner on top of the roof should be made periodically. Be sure the four mounting screws and washers are snug and holding the shroud to the air conditioner. Also examine the shroud to be sure it is not developing cracks or has suffered damage from impact.

The ceiling assembly and the outside shroud can be cleaned with a damp cloth. When required, a mild detergent can be used.

There are two washable filters in the ceiling assembly; one behind each return air louver. To access the filters, pull on the tabs on the return air grilles. The filters should be washed in warm water or vacuumed clean and replaced. The filters should be inspected every 2 weeks and cleaned as required. Note: If the unit is operated in a dusty environment, the filters should be inspected and cleaned more frequently.

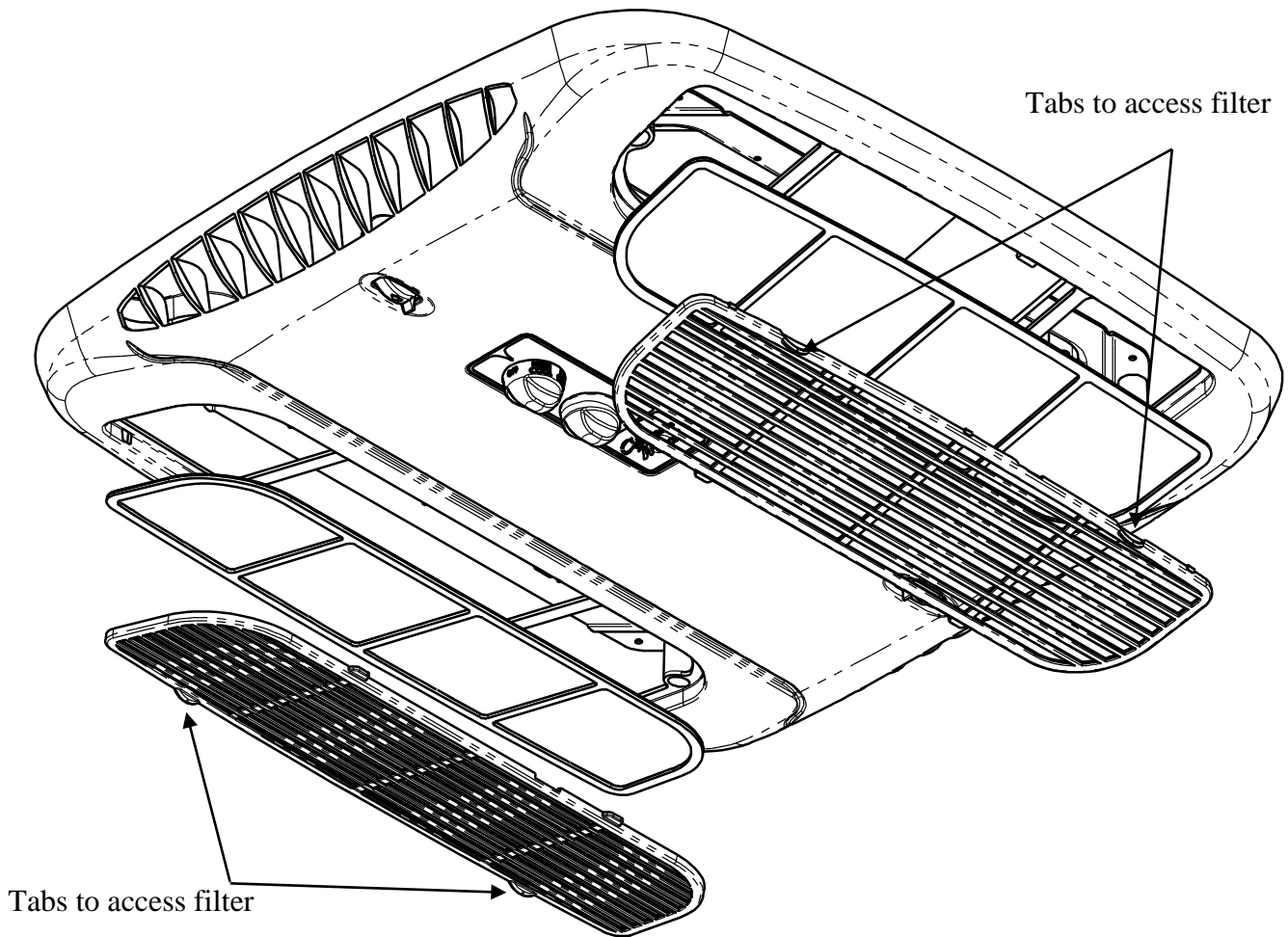


FIGURE 2

VI. WARRANTY



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PO Box 415, Regents Park NSW 2143
AUSTRALIA
Ph (02) 9645 7600 – Fax (02) 9645 7699
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Web: www.coastrv.co.nz

Warranty Against Defects

1 WHAT THIS WARRANTY RELATES TO

1.1 This warranty covers goods supplied by Coast RV Pty Ltd T/A Coast to Coast RV Services (“Supplier”) to the Client (“Goods”) and relates to any defects in materials and workmanship under normal use and maintenance (“Defect”).

2 WHAT THE SUPPLIER WILL DO TO HONOUR THE WARRANTY

2.1 The Supplier will:

- (i) replace or repair the Goods or the defective part of the Goods free of charge;
- (ii) arrange for the Goods or the defective part of the Goods to be repaired or replaced by a qualified repairer free of charge.

2.2 The Supplier reserves the right to replace defective parts of the Goods with parts and components of similar quality, grade or composition where an identical part or component is not available.

2.3 Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

3 WHAT THE CLIENT MUST DO TO CLAIM THE WARRANTY

3.1 To claim the benefit of the warranty, the Client will need to (sequentially):

- (i) first contact the Supplier; and
- (ii) present the defective Goods to the Supplier for inspection, including inspection for defective workmanship, or otherwise provide evidence of the claimed Defect, accompanied by evidence of proof of purchase and date of delivery, and if applicable, evidence of maintenance performed in accordance with the relevant maintenance schedules.

3.2 The claim listed in clause 3.1 may be made in person, or the claim may be sent to the address listed on this form, including the particulars required under clauses 3.1(i) and 3.1(ii).

3.3 The appropriate form for making a claim for warranty is as attached.

4 DURATION OF WARRANTY

4.1 This warranty will cease:

- (i) where the Goods are purchased already fitted in or as a component of a vehicle or RV: from the date that is twelve (12) months after the Client takes delivery of the vehicle or RV; and
- (ii) where the Goods are purchased separately or as an after-market item: from the date that is twelve (12) months from the date of purchase..

4.2 If a Defect does not materialise in the Goods prior to the date provided in clause 4.1, the Supplier will have no liability to the Client under this warranty.

5 RESPONSIBILITY FOR COSTS OF CLAIM UNDER THIS WARRANTY

- 5.1 The Supplier is responsible for the costs directly associated with repairing or replacing the Goods in accordance with clause 2.1 only.
- 5.2 Any works required to be completed in addition to fixing the Defect are the responsibility of the Client. Additional works includes any costs associated with any testing or repair of the Goods or any goods to which they are fitted, undertaken by a third party in relation to any defect without prior authorisation from the Supplier.
- 5.3 Where it is determined that the Goods do not have a Defect, the Client will be charged a GST exclusive inspection fee of forty-five dollars (\$45.00AUD in Australia or \$45.00NZD in New Zealand) plus freight costs for the return of the Goods, this is subject to change without notice.
- 5.4 The cost of delivery and insurance of the Goods to and from the Supplier, travel costs to and from the Supplier, and the cost of inspecting and testing the Goods are the sole responsibility of the Client.

6 WARRANTY LIMITATIONS

- 6.1 The Supplier makes no warranties or representations other than those set out in this warranty document except as is required by law.
- 6.2 The Supplier will not be liable under this warranty:-
- (i) to the Client or any other person for any consequential, direct or indirect loss, damage or costs incurred or suffered by the Client or any other person, including but not limited to damage to persons, other property, loss of turnover, loss of profits, loss of business or goodwill;
 - (ii) to the Client for transportation or travel costs which are the Client's responsibility;
 - (iii) for damage or defects in any Goods caused by improper transportation, storage or any other misuse, neglect or accident.
 - (iv) for the installation of the Goods. Any fault or defect due to installation should be referred to the installer. The Goods must be installed in accordance with the Manufacturer's instructions and any relevant legislation or code.
- 6.3 This warranty covers the Client only and it is not transferrable if the Goods are sold by the Client during the warranty period.

7 WARRANTY EXCLUSIONS

- 7.1 This warranty will not apply where:
- (i) the Goods have been improperly modified or repaired or the Good's defect has arisen due to the Client's failure to properly install, fit, maintain, service or use the Goods in accordance with the specifications and instructions provided by the Manufacturer, including a failure to comply with the relevant maintenance schedule (where applicable);
 - (ii) the Supplier cannot establish any Defect in the Goods after testing;
 - (iii) the Goods have been used other than for the purpose for which they were designed;
 - (iv) the Goods have been subject to abnormal conditions, including but not limited to temperature, pressure, stress, load or similar;
 - (v) the Client or installer have used or fitted non-genuine or non-approved parts and accessories to the Goods or have failed to use recommended parts and accessories;
 - (vi) the Good's defect has arisen due to abuse, misuse, neglect or accident;
 - (vii) the Goods have not been installed in accordance with the relevant instructions;
 - (viii) the Good's defect is caused by use or fair wear and tear of the Goods (or expendable parts).

8 RIGHTS AT LAW

- 8.1 The benefits given to the Client under this warranty are in addition to other rights and remedies of the Client at law in relation to the Goods.
- 8.2 In Australia our Goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Goods repaired or replaced if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.

WARRANTY CLAIM FORM

Warranty Providers Name:

Coast RV Pty Ltd trading as Coast to Coast RV Services

ABN 49 097 104 492 – I 101 461 330

Warranty Providers Address:

PO Box 415 Regents Park NSW 2143 Australia OR;

PO Box 58-054 Botany AUCKLAND 2163 New Zealand

Client:

Contact No.

Description of Goods provided:

Receipt enclosed: *(tick box)*

Yes No

Receipt No:

Description of defects (Give as much detail as possible. Use a separate page if required):

Date of purchase/services provided:

I hereby declare that the information provided above is true and correct and to the best of my knowledge and belief and I have complied with all the conditions of the warranty.

Signed:

Name:.....
(please print)

Dated:.....

[Please note, the issue or completion of this form by the Client does not constitute an admission of liability by the Supplier]



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