



RV Products Division

**OPERATION AND MAINTENANCE
INSTRUCTIONS FOR
46516 SERIES
TWO TON PACKAGED HEAT PUMP**

**Airxcel, Inc.
RV Products Division
P.O. Box 4020
Wichita, KS 67204**

TABLE OF CONTENTS

I.	Specifications	2
II.	General Information	3
III.	Maintenance	5
IV.	Warranty	5

I. SPECIFICATIONS

46516-811

MODEL NO.

SERIAL NO.

FOR OUTDOOR USE

^ TOP ^

ELEC. RATINGS: 115 VAC 60 Hz 1 PHASE

CIRCUIT #1

COMPRESSOR

CIRCUIT #2

10.7 RLA

1450-402

RLA 10.7

63.0 LRA

MOTOR THERMALLY

LRA 63.0

10.9 BCSC

PROTECTED

BCSC 10.9

3.4 FLA	I.D. BLOWER MOTOR DATA	H.P. 1/3	FLA N/A
2.9 FLA	O.D. BLOWER MOTOR DATA	H.P. 1/5	FLA 2.9

19.9 AMP

MIN. CIRCUIT AMPERAGE

AMP 16.5

20 AMP

MAXIMUM OVERCURRENT

PROTECTIVE DEVICE

AMP 20

23.50 OZS.

R-410A CHARGE WEIGHT

OZS. 23.50

MINIMUM EXTERNAL STATIC PRESSURE .43 IN. W.C.

*12 0'-25'

MINIMUM SUPPLY

0'-25' *12

*10 25'-40'

CONDUCTOR GAUGE

25'-40' *10

(COPPER)

UTILISER DES FILS

25'-40' *10

*8 40'-63'

D'ALIMENTATION

40'-63' *8

EN CUIVRE

WARNING: RISK OF ELECTRIC SHOCK!!! CAN

CAUSE INJURY OR DEATH. DISCONNECT ALL

REMOTE ELECTRIC POWER BEFORE SERVICING.

AVERTISSEMENT: RISQUE DE CHOCS

ELECTRIQUES. PEUT CAUSER DES BLESSURES

ET MEME ENTRAINER LA MORT. COUPER LES

SOURCES D'ALIMENTATION A DISTANCE AVANT

LE DEPANNAGE.

DESIGN PRESSURES

HIGH SIDE 450 PSIG / LOW SIDE 240 PSIG

UL

US

ROOM AIR

CONDITIONER

5K09

RV PRODUCTS

DIV. OF AIRXCEL INC., WICHITA, KS

46516-180

MODEL NO.

SERIAL NO.

MODEL NO.

SERIAL NO.

46516-811

II. GENERAL INFORMATION

This packaged heat pump mounts below the floor of the vehicle. The innovative design makes it possible to maintain a smooth, free-flowing roof line for the vehicle. It also relocates all heat pump noise and condensate drainage off the roof to below the floor of the vehicle.

This heat pump contains a dual compressor system with each compressor connected to a separate refrigeration circuit. It combines the capacity of two roof mounted units into one highly efficient and compact package.

A. Air Conditioner

This heat pump operates a two-stage system in cooling running a single compressor when the air conditioning requirement is low, or with two compressors when maximum cooling is required.

The first compressor and refrigeration circuit is referred to as “1st Stage”. The second compressor and refrigeration circuit is referred to as “2nd Stage”. First and second stage will operate as indicated below:

1st stage (the first compressor and refrigeration circuit) will operate when:

- 1) The thermostat is demanding cooling,
- 2) The vehicle is being powered by either shore line or the on-board generator.

2nd stage (the second compressor and refrigeration circuit) will operate when:

- 1) The thermostat senses room temperature is 2 degrees higher than setpoint,
- 2) The vehicle has enough power.

B. Heat Pump

Heat operation always energizes both refrigeration circuits with a 30 second delay between compressor 1 start-up and compressor 2 start-up, however; only refrigeration circuit #1 operates if power is not available for circuit #2.

Thermostat operation is described in the operation instructions packed with the thermostat.

The 46516 series air conditioner uses R410A refrigerant with a factory installed High Pressure Safety Circuit. In the event of an abnormal condition (failure of fan motor, dirty condenser coil, dirty filters) the high pressure switch will prevent the compressor from continuing to run. Once the high pressure switch has tripped, this safety circuit will “Lock Out” the compressor from trying to restart or run. This is a manual reset pressure switch; access shall be limited to Qualified Technicians. The pressure switch manual reset button is accessed in the unit’s bottom access panel and are located on each compressor assembly. **The high voltage power must be turned off before opening panel and resetting switch.**

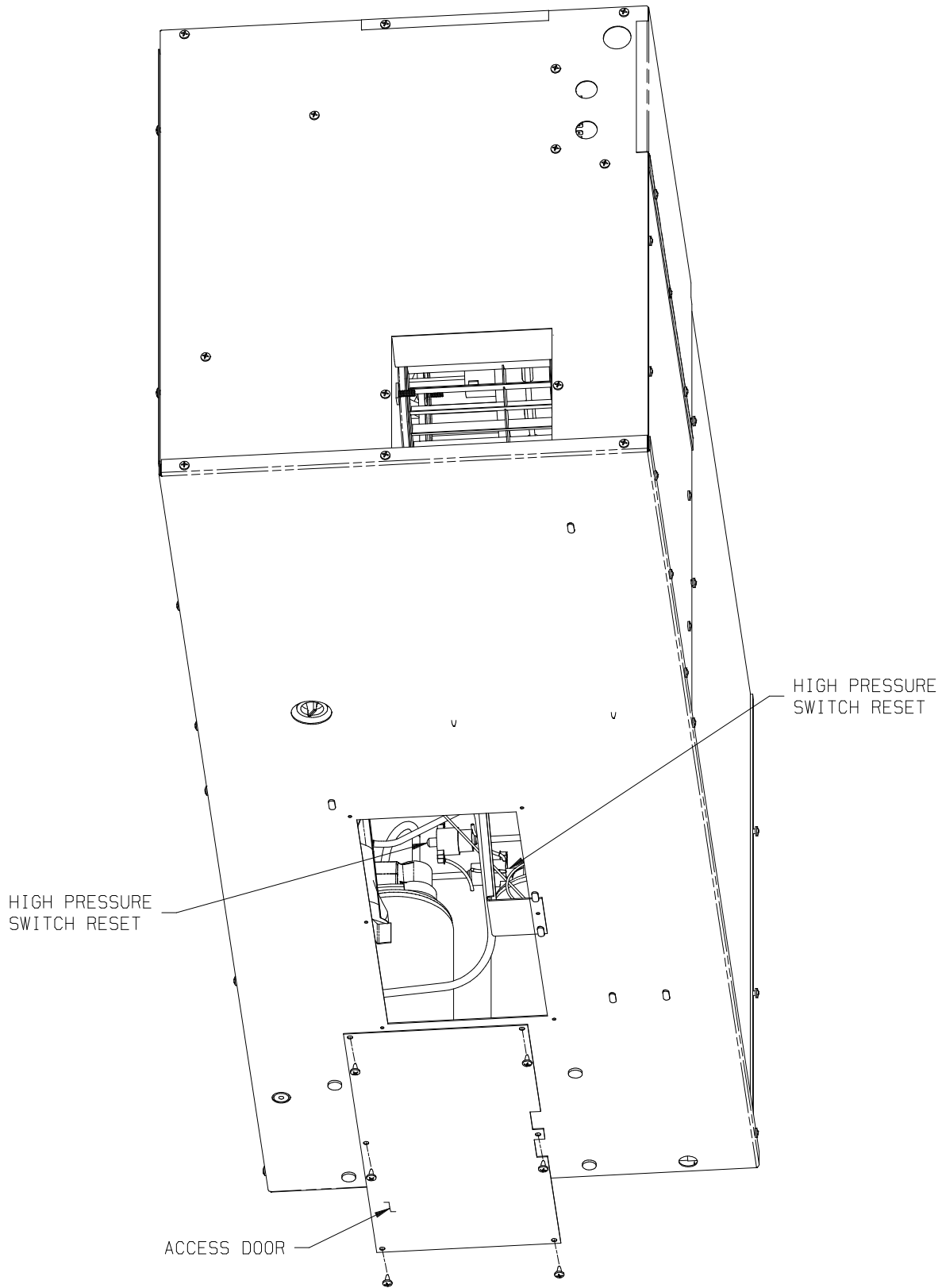


FIGURE 1

III. MAINTENANCE

One of the biggest advantages of owning a Coleman-Mach heat pump is that the maintenance needed to keep the unit in good care is minimal.

In fact, the only maintenance that must be taken care of on a regular basis is the cleaning or replacement of the units return air filters.

The manufacturer of your vehicle determines the number, size and location of the return air filters. Be sure to contact your dealer should you have any questions concerning the number of filters used and their location.

The return air filters of this system will accumulate dust and dirt more quickly than ceiling mounted systems. We recommend that the filters be checked on a weekly basis.

If the filters are not cleaned or replaced at regular intervals, they may become partially clogged with lint and dirt. A clogged filter will produce a loss of air volume and may eventually cause equipment damage.

Do not operate the heat pump without return air filters. Operating the system without filters allows the lint and dirt that is normally stopped by the filter to accumulate on the cooling coil of the heat pump. This also will lead to a loss of air volume, possible equipment damage and an expensive cleaning process.

Periodically (once or twice a season), inspect the outdoor coil and brush off any accumulated residue with a soft bristled brush.

IV. WARRANTY

Let's face it. Sometimes even the best products may need service. To obtain warranty service on your Coleman-Mach air conditioner, please contact your selling dealer, or you may access our web site on the Internet at www.rvcomfort.com for answers to the most frequently asked questions and service center locations.

Airxcel, Inc. support help may be accessed by E-mail at RVPSupport@Airxcel.com.

All written correspondence should be directed to:

**Airxcel, Inc.
RV Products Division
P.O. Box 4020
Wichita, KS 67204**

IMPORTANT

1. Carefully read your limited two year product warranty which is packed with the product.
2. An optional three year extended parts only contract is available at an additional cost of \$89.95. To obtain this optional three year parts contract, fill out the application card stapled to the front of this envelope. Please mail the card and a check or money order to the address above. Applications must be made **within ninety (90) days** of the original purchase.
3. Inquiries about your Coleman-Mach air conditioner must include the model and serial numbers and the date of purchase. The model and serial numbers can be found on the unit rating plate.



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