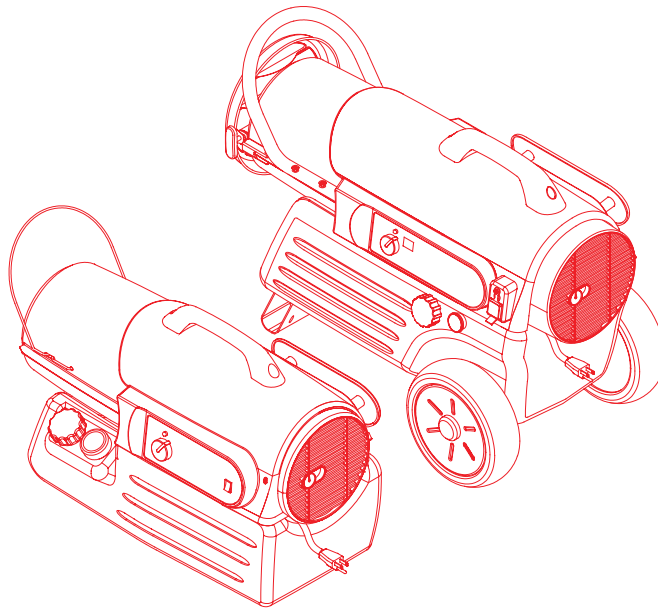


PORTABLE
FORCED AIR HEATERS
“USER’S MANUAL”



Dyna-Glo® Pro

MODEL : RMC-KFA**70TDGP**, RMC-KFA**125TDGP**
RMC-KFA**170TDGP**

Before the first use of this heater, please read this USER’S MANUAL very carefully. This USER’S MANUAL has been designed to instruct you as to the proper manner in which to assemble, maintain, store, and most importantly, how to operate the heater in a safe and efficient manner. Please keep this manual for future reference.

CFM Corporation, Mississauga, ON L5N 8A3
CFM U.S. Corporation, Huntington, IN 46750
Phone: 1-800-668-5323

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

DANGER - IMPROPER USE OF THIS HEATER CAN RESULT IN SERIOUS INJURY OR DEATH FROM BURNS, FIRE, EXPLOSION, ELECTRICAL SHOCK AND/OR CARBON MONOXIDE POISONING.

WARNINGS:

1. RISK OF INDOOR AIR POLLUTION!

- **Use this heater only in well ventilated areas.** Provide at least a three-square foot (2,800 sq. cm.) opening of fresh outside air for each 100,000 BTU/hr. of heater rating.
- People with breathing problems should consult a physician before using the heater.
- **Carbon monoxide poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness and/or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Have the heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, or those at high altitudes.
- Never use this heater in living or sleeping areas.

2. RISK OF BURNS/FIRE/EXPLOSION!

- **NEVER** use any fuel other than 1-K kerosene in this heater. #1 fuel oil is the only acceptable substitute.
- **NEVER** use fuel such as gasoline, benzene, paint thinners or other oil compounds in this heater. **(RISK OF FIRE OR EXPLOSION)**
- **NEVER** use this heater where flammable vapors may be present.
- **NEVER** refill the heaters fuel tank while heater is operating or is still hot.
- This heater is **EXTREMELY HOT** while in operation. Keep all combustible materials away from heater. **Minimum Clearances:** Outlet: 8 feet (250cm) / Sides, top and rear: 4 feet (125cm)
- **NEVER** block air inlet (rear) or air outlet (front) of heater.
- **NEVER** use duct work in front or behind of heater.
- **NEVER** move or handle heater while still hot.
- **NEVER** transport heater with fuel in it's tank.
- When used with an optional thermostat or if equipped with a thermostat heater may start at any time.
- **ALWAYS** locate heater on a stable and level surface.
- **ALWAYS** keep children and animals away from heater.
- Bulk fuel storage should be a minimum of 25 ft. from heaters, torches, portable generators or other sources of ignition. All fuel storage should be in accordance with federal, state or local authorities having jurisdiction.

3. RISK OF ELECTRIC SHOCK!

- Use only the electrical power (voltage and frequency) specified on the model plate of the heater.
- Use only a three-prong, grounded outlet and extension cord.
- **ALWAYS** install the heater so that it is not directly exposed to water spray, rain, dripping water or wind.
- **ALWAYS** unplug the heater when not in use.

CALIFORNIA RESIDENTS: This heater produces carbon monoxide, which is listed by the State of California as a reproductive toxin under Proposition 65.

MASSACHUSETTS RESIDENTS: Massachusetts state law prohibits the use of this heater in any building which is used in whole or in part for human habitation. Use of this heating device in Massachusetts requires local fire dept. permit (M.E.L.C. 148, Section 10A.)

CANADIAN RESIDENTS: Use of this heater shall be in accordance with authorities having jurisdiction and CSA Standard B139.

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

CONTENTS OF USER'S MANUAL

<u>ITEM</u>	<u>PAGE #</u>
PRECAUTIONS - SAFETY GUIDE	1
1. INTRODUCTION	2
2. FEATURES	2
3. UNPACKING AND ASSEMBLY	4
4. KEROSENE (1-K OR NO. 1 FUEL OIL)	6
5. OVERVIEW OF HEATER DESIGN	7
6. FUELING YOUR HEATER	7
7. OPERATION	8
8. LONG TERM STORAGE OF YOUR HEATER	9
9. MAINTENANCE	10
10. REPLACING FUSE	14
11. TROUBLE SHOOTING GUIDE	15
12. WIRING DIAGRAM	15
13. SPECIFICATIONS	16
14. EXPLODED PARTS DRAWING(RMC-KFA70TDGP MODEL)	17
15. PARTS LIST(RMC-KFA70TDGP MODEL)	18
16. EXPLODED PARTS DRAWING(RMC-KFA125T/170TDGP MODEL)	19
17. PARTS LIST(RMC-KFA125T/170TDGP MODEL)	20
18. PARTS LIST(WHEELS, HANDLE AND LOUVER)	22

1. INTRODUCTION

Please read this USER'S MANUAL carefully. It will show you how to assemble, maintain, and operate the heater safely and efficiently to obtain full benefits from its many built-in features.

2. FEATURES

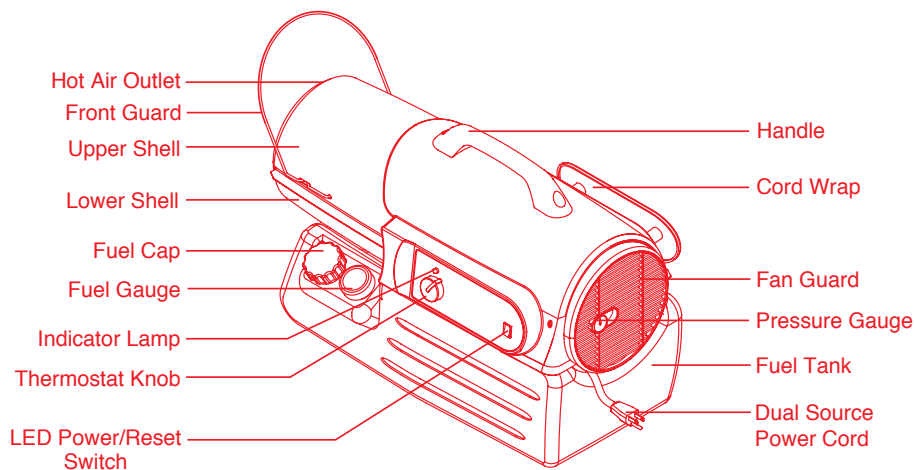


Figure 1. RMC-KFA70TDGP

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

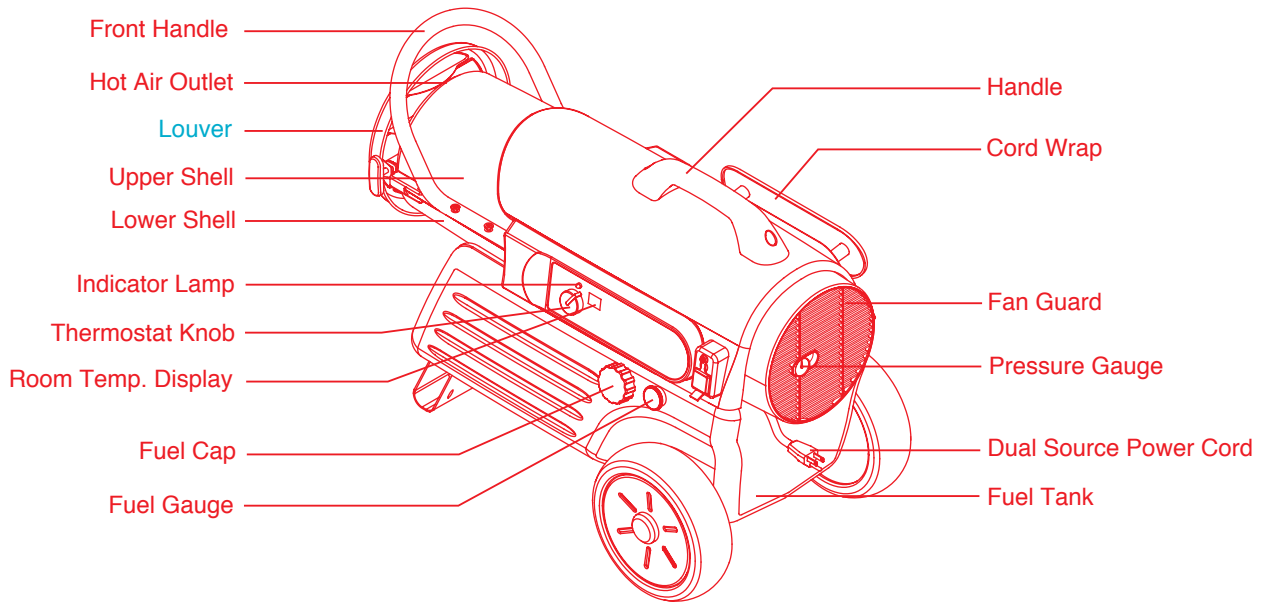


Figure 2. RMC-KFA125TDGP

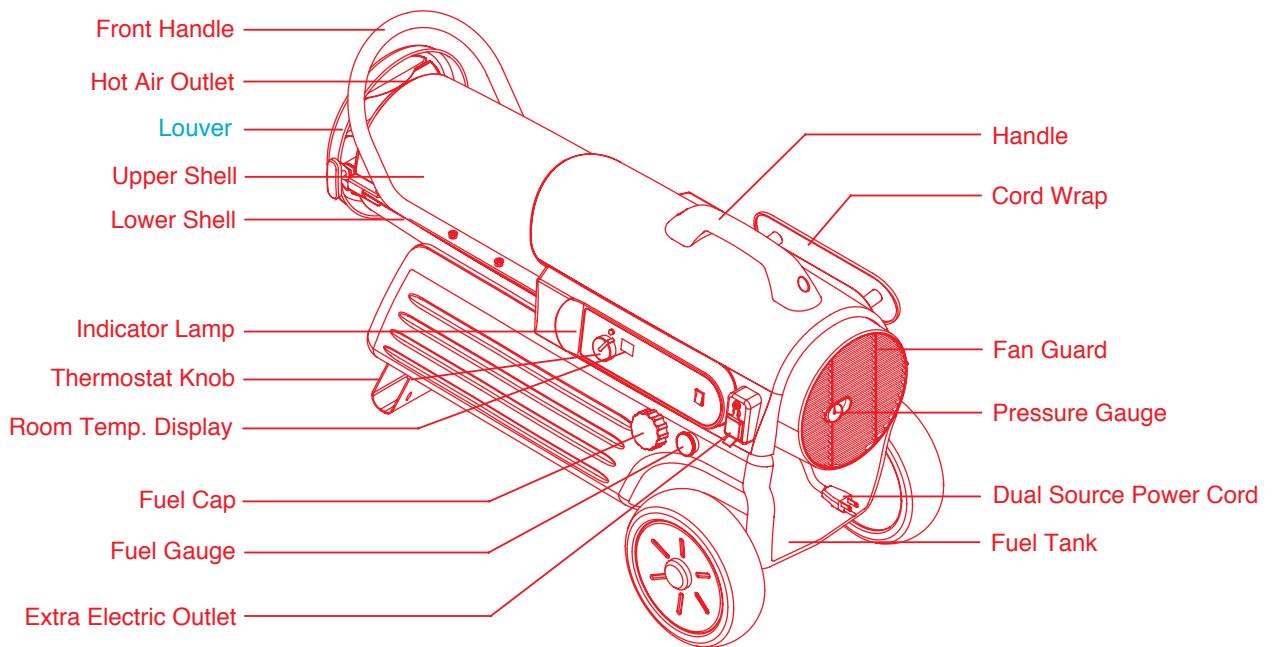


Figure 3. RMC-KFA170TDGP

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

3. UNPACKING AND ASSEMBLY

1. REMOVE THE HEATER AND ALL PACKING MATERIALS FROM THE BOX.

NOTE : Save the shipping carton and packing materials for future storage.

	RMC-KFA/70TDGP	RMC-KFA125TDGP	RMC-KFA170TDGP
Wheel	No	Yes	Yes
Wheel Bar	No	Yes	Yes
Wheel Cap	No	Yes	Yes
Front Handle	No	Yes	Yes
Handle	Yes	Yes	Yes
Cord Wrap	Yes	Yes	Yes
Louver	No	Yes	Yes
Hardware Kit : HW-KFA1001	Yes	No	No
Hardware Kit : HW-KFA1008	No	Yes	Yes

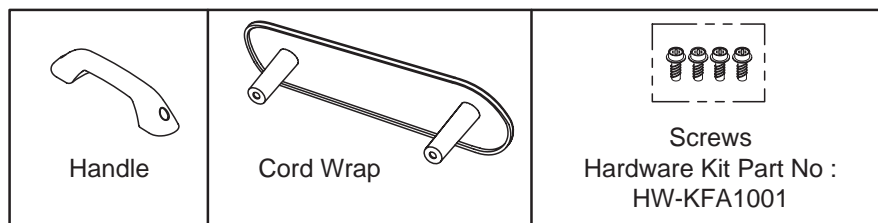


Figure 4. RMC-KFA70TDGP MODEL

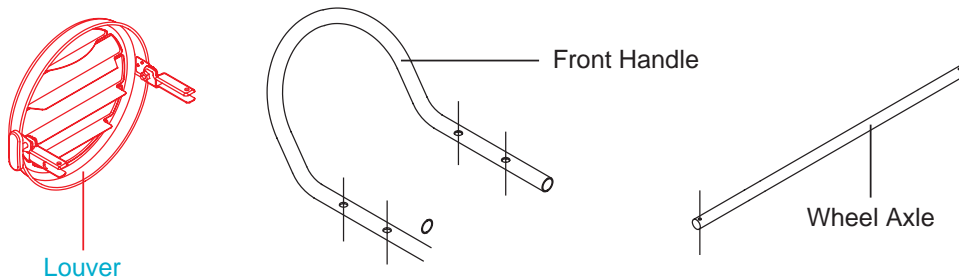
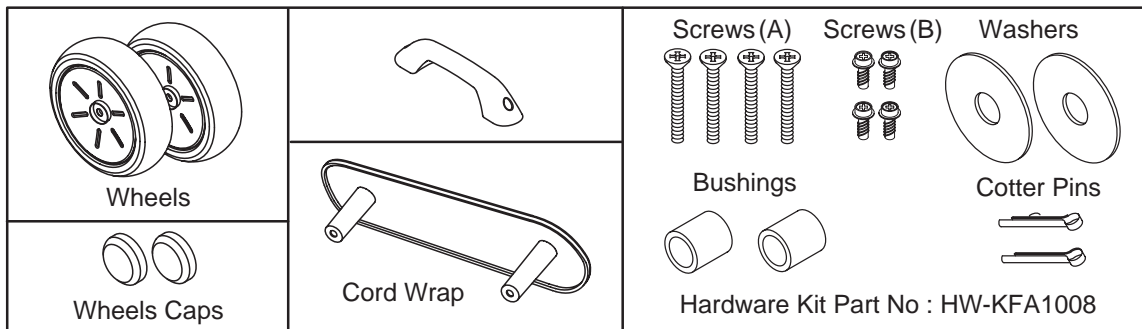


Figure 5. RMC-KFA125TDGP / RMC-KFA170TDGP MODELS

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

2. ASSEMBLY

A. For RMC-KFA70TDGP Model only (See Figure 6,7)

Tools Required

- Medium Phillips Screwdriver

1. Assembling Handle.

- 1) Lift front guard for arrow direction and make sure that guard's wedged portion fits into the slit hole in the upper shell and faces the hot air outlet.
- 2) Align boss on bottom of handle with the 2 holes on the shell cover as shown in Figure 6

NOTE : Be sure to match the tab in the bottom of the handle with the slot in housing cover.

- 3) Insert screws into the holes in the handle and tighten each screw.

2. Assembling Cord Wrap

- 1) Align 2 boss on the cordwrap with the 2 holes on the side cover as shown in Figure 7
- 2) Insert screws into the holes in the cord wrap and tighten each screw.

B. For RMC-KFA125TDGP/RMC-KFA170TDGP Models Only.

These models are furnished with Louver, wheels, front handle, handle and cordwrap, Wheels, Handles, Cordwraps, Louver and the mounting hardware are found in the shipping carton.

Tools Required

- Medium Phillips Screwdriver
- 38" Open or Adjustable Wrench, Use US(Inch) Screws Nuts.
- Long Nose Pliers

1. Assembling Wheel & Louver and Front Handle

- 1) Slide one Wheel & Bushing over the Wheel Axle, making sure that the extended hub of the wheel points towards the wheel points towards the Wheel Support(See Figure 8,Page 6).
- 2) Slide Flat Washer over Wheel Axle end, past the hole in the axle.
Slide Cotter Pin into the hole in the Wheel axle, and using your pliers bend the legs of the Cotter Pin until it can not be removed.
- 3) Slide Wheel Axle through Wheel Support and assemble the Bushing, Wheel, Flat Washer and Cotter Pin as in Steps 1 and 2.
- 4) Place Wheel Caps on Flat Washers until they snap in place securely.
- 5) Remove two screws in each side fore-end of shell upper.
- 6) Fit Bracket - Right & Left to each side flange of Upper shell and align the each hole on the brackets with the hole on the flanges.(See Figure 8, Page 6)
- 7) Secure each hole with a screw that removed.
- 8) Place Front Handle on shell flange and insert screws through front handle, shell flange and tighten each screw after each screw is inserted.

2. Assembling Handle & Cord Wrap.

- 1) Assembling Handle : Assemble by method described above for model RMC-KFA70TDGP.
- 2) Assembling Cord Wrap : Assemble by method described above for model RMC-KFA70TDGP.

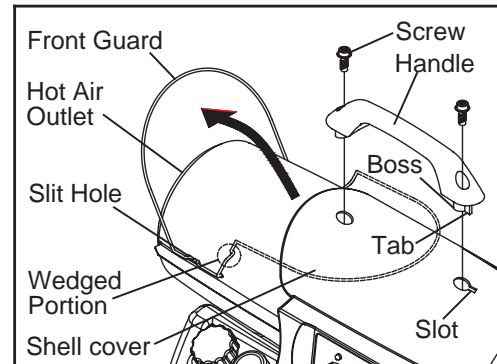


Figure 6. Handle Assembly

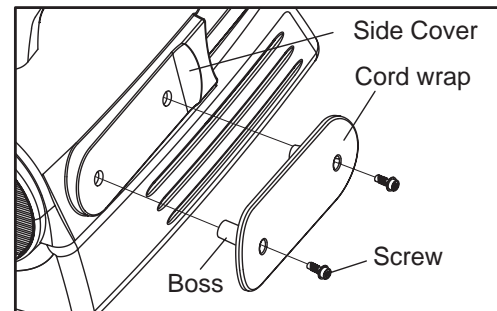


Figure 7. Cord Wrap Assembly

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

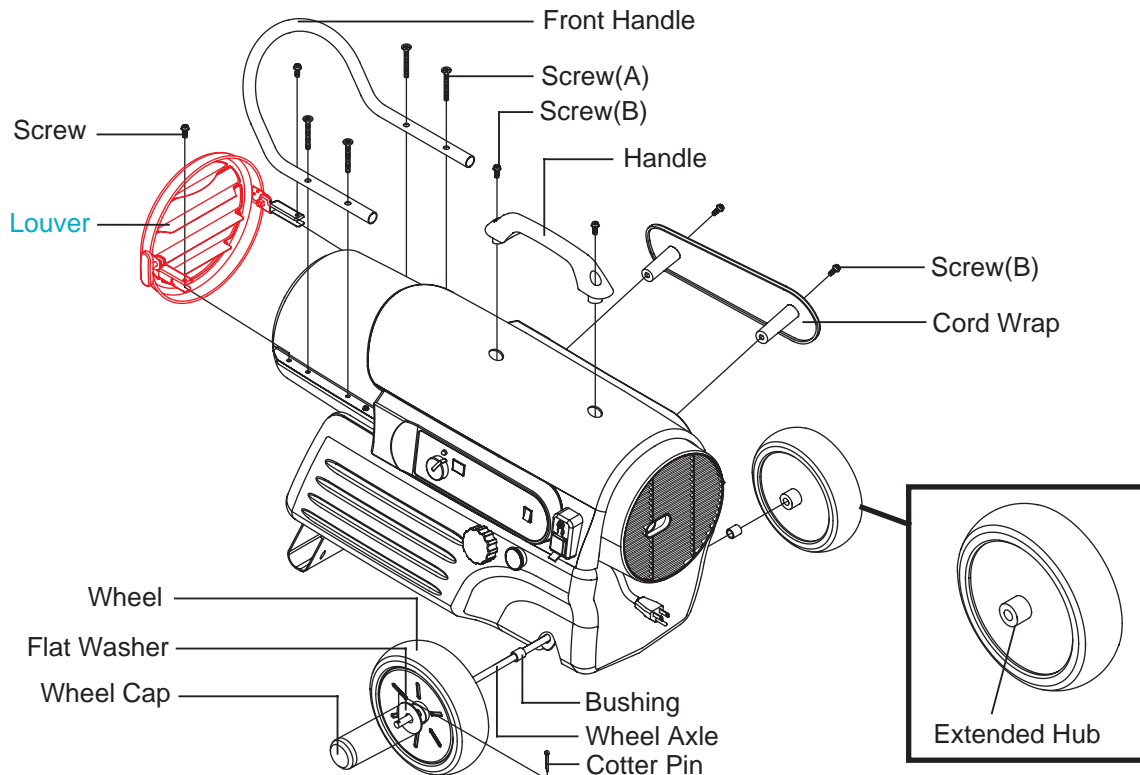


Figure 8. Wheel and Handle Assembly, RMC-KFA125TDGP/RMC-KFA170TDGP Models Only.

NOTE : Heater should be inspected before each use, and at least annually by a qualified service person.

4. KEROSENE (1-K)

For optimal performance of this heater, it is strongly suggested that 1-K kerosene be used. 1-K kerosene has been refined to virtually eliminate contaminants, such as sulphur. Which can cause a rotten egg odor during the operation of the heater. However, #1 or #2 fuel oil (diesel fuel) may also be used if 1-K kerosene is not available. Be advised that these fuels do not burn as clean as 1-K kerosene, and care should be taken to provide more fresh air ventilation to accommodate any added contaminants that may be added to the heated space.

KEROSENE SHOULD ONLY BE STORED IN A BLUE CONTAINER THAT IS CLEARLY MARKED “KEROSENE”. NEVER STORE KEROSENE IN A RED CONTAINER.

Red containers are associated with gasoline.

NEVER store kerosene in the living space. Kerosene should be stored in a well ventilated place outside the living area.

NEVER use any fuel other than 1-K kerosene (#1 fuel oil is an acceptable substitute.)

NEVER use fuel such as gasoline, benzene, alcohol, white gas, camp stove fuel, paint thinners, or other oil compounds in this heater. These are volatile fuels that can cause an explosion or uncontrolled flames.

NEVER store kerosene in direct sunlight or near a source of heat.

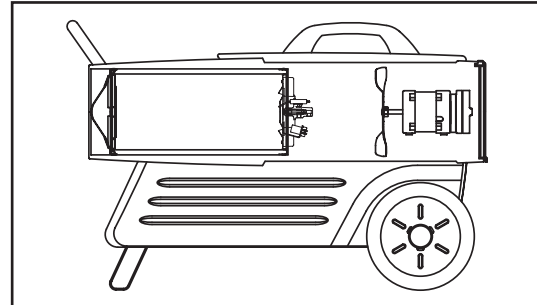
NEVER use kerosene that has been stored from one season to the next. Kerosene deteriorates over time.

“OLD KEROSENE” WILL NOT BURN PROPERLY IN THIS HEATER.

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

5. OVERVIEW OF HEATERS DESIGN

Fuel System : This heater is equipped with an electric air pump that forces air through the air line connected to the fuel intake and then through a nozzle in the burner head. When the air passes in front of the fuel intake it causes fuel to rise from the tank and into the burner nozzle. This fuel and air mixture is then sprayed into the combustion chamber in a fine mist.



“Sure Fire Ignition” : The electronic ignitor sends voltage to a specially designed spark plug. The spark plug ignites the fuel and air mixture described above.

The Air System : The heavy duty motor turns a fan that forces air into and around the combustion chamber. Here the air is heated and then forced out the front of the heater.

The Safety System :

A. Temperature Limit Control : This heater is equipped with a Temperature Limit Control designed to turn off the heater should the internal temperature rise to an unsafe level. If this device activates and turns your heater off it may require service.

MODELS	Internal Shut-Off Temp. Plus/Minus 10 Degrees	Reset Temperature Plus/Minus 10 Degrees
RMC-KFA170TDGP	230°F/110°C	194°F/90°C
RMC-KFA125TDGP	122°F/50°C	104°F/40°C
RMC-KFA70TDGP	158°F/70°C	104°F/40°C

Once the temperature falls below the reset temperature you will be able to start your heater.

B. Electrical System Protection : The heaters electrical system is protected by a circuit breaker mounted to the power switch that protects the PCB assembly and other electrical components from damage. If your heater fails to operate check this fuse first and replace as needed.

FUSE TYPE:	All Models	125 volt / 8 amps
-------------------	------------	-------------------

C. Flame-Out Sensor : Utilizes a photocell to monitor the flame in burn chamber during normal operation. It will cause the heater to shut-off should the burner flame extinguish.

6. FUELING YOUR HEATER

NEVER FILL THE HEATER FUEL TANK IN THE LIVING SPACE : FILL THE TANK OUTDOORS.

DO NOT OVERFILL YOUR HEATER AND BE SURE HEATER IS LEVELED.

IMPORTANT NOTICE REGARDING FIRST IGNITION OF HEATER :

The first time you light the heater, it should be done outdoors. This allows the oils, etc. used in manufacturing the heater to burn off outside.

WARNING!! : NEVER REFILL HEATER FUEL TANK WHEN HEATER IS OPERATING OR STILL HOT.

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

7. OPERATION

A.) VENTILATION

RISK OF INDOOR AIR POLLUTION/USE HEATER ONLY IN WELL VENTILATED AREAS.

Provide a fresh air opening of at least three square feet (2,800 sq. cm) for each 100,000 BTU/Hr. rating. Provide extra fresh air if more heaters are being used.

Example : A RMC-KFA170TDGP heater requires one of the following:

- a two-car garage door raised six inches (15.24 cm)
- a single-car garage door raised nine inches (22.86 cm)
- two, thirty-inch (76.20 cm) windows raised fifteen inches (38.1 cm)

B.) OPERATION

TO START HEATER

1. Fill fuel tank with kerosene or No. 1 fuel oil.
2. Attach fuel cap.
3. Plug power cord of heater into three-prong, grounded extension cord. Extension cord must be at least six feet long.

Extension Cord Wire Size Requirements :

- 6 to 10 feet (1.8 to 3 meters) long, use 18 AWG conductor.
- 11 to 100 feet (3.4 to 30.5 meters) long, use 16 AWG conductor.
- 101 to 200 feet (30.8 to 61 meters) long, use 14 AWG conductor.

4. Turn "THERMOSTAT CONTROL KNOB" to desired setting (setting range : 40°F ~ 110°F) and push power switch to "ON" position, power indicator lamp will light and heater will start.

NOTE : Room Temp. display indicates as follows,

* When room temp. is less than 0°F : "L "

* When room temp. is between 0°F and 99°F : Indicates room temperature.

* When room temp. is more than 99°F : "Hi"

If heater does not start, the thermostat setting may be too low, turn "THERMOSTAT CONTROL KNOB" to higher position to start heater. If heater still does not start, turn power switch to "OFF" and then to "ON" position. (See Figure 9). If heater still does not start, see Troubleshooting Guide on page 16.

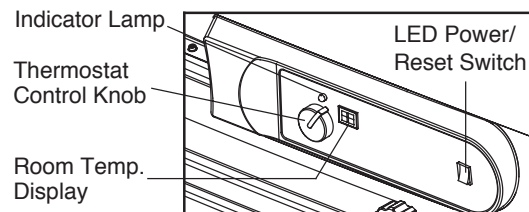


Figure 9.
Power ON/OFF & Temp. Setting.

NOTICE : The major electrical components of this heater are protected by a safety fuse mounted to the PCB board. If your heater fails to start, check this fuse first and replace as necessary. You should also check your power source to insure that proper voltage and frequency are being supplied to the heater.

TO STOP HEATER

1. Turn switch to "OFF" and unplug power cord.

TO RESTART HEATER

1. Wait 10 seconds after stopping heater.
2. Repeat steps under to start heater.

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

EXTRA ELECTRIC OUTLET

⚠ **WARNING : SHOCK HAZARD**

- Always cover Electric Outlet When not in use
- Don't Plug and use a appliance more than 5A current in this Outlet.

C.) LOUVER

⚠ **CAUTION : RISK OF BURN**

- Louver is very Hot in operation and after shut-off.
Never touch or control angle while still hot.
- Louver's angle can be controled by turn handle for arrow direction as shown in Figure 11.
- (Control range : Upward 28° / downward 20°)

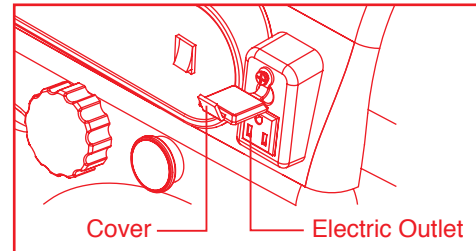


Figure 10. Electric Outlet



Figure 11. Louver Angle Control

8. LONG TERM STORAGE OF YOUR HEATER

FUEL TANK DRAIN

1. Remove Fuel Cap (See Figure 12).
2. Drain Fuel Tank through Fuel Cap Opening.
3. Using a small amount of kerosene, swirl
Never mix water with the kerosene as it will cause poor operation of the heater.
Pour the kerosene out making sure that you remove it all.
IMPORTANT : Do not store kerosene over summer months for use during next next heating season.
Using old fuel could damage heater.
4. Reinstall Fuel Cap (See Figure 13).
5. Store heater in dry well ventilated area. Make sure storage place is free of dust and corrosive fumes.
6. Store the heater in the original box with the original packing material and keep the USER'S MANUAL with the heater.

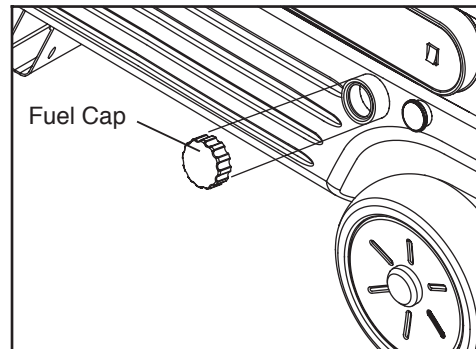


Figure 12. Remove Fuel Cap

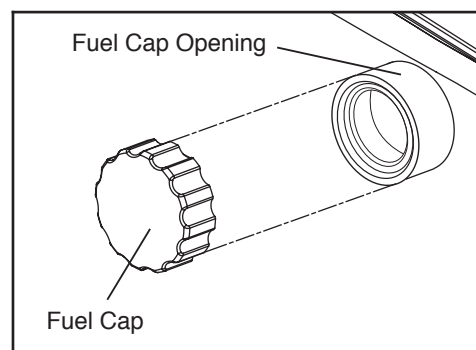


Figure 13. Reinstall Fuel Cap

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

9. MAINTENANCE

WARNING!! : NEVER SERVICE HEATER WHILE IT IS PLUGGED IN OR WHILE HOT!

USE ORIGINAL EQUIPMENT REPLACEMENT PARTS. Use of third party or other alternate components will void warranty and may cause unsafe operating conditions.

A.) FUEL TANK

FLUSH EVERY 200 HOURS OF OPERATION OR AS NEEDED (SEE STORAGE, PAGE 9)

B.) UPPER SHELL REMOVAL

-Uncover Outlet Cover and Remove Screw that secure Side Cover as shown in Figure 14.

-Push out for arrow direction and extract Side Cover's Bracket from Rectangle Hole and Separate Side Cover(R).

-Side Cover(L) in opposite of Side Cover(R) Separates by same method.

(RMC-KFA125T/170TDGP Models Only.)

-Remove 4 Screws along each side of heater using medium phillips screwdriver. These Screws attach Upper Rear and Lower shells together. (See Figure 14)

(RMC-KFA70TDGP Model Only.)

-Remove Screws along each side of heater using medium phillips screwdriver. These Screws attach Upper and Lower shells together.

C.) AIR OUTPUT, AIR INTAKE AND LINT FILTERS WASH AND DRY WITH SOAP AND WATER OR REPLACE EVERY 500 HOURS OF OPERATION OR ONCE A YEAR.

-Remove Upper Shell.(See Figure 14)

-Remove Fan guard.(See Figure 15)

-Remove End Filter Cover Screws using medium phillips screwdriver.

-Remove End Filter Cover.

-Replace Air Output and Lint Filters.

-Wash or Replace Air Intake Filter.

-Reinstall Fan Guard and Upper Shell.

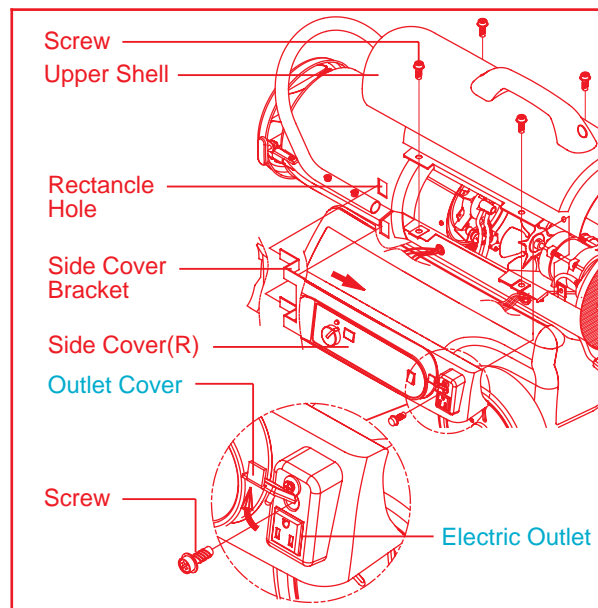


Figure 14. Upper Shell Removal.

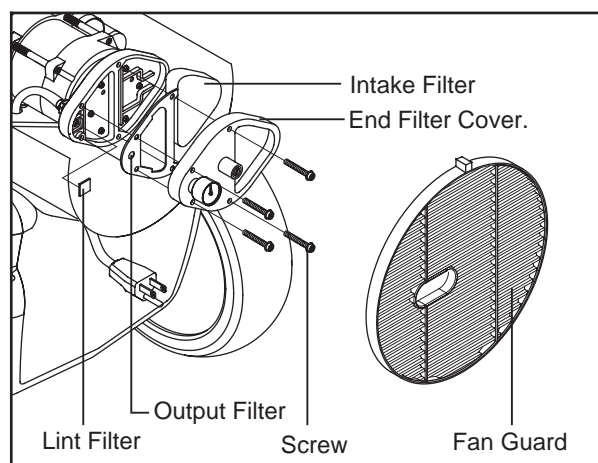


Figure 15. Air Output, Intake, and Lint Filters

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

D.) FAN BLADES

CLEAN EVERY SEASON OR AS NEEDED.

- Remove upper shell(See 10 page.)
- Use 1/8" allen wrench to loosen set screw which holds Fan Blade to motor shaft.
- Slip Fan Blade off motor shaft.
- Clean Fan Blade using a soft colth moistened with kerosene or solvent.
- Dry Fan Blade throughly.
- Reinstall Fan Blade on motor shaft. Place Fan Blade hub flush with end of motor shaft.
- Place Set Screw on flat of shaft. Tighten Set Screw firmly(40~50 inch-pounds/4.5~5.6 N-m).

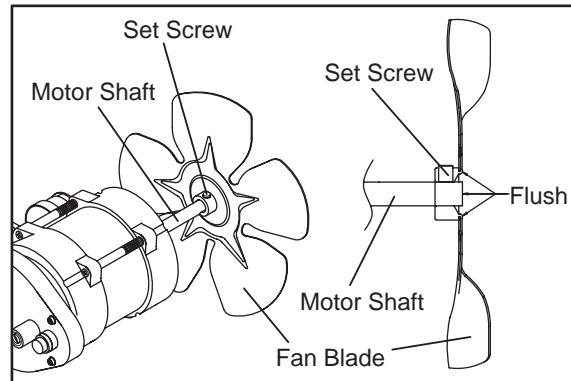


Figure 16. Fan and Setscrew Location.

E.) NOZZLE

REMOVE DIRT IN NOZZLE AS NEEDED(See Page 14)

- Remove Upper Shell(See page 10).
- Remove Fan Blade(See Fan Blades).
- Remove Fuel and Air Line from Burner Head.
- Remove Ignitor Wire from Spark Plug.
- Remove three Screws using medium phillips screwdriver and remove Burner Head from combustion chamber.
- Remove Spark Plug from Burner Head using medium phillips screwdriver.
- Carefully remove Nozzle from Burner Head using 5/8" socket wrench.
- Blow compressed air through face of Nozzle.(this will remove any dirt in Nozzle)
- Reinstall Nozzle into Burner Head and tighten firmly. (80~110 inch-pounds)
- Reinstall Spark Plug in Burner Head.
- Attach Ignitor wire to Spark Plug.
- Attach Fuel and Air Line to Burner Head.
- Reinstall Fan Blade and Upper Shell.

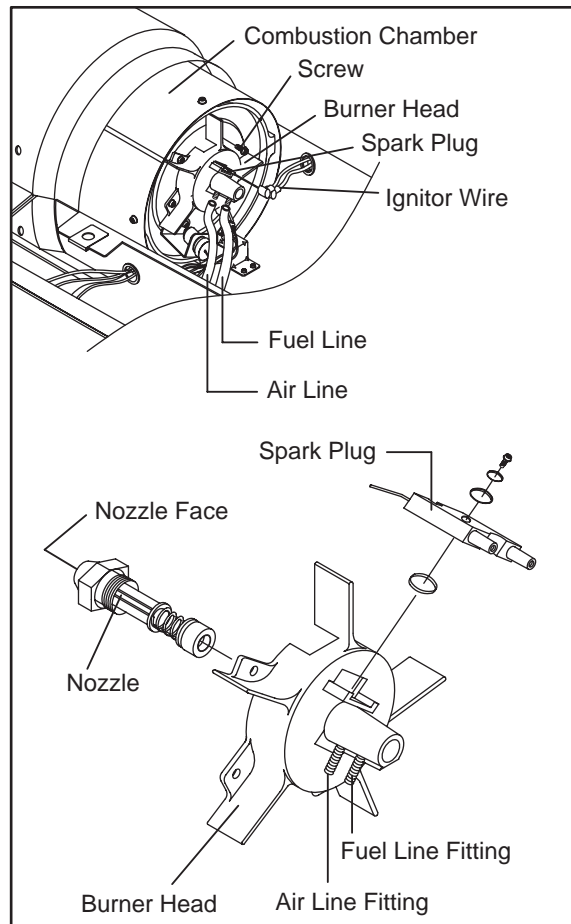


Figure 17. Removing Nozzle

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

F.) SPARK PLUG

CLEAN AND REGAP EVERY 600 HOURS OF OPERATION OR REPLACE AS NEEDED.

- Remove upper shell(See 10 page).
- Remove Fan Blade(See 11 Page).
- Remove Ignitor Wire from Spark Plug.
- Remove Spark Plug from Burner Head using medium phillips screwdriver.
- Clean and regap Spark plug electrodes to 0.140"(3.5mm) gap.
- Reinstall Spark Plug in Burner Head.
- Attach Ignitor wire to Spark Plug.
- Reinstall Fan and Upper Shell.

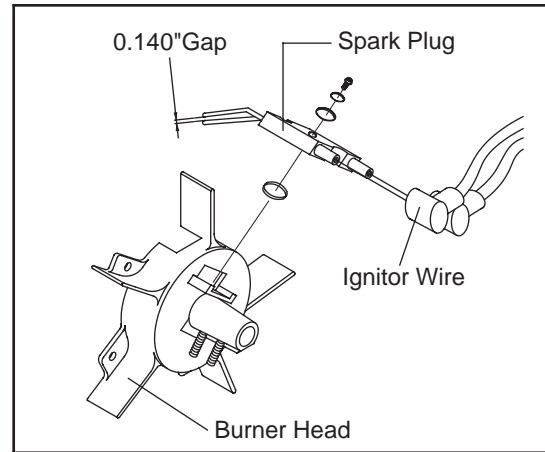


Figure 18. Removing Spark Plug

G.) PHOTOCELL

CLEAN PHOTOCELL ANNUALLY OR AS NEEDED.

- Remove upper shell(See page 10).
- Remove fan (See page 11).
- Remove photocell from photocell bracket.
- Clean photocell lens with cotton swab.

TO REPLACE:

- Disconnect switch wires from power switch.
- Remove two Screws using medium phillips screwdriver.
These Screws attach Main PCB to Side Cover.(See Figure 19)
- Remove Side cover(R).
- Disconnect Photocell Connector from Circuit Board and remove photocell.
- Install new Photocell and connect photocell connector to Circuit Board.
- Replace Circuit Board to Side Cover(R) and Switch wires to Power Switch.
- Replace Fan and Upper Shell.

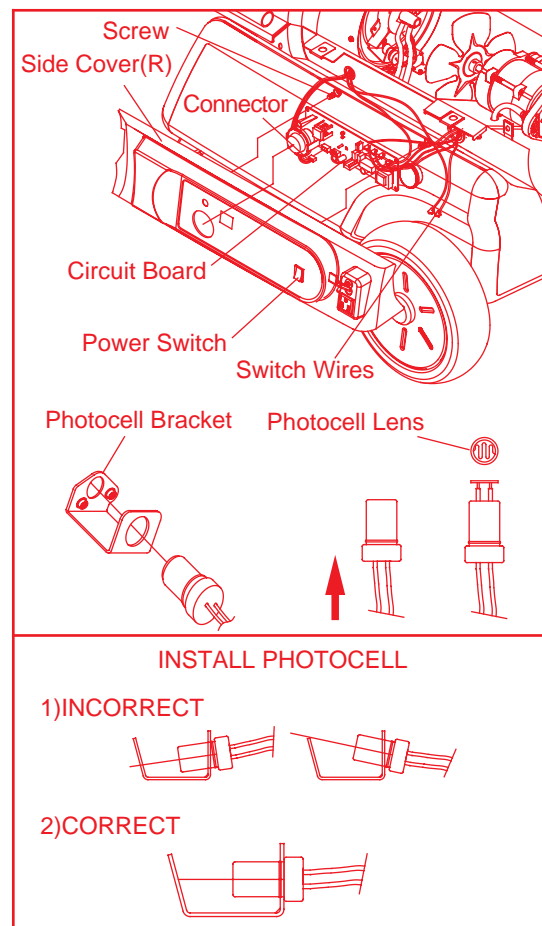


Figure 19. Replace & Cleaning Photocell

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

H.) FUEL FILTER

- CLEAN OR REPLACE TWICE A HEATING SEASON OR AS NEED.
- Remove upper shell(See 10 page).
 - Remove Fan Blade(See 11 Page).
 - Pull Fuel Line off from Fuel Filter Neck.
 - Remove Fuel Filter.
 - Wash Fuel Filter with clean kerosene and replace in tank.
 - Attach Fuel Line to Fuel Filter Neck.
 - Replace Fan Blade and Upper Shell.

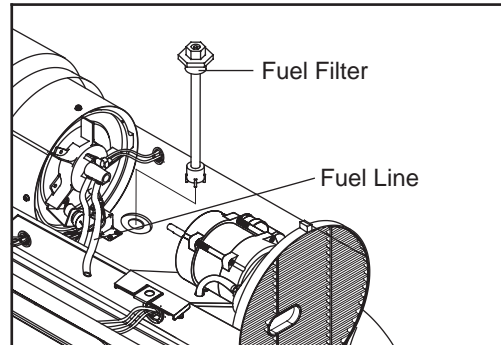


Figure 20. Removing Fuel Filter

I.) PUMP PRESSURE ADJUSTMENT

- Start Heater(See Operation, Page 8) and allow motor to reach full speed.
 - Adjust Pump Pressure.(Using a Flat blade screwdriver)
- Turn Relief Valve clockwise to increase pressure.
Turn Relief Valve counter-clockwise to decrease pressure.
Set Pump pressure according to the chart below.
- Stop Heater(See Operation, Page 8).

MODEL	PUMP PRESSURE
RMC-KFA70TDGP	3.7 psi
RMC-KFA125TDGP	5.5 psi
RMC-KFA170TDGP	6.5 psi

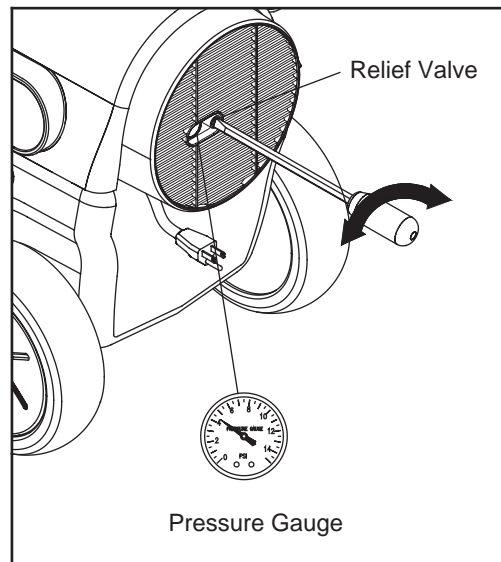


Figure 21. Adjusting Pump Pressure

**NOTE: USE ONLY ORIGINAL EQUIPMENT REPLACEMENT PARTS.
USE OF ALTERNATE OR THIRD PARTY COMPONENTS WILL VOID ANY WARRANTY
AND MAY CAUSE UNSAFE OPERATING CONDITION.**

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

10. REPLACING FUSE

NOTICE : This heater is fuse protected.

If your heater fails to ignite, DO NOT RETURN YOUR HEATER TO THE STORE.

Please follow the simple instruction below to inspect and change the fuse.

PROCEDURE FOR REPLACING FUSE

⚠ WARNING : SHOCK HAZARD

To prevent personal injury, unplug the power cord before replacing fuse.

1. Unplug heater.
2. Uncover Outlet Cover and Remove Screw that secure Side Cover as shown in Figure 22.
3. Push out for arrow direction and extract side cover's bracket from rectangle hole and separate side cover(see Figure 22).
4. Disconnect switch wires from power switch.
5. Remove two screws using medium phillips screwdriver.
These screws attach circuit board to side cover(see Figure 23).
6. Remove fuse from fuse holder and replace fuse with enclosed fuse(see Figure 23).

⚠ WARNING : FIRE HAZARD

To avoid fire, Do not substitute with a higher or lower current rating.

7. Replace switch wires to power switch.
8. Replace circuit board and side cover.

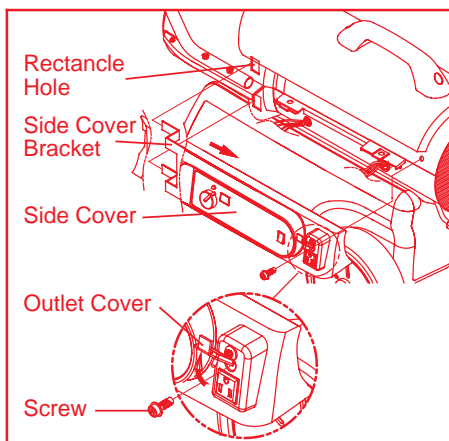


Figure 22. Removing side cover

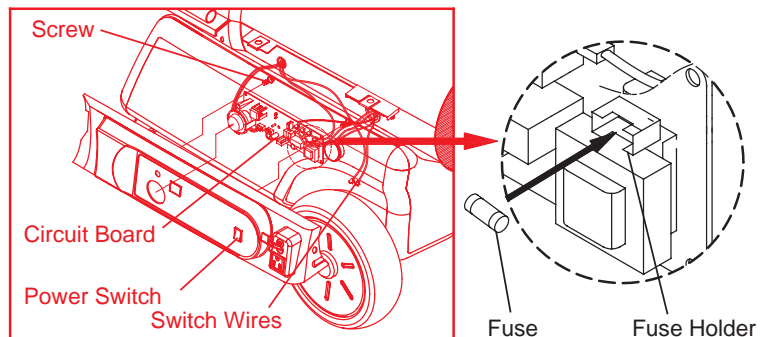


Figure 23. Removing fuse

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

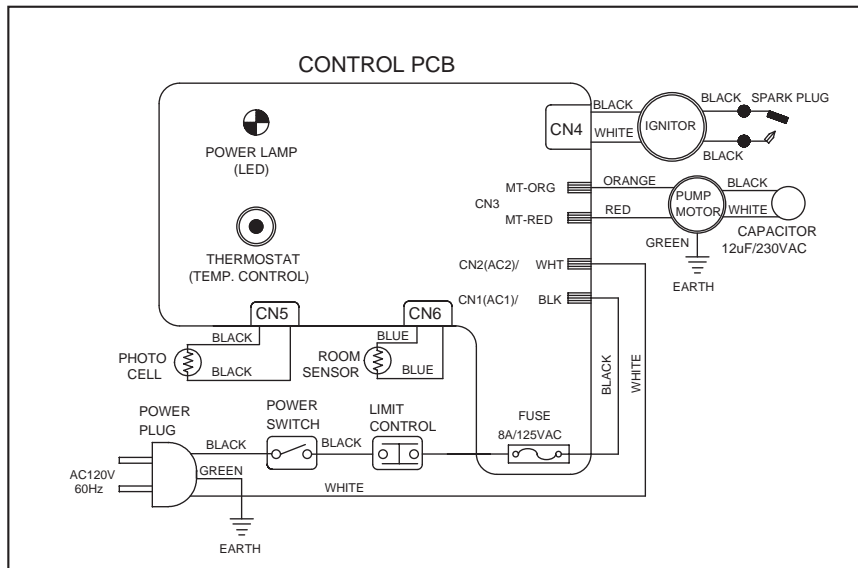
11. TROUBLE SHOOTING GUIDE

TORUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
Heater ignites but MAIN PCB assembly shuts heater off after a short period of time. (Indicator Lamp is flickering and room temp. display indicates " E1 ")	<ol style="list-style-type: none"> 1. Wrong pump pressure 2. Dirty Air Output,Air Intake or Lint Filter. 3. Dirty Fuel Filter. 4. Dirt in Nozzle. 5. Dirty Photocell Lens. 6. Photocell Assembly not Properly installed.(Not seeing the flame) 7. Bad electrical connection between photocell and MAIN PCB assembly. 8. Defective Photocell. 	<ol style="list-style-type: none"> 1. See Pump Pressure Adjustment, Page 13. 2. See Air Output,Air intake and Lint Filters, page 10. 3. See Fuel Filter, Page 13. 4. See Nozzle, Page 11. 5. Clean Photocell Lens, Page 12. 6. Make sure photocell boot is properly seated in bracket, Page 12. 7. Check electrical components See wiring diagram, Page 16. 8. Replace Photocell, Page 12.
Heater will not ignite but motor runs for a short period of time.(Indicator Lamp is flickering and room temp.display indicates " E1 ")	<ol style="list-style-type: none"> 1. No fuel in tank. 2. Wrong pump pressure. 3. Carbon deposits on spark plug and/or improper gap. 4. Dirty fuel filter. 5. Dirt in Nozzle. 6. Water in fuel tank. 7. Bad electrical connection between ignitor and MAIN PCB assembly. 8. Ignitor wire is not attached to spark plug. 	<ol style="list-style-type: none"> 1. Fill tank with kerosene. 2. See Pump Pressure Adjustment, Page 13. 3. See Spark Plug,Page 12. 4. See Fuel Filter,Page 13. 5. See Nozzle,Page 11. 6. Flush fuel tank with clean kerosene, Page 9. 7. Check electrical components See wiring diagram, Page 16. 8. Attach ignitor wire to spark plug. See Spark Plug, Page 12.
Fan does not turn when heater is plugged in and power switch was in the " ON " Position. (Indicator Lamp is on or flickering)	<ol style="list-style-type: none"> 1. Thermostat setting is too low. 2. Bad electrical connection between motor and MAIN PCB assembly. 	<ol style="list-style-type: none"> 1. Turn thermostat control knob to a higher setting. 2. Check electrical connections, See Wiring Diagram, Page 16.
(Indicator Lamp is flickering and room temp. display indicates "E2")	<ol style="list-style-type: none"> 1. Room Temp. sensor disconnected. 2. Sensor Failure. 	<ol style="list-style-type: none"> 1. Reconnect sensor. See Wiring diagram, Page 16. 2. Replace sensor. See Wiring diagram, Page 16.
(Indicator Lamp is flickering and room temp. display indicates "E3")	<ol style="list-style-type: none"> 1. Thermostat switch failure. 	<ol style="list-style-type: none"> 1. Replace switch. See Wiring diagram, Page 16.
Heater will not turn-on (Indicator Lamp is off)	<ol style="list-style-type: none"> 1. Temperature limit safety device is overheated. 2. No electrical power 3. Blown fuse. 4. Bad electrical connection between temperature limit safety device and PCB board. 	<ol style="list-style-type: none"> 1. Turn power switch to "OFF" and allow to cool(about 10 min.) 2. Check to insure heater cord and extension cord are plugged in. Check power supply. 3. Replace safety fuse in PCB board. 4. Check electrical connections See Wiring Diagram, Page 16.

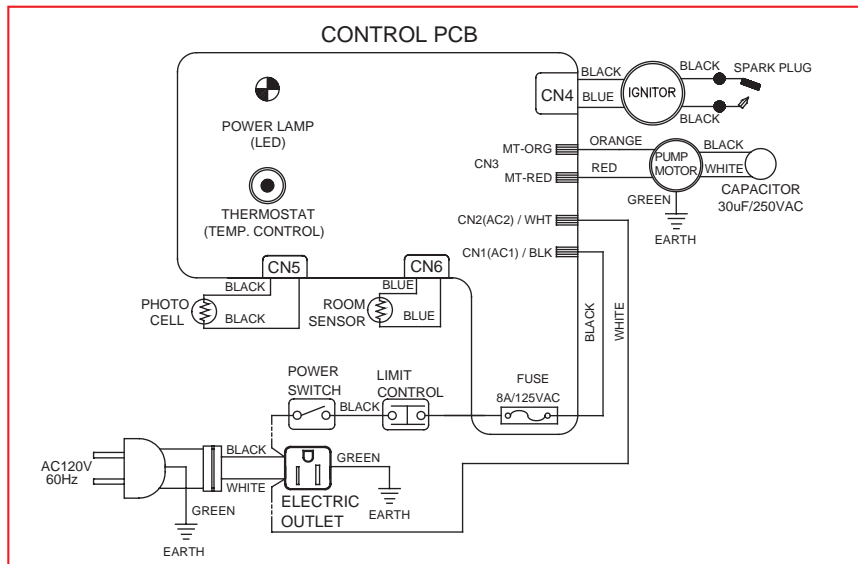
NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

12. WIRING DIAGRAM

A) WIRING DIAGRAM(RMC-KFA70TDGP)

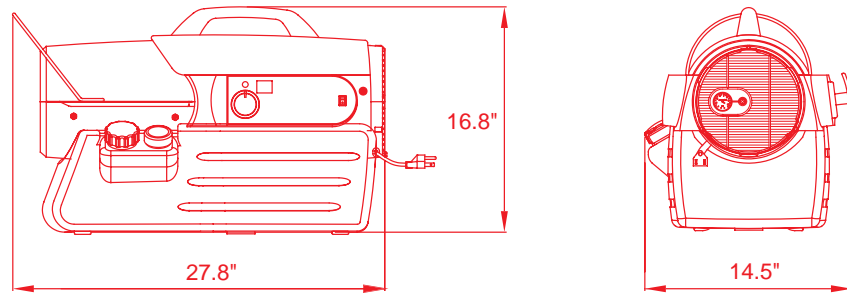


B) WIRING DIAGRAM(RMC-KFA125TDGP/RMC-KFA170TDGP)

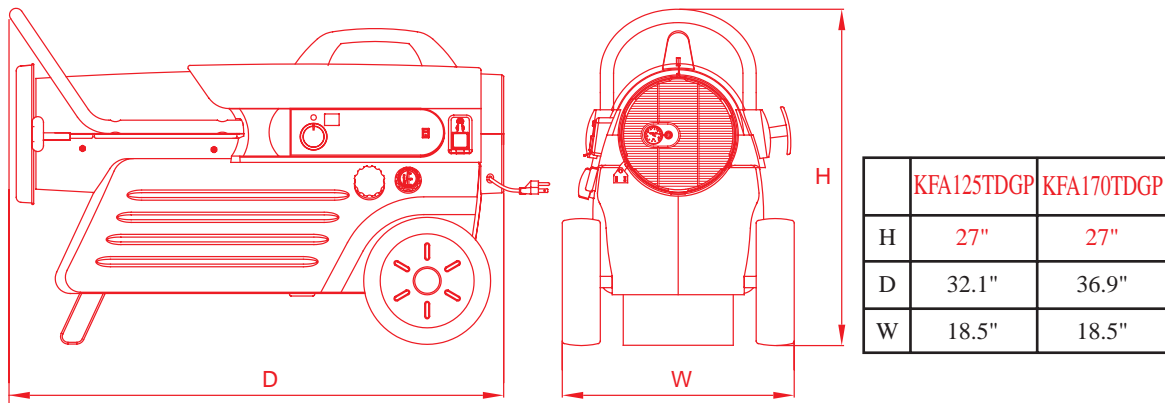


**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

13. SPECIFICATIONS



RMC-KFA70TDGP

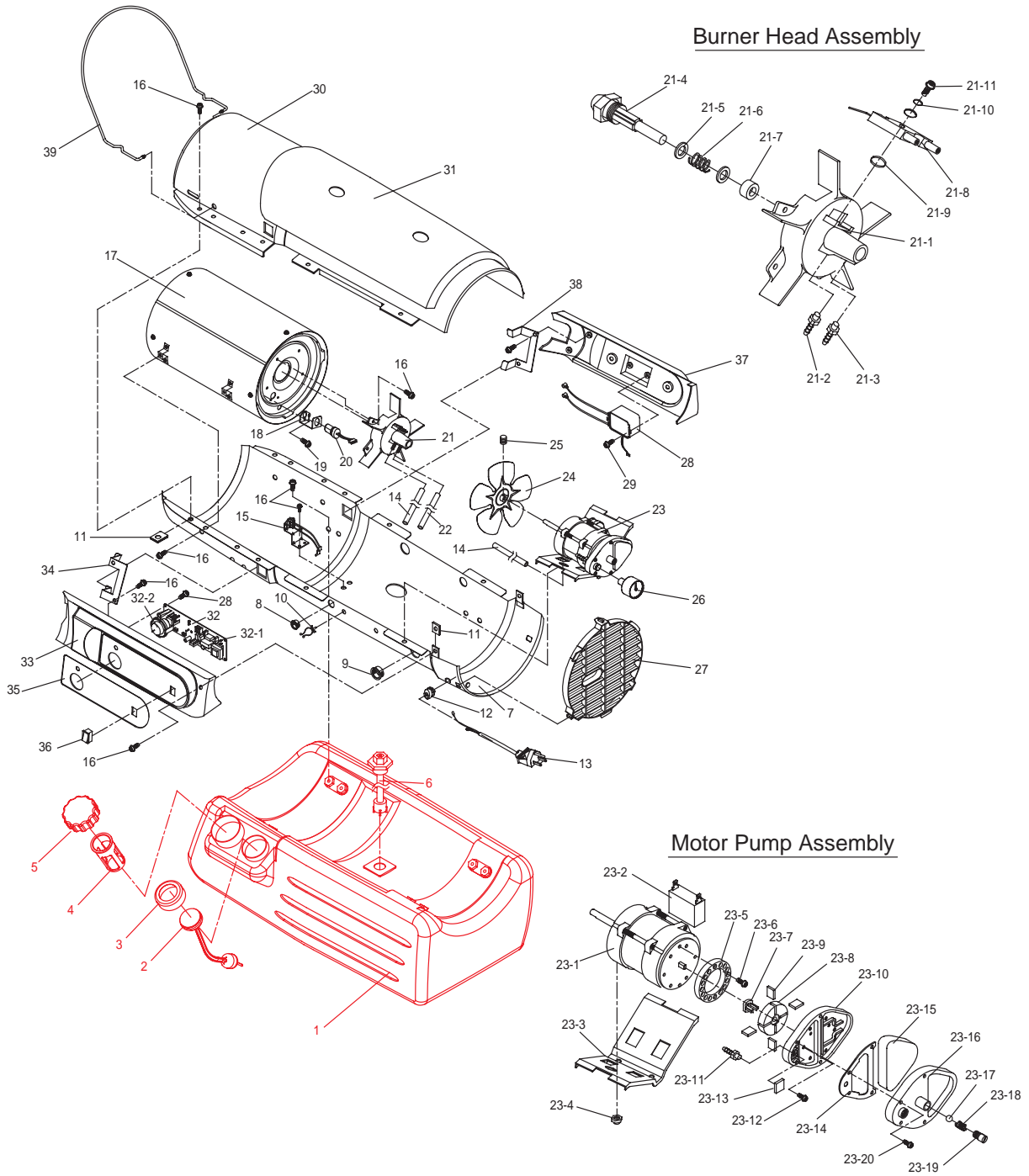


RMC-KFA125TDGP / RMC-KFA170TDGP

MODEL	RMC-KFA70TDGP	RMC-KFA125TDGP	RMC-KFA170TDGP
BTU/Hr.	70,000	125,000	170,000
Fuel Consumption - Gal./Hr.	0.53	0.95	1.3
Fuel Tank Capacity - Gal.	5.0	10.0	12.0
Pump Pressure PSI	3.7	5.5	6.5
Volt/Hz	120Vac/60Hz	120Vac/60Hz	120Vac/60Hz
Amps.	1.6	2.5	3.2
Phase	1	1	1
Size (W × D × H)	14.5" × 27.8" × 16.8"	18.5" × 32.1" × 27"	18.5" × 36.9" × 27"
Weight (Lbs.)	26.5	58.5	62

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

14. EXPLODED PARTS DRAWING(RMC-KFA70TDGP Model Only)



**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

15. PARTS LIST(RMC-KFA70TDGP Model Only)

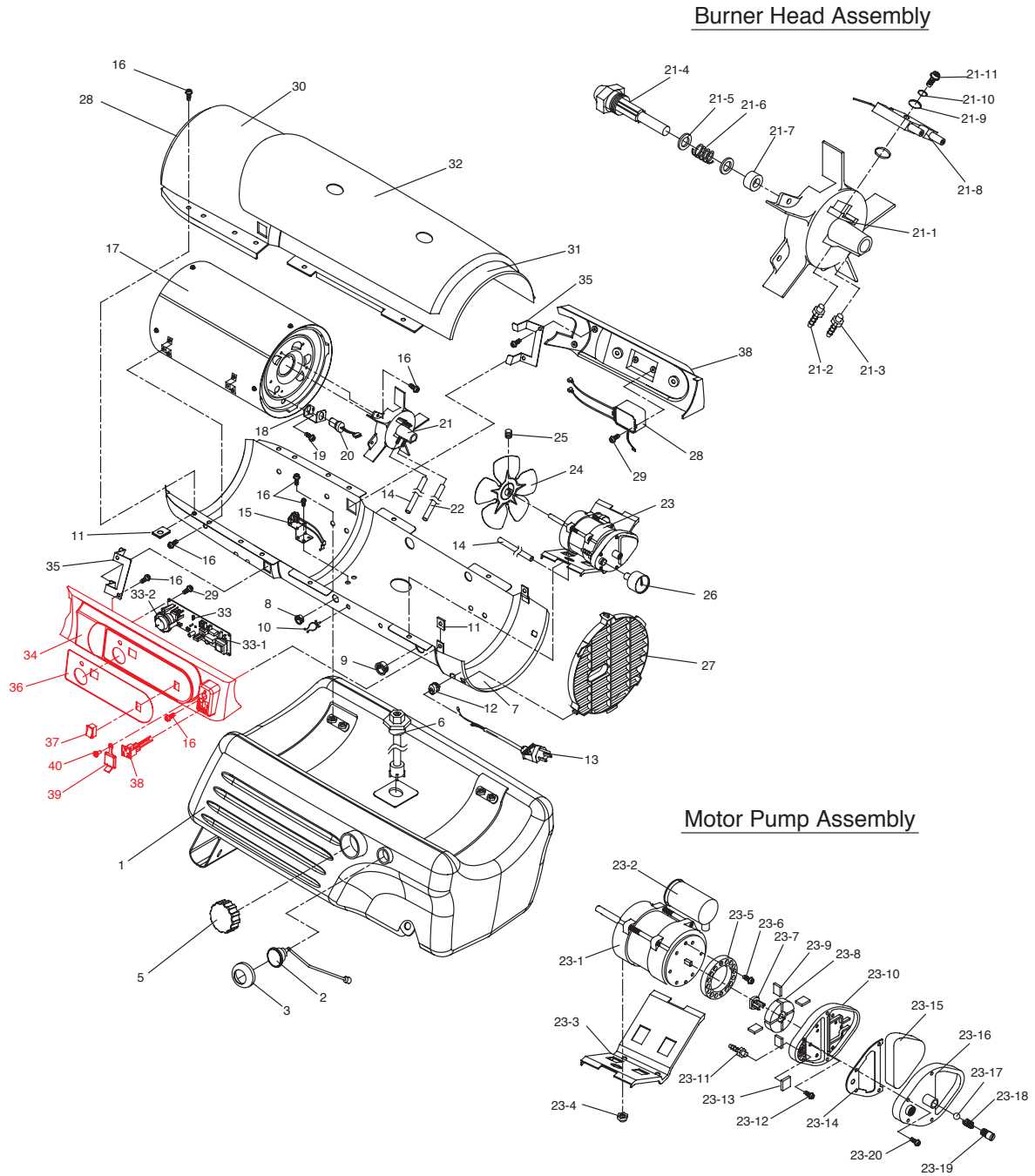
KEY NO.	DESCRIPTION	PART NO.	KEY NO.	DESCRIPTION	PART NO.
1	Fuel Tank Assembly	2151-0016-00	23-3	Motor Supportor	3121-0358-00
2	Fuel Gauge	2156-0023-00	23-4	Nut	4331-0013-00
3	Fuel Gauge Cap	3231-0123-00	23-5	Pump Body	3541-0022-00
			23-6	Bolt-PH	4321-0038-00
5	Fuel Cap	3231-0122-00	23-7	Insert	See SP-KFA1000
6	Fuel Filter Assembly	2155-0009-00	23-8	Rotor Kit	SP-KFA1000
7	Shell Lower Assembly	2151-0015-01	23-9	Blade	See SP-KFA1000
8	Bushing Grommet(S)	3231-0120-00	23-10	End Pump Cover	3531-0008-00
9	Bushing Grommet(L)	3231-0121-00	23-11	Elbow	3231-0093-00
10	Twist Lock Stand Off	3713-0022-00	23-12	Flange Bolt	4329-0014-00
11	Nut Clip	3131-0182-00	23-13	Lint Filter	See SP-KFA1005
12	Cord Bushing	3712-0013-00	23-14	Output Filter	See SP-KFA1005
13	Power Cord	3980-0102-00	23-15	Filter Kit	SP-KFA1005
14	Air Line	3341-0018-00	23-16	End Filter Cover	3221-0029-00
15	Temperature Limit Control	2153-0013-00	23-17	Ball	See SP-KFA1006
16	Flange Screw	4319-0015-00	23-18	Spring	See SP-KFA1006
17	Combustion Chamber	2152-0072-00	23-19	Plug/Pump Adj.Kit	SP-KFA1006
18	Photocell Bracket	3131-0159-00	23-20	Flange Screw	4329-0016-00
19	Screw-BH	4311-0068-00	24	Fan Assembly	2154-0009-00
20	Photocell Assembly	SP-KFA1007	25	Set Screw	4323-0004-00
21	Burner Head Assembly	See below	26	Pressure Gauge	3740-0049-00
21-1	Burner Head	3531-0015-00	27	Fan Guard	3221-0035-00
21-2	Nipple(Air)	3541-0020-00	28	Ignitor	39E0-0025-00
21-3	Nipple(Fuel)	3541-0039-00	29	Screw-TH2S	4312-0044-00
21-4	Nozzle	SP-KFA1027	30	Shell Upper Assembly	2151-0018-01
21-5	Nozzle Seal Washer	4343-0016-00	31	Shell Cover	3211-0019-00
21-6	Nozzle Seal Spring	3431-0010-00	32	Main P.C.B Assembly	215A-0026-00
21-7	Nozzle Sleeve	3311-0002-00	32-1	Fuse	3920-0025-00
21-8	Spark Plug	SP-KFA1008	32-2	Thermostat Control Knob	3231-0111-01
21-9	Fiber Washer	4349-0017-00	33	Side Cover(R)	3211-0021-00
21-10	Spring Washer	4342-0009-00	34	Bracket - Cover(R)	3131-0348-00
21-11	Flange Bolt	4329-0013-00	35	Rating Plate	3221-0058-02
22	Fuel Line	3341-0016-00	36	Power Switch	39A0-0044-00
23	Motor and Pump Assembly	See below	37	Side Cover(L)	3211-0023-00
23-1	Motor	3970-0034-00	38	Bracket - Cover(L)	3211-0023-00
23-2	Capacitor	3820-0142-00	39	Front Guard	3561-0066-00

FOR TECHNICAL ASSISTANCE SEE YOUR LOCAL RETAILER OR
CONTACT US AT:

Phone : 1-800-668-5323

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

15. EXPLODED PARTS DRAWING (RMC-KFA125T/170TDGP Models Only)



**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

17. PARTS LIST(RMC-KFA125T/170TDGP Models Only)

KEY NO.	DESCRIPTION	PART NO.	
		RMC-KFA125TDGP	RMC-KFA170TDGP
1	Fuel Tank Assembly	2151-0012-00	2151-0011-00
2	Fuel Gauge	2156-0022-00	2156-0022-00
3	Fuel Gauge Cap	3231-0123-00	3231-0123-00
5	Fuel Cap	3231-0122-00	3231-0122-00
6	Fuel Filter Assembly	2155-0010-00	2155-0010-00
7	Shell Lower Assembly	2151-0014-01	2151-0013-01
8	Bushing Grommet(S)	3231-0120-00	3231-0120-00
9	Bushing Grommet(L)	3231-0121-00	3231-0121-00
10	Twist Lock Stand Off	3713-0022-00	3713-0022-00
11	Nut Clip	3131-0182-00	3131-0182-00
12	Cord Bushing	3712-0013-00	3712-0013-00
13	Power Cord	3980-0031-00	3980-0031-00
14	Air Line	3341-0010-00	3341-0002-00
15	Temperature Limit Control	2153-0014-00	2153-0001-00
16	Flange Screw	4319-0015-00	4319-0015-00
17	Combustion Chamber	2152-0073-00	2152-0074-00
18	Photocell Bracket	3131-0159-00	3131-0159-00
19	Screw-BH	4311-0068-00	4311-0068-00
20	Photocell Assembly	SP-KFA1007	SP-KFA1007
21	Burner Head Assembly	See below	See below
21-1	Burner Head	3531-0007-00	3531-0009-00
21-2	Nipple(Air)	3541-0020-00	3541-0020-00
21-3	Nipple(Fuel)	3541-0020-00	3541-0020-00
21-4	Nozzle	SP-KFA1003	SP-KFA1004
21-5	Nozzle Seal Washer	4343-0016-00	4343-0016-00
21-6	Nozzle Seal Spring	3431-0010-00	3431-0010-00
21-7	Nozzle Sleeve	3311-0002-00	3311-0002-00
21-8	Spark Plug	SP-KFA1009	SP-KFA1009
21-9	Fiber Washer	4349-0017-00	4349-0017-00
21-10	Spring Washer	4342-0009-00	4342-0009-00
21-11	Flange Bolt	4329-0013-00	4329-0013-00
22	Fuel Line	3341-0017-00	3341-0017-00
23	Motor and Pump Assembly	See below	See below
23-1	Motor	3970-0029-00	3970-0033-00
23-2	Capacitor	3820-0143-00	3820-0143-00
23-3	Motor Supportor	3121-0357-00	3121-0357-00
23-4	Nut	4331-0013-00	4331-0013-00
23-5	Pump Body	3541-0022-00	3541-0022-00
23-6	Bolt-PH	4321-0038-00	4321-0038-00
23-7	Insert	See SP-KFA1000	See SP-KFA1000

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

KEY NO.	DESCRIPTION	PART NO.	
		RMC-KFA125TDGP	RMC-KFA170TDGP
23-8	Rotor Kit	SP-KFA1000	SP-KFA1000
23-9	Blade	See SP-KFA1000	See SP-KFA1000
23-10	End Pump Cover	3531-0008-00	3531-0008-00
23-11	Elbow	3231-0093-00	3231-0093-00
23-12	Flange Bolt	4329-0014-00	4329-0014-00
23-13	Lint Filter	See SP-KFA1005	See SP-KFA1005
23-14	Output Filter	See SP-KFA1005	See SP-KFA1005
23-15	Filter Kit	SP-KFA1005	SP-KFA1005
23-16	End Filter Cover	3221-0029-00	3221-0029-00
23-17	Ball	See SP-KFA1006	See SP-KFA1006
23-18	Spring	See SP-KFA1006	See SP-KFA1006
23-19	Plug/Pump Adj.Kit	SP-KFA1006	SP-KFA1006
23-20	Flange Screw	4329-0016-00	4329-0016-00
24	Fan Assembly	2154-0004-00	2154-0007-00
25	Set Screw	4323-0004-00	4323-0004-00
26	Pressure Gauge	3740-0049-00	3740-0049-00
27	Fan Guard	3221-0032-00	3221-0032-00
28	Ignitor	39E0-0025-00	39E0-0025-00
29	Screw-TH2S	4312-0044-00	4312-0044-00
30	Shell Upper Front	3111-0220-01	3111-0221-01
31	Shell Upper Rear Assembly	2151-0020-01	2151-0020-01
32	Shell Cover	3211-0020-00	3211-0020-00
33	Main P.C.B Assembly	215A-0023-00	215A-0023-00
33-1	Fuse	3920-0025-00	3920-0025-00
33-2	Thermostat Control Knob	3231-0111-01	3231-0111-01
34	Side Cover(R)	3211-0022-00	3211-0022-00
35	Bracket - Cover(R)	3131-0351-00	3131-0351-00
36	Rating Plate	3221-0059-04	3221-0059-00
37	Power Switch	39A0-0044-00	39A0-0044-00
38	Electric outlet Assembly	39D0-0263-00	39D0-0263-00
39	Cover-outlet	3231-0114-00	3231-0114-00
40	Screw Top Table	4319-0042-00	4319-0042-00
41	Side Cover(L)	3211-0024-00	3211-0024-00
42	Bracket - Cover(L)	3131-0352-00	3131-0352-00

FOR TECHNICAL ASSISTANCE SEE YOUR LOCAL RETAILER OR
CONTACT US AT:

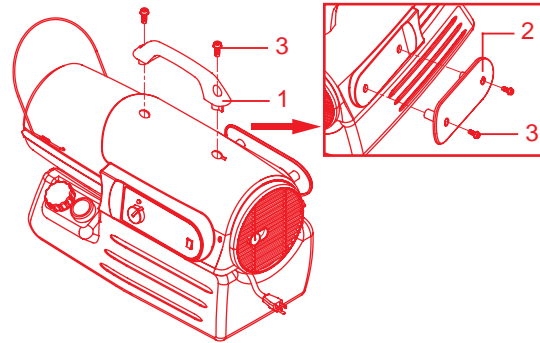
Phone : 1-800-668-5323

**NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!**

18. PARTS LIST (WHEELS AND HANDLE)

1) RMC-KFA70TDGP MODEL

KEY NO.	DESCRIPTION	PART NO.	QTY
		RMC-KFA70TDGP	
1	Handle	3231-0125-00	1
2	Cord Wrap	3231-0056-00	1
3	Hardware Kit	HW-KFA1001	1



2) RMC-KFA125T/170TDGP MODELS

KEY NO.	DESCRIPTION	PART NO.		QTY
		RMC-KFA125TDGP	RMC-KFA170TDGP	
1	Handle Front	3551-0039-00	3551-0040-00	1
2	Handle	3231-0126-00	3231-0126-00	1
3	Cord Wrap	3221-0057-00	3221-0057-00	1
4	Wheel Axle	3541-0064-00	3541-0064-00	1
5	Wheel	2156-0026-00	2156-0026-00	2
6	Wheel Cap	3231-0100-00	3231-0100-00	2
7	Hardware Kit	HW-KFA1008	HW-KFA1008	1
7-1	Screw(A)	-	-	4
7-2	Screw(B)	-	-	4
7-3	Flat Washer	-	-	2
7-4	Cotter Pin	-	-	2
7-5	Bushing	-	-	2
8	Louver	2156-0036-00	2156-0036-00	1

