

# 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.

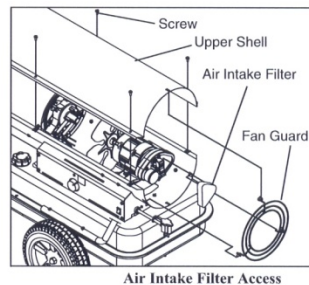
## A.) FUEL TANK

FLUSH EVERY 200 HOURS OF OPERATION OR AS NEEDED

## B.) AIR INTAKE FILTER

WASH AND DRY WITH SOAP AND WATER EVERY 500 HOURS OF OPERATION OR AS NEEDED.

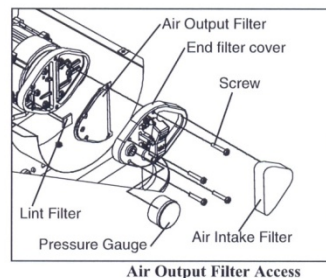
- Remove screws along each side of heater using medium Phillips screwdriver.
- Lift upper shell off.
- Remove fan guard.
- Wash or replace air intake filter.
- Reinstall fan guard and upper shell.



## C.) AIR OUTPUT FILTER, LINT FILTER

REPLACE EVERY 500 HOURS OF OPERATION OR ONCE A YEAR.

- Remove upper shell and fan guard (See Air Intake Filter).
- Turn Air pressure gauge counter-clock wise and remove.
- Remove end filter cover screws using medium Phillips screwdriver.
- Remove end filter cover.
- Replace air output and lint filter.
- Reinstall end filter cover and air pressure gauge.
- Reinstall fan guard and upper shell.



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

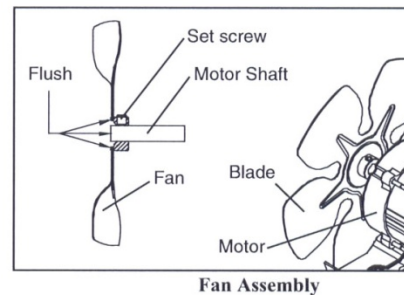
This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

# MAINTENANCE

## D.) FAN BLADES

CLEAN EVERY SEASON OR AS NEEDED.

- Remove upper shell (See Air Intake Filter).
- Use M6 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 cloth moistened with kerosene or solvent.
- Dry fan blade thoroughly.
- 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).
- Reinstall upper shell.



## E.) NOZZLE

REMOVE DIRT IN NOZZLE AS NEEDED

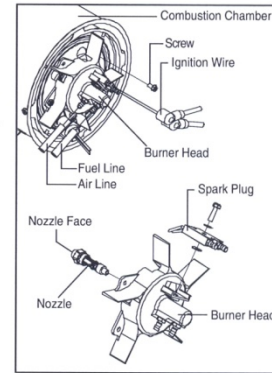
(For DFA-50/75T/125C/170CV Models Only)

- Remove upper shell.
- Remove fan blade.
- Remove fuel and air line hoses from burner head.
- Remove ignition 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 dirty in nozzle)
- Reinstall nozzle into burner head and tighten firmly. (80~110 inch-pounds)
- Reinstall spark plug in burner head.
- Attach burner head to combustion chamber.
- Attach ignition wire to spark plug.
- Attach fuel and air line hoses to burner head.
- Reinstall fan blade and upper shell.

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

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

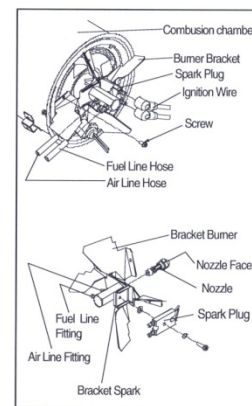
# MAINTENANCE



Nozzle Replacement

(For DFA-210CV Model Only)

- Remove upper shell.
- Remove fan.
- Remove fuel and air line hoses from adaptor-nozzle.
- Remove ignition wire from spark plug.
- Remove four screws using medium Phillips screwdriver and remove burner-bracket from combustion chamber.
- Remove spark plug from burner head using medium Phillips screwdriver.
- Carefully remove nozzle from adaptor-nozzle using 5/8" socket wrench.
- Blow compressed air through face of nozzle. (this will remove any dirt in nozzle)
- Reinstall nozzle into adaptor-nozzle and tighten firmly. (80~110 inch-pounds)
- Reinstall spark plug in spark-bracket.
- Attach burner-bracket to combustion chamber.
- Attach ignition wire to spark plug.
- Attach fuel and air line hoses to adaptor-nozzle.
- Reinstall fan blade and upper shell.



Nozzle Replacement

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

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

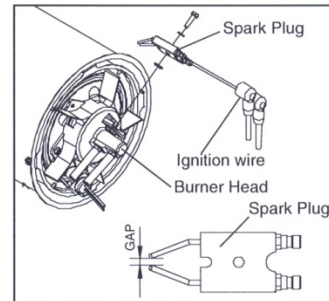
# MAINTENANCE

## F.) SPARK PLUG

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

(For DFA-50/75T/125C/170CV Models Only)

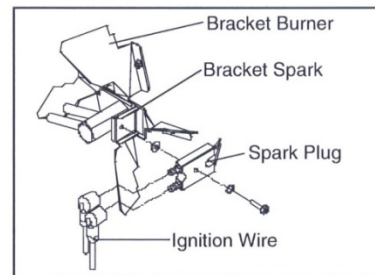
- Remove upper shell.
- Remove fan.
- Remove ignition wire from spark plug.
- Remove spark plug from burner head using medium phillips screwdriver.
- Clean and regap spark plug electrodes to 3.5mm gap.
- Reinstall spark plug in burner head.
- Attach ignition wire to spark plug.
- Reinstall fan and upper shell.



Spark Plug Regap

(For DFA-210CV Model Only)

- Remove upper shell.
- Remove fan.
- Remove ignition wire from spark plug.
- Remove spark plug from spark-bracket using medium phillips screwdriver.
- Clean and regap spark plug electrodes to 3.5mm gap. (0.138 )
- Reinstall spark plug in spark-bracket.
- Attach ignition wire to spark plug.
- Reinstall fan and upper shell.



Spark Plug Regap

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

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

# MAINTENANCE

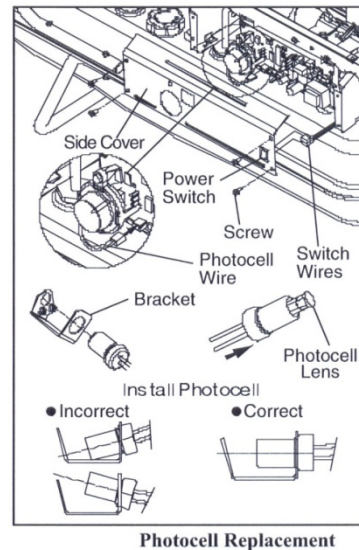
## G.) PHOTOCCELL

CLEAN PHOTOCCELL ANNUALLY OR AS NEEDED.

- Remove upper shell.
- Remove fan.
- Remove photocell from its mounting.  
Clean photocell lens with cotton swab.

TO REPLACE:

- Remove side cover screws using medium phillips screwdriver.
- Disconnect switch wires from power switch and remove side cover.
- Disconnect wires from circuit board and remove photocell.
- Install new photocell and connect wires to circuit board.
- Replace switch wires to power switch and side cover.
- Replace fan and upper shell.



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

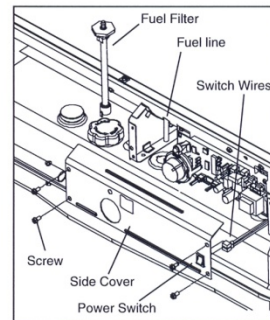
This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

# MAINTENANCE

## H.) FUEL FILTER

CLEAN OR REPLACE TWICE A HEATING SEASON OR AS NEED.

- Remove side cover screws using medium Phillips screwdriver.
- Disconnect switch wires from power switch and remove side cover.
- Pull fuel line off fuel filter neck.
- Turn fuel filter 90° to counter clockwise and pull to remove. (DFA-50/75T Models only)
- Turn fuel filter 90° to clockwise and pull to remove (DFA-125C/170CV/210CV Models only) .
- Wash fuel filter with clean fuel and replace in tank.
- Attach fuel line to fuel filter neck.
- Replace switch wires to power switch.
- Reinstall side cover.



Fuel Filter Replacement

## I.) PUMP PRESSURE ADJUSTMENT

**NOTE: If the pump pressure needs to be adjusted, make sure the heater is running on the HIGH BTU setting.**

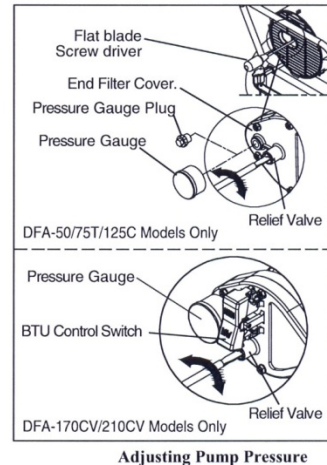
- Push the BTU CONTROL Switch to HIGH.  
(DFA-170CV/210CV Models only)
- Remove Pressure Gauge Plug from End Filter Cover.  
Install accessory Pressure Gauge.  
(DFA-50/75T/125C Models only)
- Start heater  
Allow motor to reach full speed
- Adjust pressure (Using a flat blade screwdriver) Turn relief valve to clockwise to increase pressure. Turn relief valve to counter clockwise to decrease pressure.
- Stop heater

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

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

# MAINTENANCE

MODEL	Pump Pressure	
	High BTU level	Low BTU level
DFA-50	3.8 psi	N/A
DFA-75T	3.8 psi	N/A
DFA-125C	5.5 psi	N/A
DFA-170CV	6.5 psi	4.5 psi
DFA-210CV	8.5 psi	6.5 psi



## NOTE: USE ONLY ORIGINAL EQUIPMENT REPLACEMENT PARTS.

Use of alternate or third party components will void any warranty and may cause unsafe operating condition.

**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. Remove side cover screws using medium phillips screw driver.
3. Disconnect switch wires from power switch.
4. Remove fuse from fuse holder.(See Replacing Fuse.)
5. Replace fuse with enclosed fuse.



### WARNING: FIRE HAZARD

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

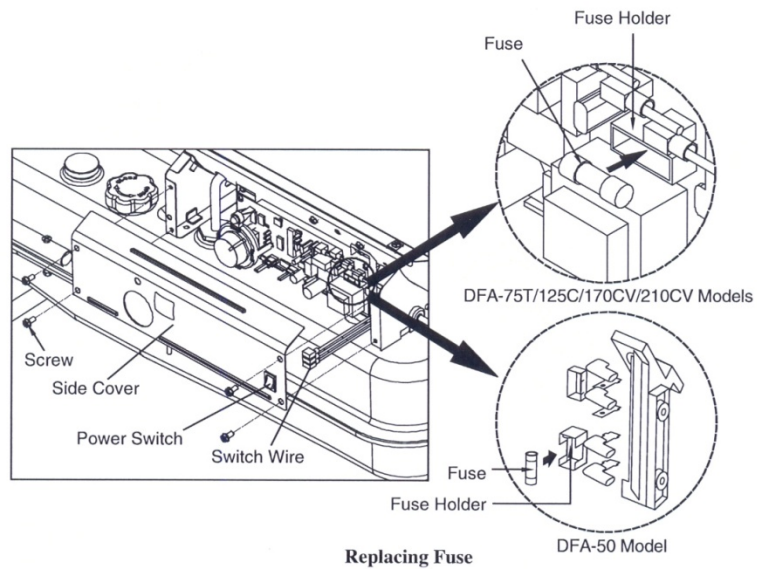
6. Replace switch wires to power switch.
7. Replace side cover.

## NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner

# MAINTENANCE

**NOTE: Specified fuse rating: AC 125/8A**



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

This document is for reference purposes and not intended to replace your owner's manual. It is important to read your owner's manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner