

DuraHeat® Forced Air Heater Troubleshooting Guide

Air Pressure Problems

Always use an air pressure gauge to check or set air pressures.

DFA-45	2.8 PSI	DFA-170T,170C	6.5 PSI
DFA-65	3.5 PSI	DFA-210T,210C	8.5 PSI
DFA-120,120T	4.5 PSI		

If the pressure is **TOO LOW** turn the adjustment screw **clockwise**. This will increase the flame.

If the pressure is **TOO HIGH** turn the adjustment screw **counter-clockwise** to reduce the flame.

Note: If the heater burns OK with the Upper Shell off, but turns off when the cover is installed, the pressure is too low.

If you can't achieve the proper pressure setting - try pulling the air line off the pump body and block air line fitting tight with finger then remove adjustment screw and plug the hole tight with another finger. **This should peg pressure gauge.** If it does not, the problem is inside the pump body.

- Check for:
- Cracked plastic cover
 - Cracked pump body
 - Cracked rotor
 - Loose pump body screws
 - Rubber seal on filter seated properly

Sometimes it's hard to see the air leak. A solution of 50/50 soap and water can be applied to the pump to find the leak.

CAUTION! BE CAREFUL NOT TO APPLY THIS SOLUTION TO ANY ELECTRICAL PARTS AS IT WILL DAMAGE THE COMPONENTS AND CREATE A SHOCK HAZARD.

If pressure gauge **does peg** - try removing the air line from the nozzle end and replace it at pump body end. Then plug air line and adjustment screw end. If it **does not** peg the gauge, then the problem lies with the Air Line. The air line may be cracked, cut, torn, split, rotted, etc. **Replace the Air Line to correct the problem.**

OWNER'S MANUAL NOTE: (WARNING) Always review the owner's manual completely before operating or attempting to service or repair any appliance. Failure to follow all instructions provided in the owner's manual may result in property damage, personal injury, or death.

DuraHeat® Forced Air Parts & Service Guide

FOR TECHNICAL ASSISTANCE CONTACT US AT:

Tech Assistance: 814-643-2299
Ordering: 800-233-3202
Fax: 800-421-1357
Email: techsvc@worldmkt-ing.com



or visit our website at:

KEY NO.	DESCRIPTION	DFA45	PART NO.			
			DFA65/65T	DFA120/120T	DFA170T/170C	DFA210T/210C
1	Fuel Tank Assembly "Pre 04"	21-1001	21-1001	21-1002	21-1003	21-1003
1	Fuel Tank Assembly 04-05	21-1401	21-1401	21-1402	21-1403	21-1403
1.1	Drain Plug	N/A	N/A	21-4401	21-4401	21-4401
2	Fuel Gauge	21-1004	21-1004	21-1005	21-1005	21-1005
3	Fuel Filter Assembly	21-1006	21-1006	21-1007	21-1007	21-1007
4	Fuel Cap	21-1008	21-1008	21-1008	21-1008	21-1008
5	Power Cord	21-1009	21-1009	21-1009	21-1009	21-2101
6	Power Switch	21-1010	21-1010	21-1010	21-1010	21-1010
7	Display P.C.B. Assembly	21-1011	21-1011	21-1011	21-1012	21-1012
8	Thermostat Control Knob	-----	-----	21-1013	21-1013	21-1013
9	Lower Shell	Reference	Reference	Reference	Reference	Reference
10	Air Line	21-1017	21-1017	21-1018	21-1069	21-2108
11	Temperature Limit Control	21-1019	21-1019	21-1020	21-1020	21-2109
12	Combustion Chamber 03	21-1021	21-1021	21-1022	21-1023	21-2110
13	Photocell Holder	Reference	Reference	Reference	Reference	Reference
14	Fuel Line	21-1024	21-1024	21-1025	21-1025	21-2111
15	Photocell	FA1007	FA1007	FA1007	FA1007	FA1023BK
16	Burner Head Assembly	Reference	Reference	Reference	Reference	Reference
16-1	Nozzle Kit	FA1001	FA1002	FA1003	FA1004	FA1011BK
16-2	Nozzle Seal Washer	21-1027	21-1027	21-1027	21-1027	21-1027
16-3	Nozzle Seal Spring	21-1028	21-1028	21-1028	21-1028	21-1028
16-4	Burner Head	21-1029	21-1029	21-1030	21-1031	21-1031
16-5	Spark Plug	FA1008	FA1008	FA1009	FA1009	FA1021BK
17	Motor and Pump Assembly	Reference	Reference	Reference	Reference	Reference
17-1	Motor	21-1035	21-1035	21-1036	21-1037	21-2119
17-2	Pump Body	21-1038	21-1038	21-1038	21-1038	21-2120
17-3	Rotor Kit	FA1000	FA1000	FA1000	FA1000	FA1022BK
	Rotor Only					21-2125

**PLEASE READ OWNER'S MANUAL BEFORE PERFORMING
ANY MAINTENANCE OR SERVICE**

DuraHeat® Forced Air Heater Parts List (Cont'd)

KEY NO.	DESCRIPTION	PART NO.				
		DFA45	DFA65/65T	DFA120/120T	DFA170T/170C	DFA210T/210C
17-4	Rotor Blade	21-1039	21-1039	21-1039	21-1039	21-2122BK
17-5	End Pump Cover	21-1040	21-1040	21-1040	21-1040	21-1040
17-6	Filter Kit	FA1005	FA1005	FA1005	FA1005	FA1005
17-7	Lint Filter	21-1090	21-1090	21-1090	21-1090	21-1090
17-8	Output Filter	21-1091	21-1091	21-1091	21-1091	21-1091
17-9	End Filter Cover	21-1041	21-1041	21-1041	21-1041	21-1041
17-10	Plug/Pump Adj. Kit	FA1006	FA1006	FA1006	FA1006	FA1006
17-11	Ball	See 17-10	See 17-10	See 17-10	See 17-10	See 17-10
17-12	Spring	See 17-10	See 17-10	See 17-10	See 17-10	See 17-10
17-13	Adj. Screw	See 17-10	See 17-10	See 17-10	See 17-10	See 17-10
18	Fan Assembly	21-1042	21-1042	21-1043	21-1044	21-1044
19	Ignitor	21-1045	21-1045	21-1046	21-1047	21-2124
20	Side Cover Right No T-Stat	21-1070	21-1048	21-1049	-----	-----
20	Side Cover Right T-Stat Mdl	-----	21-6502	21-1202	21-1702 (c)	21-2102(c)
21	Side Cover Left No T-Stat	21-1051	21-1051	21-1052	-----	-----
21	Side Cover Left T-Stat Mdl	-----	21-6504	21-6505	21-1704 (c)	21-1704(c)
22	Fan Guard	21-1054	21-1054	21-1055	21-1055	21-2129
23	Main P.C.B. 2001 Models	21-1056	21-1056	21-1057	21-1058	21-2150
23	Main P.C.B. 2002-3 Models	21-2151	21-2151	21-2152	21-2150	21-2150
23	Main P.C.B. 2004 Models	21-2151	21-2153 (t)	21-2153 (t)	21-2153 (c)	21-2153 (c)
23-1	Fuse	FA1015	FA1015	FA1016	FA1017	FA2100
24	Clip Nut	21-1059	21-1059	21-1059	21-1059	21-1059
25	Upper Shell	Reference	Reference	Reference	Reference	Reference
26	Handle (Front)	21-1063	21-1063	21-1064	21-1065	21-1065
27	Wheel Standard Only	-----	-----	21-1066	21-1066	21-1066
27	Wheel Pneumatic C-Models	-----	-----	-----	21-5600	21-5600
	Hardware Kit	21-9601	21-9601	21-9602	21-9602	21-9603
	Cord Wrap C-Models	-----	-----	-----	21-9500	21-9500
Not Shown	Pressure Gauge (Built-In) "C" Models	-----	-----	-----	21-1207	21-1207
Not Shown	Back Handle	-----	-----	-----	21-1080 (170C)	21-1080(210C)

ADDITIONAL ACCESSORIES:

Air Pressure Gauge HA1180 (all models)
Thermostat HA1210 (all models)

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DuraHeat® Forced Air Troubleshooting Guide

Heater ignites but MAIN PCB assembly shuts heater off after a short period of time. (Lamp is flickering)

1. Wrong pump pressure
2. Dirty Air Output, Air Intake and 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
9. Defective P.C.B. Board

1. Make Pump Pressure Adjustment
2. Replace Air Output, Air intake and Lint Filters
3. Replace Fuel Filter
4. Replace Nozzle
5. Clean Photocell Lens
6. Make sure photocell boot is properly seated in bracket
7. Check electrical components
8. Replace photocell
9. Replace P.C.B. Board

Heater will not ignite but motor runs for a short period of time. (Lamp is flickering)

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
9. Defective ignitor
10. Cracked spark plug

1. Fill tank with kerosene
2. Make Pump Pressure Adjustment.
3. Clean or replace Spark Plug, or adjust gap.
4. Replace Fuel Filter.
5. Clean or Replace Nozzle.
6. Flush fuel tank with clean kerosene.
7. Check electrical connections.
8. Attach ignitor wire to spark plug.
9. Replace ignitor.
10. Replace spark plug

Fan doesn't turn or turns slowly when heater is plugged in and power switch was in the "ON" position (Lamp is on or flickering)

1. Thermostat setting is too low (DFA170T model)
2. Bad electrical connection between motor and MAIN PCB assembly
3. Defective Motor

1. Turn thermostat control knob to a higher setting
2. Check electrical connections
3. Replace Motor

Heater ignites but shuts off quickly (Lamp is on)

1. Ambient temperature is too high
2. Defective T-Stat
3. Temperature limit safety device is overheated

1. Heater cannot be operated in temperatures above 85F/24C

OR

2. Defective T-Stat
3. Temperature limit safety device is overheated

2. Replace T-Stat
3. Turn power switch to "OFF" and allow to cool (wait about 10 min.). Then turn power switch to "ON" position

Heater will not turn-on (Lamp is off)

4. No electrical power
5. Blown fuse
6. Bad electrical connection between temperature limit safety device and PCB board
7. Defective P.C.B. Board

4. Check to insure heater cord and extension cord are plugged in. Check power supply
5. Replace fuse in PCB board
6. Check electrical connections
7. Replace P.C.B. Board.

Refer to the Owner's Manual for complete information