APPROVED

P/N 241278 Rev 2
Effective: 1-15-2018
Replaces: 5-4-2012

RAYPAK REPLACEMENT PART INSTRUCTIONS

HI DELTA BLOWER REPLACEMENT KITS
MODELS 302-902B,C; 992-2342B,C
DELTA LTD MODELS 399B-899B, 989B-2339B
007413F (LEFT) & 007414F (RIGHT)

IMPORTANT NOTICE

These instructions are primarily intended for use by qualified personnel specifically trained and experienced in the installation of this type of heating equipment and related system components. Installation and service personnel may be required to be licensed in some states. Persons not qualified shall not attempt to install this equipment nor attempt repairs according to these instructions.

DANGER - SHOCK HAZARD

Make sure electrical power to the heater is disconnected to avoid damage to components, potential serious personal injury or death.

SCOPE

This kit provides for the replacement of the combustion air blower(s) used on Hi Delta appliances.

THIS KIT INCLUDES:

(1) Combustion Blower, 651287 (right hand) or 651306 (left hand)
(4) #10 x ½" AB hex head screws
(4) # 10-32 hex lock nuts
(1) Blower Inlet screen
(1) 21.3" x 1.125" insulation roll

TOOLS REQUIRED:

Slotted screwdriver
Phillips screwdriver
5/16 Nut driver
Angle cutter pliers
Torque wrench with 18 inch-pounds in range of measurement.
Slack tube manometer

2151 Eastman Ave., Oxnard, CA 93030 (805) 278-5300 FAX: (805) 278-5468 www.raypak.com

Fig. 1

Burner/Blower Quantity Table (by Model)

Hi Delta Model Number	Delta Ltd. Model Number	QUANTITY OF	
		Burners	Blowers
302B&C	N/A	6	1
402B&C	399B	8	1
502B&C	499B	10	1
652B&C	649B	13	1
752B&C	749B	15	1
902B&C	899B	18	1

Hi Delta Model Number	Delta Ltd. Model Number	QUANTITY OF	
		Burners	Blowers
992B&C	989B	11	2
1262B&C	1259B	14	2
1532B&C	1529B	17	2
1802B&C	1799B	20	2
2002B&C	1999B	23	3
2072B&C	2069B	23	3
2342B&C	2339B	26	3

Fig. 2

PROCEDURE

1. Turn off all electrical power to the appliance at the breaker and at the power switch.
2. Turn off the fuel at the appliance shut-off and at the manual firing valves.
3. Turn off the pump(s)
4. Allow the appliance to cool before installation of this kit.
5. Remove the left or right upper control access panel to identify the location of the affected blower. The blower's location is large enough to allow removal and replacement without removing the top, rear or side panels.

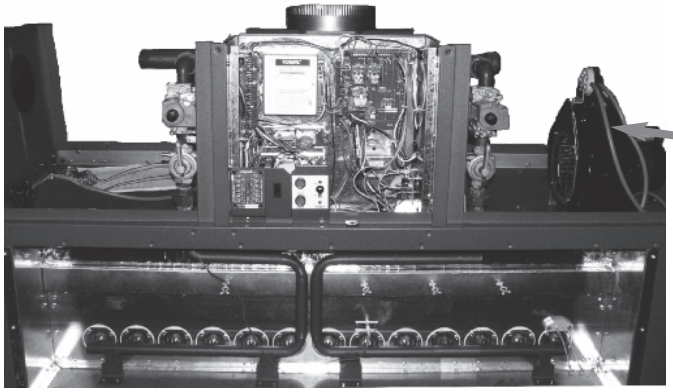


Fig. 3

Shown is the venting system with the top, rear, front and side panels removed for illustrative purposes only.

Blower location for Hi Delta size 302-902. Depending on model size, there will be 1-3 blowers. Consult the chart to verify.

2151 Eastman Ave., Oxnard, CA 93030 (805) 278-5300 FAX: (805) 278-5468 www.raypak.com

PROCEDURE continued

6. If the appliance is equipped with the “TruSeal”® combustion air ducting system, remove the four (4) screws that fasten the TruSeal duct to the blower’s inlet adapter. If the appliance was provided with flapper kits mounted to the blowers, (For appliances manufactured prior to February of 2005), remove the flapper assembly and set it aside.
7. Remove the air pressure switch attached to blower frame as shown in **FIGURE 4**.
8. Remove the four (4) lock nuts that fasten the blower’s base to the Hi Delta chassis.
9. Unplug the wire harness from the blower as shown in **FIGURE 5**.
10. Remove the Blower.
11. Inspect the white insulation that is located between the base of the blower and the chassis. If the insulation has deteriorated, it must be replaced with the material provided in the kit. Use appropriate silicone spray adhesive or equivalent to fasten insulation in place.
12. If there is a TruSeal system in the appliance; do not install the screen when theTruSeal duct is re-attached to the replacement blower.
13. Install the replacement blower in the appliance. Use the #10-32 lock nuts provided in the kit. Use 18 inch-pounds for the proper setting.
14. If the Blower was provided with a flapper kit, re-install the flapper onto the blower’s inlet flange.
15. Plug the 3-wire power harness into the appliance’s mating harness.
16. Attach the air pressure switch, removed in step 7 above, to the blower’s frame.
17. Reinstall the cabinet panels in order for the appliance to verify the air pressure settings.
18. Follow the procedure on page 5 in the **Blower Air Pressure Adjustments** section. See Steps 1 through 6

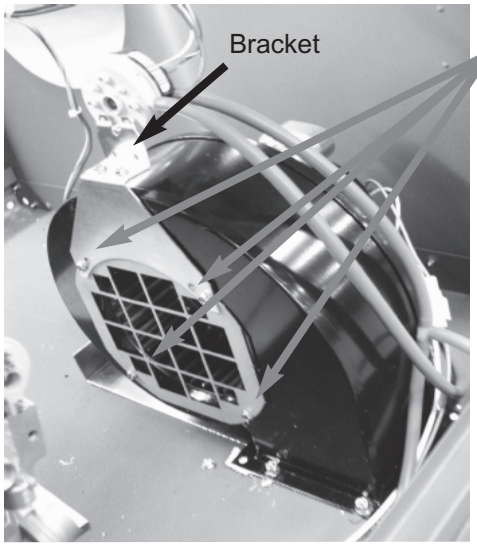


Fig. 4

Remove the four (4) 5/16” hex head screws that hold the finger guard screen in place.
This also supports the bracket the pressure switch is mounted to, on most blowers.

The white plastic electrical connector is the disconnect point for the blower’s electrical power. The 120 volt Hot, Neutral and Ground wires can be removed by unplugging the connector.

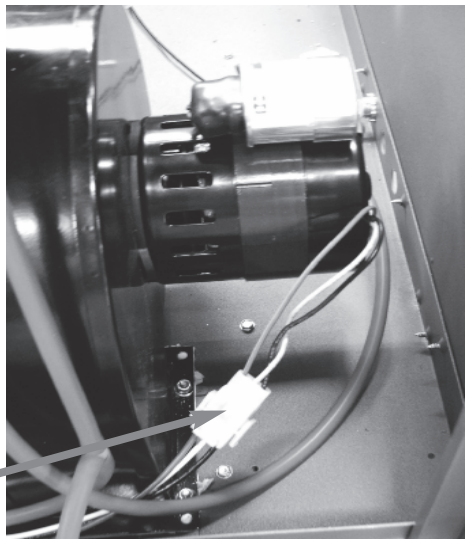
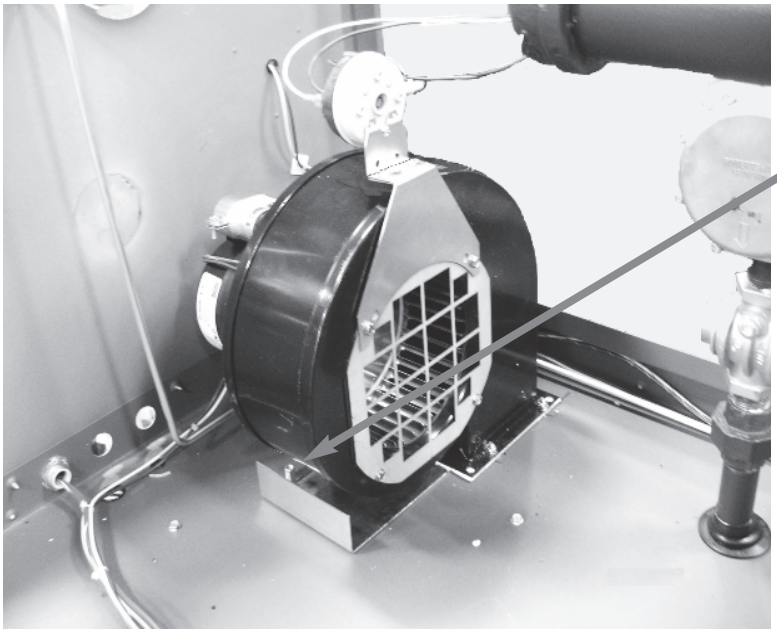


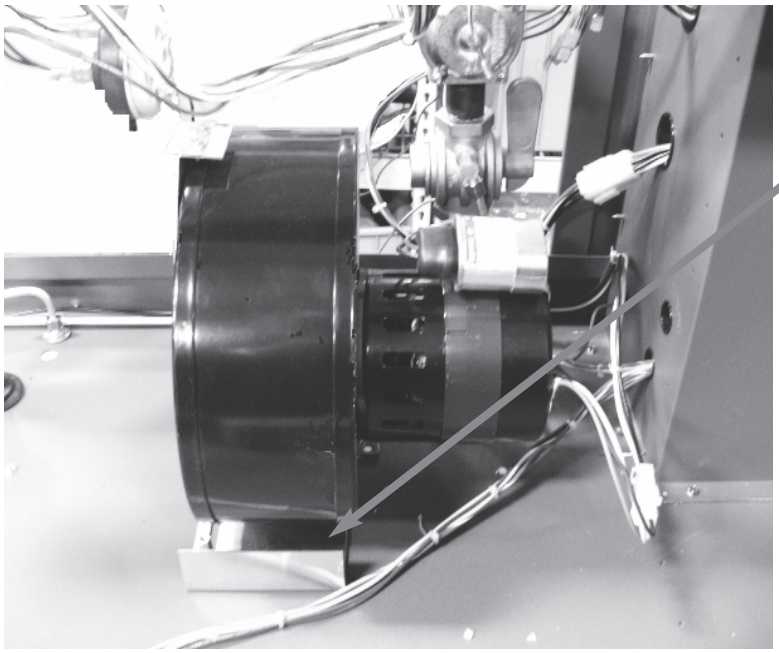
Fig. 5

2151 Eastman Ave., Oxnard, CA 93030 (805) 278-5300 FAX (805) 278-5468 www.raypak.com



In this rear view of the blower, you can see the tall hex nut that holds the shutter position. Do not remove the shutter or loosen the hex nut. The factory setting of 1.4” W.C. pressure must be re-checked and adjusted if necessary upon completion of blower replacement. **See Step 12.**

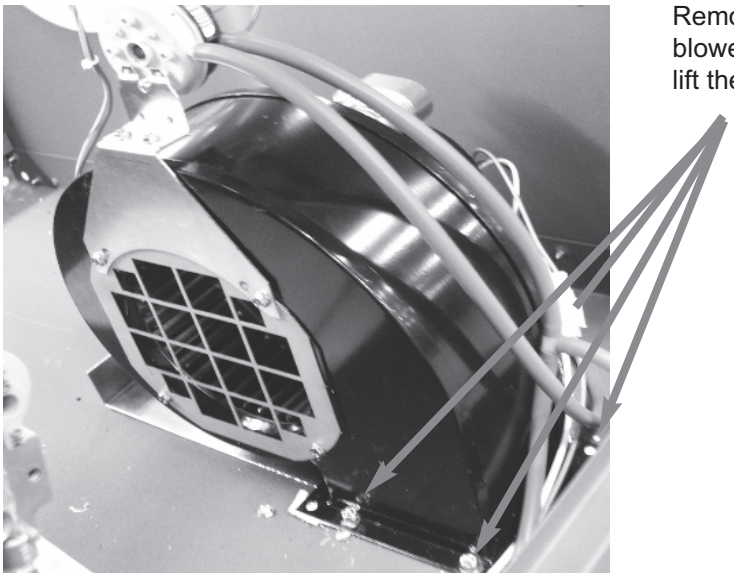
Fig. 6



The air shutter assembly can be seen mounted below the blower in this view.

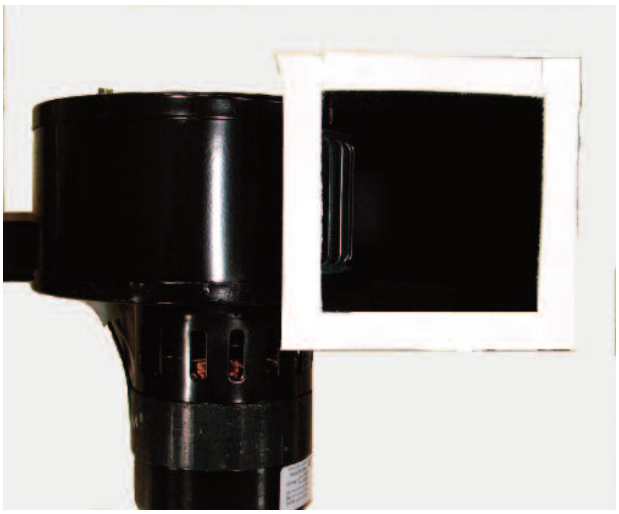
Fig. 7

2151 Eastman Ave., Oxnard, CA 93030 (805) 278-5300 FAX: (805) 278-5468 www.raypak.com



Remove the four (4) 1/4”-20” nuts that hold the blower to the stud bolts. Once the nuts are removed, lift the blower free of the bolts.

Fig. 8



This image shows the bottom view of the fan with insulation installed around the mounting flange. The insulation is provided in the kit and may be attached with spray adhesive, silicone RTV or any commercial grade adhesive (by others) that is suitable to adhere insulation to metal.

Fig. 9

BLOWER AIR PRESSURE ADJUSTMENTS:

1. Attach a 12” scale manometer near the fan proving switch. Pull off the black cap from the air pressure switch tee and connect the manometer. Retain the cap for re-installation later.
2. Turn on the power.
3. Check the manometer reading. The reading should be 1.4 ± .1 in W.C. for propane and natural gas heaters. If the reading doesn’t meet this requirement, adjust the air shutter on the blower to attain the proper value.
4. Turn the power off.
5. Reconnect the cap.
6. The appliance is ready for operation.

2151 Eastman Ave., Oxnard, CA 93030 (805) 278-5300 FAX (805) 278-5468 www.raypak.com