620A

HEWLETT hp PACKARD

SERVICE NOTE

618B-5B

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HP SHF SIGNAL GENERATOR MODELS
618B Serial No. 385 and Below
620A Serial No. 241 and Below
INSTALLATION OF FAN MODIFICATION KIT HP STOCK NO. 618B-95D OR 00618-600

"No longer supplied"

The HP Stock No. 618B-95D Fan Modification Kit provides an improved ventilation system in the HP Model 618B and 620A SHF Signal Generators listed above.

The DC Blower is replaced by a quieter operating, longer life AC fan.

PARTS SUPPLIED IN KIT 618B-95D

Quantity	Description	HP Stock No.
1	Cabinet Assembly, Gray Paint	618B-44A
1	Fan Motor Assembly	00618-603
2	Fan Bracket Assembly	00618-604
1	Air Filter, 7" x 7"	3150-0004
1	Formed Air Pipe with End Fitting	618B-36AV
1	Clamp, plastic, 3/8", for Air Pipe	1400-0031
7	6-32 x 3/4" Machine Screws	2360-0011
7	6-32 hex nut with lockwasher	2420-0001
7	Spacer, #6 x 1/4"	0380-0002
2	#6 x 7/16" Flat Washer	3050-0100
8	10-24 x 1/2" Truss Head Machine Screw	2990-0002
8	10-24 x 3/8" Hex Nut	2980-0001
8	Lockwasher, #10 External Tooth	2190-0012
1	White Wire, 7"	8150-0033
1	Black Wire, 7"	8150-0005
1	Cavity Fitting (for 620A only)	618B-36AN
1	Oil, Air Filter	6010-0147

PARTS SUPPLIED IN KIT 00618-600 SAME AS 618B-95D EXCEPT

1	Cabinet Assembly, Blue Paint	618B-44S Instead of 618B-44A

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INSTALLATION PROCEDURE

The circuit references used in the instructions will be found stamped on the components or on the chassis close to the components. Refer to the schematic diagram in the Operating and Service manual originally supplied with the instrument.

1. Disconnect power cord, remove and discard air filter and instrument cover. Rest instrument on front handles.

2. Locate bridge rectifier CR301 and the two leads (usually yellow) connecting this rectifier to power transformer T301. Disconnect leads at transformer terminals and completely remove them by pulling them out of the cabling.

3. Clip the two remaining wires (usually black and red) connected to the rectifier at the point where they emerge from the cabling. Remove and discard CR301 rectifier.

4. Locate and remove blower B301 and filter FL302. Remove the blower and any mounting brackets, gaskets, or housings associated with the blower and its mounting.

In some instruments, the line filter FL301 is mounted on the blower or fan box. It will be necessary to remount this filter in the chassis space vacated by removal of the blower assembly.

The leads (usually red and black) to the blower and filter FL302 may be cut off at the point where they emerge from the instrument cabling. In some instruments, this disconnection can be made at a terminal strip.

5. Remove and discard the old air input pipe to the klystron cavity. In Model 618B instruments, remove the nut on the back of the cavity fitting without removing the fitting from the cavity. In Model 620A instruments, remove the entire cavity fitting and replace with the 618B-36AN cavity fitting supplied. The new fitting should be firmly seated in the 620A cavity.

6. The sockets for tubes V309, V310, V313, and V314 are mounted on an insulating board which in turn is bolted to the chassis with six machine screws.

Remove the six screws, place a 1/4" spacer (provided with kit) between the insulating board and the chassis at each screw. Replace the six screws with the longer 6-32 x 3/4" screws, lockwashers, and nuts provided.

It will be necessary to remove V309, V310, V311, and V314 as well as loosen the resistor board in the center of the chassis to gain access to these six screws.

7. Mount the socket and bracket assembly supplied with kit. Drill two holes spaced 3/4" apart approximately 1/4" from the outer edge of the shield separating the bottoms of transformers T301 and T302 from the rest of the wiring on the underside of the chassis. Locate holes so that the bracket and socket is centered over the cabled wires connecting to T302 transformer.

Connect 7" white wire to pin 1 and 7" black wire to pin 2 of the two contact socket in the bracket assembly before mounting. Mount bracket in holes just drilled using any two of the screws removed in step 6.

8. Pass white and black leads from socket through hole in center shield and route over to socket for delay relay K301. If this is an octal socket, connect white wire to pin 2 and black wire to pin 3. If this is a 9 pin noval socket, connect white wire to pin 6 and black wire to pin 1.

9. Remove the four rear corner braces which have the rear cover retaining nuts mounted in them. Save braces and mounting hardware.

10. Mount new fan assembly on rear of instrument. Position frame so that the hole and notch shaped portion of the band around the fan perimeter are toward the instrument bottom. The cable from the fan will be long enough to plug into the socket mounted in steps 7 and 8 only when rear fan and frame assembly is properly orientated.

Bolt the rear fan assembly in place using the eight 10-24 x 1/2" machine screws, lockwashers, and nuts supplied in fan kit.

11. Replace the four rear corner braces removed in step 9. Mount on the rear corners of new fan assembly using original mounting hardware.

12. Pass new air pipe supplied with kit through chassis ventilation hole located between sockets for V301 and V305. Blow out tubing supplied for this air pipe to remove any foreign material that might prevent free air flow.

Loosely thread hex fitting on one end of pipe over cavity fitting described in step 5.

13. Insert other end of air pipe into hole provided in notch shaped portion of band around fan perimeter. If necessary, wrap end of pipe with plastic tape to obtain a relatively close fit.

Place plastic clamp provided in kit over pipe and secure pipe near fan in the mounting hole provided. Use 1/4" spacer and 6-32 x 3/4" machine screw supplied with kit. Place flat washers furnished in kit on the outside of the plastic clamp mounting ears.

14. Tighten fitting started in step 12 and plug cable from fan motor into the socket mounting in step 7.

15. Turn instrument upright, connect power, and turn instrument on. Fan should operate immediately.

16. Disconnect power cord and install new cover which is held in place in the same manner as the old cover.

17. The new air filter element should be installed in the place provided on the rear of the instrument cover.