

# FM-200 FAN & MOTOR REPLACEMENT INSTRUCTIONS

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## PARTS SUPPLIED WITH THIS KIT:

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|-------------------------------------|-----------------------------------|
| (1) Fan Motor with Leads            | (4) #6-32x $\frac{3}{4}$ " Screws |
| (1) 3 $\frac{1}{2}$ " Fan Blade     | (2) #8-32x $\frac{1}{2}$ " Screws |
| (2) Blue Wire Nuts                  | (2) #8 Lock Washers               |
| (1) Long Shank 3/32" Hex Wrench     | (2) 3/8" Rubber Grommets          |
| (2) #8-32x1- $\frac{1}{4}$ " Screws | (2) #8 Shoulder Washers           |
| (2) Aluminum Mounting Blocks        |                                   |
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## FM-200 FAN MOTOR PREPARATION INSTRUCTIONS

- ( ) One at a time, remove black hex head screws holding the two rotor halves together and replace each with a #8 lock washer and a #8-32x1- $\frac{1}{4}$ " screw.
- ( ) Secure the aluminum mounting blocks to the shaft side of the motor frame using four #6-32x $\frac{3}{4}$ " screws. Note: The larger hole in the mounting blocks should be nearest the outside edge of the motor frame.

## FM-200 FAN MOTOR INSTALLATION INSTRUCTIONS

To start the installation, read these instructions very carefully. You will need a  $\frac{1}{4}$ " drill bit and a narrow screwdriver at least 4" long. Unplug the amplifier and remove any input, output and control cables that may be connected to the back of the amplifier. Remove the chassis from the case. Remove the perforated sheet metal shield from the top of the chassis and remove the tubes. Place the tubes where they will not be damaged. You are now ready to proceed with the installation.

- ( ) Drill a  $\frac{1}{4}$ " hole in the left side of the tube compartment 5- $\frac{3}{4}$ " inches from the rear of the chassis and about 3/16" up from the under side of the chassis. This will be the screwdriver access hole for the fan blade setscrew.
- ( ) Cut the 2 black fan power wires. Cut them near the motor winding.
- ( ) With the amplifier right side up, bend the fan blades up until you find the setscrew in the fan hub.
- ( ) Put your narrow screwdriver through the hole you drilled and remove the fan blade by unscrewing the setscrew.
- ( ) Remove the (2) #10-32 screws that attach the fan motor to the chassis and discard them, along with any washers.
- ( ) Remove and discard the 2 rubber grommets that padded the motor mounting screws. Clean any debris out of the holes.
- ( ) Install the new rubber grommets in the motor mounting holes.
- ( ) Pass 1 of the #8-32x $\frac{1}{2}$ " screws through a shoulder washer. The shoulder of the washer should face away from the screw head.

- ( ) Set the new fan motor in place with its mounting holes aligned with the holes in the rubber grommets.
- ( ) Pass the screw through the grommet into the adapter block on the fan motor.
- ( ) In a like manner, repeat for the other #8-32x $\frac{1}{2}$ " screw and shoulder washer.
- ( ) Tighten both screws firmly, but **DO NOT** over-compress the rubber grommets.
- ( ) Place the fan blade over the motor shaft with the hub and setscrew toward the chassis.
- ( ) Lower the fan blade until there is about  $\frac{1}{4}$ " clearance between the fan blade and the chassis. Now tighten the setscrew. Spin the fan blade to assure that there is clearance with the chassis and other nearby components.
- ( ) With the chassis upside down, determine where the motor leads should be cut so they can be spliced with the black power leads. Cut and strip both motor wire leads and power leads.
- ( ) Twist the power leads to the motor leads and secure with blue wire nuts.
- ( ) Reinstall the tubes and perforated top cover. Place the amplifier back into the cabinet.

This completes the replacement of the fan motor on your SB-200/SB-201. You will notice a big difference in fan noise. The new fan and motor assembly is much quieter than your old motor and moves more air for better cooling.

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