Soldering Caps

Motor “noise” caused by the brush arcing within the motor can cause radio interference with some motor systems. Solder two #6520 noise suppressions capacitors to the motor head screw tab.

If there is no motor head screw tab, solder the capacitors to the motor can.

See following pages for step-by-step instructions
How to Solder Capacitors to the Motor

Motor “noise” caused by the brush arcing within the motor can cause radio interference with some radio systems. To eliminate this “noise,” follow these steps to solder the two noise suppression capacitors onto the motor screw head.

**STEP 1**
Cradle the motor so it will be supported while you work on it. Resting it in the arms of your pliers will help.

**STEP 2**
Bend one lead each of the capacitors as shown.

**STEP 3**
Use a high temperature soldering iron. Pre-tin the surface of the tab. Do this by resting the tip of the soldering iron on the spot to be tinned and apply a little bit of solder to the area. DO NOT BREATH THE FUMES! Pre-tin both large tabs.

**STEP 4**
Place the soldering iron on the tab where it is touching the capacitor lead and apply a small amount of solder. As soon as this solder flows, remove the iron while holding the capacitor to keep the capacitor in place. Solder the other capacitor in place.
STEP 5
Here is how your caps should look so far.

STEP 6
Bend one wire over the middle tab toward the other cap. Now bend the other wire toward the other cap over the middle tab.

STEP 7
Solder the caps to the middle tab.

STEP 8
Use your wire clippers to cut all four wire leads close to the solder.

STEP 9
Finished!
If you are experiencing motor problems, you may find that a third capacitor, attached between the two back tabs, will solve the issue. (#6520 Motor Capacitors, qty 3, $2.00.)

**STEP 10**
Bend the third cap’s leads as shown.

**STEP 11**
Turn the motor over to solder the third cap. Rest the tip of the soldering iron on the tab to be tinned and apply a little bit of solder to the area. DO NOT BREATHE THE FUMES! Pre-tin both large tabs. Solder the cap’s leads across both tabs as shown.

**STEP 12**
Finished!