



Installation Sheet for 072222 brake module and 123406-01 Brake Coil

For motor frame # 533A/553A/563A/573A



Caution : These tests are performed on a live electrical circuit to verify power to the brake. Please use all safety precautions.

1. Check incoming power to the contactor and note it. Please check to ground on all legs on the bottom of the starter to ensure there is no leg down or a contactor problem. If all legs of power are good then proceed.
2. Disconnect power to the machine and remove the blade and guard assembly. Removal allows better access to the motor box on top of the motor.
3. Remove the motor box lid and inspect the brake module for signs of failure.

Important: Note how the motor is wired. See the motor connection in the diagrams below to ensure it is correct for the incoming voltage you checked in Step 1.

4. Disconnect the brake coil leads that are plugged into the brake module board. Run an ohm test to check for shorts. The ohm reading should be between 700 and 750 ohms. If you are getting different readings, the coil will also need replacement.

Important: Do not plug in a shorted coil to the replacement module, as this will also burn out the replacement module.

5. Disconnect the 2 module lead wires that are tied into the motor lead wires. Unplug the coil wires from the board and take out the unit by removing the mounting screws and nuts. Keep the spacers.

Important: Remove the fasteners very carefully. Do not drop the hex nuts or the screws down the access hole into the stator where the lead wires and brake coil wire are accessed.

6. Reinstall the new module by reversing steps in #4.

1. To remove the brake coil remove the 4 brass acorn nuts (index#24) on the die cast fan cover. Notice the brake coil and housing (index #39 and #49) will be loose when the fan cover is removed.
2. Gently remove the coil housing from the coil. Then remove the coil by threading the coil leads down through the access hole in the stator and remove the old coil.
3. Replace the coil with the new one by reversing the steps.
4. Plug in the new coil to the new brake control module.
5. Replace the motor box lid and return the motor to its rest position. Reconnect power to the machine. Test run to check for brake function and time.

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Motor breakdown

For motor frame # 533A/553A/563A/573A



View showing the brake module mounting and plugged in coil wires.

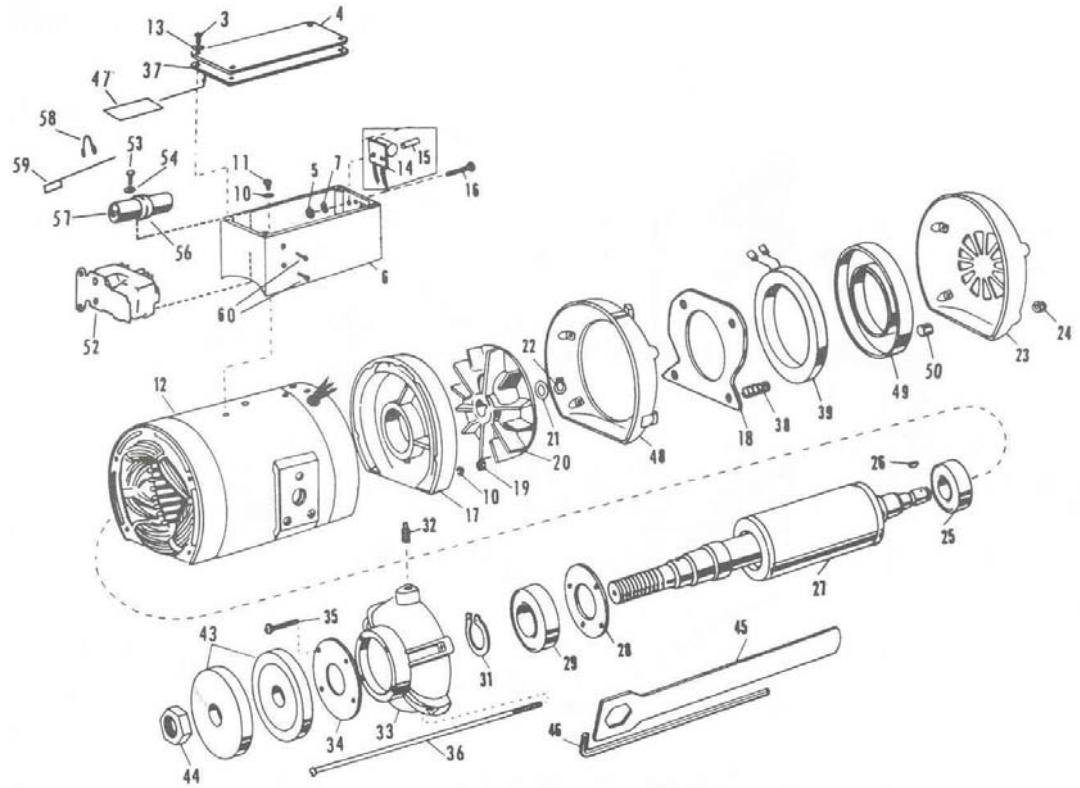


View showing the access hole where the coil wires pass into motor box. Note the hole where the leads protrude. Be careful to not drop any parts down these areas.

View showing fan cover removed. Note the coil housing sitting in the mounting tabs from fan baffle casting.



View showing the fan cover and coil pulled from the coil housing. Note the location of brake springs on the tie rods.



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Adjusting the Braking time:

Motor breakdown

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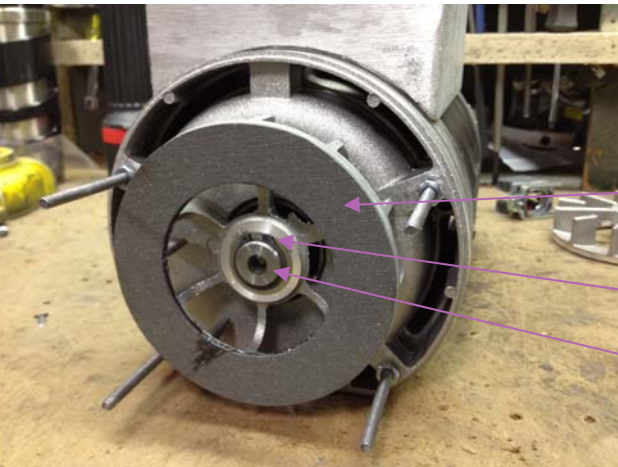
Brake Coil and Leads

Brake Disc

Brake Springs

1. After removing the acorn nuts (index #24) and Fan Cover (index #23), remove the coil housing (#49). Then unplug the brake coil (#39) from the brake module in the motor box. Thread the leads down through the access holes in the stator and the die-cast hole in the fan baffle (#48). Then remove the coil assembly and sit aside.
2. Remove the brake springs (#38), brake disk (#18), and fan baffle (#48) and set them aside.
3. **ADJUSTING THE BRAKE:** (Photo #2) Remove the retaining ring (#27). Pay attention to the shim washers between the retaining ring and the fan. To tighten the brake and reduce the braking time, remove a shim from the outside of the fan on the retaining ring side. Remove the fan from the shaft and replace the shim on the back side of the fan. Reinstall and test run. Move one shim if the brake is working and you want to shorten the braking time. If the brake is not working, remove two shims and install them behind the fan. Then, reverse the steps to reassemble. Test run to check braking time.

View showing the fan cover and coil pulled from the coil housing. Note the location of brake springs on the tie rods. The tie rods will be reinstalled when the motor is reassembled.



Fan and brake liner (index#20)

Retaining ring (index #22)

Arbor shaft (index#27)



4. **CAUTION:** The average braking time for a CD/HD series motor is 15 seconds on a 12" blade and 20 –25 seconds on 14" and 16" blade size machines. Reducing the braking time to less than these times is not recommended. The risk of the blade breaking loose increases rapidly and can create a very dangerous situation. If the blade comes loose during braking, it will badly damage the arbor shaft.

