This manual is a guide for retrofit installation of the new GSI electronic tilt switch on older Stir-Ator models, including the DIII, CEX and Red Giant stirring machines.

Retrofit kit part numbers:

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### DIII and CSA Stir-Ator Installation Instructions

**DANGER** Turn OFF and disconnect all power supply to equipment before performing any maintenance. All electrical maintenance should be performed by a certified electrician.

1. Shut off power to the stirring machine.
2. Access the junction assembly and disconnect the tilt switch and power supply wires from the terminal block and the gear motor cord, inside the junction box. *(See Figure 1.)*

3. Loosen the cord connector on the junction box and remove the cord for the tilt switch and power supply.
4. Remove the bolts connecting the bracket (106E010) holding the power supply (white box) to the junction box. Remove the bracket and the power supply.

*Figure 1*
5. Remove the tilt switch from the opposite bracket (106E008).


7. Place new tilt switch assembly (106E208), onto the mounting bracket (GK80190) and bolt into place using hardware, bolt (S-8087) and nut (S-4310) provided. (See Figure 2.)

8. Mount the assembled bracket and tilt switch assembly to the mounted bracket (106E207) using the carriage bolt and wing nut to mount the bottom to the curved slot and the bolt (S-8087) to mount the top of the bracket.

9. Run the wires back through the previously emptied cord connectors into the junction box.

10. Connect the wires back into the terminal block as they were previously. (See Figure 1 on Page 1.)

11. Close the junction box and verify that all hardware has been tightened down.

12. Adjust the tilt switch and bracket until the machine is cycling as desired.

**CEX Stir-Ator Installation Instructions**

*Turn OFF and disconnect all power supply to equipment before performing any maintenance. All electrical maintenance should be performed by a certified electrician.*

1. Shut off power to the stirring machine.

2. Access the beam box located on the trolley.

3. Open the front panel on the beam box and remove the four (4) bolts holding it in place. Remove the beam box from the bracket.

4. Remove the four (4) bolts holding the tilt switch circuit board in place. Remove the circuit board and the tilt switch itself from the bracket.
5. Remove and keep the bolts connecting the bracket to the trolley. Replace the bracket with the new bracket provided in the replacement kit.

6. Bolt the beam box back up onto the new bracket in the same position it was in previously.

7. Within the beam box, disconnect the tilt switch and power supply by disconnecting the wires labeled in Figure 3.

8. Loosen cord connectors on the beam box, so the wires running to the tilt switch and power supply can be removed.

9. Remove the tilt switch and power supply from the beam box assembly.

10. Place new tilt switch assembly (106E208), onto its mounting bracket (GK80190) and bolt into place using hardware, bolt (S-8087) and nut (S-4310) provided. (See Figure 2 on Page 2.)

11. Mount the assembled bracket and tilt switch assembly to the mounted bracket (106E207) using the carriage bolt and wing nut to mount the bottom to the curved slot and the bolt (S-8087) to mount the top of the bracket.

12. Run the wires back through the previously emptied cord connectors into the beam box.

13. Connect the wires back to the terminal block as they were previously. (See Figure 3.)

14. Close the beam box and verify that all hardware has been tightened down.

15. Adjust the tilt switch and bracket until the machine is cycling as desired.
1. Shut off power to the stirring machine.
2. Remove fuse holder lid assembly from junction box.
3. Disconnect mercury switch and remove it.
4. Disconnect all wires located in the box with the fuse holders.
5. Mount new tilt switch assembly to the bracket (GK80190) using hardware, bolt (S-8087) and nut (S-4310) provided. (See Figure 2 on Page 2.)
6. Mount new tilt switch and bracket on the vertical side of the end yoke, opposite of the fuse holder box. (See Figure 4.)

7. Run power in and power out wires from tilt switch box into fuse holder box.
8. Connect power wire coming down the frame going into fuse holder to the power in wire going to tilt switch.
9. Connect wires from the power out wire to fuse holders, black connected to one fuse and white to the other.
10. Connect the wires from the gear motor to the fuse holders, white being connected to white and black to black.
11. Connect all green wires together and replace fuse holder cover.

**DANGER**

*Turn OFF and disconnect all power supply to equipment before performing any maintenance. All electrical maintenance should be performed by a certified electrician.*