## REPLACING THE PRINTED CIRCUIT BOARD (1997 AND LATER SILENT PARTNER BALL MACHINES)

(Without Programmable Oscillator)

- 1) Remove the four screws that hold the control panel (panel with knobs and switches to control speed etc.). On some models the screws require a square-head (Robertson #1) screwdriver. Later models are fitted with Phillips-head screws.
- 2) Slide the panel down a third of the way into the machine then tilt the top of the panel towards you and extract the assembly from the machine. The printed circuit board is attached to the panel and will come out with it. Stop pulling when the slack in the wires connected to the assembly is taken up.
- 3) Disconnect the three thick wires that are connected to the printed circuit board. The connections are labelled on the board: BTMMTR, COMMON and TOPMTR. Label the wires to insure proper reassembly.
- 4) Disconnect the connectors containing thin wires from the bottom of the board and label them. These are "locking" connectors and it is helpful to pull the white plastic wall of the bottom connector away from the wire-carrying connector while disconnecting the two.
- 5) Note that the wires attached to the main switch, the circuit breaker as well as to toggle switches stay in place.
- 6) Now look at the face of the control panel and remove the knob for the speed control, the spin control and the feed control. The knob on some models are held by a small setscrew. The knob on later models are pushed on and are removed by pulling carefully away from the shaft of the control.
- 7) Remove the nuts at the base of the speed control, spin control and feed control.

THE CIRCUIT BOARD IS NOW FREE AND CAN BE SEPARATED FROM THE CONTROL PANEL. INSTALL THE REPLACEMENT BOARD BY RETRACING YOUR STEPS.

- NOTE 1: The middle connector at the bottom of the circuit board is for the remote control. Replacement boards are supplied with two black "bridges" on this connector. This is for machines (The ULTRA LITE and the SPORT) that do not have remote controls. If you own a PRO model with remote control, remove the two black bridges from that connector.
- NOTE 2: The circuit boards with speed, spin and feed controls that have blue plastic shafts are not interchangeable with circuit boards where the shafts are made of metal. If you were supplied with the wrong board, please call the factory.