



LANDICE, INC.
111 CANFIELD AVE, SUITE A-1
RANDOLPH, NJ 07869

Phone: (973) 927-9010
support@landice.com

MCMILLAN DRIVE MOTOR BRUSH REPLACEMENT & COMMUTATOR MAINTENANCE

INTRODUCTION:

Motor Brushes are considered wear items and should be inspected annually for residential treadmills and every 6 months for commercial settings. The Carbon Motor Brush is a softer material than the copper on the commutator. The Carbon Motor Brush will wear out over time. Motor brushes should be replaced if they measure 3/8" or less in length.

TOOLS REQUIRED:

- Flat Head Screwdriver
- Needle Nose Pliers
- Commutator Cleaning Stone
- **Twist Tie (To use on Motor Brush Spring to prevent it from being pulled into the motor)**

ACTIVITY PROCESS:

MOTOR BRUSH INSPECTION & REPLACEMENT

Although the pictures show the drive motor removed from the treadmill, the following steps can be performed **WITHOUT** removing the drive motor from the treadmill.

- **UNPLUG THE TREADMILL FROM POWER SOURCE**
- Remove the Motor Cover
 - **SERVICE TIP:** If the motor control board is in the way, disconnect the wires of the motor control board, remove the screws, and move to gain access to the motor brush cap. Make note of all connections, photo, etc., prior to removing wires from board.

STEP 1



Remove the motor brush cap with a flat head screwdriver.

STEP 2



The motor brush holder and motor brushes will be exposed.

STEP 3



Using needle nose pliers, remove the motor brush wires from the connector.



LANDICE, INC.
 111 CANFIELD AVE, SUITE A-1
 RANDOLPH, NJ 07869

Phone: (973) 927-9010
 support@landice.com

MCMILLAN DRIVE MOTOR BRUSH REPLACEMENT & COMMUTATOR MAINTENANCE

STEP 4



Wrap a twist tie around the brush spring. Holding the twist tie, press down and forward on the metal spring. Slide the motor brush spring out. Remove brush from brush holder.

STEP 5



The tip should be concave, shiny & smooth. If pit marks, deep vertical scratches, dull or uneven wear, chips, cracks, broken brush present itself, replace the motor brushes.

STEP 6



Refer to Commutator Inspection & Maintenance below for detailed steps.

STEP 7



Using needle nose pliers, reattach the motor brush wire to the terminal that you originally removed it from. (See step 3 for reference)

STEP 8



Insert motor brush into brush holder. With twist tie still attached to motor brush spring, insert spring back into the holder. Once secured, remove the twist tie.

STEP 9



Insert the motor brush cover back onto the drive motor. Repeat all steps on the opposite side. Once both sides are completed, plug the treadmill back into the wall outlet.

COMMUTATOR INSPECTION & MAINTENANCE

SEE STEP #6 ABOVE

- With the motor brush removed, clean the commutator with a commutator stone rotating the flywheel by hand for 2-3 complete clockwise rotations to remove any excess brush/carbon material to allow the motor brush better contact with the commutator.
- Use a can of compressed air to blow out the drive motor chamber to remove any debris left behind during the cleaning or maintenance process.