

Replacement Part Instructions



WARNING: Always unplug the machine before performing any repairs.

401/301: Detent, Channel & Channel Ring

Tools Needed: Electrician's Tape, Allen Wrench (5/32), Lubricating Agent

Warning: Never adjust the detent hose clamp on the new detent. This will damage the new detent.

Models 401 and 301 purchased after 1997, serial numbers 8000 or higher allow the removal of the channel ring (B) without removing the channel (E). Units older than 1997, serial numbers 7999 or lower, require the replacement of both channel and channel ring. Serial numbers are placed on the rear flat surface of the can, under the control box.

1. Remove the Allen shoulder bolts (G) located on either side of the channel (E).
2. Pull off the channel/channel ring from the detent (D). If the channel ring (B) sticks, remove the detent hose and follow steps 1-3 under Yoke and Detent Hose below.
3. If you are replacing the channel and/or channel ring only, skip to steps 7 and 9.
4. Remove the black electrician's tape from the detent and detent hose (F).
5. Pull out the old detent and slide the new one (rubber side in) an inch deep into the detent hose. Make sure the L shaped notch is facing up.
6. Tape the new detent to the detent hose. Make sure you do not cover the bleed hole.
7. Fit the channel/channel ring onto the detent until you get it just past the L shaped notch. Make sure the notch is facing up. Reattach the shoulder bolts to the channel.
8. If the new detent does not fit into the existing channel ring do the following.
 - Remove the breeze clamp from the old detent, do not adjust the breeze clamp on the new detent and attach it about a quarter of an inch down from the tip of the new detent. Tightening this breeze clamp will shrink the circumference of the detent so it will slip into the channel ring.
 - In addition, you may lubricate the inside of the channel ring before inserting the detent. Do not get any lubricating agent inside the detent rubber. Some chemicals can deteriorate this rubber.
 - If you are still unable to insert the detent, sand the inside diameter of the channel ring until it fits.
 - If you are not replacing the detent or the channel ring continues to stick, call Lob-Ster @ 800-526-4041 for a breeze clamp. DO NOT FORCE IT.

401/301: Yoke & Detent Hose

Tools Needed: Allen wrench (5/32), Electrician's Tape, Flat Head Screwdriver, Soft Mallet

Warning: Never adjust the detent hose clamp on the new detent. This will damage the new detent.

1. There are four Allen shoulder bolts (G) that attach the yoke (H) to the front of the machine – two on the top and bottom and two on the left and right. Remove all four shoulder bolts.
2. Loosen the hose clamp located at the end of the detent hose (F) which attaches to the red can, allowing the removal of the yoke, the detent hose, and the channel (E) as one unit. Leave the channel ring attached to the detent.
3. If you are replacing the detent hose, you must remove the channel/channel ring from the detent (D). You may be able to remove the channel ring (B) with simple pressure. If it is too tight, place the detent face down and tap the ring off with a soft mallet or equivalent. The mallet is used because the plastic parts are easy to break with too much force.



4. The detent/hose combo is now free from the machine and all its plastic parts. Remove the electrician's tape that attaches the detent (D, silver cylinder) to the rubber detent hose (a black corrugated hose). Pull out the detent. Slide the detent about one inch into the new hose. Make sure the little "L" shaped notch is facing up and out; this is the notch that the shot selectors will lock into. Tape them together with electrician's tape for a snug fit. Do not cover the bleed hole. Also you must never adjust the breeze clamp (hose clamp) on the new detent that is tightened around the silver detent. This will break the inside seal of the detent, it will then leak air and your tennis balls will not shoot out.
5. With the detent and hose attached together, put the open end of the hose back onto the machine and tighten it on with the original breeze clamp that you took off before.
6. Attach the yoke (H) with the bolts on the top and the bottom. The top screw attaches just below the muffler foam (J). The yoke should be surrounding the detent hose now.
7. Attach the channel to the yoke with two Allen shoulder bolts (G), one on each side. The detent should now be lying in the channel.
8. Push the detent back a little and slide the channel ring onto the channel. Next slide the detent into the channel ring making sure the little "L-shaped-notch" is facing up on the other end of the channel ring, and sticks out about an inch.

101/201: Detent

Tools Needed: Wrench, Electrician's Tape

Warning: Never adjust the detent hose clamp on the new detent. This will damage the new detent.

1. Loosen screws on top of the front clamp (A1) that secures the detent (D). Remove top half of the front clamp.
2. Lift the detent up a little so you can get to it. Remove the black electrician's tape and pull the detent out. Insert the new detent (rubber side in) with the "L" shaped notch facing up about one inch in depth.
3. Tape the detent and detent hose with electrician's tape. Do not cover bleed hole.
4. Place top half of the front clamp on and tighten screws.

Chain (401/301)

Tools Needed: Flat Head Screwdriver

1. Enclosed with the new chain (C), is an extender. Snap this extender to the last ball of the remaining chain on the machine. If the extender is too tight, widen the opening with a flat head screwdriver.
2. If the chain is broken off at the end of the cam, you must replace the entire cam assembly.

Vertical Cam Assembly (401/301)

Tools Needed: Allen wrench (1/8)

1. To remove the cam assembly find the chain (C) that attaches to the cam and unscrew the two Allen screws located inside the cam with a 1/8 Allen wrench. Save these screws.
2. Once unscrewed, the cam assembly will slide off the motor shaft.
3. Replace with new cam assembly.
4. Reinsert and tighten screws.

Rotor

Tools Needed: Long Flat Head Screwdriver, Pliers

1. The bolt that attaches the rotor (X) to its base must be removed. To find it, look for a hole in the back of the white hopper (R); on a Ball Bucket the hole will be located underneath the handle. Stick a long screwdriver through this hole. With a pair of pliers hold the nut still while you unscrew the screw. If pliers don't work, try wedging a screwdriver between one flat edge of the nut and the rotor preventing the nut from moving while you unscrew. Remove the rotor and replace it with the new one. You must make sure the hole in the rotor lines up with the hole in the motor shaft. It is possible for the screw to fall out and the rotor to stay on but spin freely. If this occurs and the rotor is in good shape, order a screw and bolt from Lobster Sports 800-526-4041.
2. Insert screw and tighten nut.



Rotor spring

Tools Needed: Allen wrench (3/8)

1. Remove nut and 10/32 x 1" machine screw (Y) with a 3/8 Allen wrench.
2. Pull broken rotor spring (W) out from rotor (X).
3. Insert new spring and tighten nut onto new spring.

Deflector Flap

Tools Needed: Long Phillips Screwdriver, Pliers, Drill, #10 drill bit

1. The bolt that attaches the rotor (X) to its base must be removed. To find it, look for a hole in the back of the white hopper (R). With a pair of pliers hold the nut still while you unscrew the screw. If pliers don't work, try wedging a screwdriver between one flat edge of the nut and the rotor preventing the nut from moving while you unscrew. Remove the rotor by pulling it out from underneath the deflector flap. The rotor should clear the deflector flap if you pull it out from the side opposite the flap, but be careful not to break the rotor or deflector flap.
1. Remove the hopper (R) by unscrewing the four screws that secure the hopper to the two silver hopper supports (M).
2. Take your drill and drill out the three rivets (using #10 drill bit) that secure the flap to the hopper.
3. Place and hold the new deflector flap about a quarter of an inch above the rotor. With your other hand, mark through the holes in hopper where the new flap's screw holes should be placed.
4. Pre-drill holes in the new deflector flap with the same # 10 drill bit.
5. Screw new flap into place with the screws and nuts supplied.
6. Replace the hopper by tightening the four screws that hold it into place.

Rotor Motor

Tools Needed: Long Screwdriver, Pliers

2. The bolt that attaches the rotor (X) to its base must be removed. To find it, look for a hole in the back of the white hopper (R); on a Ball Bucket the hole will be located underneath the handle. Stick a long screwdriver through this hole. With a pair of pliers hold the nut still while you unscrew the screw. If pliers don't work, try wedging a screwdriver between one flat edge of the nut and the rotor preventing the nut from moving while you unscrew. Remove the rotor by pulling it out from underneath the deflector flap. The rotor should clear the deflector flap if you pull it out from the side opposite the flap, but be careful not to break the rotor or deflector flap.
3. Remove the 4 screws holding the switch box to the bottom of the white hopper. With pliers you can hold each nut in place on the topside of the hopper. Then, with your Phillips screwdriver you can unscrew each screw from the bottom side of the hopper. Allow the switch box to hang down.
4. For the Ball Bucket there is no switch box. Instead, you will need to lay the machine on its side, remove the closing ring (L), then, pull the hopper off the machine. Do not move the hopper far from the machine because there are wires connecting it to the can and you can accidentally pull them off.
5. Remove the screws holding the rotor motor to the bottom of the hopper the same way as for the switch box screws, and pull the motor out of place. Be careful to leave the wires attached.
6. Install the new rotor motor in the position the former motor was in and secure it with the old screws.
7. Remove one wire at a time from the old rotor motor and install them in the exact same place on the new rotor motor, this will ensure you place the wires on the correct terminals.
8. Before checking the motor be sure the unit is clear of balls or debris. Turn the machine on and make sure the motor shaft is turning. If not, check your wiring. (Visit us at www.lobsterinc.com to find wiring diagrams for the switch box)
9. Reattach the switch box.
10. Replace the rotor in the hopper and onto the new motor shaft. You must make sure the hole in the rotor lines up with the hole in the motor shaft. Then install the rotor screw and nut.

