

Section 1: Parts List

Motor Replacement Kit

- (1) Hydraulic Motor
- (4) Hydraulic Hose Plugs
- (2) Motor Fitting Caps
- (4) Stainless Steel Bolts, Lock Washers, Flat Washers
- (1) Teflon Paste

Materials Required

- Phillips Head Screw Driver
- Nut Driver
- Adjustable Wrench
- Needle Nose Pliers
- Paper Towels
- Plastic Bags

Section 2: Additional Considerations



WARNING

Use extreme caution when working in and around the front housing. The edges, especially around the propeller, can be very sharp. Wear protective gloves when removing the motor.

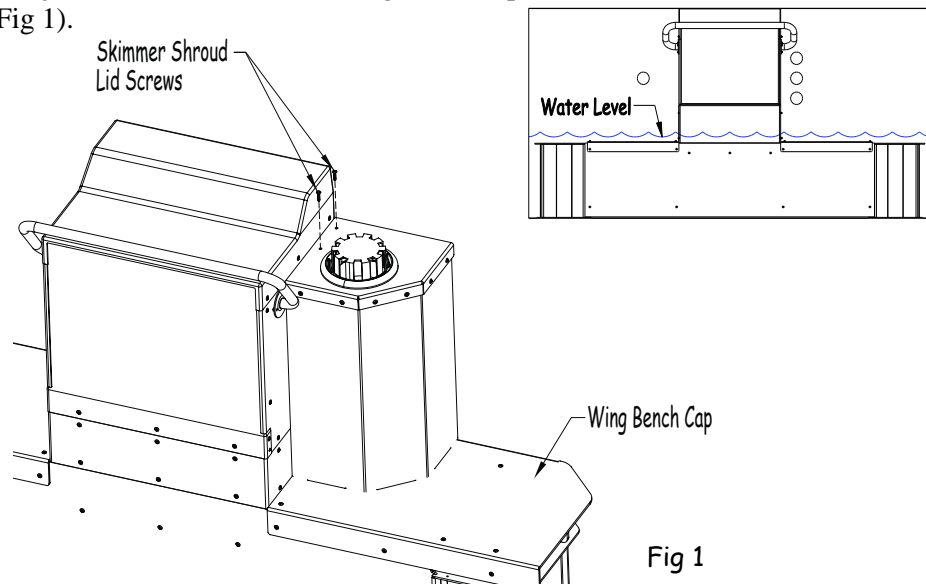


CAUTION

Be sure to disconnect the electrical service to the hydraulic power unit and water quality system (WQS). Accidental activation of the hydraulic power unit during servicing would result in the loss of hydraulic fluid requiring extensive clean up and could also promote a chance for bodily harm. Accidental activation of the WQS without adequate water in the pool can cause the pump motor to burn out.

Section 3: Hydraulic Motor & Propeller Replacement Instructions

1. Lower the water level to just above the front base wing bench caps. Remove the two screws from the skimmer shroud lid (Fig 1).



2. The skimmer assembly can be completely removed from the front base by removing the suction hose from the elbow that's attached to the suction thru-wall fitting (behind the skimmer assembly) (Fig 2).

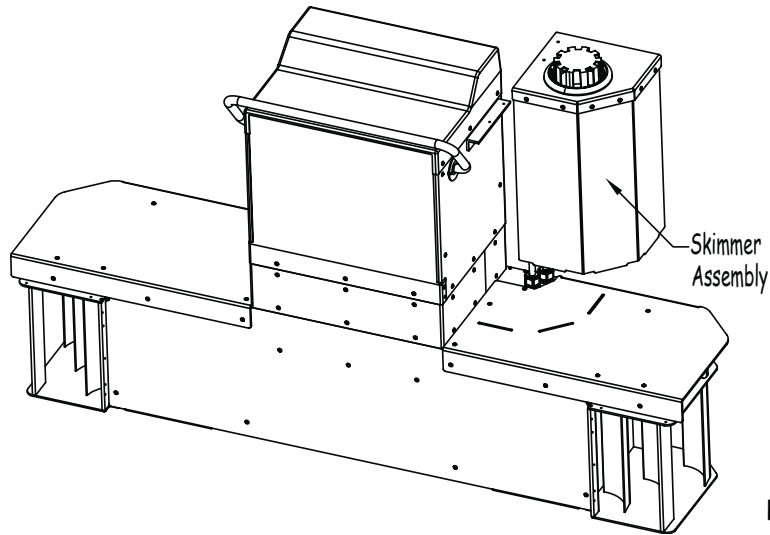


Fig 2

3. Remove the wing bench caps at the front of the pool and the corner covers at the rear of the pool by removing the screws (Fig 3). After these components have been removed, continue to drain the pool until the water level is halfway down the side return channels (side benches that extend down the length of the pool).

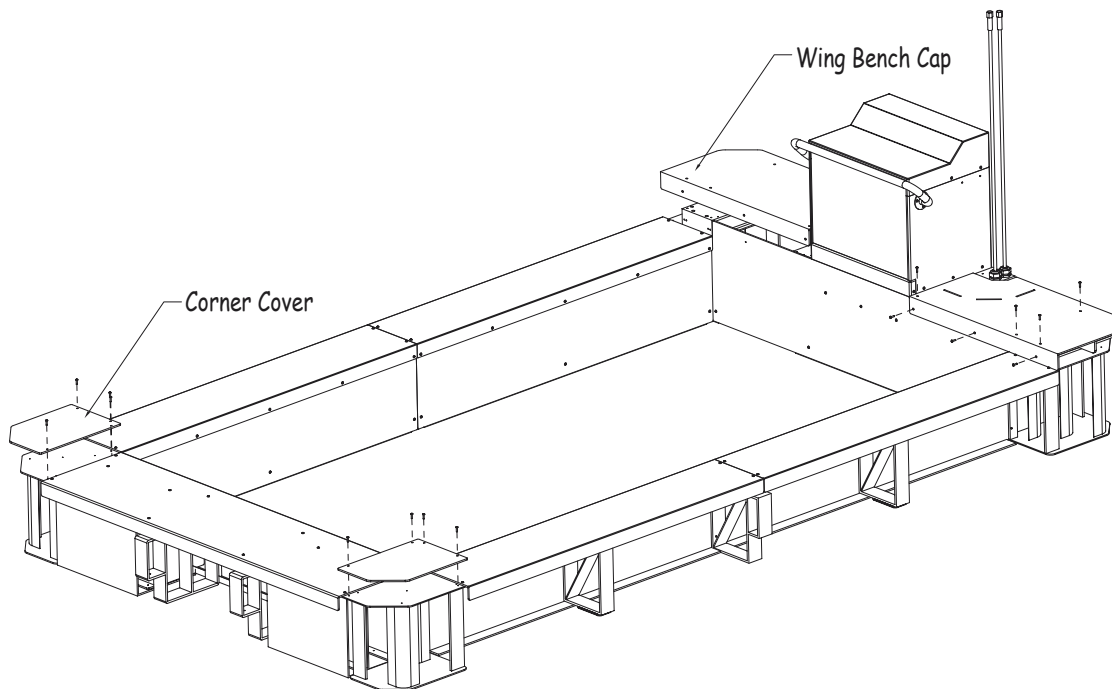
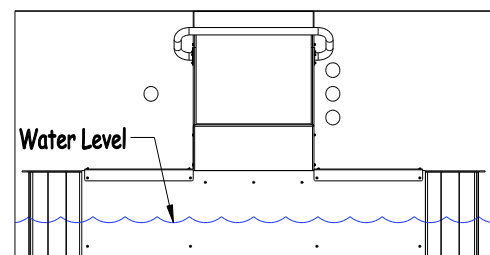


Fig 3



4. If the optional floor mirror, swim mirror, or running pad have been purchased, these components must be removed at this time (Fig 4).

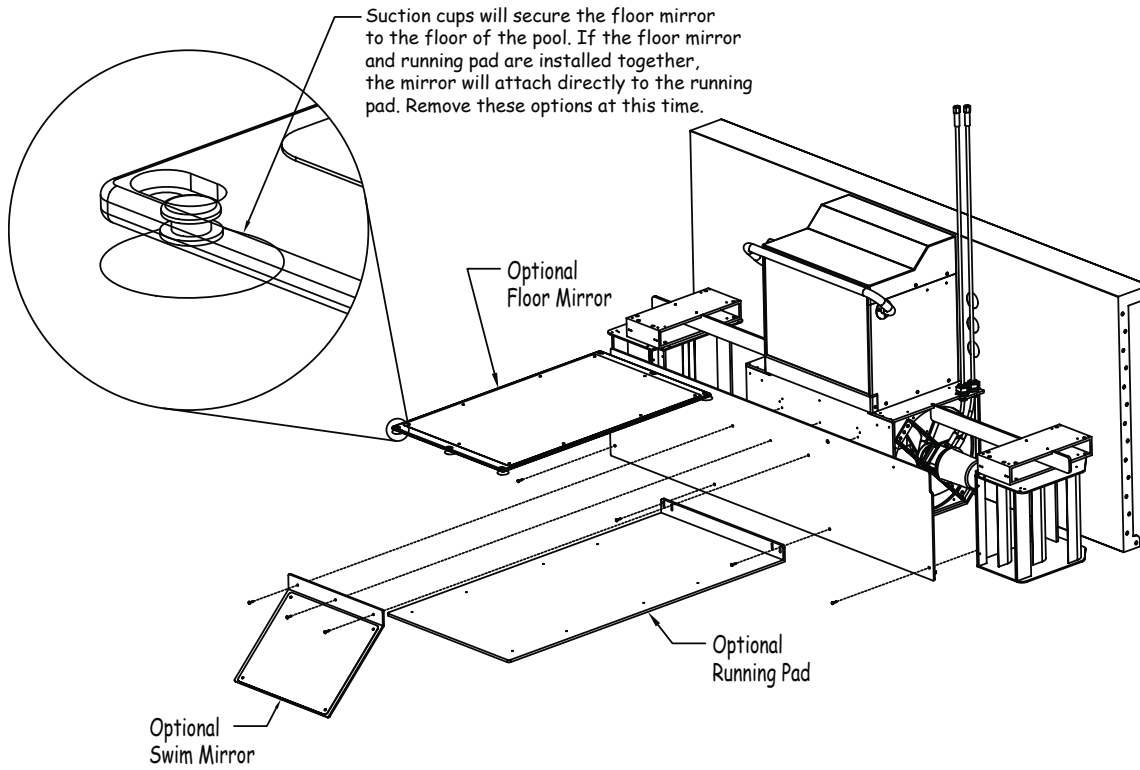


Fig 4

5. **If the optional treadmill HAS NOT been purchased skip to step 9.** If the optional treadmill has been purchased, it must be positioned away from the front base to gain access to the front base faceplate. Remove the shroud assembly by removing the screws. (Fig 5).

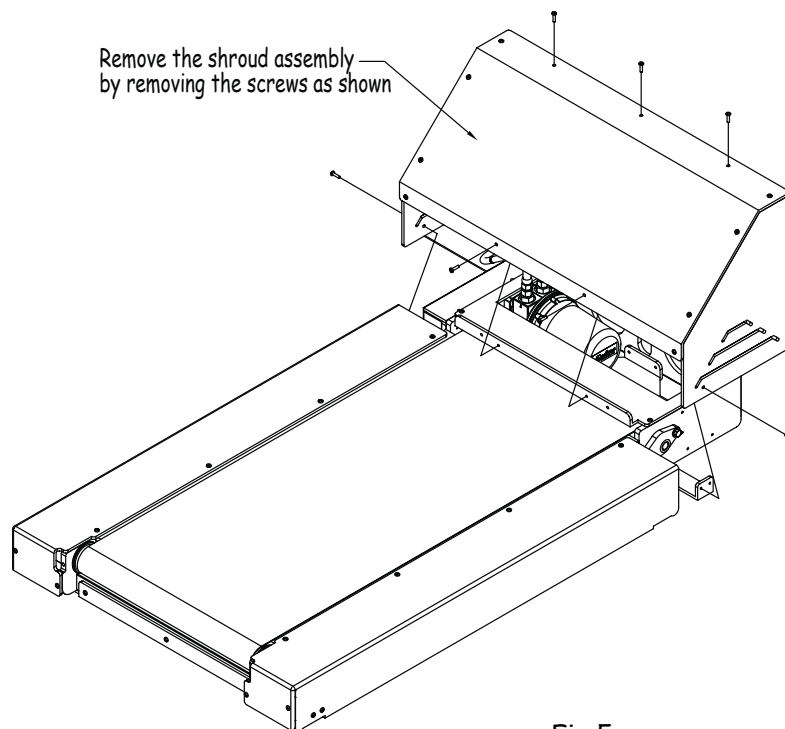
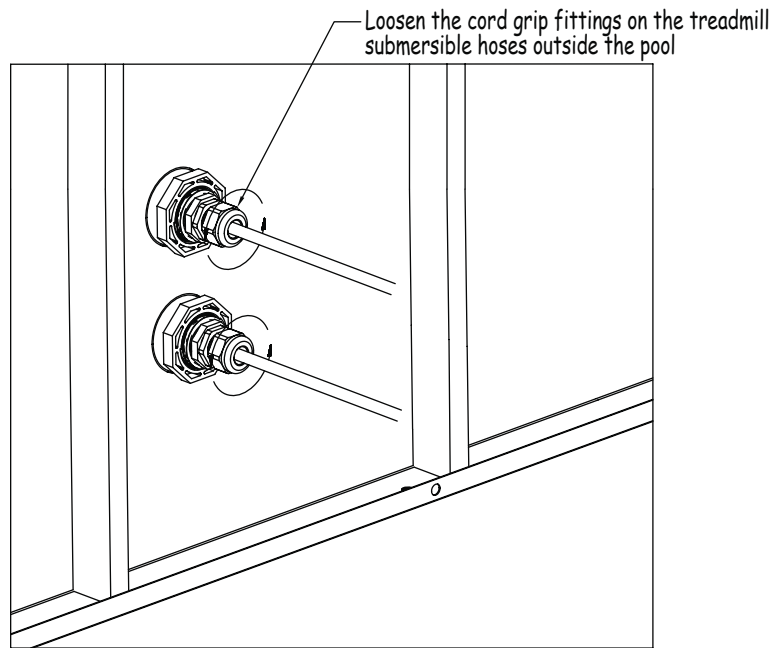


Fig 5

6. Loosen the cord grip fittings on the treadmill hoses outside the pool, located behind the front pool wall (Fig 6). Feed a couple of feet of hose into the pool and **retighten the cord grip fittings**. This will allow the treadmill to be positioned away from the front base faceplate.



Outside the Pool

Fig 6

7. Loosen the cord grip fittings that penetrate the front base faceplate (Fig 7). Pull the hoses into the pool until there is enough slack to be able to maneuver the treadmill away from the front base faceplate.

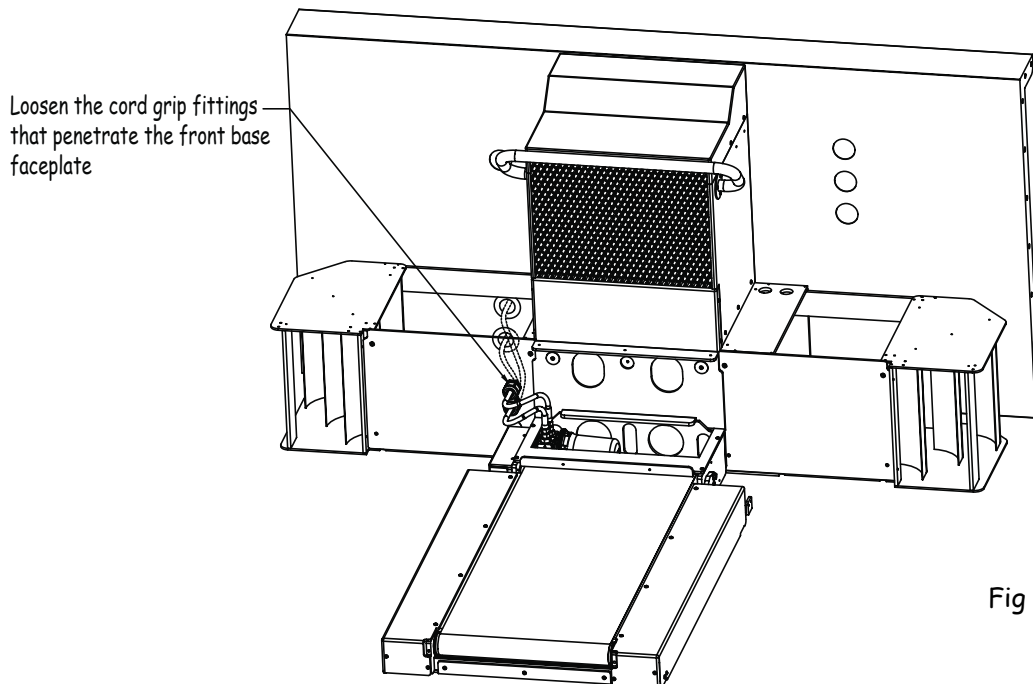


Fig 7

8. Remove the screws and washers that secure the treadmill to the front base faceplate (Fig 8). The treadmill can then be carefully positioned away from the front base faceplate.

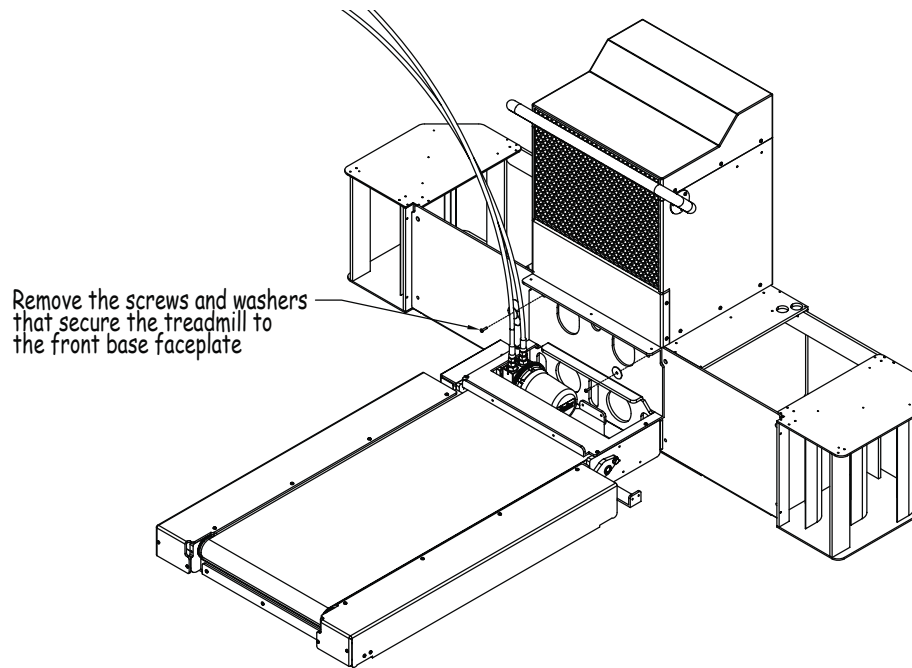


Fig 8

9. Remove the front base faceplate by removing the screws (Fig 9).

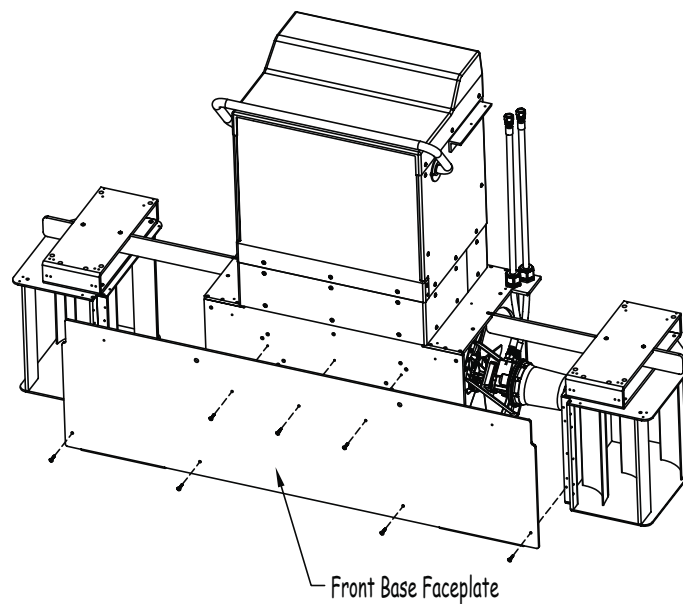


Fig 9

10. The front base support beams are secured to each side of the propulsion housing and wing bench risers with four screws. Remove these screws at this time. Repeat for the other side (Fig 10).

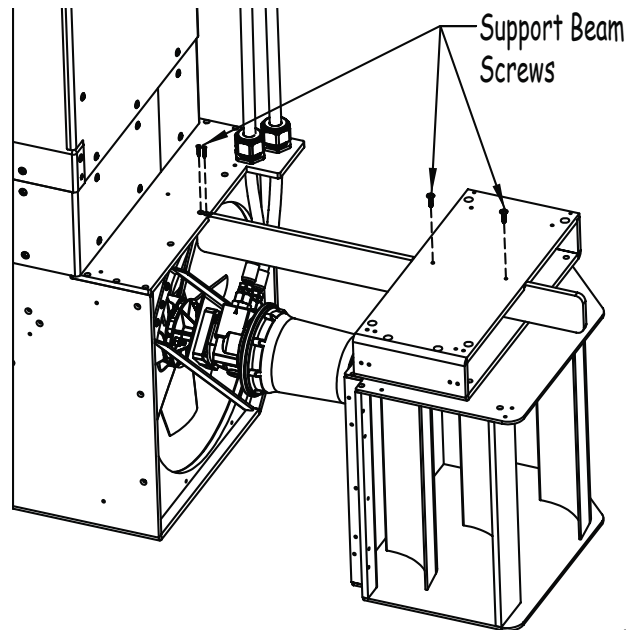


Fig 10

11. Remove each front base support beam (Fig 11).

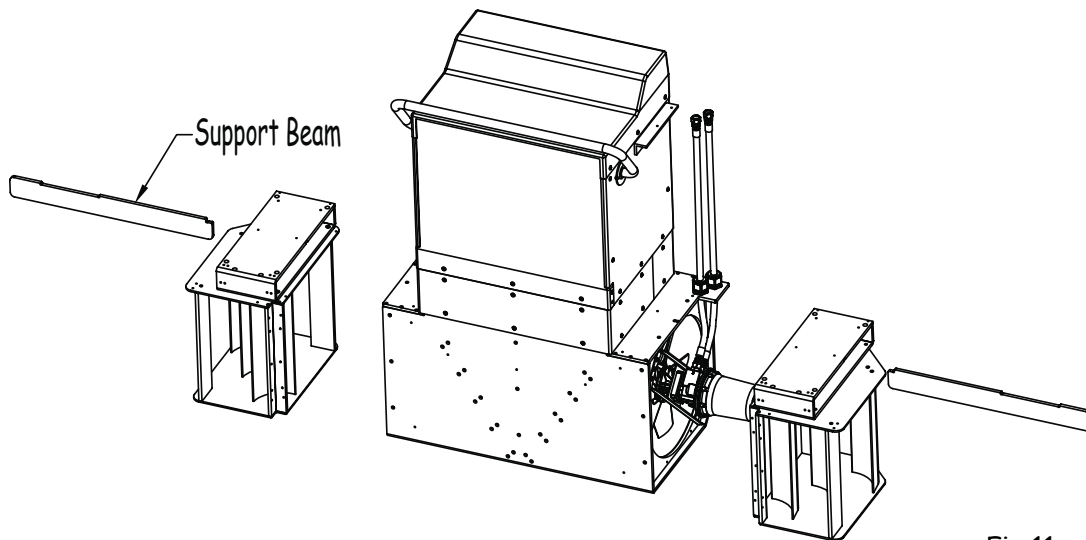


Fig 11

12. Position a plastic bag underneath the hydraulic motor. Place a few white paper towels into the bottom of the bag to help absorb the fluid that leaks out of the motor/hoses. Loosen the compression nuts on the cord grip fittings. Hold a paper towel around the hydraulic hoses and disconnect the hoses from the hydraulic motor fittings. Once removed, immediately **plug the hoses with the red plugs provided**. **Cap the fittings on the hydraulic motor with the steel caps provided** (Fig 12).

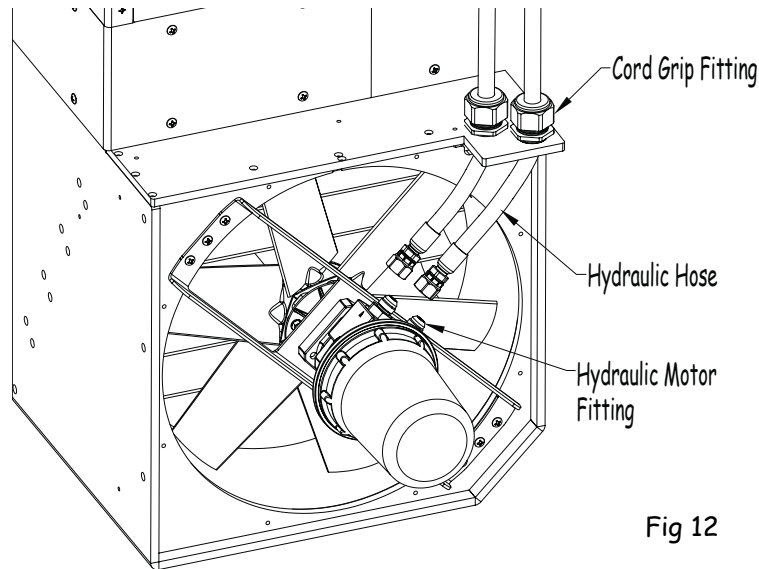


Fig 12

13. If replacing the hydraulic hoses, remove the cord grip fitting lock nuts from the hoses in order to pull the hoses through the two hose cut outs in the propulsion housing base. Disconnect the other ends of the hydraulic hoses from the run hoses (outside the pool) and plug the hoses with the second set of red plugs. Remove the locknuts from each thru-wall fitting (attached to each hydraulic hose) and pull the hoses into the pool through the cutouts in the liner/pool panel (Fig 13).

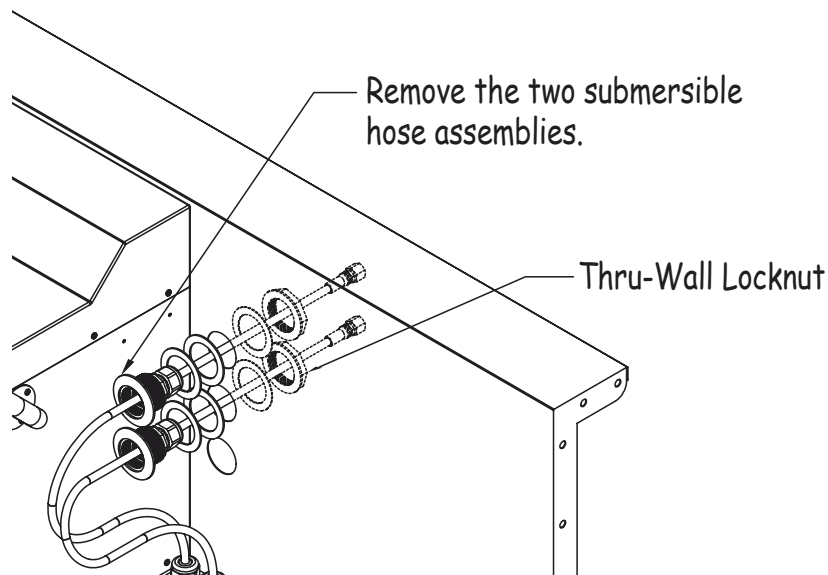


Fig 13

14. When installing the new hydraulic hoses, follow the diagram below for the orientation of the gaskets on the hose thru-wall fittings (Fig 14).

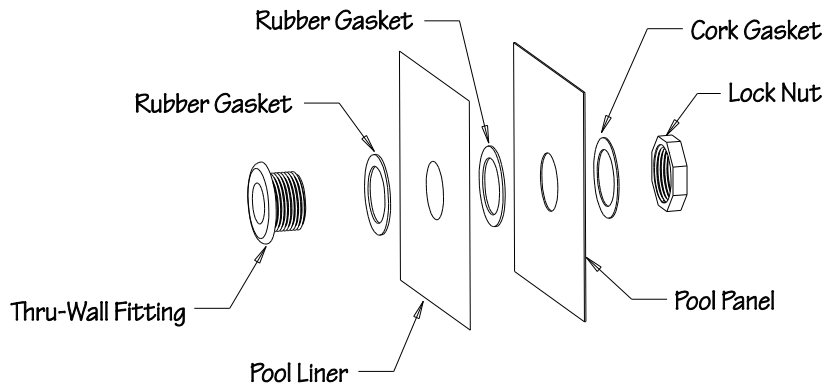


Fig 14

15. Disconnect the two bond wires from the bonding screws on the motor bracket (Fig 15).

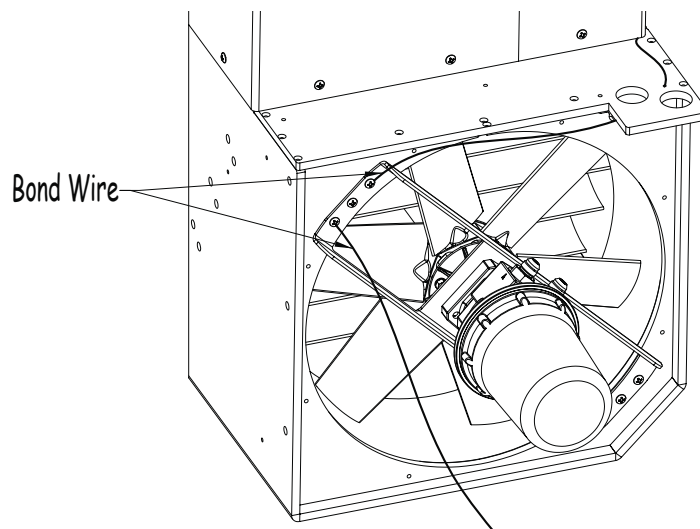


Fig 15

16. The front base and housing can now be positioned away from the front wall of the pool or removed from the pool completely for more access. Carefully remove the motor bracket and hydraulic motor from the propulsion system base. There are six screws on each end of the bracket that secures the bracket to the propulsion base (Fig 16). **NOTE: Take extreme caution when removing the motor bracket assembly. The motor bracket assembly is heavy and can easily pierce the liner.**

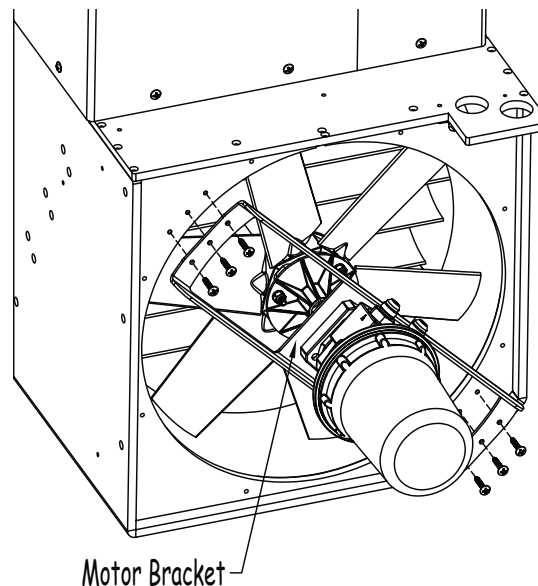


Fig 16

17. To remove the hydraulic motor from the motor bracket, use an adjustable wrench to remove the four hex head bolts, lock washers, and flat washers that secures the motor to the bracket. Mount the new motor in the same orientation on the motor bracket using the new stainless steel bolts and washers. Place Teflon paste on all four motor bolt threads before inserting into the threaded holes in the motor. Also, place Teflon paste on both sides of the motor bracket around the mounting holes and coat the mating surfaces of the washers. Sufficient Teflon paste must be applied so that it will ooze from all gaps around the bolts (Fig 17). **Follow steps 1-16 (in reverse order) to reassemble the motor bracket assembly and front base. If replacing the propellers, proceed to steps 18 – 25.**

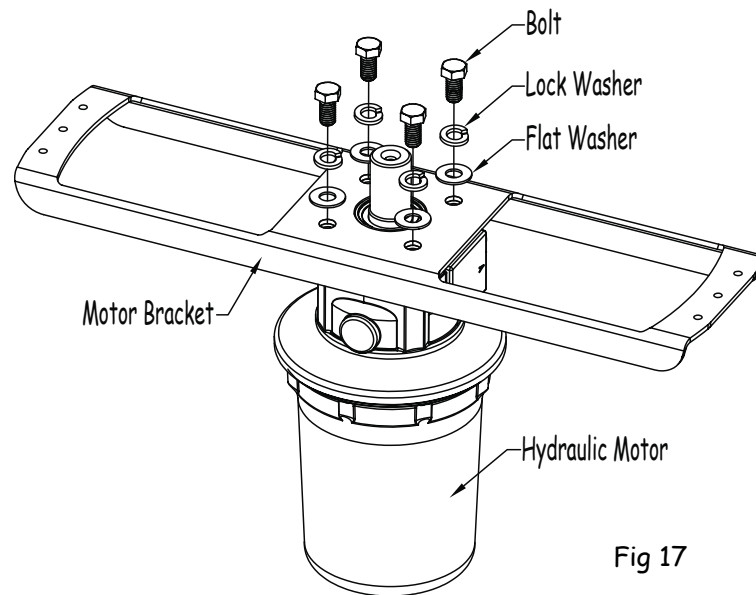


Fig 17

Important Note: When connecting the hydraulic hoses to the replacement hydraulic motor make sure that the O-rings are seated properly in the grooves of the hydraulic motor fittings. **The low-pressure hose MUST be connected to the fitting labeled “A” and the high-pressure hose MUST be connected to the fitting labeled “B.”** Tighten the cord grip fittings once the hoses have been attached to the hydraulic motor. (Fig 18).

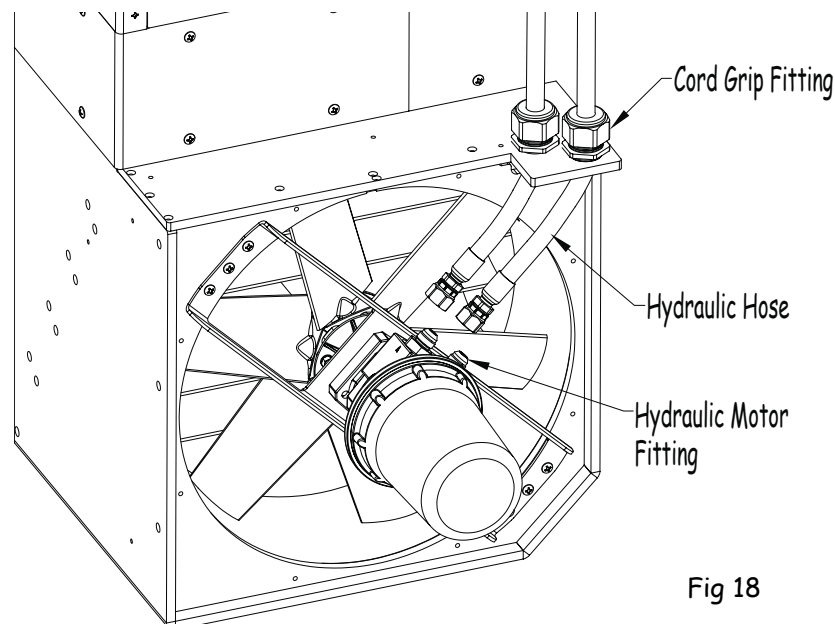


Fig 18

18. Disconnect the bond wire from the bonding screw on the non-dive side of the propulsion system base (opposite of the drive or motor side) (Fig 19).

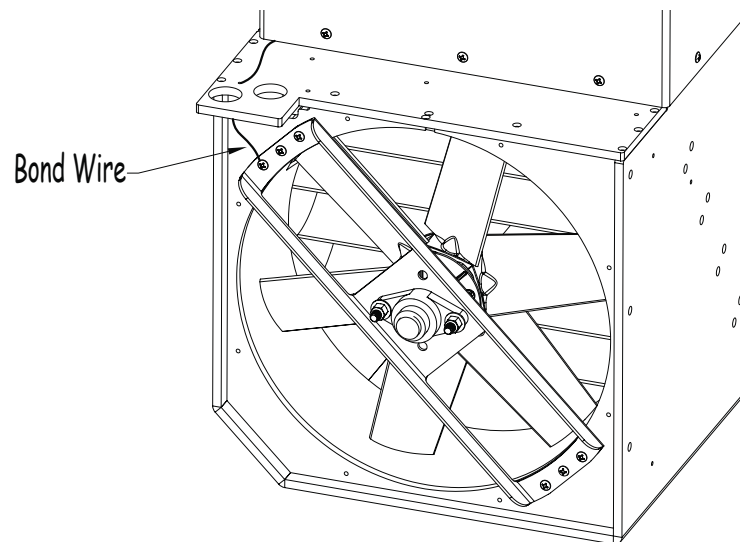


Fig 19

19. Carefully remove the motor bracket from propulsion system base by removing the six screws on each end of the bracket and sliding the bracket off of the propeller shaft (Fig 20).

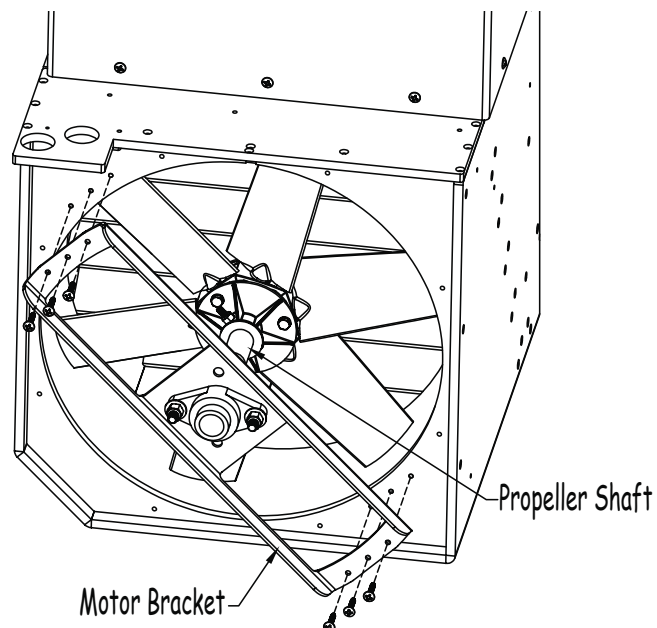


Fig 20

20. Slide the two polyethylene washers off of the propeller shaft. Remove the hex head screw and nut that secures the propeller to the propeller shaft (Fig 21).

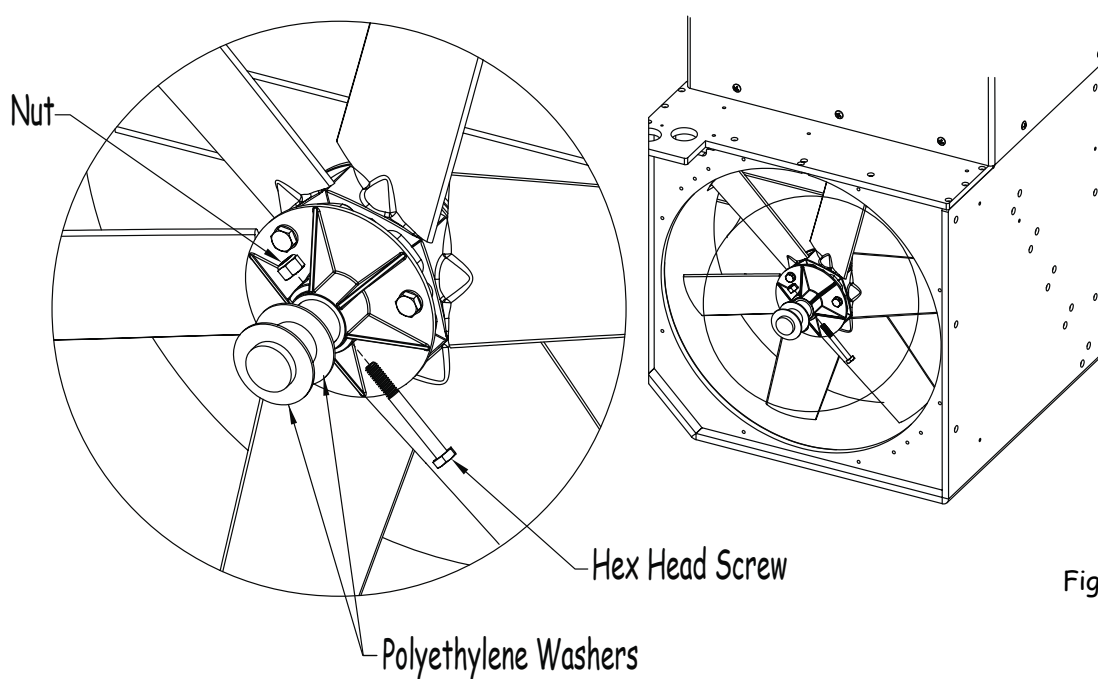


Fig 21

21. Slide the non-drive propeller off of the propeller shaft (Fig 22).

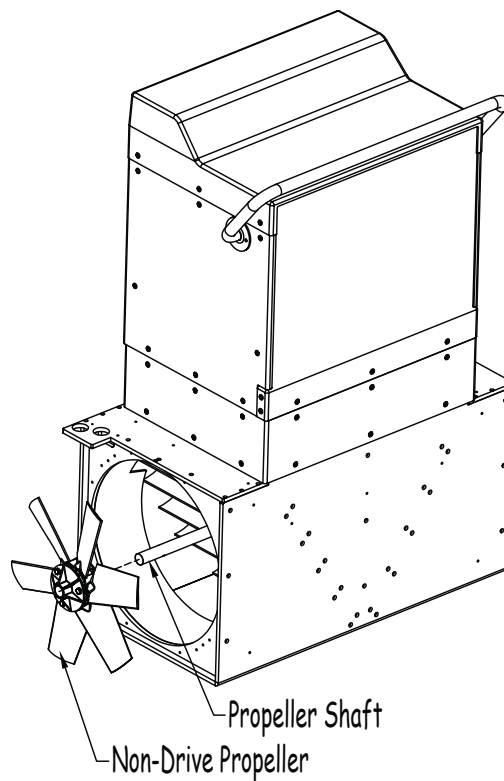


Fig 22

22. To access the hex head screw and nut that secures the drive propeller to the propeller shaft, slide the propeller shaft and drive propeller out of the propulsion system base until the hex head screw and nut are accessible. Do not remove the shaft completely (Fig 23).

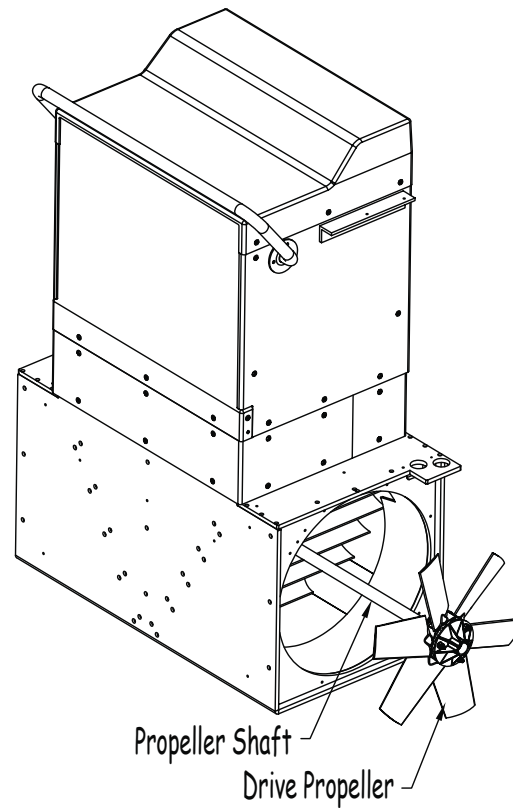


Fig 23

23. Remove the hex head screw and nut from the drive propeller (Fig 24).

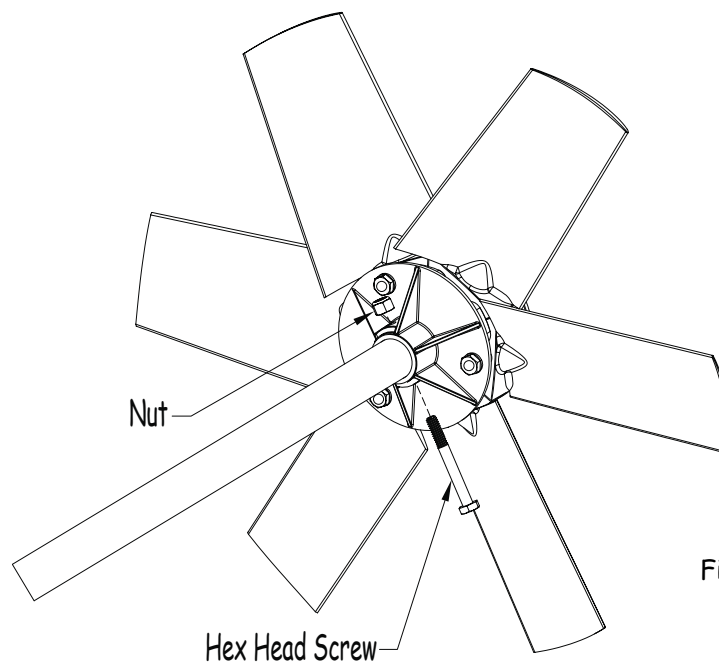


Fig 24

24. Slide the drive propeller off of the propeller shaft (Fig 25).

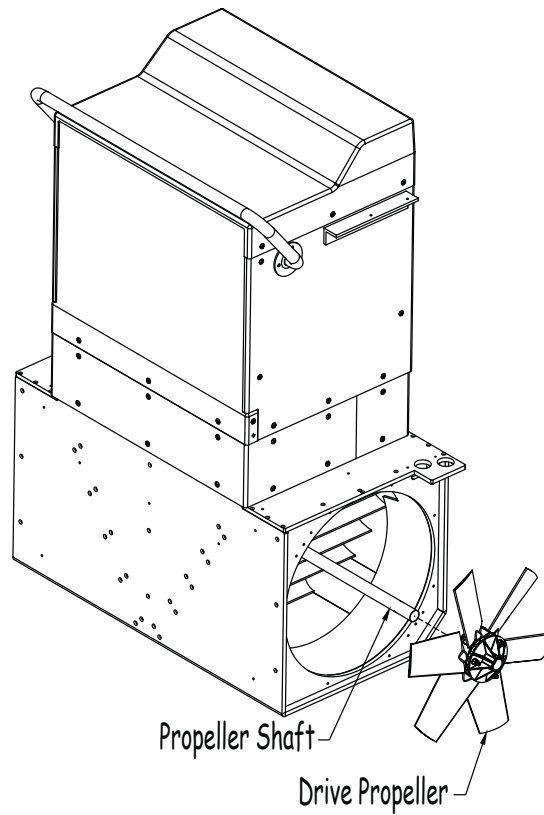


Fig 25

25. Follow steps 1-24 (in reverse) to reinstall the propellers, hydraulic motor, and front base assembly.

Important Note: The two propellers **ARE NOT** interchangeable and **MUST** be installed on the correct side of the propulsion housing. The drive propeller is marked with a “D” and non-drive propeller is marked with a “N.” **The bolt heads of the propellers MUST face out.**