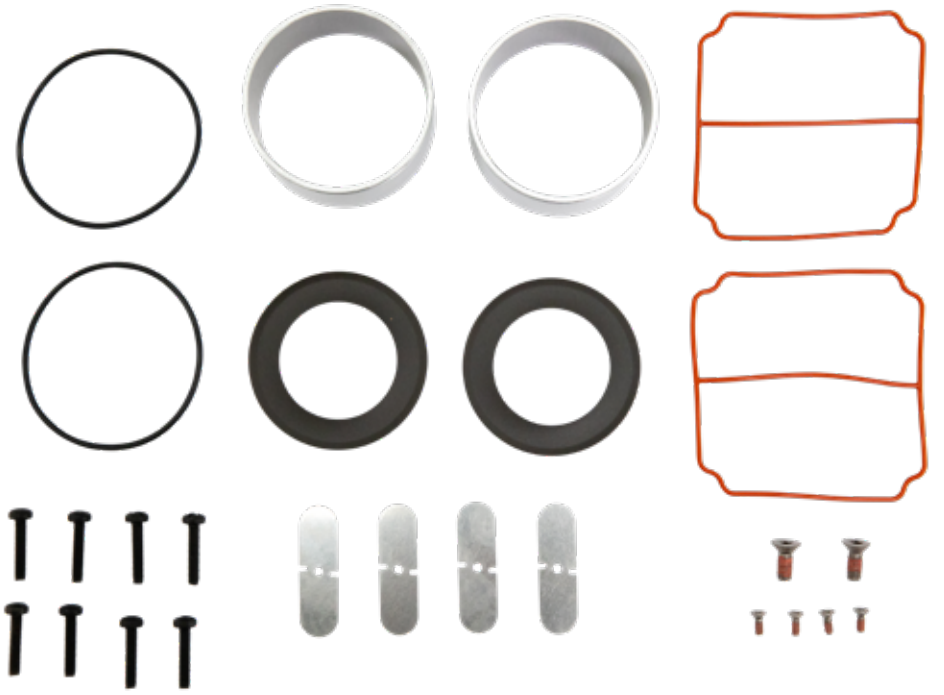
AIRMAX®

SilentAir™ T100 (RP100) Maintenance Kit

INSTALLATION MANUAL

Item #510542



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IMPORTANT INFORMATION:

Please read these instructions thoroughly before use. Failure to follow instructions may result in equipment damage or failure, losses, injury or death.

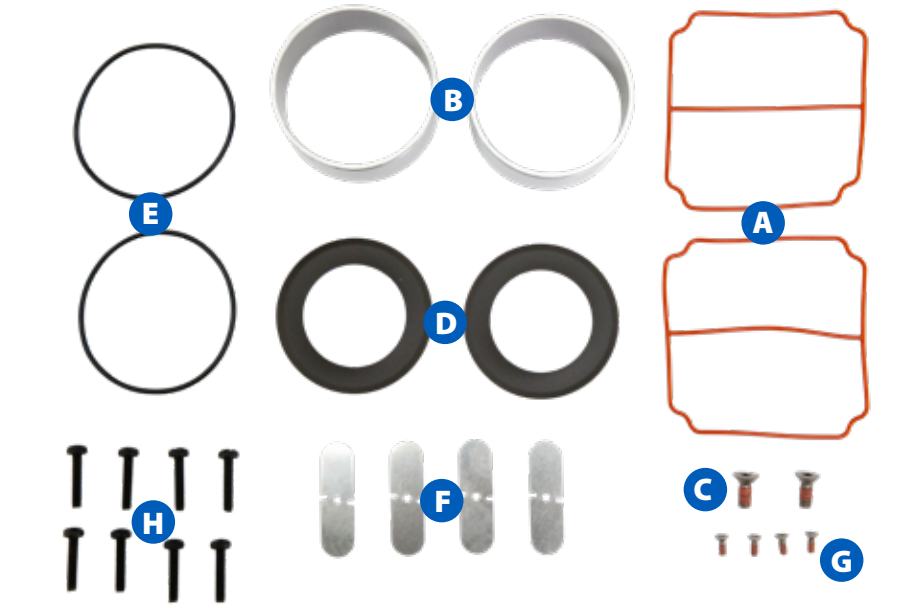
⚠ WARNING: ⚠

To reduce the risk of electric shock or injury:

- ALWAYS unplug the compressor from power source and remove pressure from airlines before installing the maintenance kit.

IMPORTANT: Airmax® is not responsible for equipment damage or failure, losses, injury or death resulting from failure to follow safety precautions, misuse or abuse of equipment.

PRODUCT CONTENTS:



What's Included:

- **A** 2 Head O-Rings
- **B** 2 Cylinder Sleeves
- **C** 2 Piston Retainer Plate Screws (T27 Torx Head)
- **D** 2 Piston Cups
- **E** 2 Cylinder O-Rings
- **F** 4 Leaf Valves
- **G** 4 Leaf Valve Screws (#2 Phillips Head)
- **H** 8 Head Screws (T25 Torx Head)

INSTALLATION INSTRUCTIONS:

Tools Required:

Crescent/Adjustable End Wrench
¼" Drive Ratchet
5/32" Socket
T20 Torx Screwdriver
T25 Torx Socket
T27 Torx Socket
7/16" Socket
¼" Drive Torque Wrench (1 - 120 in-lb) for reassembly
#2 Flat Head Screwdriver
#2 Phillips Screwdriver
Pick Tool
Anti-Seize
Heat Source (optional)


Fig. 1

Step 1

Using an adjustable end wrench, loosen the stainless quick connect fitting and disconnect the manifold flex tube (Fig. 1).

For PondSeries® (PS) 60 systems use a 5/32" Allen wrench to remove the two compressor manifold screws and set the manifold assembly aside (Fig. 2).


Fig. 2

For all LakeSeries® (LS) systems, the manifold assembly remains attached to the cabinet wall.

ALL SYSTEMS remove the four 7/16" nuts and washers from the mounting brackets and remove the compressor from the cabinet (Fig 3).


Fig. 3

Step 2

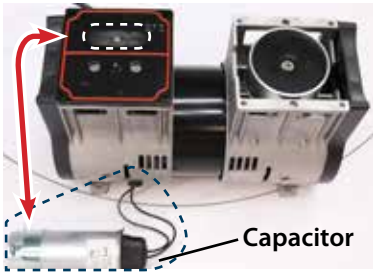
Using a T25 Torx wrench, remove the 8 head screws, then rest the capacitor and mounting bracket on your work surface. The head screws can be discarded.

Step 3

Carefully separate the head cover plate from the valve plates using a #2 flathead screwdriver. Note the position of the air filter in relation to the capacitor. This positioning will be important during reinstallation.

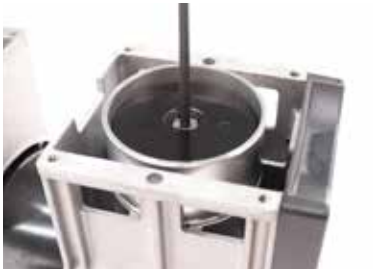
Step 4

Remove the two valve plates noting the orientation of the leaf valves in relation to the capacitor. This positioning will also be important during reassembly. Next, discard the head o-rings and cylinder o-rings from each valve plate (a pick tool may be necessary for o-ring removal). Set the valve plates aside.



Step 5

Using a T27 Torx wrench, remove the set screws on the piston retainer plate for each cylinder. Screws are installed with threadlock, so heating briefly with a torch may be necessary to loosen the threadlock.



Step 6

Remove and discard the piston cylinder sleeves and worn piston cups. The piston retainer plates will be reused.

Step 7

Using a T20 Torx wrench, remove the two screws at the top of the fan guard and remove the fan guard from one end of the compressor (Fig. 4). Rotate the fan slowly by hand until one piston reaches top dead center (TDC) (Fig 5).


Fig. 4


Fig. 5

Step 8

Place one of the new piston cylinder sleeves over the piston making sure that it rests evenly on the compressor body.

Step 9

Next, place the piston retainer plate into one of the new piston cups making sure that the lip of the piston cup is facing up.

Step 10

Rest the piston cup and retainer plate on top of the piston cylinder sleeve so that the locating boss is aligned with the top rod pilot of the piston; alignment of the locating boss is crucial to a proper installation. Ensure that the piston cup lip sits evenly on the cylinder sleeve before moving on to the next step.

Step 11

Using a T27 Torx wrench, slowly thread in a new piston retainer plate screw until it makes contact with the retainer plate, then continue tightening until the piston cup is drawn down to the cylinder. Secure using a torque wrench **(Recommended Torque: 100 in lb)**.

Step 12

Hold the piston cylinder sleeve in place while rotating the fan until the second piston reaches TDC. REPEAT steps 8-11 for the second cylinder.

Step 13

Using a #2 Phillips screwdriver, remove the top and bottom valve limiters and leaf valves from one of the valve plates. Discard leaf valves and screws. The valve limiters will be reused.

Step 14

On one valve plate install the bottom leaf valve first, making sure that the valve is seated properly in the locators. Install the bottom valve limiter and secure in place using a #2 Phillips screwdriver.

Step 15

REPEAT step 14 for the top leaf valve and valve limiter.

Step 16

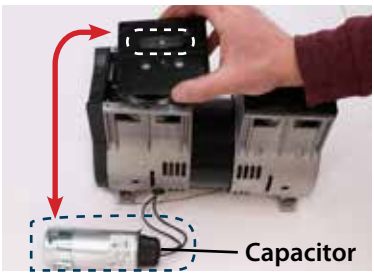
REPEAT steps 13-15 on the second valve plate.

Step 17

Install the cylinder o-rings on the bottom of each valve plate, making sure the o-ring sits evenly in the groove.

Step 18

Place each valve plate on the piston cylinder sleeve making sure that the top leaf valves are positioned appropriately in relation to the capacitor side of the compressor. Ensure that the valve plates sit evenly on the compressor body. An incorrect seat could indicate an incorrect cylinder sleeve installation.



Step 19

Install the head o-rings making sure that they sit evenly in the groove.

Fig. 6

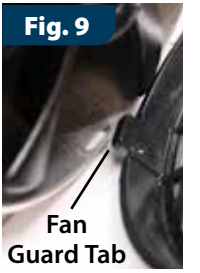
Step 20

Reinstall the valve head cover plate ensuring the air filter is positioned appropriately in relation to the capacitor side of the compressor (Fig 6). Then install capacitor and 8 new head cover screws. We recommend going back and forth between screws in a **W pattern** to ensure the screws are evenly secured using a torque wrench **(Recommended Torque: 55 in lb)** (Fig. 7).

Fig. 7

Fig. 8

Fig. 9



Step 21

Turn the fan by hand to ensure that pistons move freely (Fig. 8) before reinstalling the fan guard with two T20 Torx screws. Ensure that the bottom fan guard tab (Fig. 9) seats properly in the base of the compressor end bell.

Step 22

For PS systems, reinstall the compressor and attach the manifold assembly to the mounting bracket using a 5/32" Allen wrench **(Recommended Torque: 45-50 in lb)** (Fig 10). **For LS systems**, reinstall the compressor in the cabinet. Next, attach the stainless quick connect fitting and tighten using an adjustable end wrench to ensure the flare is fully seated (Fig. 11).

Fig. 10

Fig. 11

Changing the Air Filter:

Changing the air filter should be done every 3-6 months

To replace the air filter, hold the base of the air filter canister and turn the top counterclockwise to remove the air filter cap. Replace the old air filter element with a new one. To prevent unnecessary debris intake, we recommend reinstalling the filter cap with the inlet hole facing down.

NOTES

THANK YOU FOR CHOOSING:

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