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High Security Indoor Public Bike Pump Service Manual



Maintenance Item	Frequency	Time required	Procedure
Air chuck renewal	every 3-12 months as required	2 minutes	Page 2
Lubrication of pump rod	every 6-12 months as required	2 minutes	Page 4
Full pump overhaul	every 24+ months as required	30 minutes	Page 4

1. Air Chuck Renewal

Tools Needed:

-16mm Cone Wrench

Parts Needed:

-Bike Fixtation 151122 air chuck

Steps:

1. Extend the aluminum lever

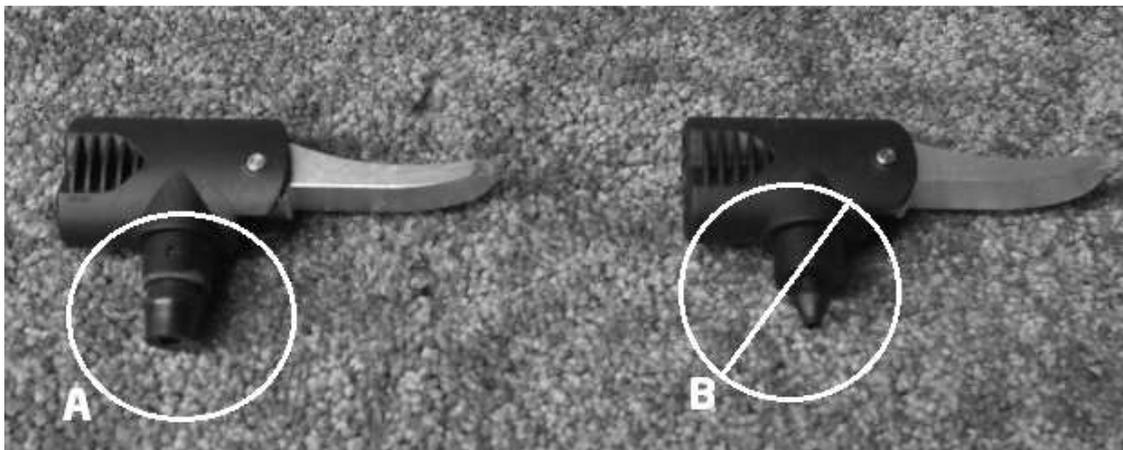


2. Place 16mm Cone Wrench in the slots of the aluminum hose adapter (attached to Air Chuck)

3. While holding 16mm cone wrench steady, use other hand to twist off the Air Chuck, twisting it in a counter-clockwise direction.



4. Make sure replacement Air Chuck has a rubber stopper on the plastic nipple. Rubber tube is attached in photo A and not in photo B.



5. While holding 16mm cone wrench steady, screw new Air Chuck in to the aluminum hose adapter, twisting Air Chuck clockwise. Tighten until firm, but do not over-tighten.

2. Lubrication of pump rod

Parts needed:

-White lithium grease

Steps:

1. Extend piston rod by pulling up on handle. Using the Bike Fixtation white lithium grease, apply grease to the outside of the piston rod. Cycle the pump up and down 10 times. Wipe excessive grease off.

3. Full pump overhaul

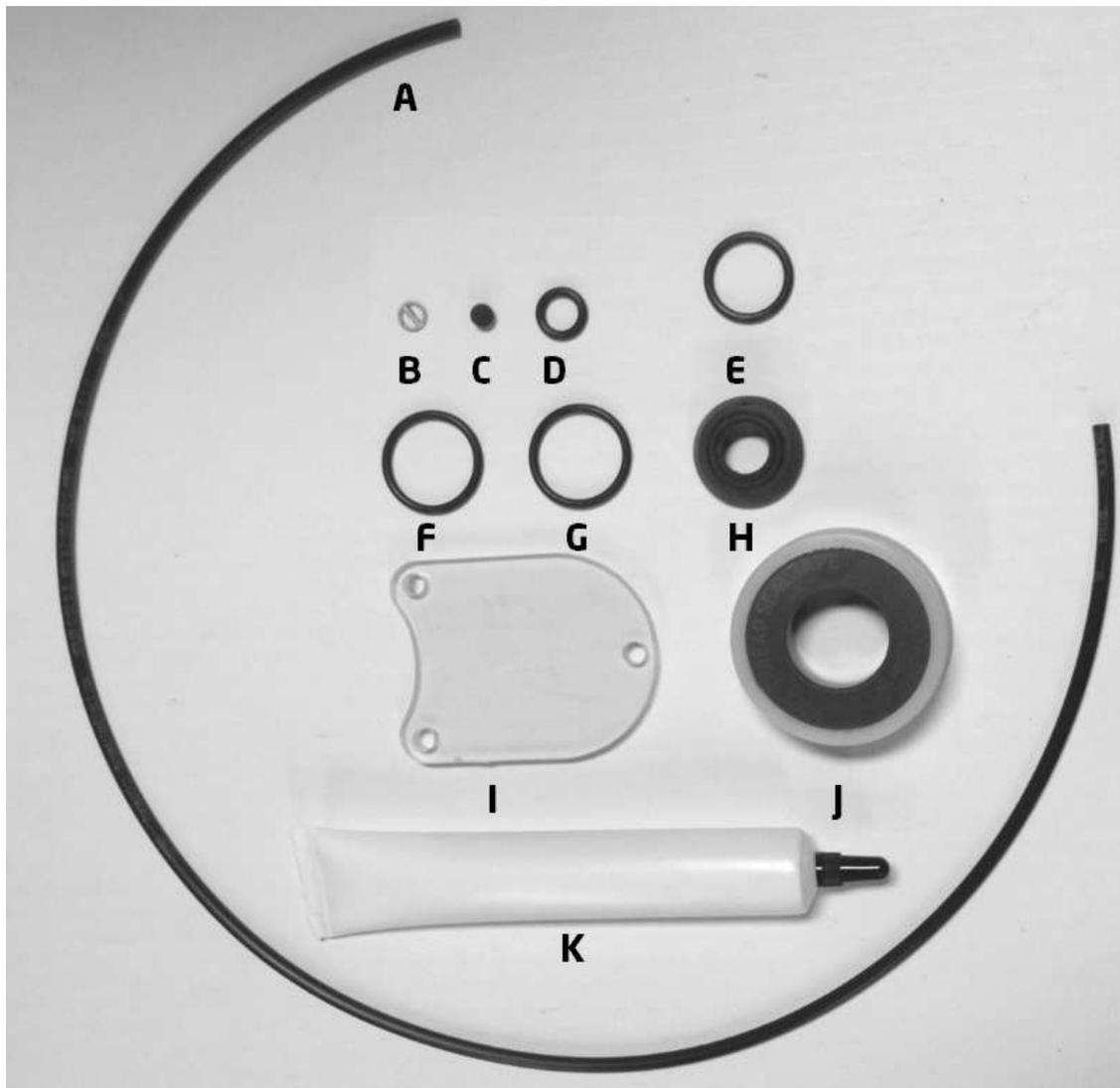
Tools Needed:

- 1/8" hex wrench	-5mm hex key
- Small Screwdriver	- Adjustable wrench
-9/16" (14mm) wrench	-16mm wrench
-10mm 1/4" drive socket	-1/4" drive ratchet and 1/4" drive 6" extension
-Needle nose pliers	-Clean working space

Parts needed:

-Bike Fixtation 141262 HS Outdoor NO gauge rebuild kit

141262 Rebuild Kit



A – Air Hose

B – Ball stop

C – Check ball

D – Gauge O-ring

E –Upper bumper O-ring

F &G–Cylinder O-ring

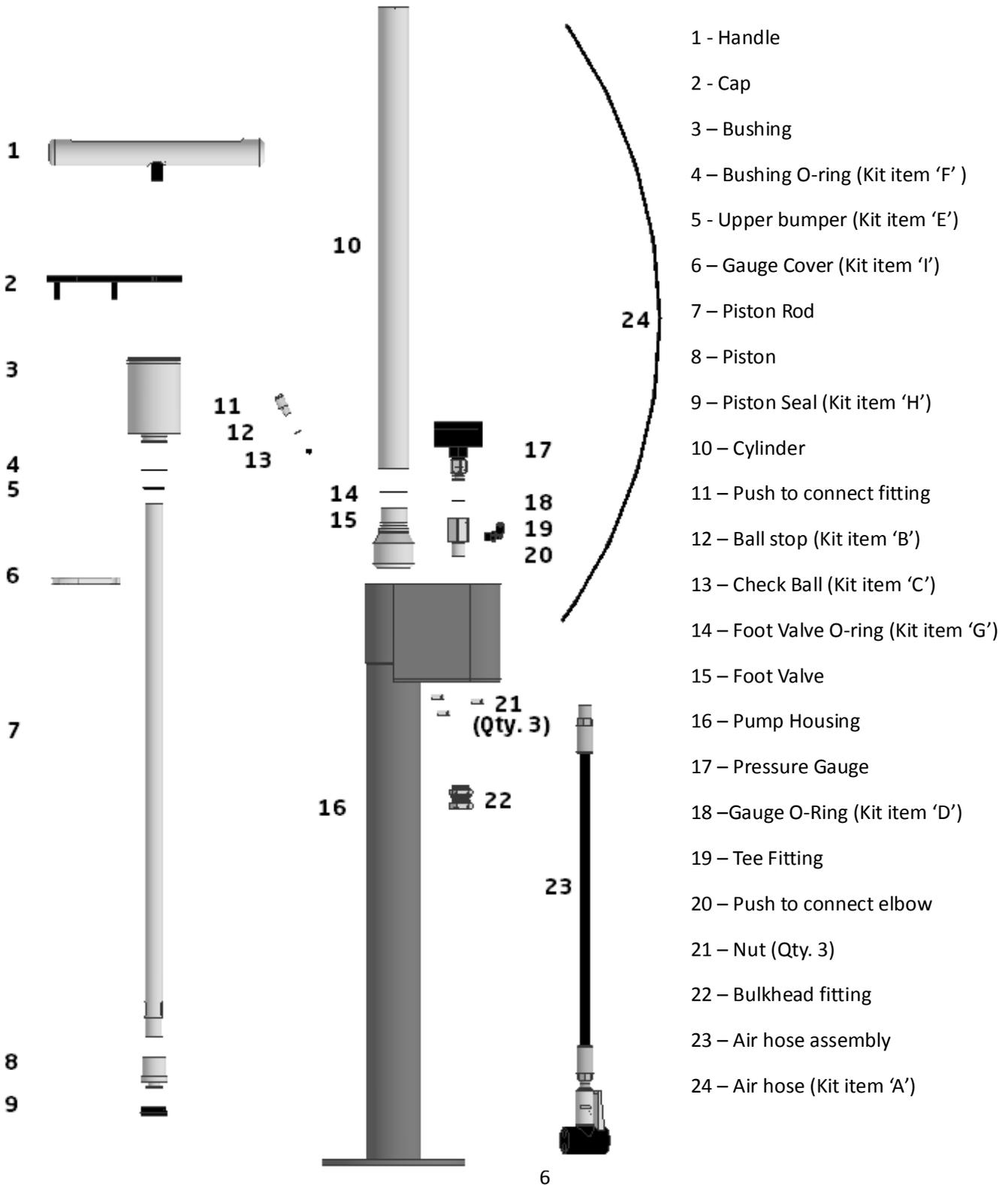
H – Piston seal

I – Gauge Cover

J – PTFE Tape

K – Pump grease

Pump Part Overview



- 1 - Handle
- 2 - Cap
- 3 - Bushing
- 4 - Bushing O-ring (Kit item 'F')
- 5 - Upper bumper (Kit item 'E')
- 6 - Gauge Cover (Kit item 'I')
- 7 - Piston Rod
- 8 - Piston
- 9 - Piston Seal (Kit item 'H')
- 10 - Cylinder
- 11 - Push to connect fitting
- 12 - Ball stop (Kit item 'B')
- 13 - Check Ball (Kit item 'C')
- 14 - Foot Valve O-ring (Kit item 'G')
- 15 - Foot Valve
- 16 - Pump Housing
- 17 - Pressure Gauge
- 18 - Gauge O-Ring (Kit item 'D')
- 19 - Tee Fitting
- 20 - Push to connect elbow
- 21 - Nut (Qty. 3)
- 22 - Bulkhead fitting
- 23 - Air hose assembly
- 24 - Air hose (Kit item 'A')

Steps:

1. Remove pump using the penta socket and hex key used when the pump was installed. To avoid scratching the powdercoat finish, place pump on work bench with a soft surface.
2. You will now remove 3 nuts on the bottom of the pump. The access for these nuts is at the base of the gauge housing. See image below. If your pump has a long hose clip, you will need to remove that first using a 5mm hex wrench.



3. Using a 1/4" drive ratchet with a 6" long extension and a 10mm socket, remove the three top cap nuts.



4. When all three nuts have been removed, pull the top cap off the pump. You can now lift the pump rod, bushing, and cylinder out of the pump. There is a tubing attached to the bottom of the pump. Be careful not to kink this line while removing the internal components.



5. In order to disconnect the air line from the foot valve at the bottom of the pump, you must depress the tabs of the fitting and then pull on the hose.



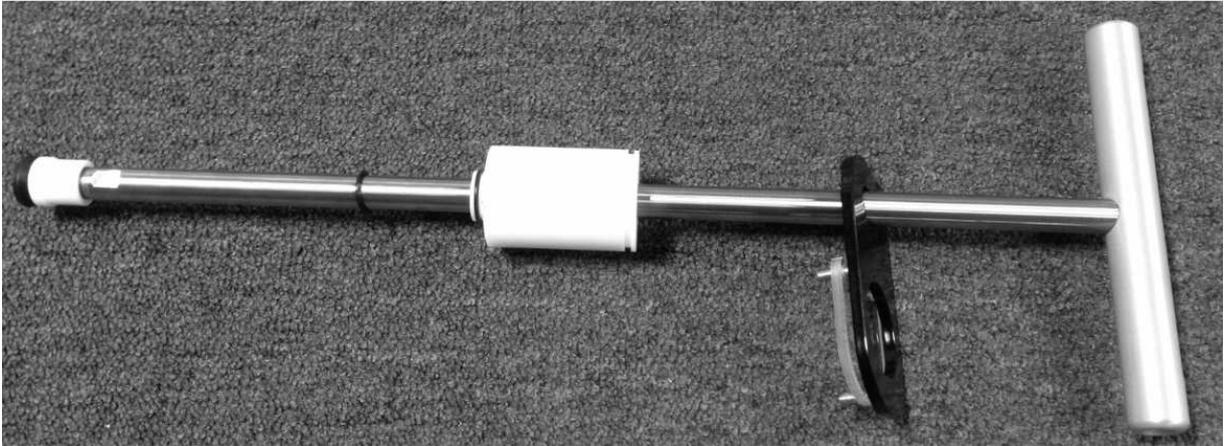
6. Using a screwdriver, push the pressure gauge out of the gauge housing



7. Replace gauge O-ring



8. You can now remove the piston and rod from the cylinder.



9. Replace bushing O-ring and upper bumper O-ring with the replacements in the kit.



10. Replace the piston seal by hand. The new seal can also be installed by hand.



11. Lubricate new piston seal with provided grease.



12. Lubricate Cylinder



13. Install piston seal into cylinder.



14. Remove foot valve.



15. Remove fitting using 1/8" hex key.



16. Replace ball and ball stop in the same order it was installed.



17. Apply thread sealing tape to fitting and reinstall with 1/8" hex key.



18. Replace Foot valve O-ring.



19. Grease and reinstall fitting



20. If the tubing was kinked, replace it with tubing provided in the rebuild kit. You will remove the tubing from inside the gauge housing and reinstall the new tubing. Note the routing of the tubing. You can now install the gauge. You can begin reassembly of the pump.



21. Connect the tubing to the footvalve.



22. Begin installing the pump's internal components into the housing as shown. **NOTE: Slowly install assembly to avoid kinking the tubing.**



23. You will lower the assembly down. To keep the components from separating while lowering it into the pump housing, you will grab the piston rod, bushing, and cylinder while lowering as shown.



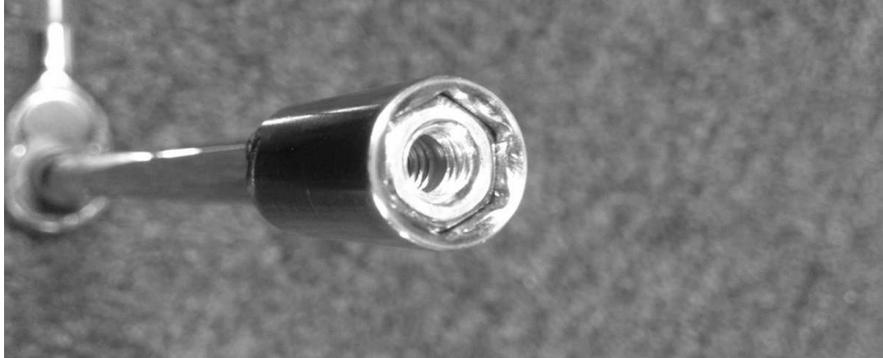
24. Replace gauge cover.



25. Lower top cap onto pump.



26. Install and tighten the nuts to the top cap. To make this easy, load a socket as shown so that the threads are easily started.



27. Tighten nuts.



28. If you need to replace the hose, use a large adjustable wrench and a 9/16" or 14mm wrench to remove the hose. **NOTE: Do not attempt to remove hose without an adjustable wrench to react the torque or the gauge will spin.**



29. Test the pump by inflating a bike tire. Leave the pump connected to the pressurized bike tire and listen for leaks.