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# High Security Outdoor Public Bike Pump NO Gauge 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

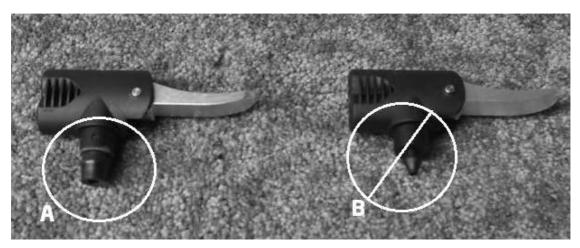


2. Place 16mm Cone Wrench in the slots of the aluminum hose adapter (attached to Air Chuck)

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:**

- 4.5mm (3/16") hex key -16mm wrench

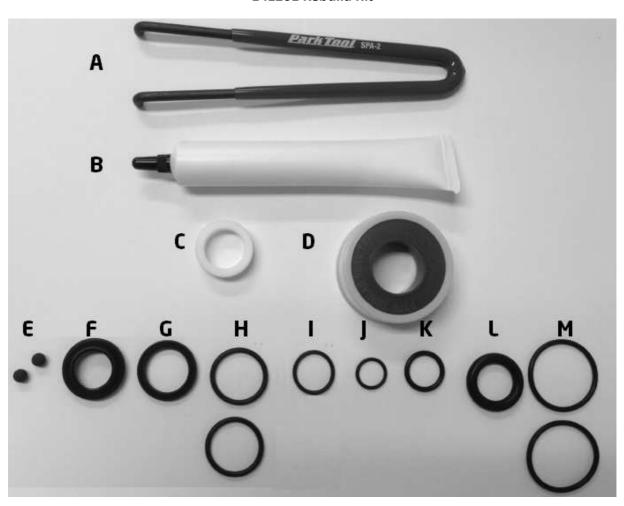
- Small Screwdriver - Adjustable wrench

-Needle nose pliers -Clean working space

#### Parts needed:

-Bike Fixtation 141261 HS Outdoor NO gauge rebuild kit

## 141261 Rebuild Kit



- A Pin Spanner Tool
- B Pump grease
- C Piston wear ring
- D PTFE tape
- E Check balls (Qty. 2)
- F Wiper seal
- G Piston seal
- H Cylinder O-ring (Qty. 2)
- I Piston O-ring
- J Rod O-ring
- K Upper bumper O-ring
- L Lower bumper O-ring
- M Bushing O-ring (Qty. 2)

# **Pump Part Overview** 1 - Handle 2 - Cap 1 3 – Wiper seal 2 4 - Bushing O-ring (Kit item 'M') 3 5 - Bushing O-ring (Kit item 'M') 4 6 - Bushing 5 7 – Cylinder O-ring (Kit item 'H') 6 8 – Upper bumper (Kit item 'K') 9 – Piston Rod 10 - Rod O-ring (Kit item 'J') 17 24 11 - Check ball (Kit item 'E') 9 18 19 12 – Piston housing 20 13 – Piston O-ring (Kit item 'I') 21 22 14 – Piston wear ring (Kit item 'C') 23 15 - Piston seal (Kit Item 'G') 16 - Piston Nut 17 – Cylinder 18 -Lower Bumper (Kit item 'L') 19 – Check plug 20 - Check ball (Kit item 'E') 21 – Cylinder O-ring (kit item 'H') 22 - Foot valve 10 23 - Pump Housing 11 24 - Air hose assembly 12 13 14 15 16

## Steps:

1. With a pin spanner tool (Kit Item 'A'), remove the aluminum pump cap by unscrewing it in a counter-clockwise direction.



2. Remove the contents of the pump by standing on the pump housing flange and pulling the handle out. Due to the o-rings on the bushing, this may be tight.



- 3. Clean off grease and contaminants using a rag or parts washer.
- 4. Remove the Piston Rod from the Pump Cylinder.



- 5. Clean off grease and contaminants using a rag or parts washer.
- 6. Remove the foot valve from the bottom of the cylinder by pulling. Clean the inside of the cylinder. Replace the bottom bumper that is inside cylinder (Kit item 'L').



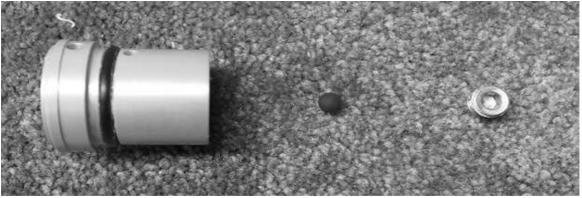
7. Remove o-ring from Foot Valve and replace with O-ring (Kit Item 'H').



8. To replace the Check Ball, use a screwdriver and a 4.5mm (3/16") Allen wrench to remove the plug from the Foot Valve. The screwdriver should fit in the bottom holes. Turn the brass plug counterclockwise to remove.



9. When the brass plug is free, remove the Check Ball and clear the Foot Valve of any obstructions. Replace the check ball (kit Item 'E').



10. Apply PTFE tape (Kit Item 'D') to the brass plug and tighten in reverse order of step 7.





11. Remove the bottom piston nut using adjustable wrench and 16mm wrench. Remove piston seal (Kit item 'G').



12. Remove piston using a 16mm wrench and an adjustable wrench.



13. Replace check ball (Kit Item 'E')and o-ring (Kit Item 'J')



14. Remove rod wiper seal using a pliers. Be careful not to damage plastic. Replace wiper seal (Kit Item 'F'). Be careful not to damage the seal.



15. Remove o-rings that are to be replaced on the bushing. Replace with new o-rings (Kit Item 'H' and 'M'). Take care not to damage the o-rings on any material edges they may have to go over.



16. Replace O-ring on piston (Kit Item 'I'), piston seal (Kit Item 'G'), and wear ring (Kit Item 'C'). Note the piston seal sits, with the open end towards the bottom of the pump. Place bushing on rod. Do not forget to replace upper bumper (Kit Item 'K') Tighten Piston housing and Piston nut.



17. Re-grease o-rings on Bushing. Place a thin layer of grease below the bushing on the Pump Rod.



18. Grease top of Pump Cylinder (Bottom Bumper should still be in the bottom of the Pump Tube).



19. Slide Piston and Pump Rod into Pump Tube. Start with piston at an angle, taking care not to damage the Rod Wiper Seal or force it to fold while entering the tube. It may help to gently guide the Rod Wiper Seal into the pump tube by using your finger nail or a soft plastic hook tool.



20. Press Pump cylinder on to Bushing until it is snug on the last o-ring and it feels like it has "clicked" into place.



21. Re-grease o-ring on Foot Valve. Replace Foot Valve into bottom of Pump Tube.

22. Grease the inside of the top of the Pump Housing and return the entire pump contents in to the Pump Housing.



23. Use a spanner tool or two small wrenches to press the bushing snugly into the pump housing until the top of the bushing and pump housing are flush.



24. Hand-tighten the pump cap onto the pump housing.

25. Using the spanner, tighten the cap in a clockwise direction until it stops moving.



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