


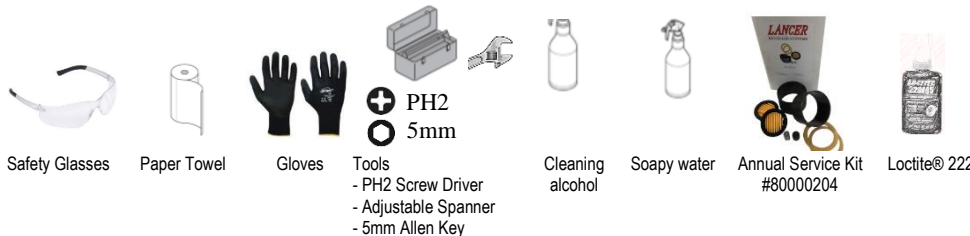


**Why** Annual Operational Service – Filters, Non Return Valve & Compressor Head

**Time required** 40-60 minutes to complete

**Hazard icons**  Compressed Gas/Air/Liquid  Electricity  Hot Surfaces  Chemicals

### Tools and supplies



Videos are available to support this equipment from Hoshizaki Lancer. Please see...

[www.lancerbeverage.com](http://www.lancerbeverage.com)

**Overview:**

<https://youtu.be/-pKwifqzQEY>

**Troubleshooting:**

<https://youtu.be/OobMs8csyj0>

**Service:**

[https://youtu.be/\\_jS9Mm8xmXQ](https://youtu.be/_jS9Mm8xmXQ)

### Procedure

- 1 Change Over to CO2 supply**  
Switch main Beverage Control Panel over to back-up CO2 supply.



- 2 Isolate Air Compressor – Electrical**



Press the red button on the pressure switch to turn off the compressor.

Isolate and disconnect the electrical lead from the wall socket.



- 3 Isolate Air Compressor – Air Supply**  
Turn the supply air tap off, ¼ turn. The red handle will be 90 degrees to the hose when off.



- 4 Drain air tank**



Drain the air tank through the Drain Cock on the base of the receiver tank.

Turn Clockwise, slowly loosen Drain Cock to release compressed air. Monitor for excessive moisture draining from the tank.

#### Equipment Alert

Compressed air use of Gloves & safety glasses is required.

- Replace Tank Drain Cock**  
Wipe drain cock clean.

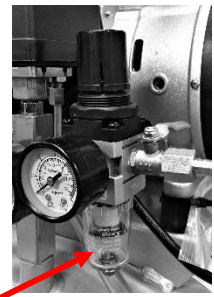
Refit drain cock, turning anti-clockwise, ensure finger tight fitment.



continued ▶

- 5 Inspect and Drain Regulator Filter bowl.**

Check the condition of the condensation bowl at the base of the Filter Regulator. If dirty and more than 10 mm of moisture present remove & Clean.



**5 Remove Regulator Filter Bowl**

Turn Clockwise and pull down to remove.

Clean with warm soapy water.



**Tip**  
Take a photo or placement and orientation



**Remove Regulator Brass Filter**

Turn the Brass Cartridge Clockwise to loosen and remove.

Clean with warm soapy water.

Clean by placing in sanitiser alcohol to soak and shake.

Refit by turning anti-clockwise once cleaned or replaced.



**Replace Regulator Filter Bowl**

Push up and turn anti-clockwise to replace bowl.

**6 Access Air filters (2 of)**

Twist anti-clockwise and pull on the filter casing cap to expose the filter element inside.



**Clean air filter housings**

Wipe clean the filter housing and cap.



**Replace air filter & Cap**

Fit two new air filter elements, as available in annual service kit.

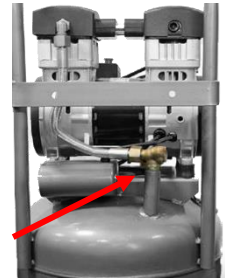


Locate filter cap onto the housing and twist clockwise to replace and lock into place.



**7 Replace the Non-Return Valve (NRV) Seal & Spring**

Hot Surfaces



With the use of a Spanner, turn the nut anti-clockwise to loosen.



Remove and dispose of the spring & seal.



**Tip**  
Note orientation of parts as removing them.



Fit the new Seal & Spring, as available in the annual service kit, and replace the NRV nut.



Tighten using only fingers, in a Clockwise direction.



**8 Remove compressor head Heat Covers**

Hot Surfaces

Remove the 4 fixing screws securing the 2 heat covers.



PH2 Phillips heads.

**9 Disconnect High Pressure Hose**

Using a Spanner, Turn Clockwise to loosen hose fitting.

Disconnect the hose from brass elbow attached to the compressor head.



**10 Loosen all 12 Head bolts**  
Use a 5mm Alan key

Turn Anti-clockwise to loosen.

**Tip**  
Leave the bolts in place.



**11 Remove cylinder head**  
Lift remove cylinder head assembly, as one whole piece.



**12 Remove valve plates**  
Remove both valve plates, note orientation before removal.

**Tip**  
Take a photo or placement and orientation



**13 Remove adjuster holders**



**14 Remove both piston barrels**  
Remove and dispose of both piston barrels.



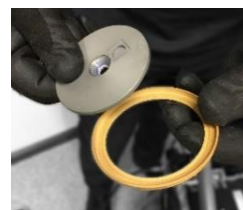
**15 Remove & Replace both piston rings**  
Use a 5mm Alan Key

Turn Anti-clockwise to loosen piston plate fixing screw.

Remove piston top plate and separate ring. Dispose of the ring.

Use a new ring from the Service kit and refit to the piston plate and piston.

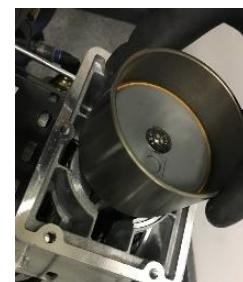
**Tip**  
Apply a small portion of Loctite® (222) to fixing screw thread.



**16 Replace both piston barrels**  
Take care to with piston ring when fitting the new barrel.

Piston Barrel is supplied with Annual service kit.

**Tip**  
Sometimes it is necessary to first fit piston barrel then fit ring/piston top plate.

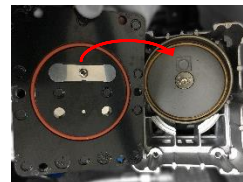


**17 Replace both Adjuster holders**



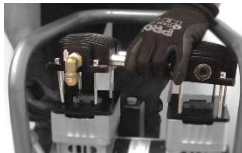
**18 Replace both head plates**  
Note orientation when refitting.

**Tip**  
Valve plate screw and Piston Plate indent need to align.





**19 Replace cylinder head assembly**

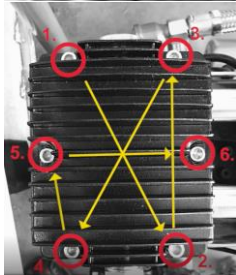


**20 Tighten all 12 head bolts**  
Follow tensioning pattern

Hand tighten each bolt, clockwise, extra leverage is not required.

Each bolt has a spring washer, fitted to assist with securing the fixing.

Aluminum threads strip easily.



**21 Connect High Pressure hose**

Using a Spanner, Turn anti-Clockwise to tighten hose fitting.



**22 Replace heat covers**  
+ PH2 Phillips heads  
2 x heat covers

Replace heat covers, secure each with 2 fixing screws.



**23 Re-connect and energise the electrical supply to the air compressor**



Plug electrical lead into socket outlet and lift red button on pressure switch to turn on the air compressor.



**24 Check for air leaks**

Monitor the tank pressure gauge, listen for leaking air (hissing) and/or use soapy water to inspect air fittings, pipe joints & connections.



Compressor will run for about 1 minute 30 second before cycling off.



**Check the NRV Operation**

When the compressor reaches its cut-out pressure there should be a shot of air from underneath the pressure switch. If this shot of air is not evident or the air continually leaks replace the Non-Return Valve Seal & Spring.



**25 Test auto-drain**

Press the "TEST" button on the Auto Drain which should release a burst of air and then stop.

If this does not work have the compressor checked by an approved service agent.



**26 Re-connect air supply**

Turn the supply air tap on, 1/4 turn. Handle will be in line with the hose. This is the red handle.



**27 Change Over to Compressed Air supply**

Switch main Beverage Control Panel over to Compressed air supply from CO2 supply.

