

## **Certikin COH Oil Pool Heater** **Also applies to Genie Dual/MBC/MBD**

If there is no frost stat fitted to the pool filtration pump the secondary heat exchanger should be drained by disconnecting the screwed unions of the pool pipework from the heater exchanger and all pool water allowed to be drained.

The following notes refer to the primary water circuit of the heater.

The COH mark 1 heater (no digital display) has no inbuilt frost protection and should be drained during winter or filled with antifreeze.

The COH mark 2 (with digital display) has its own inbuilt frost protection and should preferably not be drained but a permanent power supply should be supplied to the heater to allow the frost protection to work. If this is not possible, the next best thing is to fill with antifreeze or if absolutely necessary, drained.

### **Automatic Frost Protection**

The Heater will automatically run a Frost Protection routine if the temperature falls below 3°C (37°F). The Pool Temperature Display will show 0°C. This will include the use of the Pool Pump if connected to the Heater.

## **Certikin Oil fired Pool Heater – System Protection**

So even if the above ground Pool equipment, pump, filter etc are drained for the winter the Certikin Oil fired Pool Heater is still full of water and, unless protected, vulnerable to corrosion and freezing.

There are several ways to protect the Heater:

- Drain the Heater every year. This is the least favoured option as it is time consuming and promotes internal rusting.
- Mark 1 Oil Heaters, 100, 175, 210 and 275 can be protected by the addition of antifreeze or the installation of a Frost Thermostat between Terminal 1 and Live.
- Mark2 Oil Heaters have a built in frost protection system that just requires a permanent mains connection. If this cannot be guaranteed anti-freeze should be used.

It is essential that if the heater is being re-filled that the inhibitor levels are maintained with an application of Betz Dearborne Sentinel X100.

Protection from freezing will still be required.

### **For your reference:**

The Certikin Oil fired Pool Heaters have the following water volumes and will require the following dosages for protection.

<b>Models</b>	<b>Water content</b>	<b>X500 (Anti-freeze &amp; inhibitor)</b>	<b>Inhibitor alone</b>
100, 110	20 litres	7 litres	¼ of a 1 litre X100
175 , 210, 180, 220	40 litres	14 litres	½ of a 1 litre X100
275, 280	70 litres	24.5 litres	1 litre X100

These Anti-freeze concentrations will provide protection down to –15°C, if a lower or higher protection temperature is required please consult the product literature.

The recommended **filling procedure** is as follows:

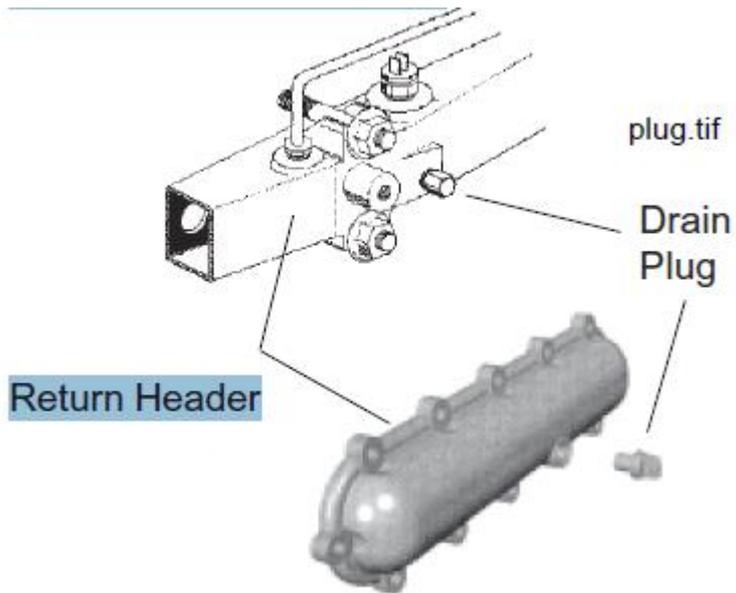
1. Fill using the filling loop provided.
2. Check for leaks and tighten any suspect joints.
3. Empty the Heater to flush clean and close the drain point.
4. Access the Automatic Air vent at the top of the Heater by pulling the Top Panel up.
5. Unscrew the Automatic Air Vent, depress the blade valve and carefully pour in the inhibitor/anti-freeze.
6. Replace the Automatic Air Vent then refill the Heater.
7. Check for leaks and when secure disconnect the filling loop at one end.

Alternatively, use Fernox F4 express inhibitor injected through the filling loop. X500 antifreeze can also be injected through the filling loop if using a pressurisation unit (Rothenburger RP30)

Be sure to run the heater for 10 mins after introducing inhibitor or antifreeze to allow the chemicals to circulate

## **Certikin MB/Raypac**

1. Turn off gas valve, manual gas valve, and electrical supply to the heater.
2. Open drain cock located on the inlet/outlet header, (under water pipes). Remove drain plug from return header. Remove the heat exchanger inspection panels on the side opposite water piping to gain access to the plug on the return header.
3. Disconnect compression fittings from the pressure switch and return header that connects to the 1/4" copper tube and allow the tube to drain.

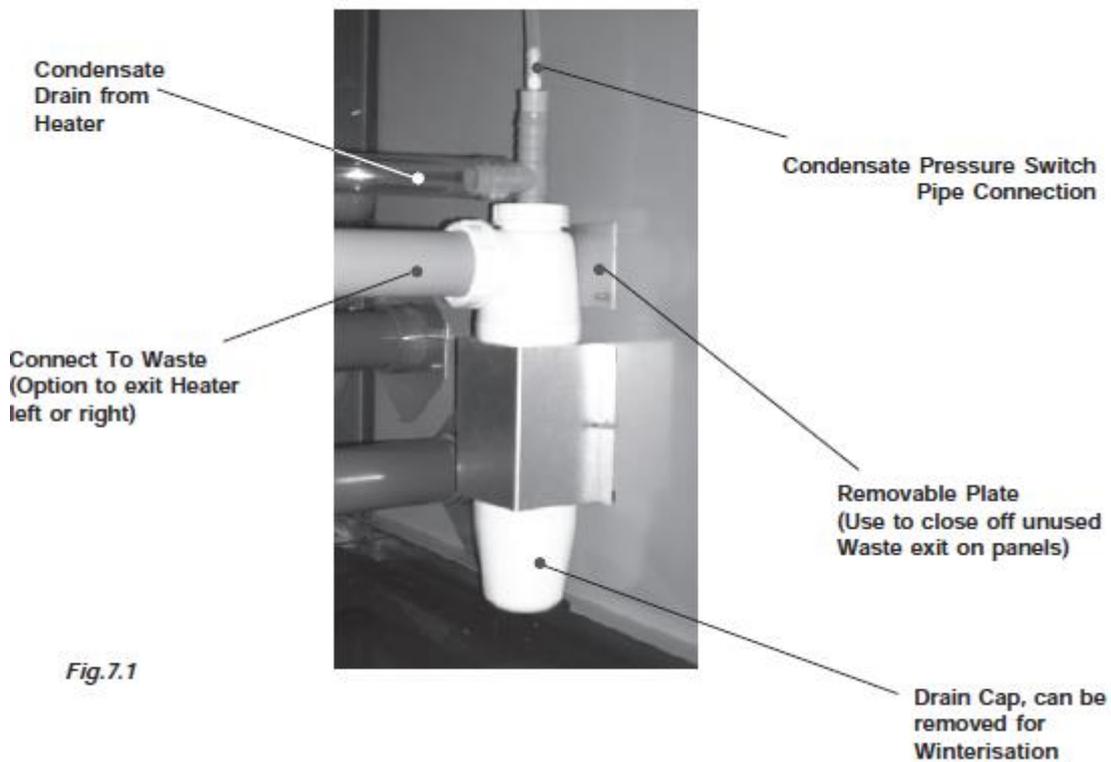


## Certikin Genie C

Turn off the Mains electricity and Gas Supply.  
Drain the heater by the opening the drain cock fitted in an unused pool connection.  
The Condensate Syphon should be drained by removal of its Drain Cap. **See Fig 7.1**

If the Heater is below the pool an isolating valve can be fitted **ONLY IF** an additional flow switch has been wired into the Heaters Mains supply.

### Condensate Syphon (75 mm)



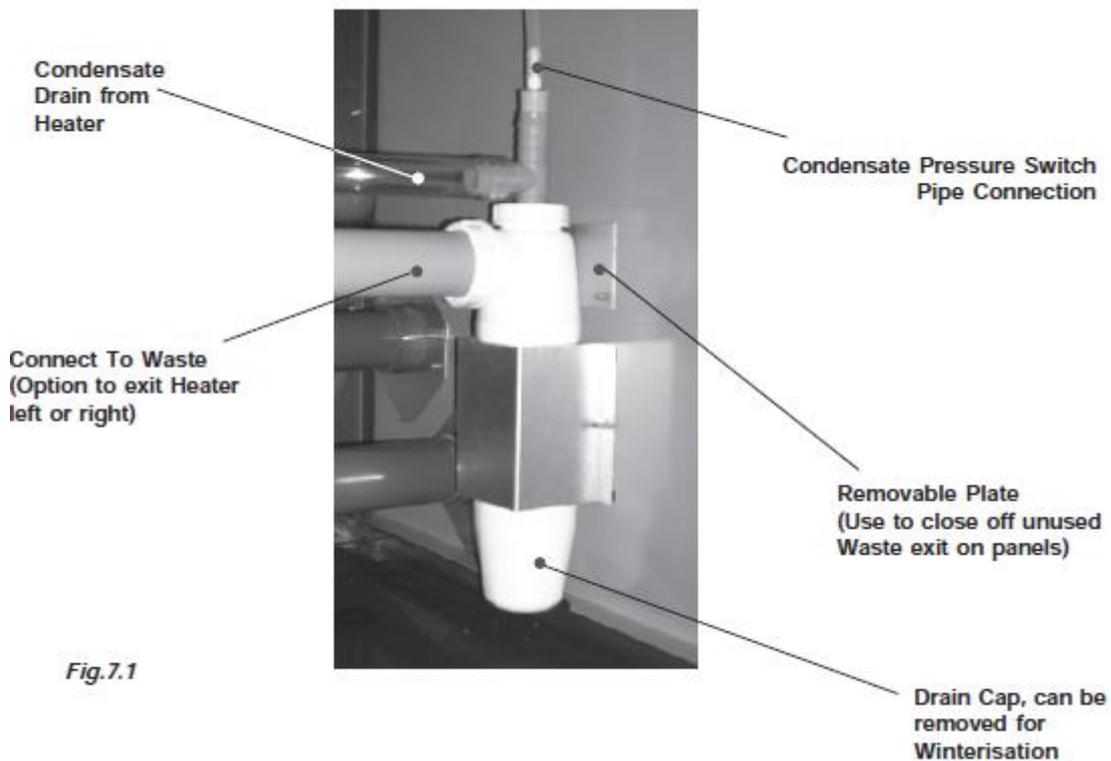
*Fig.7.1*

## **Certikin Genie S**

Turn off the Mains electricity and Gas Supply. As supplied the Heater includes one litre of Sentinel X500 Inhibitor/Anti-freeze, this is sufficient to protect the Heater down to -10°C. It is recommended that this is maintained and so should be replenished if there is a loss of primary water.

Draining the Heater can be achieved by fitting the drain assembly in place of the double check valve/hose connector. The Condensate Syphon can be drained by removal of its Drain Cap. **See Fig 7.1**

### **Condensate Syphon (75 mm)**



*Fig.7.1*

## **Laars XE/Series 1&2/Lite/Lite2/XL/LX/Legacy**

### **Also applies to Hayward/Purex Tropic Isle and Minimax**

1. Turn off the main gas supply valve to the heater,
2. Disconnect the flow and return pipework from the heat exchanger if possible.
3. Remove the drain plugs from the return header (see Figure 20), loosen the drain plug from the inlet/outlet header, and completely drain the heat exchanger.
4. After all water has drained from the heater, remove the drain plug from the inlet/outlet side.
5. Check for mineral buildup in the openings. Insert a screwdriver (or similar) through the drain plug hole and loosen and rust or mineral deposits.
6. Use compressed air to blow out any standing water remaining in the heat exchanger.
7. Once all the water has drained, apply grease to the threads on the drain plugs and reinstall plugs, but do not tighten. This prevents corrosion of the threads. If the threads are damaged at any time and the drain plugs will not screw in correctly, the threads can be re-cut using a ¼" BSP tap.
8. Disconnect the pressure switch from the siphon tube (copper tubing) (see Figure 21).

### **Laars XE/Series 1&2/Lite/Lite2 drain plugs**

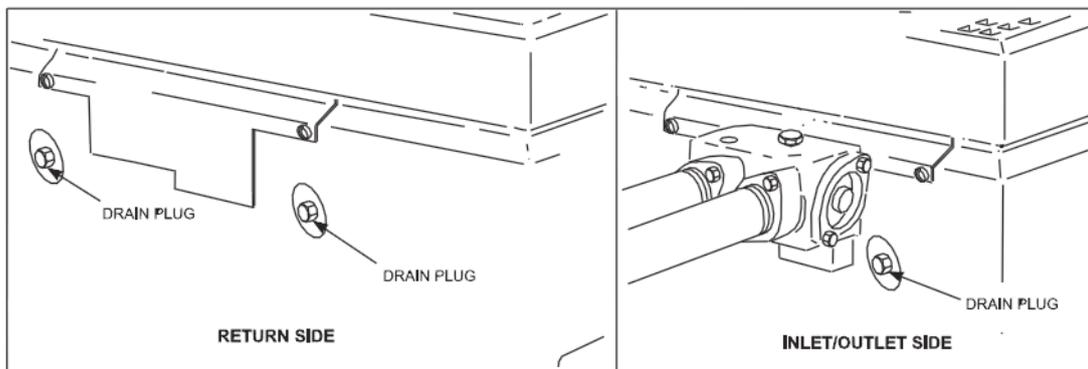


Figure 20. Heater drain locations.

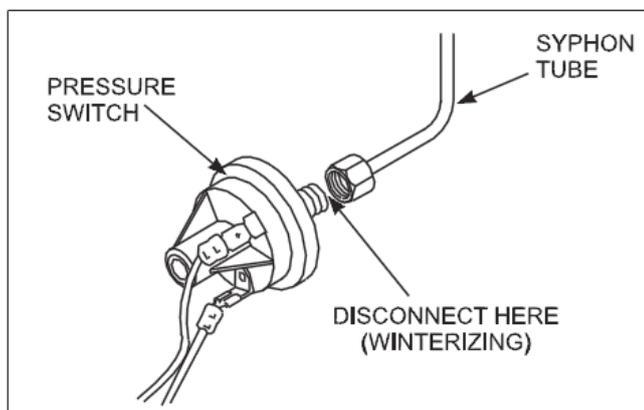


Figure 21. Pressure switch copper tubing.

Laars Legacy drain plug

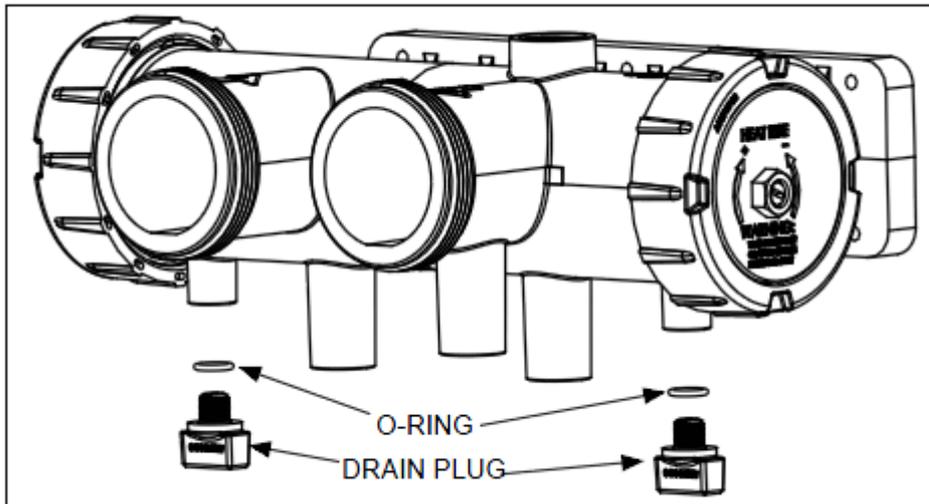
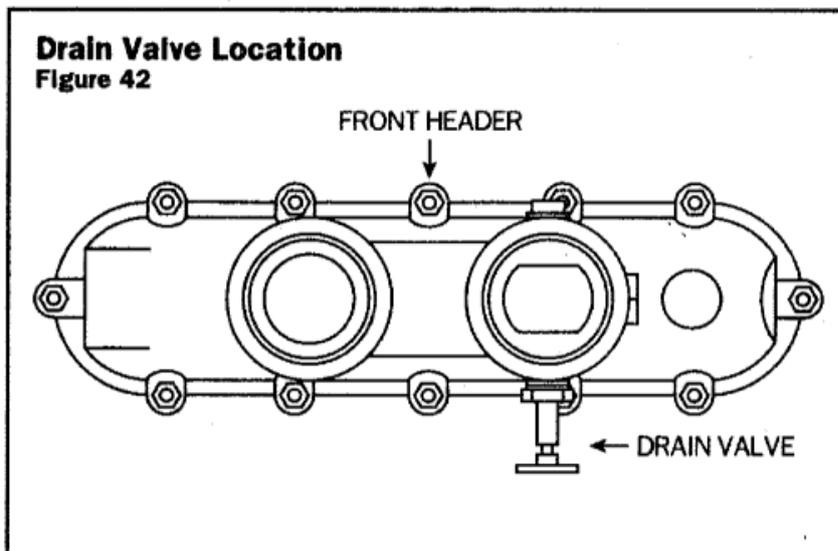


Figure 21. Draining the Heater

Hayward drain plug



**Minimax drain plug**

