

# Installing the Water Pump

Agilent G2350 Atomic Emission Detector

Replacement Part No. G2350-61445

These instructions describe how to install a replacement water pump into a G2350A Atomic Emission Detector.

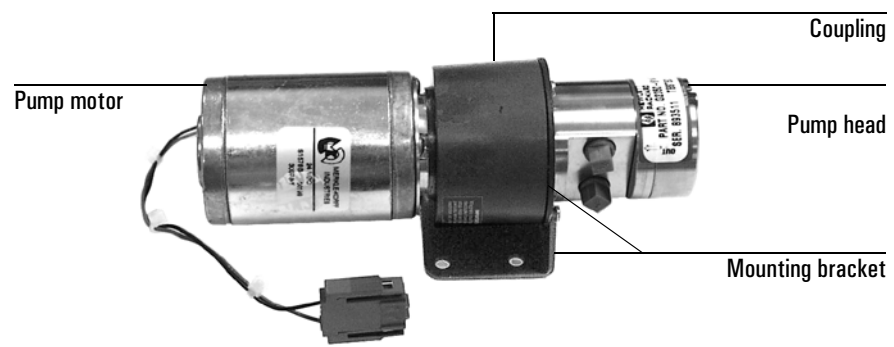


Figure 1. Water pump assembly, part no. G2350-61445

## Prepare for service

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**WARNING**

High Voltage! To reduce risk of electric shock, disconnect the power cord from the AED.

Do not operate the AED with the water drawer open.

High Temperature! Before touching the GC-AED column transfer line, cavity assembly, or water reservoir, turn off the instrument. Allow it to cool to ambient temperature or wear heat resistant gloves.

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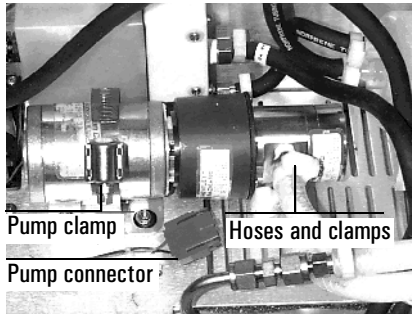
1. Power down the AED and remove the power cord.
2. Remove/pull out the water drawer.

## Replace the water pump

There are three types of water pump installations, as shown in Figure 2 below. Follow the instructions for the type of installation you have.

<b>Installation Type</b>	<b>See Page</b>
Type 1	4
Type 2	5
Type 3	8

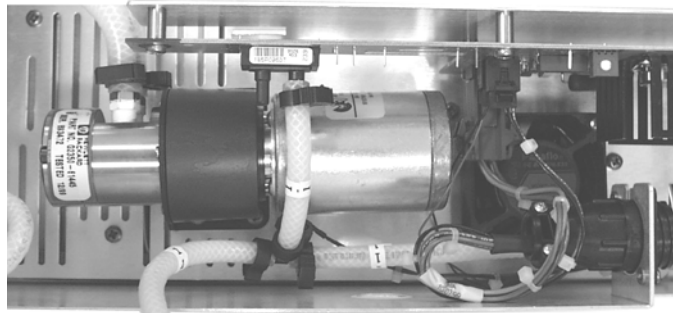
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**Type 1 – Hose clamp on water drawer base**  
 AED serial number < US01000166



**Type 2 – Bracket on side of water drawer**  
 AED serial number between  
 US01000166 and US03000388



**Type 3 – Bracket on water drawer base**  
 AED serial number ≥ US03000388

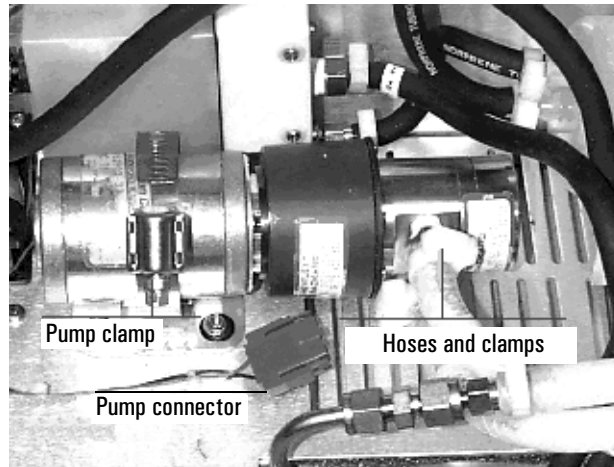
**Figure 2. Water pump installation types**

See your Service Manual for details on general procedures, such as how to remove and reinstall your water drawer.

## Installing the water pump in a Type 1 water drawer

For this type of installation, you will remove the bracket from the new pump and install it in the existing mounting clamp.

1. Remove the water board panel and water board.



**Figure 3. Removing the Type 1 water pump**

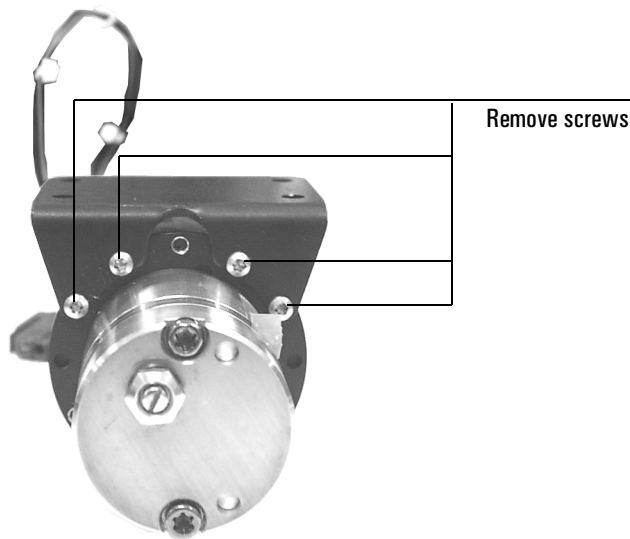
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### Caution

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When removing the fittings from the pump head, hold the assembly by the **pump head**.

2. Remove the pump connector from the water board, then remove the hoses, clamps, and hose barbs from the old pump.
3. Unfasten the clamp around the pump and remove the old pump.
4. Remove the mounting bracket from the new pump by removing the four screws that hold it onto the coupling. Reinstall the mounting screws into the coupling.



**Figure 4. Removing the mounting bracket**

5. Install the new pump into the hose clamp and reconnect all fittings.

### **Installing the water pump in a Type 2 water drawer**

For this type of installation, you will rearrange the mounting bracket on the new pump and use it to install the pump onto the side of the water drawer.

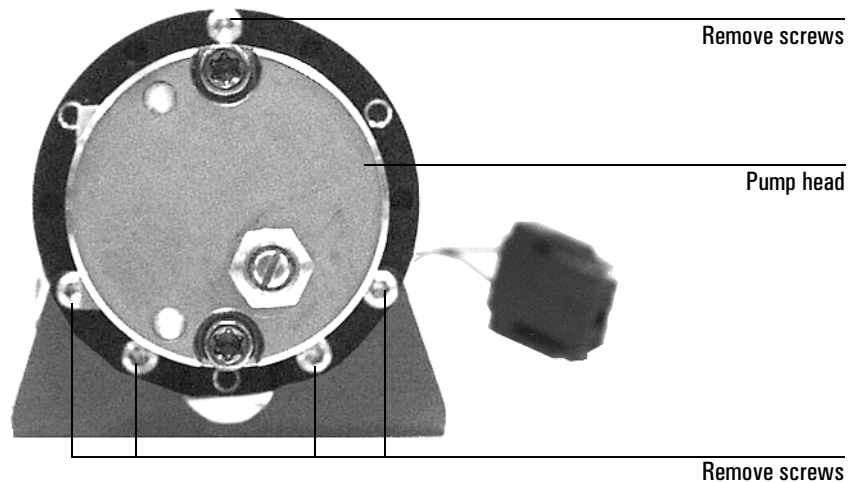
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**Caution**

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When removing the fittings from the pump head, hold the assembly by the **pump head**.

1. Remove the pump connector from the water board, then remove the hoses, clamps, and hose barbs from the old pump.
2. Remove the old pump.
3. Remove the mounting bracket from the coupling by removing the four mounting screws. See Figure 5.

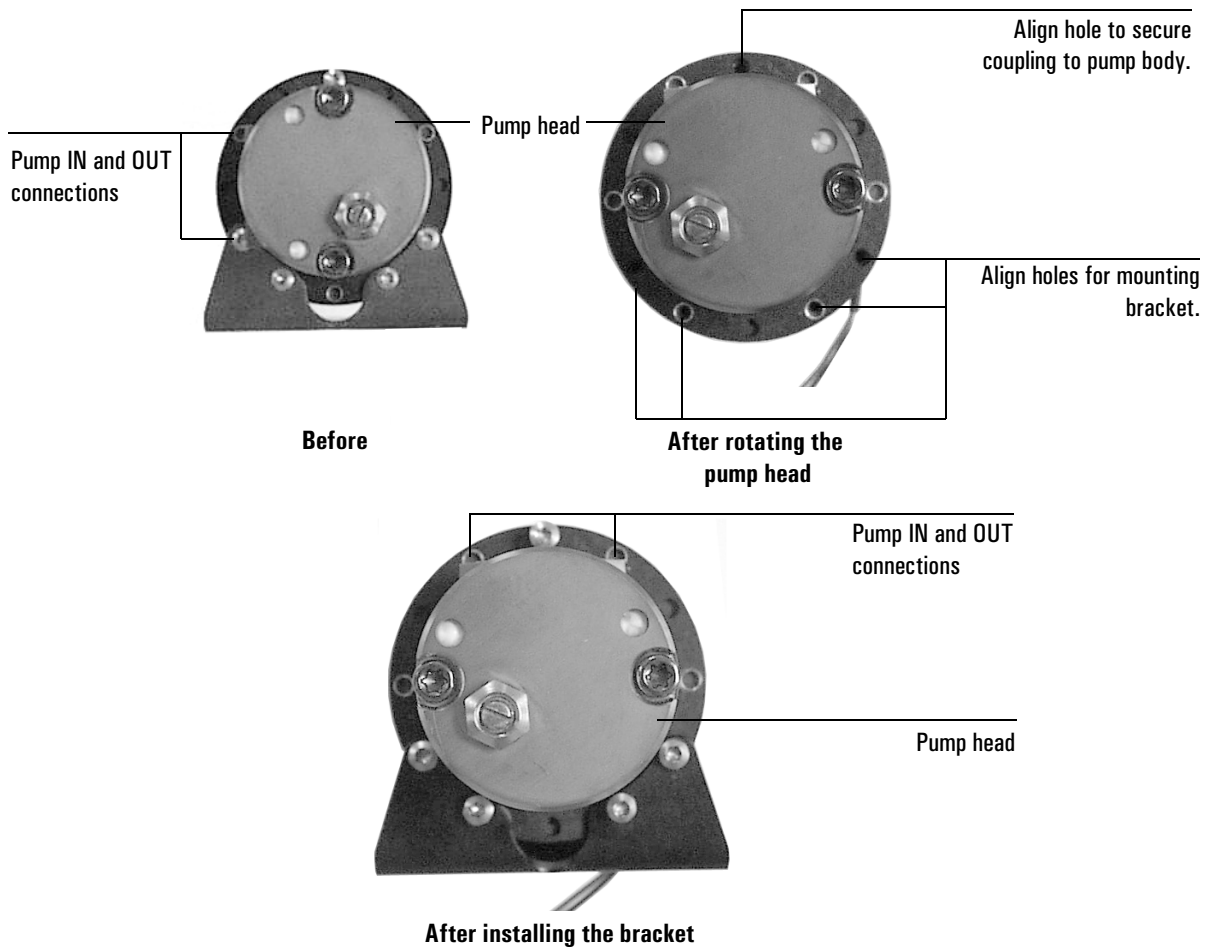


**Figure 5. Remove the mounting bracket and loosen the coupling**

4. Remove the remaining screw securing the coupling to the pump motor. See Figure 5.

The coupling and pump head will now rotate on the pump motor. Magnetic attraction helps keep the parts together.

5. Holding the pump motor steady, rotate the pump head approximately  $30^\circ$  counterclockwise. See Figure 6.
6. Install the mounting bracket directly across from the pump IN and OUT connections.



**Figure 6. Installing the bracket on the pump motor**

7. Install the remaining screw.
8. Install the pump onto the side of the water drawer and reconnect all fittings and tubing.

## Installing the water pump in a Type 3 water drawer

1. Remove the pump connector from the water board.

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**Caution**

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When removing the fittings from the pump head, hold the assembly by the **pump head**.

2. Remove the hoses, clamps, and hose barbs from the old pump, then remove it from the bottom of the water drawer.

## Complete the installation

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**WARNING**

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Before re-starting the AED, make sure there is no water on the AED electronics. Remove water puddles and allow electronic surfaces to dry thoroughly. Make sure no water is inside the cavity or purge vent tubing, or the ash filter. To avoid electrical shock, make sure the spark plug wire is attached to the spark plug before starting the AED.

1. Close the water drawer and connect to power.
2. Check for water leaks.

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