

Date: 09 April, 2018  
Category: Electronic

## Technical Service BULLETIN

### Title: Aqua-Hot Burner Control Unit

Circulated to:

|                                    |   |
|------------------------------------|---|
| Factory Authorized Service Centers | X |
| Dealers                            | X |
| OEM Partners                       | X |

#### Affected Product Range:

##### Part number

WPE-300-900

##### Supercedes

WPX-287-962

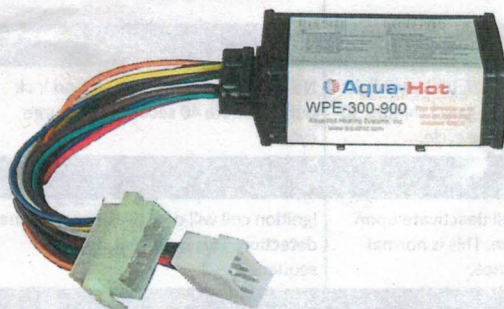


Figure 1



WPE-300-900

Aqua-Hot Heating Systems, Inc.  
www.aquahot.com

This controller is for  
use on Aqua-Hot  
heaters ONLY

Figure 2

The new Electronic Control Unit for the diesel burner replaces all previous 12 volt control units.

- Direct replacement for Webasto Spheros (black) or Webasto Hella (silver) control units used on Aqua-Hot heaters
- Mounts to side of burner
- Connects directly to existing harnesses
- Listed for use in Aqua-Hot products by Edison Testing Laboratories (ETL)





## Key Operational Differences

| ACTION  | RESPONSE   |  |  |
|---|--|--|--|
|   | Aqua-Hot   | Webasto Spheros (black)  | Webasto Hella (silver)   |
| Indicator Light   |  |  |  |
| Fault Detection: No flame   | Indicator light deactivates at the end of post purge cycle   | Indicator light deactivates at point of fault detection  | Indicator light deactivates at point of fault detection  |
| Power switch toggle during normal operation                           | Indicator light will deactivate until the post purge cycle is complete, will reactivate immediately following cycle completion | Indicator light remains active   | Indicator light remains active   |
| Power switch toggle during fault condition                            | Indicator light deactivates until post purge cycle is complete, reactivates after cycle completion                             | Indicator light remains active   | Indicator light remains active   |
| Overheat  |  |  |  |
| Unit online, overheat circuit open                                    | No burner operation. No purge cycle. Indicator light will deactivate after 6 seconds   | 35 second lock out. Indicator light activates. Unit begins 2 minute 30 second post purge cycle.                | No burner operation. 25 second lock out, 2 minute 40 second post purge cycle                                   |
| Ignition Coil   |  |  |  |
| Normal Operation  | Ignition coil will continually operate for 15 seconds even after flame has been achieved. This is normal start up sequence.    | Ignition coil will deactivate upon flame detection. This is normal start up sequence.                          | Ignition coil will deactivate upon flame detection. This is normal start up sequence                           |
| Fault Detection: Loss of flame < 1 second                             | NOTE: An "occurrence" is the loss of flame for less than a second before the unit reaches temperature.                         |  |  |
| Occurrence 1  | Fuel solenoid disengages immediately, 20s restart cycle  | Fuel solenoid remains active, spark starts in less than one second and repeats indefinitely. No restart cycle. | Fuel solenoid remains active, spark starts in less than one second and repeats indefinitely. No restart cycle. |
| Occurrence 2  | Fault Lock out for 3 minutes, begins purge cycle   | Fuel solenoid remains active, spark starts in less than one second and repeats indefinitely. No purge cycle.   | Fuel solenoid remains active, spark starts in less than one second and repeats indefinitely. No purge cycle.   |
| Electrical Anomalies  |  |  |  |
| Open fuel solenoid circuit (fuel solenoid disconnected)               | Indicator light active for 6 seconds, no other start up events   | Unit attempts start up as normal.  | Unit will attempt normal start up.   |
| Open ignition coil circuit (ignition coil disconnected)               | Indicator light active for 6 seconds, blower motor refuses to start  | Unit attempts start up as normal.  | Unit will attempt normal start up.   |
| Open combustion fan motor circuit (disconnected) or shorted fan motor | Indicator light active for 10 seconds, no other start up events  | Unit attempts start up as normal.  | Unit will attempt normal start up.   |
| Jumped photo eye  | Unit will initiate 90 second startup/shutdown cycle.   | No attempt to start.   | Unit will attempt normal start up.   |