

HEAT SIPHON ANSWERBOOK

Troubleshooting

ERROR CODES -Displayed on Player Board

There are three different types of error codes displayed by the Digital Player Controller"

1 WARNING CODE - The Warning Code is displayed for the duration the error exists, takes no actions and is self-correcting which means it disappears when the condition that caused its display does.

2 ALERT CODE - SELF-CORRECTING ERRORS - The Alert Code is displayed while the error condition exists same as a warning except the Player shuts down the contactor which turns off the Heat Siphon until the condition disappears.

3 SERVICE CODE - ERRORS REQUIRING USER INTERVENTION - These are Service Codes that turn off the Heat Siphon until either the UP or DOWN arrow key is pressed. Then the Player restarts the unit and the error code goes away.

NOTE: In the case of most error codes, a four digit number is displayed following the error code which indicates the total number of times that error has occurred on your Heat Siphon since it was installed.

Low Pressure (**Lo P**)

Type 2 - Alert Code - Heat Siphon is equipped with a low pressure switch within the refrigeration system, which is designed to detect a refrigerant leak and also low air temperature and low air flow. If the pressure goes below a set value it opens and shuts off the Heat Siphon. This switch will auto-reset at a slightly higher pressure. If this error occurs 3 times in 30 minutes the error becomes a type 3 error Cycle Low Pressure and the unit shuts down until a key is pressed.

- If there is a refrigerant leak the unit will not start or just start and run until the compressor sucks the low side down below the switch trip point depending on how much refrigerant is still in the unit.
- If the air temperature drops below 45°F, the suction pressure will drop below the trip point and the unit will shut down. After air temperature rises above 50°F, the Heat Siphon will restart on its own (if your pool pump on)
- If the fan motor is not turning or moving slowly this will cause a Lo P Alert Code and shut down the unit until the . turn unit on to see if fan motor is hesitating or making noise, or not turning
- If fan motor is turning slow or making noise it will need replaced.
- If it is not starting it may just need a fan capacitor replacement.

Low Pressure with Low Air Temperature (**Lo A**)

Type 2 - Alert Code - If the Outside Air Temperature is Below 50°F AND the Low Pressure switch trips, the Heat Siphon Player will also display Low Air (Lo A) and will shut down until corrected.

High Pressure (**Hi P**)

Type 2 - Alert Code - Heat Siphon is equipped with a high pressure switch within the refrigeration system, which is designed to detect low water flow. If the pressure goes above a set value it opens and shuts off the Heat Siphon. This switch will auto-reset at a slightly lower pressure. If this error occurs 3 times in 30 minutes the error becomes a type 3 error Cycle High Pressure and the unit shuts down until a key is pressed.

1 WATER FLOW RESTRICTION could causing the Heat Siphon to shut down on high refrigerant pressure because the water is not removing enough heat.

Dealer Sales & Service Guide

Troubleshooting

- Check to make sure you do not have any bypass valve or any valving in incorrect position which is causing flow restriction
- Check pool filter pressure gauge -Rule of thumb Sand filter low than 25 psi, Cartridge filter lower than 15 psi , Earth Filter lower than 18 psi
- In Floor cleaning system valves not working properly
- PUMP DEADHEAD CONDITION - would "fool the water pressure switch" and the Player would allow unit to run with no water flow thus tripping the high pressure switch

2 WATER PRESSURE SWITCH MALFUNCTION - Check the water flow line inside the Heat Siphon (clear or black hose leading from the component control panel to the bottom of the Heat exchanger). take of side of hose connected to the water flow switch to verify it is free of debris

3 TXV (expansion valve) FAILURE -Refrigeration part and Air conditioning company is required for the replacement due to Freon

4 If Water flow checks out OK, then the high pressure switch could be out of calibration and need replaced.

Low Water Flow (**Lo / FLO**)

Type 2 - Alert Code - Water flow is either restricted or low enough to cause the water pressure switch or flow sensor to trip open. To verify the problem is water flow in the case of the water pressure switch, try creating some back pressure to decrease flow by closing off one of your return lines.

- Check your pool pump basket make sure it is clean
- Clean, Bump, Etc your pool Filter
- Make sure your skimmer basket is clear
- Water pressure switch hose has become disconnected from the back panel control box or bottom of heat exchanger

Water Sensor Open (**SH o**)

Type 2 - Alert Code - The Thermistor used to measure water temperature in the heat exchanger thermostat well has an open circuit meaning a break in the wires somewhere between the Player and the sensor.

- Usually this requires the sensor to be replaced.
- Check connection in control panel make sure the terminals are connected tightly

Water Sensor Short (**SH S**)

Type 2 - Alert Code - The Thermistor used to measure water temperature in the heat exchanger thermostat well has a short circuit somewhere between the Player and the sensor or possibly water has permeated the sensor.

- Usually this requires the sensor to be replaced.
- Check connection in control panel and the wire cable for crimps and make sure the terminals are not touching bare wires or other metal which might cause a short.

High Volts (**Hi / UoLt**)

Type 2 - Alert Code - High voltage from the transformer greater than 31.2 VAC to the Player Board for more than 4 seconds.

HEAT SIPHON ANSWERBOOK

Troubleshooting

- Verify correct power connection to Heat Siphon and the transformer
- Check for corrosion of quick connects
- Voltage surges may cause this temporarily and if they occur 3 times in 30 minutes the error becomes a type 3 error - cycle voltage and the unit shuts down until a key is pressed
- This is usually caused by improper power supply installation wiring

Low Volts (Lo / UoLt)

Type 2 - Alert Code - Low voltage from the transformer less than 19.2 VAC to the Player Board for more than 4 seconds.

- Verify correct 220 Volt power connection to Heat Siphon and the transformer
- Check for corrosion of quick connects
- Voltage brownouts may cause this temporarily and if they occur 3 times in 30 minutes the error becomes a type 3 error - cycle voltage and the unit shuts down until a key is pressed
- This is usually caused by improper power supply installation wiring

Main Contactor Short (HS S)

Type 2 - Alert Code - The two wires going from the Player to the Heat Siphon's 24 volt AC main contactor coil has a short circuit.

- Possible burnt wire to contactor or other wires shorting out
- Rodent infestation in control box

Main Contactor Open Circuit (HS o)

Type 2 - Alert Code - The two wires going from the Player to the Heat Siphon's 24 volt AC main contactor coil are open, no coil resistance is detected.

- Possible burnt wire to contactor or contactor not making connection to start the compressor
- Rodent infestation in control box wires gnawed through

Can't Heat (CAnt / HEAt)

Type 1 - This Warning Code occurs when Heat Siphon has been running for 24 Straight hours with no water temperature gain or a temperature loss and is usually due to one of the following reasons:

- 1** Your pool is too large for the Heat Siphon model installed
- 2** You are adding water to pool causing water temperature to drop
- 3** Air temperature is too cool, too much heat loss, add a solar blanket

This error is self-correcting, does not shut down the unit and will disappear when the water temperature rises. Its main purpose is to alert the pool owner of an abnormal heat loss or a sizing error.

Dealer Sales & Service Guide

Troubleshooting

Air Temperature Sensor Open (SA o) and Short (SA S)

Type 1 - These Warning Codes applies to the earlier version of the player board which used a thermistor held by two screw-down terminals to detect air temperature. It was to make sure the sensor wire are not touching or loose from screw down terminal. All boards made after August 2006 use surface mount thermistors which virtually eliminates this error. If you can't correct this error by replacing the thermistor, a new Player is required

No POD (no / Pod)

Type 3 -No Pod Service Code means the Heat Siphon is looking for an external hardwired add on Pod (See Accessories - J-POD, T-POD, S-POD) and it is shutting the Heat Siphon down because it has been controlling a pump and no longer can detect or control the pump so to be on the safe side it shuts the heater and POD terminals down and waits for user interaction.

The error without a POD attached is rare but usually due to a power surge from storm, etc.. This is easy to reset.

- Hold both Up and Down arrow keys at the same time, as soon as they blink-hit the up or down key to scroll thru, **Pool- Spa -Auto Pic**
- Then you will see **OFF**. Stop at **OFF** and let the Heat Siphon shut OFF. Then Hit the up key 2 times to **On**.

Heat Siphon will restart, go thru count down and NO POD error will be gone. The display will now go into its normal startup display and will show **soft** and software version number then flow count down, then go into its time delay count before restarting

PumpJump Coil Short (PJS)

Type 2 - Service Code - The two wires going from the Player POD screw down terminals to a J-POD have a short circuit .You must have a J-POD for this Error to Occur.

- Check wiring and crimped wire connections for a short

Low Flow with Pump Jump(Lo F / Pod)

Type 2 - Service Code -Flow has NOT been detected with the J-POD, T-POD or S-POD connected while the Player is sending the POD a 24 volt signal to turn the pool pump on

- Check connection on back of Player - wires should be connected to the "O" and "D" screw down ports.
- POD Toggle switch could be set to OFF which overrides Player signal and keeps pump turned off

Have Flow with Pump Jump (FLO / Pod)

Type 2 - Service Code -Flow has been detected with the J-POD, T-POD or S-POD connected while the Player is NOT sending the POD a 24 volt signal to turn the pool pump on

- Check connection on back of Player - wires should be connected to the "O" and "D" screw down ports
- POD Toggle switch could be set to ON which overrides Player signal and keeps pump turned on

Pod Coil Open (no / Pod)

Type 2 - Service Code -An open circuit has been detected with a J-POD, T-POD or S-POD connected while the Player

HEAT SIPHON ANSWERBOOK

Troubleshooting

- If pod connect-check connection on back of board (wires should be connected to the "O" and "D" screw down ports.

High Air Temperature (Air / Hi)

Type 2 - Service Code -Temperature inside of player pocket is too warm. Heat pump remains functional. This error code has been deleted from the latest Player software.

- Software update required

Reversing Valve Coil Open (CH o)

Type 2 - Service Code -For HEATING/ COOLING MODELS ONLY the reversing valve is open circuit

Reversing Valve Coil Short (CH S)

Type 2 - Service Code -For HEATING/ COOLING MODELS ONLY the reversing valve is short circuit

- Check wiring , replace coil

Easy Pic/Clock Board Missing (no / EASy)

Type 2 - Service Code -An Easy Pic or clock board is required to be plugged into the Player for a T-POD or S-POD to function properly but is not detected

The following are fatal hardware errors detected by the software and most likely require that the Player board be replaced

Board short - Heat Siphon - (Brd1)

Board short - Reversing Valve - (Brd2)

Board short - POD - (Brd3)

Board open - Heat Siphon - (Brd4)

- Check controls in control panel for loose wires

Board open - Reversing Valve - (Brd5)

- Check back of board loose connection at REV Valve screw down connection

Board open - POD - (Brd1)

- Check back of board loose connection at POD screw down connection.