

INTERNATIONAL LTD
THERMAL RESEARCH

TECHNICAL BULLETIN

Heating Systems	November 13, 2007	Bulletin Identification No.: MTB-105-12
Release Type: Public		Standard Repair Time: 1.5 Hours

Affected Model(s): OASIS CH50

Effective Date: September 19, 2007

Effective Serial Number: CH50X-XXXX-1509

Description: High limit Aquastat upgrade

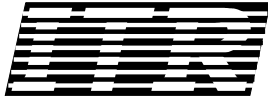
Part No. (Old): 1100 - 190F Manual reset aquastat (screw type)
Or
1117 - 190F Manual reset aquastat (tabs)

Part No. (New): 2083-40 – 190F automatic reset aquastat assembly
2082-40 – 190F automatic reset AC aquastat assembly
(Note: 2 of the 2082-40 are required for this upgrade)

Short description of change:

The manual reset aquastat could trigger unintentionally during engine operation and shut down the heater. The user has to open up the aquastat enclosure and press the red button on each aquastat. Using the automatic reset aquastat will eliminate this procedure and the heater will continue to work when the temperature drops to normal operating conditions:

AQUASTAT CHANGE PROCEDURE	
	<p>Tools needed:</p> <ol style="list-style-type: none"> 1. Philips head screw driver short 2. Philips head screw driver long 3. Pan head screw driver 4. Wire crimp tool 5. Wire stripper / cutter 6. Mirror with extension 7. Flexible socket wrench 11/32 8. Electrical tape



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Turn off the heater



Turn off power 120VAC to the heater. Check your breaker panel and disable the power to the OASIS heating elements.

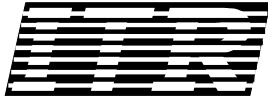


Unscrew the hour meter cover plate.

Canada customer contact info:
International Thermal Research Ltd.
2431 Simpson Road,
Richmond, BC, Canada, V6X 2R2
Tel: (604) 278-1272, Fax: (604) 278-1274
Toll Free: 1-800-755-1272

Reference to MCR-105-10
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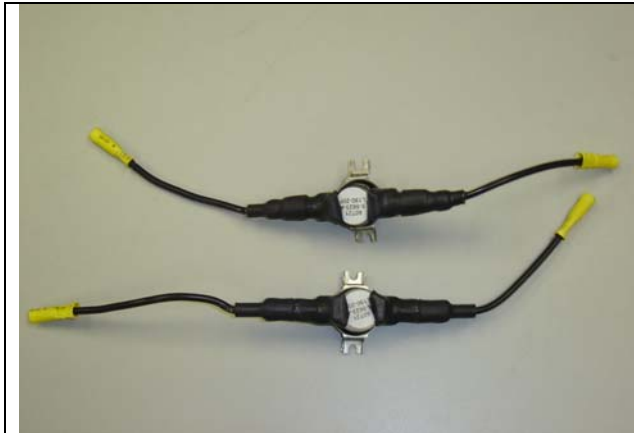
USA customer contact info:
International Thermal Research Inc.
11915 NE 56th Circle, Suite B
Vancouver, WA, USA, 98662
Tel: (360)-993-4877, Fax: (360)-993-1105
Toll Free: 1-800-993-4402



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This is the new AC aquastat assembly

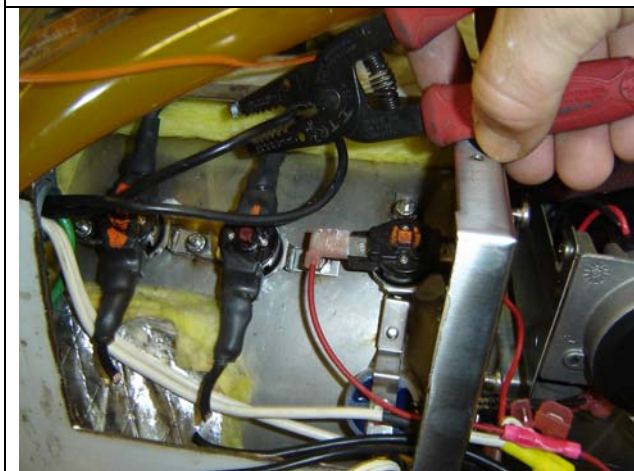
Part# 2082-40



Make sure power to the Oasis heating elements is OFF.

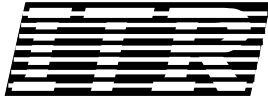
Locate the first and second high limit aquastat and cut off the bottom wire.

Make sure to mark which wire goes to which aquastat.



Then cut off the top wires.

Make sure to mark which wire goes to which aquastat.



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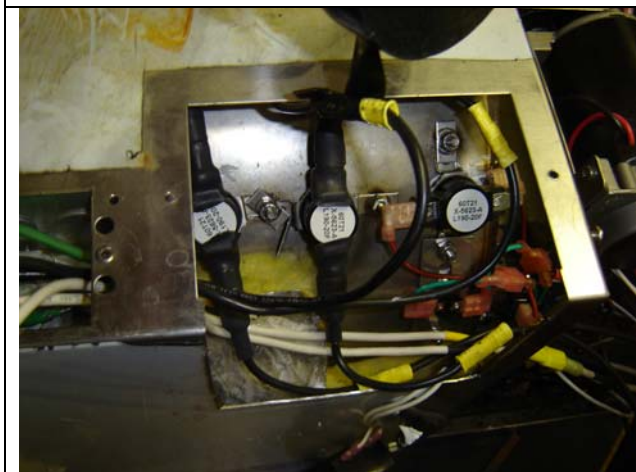


Unscrew the DC high limit aquastat, this will give you access to the AC high limit aquastat mounting nut.
Slide the DC high limit aquastat to the side.

Be careful as tank surface area might be hot.



Unscrew both AC high limit aquastats.



Screw in the new AC high limit aquastats. Use a little heat transfer paste under the aquastat if needed.

Connect the yellow butt splice connector to the marked wire for that aquastat. Use the proper wire crimper tool.

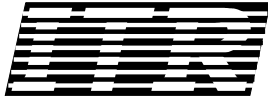
Finish the connection using electrical tape around the yellow butt connectors to prevent accidental contact with metal exposed at the crimp.



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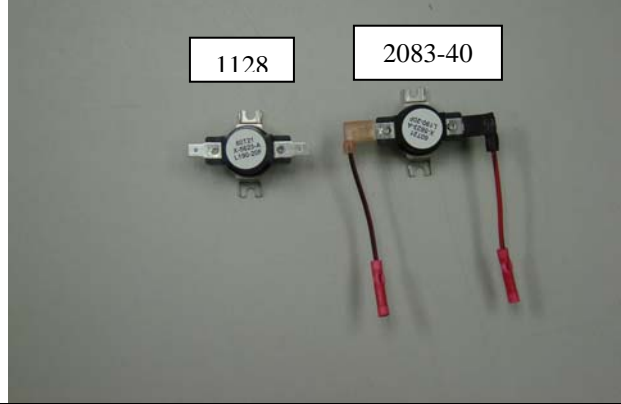


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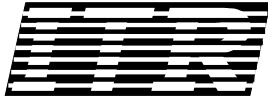
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	<p>This is the new DC automatic reset aquastat.</p> <p>Part# 1128 for existing tabbed aquastats</p> <p>Part# 2083-40 for existing screw terminal aquastats</p>
	<p>Replacing the DC high limit aquastat. (with tabs)</p> <p>Loosen the connector from both tabs and take aquastat out.</p> <p>Insert new high limit aquastat.</p> <p>Make sure the cycling aquastat bracket is holding down the high limit aquastat.</p> <p>Mount the new aquastat and slide the connectors on both tabs.</p>
	<p>Replacing the DC high limit aquastat. (with screw connectors)</p> <p>In case the aquastat has screw terminals</p> <p>Cut the red/black wire close to the aquastat. Shown here. Strip the end of the wire about 1/2" bare for the butt connector.</p>

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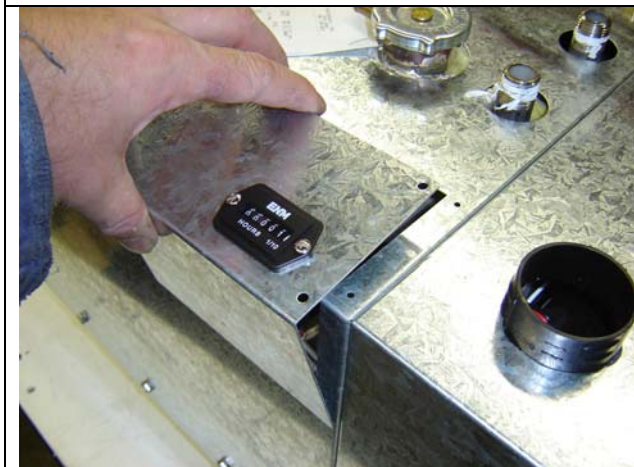
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Insert new high limit aquastat.
Make sure the cycling aquastat bracket is holding down the high limit aquastat.
Mount the new aquastat.

Crimp the red/black wire on the new aquastat butt connectors. Direction of wire is not important.



Close aquastat cover. Turn power back on and test operation of the heater.

- AC HEAT light green
- Burner flame is visible through sight glass.