

Czech Sport Aircraft a.s.	<b>SERVICE BULLETIN</b>	Czech Sport Aircraft a.s. Na Záhonech 1177/212, 686 04 Kunovice Czech Republic office@czechsportaircraft.com
No. SB-SC-029		Rev.: -
Date: 2015-05-20		
Page: 1 of 6		Date: -

<b>MODEL AFFECTED:</b>	SportCruiser / PiperSport
<b>SUBJECT:</b>	Installation of the thermostatic valve is recommended by the Rotax producer in case of permanent operational low water coolant temperature. It is possible to use the thermostatic valve in the engine cooling system for all Rotax 912 engine series. Installation of the thermostatic valve must be always discussed with aircraft producer.
<b>AIRCRAFT AFFECTED:</b>	All SportCruiser, PiperSport aircraft produced.
<b>COMPLIANCE:</b>	According to airplane owner decision – depends on service condition and actually reached operational coolant temperature.

**DESCRIPTION:**

This Service Bulletin contains instructions for mounting the thermostatic valve in the cooling system of the Rotax 912 Engine.

**APPROVAL:**

The installation of the thermostatic valve in the cooling system is EASA approved under PS-28 Type Certification.

**AUTHORISATION TO PERFORM:**

EASA Part M or Part 145 Maintenance organization

**REASON:**

Using the thermostatic valve is recommended by the Rotax engine producer in case of permanent operational low coolant temperature.

**MANPOWER:**

Approximately 4 hours are required to complete this Service Bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

**SPECIAL TOOLS:**

Screwdriver to remove engine cowling and hose clamp assembly, wrench to knee assembly, cutting pliers to cut tightening strips, pliers to tighten tightening strips, vessel to decant coolant from hoses, knife to cut hoses.

**WEIGHT AND BALANCE:**

Affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

SportCruiser / PiperSport Airplane Maintenance Manual, SC-AMM-1-0-00, Rev. latest revision.  
AC 43.13-1B, Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair

**PUBLICATIONS AFFECTED:**

SportCruiser / PiperSport Airplane Maintenance Manual, SC-AMM-1-0-00, Rev. latest revision.

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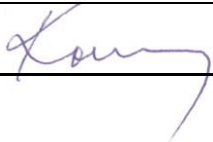
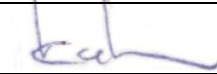
The following parts are required to comply with this Service Bulletin. Parts can be obtained from aircraft manufacturer or appropriate supplier of aircraft parts.

**MATERIAL:**

Item	Name	Part Number	Nomenclature	Quantity	Note
1	RECTANGULAR WATER THERMOSTAT 80°C		3809D003	1 pcs.	
2	SILICON-TEXTILE HOSE MVQ-BLUE 25x35		512K2204	0,7 m	
3	TORRO HOSE CLAMP 25-40/9		3330A008	10 pcs.	

**APPROVAL:**

This SB was approved by:

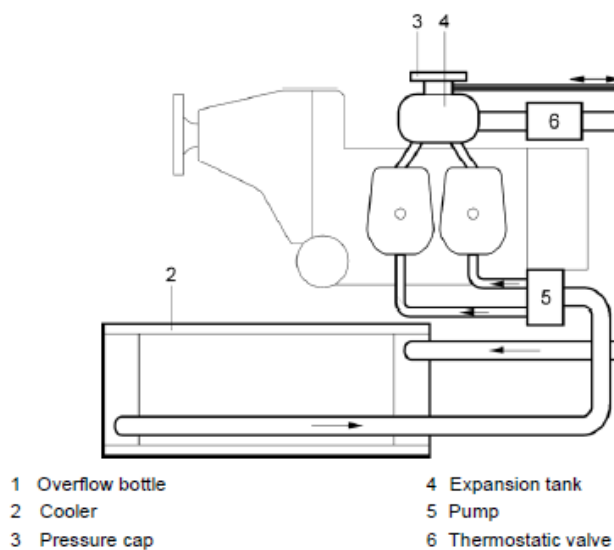
<b>Title</b>	Head of the Design Organisation	Airworthiness Manager
<b>Name</b>	Jiří Konečný	Marek Kotolan
<b>Hand written signature</b>		

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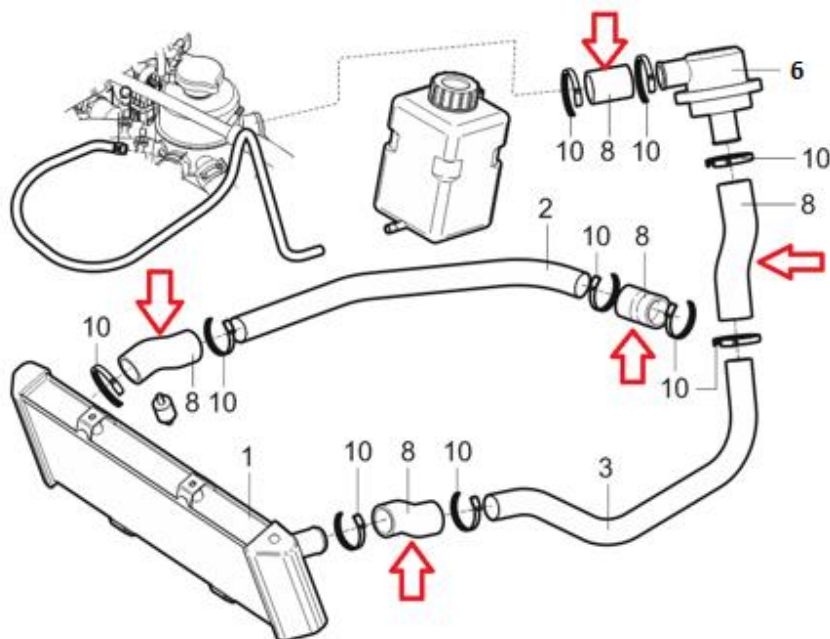
## MOUNTING THE THERMOSTATIC VALVE IN THE ENGINE COOLING SYSTEM

### ACCOMPLISHMENT INSTRUCTIONS:

Basic scheme of the cooling system with the thermostatic valve (6) is on the following picture.



The arrows show the places where replacement of hoses will occur.



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**Basic recommendation:**

Measure the length before you cut the hose. Do not route the hoses so that they have sharp curvatures. All curvatures should be smooth with sufficient radii.

Grease sockets before hose slip to ease it. Slip hose clamps on the hoses before slipping the hoses on the sockets.

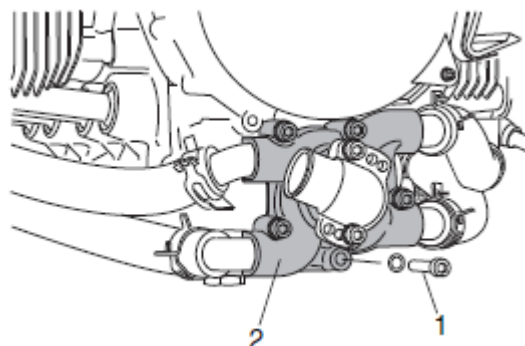
Utilize the full slip-on length for all connections. Adjust the hoses in suitable position, they must be routed so that they cannot come in contact with the hot exhaust system. Do not tighten the hose clamps before positioning the hoses in their suitable position. Secure hoses with proper crew clamps or crimp connections.

Check the hoses for flapping. Flapping is not acceptable. Fix the hoses to surrounding construction or to other hoses with tightening strips.

**Note:** Not all equipment and systems are present on the following pictures. They were removed for better understanding and clearness.

**For mounting the thermostatic valve in the cooling system carry out the following steps:**

1. Move the aircraft to a suitable place to perform the work
2. Remove engine cowlings, disconnect positive battery terminal (see the AMM).
3. Drain coolant from the engine and then tighten the attachment screw (1) back (see the AMM).



Part	Function
1	Attachment screw (stainless steel)
2	Water pump

4. Disconnect and remove the rubber elbow-hose from the expansion tank, the rubber hose connecting the cooler inlet and outlet and the rubber hose connecting the pump, see the picture bellow. Do not remove the metal tubes, they will be used again.
5. Use the hose, measure and cut right length and connect the hoses to the thermostatic valve, see the next picture.

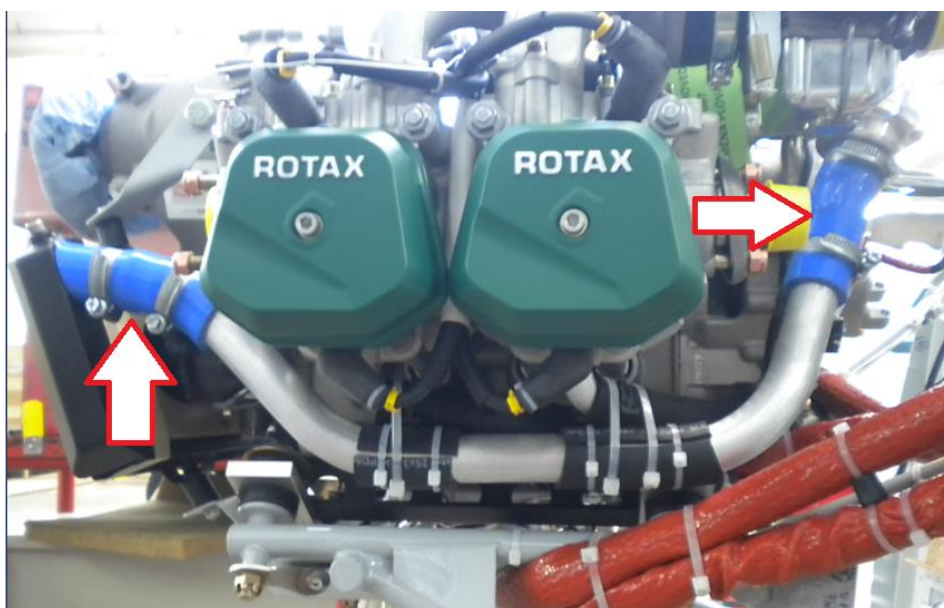


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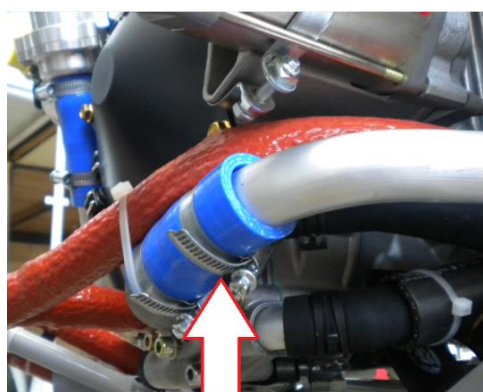
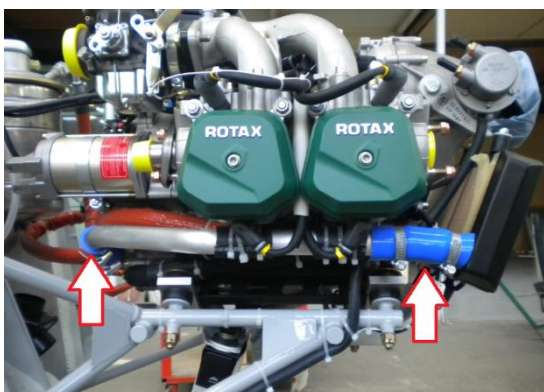
6. Use the thermostatic valve with the fixed hoses and connect it through the top hose to the expansion tank, see the next pictures.



7. Interconnect the metal tube leading to the cooler inlet with the thermostatic valve and the cooler inlet, see the next picture.



8. Interconnect the metal tube leading to the pump with the cooler outlet and the pump, see the next picture.





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**Note:** When the metal tubes are routed too close to other parts and a contact could be possible, protect the metal tubes with an appropriate cover – see the black covers on the metal tubes on the pictures bellow. When leading near to hot parts protect the tubes with an appropriate cover – see the silver cover on the pictures bellow.

9. Secure the hoses with suitable hose clips.
10. Fill the cooling system with coolant (see the AMM).
11. Weigh the aircraft and calculate new C.G. position.
12. Restore the aircraft to the airworthy condition. Perform the engine run test and check the cooling system (see the AMM)..
13. Complete aircraft records to reflect compliance with this bulletin.

