

Radiator Fan Reversal

Reversing the rotation of the fans alone will not cure the so called "parade mode" overheating problem as the fan profile will only move air if rotated in one direction. This means the fans have to be "flipped" then motors reversed. The main problem is the fans are the same units used on the 1500 wings. On the 1500's the radiators are up front and fans are on the outboard area of the fairing. This configuration will allow air to be pulled through the radiators and pushed out the sides of the fairing. This also allows for forward movement of the motorcycle to enhance air flow. On the 1800 the radiators are on the outboard side and the fans on the inboard side so air is moved "backwards" or in the direction of travel. The problem with this configuration is the fans are pushing air upstream against the natural flow of air - a stalemate is reached where no air flows and overheating results.

The fix is to reverse the fans and motor rotation. The top shelter needs to be removed and vent air ducts removed. The rear bottom radiator hose needs to be removed along with the electrical connector. There are two bolt at the top of the radiator housing that fasten the radiator shroud to the aluminum frame. Once these are removed the radiator unit may be lifted and pulled partially out. You can now reach the hoses on the front of the radiator and remove them. Now the complete unit may be pulled free.



As you can see only two bolts hold the radiator in place.



Here is the fan blade reversed - notice the recess and normal offset. Reversing the fans will cause the offset to go the wrong way so the shroud and radiators will need to be shimmed apart approx 1/4" using longer 10mm bolts and washers. (*bolt can be purchased at any hardware store*) Shimming the shroud will not cause an problems or make the radiator modules to thick to reinstall, there is plenty of free play in the enclosure.



Normal configuration - fan clears radiator by approx 1/8"



Hardware store roofing gutter screen is used to cover radiator intake area to keep dragon flies out along with debris and larger objects. This screen was only a few dollars and easy to shape as

it is aluminum. Secured in place with black duct tape.



Fans flipped and 1/4" x 1/4" aluminum gutter screen us used to help keep large bugs and debris out of fan area.



Top view of shelter removed and radiators are out



Another view of removed radiators - it is easier than it looks.

Reinstall is straight forward, install partially and hook up front hoses then install completely and hook up rear hoses.

Electrical connectors on each side will have to be reversed, use a small jewelers screwdriver to remove and swap the male electrical connectors on each side so motor rotation will be reversed.



This is not overheating - I washed the radiators and front of the bike, It is only 50 degrees in the shop and once the fans kicked in a blast of warm moist air is ejected out for the radiators - proves plenty of air is now moving in the correct direction.

Unfortunately I did not take enough pictures to fully describe and detail the removal and replacement of the radiators. This procedure is much easier than it looks at first glance and requires very little plastic removal. I does pay to cycle the engine meaning fill the radiators with coolant the run the engine to full heat then cool down and refill, do this a few times to get all the air out and make sure the radiators and block are filled completely.

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