
INSTALLATION GUIDE

VW AMAROK V6 TDI
INTERCOOLER



P/N PW181926 - POLISHED INTERCOOLER | P/N PW181926 - BLACK INTERCOOLER



ENGINEERING THE UNFAIR ADVANTAGE

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CONDITIONAL MANUFACTURERS WARRANTY

PWR Custom Aluminum Radiators, Intercoolers and Oil Coolers along with cores only for these units are warranted to the original purchaser to be free of fault for materials and workmanship for a period of 1 year from the date of purchase and only when used under normal operating conditions. Claims for internal damage to engine or other related components of user's vehicle are not covered by this warranty. The PWR product user is responsible for the monitoring of engine temperature operations and for having the appropriate detection devices in place to warn the user of overheating and other engine related malfunctions. At time of installation an approved coolant must be added to the cooling system. (see important information – Radiator point 3) Responsibility for any damage, injury or loss attributed to any fault in material or workmanship in the above listed products shall be limited by replacing the unit on return of the defective product.

Warranty voids

If the product is repaired or welded by another party other than PWR Performance Products. * If any defect is attributable to an accident, abuse or negligence. * Where the product is used for an application for other than it was intended. * If any parts or accessories are fitted which adversely affect the product

Warranty does not cover

Charge relating to removal and replacement to vehicle. *Internal or external corrosion. * Any consequential damage. * Freight cost incurred to send the item back to PWR

LIMIT OF LIABILITY STATEMENT

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. PWR Performance Products reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SAFETY PRECAUTIONS

STOP

CAREFULLY READ THE IMPORTANT SAFETY PRECAUTIONS and WARNINGS BEFORE PROCEEDING WITH THE INSTALLATION!

Appropriate disassembly, assembly methods and procedures are essential to ensure the personal safety of the individual performing the kit installation. Improper installation due to the failure to correctly follow these instructions could cause personal injury or death. Read each step of the installation manual carefully before starting the installation.

- Always wear safety glasses for eye protection.
- Place the ignition switch in the OFF position.
- Always apply the parking brake when working on the vehicle.
- Block the front and rear tyre surfaces to prevent unexpected vehicle movement.
- Operate the engine only in well-ventilated areas to avoid exposure to carbon monoxide.
- Do not smoke or use flammable items near or around the fuel system.
- Use chemicals and cleaners only in well ventilated areas.
- Batteries can produce explosive hydrogen gas which can cause personal injury. Do not allow flames, sparks or flammable sources to come near the battery.
- Keep hands and any other objects away from the radiator fan blades.
- Keep yourself and your clothing away from moving parts when the engine is running.
- Do not wear loose clothing or jewelry that can be caught in rotating or moving parts.

IMPORTANT INFORMATION FOR FITTING

Please read the following before fitting our PWR Performance Product.

WARNING

WARNING: Failure to follow this procedure will void your warranty.

- Do not use this product in any other motor vehicle for which it is not designed.
- Do not use any other mounting location / method other than described in this instruction.
- It is advisable to seek assistance of another person when installing this product.
- Do not repair or modify this product and / or its mounting bracket in any way - repair or modification may affect proper operation of the vehicle or cause destruction of property.
- Ensure all torque settings are followed.
- Be sure to clean and remove any loose debris before removing pipe work as debris entering the engine could be detrimental to the engine and or components

Radiators:

- Before removing the old radiator check the existing coolant for stray current. This is done by connecting a voltmeter between the coolant and the battery ground. The meter should have a range of at least 12 volts (assuming the vehicle have a 12 volt charging system) and a sensitivity of at least one-tenth of a volt. By connecting one test lead to battery ground and placing the other lead into the coolant (DO NOT TOUCH THE METAL CORE OR FILLER NECK) any voltage indicates current passing through the coolant-ELECTROLYSIS.
- If no current found flush cooling system with distilled water to remove the existing coolant/inhibitors. When the entire system has been flushed including the over flow bottles, you can fit the new radiator. DO NOT MIX COOLANTS
- Select a coolant that is recommended by the manufacturer or by PWR. Product must meet the current AS2108 or manufacturer's engine coolant/inhibitor standard and refill system. Bring engine up to temperature and let cool. Re-Check the coolant level and top up if necessary. USE ONLY DISTILLED WATER.
- IMPORTANT- again recheck step 1 for any stray current.
- PLEASE be careful when fitting and make sure all mounting points are tight (to manufacturer's specifications) and there is sufficient clearance so no rubbing occurs.
- PLEASE ensure that all hose clamps are done up.
- Correct cap must be used for each individual system.

Intercoolers:

- PLEASE be careful when fitting and make sure all mounting points are tight (to manufacturer's specifications) and there is sufficient clearance so no rubbing occurs.
- PLEASE ensure that all hose clamps are done up.

Oil Coolers:

- PLEASE be careful when fitting and make sure all mounting points are tight (to manufacturer's specifications) and there is sufficient clearance so no rubbing occurs.
- PLEASE ensure that all hose clamps are done up.
- Do not run over 80 psi rating.

Liquid to Air Barrel Intercooler kits:

- Select a coolant that is recommended by the manufacturer or by PWR. Product must meet the current AS2108 engine coolant/inhibitor standard and refill system. Cycle the fluids through the system to remove air locks. Re-Check the coolant level and top up if necessary. USE ONLY DISTILLED WATER
- PLEASE be careful when fitting and make sure all mounting points are tight (to manufacturer's specifications) and that there is sufficient clearance so no rubbing occurs.
- PLEASE ensure that all hose clamps are done up.
- Pump must be fitted in accordance to fitting instructions supplied and by a qualified auto electrician.

APPLICATION

Before commencing the procedures outlined please read the guide and verify all parts are present and not damaged. If anything is missing or damaged, please notify PWR Performance Products on 07 5547 1600.

PACKING LIST

Description	Part	Quantity
Air Induction		
PWR Amarok V6 Intercooler	PWI81926	1
M6 x40mm Socket Head Cap Screws	SHCSM640	1
M6 x16mm Bolt Zinc coated	MSSSM616Z	1
62593 - Spacer Washer (Sheet Metal)	62593-SM01	4
M6 x16mm Socket Head Cap Screws	SHCSM616	2
M6 x10mm Socket Head Cap Screws Zinc Plated	SHCSM610ZP	1
Spacer Bush 22x22mm with 8mm Through Hole	99A19837	1
Decals/Labels/Warranties		
Warranty Card		1



Disassembly

1. Make sure the vehicle is parked safely on flat ground with it in park with the hand brake secured.



2. Open bonnet of vehicle.
3. Disconnect positive battery terminal in engine bay.
4. Remove the front bar and grill as one piece by.....
5. Unscrewing 3 screws each side in wheel arch.



6. Unscrew screws on top of the radiator support.



7. Unscrew screws from under tray from the front bar support.
8. Remove front number plate.
9. Behind the number plate remove 2 screws holding the front bar in place.
10. Start from one side and wriggle the bar loose away from the wheel arch.
11. Do the same step to the other side of the bar.
12. This may take some effort to release but be cautious not to damage the bar.
13. Once bar is released unclip electrical connector horn and front light.



14. The complete bar and grill can now be placed away from the vehicle.



15. Remove the radiator support top cover.
16. Unscrew and unbolt top visible screws and bolts.



17. Un bolt the 2 top cross bar supports bolts.



18. Drivers side front headlight to be loosened and moved for access to the air box.
19. Remove air box pipe work by squeezing and twisting, retain for reinstall.



20. Remove front crash bar by removing 4 bolts.



21. Retain front crash bar for reinstall.
22. Unbolt the bottom 2 cross bar support bolts and remove cross bar.
23. Unscrew screws holding the air box ducting.



24. Remove the airbox ducting and retain for reinstall.
25. Repeat process for the passenger side.



26. Once this is all done retain the bonnet release cable in place and twist the radiator top support cover to the passenger side to give enough access to the cooling products. Be careful not to damage the front of the car, allow for some protection under the radiator support panel.



27. Remove the visible screws holding the air condenser, intercooler and transmission cooler in place.



28. Unscrew screws holding the air condenser and transmission hard lines in place.



29. Gently lift up and out the front transmission oil cooler and move towards the passenger side. Be cautious not to damage or over bend the lines leading to the cooler.
30. Similar process for the air condenser, unclip from the plastic brackets and lift up and out, unclip the passenger side clip to allow for more flexibility to maneuver the unit to rest on top of the factory radiator and engine cover. Protect the core fins and tube by placing some protection under the core face.

31. Be careful not to damage the lines or core fins on all units.
32. Do not fully remove the air con and trans cooler direct from the car, move them enough to gain access to the intercooler.
33. Unscrew both intercooler pipe clamps.
34. Maneuver pipes off the intercooler and retain on the vehicle.



35. Disconnect the passenger side sensor from the factory intercooler.



36. The factory intercooler can now be removed.
37. Remove the top plastic strip from the intercooler and retain for reinstall.



38. It may take some effort to maneuver the passenger side factory intercooler outlet but be cautious as not to damage and core fins on all units.



Assembly

The following section will guide you through the assembly of the PWR Performance Products upgraded intercooler installation in your vehicle.

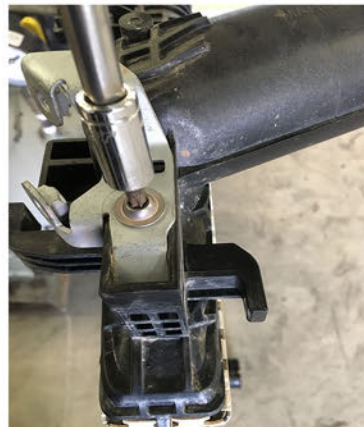
39. Remove the sensor on the bottom outlet from the factory intercooler.



40. Refit sensor on bottom outlet on the new PWR intercooler using the PWR provided M6 short Allen key bolt.



41. Remove bottom factory transmission cooler line bracket from the factory intercooler.



42. Refit bracket to the PWR intercooler using the supplied PWR M6 short Allen key bolt and washer provided.



43. Position the PWR intercooler into place by positioning the driver's side outlet side of the cooler in first then square the cooler up and place it on the radiator locators.

44. At the same time maneuver the factory intercooler hoses over the PWR intercooler outlets and wriggle them back and forth until they are past the ribs on the outlet.



45. Slide the intercooler clamps back into place over the PWR intercooler outlets and fasten the intercooler hose clamps firmly into place.

46. Use the 2 factory bolts to hold the intercooler into place in the top mount locations.



47. Click on the factory sensor plug on the bottom passenger side outlet.



48. Using the PWR supplied M6 hex head 16mm bolt and big washer screw the transmission cooler bracket onto the boss on the PWR intercooler

49. Tighten the M6 hex head bolt with an open end spanner.

50. Bend back the passenger side transmission cooler bracket on the transmission cooler to give you access to the mount location.



51. Lower the factory air condenser back into place.



52. Bolt in the air condenser passenger side mount using the PWR supplied M6 medium Allen key bolt and big washer provided.



53. The driver's side mount requires the use of the PWR supplied billet spacer, 32mm M6hex head bolt and big washer..



54. Twist the transmission cooler into the bracket locator on the passenger side to lock the transcooler into place.



55. Refit the 2 factory bolts to the transcooler lines bracket on the passenger side.



56. Tighten the M6 hex head bolt with a open end spanner on the trans cooler mount.



57. Refit the air box factory plastic pipe work.



58. Refit the top radiator support top bracket.



59. Refit the driver side headlight.

60. Refit the cross bars and the support spacer at the same time to the bonnet latch.



61. Mount the front intrusion bar using the factory bolts.

62. Position the front bumper bar in place and fix in place using the factory supplied bolts to the main radiator support panel.

63. Click in the light connectors at the front.

64. Refit the number plate.

65. Start in one side wheel arch and refit the factory supplied bolts and screws to refit the bumper.

66. Repeat to the other wheel arch.

67. All finished, thank you for your support and enjoy!