

Product: Airtec Snorkel Kit

Vehicle: Nissan Navara NP 300 D23 (Series 4) 2020 Onward

Part No. 011SAT0110S 011SATW0110S

 Before commencing installation of this product – Please read the Fitting instructions carefully, ensure that the Air Box configuration is the same as shown in the images of these instructions.

- Check all listed components are supplied in the kit. Do Not Use this Product as a Hand Hold to enter the Vehicle.
- Left Hand and Right Hand components are determined as seated in the vehicle looking forward.
- Always place the product on a flat level bench or surface, cover with a soft cloth or blanket to prevent damage to parts prior to installation.
- When removing protective coatings, ensure all new edges are deburred, clean any swarf from the area and apply rust preventative product to exposed painted surfaces where applicable.
- To provide adequate sealing of the snorkel system all joints and openings must be sealed using neutral cure silicone. This vehicle is Fitted with Series of drain Holes (5) – DO NOT SEAL THE HOLES as water entering through the snorkel head needs to drain.
- IMPORTANT: The Drain Holes as fitted to this Vehicle's Air Box base Must be Free to Drain Freely. TJM Recommends frequent inspection to confirm that the Air Box & Drain is not retaining water or Blocked - Especially after water crossings. It is common to find water in the base of the Air Box of this model vehicle, particularly when driving during torrential rain and / or inclement weather. WARNING: - Failure to Keep the Drain Holes free of Debris may Result in the Vehicle going into "Limp" Mode.
- The fitment of this TJM product does not nullify the OE manufacturer's operating guidelines and/or warnings. Ensure you are familiar with and adhere to the usage instructions specified by the manufacturer in the owner's manual or other official documentation.
- Tools Needed for Installation: Metric Socket & Spanner Set, Screwdriver Set, Electric Drill, Metric Drill set, Ø 98 & Ø 76 Hole Saw, Soft Face Hammer, Trim Removal tool, Tube of Black Neutral cure silicone and Loctite or similar product, Rust Preventative product or similar. Torques bit set.
- Safety glasses hearing protection and gloves should be used / worn when performing relevant Tasks during this installation.



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PARTS LIST					
DESCRIPTION	QTY	PART No.			
Snorkel Body (011SAT0110R) Wide	1	011MB0110R			
Label – Warning Air Box Sticker	1	F - 31967			
Intermediate Tube with Clamp	1	011IP0110R			
Air Cleaner intake tube	1	011AC0147D			
Door Pillar Bracket	1	F - 6593			
Outer Guard & Inner Guard Template	1	F - 6781-T			
Snorkel Body Gasket	1	011BG00110R			
ECR Relocation Bracket	1	F - 26779			
Bracket – Drill template	1	F - 31781			

BOLT KIT	
DESCRIPTION	QTY
3/4" x 8G Stainless PK Screw	2
M8 x 1.25 x 16mm Stainless Hex Head Screw	1
M8 x 1.25 x 30mm Threaded Stud	7
M8 x 1.25 Nyloc Nut	7
M8 Stainless Spring Washer	1
M8 x Ø17mm Stainless Flat Washer	1
5/16" x Ø1" Flat Washer	1
5/16" x Ø1-1/4" Flat Washer	7
Nylon Plug	2
M6 x 1 Hex Nut Anti Rattle (For ECU Plate)	2
Bolt M12 x 30 Long (Drill template bracket)	1
Flat Washer M12 (Drill template bracket)	1
Nut M12 (Drill template bracket)	1

011SAT0110S			
Air-Ram Head with hose clamp	1	011AR14B97T	

011SATW0110S				
Wedgetail Head with hose clamp	1	011AIRWT400		

Torque Chart for Bolts

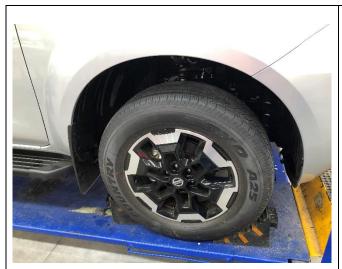
Bolt tensions	Dia. (mm)	Nm	ft.lbs	Dia. (inch)	Nm	ft.lbs
All bolt tensions are as follows unless otherwise specified.	5	5	4	1/4"	9	7
	6	9	7	5/16"	22	15
	8	22	16	3/8"	33	27
	10	44	32	7/16"	55	43
	12	77	57	1/2"	86	66



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- Position the vehicle on a hoist (where possible) for access to the inner guard area. A Flat Level Concrete surface is also suitable if a Hoist is not available.
- 2. Access to the mud flap and Wheel arch (inner fender liner) will be Required.
- Jack up the front of vehicle and remove the Right-hand front side front wheel - If Required to access the Mud Flap and Wheel arch (inner fender liner) Clips and fasteners. Alternatively Place the steering on full Lock for access to the Clips.



- 4. If Fitted or Optioned, Remove the Mud Flap from the vehicle (Mud flap is held on with 3 x Phillip's head screws).
- 5. All the Visible clips holding the wheel arch liner (Inner Fender) will need to be removed whilst working on the Inner fender area.



Step 7 Screws x 3





- Removal of the Wheel Arch Liner: Remove all the visible Screws and Plastic
 plugs From the Vehicle Retain all
 fasteners & plastic clips for Re Assembly /
 re use, At a later stage.
- 7. There are 3 x Torque Headed screws that hold the outer Edge of the Fender Liner as shown. There are also 4 x Plastic Plug that need to be removed.
- 8. There are also 2 x 10 mm Bolts that are accessed from the lower edge of the front bumper as shown.



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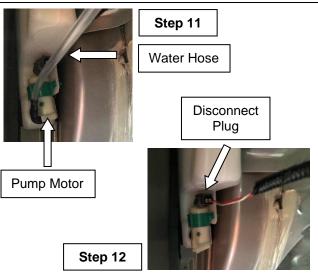
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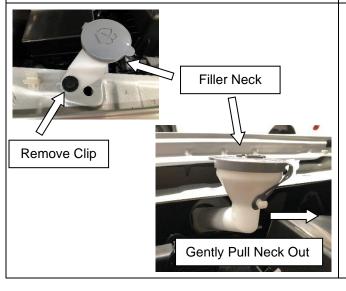


9. Remove the Wheel arch liner from the vehicle.

Set Liner aside for Re Assembly / re – use, At a later stage.



- 10. With the Wheel Liner Removed access to the washer Bottle is Now Possible.
- 11. Disconnect the water hose to the washer pump motor and Drain the water into a bucket.
- 12. Disconnect the wiring loom plug from the washer motor.



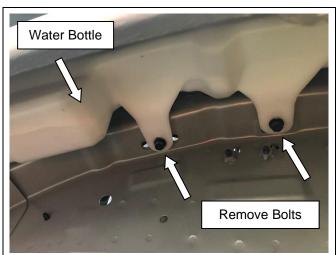
- 13. From the Engine Bay Area (Drivers Side) Remove the Clip that retains the Filler Neck to the inner Fender as shown.
- 14. Gently Rotate the Filler neck whilst gently pulling towards the left-hand side of the vehicle. This will remove / release the Neck from the grommet that holds it into the water Bottle.



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15. Remove the two bolts that retain the washer bottle to the inner fender as shown. Remove the washer bottle from the Vehicle. This is to ensure the bottle it is not Damaged whilst drilling into the vehicle.



Water Bottle



- 16. Remove the clip which retains the Air Intake Pipe to the air box. Disconnect from air cleaner box – This part can be Discarded.
- 17.IMPORTANT: Retain the Rubber seal between the air cleaner Box and the Air intake This Part is Needed & required at a later stage.



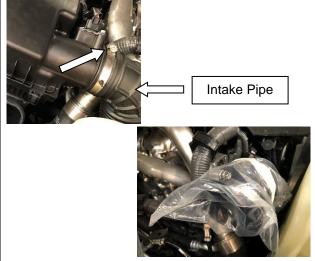
18. Disconnect the harness connector from the mass air-flow sensor.



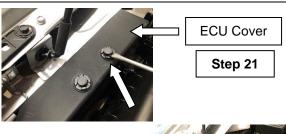
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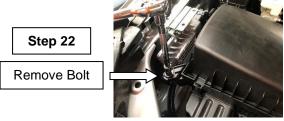
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- 19. Disconnect the engine intake pipe from the air cleaner Box by undoing the hose clamp as shown.
- 20. Cover the engine intake pipe with a clean plastic bag or similar so that no foreign matter / Material can enter the engine.



- 21. Remove the Two Plastic clips that retain the ECU cover to the inner fender.
- 22. Remove the bolt that holds the air box base to the Vehicle.



23. Remove the air cleaner lid to expose the air cleaner element. Remove the element and lid from the vehicle and retain for re - fitment.

Remove the air cleaner base from the vehicle by lifting up & releasing the Base from its locating grommets (Grommets hold it in position).

Note: - There are three locations that hold the Air box base to the Vehicle.





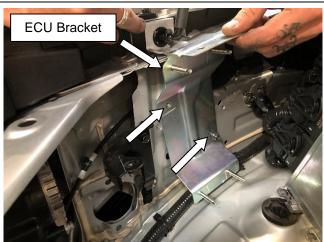
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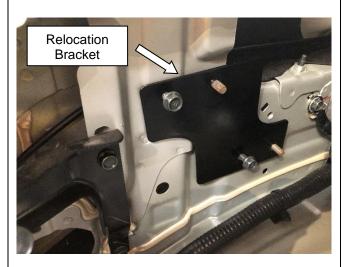
- 24. Remove the four nuts that hold the ECU unit to the vehicle and retain There are Two Nuts Located at the Top and two nuts are located on the bottom edge.
- 25.IMPORTANT: Remove the ECU unit From the Location Studs without disconnecting the wiring loom.



26. Remove the two bolts that hold the ECU bracket to the Inner Fender – Set the bracket & bolts aside for re assembly shortly. The ECU bracket is re positioned Rearward using a relocation Bracket – Supplied in the kit.



Relocation Bracket



27. Install the ECU relocation bracket using the two bolts removed from Step 26 above.

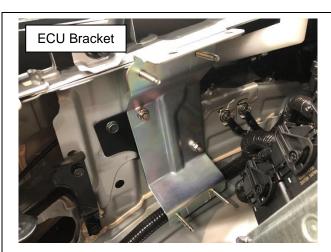
Note: - The two studs on the relocation bracket are orientated towards the rear of the vehicle – As shown.



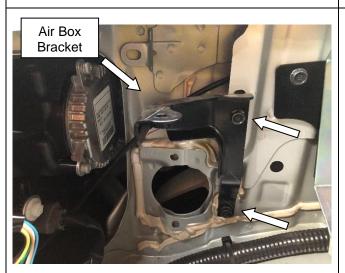
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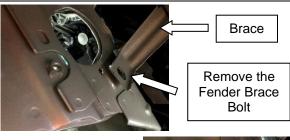
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- 28. Relocate the ECU bracket to the M6 studs that are welded to the relocation bracket As shown and
- 29. Secure the ECU bracket as shown using the two M6 flange nuts that came with the relocation bracket.



- 30. The Inner Fender area / Hole needs to be Enlarged to allow the Intermediate Pipe to pass through.
- 31. Remove the Air box Bracket to allow full access to the Inner Fender area.



Install the Drill Template



- 32. Up in the Inner Fender area There is a Fender Brace, Remove the bolt from the brace as shown.
- 33. Bolt the Drill Template into Position as shown Re using the Bolt from the Brace as well as the large Bolt from the Fitting Kit.

Note: - Surface Finish of Bracket may vary. Once the New Hole is drilled the bracket is discarded as in is no longer Needed.



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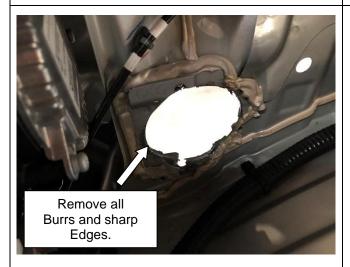
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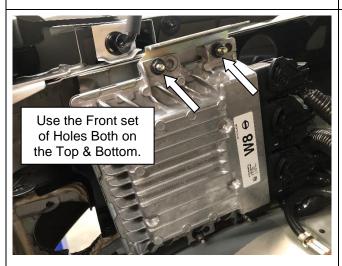
- 34. With the Drill template now bolted in place, from the engine bay side Using the Hole in the Template as a center point.
- 35. Use a Ø 76 mm hole saw as shown to enlarge the existing O/E Hole.

Note: - This is a Difficult task as there is up to three thicknesses of sheet metal to drill through.

A sharp or New Hole saw is Highly recommended.



- 36. With the Hole now Enlarged, the drill template can be discarded as it is no longer Needed.
- 37. Re- install the fender Brace Bolt, the larger bolt can also be discarded as it is no longer needed either.
- 38. Deburr the holes & clean the area / surface of any swarf / debris, then treat the raw exposed Metal surfaces with a rust preventative product.



- 39. Reinstall the Air Box bracket as removed in step 31 above reusing the original Bolts in two places.
- 40. Refit the ECU unit to the ECU mounting bracket using the Original Flange nuts that were removed at step 24 above.

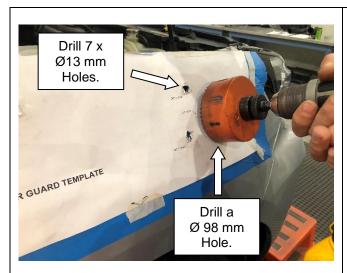
IMPORTANT: - Place the ECU on the Front set of holes. ECU unit with sit Further Rearward in the Vehicle using these holes.



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- 41. Apply Protective tape to the area where the template is to be applied to the fender.
- 42. Cut out the paper template and carefully align with the vehicle, tape into position.

 Important: Ensure that the template follows the contour of the Fender.
- 43. Centre punch all hole positions, Drill the 7 x Ø13 mm Holes Firstly using a Ø 3 mm bit as a pilot hole. The Holes can then be Drilled to the final Ø13 mm size.



- 44. Remove the Paper Template from the Vehicle.
- 45. Deburr all holes & clean the area / surface clear of any swarf / debris, then treat the raw exposed metal surfaces with a rust preventative product.



Apply Loctite to the 6 of the 7 studs.

Screw the studs into the Snorkel Body Except No 5



- 46. Apply a small amount of Loctite to the stainless studs (Except No 5) and screw them into the Snorkel Body. Note: Stud 5 might need to be screwed in once snorkel body is in position on the Vehicle.
- 47. Apply the snorkel body gasket to the snorkel as shown below.



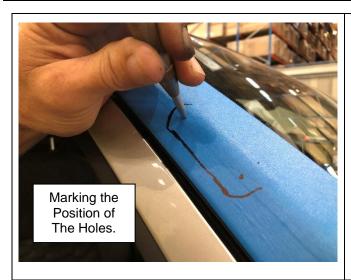
Apply Gasket



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- 48. Secure the door pillar bracket to the top of the snorkel body, using the M8 x 1.25 x 16mm stainless button screw, M8 spring washer & M8 flat washer.
 - Mask the RHS "A" pillar area of the vehicle to prevent any damage.
- 49. Place the snorkel body in position on the Vehicle. Using the bracket as a template, mark the two hole positions on the "A" pillar as shown. Remove the snorkel body from the vehicle. Centre punch the two hole positions.



Drilling Pilot



- 50. Using a Ø 3 mm Drill Bit Drill a pilot holes at the two positions marked with the centre punch. Then drill out to Ø 8 mm 2 places.
- 51. Remove the protective tape from the "A" pillar.
 - Deburr both holes, clean any swarf from the area and apply a rust preventative product to the exposed metal surfaces.
- 52. Insert the nylon plugs into the Ø 8 mm holes as shown, tap in gently with a soft face hammer.



- 53. Remove the "A" pillar bracket from the snorkel body.
- 54. Secure the bracket in place, on the "A" pillar using two 3/4" x 8G stainless steel PK screws.

Do NOT use Air Tools on these screws to Tighten - Torque the two Screws to 7 Nm Max.



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Fit the Snorkel Body to the Fender & Vehicle.



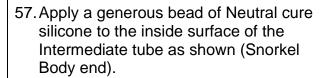
55. Lightly Place / Secure the snorkel body to the vehicle - Aligning the studs through the holes in the fender and screw the snorkel to the "A" pillar bracket on the Vehicle.

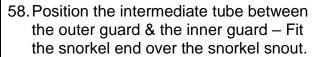
Do not tighten at this stage. Leave loose for adjustment of the snorkel.

56. Secure the snorkel body to the Vehicle using the large flat washers and Nyloc Nuts – **Finger Tight only at this stage.** If Stud No 5 was not Fitted – Fit it Now.



Intermediate Tube Snorkel End.





59. Position the snorkel body on the vehicle aligning with the fender. Tighten all fasteners. Torque all Fasteners to the values as shown on page 2 of these Instructions.





- 60. Re Install the Washer Bottle to the vehicle as described in steps 11 above.
 - 61. Reconnect the wiring harness and water tube to the washer pump motor as described back in steps 11 & 12 also.
 - 62. Refit the water filler Neck to the Bottle and refill with the fluid that was drained earlier. Alternatively add new Fluid if required.





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63. Re – Fit the Inner Fender Liner – As Removed in steps 6 to 9 using all of the original fasteners.

Remember the two bolts located in the lower front Bumper.

64. Refit the mud Flap using the three original screws. Re - Fit the front wheel if it was removed for access.

Marking the ECU Cover to be Trimmed





65. Trimming Material from the ECU cover.

The ECU Cover that was Removed back in Step 21 Earlier - Needs to be cut down in length to fit.

66. Measure from the **Back edge** 20 mm and mark with a square as shown.

Important Note:- Back Surface is Flat – Front Surface is Angled / Tapered .



Cut off 20 mm.



- 67. Using an Air Hacksaw or similar cut off the marked 20 mm as shown. Remove all plastic burrs and sharp edges with a file or sandpaper.
- 68. Re Install the ECU Cover, fix to the inner fender with the two original plastic clips as shown.

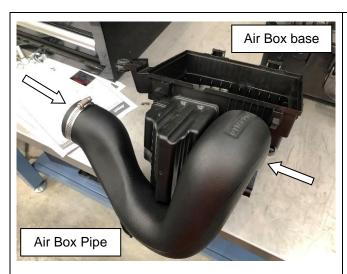
Re - Install Cover



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- 69. Apply a generous bead of Neutral cure silicone to the inside surface of the Air Box (AC) tube as indicated Both ends.
- 70. Ensure the rubber sealing ring has been Retained on the air box snout or if it was removed **Ensure it is re Fitted.**

Refer to the Notes at step 17 & 23 and the photo at Step 23 showing the seal in position on the Air Box snout.

71. Fit the Airbox pipe to the Air Box base as shown.



- 72. Re Install the Air Box Base Assembly to the vehicle (Complete with the New Air Box pipe).
- 73. The end of the Air Box Pipe slides over the end of the intermediate Tube as shown / covered in the next Photo & Step.



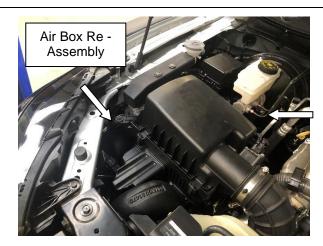
- 74. Secure the Assembly into position over the intermediate tube as shown.
- 75. Tighten the hose clamp once the Air box base is Fully Seated in its original Position prior to removal.



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76. Re Assemble the Air Cleaner Element into the Air Box, Attach the Air box lid & Replace the Air flow meter Harness as removed in step 18 Above.

Refer to steps 19 to 22 for Re – assembly sequence.

77. Remove the plastic bag that protected the Engine pipe. Bolt the Air box Assembly back into the vehicle as shown.

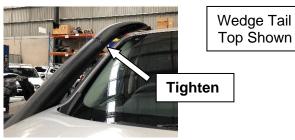


- 78. With the Air Box Assembly now secured back into the Vehicle Clean the Lid of the Air Box with a Wax & Grease Remover.
- 79. Place / Stick the Warning Label onto the Air Box Lid in the Area indicated (As shown).





- 80. Fix Either the Air Ram Top or Wedge Tail Top to the snorkel Body, secure with the hose clamp provided and Tighten.
- 81. CAUTION: Do Not Use any Silicone on this joint.



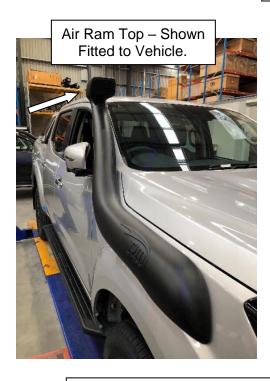


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Final Fitment to Vehicle





Final Check & Fitment to Vehicle – Ensure all bolts / Fasteners are Tight and Torqued to the correct torque settings & values as tabled and specified on Page 2 of these instructions.

Note: - TJM Does not recommend the Optional Comp Top for this vehicle as it is unsuitable for this application.