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Revisions			
Rev.	Description	Date	Approved
-	Initial Release Per ECO 22-052	8/4/22	R.G.



Steering Alignment Aid

Installation and Use Instructions



TITLE:	
STEERING ALIGNMENT AID INSTRUCTIONS	

SIZE	DWG NO:	REV
A	3102-01-INST	-

SCALE: N/A	PAGE 1 OF 7
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PARTS LIST

3102 Steering Alignment Aid		
QTY	Part Number	Description
1	310201-L-FR	Steering Alignment Aid, Left, Formed
1	310201-R-FR	Steering Alignment Aid, Right, Formed

GENERAL NOTES

- These instructions are also available on our website; www.synergymfg.com. Check the website before you begin for any updated instructions and additional photos or videos for your reference.

TOOLS REQUIRED

- Tape Measure (2 is recommended)
- Jack stands
- Floor Jack
- Wheel removal tools (application specific)
- Tie rod adjustment tools (application specific)

DIRECTIONS FOR USE

1. First, place the vehicle on jack stands or securely lift the vehicle into the air with a car lift.
2. Then, Remove the front wheels and tires from the vehicle.
3. If any rotor washers are present on the studs remove them so that the Steering Alignment Aid tool can sit flat against the wheel mounting surface. **See Figures 1 and 2.**



Figure 1. Rotor washer that needs to be removed.



Figure 2. Rotor Washer Removed for Steering Alignment Aid

4. Next, place the Steering Alignment Aid over the studs and ensure there are no obstructions present that will cause the aid to not sit flat on the wheel mounting surface. If any obstructions are present, remove the aid and clear the object.
5. Now, tighten the lugs to seat the brake rotor and aid against the wheel mounting surface and make sure the aids are parallel to the ground. **See Figure 3.**



Figure 3. Steering Alignment Aid Installed for Use

6. Observe the tie rod adjuster system present on the vehicle and make sure the tools required to adjust the tie rod length are present. Refer to manufacturer specifications for the correct adjuster operation.
7. Next, place the tape measure(s) over the Steering Alignment Aids in the slots indicated in **Figures 4 and 5.**



Figure 4. Hook Side of Tape Measure Placed in Slots



Figure 5. Roll Side of Tape Measure Placed in Slots

8. Ensure that the tapes are laying flat on the Steering Alignment Aids and that no obstructions are in the tapes' path (control arms, drive shafts, etc.)
9. Make sure that the initial measurements are from a shared point on the Steering Alignment Aids, it is recommended to take these measurements at the vertical face of the aid as this location is the most accurate and ensures the measurements are taken before the tape deflects and wraps around the bottom of the aid. **See Figures 6 and 7.**



Figure 6. Looking Down over the Vertical Face of the Aid



Figure 7. Side View of Vertical Face

10. If using a single tape measure, simply repeat steps 7-9 on the opposite side of the wheel mounting surface. (If the first measurement was taken from the front side of the axle switch to the back side)
11. Next, Adjust the tie rod length using the manufacture's recommended procedure to gain the desired amount of tire toe-in. No difference between the two measurements would be zero toe-in, the front measurement being smaller than the rear would indicate **POSITIVE** toe-in **See Figure 8**, The front measurement being more than the rear would indicate **NEGATIVE** toe-in **See Figure 9**. Refer to **Table One** for more Information.

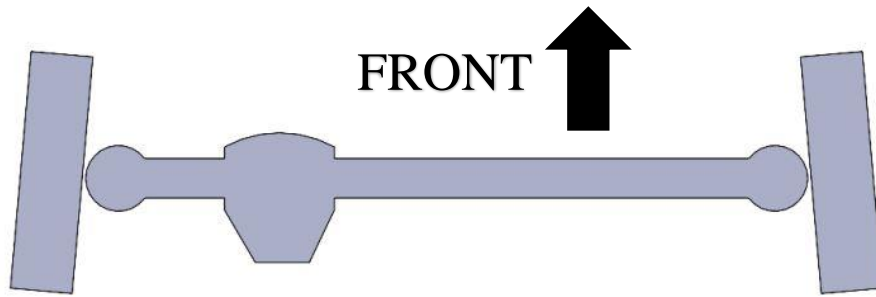


Figure 8: Positive Toe-in

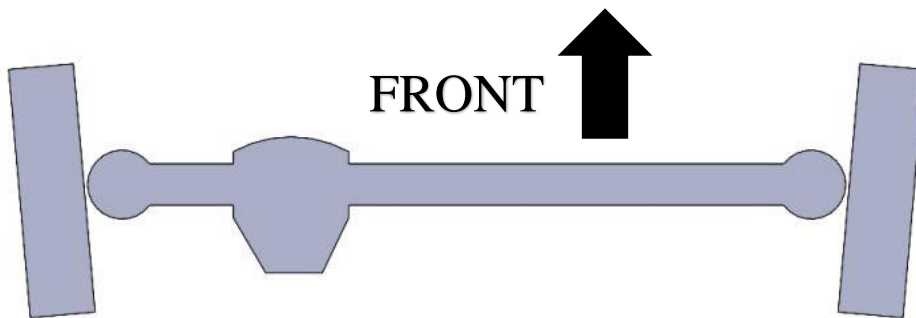


Figure 9: Negative Toe-in (Toe-out)

12. Repeat steps 7-9 as necessary to achieve desired toe-in value.
13. Lock the tie rod length by tightening or locking down the tie rod adjuster system per the manufacturer's recommended procedure.
14. Then, double check that the toe-in value had not changed after locking the tie rod adjuster.
15. Remove the Steering alignment aid from the wheel mounting surfaces and reinstall any removed parts or objects.
16. Reinstall the vehicle's wheels and lower the vehicle back to the ground or remove the jack stands supporting the vehicle.
17. Finally, torque wheel studs to factory specifications.



Table One: Example Measurements

Front Value	Rear Value	Difference	Degrees of Toe-in
68 3/16"	68 5/16"	+ 1/8"	+ 0.6°
68 3/16"	68 1/4"	+ 1/16"	+ 0.3°
68 1/4"	68 1/4"	0"	0.0°
68 1/4"	68 3/16"	- 1/16"	- 0.3°
68 5/16"	68 3/16"	- 1/8"	- 0.6°