



# HYUNDAI Technical Service Bulletin

Group	CHASSIS
Number	06-50-001
Date	JANUARY, 2006
Model	2006 SONATA AND AZERA

Subject  
**WHEEL AND TIRE BALANCING USING MIXED WEIGHT BALANCE**

<b>CIRCULATE TO:</b>	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input type="checkbox"/> SALES MANAGER

**This bulletin supersedes TSB 05-50-010 to include the 2006 Azera model.**

**DESCRIPTION:**

Some 2006 Model Year Sonatas and Azeras are equipped with 17 inch wheels that do not allow clip on weights to be installed on the outside of the wheel. The wheel and tire assembly must be balanced using adhesive backed weights in addition to traditional clip-on weights, which may be installed on the inner rim flange.

This bulletin provides a guideline when using a dynamic wheel balance machine designed to accommodate a combination of clip-on and adhesive weights. This bulletin also provides a procedure to be used with the Hunter GSP9700.

**NOTE: Follow your wheel balancer’s procedure for balancing a combination of adhesive and clip-on weights.**

**NOTE: Remove all old adhesive and clip-on weights. Thoroughly clean the residue from old adhesive weights to ensure good adhesion on the new weights.**

**SERVICE GUIDELINE:**

1. Secure wheel and tire assembly. Follow your wheel balancer’s procedure for mounting and securing the wheel and tire assembly.

**NOTE: Verify that the tire pressure is set to the manufacturer specification.**

2. Verify that the wheel balancer is set to dynamically balance passenger tires using a “mixed weight” setting or combination of clip-on and adhesive wheel weights.

**NOTE: If your wheel balancer has the capability, always ensure that the adhesive weights are hidden behind the wheel spokes.**



3. Check the imbalance of the tire and wheel assembly.
4. Apply the clip-on and adhesive weights per your wheel balancer’s procedure.

5. Recheck the imbalance to verify the repair.

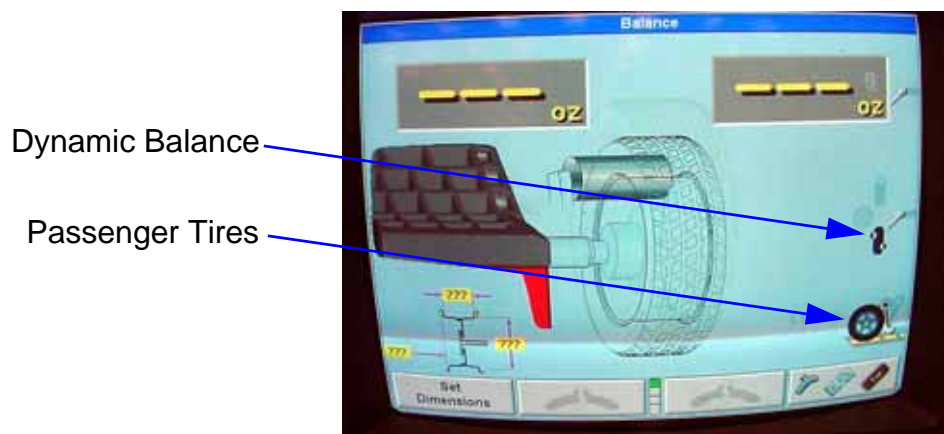
**NOTE: When checking the imbalance of additional wheel and tire assemblies, use your wheel balancer's procedure for identifying the location of the spokes on the new assembly.**

**SERVICE PROCEDURE (FOR USE WITH THE HUNTER GSP9700):**

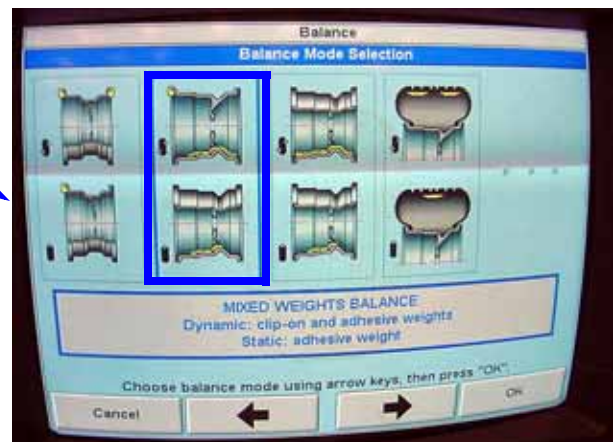
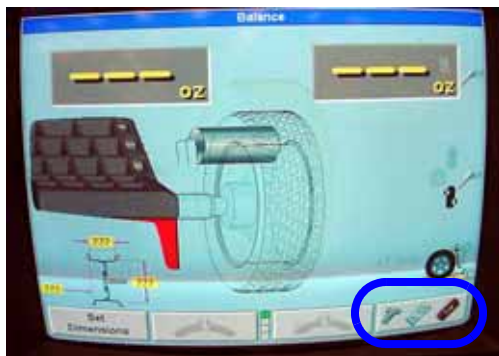
1. Properly secure the wheel and tire assembly on the wheel balancing machine.  
Follow Hunter's procedure for mounting and securing the wheel and tire assembly.

**NOTE: Verify that the tire pressure is set to the manufacturer specification.**

2. Verify that the wheel balancing machine is set to dynamically balance passenger tires.

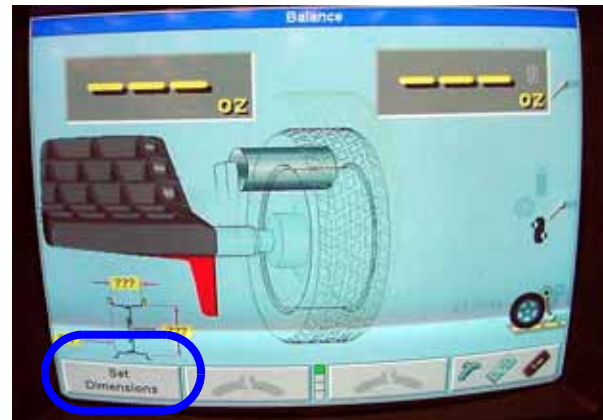


3. Specify the type of wheel balancing technique that will be used. Select "MIXED WEIGHTS BALANCE". Press OK.





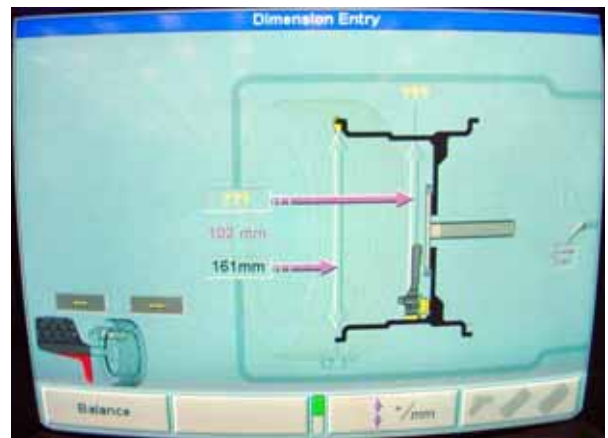
4. Enter the dimensions of the wheel.



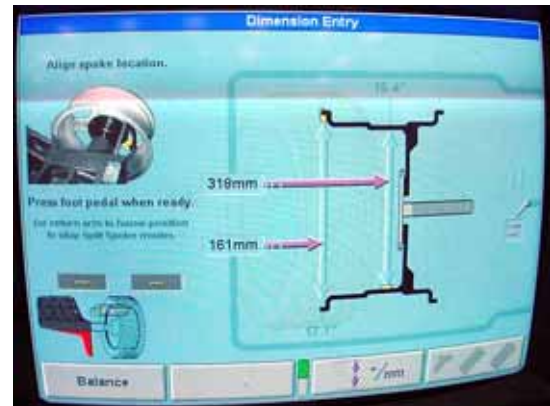
5. Set the inner rim dimension using the inner Dataset arm. Press foot pedal.



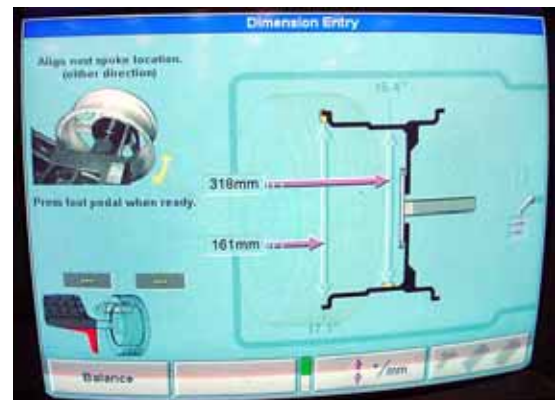
6. Set the distance to the outermost diameter that will be used to install the adhesive weights using the inner Dataset arm in the downward position. The roller on the Dataset arm must be touching the rim. Press foot pedal.



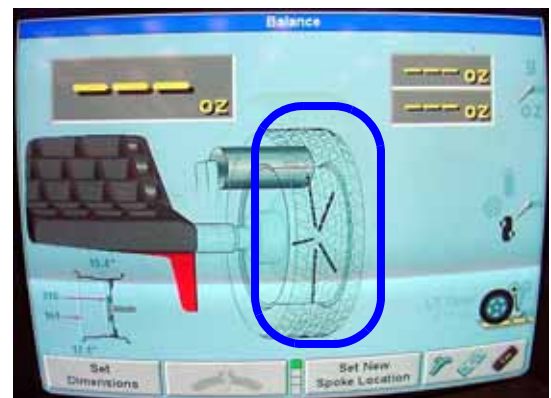
7. Determine the location of one spoke by placing the Dataset arm in the downward position and aligning a spoke on the wheel with the Dataset arm. The Dataset arm roller must be touching the rim. Press foot pedal.



8. Determine the angle between spokes by rotating to the next spoke on the wheel and align the dataset arm as in step 7. Press foot pedal.



**NOTE:** The wheel balancing machine now knows the number of spokes and the angle between the spokes as designated by the lines on the screen.





9. Measure the wheel imbalance by closing the hood.



10. Install the inner clip-on weight if required. In this example, 20.0 grams is required.

**NOTE:** Only use weights intended for use on aluminum wheels.

**NOTE:** Use the foot pedal to rotate the wheel and tire assembly to the next weight location. See the Hunter manual for additional information on the Servo stop feature.



11. Install the adhesive weights if required. In this example two weights are required, 35.0 and 55.0 grams.

**NOTE:** The Dataset arm is designed to hold the adhesive weights and accurately place them on the wheel.

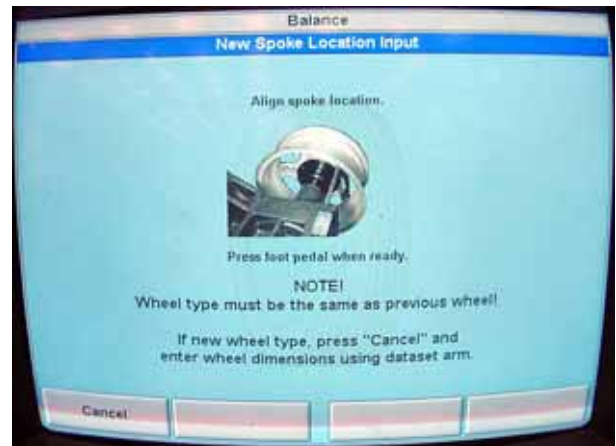


12. Rebalance the wheel and tire assembly by closing the hood to confirm the assembly is balanced.



13. Remove the wheel and tire from the wheel balancing machine. If additional assemblies require balancing, secure the new wheel and tire to the machine.

14. The wheel balancer needs to learn the location of the spokes on the new assembly. Align the Dataset arm with a wheel spoke as done in step 7. Press foot pedal. Repeat steps 9 through 13



OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE CODE	CAUSE CODE
52900A00	Wheel Balance (2 Wheels)	0.3	52910-3K330	N21	C12
52901A00	Wheel Balance (4 Wheels)	0.6			

**\*N21: Shuddering, vibration**

**\*\*C12: Out of balance**