

GROUP 31

WHEEL AND TIRE

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GENERAL SPECIFICATIONS

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ROAD WHEEL AND TIRE

| Item | | DE | ES | GTS, RALLIART |
|-------|--------------------------------|---|----------------|--|
| Wheel | Type | Steel type Aluminum type ^{*1} | Aluminum type | Aluminum type |
| | Size | 16 × 6 1/2JJ | 16 × 6 1/2JJ | 18 × 7JJ |
| | Amount of wheel offset mm (in) | 46 (1.8) | 46 (1.8) | 46 (1.8) |
| | PCD mm (in) | 114.3 (4.50) | 114.3 (4.50) | 114.3 (4.50) |
| Tire | Size | P205/60R16 91H | P205/60R16 91H | P215/45R18 89V ^{*2} P215/45R18 89W ^{*3} |

NOTE:

- ^{*1}: Option
- ^{*2}: Vehicles for Canada
- ^{*3}: Except vehicles for Canada
- PCD indicates the pitch circle diameter of the wheel installation holes.

SPARE WHEEL AND TIRE

| Item | | Except RALLIART | RALLIART |
|-------|--------------------------------|-----------------|----------------|
| Wheel | Type | Steel type | Steel type |
| | Size | 16 × 4T | 16 × 4T |
| | Amount of wheel offset mm (in) | 40 (1.6) | 40 (1.6) |
| | PCD mm (in) | 114.3 (4.50) | 114.3 (4.50) |
| Tire | Size | T125/70D16 96M | T125/90D16 98M |

NOTE: PCD indicates the pitch circle diameter of the wheel installation holes.

SERVICE SPECIFICATIONS


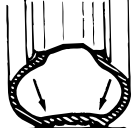
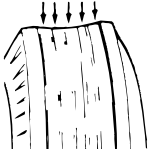
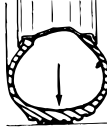

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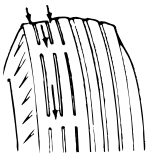
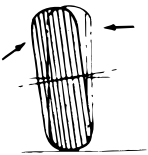
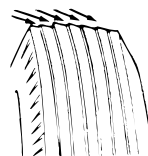
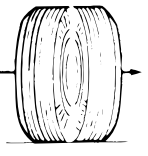

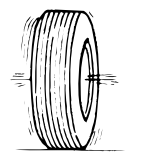

| Item | | Limit |
|-------------------------------|------------------------|--------------------|
| Tread depth of tire mm (in) | | Minimum 1.6 (0.06) |
| Wheel runout <Aluminum wheel> | Radial runout mm (in) | 1.0 (0.04) or less |
| | Lateral runout mm (in) | 1.0 (0.04) or less |
| Wheel runout <Steel wheel> | Radial runout mm (in) | 1.2 (0.05) or less |
| | Lateral runout mm (in) | 1.2 (0.05) or less |

WHEEL AND TIRE DIAGNOSIS

DIAGNOSIS

M1311000700794

| Symptom | | Probable cause | | Remedy | Reference page |
|-------------------------|---|-------------------------------------|---|---------------------------|---|
| Rapid wear at shoulders |  ACX00923AB | Under-inflation or lack of rotation |  ACX00924AE | Adjust the tire pressure. | For tire inflation pressure, refer to the label on the driver's side center pillar. |
| Rapid wear at center |  ACX00925AE | Over-inflation or lack of rotation |  ACX00926AI | | |
| Cracked treads |  ACX00927AB | Under-inflation | | Adjust the tire pressure. | For tire inflation pressure, refer to the label on the driver's side center pillar. |

| Symptom | | Probable cause | | Remedy | Reference page |
|------------------|--|--|--|---|--|
| Wear on one side |  ACX00928 AB | Excessive camber |  ACX00929 AE | Check the camber. | Refer to GROUP 33, On-vehicle service –Front wheel alignment check and adjustment P.33-8 . |
| Feathered edge |  ACX00930 AB | Incorrect toe-in |  ACX00931 AE | Adjust the toe-in. | |
| Bald spots |  ACX00932 AB | Unbalanced wheel |  ACX00933 AB | Balance the wheels. | — |
| Scalloped wear |  ACX00934 | Lack of rotation of tires or worn or out-of-alignment suspension | | Rotate the tires, and check the front suspension alignment. | Refer to GROUP 33, On-vehicle service –Front wheel alignment check and adjustment P.33-8 . |

WHEEL BALANCE ACCURACY

M1311001700656

PURPOSE

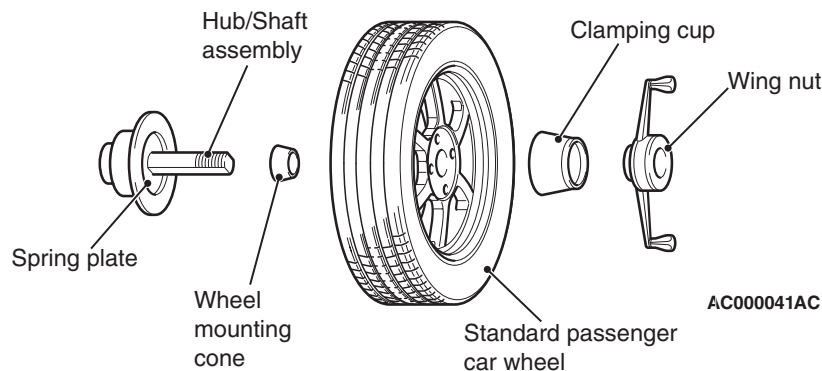
This section contains tips and procedures for achieving accurate wheel balance. Steering wheel vibration and/or body shake can result if any of these procedures are not carefully observed.

1. Wheels and tires must be properly mounted on a balancer in order to achieve correct balance. Centering the wheel on the shaft of the balancer is essential for proper mounting.

2. Off-the-car wheel balancers must be calibrated periodically to ensure good balancing results. An inaccurately calibrated balancer could cause unnecessary replacement of tires, shocks, suspension components, or steering components. Check your balancer's calibration approximately every 100 balances. Your wheel balancer's instruction manual should include calibration procedures. If the calibration procedures specifically for your balancer are missing, use the generic steps in this section for zero calibration, static balance, and dynamic balance checks. The wheel balancer calibration checks are also described in the flowchart. (Refer to [P.31-7](#).)

PROCEDURE <Balancing Tips>

1. Confirm that the balancer's cone and the wheel mounting cone are undamaged and free of dirt and rust.
2. On this vehicle, the wheel's center hole on the hub side has a chamfered edge. Use a back-mounting cone on your wheel balancer to center the wheel on the balancer shaft.
3. Install a wheel mounting cone. The appropriate size cone for this vehicle is 67.0 mm (2.64 inches).
4. Before balancing the wheel, remove any wheel weights from both sides. Also check both sides for any damage.
5. When installing wheel weights, hammer them at a straight (not diagonal) angle.



<Confirming Proper Balance>

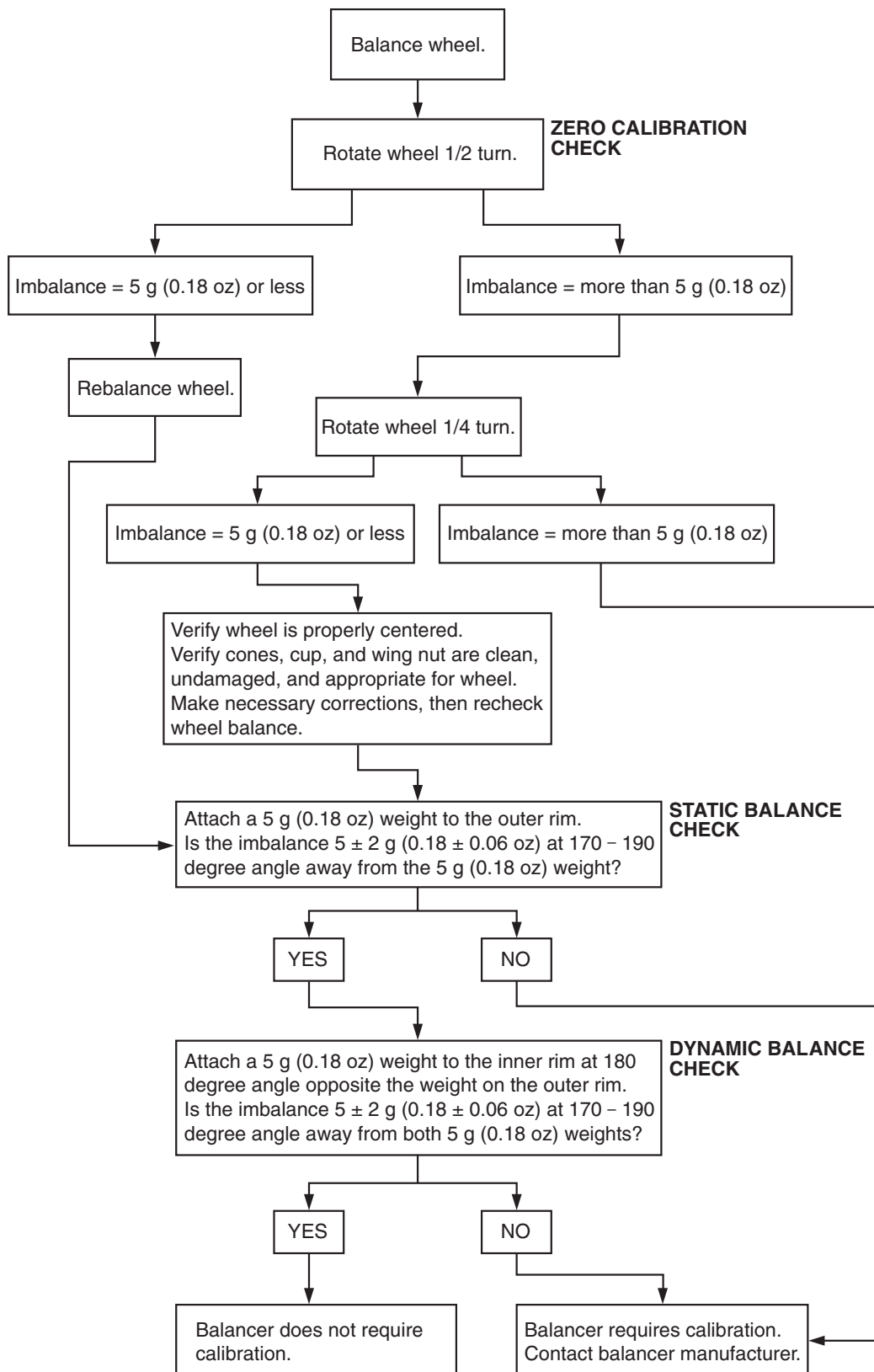
1. After balancing the wheel, loosen the wing nut and turn the wheel 180 degree angle against the balancer's hub. Then re-tighten the wing nut and check the balance again. Repeat wheel balance if necessary.
2. Turn the wheel again 180 degree angle against the balancer's hub. If the wheel becomes out-of-balance each time it is turned against the balancer's hub, the wheel balancer may require calibration.

<Wheel Balancer Calibration Checks>

1. Mount an undamaged original-equipment alloy rim and tire assembly (wheel) onto your off-the-car wheel balancer. Balance the wheel.
2. <<Zero Calibration Check>>
Loosen the balancer wing nut, rotate the wheel a half-turn (180 degree angle), and retighten the nut. Recheck the balance.
 - If the imbalance is 5 g (0.18 ounce) or less, the zero calibration is OK. Rebalance the wheel, then go to Step 4 to check static balance.
 - If the imbalance is more than 5 g (0.18 ounce), go to Step 3.
3. Loosen the balancer wing nut, rotate the wheel 1/4 turn (90 degree angle), and retighten the nut. Recheck the wheel balance.
 - If the imbalance is 5 g (0.18 ounce) or less, the wheel may not be centered on the balancer, or the balancing cones, the cup, and/or wing nut are damaged, dirty, or inappropriate for the wheel. You may need to refer to the balancer manufacturer's instructions to verify the correct attachments. After making the necessary corrections, recheck the wheel balance. If OK, then go to Step 4.
 - If the imbalance is more than 5 g (0.18 ounce), the balancer requires calibration. Contact the balancer manufacturer for calibration by their repair representative.
4. <<Static Balance Check>>
Attach a 5 g (0.18 ounce) weight to the outer rim. Recheck the balancer. The balancer should detect 5 ± 2 g (0.18 ± 0.06 ounce) of imbalance 170 to 190 degree angle away from the 5 g (0.18 ounce) weight.
 - If the imbalance is within specification, the static balance calibration is correct. Go to Step 5 to check the dynamic balance.

- If the imbalance is out of specification, the balancer requires calibration. Contact the balancer manufacturer for calibration by their repair representative.
5. <<Dynamic Balance Check>>
- Attach a 5 g (0.18 ounce) weight to the inner rim at 180 degree angle opposite the 5 g (0.18 ounce) weight that was added in Step 4. Recheck the balance. The balancer should detect 5 ± 2 g (0.18 ± 0.06 ounce) of imbalance 170 to 190 degree angle away from both the inner and outer 5 g (0.18 ounce) weights.
- If the imbalance is within specification, the dynamic balance calibration is correct. The balancer calibration checks are complete.
 - If the imbalance is out of specification, the balancer requires calibration. Contact the balancer manufacturer for calibration by their repair representative.

WHEEL BALANCER CALIBRATION CHECKING FLOW CHART



AC403557 AC

ON-VEHICLE SERVICE**TIRE INFLATION PRESSURE CHECK**

M1311000900668

NOTE: For information on tire inflation pressure, refer to the label attached to the center pillar on the driver's side.

TIRE WEAR CHECK

M1311001000721

Measure the tread depth of the tires.

Minimum limit: 1.6 mm (0.06 inch)

If the remaining tread depth is less than the minimum limit, replace the tire.

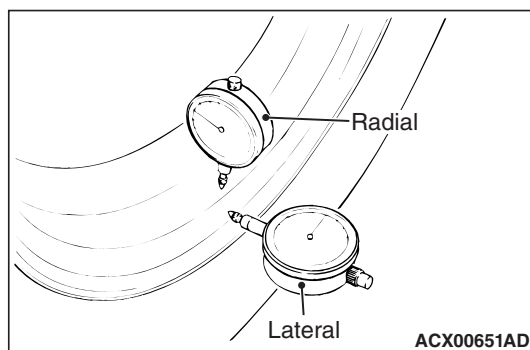
NOTE: When the tread depth of the tires is reduced to 1.6 mm (0.06 inch) or less, wear indicators will appear.

WHEEL RUNOUT CHECK

M1311001100740

Jack up the vehicle so that the wheels are clear of the floor. While slowly turning the wheel, measure wheel runout with a dial indicator.

Limit:



| Items | Steel wheel | Aluminum wheel |
|----------------|----------------------------|----------------------------|
| Radial runout | 1.2 mm (0.05 inch) or less | 1.0 mm (0.04 inch) or less |
| Lateral runout | 1.2 mm (0.05 inch) or less | 1.0 mm (0.04 inch) or less |

If wheel runout exceeds the limit, replace the wheel.

WHEEL AND TIRE**INSTALLATION SERVICE POINT**

M1311001300573

Tighten the wheel nuts to the specified torque.

Tightening torque: 98 ± 10 N·m (73 ± 7 ft-lb)

TIRE PRESSURE MONITORING SYSTEM (TPMS)**REMOVAL AND INSTALLATION**

M1311003800109

Refer to GROUP 42B –Keyless Operation System (KOS) [P.42B-222](#) or GROUP 42C –Wireless Control Module (WCM) [P.42C-124](#).