



# SERVICE BULLETIN

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : INFORMATION	ISSUE NO. : MSB-11E35-005	DATE : 2011-09-05
SUBJECT : STEERING WHEEL SENSOR		<MODEL>                      <M/Y>
GROUP : ANTI-SKID BRAKING SYSTEM (ABS)/ ACTIVE STABILITY CONTROL SYSTEM (ASC)		(EUR/RUSSIA/UK(Japanese Domestic Spec.)) See following <u>2. Applicable Manuals table.</u>
<p><b>1. Description:</b> The steering wheel sensor is changed to improve productivity. According to this change, its service procedure is also changed. This Service Bulletin contains the correct service procedure.</p> <p><b>2. Applicable Manuals:</b> See Attached sheets 1 (1/4) to 1 (4/4).  There may be some attached sheets not included in this Service Bulletin because they are not applicable to your market. Their sheet numbers are not listed in the above table.</p> <p><b>3. Interchangeability:</b> Interchangeable</p> <p><b>4. Effective Date:</b> From early March, 2010</p> <p><b>5. Details:</b> See Attached sheets 5 to 8.</p>		

&lt;EUR&gt;

Manual/Model	<M/Y>	Pub. No.	Title (Info-ID)	Attached Sheet
2008 LANCER Workshop Manual CD-ROM (CY0A)	08	CG1E08E1-CD (English) CG1S08E1-CD (Spanish) CG1F08E1-CD (French) CG1G08E1-CD (German)	Steering Wheel Sensor Removal and Installation (M355-00-510-20900-01)	Attached sheet 5
		CG1E08E2-CD (English) CG1S08E2-CD (Spanish) CG1F08E2-CD (French) CG1G08E2-CD (German)		
2009 LANCER Workshop Manual CD-ROM (CY0A)	09	CG1E09E1-CD (English) CG1S09E1-CD (Spanish) CG1F09E1-CD (French) CG1G09E1-CD (German) CG1I09E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-35100-01)	Attached sheet 6
2010 LANCER Workshop Manual CD-ROM (CY0A)	10	CG1E10E1-CD (English) CG1S10E1-CD (Spanish) CG1F10E1-CD (French) CG1G10E1-CD (German) CG1I10E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-47000-01)	
2011 LANCER/ LANCER SPORTBACK Workshop Manual CD-ROM (CY0A/CX0A)	11	CG1E11E1-CD (English) CG1S11E1-CD (Spanish) CG1F11E1-CD (French) CG1G11E1-CD (German) CG1I11E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-60700-01)	
2009 LANCER SPORTBACK Workshop Manual CD-ROM (CX0A)	09	CG4E09E1-CD (English) CG4S09E1-CD (Spanish) CG4F09E1-CD (French) CG4G09E1-CD (German) CG4I09E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-36200-01)	
2010 LANCER SPORTBACK Workshop Manual CD-ROM (CX0A)	10	CG4E10E1-CD (English) CG4S10E1-CD (Spanish) CG4F10E1-CD (French) CG4G10E1-CD (German) CG4I10E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-46900-01)	Attached sheet 7
2009 LANCER EVOLUTION Workshop Manual CD-ROM (CZ4A)	09	CGEE09E1-CD (English) CGES09E1-CD (Spanish) CGEF09E1-CD (French) CGEG09E1-CD (German) CGEI09E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-32800-01)	
			Steering Wheel Sensor Removal and Installation (M355-00-510-32801-01)	
2010 LANCER EVOLUTION Workshop Manual CD-ROM (CZ4A)	10	CGEE10E1-CD (English) CGES10E1-CD (Spanish) CGEF10E1-CD (French) CGEG10E1-CD (German) CGEI10E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-32801-01)	
2011 LANCER EVOLUTION Workshop Manual CD-ROM (CZ4A)	11	CGEE11E1-CD (English) CGES11E1-CD (Spanish) CGEF11E1-CD (French) CGEG11E1-CD (German) CGEI11E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-32802-01)	Attached sheet 6
2007 OUTLANDER Workshop Manual CD-ROM (CW0W)	07	CGXE07E1-CD (English) CGXS07E1-CD (Spanish) CGXF07E1-CD (French) CGXG07E1-CD (German)	Steering Wheel Sensor Removal and Installation (M355-00-510-13500-01)	

Manual/Model	<M/Y>	Pub. No.	Title (Info-ID)	Attached Sheet
2008 OUTLANDER Workshop Manual CD-ROM (CW0W)	08	CGXE08E1-CD (English) CGXS08E1-CD (Spanish) CGXF08E1-CD (French) CGXG08E1-CD (German)	Steering Wheel Sensor Removal and Installation (M355-00-510-23200-01)	Attached sheet 6
		CGXE08E2-CD (English) CGXS08E2-CD (Spanish) CGXF08E2-CD (French) CGXG08E2-CD (German)		
2009 OUTLANDER Workshop Manual CD-ROM (CW0W)	09	CGXE09E1-CD (English) CGXS09E1-CD (Spanish) CGXF09E1-CD (French) CGXG09E1-CD (German) CGXI09E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-26500-01)	
		CGXE09E2-CD (English) CGXS09E2-CD (Spanish) CGXF09E2-CD (French) CGXG09E2-CD (German) CGXI09E2-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-43600-01)	
2010 OUTLANDER Workshop Manual CD-ROM (CW0W)	10	CGXE10E1-CD (English) CGXS10E1-CD (Spanish) CGXF10E1-CD (French) CGXG10E1-CD (German) CGXI10E1-CD (Italian)		
2011 OUTLANDER Workshop Manual CD-ROM (CW0W)	11	CGXE11E1-CD (English) CGXS11E1-CD (Spanish) CGXF11E1-CD (French) CGXG11E1-CD (German) CGXI11E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-63000-01)	
2007.5 L200 Workshop Manual CD-ROM (KA0T/KB0T)	07.5	CCRE07E2-CD (English) CCRS07E2-CD (Spanish) CCRF07E2-CD (French) CCRG07E2-CD (German)	Steering Wheel Sensor Removal and Installation (M355-00-510-10200-01)	Attached sheet 8
2009 L200 Workshop Manual CD-ROM (KA0T/KB0T)	09	CCRE09E1-CD (English) CCRS09E1-CD (Spanish) CCRF09E1-CD (French) CCRG09E1-CD (German) CCRI09E1-CD (Italian)		
2010 L200 Workshop Manual CD-ROM (KA0T/KB0T)	10	CCRE10E1-CD (English) CCRS10E1-CD (Spanish) CCRF10E1-CD (French) CCRG10E1-CD (German) CCRI10E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-52200-01)	
2011 L200 Workshop Manual CD-ROM (KA0T/KB0T)	11	CCRE11E1-CD (English) CCRS11E1-CD (Spanish) CCRF11E1-CD (French) CCRG11E1-CD (German) CCRI11E1-CD (Italian)	Steering Wheel Sensor Removal and Installation (M355-00-510-52201-01)	

## &lt;RUSSIA&gt;

Underneath Manual/ Model	<M/Y>	Underneath Pub. No.	Title (Info-ID)	Attached Sheet
2008 LANCER Workshop Manual (CY0A)	08	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-20900-01)	Attached sheet 5
2009 LANCER Workshop Manual (CY0A)	09	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-35100-01)	Attached sheet 6
2010 LANCER Workshop Manual (CY0A)	10	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-47000-01)	
2011 LANCER/ LANCER SPORTBACK Workshop Manual (CY0A/CX0A)	11	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-60700-01)	
2009 LANCER SPORTBACK Workshop Manual (CX0A)	09	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-36200-01)	
2010 LANCER SPORTBACK Workshop Manual (CX0A)	10	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-46900-01)	
2009 LANCER EVOLUTION Workshop Manual (CZ4A)	09	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-32801-01)	Attached sheet 7
2010 LANCER EVOLUTION Workshop Manual (CZ4A)	10	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-32801-01)	
2011 LANCER EVOLUTION Workshop Manual (CZ4A)	11	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-32802-01)	
2007.5 L200 Workshop Manual (KA0T/KB0T)	07.5	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-10200-01)	Attached sheet 8
2009 L200 Workshop Manual (KA0T/KB0T)	09	N/A		
2010 L200 Workshop Manual (KA0T/KB0T)	10	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-52200-01)	
2011 L200 Workshop Manual (KA0T/KB0T)	11	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-52201-01)	

Underneath Manual/ Model	<M/Y>	Underneath Pub. No.	Title (Info-ID)	Attached Sheet
2009 NATIVA/ PAJERO SPORT Workshop Manual (KH0W)	09	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-10200-01)	Attached sheet 8
2010 NATIVA/ PAJERO SPORT Workshop Manual (KH0W)	10	N/A		
2011 NATIVA/ PAJERO SPORT Workshop Manual (KH0W)	11	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-52200-01)	

## &lt;UK (Japanese Domestic Specification)&gt;

Manual/Model	<M/Y>	Pub. No.	Title (Info-ID)	Attached Sheet
2008 LANCER EVOLUTION Workshop Manual (CZ4A)	08	N/A	Steering Wheel Sensor Removal and Installation (M355-00-510-22100-01)	Attached sheet 7

## STEERING WHEEL SENSOR

### REMOVAL AND INSTALLATION

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#### **CAUTION**

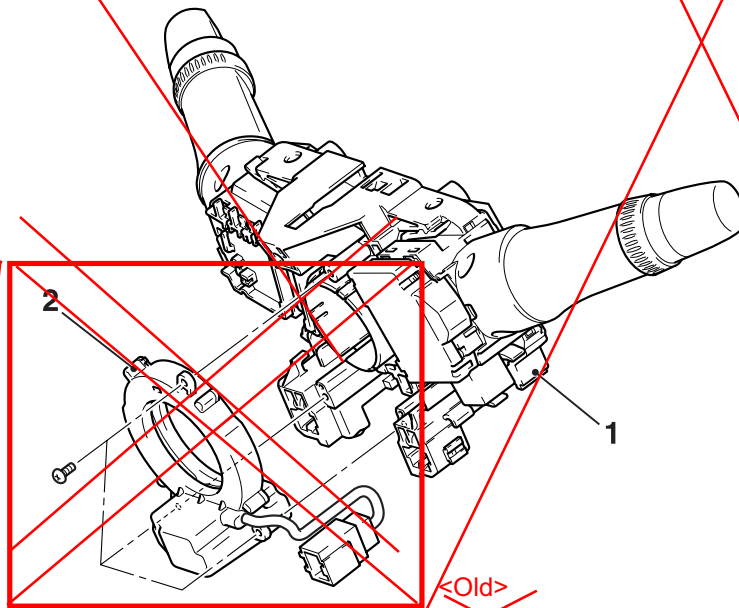
- Be sure to remove the clock spring from the column switch and centre the clock spring to prevent the damage of steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.
- Before removing the steering wheel/air bag module assembly, refer to GROUP 52B – Service Precautions and Air Bag Module Clock Spring .
- When the steering wheel sensor is replaced, always carry out calibration to make ASC-ECU learn the neutral point (Refer to ).

#### **Pre-removal operation**

- Position the front wheels in a straight ahead direction.
- Driver's air bag module and clock spring removal (Refer to GROUP 52B – Driver's air bag module ).

#### **Post-installation operation**

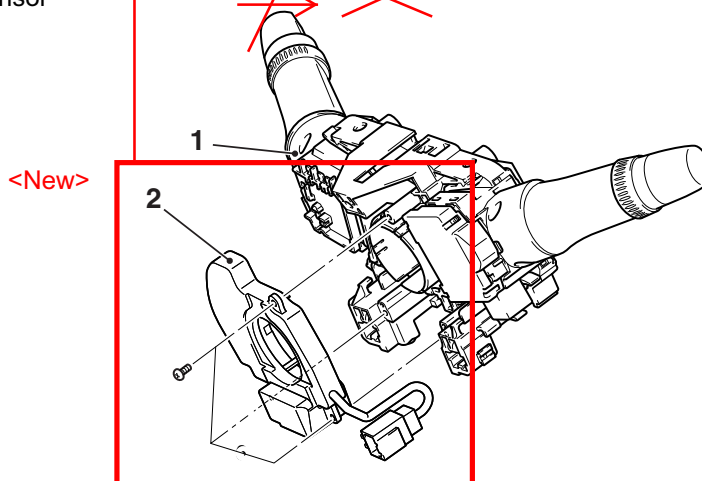
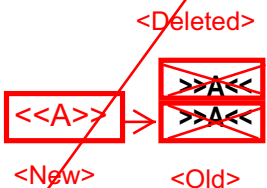
- Driver's air bag module and clock spring installation (Refer to GROUP 52B – Driver's air bag module ).
- Perform steering wheel calibration (Refer to ).



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#### **Removal steps**

1. Column switch assembly
2. Steering wheel sensor



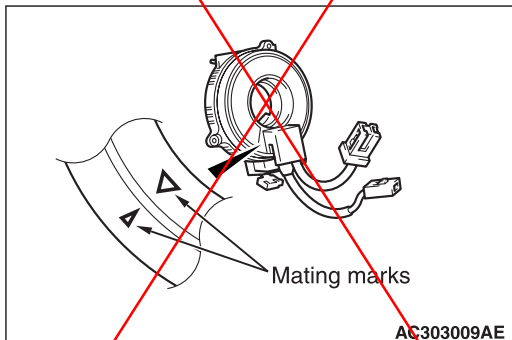
<Old>

## INSTALLATION SERVICE POINT

### >>A<< NEUTRAL POSITIONING OF STEERING WHEEL SENSOR

#### ⚠ CAUTION

- Be sure to remove the clock spring from the column switch and centre the clock spring to prevent the damage of steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.

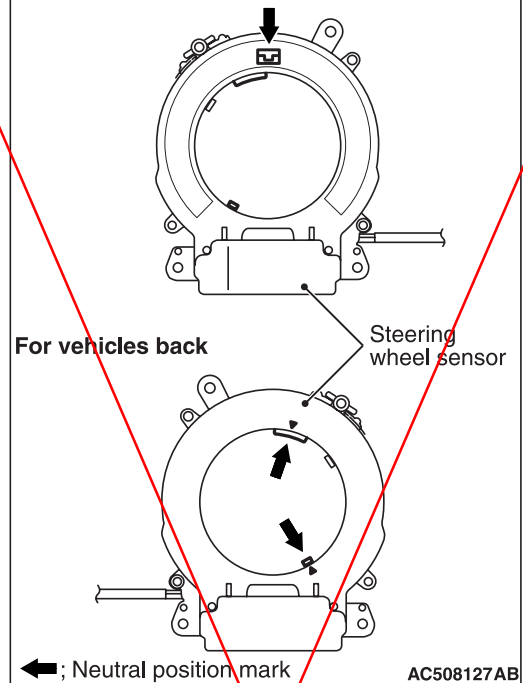


1. Align the mating marks of the clock spring.

<Alignment of mating marks>

- (1) Turn the clock spring clockwise fully.
- (2) Turn the clock spring anti-clockwise approximately three and 3/4 turns to align the mating marks.
- (3) Install the clock spring to the column switch.

For the vehicles front



For vehicles back

←; Neutral position mark

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#### ⚠ CAUTION

**Always align three mating marks of the steering wheel sensor simultaneously as shown in the figure. If these mating marks are not aligned correctly, the steering wheel sensor may be damaged.**

2. Align three mating marks of the steering wheel sensor simultaneously as shown in the figure.

<Alignment of mating marks>

- (1) Check the window for inspecting the neutral position of the steering wheel sensor. If the mating marks cannot be seen from the window, align the mating marks as shown in the figure.
- (2) Install the steering wheel sensor to the column switch assembly, maintaining the neutral position correctly.

**NOTE:** A new steering wheel sensor has a pin for preventing the rotation of (fixing) the steering wheel sensor. After installing the column switch assembly, remove this pin.

- (3) Install the column switch assembly to the vehicle, maintaining the neutral position correctly.

<New>

## REMOVAL SERVICE POINT

### <<A>> STEERING WHEEL SENSOR REMOVAL

#### ! CAUTION

**After removing the steering wheel sensor, do not rotate the sensor rotating part.**

# STEERING WHEEL SENSOR

## REMOVAL AND INSTALLATION

M1355005100470

### CAUTION

- Be sure to remove the clock spring from the column switch and centre the clock spring to prevent the damage of steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.
- Before removing the steering wheel/air bag module assembly, refer to GROUP 52B – Service Precautions and Driver's Air Bag Module Clock Spring <Except PETROL(2000 - T/C)>, <PET-ROL(2000 - T/C)>.
- When the steering wheel sensor is replaced or installed, always carry out calibration to make ASC-ECU learn the neutral point (Refer to ).

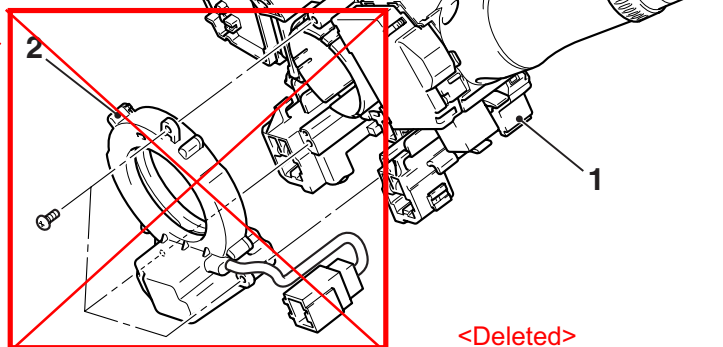
#### Pre-removal operation

- Driver's airbag module assembly and steering wheel assembly removal (Refer to GROUP 37A – Steering Wheel <hydraulic power steering> or GROUP 37B – Steering Wheel <electrical power steering>).

#### Post-installation operation

- Driver's airbag module assembly and steering wheel assembly installation (Refer to GROUP 37A – Steering Wheel <hydraulic power steering> or GROUP 37B – Steering Wheel <electrical power steering>).
- Perform steering wheel calibration (Refer to ).

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#### Removal steps

- Position the front wheels in a straight ahead direction.

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#### Removal steps (Continued)

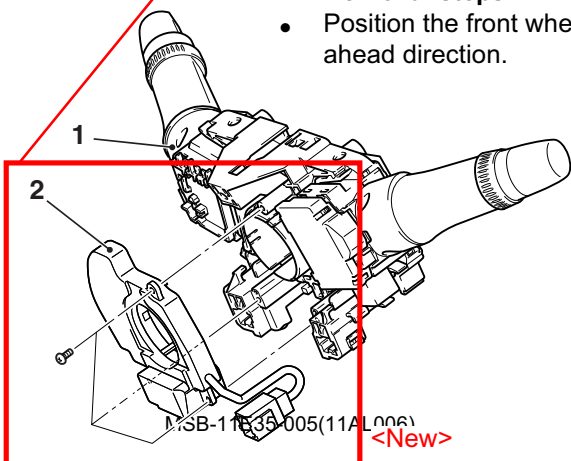
1. Clock spring/column switch assembly (Refer to GROUP 52B – SRS Control Unit ).
2. Steering wheel sensor



<New>



<Old>



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<New>



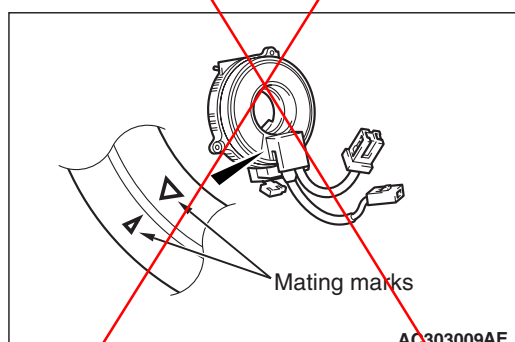
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## INSTALLATION SERVICE POINT

### >>A<< STEERING WHEEL SENSOR/CLOCK SPRING/COLUMN SWITCH ASSEMBLY INSTALLATION

#### ⚠ CAUTION

- Be sure to remove the clock spring from the column switch and centre the clock spring to prevent the damage of steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.

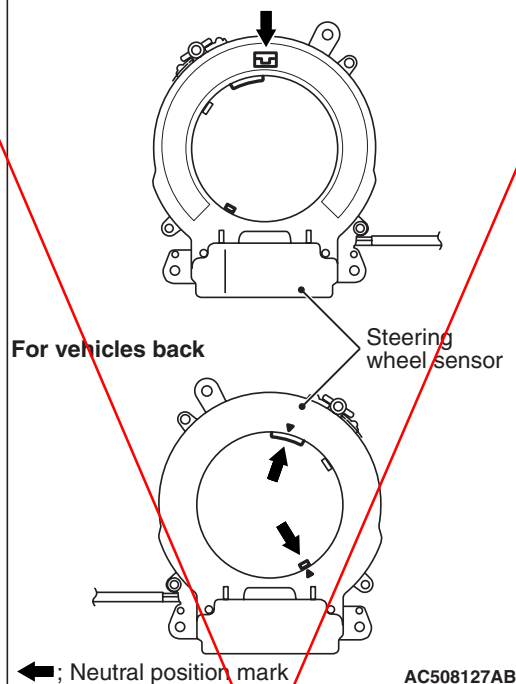


1. Align the mating marks of the clock spring.

<Alignment of mating marks>

- (1) Turn the clock spring clockwise fully.
- (2) Turn the clock spring anti-clockwise approximately three and 3/4 turns to align the mating marks.
- (3) Install the clock spring to the column switch.

For the vehicles front



For vehicles back

←; Neutral position mark

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#### ⚠ CAUTION

**Always align three mating marks of the steering wheel sensor simultaneously as shown in the figure. If these mating marks are not aligned correctly, the steering wheel sensor may be damaged.**

2. Align three mating marks of the steering wheel sensor simultaneously as shown in the figure.

<Alignment of mating marks>

- (1) Check the window for inspecting the neutral position of the steering wheel sensor. If the mating marks cannot be seen from the window, align the mating marks as shown in the figure.
- (2) Install the steering wheel sensor to the column switch assembly, maintaining the neutral position correctly.

**NOTE:** A new steering wheel sensor has a pin for preventing the rotation of (fixing) the steering wheel sensor. After installing the column switch assembly, remove this pin.

- (3) Install the column switch assembly to the vehicle, maintaining the neutral position correctly.

<New>

## REMOVAL SERVICE POINT

### <<A>> STEERING WHEEL SENSOR REMOVAL

#### ! CAUTION

**After removing the steering wheel sensor, do not rotate the sensor rotating part.**

# STEERING WHEEL SENSOR

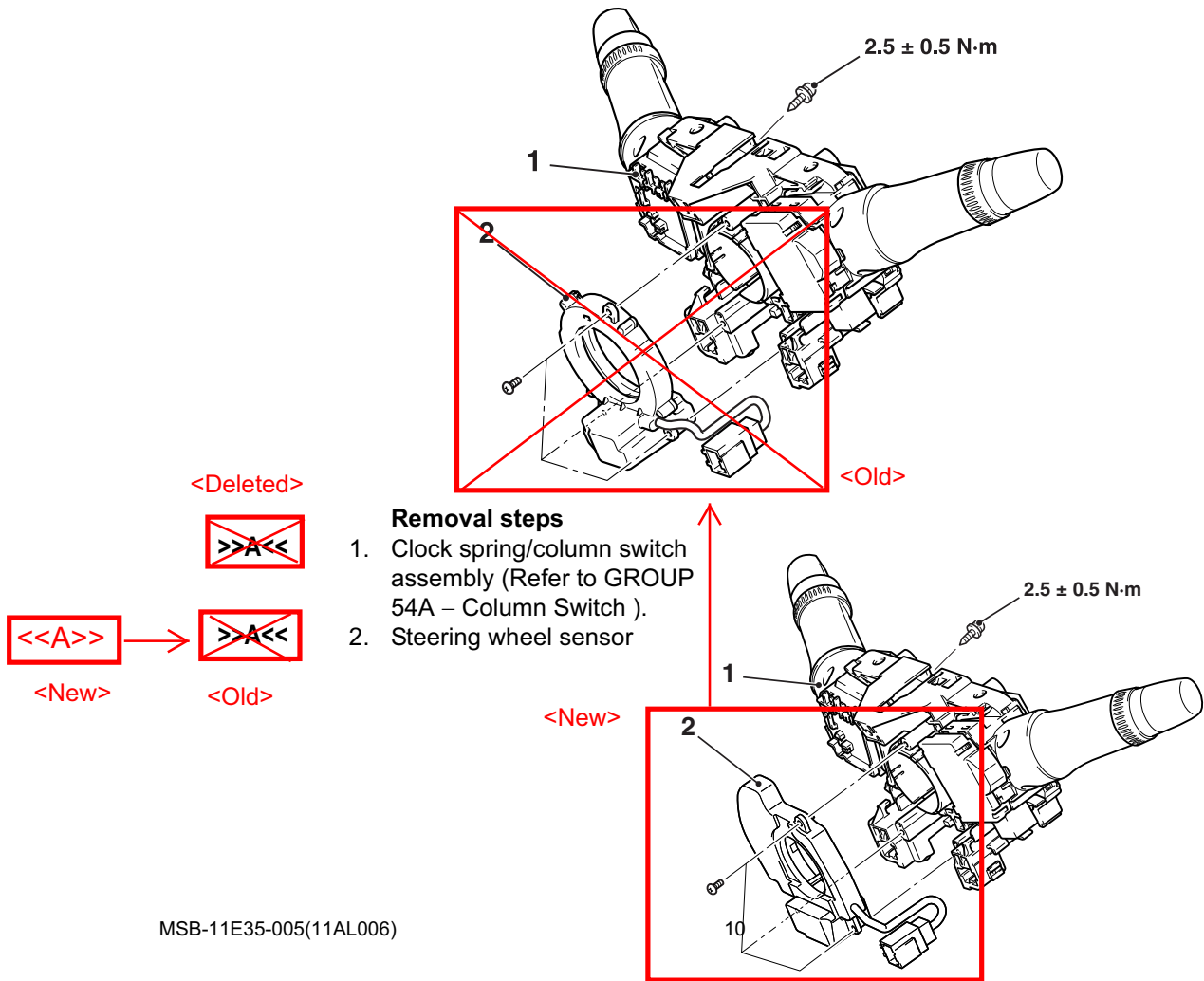
## REMOVAL AND INSTALLATION

M1355005100328

### CAUTION

- Always align the centre of the clock spring before installing the steering wheel sensor. Otherwise, the sensor can be damaged.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.
- Before removing the steering wheel assembly and driver's air bag module, always refer to GROUP 52B – Service Precautions and Driver's Air bag Module and Clock Spring .
- When the steering wheel sensor is replaced or installed, always carry out calibration to make ASC-ECU learn the neutral point (Refer to ).

Pre-removal operation	Post-installation operation
<ul style="list-style-type: none"><li>• Position the front wheels in a straight ahead direction.</li><li>• Driver's air bag module removal (Refer to GROUP 52B – Driver's Air bag Module and Clock Spring .)</li><li>• Steering wheel assembly removal (Refer to GROUP 37 – Steering Wheel .)</li><li>• Steering column upper cover and steering column lower cover removal (Refer to GROUP 37 – Steering Shaft .)</li><li>• Paddle shift assembly removal (Refer to GROUP 37 – Steering Shaft .) &lt;Vehicles with paddle shift&gt;</li></ul>	<ul style="list-style-type: none"><li>• Paddle shift assembly installation (Refer to GROUP 37 – Steering Shaft .) &lt;Vehicles with paddle shift&gt;</li><li>• Steering column upper cover and steering column lower cover installation (Refer to GROUP 37 – Steering Shaft .)</li><li>• Steering wheel assembly installation (Refer to GROUP 37 – Steering Wheel .)</li><li>• Driver's air bag module installation (Refer to GROUP 52B – Driver's Air bag Module and Clock Spring .)</li><li>• Performing the steering wheel calibration (Refer to .)</li></ul>



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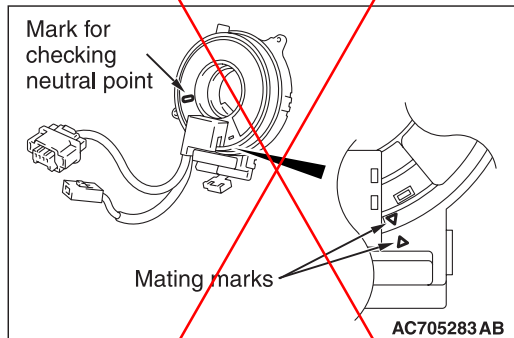
<Old>

## INSTALLATION SERVICE POINT

### >>A<< STEERING WHEEL SENSOR/COLUMN SWITCH ASSEMBLY INSTALLATION

#### ⚠ CAUTION

- Always align the centre of the clock spring before installing the steering wheel sensor. Otherwise, the sensor can be damaged.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.



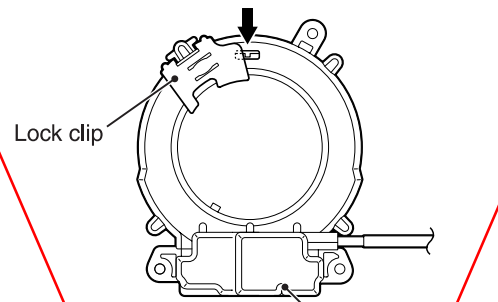
1. Align the mating marks of the clock spring.

<Alignment of mating marks>

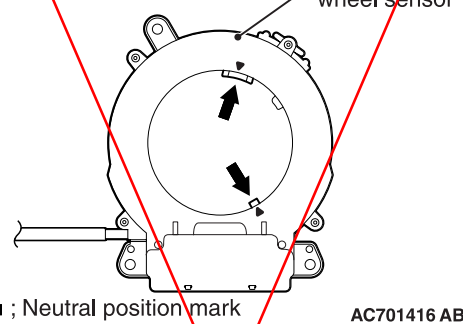
- (1) Turn the clock spring clockwise fully.
- (2) Turn the clock spring anti-clockwise approximately three and 3/4 turns to align the mating marks.
- (3) Check that the white roller is visible from the window for checking the neutral point with the mating marks being aligned.

*NOTE: If the white roller is invisible, the neutral point is not positioned correctly.*

For the vehicles front



For vehicles back



#### ⚠ CAUTION

**Always align three mating marks of the steering wheel sensor simultaneously as shown in the figure. If these mating marks are not aligned correctly, the steering wheel sensor may be damaged.**

2. Align three mating marks of the steering wheel sensor simultaneously as shown in the figure.

<Alignment of mating marks>

- (1) Check the window for inspecting the neutral position of the steering wheel sensor. If the mating marks cannot be seen from the window, align the mating marks as shown in the figure.

- (2) Install the steering wheel sensor to the column switch assembly, maintaining the neutral position correctly.

*NOTE: A new steering wheel sensor has a lock clip for preventing the rotation of (fixing) the steering wheel sensor. After installing the column switch assembly, remove this lock clip.*

- (3) Install the column switch assembly to the vehicle, maintaining the neutral position correctly.

<New>

## REMOVAL SERVICE POINT

### <<A>> STEERING WHEEL SENSOR REMOVAL

#### ! CAUTION

**After removing the steering wheel sensor, do not rotate the sensor rotating part.**

## STEERING WHEEL SENSOR

### REMOVAL AND INSTALLATION

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#### **⚠ WARNING**

Before removing the steering wheel and air bag module assembly, refer to **GROUP 52B, Service Precautions and Air Bag Module and Clock Spring**.

#### **⚠ CAUTION**

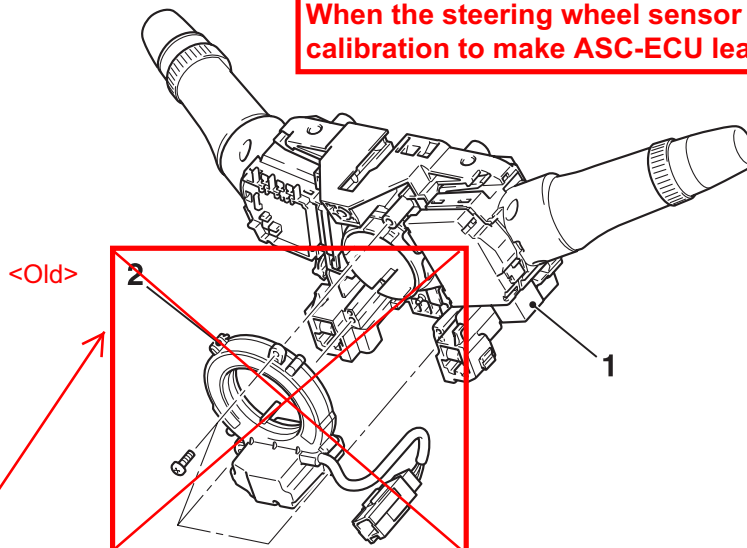
- Because the steering wheel sensor may be damaged, be sure to align the centre of the clock spring before installing the steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.

#### **Pre-removal and Post-installation Operation**

Steering Wheel and Air Bag Module Assembly Removal and Installation (Refer to GROUP 37 – Steering Wheel ).

<Added>

When the steering wheel sensor is replaced, always carry out calibration to make ASC-ECU learn the neutral point (Refer to ).



#### **Removal steps**

- Turn the front wheels to the straight-ahead position.

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>>A<<

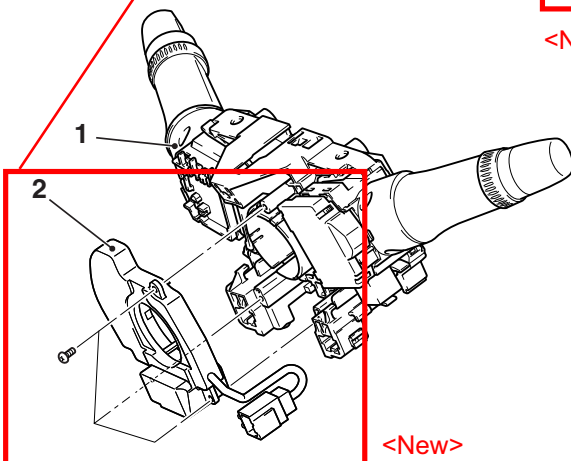
>>A<<

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#### **Removal steps (Continued)**

- Column switch assembly (Refer to GROUP 54A – Ignition Switch ).
- Steering wheel sensor

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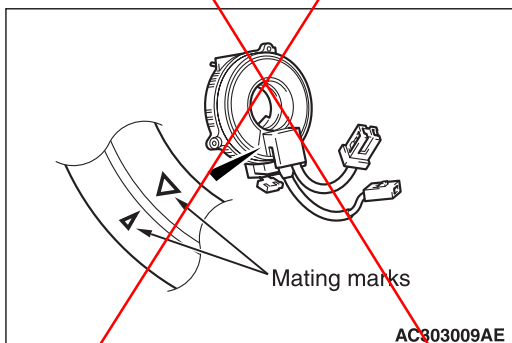
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## INSTALLATION SERVICE POINT

### >>A<< STEERING WHEEL SENSOR/CLOCK SPRING AND COLUMN SWITCH ASSEMBLY

#### ⚠ CAUTION

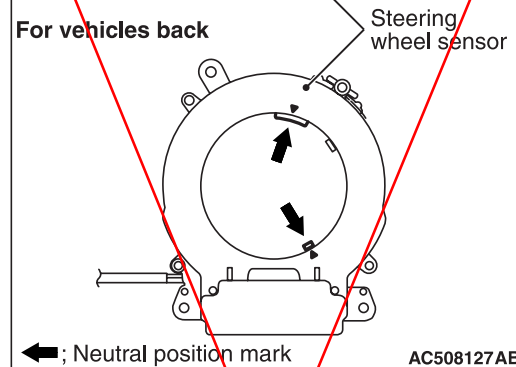
- Because the steering wheel sensor may be damaged, be sure to align the centre of the clock spring before installing the steering wheel sensor.
- If the centre of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.



1. Align the neutral point mark of the clock spring.  
<Neutral point mark alignment>
  - (1) Turn the clock spring clockwise fully.
  - (2) Turn the spring for approximately three turns and three quarters anticlockwise to align the mating marks.
  - (3) Attach the clock spring to the column switch.

For the vehicles front

For vehicles back



#### ⚠ CAUTION

Be sure to align the three neutral point marks of the steering wheel sensor at the same time as shown in the figure. If each neutral point mark is not aligned, the steering wheel sensor may be broken.

2. Align the three neutral point marks of the steering wheel sensor at the same time as shown in the figure.

<Neutral point mark alignment>

- (1) If the neutral point mark is not seen when the window for checking the neutral point of the steering wheel sensor is checked, turn it to align the neutral point marks as shown in the figure.
- (2) Keeping the neutral points aligned, install the steering wheel sensor to the column switch assembly.

**NOTE:** A new steering wheel sensor has a pin for preventing the rotation of (fixing) the steering wheel sensor. After installing the column switch assembly, remove this pin.

- (3) Keeping the neutral points aligned, install the column switch assembly to the vehicle.
3. Perform the calibration for the steering wheel sensor. (Refer to .)

<New>

## REMOVAL SERVICE POINT

### <<A>> STEERING WHEEL SENSOR REMOVAL

#### ! CAUTION

After removing the steering wheel sensor, do not rotate the sensor rotating part.