7810-01

WIPER AND WASHER SYSTEM

GENERAL INFORMATION

1. SPECIFICATIONS OF WIPER

Descriptions			Specifications
Motor	Rated voltage		DC 12 V ± 0.3 V
	Test voltage		DC 13.5 V ± 0.3 V
	Operating voltage range		DC 10 ~ 15 V
	Minimum operating voltage		Below DC 8 V
	Insulating voltage		Over 1 mΩ
	Restraint test	Torque	Over 1.1 Km
		Voltage	Below 14 A
	Surrounding voltage range		-40°C ~ +80°C
Control	Rated voltage		DC 12 V
	Operating voltage range		DC 9 ~ 16 V
	Operating temperature range		-30°C ~ +80°C
	Reserving temperature range		-40°C ~ +90°C
	Insulating voltage		Over 1 mΩ
	Voltage drop		Below 0.5 V
			(terminals between 5-7, 6-8, 5-8, 6-7 @ 5 A)
	Test voltage		14.0 ± 0.5 A
	Acceptable load current		Maximum 10 A

2. CAUTIONS ON RAIN SENSOR

- When the wiper switch is in the AUTO position, the wiper will operate for 1 cycle if the initial engine start is made. This may cause the wiper blades to wear prematurely. Therefore, other than rainy days, set the switch to the OFF position. Especially during the winter time, check if the wiper blades are not frozen to the windshield.
- Operating the wiper with the blades frozen can damage the wiper motor. If you operate the wipers when the windshield is dry without spraying washer fluid, the windshield can be scratched and the wiper blades can wear prematurely. Use the wiper with the washer fluid when the windshield is dry.
- When it does not rain, turn the wiper switch to the OFF position.
- Turn the wiper switch to the OFF position before any car wash to avoid unwanted operation of the wipers.



WARNING

When cleaning the windshield over the sensor with damp clothes, the wiper may operate suddenly. It could cause serious injury. Make sure to place the wiper switch to the OFF position and ignition switch OFF when not in use.

► Irregular operation (abrupt operation)

- Check if the sensor is off the position.
- Check if the rain sensor cover is securely installed.
- Check if the customer is familiar to how to control the wiper sensitivity. Check if the wiper sensitivity control is set to the FAST side (step 5). Check the wiper blade for wear.
- If the wiper blade cannot wipe the glass uniformly and clearly, it may cause the rain sensor to work irregularly. Therefore, in this case, replace the wiper blade with a new one.

WIPER AND WASHER SYSTEM **RODIUS 2013.02**

Modification basis	
Application basis	
Affected VIN	

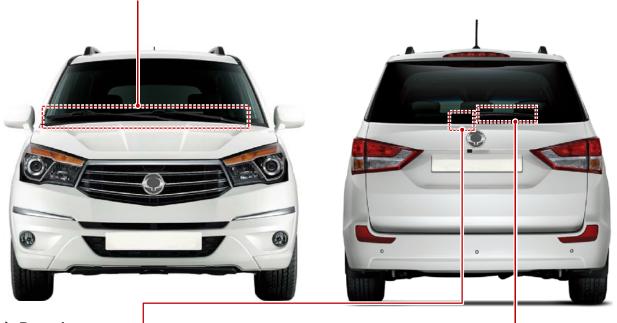
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3. MAJOR CHANGES IN WIPER & RAIN SENSOR SYSTEM

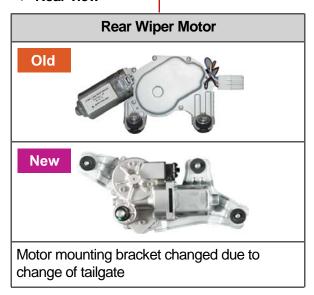
▶ Front view



Before: Conventional type(driver: 600 mm, front passenger: 450 mm) After: Aero blade type(driver: 600 mm, front passenger: 450 mm)



► Rear view



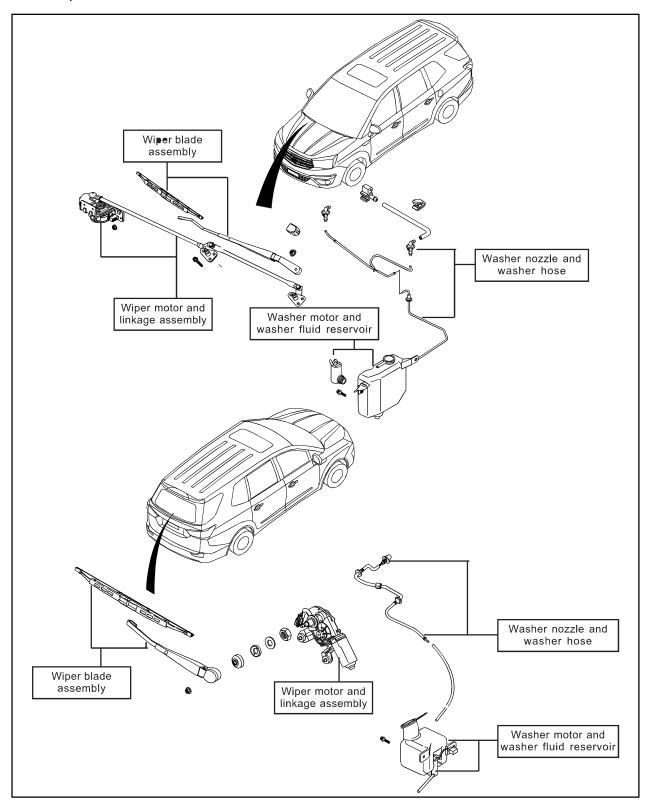


Modification basis	
Application basis	
Affected VIN	

OVERVIEW AND OPERATING PROCESS

1. SYSTEM LAYOUT

▶ Components



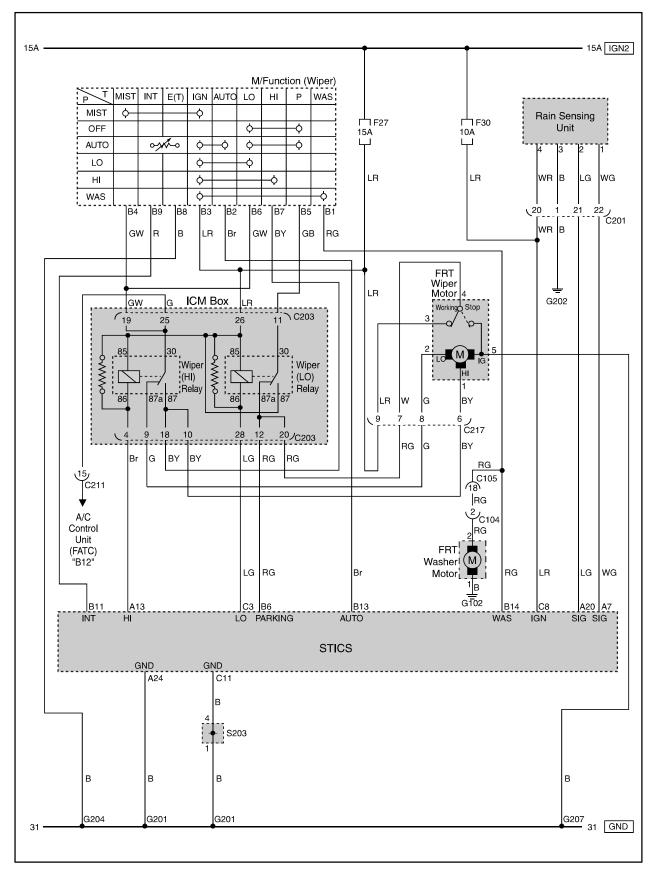
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Modification basis	
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2. CIRCUIT DIAGRAM



Modification basis	
Application basis	
Affected VIN	