

**SWITCH****0000-00****GENERAL INFORMATION****1. SPECIFICATIONS****► Power window main switch**

Item		Specifications
Power window main switch	Rated voltage	12 V
	Operating voltage	9 to 16 V
	Operating temperature	-30 °C to +80 °C
	Rated load	AUTO switch
		Check contact
		Manual switch
		10 A (motor load)
	Window LOCK switch	10 A (motor load)
	Door UNLOCK switch	Check contact

**► Outside rearview mirror switch**

Item		Specifications
Outside rearview mirror switch	Rated voltage	12 V
	Operating voltage	9 to 16 V
	Operating temperature	-30 °C to +80 °C
	Rated load	Outside rearview mirror switch 0.2 A (motor load)

**► Power window sub switch**

Item		Specifications
Power window sub switch	Rated voltage	12 V
	Operating voltage	9 to 16 V
	Operating temperature	-30 °C to +80 °C
	Rated load	Manual switch 10 A (motor load)

Modification basis	
Application basis	
Affected VIN	

### ► Multifunction switch

Item		Specifications		
Rated voltage		12 V		
Operating temperature		-30 °C to +80 °C		
Multifunction light switch	Rated load	Light switch	0.2 A (BCM)	
		AUTO light switch	0.2 A (BCM)	
		Dimmer and passing switch	Up	0.2 A (relay load)
			Down	0.2 A (relay load)
			Passing	0.2 A (BCM)
		Turn signal lamp switch	0.2 A (BCM)	
		Fog lamp switch	0.2 A (relay load)	
Multifunction wiper switch	Rated load	Wiper switch	AUTO	0.2 A (BCM)
			LO	0.2 A (BCM)
			HI	0.2 A (BCM)
		AUTO wiper and washer switch		5 mA (BCM)
		Front washer switch		0.2 A (BCM)
		Rear washer switch		0.2 A (BCM)
		INT		Max. 25 mA
		Rear wiper	LO	0.2 A (BCM)
			HI	0.2 A (BCM)

### ► Center fascia switch

Item		Specifications
Rated voltage		12 V at 50 mA
Operating temperature		-30 °C to +80 °C
Center fascia switch	Rated load	Rear glass/outside rearview mirror heating switch
		TRIP/RESET switch
		Hazard warning lamp switch
		Smart steer switch
		Lane keeping assist system switch
		12 V ~ 50 mA

Modification basis	
Application basis	
Affected VIN	

### ► Lower main switch

Item		Specifications
Rated voltage		12 V at 50 mA
Operating temperature		-30°C to +80°C
Lower main switch	Rated load	E-W-P switch
		ESP OFF switch
		4WD LOCK switch
		Steering wheel heating switch (TIVOLI)
		AC inverter switch (XLV)
		PAS OFF switch
		Headlamp leveling switch

### ► START/STOP switch

Item		Specifications
START/STOP switch	Rated voltage	12 V
	Operating voltage	9 to 16 V
	Operating temperature	-30°C to +80°C

### ► Tailgate switch

Item		Specifications
Tailgate open switch	Rated voltage	12 V at 60 mA or lower
	Operating temperature	-30°C to +80°C

### ► PAB OFF switch

Item		Specifications
PAB OFF switch	Rated voltage	12V
	Rated current	0.1A
	Switch operating force	Push
		0.7±0.25Kgf
	Rotary	MAX 3.0Kgf

Modification basis	
Application basis	
Affected VIN	

## ► Steering wheel switch

Item		Specifications	
Rated voltage		DC 5 V at 0.1 A	
Rated load		DC 5 V at 0.1 A	
Operating temperature		-30°C to +80°C	
Item		Resistance	Operating voltage
LH steering wheel switch	Volume down	196 Ω ± 1%	0 to 0.4 V
	Volume up	1.02 KΩ ± 1%	0.7 to 1.1 V
	Mode	2.21 KΩ ± 1%	1.4 to 1.8 V
	Mute	34.8 KΩ ± 1%	4.2 to 4.6 V
	SEEK up	4.02 KΩ ± 1%	2.1 to 2.5 V
	SEEK down	6.98 KΩ ± 1%	2.8 to 3.2 V
	Bluetooth (hands-free) - ON	13.3 KΩ ± 1%	3.5 to 3.9 V
	Bluetooth (hands-free) - OFF	34.8 KΩ ± 1%	4.2 to 4.6 V
RH steering wheel switch G16DF (D16DTF)	ON/OFF	75 Ω ± 1%	0.15 to 0.55 V
	CANCEL (RESUME)	1.2 KΩ ± 1%	2.52 to 2.92 V
	SET+	560 Ω ± 1%	1.6 to 2.0 V
	RES- (SET-)	220 Ω ± 1%	0.7 to 1.1 V
	Steering wheel heating switch (XLV)	-	5V

## ► Front seat heater and ventilation switch

Item		Specifications
Rated voltage		DC 12 V
Operating temperature		-40°C to +80°C
Front seat heater and ventilation switch	Driver's seat heater switch	Max. 150mA
	Driver's seat ventilation switch	
	Passenger's seat heater switch	
	Passenger's seat ventilation switch	

Modification basis	
Application basis	
Affected VIN	

### ► Rear seat heater switch

Item		Specifications
Rear seat heater switch	Rated voltage	12 V
	Operating voltage	9 to 16 V
	Operating temperature	-30°C to +80°C
	Rated load	4 to 6 A (unit load)

FUSE

BCM

SKM

FCM

INSTRUM ENT

SWITCH

LAMP

WIPER AND

AVN

MP3 AUDIO

LCD AUDIO

ISG SYSTEM

AC INVERTE

Modification basis	
Application basis	
Affected VIN	

SWITCH

TIVOLI/XLV 2016.09

## OVERVIEW AND OPERATING PROCESS

### 1. OVERVIEW

The switch system allows the driver to drive the vehicle safely and comfortably by operating the switches properly according to the driving conditions. The switch system is divided into following parts depending on the mounting location.

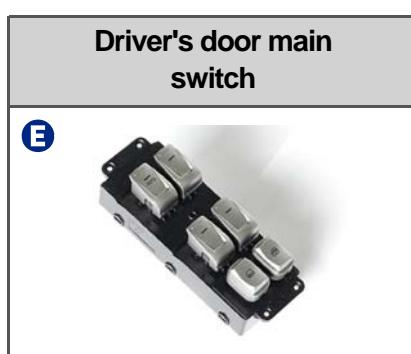
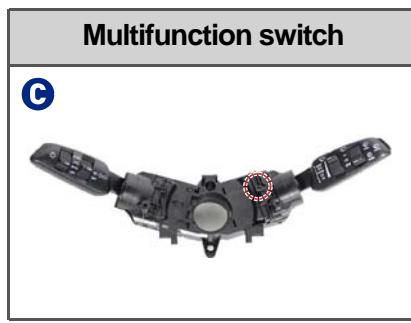
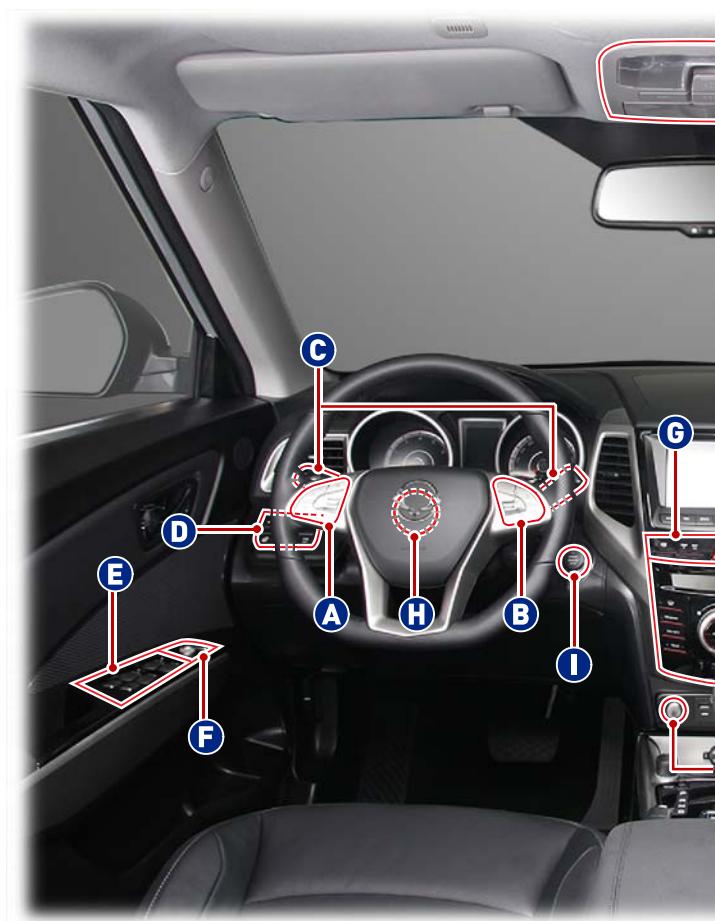
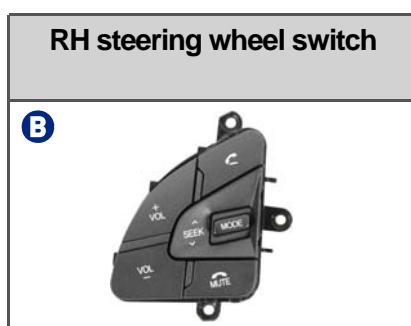
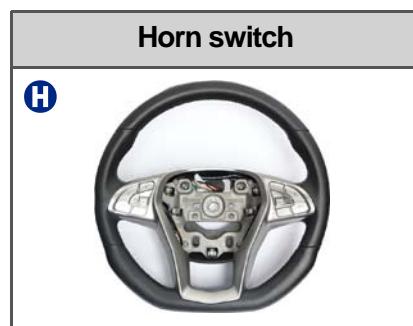
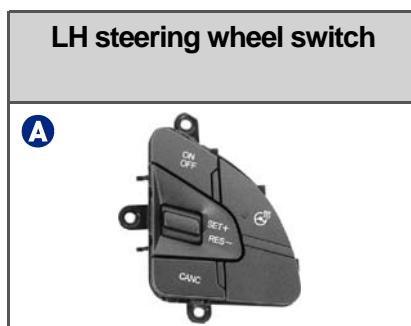
1. Door panel switch (driver)
2. Door panel switch (passenger)
3. Door panel switch (rear)
4. IP panel switch
5. Steering wheel switch
6. Front console switch
7. Trunk switch
8. Headlining switch

Modification basis	
Application basis	
Affected VIN	

SWITCH  
TIVOLI/XLV 2016.09

FUSE  
BCM  
SKM  
FCM  
INSTRUMENT  
SWITCH  
LAMP  
WIPER AND  
AVN  
MP3 AUDIO  
LCD AUDIO  
ISG SYSTEM  
AC INVERTER

## 2. COMPONENTS



Modification basis	
Application basis	
Affected VIN	

**Front seat heater and ventilation switch**
**With warmer and ventilation switch**
**J**
**With warmer switch**
**J**
**Overhead console switch**
**K**
**PAB OFF switch**
**N**
**Heater and A/C control**
**L**

Automatic



Manual


**Tailgate switch**

**Rear seat heater switch**

**Power window sub switch**

**Driver power seat switch**


Modification basis	
Application basis	
Affected VIN	