Clutch System / Clutch Switch

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Specifications

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Item	Specifications
Working voltage	DC 12.5V ± 0.3V
Operating force	Initial position : 0.25 ± 0.15N(0.025 ± 0.015kg, 0.056 ± 0.034lb)
	Full position : 0.8 ± 0.2 N(0.08 ± 0.02 kgf, 0.579 ± 0.014 lb-ft)
Working temperature	-40°C - 80°C (-40°F - 176°F)

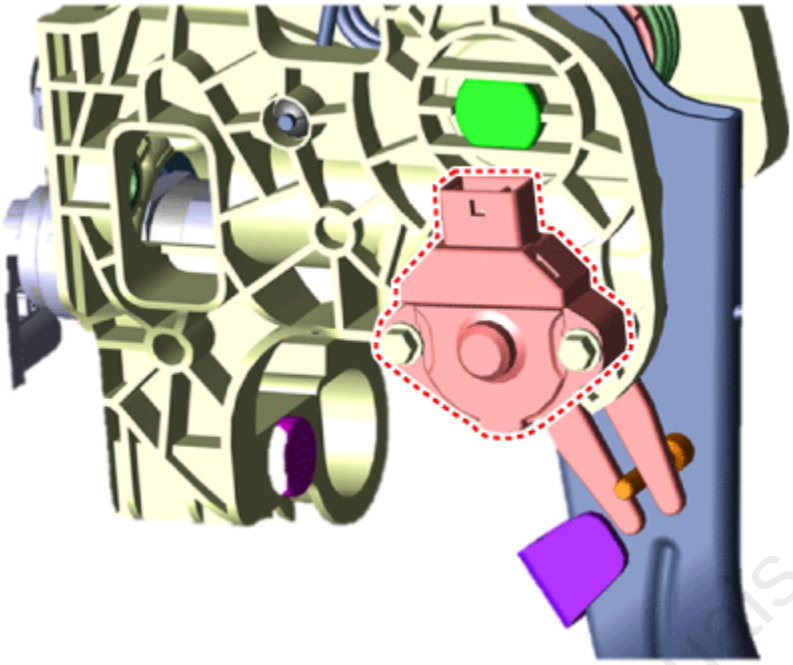
Description and operation

Description

- Clutch operation is detected through clutch switch signal. This signal enables ECM to cope with instant change of load condition.

- Clutch switch signal is used to detect engaged gear with vehicle speed and engine speed.

- Component Location



Repair procedures

Inspection

Component Inspection

1. Turn ignition switch OFF and disconnect the negative (-) battery cable.

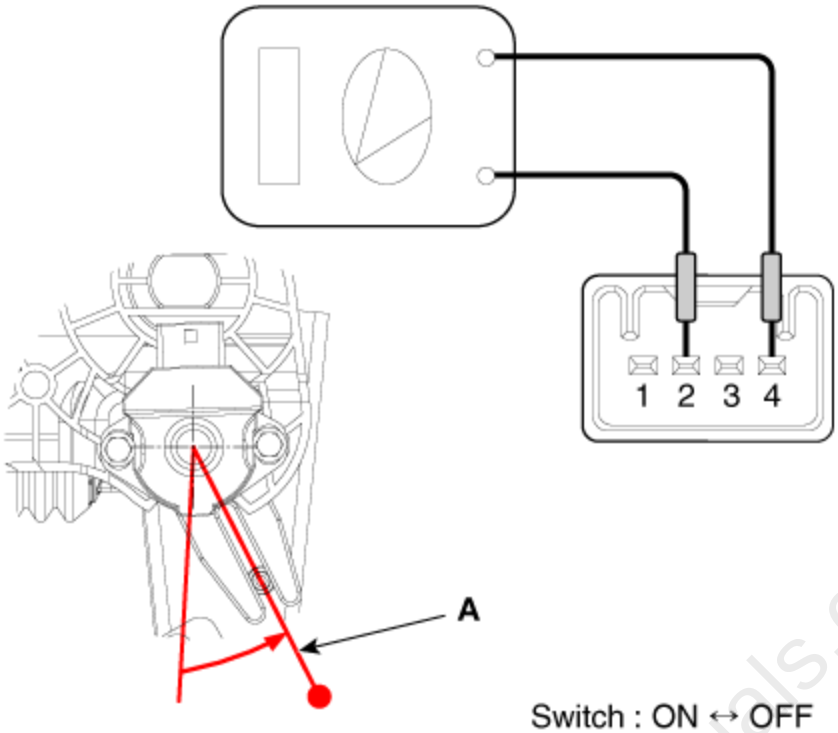
2. Remove the ignition lock & clutch switch.

3. Rotate the switch lever to the direction of the arrow to check the operating point (A).

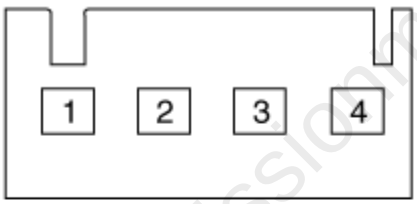
   Gasoline 1.6 : 30° ± 3°

   Gasoline 2.0 / Diesel 1.6 / Gasoline 1.6 T-GDI : 32.5° ± 3°

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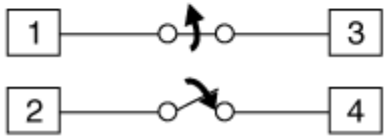


Switch : ON ↔ OFF



1. Clutch switch (+)
2. Ignition lock switch (+)
3. Clutch switch (-)
4. Ignition lock switch (-)

*** Circuit Diagram**



Removal

1. Turn ignition switch OFF and disconnect the negative (-) battery cable.

2. Remove the crash pad lower panel.

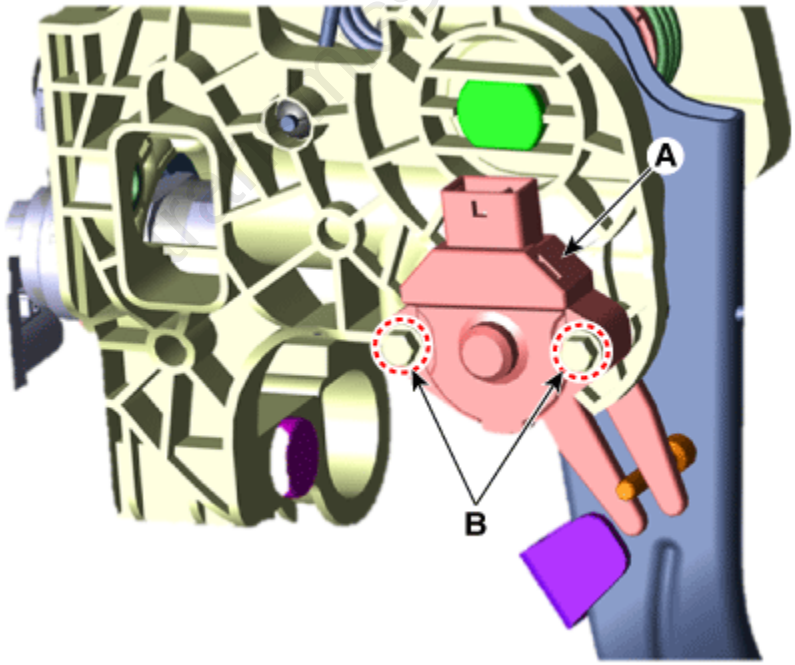
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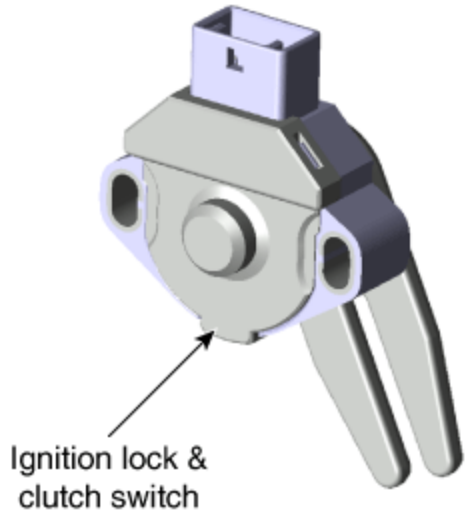
(Refer to Body - "Crash Pad Lower Panel")

3. Disconnect the ignition lock & clutch switch connector (A).



4. Remove the ignition lock & clutch switch (A) after removing the bolts (B).





Installation

1.

Install using the procedure as follows.

※ How to install the ignition lock & clutch switch

(1)

After inserting the switch lever (A) into the clutch pedal pin (B), pre-tighten the switch mounting bolt (C).

(2)

Set the clutch switches so as to confirm that the electric current is applied to the pins ① and ③.

(3)

Fix the clutch pedal to the ignition lock switch ON→OFF strokes (D).

(4)

With the pedal fixed, rotate the switch clockwise and counter-clockwise to set it to a position at the transition from ON to OFF. Then, tighten the mounting bolt (C) to the specified torque.

(5)

Once completing the assembly, check again that the switch is correctly operating.

ON → OFF Position (D)

Gasoline 1.6 : 70.8 ± 3 mm (2.7874 ± 0.1181 in.)

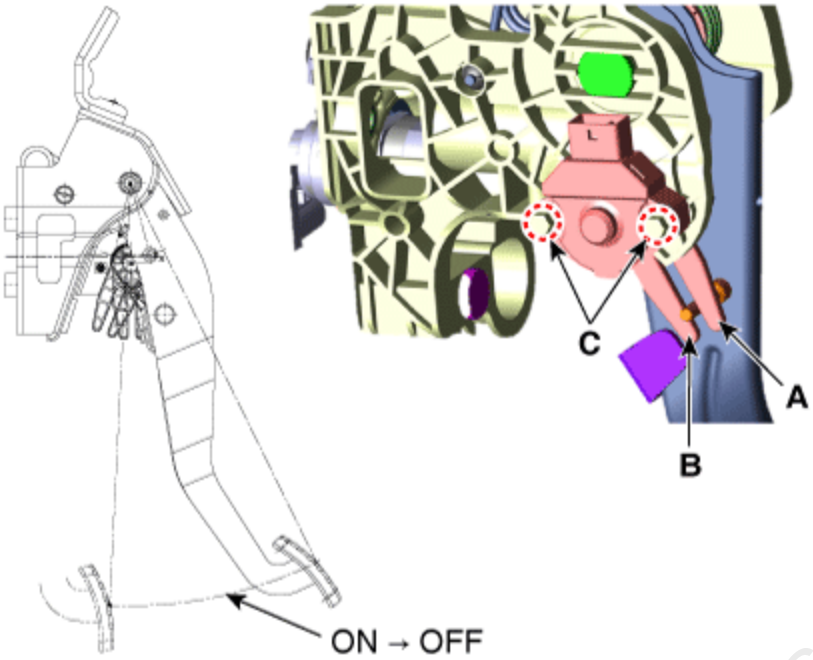
Gasoline 2.0 / Diesel 1.6 / Gasoline 1.6 T-GDI : 75.8 ± 3 mm (2.9842 ± 0.1181 in.)

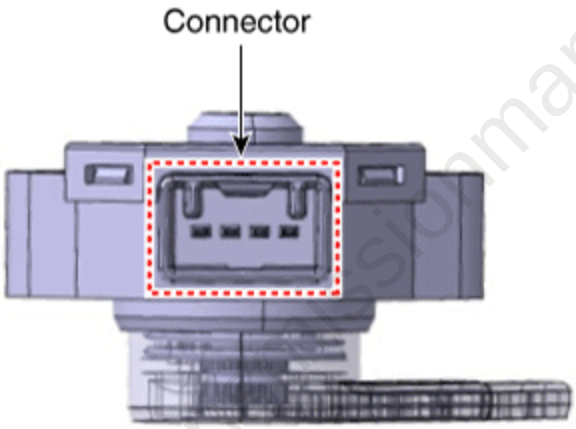
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Tightening torque :

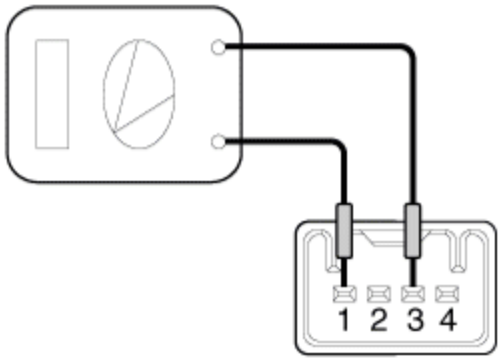
2.0 - 5.9 N·m (0.2 - 0.6 kgf·m, 1.4 - 4.3 lb·ft)

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Type	Item Check
Clutch swtich	

Ignition Lock Switch

Specifications Specifications Item Specifications Working voltage DC 12.5V ± 0.3V Operating force In ...

Clutch Pedal

Components and components location Components [Gasoline 1.6] 1. Clutch pedal assembly 2. Clutch pedal arm 3. Ignition lock & Clutch switch 4 ...

Other information:

Kia Forte 2019-2023 (BD) Owners Manual: Recharging the battery

Your vehicle has a maintenance-free, calcium-based battery. If the battery becomes discharged in a short time (because, for example, the headlamps or interior lamps were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours. If the batt ...

Kia Forte 2019-2023 (BD) Service Manual: Concentric Slave Cylinder Assembly

Components and components location Components [Gasoline 1.6 / Diesel 1.6 / Gasoline 1.6 T-GDI] 1. Concentric Slave Cylinder assembly 2. Manual transaxle case Repair procedures Removal [Gasoline 1.6 / Diesel 1.6 ...

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