



Terminal and Connector Inspection

1. Many malfunctions in the electrical system are caused by poor harness and terminals . Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness , poor connection , bending , corrosion , contamination , deterioration ,or damage.
3. Has a problem been found ?

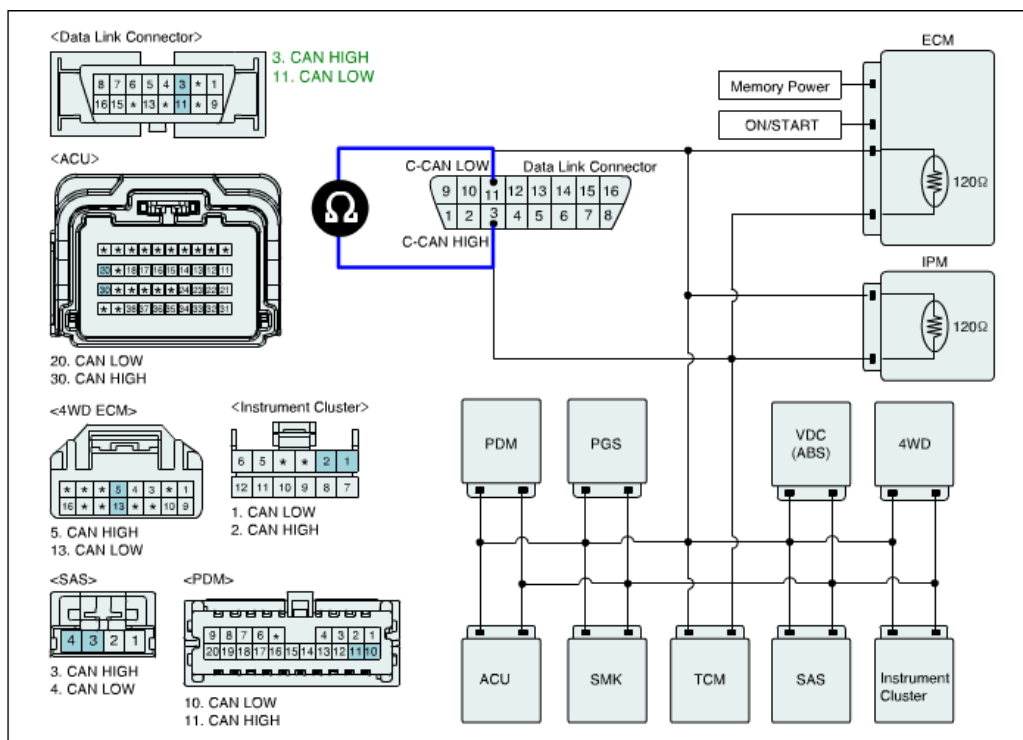
| | |
|------------|---|
| YES | <input type="checkbox"/> Repair as necessary and go to "Verification of Vehicle Repair" procedure . |
| NO | <input type="checkbox"/> Go to "W/Harness Inspection " procedure . |

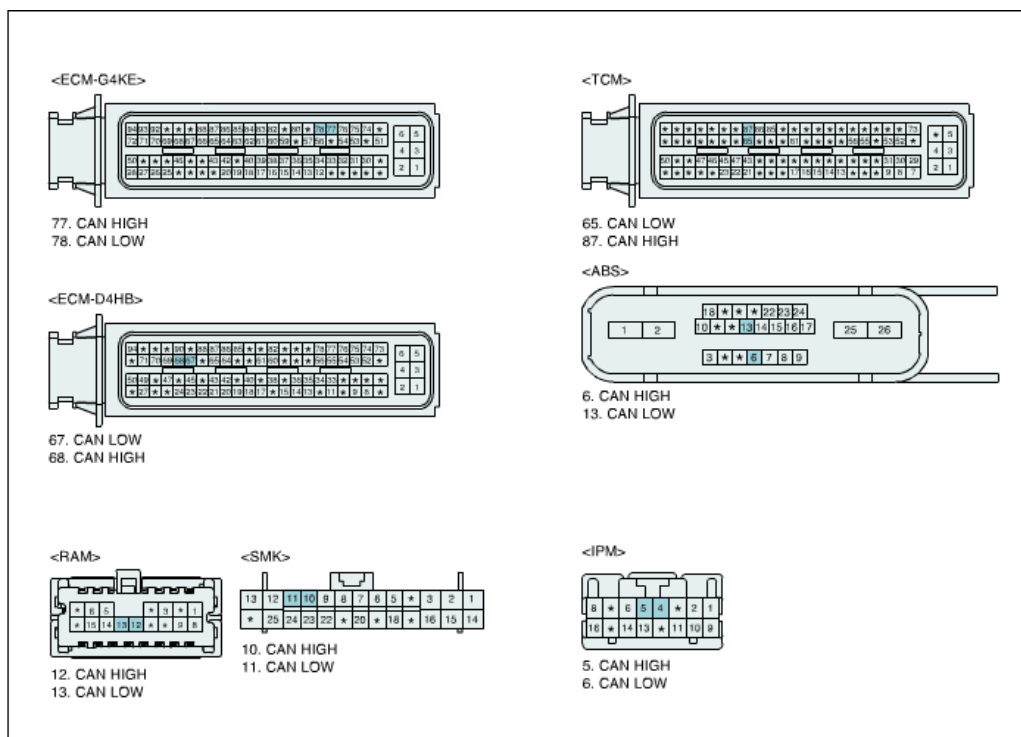
CAN register and communication line inspection

■ CAN register and communication line inspection 1

1. IG KEY OFF .
2. Connect PCM, 4WD ECM, TCM, ABS connector .
3. Measure resistance between terminal 3 and 11 of diagnostic connector .

Specification : About 60 Ω





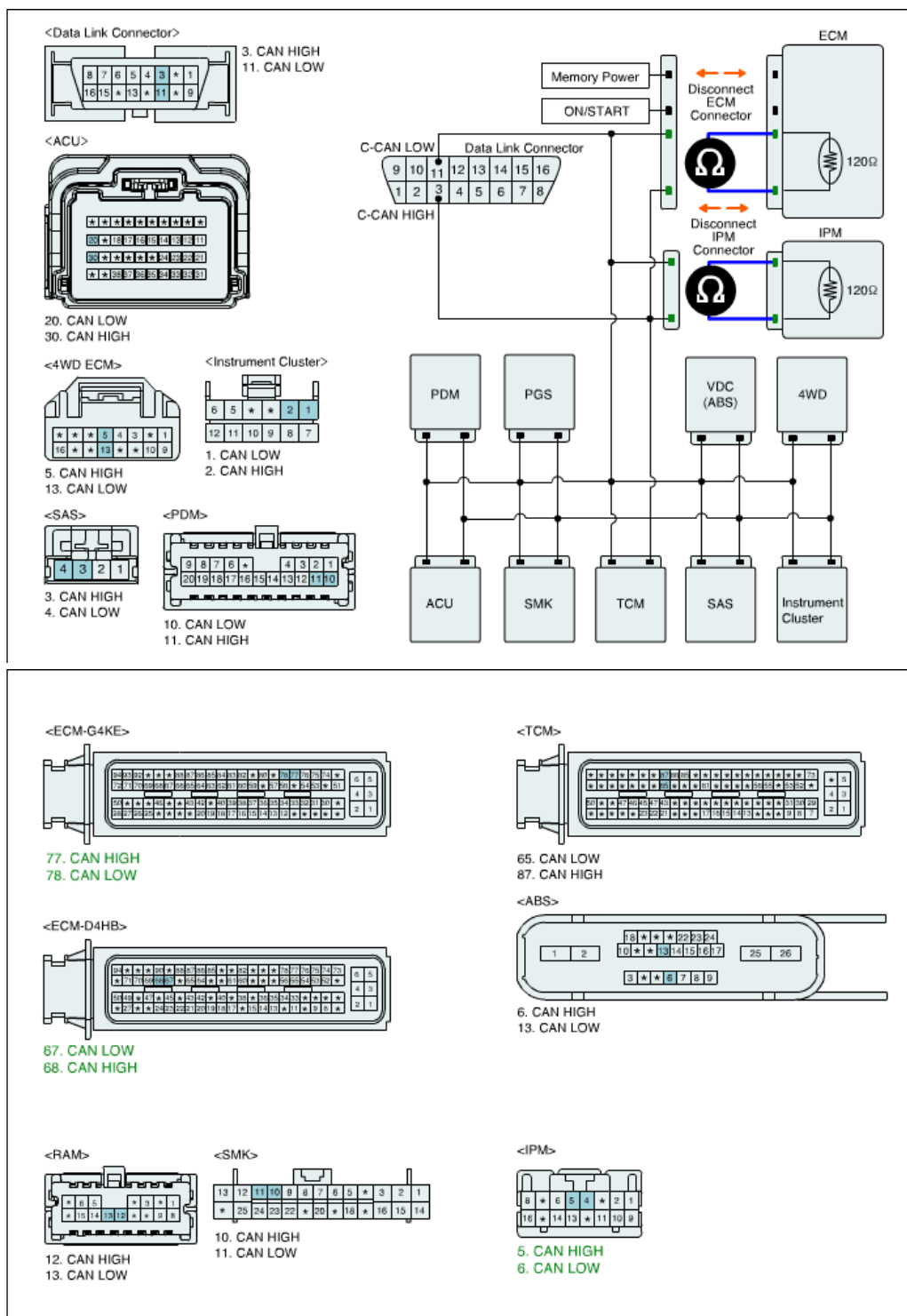
4. Is the measured resistance within specification ?

| | |
|------------|---|
| YES | <input type="checkbox"/> Check TCCM connectors for looseness , poor connection , bending , corrosion , contamination , deterioration , or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> Go to next procedure . |
| NO | <input type="checkbox"/> If the measured value is out of specification , repair or replace 120Ω CAN register (Inside of PCM and Cluster) and then, go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> If the measured value is lower than 10Ω, repair or replace CAN High and CAN Low are short each other. And then, go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> If the measured value is ∞ Ω, repair or replace the open in CAN High /CAN Low circuit . And then, go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> Go to next procedure . |

■ CAN register and communicationline inspection 2

1. IG KEY OFF
2. Disconnect PCM, IPM connector .
3. Measure resistance between terminal CAN Low and CAN High of ECM.

Specification : About 120 Ω



4. Is the measured value within specification ?

| | |
|------------|--|
| YES | <input type="checkbox"/> Go to next procedure . |
| NO | <input type="checkbox"/> If the measured value is out of specification , repair or replace 120Ω CAN register (Inside of PCM and Cluster) and then, go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> If the measured value is lower than 10Ω, repair or replace CAN High and CAN Low are short each other. And then, go to "Verification of Vehicle Repair" procedure . <input type="checkbox"/> If the measured value is ∞ Ω, repair or replace the open in CAN High /CAN Low circuit . And then, go to "Verification of Vehicle Repair" procedure . |



4WD ECU>U0001 CAN Нарушение связи>Проверка/Ремонт>Проверка проводки

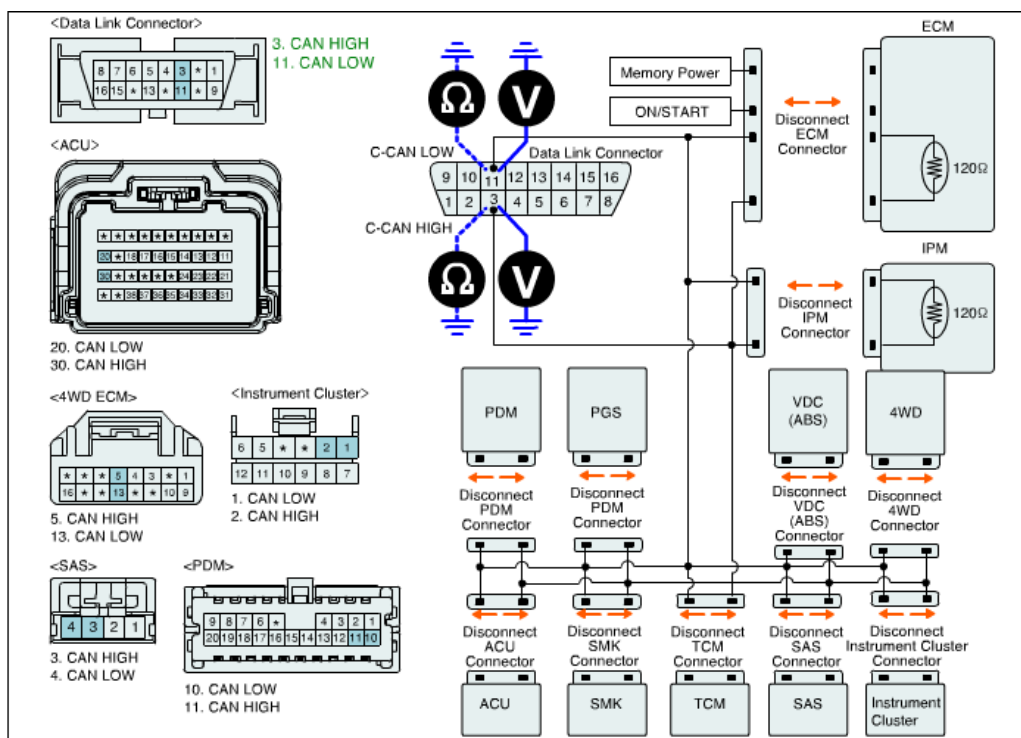
■ Check short to battery in CAN communication line.

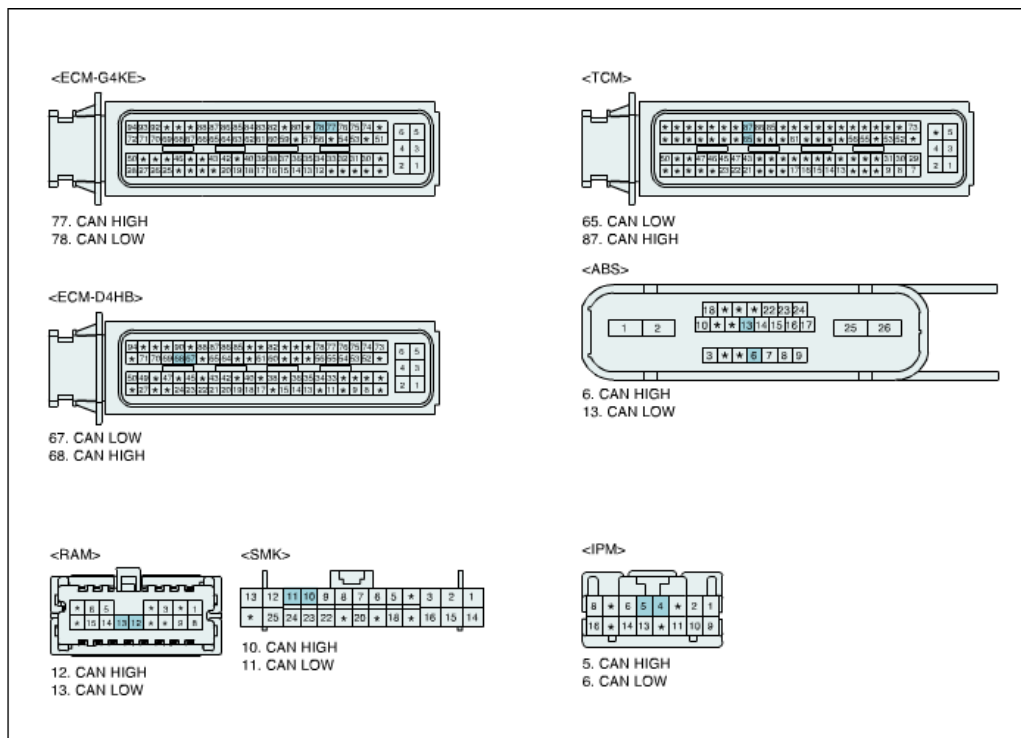
1. IG KEY OFF
2. Disconnect PCM, 4WD ECM, TCM and ABS connector
3. IG KEY OFF
4. Measure voltage between CAN high terminal(#3) of diagnostic connector and chassis ground.
5. Measure voltage between CAN low terminal(#11) of diagnostic connector and chassis ground.

Specification : About 0V

6. IG KEY OFF.
7. Disconnect PCM, 4WD ECM, TCM and ABS connector.
8. Measure resistance between CAN high terminal (#3) of diagnostic connector and chassis ground.
9. Measure resistance between CAN low terminal (#11) of diagnostic connector and chassis ground.

Specification : $\infty \Omega$





10. Is the measured value within specification ?

| | |
|------------|---|
| YES | <input type="checkbox"/> Check PCM, 4WD ECM, TCM and ABS ECM connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure. |
| NO | <input type="checkbox"/> Check short to battery in communication line. And then, go to "Verification of Vehicle Repair" procedure. <input type="checkbox"/> Check short to ground in communication line. And then, go to "Verification of Vehicle Repair" procedure. |