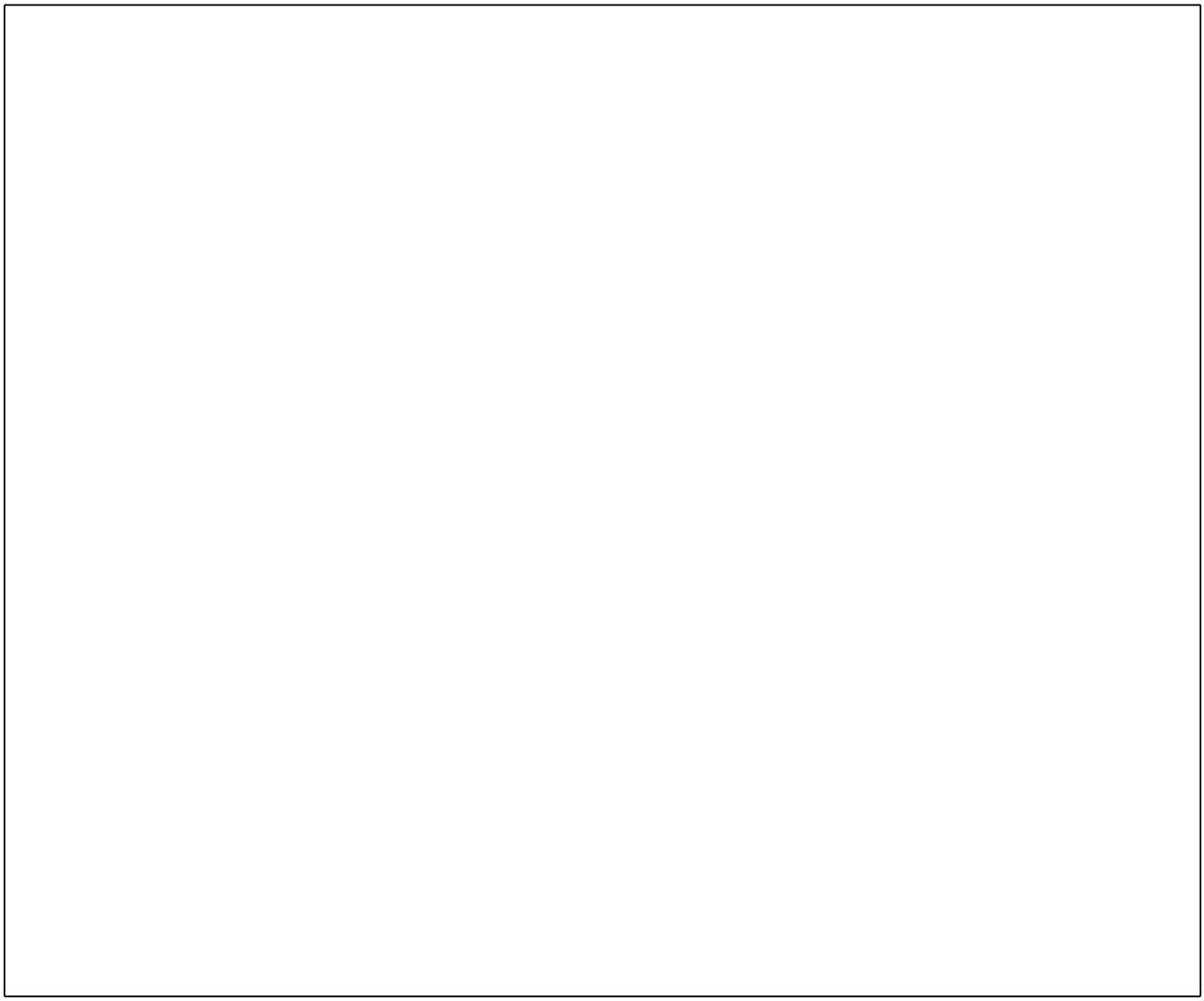
YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

Schematic Diagram



TD12179P1378_81CC

B1382 Side Airbag Front-Passenger Resistance too High

Component Location

TD12179137811

General Description

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1382 if the measured resistance value of PSAB circuit is more than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

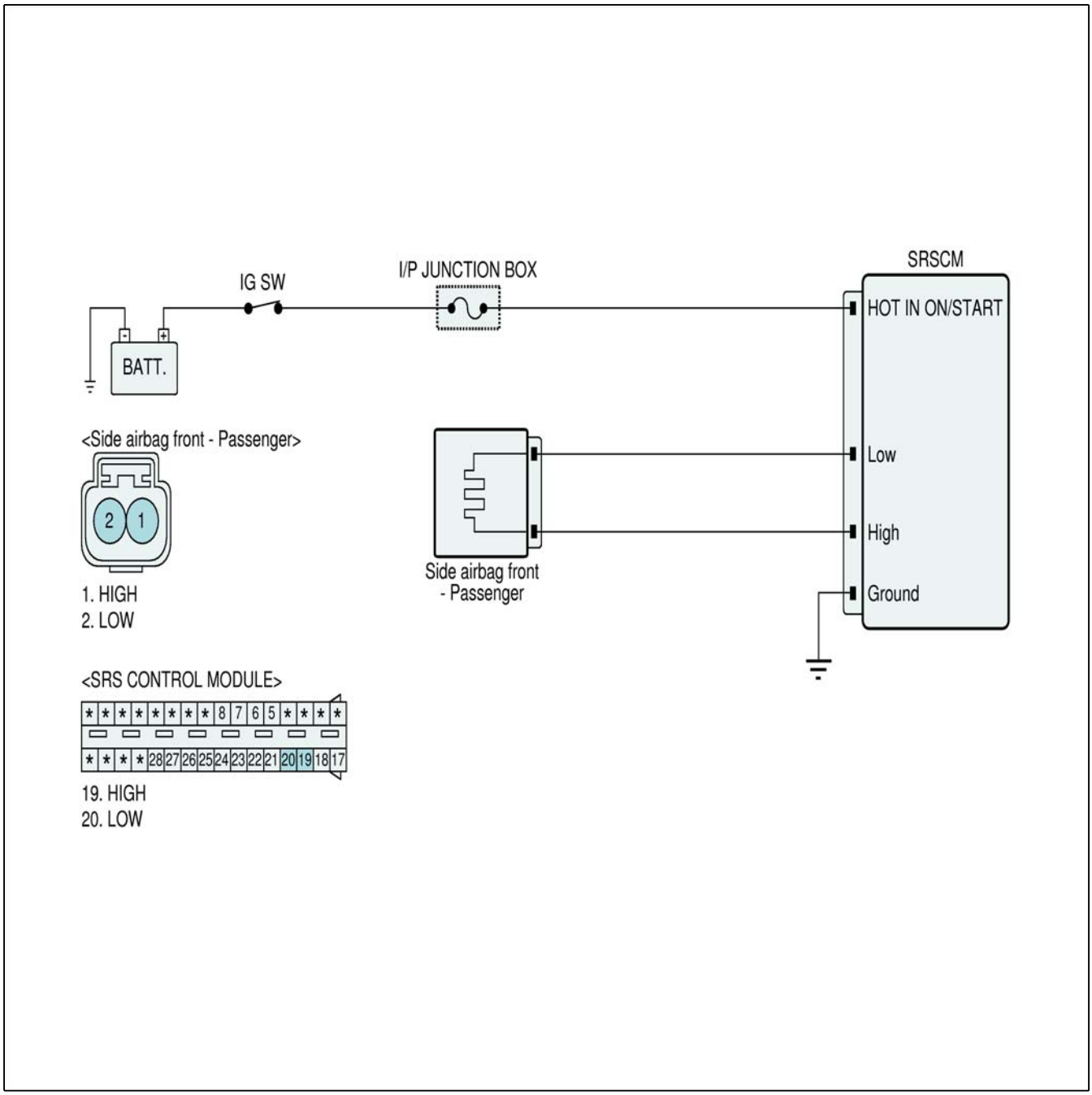
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PSAB resistance ≥ 6.6Ω	
Diagnostic Time	Qualification	• More than 2.5s (250ms x 10)	
	De-Qualification	• More than 5s	

Specification

Test Condition	Resistance
Ignition ON	0.9 ≤ Squib resistance ≤ 6.6Ω

Diagnostic Circuit Diagram



STDRT9609L

Monitor Scantool Data

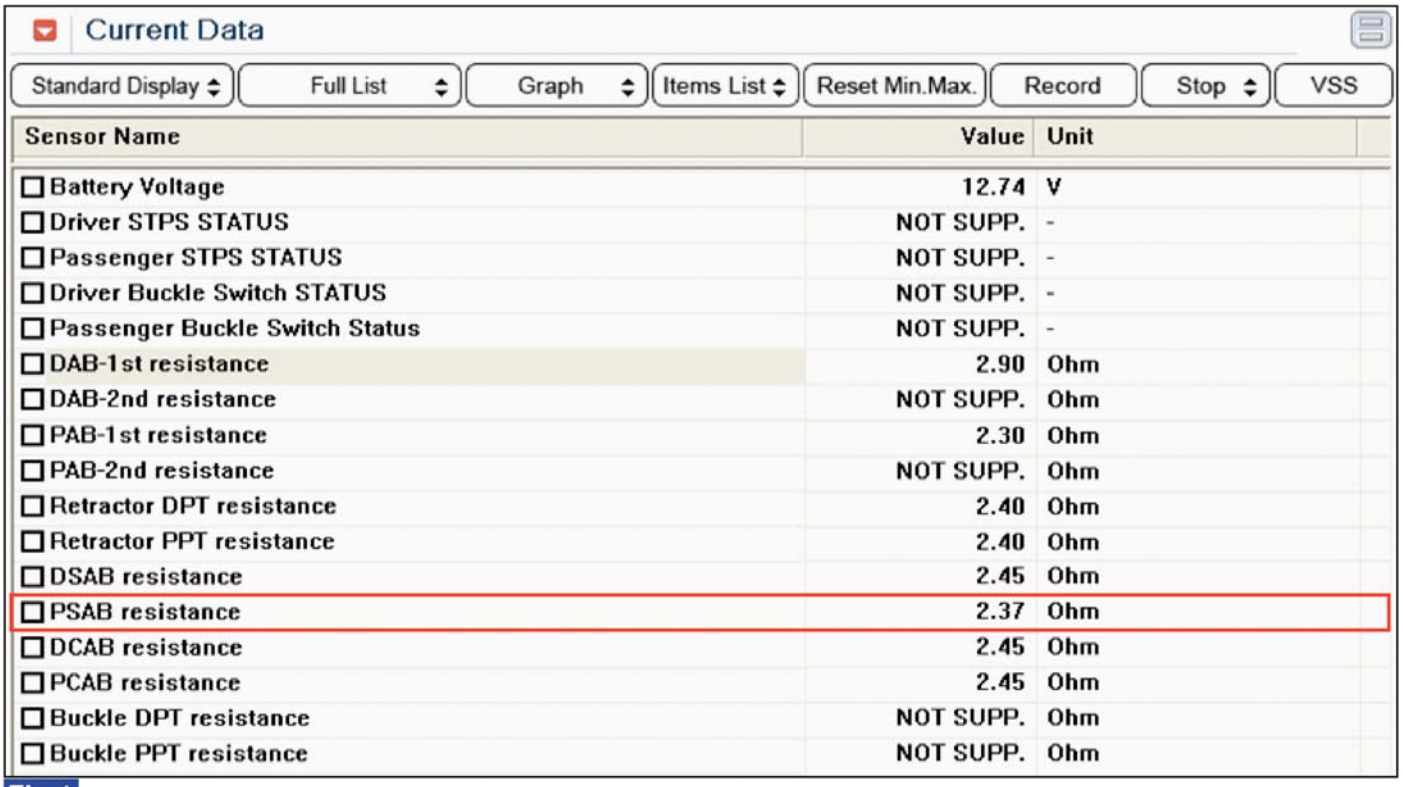
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Side airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of Side airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the Side airbag front−Passenger circuit : FAIL

In a case of a short to battery in the Side airbag front−Passenger circuit: FAIL

In a case of a short to ground in the Side airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9510L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

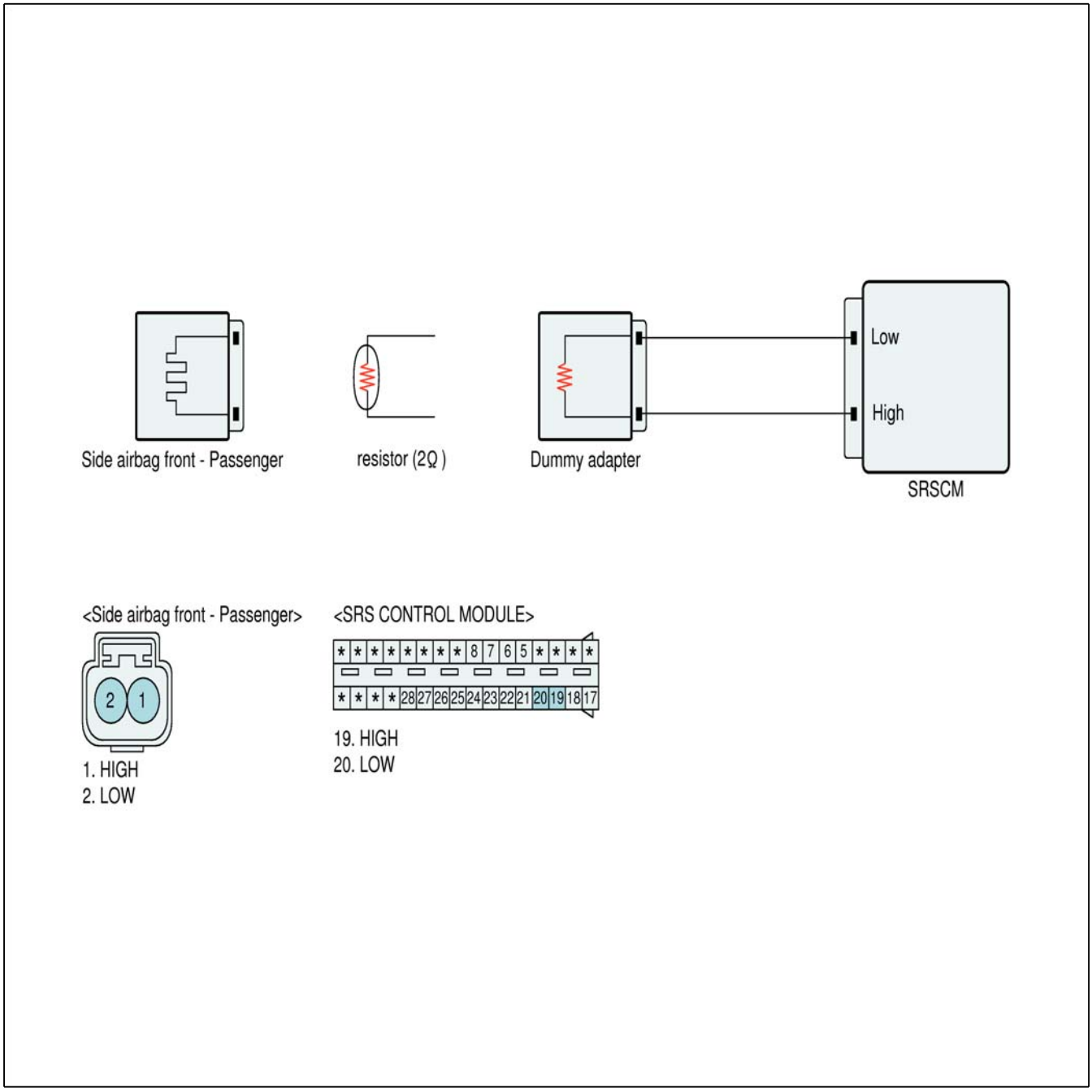
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PSAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−3F000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PSAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179138231

6. Is DTC present problem ?

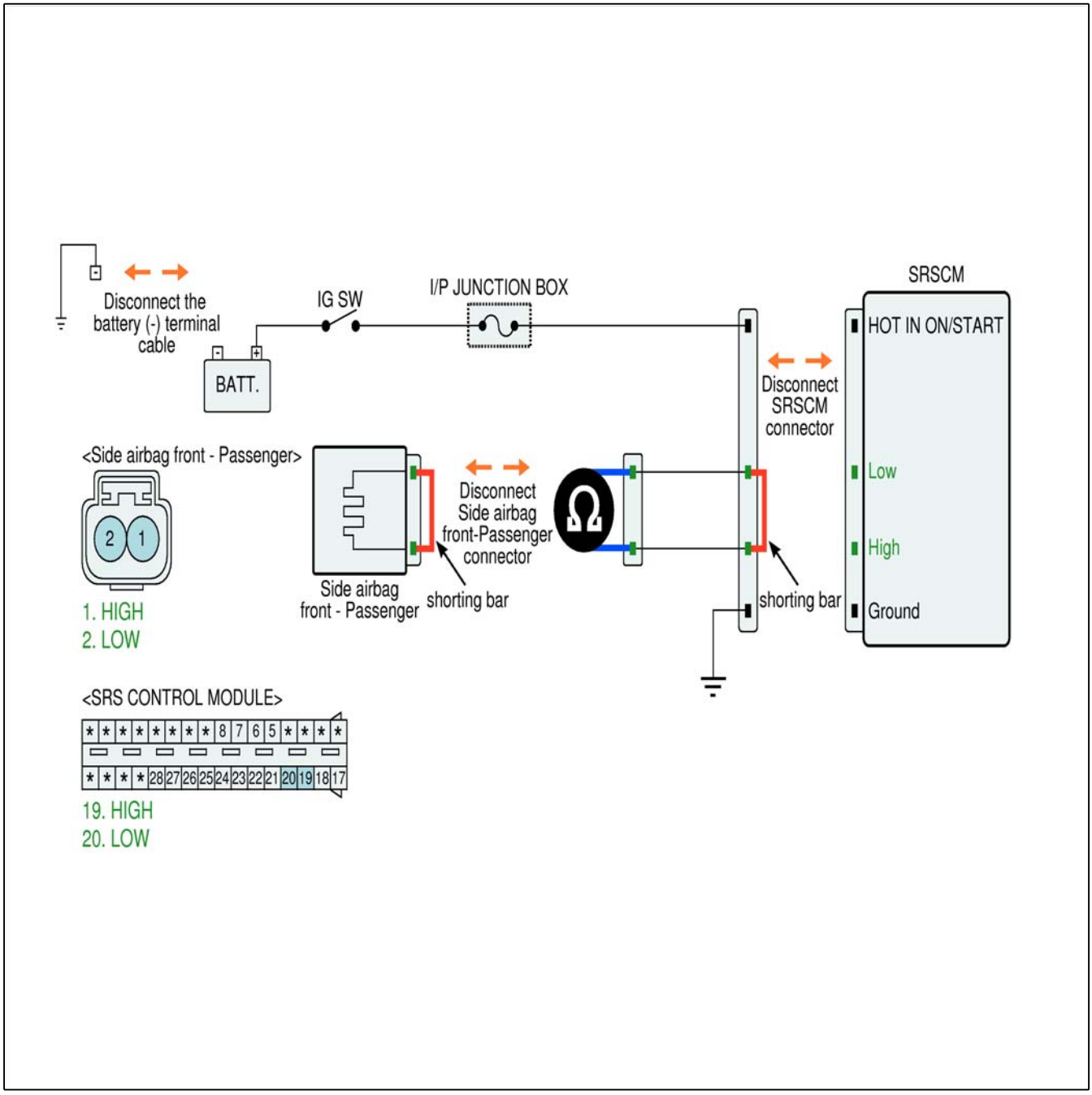
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good PSAB assembly, and check for proper operation.
If the problem is corrected, replace PSAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PSAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the PSAB harness connector.

Specification : approx. 1 Ω below



TD12179138232

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

Schematic Diagram

TD12179P1382_85CC

B1383 Side Airbag Front-Passenger Resistance too Low

Component Location

TD12179137811

General Description

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1383 if the measured resistance value of PSAB circuit is less than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

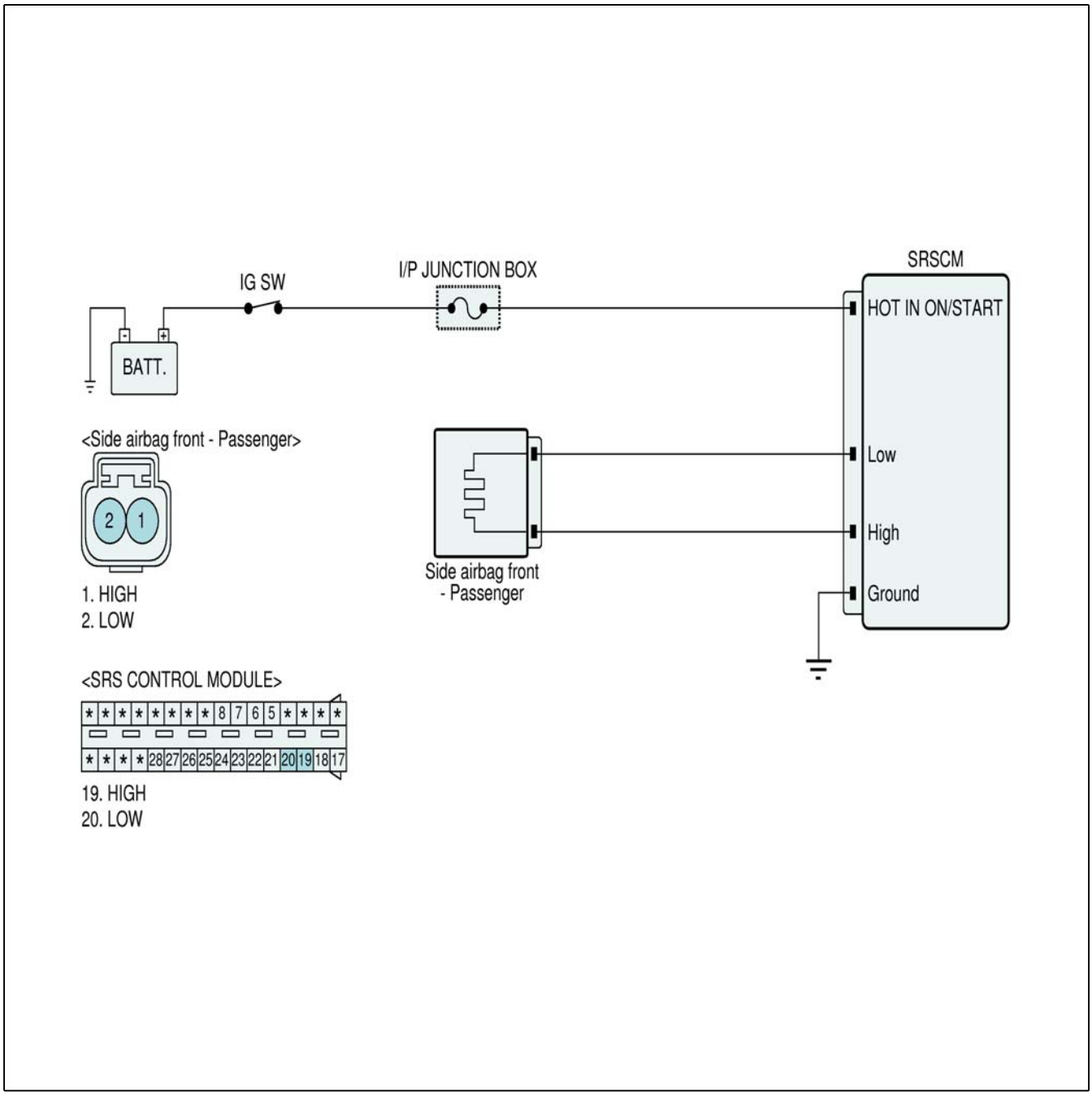
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PSAB resistance ≤ 0.9Ω	
Diagnostic Time	Qualification	• More than 2.5s (250ms x 10)	
	De-Qualification	• More than 5s	

Specification

Test Condition	Resistance
Ignition ON	0.9Ω ≤ Squib resistance ≤ 6.6Ω

Diagnostic Circuit Diagram



STDRT9609L

Monitor Scantool Data

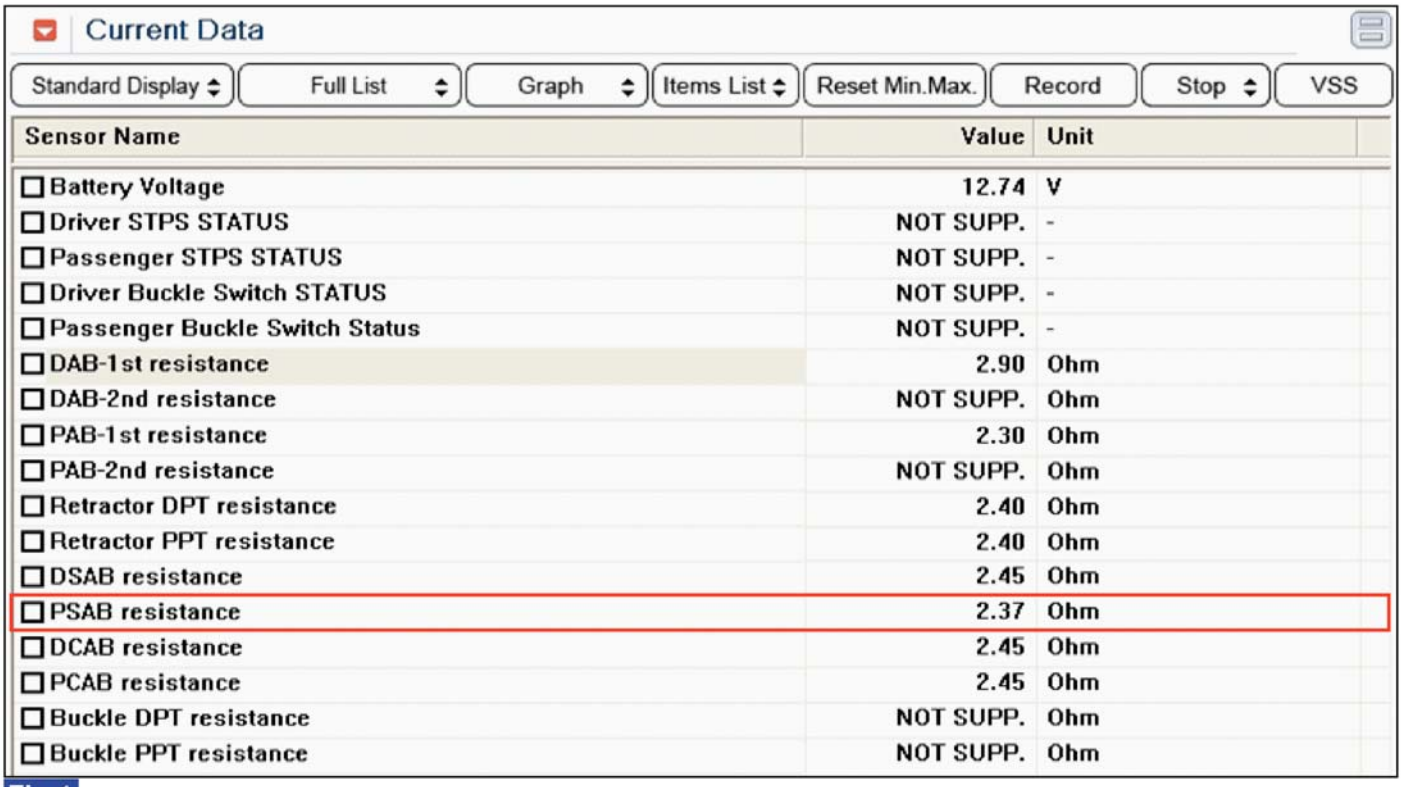
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Side airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of Side airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the Side airbag front−Passenger circuit : FAIL

In a case of a short to battery in the Side airbag front−Passenger circuit: FAIL

In a case of a short to ground in the Side airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9510L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

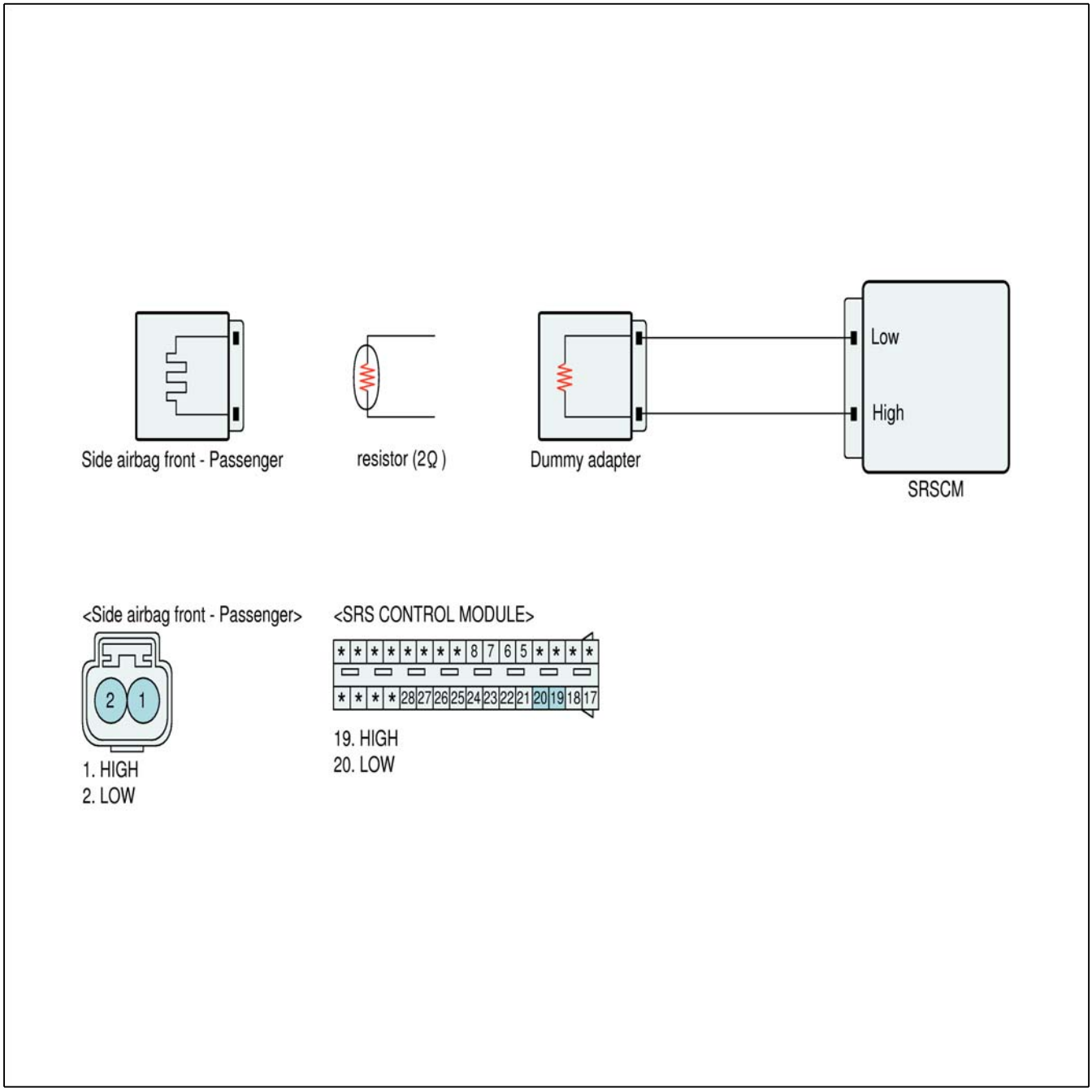
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PSAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−3F000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PSAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179138231

6. Is DTC present problem ?

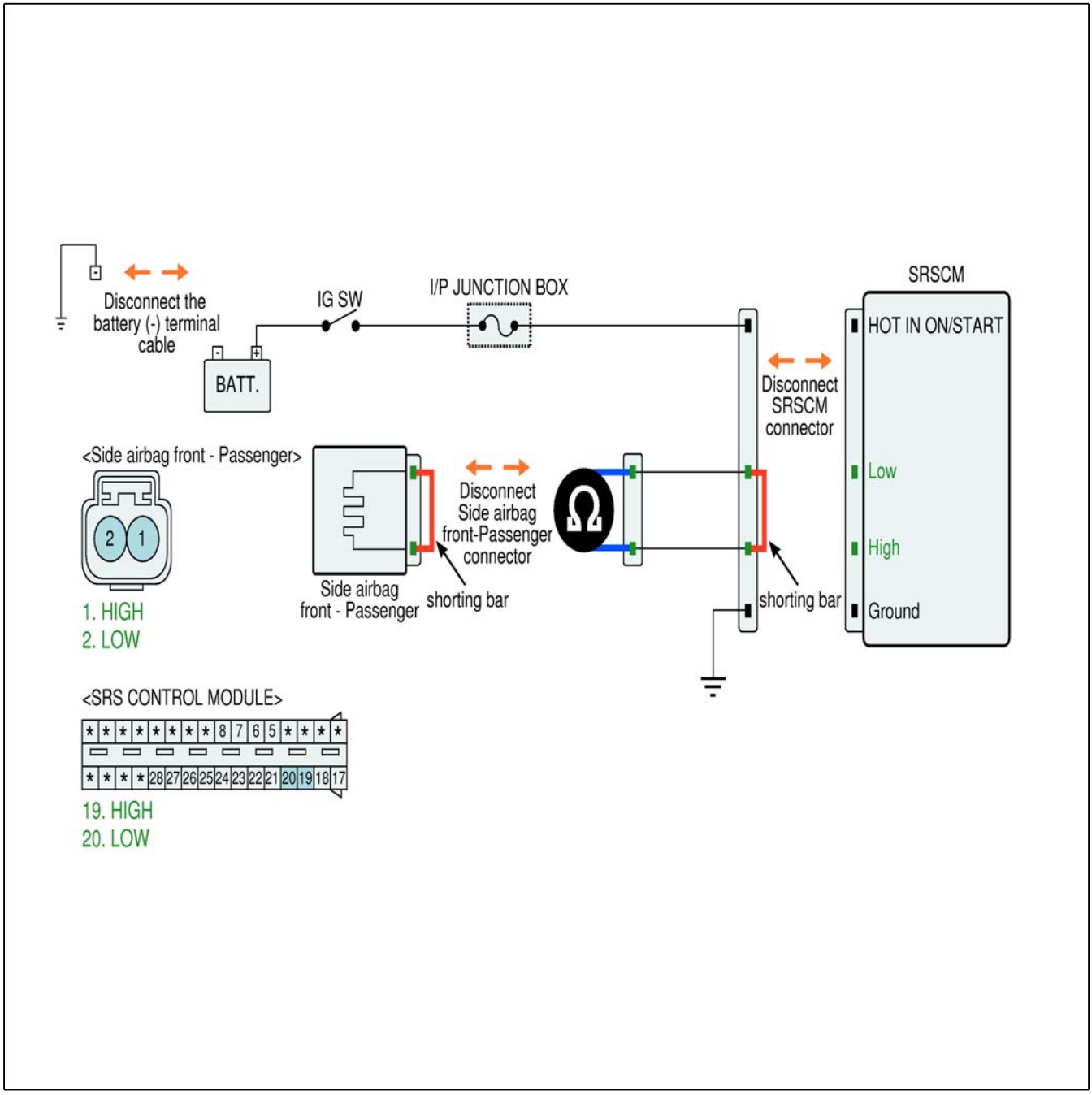
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good PSAB assembly, and check for proper operation.
If the problem is corrected, replace PSAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PSAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the PSAB harness connector.

Specification : approx. 1 Ω below



TD12179138232

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

Schematic Diagram

TD12179P1382_85CC

B1384 Side Airbag Front-Passenger Resistance Circuit Short to Ground

Component Location

TD12179137811

General Description

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1384 if there is a short to ground in PSAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

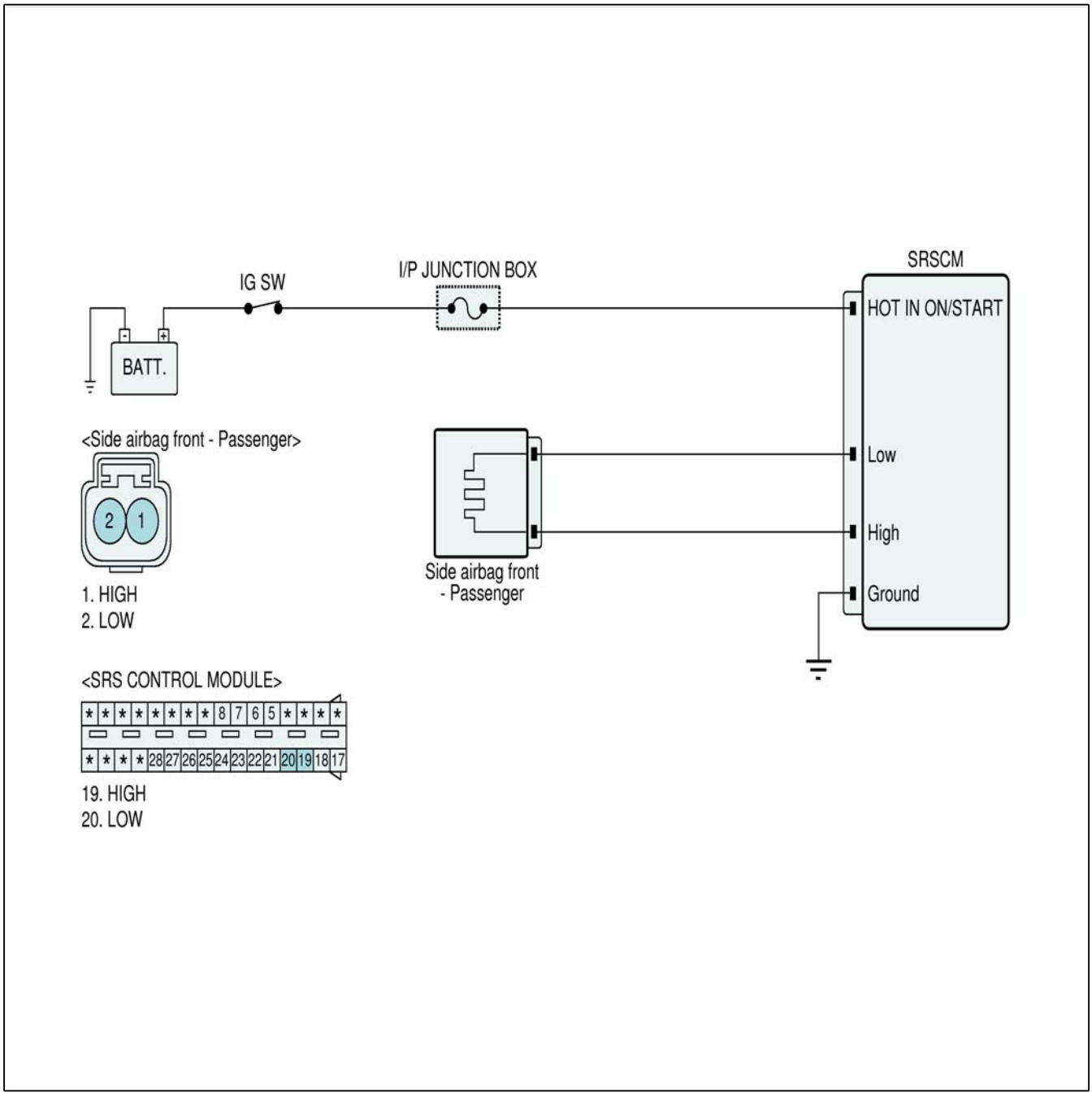
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to ground in PSAB harness. • Poor connection of connected part. • Faulty PSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PSAB Squib line Voltage is < 0.9V	
Diagnostic Time	Qualification	• More than 2.5s (250ms x 10)	
	De-Qualification	• More than 5s	

Specification

Test Condition	Voltage
Ignition ON	0.9Ω ≤ Squib resistance ≤ 6.6Ω

Diagnostic Circuit Diagram



STDRT9609L

Monitor Scantool Data

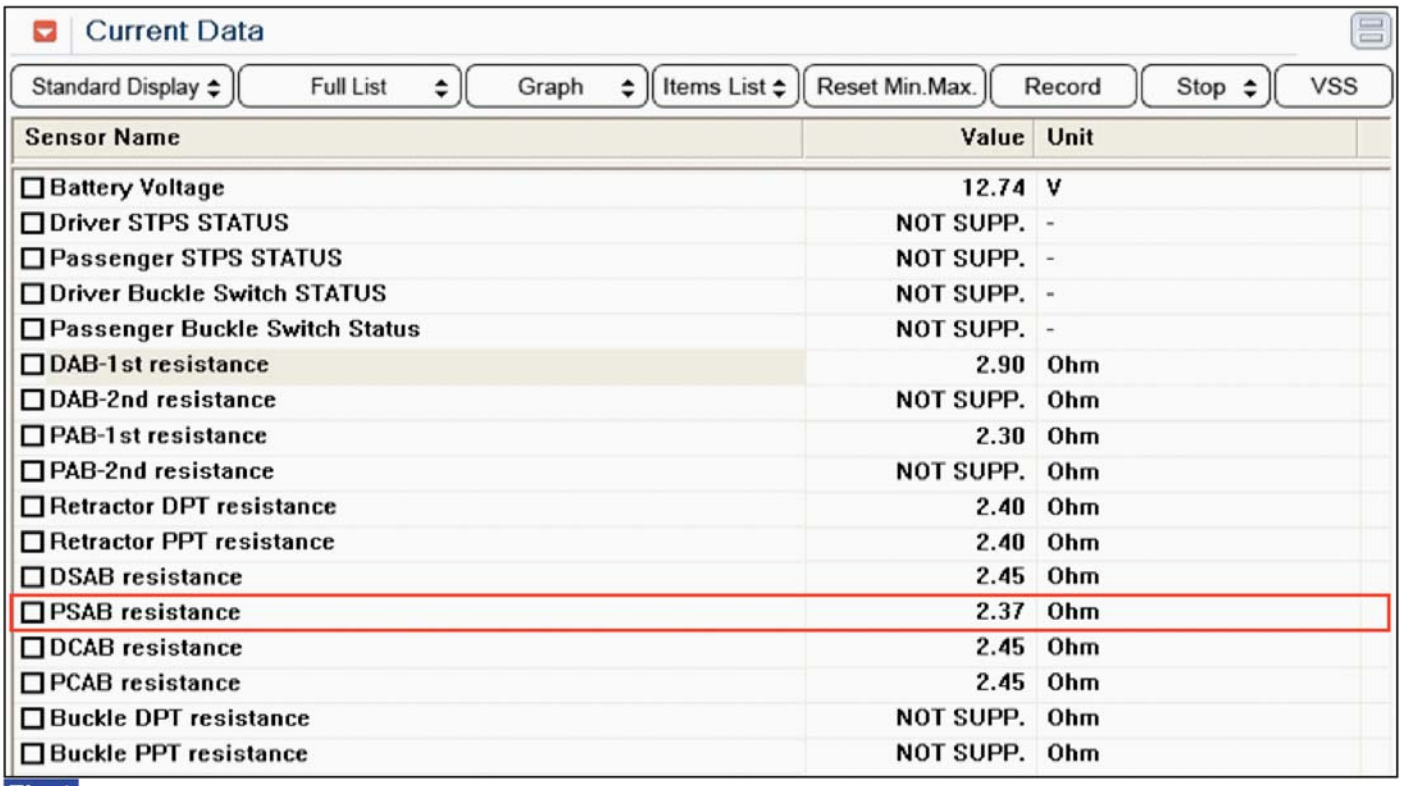
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Side airbag front-Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of Side airbag front-Passenger < 6.6Ω

Reference : In a case of an open in the Side airbag front-Passenger circuit : FAIL

In a case of a short to battery in the Side airbag front-Passenger circuit: FAIL

In a case of a short to ground in the Side airbag front-Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9510L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

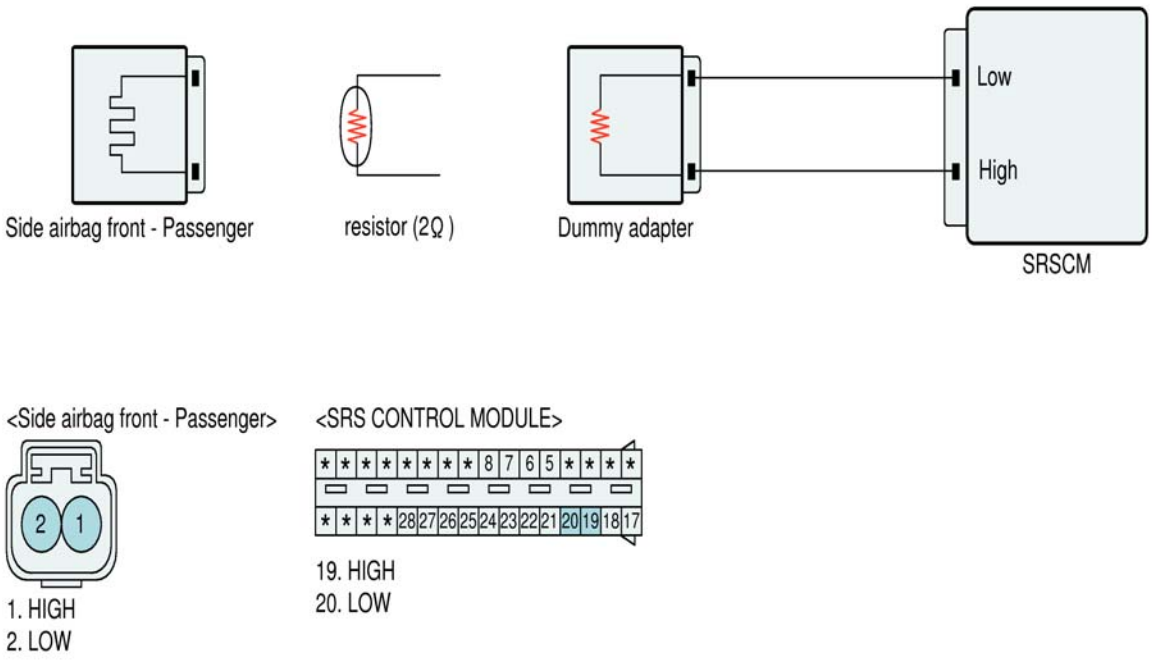
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PSAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−3F000) to main harness connector.

   NOTICE

   If dummy and dummy adaptor are not able to be prepared, use a known−good PSAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



TD12179138231

6. Is DTC present problem ?

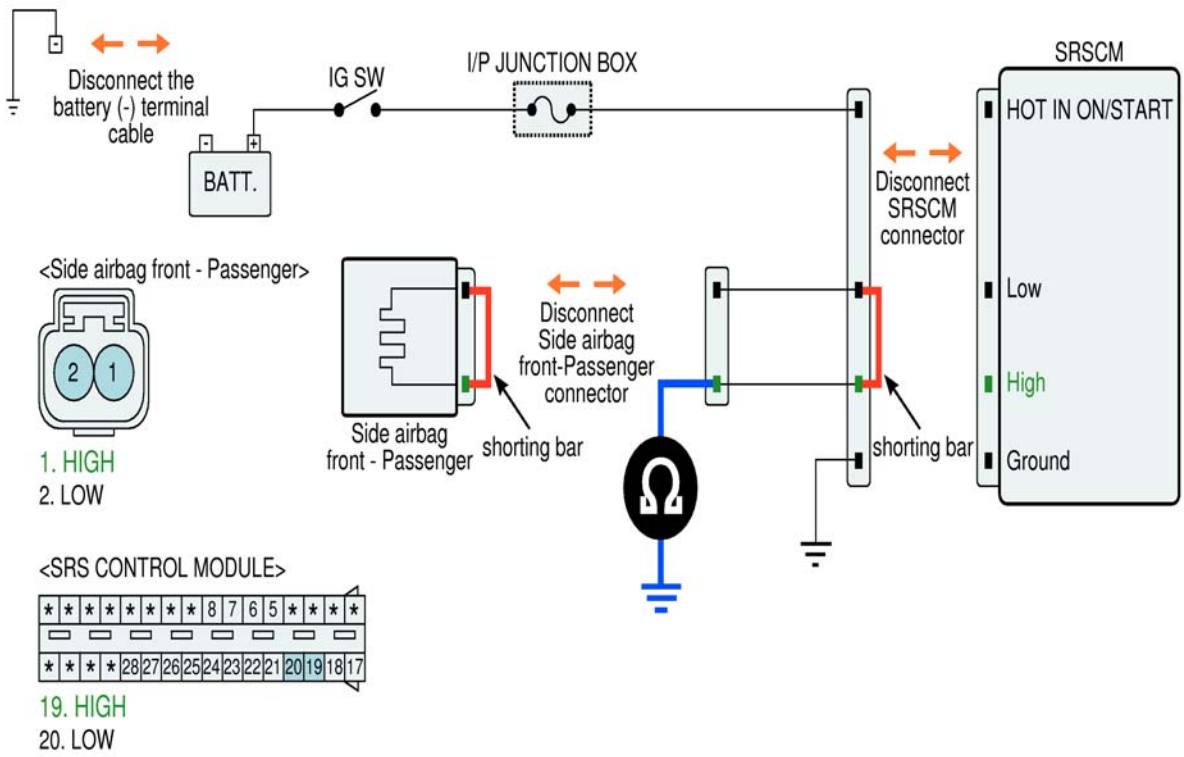
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good PSAB assembly, and check for proper operation.
If the problem is corrected, replace PSAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PSAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" or "High" of the PSAB harness connector and chassis ground.

Specification : ∞



TD12179138432

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

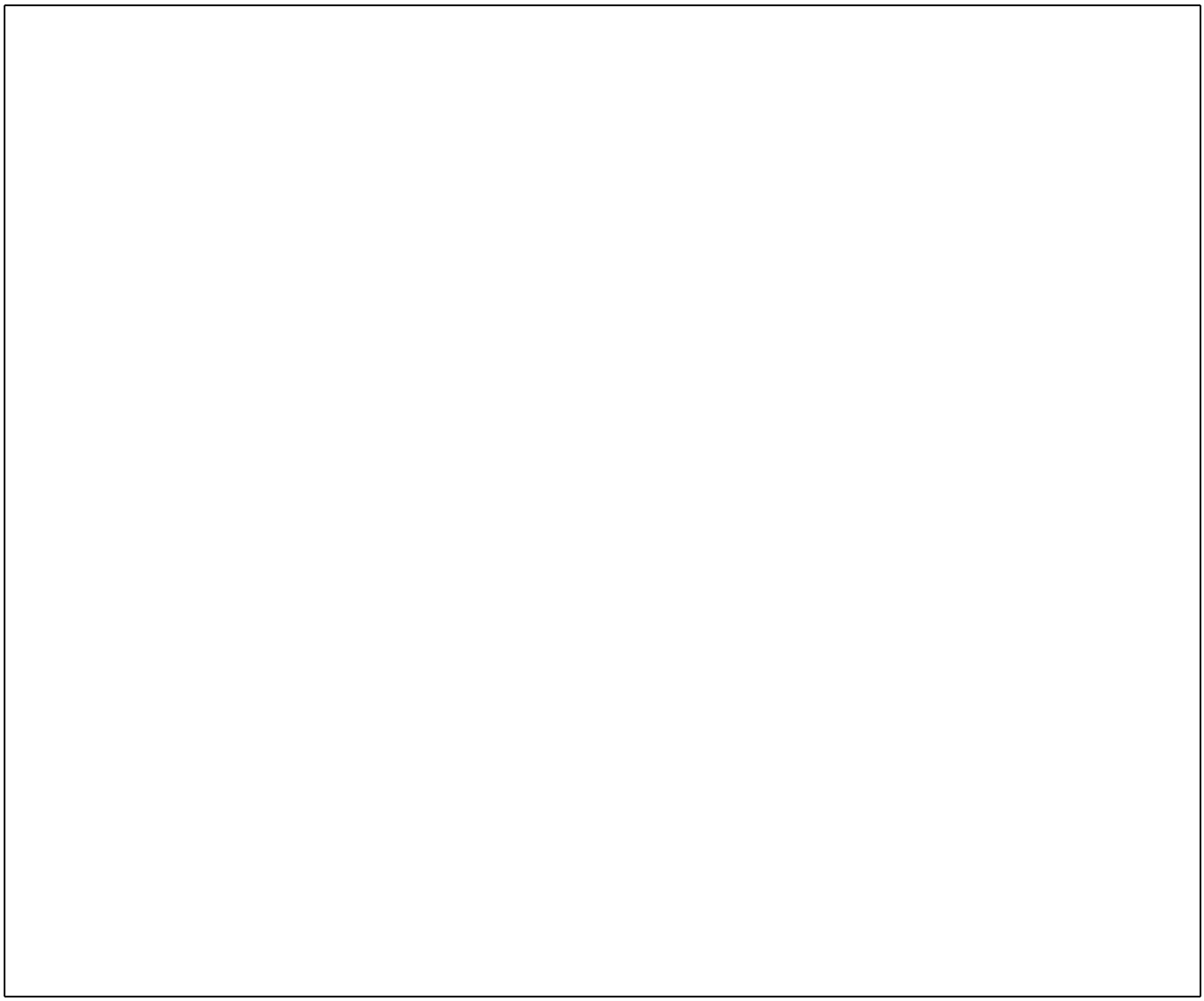
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting p-rocedure.

NO ▶ System is performing to specification at this time.

Schematic Diagram



TD12179P1382_85CC

B1385 Side Airbag Front-Passenger Resistance Circuit Short to Battery

Component Location

TD12179137811

General Description

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1385 if there is a short to power in PSAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

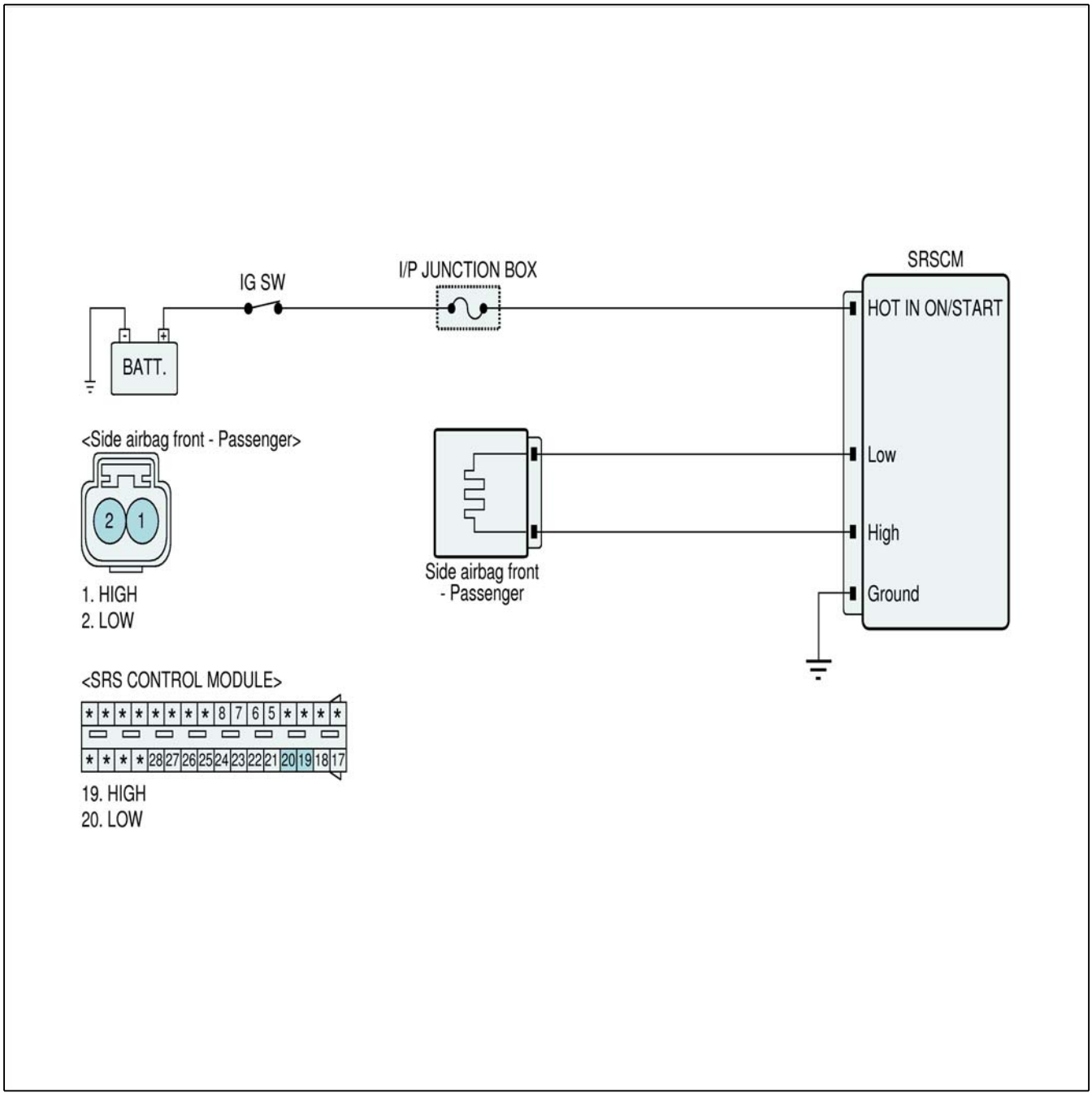
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to power in PSAB harness. • Poor connection of connected part. • Faulty PSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Short to power in PSAB	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9609L

Monitor Scantool Data

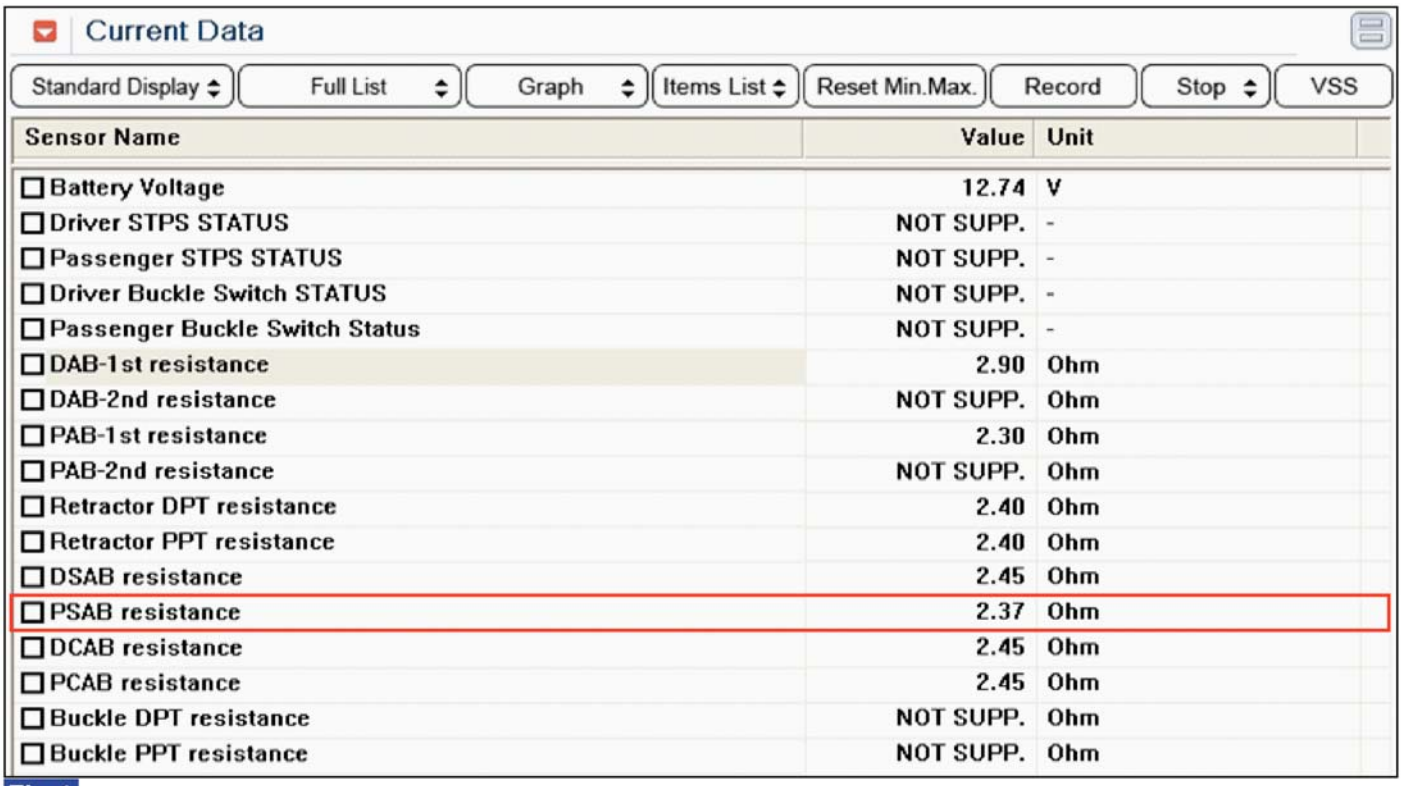
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Side airbag front-Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of Side airbag front-Passenger < 6.6Ω

Reference : In a case of an open in the Side airbag front-Passenger circuit : FAIL

In a case of a short to battery in the Side airbag front−Passenger circuit: FAIL

In a case of a short to ground in the Side airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9510L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Squib Circuit Inspection" procedure.

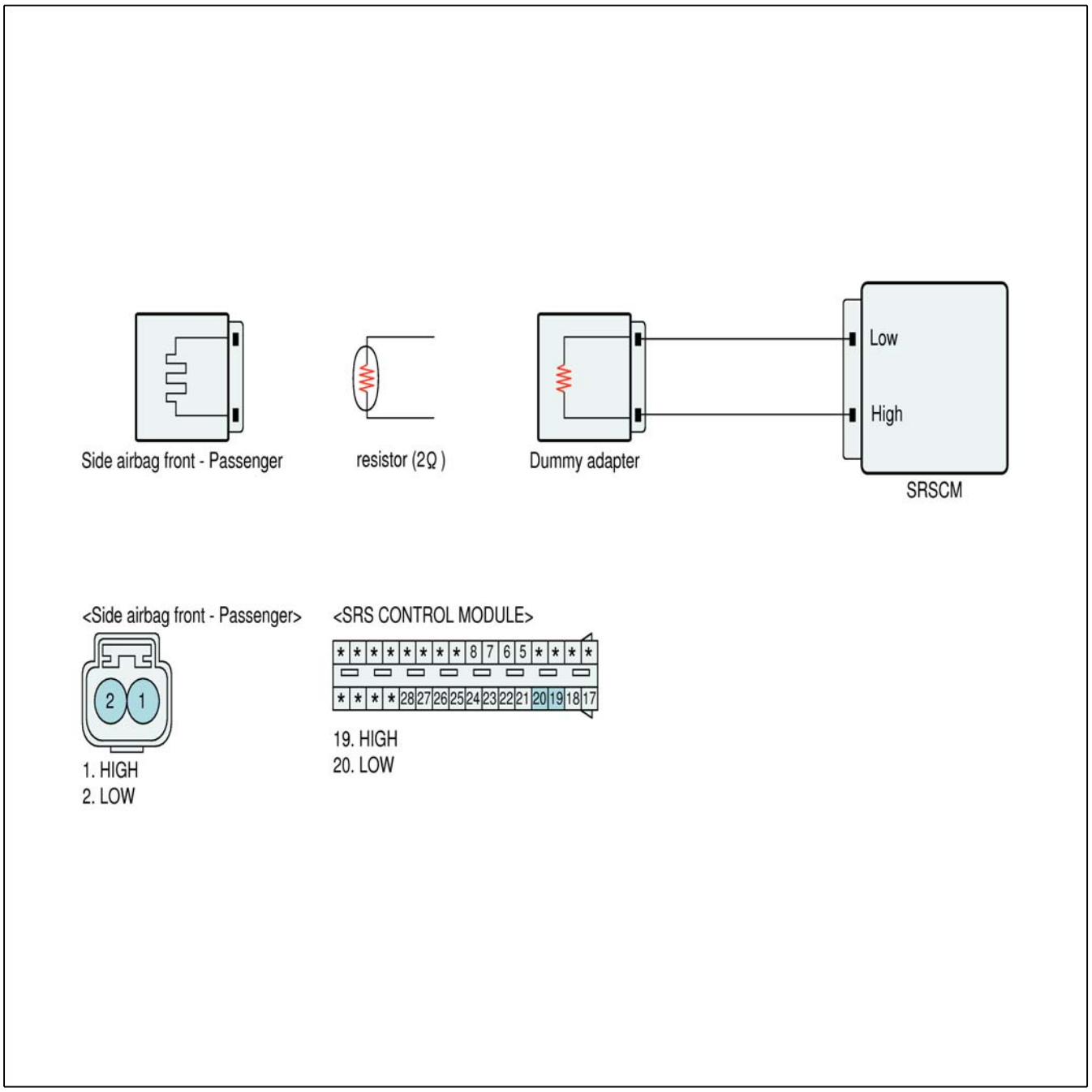
Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PSAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−3F000) to main harness connector.

NOTICE

If dummy and dummy adaptor are not able to be prepared, use a known-good PSAB or 2Ω resistor.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



TD12179138231

6. Is DTC present problem ?

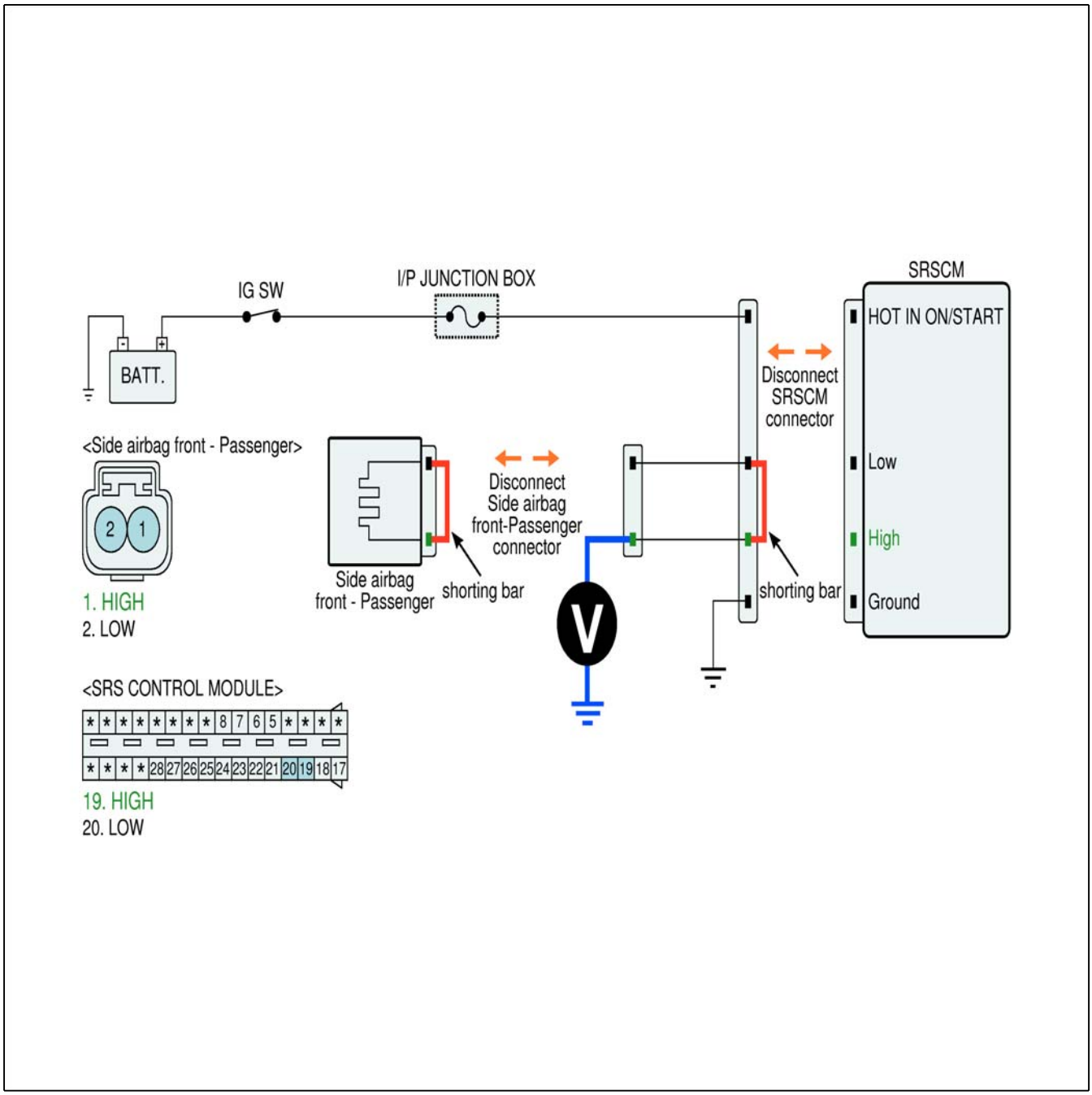
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known−good PSAB asse−mbly, and check for proper operation.
If the problem is corrected, replace PSAB and then go to "Verification of Vehicle R−epair" procedure.

Main harness Inspection

1. Ignition "OFF".
2. Disconnect the battery (−) terminal cable from the battery and wait at least one minutes.
3. Disconnect PSAB connector and SRSCM main harness connector.
4. Connect the battery (−) terminal cable to the battery and Ignition "ON" & Engine "OFF".
5. Measure voltage between terminal "Low" or "High" of the PSAB harness connector and chassis ground.

Specification : approx. 0V



TD12179138532

6. Is the measured voltage within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

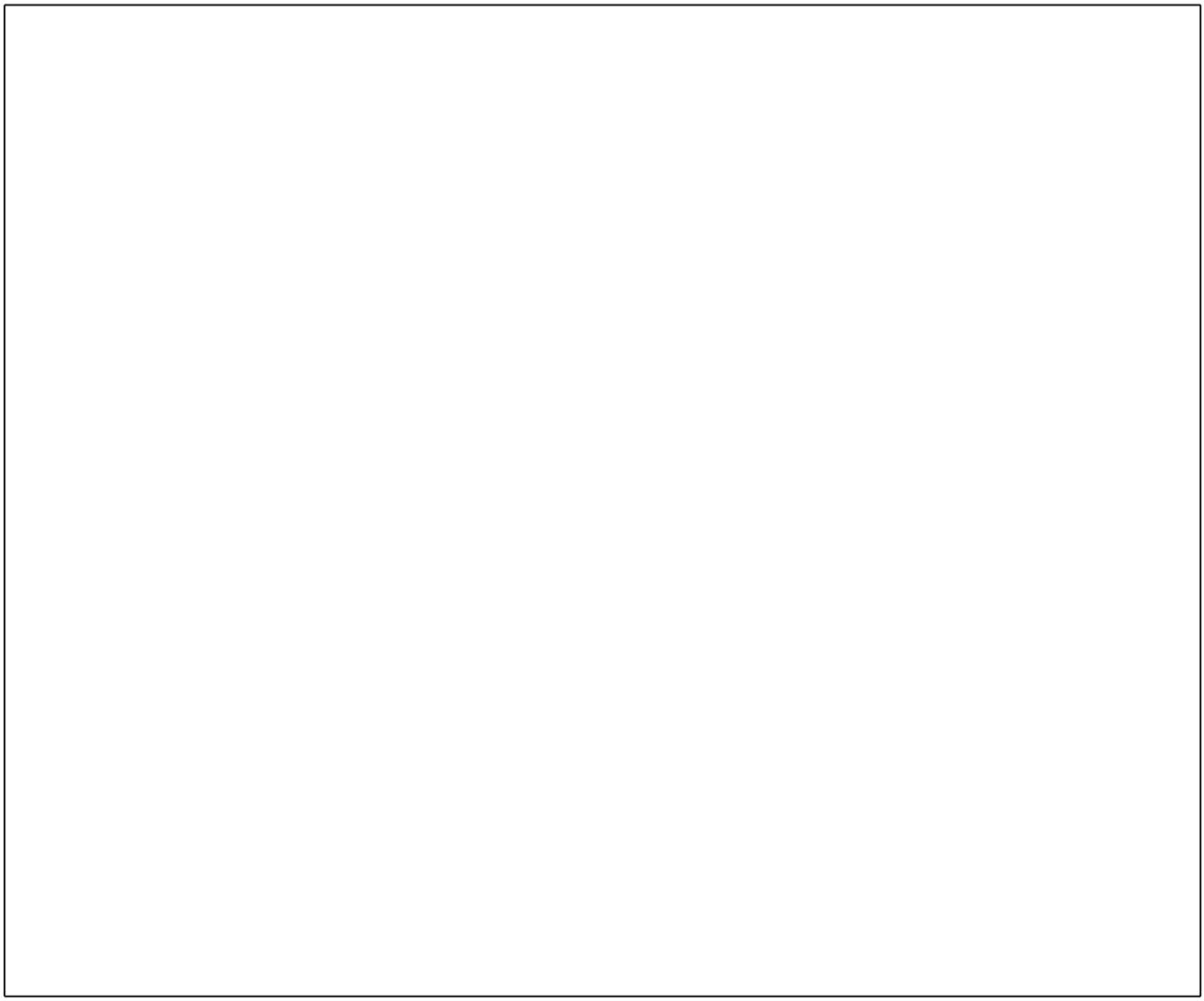
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

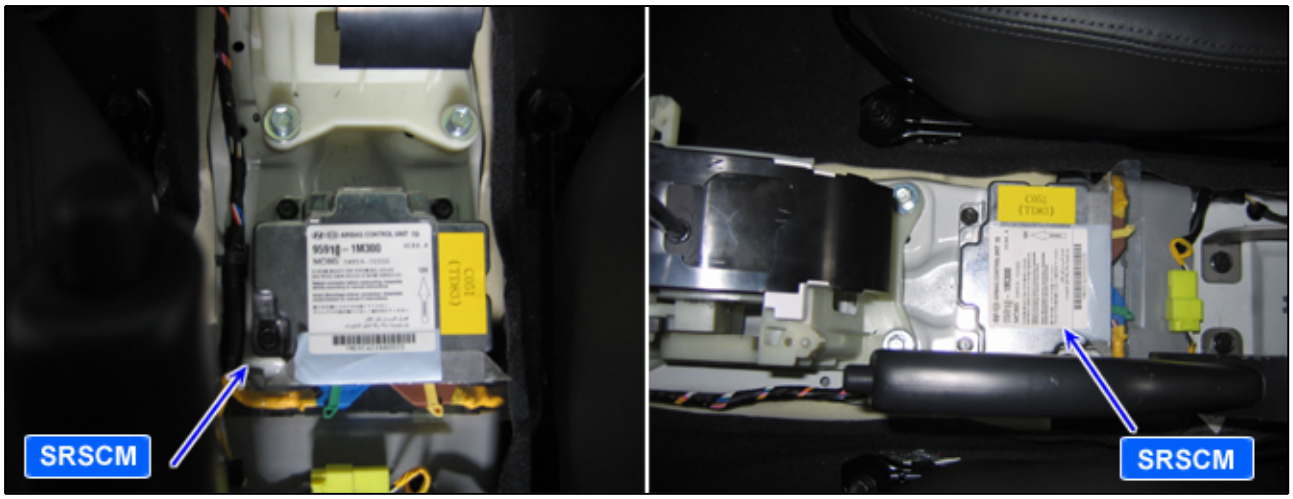
Schematic Diagram



TD12179P1382_85CC

B1395 Firing Loops Interconnection Fault

Component Location



TD12179139511

General Description

Every air bag module has its firing circuit that ignites powder to deploy air bag according to signal of SRSCM.

SRSCM checks every air bag module when ignition "ON". Once any fault is detected, it is erased only by scantool.

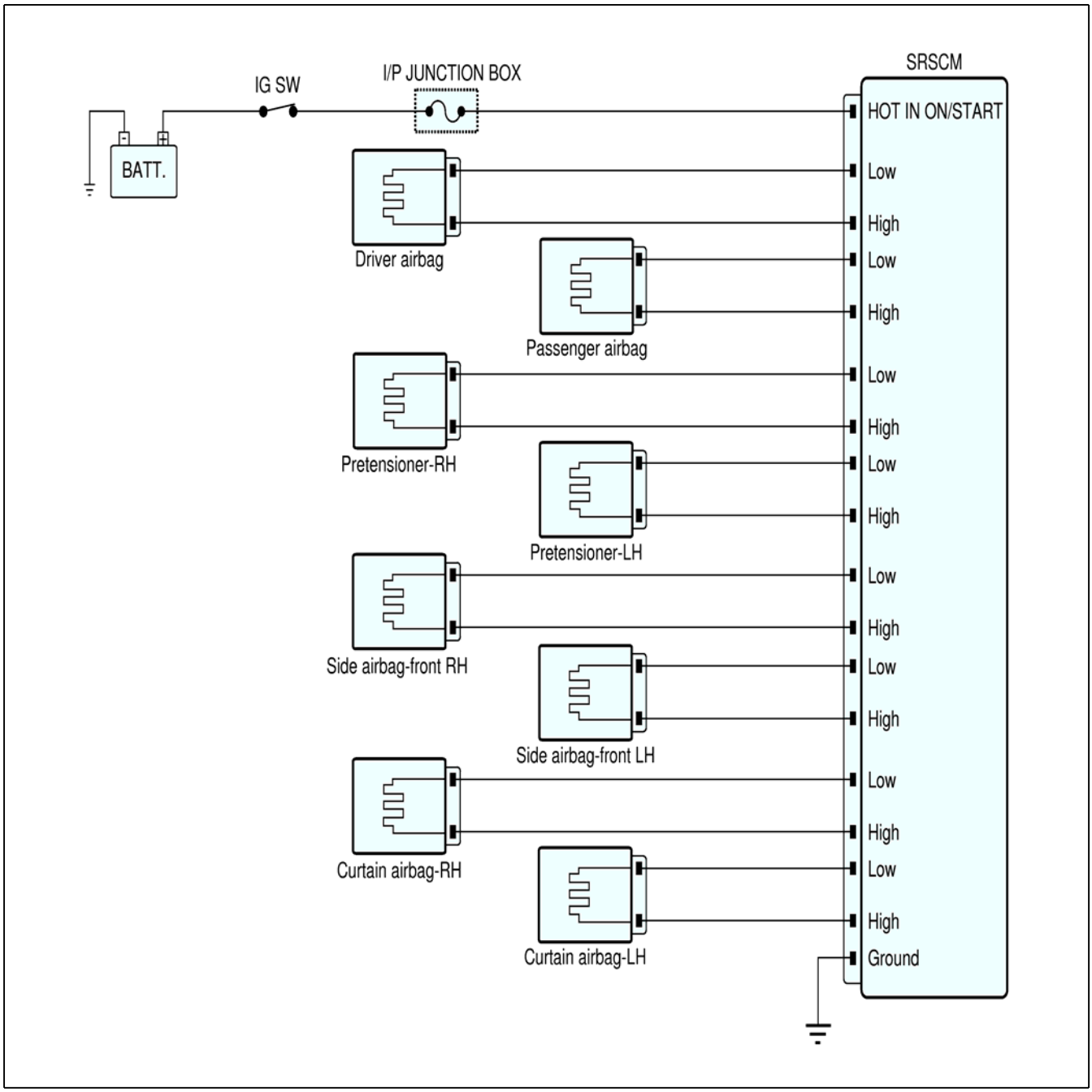
DTC Description

The SRSCM sets DTC B1395 if there's any short circuit in harness of every firing circuit to one another.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Short circuit in squib harne−ss. • SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Squib lines are cross coupled • Make other line sink, and one line < 0.6V, then t−his line is crosscoupled.	
Diagno−stic Time	Qualific−ation	• More than 2ms x 3	
	De−Qu−alification	• NA	

Diagnostic Circuit Diagram


SRSCM
IG SW
I/P JUNCTION BOX
BATT.
HOT IN ON/START
Low
High
Driver airbag
Low
High
Passenger airbag
Low
High
Pretensioner-RH
Low
High
Pretensioner-LH
Low
High
Side airbag-front RH
Low
High
Side airbag-front LH
Low
High
Curtain airbag-RH
Low
High
Curtain airbag-LH
Ground

STDRT9610L

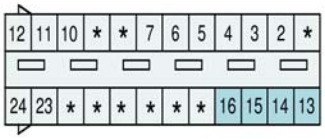
<Pretensioner front - Driver>

1. HIGH
2. LOW

<Pretensioner front - Passenger>

1. HIGH
2. LOW

<SRS CONTROL MODULE>



13. HIGH
14. LOW
15. LOW
16. HIGH

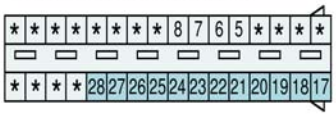
<Curtain airbag front - Driver>

1. HIGH
2. LOW

<Curtain airbag front - Passenger>

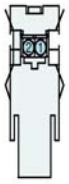
1. HIGH
2. LOW

<SRS CONTROL MODULE>



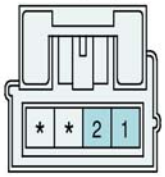
17. LOW
18. HIGH
19. HIGH
20. LOW
21. LOW
22. HIGH
23. HIGH
24. LOW
25. LOW
26. HIGH
27. HIGH
28. LOW

<Passenger airbag>



1. LOW
2. HIGH

<Clock spring>



1. LOW
2. HIGH

<Side airbag front - Passenger>

1. HIGH
2. LOW

<Side airbag front - Driver>

1. HIGH
2. LOW

STDRT9610L-1

Monitor Scantool Data

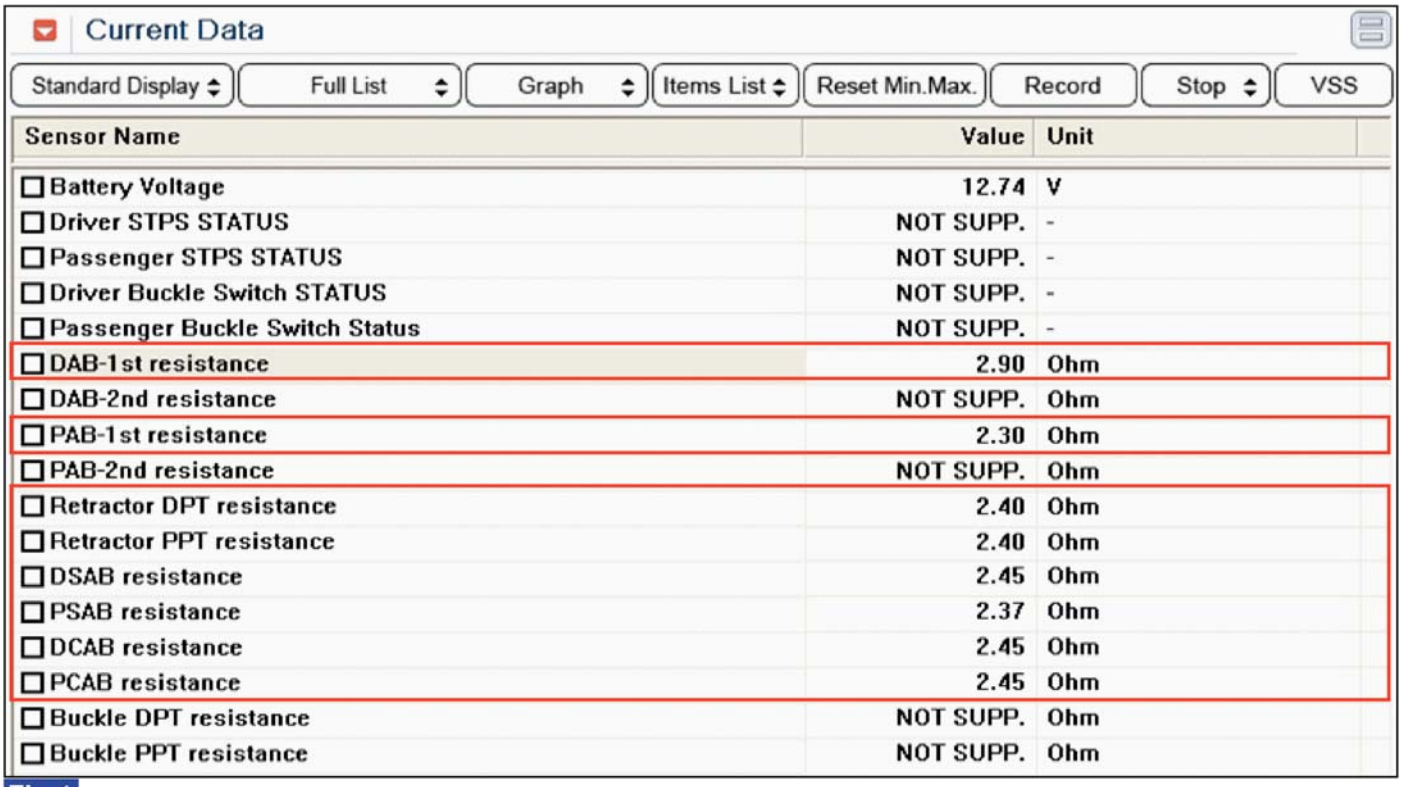
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "All airbag resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of airbag < 6.6Ω

Reference : In a case of an open in the airbag circuit : FAIL

In a case of a short to battery in the airbag circuit: FAIL

In a case of a short to ground in the airbag circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9511L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for loosenness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Check for short between ignition circuits of DAB,PAB,BPT,CAB,SAB. If the condition of harness and component is OK, this fault is caused by SRSCM internal error so replace a known-good SRSCM and then go to "Verification of vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

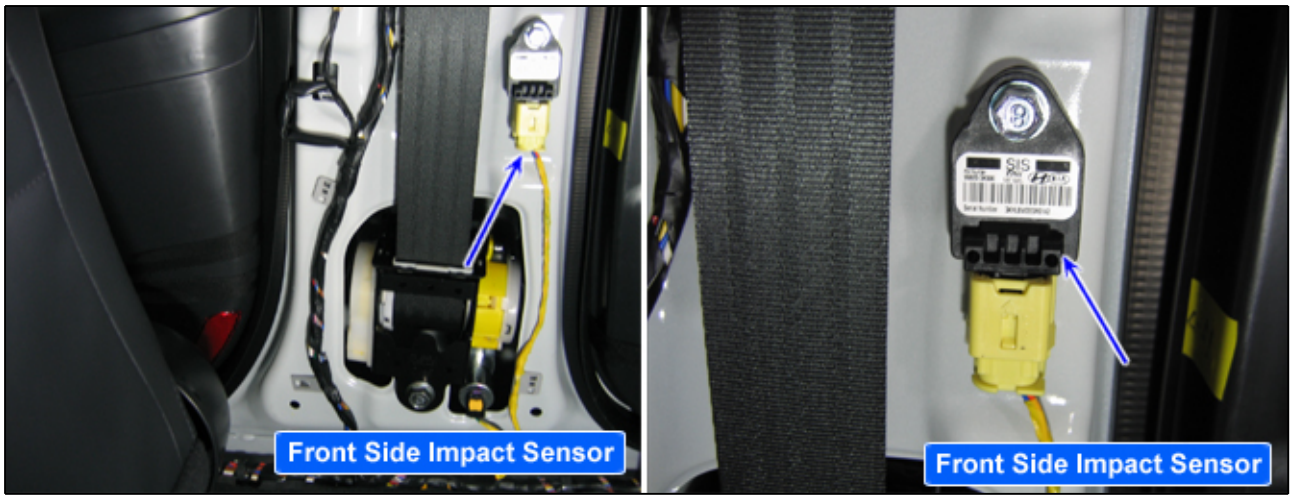
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1400 SIS(Side Impact Sensor) Front-Driver defect

Component Location



TD12179140011

General Description

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision.

When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion.

and if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

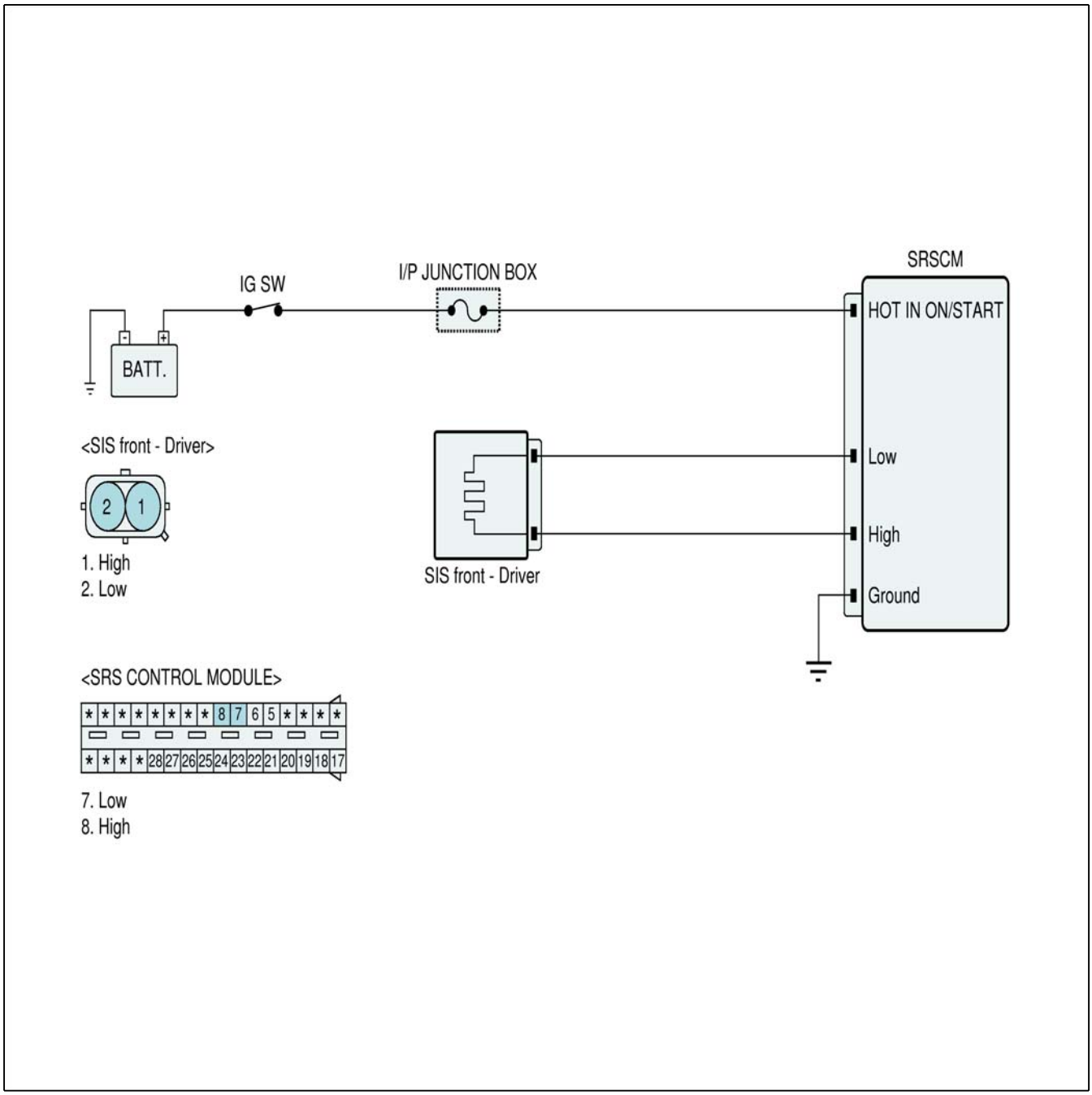
DTC Description

The SRSCM sets DTC B1400 if there is any fault in DSIS circuit.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Data	• Faulty DSIS circuit. • Faulty DSIS. • SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• DSIS send defect code • DSIS output is not expected value	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

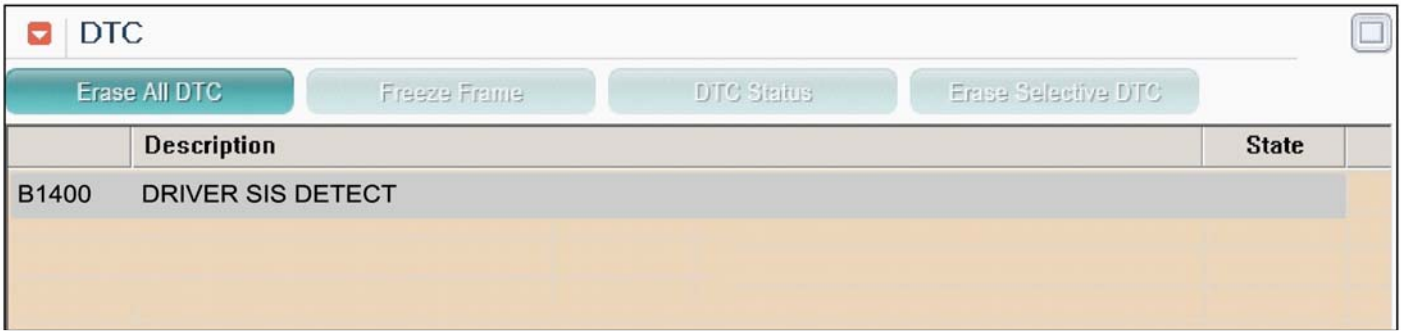
Diagnostic Circuit Diagram



STDRT9611L

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9512L

5. Is DTC present problem ?

YES ▶ Go to "W/Harness Inspection" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for loosenness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

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 shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Component Inspection" procedure.

Component Inspection

1. Ignition "ON" & Engine "OFF" and Using a scan tool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (−) terminal cable from the battery, and wait at least one minutes.
4. Disconnect DSIS connector .
5. Substitute the DSIS and check for proper operation.
6. Is DTC present problem ?

YES ▶ Substitute a known−good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRSCM main harness and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute a known−good DSIS, and check for proper operation.
If the problem is corrected, replace DSIS and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

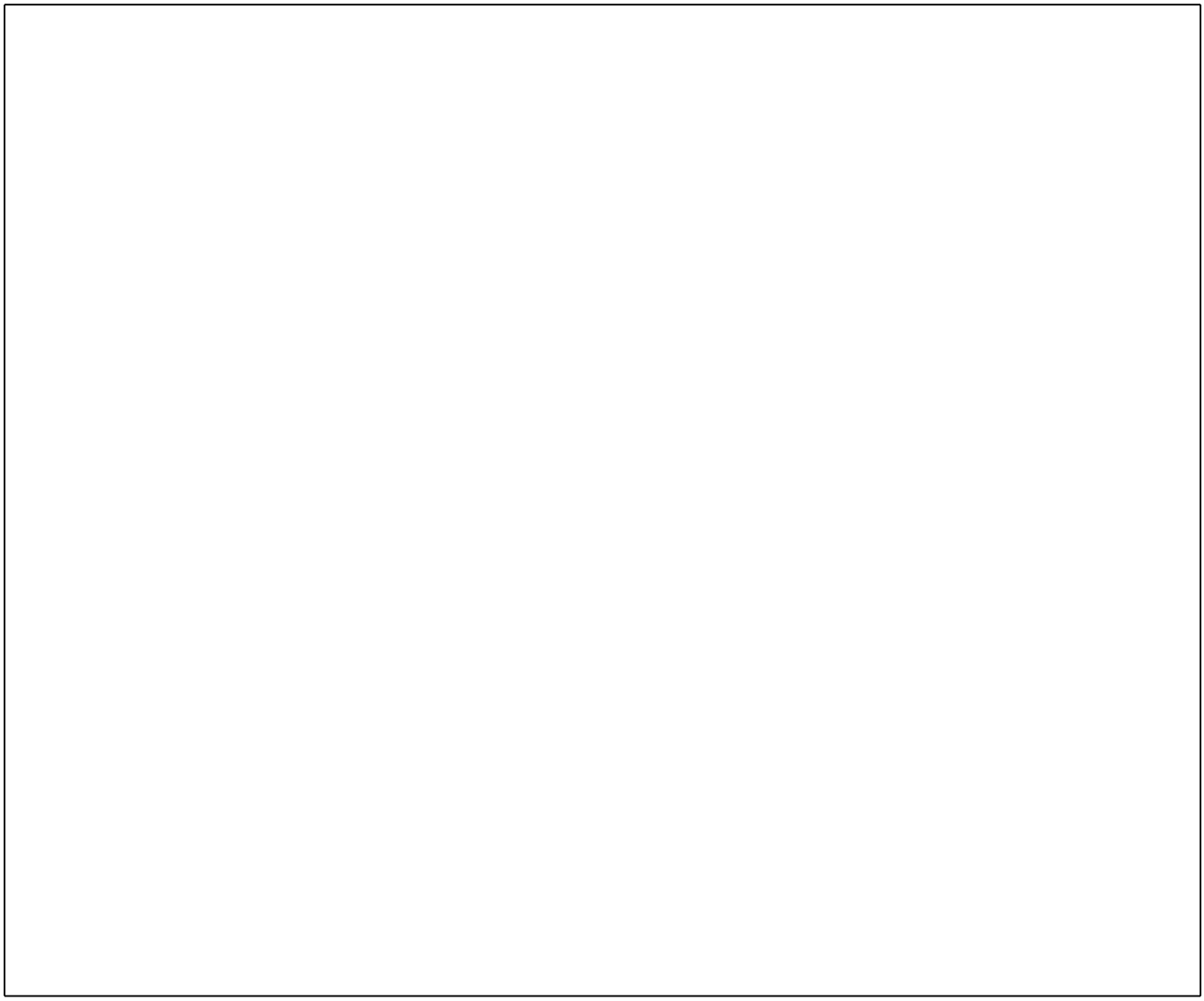
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

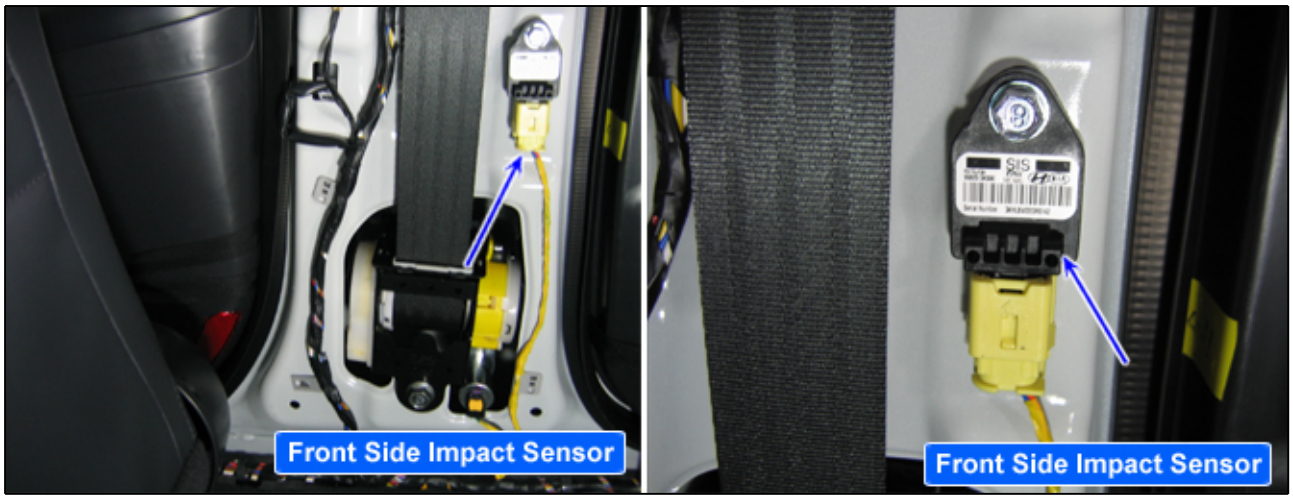
Schematic Diagram



TD12179P1400_1409CC

B1403 SIS(Side Impact Sensor)Front-Passenger Defect

Component Location



TD12179140011

General Description

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision.

When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion.

and if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

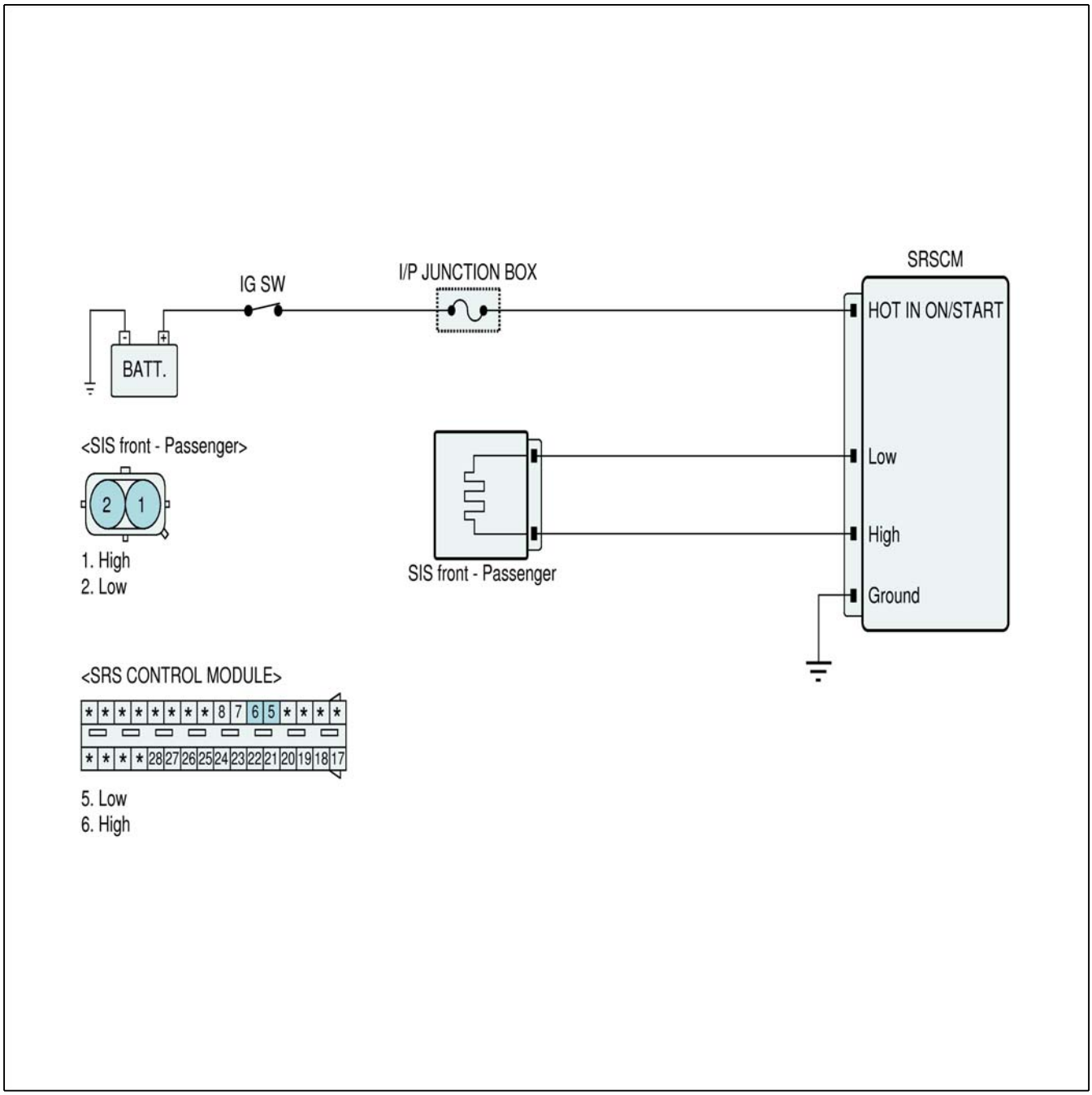
DTC Description

The SRSCM sets DTC B1403 if there is any fault in PSIS circuit.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Data	• Faulty PSIS circuit. • Faulty PSIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PSIS send defect code • PSIS output is not expected value	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

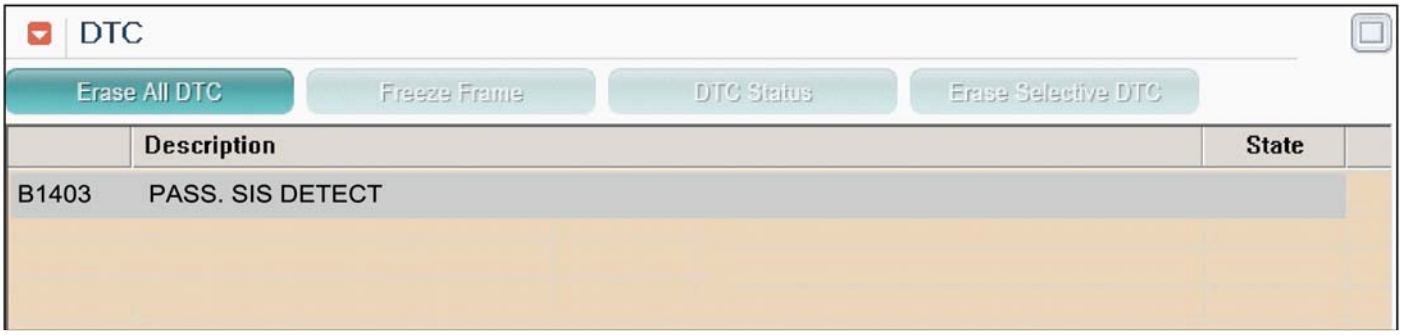
Diagnostic Circuit Diagram



STDRT9612L

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9513L

5. Is DTC present problem ?

YES ▶ Go to "W/Harness Inspection" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for loosenness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

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 shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Component Inspection" procedure.

Component Inspection

1. Ignition "ON" & Engine "OFF" and Using a scan tool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (−) terminal cable from the battery, and wait at least one minutes.
4. Disconnect PSIS connector .
5. Substitute the PSIS and check for proper operation.
6. Is DTC present problem ?

YES ▶ Substitute a known−good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRSCM main harness and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute a known−good PSIS, and check for proper operation.
If the problem is corrected, replace PSIS and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

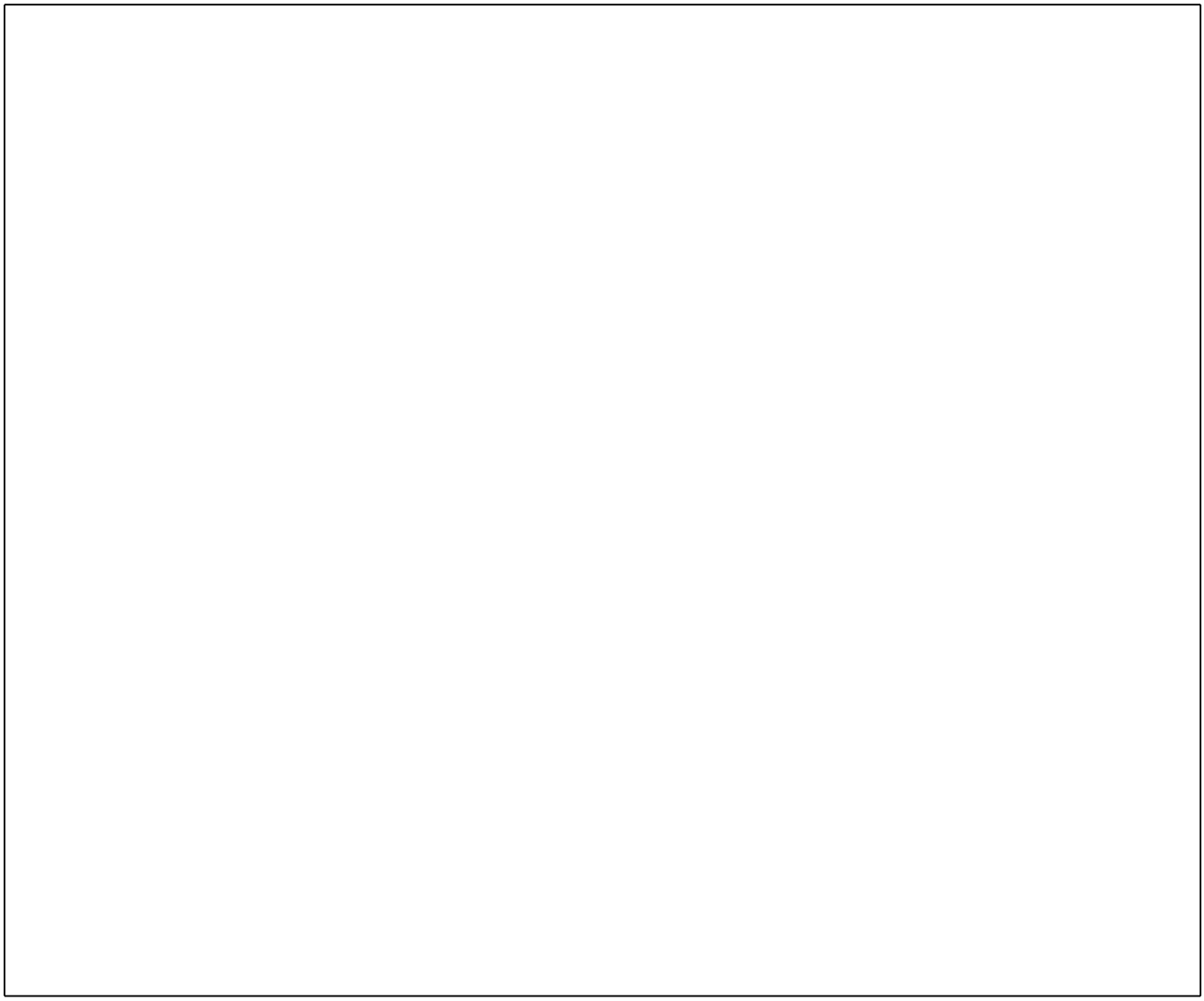
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

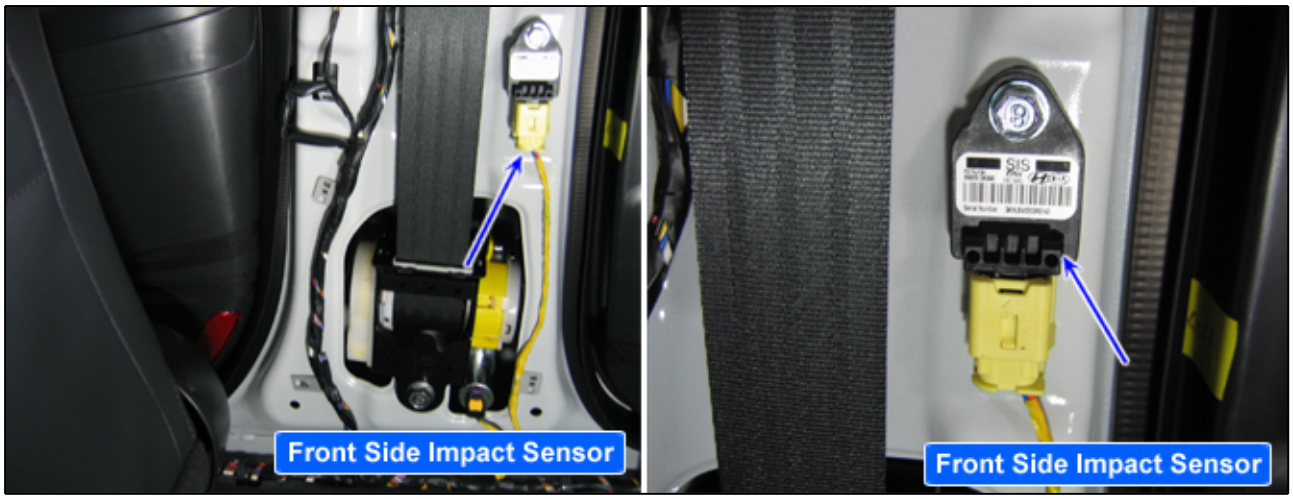
Schematic Diagram



TD12179P1403_1410CC

B1409 SIS(Side Impact Sensor) Front-Driver Communication Error

Component Location



TD12179140011

General Description

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision.

When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion.

and if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

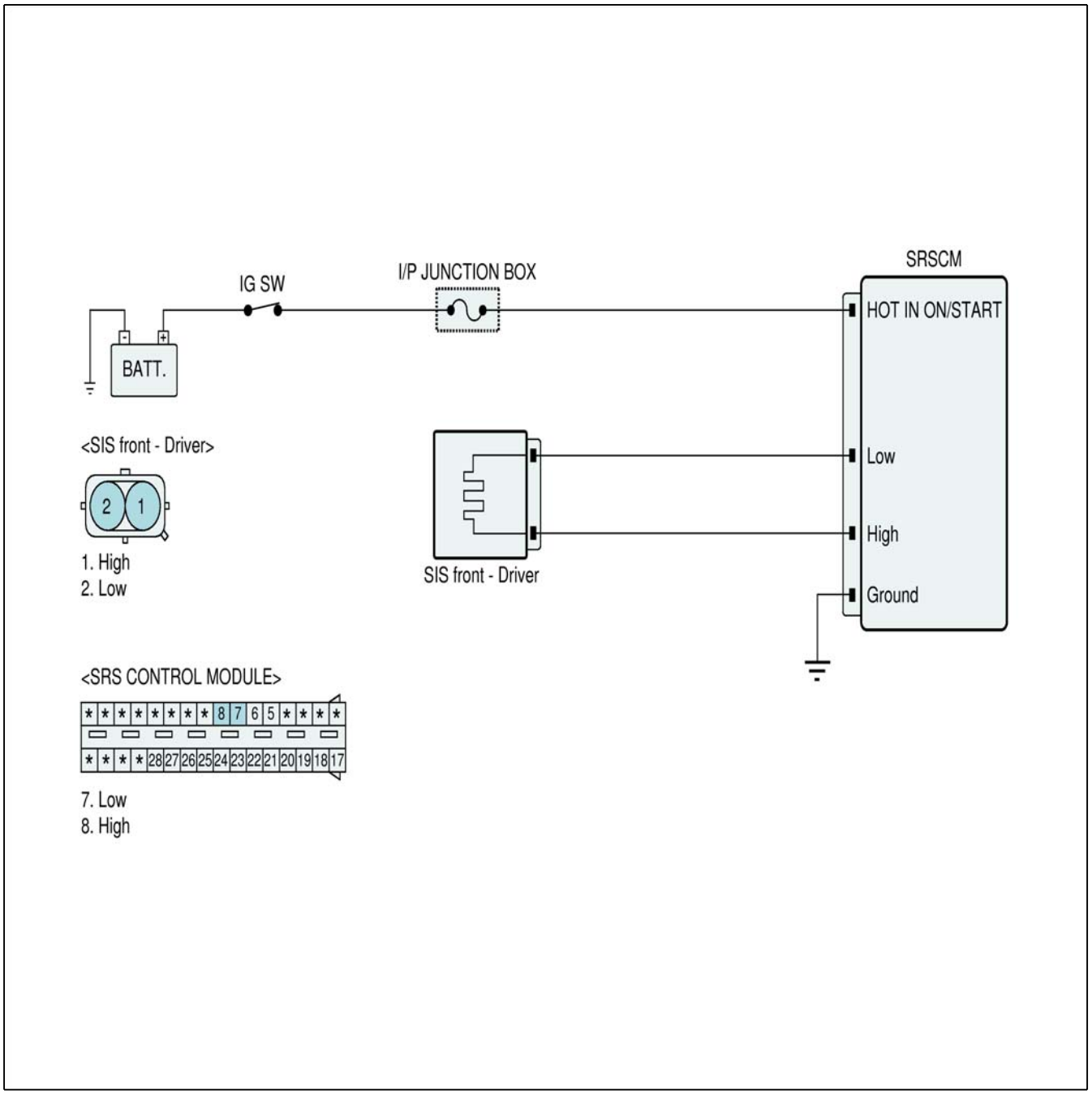
DTC Description

The SRSCM sets DTC B1409 if there is any error in communication between DSIS and SRSCM.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Data	• Short to power in harness. • Short to ground in harness. • Poor connection of connected part(open). • Faulty DSIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• DSIS no acceleration data • DSIS High or Low of wire ignition short or Short to ground. • DSIS High or Low of wire Open	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

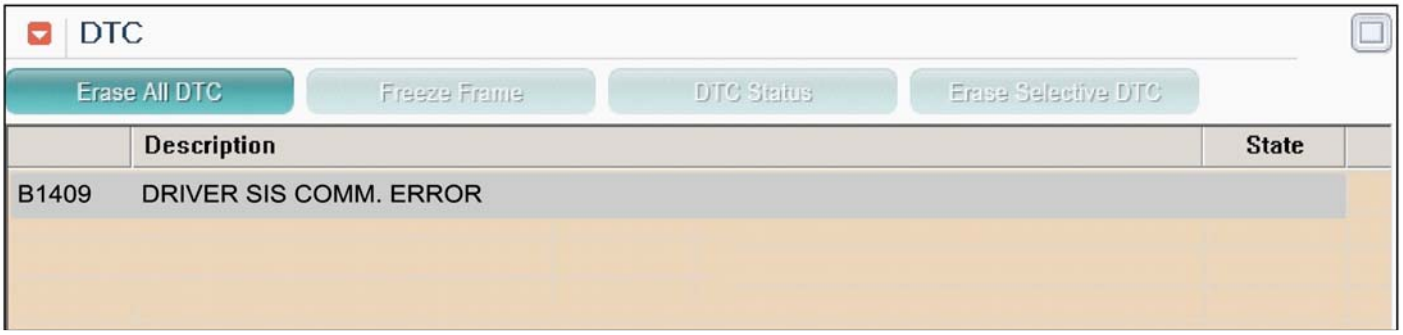
Diagnostic Circuit Diagram



STDRT9611L

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9514L

5. Is DTC present problem ?

YES ▶ Go to "W/Harness Inspection" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for loosenness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

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 shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Component Inspection" procedure.

Component Inspection

1. Ignition "ON" & Engine "OFF" and Using a scan tool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (−) terminal cable from the battery, and wait at least one minutes.
4. Disconnect DSIS connector .
5. Substitute the DSIS and check for proper operation.
6. Is DTC present problem ?

YES ▶ Substitute a known−good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRSCM main harness and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute a known−good DSIS, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

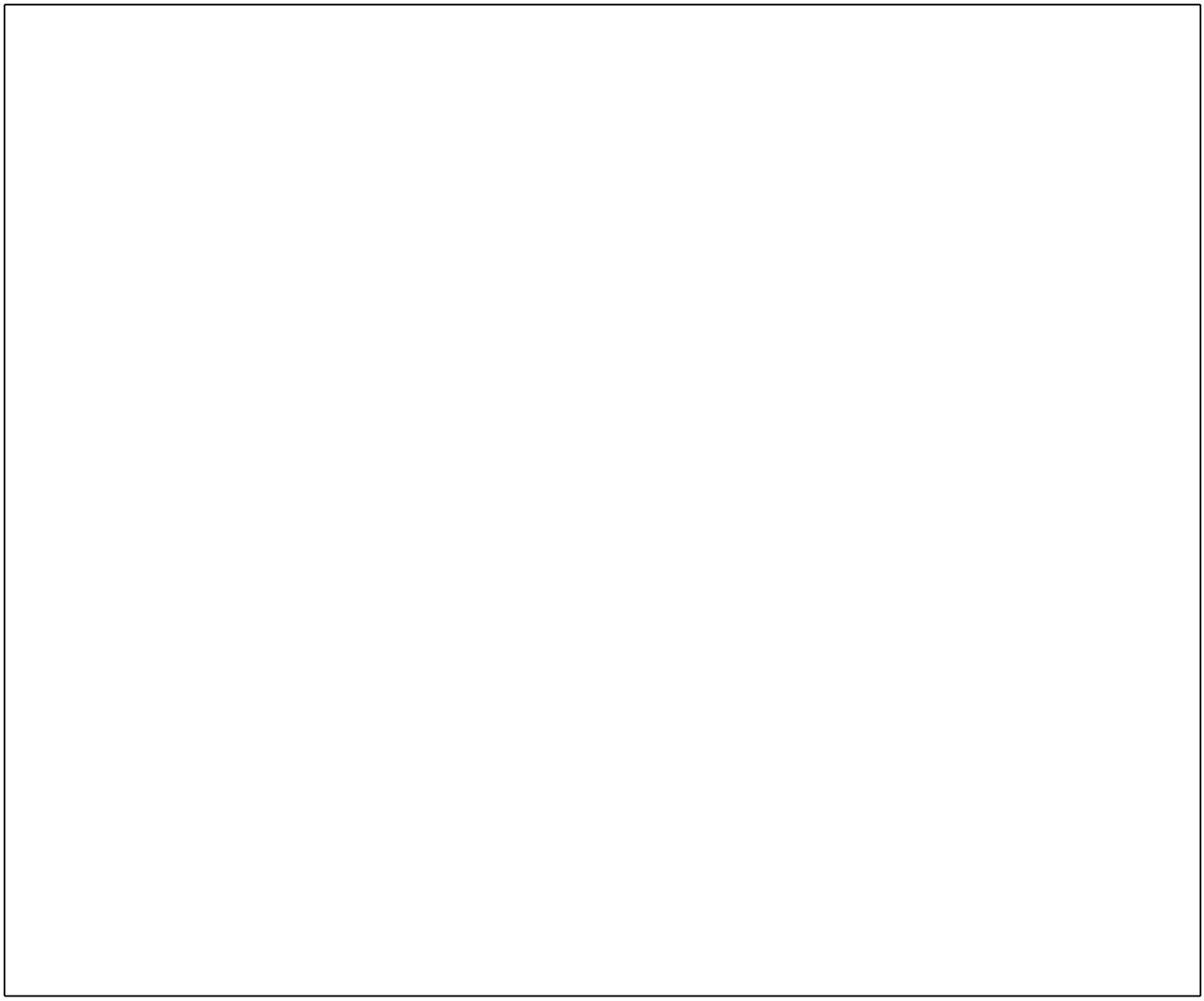
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

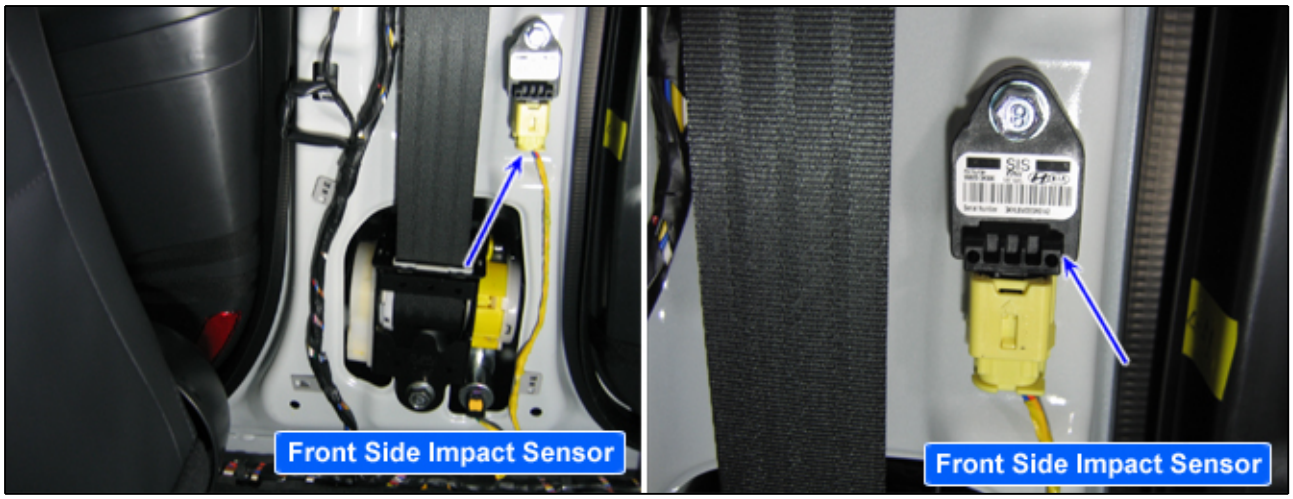
Schematic Diagram



TD12179P1400_1409CC

B1410 SIS(Side Impact Sensor) Front-Passenger Communication Error

Component Location



TD12179140011

General Description

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision.

When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion.

and if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

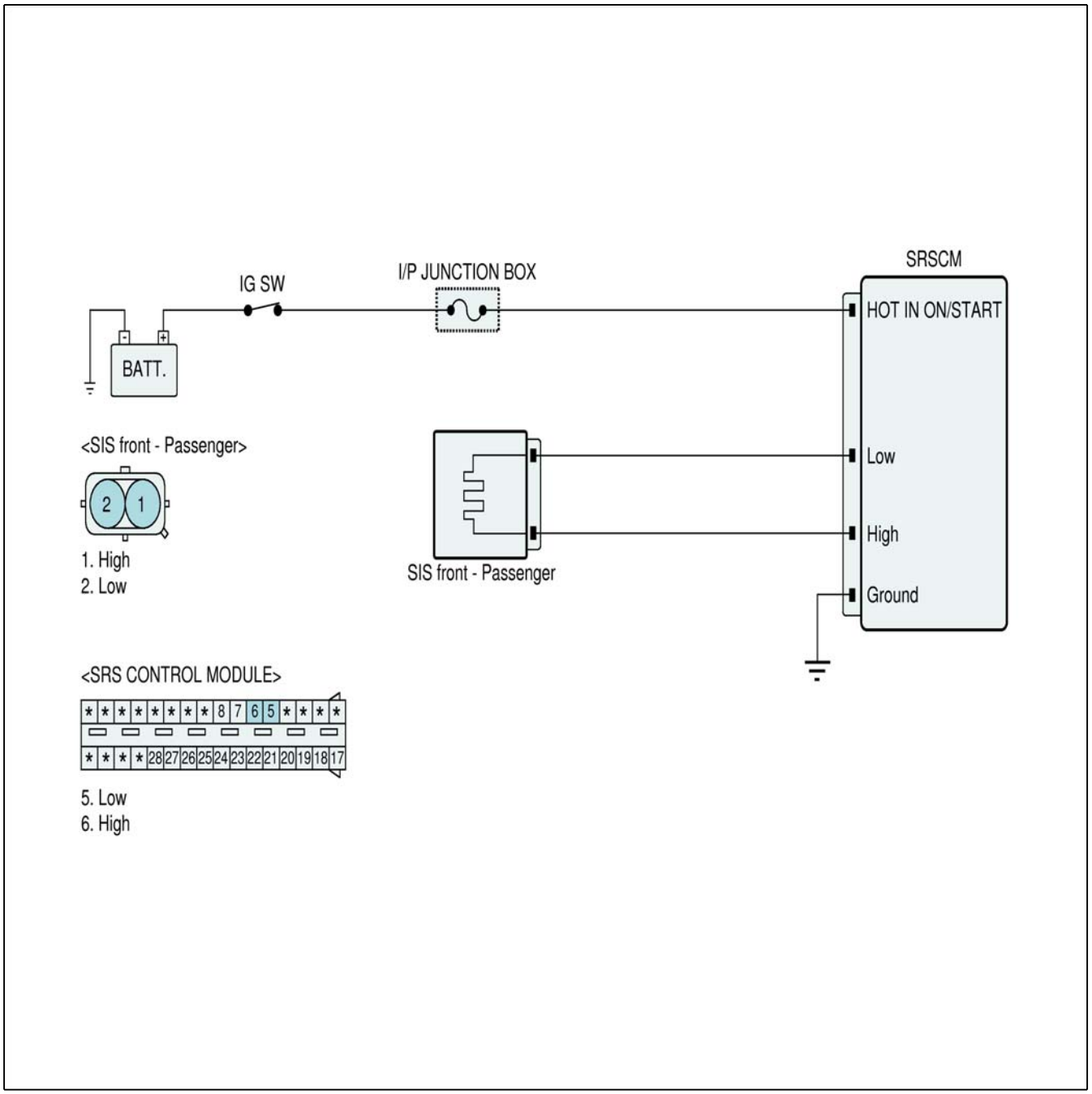
DTC Description

The SRSCM sets DTC B1410 if there is any error in communication between PSIS and SRSCM.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Data	• Short to power in harness. • Short to ground in harness. • Poor connection of connected part(open). • Faulty PSIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PSIS no acceleration data • PSIS High or Low of wire ignition short or Short to ground • PSIS High or Low of wire Open	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

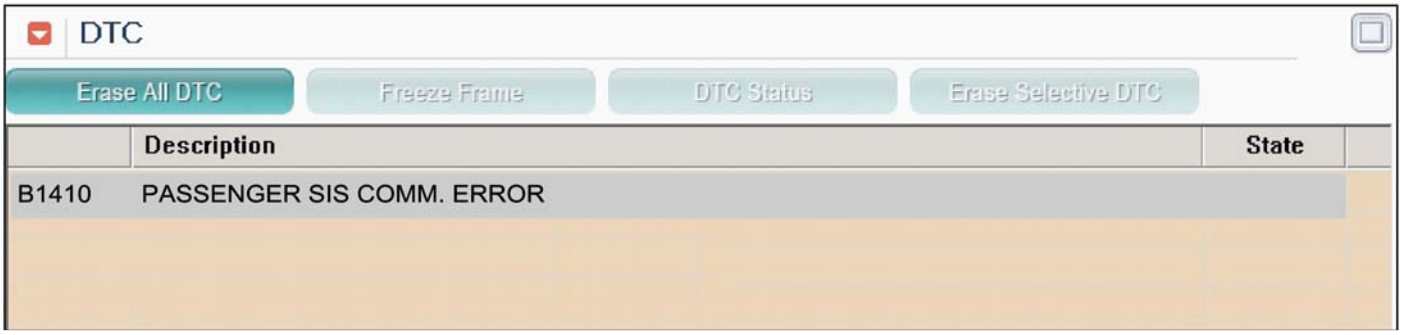
Diagnostic Circuit Diagram



STDRT9612L

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9515L

5. Is DTC present problem ?

YES ▶ Go to "W/Harness Inspection" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for loosenness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

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 shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Component Inspection" procedure.

Component Inspection

1. Ignition "ON" & Engine "OFF" and Using a scan tool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (−) terminal cable from the battery, and wait at least one minutes.
4. Disconnect PSIS connector .
5. Substitute the PSIS and check for proper operation.
6. Is DTC present problem ?

YES ▶ Substitute a known−good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRSCM main harness and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute a known−good PSIS, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

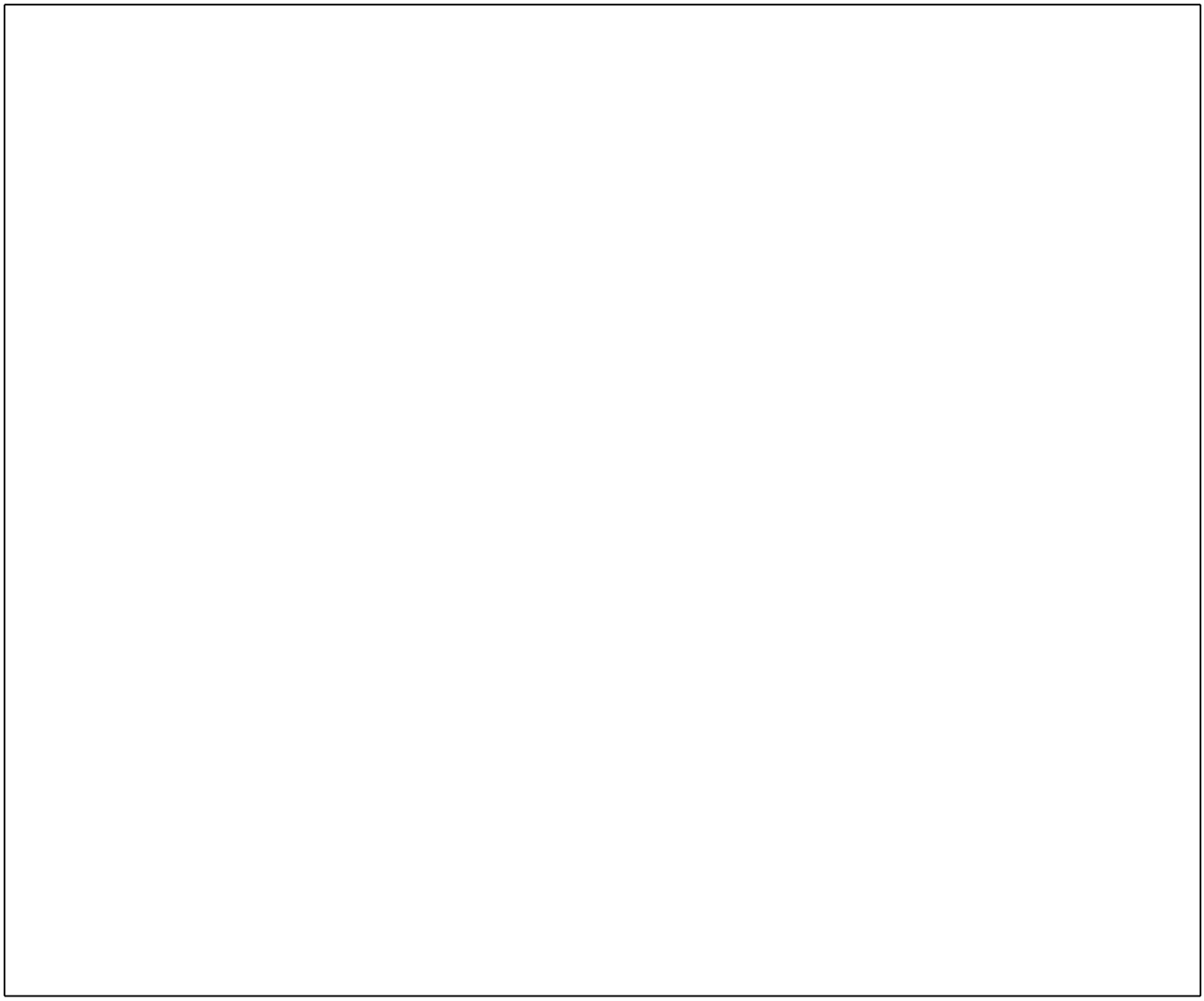
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

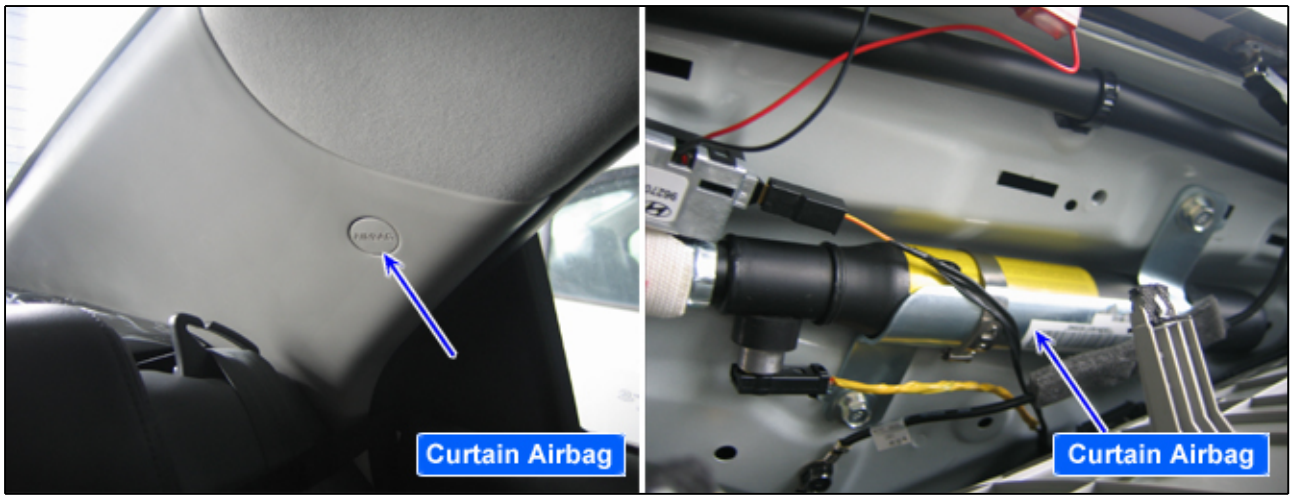
Schematic Diagram



TD12179P1403_1410CC

B1473 Inflatable Curtain Airbag Front-Driver Resistance too High

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1473 if the measured resistance value of DCAB circuit is more than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

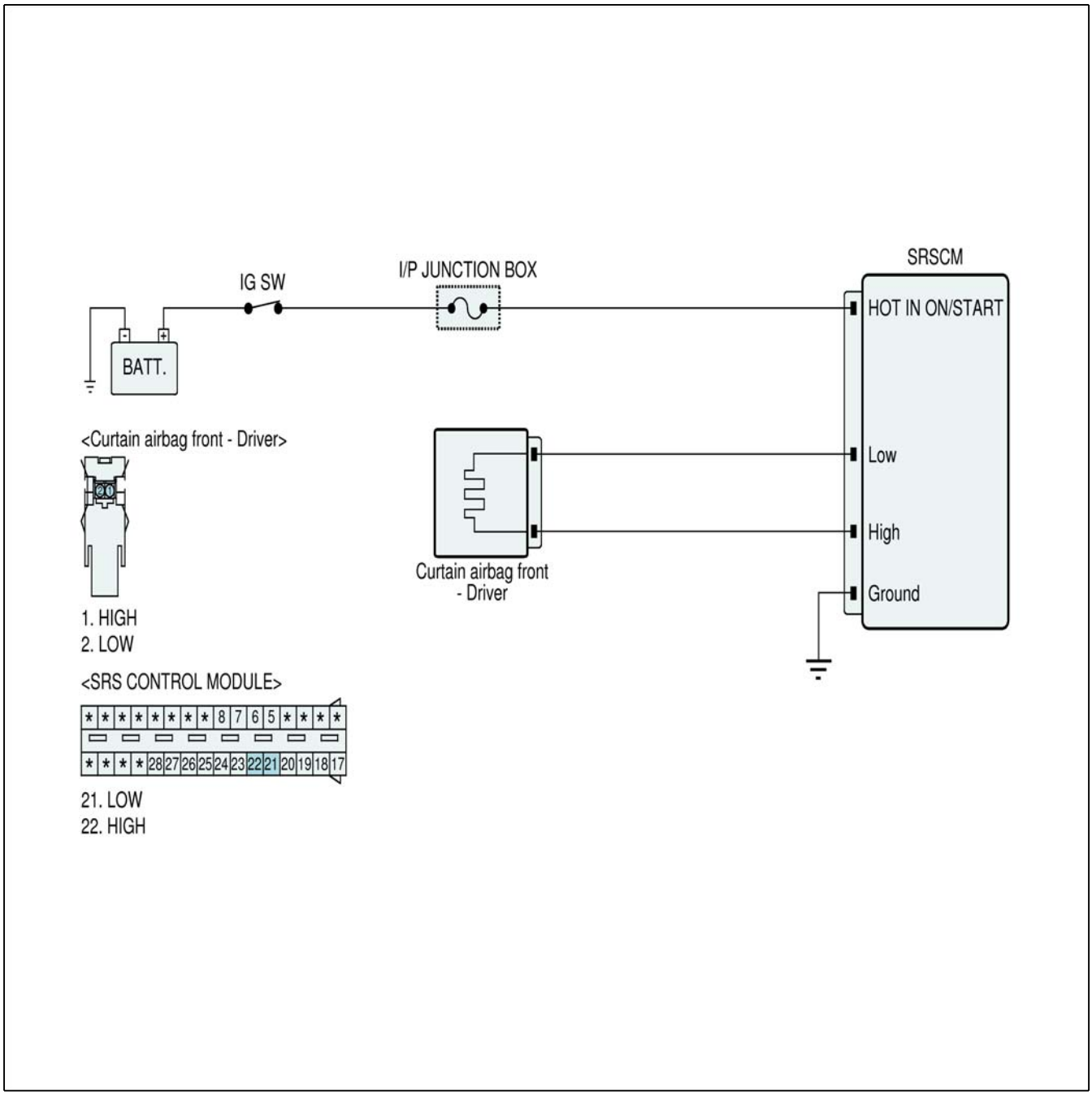
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty DCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• DCAB resistance ≥ 6.7Ω	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9613L

Monitor Scantool Data

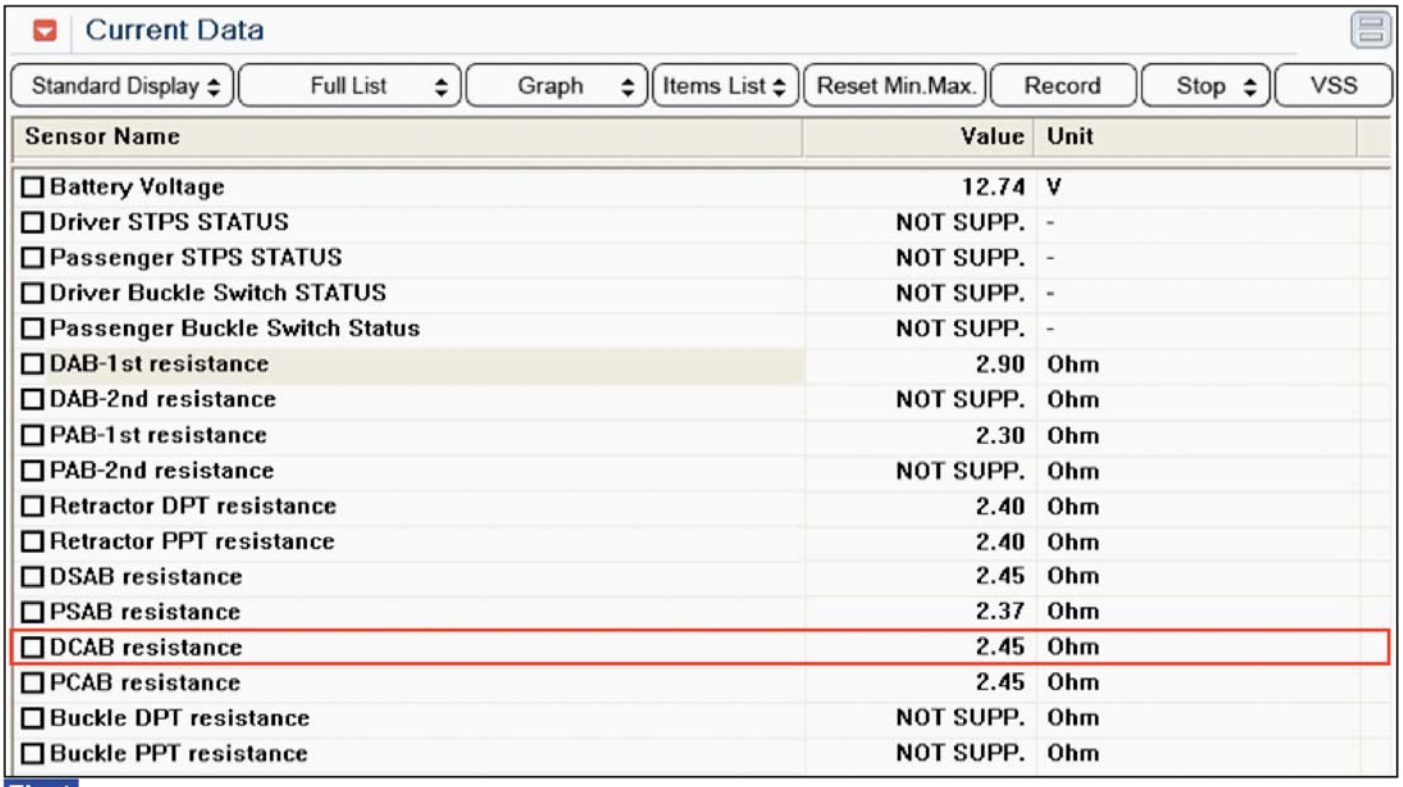
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front-Driver resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front-Driver < 6.6Ω

Reference : In a case of an open in the curtain airbag front-Driver circuit : FAIL

In a case of a short to battery in the curtain airbag front-Driver circuit: FAIL

In a case of a short to ground in the curtain airbag front-Driver circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9516L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

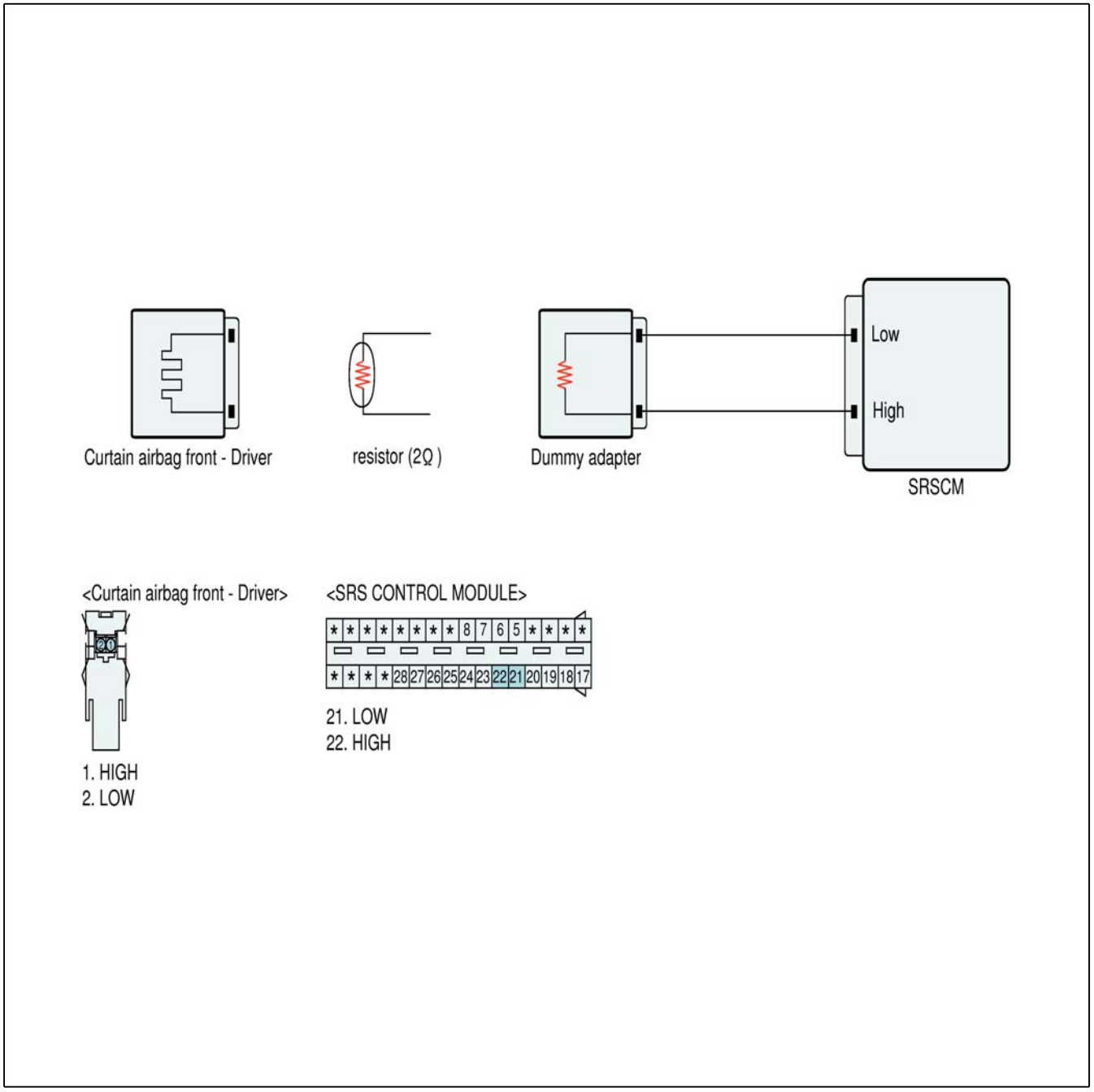
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect DCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good DCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147331

6. Is DTC present problem ?

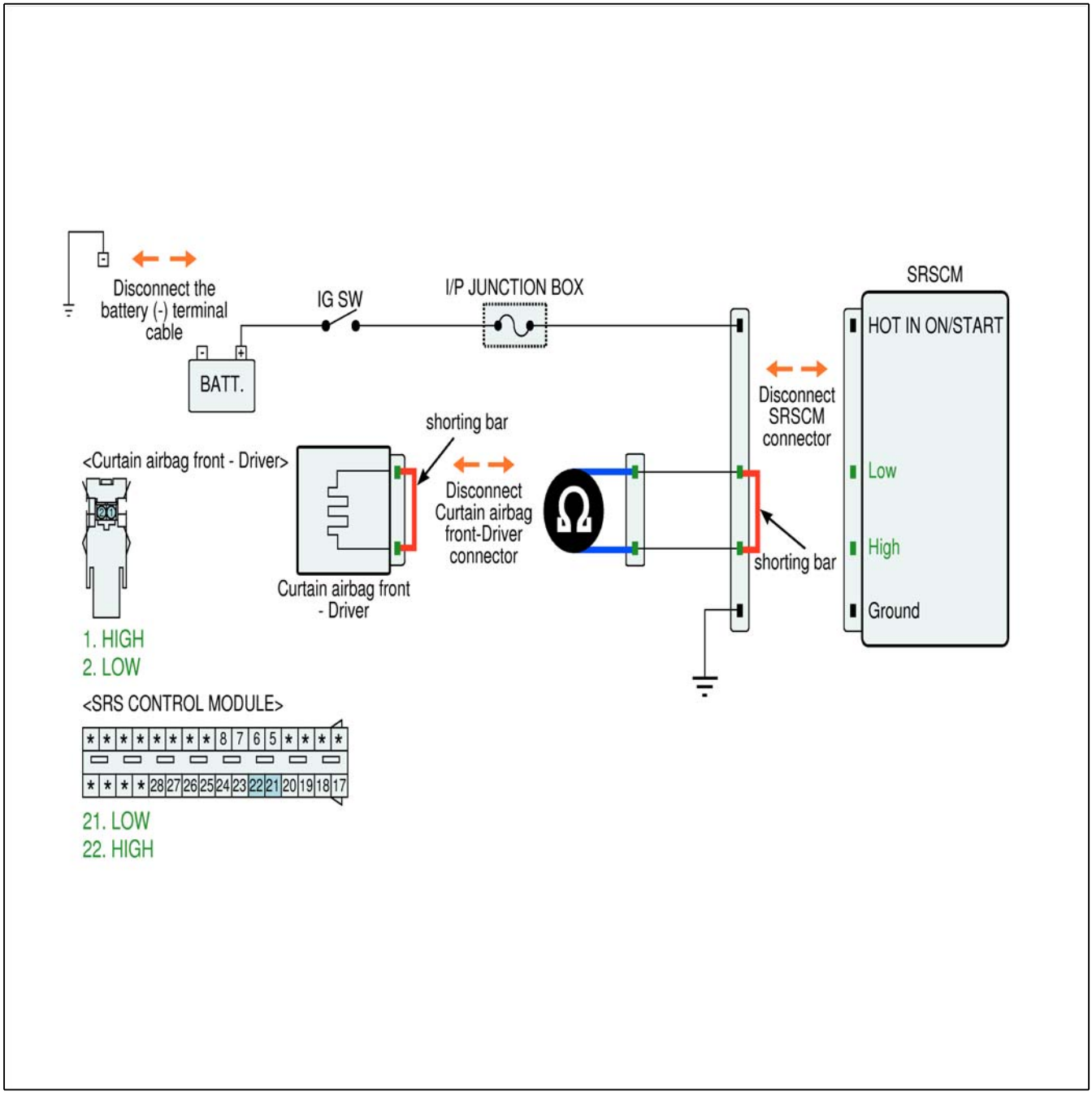
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect DCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the DCAB harness connector.

Specification : approx. 1 Ω below



TD12179147332

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

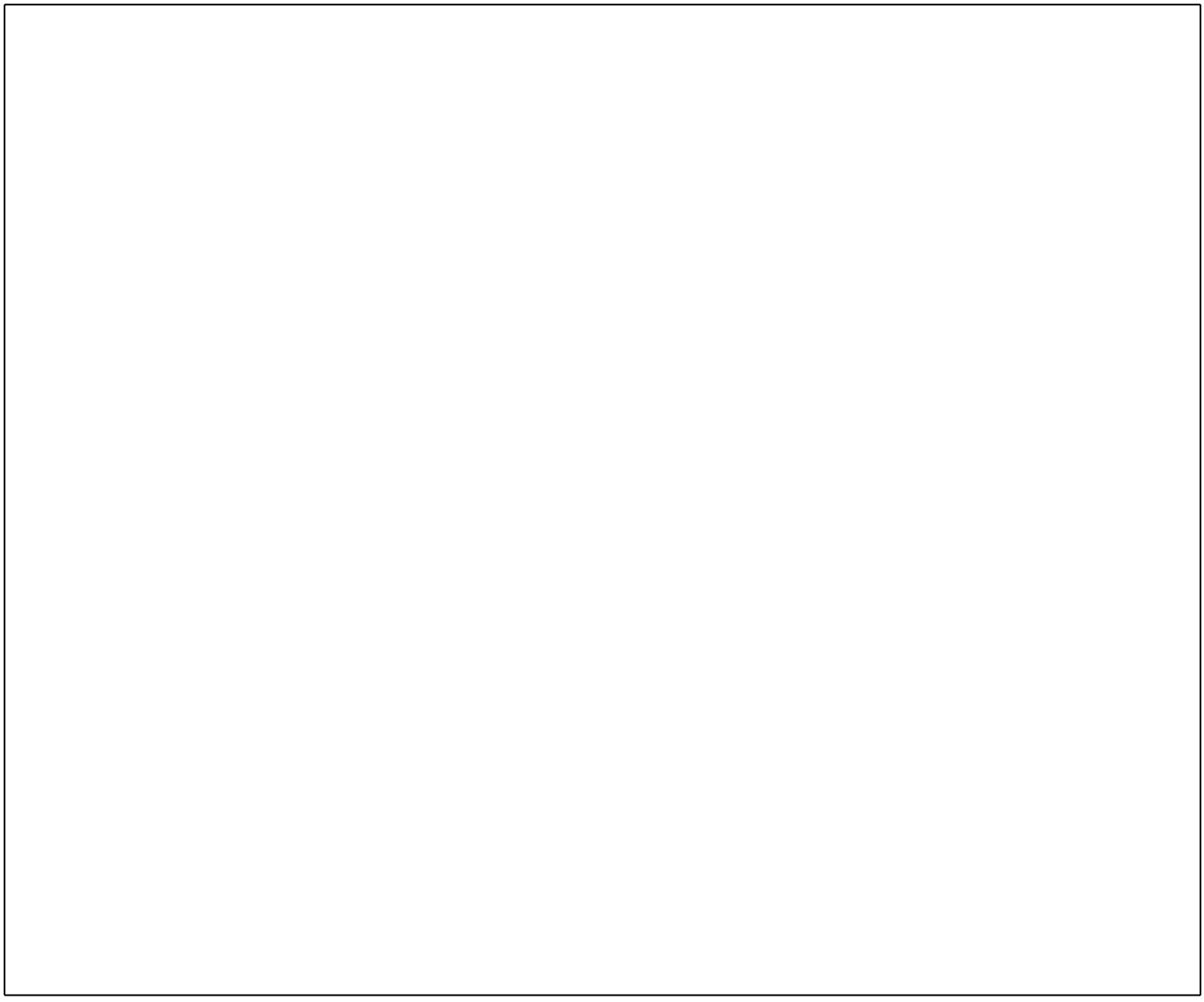
Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

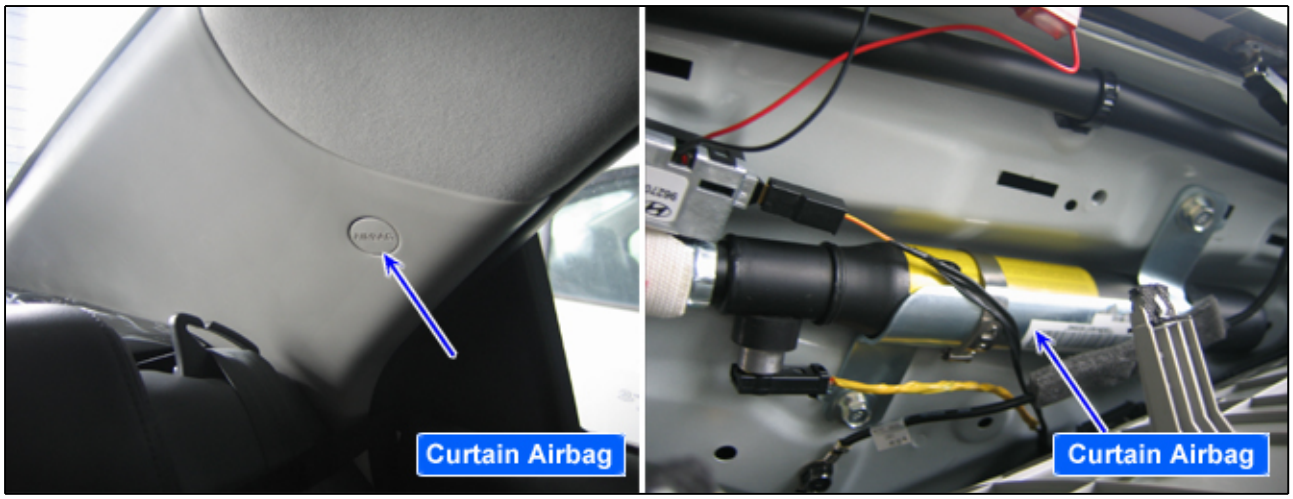
Schematic Diagram



TD12179P1473_76CC

B1474 Inflatable Curtain Airbag Front-Driver Resistance too Low

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1474 if the measured resistance value of DCAB circuit is less than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

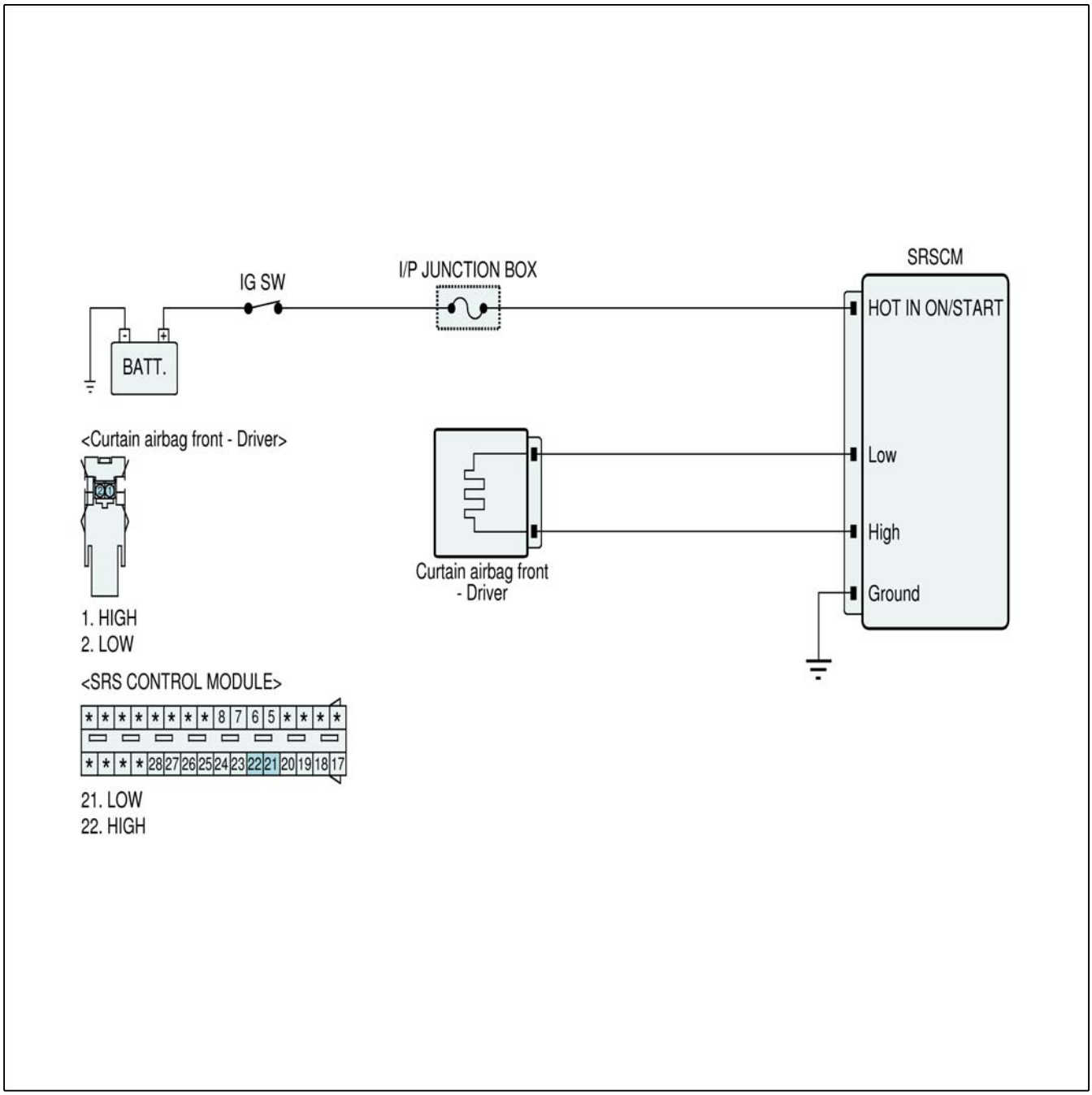
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty DCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• DCAB resistance ≤ 1.1Ω	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9613L

Monitor Scantool Data

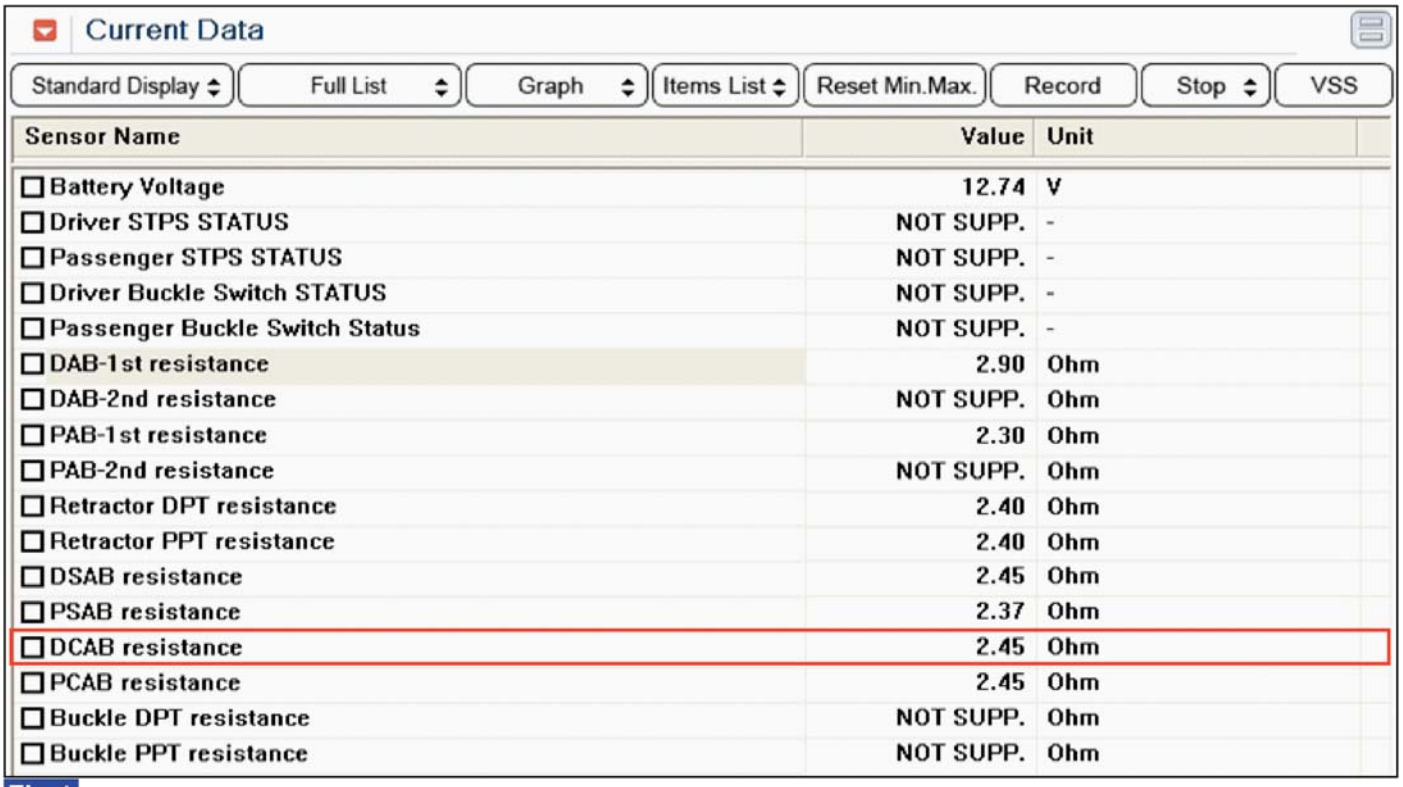
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Driver resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Driver < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Driver circuit : FAIL

In a case of a short to battery in the curtain airbag front−Driver circuit: FAIL

In a case of a short to ground in the curtain airbag front−Driver circuit : FAIL


Current Data

Standard Display | Full List | Graph | Items List | Reset Min.Max. | Record | Stop | VSS

Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9516L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

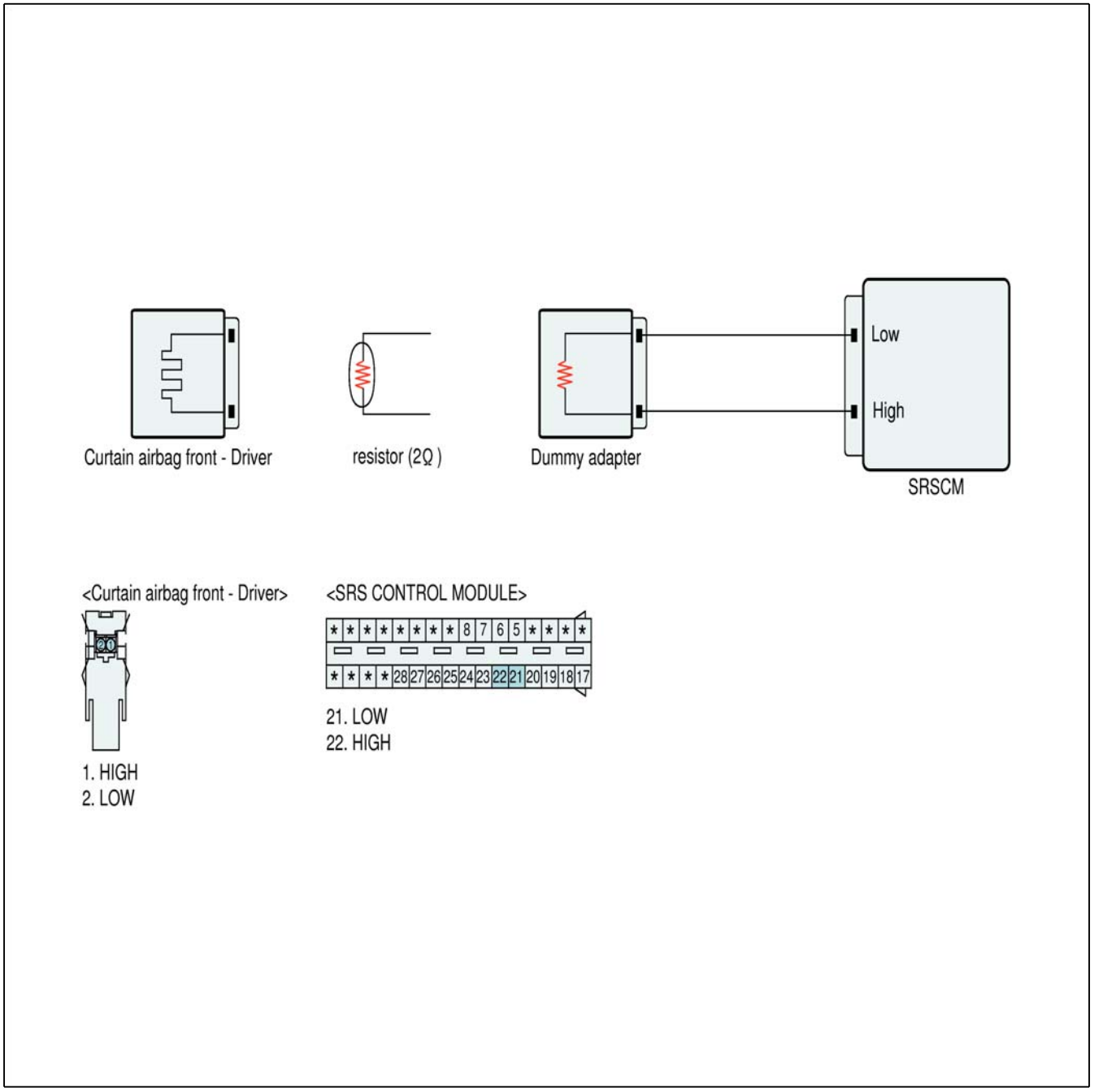
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect DCAB module and connect the dummy (0957A−38200) and dummy adapter 0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good DCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147331

6. Is DTC present problem ?

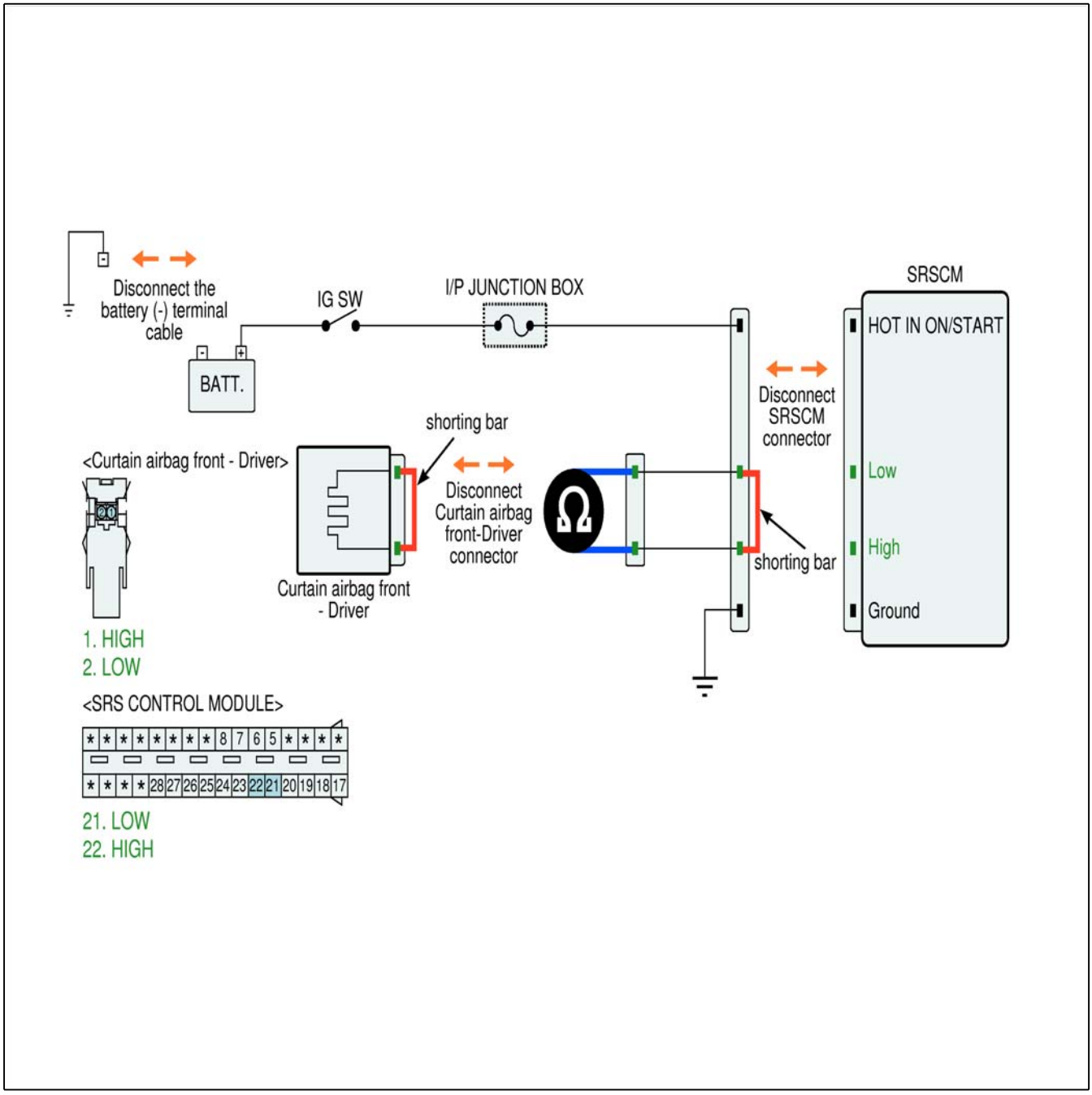
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect DCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the DCAB harness connector.

Specification : approx. 1 Ω below



TD12179147332

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

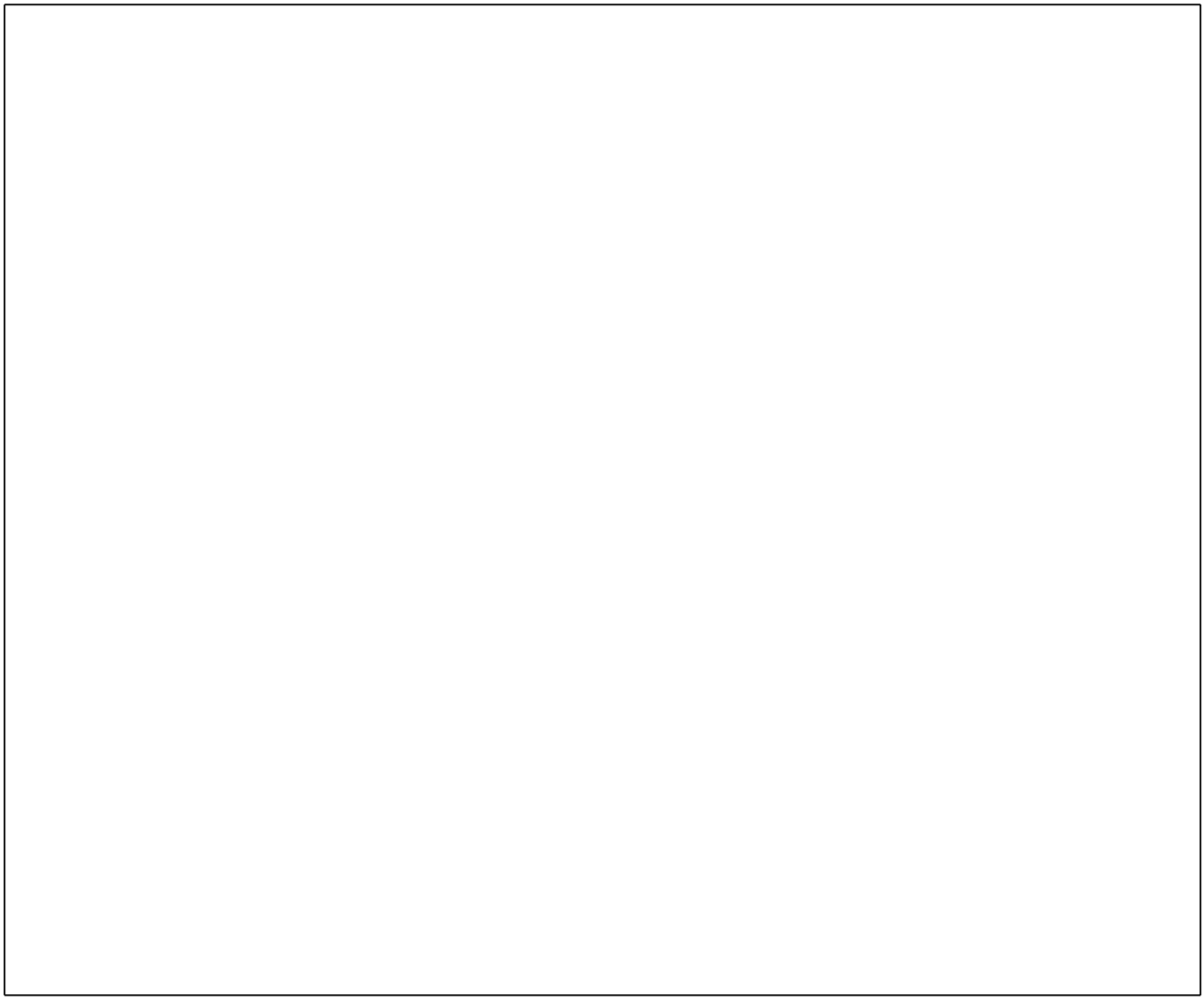
Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

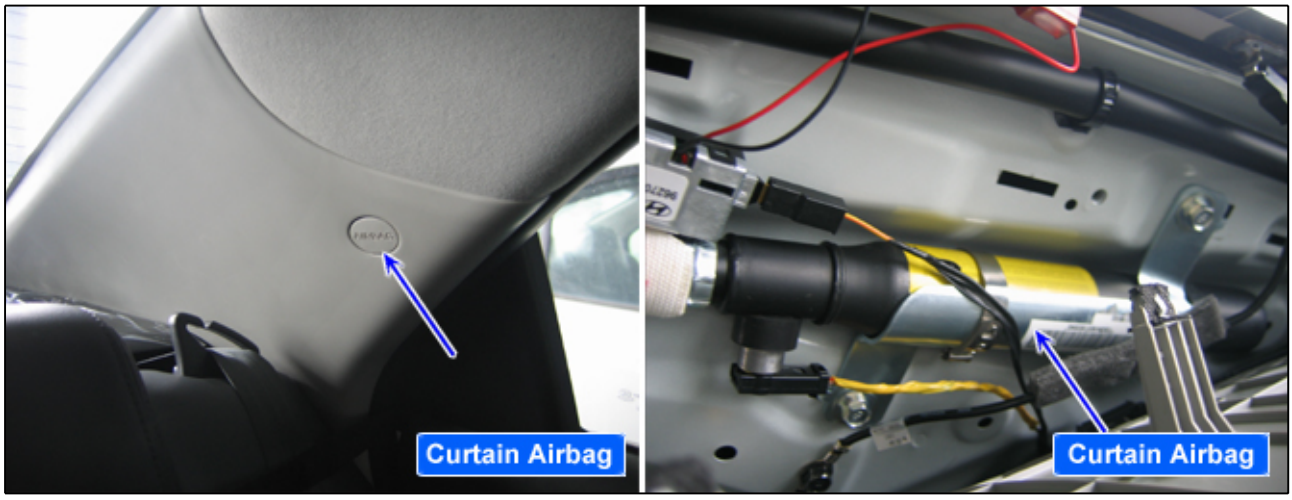
Schematic Diagram



TD12179P1473_76CC

B1475 Inflatable Curtain Airbag Front-Driver Resistance Circuit Short to Ground

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1475 if there is a short to ground in DCAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

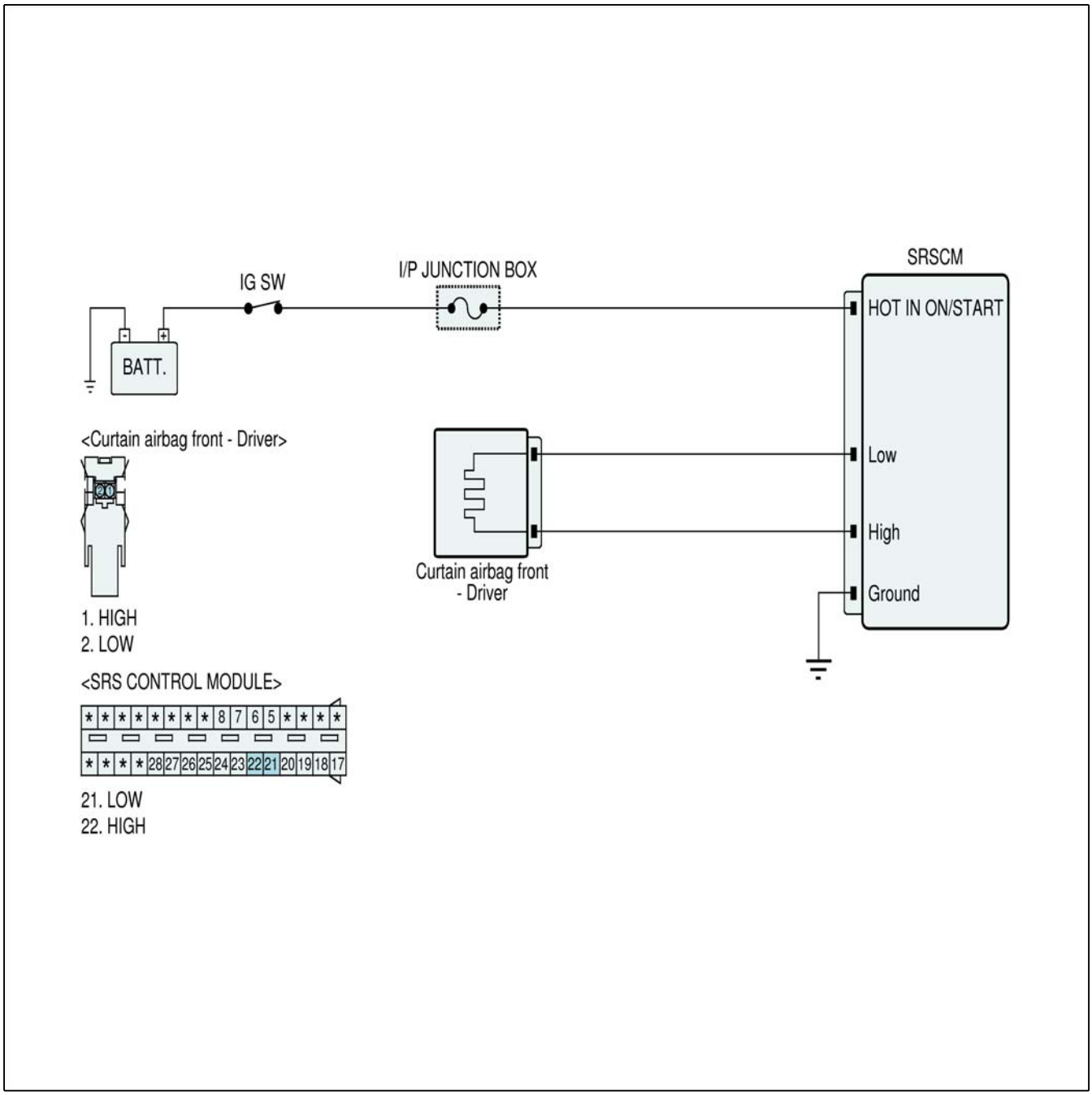
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to ground in DCAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty DCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Short to ground in DCAB	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9613L

Monitor Scantool Data

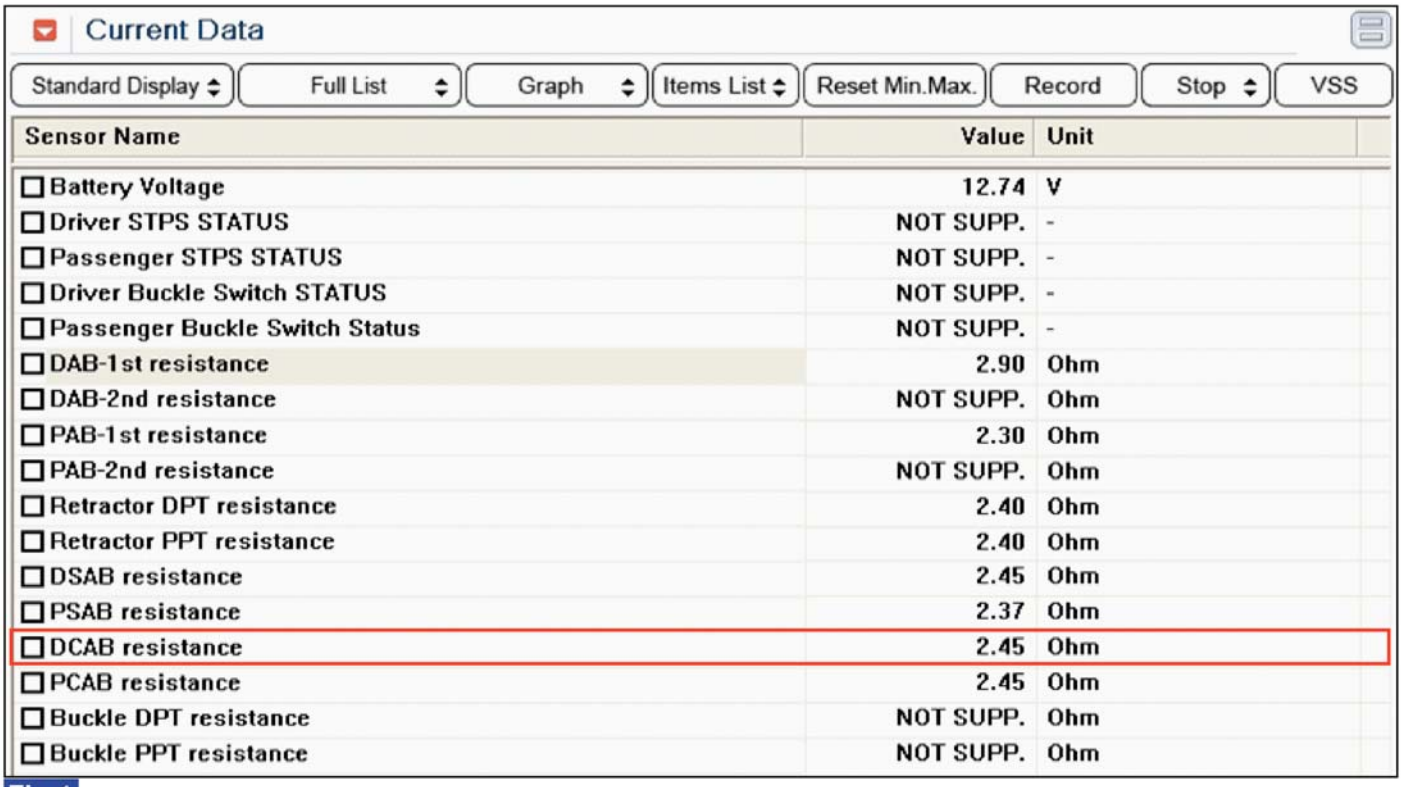
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front-Driver resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front-Driver < 6.6Ω

Reference : In a case of an open in the curtain airbag front-Driver circuit : FAIL

In a case of a short to battery in the curtain airbag front-Driver circuit: FAIL

In a case of a short to ground in the curtain airbag front-Driver circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9516L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

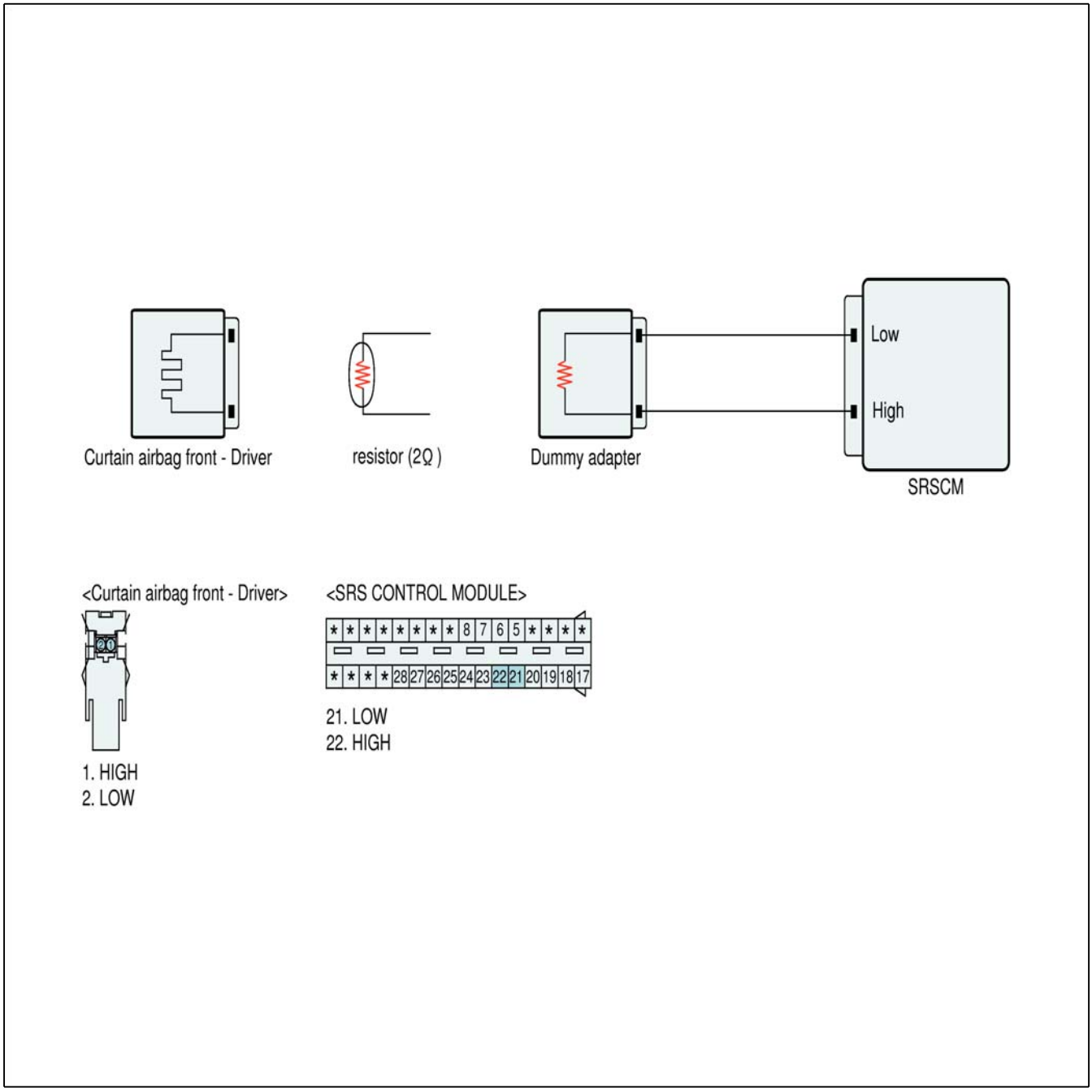
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF"
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect DCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good DCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147331

6. Is DTC present problem ?

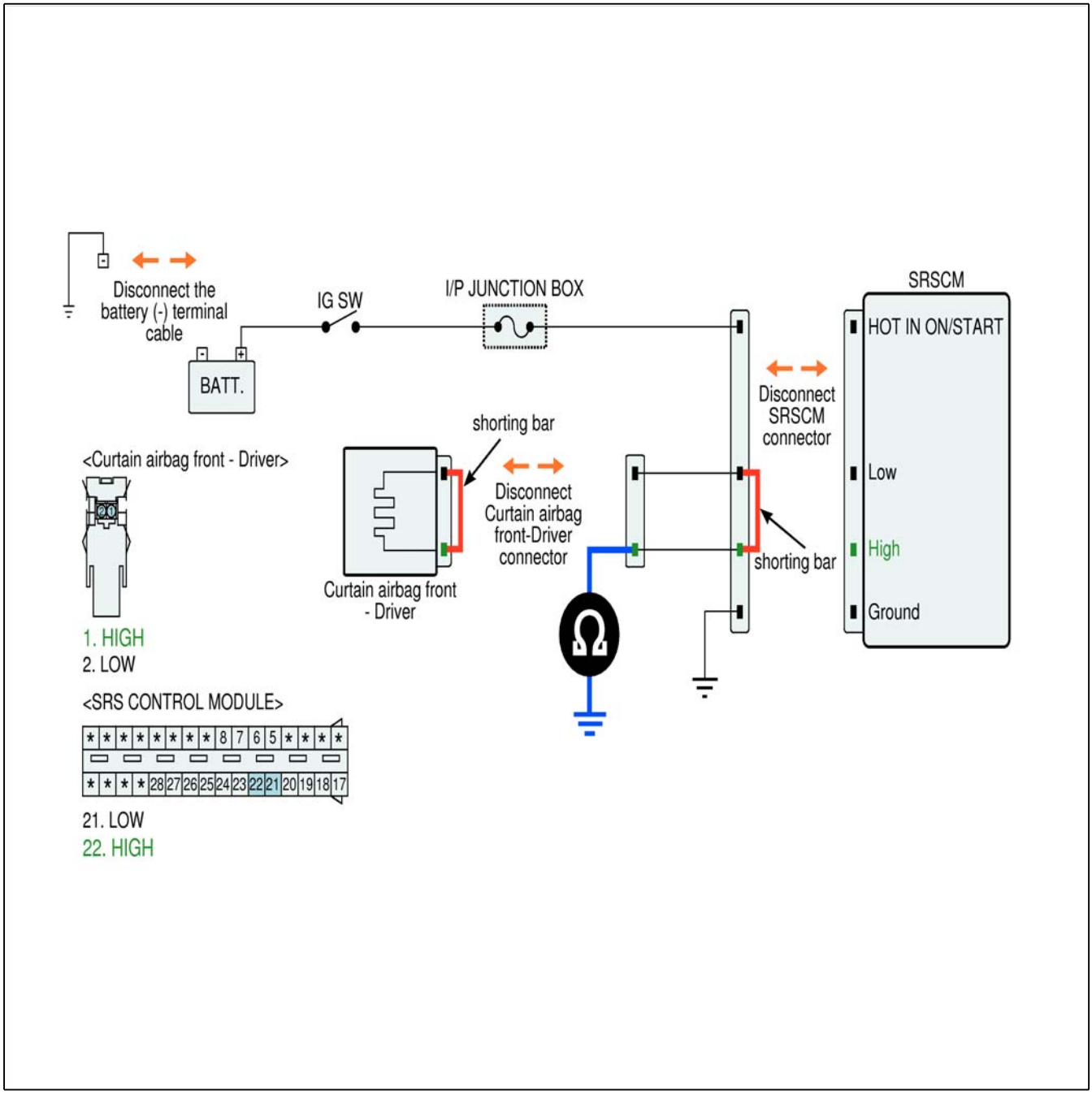
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect DCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" or "High" of the DCAB harness connector and chassis ground.

Specification : ∞



TD12179147532

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

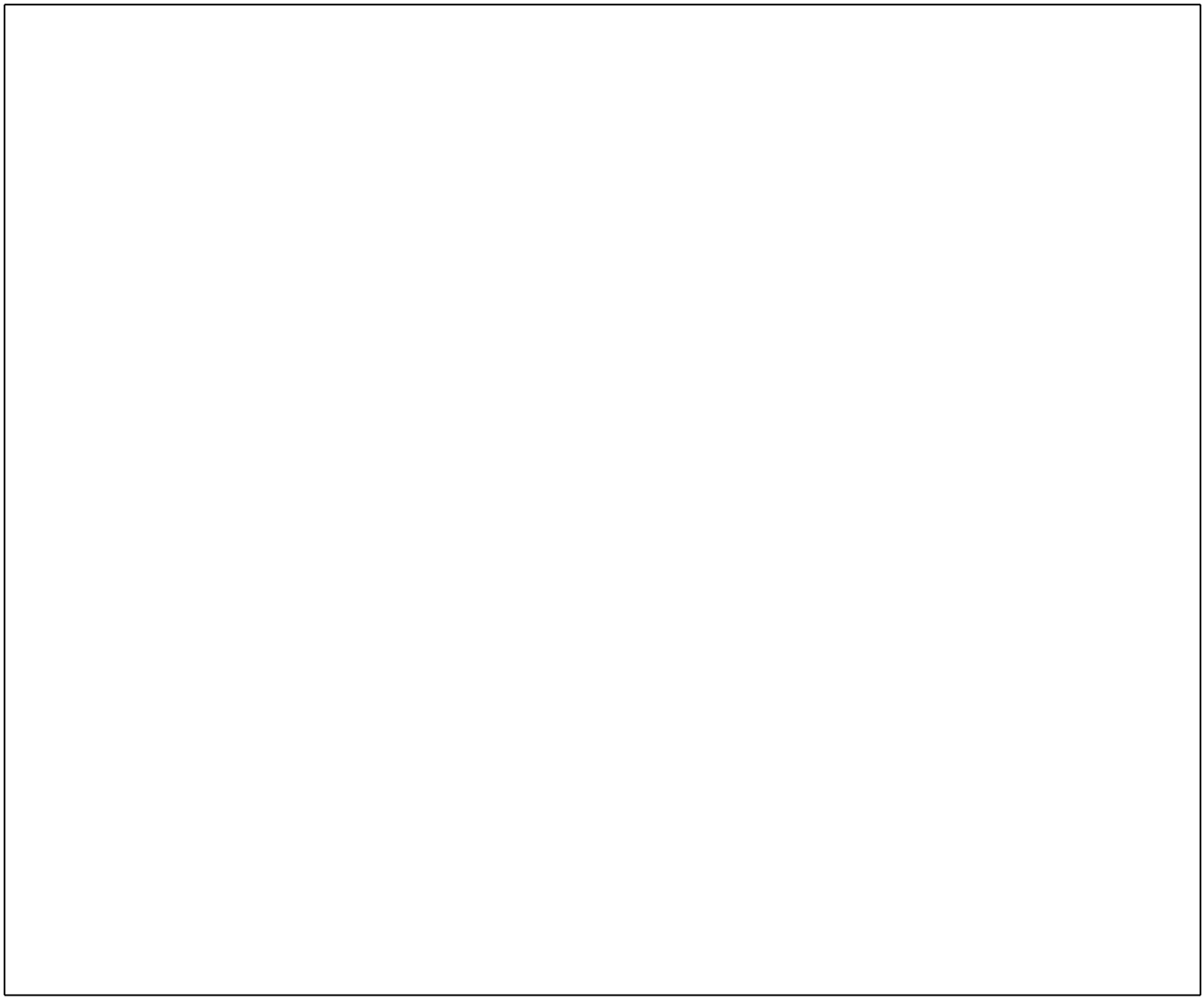
Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

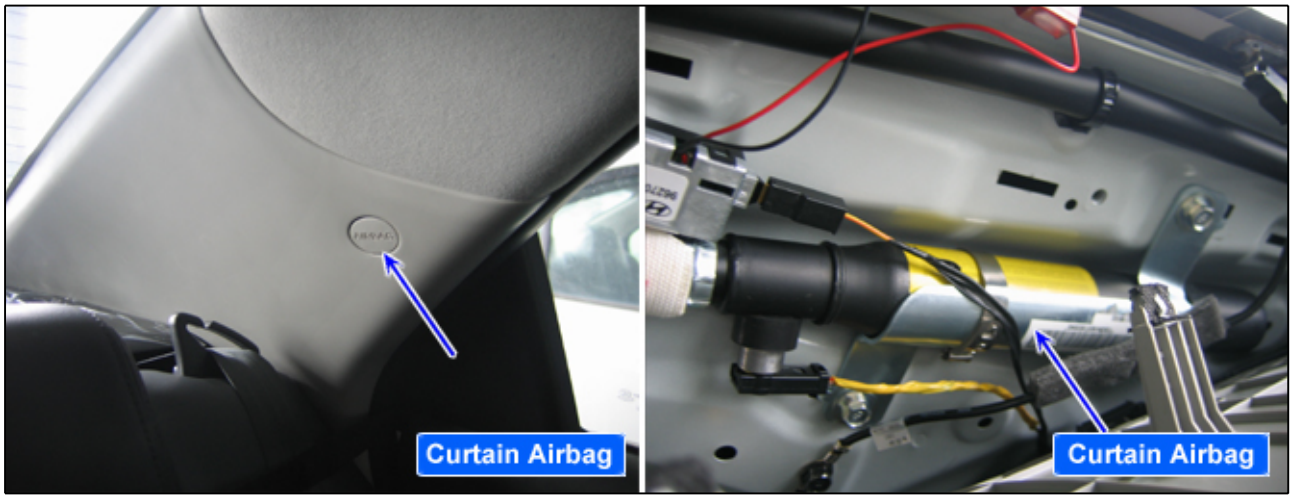
Schematic Diagram



TD12179P1473_76CC

B1476 Inflatable Curtain Airbag Front-Driver Resistance Circuit Short to Battery

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1476 if there is a short to power in DCAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

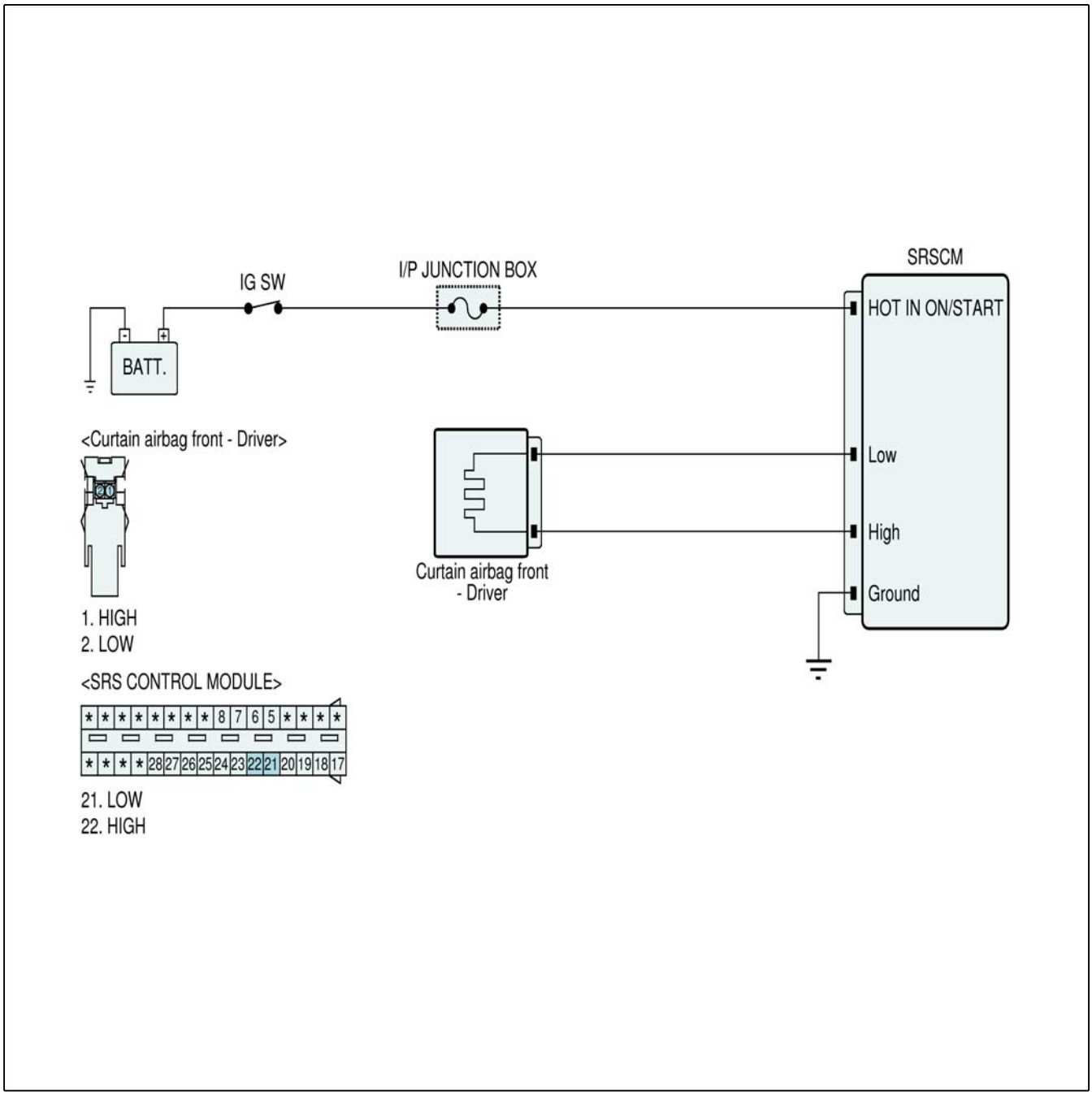
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to power in DCAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty DCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Short to power in DCAB	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9613L

Monitor Scantool Data

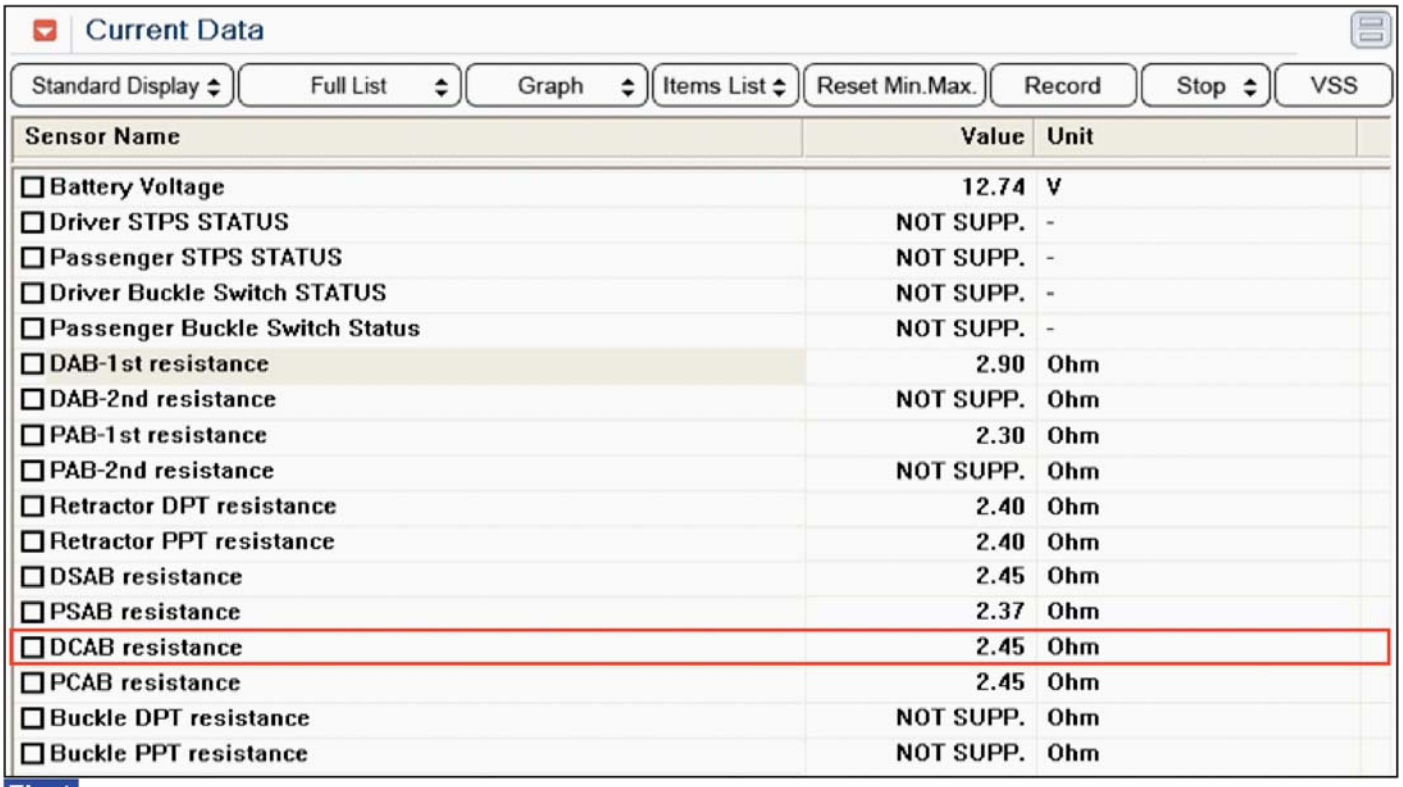
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Driver resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Driver < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Driver circuit : FAIL

In a case of a short to battery in the curtain airbag front−Driver circuit: FAIL

In a case of a short to ground in the curtain airbag front−Driver circuit : FAIL


Current Data

Standard Display | Full List | Graph | Items List | Reset Min.Max. | Record | Stop | VSS

Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9516L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

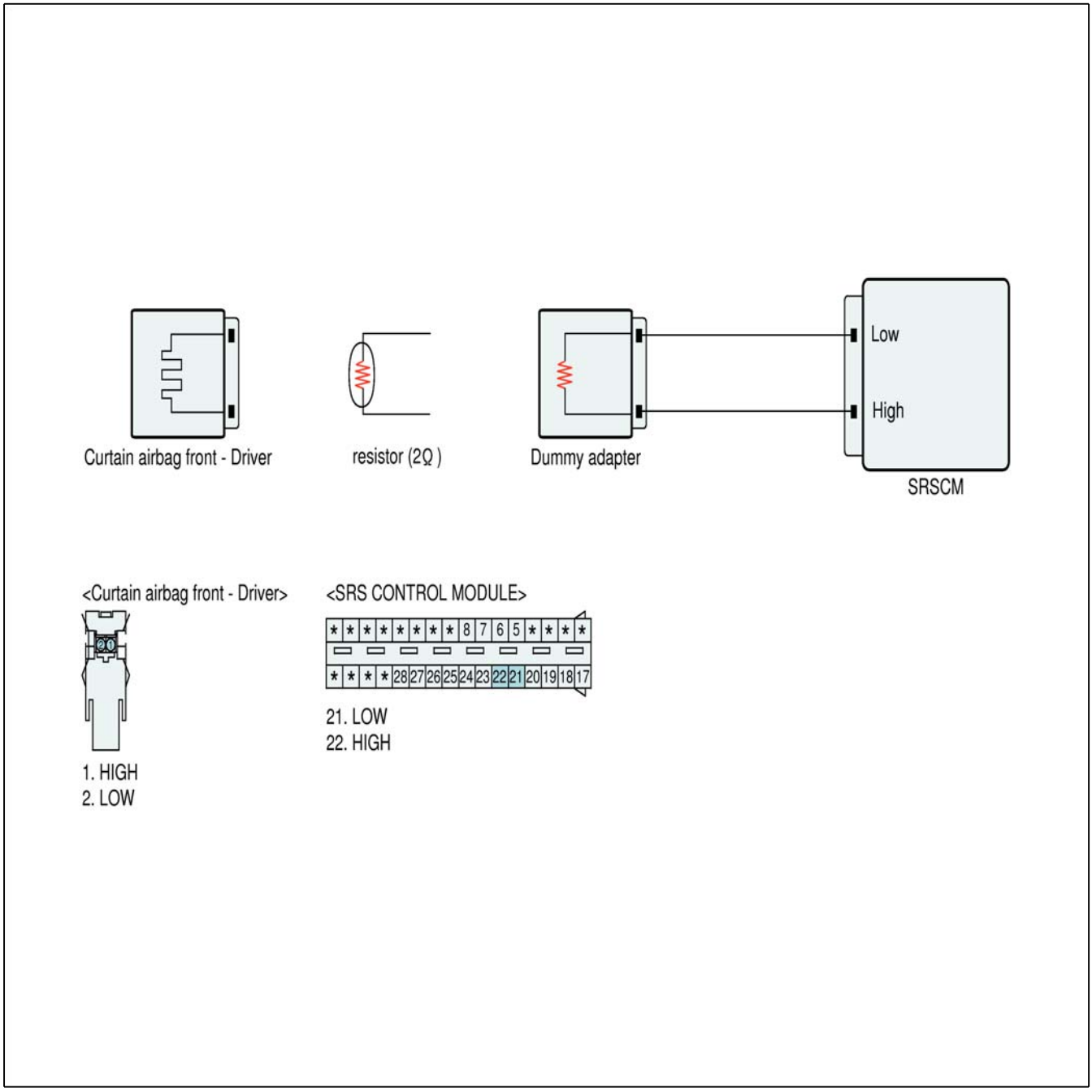
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect DCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good DCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147331

6. Is DTC present problem ?

YES ▶ Go to "Main harness circuit inspection" procedure.

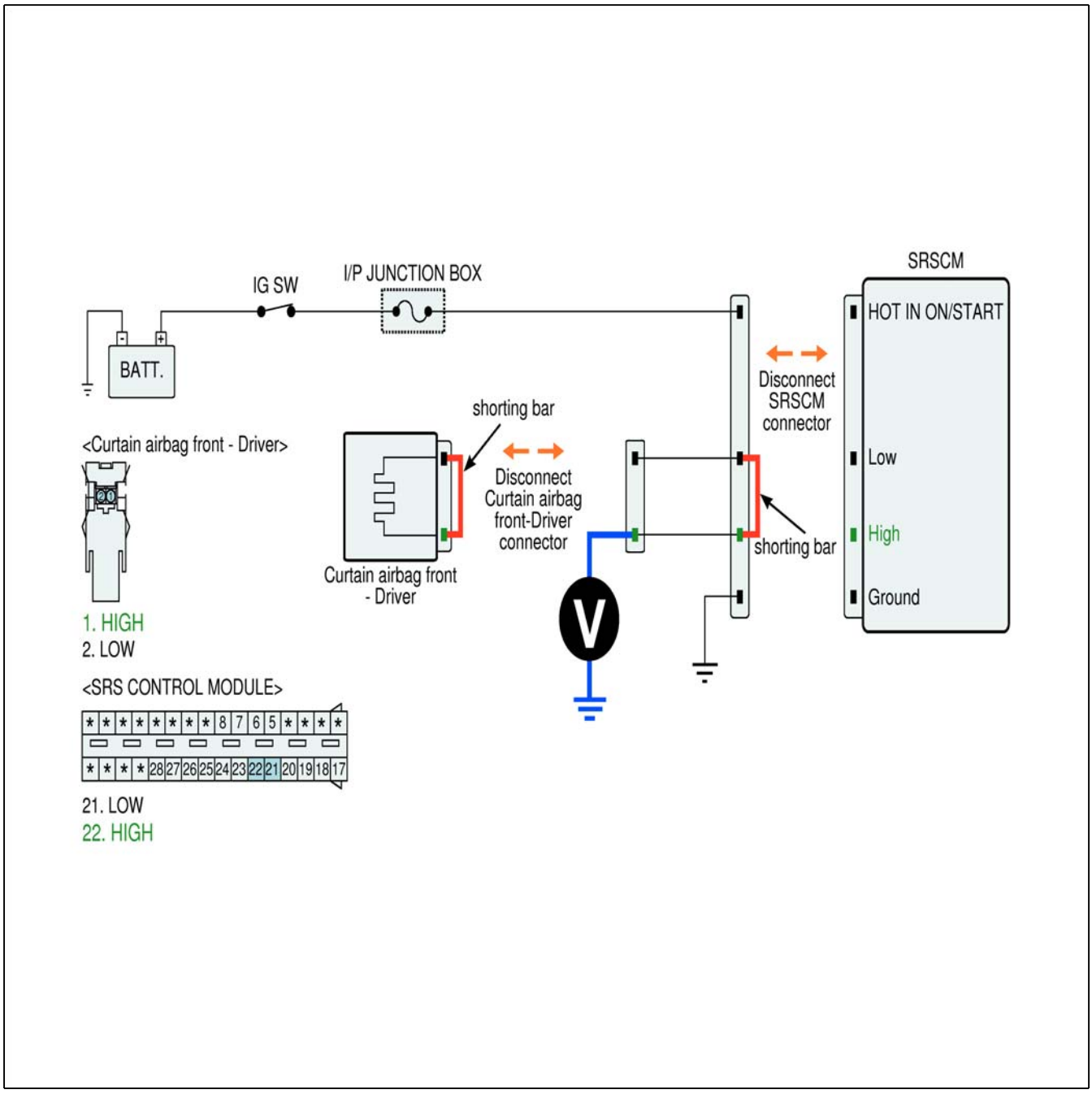
NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect DCAB connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".

5. Measure voltage between terminal "Low" or "High" of the DCAB harness connector and chassis ground.

Specification : approx. 0V



TD12179147632

6. Is the measured voltage within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

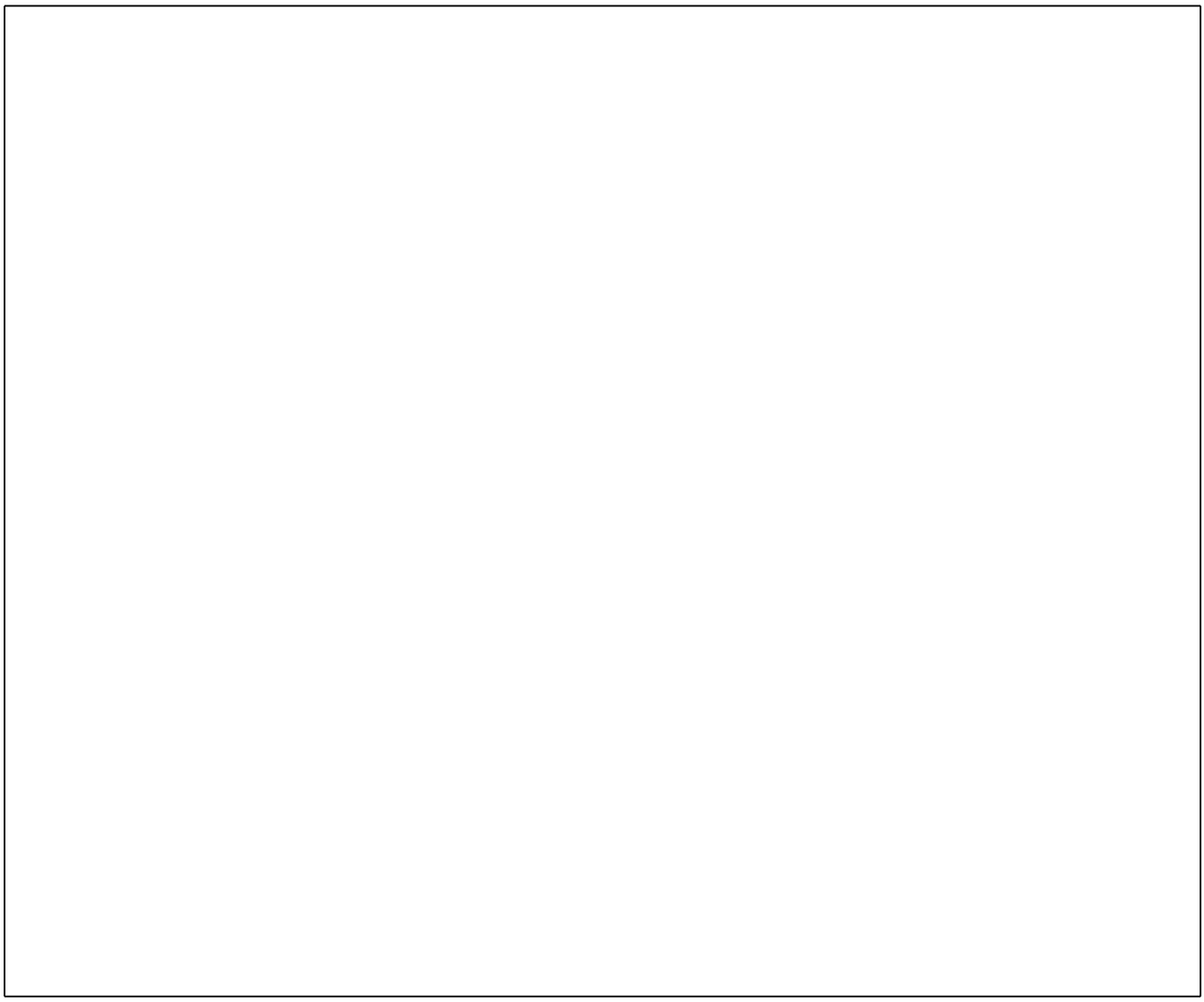
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

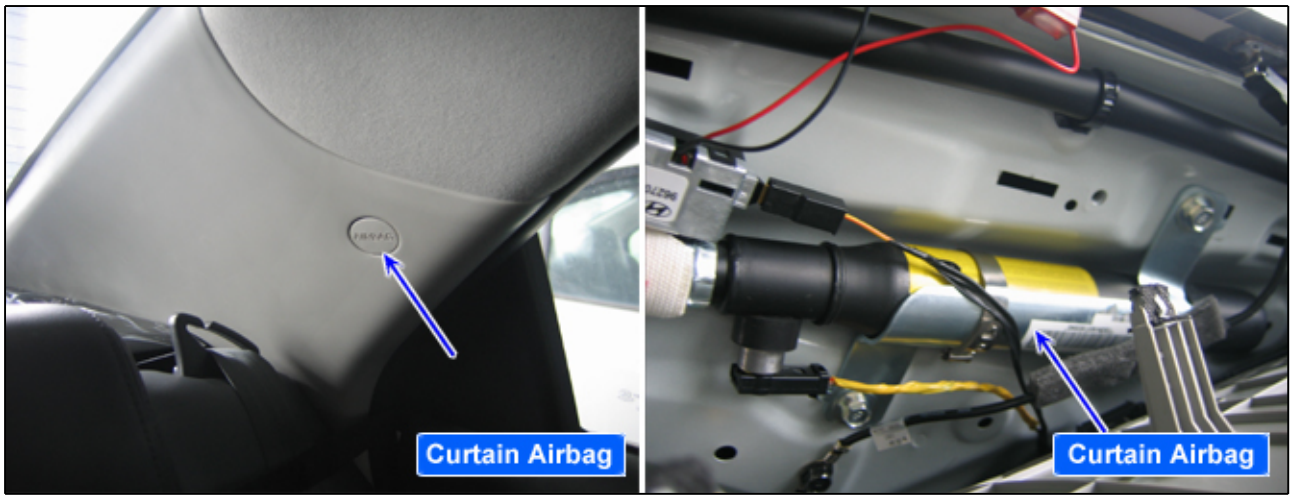
Schematic Diagram



TD12179P1473_76CC

B1477 Inflatable Curtain Airbag Front-Passenger Resistance too High

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1477 if the measured resistance value of PCAB circuit is more than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

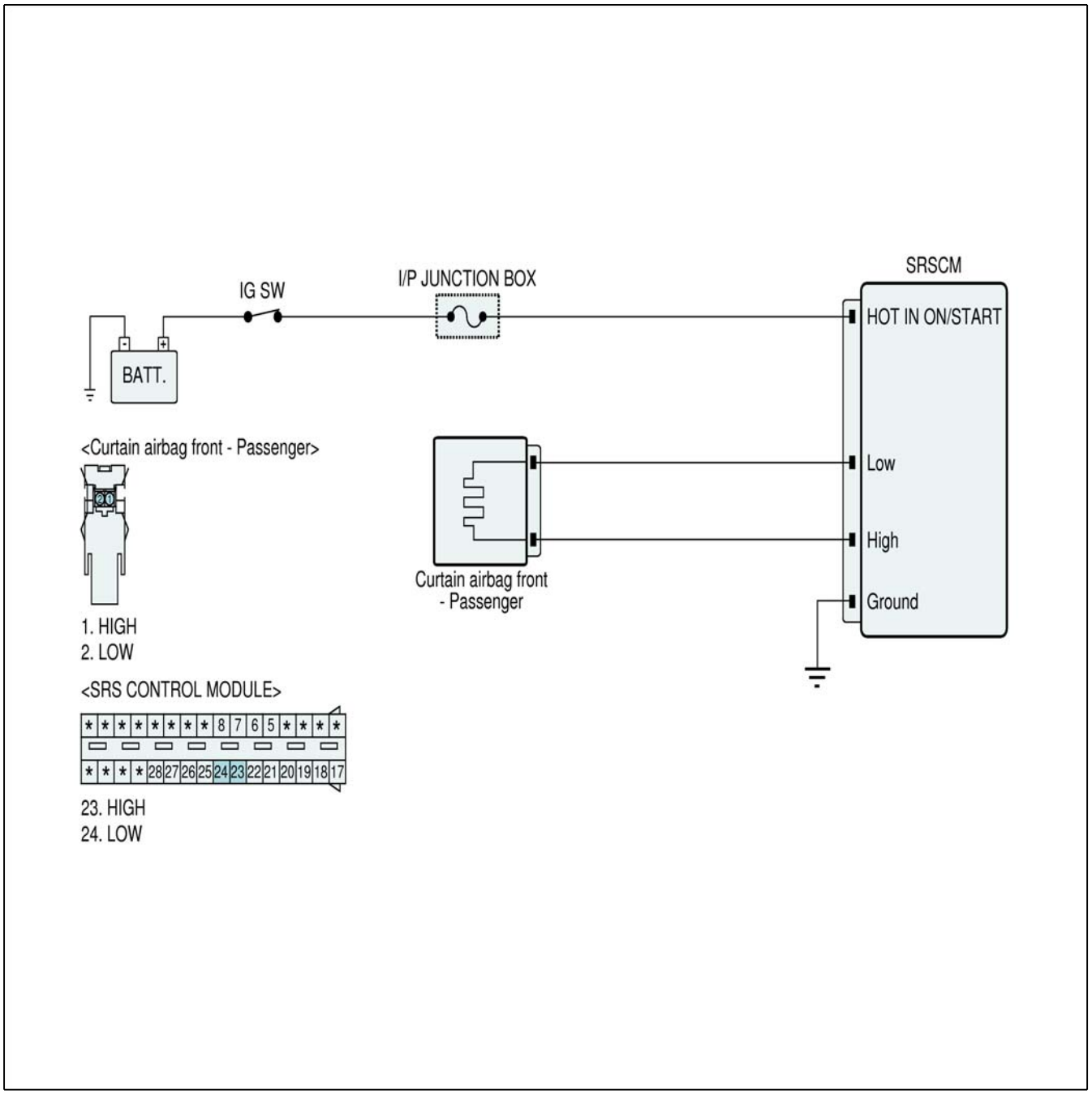
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PCAB resistance ≥ 6.7Ω	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9614L

Monitor Scantool Data

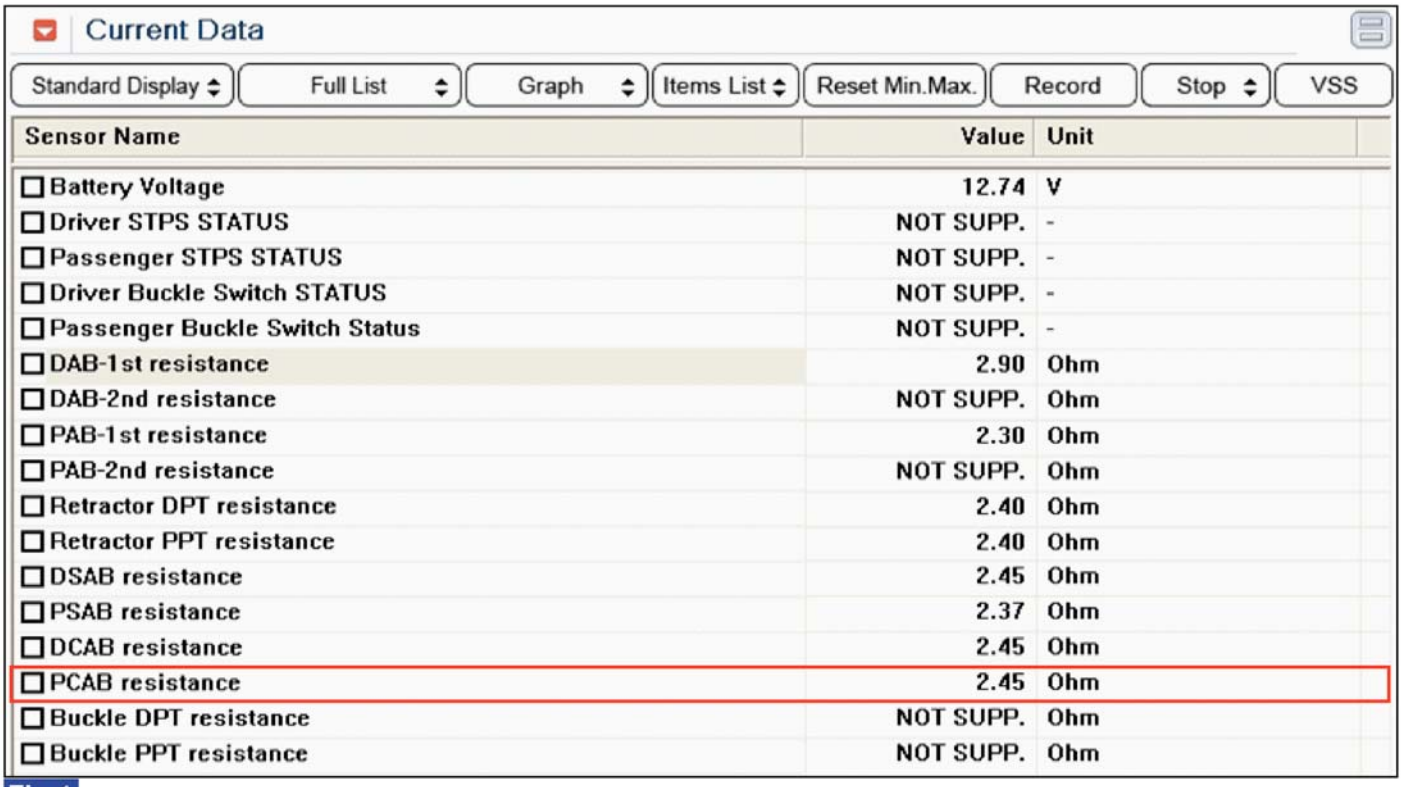
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to battery in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to ground in the curtain airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9517L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

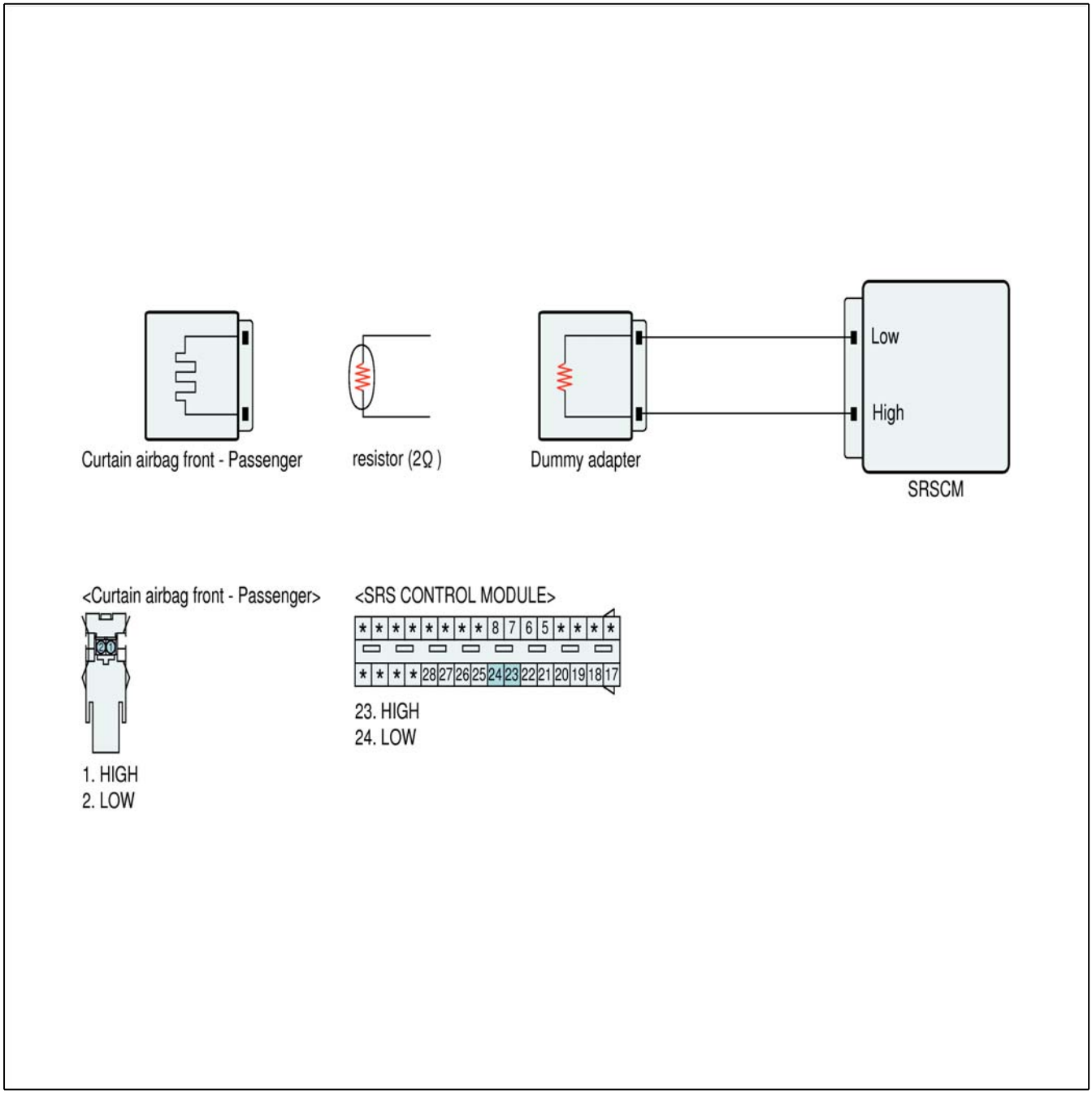
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147731

6. Is DTC present problem ?

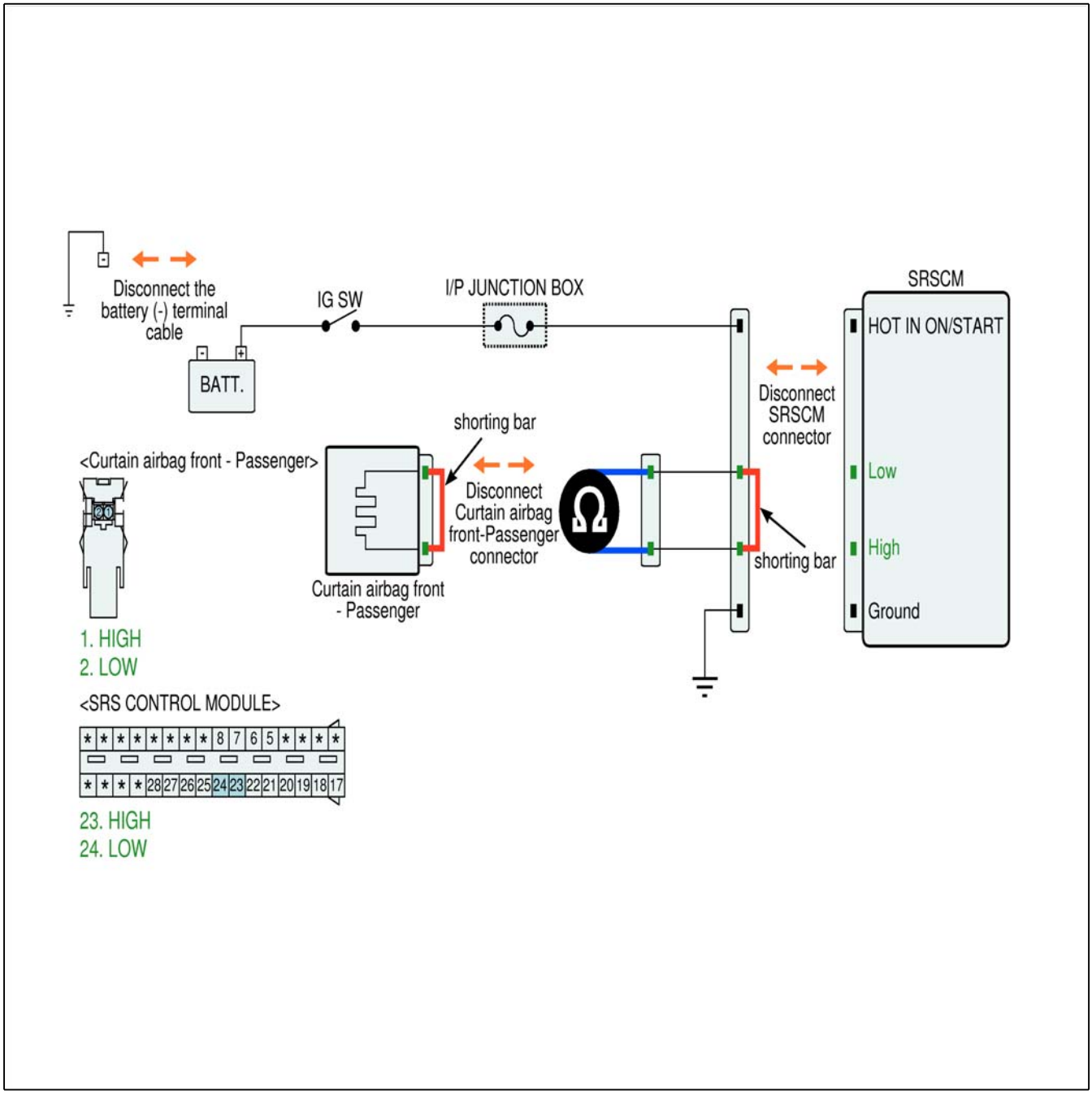
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the PCAB harness connector.

Specification : approx. 1 Ω below



TD12179147732

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

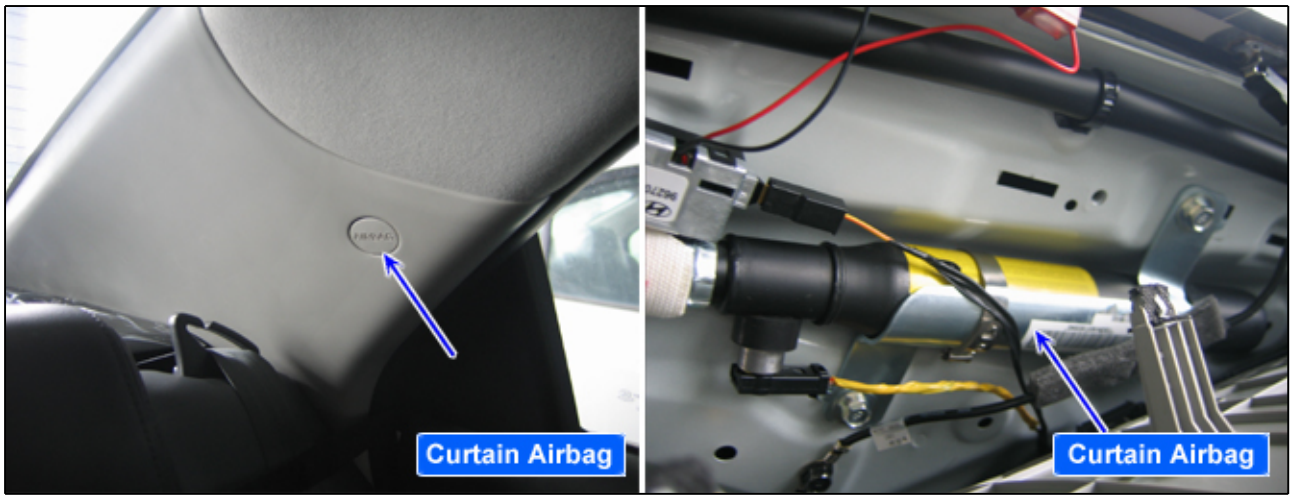
NO ▶ System is performing to specification at this time.

Schematic Diagram

TD12179P1477_80CC

B1478 Inflatable Curtain Airbag Front-Passenger Resistance too Low

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1478 if the measured resistance value of PCAB circuit is less than the threshold value.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

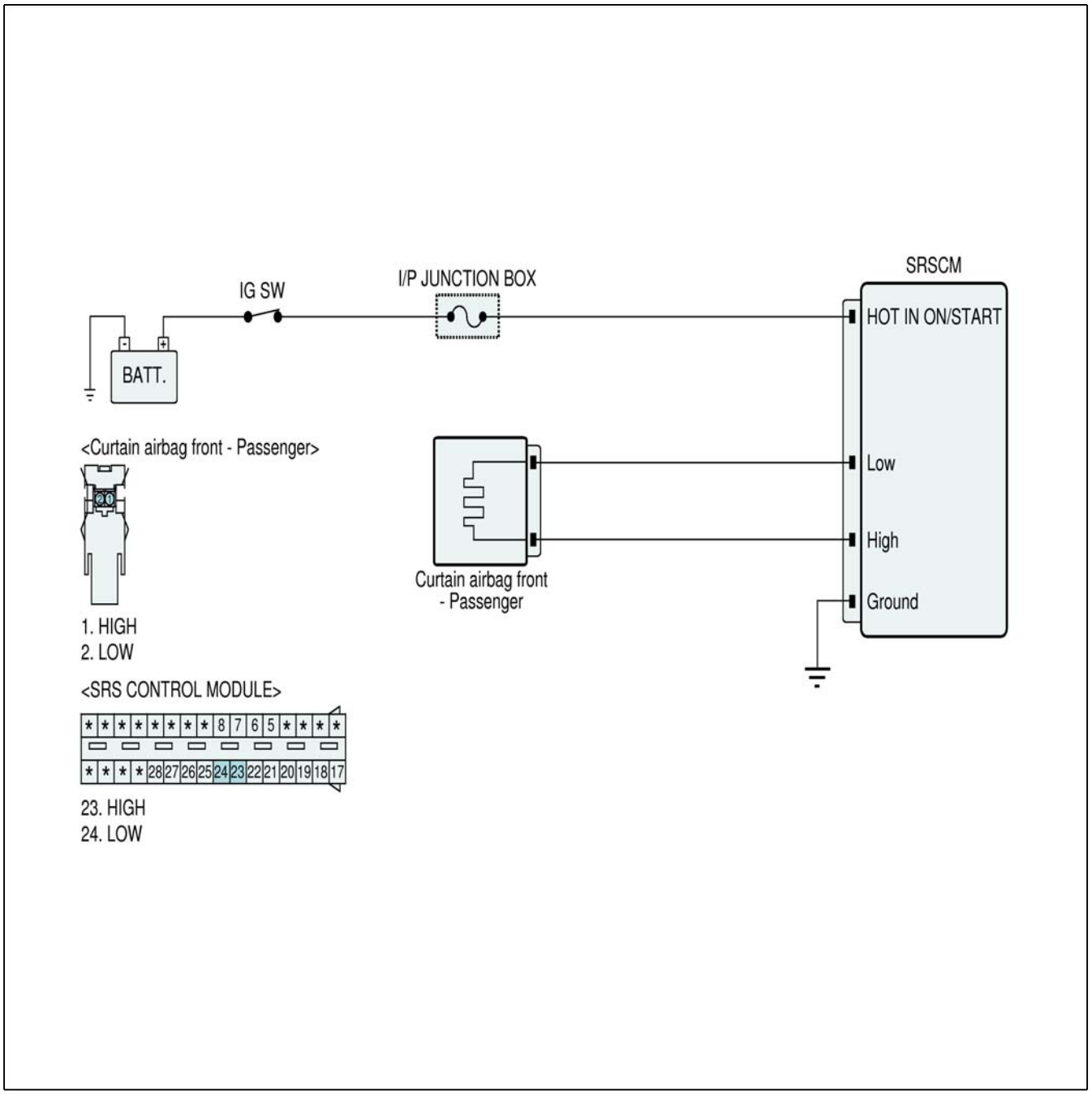
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• PCAB resistance ≤ 1.1Ω	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9614L

Monitor Scantool Data

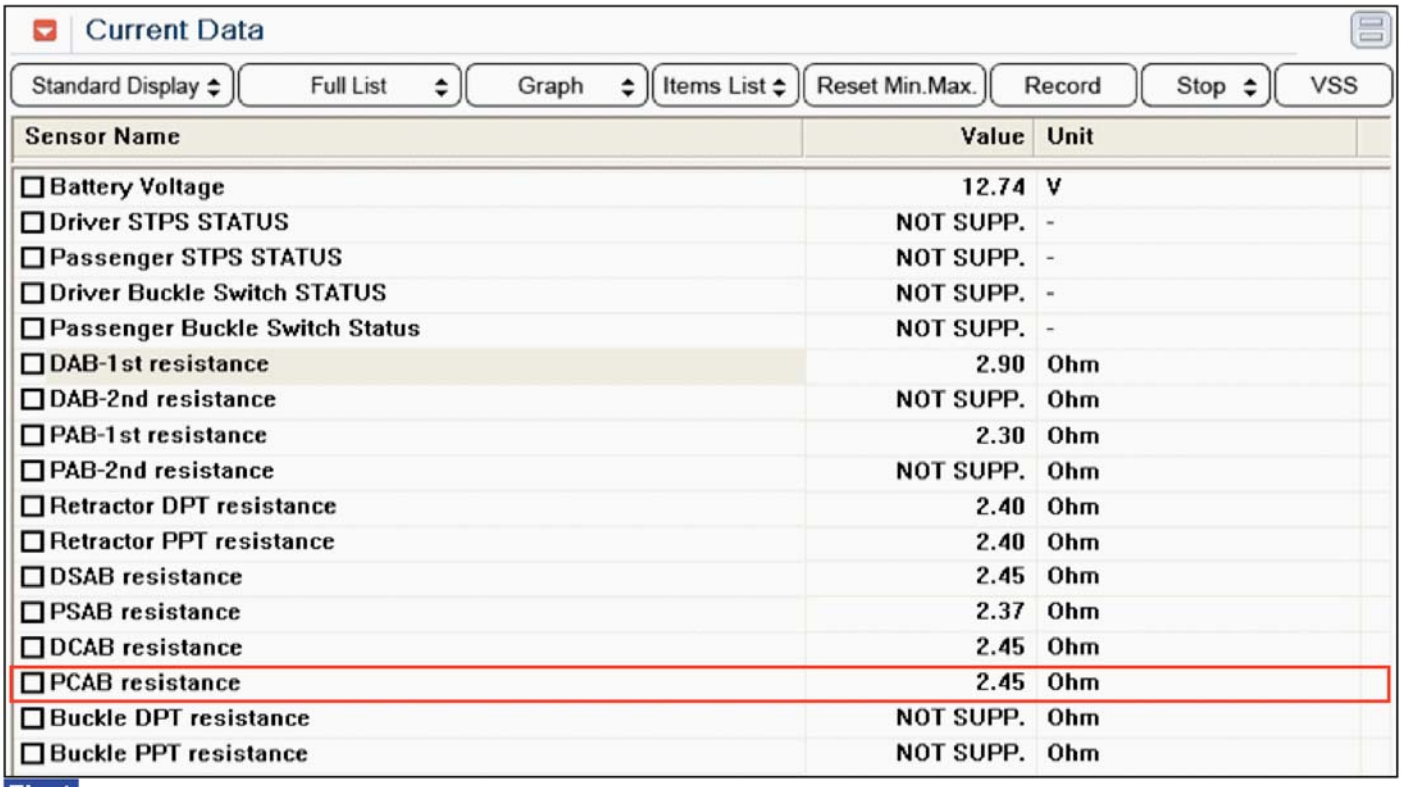
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to battery in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to ground in the curtain airbag front−Passenger circuit : FAIL


Current Data

Standard Display | Full List | Graph | Items List | Reset Min.Max. | Record | Stop | VSS

Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9517L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

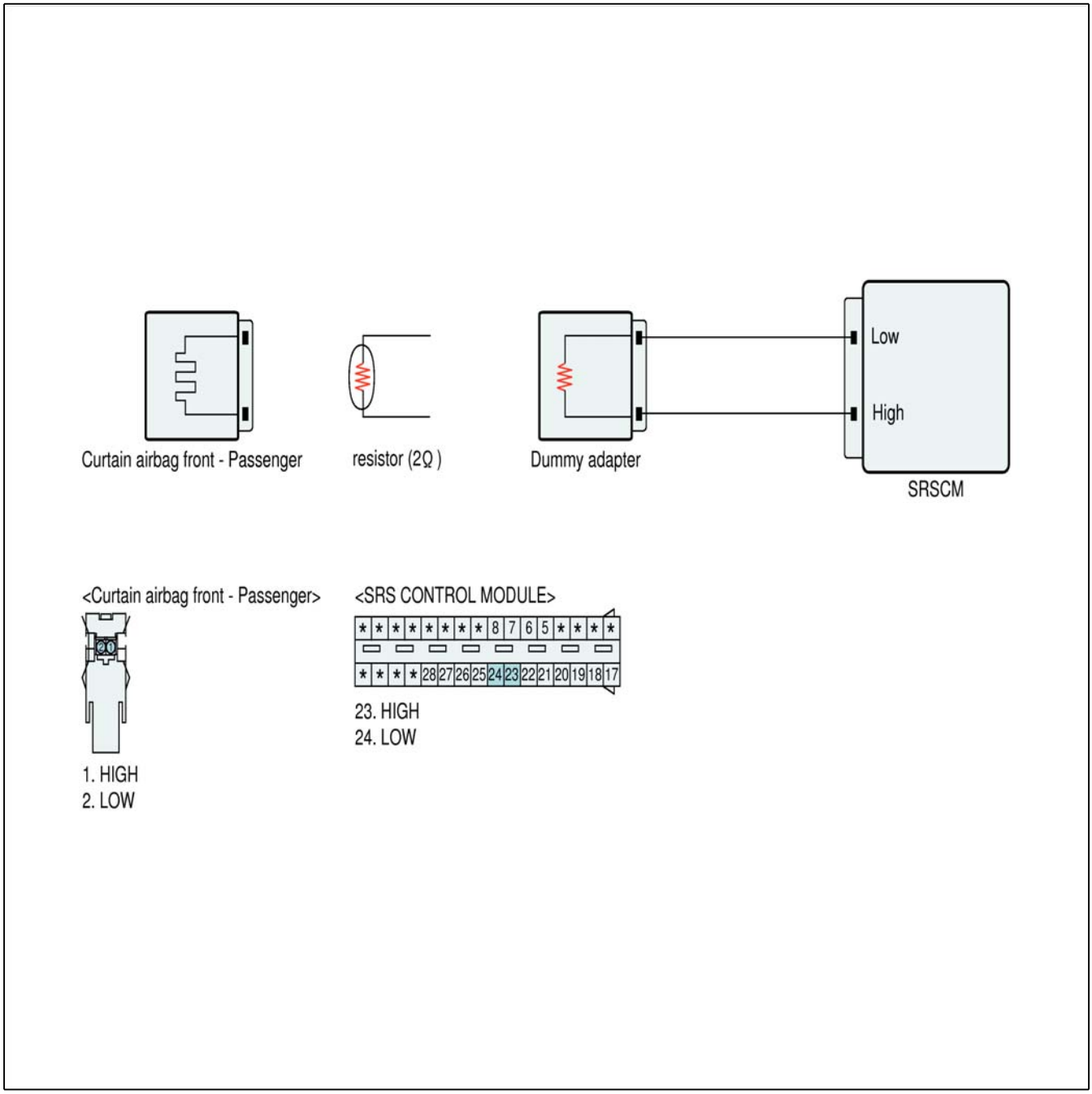
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147731

6. Is DTC present problem ?

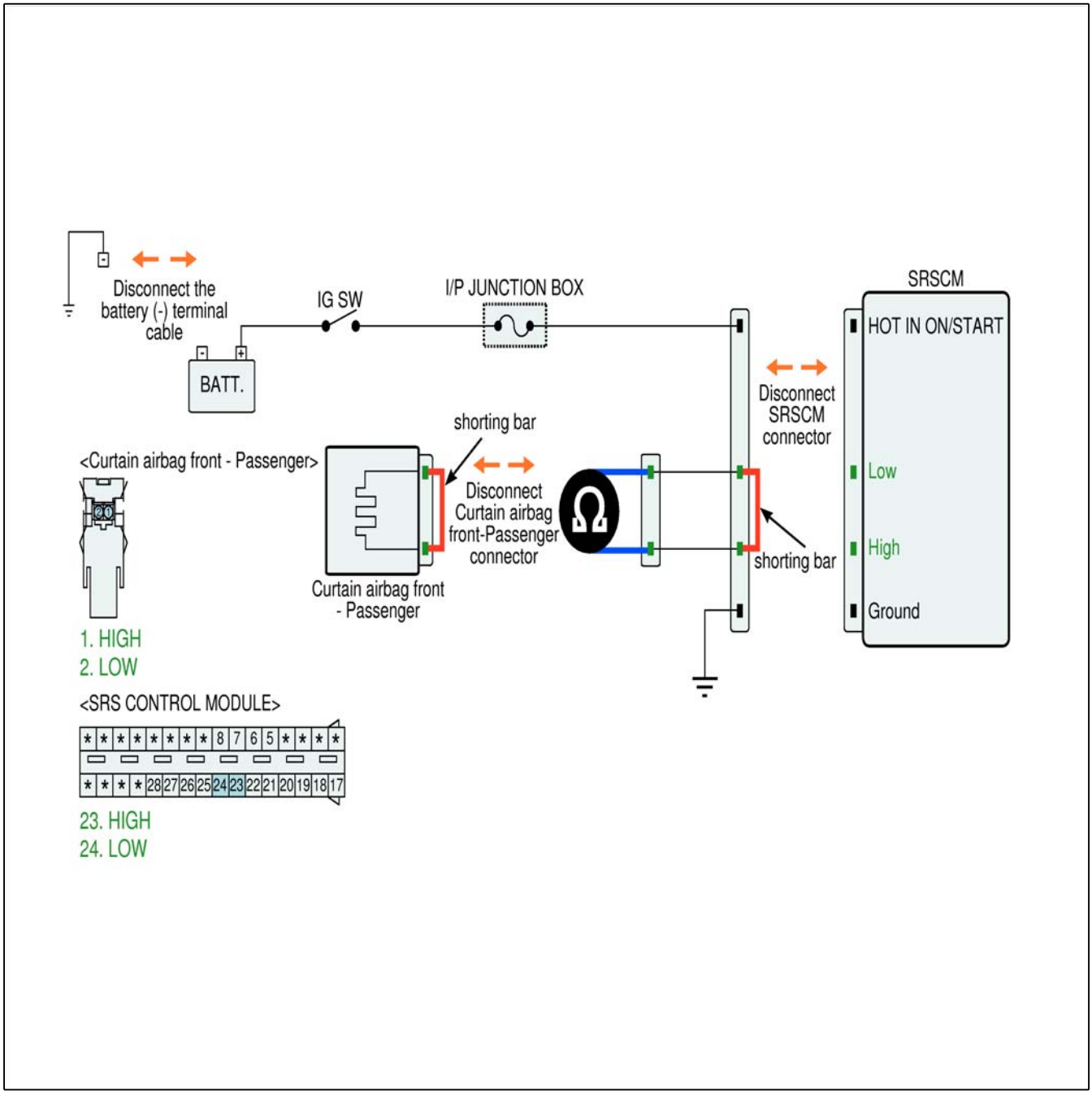
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" and "High" of the PCAB harness connector.

Specification : approx. 1 Ω below



TD12179147732

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

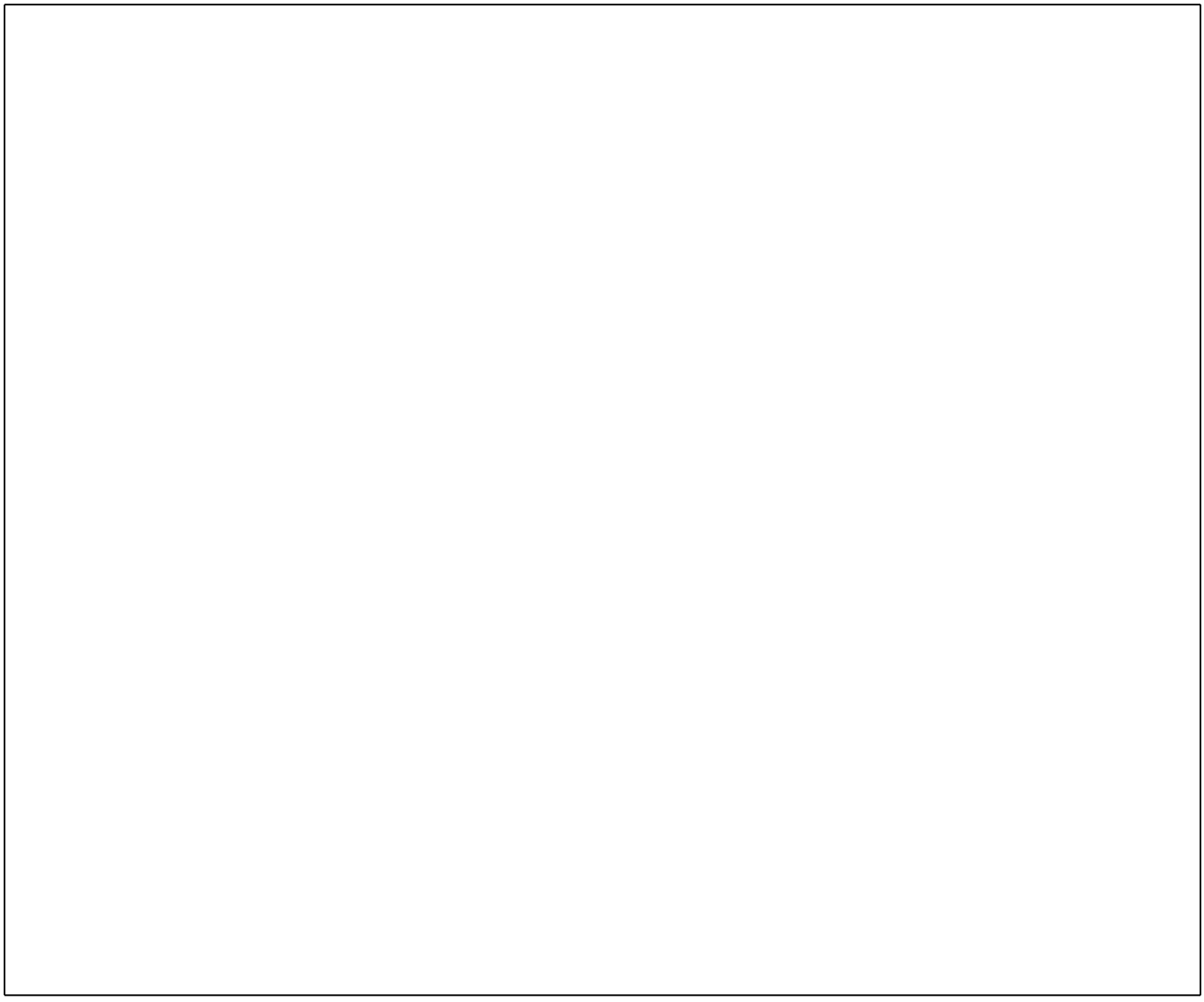
Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting p-rocedure.

NO ▶ System is performing to specification at this time.

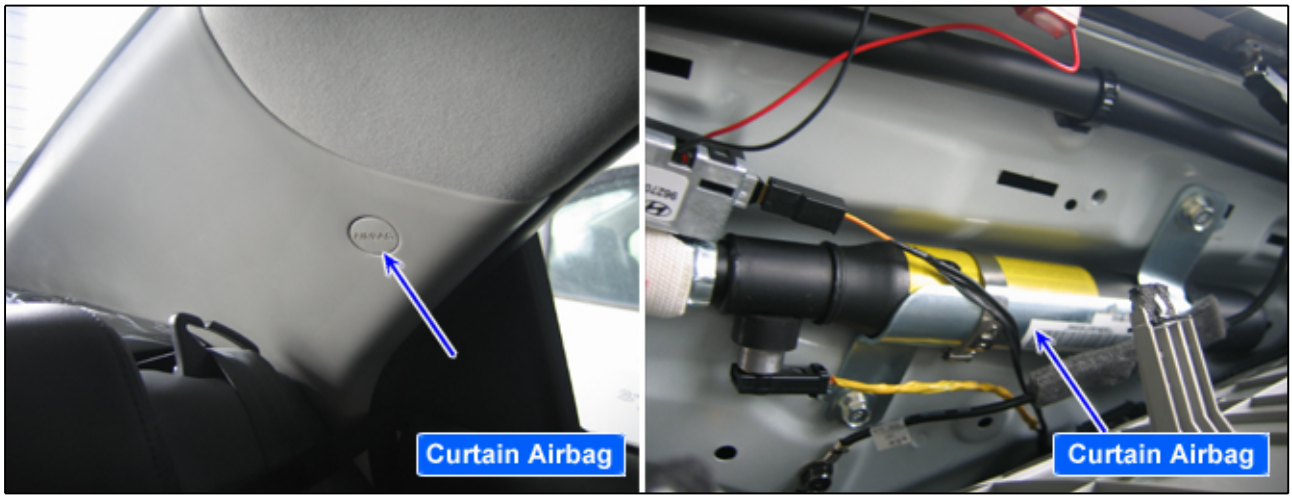
Schematic Diagram



TD12179P1477_80CC

B1479 Inflatable Curtain Airbag Front-Passenger Resistance Circuit Short to Ground

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1479 if there is a short to ground in PCAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

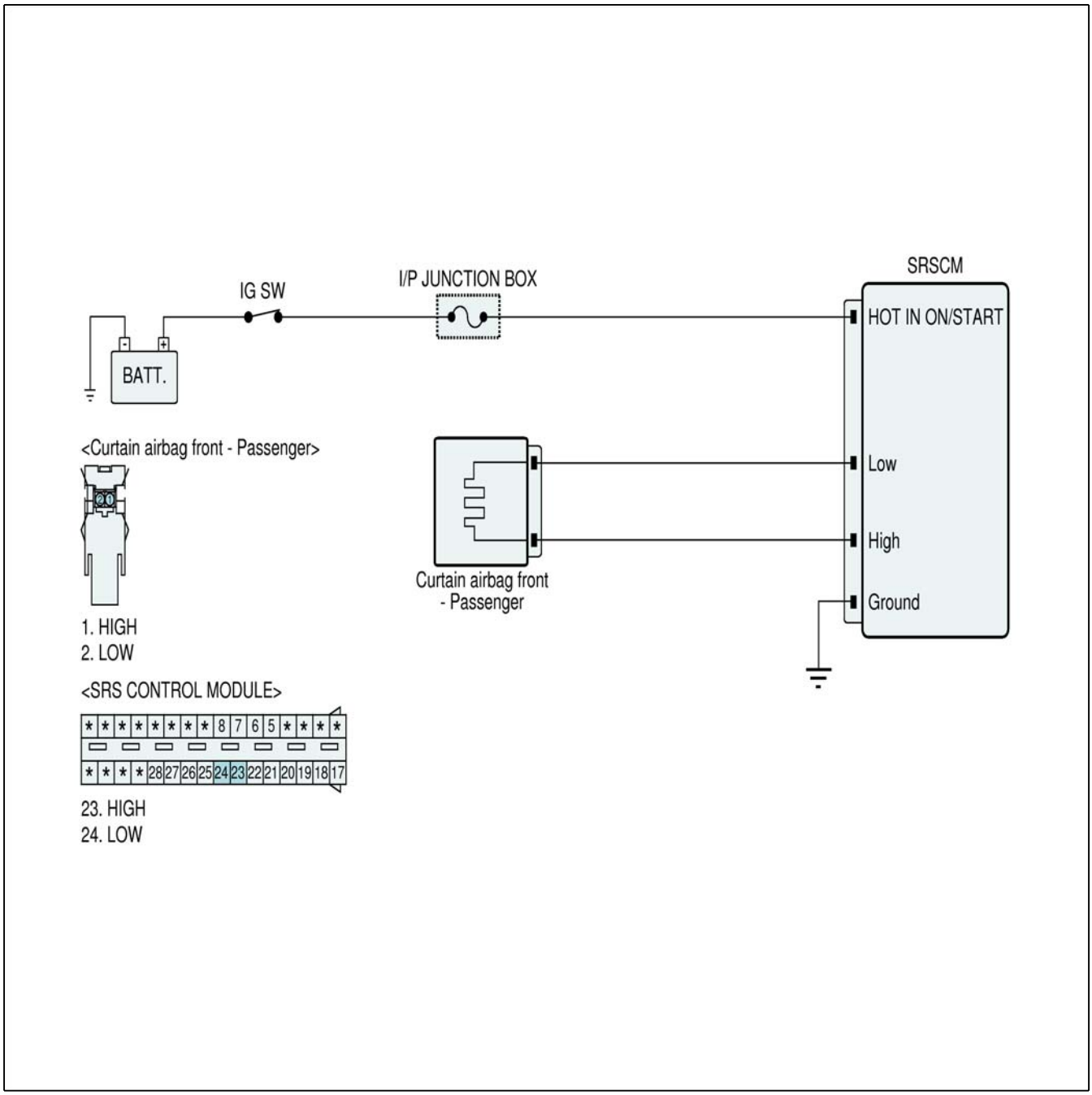
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to ground in PCAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Short to ground in PCAB	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9614L

Monitor Scantool Data

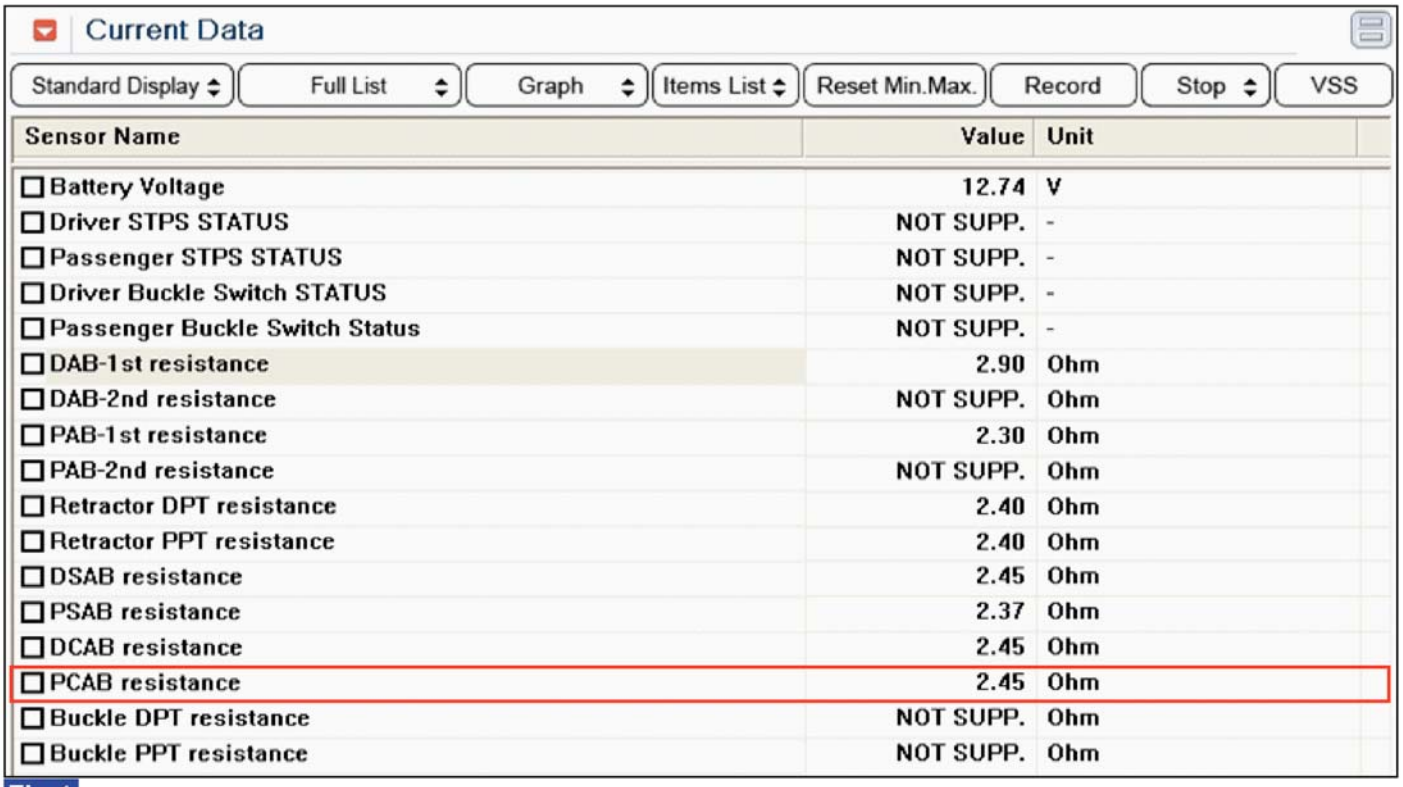
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to battery in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to ground in the curtain airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9517L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

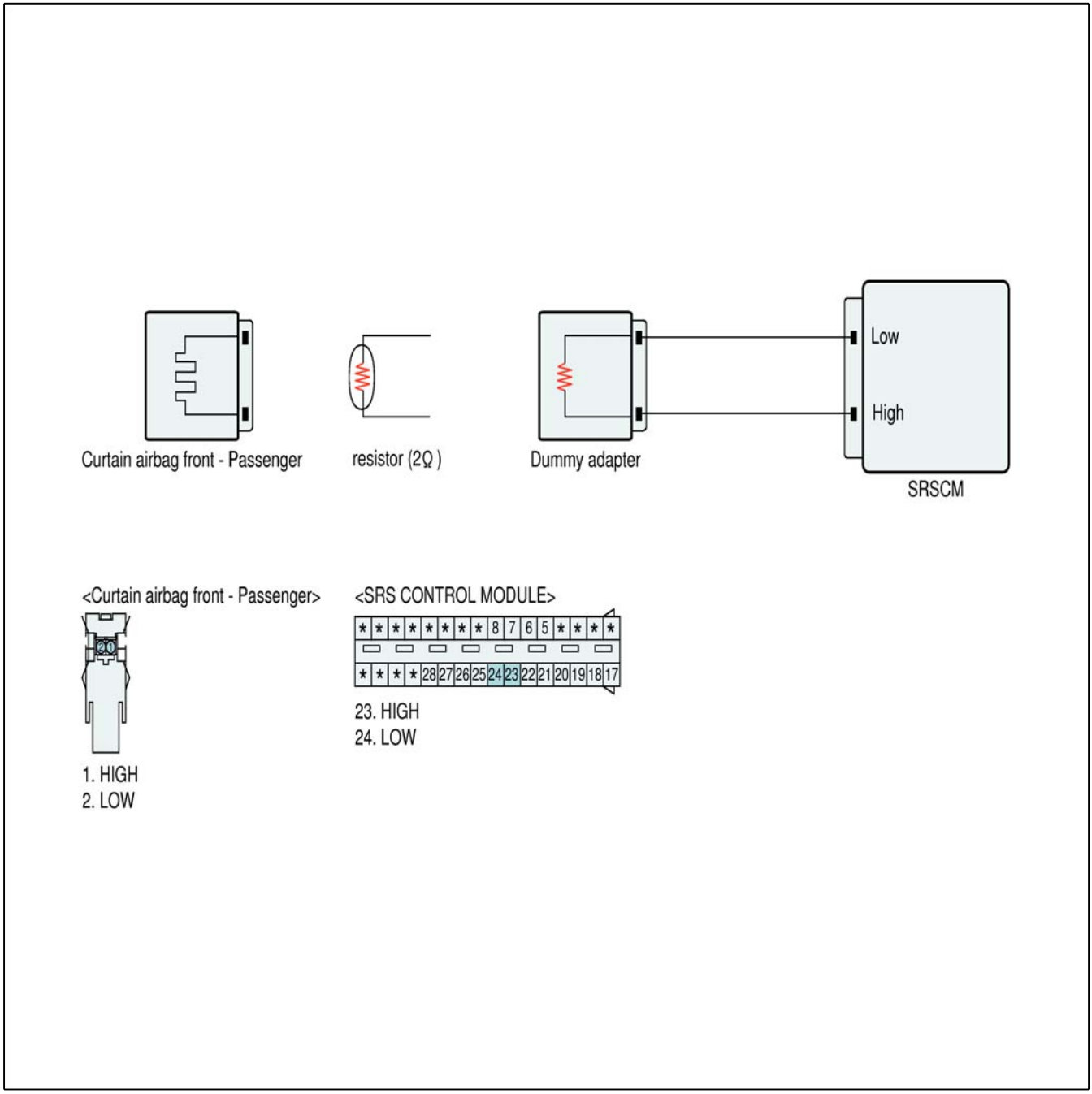
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147731

6. Is DTC present problem ?

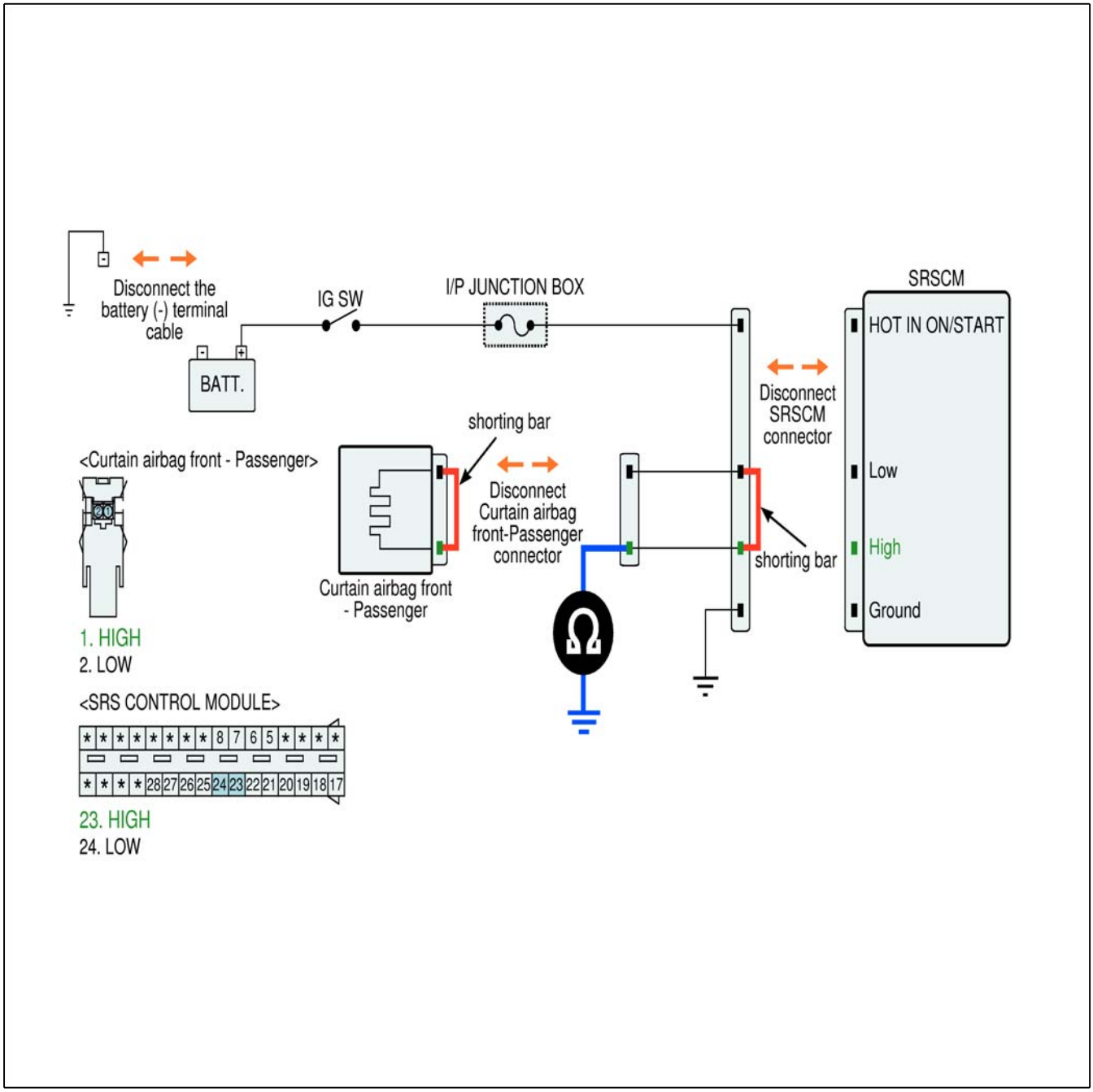
YES ▶ Go to "Main harness circuit inspection" procedure.

NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PCAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "Low" or "High" of the PCAB harness connector and chassis ground.

Specification : ∞



TD12179147932

5. Is the measured resistance within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness a-nd check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verific-ation of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic

Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

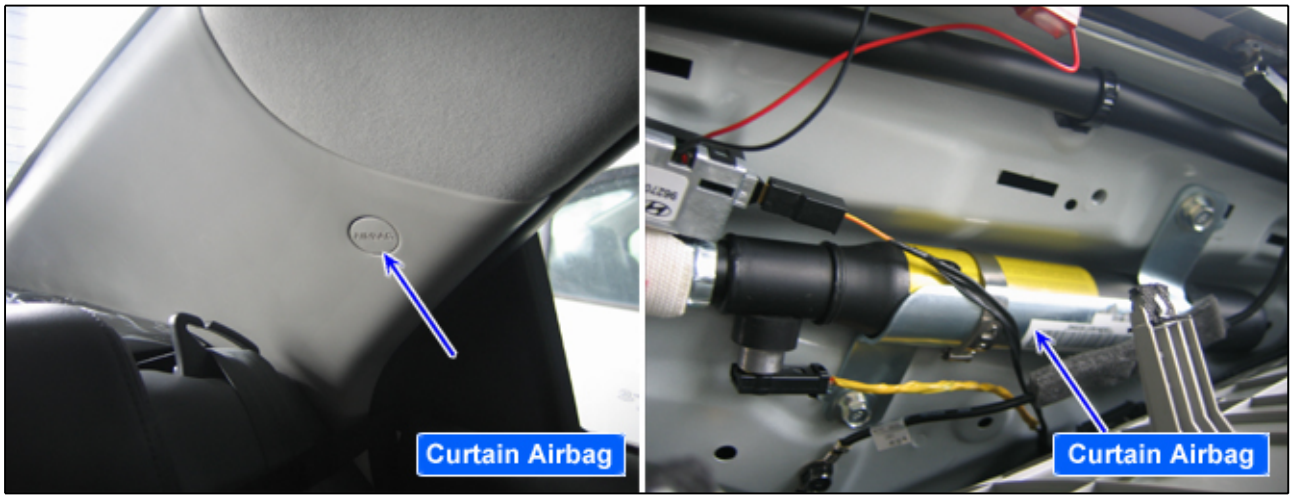
NO ▶ System is performing to specification at this time.

Schematic Diagram

TD12179P1477_80CC

B1480 Inflatable Curtain Airbag Front-Passenger Resistance Circuit Short to Battery

Component Location



TD12179147311

General Description

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner

It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn.

CAB is consist of air bag and inflator.

Air bag reduces impact of collision by fillied up gas.

Inflator keeps gas and uses it to deploy air bag on collision.

⚠CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC Description

The SRSCM sets DTC B1480 if there is a short to power in PCAB harness.

*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

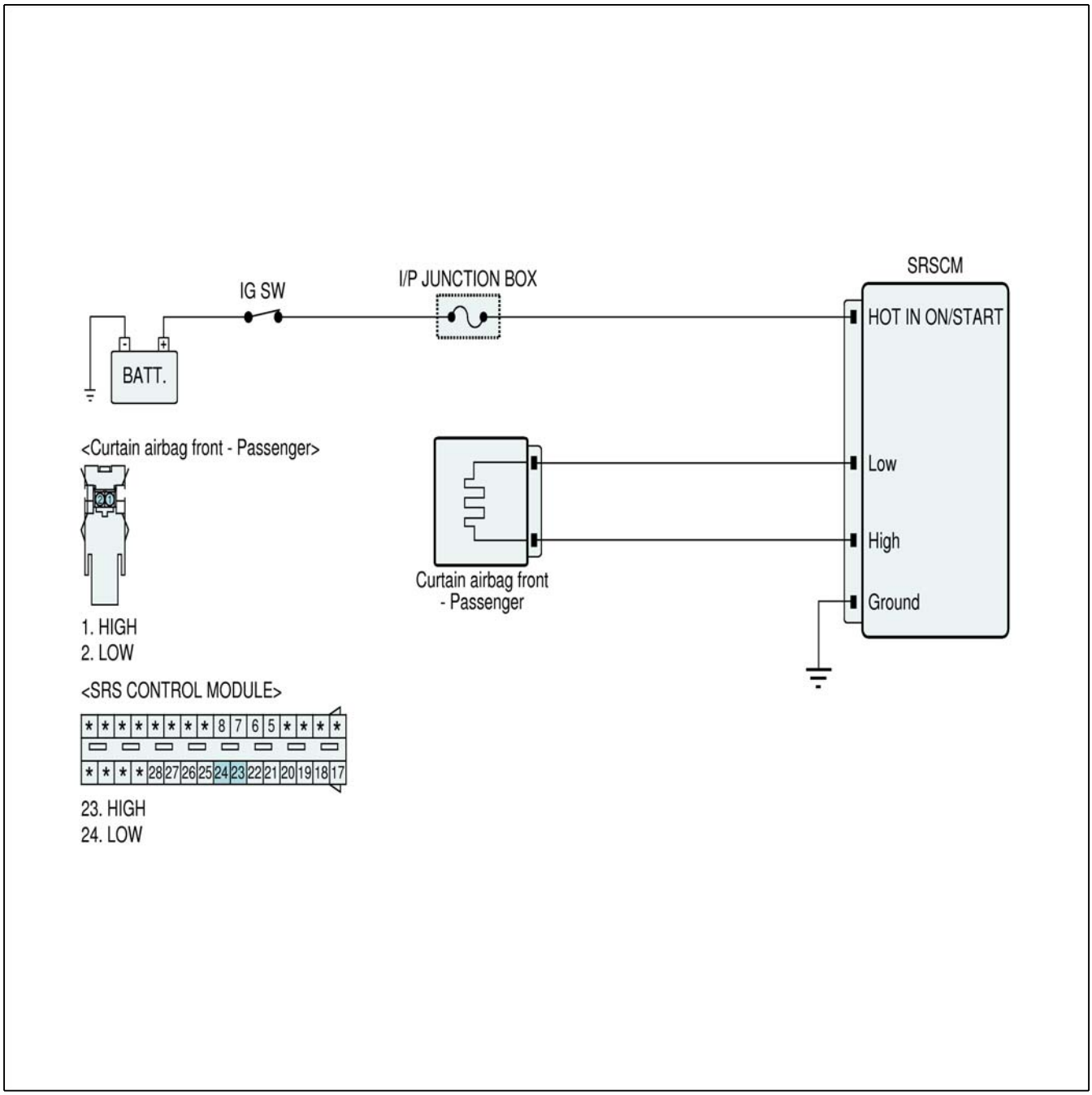
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check Voltage	• Short to power in PCAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PCAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Short to power in PCAB	
Diagnostic Time	Qualification	• More than 1 sec	
	De-Qualification	• More than 2 sec	

Specification

Test Condition	Resistance
Ignition ON	1.6Ω ≤ Squib resistance ≤ 5.8Ω

Diagnostic Circuit Diagram



STDRT9614L

Monitor Scantool Data

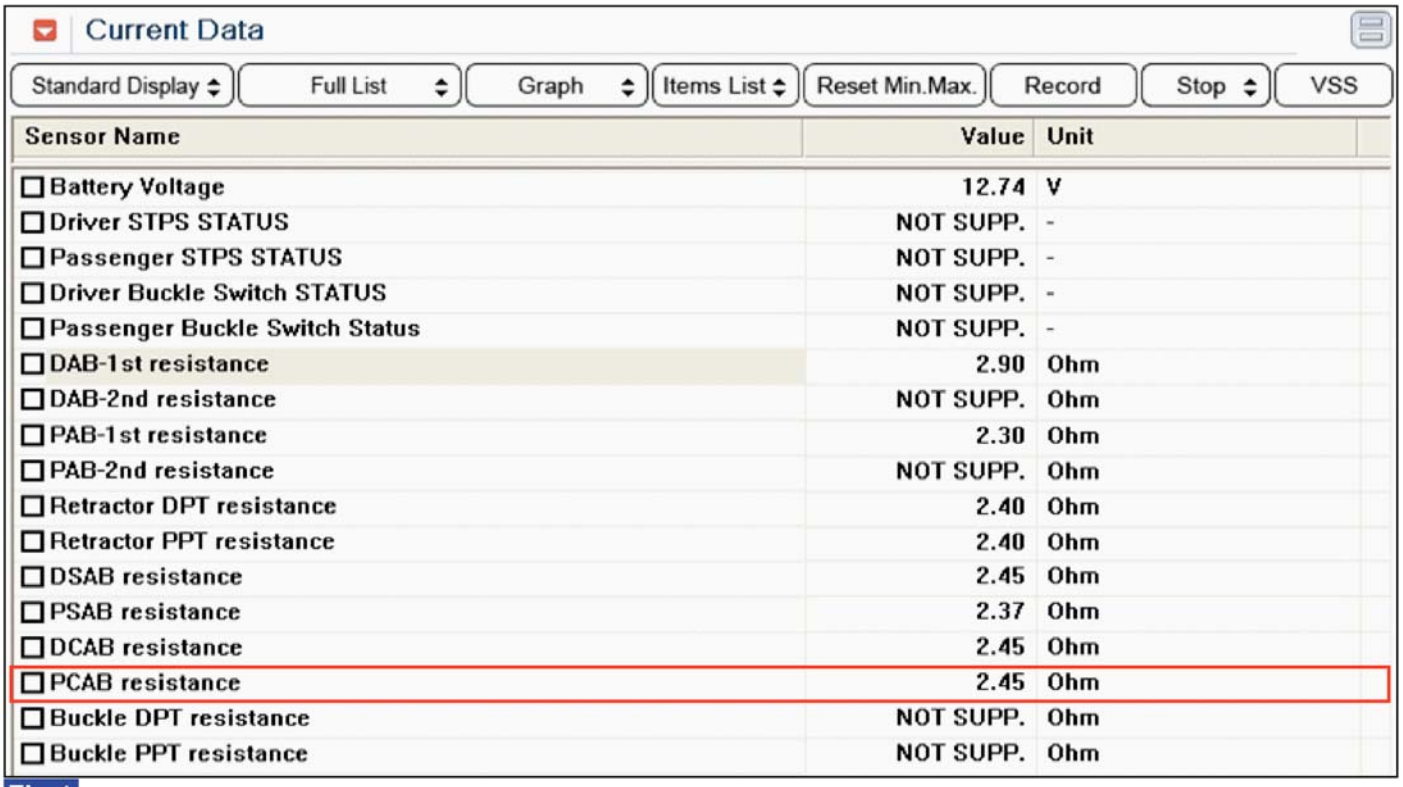
1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Current Data" mode.
3. Monitor the "Curtain airbag front−Passenger resistance" parameter on the Scantool.

Specification : 0.9Ω < Resistance of curtain airbag front−Passenger < 6.6Ω

Reference : In a case of an open in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to battery in the curtain airbag front−Passenger circuit : FAIL

In a case of a short to ground in the curtain airbag front−Passenger circuit : FAIL



Sensor Name	Value	Unit
Battery Voltage	12.74	V
Driver STPS STATUS	NOT SUPP.	-
Passenger STPS STATUS	NOT SUPP.	-
Driver Buckle Switch STATUS	NOT SUPP.	-
Passenger Buckle Switch Status	NOT SUPP.	-
DAB-1st resistance	2.90	Ohm
DAB-2nd resistance	NOT SUPP.	Ohm
PAB-1st resistance	2.30	Ohm
PAB-2nd resistance	NOT SUPP.	Ohm
Retractor DPT resistance	2.40	Ohm
Retractor PPT resistance	2.40	Ohm
DSAB resistance	2.45	Ohm
PSAB resistance	2.37	Ohm
DCAB resistance	2.45	Ohm
PCAB resistance	2.45	Ohm
Buckle DPT resistance	NOT SUPP.	Ohm
Buckle PPT resistance	NOT SUPP.	Ohm

Fig.1

STDRT9517L

Fig.1) Normal Data

4. Is parameter displayed within specifications?

YES ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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 ▶ Go to "W/Harness Inspection" procedure.

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 shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

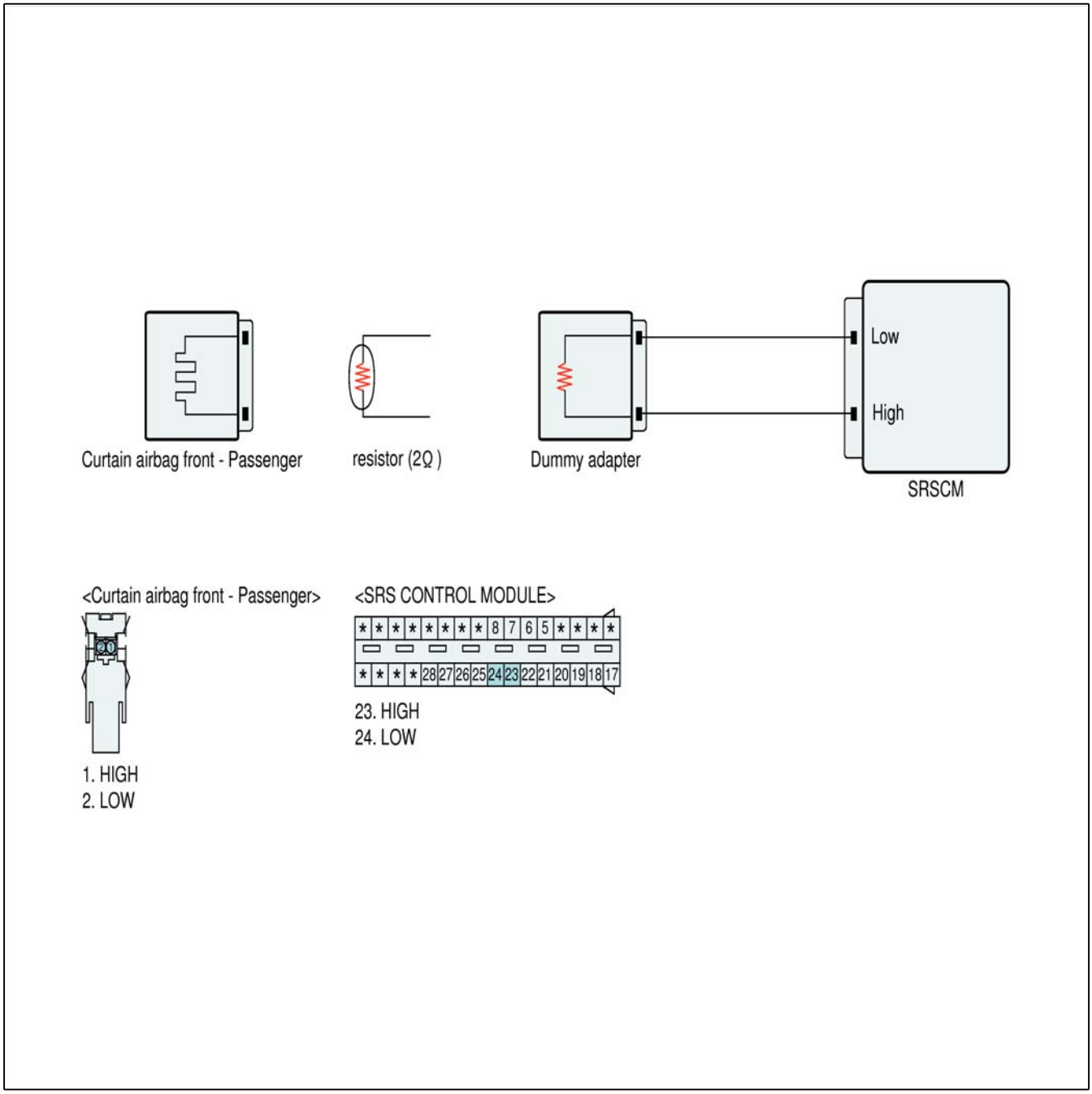
NO ▶ Go to "Squib Circuit Inspection" procedure.

Squib Circuit Inspection

1. Ignition "OFF".
2. Disconnect (−) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect PCAB module and connect the dummy (0957A−38200) and dummy adapter (0957A−2G000) to main harness connector.

   NOTICE
   If dummy and dummy adaptor are not able to be prepared, use a known−good PCAB or 2Ω resistor.
4. Connect (−) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC)

and clear DTC with scantool and diagnose again.



TD12179147731

6. Is DTC present problem ?

YES ▶ Go to "Main harness circuit inspection" procedure.

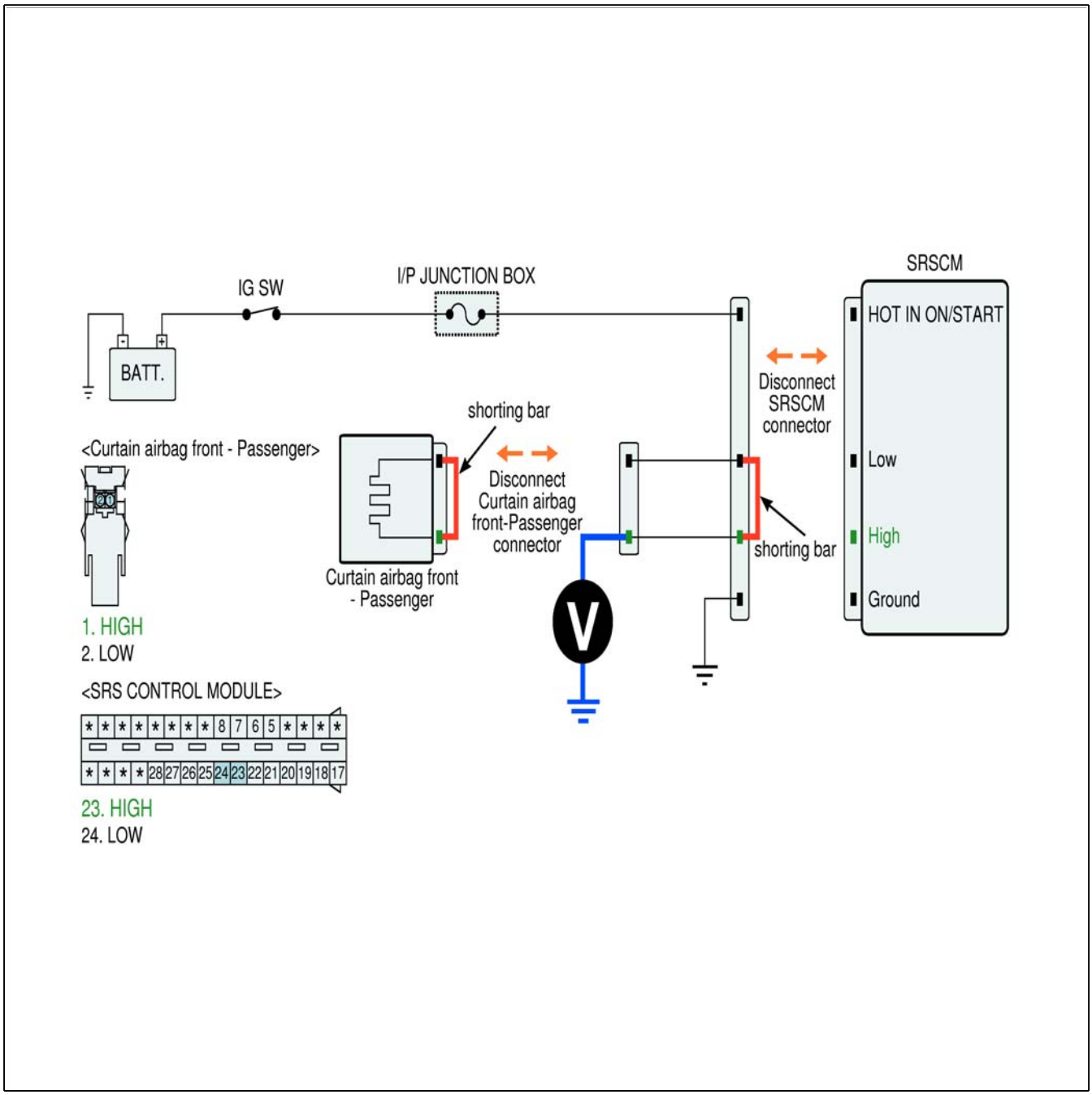
NO ▶ Substitute a known-good DCAB assembly, and check for proper operation.
If the problem is corrected, replace DCAB and then go to "Verification of Vehicle Repair" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PCAB connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".

5. Measure voltage between terminal "Low" or "High" of the PCAB harness connector and chassis ground.

Specification : approx. 0V



TD12179148032

6. Is the measured voltage within specifications?

YES ▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Substitute the SRSCM main harness and check for proper operation.
If the problem is corrected, replace SRS-CM main harness and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

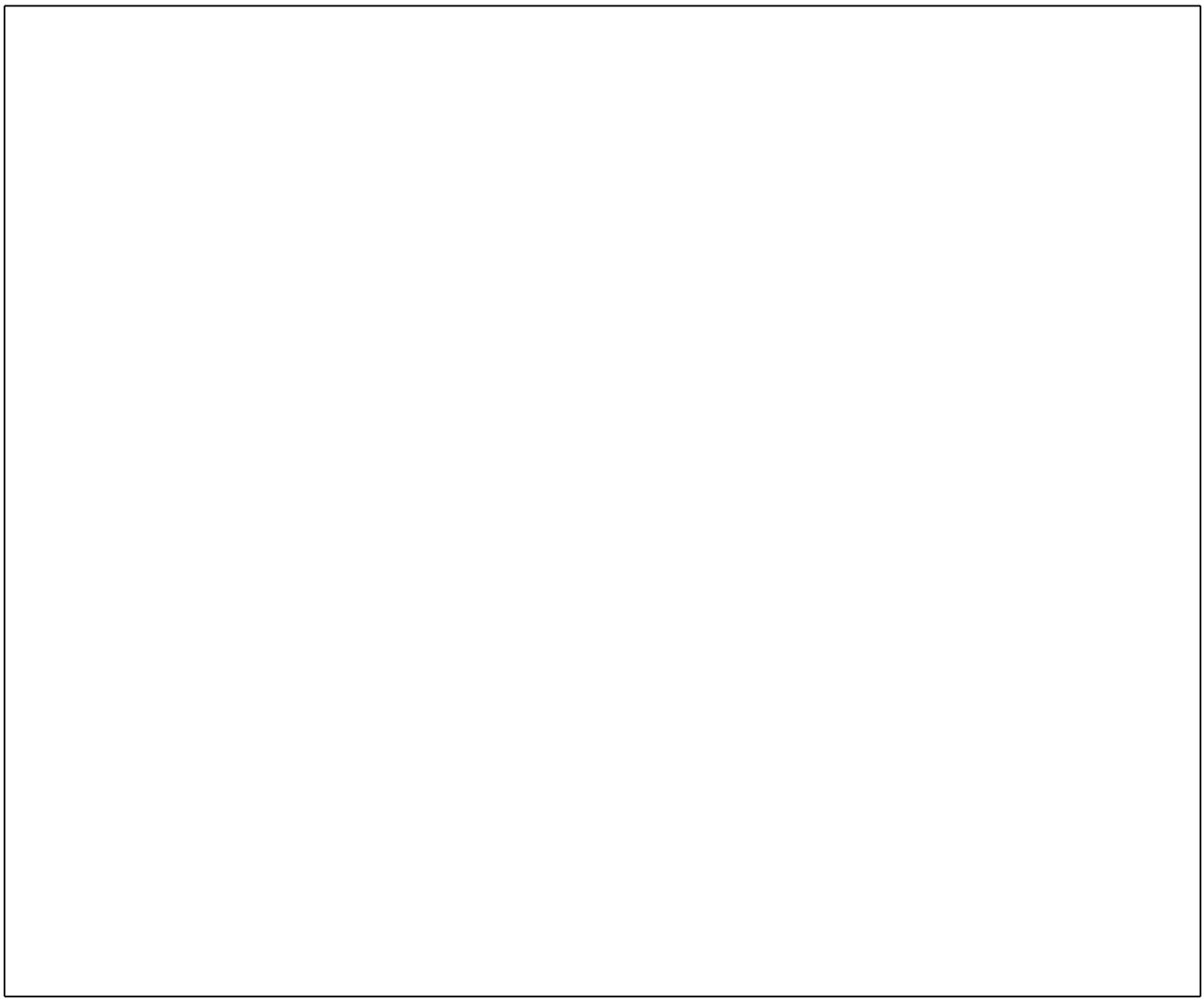
After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

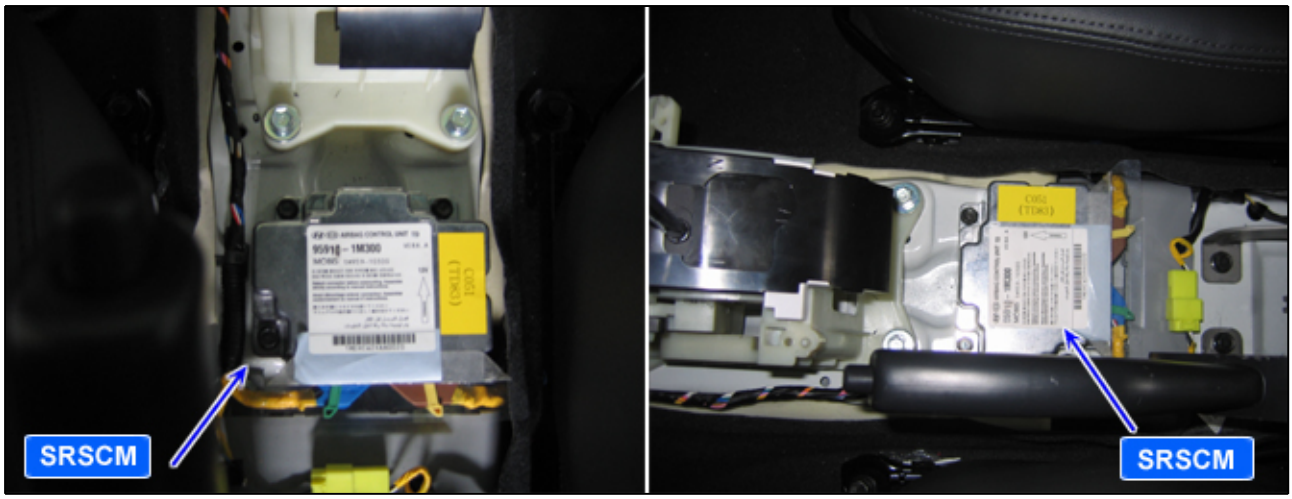
Schematic Diagram



TD12179P1477_80CC

B1620 Internal fault-Replace SRSCM

Component Location



TD12179139511

General Description

In collision, SRSCM sends current to pertinent air bag for deployment.

Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it.

Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC Description

The SRSCM sets DTC B1620 if there is any fault in SRSCM.

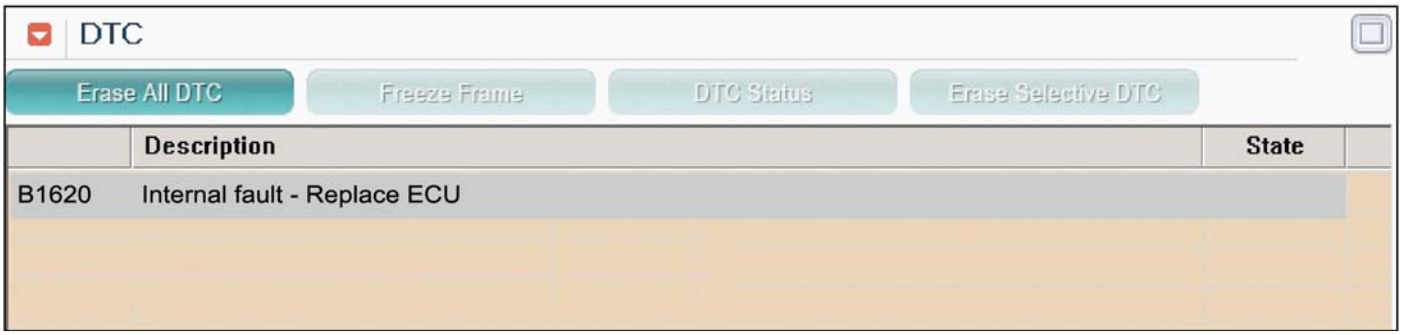
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check SRSCM	• SRSCM.
Enable Conditions		• Ignition "ON"	
Diagno-stic Time	Qualific-ation	• More than 100msec	
	De-Qu-alification	• ∞(infinite-DTC cannot be erased)	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.

2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9518L

5. Is DTC present problem ?

YES ▶ Internal fault of SRSCM. Substitute with a SRSCM and check for proper operation. If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

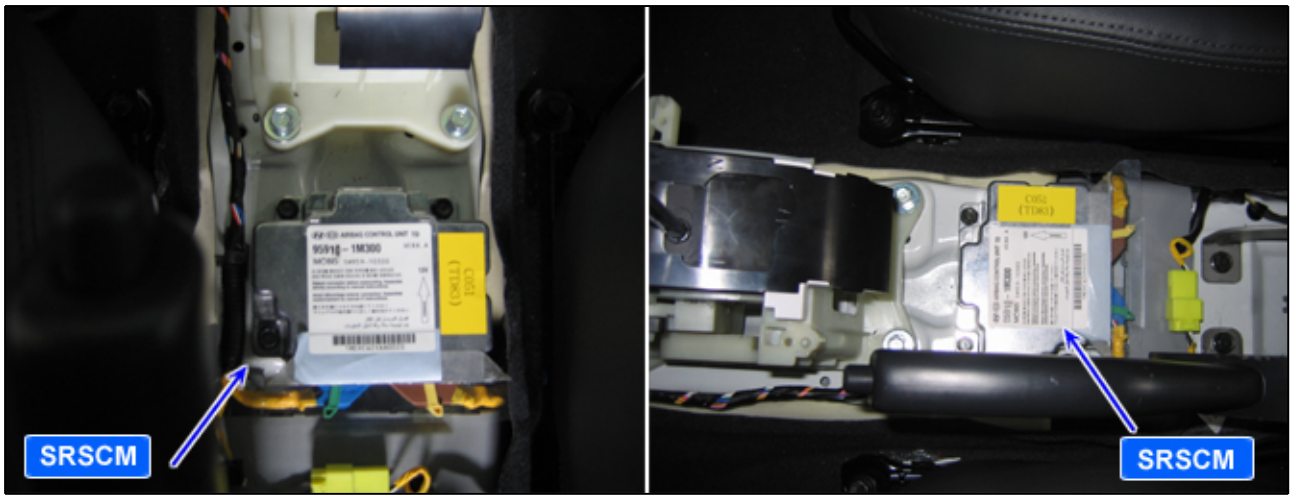
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting p-rocedure.

NO ▶ System is performing to specification at this time.

B1650 Crash Recorded in 1st Stage Only(Frontal-Replace SRSCM)

Component Location



TD12179139511

General Description

In collision, SRSCM sends current to pertinent air bag for deployment.

Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it.

Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC Description

The SRSCM sets DTC B1650 if DAB or PAB deploys.

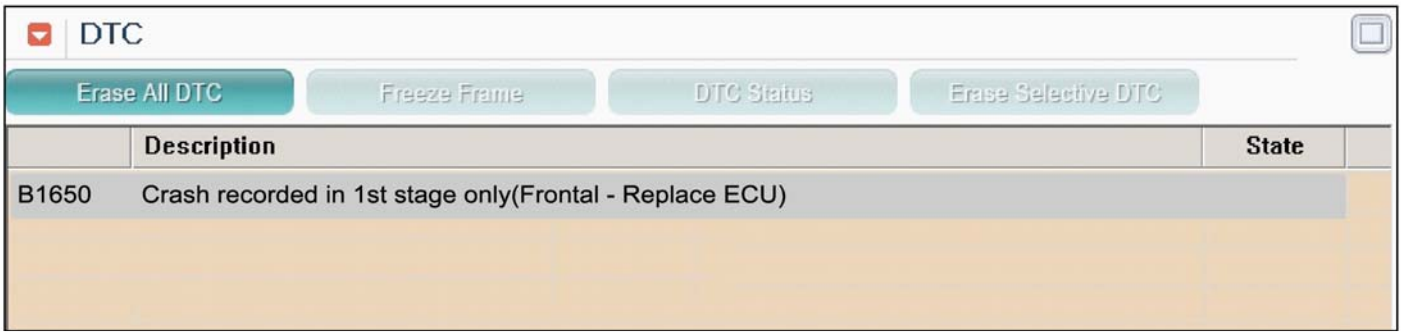
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check DAB or PAB deployment	• SRSCM. • DAB or PAB deployment
Enable Conditions		• Ignition "ON"	
Diagno-stic Time	Qualific-ation	• More than 100msec	
	De-Qu-alification	• ∞(infinite-DTC cannot be erased)	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.

2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9519L

5. Is DTC present problem ?

YES ▶ DTC caused by deployment of front(1 ST)air bag. Substitute with a SRSCM and check for proper operation.
If the problem is corrected, replace SRS-CM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

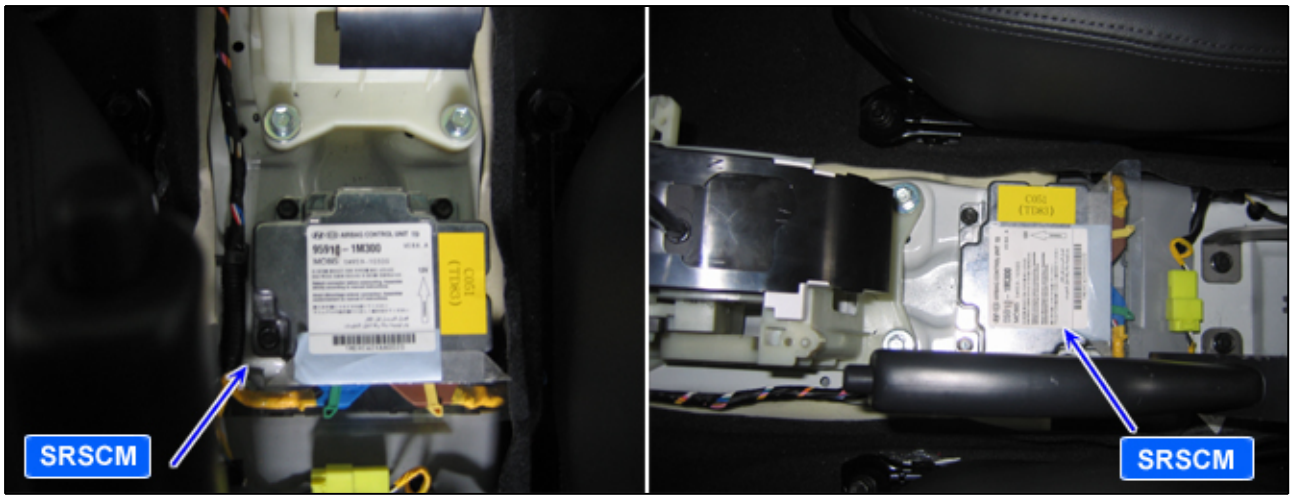
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting p-rocedure.

NO ▶ System is performing to specification at this time.

B1651 Crash Recorded in Front−Driver Side Airbag(Replace SRSCM)

Component Location



TD12179139511

General Description

In collision, SRSCM sends current to pertinent air bag for deployment.

Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it.

Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC Description

The SRSCM sets DTC B1651 if DSAB and DCAB deploys.

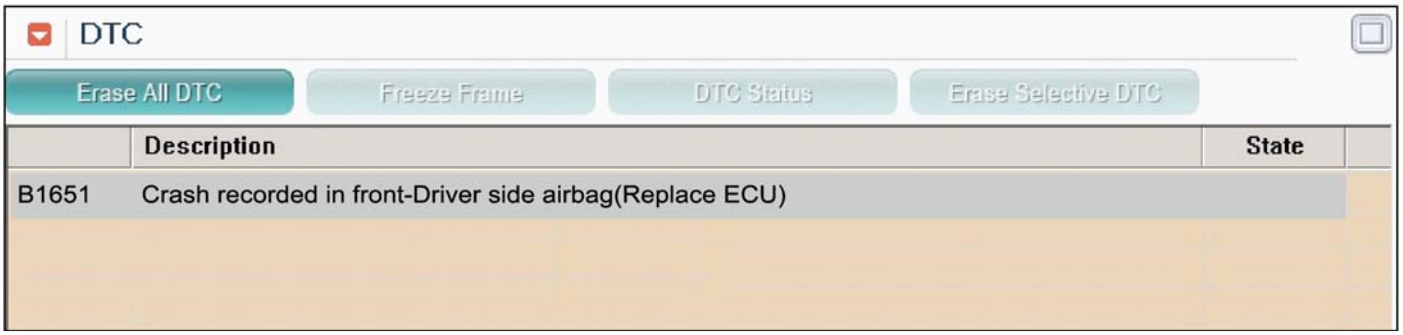
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check DSAB and DCAB deployment	• SRSCM. • DSAB and DCAB deploym−ent
Enable Conditions		• Ignition "ON"	
Diagno−stic Time	Qualific−ation	• More than 100msec	
	De−Qu−alification	• ∞(infinite−DTC cannot be erased)	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.

2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9520L

5. Is DTC present problem ?

YES ▶ DTC caused by deployment of front driver SAB and driver CAB. Substitute with a SRSCM and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

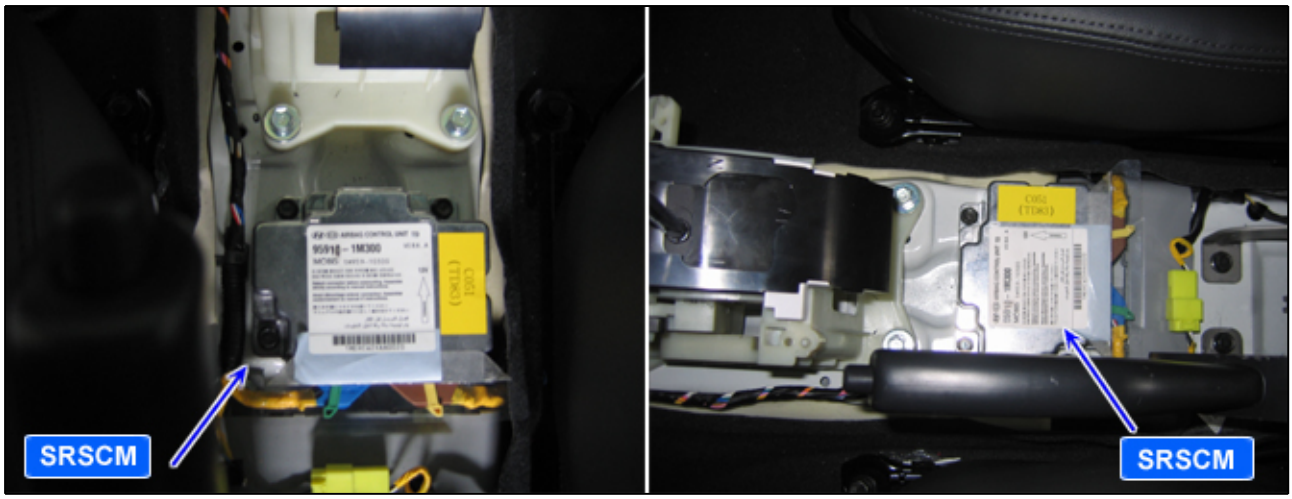
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1652 Crash Recorded in Front−Passenger Side Airbag(Replace SRSCM)

Component Location



TD12179139511

General Description

In collision, SRSCM sends current to pertinent air bag for deployment.

Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it.

Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC Description

The SRSCM sets DTC B1652 if PSAB and PCAB deploys.

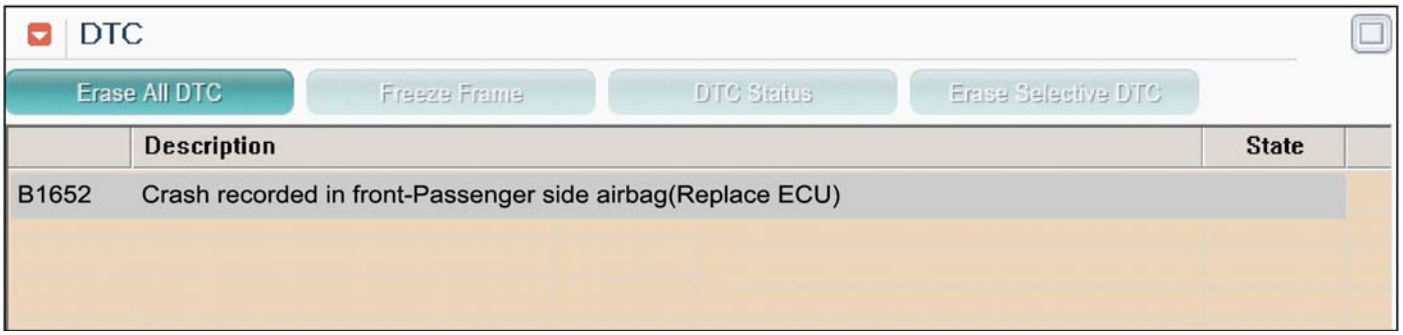
DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check PSAB and PCAB deployment	• SRSCM. • PSAB and PCAB deployme−nt
Enable Conditions		• Ignition "ON"	
Diagno−stic Time	Qualific−ation	• More than 100msec	
	De−Qu−alification	• ∞(infinite−DTC cannot be erased)	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.

2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9522L

5. Is DTC present problem ?

YES ▶ DTC caused by deployment of front passenger SAB and passenger CAB. Substitute with a SRSCM and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

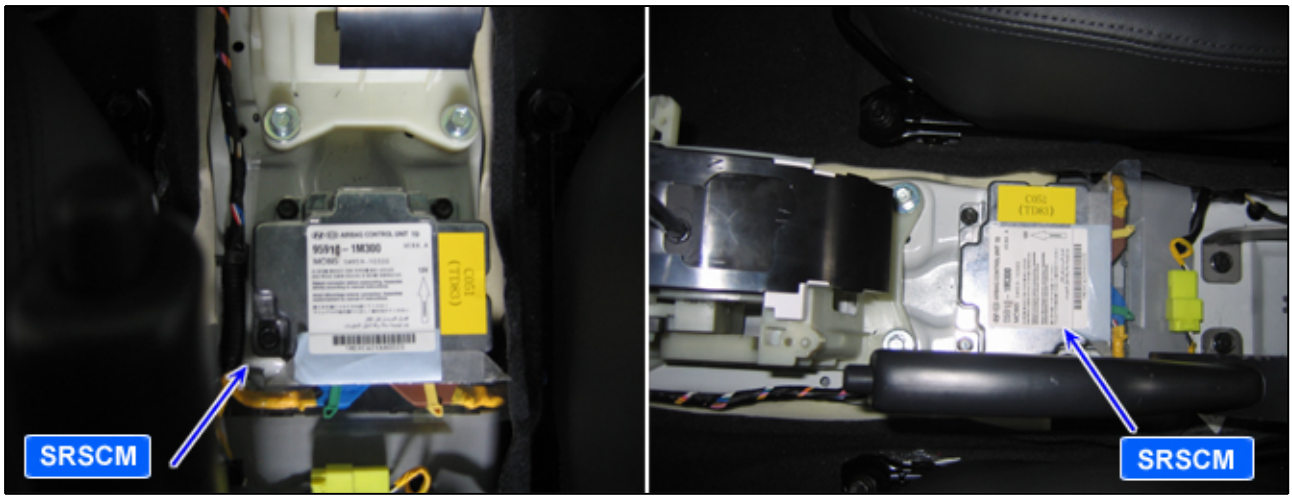
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1655 Crash recorded (Side – Replace SRSCM)

Component Location



TD12179139511

General Description

When an impact happens at the side of a vehicle, the SRSCM(Supplemental Restraints System Control Module) generally spreads the side/curtain airbag of the vehicle.

If the SRSCM doesn’t deploy it, it records the fault on its memory and has the warning lamp on.

DTC Description

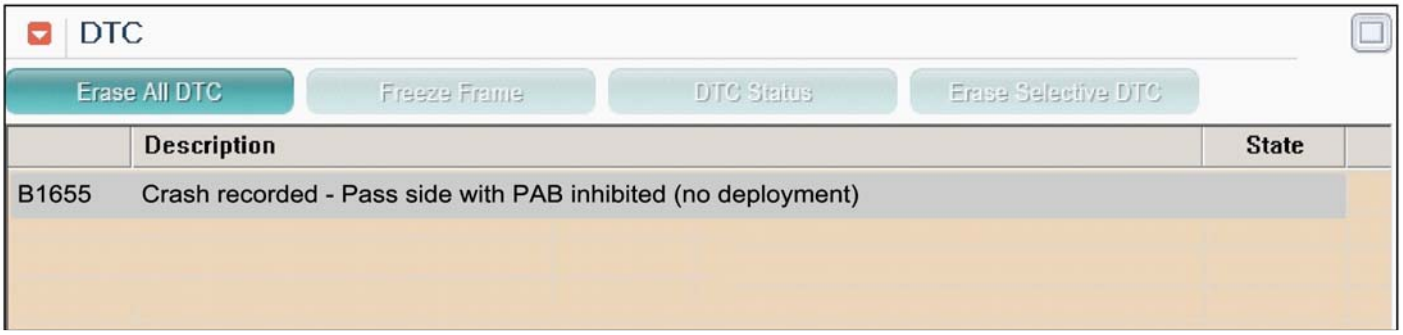
When the passenger-side/curtain airbags won’t operate and the ACU senses that there is a side impact.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Crash recorded with inhibited PAB	• Passenger Side-Side Aira-bg/Curtain Airabg. • SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• When the passenger-side/curtain airbags won’t operate and the ACU senses that there is a side impact.	
Diagno-stic Time	Qualific-ation	• More than 100msec	
	De-Qu-alification	• ∞(infinite-DTC cannot be erased)	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9521L

5. Is DTC present problem ?

YES ▶ DTC caused by deployment of BPT. Substitute with a SRSCM and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

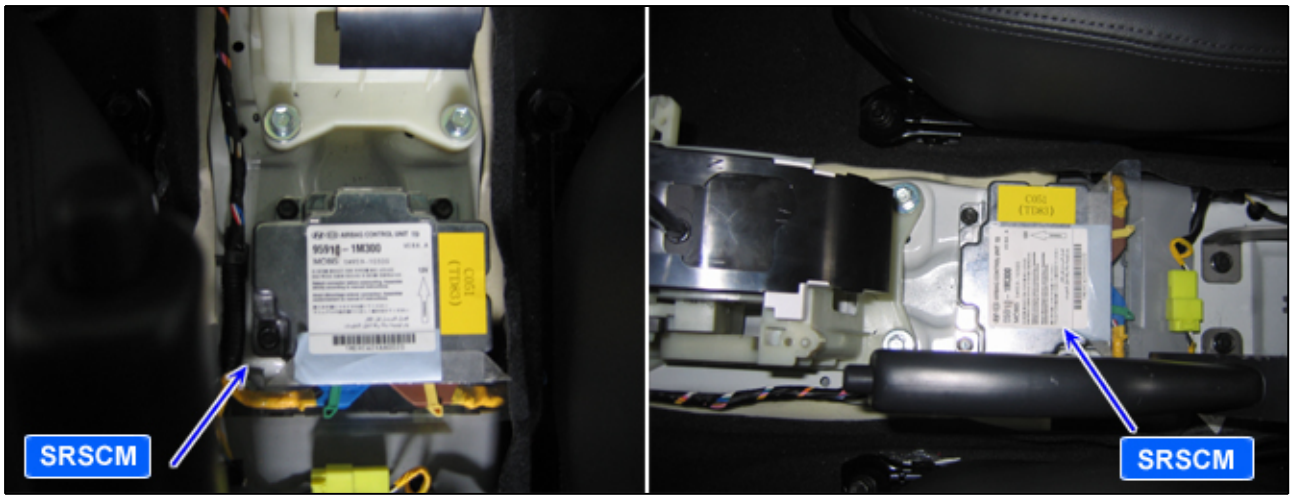
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1683 Exceed Maximum Coding Number

Component Location



TD12179139511

General Description

When the new SRSCM is set up on a vehicle by SRSCM's failure, SRSCM(ACU) Variant coding must be performed.

Since a new SRSCM is normally supplied with unsetting state, the ACU has to be set up based on the vehicle specificaions by operating ACU Variant Coding procedure.

The SRSCM checks its specifications in it in order to run its airbag system normally.

If the warning light of airbag is flickering continuously, that is because SRSCM(ACU) Variant Coding is not completed.

NOTICE

SRSCM Variant Coding is available only one time. And when it is already finished, it is impossible to retry SRSCM Variant Coding.

Warning lamp's operation during SRSCM(ACU) Variant Coding Mode : It will be flicking on every 1 seond before the Variant Coding is normally done.

DTC Description

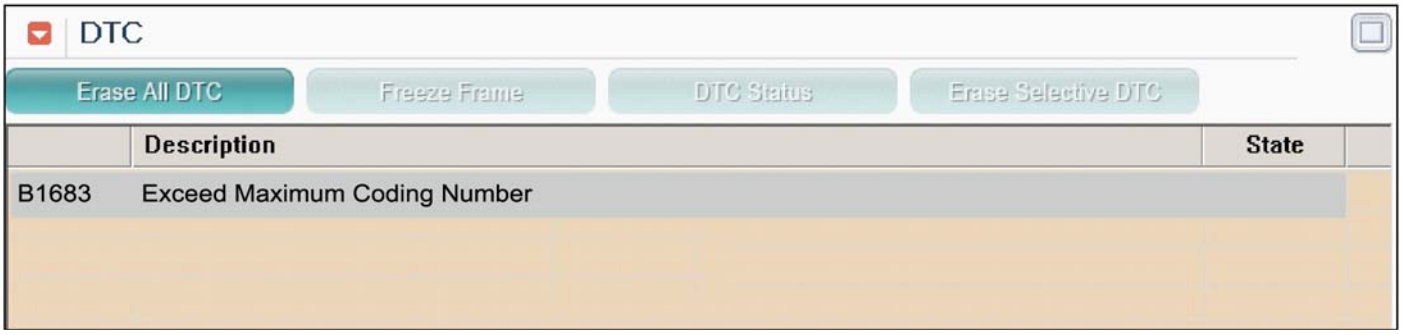
In order to run the airbag system normally, check if there is an incorrect vehicle specfications at performing SRSCM(ACU) Variant Coding. This DTC is set up when SRSCM(ACU) Variant Coding is not done over 255 times.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• SRSCM Coding	• Connection for DAB,PAB, BPT,CAB,and SAB • SRSCM(ACU) Variant Coding's failure • Incorrect vehicle specifications • SRSCM's connector and circuit • SRSCM
Enable Conditions		• SRSCM(ACU) Variant Coding	
Threshold Value		• Failure of SRSCM(ACU) Variant Coding is over 255 times.	
Diagnostic Time	Qualification	• More than one time	
	De-Qualification	• N/A	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9524L

5. Is DTC present problem ?

YES ▶ Replace it with a new one and then check if the vehicle specifications are correct . After that, perform SRSCM(ACU) Variant Coding and then, go to "Verification of Vehicle Repair" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.

▶ TThoroughly check release pin and 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.

ACU Variant Coding

■ ACU Variant Coding (On-line type on GDS)

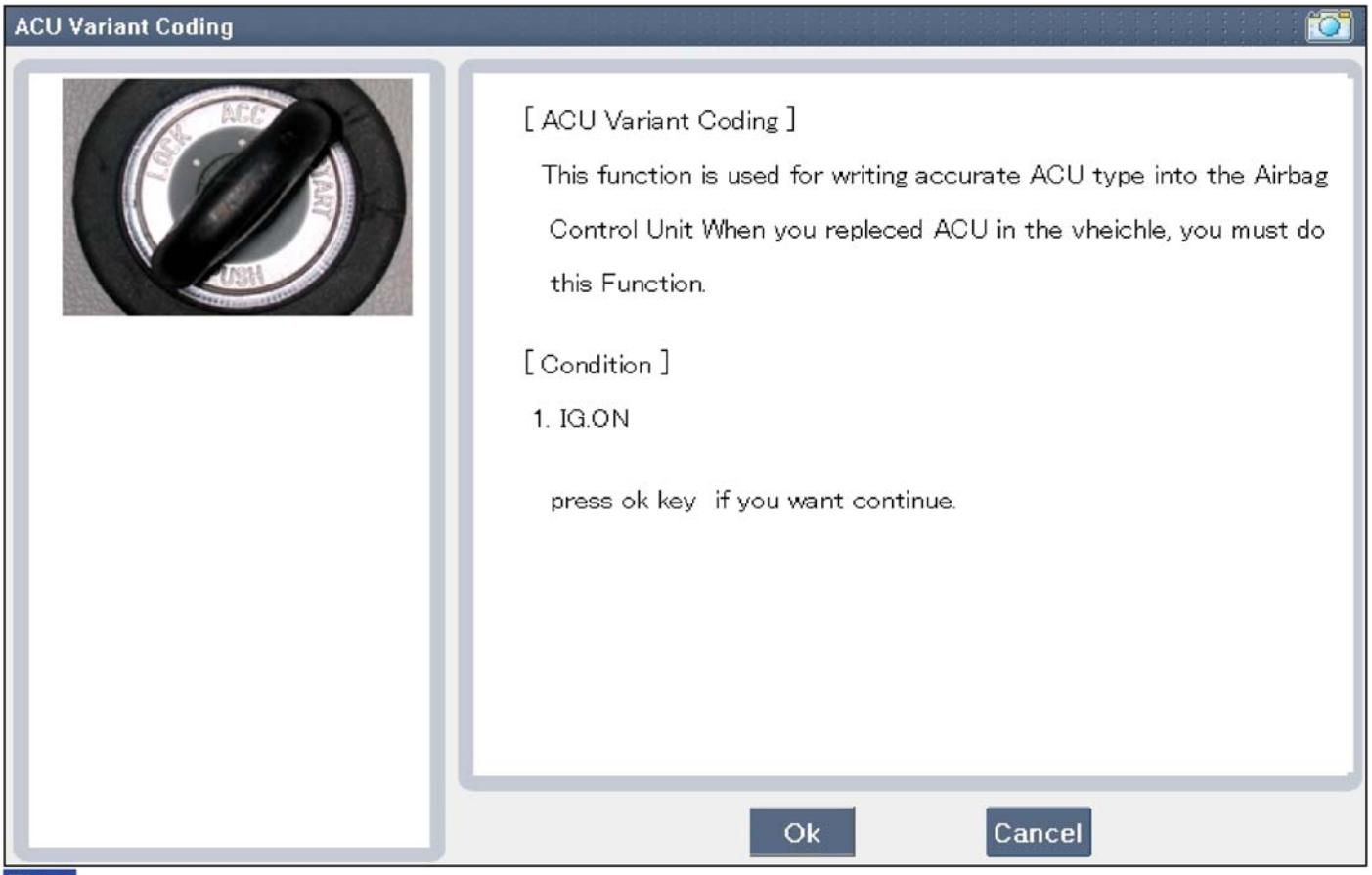


Fig.1

SBKRT9526L

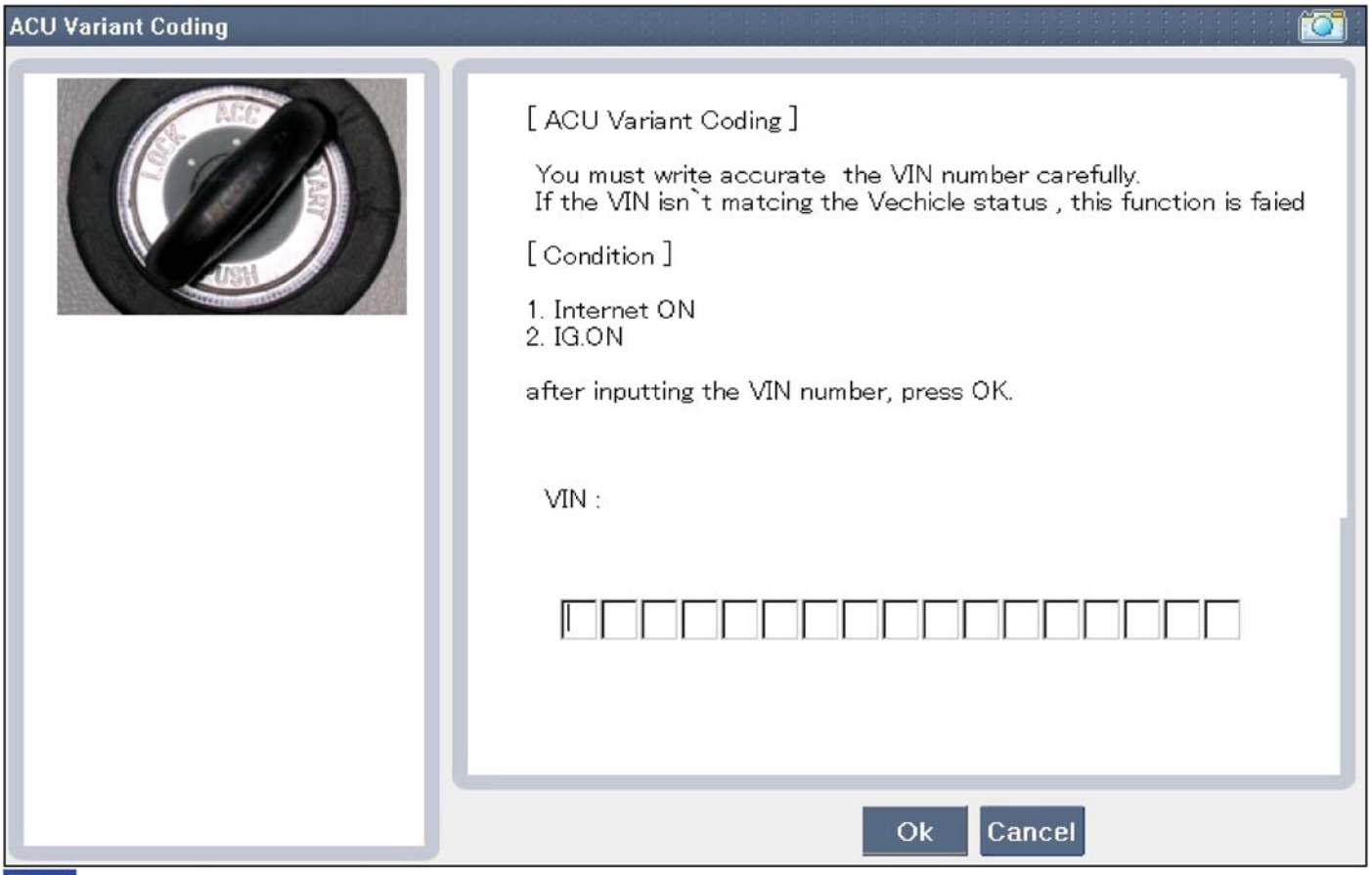


Fig.2

SBKRT9527L

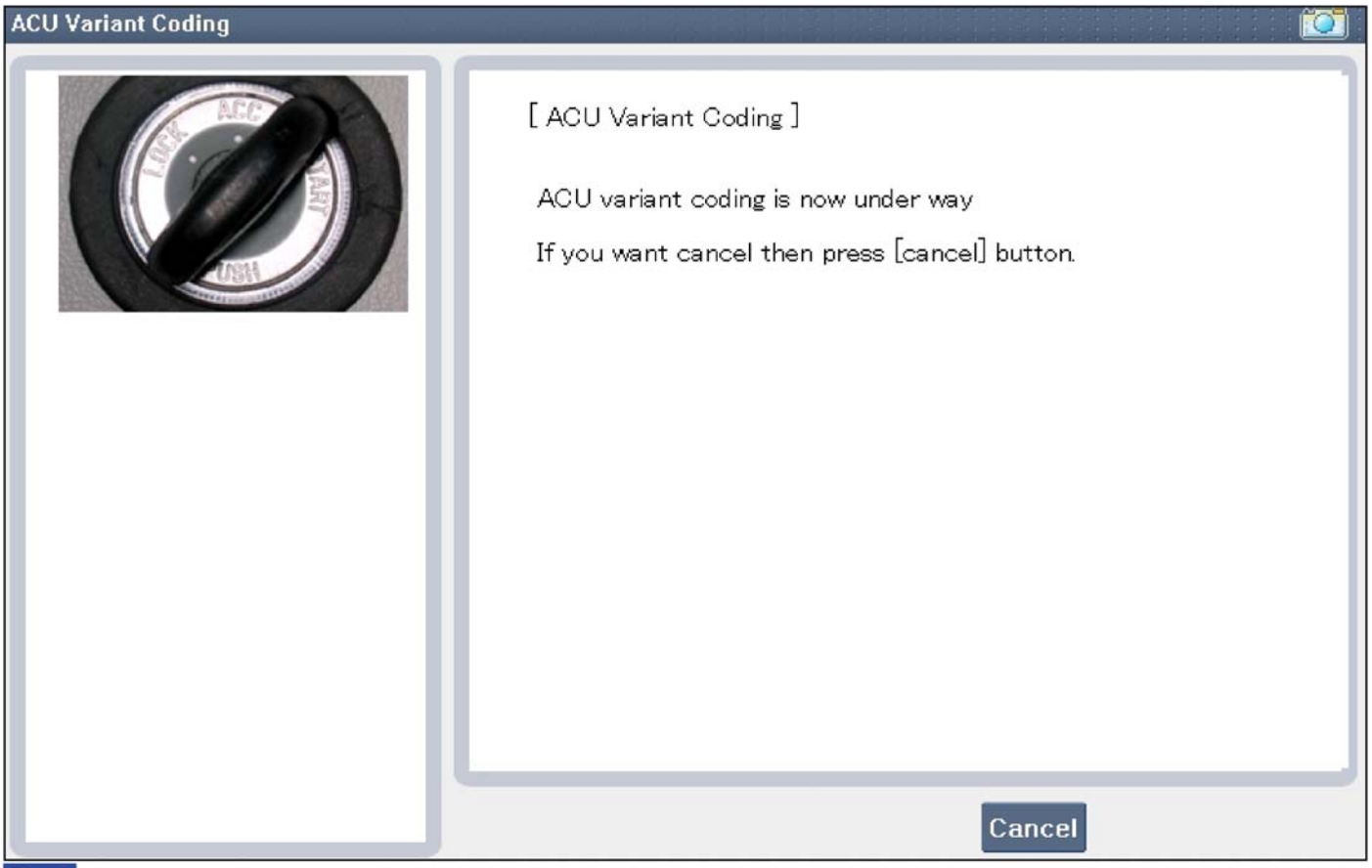


Fig.3

SBKRT9528L

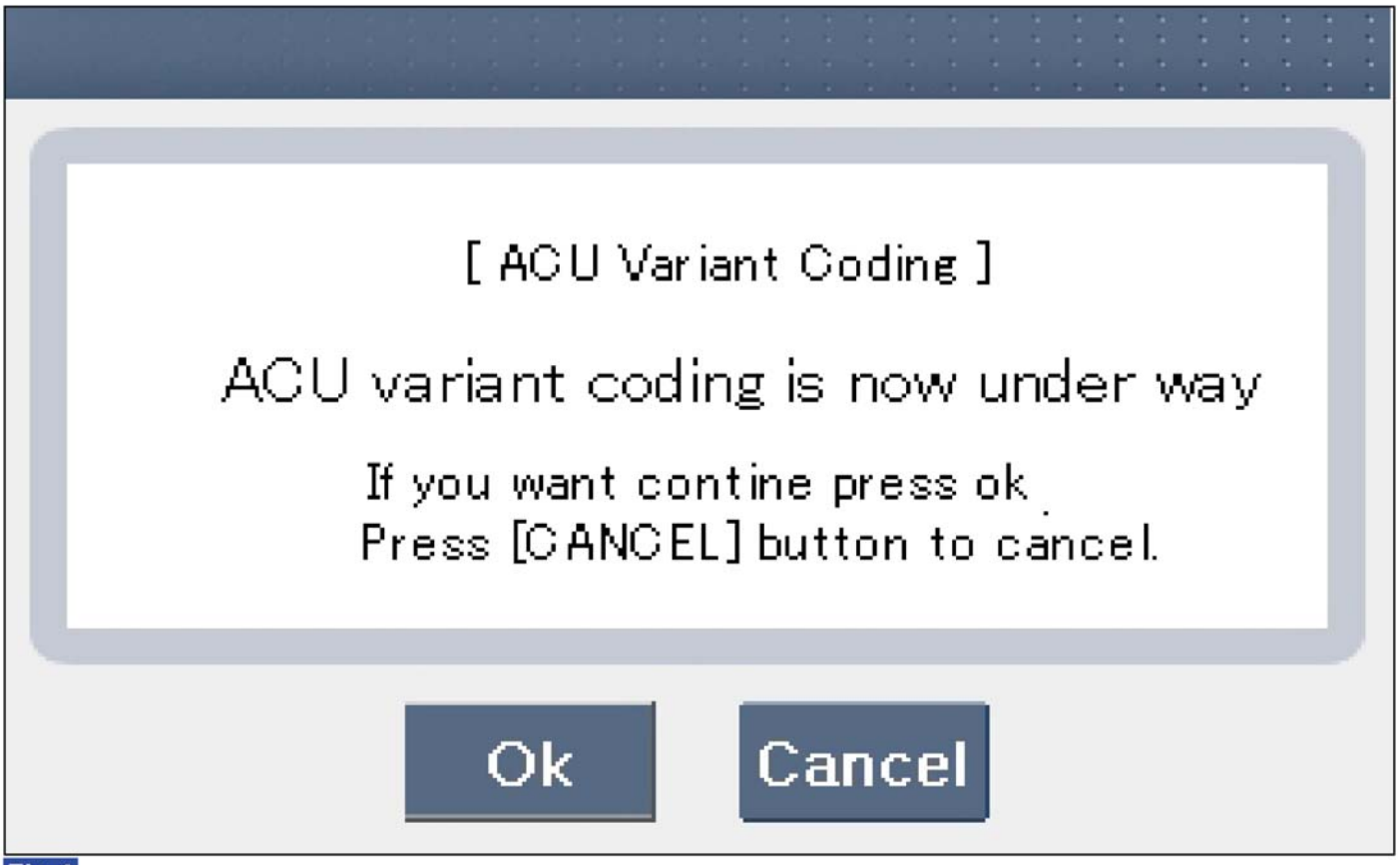


Fig.4

SBKRT9529L

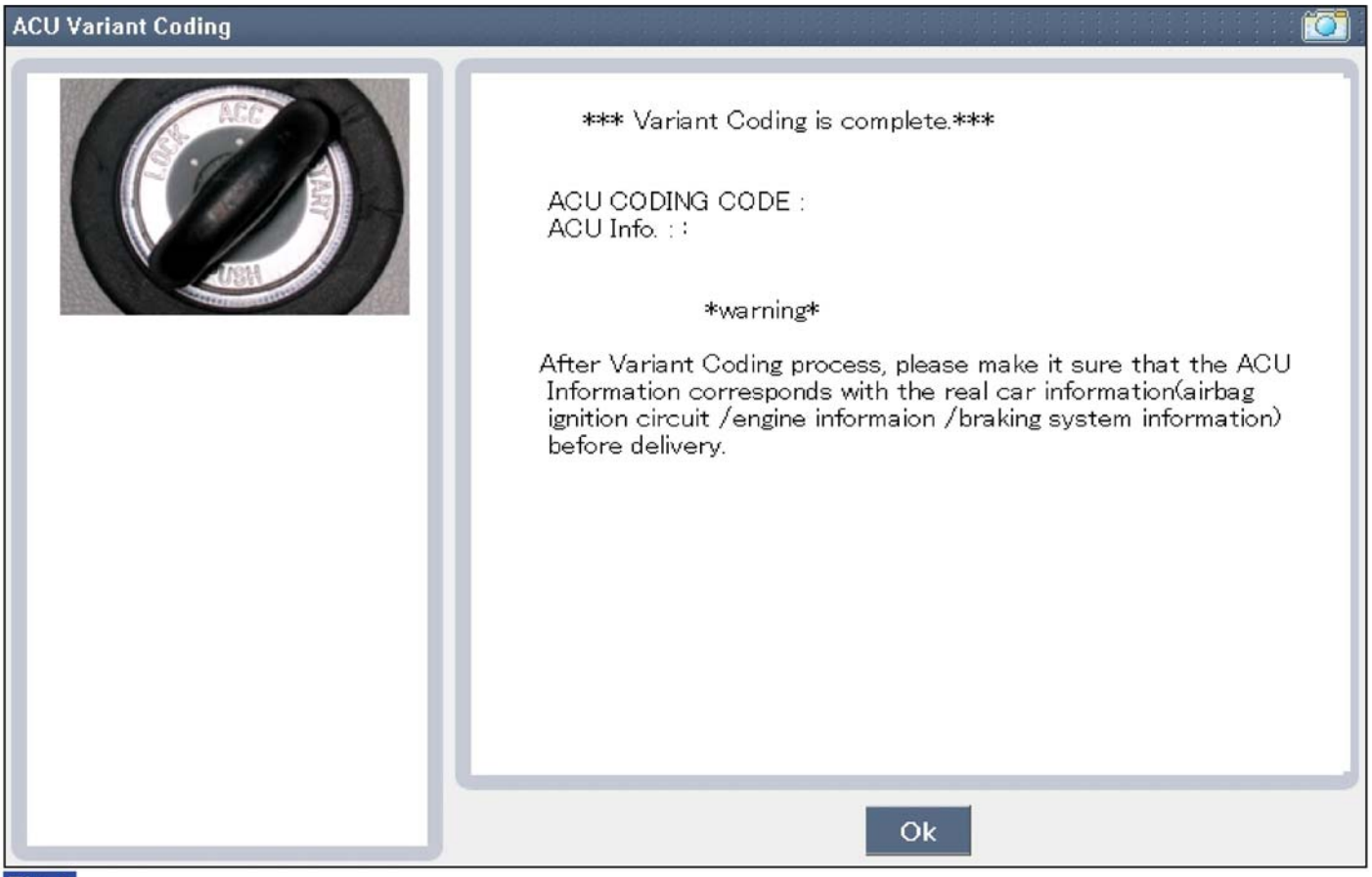


Fig.5

STDRT9527L

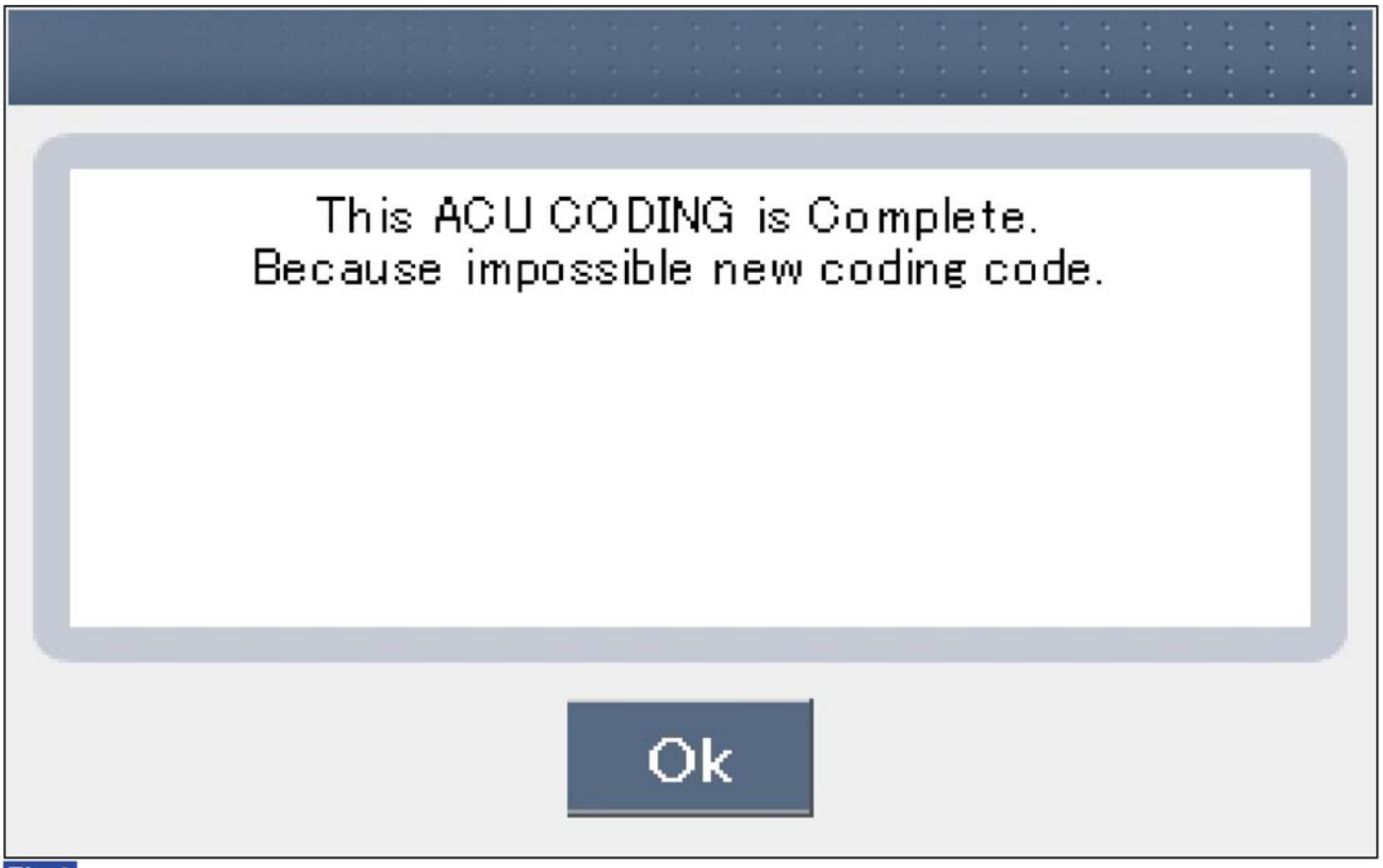


Fig.6

SBKRT9531L

Fig.7

SBKRT9532L

Fig.1) Initial ACU Variant Coding screen

Fig.2) VIN Code entering screen

Fig.3) Variant coding's proceeding screen-1

Fig.4) Variant coding's proceeding screen-2

Fig.5) Variant coding is completed

Fig.6) Screen of Retrying the Variant coding after finishing variant coding

Fig.7) Screen of communication failure

■ ACU Variant Coding (Off-line type on GDS-this can be used when not connecting to internet)

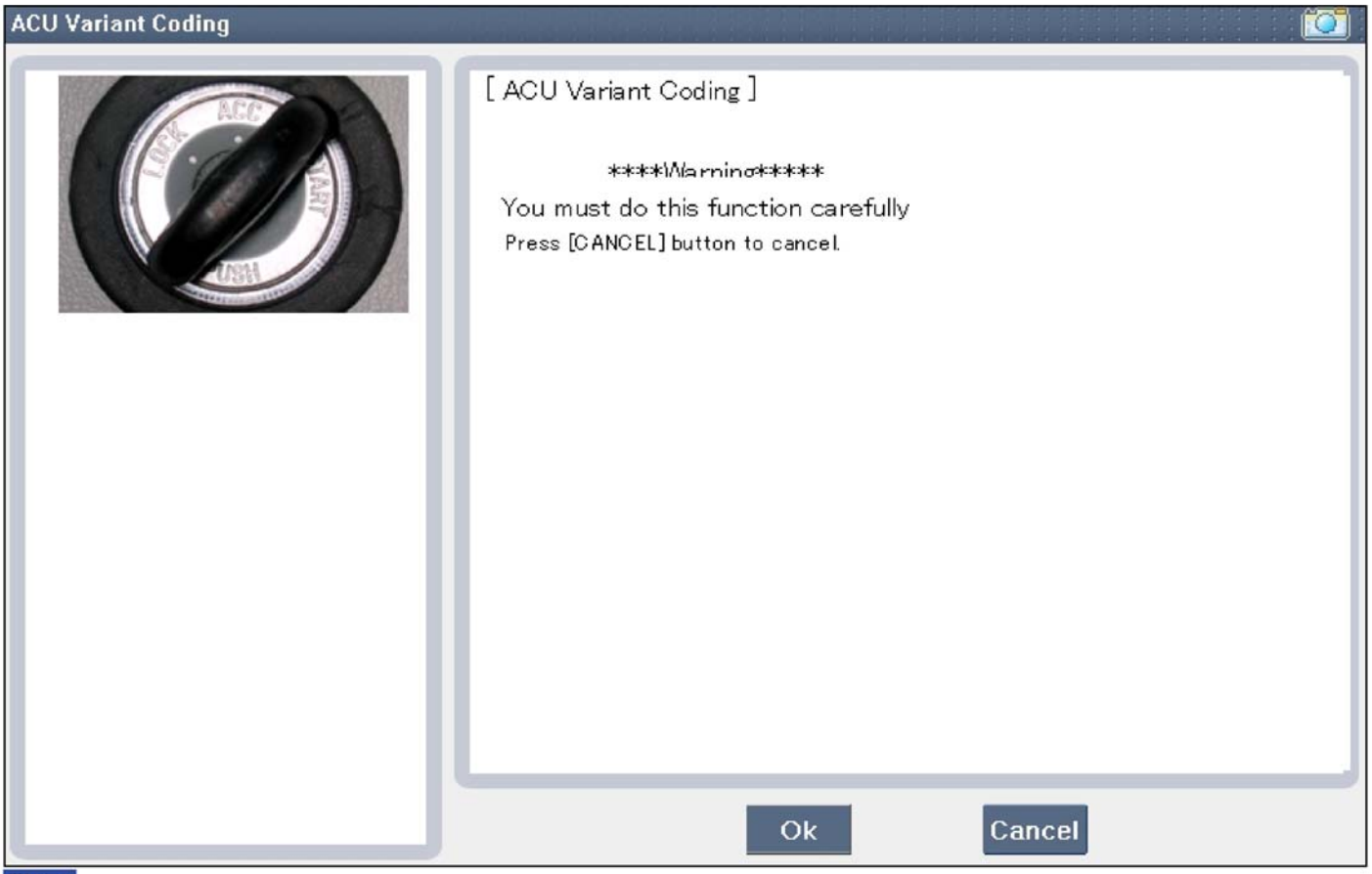


Fig.1

SBKRT9533L

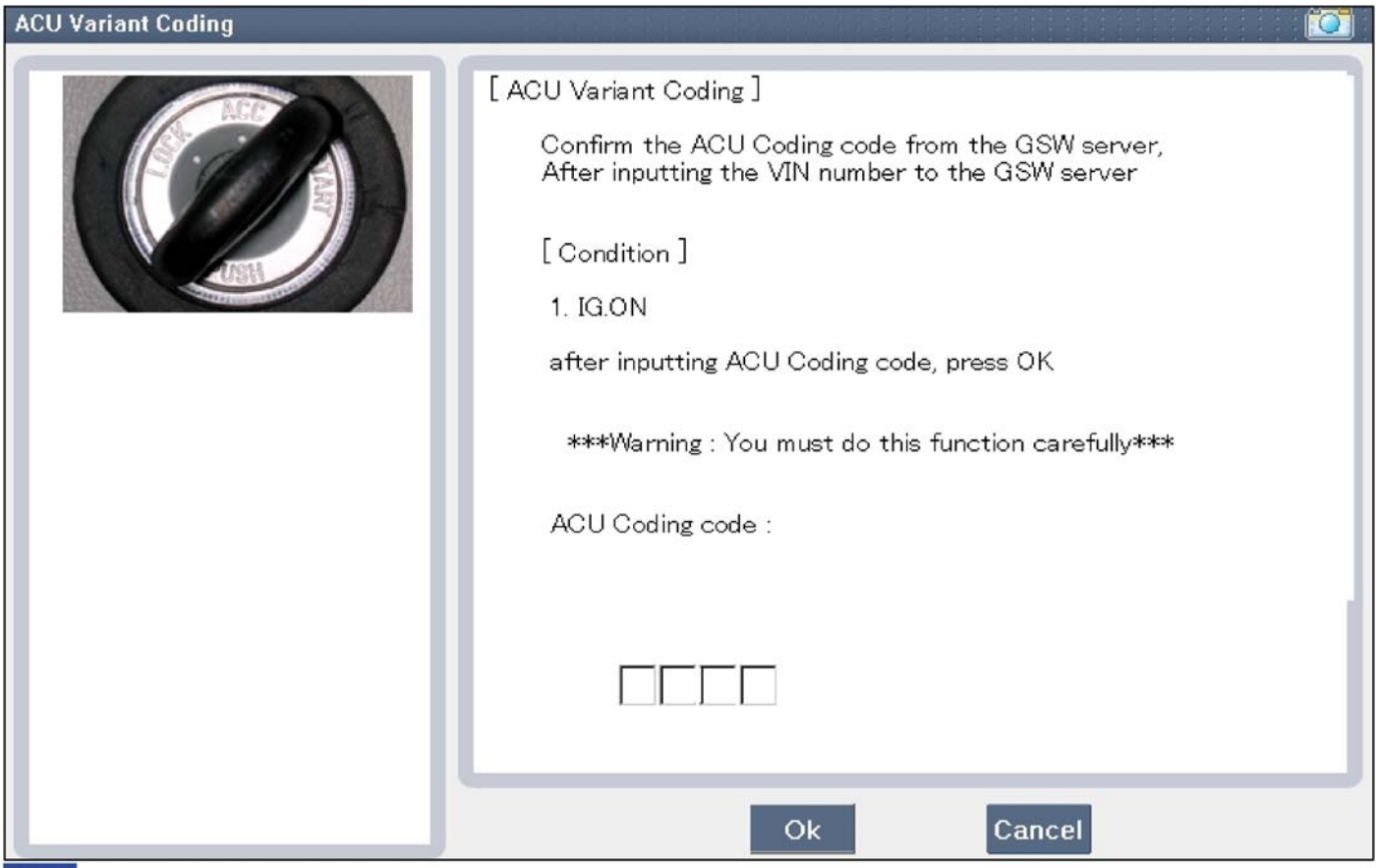


Fig.2

STDRT9528L

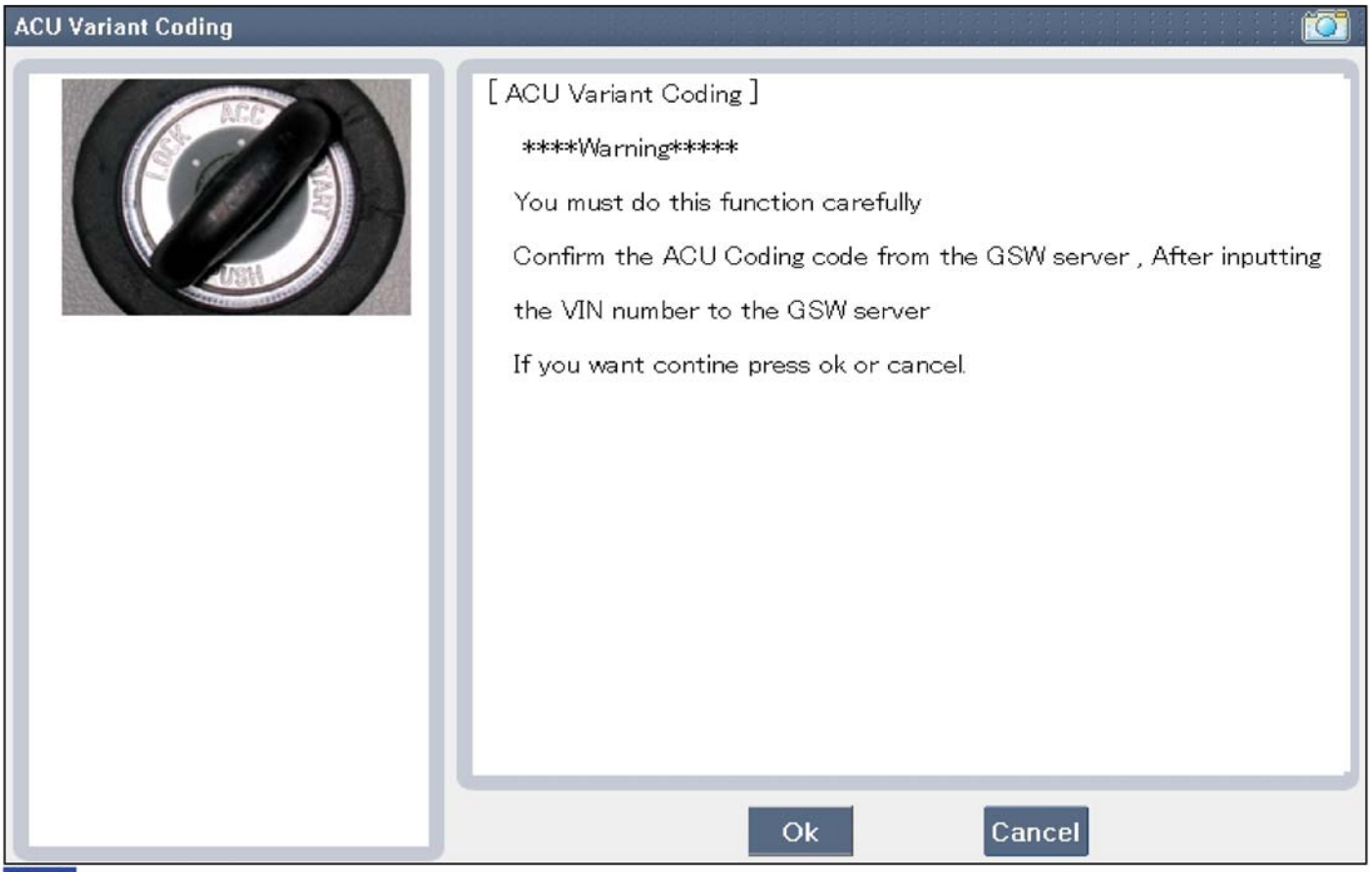


Fig.3

SBKRT9535L

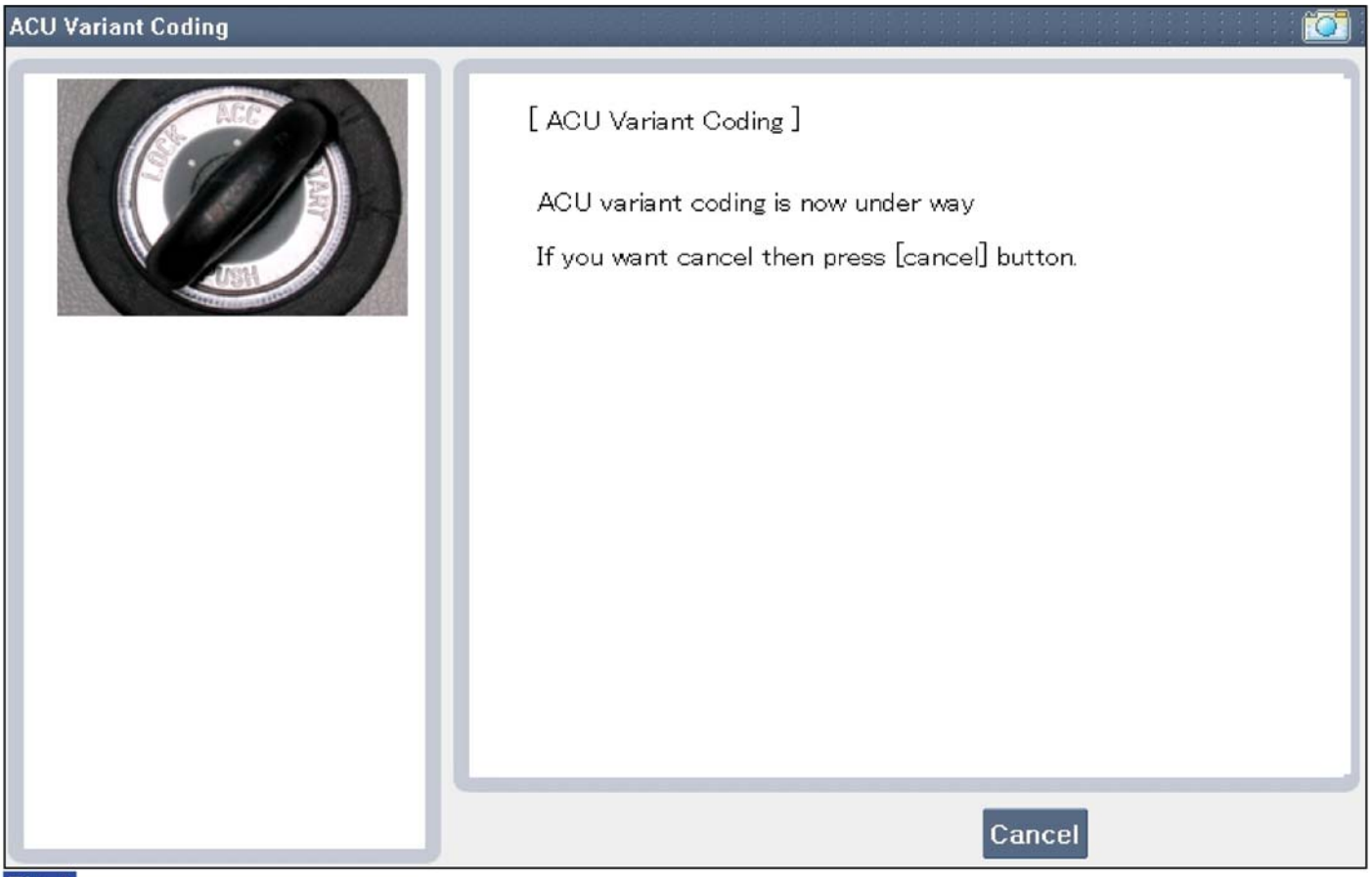


Fig.4

SBKRT9536L

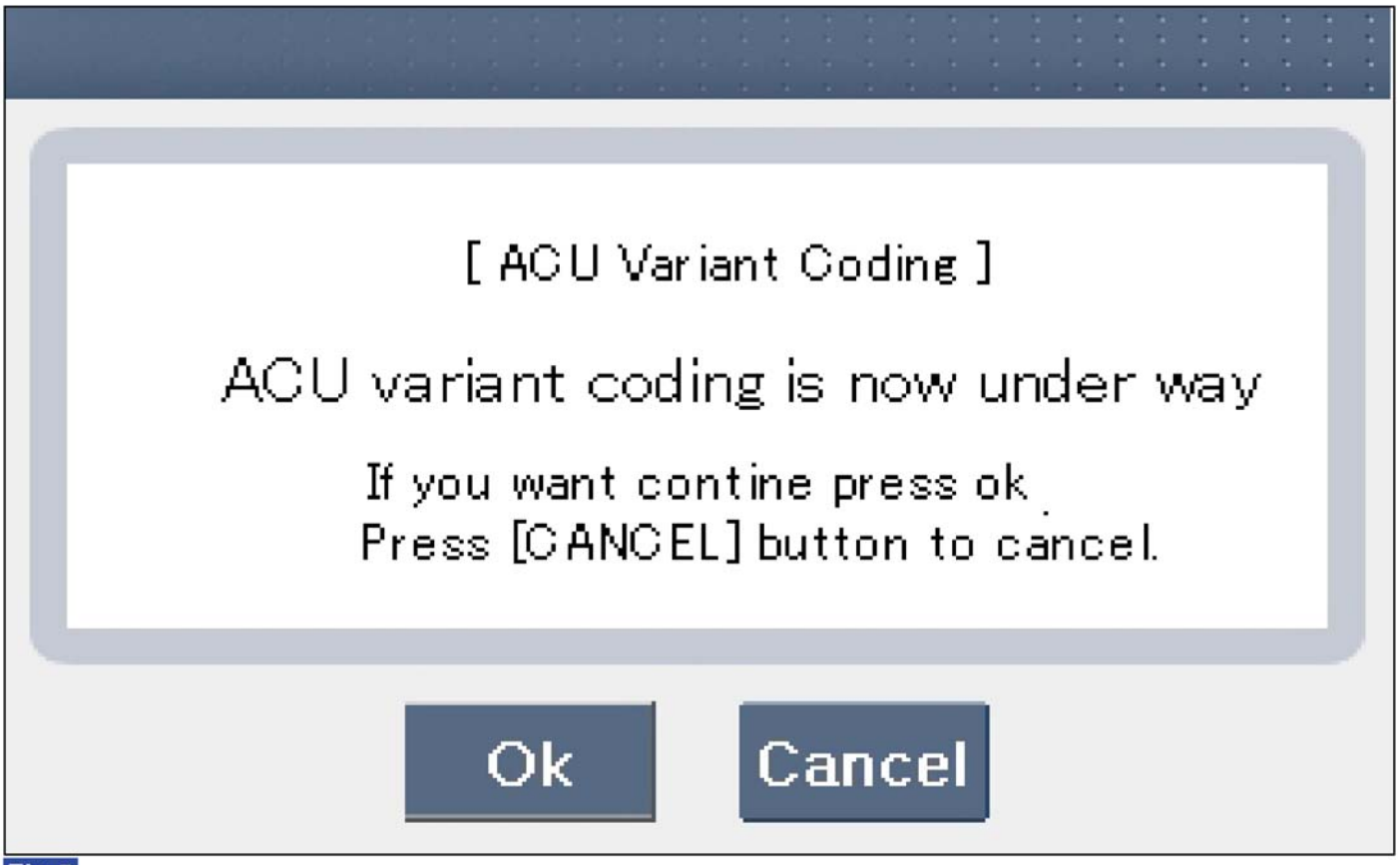


Fig.5

SBKRT9537L

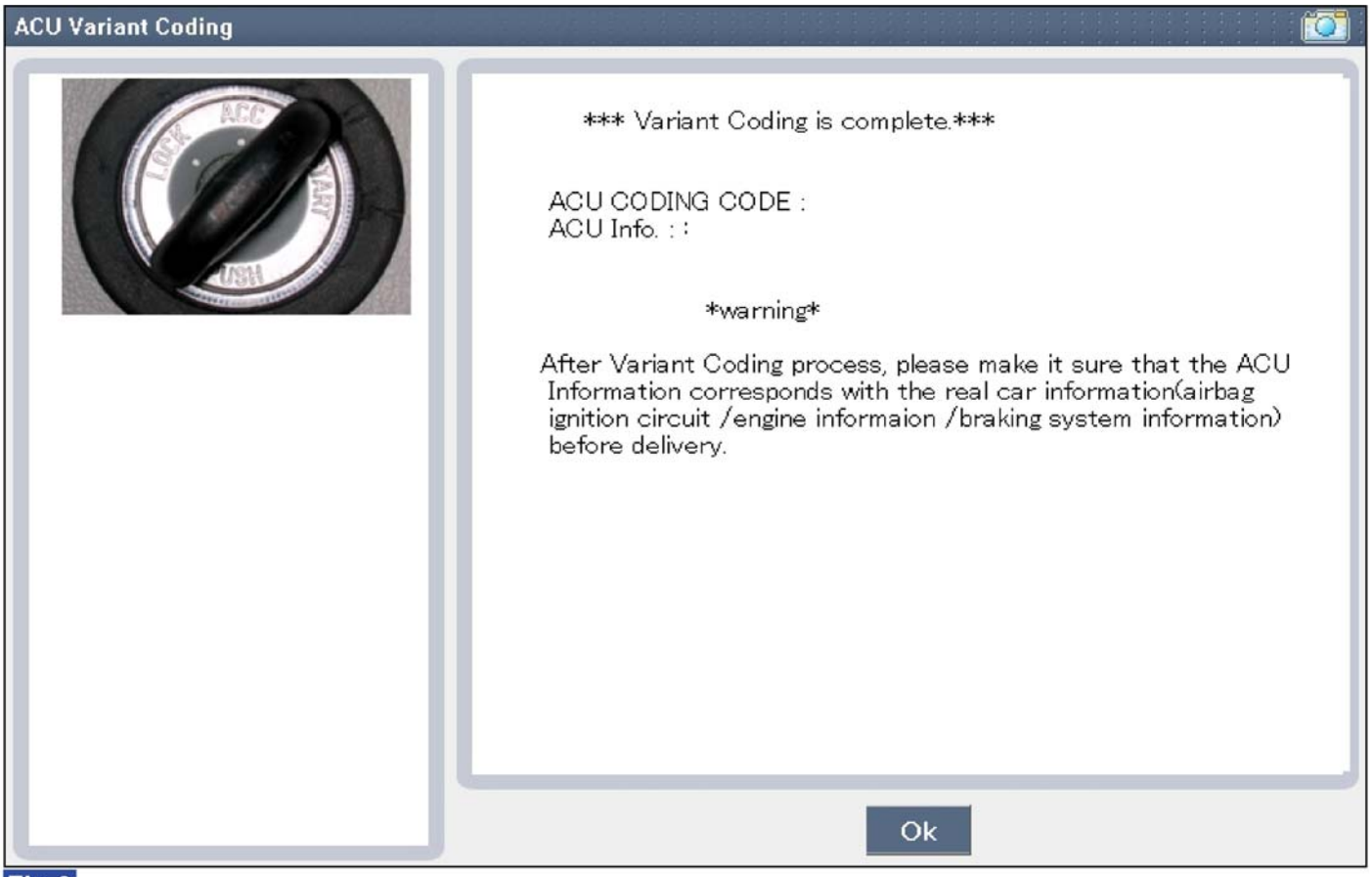


Fig.6

STDRT9529L

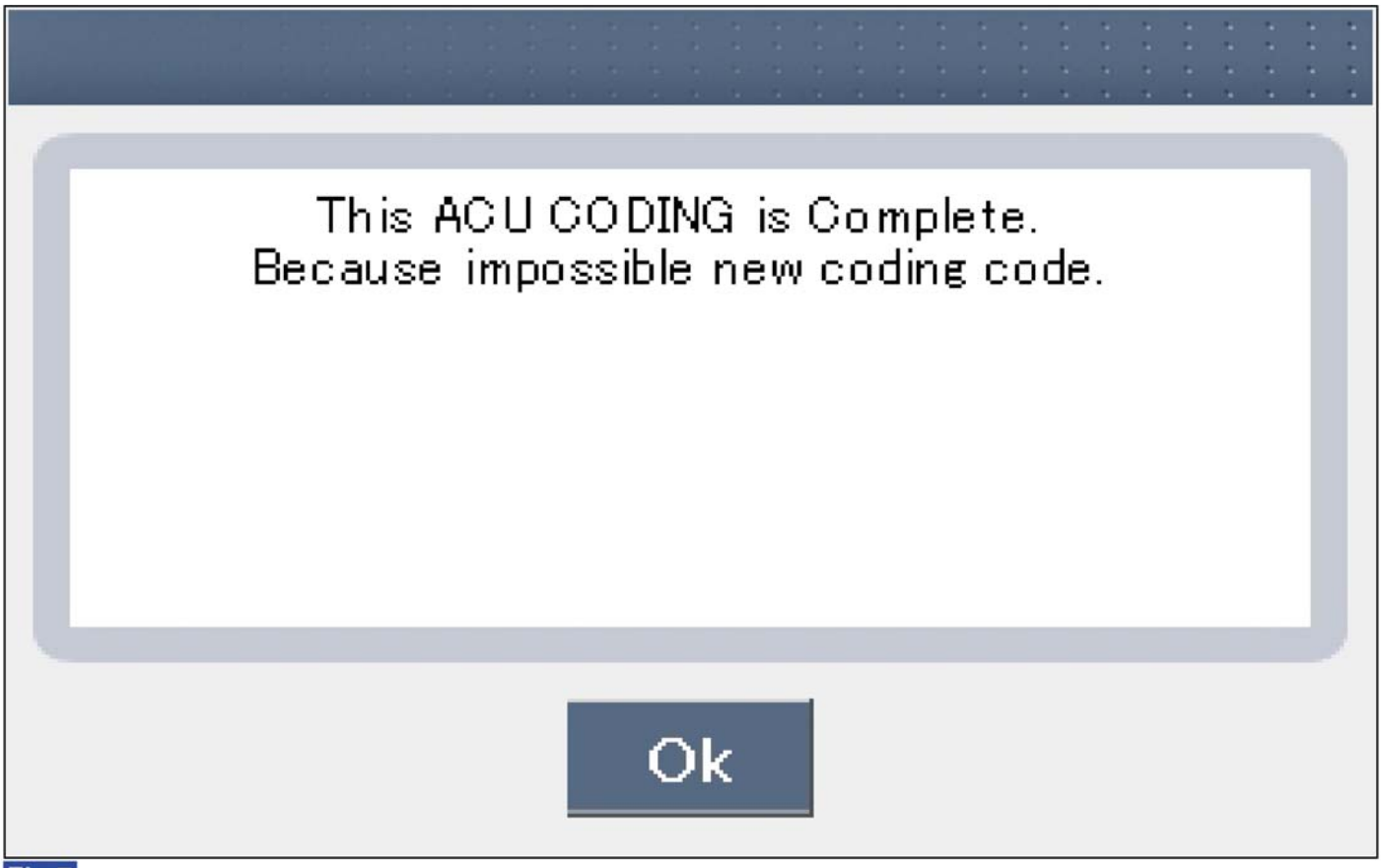


Fig.7

SBKRT9539L

Fig.1) Initial ACU Variant Coding screen

Fig.2) ACU CODING Code entering screen

Fig.3) Screen of rechecking ACU CODING code's entering

Fig.4) Variant coding's proceeding screen-1

Fig.5) Variant coding's proceeding screen-2

Fig.6) Variant coding is completed

Fig.7) Screen of Retrying the Variant coding after finishing variant coding

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

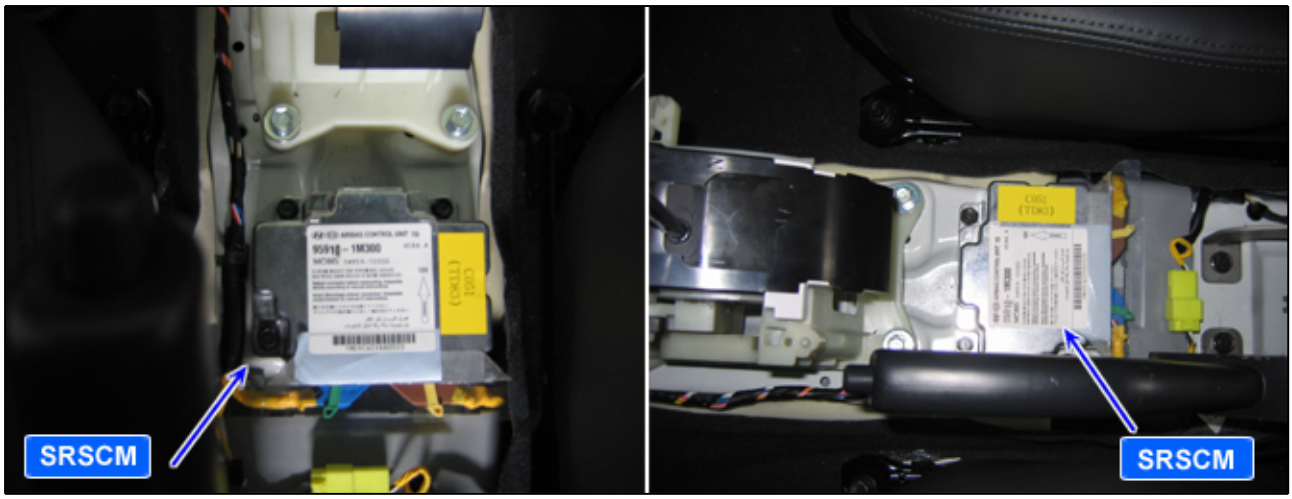
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1684 ACU Configuration is different

Component Location



TD12179139511

General Description

When the new SRSCM is set up on a vehicle by SRSCM's failure, SRSCM(ACU) Variant coding must be performed.

Since a new SRSCM is normally supplied with unsetting state, the ACU has to be set up based on the vehicle specificaions by operating ACU Variant Coding procedure.

The SRSCM checks its specifications in it in order to run its airbag system normally.

If the warning light of airbag is flickering continuously, that is because SRSCM(ACU) Variant Coding is not completed.

NOTICE

SRSCM Variant Coding is available only one time. And when it is already finished, it is impossible to retry SRSCM Variant Coding.

Warning lamp's operation during SRSCM(ACU) Variant Coding Mode : It will be flicking on every 1 seond before the Variant Coding is normally done.

DTC Description

In order to run the airbag system normally, check if there is an incorrect vehicle specfications at performing SRSCM(ACU) Variant Coding.

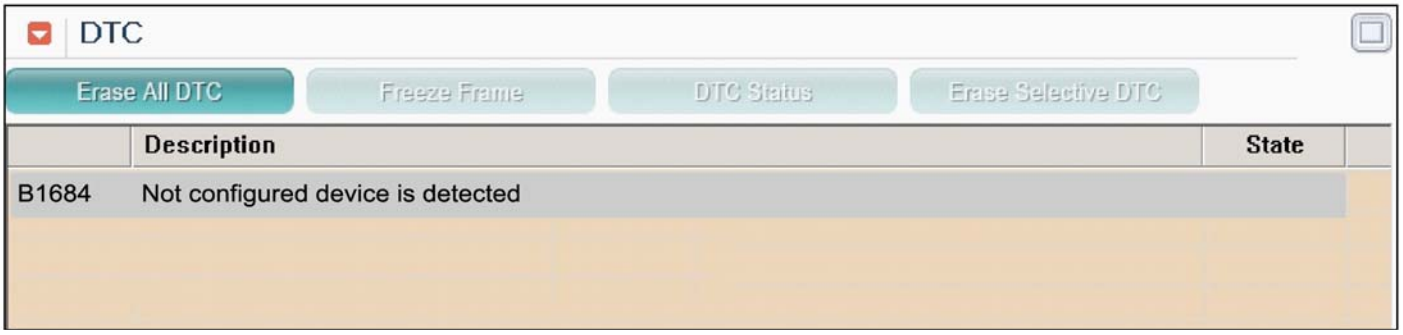
This DTC is set up if there is a difference between actual vehicle specifications and stored vehicle specifications on SRSCM(ACU).

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• SRSCM Coding	• Connection for DAB,PAB, BPT,CAB,and SAB • SRSCM(ACU) Variant Coding's failure • Incorrect vehicle specifications • SRSCM's connector and circuit • SRSCM
Enable Conditions		• For 6 seconds after Start-Up	
Threshold Value		• SRSCM has an unmatching specifications with actual vehicle specifications	
Diagnostic Time	Qualification	• More than 100msec	
	De-Qualification	• N/A	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9525L

5. Is DTC present problem ?

YES ▶ Replace it with a new one and then check if the vehicle specifications are correct . After that, perform SRSCM(ACU) Variant Coding and then, go to "Verification of Vehicle Repair" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.

▶ Thoroughly check release pin and 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.

ACU Variant Coding

■ ACU Variant Coding (On-line type on GDS)

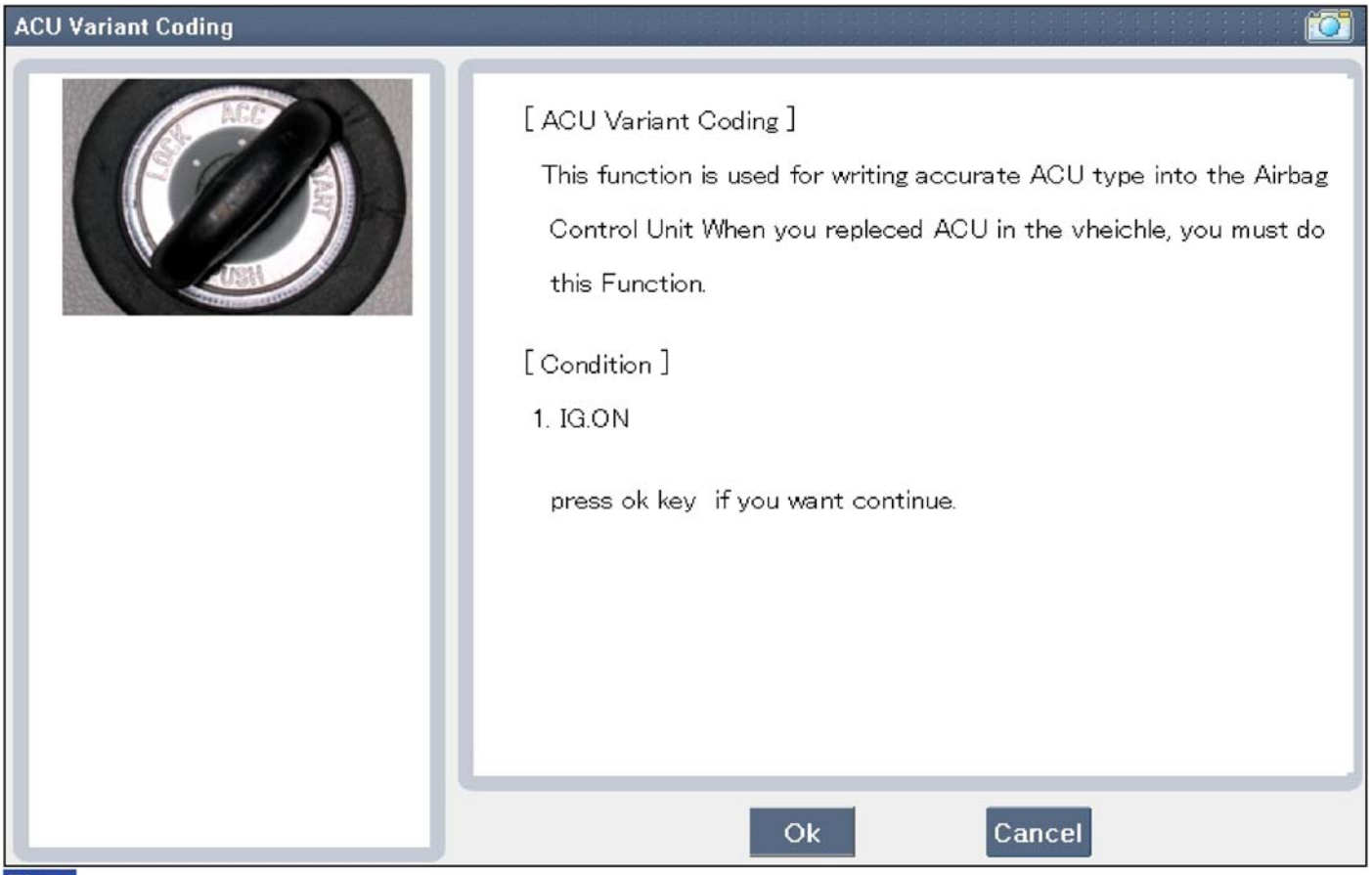


Fig.1

SBKRT9526L

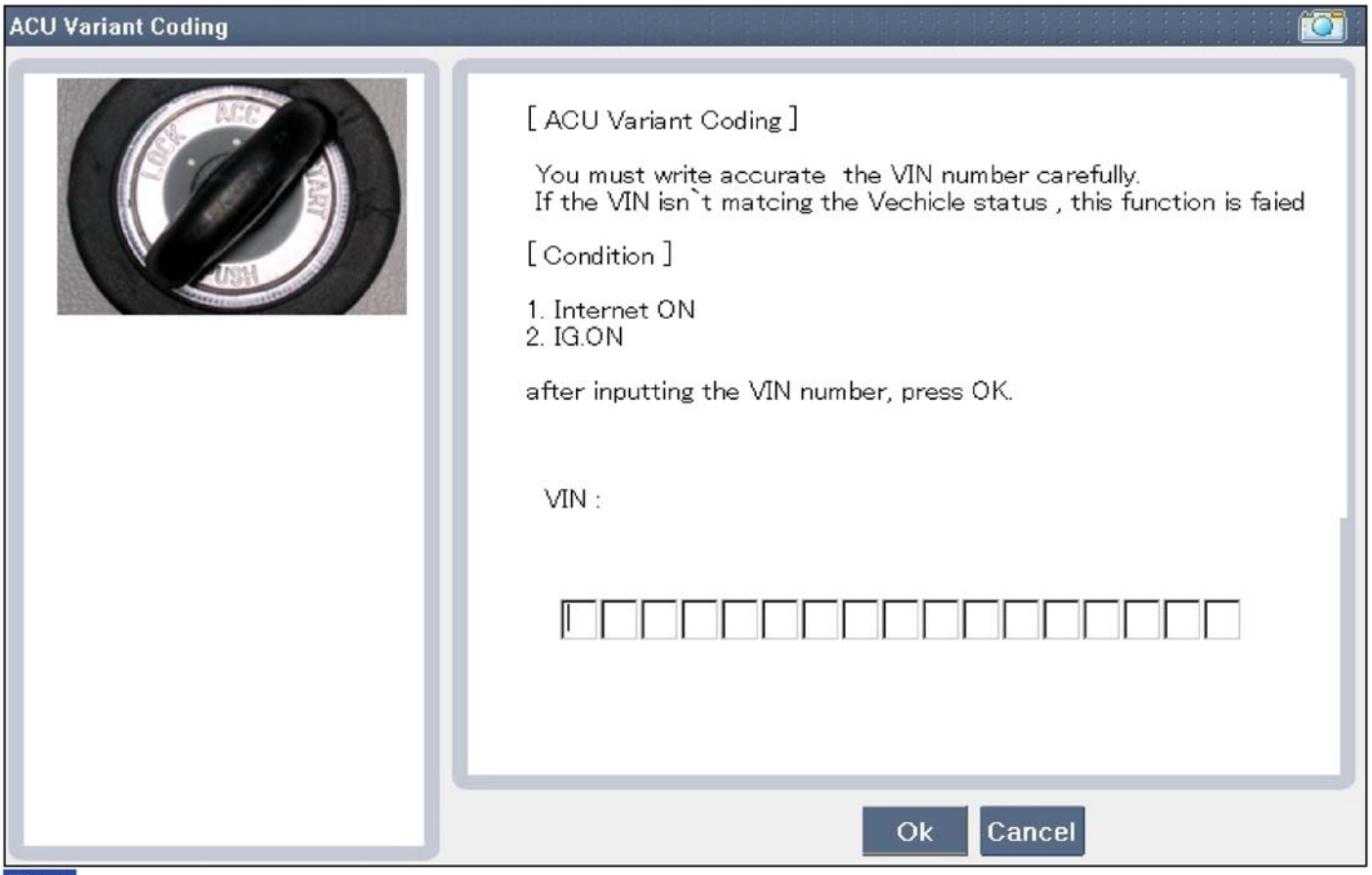


Fig.2

SBKRT9527L

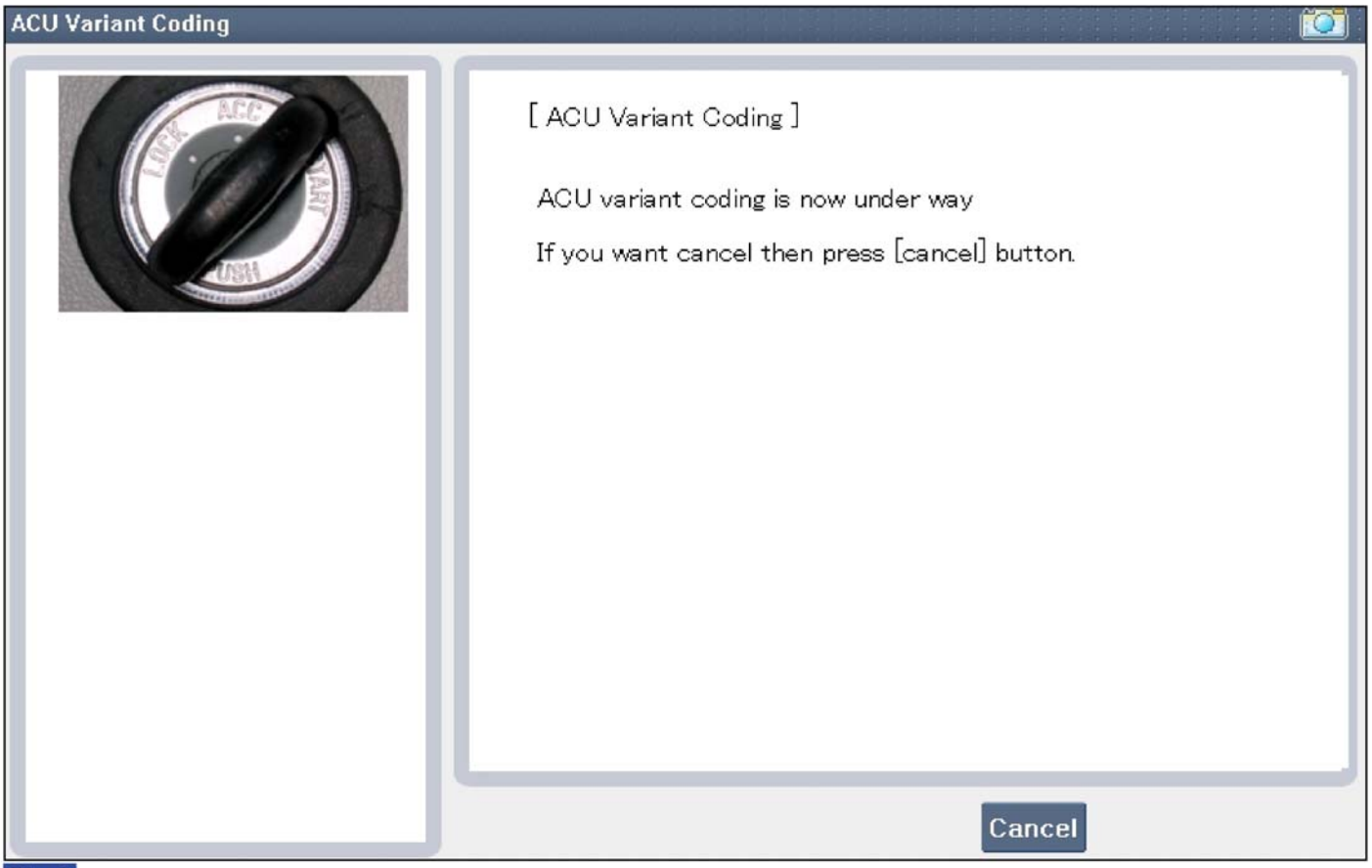


Fig.3

SBKRT9528L

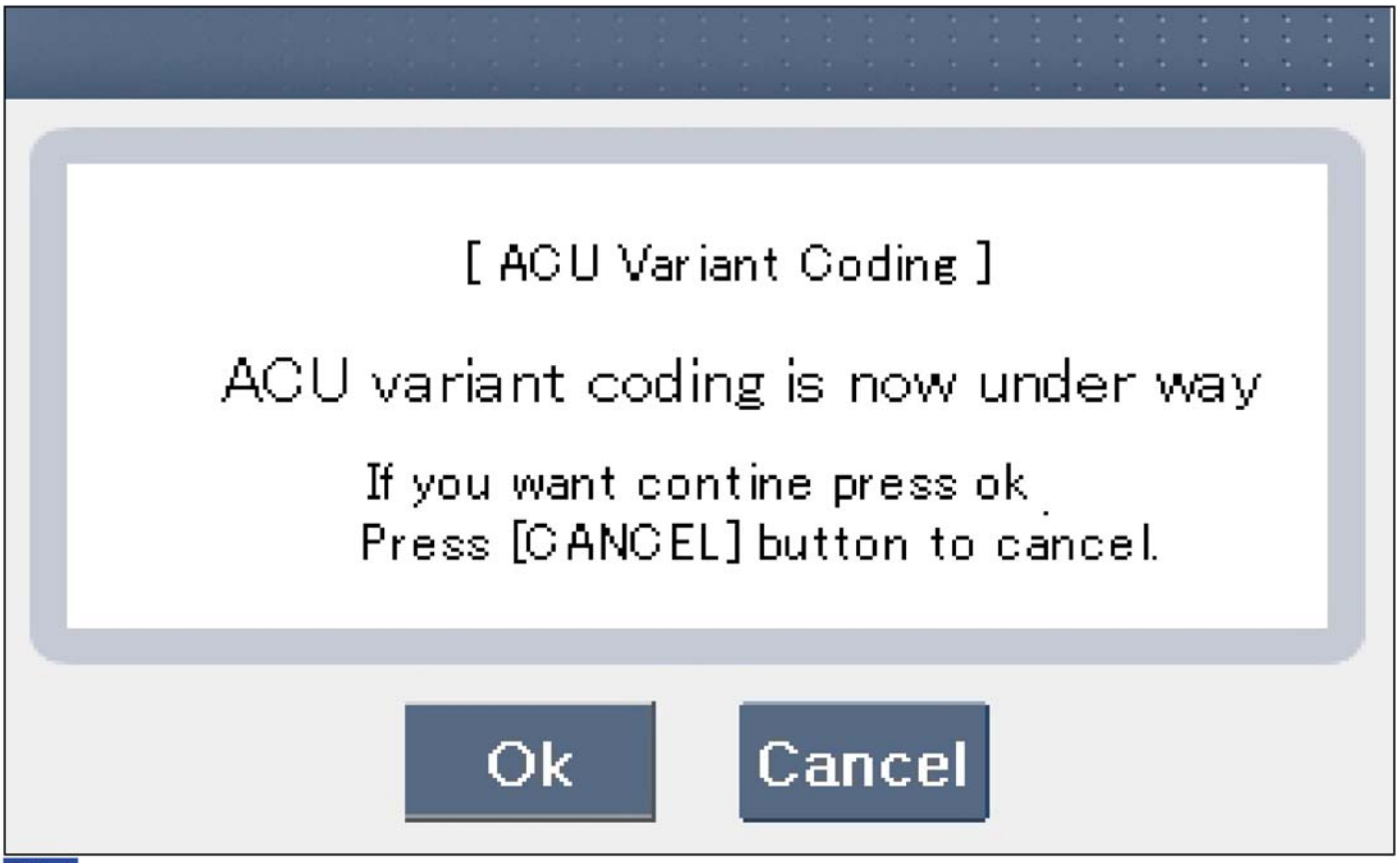


Fig.4

SBKRT9529L

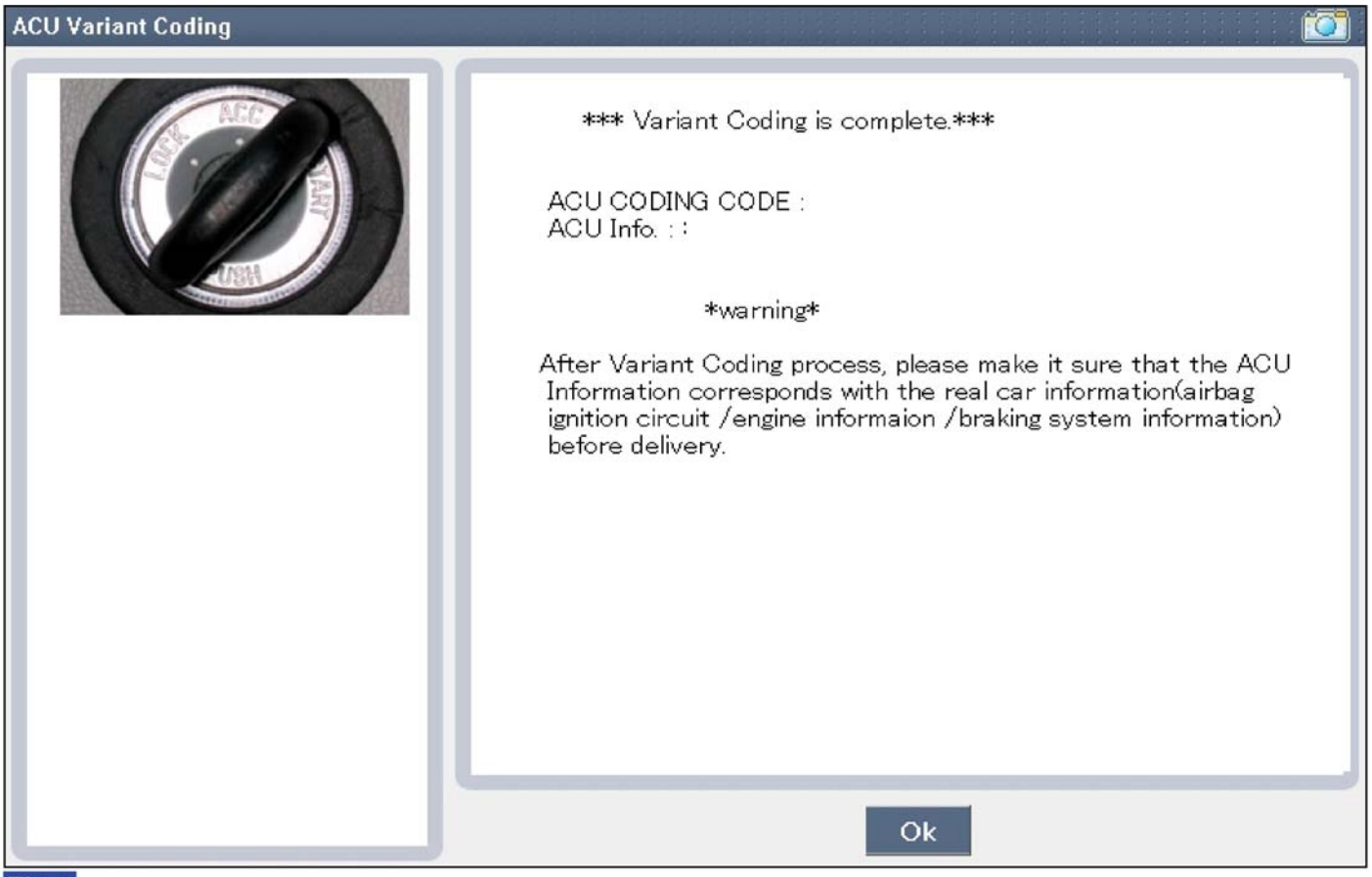


Fig.5

STDRT9527L

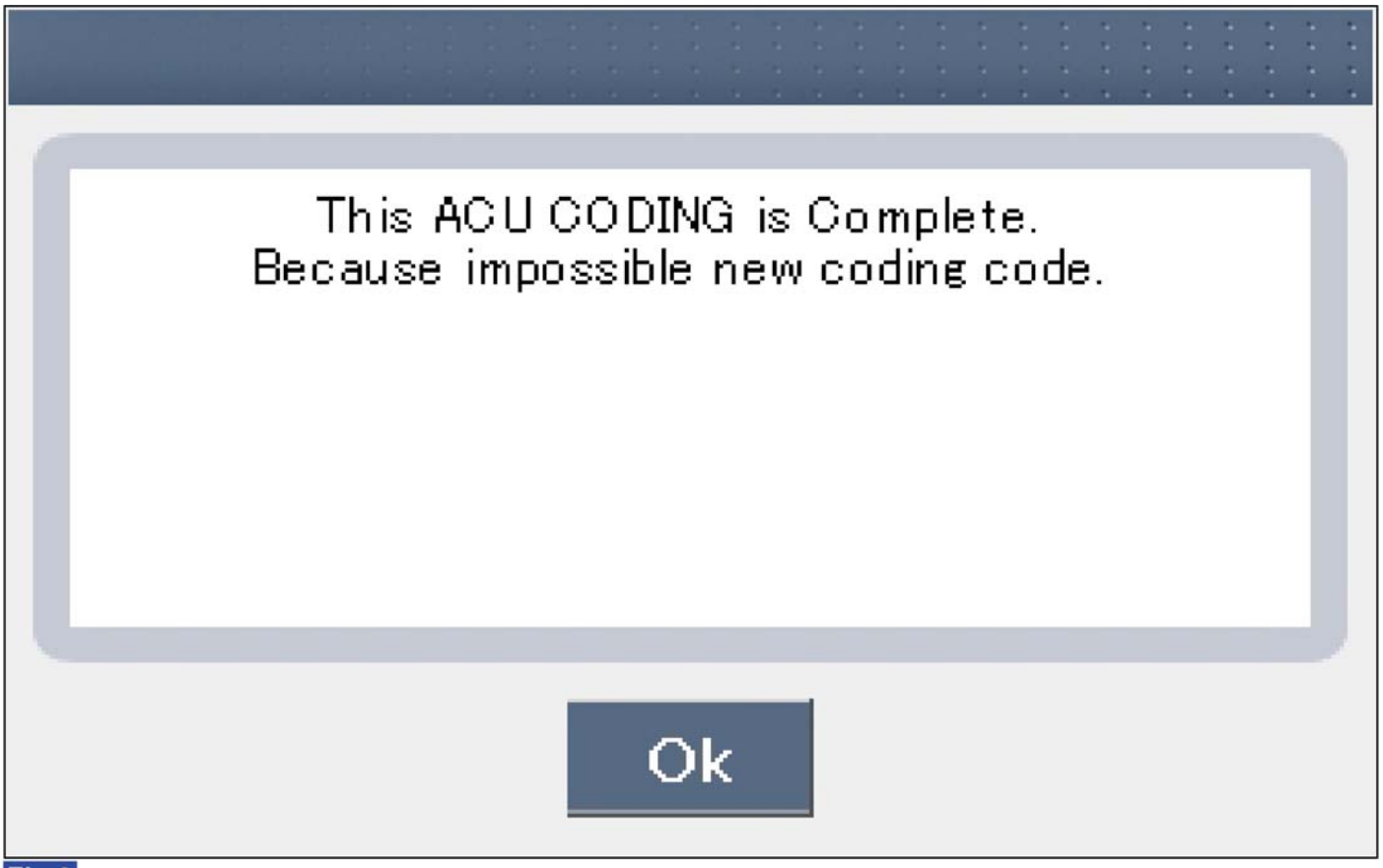


Fig.6

SBKRT9531L

Fig.7

SBKRT9532L

Fig.1) Initial ACU Variant Coding screen

Fig.2) VIN Code entering screen

Fig.3) Variant coding's proceeding screen-1

Fig.4) Variant coding's proceeding screen-2

Fig.5) Variant coding is completed

Fig.6) Screen of Retrying the Variant coding after finishing variant coding

Fig.7) Screen of communication failure

■ ACU Variant Coding (Off-line type on GDS-this can be used when not connecting to internet)

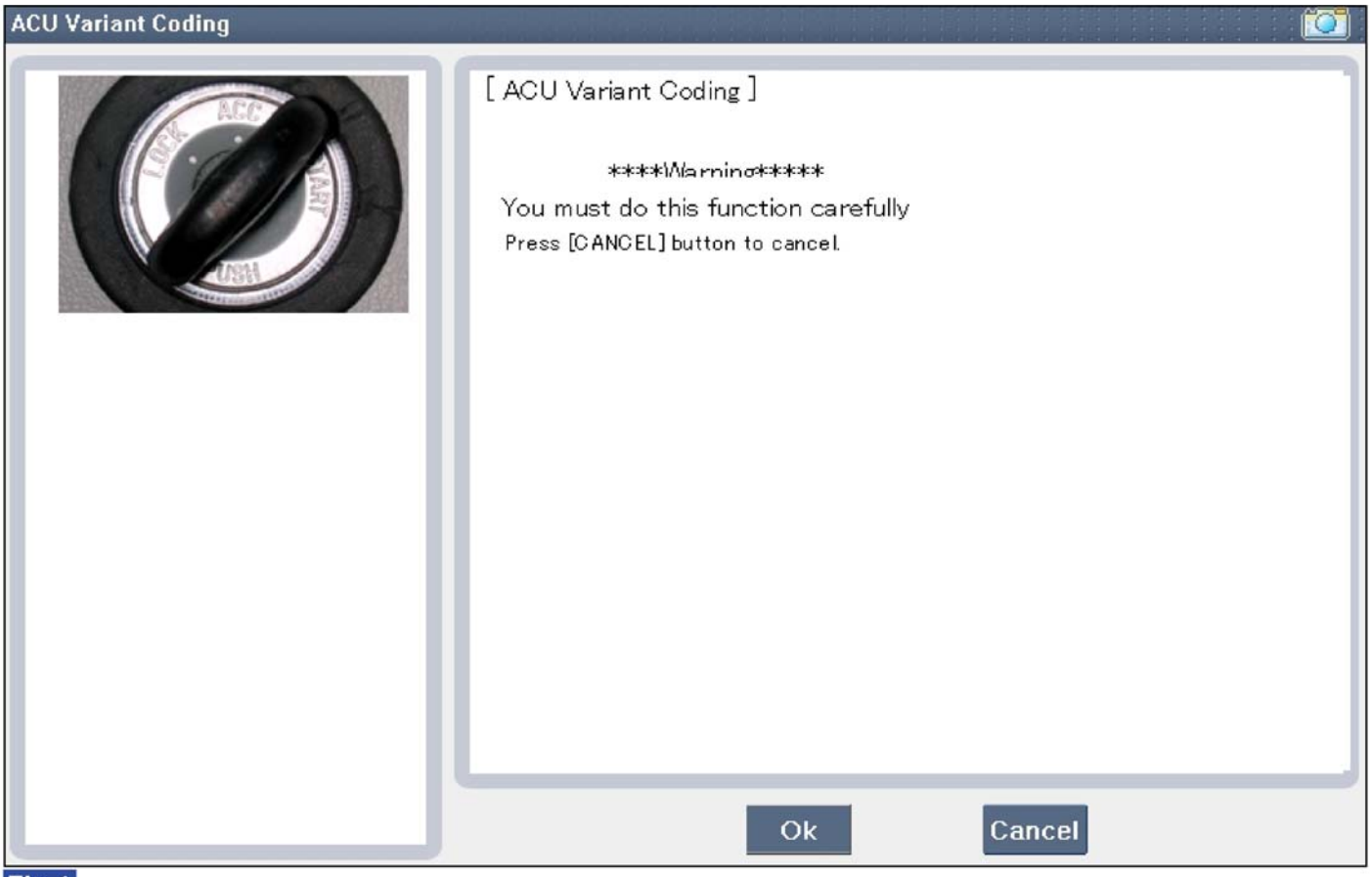


Fig.1

SBKRT9533L

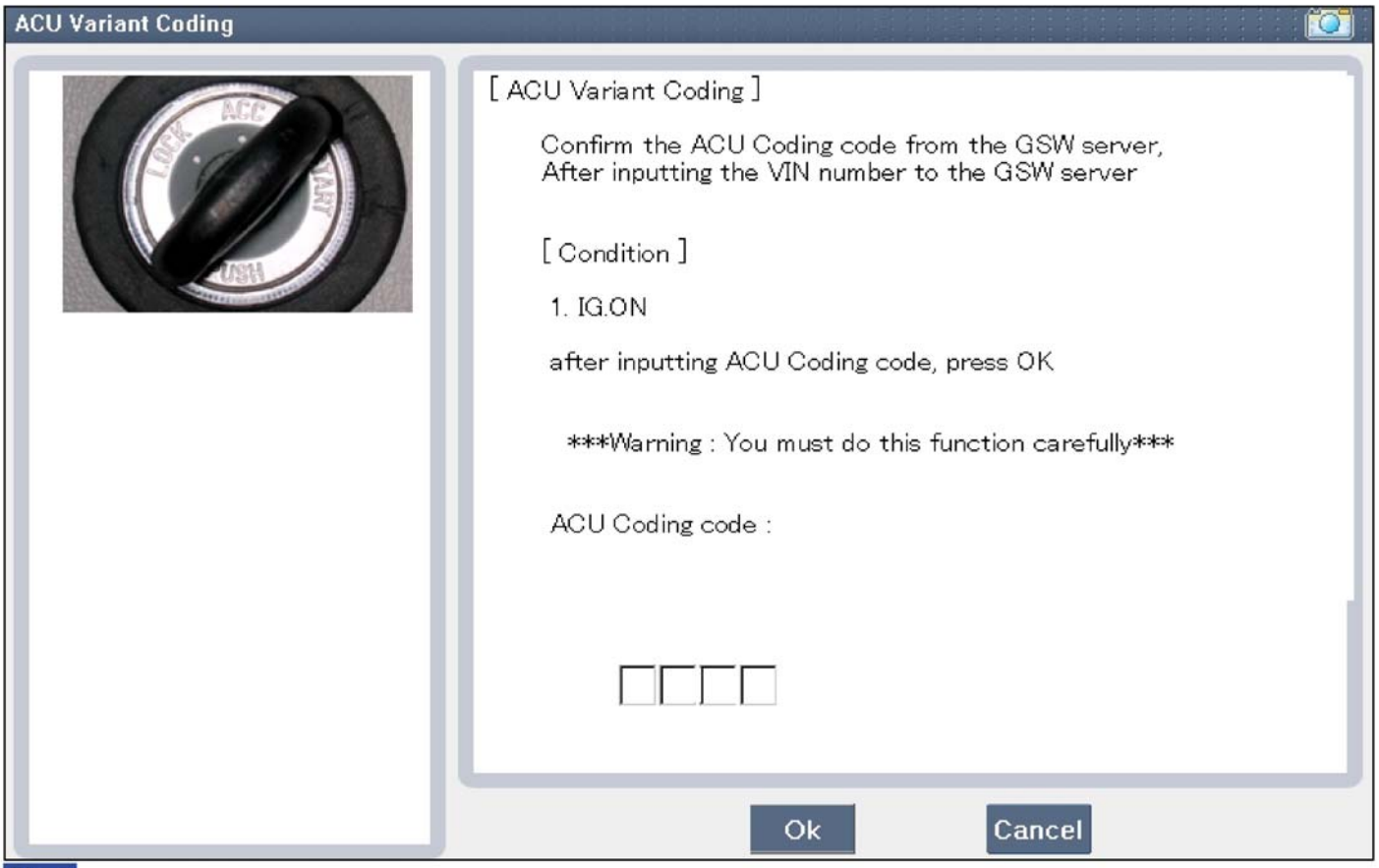


Fig.2

STDRT9528L

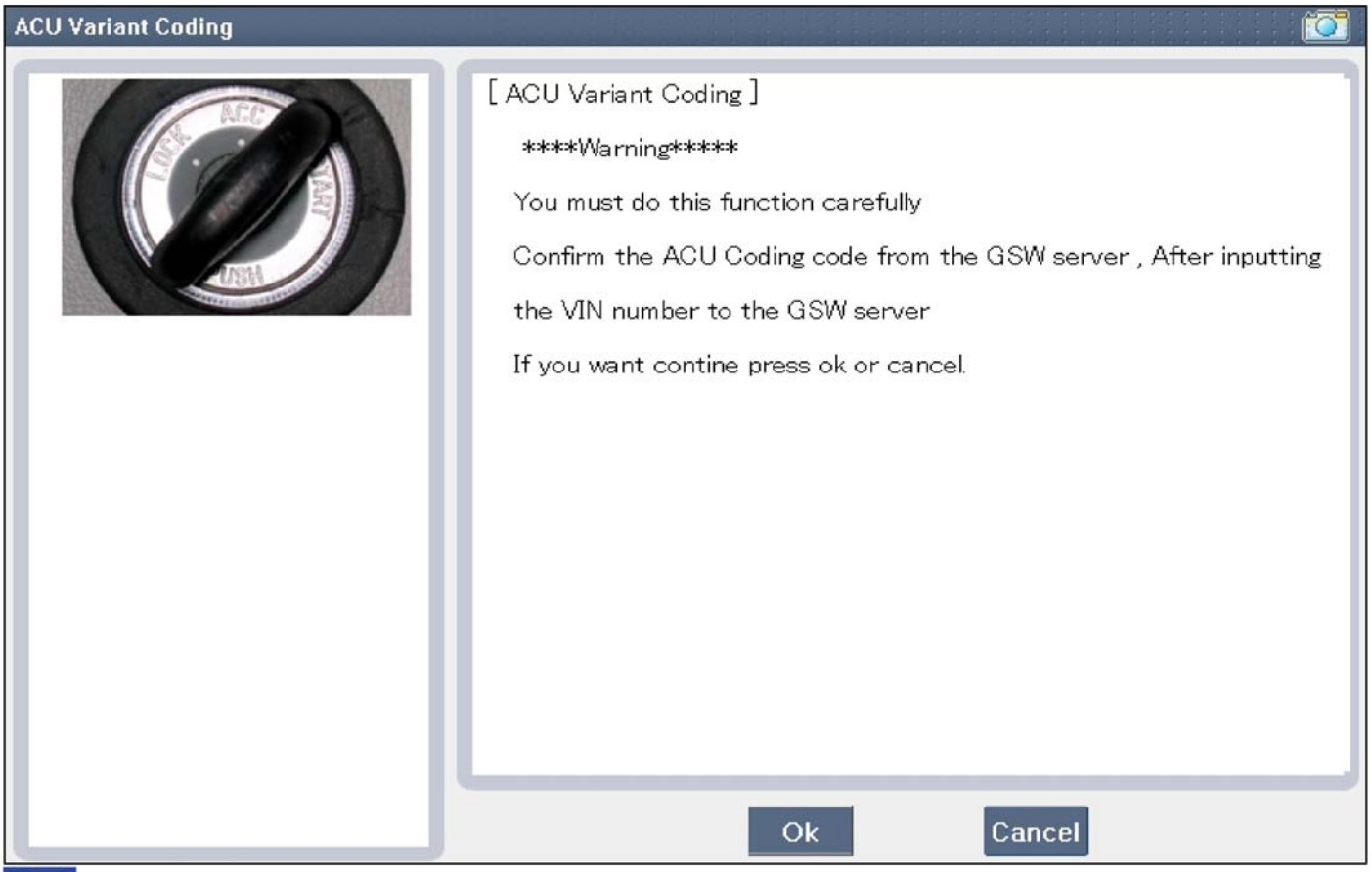


Fig.3

SBKRT9535L

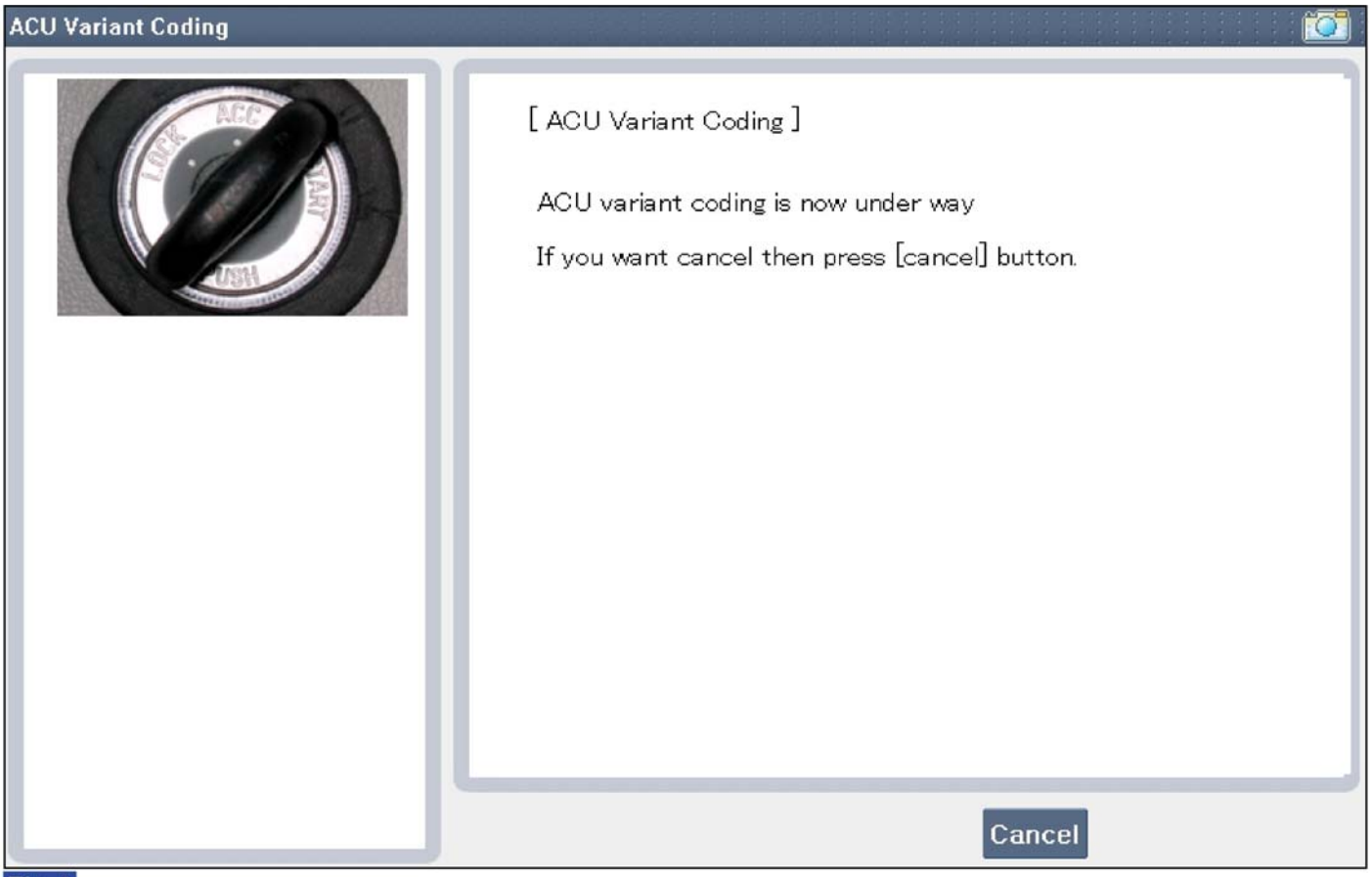


Fig.4

SBKRT9536L

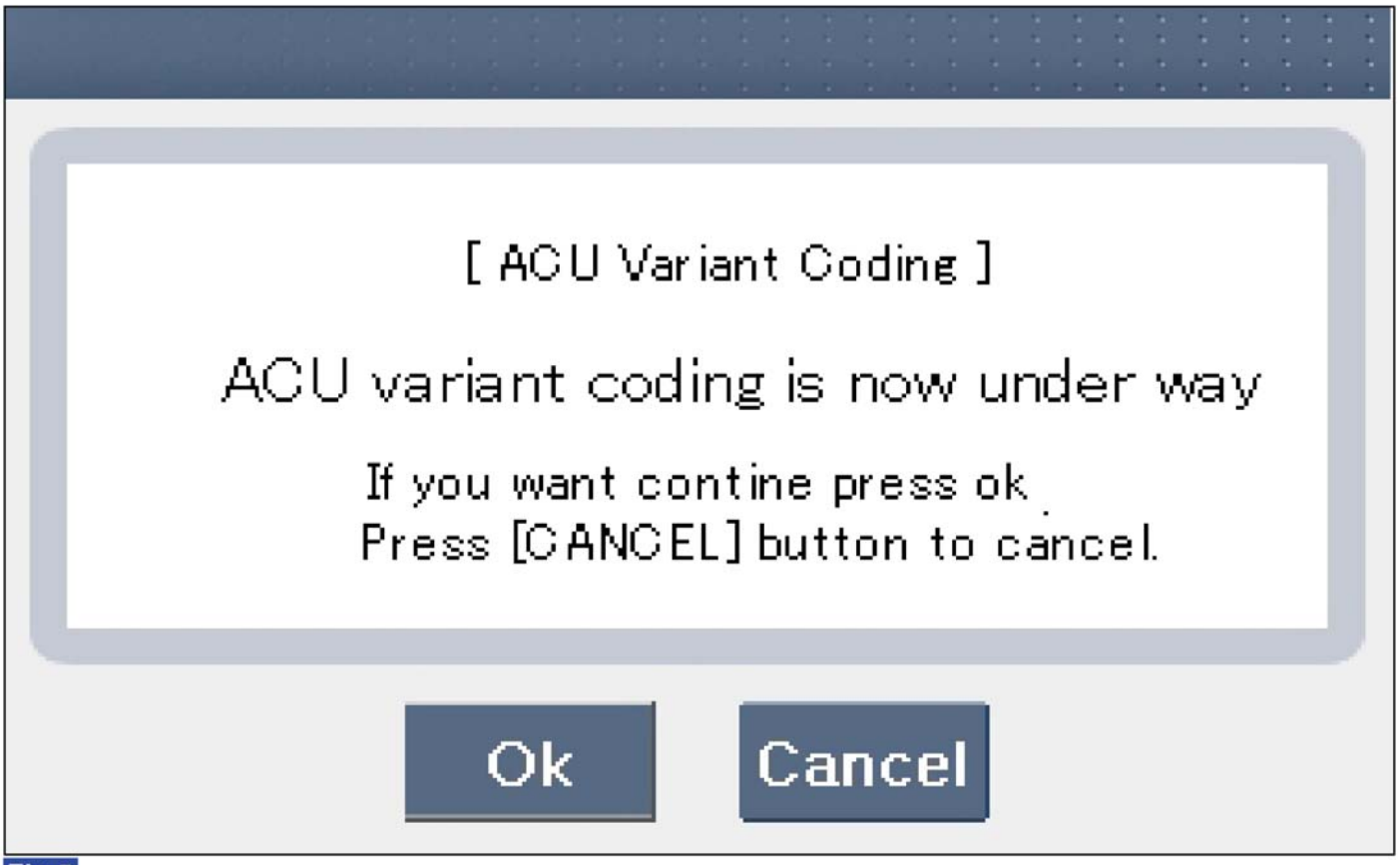


Fig.5

SBKRT9537L

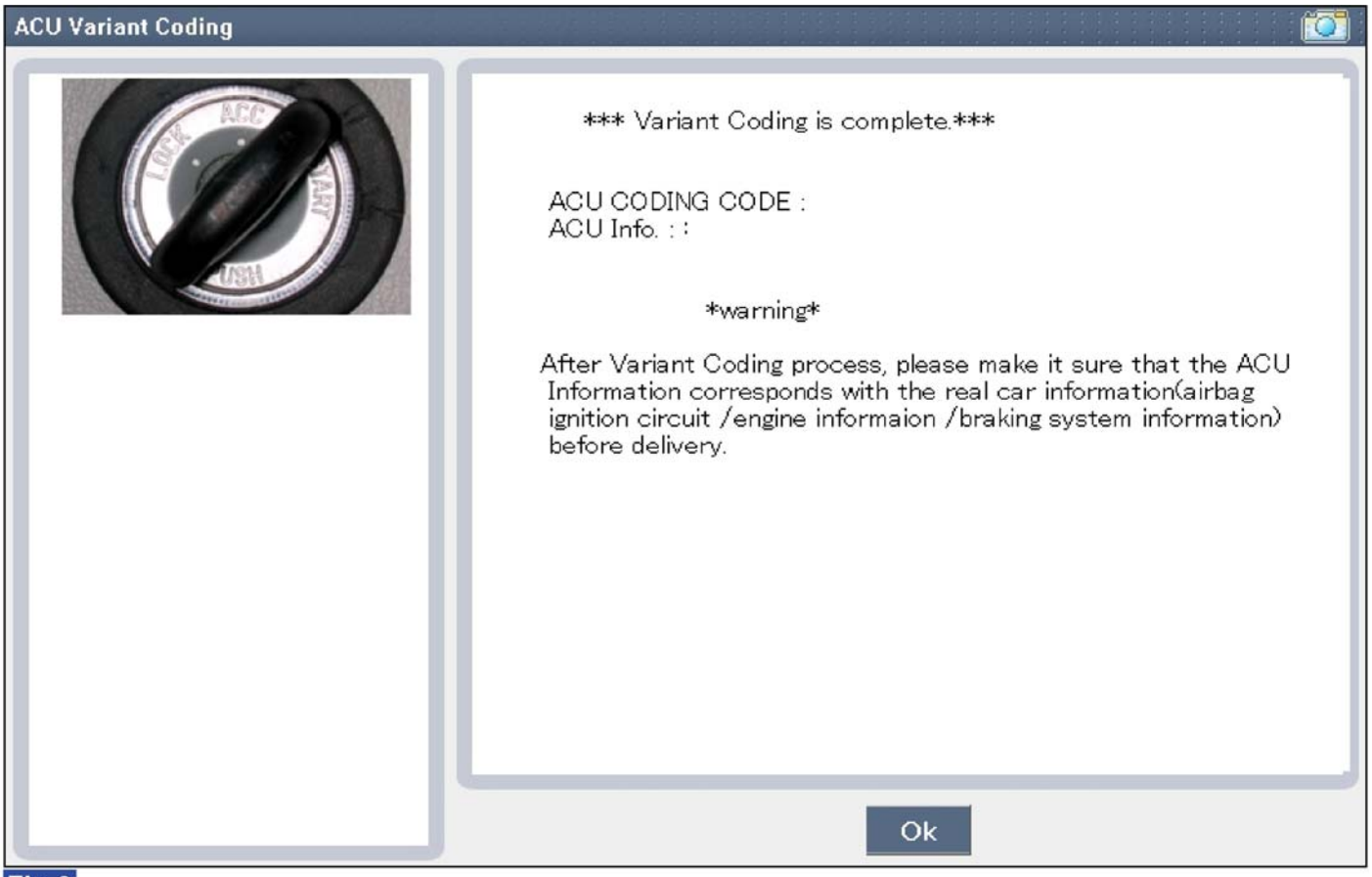


Fig.6

STDRT9529L

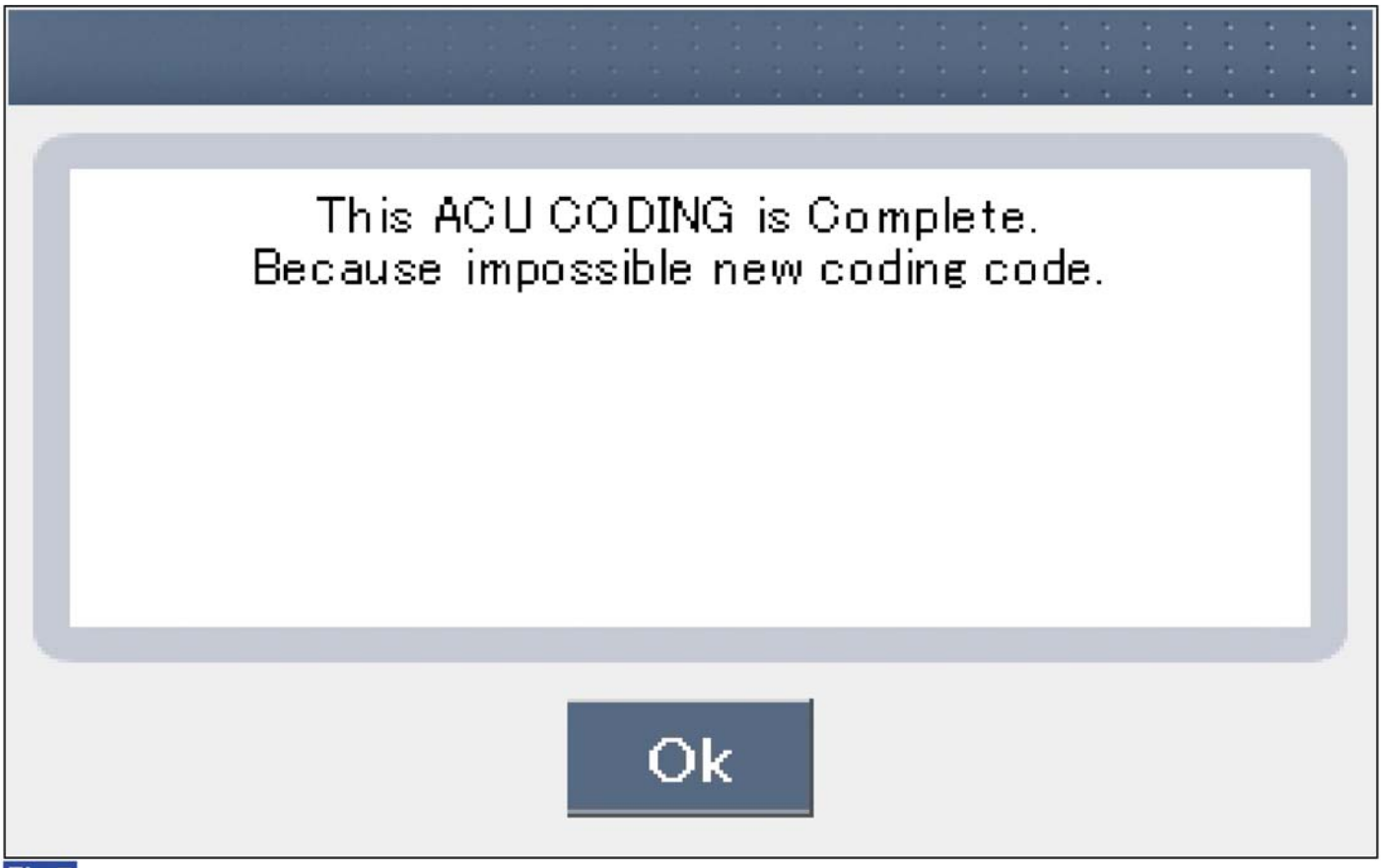


Fig.7

SBKRT9539L

Fig.1) Initial ACU Variant Coding screen

Fig.2) ACU CODING Code entering screen

Fig.3) Screen of rechecking ACU CODING code's entering

Fig.4) Variant coding's proceeding screen-1

Fig.5) Variant coding's proceeding screen-2

Fig.6) Variant coding is completed

Fig.7) Screen of Retrying the Variant coding after finishing variant coding

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

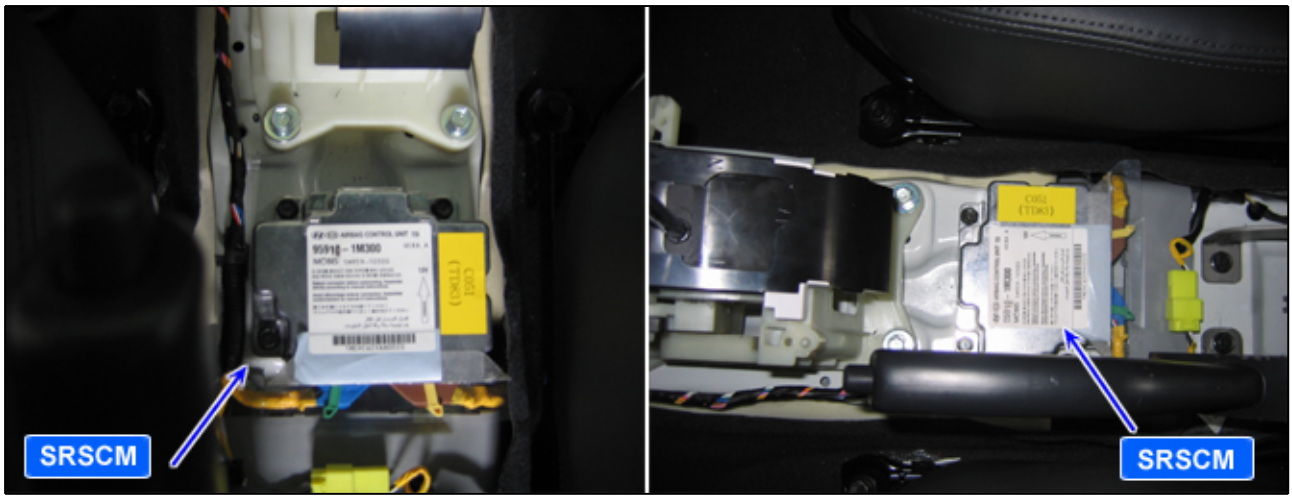
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B1762 ACU Coding Error

Component Location



TD12179139511

General Description

When the new SRSCM is set up on a vehicle by SRSCM's failure, SRSCM(ACU) Variant coding must be performed.

Since a new SRSCM is normally supplied with unsetting state, the ACU has to be set up based on the vehicle specificaions by operating ACU Variant Coding procedure.

The SRSCM checks its specifications in it in order to run its airbag system normally.

If the warning light of airbag is flickering continuously, that is because SRSCM(ACU) Variant Coding is not completed.

NOTICE

SRSCM Variant Coding is available only one time. And when it is already finished, it is impossible to retry SRSCM Variant Coding.

Warning lamp's operation during SRSCM(ACU) Variant Coding Mode : It will be flicking on every 1 seond before the Variant Coding is normally done.

DTC Description

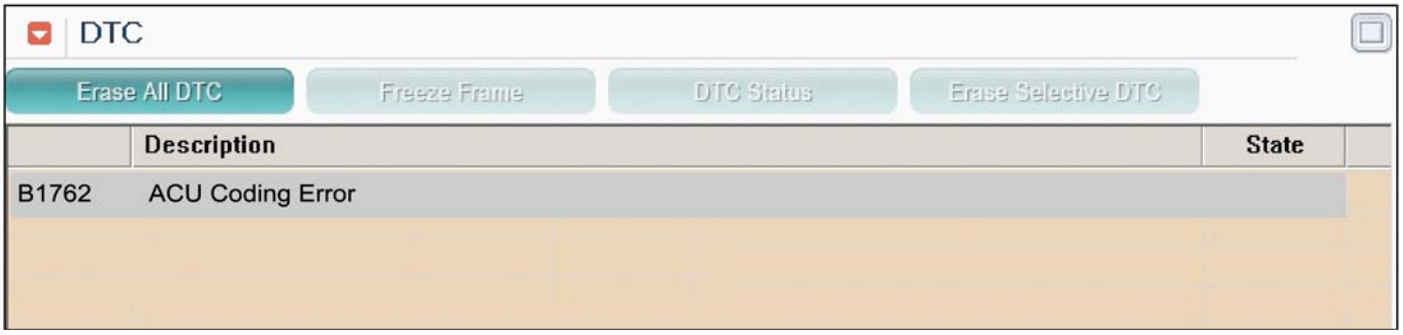
In order to run the airbag system normally, check if there is an incorrect vehicle specfications at performing SRSCM(ACU) Variant Coding. This DTC is set up if SRSCM's variant code doesn't match with the entering variant code at performing SRSCM(ACU) Variant Coding procedure.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• SRSCM Coding	• Connection for DAB,PAB, BPT,CAB,and SAB • SRSCM(ACU) Variant Coding's failure • Incorrect vehicle specifications • SRSCM's connector and circuit • SRSCM
Enable Conditions		• SRSCM(ACU) Variant Coding Mode	
Threshold Value		• Incorrect variant code entering at SRSCM(ACU) Variant Coding mode	
Diagnostic Time	Qualification	• More than 100msec	
	De-Qualification	• More than one time	

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9526L

5. Is DTC present problem ?

YES ▶ Check if the vehicle specifications are correct. After that, perform SRSCM(ACU) Variant Coding and then, go to "Verification of Vehicle Repair" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
▶ Thoroughly check release pin and 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.

ACU Variant Coding

■ ACU Variant Coding (On-line type on GDS)

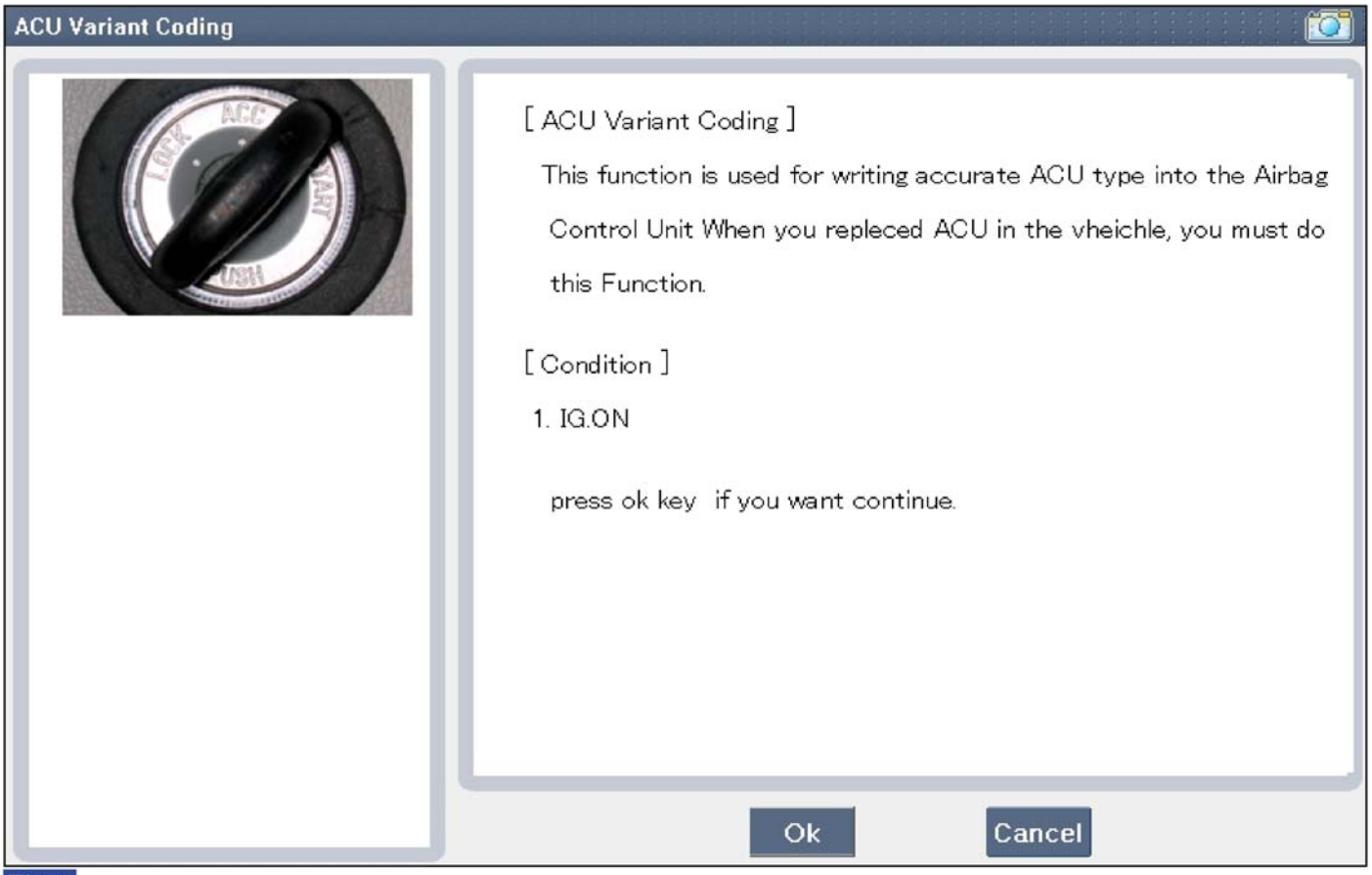


Fig.1

SBKRT9526L

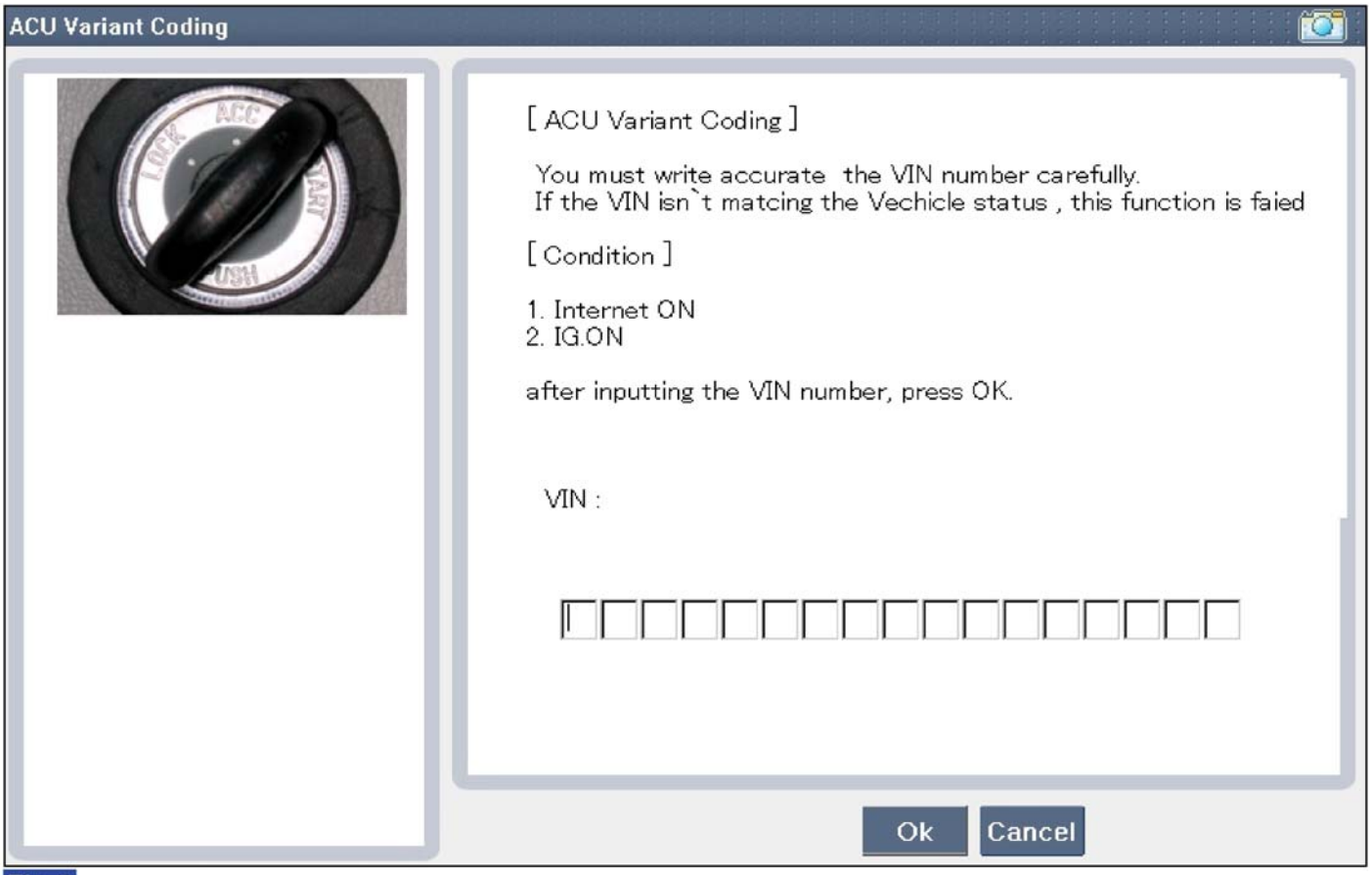


Fig.2

SBKRT9527L

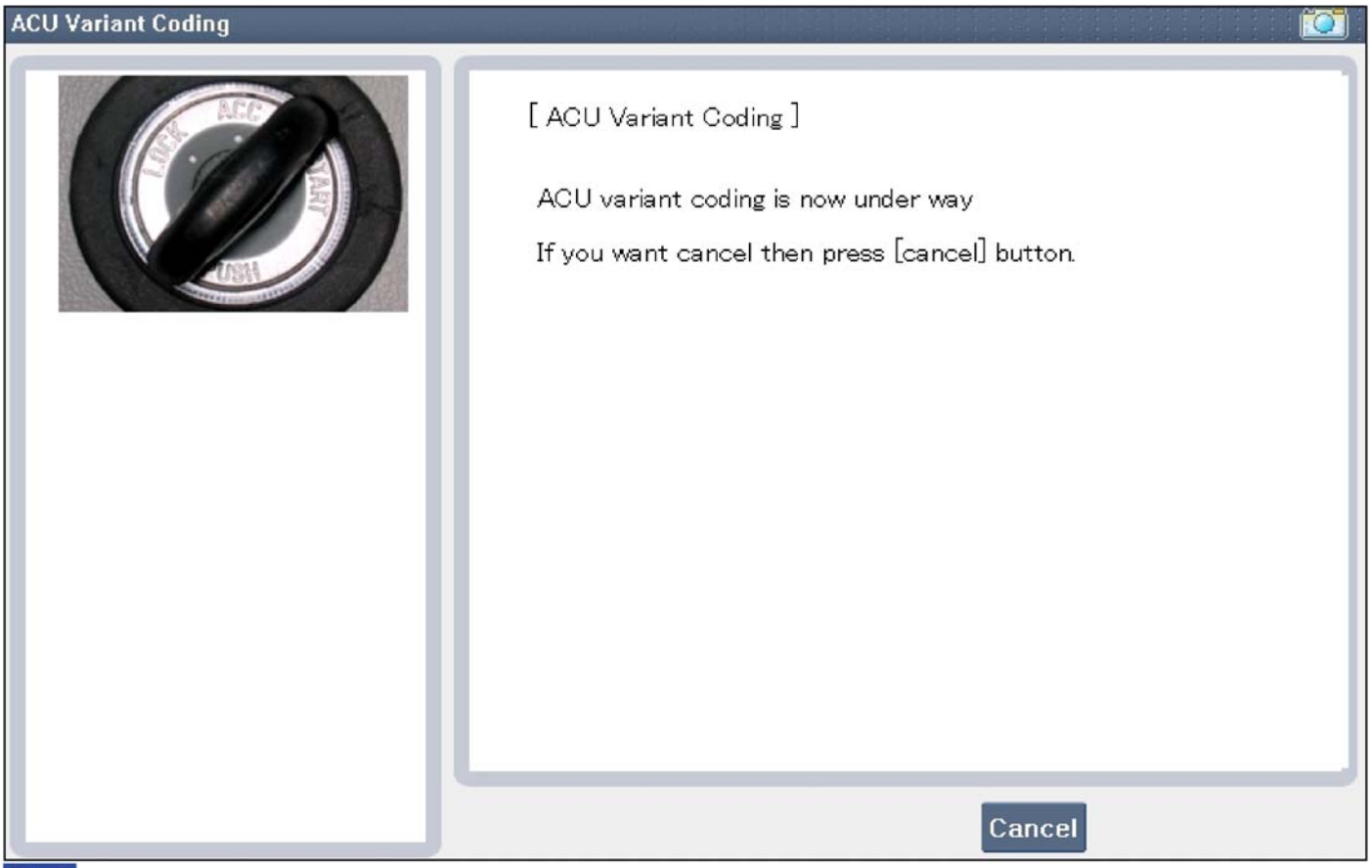


Fig.3

SBKRT9528L

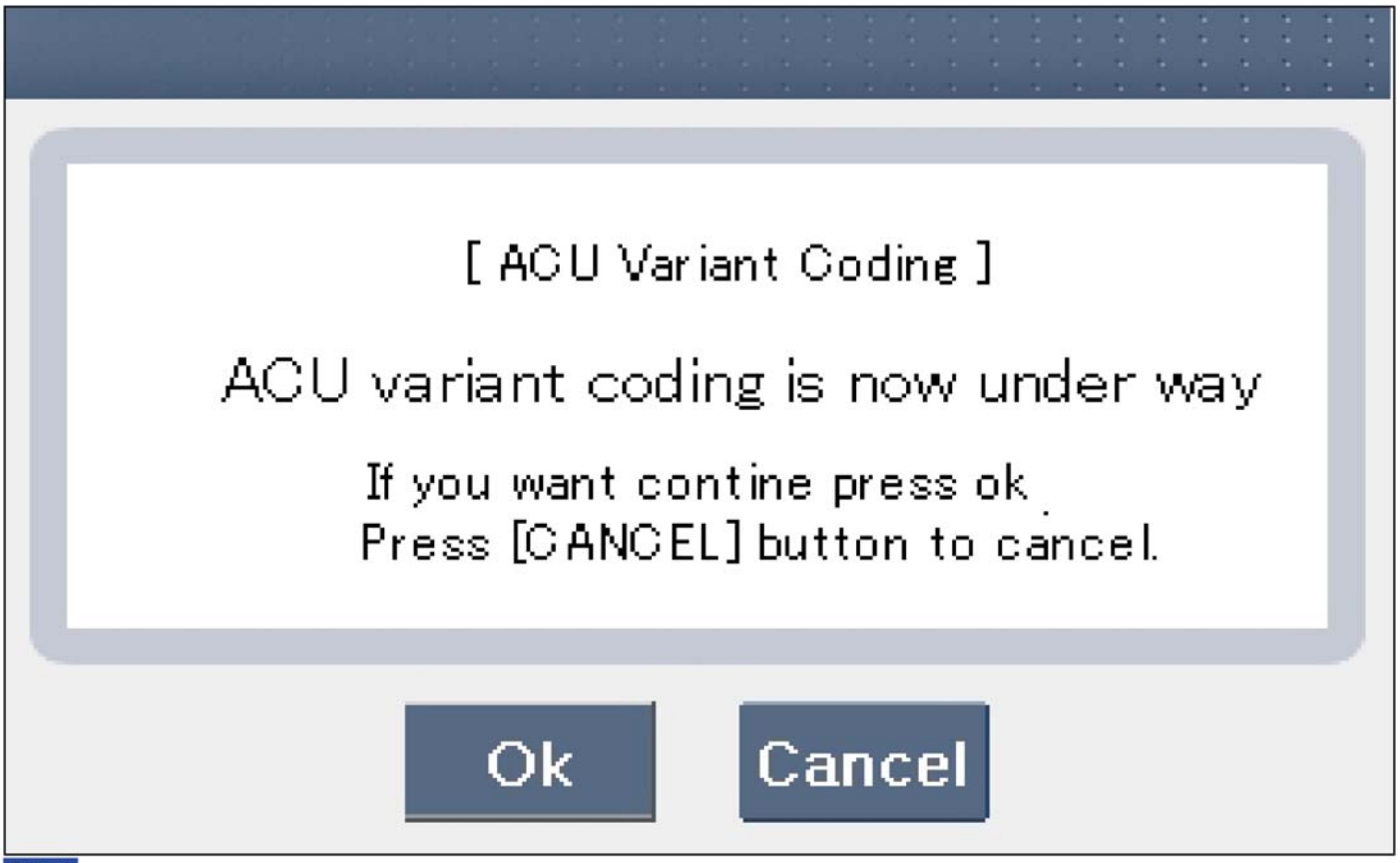


Fig.4

SBKRT9529L

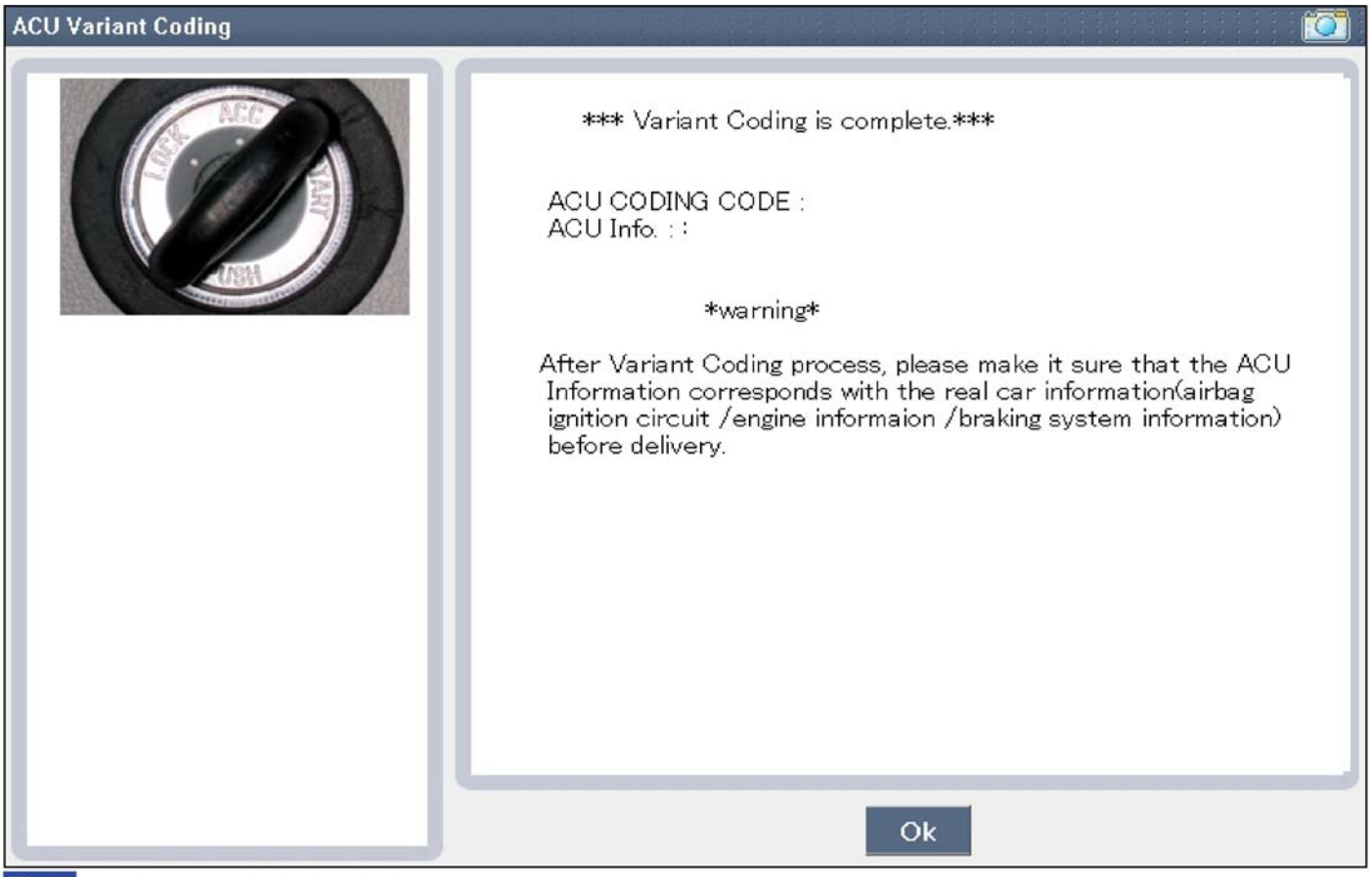


Fig.5

STDRT9527L

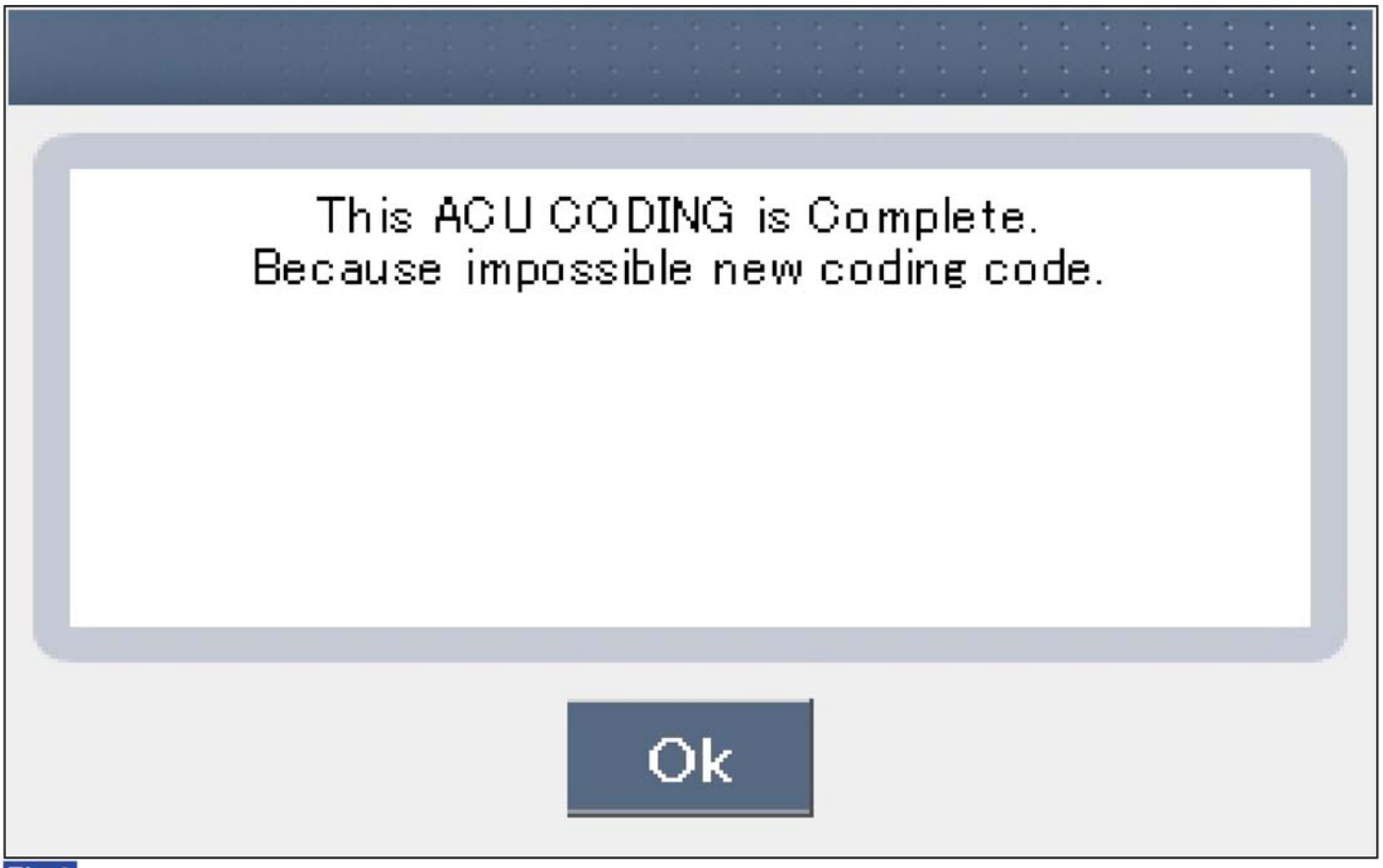


Fig.6

SBKRT9531L

Fig.7

SBKRT9532L

Fig.1) Initial ACU Variant Coding screen

Fig.2) VIN Code entering screen

Fig.3) Variant coding's proceeding screen-1

Fig.4) Variant coding's proceeding screen-2

Fig.5) Variant coding is completed

Fig.6) Screen of Retrying the Variant coding after finishing variant coding

Fig.7) Screen of communication failure

■ ACU Variant Coding (Off-line type on GDS-this can be used when not connecting to internet)

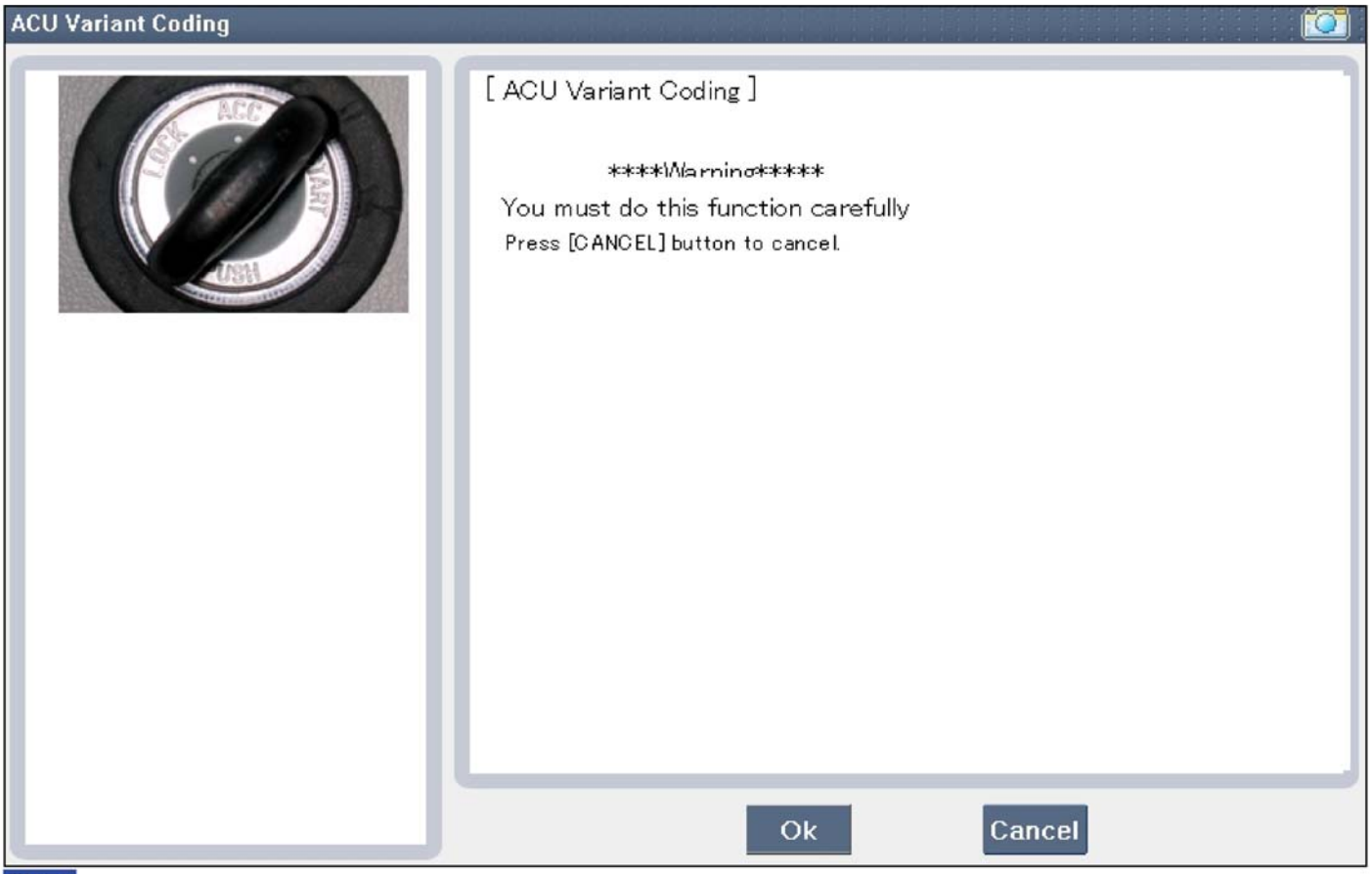


Fig.1

SBKRT9533L

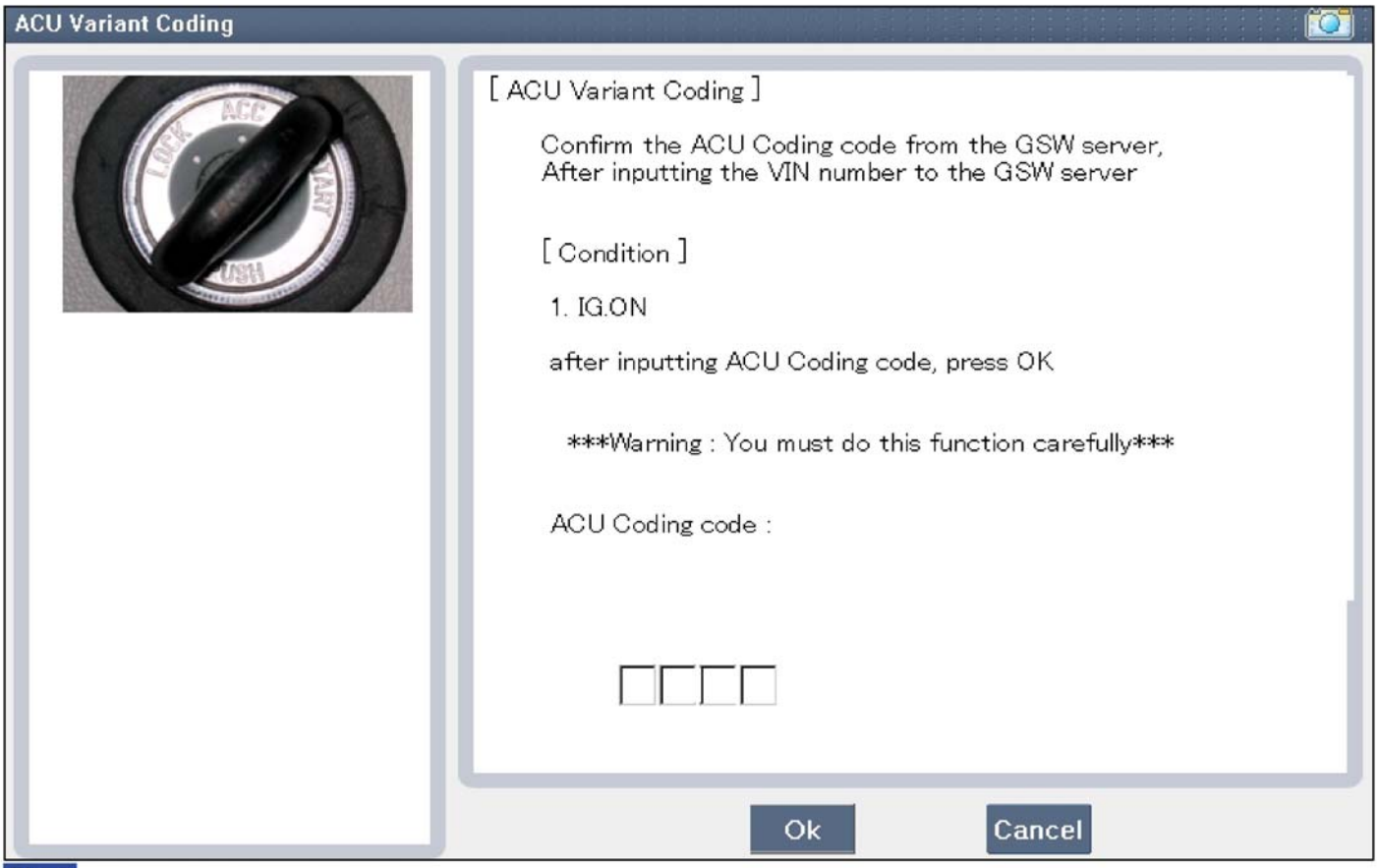


Fig.2

STDRT9528L

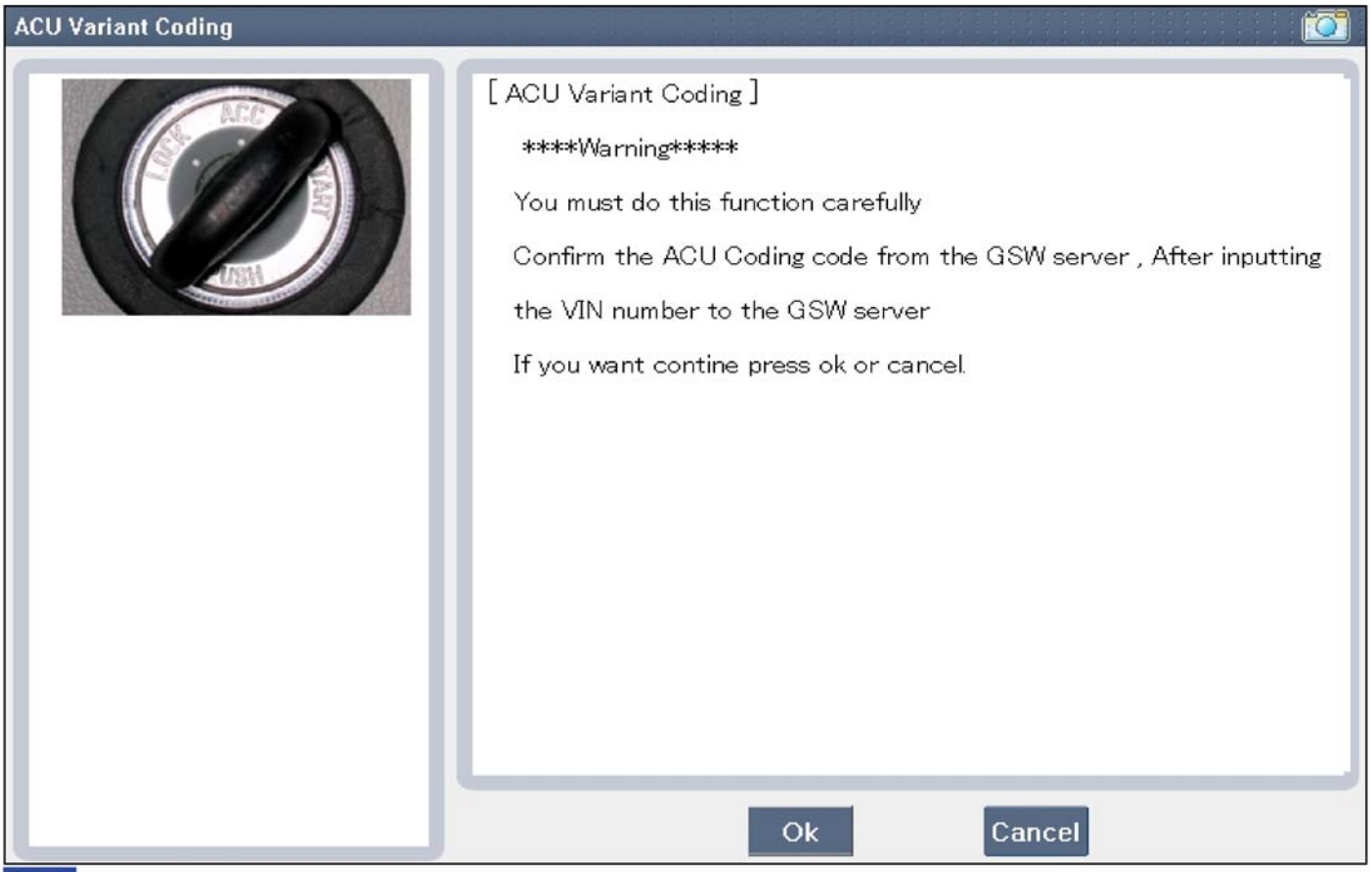


Fig.3

SBKRT9535L

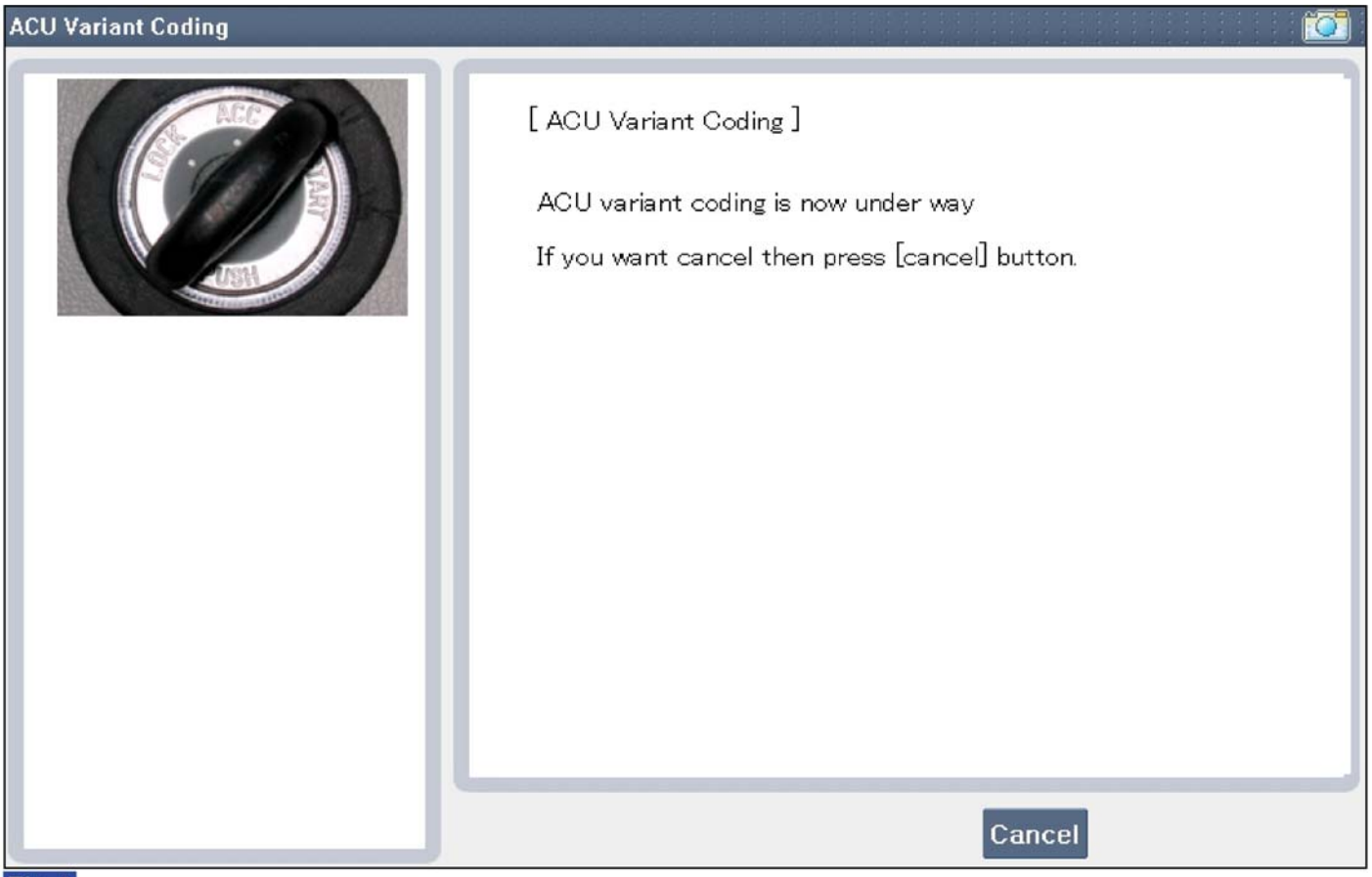


Fig.4

SBKRT9536L

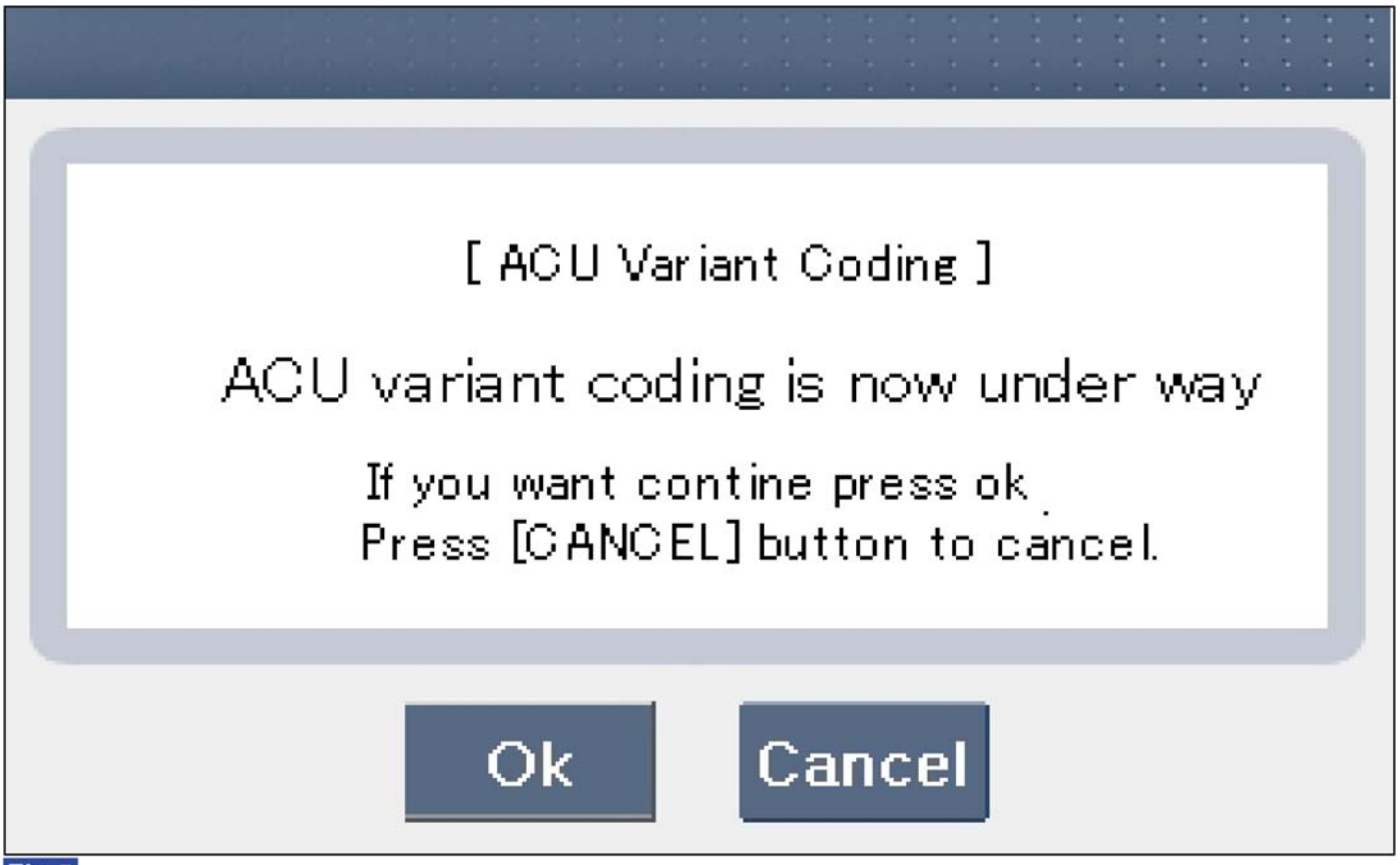


Fig.5

SBKRT9537L

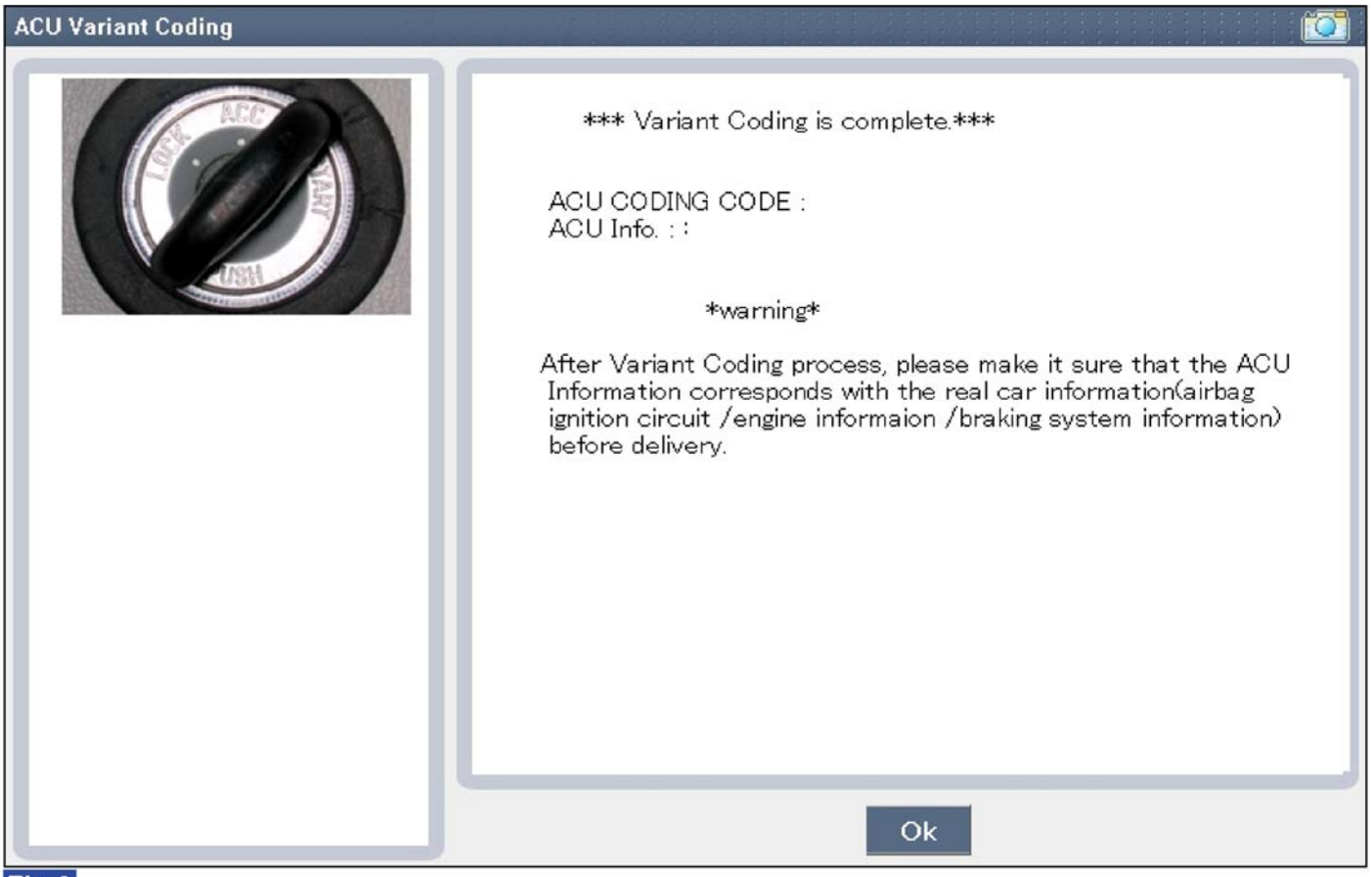


Fig.6

STDRT9529L

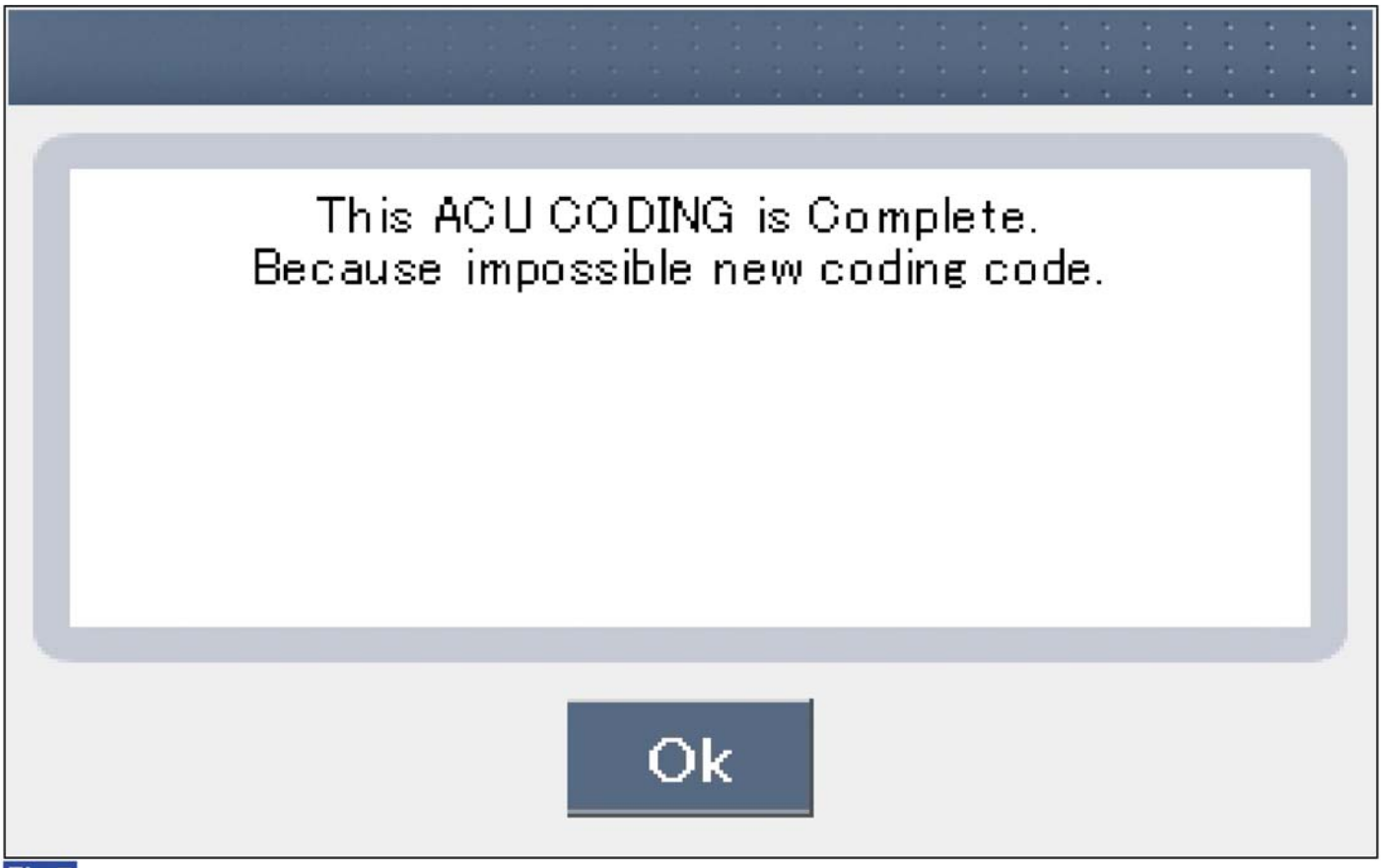


Fig.7

SBKRT9539L

Fig.1) Initial ACU Variant Coding screen

Fig.2) ACU CODING Code entering screen

Fig.3) Screen of rechecking ACU CODING code's entering

Fig.4) Variant coding's proceeding screen-1

Fig.5) Variant coding's proceeding screen-2

Fig.6) Variant coding is completed

Fig.7) Screen of Retrying the Variant coding after finishing variant coding

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode
2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting procedure.

NO ▶ System is performing to specification at this time.

B2500 Warning lamp Failure

Component Location

TD12179250011

General Description

Air bag warning lamp is located at cluster

When key is in 'ignition on' position, SRSCM performs diagnosis of overall air bag system.If there's no fault, air bag.

Warning lamp in cluster flickers for a whlie and then goes out.

SRSCM measures voltage of out terminal of warning lamp to check if warnning lamp is operated in accordance with signal SRSCM sends.

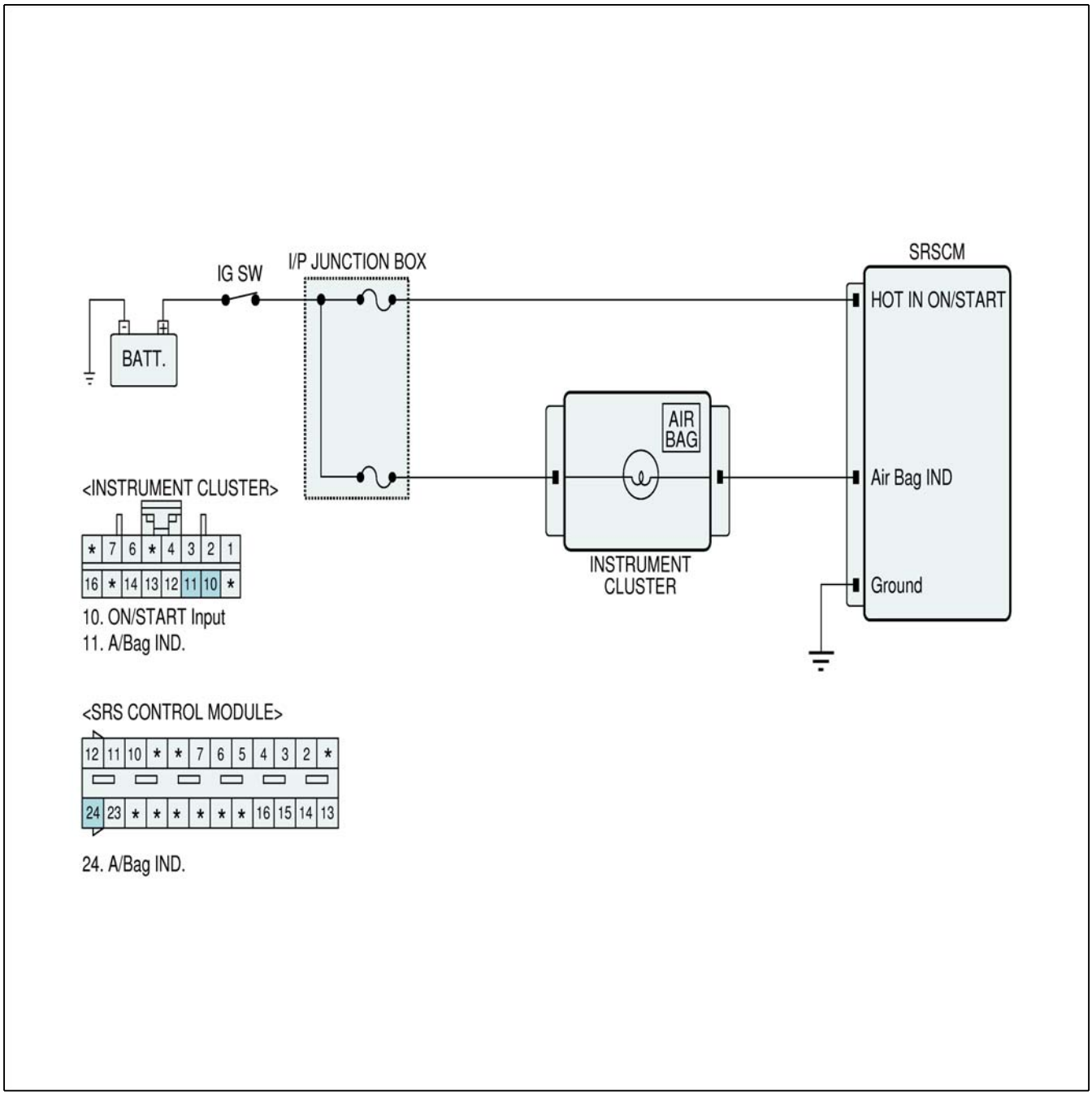
DTC Description

The SRSCM sets DTC B2500 if there is an open circuit or short to ground in air bag circuit harness.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		• Check voltage	• Burnt-out fuse. • Burnt-out warning lamp. • Open circuit in warning lamp harness. • Short circuit in warning lamp harness. • Faulty SRSCM.
Enable conditions		• Ignition "ON"	
Threshold Value	Lamp " OFF"	• The difference of voltage at the airbag warning lamp side between diagnosing and OFF < 170 mV	
	Lamp " ON"	• Warning lamp Line voltage > 3.3V	
Diagnostic Time	Qualification	• More than 1.2 sec	
	De-Qualification	• More than 2 sec	

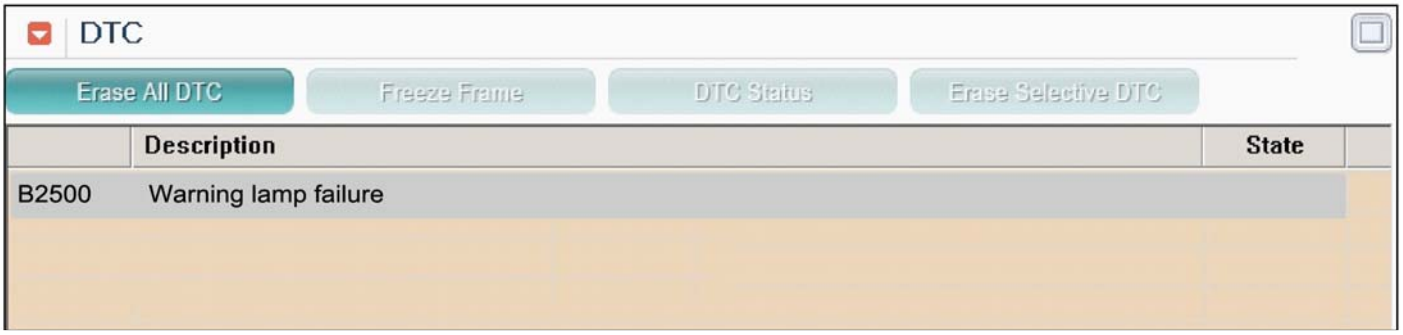
Diagnostic Circuit Diagram



STDRT9615L

Monitor Scantool Data

1. Ignition "OFF", connect scantool.
2. Ignition "ON"& Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scan tool, clear the DTC.



STDRT9523L

5. Is DTC present problem ?

YES ▶ Go to "W/Harness Inspection" procedure.

NO ▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and 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.

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 shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

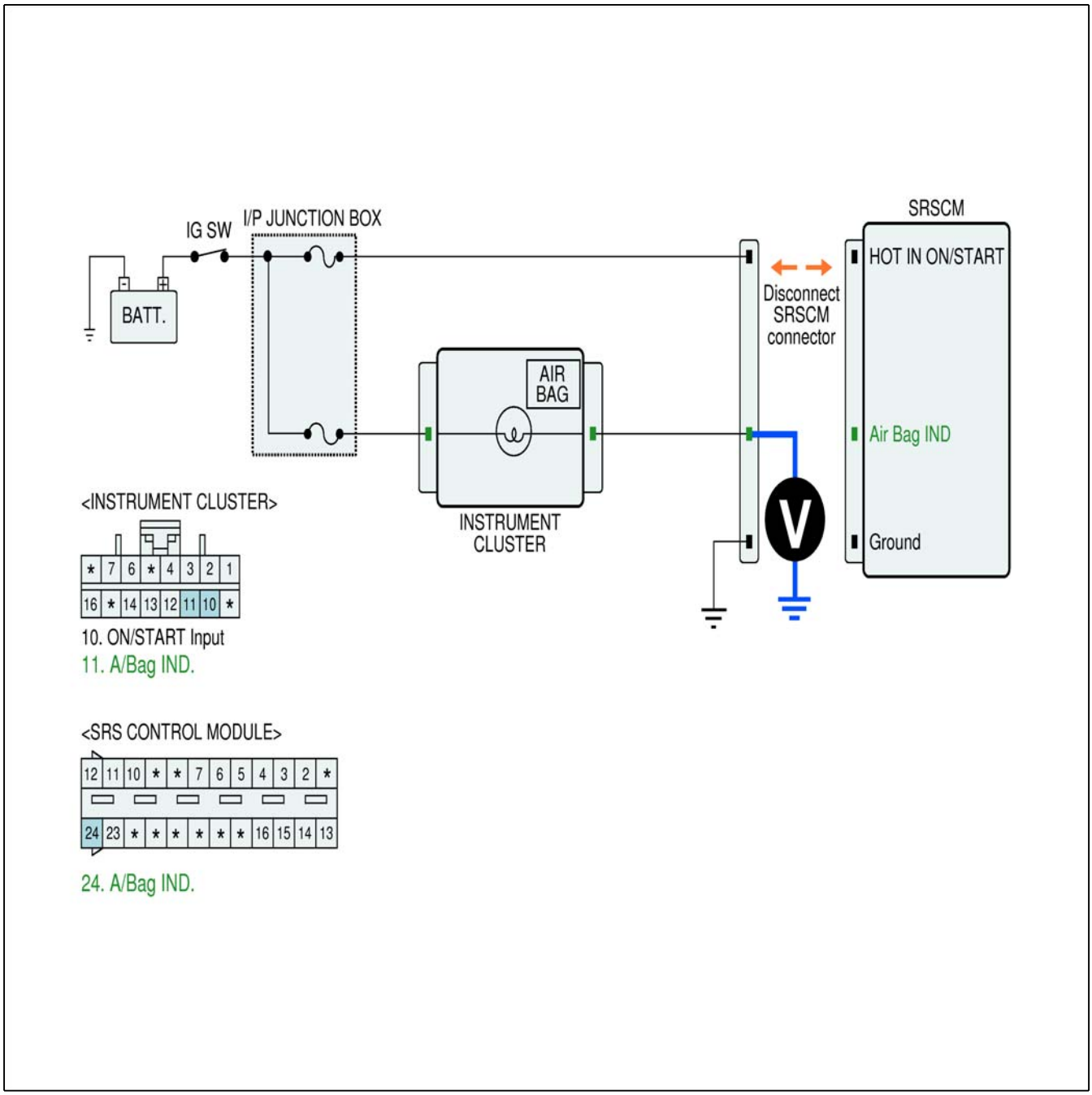
YES ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO ▶ Go to "Main harness circuit inspection" procedure.

Main harness Circuit Inspection

1. Ignition "OFF".
2. Disconnect the battery (−) terminal cable from the battery and wait at least one minutes.
3. Disconnect SRSCM main harness connector.
4. Connect the battery (−) terminal cable to the battery and Ignition "ON" & Engine "OFF".
5. Measure voltage between Air bag warning lamp terminal of the SRSCM harness connector and chassis ground.

Specification : Approx. Batt Voltage



TD12179250031

6. Is the measured resistance within specifications?

YES ▶ Check warning lamp and 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 ▶ Check airbag fuse, junction block, Warning Lamp, harness between junction block and SRSCM .
Repair as necessary and go to "Verification of Vehicle Repair" procedure.

Verification of Vehicle Repair

After a repair, it is essential to verify that the fault has been corrected.

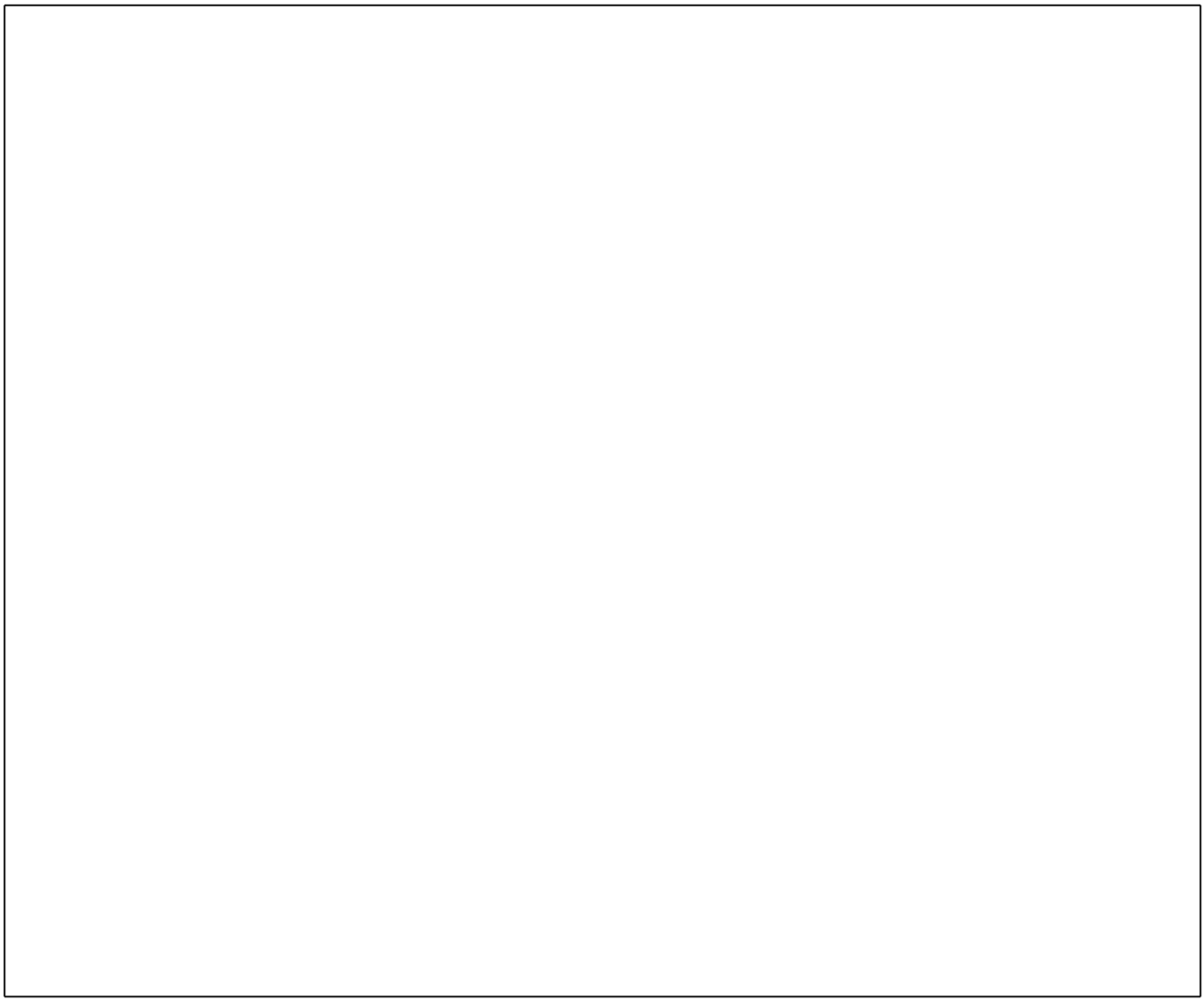
1. Connect scan tool and select "Diagnostic Trouble Codes(DTC)" mode

2. Using a scan tool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

YES ▶ Go to the applicable troubleshooting p−rocedure.

NO ▶ System is performing to specification at this time.

Schematic Diagram



TD12179P2500CC

FC00 DTC 가이드 전체회로도 입력用