

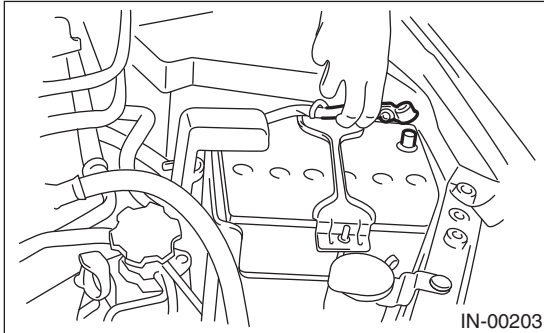
General Description

AIRBAG SYSTEM (DIAGNOSTICS)

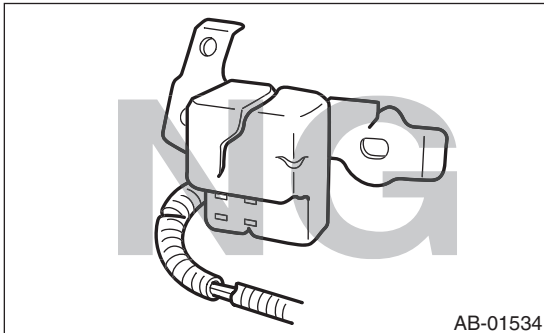
3. General Description

A: CAUTION

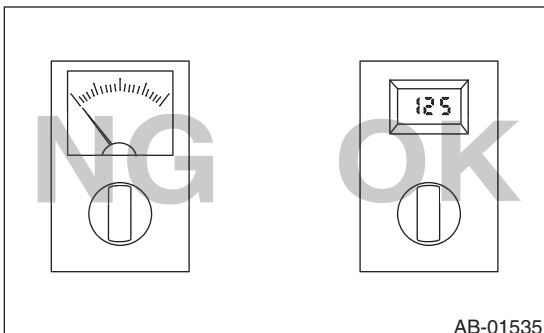
- When servicing a vehicle, be sure to turn the ignition switch to OFF, disconnect the ground terminal from the battery, and wait for 20 seconds or more before starting work.
- The airbag system is fitted with a backup power source. After disconnecting the battery ground cable, the airbag may deploy if you do not wait for 20 seconds or more before starting airbag system servicing.



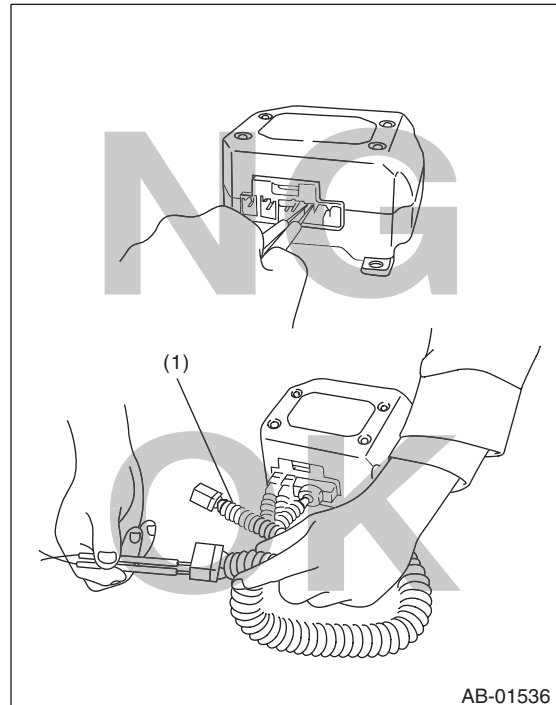
- If sensors, airbag module, airbag control module, pretensioner or harness is deformed or damaged, replace with new parts.



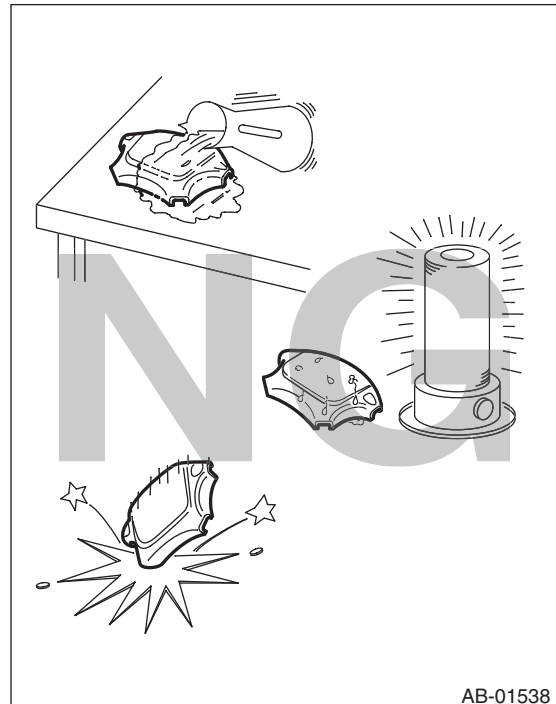
- Do not use the airbag system and pretensioners on other vehicles. When replacing parts, be sure to replace them with new parts.
- When checking the airbag system, be sure to use a digital circuit tester. Use of an analog circuit tester may cause the airbag to activate erroneously due to a minimal current inside tester.



- When checking, use a test harness (1). Damage to connector terminal causes malfunction. Do not directly put the tester probe on airbag connector terminal.



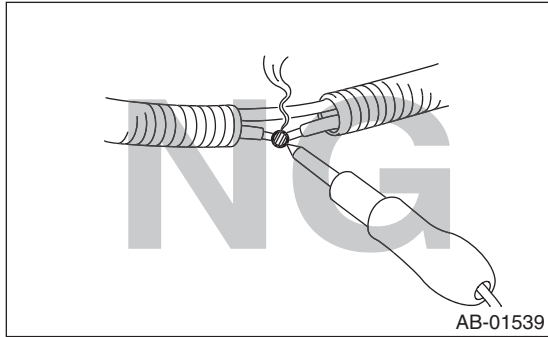
- Do not drop the airbag system parts, or keep them at high temperature of 85°C (153°F) or more, or let water, oil or grease get on them; the internal parts may be damaged and reliability greatly lowered.



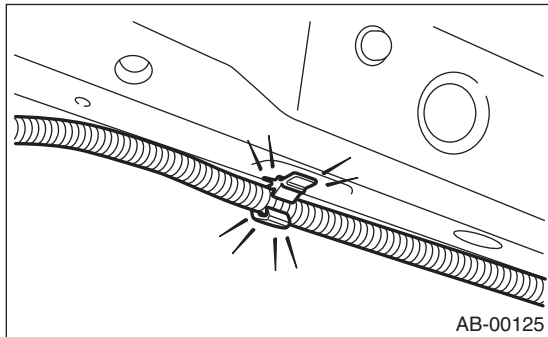
General Description

AIRBAG SYSTEM (DIAGNOSTICS)

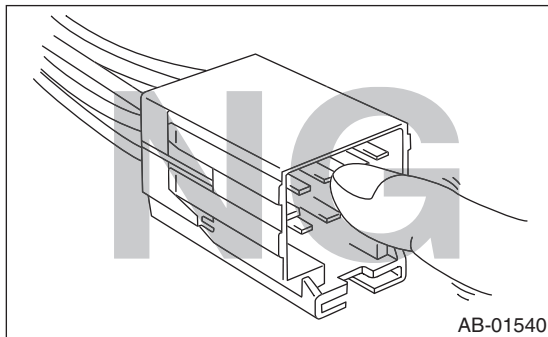
- If damage, open circuit or rust is found on airbag system wiring harness, do not use a soldering equipment to repair. Replace the faulty harness with a new genuine part.



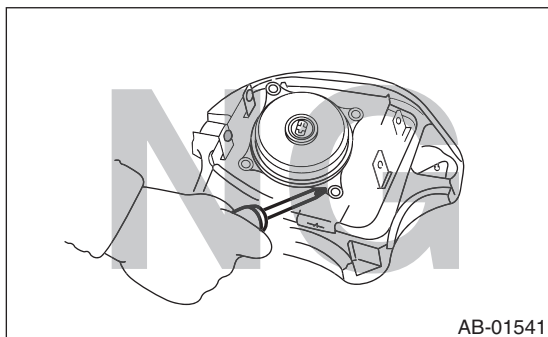
- Install the wiring harness securely with the specified clips to avoid interference or tangled with other parts.



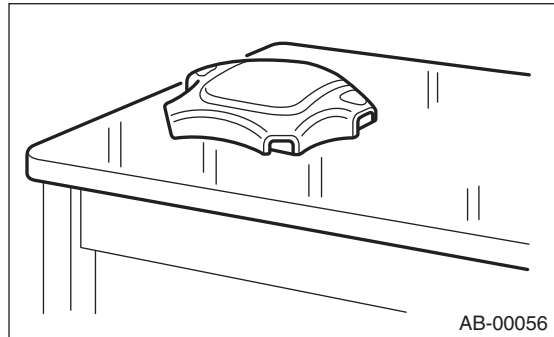
- Do not allow water or oil to come in contact with the connector terminals. Also, do not touch the connector terminals.



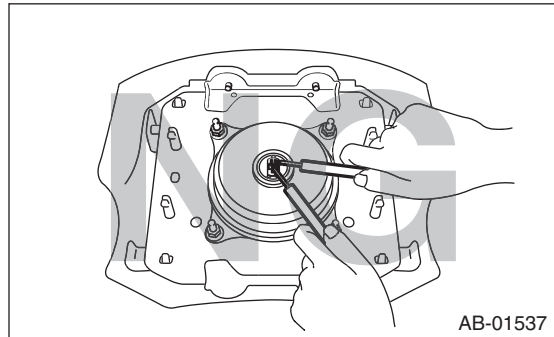
- Do not disassemble driver's airbag module, passenger's airbag module, side or curtain airbag modules, or pretensioner.



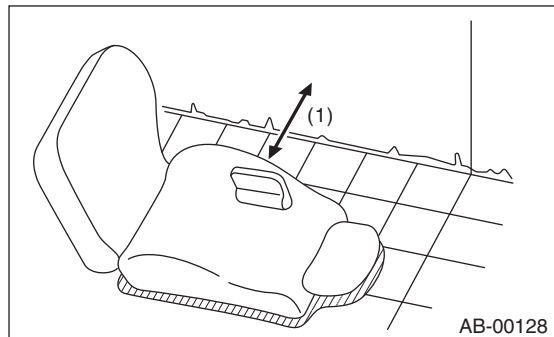
- The airbag module cannot be used again if deployed once.
- After removal, keep the airbag module with the pad side facing upward on a dry, clean and flat surface away from heat, light sources, moisture and dust.



- Do not check continuity of the airbag modules for driver's side, passenger's side and curtain, or the pretensioner.



- The removed front seat with airbag module must be kept at least 200 mm (8 in) away from walls and other objects.



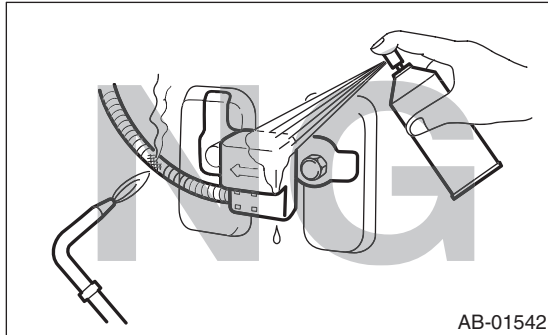
(1) 200 mm (8 in) or more

- When painting or performing sheet metal work on the front part of the vehicle, including the front wheel apron, front fender and front side frame, remove the front sub sensors and wiring harness of airbag system.

General Description

AIRBAG SYSTEM (DIAGNOSTICS)

- When painting or repairing sheet metal work on the side of the vehicle, including the side sill, center pillar, front and rear doors, rear crossmember and rear floorpan, remove the side airbag sensors, satellite safing sensor and wiring harness of the airbag system.

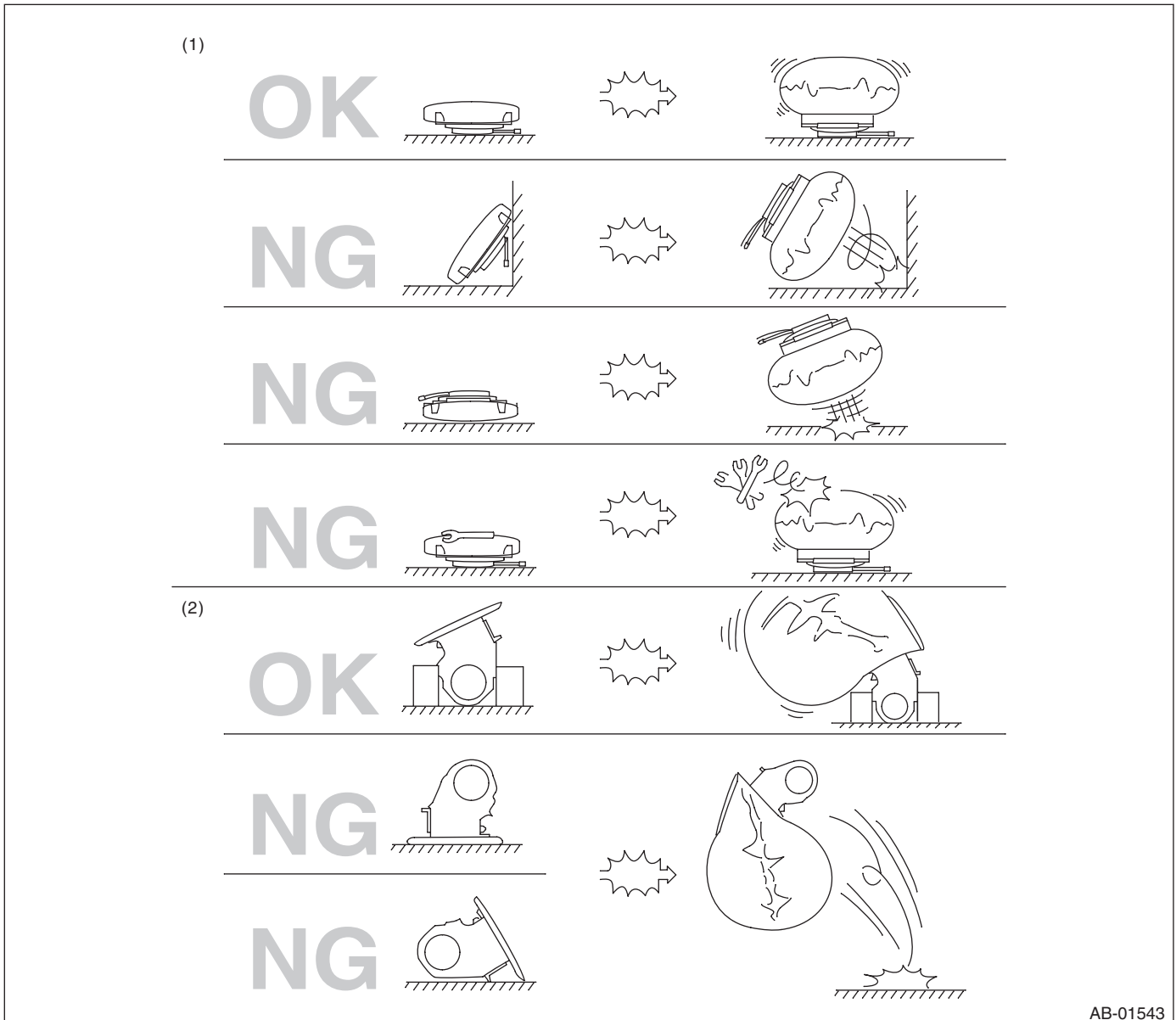


- Do not discard undeployed airbag modules. They could easily cause a serious accident if accidentally deployed.

General Description

AIRBAG SYSTEM (DIAGNOSTICS)

- When storing a removed airbag module, do not place it with the pad side facing downward. Do not place any objects on the airbag module. Do not pile up the airbag module. If the airbag inflates for some reason when an airbag module pad is touching other objects, it may cause serious accident.



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(1) Driver's airbag module

(2) Passenger's airbag module

B: INSPECTION

Measure the battery voltage and check electrolyte.

Standard voltage: 12 V

Specific gravity: 1.260 or more

General Description

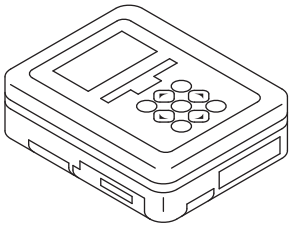
AIRBAG SYSTEM (DIAGNOSTICS)

C: PREPARATION TOOL

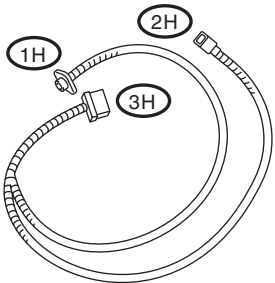
CAUTION:

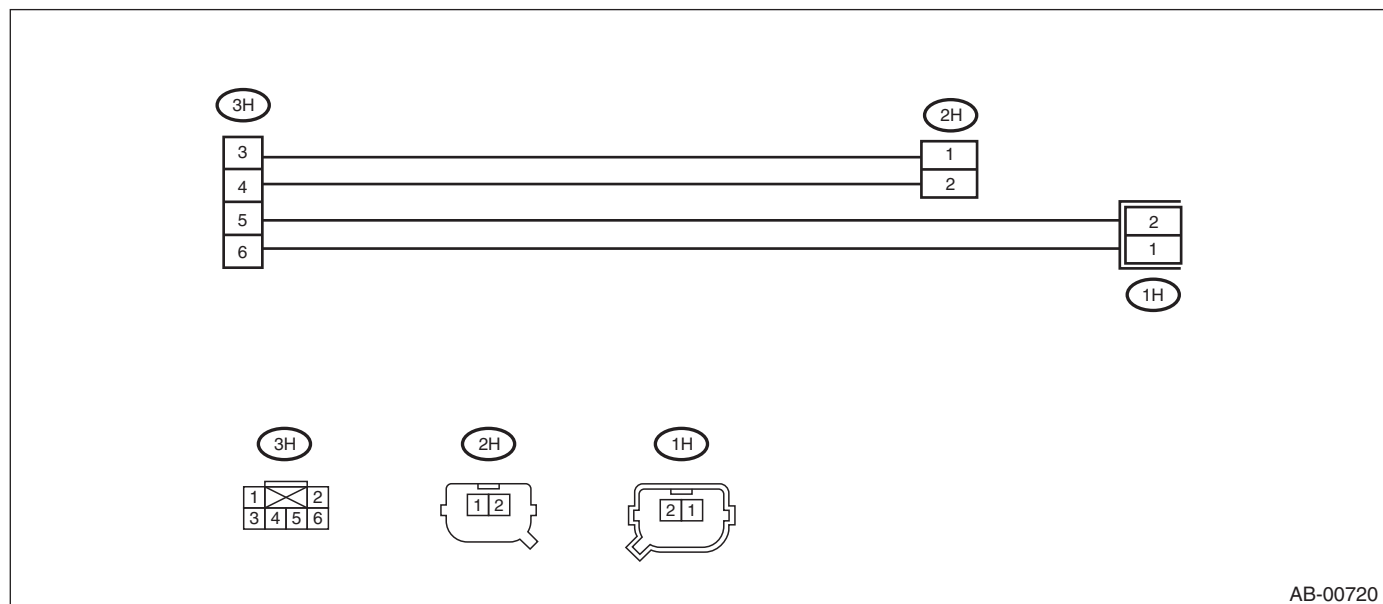
To measure the voltage and resistance of airbag system component, be sure to use the specified test harness.

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0 (Newly adopted tool)	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

• TEST HARNESS H

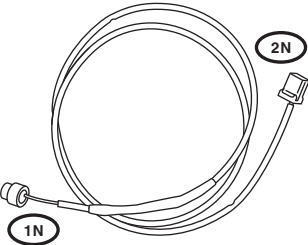
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FA030	98299FA030	TEST HARNESS H	Used when measuring voltage and resistance of front sub sensor and satellite safing sensor.

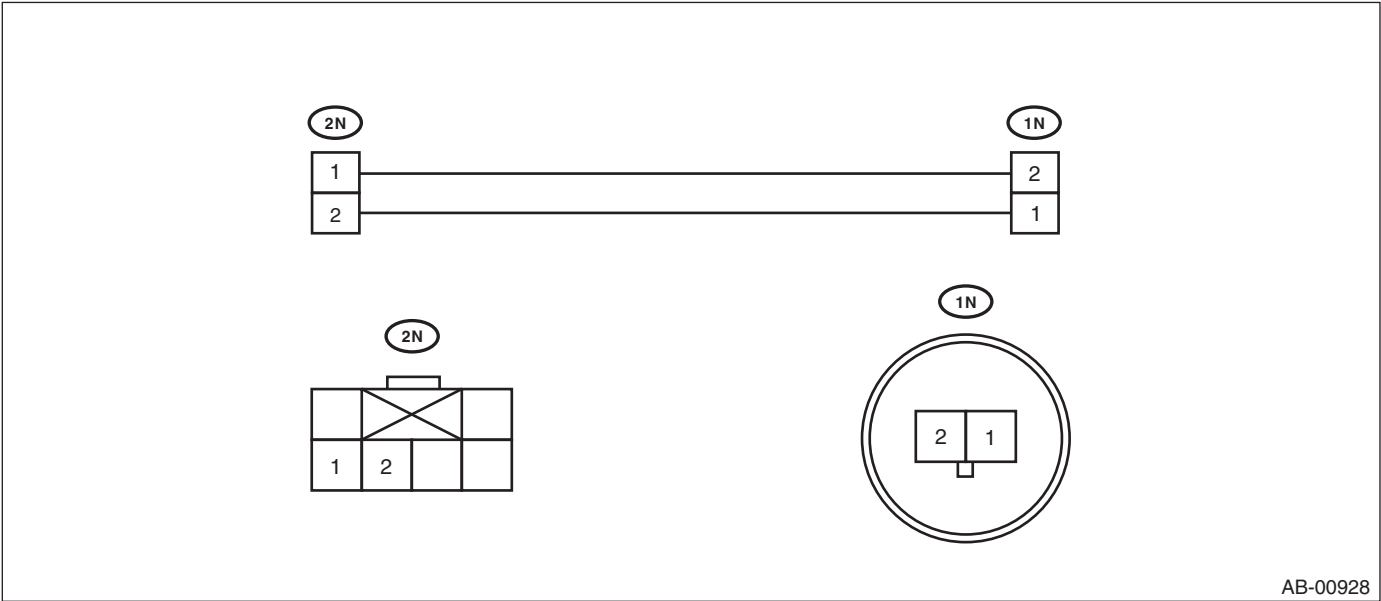


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General Description

• TEST HARNESS N

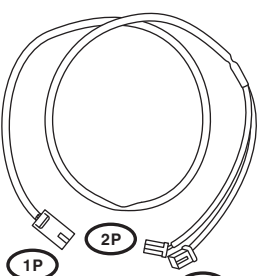
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA000	98299SA000	TEST HARNESS N	Used when measuring voltage and resistance of driver's airbag module and seat belt pretensioner.

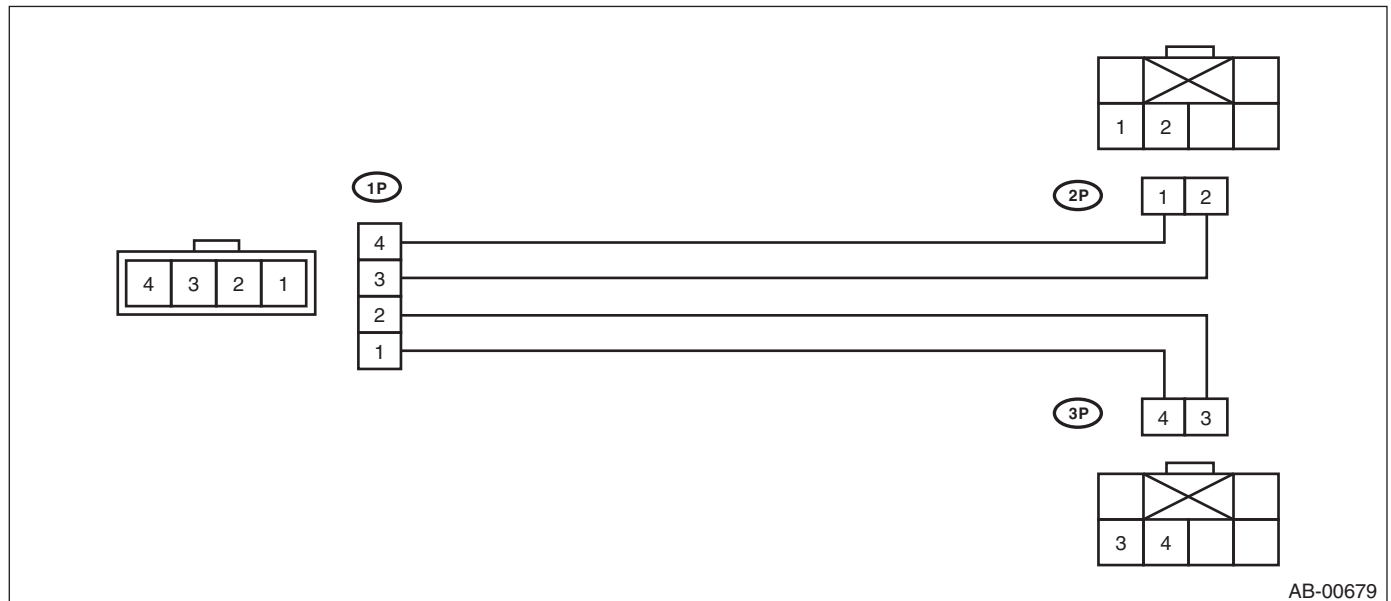


General Description

AIRBAG SYSTEM (DIAGNOSTICS)

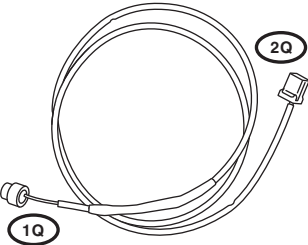
- TEST HARNESS P

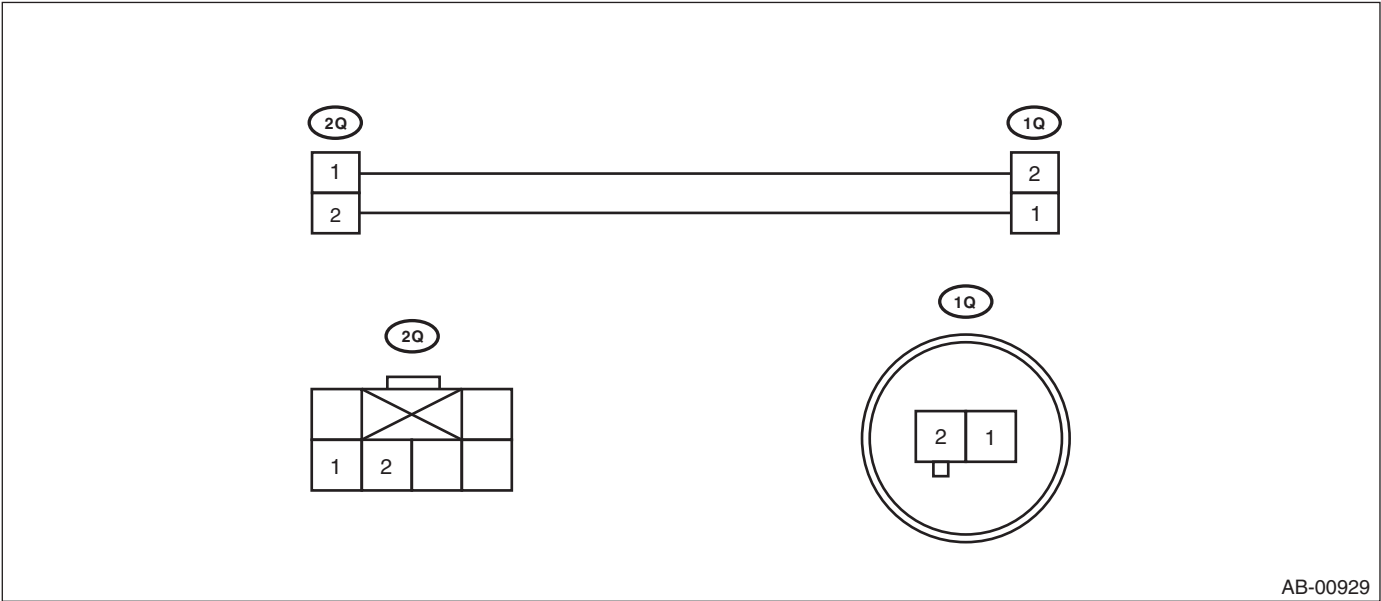
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA020	98299SA020	TEST HARNESS P	Used when measuring voltage and resistance of driver's airbag module harness.



General Description

• TEST HARNESS Q

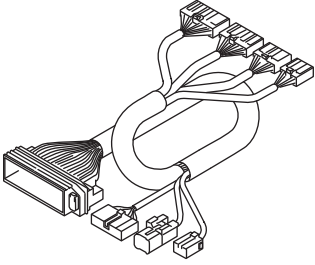
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA040	98299SA040	TEST HARNESS Q	Used when measuring voltage and resistance of driver's airbag module.

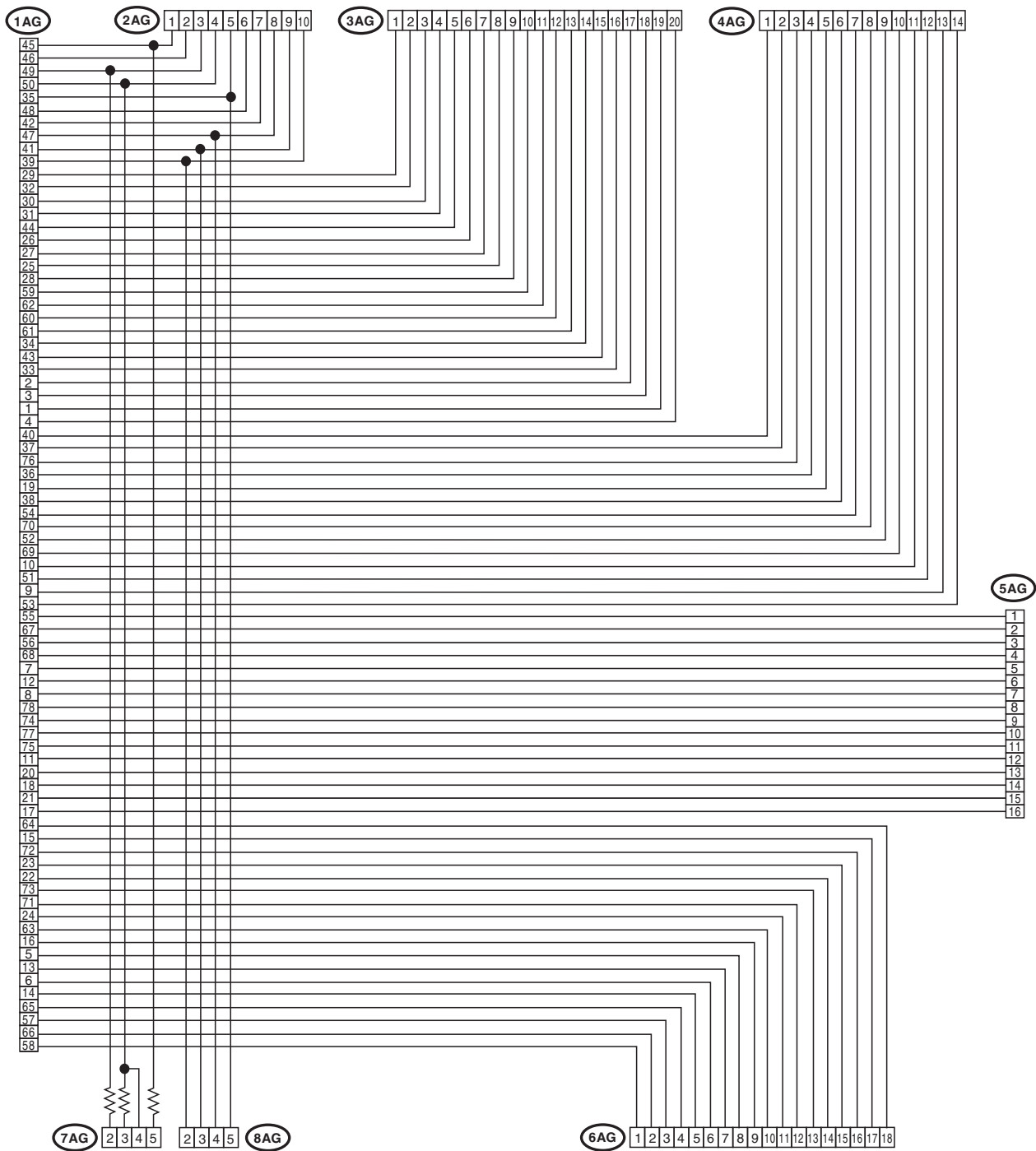


General Description

AIRBAG SYSTEM (DIAGNOSTICS)

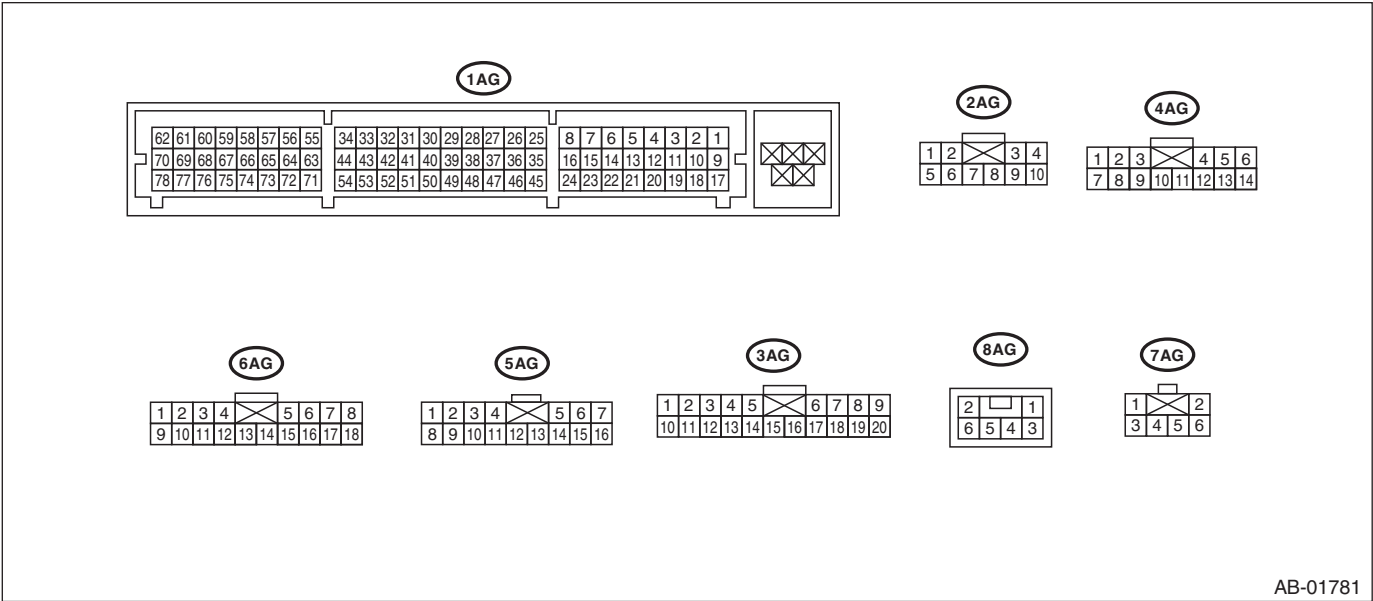
- TEST HARNESS AG

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG070	98299AG070	TEST HARNESS AG	Used when measuring voltage and resistance of airbag control module.

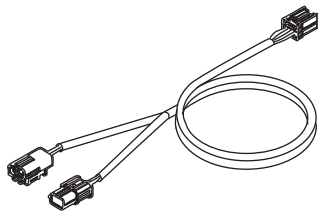


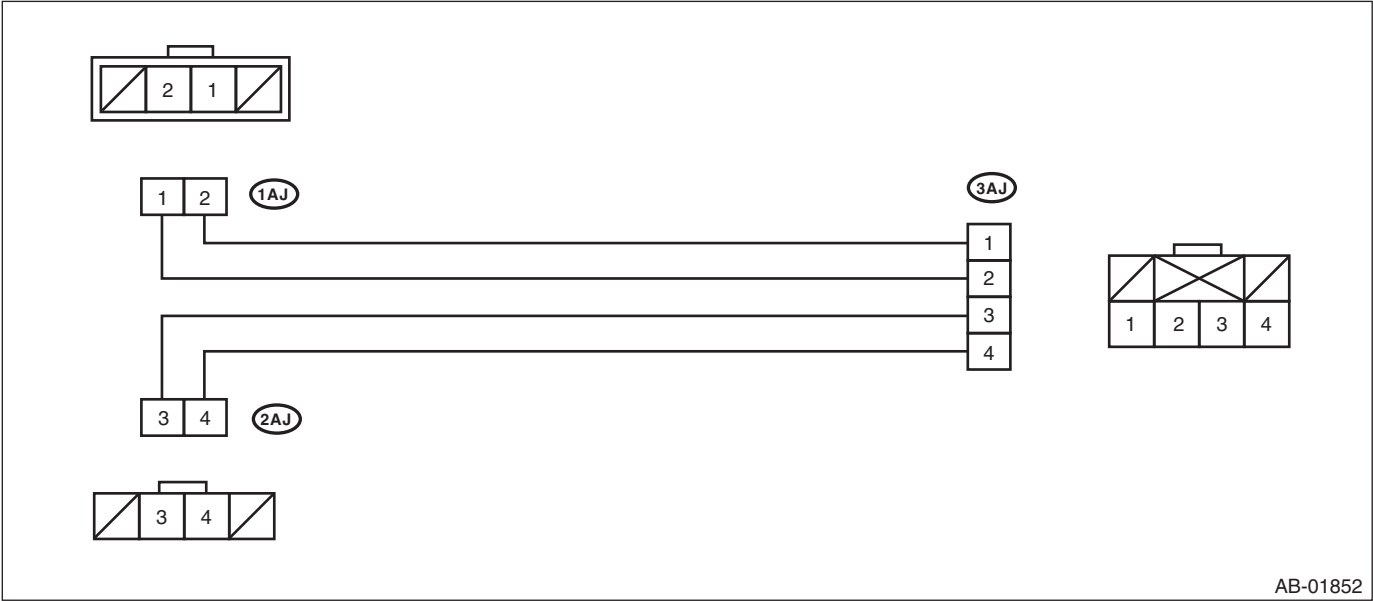
General Description

AIRBAG SYSTEM (DIAGNOSTICS)



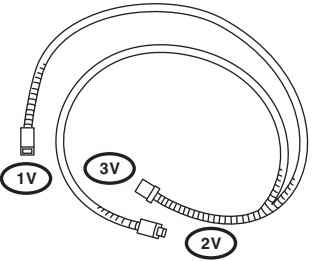
• TEST HARNESS AJ

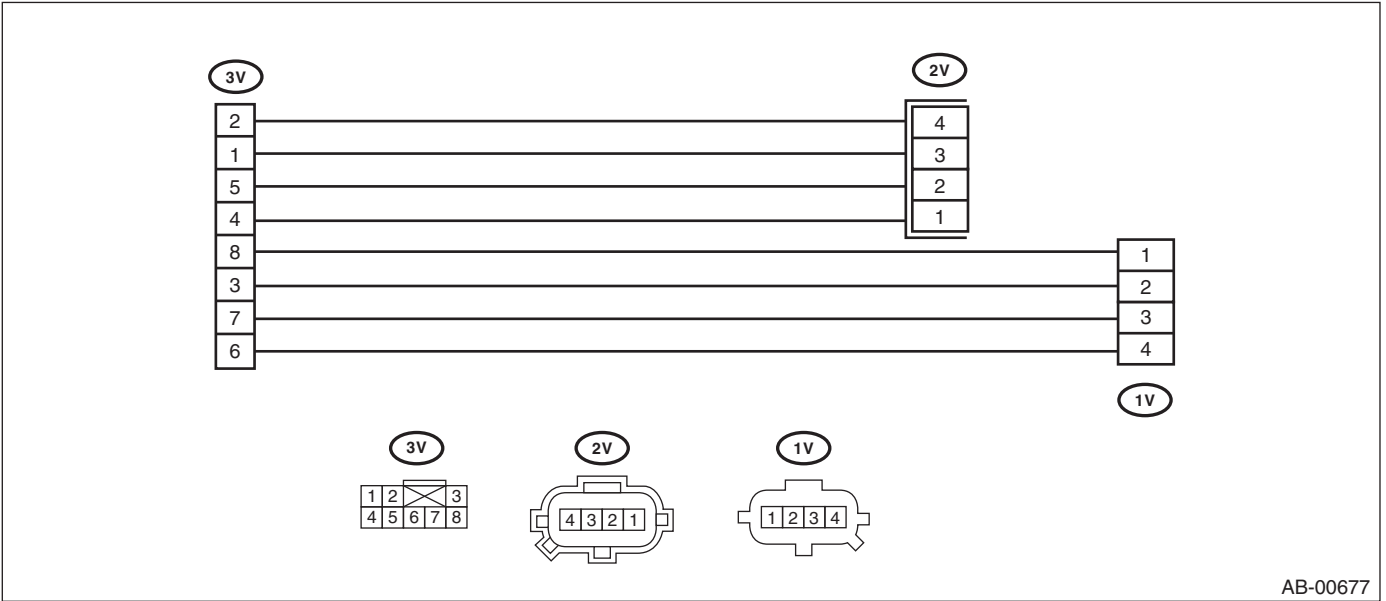
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FG000	98299FG000	TEST HARNESS AJ	Used when measuring power supply and resistance of side airbag harness.



General Description

• TEST HARNESS V

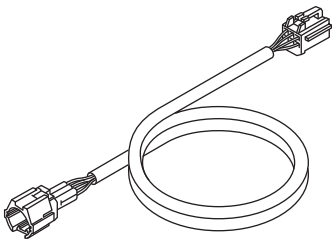
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG010	98299AG010	TEST HARNESS V	Used when measuring voltage and resistance of side airbag sensor and curtain airbag sensor.

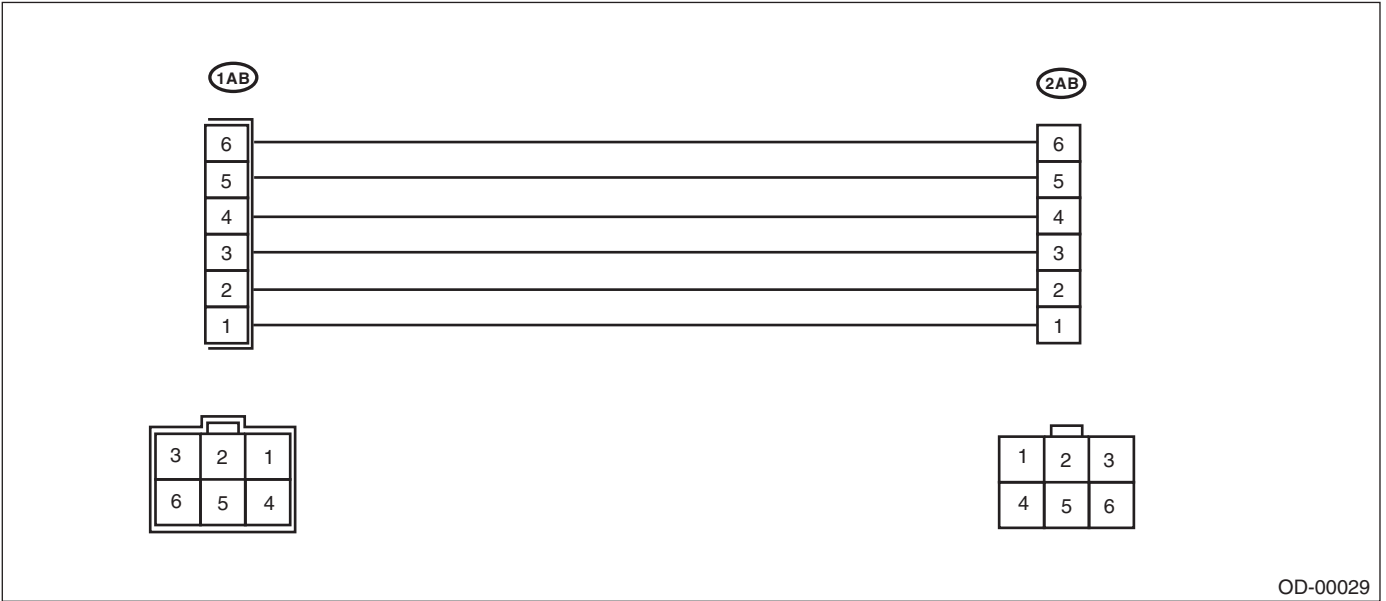


General Description

AIRBAG SYSTEM (DIAGNOSTICS)

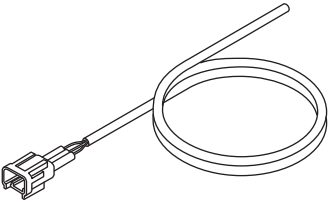
- TEST HARNESS AB

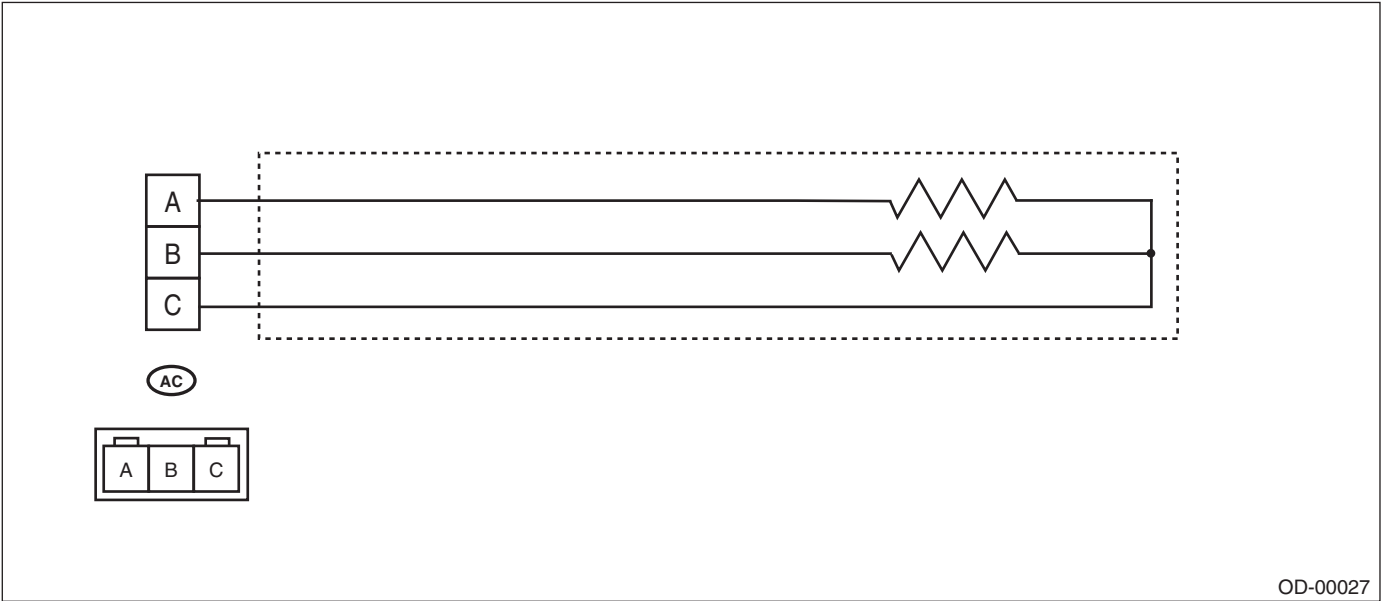
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299XA000	98299XA000	TEST HARNESS AB	Used when measuring voltage and resistance of occupant detection system.



General Description

• TEST HARNESS AC

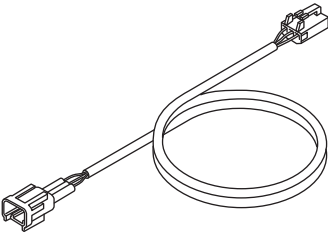
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299XA010	98299XA010	TEST HARNESS AC	Used for diagnosing seat belt tension sensor.

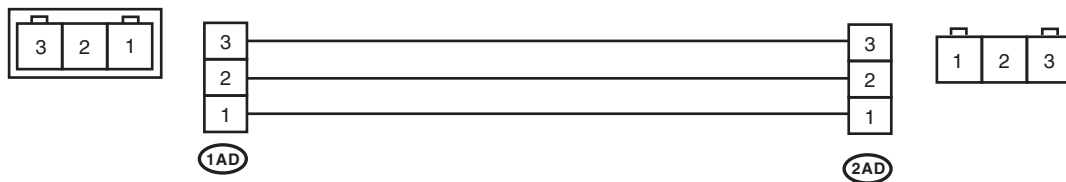


General Description

AIRBAG SYSTEM (DIAGNOSTICS)

- TEST HARNESS AD

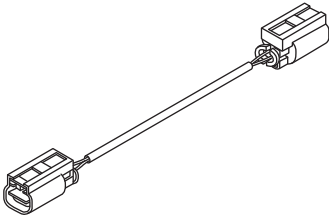
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299XA020	98299XA020	TEST HARNESS AD	Used when measuring voltage and resistance of the seat belt tension sensor.

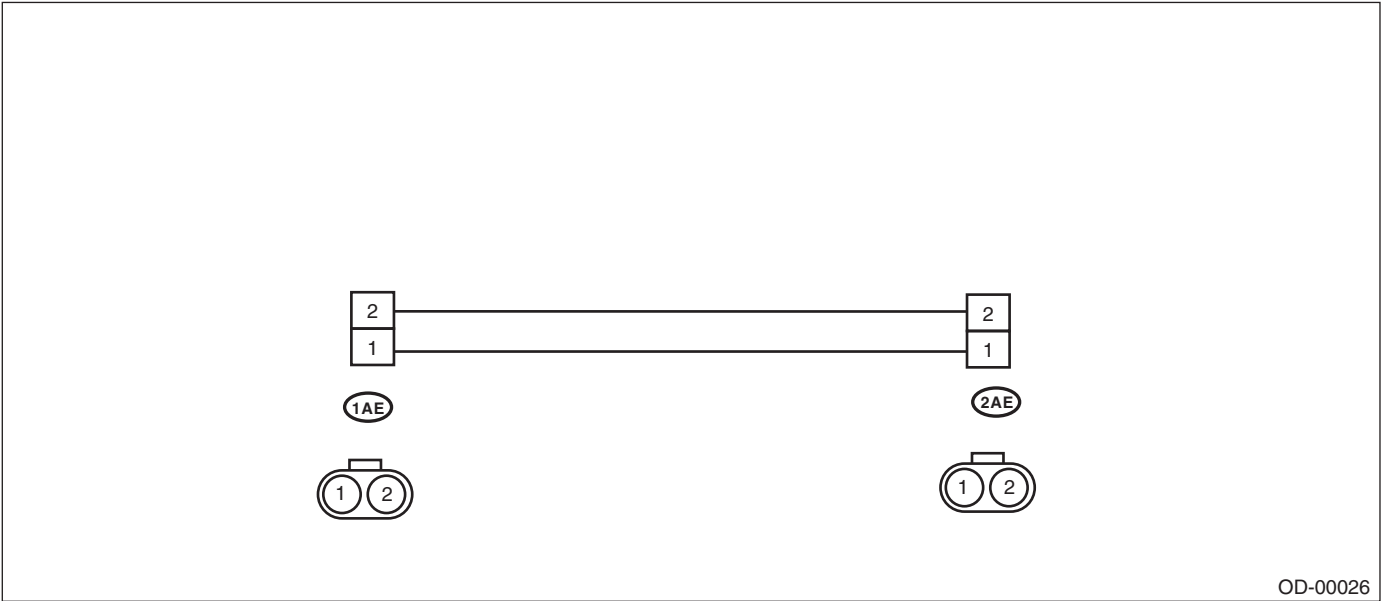


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General Description

• TEST HARNESS AE

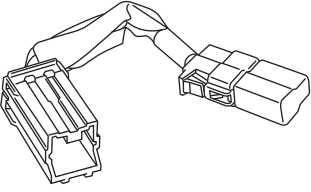
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299XA030	98299XA030	TEST HARNESS AE	• Used for diagnosing seat belt tension sensor. • Used together with the test harness Y.

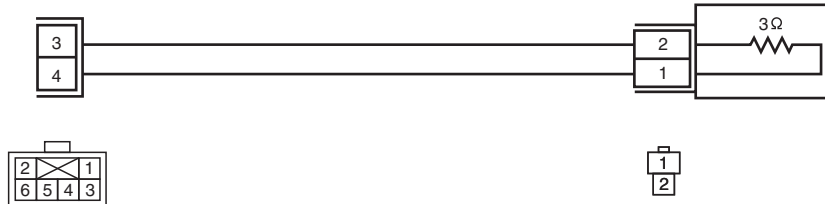


General Description

AIRBAG SYSTEM (DIAGNOSTICS)

- AIRBAG RESISTOR

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299PA040	98299PA040	AIRBAG RESISTOR	Used in replacement of airbag module for which resistance value is same as airbag module. Two ST are required for diagnosis of two-stage inflator type airbag module.

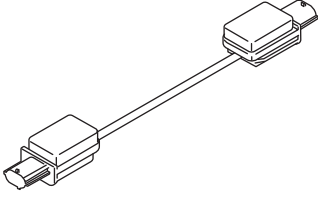


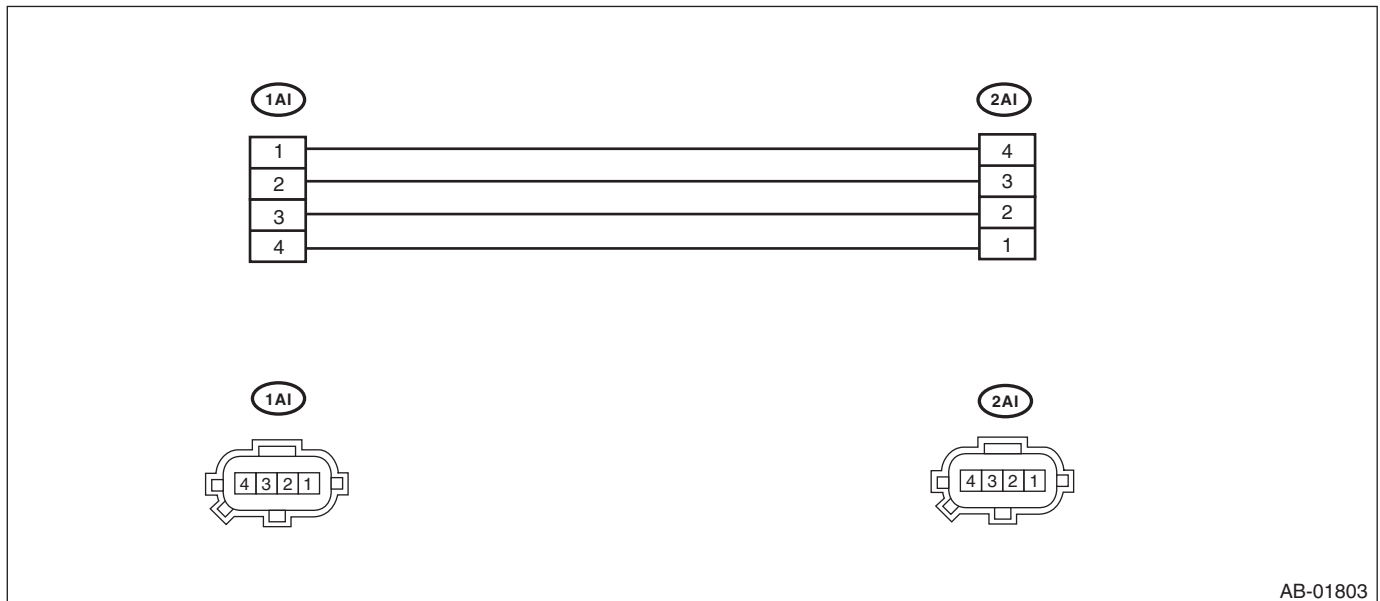
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General Description

AIRBAG SYSTEM (DIAGNOSTICS)

• TEST HARNESS AI

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG090	98299AG090	TEST HARNESS AI	- Used when diagnosing the side airbag sensor and curtain airbag sensor. - Used together with the test harness V.



2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Oscilloscope	Used for measuring the sensor.