

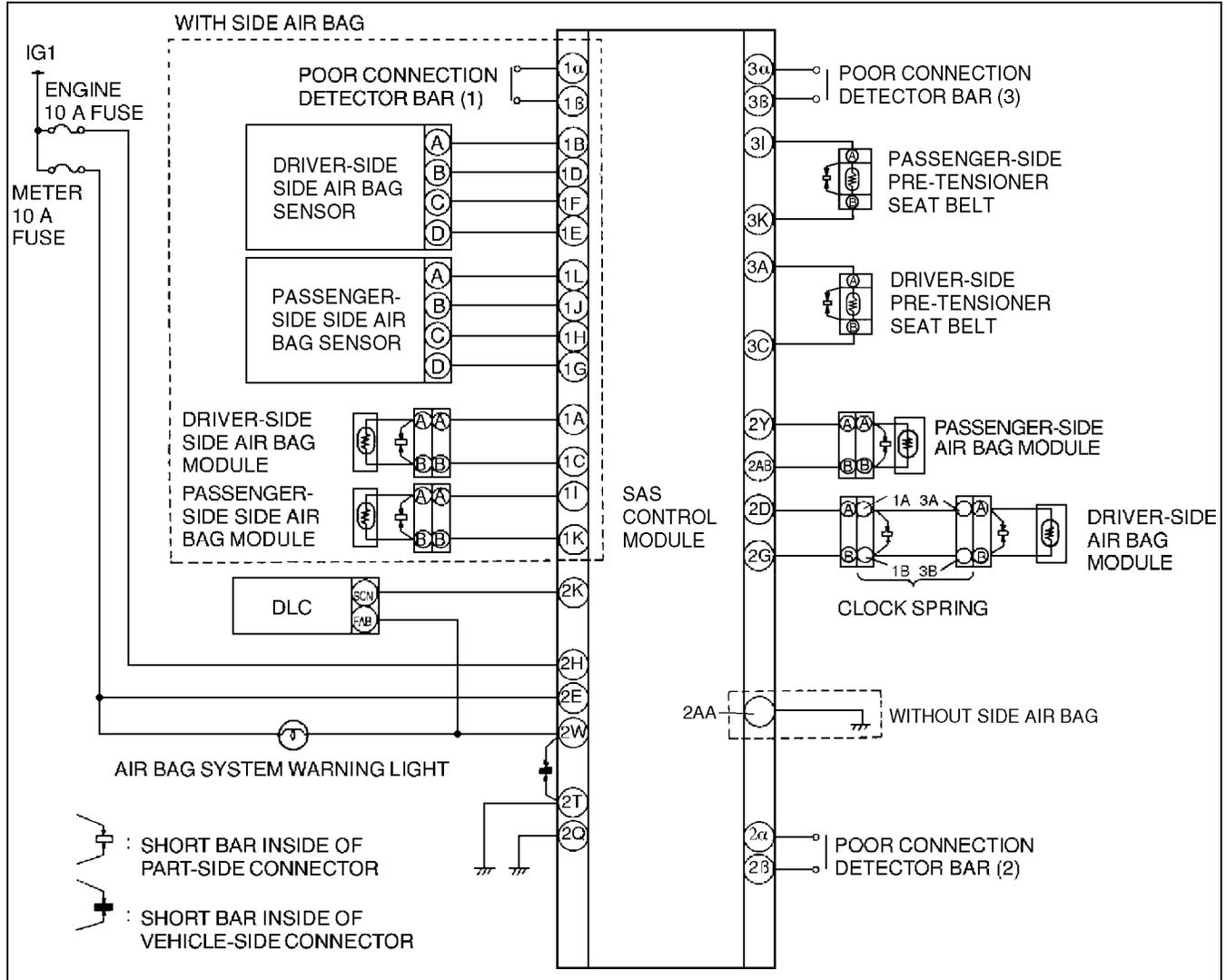
08-03 SYMPTOM TROUBLESHOOTING

AIR BAG SYSTEM WIRING DIAGRAM . 08-03-1
FOREWORD 08-03-2
 Flowchart 08-03-2
TRUBLESHOOTING INDEX. 08-03-4
NO.1 AIR BAG SYSTEM WARNING
LIGHT DOES NOT ILLUMINATE
WHEN IGNITION SWITCH IS
TURNED TO ON POSITION 08-03-4

NO.2 AIR BAG SYSTEM WARNING LIGHT
ILLUMINATES IMMEDIATELY AFTER IGNITION
SWITCH IS TURNED TO ON POSITION AND
REMAINS ILLUMINATED 08-03-6

AIR BAG SYSTEM WIRING DIAGRAM

A3U080301046W01



08-03

Z3U0802W001

SYMPTOM TROUBLESHOOTING

FOREWORD

A3U080301046W02

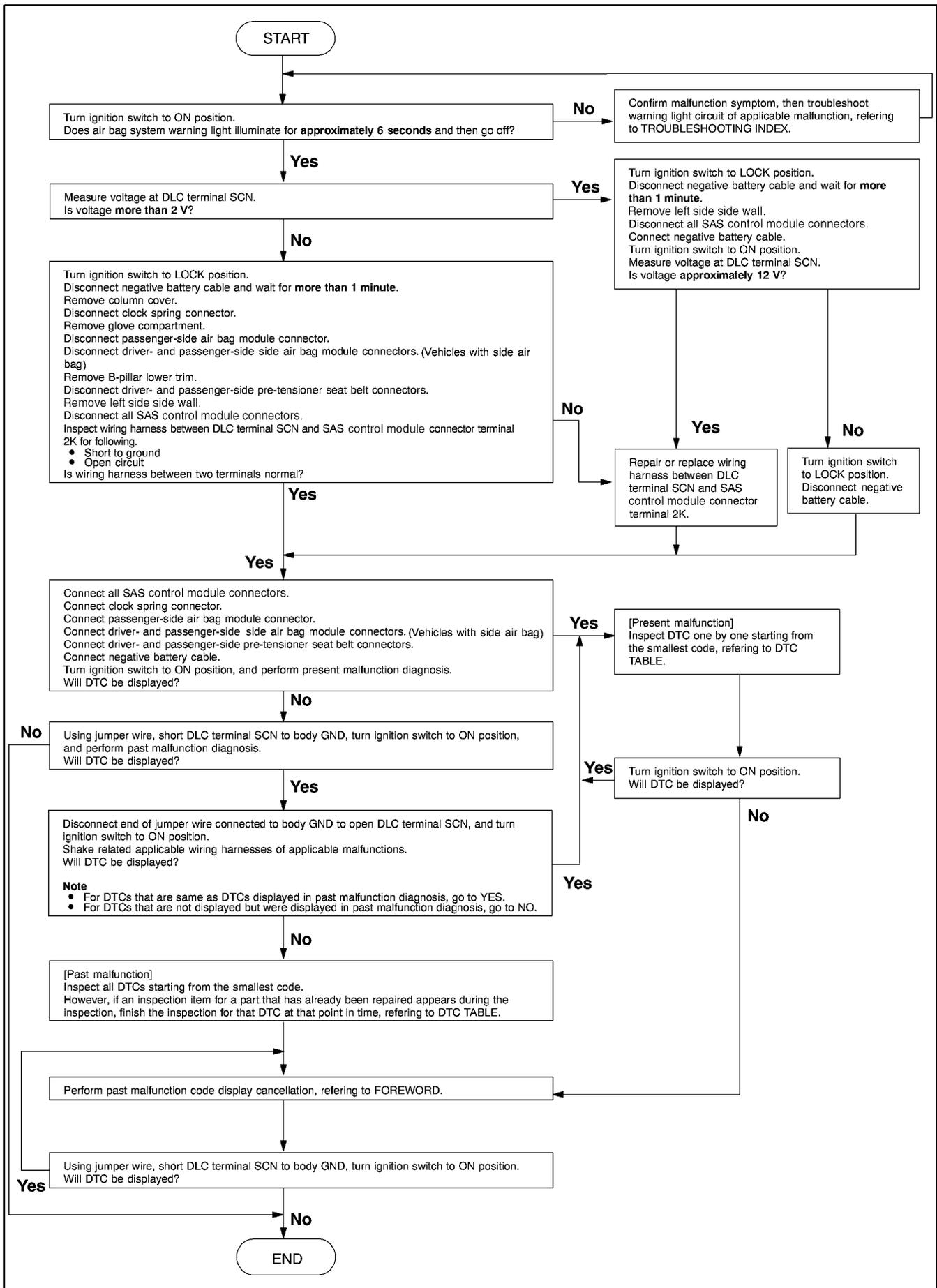
- Thoroughly read and understand the basic flow of troubleshooting in order to properly perform the procedures. (See 00–00–5 Troubleshooting Procedure.)
- Use the following flowchart to verify the cause of the trouble.

Flowchart

Note

- While performing the inspection of the past malfunction code, the applicable DTCs may be added to memory by removing or disconnecting the related parts. Inspect only the DTCs that were indicated before inspecting.
- When DTCs of present malfunction are no longer output after present and/or past malfunctions have been repaired, be sure to perform past malfunction display cancellation to prevent repair of malfunctions that have already been repaired.

SYMPTOM TROUBLESHOOTING



SYMPTOM TROUBLESHOOTING

TROUBLESHOOTING INDEX

A3U080301046W03

- Use the chart below to verify the symptoms of the trouble in order to diagnose the appropriate area.

No.	Malfunction symptom	Description	Page
1	Air bag system warning light does not illuminate when ignition switch is turned to ON position.	Malfunction in air bag system warning circuit (open circuit or short to power supply).	(See 08-03-4 NO.1 AIR BAG SYSTEM WARNING LIGHT DOES NOT ILLUMINATE WHEN IGNITION SWITCH IS TURNED TO ON POSITION)
2	Air bag system warning light illuminates immediately after ignition switch is turned to ON position and remains illuminated.	Malfunction in air bag system warning circuit (short to ground).	(See 08-03-6 NO.2 AIR BAG SYSTEM WARNING LIGHT ILLUMINATES IMMEDIATELY AFTER IGNITION SWITCH IS TURNED TO ON POSITION AND REMAINS ILLUMINATED)

Note

- The following may be the cause of trouble if the symptom does not go away after the symptom troubleshooting steps are followed.
 - Simultaneous poor contact at short connector terminals B and P between METER 10 A fuse and SAS control module, and between ENGINE 10 A fuse and SAS control module.
 - Simultaneous poor contact at SAS control module connector terminals 2T and 2Q.
 - Simultaneous poor contact at SAS control module connector terminals 2E and 2H.
 - Poor contacts in wiring harness between SAS control module connector terminal 2T and ground, and between SAS control module connector terminal 2Q and ground at the same time.
 - Poor contacts or short circuits in wiring harness between METER 10 A fuse and SAS control module, and between ENGINE 10 A fuse and SAS control module at the same time.

NO.1 AIR BAG SYSTEM WARNING LIGHT DOES NOT ILLUMINATE WHEN IGNITION SWITCH IS TURNED TO ON POSITION

A3U080301046W04

1	Air bag system warning light does not illuminate when ignition switch is turned to ON position.
<p>TROUBLESHOOTING HINTS</p> <ul style="list-style-type: none"> • Malfunction in air bag system warning light circuit <ul style="list-style-type: none"> — Instrument cluster (print plate) malfunction — Air bag system warning light bulb malfunction — Poor contact in instrument cluster connector — Open or short circuit in wiring harness between instrument cluster and SAS control module — SAS control module malfunction <p>Note</p> <ul style="list-style-type: none"> • When inserting insulator between SAS control module connector terminals and short bar, insert it as shown in the figure. 	

- When performing an asterisked(*) troubleshooting inspection, shake the wiring harness and connectors while doing the inspection to discover the poor contact points which may be the cause of intermittent malfunctions.
- If there is a problem, check to make sure connectors, terminals and wiring harness are connected correctly and undamaged.

SYMPTOM TROUBLESHOOTING

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	INSPECT OTHER WARNING AND INDICATOR LIGHTS CIRCUIT IN INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Turn ignition switch to ON position. • Do other warning and indicator lights illuminate? 	Yes	Turn ignition switch to LOCK position, then go to next step.
		No	Inspect instrument cluster power supply system and ground system, then go to Step 6.
2	INSPECT AIR BAG SYSTEM WARNING LIGHT BULB <ul style="list-style-type: none"> • Disconnect negative battery cable. • Remove instrument cluster. (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION) • Is air bag system warning light bulb functional? 	Yes	Reinstall it properly, then go to next step.
		No	Replace bulb, then go to Step 6.
* 3	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND INSTRUMENT CLUSTER FOR CONTINUITY <p>Warning</p> <ul style="list-style-type: none"> • Handling air bag system components improperly can accidentally deploy air bag modules and pre-tensioner seat belts, which may seriously injure you. Read AIR BAG SYSTEM SERVICE WARNINGS before handling air bag system components. (See 08-10-3 AIR BAG SYSTEM SERVICE WARNINGS) <ul style="list-style-type: none"> • Remove column cover. • Disconnect clock spring connector. • Remove glove compartment. • Disconnect passenger-side air bag module connector. • Disconnect driver- and passenger-side side air bag module connectors. (Vehicles with side air bag) • Remove B-pillar trims. • Disconnect driver- and passenger-side pre-tensioner seat belt connectors. • Remove left side side wall. • Disconnect all SAS control module connectors. • Is there continuity between SAS control module connector terminal 2W and instrument cluster connector terminal 1R? 	Yes	Go to next step.
		No	Replace wiring harness, then go to Step 6.
* 4	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Connect negative battery cable. <p>Caution</p> <ul style="list-style-type: none"> • Be sure not to cause damage to short bar when inserting insulator. If short bar is damaged, you may not be able to properly inspect connection of SAS control module connector. <ul style="list-style-type: none"> • Insert insulator between SAS control module connector terminals 2W and 2T so short bar cannot function. • Turn ignition switch to ON position. • Measure voltage at instrument cluster connector terminal 1R. • Is voltage more than approximately 9 V? 	Yes	Replace wiring harness, then go to Step 6.
		No	Go to next step.

08-03

SYMPTOM TROUBLESHOOTING

STEP	INSPECTION	ACTION	
5	VERIFY WHETHER MALFUNCTION IS IN PRINT PLATE IN INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Is there continuity between terminals 1J and 1R of print plate on instrument cluster? 	Yes	Replace SAS control module, then go to next step. (See 08-10-12 SAS CONTROL MODULE REMOVAL/INSTALLATION)
		No	Replace instrument cluster, then go to next step. (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION)
6	VERIFY WHETHER MALFUNCTION SYMPTOM OCCURS AFTER REPAIR OR NOT <ul style="list-style-type: none"> • Connect all SAS control module connectors. • Connect driver- and passenger-side pretensioner seat belt connectors. • Connect driver- and passenger-side side air bag module connectors. (Vehicles with side air bag) • Connect passenger-side air bag module connector. • Connect clock spring connector. • Connect instrument cluster connector. • Connect negative battery cable. • Turn ignition switch to ON position. • Does air bag system warning light operate properly? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.

NO.2 AIR BAG SYSTEM WARNING LIGHT ILLUMINATES IMMEDIATELY AFTER IGNITION SWITCH IS TURNED TO ON POSITION AND REMAINS ILLUMINATED

A3U080301046W05

2	Air bag system warning light illuminates immediately after ignition switch is turned to ON position and remains illuminated.
<p>TROUBLESHOOTING HINTS</p> <ul style="list-style-type: none"> • Malfunction in air bag system warning light circuit <ul style="list-style-type: none"> — Instrument cluster (print plate) malfunction — Malfunction of short bar between SAS control module connector terminals 2W and 2T — No connection in SAS control module connector — Short circuit in wiring harness between instrument cluster and SAS control module — SAS control module malfunction <p>Note</p> <ul style="list-style-type: none"> • When inserting insulator between SAS control module connector terminals and short bar, insert it as shown in the figure. 	
<p>The diagram illustrates the correct installation of an insulator. On the left, a terminal and a short bar are shown in direct contact. On the right, an insulator is placed between the terminal and the short bar to prevent contact. Labels include 'SHORT BAR', 'TERMINAL', and 'INSULATOR'.</p>	

- When performing an asterisked(*) troubleshooting inspection, shake the wiring harness and connectors while doing the inspection to discover the poor contact points which may be the cause of intermittent malfunctions.
- If there is a problem, check to make sure connectors, terminals and wiring harness are connected correctly and undamaged.

SYMPTOM TROUBLESHOOTING

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	VERIFY THAT SAS CONTROL MODULE CONNECTOR IS CONNECTED Warning <ul style="list-style-type: none"> • Handling air bag system components improperly can accidentally deploy air bag modules and pre-tensioner seat belts, which may seriously injure you. Read AIR BAG SYSTEM SERVICE WARNINGS before handling air bag system components. (See 08-10-3 AIR BAG SYSTEM SERVICE WARNINGS) <ul style="list-style-type: none"> • Turn ignition switch to LOCK position. • Disconnect negative battery cable and wait for more than 1 minute. • Remove left side side wall. • Are all SAS control module connectors securely connected? 	Yes	Go to next step.
		No	Reconnect connector properly, then go to Step 6.
2	INSPECT SAS CONTROL MODULE TERMINALS 2W AND 2T <ul style="list-style-type: none"> • Remove column cover. • Disconnect clock spring connector. • Remove glove compartment. • Disconnect passenger-side air bag module connector. • Disconnect driver- and passenger-side side air bag module connectors. (Vehicles with side air bag) • Remove B-pillar trims. • Disconnect driver- and passenger-side pre-tensioner seat belt connectors. • Disconnect all SAS control module connectors. • Is short bar between SAS control module connector terminals 2W and 2T bent? 	Yes	Replace wiring harness, then go to Step 6.
		No	Go to next step.
3	INSPECT SHORT BAR HOOK OF SAS CONTROL MODULE <ul style="list-style-type: none"> • Is short bar hook of SAS control module okay? 	Yes	Go to next step.
		No	Replace SAS control module, then go to Step 6. (See 08-10-12 SAS CONTROL MODULE REMOVAL/INSTALLATION)
* 4	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND INSTRUMENT CLUSTER FOR SHORT TO GROUND <ul style="list-style-type: none"> • Remove instrument cluster. (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION) Caution <ul style="list-style-type: none"> • Be sure not to cause damage to short bar when inserting insulator. If short bar is damaged, you may not be able to properly inspect connection of SAS control module connector. <ul style="list-style-type: none"> • Insert insulator between SAS control module connector terminals 2W and 2T so short bar cannot function. • Is there continuity between SAS (control module) connector terminal 2W and ground? 	Yes	Replace wiring harness, then go to Step 6.
		No	Go to next step.
5	INSPECT FOR SHORT TO GROUND IN INSTRUMENT CLUSTER CIRCUIT <ul style="list-style-type: none"> • Is there continuity between terminal 1R and any of following terminals of print plate on instrument cluster? <ul style="list-style-type: none"> — Terminal 1D — Terminal 1A — Terminal 2B (Without ABS or ABS/TCS) 	Yes	Replace instrument cluster, then go to next step. (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION)
		No	Replace SAS control module, then go to next step. (See 08-10-12 SAS CONTROL MODULE REMOVAL/INSTALLATION)

08-03

SYMPTOM TROUBLESHOOTING

STEP	INSPECTION	ACTION	
6	VERIFY WHETHER MALFUNCTION SYMPTOM OCCURS AFTER REPAIR OR NOT <ul style="list-style-type: none"> • Connect all SAS control module connectors. • Connect driver- and passenger-side pretensioner seat belt connectors. • Connect driver- and passenger-side side air bag module connectors. (Vehicles with side air bag) • Connect passenger-side air bag module connector. • Connect clock spring connector. • Connect instrument cluster connector. • Connect negative battery cable. • Turn ignition switch to ON position. • Does air bag system warning light operate properly? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.