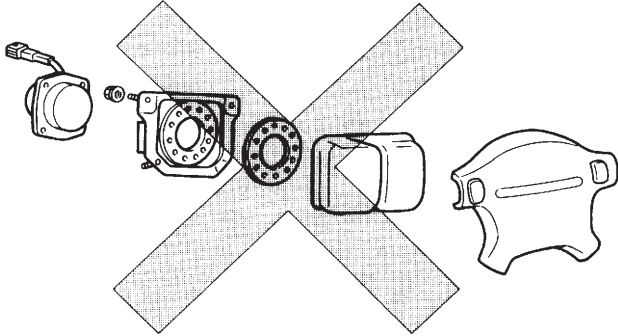


AIR BAG SYSTEM

SERVICE WARNINGS

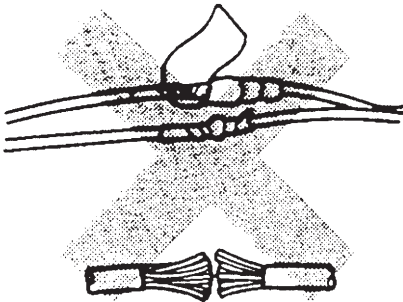
Component Disassembly

- Disassembling and reassembling the components of the air bag system can render the system inoperative, which may result in serious injury or death in the event of an accident. Do not disassemble any air bag system component.



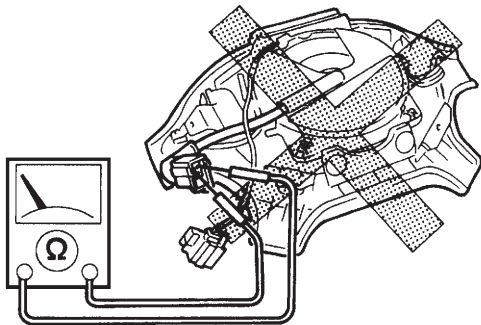
Wiring Harness Repair

- Incorrectly repairing an air bag system wiring harness can accidentally deploy the air bag module, which can cause serious injury. If a problem is found in the system wiring, replace the wiring harness. Do not try to repair it.



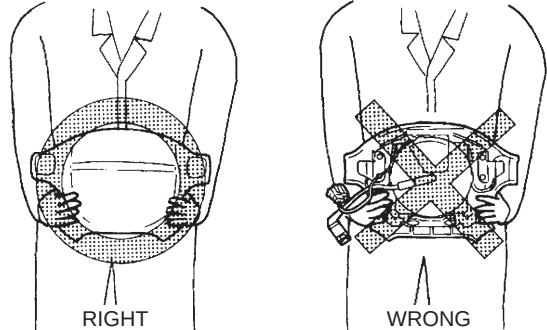
Air Bag Module Inspection

- Inspecting an air bag module using an ohmmeter can deploy the air bag module, which may cause serious injury. Do not use an ohmmeter to inspect an air bag module. Always use the on-board diagnostic function to diagnose the air bag for malfunctions. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.)

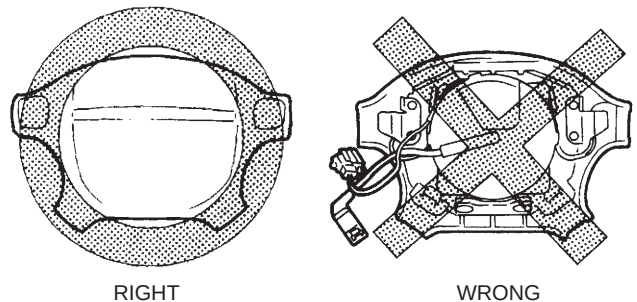


Air Bag Module Handling

- A live (undeployed) air bag module may accidentally deploy when it is handled and cause serious injury. When carrying a live (undeployed) air bag module, point the front surface away from your body to lessen the chance of injury in case it deploys.



- A live (undeployed) air bag module placed face down on a surface is dangerous. If the air bag module deploys, the motion of the module can cause serious injury. Always face the front surface up to reduce the motion of the module in case it accidentally deploys.



SAS Unit Handling

- Disconnecting the SAS unit connector or removing the SAS unit with the ignition switch at ON position can cause the air bag modules to deploy, which may seriously injure you. Before disconnecting the SAS unit connector or removing the SAS unit, turn the ignition switch to LOCK position, then disconnect the negative battery cable and wait for more than 1 minute to allow the backup power supply of the SAS unit to deplete its stored power.
- Connecting the SAS unit connector without firmly installing the SAS unit to the vehicle is dangerous. The crash sensor inside the unit may send an electrical signal to the air bag modules. This will deploy the air bag modules, which may result in serious injury. Therefore, before connecting the connector, firmly mount the unit to the vehicle.

AIR BAG SYSTEM

- For vehicles with a single point sensor, once an air bag is deployed due to an accident or other causes, the SAS unit must be replaced with a new one even if the used one does not have any external signs of damage. The used SAS unit may have been damaged internally which may cause improper operation, resulting in major injuries or even death. The used single point SAS unit cannot be bench-checked or self-checked.

Component Handling

- Oil, grease, water, etc., on components may cause an air bag module to fail to deploy in an accident, which may cause serious injury. Do not allow oil, grease, water, etc., on components.
- Inserting a screwdriver, etc., into the connector of an air bag module may damage the connector and cause the air bag module to deploy improperly, which may cause serious injury. Do not insert any foreign objects into the connector.

Component Reusing

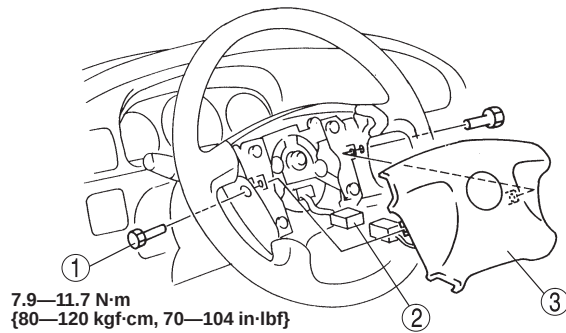
- Even if an air bag module does not deploy in a collision and does not have any external signs of damage, it may have been damaged internally, which may cause improper operation. Improper operation may cause serious injury. Always self-check the undamaged air bag module to determine whether it can be reused. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.)

DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION

Warning

- Handling the air bag module improperly can accidentally deploy the air bag module, which may seriously injure you. Read **SERVICE WARNINGS** before handling the air bag module. (Refer to **SERVICE WARNINGS**.)

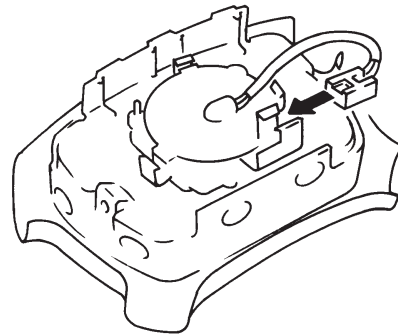
- Turn the ignition switch to LOCK position.
- Disconnect the negative battery cable and wait for **more than 1 minute**.
- Remove in the order indicated in the table.
- Install in the reverse order of removal.
- Turn the ignition switch to ON position.
- Verify that the air bag system warning light illuminates for **approximately 6 seconds** then goes off.
- If the air bag system warning light remains on, off, or repeats flashing after servicing, there are malfunctions in the system. Perform the inspection again. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.)



1	Bolt + Installation Note
2	Connector + Installation Note
3	Driver-side air bag module

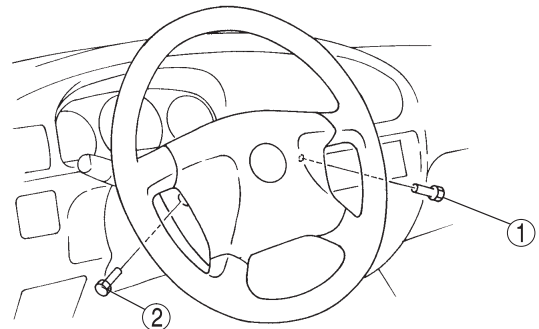
Connector Installation Note

- Install the connector as shown in the figure.



Bolt Installation Note

- Tighten the bolts in the order shown in the figure.



PASSENGER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION

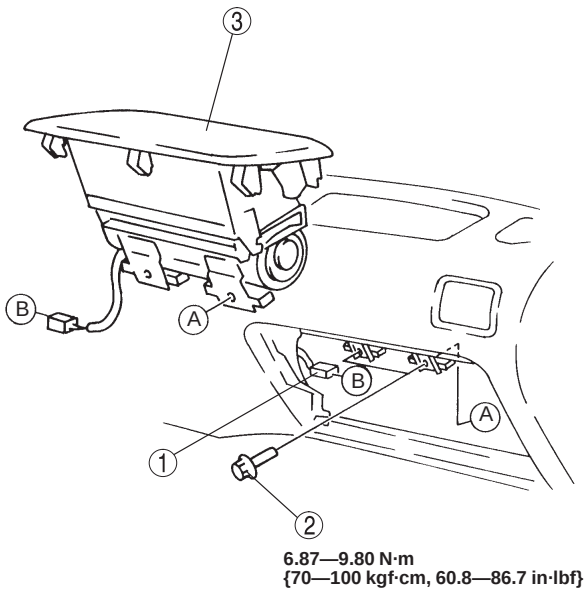
Warning

- Handling the air bag module improperly can accidentally deploy the air bag module, which may seriously injure you. Read **SERVICE WARNINGS** before handling the air bag module. (Refer to **SERVICE WARNINGS**.)

- Turn the ignition switch to LOCK position.
- Disconnect the negative battery cable and wait for **more than 1 minute**.
- Remove the glove compartment.
- Remove in the order indicated in the table.

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5. Install in the reverse order of removal.
6. Turn the ignition switch to ON position.
7. Verify that the air bag system warning light illuminates for **approximately 6 seconds** then goes off.
8. If the air bag system warning light remains on, off, or repeats flashing after servicing, there are malfunctions in the system. Perform the inspection again. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.)



1	Connector
2	Bolt
3	Passenger-side air bag module

SAS UNIT REMOVAL/INSTALLATION

Warning

- Handling the SAS unit improperly can accidentally deploy the air bag module, which may seriously injure you. Read **SERVICE WARNINGS** before handling the SAS unit. (Refer to **SERVICE WARNINGS**.)

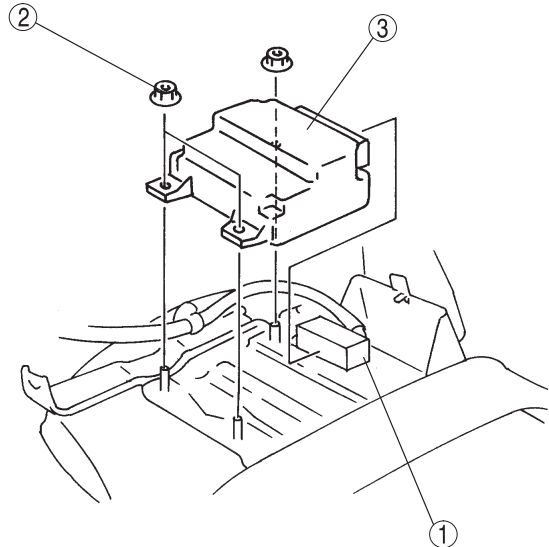
1. Turn the ignition switch to LOCK position.
2. Disconnect the negative battery cable and wait for **more than 1 minute**.
3. Remove the front console. (Refer to section S, DASHBOARD AND CONSOLE, FRONT CONSOLE REMOVAL/INSTALLATION.)
4. Remove in the order indicated in the table.
5. Install in the reverse order of removal.
6. Turn the ignition switch to ON position.
7. Verify that the air bag system warning light illuminates for **approximately 6 seconds** then goes off.

Note

- When a new SAS unit has been installed, the air bag system warning light flashes continuously if there aren't any malfunctions in the system. Perform the air bag module deployment authorization procedure. (Refer to AIR BAG MODULE DEPLOYMENT AUTHORIZATION PROCEDURE.)

8. If the air bag system warning light remains on, off, or repeats flashing after servicing, there are malfunctions in the system. Perform the inspection again. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.)

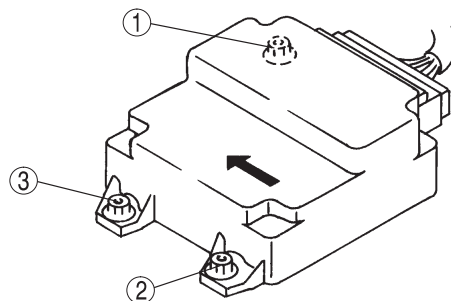
6.87–9.80 N·m
{70–100 kgf·cm, 60.8–86.7 in·lbf}



1	Connector
2	Nut + Installation Note
3	SAS unit

Nut Installation Note

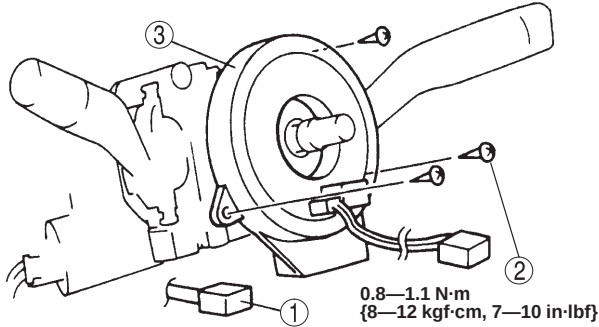
- Tighten the nuts in the order shown in the figure.



AIR BAG SYSTEM

CLOCK SPRING REMOVAL/INSTALLATION

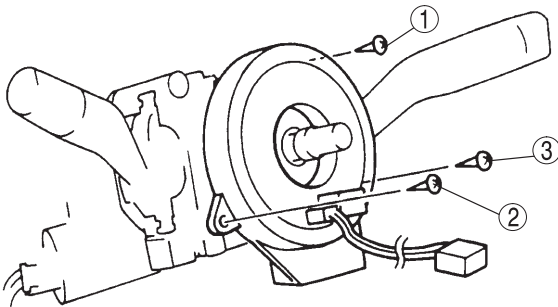
1. Remove the driver-side air bag module.
(Refer to DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION.)
2. Remove the steering wheel. (Refer to section N, MANUAL STEERING, STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION.)
3. Remove the column cover.
4. Remove in the order indicated in the table.
5. Install in the reverse order of removal.



1	Connector
2	Screw + Installation Note
3	Clock spring

Screw Installation Note

- Fasten the screws in the order in the figure.



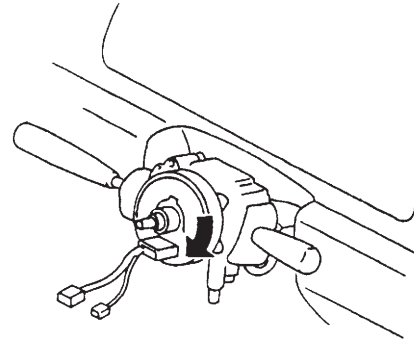
CLOCK SPRING ADJUSTMENT

1. Set the front wheels straight ahead.

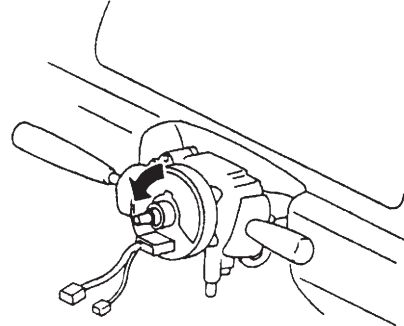
Caution

- The clock spring will break if over-wound.
Do not forcibly turn the clock spring when turning it.

2. Turn the clock spring clockwise until it stops.

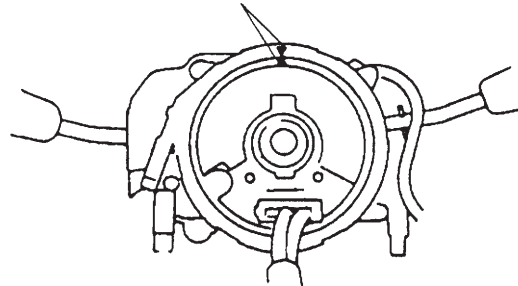


3. Turn the clock spring counterclockwise **2.75 turns**.



4. Align the mark on the clock spring with that on the outer housing.

ALIGNMENT MARKS



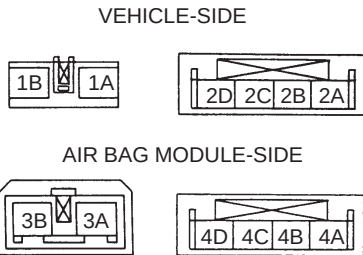
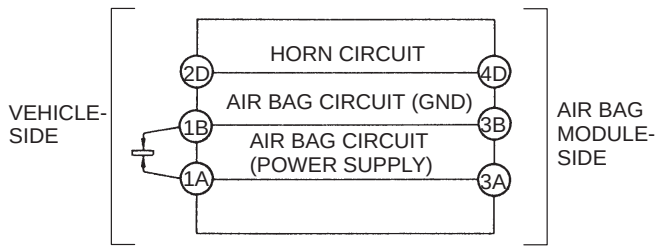
CLOCK SPRING INSPECTION

1. Remove the driver-side air bag module. (Refer to DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION.)
2. Disconnect the clock spring connector.
3. Inspect for continuity between the clock spring terminals using an ohmmeter.

○—○ : Continuity

Test condition	Terminal					
	1A	1B	2D	3A	3B	4D
Constant	○			○		
		○			○	
			○			○

AIR BAG SYSTEM



Note

- When the vehicle-side connector of clock spring is disconnected, terminals 1A and 1B are shorted to prevent unexpected deployment of the air bag module.

4. If not as specified, replace the clock spring.

AIR BAG MODULE DEPLOYMENT AUTHORIZATION PROCEDURE

- Install a new SAS unit. Turn the ignition switch to ON position and verify that the air bag system warning light illuminates for **approximately 6 seconds**, goes out, and then flashes continuously.
- If a diagnostic trouble code is indicated (the air bag system warning light doesn't flash continuously), perform the appropriate ON-BOARD DIAGNOSTIC FUNCTION. (Refer to ON-BOARD DIAGNOSTIC FUNCTION, AIR BAG SYSTEM.) When the malfunctions have been repaired and the air bag system warning light flashes continuously, go to Step 3.
- If the air bag system warning light flashes continuously, turn the ignition switch to LOCK position then back to ON position after **more than approximately 1 second**.
- Verify that the air bag system warning light illuminates for **approximately 6 seconds** and then goes off.
- If the light stays on, perform the deployment authorization procedure again.

AIR BAG MODULE DEPLOYMENT PROCEDURE

Caution

- Deploying the air bag modules inside the vehicle may cause damage to the vehicle interior. When the vehicle is not to be scrapped, always deploy the air bag modules outside the vehicle.

Note

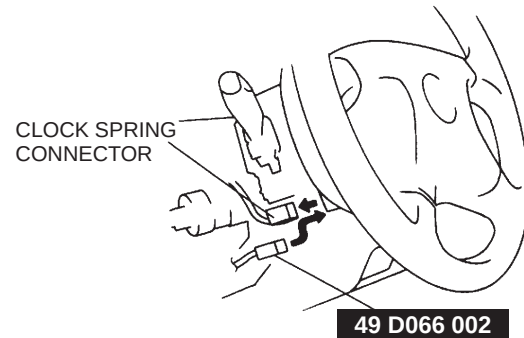
- If the SSTs (Deployment Tool and Adapter Harness) are not available, consult the nearest Ford representative for assistance.
- When the vehicle is to be scrapped, deploy the air bag modules inside the vehicle. (Refer to Deployment Procedure for Inside of Vehicle.)
- When the vehicle is not to be scrapped, deploy the air bag modules outside the vehicle. (Refer to Deployment Procedure for Outside of Vehicle.)

Deployment Procedures for Inside of Vehicle

- Inspect the **SST** (Deployment Tool). (Refer to INSPECTION OF SST (DEPLOYMENT TOOL).)
- Move the vehicle to an open space, away from strong winds, and close all doors and windows.
- Turn the ignition switch to LOCK position.
- Disconnect the negative battery cable and wait for **more than 1 minute**.
- Follow the appropriate procedure for deploying the driver-side air bag module or passenger-side air bag module.

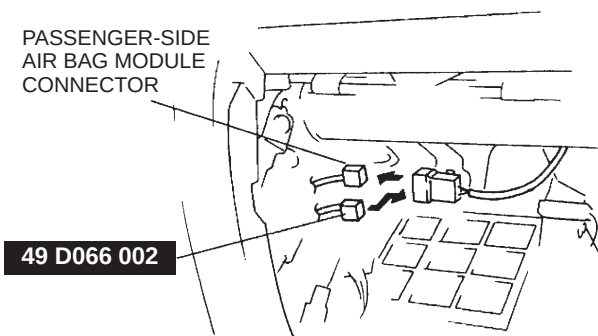
Driver-side air bag module

- Remove the column cover, disconnect the clock spring connector, then connect the **SST** (Adapter Harness) to the clock spring as shown in the figure.



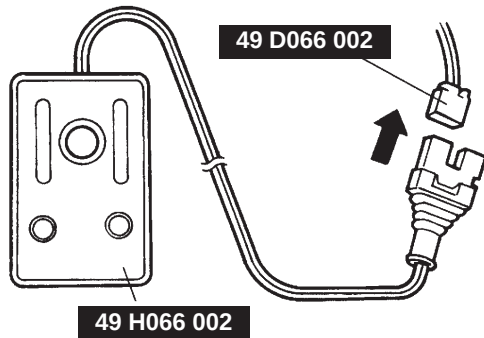
Passenger-side air bag module

- Remove the glove compartment, disconnect the passenger-side air bag module connector, then connect the **SST** (Adapter Harness) to the passenger-side air bag module as shown in the figure.

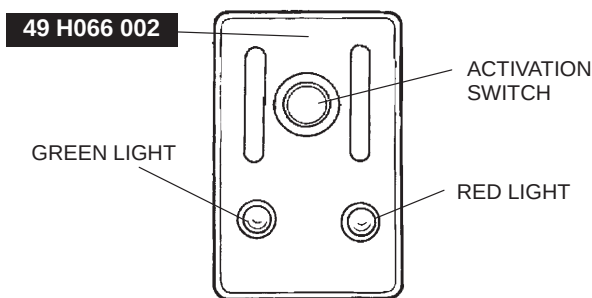


- Connect the **SST** (Deployment Tool) to the **SST** (Adapter Harness).

AIR BAG SYSTEM



7. Connect the red clip of the **SST** (Deployment Tool) to the positive battery terminal and the black clip to the negative battery terminal.
8. Verify that the red light on the **SST** (Deployment Tool) is illuminated.



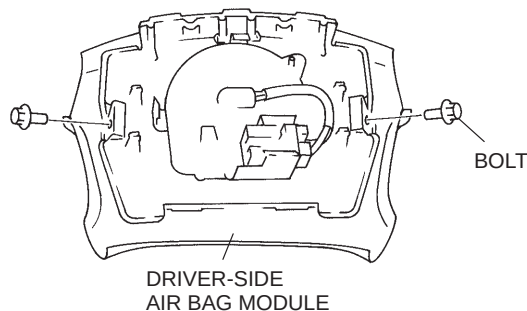
9. Make sure all persons are standing **at least 6 m {20 ft}** from the vehicle.
10. Press the activation switch on the **SST** (Deployment Tool) to deploy the air bag module.

Deployment Procedures for Outside of Vehicle

1. Inspect the **SST** (Deployment Tool). (Refer to INSPECTION OF SST (DEPLOYMENT TOOL).)
2. Turn the ignition switch to LOCK position.
3. Disconnect the negative battery cable and wait for **more than 1 minute**.
4. Follow the appropriate procedure for deploying the driver-side air bag module or passenger-side air bag module.

Driver-side air bag module

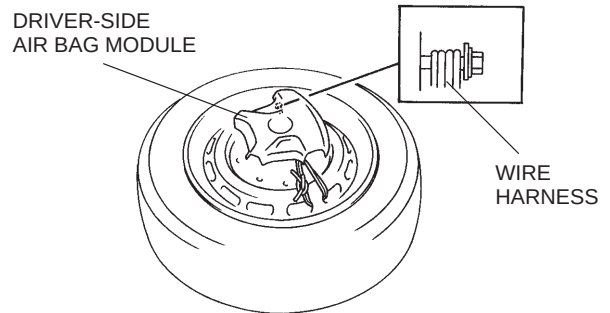
1. Remove the driver-side air bag module. (Refer to DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION.)
2. Install the bolts to the driver-side air bag module.



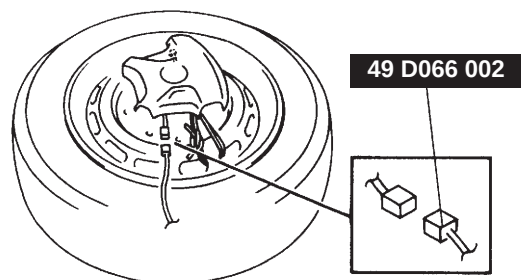
Warning

- If the air bag module is not properly installed to the wheel, serious injury may occur when the module is deployed. When installing the air bag module to the wheel, make sure the module is facing up.

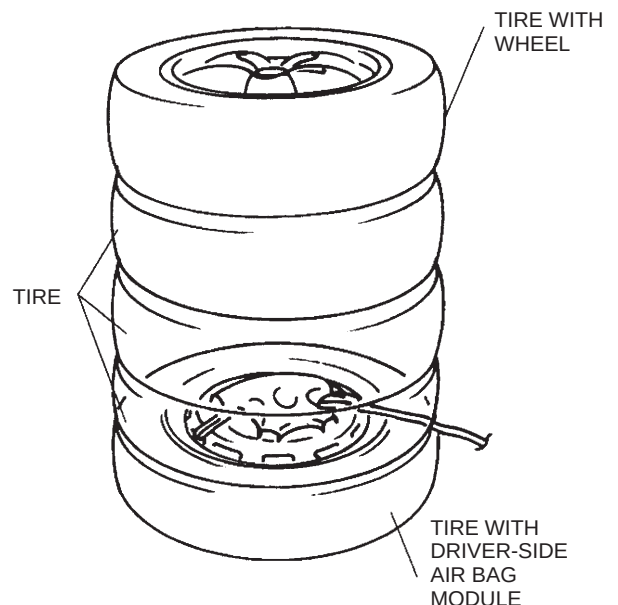
3. Place the driver-side air bag module on the center of the wheel with the module facing up. To secure the module to the wheel, wrap the wire harness through the wheel and around the bolt **at least four times**.



4. Connector the **SST** (Adapter Harness) to the driver-side air bag module as shown.

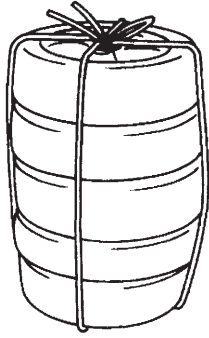


5. Stack three tires on top of the tire with the air bag module. Stack another tire that has a wheel on top of the four tires.

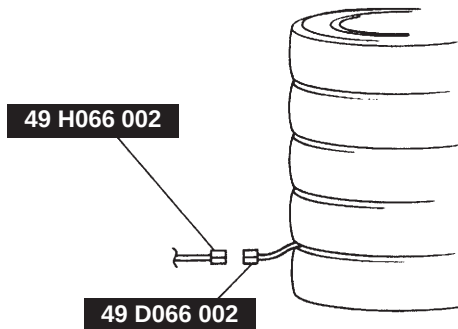


6. Tie all tires together with wire.

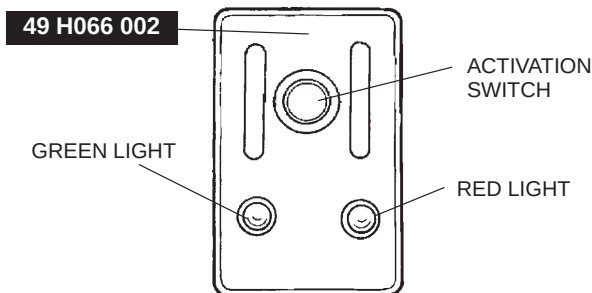
AIR BAG SYSTEM



7. Connect the **SST** (Deployment Tool) to the **SST** (Adapter Harness).



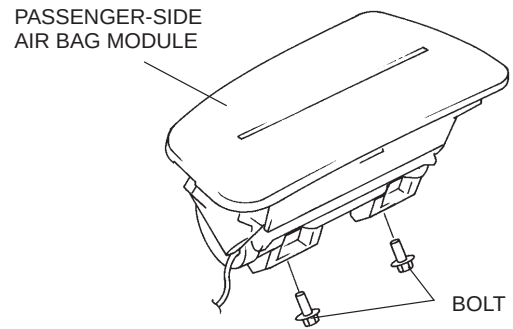
8. Connect the red clip of the **SST** (Deployment Tool) to the positive battery terminal and the black clip to the negative battery terminal.
9. Verify that the red light on the **SST** (Deployment Tool) is illuminated.



10. Make sure all persons are standing **at least 6 m {20 ft}** from the tire.
11. Press the activation switch on the **SST** (Deployment Tool) to deploy the driver-side air bag module.

Passenger-side air bag module

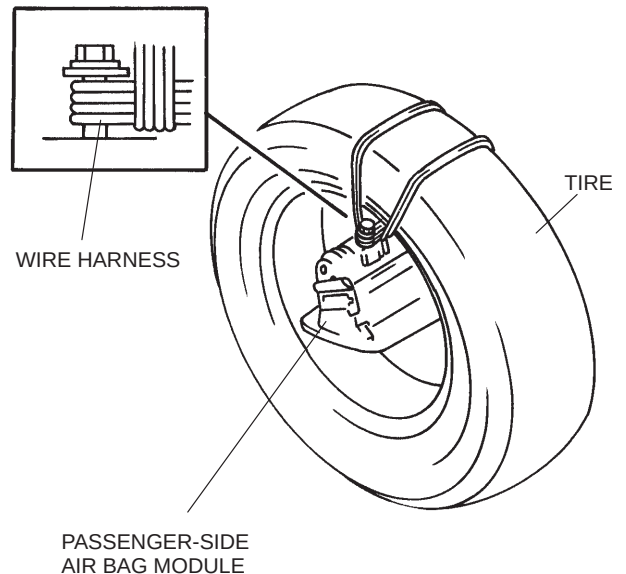
1. Remove the passenger-side air bag module. (Refer to PASSENGER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION.)
2. Install the bolts to the passenger-side air bag module.



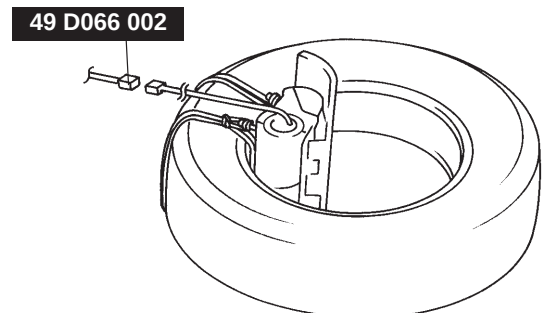
Warning

- If the air bag module is not properly installed to the tire, serious injury may occur when the module is deployed. When installing the air bag module to the tire, make sure the module is facing the center of the tire.

3. Tie the passenger-side air bag module to the tire with the module facing the center of the tire. Wrap the wire harness through the tire and around the bolts **at least four times**.

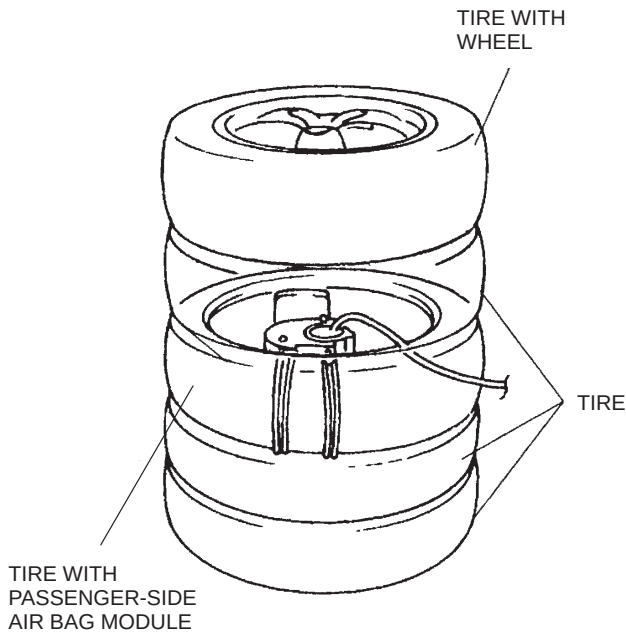


4. Connect the **SST** (Adapter Harness) to the passenger-side air bag module as shown.

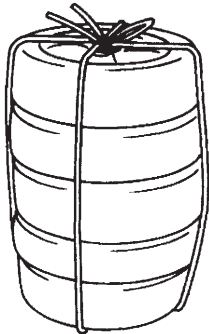


AIR BAG SYSTEM

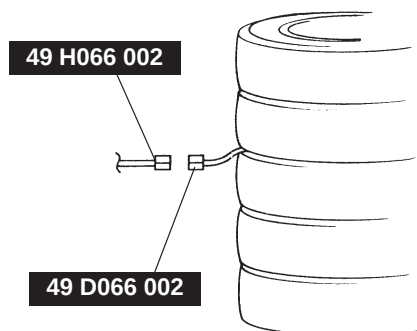
5. Stack the tire with the passenger-side air bag module on top of two tires. Stack a tire on top of the three tires. Stack another tire that has a wheel on top of the four tires.



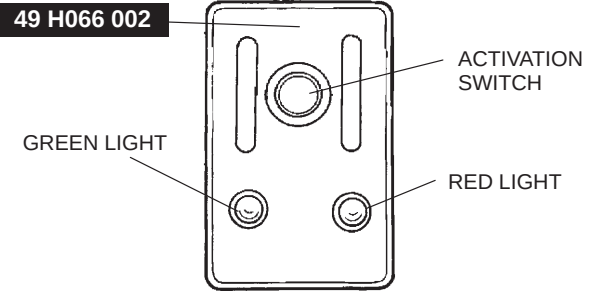
6. Tie all tires together with wire.



7. Connect the **SST** (Deployment Tool) to the **SST** (Adapter Harness).



8. Connect the red clip of the **SST** (Deployment Tool) to the positive battery terminal and the black clip to the negative battery terminal.
9. Verify that the red light on the **SST** (Deployment Tool) is illuminated.



10. Make sure all persons are standing **at least 6 m {20 ft}** from the tire.
11. Press the activation switch on the **SST** (Deployment Tool) to deploy the passenger-side air bag module.

AIR BAG MODULE DISPOSAL PROCEDURE

Warning

- Before scrapping a vehicle with an undeployed air bag module, deploy the air bag module. The undeployed air bag module may deploy by accident causing injury. Never dispose of an undeployed air bag module.

Warning

- The air bag module is very hot immediately after it deploys. You can get burned. Do not touch the air bag module for at least 15 minutes after deployment.

Warning

- Pouring water on a deployed air bag module is dangerous. The water will mix with residual gases to form a gas that can make breathing difficult. Do not pour water on the deployed air bag module.

Warning

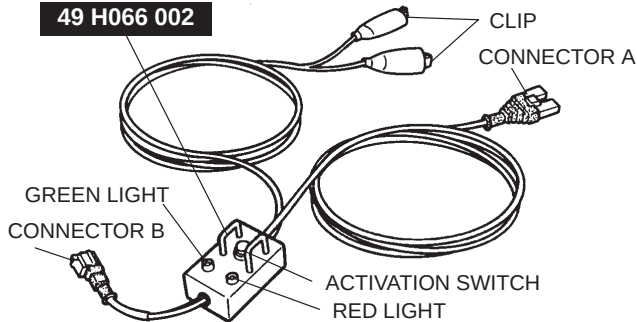
- A deployed air bag module may contain deposits of sodium hydroxide, a caustic byproduct of the gas-generated combustion. If this substance gets into your eyes or on your hands, it can cause irritation and itching. When handling the deployed air bag module, wear gloves and safety glasses.

1. Put on gloves and safety glasses.
2. Place the deployed air bag module in a plastic bag, seal it, and then dispose of it.
3. Wash your hands after removing your gloves.

AIR BAG SYSTEM

INSPECTION OF SST (DEPLOYMENT TOOL)

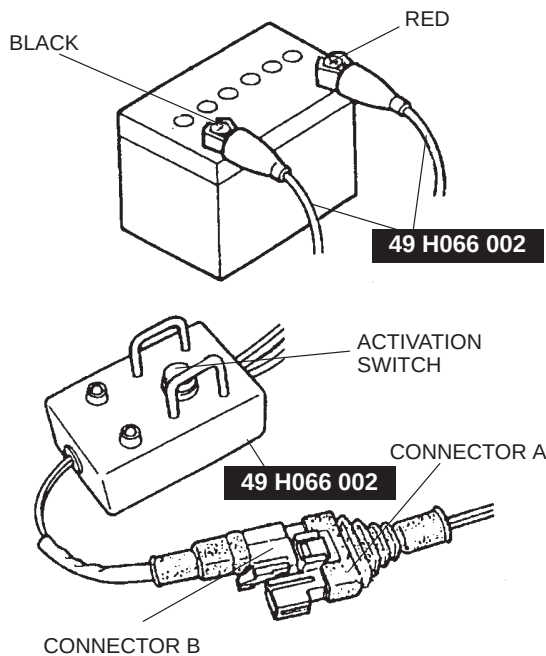
- Use the **SST** (Deployment Tool) to deploy a live air bag module before disposing of it.
- Before connecting the **SST** (Deployment Tool) to the clock spring, driver-side air bag module or passenger-side air bag module, inspect the operation of the **SST** (Deployment Tool).



Inspection Procedure

1. Follow the steps below to verify that the **SST** (Deployment Tool) is operating correctly.

Step	Inspection procedure	Light condition	
		Green	Red
1	Connect red clip to positive battery terminal and black clip to negative battery terminal.	On	Off
2	Connect connectors A and B of SST (Deployment Tool).	Off	On
3	Press activation switch.	On	Off



2. If not as specified, do not use the **SST** (Deployment Tool) because it may cause the air bag module to unexpectedly deploy upon connection to the air bag module.