

## SERVICE BULLETIN

**APPLICABILITY** 1990 THROUGH 1995 LEGACY 2.2L  
1992 THROUGH 1995 SVX 3.3L  
1995 IMPREZA 2.2L

**DATE** 10/11/95

**SUBJECT** KNOCK SENSOR

It has been determined that a small percentage of the applicable vehicles may experience improper operation of the Knock Sensor assembly due to breakage of an internal lead wire. Should this occur, the driver will experience illumination of the Malfunction Indicator Light (MIL or "Check Engine" light) and a slight reduction in engine power due to retarded ignition timing ("fail safe" mode.) Should the above condition occur, the technician will find diagnostic trouble codes as follows:

Legacy 2.2L 1990-1994MY  
CODE 22

Legacy/Impreza 2.2L 1995MY  
OBD-II System  
CODE P0325

SVX 3.3L 1992-1995MY  
CODE 22 - Right Knock Sensor #1  
CODE 28 - Left Knock Sensor #2

If you encounter a complaint with the codes listed above, it will be necessary to replace the affected Knock Sensor with a new one - part number **22060AA031**. The color of the connector on the replacement knock sensor has changed from gray to white for positive identification. When servicing SVX models, replace **both** knock sensors even if the second diagnostic trouble code has not illuminated. After the repair, clear the diagnostic trouble code(s). In the unlikely event that the Malfunction Indicator Light remains on or the above specified diagnostic trouble code(s) reappear, refer to the applicable service manual for proper diagnostics. Installation of the Knock Sensor can be claimed under the terms of the Subaru Emission Control Systems warranty.

Applicability: 1990-1995 Legacy/1995 Impreza 2.2L

FAILURE CODE	OPERATION#	LABOR DESCRIPTION	LABOR TIME
KNOCK SENSOR UEA-48	A145-581	KNOCK SENSOR-REPLACE (INCLUDES ACCESSING DTC USING SELECT MONITOR)	0.3

**Note: Refer to the applicable service manual for 1990-1995 Legacy and 1995 Impreza 2.2L knock sensor replacement procedure.**

Applicability: 1992-1995 SVX 3.3L

FAILURE CODE	OPERATION#	LABOR DESCRIPTION	LABOR TIME
KNOCK SENSOR UEA-48	A145-581	KNOCK SENSOR BOTH-REPLACE (INCLUDES ACCESSING DTC USING SELECT MONITOR)	0.7

**Note: Refer to revised 1992-1995 SVX 3.3L knock sensor replacement information on the reverse side.**

Revised SVX Service Manual Removal And Replacement Procedures For Knock Sensors Number 1 (RH) and Number 2 (LH). This information supersedes the Removal And Replacement Procedures listed in the SVX Service Manuals.

#### Removal

- Disconnect negative battery cable
- Remove both plastic intake manifold covers
- Remove the alternator

#### Left Sensor Replacement

1. Disconnect the knock sensor wire connector.
2. Note the orientation of the knock sensor on the engine block and install the new sensor in the same position.
3. Use a 3/8 drive ratchet, 12 inch extension and a 12mm flex socket to access the knock sensor mounting bolt.
4. Insert the extension and socket assembly through the left side of the hole in the center of the intake manifold, refer to the illustration below.

**Note:** When removing the knock sensor, the wire connector is tight but will pass between the coolant crossover manifold and the engine block.

#### Right Sensor Replacement

1. Disconnect the knock sensor wire connector.
2. Note the orientation of the knock sensor on the engine block and install the new sensor in the same position.
3. Use a 12mm boxed end wrench to access the knock sensor mounting bolt from the front of the engine.

#### Installation

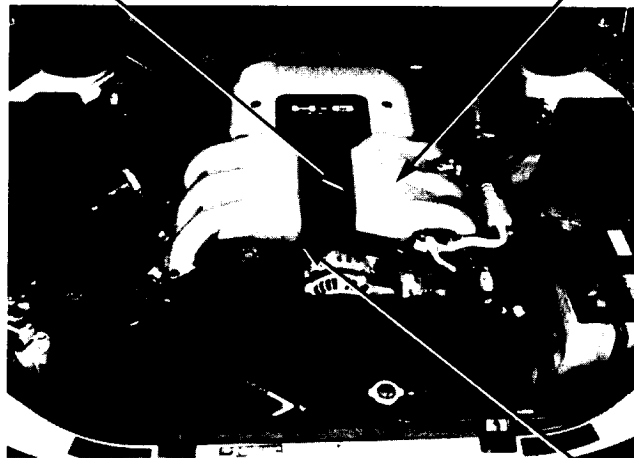
- Install in reverse order of the removal procedures

**Note:** Torque the knock sensor mounting bolt(s) for all applicable models to 17.4 ± 2.1 ft-lb.

**Note:** Refer to the applicable service manual for proper knock sensor mounting bolt torque.

Access area for extension and socket assembly

Location of left knock sensor number 2



Location of right knock sensor number 1

#### CAUTION

**VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.**

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.