

**BODY SECTION**

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.

This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

<b>HVAC SYSTEM (HEATER, VENTILATOR AND A/C)</b>	<b>AC</b>
<b>HVAC SYSTEM (AUTO A/C) (DIAGNOSTIC)</b>	<b>AC</b>
<b>AIRBAG SYSTEM</b>	<b>AB</b>
<b>AIRBAG SYSTEM (DIAGNOSTIC)</b>	<b>AB</b>
<b>SEAT BELT SYSTEM</b>	<b>SB</b>
<b>LIGHTING SYSTEM</b>	<b>LI</b>
<b>WIPER AND WASHER SYSTEM</b>	<b>WW</b>
<b>ENTERTAINMENT</b>	<b>ET</b>
<b>COMMUNICATION SYSTEM</b>	<b>COM</b>
<b>GLASS/WINDOW/MIRROR</b>	<b>GW</b>
<b>BODY STRUCTURE</b>	<b>BS</b>
<b>INSTRUMENTATION/DRIVER INFO</b>	<b>IDI</b>
<b>SEAT</b>	<b>SE</b>
<b>SECURITY AND LOCK</b>	<b>SL</b>
<b>SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)</b>	<b>SR</b>
<b>EXTERIOR/INTERIOR TRIM</b>	<b>EI</b>
<b>EXTERIOR BODY PANEL</b>	<b>EB</b>

BODY SECTION

CRUISE CONTROL SYSTEM CC

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4SO)

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4DOTC)

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4DOTC 2.5)

IMMOBILIZER (DIAGNOSTIC) IM

# BODY STRUCTURE

# *BS*

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# General Description

BODY STRUCTURE

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## 1. General Description

### A: PREPARATION TOOL

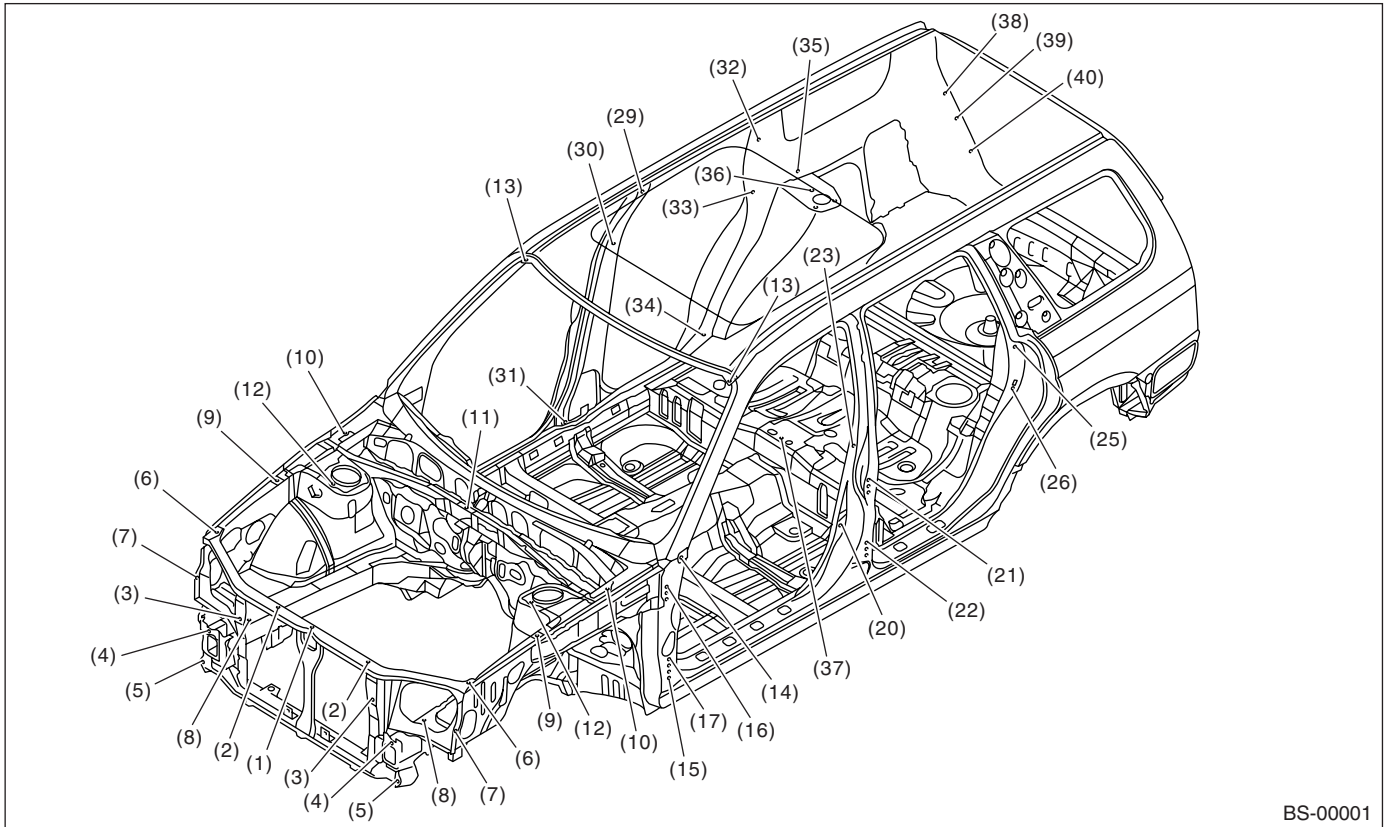
TOOL NAME	REMARKS
Tram tracking gauge	Used for measuring dimension.
Tape measure	Used for measuring dimension.

## 2. Datum Points

### A: LOCATION

NOTE:

- Datum points are specified for body repair.
- Guide holes, locators, and indents are provided to facilitate panel replacement and to increase alignment accuracy.
- Both right and left reference points are symmetrical.



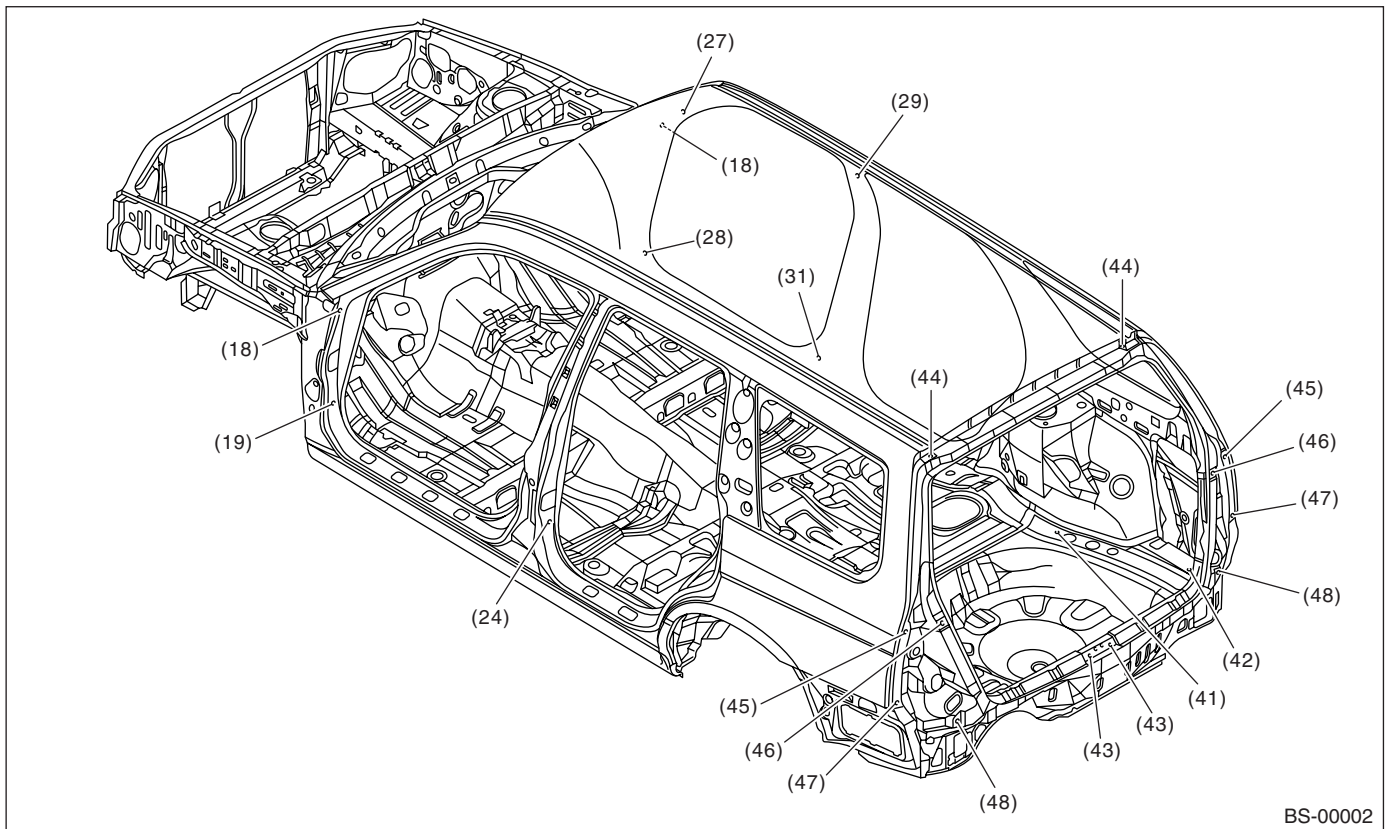
BS-00001

# Datum Points

## BODY STRUCTURE

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- |   |   |   |
|---|---|---|
| (1) Radiator panel gauge hole 6 mm (0.24 in) dia. (Vehicle center)                              | (14) Fender attaching hole 10 mm (0.39 in) dia. (Symmetrical)               | (31) Harness attaching hole 7 mm (0.28 in) dia. (Symmetrical)                 |
| (2) Radiator attaching hole 12 mm (0.47 in) dia.  | (15) Fender attaching hole 10 mm (0.39 in) dia. (Symmetrical)               | (32) Trim attaching hole 8.5 mm (0.33 in) dia. (Symmetrical)                  |
| (3) Headlight attaching hole 7 mm (0.28 in) dia. (Symmetrical)                                  | (16) Front door hinge attaching hole 12 mm (0.47 in) dia. (Symmetrical)     | (33) Trim attaching hole 7 mm (0.28 in) dia. (Symmetrical)                    |
| (4) Frame plate gauge hole 8 mm (0.31 in) dia. (Symmetrical)                                    | (17) Front door hinge attaching hole 12 mm (0.47 in) dia. (Symmetrical)     | (34) Harness attaching hole 7×7 mm (0.28×0.28 in) (Symmetrical)               |
| (5) Bumper beam attaching hole 11 mm (0.43 in) dia. (Symmetrical)                               | (20) Front door switch attaching hole 4.1 mm (0.16 in) dia. (Symmetrical)   | (35) Tonneau cover bracket attaching hole 5.5 mm (0.22 in) dia. (Symmetrical) |
| (6) Fender attaching hole 7 mm (0.28 in) dia. (Symmetrical)                                     | (21) Rear door hinge attaching hole 12 mm (0.47 in) dia. (Symmetrical)      | (36) Rear strut attaching hole 10 mm (0.39 in) (Symmetrical)                  |
| (7) Fender attaching hole 9 mm (0.35 in) dia. (Symmetrical)                                     | (22) Rear door hinge attaching hole 12 mm (0.47 in) dia. (Symmetrical)      | (37) Floor mat attaching hole 8 mm (0.31 in) dia.                             |
| (8) Power steering tank attaching hole RH ATF cooler pipe attaching hole LH 9 mm (0.35 in) dia. | (23) Front weather strip attaching hole 5.2 mm (0.20 in) dia. (Symmetrical) | (38) Trim attaching hole 9×9 mm (0.35×0.35 in) (Symmetrical)                  |
| (9) Fender attaching hole 10 mm (0.39 in) dia. (Symmetrical)                                    | (25) Rear weather strip attaching hole 5.2 mm (0.20 in) dia. (Symmetrical)  | (39) Trim attaching hole 8 mm (0.31 in) dia. (Symmetrical)                    |
| (10) Fender attaching hole 7 mm (0.28 in) dia. (Symmetrical)                                    | (26) Rear door switch attaching hole 4.1 mm (0.16 in) dia. (Symmetrical)    | (40) Trim attaching hole 8 mm (0.31 in) dia. (Symmetrical)                    |
| (11) Modular bracket gauge hole 8 mm (0.31 in) dia. (Vehicle center)                            | (29) Trim attaching hole 8.5 mm (0.33 in) dia. (Symmetrical)                |   |
| (12) Front strut attaching hole 9.5 mm (0.37 in) dia. (Symmetrical)                             | (30) Pad attaching hole 5 mm (0.20 in) dia. (Symmetrical)                   |   |
| (13) Front glass attaching hole LH 6.5×10.5 mm (0.26×0.41 in) RH 6.5×7 mm (0.26×0.28 in)        |   |   |

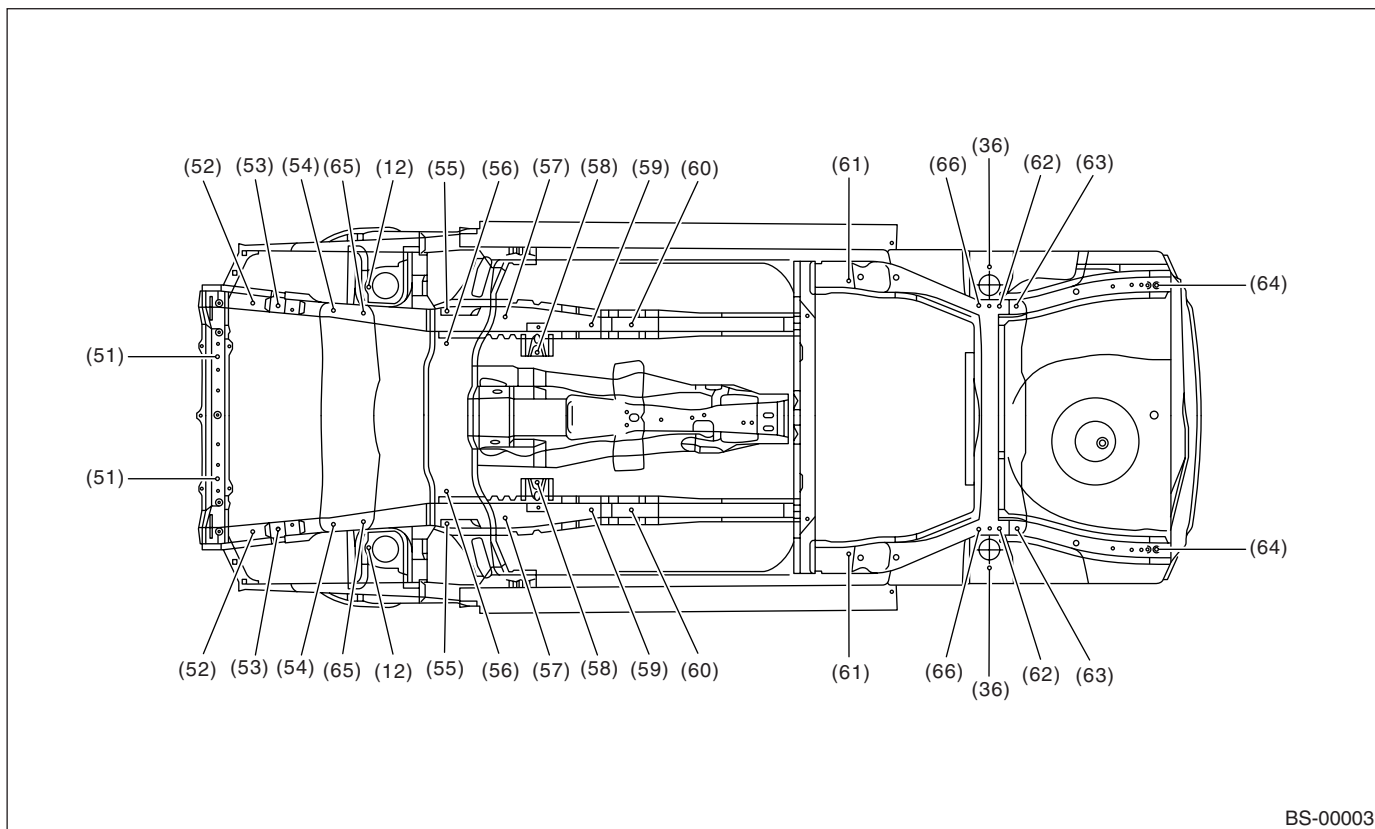


BS-00002

- |   |  |  |
|---|--|--|
| (18) Front weather strip attaching hole 5.2 mm (0.20 in) dia. (Symmetrical) | (31) Harness attaching hole 7 mm (0.28 in) dia. (Symmetrical)        | (45) Combination light attaching hole 9.5 mm (0.37 in) dia. (Symmetrical)  |
| (19) Trim attaching hole 7 mm (0.28 in) dia. (Symmetrical)                  | (41) Harness attaching hole 7.5 mm (0.30 in) dia.                    | (46) Combination light attaching hole 7 mm (0.28 in) dia. (Symmetrical)    |
| (24) Trim attaching hole 7 mm (0.28 in) dia. (Symmetrical)                  | (42) Bumper beam attaching hole 12 mm (0.47 in) dia.                 | (47) Combination light attaching hole 8×15 mm (0.31×0.59 in) (Symmetrical) |
| (27) Front pillar gauge hole 12 mm (0.47 in) dia. (Symmetrical)             | (43) Striker gauge hole 5 mm (0.20 in) dia. (Symmetrical)            | (48) Bumper bracket attaching hole 7 mm (0.28 in) dia. (Symmetrical)       |
| (28) Insulator attaching hole 8 mm (0.31 in) dia. (Symmetrical)             | (44) Harness attaching hole 7×7 mm (0.28×0.28 in) dia. (Symmetrical) |  |
| (29) Trim attaching hole 8.5 mm (0.33 in) dia. (Symmetrical)                |  |  |

# Datum Points

## BODY STRUCTURE



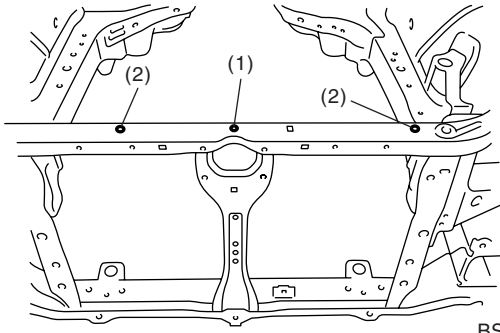
BS-00003

- |   |  |   |
|---|--|---|
| (12) Front strut attaching hole 9.5 mm (0.37 in) dia. (Symmetrical)         | (56) Transverse link attaching hole 16 mm (0.63 in) dia. (Symmetrical)           | (62) Rear cross member gauge hole 16 mm (0.63 in) dia. (Symmetrical)                    |
| (36) Rear strut attaching hole 10 mm (0.39 in) dia. (Symmetrical)           | (57) Sub-frame attaching hole 16 mm (0.63 in) dia. (Symmetrical)                 | (63) Rear cross member attaching hole 12 mm (0.47 in) dia. (Symmetrical)                |
| (51) Radiator lower frame gauge hole 12 mm (0.47 in) dia. (Symmetrical)     | (58) Transmission cross member attaching hole 14 mm (0.55 in) dia. (Symmetrical) | (64) Rear bumper beam attaching hole RH 15 mm (0.57 in) dia. LH 19×15 mm (0.75×0.59 in) |
| (52) Side frame gauge hole 20 mm (0.79 in) dia. (Symmetrical)               | (59) Rear side frame gauge hole 15 mm (0.59 in) dia. (Symmetrical)               | (65) Front cross member attaching hole 12.4 mm (0.49 in) dia. (Symmetrical)             |
| (53) Sub-frame attaching hole 16 mm (0.63 in) dia. (Symmetrical)            | (60) Rear side frame gauge hole 18 mm (0.71 in) dia. (Symmetrical)               | (66) Rear cross member attaching hole 16 mm (0.63 in) dia. (Symmetrical)                |
| (54) Front cross member attaching hole 12.4 mm (0.49 in) dia. (Symmetrical) | (61) Rear differential attaching hole 16 mm (0.63 in) dia. (Symmetrical)         |   |
| (55) Transverse link attaching hole 17 mm (0.69 in) dia. (Symmetrical)      |  |   |

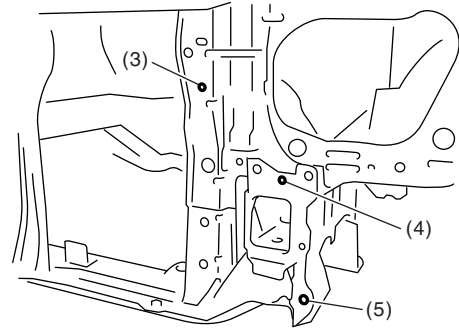


# Datum Points

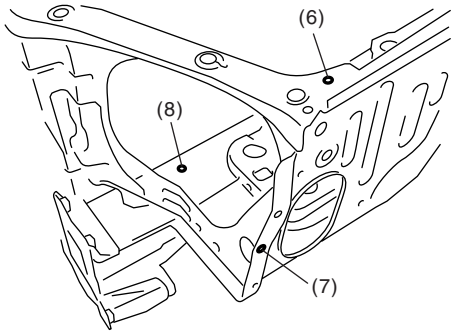
## BODY STRUCTURE



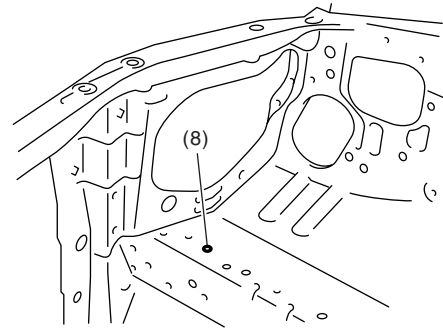
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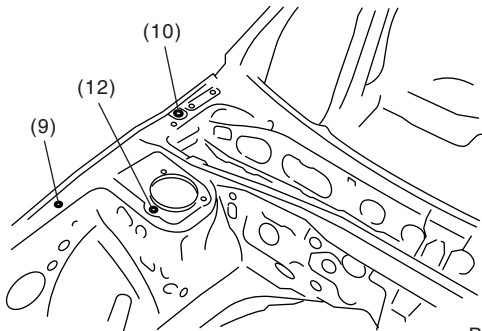
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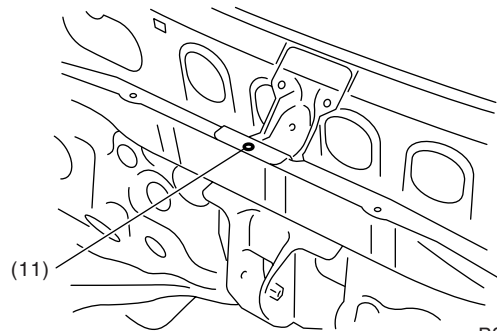
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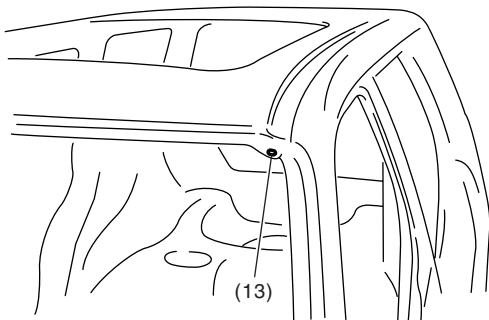
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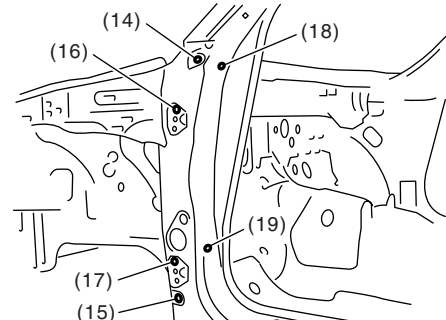
BS-00008



BS-00009



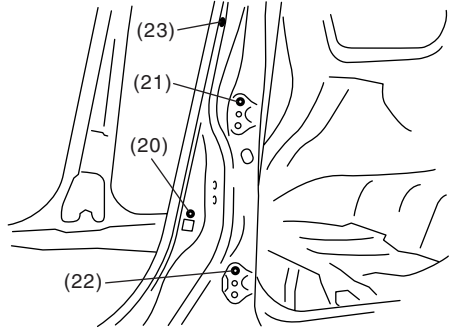
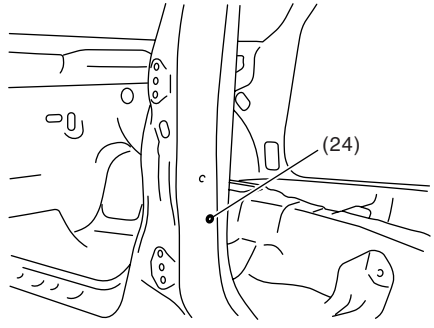
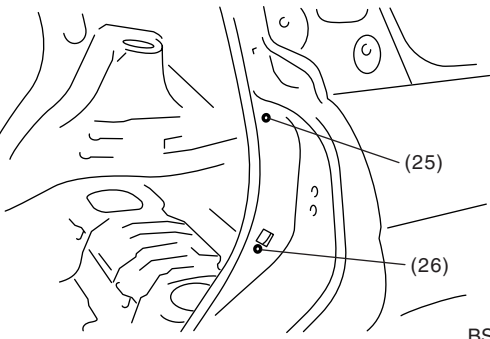
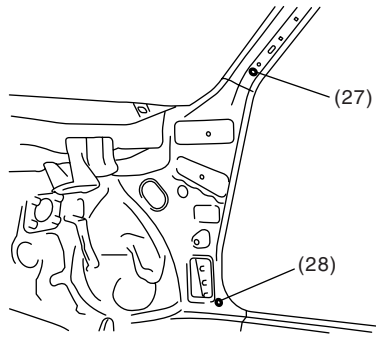
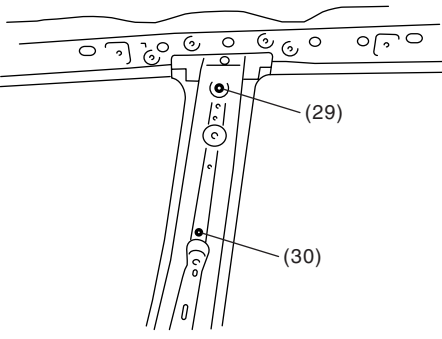
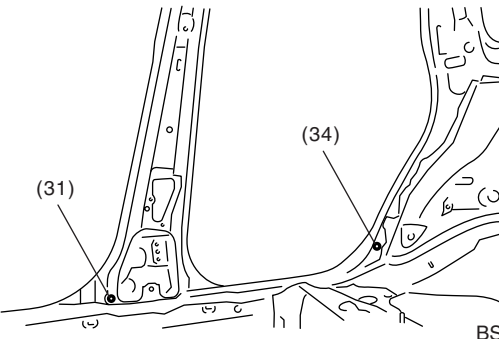
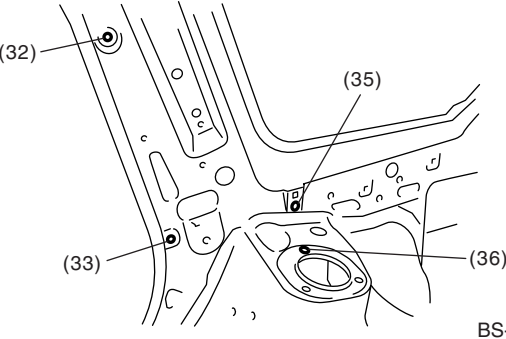

BS-00010



BS-00011

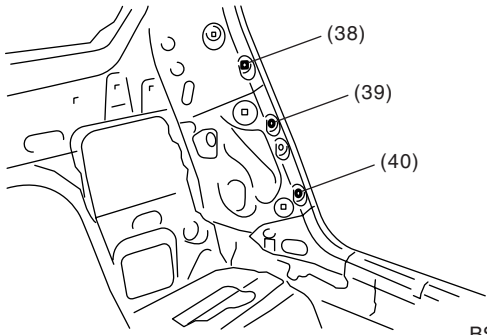
# Datum Points

## BODY STRUCTURE

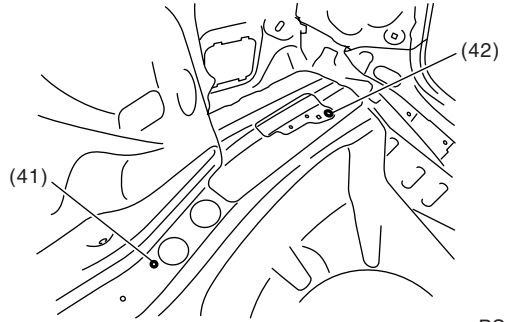
 <p>Diagram BS-00014 shows a fuselage section with four datum points: (20) is a hole on the lower fuselage; (21) is a hole on the upper fuselage; (22) is a hole on the lower fuselage; and (23) is a hole on the upper fuselage.</p>	 <p>Diagram BS-00015 shows a fuselage section with one datum point: (24) is a hole on the fuselage.</p>
 <p>Diagram BS-00016 shows a fuselage section with two datum points: (25) is a hole on the fuselage; and (26) is a hole on the fuselage.</p>	 <p>Diagram BS-00017 shows a fuselage section with two datum points: (27) is a hole on the fuselage; and (28) is a hole on the fuselage.</p>
 <p>Diagram BS-00018 shows a fuselage section with two datum points: (29) is a hole on the fuselage; and (30) is a hole on the fuselage.</p>	 <p>Diagram BS-00019 shows a fuselage section with two datum points: (31) is a hole on the fuselage; and (34) is a hole on the fuselage.</p>
 <p>Diagram BS-00020 shows a fuselage section with four datum points: (32) is a hole on the fuselage; (33) is a hole on the fuselage; (35) is a hole on the fuselage; and (36) is a hole on the fuselage.</p>	 <p>Diagram BS-00021 shows a fuselage section with one datum point: (37) is a hole on the fuselage.</p>

# Datum Points

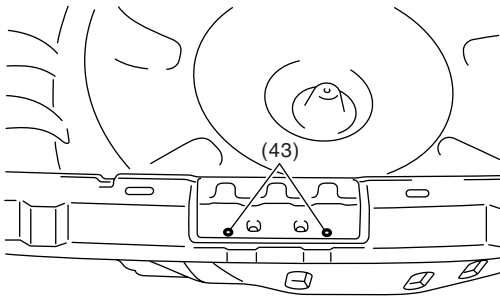
## BODY STRUCTURE



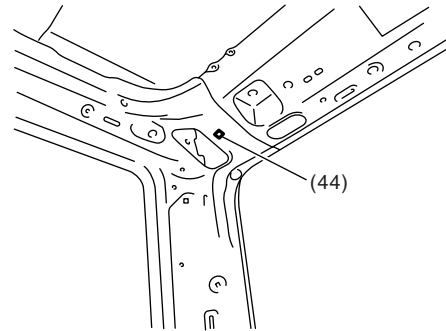
BS-00022



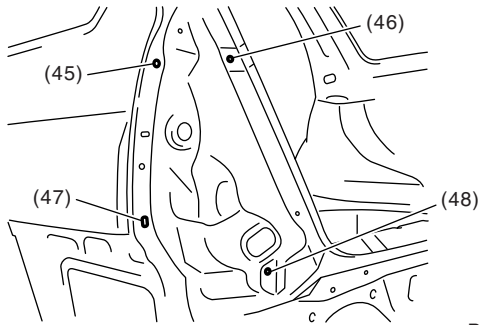
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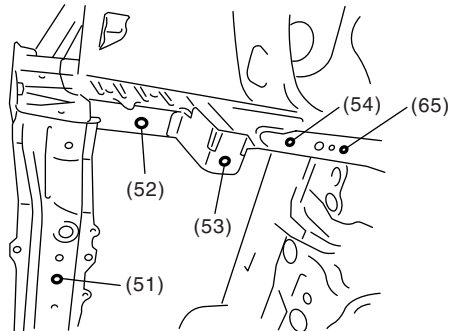
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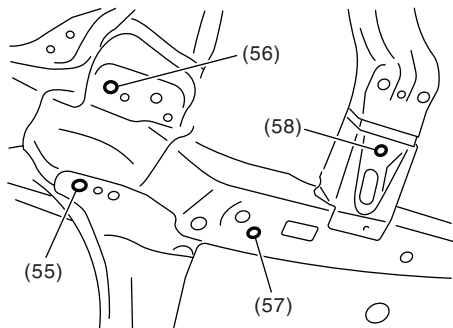
BS-00025



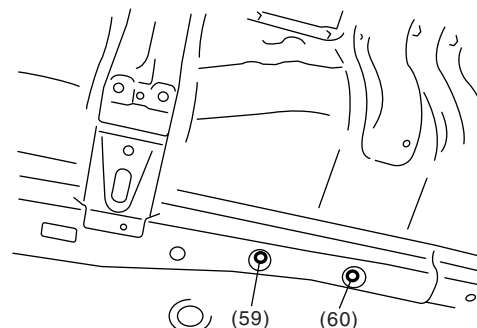
BS-00026



BS-00027



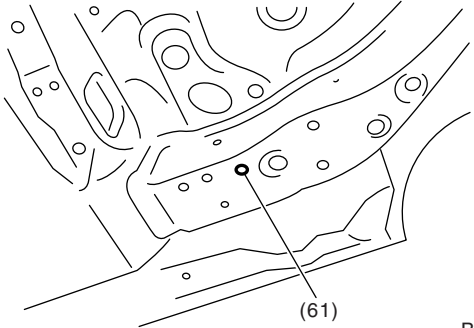
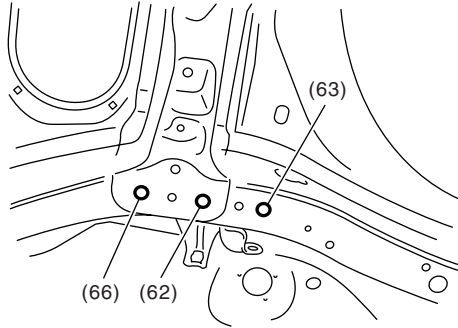
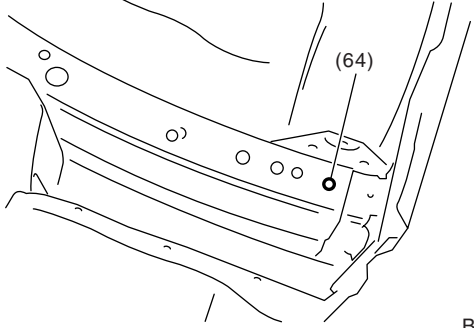
BS-00028



BS-00029

# Datum Points

## BODY STRUCTURE

 <p>(61)</p> <p>BS-00030</p>	 <p>(66) (62) (63)</p> <p>BS-00031</p>
 <p>(64)</p> <p>BS-00032</p>	<p>SUBARU.</p>

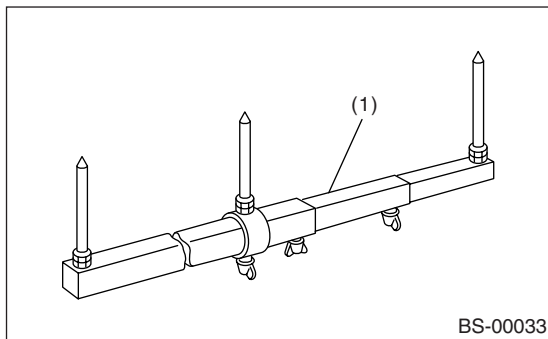
### 3. Datum Dimensions

#### A: MEASUREMENT

Refer to LOCATION for details on measurement points. <Ref. to BS-3, LOCATION, Datum Points.>

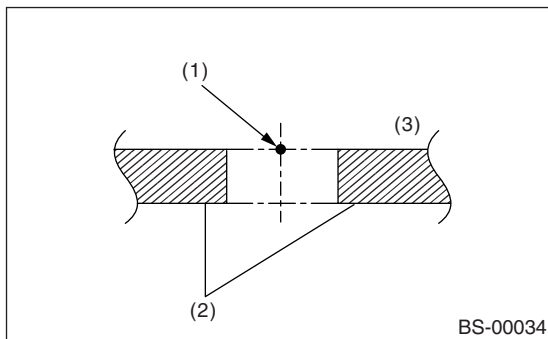
#### NOTE:

- Using a tram tracking gauge, measure all dimensions.
- When using a tape measure, carefully measure dimensions without letting the tape measure sag or twist.
- Measure the linear dimensions between cores of holes.
- Suffixes “RH” and “LH” indicate right-hand and left-hand.



(1) Tram tracking gauge

- Measure at the center of the circle around the outside of the body panel.

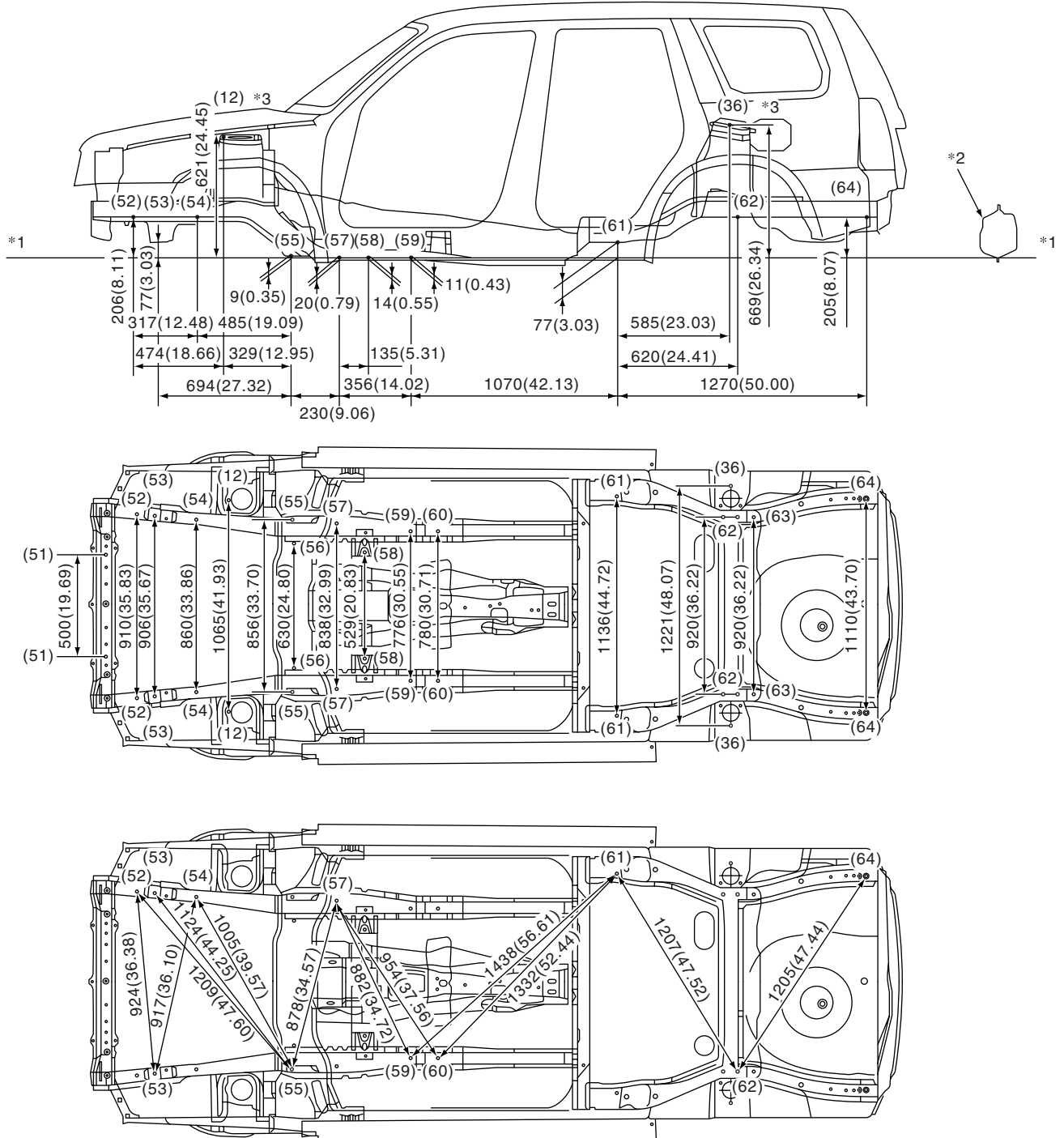


- (1) Datum point
- (2) Body panel
- (3) Outside

# Datum Dimensions

## BODY STRUCTURE

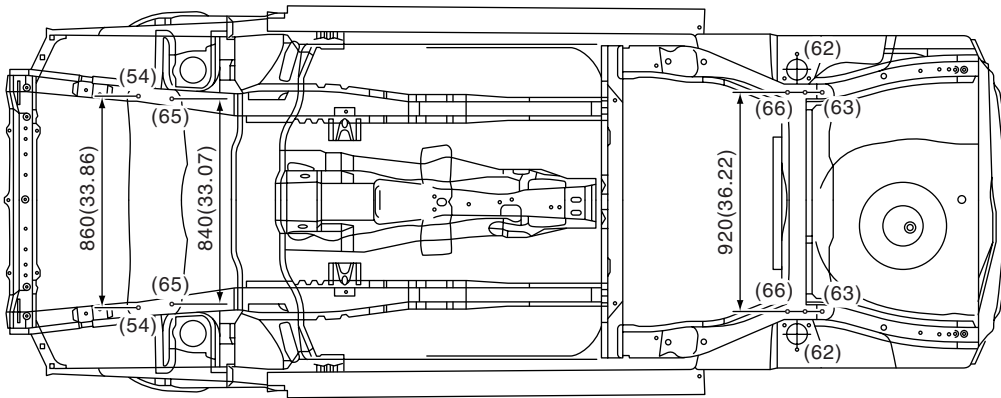
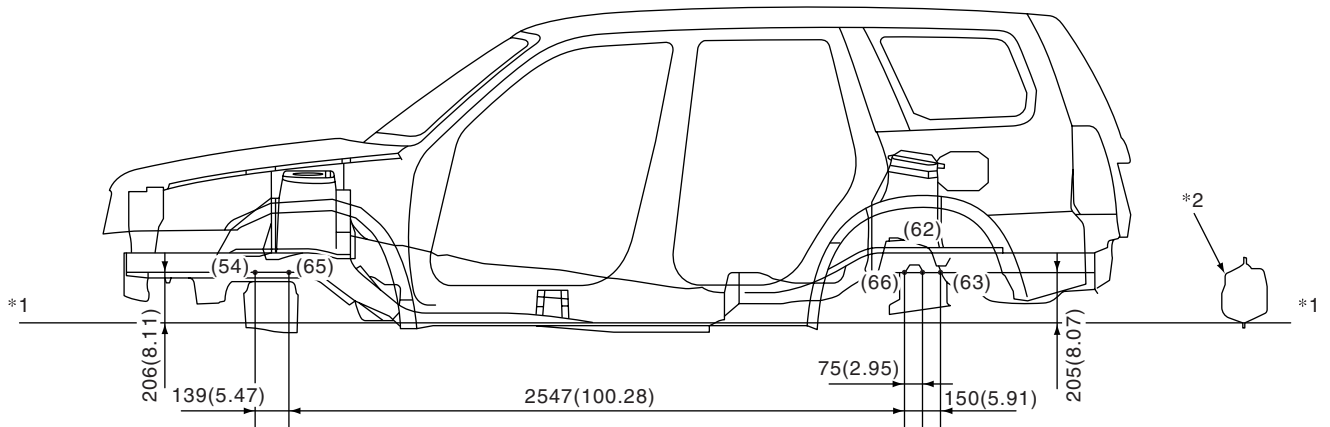
### 1. CENTER STRUCTURE



\*1: Standard line  
 \*2: Side sill  
 \*3: Upper surface  
 Unit: mm (in)

BS-00035

## 2. SUSPENSION CROSSMEMBER



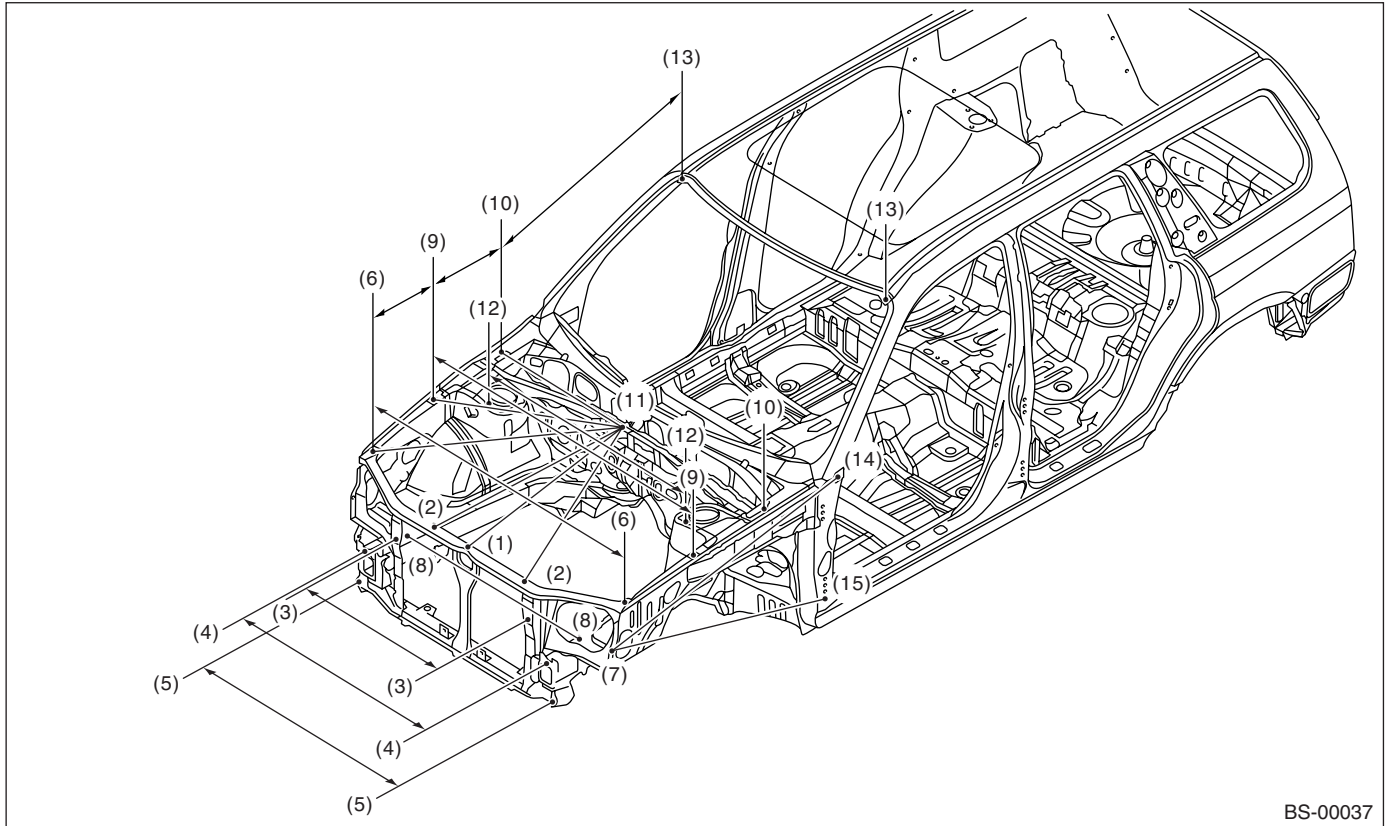
\*1: Standard line  
 \*2: Side sill  
 Unit: mm (in)

BS-00036

# Datum Dimensions

## BODY STRUCTURE

### 3. FRONT STRUCTURE



BS-00037

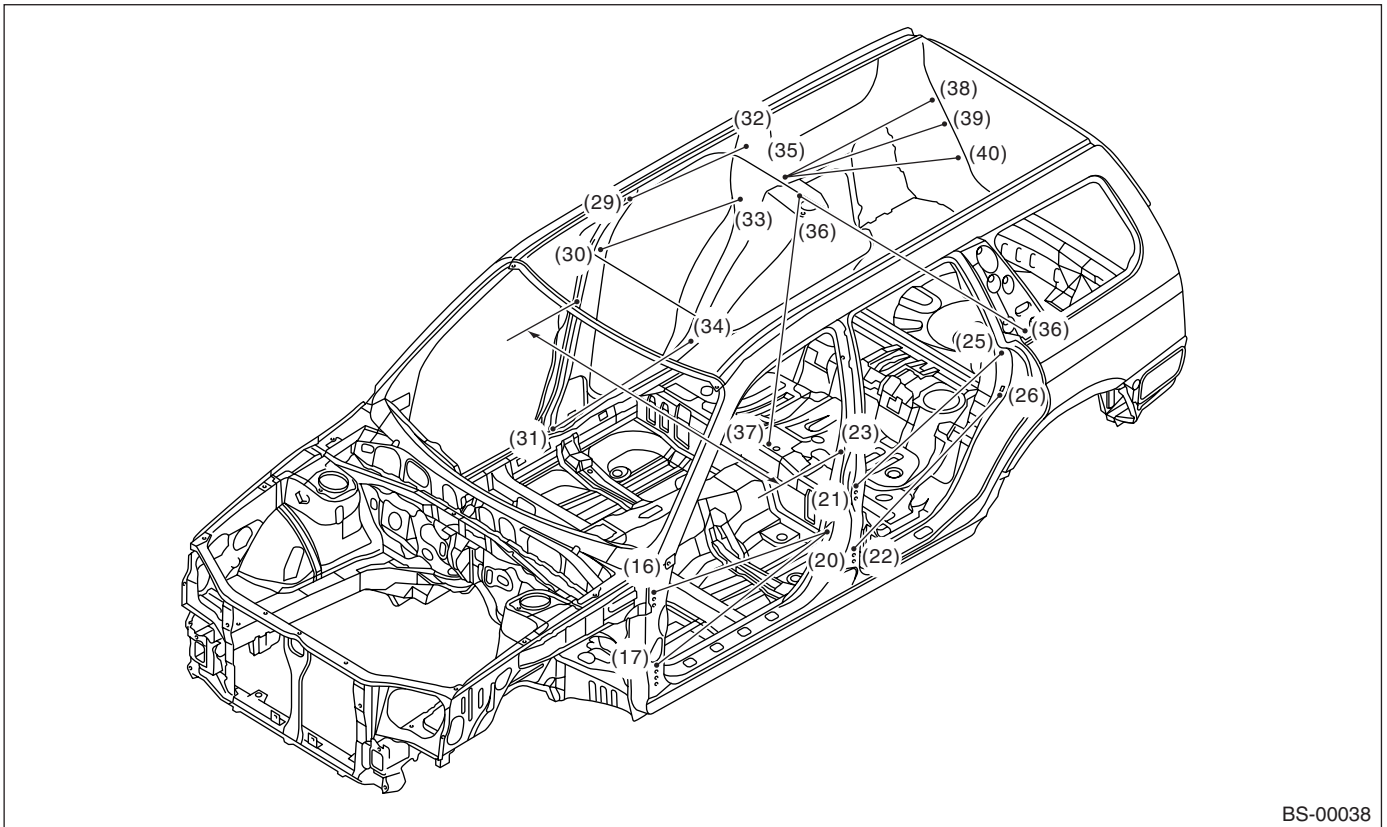
Unit: mm (in)

Point to point	Dimension	Point to point	Dimension
(1) to (11)	822 (32.36)	(7) LH to (15) LH	1,067 (42.01)
(2) RH to (11)	842 (33.15)	(8) RH to (8) LH	921 (36.26)
(2) LH to (11)	875 (34.45)	(9) RH to (9) LH	1,396 (54.96)
(3) RH to (3) LH	716 (28.19)	(9) RH to (10) RH	398 (15.67)
(4) RH to (4) LH	978 (38.50)	(9) LH to (10) LH	398 (15.67)
(5) RH to (5) LH	1,049 (41.30)	(9) RH to (11)	767 (30.20)
(6) RH to (6) LH	1,341 (52.80)	(9) LH to (11)	767 (30.20)
(6) RH to (9) RH	349 (13.74)	(10) RH to (11)	722 (28.43)
(6) LH to (9) LH	349 (13.74)	(10) LH to (11)	722 (28.43)
(6) RH to (11)	944 (37.17)	(10) RH to (13) RH	907 (35.71)
(6) LH to (11)	944 (37.17)	(10) LH to (13) LH	907 (35.71)
(7) RH to (14) RH	1,155 (45.47)	(11) to (12) RH	565 (22.24)
(7) LH to (14) LH	1,155 (45.47)	(11) to (12) LH	565 (22.24)
(7) RH to (15) RH	1,067 (42.01)	(12) RH to (12) LH	1,065 (41.93)



# Datum Dimensions

BODY STRUCTURE



BS-00038

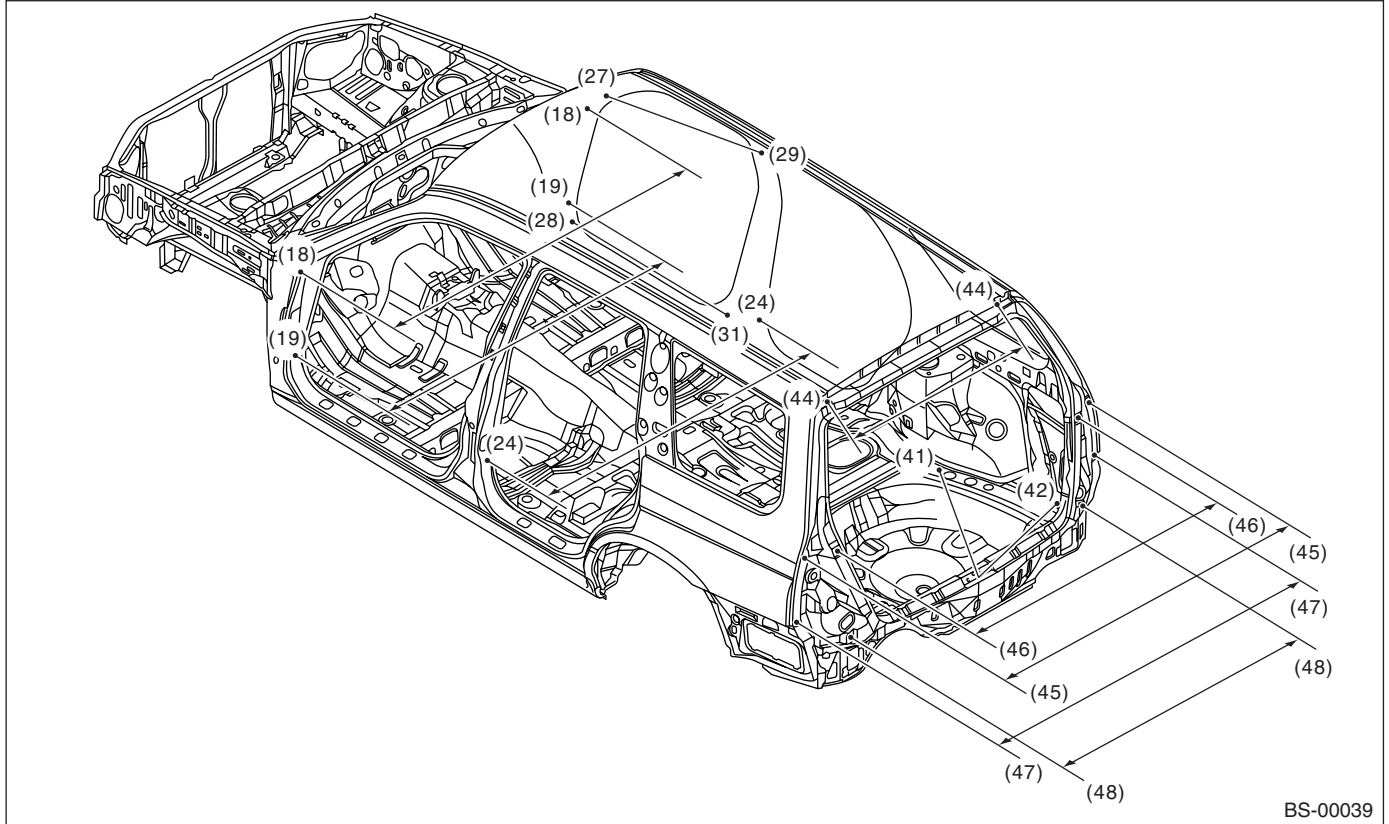
Unit: mm (in)

Point to point	Dimension	Point to point	Dimension
(16) RH to (20) RH	980 (38.58)	(30) LH to (33) LH	796 (31.34)
(16) LH to (20) LH	980 (38.58)	(31) RH to (34) RH	759 (29.88)
(17) RH to (20) RH	982 (38.66)	(31) LH to (34) LH	759 (29.88)
(17) LH to (20) LH	982 (38.66)	(35) RH to (38) RH	665 (26.18)
(21) RH to (25) RH	853 (33.58)	(35) LH to (38) LH	665 (26.18)
(21) LH to (25) LH	853 (33.58)	(35) RH to (39) RH	711 (27.99)
(22) RH to (26) RH	895 (35.24)	(35) LH to (39) LH	711 (27.99)
(22) LH to (26) LH	895 (35.24)	(35) RH to (40) RH	784 (30.87)
(23) LH to (23) RH	1,429 (56.26)	(35) LH to (40) LH	784 (30.87)
(29) RH to (32) RH	674 (26.54)	(36) LH to (36) RH	1,221 (48.07)
(29) LH to (32) LH	674 (26.54)	(36) RH to (37) RH	1,067 (42.01)
(30) RH to (33) RH	796 (31.34)	(36) LH to (37) LH	1,067 (42.01)

# Datum Dimensions

## BODY STRUCTURE

### 4. REAR STRUCTURE



BS-00039

Unit: mm (in)

Point to point	Dimension	Point to point	Dimension
(18) RH to (18) LH	1,449 (57.05)	(41) RH to (43) RH	794 (31.26)
(19) RH to (19) LH	1,459 (57.44)	(41) LH to (43) LH	805 (31.69)
(27) RH to (29) RH	1,007 (39.65)	(42) RH to (42) LH	1,110 (43.70)
(27) LH to (29) LH	1,007 (39.65)	(44) RH to (44) LH	878 (34.57)
(28) RH to (31) RH	813 (32.01)	(45) RH to (45) LH	1,474 (58.03)
(28) LH to (31) LH	813 (32.01)	(46) RH to (46) LH	1,252 (49.29)
(24) RH to (24) LH	1,438 (56.61)	(47) RH to (47) LH	1,552 (61.10)
(41) RH to (41) LH	950 (37.40)	(48) RH to (48) LH	1,210 (47.64)