



Instruction Manual

NAME OF PRODUCT	Super SQV IV Kit	Super SQV IV Return Kit
PART NUMBER	71008-KN030	71002-AN003
APPLICATION	NISSAN Z 3BA-RZ34, 5BA-RZ34	
ENGINE	VR30DDTT	
YEAR	2023 -	

Published in April, 2024 by HKS Co., Ltd.
 (Unauthorized reproduction is strictly prohibited.)
 E04531-N49160-00

NOTICE

This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory repair manual. To avoid injury, follow the safety precautions contained in the factory service manual.

- This manual indicates items you need to pay attention to in order to install this product safely and lists precautions to avoid any possible damage and/or accidents.
- HKS will not be responsible for any damage caused by incorrect installation and/or use of this product.
- HKS will not be responsible for any labor expenses, related fees or losses incurred during vehicle downtime.
- This product was designed based on installing it onto a factory vehicle. The performance and/or safety cannot be guaranteed if this product was installed onto other inapplicable vehicles.
- The specifications of this product are subject to be changed without notice.
- This product may have small scratches or uneven points of the carbon surface due to a manufacturing process.
- This manual is subject to be revised without notice.
- For any lost parts, consumables or manual, please contact an Authorized HKS Dealer.

SAFETY PRECAUTIONS

The following symbols are used in this manual to indicate danger levels to customers and workers.



WARNING When there is a possibility of death or serious injury.



CAUTION

When it is assumed that workers or users will be injured (personal loss)
 When it is expected that extended property loss will occur.
 (Expansion property loss is property damage caused by the product. [For example, vehicle damage and burnout])

 **WARNING**

- To prevent electrical damage/burns/fire, always:
 - Disconnect the negative terminal of the battery before beginning installation.
 - When disconnecting wires/connectors, take extra care to avoid breaking/snapping the connectors.































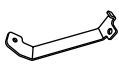



 **CAUTION**

- Never misuse or disassemble this product.
 - In the worst case, the vehicle may be damaged if misused or disassembled.
 - Otherwise, the original performance may be impaired.
- Prior to installation, make sure the engine bay temperature has cooled to approximately 40°C /104°F.
 - Failure to let the engine cool down properly can lead to severe burns.
- Insert clean rags into open piping to prevent contaminants from entering the pipes.
 - If neglected, contaminants in the piping can lead to engine damage.










- The provided parts are listed in the parts list. Please check that there are no abnormal or missing items before installation.
- Before installing or removing factory parts, carefully read the maintenance instructions issued by the manufacturer. If you do not have the maintenance manual, please obtain it from the manufacturer.
- Handle this product with care. Do not drop or apply strong shock. Otherwise, it may result in installation failure or malfunction.
- Tighten bolts and nuts securely using appropriate tools. If you tighten more than necessary, the threaded part of the bolt will be damaged.
- Store the removed factory parts without any damage or loss. Mark the removed parts to clarify the original position to prevent installation errors.

PARTS LIST



Super SQV IV Kit 71008-KN030

No	Description	QT	Image	Remarks	No	Description	QT	Image	Remarks	No	Description	QT	Image	Remarks
1	SSQV Assy RH	1			13	A/C Pipe Bracket	1			25	Holder Clip	2		Large
2	SSQV Assy LH	1			14	Water Line Bracket	1			26	Holder Clip	5		Small
3	SSQV Hose	2			15	Bolt	1		M8-20	27	CC Clamp	1		
4	Hose Clamp	4		#36	16	Bolt	1		M6-15	28	Cushion Tape	1		
5	Hose Clamp	2		#20	17	Bolt	5		M6-12	29	Sponge Tape	2		
6	Hose Clamp	2		12mm	18	Hex Socket Head Bolt	1		M6-15	30	Tie Wrap	10		Large
7	Hose Clamp	1		6mm	19	Button Head Bolt	1		M6-20	31	Tie Wrap	10		Small
8	SSQV Bracket RH No.1	1			20	Joint Hose	1			32	Protection Tube	1		L=150
9	SSQV Bracket LH No.1	1			21	Hose	1		4mm L=2,000	33	Protection Tube	1		L=80
10	SSQV Bracket RH No.2	1			22	Joint Pipe	1		6mm -4mm	34	Protection Tube	1		L=70
11	SSQV Bracket LH No.2	1			23	T-fitting	1		4mm -4mm -4mm					
12	Fuel Hose Bracket	1			24	Air Filter	1							

Super SQV IV Return Kit 71002-AN003

No	Description	QT	Image	Remarks	No	Description	QT	Image	Remarks	No	Description	QT	Image	Remarks
R1	Recirculation Fitting	2			R4	Return Hose LH	1			R7	Flange Adapter RH	1		
R2	Hose Clamp	4		19mm	R5	Flange Pipe RH	1			R8	Flange Adapter LH	1		
R3	Return Hose RH	1			R6	Flange Pipe LH	1			R9	Bolt	7		M5-15

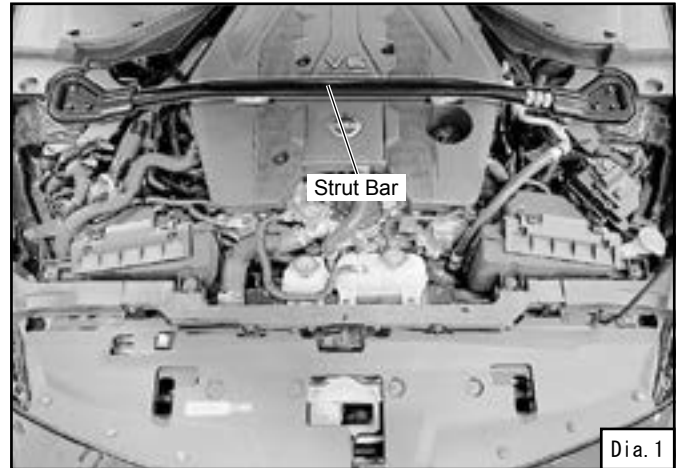
Common for 71008-KN030,71002-AN003

Description	QT	Image	Remarks	Description	QT	Image	Remarks
Instruction Manual	1		Japanese	Instruction Manual	1		English

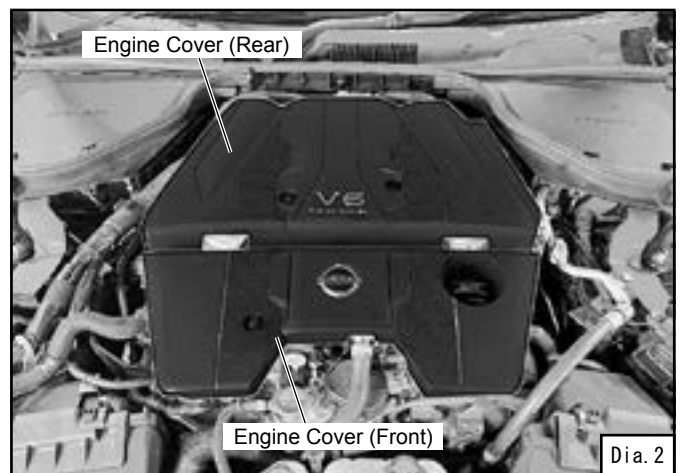
INSTALLATION PROCEDURE

1. REMOVAL OF FACTORY PARTS

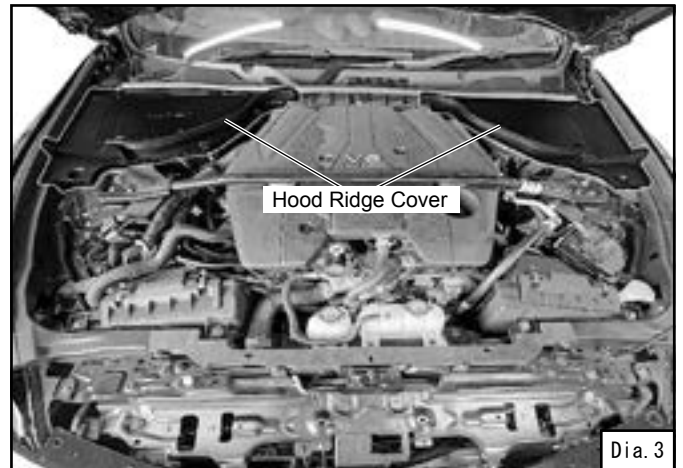
- (1) Disconnect the cable terminal from the negative (-) terminal of the vehicle's battery.
- (2) Remove bolts and nut to remove the strut bar. (Dia. 1)



- (3) Remove bolts to remove the front and rear engine cover. (Dia. 2)



- (4) Remove the left and right hood ridge covers. (Dia. 3)



(5) Remove the air cleaner case LH.

- 1) Remove 2 bolts. (Dia. 4)
- 2) Pull the handle circled in diagram 4 and lift the air cleaner case LH. (Dia. 4)
- 3) Use two tools such as flathead screwdrivers to unmate the lock ring on the suction hose. (Dia. 5)

ADVICE:

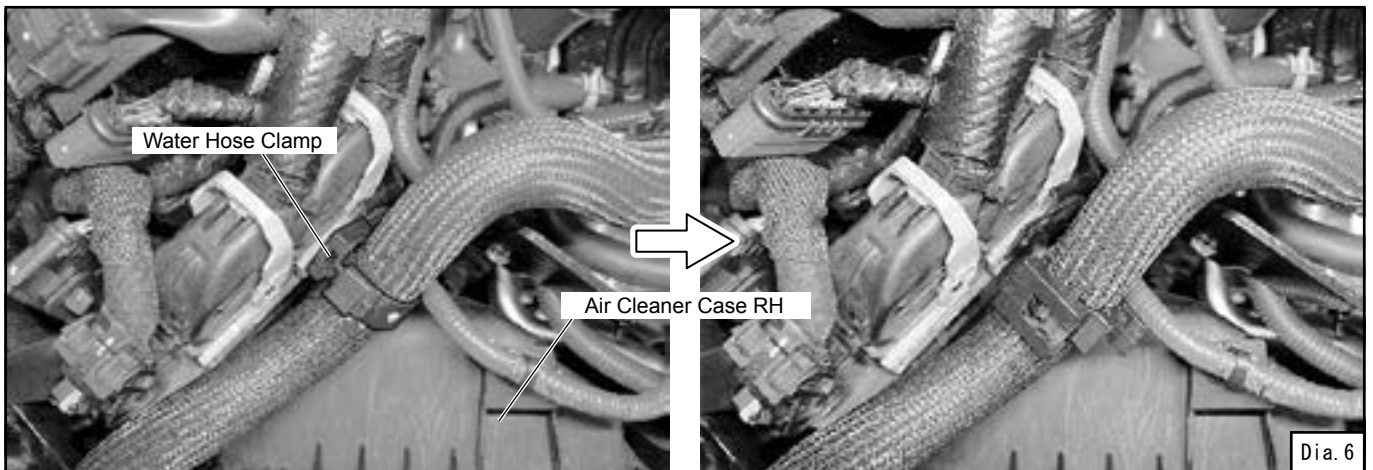
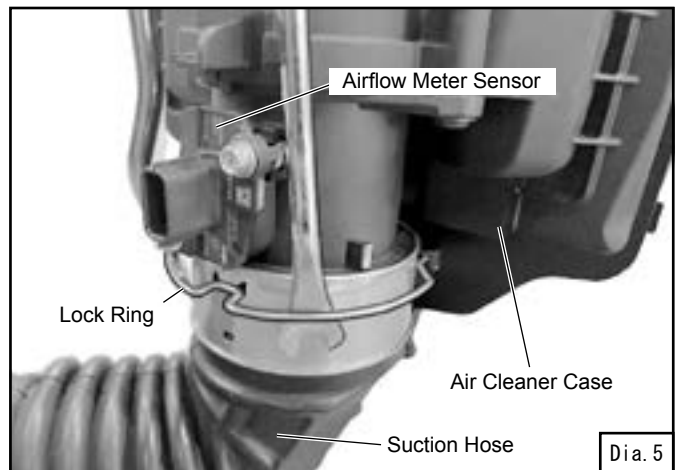
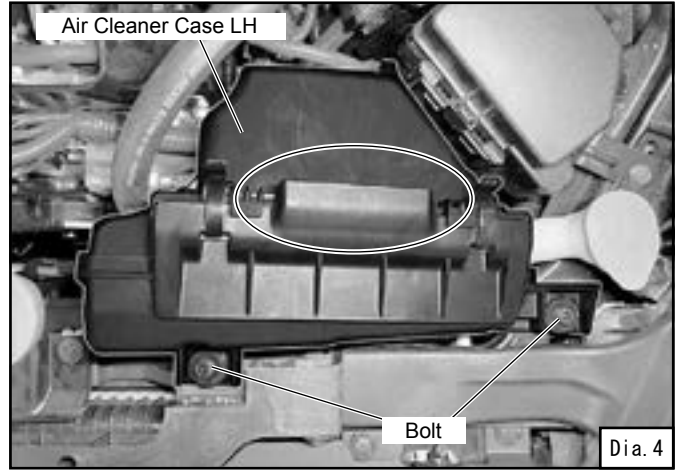
The work will be easier if the tool has a length of about L=400mm.

- 4) Remove the air cleaner case LH from the suction hose. (Dia. 5)
- 5) Unclip the air flow meter sensor harness from the air cleaner case LH and disconnect the connector from the air flow meter sensor. (Dia. 5)
- 6) Remove air cleaner case LH.

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.

(6) Remove the water hose clamp at the rear of the air cleaner case RH from the bracket. (Dia. 6)



(7) Remove the air cleaner case RH.

- 1) Remove 2 bolts. (Dia. 7)
- 2) Pull the handle circled in diagram 7 and lift the air cleaner case RH. (Dia. 7)
- 3) Use two tools such as flathead screwdrivers to unmate the lock ring on the suction hose. (Dia. 5)

ADVICE:

The work will be easier if the tool has a length of about L=400mm.

- 4) Remove the air cleaner case RH from the suction hose. (Dia. 5)
- 5) Unclip the air flow meter sensor harness from the air cleaner case RH and disconnect the connector from the air flow meter sensor. (Dia. 5)
- 6) Remove air cleaner case RH.

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.

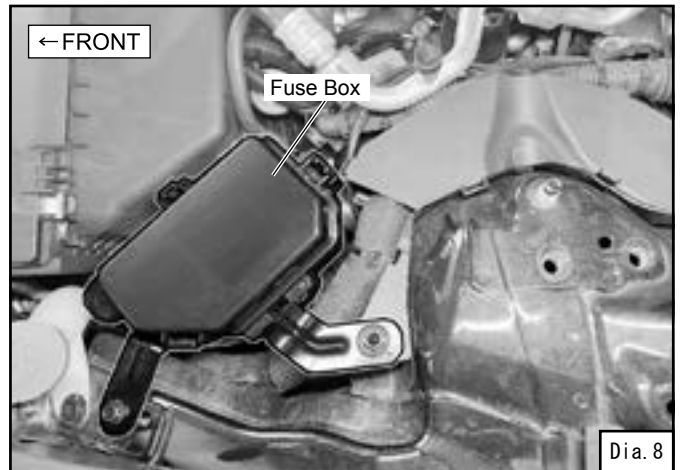


2. INSTALLING THE KIT

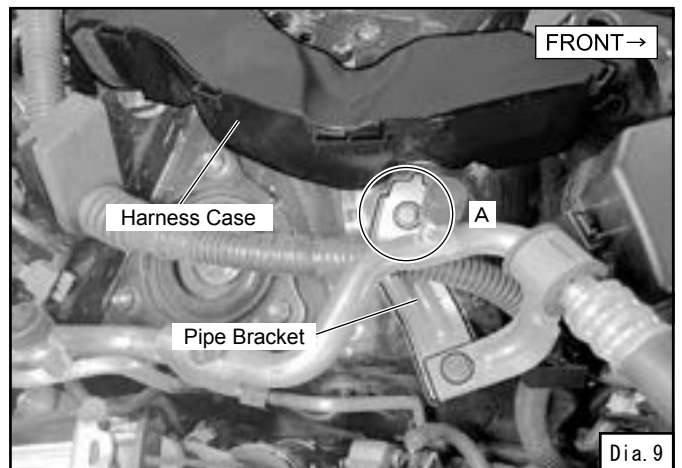
If you install the Super SQV IV return kit additionally to the vehicle already having the HKS Super SQV IV kit, please work from (14) on page 10.

LEFT SIDE

- (1) Remove the bolt and nut so that the fuse box can be moved freely. (Dia. 8)
It is not necessary to remove the fuse box from the vehicle.



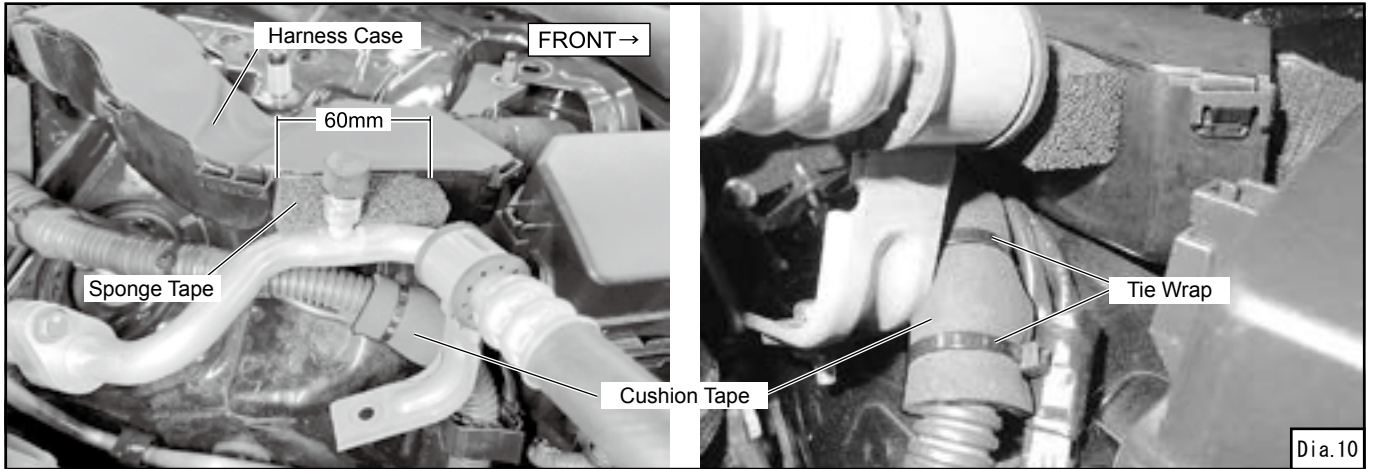
- (2) Pull the harness case upward. (Dia. 9)
- (3) Remove bolts (2 pcs) to remove the pipe bracket. (The bolts will be reused.) (Dia. 9)



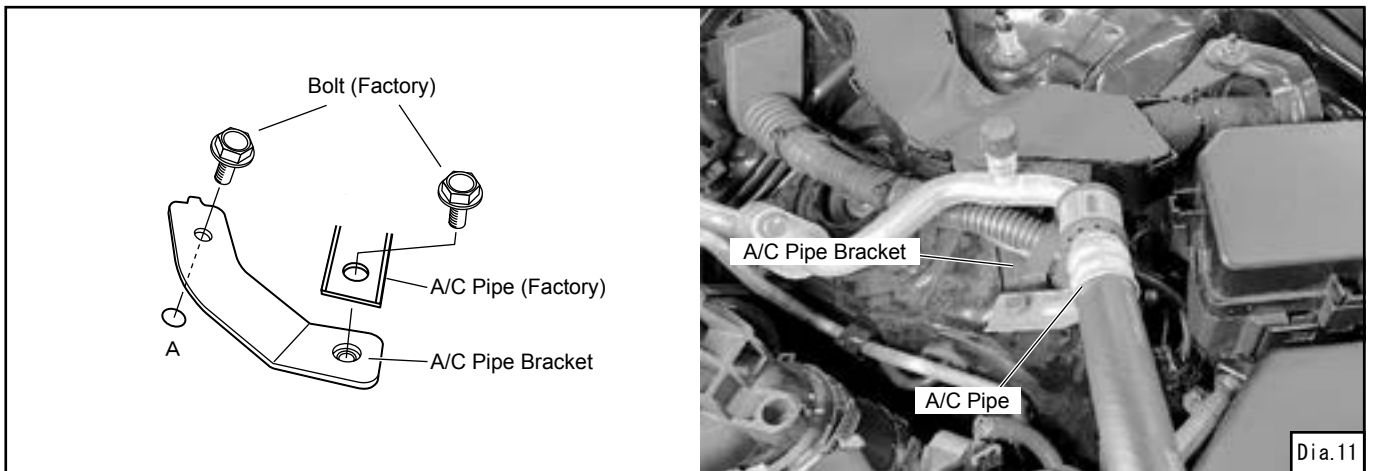
(4) Degrease the surface where the sponge tape is to be adhered to, and attach the 60 mm cut sponge tape to the harness case. (Dia. 10)

(5) **RHD VEHICLE**

Wrap the cushion tape around the harness and secure it using tie wraps (small) (2 pcs). (Dia. 10)



(6) Install the supplied A/C pipe bracket. (Dia. 11) (Tightening torque: 4.4 N-m {0.44 kgf-m})

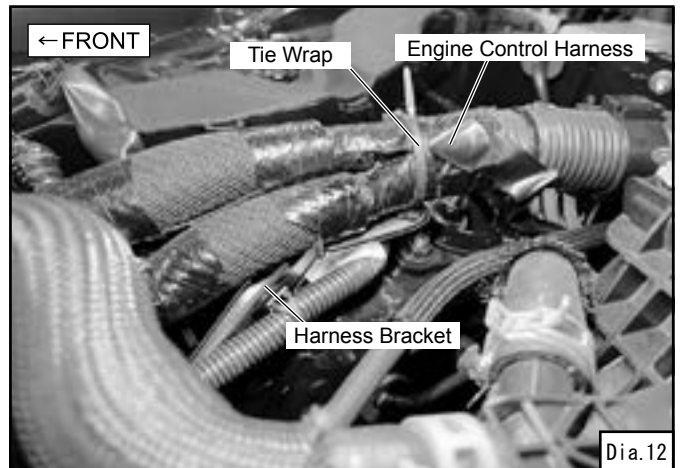


(7) Reinstall the harness case and fuse box. (Tightening torque of bolt and nut (Fuse box): 4.4N-m {0.44kgf-m})

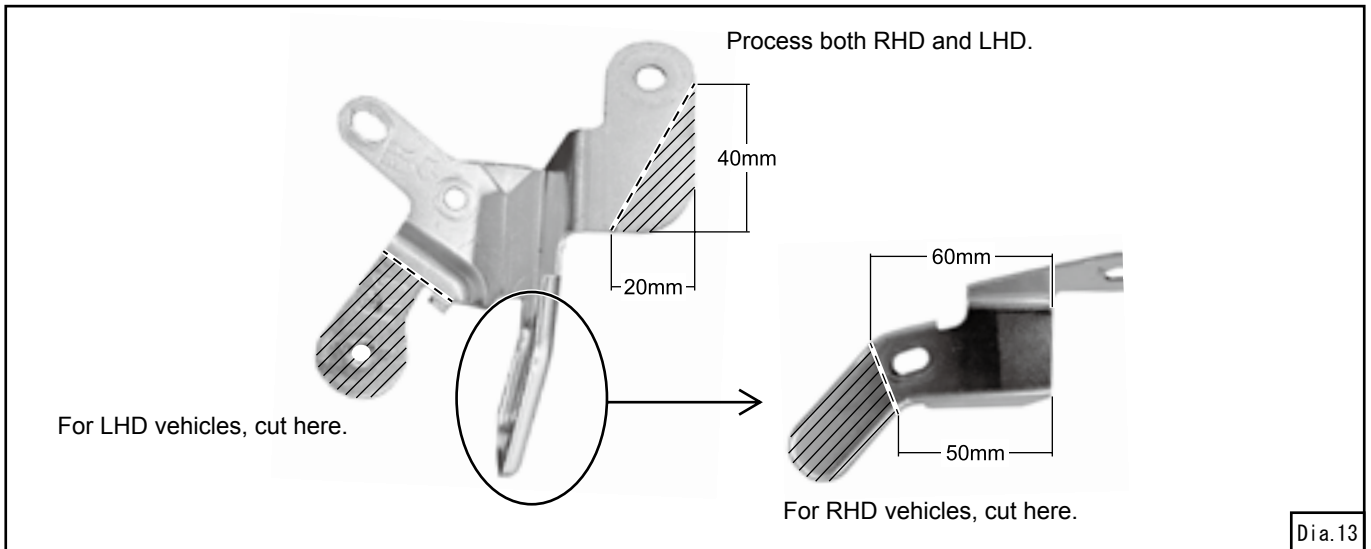
RIGHT SIDE

(8) Remove the tie wrap that secures the engine control harness from the harness bracket. (Dia. 12)

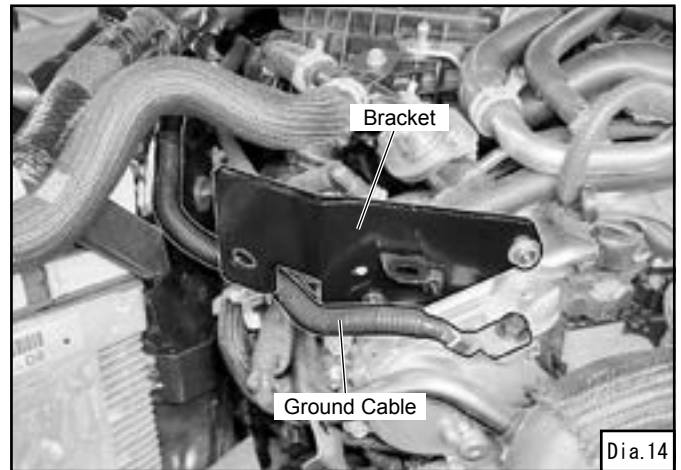
(9) Disconnect the ground cable and remove the harness bracket.



- (10) Cut the harness bracket. (Dia. 13) The modification part will be different between the RHD and LHD.
Remove the burr and perform the anti-rust treatment after processing.



- (11) Reinstall the processed harness bracket.
(Tightening torque: 4.4 N-m {0.44 kgf-m})
- (12) Reinstall the engine control harness. Do not secure the ground cable yet.
- (13) Remove the bolt and clip to remove the ground cable.
(Dia. 14) (The bolt will be reused.)



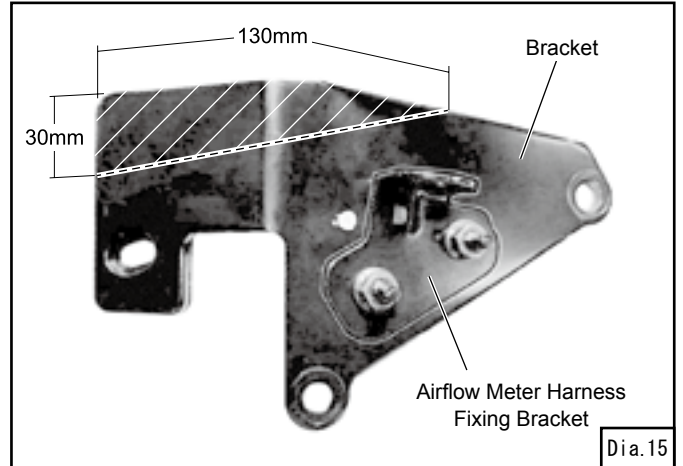
The contents of the work will be changed depending on whether the air discharging from the SSQV assy will be returned or release to the atmosphere.

- Please work from Page 10, if returning into intake.
- Please work from Page 28, if releasing to the atmosphere.

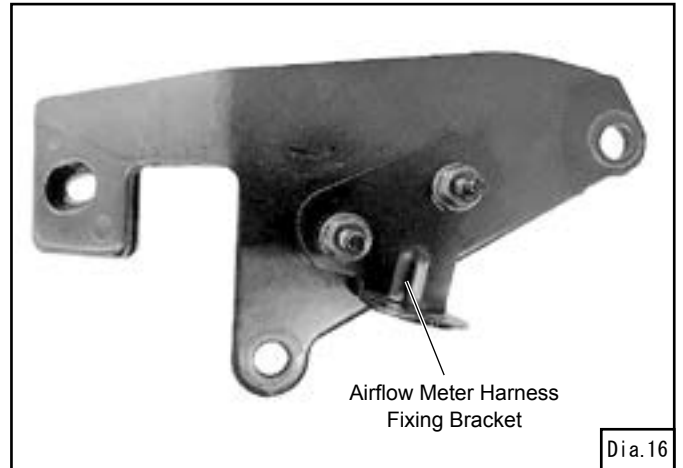
When recirculating the SSQV back into the intake
(Simultaneous installation of Super SQV IV return kit: 71002-AN003)

(14) Remove the bracket shown in diagram 14. (Dia. 14)
(The bolts will be reused.)

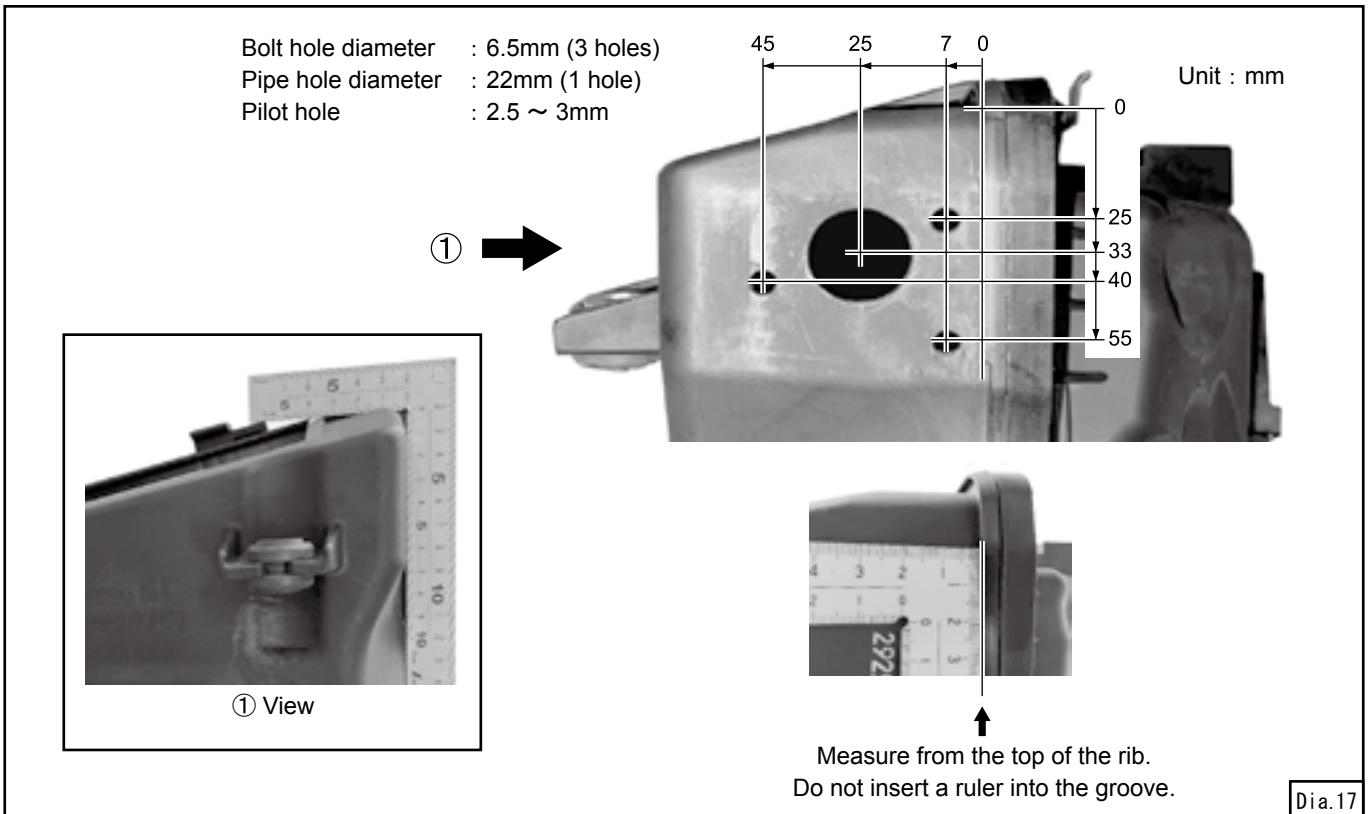
(15) Cut the removed bracket. (Dia. 15)
Remove the burr and perform the anti-rust treatment after processing.



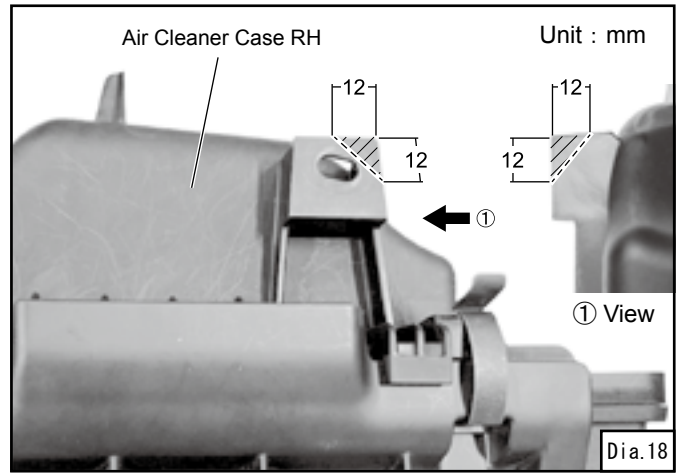
(16) Remove the airflow meter harness fixing bracket, and install it upside down. (Dia. 15, 16)



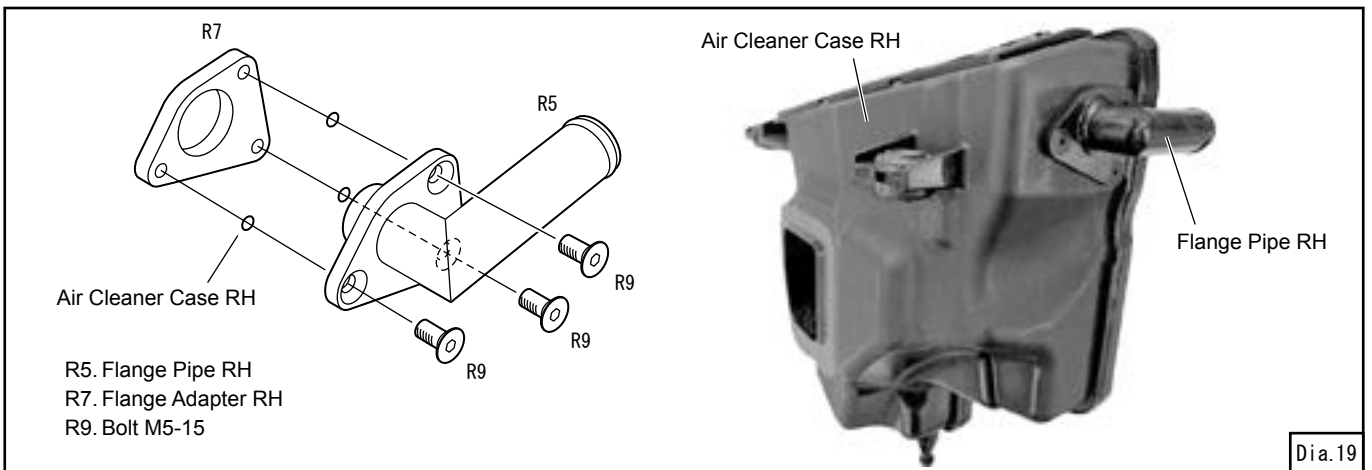
(17) Make holes in the air cleaner case RH. (Dia. 17)
Treat the cutting surface without burrs.



(18) Cut the air cleaner case RH. (Dia. 18)
Treat the cutting surface without burrs.

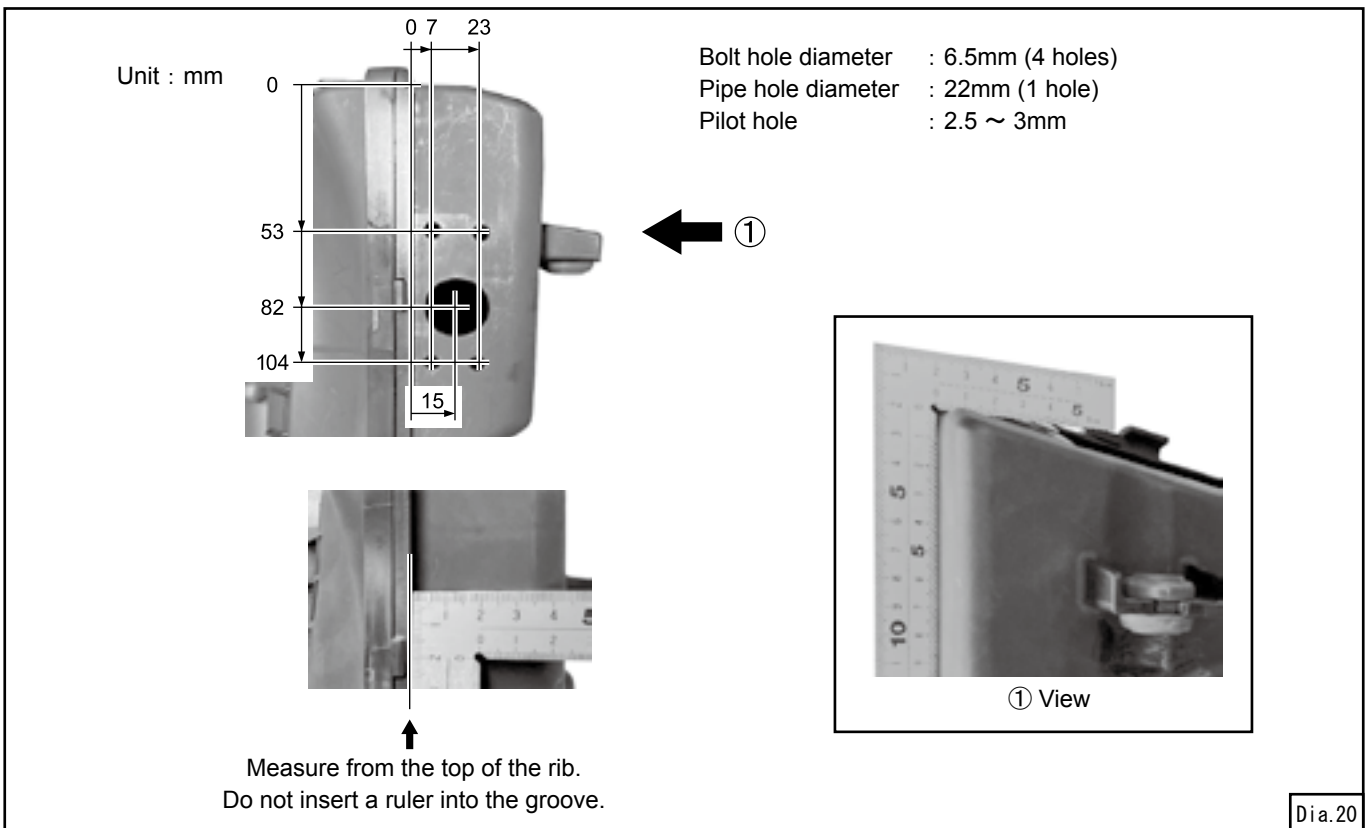


(19) Insert the flange adapter RH into the inside of the hole-drilled section and put it into the air cleaner case RH.
Attach the flange pipe RH so as to insert the air cleaner case RH. (Dia. 19)
(Tightening torque: 3.0 N-m {0.3 kgf-m})

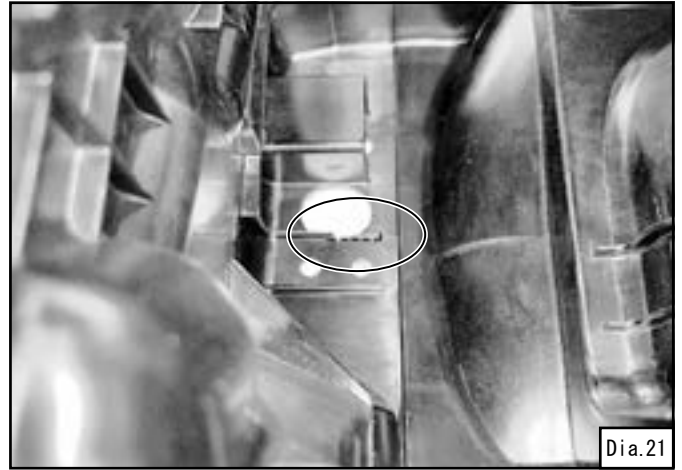


(20) Clean the inside of the air cleaner case RH with an air blow so as not to remain chips.

(21) Make holes in the air cleaner case LH. (Dia. 20)
Treat the cutting surface without burrs.

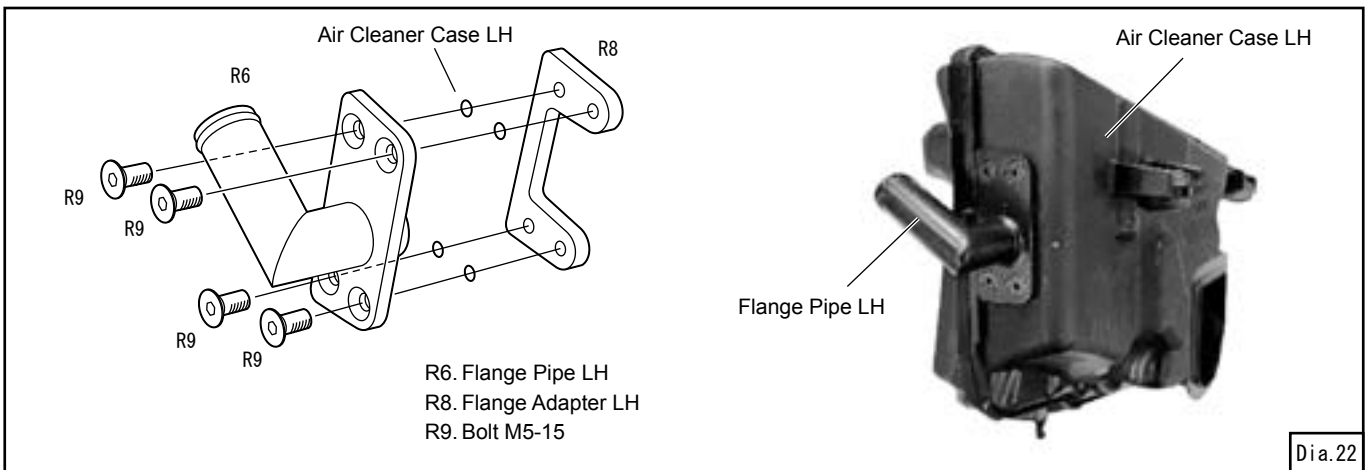


(22) Cut off the reinforcing rib around the hole inside of the air cleaner case LH. (Dia. 21)



Dia.21

(23) Insert the flange adapter LH into the inside of the hole-drilled section and put it into the air cleaner case LH. Attach the flange pipe LH so as to insert the air cleaner case LH. (Dia. 22)
(Tightening torque: 3.0 N-m {0.3 kgf-m})



Dia.22

(24) Clean the inside of the air cleaner case LH with an air blow so as not to remain chips.

(25) Install the recirculation fitting to the SSQV Assy RH and LH. (Dia.23)

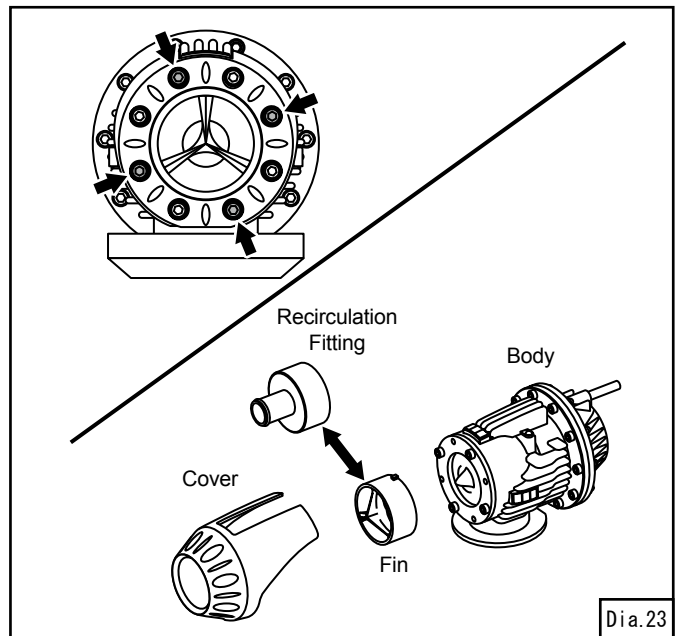
1. Remove 4 bolts (per diagram) and remove the cover.

⚠ CAUTION

Do not remove the remaining 4 bolts as they are to stay affixed to the SSQV main body.

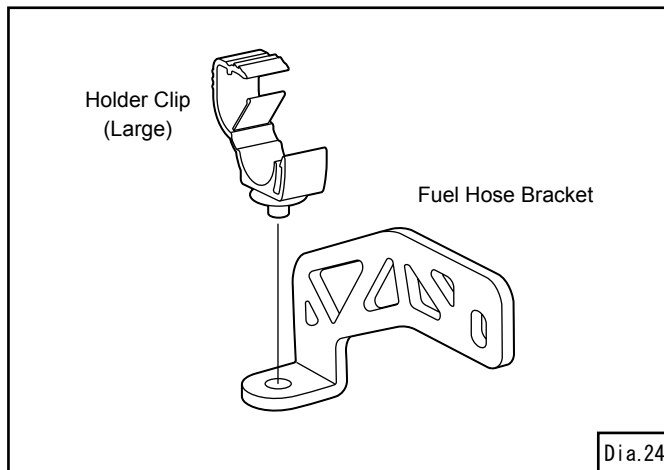
2. After removal of the cover, the fin can be removed.

3. Install the Recirculation Fitting. Reinstall the cover and retighten the 4 bolts.
(Tightening torque: 0.8 N-m {0.08 kgf-m})

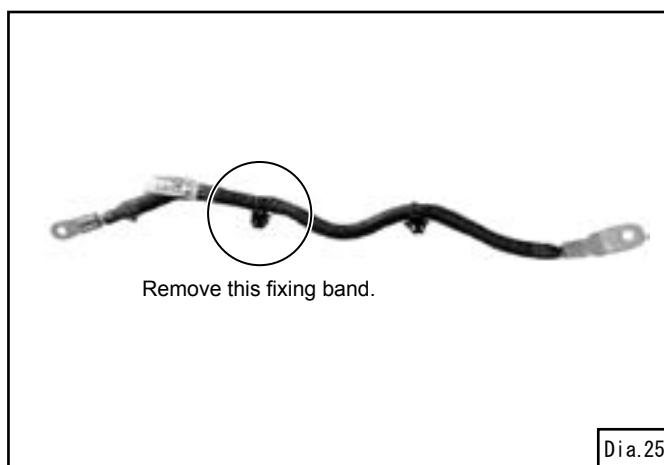


Dia.23

(26) Install the holder clip (Large) to the fuel hose bracket.
(Dia. 24)



(27) **RHD VEHICLE**
Remove one fixing band from the ground cable that was removed on page 9 (13). (Dia. 25)



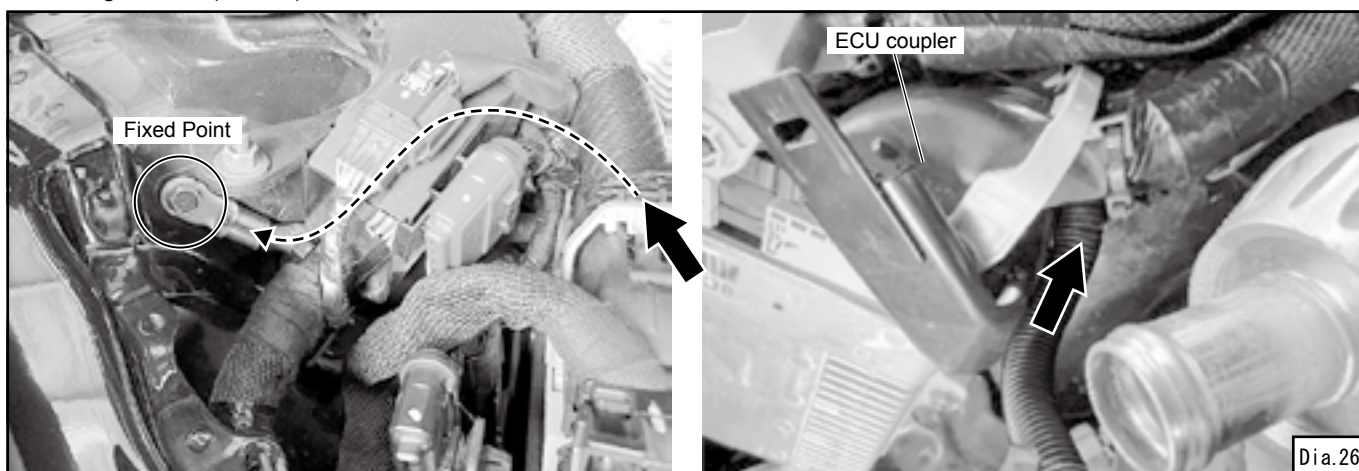
(28) Reinstall the ground cable using the factory bolt. (Dia. 26) (Tightening torque: 4.4N-m {0.44kgf-m})
The engine side is not secured at this point.

LHD VEHICLE

Reinstall it as before.

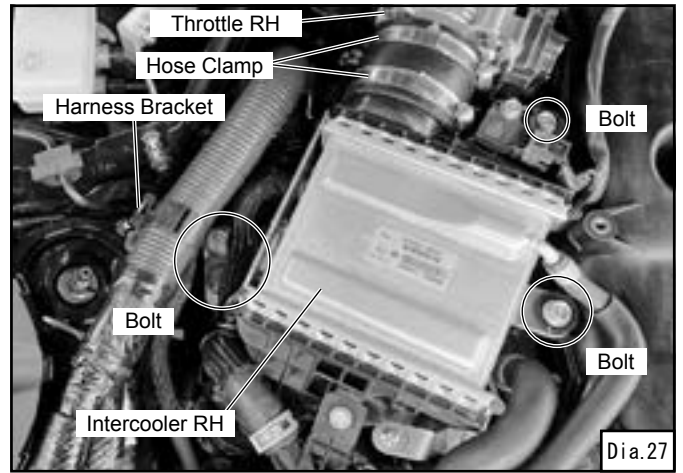
RHD VEHICLE

Pass the ground cable through the back of the ECU coupler and the bottom of each wire harness, and wire it as shown in diagram 26. (Dia. 26)

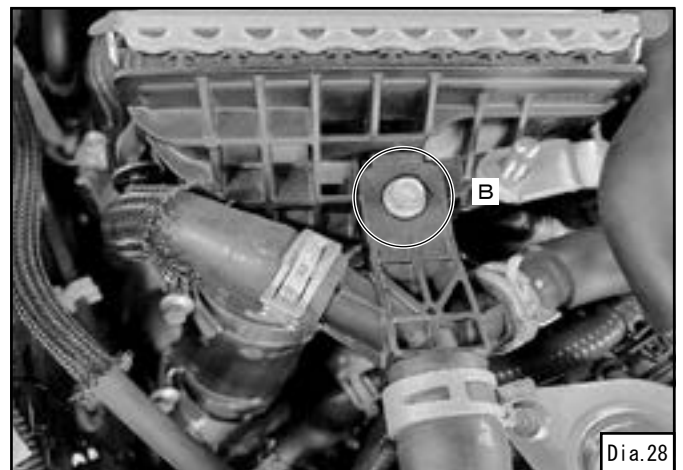


(29) Remove the bolts (4 pcs) securing the intercooler RH and loosen the hose clamp between the throttle RH. (Dia. 27)
(The bolts will be reused.)

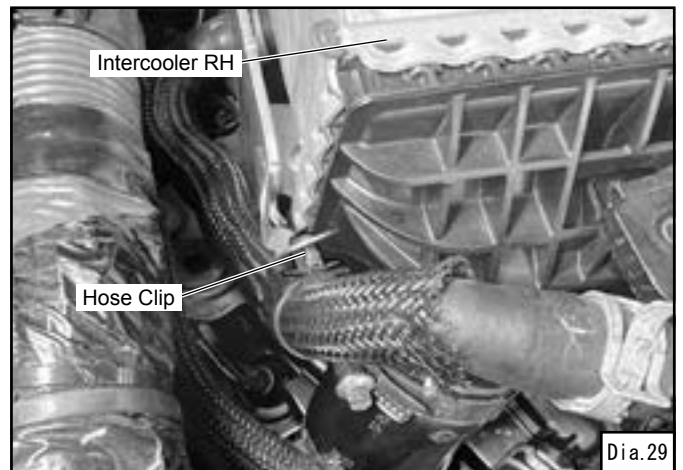
(30) Remove the bolt of harness bracket. (Dia. 27)
(The bolt will be reused.)



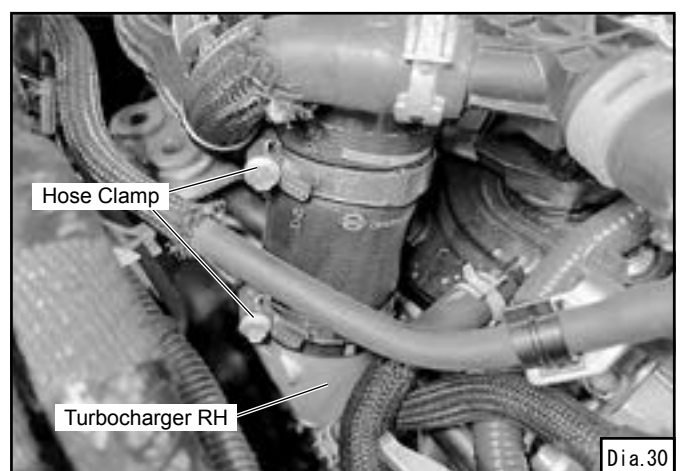
(31) Remove the bolt of section "B". (Dia. 28)
(The bolt will be not reused.)



(32) Remove the hose clip from intercooler RH. (Dia. 29)



(33) Loosen the hose clamp between the intercooler RH and the turbocharger RH. (Dia. 30)

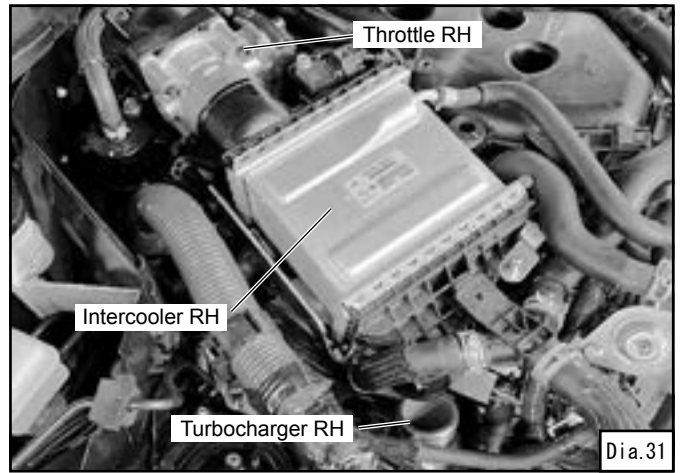


(34) Hold up the intercooler RH and remove the hose between it and the throttle RH. (Dia. 31)
 (The hose and hose clamps will be reused.)
 It is not necessary to remove the intercooler RH from the vehicle.

(35) Remove the hose between the intercooler RH and the turbocharger RH. (Dia. 30, 31)
 (The hose and hose clamps will be not reused.)

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.

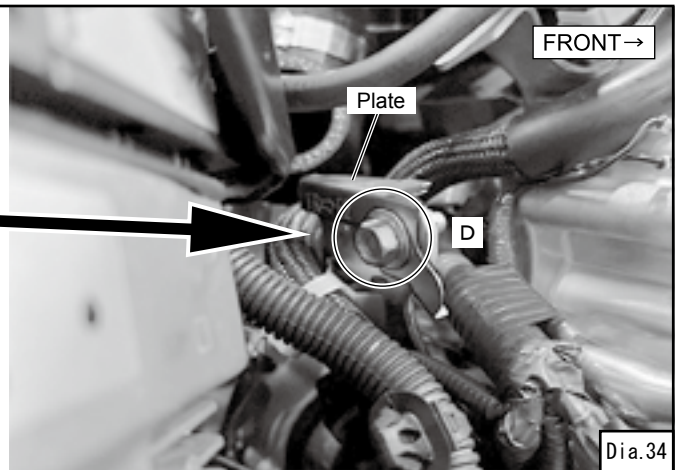
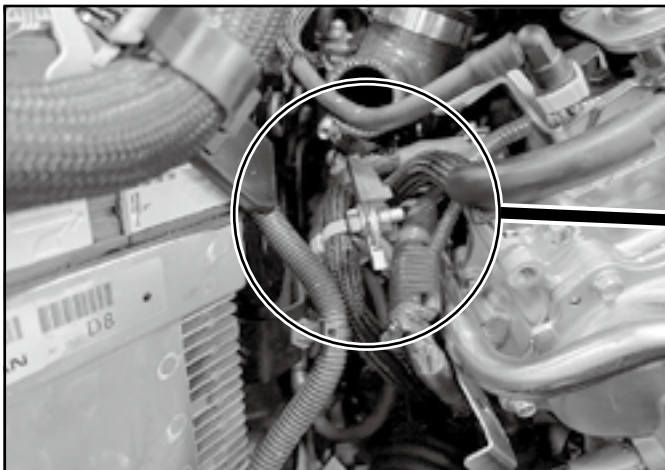
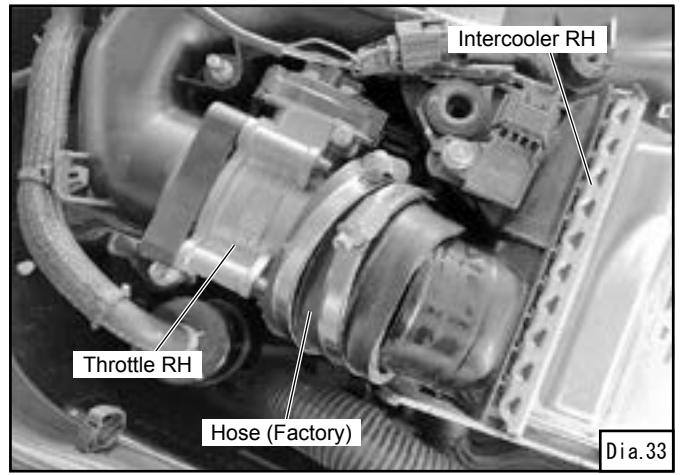


(36) Temporarily install the SSQV hose between the intercooler RH and the turbocharger RH.
 Make sure that hose clamp #36 is oriented as shown in diagram 32. (Dia. 32)

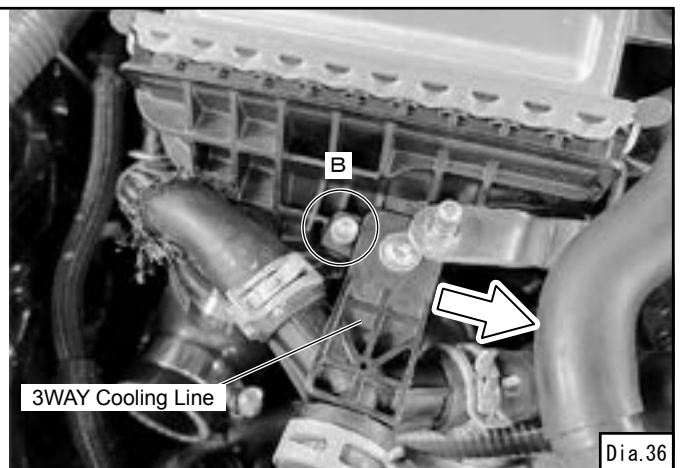
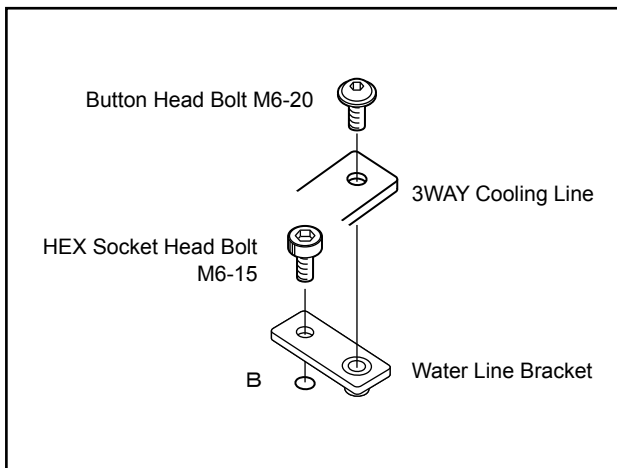
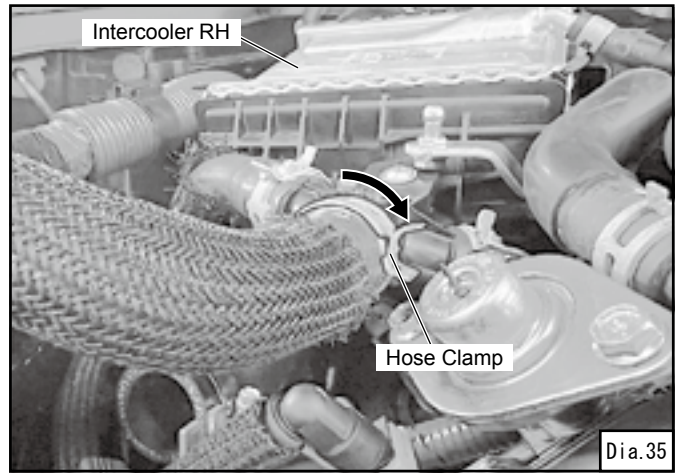
The direction of the branch of the SSQV hose should be in a straight line from point "C" of intercooler RH to the center of the hose.

Dia.32

- (37) Install the factory hose between intercooler RH and throttle RH to the original position. (Dia. 33)
The engraved Δ mark should be on the throttle RH side and facing upward.
- (38) Install the intercooler RH to the original position with the factory bolts (4 pcs) while checking the installation condition of the hose.
(Tightening torque: 24 N-m {2.4 kgf-m})
- (39) Secure the hose clamps.
- (40) Remove the bolt to remove the plate. (Dia. 34)
(The bolt and plate will be not reused.)



- (41) Change the orientation of the tab of the factory hose clamp as in diagram 35. (Dia. 35)
- (42) Shift the 3WAY cooling line in the direction of the arrow in diagram 36. Attach it to section "B" via the water line bracket. (Dia. 36)
(Tightening torque: 9.0 N-m {0.9 kgf-m})

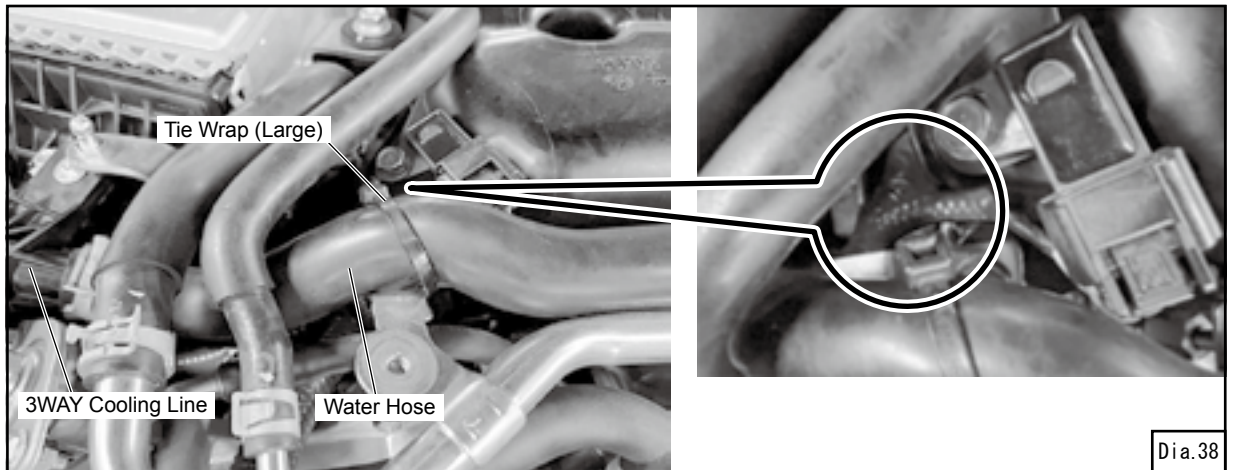
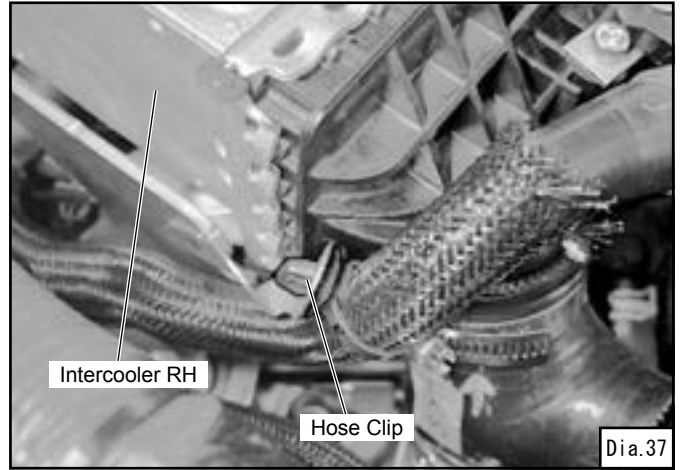


(43) Install the hose clip to the intercooler RH. (Dia. 37)

(44) The water hose will float due to shifting the 3WAY cooling line. Fix it with the tie wrap (Large). (Dia. 38)

ADVICE:

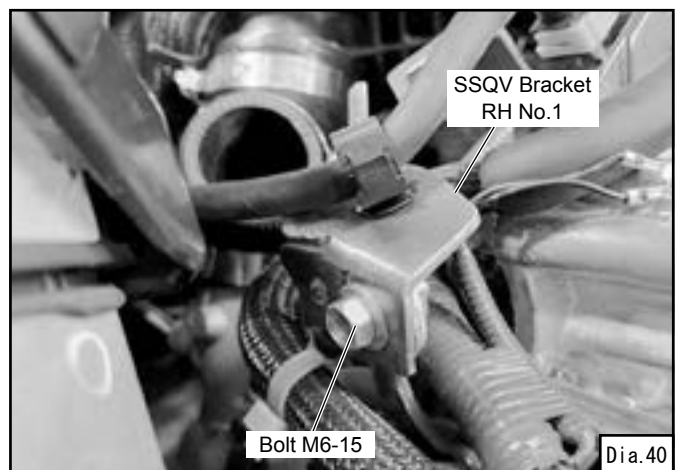
Be careful not to get the wiring at the bottom involved when fixing the tie wrap.



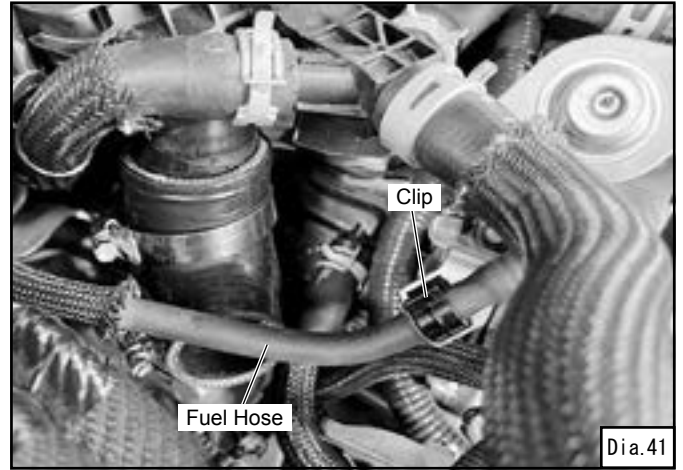
(45) Install the holder clip (Large) to the SSQV bracket RH No.1. (Dia. 39)



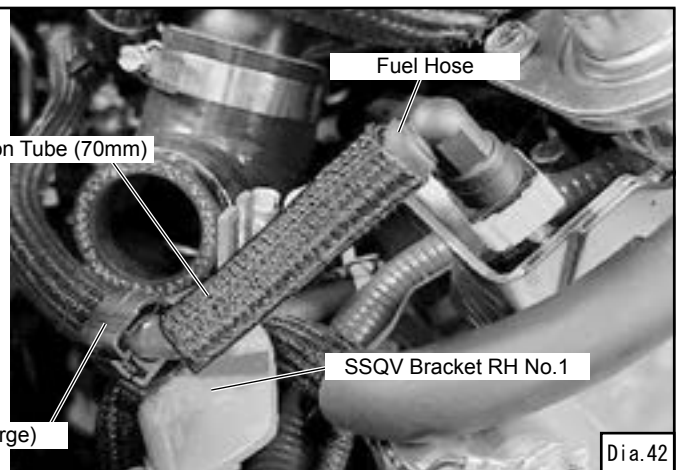
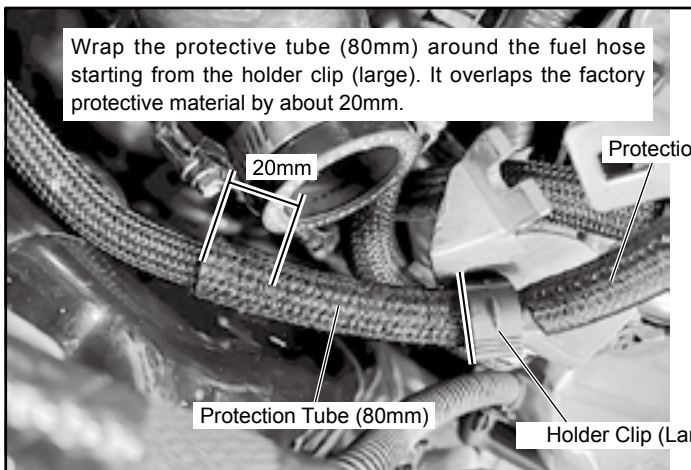
(46) Install the SSQV bracket RH No.1 to section "D" using the supplied bolt M6-15. (Dia. 40)



(47) Remove the fuel hose from the clip and remove the clip from the vehicle. (Dia. 41)

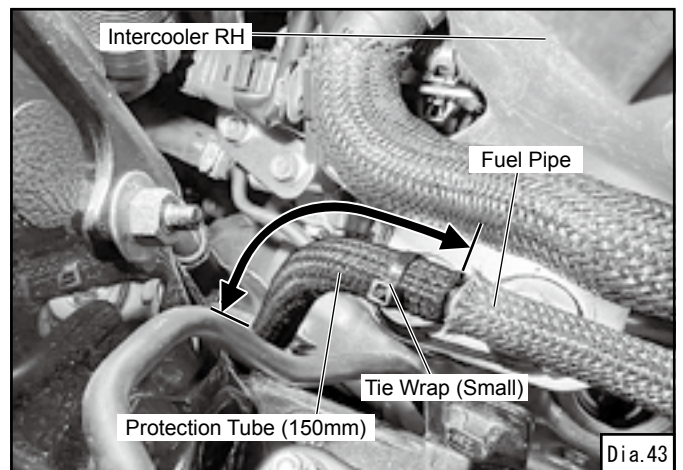


(48) Secure the fuel hose with holder clip (Large), and wrap the protection tube (70mm and 80mm) to the fuel hose. (Dia. 42)

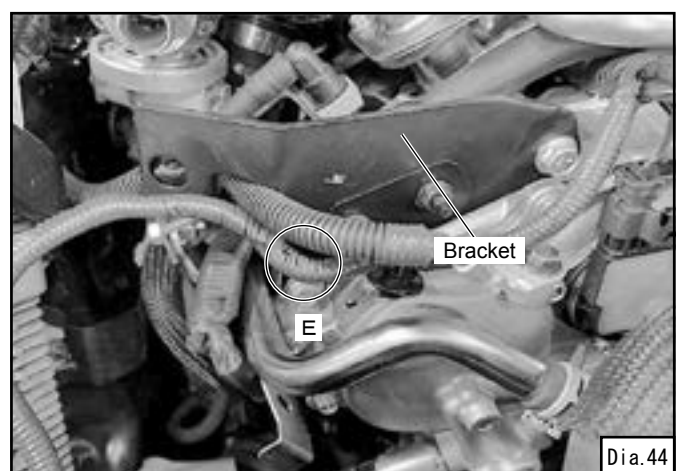


(49) Wrap the protection tube (150mm) to the fuel pipe and secure with tie wrap (Small). (Dia. 43)

(50) Rotate the tie wrap (Small) cutting surface to the underside of the vehicle after cutting the excess part of the tie wrap (Small).

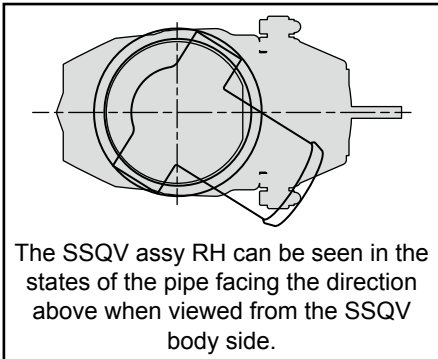
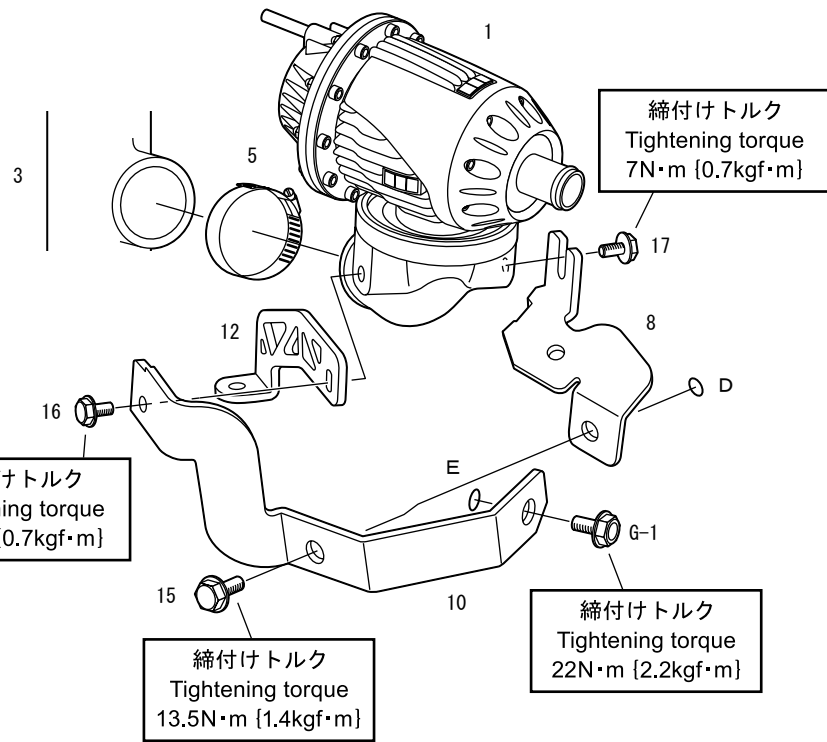


(51) Temporarily install the factory bracket cut in step (15). It is not necessary to install factory bolt of "E" at this stage. (Dia. 44)

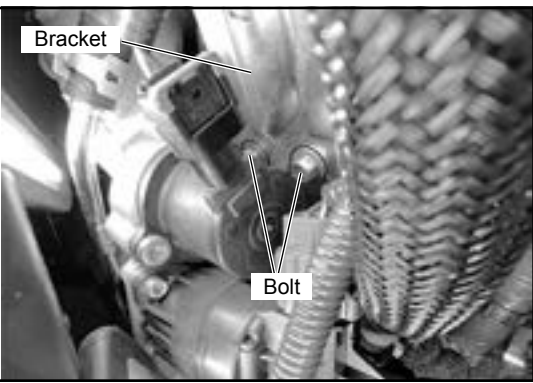


(52) Temporarily install the SSQV assy RH to the SSQV hose using hose clamp #20. (Dia. 45)

- 1. SSQV Assy RH
- 3. SSQV Hose
- 5. Hose Clamp #20
- 8. SSQV Bracket RH No.1
- 10. SSQV Bracket RH No.2
- 12. Fuel Hose Bracket
- 15. Bolt M8-20
- 16. Bolt M6-15
- 17. Bolt M6-12
- G-1. Bolt (Factory · E)



If the hole positions in section “D” and “E” do not match, loosen the bolts (2 pcs) at the engine side of the bracket where section “D” is located and adjust the position. Tighten the bolts after adjustment. (Tightening torque: 28.0 N-m {2.9 kgf-m})

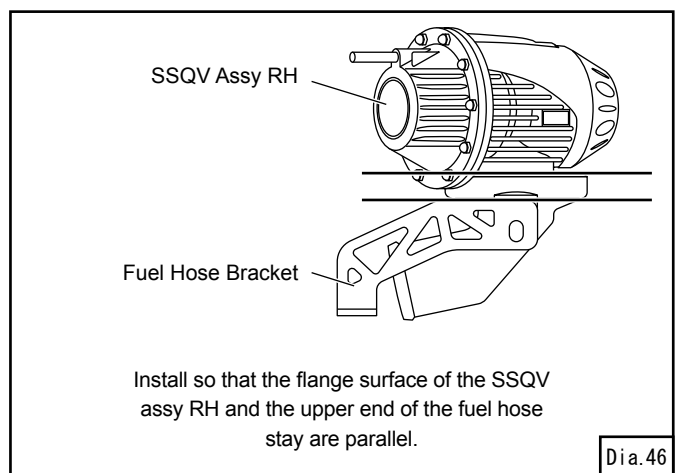


⚠ CAUTION

The bolts is tightened firmly. Be careful not to damage the bolt head when loosening.

Dia.45

(53) Temporarily install the SSQV bracket RH No.2 and the fuel hose bracket. (Dia. 45, 46)

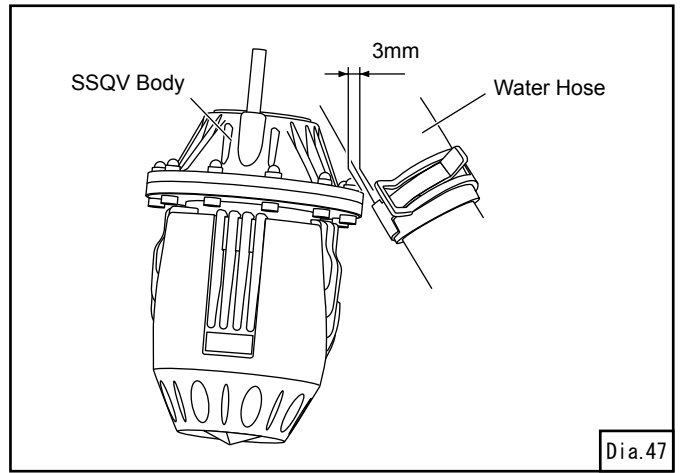


Dia.46

- (54) Position the SSQV assy RH and brackets where it does not come into contact with any other components. Tighten all hose clamps, bolt and nut to secure the SSQV assy RH. (Dia. 45)
 Ensure a distance of at least 3mm between the SSQV body and the water hose. (Dia. 47)

ADVICE:

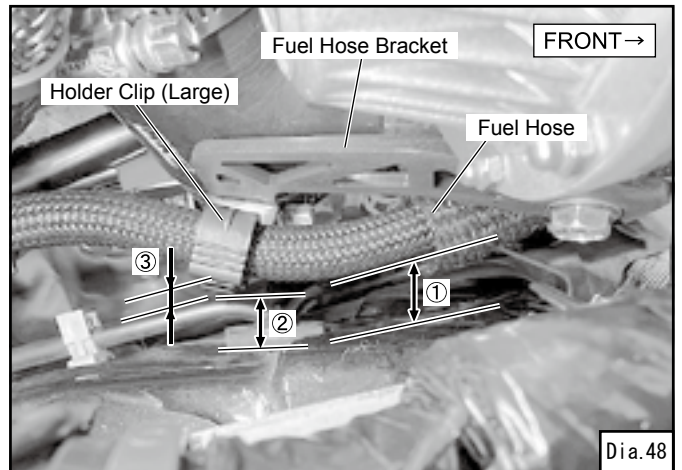
You can also adjust the installation angle of the water line bracket installed in (42).



- (55) Secure the fuel hose with the holder clip (Large) attached to the fuel hose bracket. (Dia. 48)

Recommended intervals for each part

- ① : Fuel hose - vehicle body 10mm
- ② : Holder clip (Large) - vehicle body 15mm
- ③ : Holder clip (Large) - brake piping 15mm

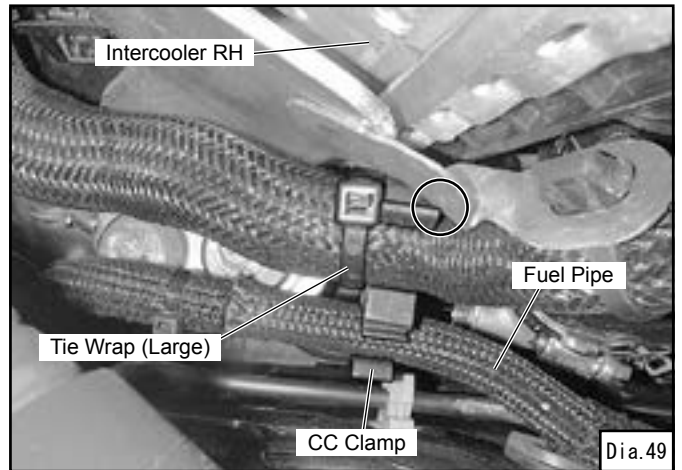


- (56) Install the CC clamp to the hose under the intercooler RH, and secure the fuel pipe with the other end. See diagram 49 for orientation and location. (Dia. 49)

ADVICE:

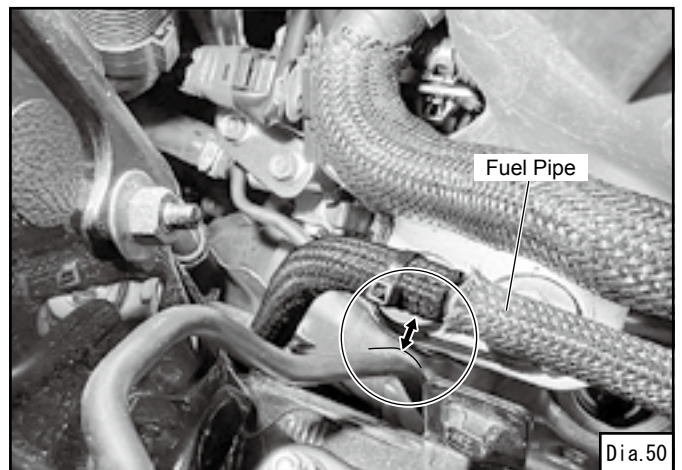
Orient the tab of the CC clamp which prevents rotation to the circle position in diagram 49.

- (57) Attach the tie wrap (Large) to the hose to prevent the CC clamp from shifting. (Dia. 49)



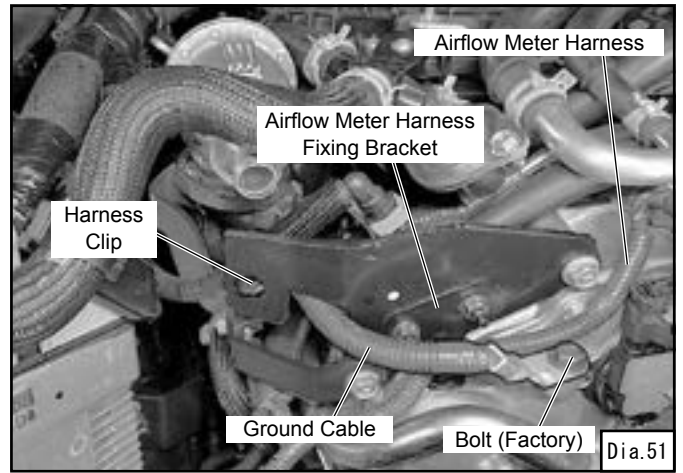
⚠ CAUTION

Adjust the fuel pipe so that the distance between the arrows in diagram 50 is at least 15 mm.
 Make sure that the fuel pipe does not come into contact with anything else.
 There is a risk of fire due to fuel pipe damage.



(58) Install the ground cable using the factory bolt and secure with the harness clip. (Dia. 51)
(Tightening torque: 13.5 N-m {1.4 kgf-m})

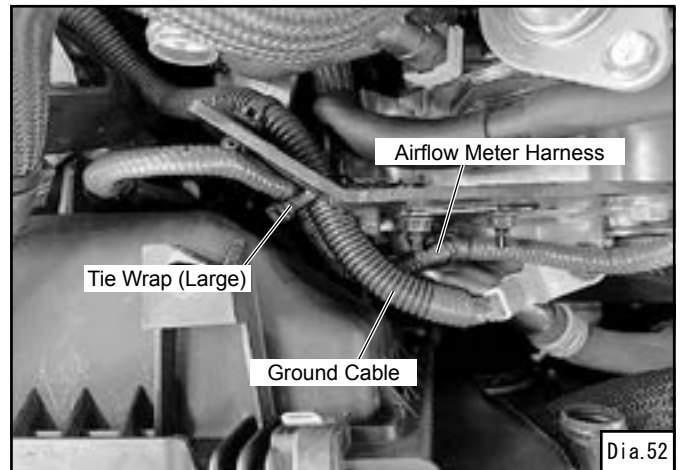
(59) Secure the airflow meter harness clip to the air flow meter harness fixing bracket. (Dia. 51)



(60) Route the airflow meter harness under the ground cable. (Dia. 52)

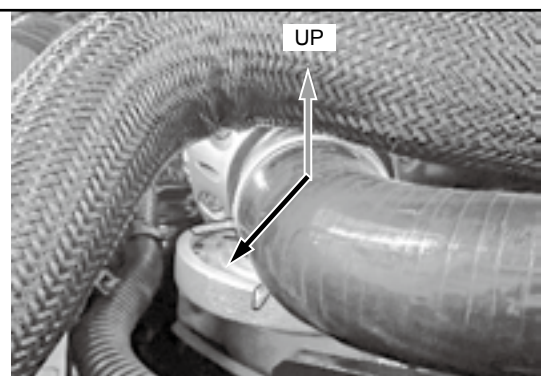
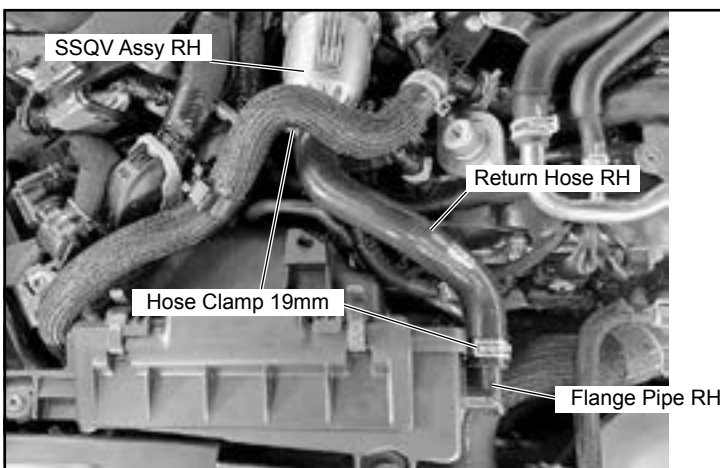
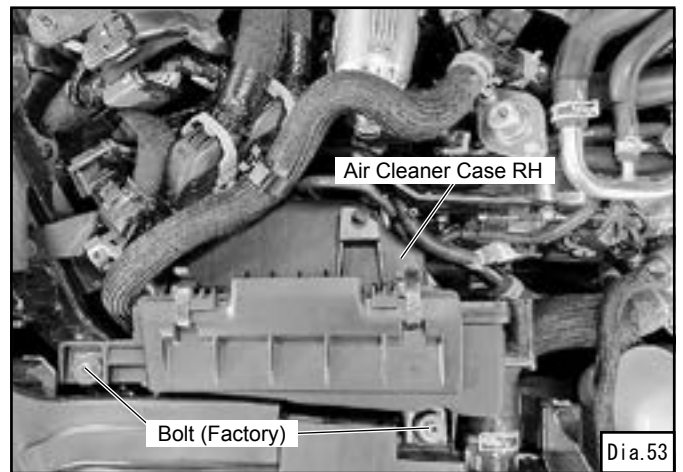
(61) Reconnect the airflow meter sensor connector and install the air cleaner case RH to the suction hose. Make sure that the lock ring on the suction hose is securely secured.

(62) Secure the airflow meter harness to the ground cable using tie wrap (Large). (Dia. 52)



(63) Secure the air cleaner case RH using factory bolts. (Tightening torque: 5.5 N-m {0.55 kgf-m}) (Dia. 53)

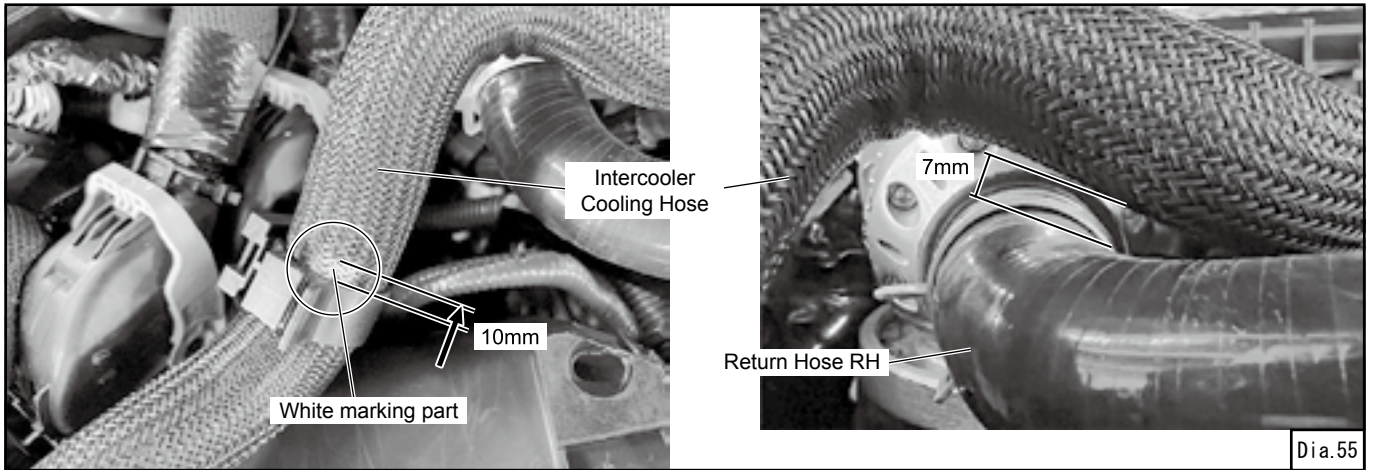
(64) Install the return hose RH using 19mm hose clamp. (Dia. 54)



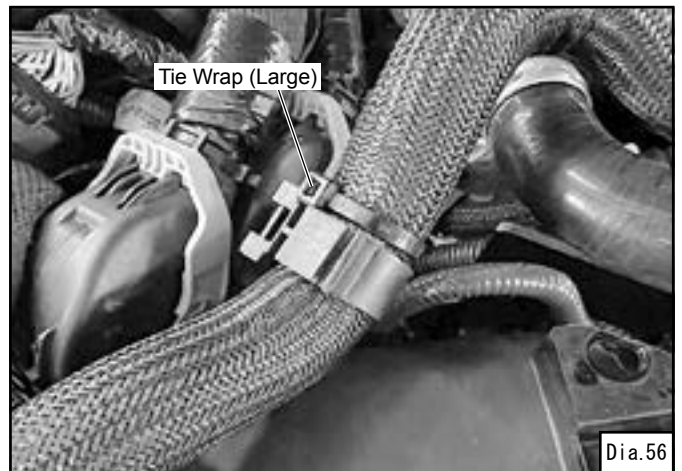
Orient the tab of the hose clamp 19mm on the SSQV assy side as shown in the above.

Dia.54

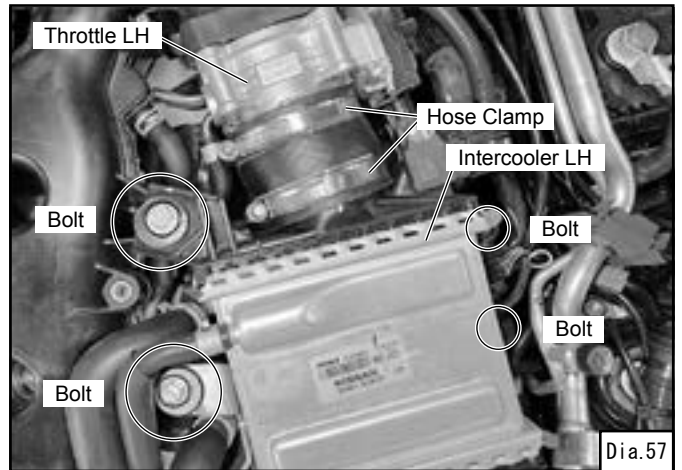
(65) Pull out the white marking part around 10 mm from the fixed position of the intercooler cooling hose.
Secure the distance of around 7 mm with the return hose RH. (Dia. 55)



(66) Attach the tie wrap (Large) to the hose to prevent the hose from shifting. (Dia. 56)

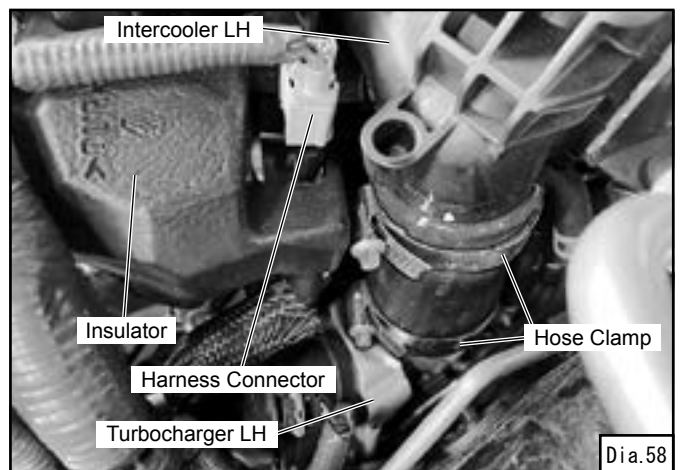


(67) Remove the bolts (4 pcs) securing the intercooler LH and loosen the hose clamp between the throttle RH. (Dia. 57)
(The bolts will be reused.)

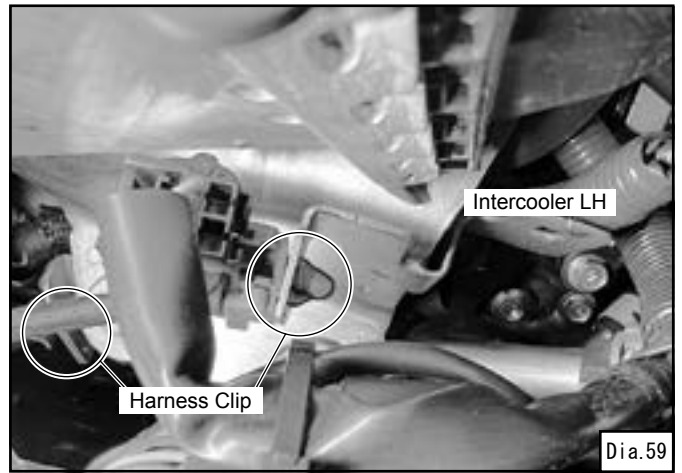


(68) Loosen the hose clamp between the intercooler LH and the turbocharger LH. (Dia. 58)

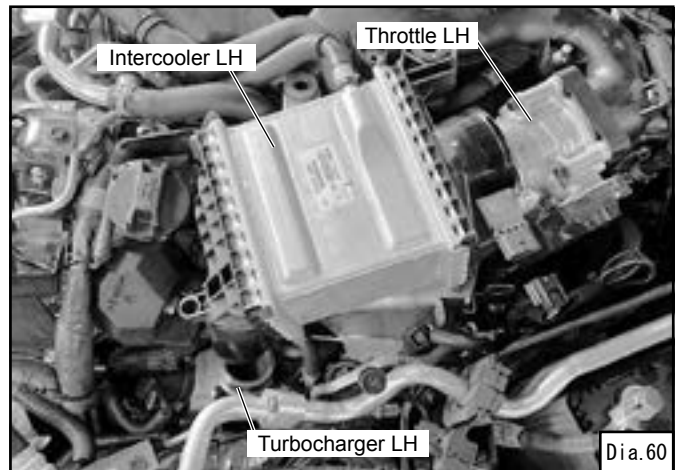
(69) Remove the harness connector shown in diagram 58 and remove the insulator. (Dia. 58)
(The insulator will be reused.)



(70) Remove the harness clip from the fixing point below the intercooler LH. (Dia. 59)



(71) Hold up the intercooler LH and remove the hose between it and the throttle LH. (Dia. 60)
 (The hose and hose clamps will be reused.)
 It is not necessary to remove the intercooler LH from the vehicle.

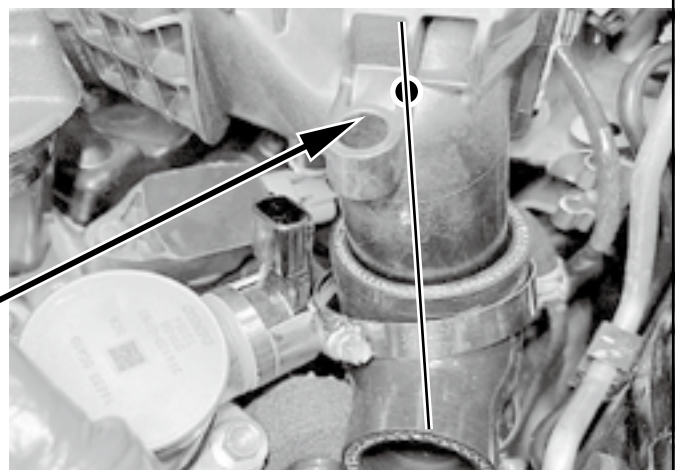
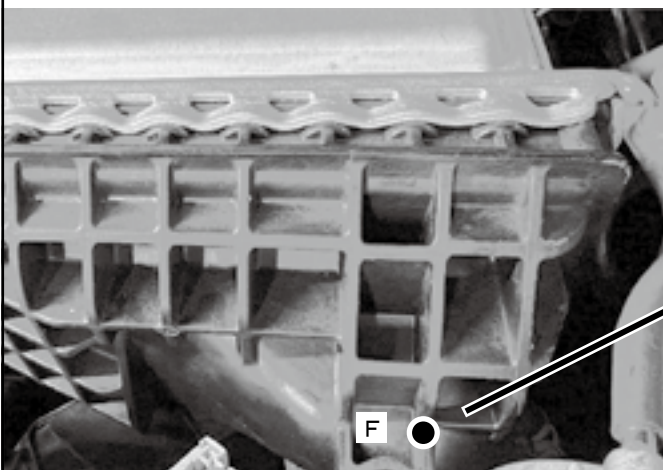
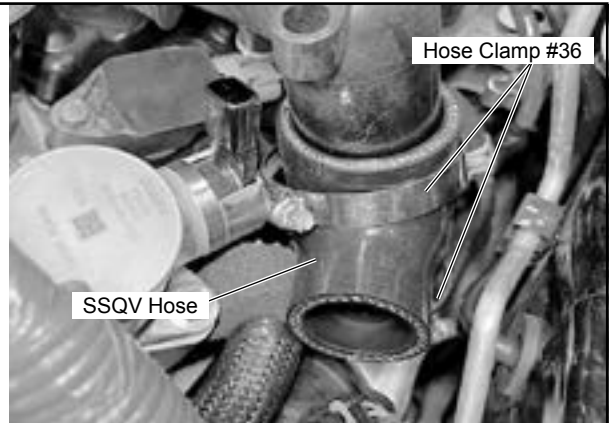
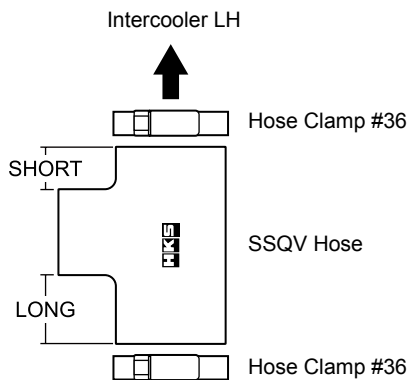


(72) Remove the hose between the intercooler LH and the turbocharger LH. (Dia. 58, 60)
 (The hose and hose clamps will be not reused.)

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.

(73) Temporarily install the SSQV hose between the intercooler LH and the turbocharger LH. (Dia. 61)



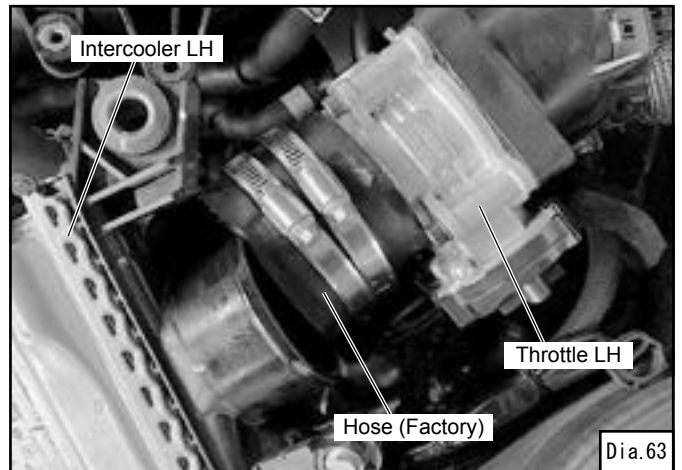
The direction of the branch of the SSQV hose should be in a straight line from point "F" of intercooler LH to the center of the hose.

Dia. 61

- (74) Degrease the surface where the sponge tape is to be adhered to, and cut a piece of sponge tape to 80mm and attach it to the end of the factory protective mesh. (Dia. 62)



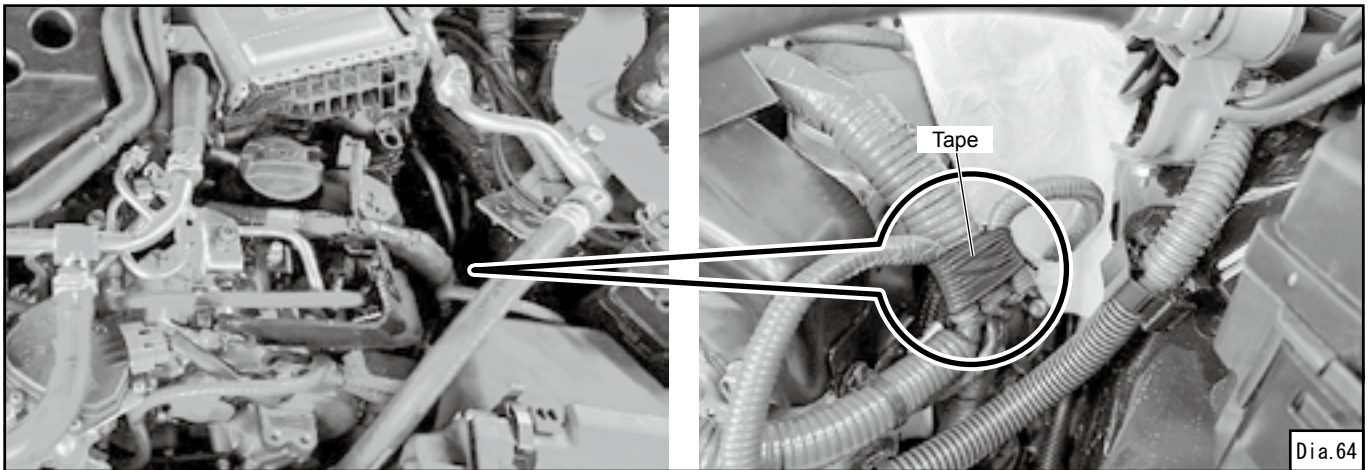
- (75) Install the factory hose between intercooler LH and throttle LH to the original position. (Dia. 63)
The engraved Δ mark should be on the throttle LH side and facing upward.



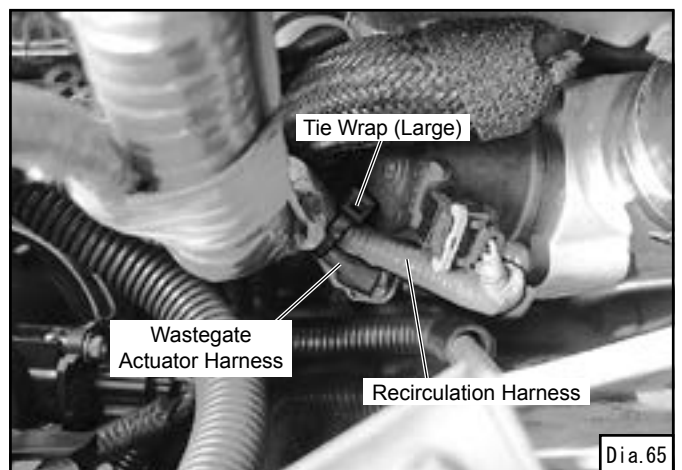
- (76) Install the intercooler LH to the original position with the factory bolts (4 pcs) while checking the installation condition of the hose.
(Tightening torque: 24 N-m {2.4 kgf-m})

- (77) Secure the hose clamps.

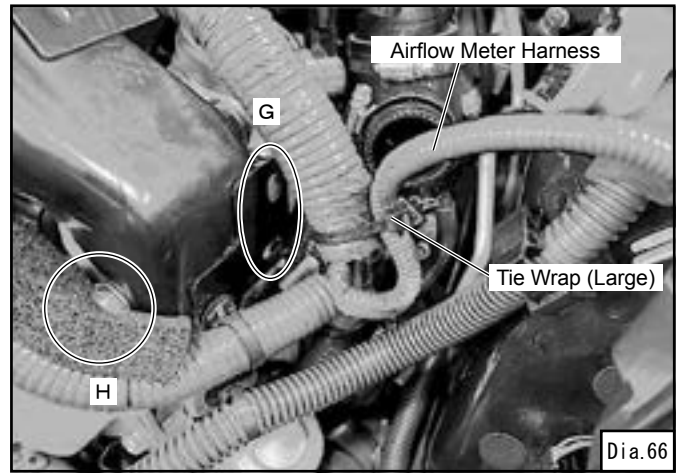
- (78) Remove the tape binding the harness. (Dia. 64)



- (79) Lay the recirculation harness as in diagram 65, passing it through the inside of the wastegate actuator harness, then fix it with the tie wrap (Large). (Dia. 65)

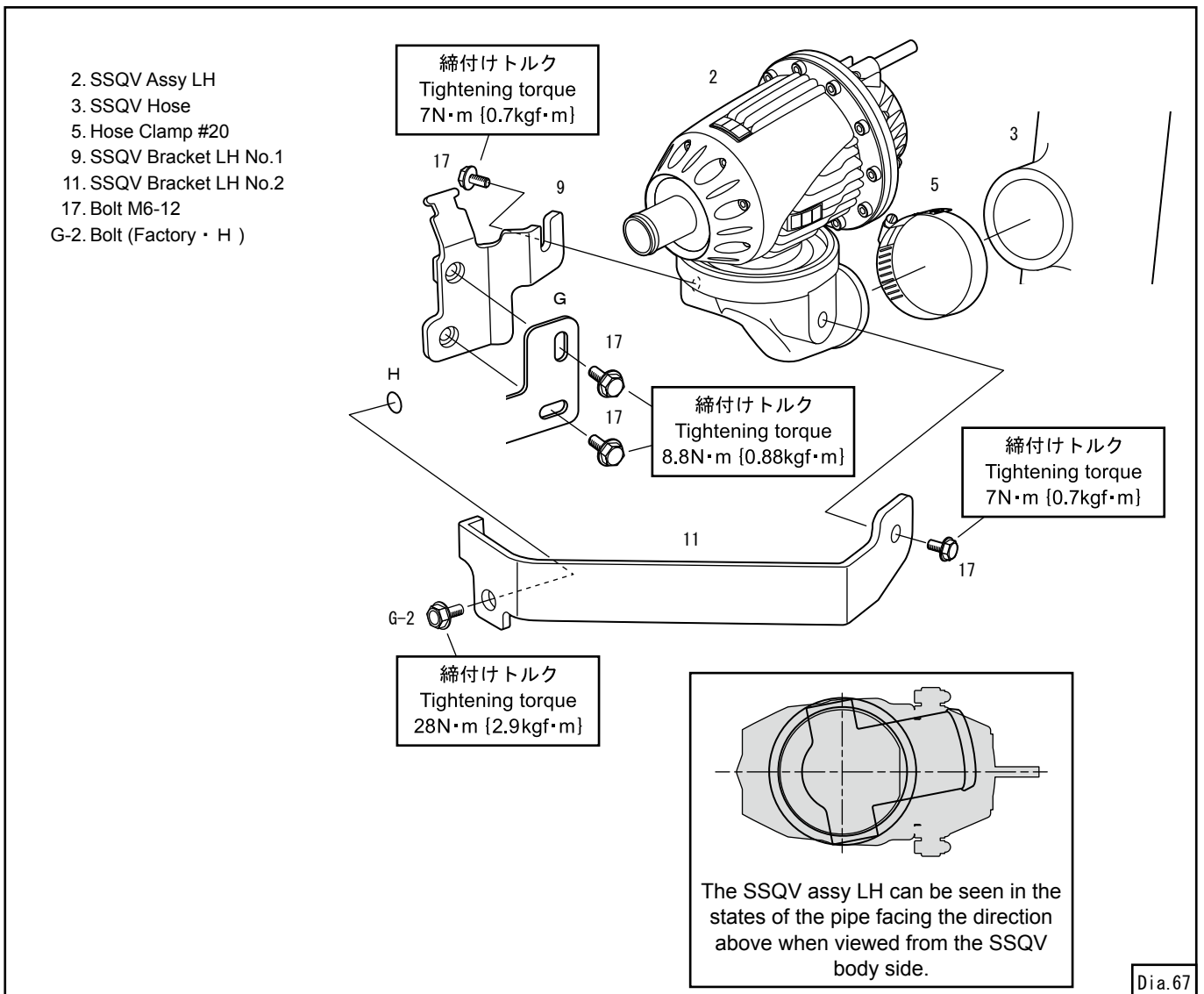


(80) Lay the airflow meter harness as shown in diagram 66, then fix it with a tie wrap (Large). (Dia. 66)

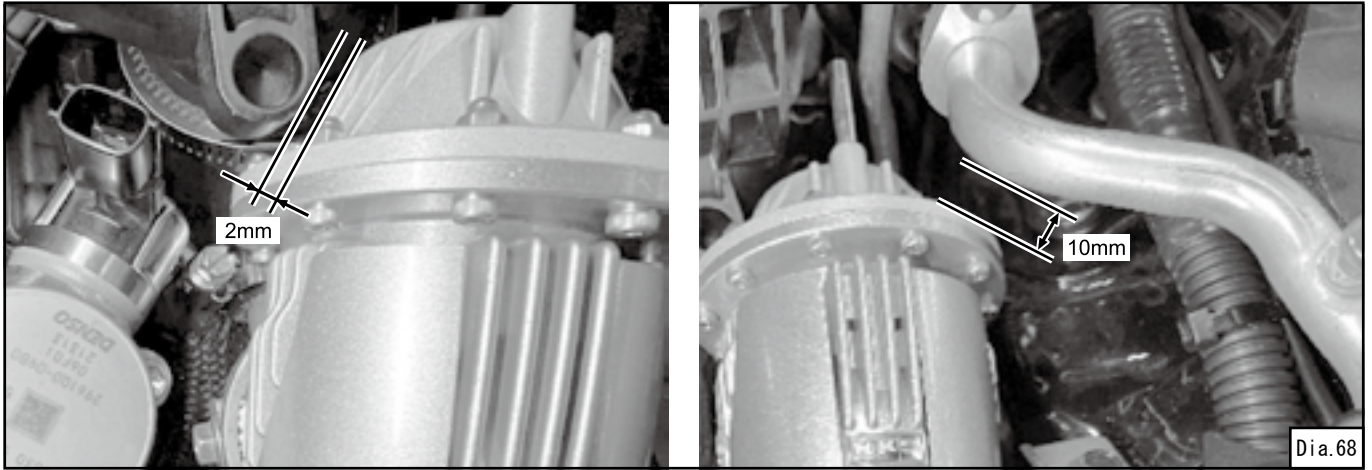


(81) Temporarily install the SSQV assy LH to the SSQV hose using hose clamp #20. (Dia. 67)

(82) Temporarily install the SSQV bracket LH No.1 to section "G" and the SSQV bracket LH No.2 to section "H". (Dia. 66, 67)

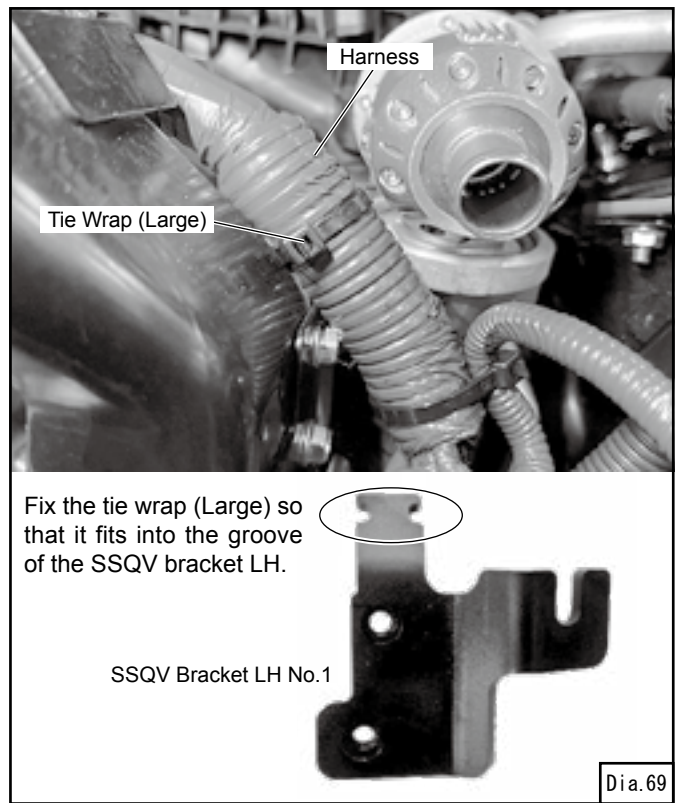


(83) Position the SSQV assy LH and brackets where it does not come into contact with any other components. Tighten all hose clamps, bolt and nut to secure the SSQV assy LH. (Dia. 67)
 Ensure the distance between the SSQV body and vehicle as shown in diagram 68. (Dia. 68)



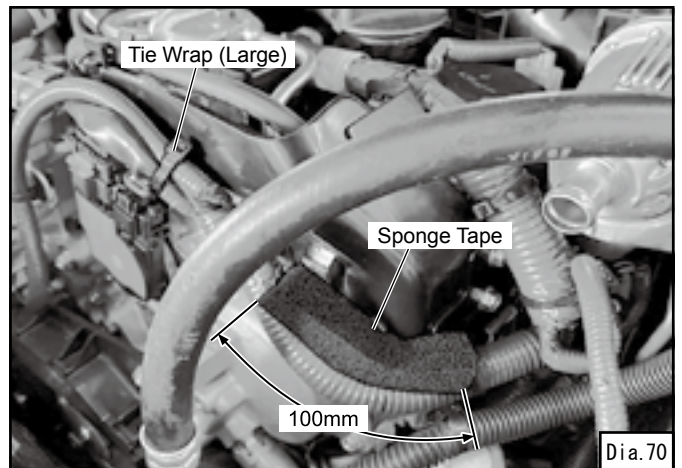
(84) Secure the factory harness to the SSQV bracket LH No.1 using tie wrap (Large). (Dia. 69)

(85) Reinstall the insulator, harness connectors, and harness clips.

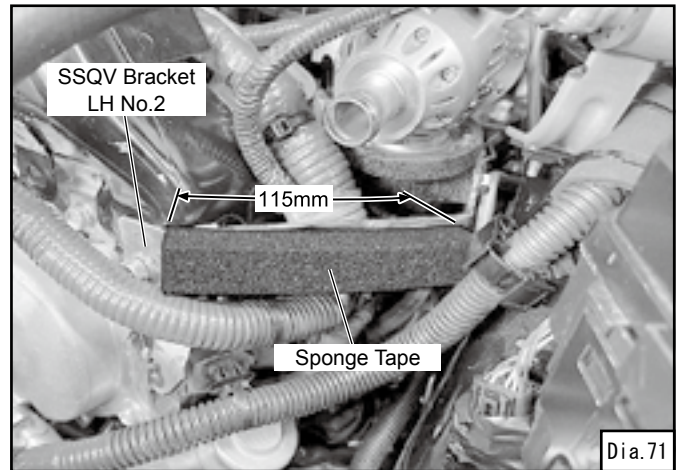


(86) Degrease the surface where the sponge tape is to be adhered to, and attach the sponge tape. (Dia. 70)

(87) Secure the factory harness using tie wrap (Large). (Dia. 70)

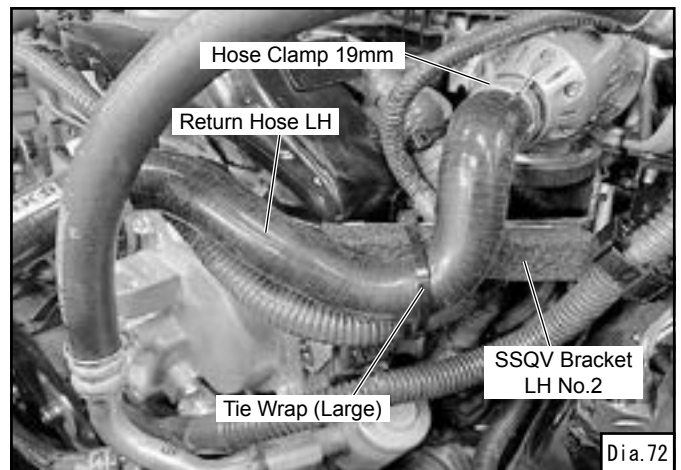


(88) Degrease the surface where the sponge tape is to be adhered to, and attach the sponge tape to the SSQV bracket LH No.2. (Dia. 71)



(89) Temporarily install the return hose LH using hose clamp 19mm. (Dia. 72)

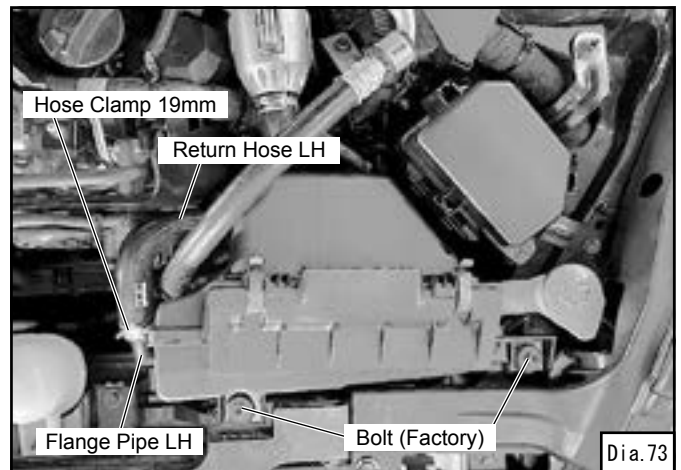
(90) Secure the return hose LH to the SSQV bracket LH No.2 with tie wrap (Large). (Dia. 72)



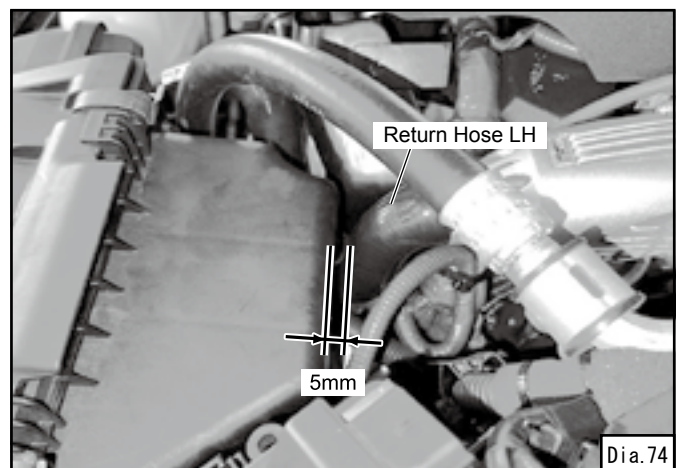
(91) Reconnect the airflow meter sensor connector and install the air cleaner case LH to the suction hose. Make sure that the lock ring on the suction hose is securely secured.

(92) Secure the air cleaner case LH using factory bolts. (Tightening torque: 5.5 N-m {0.55 kgf-m}) (Dia. 73)

(93) Install the return hose LH using hose clamp 19mm. (Dia. 73)

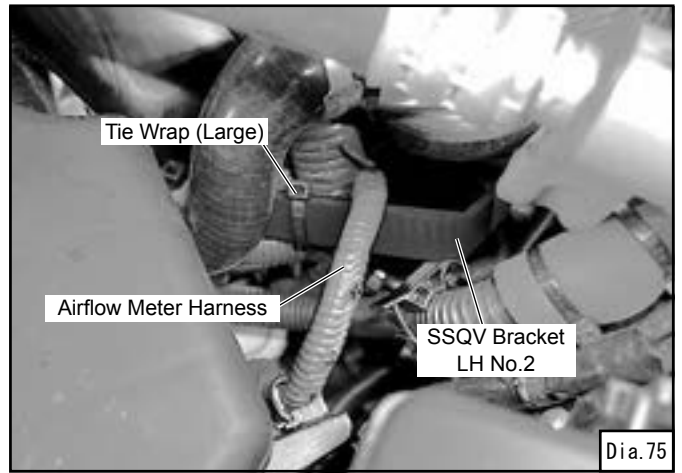


(94) Adjust the installation so that the distance between the air cleaner case LH and return hose LH is 5 mm or more. (Dia. 74)



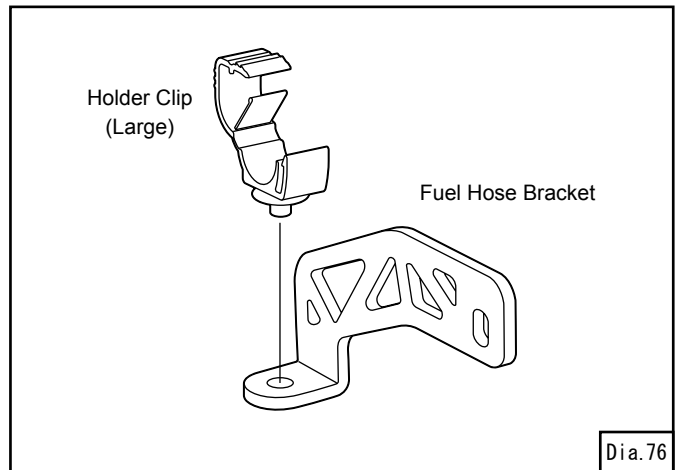
- (95) Secure the airflow meter harness to the SSQV bracket LH No. 2 using the tie wrap (Large). (Dia. 75)
 Make sure to secure the air flow meter harness with plenty of room to avoid applying excessive force.

After completing the preceding steps, please proceed to [3.Installing piping for SSQV operation] on Page 42.

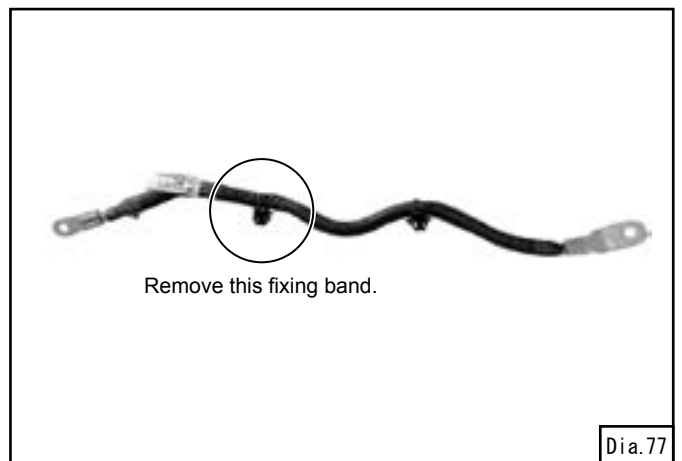


When releasing the air from the SSQV to the atmosphere
 (Installation of Super SQV IV kit: 71008-KN030)

- (14) Install the holder clip (Large) to the fuel hose bracket.
 (Dia. 76)



- (15) RHD VEHICLE
 Remove one fixing band from the ground cable that was removed on page 9 (13). (Dia. 77)



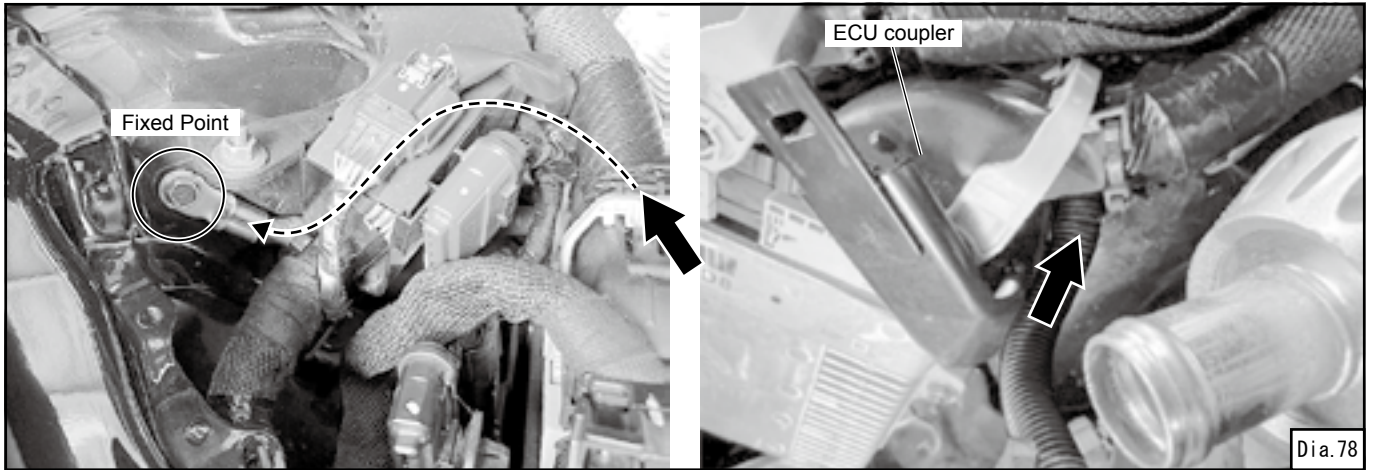
- (16) Reinstall the ground cable using the factory bolt. (Dia. 78) (Tightening torque: 4.4N-m {0.44 kgf-m})
The engine side is not secured at this point.

LHD VEHICLE

Reinstall it as before.

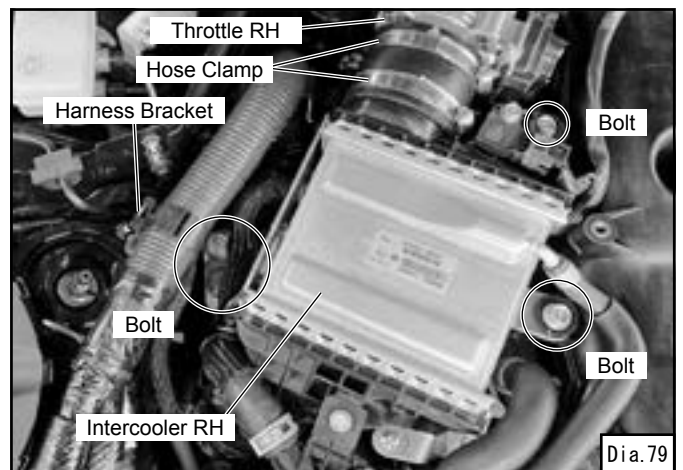
RHD VEHICLE

Pass the ground cable through the back of the ECU coupler and the bottom of each wire harness, and wire it as shown in diagram 78. (Dia. 78)

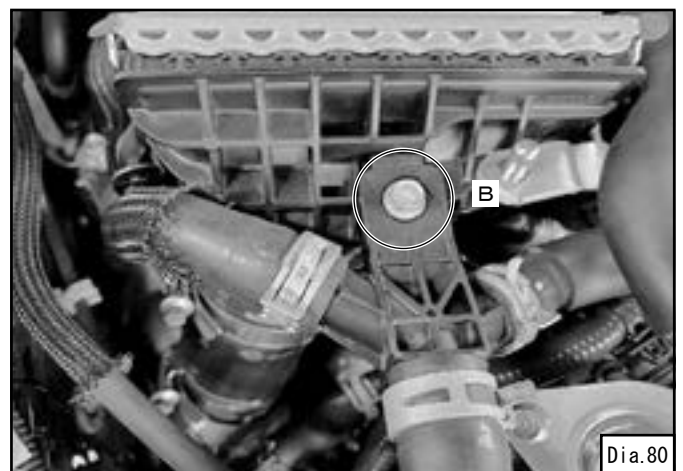


- (17) Remove the bolts (4 pcs) securing the intercooler RH and loosen the hose clamp between the throttle RH. (Dia. 79)
(The bolts will be reused.)

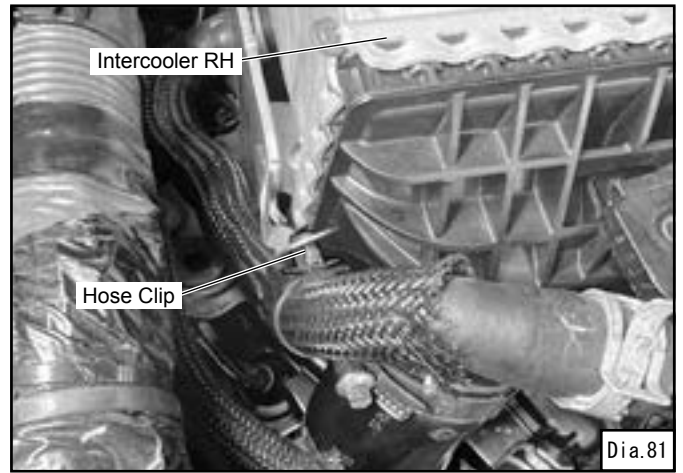
- (18) Remove the bolt of harness bracket. (Dia. 79)
(The bolt will be reused.)



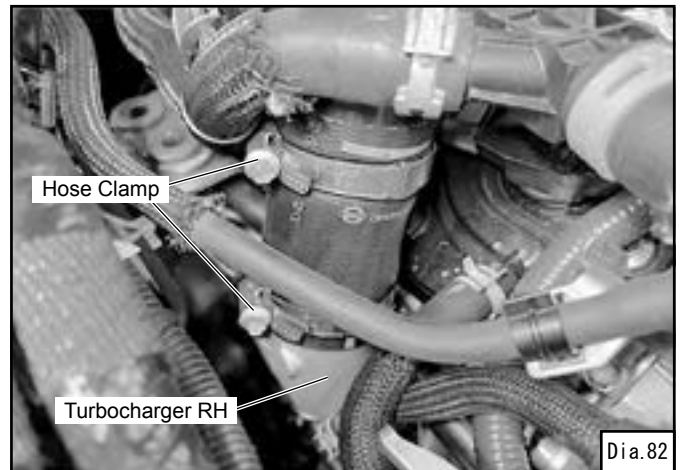
- (19) Remove the bolt of section "B". (Dia. 80)
(The bolt will be not reused.)



(20) Remove the hose clip from intercooler RH. (Dia. 81)



(21) Loosen the hose clamp between the intercooler RH and the turbocharger RH. (Dia. 82)

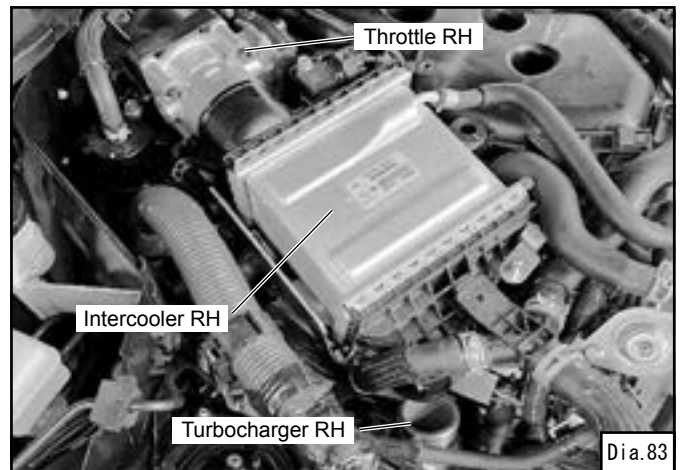


(22) Hold up the intercooler RH and remove the hose between it and the throttle RH. (Dia. 83)
(The hose and hose clamps will be reused.)
It is not necessary to remove the intercooler RH from the vehicle.

(23) Remove the hose between the intercooler RH and the turbocharger RH. (Dia. 82, 83)
(The hose and hose clamps will be not reused.)

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.



(24) Temporarily install the SSQV hose between the intercooler RH and the turbocharger RH.
 Make sure that hose clamp #36 is oriented as shown in diagram 84. (Dia. 84)

The direction of the branch of the SSQV hose should be in a straight line from point "C" of intercooler RH to the center of the hose.

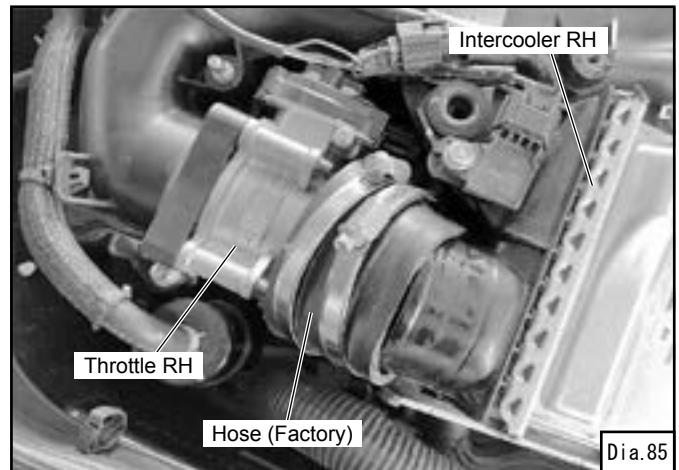
Dia. 84

(25) Install the factory hose between intercooler RH and throttle RH to the original position. (Dia. 85)

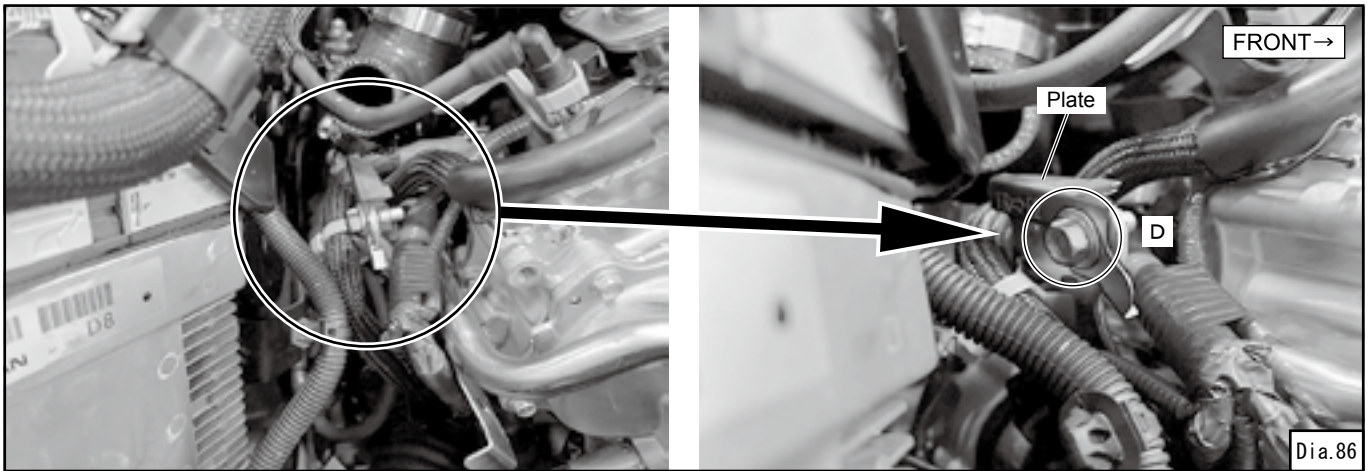
The engraved Δ mark should be on the throttle RH side and facing upward.

(26) Install the intercooler RH to the original position with the factory bolts (4 pcs) while checking the installation condition of the hose.
 (Tightening torque: 24 N-m {2.4 kgf-m})

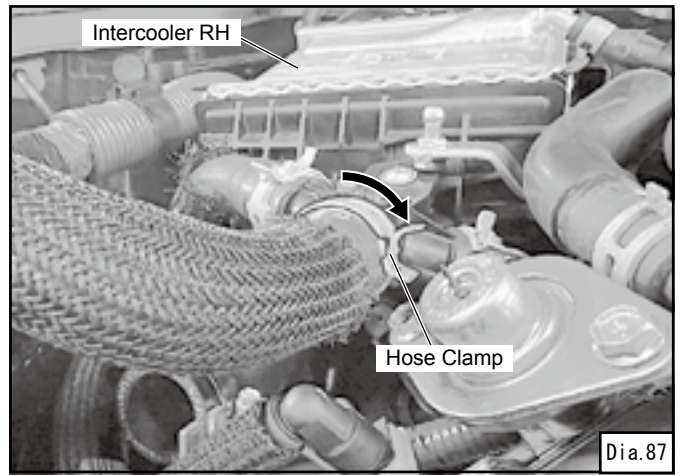
(27) Secure the hose clamps.



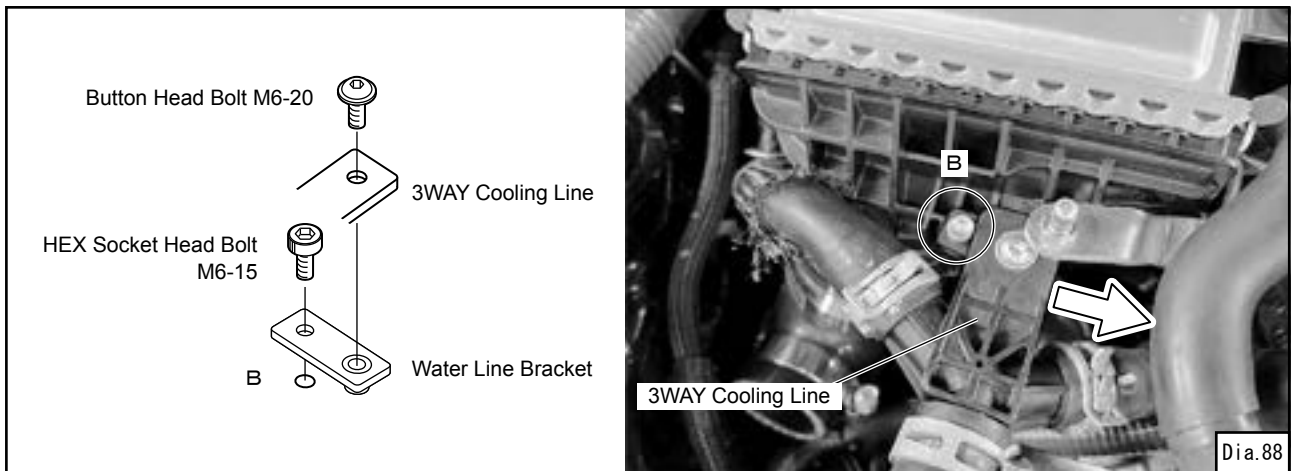
(28) Remove the bolt to remove the plate. (Dia. 86) (The bolt and plate will be not reused.)



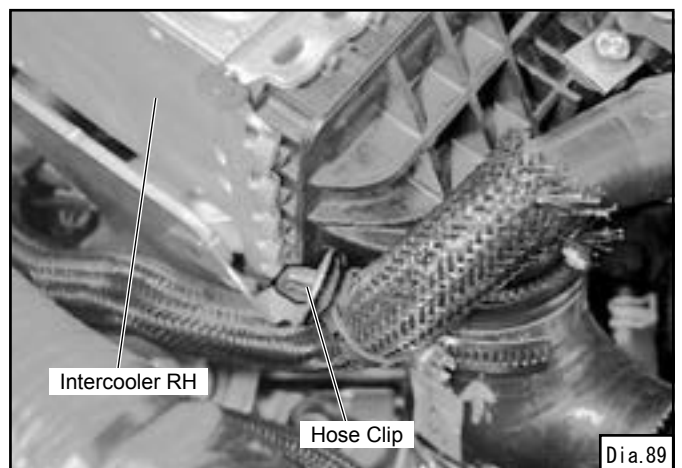
(29) Change the orientation of the tab of the factory hose clamp as in diagram 87. (Dia. 87)



(30) Shift the 3WAY cooling line in the direction of the arrow in diagram 88. Attach it to section "B" via the water line bracket. (Dia. 88)
(Tightening torque: 9.0 N-m {0.9 kgf-m})



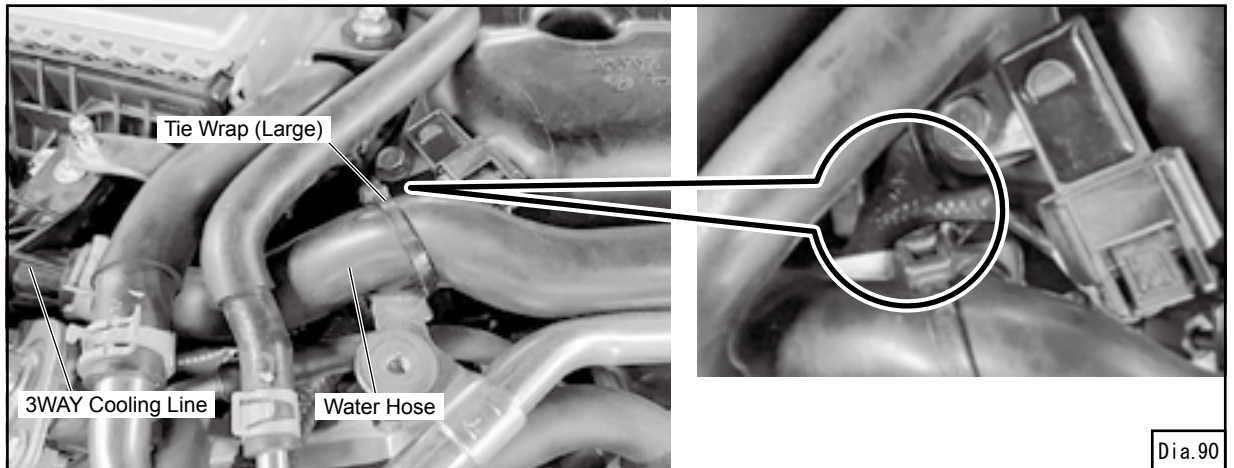
(31) Install the hose clip to the intercooler RH. (Dia. 89)



(32) The water hose will float due to shifting the 3WAY cooling line. Fix it with the tie wrap (Large). (Dia. 90)

ADVICE:

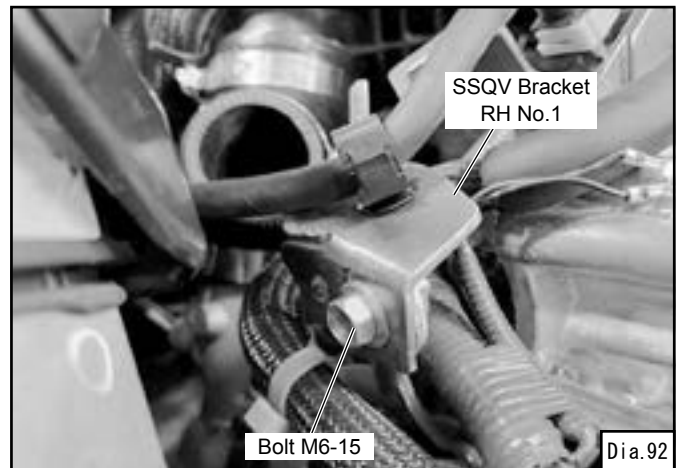
Be careful not to get the wiring at the bottom involved when fixing the tie wrap. (Dia. 90)



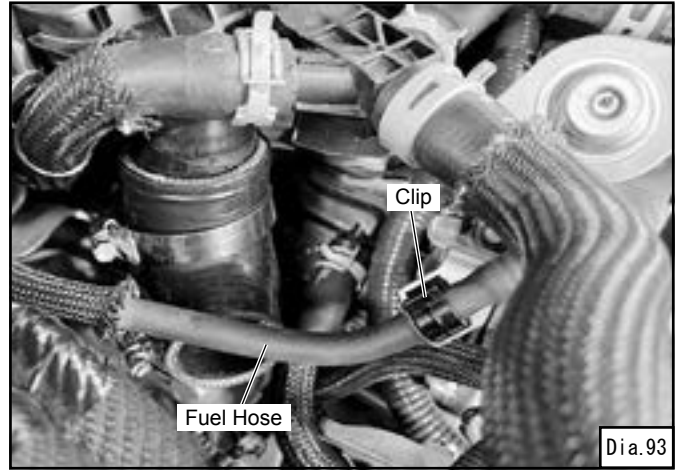
(33) Install the holder clip (Large) to the SSQV bracket RH No.1. (Dia. 91)



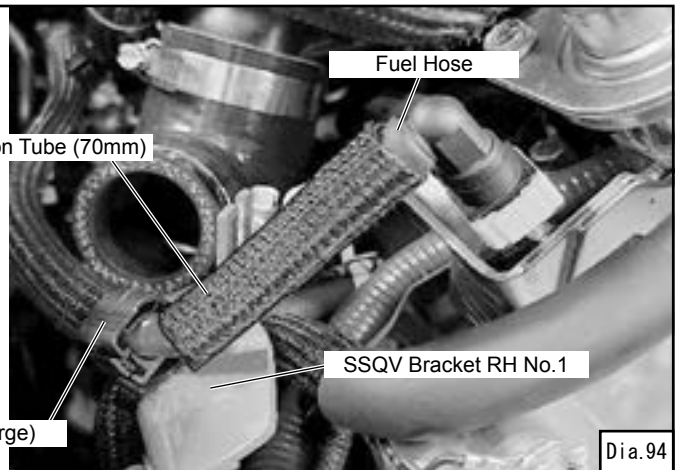
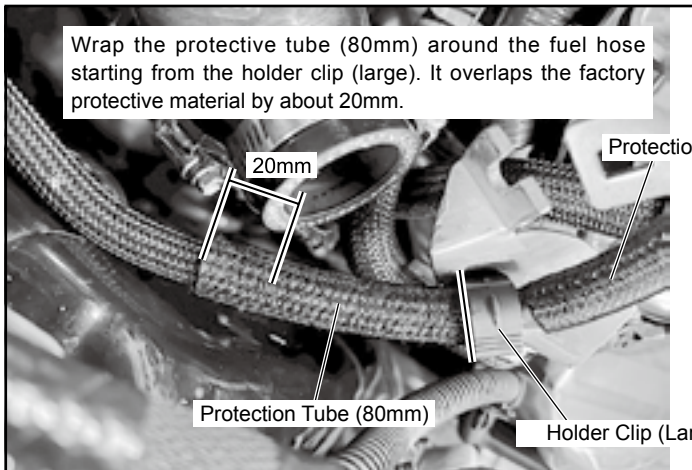
(34) Install the SSQV bracket RH No.1 to section "D" using the supplied bolt M6-15. (Dia. 92)



(35) Remove the fuel hose from the clip and remove the clip from the vehicle. (Dia. 93)

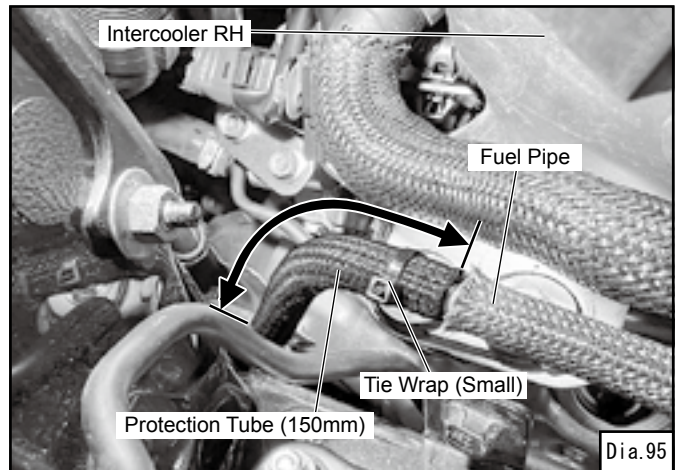


(36) Secure the fuel hose with holder clip (Large), and wrap the protection tube (70mm and 80mm) to the fuel hose. (Dia. 94)

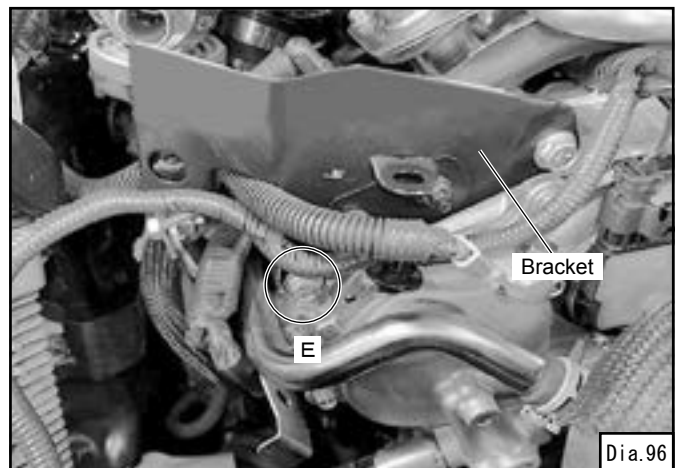


(37) Wrap the protection tube (150mm) to the fuel pipe and secure with tie wrap (Small). (Dia. 95)

(38) Rotate the tie wrap (Small) cutting surface to the underside of the vehicle after cutting the excess part of the tie wrap (Small).

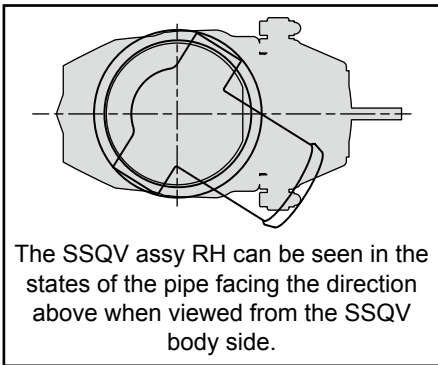
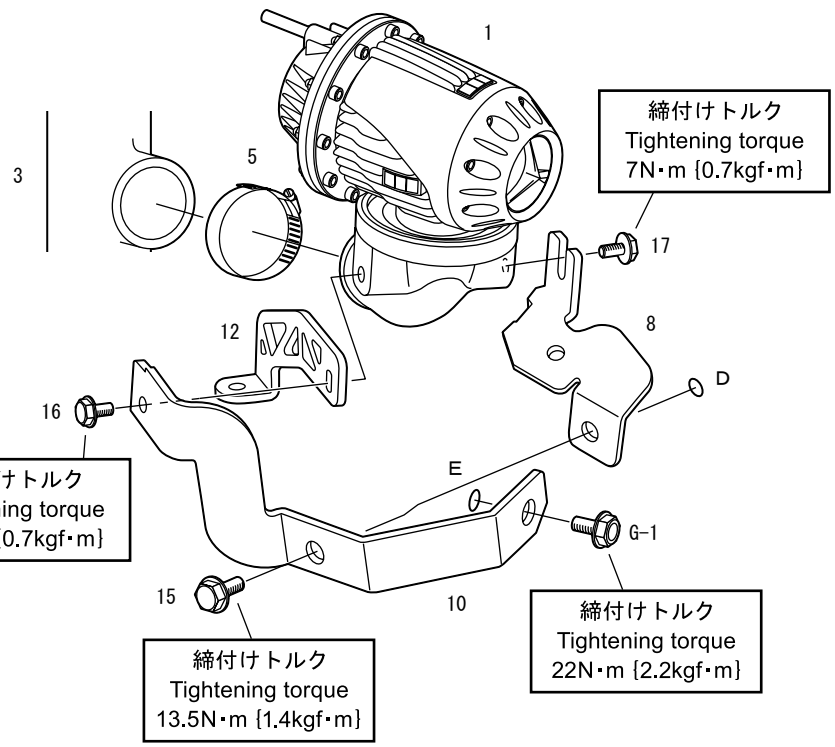


(39) Loosen the bolt of section "E". (Dia. 96)
(The bolt will be reused.)



(40) Temporarily install the SSQV assy RH to the SSQV hose using hose clamp #20. (Dia. 97)

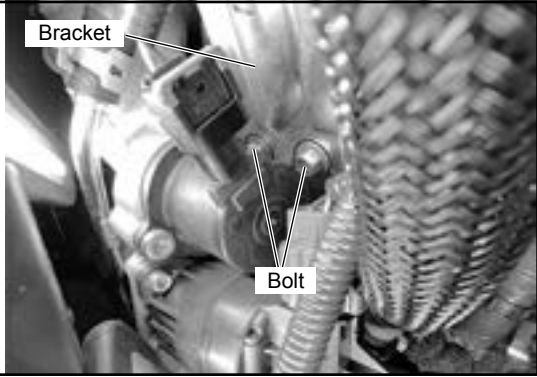
- 1. SSQV Assy RH
- 3. SSQV Hose
- 5. Hose Clamp #20
- 8. SSQV Bracket RH No.1
- 10. SSQV Bracket RH No.2
- 12. Fuel Hose Bracket
- 15. Bolt M8-20
- 16. Bolt M6-15
- 17. Bolt M6-12
- G-1. Bolt (Factory · E)



If the hole positions in section “D” and “E” do not match, loosen the bolts (2 pcs) at the engine side of the bracket where section “D” is located and adjust the position. Tighten the bolts after adjustment. (Tightening torque: 28.0 N-m {2.9 kgf-m})

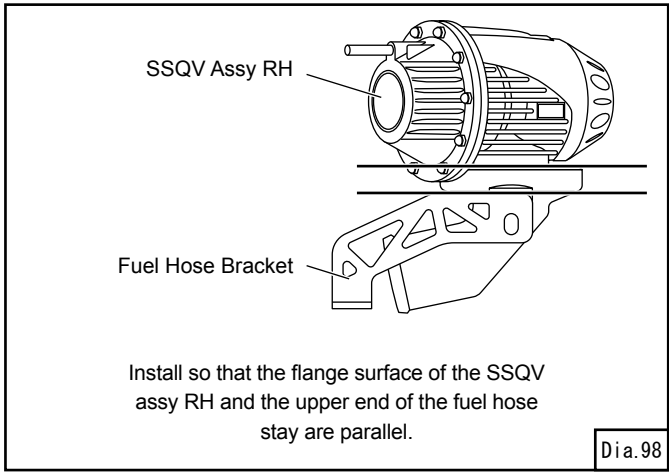
⚠ CAUTION

The bolts is tightened firmly. Be careful not to damage the bolt head when loosening.



Dia.97

(41) Temporarily install the SSQV bracket RH No.2 and the fuel hose bracket. (Dia. 97, 98)

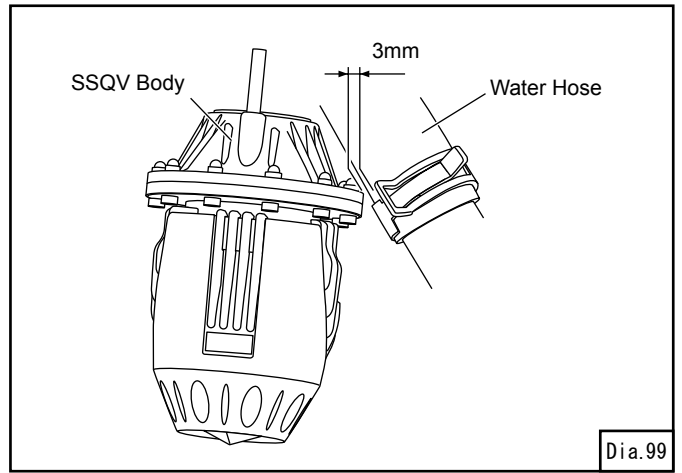


Dia.98

- (42) Position the SSQV assy RH and brackets where it does not come into contact with any other components. Tighten all hose clamps, bolt and nut to secure the SSQV assy RH. (Dia. 97)
Ensure a distance of at least 3mm between the SSQV body and the water hose. (Dia. 99)

ADVICE:

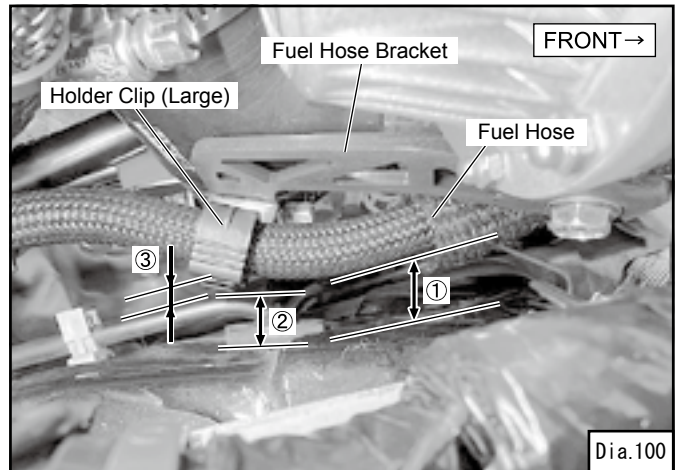
You can also adjust the installation angle of the water line bracket installed in (30).



- (43) Secure the fuel hose with the holder clip (Large) attached to the fuel hose bracket. (Dia. 100)

Recommended intervals for each part

- ① : Fuel hose - vehicle body 10mm
- ② : Holder clip (Large) - vehicle body 15mm
- ③ : Holder clip (Large) - brake piping 15mm

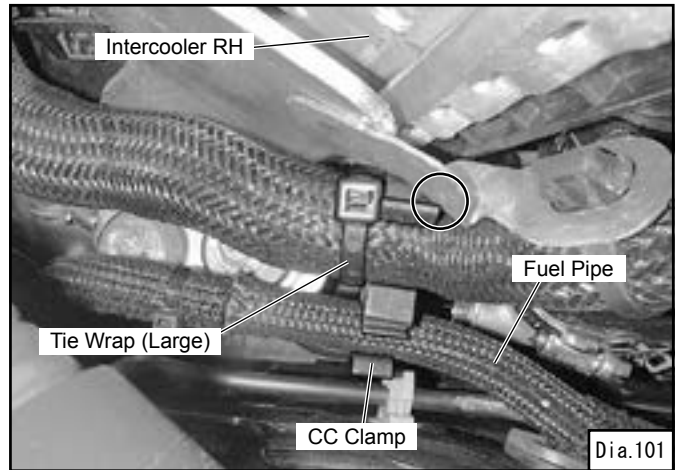


- (44) Install the CC clamp to the hose under the intercooler RH, and secure the fuel pipe with the other end. See diagram 101 for orientation and location. (Dia. 101)

ADVICE:

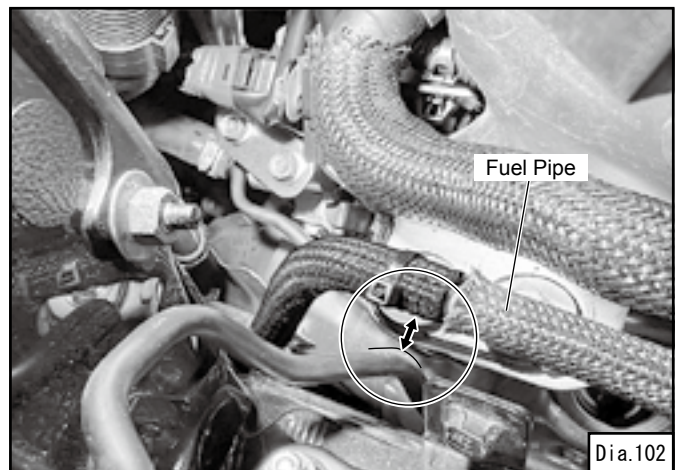
Orient the tab of the CC clamp which prevents rotation to the circle position in diagram 101.

- (45) Attach the tie wrap (Large) to the hose to prevent the CC clamp from shifting. (Dia. 101)



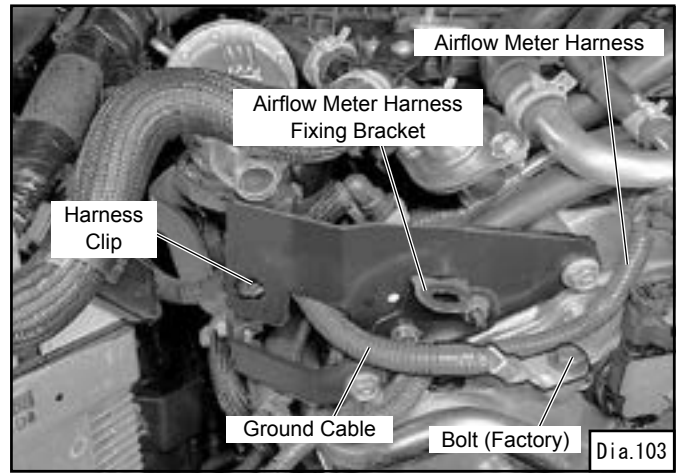
⚠ CAUTION

Adjust the fuel pipe so that the distance between the arrows in diagram 102 is at least 15 mm.
Make sure that the fuel pipe does not come into contact with anything else.
There is a risk of fire due to fuel pipe damage.



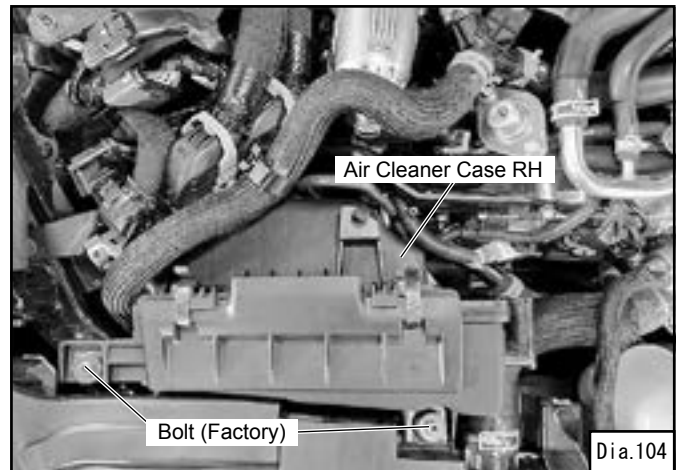
(46) Install the ground cable using the factory bolt and secure with the harness clip. (Dia. 103)
 (Tightening torque: 13.5 N-m {1.4 kgf-m})

(47) Secure the airflow meter harness clip to the air flow meter harness fixing bracket. (Dia. 103)

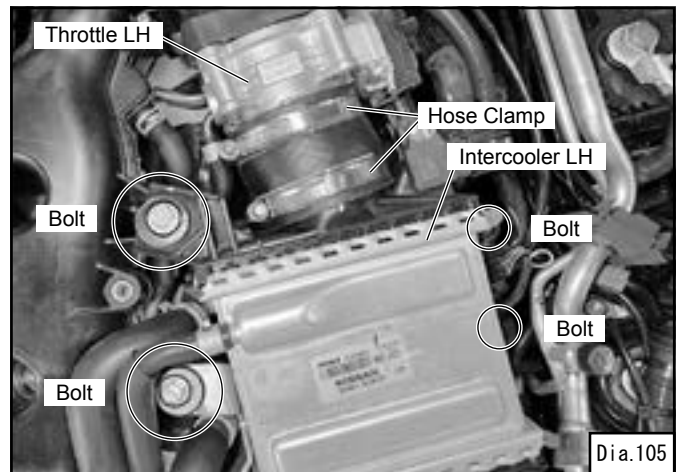


(48) Reconnect the airflow meter sensor connector and install the air cleaner case RH to the suction hose. Make sure that the lock ring on the suction hose is securely secured.

(49) Secure the air cleaner case RH using factory bolts. (Tightening torque: 5.5 N-m {0.55 kgf-m}) (Dia. 104)

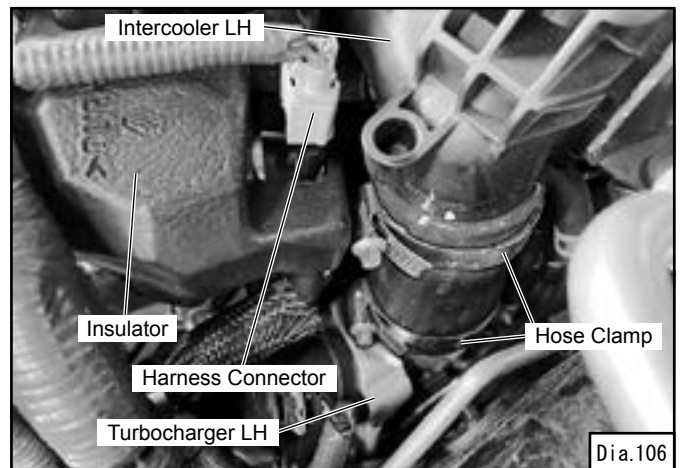


(50) Remove the bolts (4 pcs) securing the intercooler LH and loosen the hose clamp between the throttle RH. (Dia. 105) (The bolts will be reused.)

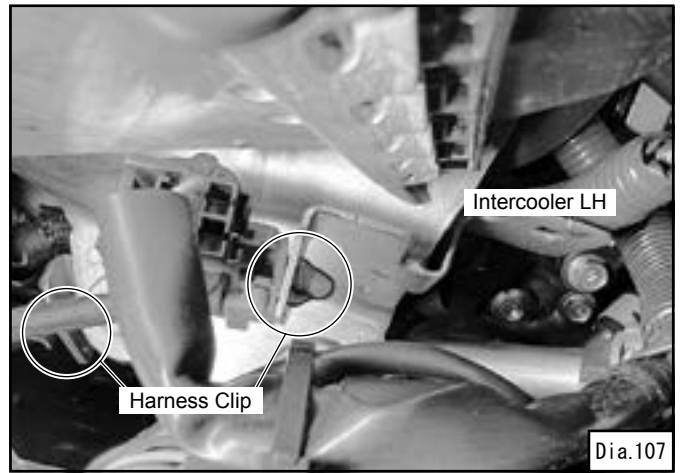


(51) Loosen the hose clamp between the intercooler LH and the turbocharger LH. (Dia. 106)

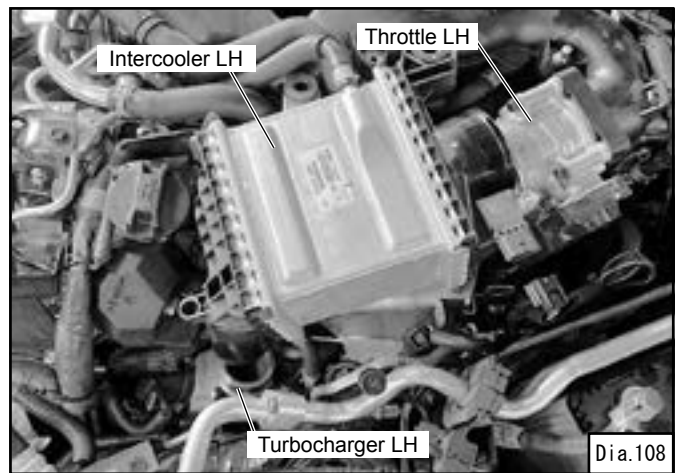
(52) Remove the harness connector shown in diagram 106 and remove the insulator. (Dia. 106) (The insulator will be reused.)



(53) Remove the harness clip from the fixing point below the intercooler LH. (Dia. 107)



(54) Hold up the intercooler LH and remove the hose between it and the throttle LH. (Dia. 108)
 (The hose and hose clamps will be reused.)
 It is not necessary to remove the intercooler LH from the vehicle.



(55) Remove the hose between the intercooler LH and the turbocharger LH. (Dia. 106, 108)
 (The hose and hose clamps will be not reused.)

ADVICE:

During removal and installation, make sure no foreign objects get inside the pipes and hoses.

(56) Temporarily install the SSQV hose between the intercooler LH and the turbocharger LH. (Dia. 109)

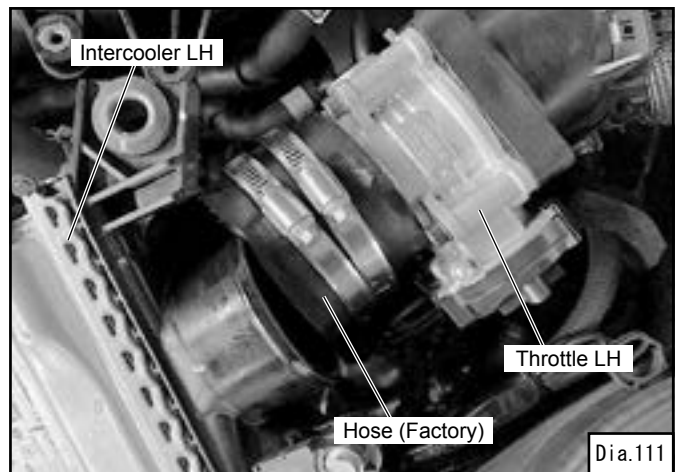
The direction of the branch of the SSQV hose should be in a straight line from point "F" of intercooler LH to the center of the hose

Dia.109

- (57) Degrease the surface where the sponge tape is to be adhered to, and cut a piece of sponge tape to 80mm and attach it to the end of the factory protective mesh. (Dia. 110)



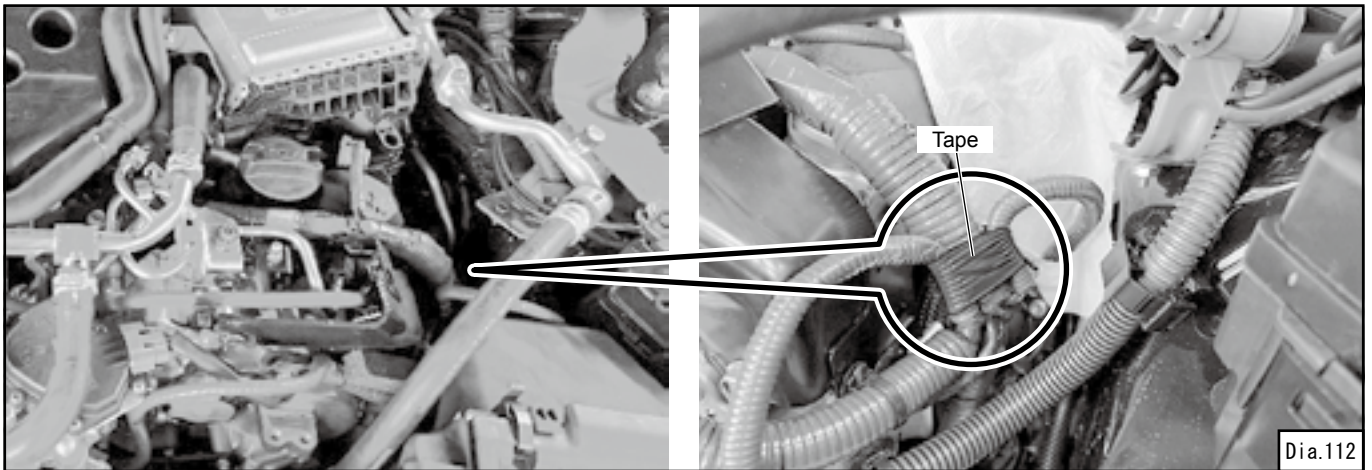
- (58) Install the factory hose between intercooler LH and throttle LH to the original position. (Dia. 111)
The engraved Δ mark should be on the throttle LH side and facing upward.



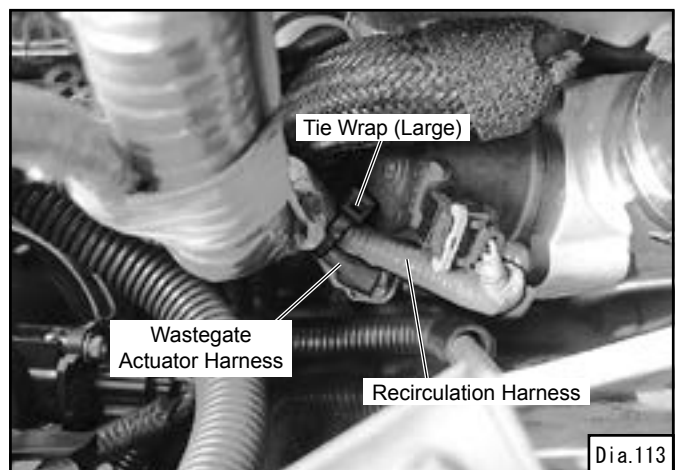
- (59) Install the intercooler LH to the original position with the factory bolts (4 pcs) while checking the installation condition of the hose. (Tightening torque: 24 N-m {2.4 kgf-m})

- (60) Secure the hose clamps.

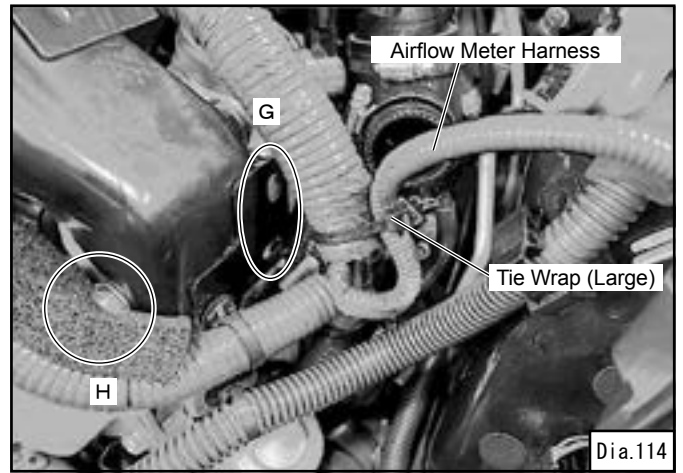
- (61) Remove the tape binding the harness. (Dia. 112)



- (62) Lay the recirculation harness as in diagram 113. passing it through the inside of the wastegate actuator harness, then fix it with the tie wrap (Large). (Dia. 113)

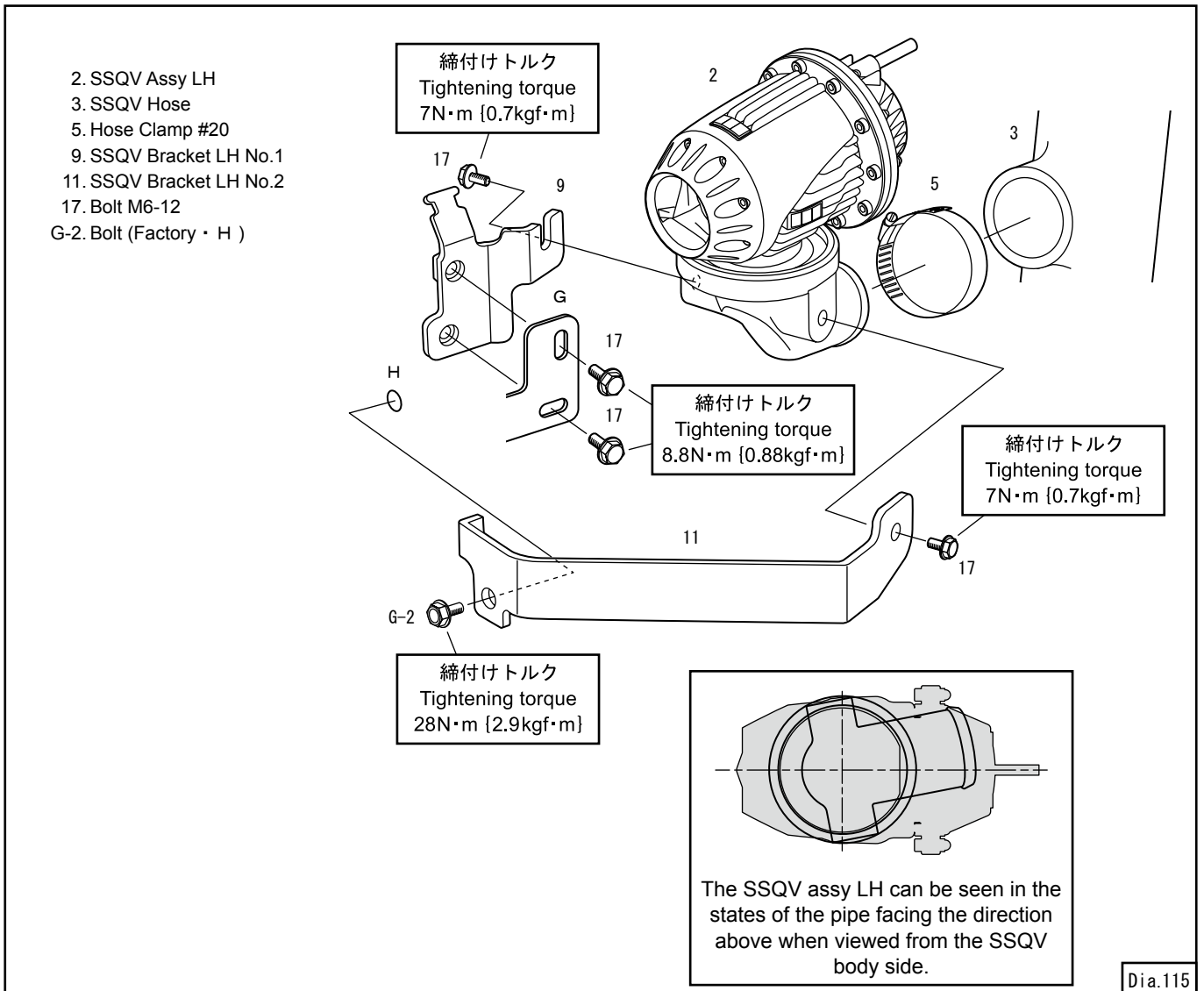


(63) Lay the airflow meter harness as shown in diagram 114, then fix it with a tie wrap (Large). (Dia. 114)

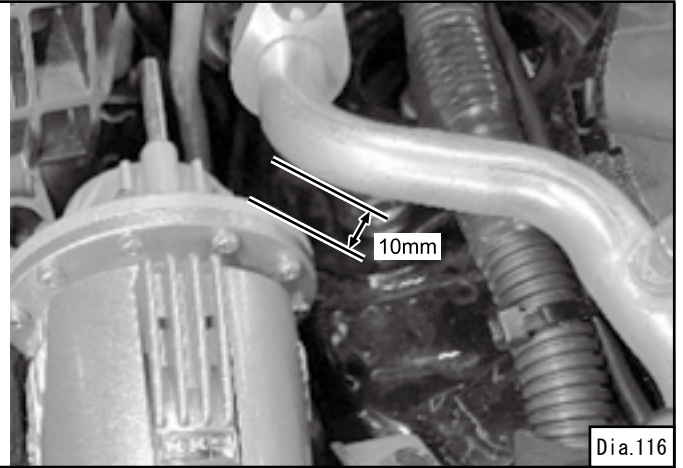
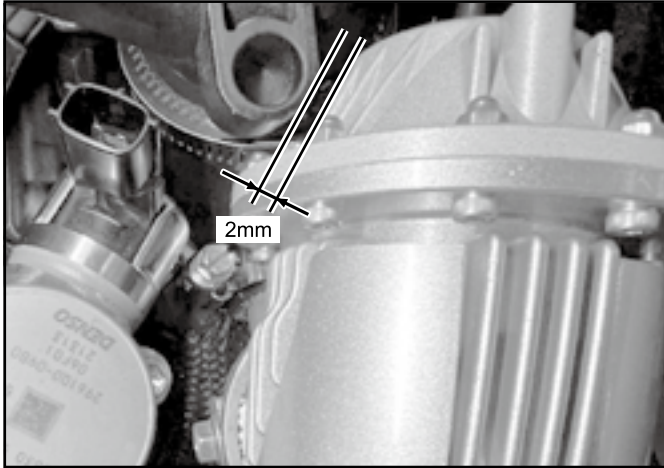


(64) Temporarily install the SSQV assy LH to the SSQV hose using hose clamp #20. (Dia. 115)

(65) Temporarily install the SSQV bracket LH No.1 to section "G" and the SSQV bracket LH No.2 to section "H". (Dia. 114, 115)

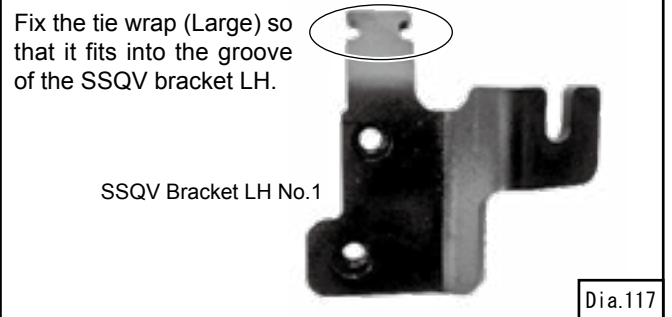
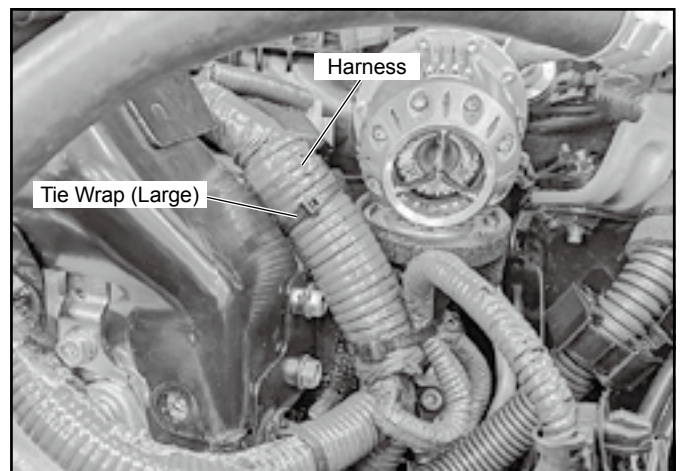


- (66) Position the SSQV assy LH and brackets where it does not come into contact with any other components.
Tighten all hose clamps, bolt and nut to secure the SSQV assy LH. (Dia. 115)
Ensure the distance between the SSQV body and vehicle as shown in diagram 116. (Dia. 116)



Dia.116

- (67) Secure the factory harness to the SSQV bracket LH No.1 using tie wrap (Large). (Dia. 117)
- (68) Reinstall the insulator, harness connectors, and harness clips.

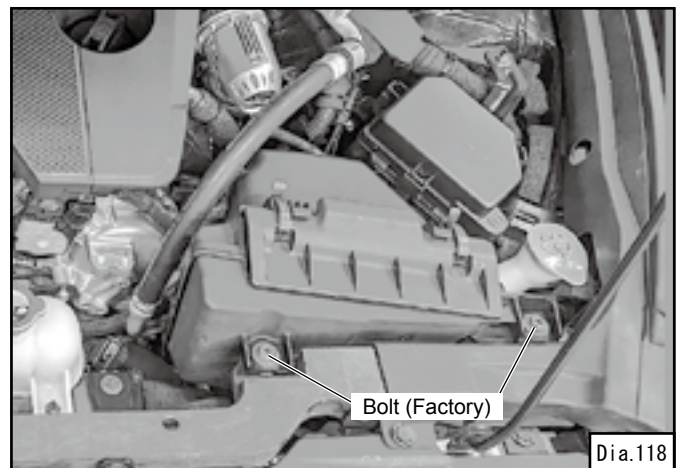


SSQV Bracket LH No.1

Dia.117

- (69) Reconnect the airflow meter sensor connector and install the air cleaner case LH to the suction hose.
Make sure that the lock ring on the suction hose is securely secured.

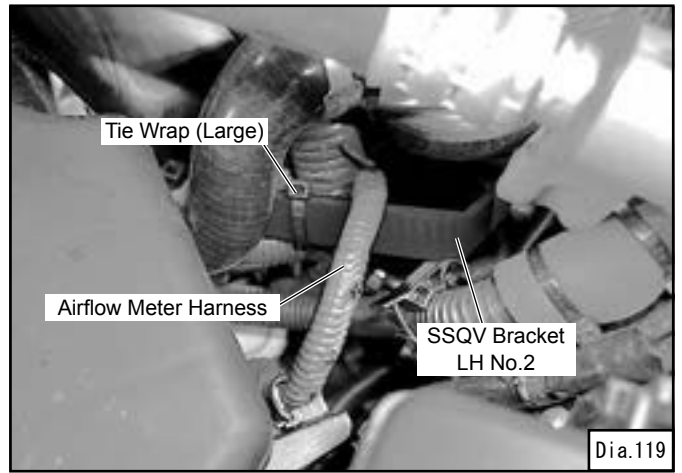
- (70) Secure the air cleaner case LH using factory bolts. (Tightening torque: 5.5 N-m {0.55 kgf-m}) (Dia. 118)



Dia.118

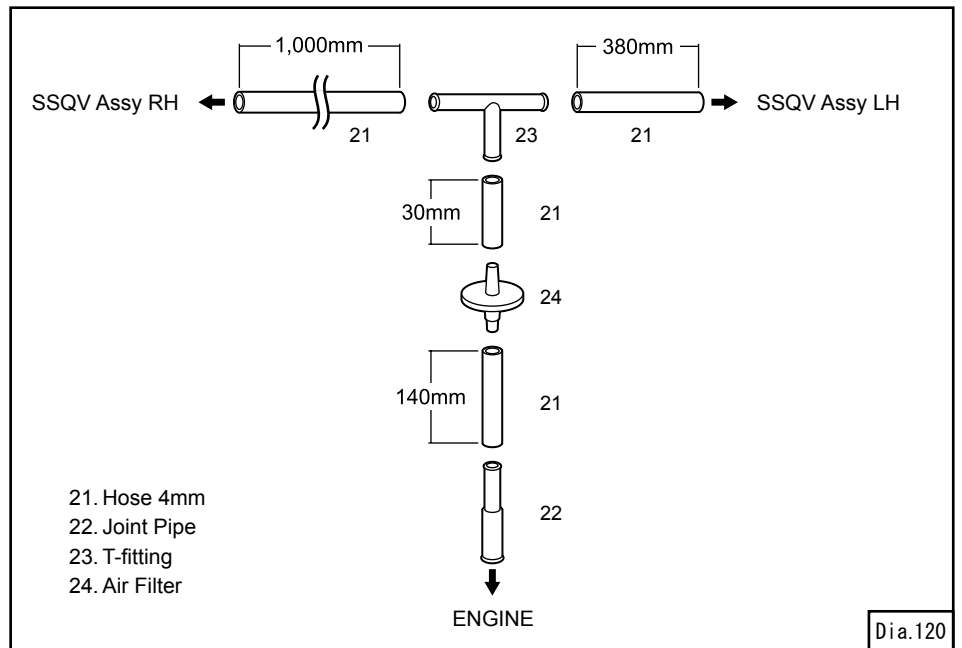
- (71) Secure the airflow meter harness to the SSQV bracket LH No. 2 using the tie wrap (Large). (Dia. 119)
 Make sure to secure the air flow meter harness with plenty of room to avoid applying excessive force.

After completing the preceding steps, please proceed to [3.Installing piping for SSQV operation] below.

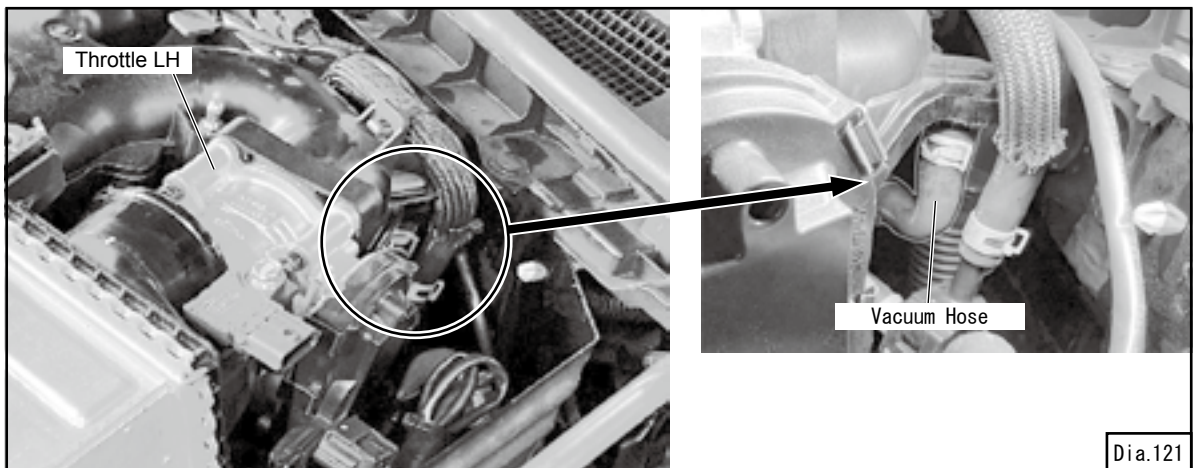


3. INSTALLING PIPING FOR SSQV OPERATION

- (1) Cut the 4mm hose and connect the kit parts. (Dia. 120)
 Secure the fitting connection of each hose with a tie wrap (Small).



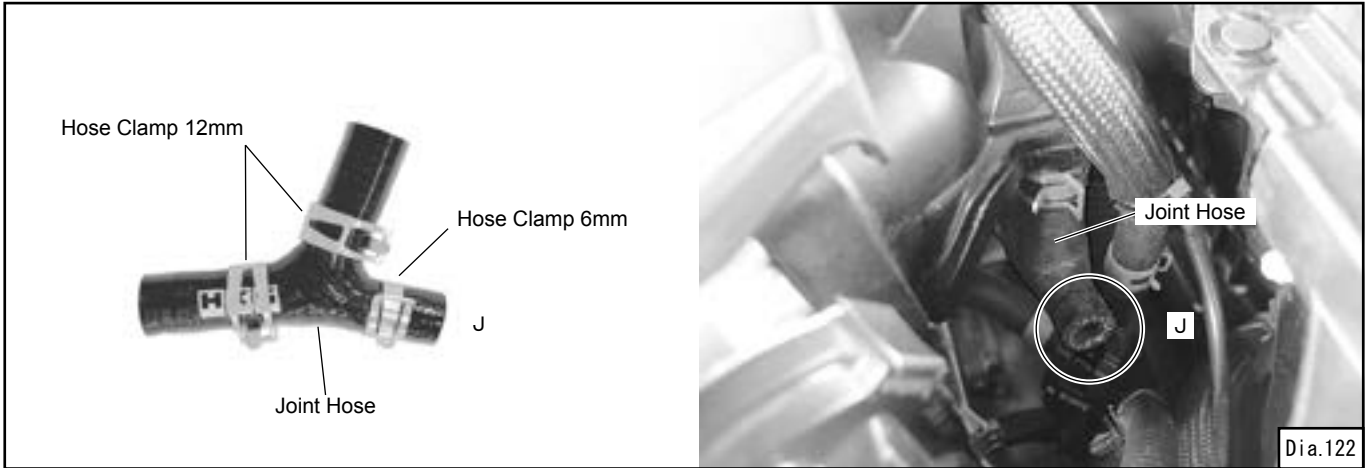
- (2) Remove the vacuum hose. (Dia. 121)
 (The vacuum hose and hose clamps will be not reused.)



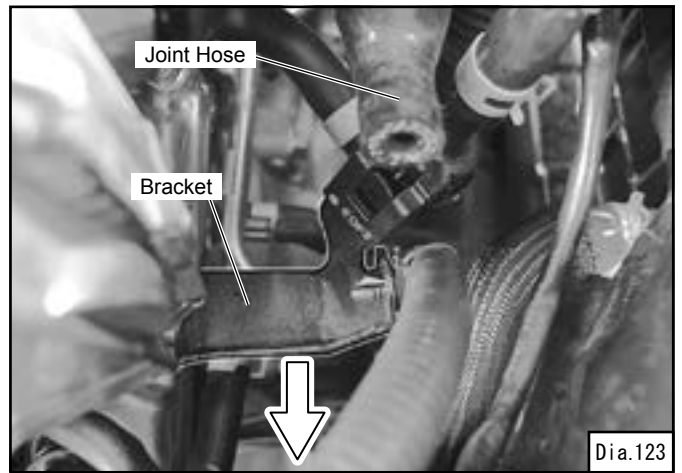
(3) Install the joint hose using the kit parts to the place where the factory vacuum hose was removed. (Dia. 122)

ADVICE:

If it is difficult to install to the fitting, please use insertion aid, etc.



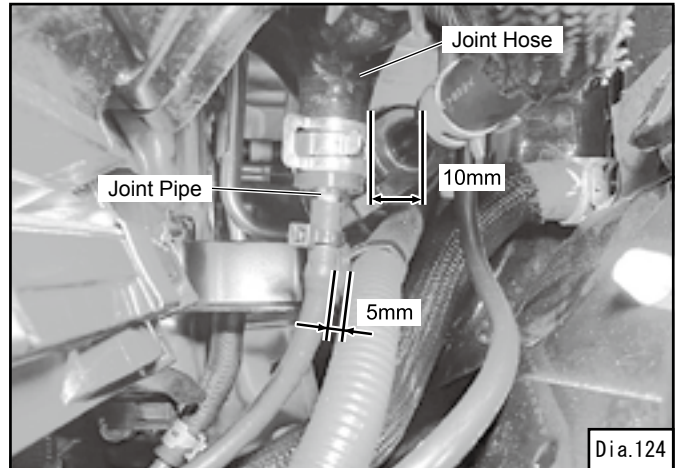
(4) Push and bend the factory bracket to the below. (Dia. 123)



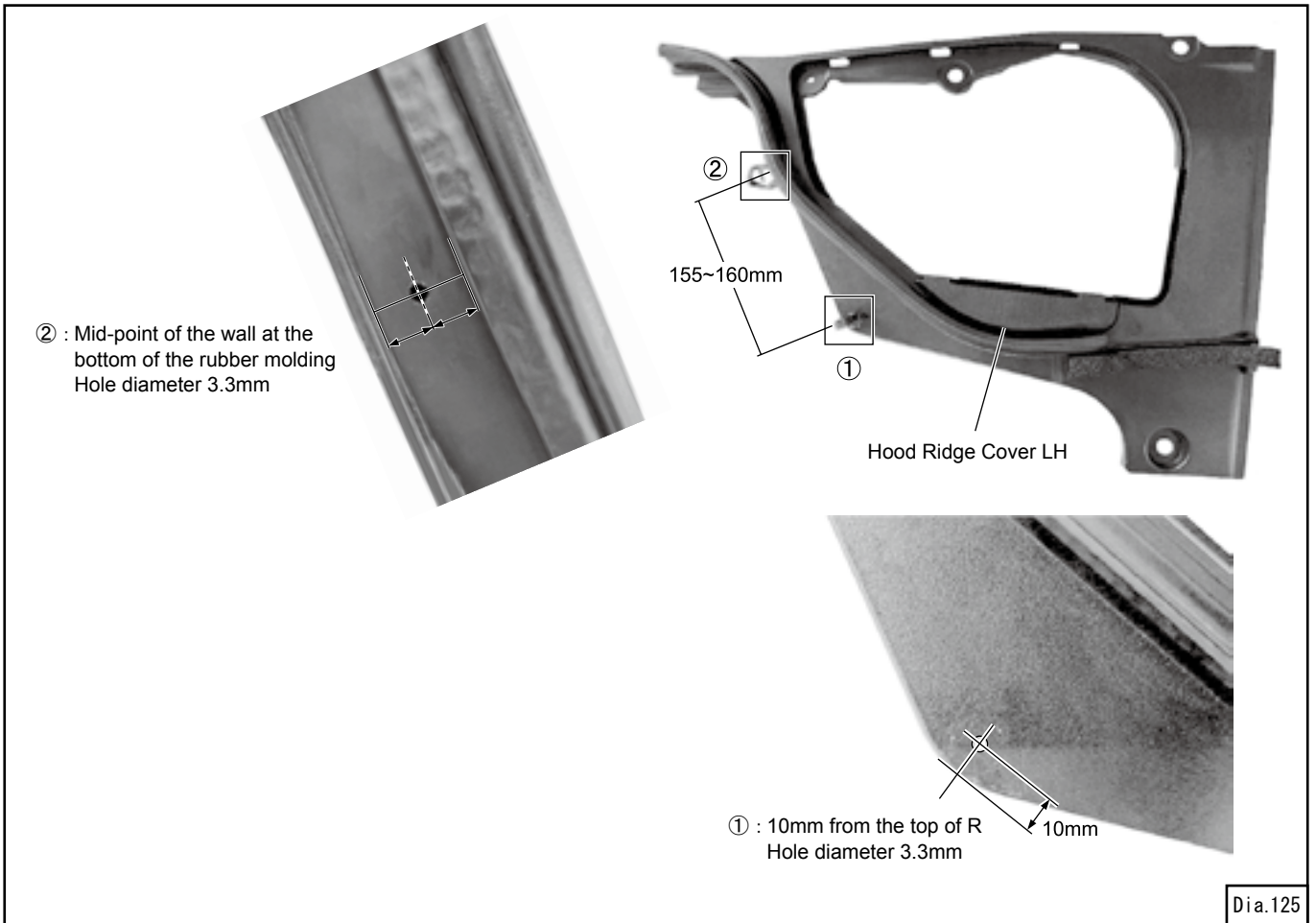
(5) Connect the joint pipe assembled in (1) to the section “J” of the joint hose. (Dia. 120, 124)
Change the orientation of the tab of the hose clamp 6mm upwards.
If clearance cannot be secured as shown in diagram 124, push and bend additionally the factory bracket shown in diagram 123.

ADVICE:

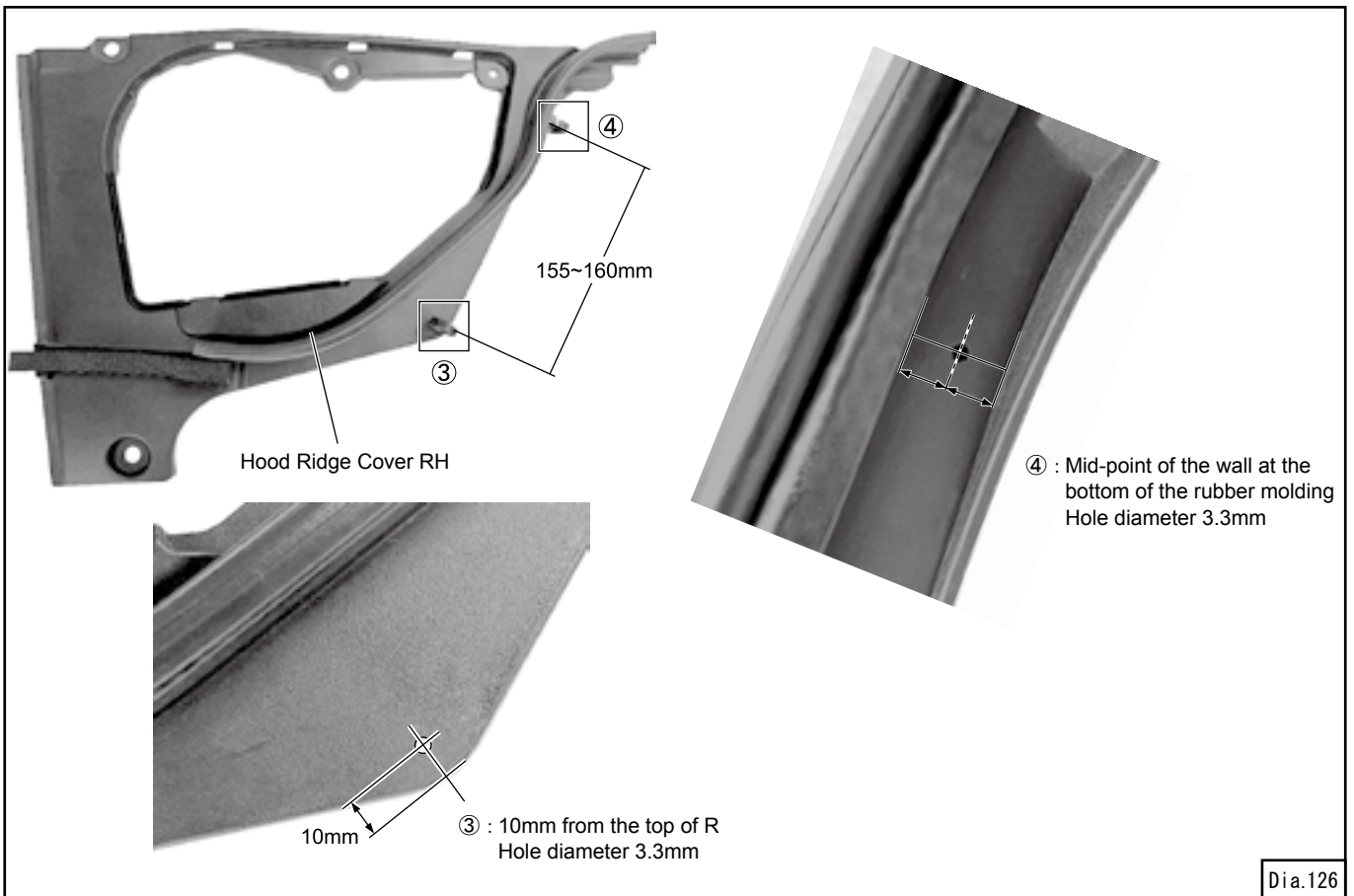
If it is difficult to install the joint pipe, please use insertion aid, etc.



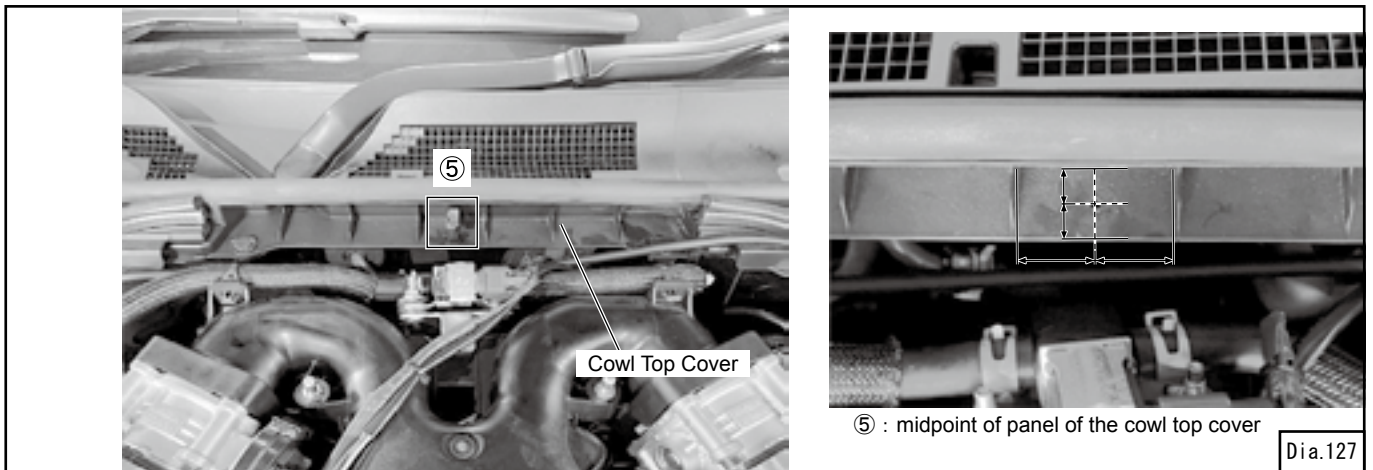
(6) Drill two holes in the hood ridge cover LH and attach the holder clips (Small) (2 pcs). (Dia. 125)



(7) Drill two holes in the hood ridge cover LH and attach the holder clips (Small) (2 pcs). (Dia. 126)



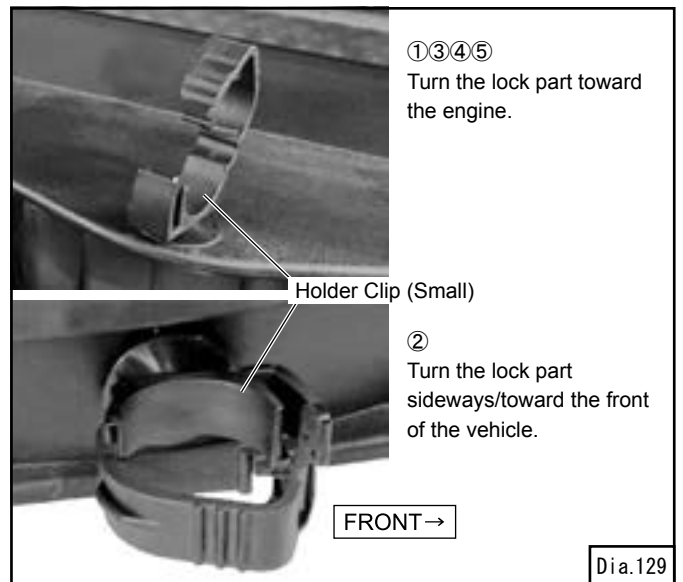
(8) Drill a hole in the cowl top cover and attach the holder clip (Small). (Dia. 127)



(9) Reinstall the left and right hood ridge covers. (Dia. 128)

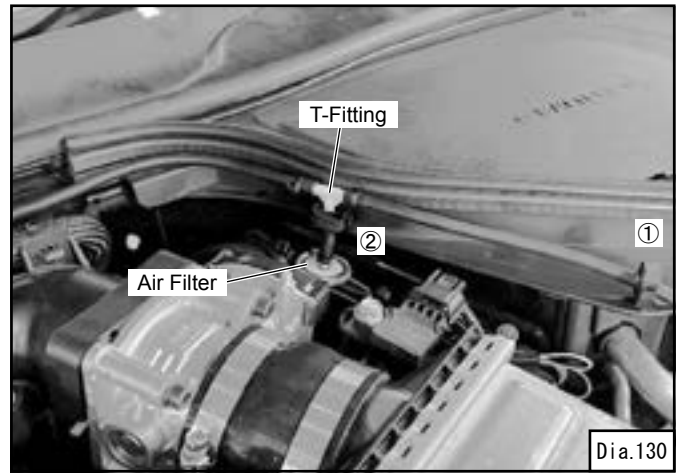


(10) Orient the attached holder clip (Small) as shown in diagram 129. (Dia. 129)



(11) Hold the 4mm hose between the T-fitting and the air filter with the holder clip ② . (Dia. 130)

(12) Hold the 4mm hose going to the SSQV assy LH with the holder clip ① . (Dia. 130)

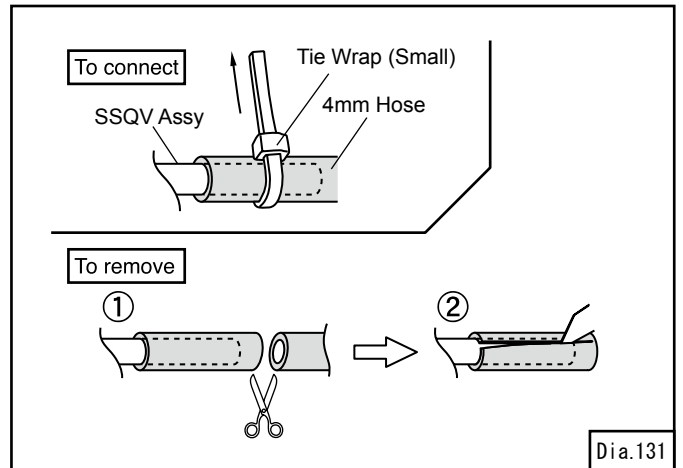


(13) Tighten the 4mm hose that connects to the SSQV assy LH's fitting, and secure the hose with tie wrap (small). (Dia. 120, 131)

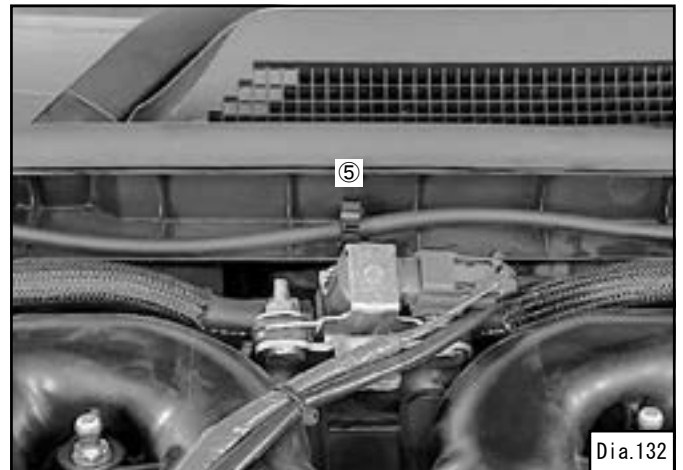
ADVICE:

When uninstalling the SSQV assy, or when removing the 4mm hose from the SSQV assy, remove the tie wrap, cut the hose past the port on the SSQV assy, slice the 4mm hose length-wise, and then remove the 4mm hose. (Dia. 131)

Do not pull or wiggle the 4mm Hose using pliers or other tools to prevent damage to the SSQV assy.



(14) Hold the 4mm hose going to the SSQV assy RH with the holder clip ⑤ . (Dia. 132)



(15) Hold the 4mm hose going to the SSQV assy RH with the holder clip ③、④ . (Dia. 133)

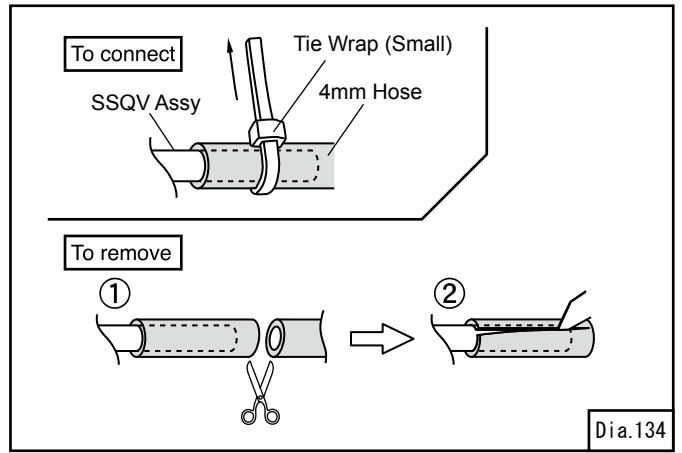


- (16) Tighten the 4mm hose that connects to the SSQV assy RH's fitting, and secure the hose with tie wrap (small).
(Dia. 120, 134)

ADVICE:

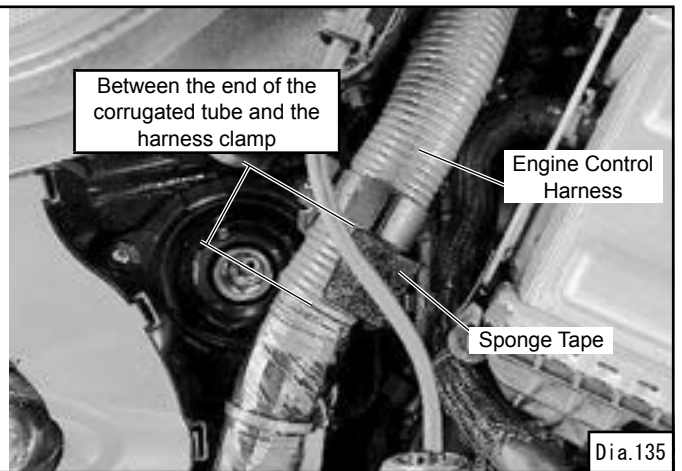
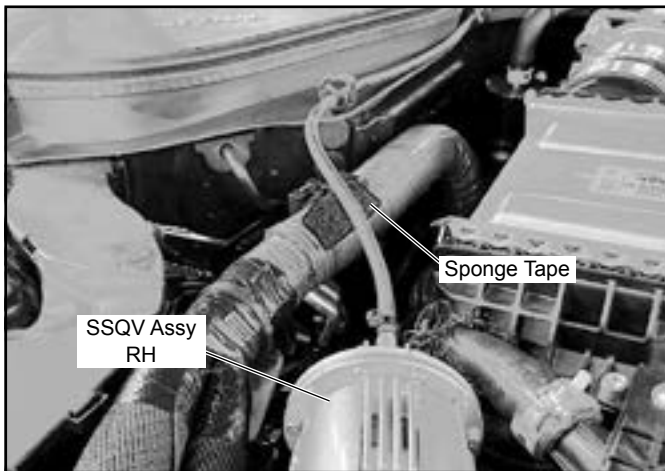
When uninstalling the SSQV assy, or when removing the 4mm hose from the SSQV assy, remove the tie wrap, cut the hose past the port on the SSQV assy, slice the 4mm hose length-wise, and then remove the 4mm hose.
(Dia. 134)

Do not pull or wiggle the 4mm Hose using pliers or other tools to prevent damage to the SSQV assy.



Dia.134

- (17) Degrease the surface where the sponge tape is to be adhered to, and attach the sponge tape to the engine control harness as shown in diagram 135. (Dia. 135)



Dia.135

- (18) Check the removed connectors should be connected correctly.
(19) Reinstall the engine cover. (Tightening torque: 5.5 N-m {0.55 kgf-m})
(20) Reinstall the strut bar. (Tightening torque: 52 N-m {5.2 kgf-m})



Dia.136

- (21) Reconnect the negative (-) terminal to the vehicle's battery.

CONFIRMATION AFTER INSTALLATION

Check the following after the installation process is complete.

(1) Check the following before starting the engine:

- Make sure all pipes and hoses are routed and connected correctly.
- Make sure all hose clamps are tightened.
- Make sure the negative cable terminal is securely attached to the battery.
- Make sure all bolts and nuts are tightened.
- Make sure all installed components do not come in contact with other parts.

(2) Start the engine and check the following:

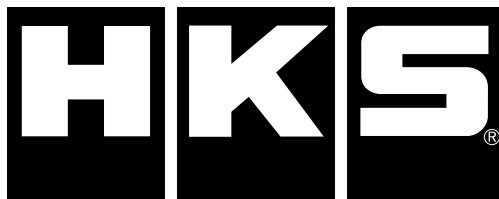
- Make sure air is not leaking.
- Make sure the RPM rises smoothly after revving the engine 2-3 times while in neutral.
- Make sure the installed parts are not hitting each other.
- Make sure there are no unusual conditions found while idling.
- Make sure there are no loose bolts after turning off the engine. Re-tighten if necessary.

MAINTENANCE

Proper daily maintenance of this product is necessary in order to maintain the safety, reliability, and function of this product. Maintenance is the responsibility of the driver/owner.

- If work needs to be performed outside the scope of this manual, consult a professional.
- If the vehicle becomes damaged, have the repairs performed by a professional.
- If you experience abnormal noises, scents, or vibrations from the vehicle while driving, reference the vehicle's Owner's Manual.
- If this product is ever sold, please give this Instruction Manual to the new owner.
- When removing this product from the vehicle, please consult a professional.

- Although clear paint is applied for product protection, storage under direct sunlight for a long time may accelerate deterioration of this product.
Avoid direct sunlight as much as possible.
- Regularly check for loose bolts and nuts and overall integrity of the product.
- If this product is damaged or deformed due to an accident or contact, repair or remove it immediately.



HKS Co.,Ltd.

7181 Kitayama, Fujinomiya, Shizuoka 418-0192, JAPAN

<https://www.hks-power.co.jp/en/>

禁無断複写・転載
Unauthorized reproduction is strictly prohibited.