

**FOREWORD**

This manual has been prepared to provide information for the construction, operation and other technical details of SUBARU vehicles.

Read this manual thoroughly and make the most of it to give better service to your customers and improve your knowledge of vehicle maintenance.

For information on sections that remain unchanged, refer to the 17MY to 21MY new car information.

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

**GENERAL DESCRIPTION**

**ENGINE**



# 1. GENERAL DESCRIPTION

---

	<b>Page</b>
1-1 General Description .....	2
A VEHICLE TYPE COMPOSITION LIST TABLE.....	2
B DESCRIPTION OF TYPE CLASSIFICATION SYMBOL.....	3
1-2 Major Changes.....	10

# General Description

## 1-1 General Description

### A: VEHICLE TYPE COMPOSITION LIST TABLE

Vehicle shape	Type	Destination code	Engine	Driving method	Grade	Transmission
4-door	GK	E2	1.6 L DOHC NA	FWD	1.6i	CVT
		E3, E9		AWD	1.6i	
		EE, E9, KC			1.6i-S	
		EE, E2, E9, KC		1.6i-S EyeSight		
		E3, KS, KA, KC	2.0 L DOHC NA	AWD	2.0i	
		KS, KA			2.0i EyeSight	
		KA			2.0i-L EyeSight	
		E9, E3, KS, KC			2.0i-S	
		E9, E3, KS, KA, KC, KY			2.0i-S EyeSight	
5-door	GT	E2	1.6 L DOHC NA	FWD	1.6i	CVT
		E3		AWD	1.6i	
		EC, EP			1.6i EyeSight	
		EE			1.6i-S	
		EC, EE, EP, E2, EK, ER	2.0 L DOHC NA	AWD	1.6i-S EyeSight	
		E3, KA			2.0i	
		KA			2.0i EyeSight	
		KA			2.0i-L EyeSight	
		E3			2.0i-S	
		E3, KA, KY			2.0i-S EyeSight	
5-door hybrid	GT	EC, EK, ER, EP	2.0 L DOHC NA	AWD	2.0i-S EyeSight	CVT
XV	GT	E2, KC	1.6 L DOHC NA	AWD	1.6i	CVT
		E7, E9, E3			1.6i-N	
		EC, EP			1.6i EyeSight	
		E2, E9, E3, KC			1.6i-S	
		EC, EP, E2, E9, EK, ER, KC			1.6i-S EyeSight	
		EA, E7, E9, E3, KS, EN, KA, KC	2.0 L DOHC NA	AWD	2.0i	
		ES			2.0i-C	
		EA, E7, KA			2.0i EyeSight	
		ES			2.0i-L	
		ES, KA			2.0i-L EyeSight	
		EE, E7, E9, E3, KS, EN, KC, KV			2.0i-S	
		EE, EA, E7, E9, E3, KS, EN, KA, KC, KV, KY			2.0i-S EyeSight	
		XV hybrid			GT	
EA, EC, EE, EP, E2, E3, E9, EK, ER, KA, KY, K4	2.0i-S EyeSight					

## General Description

### B: DESCRIPTION OF TYPE CLASSIFICATION SYMBOL

#### 1. VIN

##### 1.1 For Europe and general export (other than KS, ES, KV)

]JF1G#####G#####[

Square brackets ([]) at the beginning and end are stop marks.

#: Varies according to vehicle model.

Digit	Meaning	Details
1 - 3	Manufacturer of the body	JF1: Passenger car manufactured by SUBARU CORPORATION
4	Vehicle type	G: Impreza/XV
5	Body classification	K: 4-door T: 5-door
6	Total displacement classification	2: 1.6 L FWD (NA) 3: 1.6 L AWD (NA) 7: 2.0 L AWD (NA) E: HEV AWD
7	Destination	K: RHD (right hand drive model) L: LHD (left hand drive model)
8	Engine and transmission	C: DOHC MPI CVT L: DOHC DI CVT
9	Drive type	5: AWD CVT 9: FWD CVT
10	Model year	N: 2022MY
11	Factory location	G: SUBARU CORPORATION (Gunma)
12 - 17	Serial number	002001 -

# General Description

## 1.2 For GCC and China (for KS, ES)

]###G###D#N#####[

Square brackets ([]) at the beginning and end are stop marks.

#: Varies according to vehicle model.

Digit	Meaning	Details
1 - 3	Manufacturer of the body	JF1: Passenger vehicle manufactured by SUBARU CORPORATION (4-door model for KS and XV model for ES) JF2: MPV manufactured by SUBARU CORPORATION (XV model for KS)
4	Vehicle type	G: Impreza/XV
5	Body classification	K: 4-door T: 5-door
6	Total displacement classification	2: 2.0 L AWD E: HEV AWD
7	Grade	4: 2.0i 6: 2.0i-S 8: 2.0i EyeSight B: 2.0i-S EyeSight L: 2.0i (XV) M: 2.0i-C (XV) P: 2.0i-L (XV) U: 2.0i-L EyeSight (XV) R: 2.0i-S (XV) V: 2.0i-S EyeSight (XV)
8	Transmission and restraints	D: Full-time AWD CVT, manual belt + dual airbags + side airbags + curtain airbags + knee airbag (driver's seat), (class C*)
9	Check digit	X or 0 to 9
10	Model year	N: 2022MY
11	Factory location	9: SUBARU CORPORATION (main plant, Gunma) G: SUBARU CORPORATION (Yajima plant, Gunma)
12 - 17	Serial number	002001 -

\*: XV model for KS

# General Description

## 1.3 For Indonesia (for KV)

] JF1GT7KL5#G#####[

Square brackets ([]) at the beginning and end are stop marks.

#: Varies according to vehicle model.

Digit	Meaning	Details
1 - 3	Manufacturer of the body	JF1: Passenger car manufactured by SUBARU CORPORATION (for KV)
4	Vehicle type	G: XV
5	Body classification	T: 5-door
6	Total displacement classification	7: 2.0 L AWD (NA)
7	Destination	K: RHD (right hand drive model)
8	Engine and transmission	L: DOHC DI CVT
9	Drive type	5: AWD CVT
10	Production year*	M: 2021 N: 2022
11	Factory location	G: SUBARU CORPORATION (Gunma)
12 - 17	Serial number	002001 -

\*: Represents the production year (M: 2021 (until December 31, 2021), N: 2022 (after January 1, 2022))

# General Description

## 2. VEHICLE TYPE CLASSIFICATION

### 2.1 For Europe and general export (other than ES)

G##F###

#: Varies according to vehicle model.

Digit	Meaning	Details
1	Series	G: Impreza/XV
2	Body type	K: 4-door T: 5-door
3	Total engine displacement / drive system	2: 1.6 L FWD NA 3: 1.6 L AWD NA 7: 2.0 L AWD NA E: 2.0 L AWD HEV
4	Model year	F: 2022MY
5	Destination	K: RHD (right hand drive model) L: LHD (left hand drive model)
6	Grade	1: 1.6i 2: 1.6i-S 3: 1.6i EyeSight 4: 2.0i 5: 1.6i-S EyeSight 6: 2.0i-S 8: 2.0i EyeSight A: 2.0i-L EyeSight B: 2.0i-S EyeSight C: 1.6i-N (XV) F: 1.6i (XV) G: 1.6i-S (XV) H: 1.6i EyeSight (XV) J: 1.6i-S EyeSight (XV) L: 2.0i (XV) R: 2.0i-S (XV) S: 2.0i EyeSight (XV) U: 2.0i-L EyeSight (XV) V: 2.0i-S EyeSight (XV)
7	Fuel supply system / transmission	C: MPI DOHC NA CVT L: DI DOHC NA CVT



# General Description

## 2.2 For China (for ES)

Indication on label	Indication on label
VIN	车架号
Applied Model	车辆形式
Trim Code	内饰代码
Color Code	颜色代码
Option Code	配置代码
Engine Type	发动机类型
Transmission Type	变速箱类型

NC-07864

- (1) Label for China
- (2) Model No. label

- (3) GT7#L#S
- (4) GT7FL#L

## General Description

Indication example (3) GT7#L#S

#: Varies according to vehicle model.

Digit	Code	Meaning	Details
1	G	Series	G: XV
2	T	Body type	T: 5-door
3	7	Total engine displacement / drive system	7: 2.0 L AWD NA
4	M	Grade	M: 2.0i-C P: 2.0i-L U: 2.0i-L EyeSight
5	L	Fuel supply system / transmission	L: DI DOHC NA CVT
6	C	Identification code	A: With sunroof, with leather seats, with side and curtain airbags C: With sunroof, without leather seats, with side and curtain airbags
7	S	Destination	S: For ES

Indication example (4) GT7FL#L

#: Varies according to vehicle model.

Digit	Code	Meaning	Details
1	G	Series	G: XV
2	T	Body type	T: 5-door
3	7	Total engine displacement / drive system	7: 2.0 L AWD NA
4	E	Model year	F: 2022MY
5	L	Destination	L: LHD (left hand drive model)
6	M	Grade	M: 2.0i-C P: 2.0i-L U: 2.0i-L EyeSight
7	L	Fuel supply system / Transmission	L: DI DOHC NA CVT

## General Description

### 3. ENGINE

FB####ZH##

#: Varies according to vehicle model.

Digit	Meaning	Details
1 - 2	Engine model symbol	FB: 4 cylinder gasoline
3 - 4	Total displacement	16: 1.6 L 20: 2.0 L
5	Valve train / fuel supply system / LH or RH drive	A: DOHC NA (RH, LH) C: DOHC DI NA (RH) D: DOHC DI NA (LH) W: HEV (RH) X: HEV (LH)
6	Exhaust regulations	E: Europe (EURO6c -) V: Europe W: China (China 6) Z: Europe (Proconve)
7	Intake/exhaust system	Z: Intake AVCS, exhaust AVCS, TGV, EGR
8	Mounted transmission	H: CVT
9 - 10	Detailed specifications	Used for ordering parts. For details, refer to the parts catalog.

### 4. TRANSMISSION (CVT)

T#58#####

#: Varies according to vehicle model.

Digit	Meaning	Details
1	Transmission symbol	T: Transmission
2	Basic transmission system	C: FWD CVT R: Full-time AWD CVT H: HEV full-time AWD CVT
3 - 4	Distance between pulley centers	58: 158 mm (6.22 in) between pulley centers
5	Classification	0: CVT A: MA1
6	Transmission specifications	D: With Auto Start-Stop, with CVTF cooler (with warmer feature), without air-cooled CVTF cooler G: Without Auto Start-Stop, with CVTF cooler (with warmer feature), without air-cooled CVTF cooler
7	Mounted engine	D: 1.6 L DOHC NA or 2.0 L DOHC NA Y: 1.6 L DOHC NA
8 - 10	Detailed specifications	Used for ordering parts. For details, refer to the parts catalog.

### 5. REAR DIFFERENTIAL

Identification	Reduction gear ratio	LSD
41	3.700	None
Y2	3.900	None
Y3	4.111	None

### 1-2 Major Changes

#### 1. ENGINE

- Front and rear catalytic converters with improved purification performance are adopted (for K4)
- Evaporative Leak Check Module system has been expanded to more vehicles (for K4)
- Hydrocarbon adsorption filter has been adopted (for K4)
- Auto Start-Stop system has been adopted (for KS)

# 2.ENGINE

---

	<b>Page</b>
2-1 Emission Control .....	2
A GENERAL DESCRIPTION .....	2
B DETAILS .....	2
2-2 Air Intake .....	7
A GENERAL DESCRIPTION .....	7
B DETAILS .....	7
2-3 Auto Start-Stop System.....	8
A GENERAL DESCRIPTION .....	8

## 2-1 Emission Control

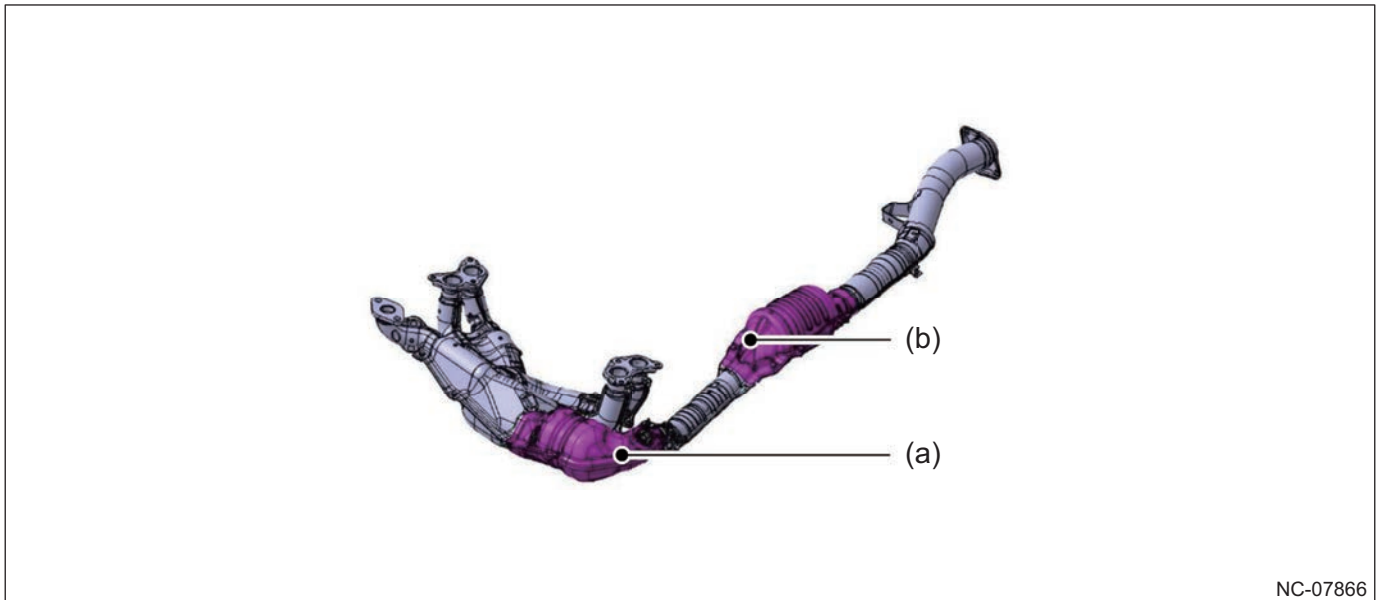
### A: GENERAL DESCRIPTION

- Front and rear catalytic converters with improved purification performance are adopted. (For K4)
- The Evaporative Leak Check Module system, which monitors fuel evaporative gas leaks from the fuel tank and canister, has been expanded to more vehicles. (For K4)

### B: DETAILS

#### 1. CATALYTIC CONVERTER

Catalytic converters with improved impurity removal and processing capacity have been adopted to enhance the purification performance.



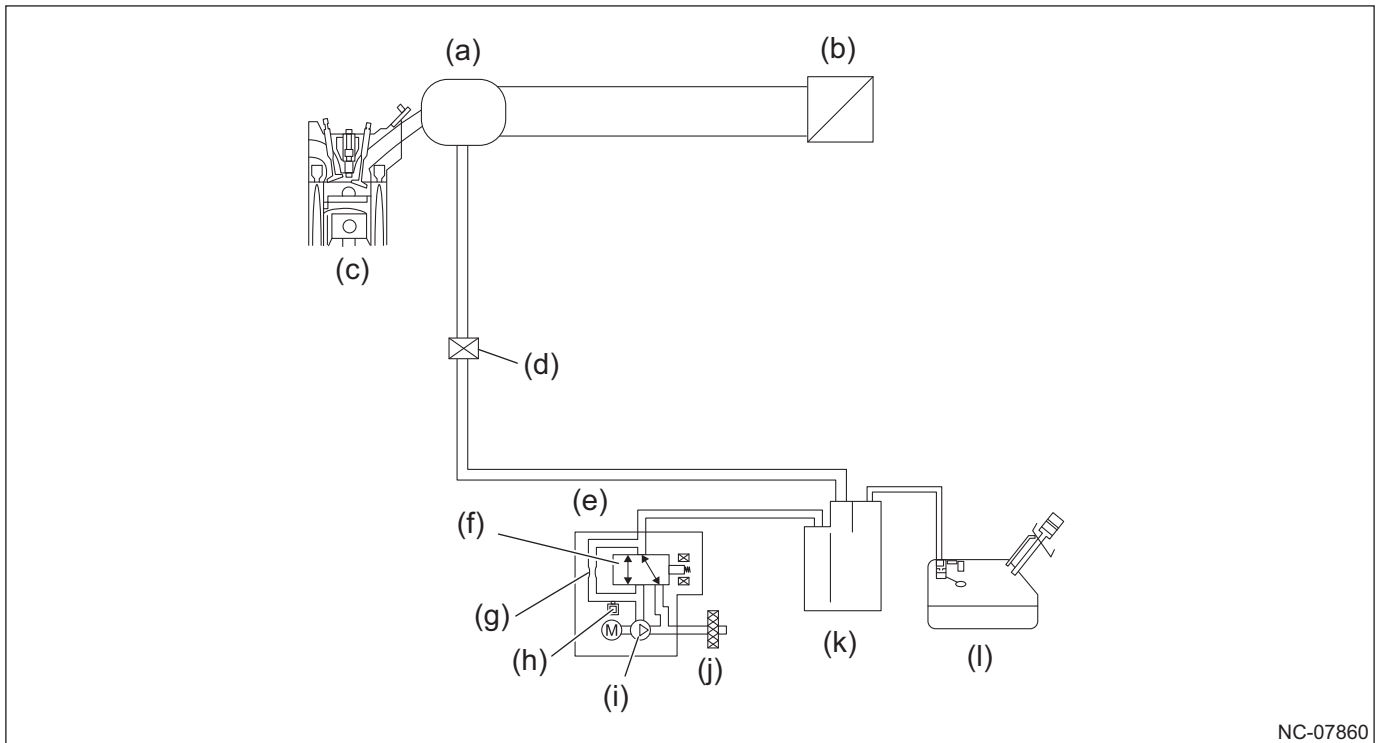
(a) Front catalytic converter

(b) Rear catalytic converter

# Emission Control

## 2. EVAPORATIVE LEAK CHECK MODULE SYSTEM

- The Evaporative Leak Check Module system consists of a reference orifice (0.5 mm (0.02 in) in diameter), a vacuum pump (for introducing negative pressure into the evaporation line), a switching valve (for switching negative pressure introduction passages), and a pressure sensor.
- In order to accurately conduct evaporative leak check diagnosis, the operation and evaporative leak check diagnoses are started by a signal from the ECM when a certain time has elapsed after the engine has been stopped and the evaporation pressure has stabilized.
- The Evaporative Leak Check Module system performs evaporation leak check diagnosis by applying negative pressure to the evaporation line with an internal pump while the engine is stopped.
- The frequency of evaporative leak check diagnosis has been increased, and the diagnosis can be compulsorily performed while the engine is stopped. It is also possible to reliably verify the repair after the evaporative system maintenance work has been completed.



NC-07860

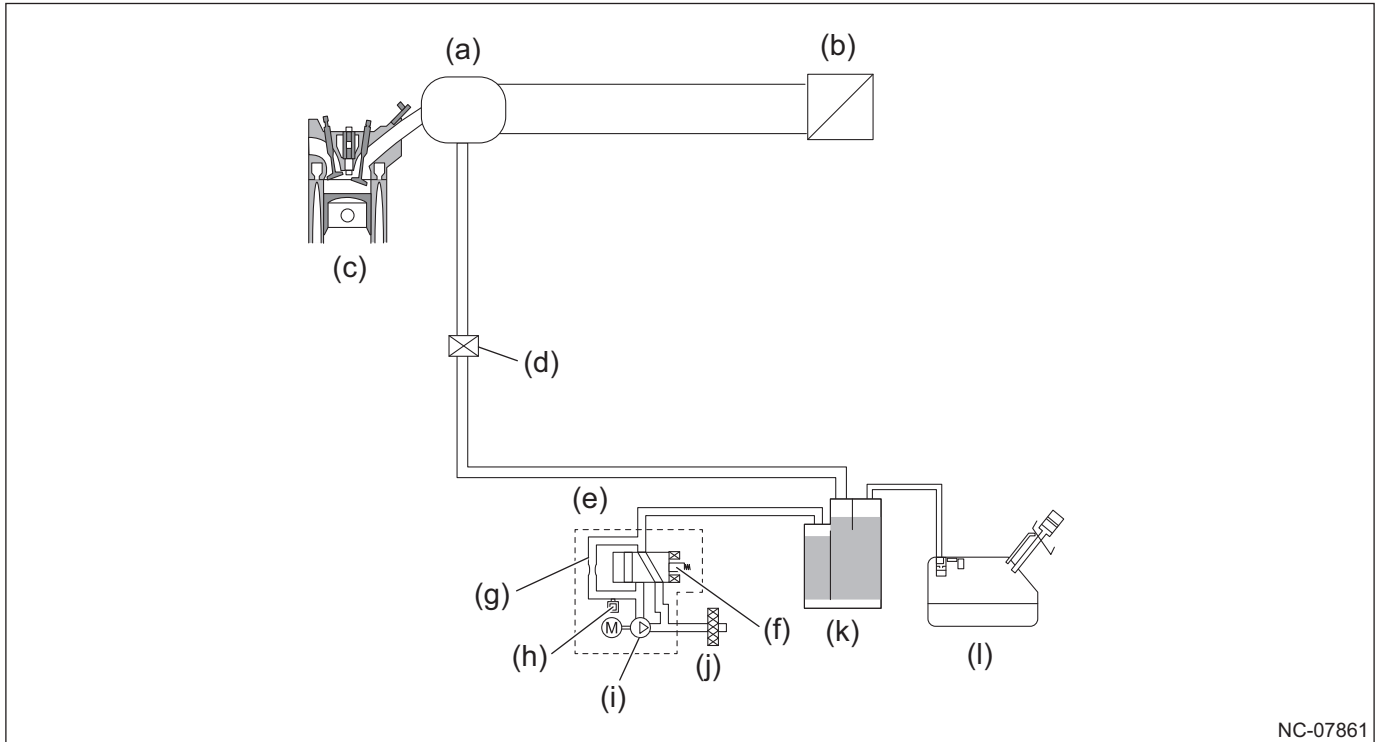
- |                                   |                       |
|-----------------------------------|-----------------------|
| (a) Intake manifold               | (g) Reference orifice |
| (b) Air cleaner                   | (h) Pressure sensor   |
| (c) Engine                        | (i) Vacuum pump       |
| (d) Purge control solenoid valve  | (j) Drain filter      |
| (e) Evaporative Leak Check Module | (k) Canister          |
| (f) Switching valve               | (l) Fuel tank         |

# Emission Control

## 2.1 Operation during normal driving

Vacuum pump: Not operating

Switching valve: Not operating (released to atmosphere)



NC-07861

- |                                   |                       |
|-----------------------------------|-----------------------|
| (a) Intake manifold               | (g) Reference orifice |
| (b) Air cleaner                   | (h) Pressure sensor   |
| (c) Engine                        | (i) Vacuum pump       |
| (d) Purge control solenoid valve  | (j) Drain filter      |
| (e) Evaporative Leak Check Module | (k) Canister          |
| (f) Switching valve               | (l) Fuel tank         |

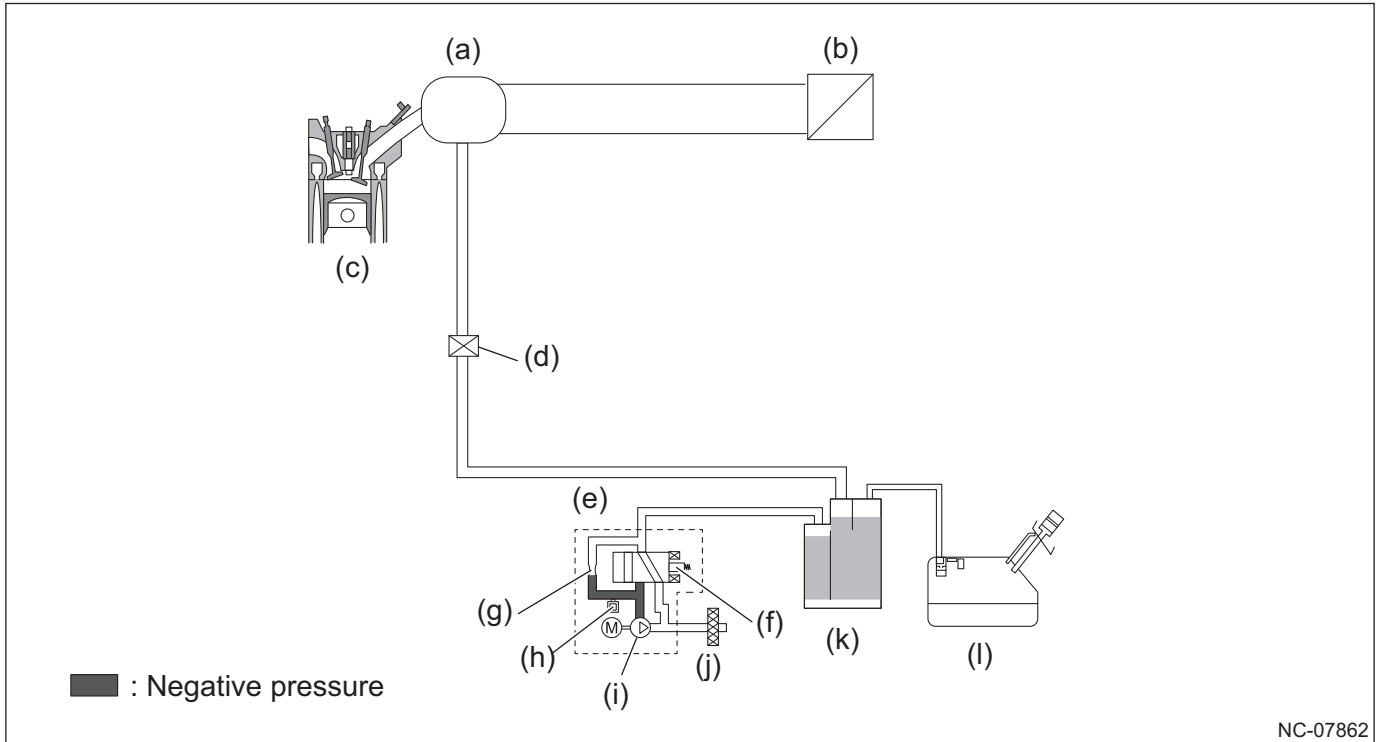


# Emission Control

## 2.2 Operation during diagnosis (during reference orifice pressure detection)

Vacuum pump: Operating

Switching valve: Not operating (released to atmosphere)



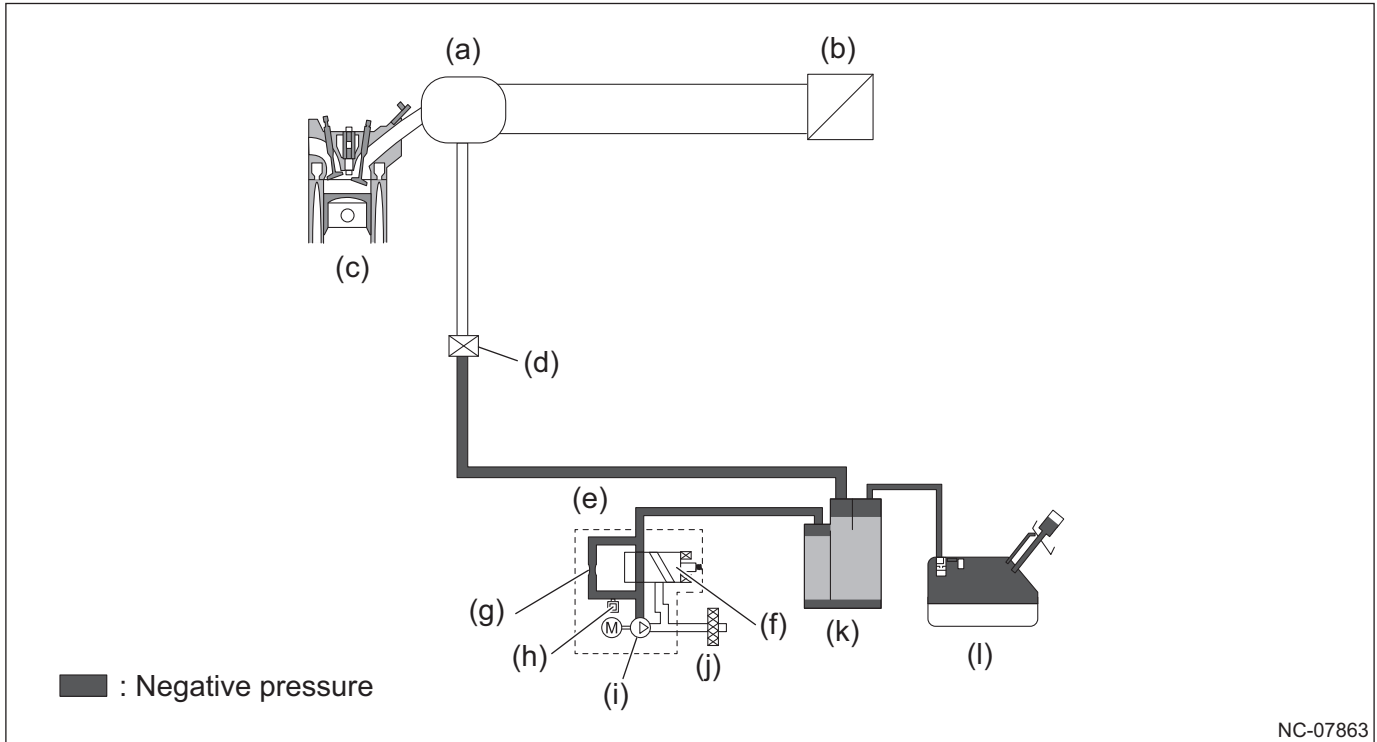
- |                                   |                       |
|-----------------------------------|-----------------------|
| (a) Intake manifold               | (g) Reference orifice |
| (b) Air cleaner                   | (h) Pressure sensor   |
| (c) Engine                        | (i) Vacuum pump       |
| (d) Purge control solenoid valve  | (j) Drain filter      |
| (e) Evaporative Leak Check Module | (k) Canister          |
| (f) Switching valve               | (l) Fuel tank         |

# Emission Control

## 2.3 Operation during diagnosis (during negative pressure introduction)

Vacuum pump: Operating

Switching valve: Operating (closed)



NC-07863

- |                                   |                       |
|-----------------------------------|-----------------------|
| (a) Intake manifold               | (g) Reference orifice |
| (b) Air cleaner                   | (h) Pressure sensor   |
| (c) Engine                        | (i) Vacuum pump       |
| (d) Purge control solenoid valve  | (j) Drain filter      |
| (e) Evaporative Leak Check Module | (k) Canister          |
| (f) Switching valve               | (l) Fuel tank         |

# Air Intake

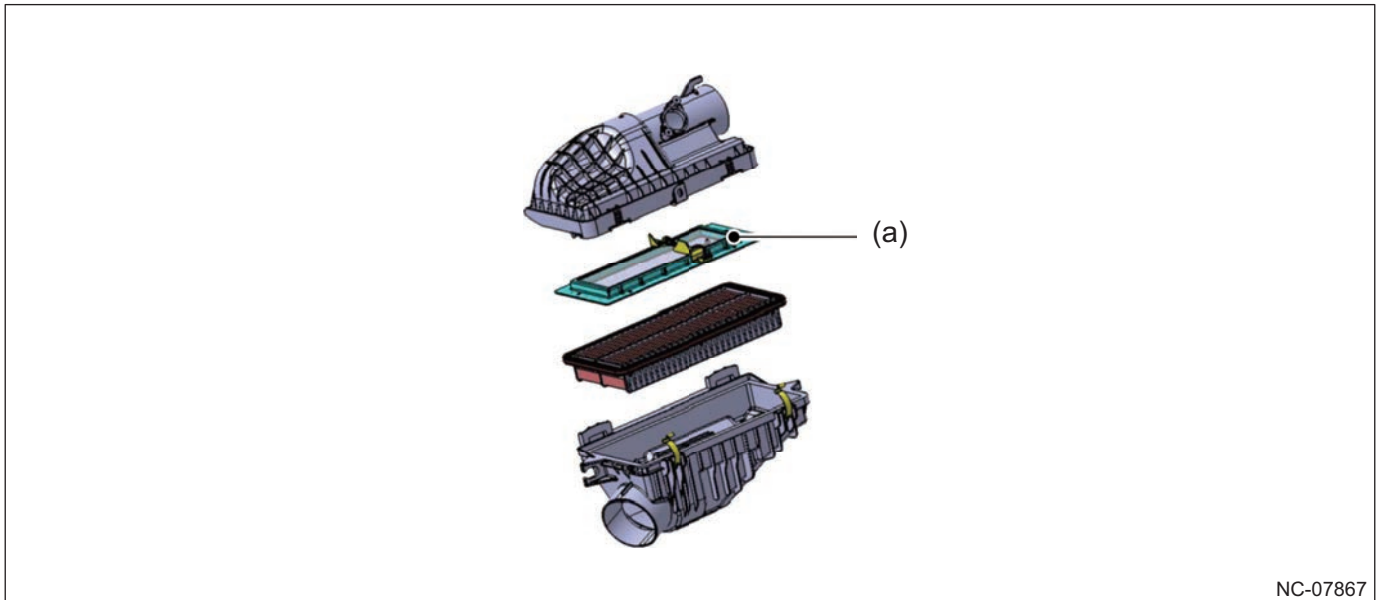
## 2-2 Air Intake

### A: GENERAL DESCRIPTION

A hydrocarbon adsorption filter has been installed inside the air cleaner case. (For K4)

### B: DETAILS

- By collecting hydrocarbons when the engine is stopped, emissions to the outside of the vehicle are reduced.
- When the engine is started, the collected hydrocarbons are released, flow through the intake manifold, and burn in the combustion chambers.



NC-07867

(a) Hydrocarbon adsorption filter

### **2-3 Auto Start-Stop System**

#### **A: GENERAL DESCRIPTION**

The Auto Start-Stop system has been expanded to vehicles for KS.

By automatically stopping the engine during temporary stops such as at a traffic light, fuel consumption during idling can be reduced, contributing to improved fuel efficiency.

\* For more information on the Auto Start-Stop system, please refer to 2017 IMPREZA NEW CAR INFORMATION (Pub. No. U1300G#).