How to Use the Service Manual

How to Use the Service Manual

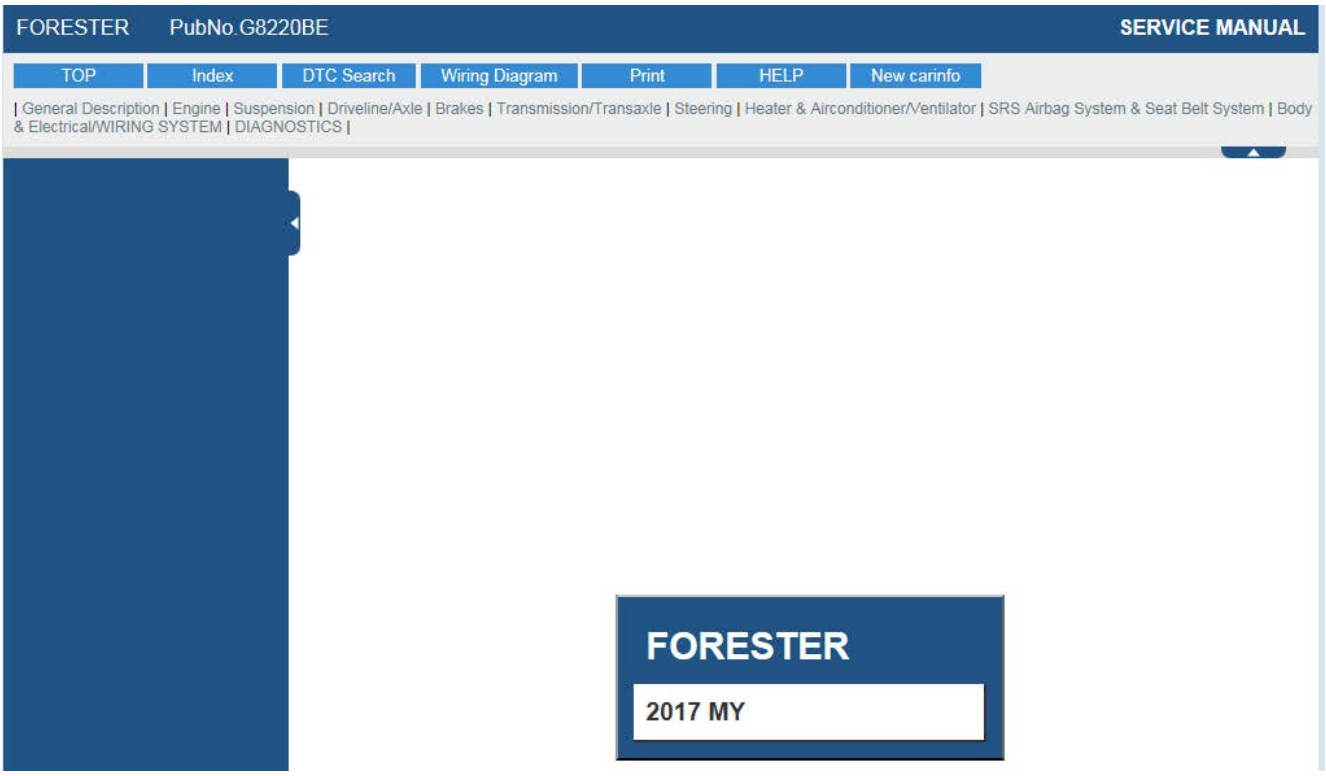
Please be aware that the names of parts, buttons or icons described in this document may change without notice. However, as this document is intended to be only a guide for using the service manual, any discrepancies may not be corrected.
Depending on the internet browser software used, there may be cases where the layout differs from the screenshots shown below.
Please understand that in such cases, amendments to this document may not be carried out.

1. Using the Screen Navigation Tabs

In this section we will explain how to use the screen navigation tabs shown on the top screen.

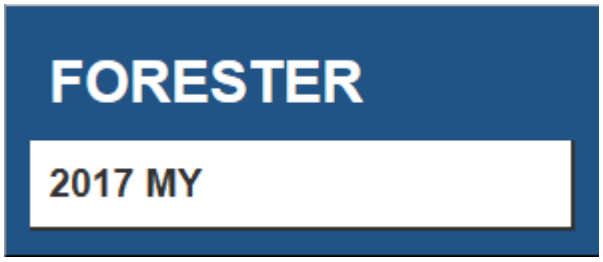
1. [TOP] tab (TOP)

The top screen is shown as follows:



Click the [TOP] tab located on each screen to show the top screen as shown above.

- Model and year of the service manual you are currently viewing.
  The model and year of the service manual you are currently viewing is displayed in the center of the top screen.

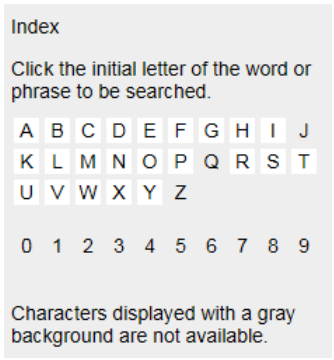


- Publication number of the service manual you are currently viewing.
  Each service manual is given a unique publication number.
  The publication number (Pub No.) may change as new information is added to the service manual.
  The section of the screen shown below allows you to check the publication number of the service manual you are currently viewing.

2. [Index] tab (Index)

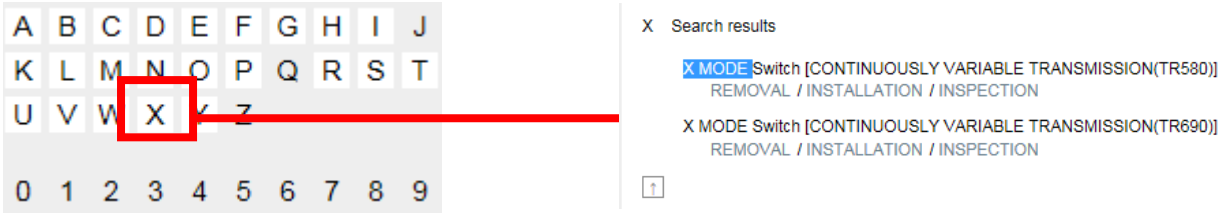
Click the [Index] tab to show an on-screen keypad that allows you to search for particular section titles in the service manual. After clicking the initial letter of the word or phrase, a list of applicable search results comes up.

1） After clicking the [Index] tab, the following alphanumeric keypad is displayed:

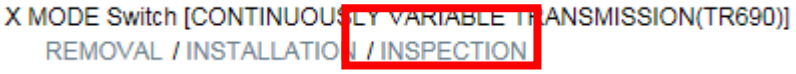


Characters with a white background have corresponding section titles. Those with a gray background do not correspond with a section title starting with that character.

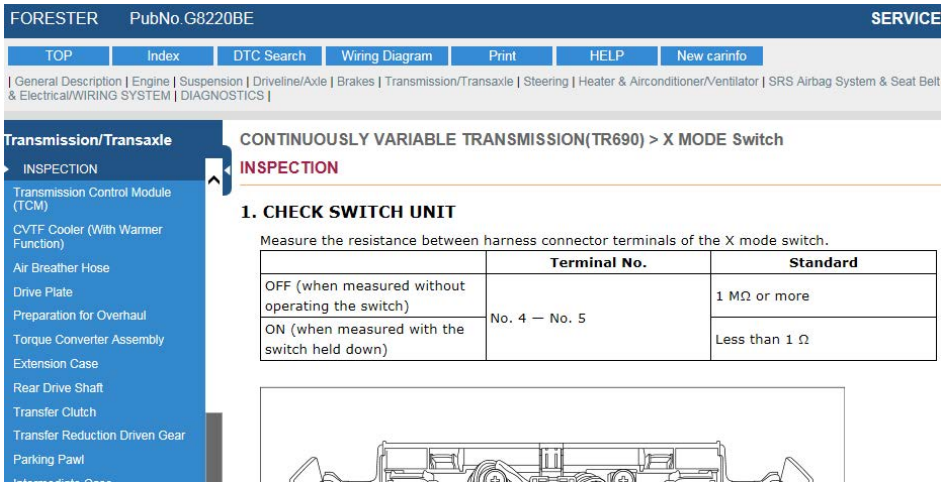
For example, if you wish to browse all section titles starting with "X MODE", start by clicking the [X] button.



2） You can then click the link to the particular section you were looking for.



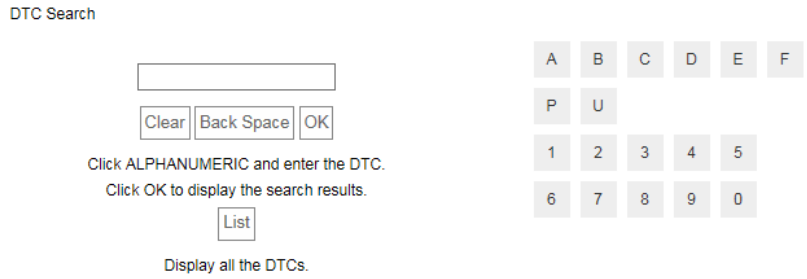
The desired section of the service manual will then be displayed on the screen.



3. [DTC Search] tab (DTC Search)

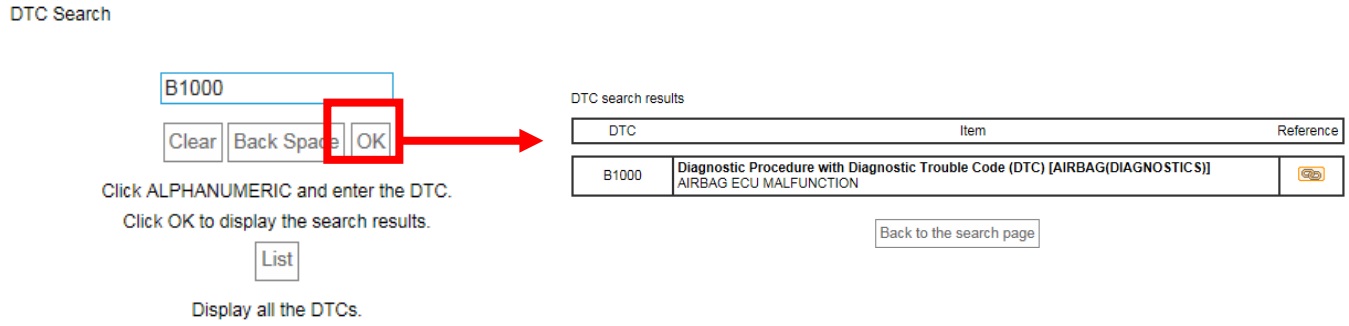
Click the [DTC Search] tab to show a screen where you can search for pages in the service manual relating to the DTC you wish to look up

1) After clicking the [DTC Search] tab, the following screen is displayed:

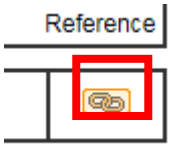


2) Either directly enter the DTC you wish to search for into the search field, or use the alphanumeric keypad shown to the right.
3) Click the [OK] once you have entered the code.
A list of all pages corresponding to that particular DTC are then displayed.

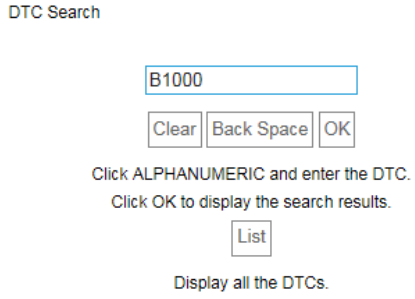
Example:



4) You can then click the link to the particular section you were looking for.
The page corresponding to the DTC is then displayed.



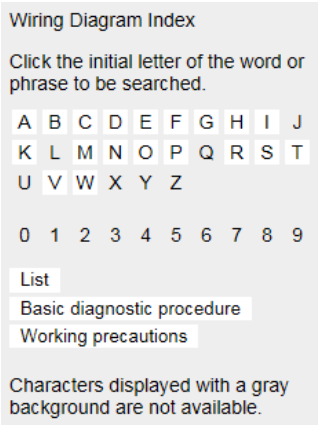
- Click the [Back Space] button on the screen shown below to delete the last DTC character.
- You can also click the [Clear] button to delete all the characters you have entered.
- The [List] button brings up a list of all DTC pages in the service manual.



4. [Wiring Diagram] tab (Wiring Diagram)

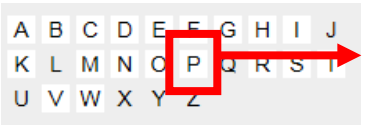
Click the [Wiring Diagram] tab to show an on-screen keypad that allows you to search for particular titles of wiring diagrams in the service manual. After clicking the initial letter of the word or phrase, a list of applicable search results comes up.

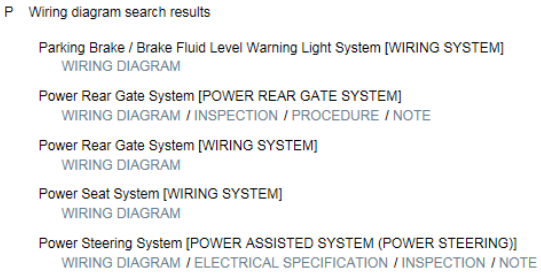
1） After clicking the [Wiring Diagram] tab, the following screen is displayed:



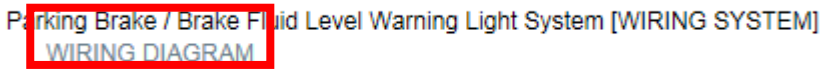
Characters with a white background have corresponding wiring diagram titles. Those with a gray background do not correspond with a wiring diagram title starting with that character.

For example, if you wish to browse all wiring diagrams corresponding to "Parking Brake", start by clicking the [P] button.

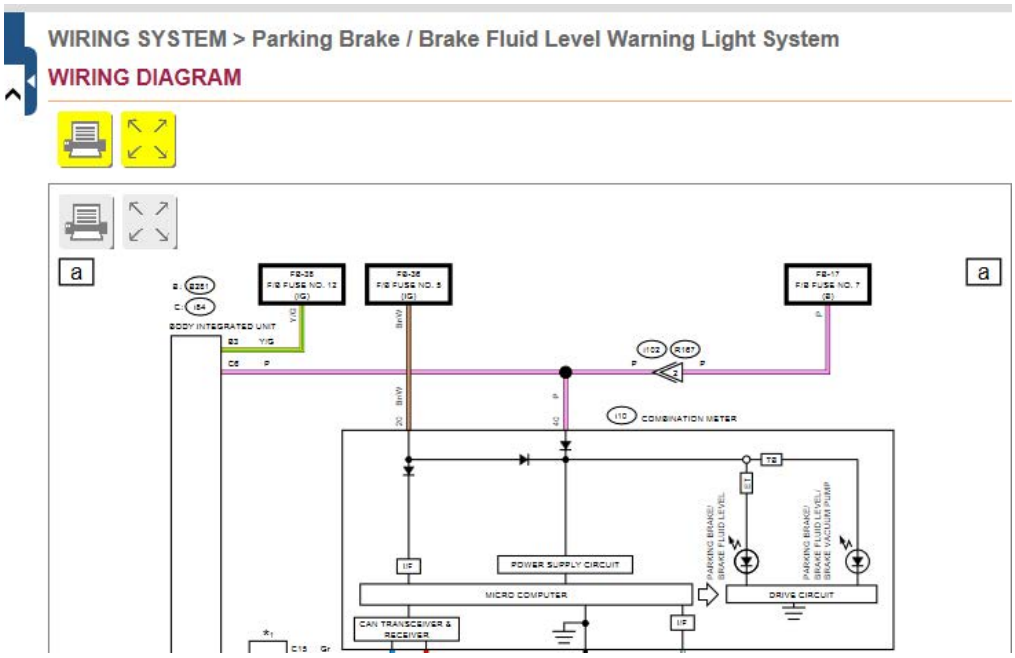




2） You can then click the link to the particular section you were looking for.



The desired section of the service manual will then be displayed on the screen.

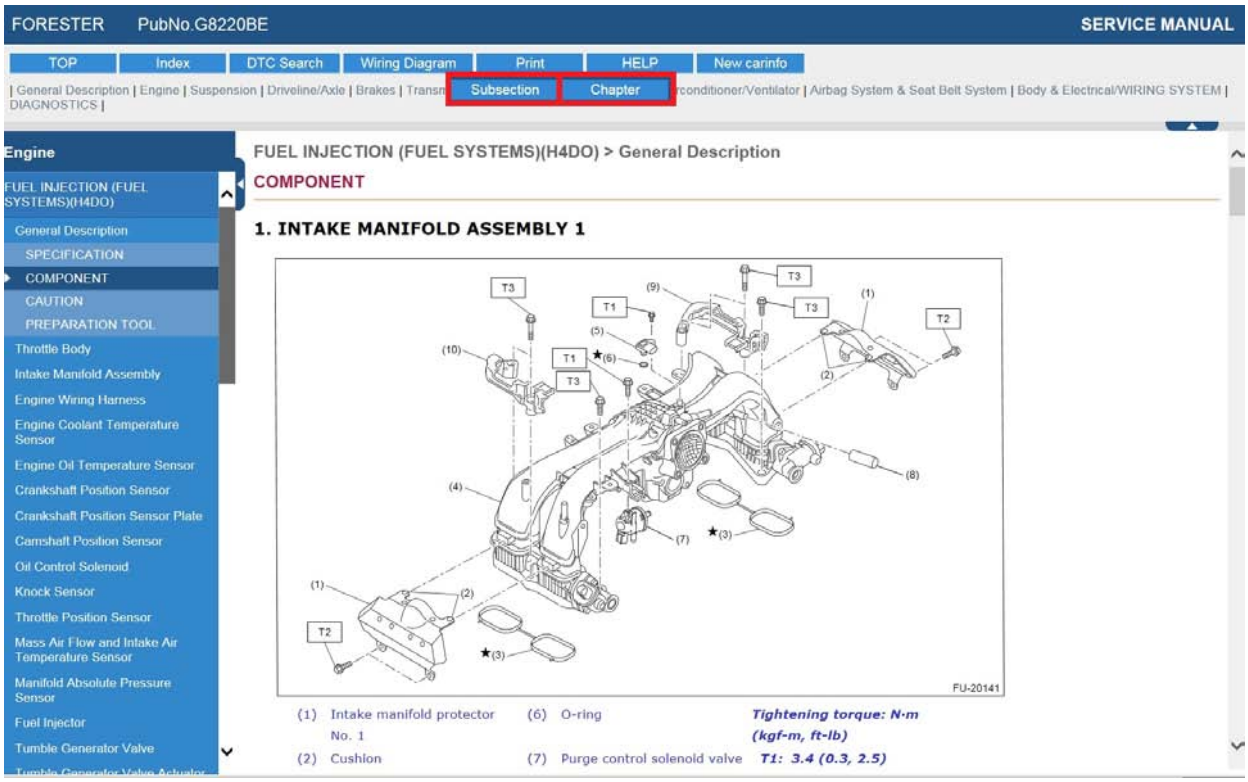


5. [Print] tab (Print)

Click the [Print] tab to print the currently displayed content.

1） Display the main content and then click the Print button.

2） Select the printing unit by selecting the Subsection or Chapter .



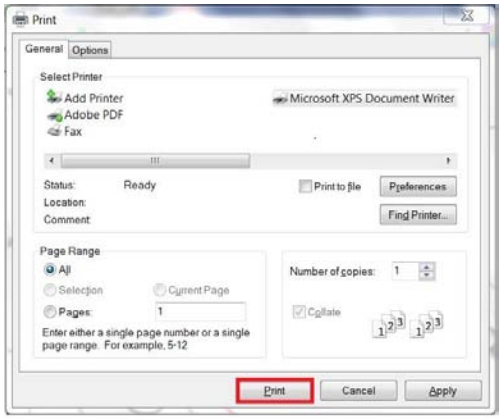
NOTE:

Click the Subsection button to print by Subsection unit.

Click the Chapter button to print by Chapter unit.

3） Print dialog box is displayed.

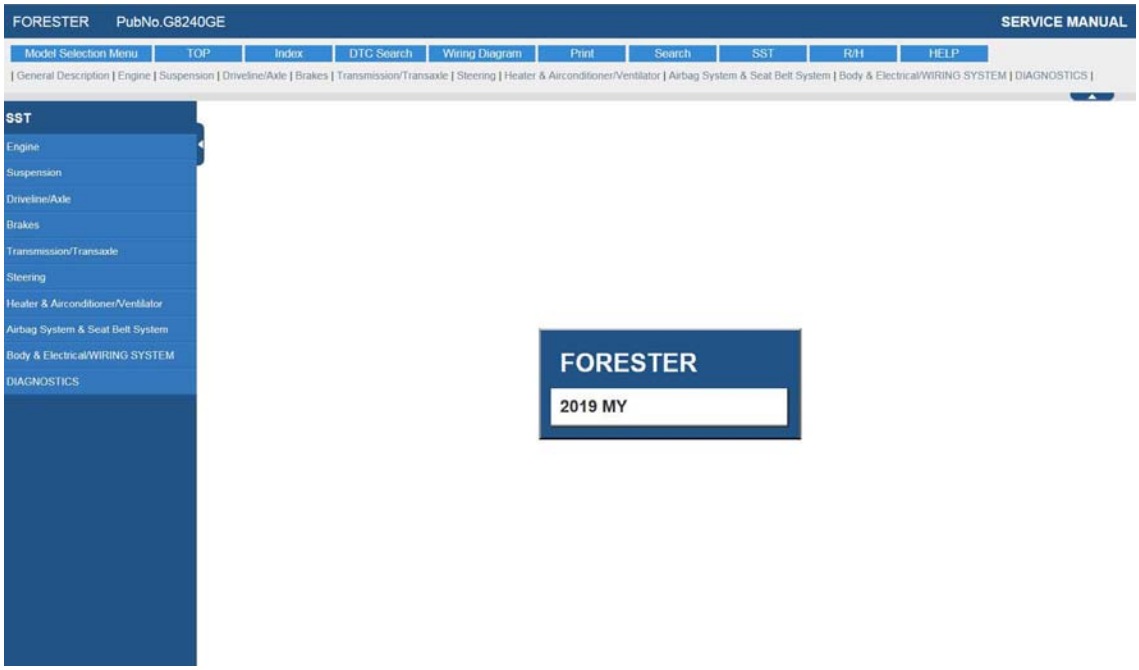
4） Confirm the printer and then click the Print button to start printing.



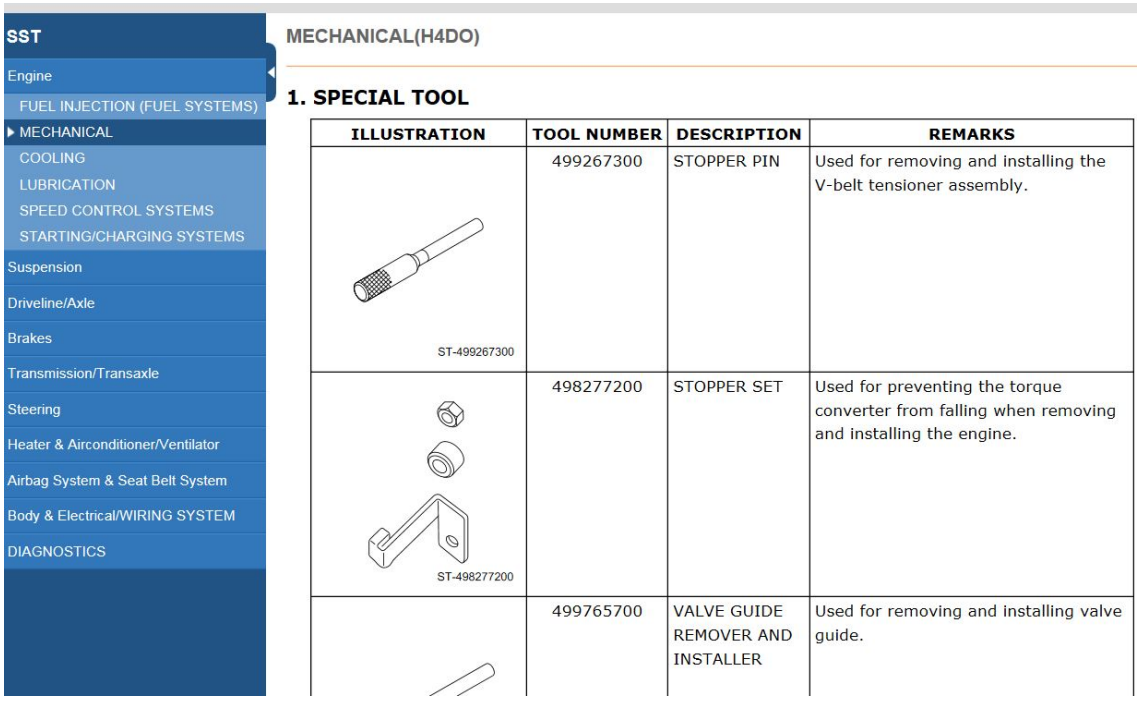
6. [SST] tab (SST)

Click the SST button to display the SST manual.

1) Click the SST button.



2) Click the link buttons to display a list of SSTs used for each particular section.



7. [R/H] tab (R/H)

By clicking the R/H button, it is possible to display links of the harness repair manual from the SM.

8. [Help] tab (HELP)

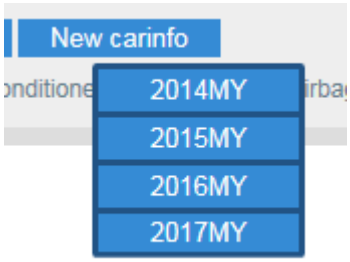
This brings up the help content for the service manual you are currently viewing.
It displays this information in PDF format.

9. [New carinfo] tab (New carinfo)

Click the [New carinfo] tab to show links to the new car information manuals that correspond to the current service manual.

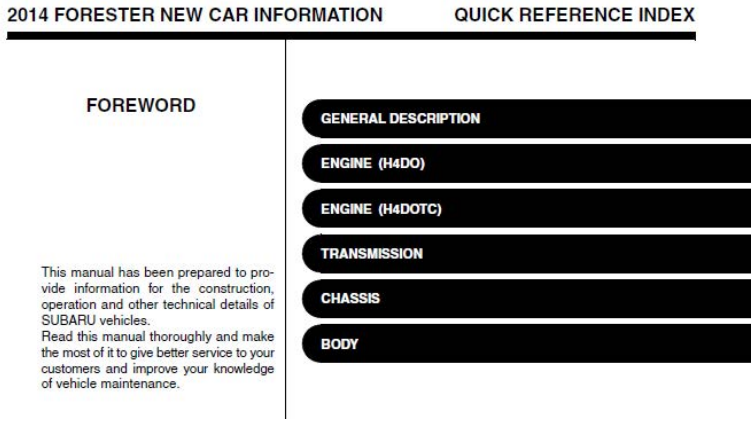
After clicking this tab, a sub-menu will come up as shown below.

Example:

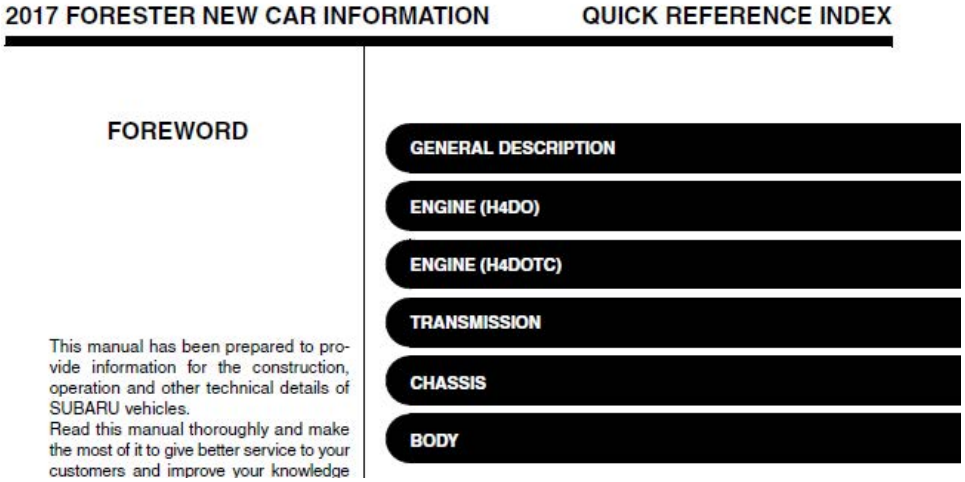


The above shows various options starting with the 2014 model year when there was a full model changeover and the new model was introduced to the market.
The currently viewed service manual is for the 2017 model year.

Simply click 2014MY, to display the new car information manual for the initial full model changeover year.

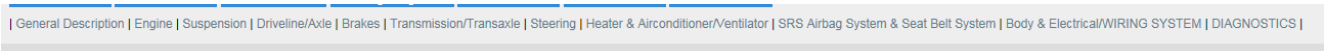


Alternatively, you may click 2017MY, to display the 2017 model year new car information manual.



2. Using the Section Navigation Links

Just under the tabs, various section navigation links are provided as shown below.



Click each link to navigate to the corresponding section.

For example, if you wish to navigate to the 'wiring diagram' section, click the

link.

1) Once you click the [Body & Electrical/WIRING SYSTEM] link, the following will be displayed:

2) On this sub-menu, click [WIRING SYSTEM].

3） All items that are in the category of 'wiring system' are displayed as shown below. Simply click the item you wish to view.

3. Service Manual Structure and Contents

3.1. Structure

Each section consists of SCT that are broken down into SC that are divided into sections for each component.

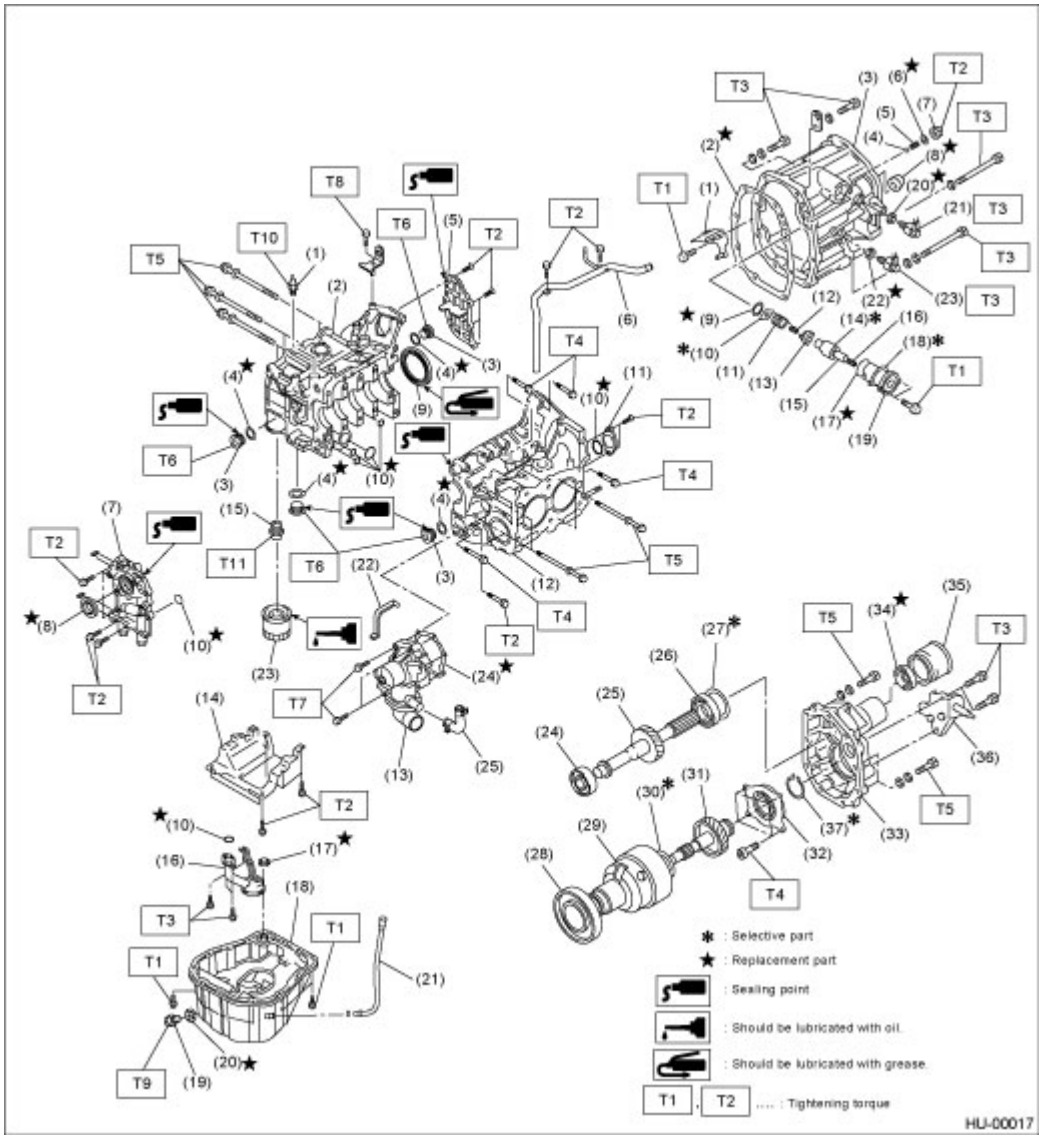
The specification, maintenance and other information for the components are included, and the diagnostic information has also been added where necessary.

3.2. Component

Illustrations are provided for each component. The information necessary for repair work (tightening torque, grease up points, etc.) is described on these illustrations. Information is described using symbol.

To order parts, refer to parts catalogue.

Example:



3.3. Definitions of "NOTE", "CAUTION" and "WARNING"

・ NOTE:

Describes additional information to make works easier.

・ CAUTION:

Describes prohibited matters to prevent vehicle or parts damage, or matters that requires special attention during work.

・ WARNING:

Describes matters that may cause serious damage to the operator or other person, or that may cause damage or accident.

3.4. Specifications

If necessary, specifications are also included.

3.5. Inspection

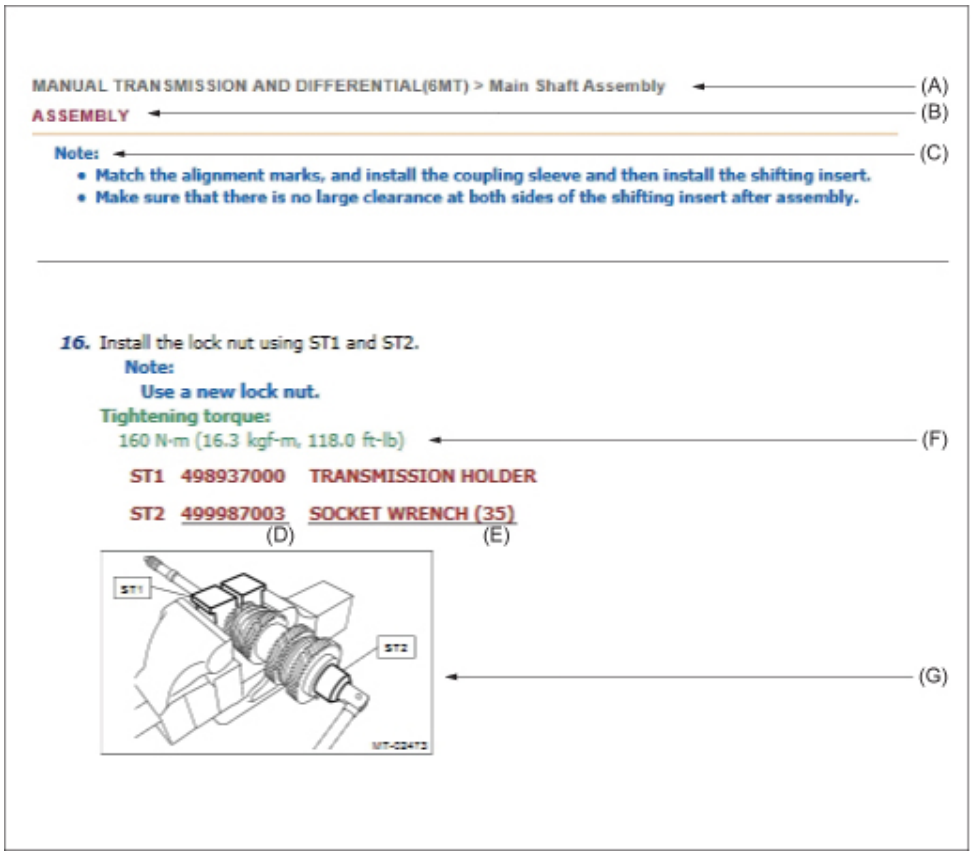
Inspections to be carried out before and after maintenance are included.

3.6. Maintenance

・ Maintenance instructions for serviceable parts describe work area and detailed step with illustration. It also describes the use of special tool, tightening torque, caution for each procedure.

・ If many serviceable parts are included in one service procedure, appropriate reference is provided for each part.

Example:



(A) Component (D) Tool number of special tool (F) Tightening torque

(B) Process (E) Name of special tool (G) Illustration

(C) Cautions

3.7. Diagnosis

Step-by-step process is employed for easier diagnosis.

3.8. SI Units

Measurements in these manuals are according to the SI units. Metric and yard/pound measurements are also included.

Example:
Tightening torque:
44 N·m (4.5 kgf-m, 33 ft-lb)

List of SI unit			
Item	SI units	Conventional unit	Remarks
Force	N (Newton)	kgf	1 kgf = 9.807 N
Mass (weight)	kg, g	kg, g	
Capacity	L, mL or cm^3	L or cc	1 cc = 1 cm^3 = 1 mL
Torque	N·m	kgf-m, kgf-cm	1 kgf-m = 9.807 N·m
Rotating speed	r/min	rpm	
Pressure	kPa (Kilopascal)	kgf/cm^2	1 kgf/cm^2 = 98.07 kPa
		mmHg	1 mmHg = 0.1333 kPa
Power	W	PS	1 PS = 0.7355 kW
Calorie	W·h	cal	1 kcal = 1.163 W·h
Fuel consumption rate	g/kw·h	g/PS·h	1 g/PS·h = 1.3596 g/kW·h

The figure used in these manuals are described in the SI units and conventional units are described in ( ).

3.9. Explanation of Terminology

・ List

2ndr	Secondary
AAI	Air Assist Injection
A/B	Airbag
ABS	Anti-lock Brake System
A/C	Air Conditioner
ACC	Accessory
A/F	Air Fuel Ratio
ALT	Generator
APS	Accessory Power Supply Socket
ASSY	Assembly
AT	Automatic Transmission
ATF	Automatic Transmission Fluid
AUX	Auxiliary Storage Unit (External storage)
AVCS	Active Valve Control System
AWD	All Wheel Drive
BATT	Battery
BCM	Brake Control Module
BRKT	Bracket
BSD/RCTA	Blind Spot Detection / Rear Cross Traffic Alert
CAN	Controller Area Network

CCA	Cold Cranking Ampere
CD	Compact Disc
CD-R/RW	CD Recordable/Rewritable
COMPL	Complete
CPC	Canister Purge Control Solenoid Valve
CPU	Central Processing Unit
CTR	Center
CM	Control Module
CVT	Continuously Variable Transmission
CVTF	Continuously Variable Transmission Fluid
DCCD	Driver's Control Center Differential
DOHC	Double Overhead Camshaft
D/R	Dual-range
DTC	Diagnosis Trouble Code
DU	Drive Unit
DVD	Digital Versatile Disc or Digital Video Disc
EBD	Electronic Brake Distribution
ECM	Engine Control Module
ECV	Exhaust pressure control valve
E/G	Engine
EGI	Electronic Gasoline Injection
EGR	Exhaust Gas Recirculation
ELR	Emergency Locking Retractor
EPB	Electronic Parking Brake
ETC	Electronic Throttle Control
EX	Exhaust
F/B	Fuse & Joint Box
FL	Fusible Link
Ft	Front
FWD	Front Wheel Drive
GPS	Global Positioning System
HBA	High Beam Assist
HI	High
HID	High-Intensity Discharge
H/L	Headlight
H/U	Hydraulic Unit
HVAC	Heater, Ventilator and Air Conditioner
ICR	Inrush Current Reduction
I/F	Interface
IG	Ignition
IN	Intake
INT	Intermittent
I/O	Input / Output
IR	Infrared Ray
ISC	Idle Speed Control
LAN	Local Area Network
LCD	Liquid Crystal Display

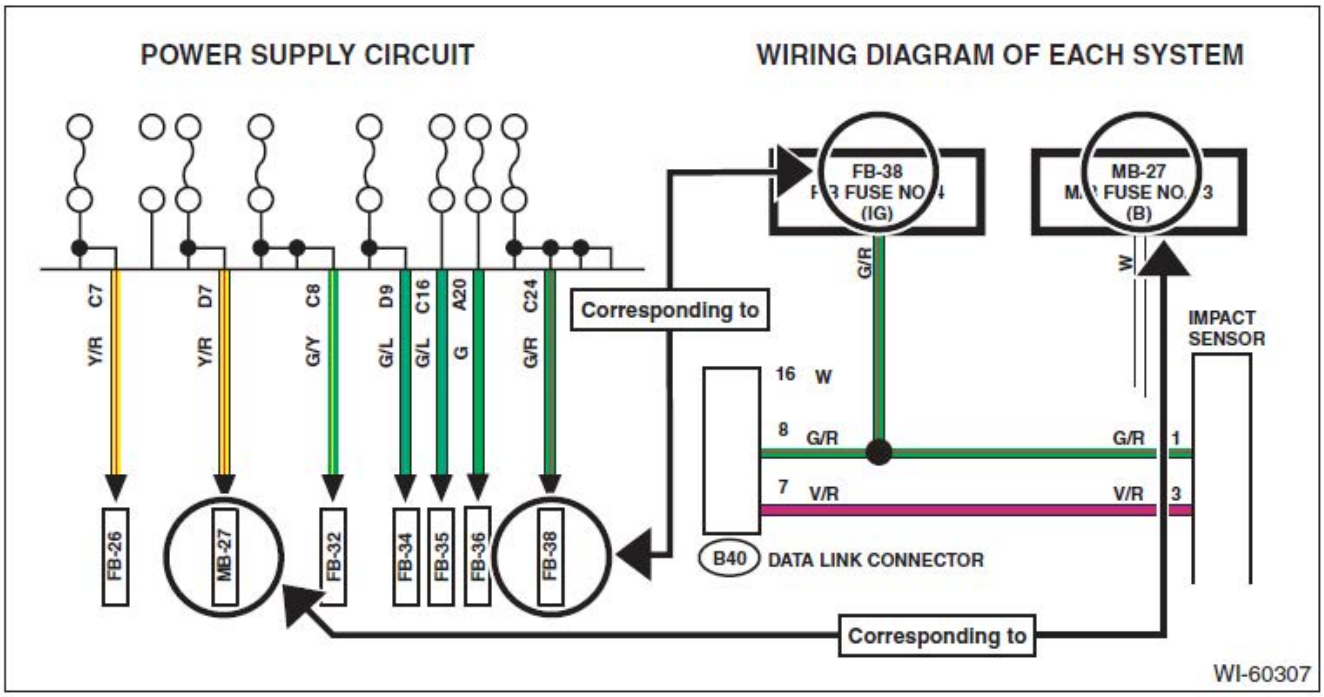
LED	Light Emitting Diode
LH	LH (Left Hand)
LHD	Left Hand Drive
Lo	Low
LSD	Limited Slip Differential
LWR	Lower
M/B	Main Fuse & Relay Box
MD	Mini Disc
MID	Multi Information Display
MFI	Multi-Point Fuel Injection
MP-T	Multi-Plate Transfer
MT	Manual Transmission
NA	Natural Aspiration
NC	Normal Close (Relay)
NO	Normal Open (Relay)
OBD	On-Board Diagnosis
OP	Option Parts
PC	Personal Computer
PCD	Pitch Circle Diameter
PCV	Positive Crankcase Ventilation
PID	Parameter Identification
Pr	Primary
PRG	Power Rear Gate
P/S	Power Steering
PTJ	Pillow Tripod Joint
P/W	Power Window
RAM	Random Access Memory
RH	RH (Right Hand)
RHD	Right Hand Drive
ROM	Read Only Memory
Rr	Rear
SDI	Subaru Diagnostic Interface
SI	Subaru Intelligent
SOHC	Single Overhead Camshaft
SRS	Supplemental Restraint System
SRVD	Subaru Rear Vehicle Detection
SSM	Subaru Select Monitor
ST	Special Tool
STD	Standard
SW	Switch
T/B	Turbocharger
TCS	Traction Control System
TCM	Transmission Control Module
TGV	Tumble Generator Valve
T/M	Transmission
TPMS	Tire Pressure Monitoring System
UJ	Universal Joint

UPR	Upper
UV	Ultraviolet
VDC	Vehicle Dynamics Control
V.I.N.	Vehicle Identification Number
ViS-C	Viscous Coupling
VSV	Vacuum Switching Valve
VTD	Variable Torque Distribution
W/H	Wiring Harness

4. How to Read Wiring Diagram

4.1. Power Supply Circuit

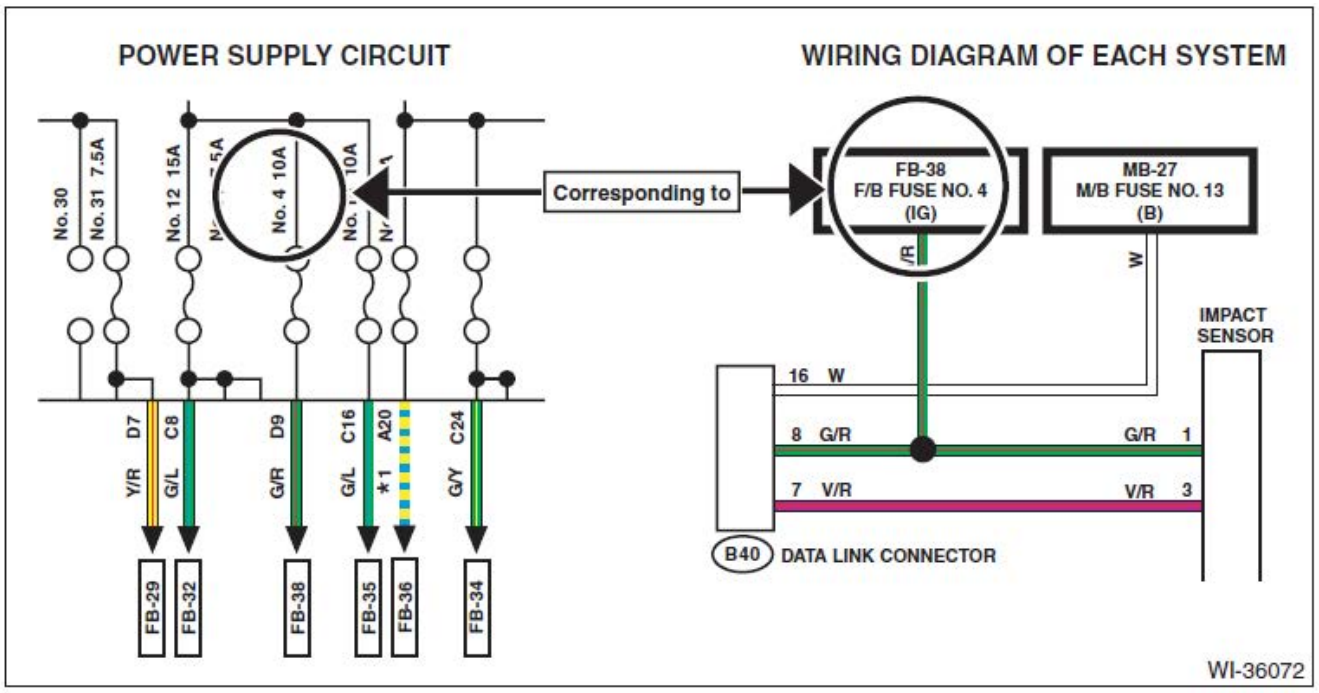
Circuits are described to indicate the power supply in the wiring diagram of each system. “MB-5”, “MB-6”, etc., which are used as power- supply symbols throughout the text, correspond with those shown in the “DC POWER SUPPLY CIRCUIT” in the wiring diagram of each system. Accordingly, using the DC power supply circuit and the wiring diagram of each system permits service personnel to understand the entire electrical arrangement of the system.



4.2. Wiring Diagram of each System

1. Fuse No. & rating

The “Fuse No. & rating” is the same description as that in the DC power supply circuit, and corresponds with that used in the vehicle.

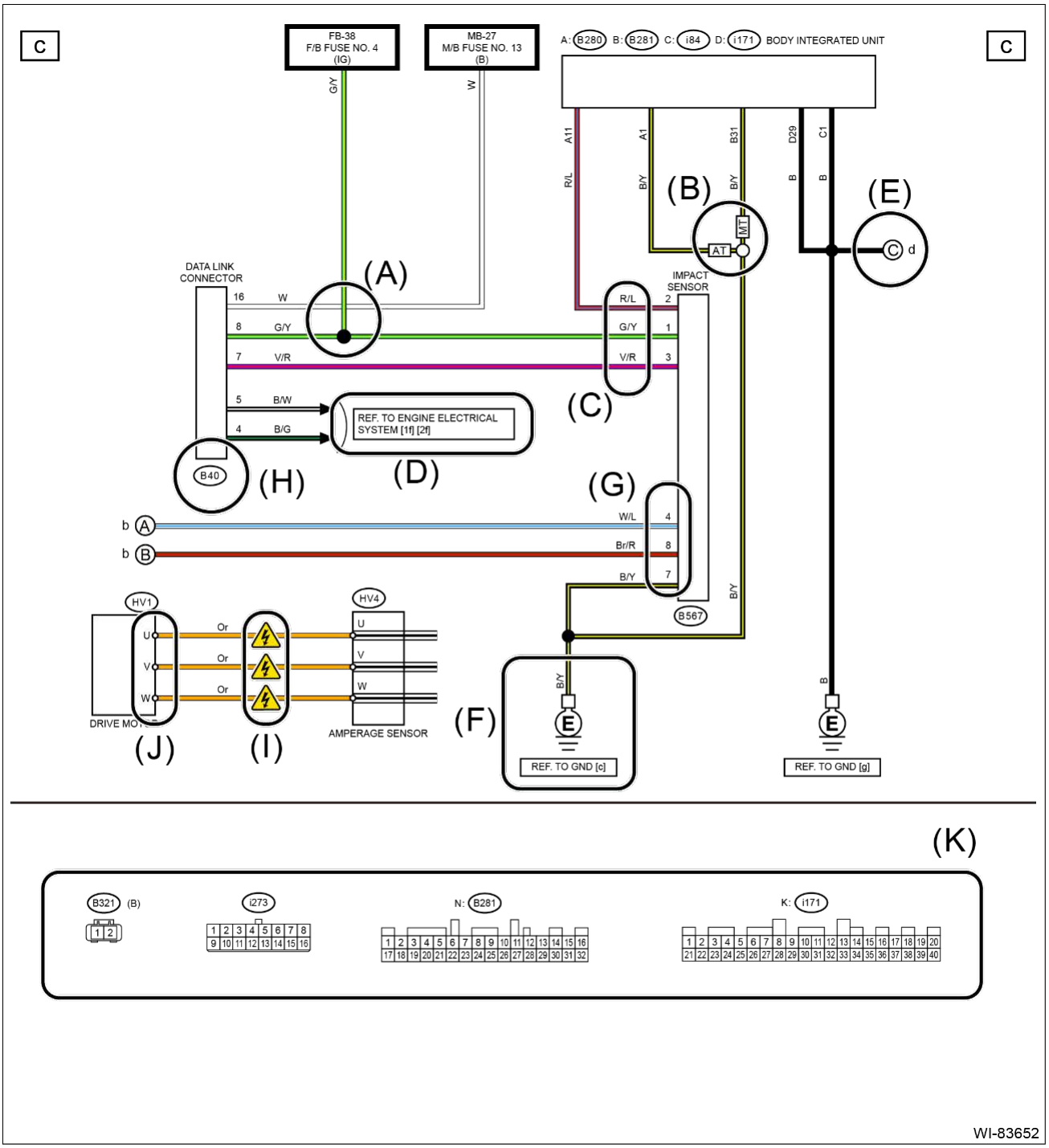


2. Wiring diagram of each system

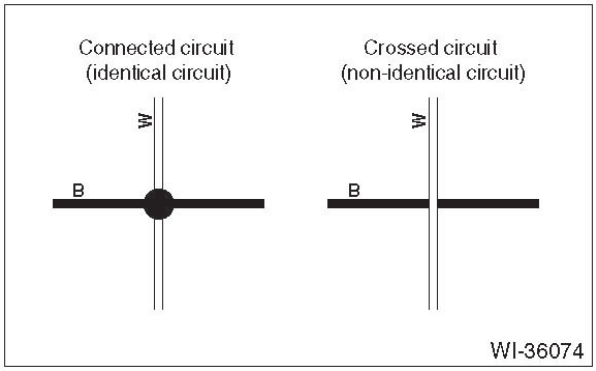
To help figure out the route from the DC power supply circuit, wiring diagrams are classified and described in each system.

NOTE:

This manual includes harness information. Information of parts that are not routed via harness and adapter code is described as a reference. If no information is described in this manual, refer to each section.



(A) : Wire connection and crossing in a circuit



(B) : Classification by specifications

If a circuit differs from another circuit according to vehicle specifications, the specification difference is indicated with abbreviations.

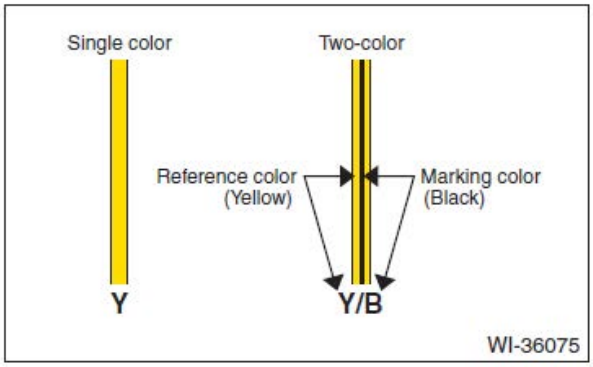
(C) : Color code

Indicates the color of harness and connector housing.

Color code	Color	Color code	Color	Color code	Color
B	Black	S	Shield line	Lg	Light green
G	Green	V	Violet	Sb	Light blue
L	Blue	W	White	★	White or natural color
Or	Orange	Y	Yellow	Be	Beige
P	Pink	Br	Brown	T	Transparent
R	Red	Gr	Gray		

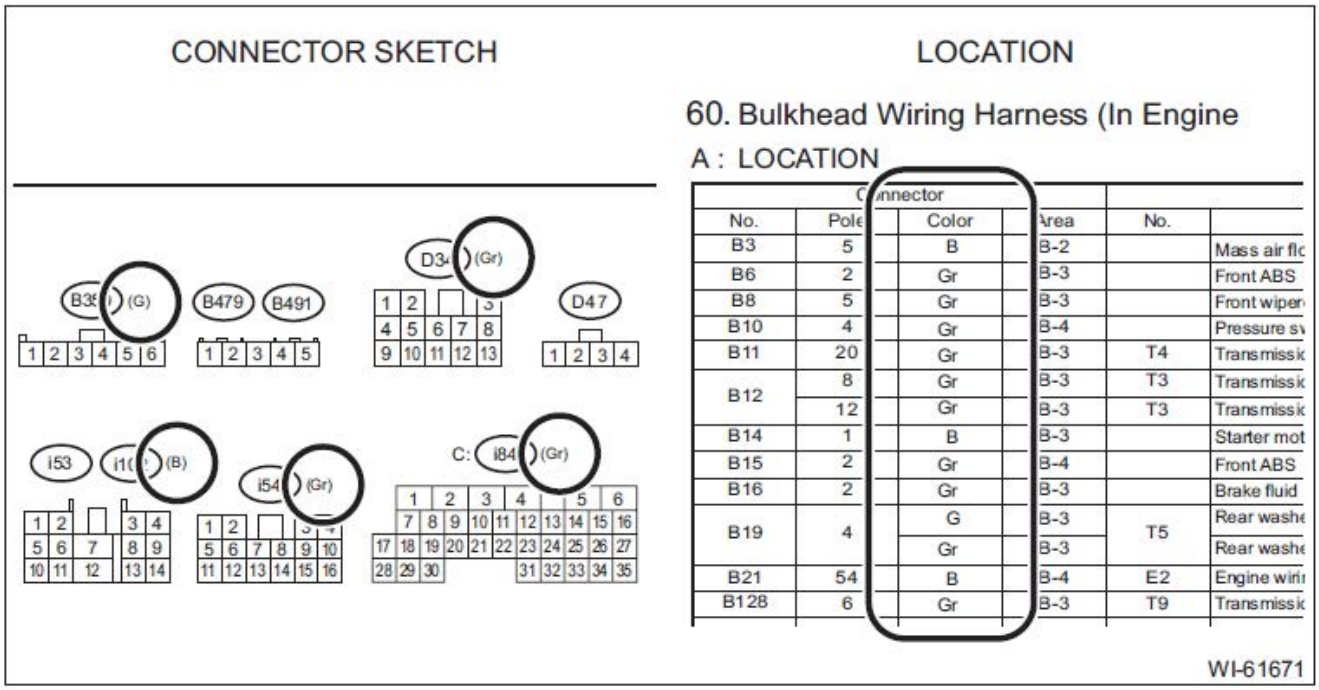
(Color code of harness)

Single color is indicated with a color code, and double colors are indicated with “standard color / marking color”.



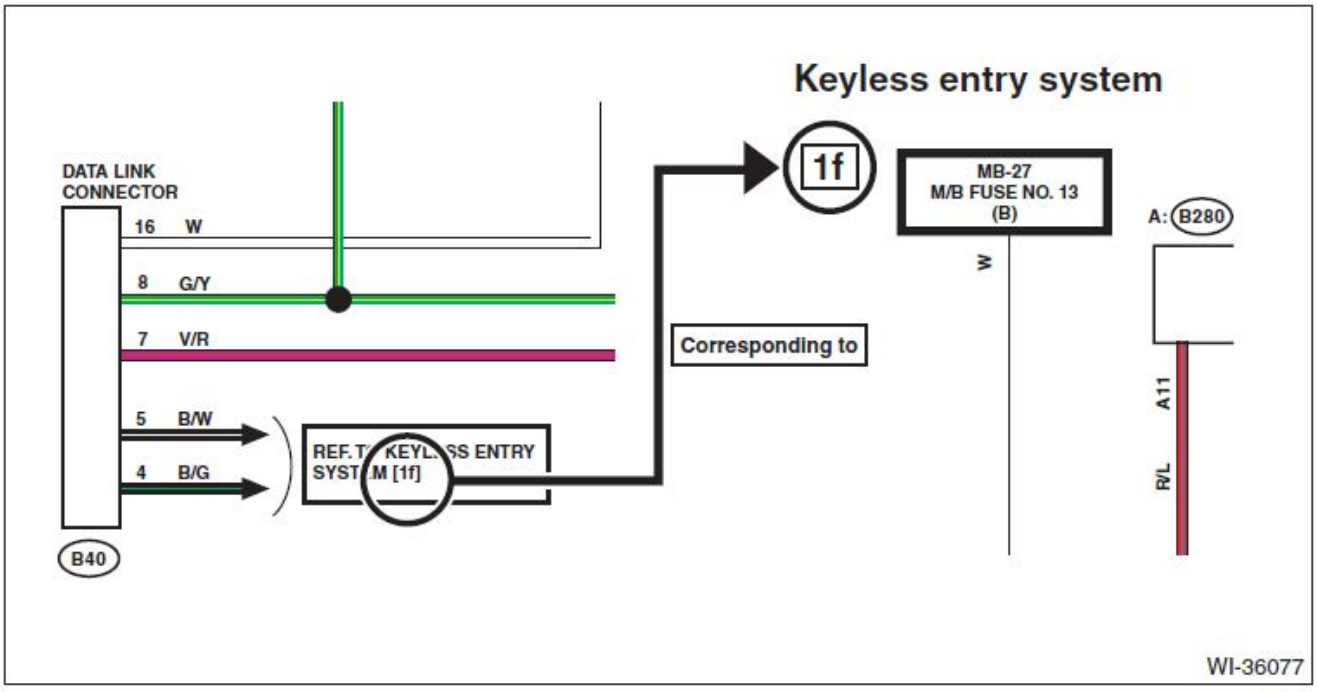
(Color code of connector housing)

Used in the connector sketch and the locations.



(D) : Connection to another system in the same circuit

Indicates the connecting to with alphanumeric characters, which correspond to the descriptions shown on the upper section of each page.

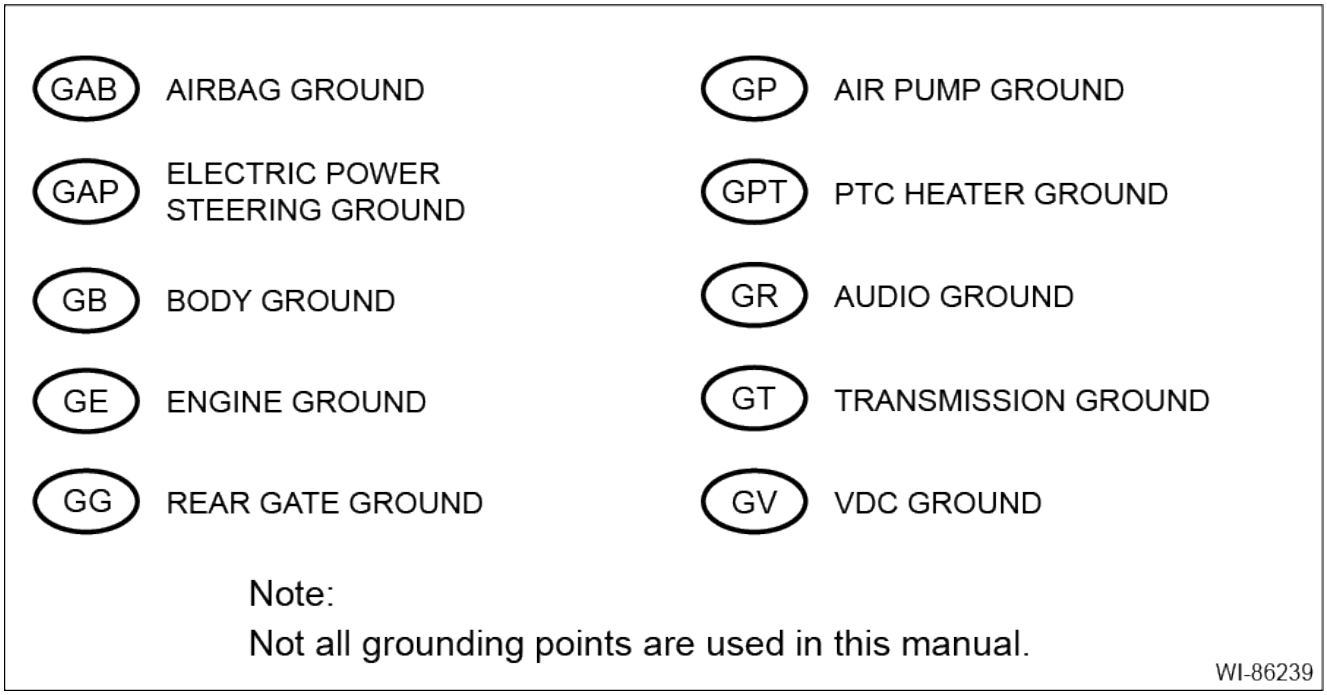


(E) : Connections in the system

Continues to another page of the system indicated with alphanumeric characters.

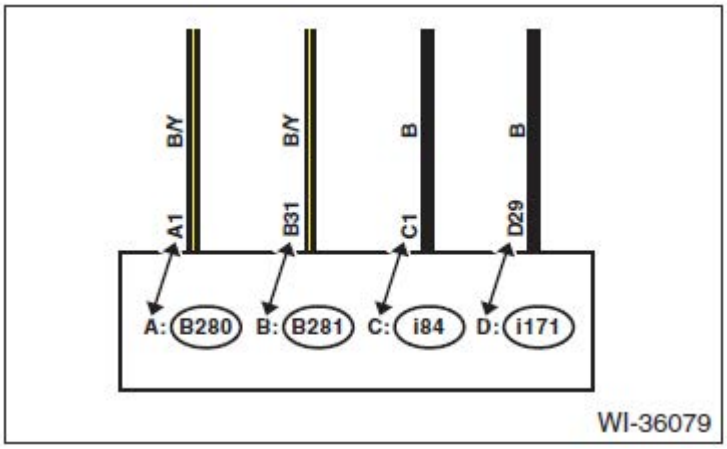
(F) : Ground

The ground points shown in the ground circuit refer to the following, which correspond to the locations.



(G) : Terminal No.

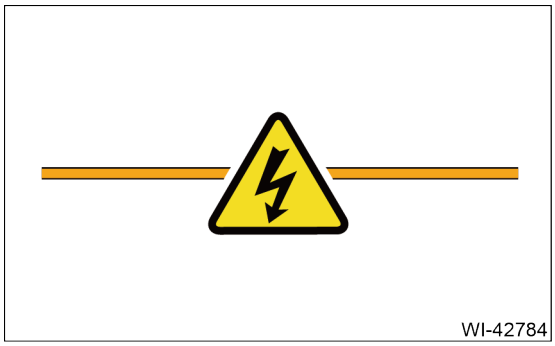
Indicates the terminal number of the connector to be connected. If several connectors are connected to a component, they are identified with alphabetic characters.



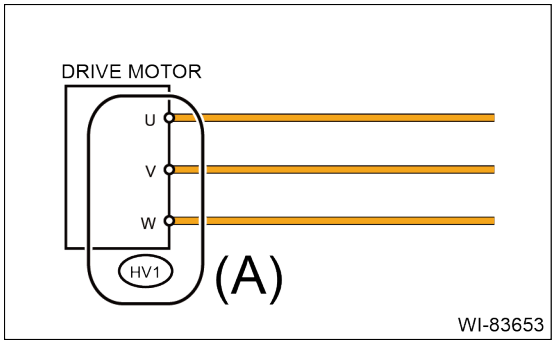
(H) : Connector No.
The first alphabetic characters of the connector number correspond with the following symbols that indicate harnesses or systems.

Symbol	Harness/cord/Cable	Symbol	Harness/cord/Cable
Ad	Adapter cord	i	Instrument panel wiring harness
An	Antenna cord	L	Rear wiring harness LH
B	Bulkhead wiring harness	R	Rear wiring harness RH
Bt	Battery cable	Rf	Roof cord
	Generator cord	Sg	Steering cord
C	Consol cord	St	Front seat wiring harness
Db	Rear gate code		Rear seat wiring harness
Df	Front door cord	T	Transmission wiring harness
Dr	Rear door cord	Td	Trunk lid cord
E	Engine wiring harness	AB	Airbag wiring harness
Fr	Front wiring harness	HV	High voltage cable

(I) : High voltage circuit
The following signs denote high voltage circuit.



(J) : Cable with bolt connection
Cable connections with bolt (HV**) are denoted by (A) below. Signs for connection (HV**) are also used in location section.

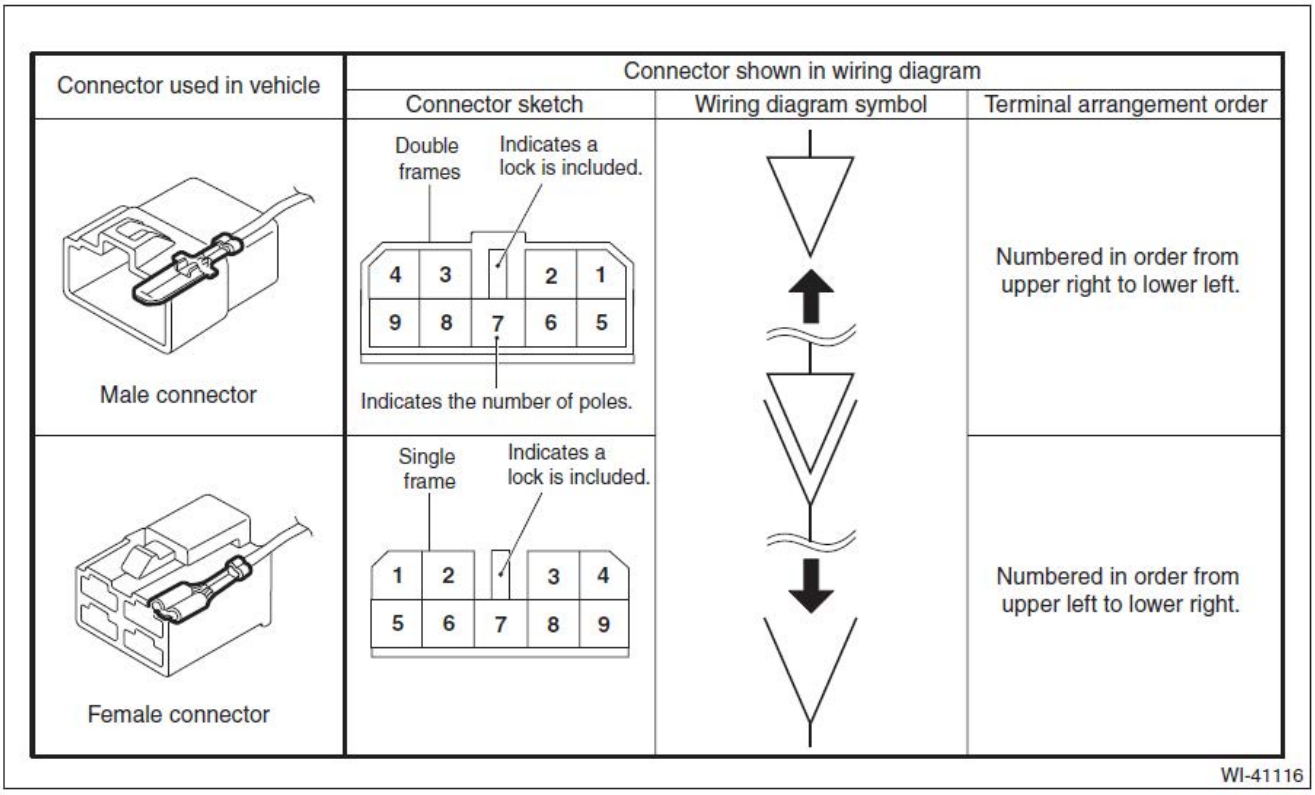


(K) : Connector sketch
The connector sketch at the bottom shows the connectors used in the wiring diagram.

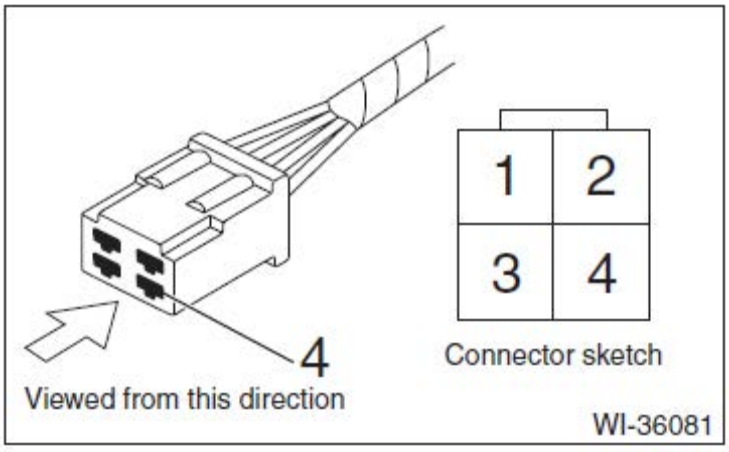
3. Connector

The following shows the connector shape, lock position, connection and terminal number that are used in this manual.

For connector shape, refer to the connector sketch.

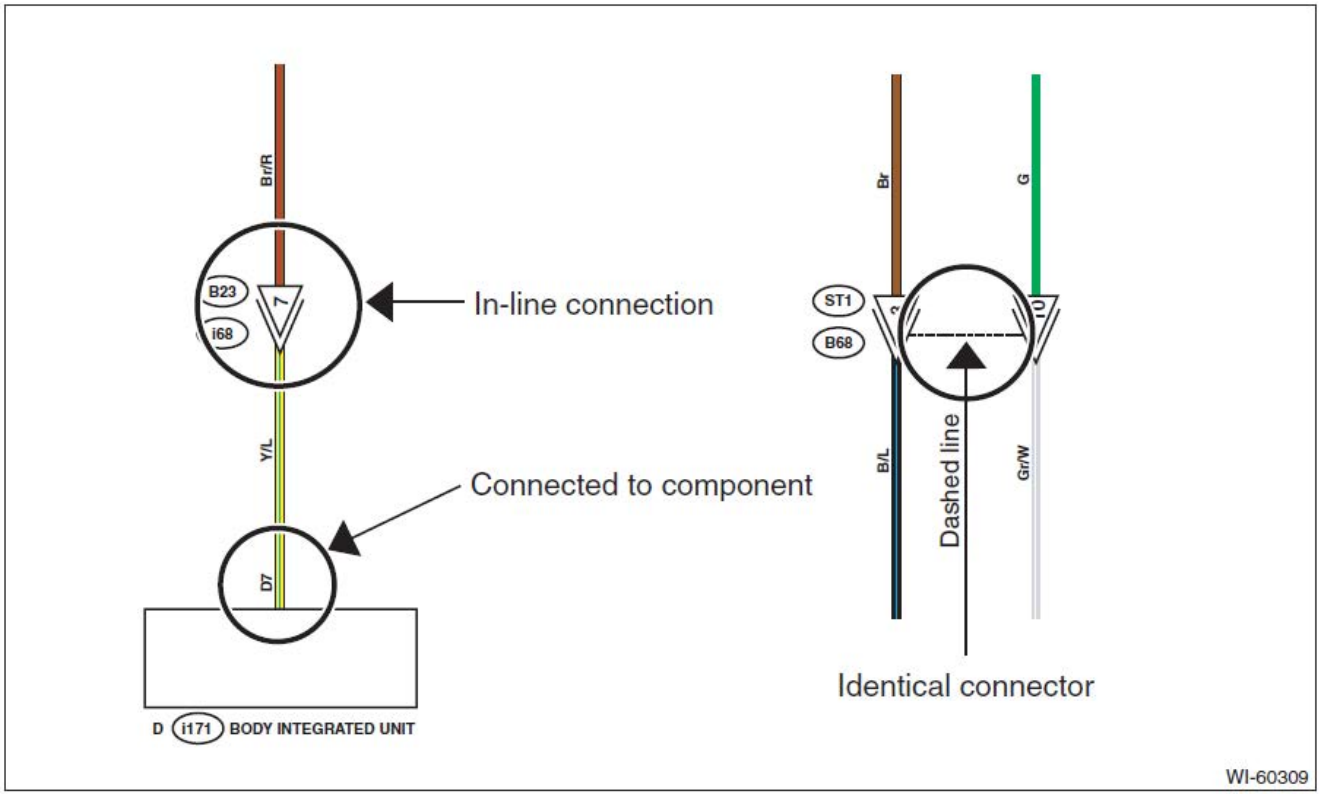


- The sketch of the connector and the terminal number are indicated in a disconnected state which is viewed from the terminal side.

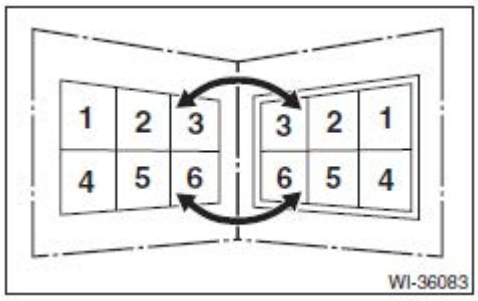


- The connector sketch usually indicates a female connector.

- The connector used in the wiring diagram of the system indicates only the intermediate connection, therefore, no parts, J/Cs and grounds are described. In addition, if the different circuits are connected with the same connector, a dot line is used to indicate that these are the same.



- When connecting the connector, the terminals with the same number are jointed. When the connector is disconnected, the terminal location is symmetrical.

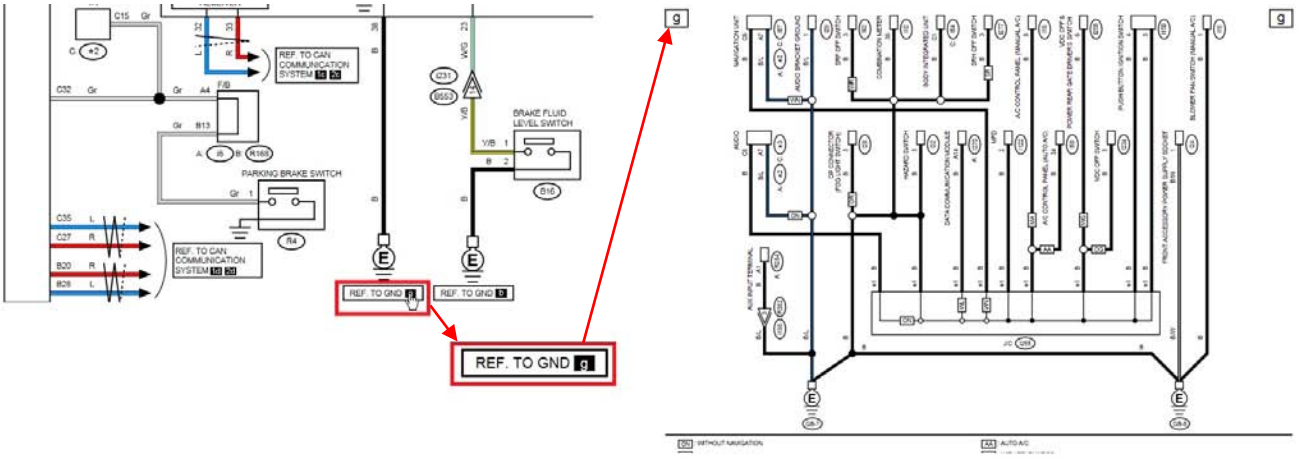


4.3. Reference Links

Click on the alphanumeric to move to the appropriate page.

① Ground circuit links

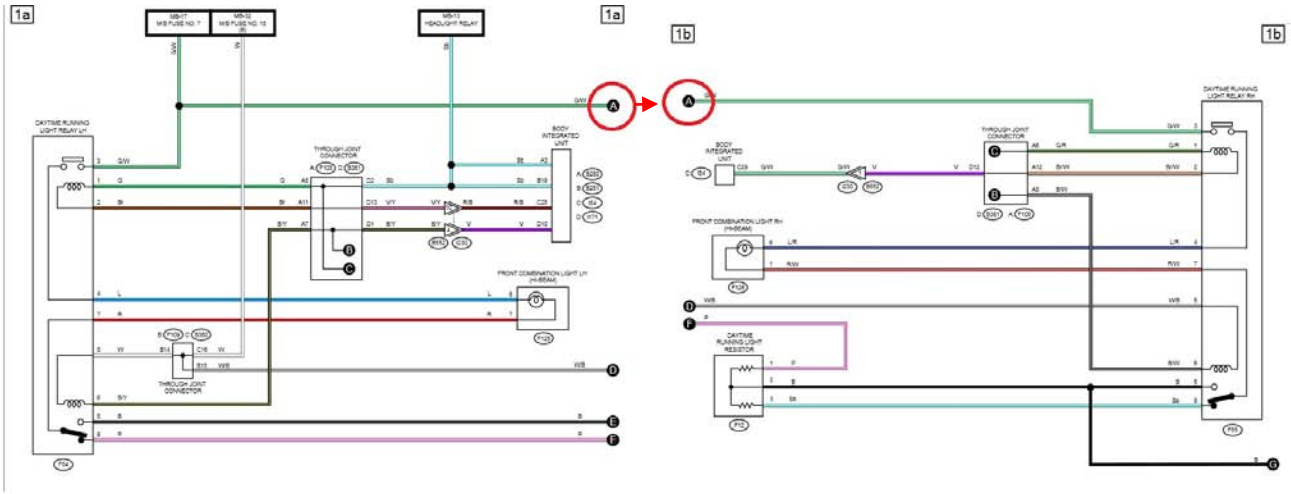
Click the alphanumeric on each ground point in the wiring diagram to show the corresponding ground circuit page.



② Links for wiring diagrams that span multiple pages (within the same system)

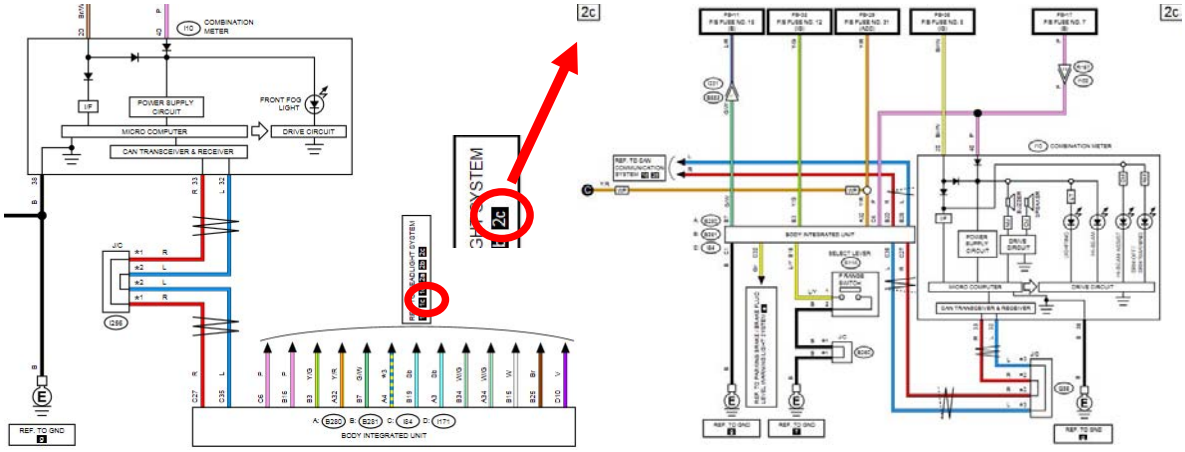
If a wiring diagram spans multiple pages, click the alphanumeric to move to the corresponding point on the next page.

These links are reciprocal so you can click the same link again to return to where you came from.



③　Links to wiring diagrams that span multiple pages (outside the system)

Even if the link corresponds to a point outside the system, click the alphanumeric to move to that point on the applicable page.



4.4. Location

In this manual, the location is classified in each harness, and the connector location is indicated using coordinates.

CONNECTOR LOCATION CHART

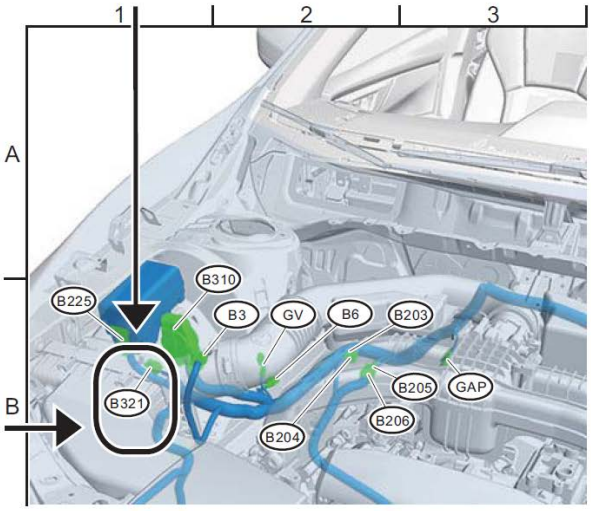
65. Bulkhead Wiring Harness (In Engine Com

A : LOCATION

Connector					
No.	Pole	Color	Area	No.	
B3	4	B	B-1		Mass air fl
B6	2	Gr	B-2		Front ABS
B203	3	Br	B-2	B204	Electrical p
B204	3	Br	B-2	B203	Bulkhead v
B205	2	Gr	B-2	B206	Electrical p
B206	2	Gr	B-2	B205	Bulkhead v
B225	59		B-1		Relay hold
B310	38		B-1		VDC CM
B321			B-1		Hood switc
B450	10	B	C-3		Power stee
B452	2	B	C-3		Power stee
B480	2	B	C-2		Ambient se
B482	2	Gr	D-2		Sub fan m
B483	3	★	C-2		J/C

Letters in "Area" corresponds with connector location view.
"B" indicates vertical line and "1" indicates horizontal line in above chart.

CONNECTOR LOCATION VIEW



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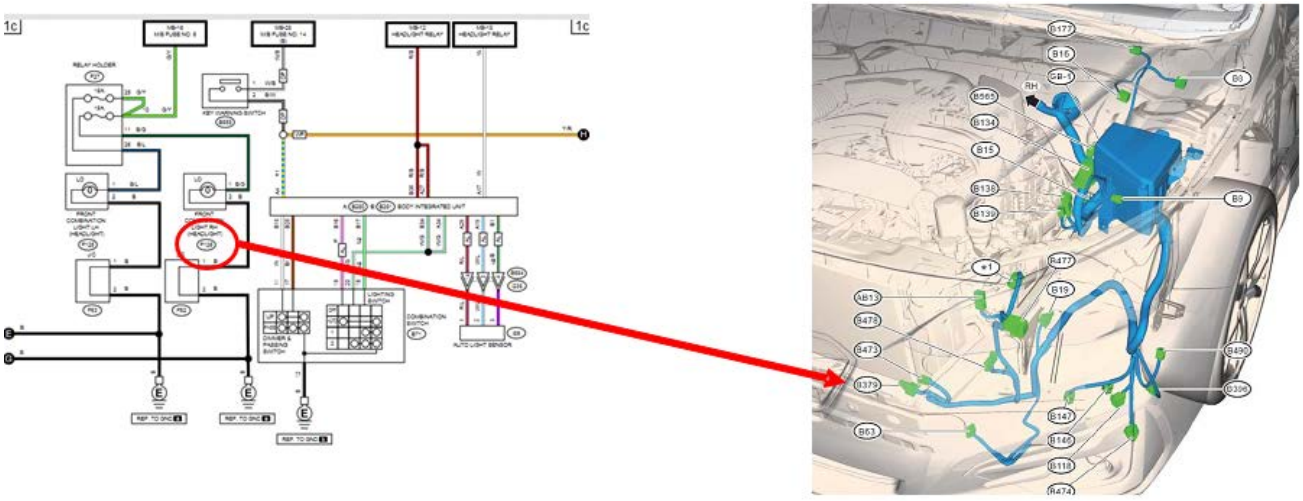
4.5. Location Links

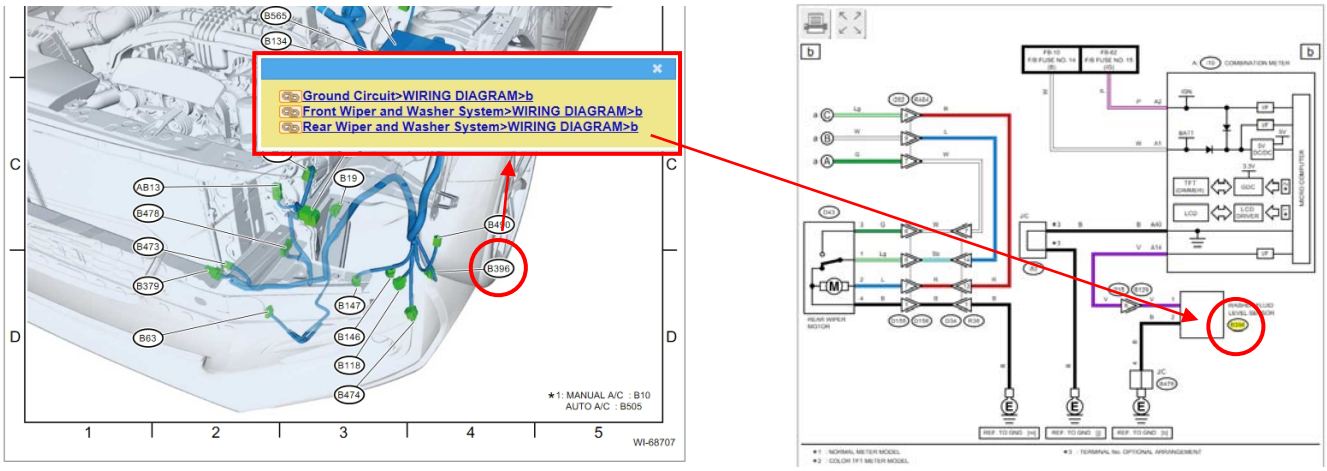
- Link from wiring diagram to location diagram

Some connectors shown in the wiring diagrams have links that allow the user to quickly determine the physical location in the vehicle by displaying the corresponding location diagram.
After clicking the link, the text color of the linked connector is changed to highlight its position on the location diagram.



- Link from location diagram to wiring diagram

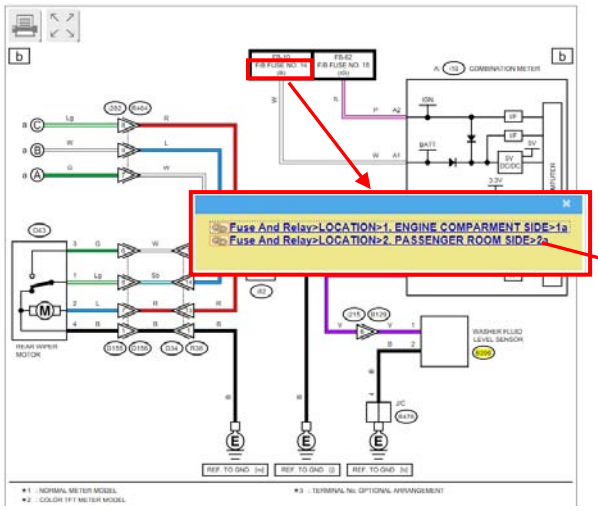
When clicking a connector within the location diagram, the wiring diagram will be displayed with the corresponding connector highlighted in yellow. This allows the user to easily determine the location of the connector within the wiring diagram.
If the connector has more than 1 link, a pop-up will display links for all of the corresponding wiring diagrams.

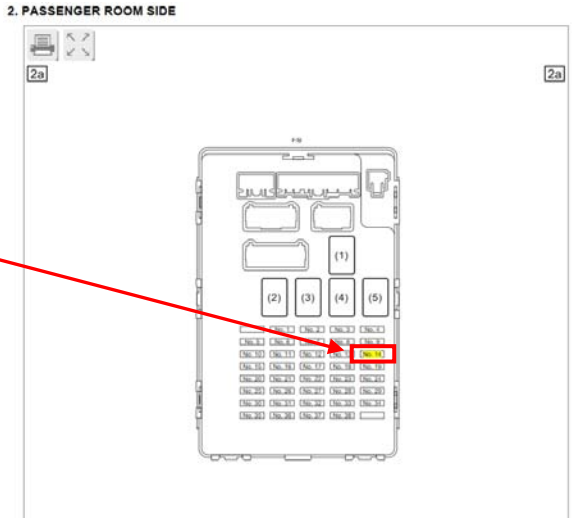


4.6. Fuse Links

- Link from wiring diagram to Fuse & Relay Box or Main Fuse Box

When clicking a Fuse No. within the wiring diagram, a pop-up will display links for the corresponding Main Fuse Box (engine compartment side) or Fuse & Relay Box (passenger room side). After clicking the link, the Fuse & Relay Box or Main Fuse Box will be displayed with the corresponding fuse highlighted in yellow. This allows the user to easily determine the location of the fuse within the Fuse & Relay Box or Main Fuse Box.

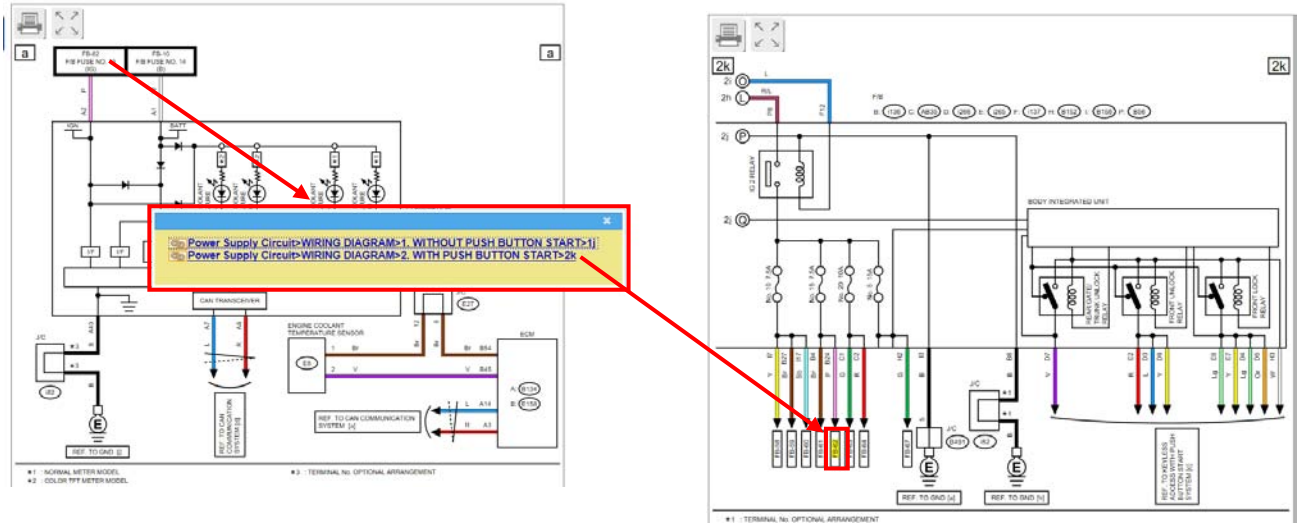




4.7. Power Supply Circuit Links

・ Link from wiring diagram to Power Supply Circuit

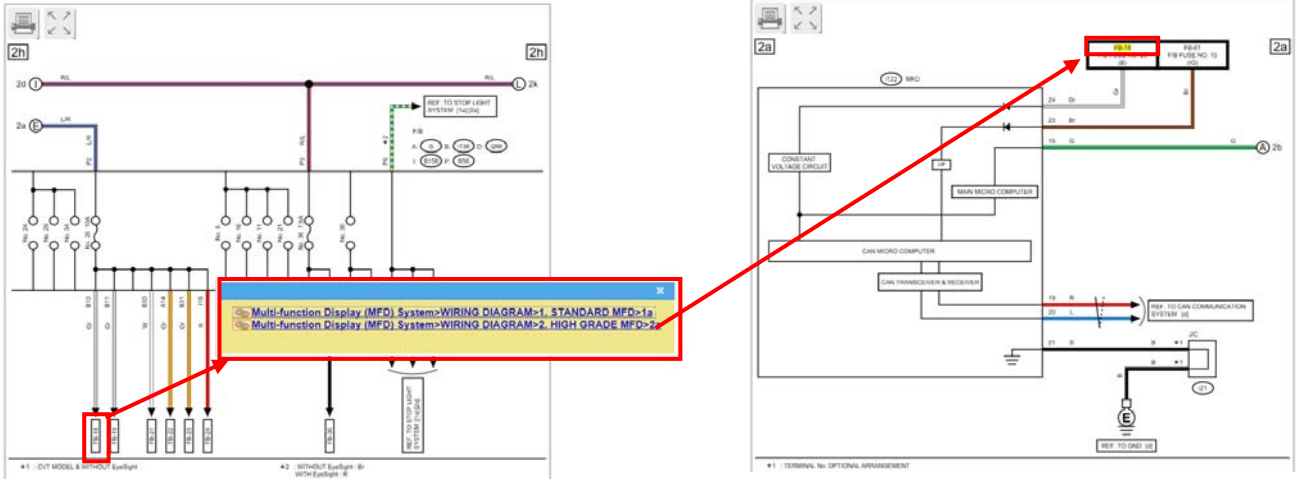
When clicking a Fuse & Relay Box No. or Main Fuse Box No. within the wiring diagram, a pop-up will display a link for the corresponding circuit of the Fuse & Relay Box (passenger room side) or Main Fuse Box (engine compartment side). After clicking the link, the circuit of the Fuse & Relay Box or the Main Fuse Box will be displayed with the corresponding No. highlighted in yellow. This allows the user to easily determine the location of the fuse within the wiring diagram.



・ Link from Power Supply Circuit to wiring diagram

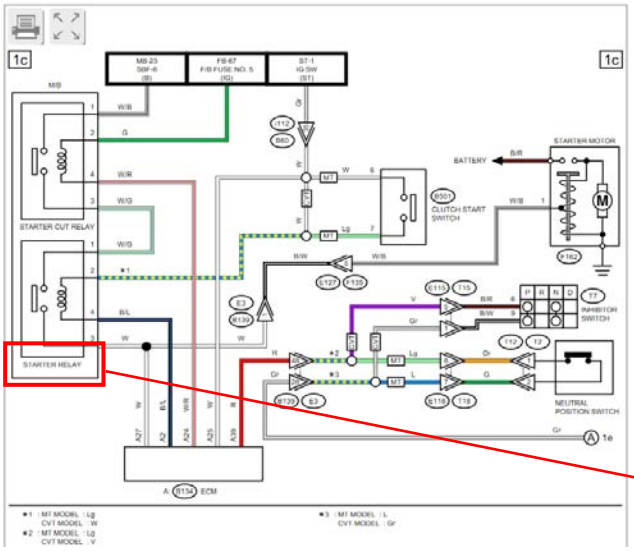
When clicking a Fuse & Relay Box No. or Main Fuse Box No. within the Power Supply Circuit, the wiring diagram will be displayed with the corresponding Fuse & Relay Box No. or Main Fuse Box No. highlighted in yellow. This allows the user to easily determine the location of the Fuse & Relay Box No. or Main Fuse Box No. within the wiring diagram.

If the Fuse & Relay Box No. or the Main Fuse Box No. has more than 1 link, a pop-up will display links for all of the corresponding items.

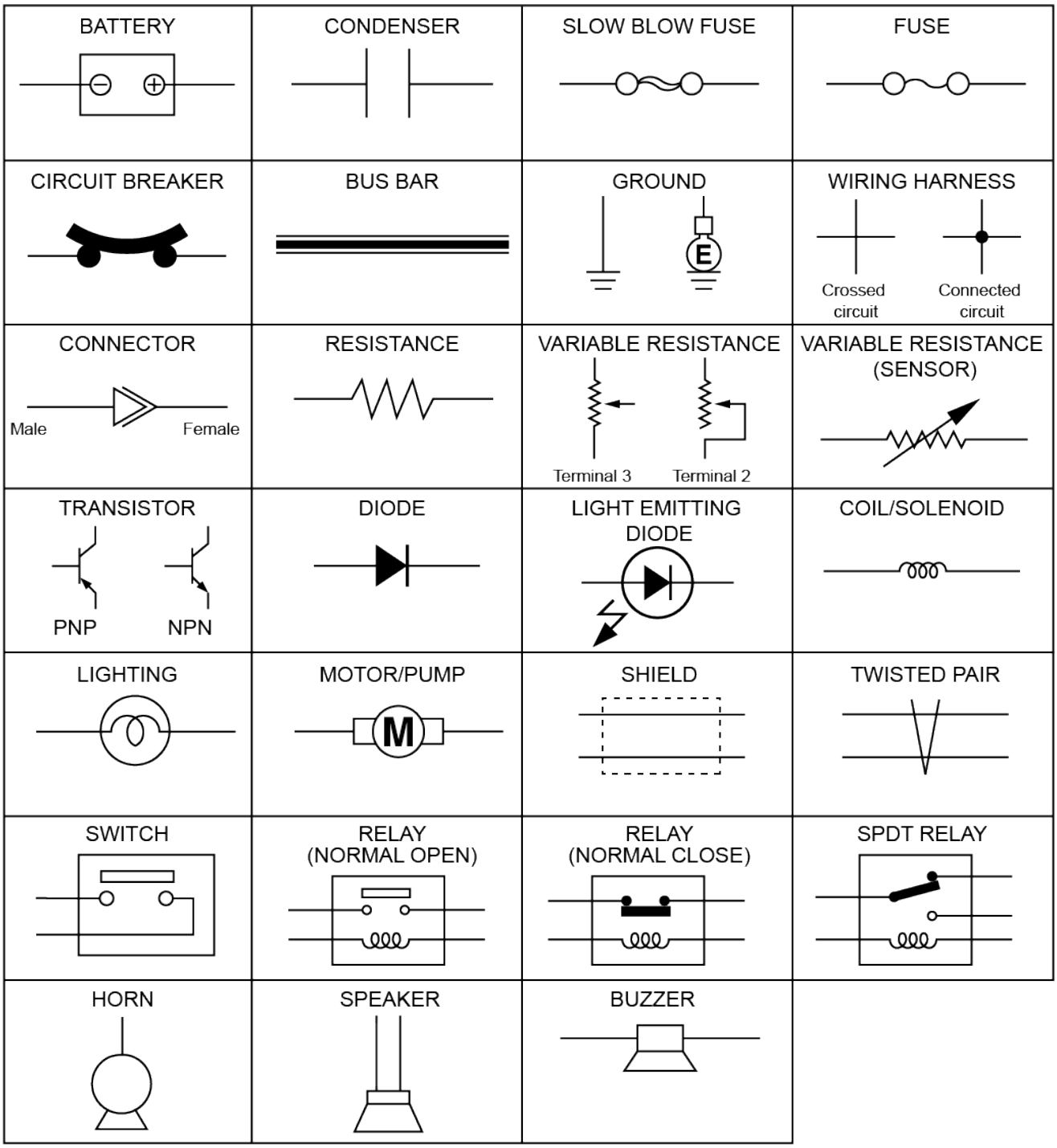


4.8. Relay Links

When clicking a relay name within the wiring diagram, the relay location diagram will be displayed with the corresponding relay highlighted in yellow. This allows the user to easily determine the location of the relay within the relay location diagram.



4.9. Symbols in Wiring Diagrams



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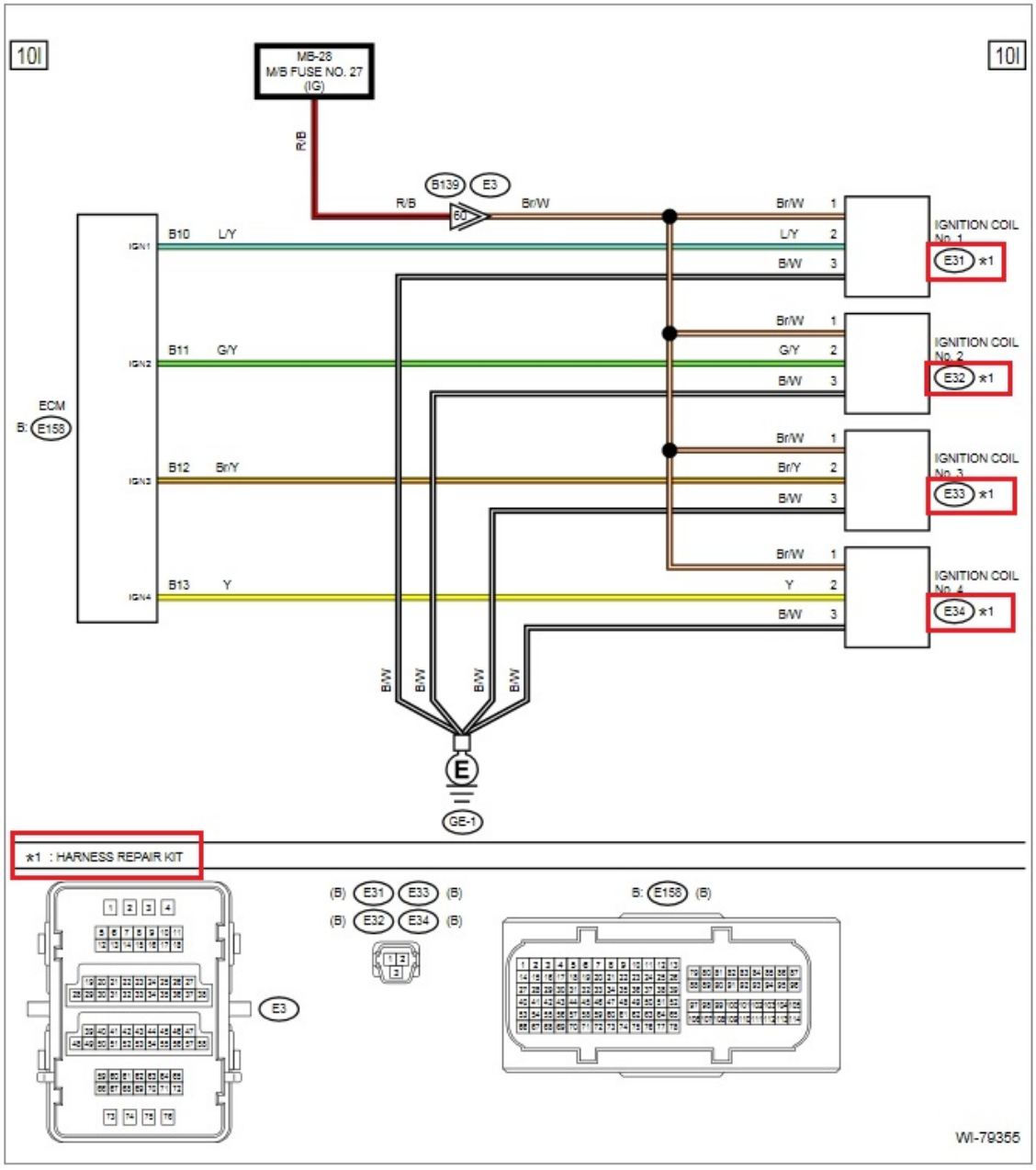
4.10. Harness repair

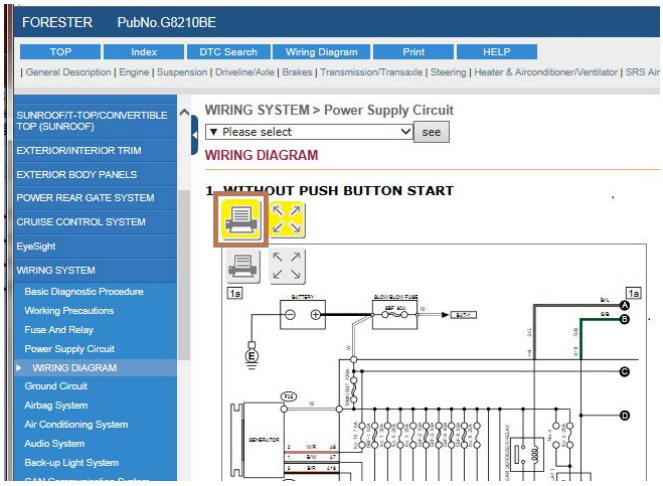
It is possible to replace harness connectors that are marked as "Harness Repair Kit" in the wiring diagram. To replace a connector, click the R/H button on the tab menu and refer to "Harness repair manual".



4.11. Printing Wiring Diagrams

If you wish to print any wiring diagrams, click the [Print] tab (Print) to print the selected [Subsection] or [Chapter].
In this section, we only cover the case of printing out wiring diagrams for the title system.

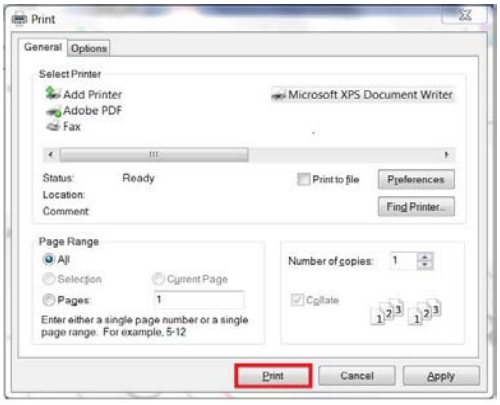
1. Printing all wiring diagrams within the title



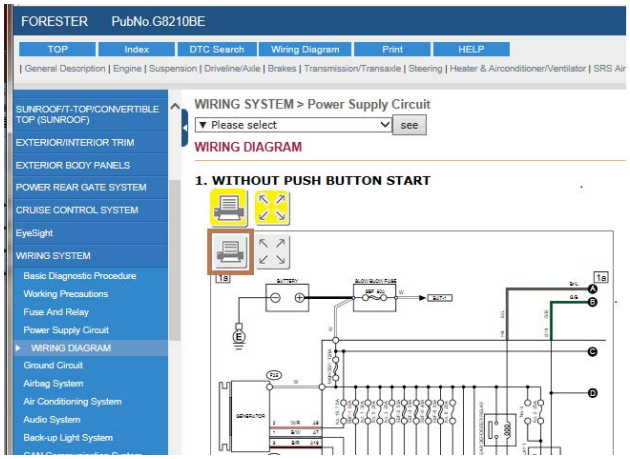
1） Click the yellow  button.

2） Print dialog box is displayed.

3） Confirm the printer and then click the Print button to start printing.



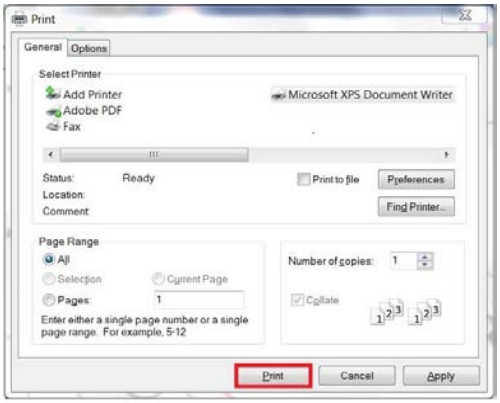
2. Printing each wiring diagram individually



1) Click the white  button.

2) Print dialog box is displayed.

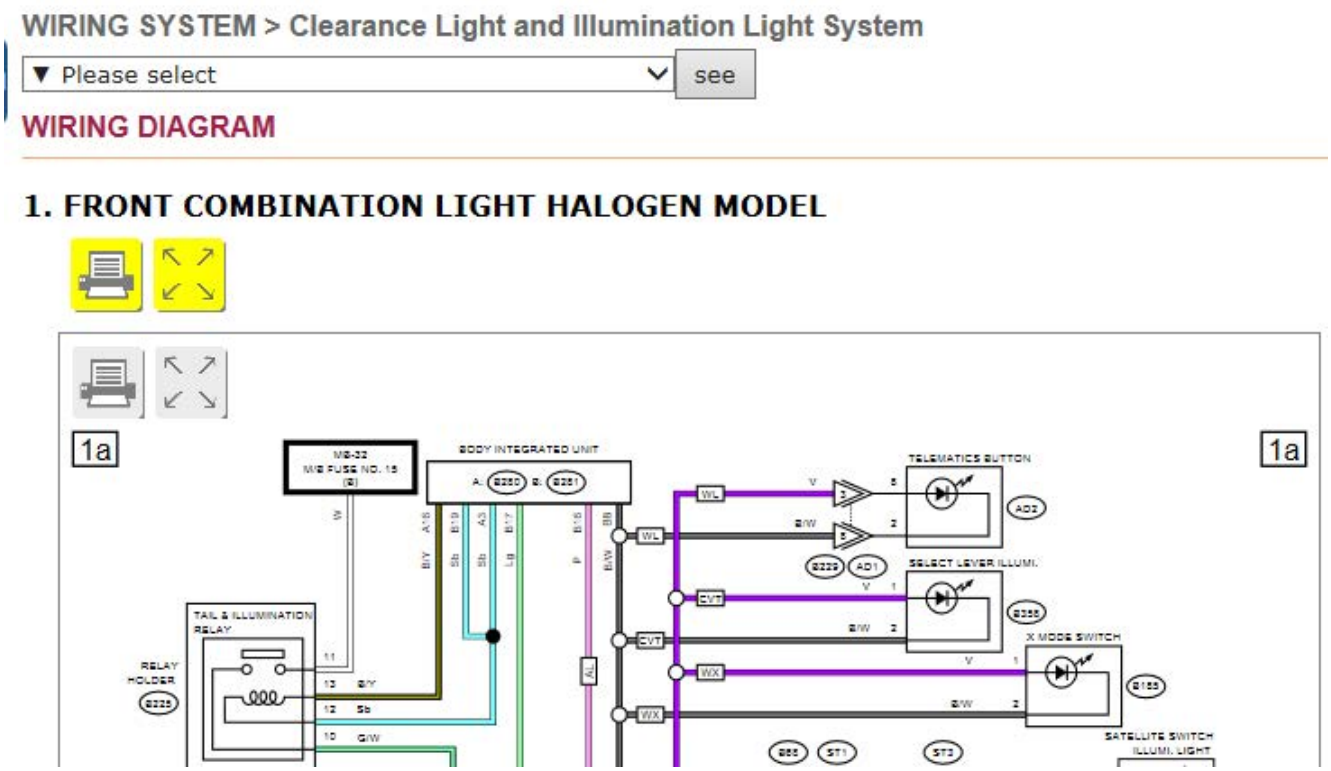
3) Confirm the printer and then click the Print button to start printing.



4.12. Enlarging Wiring Diagrams

The function to enlarge the contents described in the Service Manual is explained in the "How to change zoom level in Internet Explorer".
Here, we explain the function to enlarge the Wiring Diagram itself.

Click the  button shown below to enlarge the wiring diagram display.



Click the yellow enlarge button  to enlarge all title system wiring diagrams.

Click the  button when you wish to only enlarge the wiring diagram inside the frame.

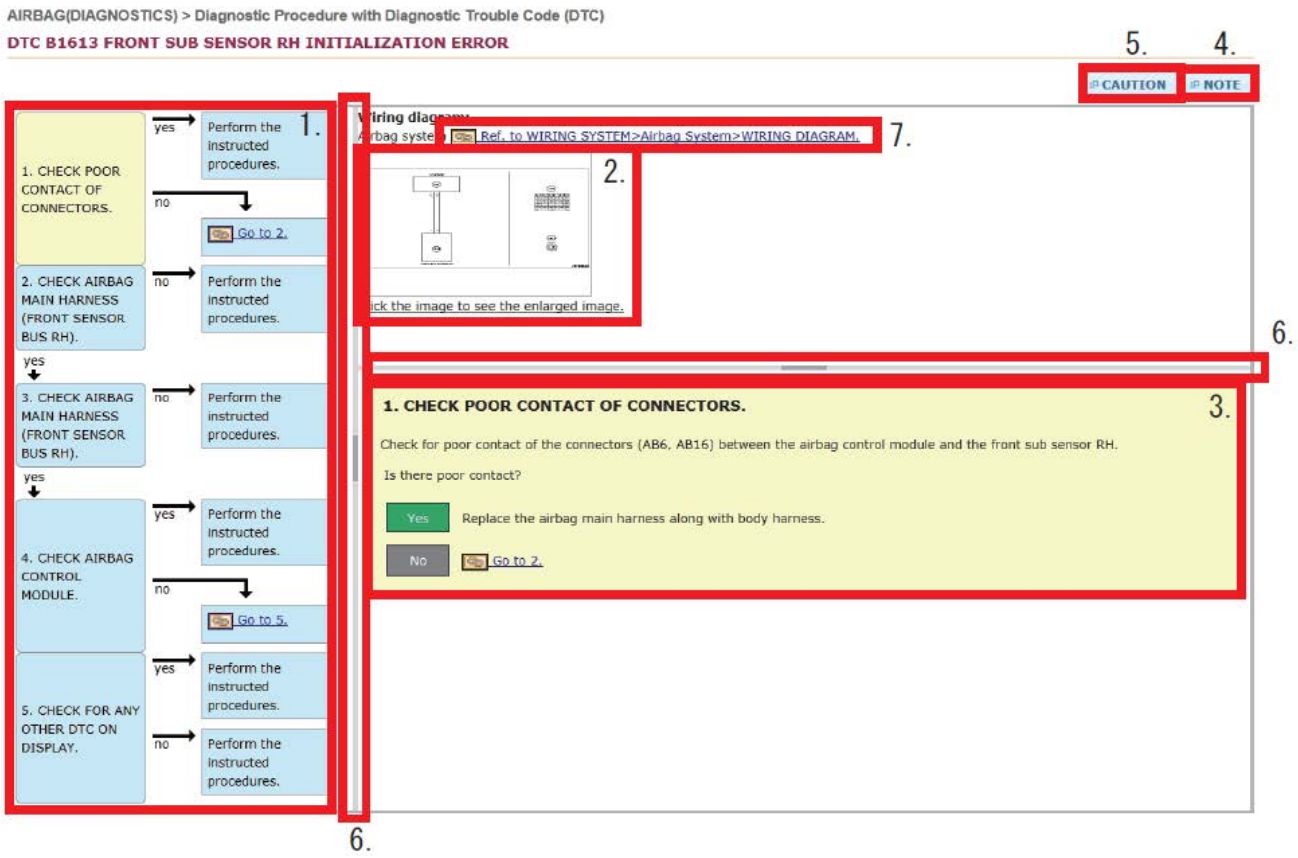
4.13. Abbreviation in Wiring Diagrams

Abbr.	Full name	Abbr.	Full name
ABS	Anti-lock Brake System	M	Motor
ACC	Accessory	M/B	Main Fuse Box
A/C	Air Conditioner	MFD	Multi Function Display
ASSY	Assembly	MIST	Wiper for mist
A/F	Air/Fuel (air fuel ratio sensor)	MT	Manual Transmission
ATF	Automatic Transmission Fluid	N	Neutral Range
AUX	Auxiliary Audio Input Terminal	OP	Optional Parts or Open
AWD	All Wheel Drive	P	Parking or Parking range
B, BAT	Battery	PASS	Passing
BCM	BCM_Battery Control Module	PCM	Power Control Unit
BSD/RCTA	Blind Spot Detection/Rear Cross Traffic Alert	R	Reverse Range
CAN	Controller Area Network	RAB	Reverse Automatic Braking
CL	Close	RES	Reset
CM	Control Module	R, RH	Rear or Right Hand
CVT	Continuously Variable Transmission	RL	Rear Left
D	Drive range or Down	RR	Rear Right
DC/DC	Direct Current / Direct Current (converter)	SBF	Slow Blow Fuse
DCCD	Driver's Control Center Differential	SI-DRIVE	SUBARU Intelligent Drive
DN	Down	SRF	Steering Responsive Fog Lights
E	Ground	ST	Starter
ECM	Engine Control Module	SW	Switch
EEPROM	Electrically Erasable Programmable Read-Only Memory	TCM	Transmission Control Module
EGR	Exhaust Gas Recirculation	TEL	Telephone
EPB	Electronic Parking Brake	TFT	Thin Film Transistor
F	Front	TPMS	Tire Pressure Monitor System
F/B	Fuse & Relay Box	UP	Up
FL	Front Left	UPR	Upper
FR	Front Right	VDC	Vehicle Dynamics Control
G	Gravity (G sensor)	WASH	Washer
H/L	Headlight		
HI	High		
HPCM	Hybrid Powertrain Control Module		
I/F	Interface		
IG	Ignition		
INT	Intermittent		
ISO	International Organization for Standardization		
J/C	Joint Connector		
LCD	Liquid Crystal Display		
L, LH	Left Hand		
LO	Low		
LWR	Lower		

5. How to View the Diagnostic Section

The diagnostic screen has two separate display modes. These are named 'type A' and 'type B'.

5.1. Type A



1. Diagnosis flow

Diagnosis flow is shown.

2. Wiring diagram

Wiring diagram used for diagnosis is shown as thumbnails.

3. Details of diagnosis

Click the procedure in the diagnosis flow to show the detail of procedures.

4. NOTE

Click this button to show the “DIAGNOSIS START CONDITION”, “DTC DETECTING CONDITION” and “TROUBLE SYMPTOM”.

5. CAUTION

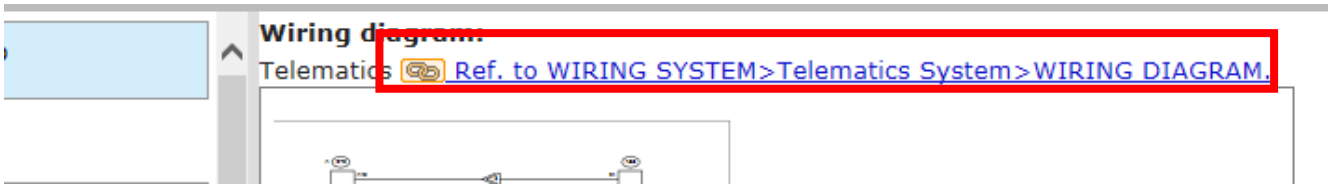
Click this button to show a list of precautions for carrying out diagnosis.

6. Screen Layout

If you wish to change the screen layout, it is possible to click and drag the lines indicated by number 6 to resize the display areas.

7. Wiring Diagram Links

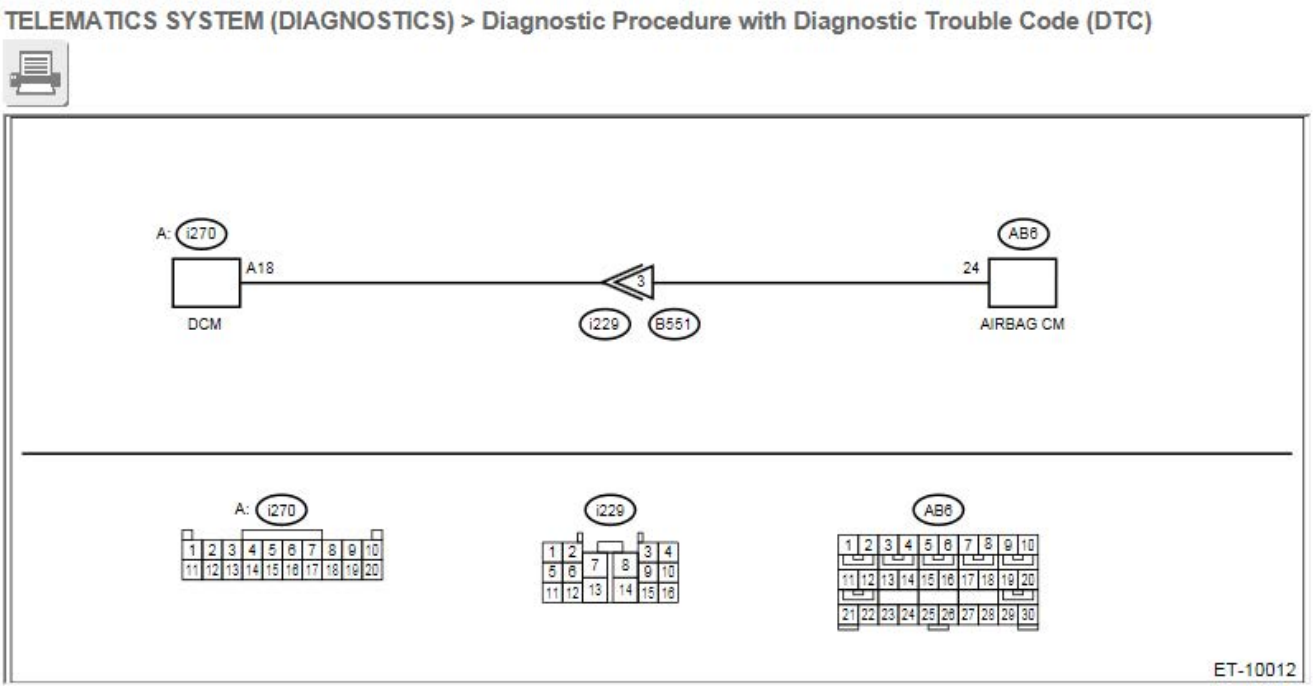
It is possible to click on links shown on the wiring diagram thumbnail to go to the actual wiring diagram for that system.



8. Enlarging Wiring Diagram Thumbnails

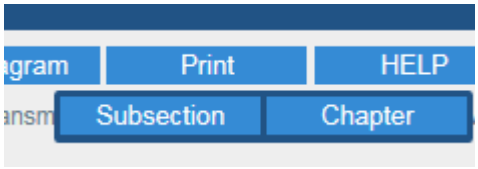
Click the wiring diagram thumbnail to display an enlarged version.

In addition, it is possible to click the print icon  on the enlarged view to print the wiring diagram.

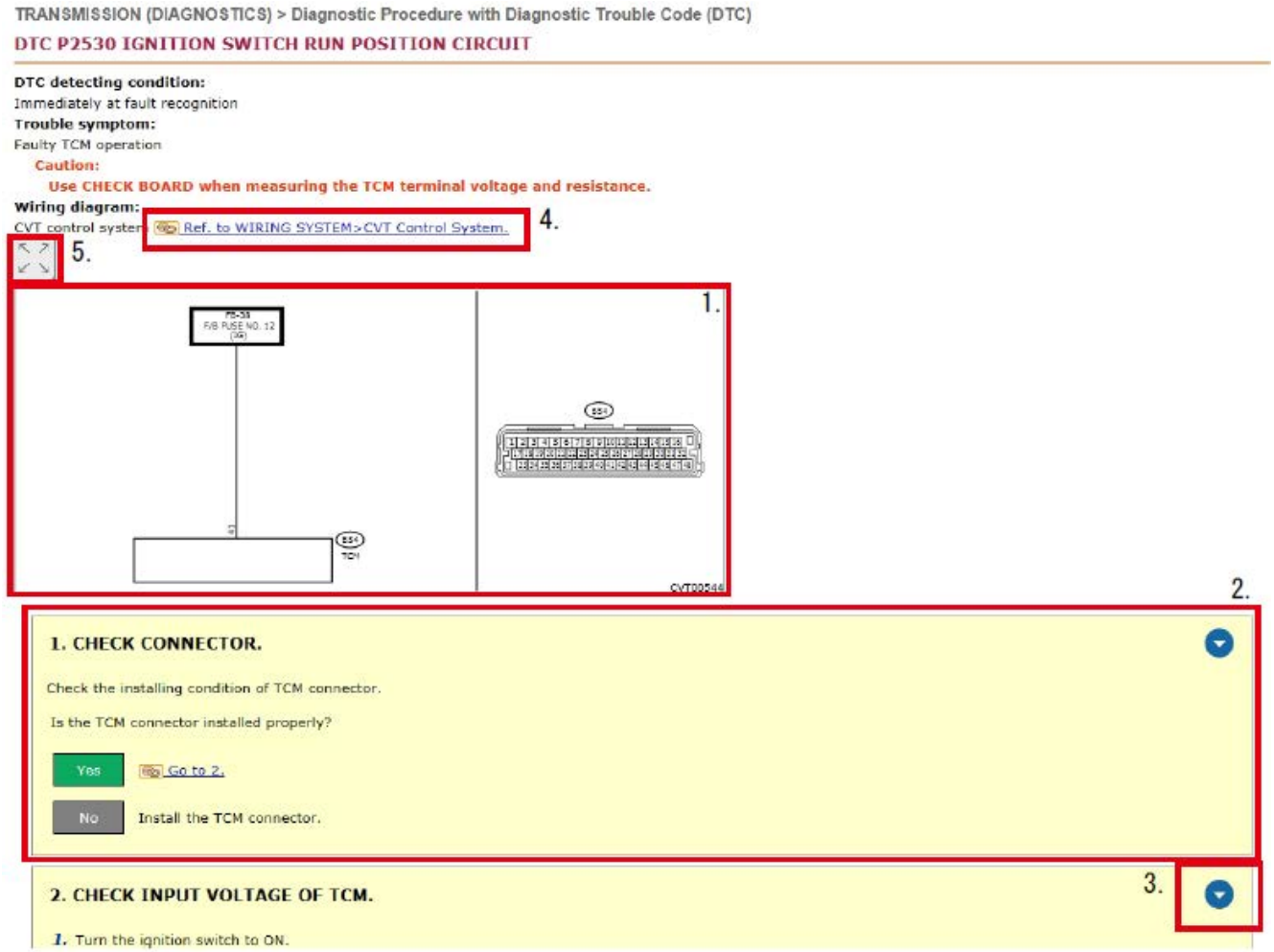


9. Checking the Entire Diagnosis Flow

If you wish to check the entire diagnosis flow, click the [Subsection] button under the [Print] tab.



5.2. Type B



1. Wiring diagram

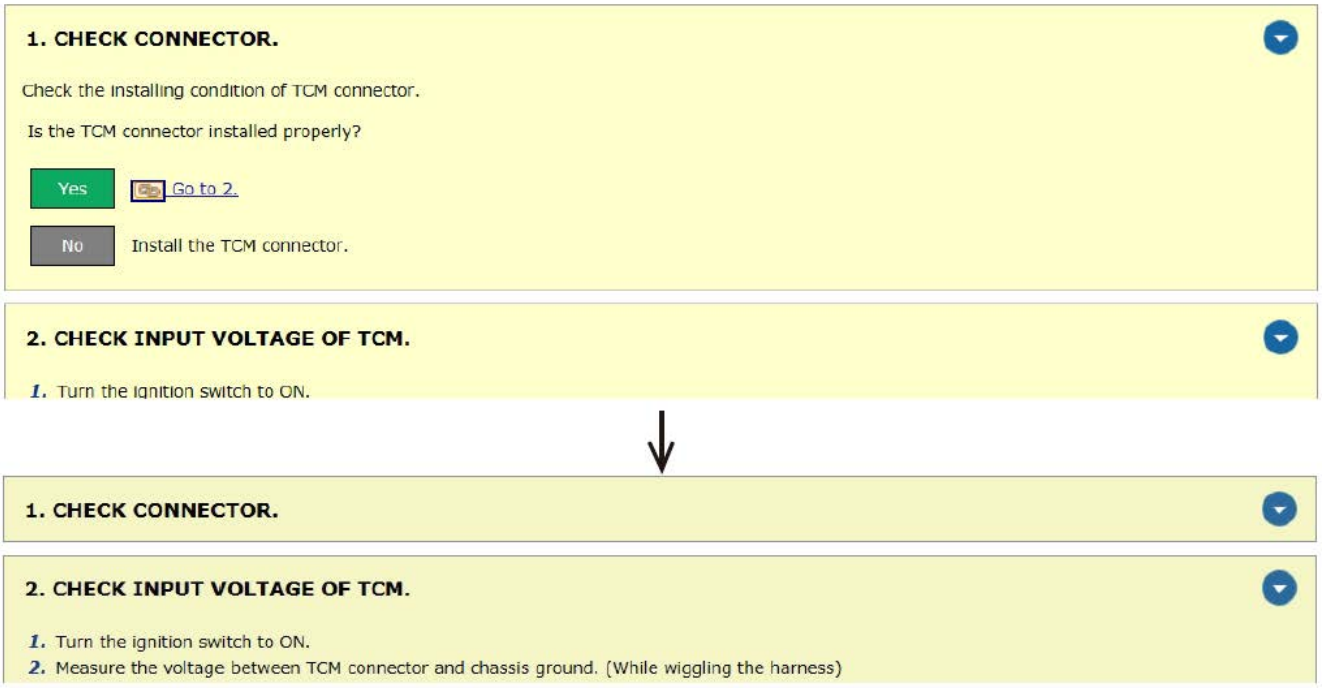
Wiring diagram used for diagnosis is shown.

2. Details of diagnosis

The details of procedures is shown.

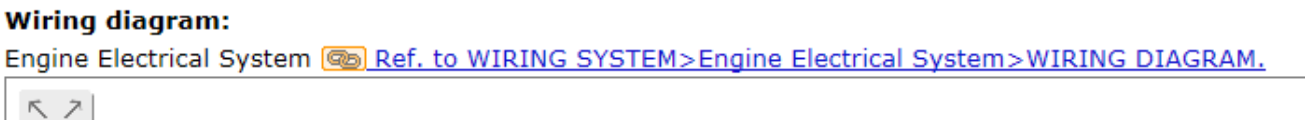
3. Hiding the displayd contents

Click the button to hide the displayed content.



4. Wiring Diagram Links

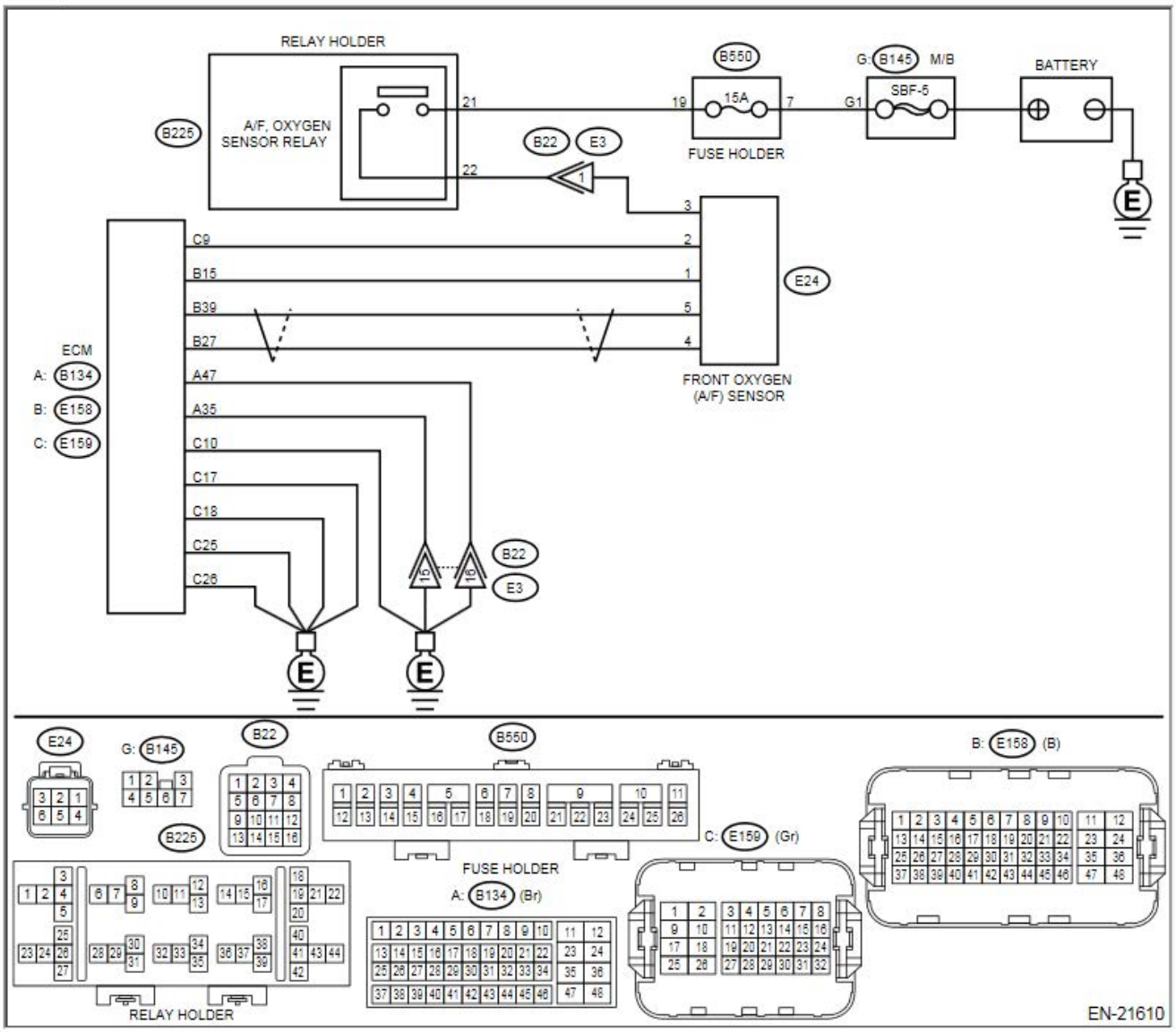
It is possible to click on links shown on the wiring diagram thumbnail to go to the actual wiring diagram for that system.



5. Enlarging Wiring Diagram Thumbnails

Click the  button in the wiring diagram thumbnail to enlarge the wiring diagram display.

In addition, it is possible to click the print icon  on the enlarged view to print the wiring diagram.


RELAY HOLDER
A/F, OXYGEN SENSOR RELAY
B225
21
22
B22
E3
B550
19
15A
7
FUSE HOLDER
G: B145
M/B
G1
SBF-5
BATTERY
E
3
2
1
5
4
E24
FRONT OXYGEN (A/F) SENSOR
ECM
A: B134
B: E158
C: E159
C9
B15
B39
B27
A47
A35
C10
C17
C18
C25
C26
15
16
B22
E3
E24
G: B145
B22
B225
B550
FUSE HOLDER
A: B134 (Br)
C: E159 (Gr)
B: E158 (B)
RELAY HOLDER
EN-21610

6. Useful Features

6.1. How to change zoom level in Internet Explorer

1. Setting using keyboard or mouse

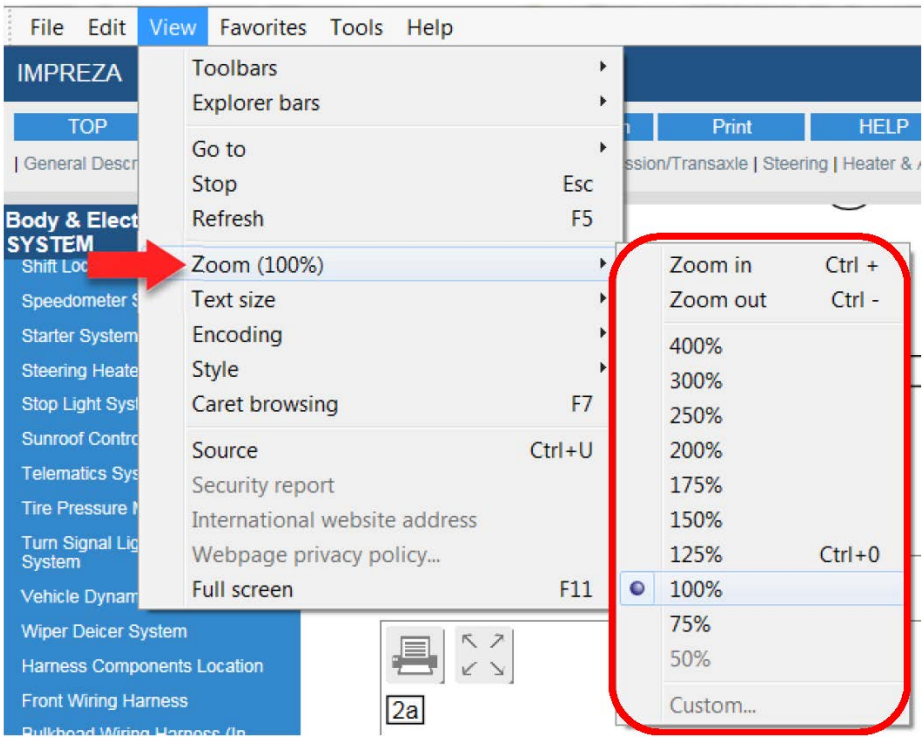
Press and hold the [Ctrl] key, then roll the mouse wheel up and down to zoom out and in to what you like, then release [Ctrl].

OR

Press and hold the [Ctrl] key, then press [+] (plus) or [-] (minus) to zoom out and in to what you like, then release [Ctrl].

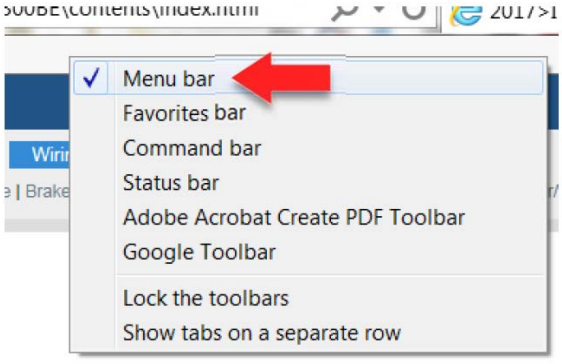
2. Setting from the menu

On the [view] menu, click [Zoom] to select the percentage of enlargement or reduction you want.



《**How to show the Menu bar**》

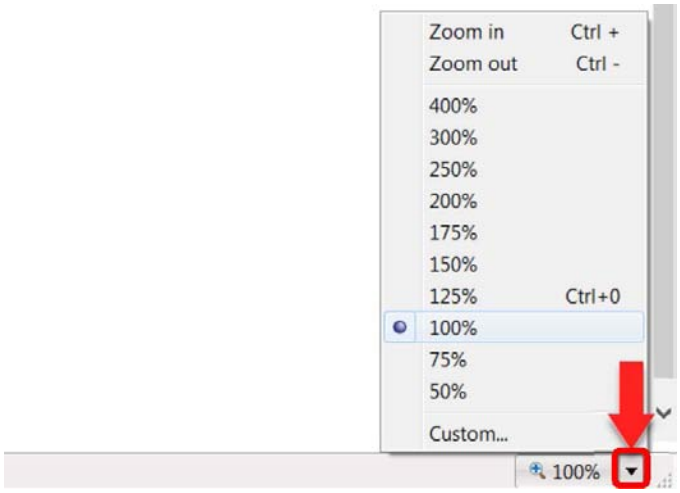
- To show temporarily: Press the [Alt] key.
- To show constantly: Right-click the top of the Internet Explorer window, to select [Menu bar].



3. Setting using the [Change Zoom Level] button 100%

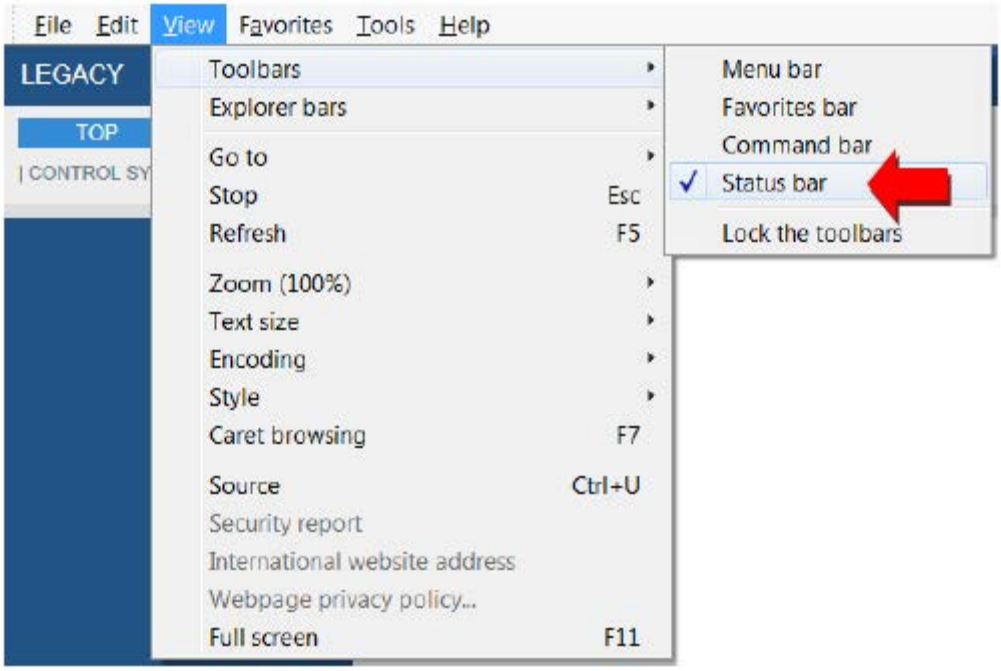
On the right bottom of the Internet Explorer Status bar, click/tap on the [Change Zoom Level] button 100% to cycle through 100%, 125%, and 150%, giving you a quick enlargement of the webpage.

Or click/tap on the [▼] arrow to the right of the [Change Zoom Level] button 100%, and select [Custom] to set the percentage of enlargement or reduction you want.



《How to show the Status bar》

On the [view] menu, click [Toolbars] to select [Status bar].



7. Linking the Service Manual to the SSM

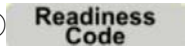
7.1. Overview

In the service manual diagnostic procedure, there are three different SSM linking function buttons displayed as follows:

① 

② 

③ 

④ 

⑤ 

Clicking any of these buttons utilizes the SSM4 communication function to enable the user to "1. Read diagnostic trouble codes (DTC)", "2. Clear Memory", "3. Current Data Display", "4. Acquire Readiness Code", "5. Freeze Frame Data (FFD)", without leaving the service manual screen. This allows you to view numerical data and trouble codes that are required for the diagnostic procedure on the service manual screen, and clear trouble codes without having to start the SSM4 (in some cases, data may be displayed on the SSM4 screen).

7.2. Usage Conditions

- The service manual must be opened on a PC where the SSM4 program has been installed.
- The service manual must be viewed on either Internet Explorer version 9 or later, or Chrome.
- This function can be used when viewing a diagnostic procedure that utilizes the linking function between the service manual and the SSM4.
- It is necessary to use a DST-i to connect the vehicle to the PC that is viewing the service manual.
- The vehicle must be in a state (IG ON) where it is able to communicate with the SSM4.
- When using the SSM linking function, it is not possible to run a separate SSM4 diagnosis at the same time that the SSM clear memory or DTC check functions are being carried out.
- It is not possible to click multiple SSM linking function buttons (DTC Check, Clear Memory, Data Monitor, Acquire Readiness Code, FFD) at the same time.

7.3. Display Content

- DTCs and numerical data obtained via the SSM linking function may be displayed in a language that differs from the service manual language settings.
- The SSM linking function display language can be changed via the SSM4 language settings.
- An error message will come up if you somehow encounter a problem communicating with the vehicle while attempting to use the SSM linking function to display numerical data or DTCs. (See section 9. Error Messages)
- If this happens, please check the status of the DST-i connection, the vehicle itself, and the SSM4 power state.

  Example :

Error message text
An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

- The display may be delayed depending on the data acquired by the SSM linking function.

7.4. Precautions

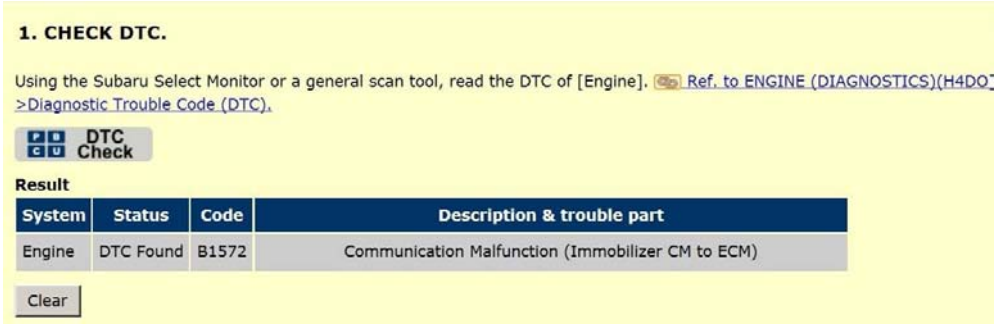
- When the SSM linking function is running, do not initiate another SSM link or SSM4 measurement/diagnosis.
- After starting the SSM4, do not click any SSM linking buttons unless the DTC acquisition screen is being displayed.
- When using the SSM linking function button to clear the memory, the behavior may vary depending on the particular SSM4 startup pattern. (For more details, please refer to section 6. Clearing Memory.)

7.5. Reading Diagnostic Trouble Codes (DTC)

Click the 

button to read the diagnostic trouble codes. The results are displayed as follows:

Example of DTC Results:



1. CHECK DTC.

Using the Subaru Select Monitor or a general scan tool, read the DTC of [Engine]. Ref. to ENGINE (DIAGNOSTICS)(H4DO
>Diagnostic Trouble Code (DTC).

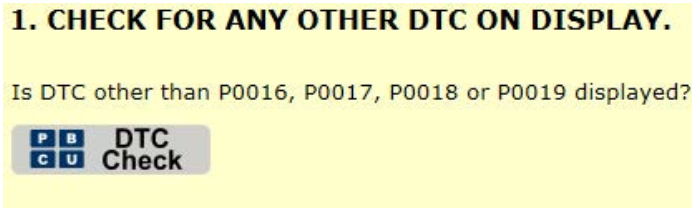
DTC Check

Result

System	Status	Code	Description & trouble part
Engine	DTC Found	B1572	Communication Malfunction (Immobilizer CM to ECM)

Clear

NOTE:
The above results are for displaying DTCs for individual systems, or for multiple systems.
NOTE:
Click the [Clear] button to clear the DTC results as shown below.
Display After Clicking the Clear Button:



1. CHECK FOR ANY OTHER DTC ON DISPLAY.

Is DTC other than P0016, P0017, P0018 or P0019 displayed?

DTC Check

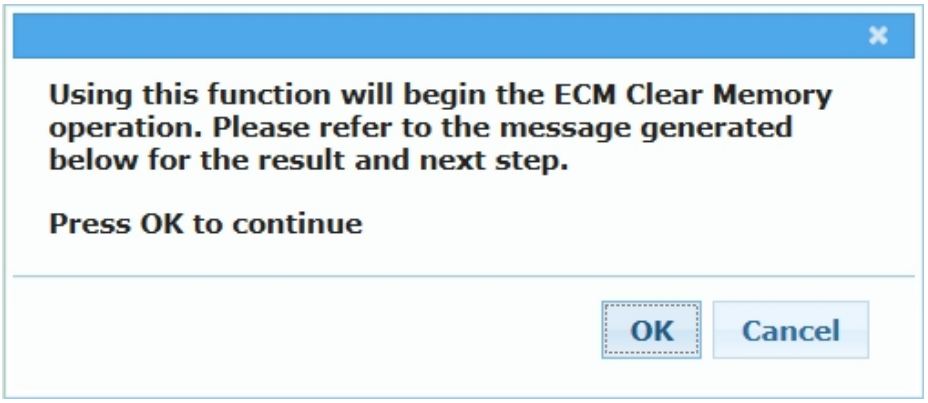
NOTE:
The above only shows a snapshot of the DTCs present at the time of clicking the 

button. It does not continuously show the presence or absence of DTC data.

7.6. Clearing Memory

After clicking the 

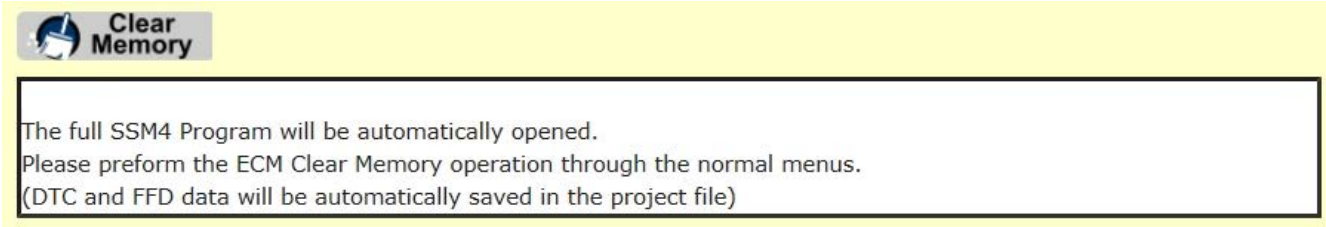
button, the following pop-up message will appear:



- Click the [Cancel] button to clear the pop-up message and return to the previous screen.
- After clicking the [OK] button, the pop-up message will be cleared, and a message will be displayed according to one of the following patterns depending on the state of the SSM4.

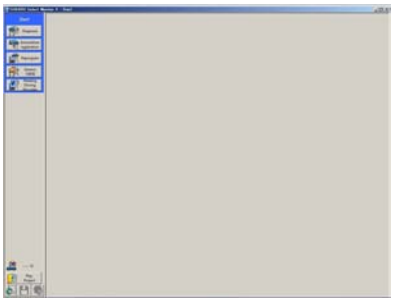
● Pattern 1: The SSM4 is not running

The following message is displayed in the service manual:



As the SSM4 is automatically started, and displayed on a separate window, the memory clear operation must be carried out using the regular procedure on the SSM4 itself.

Screenshot of SSM4 Automatic Startup:

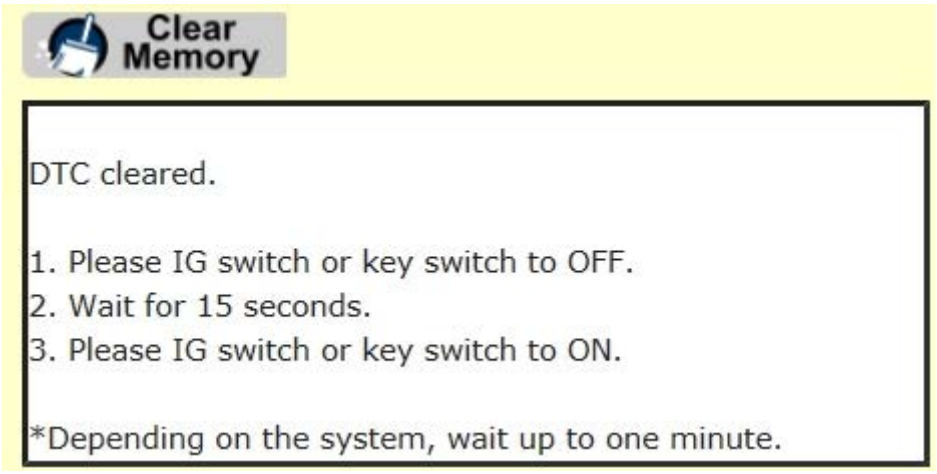


The message shown above can be cleared by clicking the 

button on the service manual.

- Pattern 2: The SSM4 is running (DTC acquisition screen is open)

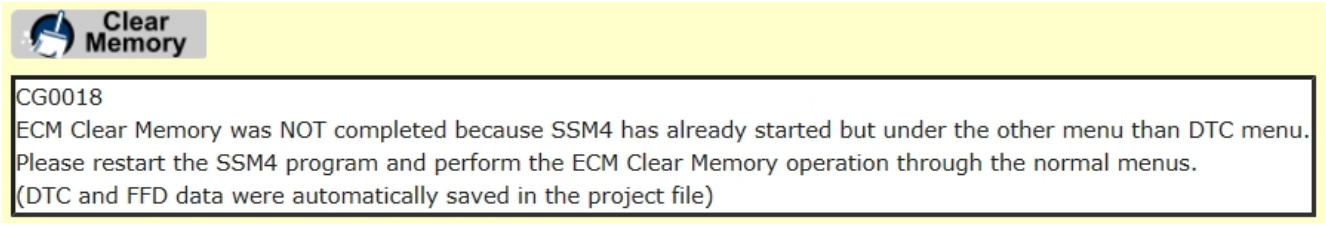
The memory is automatically cleared. Please observe the following message that is displayed in the service manual:



The message shown above can be cleared by clicking the Close Message button on the service manual.

- Pattern 3: The SSM is running (The screen other than DTC acquisition is open)

The following message is displayed in the service manual:



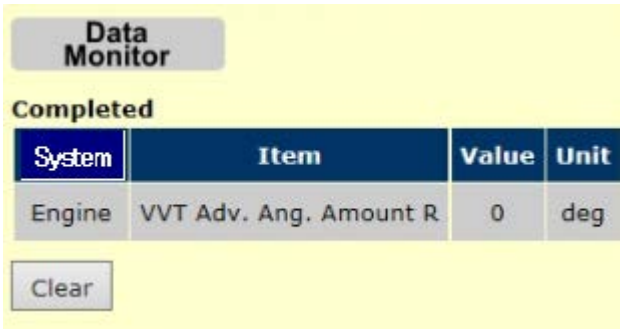
The memory is not able to be automatically cleared when the SSM4 program is running in another window. In this case, the memory clear operation must be carried out using the regular procedure on the SSM4 itself.

The message shown above can be cleared by clicking the Close Message button on the service manual.

7.7. Displaying Current Data

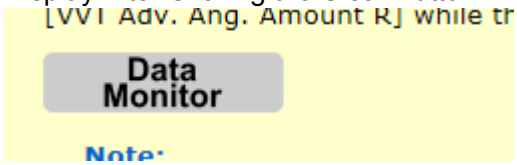
Click the Data Monitor button to read the current data. The results are displayed as follows.

Example of Data Monitor Results:



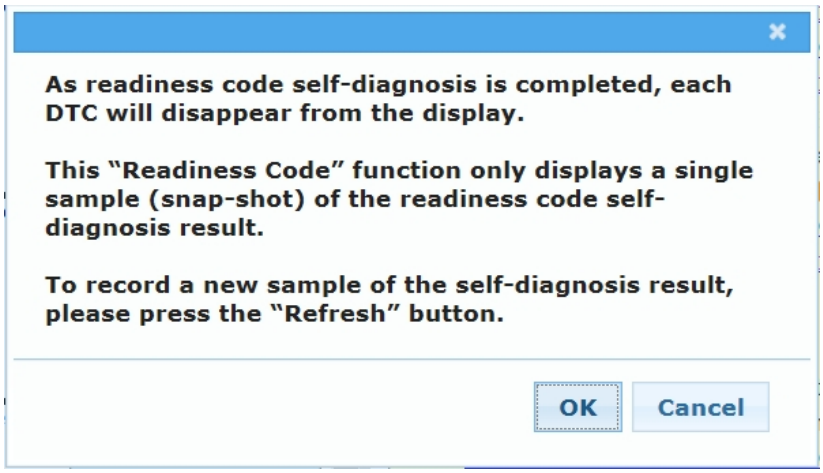
NOTE:
Click the [Clear] button to clear the data monitor results as shown below.

Display After Clicking the Clear Button:

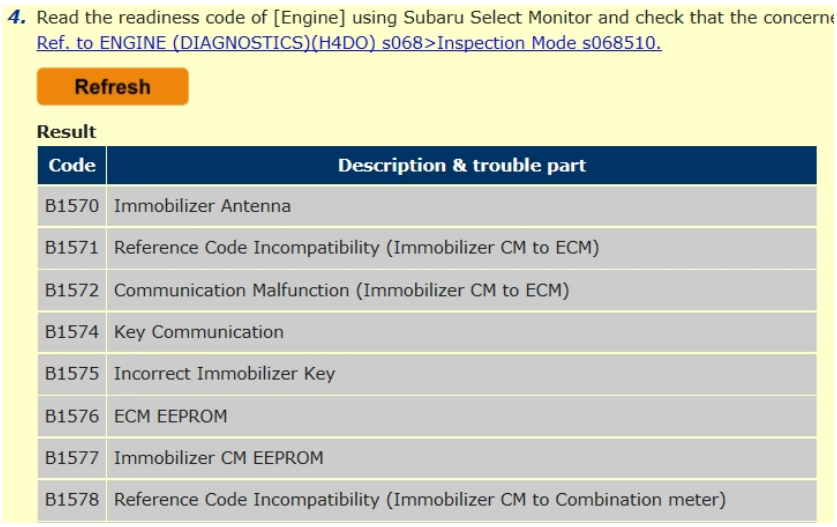


7.8. Acquiring the readiness code

After clicking the Readiness Code button, the below pop-up message will be displayed with an explanation and instruction on how to acquire the readiness code.



- After clicking the [Cancel] button, the pop-up message will disappear and the screen will return to the previous screen.
- After clicking the [OK] button, the pop-up message will disappear and the result of the acquired readiness code will be displayed as in the example below.
  [Example result of acquired readiness code]



4. Read the readiness code of [Engine] using Subaru Select Monitor and check that the concerne
Ref. to ENGINE (DIAGNOSTICS)(H4DO) s068>Inspection Mode s068510.

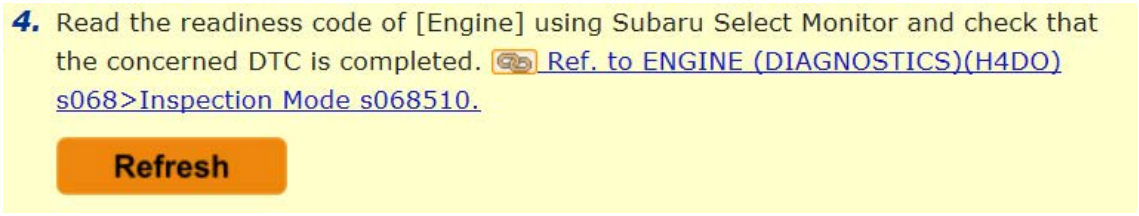
Refresh

Result

Code	Description & trouble part
B1570	Immobilizer Antenna
B1571	Reference Code Incompatibility (Immobilizer CM to ECM)
B1572	Communication Malfunction (Immobilizer CM to ECM)
B1574	Key Communication
B1575	Incorrect Immobilizer Key
B1576	ECM EEPROM
B1577	Immobilizer CM EEPROM
B1578	Reference Code Incompatibility (Immobilizer CM to Combination meter)

NOTE:

- The readiness code will be displayed by clicking the Readiness Code button or the Refresh button. However, this readiness condition is only a one-time self-diagnostic result of the moment, and it does not display a constantly updated condition of the readiness code.
- In order to re-acquire and display the updated readiness code, click the Refresh button as shown in the example above.
- When clicking the Clear measurement result button, the readiness code diagnostic results will be cleared, and only the Refresh button will remain displayed as in the example below. If the Refresh button is clicked, the readiness code diagnostic result will be re-acquired.



4. Read the readiness code of [Engine] using Subaru Select Monitor and check that the concerned DTC is completed. Ref. to ENGINE (DIAGNOSTICS)(H4DO) s068>Inspection Mode s068510.

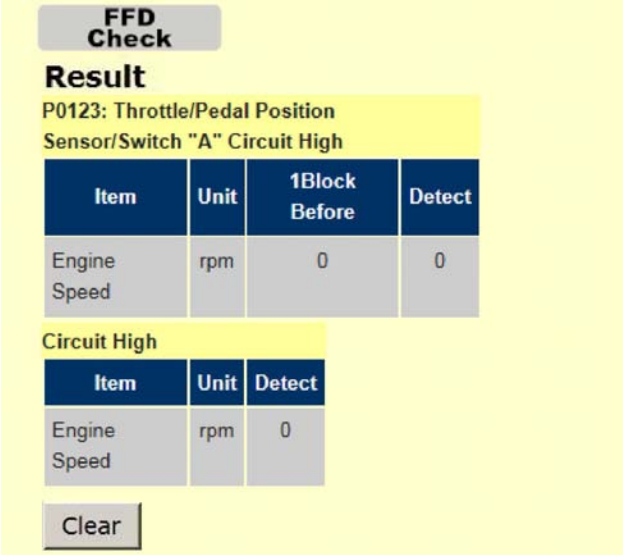
Refresh

- In case the displayed readiness code diagnostic results do not fit in 1 page, scroll down to display the remaining results.

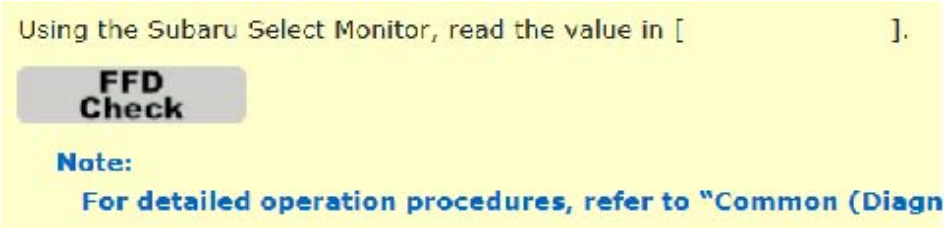
7.9. Reading freeze frame data (FFD)

1) Click the FFD Check button. The FFD is read and the results are displayed.

Results example



2) Click the [Clear] button in the results example.
As shown below, this hides the data monitor results.
Display after clicking the [Clear] button.



7.10. Error Messages

The following error messages will come up if you somehow encounter a problem communicating with the vehicle.
If an error message is displayed, please follow the countermeasures described as follows.

●List of Error Messages●

Error code	Error message text
CS0001	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0002	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0003	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0004	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0005	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0006	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0007	An error occurred while obtaining data from SSM4. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0008	An error occurred while obtaining data from SSM4. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct
CS0009	An error occurred while obtaining data from SSM4. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

CS0010	An error occurred while obtaining data from the vehicle control unit. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0011	An error occurred while obtaining data from the vehicle control unit. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0012	An error occurred while obtaining data from the vehicle control unit. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0013	An error occurred while obtaining data from the vehicle control unit. The software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0014	An error occurred while obtaining DTC. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the ｖｅｈｉｃｌｅ and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0015	An error occurred while obtaining FF data. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

CS0016	An error occurred while obtaining FF data with history. (time-series FFD) Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0017	An error occurred while executing the clear memory command. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0018	An error occurred while obtaining data monitor information. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0019	An error occurred while obtaining data monitor information. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0020	An error occurred while starting the data monitor function. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

CS0021	An error occurred while obtaining data monitor information. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0022	An error occurred while stopping the data monitor function. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct If each item is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CS0023	An Application abnormality has been detected. Please reinstall SSM4.
CS0024	An Application abnormality has been detected. Please reinstall SSM4.
CS0025	System memory is full. Shut down all programs and restart them if needed. If the problem remains, restart your computer.
CS9999	An Application abnormality has been detected. Please reinstall SSM4.
CG0001	An error occurred while obtaining data from SSM4. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CG0002	An error occurred while obtaining data from SSM4. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CG0003	An error occurred while obtaining data from SSM4. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

CG0004	SSM4 cannot connect to the requested control unit. Check the following. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the Vehicle specification is correct
CG0005	Data monitor cannot be started. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CG0006	Data monitor cannot be started. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CG0007	An error occurred while obtaining data from SSM4. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.
CG0008	An error occurred while obtaining data monitor information. Check the followings. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the vehicle specification is correct. If each item is correct, restart the data monitor function.
CG0009	An error occurred while obtaining data monitor information. Check the followings. - Ignition ON, and cruise control OFF. - Connection between computer and DST-I - Connection between the vehicle and DST-I - Verify the vehicle specification is correct. If each item is correct, restart the data monitor function.
CG0010	Processor is busy, Please try it again later.
CG0011	Currently SSM4 is running. After finishing SSM4, please perform again.
CG0012	An error occurred while obtaining data monitor information. Verify that you have selected the correct vehicle's service manual. If it is correct, the software version of the Service Manual may not match your version of SSM4. Please update SSM4 to the latest version.

CG0014	It failed to erase the DTC('s). Please check the connections of Vehicle and Vehicle Condition. * In the Air Bag System, If the DTC('s) was not in the previous Memory Clear implementation, there is a case in which this message is displayed.
CG0015	SSM4 is currently processing the request for DTC check. Please try again after SSM 4 has completed the DTC check.
CG0017	Memory clear cannot be completed. SSM4 is accessing another system. Please execute Memory Clear directly from SSM4. (DTC and FFD data will be automatically saved in the project file)
CG0018	ECM Clear Memory was NOT completed because SSM4 has already started but under the other menu than DTC menu. Please restart the SSM4 program and perform the ECM Clear Memory operation through the normal menus. (DTC and FFD data were automatically saved in the project file)
CG0019	DTC Check cannot be completed in SSM4. Verify if SSM4 is displaying one of the following: - Select vehicle - Select system - DTC check Please retry the DTC Check directly from SSM4.
CG0020	DTC Check cannot be completed in SSM4. Verify if SSM4 is displaying one of the following: - Select vehicle - Select system - DTC check Please retry the DTC Check directly from SSM4.

8. Linking the SSM to the Service Manual

It is possible to link to the service manual from the SSM4 tester.

Simply click a trouble code shown on the DTC display screen to automatically open the corresponding service manual and show the applicable trouble code diagnostic page.
(Depending on the destination, do the links refer to a service manual already downloaded to the PC? Sometimes there is a screen that asks you if you would like to link to an online service manual.)