



Subaru Service and Technical Support Line Newsletter

SPECIAL EDITION

Interactive and Retrievable Diagnostic Service Manuals (ISM)

Subaru of America, Inc. is pleased to introduce **Interactive and Retrievable Diagnostic Service Manuals (ISM)** as a new feature at upcoming model changeovers. The first such manual will be integrated with the 2024 Crosstrek and Impreza online manuals in the Subaru Technical Information System (STIS).

The new features in the manual look and flow the same as the current version but incorporate several helpful features such as:

- The ability to communicate with the vehicle to retrieve basic vehicle information such as VIN and mileage and requested parameter ID data (PID data) while working through the trouble tree.
- The ability to save and store all responses in fault tracing sessions along with the ability to search and recall those sessions for future reference if needed.
- The ability to transmit saved sessions directly to the Subaru Technical Helpline to assist in fault tracing.

These features are only visible for a Subarunet retailer job role of Service Technician (DEALER_SERVICE _TECHNICIAN) at an assigned retailer. Other job titles will only see the static trouble trees but will be able to view saved sessions. Those with interactive access can still see the static view by clicking the **PRINT** button in the service manual menu. The print function should be used if not actively fault tracing a vehicle to avoid storing inaccurate or unwanted sessions. The ISM functions work by connecting through SSM4, so accessing the ISM through an SDS laptop is required. Certain other requirements with SSM4 also need to be met to allow this communication.

First, some basics apply as with all SSM4 communication. Connection to the SDS network is also required. The vehicle and laptop must be ON and connected to each other. SSM4, when displaying certain menus, attempts to communicate continuously with the vehicle. Because of this, only particular menus can be open. That, along with other basic conditions being met, will allow the ISM to communicate. They are:

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

The Subaru TechTIPS newsletter is intended for use by professional Technicians ONLY. Articles are written to inform those Technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained Technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that your vehicle has or will have that condition. Impreza, Legacy, Justy, Loyale, Outback, Forester, Subaru SVX, WRX, WRX STI, Baja, Tribeca, BRZ, XV Crosstrek and "Quality Driven" are Registered Trademarks.

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ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.



- SSM4 must have been running prior to attempting ISM communication. To clarify, a laptop
 restart will require SSM4 to have been opened at least once prior for this condition to be met.
 SSM4 does not need to be open during ISM communication but must have been running at least
 once prior to the ISM communication attempt. Opening SSM4 causes an applet subroutine
 called IIS to become active on the laptop. This applet is required for ISM communication.
- Only certain menus allow ISM communication while SSM4 is open. See figures 1-9 below for specific menu functionality. It is highly recommended to read DTCs from the Each System DTC results menu. Then click on any linkable DTC retrieved to access the ISM trouble tree for that DTC after the data has been saved.
- Other than the specific menus indicated below, it can be assumed that the ISM will not be able to communicate when any other menu is open. This includes the **Start, All DTC, Data Monitor, Cancel Code, Active Test,** and **Work Support** function menus and other sub-menus.
- Figures 1 through 8 below show various SSM4 menus and their ability (or not) to allow ISM communication.

To retrieve saved sessions, use the **Search Troubleshooting Sessions** button found in the Service Diagnostics menu of **STIS** [Figure A]. Use the search menu [Figure B] to filter the search. Results will reappear in the ISM as they were entered and saved. Results cannot be edited once a resolution is found and saved, but partially completed/saved results can be resumed. Modifying any previously entered responses will delete any subsequent entries in the trouble tree.

	SUBARU	L Technical Information System			Francais Ho	ne User's Guide
	Information -	Online Reference	Service Diagnostics -			
2024	2023	2022	2021	2020	2019	
Crosstrek Impreza	Ascent BRZ Crosstrek Forester Impreza Legacy Outback Solterra WRX	Ascent BRZ Crosstrek Crosstrek Hybrid Forester Impreza Legacy Outback WRX Search Troubleshooting	Ascent Crosstrek Crosstrek Hybrid Forester Impreza Legacy Outback WRX WRX STI	Ascent BRZ Crosstrek Crosstrek Hybrid Forester Impreza Legacy Outback WRX WRX STI WRX STI (Series.White) WRX (Series.White)	Ascent BRZ Crosstrek Crosstrek Hybrid Forester Impreza Legacy Outback WRX WRX STI View Full Archives	Clear

[Figure A]

•	IBARU	Technical Information System			Francais H	ome User's Guide
	Information -	Online Reference	Service Diagnostics -	Administration		
	Troubleshooting Searc	ch Criteria				•
	Enter at least one se	arch criteria.				
		st 8 or Full 17 or * for partial		DTC Use * for partial search		
		dd VIN		Add DTC		
	Carli	ne	Model Year			
	Ch	oose Carline 🗸	From	✓ To ✓		
	OAd	d Carline/Model Year				
	Crea	te Date				
	Fro	im 🗖	То	l		
	Tech	nician	Username			
	Se	elect Technician				
	Statu	IS	VIN Input			
	Ch	oose Status 🗸	Choose Input Method	~		
	Odor	neter				
	Fro	om (Leave blank or enter greater	than 0) To (Leave blank o	or enter greater than 0) O Miles O M	M	
					Se	arch Clear
[Figure B]						

The vehicle CAN communicate with the ISM from Start Diagnosis menu BEFORE clicking OK.

SUBARU Select Monitor	r 4 - Vehicle selection		-	0	×
Select Vehicle	Vehicle specifications VIN JF2CHYGU1U5000029	Vehicle settings			
	Vehicle information Vehicle Model Diagnostic software	IMPREZA / CROSSTREK 24MY SSM4			
15.62V					
Project	11			/ 0	ж

The vehicle CANNOT communicate with the ISM from the Vehicle – Main or any OBD System menu.

S SUBARU Select Monitor 4 - Main Menu	-	٥	×
2ant Dagnosis			
MHEEZA CROSTREX			
Main Menu San Alar S			
Each System			
System			
TT Renot			
ant Print ■ 2 Customize			
OBD System			
Each System			



The vehicle CAN communicate with the ISM from the Target Each System menu <u>BEFORE</u> entering an individual system.

SUBARU Sel	ect Monitor 4 - Select System		- 0
Start Disease	System List		
Claynos	Engine	Transmission	
IMPREZ	Brake Control	Tire Pressure Monitor	
CROSST	Body Control	Airbag	
Target Fach Svi	Air Conditioner	Power Steering	
	Steering Angle Sensor	Keyless Access with Push Button Start(Power Supply)	
	tem Keyless Access with Push Button Start(Collation)	EyeSight	
	Wide Angle Mono Camera	Automatic Light and Wiper	
	Combination Meter	Multi-function Display	
	Auto Start Stop	Headlight / Foglight	
	Immobilizer	Pedestrian Alert	
	Blind Spot Detection/Rear Cross Traffic Alert(RH)	Blind Spot Detection/Rear Cross Traffic Alert(LH)	
	Cockpit Control	Power Seat Memory	
	EyeSight Assist Monitor	Telematics	
	Power Window (Driver)	Power Window (Passenger)	
	Power Window (Rear Right)	Power Window (Rear Left)	
	Power Window (Switch)	Reverse Automatic Braking	
	Keyless Entry	Central Gateway	
	Front&Side Camera/Multi View Monitor	Electric Brake Booster	
	Driver Monitor	Front Relay Control Module	
	Door Mirror (Driver)	Door Mirror (Passenger)	
	Detail		
15.6	1V		
Ser	rice		
	FO		1
\$ 11	200 L		*



The vehicle CANNOT communicate with the ISM from any **System [individual] (any, ECM, TCM, etc.)** main menu.



The vehicle CAN communicate with the ISM from this menu <u>after saving DTC/FFD</u> info by clicking Save.

Description & trouble part Tri 🔺 Time Co 03411 593700			
03411 593700		ode	Status ▲
		1001 0	100000
Data save Data save Data name Data 11 System Engine Contents DTC/freeze frame data Date and time 3/27/2023 9:12 AM Memo	adiinty Mairunction	5	HISTORY

[Figure 5]

It is **<u>RECOMMENDED</u>** to communicate with the ISM from the DTC Results menu by clicking the hyperlinked DTC and following the ISM trouble tree for that fault. STIS will open to the proper trouble tree.

Monitor 4	- DTC - Engine					- 0
	and the second		and the second	Time sta	tamp	
	Status	Code	Description & trouble part	Tri A Time (G G	FFD
	History	P1604	tartability Malfunction	03389 280		(302
	matory	<u>F 1004</u>	areability Manufectori	03365 200		
					_	_
m						
		-				
de						
tor						
st	-	1				
te.						
						-
	_	_			_	-
	_	_			_	
			Contrar			1
<u>a</u>	Cod	le 🚺 Stop	Clear memory All			

[Figure 6]

If unable to communicate with ISM as illustrated in Figure 6, click the Stop DTC button and try again.

		and the second se	Time s	tamp	
Status ▲	Code 🛦	Description & trouble part	uble part Tri 🛦 Tir		FFC
			03411 103	9900 C	
History	<u>P1604</u>	tartability Malfunction	03389 24	800 Co	
	_				
-					
_					
_					
	_				
				_	
	_			_	
_					
A Readi	start	Clear Status			
. V . coc	a and a start	Memory All			

[Figure 7]

If trying to return to the **Each system** menu from other functions (a Data Monitor function, for example) click on the **Target Each System** menu button and save data if requested, before attempting to communicate using the ISM. This returns to [Figure 3] status.

SUBARU Select Monit	or 4 - Data monitor - Tire Pressure Monitor					- 0 >
Start Diagnosis		Value	Unit	Maximum	Minimum	? Average
Vehicle IMPREZA /	FL Tire status	00001110		-	-	-
CROSSTREK	FR Tire status	00001110			-	-
Target	RR Tire status	00001110		-	-	-
Each System	Tire status	00001110		-	-	-
Tire Pressure	in pressure	33.4	psi	33.4	33.4	33.4
Monitor	FR The pressure	33.0	psi	33.0	33.0	33.0
Select Function	RR Tire air pressure	32.4	psi	32.4	32.4	32.4
Mar and	RL Tire air pressure	32.6	psi	32.6	32.6	32.6
≫-Pî ^{Dic}	Vehicle Speed	0	MPH	0	0	0
Cancel Code	Pressure warning	28.4	psi	28.4	28.4	28.4
	Return pressure	31.4	psi	31.4	31.4	31.4
Data Monitor	Transmitter power supply	ON MODE		-	-	-
Active Text	INDICATOR LAMP	OFF		-	-	-
A serve les	FL Registered ID	0106F119		-	-	-
Work Support	FR Registered ID	0106F3A3		-	-	-
	RR Registered ID	0106EFEA		-	-	-
Customize	RL Registered ID	0106F113		-	-	-
	Latest reception ID	0106F3A3		-	-	-
	Reception ID one ahead	0106F113		-	-	-
	Before reception ID2	0106F119		-	-	-
	Before reception ID3	0106EFEA		-	-	-
						1
😥 11.98V	Cursor position 1/11	1			Time (cursor po	sition) 00:00:00.00
Service						M
INFO	Split, Dig Combo Reg Monitor			Trigger	Mark	Start
Sal 🗖 200	II V Long Graph Long Graph Long					10

[Figure 8]

When the ISM is attempting to communicate, the screen will darken slightly and the communication **circle** will spin until the data is retrieved. If this is not visible for at least a short amount of time, the IIS function is not active. To correct this the laptop must be restarted and SSM4 must be opened and then closed, or opened to one of the acceptable menus listed above.

Also make note of the **Print** button to view a static version of the trouble tree.



[Figure 9]