

ATTENTION:
 GENERAL MANAGER
 PARTS MANAGER
 CLAIMS PERSONNEL
 SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2017-23MY Impreza
 2018-23MY Crosstrek

NUMBER: 09-127-24

DATE: 08/29/24

SUBJECT: P0890 TCM Power Relay Sense Circuit/
 No Starter Motor Operation

INTRODUCTION:

This bulletin announces the availability of new reprogramming files for the Engine Control Module (ECM). These files have been developed to address concerns of the starter motor not operating in low ambient temperatures (less than 0 Degrees Celsius/ 32 Degrees Fahrenheit). DTC P0890 (TCM Power Relay Sense Circuit Low) will likely be stored in the ECM under these conditions. Condensed moisture in the ignition relay can cause the contact points to freeze. The new logic enhances the relay self-shutdown program, eliminating the possibility of frozen relay contacts.

SERVICE PROCEDURE / INFORMATION:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

- Reprogram the ECM following the normal FlashWrite procedure.
- See the information below for pak file applicability.

Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Once the Midtronics charger is connected to the vehicle, if the battery is fully charged, it takes less than three (3) minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

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

Subaru Service Bulletins are intended for use by professional technicians ONLY. They 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 this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

Subaru of America, Inc. is ISO 14001 Compliant

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.

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NOTES:

- For instructions on using the power supply mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Midtronics GR8- 1100 Diagnostic Battery Charger on STIS.
- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched OFF before setting up the charger for Power Supply Mode.
- Select the correct battery type (Flooded, EFB, Gel, AGM, or AGM Spiral).
- Input the CCA which matches the vehicle's battery. NOTE: OE and replacement batteries have different CCA ratings. Always confirm the battery's CCA rating before proceeding.
- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 volts.
- DO NOT connect the DST-i or SDI until the Power Supply mode function has completed its battery test mode and the Charging Voltage has dropped to and shows a steady 13.5 Volts on the display.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DST-i or SDI to the OBD connector and proceed with initiating the normal FlashWrite reprogramming process.
- Amperage will fluctuate based upon the vehicle's demand for power. NOTE: If the voltage rises beyond 14V while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming is made.
- Control module failures resulting from battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.

REMINDER: If the DCA-8000 or GR8-1100 indicates the vehicle's battery must be charged, charge the battery fully before proceeding to reprogram the vehicle while using the Power Supply Mode.

VERY IMPORTANT:

This information is applicable to the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Subaru Midtronics GR8-1100 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand / type of "generic" battery charger whatsoever. **ONLY** the DCA-8000 and the GR8-1100 and their Power Supply Mode feature have been tested and approved by SOA.

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PAK FILE APPLICABILITY:

Impreza						
Model	MY	Specification	File Description	Old Part #	Decryption Keyword	New CID #
Impreza	17MY	2.0L NA CVT With AGS*	22765AU29C.pak	22765AJ60A 22765AJ60B 22765AJ60C 22765AJ60D 22765AJ60E 22765AJ60F 22765AJ60G 22765AJ60H 22765AJ60J 22765AJ60K 22765AU29A 22765AU29B	C2BF1E71	XH3J2J1D
	17-18MY	2.0L NA 5MT With AGS*	22765AU28C.pak	22765AJ59A 22765AJ59B 22765AJ59C 22765AJ59D 22765AJ59E 22765AJ59F 22765AJ59G 22765AJ59H 22765AJ59J 22765AJ59K 22765AU28A 22765AU28B	4B2C5F3C	XH3J2J1C
	17-18MY	2.0L NA 5MT	22765AU30C.pak	22765AK61A 22765AK61B 22765AK61C 22765AK61D 22765AK61E 22765AK61F 22765AK61G 22765AK61H 22765AK61J 22765AK61K 22765AU30A 22765AU30B	B5807CBD	XH3J2J1A
	17-18MY	2.0L NA CVT	22765AU31C.pak	22765AL71A 22765AL71B 22765AL71C 22765AL71D 22765AL71E 22765AL71F 22765AL71G 22765AL71H 22765AL71J 22765AL71K 22765AU31A 22765AU31B	81CC4B80	XH3J2J1B

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Impreza						
Model	MY	Specification	File Description	Old Part #	Decryption Keyword	New CID #
Impreza	18MY	2.0L NA CVT With AGS*	22765AV39B.pak	22765AM28A 22765AM28B 22765AM28C 22765AM28D 22765AM28E 22765AM28F 22765AM28G 22765AM28H 22765AM28J 22765AV39A	3947027B	XH3JF01D
	19MY	2.0L NA 5MT With AGS*	22765AM64J.pak	22765AM64A 22765AM64B 22765AM64C 22765AM64D 22765AM64E 22765AM64F 22765AM64G 22765AM64H	6F1BC1AF	XH3NB01C
	19MY	2.0L NA 5MT	22765AM65J.pak	22765AM65A 22765AM65B 22765AM65C 22765AM65D 22765AM65E 22765AM65F 22765AM65G 22765AM65H	80ADCA33	XH3NB01A
	19MY	2.0L NA CVT With AGS*	22765AM66J.pak	22765AM66A 22765AM66B 22765AM66C 22765AM66D 22765AM66E 22765AM66F 22765AM66G 22765AM66H	34E0E82F	XH3NB01D
	19MY	2.0L NA CVT	22765AM67J.pak	22765AM67A 22765AM67B 22765AM67C 22765AM67D 22765AM67E 22765AM67F 22765AM67G 22765AM67H	FDF3FD0B	XH3NB01B
	20MY	2.0L NA 5MT With AGS*	22765AP11F.pak	22765AP11A 22765AP11B 22765AP11C 22765AP11D 22765AP11E	76C841B6	XE1M601C00G
	20MY	2.0L NA 5MT	22765AP12F.pak	22765AP12A 22765AP12B 22765AP12C 22765AP12D 22765AP12E	92B6E3D4	XE1M601A00G

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Impreza						
Model	MY	Specification	File Description	Old Part #	Decryption Keyword	New CID #
Impreza	20MY	2.0L NA CVT With AGS*	22765AP13F.pak	22765AP13A 22765AP13B 22765AP13C 22765AP13D 22765AP13E	E670436F	XE1M601D00G
	20MY	2.0L NA CVT	22765AP14F.pak	22765AP14A 22765AP14B 22765AP14C 22765AP14D 22765AP14E	FCA7196F	XE1M601B00G
	21MY	2.0L NA 5MT With AGS*	22765AP84E.pak	22765AP84A 22765AP84B 22765AP84C 22765AP84D	AAE3137F	XE1P701C00G
	21MY	2.0L NA 5MT	22765AP85E.pak	22765AP85A 22765AP85B 22765AP85C 22765AP85D	8B7932B4	XE1P701A00G
	21MY	2.0L NA CVT With AGS*	22765AP86E.pak	22765AP86A 22765AP86B 22765AP86C 22765AP86D	D6E7DFFA	XE1P701D00G
	21MY	2.0L NA CVT	22765AP87E.pak	22765AP87A 22765AP87B 22765AP87C 22765AP87D	A5C944DA	XE1P701B00G
	22MY	2.0L NA 5MT With AGS*	22765AS27D.pak	22765AS27A 22765AS27B 22765AS27C	D3AA6E3B	XE1R501C00G
	22MY	2.0L NA 5MT	22765AS28D.pak	22765AS28A 22765AS28B 22765AS28C	750E337C	XE1R501A00G
	22MY	2.0L NA CVT With AGS*	22765AS29D.pak	22765AS29A 22765AS29B 22765AS29C	5F3FF33F	XE1R501D00G
	22MY	2.0L NA CVT	22765AS30D.pak	22765AS30A 22765AS30B 22765AS30C	C365CC63	XE1R501B00G
	23MY	2.0L NA 5MT With AGS*	22765AT09D.pak	22765AT09A 22765AT09B 22765AT09C	D3F3CEC5	XE1W401C00G
	23MY	2.0L NA 5MT	22765AT10D.pak	22765AT10A 22765AT10B 22765AT10C	8FF7BD04	XE1W401A00G
	23MY	2.0L NA CVT With AGS*	22765AT11D.pak	22765AT11A 22765AT11B 22765AT11C	8A7F8F69	XE1W401D00G
	23MY	2.0L NA CVT	22765AT12D.pak	22765AT12A 22765AT12B 22765AT12C	1A491D04	XE1W401B00G

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Crosstrek						
Model	MY	Specification	File Description	Old Part #	Decryption Keyword	New CID #
Crosstrek	18MY	2.0L NA 6MT	22765AV890.pak	22765AJ610 22765AJ611 22765AJ612 22765AJ613 22765AJ614 22765AJ615 22765AJ616 22765AJ617 22765AJ618 22765AJ619	265EB864	XH3J2J1E
	18MY	2.0L NA CVT	22765AV900.pak	22765AJ620 22765AJ621 22765AJ622 22765AJ623 22765AJ624 22765AJ625 22765AJ626 22765AJ627 22765AJ628 22765AJ629	73E92267	XH3J2J1F
	19MY	2.0L NA 6MT	22765AM818.pak	22765AM810 22765AM811 22765AM812 22765AM813 22765AM814 22765AM815 22765AM816 22765AM817	5C692639	XH3NB01E
	19MY	2.0L NA CVT	22765AM828.pak	22765AM820 22765AM821 22765AM822 22765AM823 22765AM824 22765AM825 22765AM826 22765AM827	FDF6D2E9	XH3NB01F
	20MY	2.0L NA 6MT	22765AN935.pak	22765AN930 22765AN931 22765AN932 22765AN933 22765AN934	2BF0B717	XE1M601E00G
	20MY	2.0L NA CVT	22765AN954.pak	22765AN950 22765AN951 22765AN952 22765AN953	EC333DF1	XE1M601F00G
	21MY	2.5L NA CVT	22765AP815.pak	22765AP810 22765AP811 22765AP812 22765AP813 22765AP814	909DAEFC	XE1P800G00G

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Crosstrek						
Model	MY	Specification	File Description	Old Part #	Decryption Keyword	New CID #
Crosstrek	21MY	2.0L NA 6MT	22765AP924.pak	22765AP920 22765AP921 22765AP922 22765AP923	26D5704F	XE1P701E00G
	21MY	2.0L NA CVT	22765AP934.pak	22765AP930 22765AP931 22765AP932 22765AP933	AA69AE17	XE1P701F00G
	22MY	2.0L NA 6MT	22765AS313.pak	22765AS310 22765AS311 22765AS312	D75BC0D0	XE1R501E00G
	22MY	2.0L NA CVT	22765AS323.pak	22765AS320 22765AS321 22765AS322	B4887B52	XE1R501F00G
	22MY	2.5L NA CVT	22765AS345.pak	22765AS340 22765AS341 22765AS342 22765AS343 22765AS344	5CDD2D8A	XE1R600G00G
	23MY	2.0L NA 6MT	22765AT133.pak	22765AT130 22765AT131 22765AT132	64F97F7B	XE1W401E00G
	23MY	2.0L NA CVT	22765AT143.pak	22765AT140 22765AT141 22765AT142	5CBF52BB	XE1W401F00G
	23MY	2.5L NA CVT	22765AT154.pak	22765AT150 22765AT151	575790D2	XE1X020G00G

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited Warranty period, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Fail Code	Labor Time
MFI OBDII ECM Reprogramming	A450-086	UPG-48	0.4

NOTE: The pak file listings provided in this bulletin are the latest available at the time of publishing. Updates are often released thereafter without revision to the original bulletin. For this reason, it is critical to always have the latest version of Select Monitor software installed on your system. You can confirm if a later version is available by entering the CID listed in this bulletin into FlashWrite.

If a newer CID is shown as available in FlashWrite, reprogram using that file.

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IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.