

9-Speed Transmission Oil Level Control System Changes



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9-Speed Transmission Oil Level Control System Changes

Several changes have been made to the 9-speed transmission (RPO M3W, M3F, M3H, M3G, M3T, M3V, M3U) automatic transmission fluid Oil Level Control system (OLC) for 2023-2024 Enclave, Encore GX, Envision, XT4, XT5, XT6, Blazer,

Trailblazer, Traverse, Acadia and Terrain models. The OLC system stores fluid in the side cover as the transmission warms up.

The OLC system through the 2023 model year consists of a standpipe with a thermal door, on/off solenoid and valve. For the 2024 model year and some 2023 models equipped with RPO BCE, the following changes have been made to the OLC system.

TIP: With OLC (w/OLC) indicates the original design of the OLC system. Without OLC (w/o OLC) indicates the new design of the OLC system.

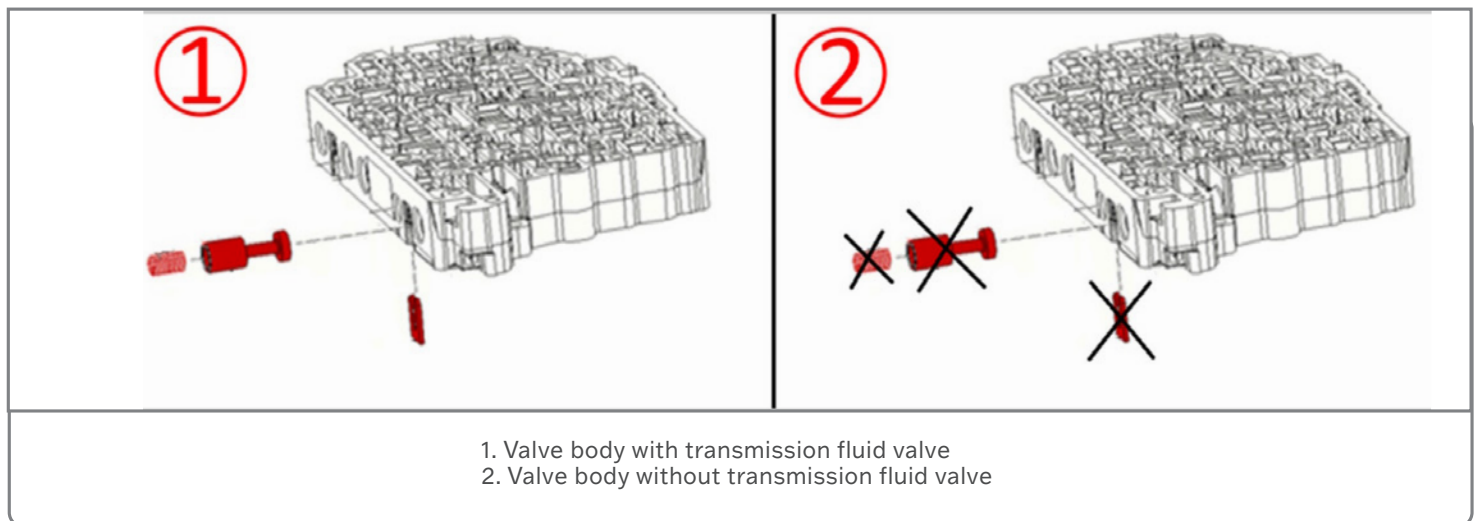
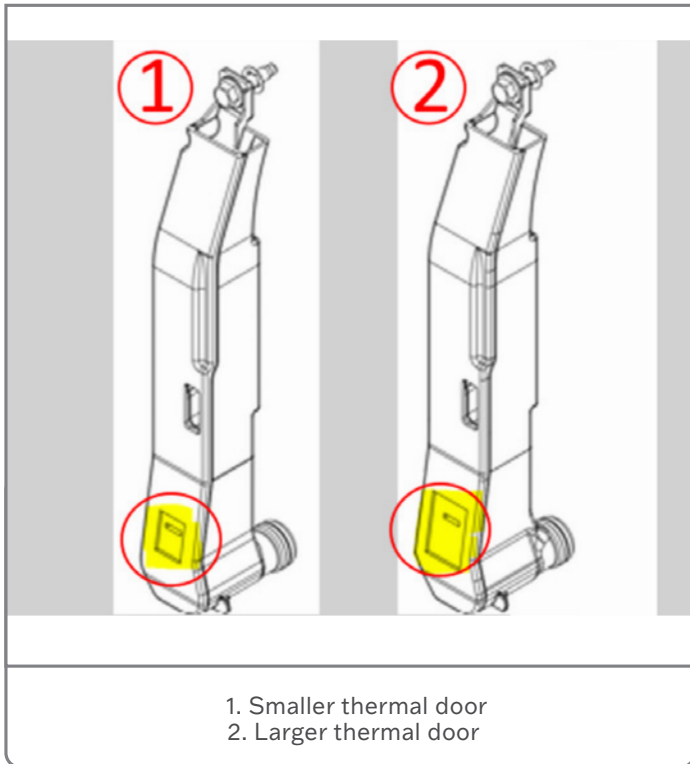
STANDPIPE THERMAL DOOR

The previous automatic transmission fluid level control valve on the standpipe had a small thermal door. The new style has a larger thermal door on the standpipe, which is necessary for the removal of the OLC components.

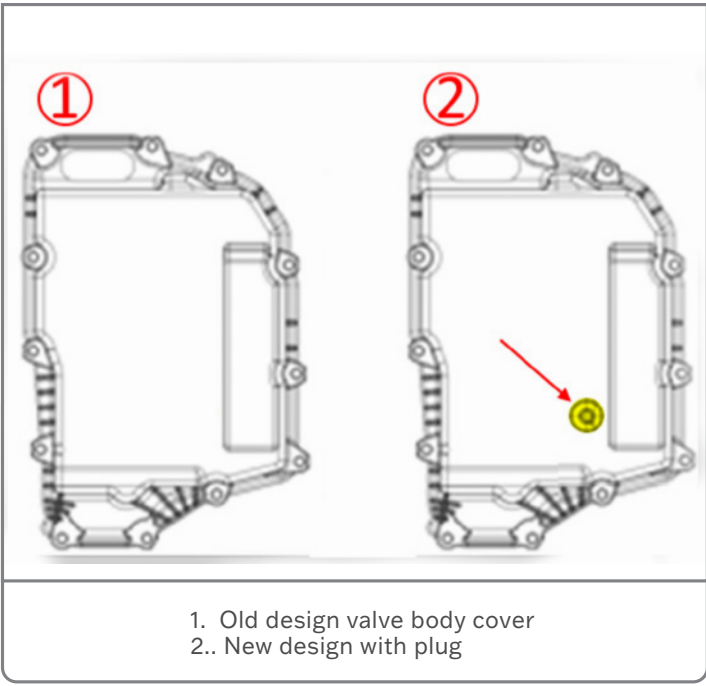
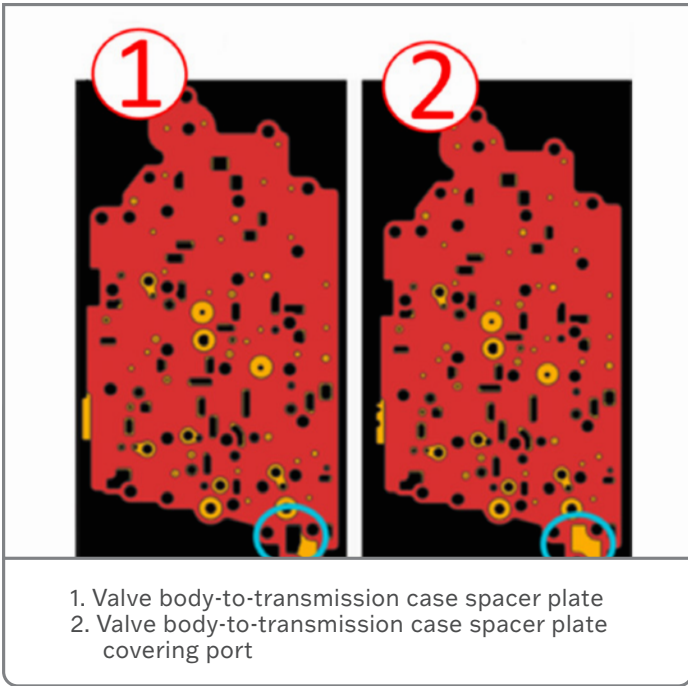
The larger thermal door can be used for any model year while the previous smaller thermal door can be used only on 2022 and earlier models.

TRANSMISSION FLUID VALVE

The automatic transmission fluid valve has been eliminated on the valve body.



CONTINUED ON PAGE 3



SPACER PLATE

The valve body-to-transmission case spacer plate is now covering over the port.

TRANSMISSION FLUID CONTROL SOLENOID

The solenoid body no longer has the transmission fluid control solenoid and related wiring.

VALVE BODY COVER

The old and new valve body covers are interchangeable. The new-style valve body cover has a plug that is used during assembly. It should not be removed. The old-style valve body does not have the plug.

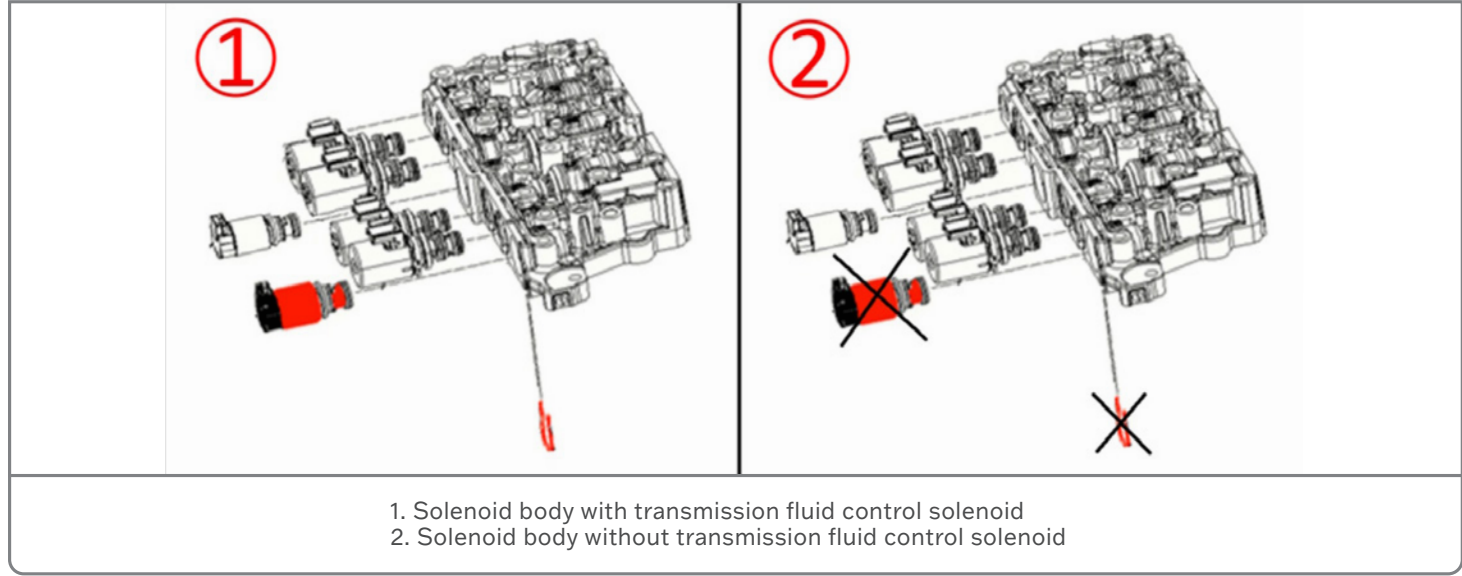
USING THE CORRECT PARTS

During repairs of the 9-speed transmissions, the current valve body (w/OLC) components can be used in 2023 and earlier model years. The new valve body components should be used starting with 2024 models (w/o OLC). Be sure to use the correct parts for the model year being repaired.

In order to facilitate the manufacturing process, some 2024 vehicles may have been built with some old-style components. This is not a concern since the 2024 and 2023 RPO BCE transmission calibration ignores those component inputs.

For additional information, refer to Bulletin #23-NA-135.

► Thanks to Mark Kevnick



Missing Tow Eye Access Cover

During the Pre-Delivery Inspection (PDI) on some 2024 Encore GX, Envista, Trailblazer and Trax models, it may be noticed that the front or rear bumper tow eye access cover is missing or loose, or that the tow eyebolt is missing.

If the tow eye access cover is missing, check the glovebox for the cover. If the cover is not found or it is damaged, replace the cover.

If the cover is loose when installed, reattach the cover following the instructions in the appropriate Service Information. On some models, the cover features a v-notch hook (which allows access to the tow eye without completely removing the cover during regular use) that must be inserted into the retainer hole.

If the tow eyebolt is missing, check the right-side storage compartment in the cargo area just inside the liftgate opening. If the eyebolt cannot be located, replace the eyebolt and stow it in the foam holder under the cargo floor.

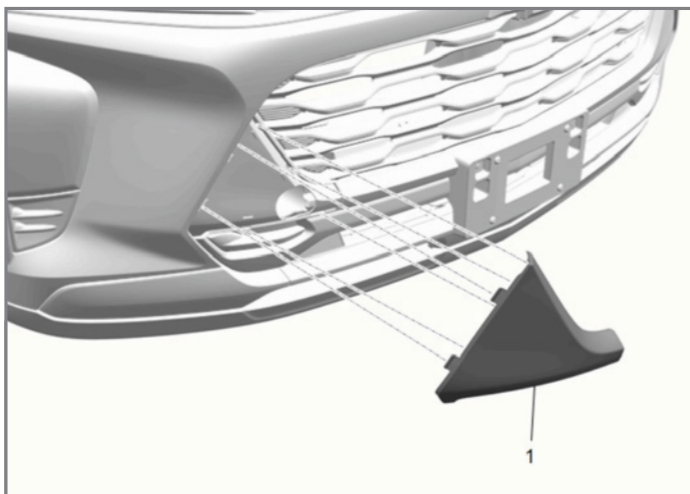
TIP: Remind customers that the tow eye is intended for loading the vehicle onto a flatbed tow truck from a flat road surface, or

to move the vehicle a very short distance at a walking pace. a tow eye is not designed for off-road recovery or to pull the vehicle from snow, mud, sand, or a ditch.

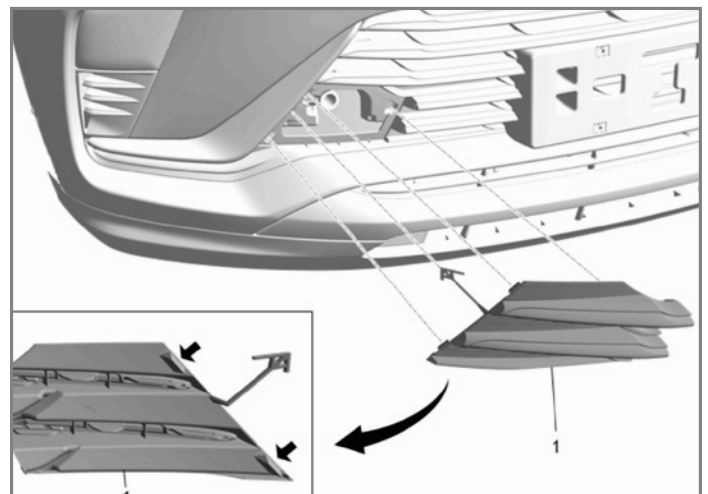
For additional information, refer to #PIC6509B.



Tow eye access cover



Tow eye access cover on the front bumper (Trax shown).



Front bumper tow eye cover with v-notch hook (Envista shown)

► Thanks to Jeff Knight

Latest AFIT Software Update Released

Home English (United States) | My Preferences | Register | Login | Keyword / Tool Number Search

gm SPECIAL SERVICE TOOLS

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Software Downloads

Certain GM special service tools require Software Updates to ensure proper tool function or to expand the product application. The latest software updates for these products are offered on this page; however, the download experience differs by user type. [Click here for more information](#)

ATTENTION GM DEALERS:
In order to have access to the correct software updates and dealer pricing* this special service tools site, gmtoolsandequipment.com, must be accessed through GM Global Connect. Visiting this site directly will result in a different software download experience.

*In most cases software updates are pre-invoiced through the essential tool program (Parts Account) which means the download from this site will be at no charge.

EL-50334-100A
Multi-media Infotainment Tester 9MIT

CH-47976
Active Fuel Injection Tester (AFIT)

Software Link
[MIT \(Multi-Media Interface Tester\) Software Update V.160919-01604_Dec_2016](#)

Support Document(s)
[MIT User Guide \(S65814 Rev C\)](#)

Software Link
[AFIT \(Active Fuel Injector Tester\) Software Update V19.00 August 2023](#)

Support Document(s)
[AFIT Update Instructions](#)
[AFIT DMU Instructions Guide Rev B](#)
[AFIT Diesel Diagnostics Reference Guide](#)
[AFIT Quick Reference Guide Rev A](#)
[AFIT User Guide Rev A](#)
[AFIT SIDI Diagnostic Guide](#)
[AFIT Vehicle Application Chart-1996-2024-SWV19](#)

Look for software update V19.00 on the Software Downloads page.

Software update V19.00 has been released for the CH-47976 Active Fuel Injection Tester (AFIT). It includes testing data for all vehicle programs launching through December 2023. The software should be downloaded to ensure proper functionality of the AFIT.

The software update includes:

- PC Application Software V4.0 (Windows 10/7 compatible)
- Main Control Unit (MCU) Firmware V3.46 (adds G10 adapter)
- 2024 MY Database V20.10 (includes applications up to STC December 15, 2023)
- Drive & Measurement Unit (DMU) Firmware V1.31

The GMDE-approved Bosch USB-to-Serial Cable CH-47976-3A should be used with the AFIT. The original CH-47976-3 cable is not compatible with Windows 10 and later systems.

SOFTWARE DOWNLOAD

The AFIT software update is available through the GM GlobalConnect app (U.S. only) Special Tools and Software Updates. From the software downloads page, select the link for AFIT (Active Fuel Injector Tester) Software Update – V19.00 August 2023 and follow the instructions.

In Canada, the software is available for download through the Service Application selection of GM Special Tools & Equipment – Software Updates in GM GlobalConnect.

AFIT Update Instructions are available on the GM Tools and Equipment website under the Support Documents link for the software download.

For questions regarding the software release, contact Bosch Automotive Service Solutions Technical Support at 1-800-GM-TOOLS (1-800-468-6657).

► Thanks to Josh Shuck

AFIT Adapter Cable Identification and Vehicle Application Chart Update

The Active Fuel Injector Tester (AFIT) Vehicle Application Chart, which can help identify the correct cable adapters for each GM model, has been updated with the latest model year information. It's available below and under the Tool Job Aids menu.

The updated Vehicle Application Chart also is available through the GM GlobalConnect app (U.S. only) Special Tools and Software Updates. From the software downloads page, select the link for AFIT Software Update and select AFIT Vehicle Application Chart 1996-2024-SWV19 under Support Documents.

In Canada, the updated Vehicle Application Chart is available for download through the Service Application selection of GM Special Tools & Equipment – Software Updates in GM GlobalConnect.

The chart lists the model applications, engine RPO, cable components, type of communication, SENT (Single Edge Nibble Transmission) applications and Stop/Start applications for SIDI engine fuel systems and Duramax diesel engines.

The Active Fuel Injector Tester (AFIT), essential tool CH-47976, is designed to test fuel injectors on port and direct injected engines going back to the 1996 model year. As new vehicle applications have been introduced, the kit has grown to include a number of available adapter cables, including for SIDI engine fuel systems and 2001-2010 Duramax diesel engines.

The AFIT Kit, CH-47976, (Fig. 9) was an essential tool for U.S. Tier 1, 2, 3, and 4 dealerships only. Tier 5 dealerships may order the tool at gmtoolsandequipment.com. All Canadian dealerships received the AFIT Kit, CH-47976, as an essential tool.

SOFTWARE UPDATES

Be sure to keep the AFIT up to date with the latest software. AFIT software releases can be downloaded through the Service Workbench selection of "Essential Tools – Software Updates" in GM GlobalConnect (U.S. only).

Year	Make	Model	V	Liter	RPO	Comm	SEN	Cable	K19
2024	Buick	Enclave	R	3.6	W(LFY)	GMLAN	S1	DMU & G5	KL9
2024	Buick	Enclave	V	3.6	W(LFY)	GMLAN	S1	DMU & G5	KL9
2024	Buick	Encore GX	M	1.2	2(LH)	GMLAN	S1	DMU & G8	KL9
2024	Buick	Encore GX	M	1.35	L(L3T)	GMLAN	S1	DMU & G8	KL9
2024	Buick	Envision	Z	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Buick	Envision	L	1.2	2(LH)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	CT4	D	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	CT4	D	2.7	L(L3B)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	CT5	D	2.0	K(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	XT4	Z	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	XT5	N	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	XT5	N	3.6	S(LGX)	GMLAN	S1	DMU & G5	KL9
2024	Cadillac	XT6	P	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Cadillac	XT6	P	3.6	S(LGX)	GMLAN	S1	DMU & G5	KL9
2024	Chevrolet	Blazer	B	2.0	4(LSY)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Blazer	B	3.6	S(LGX)	GMLAN	S1	DMU & G5	KL9
2024	Chevrolet	Camaro	F	3.6	S(LGX)	GMLAN	S1	DMU & G5	NA
2024	Chevrolet	Camaro	F	6.2	6(LT4)	GMLAN	S1	DMU & G2a & G2c	NA
2024	Chevrolet	Camaro	F	6.2	7(LT1)	GMLAN	S1	DMU & G2a & G2c	NA
2024	Chevrolet	Colorado	S	2.7	C(L2R)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Colorado	T	2.7	C(L2R)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Colorado	S	2.7	K(L3B)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Colorado	T	2.7	K(L3B)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Equinox	X	1.5	G(LSD)	GMLAN	S1	DMU & G6	KL9
2024	Chevrolet	Express	G	4.3	P(LV1)	GMLAN	S1	DMU & G7	NA
2024	Chevrolet	Express	G	6.6	7(L8T)	GMLAN	S1	DMU & G7	NA
2024	Chevrolet	Malibu	Z	1.5	T(LPV)	GMLAN	S1	DMU & G6	KL9
2024	Chevrolet	Silverado	A	2.7	K(L3B)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Silverado	D	2.7	K(L3B)	GMLAN	S1	DMU & G8	KL9
2024	Chevrolet	Silverado	A	5.3	D(L84)	GMLAN	S1	DMU & G7	KL9
2024	Chevrolet	Silverado	D	5.3	D(L84)	GMLAN	S1	DMU & G7	KL9
2024	Chevrolet	Silverado	A	6.2	L(L87)	GMLAN	S1	DMU & G7	KL9
2024	Chevrolet	Silverado	D	6.2	L(L87)	GMLAN	S1	DMU & G7	KL9

Component Key		
G1	Cable	CH-47976-501
G2A	Cable	CH-47976-502A
G3	Cable	CH-47976-503
G2B	Adapter	CH-47976-504
DMU	DMU Box	CH-47976-506
SENT	Adapter	CH-47976-507
G4	Cable	CH-47976-509
G5	Cable	CH-47976-511
G3B	Adapter	CH-47976-512
G2C	Adapter	CH-47976-513
G6	Cable	CH-47976-514
G7	Cable	CH-47976-516
G8	Cable	CH-47976-517
G9	Cable	CH-47976-518
G10	Cable	CH-47976-519
X	DLC (non-SIDI classic Tech2 test)	

Note:
DMU & See GM SI requires special hook-up procedures called out in SI
Failure to follow SI will not allow starter control

AFIT Vehicle Application Chart 1996-2024-SWV19



AFIT Kit

In Canada, GlobalConnect provides a Quick Link titled "GM Special Tools & Equipment – Software Updates" available from the Service page.

► Thanks to Josh Shuck

Front Short Range Radar Module Bypass Jumper Connector

The Super Cruise driver assistance feature (RPO UKL) on 2022 Tahoe, Suburban, Yukon; and 2022-2023 Escalade models uses front short-range radar to allow Super Cruise to perform lane-change maneuvers.

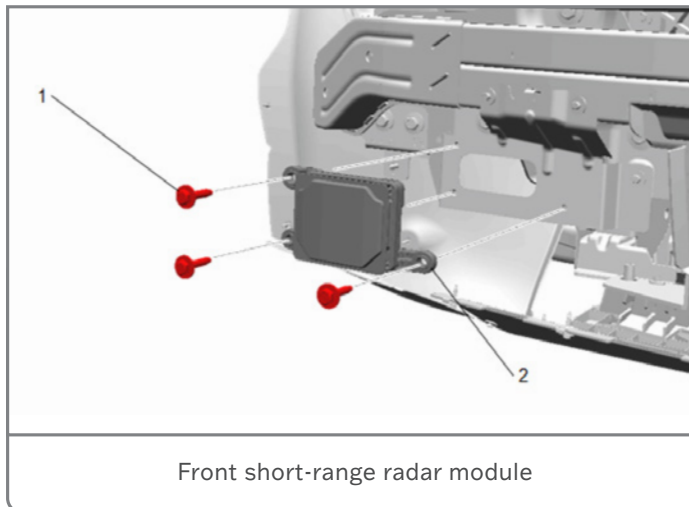
When performing repairs or following diagnostic procedures, there may be a misunderstanding about the vehicle's options since vehicles built with RPO 00U and/or RPO 02O are not equipped with Super Cruise and do not include the front short-range radar modules,

but the front bumper/fascia does include the connectors and wiring for the front short-range radar modules. On vehicles not equipped with Super Cruise, module jumper/bypass connectors should be installed in place of the front short-range radar modules.



Module jumper/bypass connector

In some cases, there may be a concern about whether the vehicle should or should not have the front short-range radar modules. For example, the front short-range radar modules may have been installed during collision repairs on vehicles not equipped with Super Cruise. As a result, DTC U3000 sym 95 (Control Module Incorrect Assembly) may have set.



Front short-range radar module

If the front short-range radar modules have been installed on a vehicle when they should not have been, the modules will need to be removed and the module jumper/bypass connectors should be installed to complete/connect the CAN Bus 8 communication loop.

► Thanks to Jim Will

TECH LINK

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