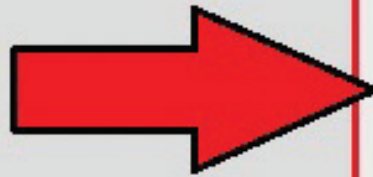


## GDS2 Transitioning from TIS2Web to Techline Connect



Global Diagnostic System 2 (GDS 2)



**TECHLINE  
CONNECT**

**Techline Connect (TLC)**

*Techline Connect is quickly becoming the source for all diagnostic applications in the dealership service department. As part of the transition to Techline Connect, GDS2 is now being removed from TIS2Web in phases. Dealerships that are not currently using Techline Connect are encouraged to begin doing so as soon as possible.*

**Diagnostic  
Charge  
Battery  
Station  
Software  
Update  
Now  
Available**

see page 4



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# GDS2 Transitioning from TIS2Web to Techline Connect



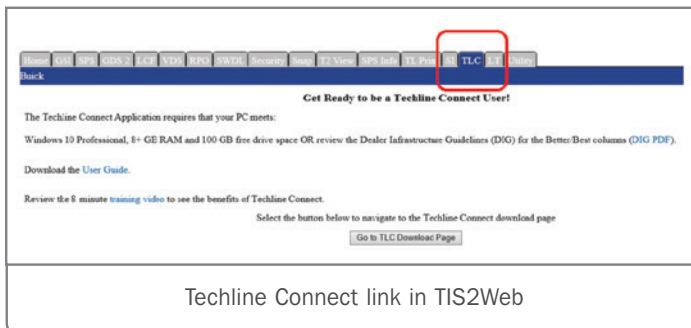
Techline Connect is quickly becoming the source for all diagnostic applications in the dealership service department. As part of the transition to Techline Connect, GDS2 is now being removed from TIS2Web in phases. Dealerships that are not currently using Techline Connect are encouraged to begin doing so as soon as possible.

Like other tech companies that do not support older, out of date applications, GM cannot continue to support TIS2Web, which is based on legacy technology and outdated security applications. In addition to GDS2, other diagnostic features will be removed gradually until the full retirement of TIS2Web in mid- to late-2021.

Techline Connect supports all diagnostic tools available in TIS2Web and all development of future capabilities going forward will be focused on enhancing and expanding the Techline Connect experience.

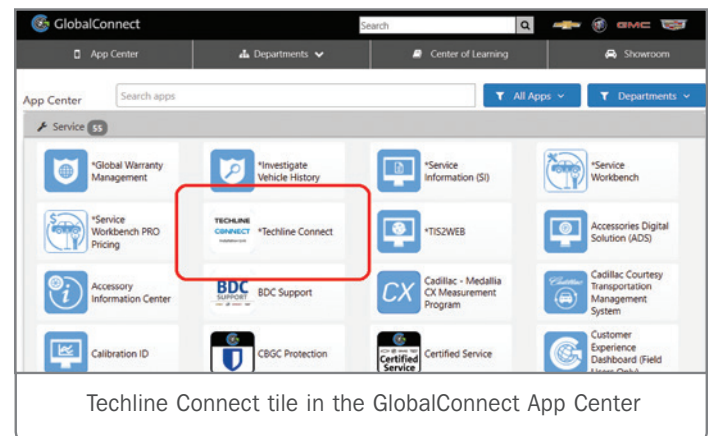
## INSTALLING TECHLINE CONNECT

Techline Connect is available for download both in GlobalConnect and through TIS2Web.



In TIS2Web, select the TLC tab. Go to TLC Download Page and download the Techline Connect Installation package.

In Global Connect, go to the App Center and look for the Techline Connect tile (icon). Select the 'Launch' option to access and download the Techline Connect Installation package.



## USING GDS2

When GDS2 is removed from TIS2Web, users will no longer see the GDS2 tab in TIS2Web and will not be able to access, update or execute GDS2 through TIS2Web.

Techline Connect should be downloaded for access to GDS2. The installation of Techline Connect will remove the GDS2 desktop icon.

GDS2 can be accessed on the Techline Connect dashboard or in Standalone mode, which provides the capabilities of GDS2 while offline.

To use GDS2 offline, run Techline Connect as you normally would. From the log-in screen, select the Enter Standalone Mode button.

CONTINUED ON PAGE 3

For more information on installing and using Techline Connect, check out the Techline Connect User Guide included with the application and the GDS2 and Techline Connect FAQs.

For assistance with Techline Connect, contact the Techline Customer Support Center (TCSC) at (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French), or send an email to TCSC by clicking the mail icon at the top of the Techline Connect dashboard.

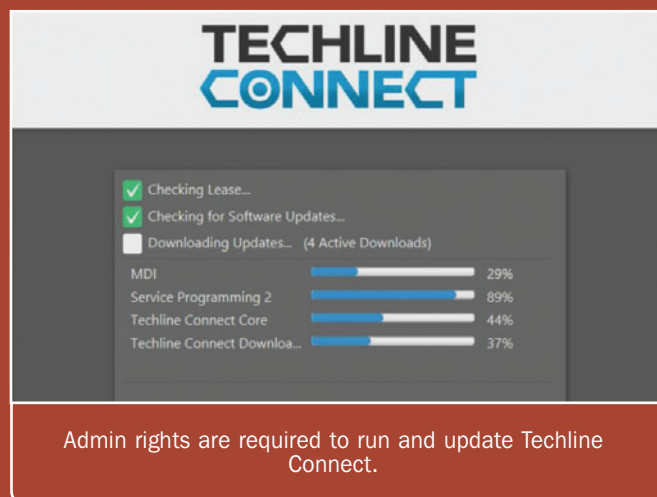
► Thanks to Nate O'Rourke and Lisa Scott

# Techline Connect Updates and Local Admin Rights

One of the most commonly asked questions regarding Techline Connect is why admin rights are required to install and run the application. The quick answer is simple: Microsoft Windows 10 requires admin rights to install, run and update the services and features that the Techline Connect application uses. It's a security issue for installing and updating the app.

If a user does not run Techline Connect as an administrator, Techline Connect cannot update and patch itself, which could lead to serious issues, including crashes, slowdown, and the inability to log in or access applications. Techline Connect also requires administrative privileges to update the GDS2 lease, which allows for offline GDS2 use. For all of these reasons, it is crucial a user is either an Administrator of their PC, or Techline Connect is granted elevated privileges.

Instead of giving dealership technicians full local administrative rights, GM has released an alternative process that can be implemented in the dealership that provides elevated rights for running Techline Connect. The alternative process allows for Techline Connect to get the elevated privileges it needs without giving the same privileges to every other application or to the user. The actual implementation and maintenance requires 3rd-party privilege management software utilities. GM recommends checking with the dealership's IT provider to see which package to use or if the dealership already has privilege management software installed.



The high-level summary of elevated rights in the alternative process is meant to be informational. GM does not require dealerships to use this alternative, nor does GM endorse the software listed in the alternative process. Dealerships are encouraged to investigate the alternative process to determine its impact on their current systems and policies.

For additional information and guidelines on dealership technology, refer to the latest Dealer Infrastructure Guidelines.

► Thanks to Nate O'Rourke and Lisa Scott

# Diagnostic Charge Battery Station Software Update Now Available

A new software update (DCAG1-30) is now available for the EL-52800 Diagnostic Charge Battery Station (DCBS). The DCBS replaces the EL-50313 Midtronics GR8 Battery Tester/Charger and is available for order through GM Dealer Equipment.

The software update includes:

- The latest available GM vehicle database, including 2021 model year vehicles
- Restoring the tester's input current capacity from 40 amps to 80 amps, allowing for faster performance and, in many instances, reduced diagnostic time
- Additional language options for the DCBS's printer

When dealerships receive the new DCBS unit, it is critical that the Optimus software, which is included with the DCBS, be downloaded. The Optimus website is used to store all the testing records (up to 65,000) that are performed at the dealership and enables dealerships to view past test records and retrieve warranty codes. Additionally, all DCBS software updates that are released to keep the DCBS operating with the latest vehicle information



EL-52800 Diagnostic Charge Battery Station

and product enhancements will only be delivered to the handheld diagnostic remote through the Optimus program.

## UPDATING THE SOFTWARE

To complete the software update, connect the handheld remote to the PC using the USB cable. If this is the first time updating the device, go to the E-XTEQ website at [www.e-xteq.com](http://www.e-xteq.com) and select the Download option on the top menu bar. Once accessed, click Download Optimus and follow the

prompts to install the updating Optimus software. If the device has been updated before, Optimus should already be on the PC. Open Optimus and follow the prompts to update the device.

Refer to the DCBS Software Installation Guide for more information.

All DCBS units should be updated to the latest software version DCAG1-30 to ensure battery testing is being performed with the latest technology and information.

For assistance with accessing the website, downloading the software or any questions about the DCBS, contact EXTEQ Customer Support Center at 1-877-453-3265.

► Thanks to Rob Kennedy





## Rear Toe Links Before Adjusting Rear Toe

When servicing the rear suspension on 2010-2016 Cadillac SRX and 2011-2012 Saab 9-4X models, the Service Information has been updated recently to require the replacement of both right and left rear toe links if a rear alignment is needed. The original toe links should not be adjusted.

Once new rear toe links are installed and the rear toe is aligned, the rear toe should

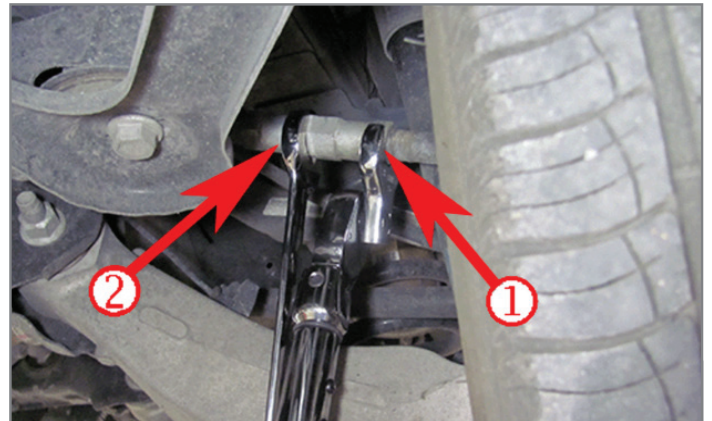


Toe links should not be adjusted.

been reached. Refer to the wheel alignment specifications in the appropriate Service Information.

The rear toe links from the supplier are pre-torqued to 20 Nm (14 lb.-ft.), not the final torque specification of 150 Nm (110 lb.-ft.).

Hold the adjustment collar with a 26mm open-end wrench and verify the jam nut torque using a 26mm crow's foot attachment on a calibrated torque wrench. Check the torque by pulling the torque wrench handle. Tighten to 150 Nm (110 lb.-ft.). Ensure the jam nuts are properly torqued.

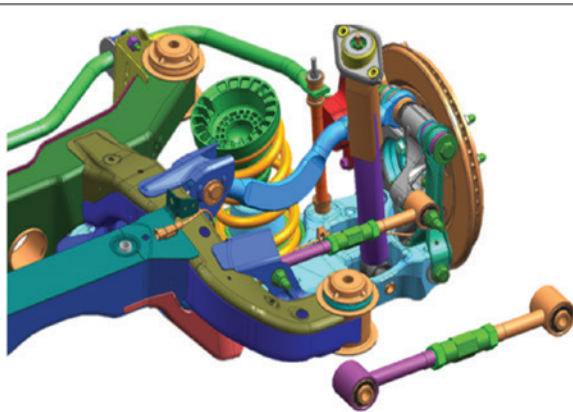


1. Crow's foot attachment and torque wrench on jam nut
2. Open-end wrench on adjustment collar

- On the driver's side of the vehicle, push the torque wrench toward the rear of vehicle on both the inner and outer jam nuts (the outer link has left-handed threads).
- On the passenger's side of the vehicle, pull the torque wrench toward the front of vehicle on both the inner and outer jam nuts (the outer link has left-handed threads).

Recheck the toe setting and readjust the toe specifications if necessary.

► Thanks to Tom DiMambro



Rear suspension toe link

not be adjusted again. If the rear toe requires alignment later, new rear toe links should be installed followed by a rear toe alignment. When the rear toe links are serviced, always verify that the adjustment link jam nuts are tightened to the proper torque specification.

### REAR TOE ADJUSTMENT

After installing the new rear toe links, adjust the toe by rotating the rear suspension adjust link until the proper specification has

# WIRING HARNESS CONDITIONS ON THE 2.8L Diesel Engine

A number of conditions regarding engine performance and air conditioning operation on some 2016-2021 Colorado and Canyon models equipped with the 2.8L diesel engine (RPO LWN) may be due to the engine wiring harness rubbing on other components. These conditions may include the air conditioning not cooling or blowing hot air, a fluctuating engine oil pressure gauge, several Diesel Exhaust Fluid (DEF) messages displayed, an engine no start or misfire, and several illuminated warning lamps.

Complete the diagnostic instructions in the appropriate Service Information for any symptoms or DTCs found. If the diagnosis does not lead to a resolution, check for chafing of the engine wiring harness or connector concerns in the following areas, perform any necessary wiring repairs and reroute the harness.

## AIR CONDITIONING

A wiring harness concern with the air conditioning (A/C) compressor, A/C compressor suction and discharge line manifold, A/C line and A/C compressor clutch may cause:

- The Check Engine light to illuminate and DIC messages to be displayed.
- The engine to run rough or a possible extended crank or crank/no start.
- The 4WD warning lamp or StabiliTrak warning lamp to illuminate.
- The oil pressure gauge to read erratically or show no oil pressure.
- The A/C to not cool or blow hot air.
- An open fuse in the Underhood Bussed Electrical Center (UBEC).



Check the engine wiring harness near A/C components.

## SERPENTINE BELT

The fan clutch wiring harness support bracket may be out position and allow the harness to rub on the belt, which may cause:

- An engine crank/no start condition or the engine to run rough or misfire.
- The Check Engine light or other warning lamps to illuminate, such as the 4WD warning lamp or StabiliTrak warning lamp.
- The A/C to not cool or blow hot air.



Check the fan clutch wiring harness support bracket.

## REAR OF ENGINE

**TIP:** Refer to Bulletin #16-NA-081 for additional information on harness damage on the exhaust heat shield.

A wiring harness concern near the exhaust heat shield at the right rear of the engine may cause:

- The 4WD warning lamp or StabiliTrak warning lamp to illuminate.
- The Check Engine light to illuminate.
- A Reduced Power message on the DIC.
- An open fuse in the UBEC.



Check for harness damage on the exhaust heat shield.

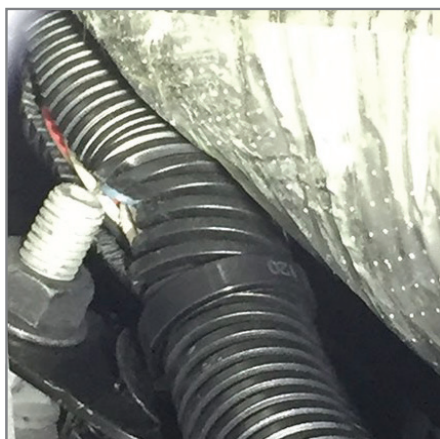
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## TRANSMISSION BELL HOUSING

A wiring harness concern with the transmission bell housing bolt/stud area may cause:

- The 4WD warning lamp or StabiliTrak warning lamp to illuminate.
- The Check Engine light to illuminate.



Check the transmission bell housing bolt/stud area for harness damage.

## COOLANT PIPE

A wiring concern near the coolant pipe and clamp tabs between the engine and cowl may cause:

- The 4WD warning lamp or StabiliTrak warning lamp to illuminate.
- The Check Engine light to illuminate.



The coolant pipe and clamp tabs may wear on the harness.

## BRAKE FLUID LEVEL SWITCH

A wiring harness concern in this area may cause:

- The Check Engine light and service brake lamp to illuminate.
- A Low Brake Fluid message on the DIC



Check the brake fluid level switch area for harness damage.

## TRANSFER CASE ENCODER MOTOR

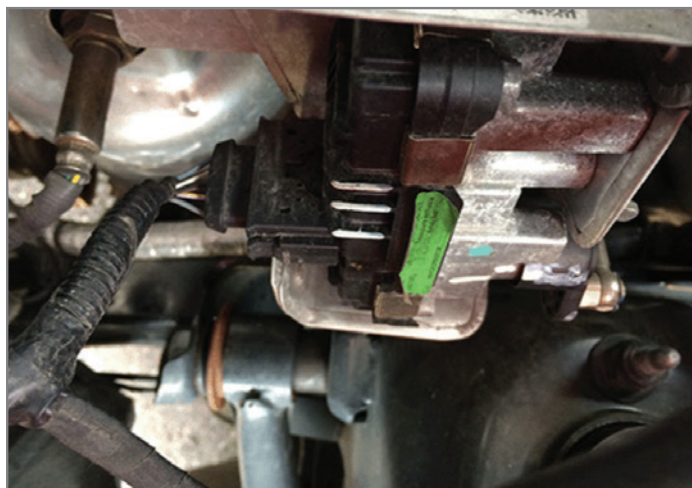
A wiring harness concern in this area may cause:

- The Check Engine light or other warning lamps to illuminate.



Check the harness near the transfer case encoder

## TURBOCHARGER VANE POSITION ACTUATOR



Check the connector at the turbocharger vane position actuator.

Loose terminals or a connector not fully seated at the turbocharger vane position actuator may cause:

- The Check Engine light or other warning lamps to illuminate.
- A reduced power message on the DIC and a low power condition.

For additional information, refer to #PIP5416D.

► Thanks to John Stempnik

# Deletion of Manual Park Release Cable

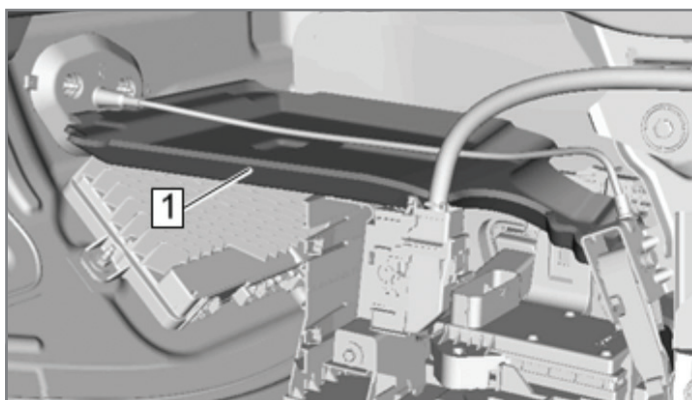
*The 2021 Acadia, Terrain, Yukon; CT4, CT5, Escalade, XT4, XT5, XT6; Enclave; Tahoe and Suburban models no longer have a manual park release cable and pull handle under the front of the center console. The pull handle, located behind the console trim panel door, was used to manually move the transmission out of Park on vehicles equipped with the Electronic Transmission Range Select (ETRS) system.*

The 2021 Acadia, Terrain, Yukon; CT4, CT5, Escalade, XT4, XT5, XT6; Enclave; Tahoe and Suburban models no longer have a manual park release cable and pull handle under the front of the center console. The pull handle, located behind the console trim panel door, was used to manually move the transmission out of Park on vehicles equipped with the Electronic Transmission Range Select (ETRS) system.



The manual park release cable and handle have been removed on some 2021 models.

Do not order parts to install a manual park release cable and pull handle on these 2021 models. No repairs are necessary.

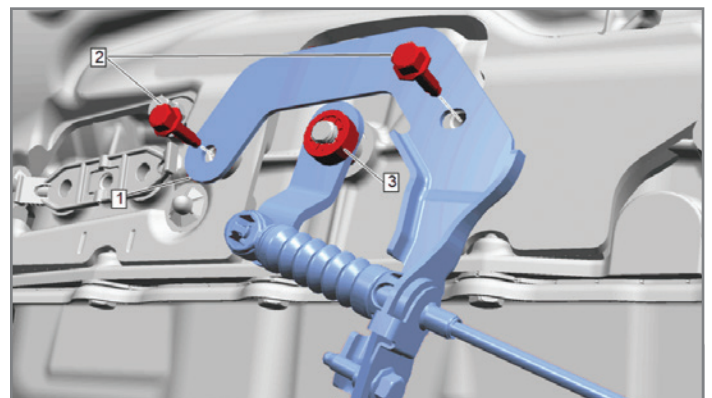


Manual park release cable under center console.

## MANUAL SHIFT TO NEUTRAL

The transmission manual shaft is still on the transmission and can be accessed underhood or under the vehicle body if needed to manually shift to Neutral when the engine is not running. There are two Available tools to be released soon that can be used to manually shift the transmission to Neutral. These tools will not be designated as Essential tools.

For vehicles equipped with a 9-speed automatic transmission (9T50, 9T60 or 9T65), use the DT-52909 Manual Park Release Tool. For vehicles equipped with the 10L80 10-speed automatic transmission, use the DT-52910 Manual Park Release Tool.



DT-52910 Manual Park Release Tool

Install the tool to temporarily shift the transmission into Neutral when the engine is not running. The latching mechanism in the manual park release lever will release if the vehicle is started and placed into Park.

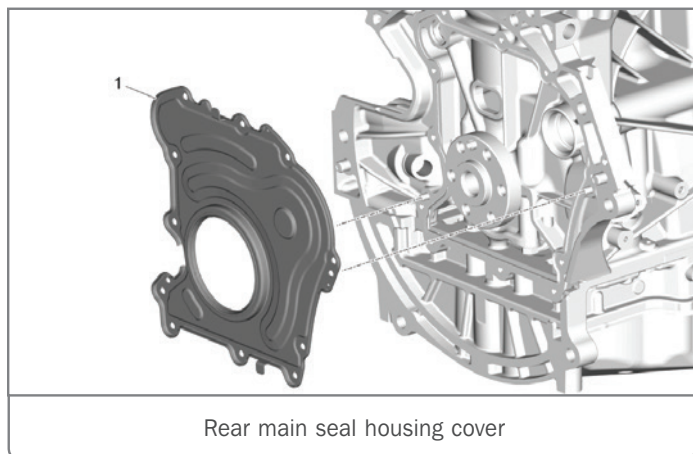
► Thanks to Tom Burlingame



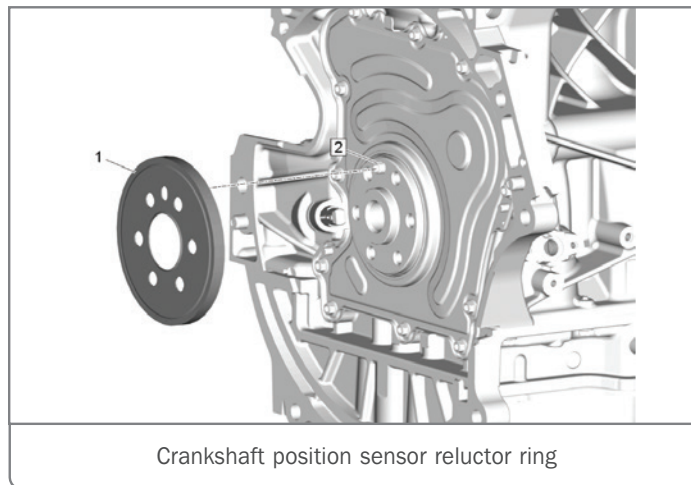
# Damaged Crankshaft Position Sensor and Reluctor Ring

Some 2020-2021 Encore GX and 2021 Trailblazer models equipped with the 1.2L engine (RPO LIH) may have a no start condition and DTCs P0335 (Crankshaft Position Sensor Circuit) and P0336 (Crankshaft Position Sensor Performance) set in the Engine Control Module.

If these conditions are present, check for a possible oil leak from the rear of the engine. The engine crankcase pressure may have increased to abnormal levels due to an internal restriction in the cam cover PCV channel, causing the rear main seal housing cover to balloon and make direct contact with the crankshaft position sensor reluctor ring.



Rear main seal housing cover



Crankshaft position sensor reluctor ring

If the crankshaft position sensor is damaged, remove the crankshaft position sensor reluctor ring and inspect the rear main oil seal housing. If the crankshaft position sensor reluctor ring has cut through the rear main oil seal housing, there may be metal contamination in the engine oil, requiring engine replacement.

If the crankshaft position sensor reluctor ring has not cut through the rear main oil seal housing, replace the crankshaft position sensor, reluctor ring, rear main oil seal housing, and camshaft cover.

For additional information, refer to #PIP5761.

► Thanks to Robert Halas

Remove and inspect the crankshaft position sensor for any damage. If the crankshaft position sensor is not damaged, continue with diagnostics as outlined in the appropriate Service Information.

## TECH LINK

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