

## NEW WEBSITES AND ROLES FOR GM Dealer Services and GM Dealer Equipment

Several changes have been made recently to the different programs available to U.S. dealership service departments for GM dealer services, tools and equipment. New roles and new contacts have been put in place that dealerships can use to shop for tools and equipment, download software, order supplies and check GM guidelines.

Here's a look at the functions of the Dealer Services, Dealer Equipment, and Special Service Tools websites.

### Dealer Services

DESdealerservices.com is your new source for:

- Techline IT Solutions, including business-grade desktop and laptop computers, tablets, other computer hardware, and the GM Dealer Infrastructure Guidelines.
- Warranty Administration, including GM warranty stamps, claims processing service, and management workshops.
- Würth shop supplies and products
- Office supplies from Office Depot/OfficeMax, including furniture, printers, and technology equipment.

Be sure to check the GM Dealer Infrastructure Guidelines for the latest recommendations from GM before purchasing any computer equipment. Techline applications require specific specifications in order to function properly in the dealership environment.

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# Hunter Road Force Balancer Now Essential Equipment

The Hunter Road Force Balancer Generation 5 has been classified as essential equipment for all GM dealerships in the U.S.. This latest generation of the Hunter Road Force Balancer is a critical part of tire/wheel assembly diagnosis.

GM reviewed the proposal to classify the Hunter Road Force Balancer as essential equipment with many National Service Clubs and GM Dealer Councils, including the Fixed Operations Advisory Board, Fixed Operations Executive Committee, Cadillac National Service Managers, Buick/GMC

National Dealer Council, Chevrolet National Dealer Council and the Cadillac National Dealer Council. Many other Original Equipment Manufacturers (OEM) have also made the Hunter Road Force Balancer essential equipment.

Based on the feedback and suggestions gathered during these meetings, a roll-out plan was developed to get the Generation 5 Balancer to dealerships. Only dealerships that do not have a Generation 3, 4 or 5 Hunter Road Force Balancer will be shipped a new machine. The Generation 3 and 4 machines currently meet GM specifications, but many of these machines may be up to eight years old.

## Roll-out Process

Roll-out of the new equipment will begin with Tier 1, 2 and 3 dealerships, followed by the remaining Tier 4 and 5 dealerships. As part of the roll-out process, Hunter will provide:

- A free site survey to determine locations and site requirements at the dealership.
- Shipment of the machine to the dealership for installation.
- Installation and training at the dealership.

## Generation 5 Advantages

The Hunter Road Force Balancer Generation 5 offers less maintenance and increased speed over other balancers. The roller mimics how a tire/wheel assembly performs under the load of a vehicle to identify hidden causes of vibration and vehicle pull. The machine features inner and outer camera assemblies that use structured light to scan the wheel during spin. In addition, Force Matching locates the stiffest area of a tire and the lowest spot on

a wheel to be marked and match-mounted to cancel radial-force vibration.

The new equipment package includes:

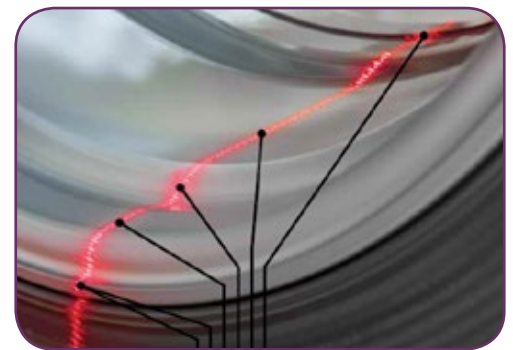
- Hunter Road Force Balancer Generation 5 (RFE13GM)
- Printer
- Overhead Laser/Light
- Wheel Lift
- Basic Hook-up (Excludes 240V and shop air installation)
- Set-Up
- Initial On-site Training
- 3-Year Parts Warranty
- 1-Year Labor Warranty (double the standard of 6 months)



Hunter Road Force Balancer Generation 5



The roller mimics a tire/wheel assembly under load.



Structured light scans the wheel during spin.

GM has negotiated a special price for the Hunter Road Force Balancer Generation 5 that includes an extended warranty, standard installation, and training for dealership personnel. Dealerships that have a Generation 3 or Generation 4 Hunter Road Force Balancer but would like to upgrade to a Generation 5 model should contact GM Dealer Equipment at 1-844-742-8471 or visit [www.gmdesolutions.com](http://www.gmdesolutions.com).

## Tire Changers

Many dealerships currently have a tire changer that meets GM specifications. As a result, a tire changer is not part of the essential equipment shipment with the Hunter Road Force Balancer. However, GM has negotiated special pricing on several tire changer models that meet GM specifications for performing tire bead seating.

The Hunter Road Force Balancer will enable dealerships to correct tire vibration concerns in a timely manner in addition to providing other tire services — all while ensuring that every tire/wheel assembly meets or exceeds GM specifications.

🙏 Thanks to Chuck Berecz, Kent Woiak and Peter Joslyn

# What is Road Force?

## Diagnosing Tire Vibration with the Hunter Road Force Balancer

Many changes in the design of new vehicles highlight how important properly balanced and low Road Force tires are to ride quality. Advanced braking and stability systems, along with stricter fuel economy requirements, have led to the increased use of lower rolling resistance tires with a decreased contact patch. Suspension systems and tires also are getting stiffer. In addition, many modern tire/wheel assemblies can weigh as much as 80 lbs. as the customer demand grows for larger wheels in sizes of 20-inches and 22-inches. Using the Hunter Road Force Balancer will ensure that the tire/wheel assembly meets GM specifications prior to mounting the assembly back on the vehicle.



Use the Hunter Road Force Balancer to ensure tire/wheel assembly specifications are met.

In 2015, GM made the CH-51450-A Oscilloscope Diagnostic Kit (Pico Scope) an essential tool for all GM dealerships to help in diagnosing vibration conditions. The tool enables technicians to verify, measure and identify the type of vibration that a vehicle is producing. Once the area of the vibration is identified, the next step is to correct the issue. Any part that rotates can produce vibrations (such as tires, prop shafts, differentials, etc.), which makes diagnosis difficult. In some cases, the repair might require part replacement. But if the vibration is coming from the tire/wheel assemblies, the Hunter Road Force Balancer can help make the correct repair.

### What Produces Road Force?

Previously, tire/wheel assemblies were measured for "static balance," which allowed for weights to be placed on the inside and outside of the wheel flange/rim surface. While this is the first step in correcting a vibration condition, vehicles also need the Road Force checked. Road Force is a measurement of both sidewall stiffness and how much the assembly is "egg shaped."

To understand the effects of radial force variation, imagine the tire as a collection of springs between the rim and the tire tread. If the "springs" are not of uniform stiffness, a varied force is exerted on the axle as the tire rotates and flexes. This force creates a vibration in the vehicle.

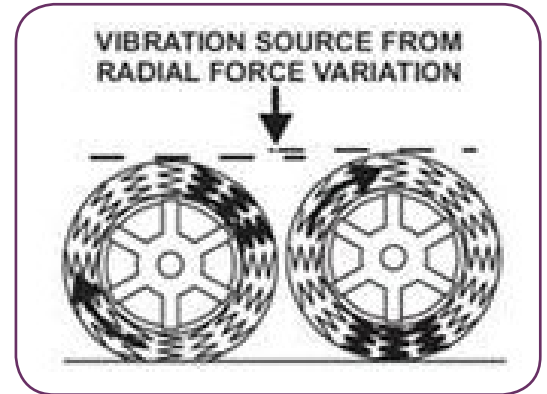
The Hunter Road Force Balancer has the ability to measure this variation. By measuring, correcting and validating the tire/wheel assembly is within GM specifications for both static and Road Force, technicians can ensure that the tire/wheel assembly is corrected prior to mounting it back on the vehicle.

Excessive Road Force can be produced by incorrect tire mounting or improper bead seating to the rim. Both of these conditions will

provide a low and/or high spot in that area of the tire. It can occur on either the inside or outside flange.

### New Wheel Design

Many of today's GM vehicles have a new flangeless wheel design that has removed the machined flange that previously allowed for the traditional "clip-on" weights. The flange was removed for esthetic

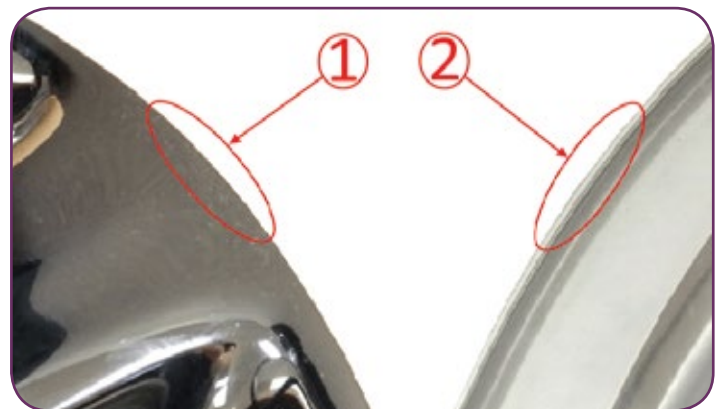


Varied force creates a vibration.

reasons but has also driven the need for changes in balancers. Modern balancers need to account for this change by allowing wheels weights to be placed on the inside of the wheel.

The previous method of "vectoring" or "Match Mounting" a tire cannot be used since the starting point is to measure the wheel runout using measurement arms. To address this concern, Hunter has developed the "180-Match Mount" process.

This process allows a more precise measurement and correction to the tire/wheel assembly by using the Road Force measurements to determine proper alignment of the tire to the wheel that produces the lowest Road Force.



1. Flangeless wheel
2. Flanged wheel

For more information on tire Road Force as well as additional tire and wheel diagnosis, refer to Bulletin #00-03-10-006M.

Detailed diagnostic steps for Tire and Wheel Vibration Analysis also can be found in the Service Information.

🙏 Thanks to Chuck Berecz, Kent Woiak and Peter Joslyn

# New Websites and Roles for GM Dealer Services and GM Dealer Equipment - continued from page 1

## Dealer Equipment

GMDEolutions.com is the website for the GM Dealer Equipment program. Snap-On Business Solutions in the new facilitator of the program, which now offers expanded customer service hours (7 a.m. CST to 7 p.m. CST), an enhanced web portal, and increased program offerings.



DESdealerservices.com website

The dealer equipment website includes:

- An online catalog of GM-approved equipment; everything ranging from air conditioning service equipment to wheel and tire equipment.
- Green products as part of the GM Green Dealer program, including approved equipment that helps reduce operation costs and improve efficiency.
- Dealer-specific pricing and content

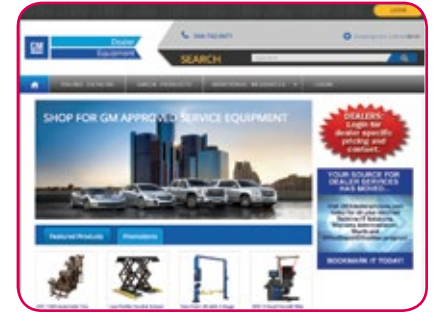
## Special Service Tools

Special tools and essential tools are still available through gmtoolsandequipment.com and administered by Bosch. A new feature added to the website is the software downloads function for special tools. Software downloads were previously available from the GMDEolutions.com website.

The special service tools website features:

- Keyword/tool number search function to quickly find tools
- An online catalog of special service tools and essential tools for all GM models
- Monthly tool promotions

- Tool organization solutions, including organization management systems; cabinet, cart and peg-board storage systems; and best practices to follow in the shop.
- Links to software downloads to update a variety of special tools, such as the Active Fuel Injector Tester (AFIT), Pico Scope NVH tool, and others.



GMDEolutions.com website

## Software Download Process

The process for special tool updates has changed with the move to the special tools website. To access the software downloads, select the download description for the software needed from the Software Downloads list on the home page. A pop-up window will appear with options to Run or Save the .exe file. Follow the tool instructions to update the tool software.

☺ Thanks to Lisa Scott, Chuck Berez and Kent Woiak



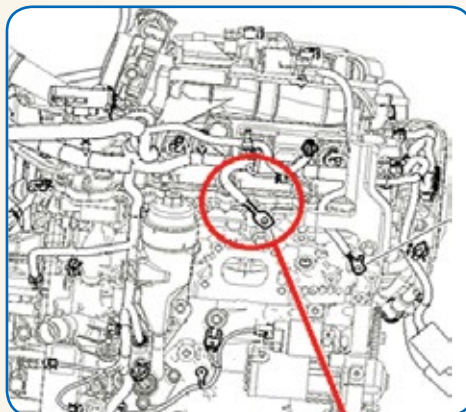
GMtoolsandequipment.com website



Software downloads pop-up window

# Loose ECM-TCM Ground Connection

Some 2017 Colorado and Canyon models equipped with the 3.6L engine (RPO LGZ) may have an intermittent no crank condition. There may be a loss of communication with the Engine Control Module (ECM) and Transmission Control Module (TCM), the ignition key may be stuck in the ignition cylinder, and a dead battery.



Ground G104 location

The following DTCs also may be set: P018C, P0449, P0452, P0463, U0101, U0100, U0401, U0121, U0131, U18A2, P0522, P16E5, or P0118.

These conditions may be caused by a loose ECM-TCM ground (G104) on the driver's-side cylinder head. Inspect G104 for a loose connection.



Loose ground connection

☺ Thanks to Aron Wilson

## Vibration During 6th Gear Deceleration

The 2017 Camaro ZL1 with a manual transmission (RPO MJK) may have a vibration condition during deceleration in 6th gear. Drivers may feel the vibration in the floor, seat, console and steering wheel.

The vibration is most noticeable at speeds from 70 to 60 mph. Using a Pico scope (CH-51450) will show a vibration at 46 Hz.

The vibration will only be present in 6th gear on deceleration with the clutch pedal not applied. If the clutch pedal is depressed and the condition is not present, the cause may be related to the transmission main shaft. A repair is currently being developed. Do not attempt any repairs at this time.

If the clutch pedal is depressed and the vibration condition remains the same or is present in 5th gear during the same speed range, continue with diagnosis following the appropriate Service Information.

🙏 Thanks to Steve Schipansky



ZL1 manual transmission

## 4WD Inoperative with no DTCs Set

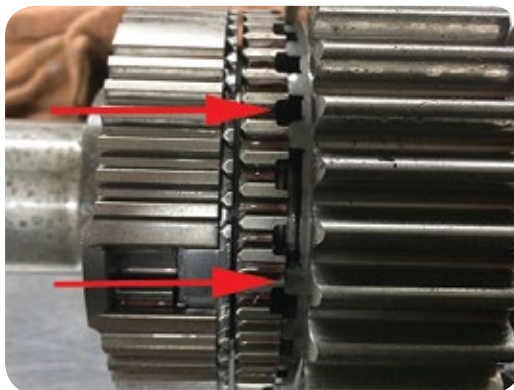
If no power is transmitted to the front axle in 4WD on some 2015-2017 Silverado 4WD and Sierra 4WD models (RPOs NQF, NGQ), the transfer case front output shaft drive sprocket body ring may be separated. The transfer case must be in the 4WD mode with the 4WD indicator light on in the transfer case select knob (NQF) or on the instrument cluster (NQG).

Shift the transfer case to 4WD and ensure that the 4WD indicator is on, which shows that all operations to achieve 4WD were completed successfully. This means that the front axle actuator is locked in the 4WD position. If there is no transfer of power, a mechanical link may be broken in the transfer case or front axle assembly.

If the front propeller shaft can be rotated independently of the rear, the disconnect may be in the transfer case. Check that the body ring that the synchronizer engages has not separated from the transfer case front output shaft drive sprocket. The ring is a press fit and should not separate from the gear. If it is separated, replace the transfer case front output drive shaft sprocket as needed.

If the front propeller shaft cannot be rotated independently of the rear, the disconnect may be in the front axle assembly.

🙏 Thanks to Steve Schipansky



Body ring separated from the transfer case front output shaft drive sprocket.

GM TechLink is published for all GM retail technicians and service consultants to provide timely information to help increase knowledge about GM products and improve the performance of the service department.

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