2023 DODGE CHALLENGER DEMON 170
OWNER'S MANUAL SUPPLEMENT

VEHICLE IMAGES ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL PRODUCTS SOLD MAY VARY.

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WELCOME FROM DODGE

Congratulations on selecting your new Dodge vehicle. Be assured that it represents precision workmanship, distinctive styling, and high quality.

ALWAYS drive safely and pay attention to the road. ALWAYS drive safely with your hands on the steering wheel. You have full responsibility and assume all risks related to the use of the features and applications in this vehicle. Only use the features and applications when it is safe to do so. Failure to do so may result in an accident involving serious injury or death.

This supplement illustrates and describes the operation of features and equipment that are either standard or optional on this vehicle. This supplement may also include a description of features and equipment that are no longer available or were not ordered on this vehicle. Please disregard any features and equipment described in this supplement that are not available on this vehicle. Dodge reserves the right to make changes in design and specifications and/or make additions to or improvements to its products without imposing any obligation upon itself to install them on products previously manufactured.

This supplement has been prepared to help you quickly become acquainted with the important features of your vehicle. It contains most things you will need to operate and maintain the vehicle.

For complete owner information, refer to your Owner's Manual on www.mopar.com/dodge/en-us/care/owners-manual.html for further details. For your convenience, the information contained on this site may also be printed and saved for future reference.

Dodge is committed to protecting our environment and natural resources. By converting from paper to electronic delivery for the majority of the user information for your vehicle, together we greatly reduce the demand for tree-based products and lessen the stress on our environment.

INTRODUCTION

This is a supplement to your Dodge Challenger Owner's Manual. Please review the Owner's Manual in addition to this user's supplement.

The 2023 Dodge SRT Demon 170 is the industry's fastest purpose-built and street-legal production drag car. This vehicle has been developed to be the dominating force at the drag strip and to rewrite the boundaries of performance on the street. To achieve this goal, all aspects of the vehicle have been re-tuned and re-engineered. Your Dodge SRT Demon 170 is the most powerful Dodge ever, with industry-first drag performance features that put this car in a league of its own.

Key Performance Features:

- **Flex Fuel Capability:** The engine is designed to run on premium gasoline and - for maximum power output - ethanol-blended fuel. The detected ethanol percentage is displayed in the instrument cluster and engine power is adjusted automatically.
- **TransBrake™ 2.0:** A second generation of TransBrake™ that allows the driver to configure and select from multiple launch torque profiles to match the engine's power delivery to the specific track condition.
- **SRT Power Chiller:** Diverts the A/C refrigerant to the supercharger for cooler air intake temperatures to achieve maximum power output.

This supplement offers insight into unique characteristics of the vehicle, including its special features and how they operate.

This vehicle has been designed to maximize performance at the drag strip. Especially in standard single-seat configuration, the extensive lightweighting measures result in increased interior noise, and drag strip use may further increase noise levels. The drag radial tires produce more vibration than standard street tires and have limited wet-weather capability. The default normal drive mode is designed to maximize engine response and personality, for street and sport driving conditions. Eco mode offers increased fuel efficiency and quieter exhaust character, as well as a more relaxed throttle pedal recommended for wet weather conditions.

For customers who want all-weather capability on the street, Direct Connection offers a street wheel and tire package.

ENGINE BREAK-IN RECOMMENDATIONS — 6.2L

New Vehicle Break-In

Before driving your vehicle, remove the yellow front splitter protectors if the dealer has not already done so. These are designed only for protection during shipping; failure to remove could cause unexpected damage to other motorists if they come loose unexpectedly. The protectors will trap dirt and debris which could scratch the splitter.

It is imperative that the following break-in schedule be followed to prevent engine and driveline damage and ensure component longevity:

0 to 100 miles (0 to 161 km):

- Do not allow the engine to operate at idle for an extended period of time.
- Press the accelerator pedal slowly and not more than a third of its travel to avoid rapid acceleration.
- Avoid aggressive braking.
- Drive with the engine speed less than 3,500 RPM.
- Maintain vehicle speed below 55 mph (88 km/h) and observe local speed limits.

100 to 300 miles (161 to 483 km):

- Press the accelerator pedal slowly and not more than halfway to avoid rapid acceleration.
- Avoid aggressive braking.
- Vary the load, but do not exceed 4500 RPM.
- Drive with the engine speed less than 5,000 RPM.
- Maintain vehicle speed below 70 mph (112 km/h) and observe local speed limits.

300 to 500 miles (483 to 805 km):

- Exercise the full engine RPM range by shifting manually (with shift paddles or by moving shifter to M-gate position) at higher RPM when possible.
- Avoid aggressive launches and sustained wide-open throttle acceleration.
- Maintain vehicle speed below 85 mph (136 km/h) and observe local speed limits.

For the first 1,500 miles (2,414 km):

- Do not participate in track events, sport driving schools, or similar activities during the first 1,500 miles (2,414 km).

NOTE:

- Check engine oil with every refueling and add if necessary.
- Oil and fuel consumption may be higher through the first oil change interval.
- Running the engine with an oil level below the add mark can cause severe engine damage.

Even after break-in, avoid running repeatedly into the engine speed limiter at 6500 RPM in order to prevent damage.

WARNINGS AND CAUTIONS

While reading this user supplement, you will find a series of WARNINGS that must be carefully followed to prevent incorrect use of the components of the vehicle, which could cause accidents or injuries.

There are also CAUTIONS to prevent procedures that could damage your vehicle.

NOTE:

Observe all Warnings and Cautions.

WARNING!
To prevent SERIOUS INJURY or DEATH when using “Track-Use” parts and equipment: • NEVER use any “Track-Use” equipment on public roads. FCA US LLC does not authorize the use of “Track-Use” equipment on public roads. • The intended use of “Track-Use” parts is for race vehicles on race tracks. To help ensure the safety of the race driver, qualified technicians should supervise the installation of “Track-Use” parts. • FCA US LLC does not authorize the installation or use of any part noted as “Track-Use” on any new vehicle prior to its first retail sale. • ALWAYS remove any “Track-Use” equipment before driving on public roads. • ALWAYS properly use your three-point seat belts when driving on public roads. • In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle.

WARNING!

- If the passenger and/or rear seats have been removed do not ride in those areas. In a collision, people riding in those areas are more likely to be seriously injured or killed.
- Warning labels are included in the car to reinforce this point.
- If this vehicle was not factory equipped with a passenger seat, NEVER attempt to install a passenger seat because the safety systems, including the air bags and seatbelt, may not properly protect the occupant.
- Read and follow all instructions and warnings in the Seats and Occupant Restraints sections of the owner's manual for additional information.

CAUTION!

Because of the extreme conditions encountered during track use, any damage or wear associated with track use **MAY NOT** be covered by warranty.

VEHICLE ALTERATIONS

WARNING!

Any modifications or alterations to this vehicle could seriously affect its road worthiness and safety and may lead to a collision resulting in serious injury or death.

CAUTION!

Leaded racing fuel **MUST NOT** be used, as this will cause damage to mechanical and emissions compliance hardware.

Non-OEM performance upgrades are not approved by FCA, and may void the warranty for the entire powertrain system and potentially other systems on the vehicle. FCA uses telltale software to detect the use of modifications – these telltales are stored and not removed if the vehicle is returned to standard.

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REAR/SIDE VIEW

INSTRUMENT PANEL VIEW

Instrument Controls

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3 — Instrument Cluster Display
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5 — Trans Brake Button
6 — LAUNCH Button
7 — SRT Button

FEATURES OVERVIEW

For more information on these unique features scan the following QR code.

Use this QR code to access your digital experience.

Scan me

USING ETHANOL FUEL

When ethanol is detected in the fuel, a gas pump icon will appear in the instrument cluster to indicate the detected ethanol percentage. In the infotainment screen's Drive Mode options page, both an icon and "Ethanol Detected" text will appear.

NOTE:

The displayed engine power automatically changes as a function of the detected ethanol content and represents the maximum achievable power under nominal conditions.

Ethanol Detected

High Ethanol Detected

Cluster Display Ethanol Indicator

Cluster Display High Ethanol Indicator

NOTE:

- The threshold for ethanol detection is 5%.
- Ethanol percentages are distinguished by color.
  - **White — Ethanol Detected**: Ethanol content is between 5% and 64%. The power display will indicate between 900 HP and 1024 HP according to the detected ethanol content.
  - **Blue — High Ethanol Detected**: Ethanol content is 65% or higher. Full power is available up to 1025 HP under nominal conditions.
- The target air to fuel ratio is a function of detected ethanol content and driving conditions.
- Commercially available E85 fuels are typically not exactly 85% ethanol. Ethanol content is adjusted seasonally to ensure proper engine performance. The engine may be difficult to start if the fuel's ethanol content is too high for ambient temperature.
- To maintain the necessary air to fuel ratio, additional fuel flow is required as ethanol content increases. "Race" fuels with ethanol content above 85% will not increase engine power and are not recommended, as the necessary fuel flow may be more than the injectors can provide. If this condition is detected, engine performance will be reduced.
- If the vehicle will not be driven for more than a month, it is recommended to run the engine with premium gasoline before storage page 27.

MICKEY THOMPSON TIRES

Recommended Tire Pressure:

Street: 32 psi (220.6 kPa) cold for all tires

Drag Strip:

- **ET Street R Rear Tires** – depending on the outside temperature and track conditions, the operating pressure recommendation is 18-24 psi (124–165 kPa) hot.
- **ET Street Front Runner Tires** – Increase front tire pressure to reduce rolling resistance. Do not exceed maximum tire inflation rating.
- Tires may exceed the speed rating of 149 mph (240 km/h) only in drag race applications and never in highway use.

Mickey Thompson Drag Radials

NOTE:

- Due to the design construction of the ET Street R rear tires, some tire imbalance is to be expected and is considered normal.
- Always return the tire pressure to street recommended pressure levels before driving vehicle on public roads.
- To help mitigate tire-to-rim slip on prepped surfaces, Dodge recommends the use of high-tack gasket sealant on the rim bead.
- Contact Mickey Thompson Tires at: 330-928-9092 for additional tire information.

WARNING!

Serious injury or death may result from tire failure due to under-inflation and/or overloading. Always adjust your tires to the proper inflation pressure (See tire information placard). Always inspect your tires for any signs of damage before proceeding onto public roads or race tracks.

WARNING!

Mickey Thompson Rear Drag Radials and Front Runners meet U.S. D.O.T. requirements, but they are not intended for extended street and highway use as the expected miles of wear from the racing compound is greatly reduced compared to a conventional road tire.

CAUTION!

Mickey Thompson Rear Drag Radials and Front Runner tires are not recommended for driving in wet weather conditions. Drive cautiously and reduce speeds in these conditions.

CAUTION!

Do not move the vehicle in temperatures below 15°F (–9°C) with the Mickey Thompson Rear Drag Radial and Front Runners installed. In temperatures below 15°F (–9°C), tires can lose flexibility that can lead to cracking and other tire damage. Always inspect for signs of cracking and damage before use.

DRIVE MODES

This vehicle is equipped with configurable mode settings which allow customization of the engine and transmission response, power steering assist, adaptive damper settings, and traction/stability control settings. The Drive Modes pages can be accessed by one of the following:

- Pushing the SRT button on the instrument panel, then pressing the Drive Modes button on the SRT dashboard screen.
- Pressing the Drive Modes app from within the app drawer.
- Pressing the Drive Modes button within the SRT Dashboard screen.

NOTE:

Pushing the SRT button twice will take you to the Drag Mode menu screen.

SRT Button

NOTE:

This vehicle comes equipped with red keys. It is recommended to only use the appropriate dealer-supplied red keys when programming additional or replacement keys. If a black key is programmed to the vehicle, engine power level will not be reduced, and Drag Mode will not be selectable.

Drive Modes Screen

1 — Drag
2 — Custom
3 — Auto
4 — Valet
5 — Eco

Five pre-configured drive modes are available to choose from:

- **Drag:** All settings are optimized for drag strip use. This mode is not customizable.
- **Custom:** Settings can be customized to the driver's preferences.
- **Auto (default):** Maximizes engine/transmission response and personality for street and sport driving conditions. Steering, suspension, and paddle shifter settings are configurable.
- **Eco (if selected, will stay active on subsequent ignition cycles):** Offers quieter exhaust character, maximized fuel efficiency, and increased throttle pedal control for wet weather. Shift paddles are disabled. Steering and suspension settings are configurable.

- **Valet:** Reduces engine torque to provide adequate but limited acceleration, useful for valet parking and limiting vehicle performance for unfamiliar drivers. A personal identification number (PIN) is required to enter and exit this mode.

SET-UP BUTTON

Set-Up Button

To modify the attributes used in each mode, press the "Set-up" button in the lower left corner.

Custom Mode Selectable Features

Configure each as desired.

NOTE:

- Some settings in some modes cannot be modified. For full customization, use Custom mode.
- Pressing the info icon in the upper right will open descriptions of each setting. In the description pages, use the arrows to scroll left and right.

TRANSMISSION

Transmission mode can be set by preference:

- **Drag:** Intended for drag strip use only. A linear throttle pedal map provides increased control of torque at launch. Transmission shift control minimizes torque interruption, and engine braking is optimized for post-trap deceleration. Exhaust valves are fully open.
- **Street:** The throttle pedal map is optimized to balance street comfort and sport driving response. Shift points vary based on detected lateral and longitudinal acceleration, becoming more aggressive for sport driving. Exhaust valves are map-controlled to provide both cruising comfort and aggressive sound.

Transmission Preference Settings

PADDLE SHIFTERS

Paddle shifters can be set by preference:

Paddle Shifters Settings

- ON — Enables steering wheel paddle shifters.
- OFF — Steering wheel paddle shifters can be disabled, to prevent accidental activation.

NOTE:
In Eco mode, the paddle shifters are disabled.

TRACTION

Traction mode can be set by preference:

Traction Preference Settings

- **Drag:** Traction control is disabled to allow burnouts. Yaw control remains active.
- **Street:** Full traction control and stability control help the driver maintain the intended path.
- **Full Off:** This mode is intended for off-highway or off-road use only and should not be used on any public roadways. In this mode, TCS and ESC features are turned OFF. To enter the “Full Off” mode, push and hold the “ESC Off” button for five seconds while the vehicle is stopped with the engine running. After five seconds, a chime will sound, the “ESC Off” indicator light will illuminate, and the “ESC OFF” message will display in the instrument cluster. To turn ESC ON again, momentarily push the “ESC Off” switch.

NOTE:
Yaw control is activated when the brake system recognizes a difference between the actual vehicle direction and the direction intended by the driver's steering input.

SUSPENSION

Suspension mode can be set by preference:

Suspension Settings

- STREET: Tuned for daily driving, shocks adapt to road and driver input to maximize ride and handling balance. Accelerometers on the body are utilized to increase damping only when needed to alleviate float. Aggressive driving is sensed using steering wheel angle velocity, lateral and longitudinal thresholds to transition the shocks into high damping. This maximizes response and control for evasive maneuvers.

- SPORT: Provides additional responsiveness and a firmer ride. Damping is set to firm rebound with soft compression. The system still adapts to road and driver inputs as needed.
- DRAG:
  - Front — Soft rebound and firm compression. Utilizes soft rebound damping to promote front-end lift and weight transfer. Firm compression damping provides high speed stability.
  - Rear — Firm rebound and firm compression. This suspension setup maximizes launch traction at the rear wheels.

STEERING

Steering mode can be set by preference.

Steering Preference Settings

Steering can be set by preference as shown below:

- DRAG: Highest steering effort, most steering feel.
- SPORT: Medium effort, with increased road feedback.
- STREET: Comfortable effort for normal use.

DRAG MODE SELECTABLE FEATURES

NOTE:

DRAG options selectable features (Line Lock, TransBrake™ 2.0, and Launch Control) are not available within the first 500 miles (805 kilometers) of engine break-in.

LINE LOCK — TRACK USE ONLY

Line Lock has been developed as a burnout assist tool to warm up the rear tires by locking only the front brakes.

Line Lock Feature

Line Lock is activated by selecting "Activate Line Lock Control" from either the SRT Dashboard screen or Drag Options menu. Once activated, instructions for use will appear in the instrument cluster display.

Prerequisite Conditions:

1. Vehicle speed must be 0 mph (0 km/h).
2. Engine running speed greater than 500 RPM.
3. Radiator coolant temp less than 250°F (121°C).
4. Odometer greater than 500 miles (805 kilometers).
5. Cruise Control, Launch Mode, TransBrake™ 2.0 and Valet Mode are disengaged.
6. All doors closed.

Instructions for Line Lock (burnout) are displayed in instrument cluster display, and listed as follows:

1. Press the brake pedal to hold the car still while transmission is in DRIVE.
2. Firmly select the “Activate Line Lock Control” feature through the infotainment screen.
3. Press and hold the “OK” button on the steering wheel to activate “Line Lock”. The front brakes are now applied.
4. While still holding down the “OK” button, fully release the brake pedal and apply the gas pedal to begin the burnout.
   - The front brakes remain engaged as the rear tires spin. Engine speed is limited to 5000 RPM, and the transmission upshifts to a maximum of 4th gear with the gear selector in "D".
   - To release the front brakes and drive through the burnout, release the "OK" button.
   - Line Lock will cancel if the “OK” button is released, the gas pedal is lifted, the brake pedal is pressed, or the maximum number of tire revolutions is reached.

NOTE:

ET Street R Rear Tires do not require an extensive burnout to achieve desired tire launch temperature. It is recommended that the tire surface temperature after the bunout be within 20°F (7°C) of the current track temperature.

- If track temperature is 65°F (18°C) or lower, a longer burnout may be necessary.
- If track temperature is 120°F (49°C) or above, a shorter burnout will suffice.

TRANSBRAKE™ 2.0 FEATURE — TRACK USE ONLY

TransBrake™ 2.0 was designed specifically for Demon 170 to maximize drag strip performance. Like the original TransBrake™, it engages an additional transmission clutch to enable higher staging torque than can be held by the vehicle brakes. TransBrake™ 2.0 debuts a new interface and additional traction management features to provide the most consistent launches and ease-of-use across the range of dragstrip surface conditions.

With a new infotainment interface, TransBrake™ 2.0 allows the driver to pre-program the engine's torque delivery as a function of time-from-launch and during 1st-2nd and 2nd-3rd gear upshifts, to design a rate of torque increase matched to the provided track conditions. Torque Reserve is automatically enabled and responsible for the unique sound of TransBrake™ 2.0 operation; it reduces intake filling time and allows more torque to be delivered more quickly than would otherwise be possible.

The system is easier to use than ever: pre-program the launch RPM and torque behavior, then use the steering wheel paddles to time the perfect launch. TransBrake™ 2.0 automatically delivers the desired launch torque curve while the driver maintains full throttle.

This sophisticated set of features is intended for track use only, where consistent quarter mile times are desired. The system is not intended to compensate for lack of driver experience or familiarity with the track. Use of this feature in low traction (cold, wet, gravel, etc.) conditions may result in excess wheel slip at launch.

TransBrake™ 2.0 Home Screen

The TransBrake 2.0 home screen can be accessed by one of the following methods:

- Pushing the TransBrake™ button on the instrument panel.

Instrument Panel TransBrake™ Button

- Pressing the Drag Options button within the SRT Dashboard screen, then pressing the TransBrake™ button.

Drag Options — Dashboard

- Within the Drive Mode screen, pressing the Drag Options button on the touchscreen, then pressing the TransBrake™ button.

TransBrake™ — Drag Options

The home screen displays the currently selected settings that will be used when the vehicle is staged and launched with TransBrake 2.0. These settings include the Memory Config selection, Launch RPM, and Launch and Shift Torque profile displays.

TransBrake™ 2.0 Home Screen: Launch Torque

TransBrake™ 2.0 Feature Overview

For the best performance, Launch Torque should be configured to deliver maximum torque as quickly as is possible for the track conditions. Three memory configurations are provided to store a customizable set of launch torque, shift torque, and launch RPM settings. Select between the A, B, and C configurations by pressing the corresponding buttons on the home screen.

- Setting A is pre-configured for ideal, high-grip track conditions
- Setting B, for medium grip
- Setting C, for low or no-prep

Any TransBrake 2.0 settings that are adjusted by the driver will be automatically saved to the memory configuration from which they were modified. To revert to factory default settings, press the Reset button and confirm when prompted by the pop-up screen.

The launch RPM can be adjusted directly on the home screen by either dragging the speed selection bubble or pressing the up and down arrows. Adjusting the launch RPM will automatically save it to the currently selected memory configuration.

The center graph on the home screen displays either the launch or shift torque profiles, depending on the selected tab.

Launch Torque

The Launch Torque display shows the “Pre-Stage”, “Driver Desired”, and “Available” curves associated with the currently selected memory configuration.

- Pre-Stage: The amount of torque required to maintain the selected launch RPM while the vehicle is fully staged, just before launch.

NOTE:

Selecting an initial launch torque below this value will cause an engine RPM reduction at the moment of launch.

- Driver Desired: When launched, the engine will deliver torque according to this driver-customizable profile, as a function of time from launch.
- Available: This curve represents the maximum torque achievable during a perfect launch with the selected Launch RPM, detected ethanol percentage, intake air temperature, and barometric pressure. The initial value (at time = 0 seconds) is the fully-staged torque, plus Torque Reserve. Setting the first “Driver Desired” bubble at or above the “Available” line will instantly deliver all of the available torque reserve at launch.

NOTE:

- If all of the available torque reserve is not scheduled to be used immediately at the moment of launch, it remains available for a short time before being depleted. This enables a soft initial launch followed by aggressive torque increase strategy, useful for limited traction situations.
- Available Torque Reserve generally increases as Launch RPM is raised, except when limited by engine capability. The torque delta between the “Pre-Stage” dot and “Available” line (at 0 seconds) reflects the available Torque Reserve.
- Engine torque naturally decays at engine speeds higher than the peak torque RPM, in accordance with the engine’s torque curve. This decay is not shown in the “Available” curve, so selections below “Available”, but above the engine’s maximum, may not be achievable.
- The "Pre-stage" dot and "Available" curve move as the Launch RPM is modified. The higher the launch RPM, the more torque is available while staged (unless Torque Reserve is limited by engine capability), and the more quickly it grows after launch.
- Do not exceed 5 mph (9 km/h) while in “Pre-Stage” to prevent cancellation.

Shift Torque

TransBrake™ 2.0 Home Screen: Shift Torque

The Shift Torque display shows the torque reduction to be delivered during the 1-2 and 2-3 upshifts. By default, the upshifts are calibrated to minimize torque loss to the wheels, which necessarily causes some ‘push’, or momentarily increased wheel speed acceleration. If track conditions are suboptimal, wheelspin may occur during the upshifts. TransBrake 2.0 Shift Torque management exists to enable torque reduction to be added in these conditions, to soften the shifts and prevent wheelspin.

NOTE:

Shift Torque settings apply only when the vehicle is staged and launched from TransBrake 2.0.

The blue curve in the Shift Torque display indicates the "Available" line, as in the Launch Torque tab. In Drag Mode, by default, there is no torque reduction during the 1-2 upshift, and 225 lb-ft of reduction during the 2-3 upshift. The Shift Torque feature activates when the driver selections are lower than these defaults: for the 1-2, lower than the "Available" line; and for the 2-3, lower than 225 lb-ft below the "Available" line.

NOTE:

If "Driver Desired" launch torque is not as high as "Available" at the time of the 1-2 shift, the selected shift torque management will not be delivered unless it is lower than the "Driver Desired" launch torque curve at the time of the shift. During the 2-3 upshift, "Driver Desired" torque will typically match the "Available" line, as the shift normally occurs after the driver desired launch torque has completed at 1.6 seconds.

Launch Torque Setup

The Launch Torque Setup screen allows customization of the engine torque profile delivered at launch and for up to 1.6 seconds after launch. To open the Launch Torque Setup screen for the selected memory configuration, select the "Launch Torque" display tab and press the "Launch Torque Setup" button.

Launch Torque Set-Up Button

The Launch Torque Setup screen displays the "Driver Desired" launch torque curve, with engine torque (in lb-ft) on the vertical axis and time from launch (in seconds) on the horizontal axis. Pressing a time axis point enables the desired torque output to be edited at that specific timestamp. The torque value can be adjusted in increments of 25 lb-ft by pressing the Up and Down arrow buttons, or by dragging the bubble on the touchscreen.

NOTE:

Adjustments made to launch torque values are automatically saved in the active memory configuration.

Launch Torque Set-Up Screen

The "Available" curve (in blue) is also visible on the Launch Torque Setup screen. To request maximum engine torque output at a given timestamp, select a torque output value above the "Available" curve.

NOTE:

The "Available" curve represents the maximum torque achievable during a perfect launch with the selected Launch RPM, detected ethanol percentage, intake air temperature, and barometric pressure. For slower launches ("Driver Desired" curve selected lower than the "Available" curve), the maximum achievable torque will grow slower than indicated by the "Available" curve because engine speed will not increase as quickly. Also, the curve does not display the natural torque decay above the peak torque RPM, nor the changes in torque due to the 1st-2nd and 2nd-3rd gear shifts. It is recommended to set the torque output bubbles at the maximum value (1100 lb-ft) whenever maximum engine torque is desired.

Ensure that the initial launch torque is achievable by setting the Launch RPM high enough so that the first “Driver Desired” bubble (at 0 seconds) is at or below the “Available” curve. Increasing the Launch RPM further will result in a higher initial torque at the instant of launch due to the increased speed differential across the torque converter.

NOTE:

If the “Driver Desired” bubble at 1.6 seconds is not set above the blue “Available” curve, engine torque will ramp up to maximum at a rate of 221 lb-ft per second.

Shift Torque Setup

The Shift Torque Setup screen allows customization of the engine torque reduction during the 1st-2nd and 2nd-3rd gear shifts. To open the Shift Torque Setup screen from the active memory configuration, select the “Shift Torque” display tab and press the “Shift Torque Setup” button.

Shift Torque Set-Up Button

The Shift Torque Setup screen displays a graph that shows the desired torque selections for the 1-2 and 2-3 upshifts. Pressing the “1-2” or “2-3” axis points allows the desired shift torque to be modified in 25 lb-ft increments, either by pressing the up and down arrows or by dragging the bubble.

NOTE:

Adjustments made to shift torque values are automatically saved in the active memory configuration.

Shift Torque Set-Up Screen

The shift torque selection bubbles are automatically limited to allowable minimum and maximum values. The horizontal blue line represents the maximum engine torque output at the detected ethanol percentage, intake air temperature, and barometric pressure. Selecting the maximum shift torque value will disable the shift torque feature and the default shift torque reduction will be used.

NOTE:

Quickly toggle between the Launch Torque Set-Up (1) and Shift Torque Set-Up (2) screens by pressing the left and right arrow buttons at the top of the screen.

Using TransBrake™ 2.0

Before using TransBrake 2.0, the following initial conditions must be met. If not met, instructions will appear in the instrument cluster.

- Odometer greater than 500 miles (805 kilometers)
- Engine is running
- Vehicle is in Drag mode
- Vehicle speed is at 0 mph (0 km/h)
- Steering wheel is straight
- Transmission is in “DRIVE” in 1st gear
- Transmission temperature is above 118°F (48°C)
- Radiator coolant temperature is less than 250°F (121°C)
- Line Lock and Launch Control are not active
- All doors are closed
- Parking brake is not set
- Vehicle is on level ground

Once the initial conditions are met, follow the steps below to launch the vehicle using TransBrake 2.0. Instructions appear in the instrument cluster between each step and also explain feature cancellations.

NOTE:

The following section describes TransBrake 2.0 operation. For full dragstrip operation instructions,
page 30.

Staging the Vehicle

1. Pull back on both paddle shifters.
2. With the left foot, firmly press the brake pedal until minimum pressure is achieved as indicated in the instrument cluster.
3. Activate TransBrake 2.0 Pre-Stage Control by quickly applying full throttle. The accelerator pedal must be fully pressed to the floor to proceed.

   NOTE:

   Torque Reserve will activate, and engine speed will increase to and hold at 1500 RPM.
4. While maintaining full throttle, modulate brake pressure to move the vehicle forward to illuminate the dragstrip's pre-stage and stage lights.

   NOTE:

   It is not necessary to activate Pre-Stage Control before illuminating the pre-stage and stage lights. If desired, the vehicle can be fully staged before entering TransBrake 2.0.
5. As soon as the staged light illuminates, release one shift paddle to engage TransBrake 2.0.

   NOTE:

   - Engine speed will automatically advance to the selected launch RPM.
   - Once engaged, TransBrake 2.0 cancels automatically after 15 seconds.
6. When prompted by the instructions in the instrument cluster, release the brake pedal.

NOTE:

- The brake pedal cannot be released until the transmission's fourth clutch is engaged, which occurs approximately 0.5 seconds after the shift paddle is released. If the brake pedal is released too soon, TransBrake 2.0 will cancel and a message will appear in the instrument cluster.
- The Electronic Stability Control system will continue holding the brake pressure after the pedal is released to maintain driveline pre-load.

Launching the Vehicle

1. Once the brake pedal has reached its fully retracted position, release the remaining shift paddle to launch the vehicle. Torque will be delivered according to the Launch Torque and Shift Torque settings defined in the active memory configuration.

   NOTE:

   - If the second shift paddle is released before the brake pedal has reached its fully retracted position, TransBrake 2.0 will cancel and a message will appear in the instrument cluster.
   - If wheelspin occurs during launch, it is possible to reduce engine torque by momentarily lifting the accelerator pedal. TransBrake 2.0 Launch Torque delivery will resume when the accelerator is returned to the fully applied position.
   - If all necessary conditions have not been satisfied, the TransBrake 2.0 feature may cancel and trigger a “dead pedal” condition, in which the accelerator pedal request is ignored and engine speed returns to idle. If this occurs, press the brake pedal firmly, release the shift paddles, release the accelerator pedal, and restart the launch sequence.

LAUNCH CONTROL — TRACK USE ONLY

This vehicle is equipped with a Launch Control system that is designed to assist the driver in achieving maximum straight-line vehicle acceleration. This feature is intended for use only on the track, where consistent quarter mile and 0-60 MPH times are desired. The system is not intended to compensate for lack of driver experience or familiarity with the race track. Use of Launch Control in low traction (cold, wet, gravel, etc.) conditions may result in excess wheel slip outside of the system's control.

Launch Control

Once Launch Control is activated, stage torque is built according to the selected launch RPM. Torque Reserve is automatically enabled at launch set points of 1300 RPM and above, to reduce the time required for the intake system to fill with air. For additional information on Torque Reserve, page 25.

After launch, maximum engine power is requested. A special traction control program is activated that controls tire slip for maximum longitudinal acceleration. This program varies between drive modes:

- **AUTO:** Traction control is tuned for use on minimally or unprepared asphalt and concrete. Engine torque is smoothly and tightly controlled to allow a small amount of slip between the tire and road, which provides the best possible acceleration over surfaces with varying levels of grip.
- **DRAG:** A unique traction control strategy exclusive to Demon 170 is activated, which is designed to take advantage of the Mickey Thompson ET Street R tire's immense grip on highly prepared dragstrip surfaces. To do this, the system is tuned to react quickly to very small amounts of tire slip at launch - just slightly more than is required to wrinkle the sidewall of the tire. If excessive slip is detected, engine torque is aggressively managed to recover the tire and regain traction as fast as possible. Then, utilizing the uniquely high coefficient of friction between the tire and race surface, torque is rapidly reintroduced to provide maximum acceleration performance for the remainder of the pass.

After Launch Control is completed or canceled, the Traction and Stability Control settings will return to the last-used setting.

NOTE:

- The Launch Control feature is limited to five seconds after the engine speed reaches 1000 RPM.
- Launch Control is not available within the first 500 miles (805 kilometers) of engine break-in.

Launch Control

From either the SRT Dashboard or Drag Options screens, the launch RPM can be adjusted between 1000 RPM and 2500 RPM, in 100 RPM increments. After selecting the launch RPM, activate Launch Control by firmly pressing either the LAUNCH button on the center console, or "Activate Launch Control" in the SRT Dashboard or Drag Options screens.

After Launch Control has been activated, follow the instructions in the instrument cluster to stage and launch the vehicle.

NOTE:

- The accelerator pedal must be applied fully and very quickly, in one motion, when prompted.
- Once the brake is released, engine torque is increased instantly to its maximum for the selected launch RPM. It is recommended to use low launch RPM setpoints unless the surface preparation is excellent.

NOTE:

Launch Control and TransBrake™ cannot be used at the same time.

SRT POWER CHILLER™

When the Chiller feature is enabled, refrigerant from the air conditioning system is redirected from in-cabin air conditioning to the intercooler coolant circuit. This reduces the intercooler coolant to below ambient air temperature, and lowers the engine's charge air temperature.

The chiller function is available in ambient temperatures only above 55 degrees Fahrenheit. To activate, firmly select the Chiller button from either the Drag Options menu or the SRT Dashboard screen.

Chiller Activated

NOTE:

Do not use alternative refrigerants.

Air Conditioning Disabled

Cabin air conditioning is not available while the Chiller function is active.

A/C Disabled

SHIFT LIGHT

Shift Light

To actuate the Shift Light feature, press the “Shift Light” button on the touchscreen, and then press the “Shift Light On” button on the touchscreen. Activation is shown on the instrument cluster display. Pressing the “Shift Light RPM Set-Up” button on the touchscreen will take you to the Shift Light RPM Set-Up screen.

NOTE:

- The only time the Shift Light will appear is when the vehicle is using the M-gate (manual) feature which is activated from the shifter.
- With vehicle in M-gate (manual) the paddle shifters can still be either on or off depending upon the configuration set by the driver in the drive mode setup screen.

Shift Light RPM Set-Up Example

The Shift Light RPM Set-Up allows you to set the shift light to actuate for gears 1, 2, 3, 4, and 5-8. By pressing and releasing the up/down arrow buttons on the touchscreen above and below each listed gear, the RPM values will change in increments of 250 RPM. Pressing and holding the arrows will change the RPM values in increments of 500 RPM, ranging from 2000–6250 RPM. The Shift Light setup screen may only be accessed if the feature is enabled. Press the “Reset to factory default” button on the touchscreen to change back to factory settings, or press the “Shift Light Off” button on the touchscreen to turn the system off completely.

RACE COOLDOWN

After-run cooling can be activated by selecting the Race Cooldown button in the Drag Options menu.

Between drag strip runs or after use, this feature helps minimize heat-soaking after the engine has been shut down. When activated, the radiator fan and low-temperature radiator coolant pump will remain on for a period of up to five minutes, or until target cooldown temperatures are achieved.

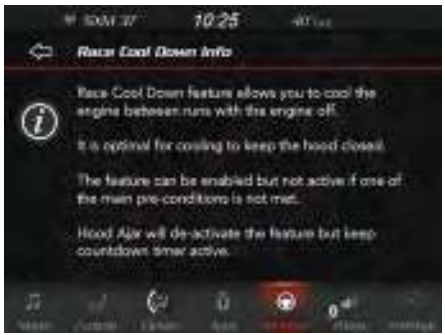
Race Cooldown can be activated from within Drag Options, only when the engine is off. Once selected, the vehicle will determine if cooling is required, check to ensure the engine is off, the hood is closed, battery charge is sufficient, and perform a system check.

When the Race Cooldown feature is selected, a graph will show the intercooler coolant temperature in real time as long as the vehicle's ignition is in the RUN position.

NOTE:

The intercooler coolant temperature will display while the engine is running, but Race Cooldown will function only when the engine is off.

Race Cool Down Graph



Race Cool Down Graph

Race Cooldown selection status automatically deactivates after extended driving at road speeds, or when one more of the following conditions apply:

- When intercooler coolant temperature falls a certain amount below ambient temperature.
- The battery state of charge reaches the threshold required to ensure sufficient cranking speed for engine restart.
- The hood is opened.

AUTOMATICALLY ENABLED FEATURES

TORQUE RESERVE

Torque Reserve is automatically enabled in Launch Control, TransBrake™ 2.0, or while staging a brake-torque launch.

Torque Reserve provides greater engine airflow than is otherwise required, stops fuel flow to multiple cylinders and retards spark as necessary to hold the torque from the extra airflow "in reserve". As soon as the driver launches the vehicle, fuel flow is restored and spark is advanced to instantaneously deliver the reserve torque. For a given launch engine speed, additional torque is delivered more quickly than is possible without Torque Reserve.

The amount of reserve torque produced depends on the launch speed selected in the TransBrake™ 2.0 and Launch Control setup screens, or the engine speed achieved while staging a brake-torque launch.

NOTE:

- Due to the way the engine is controlled during Torque Reserve, a distinct exhaust note is produced and engine vibration increases.
- Torque Reserve is automatically disabled if the steering wheel is not straight or brake pressure is insufficient.
- Torque Reserve is automatically disabled while staging a brake-torque launch if the engine speed achieved is too high for reserve to be possible. Firmly press the brake and slowly apply the accelerator pedal.

LAUNCH ASSIST

Launch Assist is a power-hop mitigation feature that runs in the background to both protect the driveline and maximize torque effectiveness.

Power-hop, or wheel hop, is a phenomenon characterized by high-frequency tire stick-to-slip transitions. Severe power-hop can be damaging to the vehicle and slows acceleration. Once a stick-slip event is observed, Launch Assist is capable of almost instantly reducing torque to stop the power-hop, without requiring the driver to lift off of the throttle.

While the system is effective in mitigating moderate-to-severe power-hop on both prepared and unprepared surfaces, it cannot protect in all conditions. It is ultimately the responsibility of the driver to operate the vehicle appropriately for the given conditions to prevent damage and extract maximum performance.

MAINTENANCE

TRACK MAINTENANCE

AT TRACK MAINTENANCE

1. Check engine air filter page 26.
2. Exterior rubber cleanup.
3. Check tire pressure, brakes (visual inspection of rotors and pads), battery voltage, lug nut torques.

NOTE:

For recommended tire pressure page 11.

MAINTENANCE AND STORAGE

SCHEDULED MAINTENANCE

The scheduled maintenance services listed in the Owner's Manual must be done at the times or mileages specified to protect your vehicle warranty and ensure the best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating conditions, such as dusty areas and very short trip driving. Inspection and service should also be done anytime a malfunction is suspected.

The oil change indicator system will remind you that it is time to take your vehicle in for scheduled maintenance.

An "Oil Change Required" message will be displayed in the instrument cluster and a single chime will sound, indicating that an oil change is necessary.

Based on engine operation conditions, the oil change indicator message will illuminate. This means that service is required for your vehicle. Have your vehicle serviced as soon as possible, within the next 500 miles (805 km).

NOTE:

- The oil change indicator message will not monitor the time since the last oil change. Change your vehicle's oil if it has been six months since your last oil change, even if the oil change indicator message is NOT illuminated.
- Change your engine oil more often if you drive your vehicle off-road/track usage for an extended period of time.
- Under no circumstances should oil change intervals exceed 3,000 miles (5,000 km) or six months, whichever comes first for the 170 engine.

An authorized dealer will reset the oil change indicator message after completing the scheduled oil change.

CLEAN ENGINE AIR FILTER

When Do I Clean My Engine Air Filter?

- The scheduled air filter cleaning is 30,000 miles (48,280 km), or if in a dusty environment the engine air filter should be checked periodically to ensure optimal air flow.
- Cleaning your engine air filter with the recommended Mopar Performance Air Filter Service Kit P5153376 is not required if you can still see the wire screen on the entire air filter regardless of how dirty it may appear. If you have not experienced a decrease in engine performance, chances are your air filter is fine and does not need to be cleaned. When the screen is no longer visible some place on the air filter, it's time to clean your air filter.

1. **Apply Mopar Air Filter Cleaner:**
   - Spray your air filter with the recommended Mopar air filter cleaner liberally and let it sit for at least 10 minutes to loosen the dirt before rinsing.

NOTE:

Do not allow the cleaner to dry on the filter.

2. **Rinse Your Air Filter:**
   - Rinse off your air filter with cool low-pressure water applied to the clean side out in order to flush the dirt out of the filter. Continue to rinse the filter until all traces of cleaner are gone. It may be necessary to repeat steps 1 and 2 if the air filter isn't completely clean.
3. **Dry Your Air Filter:**
   - After rinsing your filter, gently shake off the excess water and only allow filter to dry naturally. Do not apply oil until the air filter is completely dry.

NOTE:

Do not use forced air pressure as it may destroy the filtering capabilities of the filter's microfibers and also void its warranty.

4. **Apply Filter Oil:**
   - Using Mopar Performance Air Filter Service Kit P5153376 spray oil evenly along the crown of each filter pleat holding the nozzle about 3" (76 mm) away.
   - With one good coat of oil let it wick (saturate) for about 20 minutes, then if required, touch up any light areas on either side of the air filter until there is a uniform red color on all areas.

VEHICLE AND TIRE STORAGE

If the vehicle is to be stored over the winter or for long periods of time, it is highly recommended to first flush the fuel system of high ethanol content by filling and driving the vehicle with premium gasoline until the instrument cluster shows less than 12% ethanol.

NOTE:

- Do not allow tires to be stored in a room less than 15°F (-9°C).
- If vehicle is stored with tires mounted, lift vehicle or pump tires up to max sidewall pressure. Please note that tire pressure increases as the ambient temperature increases.

CARBON FIBER WHEEL — IF EQUIPPED

Wheel Center/Carbon Fiber Rim Disassembly

CAUTION!
Do not tighten, loosen, or remove rim fasteners. Tampering with rim fasteners will void warranty.

Tire Pressure Transmitter

Removing Tire Pressure Transmitter from Wheel

1. Mark each tire pressure transmitter using a paint pen with the transmitter position (Left Front, Right Front, Left Rear, Right Rear).
2. Remove the valve and pressure transmitter assembly from the wheels using the manufacturer's recommended removal instructions.

Installing Pressure Transmitter On Preinstalled Carbon Fiber Wheel Valve

The carbon wheel comes with a new valve preinstalled and properly torqued

NOTE:

Do not tighten the preinstalled valve retention nut.

1. Use the provided torque-head screw to attach the pressure transmitter to the preinstalled valve.
2. Using the space provided, position the sensor on the valve so the left and right edges of the pressure transmitter contact the wheel rim.

Correct Wheel Rim Contact

Incorrect Wheel Rim Contact

3. Hold the pressure transmitter by hand while tightening the torque-head screw.

   NOTE:

   Tighten the torque-head screw to 9.0 N·m (80 in-lb).
4. After tire installation, install the provided thumb screw cap.

Tire Mounting

Mount the tire using conventional tire mounting equipment. Tire mounting should be performed by a qualified professional.

NOTE:

A non-contact tire mounting machine is preferred to help reduce the risk of damaging the wheel finish.

Use soapy water, or equivalent, to lubricate the tire bead as needed.

NOTE:

Standard adhesive-back wheel weights may be used.

WARNING!

- You can be badly injured working on or around a motor vehicle. Do only service work for which you have the knowledge and the right equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.
- Failure to properly inspect and maintain your vehicle could result in a component malfunction and affect vehicle handling and performance. This could cause an accident.

Lug Torque

Torque wheel lugs to 136 ft-lb (185 N·m) using alternative patterns.

Replacing Carbon Fiber Wheel Valve

The carbon fiber wheel comes with a new valve preinstalled and properly torqued.

NOTE:

If the retention nut is removed, always replace with a new valve and retention nut.

Removing Old Valve:

1. Remove the torque-head transmitter screw.

   NOTE:

   The included pin tool may be used to restrain the valve.

2. Using the included pin tool and an 11mm hex socket, remove the valve retention nut and discard used valve.

Installing New Valve:

1. Insert the valve through the wheel valve hole and loosely assemble the retention nut and washer.
2. Torque the retention nut using an 11mm socket to 80in-lb (9.0 N·m) torque.

   NOTE:

   Do not use the pin installation tool to restrain valve.

3. For tire pressure transmitter installation instructions page 27.

Wheel Cleaning And Care

Carbon fiber wheels use common coating materials and conventional cleaning techniques can be used.

It is recommended to wash the carbon fiber wheels with soapy water using conventional car washing supplies and equipment.

NOTE:

Soft, lint-free cloths are recommended for washing and drying to prevent scratching of the high-gloss rim surface, and polishing (increasing gloss) of the matte-finish wheel center.

ALCANTARA STEERING WHEEL

The Alcantara Steering Wheel provides superior racing grip, but requires a special cleaning procedure.

Alcantara Steering Wheel

It is sufficient to dust the Alcantara steering wheel using a soft bristle brush, a dry cloth, or a vacuum cleaner with care. After having dusted, run a white cotton terry cloth that has been dampened and thoroughly wrung out over the Alcantara steering wheel. Avoid the use of printed absorbent cloths/papers, as they can release ink onto the material. Take extra care not to wet the steering wheel excessively; rinse the cloth or sponge and repeat as necessary. Leave to dry (overnight). Once dried, in order to restore the material, brush it delicately with a soft bristle brush.

FUSES

FRONT POWER DISTRIBUTION FUSE

The Front Power Distribution Center is located in the engine compartment. This module contains fuses and relays. Fuse cavity location and descriptions are printed on the inside of the power distribution center cover. The following fuse is unique to the 2023 Dodge SRT Demon 170. For complete fuse information, refer to your Owner's Manual for further details.

WARNING!

- When replacing a blown fuse, always use an appropriate replacement fuse with the same amp rating as the original fuse. Never replace a fuse with another fuse of higher amp rating. The use of a fuse with a rating other than indicated may result in a dangerous electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected. Never replace a blown fuse with metal wires or any other material. Do not place a fuse inside a circuit breaker cavity or vice versa. Failure to use proper fuses may result in serious personal injury, fire and/or property damage.

(Continued)

WARNING!

- Before replacing a fuse, make sure that the ignition is off and that all the other services are switched off and/or disengaged.
- If the replaced fuse blows again, contact an authorized dealer.
- If a general protection fuse for safety systems (air bag system, braking system), power unit systems (engine system, transmission system) or steering system blows, contact an authorized dealer.

Cavity	Cartridge Fuse	Mini-Fuse	Description
F08	30 Amp Pink	–	VSM

REAR POWER DISTRIBUTION FUSES

The Rear Power Distribution Center is located in the trunk under the spare tire access panel. The following fuses are unique to the 2023 Dodge SRT Demon 170. For complete fuse information, refer to your Owner's Manual for further details

Cavity	Cartridge Fuse	Mini-Fuse	Description
F21	40 Amp Green	–	Fuel Pump #2 (6.2L HO+)
F40	40 Amp Green	–	VSM
F41	40 Amp Green	–	Fuel Pump #1 (6.2L HO+)

TRACK USAGE GUIDELINES

PRE-RUN CHECKS

The following instructions are meant to provide drivers a step-by-step guide on how to use the Demon 170's unique features at a drag strip.

NOTE:

DRAG mode features (Line Lock, TransBrake™ 2.0, and Launch Control) are not available within the first 500 miles (805 kilometers) of engine break-in.

CAUTION!
Usage of fuels other than those specified in this Supplement will damage O2 sensors and catalytic converters.

For maximum engine power, the ethanol percentage must be 65% or higher, as indicated in the instrument cluster display. For more information page 10.

Drag Strip Tire Pressures Pre-Run Checks:

- ET Street R Rear Tires — depending on the outside temperature and track conditions the operating pressure recommendation is 18-24 psi (124–165 kPa) hot.
- Front Runner Tires — should not exceed maximum tire inflation rating.

NOTE:

Mark the tire side wall and rim to watch for potential tire rotation on the rim. Tire rotation is common and may require rebalancing of the rear tires post track use.

Wheel Lug Nut Torque Pre-Run Check: 111 Ft-Lbs (150 N-m). Refer to page 31 for step-by-step instructions.

Fluids Pre-Run Check:

- Verify all fluid levels are in the correct range and at normal operating temperature.
- Transmission is filled for life, refer to the service manual or an authorized dealer for further details.
- Verify all gauges are in their normal operating ranges.
- Ensure that the fuel level is above 3/8ths tank.
- To maintain the necessary air to fuel ratio, additional fuel flow is required as ethanol content increases. "Race" fuels with ethanol content above 85% will not increase engine power and are not recommended, as the necessary fuel flow may be more than the injectors can provide. If this condition is detected, engine performance will be reduced.

Remove all loose items from the trunk and interior.

DRAG MODE OPERATIONS

1. **Enable DRAG Mode —** A quick double press of the “SRT” button is a shortcut to enable DRAG mode. DRAG mode can also be accessed through the radio.
2. **Ethanol Power Blends —** The fuel system sensor measures ethanol content and will display the detected percentage in the instrument cluster display. Full power is available for blends above 65%.
3. **Line Lock —** Warm the tires by using Line Lock **(burnout)** page 15.
4. Launch the vehicle via one of the following methods, listed here in ascending order of required driver skill:
   - **Launch Control —** Delivers maximum engine torque at launch and manages tire slip with a special traction control program. This method is easiest to use, but can be outperformed by a skilled driver page 21.
   - **TransBrake 2.0™ Launch —** This allows the driver full control of the torque delivery at launch without having to precisely modulate the accelerator pedal. If grip allows, this method can provide more launch torque than is possible with the other methods page 16.
   - **Brake-Torque Launch —** This allows the driver full control of the torque delivery at launch via the rate of accelerator pedal application page 12.

NOTE:

In hot weather conditions, the engine may automatically reduce torque to prevent the supercharger discharge temperature from exceeding its limit. If this occurs, an abrupt reduction or limit of engine torque may be noticed.

OPTIMAL PERFORMANCE RECOMMENDATIONS

1. Minimize vehicle weight as much as possible by removing all unessential items from the vehicle.
2. Optimize weight distribution by moving the passenger seat fully rearward and the drivers seat to the farthest back position comfortable to the driver.
3. If the vehicle is not already fully warmed up by driving it to the track, it should be warmed up before running on the drag strip. Several miles of varied-speed driving is sufficient to bring the full powertrain, including the transmission and axle, to adequate temperatures. Transmission fluid temperature is displayed in the instrument cluster and in Performance Pages; reaching a minimum of 125°F (51°C) is a good indication that warm-up is complete.

POST-RUN CHECKS

BETWEEN RUN CHECKS

Check Tire Condition

One important item is ensuring proper care of the tires. The following is a short list of suggestions for checking tire condition and tire care.

1. Check front and rear tire pressure.
   - **Front Tires** — do not exceed maximum tire inflation rating.
   - **Rear Tires** — depending on the outside temperature and track conditions, the operating pressure recommendation is 18-24 psi (124–165 kPa) hot.
2. Check the tread depth to be at a safe level.

   NOTE:

   Tires should not be used once they reach 2/32nds of remaining tread depth.
3. Check for uneven tire wear. Uneven tire wear could be a result of one or more of the following:
   - Uneven tire pressure.
   - Low tire pressure.
   - High tire pressure.
   - Other issue.

   NOTE:

   Ensure fuel level remains above 3/8ths tank.

Wheel Lug Nut Torque

Proper lug nut torque is very important. To ensure that the wheel is properly mounted to the vehicle use a calibrated torque wrench.

Torque Specifications

Lug Nut Torque Spec	**Lug Nut Size	Lug Nut Socket Size
136Ft-Lbs (185 N·m)	M14 x 1.50	22 mm

**Use only authorized dealer recommended lug nuts and clean or remove any dirt or oil before tightening.

Inspect the wheel mounting surface prior to mounting the tire and remove any corrosion or loose particles.

Tighten the lug nuts in a star pattern until each nut has attained proper torque, verified twice each.

Torque Pattern

WARNING!

DO NOT tighten the lug nuts fully until the vehicle has been lowered. Failure to follow this warning may result in personal injury.

Fluids

Between runs check the following fluid levels:

- Engine oil level.
- Engine coolant level.
- Brake fluid level.

WARNING!

A hot engine cooling system is dangerous. You or others can be badly burned by hot engine coolant (antifreeze) or steam from your radiator. If you see or hear steam coming from under the hood, do not open the

(Continued)

WARNING!

hood until the radiator has had time to cool. Never open a cooling system pressure cap when the radiator or coolant bottle is hot.

Activate Race Cooldown

Between drag strip runs or after use, this feature helps minimize heat-soaking after the engine has been shut down. When activated, the radiator fan and low-temperature radiator coolant pump will remain on for a period of up to five minutes, or until target cooldown temperatures are achieved.

Race Cooldown can be activated from within Drag Options, only when the engine is off. When the Race Cooldown feature is selected, a plot shows the intercooler coolant temperature in real time as long as the vehicle's ignition is in the RUN position.

Check For Hood Scoop Debris

Hood Scoop Opening

Any debris moving through the air can be collected in the hood scoop thus defeating its purpose by blocking airflow. Make sure hood scoop opening is free of debris.

Log Run Data

You can learn much about optimizing your car's performance and consistency at a test and tune session. Use this opportunity to carefully monitor and record vehicle, track and temperature conditions after each pass prior to staging and immediately after each run.

CHECKS BEFORE LEAVING THE TRACK

Before returning to the street, check the following items:

- Check tire condition page 31.

  NOTE:

  Tires should not be used once they reach 2/32nds of remaining tread depth.

- Return front and rear tires to recommended street pressures (32 psi/221 kPa cold).
- Lug nut torque: 111 Ft-Lbs (150 N-m) Refer to for step-by-step instructions page 31.
- Fluids
  - Engine oil level.
  - Engine coolant level.
  - Brake fluid level.

WARNING!

To prevent SERIOUS INJURY or DEATH when using "Track-Use" parts and equipment:

- NEVER use any "Track-Use" equipment on public roads. FCA US LLC does not authorize the use of "Track-Use" equipment on public roads.
- The intended use of "Track-Use" parts is for race vehicles on race tracks. To help ensure the safety of the race driver, engineers should supervise the installation of "Track-Use" parts.
- FCA US LLC does not authorize the installation or use of any part noted as "Track-Use" on any new vehicle prior to its first retail sale.

WARNING!

To prevent SERIOUS INJURY or DEATH:

- ALWAYS remove any "Track-Use" equipment before driving on public roads.
- ALWAYS properly use your three-point seat belts when driving on public roads.
- In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle.

RACING LOG BOOK

DATE:	EVENT/TRACK:

RUNS	1	2	3	4	5	6	7	8	9	10	11	12
Reaction Time												
60’												
330’												
1/8 ET												
1/8 MPH												
1/4 ET												
1/4 MPH												
Tire # Of Runs												
Front Tire Pressure												
Rear Tire Pressure												
Tire Temp												
Track Temp												
Shift RPM												
Air Temp												
Humidity												
Barometric Pressure												
Coolant Temp												

NOTES

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SCAN TO ACCESS YOUR
VEHICLE'S VIDEO PLAYLIST

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SECOND EDITION