CUSTOMER INSTRUCTIONS v2.0

Thank you for purchasing the Ford Racing TracKey (Ford Racing part number **M-14204-MBTKA**) for your 2012 or 2013 Boss 302. This document describes how to use the features that are unique to TracKey. For the latest version of this document, please visit www.trackey.ford.com. If you have any questions or comments, contact the Ford Racing Techline at **1-800-FORD-788** between 8:30 am and 5 pm Eastern time, Monday through Friday. Before calling, please be prepared to provide the VIN of your vehicle.

To install TracKey on your vehicle, make an appointment with the service department of your local Ford or Lincoln dealer and tell them you need TracKey installed on your Boss 302. The labor time and rate for this installation is up to the dealer, but Ford Racing recommends approximately 1 hour of labor time. You will need to provide your vehicle, both ignition keys, the enclosed "Installation Instructions For Dealer Technician" document, and the blue voucher you received with your package. You will also need to be sure that the fuel in the fuel tank is premium (91 or higher octane). A few days after installation, you will receive via mail a self-adhesive Executive Order (EO) label that needs to be placed under-hood on the driver's side strut tower for emissions compliance purposes. If you have not received your label within 10 business days, please contact the Ford Racing Techline to have another one sent to you.

TracKey technology has been designed to optimize your Boss 302 for track use and uses many of the same software algorithms and features employed in some of our Ford Racing turn-key race cars, such as the Boss 302R, Boss 302S, and Cobra Jet. In addition, TracKey also allows you to maintain the smooth drivability of the production car just by switching ignition keys.

Whenever the TracKey is used to start the vehicle, many engine control characteristics are changed to be more suitable for track use. These include:

- Ignition timing
- Twin Independent Variable Cam Timing (TiVCT)
- Wide-Open Throttle fueling
- Engine braking
- Accelerator pedal map
- Idle speed
- Throttle response
- Cooling fan activation temps
- Skip-shift disable (2012 only)

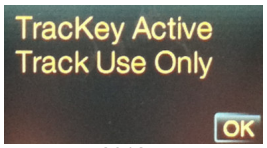
In addition, the following features are unique to TracKey:

- Driver adjustable Launch Control, or "2-step engine speed limiting"
- Driver adjustable Pit Lane Speed Control
- Lopey idle

USING TRACKEY:

When the car is started with the TracKey, the message center in the instrument cluster will display "TRACKEY ACTIVE TRACK USE ONLY" as shown below:

2012



2013

At this point all TracKey features are enabled with the exception of lopey idle. The message is persistent, which means it will remain on the message center until the "RESET" button (2012) or "OK" button (2013) is pressed.

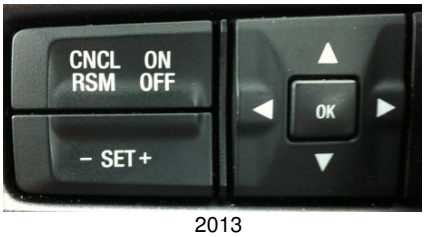
LAUNCH CONTROL:

The launch control feature of TracKey comes from the Ford Racing Cobra Jet and Boss 302S race cars. It is designed such that when the clutch pedal is depressed, the maximum engine speed is limited to a driver selectable value. When the clutch pedal is released, the engine is allowed to accelerate to the normal maximum engine speed limit. This allows for more consistent launches at the drag strip or at the starting line of a road course.

To use launch control, the vehicle must be stationary and the clutch pedal fully depressed. After making sure there are no obstructions in front of the vehicle, select first gear and press the accelerator pedal to the floor while keeping the clutch pedal fully depressed. Engine speed will be held to the driver selected value until either the clutch pedal is released or the vehicle starts to roll, whichever comes first. When you are ready to launch the vehicle, release the clutch pedal very rapidly while holding the accelerator pedal to floor. For optimal results, it is highly recommended that you disable traction control prior to using launch control. A launch control speed set-point of approximately 2600 rpm is a good starting point with the production tires on dry asphalt. Never use launch control in any gear other than first.

The launch control engine speed set-point is driver adjustable via the speed control switches on the left side of the steering wheel:

2012



2013

To adjust the speed set-point, the engine must be running, the vehicle must be stationary, and the brake pedal must be depressed. Hold down the "+ SET" speed control button for 2 seconds to enter set mode. The tachometer will sweep to 9000 rpm and return to the current set-point to indicate the set mode has been entered. Use the "+ SET" and "- SET" buttons to select the desired launch speed in increments of 100

rpm. Once the desired launch speed is shown on the tachometer, press the "ON" button to store the new value. The tachometer will sweep to 9000 rpm, then pause briefly at the speed set-point, before returning to normal operation. Launch control will now be enabled whenever the vehicle is stationary and the clutch pedal is depressed. The speed set-point is maintained after vehicle shut-down so it does not need to be set every key cycle unless a new speed set-point is desired.

PIT LANE SPEED CONTROL:

The Pit Lane Speed Control feature included in TracKey comes from the Ford Racing Boss 302R and Boss 302S race cars and is used to limit maximum vehicle speed while the vehicle is in the pit lane of a race track. It is designed such that when activated by the driver, it will limit the maximum vehicle speed, regardless of gear and accelerator pedal position, to a driver selectable value.

2012 Vehicles:
To use Pit Lane Speed Control on 2012 vehicles, the "OFF" button must be pressed, followed by the "RESUME" button (not simultaneously) within 2 seconds. The green speed control active indicator light on the instrument cluster will flash twice per second to indicate that Pit Lane Speed Control has been activated and will continue to flash until Pit Lane Speed Control has been deactivated by the driver. This will prevent the vehicle from exceeding the speed set-point in any gear on a level or uphill surface. The default set point is 44 mph (71 km/h). To deactivate Pit Lane Speed Control, press the "RESUME" button. Be aware, if the accelerator pedal is near wide open when Pit Lane Speed Control is deactivated, the vehicle can accelerate rapidly. Pit Lane Speed Control and Speed ("Cruise") Control cannot be activated simultaneously.

2013 Vehicles:
To use Pit Lane Speed Control on 2013 vehicles, the orange / green speed control indicator light must first be off. Next, the "RSM" button must be pressed twice within 1 second. The speed control indicator light on the instrument cluster will flash green twice per second to indicate that Pit Lane Speed Control has been activated and will continue to flash until Pit Lane Speed Control has been deactivated by the driver. This will prevent the vehicle from exceeding the speed set-point in any gear on a level or uphill surface. The default set point is 44 mph (71 km/h). To deactivate Pit Lane Speed Control, press the "RSM" button once. Be aware, if the accelerator pedal is near wide open when Pit Lane Speed Control is deactivated, the vehicle can accelerate rapidly. Pit Lane Speed Control and Speed ("Cruise") Control cannot be activated simultaneously.

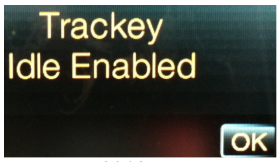
To adjust the speed set-point, the engine must be running, the vehicle must be stationary, and the brake pedal must be depressed. Hold down the "- SET" speed control button for 2 seconds to enter set mode. The speedometer will sweep to 180 mph to indicate set mode has been entered. Use "+ SET" and "- SET" buttons to select desired speed limit, from 28 mph (77 km/h) to 85 mph (137 km/h). Once the desired speed limit is shown on the speedometer, press the "ON" button to store the new value. The speedometer will sweep to 180 mph then pause briefly at the set-point, before returning to normal operation. The speed set-point is maintained after vehicle shut-down so it does not need to be set every key cycle unless a new speed set-point is desired.

Note: The Electric Power Assist Steering (EPAS) unit varies the electric power steering assist according to the vehicle speed message sent out on the network from the Powertrain Control Module (PCM). While the set-point is being changed, the PCM is sending a false vehicle speed message to the instrument cluster so that the driver can select the desired set-point. The EPAS unit will interpret this as actual vehicle speed and can move the steering wheel suddenly if it is turned slightly. Consequently it is recommended to have the steering wheel pointing straight ahead prior to entering the Pit Lane Speed Control set mode. Note also that if the parking brake is engaged, the cluster will ding because the vehicle believes it is in motion. If the auto door lock feature is activated, the doors will lock as well.

LOPEY IDLE:

Lopey idle is an industry-first technology that utilizes the Twin Independent Variable Cam Timing (TiVCT) capability of the Boss 302 engine to make the engine sound and feel like a race prepped engine. For lopey idle to be enabled, three conditions must first be satisfied. The first condition is that 130 seconds must have elapsed since the engine coolant temperature reached 170 °F (77 °C) while the engine is running. The second condition is that the engine must not currently be idling (Note that it is sufficient just to rev it up in neutral or drive away once the other conditions have been met and lopey idle mode will be enabled). The third condition is that there must not be any detected failures of engine control related sensors or actuators. When all these conditions are met, the instrument cluster will make a "ding" sound and the message center will display "TRACKEY IDLE ENABLED". Some early-build 2012 vehicles will display the word ENGINE in place of the word IDLE. The TracKey software and calibration is identical regardless of which word is displayed. Like the "TRACKEY ACTIVE TRACK USE ONLY" message, this message is also persistent and may be dismissed by pressing the "RESET" button (2012) or "OK" button (2013). Lopey idle will remain enabled until the next key cycle when all the conditions are checked again. Note that removing the side exhaust block-off plates results in a significantly more distinctive exhaust note when lopey idle mode is enabled, but may be too loud for some customers.

Mid to late build 2012



2013

LOPEY IDLE DISABLE:

To request all of the TracKey functionality without ever entering lopey idle mode, hold down the "OFF" button on the left side of the steering wheel while starting the engine, and continue to hold it down for at least 5 seconds after the engine starts running. The tachometer will sweep to 9000 rpm indicating that lopey idle disable mode has been requested. This will prevent lopey idle mode from enabling until the next time the engine is started.

Frequently Asked Questions:

Where do I put the sticky label I received in the mail after having TracKey installed?

- A self-adhesive CARB Executive Order (EO) label will be shipped to your address. Once it arrives install it under-hood on the driver's side shock tower. Failure to display this label in a prominent place can result in state vehicle emissions test issues, depending on your state of residence.

My cluster says "TRACKEY IDLE ENABLED" but some cars say "TRACKEY ENGINE ENABLED". What's the difference?

- Depending on the build date of the vehicle, the instrument cluster may display one of those two messages once lopey idle mode is enabled. The TracKey software and calibration is identical regardless of which word is displayed.

Can more than one TracKey be programmed for a vehicle?

- No. Only one TracKey can exist for a given vehicle at a time.

What if I lose the TracKey after programming?

- A new blank TracKey can be ordered from FCSD (SKU 164-R8021) from your dealer. It will then need to be cut, have anti-theft re-synched, and programmed as a TracKey. The PCM does not need to be reflashed again, and another M-14204-MBTKA kit does not need to be purchased from Ford Racing. If the old TracKey is found, it will no longer work as a valid TracKey after the new key is programmed.

If I have a custom calibration in the PCM already, will TracKey erase it?

- Yes. In addition, there may be warranty concerns if the custom calibration has caused engine damage that later results in a failure.

What if the " TRACKEY IDLE / ENGINE ENABLED" message is never displayed but all other TracKey features work?

- For lopey idle to be enabled, three conditions must first be satisfied. The first condition is that 130 seconds must have elapsed since the engine coolant temperature reached 170 °F (77 °C) while the engine is running. The second condition is that the engine must not currently be idling (Note that it is sufficient just to rev it up in neutral or drive away once the other conditions have been met and lopey idle mode will be enabled). The third condition is that there must be no detected failures of any PCM sensors. Specifically, this means lopey idle will be disabled if any of the following is true:
  - Misfire detected
  - Air charge temperature sensor failure detected
  - Cylinder head temperature sensor failure detected
  - Ignition coil failure detected
  - Crank sensor failure detected
  - Throttle body control failure detected
  - Cam position sensor failure detected
  - Vehicle speed sensor failure detected
  - Accelerator pedal sensor failure detected

- Mass Air Flow sensor failure detected

If lopey idle is not being enabled because the PCM is detecting misfires, it may be necessary to have your dealer perform a neutral profile learn procedure.

What if the " TRACKEY IDLE / ENGINE ENABLED" message is displayed but the idle is not very lopey?

- First, verify that the engine oil level is correct. Make sure to use only 5W50 oil, as cam control can vary dependent on oil viscosity. Secondly, turn off all accessories such as air conditioning, rear window defrost, etc. If the idle still isn't lopey, the PCM may need to relearn the zero (or "home") position of the cams. To facilitate this learning process, shut the engine off, restart the engine using the silver (non-Track) key and let the engine idle for 5 minutes with the vehicle stationary. Do not touch the accelerator pedal during this time. Once the zero position is learned, it should not need to be relearned unless the battery is disconnected or the PCM is reflashed.

What if I change the rear tire size or axle ratio after TracKey has been installed?

- Your dealer can change these settings in exchange for a nominal labor charge.

I hear slight "pinging" on engine acceleration from low speed. Should I be alarmed?

- TracKey alters the ignition timing and knock sensor calibrations taking full advantage of premium fuel to deliver the maximum torque and throttle response available from the engine. Some slight "pinging" on acceleration from low engine speed may be audible initially but should rapidly subside.

For further troubleshooting information, please refer to the Dealer Instructions available in the "Dealer Links" section of www.trackey.ford.com.