



MUSTANG GT INSTALLATION INSTRUCTIONS FOR DEALER TECHNICIAN v1.0

This document describes how to install TrackKey (Ford Racing part number **M-14204-MGTTKA**) on a 2014 Mustang GT equipped with a manual transmission and built on or after July 1st, 2013.

For the latest version of this document, please visit the "Dealer Links" section at www.trackkey.ford.com before starting the installation procedure. If this is your first Mustang GT TrackKey installation, please read this document in its entirety before beginning. 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 the vehicle and the customer supplied TrackKey voucher number for assistance.

The TrackKey installation procedure consists of four separate parts. The first is installing the Ford Racing flat panel air filter. The second is cutting the customer supplied Ford Racing TrackKey and programming PATS to recognize the new key. The third is programming the key to make it into a TrackKey, and the fourth is to reflash the PCM with the Ford Racing software and calibration. Once all four of these steps have been completed, the PCM will recognize when the TrackKey is in the ignition and will enable the unique TrackKey functionality. Installation of TrackKey will clear any MyKeys that have been programmed for the vehicle. The TrackKey can, however, be used as an administration key to program the regular key as a MyKey after the TrackKey installation is complete.

CAUTION: After the TrackKey PCM software is installed, no TSB's requiring PCM reflashing should be performed on the vehicle unless specifically instructed by the Ford Racing Techline.

Tools Required:

- Battery charger
- VCM or VCM-II
- Laptop running Windows XP or Windows 7 with IDS version **89.01 or higher**, Internet Explorer, and **reliable** internet connectivity (we strongly recommend using a wired connection and plugging the laptop into an AC power source)

Vehicle Requirements Before Starting Procedure:

- **Must** be a 2014 Mustang GT equipped with a manual transmission and a vehicle build date on or after **July 1st, 2013**. Must also not have any engine related aftermarket modifications (such as a cold-air kit, headers, etc) installed.
- **Must** have at least two and preferably three ignition keys (two regular keys and one Ford Racing TrackKey).

- **Must** have **customer's** mailing address and phone number.
- **Must** have a valid and unused voucher ID (included in the M-14204-MGTTKA package).
- **Must** have premium (91 or higher octane) fuel in the fuel tank.

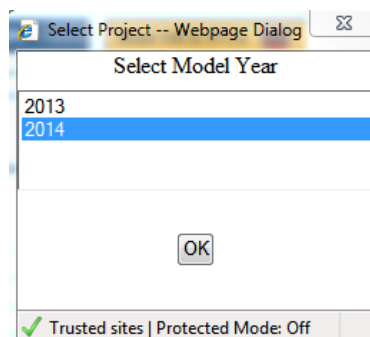
If any of the above requirements is not met, do not continue the installation procedure and advise the customer that the issue or issues must be rectified before TrackKey installation can commence.

Procedure for a vehicle that has never had TrackKey installed before:

- 1) Install the Ford Racing flat panel air filter and return take-out filter to customer. Refer to SLTS operation MBASIC2 (0.1 hr) and workshop section 303-12 for more information.
- 2) Cut the supplied Ford Racing key to match the ignition keys provided by customer and program PATS. Refer to SLTS operation 15607C (0.2 hr) and workshop section 419-01B for more information.
- 3) Write down the **rear** tire size (ie: 285/35-19) here _____
- 4) **Connect a battery charger to the battery and set to lowest current setting.**
- 5) Connect VCM to vehicle DLC and to laptop with internet access and IDS version 89.01 or higher.
- 6) **Turn off all vehicle accessories, including HVAC, radio, and lights. Close trunk and both doors. Remain in vehicle until procedure is complete. This is critical to avoid accidentally bumping the DLC connector and severing the VCM connection which can result in having to send the PCM back to Ford Racing at the expense of the installing dealership.**
- 7) Insert TrackKey (Ford Racing medallion) in ignition and turn to ON position.
- 8) Using Internet Explorer, go to www.proservicetech.com, or use FMC dealer to get to PTS, and click on the "Vehicle ID" tab.
- 9) Once the VCM has successfully made a connection to the PCM, click the green box labeled "Read VIN and DTCs", as shown below:



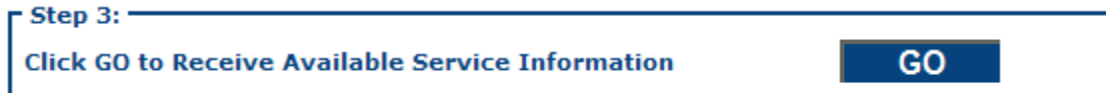
- 10) If a pop-up box appears, select "2014" and click "OK":



- 11) Write down the odometer mileage here _____

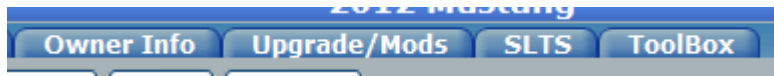
12) Write down any DTC's displayed. **Resolve root cause of all DTC's before continuing to the next step.**

13) Click the box labeled "GO", as shown below:

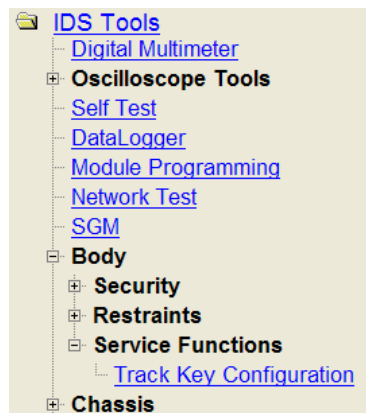


14) Click the "OASIS" tab and select "OASIS Home". Write down the number displayed next to "AXLE RATIO" here _____. It will be 3.31, 3.55, or 3.73.

15) Click the "ToolBox" tab, as shown below:



16) Under "IDS Tools" on the left side of the screen, click "Body" then "Service Functions" then "Track Key Configuration", as shown below:



17) An IDS window will launch and display "use track key to turn on ignition". Since the key should already be in the ON position, click the checkmark in the lower right corner of the screen.

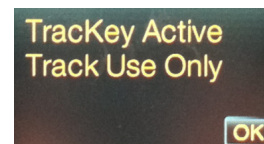
18) Click "Enable track key" once, then click the checkmark.

19) Turn ignition key to OFF position, then back to ON position.

20) Message center on instrument cluster should now display "TRACKKEY ACTIVE TRACK USE ONLY" as shown below. If so, click the checkmark, then follow the on-screen instructions. If not, click the return arrow and go back to step 17. Consult "Troubleshooting" section if the message isn't displayed after 2 attempts.

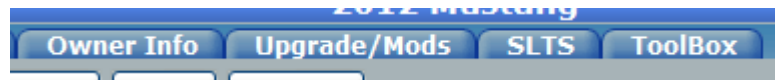


4-gauge cluster



4.2" display cluster

21) At this point, the programming of the key is complete, but the PCM needs to be reflashed before TrackKey functionality will be enabled. Turn the ignition key back to the ON position, then click on the "Upgrade/Mods" tab as shown below, to begin the PCM reflashing process:



22) Click "Ford Racing Calibration programming for a customer who has purchased an upgrade kit that requires PC reprogramming", as shown below:

- [GAP 1 to GAP 2 Radio Replacement](#)
- [Ford Racing Calibration programming for a customer who has purchased an upgrade kit that requires PCM reprogramming.](#)

23) Ensure ignition key is in the ON position, and click the box labeled "Read PCM":



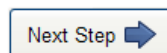
24) Enter the customer supplied voucher ID exactly as it appears on the voucher (ie: XXXX-XXXX-XXXX). Note that a voucher ID can only be used once. The illustrations below are examples only and may differ slightly from what is actually displayed:

This vehicle's current calibration is [CR3A-14C204-ABA].

To continue, please enter your voucher ID.

Voucher ID :

25) Click "Next Step" as shown below:



26) Pick "**M-14204-MGTTKA**" from the drop down box as shown below, then click "Next Step".

Please select the Ford Racing kit number being installed.

Kit Number :



27) Enter the customer information in the boxes provided along with the odometer reading that you wrote down in step 11. Do not use any commas when entering the mileage. Please be sure that the customer information is accurate since a CARB Executive Order (EO) label will be sent to the address provided. Click "Next Step" when complete.

So that we can mail an E.O. label to the customer, please provide the customer's mailing address.

VIN :	1ZVBP8CU	
First Name :	<input type="text"/>	(required)
Last Name :	<input type="text"/>	(required)
Address Line 1 :	<input type="text"/>	(required)
Address Line 2 :	<input type="text"/>	
Address Line 3 :	<input type="text"/>	
City :	<input type="text"/>	(required)
State/Province :	<input type="text" value="Please Select"/>	(required)
Postal Code :	<input type="text"/>	(required)
Country :	<input type="text" value="Please Select"/>	(required)
Phone Number :	<input type="text"/>	(required)
Current Mileage :	<input type="text"/>	(required)

28) If presented with the question "Do you wish to activate octane adjust?" select "No". Refer to "Frequently Asked Questions" section for more details. Click "Next Step" when complete.

Do you wish to activate octane adjust?

Please choose one...

- No
- Yes (only pick this option if vehicle exhibits spark knock)

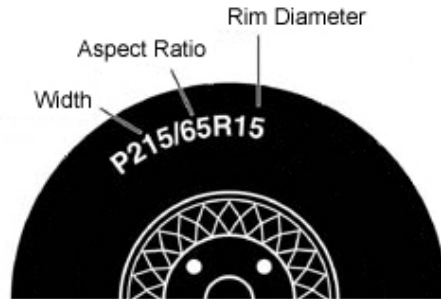
29) Using the information you wrote down in step 3, select the appropriate tire width, aspect ratio, and rim diameter from the 3 drop down boxes as shown below. Click "Next Step" when complete.

What is the size of this vehicle's **driven** tires?

Width :


Aspect Ratio :

Rim Diameter :



30) Using the drop down box, select the axle ratio currently installed on the vehicle. If the customer has not changed the axle ratio, use the number from step 14. Make sure to enter the correct axle ratio or the speedometer and odometer will be inaccurate. Click "Next Step" when complete.

What is the axle ratio on this vehicle?

 If you are going to change the axle ratio, please select the ratio you will have after you install the parts and **not the ratio currently installed** on this vehicle.

Axle Ratio :

- :: Please Choose One ::
- 3.08
- 3.27
- 3.31
- 3.41
- 3.55
- 3.73**
- 3.83

31) Verify the battery charger is connected and then click "Start Module Programming" as shown below (The PCM File Name shown is an example only). **DO NOT under ANY circumstances interrupt the programming process once it has started!! DO NOT switch the key off or disconnect the VCM from either the DLC or the laptop until the programming process has completed!!**

PCM File Name: CR3A-SEMABM-5BC

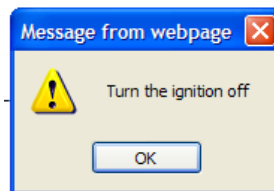
The module is now ready to be programmed. Please be sure to do the following...

Attach Battery Charger to the Battery

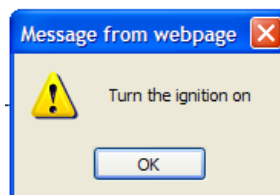
Turn the ignition on




32) When prompted, turn the ignition key to the OFF position and click "OK"



33) Wait at least 3 seconds, and then when prompted, turn the ignition key to the ON position and click "OK".



- 34) The programming process will start, and display a progress bar while the PCM is being reflashed. **DO NOT DISCONNECT THE VCM OR LAPTOP OR TOUCH THE IGNITION KEY UNTIL IT IS COMPLETE!!!!**

PCM File Name: CR3A-SEMABM-5BC 

Programming Module - Please do not interrupt



Your calibration files are being installed. There are 3 files that need to be installed. Please Wait...

- 35) When the programming process has completed, a message will be displayed saying "You're all done". At this point, turn the ignition key off, wait at least 3 seconds, and then turn it back on.

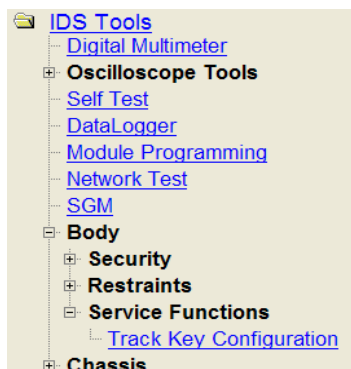
Ford Racing Performance Dealer Download - Complete

Thanks! You're all done.

Be sure to visit us at FordRacingParts.com.



- 36) Reprogramming of the PCM is now complete, however during the programming process the PCM will generate CMDTCs in the other networked modules. To clear the codes in these modules, go back to the "ToolBox" tab and under "IDS Tools" on the left side of the screen, click "Self Test", as shown below:



37) An IDS window will launch. Click "All CMDTCs", then click the checkmark:



38) Click on the eraser on the right side of the screen, then click the checkmark to clear all CMDTCs". All modules should now indicate a PASS. Close IDS window.



39) Close all IDS and PTS windows.

40) Start the engine and wait at least 30 seconds. Hit the "RSM" button twice within 1 second. The green speed control indicator on the cluster should blink continuously twice per second. Press "RSM" again and green light should go out. If this does not happen, consult the Troubleshooting section.



Left side of steering wheel

- 41) Shut off engine, remove TrackKey and start engine with regular key. Verify message center does **NOT** display "TRACKKEY ACTIVE TRACK USE ONLY". If it does, call the Ford Racing Techline at 1-800-FORD-788.
- 42) Turn off engine and disconnect battery charger.
- 43) Advise customer that a self-adhesive EO label will be shipped to their address. Once it arrives they are to 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 the state of residence of the customer. Also remind customer that use of the TrackKey requires premium (91 or higher octane) fuel. Finally, **return this document to the customer**. The installation is now complete.

Troubleshooting:

"Track Key configuration" does not appear in Service Functions Menu:

- Verify vehicle is a 2014 Mustang GT equipped with a manual transmission and built on or after July 1st, 2013.
- Verify IDS version **89.01 or higher** is installed on the computer connected to the VCM
- If issue is still unresolved, call Ford Racing Techline at 1-800-FORD-788, with vehicle VIN and customer voucher ID

For resolution of all other issues, call the Ford Racing Techline at 1-800-FORD-788, with vehicle VIN and customer voucher ID.

Frequently Asked Questions:

Can more than one TrackKey be programmed for a vehicle?

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

What if a customer loses the TrackKey after programming?

- A new blank Ford Racing TrackKey can be ordered from parts and service (164-R8104) at the customer's expense. It will then need to be cut, have PATS re-synched, and programmed as a TrackKey by performing steps 2 through 20, also at the customer's expense. The PCM does not need to be reflashed again, and the customer does not need to purchase another M-14204-MGTTKA kit from Ford Racing. If the old TrackKey is found, it will no longer work as a valid TrackKey after the new key is programmed.

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

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

Why can I not perform TSB's that require PCM recalibration?

- TrackKey is a Ford Racing Performance Parts product and as such is not distributed through the normal IDS production calibration download system. If a TSB requiring a PCM recalibration is performed, the TrackKey software will be overwritten and the unique functionality will be lost. The "TRACKKEY ACTIVE TRACK USE ONLY" message would still appear on the message center, but no action would be taken by the PCM because the unique TrackKey software has been overwritten by the reflash for the TSB. If there is any doubt whether or not a certain TSB should be performed, call the Ford Racing Techline at 1-800-FORD-788, with vehicle VIN, customer voucher ID, and TSB number.

How do I tell if the installation has been successful?

- If the TrackKey itself has been successfully programmed, the message "TRACKKEY ACTIVE TRACK USE ONLY" will appear on the message center when the ignition is turned to the ON position with the TrackKey. If **both** the PCM **and** the TrackKey have been successfully programmed, the green speed control light on the dash will blink continuously twice per second when the engine is

running and Pit Lane Speed Control has been activated. To activate Pit Lane Speed Control, make sure the speed control indicator light is off (not orange or green) then press the "RSM" button twice within 1 second. To deactivate Pit Lane Speed Control, press the "RESUME" or "RSM" button once. **Note that if the PCM is not programmed correctly, the "TRACKKEY ACTIVE TRACK USE ONLY" message can still be displayed on the message cluster but no action will be taken by the PCM so none of the TrackKey functionality will work.**

What if I need to replace a PCM after TrackKey has been installed?

- Order a new PCM, perform Programmable Module Installation normally, then call the Ford Racing Techline at 1-800-FORD-788 for further instruction. Customer will not need to purchase another M-14204-MGTTKA kit from Ford Racing.

What if a customer changes tire size or axle ratio after TrackKey has been installed?

- Perform steps 3 through 13, then steps 21 through 23. Instead of asking for a voucher ID, the system will recognize that the PCM has already been programmed with Ford Racing software and will present the following choices:

Ford Racing Performance Dealer Download

This vehicle already has an FRPP calibration [CR3A-SEMABM-5BB] installed on it. Do you want install a new FRPP kit or change tire size and/or axle ratio?

Please choose one...

- Install a new FRPP kit
- Change octane adjust, tire size and/or axle ratio

- Select "Change octane adjust, tire size and/or axle ratio", click "Next Step", and then complete steps 27 through 42. Customer will not need to purchase another M-14204-MGTTKA kit from Ford Racing.

What if the " TRACKKEY IDLE 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 5W20 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 black (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 the " TRACKKEY IDLE ENABLED" message is never displayed but all other TrackKey features work?

- For lopey idle to be enabled, four conditions must first be satisfied. The first condition is that lopey idle was not switched off during engine start (by holding the OFF button during crank and for 5 seconds after the engine has started).

The second condition is that 130 seconds must have elapsed since the engine coolant temperature reached 170 °F (77 °C) while the engine is running. The third 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 fourth 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 are 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 perform the neutral profile learn procedure. If the neutral profile learn procedure does not resolve the misfire codes, then the root cause of the misfires must be determined and repaired before lopey idle will be enabled.

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

- TrackKey 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.

What if a customer complains about excessive pinging?

- Verify that **only** 91 or higher octane fuel is in the fuel tank.
- Verify coolant mixture is at least 50% water.
- Verify that oil consumption is not excessive. If it is, there may be oil in the intake manifold which is causing the pinging. This is **by far** the most common cause of reported pinging concerns. Suggest the use of an oil separator in the PCV line between the passenger side valve cover and the air inlet tube.
- If pinging persists, perform steps 3 through 13, then steps 21 through 23. Instead of asking for a voucher ID, the system will recognize that the PCM has already been programmed with Ford Racing software and will present the following choices:

Ford Racing Performance Dealer Download

This vehicle already has an FRPP calibration [CR3A-SEMABM-5BB] installed on it. Do you want install a new FRPP kit or change tire size and/or axle ratio?

Please choose one...

- Install a new FRPP kit
- Change octane adjust, tire size and/or axle ratio

- Select "Change octane adjust, tire size and/or axle ratio", click "Next Step", and then complete steps 27 through 35 but select "Yes" in step 28 when asked "Do you wish to activate octane adjust?". Finally, complete steps 36 through 42.
- If customer complaint is still present, call the Ford Racing Techline at 1-800-FORD-788.

Note: If you have any comments or suggestions on how to improve this document, please call the Ford Racing Techline. We welcome your feedback and strive to make the installation process as painless as possible.

**** CAUTION: Do not reflash the PCM back to a production calibration unless specifically directed to do so by the Ford Racing Techline (not FCSD). Once the PCM has been flashed back to a production calibration you will not be able to re-install TracKey without a new voucher number.**

NOTE: The TracKey software and calibration are copyrighted works of Ford Motor Company and are protected under US copyright law. They may not be uploaded or copied for any purpose including, but not limited to, calibration modification and/or distribution.



MUSTANG GT CUSTOMER INSTRUCTIONS v1.0

Thank you for purchasing the Ford Racing TrackKey (Ford Racing part number **M-14204-MGTTKA**) for your 2014 Mustang GT equipped with a manual transmission and built on or after July 1st, 2013. This document describes how to use the features that are unique to TrackKey. For the latest version of this document, please visit www.trackkey.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 TrackKey on your vehicle, make an appointment with the service department of your local Ford or Lincoln dealer and tell them you need TrackKey installed on your Mustang GT. The labor time and rate for this installation is up to the dealer, but Ford Racing recommends approximately 1.5 hours of labor time including cutting the key. You will need to provide your vehicle, the Ford Racing TrackKey and voucher you received with the package, both ignition keys you received with the vehicle, and the enclosed "Installation Instructions For Dealer Technician" document. 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.

TrackKey technology has been designed to optimize your Mustang GT for track use and utilizes 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, TrackKey also allows you to maintain the smooth drivability of the production car just by switching ignition keys.

Whenever the TrackKey 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

In addition, the following features are unique to TrackKey:

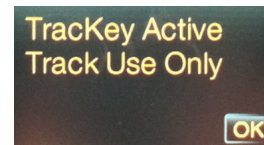
- Driver adjustable Launch Control, or "2-step engine speed limiting"
- Driver adjustable Pit Lane Speed Control
- Lopey idle

USING TRACKEY:

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



4-gauge cluster



4.2" display cluster

At this point all TrackKey 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" or "OK" button is pressed and will return the next time the engine is started.

LAUNCH CONTROL:

The launch control feature of TrackKey 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.

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



Left side of steering wheel

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. To disable launch control, adjust the set-point to its maximum value.

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. To avoid bogging the engine, 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, or severe clutch damage may result.

PIT LANE SPEED CONTROL:

The Pit Lane Speed Control feature included in TrackKey comes from the Ford Racing Boss 302R and Boss 302S race cars and is intended 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.

To use Pit Lane Speed Control, the orange / green speed ("cruise") 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 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.

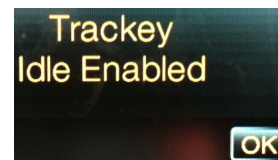
Note: The Electric Power Assist Steering (EPAS) unit varies the electric power steering assist according to the vehicle speed message sent out on the network from the Powertrain Control Module (PCM). While the set-point is being changed, the PCM is sending a false vehicle speed message to the instrument 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 Mustang GT 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". Like the "TRACKEY ACTIVE TRACK USE ONLY" message, this message is also persistent and may be dismissed by pressing the "RESET" or "OK" button. Lopey idle will remain enabled until the next key cycle when all the conditions are checked again.



4-gauge cluster



4.2" display cluster

LOPEY IDLE DISABLE:

To request all of the TrackKey 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 TrackKey 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 the state in which your vehicle is registered.

Can more than one TrackKey be programmed for a vehicle?

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

What if I lose the TrackKey after programming?

- A new blank TrackKey can be ordered from FCSO (SKU 164-R8104) from your dealer. It will then need to be cut, have anti-theft re-synched, and programmed as a TrackKey. The PCM does not need to be reflashed again, and another M-14204-MGTTKA kit does not need to be purchased from Ford Racing. If the old TrackKey is found, it will no longer work as a valid TrackKey after the new key is programmed.

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

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

Why can I not perform TSB's that require PCM recalibration?

- TrackKey is a Ford Racing Performance Parts product and as such is not distributed through the normal IDS production calibration download system. If a TSB requiring a PCM recalibration is performed, the TrackKey software will be overwritten and the unique functionality will be lost. The "TRACKKEY ACTIVE TRACK USE ONLY" message would still appear on the message center, but no action would be taken by the PCM because the unique TrackKey software has been overwritten by the reflash for the TSB. If there is any doubt whether or not a certain TSB should be performed, call the Ford Racing Techline at 1-800-FORD-788, with vehicle VIN, voucher ID, and TSB number.

What if the " TRACKKEY IDLE 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 5W20 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 black (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 the " TRACKEY IDLE ENABLED" message is never displayed but all other TrackKey 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 are 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 I change the rear tire size or axle ratio after TrackKey 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?

- TrackKey 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.trackkey.ford.com.

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