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FORD HIGH IDLE KIT

1036610

2005-2016 Ford F250/F350/F450/F550
6.0L / 6.4L / 6.7L Diesel

2016-2024 Ford F650/F750
6.7L Diesel / 6.8L & 7.3L Gasoline

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

Tools Required

- 1/16" Allen Key
- 1/8" and 9/32" Drill Bit (optional)
- Wire Strippers

Kit Contents

1306613	1306614	1300133
		
Control Module	Wire Harness	Tie Wrap (Short)
Qty: 1	Qty: 1	Qty: 3

1003331	2000109	1330052	1300285
			
High Idle Sticker	Bracket	Screw	Posi-Lock (Blue)
Qty: 1	Qty: 1	Qty: 2	Qty: 5

High Idle Kit Information

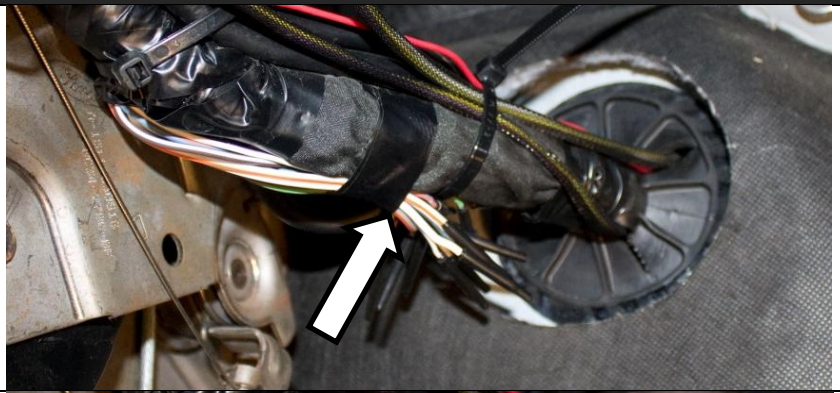
This high idle kit allows the user to control the engine RPM while stationary by interfacing with the SEIC (stationary engine idle control) wiring found in all Ford Power Stroke diesel trucks (8500gvw and up).

Available RPM Control Range		
2005-2010 F250-F550	1200-2400RPM	6.0L/6.4L Diesel
2011-2016 F250-F550	900-3000RPM	6.7L Diesel
2016-2024 F650-F750	900-3000RPM	6.7L Diesel
2016-2024 F650-F750	800-2400RPM	6.8L/7.3L Gasoline

This kit is great for faster warm-ups, extended idling, maintaining battery voltage under high electrical demands or running power take-off equipment such as hydraulic pumps, compressors and generators.

Installation Instructions

Locate the customer access wiring blunt cut wires below the dashboard. These should be taped to the wiring harness behind the emergency brake release handle. (2011 model shown)



Cut the tape holding the wires in place. Identify and separate the appropriate wires for your model year vehicle. (see table below) Some years have a label with this information taped to the harness. Cut the heat shrink tubing off the ends and strip the wires.



F250-F550	SEIC (Violet)	REF (Red)	RPM (Pink)	RTN (Black)	IGN (Yellow)
2011-2016	YL/GN	WT/BR	GN	GY/VT	WHITE/BLUE*
2011.5	YL/GN	WT/BR	GN	GY/VT	YL/OR (Some mid-year 2011s)
2008-2010	YL/GN	WT/BR	GN	GY/VT	VT
2005-2007	OR	OR/RD	OR/YL	OR/BK	WHITE/LT-BLUE**

*On trucks with factory remote start, install the yellow wire & the red wire from the BD high idle kit to the WT/BR wire on the factory harness. This is because the ignition circuit is not powered when remote started. The WHITE/BLUE wire will not be used.

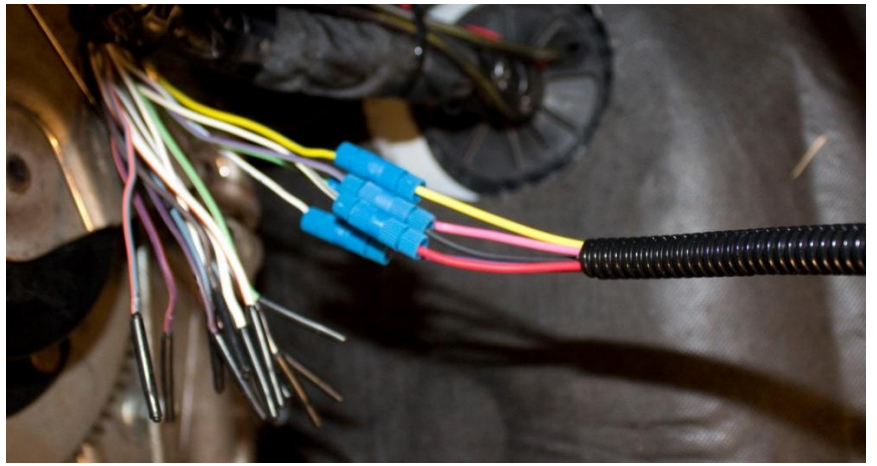
** A small number of 05-07 trucks may not have this wire. If not, tap the YELLOW (IGN) onto a switched ignition circuit.

*** **Attention:** there is also a Brown wire with the White tracer in the same bundle, do not mix them up!

F650-F750		SEIC (Violet)	REF (Red)	RPM (Pink)	RTN (Black)	IGN (Yellow)
2016-2021 Diesel	NOTE 2021+ F650/F750 wiring is under the hood see page 8.	YL/GN	WT/BN	GN	GY/VT	YL/GY
2022-2024 Diesel		YL/GN	WT/BN	GN	GY/RD	GY
2016-2020 Gasoline		YL/BL*	YL/GN	GN	YL/VT	YL/GY
2021 Gasoline		YL/GN	YL/WT	GN	YL/VT	YL/GY
2022-2024 Gasoline		YL/GN	YL/GY	GN/OR	YL/VT	GY

*Early build 2016 gasoline could be YL/GN

Install supplied posi-lock connectors on each of the five wires. Connect the supplied control harness to the posi-locks according to the chart on the previous page. Wires may optionally be soldered for improved durability. Route the harness to the preferred install location and secure with supplied zip ties.



Remove the aluminum knob by loosening the 1/16" Allen set screw. Remove the nut and washer to install the switch.



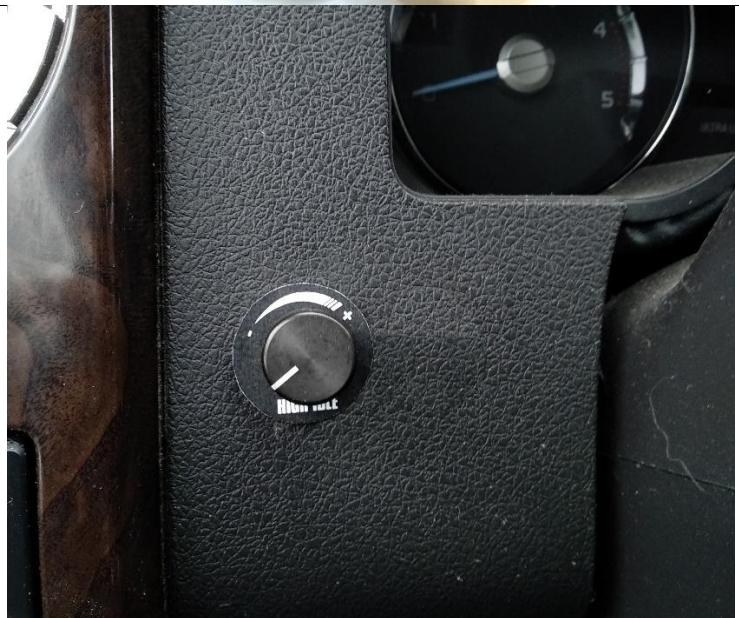
Installation with bracket.

Use the supplied self-tapping screws to secure the bracket to the bottom of the dashboard. Install switch through the bracket. Apply the decal and reinstall the nut, washer and knob. Attach to harness.



Installation without bracket.

Drill a 9/32" hole in the dash to mount the switch. Beside the first hole, drill a 1/8" hole for the locator tab. Use the switch as a guide for location. Apply the switch decal to the dash and insert the switch through the dashboard. Install retainer nut. Install the knob on the switch using a 1/16" Allen key. Plug harness into back of switch.



Operation

With the engine running, parking brake applied and transmission in park, turn the control knob clockwise until a click is heard. The high idle control is now turned on and the desired engine RPM can be selected by rotating the knob. Range is 1200-2400 RPM on 2005-2010 vehicles and 900-3000 RPM on 2011-2016 vehicles.

If the transmission is shifted out of park, the brake is pressed, parking brake released, throttle pressed or road speed is detected the high idle will be disabled for safety.

Note. The high idle feature will be disabled on 2011-2016 trucks until the engine oil and transmission fluid are at least 20°F (-6°C). This is to protect the engine against damage from over revving with cold engine oil. Most emission controls will be disabled when in high idle mode.



Note Regarding Use of Ford Upfitter Switches

If the installer decides not to mount the control knob on the dash and is satisfied with a fixed high engine idle speed, this kit can be used in conjunction with the factory upfitter switches available on some Ford Power Stroke pickups. Install four of the five wires (RED, BLACK, PINK, VIOLET) as per the instructions above but do not connect the YELLOW wire to IGN power. Instead connect the YELLOW wire to the chosen upfitter switch circuit. As this circuit draws very little current, any of the four switches may be used. Switch 3 or 4 is recommended as they are low power circuits.

Start the engine and turn on the upfitter switch. Rotate the knob on the high idle harness until the desired RPMs are achieved. The high idle can now be locked-out unless the appropriate upfitter switch is turned on. The harness may now be secured below the dashboard and the high idle feature can be turned on and off with the upfitter switch.

Disablers for the 6.7L High Idle

SEIC ENABLE-DISABLE CONDITIONS			
Vehicle Conditions to Enable SEIC (all are required)	Vehicle Conditions that Disable SEIC (any one required)	Gasoline Engine	Diesel Engine
Parking brake applied.	Parking brake disengaged.	Yes	Yes
Foot off of service brake	Depressing service brake	Yes ¹	Yes ²
Vehicle in PARK (automatic trans.)	Vehicle taken out of PARK	Yes	Yes
Foot off of accelerator pedal		Yes	Yes
Vehicle speed is 0 mph (stationary)		Yes	Yes
Brake lights functional	Brake light circuit disconnected	Yes	Yes
Engine at a stable base idle speed		Yes	Yes
Trans Oil Temp above 20°F	Transmission Oil Temperature (TOT) Limit exceeds 240°F.	Yes ¹	Yes
Eng Coolant Temp above 20°F	Engine Coolant Temperature (ECT) above 234°F	No	Yes
Eng Coolant Temp above 140°F	Engine Coolant Temperature (ECT) above 220°F	Yes ¹	No
	Catalyst Temperature Limit	Yes ¹	Yes

Disablers for the 6.4L High Idle

SEIC ENABLE-DISABLE CONDITIONS			
Vehicle Conditions to Enable SEIC (all are required)	Vehicle Conditions that Disable SEIC (any one required)	Gas Engine	Diesel Engine
Parking brake applied.	Parking brake disengaged.	Yes	Yes
Foot off of service brake	Depressing service brake	Yes ¹	Yes ²
Vehicle in PARK (automatic trans.)	Vehicle taken out of PARK	Yes	Yes
Foot off of clutch (manual trans.)	Clutch depressed	Yes	Yes ²
Foot off of accelerator pedal		Yes	Yes
Vehicle speed is 0 mph (stationary)		Yes	Yes
Brake lights functional	Brake light circuit disconnected	Yes	Yes
Engine at a stable base idle speed		Yes	Yes
	Transmission Oil Temperature (TOT) Limit exceeds 240 degrees F.	Yes ¹	No
	Engine Coolant Temperature Limit (ECT)	Yes ¹	No
	Catalyst Temperature Limit	Yes ¹	No

Troubleshooting and Diagnosis

1. In case the high idle mode is not operating as expected, use the disabler condition charts for the corresponding engine as shown on pages 6 and 7 to ensure the conditions of operation are met. Ensure that the vehicle is stationary with a steady idle before engaging the high idle controller.
2. If following the disabler condition chart does not reveal any issues, then verify that the wiring matches the aforementioned installation instructions.
1. In cases where the vehicle is tuned, please ensure that your throttle valve is still connected to its original harness to ensure high idle kit functionality. 6.7L only.
2. If the conditions for normal operation are met and the wiring is correctly done, then follow up by checking the switch. The switch must receive 12V from the yellow wire connected to the module and return 12V on the violet wire to the vehicle. In order to confirm this, use a multimeter to measure the voltage between the violet wire and the black wire. In case the voltage on the violet wire is not 12V then check that the yellow wire is supplying 12V to the switch by measuring the voltage between the yellow and black wires.
3. If the switch is functioning as expected, then measure the voltage on the RPM control wire. Connect a multimeter between the pink wire and black wire and ensure that turning the knob changes the voltage reading between 0 and 5V. If there is no voltage on the pink wire then check the red reference wire. Measure the voltage between the red and black wires to ensure it is 5V.
4. If the steps above do not reveal any apparent issues, then contact BD technical support for further assistance.

2021+ Ford F-650/F-750 SEIC Wire Location

In 2021 Ford relocated the SEIC wiring for F-650 and F-750 vehicles to be under the hood instead of under the dash. The wires from this kit will need to be routed through the firewall grommet and connected under the hood. Location shown with arrow.

