


Installation Instructions • EcoBoost 2.0L Jaguar - Range Rover

Thank you for your purchase.

Please read the complete installation instructions or view the video instructions on YouTube before attempting to install this product.

 If not installed properly, BoostMAX will not function and may be damaged. View install videos at <http://www.jmschip.com/boostmax-plug-and-play/>

BoostMAX will increase the power output of your EcoBoost vehicle. BoostMAX has been designed to be mounted with plastic zip ties near the OEM ECU. The wiring harness plugs into two sensors on the engine and then runs into the vehicle cabin through a drivers side firewall hole and connects to the pedal sensor.



Reasons to choose BoostMAX!

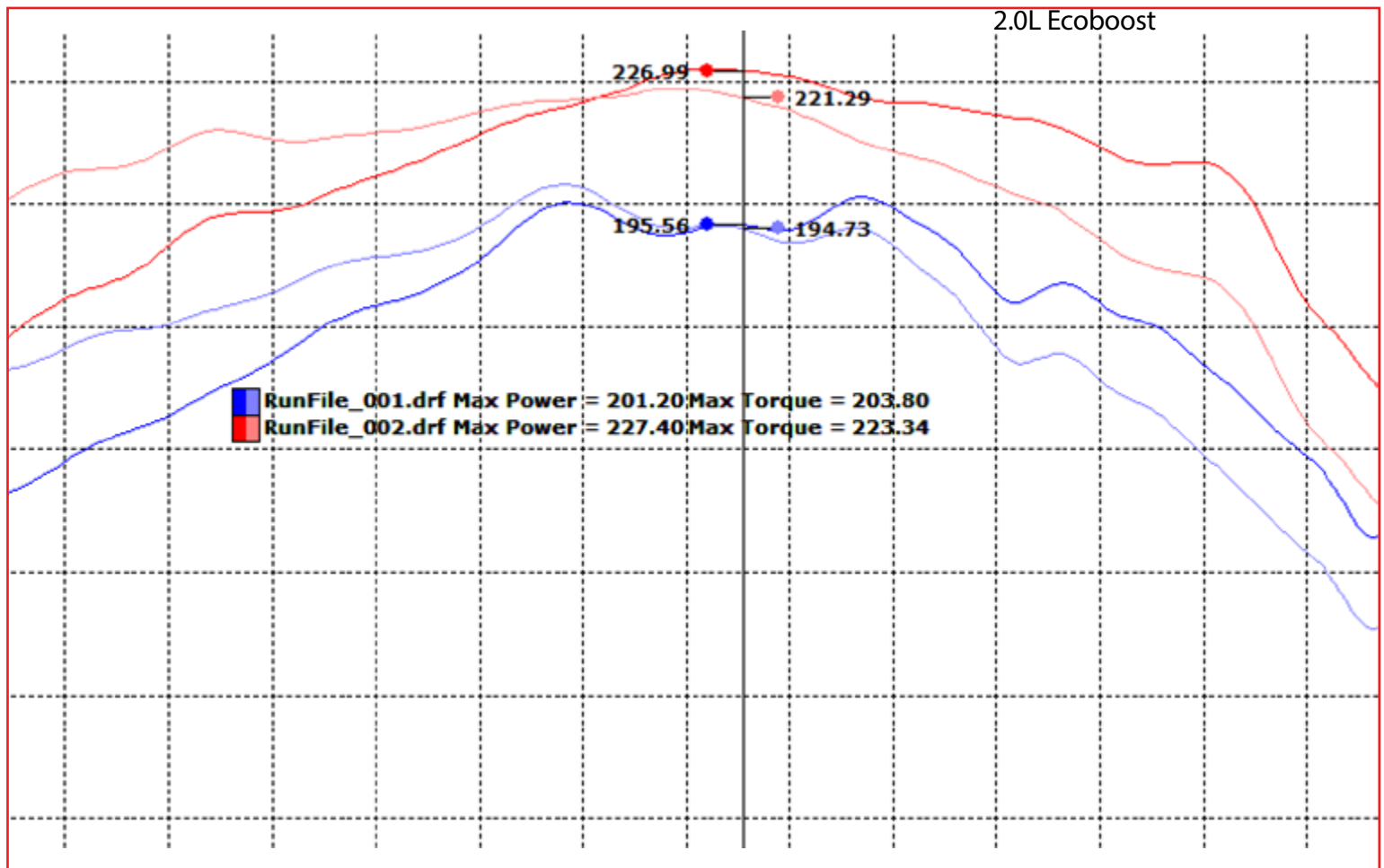
**BoostMAX
2.0L**

Quick HP • 30rwhp gain on 2.0L engine	X
Simple to Install • Plug & Play	X
Adjust Boost Increase "on-the-fly" via Remote Adjustment Knob	X
User Adjustable Boost Increase (0-5psi)	X
87 Octane Plug-In Module	X
Works with 87, 89, 91 & 93 Octane	X
JMS Exclusive • Digital Technology	X
Heavy-Duty Sealed Unit	X
Stack with PedalMAX for more power!	
Combine BoostMAX with JMS PedalMAX for additional low-end and part throttle performance.	X
On the Fly Adjustment - Adjust your Power "On the Fly"	X
Specifically designed to work with Range Rover and Jaguar 2.0L EcoBoost Engines.	X



The concept behind BoostMAX:

- Add additional horsepower without reprogramming the ECU.
 - BoostMAX connects to the MAP, TIP and Pedal Position sensors via a plug & play harness.
 - Remote boost knob allows the user to add up to 5psi of additional boost (on the fly).
 - 2.0L Ecoboost customers have reported gaining +26fwhp with the stock vehicle and BoostMAX (87 Octane).
- Add additional power, response and boost “on the fly” - when you want it.
 - Use the remote boost knob to “dial-in” additional boost on the fly.
 - Replace the remote boost knob with the Red Chip: 87 octane boost curve.
 - Or remove the remote knob and red chip and enjoy the optimized 93 octane boost curve and more power!
- Simple to install, *Plug and Play* design that installs in just minutes.



2014 Edge 2.0L Ecoboost - DynoJet Test on 87 Octane

Stock = Blue Line -> 201fwhp/203 ft-lbs

BoostMAX = Red Line -> 227fwhp/223 ft-lbs

Peak gains of: +26fwhp and +20 ft-lbs

Note: Red Chip (87 Octane Plug installed)

STEP 1

- Ignition key off, remove key from ignition.
- Open the vehicle's hood.
- Remove the plastic engine cover and set aside
- Notes:
 - 1) Some models do not have an engine cover.
 - 2) It may be necessary to remove the engine oil fill cap before you can remove the plastic engine cover.
- Replace the engine oil fill cap

**STEP 2**

- Locate the battery (it might be in a compartment).
- Disconnect the negative battery terminal
- The terminal bolt size is 10mm

**STEP 3**

- Locate the MAP Sensor (Located on the front - left hand side of the black plastic intake manifold)
- Disconnect the OE MAP Sensor connector from the MAP sensor.
- Connect the BoostMAX Wire Harness Labeled "MAP Sensor" in-between the MAP Sensor and the OE Connector.
- Use zip-ties to secure the MAP sensor wiring.



**MAP Location
2.0L Range Rover**

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STEP 4

- Locate the TIP Sensor on your vehicle.

On the Range Rover the TIP Sensor is located directly under the air-box assembly on the turbo pressure side pipe.

Remove the air-box assembly to access the TIP. (See instructions and pictures below)

- Connect the BoostMAX Wire Harness Labeled "TIP Sensor" in-between the TIP Sensor and the OE Connector.

- Use zip-ties to secure the TIP sensor wiring.

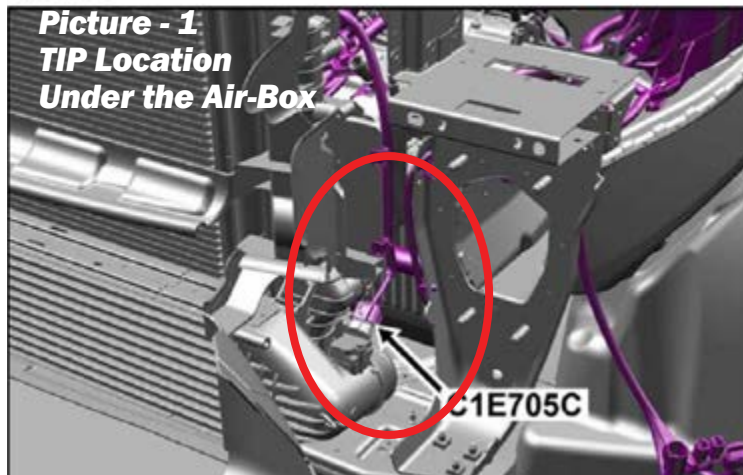
- Picture 1 - diagram of the TIP location under the air-cleaner assembly.

- Picture 2 - location of the TIP under the air-cleaner assembly.

Location: Lower LH front of engine compartment

Qualifier:

Picture - 1
TIP Location
Under the Air-Box



Picture - 2 • Tip Location
Under the Air-Box



STEP 5 REMOVE THE AIR-BOX TO ACCESS THE TIP SENSOR

A) Disconnect the MAP Sensor Connector

B) Remove the two plastic screws that hold the air inlet in place.

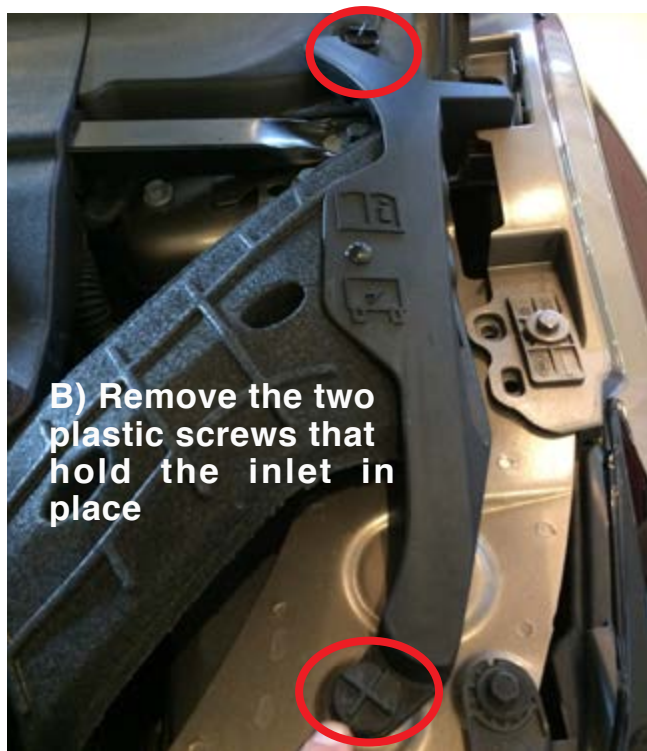
C) Remove the two 10mm bolts that hold the airbox and airbox hose

D) Loosen two 8mm air hose clamps

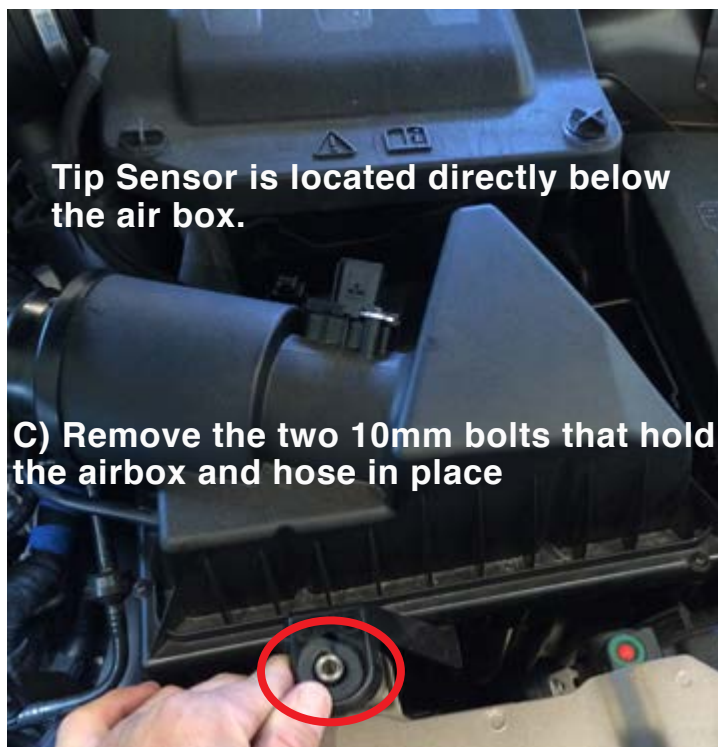
E) Remove the entire assembly



A) Disconnect the MAP Sensor Connector



B) Remove the two plastic screws that hold the inlet in place



Tip Sensor is located directly below the air box.

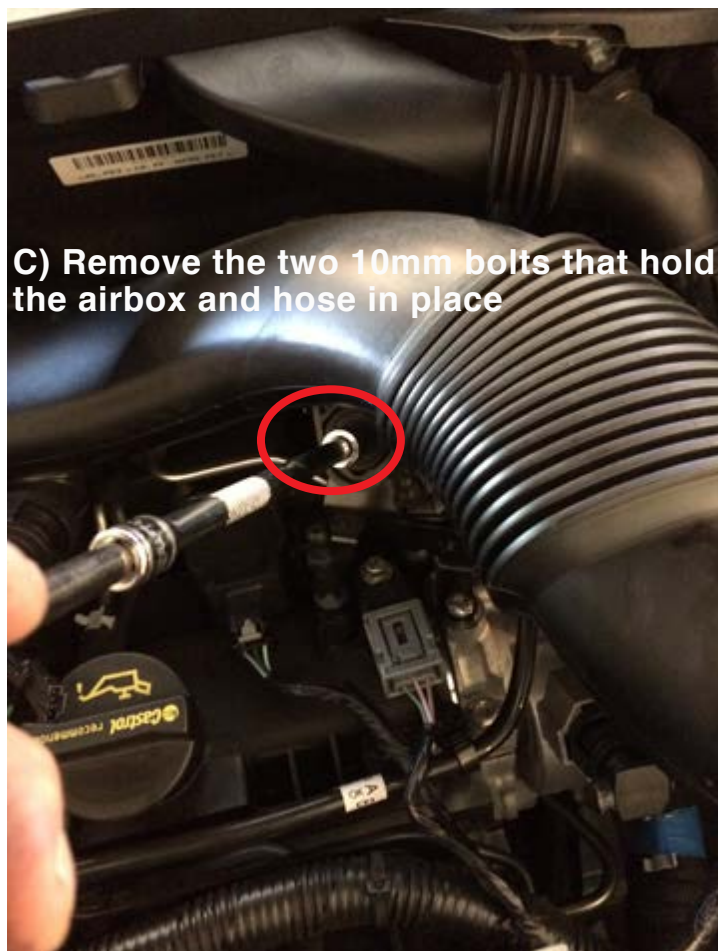
C) Remove the two 10mm bolts that hold the airbox and hose in place



D) Loosen the two 8mm hose clamps



D) Loosen the two 8mm hose clamps



C) Remove the two 10mm bolts that hold the airbox and hose in place

STEP 6

- Apply the included dielectric grease to the 25 pin connector. Liberal application of grease is fine.
- Connect the BoostMAX Module to the 25 pin connector. Secure the screws with the screwdriver.
- Route the BoostMAX wiring harness to the MAP/ TIP sensors under the engine cover (keep the wiring away from the ignition coils).
- Secure the BoostMAX Module as shown above the air inlet tube, above the engine and away from water. Use zip ties to secure the unit.
- When routing the wiring, be sure to stay away from high heat sources (exhaust or air conditioning).
- Install away from sources of water.

Mount the BoostMAX module



STEP 7 - ROUTE HARNESS THROUGH FIREWALL

- This step requires using two people and a stiff wire or coat hanger to fish the harness through the firewall. Accessed via a access hole.
- Take your time and work the stiff wire through the firewall hole. The wire stiff wire will need to pass in and down around an object that is right behind the firewall hole. You will also have to push the wire though some thick sound insulation.
- After the stiff wire has entered into the cabin attach the BoostMAX four pin pedal harness wire to the stiff wire and pull the wiring through the firewall.
- To protect the four pin connector, we cut the four wires 10 inches from the end of the four pin connector and then reconnected it once the wires were pulled through the firewall (It is a very tight fit to pass the wires through).

The Range Rover is designed to go through deep water so the firewall is sealed. This step is not the easiest to perform on the Rover. Take your time and don't get frustated :).

Firewall Hole - Passenger Side Located behind access panel



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STEP 7 - CONTINUED

- Panels are used under the dash in the passenger compartment.
- Remove the clips using a flat head screwdriver and the panels will pop out.
- After the four wire pedal wiring has been passed through the firewall and it is in the drivers compartment, it must then be passed from the passenger side to the drivers side of the vehicle.

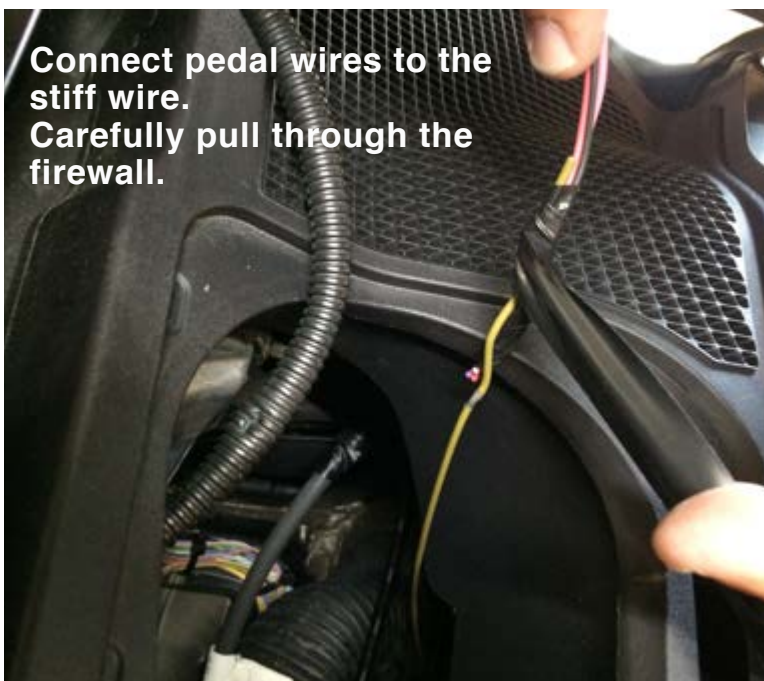
Clips hold the under dash panels in place
Press one side in with a flat screwdriver



Stiff wire from the firewall
into the passenger area



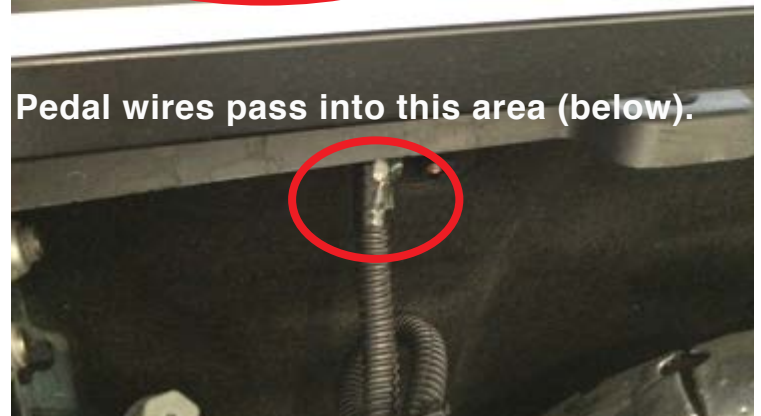
Under dash
panel



Connect pedal wires to the
stiff wire.
Carefully pull through the
firewall.



Firewall
access
behind
this
panel



Pedal wires pass into this area (below).

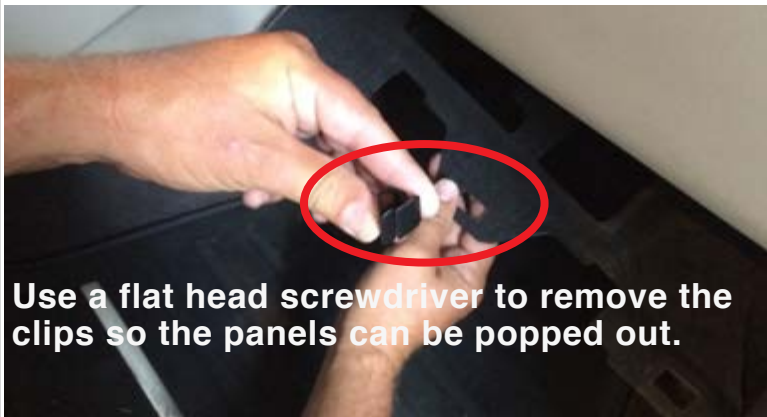
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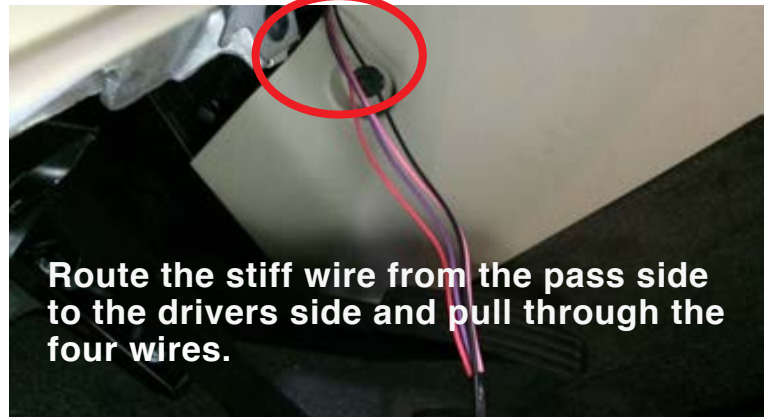
We cut the connector off so it would not get damaged when passing through the firewall. We also removed the conduit.



Route the stiff wire from the pass side to the drivers side and pull through the four wires.



Use a flat head screwdriver to remove the clips so the panels can be popped out.



Route the stiff wire from the pass side to the drivers side and pull through the four wires.



Use a flat head screwdriver to remove the clips so the panels can be popped out.



Remove the drivers side access panel. Disconnect the Pedal Connector Connect the BoostMAX Pedal Jumper between the Pedal and the factory harness.

STEP 8

- Locate the Accelerator Pedal Position Sensor (Located on top of the Accelerator Pedal bracket)
- Disconnect the OE Pedal Position Sensor connector from the Pedal Position sensor (pull the red tab out).
- Connect the BoostMAX Wire Harness Labeled “Pedal Sensor” in-between the Pedal Position Sensor and the OE Connector.
- Use zip-ties to secure the Pedal Position Sensor wiring.



STEP 9

- Connect the Pedal Position Harness to the main BoostMAX Harness (via flat four pin connector, left side connector in the picture)
- Choose between connecting the Pedal Position Harness to the Remote Boost Knob OR to the “87 Octane Red Chip”. (Right side connector in picture)

Note: In the picture the Pedal Position harness is in the center, the main harness plugs into the Pedal Harness and then the Remote Knob Plugs into the Pedal harness.

- If you cut the four Pedal Position Sensor wires in step 7 (so it would be easier to route the wiring without destroying the connector) be sure to match up the colors and reconnect the wires. We recommend soldering the wires together and then covering the connections with black tape to prevent shorts.



STEP 10

- Route the Remote Boost Knob up and near the center console. We recommend routing the cable along side the center console (push the cable up behind it) so you can adjust the knob “on the fly”.
- Use zip-ties to secure the Remote Boost Knob wiring.
- Adjust the Boost Knob to the desired performance level.
- Recommended knob settings: 87 octane = 50%, 91 octane = 65%, 93 octane = 75%, 93 octane + Boostane octane booster = 100%.

**STEP 11**

- Replace any panels that were removed.
- Tie Strap all wiring away from heat and moving parts.
- Reconnect the Battery.
- Start and test the vehicle, it should function like normal with additional WOT power. If the Ignition Key is “ON” the Green LED on the BoostMAX will illuminate ON.
- If the vehicle has a wrench light and no throttle: it is due to disconnecting the Pedal Position Sensor.
- Turn the vehicle off, remove the key, wait 30 seconds and restart the vehicle (the wrench light will automatically clear itself on restart).

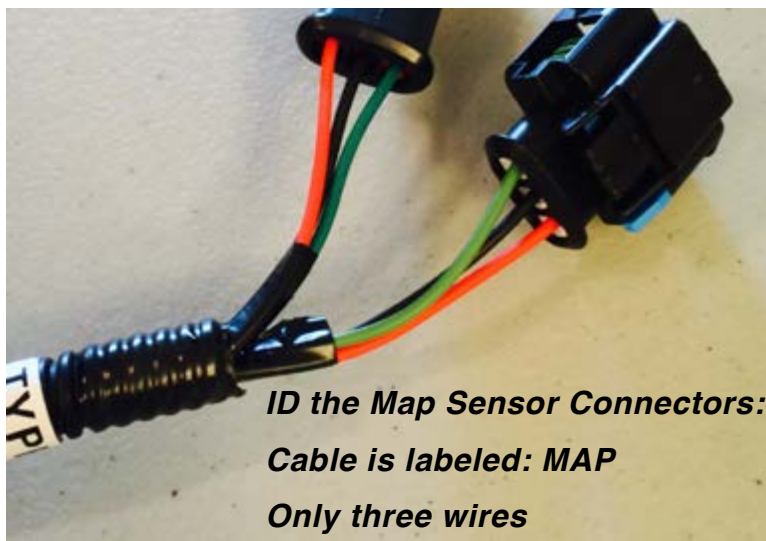


Enjoy the extra plug & play BoostMAX power.

BoostMAX plugs into the Grey 25 pin connector



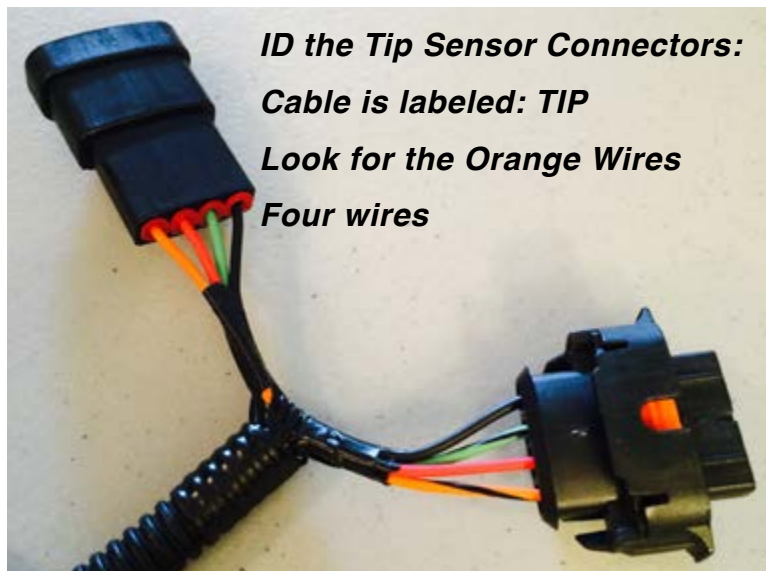
BoostMAX main wire harness



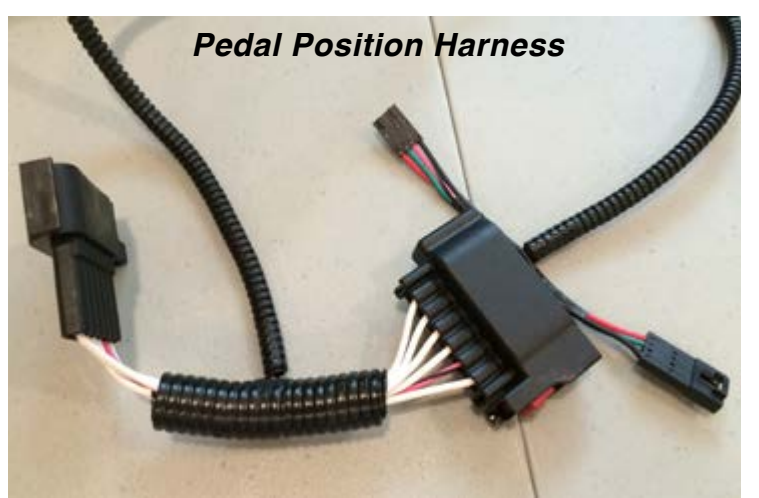
ID the Map Sensor Connectors:
Cable is labeled: MAP
Only three wires



Remote Boost Adjustment Knob



ID the Tip Sensor Connectors:
Cable is labeled: TIP
Look for the Orange Wires
Four wires



Pedal Position Harness



RECOMMENDED SPARK PLUG AND SPARK PLUG GAP FOR BOOSTMAX

ECOBOOST 2.0L

This information applies to all 2013-2014+ Jaguar, Range Rover, Ford Focus, Fusion, Taurus, Edge, Escape 2.0L EcoBoost equipped vehicles. To eliminate the potential for ignition misfires commonly known as “spark blowout” at high RPM levels when running a JMS BoostMAX we recommend replacing the spark-plugs and setting the plug gaps as listed below in the chart.

Year	Model	Plug OEM Part Number	Recommend GAP
2013-2015	ALL - EcoBoost 2.0L	M-12405-20T (Ford Racing)	0.028 in
2013-2015	ALL - EcoBoost 2.0L	ITV22 (Denso 5340) (Denso Iridium)	0.028 in

Please call us at 601-766-9424 for more information.

Different BoostMAX versions are available. Each are specific to the engine family. The product guide below details the different versions and applications.

Product Guide • BoostMAX • Plug & Play

	ECOBOOST 1.5L	ECOBOOST 1.6L	ECOBOOST 2.0L	ECOBOOST FIESTA ST	ECOBOOST 2.3L	ECOBOOST 2.7L	EcoBoost 3.5L
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BX-6000-15	X						
BX-6000-16-FS		X		X			
BX-6000-20-16		X	X				
BX-6000-23					X		
BX-6000-27						X	
BX-6000-35							X

What is PedalMAX?

- Increases “off idle” throttle response
- Improve vehicle acceleration & torque
- Designed to be stacked with BoostMAX and a JMS Custom Tune File
- Simple to Install product that supports all Ford Gas & Diesel vehicles
- Does not void vehicle warranty
- Optional Single or Dual Remote Pedal Knob
- Sealed Enclosure
- Compact, Rugged design
- Plug & Play design



Quick Reference Guide • PedalMAX • Plug & Play

	2005-10 FORD	2011 - 15 FORD	2015 FORD	2008 - 15 MOST GM	2014 - 15 GM LSA	2011 - 14 CHRYSLER	REMOTE KNOB OPTION
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PX-5000-1114F		X	X		X		X
PX-5000-0510F	X						X
PX-5000-1415GM					X		X
PX-5000-1015GM				X			X
PX-5000-1114DCX						X	

ABOUT JMS CHIP & PERFORMANCE

For more than 20 years, JMS Chip & Performance has been an industry leader in late model domestic and import vehicle tuning. JMS brand electronics components are some of the most technologically advanced in the automotive industry and feature

innovative high quality engineering, materials and workmanship. The JMS technical center in Lucedale, MS is one of North America's premier automotive and motorcycle tuning, manufacturing, and turn key automobile development facilities, producing numerous custom high performance vehicles each year. JMS is also a pioneer in domestic vehicle calibrations and highly regarded as a foremost expert in Ford, GM and Chrysler powertrain and drivetrain systems.



LIGHT VEHICLE ASSEMBLY

JMS produces countless custom or specialty vehicles ranging from contemporary late model domestic performance cars to full blown turn key race cars, each year. Our teams of professionals are experts in supercharging, turbocharging, engine assembly, chassis production, suspension upgrades, and specialty equipment integration.



JMS TECHNICAL CENTER • LUCEDALE, MS

A state of the art facility that integrates custom and specialty vehicle manufacturing, race car production, electronics development and manufacturing, custom tuning and vehicle calibrations engineering, prototype development, and after-market component sales and distribution.



CUSTOM ECU CALIBRATION ENGINEERING

Since 1993, JMS has been a pioneer and industry-leader in Ford vehicle calibrations and instrumental in helping to develop the modern custom tuning aftermarket. Our tech center's tuning facility features two chassis dynamometers specifically for car and truck calibrations and engineering, and one motorcycle dyno to service the growing powersports market.

JMS POLICIES

HOW TO ORDER

Retail orders for JMS products can be placed through our website at: www.jmschip.com or by calling us factory direct at (601) 766-9424. JMS products can also be purchased through our network of warehouse distributors, dealers, jobbers, and installers. To locate a wholesaler or installer in your area, please contact us or use the dealer locator on our website.

TERMS OF SALE

JMS product orders are subject to our wholesale trade terms and conditions, which are located in the applicable price guide.

SHIPPING AND HANDLING

JMS products are shipped F.O.B. Lucedale, MS via UPS or common freight carrier, and are subject to applicable shipping terms and charges. JMS does maintain a freight policy for warehouse distribution based on a minimum order qualification. Overseas order shipping via a common freight forwarding company or broker are the responsibility of the customer.

PRICING

JMS maintains a *minimum advertised pricing policy* to protect product value, and maintain consistent and fair distribution or retail pricing points. JMS places high value on its brand and product integrity.

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Aftermarket parts purchased from JMS are covered under the manufacturer's warranty, and are not covered under the JMS manufactured products warranty.

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SERVICE OR REPAIR:

Please contact JMS @ 601-766-9424 for a Return Authorization. All service returns should be sent freight pre-paid to: JMS SERVICE, 3247 HWY 63 S, Lucedale, MS 39452. The Return Authorization Number should be clearly written on the outside of the box, and in a letter that is included in the box. The letter should also list your contact phone number and a clear explanation of the exact problem.

JMS WARRANTY & CONTACT INFORMATION

JMS WARRANTS TO THE ORIGINAL PURCHASER THE FOLLOWING:

Your JMS Product will be free from defects in materials and workmanship for a period of twelve months from the original purchase date. The warranty only covers the product itself and not the cost of removal and re-installation of the product. JMS may extend the limited warranty on a case by case basis, based on the circumstances of the warranty claim. JMS products are designed exclusively for use in racing applications. JMS products that are not installed according to the supplied instructions, may not be covered by warranty.

SPECIFIC CONDITIONS THAT WILL VOID THE PRODUCT WARRANTY:

If the product case has been opened or the product has been modified or repaired.
If the product was not installed or used correctly.
If the product has been tampered with by: negligence, misuse or accident.
If the product is returned without explanation of the problem or Return Authorization.

CONTACT JMS @ 601-766-9424 FOR A RETURN AUTHORIZATION NUMBER:

All warranty returns should be returned freight pre-paid and should include inside of the box: Proof of Purchase and a Letter that contains both the Return Authorization Number and a Clear Explanation of the EXACT problem. The Return Authorization Number should also be clearly written on the outside of the box.

SEND ALL RETURNS TO:

JMS Returns, 3247 HWY 63 S, Lucedale, MS 39452

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TECHNICAL SUPPORT & CONTACT INFORMATION:

JMS 3247 Hwy 63 S, Lucedale, MS 39452

601-766-9424

Technical Support Hours: Monday - Friday 9:00am - 5:00pm (Central Standard Time)

CONFIGURATION AND INSTALLATION VIDEOS ARE AVAILABLE ONLINE: WWW.YOUTUBE.COM/JMSCHIP

If you have any questions, please contact JMS technical support via email: jms@jmschip.com

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