

Ford Ranger 2.0L Bi-Turbo EcoBlue

Unichip Europe Plug & Play Tuning Kit Installation Guide


Equipment / Tools Required:

10MM Socket | Small Flat Head Screwdriver | 6MM Alan Key | 13mm
Spanner | Stanley Blade

Installation ETA:

30 - 45 Minutes:



Scan me to watch the installation video. 

Disclaimer:

Please familiarise yourself with these instructions before you commence with the installation. IF you do not have the necessary equipment that we've recommended, please do not attempt to install until you've acquired them. Failure to do so may result in damaging your vehicle or the Unichip Tuning product itself.

Failure to follow these instructions chronologically / exactly as written may result in serious injury.

1.1 | Preparing to Install.

Gather the necessary equipment / tools recommended by Unichip Europe: (See top of page).

2.1 | Disconnecting your battery.

Using the **10mm socket**, disconnect the negative terminals of your Ranger's battery - located on the right hand side. (Figure A)

3.1 | Removing your Trim Fasteners.

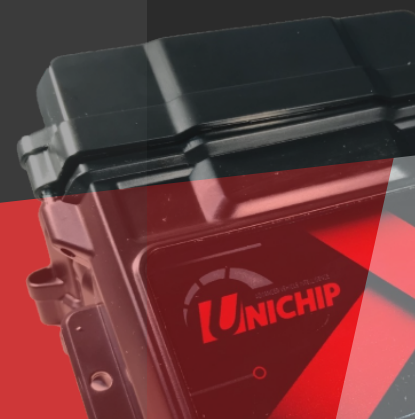
Using your **flat head screwdriver**, remove the trim fasteners, located in the top right corner of your engine bay. This is where your mounting bracket & Unichip Module will be fastened onto.



Figure A - Negative Battery Terminals



Figure B - Trim Fastener Removal



4.1 | Attaching the Unichip to the mounting bracket.

Using the **M4 Bolts and nuts** provided, fasten the Unichip Module onto the mounting bracket.

4.2 | Attaching the mounting bracket onto the engine bay.

Once the Unichip is fastened, you should then use the **M8 Bolts and the remaining nuts** to securely fasten the bracketed module onto the engine bay (**Figure C**).



Figure C - Mounting the 'Unichipped' Bracket.



Figure D - Engine Cover Removal.

5.1 | Removing your engine cover.

Your engine cover (**Figure D**) is easily removable - simply clip it off to access your engine. This step enables access to 3 engine sensors to unplug for the Wiring Harness to plug into.

6.1 | Connecting your Wiring Harness to the engine sensors.

Refer to the video / diagrams below. You'll need to disconnect the existing **fuel rail pressure sensor, cam shaft sensor (Figure E) & the map sensor (Figure F)**.

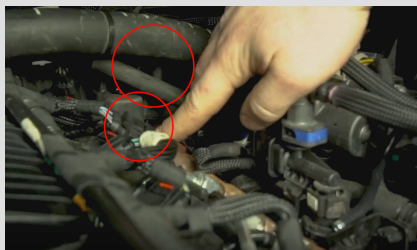


Figure E - Fuel Rail Pressure Sensor + Cam Shaft Sensor Location.



Figure F - Map Sensor Location (Right of engine block)



6.2 | Plugging in the cam shaft sensor.

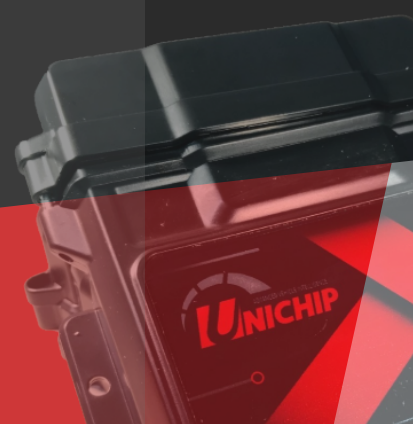
Unclip the white tab on the cam shaft sensor (**Figure G**). The Unichip Harness (**Figure H**) plugs into this sensor, with the remaining connector plugged into the original connector on the engine wiring harness.



Figure G - Unclipping the Cam Shaft Sensor.



Figure H - Unichip Connections / Wiring Harness.



6.3 | Connecting the Unichip's Fuel Rail Pressure Sensor.

Refer to **Figure E**. The Unichip's Fuel Rail Pressure Sensor port connects directly into the Fuel Rail Pressure Sensor plug. Once the Unichip's wiring is connected, you'll need to plug in your vehicle's existing sensor plug into the remaining wiring connector to complete the circuit.

6.4 | Connecting the Unichip into the Map Sensor port.

Refer to **Figure F** for the Map Sensor location. Once unplugged, plug in the Unichip Wiring Harness' Map Sensor plug (**Figure I**). Like the Fuel Rail Pressure Sensor, you'll need to plug in the original plug into the wiring connector to complete the circuit.



Figure I - Complete the connection with your existing sensor plug.



Figure J - locate and remove this Grommet.

7.1 | Interior wiring.

Once you've completed the above steps, you'll need to move down to the driver's footwell. Locate the Grommet; pull / remove it. From here, you'll need to use a **blade** to firmly cut an incision for wires to run through to your engine bay.

Push the white connector through the incision, so that the connector head is on the engine bay side of the Grommet (**Figure K**).

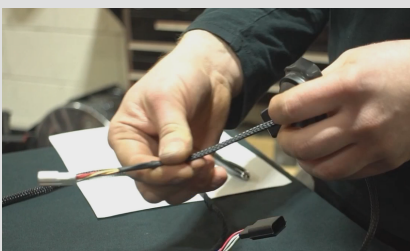


Figure K - Feed the wire(s) through the Grommet.

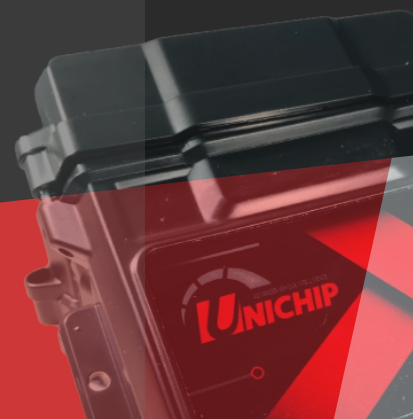


Figure L - Shown: Throttle & Map Switch wires.

7.2 | Interior wiring - Map Switch.

If you've purchased an interior mounted switch (Membrane & Rotary Editions), then you'll also need to pull through the connecting wire before the Grommet is placed back into its original setting. The large 3 Pin Plug needs to be facing the engine bay - this will connect into the Unichip harness (**Figure L**). Feed these wires into your engine bay, to reach your Unichip Harness.

Attach the Unichip Map Switch to the opposite connector.



8.1 | Connecting the Throttle Pedal.

Still remaining in the driver's footwell, locate the existing throttle pedal connector. Unplug it, and fasten the Unichip plug into the existing port. Connect your Ranger's throttle pedal connection back into the harness to complete the circuit (**Figure M**). Push wires out of the way, to the right.

⚠ Ensure all wiring is well away from your steering column and brake pedals.



Figure M - Throttle Plug Position.



Figure N - Connecting Interior Wires to the Wiring Harness.

8.2 | Connecting the Throttle Wire + Map Switch to the Harness.

Using the wires you fed through the Grommet (7.1), connect the white connection to the Wiring Harness' white port. Connect the 3 Pin Plug to it's port, too (**Figure N**).

8.3 | Exposed Harness Wires & heat sources.

The Unichip Harness is robust, but don't take any unnecessary risks. Tuck any exposed wiring in the engine bay just underneath your windscreen, ensuring all wires are away from engine heat sources.

9.1 | Connecting the positive Unichip Terminal to Battery.

Uncover your battery's positive terminals. Using your **10mm socket**, remove the nut, loop over the ringed connection and place the nut over bolt / connection (**Figure O**). Then, reconnect the negative (**Figure P**).



Figure O - Positive Unichip Terminal goes here (lower bolt).

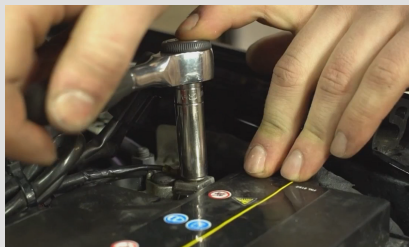
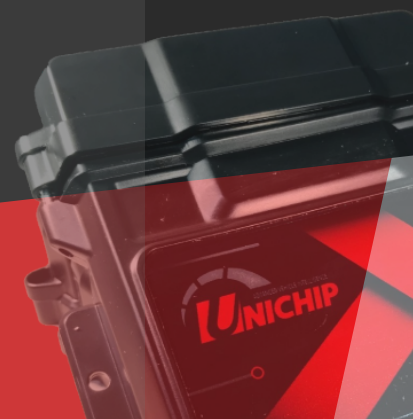


Figure P - Reconnect your negative terminal.

10.1 | Cable Tie Unichip wires below windscreen.

Using a cable tie, secure all exposed Unichip Wires in your engine bay together, where applicable. Job done!



Congratulations - You've successfully installed your Ranger's Unichip Plug and Play ECU Tuning Kit!

Remember:

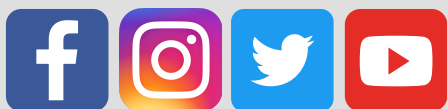
- For a more in depth installation guide, watch our installation video. This is accessible by scanning the QR code we've provided, or by searching "**Unichip Ranger Installation Guide**" via YouTube.
- If you're unsure about **any** aspect of the installation process, get in touch with Unichip Europe by contacting us on Facebook, calling us on **01268 530 322**, or by sending an email to info@unichipeurope.com.
- Take your Ranger out for it's maiden voyage. If you've fallen in love, **consider leaving us a review**, so the rest of the Ranger Community can fall in love, too. (Google > Unichip Europe > Write A Review)



Contact Us Directly.



Share Your Experience!



www.unichipeurope.com

