

## **KPM Fuel Systems Jeep Trackhawk 2018-2022 1500HP Fuel Module**





## Important! Must Read First

Congratulations on the purchase of a KPM Fuel System for your [2018-2022 Jeep Trackhawk](#)

To ensure your fuel system is fitted correctly and operates perfectly and reliably we advise that this kit is to be fitted by a KPM Fuel Systems Dealer workshop.

If you are unable to access a KPM Fuel Systems dealer, we strongly recommend a professional and experienced fully qualified technician to install your new fuel system.

Ask your qualified installer to contact KPM Fuel Systems on any aspect not clear in the instructions provided.

Email: [support@kpmfuelsystems.com](mailto:support@kpmfuelsystems.com)

As a wide variety of skills, procedures, special tools, and workshop equipment is needed to install this kit:

- KPM will take NO responsibility or give NO guarantees on the operation of this product for fitment not carried out by a KPM Fuel Systems dealer or experienced qualified technician.
- KPM will take NO responsibility or give NO guarantees on the operation of this product due to not fitting this kit exactly as per the instructions provided.
- Ensure correct workshop safety procedures are carried out in fitment of this kit.
- Please read ALL instructions before commencing fitment

## Guarantee

On satisfaction that **ALL** instructions have been followed as per this document KPM will warrant this KPM Fuel System against any defects or faults for 12 months from the date of purchase.



## Important

This fuel system is engineered to operate perfectly as a complete system, when used with all components only as supplied by KPM Fuel Systems.

Depending on the level of KPM Fuel System you have purchased, included in the kit will be the following;

- 1) KPM Fuel Module x1 – Primary (for increased flow and capacity)
- 2) KPM Plug and Play Wiring kit (for correct and reliable current supply)
  - KPM Fuel Systems will take NO responsibility for the operation of this fuel system if any of the components listed are not utilized with this package.
  - KPM Fuel Systems will take NO responsibility for the operation of this fuel system if any of the components listed are replaced with a non-KPM approved component.
  - KPM will take NO responsibility for the operation of this fuel system if run on ethanol on a vehicle NOT fully retrofitted for E85 Ethanol or flex fuel.

**Note: E85 Ethanol is highly corrosive on many components.**

Please be aware that if your car is NOT built for E85 Ethanol from manufacturer, it may be possible that components **NOT** supplied by KPM Fuel Systems will also need to be replaced or suited for E85 Ethanol. Examples of some possible non-compatible components - are fuel injectors, fuel filters, fuel lines, rubber hoses, fittings etc.

**All KPM Fuel System components are 100% Ethanol and Gasoline compatible**

## **Before Dismantling**

- You will need to reduce residual fuel pressure in the fuel system to 0 kPa to enable disconnection of fuel lines.
- You can do this by removing the fuel pump fuse and running the engine until fuel pressure drops to 0 kPa.
- Disconnect the Battery.

## **Standard Fuel Module Removal**

- 1) Drain the fuel tank.
- 2) The vehicles fuel tank needs to be removed to access the in-tank fuel module. You will need to remove the fuel tank from your vehicle as per the manufacturer's instructions.
- 3) Remove the fuel lines from the fuel module (a quick disconnect tool is recommended for disconnecting fuel lines. You can discard the OE fuel line as it will be replaced by the new #KPMFHTH5. Remove the electrical connectors from the module.
- 4) Remove the retaining ring holding the fuel module to the tank with the correct tool.



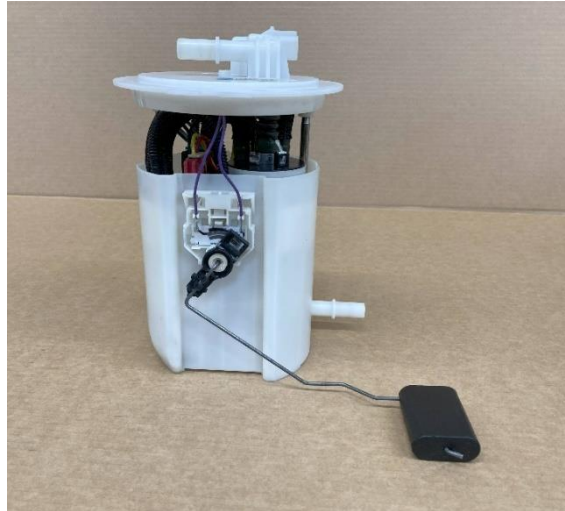
- 5) Lift the module out until you can access and remove the crossover pipe fitting from the connector on the canister.



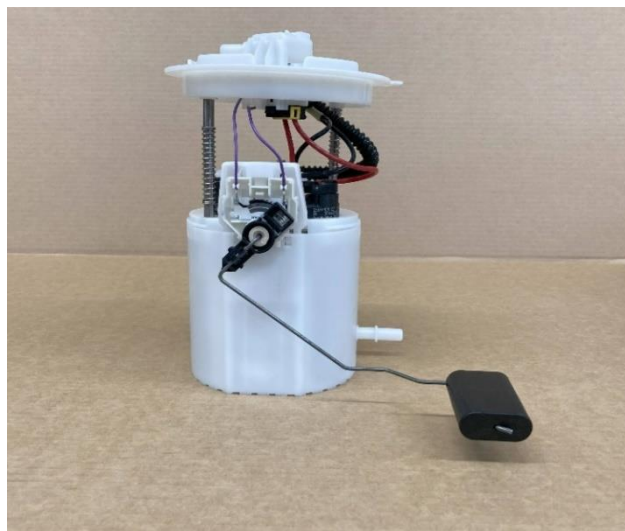
- 6) Carefully lift the module completely from the fuel tank.

## **Float and Fuel Sender Electrical Connector Adjustments.**

- 1) Place the OE factory fuel module on a bench allowing the float to swing freely. You will find the float travel should stop level with the bench.



- 2) Remove the fuel sender unit from the standard fuel module.
- 3) Fit the fuel sender and float assembly to the new KPM Fuel Module. Do not plug the fuel sender wire to the connector under the module lid as yet.
- 4) Make sure the KPM Fuel Module is on a flat bench allowing the float to swing freely to its lowest position of travel.



- 5) You will find that fitted to the KPM Fuel Module the float travel stops slightly high above the flat surface.
- 6 [KPM FUEL SYSTEMS JEEP TRACKHAWK 2018-2022 1500HP FUEL MODULE FITTING INSTRUCTIONS](#)



- 6) Carefully remove the float arm from the sender unit circuit board.

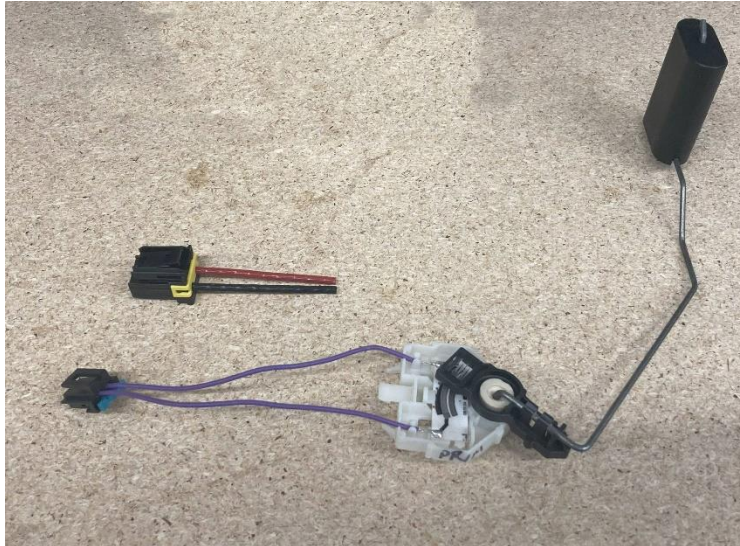


- 7) Bend the float arm in a vice by hand at the position shown.  
a. Continue to re-check on the KPM module until you set the float level with the bench as per the OE module.

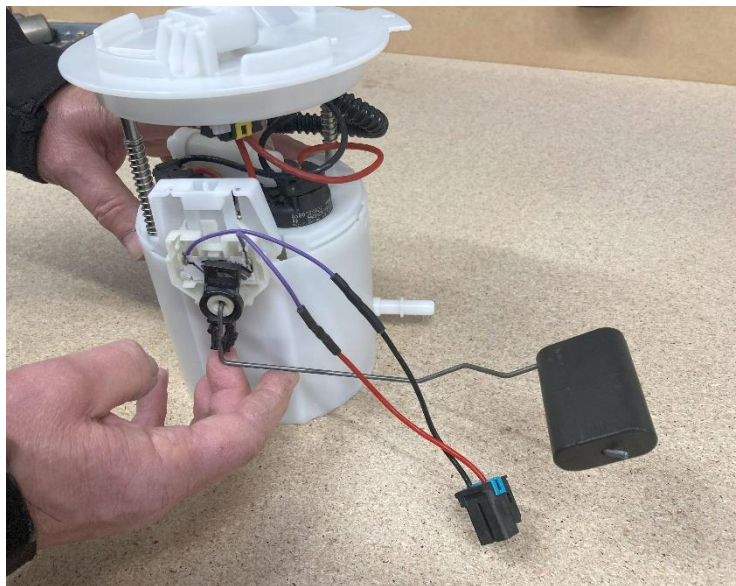


- 8) This position will allow your fuel sender to read from an empty tank and all the way up to a full tank perfectly when fitted with your KPM Fuel Module.
- 9) Remove the sender unit and float assembly from the KPM Fuel Module.
- 10) You will need to change the sender unit electrical connector to fit to the new KPM Fuel Module connection.

- 11) Using the new supplied connector and wire section as a template, cut the sender wire connector at the appropriate length.



- 12) Using the crimp connectors supplied, securely crimp the new wire section to the sender wires. It makes no difference on which purple OE sender wires you crimp the new section black or red wires to.



- 13) **Do not fit your sender unit to the KPM fuel module as yet.**



## **KPM Primary Fuel Module Fitment 1500HP**

- 1) Fit the supplied 3/8" to 1/2" adaptor to the crossover pipe outlet at the bottom of the new KPM Fuel Module canister



- 2) Ensure that you can access the crossover pipe connector in the fuel tank, with plenty of room to reconnect to the base of the canister.

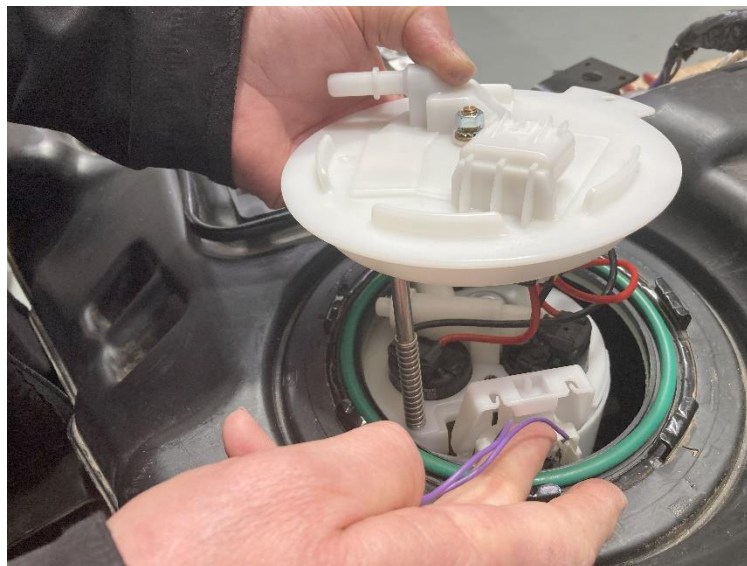


- 3) Ensure the crossover pipe and connector click fully onto the fuel pump module canister.

- 4) As you lower the KPM Fuel Module into the tank, also feed the fuel sender float assembly down into the tank as shown below.

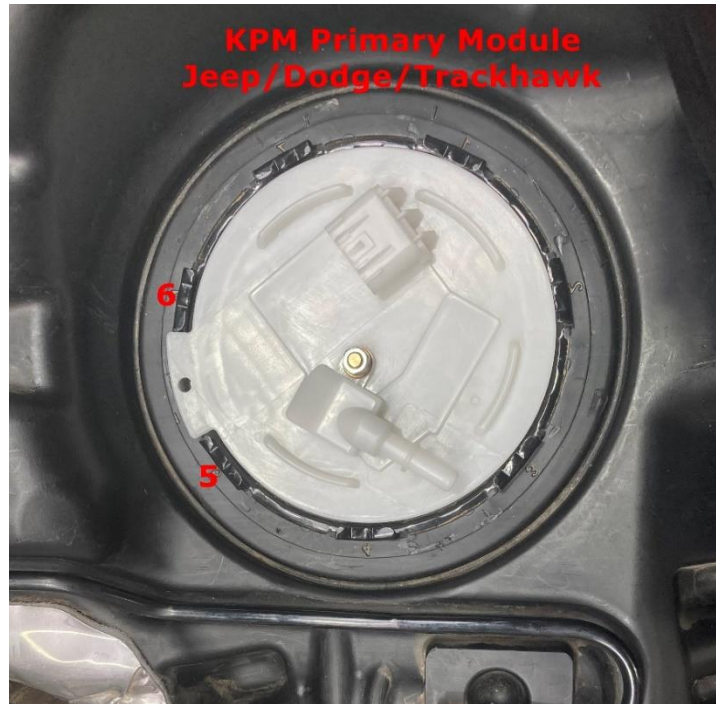


- 5) While holding the KPM Fuel Module lid out from the tank, continue to carefully feed the float into the tank while using the fuel sender wires to guide the fuel sender into its position.



- 6) When the fuel sender is in its position use your fingers to firmly pull up and click the sender securely onto the fuel module.
- 7) Sit the fuel module O-ring seal in position on the tank.

- 8) You will find the numbers 1 to 7 molded into the fuel tank next to the corresponding retaining ring tab.
- 9) Sit the fuel module locating tab fully into the tank between locating tabs 5 and 6 as pictured below.



- 10) Retention the retaining ring to secure the fuel module into the tank with the correct tool.
- 11) Ensure module is sitting square and flush on the seal prior to re-tensioning.



# **KPM** FUEL SYSTEMS

- 12) Replace the nylon supply fuel line to the new KPM Fuel module with the #KPMFHTH5 fuel line ensuring it has clicked onto the fuel module outlet properly.
- 13) Route the new #KPMFHTH5 fuel line as pictured and use the supplied tape to securely hold down unto the fuel tank.
- 14) Ensure you have properly cleaned the tank area with an alcohol or surface prep prior to attaching the tape supplied.
- 15) Take extra care in not crimping/damaging the fuel line on fitment.



- 16) Fit the new patch loom #Th8 female connector to the KPM 1500 module connector.



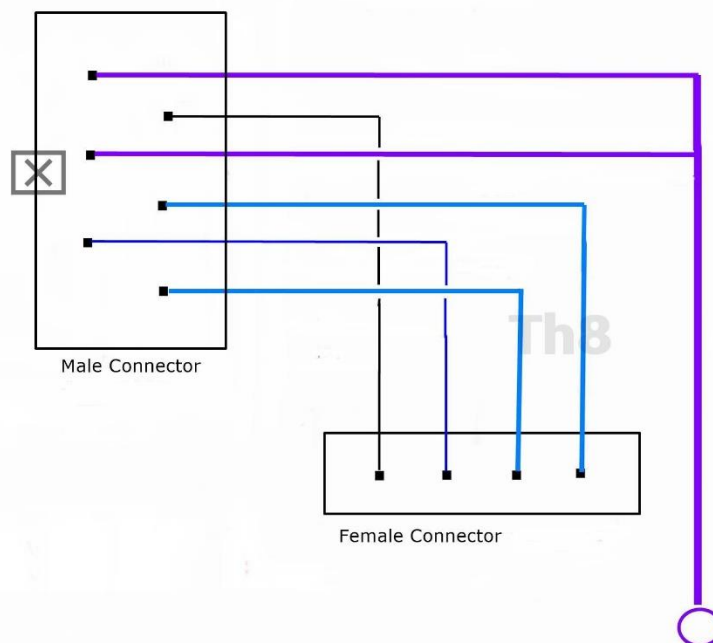
- 17) Be sure to connect the earth wire eyelet to the new fuel module earth stud by securing the supplied nut and washer.



- 18) Fit the electrical #Th8 patch loom male connector to the OE electrical connector.
- 19) Route the #TH8 patch loom out the way as neatly as possible to keep it from fouling on any components or vehicle chassis on refitment fuel tank.
- 20) Use the supplied adhesive tape if required.
- 21) Proceed to fit the remainder of your fuel tank as per manufacturer's instructions.

## #THAWKWIRE1500

Jeep Trackhawk 2018-2021  
Wiring Schematics



### Notes:

- Loom from KPMTHAWK1500 connector to OE connector

## ECU Re-Calibration

The standard OE fuel module settings require it to run and supply fuel at a maximum fuel pressure of 550 kPa.

The KPM1500 Fuel Module has been designed to supply up to 1500 FWHP of fuel at a pressure of 400 kPa. This needs to be simply reset in your vehicle fuel pump control calibration.

You will need to have a tuning professional re-calibrate your fuel pump control as per the settings below.

Using HP Tuners software or similar, find the settings in **Fuel Systems/ Fuel Pressure/Desired Fuel Pressure/WOT and Normal**

- 1) Change the “Desired Fuel Pressure / WOT” settings from the factory set 550kPa to 400kPa
- 2) Change the “Desired Fuel Pressure Normal” 2D table from the factory settings all to 400kPa.

The screenshot shows the HP Tuners Fuel System configuration interface. The 'Desired Fuel Pressure' section has 'WOT' set to 400 kPa and 'Normal' selected. The 'Pressure Limits' section has 'Minimum' set to Vapor Lock. A red circle highlights the 400 kPa value in the WOT field, and a red arrow points to it with the text 'CHANGE SETTINGS TO 400kPa'. Another red circle highlights the 400 kPa values in the 'Desired Fuel Pressure Normal' 2D table, with a red arrow pointing to it from the same text.

Fuel Flow Rate (g/s)	768	1,149	1,671	2,624	3,855	4,810	6,016
0.5	400	400	400	400	400	400	400
5.0	400	400	400	400	400	400	400
10.0	400	400	400	400	400	400	400
15.0	400	400	400	400	400	400	400
25.2	400	400	400	400	400	400	400
35.1	400	400	400	400	400	400	400
50.0	400	400	400	400	400	400	400

[ECM] 8190 - Desired Fuel Pressure Normal: The desired fuel pressure limits during normal conditions.



## Engine start up

- 1) Refit the fuel pump fuse.
- 2) Reconnect your battery.
- 3) Ensure you have at least ½ tank of correct clean/fresh fuel.
- 4) Connect a fuel pressure gauge to the supply line at the fuel rail or read your fuel pressure on you scan tool.
- 5) Prime the fuel system and start engine.
- 6) Check all fittings at the pump and fuel rail for NO leaks.
- 7) Check pressures are within specifications.

**If not within the specifications below, you will need to check for correct fitment and take the normal course of diagnosis to rectify before proceeding.**

- 8) Stop engine and relieve fuel pressure.
- 9) Remove fuel pressure gauge and refit fuel line.
- 10) Re-start engine and check for NO leaks.





## **IMPORTANT INFORMATION**

As we test every module before it is shipped, we have operating pressures recorded for each specific part number.

**KPM strongly recommends that you have your engine tune checked by a professional tuning workshop!**

**Depending on the previous fuel system your vehicle has been tuned to, your car may run differently with the new KPM Fuel System pressure and extra supply.**

**This can cause rich or lean fuel mixtures and possibly be detrimental to your engine!**

**It is your responsibility to have your vehicle checked and/or re-tuned by specialist methods to ensure correct fueling and engine safety and reliability.**

**It is your responsibility to have your vehicle checked and/or re-tuned by specialist methods to ensure any fault codes in the vehicles electronic management system/s are corrected.**