

Street Fighter

**StreetFighter MUSTANG
1500HP FUEL MODULE**



StreetFighter AUSTRALIA
www.streetfighter.net.au



StreetFighter COMMODORE 1500HP FUEL MODULE

Important! Must Read First

Congratulations on the purchase of the StreetFighter 1500hp In-Tank Fuel system for your 2016 onwards GT Mustang.

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

If you are unable to access a StreetFighter dealer, we strongly recommend a professional experienced fully qualified technician to install your new StreetFighter 1500 hp Fuel Module system.

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

Phone: 08 8299 9998

Email: support@kpmmotorsport.com.au

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 StreetFighter dealer or experienced qualified technician.
- KPM Motorsport 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 Motorsport will warrant the StreetFighter 1500 hp Fuel Module system against any defects or faults for 12 months from the date of purchase.

Important

This Fuel Module is engineered to operate perfectly as a complete system when used with all components and correct fuels as follows.

- 1) StreetFighter 1500 hp Fuel Module (for increased flow and capacity)
- 2) Plug and Play wiring/relay kit (for correct and reliable current supply)
 - KPM Motorsport will take NO responsibility for the operation of this fuel system if any of the components listed are not utilised with this package.
 - KPM Motorsport 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 using the StreetFighter 1500 hp fuel module on a vehicle NOT designed and/or 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, the remaining components in your fuel system 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.)

Street Fighter

Before Dismantling

- You will need to reduce residual fuel pressure in the fuel system to 0 kPa to enable disconnection of fuel lines and rail
- 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 Fuel tank
- 2) Mustang GT- the fuel module can be accessed by a cover under the LH rear seat. Carefully remove the fuel lines from the fuel module (a quick disconnect tool is recommended for disconnecting fuel lines, take extra care in not crimping/damaging the fuel line on removal)
- 3) Remove the electrical connector from the module
- 4) Unscrew the retaining ring holding the module to the tank with the correct tool
- 5) Lift the module from the tank until you can access and remove the cross over pipe connector at the base of the canister
- 6) Carefully lift the module completely from the fuel tank



StreetFighter Module Fitment

- 1) Carefully lower the new fuel module into the tank taking care not to damage the fuel sender and float mechanism while doing so
- 2) Ensure that you can access the cross over pipe connector in the fuel tank with plenty of room to reconnect to the base of the canister
- 3) Ensure the crossover pipe connector clicks fully onto the fuel pump module canister
- 4) Retention the retaining ring to secure the fuel module into the tank with the correct tool.
(Ensure module is sitting square and flush on the seal prior to retensioning)
- 5) Refit fuel lines ensuring they have clicked on properly
(Take extra care in not crimping/damaging the fuel line on removal or replacement)

Street Fighter

Wiring/Relay Fitment (Schematic Diagram Attached)

- 1) Remove LH door sill panel (FIGURE 2)
- 2) Remove bonnet release lever at LH footwell
- 3) Remove LH footwell kick panel (FIGURE 3)
- 4) Remove rear seat base section
- 5) Remove large rubber grommet on the LH floor under seat base. (This will expose the fuel module)
- 6) Remove plastic trim panel directly behind LH door sill panel (FIGURE 4)
- 7) This will now expose a channel that the new wiring loom can be routed.
- 8) Remove battery cover and battery
- 9) Remove black rubber grommet at battery cavity (FIGURE 5)
- 10) Using a steel tracer wire, feed the new wiring loom through the hole in the LH Footwell area and out the hole into the battery cavity area. (FIGURE 6)
- 11) Continue to route the loom from the footwell along the sill panel channel up to the fuel pump location, ensuring there is enough loom to wire in the electrical connectors at both ends.
- 12) Fit the supplied rubber grommets to the where the loom passes through the 2 holes in the kick panel and battery cavity areas.
- 13) Mount the relay supplied in the battery cavity area in an appropriate position the clear the battery.
- 14) Carry out connections for the relay and fuel pump module as per schematic diagram (Diag.1)
- 15) You will need to cut the fuel module connector loom and join (solder) to the supplied loom as per diagram (Diag.1)
- 16) NOTE: The white and brown wire at the loom remains cut and unconnected. As per diagram (Diag.1) It remains unused - Tape end.
- 17) Plug female end connector of the new modified wiring kit to the fuel module
- 18) Connect the eyelet of the supplied wiring kit to the fuel pump module earth terminal stud. Secure tightly.
- 19) Connect the relay end of the wiring kit to the battery as per (Diag. 1)



Start-Up Procedure

- 1) Refit the fuel pump fuse
- 2) Reconnect your battery
- 3) Ensure you have at least $\frac{1}{4}$ tank of correct clean/fresh fuel
- 4) Connect a fuel pressure gauge to the supply line at the fuel rail
- 5) Prime fuel system and start engine
- 6) Check all fittings at pump and fuel rail for NO leaks
- 7) Check pressures are within specifications below

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.

Fuel Pressure engine idling 575-600 kPa

- 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.

SFMUSFP1500

Idle Pressure (Max Pressure) 600 kpa

Full Load Pressure (Min Pressure) 350 kpa

Street Fighter

As these pressures are the base operating pressure in the testing station, they can be used directly into the vehicle's calibration.

However, as we have found minor variances from vehicle to vehicle it is recommended to manually check pressures on vehicle when able to do so preferably at the fuel rail and use observed pressure to populate tables in the calibration. Which should be the same or extremely close to testing pressure.

Please note: SFMUSFP1500. The Fuel Module listed has been manufactured and designed to run at the listed pressures at idle and light cruise. They have also been designed to **decrease** the fuel pressure while applying engine load for **increased** fuel demand.

This is how the system is designed to perform and is absolutely what you will expect to see while logging fuel pressures on road or dyno.

The modules are designed to perfectly supply fuel down to a minimum pressure of 350 kPa at full demand for its power rating.

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 StreetFighter 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 fuelling and engine safety and reliability.



Fuel System ECU DTCs

You will also require your tuning professional to access the Engine (ECU) calibration to DISABLE any relevant fault codes derived from running the StreetFighter 1500 Fuel System.

The codes will be mainly related to the PWM module being bypassed by the new heavy amperage wiring required to run the high flow pumps correctly.

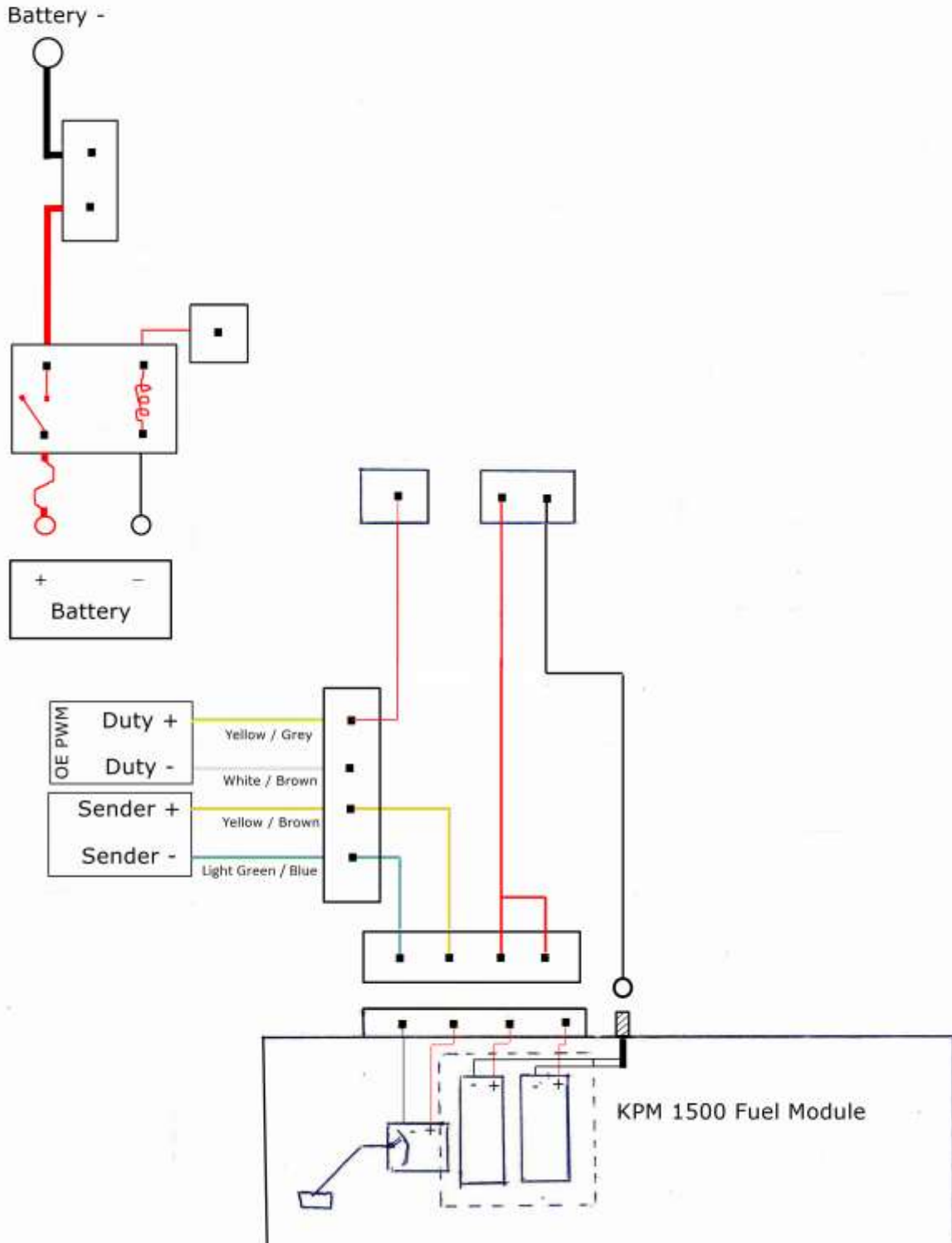
Street Fighter

DIAGRAM 1

Street Fighter

WIRING KIT #MUSWIRE1500

Mustang GT 2015 - 2022



Street Fighter

FIGURE 2



FIGURE 3



Street Fighter

FIGURE 4



FIGURE 5



Street Fighter

FIGURE 6

