

KARCEPTS

ENGINEERED SOLUTIONS



Installation Instructions for Part #: KFL01 & KFL02

Karcepts Clean & Simple K-Swap Fuel Line Kit for
K-Series powered 92-00 Civics & 94-01 Integras

This kit provides the SOLUTION to properly fuel a K-Series engine when installed into an EG, EK, or DC2 chassis while:

- Eliminating the need to drill holes in the chassis for FPR mounting
- Properly regulating fuel pressure across the injectors
- Offering a clean and simple two line fuel setup
- Maintaining the factory OEM fuel filter
- Supporting up to 1000hp applications

Note: This kit requires usage of a Karcepts Fuel Rail, AEM 25-302 Fuel Pressure Regulator, and a Karcepts Throttle Cable Bracket or Cruise Control Delete Kit for proper fuel line clearances and fitment.

Karcepts, Inc.
www.karcepts.com
sales@karcepts.com

Parts Included With K-Swap Fuel Line Kit

DESCRIPTION	QTY
-6AN BANJO FITTING WITH CRUSH WASHERS	1
HIGH PRESSURE FEED LINE	1
-8AN TO -6AN SWIVEL ADAPTER & O-RINGS	1
-6AN PLUG & O-RING	1
-6AN UNION & O-RING	1
LOW PRESSURE RETURN LINE	1
INTAKE AIR BYPASS CONTROL THERMAL VALVE PLUG	1
RUBBER CAP	1
HOSE CLAMPS	2

Additional Parts Needed

Karcepts Fuel Rail (P/N: KFR01, KFR02, or KFR03)

AEM 25-302 Fuel Pressure Regulator

Karcepts Throttle Cable Bracket or Cruise Control Delete Kit

Teflon Tape

Additional Parts Recommend

Fuel Pressure Gauge; 0-100 PSI; 1/8" NPT Center Back Connection

Walbro 255LPH HP Fuel Pump + Install Kit

Note: Read all instructions before attempting installation. If you do not believe you are qualified in performing the necessary installation, please find an experienced professional who can. Karcepts, Inc. will not be held responsible for improper installation.

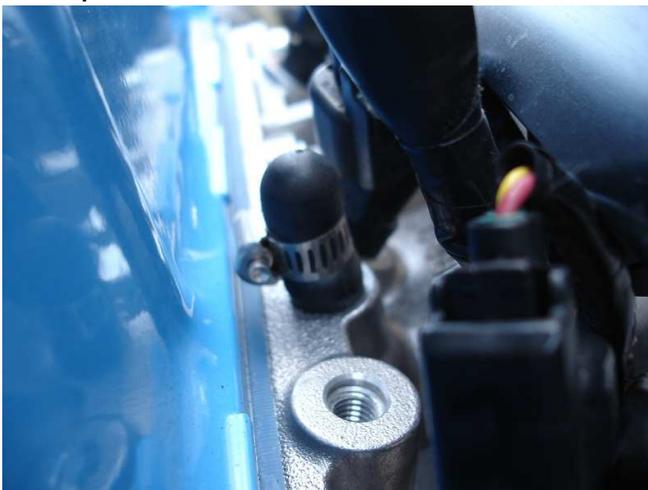
1. IABCTV Delete

The Intake Air Bypass Control Thermal Valve may interfere with the fuel pressure regulator on our fuel line setup; so we need to delete it properly. The only intention of the IABCTV is to promote quicker engine warm-up. We aren't certain of the need for Honda to implement the IABCTV as the K engine warms up just like any normal engine; but whatever the case may be, once your K-Series coolant reaches 160 degrees, this valve is no longer performing any operation and is just getting in the way.

1. Remove the factory IABCTV and hoses.
2. Use Teflon tape or thread sealant (Permatex 56521 recommended) on the threads of the provided Intake Air Bypass Control Thermal Valve Plug and install into either the water neck (k20a and similar motors) or intake manifold (k24a and similar motors).



3. Use the provided rubber cap and hose clamp to block off the air port nipple atop the center of the intake manifold as shown.



2. FUEL RAIL INSTALLATION

1. Remove the OEM K-Series fuel rail and replace with a Karcepts Fuel Rail (Karcepts P/N: KFR01, KFR02, or KFR03). Make certain to re-use the OEM fuel rail spacers which will still be retained between the intake manifold and Karcepts fuel rail.



2. Plug the center feed on the Karcepts fuel rail with the provided plug fitting and o-ring. Use the reducer fitting and o-ring on the left side of the fuel rail and leave the right side of the rail without any fitting at this time.



3. FUEL FILTER & FPR SETUP

1. Remove the OEM fuel line from the chassis mounted fuel filter. Retain the OEM banjo bolt but discard the used crush washers. Install the provided banjo fitting with new crush washers mounted below and atop the fitting.



2. If desiring to mount a fuel pressure regulator gauge onto the AEM 25-302 Fuel Pressure Regulator, now is the time to install. The gauge requires a good amount of effort to install onto the FPR, so if you try to install when the FPR is already mounted onto the fuel rail, there is a great risk of damaging fuel line fittings and causing a leak. Karcepts, Inc. will not be held responsible for any broken fuel fittings or fuel leaks caused by improper installation. To begin FPR gauge installation, wrap the end of the male 1/8" NPT thread with Teflon tape.



3. FUEL FILTER & FPR SETUP (continued...)

3. Support the AEM 25-302 Fuel Pressure Regulator in a vice and tighten the FPR gauge firmly and position in desired orientation.

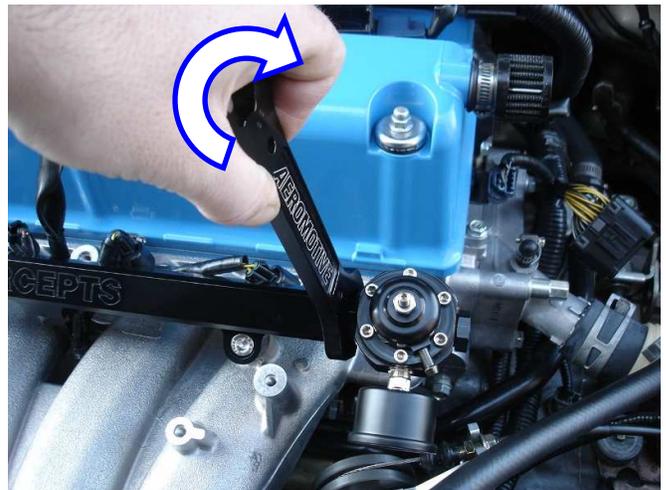


4. Finish preparation of the FPR by installing the -8an to -6an swivel, -6an union, and -6an plug in the locations shown below. Note: It is mandatory to utilize o-rings between the fittings and the FPR body. -6an o-rings are provided for these locations. Tighten all connections firmly.



4. FUEL PRESSURE REGULATOR INSTALLATION

After all fittings have been tightened into the FPR, install it onto the right end of the Karcepts Fuel Rail. It may first appear that you may need a very thin wrench to tighten the -8an to -6an swivel reducer used between the FPR and fuel rail, but that is not the case. You can first tighten the -8an swivel side into the fuel rail by hand until it starts to get tight. Once too tight to turn by hand, hold the -8an side where it is and rotate the FPR down until both hex flats line up. Attach a wrench onto both hex flats and tighten the fitting into the fuel rail. You will only be able to tighten a few degrees at a time with the limited space; so you will have to release the wrench and then rotate the FPR down once again to match hex flats at a new position. Repeat this procedure until you are able to install the fitting snugly into the end of the fuel rail.



5. FUEL LINE INSTALLATION

1. Connect the Karcepts supplied High Pressure Feed Line from the OEM fuel filter to the left side of the Karcepts Fuel Rail. When tightening the line to the reducer fitting on the fuel rail, it is recommended to use a wrench to hold the reducer fitting. Both ends of the feed line are able to swivel before being completely tightened. Make sure to swivel the line in a position that does not allow the hose to rub up against any sharp surface as engine vibrations may fray the line if not locating with care.



2. Locate the Karcepts Low Pressure Return Line; and by hand, screw the 90 degree fitting end to the bottom of the fuel pressure regulator. **Before tightening the fitting, it is EXTREMELY IMPORTANT to support the FPR body in your hand when tightening. We do not want to allow the tightening force of this lower fitting to be transmitted to the -8an to -6an swivel fitting located on the left side of the FPR body. If not supporting the regulator body when tightening, you may damage the -8an to -6an swivel fitting and promote a fuel leak.**



5. FUEL LINE INSTALLATION (continued...)

3. For redundancy, below is a close up of the -8an to -6an swivel fitting which you want to make certain to protect by supporting the FPR body while tightening the lower 90 degree fitting to the bottom of the FPR.



4. Completed FPR placement. As previously noted, a Karcepts Throttle Cable Bracket or Karcepts Cruise Control Delete Kit will be necessary to avoid interferences (with the 90 degree return line fitting and throttle cable bracket).



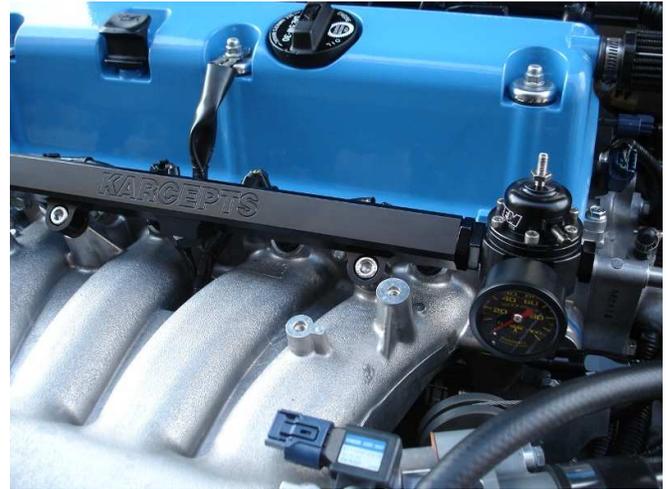
5. FUEL LINE INSTALLATION (continued...)

5. Slide the remaining hose clamp over the shrink wrapped end of the return line. Locate the factory return hard line and tighten the hose clamp firmly around the hard line. Double check to make sure this connection is tight by tugging on the line. You don't want to dump fuel out at this location due to a loose hose clamp. If the provided return line length is longer than desired, we recommend using a single edge razor blade to trim it square and to the preferred length.



6. FINAL CHECKS/NOTES

1. Double check fuel line installation to verify all connections have been made securely.
2. Turn the fuel pump on.
3. Check all connections with the fuel pump running to make sure all areas are sealed properly and dry of fuel.
4. With the fuel pump still running, set fuel pressure to 55psi via the adjustment screw and locknut atop the AEM FPR. The K-Series engine requires this pressure to operate properly. In most cases, an upgraded fuel pump is also required to provide enough fuel to run a K-Series engine throughout the entire rpm range. If you have not upgraded your fuel pump, one may be found at Karcepts.com.



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