PROSPEED BILLET FUEL RAIL AND FUEL LINE UPGRADE

Components included:

(2) Prospeed Billet Tundra fuel rails W/ hardware pack

(2) Prospeed Billet Fuel Hanger to 6AN adapters

(1) Full 6AN fuel line kit

(4) 8AN o-Ring boss to 6AN fittings

(3) 6AN O-ring boss to 6AN fittings

(1) 6AN billet Y-block

(1) Aeromotive fuel pressure regulator

(1) Fuel pressure gauge

(1) Aeromotive 10 micron fuel filter

(1) 1/8” Vacuum cap

**** NOTE :**

- WHEN INSTALLING THIS FUEL RAIL AND LINE UPGRADE, WE RECOMMEND TO ALSO INSTALL OUR DROP IN 750CC INJECTOR UPGRADE AS WELL AS OUR IN TANK UPGRADE PUMP, FAILURE TO DO SO CAN RESULT IN RUNNING OUT OF FUEL ON THE DYNO!
- BE SURE TO RUN THE TRUCK AS LOW WITH FUEL AS POSSIBLE OR DRAIN THE FUEL TANK BEFORE INSTALLTION TO MAKE LOWERING THE FUEL TANK EASIER AND SAFER.

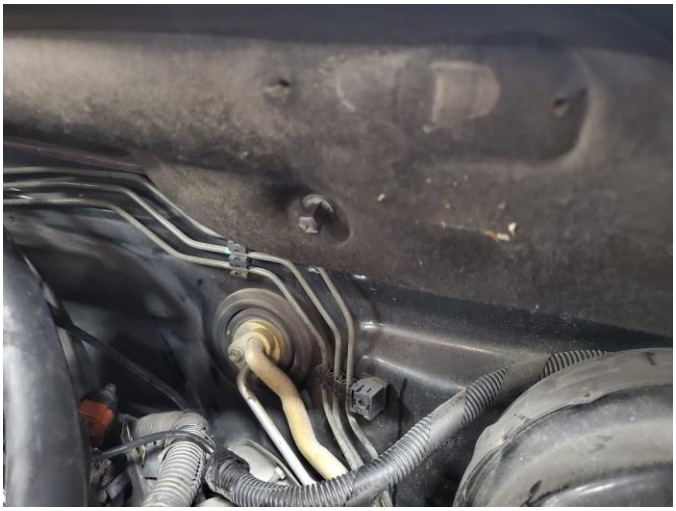
- FUEL LINE MEASUREMENTS ARE COLLER TO COLLER, SO WILL BE THE LINE LENGTH ITSELF PLUS THE COLLERS OF THE AN FITTING, SIZING CAN VARIE SOMETIMES.

INSTALLATION:

1. REMOVE NEGATIVE BATTERY TERMINAL
2. UNDO MAIN FUEL SUPPLY LINE FROM DRIVERS SIDE FUEL RAIL TO RELIEVE PRESSURE, ONCE PRESSURE IS RELIEVED GO AHEAD AND DISCONNECT THE MAIN FUEL LINE FROM THE BODY CONNECTION NEAR THE DRIVERS SIDE FRAME RAIL.
3. UNDO THE FUEL RETURN LINE HOSE FROM THE PASS SIDE RAIL AT THE REGULATOR AND THE SAME CONNECTION POINT NEAR THE DRIVERS SIDE FRAME RAIL, REMOVE THE BOLTS THAT TIE IT DOWN TO EACH VALVE COVER.
4. REMOVE THE FUEL CROSS OVER LINE FROM BOTH RAILS, THIS LINE WILL RUN BEHIND THE INTAKE MANIFOLD/SUPERCHARGER.
5. REMOVE BOLTS ON FUEL RAILS AND REMOVE, BE CAREFUL NOT TO LOOSE THE SEALS THAT ARE IN THE INJECTOR BOSS BASE ON THE CYLINDER HEADS, ALSO BE CAREFUL OF DEBRIS THAT TENDS TO GATHER AT THE INJECTOR BASE, IF YOU HAVE A SMALL SHOP VACUUM YOU CAN EASILY SUCK ALL THIS OUT TO PREVENT IT FROM FALLING INTO THE CYLINDER.
6. USING THE PROVIDED 8AN TO 8ORB FITTINGS, SCREW THESE INTO THE NEW FUEL RAILS
7. INSTALL THE NEW FUEL RAILS ON THE VEHICLE WITH THE INJECTORS, THE INJECTORS MUST BE IN THE SAME DIRECTION AS WHEN THEY WERE PULLED OFF, YOU WILL REUSE THE OEM INJECTOR RAIL SPACERS WITH THE NEW PROVIDED RAIL HARDWARE.
8. TAKE THE PROVIDED AEROMOTIVE FUEL PRESSURE REGULATOR, REMOVE THE MOUNTING BRACKET, THEN DRILL BOTH MOUNTING HOLES TO ¼” (.250”) (NOT THE ONES THAT ATTACH TO

THE REGULATOR), THEN BOLT THE BRACKET BACK ON THE REGULATOR, THEN USING A CRESANT WRENCH, PUT IT OVER THE MOUNTING BRACKET AND BED THE BRACKET BACK SLIGHTLY.

9. USE THE PROVIDED 6AN TO 6ORB FITTINGS, SCREW THESE INTO THE 3 PORTS ON THE REGULATOR, And THEN SCREW IN THE PROVIDED FUEL PRESSURE GAUGE INTO THE 1/8NPT PORT ON THE FRONT OF THE REGULATOR USING FUEL SAFE SEALANT TAPE OR PASTE.
10. LOCATE THE STUD ON THE FIREWALL NEAR THE BRAKE MASTER RIGHT ABOVE WHERE THE AC HARDLINES BOLT INTO THE FIRE WALL, REMOVE THE PLASTIC CAP, THEN ATTACH THE REGULATOR TO THE STUD USING THE HOLE ON THE RIGHT SIDE OF THE BRACKET, TIGHEN USING THE PROVIDED 6MMX1.0 NUT, IF THE BRACKET WAS BENT RIGHT IN THE PREVIOUS STEP, YOU WILL HAVE JUST ENOUGH ROOM TO ADJUST THE FUEL PRESSURE ON THE TOP.



11. JACK THE FRONT OF THE TRUCK UP TO ALLOW ENOUGH ROOM TO SLIDE UNDER WHERE THE FUEL TANK IS, IF YOU ARE INSTALLING WITH A LIFT DISREGARD THIS. REMOVE THE RUB SHEILD IF YOUR TRUCK HAS IT EQUIPPED, THEN INSTALL A JACK WITH A BOARD UNDER THE CENTER OF THE GAS TANK. REMOVE THE MOUNTING STRAPS THEN LOWER THE GAS TANK TILL YOU CAN ACCESS WHERE THE FACTORY FUEL LINES ATTACH TO THE FUEL PUMP HANGER, **** IF YOU ARE ALSO INSTALLING THE INTANK FUEL PUMP UPGRADE, THEN SWITCH OVER TO USING THOSE INSTRUCTIONS AS YOU WILL NEED TO COMPLETELY DROP THE FUEL TANK!**
12. REMOVE THE FACTORY FEED AND RETURN LINE BY REMOVING THE RETAINING CLIPS ON THE FUEL PUMP HANGER, THEN REMOVE THE LINES FROM THE VEHICLE AS THEY WILL NOT BE USED ANYMORE.
13. INSTALL THE PROVIDED 6AN ADAPTERS ONTO THE FUEL PUMP HANGER, REINSTALL THE RETAINING CLIPS
14. LOCATE THE 6AN LINE THAT WILL BE ROUGHLY 42” LONG WITH STRAIGHT FITTINGS ON BOTH ENDS, THIS WILL ATTACH TO THE 6AN FITTING IN THE FEED LINE POSITION ON THE FUEL PUMP HANGER WHICH WILL BE THE ONE CLOSEST TO THE OUTER EDGE OF THE HANGER.
15. LOCATE THE 6AN LINE THAT WILL BE ROUGHLY 109” LONG WITH STRAIGHT FITTINGS ON BOTH ENDS, THIS WILL ATTACH THE REMAINING ADAPTER WHICH IS THE RETURN PORT.
16. AT THIS TIME, ROUTE BOTH LINES SO THEY RUN ALONG THE DRIVES SIDE FRAME RAIL, MAKE SURE TO RUN THEM BEFORE THE MAIN SUPPORT BRACE THAT RUNS ACROSS THE TRUCK IN THE PICTURE. RAISE THE FUEL TANK UP INTO PLACE WHILE GENTLY PULLING THE SLACK OUT OF THE FUEL LINES.

17. ATTACH AND TIGHTEN DOWN THE PROVIDED FUEL FILTER ONTO THE SHORTER FEED LINE THAT CAME FROM THE HANGER, MAKE SURE THAT THE DIRECTION ARROW IS POINTING TO THE FRONT OF THE VEHICLE.

18. LOCATE AND ATTACH THE 6AN LINE THAT IS ROUGHLY 52” LONG, ATTACH THIS AND TIGHTEN TO THE FUEL FILTER, THEN ATTACH THE PROVIDED 6AN Y-BLOCK TO THE END OF THE LINE AND TIGHTEN, THIS BLOCK WILL SPLIT THE LINE TO GO TO BOTH RAILS, RUN ALONG THE FRAME RAIL AS IT GETS TO THE FRONT RUN ALONG THE TOP THEN AROUND THE OUTSIDE OF THE STEERING SHAFT.
19. RUN THE 109” LONG RETURN LINE ALONG THE FRAME RAIL, THEN ONCE CLOSER TO THE FRONT RUN ALONG THE TOP THEN AROUND THE OUTSIDE OF THE STEERING SHAFT THEN UP TO THE FUEL PRESSURE REGULATOR, ATTACH AND TIGHEN TO THE BOTTOM PORT OF THE FUEL PRESSURE REGULATOR.
20. LOCATE THE 23” LONG 6AN LINE WITH A 90 AND 45 DEGREE FITTING ON EACH END, ATTACH THE 90 FITTING ON THE BACK FITTING OF THE PASSENGER SIDE FUEL RAIL, THEN RUN THE LINE OVER THE FUEL PRESSURE REGULATOR, ATTACH THE 45 ONTO THE LEFT FITTING ON THE REGULATOR, THEN TIGHEN BOTH FITTINGS
21. LOCATE THE 11.50” LONG 6AN LINE THAT HAS 90 DEGREE FITTINGS ON BOTH ENDS, ATTACH ONE TO THE REAR FITTING ON THE DRIVERS SIDE FUEL RAIL, THEN ATTACH THE REMAINING FITTING TO THE FITTING ON THE RIGHT OF THE REGULATOR, THEN TIGHTEN.

22. LOCATE THE 35” LONG 6AN LINE WITH A 90 DEGREE AND STRAIGHT FITTING, ATTACH THE 90 DEGREE TO THE FITTING ON THE FRONT OF THE PASSENGER SIDE FUEL RAIL, RUN THE LINE TO THE BACK OF THE ENGINE THEN OVER TO THE 6AN Y-BLOCK, ATTACH TO THE LOWEST OUTLET ON THE Y-BLOCK, THEN TIGHTEN BOTH FITTINGS
23. LOCATE THE 17.50” LONG 6AN LINE WITH A 90 DEGREE AND STRAIGHT FITTING, ATTACH THE 90 DEGREE TO THE FRONT FITTING ON THE DRIVERS SIDE FUEL RAIL, RUN THE LINE TO THE REAR THEN ATTACH THE STRAIGHT FITTING TO THE REMAINING FITTING ON THE 6AN Y-BLOCK, TIGHEN ALL FITTINGS.

24. TIE DOWN FUEL LINES RUNNING ALONG THE FRAME RAIL UNDER THE VEHICLE, WE RECOMMNED USING ZIP TIES. MAKE SURE NOTHING IS RAN IN ANY KIND OF WAY THAT WILL

CUT OR DAMAGE THE LINE, MAKE SURE THE LINES ARE NOT TOUCHING ANYTHING HOT, FAILURE TO DO SO CAN RESULT IN LINE DAMAGE AND FIRE!

25. RUN A VACUUM LINE TO THE REGULATOR FROM A BOOST SOURCE, DO NOT USE THE PORT THAT THE FACTORY RAIL MOUNTED REGULATOR USED AS THIS RAN TO THE INTAKE TUBE WHICH NEVER SEES BOOST, THIS PORT NEEDS TO BE CAPPED SO THERE IS NO LEAK IN THE INTAKE SYSTEM. (THE NEW FUEL PRESSURE REGULATOR IS A 1:1 BOOST REFERENCED REGULATOR, SO FOR EVERY 1PSI OF BOOST, IT WILL RAISE FUEL PRESSURE 1PSI PAST THE BASE FUEL PRESSURE, **WE WILL WANT IT THIS WAY IF WE ARE PERFORMING THE TUNING**, HOWEVER IT IS ALWAYS BEST TO CONSULT WITH YOUR TUNER TO MAKE SURE THEY WANT IT THIS WAY, IF THEY DO NOT, THEN SIMPLY LEAVE THE VACUUM PORT ON THE REGULATOR OPEN.
26. START THE VEHICLE TO CHECK FOR FUEL LEAKS, THIS IS BEST PERFORMED WITH THE HELP OF ANOTHER PERSON, SO IN THE EVEN OF A LEAK THE TRUCK CAN BE TURNED OFF QUICKLY.
27. IF NO LEAKS ARE PRESENT, THEN SET THE FUEL PRESSURE BY DISCONNECTING THE VACUUM REFERENCE LINE TO THE REGULATOR, THEN LOOSEN THE NUT ON THE STUD ON TOP OF THE FUEL PRESSURE REGULATOR, THEN TIGHTEN DOWN THE STUD UNTIL YOU REACH THE DESIRED PSI, **PROSPEED REQUIRES 60PSI BASE PRESSURE FOR OUR TUNES**, HOWEVER IF USING ANOTHER TUNER, SEE WHAT THEY WOULD PREFER. ONCE SET, TIGHEN THE NUT DOWN ON THE STUD THEN REATTACH THE VACUUM REFERENCE TO THE REGULATOR.
28. THE INSTALL IS NOW DONE, TIME TO GO GET DYNO TUNED!