

FRPP Charge Motion Delete Plate Install  
These should be the parts you receive in the mail.



**Figure 1 FRPP Charge Motion Plates fresh out of the box**

This Should be all the tools you need, Shown in Figure 2 and about 2 Hours from hood up to hood down. Including a Flat Blade screw driver, 8mm Box end wrench, 10mm socket, 10mm deep well socket, 3/8" drive ratchet with 6" extension, T30 Torx head bit, torque wrench, and a gripper to pull out and install a few "hidden" bolts to make sure you don't drop them.



**Figure 2 Tools Needed**

1. Disconnect Negative battery terminal and place a rag under it to prevent it from touching battery post.
2. Disconnect throttle body electrical connectors, Passenger Side is the Throttle position sensor and the driver's side is the connector for the throttle motor.
3. Unplug MAF electrical connector and Remove CAI (or factory rubber elbow)



**Figure 3 CAI and Throttle Body Harnesses Removed**

4. Remove large and small vacuum lines from right side of [intake](#) plenum.

5. Disconnect the plug from each fuel injector, disconnect electrical plug and vacuum from fuel rail pressure monitor. You can leave the pressure regulator attached.



**Figure 4 Injector Plugs Removed**

6. Loosen fuel rails by removing the two screws on each side holding it to the intake plenum (8mm head size). Remove the wire loom ties by gently prying the base of them up with a screw driver, bolts shown in Figure 4.



7. Remove fuel rails on both sides by giving a gentle jerk in the upward motion to free the injectors of their o-ring seal. Leaving them rest in place until both sides are free. Then move them out of the way as best possible. Shown in Figure 5, the crossover tube can stay connected.



**Figure 5 Fuel Rails removed and out of the way**

8. Remove 5 10mm head manifold bolts each side (1 is hidden on the inside of the middle runner and Shown in Figure 6). This is where the gripper will com in handy.



**Figure 6 Hidden Intake Manifold Bolt**

9. Disconnect CMCV Electrical Plug from CMCV Motor assembly from back of intake plenum.
10. Slightly lift entire assembly up and forward. Let sit gently on the front of engine.
11. Disconnect vacuum line on back of plenum from the "T" fitting but leave connected to the plenum.
12. Lift and remove entire assembly and place upside down on a bench. Place paper towels or rags in each of the intake openings to prevent contamination from entering the engine.



**Figure 7 Towels in intake holes**



**Figure 8 Intake Manifold upside down on the bench**



13. Remove 8 green silicone gaskets from old plates and install in the new plates.
14. Loosen entire charge motion runner motor assembly from back of plenum, 3 8mm Bolts.
15. Remove existing plates by removing the 4 T-30 Torx head bolts.
16. Remove entire setup, plates and motor together.
17. Install new plates on plenum, tighten torx bit screws, but there is some slop here so be sure to keep the best fit alignment while tightening.



**Figure 9 FRPP Plates installed with gaskets**

18. Clean intake area surfaces with a damp cloth or some alcohol. This is why you put the towels in the intake holes.
19. Remove paper towels!
20. Set Intake manifold with new plates attached back onto the motor. An connect vacuum line to "T" fitting
21. Install and hand tighten the 10 bolts on the intake. Snug down and then torque to 10ft-lbs with torque wrench using cross pattern.
22. Inset injectors, they should "pop" into place when sealed. Install bolts to hold in place, then connect the vacuum line and electrical connector to pressure monitor.
24. Reconnect 2 vacuum lines to the intake plenum.
25. Reconnect CAI to Throttle Body and plug in MAF sensor and Throttle Body Electrical connections.



26. Reconnect Electrical Plugs for Throttle position sensor and stepper motor.

27. Reconnect battery.

28. Load new Tune for the Plates (Yes a tune is required... don't run with out it) Start it up, verify steady idle so you know there are no leaks and check under hood for fuel leaks. If all is well go burn some rubber and enjoy!

Any Questions contact Kyle Felts at [screaming\\_yellow\\_GT@yahoo.com](mailto:screaming_yellow_GT@yahoo.com)