WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

PART # K743 TOYOTA LAND CRUISER

THIS KIT IS FOR THE FOLLOWING APPLICATIONS:

Land Cruiser	FJ40/55	1F Cable Linkage 68 – 9/73
Land Cruiser	FJ40/55	1F/2F Rod Linkage 10/73 – 84
Land Cruiser	FJ60	2F Rod Linkage 80 - 87

Thank you for purchasing a JT Outfitter's Weber carburetor conversion kit. We are the World Leader in Toyota Weber Carb Conversions. Our kits are designed to unleash the performance potential of your engine but not at the cost of reliability and fuel Efficiency.

This installation guide covers vehicle preparation, old carburetor removal, carburetor installation, and new carburetor adjustments. A trouble-shooting guide is supplied if needed.

Before installation please read this guide thoroughly and if you have any questions please call our Toll Free Technical Line at 1 (336) 591-1108.

Any items in BOLD FACE TYPE or with a next to it, Please pay extra attention to. This will help to ensure an error free installation with optimal vehicle operation.

The Following is a List of the Tools that will be needed to install this conversion kit:	The Following is a list of supplies that are needed to install this conversion kit:	The Following is a list of optional items that are very helpful in installing this conversion kit:
• Metric Socket and Wrench Set • Metric Allen Key Set • Screwdrivers • Pliers (needle nose) • Wire Crimpers • Gasket Scraper • Wire Brush	• 3/8" Fuel Line (approx 1 ft) • 2 Small Hose Clamps • 14 Gauge Electrical Wire • 2 Alligate Style Crimp Clips • Carburetor Cleaner • Clean Rags • Engine Cleaner • Aluminum Foil • Tags (these are needed to label hoses etc.)	• Vacuum Gauge/ Tester • Fuel Pressure Gauge/ Tester • Flashlight • Magnet • Vehicle Shop Manual • Haynes Weber Book HM393 • HP Weber Book HP774

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Legal in California only on racing vehicles which may never be driven on a highway.

FOR SAFETY PURPOSES:

- **USE CLAMPS ON ALL FUEL HOSES.**
- **DO NOT USE GASKET SEALERS, USE GASKETS PROVIDED.**
- **WHEN REMOVING OLD CARBURETOR LABEL ALL HOSES AND WIRES.**
- **IF NECESSARY CLEAN ENGINE BEFORE INSTALLATION.**
- **USE LOCTITE ON HARDWARE INSIDE AIR CLEANER AND INTAKE MANIFOLD STUDS.**
- **IF REWIRING IS NEEDED ALWAYS USE AN INSULATED CONNECTOR OR TAP.**
- **NEVER ALLOW DIRT IN THE CARBURETOR.**
- **DO NOT OVERTIGHTEN JETS OR THROTTLE LINKAGE.**
- **NEVER OPERATE THE ENGINE WITHOUT A FUEL FILTER.**
- **DO NOT LET ALLOW FUEL TO SPILL OR LEAK.**
- **BE CAREFUL NOT TO CUT OR DENT THE ALUMINUM GASKET SURFACES OF THE INTAKE MANIFOLD OR CARBURETOR.**
- **ALWAYS WEAR EYE PROTECTION.**

This section should be completed before you install this Weber Conversion Kit.

- Please make sure that the Parts were not damaged in shipment.
- Please check the contents of the kit against the picture.
- If any parts were missing or the parts were damaged in shipping please contact us.
- Verify that your vehicle had a recent tune up and you do not have any other mechanical problems. The Weber Carburetor can not fix engine, and ignition problems.
- Weber Carburetors require 3.5 p.s.i. of Fuel pressure. If your fuel pressure is more than 3.5 p.s.i, obtain a Fuel Pressure Regulator from JT Outfitters.
- The electric choke or idle cut-off solenoids require a key hot 12-Volt source.
- Connect the idle-cutoff solenoid and electric choke to the Vehicles existing electric choke power source using a jumper wire.
- You must remove or modify the EGR Air Rail on top of the head. You will either plug openings with 12x1.5 plug or crimp existing lines.

YOU SHOULD HAVE NO EXHAUST GAS LEAKING FROM THE EGR PORTS.

- Weber Carburetors are preset at the Factory. Only make adjustments to the carburetor after the installation, and running the vehicle for the first time. After the carburetor is installed record the factory settings if needed in the future.
- Please save your sales receipt and all carburetor documentation for future use.

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REMOVAL OF OLD CARBURETOR

- Remove the Battery's negative cable.
- Take off the original Air Cleaner Assembly and Housing.
- Remove the Fuel Supply hose that is attached to the carburetor and label it.
- Remove the Fuel Return hose and plug it.
- Remove and label the vacuum hoses connected to the carburetor.
- Remove and label all of the electrical connectors attached to the carburetor.
- Remove the Float bowl Vent hose and plug it.
- Remove and label all electrical and vacuum connections to the vacuum switching valves and remove them along with the vacuum manifold.
- Remove the PCV hose from the Carburetor, Later Models used EGR Tube on side of Manifold.
- Remove carburetor and all spacers and gaskets from the intake manifold. Place a clean rag in the intake opening to keep dirt and tools etc. out.

  DO NOT FORGET TO REMOVE THE RAG BEFORE INSTALLING THE WEBER CARBURETOR
- Remove the manifold studs from the intake manifold. Double nut each stud to remove.

  DOUBLE NUTTING MAY RUIN THE NUTS BUT WILL NOT DAMAGE THE STUDS
- Remove any excess gasket material from intake manifold. You can use a gasket scraper, wire brush and carburetor cleaner.

  DO NOT USE A WIRE WHEEL OR ANY POWER TOOLS AS THEY MAY DAMAGE THE MANIFOLD

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WEBER CARBURETOR INSTALLATION

- Remove the adapter plates, gaskets and hardware from the packaging. Please see picture for order of installation.
- Mount the first adapter and gasket to the intake manifold making sure that the allen head bolts are flush. Mount the top adapter and gasket to the bottom adapter plate. The adapter WILL NOT fit over the factory studs. The top adapter has a vacuum port that MUST face forward.

Remove the carburetor from the box, locate the throttle lever and fold back the lock tab and remove the throttle lever from the carburetor and replace it with the throttle lever that is supplied with the kit.

DO NOT OVERTIGHTEN THE NUT FOR THE THROTTLE LEVER LINKAGE BINDING MAY OCCUR

- Install the Weber Carburetor on the four mounting studs. Using a criss-cross pattern tighten evenly. Fuel Inlet Faces front of Vehicle. **DO NOT OVERTIGHTEN**

At this point the Installation Becomes Specific to the Model Land Cruiser and Model Carburetor.

Early Land Cruiser FJ40/55 from 1968 to 9/1973 for 32/36 and 38/38

- Your installation is actually the easiest, you will be using a throttle cable.
- Identify the parts in your linkage assembley (See Picture)
- For this model, the throttle lever that is fan shaped. Attached the cable stop to this bracket. The fan will be installed with the wide part in the highest position.
- If using factory cable, cut barrel off of end, and you will need to drill the hole in the cable holder to fit the size of your cable. JT Outfitters can supply you with an aftermarket cable spefically designed for your Weber Conversion.
- Install cable holder on the firewall side on the Weber carb. It will attach to the two rear bolts. The cable will come into the bracket form the fender side. With factory cable you will use the existing nuts to secure it, with the Weber cable use allen head bolts.
- Run wire through the cable stop (trunion). Your pedal will set the level and position that you will set your cable. The cable should be snug but not affecting the opening of the carburetor or the level of the pedal. You will tighten cable stop to hold cable.
- The return spring will need to be installed. The spring attaches to the throttle lever and the bracket supplied that bolts to the electric choke pull off.
- Locate the fuel inlet pipe (see picture) on the carburetor and connect the supply line to it.
- Locate the vacuum advance hose and connect it to the vacuum advance port on the carburetor. (see picture)
- Locate any open vacuum ports and hoses and plug them. (check local laws)
- Locate the wire for the electric choke and connect to the electric choke to positive side of coil.

WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

WEBER CARBURETOR INSTALLATION (continued)

- Reconnect the Battery's negative cable.
- At this point make sure that all hose clamps are tightened and that all of the electrical connectors are connected and insulated.
- Crank Engine without starting and check for fuel leaks.
  DO NOT GO ANY FURTHER WITHOUT INSPECTING AND FIXING
- Remove Air cleaner from packaging. Connect plastic breather tube to air filter base then bolt air filter base to carburetor using the four screws provided.
- Attach the breather hose from the valve cover to the air cleaner.
- Put the air filter element on the air filter base and attach the air cleaner top with the clips provided.
- To check the clearance between the hood and air filter, place some crumpled up aluminum on the air cleaner top and slowly lower the hood and check clearance.

Land Cruiser FJ40/55 from 10/1973 to 1980 for 32/36 and 38/38

- Your installation is actually simple, you will be using rod linkage.
- Identify the parts in your linkage assembley (See Picture)
- For this model, the Weber Arm is the linkage. Attached the Weber Arm to the carburetor. The Weber Arm has a linkage ball attached and this section should be lowest position.
- You will need to modify the factory base plate to allow this plate to fit on the carburetor base. You will enlarge holes (suggest using a 7/16" drill bit).
- Install Factory base plate on Weber Carburetor. This base plate is the holder for the factory linkage system, you do not use the factory insulator.
- Install linkage on socket on Weber Arm ball.
- Locate the fuel inlet pipe (see picture) on the carburetor and connect the supply line to it.
- Locate the vacuum advance hose and connect it to the vacuum advance port on the carburetor. (see picture)
- Locate any open vacuum ports and hoses and plug them. (check local laws)
- Locate the wire for the electric choke and connect to the electric choke to positive side of coil.

WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

WEBER CARBURETOR INSTALLATION (continued)

- Reconnect the Battery's negative cable.
- At this point make sure that all hose clamps are tightened and that all of the electrical connectors are connected and insulated.
- Crank Engine without starting and check for fuel leaks.
  DO NOT GO ANY FURTHER WITHOUT INSPECTING AND FIXING
- Remove Air cleaner from packaging. Connect plastic breather tube to air filter base then bolt air filter base to carburetor using the four screws provided.
- Attach the breather hose from the valve cover to the air cleaner.
- Put the air filter element on the air filter base and attach the air cleaner top with the clips provided.
- To check the clearance between the hood and air filter, place some crumpled up aluminum on the air cleaner top and slowly lower the hood and check clearance.
- slowly lower the hood and check clearance.

Land Cruiser FJ40/60 from 1981 to 1987 for 32/36 and 38/38

- Identify the parts in your linkage assembley (See Picture)
- For this model, the Weber Arm is the linkage. Attached the Weber Arm to the carburetor. The Weber Arm has a linkage ball attached and this section should be lowest position.
- You will need to modify the factory base plate to allow this plate to fit on the carburetor base. You will enlarge holes (suggest using a 7/16" drill bit). Notching may be required on some models when using the 38/38mm carburetor for air mixture screw.
- Install Factory base plate on Weber Carburetor. This base plate is the holder for the factory linkage system, you do not use the factory insulator.
- Install linkage on socket on Weber Arm ball.
- Locate the fuel inlet pipe (see picture) on the carburetor and connect the supply line to it.
- Locate the vacuum advance hose and connect it to the vacuum advance port on the carburetor. (see picture)
- Locate any open vacuum ports and hoses and plug them. (check local laws)
- Locate the wire for the electric choke and connect to the electric choke to positive side of coil.

WEBER CARBURETOR INSTALLATION (continued)

- Reconnect the Battery's negative cable.
- At this point make sure that all hose clamps are tightened and that all of the electrical connectors are connected and insulated.
- Crank Engine without starting and check for fuel leaks.
  DO NOT GO ANY FURTHER WITHOUT INSPECTING AND FIXING
- Remove Air cleaner from packaging. Connect plastic breather tube to air filter base then bolt air filter base to carburetor using the four screws provided.
- Attach the breather hose from the valve cover to the air cleaner.
- Put the air filter element on the air filter base and attach the air cleaner top with the clips provided.
- To check the clearance between the hood and air filter, place some crumpled up aluminum on the air cleaner top and slowly lower the hood and check clearance.
- slowly lower the hood and check clearance.

CARBURETOR ADJUSTMENTS (see pictures for identification of components)

- Only make the adjustments discussed here if necessary all VOID warranty.
- To set the idle speed make sure that the engine is warm, set the speed to the vehicle manufacturer's setting. To raise the speed turn the idle screw (clockwise) in, and to lower the speed turn the speed screw (counter clockwise) out.
- To set the idle mixture turn the idle mixture screw in slowly (clockwise) counting the amount of turns you make until the idle speed drops off. Turn the screw out (counter clockwise) counting the turns until the idle drops off again. Turn the screw now back in half the distance that you turned out. Now the mixture is set.
- To set the fast idle make sure that the engine is cold. Press the accelerator pedal to the floor and let go. Start the engine (do not touch the accelerator pedal once you touch the accelerator after the engine is running the fast idle cam is disengaged. The engine should be revving between 2000 and 2500 Rpm's. Turn off the engine. To adjust the fast idle speed turn the fast idle screw in (clockwise) to increase engine RPM, to decrease engine RPM turn the fast idle screw out (counterclockwise) Do not touch the accelerator and restart engine to check RPM.
- The choke is Factory set. To adjust make sure that the engine is cool (below 68F) Turn the throttle linkage all the way to set the choke. The plates should be closed. Make a mark on the plastic choke cap and the carburetor where the two surfaces meet. Loosen the three screws one turn. Hold the throttle about one third open and start twisting the thermostat cap (counter clockwise) until the choke plates fully close, then slowly turn the cap 1/8" (you should feel the spring tension in the choke tightening). Retighten the three screws (do not over tighten). You may now have to go back and check the fast idle speed and adjust if necessary. **The electric choke MUST HAVE power to work.**

WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

Early Land Cruiser FJ40/55 from 1968 to 9/1973 for 34/34

- Your installation is actually the easiest, you will be using a throttle cable.
- Identify the parts in your linkage assembley (See Picture)
- For this model, the throttle lever that is fan shaped. Attached the cable stop to this bracket. The fan will be installed with the wide part in the highest position.
- If using factory cable, cut barrel off of end, and you will need to drill the hole in the cable holder to fit the size of your cable. JT Outfitters can supply you with an aftermarket cable spefically designed for your Weber Conversion.
- Install cable holder on the firewall side on the Weber carb. It will attach to the two rear bolts. The cable will come into the bracket form the engine side. With factory cable you will use the existing nuts to secure it, with the Weber cable use allen head bolts.
- Run wire through the cable stop (trunion). Your pedal will set the level and position that you will set your cable. The cable should be snug but not affecting the opening of the carburetor or the level of the pedal. You will tighten cable stop to hold cable.
- The return spring will need to be installed. The spring attaches to the throttle lever and the base of the manifold adapter.
- Locate the fuel inlet pipe (see picture) on the carburetor and connect the supply line to it.
- Locate the vacuum advance hose and connect it to the vacuum advance port on the carburetor. (see picture)
- Locate any open vacuum ports and hoses and plug them. (check local laws) Locate the wire for the electric choke and connect to the electric choke to positive side of coil.
- Reconnect the Battery's negative cable.
- At this point make sure that all hose clamps are tightened and that all of the electrical connectors are connected and insulated.
- Crank Engine without starting and check for fuel leaks.
  DO NOT GO ANY FURTHER WITHOUT INSPECTING AND FIXING
- Remove Air cleaner from packaging. Connect plastic breather tube to air filter base then bolt air filter base to carburetor using the four screws provided.
- Attach the breather hose from the valve cover to the air cleaner.
- Put the air filter element on the air filter base and attach the air cleaner top with the clips provided.
- To check the clearance between the hood and air filter, place some crumpled up aluminum on the air cleaner top and slowly lower the hood and check clearance.

WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

Land Cruiser FJ40/55 from 10/1973 to 1987 for 34/34

- Your installation is actually simple, you will be using rod linkage.
- Identify the parts in your linkage assembley (See Picture)
- For this model, the Weber Arm is the linkage yours will be the one with the longest shaft. Attached the Weber Arm to the carburetor. The Weber Arm has a linkage ball attached and this section should be lowest position.
- The bronze bracket will be installed on the engine side of the carburetor with the long end pointing towards the firewall. This base plate is the holder for the factory linkage system, you do not use the factory insulator.
- Insert your linkage rod in the end of the base plate fulcrum with the arm of the linkage rod pointing up and the short linkage rod connecting the rod and carb arm.
- Install linkage on socket on Weber Arm ball.
- Locate the fuel inlet pipe (see picture) on the carburetor and connect the supply line to it.
- Locate the vacuum advance hose and connect it to the vacuum advance port on the carburetor. (see picture)
- Locate any open vacuum ports and hoses and plug them. (check local laws)

  Locate the wire for the electric choke and connect to the

WEBER CARBURETOR CONVERSION KIT INSTALLATION GUIDE

TROUBLE SHOOTING GUIDE

In order to properly trouble shoot any suspected carburetor problems please double check the following:

Please read through the Weber Carburetor Installation section. Go over any item that has BOLD **FACE TYPE**
Or has a next to it.

If the vehicle will not start please check the following:

Check that the fuel pump is functioning properly. Check with pressure gauge.

Make sure that the ignition system is functioning properly.

If the engine idles too fast or too slow or stalls please check the following:

Make sure that you have no vacuum leaks. You should check all engine vacuum line connections and at the carburetor base (including the adapter plates).

Check all Carburetor adjustments. Idle mixture, idle speed, and fast idle. In this order.

Check that the idle cut-off solenoid is working. You can check this by listening for a clicking noise coming from the solenoid when the key is turned on or off.

If the engine idles fine but acts as if it is running out of fuel when driving please check the following:

If new fuel filter was not installed install one now. The old fuel filter may be clogged.

Check that the fuel pump is functioning properly. Check with pressure gauge.

Check all fuel lines. Make sure that the lines are not pinched or kinked.

Check that the vehicle has not run out of gas.

Check the fuel tank venting system. (Refer to vehicle shop manual)

If the engine runs rough or sounds like it is missing at idle please check the following:

Make sure that you have no vacuum leaks. You should check all engine vacuum line connections and at the carburetor base (including the adapter plates).

Check the idle mixture adjustment.

- **Also please remember that any additional engine modifications such as Headers, Hi Performance camshafts, free flow exhaust systems may require that the carburetor be recalibrate.**

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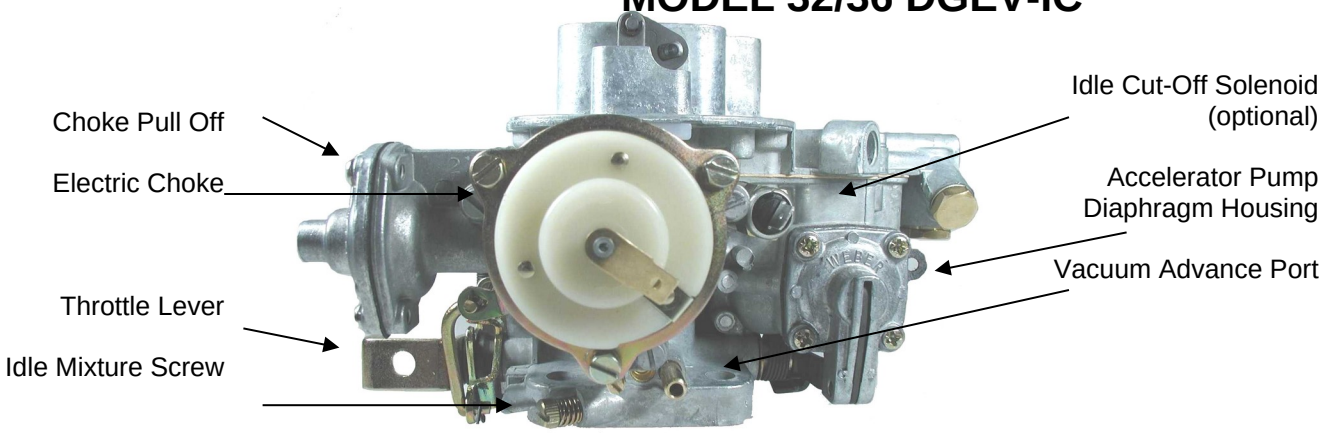
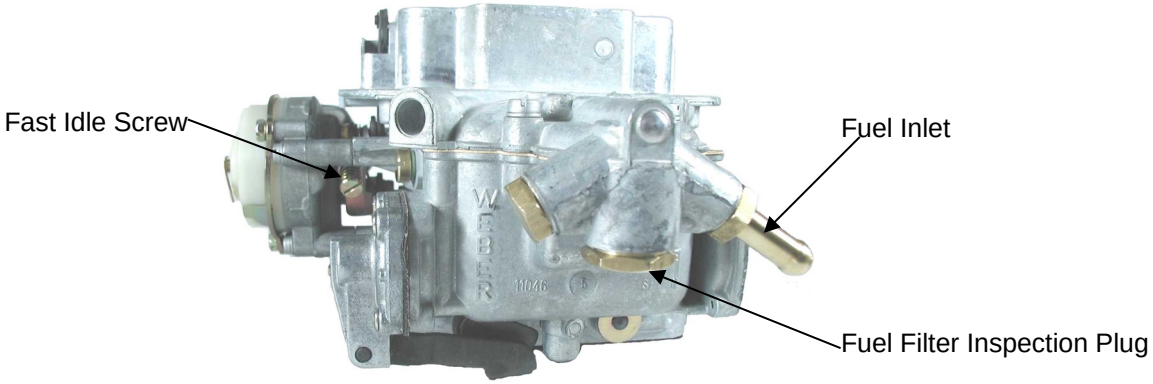
MODEL 32/36 DGEV-IC







Carburetor Top with Choke Plates Open

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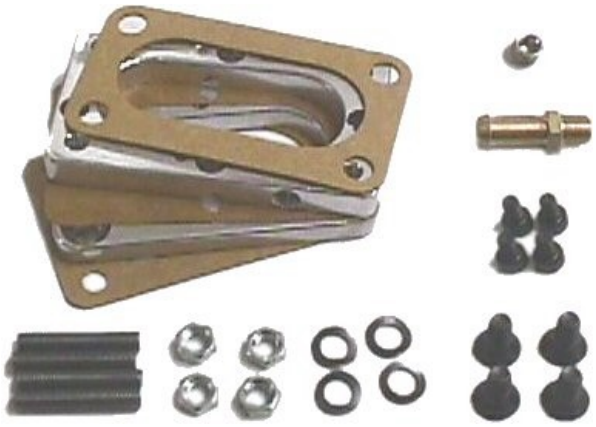


or



Manifold Adapter

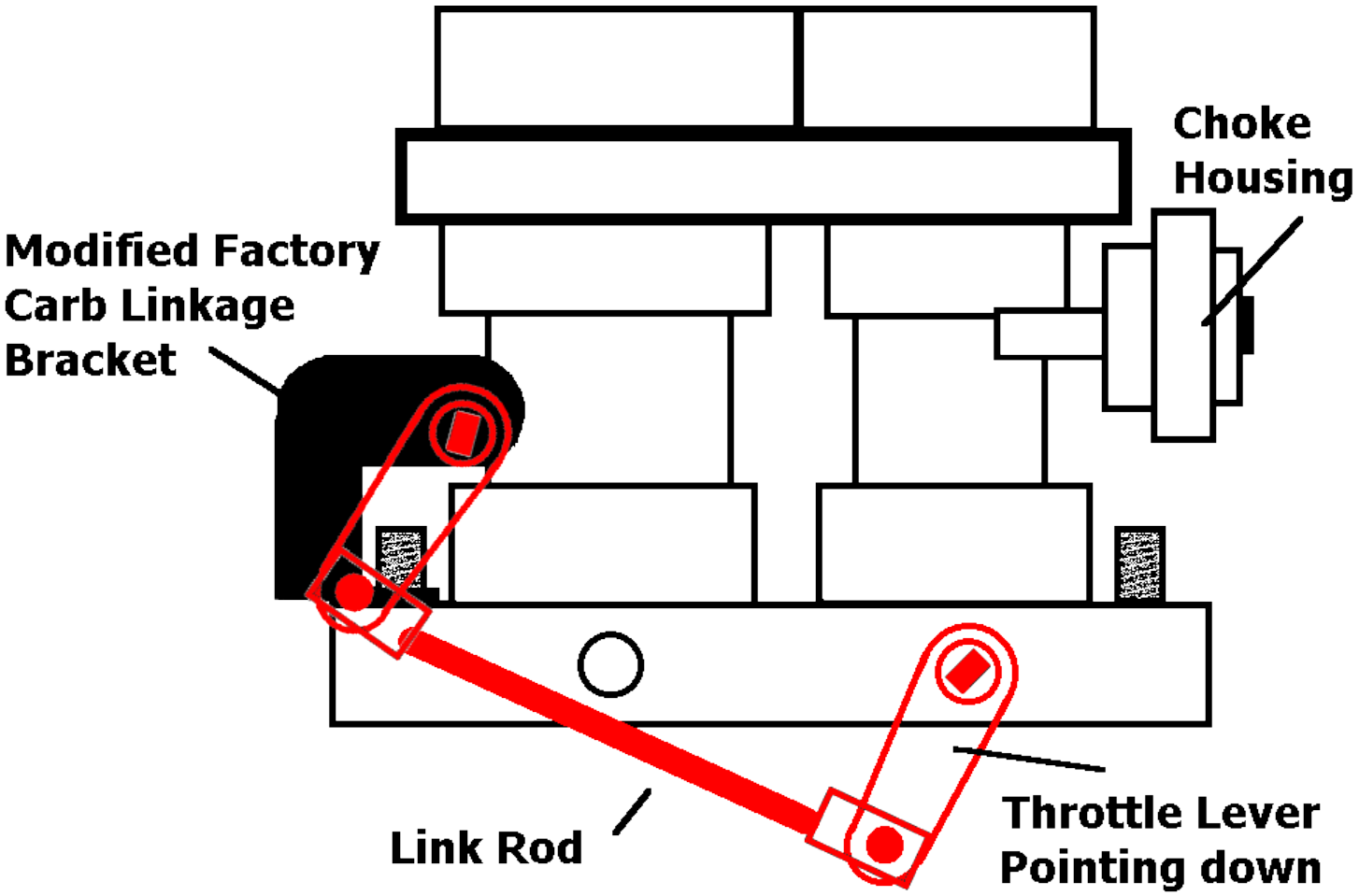


Linkage Adapter



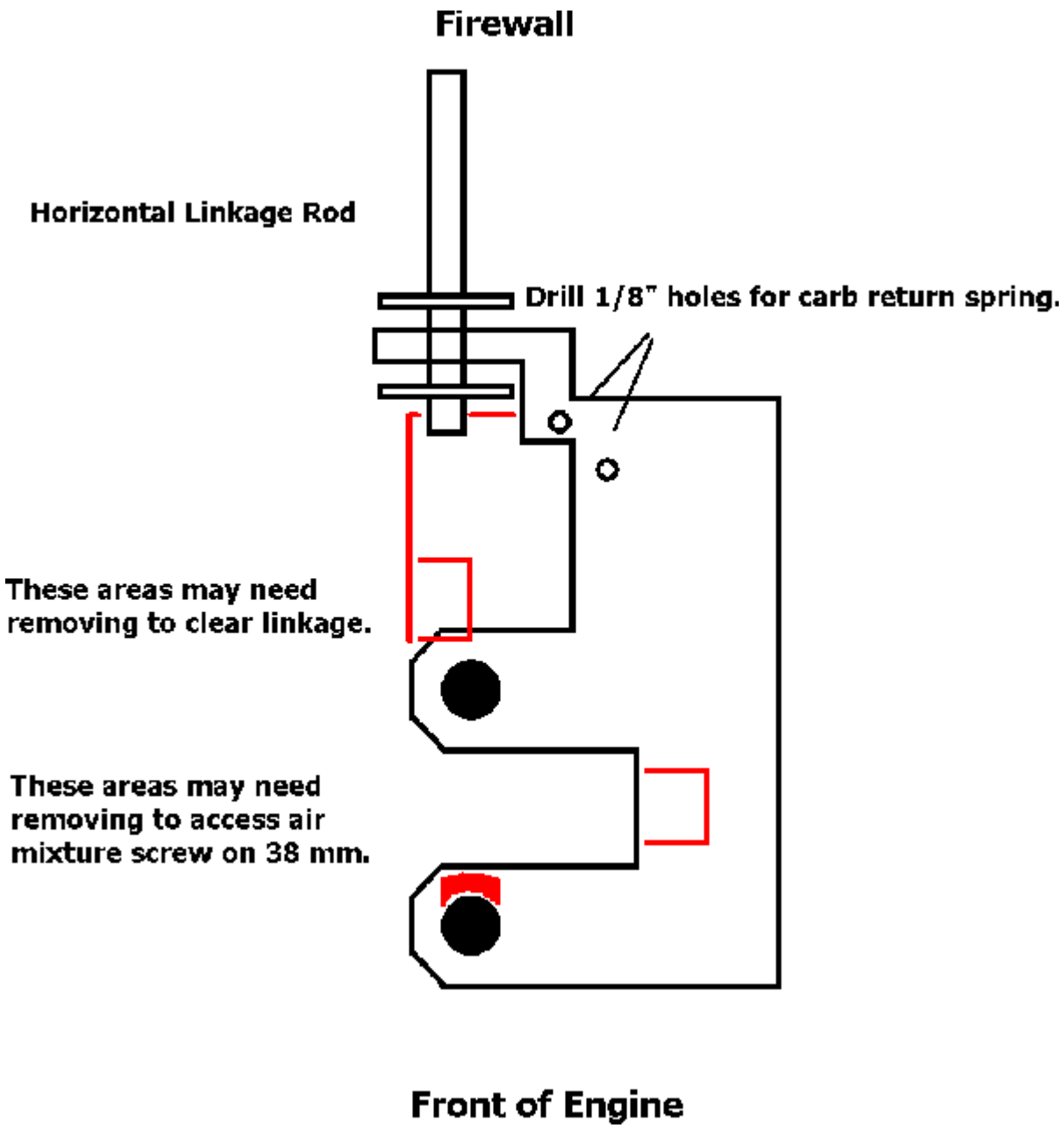
Weber Arm

ROD LINKAGE DRAWING for 32/36 and 38/38

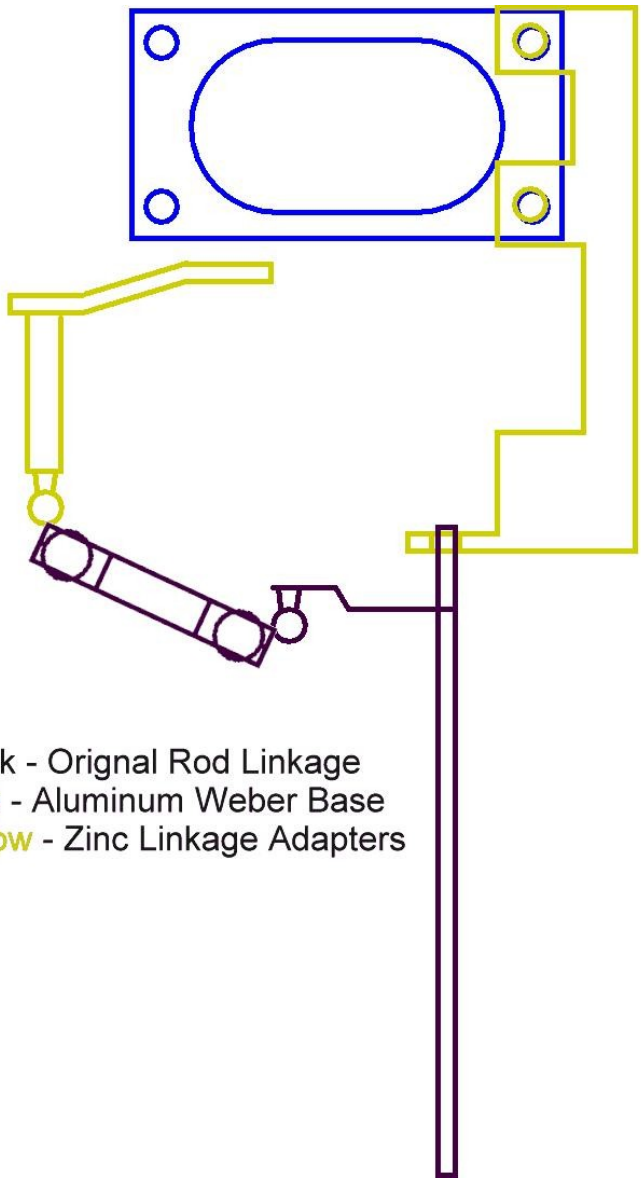


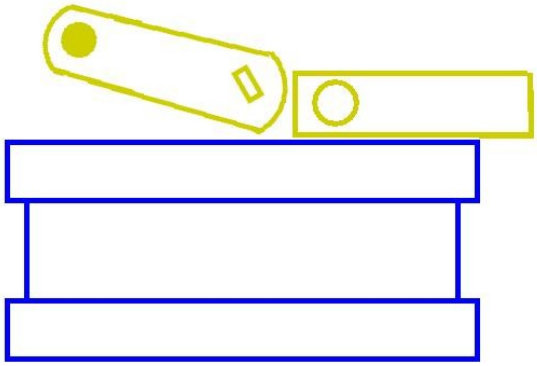
<---------- Drivers Fender Engine ---------->

Base Plate Drawing for 32/36 and 38/38

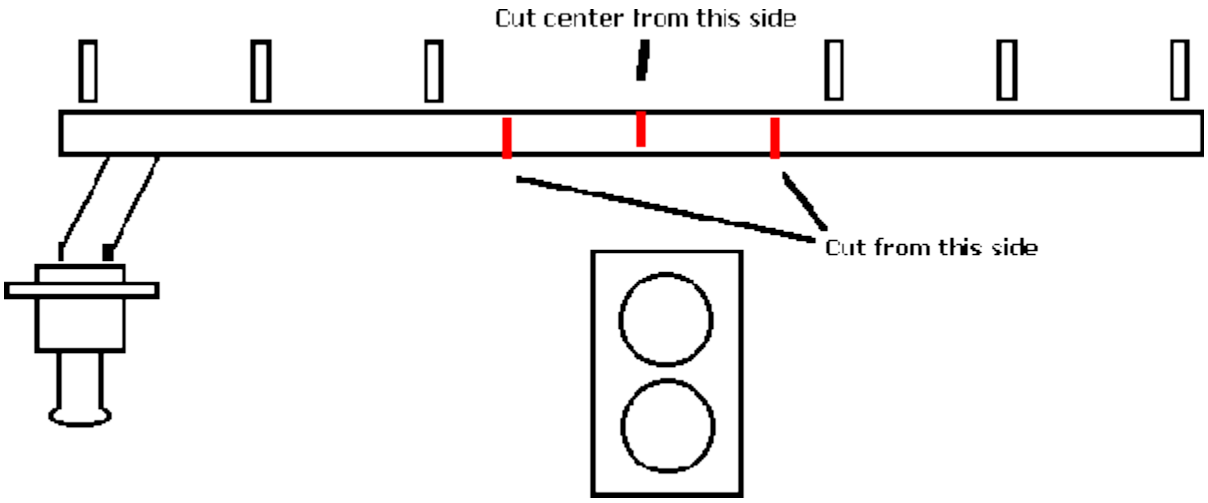


Base Plate Drawing for 34/34





Black - Orignal Rod Linkage
Blue - Aluminum Weber Base
Yellow - Zinc Linkage Adapters



Modifying Air Rail

1.) Make cutes where shown starting at side of rail as indicated, do not cut all the way through. Make center cut to align exactly opposite of the choke electrical hookup.
2.) After making cuts, bend tube away from choke connector, until it will clear with wiring connector in place.
3.) Blaze cuts to seal.

Another option is to cut all the way through at the outer cuts, obtain tubing bent to go around the choke housing and braze it into the gap between the two sides.