



# Mikuni Carburetor Kit

## Installation Instructions

**For: MGB 1962-1974.5**

PART # 366-380

440 Rutherford St. Goleta, CA 93117

1-800-667-7872 • FAX 805-692-2525 • [www.MossMotors.com](http://www.MossMotors.com)

### Tools required:

- Work shop manual
- Timing light
- Carburetor synchronizing tool- (375-324 or 386-200 if you do not have one)
- Fuel line clamp or locking needle nose pliers wrapped in tape
- 7mm wrench
- (2x) 10mm wrenches
- 12mm wrench
- 1/4" nut-driver
- 7/16" wrench
- 1/2" wrench
- Phillips screw driver
- Flat screw driver
- Pliers
- Hose cutter or utility knife

### Notes:

- 1) These Mikuni carburetors require 4 psi or less fuel pressure. If you are running higher pressure you will need to address this by either changing your fuel pump or running a fuel pressure regulator. The stock style SU fuel pumps in the MGB typically run below 4 psi. ***If you run higher than 4 psi fuel pressure, the carburetors will leak fuel!*** This is not safe and must be addressed! 1psi to 3.5 psi is desirable.
- 2) You must purchase air filters separately Moss part number 053-391.
- 3) You must have a carburetor heat shield to complete the installation of this kit. If yours is missing or damaged we suggest Moss part# 451-015. The heat shield not only keeps heat off the carburetors but also acts as a place to mount throttle return springs.
- 4) 1964-1969 MGB's use a PCV valve 360-630. This can and should be used in conjunction with this kit. 1962- early 1964 and 1970-1974.5 MGB's route blow-by gasses into a port on the SU carburetors. The Mikuni's do not have a port to route blow-by into. You will either need to fabricate a road draft tube or:
  - a. Use a 1964-1969 style manifold and PCV.
  - b. Or, modify your exiting manifold to accept the early style PCV. This means drilling and tapping (5/8"-18) the center boss on the manifold (remove metal elbow if present) to accept the PCV adapter (372-470). This will allow you to install an early style PCV valve. See our website or catalog.
  - c. Or, purchase our PCV kit 366-395 that was developed specifically for this Mikuni carburetor kit. Visit our website to read through the instructions.
- 5) If you have an air pump it can be used but you will need to come up with your own PCV system or road draft tube. The air pump is plumbed into the center port of the intake manifold. The PCV should be routed into the center of the manifold to avoid a lean condition in one half of the engine.
- 6) The anti run-on system can still be used with this kit. Instructions to do so are provided below.

# Installation Instructions

**Warning:** You will be disconnecting the fuel line and fire will be a hazard! Keep ignition sources away! Make sure you have a class B (gasoline rated) fire extinguisher near by just in case.

Before you begin make sure your vehicle is in good running and driving order. Inspect your ignition system and replace any worn out parts. These carburetors will not cure any existing problems with your engine. Tuning the carburetors (if needed) will be a simple task if all other engine related parts functioning as intended.

It is a good idea to label and bag parts as you remove them from the vehicle in case you ever reuse them.

Read and understand these instructions before attempting the installation of this kit. This will help you to know if it is within your abilities to complete the job or if you should consult a professional. If you decide to move ahead on your own, reading through will help familiarize you with the kit. When you are performing the installation, it helps to read the entire step and sometimes the next few steps before doing the work described. It can help you now to know what is coming next.

## Disassembly

- 1) Remove the ground cable from the battery. Remove the air cleaners. Remove all cables, vacuum lines, hoses and brackets from the carburetors and then remove the carburetors from the intake manifold. Use a clamp or needle nose locking pliers to minimize fuel loss from the fuel line. See workshop manual for more detailed information on removing the carburetors. Figure 1.

**Note:** Store carburetors in upright position to avoid dashpot oil from leaking out.



Figure 1



- 2) Remove the choke/throttle cable bracket from the intake manifold if your vehicle has one. It will not be reused. If you will be modifying your intake manifold to accept the early style PCV valve, remove the manifold now. If you have purchased 366-395 PCV kit and will be drilling and tapping for the elbow, remove the manifold and do it now. Don't forget to thoroughly clean the manifold and replace the intake/exhaust gasket. If your carburetor spacers or heat shield are damaged or missing, replace them now. Make sure to use new carburetor gaskets (provided). Figure 2.



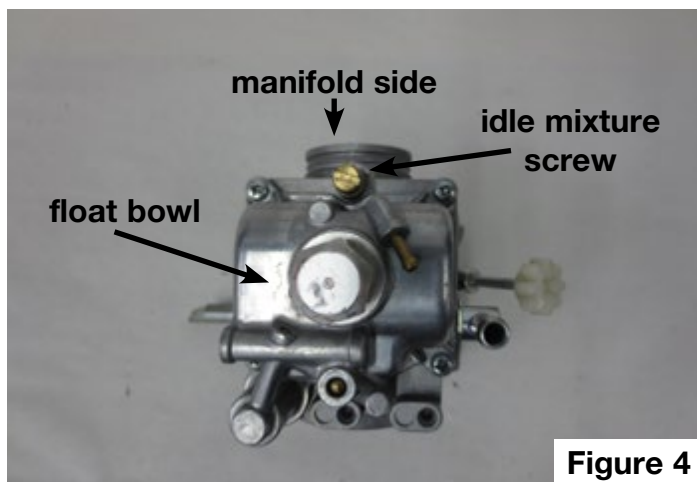
Figure 2

- 3) Remove the throttle cable and housing. It will not be reused. If the choke cable is in good working order, it will be reused. If it is damaged or in need of replacement, do it now.

## Assembly

- 4) If you are installing PCV kit 366-395, adjust the idle mixture screws as follows, if not skip ahead to the next step. Flip the new Mikuni carburetors up side down so the float bowls are facing up. Locate the idle mixture screw on the intake manifold side of the carburetor. The intake manifold side has the smaller diameter round bore with grooves in it. Turn the idle mixture screw out (counter clockwise) 1/2 turn. This is done to enrich the idle mixture to accommodate the metered vacuum leak that the 366-395 PCV valve creates. It is easier to adjust the screw now before the carburetors are installed on the engine. See "Idle mixture" on page 10 for more information.

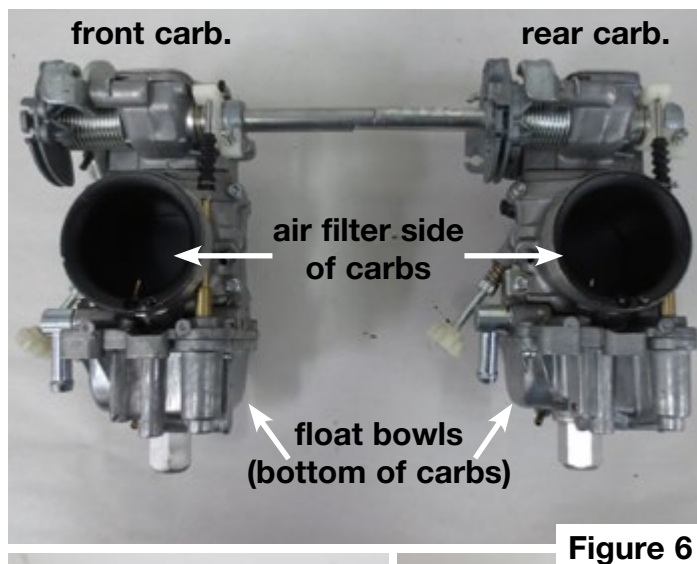
Stock PCV valves found on 1964-1969 MGB use a PCV valve that completely closes at idle and do not require you to enrich idle mixture. Figure 4.



- 5) A spigot is the black rubber coated adapter that allows the Mikuni carburetor to be adapted to the MGB intake manifold. Install the Mikuni spigots onto the isolators that are on the intake manifold. Use the supplied 5/16" flat washers, lock washers, and fine thread nuts. The spigots are rubber so they do not require a gasket between them and the isolators. Tighten the nuts down evenly to avoid distortion. Figure 5.



- 6) Install the new throttle/choke cable bracket onto the rearward carburetor. Use the supplied M6 flange bolts and self locking nuts. The bottom hole in the carburetor bracket is threaded, the top hole is not. Tighten the hardware using (2) 10mm wrenches. Figure 6.



# Installation Instructions

## Installing the carburetors and choke cables

- 7) Find the shorter choke cable. Screw the threaded end into the throttle/choke bracket as pictured. Gently snug the cable to the bracket using pliers.

Find the cable anchors and block. Pull the cable into the housing slightly so that you can install; an anchor, the block and another anchor. Once these are on the cable, guide the cable through the other side of the throttle/choke bracket. Gently snug the last anchor to keep everything on the cable. Figure 7.



Figure 7

- 8) On the other end of the shorter choke cable, install a dust boot, holder, spring and finally the plunger. The dust boot will fit snugly over the cable housing and the holder. Insert the crimped on cable end into the plunger. Carefully slide the dust boot and holder back toward the cable end. The spring tension should hold the plunger on the cable end. Figure 8.

Insert the plunger (as assembled above) into the reward carburetor. Screw the holder into the carburetor and snug it down using a 12mm wrench.



Figure 8

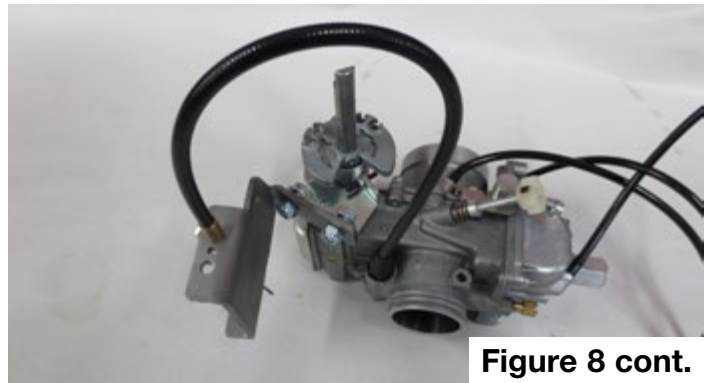


Figure 8 cont.

- 9) Loosen the band clamp on the rear spigot using a Phillips screwdriver. Install the rear carburetor. The grooves in the carb and the bumps in the spigot should hold the carb on. Do not tighten the band clamp at this time. Install the throttle shaft coupler on the rear throttle shaft. Figure 9.



Figure 9



- 10) Repeat steps 5, 6 and 7 using the longer choke cable and the front carburetor. Once the front carburetor and choke cable is installed onto the spigot, move on to next step. Figure 10.



**Figure 10**



- 11) You will notice the front and rear carburetor shafts are keyed to each other. Align the shafts and slide the coupler (should be on rear carb shaft) forward so that it ties front and rear shafts together. Tighten the 4 screws so that both carburetors operate together.

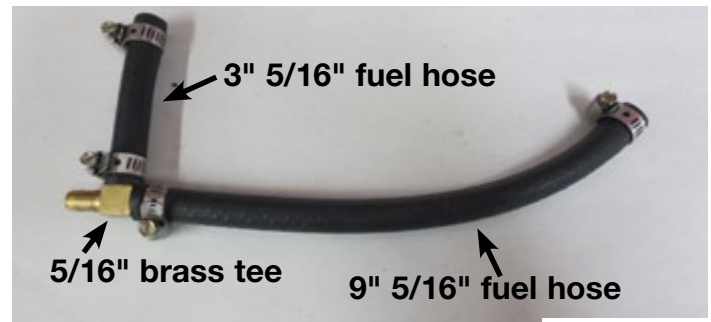
Tighten front and rear spigot band clamps so that the carburetors are secure. Figure 11.



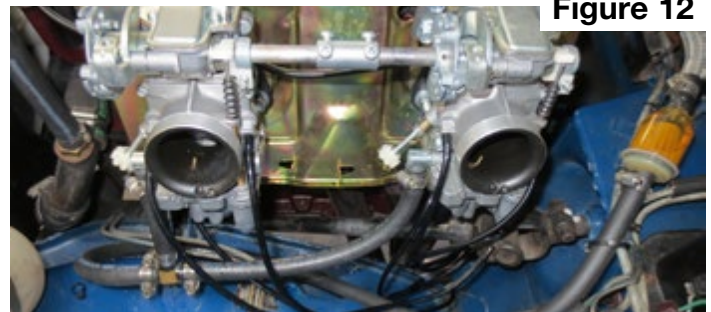
**Figure 11**

## Fuel hose assembly

- 12) Locate the fuel filter, 5/16" brass "T", hose clamps, and 5/16" fuel hose. Make the fuel assembly as pictured below. Install the assembly onto the carburetors. The brass "T" should be closest to whichever stock carb was originally fed by the fuel pump. Snug all the hose clamps using a flat screwdriver or a 1/4" nut-driver (preferred). Use the remainder of the fuel line to get back up to the hard line on the fire wall. Cut to length as necessary. Use the fuel filter as a reducer to connect the stock 1/4" fuel hose to the new 5/16" hose. Tighten all hose clamps.



**Figure 12**



# Installation Instructions

## Charcoal canister, carburetor bowl vents and anti run-on valve

13) For cars that do not have a charcoal canister: You can route the carburetor bowl vents any you see fit. Use the Tee's, reducers and hoses (provided) to route the vents to atmosphere. Just make sure to route the vents away from the exhaust as there will be fuel vapor present. You may remove the vent hoses from the carburetors all together, but do not cap the exposed hose fittings. It is important that the bowl vents never become clogged or the carburetors will not function properly.

For cars that do have a charcoal canister: Use the vacuum Tee's, reducers and hoses (provided) to build the assembly in the diagram. You will use one of the optional ends to connect this assembly to the hard line of the charcoal canister. Use whichever fits best. You will need to remove the 4 bowl vent hoses from the carburetor and cut them to length. Once the assembly is built, install it on the carburetors and the hard line leading to the charcoal canister.

The anti run-on valve (if present) should be connected to intake manifold vacuum just as with the stock carburetors. Figure 13.

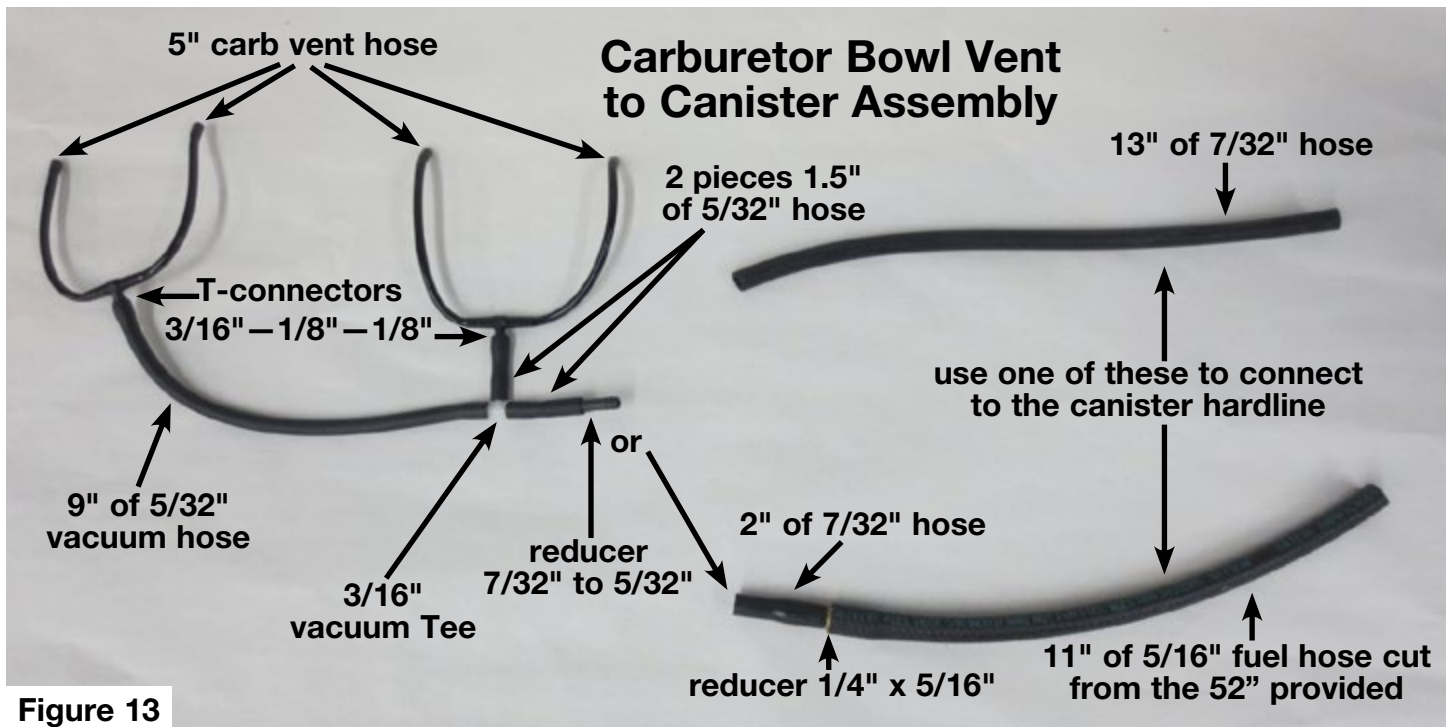
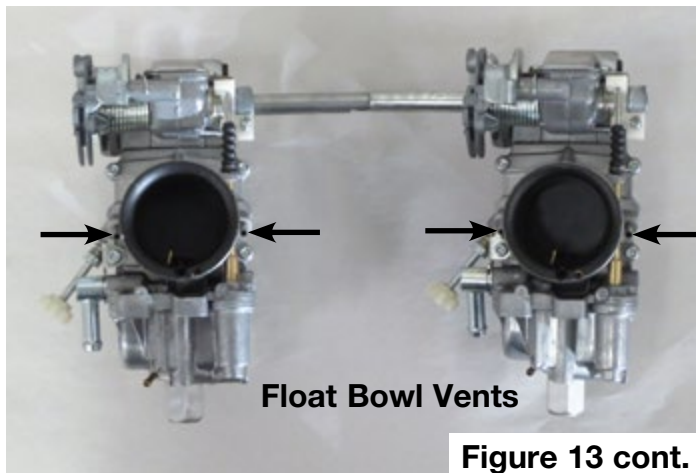


Figure 13



## Carburetor overflow

- 14) All vehicles must vent the over flow hoses to atmosphere. In the event that the carburetors needle and seat could not control proper fuel level, the fuel will use these overflow hoses to exit the carburetors. **WARNING:** Do not route the overflow vent hoses higher than the float bowls. If the hoses are routed higher than the float bowls, the fuel could drain directly into the engine instead of onto the ground.

Use the diagram below to make the carburetor over flow hose assembly. Once the assembly is built, install it on the carbs. Route the larger diameter 5/32" hose down through the motor mount boss on the chassis. (Early cars will have a bracket here for the same purpose on the stock carburetors.) At this point you will need to get under the car to finish the hose routing. Route the hose along the back of the cross member, along side the brake line. Use the provided zip ties to secure the hose to the brake line in several places. The hose should end up roughly centered on the cross member and hang down a few inches. The reason to route the hose here is to prevent any fuel that has over flowed from leaking on the exhaust. Figure 14.

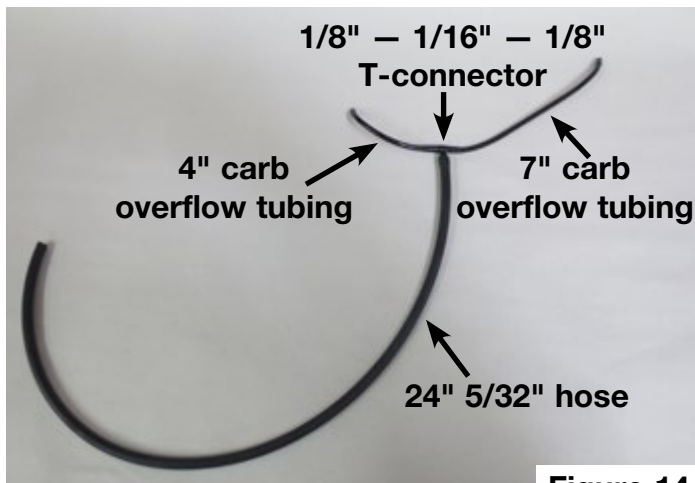


Figure 14

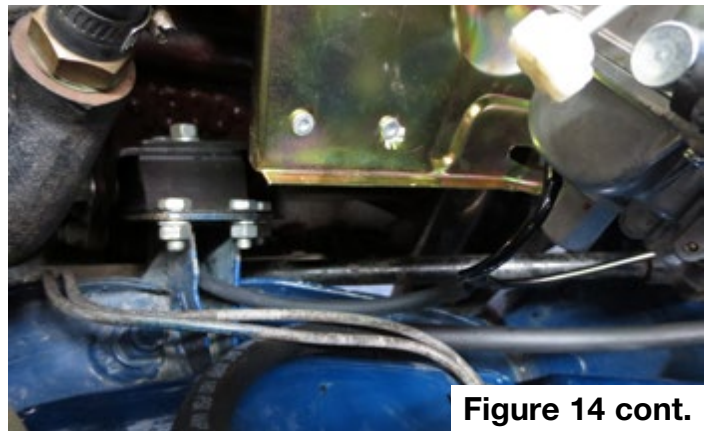
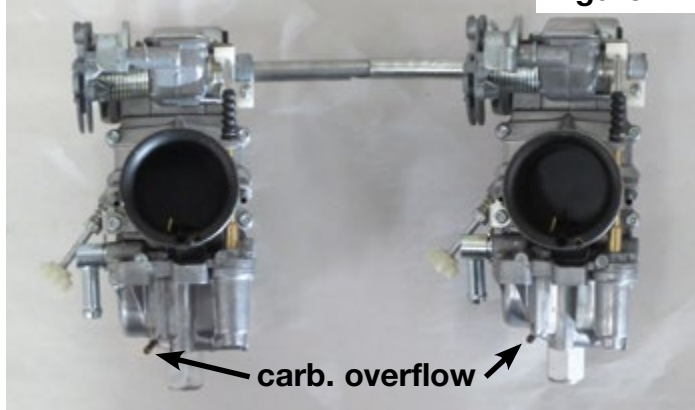


Figure 14 cont.

## Throttle cable and bell crank

- 15) Find the provided throttle cable. Remove the cable from the housing. Lube the cable with grease. From inside the car, run the cable up through the pedal and firewall just as the stock cable was routed. Screw the cable housing into the throttle/choke bracket as pictured. Install the cable into the housing. Figure 15.

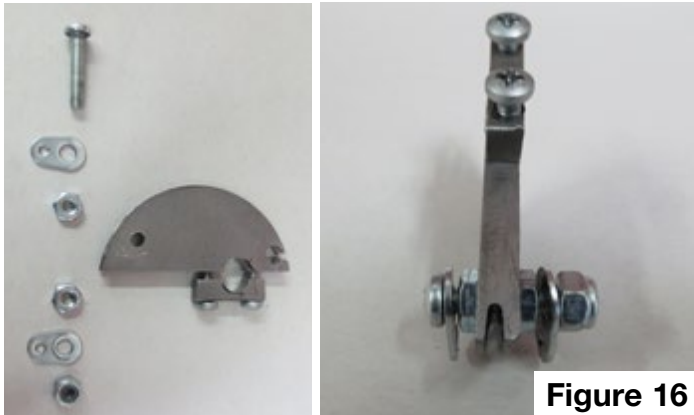


Figure 15



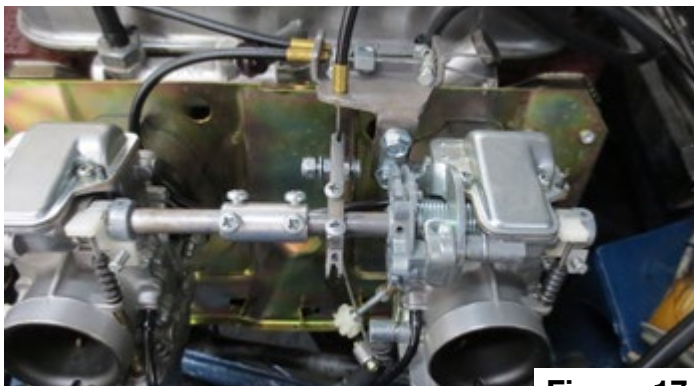
## Installation Instructions

- 16) Assemble the bell crank as pictured. Install a spring bracket onto the 10-32 x 1" screw followed by a jam nut, but do not tighten it. Install the screw assembly through the small hole in the bell crank. Thread on another jam nut. Center the screw on the crank by adjusting the 2 jam nuts and tighten a nut so that the screw assembly is locked to the crank. Install the other spring bracket and finally thread on the self locking nut enough to hold it's self to the screw. Both spring brackets should swing freely. Figure 16.

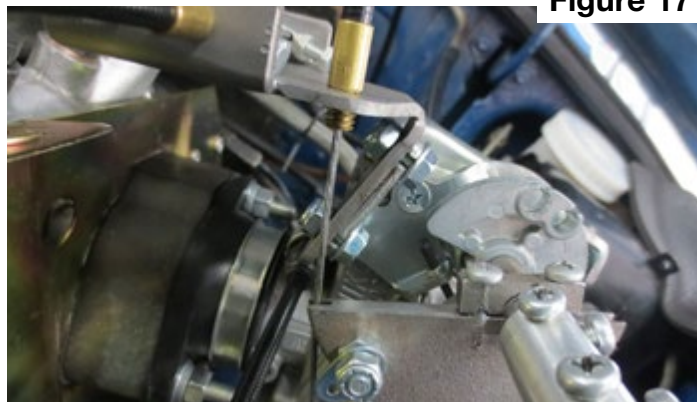


**Figure 16**

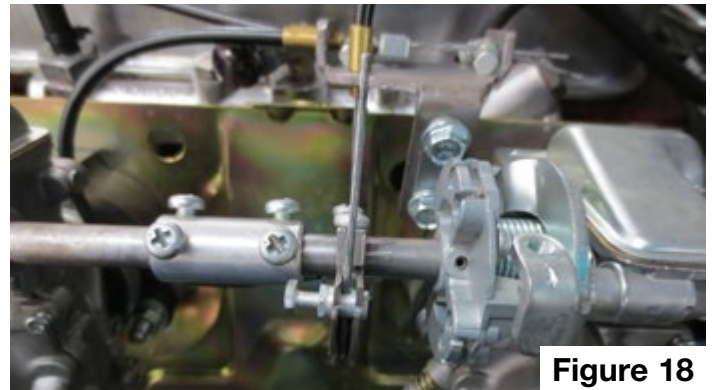
- 17) Assemble the bell crank onto the rear carb throttle shaft, inline with the throttle cable. Before you tighten it down, run the cable in the groove around the crank to make sure it is in line. The flat on the crank and the cable should make a 90° angle. Once positioned, tighten the screws down locking the crank to the shaft. Figure 17.



**Figure 17**



- 18) Install a cable anchor through the bell crank. Run the cable around the crank and into the cable anchor. Gently snug the anchor to the cable using a 7mm wrench. Figure 18.



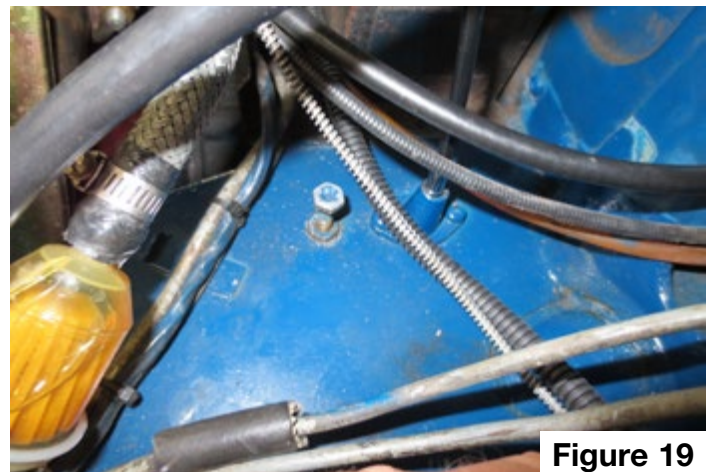
**Figure 18**

- 19) You will need an assistant to step on the throttle pedal so that you can see the action at the carburetors. The goal is to have the pedal hit the floor board stop at the same time the carburetors reach the throttle stop. Have your assistant slowly depress the pedal until either the carburetors hit the stop or the pedal hits the stop.

If the pedal hits the stop before the carbs hit the stop, you need to adjust for more pedal travel. Find the adjustment screw near the cable on the firewall. Back the screw out a turn or 2 using a 7/16" wrench (allowing the pedal to be raised). Loosen the cable anchor nut on the bell crank allowing you to remove excessive slack in the throttle cable and then retighten it.

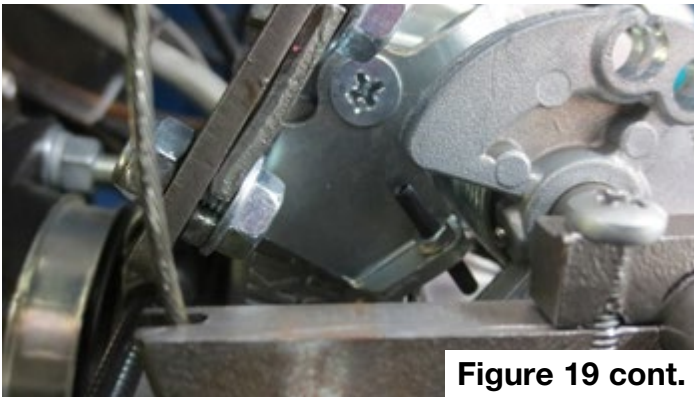
If the carbs hit the stops before the pedal, loosen the cable anchor on the bell crank. Run the throttle pedal adjustment screw down a couple of turns (moving the pedal down). Pull excess slack out of cable and retighten the cable anchor.

It may take several attempts to get it right. Figure 19.



**Figure 19**



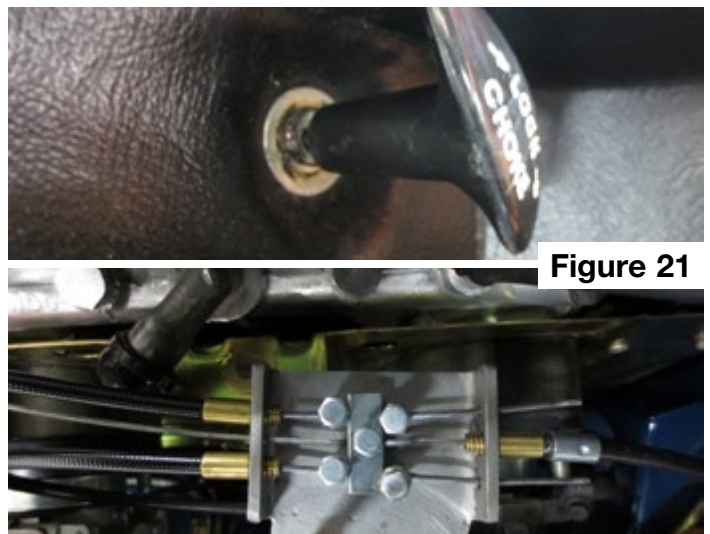


## Choke cable

- 21) Install a brass fitting into the throttle/choke cable bracket as pictured. Install a cable stop into the middle hole of the block. Run your stock choke cable into the brass fitting and through the cable stop and block. If your choke cable will not reach you will need to reroute the cable so that it penetrates the firewall in a location closer to the throttle/choke cable bracket. Pull the choke lever on the dash out about 1/4" inch. To make sure both chokes are closed on the carburetors, gently push the 2 separate cables into their housings (fully seating the chokes). Center the block in the throttle/choke bracket. Tighten the center cable anchor. Move each of the other 4 cable anchors snug up against the block and tighten them.

The pull at the choke knob is much shorter than the pull of an SU. Test the choke pull to make sure it is returning the chokes fully. Adjust cable stops if necessary. Figure 21.

- 20) Once the throttle pedal has been adjusted properly, install the 2 provided throttle return springs. One end of each spring should be installed through the cable brackets on the bell crank. The other ends of the springs should be installed through the holes in the bottom of the carburetor heat shield. The position of each spring is not important, only that they are both installed. If only one spring were used, the idle would not consistently return to where you set it (may hang around 1200 RPM). Figure 20.



# Installation Instructions

## Distributor

- 22) If your distributor does not have a vacuum advance or your vacuum advance is hooked directly to manifold vacuum move onto the next step.

If your vacuum advance distributor was hooked to a “ported” source on the old carburetors, you need to move the source directly to the intake manifold. These Mikuni’s do not have a ported vacuum source.

There is very little difference between “ported” and “manifold” vacuum. The main difference is spark timing advance at idle (closed throttle) and small throttle openings. Ported vacuum provides no spark timing advance at idle and very little at small throttle openings. Manifold vacuum provides the maximum spark advance at idle (assuming adequate manifold vacuum is present). There is no difference between them after about 1/4 throttle opening. The car will experience better idle and off idle throttle response utilizing manifold for the vacuum advance.

If you hear detonation at light throttle openings, you may need to back the timing off a little or have your distributor re-curved. Or you could try to add a little fuel via carburetor adjustment. Figure 22.



**Figure 22**

## PCV

- 23) If your intake manifold has a factory PCV valve installed, move onto the next step.

If you modified your manifold to accept a factory style PCV, install the PCV now.

If you purchased PCV kit 366-395 refer to its instructions and install it now. Figure 23.



**Figure 23**

## Starting the engine

- 24) Reconnect the battery. Make sure any unaddressed vacuum ports on the intake manifold are plugged with the appropriate hoses or vacuum caps. Turn the key on (fuel pump on) and check for fuel leaks. Let the pump run for 20 seconds or so to fill the float bowls. Pay attention to the over flow hose you ran to the center of the cross member. You may notice a few drops of fuel particularly with the first key cycle. This is nothing to be alarmed about. If you find the leak is persistent, lightly tap on the float bowls to jar the needle and seat. If the fuel continues to leak, check fuel pressure. You must never run more than 4 psi. 1-3.5 psi is desirable.

If no leaks are present, attempt to start the engine. Although the float bowls should be full of fuel, the accelerator pump chambers may not be. The carbs are sent with a fluid in the accelerator pump chambers which may make the first start up a little difficult. Be patient. You will discover the best way to start your vehicle. Typically if it is warmer than 60° outside, you will not need the choke. Simply pump the accelerator pedal twice and turn the key. If the engine begins to run on its own, give it a small amount of throttle to help keep it running. Once you have it running, keep it at 1500-1800 rpm until the engine is at normal operating temperature. Move on to the next step to adjust the idle. The first start up with new un-sinked and un-adjusted carbs will be the hardest. If it will not start, see "Engine will not start!" in the trouble shooting section. Remember with accelerator pumps it is possible to "flood" the engine so don't over do it. See "flooded" in the trouble shooting section.

### Starting our test car at sea level:

Engine warm, 70° ambient air temperature: No choke or throttle pumps required. If the engine or air temperature is slightly colder, it may require slight throttle until the engine begins to run.

Engine cold, 55° ambient air temperature: Full choke while cranking. When the engine begins to run, immediately step on the throttle slightly (to raise rpm to ~1800) and push the choke in a little bit. Once the engine smoothes out (a few seconds) slowly let off the throttle and adjust the choke as necessary. The engine will now have a high idle on its own and bring its self up to operating temperature.

If you use too much choke, the engine will have a rough idle and burble (too rich). It may stall out.

If you don't use enough choke, the RPMs will drop off sharply and the engine will stall quickly (too lean).

A little choke goes a long a long way. You may find that after the initial start up, the engine will run better if you close the choke again.

The choke pull is very short, make small adjustments.

## Synchronizing the carbs and setting idle speed

- 25) If your car will not idle without you manually opening the throttles, turn the idle speed (big white) knobs in (clockwise). Turn each of them the same amount in about 1/8 turn increments. Set idle speed to 850 RPM.

Once the engine can idle on its own you need to synchronize the carbs so that they are both flowing the same amount. Use your synchronizing or flow tool to get a reading on each of the carbs. If your carbs are flowing different rates (likely at this point), loosen the throttle shaft coupler screws. Make small adjustments to the individual idle speed knobs until both carbs are flowing the same and idle speed is 850 RPM. Give the engine time to react to your adjustments. Once the carbs are flowing evenly and idle is set, tighten the coupler screws, locking the shafts together. If you cannot get the idle down without the engine stalling see "Idle mixture" below.

Install the air filters.

## Test drive

- 25) Check over your work. Now is the time to make sure nothing is loose or leaking. Once you have double checked your work go on a short test drive to get a feel for the new carbs. When you get back check your work again. Look for leaking fuel, vacuum leaks, loose hoses, and loose hardware.

### Adjusting and trouble shooting

These carbs are pre set for a high compression (8.8:1) 18V engine with stock head, cam and an aftermarket full exhaust. In other words, a fairly typical engine. They should come out of the box needing very little adjustment past synchronizing if you are running something similar. Don't fret if you engine is vastly different. There are many adjustments that can be made to suit your individual vehicle.

## Adjustments & Timing

**Caution: Fuel will be present in the float bowl! It will drain out when the 17mm nut on the bottom of the float bowl, or the float bowl its self is removed! Do not remove this nut or the float bowl when the exhaust is warm do to its close proximity and potential for fire! Use a small bowl and rags to catch the fuel.**

# Installation Instructions

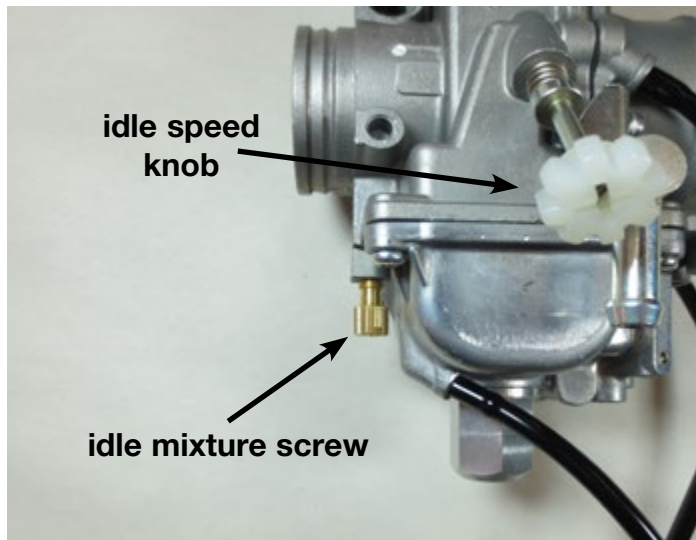
## Idle mixture

The idle mixture screws can be found on the bottom side of the carbs on the spigot side of the float bowls. They are knurled brass knobs with a slot for a flat screw driver. Turn them out (counter clockwise) for a richer mixture and in (clock wise) for leaner mixture.

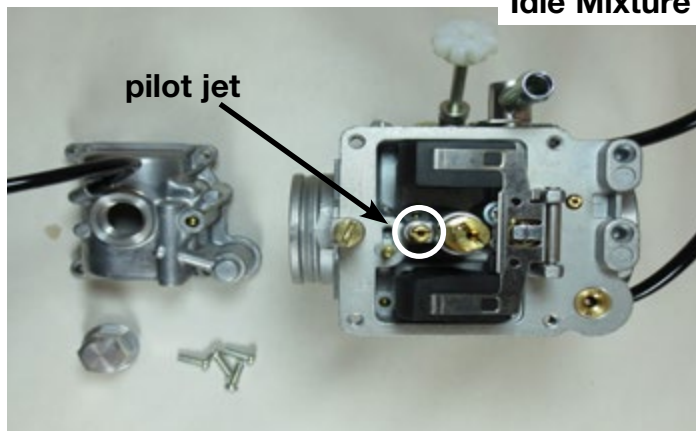
If you find that you are turning the mixture screw out 4 or more turns, you need to move up to the next size pilot jet. The pilot jet mainly contributes to idle-1/4 throttle openings.

To replace the pilot jet, see caution above! Remove the 17mm nut on the bottom of the float bowl to drain most of the fuel. Remove the 4 Phillips head screws securing the bowl to the carb body. Once the bowl is removed, use a flat head screw driver to remove the pilot jet.

The straight portion of the needle (jet needle as per Mikuni) diameter also contributes to off idle to 1/4 throttle openings. A thicker diameter needle would make for leaner mixture in this range. Use a thinner needle for richer mixture.



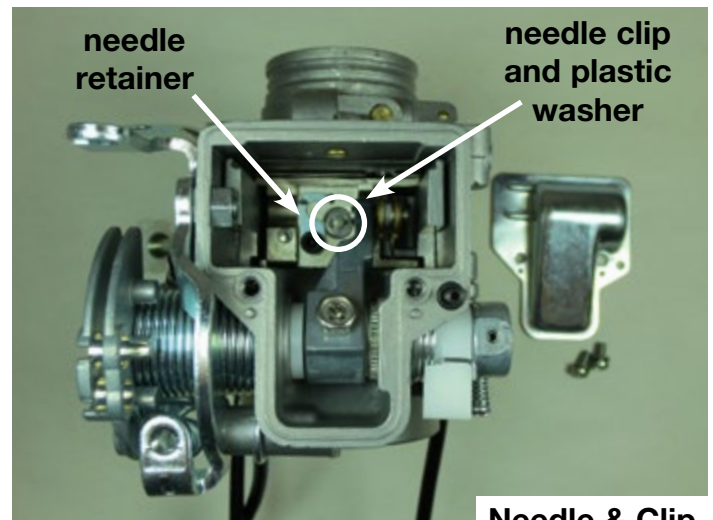
Idle Mixture



## 1/4 – 3/4 Throttle

The tapered portion of the needle controls mixture in this range. There is a clip on the needle which sets the height of the needle. The position closest to the top of the needle is #1. Placing the needle here would set the needle down into the jet as far as possible and make for the leanest condition.

The position closest to the middle of the needle is #5. Placing the clip in the #5 position will pull the needle out of the jet and there for be the richest position. To change the needle position, remove the stamped steel plate from the top of the carburetor (2 Phillips screws) to reveal the top of the needle. Use a 2.5mm Allen wrench to loosen the black screw. Swing the small needle retainer over allowing you to pull the needle out of the carb. Take note of the small plastic washer sitting under needle clip and do not loose it. Place the needle and clip on a hard flat surface with the opening of the clip facing the surface. Push down on the needle close to the clip to avoid bending the needle. Make sure your hand is over the clip to avoid losing it. To install the clip, place the open end of the clip up and push the needle down into it.



Needle & Clip



## 3/4- Wide open throttle

The main jet controls mixture in this range. A larger number on the jet signifies a larger diameter hole and a richer mixture. To change the main jet, see caution above! Remove the large 17mm nut on the bottom of the float bowl. Remove the main jet using a flat screw driver.

## Choke

The choke in this carburetor may be different than others you are used to. This choke has its own fuel supply (jet) on the manifold side of the carburetor slide and its own air supply which also bypasses the slide. Think of it as a tiny, rich running carburetor that is built along side of the Mikuni. Pulling the choke knob is like opening the throttle on it.

You can use this to help you tune. If you feel there is a certain area that the engine is lean, pull the choke in that area and note the reaction. If it gets worse, it may not be lean in that area. If it gets better, you may need to add fuel in that area.



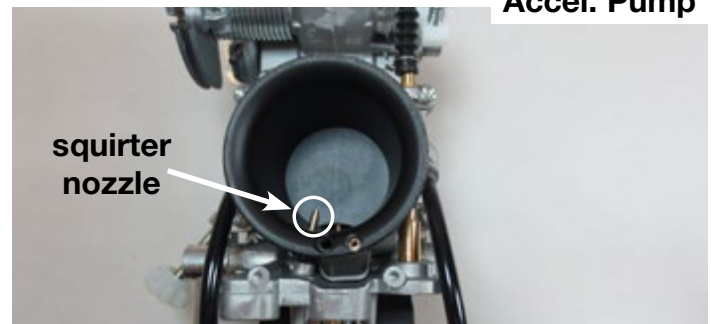
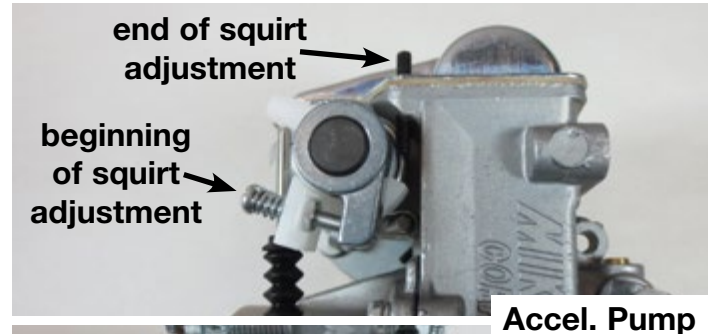
## Accelerator Pump

The accelerator pump gives an extra squirt of fuel on acceleration. There are three ways to adjust the accelerator pump. The first two adjustments are used to control when the pump begins to squirt fuel and when it stops in relation to throttle position.

On the right hand side of the carbs there is a Phillips head screw in the white plastic accelerator pump depressor. Turning this screw in (clockwise) will require more throttle opening before the pump begins to operate. Turning the screw out (counter clockwise) will require less throttle opening before the pump begins to operate.

The black stud on top of the carburetor with the 1.5mm Allen hex, controls when the accelerator pump stops in relation to throttle opening. Turning this stud in (clockwise) will stop the operation of the pump sooner in relation to throttle opening. Turning the stud out (counter clockwise) allows the pump to operate farther into the throttle opening.

The third adjustment requires replacing the squirter nozzle with a different sized nozzle. To replace the squirter nozzle, remove the float bowl and push the nozzle down and out of the carburetor bore. Make sure to push the nozzle all the way up to seat it when replacing. Also the nozzle should be aimed at the needle.



## Why do I need an accelerator pump?

In a constant velocity carburetor (like and SU) an accelerator pump is not necessary because no matter how fast you open the throttle blade, the piston controls the amount of air into the engine. In other words you are indirectly controlling air flow. You control the potential of air allowed into the engine with the throttle, but the slide controls the actual volume of air. The needle is attached to the bottom of the slide allowing the correct amount of fuel to be pulled in along with the air. The slide only rises as the engine demands more air (the RPM's rise). Since you never get the instant rush of air, it does not respond very quickly. However you also do not need an accelerator pump.

# Installation Instructions

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On these Mikuni carburetors, you are directly controlling the amount of air you are letting into the engine. When you step on the pedal, you pull the slide and needle up directly. This is a good thing but also has its faults. It is good because it makes for much crisper throttle response. You open the slide and you get an instant rush of air into the engine. Thanks to the accelerator pump you also get a squirt of fuel to go with it. However keep in mind; there is a limit to how much the accelerator pump can do. If you open the throttle too much at too low of an RPM, the speed of air through the carburetor slows dramatically. If the air speed is too slow the fuel will not atomize (mix with the air). The result is an overly lean condition and the engine will fall flat. We have found this to happen under 1500 RPM's with 3/4 or greater throttle openings. The squirt from the accelerator pump simply does not have enough volume or duration of fuel to allow the engine to catch up. If you did tune the accelerator pump to compensate for this, it would be far too rich for more normal driving conditions.

## Base carburetor specifications and settings

Pilot jet: 12.5

Pilot air bleed: 1.0

Main jet: 162.5

Jet needle (needle): 9DZH6-50

Needle jet (jet): 568-P4

Squirter nozzle: 30

Idle mixture screw: 3.0 turns out from lightly seated.

***Note for idle mixture: If you have installed PCV kit 366-395, your base setting should be 3.5 turns out.***

Clip needle position: 5 (full rich)

Idle speed knob: 2 full turns from fully closed

Accelerator pump begins: 1/8 throttle

Accelerator pump ends: just after 1/2 throttle

Throttle stop: 3/8" of stud exposed (on throttle stop side)

## "Flooded"

The accelerator pump works even if the engine is off. If you operate the throttle with the engine off too many times, the engine will become "flooded". This means the air fuel ratio is too rich to burn. You can verify this by looking at a spark plug. If it is wet with raw fuel, the engine is "flooded".

This is not to say you should never step on the pedal with the engine off. A pump (or more) just before a cold start can help the engine start faster. You will need to experiment with your car, in your climate to see what works. Just remember it is much easier to pump the pedal again than it is to clean spark plugs and allow the intake and cylinders to "dry out". Don't get carried away.'

## Engine will not start!

If the Mikuni's have just been installed for the first time, it may take some extended engine cranking to get the engine started. The carburetors are shipped with a solution in the accelerator pumps which does not burn as well as gasoline. Also so every engine will need slightly different settings to idle correctly. Try the following:

Crank the engine in 3-4 second bursts allowing 5-10 seconds in between for the starter motor to cool. Every 2nd or 3rd burst of cranking pump the accelerator pedal once. If the engine begins to run, keep your foot on the pedal lightly to raise the idle a bit until the engine is warm. See "Synchronizing the carbs and setting idle speed" to get the engine to run on its own. If at anytime the engine begins to crank slowly, attach a battery charger with a "start" function.

If you still cannot get your engine to run, did it run before you installed the Mikuni carburetors? If no, you need to find the preexisting problem and fix it. If it did run before you installed the Mikuni's read the next section.

If have driven your car with the Mikuni's installed previously and your engine will not start now, do not assume the problem is in the carburetors. You need to go through all the normal steps to determine where the problem lies. Does the car have gas? Is the battery fully charged? Do you have spark? And so on...

A quick way to detriment if the no start is fuel or spark related is to give the engine "false fuel". Spray a quick squirt of carb cleaner into each carburetor throat while the engine is cranking. If the engine begins to start as you do this, it is probably a fuel starvation issue.

If you have traced the no start to the carburetor, check to see if fuel is present in the float bowl by removing the 17mm nut on the bottom of the float bowl. Please see the cautionary note at the beginning of the “Adjusting and trouble shooting” section. You can also have an assistant step on the accelerator pedal while you check to see if the accelerator pump nozzle is spraying fuel. If no fuel is present find out why. Clogged filter, bad fuel pump, bad wiring, disconnected hoses, ect.

If there is fuel present in the float bowl, is the float bowl dirty? If yes is there gum or debris in the jets blocking fuel?

If there is fuel present in the float bowl, is the engine flooded (see “flooded” above)?

Is there fuel leaking from the overflow hose? If yes, is the float sticking or debris in the needle and seat? Is the float height set correctly?

If the engine is flooding on its own and there is no fuel leaking from the over flow line: Check for blockage in the over flow lines. Also check that the over flow lines are never routed higher than the bottom of the float bowl.

Is the fuel pressure greater than 5 psi? The needle and seat will not support higher than normal SU pump pressure.

### **Long term storage and maintenance**

If you will be storing your car for more than couple of weeks we recommend using a fuel stabilizer. Pour the recommended amount into the fuel tank and drive the vehicle for a while to ensure the stabilizer has reached the fuel line and carburetors. Once the engine is cool, remove the 17mm nut on the bottom of the float bowl to drain the carburetors.

It is a good idea to remove the nut from the bottom of the float bowl a couple of times per season. Any debris in the fuel will typically collect here.

## 366-380 BOM

No.	Description	Qty	Unit
053-401	FRONT CARB, MIKUNI 36,MODIFIED	1	EACH
053-402	REAR CARB, MIKUNI 36,MODIFIED	1	EACH
053-392	STARTER PLUNGER	2	EACH
053-393	SPRING, STARTER PLUNGER	2	EACH
053-394	CAP STARTER CABLE	2	EACH
053-395	HOLDER	2	EACH
053-390	SPIGOT, MIKUNI, REDRILLED	2	EACH
294-710	GASKET, CARB MOUNT	4	EACH
310-140	NUT, 5/16 UNF, ZINC <i>Attach hardware for spigots</i>	4	EACH
365-730	WASHER, LOCK, 5/16 IN <i>Attach hardware for spigots</i>	4	EACH
051-588	WASHER, FLAT, 5/16 IN., SAE <i>11/16 OD, for spigots</i>	4	EACH
053-344	COUPLER, THROTTLE SHAFT <i>.625OD,4 mach. screws, zinced</i>	1	EACH
053-397	SCREW, 10-32 X 1/4, PAN HEAD <i>For coupler, zinc plated steel</i>	4	EACH
053-386	BELLCRANK, CLAMP	1	EACH
053-387	BELLCRANK, THROTTLE	1	EACH
053-396	MIKUNI THROTTLE CABLE, MGB	1	EACH
473-070	CABLE STOP (TRUNNION W/SCREW) <i>Cable anchors</i>	6	EACH
771-728	SCREW, 8-32 X 3/8, PHILLIPS <i>For bellcrank clamp</i>	2	EACH
370-320	SPRING	1	EACH
370-335	SPRING	1	EACH
372-070	BRACKET, SPRING <i>Holds springs to bell crank bolt</i>	2	EACH
322-946	SCREW, 10-32 X 1, PAN HEAD <i>Holds accelerator springs to bell crank</i>	1	EACH
310-115	NUT, HEX, 10-32, ZINC, 3/8" AF <i>Locks bolt to bellcrank</i>	2	EACH
770-050	NUT, NYLOC, 10-32, ZINC <i>Retains 2nd spring bracket</i>	1	EACH

No.	Description	Qty	Unit
053-388	BRACKET, CHOKE SPLIT <i>Throttle/choke cable bracket</i>	1	EACH
372-235	BLOCK, REMOTE CONTROL CABLE <i>Choke block</i>	1	EACH
051-039	NUT, NYLOC, M6 X 1.0 <i>Throttle/choke cable bracket to carb</i>	2	EACH
051-003	BOLT, HEX FLANGE,M6 X 1.0 X 12 <i>Throttle/choke cable bracket to carb</i>	2	EACH
053-406	CABLE TIP, 1/4-20, NO CRIMP <i>For throttle cable in throttle/choke bracket</i>	1	EACH
053-407	FORWARD CARB CHOKE CABLE	1	EACH
053-408	REARWARD CARB CHOKE CABLE	1	EACH
297-535	GASKET, MANIFOLD, PREMIUM	1	EACH
051-191	CLAMP, HOSE, MINI, SAE NO. 4	10	EACH
434-451	HOSE, FUEL, ETHANOL PROOF,5/16 <i>Fuel line and carb vent to charcoal canister</i>	52	INCH
052-054	HOSE BARB, REDUCER, 1/4 X 5/16	1	EACH
052-343	FUEL FILTER, FOR 1/4 IN HOSE	1	EACH
053-328	5/16" BARBED BRASS HOSE TEE <i>Fuel line</i>	1	EACH
565-040	T-CONNECTOR, 3/16 - 1/8 - 1/8 <i>Over flow and vent lines</i>	3	EACH
051-551	HOSE, VACUUM, 7/32 IN., BULK <i>Over flow and vent lines</i>	13	INCH
051-755	REDUCER, VACUUM, 5/32 X 7/32 <i>Over flow and vent lines</i>	1	EACH
051-259	HOSE, VACUUM, 5/32 IN., BULK <i>Over flow and vent lines</i>	40	INCH
051-389	TEE, VACUUM, 3/16 <i>Over flow and vent lines</i>	1	EACH
051-016	CABLE TIE, 4IN.	6	EACH
770-055	CABLE TIE, 6 IN.	6	EACH
053-398	INSTRUCTIONS, MGB MIKUNI CONV.	1	EACH

**Although every effort has been made to ensure the accuracy and clarity of this information, any suggestions that you may have that will improve the information (especially detailed installation notes and photos) are welcome. These instructions were developed and written by Moss Technical Support. If you have any questions or difficulties with your installation of this product, telephone 800-667-7872 between 7:00 a.m. and 4:00 p.m., Pacific Time for assistance.**

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