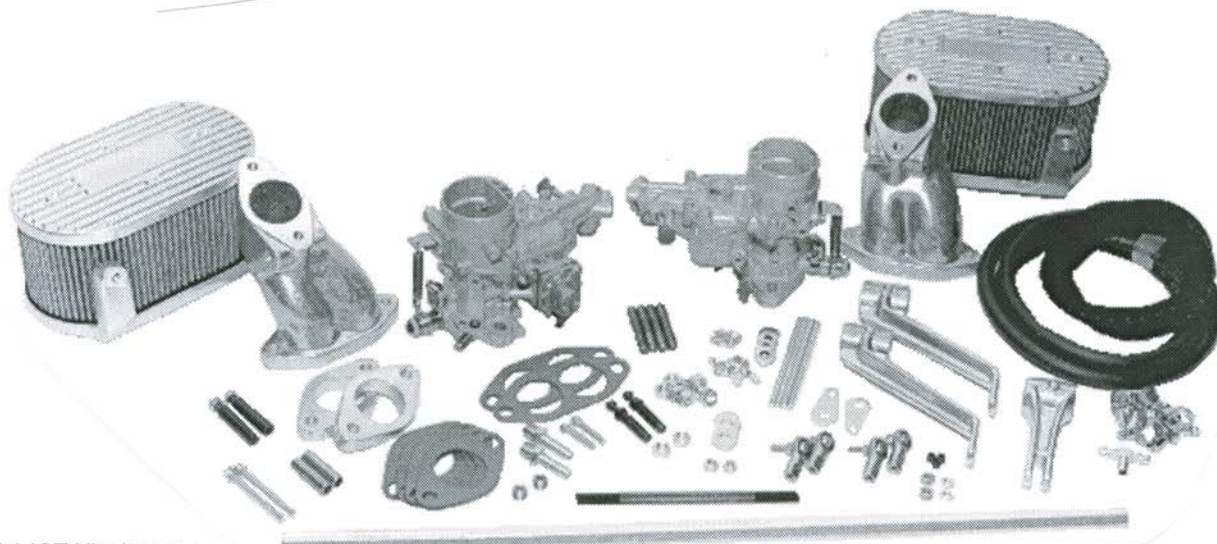


Installing Dual

WEBER ICT

CARBURETORS



T-1 ICT Kit shown.

Installing your new Weber ICT kit is no different than that of a normal dual throat dual carburetor installation. The only big difference is that your dual ICT kit consists of two single throat carburetors. There is also only one style of carburetor, they are not sold in sets of right and left side carburetors. The installation of your new carburetor kit can be real simple and to the point if you follow these next few steps. If not it can end up in a big mess and a garage with carburetor parts strung all over. It's always best to read through the instructions to get a better feel of what is going to take place later on during the installation.

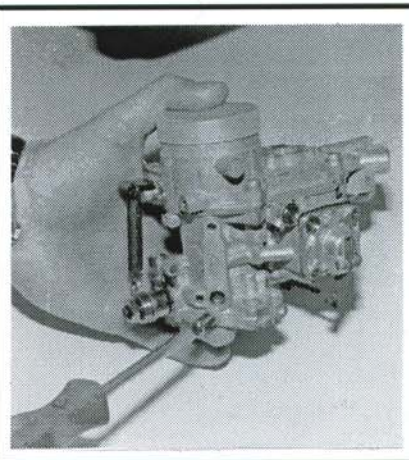
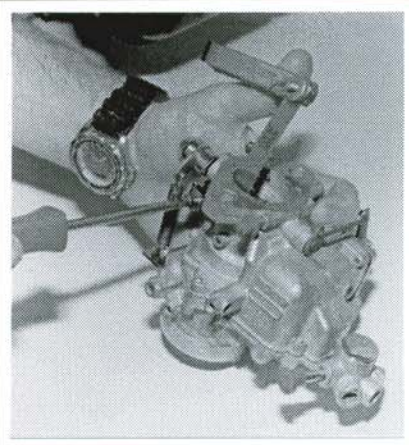
The first step is to pre-tune your carburetors. Pre-tuning is initiated by setting the throttle plates to the same opening on both carburetors. This is done by using a .008 steel feeler gauge placed between the throttle plate and the side of the carburetor barrel wall. Adjust the idle speed screw until a tight, snug fit between the butterfly and the side of the barrel is obtained. The feeler gauge should slide out of the opening with a slight amount of pressure. Setting

the carburetors in this manner will assure you equal air flow during the first start up period.

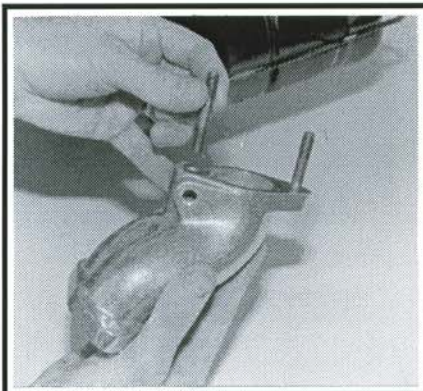
A .008 clearance between the butterflies and the carburetor walls might result in an engine idle speed that's slightly on the fast side, but at least your carbs will be set even and the engine will run smooth. You can slow the idle speed down later.

Now both mixture screws need to be set the same. Start by gently turning the mixture screws inward gently, clockwise, until they bottom out. Don't cram 'em into the bottom of the threaded needle wells, slow and easy is the key to this operation. Turn each mixture screw out counter clockwise 2 1/2 turns off the bottom. This will provide an even starting point for idle speed air/fuel mixture control when the engine is first started.

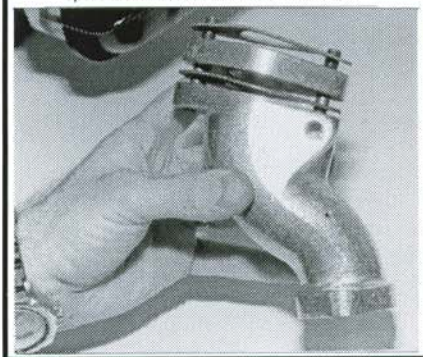
Now that pre-tuning the carburetors is out of the way, bolt the carburetors to the intake manifolds. There are four 8x50mm studs that will be used for securing studs. The studs will need to be threaded into each manifold. Two studs per manifold. Before bolting on the carburetor, the spacers must first be put on. The



spacer goes between the manifold and the carburetor. To do so, a gasket is placed down over the studs onto the manifold, then the spacer,



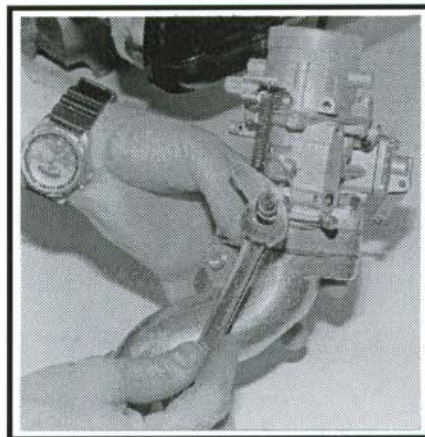
Spacers are not used on T-3 & T-4 ICT Kits.



and then another gasket. Now the carburetor can be bolted on using two 8mm flat washers and 8mm nuts. The side of the carburetor that has the idle speed screw should be facing towards the back of the car. The pulley side of the engine. Do not use any form of sealant between the carburetor or spacer, the thick paper gaskets will work just fine. The nuts should be torqued down to eighteen foot pounds. If you can't get a torque wrench in there give it your best shot.



There are two 1/8" pipe plugs and two 1/8" barbed fittings to accept 1/4" hose supplied in the kit. The manifolds each have two holes, one is to be plugged off and the other one is for the barbed fittings. The section of vacuum line supplied in the kit is hooked up to these fittings. The vacuum line is used as a balance tube between the two carburetors. It must be used in order for the carburetors to operate correctly. The line can be ran on either side of the manifold. Most often it is hooked up to the back side of the manifold so that it is out of the way. Be sure to use some teflon tape on these fittings and plugs to prevent any vacuum leaks.

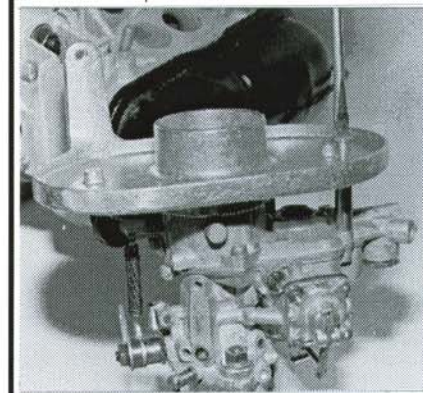


The new throttle arms should now be put on. Both throttle arms will end up pointing in the direction of the drivers side of the engine, to the left. It will take a 12mm wrench to loosen the spindle nut. Once the spindle nut has been removed, make sure to remove the retaining plate also. Slide the arm onto the shaft followed by the retaining plate. Thread the spindle nut back onto the shaft and snug it down with light pressure. Bend the retaining plate tab around the nut to lock it into place.

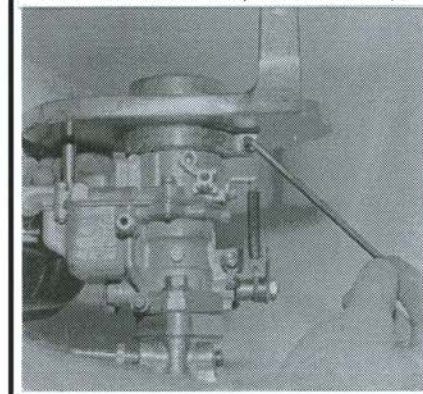
Unlike a lot of other kits being sold out on the market today, this kit features a one piece aluminum air cleaner base along with a steel

cross bar and solid aluminum linkage arms. The threaded linkage arms feature right and left hand threads for easy adjustments. They are secured to the cross bar and carburetors by the use of heim joints. The heim joints provide a no "slop" positive connection to the cross bar and carburetor.

3 Anti-Swivel Spacers are used on T-3 & T-4 ICT Kits.



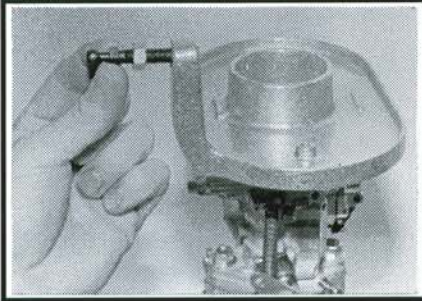
T-3 & T-4 A/C Bases do not require the use of a clamp.



To secure the A/C base to the carburetor, you must first remove one of the stock bolts on top of the carburetor. It will be replaced with a longer screw that will in turn position the anti-swivel spacer. The screw that you will be removing is to the right on top of the carburetor.

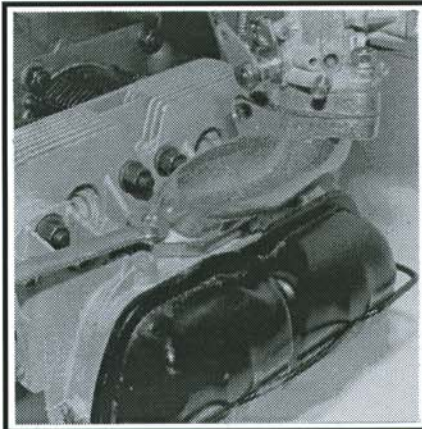
There are right and left side A/C bases. The correct position to end up with is to have the vertical supports both facing one another towards the back of the engine. "Back" once again meaning the pulley side of the engine. Locate the two common headed counter-

sunk screws and washers. These are used to hold the anti-swivel spacers in place. Then there are two allen head screws that are used to actually tighten the base up around the throat of the carburetor. One required for each A/C base. There are two swivel ball mounts that support the cross



bar assembly, one threads into each base at the vertical support. Before threading the swivel ball mounts in, there are two 8mm nuts used for lock nuts that go on each mount.

At this time both manifold and carburetor assemblies are ready to be secured to the cylinder heads. Before positioning the gasket on the cylinder head, make sure there is a clean sealing surface. Making sure that there are no remains of the old gaskets stuck to the cylinder heads. Position the cylinder head to manifold gasket on the cylinder head. Make sure to use the gaskets supplied in this kit. They work a lot better than thin paper gaskets or steel gaskets. Line up the intake manifolds with the intake mounting studs on the cylinder heads. Slide the intake



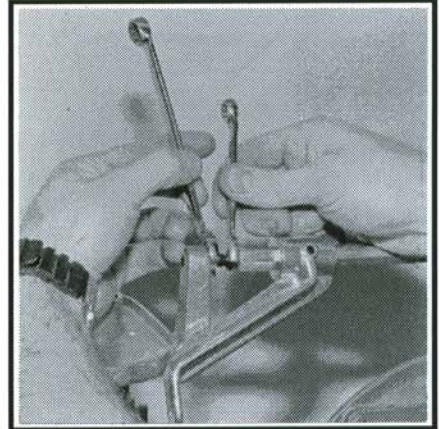
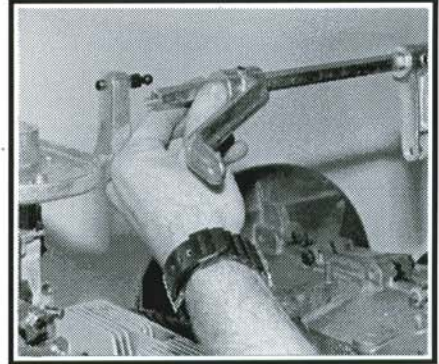
manifolds down onto the cylinder heads. Install the two 8mm nuts at the base of each manifold and slowly tighten them. The manifolds and carburetors will pull inwards as the manifolds are tightened. Torque the nuts down to about 14 pounds.

Note, for ease of better showing the installation process, we have used a bare long block engine. When you are installing this kit on your own engine you should have all of the necessary sheet metal and alternator/generator already installed. Sometimes the manifolds will fit a little tight in the opening of the sheet metal where they pass through to be bolted to the cylinder head, if you experience this problem, don't worry. You might just have to use a little more persuasion to get it to fit.

The cross bar linkage is next. The aluminum linkage arms and the throttle cable bracket slide on the steel hex cross bar and are locked in position by allen set screws. The throttle cable bracket locates one hex degree down from the linkage arms. Internal tension springs are placed in each end of the cross bar to aid in centering the linkage. Install the linkage arms and throttle cable bracket as shown. Don't tighten the allen screws at this time. We'll do that when we line everything up.

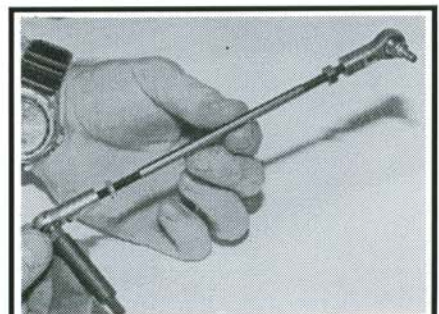
Place a small amount of heavy grease inside the support holes in each end of the hex bar. Insert the tension springs and place the right end of the hex bar over its respective cross bar swivel ball. Push the cross bar on to the swivel ball and line up the left side end of the hex bar with it's cross bar swivel ball.

Screw the swivel balls out until the cross bar is fully supported by the swivel balls. Center the hex bar linkage assembly by rotating the swivel balls. Adjust the length of the swivel ball mounting screws until the



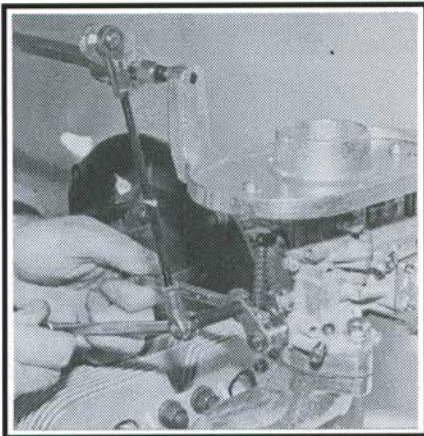
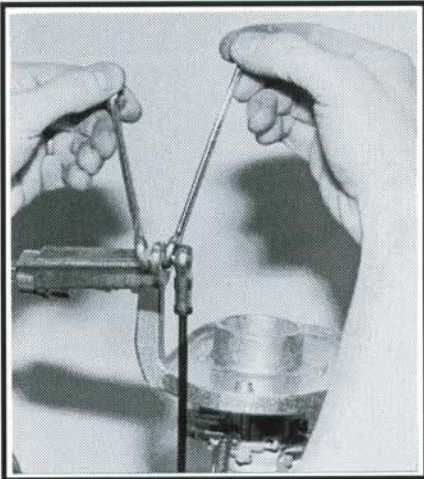
hex bar is centered. Leave about an 1/8" of side play and tighten up the swivel ball locking nuts. Make certain that the cross bar is free to rotate on it's axis.

The linkage rods and heim joints are next. Please note that each linkage kit is set up with two standard right hand threaded heim joints and two with left hand threads. The linkage rods are equipped with matching left and right hand threads. Each linkage rod needs to have a linkage extension arm threaded onto one end of rod. The linkage extension arm is attached to the carburetor



T-3 & T-4 Kits only have an extension on the driver side carb.

end. Once installed you'll be able to fine tune your throttle adjustments by rotating the throttle rods. Once

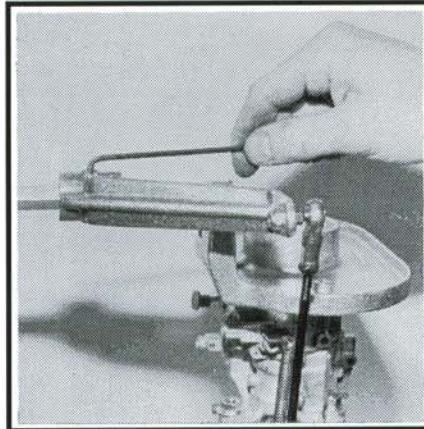


adjusted, you lock them in position by tightening down the lock nuts. The lock nuts are also supplied in left and right hand threads.

When you think you get all of this left hand right hand stuff figured out, and assembled, install the throttle rods into the aluminum linkage arms. A suggestion here is to position the heim joints with the left hand threads at the top. Install the heims with the right hand threads on the bottom or carburetor end of the throttle rod. Bolt them to the throttle arms. Don't lock anything down just yet.

Position the aluminum linkage arms on the cross bar so that the throttle rods are vertical when viewed from the rear of the engine. Lock the aluminum linkage arms into position

by tightening the allen set screw to prevent the aluminum linkage arms from sliding on the hex bar. Slide the aluminum throttle cable arm into position to line up with the throttle cable tube in the fan shroud and tighten down the allen set screw.



The trick now is to get your linkage aligned to match your pre-set carburetors. Don't adjust your carburetors to line up with the linkage rods, adjust the linkage rods to fit the carburetors. The linkage rods are held in place with shake proof lock nuts. Work the throttle a few times to make certain that everything is free, doesn't bind, and that the throttle stops on the main shafts in the fully closed position. The main shafts in the carburetors are spring loaded. Both of the carburetors should return to their closed position with a solid snap. If they drag, or return slowly to a closed position, check it out because something is not right. If everything is in correct working order, tighten up the shake proof lock nuts that secure the heim joints into the upper and lower linkage arms. Tighten these to no more than 2 lbs. of torque.

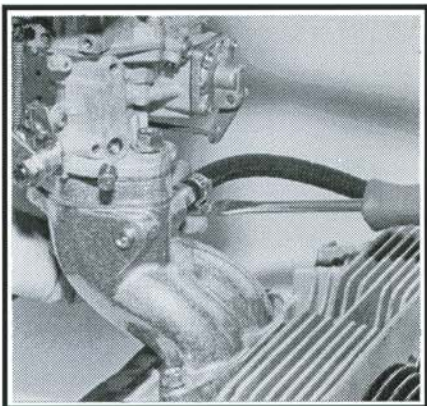
Now let's check out those left and right threads on the linkage rods. By rotating the linkage rods you'll be able to extend or shorten the rods. This will allow you to align the linkage to match the pre-set carburetors. Don't adjust the carbu-

retors to match the linkage because you'll throw 'em out of sync. **Adjust the linkage to match the carburetors!** Don't mess with the pre-set idle speed control screws or you'll throw your carburetors out of sync. Make the necessary adjustments in the linkage rods to level or equalize the cross bar and linkage arms.

When you think that you've got the linkage dialed in, push the aluminum throttle arm downwards and watch the linkage arms as they move from closed to open. If one carburetor "leads" the other, you've got some more dialing in to do. The opening and closing throttle action has to be precise. So play with your throttle until it works just right. Don't attempt to reinvent the linkage system. Simply adjust it to match your **pre-set** carburetors and then tighten up the four lock nuts on the throttle rods.

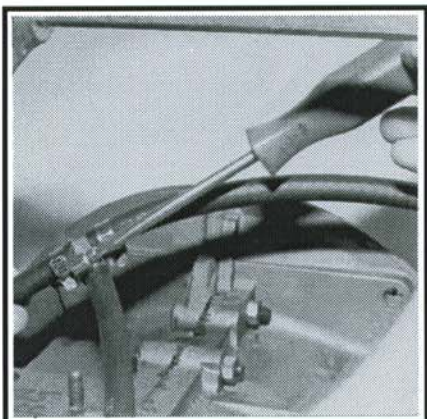
Connect the throttle cable. Push the throttle pedal. Make certain that the pedal attains the end of its "stroke" at the same time or slightly before the throttle reaches full open. Excessive travel of the throttle pedal can bend the throttle linkage. It may be necessary to install a throttle pedal stop to control or limit pedal movement. Have your partner operate the throttle pedal while you watch the action of the throttle linkage. If the drag of the throttle cable and pedal slow down the closing action of the linkage, install two helper throttle return springs. The helper springs provide a safety factor and should be seriously considered for use on any vehicle. The slight amount of increase in throttle pressure will never be noticed.

When installing dual single throat carburetors such as Weber ICT's, they operate a lot smoother at slow engine speeds when a balance tube is installed between the manifolds. The balance tube allows equalization



of pressures and provides a balancing effect during idle and mid range RPM. The balance tube consists of two brass fittings and two plugs which were threaded into the manifolds earlier just below the carburetor bases. A rubber hose is then used to connect both intake manifolds together. The hose must be clamped in position to eliminate vacuum leaks. Make certain to locate and tie the rubber balance tube out of the way to prevent entry into the fan or any other moving parts.

The fuel line can now be installed. The ICT's use a fuel line T that can be located between the carburetors at a point convenient for connection of the fuel pressure line. The fuel pressure should never exceed 3 1/2 lbs. If a high pressure pump is to be used, a fuel pressure regulator must be installed. Make sure all fuel line connections are secured with clamps. With the installation of new carburetors, it's a good idea to



replace the fuel filter on your vehicle with a new one. Or if there is not one, you should seriously consider putting one in your new system. The best place to locate the filter is before the fuel pump so that what ever contamination that is in the system will not reach the fuel pump or the carburetors. We do not suggest the use of glass fuel filters either. They are dangerous if by chance it ever broke. Just a normal steel or plastic one will work just fine.

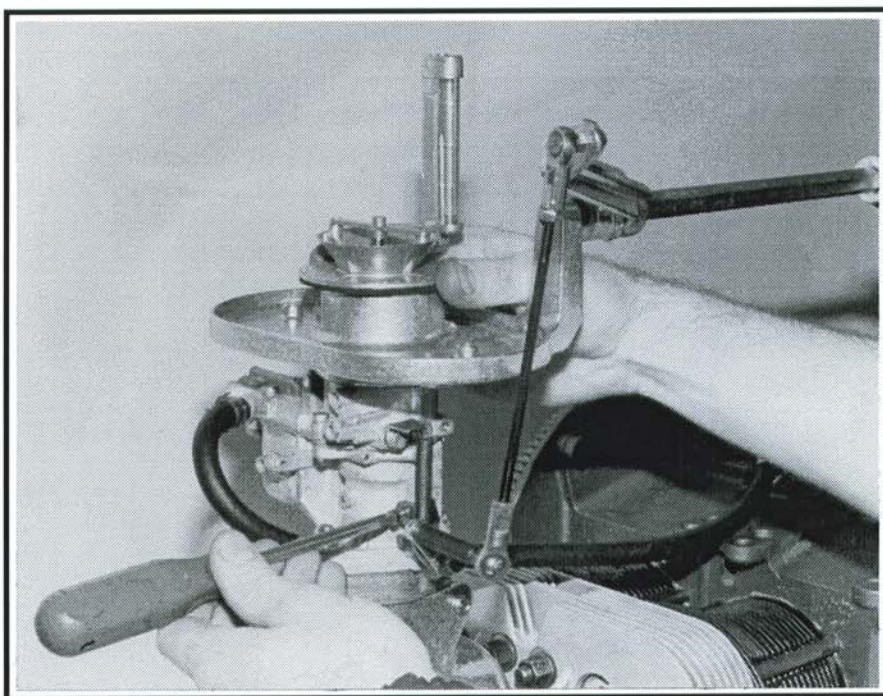
Check the ignition timing, fuel lines and overall installation. Ignition wires that interfere with the operation of the throttle linkage should be re-located or tied out of the way.

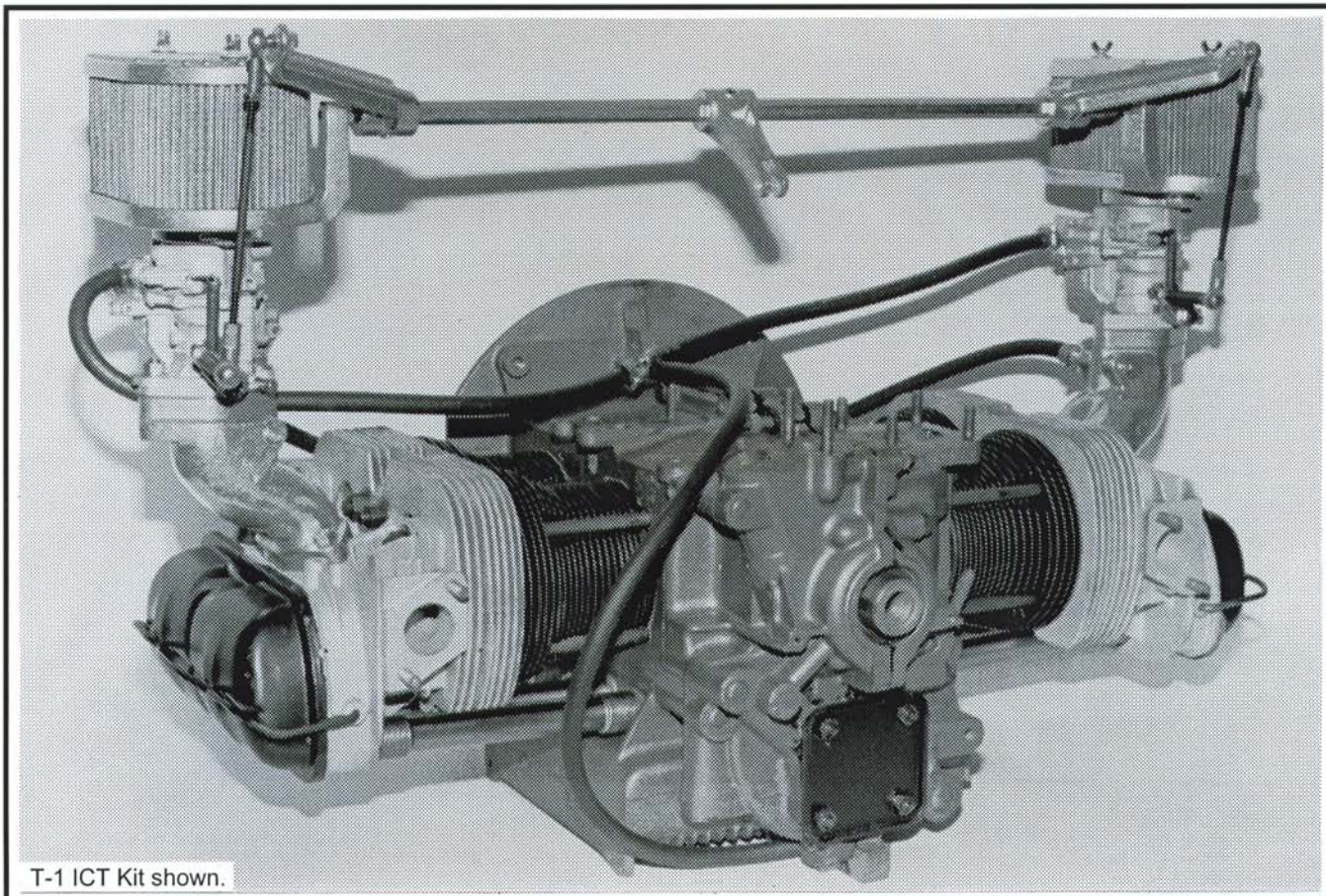
Start the engine. Blip the throttle to provide adequate fuel mixture to bring the engine up to operating temperature. When the engine is warm enough to maintain idle speed, balance the carburetors with a uni-syn gauge. If your pre-tune operation was accurate, and if you dialed in the adjustable linkage rods so that the throttle stops rest on the idle speed screws, your engine should be in the ball park. If your idle

speed is too fast, rotate the idle speed screws outward 1/8" turn each until a slower speed is reached. Moving the screws inward will increase the idle speed.

You can now check your work with a uni-syn gauge. Position the gauge over the intake of one of the carburetors. Rotate the thumb screw clock wise until the ball rises in the see through tower. Move the uni-syn gauge to the other carburetor and check the air flow against the first carburetor. Attempt to center the ball at the mid-way point in the tower. It may be necessary to loosen a heim joint from one aluminum linkage arm to ease the procedure of balancing the carburetors. When both carburetors are flowing an equal amount of air, re-tighten the heim joint to the linkage arm. Check the idle progression of the cross bar linkage assembly. If one carburetor "leads" as the throttle is advanced slight adjustment of the threaded linkage rods should be made.

With the engine still running, screw one of the mixture screws inward until the power falls off. Slowly rotate



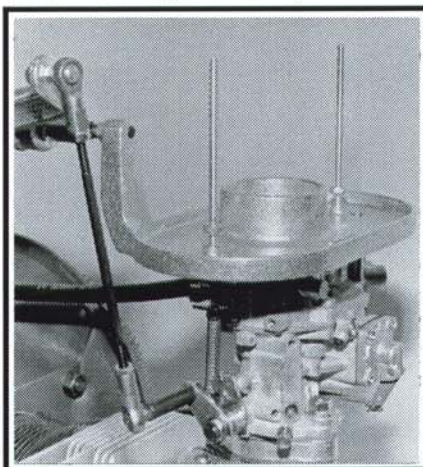


T-1 ICT Kit shown.

the mixture screw outward until the engine smooths and runs at best speed. Repeat the procedure on the other carburetor. If the idle speed changes due to the improved mixture setting it may be necessary to re-set the idle speed control screws.

Now that you have your engine dialed in, it's time to keep the incoming air clean. The air cleaners and tops are held in position with threaded studs and lock nuts. Install the studs in the A/C base and use the lock nuts to secure the studs. When using a mesh type air filter like the ones supplied in this kit, they must be oiled before use. A mesh style air filter is not really an air filter. They are considered to be suspension devices to hold oil. It's the oil that's held in suspension that traps the incoming dirt and grime before it reaches your engine.

These mesh style air filters will also need to be cleaned. Once you start to see a build up of dirt around the filter, it's time to clean them. When cleaning the filters, never use

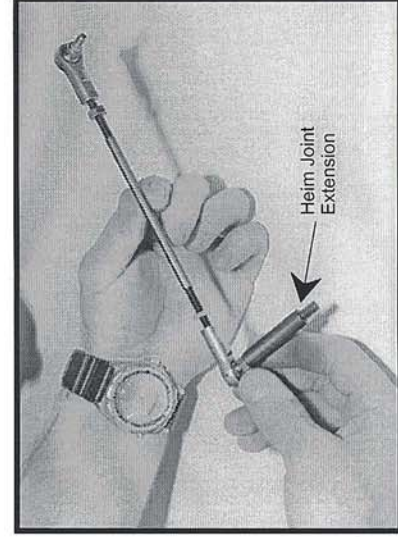
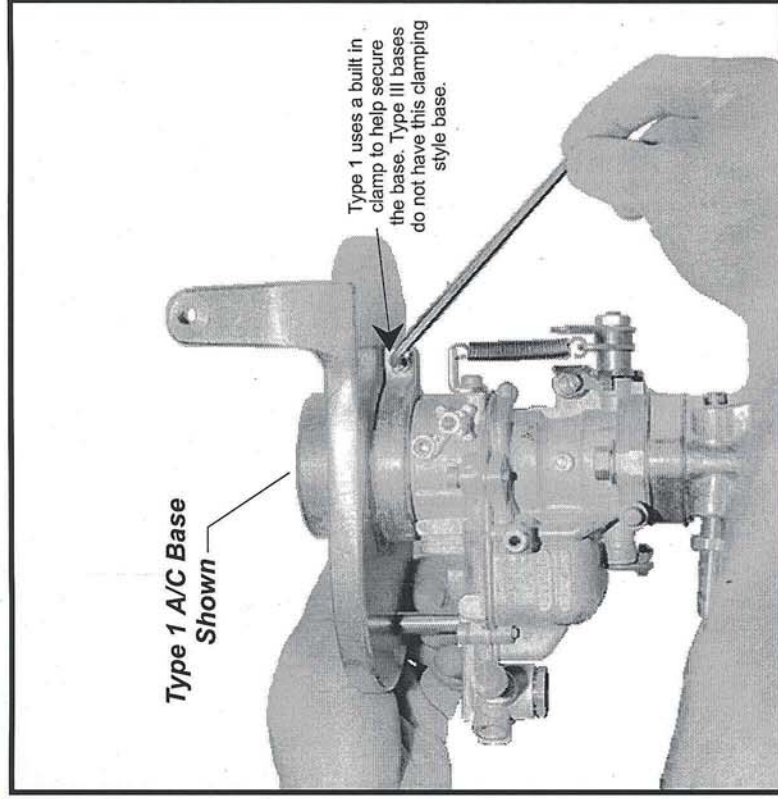
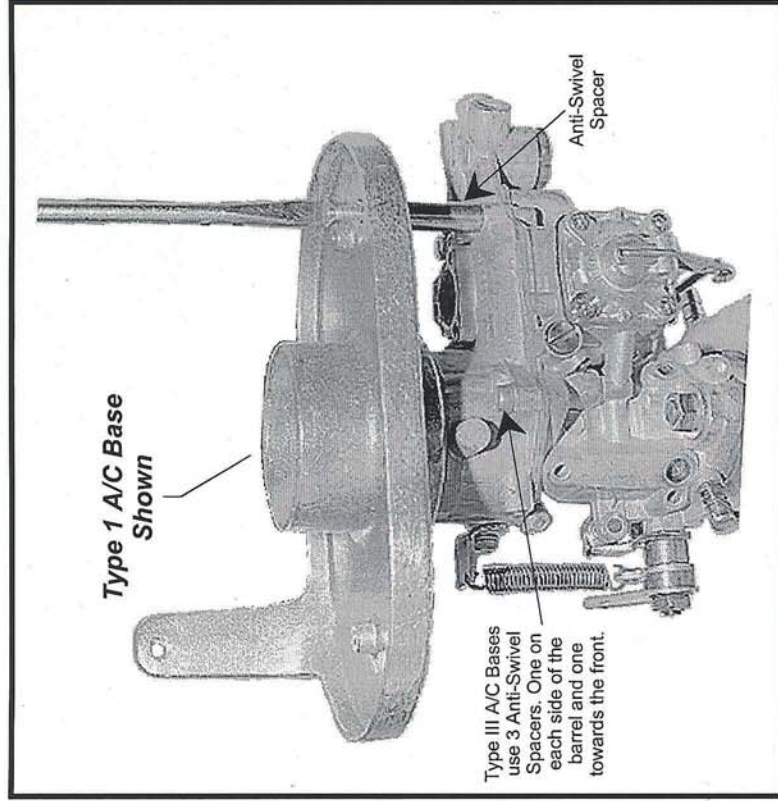


gasoline, always use a non-flammable solvent. To clean the filter you can either immerse the filters or brush on the cleaning solvent. Do not use

high pressure air to blow dry. Excessive air pressure can rupture and destroy the tight weave of the fabric. Allow the filter to drip dry and then re-oil the filter with the correct filter oil. The oil can either be sprayed or brushed on. The excess oil will simply run off if the filters are left to drain prior to installation.

Your carburetor kit should look something like this. Check it over carefully before putting it on the road. Check for any possible fuel leaks and tight or sloppy linkage. Make sure all tools or misc. items are picked up and removed from the engine compartment. If everything checks out all right, you're ready to go and try those new carburetors out.

Type 1 and Type III Weber ICT A/C Base Installation



Type 1

Two heim joint extensions are required for use on type 1 installations. These extensions have been supplied in your kit. The extensions are threaded on to the carburetor end heim joint.

Type III

Only one heim joint extension is required for use on type III installations. The extension is only threaded to the carburetor end driver side heim joint.

CB PERFORMANCE

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