

## Mechanically synchronizing IDF Weber's – my approach.

There are many ways to install the cross bar linkage for an IDF setup. This is my way, I hope it helps some of you out there.

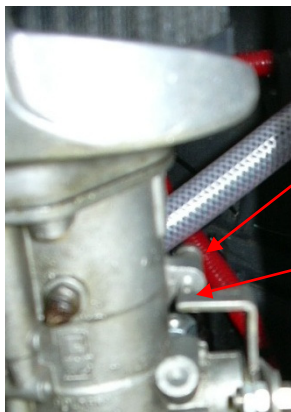
Assumptions:

- You have set your timing correctly
- You have no inlet air leaks
- You trust your Weber's – they have been rebuilt, or if new you have disassembled them, cleaned out the crud and set the basic adjustments.
- Fuel pressure is no more than 3.5 # psi.

These pictures all represent my setup, there are many ways to install the cross bar, this is a forward mounted setup, overhead pull, my car has no rain tray, which would otherwise interfere with the linkage – and I don't plan to install as I'm in San Diego, so the car does not see rain!



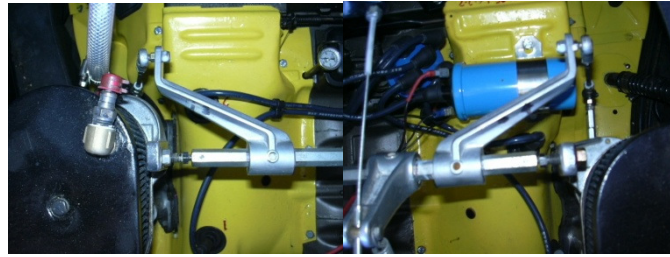
**Step 1** – Remove the drop arms from the carbs on both sides, and set the throttle plate in the closed position on each one – I back off the idle speed screw completely, then use a 0.005" feeler to set the clearance so the screw is not touching the stop.



Set this gap to .005"

**Step 2** – Set up the linkage. You want the drop linkage to hang at the same angle to both the throttle linkages in both planes - - front to back and side to side. Adjust both sides so they are approximately the same length as the drivers (1, 2 cylinder side), and you will see that the other side is way off. To

compensate for this, do not adjust the passenger (3, 4) side. Instead, you need a spacer to extend the throttle linkage out to meet the arm.



Do not hook up the cable or spring yet, you do not want any strain in the linkage at this point.

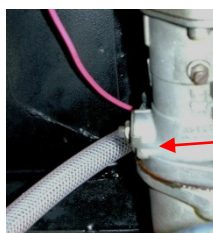
Some kits include a spacer, but it may not be long enough. In my case it needed to be 1 5/8 "offset.



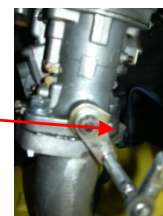
There have been many pictures of this extension on this site, choose which one looks best for you, mine was made from two hex standoffs and a 5mm bolt, courtesy of HD.

**Step 3** – hook up the linkage on the driver's side, and adjust to maintain the .005 gap you set previously. Now, I used a weak return spring to temporarily apply pressure on the linkage to keep the side I just adjusted closed, while I hooked up the linkage on the other side to the extension, and adjusted its length to keep the .005 clearance. When done, both linkages should be within a .125" length of each other. Remove the temporary spring.

**Step4** – Full throttle sync. To do this, move the linkage to the wide open position. You have no cable or spring installed, so the linkage weight will hold it there. Now the big test, go to the other end of the throttle linkage and check the stop – if they are synced both stops will be both fully closed –



Check here



If they are not the same, adjust the side that is not closed, but if they are way off, you need to start over, on my setup, they are within .002"

**Step 5** - now hook up the cable but not the return spring. It is really important that the gas pedal does not over stress the linkage, or it will soon get knocked out of adjustment. For it to work properly there must be no movement in the cable attachment at the engine end, so a good bracket is need. This step is easier with a helper, but you can do it on your own, the goal is to make sure the gas pedal hits the stop on the pedal board so that it does not stretch the cable because the carbs are at full throttle – it takes patience, but you can get it so that the gas peddle hits the stop when the carbs do! Now hook up the return spring and do a final visual check.

**Step 6** - now you are ready for the fun part, tune and sync with the engine running. Now, because we set the idle speed screws to not touch the idle arm the idle speed will be way low. To adjust, only adjust on one side – as the carbs are mechanically connected adjusting one side directly affects the other, I prefer to adjust the idle screw on the passenger side as it is farthest from the linkage and it takes up the slack nicely. Do not adjust both, this places a twisting moment on the linkage and presto – out of mechanical sync again!

Final step – adjust the carbs per the many good sets of instructions – PM me if you need any further advice.