

Installation instructions for FC12 Forward Controls for Kawasaki Vulcan 750

It is highly recommended that you use a thread lock compound such as Loctite brand on all threads to keep them from vibrating loose.

Please read these instructions entirely before starting.

This picture shows the components of the FC12. Parts will be referred to by the names & numbers shown here. If you are missing anything please email sales@refinedcycle.com.

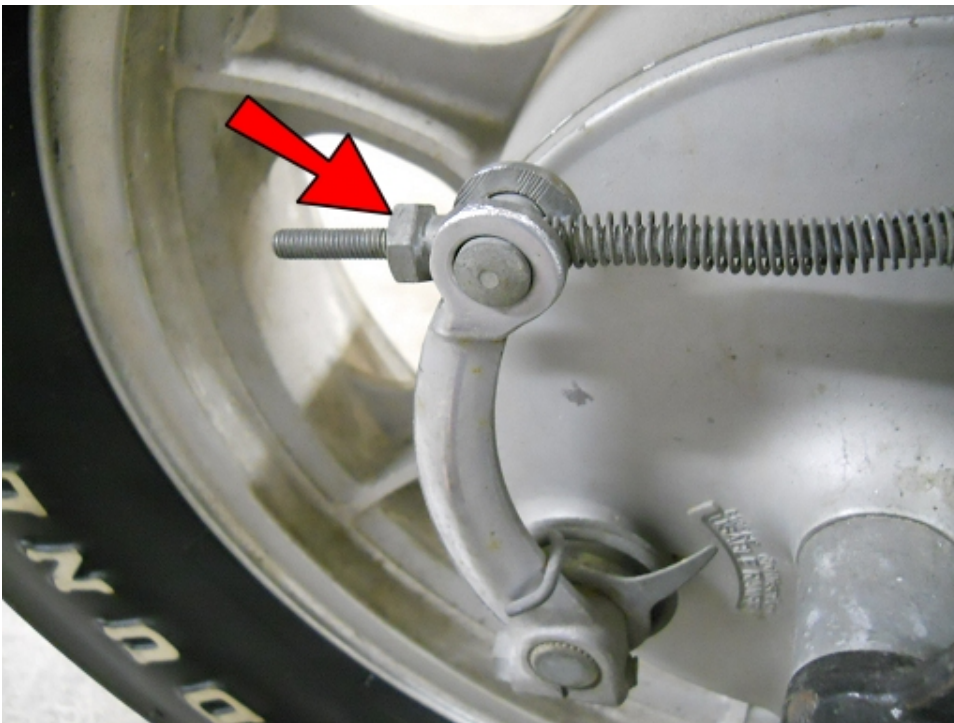


FC12 Components

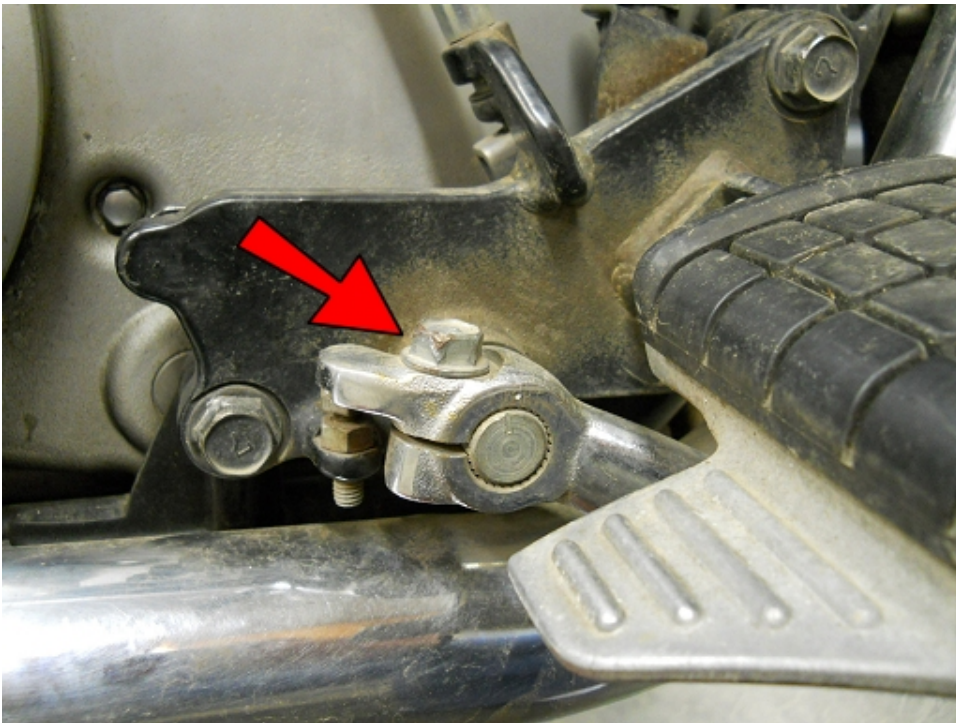
- 1- Shifter Linkage
- 2- Brake Linkage
- 3- 5/16x7/8 Clevis Pin
- 4- M6-1.0x20 Hex Head Bolt (Qty. 2)
- 5- M6-1.0x25 Socket Head Bolt
- 6- M10-1.25 x 70mm Socket Head Bolt (Qty. 4)
- 7- 3/8-16x3.5 Flat Head Bolt
- 8- 3/8-16x3.5 Flat Head Bolt
- 9- 1/4 Zinc Washer
- 10- 3/8 Nylon Washer (Qty. 2)
- 11- 5/16 Zinc Washer (Qty. 2)
- 12- 3/8 Zinc Washer (Qty. 8)
- 13- SLV1 (Qty. 3)
- 14- 5/8x1/2 Bronze OR Steel Sleeve (Qty. 3)
- 15- 1.5" Spacer (Qty. 4)
- 16- Toe Peg (Qty. 2)
- 17- M6 Spherical Rod End (Qty. 2)
- 18- ARM12
- 19- #8-32x9/16 Screw

- 20- 5/64x1 Cotter pin (Qty. 2)
- 21- #6-32 Set screw (Qty. 2)
- 22- #8-32 Nut
- 23- M6 Nut (Qty. 4)
- 24- 5/16-24 Nut (Qty. 2)
- 25- 3/8-16 Nut (Qty. 2)
- 26- FC12-R
- 27- FC12-L
- 28- Brake Cable Mount
- 29- Brake Pedal
- 30- Shifter Pedal

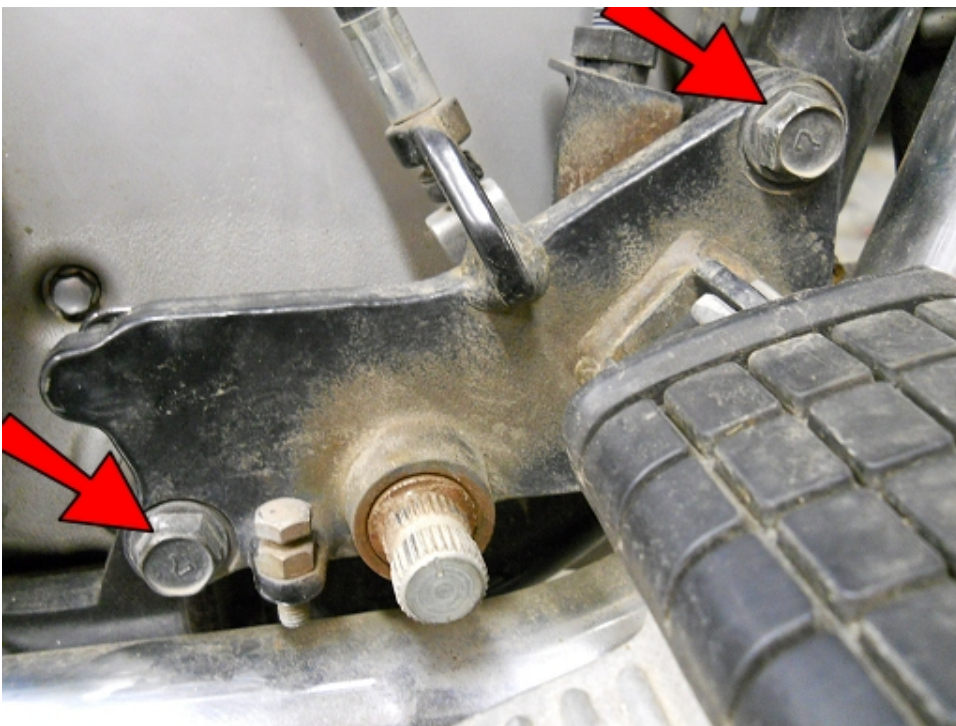
Brake Side...



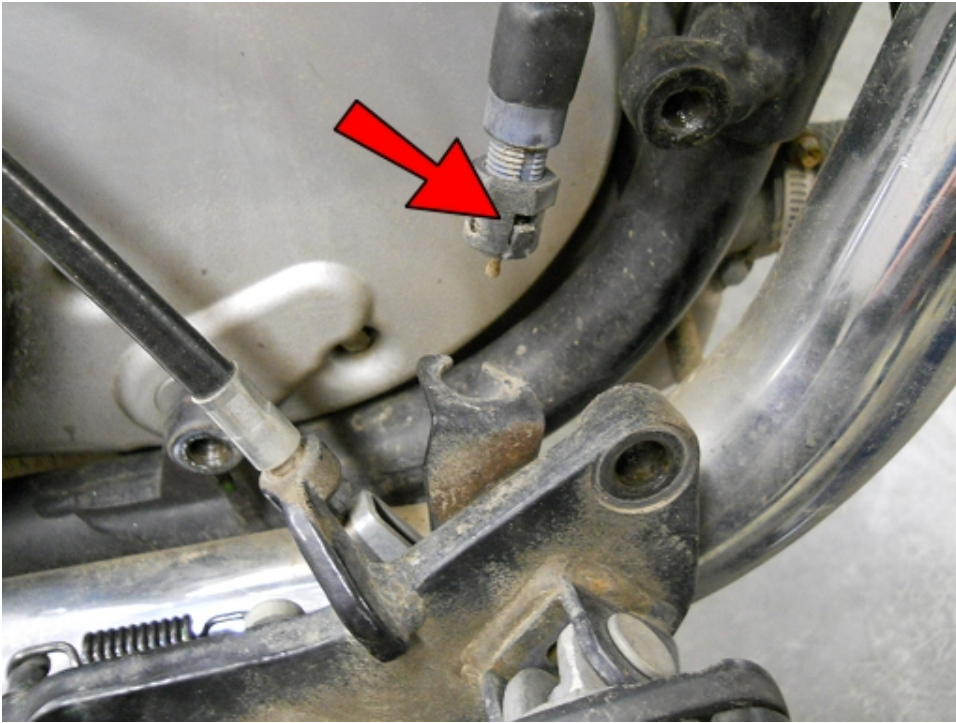
Loosen this nut all the way, to release the tension on the brake pedal.



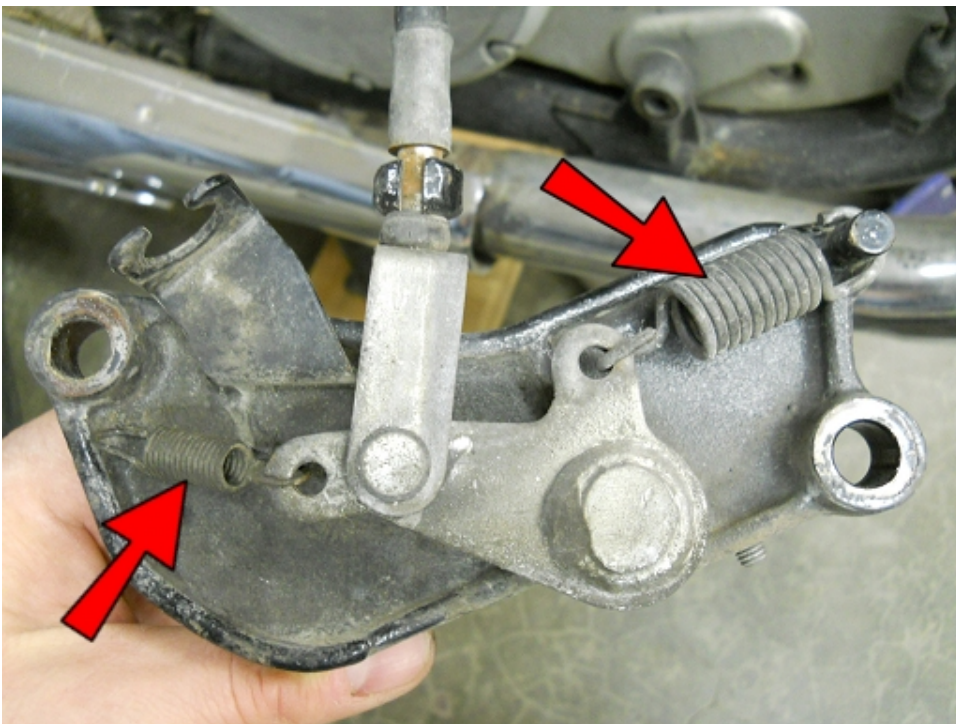
Completely remove the bolt holding the Brake Pedal and remove the pedal from the spline.



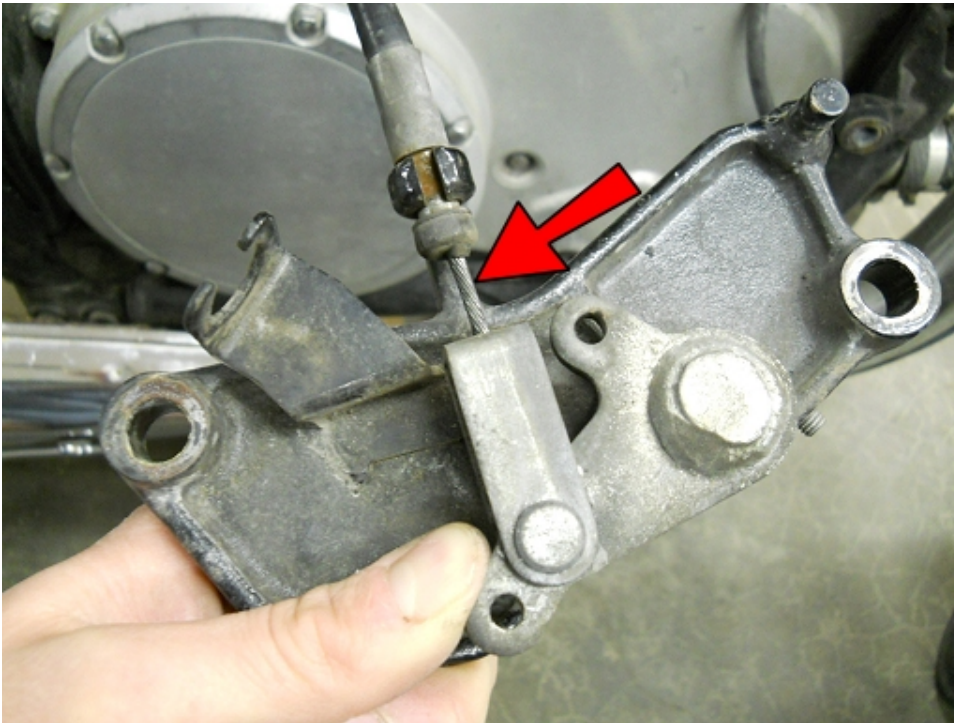
Remove the two footrest mount bolts.



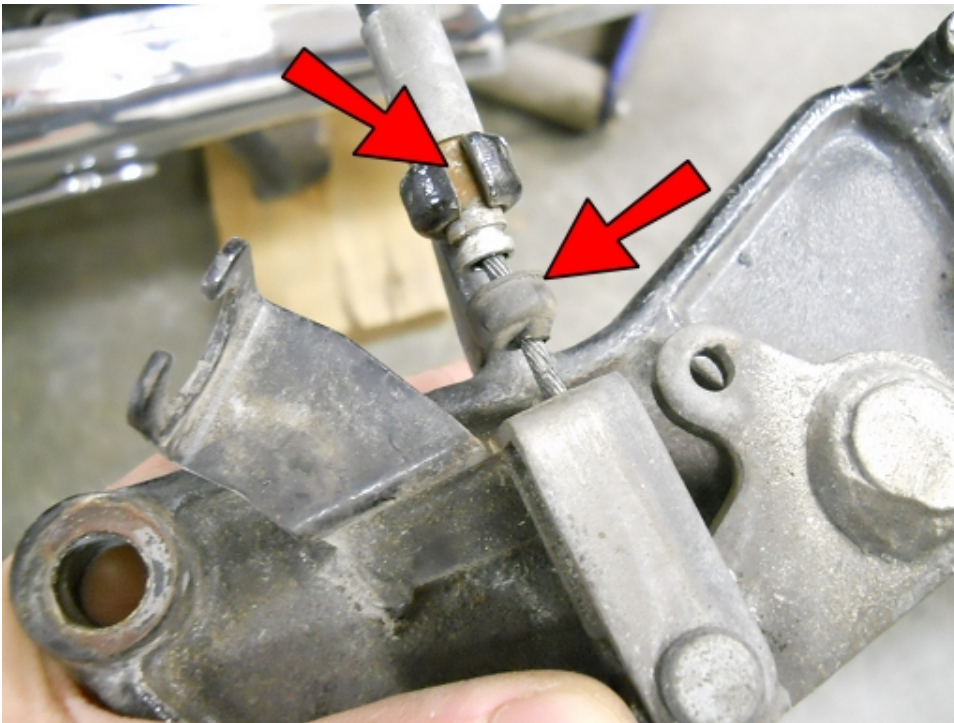
Press in the retaining tabs of the brake light switch and remove the switch from its mount and unhook the spring..



Turn the foot rest mount around so you can see its back side and remove both of the springs.



Rotate the brake pedal arm down to expose the inner wire cable.



Slide the rubber dust cover off the end, and pull up on the cable end to align the cable wire with the slot in the mount and remove the cable from the mount.



Remove the brake arm spline.



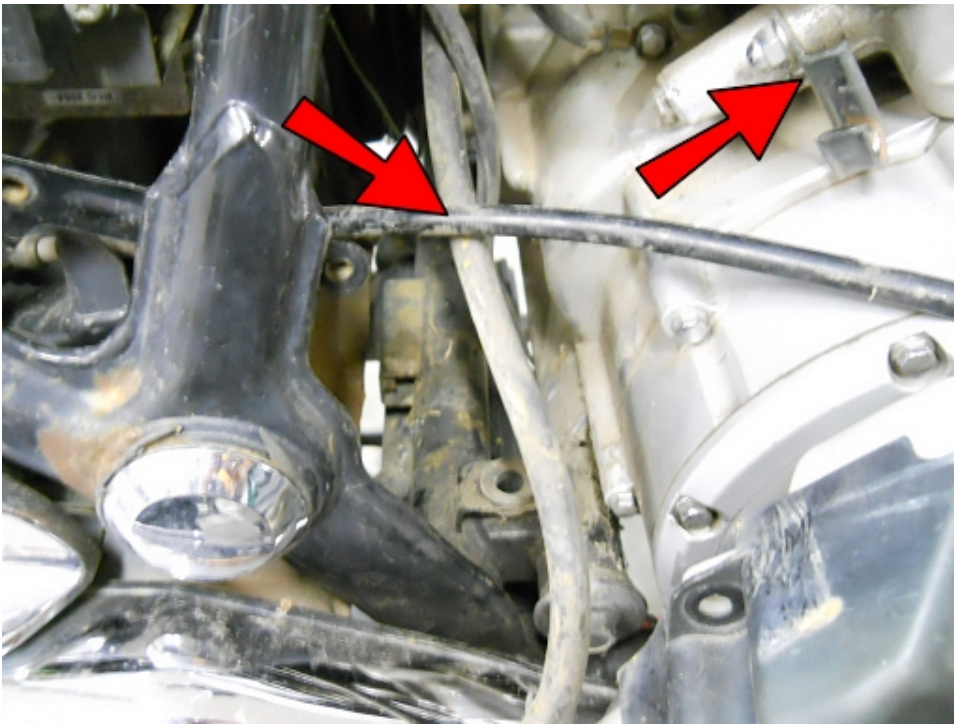
Remove the cotter pin, washer and clevis pin.



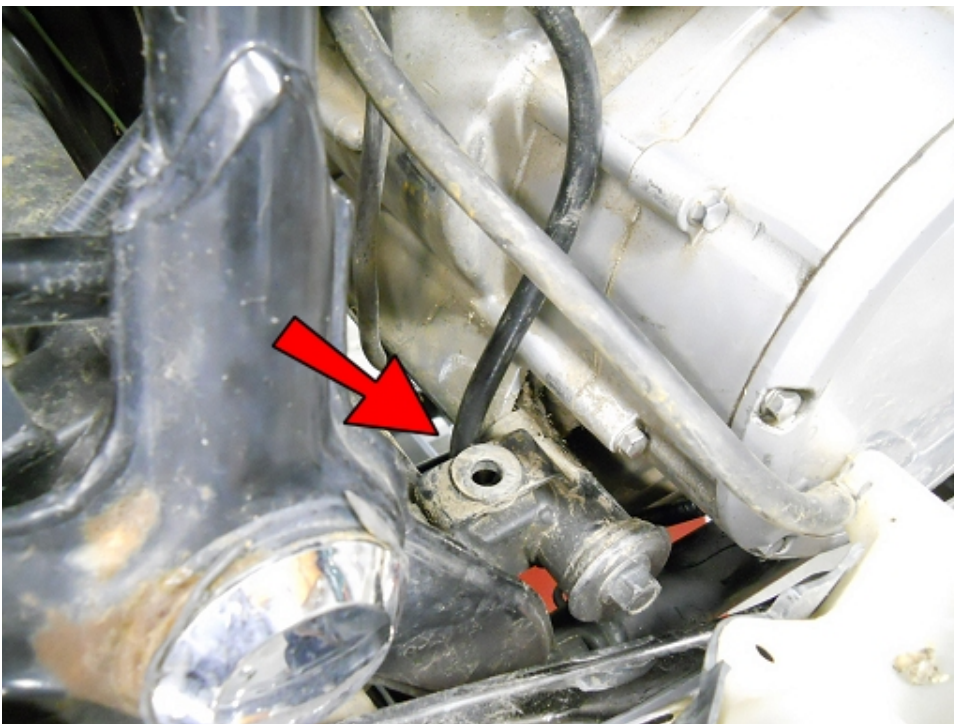
Remove this screw.



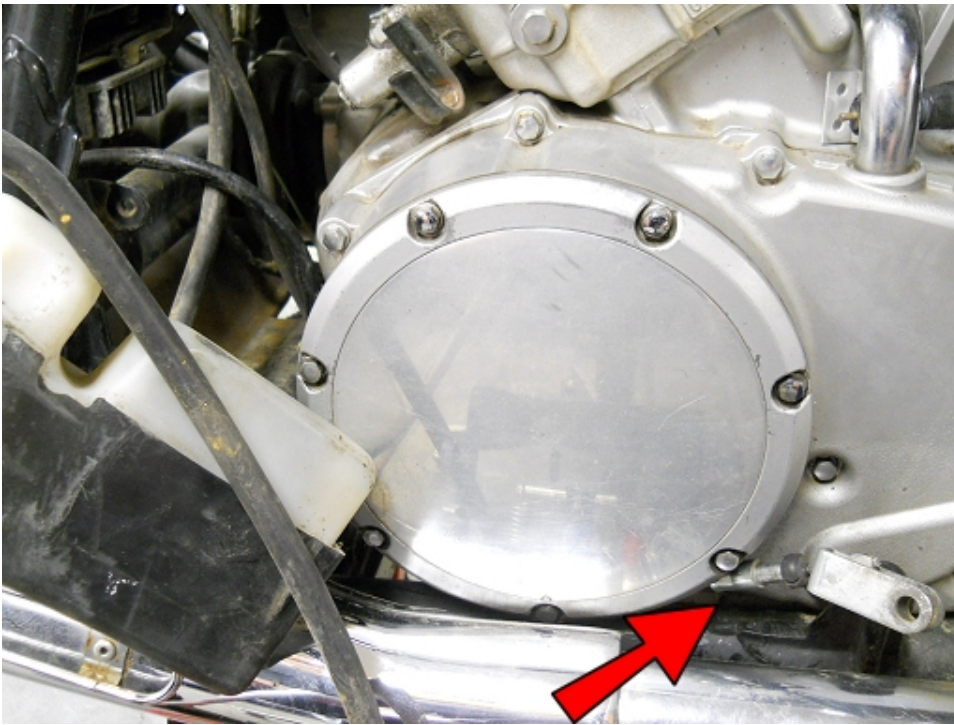
Gently work the coolant reservoir tank out from the bike.



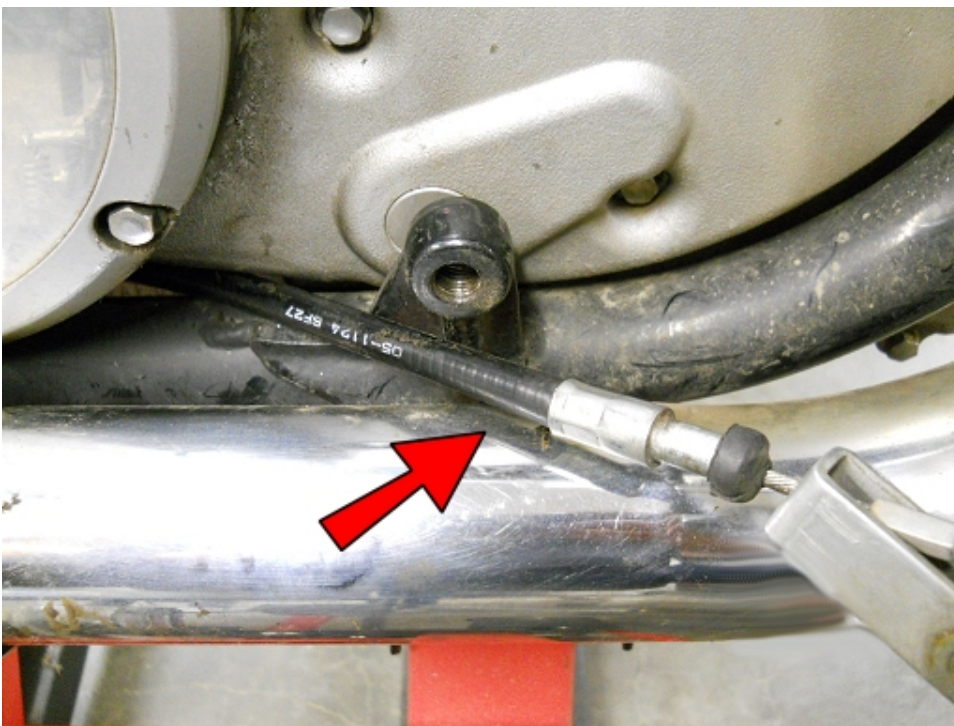
Reroute the brake cable over the top of the reservoir hose. Also, optionally, you can remove the hook the brake cable was in, as it will no longer be used.



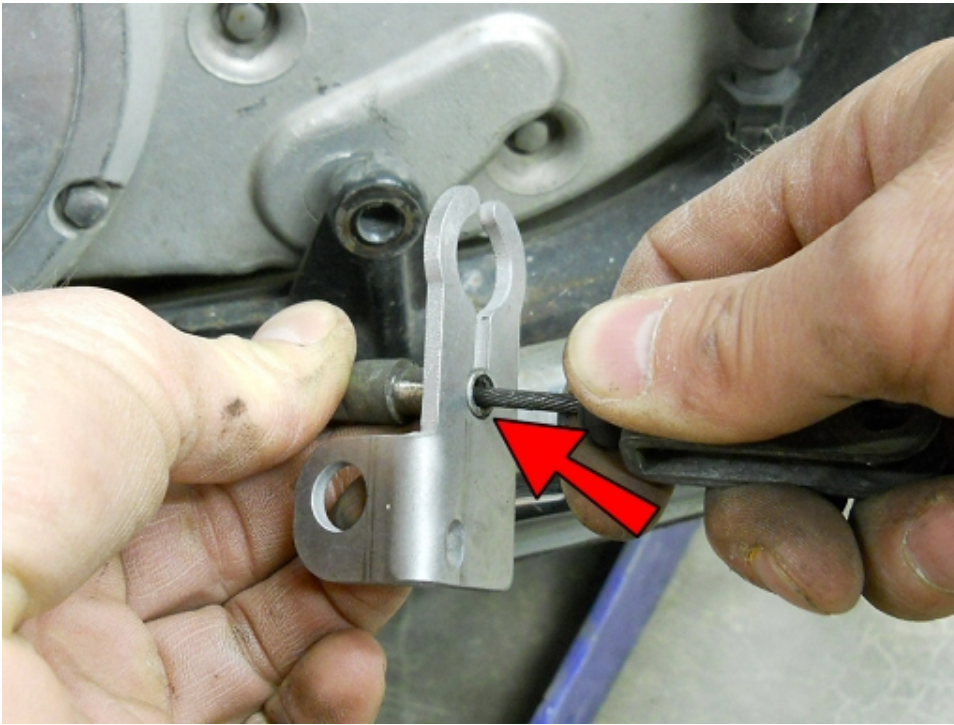
Poke the brake cable down under the motor.



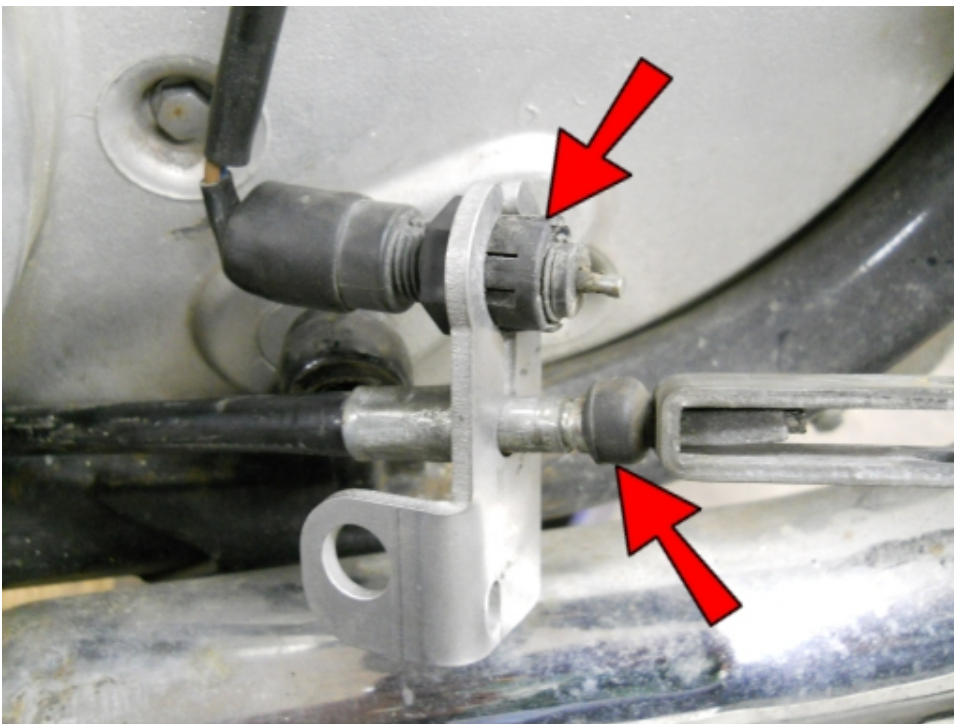
Bring the brake cable back up between the motor and frame.



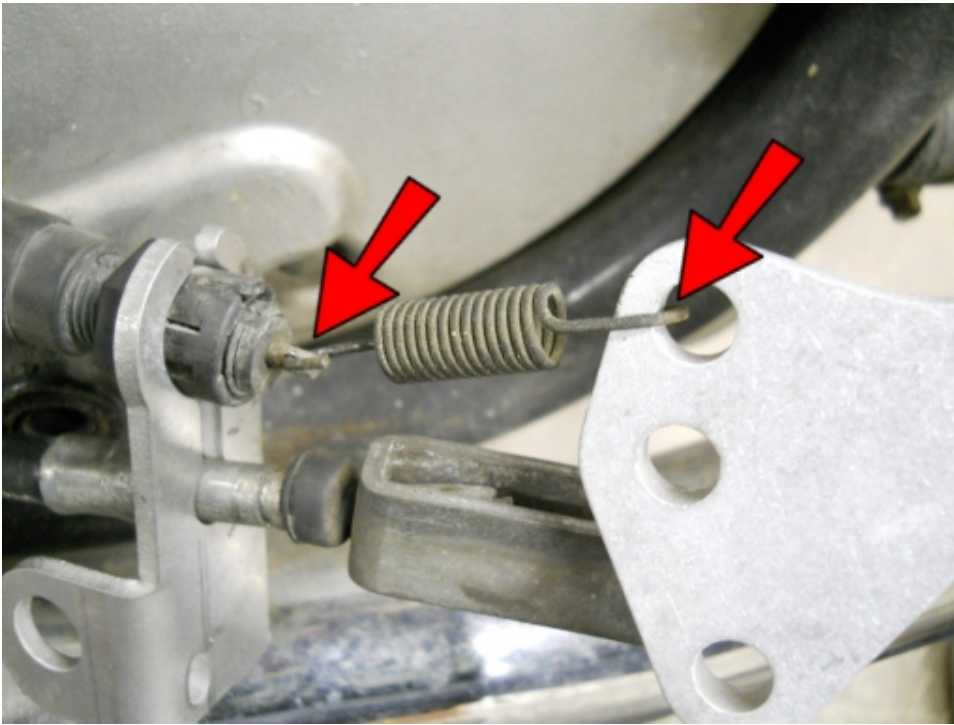
Reinstall the coolant tank then pull the excess cable out.



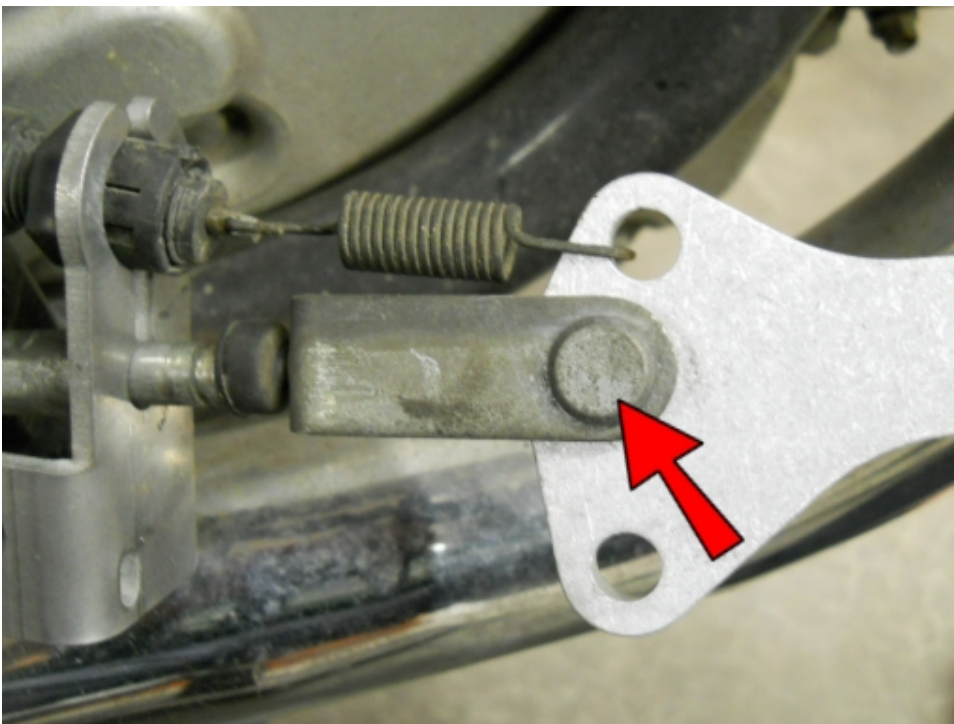
Insert the wire part of the brake cable into the top slot of the Brake Cable Mount and slide the end all of the way into the small hole.



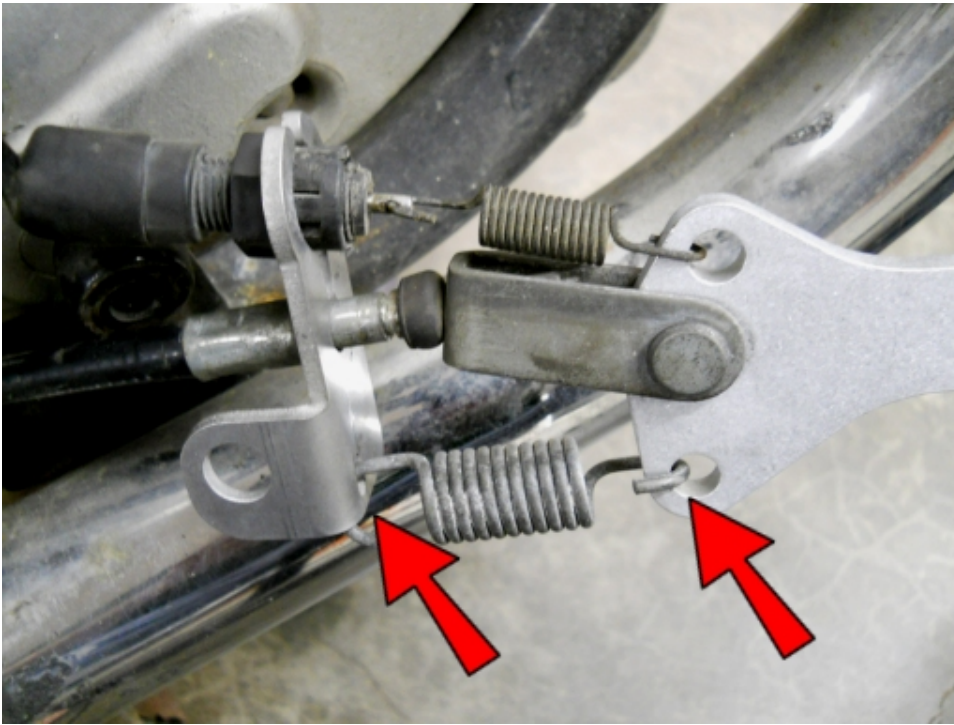
Snap the rubber back onto the brake cable end and insert the brake light switch into the top hole of the Brake Cable Mount.



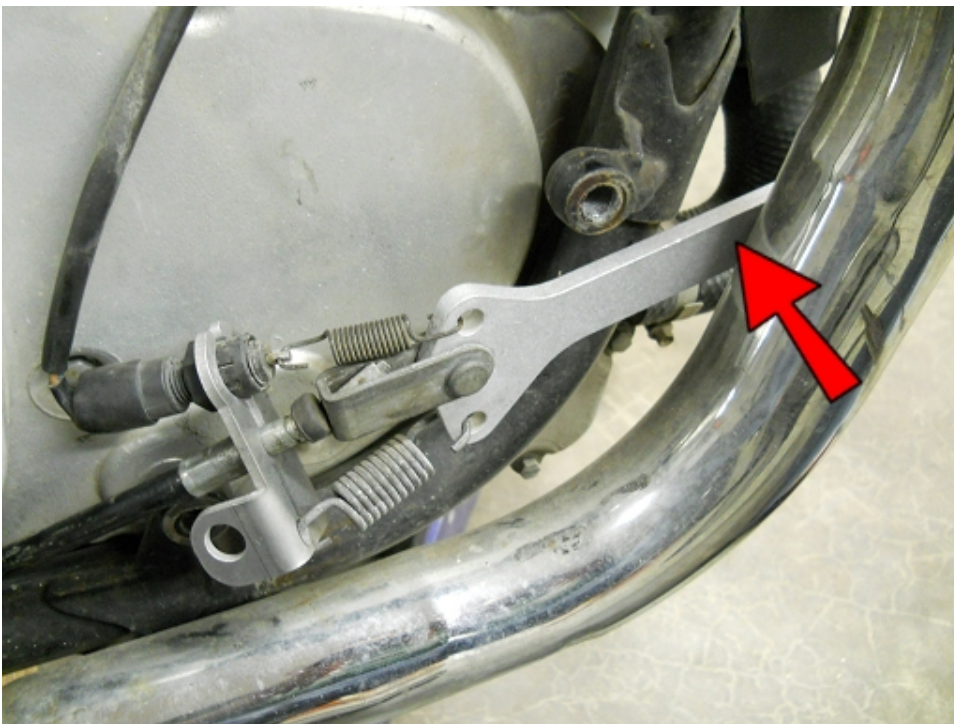
Hook the spring back into the brake light switch and into the top hole of the Brake Linkage. (Be sure to orient the Brake Linkage with the 2 closer hole at the top.)



Connect the brake cable to the Brake Linkage with the clevis pin and washer removed earlier and a new 5/64x1Cotter Pin.



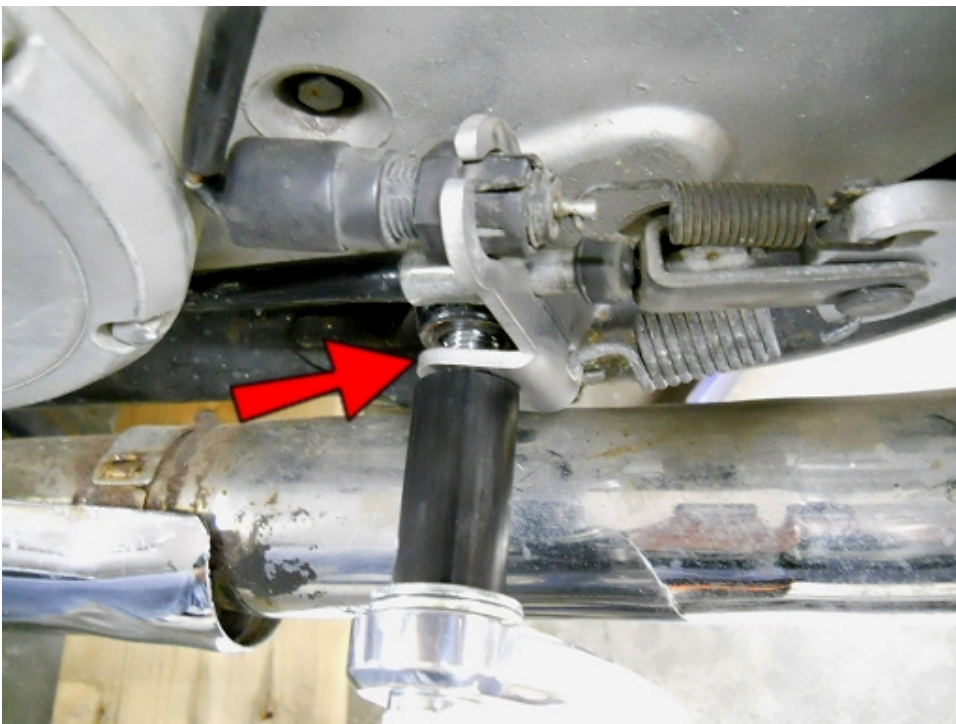
Hook the other spring into the slot at the bottom of the Brake Cable Mount and the last hole of the Brake Linkage.



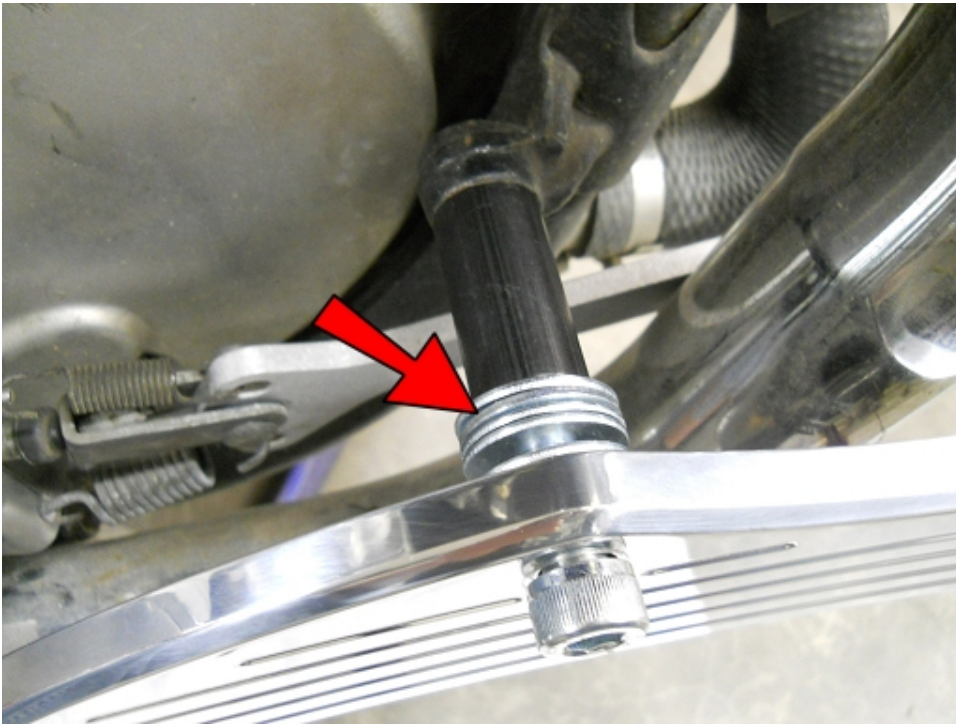
Place the Brake Linkage behind the exhaust.



Insert an M10-1.25x70 Socket Head bolt into the rear hole of the FC12-R and place two 3/8" Zinc Washers and a 1.5" Spacer on.



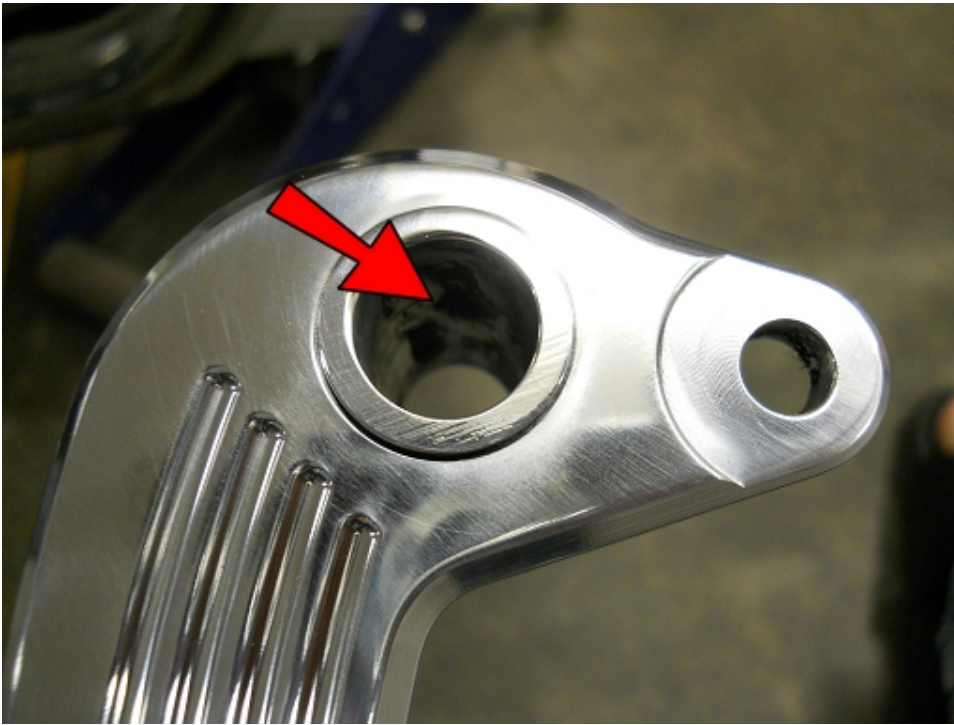
Insert the bolt into the Brake Cable Mount and start it into the frame.



Connect the front hole in the same manner, except you will use from 4-6 washers, depending on what you need to clear your particular exhaust. Use as few washers as needed, on both bolts, but make sure to always use at least 2 more washers on the front, than the rear, to make up for the thickness of the Brake Cable Mount. If your particular exhaust allows, you could use no washers on the rear and two on the front.



Once you have figured out the best combination of washers, tighten the bolts, rear first, with the Brake Cable Mount leaned slightly back.



Clean out any polishing compound that may have built up inside the hubs of the Brake Pedal and Shifter Pedal.



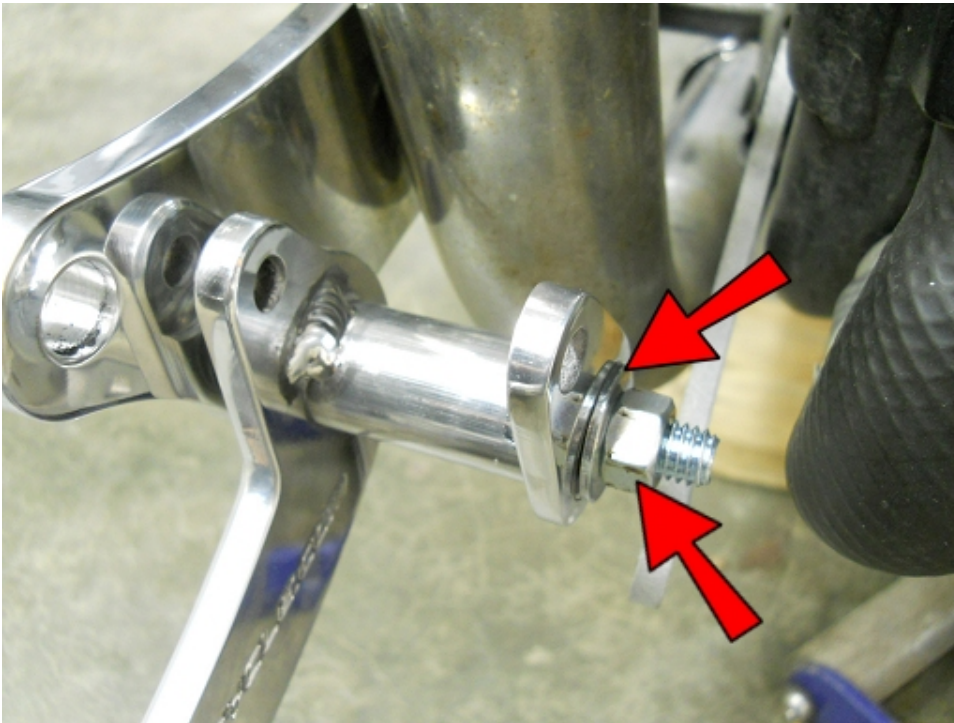
Apply some axle grease or similar, to all of the SLV1 and 5/8x1/2 Bronze Sleeves and insert them into each other. Place 2 sets of the sleeves into the Brake Pedal hub and 1 set into the Shifter Pedal hub.



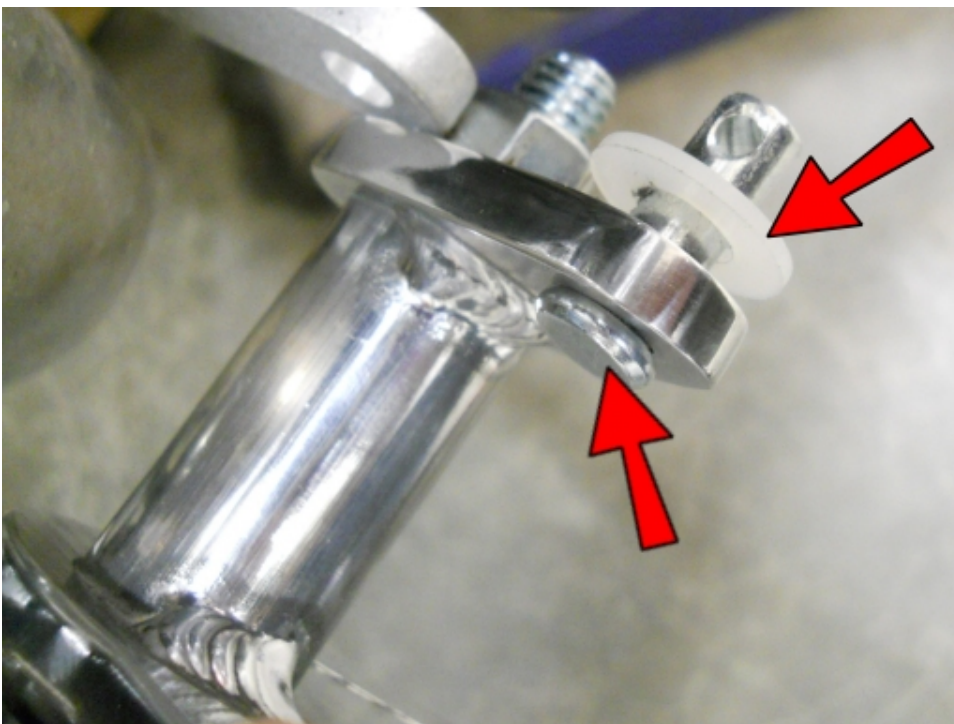
Attach the Toe Pegs to the threaded top hole of the Shifter and Brake Pedals and secure with a 5/16" Nut.



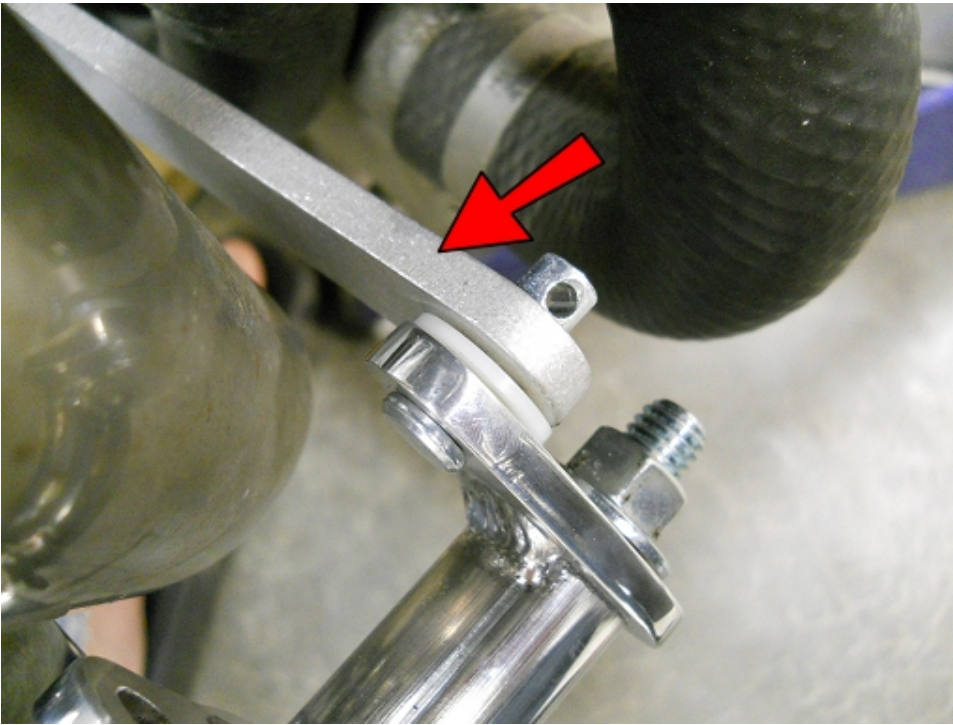
Insert a 3/8-16x3.5 Flat Head bolt into the FC12-R and slide the Brake Pedal onto the back side.



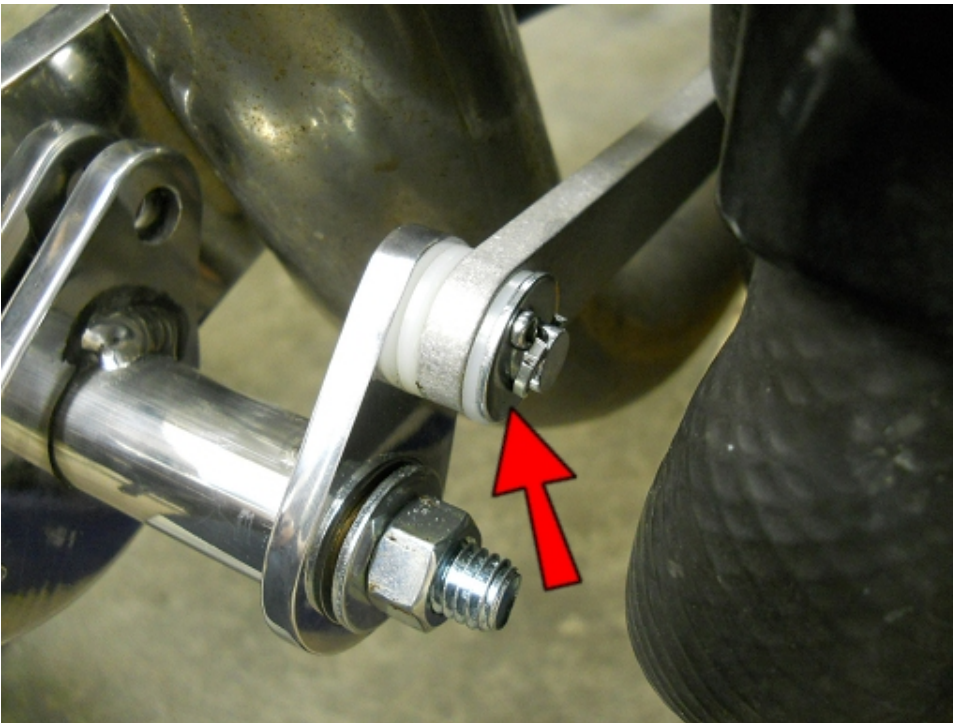
Secure the Brake Pedal with a 5/16" Zinc Washer and 3/8" Nut.



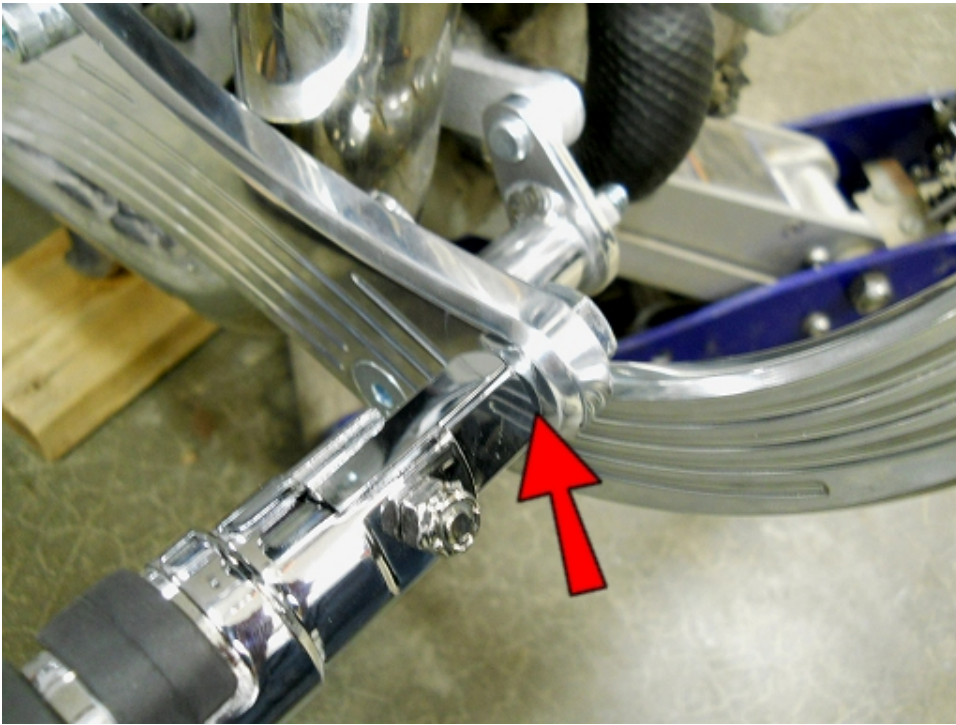
Insert a 5/16x7/8 Clevis Pin into the arm welded onto the Brake Pedal, then place a 3/8" Nylon Washer onto the Clevis Pin.



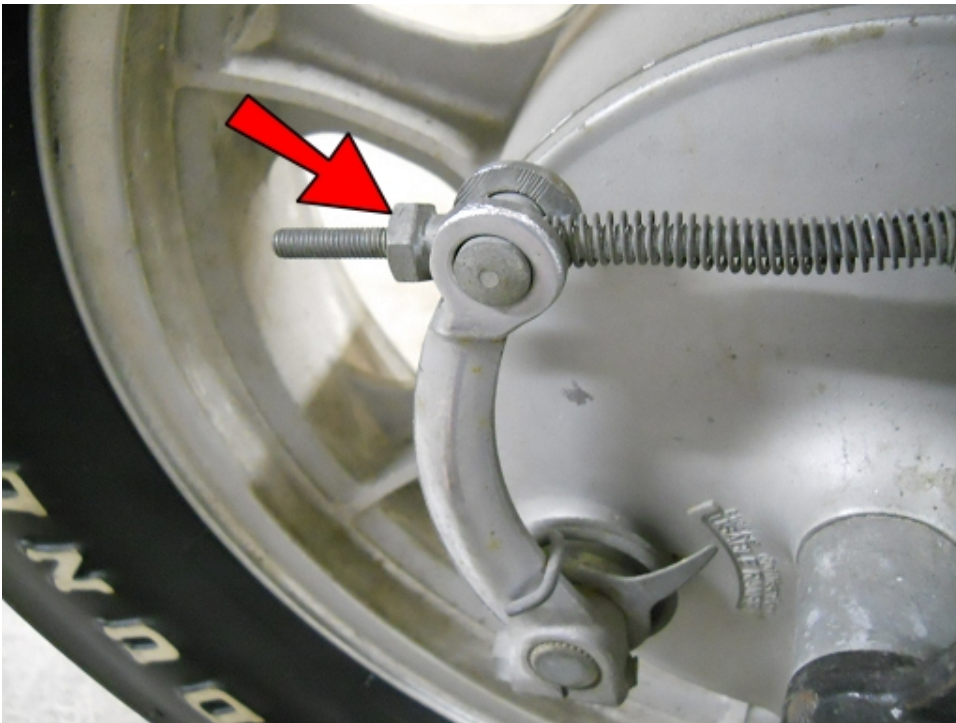
Place the Brake Linkage onto the Clevis Pin.



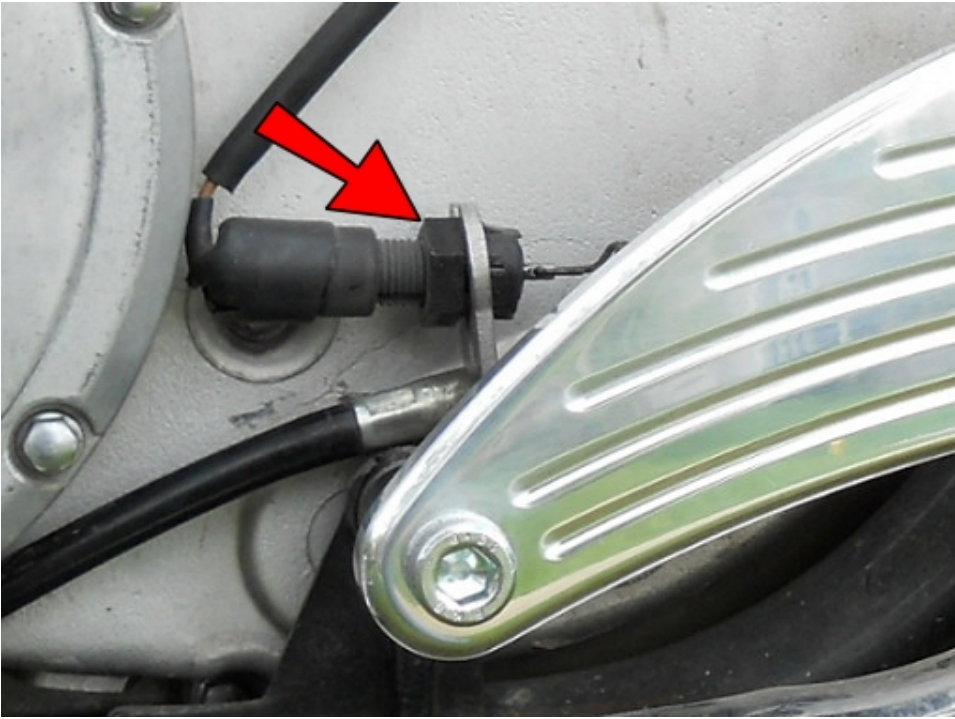
Secure the Brake Linkage with another 3/8" Nylon Washer, a 1/4" Zinc Washer and a 5/64x1 Cotter Pin.



Install a foot peg. Adjust the height of the Brake Pedal, then tighten the #8-32 Nut against the Pedal.



Retighten the nut on the Brake Arm to adjust the brakes back to the proper tension. You want enough tension to allow a small, comfortable amount of movement to actuate the brake, but do not over tighten, as this will keep the brakes from releasing fully.

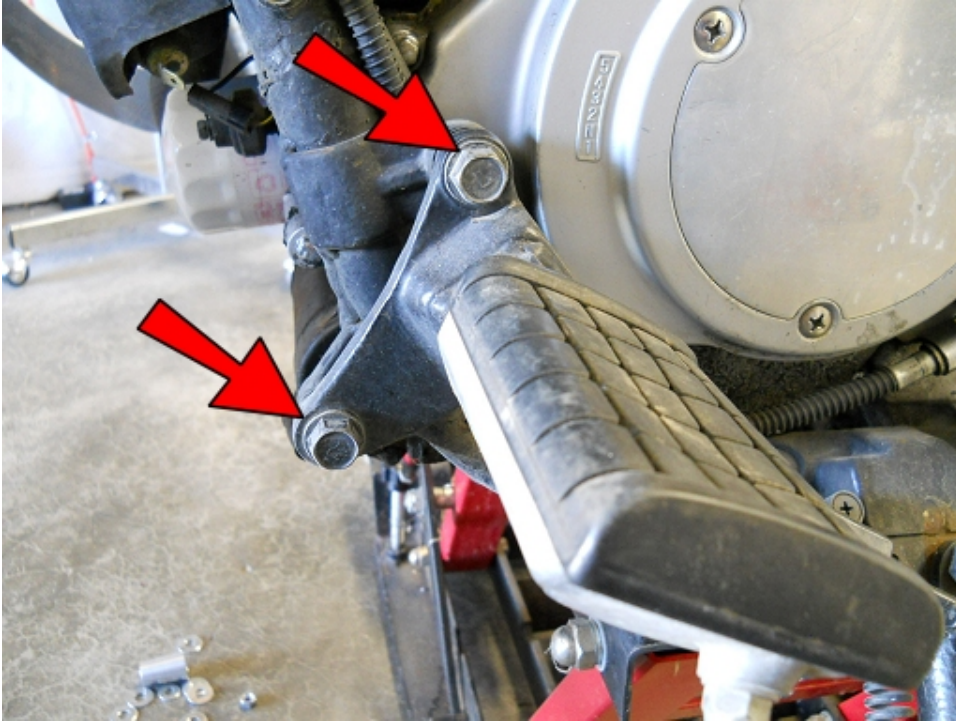


Once the brakes are adjusted correctly, the brake light switch may need to be adjusted. Do this by tightening the adjustment nut. Hold the brake light switch in one hand to keep it from turning, while using a wrench to turn the nut. If the spring tension is too tight, your brake light will be on all of the time. If it is too loose, it will not come on when the brake is applied. To test, turn your key on and observe your brake light while pressing and releasing the brake pedal a few times. If the brake light works as desired, no adjustment is necessary. If it stays on all the time, turn the adjustment wheel to loosen the spring tension on the brake light switch and retry. If it does not come on at all, tighten the tension on the brake light switch. With a little trial and error you will find the right position.

Shifter Side...



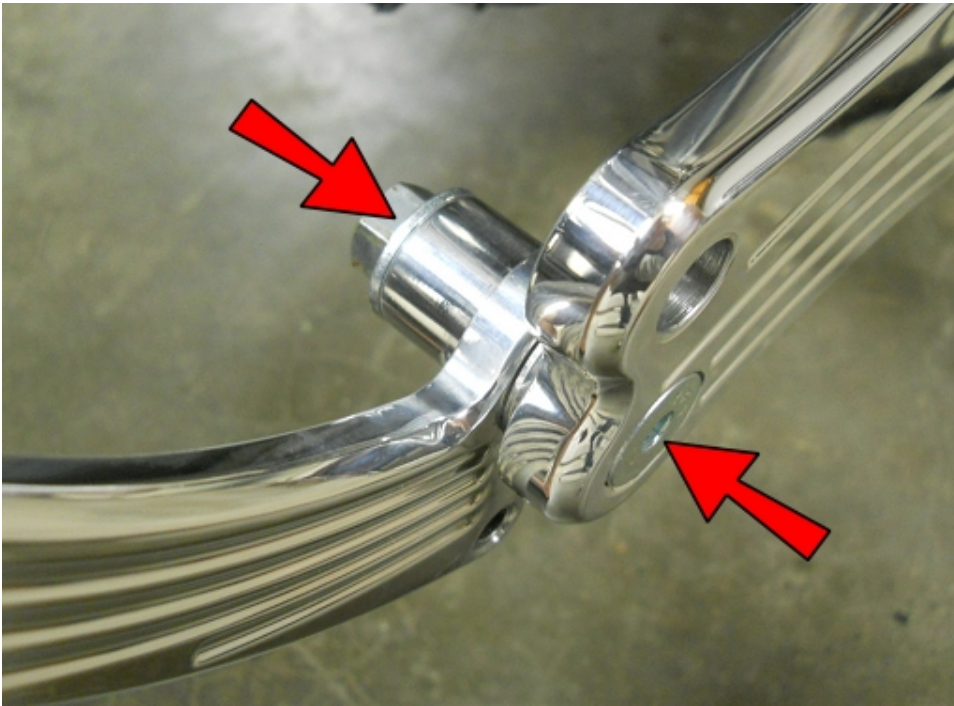
Completely remove this bolt, then remove shifter pedal from spline.



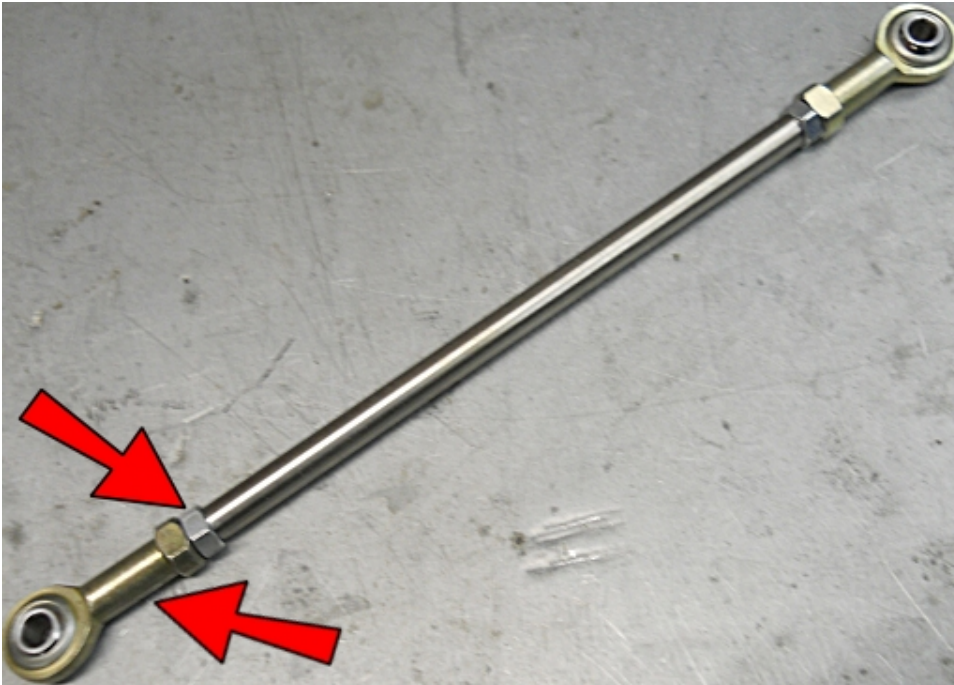
Remove foot rest mount.



Using M10-1.25x70 Socket Head bolts and 1.5" spacers, attach the FC12-L to the frame.
Note: No washers on this side.



Using a 3/8-16x2 Flat Head bolt, connect the Shifter Pedal to the FC12-L and secure with a 5/16" Zinc Washer and 3/8" Nut. Then install the other foot peg.



Thread the M6 Nuts and M6 Spherical Rod Ends onto both ends of the Shifter Linkage.



Start both of the #6-32 Set Screws into the ARM12.



Drive a large flat head screwdriver just slightly into the slot of the ARM12 to spread it apart to make it easier to put onto the shifter spline.



Angle the screwdriver out a bit to allow room for installation.



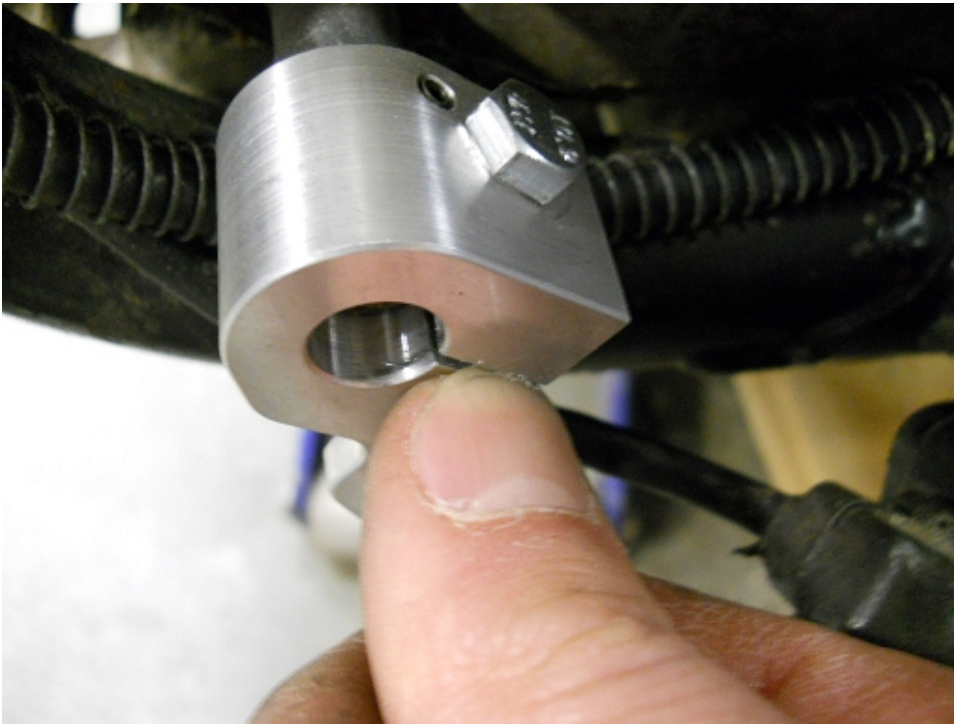
Note: When you put the ARM12 onto this spline, you will be lining up the bolt hole on top of the ARM12 with this groove. The end of this splined shaft will NOT come flush with the edge of the ARM12.



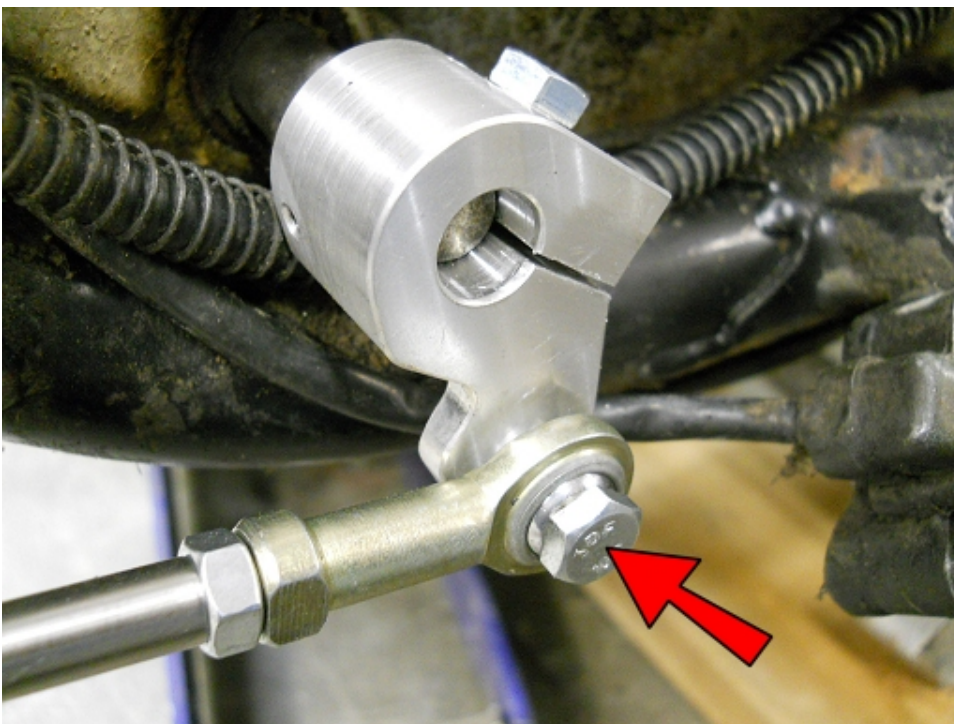
Insert the ARM12 onto the spline, lining up the top hole with the groove, as mentioned.



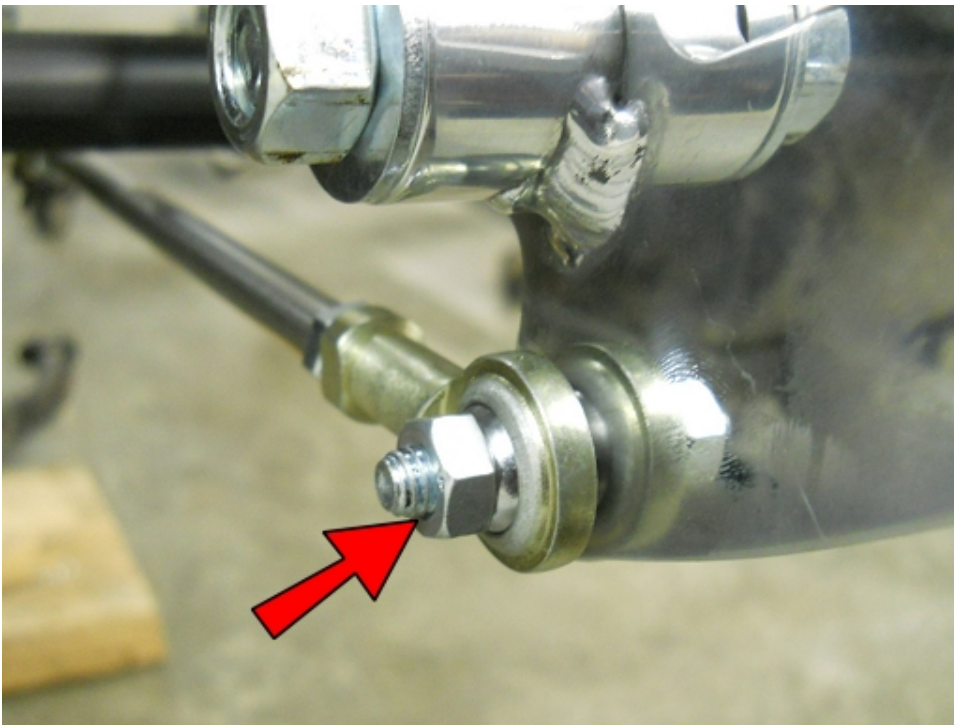
Orient the ARM12 straight up and down with the small hole directly below the large spline hole as shown, remove the screwdriver, then thread in an M6-1.0x20 Hex Head bolt.



Tighten the M6-1.0x20 bolt tight enough to clamp down, but do not break this bolt, it would be very difficult to remove. You should just be able to get a finger nail in the slot when tight.



Using an M6-1.0x20 Hex Head bolt and M6 Nut, attach the linkage to the ARM12.



Using an M6-1.0x25 Socket Head bolt and M6 Nut, attach the other end of the linkage to the Shifter Pedal. If the Shifter Pedal height needs adjusted, remove the M6 Spherical Rod End from the Shifter Pedal and unthread it a little at both ends, then reconnect.



After the height is adjusted to the desired position, tighten the M6 Nuts against the M6 Spherical Rod Ends, at both ends of the linkage.

That's it!

It is recommended that at this point you double check that ALL connections are tight and take the bike for a test ride and make any other adjustments necessary for the optimal position of your shifter and brake pedals.

Enjoy the ride!