

**Interstate. \*\*\*\*\* (NOT FOR THE FURY) \*\*\*\*\***

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 FC20. Parts will be referred to by the names & numbers shown here. If you are missing anything please email [RefinedCycle@gmail.com](mailto:RefinedCycle@gmail.com).



## FC20 Components

1 - ARM20	17 - M6-1.0x40 SHCS
2- ARM18	18 - M6-1.0x25 SHCS
3 - STOF8	19 - 5/16" Spherical Rod End (qty. 4)
4 - Shifter Pedal	20 - M6 Spherical Rod End
5 - Left side Control Plate	21 - 5/8 x 1/2 Bronze Sleeve (qty. 3)
6 - Right side Control Plate	22 - SLV1 (qty. 3)
7 - 1" Spacer (qty. 3)	23 - M6 Clevis Pin
8 - .5" Spacer	24 - #8-32x5/16 screw
9 - Brake Pedal	25 - 3/64x1" Cotter Pin
10 - 1/4" Washer	26 - #8-32x5/16 Nut
11 - Brake Linkage	27 - M6 Nut (qty. 4)
12 - Shifter Linkage	28 - 5/16-24 nut (qty. 6)
13 - M8-1.25x60 SHCS (qty. 5)	29 - M8-1.25 Nylock nut (qty. 3)
14 - 3/8-16x2 BHCS (qty. 3)	30 - 3/8-16 Nut (qty. 3)
15 - M8-1.25x40 SHCS	31 - Shift Toe peg
16 - M8-1.25x35 SHCS	32 - Brake Toe peg

## Brake Side...

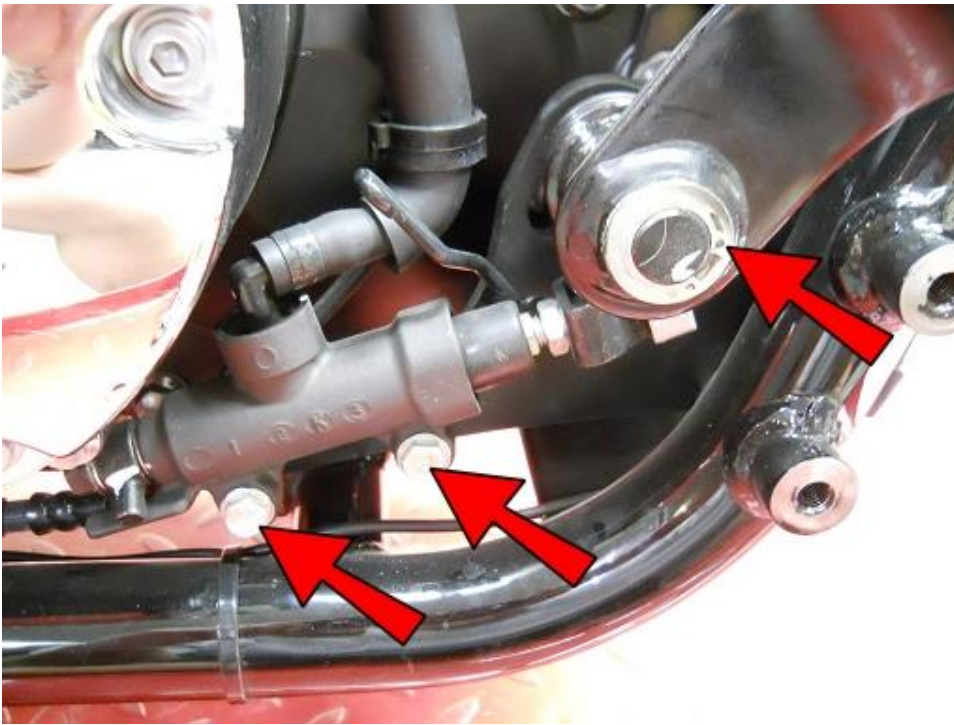


Remove these bolts.

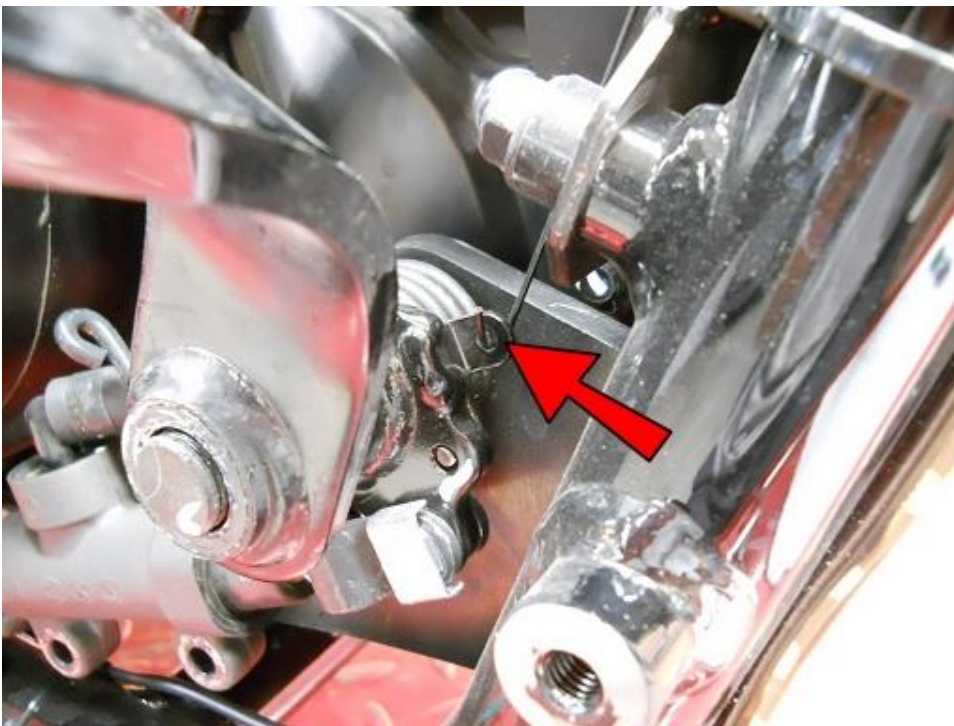


If you have a 2 piece exhaust, remove only the front pipe. If you have a one piece, remove the entire exhaust.

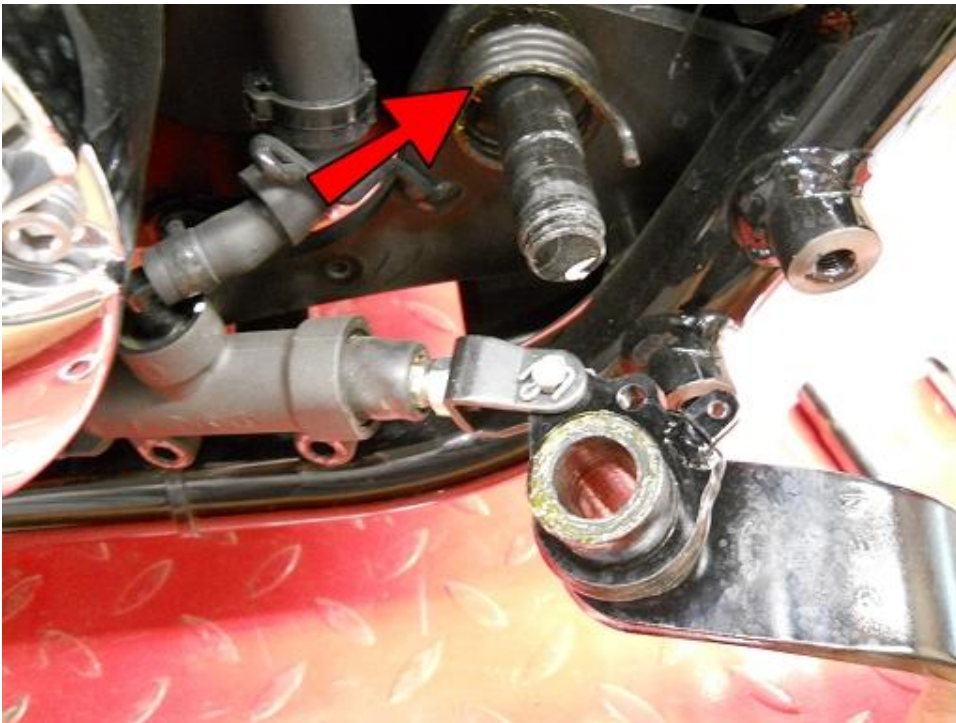




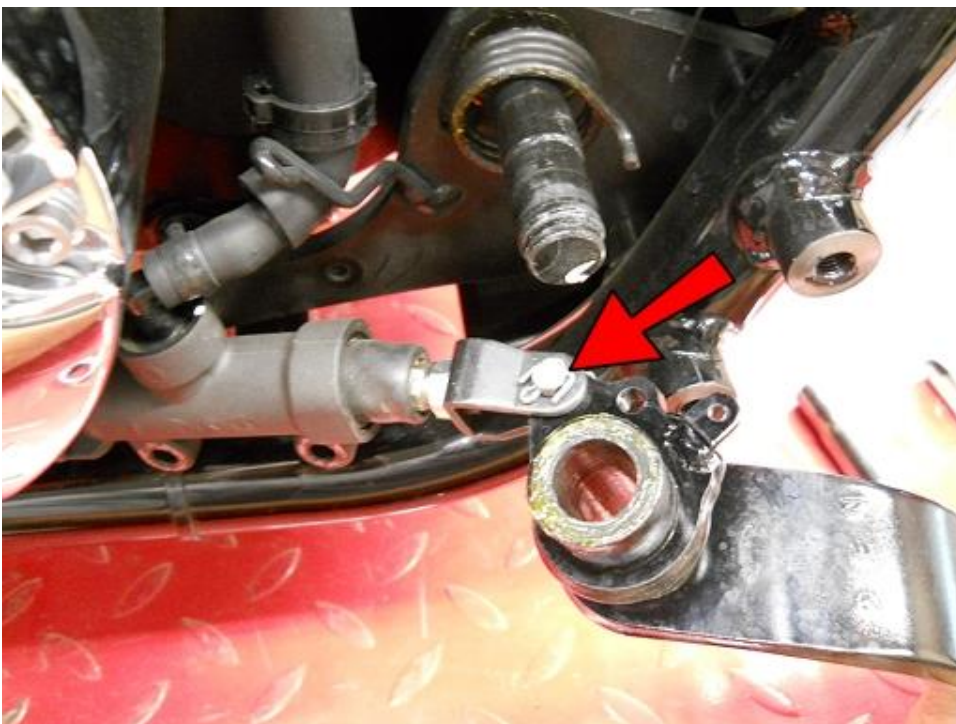
Remove the 2 bolts and spacers on the master cylinder and remove the retaining ring and washer from the pedal.



Remove this end of this spring.



Slide the pedal off the spindle, but leave the torsion spring in place.



Cut off the cotter pin and pull out the clevis pin to remove the brake pedal.

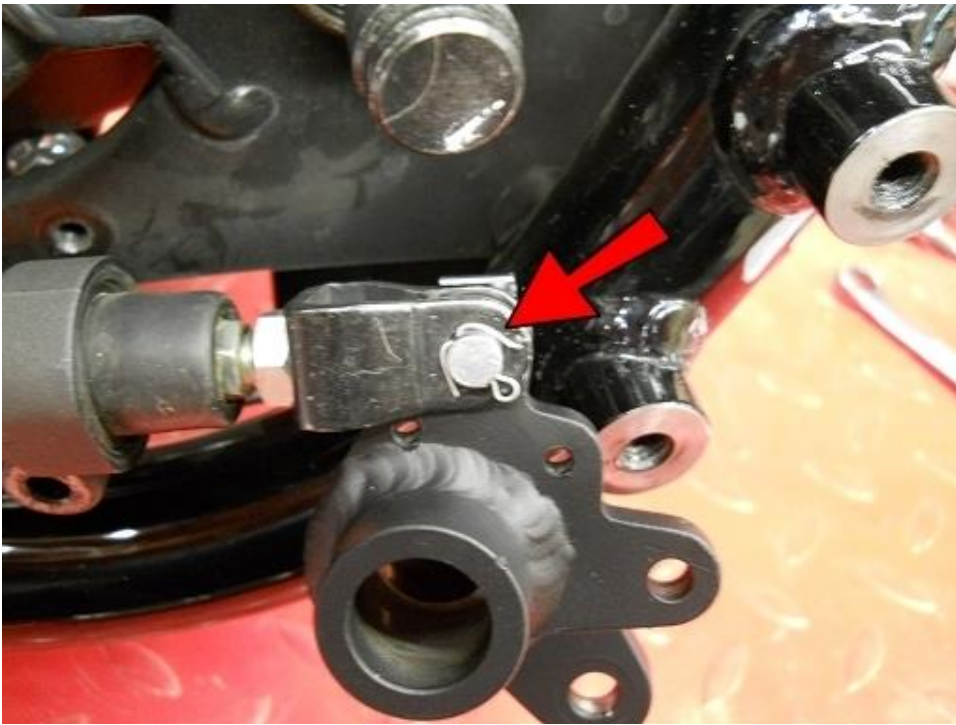




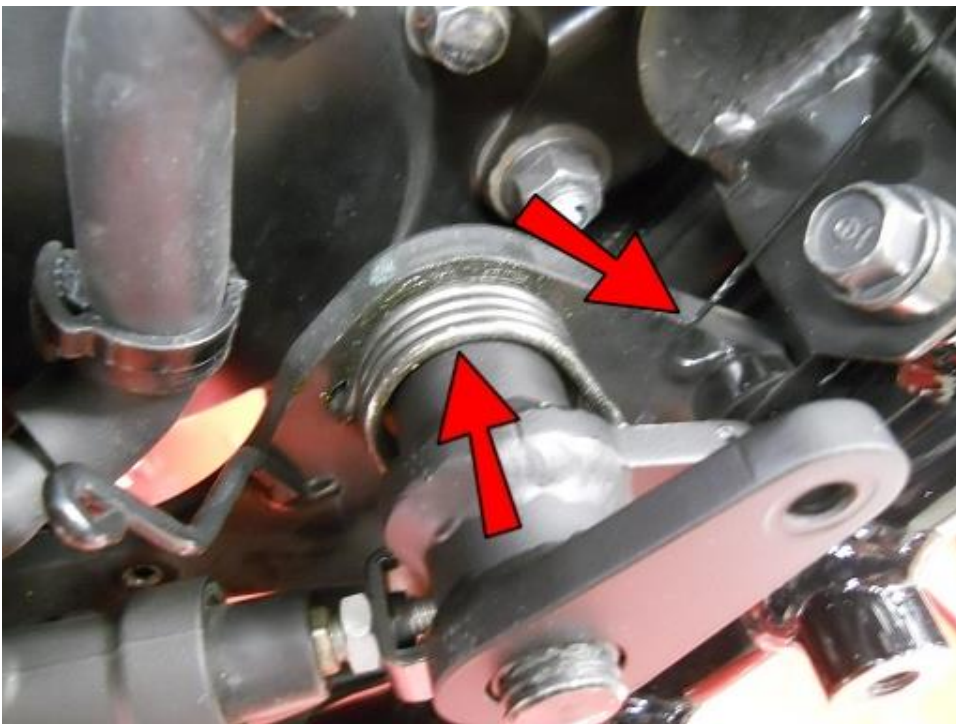
Place the ARM18 into the master cylinder as shown and replace the original clevis pin.



Apply a generous amount of axle grease into the inside of the ARM18 and onto the spindle.



Flip over to the other side and secure with a supplied 3/64x1 Cotter Pin. Trim the “legs” off the cotter pin after bending them around the clevis pin as shown.

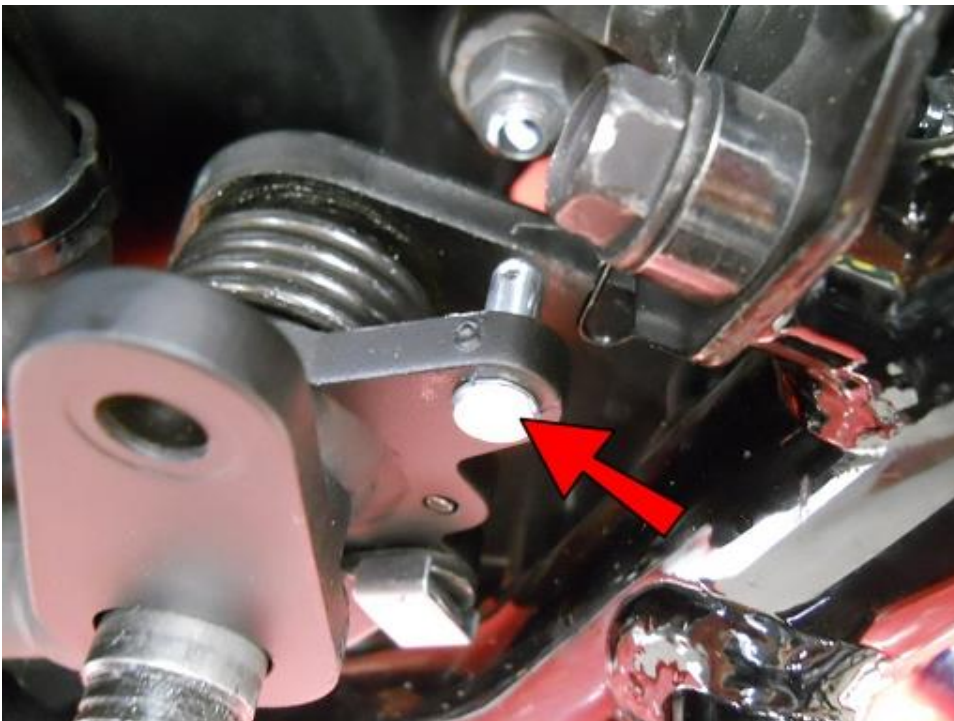


Work the ARM18 onto the spindle, lifting up the torsion spring to make sure the ARM18 slides into it. Also, turn the brake switch spring so that the hook faces forward as shown.

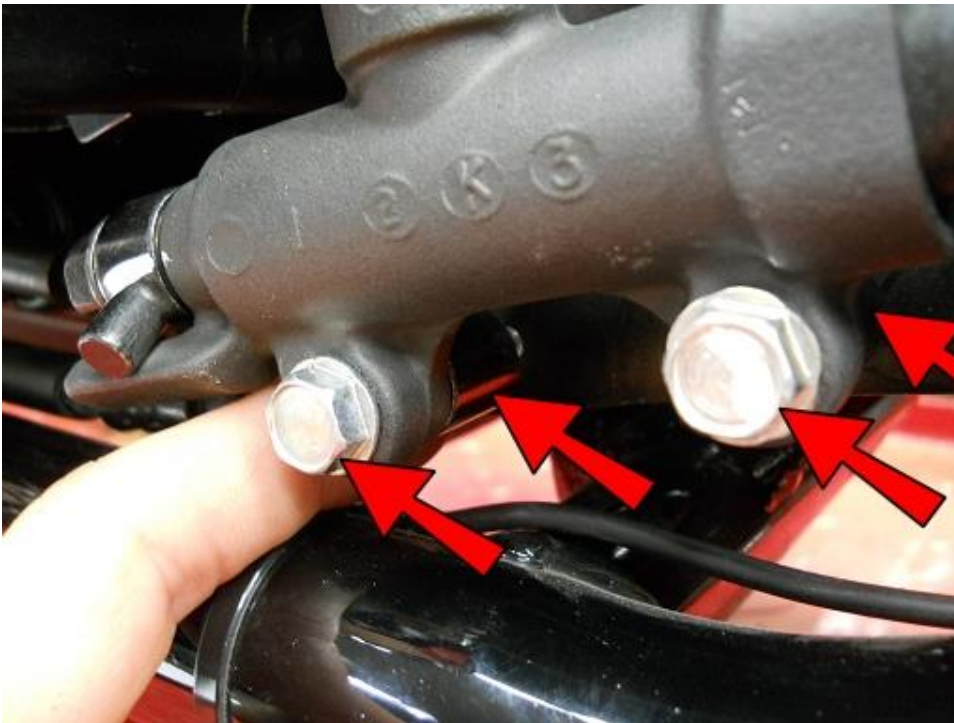




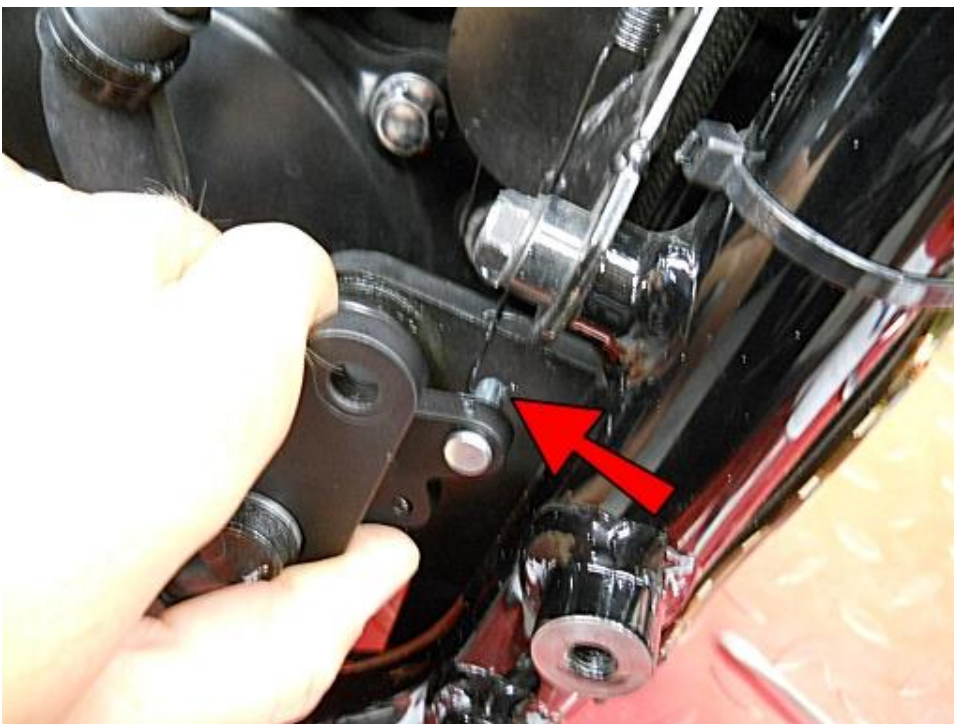
Use your left hand to turn the ARM18 counterclockwise as far as it will go. Use a small screwdriver or pliers to push the tip of the spring into “hole B” in the ARM18. After you get it started into the hole, push the ARM18 as far onto the spindle as it will go.



Place an M6 Clevis Pin into the ARM18.

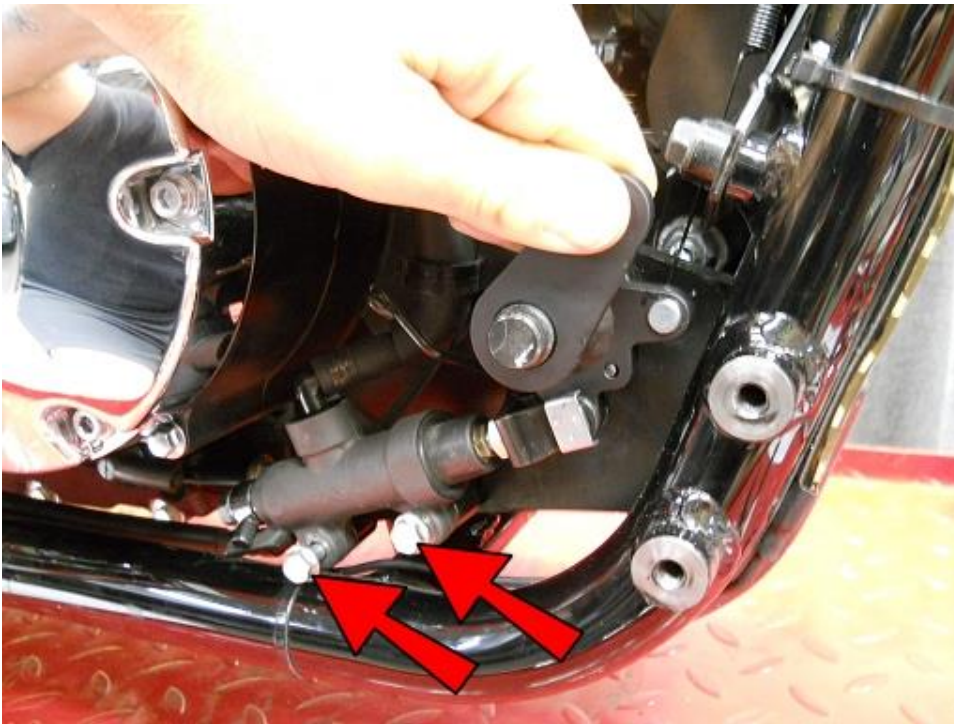


Replace the bolts and spacers back into the master cylinder.



Turn the Cotter Pin so that the hole in the end lines up with the angle of the brake switch spring hook. Rotate the ARM18 clockwise and insert the hook into the Cotter Pin. Continue to hold the ARM18 for the next step assuring the hook does not fall out of the cotter pin.





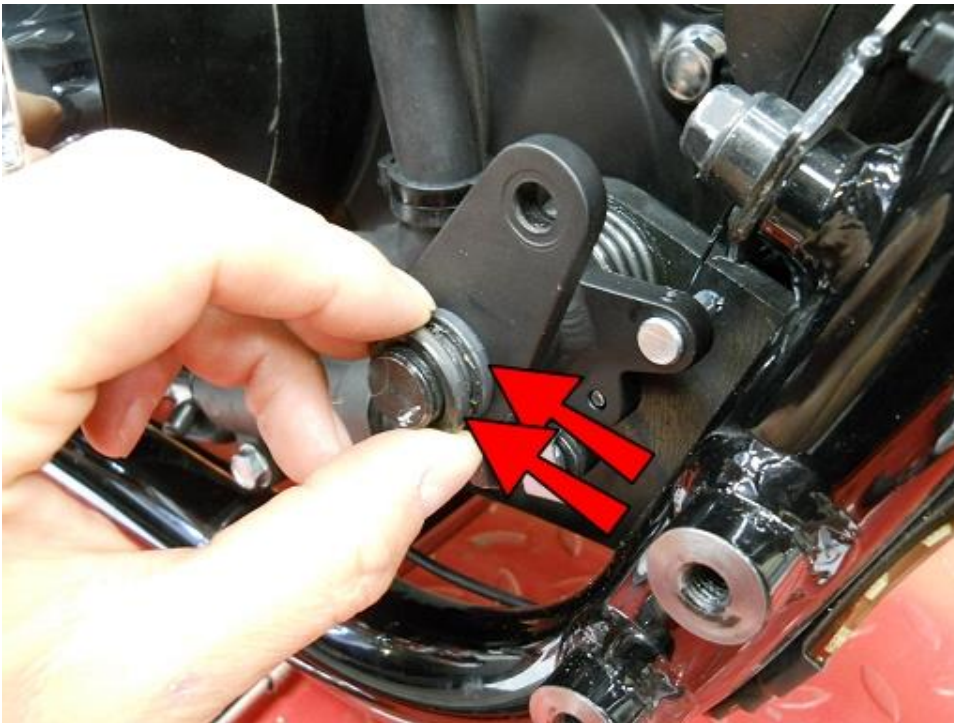
Rotate the ARM18 even farther clockwise to line up the master cylinder bolts onto their holes and start the bolts several turns into the holes, then you can let go of the ARM18.



Now tighten the bolts.

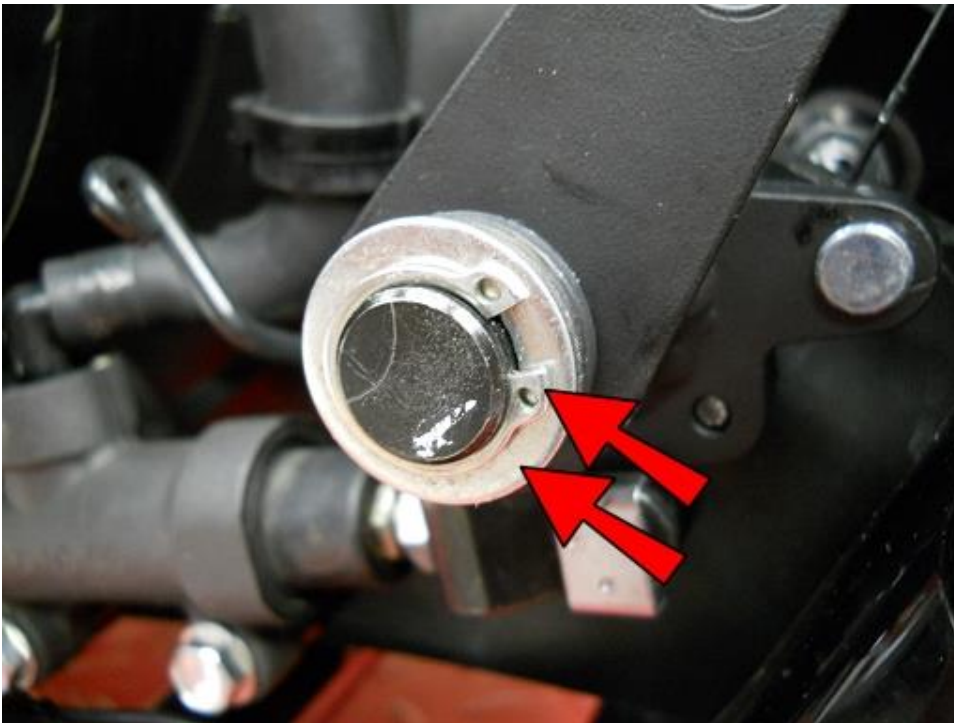


With a small screwdriver, gently pry the dust seals out of both sides of the old brake pedal.



Place both of the dust seals onto the spindle.





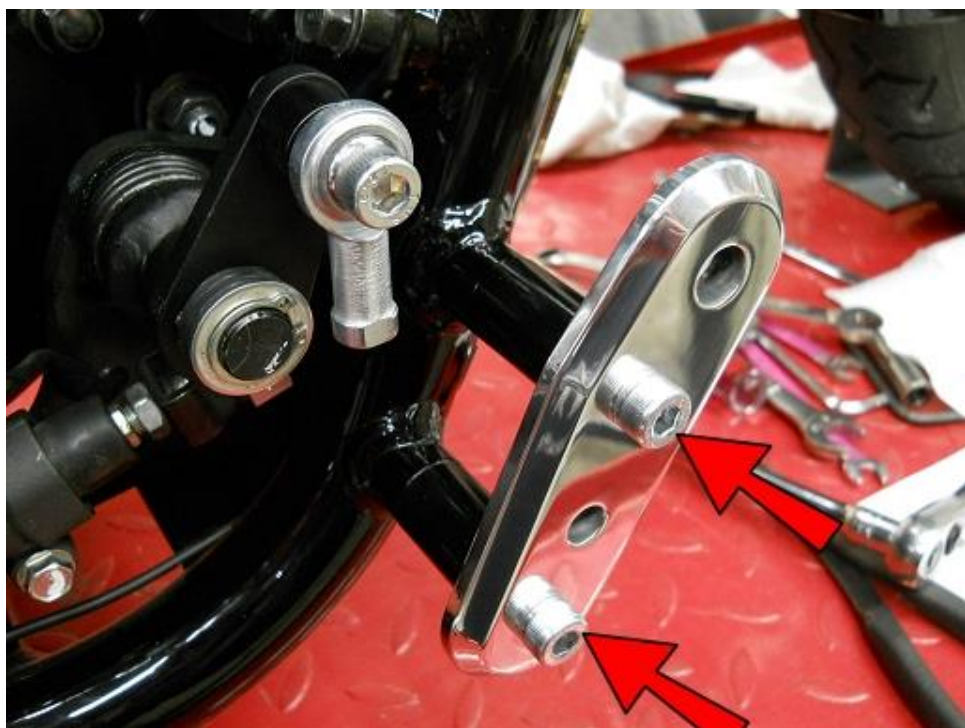
Replace the original washer and retaining ring.



Insert an M8-1.25x40 SHCS into a 5/16 Spherical Rod End, then place a .5" Spacer onto the SHCS.



Insert the assembly into the ARM18 and secure with an M8 Nut.



Attach the Right side Control Plate to the frame using the original spacers. Please note the hole spacing and diameter is designed to be used on a few different models so they will not appear to be perfectly centered. Start one M8-1.25x60 SHCS just a few threads into one of the holes then start another in the other hole and tighten each of them a little at a time.





Apply some axle grease to all three sets of the SLV1 and 5/8x1/2 Bronze Sleeves, then insert them into each other.



The inside of the Brake Pedal will likely have some polishing compound residue. Use a cloth or paper towel and make sure the inside is **ABSOLUTELY** clean. This will affect how well your Brake Pedal will rotate. After cleaning, put a little grease in there.



Insert a set of the sleeves into the Brake Pedal.



Thread the #8-32 Nut onto the #8-32 Screw and thread all of the way into the Brake Pedal. (Note: There may also be some polish compound in that hole but it should thread right out.)





Use a 3/8-16x2 BHCS to attach the Brake Pedal to the Control Plate and secure with a 3/8 Nut.



Thread 5/16" Nuts onto both ends of the Brake Linkage and a 5/16" Spherical Rod End most of the way onto one end.



Thread the other end into the Rod End already on the ARM18.



Insert a Foot Peg Bolt into the hole.



You may reinstall the exhaust now. (Note: You may want to replace the exhaust gasket or gaskets. Sometimes they are ok with just one removal, but if you start to notice more backfiring and popping after this installation, a new exhaust gasket is probably in order.)



Insert an M8-1.25x60 SHCS into the hole on the Brake Pedal.



Slide on a 1" Spacer.



Connect the Linkage and secure with an M8 Nut.



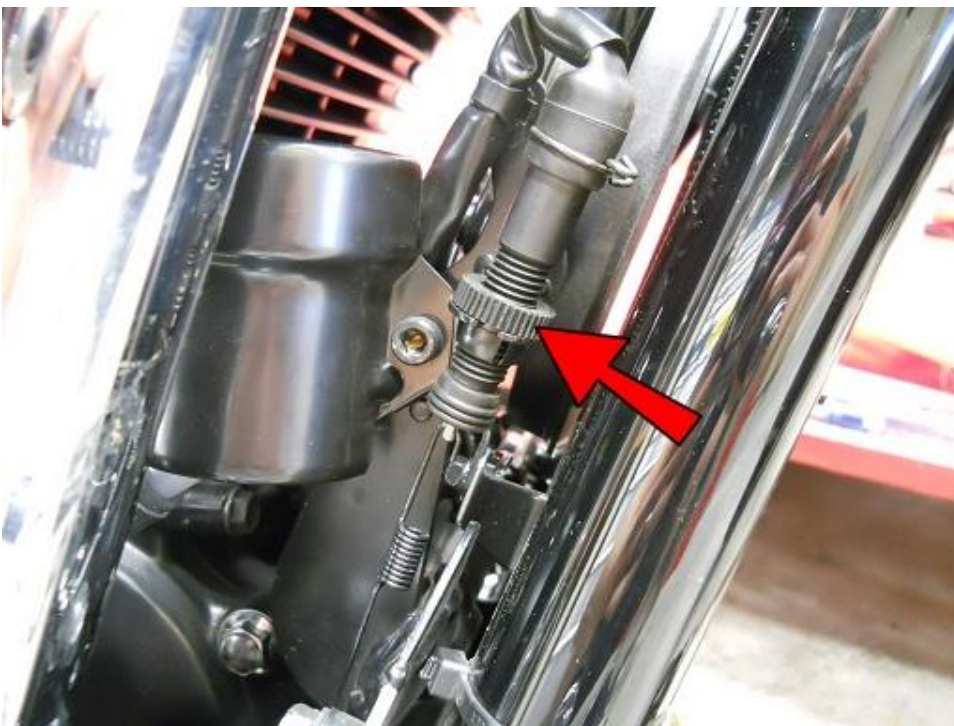
Attach a Foot Peg.

Note: If you want to adjust the Brake Pedal angle, remove the Linkage from the Brake Pedal and thread the Linkage farther into or out of the Spherical Rod Ends. Make sure there is enough Linkage rod threaded in to make a secure connection. Also, make sure the M8 SHCS and Nut holding the Linkage to the Brake Pedal is very tight or there will be a lot of play in the brake.





Attach the Brake Toe Peg and Secure with a 5/16 Nut.



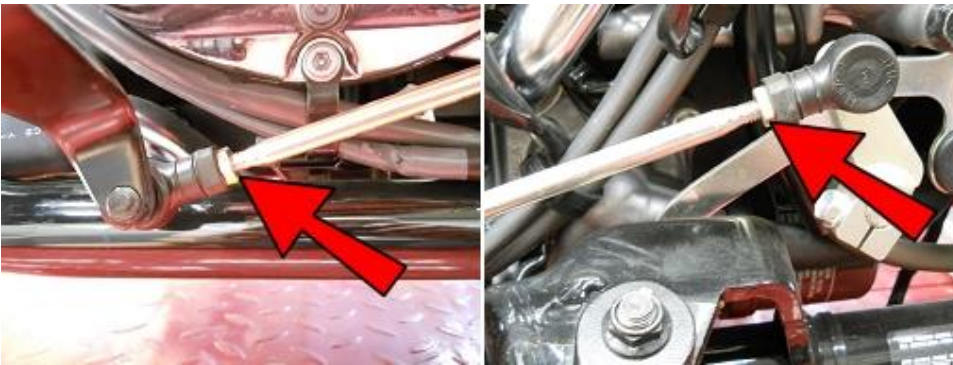
The brake light switch may need to be adjusted. Do this by turning the adjustment wheel. Hold the brake light switch in one hand to keep it from turning while turning the wheel. If the spring tension is too tight, your brake light will be on all of the time. If it is too loose, it will not come on when 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.

This completes the Brake Side.

## Shifter Side...



Lower the kickstand, remove this bolt and pull off the chrome cover. (Note: It is also held on by 3 rubber pieces that just pop in and out so a firm pull will remove it.)

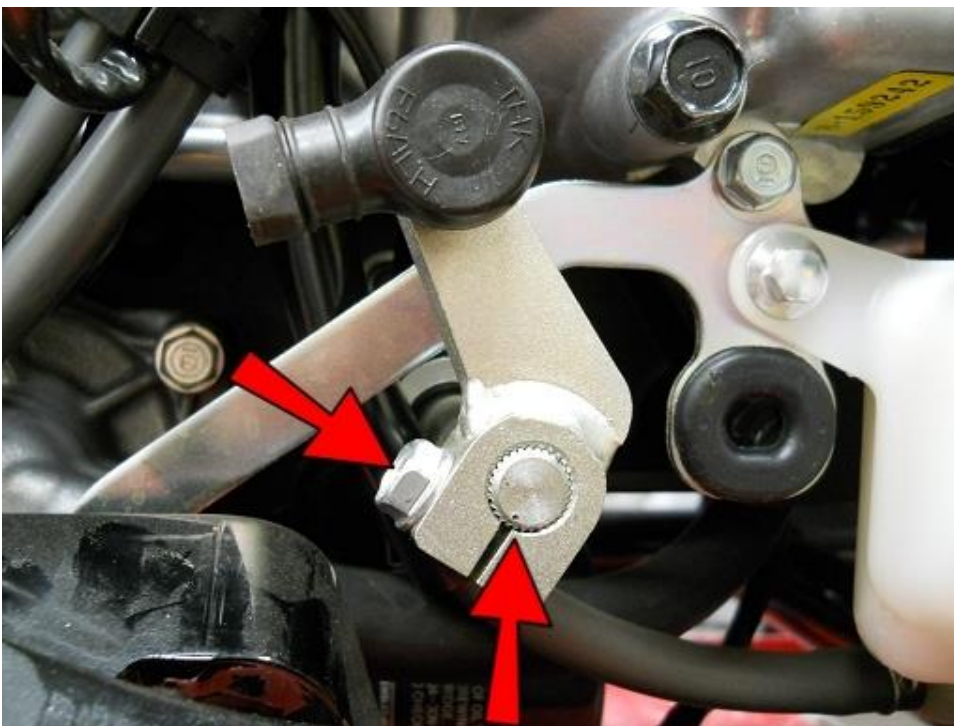


Loosen these nuts. (The rear nut is a LEFT HAND thread.)

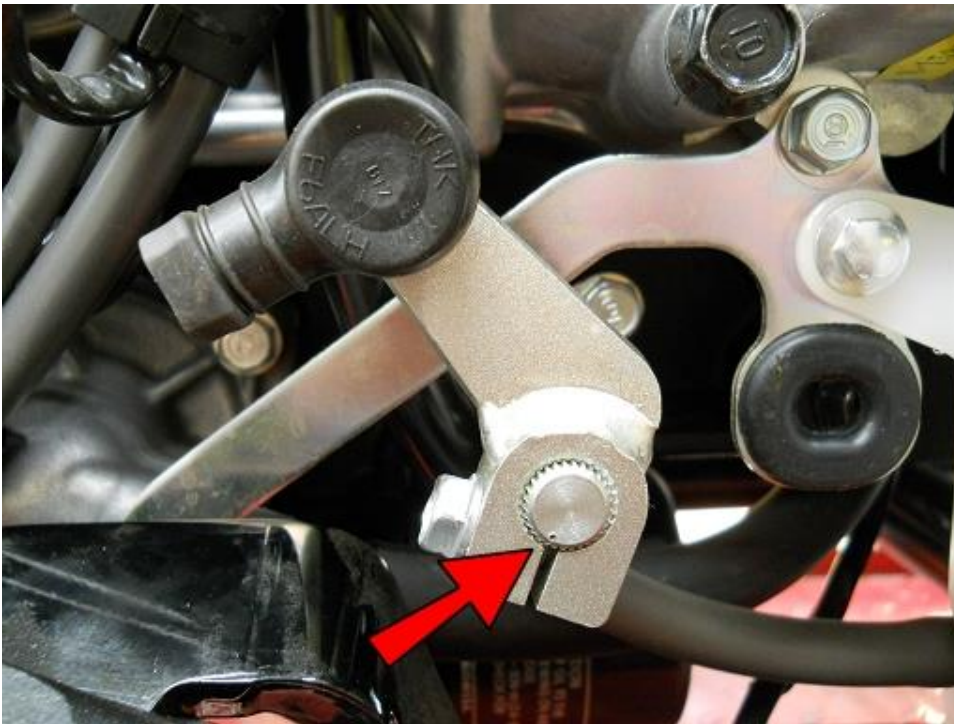




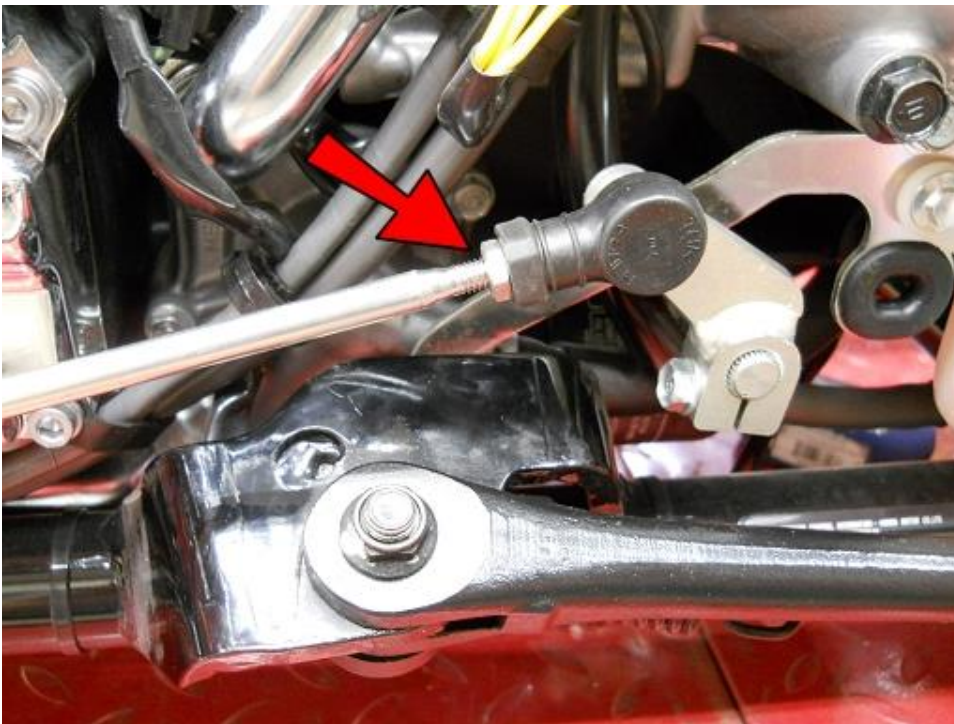
Twist the shifter linkage to thread it out to remove it.



Remove the shifter arm bolt. Also note the small alignment mark on the spline should be lined up with the slot in the shifter arm.



Slowly pull the shifter arm off the spline being careful to keep track of where the teeth are and rotate the shifter arm 1 tooth counterclockwise. Slide the shifter arm back onto the spline with the alignment mark now as shown. START the bolt back into the shifter arm. Push the arm as far onto the spline as it will go, THEN tighten the bolt.

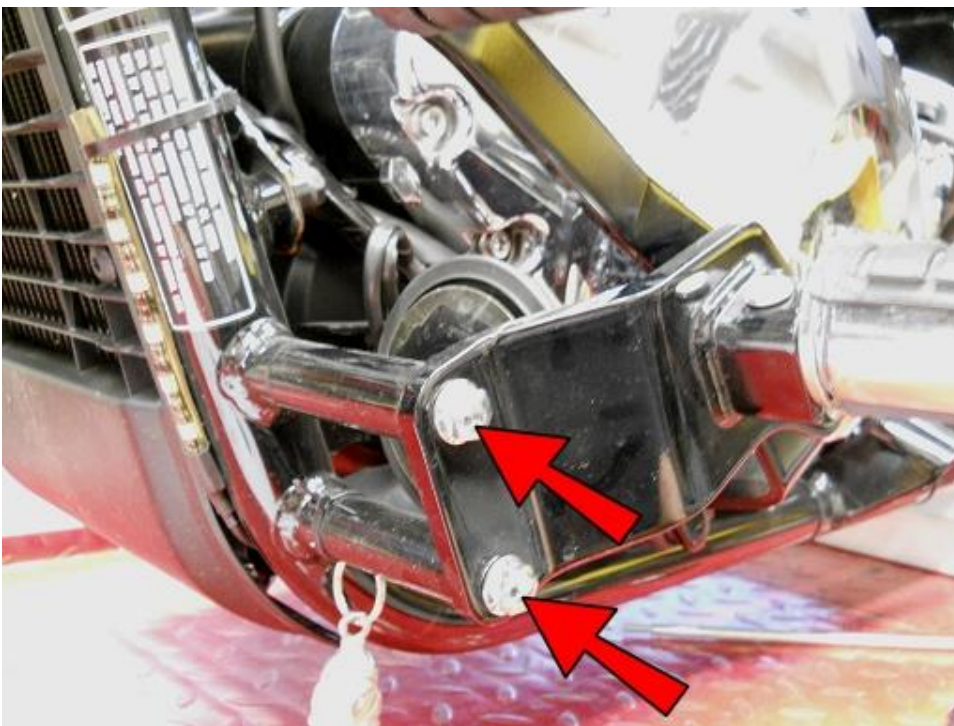


Thread the original linkage back onto the shifter arm. (Remember, it's a Left Hand thread so use the correct end of the linkage.)





Attach an M6 Spherical Rod End onto the other end of the linkage.



Remove these 2 bolts.



Insert an M6-1.0 SHCS into the ARM20 and secure with an M6 Nut.



Now tighten another M6 Nut on.

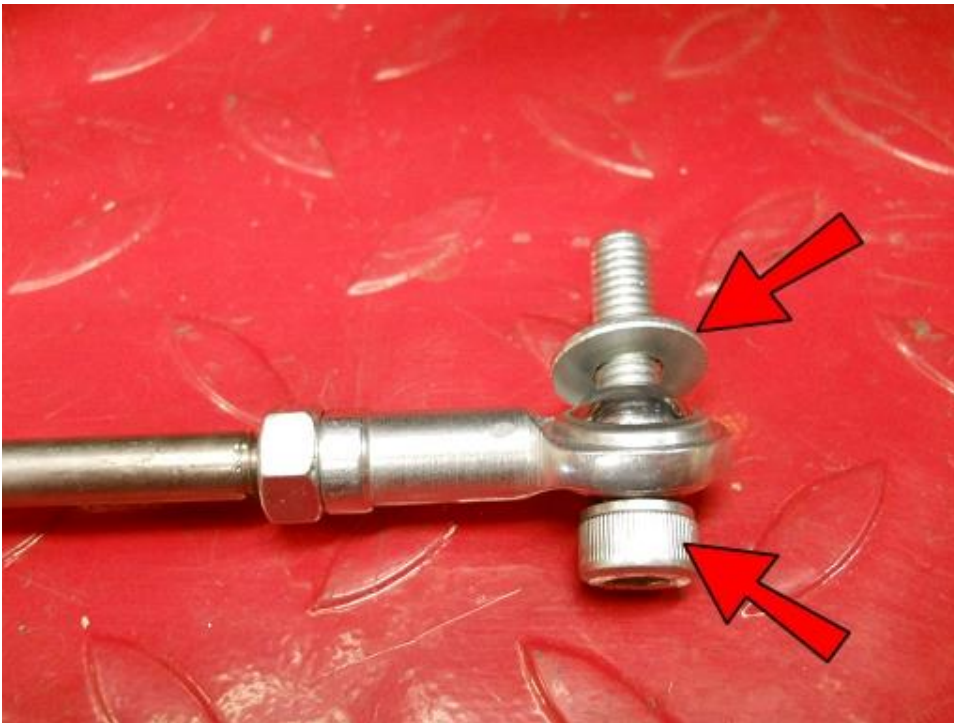




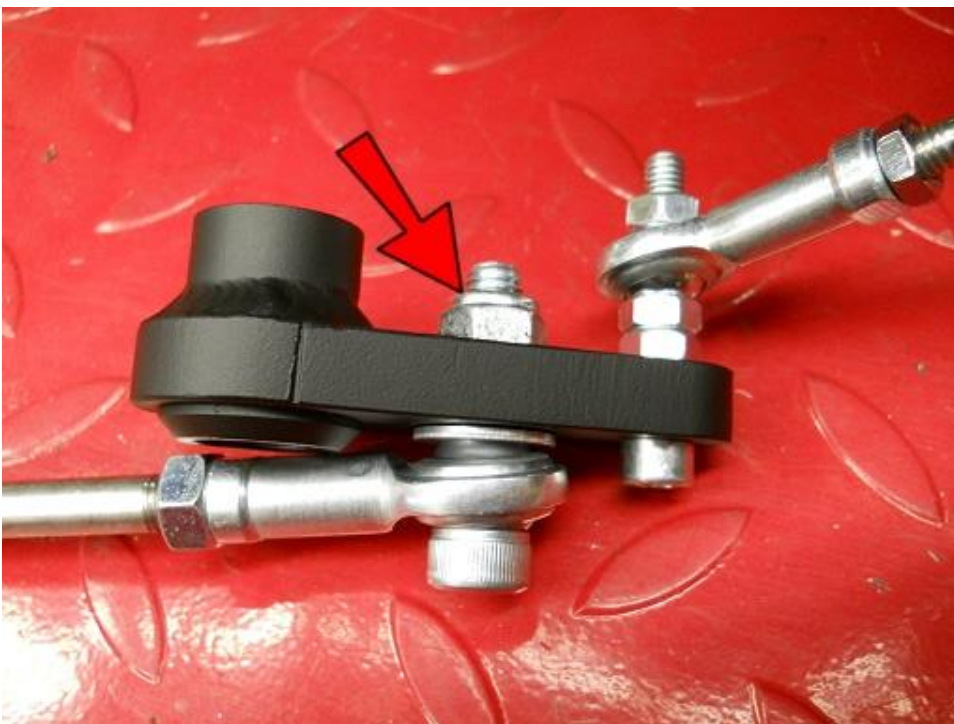
Attach to the linkage and secure with another M6 Nut.



Thread 5/16" Nuts and 5/16" Spherical Rod Ends most of the way onto both ends of the supplied Shifter Linkage.



Insert an M8-1.25x35 SHCS into one end and place a 1/4" Washer on.



Attach that to the ARM20 and secure with an M8 Nut.





Insert one of the sets of greased sleeves into the ARM20.



Insert M8-1.25x60 SHCS into these holes of the Left side Control Plate.



Place 1" Spacers and the STOF8 onto the bolts as shown.



Start the bolts into the frame to connect the Control Plate but DO NOT tighten yet.





Insert a 3/8-16x2 BHCS into the ARM20.



Attach the ARM20 to the STOF8 and secure with a 3/8 Nut.

There should be enough play in the STOF8 to move it up or down a bit to make sure the Linkage does not rub the bottom of the engine case, but keep it pretty close to it so it will clear the chrome plastic cover when you put it back on. Once you have it adjusted go back and tighten the M8 bolts holding the Control Plate and STOF8 to the frame



Insert the last set of greased Sleeves into the Shifter Pedal. Remember to make sure the inside of the shifter hub is clean!

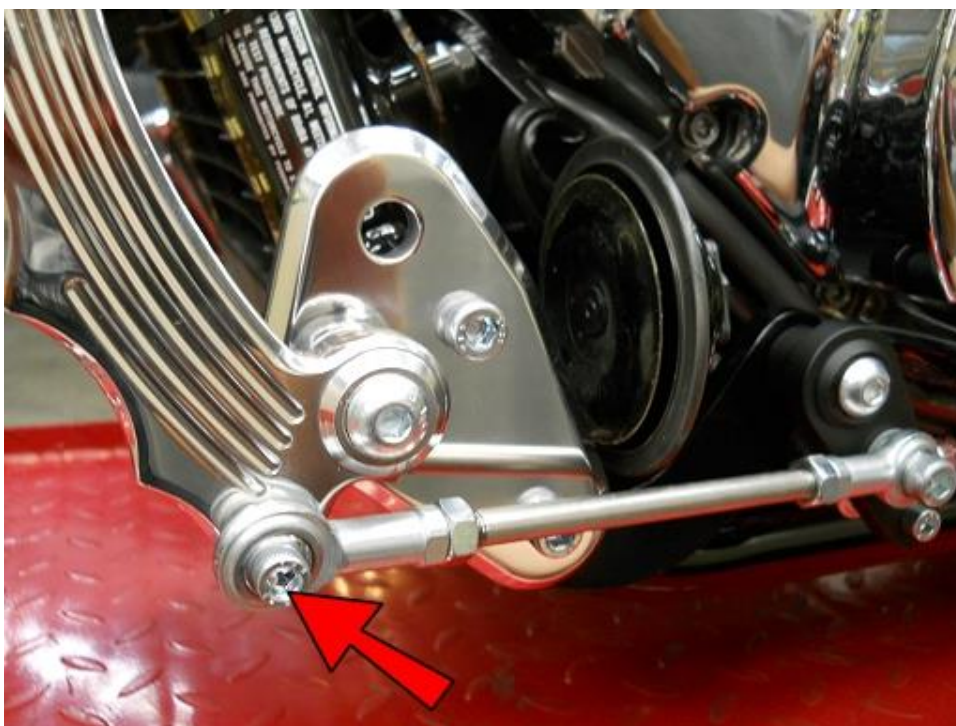


Insert a 3/8-16x2 BHCS into the Shifter Pedal.

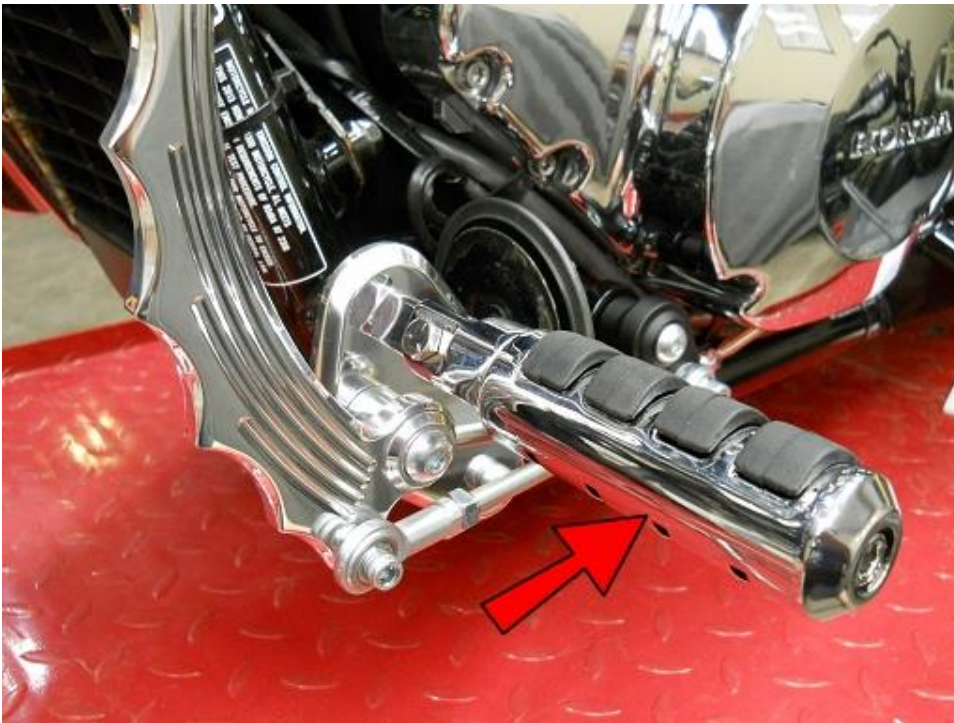




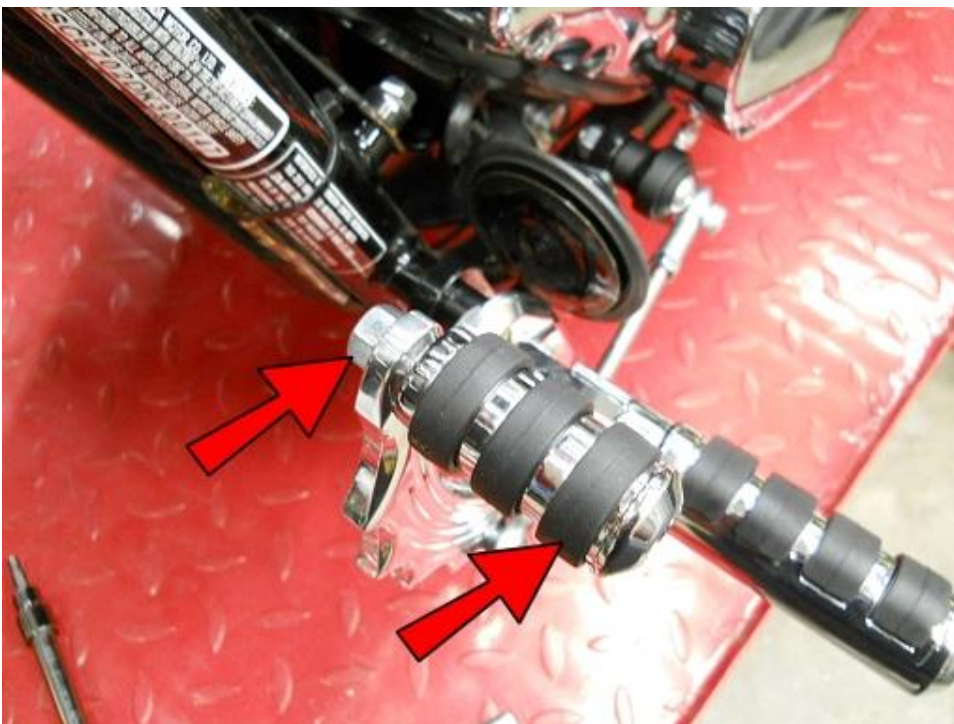
Attach the Shifter Pedal to the Control Plate and secure with a 3/8 Nut.



Attach the Linkage to the Pedal with an M6-1.0x25 SHCS and secure with an M6 Nut on the back side.

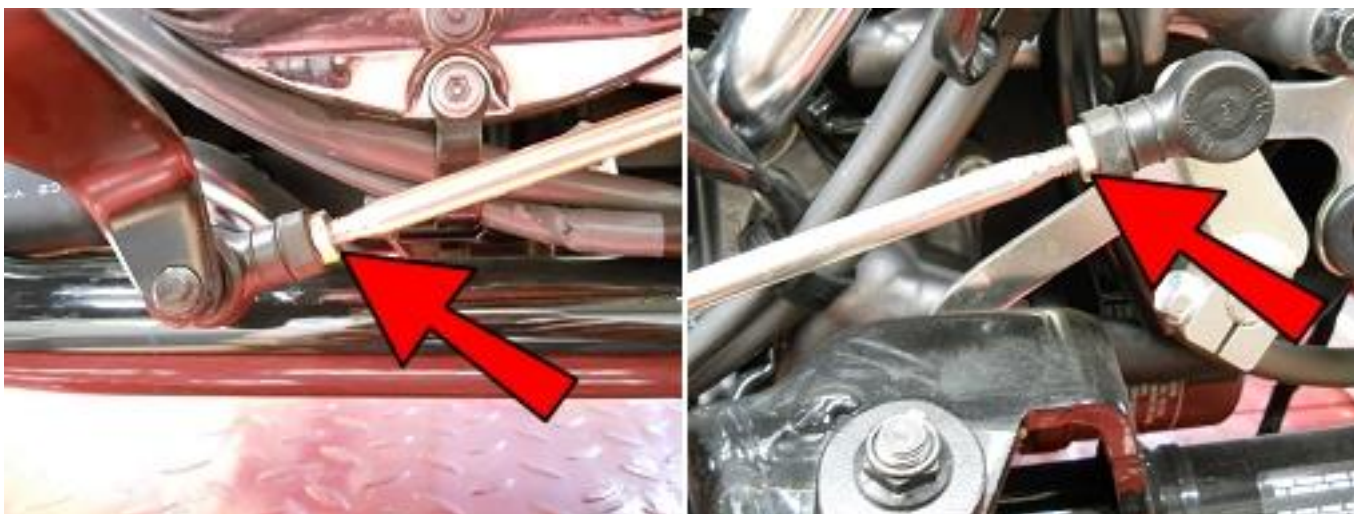


Attach a foot peg.



Attach the Shifter Toe Peg and secure with a 5/16 Nut.





Adjust the Shifter Pedal height with the original linkage. Make sure there is enough thread in both ends for a secure connection. If you need more adjustment, you can remove the front linkage from the Pedal and adjust it as well, then reconnect. After the height is adjusted to the desired position, tighten the nuts against ALL of the Spherical Rod Ends.



Replace the chrome cover and secure with the original bolt.

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!