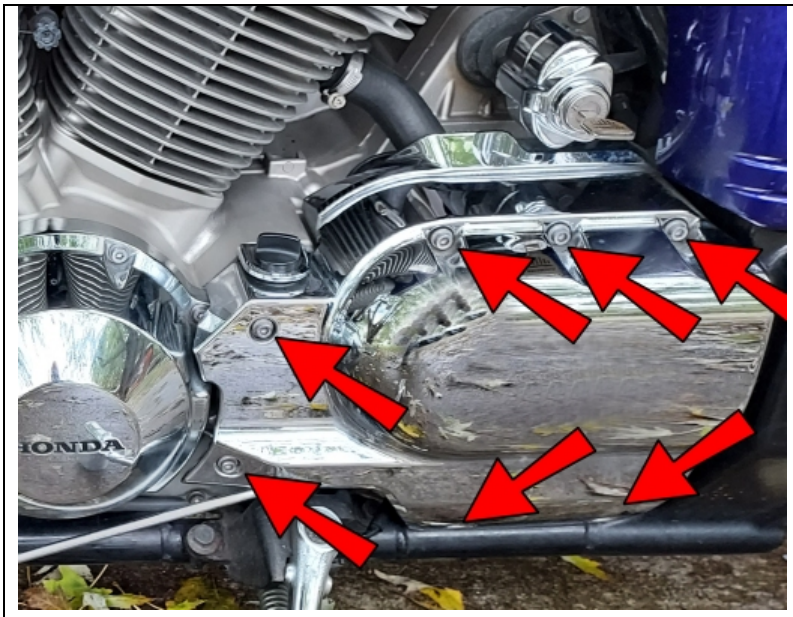
Installation instructions for FC22 Forward Controls for Honda VTX1800 C & F
It is highly recommended that you use a thread lock compound such as Loctite brand on all threads to keep them from vibrating loose. Please read these instructions entirely before starting.

This picture shows the components of the FC22 kit. Parts will be referred to by the names & numbers shown here. If you are missing anything please email RefinedCycle@gmail.com.

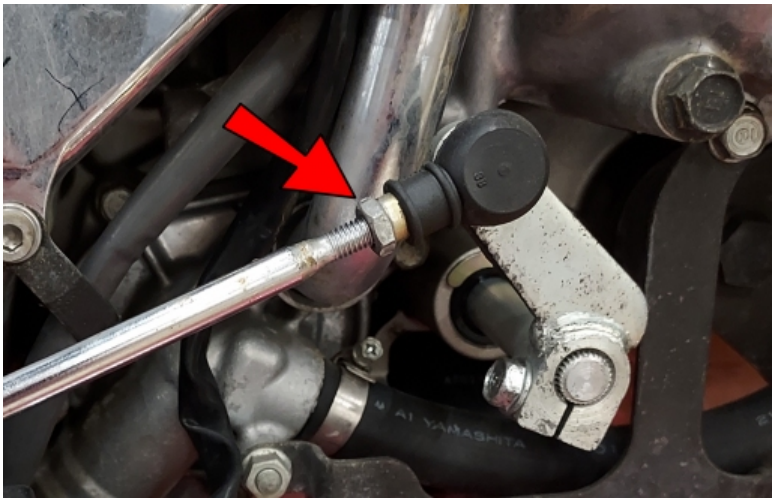
FC22 Components….

1) Shifter Pedal
2) Right Back Bracket
3) STOF8
4) ARM20
5) Left Front Bracket
6) Right Front Bracket
7) Left Back Bracket
8) Brake Pedal
9) M10-1.25x70 Bolt (qty. 2)
10) M10-1.25x100 Bolt
11) STOF3
12) M10-1.5x170 Bolt
13) Bronze OR Steel Sleeve (qty. 3)
14) SLV1 (qty. 3)
15) 3/8-16x2 Button Head Bolt (qty. 3)
16) M8-1.25x45 Bolt (qty. 4)
17) M8-1.25x30 Bolt
18) M8-1.25x25 Bolt
19) M6-1.0x40 Bolt (qty. 2)
20) 3/8-16x1.25 Button Head Bolt
21) 5/16” Spherical Rod End (qty. 4)
22) M6 Spherical Rod End
23) 1" Spacer (qty. 4)
24) 3/4" Spacer (qty. 5)
25) Toe Peg (qty. 2)
26) ARM22
27) 3/8” Washer (qty. 6)
28) 5/16” Washer (qty. 2)
29) 1/4" Washer (qty. 4)
30) M6 Washer (qty. 3)
31) #8-32 Nut (qty. 5)
32) M6 Nut
33) 5/16” Nut (qty. 5)
34) M8 Nut (qty. 2)
35) 3/8” Nut (qty. 3)
36) M10-1.5 Nut
37) 5/64x1 Cotter Pin
38) #8-32x1 Screw (qty. 2)
39) #8-32x1/2 Screw (qty. 2)
40) #8-32x5/16 Screw
41) 1/2” Retaining Ring
42) BSM5
43) SSR0540RR Linkage Rod (qty. 2)

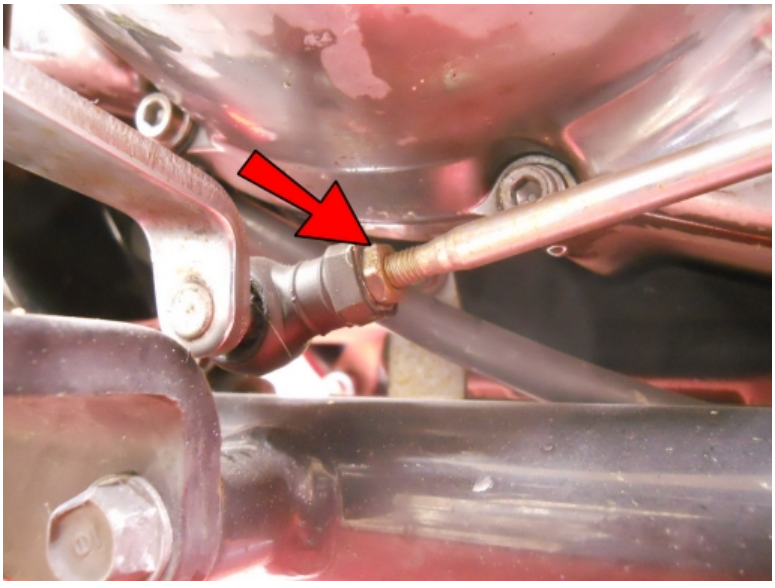


Start on Shifter Side…

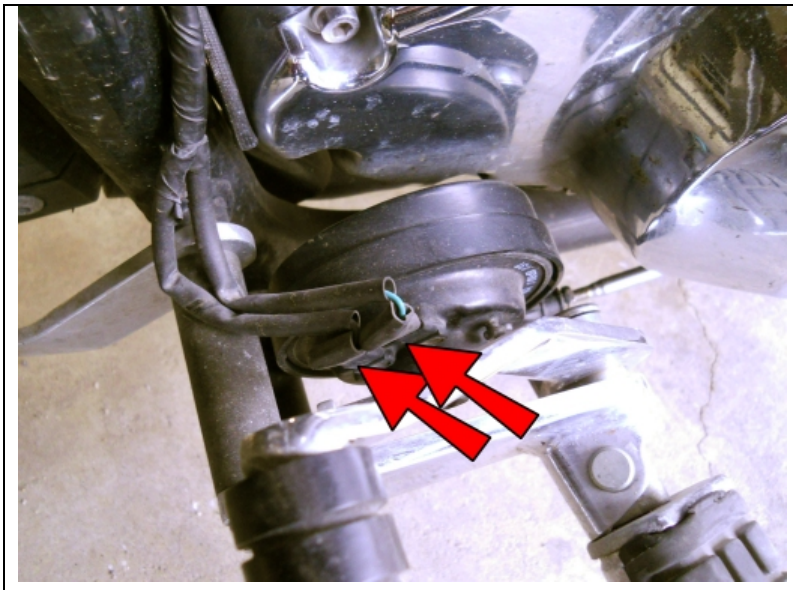
If you have the bike on a jack, lower the kickstand.
Remove these 7 bolts and pull off the chrome cover.



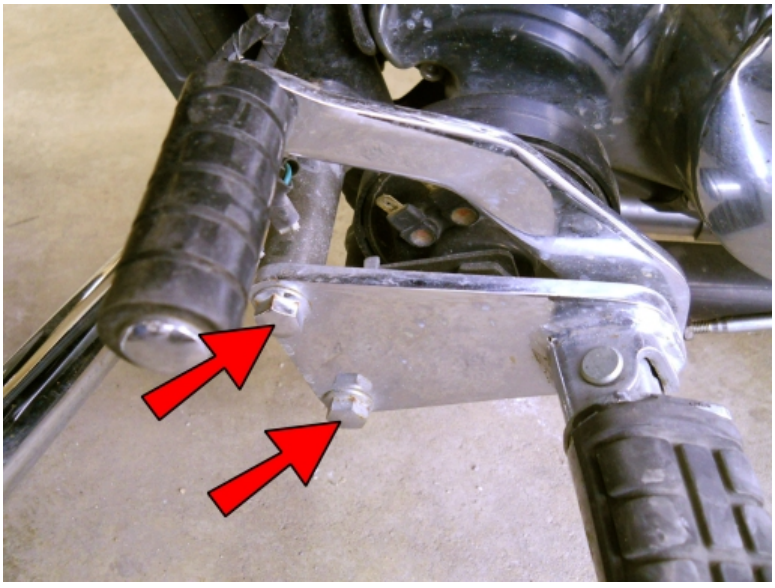
Loosen this nut.



Loosen this nut, then twist the shifter linkage to thread it out of both ends to remove the linkage.

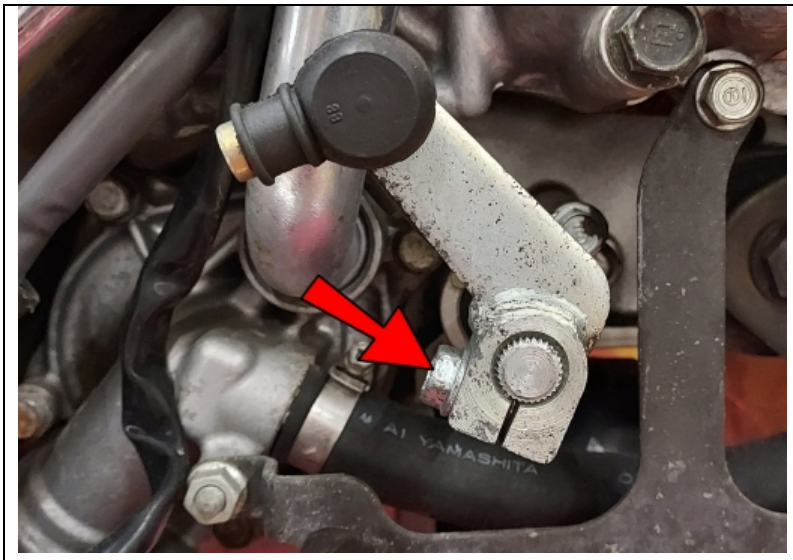


Unplug the horn wires.

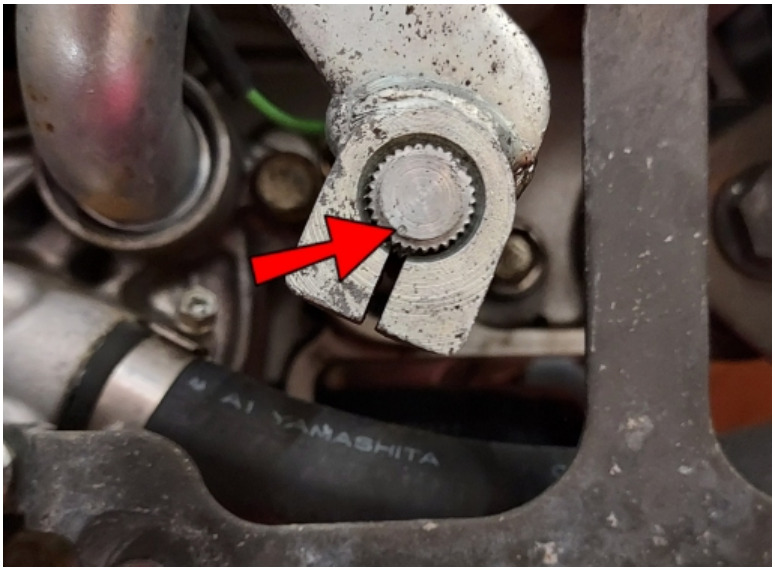


Remove these two bolts and keep the spacers handy for use later.

Remove this bolt to remove the horn.



Remove this clamping bolt.

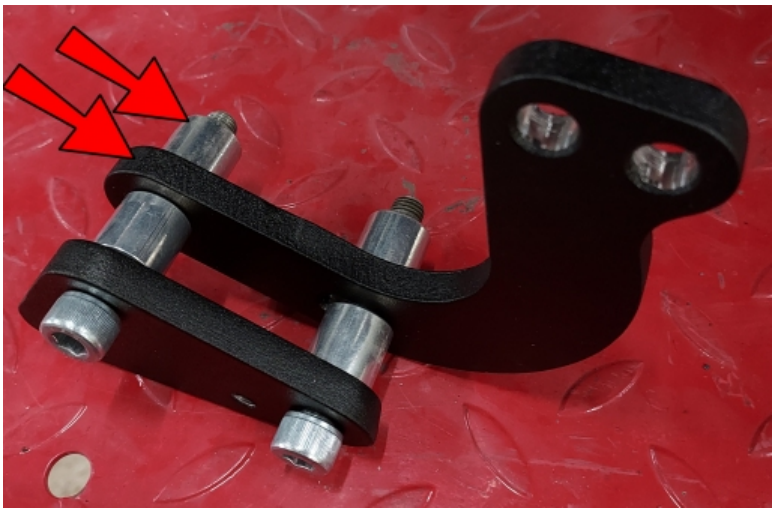


Observe the small dot on the end of the splined shaft. Yours should currently be lined up with the split in the shifter arm. Slide the shifter arm off the splined shaft and rotate the shifter arm ONE spline counter-clockwise as shown here, then put the clamping bolt back on and tighten.

(Note: the clamping bolt lines up with a groove in the spline shaft, so the shifter arm has to be on the shaft at just the right depth to line the bolt up with the groove.)

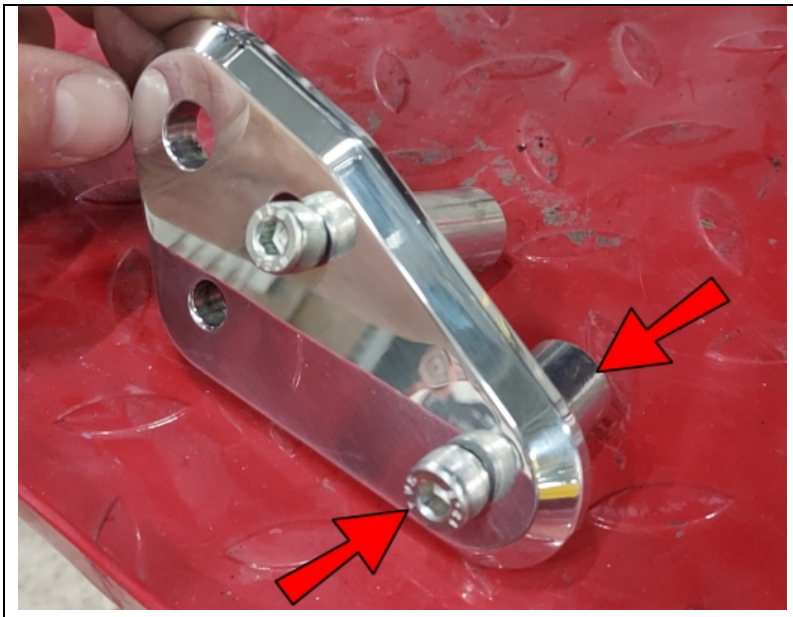
Thread an M6 Spherical Rod End onto the end of the linkage that came out of the shifter pedal. Now, thread the other end (left hand thread) of the linkage back into the shifter arm on the splined shaft above.

Insert M10-1.25x70 Bolts into the Left Back Bracket. Slide a 3/4" Spacer onto each bolt as shown.

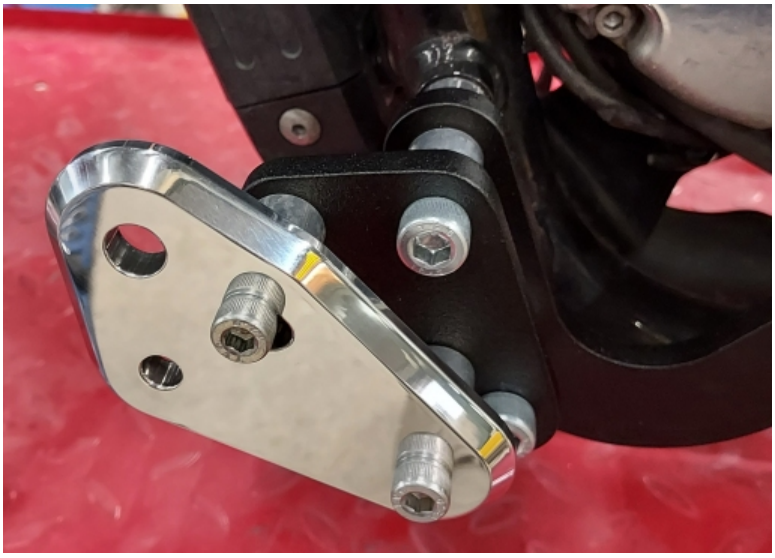


Place the STOF8 onto the bolts as shown and slide the other 3/4" Spacer onto each bolt.

Secure the above assembly to the frame.



Insert M8-1.25x45 Bolts into the Left Front Bracket as shown and slide 1” Spacers onto them.

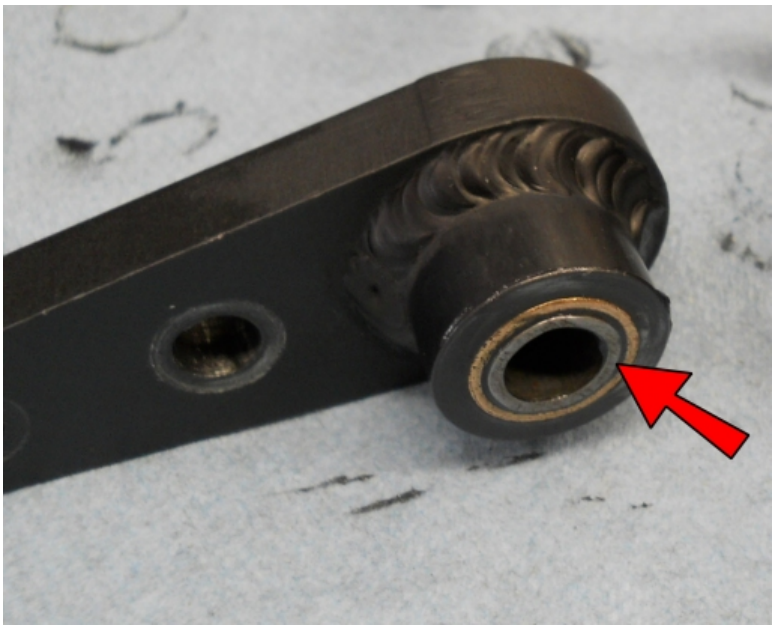


Secure the assembly to the Back Bracket.

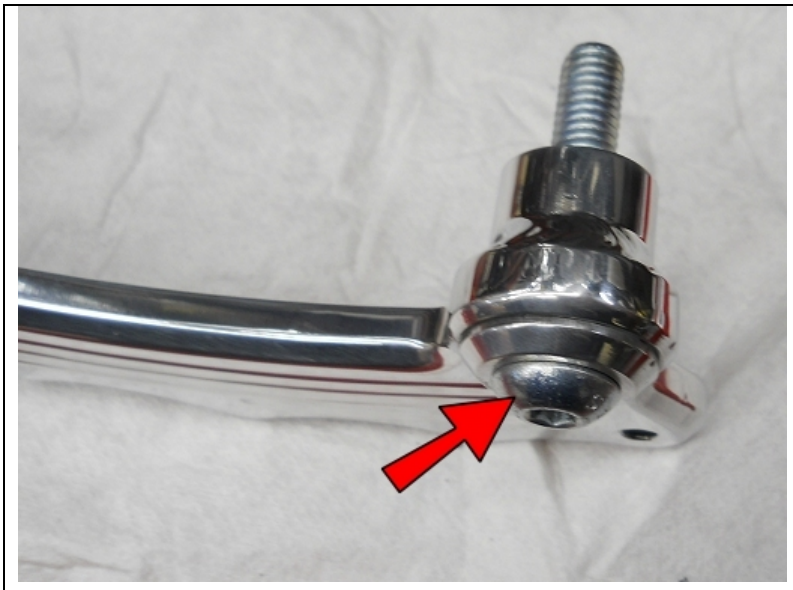
Apply some axle grease to all of the Bronze Sleeves and SLV1.

The inside of the Shifter and Brake Pedals 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 they will rotate. After cleaning, put some grease inside.

Insert a Bronze sleeve into the Pedals, then a SLV1.



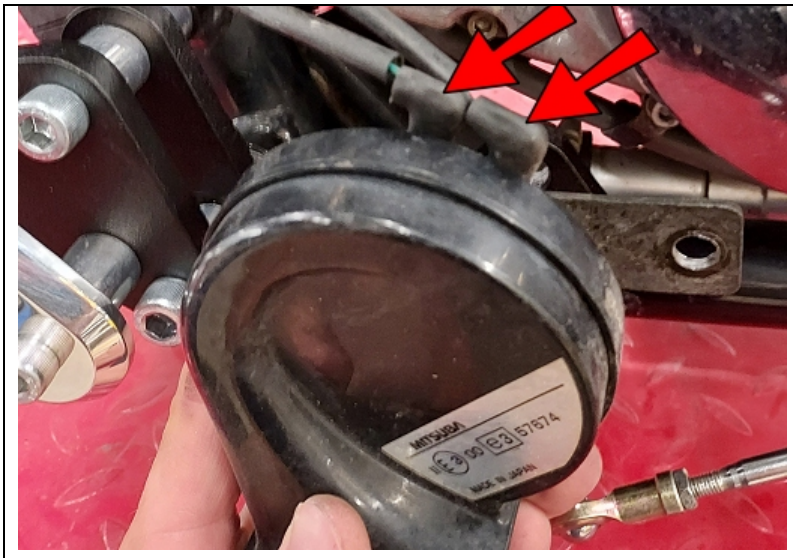
Do the same for the ARM20.



Insert a 3/8-16x2 Button Head Bolt into the Pedals and ARM20 as well.

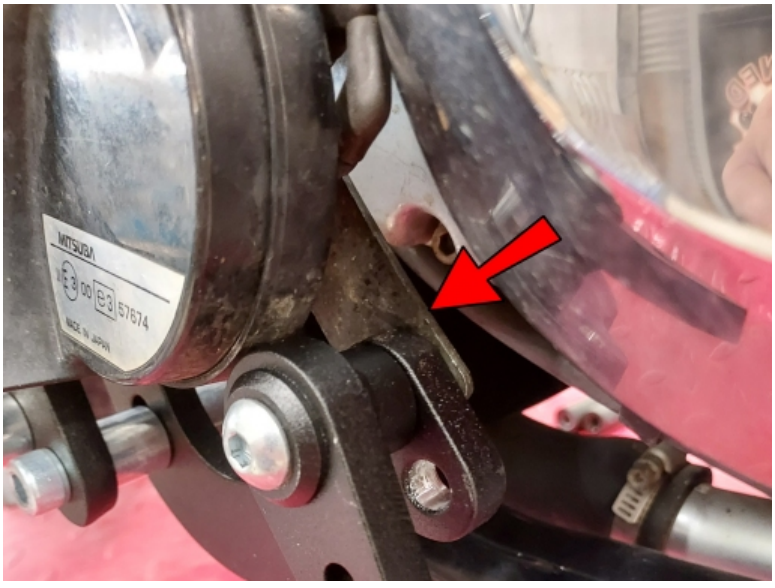
Attach the Shifter Pedal to the Front Bracket and secure with a 3/8” Nut. After tightening, make sure the Pedal rotates absolutely freely. It should literally fall down when you let go of it. If not, stop and figure out what is incorrect before proceeding.

Drill out the hole in the horn mount bracket with a 3/8” Drill bit.

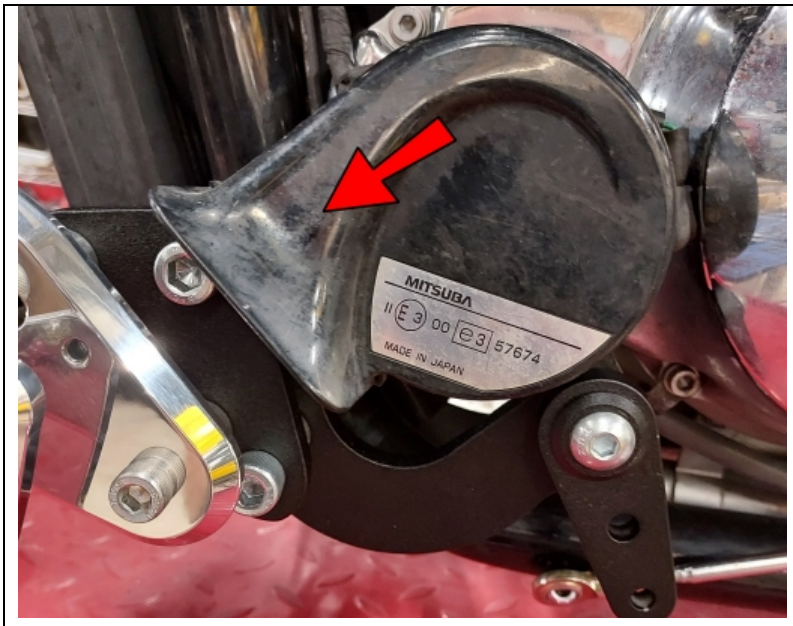


Replace the horn wires.

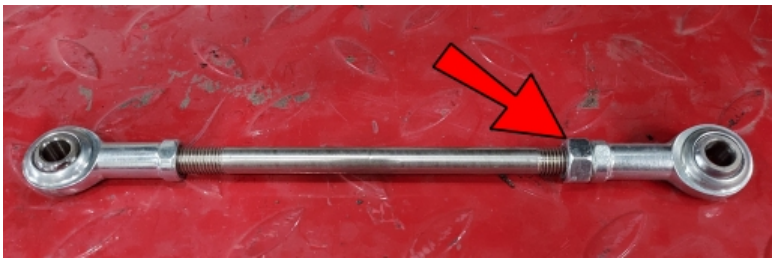
Insert the ARM20 assembly into the top hole of the STOF8.



Place the Horn onto the Button Head Bolt and thread a 3/8” Nut on, finger tight.



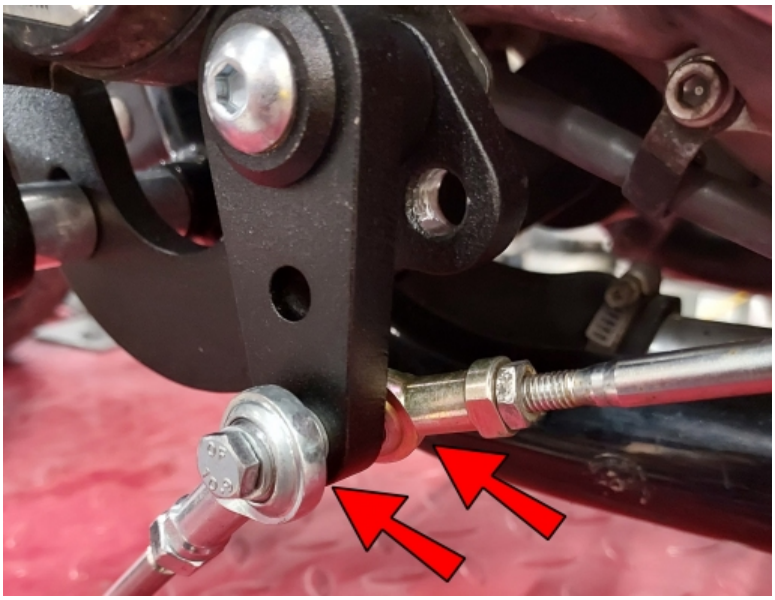
Push the horn forward so that it is NOT rubbing against the ARM20, then tighten the 3/8” Nut. You may also want to slightly bend the Wire connectors a little bit to keep them from rubbing against the motor.



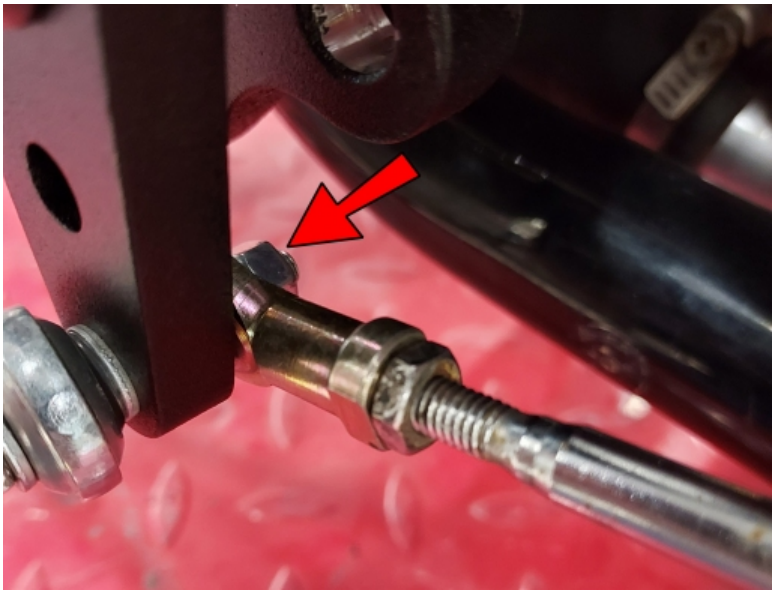
Thread a 5/16” Nut onto ONLY one end of a Linkage Rod, then thread 5/16” Spherical Rod Ends onto both ends of the Linkage about as far as shown.

Place an M6 Washer onto an M6-1.0x40 Bolt.

Insert that Bolt into the end that HAS the Nut on it. Then place another M6 Washer onto the Bolt.



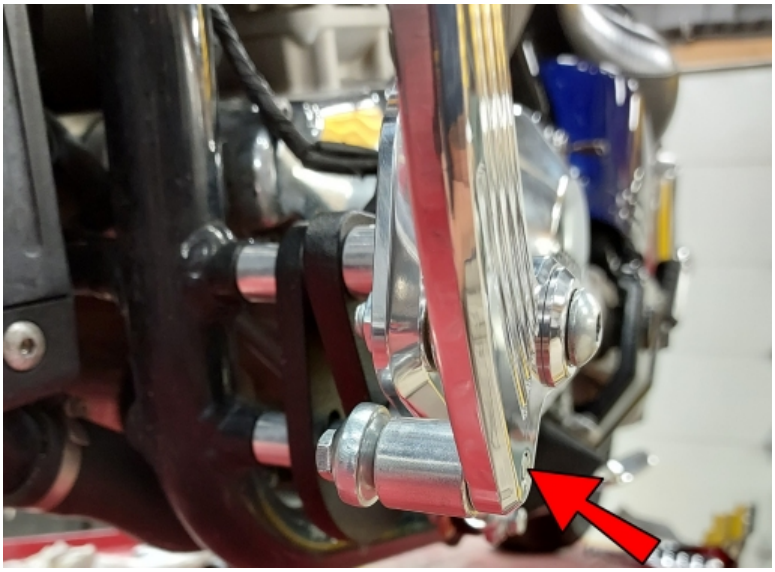
Place the above assembly into the bottom hole of the ARM20 and place the other linkage onto the Bolt as shown.



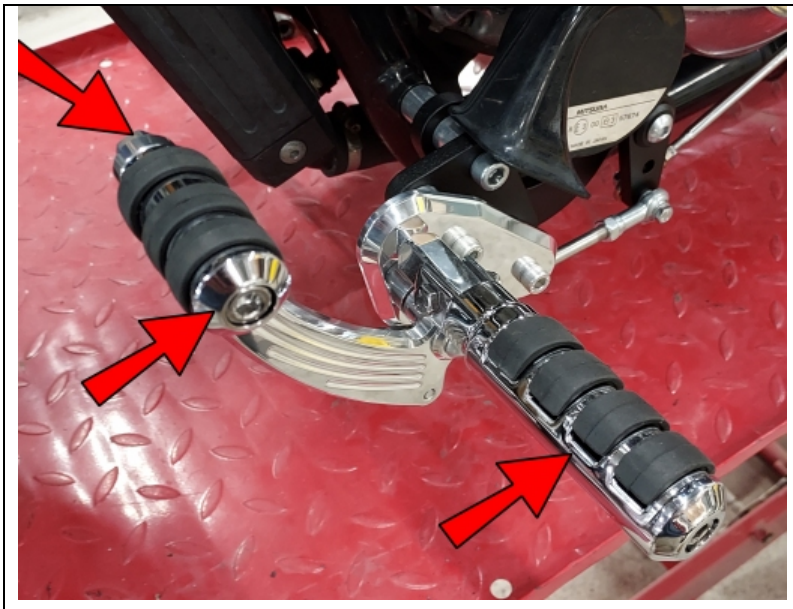
Secure the assembly with an M6 Nut.

Place an M6-1.0x40 Bolt into the other end of the Linkage then slide an M6 Washer onto the Bolt.

Place a 3/4” Spacer onto the Bolt.



Secure this assembly to the back side of the Shifter Pedal.

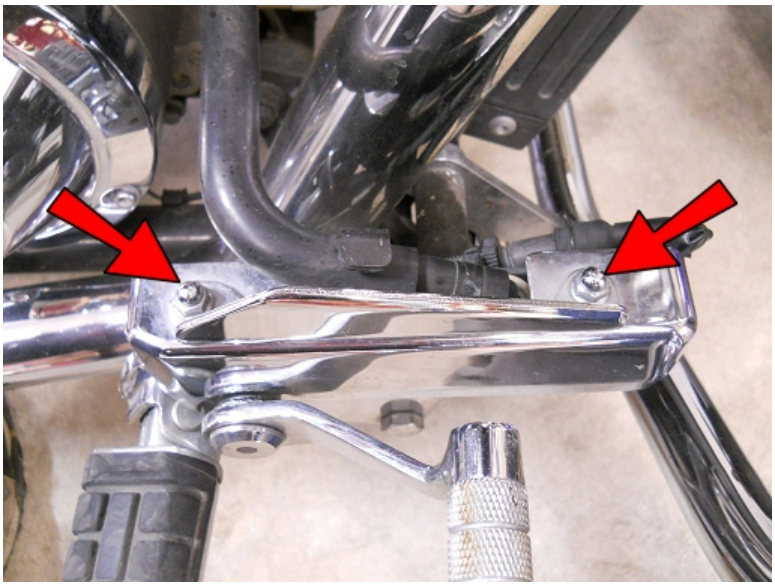


Attach a foot peg and Toe Peg and secure with a 5/16” Nut.

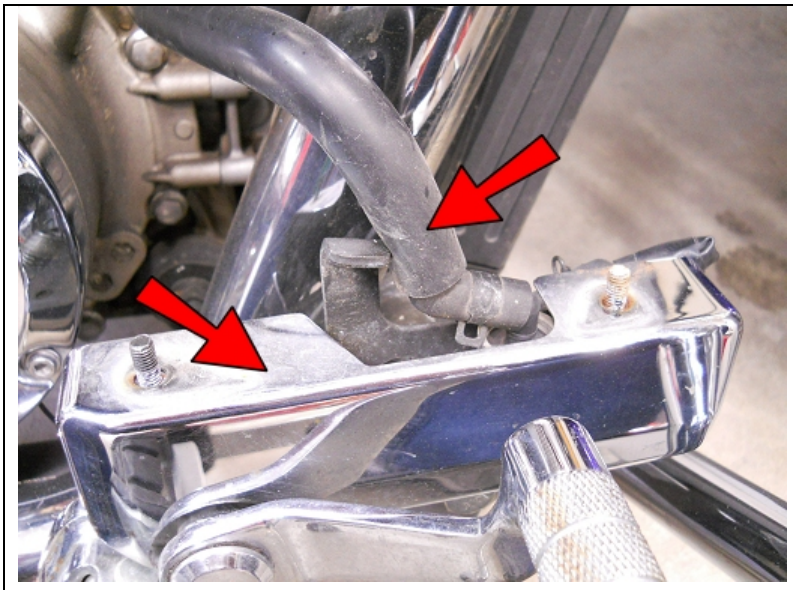
Adjust the Shifter Pedal height with the original linkage. Make sure there is enough thread in both ends for a secure connection. If you need more adjustment, you can remove the front linkage from the Pedal and adjust it as well, then reconnect. After the height is adjusted to the desired position, tighten the nuts against ALL of the ends of both linkages. Make sure the front linkage does not hit the Front Bracket.
NOTE: When the bike is sitting still DO NOT shift up or down more than one gear or it WILL bind the transmission.

Replace the chrome cover over the shifter arm spline.

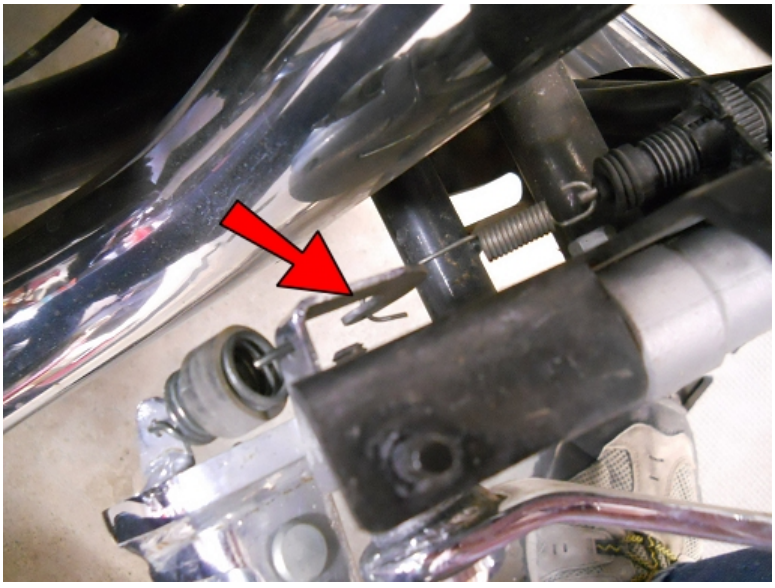
Brake Side…



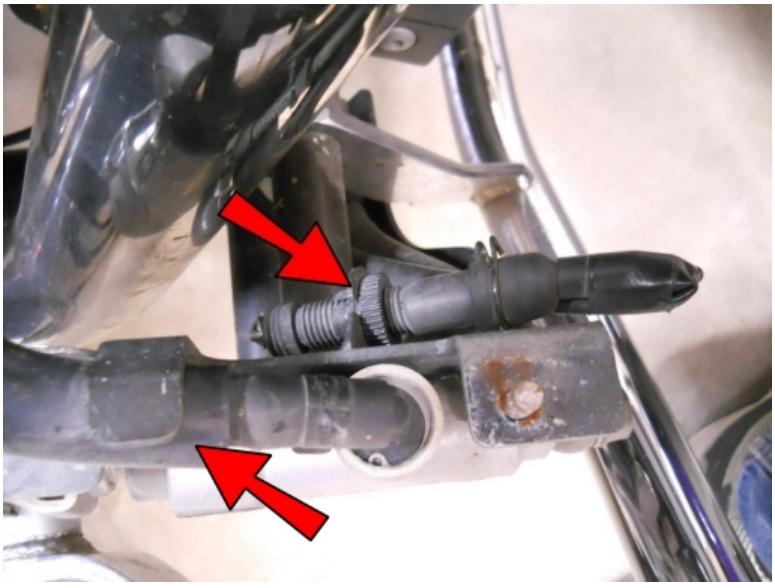
Remove these two acorn nuts and the chrome hose guard..



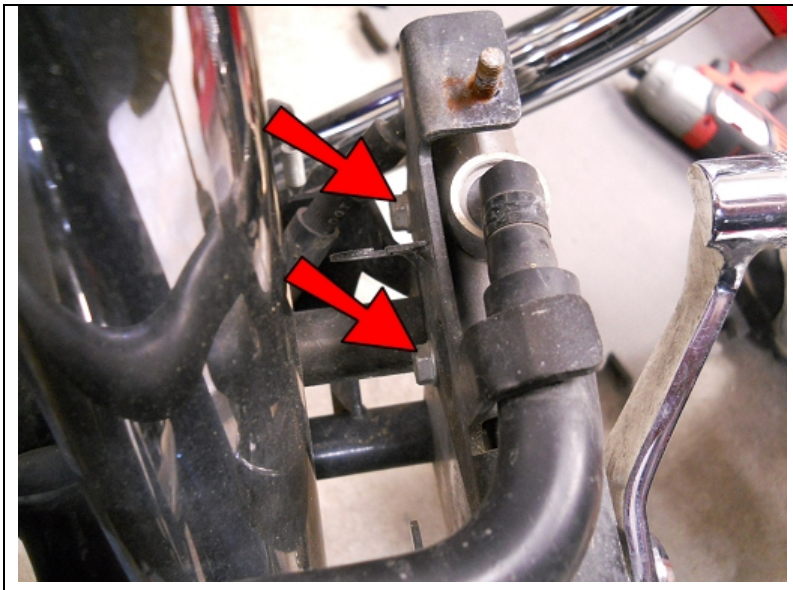
Bend the hose up as shown and remove the chrome cover.



Unhook the brake light switch spring.



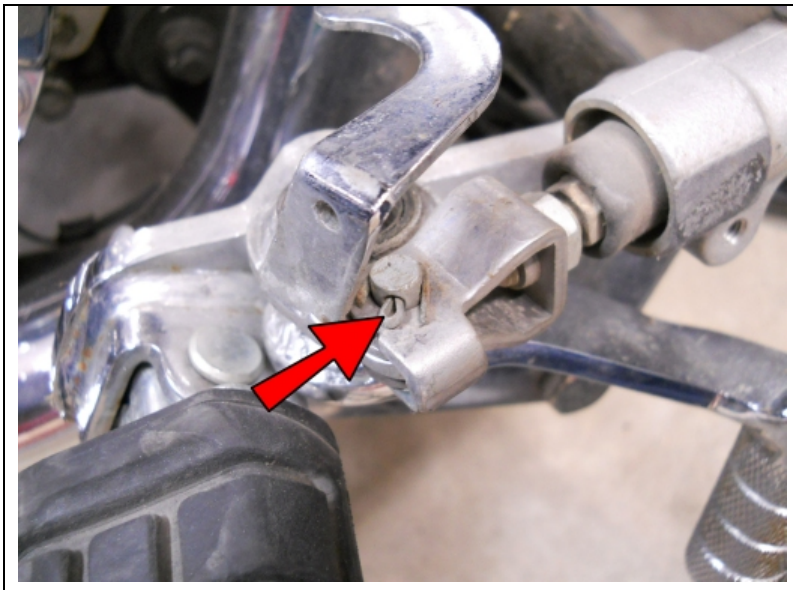
Bend the hose back into place and remove the brake light switch by just pulling straight forward. It just snaps in and out of the ring.



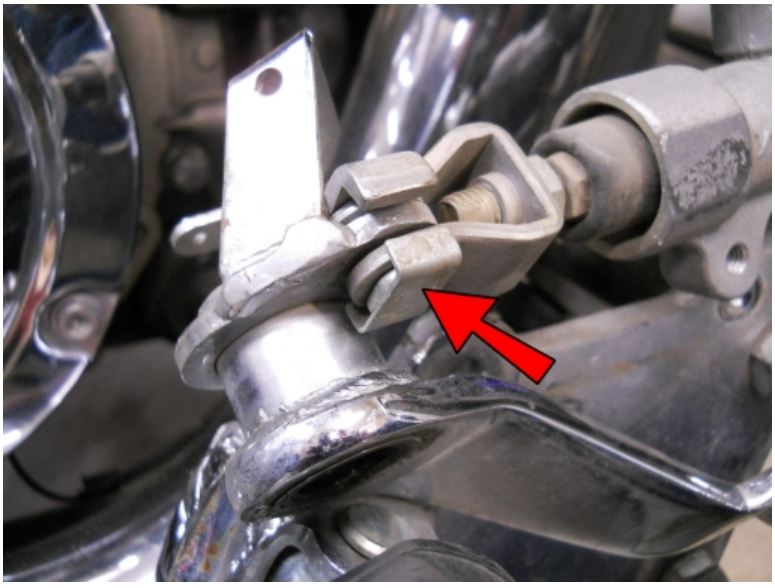
Remove these two M6 bolts to remove the brake master cylinder from the bracket.

Remove the little rubber piece from the brake pedal bolt if it is still there and remove the bolt.

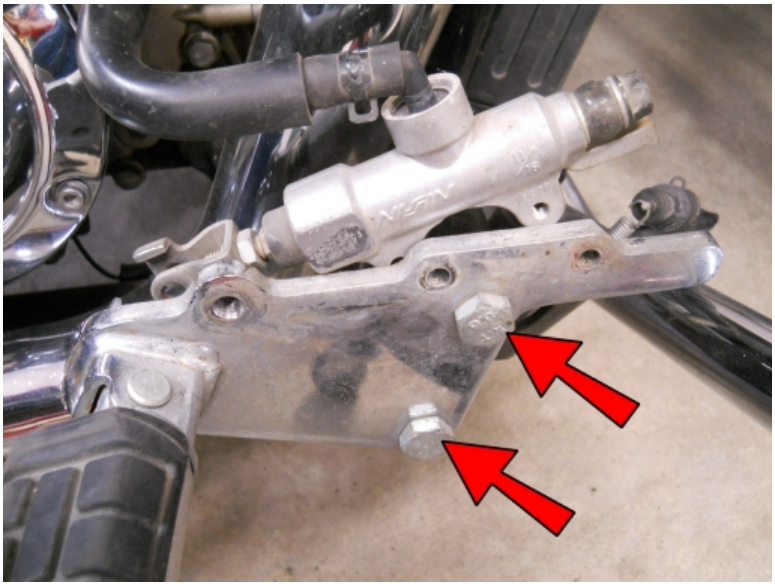
Remove the brake pedal return spring.



Cut this cotter pin and remove it from the clevis pin.



Remove the clevis pin from the master cylinder clevis.



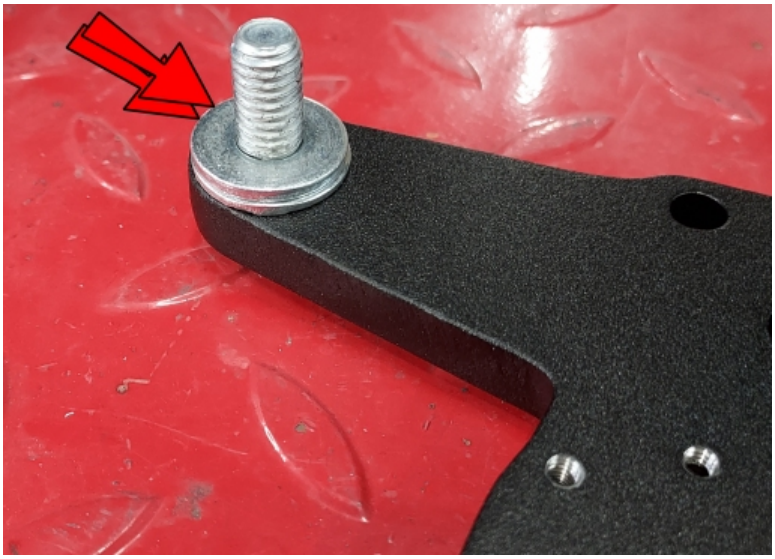
Remove these 2 bolts.

Optional:

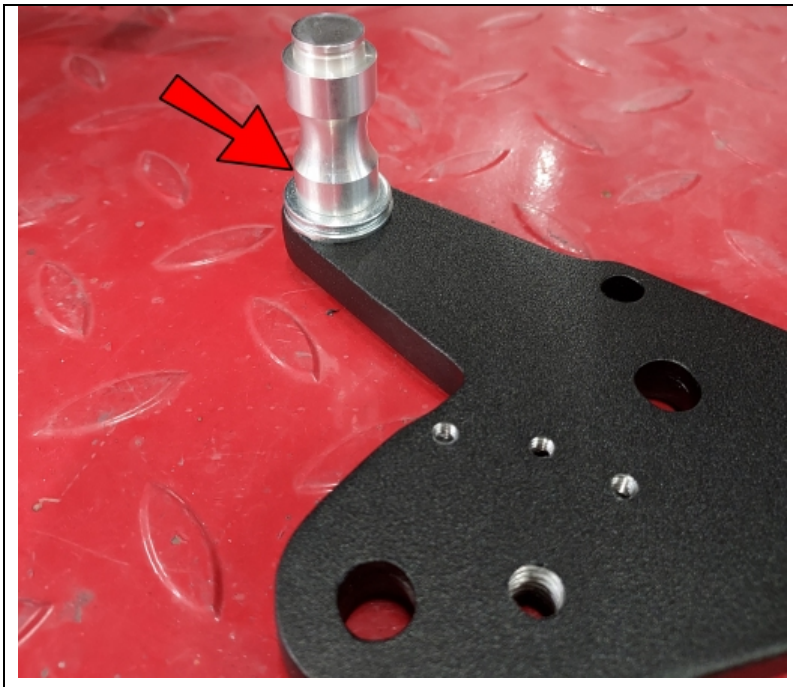
This bracket WILL be reused but the brake switch mount will NOT be used so if desired you can trim it off at the red line shown. You do not NEED to do this.

If you do trim it, you might want to repaint the bracket and the spacers from the shifter side since you will reuse them.

Thread a 3/8-16x1.25 Button Head Bolt into the BACK of the Right Back Bracket as shown.

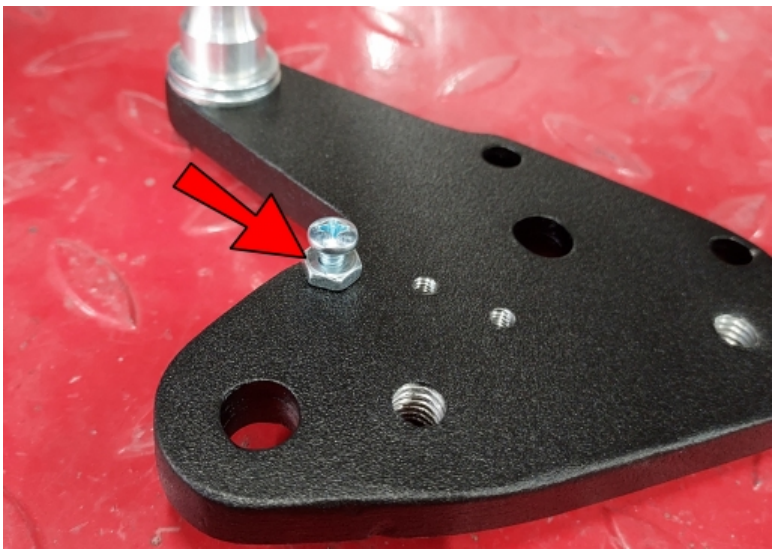


Place TWO 5/16” Washers onto the Bolt



Thread the STOF3 onto the Bolt and tighten.

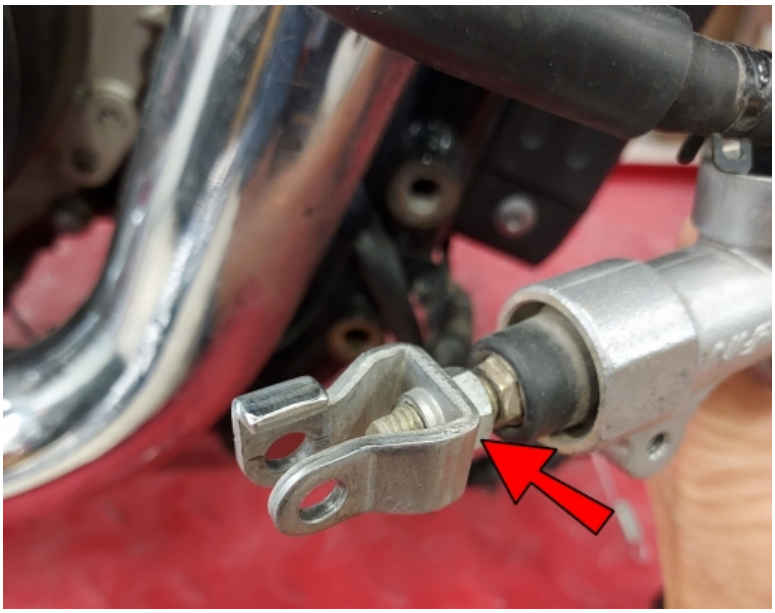
Thread a #8-32 Nut onto a #8-32x1 Screw leaving about a 1/8” gap as shown.



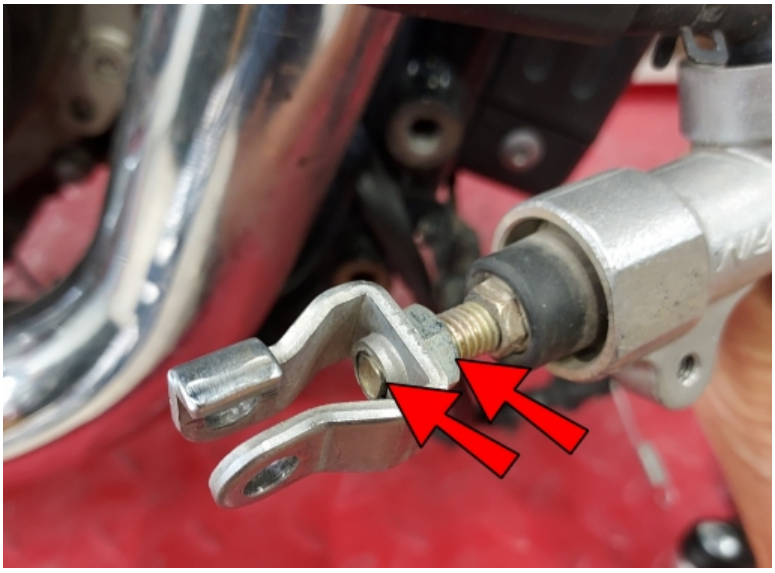
Thread that Screw into the hole shown in the Bracket.

Flip the bracket over and secure the Screw with another #8-32 Nut and tighten.

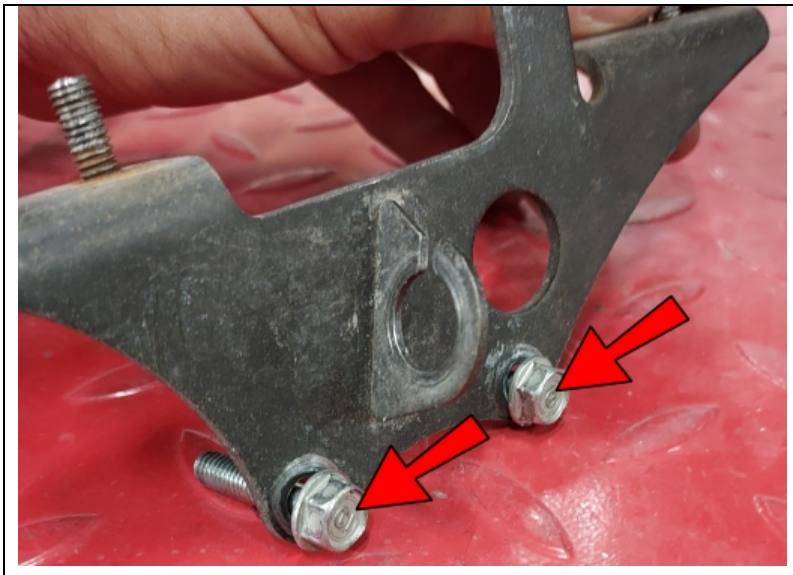
Install the BSM5 as shown using #8-32x1/2 Screws.



Loosen this nut.

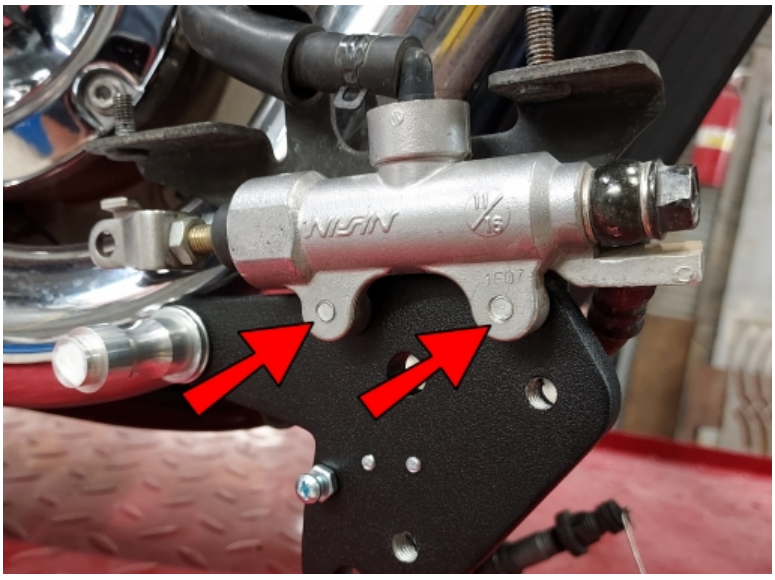


Unthread the clevis to the end of the threaded rod of the master cylinder as shown then retighten the nut against it.

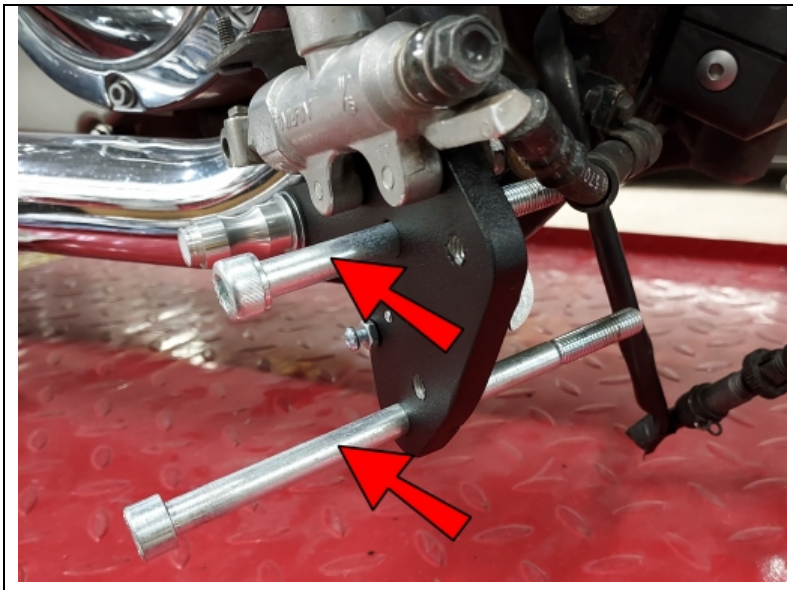


Insert the original M6 Bolts back into the holes of the master cylinder bracket.

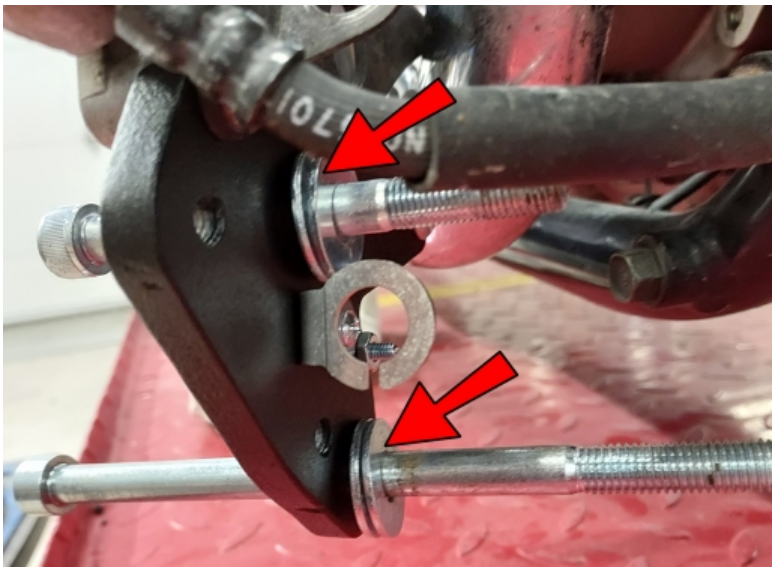
Place the bracket on the back side of the Right Back Bracket and insert the bolts into the holes as shown.



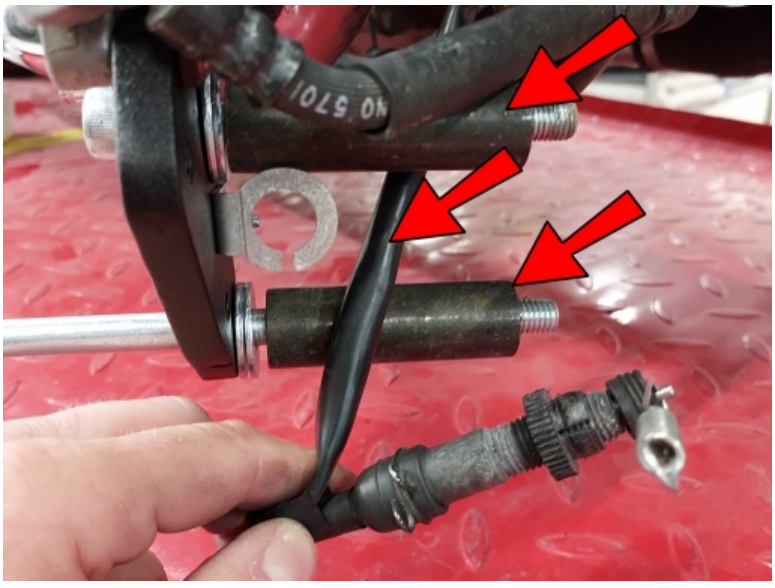
Attach the master cylinder.



Insert an M10-1.25x100 Bolt into the top hole and an M10-1.5x170 Bolt into the bottom hole.

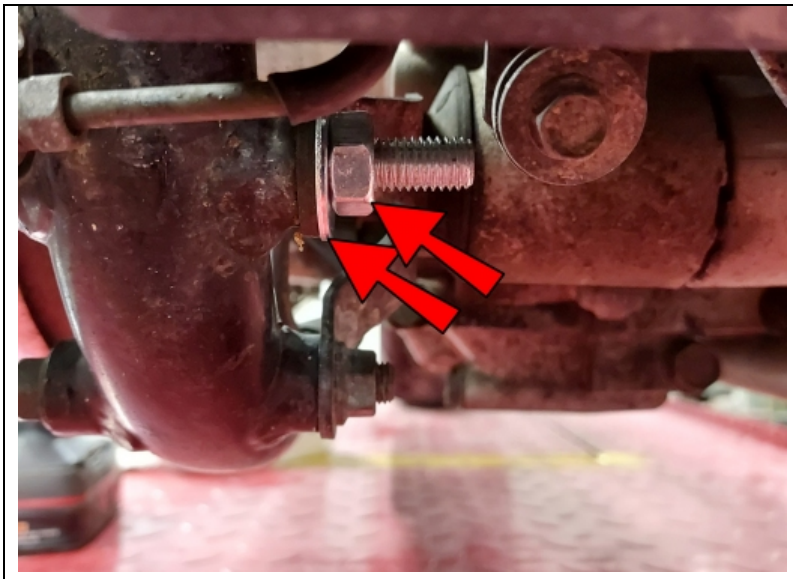


Place TWO 3/8” Washers onto the back side of EACH of the bolts.



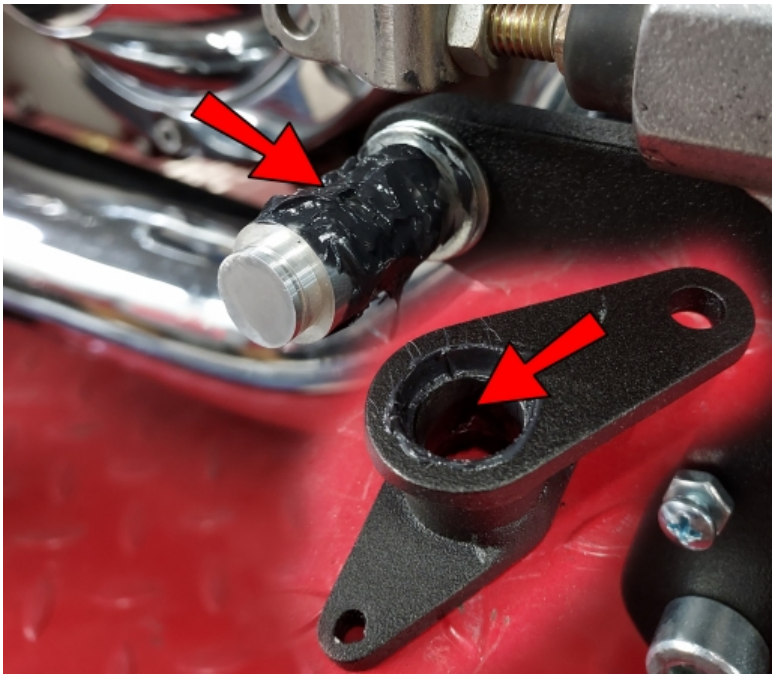
Slide the stock spacers removed from the SHIFTER side onto the bolts.

Place the brake light switch wire between the spacers



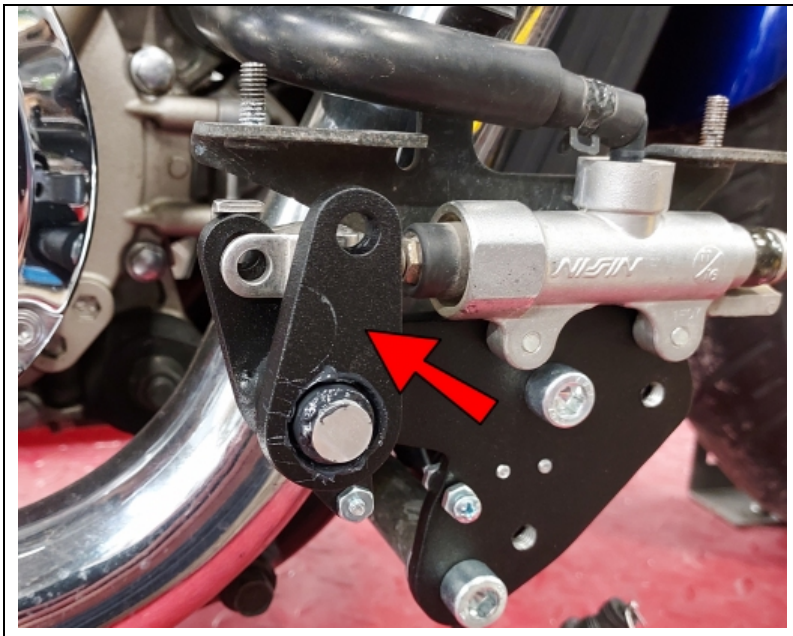
Insert the bottom bolt through the hole in the frame and start the thread on the top bolt into the frame.

Place a 3/8” Washer onto the bottom bolt and secure with an M10-1.5 Nut, then tighten the top bolt.



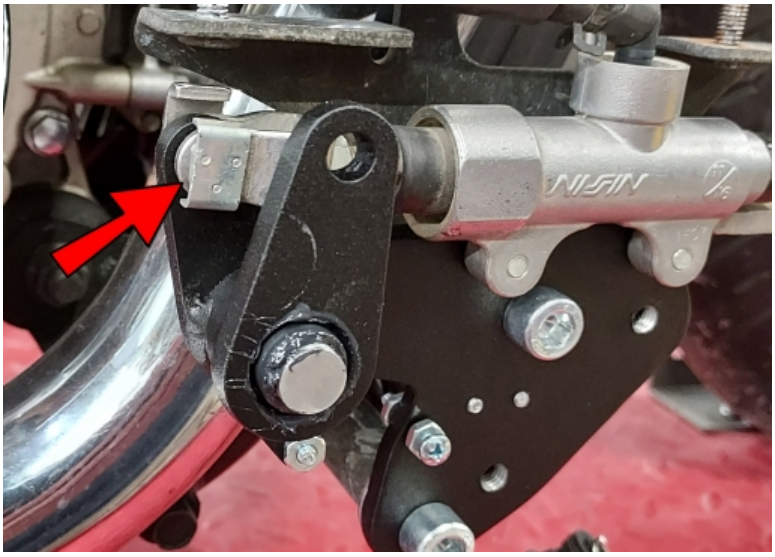
Coat the STOF3 with a generous amount of axle grease into the groove in the middle and on the flats and apply some to the inside of the ARM22.

Thread a #8-32 Nut onto a #8-32x1 Screw and insert the Screw into the ARM22. Use another #8-32 Nut to secure as shown. Leave as much of the Screw sticking out the back as possible.

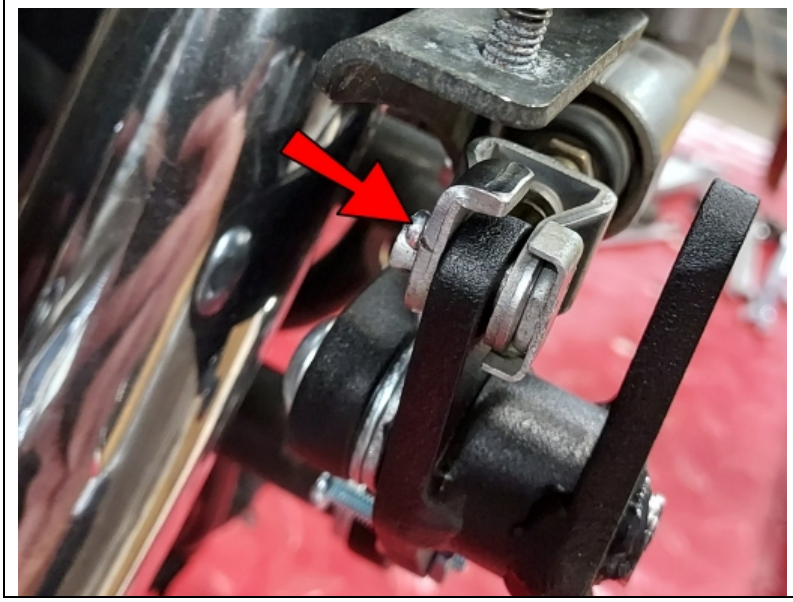


Place the ARM22 onto the STOF3 and into the master cylinder clevis as shown.

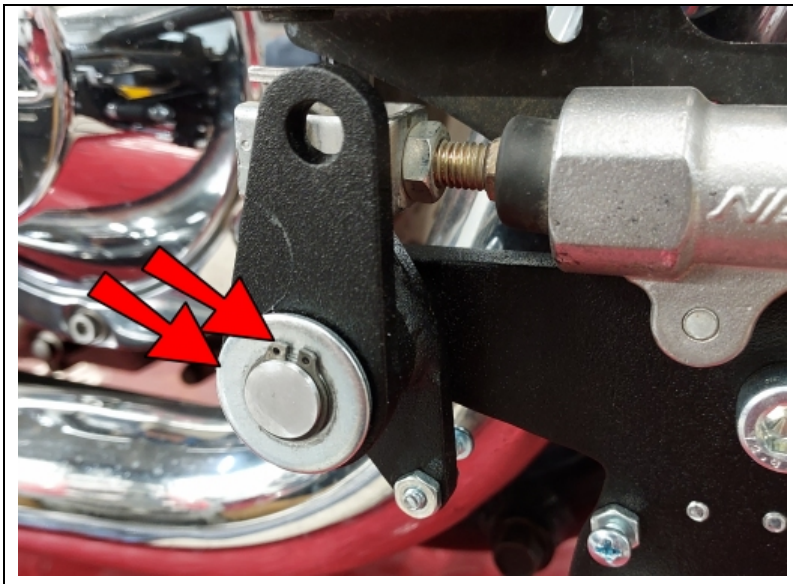
Note: You may need to use a screwdriver to slightly spread apart the master cylinder clevis if it is too tight for the ARM22 to fit.



Insert the clevis pin previously removed from the clevis.

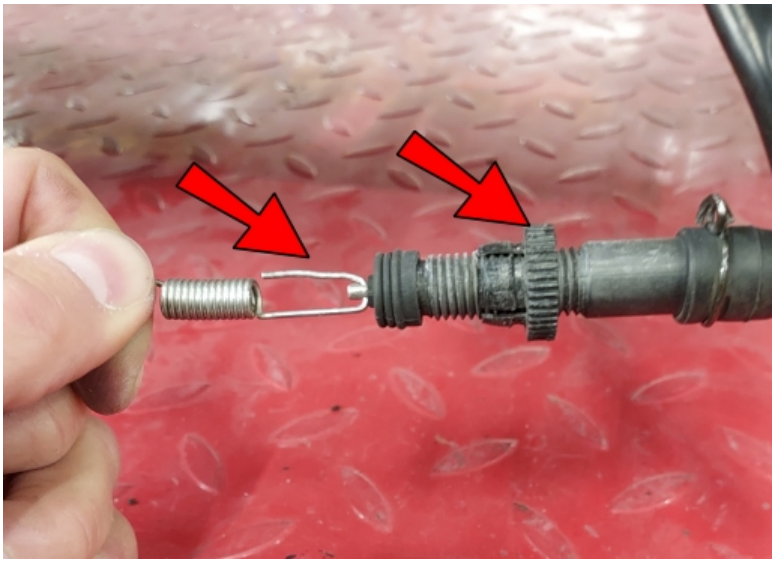


Insert the supplied 5/64x1 Cotter Pin into the clevis pin and bend the “legs” of the Cotter pin out and around the pin to secure it.

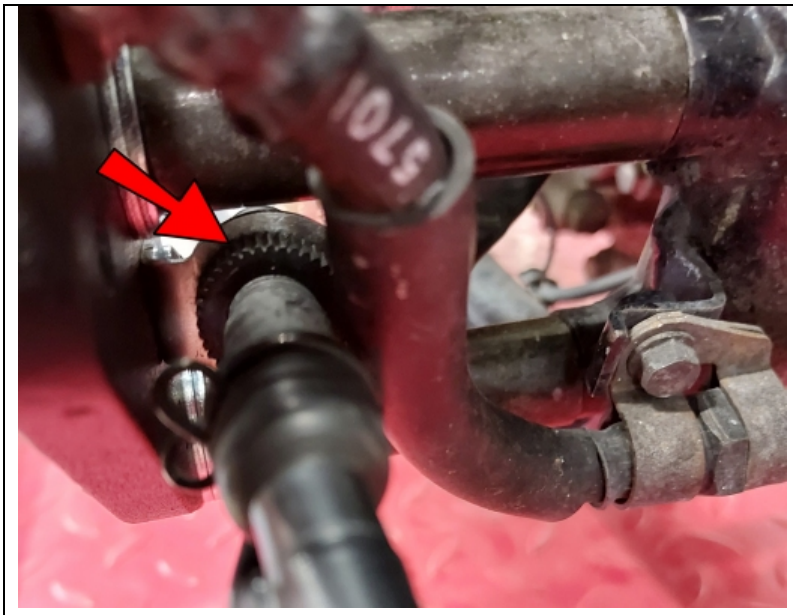


Place a 1/2” Washer onto the STOF3, then secure with a 1/2” Retaining Ring

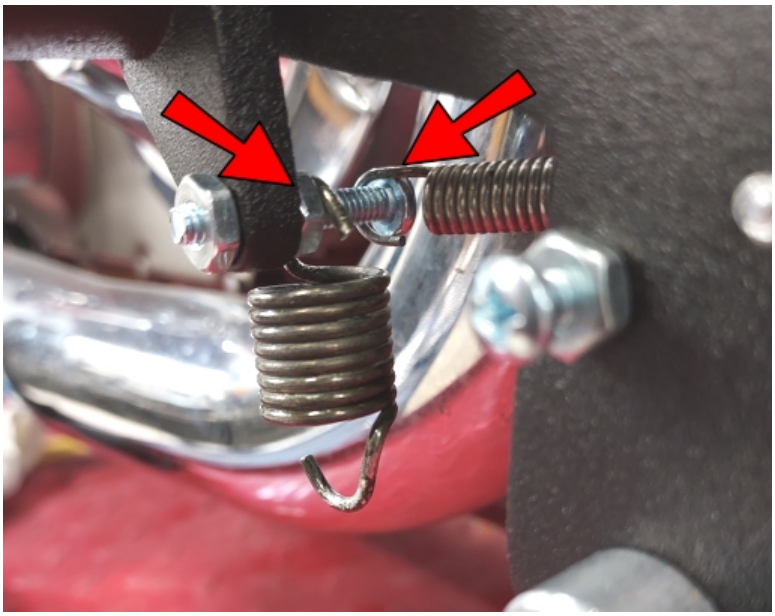
Remove the spring from the brake light switch and use needle nose pliers to reshape the long end as shown. This will shorten the spring to the correct length for its new configuration.



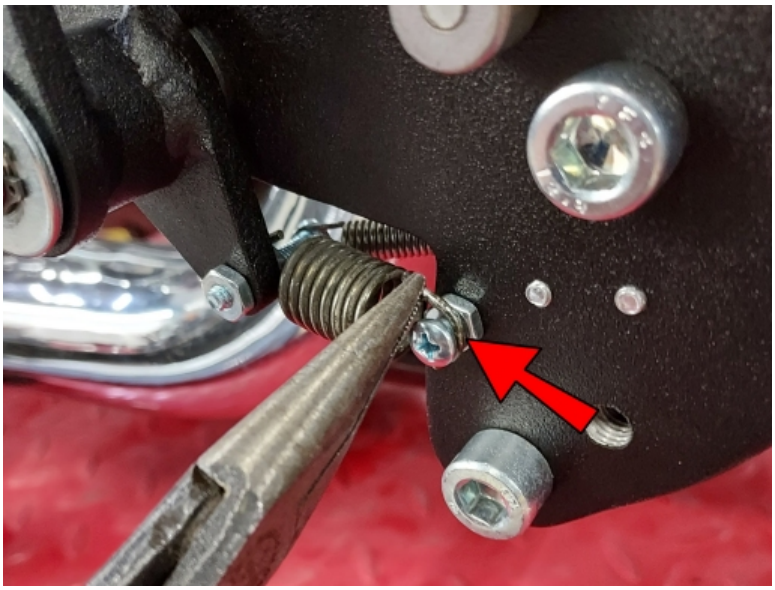
Place the spring back into the switch and turn the adjustment wheel almost all the way to the end shown. You will make final adjustment later after assembly is complete.



Insert the brake light switch into the BSM5 until it snaps into place. You will need to hold the hydraulic hose out of the way of the adjustment wheel while you insert it.

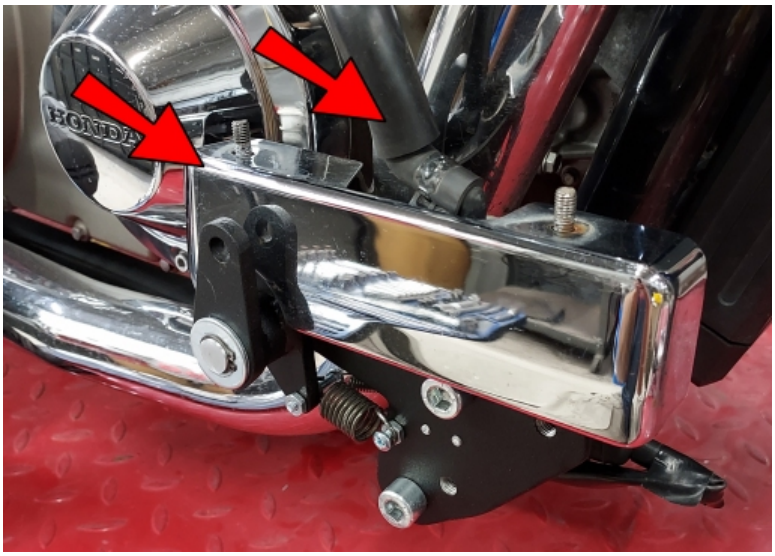


Hook the other end of the brake light switch spring onto the far end (next to the head) of the #8-32 Screw then hook the brake pedal return spring onto the near end (next to the nut)



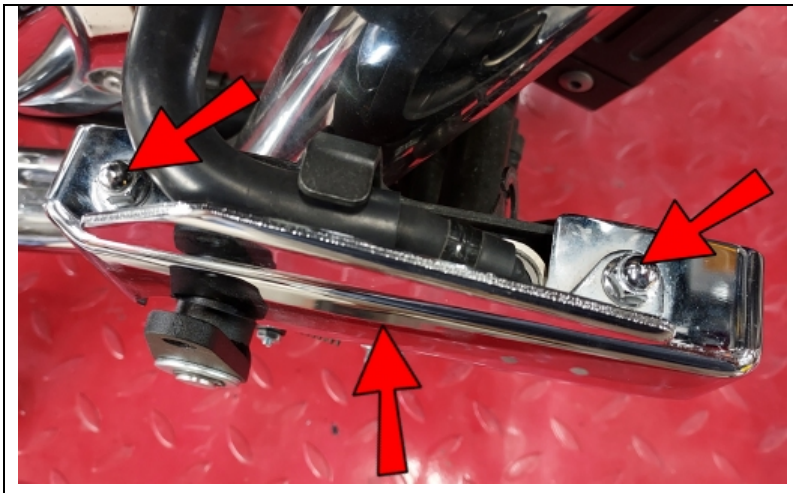
Hook the other end of the brake return spring to the #8-32 Screw previously installed in the Right Back Bracket.

Pull the ARM22 out against the 1/2" Washer. The spring will hold it there.

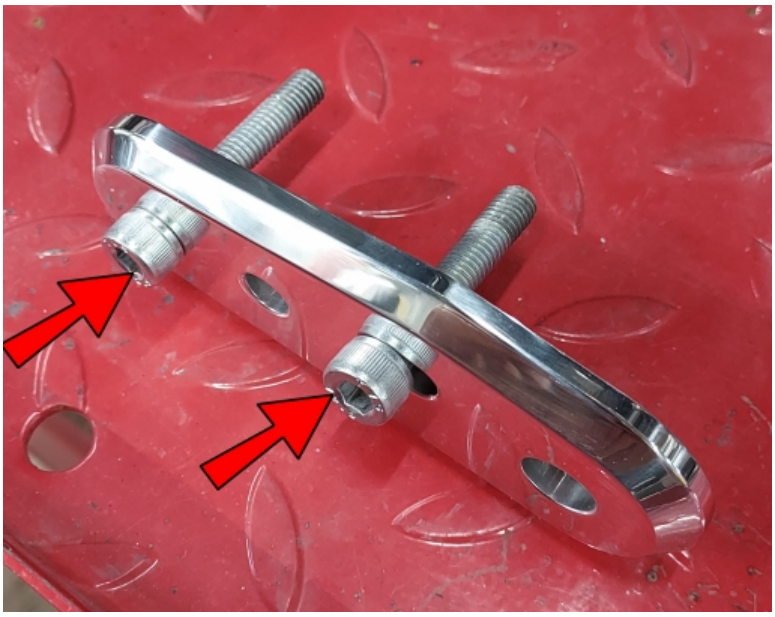


Bend the hose up again and place the chrome cover back onto the bracket.

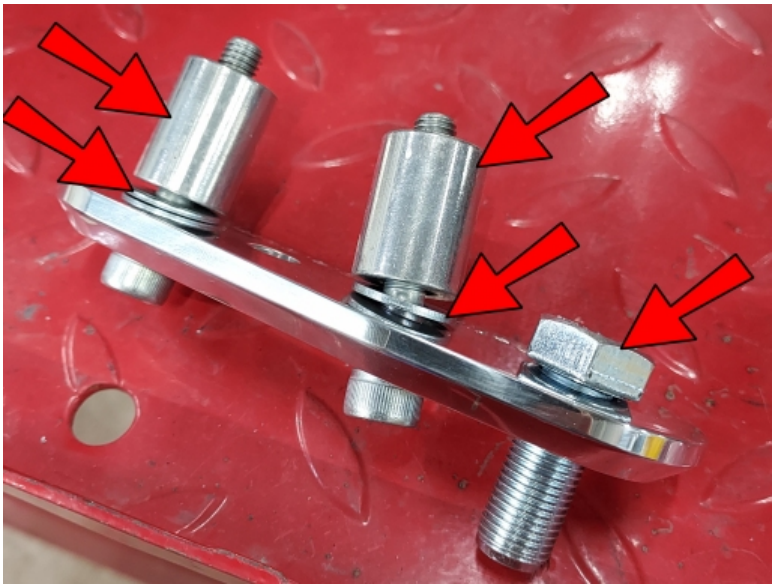
Bend the hose back down and place the chrome hose guard on top.



Push the chrome cover in while tightening the acorn nuts to make sure the chrome cover clears the ARM22 as much as possible.



Insert M8-1.25x45 Bolts into the Right Front Bracket as shown.

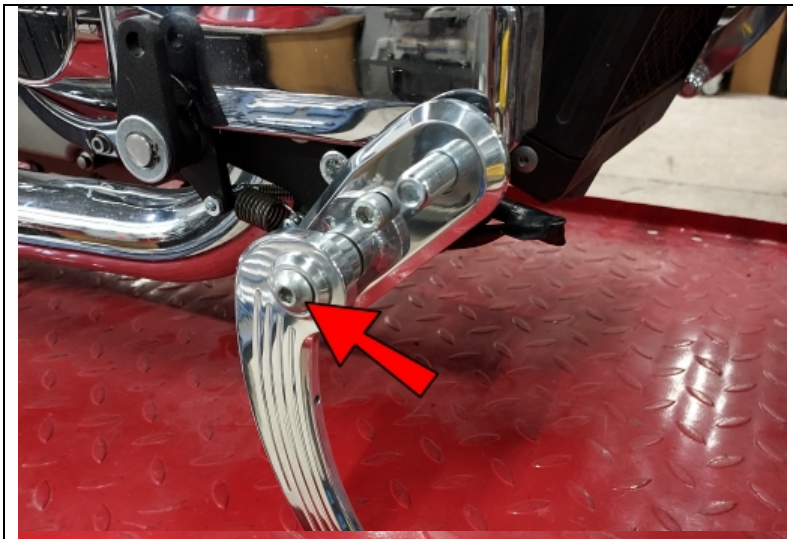


Slide TWO 1/4" Washers onto EACH of the M8 Bolts.

Slide a 1” Spacer onto each of the M8 Bolts.

Place a Foot Peg Bolt into the Bracket.

Note: If you purchased foot pegs from us, the bolts will be supplied. If you did not, those bolts should come with your pegs. This bolt has to put on before you install the Bracket.

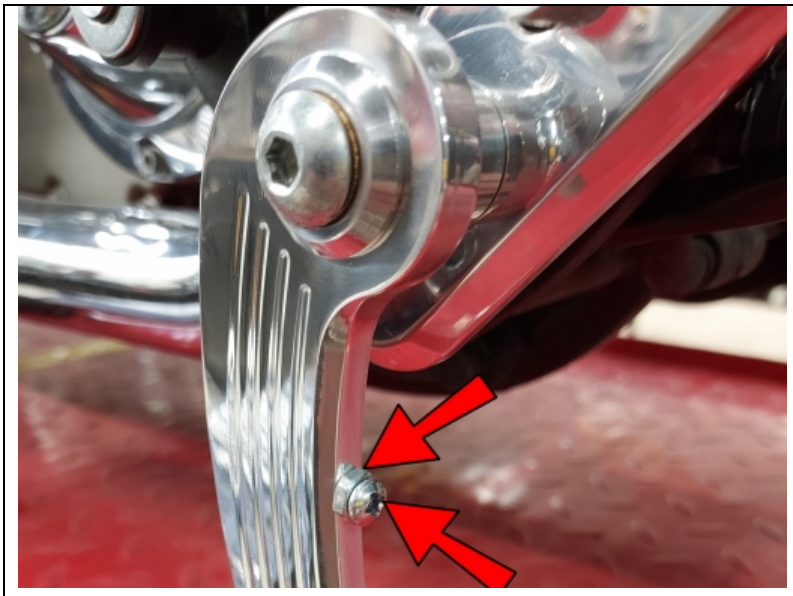


Attach the Brake Pedal previously greased and assembled when you did the Shifter Pedal in the same manner as the other side, securing with a 3/8” Nut.

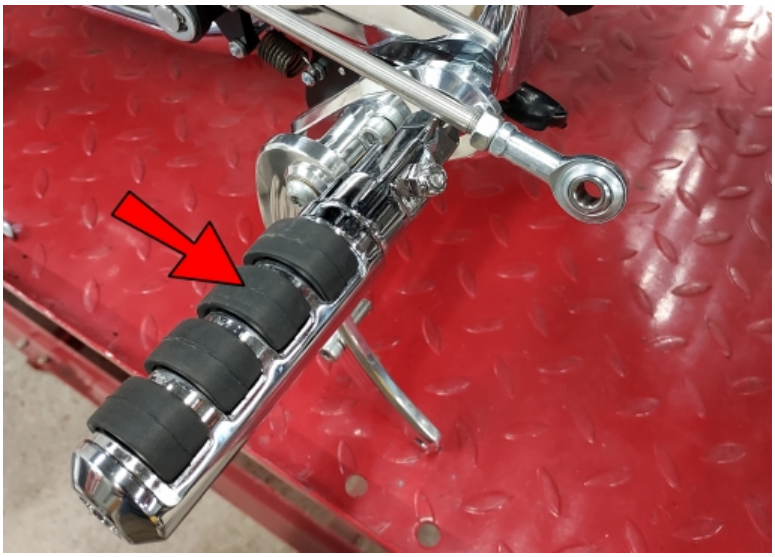
Thread 5/16” Nuts and 5/16” Spherical Rod Ends onto BOTH ends of the supplied Linkage Rod. Note these are threaded almost all the way onto the Rod.

Insert an M8-1.25x25 Bolt into one end of the Linkage and place a 1/4" Washer onto the M8 Bolt as shown.

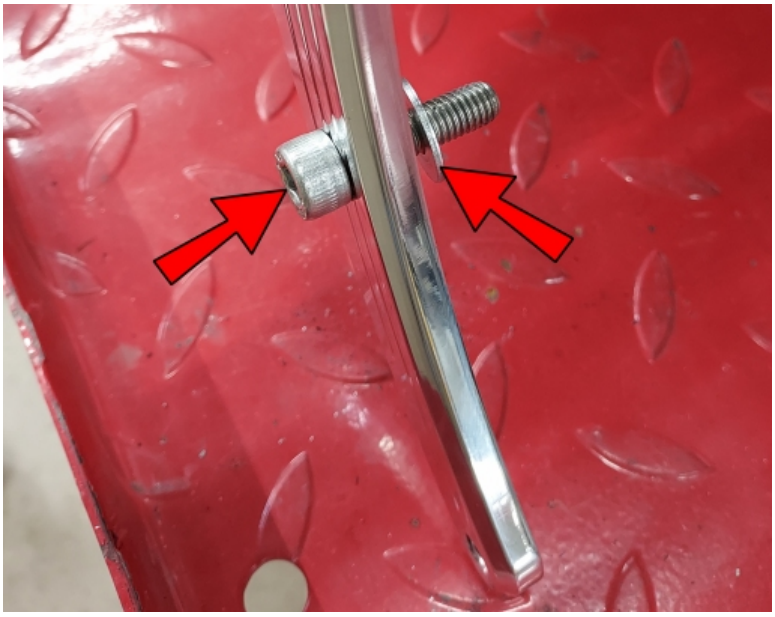
Insert that into the ARM22. Use a wrench to hold and line up an M8 Nut behind the ARM22 and thread the M8 Bolt in and tighten.



Thread a #8-32 Nut all the way onto a #8-32x5/16 Screw and screw it into the Brake Pedal as shown.



Install a Foot Peg.

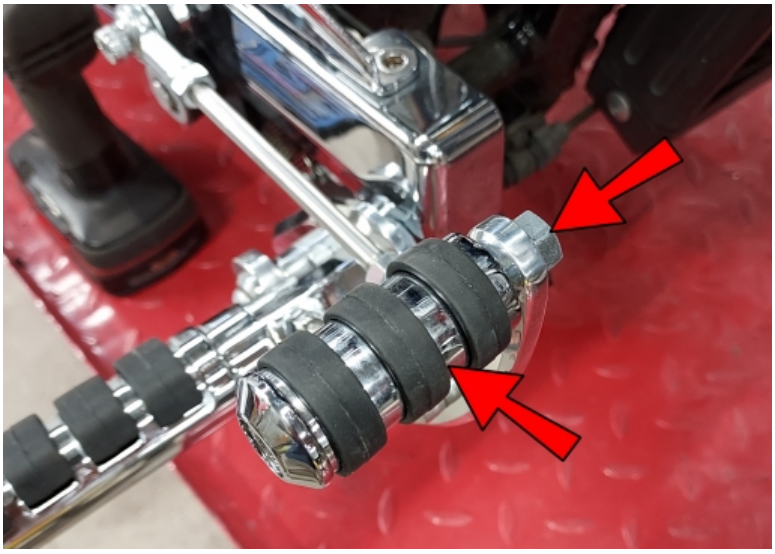


Place an M8-1.25x30 Bolt into the hole in the Brake Pedal, then place a 1/4" Washer onto the Bolt.

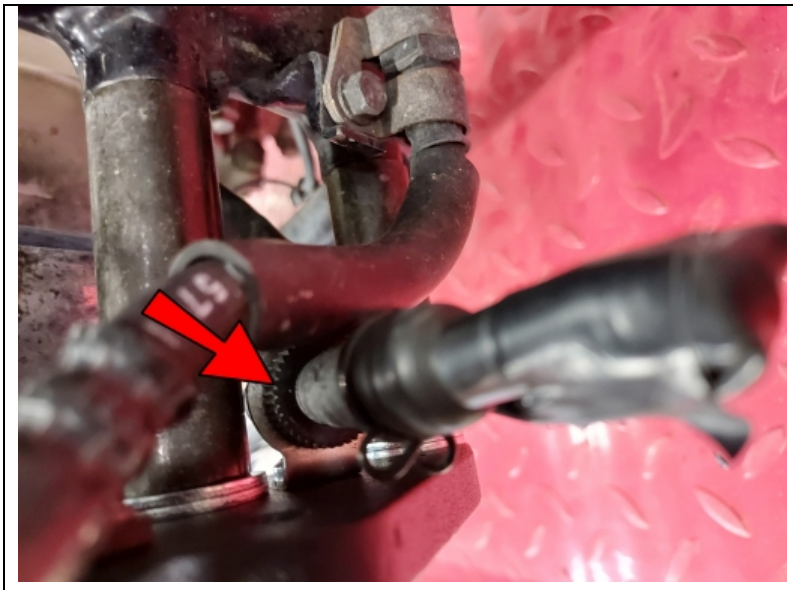
Rotate the ARM22 slightly forward and hold it there for the next step. You should only have to push it forward enough to line up the M8 Bolt in the Pedal with the Rod End on the Linkage so that you can connect them with slight tension.

Place the Linkage onto the Bolt and secure with an M8 Nut.

Note: When you let go of the ARM22 the Brake Pedal should rest firmly against the Foot Peg, but not so much that the brake is being applied. You just want a little tension on the ARM22. If not, remove the linkage from the Brake Pedal and adjust the Rod Ends in or out a bit to find the sweet spot.



Install a Toe Peg and secure with a 5/16” Nut.



The brake light switch will 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. It might be easier to hold the wheel and turn the switch about an 1/8th of a turn each time, then spinning it all back into place after each turn.

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 the brake pedal a few times. If the brake light works as desired, no adjustment is necessary. If it stays on, 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.

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!