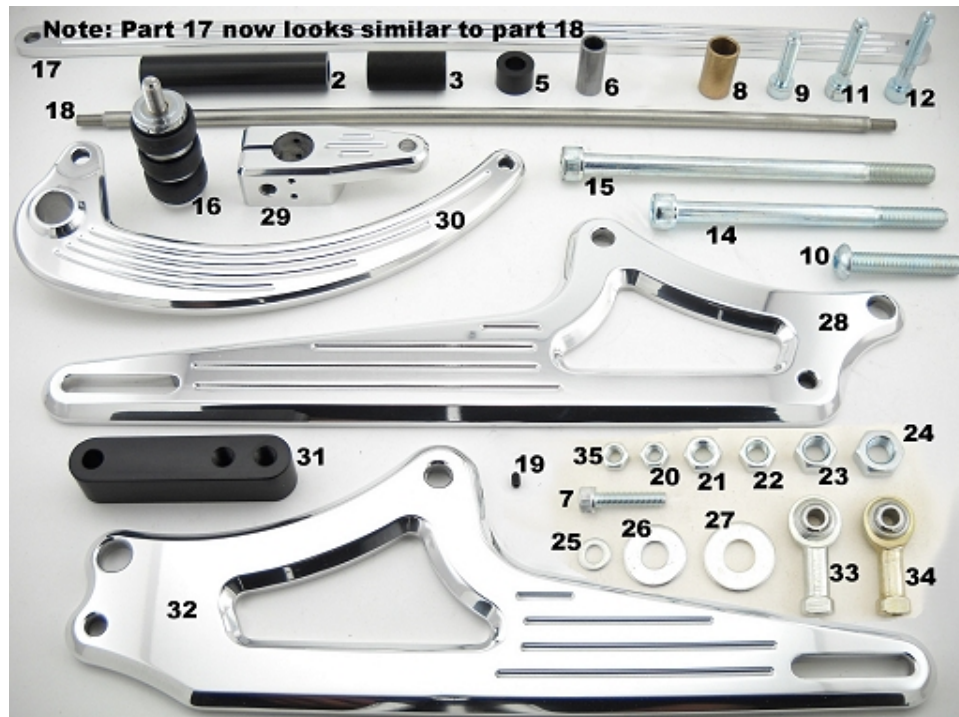


## Installation Instructions for FC2 Forward Controls for the 82-84 Magna

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

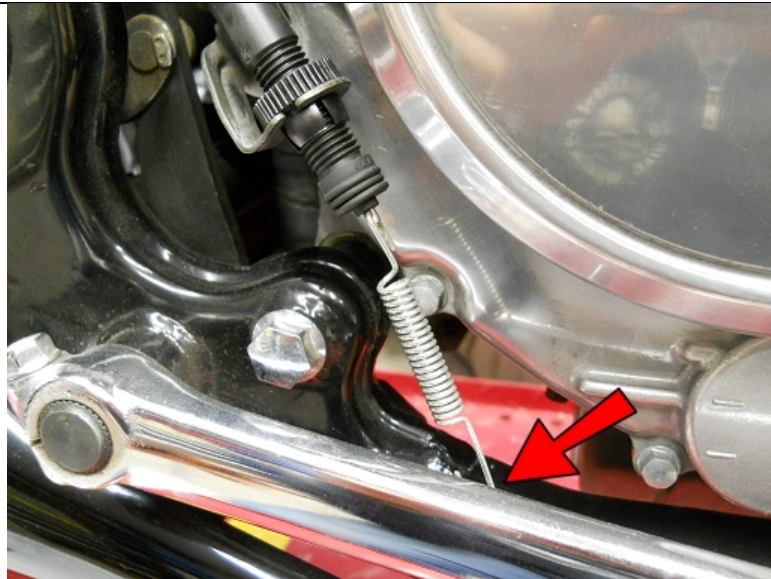
Please read these instructions **entirely before** starting.

This picture shows the components of the FC2 kit. Parts will be referred to by the names & numbers shown here. If you are missing anything please email [sales@refinedcycle.com](mailto:sales@refinedcycle.com).

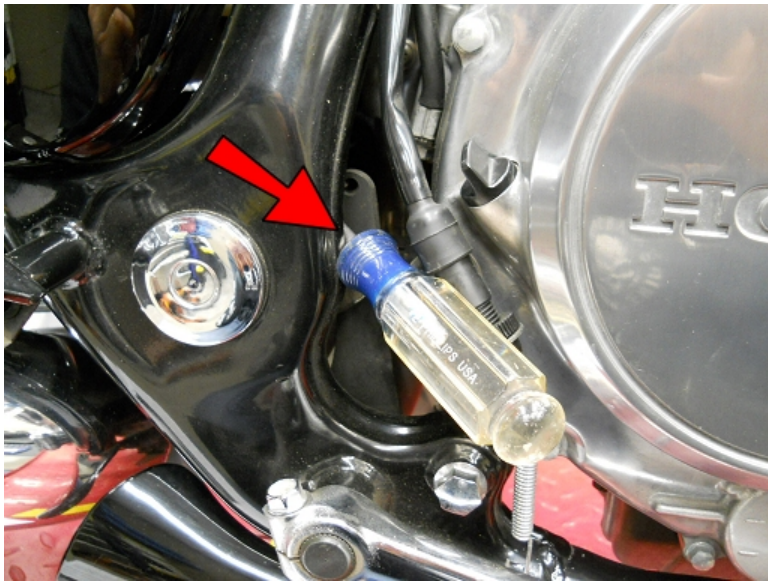


### Components list for the 82-84 Magna

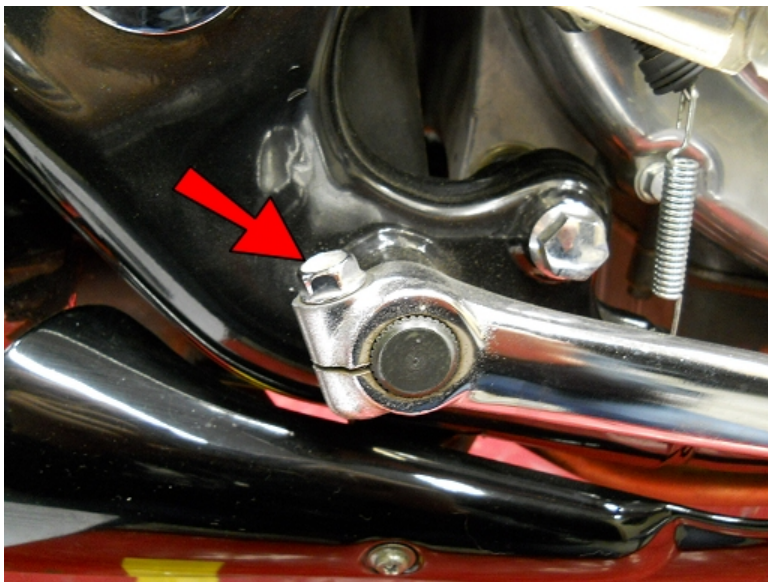
2- 3.6" spacer	22- 8mm nut
3- 1.5" spacer	23- 3/8 nut
5- .50" spacer	24- 10mm nut (qty. 2)
6- SLV1	25- M6 washer (qty. 2)
7- M6-1.0x25 (qty. 2)	26- 5/16 Zinc washer (qty. 2)
8- Bronze OR Steel bearing	27- 3/8 Zinc washer
9- M8-1.25 x 30mm bolt (qty. 2)	28- Brake side FC2 plate
10- 3/8-16 button head bolt	29- Brake arm
11- M8-1.25 x 40mm bolt	30- Brake pedal
12- M8-1.25 x 45mm bolt (qty. 2)	31- EXT200
14- M10-1.5 x 130mm bolt	32- Shifter side FC2 plate
15- M10-1.5 x 170mm bolt	33- M6 Spherical Rod End
16- Brake peg	34- Left Hand M6 Spherical Rod End
17- Brake linkage	35- Left Hand M6 Nut
18- Shifter linkage	Also included (not shown) are a #8 screw and nut. <b>Note: If you purchased the optional Shifter Pedal Kit, you will need to also refer to the PDL2 kit instructions.</b>
19- #6 Set screw (qty. 4)	
20- M6 Nut (qty. 3)	
21- 5/16 nut	



Unhook the brake switch spring from the stock brake pedal.

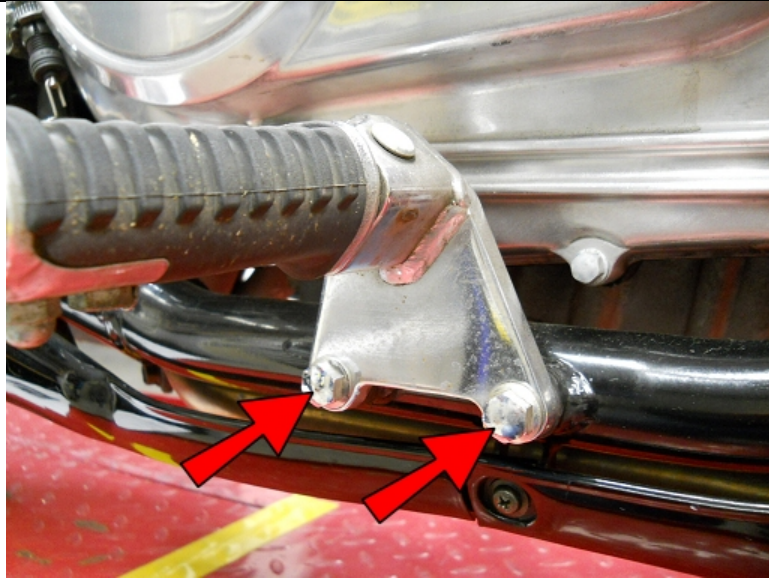


Press the brake pedal down, then place a large screwdriver behind the middle brake arm to keep it forward as shown.

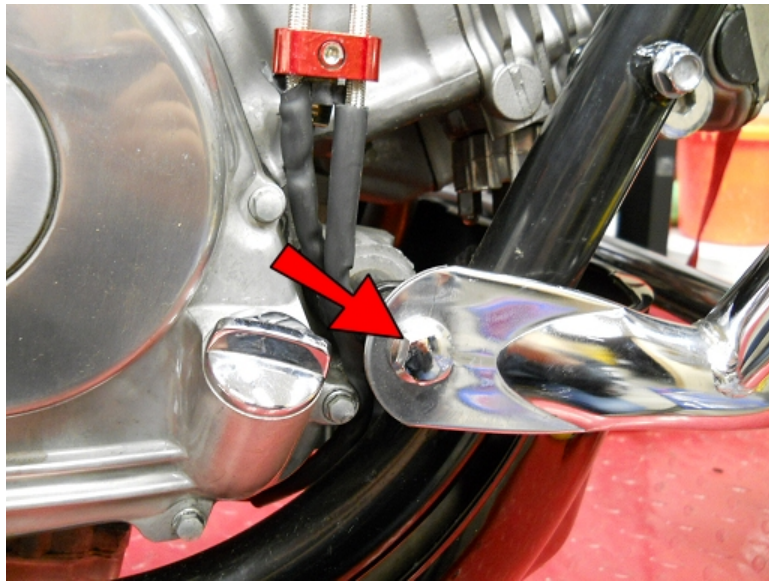


Remove the bolt at the back of the brake pedal and gently wiggle the brake pedal to remove it from the brake spline.





Remove these 2 bolts.



Remove this motor mount bolt and IF you have a case guard as shown here remove it entirely. You will not be able to use it with forward controls.



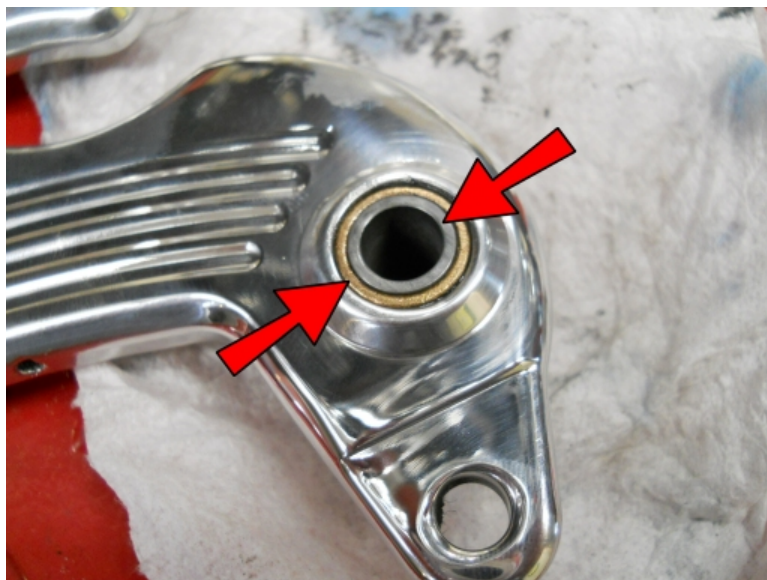
Insert an M8-1.25 x 40mm bolt (part #11) into the slot at the back of the Brake side FC2 plate (part #28) then into the .5" spacer (part #5) and thread the bolt half way into the front foot peg mount hole. Insert the M10-1.5 x 130mm bolt (part #14) into the top hole of the FC2 plate then into the 1.5" spacer (part #3) then into the motor mount hole. Go back and completely tighten the M8 bolt first then thread a 10mm nut (part #24) onto the M10 bolt and tighten.



The inside of the Brake (and Shifter if purchased) Pedals will likely have some polishing compound residue. Use a cloth or paper towel and make sure the inside is **ABSOLUTELY** clean. This can affect how well your Pedals will rotate.



Apply grease to the inside of the hub of both Pedals, the outside surface of the SLV1's and the inside and outside of the 5/8x1/2 Bronze Sleeves.



Place a SLV1 into the 5/8x1/2 Bronze Sleeves and insert them into the Brake and Shifter Pedals.

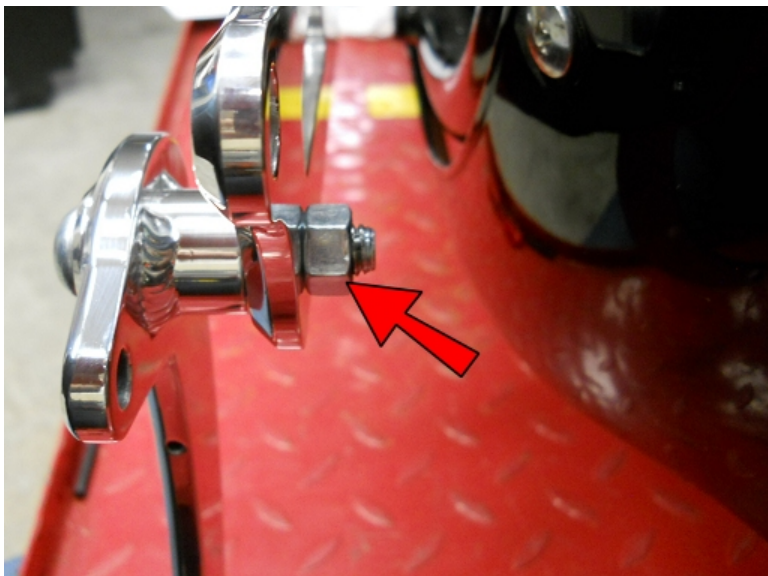




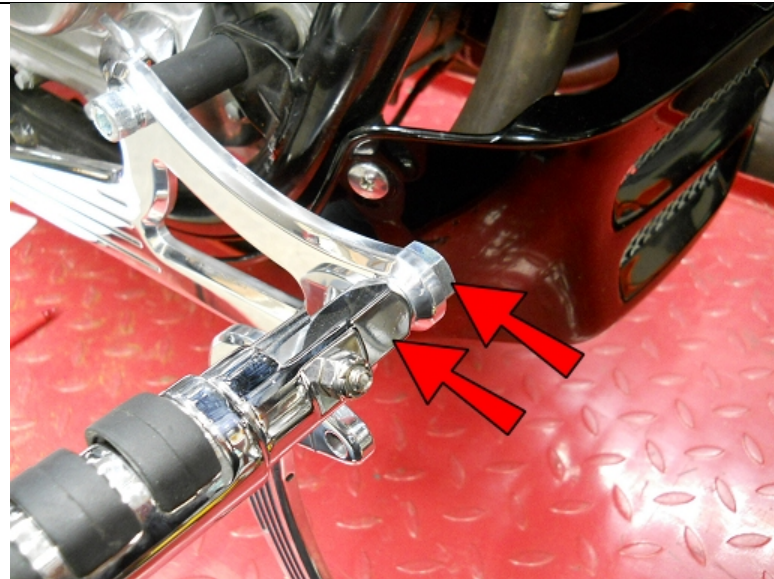
Insert a 3/8-16x2" Button Head Bolt into the Brake Pedal.



Connect the Brake Pedal assembly to the Plate.



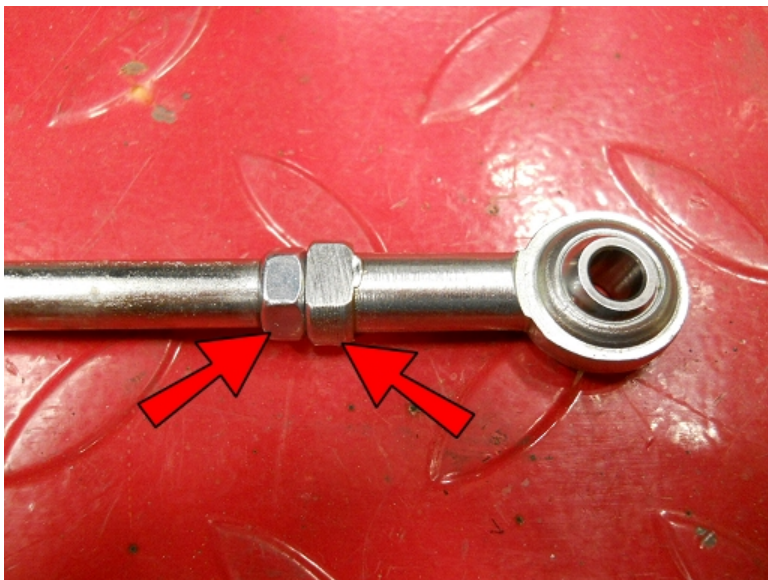
Secure with a 3/8" Nut.



Attach a Foot Peg and Secure with included bolt.

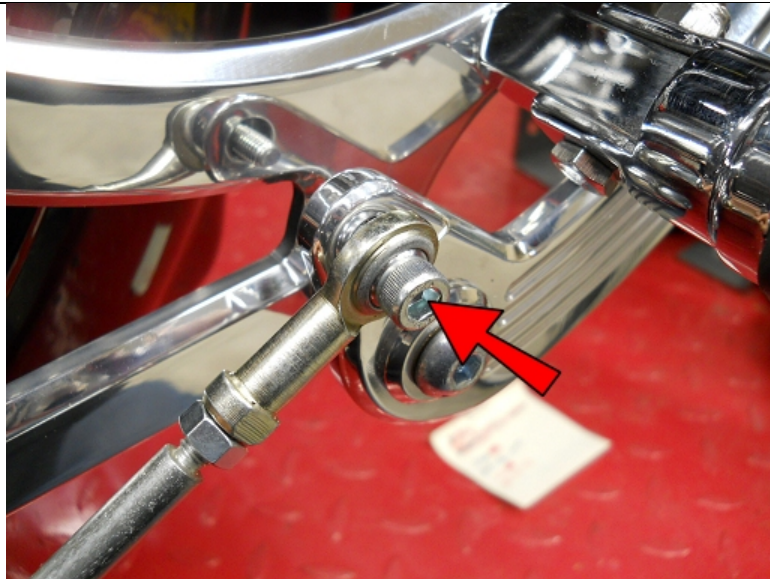


Orient the Brake Linkage with this small hole toward the rear of the bike.

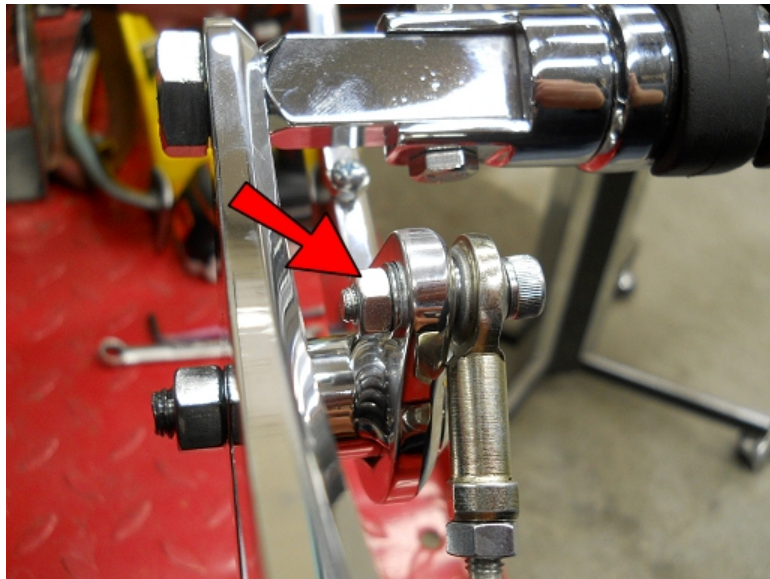


Thread an M6 Nut and M6 Spherical Rod End all of the way onto one end of the linkage and the M6 Left Hand Nut and M6 Left Hand Spherical Rod end all of the way onto the other end.





Place the Linkage on the Brake Pedal and insert an M6-1.0x25 Bolt.



Secure with an M6 Zinc Washer and M6 Nut.



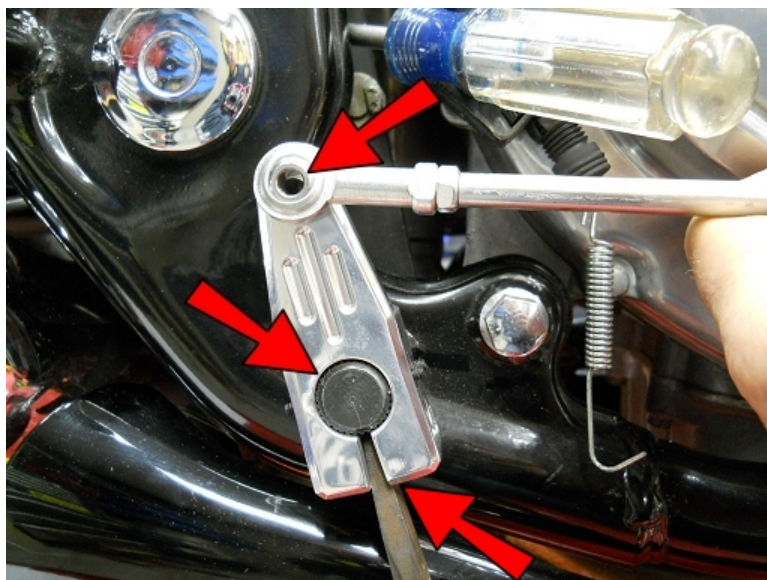
Start the 4 Set screws (part #19) into the Brake arm (part #29) and assure they do not protrude through the other side.



Hold the brake arm firmly and insert a large flat head screw driver into the end and carefully tap the handle on a hard surface to spread the spline opening apart. The goal here is to spread the hole just far enough apart to easily slide the brake arm onto the brake spline. Note: This can be easy OR the most frustrating part of the install if the hole is not spread apart enough, (but only just enough, not too much).



For the next step below, you may find it helpful to place a large screwdriver behind the frame and use the edge of the motor as a pry point, to put pressure on the back side of the middle brake arm to keep it from sliding in as you install our Brake Arm.

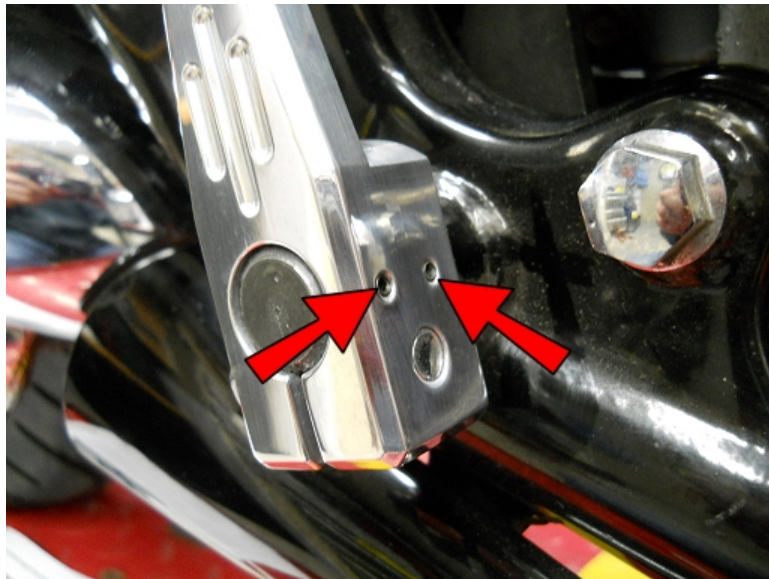


1. Place the Brake Arm all of the way on the spline.
2. With the hole still pried apart it should be pretty easy to rotate the Brake Arm to match up the hole in the top with the linkage.
3. Remove the screwdriver or chisel from the Brake Arm.





Thread the bolt that came out of the stock brake pedal into the Brake Arm and tighten well. If the threads don't catch, tap the head of the bolt lightly to get it started.



Tighten all 4 set screws in the Brake Arm AFTER tightening the bolt in the above step.



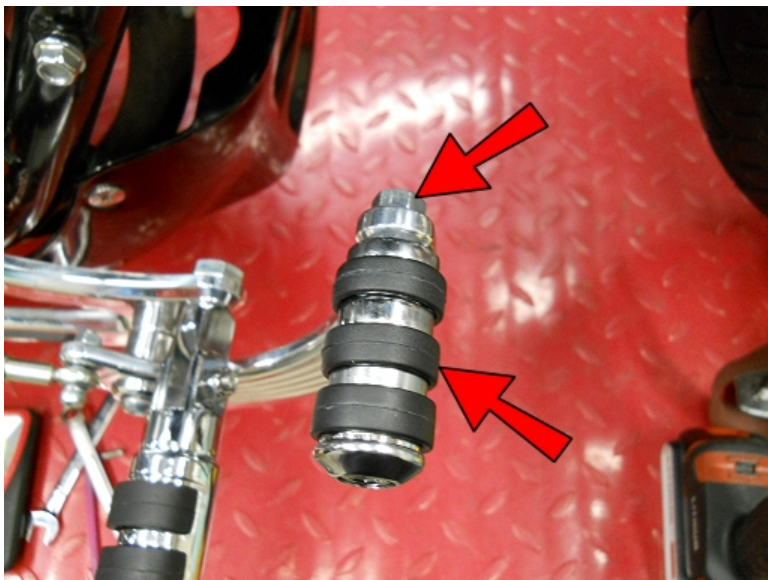
Insert an M6-1.0x25 Bolt.



Secure with an M6 Zinc Washer and M6 Nut.

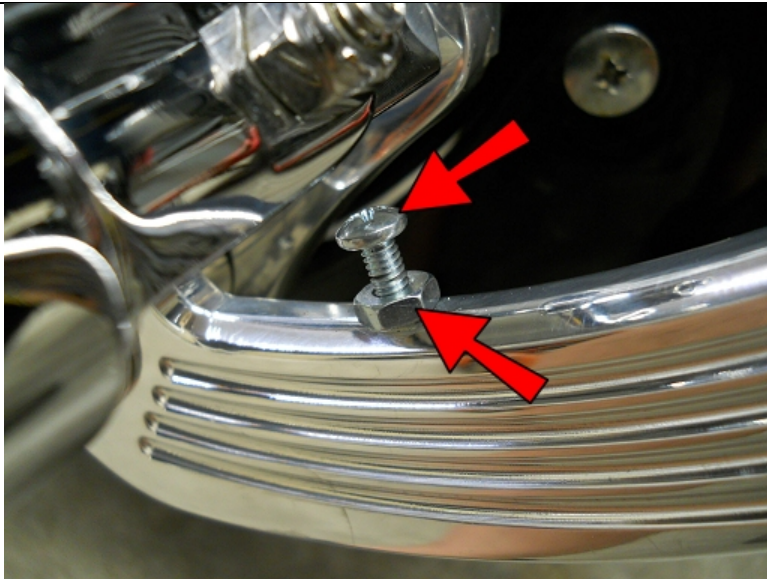


Push the Brake Pedal forward and remove the screwdriver. The Brake Pedal should rest against tightly against the foot peg clevis.

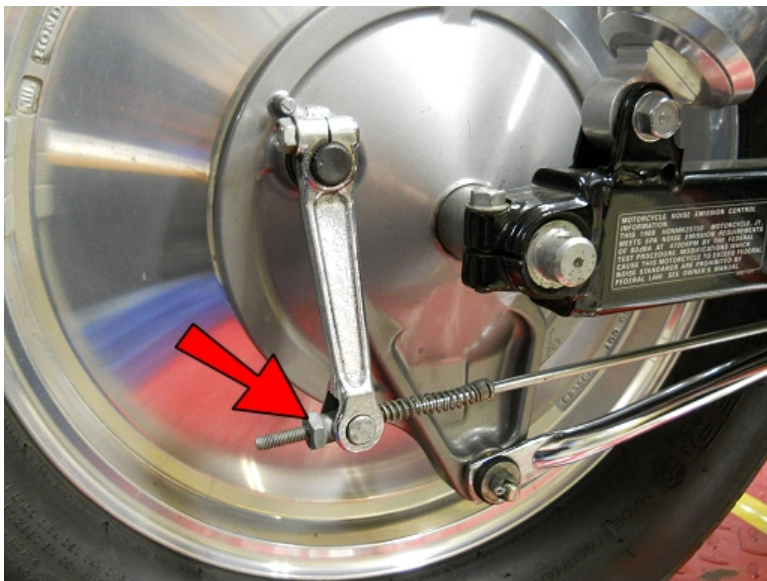


Install a Toe Peg and Secure with a 5/16" Nut.

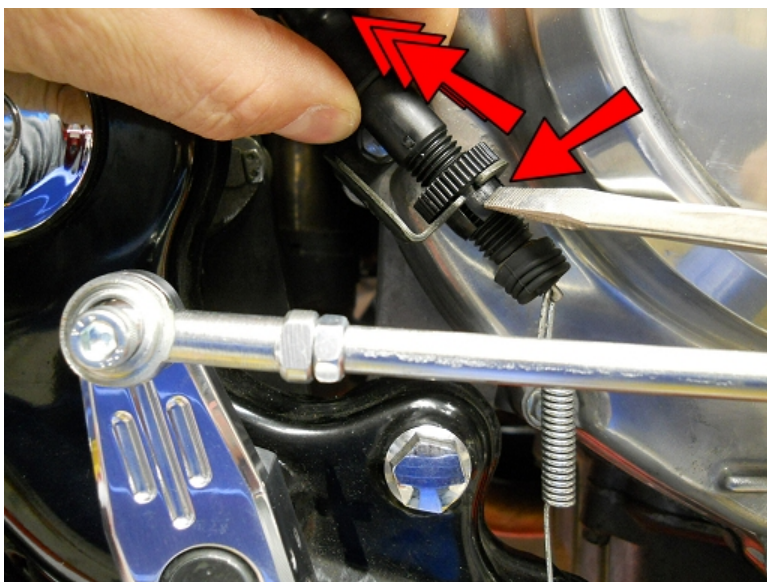




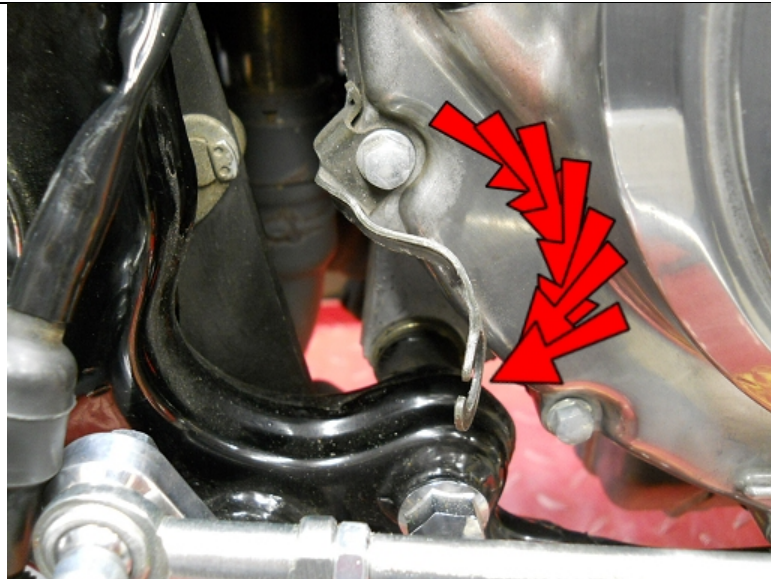
If desired, adjust the angle of the Brake Pedal by threading a #8 Screw into a #8 Nut, then into the Brake Pedal, then tighten the Nut against the Brake Pedal to secure.



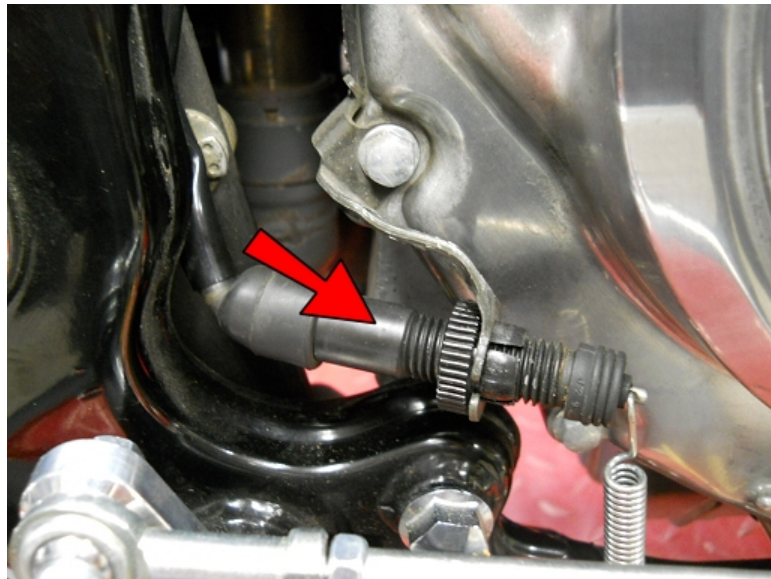
Adjust the brakes by going to the rear of the bike, and tighten or loosen the brake rod adjusting nut if needed. You want enough tension to allow a small, comfortable amount of movement to actuate the brake but do not over tighten, as this will keep the brakes from releasing fully.



Remove the brake light switch by pressing in the plastic tabs on the adjustment wheel and gently pulling it out of the mount.



Use pliers to bend the brake light switch mount as shown. Bend slowly and carefully as not to break this mount, they are no longer available from Honda. You can purchase replacement mounts from [RefinedCycle.com](http://RefinedCycle.com) however.



Insert the brake light switch back into the mount.





You will also need to bend the spring hook to allow it to fit into the hole on the brake linkage.

If the spring tension is too tight, your brake light will remain on all the time. If it is too loose, it will not come on when the brake is applied. If it is angled incorrectly it may stick.

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.

You may also need to do a little more bending to get the angle correct.

If you need more slack in the wire, open up the side cover and reroute the wire under the frame cross bar. If you have extra slack, wire tie it in a safe place being careful to keep it away from hot or moving parts.

### Shifter Side...



In the same way as before, remove the foot peg mount. Loosen the nuts at either end of the stock shifter linkage. The rear nut is a left hand thread so turn it the opposite direction to loosen. Now rotate the linkage rod to unscrew from both ends. Remove the nuts from both ends and thread them all the way onto the Shifter linkage (Part #18). Make sure to put the left hand threaded nut onto the correct end.

**Note: If you also purchased the Shifter Pedal kit, stop here and read the installation instructions for it before continuing.**



Insert two M8-1.25 x 30mm bolts (part #9) into the slot at the rear of the Shifter side FC2 plate (part #32) and thread half way into the two threaded holes of the V65 extension (part #31) with the other hole toward the rear. Insert an M8-1.25 x 45mm bolt (part #12) into the V65 extension then into two 5/16 zinc washers (part #26) (to increase the spacing) and thread into the front stock foot peg mount hole. You will use an M10-1.5 x 170mm bolt (part #15) and a 3.6" spacer (part #2) plus one 3/8 zinc washers (part #27) at the front. Place washers against the back side of the FC2 plate to hide them. Tighten the M10 bolt with a 10mm nut as on the other side. See V65 Ext. Inset in Picture.

Now thread the shifter linkage (left hand thread end) into the ball joint connected to the shifter arm.

Remove the shifter pedal from the stock foot peg mount and thread the other end of the shifter linkage into the ball joint of the shifter pedal. Install shifter pedal onto the back side of the Shifter side FC2 plate using an M8-1.25 x 45mm bolt (part #12), the stock washer from the shifter and an 8mm nut (part#22).



Install your foot peg as previously instructed. If the shifter lever is in a comfortable position for both down and up shifting, tighten the nuts at both ends of the shifter linkage and you are done. If the lever is too low or too high, you will need to remove the cover over the shifter arm (if there is a cover on your model) and adjust its angle by removing it from the spline and rotating it to get the desired angle for the shifter pedal.

Make fine adjustments by rotating the linkage and then tighten the nuts. Make sure enough of the rod is threaded into both ends to allow a secure connection.

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!