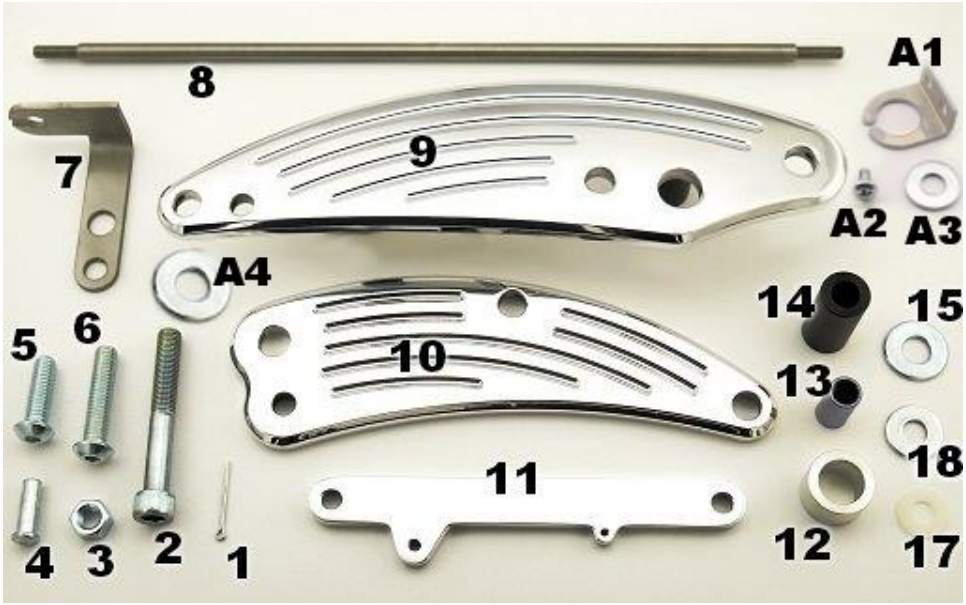
Installation instructions for FC7 Forward Controls for Kawasaki Vulcan Classic 800 VN800B and Custom VN800A

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 FC7. Parts will be referred to by the names & numbers shown here. If you are missing anything please email sales@refinedcycle.com.



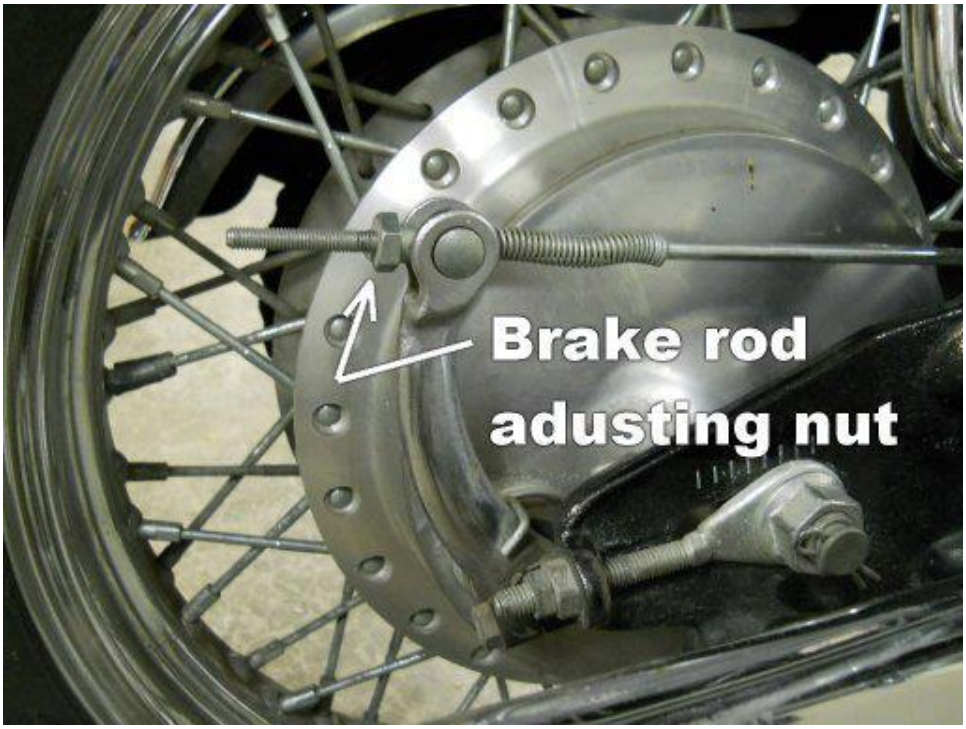
FC7 Components

1- Cotter Pin 2- M10-1.25x70 Socket Head Cap Screw (x4) 3- 3/8” Nut (x3) 4- 5/16”x7/8” Clevis Pin 5- 3/8-16x1.25” Button Head Cap Screw 6- 3/8-16x2” Button Head Cap Screw 7- Brake Cable Mount 8- Shifter Linkage 9- FC7-R 10- FC7-L 11- Brake Linkage 12- Brake Pedal Spacer	13- SLV1 14- 1.5” Spacer(x4) 15- 3/8” Zinc Washer 16- not used 17- 3/8” Nylon Washer (x2) 18- 5/16” Zinc Washer A1- BSM3 A2- #8-32x5/16 Screw A3- 1/4” Zinc Washer A4- 1/2” Zinc Washer (x2) (Not needed if also installing PDL4 kit)

Note: If you are also installing the PDL4 Pedal Kit, please refer to the PDL4 Installation instructions.

Brake side

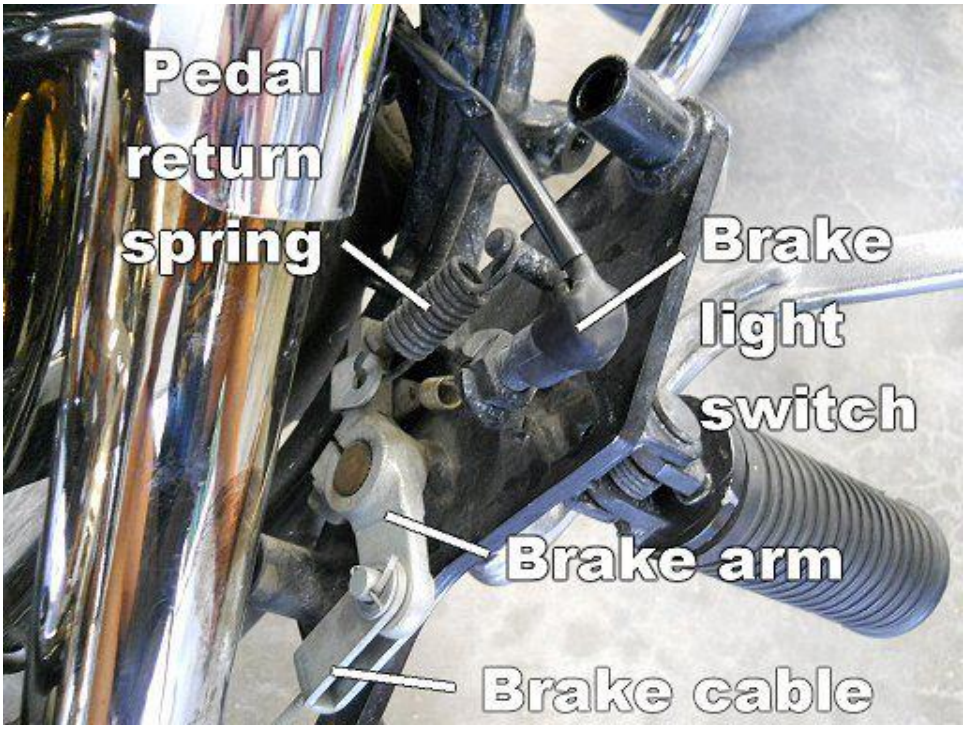
Loosen the brake cable retaining clip on the bottom of the frame, under the exhaust pipe.Loosen the brake rod adjusting nut to allow slack in the brake line. See picture A.



Picture A

Cut the wire ties holding the brake switch wire to the frame, and work a little slack loose.

Remove the two bolts holding the foot rest bracket to the frame and tilt the entire assembly out toward you to allow access to the inside. See picture B.



Picture B

Remove the cotter pin, washer and clevis pin from the end of the brake cable attached to the brake arm.

Slide the rubber end off of the brake cable.

While holding the brake cable with your left hand pull the foot rest bracket forward with your right hand to line up internal wire of the brake cable with the slot in the brake cable mount and remove the cable.

Use needle nose pliers to remove the spring from the brake light switch.

Use a small screw driver to push in the tabs of the brake light switch and work it out of its mount.

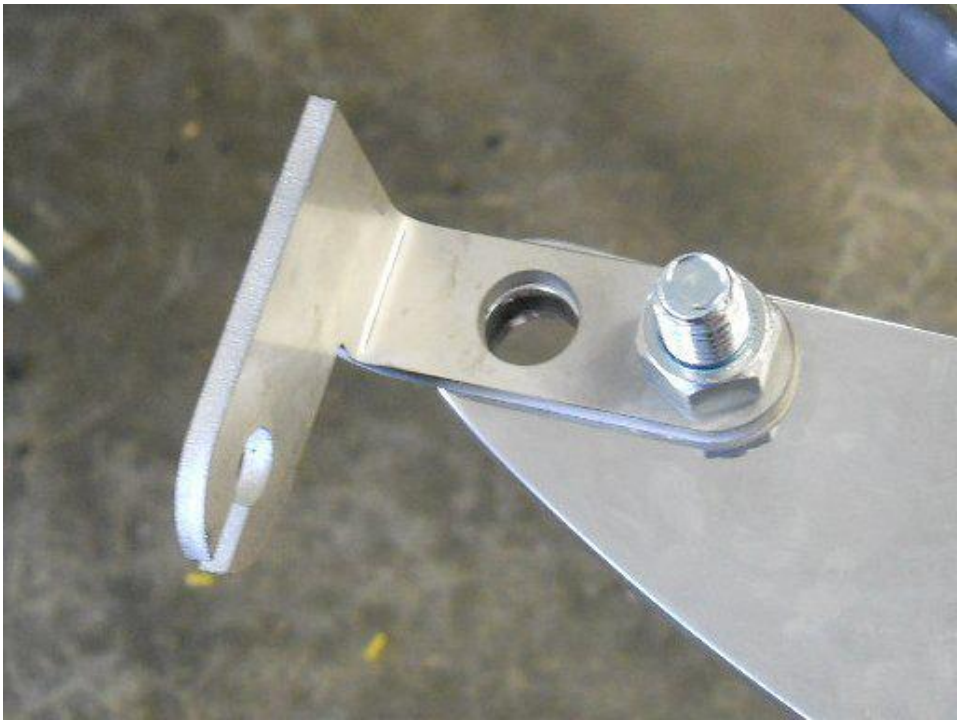
Remove the pedal return spring from the brake arm, then remove the bolt holding the arm and slide it off of the brake pedal spline.

Remove the brake pedal.

Attach the BSM3 (Part #A1) to the FC7-R (Part #9) with #8-32x5/16 Screws (Part #A2) as shown in picture C1.

Picture C1

Attach the Brake Cable Mount (Part #7) to the FC7-R with a 3/8-16x1.25” Button Head Cap Screw (Part #5) and a finger tightened 3/8” Nut (Part #3) as shown in picture C2.



Picture C2

Reinstall the brake cable into the Brake Cable Mount on the FC7-R, in the same manner that it was removed from the old mount.

Insert an M10-1.25x70 Socket Head Cap Screw (Part #2) into the lower, rear hole of the FC7-R, then through the Brake Cable Mount and into a 1.5” Spacer (Part #14), and thread just a few turns into the frame. Insert an M10-1.25x70 Socket Head Cap Screw into the middle hole of the FC7-R, then through a 3/8” Zinc Washer (Part #15) and into a 1.5” Spacer, and tighten both front and back mounting bolts.

Attach a foot peg to the front hole of the FC7-R.

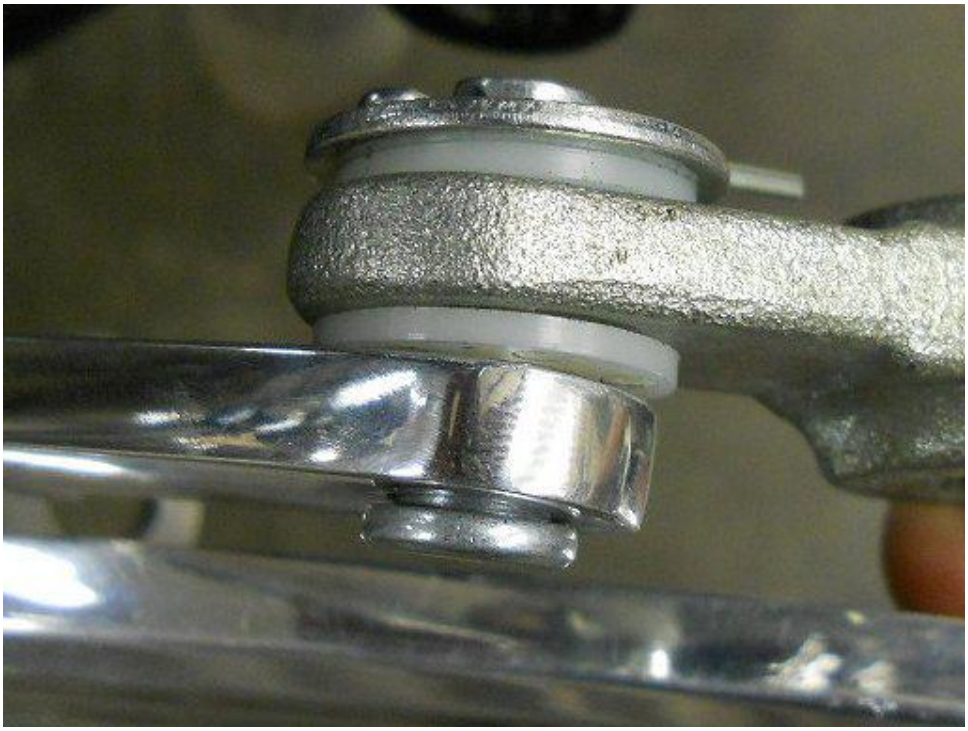
Attach the Brake Linkage (Part #11) to the brake cable using the clevis pin, washer and cotter pin previously removed.

Connect one end of the pedal return spring to the Brake Linkage and connect the other end to the 3/8” Button Head Cap Screw used previously to attach the Brake Cable Mount. Secure the spring with another 3/8” Nut but only finger tighten at this time. See picture D.

Picture D

Note: Skip this next step if you are also installing the PDL4 Pedal Kit.

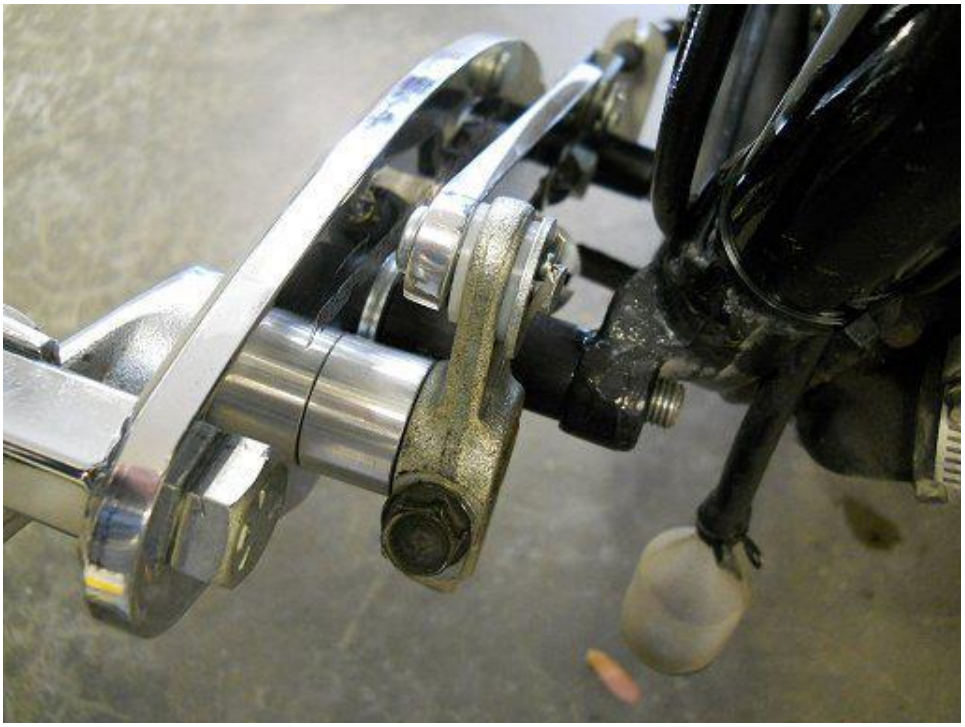
Attach the brake arm to the other end of the Brake Linkage with two 3/8” Nylon Washers (Part #17), a 1/4” Zinc Washer (Part #A3), a 5/16”x7/8” Clevis Pin (Part #4) and a Cotter Pin (Part #1) as shown in picture E.



Picture E

Note: Skip this next step if you are also installing the PDL4 Pedal Kit.

Insert the brake pedal into the lower hole of the FC7-R. Slide a Brake Pedal Spacer (Part #12) onto the brake pedal spline from the back. Hold the brake pedal up against the foot peg with a knee or have someone hold it. Pull the Brake Linkage forward to create tension on the pedal return spring and slide the brake arm onto the spline of the brake pedal. Make sure there is enough tension in the pedal return spring to hold the brake pedal against the foot peg on its own. Reinstall the bolt previously removed from the brake arm and tighten. See picture F.

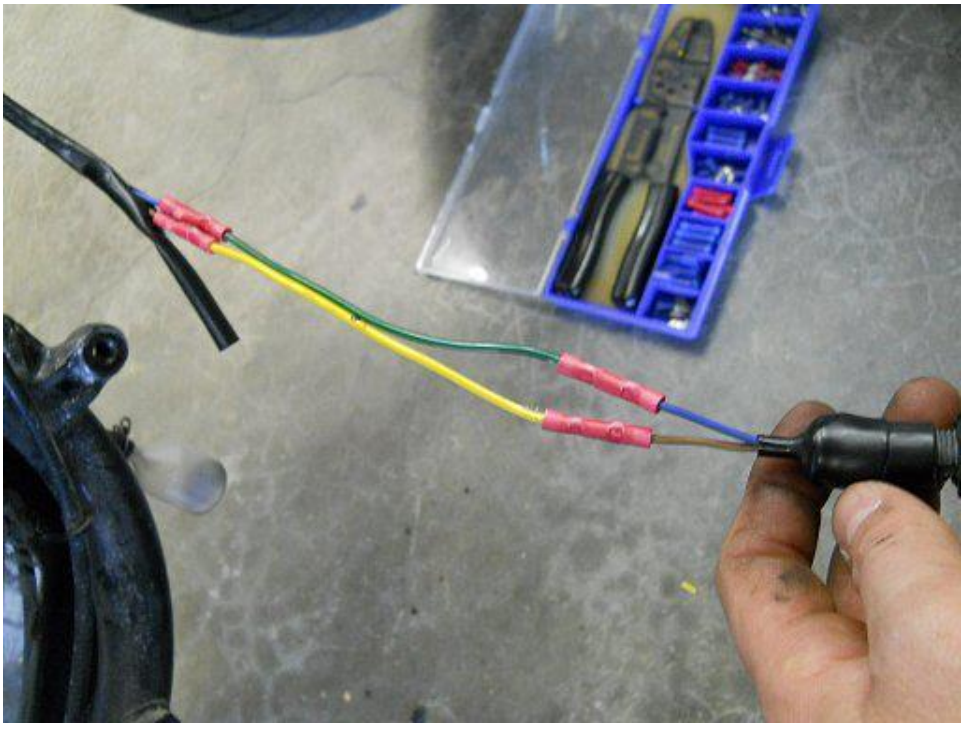


Picture F

From underneath, insert the brake light switch into the mount welded to the back side of the FC7-R and attach the brake light switch spring to the Brake Linkage and the brake light switch as shown in picture G. Note: If there is not enough slack in the wire some models may need to have the brake light switch wires extended. (See below)

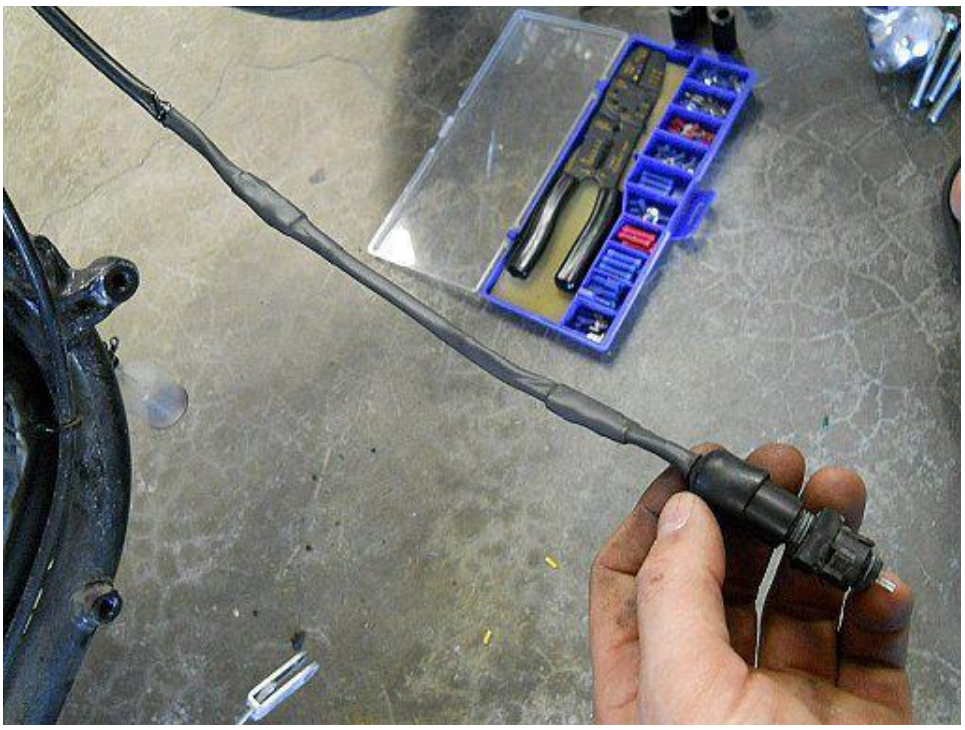
Picture G

To extend the brake light switch wires, splice 6-7 inches of length into the wires as shown in picture H.



Picture H

Cover the spliced wires with electrical tape or heat shrink as shown in picture I.



Picture I

Using about 3 wire ties, (not included), reattach your brake light switch wire to the frame. Bend the brake cable retaining clip on the frame back to hold the brake cable to the frame.

Note: Skip this next step if you are also installing the PDL4 Pedal Kit.

Now adjust the brakes by tightening the brake rod adjusting nut. See picture A. 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 will need to be adjusted. Do this by tightening the adjustment nut shown in picture G.

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 lose, 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 installation. Now move to the other side.

Shifter side

Loosen the nuts at both ends of the shifter linkage. Note: The nut toward the rear is a left hand thread.

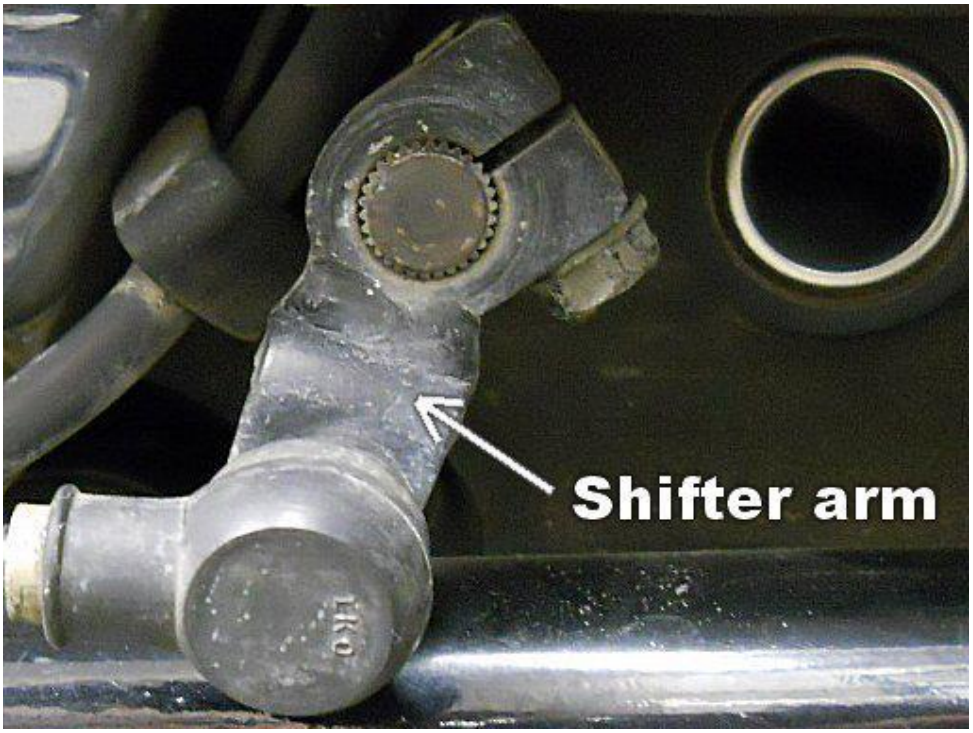
Remove the shifter linkage by spinning it until it comes out from both ends.

Remove the shifter pedal by first removing the nut from the front, then the bolt from the back.

Remove the two bolts holding the foot rest bracket. Attach the FC7-L (Part #10) to the frame with M10-1.25x70 Socket Head Cap Screws and 1.5” Spacers as you did on the other side and tighten.

Remove the nuts from the old shifter linkage and thread them onto the new Shifter Linkage (Part #8).

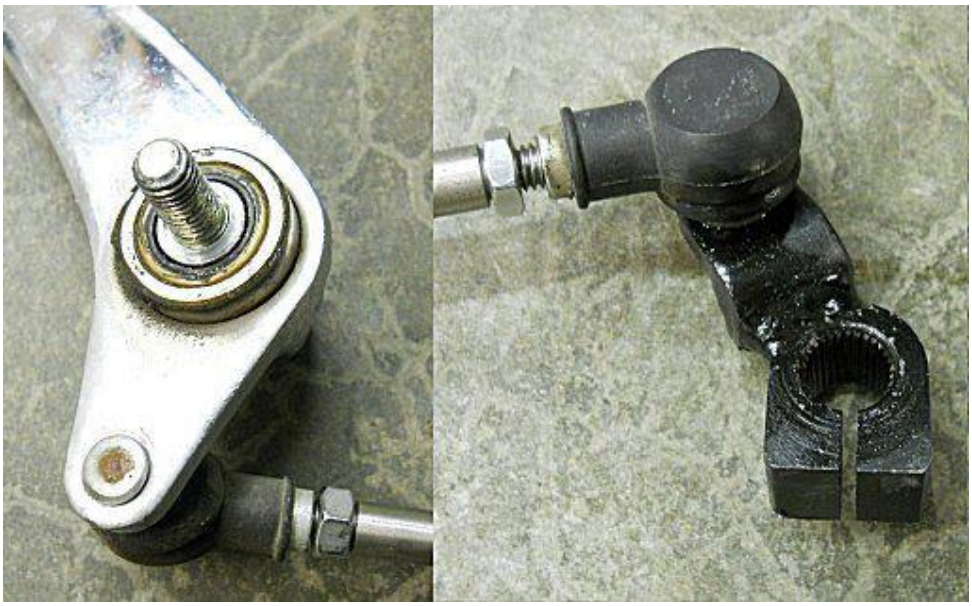
Remove the shifter arm from its spline by first removing the bolt that holds it on and then slide it off of the spline. See picture J



Picture J

Note: Do not attach the old shifter pedal if you are also installing the PDL4 Pedal Kit.

Attach the shifter arm and shifter pedal onto the Shifter Linkage as shown in picture K.



Picture K

Attach a foot peg into the top hole of the FC7-L.

Note: Skip this next step if you are also installing the PDL4 Pedal Kit.

Insert a 3/8-16x2” Button Head Cap Screw (Part #6) into the remaining hole in the FC7-L and place the SLV1 (Part #13) onto it. Slide two 1/2” Zinc Washers (Part #A4) onto the SLV1 as shown in picture L.

Picture L

Run the new Shifter Linkage assembly between the Spacers.

Note: Skip this next step if you are also installing the PDL4 Pedal Kit.

Slide the shifter pedal onto the SLV1 and secure with a 5/16” Zinc Washer and 3/8” Nut, as shown in picture M.

Picture M

Note: If you are also installing the PDL4 Pedal Kit just reconnect the shifter arm as instructed below and disregard the steps for the shifter pedal.

Hold the Shifter Pedal in the position you want, and slide the shifter arm back onto the spline and secure with the bolt previously removed from the shifter arm.

After testing, the position of the pedal can be adjusted by rotating the shifter arm or by threading the Shifter Linkage in or out.

After adjustment is finished, make sure to tighten the nuts on both ends of the Shifter Linkage, against the ball joints to secure it.

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!