Installation Instructions for FC3 Forward Controls for the Intruder 700/750/800 & Boulevard S50

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 FC3 Forward Control kit. Parts will be referred to by the names & numbers shown here. If you are missing anything please email sales@refinedcycle.com.

Components list

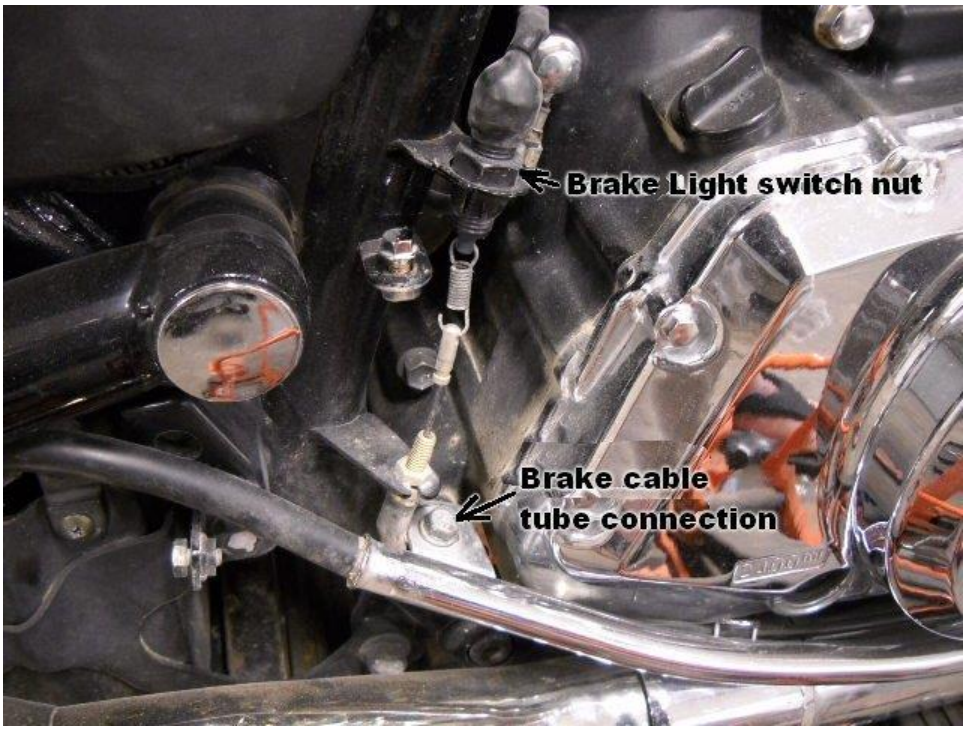
1- Spherical Rod End
2- 5/64x1 Cotter Pin
3- #6 Set Screw (qty. 2)
4- 5/16x7/8 Clevis Pin
5-10mm nut
6- 8mm nut (qty. 2)
7- 1/4 Zinc washer (qty. 2)
8- 5/16 nut (qty. 2)
9- 3/8 nut (qty. 2)
10-3/8 Nylon washer
11- 5/16 Zinc washer (qty. 4)
12- M8-1.25 x 40mm bolt (qty. 2)
13- M8-1.25 x 30mm bolt (qty. 2)
14- M6-1.0 x 25mm bolt (qty. 3)
15- Shifter Arm
16- Toe peg (qty. 2)
17- Peg Block (qty. 2)
18- SLV1(qty. 2)
19- 5/8 x 1/2 Bronze Sleeve (qty. 2)
20- Shifter side FC3 plate

21- Brake side FC3 plate
22- Shifter side Standoff
23- Brake side Standoff
24- M10-1.5 x 170mm bolt
25- Brake Linkage
26- Shifter Linkage
27- Brake pedal
28- Shifter pedal
29- 3/8-16 x 2 Button Head bolt (qty. 2)
30- M6 Acorn nut
31- M6-1.0x20 Bolt
32- M6-1.0 Clevis
33- M6 Clevis Pin
34- 3/64x1 Cotter Pin
35- M6 Nut (qty. 2)

Begin by removing the chrome cover, over the kickstand switch. Unwrap the wire ties from the 2 wires for the kickstand switch and unplug them at the quick disconnects in the wires as shown in picture A.

Picture A

On the other side, remove the chrome cover over the bolt that connects the chrome brake cable tube to the frame and remove that bolt, as shown in picture B. Leave the end of the brake cable connected to the control bracket.



Picture B

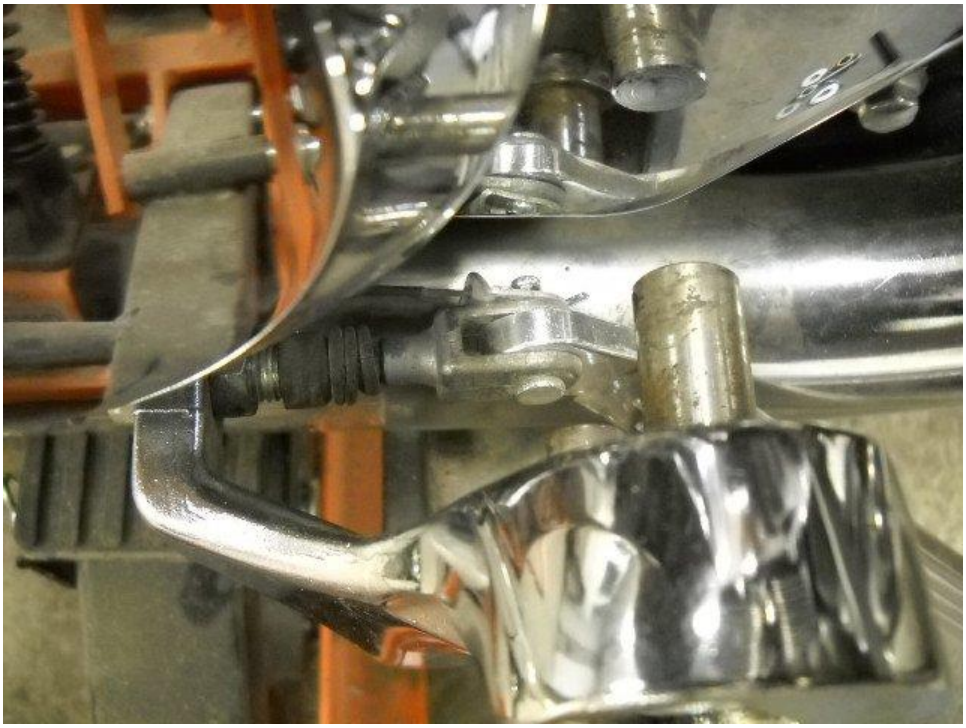
At this time you need to jack up the bike using a motorcycle jack or some other way of securely lifting it. You will be removing the chrome control bracket (the part your foot pegs are connected to) that is connected to the frame so don't use it as a lift point. The kickstand is also connected to the control bracket so make sure the bike is lifted and secure!

Remove the eight bolts holding the control bracket on the bottom of the motorcycle. Four of the bolts have cotter pins in them; note their location. Loosen those bolts enough to face the cotter pins toward the front and remove the cotter pins and keep for re-installation. Completely remove all 8 bolts while supporting the bracket from falling. Lower the bracket down from the bike to allow access to the brake pedal and brake linkage components. Remove the cotter pin and clevis from the end of the brake cable to disconnect it from the brake linkage components.

Note that the brake switch cable is also attached here and will be reassembled just the same when the new brake linkage is connected.

Now remove the brake linkage components, brake pedal and brake pedal spring from the control bracket by removing their cotter pins and clevis pin.

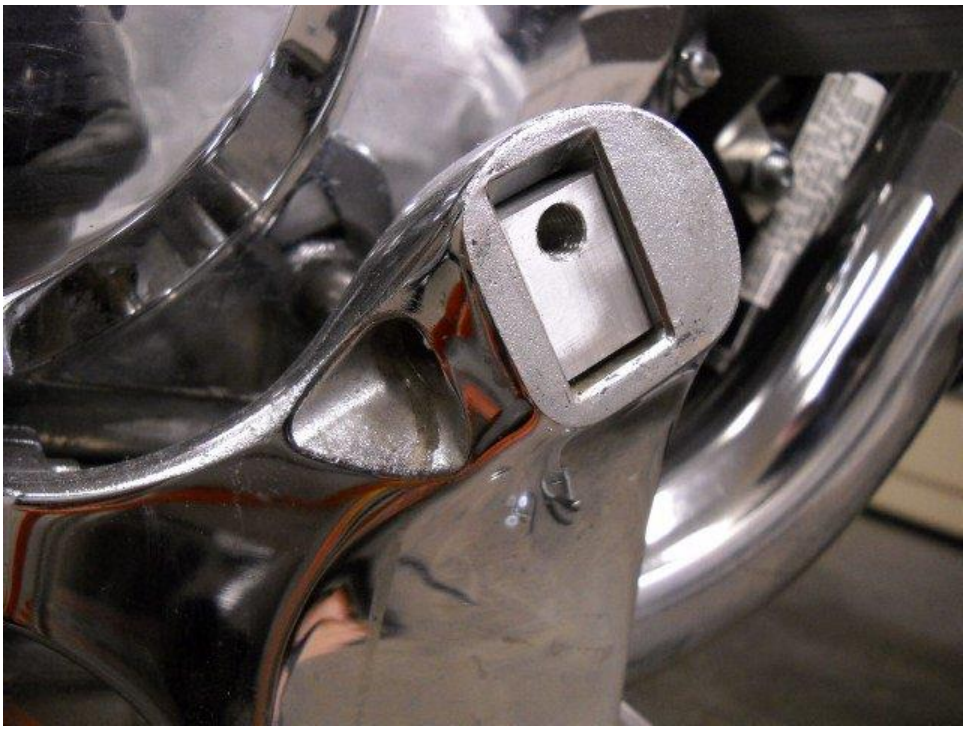
Connect the new Brake Linkage (part #25) to the brake cable and brake switch cable using the washer, clevis pin and cotter pin that was connecting the old brake linkage components. We'll come back to the other end. See picture C.



Picture C

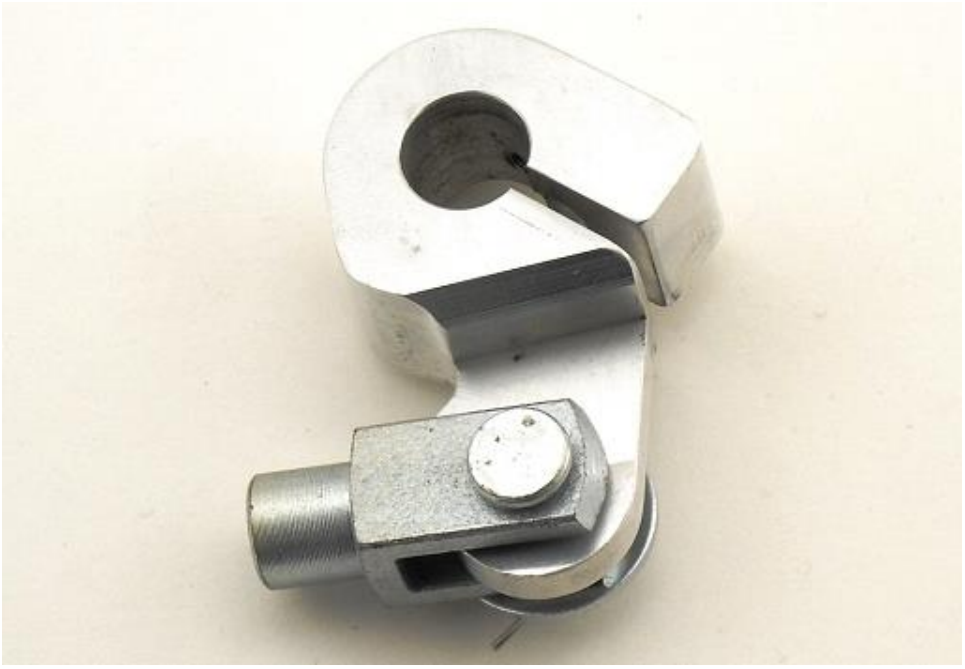
Remove the foot pegs and springs by removing the Phillips screw on the inside of the bracket and then remove the retaining pins that hold them in with a 5mm Allen wrench from the rear.

Place a Peg Block (part #17) into the square hole where the foot peg was, with the beveled edge in, and secure with an M6-1.0 x 25 Bolt (part #14) in the hole where the foot peg retaining pins were. Now replace the Phillips screw on the inside of the bracket. It won't go all the way in because of the parts you removed, so just tighten as much as possible. See picture D. Do this on both sides.



Picture D

Pre-thread the 2 Set Screws (part #3) into the Shifter Arm (part #15) assuring they do not protrude into the inside of the spline hole. Install an M6-1.0 Clevis (part #32) onto the Shifter Arm using an M6 Clevis Pin (part #33) and secure with a 1/4" Zinc Washer (part #7) and 3/64x1 Cotter Pin (part #34) as shown in Picture E.



Picture E

Hold the Shifter Arm firmly and insert a large flat head screw driver into the slot and carefully tap the handle on a hard surface to spread the slot apart. The goal here is to spread the hole just far enough to easily slide the Shifter Arm onto the shifter spline.

Remove the bolt on the old shifter pedal at the shifter spline and remove the shifter pedal. With the screwdriver still in the Shifter Arm, place the Shifter Arm on the spline where the pedal was, orienting it, straight down or vertical, as shown in picture E.

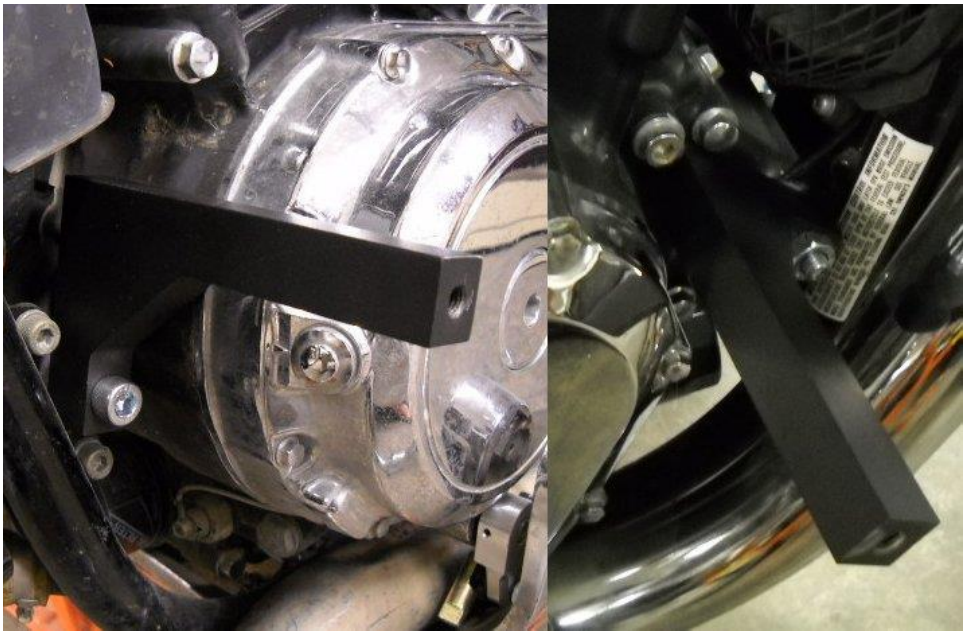
Drop the M6-1.0x20 Bolt (part #31), into the hole on the upper right of the Shifter Arm making sure it lines up with the groove in the spline. If it doesn't go in easily, move the Shifter Arm in or out to line it up with the groove. Remove the screwdriver from the slot and tighten the bolt, then the 2 set screws.

Re-install the control bracket onto the frame using the 8 bolts and 4 cotter pins previously removed. The frame may have shifted a little, so start all 8 bolts before tightening any of them. You may need to use a #2 Phillips screwdriver in one or two of the holes to pry them back into alignment while starting an adjacent bolt. To re-install the cotter pins, tighten the bolts, almost all the way, but with the holes at the front so you can insert the cotter pins, then turn them 1/2 turn and bend the cotter pins around the bolt, then tighten the rest of the way.

Plug the kickstand switch wires back together, wrap them in the wire holder and replace the chrome cover.

Replace the bolt that connects the chrome brake cable tube to the frame and replace it's chrome cover.

On the shifter side, remove the two header bolts and the bolt at the rear and remove the exhaust. Now remove the motor mount bolt. Insert the M10-1.5 x 170 Bolt (part #24) into the Shifter Side Standoff (part #22), then into the motor mount hole and into the Brake Side Standoff (part #23) on the other side and tighten with a 10mm nut (part #5) as shown in picture G. Re-install the exhaust.



Picture G

At the other end of the Brake Linkage installed earlier, attach the new Brake Pedal (part #27) by inserting a Clevis Pin (part #4) first into the Brake Pedal, then into a Nylon Washer (part#10) then into the Brake Linkage, then into a 1/4" Zinc Washer (part #7) and secure with a Cotter Pin (part #2) as shown in picture H.

Picture H

Insert an M8-1.25 x 30mm Bolt (part #13) into the top hole of the Brake Side FC3 Plate (part #21), and thread into the Brake Side Standoff, finger tight. Insert an M8-1.25 x 40mm Bolt (part #12) into the slot at the back of the FC3 plate and thread into the Peg Block and secure with a 5/16” Washer (part #11) and 8mm Nut (part #6) and tighten both.
Install your foot peg in the 1/2” Dia. hole in the FC3 plate. Do this for both sides as shown in picture I.

Picture I

Apply grease to the outside surface of both SLV1’s (part #18) and the inside and outside of both the 5/8x1/2 Bronze Sleeves (part #19).

Place a SLV1 into a 5/8x1/2 Bronze Sleeve and insert them into the new Brake Pedal (part #27) and new Shifter Pedal (Part #26) as shown in picture J.

Picture J

Attach a Toe Peg (Part #16) to the threaded top hole of the Shifter and Brake Pedals and secure with a 5/16” Nut (Part #8) as shown in picture K.

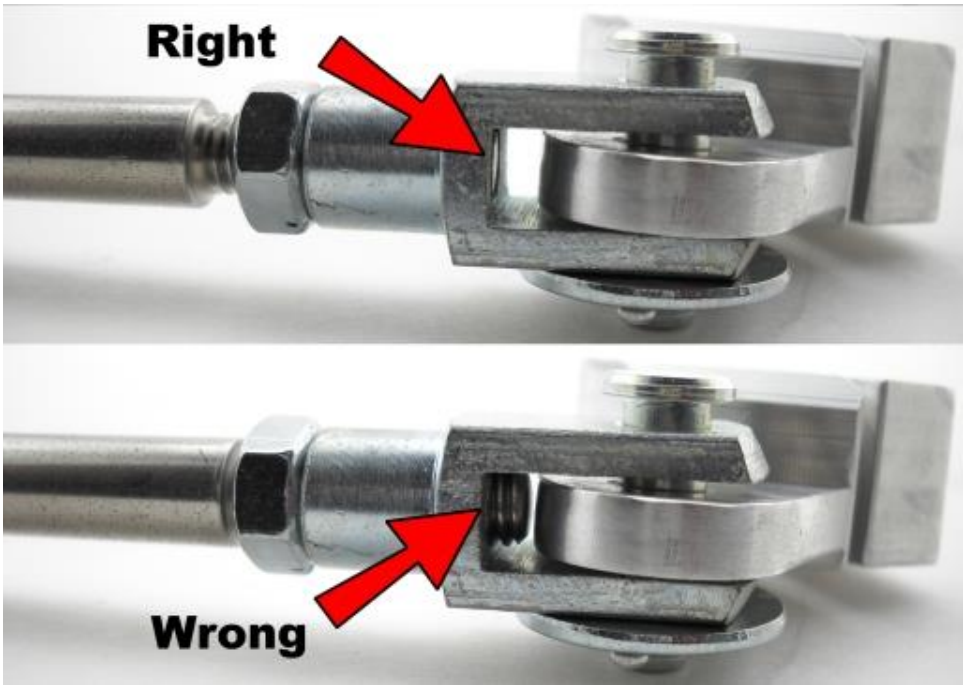
Picture K

Now insert a 3/8-16x2 Button Head bolt (part #29) into the front of the hole in the Brake Side FC3 plate. Slide the Brake Pedal assembly (with bearings) onto the 3/8-16x2 Button Head bolt and secure with a 5/16” Zinc Washer (part #11) and 3/8” Nut (part #9) and tighten as shown in picture L. (Ignore the fact that the linkage is not shown connected to the pedal, yours should be.)

Picture L

The brake spring tension should hold the brake pedal against the head of the foot peg bolt. You can adjust the rear brakes using the adjuster on the threaded rod at the rear drum.

Move to the shifter side and thread an M6 Nut (part #35) onto both ends of the the Shifter Linkage (part #26). Thread one end of the Linkage into the M6 Clevis previously installed in the Shifter Arm. Only thread it as far in as the threaded area of the clevis, so it does not protrude into the area that the clevis rotates or you will not be able to shift into first gear and you will break your shifter linkage rod. Tighten the M6 Nut against the M6 Clevis. See Picture M.



Picture M

Thread the Spherical Rod End (part #1) all of the way onto the other end of the Shifter Linkage and against the M6 Nut, but do not tighten it yet. Attach the Spherical Rod End to the Shifter Pedal (part #28) using an M6-1.0 x 25 Bolt (part #14) and an M6 Acorn nut (part #30). Attach the Shifter Pedal to the Shifter Side FC3 plate, using the same steps and hardware as used for the Brake Pedal, as shown in picture K.

Picture K

Now tighten the M6 Nut against the Spherical Rod End. With the Shifter Linkage threaded as far into the Spherical Rod End as it will go, the Shifter Pedal will be at its lowest possible position. If you want it higher, remove Spherical Rod End from the pedal and unthread it a couple of turns and re-install the pedal and retighten the M6 Nut against the Spherical Rod End. Make sure enough of the rod is threaded into both ends to allow a secure connection.

It's unlikely, but if you want the Shifter Pedal lower, you can remove the M6 Nut from the linkage at the Spherical Rod End and thread it all of the way into the Spherical Rod End. If you want it even lower, you can cut a small amount off of the other end of the Shifter Linkage being careful not to damage the threads.

With the key on, make sure the brake light works as intended by actuating the Brake Pedal a couple of times. If it does not, adjust the brake light switch with the adjustment nut above the chrome cover, as previously shown above in picture B.

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!