## Installation Instructions for FC4 Forward Controls for the Intruder 1400 & Boulevard S83

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 FC4. Parts will be referred to by the names & numbers shown here. If you are missing anything please email sales@refinedcycle.com.



**Components List** 

1- Brake Pedal	15- 5/16-24 nut (Qty. 2)
2- M6 Spherical Rod End	16- Toe peg (Qty. 2)
3- 5/16 Spherical rod end	17- SPCBP2
4- 5/64x1 Cotter pin	18- FPB2 (Qty. 2)
5- 5/16 Zinc washer (Qty. 2)	19- SSR1700RR (Shifter Linkage)
6- M6 Zinc washer (Qty. 2)	20- FC4-R
7- 1/2-13x2.25 bolt (Qty. 2)	21- FC4-L
8- 3/8-16x2 Button Head Bolt (Qty. 2)	22- SSR0415RR (Brake Linkage)
9- 5/16x1 Clevis pin	23- Shifter Pedal
10- 5/8x1/2 Bronze OR Steel Sleeve	24- 1/2" Zinc washer
11- SLV1	25- Peg bolt spacer
12- 1/2-13 Acorn nut (Qty. 2)	26- Set screw spacer
13- M6-1.0 Acorn nut	27- M6-1.0x25 bolt
14- 3/8-16 nut (Qty. 2)	28- M6-1.0 Nut

Note: Parts 25 & 26 are only included in kits for older years, see below.

Jack the bike up or secure it from falling over with straps because you will be removing the kickstand. Remove the case bolt at the rear of the break line tube shown in picture A



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Picture A
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Remove the shifter linkage by loosening the nuts at both ends and turn the linkage until free. Note: The front nut is a left hand thread. Bend the wire retainer clips open to allow the kickstand switch wire to come loose. On the underside of the bike, remove the cotter pins from the four outer cap screws on the foot rest bracket and remove all eight cap screws (after supporting the bike as mentioned above) shown in picture B.



**Picture B** 

Drop the entire assembly down a few inches. Remove the two cap screws holding the Brake pedal bracket that holds everything on the spindle. Remove the bolt that holds on the brake link. Slide the

entire assembly off the spindle. Pop the brake arm out of the slave cylinder boot. There is a brake pedal tension spring bolted to the inside of the foot rest bracket that connects to the brake pedal. Remove that bolt and spring and remove the brake pedal. Remove the chrome Allen head cover from the head of the brake link nut and remove the nut and brake link. See picture C.



Swing the foot rest bracket to the shifter side, allowing access to the two Phillips screws holding the kickstand switch. Remove those two screws and remove the kickstand switch.

Remove the shifter pedal by removing the retaining ring from the end of the shaft and slide the pedal off. Remove the Phillips screw from inside the foot peg mount on both sides. See picture D.



On both sides, remove the Foot peg pins at the rear of both foot pegs (shown in picture E) and remove the foot pegs.



Picture E

At this point you need to make a determination. At some point in 1996 Suzuki made a slight change to the foot rest bracket but it appears they continued to use the old design on some bikes produced after that, so it's not a definite cut-off date. We've had some '97's and '98's that had the old bracket. To determine which foot peg bracket you have, reinstall the Foot peg pins into the empty, square, foot peg holes. See picture F. Try to put a  $\frac{1}{2}$ -13x2.25 bolt (part #7) into the original foot peg holes, above the foot peg pins.

If it DOES fit, you have the newer design foot rest bracket and you can skip the "Old foot rest bracket ONLY" instructions and you need to reinstall the Phillips screws as in picture F.

If it DOES NOT fit, you have the older design foot rest bracket and you need to follow the "Old foot rest bracket ONLY" instructions and you need to remove the foot peg pins shown installed in Picture F.



**Picture F** 

Slide the FC4-R (part #20) onto the spindle on the right side of the foot rest bracket, then insert a  $\frac{1}{2}$ -13x2.25 bolt (part #7) into the back of the FC4-R and into the original foot peg hole of the foot rest bracket. Slide a FPB2 (part #18) with the flat edge matching the contour of the foot rest bracket, onto the end of the  $\frac{1}{2}$ " bolt and secure with a  $\frac{1}{2}$ -13 acorn nut (part #12). Slide the SPCBP2 (part #17) onto the spindle and slide the Brake arm on over it. See picture G.





Slide the FC4-L (part #21) onto the left side spindle and slide a 1/2" Zinc washer (part #24) onto the other 1/2-13x2.25 bolt (part #7). Insert the 1/2" bolt into the slot in the back side of the FC4-L and into the old foot peg hole. Move on to the "Continue here for all years" instructions.

## \*\*\*\*\*\*\*\*\*Old foot rest bracket ONLY\*\*\*\*\*\*\*\*\*

Insert the Set screw spacer (part #26) into the top of the slot as shown in picture H.



**Picture H** 

Insert the Peg bolt spacer (part #25) into the bottom of the foot peg hole as shown in picture I.



Picture I

\*\*\*\*\*\*\*\*\*\*Continue here for all years\*\*\*\*\*\*\*\*\*

Secure the 1/2" bolt in the same manner as the right side and reattach the kickstand switch.

Reattach the brake slave cylinder to the foot rest bracket with the brake pedal bracket, making sure that the brake arm goes back into the boot in the same manner it was previously installed.

Reattach the foot rest bracket to the bike frame.

Attach the Toe Pegs (part #16) to the Brake Pedal (part #1) and Shifter Pedal (part #23) by threading them into the end holes and securing with a 5/16 nut (part #15).

Apply grease to the outside surface of both SLV1's (part# 11) and the inside and outside of both the 5/8x1/2 Bronze Sleeves (part# 10).

Place a SLV1 into a 5/8x1/2 Bronze Sleeve and insert them into the Brake Pedal as shown in picture I2.

Also do this on the Shifter Pedal and set it aside.





**Note:** Review picture C for previous part names and picture J for a comparison of how they will now be used.

**Note:** In some VERY RARE circumstances, the brake linkage does not clear the exhaust header in this next step. Literally only about 1% of people have that problem. If you do, please contact us about an alternate linkage setup we have available.

Thread the Brake linkage, (part #22), all the way into the threaded end of the 5/16 Spherical rod end, (part #3). Slide an M6 washer (part #6), onto the thin end of the brake linkage and slide the spring from the stock brake link on. Put the Link pin back in the brake arm and insert the new brake linkage

into the pin and thread the link nut several turns onto the brake linkage while compressing the spring to make it easier to turn.

Attach the 5/16 Spherical rod end (part #3) to the Brake Pedal by inserting a 5/16 x 1 clevis pin (part #9) into the front side of the Brake Pedal and secure with Cotter Pin (part #4) as shown in Picture J. Insert a 3/8-16x2 Button head bolt (part #8) into the front side of the lower front hole of the FC4-R.

Place the Brake Pedal assembly onto the 3/8-16x2 Button head bolt and secure with a 5/16 zinc washer (part #5) and a 3/8 nut (part #14).

Install a foot peg into the top hole of the FC4-R.



Attach the brake pedal tension spring you removed from the stock brake pedal to the new assembly by FIRST hooking one end of the spring into the back side of the hole in the bottom of the FC4-R, THEN the other end in the hole in the end of the clevis pin as shown in picture J.

Adjust the linkage as desired and replace chrome cover on the brake linkage nut.

Thread the Shifter linkage (part #19) all of the way into the Ball joint on the stock shifter arm. Now thread an M6-1.0 Nut (part #28) onto the other end of the shifter linkage, then thread the M6 Spherical rod end (part #2) all the way on.

Insert an M6-1.0x25 bolt (part #27) into the M6 Spherical rod end, then place an M6 Zinc Washer on and connect to the Shifter Pedal with an M6-1.0 acorn nut (part #13). Note: If the picture looks there are two washers between the Rod end and the Pedal, that is just a reflection.

Now tighten the M6 Nut on the linkage, against the M6 Spherical rod end to secure it.

Now insert a 3/8-16x2 Button head bolt into the front side of the lower front hole of the FC4-L.

Place the Shifter Pedal assembly onto the 3/8-16x2 Button head bolt and secure with a 5/16 zinc washer and a 3/8 nut. See picture K.

Install a foot peg into the top hole of the FC4-L.



Picture K

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

If you want the Shifter Pedal lower, you can remove the shifter arm from the spline at the rear of the linkage and rotate it 1 or 2 notches counterclockwise.

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 screw above the chrome cover, as previously shown above in picture C.

## 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!



