

Installation Instructions for FC2 Forward Controls for the Magna 1100

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 FC2 kit. Parts will be referred to by the names & numbers shown here. If you are missing anything please email sales@refinedcycle.com.



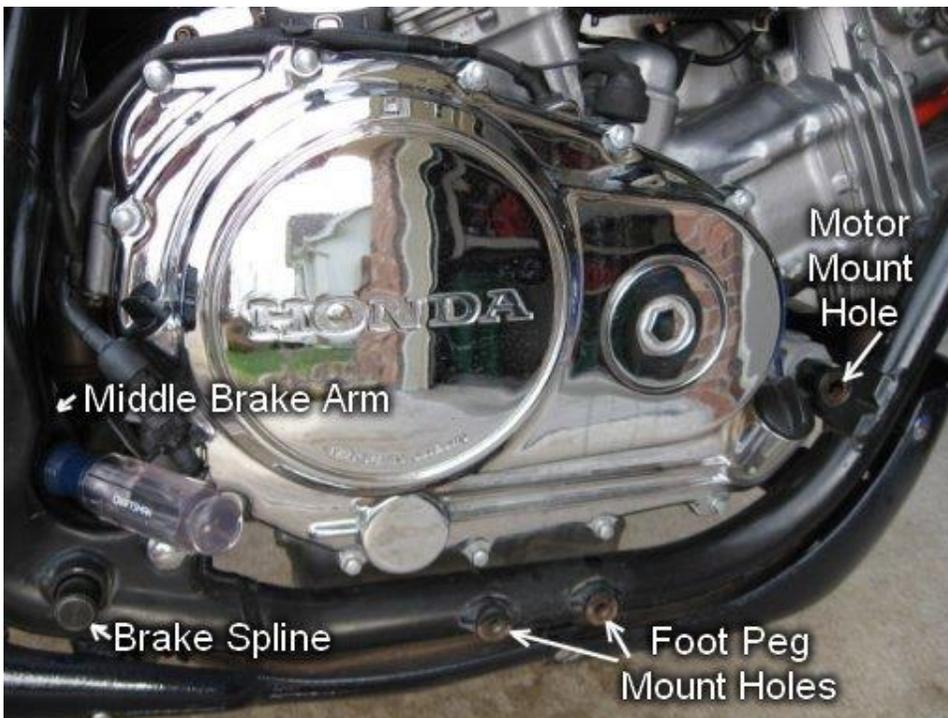
Components list for the Magna 1100

- 2- 3.6" spacer
- 3- 1.5" spacer
- 6- SLV1
- 7- Clevis pin (qty. 2)
- 8- 5/8" x 1/2" Bronze Sleeve
- 9- M8-1.25 x 30mm bolt (qty. 3)
- 10- 3/8-16x2" button head bolt
- 12- M8-1.25 x 45mm bolt
- 13- M8-1.25 x 60mm bolt
- 15- M10-1.5 x 170mm bolt (qty. 2)
- 16- Toe peg
- 17- Brake linkage
- 18- Shifter linkage
- 19- #6 Set screw (qty. 4)
- 20- Cotter pin (qty. 2)
- 21- 5/16 nut
- 22- 8mm nut
- 23- 3/8 nut

- 24- 10mm nut (qty. 2)
- 25- Nylon washer (qty. 2)
- 26- 5/16 Zinc washer (qty. 2)
- 27- 3/8 Zinc washer (qty. 2)
- 28- Brake side FC2 plate
- 29- Brake arm
- 30- Brake pedal
- 31- V65 extension
- 32- Shifter side FC2 plate
- 33- 2.8" spacer
- 34- Brake switch mount

Begin by unhooking the brake switch spring from the hook at the back of the stock brake pedal and remove the brake switch from the foot peg mount.

Use this picture for reference points.



Picture A

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

Remove the entire foot peg mount assembly by taking out the two bolts that hold it to the frame and remove the lower motor mount bolt and nut.

Insert an M8-1.25 x 60mm bolt (part #13) into the slot at the back of the Brake side FC2 plate (part #28) then into the 1.5" spacer (part #3) and thread the bolt half way into the front foot peg mount hole.

Insert the M10-1.5 x 170mm bolt (part #15) into the top hole of the FC2 plate then into the 2.8" spacer (part #33) then into the motor mount hole. Go back and completely tighten the M8 bolt first then place a 3/8 zinc washer on and thread a 10mm nut (part #24) onto the M10 bolt and tighten. See picture B.



Picture B

Apply grease to the outside surface of the SLV1 (part #6) and the inside and outside of the 5/8x1/2 Bronze Sleeve (part #8). Place the SLV1 into the 5/8x1/2 Bronze Sleeve and insert them into the Brake Pedal (part #30) as shown in picture C.



Picture C

Use a 3/8-16x2 Button head bolt (part #10) to connect the Brake pedal to the Brake side FC2 plate and secure with 3/8 nut (part #23).

Thread the Toe peg (part #16) into the hole at the top of the brake pedal and secure with the 5/16 nut (part #21).

Next install the foot peg. The angle of the brake pedal will be determined by the angle of your foot peg clevis since it will rest against it. Tighten in the position desired as shown in picture D.



Picture D

Orient the Brake linkage (part# 17) with the small spring hole toward the rear and attach it to the brake pedal by inserting the clevis pin (part #7) first into the linkage, then into a Nylon washer (part#25) then into the brake pedal, then into a 5/16 zinc washer (part #26) and secure with a Cotter pin (part #20) as shown in picture E.



Picture E

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



Picture F

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). See picture G.



Picture G

The brake spline slides easily in and out of its hole so make sure the spline is all the way out then place the brake arm onto the spline and orient approximately as shown in picture H, BUT leave the screw driver in the brake arm for now.

Hold the brake lever against the foot peg clevis. Connect the brake linkage to the brake arm with clevis pin, washers and cotter pin in the same way as the other end. Make sure you have the brake arm all the way on the spline as shown in picture H and remove the screw driver from the bottom of the brake arm.

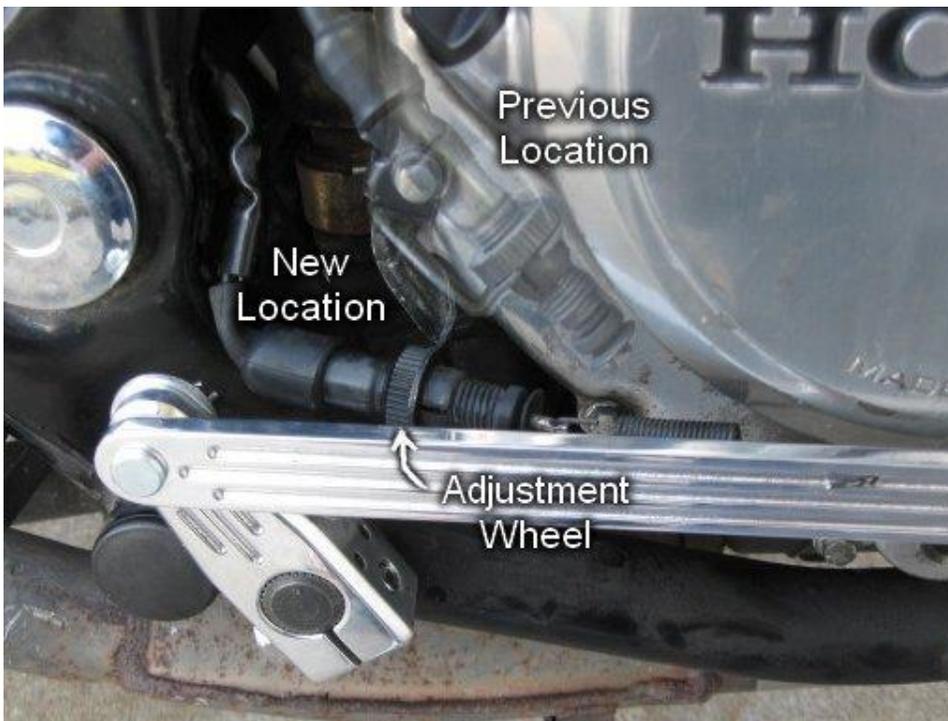
Thread the bolt that came out of the stock brake pedal into the brake arm and tighten. If the threads don't catch, tap the head of the bolt lightly to get it started. Tighten all 4 set screws in the brake arm.



Picture H

Remove the case bolt shown as "previous location" in picture I and remove the hose stay if it has one. Place that bolt into the small hole in the Brake switch mount (part #34) and insert your brake switch into the larger hole in the brake switch mount then replace this assembly into the case making sure to align in a straight line of movement for the spring as shown in picture I. Note: This picture is from a V45 and will differ slightly.

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 be 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. 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. With a little trial and error you will find the right position.



Picture I

This completes the brake side installation. Now move to the other 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 as shown in picture J. 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.



Picture J

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 the other M8-1.25 x 30mm bolt into the V65 extension and thread into the front stock foot peg mount hole. Insert an M10-1.5 x 170mm bolt (part #15) into the top hole of the shifter side FC2 plate, then into and a 3/8 zinc washer (part #27), then into the 3.6" spacer (part #2) and insert into the motor mount hole, then a 10mm nut and tighten all 4 bolts. See V65 Ext. Inset in Picture K.

Now thread the shifter linkage (left hand thread end) into the ball joint connected to the shifter arm as shown in picture K.



Picture K

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) as shown in picture L.



Picture L

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!