

## Ricmotech LC27 v3 Load Cell Kit Installation Guide



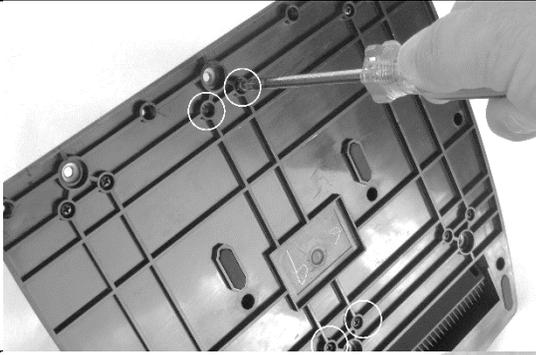
This product fits the Logitech G25, G27, G29, G920, and G923  
brake pedal

### Items Needed:

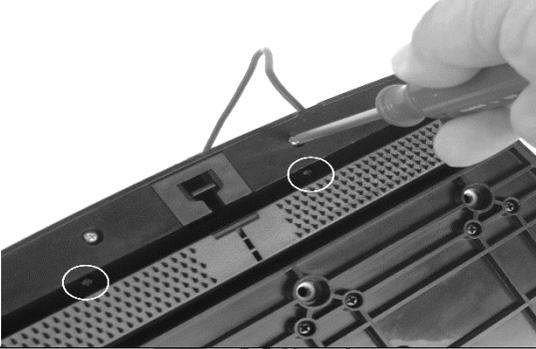
1. #1 Phillips Screwdriver
2. #2 Phillips Screwdriver
3. 2.5mm Allen Wrench (Hex Key)
4. 5mm Allen Wrench (Hex Key)
5. 10mm Wrench
6. Small Flat Screwdriver
7. Needle Nose Pliers
8. Small Diagonal Cutters
9. Cardboard Box approximately 10" x 10" x 4" (25cm x 25cm x 10cm)

### Installation:

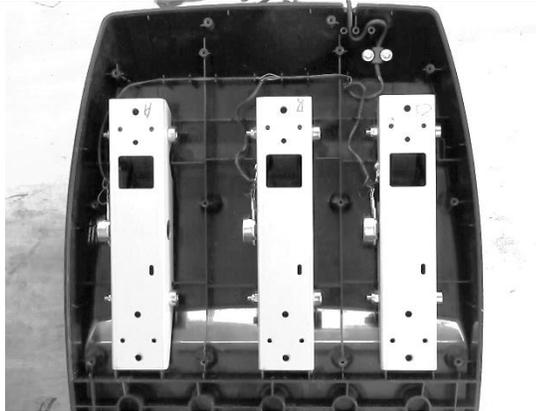
	<p>1. Begin by removing the pedal faces on the pedals you will be working on using the 2.5mm Allen wrench (hex key). Keep the screws together with each pedal since they may be of different lengths.</p>
	<p>2. Flip the pedals upside down into the cardboard box so the pedals are hanging free and the plastic base does not fall in.</p>
	<p>3. If you do not have an appropriate cardboard box, use some blocks of wood or rolled up towels to accomplish the same support.</p>



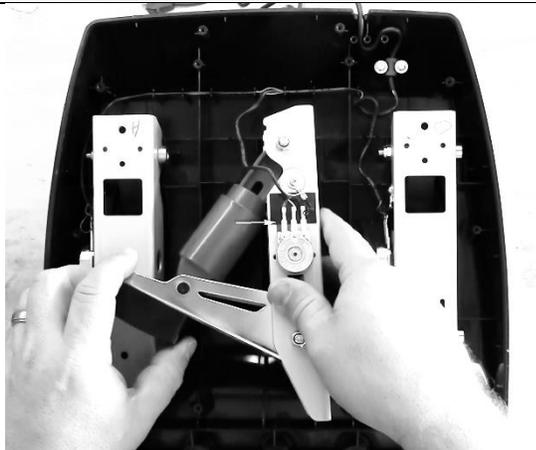
4. Remove the 12 black screws that secure each pedal to the bottom cover.



5. Remove the 14 silver screws that support that secure the cover in place. Do not forget the two screws behind the carpet gripper.



6. Lift off the bottom cover to expose the internals. Take pictures to assist in reassembly later.



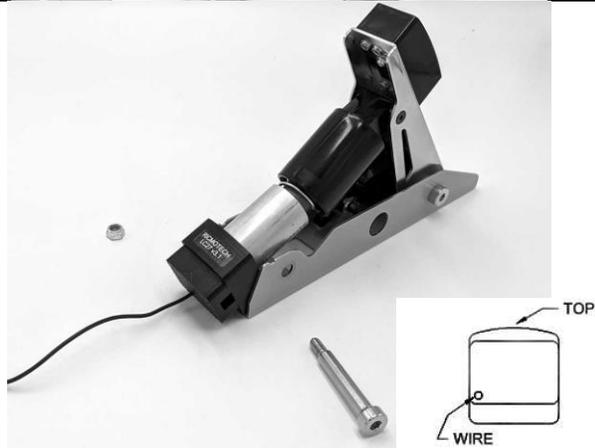
7. Lift out the brake pedal and lay on its side with the wiring at the top. Remove the screw securing the black ground wire then carefully pull off the 3 plugs, use needle nose pliers and be careful not to tear the wires.



8. Remove the brake pedal assembly from the housing. Using a 10mm wrench and a 5mm Allen Key, remove the pivot from the base that secures the lower telescoping spring housing.



9. The upper spring housing has a 3-spoke blade inside. This is obstructed by a white cap on the G28 and G920 pedals. Remove the white cap to expose the 3 spokes. The spring assembly has the mating slot to fit around them.

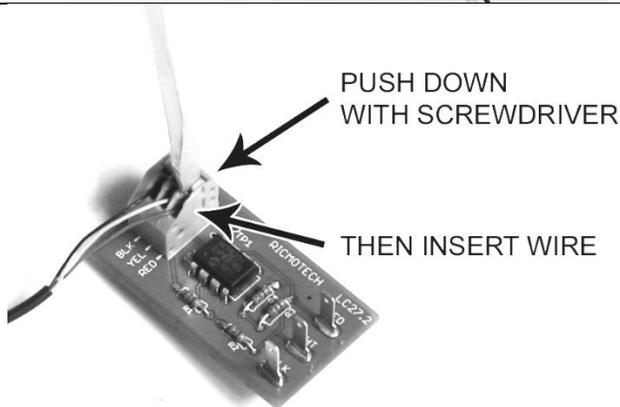


10. Insert the spring into the housings as shown. Be sure the curved part of the base faces upwards as shown. The wire should exit at the base of the pedal assembly.

**Note:** This is important to prevent the wire from getting damaged when the pedals are reassembled. Damage to the wire is not covered by warranty.

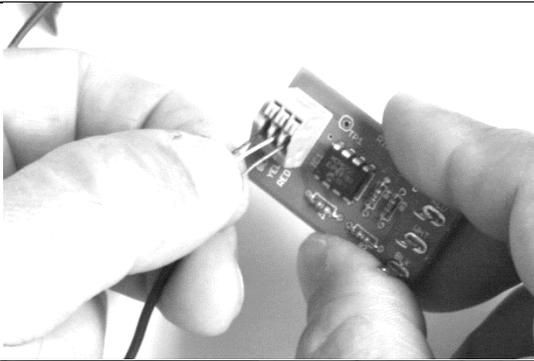


11. Compress the spring to align the square cutout in the load cell housing with the pivot hole in the base and insert the pivot pin. Secure the pivot pin with the 10mm nut.

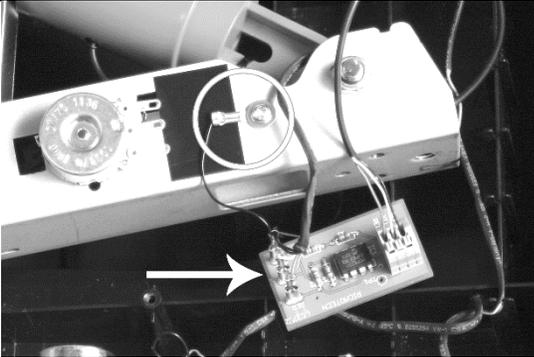


12. If not already inserted, insert the load cell wires into the corresponding positions in the terminal block by first pushing down on the locking tab with a small screwdriver or other small tool. While holding down the locking tab, insert the wire in a downward angle. Release the locking tab when the wire is fully inserted.

Skip to step 14 if the wires are already inserted.

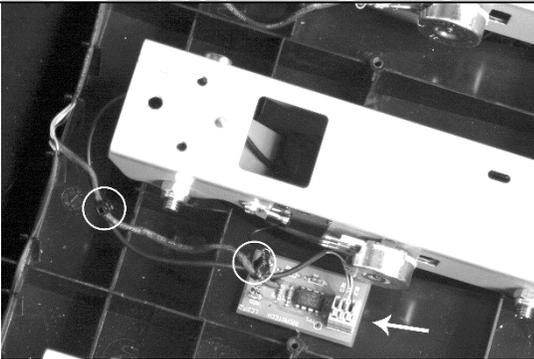


13. Gently tug on the wires to insure they are fully seated and will not come out. Be sure the metal jaw on the terminal block is contacting the metal strands of the wire.

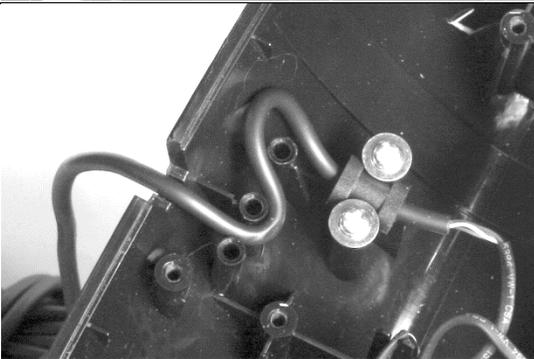


14. Lay the pedal on the pedal housing and screw the ground terminal to the pedal base as shown. Then plug the three wires onto the corresponding terminals on the LC27-2 interface board.

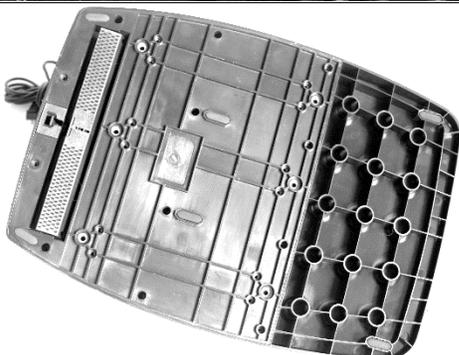
**Note:** If the load cell kit is for use with a Thrustmaster wheelbase then the circuit board will be missing some electronic components and the connection posts will be re-labeled.



15. Lay the pedal back into position in the housing. Using the wire ties, strap the load cell wire to the original pedal wiring as indicated by the circles above. Peel off the backing on the mounting pad on the back of the interface board and secure to the plastic base as shown.



16. Make sure the cable exiting the housing is routed properly through the posts.



17. Place the bottom cover back on the housing and be sure it drops into place evenly all the way around.

	<p>18. Ensure the cable exits the housing in the proper place and is not pinched. If the cover does not sit properly, remove the cover and check for obstructions. The cover must not be forced into place.</p>
	<p>19. Secure the cover using the original 14 silver screws and 12 black screws removed at the beginning of the installation. Do not forget that 2 screws go under the carpet gripper.</p>
	<p>20. Reinstall the pedal faces using the original screws. On the G27 and newer, there are different length screws. The shorter ones are for the accelerator and the longer ones are for the brake and clutch.</p>

### Tips for Best Performance

The pedals must be calibrated every time the wheel restarts (when it does its left to right dance). The system will learn the maximum force used to press the pedal and that will be 100% braking in game. If at any point during the game the pedal is pressed harder than that will become the new 100%. Therefore, we recommend pressing the pedal with maximum force after the wheel restarts so there is no variation in braking performance during a race.

The bushing is a consumable item and will break down over time. This will change the response of the pedal. You will gradually adapt to the change and therefore it may not be apparent. Periodically inspect the bushing and replace as needed.

**Warning:** Do not stomp or beat on the brake pedal. The load cell is designed to handle several hundred pounds of force without losing accuracy, but stomps, kicks and hammer blows can easily exceed the safe limits of the load cell. The load cell is not warranted against failure from excessive force.

Ricmotech strongly recommends hard mounting the pedals to your sim-rig. A rigid mounting without any flex will help you get the most out of the LC27 and give you the best improvement in your racing performance. To hard mount the Logitech® pedals you will need 6 M6 metric bolts, their length depends the thickness of the mounting surface.

The LC27 load cell upgrade kit has been engineered to replicate the feel and reaction of a real race car brake system. To get the most from your new load cell you should keep the following tips in mind.

Your brake will now have a soft range followed by a hard range. The soft range replicates the travel of the brake pads before they make full contact with the brake rotors. This range will give you about 5% to 10% braking force (depending on your final brake calibration). Use this braking range to get the weight of the car to transfer to the front wheels without applying too much braking force.

Once the vehicle's weight is on the front wheels you can apply more braking force without putting the car into an under-steer condition. At this point, the brake will feel like you are pressing on a brick and will respond to how hard you press

on it. This range replicates what happens after the brake pads are in full contact with the brake rotors and there is no further movement of the brake components.

At this point the brake pedal is near even height with the throttle pedal (G27). This facilitates proper heel-toe downshifting since the brake is kept at the same height regardless of how much braking force you need to apply.

By keeping these principles in mind your lap times should improve by giving you better control over the vehicle's brakes. Work on getting your braking to be more consistent. After that happens, you will not need to brake as early because you will not need that extra margin for error. Braking later means braking less and your lap times should then begin to improve. Happy Racing!

Notice: Ricmotech is not responsible for any damage you may cause to your Logitech® pedals during the installation of the LC27 load cell assembly. Installation of this load cell may void the original manufacturer's warranty. Every LC27 is tested for proper operation before being sent out.

### **Need Help?**

If you run into any problems during the installation of the LC27 v3 please contact us directly at tech support at (305) 417-9241 or via email at [support@ricmotech.com](mailto:support@ricmotech.com). Due to constant improvements to our products, the product you receive may vary slightly from the product shown in the illustrations.

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