GB2.1 Installation

Tools Needed: #2 Flathead screwdriver, #2 Philips screwdriver, hammer, 10mm and 13mm wrench, pair of Vise-grips and a pair of pliers, and a 5/8 or comparable socket

Parts needed-

Remove the case (see Case Removal PDF if you need assistance)

Check your motor for compatibility. The GB2.1 DOES NOT fit units equipped with a Johnson 971 or Powertek motor. The GB2.1 kit fits the motor DC771, which was used in the Barista, Maestro, and Maestro Plus models.
Remove the safety micro switch by pulling it directly up and off the posts
Remove the adjustment ring by prying with a flat blade screwdriver as pictured at 11, 3 and 7 o’clock (front of the grinder facing you is 6 o clock). The ticker will want to spring out, do not lose this part.

Remove the gearbox (3 Phillips screws)

Unplug the motor
OLDER MODELS will have spade clips on the bottom of the motor. The black wire goes to the spade clip that has a dog leg on the plastic. When assembled, the burr will rotate CLOCKWISE.

Remove the motor plate (4 Phillips screws) and grounds chute/gasket- the chute can be pulled off.
Grab the neck of the gear with pliers as pictured to hold it from spinning, and use a 10mm wrench to turn the nut CLOCKWISE for it is a left-hand thread.

Next, we need to punch the drive shaft through the gear. Place the gearbox upside down, we are going to hammer on the driveshaft and use a screwdriver or punch to drive it the rest of the way through. We need a spot for the burr to fall while keeping the gearbox supported. Supporting methods could be a table vice, two 2x4 fragments side by side, an empty Nalgene or a Duct tape roll.
Now the gearbox is fully disassembled. Below is the picture of the items in the order that they are to be aligned, with the top being on the left and the bottom on the right. NOTE- Your grinder may have a different number of washers than what we have pictured. YOU WILL BE REUSING SOME OR ALL OF YOUR ORIGINAL WASHERS, the kit comes with spares to achieve proper shimming.

Lock on to the cone burr with Vise grips, and use the other pliers to grab the hexagonal portion of the shaft. Rotate it CLOCKWISE to remove it. Thread on COUNTERCLOCKWISE and tighten the new driveshaft, until the shaft is flush with the top of the burr.
There are three types of washers (also called shims).

There are thin shims that are easily bendable between your fingers- 0.25MM.

There are medium shims that appear to be thin but are not bendable between your fingers-0.5mm.

There are thick shims that are much thicker- 1.5MM.

If you want a full range of grind, add washers to reach a total thickness of 2.5MM underneath the paddle wheel.

If you grind explicitly for Press or Pourover and have zero intentions of doing a fine grind (such as espresso grinding for a pressurized porta filter), add washers to reach a total thickness of 2.25MM underneath the paddle wheel. Slide the paddle wheel on the drive shaft so that the two male tabs set in to the female slots. Slide on your desired shims.
Place the burr/driveshaft/paddle/washer upside down on the work surface, and slide on the gearbox.
Next, slide on some washers.

If you used 2.5mm under the paddle wheel, slide on a total thickness of 1.25MM between the gearbox housing and the new gear.

If you used 2.25mm under the paddle wheel, slide on a total thickness of 1.5MM between the gearbox housing and the new gear.

The raised neck of the plastic gear faces away from the burr. Press on the gear using your thumbs. The gear should be flush with the hexagonal surface of the driveshaft. Put on the lock washer and nut, hold the gear from rotating with your thumb and tighten the 13mm nut CLOCKWISE until snug (about 5 lbs torque). When the nut is installed, there should be no vertical play in the burr, but it should be easy to spin by hand.
Lay down a bead of super glue or something equitable on the flange of the copper bushing.

Push the copper bushing onto your motor plate quickly before the glue dries, the flange will be on the same side of the motor plate as the helical drive shaft.

Install the gearbox to the chassis with the three Philips screws. These only need to be finger tight, **DO NOT OVERTIGHTEN**.
Replace your adjustment ring. Make sure the black plastic ticker is sitting in the column with the pointed side facing up. On the bottom side of the adjustment ring there is serrations 180 degrees around the ring- the detent needs to be pressing up against these detents. Press down evenly on the adjustment ring, snapping it back into place. Rotate the adjustment ring fully counterclockwise until it stops, it will make a clicking noise if installed properly. Place the micro switch back onto its’ two posts. Re-assemble and you are ready to grind.