R2C Rebuild

“I took it apart... how do I get it back together?”
This is a tutorial using Zipp R2C shifters as an example. These instructions apply universally to all R2C shift levers.
Remove the 4mm housing screw, and remove the shift lever assembly from the shifter housing.
Carefully loosen the 5mm angle adjust screw.
The shift lever assembly will split into 2 halves.
This is the exploded view of the lever half of the shift lever assembly.
Install the internal spring, which must be preloaded. The bent ends of the spring cross over one another, and sit flush in the upper parallel grooves. Having patience and a pair of needle nose pliers helps to properly set the spring in place. Push the spring sides down onto the inner shaft to keep it in place.
Install the pawl spring into the grooves shown. The bent middle section of the pawl spring sits on the raised groove at the 12-o-clock from shift lever position.
The ends of the pawl springs will sit directly underneath each pawl.
Notice the lip on the plate.
Notice the lip on the plate. The plate lip needs to sit between the parallel ends of the first installed spring. The pawls will sit open on the bottom lip of the plate.
Here’s the exploded view of the indicator half of the shift lever assembly.
Wave washer installs first, under the stop plate. The shift stop plate will sit flat in the shift indicator housing, on top of the wave washer. The plate can fit inside the housing in multiple directions, but only one way will it sit securely. If you install the plate (with the nubs side up) and there is a lot of play or movement, it is not installed correctly. Turn the plate and re-install until it fits securely in the 3 housing tabs. One of the 3 tabs is larger than the others- fits like a cassette on a splined freehub body.
Hand install the indicator housing bolt/spring spline (one unit).
At this point, be sure that your indicator housing mark lines up with the shifter housing indicator. The bolt mates directionally to the shifter housing.
Install the 3 shift actuator springs (the small G shaped springs). The end of the spring fits into a small hole. Push each spring down so that it’s flush with the housing.
After the 3 springs are installed, flip the piece over.
This is what we have left to install on the indicator housing.
Install the ratchet wheel. The center will fit into 4 grooves. Then install the plastic washer.
Here’s what we have left:
Next step is to mate the shift lever assembly to the shift indicator housing.
Install the 5mm adjuster screw:
The red anodized washer goes on the screw first, then the wavy washer. Push the screw in through the shifter body, then thread it into the metal plate. Screw this in just enough so the bolt sits flush with the plate face. At this point, hold the 5mm adjuster screw, pulling it outboard so that the metal plate sits the farthest possible inboard. Mate this half of the shifter to the shifter indicator housing. Thread in the 5mm adjuster screw fully into the unit, mating the 2 pieces together.
Next step is to mate the shift lever assembly to the shifter housing. Be sure that the nut end of the shifter unit is installed flush into the shifter housing before tightening the 4mm bolt. Make sure bolt is tightened fully.
If you have followed the assembly directions, and no internal parts were damaged or missing, you should have a fully functioning R2C shifter!
Fin.