BDL Instruction installation instructions:

- **Front suspension travel sensor**

The front travel sensor consists of a cylindrical body and telescopic rod. Using supplied brackets, you must fix the sensor body to the fork bottom part, then the end of telescopic rod to the crown. The arrangement must be such that the rod is parallel to the fork and full suspension travel is accommodated by the sensor, as shown in this picture.

- Sensor body bracket installation:

- Use at least one layer of electrical tape where you want to install the bracket on the fork.
- Depending on the diameter of your fork bottom, you may need to use a few layers of electrical tape and/or the supplied bracket shims.

- Sensor rod bracket installation:

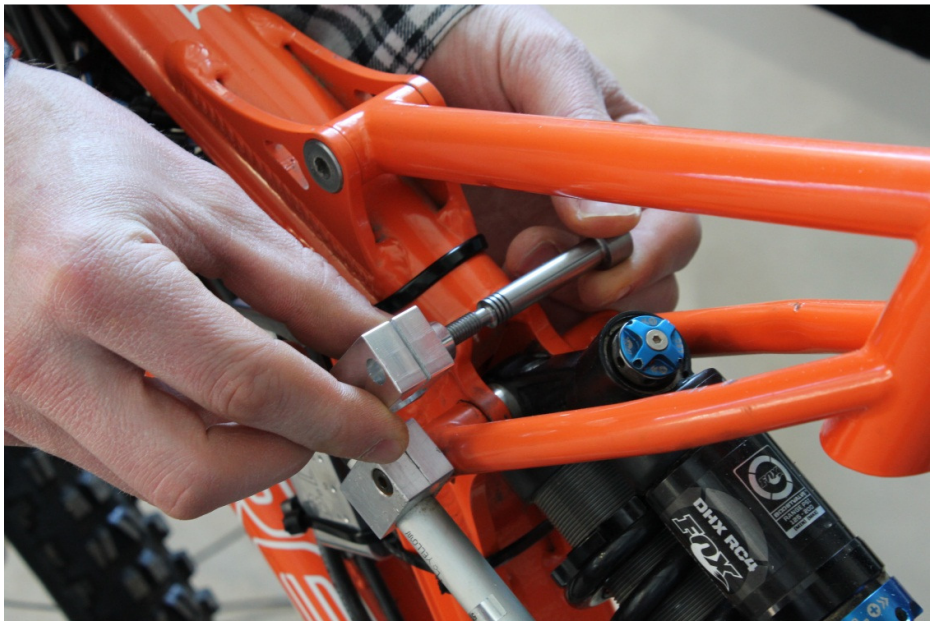
  - Use at least one layer of electrical tape where you will install the bracket on the crown.
  - Depending on the diameter of the crown, you may need to use a few layers of electrical tape and/or the supplied bracket shims.
- Although the upper mounting bracket permits some lateral play, it is important to align the two brackets so that the sensor is parallel to the fork as much as possible.
- **IMPORTANT**: check that the upper mounting bracket does not impede steering play. After assembly, verify that it clears the frame even for full left and right steering operation.

- **<u>Rear suspension travel sensor</u>**

Like the front travel sensor, the rear travel sensor also consists of a cylindrical body and telescopic rod. Using supplied brackets, you must fix the sensor body to shock upper mounting point, and the end of telescopic rod to the shock lower mounting point. The picture below shows a suitable arrangement:

As was the case with the front travel sensor, the mounting must be such that the rod is parallel to the shock and full suspension travel is accommodated by the sensor.

- Sensor body bracket installation:



  - If possible, fix the sensor body bracket to the shock upper pivot point by using a bolt with a longer thread section as in the photo above. You may need to drill and thread the bracket to match your bolt.
  - If the above is not possible, you will need to find a way to attach the sensor body bracket to the frame in the area of the shock upper pivot point or to the seat area. Ensure there is at least some degree of rotation possible around the attachment point.

- Sensor rod bracket installation:

  - The preferred arrangement for the rod bracket is to attach it to the shock lower pivot point with a bolt having a longer thread section, as in the photo above. Again, you will need to drill and to thread your bracket to match your bolt.

- If you use the pivot bolt attachment as we advocate, make sure that the sensor is parallel to the rear shock as much as possible. Otherwise, ensure that mounting points are flexible enough that the rear suspension total travel does not result in too much stress on the sensor rod.
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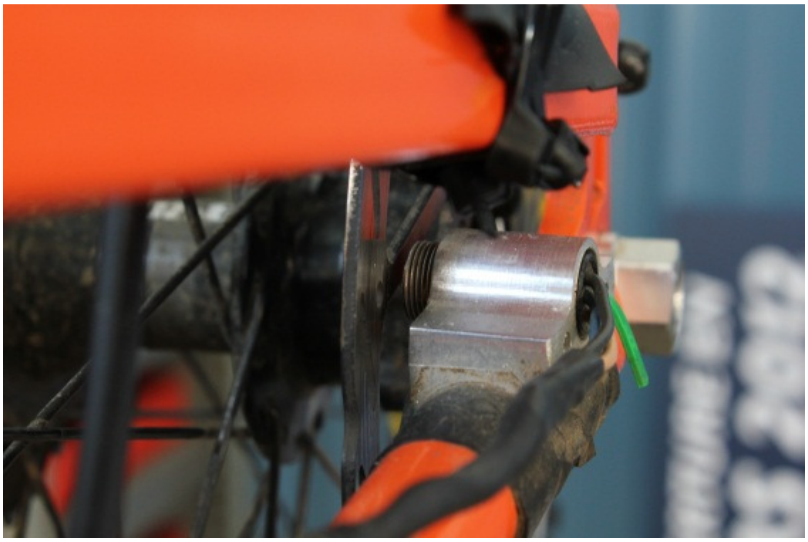
- **<u>Front wheel speed sensor installation:</u>**

The front wheel speed sensor must be fixed to the fork bottom such that the disc brake spokes pass close to its face when the wheel spins. The picture below illustrates the proper arrangement.

- Put electrical tape where you want to install the bracket on the fork. Depending on your fork diameter, use one or more layers of tape such that the bracket adapts comfortably to the fork. 3M Dual Lock Tape can also be used if preferred.

- Solidly attach the bracket to the fork with two tie raps.
- The sensor needs to pass over a metal part with a gap of around 2 mm. The best way is to install the sensor to detect each spoke of the disk brake. With some Shimano disks you may need to place the sensor to detect the metal rivets instead.
- **IMPORTANT**: install the wheel speed sensor in front of the fork. Installing it on the back side of the fork represents a hazard whereby, due to vibration and loosening, the sensor could be trapped between disk and fork. This in turn could result in possible wheel lock and damage to disk and/or fork.

- <u>Rear wheel speed sensor:</u>



- Put electrical tape where you want to install the bracket on the swingarm.
- The bracket has a shape to wed the shape of the frame. To match the diameter of your frame tube use more or less tape you can also use the 3M Dual Lock Tape
- Consider the supplied bracket as a starting point to fix your sensor. You may need to cut or machine the bracket if your swingarm has a shape too different from what the supplied bracket offers.
- Solidly attach the bracket and the sensor to the swingarm with two tie raps.

- The sensor needs to pass over a metal part with a gap of around 2 mm. The best way is to install the sensor to detect each spoke of the disk brake. With some Shimano disks you may need to place the sensor to detect the metal rivets.

- **BDL module:** You can install the BDL Module anywhere on the frame, according to your preferences. We suggest fixing it to the vertical member inside the frame triangle. Even though the 3 axis G force sensor is inside the BDL Module, it can be fixed in any orientation because there will be a G force sensor calibration after the installation (see Kick Start Guide).

- To get smoother G force readings with less spiky noise, it is suggested to have some kind of damping between the frame and module. A good way to achieve that is to attach rubber tubes to the BDL module, then attach those tubes to the frame.