

# ***The Fischer A.G. 127-01 Torque Sensing Bottom Bracket***

Installation Notes – 1.0a

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Thank you for purchasing the Fischer A.G. 127-01 torque sensing bottom bracket. This is a short set of notes on the physical installation of this product, and the set up with a version 3 Cycle Analyst.

## 1 Recommended Tools

- Center punch
- Drill and drill bit to make a 10mm exit hole
- Splined bottom bracket removal tool
- Adjustable wrench
- Torque wrench for 25-30Nm
- Hammer or mallet
- Silicone sealant

## 2 Installation

1. Drill a 10mm or 3/8" hole in the center of the lowest point of the bottom bracket shell for the sensor cable to exit. Ensure the hole is properly deburred to prevent damage to the cable.

*Tip: Use a lower drill RPM when drilling into steel frames.*



Before proceeding with the installation, please note the locations of the left ('L') and right ('R') sides of the unit:



The RH bearing cup goes on the left side, and the LH bearing cup goes on the right side. The LH and RH refer to the thread directions.

Also observe that the right ('LH') bearing cup has a bobbin which snaps to the body of the bottom bracket.

**IMPORTANT:** Installing cups on wrong side will damage the threads on the cups and may also damage the unit.

2. Screw the right chainring ("LH") side bearing cup into the bottom bracket shell.



Note that this is a left handed thread, so it turns counter-clockwise.

3. Install the sensor by first inserting the cable through the hole you have made in the bottom bracket shell. Then slide the unit in place as you gently pull the cable out.



4. Use the supplied piece of tube and a small hammer or mallet to gently tap the bottom bracket unit in place so that it snaps into the bobbin of the right hand cup.

**Do not force or strike the axle itself as this can damage the unit!**

5. Once in place, screw on the left side bearing cup. Check that everything is seated properly and then tighten the cups to 30N/m (about 9kg of force on a 30cm long wrench) using the appropriate bottom bracket tool.



6. Your torque sensing bottom bracket is now in place and ready for the re-assembly of the crank arms and chain ring.

### 3 Cycle Analyst Settings

#### 3.1 PAS Device Setup

|                        |                              |
|------------------------|------------------------------|
| Device sensor type     | Custom Trq                   |
| PAS poles              | 18 Poles                     |
| PAS signal type        | 2 wire                       |
| PAS direction polarity | 5V = FWD                     |
| Torque scale           | 50 Nm/V                      |
| Zero torque offset     | ~0.5V nominal (0.6V typical) |

#### 3.2 PAS Configuration Setup

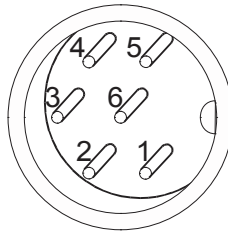
Values for typical use are suggested.

|                         |              |
|-------------------------|--------------|
| PAS assist mode         | Torque       |
| Assist start level      | 0 – 100W     |
| Assist scale factor     | 2 – 4 Times  |
| Torque assist averaging | 18 Poles     |
| Start threshold         | 0.3 sec/pole |
| Stop threshold          | 0.2 sec/pole |

## 4 Specifications

|                      |                               |
|----------------------|-------------------------------|
| Cable length         | 25cm                          |
| Adapter Cable length | 70cm                          |
| Bottom bracket model | 68mm BB, 127mm Spindle Length |
| Connector from unit  | 6-Pin HiGo Male Connector     |

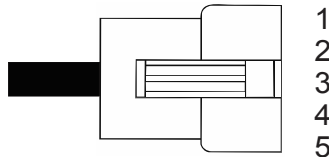
- 1 = Not Used
- 2 = Speed 1
- 3 = Speed 2
- 4 = Gnd
- 5 = VIN (5.3-18V)
- 6 = Torque



Adapter Connector to CA3

5-Pin Male JST SM

- 1 = VIN (5.3-18V)
- 2 = Gnd
- 3 = Speed 2
- 4 = Speed 1
- 5 = Torque



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