The crank mount and trigger wheel assembly should be fitted so that the 9th tooth of the trigger wheel is in line with the TDC timing mark and the crank sensor (after the missing tooth, in the direction of crank rotation. This corresponds to 90 degrees as the teeth are 10 degrees apart). The trigger wheel is marked with a dot on the 9th tooth. See picture below.

1. Fit the OEM BMW timing marked spacer and rotate the engine to TDC, then fit the crank mount assembly onto the crankshaft with the 3 M4 screws. A gentle tap with a soft mallet will ensure it is seated, as the small screws don’t have much strength to pull it down and the crank mount must be square.

2. Fit the trigger wheel with the M6 screw, ensure that the 9th tooth (with the dot punched near it) is in the TDC position relative to the timing mark on the OEM spacer.

3. Install the crankshaft position sensor.

4. Ensure that the crankshaft position sensor is aligned with the trigger wheel and set the gap between the crankshaft sensor and the trigger wheel teeth to within 0.10-0.60mm, using washers between the sensor and bracket to adjust the gap if required. The gap should ideally be around 0.30mm, if it is too large the ecu will not be able to count the teeth correctly.

Rotate the engine slowly to check the gap between the sensor and the teeth is within tolerance on ALL teeth, if it is not, increase or decrease the amount of washers on the sensor until all teeth are within spec. In rare cases the 4 mounting holes can be opened up to ensure the trigger wheel is concentric to the sensor.

Confirmation that this has been setup correctly is checked with the SXTune software under: Engine Calibration/Sensor setup/digital input setup/crank sensor synchronisation.

Further details are in the fitting instructions document.

