Technical Service Bulletin

Cobra Motorcycle Mfg.
240 Uran street
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TSB0911 V3 CFD (Cobra Frictional Drive)

The V3 CFD is finally available. Because of different geometry in the engine cases it is being sold in three different configurations depending on the model year and date built.

For all King and JR engines built between 2006 and 2010, and all Quad engines built through 2011 (engine serial numbers up through 0999) will use a kit with two spacers and thin (2mm) friction discs. Kit EAMU0014

Early Model Year 2011 50cc engines (King VIN 11149 or lower, JR VIN 11099 or lower) will use a kit with two different thickness friction discs (one 3mm and one 2mm) and a single spacer. Kit EAMU0012

Model Year 2011 50cc engines (King VIN 11150 or higher, JR VIN 11100 or higher, quad engine serial number 1000 or higher) will use a kit with two thick (3mm) friction discs and no spacer. Kit EAMU0013.

Kit EAMU0014	**Kit EAMU0012**	**Kit EAMU0013**
2006 through 2010	**Early 2011**	**Late 2011**
ECMU0248 SHIM	ECMU0248 (1) SHIM	
ECMU0040 SHIM		
ECMU01306 HUB	ECMU0306 HUB	ECMU0306 HUB
ECMU0239 FRICTION THIN	ECMU0249 FRICTION THICK	ECMU0249 FRICTION THICK
ECMU0301 GEAR	ECMUO301 GEAR	ECMU0301 GEAR
ECMU0315 BUSHING 5.5 MM	ECMU0315 BUSHING 5.5 MM	ECMU0305 BUSHING 7MM
ECMU0239 FRICTION THIN	ECMU0239 FRICTION THIN	ECMU0249 FRICTION THICK
ECMU0306 HUB	ECMU0306 HUB	ECMU0306 HUB
ECMU0308 BELLEVILLE	ECMU0308 BELLEVILLE	ECMU0308 BELLEVILLE
ECMU0307 NUT	ECMU0307 NUT	ECMU0307 NUT
HCCP0002 COTTER PIN	HCCP0002 COTTER PIN	HCCP0002 COTTER PIN
***ECMU0100 SHAFT WITH PIN HOLE**		
***EAMU0001 KICK GEAR SHORTENED**		

***Parts not included in kit**

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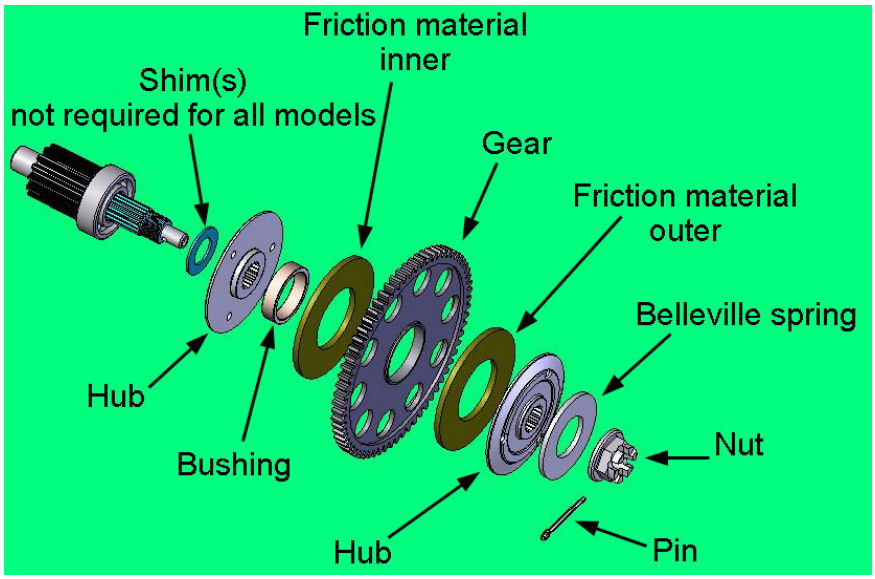
Parts breakdown



Assembly Instructions

	Kit EAMU0014	Kit EAMU0012	Kit EAMU0013
	2006 through 2010	**Early 2011**	**Late 2011**
1	Drain the oil, remove the clutch cover, clutch, and old CFD	Drain the oil, remove the clutch cover, clutch, and old CFD	Drain the oil, remove the clutch cover, clutch, and old CFD
2	Install **two shims** ECMU0248 and ECMU0040	Install **one shim** ECMU0248	**No shims** to install
3	Install one of the hubs (flat knurled side facing out) DOES NOT MATTER WHICH ONE	Install one hub (flat knurled side facing out)	Install one hub (flat knurled side facing out)
4	Install the **5.5mm** bushing (it will pilot on the hub)	Install the **5.5mm** bushing (it will pilot on the hub)	Install the **7mm** bushing (it will pilot on the hub)
5	Install inside friction material piloting on the bushing (**thin** ECMU0239)	Install inside friction material piloting on the bushing (**thick** ECMU0249)	Install inside friction material piloting on the bushing (**thick** ECMU0249)
6	Install the gear (there is a lip on the gear that must go inside the friction material previously installed)	Install the gear (there is a lip on the gear that must go inside the friction material previously installed)	Install the gear (there is a lip on the gear that must go inside the friction material previously installed)
7	Install the outer friction material (**thin** ECMU0239) make sure the friction material pilots on the gear lip	Install the outer friction material (**thin** ECMU0239) make sure the friction material pilots on the gear lip	Install the outer friction material (**thick** ECMU0249) make sure the friction material pilots on the gear lip

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8	Install the other hub (flat knurled side facing the friction material)	Install the other hub (flat knurled side facing the friction material)	Install the other hub (flat knurled side facing the friction material)
9	Install the Belleville spring	Install the Belleville spring	Install the Belleville spring
10	Install the left hand thread castle nut and torque to 25 Nm (18 ft-lb)	Install the left hand thread castle nut and torque to 25 Nm (18 ft-lb)	Install the left hand thread castle nut and torque to 25 Nm (18 ft-lb)
CAUTION: Torque values greater than this at this point will damage the hubs.			
11	Now continue to tighten the nut just enough to align the hole in the shaft with the next slot in the castle nut	Now continue to tighten the nut just enough to align the hole in the shaft with the next slot in the castle nut	Now continue to tighten the nut just enough to align the hole in the shaft with the next slot in the castle nut
12	Install cotter pin and bend over the arms so that they wrap around the nut	Install cotter pin and bend over the arms so that they wrap around the nut	Install cotter pin and bend over the arms so that they wrap around the nut

To check slip torque

1. Install the CFD gear stop tool (EAMU0004)
2. Install the Sprocket Socket CFD torque checking tool (MCMUTL15) on the sprocket and secure with the supplied screw and ensure that the tool is completely up against the sprocket
3. Verify with a torque wrench applied to the Sprocket Socket that the V3 CFD does not slip below 81 Nm (60 ft-lb) in either direction.

CAUTION:
Do not check earlier versions of the CFD with this method! The torque valves required at the sprocket would be much higher

HINT:
This V3 CFD torque checking method is possible do to with the chain on. Just put the bike on a stand so that the rear wheel can turn freely.

HINT:
The CFD hubs can be removed with the universal puller (MCMUTL70) that is used to remove the clutch arbor.