



**BILLET TIMING COVER to suit V6
& SMALL BLOCK CHEV 90 Deg**
Part No: AF64-4350, AF64-4350BLK

WARNING! These instructions must be read and fully understood before beginning installation. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury or death. If these instructions are not fully understood installation should not be attempted.

Congratulations on purchasing the finest Billet Timing Cover available for your V6 and Small Block Chevy 90 Deg. This timing cover kit solves the cam walk problems known to the Chevy Engine. Aeroflow's Billet Timing Cover is a strong, lightweight, two piece billet aluminium with a built in adjustable thrust button. This timing cover will fit behind a stock short water pump without having to space the water pump or pulleys.

Instructions:

1. To be sure the block side of the gear is smooth, Use 600 grit sand paper on a flat surface to polish the crank gear also use a small flat block to assist with sanding smooth the front of the engine block. Many engine builders machine the back of the timing gear and install a wear plate. This step is not mandatory but is widely accepted practice of all top engine builders.

2. Install the block spacer ring using the 2 x 1/4"x20 Allen head bolts and gaskets supplied. We recommend setting the end play before installing the timing chain. Install the cam gear on the cam with wear plate installed. Install the thrust button in the cam with 1 x .010" shim between the cam and button. Install the front cover using all 8 bolts and tighten firmly. Do NOT use an oil sealer at this point.

Measure cam end play with a dial indicator through the checking plug in the front cover, this step is critical on hydraulic and mechanical roller camshafts. Using a screw driver through a lifter bore, move the cam back and forth to check end play. Recommended clearance is .001" to .005". Install proper shims between bearing and end of camshaft to correct end play. One important thing is to be sure and **TIGHTEN ALL 8 BOLTS** on the cover each time you check end play.

3. Before removing cam gear take a straight edge and check alignment between top and bottom gear. Gear alignment should be done within .005". If correction needs to be made make necessary correction on the crank gear if possible. Install timing chain and thrust button with correct shims. Install steel cam lock plate with the Allen head bolts furnished. Use a small amount of Loctite on bolts. Bend tabs on cam lock plate up against bolt heads. Clean both the block ring and timing cover surface with brake / carb cleaner. Lube thrust button. Apply a thin layer of silicon to the cover before installing.

4. **TIMING POINTER** - The stock timing pointer that goes with the balancer can be used. The tab will now stick out over the balancer and can be trimmed with snips if you desire. We recommend using Aeroflow's matching Billet timing pointer to complete the outstanding finish.

5. **WATER PUMP INSTALLATION** - The 6 x 1/4"x20 bolts that hold the plate on the back of the pump **MUST BE REPLACED** with 6 button head bolts furnished in the kit. The stock bolts contact the cover and could cause damage to the cam gear and block. Install the water pump and check for clearance between the timing cover. On some aluminium water pumps it may be necessary to grind material from the backside of the pump. Make sure there is some clearance between the water pump plate bolts and the front cover.

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