



# TECHNICAL SERVICE BULLETIN

## Tool Needed For Replacing Timing Chain Driven Water Pump on 2.0L, 2.2L and 2.4

**GM Engine:** Buick (2011-10); Chevrolet (2012-02); Chevrolet Truck (2012-10); GMC Truck (2012-10); Oldsmobile (2004-02); Pontiac (2010-02); Saab (2011-03); Saturn (2010-00)

**CARTER PART NUMBER: W9228M**

### BEFORE WATER PUMP REMOVAL:

Replacing this water pump requires a special tool to secure the water pump sprocket. Failure to do so will result in a whining noise from the front of the engine, an engine vibration or significant engine damage. If the sprocket is not secured, the balance shaft weights may rotate the chain after sprocket is unbolted, or the balance shaft tensioner will ratchet out resulting in a tight chain and overloaded components.

### INSTALLATION:

Remove the water pump access plate from the timing cover and install J 43651 Water Pump Sprocket Holding Tool; or equivalent. Follow manufacturer's water pump installation procedure.

### CORRECTING INSTALLATION ERROR:

If tool was not used, it will be necessary to remove the front cover and reset the balance shaft tensioner by following the manufacturer's service procedure. Failure to follow these installation guidelines will void product warranty.

## Water Pump Sprocket Holding Tool

Top View



Bottom View

