

**Recommended Installation Procedure** (05 FEBRUARY 14)  
Timing Belt Tensioner (979012) FORD and Others 1.2/1.4/1.6L Sigma Engine

**Caution:**

**The procedure to access the timing belt tensioner and all other timing driven components must be done according to the car manufacturer's guidelines.**

**Engine temperature:**

1. The tensioner must be installed on the engine at room temperature by allowing the engine and tensioner to stabilize to the same relative ambient temperature for proper belt tension adjustment. **Do not attempt to install a tensioner onto a hot engine.** (For reference, the minimum engine cooling period is 4 hours in tropical climatic regions).
2. Disconnect the battery and install the battery memory saver.

**Crank and Camshaft TDC position setup:**

Refer to car Manufacturer's guideline to access to the Timing Drive Components.

3. Install the Crankshaft Top Dead Center (TDC) Timing Pin (Ref. Ford # 303-748) and rotate the crankshaft slowly clockwise until the crankshaft balance weight is up against the Crankshaft TDC Timing Pin. The engine is now at TDC. Follow car Manufacturer's guidelines.

Install the Camshaft Sprocket Locking Tool (Ref. Ford # 303-1097) ensuring that it is correctly orientated. Follow car Manufacturer's guidelines.

**Caution:**

The timing belt tensioner spring is under load. Extra care must be taken at all times when handling the tensioner. Failure to follow this instruction may result in personal injury.

**Timing Belt and Timing Belt Tensioner removal**

Once the procedure for setting the TDC is completed according to car Manufacturer's guidelines:

4. Rotate the Timing Belt Tensioner clockwise. Align the 2 holes on the tensioner and install the holding pin.
5. Remove the timing belt, the tensioner's mounting bolt and the old tensioner. It is recommended to replace the timing belt during the replacement of the tensioner.

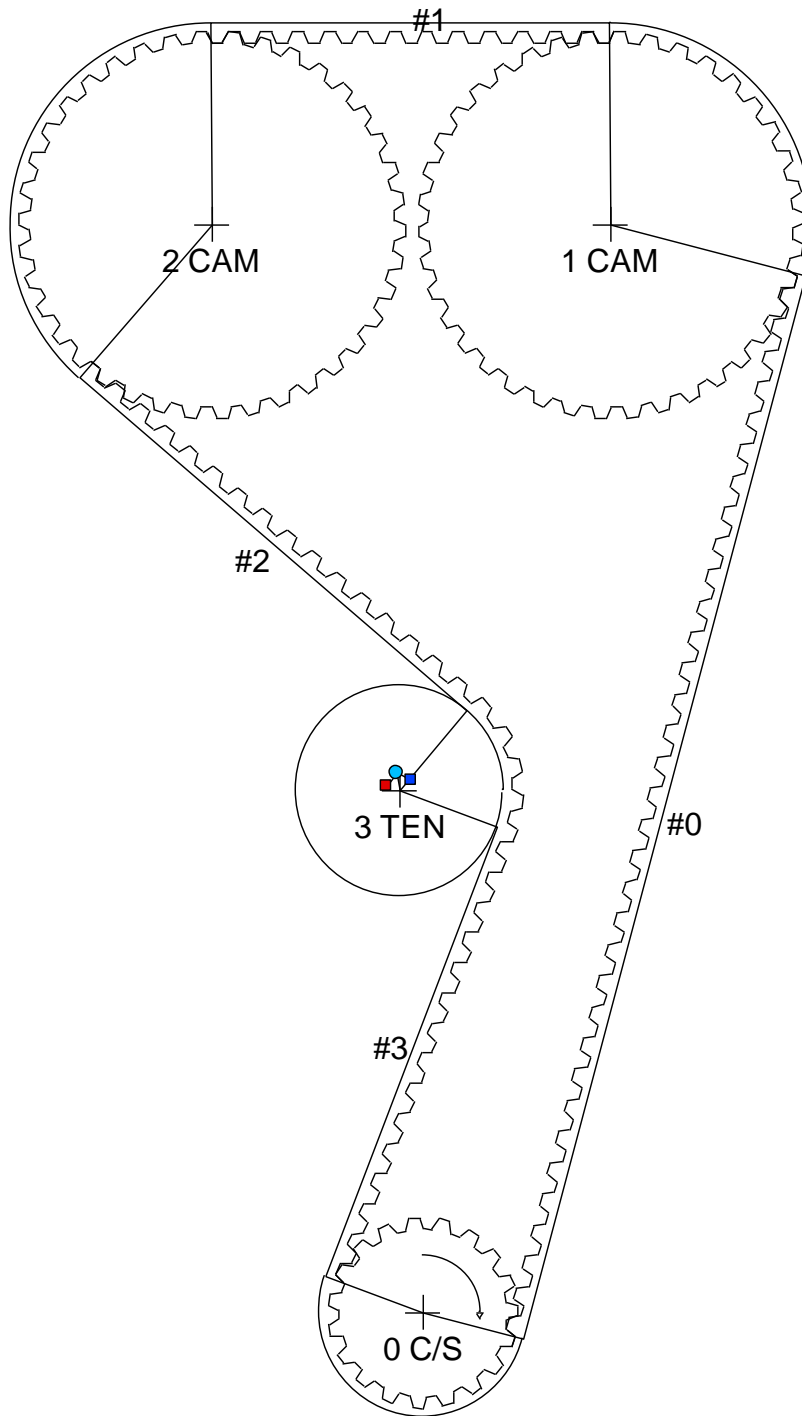
**Initial Setup of the Timing Belt Tensioner**

6. Install the new tensioner (Fig. 2) ensuring that the anti-rotation Index Tab of the base plate is engaged in the slot of the Water Pump bracket.

**Installation of the Timing Belt Tensioner and the Belt**

7. Install the timing belt being careful to engage the appropriate teeth of all the corresponding sprockets as per drive layout (Fig.1) starting with the camshaft (#2) and moving to the camshaft (#1), crankshaft (#0) and tensioner (#3) being last component.
8. Torque the tensioner mounting bolt to **24~26 Nm.**  
**Caution: Do not over-torque the Mounting Nut.**
9. Remove the tensioner Installation Pin.
10. Remove Crankshaft TDC Timing Pin and Camshaft Sprocket Locking Tool.
11. Reinstall all components that were removed to access the timing drive.
12. Reconnect the battery and remove the memory saver.

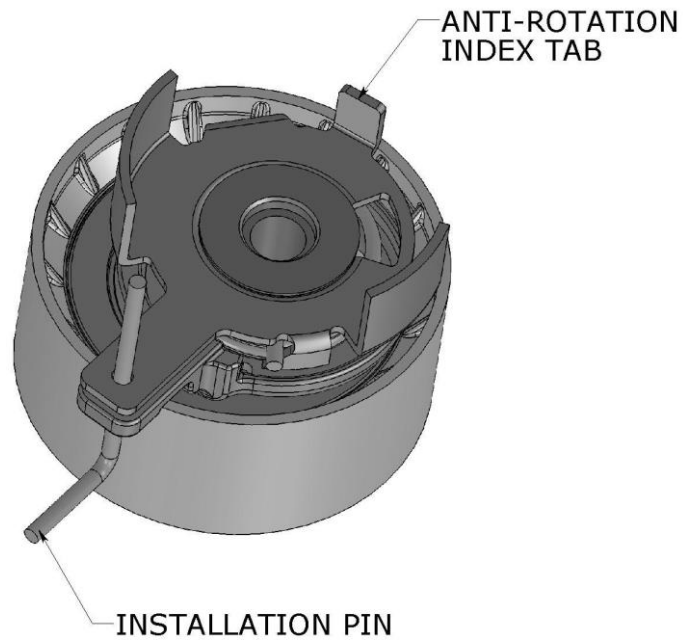
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0: Crankshaft, 1: Camshaft, 2: Camshaft, 3: Timing Belt Tensioner

**Figure 1: Timing Drive Layout**

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**Figure 2: Timing Belt Tensioner**