

2001 Ford Escort ZX2 L4-2.0L DOHC VIN 3


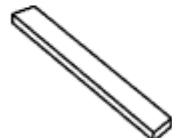
Vehicle Level → Engine, Cooling and Exhaust → Engine → Timing Belt → Service and Repair ←

Service and Repair

[Notes](#)

Timing Drive Components-Timing Belt

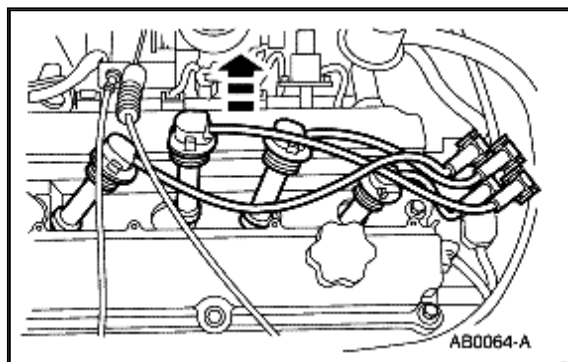
NOTE: Ford does not provide camshaft gear timing marks, or information to perform timing belt service without the special tools shown in this procedure.

Special Tool(s)	
 <p>ST1697-A</p>	<p>Crankshaft TDC Timing Peg 303-574 (T97P-6000-A)</p>
 <p>ST1903-A</p>	<p>Camshaft Alignment Timing Tool 303-465 (T94P-6256-CH)</p>

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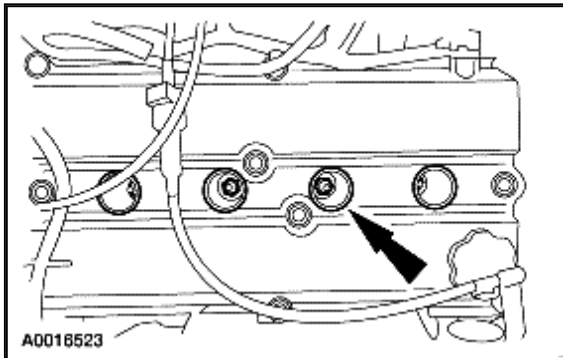
Removal



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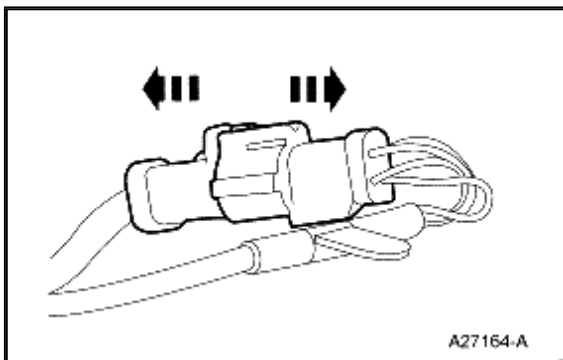
1. Grasp the [spark plug](#) boot firmly and with a twisting pulling motion, disconnect the spark plug wires from the spark plugs.



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2. **NOTE:** If an original [spark plug](#) is reused, install it in the cylinder from which it was removed. New spark plugs can be used in any cylinder. **NOTE:** Use compressed air to remove any foreign material from the [spark plug](#) well before removing the spark plugs.
3. Remove the valve cover.

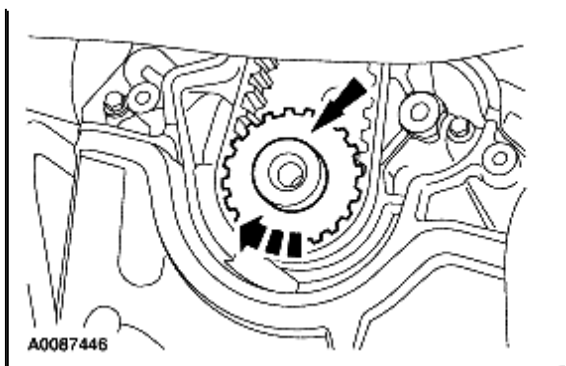


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4. Disconnect the heated oxygen sensor (HO2S) electrical connector.
5. Remove the timing belt covers.
6. Remove the catalytic converter.

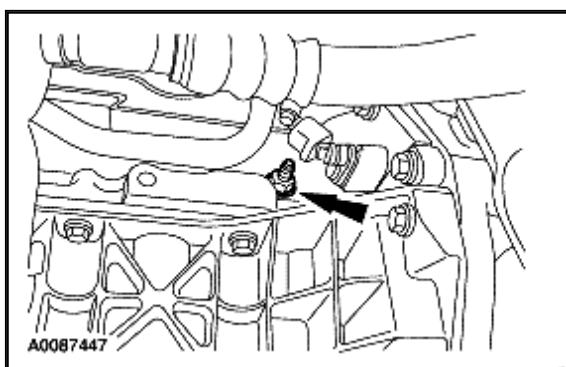




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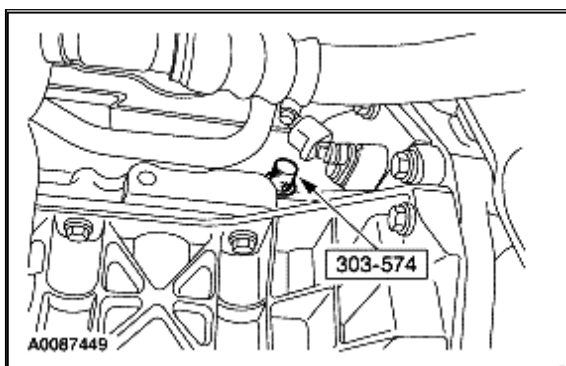
- 7. **NOTE:** Cylinder No. 1 is at top dead center (TDC) when the keyway is in the 12 o'clock position. Position cylinder No. 1 just prior to TDC.



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- 8. Remove the stud bolt.

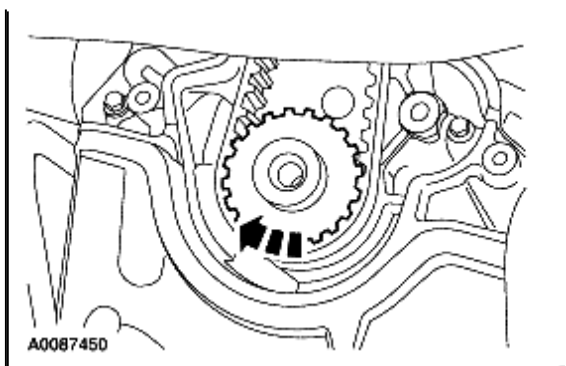


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- 9. Install the timing peg.

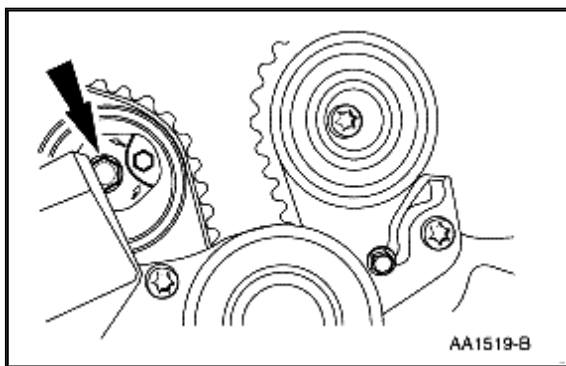




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10. Rotate the crankshaft clockwise against the timing peg.

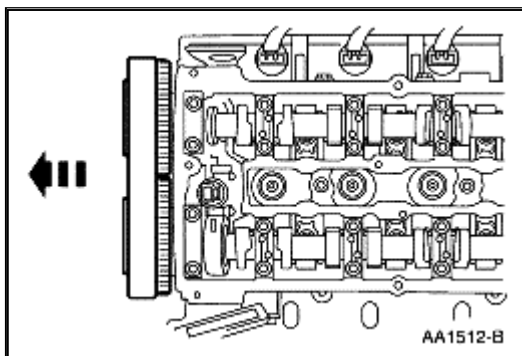


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11. **CAUTION:** If the crankshaft timing belt is to be reused, mark the direction of the camshaft timing belt to the rotation of the camshaft prior to removal, or premature wear or failure may occur. Relieve the tension on the timing belt tensioner pulley.

- Loosen the tensioner pulley bolt.
- Release the tension on the timing belt by disconnecting the tensioner tab from the timing cover back plate.



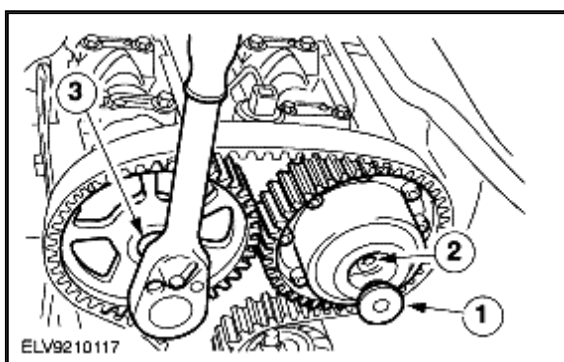
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12. Remove and discard the timing belt.

- Slide the timing belt off the camshaft sprockets and the crankshaft sprocket.

Installation

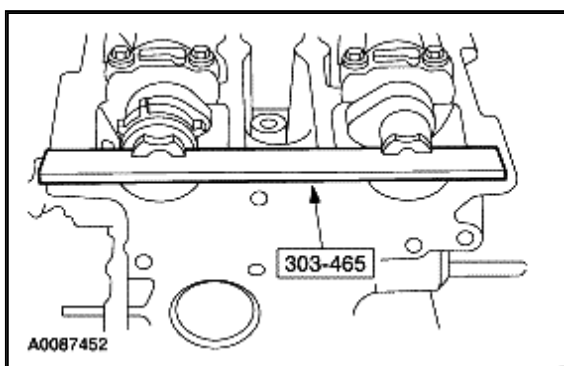


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1. **CAUTION:** The camshaft must be held stationary at the hexagons with locking pliers. Do not use the alignment tool to hold the camshaft in position or damage to the camshaft may occur. **NOTE:** To loosen the camshaft pulleys, hold the camshafts by the hexagon. Loosen the camshaft pulleys.

1. Remove the blanking plug from the exhaust camshaft pulley.
2. Loosen the exhaust camshaft pulley bolt.
3. Loosen the intake camshaft pulley bolt.

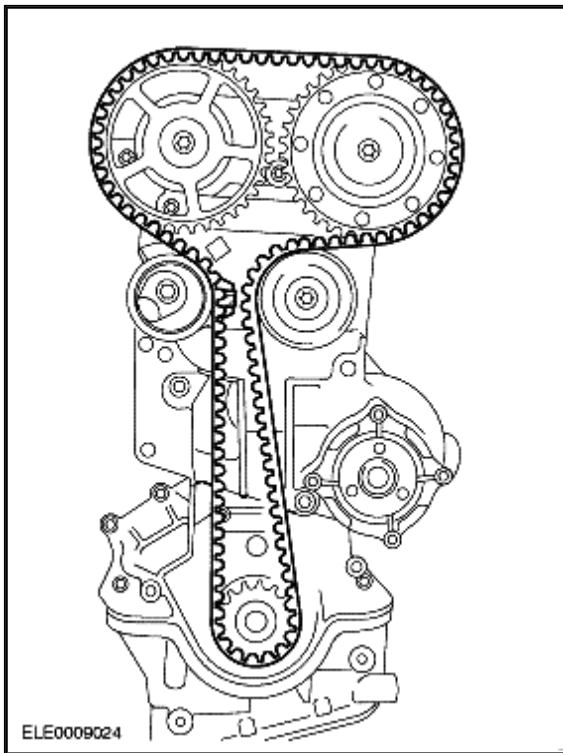


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2. **NOTE:** Rotate the camshafts clockwise as necessary. Install the camshaft alignment timing tool on the back of the camshafts.
3. **NOTE:** Cylinder No. 1 is at top dead center (TDC) when the keyway is in the 12 o'clock position. Confirm the crankshaft position is at the TDC (No. 1

cylinder) by rotating it clockwise against the alignment peg.

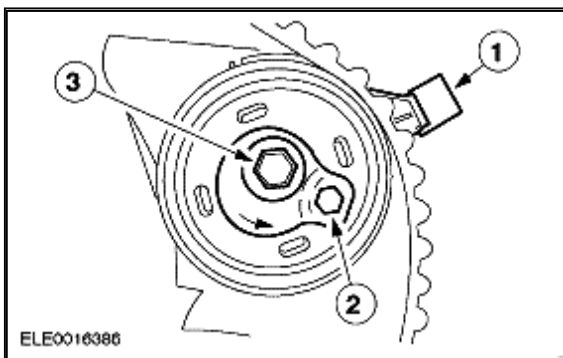


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4. **CAUTION:** Do not rotate the crankshaft; as necessary check that it is still resting against the timing pin. **NOTE:** The lug of the belt tensioner should not be hooked in the sheet metal cover during timing belt installation. Position a new timing belt in place.

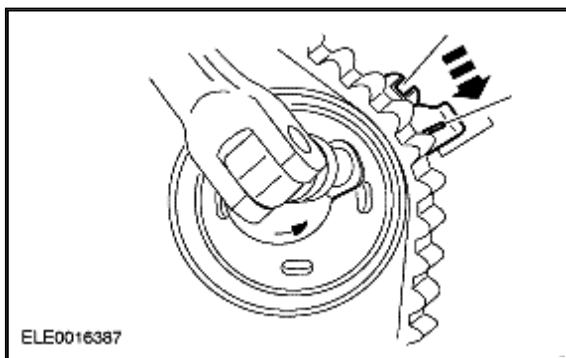
- Starting from the crankshaft timing belt pulley and working counterclockwise, position the timing belt in place while keeping it under tension.



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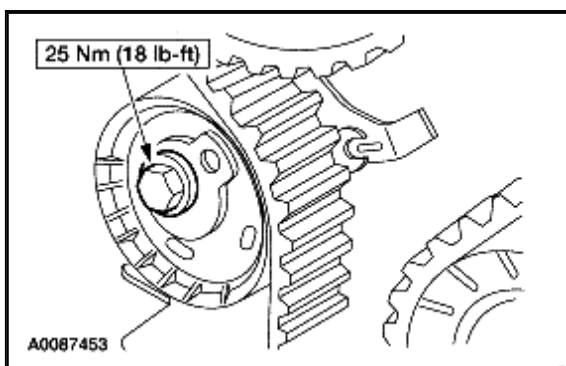
5. **NOTE:** Incorrect timing belt tension will cause incorrect valve timing. Pre-tension the timing belt.
 1. Rotate the tensioner locating tab counterclockwise and insert the locating tab into the slot in the rear timing cover.
 2. Position the hex key slot in the tensioner adjusting washer to the 4 o'clock position.
 3. Tighten the attaching bolt enough to seat the tensioner firmly against the rear timing cover, but still allow the tensioner adjusting washer to be rotated using a 6 mm hex key.



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6. **CAUTION:** Tension the timing belt, working counterclockwise. Using the hex key, rotate the adjusting washer counterclockwise until the notch in the pointer is centered over the index line on the locating tab (the pointer will move clockwise during adjustment).

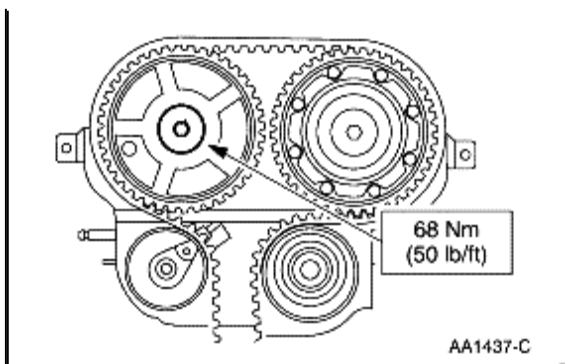


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7. While holding the adjusting washer in position, tighten the bolt.

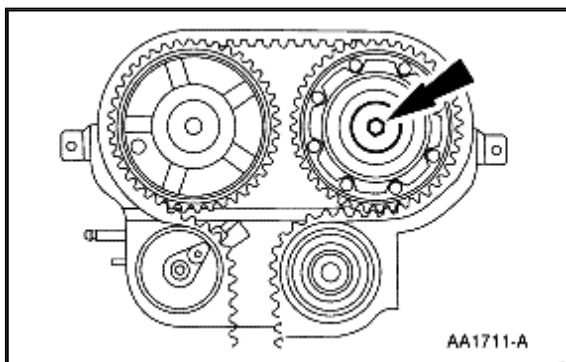




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8. **CAUTION:** The camshaft must be held stationary at the hexagons with locking pliers. Do not use the alignment tool to hold the camshaft in position or damage to the camshaft may occur. Tighten the bolt on the intake camshaft sprocket.



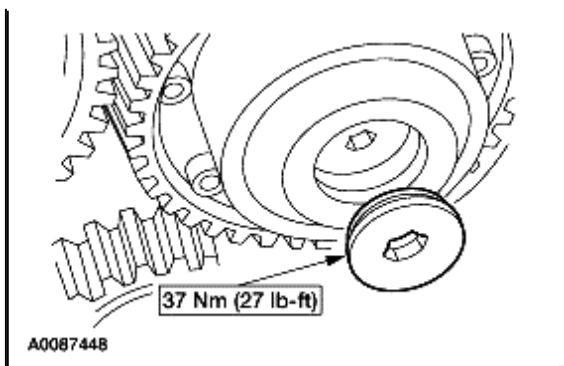
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9. **CAUTION:** The camshaft must be held stationary at the hexagons with locking pliers. Do not use the alignment tool to hold the camshaft in position or damage to the camshaft may occur. Tighten the bolt on the exhaust camshaft sprocket in three stages.

- Stage 1: Tighten the bolt to **50 Nm (36 lb-ft)**.
- Stage 2: Remove the TDC peg and the camshaft alignment timing tool.
- Stage 3: Tighten the bolt to **115-125 Nm (85-92 lb-ft)**.

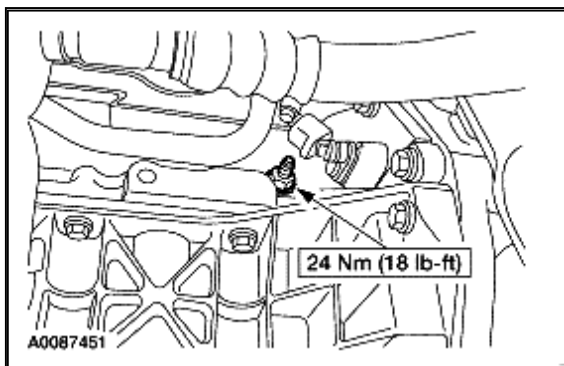




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10. **NOTE:** Install a new oil plug seal. Screw in the new oil plug on the variable camshaft timing assembly.
11. **NOTE:** Turn the engine two turns in the normal direction of rotation by the crankshaft. Check the valve timing by inserting the special tools and correct the alignment as necessary.
 - Screw in special tool 303-574 and make sure that the crankshaft is resting against the special tool.
 - Insert special tool 303-465 into the camshafts. If necessary loosen the timing pulleys and correct the camshaft alignment.
 - Remove the special tools.

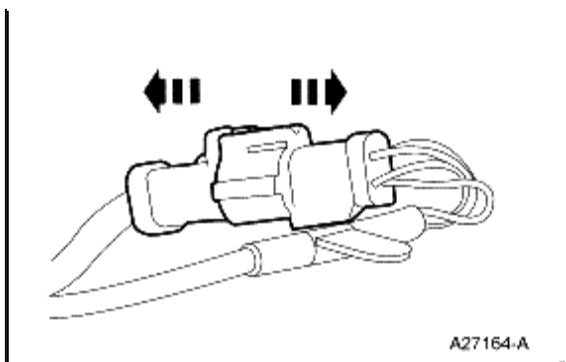


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12. Install the stud bolt.
13. Install the catalytic converter.
14. Install the timing belt covers.
15. Install the valve cover.

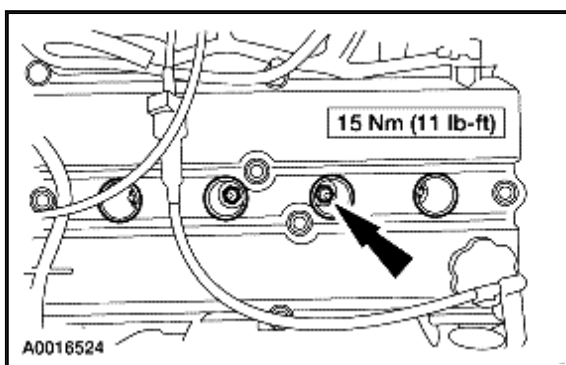




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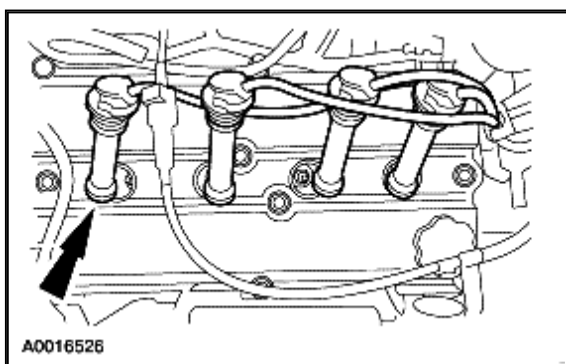
16. Connect the heated oxygen sensor (HO2S) electrical connector.



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17. Install the [spark plugs](#).



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18. **NOTE:** Whenever an ignition wire is reinstalled, or a new wire is installed, apply dielectric compound to the interior surface of the spark plug wire boot. Connect the ignition wires to the [spark plugs](#).

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