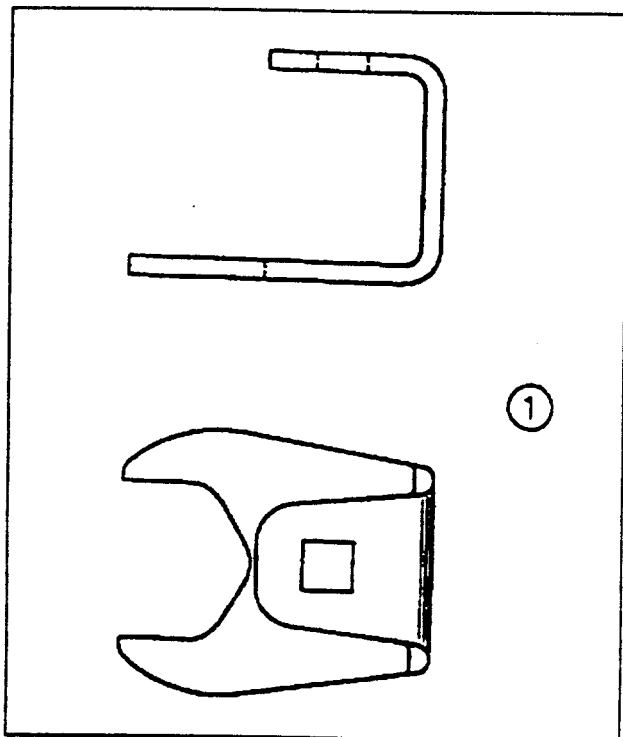


# VAUXHALL / OPEL, DAEWOO.



## STANDARD PARTS LIST

1. VS090 Water Pump Adjuster

**OHC ENGINES**  
1.2, 1.3, 1.4,  
all / &  
1.5, 1.6, '87  
onwards

### Applications

**VAUXHALL/OPEL:** Single OHC engines 1.2, 1.3, 1.4, all & 1.6, '87 onwards used on: Nova, Astra, Belmont, Astravan, Astramax, Cavalier, Vectra.

**DAEWOO:** Nexia 1.5 SOHC, Nexia and Espero 1.5 DOHC.

### Introduction

VS090 is designed to allow easy access to rotate the water pump in its eccentric seating to achieve the correct timing belt tension. It is essential to use this tool to gain access to the flats on the water pump, when changing the timing belt with the engine in the vehicle.

### Instruction for use

The following instructions are provided as a guide only and users are recommended to refer to the manufacturer's instructions for the model being serviced.

## Timing belt replacement

### Remove:

Air intake (where fitted), viscous fan, alternator drive belt, fan pulley, and timing belt front cover.  
 Where fitted drive belt for AC compressor and PAS.  
 Turn crankshaft to bring No.1 piston to TDC, indicated by camshaft pulley mark aligned with rib in camshaft housing, and notch on crankshaft pulley aligned with first mark at 10 deg. BTDC. Fig.1. Undo cap screws and remove crankshaft pulley from sprocket.  
 Loosen the three water pump retaining bolts.  
 Locate the water pump wrench VS091, on the flats cast in the pump body behind the sprocket, Fig. 2.  
 Use a 1/2" ratchet drive engaged with the wrench to turn the water pump body anticlockwise to release the tension on the timing belt.  
 Remove the timing belt.

### Install:

Fit timing belt to crankshaft sprocket.  
 Fit the belt around camshaft and water pump sprockets.  
 Turn the water pump clockwise with the water pump wrench, to lightly tension the belt.  
 Refit crankshaft pulley and tighten bolts to specified torque.  
 Check that timing marks are still aligned.  
 Turn the engine to complete turn clockwise and check the belt tension with a gauge.  
 Adjust the tension with the water pump wrench and re-check as above.  
 When the adjustment is correct tighten the water pump bolts and remove the water pump wrench.  
 Refit items in reverse order of removal.

