

Operating Instructions for:

MFC1100

Ford Crankshaft Positioning Tool

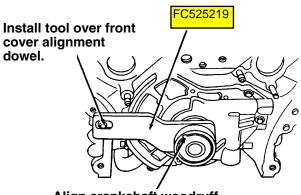
Applications: 1993 & newer 4.2L, 4.6L two valve; 4.6L four valve; and 5.4L and 6.8L V-8 engines



A CAUTION: To prevent damage to valves and pistons, DO NOT rotate the crankshaft and/or camshaft(s) when removing the timing chain(s) and installing the cylinder heads. Because this is not a free-wheeling engine, if it has "jumped time" there will be damage to the valves and/or pistons, which will require the removal of the cylinder heads.

1. Install crankshaft positioning tool No. FC525219 (same as Ford No. 303-448) over crankshaft and engine front cover alignment dowel. This will position the crankshaft at top dead center for proper timing chain installation.

Rev. A, 6/17/03 © 2003 SPX Corporation



Align crankshaft woodruff key with keyway on tool.



1-877-764-7606

Form No. 521291

Operating Instructions for:

MFC1100

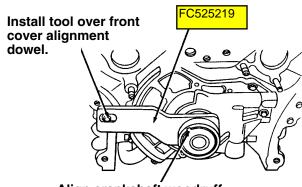
Ford Crankshaft Positioning Tool

Applications: 1993 & newer 4.2L, 4.6L two valve; 4.6L four valve; and 5.4L and 6.8L V-8 engines



CAUTION: To prevent damage to valves and pistons, DO NOT rotate the crankshaft and/or camshaft(s) when removing the timing chain(s) and installing the cylinder heads. Because this is not a free-wheeling engine, if it has "jumped time" there will be damage to the valves and/or pistons, which will require the removal of the cylinder heads.

1. Install crankshaft positioning tool No. FC525219 (same as Ford No. 303-448) over crankshaft and engine front cover alignment dowel. This will position the crankshaft at top dead center for proper timing chain installation.



Align crankshaft woodruff key with keyway on tool.

Parts List & Operating Instructions for

No. 6489 Master Service Set for Ford Cam and Valve Train Repair

6009	6020	6466	6467	
6468	6469	6470	6471	
6472	6473	6474	6475	
6476	6477	6478	6479	
6480	6481	6482 □	6483	
6484	6485			

Form No. 107267 Sheet 1 of 7

Ford Tool Application Chart

1995-1997	Year	Make & Model	Engine	Tool Description	Part No.	Ford No. American Part No.	Ford Global Part No.
1982-1988 Aerostar 4.01.49 (DNIC 20le) Cars Sensor Synch Tool 647 (511539) T951-1200.A. 30.5 Sep 1987-2002 Contour 2.01.49 (DNIC 20le) Cars Sent TOC Trining Prin 647 (511541) T974-606-0(1) 30.5 Sep 1987-2002 Contour 2.01.49 (DNIC 20le) Cars Sent TOC Trining Prin 647 (511542) T977-600.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Sent TOC Trining Prin 647 (511542) T977-600.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Sent TOC Trining Prin 647 (511542) T977-600.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Sent ToC Trining Prin 647 (511542) T977-600.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 640 (511539) T987-606.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 640 (511539) T987-606.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 640 (511549) T987-606.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.A. 30.5 Sep 1987-2002 Escrelate 4.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.A. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 640 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 640 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 640 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5.21.49 (DNIC 20le) Cars Peationing Tool 647 (511549) T987-606.B. 30.5 Sep 1987-2002 Escrelate 5							** * *
\$98470022							
1991-1998 Cornw Victoria 4.B. 2V VB	1994-2002	Contour	2.0L 4 cyl. DOHC Zetec	Cam Alignment Tool	6474 (511541)	T94P-6256-CH	303-465
1992-1998		Contour				T97P-6000-A	
1997-2002 Excordine 4.2 L. VG							
1997-1998 Executions							
1997-2002 Exonoline							
1997-2002 Exconoline 4.6. 4.5 al. Cam Peatforing Tool Set 677 (511543 4) Topic-2656-AP 303-557 1997-2002 Exconoline 6.8 L. V10	1997-1998	Econoline	4.6L & 5.4L V8, 6.8L V10				
1997-2002 Exponlene 5.44, V8	1007 0000	Connelina	4.01.9.5.41				
1997-2002							
Cam Holding Told 6477 (511546) 1967-6295-8 303-557 1997-1998 Expedition 5.4 L V8 Cam Peotitoring Told 6000 (51532) 1797-6295-4 303-369 303-557 303-369 303-557 303-369 303-557 303-369							
1997-2002 Expedition	1007 2002	Loonomic	0.0L V 10				
1997-1998 Expedition 5.4 L V8	1997-2002	Econoline	Windsor V8				
Cam Positioning Tool 6020 (51155) T928-6256-A 303-513 30							
Cam Holding Told				Cam Positioning Tool	6020 (511555)	T92P-6256-A	303-413
1997-2002 Explorer 4.0 L V6	1997-2002	Expedition	5.4L V8				
Explorer							
Cranistant Holding Tool Cam Holding Tool Cam Holding Tool Cam Holding Tool Adapter 484 81 511-569 1771-6556-5 203-777 Cam Holding Tool Adapter 484 81 511-569 1771-6556-5 203-777 Cam Holding Tool Maghet Temper 1971-6556-1 1771-6556-5 203-777 Cam Holding Tool Tool Adapter 484 81 511-569 1771-6556-5 203-777 Cam Holding Tool Cam Gene Post Societ & Ext. 484 81 511-569 1771-6556-5 203-777 Cam Gene Post Societ & Ext. 484 81 511-569 1771-6556-5 203-377 Cam Gene Post Societ & Ext. 484 81 511-569 1771-6556-5 203-3757 Cam Gene Post Societ & Ext. 484 81 511-569 1771-6556-5 203-3567 Cam Gene Post Societ & Ext. 484 81 511-569 1771-6556-5 203-3569 1799-2002 Explorer 5.0L V9 Cam Sensor Synch Tool 64469 (511536) T967-12200-4 303-562 1799-2002 F-Senies Truck 4.2L V5 Cam Sensor Synch Tool 64469 (511536) T967-12200-4 303-562 1799-72002 F-Senies Truck 4.4L 8.5 8.4 V8 Cam Positioning Tool 6009 (511532) T967-12200-4 303-562 1799-72002 F-Senies Truck 4.6L 8.5 4.V8 Cam Positioning Tool 6009 (511532) T967-2200-4 303-562 1799-72002 F-Senies Truck 4.6L 8.5 4.V8 Cam Positioning Tool 6470 (511536) T967-220-6 303-309 1799-72002 F-Senies Truck Wilnessor V9 Cam Holding Tool 6470 (511536) T967-220-6 303-359 1799-72002 F-Senies Truck Wilnessor V9 Cam Holding Tool 6470 (511536) T967-220-6 303-359 1799-1799 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6467 (511536) T967-220-6 303-569 1799-1790 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6467 (511537) T967-220-6 303-569 1799-1790 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-569 1799-1790 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-569 1799-1790 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-359 1799-1799 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-359 1799-1799 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-359 1799-1799 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-220-6 303-359 1799-1799 Probe 2.0L 4.0f. Cam Sensor Synch Tool 6470 (511537) T967-12200-A 303-529 1799-1799 Probe 2.0L 4.0		!		Cam Sensor Synch Tool			
Cam Holding Tool Adapter 6480 (511548)	1997-2002	Explorer	4.0L SOHC V6	Cam Gear Holding Tool			
Cam Holding Tool Cam Ger Holding Tool Adapter February Cam Ger Holding Tool Adapter February Cam Ger Holding Tool Adapter February Cam Ger Holding Tool February February Cam Ger Holding Tool February Fe							
Cam Gear Holding Tool Adapter Timing, Chain Tensinent Processed 6482 (611550) T977-6256-A 303-578 T999-2002 Explorer 4.01. Push Rod V6 Cam Sensor Synch Tool 6448 (611552) T977-62556-F-G 303-563-6757 T999-2002 Explorer 5.01. V9 Cam Sensor Synch Tool 6468 (611553) T997-1200-A 303-563-6758 T997-1200-A 303-563-6758 T997-1200-A 303-563-6758 T997-1200-A 303-563-6758 T997-1200-A 303-562-676 T997-1200-A 303-562-676 T997-1200-A 303-562-676 T997-1200-A 303-562-676 T997-1200-A 303-562-676 T997-1200-A 303-562-676 T997-1200-A T997-12							
Trining Chain Tenssoner Tool Came Gear Bott Societ & Ext. 6649 (611552) S. 4 T977-66267-4 303-567, 575				Cam Gear Holding Tool Adapter	6482 (511550)	T97T-6256-A	303-578
1999-2002				Timing Chain Tensioner Tool	6484 (511552)	T97T-6K254-A	
1995-1996						T97T-6256-F, -G	
1999-2002						TOOT 10000 1	
1997-2002						1961-12200-A	
1997-2002 F-Series Truck 4.6 & 5.4 L VB Cam Positioning Tool 6009 [511552] 1918-8258-A 303-380 1997-2002 F-Series Truck 4.6 & 5.4 L Cam Positioning Tool 6476 [511543] 1997-82058-A 303-413 1997-2002 F-Series Truck 4.6 & 5.4 L VB Cam Holding Tool 6477 [511545] 19961-8256-BAR 303-557 1997-2002 F-Series Truck Windsor VB Cam Holding Tool 6477 [511545] 19961-8256-BB 303-557 1997-2002 F-Series Truck Windsor VB Cam Holding Tool 6477 [511545] 19961-8256-BB 303-557 1997-1998 Mustang 3.8 L VC Cam Sensor Synch Tool 6467 [611545] 19961-8256-BB 303-557 1996-1998 Mustang 3.8 L VC Cam Sensor Synch Tool 6469 [611546] 19961-12200-A 303-383 1996-1997 Probe 2.0 L 4 vyl. Cam Pulley Holding Tool 6469 [611545] 19961-12200-A 303-383 1996-1997 Probe 2.0 L 4 vyl. Cam Pulley Holding Tool 6468 [611545] 1996-8316-A 303-343 1996-1997 Panger 2.2 L 4 vyl. Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-329 1998-1997 Panger 3.0 L VG Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-329 1998-1997 Panger 3.0 L VG Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-329 1998-1998 Panger 3.0 L VG Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-389 1998-1998 Taurus 3.0 L VG Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-389 1998-1998 Taurus 3.0 L VG Cam Sensor Synch Tool 6472 [611539] 1997-12200-A 303-389 1998-1999 Thunderbird 3.8 L VG Cam Sensor Synch Tool 6477 [611540] 1997-12200-A 303-389 1998-1999 Thunderbird 3.8 L VG Cam Sensor Synch Tool 6477 [611539] 1997-12200-A 303-389						T00T 10000 A	
1997-2002							
1997-2002 F-Series Truck 4.6 k 5.4 L Cam Positioning Tool Set 6476 (511543 & -4) T961-6256-AR 303-5568 1997-2002 F-Series Truck Windsor V8 Cam Holding Tool 6477 (511545) T961-6256-B 303-557 1997-2002 F-Series Truck Windsor V8 Cam Holding Tool 6477 (511545) T961-6256-B 303-557 1997-2002 F-Series Truck Windsor V8 Cam Sensor Synch Tool 6467 (511543) T891-12200-A 303-588 1996-1998 Mustang 3.8 k V6 Cam Sensor Synch Tool 6468 (511536) T961-12200-A 303-589 1998-2002 Mustang 3.8 k V6 Cam Sensor Synch Tool 6468 (511535) T961-12200-A 303-589 1993-1997 Probe 2.0 k 4-yk Cam Pulley Holding Tool 6470 (51153) T961-12200-A 303-589 1993-1997 Probe 2.0 k 4-yk Cam Pulley Holding Tool 6488 (511535) T392-6256-AH 303-394 1993-1997 Probe 2.0 k 4-yk Cam Pulley Holding Tool 6478 (511533) T892-6316-A 303-354 1993-1997 Probe 2.0 k 4-yk Cam Sensor Synch Tool 6479 (511533) T892-6316-A 303-354 1993-1998 Probe 2.0 k 4-yk Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-589 1993-1998 Probe 2.0 k 4-yk Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-353 1993-1998 Probe 2.0 k 4-yk Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-353 1993-1998 Probe 2.0 k 4-yk Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-358 1993-1995 Taurus 3.0 k V6 Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-529 1998-2002 Taurus 3.0 k V6 Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-529 1998-1995 Thunderbird 3.8 k V6 Cam Sensor Synch Tool 6473 (511540) T989-12200-A 303-589 1995-1995 Thunderbird 3.8 k V6 Cam Sensor Synch Tool 6473 (511540) T989-12200-A 303-589 1996-1998 Windstar 3.8 k V6 Cam Sensor Synch Tool 6473 (511544) T989-12200-A 303-589 1998-2002 Windstar 3.8 k V6 Cam Sensor Synch Tool 6473 (511544) T989-12200-A 303-589 1998-2002 Windstar 3.8 k V6 Cam S	1997-1990	r-Selles Huck	4.0L & 5.4L Vo			T91F-0250-A T92P-6256-Δ	
1997-2002	1997-2002	F-Series Truck	4 61 & 5 41				
1993-2002 F-Series Truck Windsor VB Cam Holding Tool 6477 (511545) 1967-6256-B 303-557							
1994-1995 Mustang 3.8 L V6							
1996-1998 Mustang 3.8 L V6							
1999-2002 Mustang 3.8 LV6 Cam Sensor Synch Tool 6470 (511537) 303-630 1993-1997 Probe 2.0 L cyl. Cam Pulley Holding Tool 6486 (511535) 192C-6256-AH 303-388 1995-1997 Ranger 2.3 L, 4 cyl. dual plug Crankshaff Sensor Positioner 6466 (511533) 789F-8316-A 303-384 1995-1997 Ranger 3.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7857-12200-A 303-529 1998-1998 Ranger 4.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1998-1998 Ranger 4.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1998-1997 Taurus 3.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1998-1997 Taurus 3.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1998-1997 Taurus 3.0 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1998-1995 Thunderbird Supercharged 3.8 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-529 1999-1995 Thunderbird 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1995 Thunderbird 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1995 Windstar 3.0 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-582 1998-2002 Windstar 3.8 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6472 (511539) 7957-12200-A 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1998-1998 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 789P-12200-A 303-586 1999-1999 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) 797P-6256-A 303-356 1999-1							
1983-1997 Ranger 2.3 L. 4 cyl. dual plug Crankshaff Sensor Positioner 6466 (511533) T89P-6316-A 303-354 1985-1997 Ranger 3.0 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1986-2002 Ranger 3.0 L. V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1996-1998 Ranger 4.0 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1993-1995 Taurus 3.0 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1996-1997 Taurus 3.0 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Taurus 3.0 L. V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1998-1995 Thunderbird Supercharged 3.8 L. V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-1995 Thunderbird 3.8 L. V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8 L. V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1995-1997 Windstar 3.0 L. V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1998-2002 Windstar 3.0 L. V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6470 (511537) T96T-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6467 (511536) T96T-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1998-2002 Windstar 3.8 L. V6 Cam Sensor Synch Tool 6467 (511545) T91P-6256-A 303-3380 1992-1998 Grand Marquis 4.8 L. V9 & Cam Sensor	1999-2002	Mustang	3.8L V6	Cam Sensor Synch Tool	6470 (511537)		303-630
1995-1997 Ranger 3.0 L V6	1993-1997	Probe	2.0L 4 cyl.	Cam Pulley Holding Tool	6468 (511535)	T92C-6256-AH	303-398
1988-2002 Ranger 3.0 L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1996-1999 Ranger 4.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1993-1995 Taurus 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-453 1996-1997 Taurus 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Taurus 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1995 Thunderbird Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-1995 Thunderbird Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1995 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-562 1995-1997 Windstar 3.0 L V6 Cam Sensor Synch Tool 6469 (511536) T95T-12200-A 303-562 1998-2002 Windstar 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-589 1998-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-562 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T99T-6256-A 303-360 1998-2002 Lincoln Navigator 5.4 L V8 Cam Sensor Synch Tool 6467 (511534) T99T-6256-A 303-363 1998-2002 Lincoln Navigator 5.4 L V8 Cam Sensor Synch Tool 6470 (511537) T99T-6256-A 303-363 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6470 (511534) T89P-12200-A 303-562 1999-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-563 1999-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-563 1999-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6468 (511536) T99T-6256-A 303-363 1999-2002 M	1989-1997	Ranger	2.3L, 4 cyl. dual plug			T89P-6316-A	303-354
1996-1998 Hanger 4.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1997 Taurus 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T95T-12200-A 303-453 1996-1997 Taurus 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Taurus 3.0L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1998-1995 Thunderbird Supercharged 3.BL V6 Cam Sensor Synch Tool 6473 (511540) T89P-12200-A 303-358 1990-1995 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997-1997 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-589 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6473 (511540) T89P-12200-A 303-589 1996-1998 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1996-1998 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-363 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-363 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T97F-6256-A 303-3413 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6009 (511552) T97P-6256-A 303-3413 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6467 (511534) T89P-12200-A 303-557 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T97F-6256-A 303-358 1997-1998 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511534		Ranger				T95T-12200-A	
1998-1995 Taurus 3.0 L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1998-1997 Taurus 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1995 Thunderbird Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-1995 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511539) T95T-12200-A 303-562 1995-1997 Windstar 3.0 L V6 Cam Sensor Synch Tool 6468 (511536) T95T-12200-A 303-562 1998-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1995 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-3589 1995 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-3589 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-3589 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-589 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998-2002 Unicoln Navigator 5.4 L V8 Cam Sensor Synch Tool 6470 (511547) T97-6256-A 303-3580 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511555) T97-6256-A 303-3580 1998-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511543 & 1) T89P-12200-A 303-5580 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511543 & 1) T89P-12200-A 303-5580 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511543 & 1) T89P-12200-A 303-5580 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6468 (511550) T97-6256-A 303-570 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6469 (511550) T97-6256-A 303-573 1999-2002 Mountaineer 4.0 L Push R							
1998-1997 Taurus 3.0 L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-529 1998-2002 Taurus 3.0 L V6 Cam Sensor Synch Tool 6473 (511540) T89P-12200-A 303-589 1998-1995 Thunderbird Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-558 1990-1995 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-558 1997 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-558 1995-1997 Windstar 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-529 1998-2002 Windstar 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T951-12200-A 303-529 1998-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511540) T89P-12200-A 303-589 1996-1998 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T961-12200-A 303-562 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T961-12200-A 303-662 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T961-12200-A 303-662 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-3413 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511555) T92P-6256-A 303-358 1990-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-568 1990-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-568 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Sensor Synch Tool 6469 (511536) T39P-6256-A 303-358 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Sensor Synch Tool 6469 (511536) T39P-6256-A 303-368 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Sensor Synch Tool 6469 (511556) T39P-6256-A 303-578 1991-1998 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6478 (511546) T39P-6256-C 303-576 19							
1988-2002 Taurus 3.0L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1989-1995 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511536) T96T-12200-A 303-589 1995-1997 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6473 (511540) T89P-12200-A 303-589 1995 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-589 1995-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4L V8 Cam Sensor Synch Tool 6002 (511555) T92P-6256-A 303-380 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6002 (511555) T92P-6256-A 303-3413 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6477 (511545) T96T-6256-B 303-557 1999-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511543) T89P-12200-A 303-358 1999-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511543) T89P-12200-A 303-358 1999-1999 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511545) T96T-6256-B 303-557 1999-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511545) T96T-6256-A 303-356 1997-1998 Grand Marquis 4.6L 2V V8 Cam Sensor Synch Tool 6467 (511546) T97T-6256-A 303-356 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gent Holding Tool 6479 (511545) T97T-6256-A 303-576 Cam Holding Tool 6489 (511556) T97T-6256-A 303-576 Cam Holding Tool 6489 (511556) T97T-6256-A 303-576 Cam Holding Tool 6489 (511556) T97T-6256-A 303-576 Cam Holding Tool 64					. (/		
1989-1995 Thunderbird Supercharged 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1990-1995 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T99T-12200-A 303-562 1995-1997 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T99T-12200-A 303-562 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6473 (511540) T89P-12200-A 303-589 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1996-1998 Windstar 3.8L V6 Cam Sensor Synch Tool 6467 (511537) Cam Sensor Synch Tool 6467 (511537) Cam Sensor Synch Tool 6470 (511543) Cam Sensor Synch Tool 6470 (511544) Cam Se						1951-12200-A	
1997 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Thunderbird 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1998-1997 Windstar 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1995 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T89F-12200-A 303-358 1998-1998 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T89F-12200-A 303-358 1998-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6002 (511532) T91P-6256-A 303-380 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6002 (511535) T92P-6256-A 303-413 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6476 (511543 & -4) T96F-6256-B 303-557 1988-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6477 (511545) T99F-6256-B 303-557 1988-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1990-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6499 (511536) T96F-6256-A 303-340 1992-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-350 1997-2002 Mountaineer 4.0 L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97F-6256-A 303-573 Cam Holding Tool 6480 (511546) T97F-6256-A 303-573 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6480 (511536) T97F-6256-A 303-573 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6480 (511548) T97F-6256-C 303-576 Cam Holding Tool 6490 (511544) T97F-6256-C 303-576 Cam Holding Tool 6490 (511544) T97F-6256-C 303-576 Cam Holding Tool 6490 (511544) T97F-6256-C 303-576 Cam Ho			****		\ /	T00D 10000 A	
1997 Thunderbird 3.8 LV6 Cam Sensor Synch Tool 6489 (511536) T96T-12200-A 303-562 1998-1997 Windstar 3.0 LV6 Cam Sensor Synch Tool 6472 (511539) T35T-12200-A 303-529 1998-2002 Windstar 3.8 LV6 Cam Sensor Synch Tool 6473 (511540) 303-589 1995 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-558 1998-1998 Windstar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-558 1998-1998 Windstar 3.8 LV6 Cam Sensor Synch Tool 6469 (511536) T39E-12200-A 303-562 1999-2002 Windstar 3.8 LV6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4 LV8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-413 1998-2002 Lincoln Navigator 5.4 LV8 Cam Positioning Tool 6477 (511545) T98E-6256-B 303-557 1989-1995 Cougar Supercharged 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1991-1995 Cougar 3.8 LV6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-413 1991-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6478 (511534) T89P-12200-A 303-562 1991-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6478 (511554) T97F-6256-B 303-573 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6480 (511548) T97F-6256-C 303-573 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6480 (511549) T97F-6256-C 303-575 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6480 (511537) T97F-6256-C 303-575 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6480 (511537) T97F-6256-C 303-575 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6480 (511536) T97F-6256-C 303-575 1999-2002 M					\ /		
1998-1997 Windstar 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1998-1998 Windstar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-582 1999-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6469 (511537) 303-630 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6409 (511537) 303-630 1998-2002 Windstar 3.8L V6 Cam Sensor Synch Tool 6409 (511535) T91P-6256-A 303-380 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6002 (511555) T92P-6256-A 303-413 1998-2002 Lincoln Navigator 5.4L V8 Cam Positioning Tool 6477 (511545) T96T-6256-B 303-557 1989-1995 Cougar Supercharged 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-356 1991-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool 6009 (511535) T91P-6256-A 303-380 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool 6009 (511555) T92P-6256-A 303-413 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-573 1999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool 6488 (511550) T97T-6256-C 303-577 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6468 (511536) T97T-6256-F, G 303-562 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6478 (511541) T97T-6256-F, G 303-563 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6478 (511542) T97T-6256-F, G 303-563 1999-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-638 1999-2002 Mystique							
1998-2002 Windstar 3.0 L V6 Cam Sensor Synch Tool 6473 (511540) 303-589 1995 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6468 (511536) T96T-12200-A 303-562 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-413 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511535) T92P-6256-A 303-413 1998-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511543 & -4) T96T-6256-AR 303-557 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511535) T91P-6256-A 303-413 1992-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511535) T91P-6256-A 303-364 1997-2002 Mountaineer 4.0 L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-578 1999-2002 Mountaineer 4.0 L SOHC V6 Cam Sensor Synch Tool 6478 (511548) T97T-6256-B 303-578 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6488 (511558) T97T-6256-F, -G 303-578 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6488 (511553) T97T-6256-F, -G 303-565 (-75 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6478 (511541) T97T-6256-F, -G 303-578 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6479 (511537) T97T-6256-F, -G 303-578 1999-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Sensor Synch Tool 6470 (511537) T97T-6256-C 303-578 1999-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Sensor							
1995 Windstar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1996-1998 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-340 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T92P-6256-A 303-413 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6476 (511543 & 4.4) T96T-6256-B 303-557 1998-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1999-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1999-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6469 (511536) T96T-12200-A 303-562 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-341 1997-2002 Mountaineer 4.0 L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-564 Crankshaft Holding Tool 6479 (511547) T97T-6256-B 303-576 Cam Gear Holding Tool 6481 (511549) T97T-6256-A 303-576 Cam Gear Holding Tool 6481 (511553) T97T-6256-A 303-576 Cam Gear Bolt Socket & Ext. 6485 (511553) T97T-6256-F, G 303-576 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6478 (511537) 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6476 (511534) T97T-6256-CH 303-576 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6476 (511537) T97T-6256-CH 303-638 1994-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Alignment Tool 6476 (511538) T99T-6256-CH 303-636 1994-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Sensor Synch Tool 6471 (511538) T99T-6250-CH 303-652 199						1001-12200 A	
1996-1998 Windstar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) 303-630 1998 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1998-2002 Lincoln Navigator 5.4 L V8 Cam Positioning Tool 6476 (511543 & -4) T96T-6256-B 303-557 1989-1995 Cougar Supercharged 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1990-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1990-1995 Cougar 3.8 L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-358 1992-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1997-2002 Mountaineer 4.0 L SOHC V6 Cam Gear Holding Tool 6479 (511547) T97T-6256-B 303-576 Cam Holding Tool 6481 (511549) T97T-6256-A 303-573 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6482 (511550) T97T-6256-A 303-571 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) T97T-6256-F, G 303-565, -575 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) T97T-6256-F, G 303-565, -575 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6479 (511537) T97T-6256-F, G 303-565, -575 1999-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Alignment Tool 6475 (511538) T99T-6256-CH 303-630 1994-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Alignment Tool 6475 (511539) T99T-6256-CH 303-562 1999-1999 Sable 3.0 L V6 Cam Sensor Synch Tool 6475 (511539) T99T-6256-CH 303-562 1999-1999 Sable 3.0 L V6 Cam Sensor Synch Tool 6475 (511539) T99T-6256-CH 303-562 1999-1999 Sable 3.0 L V6 Cam Sensor Synch Tool 647						T89P-12200-A	
1999-2002 Windstar 3.8 L V6 Cam Sensor Synch Tool 6470 (511537) T91P-6256-A 303-630 1998				,	(/		
1998							
Cam Positioning Tool G020 (511555) T92P-6256-A 303-413							303-380
Cam Holding Tool G477 (511545) T96T-6256-B 303-557 1989-1995 Cougar Supercharged 3.8L V6 Cam Sensor Synch Tool G467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8L V6 Cam Sensor Synch Tool G467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8L V6 Cam Sensor Synch Tool G468 (511536) T96T-12200-A 303-562 1991-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool G009 (511532) T91P-6256-A 303-380 1992-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool G020 (511555) T92P-6256-A 303-413 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool G478 (511547) T97T-6256-B 303-564 Cam Holding Tool G478 (511548) T97T-6256-B 303-573 Cam Holding Tool G481 (511549) T97T-6256-C 303-576 Cam Gear Holding Tool G481 (511549) T97T-6256-C 303-578 Timing Chain Tensioner Tool G484 (511550) T97T-6256-F, G 303-567 Cam Gear Holding Tool G484 (511550) T97T-6256-F, G 303-567 Timing Chain Tensioner Tool G484 (511550) T97T-6256-F, G 303-565 1999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool G483 (511536) T97T-6256-F, G 303-565 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool G489 (511536) T97T-6256-F, G 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool G479 (511536) T96T-12200-A 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool G474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Sensor Synch Tool G471 (511538) T93P-12200-A 303-563 1998-1999 Sable 3.0L V6 Cam Sensor Synch Tool G471 (511538) T93P-12200-A 303-529 1998-1999 Sable 3.0L V6 Cam Sensor Synch Tool G472 (511539) T95T-12200-A 303-529 1998-1999 Sable 3.0L V6 Cam Sensor Synch Tool G472 (511539) T95T-12200-A 303-529 1998-1999 Sable 3.0L V6 Cam Sensor Synch Tool G472 (511539) T95T-12200-A 303-529 1998-1999 Sable 3.0L V6 Cam							
1989-1995 Cougar Supercharged 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1990-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997 Cougar 3.8L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1991-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1992-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool 6020 (511555) T92P-6256-A 303-413 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-564 Cam Holding Tool 6479 (511547) T97T-6256-B 303-576 Cam Holding Tool 6481 (511549) T97T-6256-C 303-576 Cam Gear Holding Tool 6481 (511550) T97T-6256-C 303-576 Cam Gear Holding Tool 6482 (511550) T97T-6256-A 303-578 Timing Chain Tensioner Tool 6482 (511550) T97T-6256-A 303-578 T999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) T97T-6256-F, -G 303-663 1996-1998 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6470 (511537) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6471 (511538) T39P-12200-A 303-574 1999-1997 Sable 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1996-1997 Sable 3.0L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1997-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1998-1997 Sable 3.0L V6 2-valve Cam	1998-2002	Lincoln Navigator	5.4L V8				
1990-1995 Cougar 3.8L V6 Cam Sensor Synch Tool 6467 (511534) T89P-12200-A 303-358 1997	1000 1005	0	Cuparaharrani 0.01.1/0				
1997 Cougar 3.8 L V6 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1991-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1992-1998 Grand Marquis 4.6 L 2V V8 Cam Positioning Tool 6020 (511555) T92P-6256-A 303-413 1997-2002 Mountaineer 4.0 L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-564 Cam Holding Tool Adapter 6480 (511547) T97T-6303-A 303-573 Cam Holding Tool Adapter 6480 (511548) T97T-6256-D 303-573 Cam Holding Tool Adapter 6484 (511549) T97T-6256-C 303-577 Cam Gear Holding Tool Adapter 6484 (511552) T97T-6256-A 303-578 Timing Chain Tensioner Tool 6484 (511552) T97T-6256-F, -G 303-571 Cam Gear Bolt Socket & Ext. 6485 (511553) T97T-6256-F, -G 303-571 1999-2002 Mountaineer 4.0 L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) 303-638 1996-1998 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Mountaineer 5.0 L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0 L 4 cyl. DOHC Zetec Cam Alignment Tool 6475 (511542) T97P-6000-A 1993-1995 Sable 3.0 L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 1993-1997 Sable 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 T95T-12200-A 303-529 1996-1997 Sable 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 T95T-12200-A 303-529 1997-12200-A 303-529 T95T-12200-A 303-529 1998-1997 Sable 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 T95T-12200-A 303-529 1998-1997 Sable 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 T95T-12200-A 303-529 1998-1997 Sable 3.0 L V6 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 T95T-12200-A 303-529 1998-1997 Sable 3.0 L V6 Cam Se							
1991-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool 6009 (511532) T91P-6256-A 303-380 1992-1998 Grand Marquis 4.6L 2V V8 Cam Positioning Tool 6020 (511555) T92P-6256-A 303-413 1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-564 Crankshaft Holding Tool 6479 (511547) T97T-6256-B 303-573 Cam Holding Tool 6480 (511548) T97T-6256-D 303-576 Cam Holding Tool 6481 (511549) T97T-6256-D 303-576 Cam Gear Holding Tool 6482 (511550) T97T-6256-A 303-578 Timing Chain Tensioner Tool 6484 (511552) T97T-6256-A 303-578 Timing Chain Tensioner Tool 6484 (511552) T97T-6256-F, -G 303-565 T999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) 303-638 1996-1998 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-656 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-674 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529 1997-2002 Mountaineer 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 1997-12200-A 303-529 T95T-12200-A 303-529							
1992-1998 Grand Marquis 4.6L 2V V8							
1997-2002 Mountaineer 4.0L SOHC V6 Cam Gear Holding Tool 6478 (511546) T97T-6256-B 303-564 303-573 Cam Holding Tool 6479 (511547) T97T-6256-B 303-573 Cam Holding Tool 6481 (511548) T97T-6256-D 303-576 Cam Holding Tool 6481 (511549) T97T-6256-C 303-577 Cam Gear Holding Tool 6481 (511549) T97T-6256-C 303-577 Cam Gear Holding Tool 6482 (511550) T97T-6256-C 303-578 Timing Chain Tensioner Tool 6484 (511552) T97T-6256-A 303-578 Cam Gear Bolt Socket & Ext. 6485 (511553 & -4) T97T-6256-F, -G 303-578 Cam Gear Bolt Socket & Ext. 6485 (511553 & -4) T97T-6256-F, -G 303-565, -575 Cam Gear Bolt Socket & Ext. 6485 (511553) T97T-6256-F, -G 303-565, -575 Cam Gear Bolt Socket & Ext. 6485 (511553) T97T-6256-F, -G 303-638 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-630 Cam Sensor Synch Tool 6470 (511537) Cam Sensor Synch Tool 6470 (511537) Cam Sensor Synch Tool 6474 (511541) T94P-6256-CH 303-465 Cam Sensor Synch Tool 6474 (511541) T94P-6256-CH 303-465 Cam Sensor Synch Tool 6475 (511542) T97P-6000-A 303-674 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-574 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-529 Cam Sensor Synch Tool 6472 (511539) T95T-12200-A							
Crankshaft Holding Tool 6479 (511547) T97T-6303-A 303-573							
Cam Holding Tool Adapter Cam Gear Holding Tool Adapter Holding Tool Adapter Cam Gear Holding Tool Adapter Holding Tool Adapter Cam Gear Holding Tool Adapter Holding Tool Adapter Holding Tool Adapter Cam Gear Bolt Socket & Ext. Cam Gear Bolt Soc	.00, 2002				6479 (511547)		
Cam Holding Tool Adapter G481 (511549) T97T-6256-C 303-577 Gam Gear Holding Tool Adapter G482 (511550) T97T-6256-A 303-578 T97T-6256-A 303-578 T97T-6256-A 303-578 T97T-6256-A 303-571 T97T-6256-F T97T-6206-F T97T-6256-F				Cam Holding Tool Adapter	6480 (511548)	T97T-6256-D	303-576
Timing Chain Tensioner Tool Cam Gear Bolt Socket & Ext. 6484 (511552) T97T-6K254-A 303-571 303-565, -575 1999-2002 Mountaineer					6481 (511549)		
Cam Ğear Bolt Socket & Ext. 6485 (511553' & -4) T97T-6256-F, -G 303-565, -575 1999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) 303-638 1996-1998 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-662 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529							
1999-2002 Mountaineer 4.0L Push Rod V6 Cam Sensor Synch Tool 6483 (511551) 303-638 1996-1998 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529							
1996-1998 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6469 (511536) T96T-12200-A 303-562 1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529	1999-2002	Mountaineer	4 01 Push Rod V6			1011-0230-1, -0	
1999-2002 Mountaineer 5.0L V8 Cam Sensor Synch Tool 6470 (511537) 303-630 1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529						T96T-12200-∆	
1994-2002 Mystique 2.0L 4 cyl. DOHC Zetec Cam Alignment Tool 6474 (511541) T94P-6256-CH 303-465 1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529						1001 12200 A	
1997-2002 Mystique 2.0L 4 cyl. DOHC Zetec Crankshaft TDC Timing Pin 6475 (511542) T97P-6000-A 303-574 1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529						T94P-6256-CH	
1993-1995 Sable 3.0L V6 Cam Sensor Synch Tool 6471 (511538) T93P-12200-A 303-453 1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529							
1996-1997 Sable 3.0L V6 2-valve Cam Sensor Synch Tool 6472 (511539) T95T-12200-A 303-529					\ /		
1998-2002 Sable 3.0L V6 Cam Sensor Synch Tool 6473 (511540) 303-589				<u> </u>			
,	1998-2002	Sable	3.0L V6	Cam Sensor Synch Tool	6473 (511540)		303-589

6009 Ford Camshaft Positioning Tool

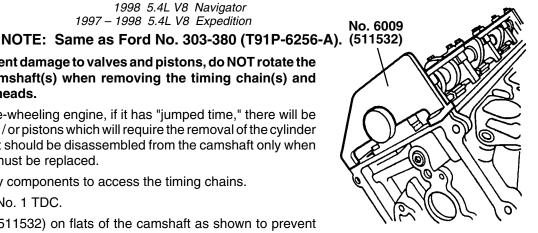
Application: 1991 – 1998 4.6L 2V V8 Crown Victoria, Grand Marguis 1997 - 1998 4.6L & 5.4L V8, 6.8L V10 Econoline 1997 - 1998 4.6L & 5.4L V8 F-Series Truck

> 1998 5.4L V8 Navigator 1997 - 1998 5.4L V8 Expedition

CAUTION: To prevent damage to valves and pistons, do NOT rotate the crankshaft and / or camshaft(s) when removing the timing chain(s) and installing the cylinder heads.

Because this is not a free-wheeling engine, if it has "jumped time," there will be damage to the valves and / or pistons which will require the removal of the cylinder heads. The cam sprocket should be disassembled from the camshaft only when one of the components must be replaced.

- 1. Remove all necessary components to access the timing chains.
- 2. Rotate the engine to No. 1 TDC.
- 3. Install the No. 6009 (511532) on flats of the camshaft as shown to prevent accidental rotation of the camshafts.
- 4. Perform camshaft service as required.
- 5. Refer to the vehicle service manual for the correct camshaft-to-crankshaft timing procedure.



6020 Ford Camshaft Positioning Tool

1992 - 1998 4.6L 2V V8 Crown Victoria, Grand Marguis 1997 - 1998 4.6L & 5.4L V8. 6.8L V10 Econoline

1997 - 1998 4.6L & 5.4L V8 F-Series Truck

1998 5.4L V8 Navigator 1997 - 1998 5.4L V8 Expedition

No. 6009 (511532) **Ford Camshaft Positioning Tool**

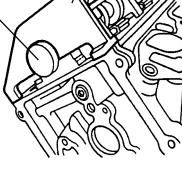
NOTE: Tool No. 6020 (511555) (same as Ford No. 303-413/T92P-6256-A) must be used with tool No. 6009 (511532) (same as Ford No. 303-380/T91P-6256-A).

Application:

A Caution: To prevent damage to valves and pistons, DO NOT rotate the crankshaft and/or camshaft(s) when removing the timing chain(s) and installing the cylinder heads. Because this is not a free-wheeling engine, if it has "jumped time" there will be damage to the valves and/or pistons, which will require the removal of the cylinder heads. The cam sprocket should be disassembled from the camshaft only when one of the components must be replaced.

- 1. Remove all necessary components to access the timing chains.
- 2. Rotate the engine to No. 1 top dead center.
- 3. Disassembly: Install Camshaft Positioning Tool (6020/511555) and Cam Positioning Tool (6009/511532) into each camshaft end, as shown, before removing timing chain tensioners and chains to prevent valve train damage.
- 4. Assembly: Install Camshaft Positioning Tool (6020/511555) and Cam Positioning Tool (6009/511532) into each camshaft end, as shown, before installing timing chains and tensioners to prevent valve train damage.

No. 6020 (511555) **Ford Camshaft Positioning Tool**



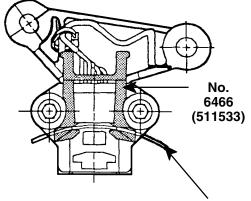
Form No. 107267

Sheet 2 of 7

6466 Ford Crankshaft Sensor Positioner

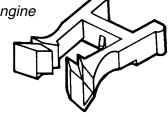
Application: 1989 - 1997 Ford Ranger w/ 2.3L, 4 cyl., dual plug engine

NOTE: Same as Ford No. 303-354 (T89P-6316-A).



- 1. Install Crankshaft Sensor Positioner No. 6466 (511533) on sensor as shown.
- Rotate crankshaft so outer vane on crankshaft pulley hub assembly engages both sides of tool. Tighten sensor assembly retaining bolts to specifications.
- 3. Rotate crankshaft so vane on crankshaft pulley hub assembly is no longer engaged in tool. Remove tool.

Outer vane of crankshaft pulley hub assembly.





WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

6467 Ford Camshaft Sensor Synchronizer Tool

Application: 1990 - 1995 3.8L V6 Thunderbird/Cougar

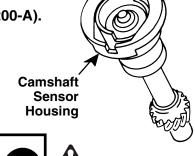
1989 – 1995 3.8L V6 Supercharged Thunderbird/Cougar

1994 – 1995 3.8L V6 Mustang 1995 3.8L V6 Windstar

NOTE: Same as Ford No. 303-358 (T89P-12200-A).

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- 1. Rotate crankshaft to set No. 1 cylinder at 26° after top dead center of the compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6467 (511534).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.

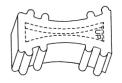




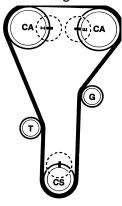
6468 Ford Camshaft Pulley Holding Tool

Application: 1993 - 1997 Ford Probe w/ 2.0L, 4 cyl., engine

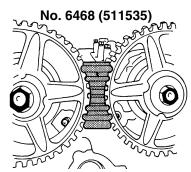
NOTE: Same as Ford No. 303-398 (T92C-6256-AH).



1 Rotate engine to align camshaft timing marks with crankshaft timing marks.



2■ Insert No. 6468 (511535) between intake and exhaust cam pullevs. The tool will fit correctly only one way. The side of tool marked UP must be facing the technician and top of engine.



3 Follow vehicle service manual procedure to service timing belt as required. Remove tool when finished.



protection that meets ANSI Z87.1 and OSHA standards.

6469 Ford Camshaft Sensor Synchronizer Tool

Application: 1996 – 1998 3.8L V6 Mustang, Windstar 1997 3.8L V6 Thunderbird/Cougar

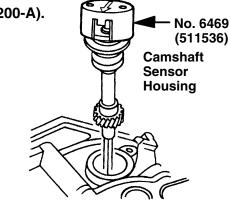
1997 – 2002 4.2L V6 Econoline, F-Series Truck

1996 – 1998 5.0L V8 Ford Explorer, Mercury Mountaineer

NOTE: Same as Ford No. 303-562 (T96T-12200-A).

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- 1. Rotate crankshaft to set No. 1 cylinder at top dead center of the compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6469 (511536).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.





WARNING: Wear eye protection that meets ANSI Z87.1 and **OSHA** standards.

Form No. 107267 Sheet 3 of 7

6470 Ford Camshaft Sensor Synchronizer Tool

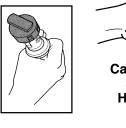
Application: 1999 – 2002 3.8L V6 Mustang, Windstar

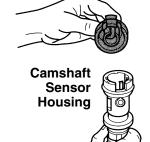
1999 – 2002 5.0L V8 Ford Explorer, Mercury Mountaineer

NOTE: Same as Ford No. 303-630.

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- 1. Rotate crankshaft to set No. 1 cylinder at top dead center of compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6470 (511537).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.





No. 6470

(511537)



WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

6471 Ford Camshaft Sensor Synchronizer Tool

Application: 1993 – 1995 3.0L V6 Ford Taurus/Mercury Sable

NOTE: Same as Ford No. 303-453 (T93P-12200-A).

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- Rotate crankshaft to set No. 1 cylinder at top dead center of compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6471 (511538).
- Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.





Camshaft

Sensor Housing

6472 Ford Camshaft Sensor Synchronizer Tool



Application: 1995 – 1997 3.0L, V6 Windstar, Aerostar, Ranger

1996 – 1997 3.0L, 2-valve V6 Ford Taurus/Mercury Sable

1996 – 1998 4.0L, V6 Aerostar, Ranger, Explorer

No. 6472 (511539)

NOTE: Same as Ford No. 303-529 (T95T-12200-A).

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- 1. Rotate crankshaft to set No. 1 cylinder at top dead center of compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6472 (511539).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.





WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

6473 Ford Camshaft Sensor Synchronizer Tool

Application: 1998 - 2002 3.0L V6 Mercury Sable/Ford Taurus, Ranger, Windstar



NOTE: Same as Ford No. 303-589.

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

- 1. Rotate crankshaft to set No. 1 cylinder at top dead center of compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6473 (511540).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual. Torque fasteners to factory specifications.







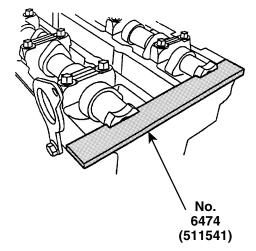
WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

Form No. 107267 Sheet 4 of 7

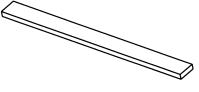
6474 Ford Camshaft Alignment Tool

Application: 1994 – 2002 Ford Contour/Mercury Mystique w/ 2.0L, 4 cyl., DOHC Zetec Engine

NOTE: Same as Ford No. 303-465 (T94P-6256-CH).



- Rotate engine to top dead center on the No. 1 cylinder.
- 2. Align camshafts by installing tool No. 6474 (511541) into the slots at the rear of the camshafts as shown.
- 3. Service the timing belt as required according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.
- 5. Remove the tool.





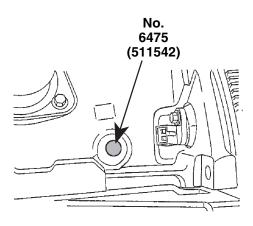
WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

6475 Ford Crankshaft TDC Timing Pin

Application: 1997 – 2002 Ford Contour/Mercury Mystique w/ 2.0L 4 cyl.

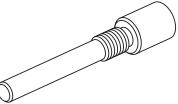
DOHC Zetec engine w/ variable cam timing

NOTE: Same as Ford No. 303-574 (T97P-6000-A).



- 1. Rotate crankshaft to set No. 1 cylinder on top dead center of compression stroke.
- 2. Remove the access plug from the engine, and install No. 6475 (511542) timing pin as shown. (The pin will completely thread into the hole when the engine is at TDC on the No. 1 cylinder.)
- 3. Service the timing belt as required according to vehicle service manual procedures.
- 4. Torque fasteners to factory specifications.

IMPORTANT: To prevent damage to the engine, remove the No. 6475 (511542) timing pin from the engine and reinstall the access plug BEFORE cranking the engine.





No. 511543

No. 511544

No. 511543

No. 6477 (511545)

2-Hole

Camshaft

Sprocket

18 mm

Hex Hd.

Camshaft

Sprocket

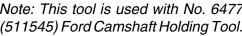
6476 Ford Camshaft Positioning Tool Set

Application: 1997 - 2002 4.6L & 5.4L Econoline, F-Series Truck

1997 - 2002 5.4L V8 Ford Expedition 1998 – 2002 5.4L V8 Lincoln Navigator

1997 - 2002 6.8L V10 Econoline

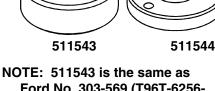
Note: This tool is used with No. 6477 (511545) Ford Camshaft Holding Tool.





18mm Camshaft Sprocket: Use tool No. 511543 with tool No. 511544 to position camshaft sprocket (18 mm hex hd.) on the engine as shown.

- 2. Service the timing chain as required according to procedures in the vehicle service manual.
- 3. Torque fasteners to factory specifications.



Ford No. 303-569 (T96T-6256-AR1) and 511544 is the same as Ford No. 303-570 (T96T-6256-AR2).

WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.



6477 Ford Camshaft Holding Tool

Application: 1997 – 2002 4.6L Windsor V8 Econoline, F-Series Truck

1997 – 2002 5.4L V8 Econoline, Expedition, F-Series Truck

1997 - 2002 6.8L V10 Econoline 1998 – 2002 5.4L V8 Lincoln Navigator

NOTE: Same as Ford No. 303-557 (T96T-6256-B).

Note: This tool is used with No. 6476 (511543 & 511544) Ford Camshaft Positioning Tool Set.

- 1. Install tool No. 6477 (511545) on the camshaft as shown.
- 2. Torque hex hd. bolts at 20 ft. lbs. to ensure correct clamping force. Note: Each bolt must be engaged by the same number of threads in the bottom clamp to ensure correct clamp alignment.
- 3. Repair the engine as required according to instructions in the vehicle service manual.

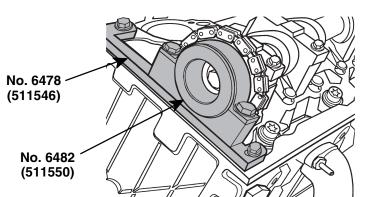


WARNING: Wear eve protection that meets ANSI Z87.1 and **OSHA** standards.

Form No. 107267 Sheet 5 of 7

6478 Ford Camshaft Gear Holding Tool

Application: 1997 - 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer





WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

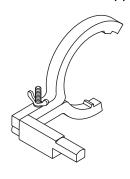
NOTE: Same as Ford No. 303-564 (T97T-6256-B).

Note: This tool is used with No. 6482 (511550) Ford Camshaft Gear Holding Tool Adapter.

- 1. Install tool Nos. 6478 (511546) and 6482 (511550) on the camshaft as shown.
- 2. Secure tool No. 6478 (511546) to the cylinder head.
- 3. Service the timing chain as required according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.

6479 Ford Crankshaft Holding Tool

Application: 1997 – 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer

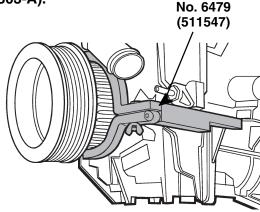


·

NOTE: Same as Ford No. 303-573 (T97T-6303-A).

1. Install tool No. 6479 (511547) on the crankshaft damper.

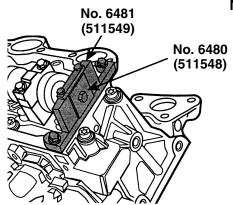
- 2. Rotate the engine counterclockwise (CCW) until the tool stops against the engine block.
- Service the timing chain as required according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.





6480 Ford Camshaft Holding Tool Adapter

Application: 1997 – 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer



NOTE: Same as Ford No. 303-576 (T97T-6256-D).

Note: This tool is used with No. 6481 (511549) Ford Camshaft Holding Tool.

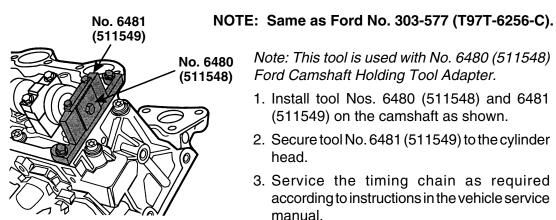
- 1. Install tool Nos. 6480 (511548) and 6481 (511549) on the camshaft as shown.
- 2. Secure tool No. 6481 (511549) to the cylinder head.
- 3. Service the timing chain as required according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.



WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

6481 Ford Camshaft Holding Tool

Application: 1997 – 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer

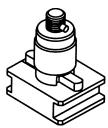


Note: This tool is used with No. 6480 (511548) Ford Camshaft Holding Tool Adapter.

- 1. Install tool Nos. 6480 (511548) and 6481 (511549) on the camshaft as shown.
- 2. Secure tool No. 6481 (511549) to the cylinder head.
- 3. Service the timing chain as required according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.



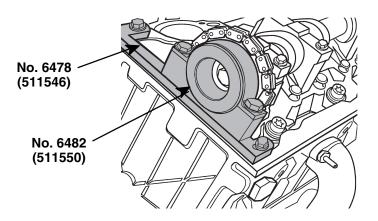
WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.



Form No. 107267 Sheet 6 of 7

6482 Ford Camshaft Gear Holding Tool Adapter

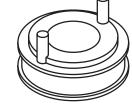
Application: 1997 – 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer





WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

NOTE: Same as Ford No. 303-578 (T97T-6256-A).



Note: This tool is used with No. 6478 (511546) Ford Camshaft Gear Holding Tool.

- 1. Install tool Nos. 6478 (511546) and 6482 (511550) on the camshaft as shown.
- 2. Secure tool No. 6478 (511546) to the cylinder head.
- 3. Service the timing chain as required according to instructions in the vehicle service manual.
- 4. Torque fasteners according to factory specifications.

6483 Ford Camshaft Sensor Synchronizer Tool

Application: 1999 – 2002 4.0L Push Rod V6 Ford Explorer, Mercury Mountaineer

NOTE: Same as Ford No. 303-638.

Important: Before removing the camshaft sensor housing assembly, note the position of the camshaft sensor electrical connector. The connector MUST be reassembled in the same position during installation.

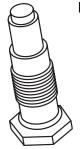
- 1. Rotate crankshaft to set No. 1 cylinder at top dead center of compression stroke.
- 2. Engage camshaft sensor housing vane in slot of tool No. 6483 (511551).
- 3. Rotate tool on camshaft sensor housing until tool engages housing notch. (Tool should be square and in contact with entire top of housing.)
- 4. Install camshaft sensor housing and tool assembly into engine according to instructions in the vehicle service manual.
- 5. Torque fasteners to factory specifications.



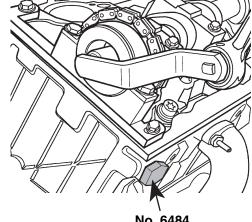
6484 Ford Timing Chain Tensioner Tool

Application: 1997 – 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer

NOTE: Same as Ford No. 303-571 (T97T-6K254-A).



- 1. Remove the hydraulic chain tensioner from the engine.
- 2. Install tool No. 6484 (511552) into the engine to hold pressure on the timing chain during the cam timing procedure.
- 3. Adjust camshaft timing according to instructions in the vehicle service manual.
- 4. Torque fasteners to factory specifications.





No. 511554

Extension



WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

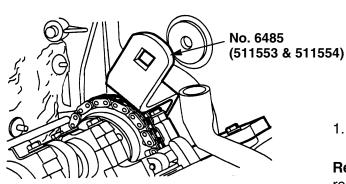
6485 Ford Camshaft Gear Bolt Socket & Extension

Application: 1997 - 2002 4.0L SOHC V6 Ford Explorer, Mercury Mountaineer

NOTE: 511553 is the same as Ford No. 303-565 (T97T-6256-G) and 511554 is the same as Ford No. 303-575 (T97T-6256-F).

No. 511553

Camshaft Gear Bolt Socket



and exter

Removal: U

1. Assemble the No. 6485 (511553 & 511554) socket and extension on the camshaft gear bolt as shown.

Removal: Use a ratchet or breaker bar to loosen and remove the bolt from the camshaft.

Assembly: Use a torque wrench to tighten the bolt on the camshaft. Refer to the vehicle service manual for the correct torque specifications.



WARNING: Wear eye protection that meets ANSI Z87.1 and OSHA standards.

Form No. 107267 Sheet 7 of 7