

## Complete Special Tools Report

PN	Cartool PN	Description	SIB	Location	Notes	Auto_ ship	Model	Inventory
00 00 0 000 000		Embossing Tool			Fax Central Letter Shop @ 1 877 695 0079 with center number and return address. Center will be billed direct for ~\$80 from Central Letter. The hole punch is available at <a href="http://www.officesupply.com">http://www.officesupply.com</a>		ALL, All	<input type="checkbox"/>
00 00 0 211 030		Wynns HVAC system cleaner	04 30 03		Refer to SI for details		All	<input type="checkbox"/>
44 7 1 20 326		AC leak detection kit	04 14 04		The Spectronics/Tracer R134a A/C dye leak test kit is approved for use on BMW vehicles. Sales of the kit and replacement parts will not be through the Automatic Tool Shipment Program. Kits and replacement parts may be purchased through: BMW Equipment Program 1 888 222 7997		All	<input type="checkbox"/>
61 13 1 467 775	900 322	Connector test kit	04 01 88		used with DIS, MoDiC III or multimeter to test systems with harming connectors. Seperate replacement pieces are no longer available.	x	All	<input type="checkbox"/>

81 10 0 021 292		ACC Adjustment Device	04 16 03	shelf	Used to align the ACC sensor after replacement. Refer to SI for complete details. 83 30 0 414 195 - Coarse Setting Device -not included for the US. 83 30 0 414 196 - Mirror /Metal Frame 83 30 0 414 197 - Rail 83 30 0 414 198 - Alignment Angle 83 30 0 414 199 - Wheel Laser 83 30 0 414 200 - Slotted Cover 83 30 0 414 201 - Setting Device	x	E65/66	<input type="checkbox"/>
81 10 0 422 196		Rear Camera Adjustment Tool	04 05 07		The RFK can only be calibrated using the RFK calibration tool and diagnostic software in the GT1 or DISplus. No mechanical adjustment is possible. The calibration process uses an optical target that the RFK is aligned with. The optical target must be precisely aligned for proper calibration. The calibration process must be performed on an even surface. Refer to the SI for complete details.	x	E70	<input type="checkbox"/>
81 12 9 425 091		55 pin break out box	04 14 85		used to troubleshoot electrical systems. See SIB for details	x	All	<input type="checkbox"/>
81 12 9 425 092		35 pin test cable	04 14 85		used with 425 091 to test systems	x	All	<input type="checkbox"/>
81 12 9 425 219		diesel timing adapter	04 13 85		used to check ignition timing with 2013 tester - no longer used		524TD	<input type="checkbox"/>
81 12 9 427 785		Sandbags	04 16 86		used for alignment of suspension		All	<input type="checkbox"/>
81 12 9 427 824		Exhaust adapters	04 17 87		used to adapt exhaust pipes on M70 to external systems		E32	<input type="checkbox"/>

81 12 9 428 828		Exhaust hose	04 29 94		for exhaust pipes		E38	<input type="checkbox"/>	
81 12 9 428 831		Digital input cable	04 30 96		used in conjunction with 88 pin B.O.B. and DIS	x	All	<input type="checkbox"/>	
81 12 9 428 832		DC circuit breaker cable	04 30 96		used with DIS	x	All	<input type="checkbox"/>	
81 12 9 428 833		25 Bar pressure sensor	04 30 96		used with 90 88 6 117 330 to test system pressures. GT1 sensor through Siemens PN A5E00296038	x	E36 Newer	<input type="checkbox"/>	
81 23 9 415 743		Torx set	04 12 85		no longer available		all	<input type="checkbox"/>	
81 23 9 415 811		Rivet pliers	04 23 88		used to replace blind rivets. Larger than normal size. No longer available.		E32 Newer	<input type="checkbox"/>	
81 24 9 408 080		Electrical repair kit I	04 18 82		used to replace connectors	x	All	<input type="checkbox"/>	
81 24 9 408 300		Electrical Repair Kit II	04 02 84		Used to replace connectors	x	All	<input type="checkbox"/>	

81 29 0 426 464		Turbocharger Diagnosis Tool	04 04 07		Starting with the N54 engine, it is necessary to both create a positive and negative pressure in order to test the Turbocharger and its system components. The components that can be tested with this tool are: <ul style="list-style-type: none"> <li>∫ Air intake check for leaks</li> <li>∫ Wastegate valve for correct function</li> <li>∫ Electro-pneumatic pressure transducer</li> </ul> The component tests use Test Module functions in the GT1 and DISplus. A complete examination of the air intake system can only be accomplished using the Turbocharger Diagnostic tool and Diagnosis system. This tool will work on all future Turbocharger systems. Refer to SI for more information.	x	N54	
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81 35 0 154 647		50 amp clamp for GT1	04 16 04		The 50-amp clamp is used with the GT1, Measurement Interface Box (SI B08 02 04) and the GT1 Trolley (SI B08 01 04) to conduct accurate closed circuit current measurements (SI B61 08 00) on BMW vehicles. The clamp is attached to MIB port ;SZ50; (2) and is stored on the Trolley storage rack (8). The 50-amp clamp connector is a push-pull connector and can be removed or installed during testing.	x	All	<input type="checkbox"/>
81 39 0 393 555		Battery Charger	04 09 07		Alternative charger to the Deutronic. Warranty service go to <a href="http://WWW.eltektalere.com">WWW.eltektalere.com</a> and click "Submit an RMA" to start the process.		MultiCharger 750	<input type="checkbox"/>
81 39 0 428 957		Deutronic Battery Charger			For sale through the BMW Parts Department or the BMW Equipment Program.		DBL800	<input type="checkbox"/>
81 42 0 017 566		Lamella curtain	04 08 05		Lamella is a flexible protective barrier used to separate and protect work bays during welding, grinding and sanding.		E60-64	<input type="checkbox"/>
81 43 0 020 819		Belt Grinder	04 08 05		Spare grinding belts may be ordered under PN 81 43 0 020 820.		E60-64	<input type="checkbox"/>

81 43 0 301 740		Flame coating primer kit	04 08 05		This unit is required to pre-treat surfaces that require aluminum bonding. It uses a special flame coat silicate and primer for the pre-treating. The unit comes with: · Burner · Small spatula · Large spatula · Case Consumable materials are not included with the kit. Refer to group 83 in EPC for refill cartridges and GP-15.	x	E60-64	<input type="checkbox"/>
81 43 0 301 742		Stud Welder	04 08 05		This highly specialized stud welder operates on 3 phase, 200/460 volts @32 amps. It is required to weld the V2A studs and self-piercing rivets and for the removal of studs and punch rivets. The unit comes with: · Stud welder · 2X grounding cables with clamp · Welding gun · 500 stainless steel studs · Cart. For parts or additional units contact Reliable Automotive Equipment - 732 747 1770. August 2007 - no longer available through Parts. Order through Reliable equipment above.	x	E60,61,63,64	<input type="checkbox"/>

81 43 0 301 745		V2A Stud/punch rivet extractor	04 08 05		The service parts for the Rivet gun are available through Reliable Automotive Equipment. (732-747-1770). This unit is used to pull V2A studs and self-piercing rivets out of aluminum parts and to attach special coated blind rivets for repair. The unit comes with: Rivet gun 2 batteries Interchangeable head for pulling Interchangeable head for attaching Case with charger. The service parts for the Rivet gun are available through Reliable Automotive Equipment. 732-747-1770	x	E60-64	<input type="checkbox"/>
81 43 0 303 336		Rod grinder	04 08 05		Accessory set must be ordered separately. Rod grinder accessory set PN 81 43 0 303 337		E60-64	<input type="checkbox"/>

81 43 0 402 559		Helicoil Plus Thread Repair Kit	04 07 06	NA	This special Helicoil plus thread repair kit has been developed to properly repair threads on the magnesium crankcase. Only this kit is to be used to perform repairs on the N52 magnesium crankcase threads. For proper identification, the inserts are colored blue like the aluminum bolts. Refer to repair manual section 11 0 610. Helicoil insert replacement PNs are: 11 11 7 547 538 M6x12, 11 11 7 547 539 M6x15, 11 11 7 547 540 M8X16, 11 11 7 547 548 M12x36	x	N52	<input type="checkbox"/>
81 47 0 026 306		Side panel covers	04 02 02		Fiberglass protective covers.		All	<input type="checkbox"/>
81 47 0 144 363		Universal front cover	04 02 02		This front cover for the E39 can be joined to the sides by means of the attached reusable fasteners.		E39	<input type="checkbox"/>
81 47 0 144 364		Wall Bracket	04 02 02		Used to store the protective covers.		All	<input type="checkbox"/>
81 49 0 301 738		Adhesive gun	04 08 05		This is a dual mixture ratio adhesive gun used to apply a specialized 2 component adhesive to the aluminum and steel body parts. Refer to EPC group 83 for refill cartridges and GP-15.	x	E60-64	<input type="checkbox"/>



81 49 0 443 166		Pneumatic Adhesive Gun	04 05 08		This tool is used for applying glue to the CFK roof. This tool must be used in conjunction with adhesive set PN 83 19 0 417 144 (not included with gun).		E92 M3	<input type="checkbox"/>
81 62 0 301 768		Windshield removal kit	04 26 03	shelf	This kit was developed to more efficiently remove windshields with a tight body to windshield gap. The kit uses a round cutting wire, which is placed around the window on the outside then pulled inwards and rolled up on a spindle. The adhesive is cut as the wire is wound up on the spindle. The kit consists of: Tool case, Cable winch with suction cup, Cutting wire for ~100 applications, Protective goggles and gloves, Plastic vehicle interior protection, Tool case with chisel, wire starter, ratchet, extension, trim tool, Instructions. Refer to repair manual section 51 31. Order replacement wire under PN 81 62 0 390 402. New improved kit under PN 81 62 0 397 332/333. Cold		All	<input type="checkbox"/>
81 62 0 404 083		DK LAN Cable	07 02 05		A supply of replacement DK LAN cables (3) is in stock and ready for immediate purchase. The cables work on the Diagnostic heads and the OPS/OPPS.		All	<input type="checkbox"/>

81 62 0 410 436		Scraper set	04 23 05		This scraper set will remove window sealant residue or engine gaskets efficiently. The kit consists of the following:1. Handle2. 10 blades 12 mm wide (81 62 0 410 806)3. 10 blades 16 mm wide (81 62 0 410 807)4. 10 blades 20 mm wide (81 62 0 410 808)		All, All	<input type="checkbox"/>	
81 64 0 142 874		Torque wrench	04 29 03	shelf	Used with various BMW square drive attachments to accurately torque fittings. This model covers torques from 2-100 nm. Replacement battery ordered under PN 81 64 0 417 654.		All	<input type="checkbox"/>	
81 64 0 142 875		Torque wrench	04 29 03	shelf	Used with various BMW square drive attachments to accurately torque fittings. This model covers torques from 20-200 nm.Replacement battery ordered under PN 81 64 0 417 654.		All	<input type="checkbox"/>	
81 64 9 424 055		Hazet Square Drive Set	04 03 03		Used in conjunction with a square drive torque wrench (not included (refer to 04 04 03) to torque vehicle bolts.		R50/53	<input type="checkbox"/>	
81 64 9 429 218		Body panel tool set	04 08 05		This tool set is used to repair body damage to the outer panels. The set does not included the toolbox pictured		E60-64	<input type="checkbox"/>	

81 64 9 429 291		Tool storage cart	04 08 05		Used to store all of the outer body and structural tools. Cart includes drawer partitions but does not include the tools shown.		E60-64	<input type="checkbox"/>
82 11 1 466 971		Radio Tool			This is the red handled, 5 sided radio removal tool.		All	<input type="checkbox"/>
82 11 9 408 400		Electrical repair kit III	04 03 88		connector kit	x	E32 Newer	<input type="checkbox"/>
83 30 0 131 100	170 009	Coolant tank test flange	04 17 89	C3	used with pressure tester to test coolant system for leaks	x	E30	<input type="checkbox"/>
83 30 0 420 667		Alcohol Detection Test Tool	13 04 06		In order to correctly diagnose various drivability complaints caused by fuel blends with a high level of ethanol content, BMW has developed an alcohol detection test tool.	x	All	<input type="checkbox"/>
83 30 0 433 207		Evaporative System Test Adapter	04 20 07		To be used in conjunction with approved VACUTEK Smoke Machine evaporative leak testing device	x	All Models	<input type="checkbox"/>

83 30 0 490 075	000 200	Cross Member			This tool is used to support the engine when removing and replacing transmission or transaxle. Consists of: 1. 000 201 (83 30 0 490 076)Locating bridge 2. 000 202 (83 30 0 490 077)Spindle with hook 3. 000 203 (83 30 0 490 078) Extension Note: for extending locating bridge 000 201 Model series: E65 4. 000 204 (83 30 0 490 079) Adapter support In conjunction with 000 200 5. 000 205 (83 30 0 490 080) Extension Note: Model series R50, R53 6. 000 206 (83 30 0 490 081)Support foot (2x) Note: Model series: E30, E31, E32, E34, E36, Z3 6-cylinders only 7. 000 207 (83 30 0 490 082) Support foot (2x) Note: Model: Z3/4-cylinder engines only 8. 000 208 (83 30 0 490 083)Support foot (2x) Note: Model:		All	<input type="checkbox"/>
83 30 0 490 083	000 208	Support feet	04 16 97		used with 88 88 6 000 200 to support engine during work		All Earlyxcept Z3	<input type="checkbox"/>
83 30 0 490 110	001 450	Engine stand	04 17 87		used to mount engine for rework	x	All	<input type="checkbox"/>
83 30 0 490 115	001 460	Engine supports	04 17 87		used to mount engine on stand 88 88 6 001 450	x	M70	<input type="checkbox"/>
83 30 0 490 133	002 030	Transmission Stand			Used with the transmission fixtures to R&R transmissions. Fixtures not included with stand.		ALL	<input type="checkbox"/>
83 30 0 490 135	002 040	Universal support	04 18 91		used to support rear suspension for removal	x	All Earlyxcept Early31	<input type="checkbox"/>
83 30 0 490 147	002 110	T30 torx insert	04 15 85		Used to R&R sensor on wheel well	x	E23	<input type="checkbox"/>

83 30 0 490 149	002 130	T25 Torx driver	04 14 88	A7	used to remove seat trim panels	x	E32	<input type="checkbox"/>
83 30 0 490 150	002 140	T20 torx bit	04 18 94		used to remove headlight lenses	x	E38	<input type="checkbox"/>
83 30 0 490 152	002 180	6mm hex socket	04 22 88	A7	this keyed socket is needed to remove the distributor rotor	x	M70	<input type="checkbox"/>
83 30 0 490 169	002 490	Adapter	04 08 88	B13	used with 88 88 6 002 500 and 88 88 6 002 510 for brake rotor runout measurments	x	All	<input type="checkbox"/>
83 30 0 490 185	002 530	Measuring bridge	04 01 84		used with 88 88 6 002 210 to measure piston projection lenght	x	524TD	<input type="checkbox"/>
83 30 0 490 186	002 540	Injection nozzle tester	04 01 84		used to test injector spray pattern	x	524TD	<input type="checkbox"/>
83 30 0 490 441	004 210	Reamer kit	04 18 87		used to ream valve guides. See SIB 11 11 86 for details	x	S38	<input type="checkbox"/>
83 30 0 490 466	005 010	Puller	04 01 84		used to remove shaft sealing rings on engine and trans.	x	524TD	<input type="checkbox"/>
83 30 0 490 473	005 030	Seat belt pliers	04 12 89	B13	used to replace seat belt button (parst fiche)	x	All	<input type="checkbox"/>
83 30 0 490 474	005 040	Seat belt button press			Used to fasten the seat belt stop button on new belts.		All	<input type="checkbox"/>
83 30 0 490 475	005 500	Handle		A18	used with various drifts to install seals	x	All	<input type="checkbox"/>
83 30 0 490 478	005 591	Module puller	04 21 88	A13	used to remove modules such as ZKE. Replaces 88 88 6 005 590	x	E32 Newer	<input type="checkbox"/>
83 30 0 490 480	005 600	Gas spring compressor	04 14 88	A6	used to compress gas springs on the E30 seats		E30	<input type="checkbox"/>
83 30 0 490 482	007 500	Puller set		C6	used to remove various bearings	x	All	<input type="checkbox"/>
83 30 0 490 483	007 501	Puller spindle		B6	used with 007 500	x	All	<input type="checkbox"/>
83 30 0 490 490	008 000	Hydraulic press	04 13 01	Shelf	Used to R&R bushings. Refer to SIB 04 13 01. Replacement PN for 008 006 is 83 30 0 493 412.		All	<input type="checkbox"/>
83 30 0 490 497	008 550	Puller			used to remove rear wheel bearing	x	E24	<input type="checkbox"/>
83 30 0 490 502	009 100	Wrench	04 25 86	1	used to adjust the headlight cleaning system jets	x	750i, E32	<input type="checkbox"/>

83 30 0 490 504	009 120	Torque angle tool	04 21 96		used to adjust torque angle on head bolts	x	All	<input type="checkbox"/>
83 30 0 490 505	009 150	Sealing pliers	04 08 89	C2/C3	Used to place lead seal on final drive Lead seal 62 121 354 984. Wire 62 121 354 983.		E30	<input type="checkbox"/>
83 30 0 490 508	009 190	Pliers	04 22 92	B6	cuts off timing chain cover gasket	x	M60	<input type="checkbox"/>
83 30 0 490 509	009 200	Adjustment tool	04 03 90	C14	used to adjust windshield washer nozzles. Tip only 88 88 6 009 201	x	E32 Newer	<input type="checkbox"/>
83 30 0 490 512	009 220	Wiper arm adjustment tool	04 51 01	A21	Used with 009 331 to adjust the approach angle of the wiper arms.	x	E53	<input type="checkbox"/>
83 30 0 490 513	009 230	Wiper adjustment gauge	04 14 95	A21	used to adjust the angle of the wiper arm	x	All	<input type="checkbox"/>
83 30 0 490 515	009 250	Torque wrench	04 12 96	A21	used for low torque applications such as chain tensioner adjustment	x	M62	<input type="checkbox"/>
83 30 0 490 518	009 260	Wiper arm adjuster	04 28 96	A21	used with 90 88 6 009 230 to adjust wipers	x	E39	<input type="checkbox"/>
83 30 0 490 525	009 280	Navigation calibrator	04 31 96	A21	used with 88 88 6 009 200 to calibrate nav system		E39	<input type="checkbox"/>
83 30 0 490 526	009 300	Grill removal tool	04 09 97	A21	used to remove dash vents.	x	E39	<input type="checkbox"/>
83 30 0 490 527	009 310	Wedge kit	04 09 97		used to remove the vehicle body parts without damage		All	<input type="checkbox"/>
83 30 0 490 566	110 010	Spacer	04 16 90	C7/C8	used to support engine with trans removed		E31	<input type="checkbox"/>
83 30 0 490 567	110 020	Engine lifting bar			Used to remove the 6 cylinder engines from the vehicle.	x	M52/54/30/20, N52/62, S85	<input type="checkbox"/>
83 30 0 490 573	110 030	Adapter	04 07 91	A4	used with 88 88 6 110 020 to remove M50 engine	x	E36	<input type="checkbox"/>
83 30 0 490 587	110 090	Mounting plate	04 06 90		used to mount engine on stand	x	M42	<input type="checkbox"/>
83 30 0 490 588	110 100	Engine adapter plate			Used on 4 cylinder engines up to 1979.		4 cylinder	<input type="checkbox"/>
83 30 0 490 589	110 110	Engine plate	04 01 84		used with engine stand to support engine	x	524TD	<input type="checkbox"/>

83 30 0 490 590	110 120	Adapter plate	00 03 80		used to mount engine on stand	x	E23	<input type="checkbox"/>
83 30 0 490 591	110 130	Adapter plate			Used to mount the engine to the engine stand.		530i	<input type="checkbox"/>
83 30 0 490 593	110 160	Compression gauge	04 01 84		used to record compression of engine	x	524TD	<input type="checkbox"/>
83 30 0 490 599	110 166	Adapter hose	04 14 88	A5	used with 88 88 6 110 160 to test compression	x	M70	<input type="checkbox"/>
83 30 0 490 601	110 180	Valve board	04 17 87		used to hold the valves in position during removal	x	M70	<input type="checkbox"/>
83 30 0 490 613	110 220	Compression test kit			Used to test and record engine cylinder compression. Paper for compression tester #110 229, order PN 83 30 0 490 622.		All	<input type="checkbox"/>
83 30 0 490 619	110 226	Compression test hose			Used with the 25 bar DISplus pressure sensor to test engine compression.		All	<input type="checkbox"/>
83 30 0 490 627	110 240	Coupling			Used to adapt test probes to pressure gauge		All	<input type="checkbox"/>
83 30 0 490 649	110 343	Valve spring hook	04 14 96		used to hook the valve spring in the depressed position	x	M52	<input type="checkbox"/>
83 30 0 490 650	110 344	Valve spring compressor	04 14 96		used to depress the valve spring with 90 88 6 110342	x	M52	<input type="checkbox"/>
83 30 0 490 651	110 345	Valve spring depressor	04 04 96		used to compress the valve springs	x	M44	<input type="checkbox"/>
83 30 0 490 653	111 010	Pressure testing set	04 19 86		used to pressure test the cylinder head	x	S38	<input type="checkbox"/>
83 30 0 490 691	111 050	Assembly accessories	04 19 86		used with 88 88 6 111 060 to remove valve springs	x	S38	<input type="checkbox"/>
83 30 0 490 708	111 072	Retaining bracket	04 09 95		used to attach cylinder head to 88 88 6 111 065	x	E38 With M73	<input type="checkbox"/>
83 30 0 490 712	111 110	Pressure fixture	04 19 86		used with 88 88 6 111 012 to pressure test the head	x	S38	<input type="checkbox"/>
83 30 0 490 722	111 180	Spanner	04 01 84		used on drag lever bolts	x	524TD	<input type="checkbox"/>

83 30 0 490 724	111 200	Mandrel	04 04 86	B5	used to install grooved valve stem seals. Replaces 88 88 6 111 070/080/090/140/160 /170	x	All	<input type="checkbox"/>
83 30 0 490 725	111 210	Oil seal puller	04 17 87	A18	used to remove the front crankshaft oil seal	x	M70	<input type="checkbox"/>
83 30 0 490 726	111 220	Drift	04 17 87	B15	used to press in the crankshaft oil seal - timing case cover	x	M70	<input type="checkbox"/>
83 30 0 490 727	111 230	Drift	04 17 87	B15	use to drive in the crankshaft oil seal into the end cover	x	M70	<input type="checkbox"/>
83 30 0 490 728	111 250	Pliers		B15	used to remove valve stem seals	x	All	<input type="checkbox"/>
83 30 0 490 729	111 260	Drift			used to install seals	x	E21	<input type="checkbox"/>
83 30 0 490 734	111 280	Drift			used to install seals in front cover	x	E23, E30, E24, E28	<input type="checkbox"/>
83 30 0 490 746	111 380	Sleeve	04 01 84		used to install valve shaft seals	x	524TD	<input type="checkbox"/>
83 30 0 490 752	111 410	Alignment tool	04 12 96	B14	used to correctly align valve cover	x	M62	<input type="checkbox"/>
83 30 0 490 755	111 420	Pressure fixture	04 21 88		used to pressure test engine head		M70	<input type="checkbox"/>
83 30 0 490 761	111 430	Pressure fixture	04 06 90		used to pressure test the head		M42	<input type="checkbox"/>
83 30 0 490 771	111 440	Valve support tray	04 06 90		used to support valves during removal	x	M42	<input type="checkbox"/>
83 30 0 490 774	111 450	Pressure fixture	04 16 90		used with 88 88 6 111 430 to pressure test heads		M50	<input type="checkbox"/>
83 30 0 490 798	112 000	Puller		B15	used to remove the front crank sprocket	x	2500	<input type="checkbox"/>
83 30 0 490 804	112 006	Base plate	04 09 95	B15	used with 88 88 6 112 000 to remove crankshaft sprocket		E31,E38	<input type="checkbox"/>
83 30 0 490 805	008 510	Puller		A1/B1	used to push out bearings and shafts. Replaced by 88 88 6 112 010.	x	All, E24	<input type="checkbox"/>
83 30 0 490 811	112 016	Spindle	04 22 92	A20/B20	used with 88 88 6 112 010 to remove pilot bearing on the crankshaft	x	M60	<input type="checkbox"/>
83 30 0 490 818	112 030	Drift		B9	used to install rear bearing - flywheel	x	E28	<input type="checkbox"/>
83 30 0 490 819	112 040	Holder	04 01 84		used to hold intermediate shaft	x	524TD	<input type="checkbox"/>



83 30 0 490 820	112 050	Guide	04 01 84		used to install pistons	x	524TD	<input type="checkbox"/>
83 30 0 490 821	112 060	Guides	04 19 86	A9/B9	used to install the pistons	x	S38	<input type="checkbox"/>
83 30 0 490 822	112 070	Flywheel holder	04 17 87	A16	used to hold flywheel when loosening bolts	x	M70	<input type="checkbox"/>
83 30 0 490 825	112 100	Flywheel lock			used to hold flywheel on standard transmission	x	E21	<input type="checkbox"/>
83 30 0 490 835	112 120	Flywheel lock		C2	used to hold flywheel on automatic transmission	x	2000, 2500, 3.0	<input type="checkbox"/>
83 30 0 490 836	112 130	Extension spindles		C11	used to pull hub and toothed gear	x	E28	<input type="checkbox"/>
83 30 0 490 841	112 150	Holder		A2/B2	used to hold front dampner for removal	x	E28	<input type="checkbox"/>
83 30 0 490 842	112 160	Flywheel lock		A4	used to hold flywheel	x	2500	<input type="checkbox"/>
83 30 0 490 843	112 170	Flywheel lock		B4	used to hold flywheel	x	E28	<input type="checkbox"/>
83 30 0 490 845	112 190	Holder		C22	used to hold camshaft and intermediate shaft	x	E28	<input type="checkbox"/>
83 30 0 490 849	112 210	Seal guide			used to guide crankshaft seals during instalation	x	E24	<input type="checkbox"/>
83 30 0 490 854	112 230	Holder	04 17 87	A21	used to hold vibration damper when R and R damper bolt (front)	x	M70	<input type="checkbox"/>
83 30 0 490 855	112 240	Holder	04 02 90	3	used to hold vibration damper in order to tighten	x	E34, E32	<input type="checkbox"/>
83 30 0 490 856		E12 Torx	04 06 90	A22/B22	used to R and R cylinder head bolts	x	M42	<input type="checkbox"/>
83 30 0 490 858	112 270	Assembly pliers	04 19 86	B21	used to install the pistons	x	S38	<input type="checkbox"/>
83 30 0 490 859	112 280	Counter holder	04 15 88	A23	used to hold drive belt and sprocket to remove retaining bolt	x	M20	<input type="checkbox"/>
83 30 0 490 861	112 300	Arbor	04 01 84		used to lock flywheel	x	524TD	<input type="checkbox"/>
83 30 0 490 862	112 310	Seal extractor	04 06 90	A23	use to remove front radial oil seal	x	M42	<input type="checkbox"/>
83 30 0 490 865	112 313	Thrust pad	04 06 90	A23/A24	used with 88 88 6 112 310 to remove crankshaft seal	x	M42	<input type="checkbox"/>
83 30 0 490 867	112 330	Assembly plate	04 06 90	C21	used to assemble lower timing case	x	M42	<input type="checkbox"/>
83 30 0 490 868	112 340	Bearing extractor	04 13 90	B22	used to remove the crankshaft bearing	x	E31	<input type="checkbox"/>

83 30 0 490 873	112 350	Drift	04 13 90	B23	used to install the crank guide bearing	x	E31	<input type="checkbox"/>
83 30 0 490 876	112 380	Seal puller	04 22 92	B23	removes timing case cover seal	x	M60	<input type="checkbox"/>
83 30 0 490 882	112 390	Seal installer	04 22 92	B23	installs crankshaft end cover with seal	x	M60	<input type="checkbox"/>
83 30 0 490 883	112 400	Tensioner block	04 22 92		used with 90 88 6 113 390 when timing case is removed	x	M60	<input type="checkbox"/>
83 30 0 490 884	112 410	Spacer	04 14 96	B22	used with 88 88 6 112 150 to maintain counter pressure when removing crankshaft	x	M52	<input type="checkbox"/>
83 30 0 490 885	112 420	Crankshaft holder	04 09 95	B23/C23	used to hold the crank. when R and R central nut	x	E31 With M73, E38 With M73	<input type="checkbox"/>
83 30 0 490 886	112 430	Camshaft insertion jig	04 22 92	A22	used to check camshaft position after insertion	x	M60	<input type="checkbox"/>
83 30 0 490 887	112 440	Camshaft Jig	04 22 92	shelf	used to adjust camshaft	x	M60	<input type="checkbox"/>
83 30 0 490 892	112 445	Camshaft jig	04 02 94		used with 90 88 6 112 440 to align camshaft. See SIB for details	x	M60	<input type="checkbox"/>
83 30 0 490 893	112 446	Camshaft jig	04 02 94		used to align camshaft. See SIB for details	x	M60	<input type="checkbox"/>
83 30 0 490 894	112 450	Crankshaft holder	04 22 92	A24	used to hold crank to remove central bolt	x	M60	<input type="checkbox"/>
83 30 0 490 896	112 470	Alignment rods	04 22 92	A24	used to properly align connecting rods during replacement	x	M60	<input type="checkbox"/>
83 30 0 490 897	112 480	Engine support	04 04 93		used to support the engine with transmission removed	x	E32	<input type="checkbox"/>
83 30 0 490 900	113 010	Camshaft fixture	04 19 86		used to R&R the camshaft	x	S38	<input type="checkbox"/>
83 30 0 490 901	113 020	Crank turner	04 19 86	A24	used to turn the crankshaft	x	S38	<input type="checkbox"/>
83 30 0 490 902	113 030	Tray	04 19 86	A23/A24	used to store valve tappets	x	S38	<input type="checkbox"/>
83 30 0 490 903	113 040	Special Bolt	04 19 86	B22	used to remove the guide pulley (timing chain)	x	S38	<input type="checkbox"/>
83 30 0 490 912	113 080	Drift	04 01 84		used to install seal ring on camshaft	x	524TD	<input type="checkbox"/>
83 30 0 490 913	113 090	Holding fixture	04 01 84		used to hold camshaft	x	524TD	<input type="checkbox"/>
83 30 0 490 928	113 120	Lever installer	04 01 84		used to install drag lever in head	x	524TD	<input type="checkbox"/>

83 30 0 490 931	113 130	Valve device	04 01 84		used to R	x	524TD	<input type="checkbox"/>
83 30 0 490 937	113 140	Puller	04 01 84		used to remove ball pin in cylinder head	x	524TD	<input type="checkbox"/>
83 30 0 490 942	113 160	Valve adjuster	04 19 86	A24	holder with gauge to adjust valves. This PN only contains 5 gauges. If you want all 7 gauges you must order the PN above and PN 83 30 0 493 754.	x	S38	<input type="checkbox"/>
83 30 0 490 945	113 170	Valve lever	04 19 86	B22/C22	used to press down valve tappets when adjusting valves	x	S38	<input type="checkbox"/>
83 30 0 490 946	113 180	thrust lever	04 17 87		used to R&R the rocker arms in the cylinder head	x	M70	<input type="checkbox"/>
83 30 0 490 947	113 190	Alignment tool	04 17 87	A23	used to align ca	x	M70	<input type="checkbox"/>
83 30 0 490 948	113 200	seal driver	04 27 87	A23/A24	used to install the upper timing case cover seal	x	M70	<input type="checkbox"/>
83 30 0 490 949	113 210	Centering bushing	04 27 87	A10/A11	used to center the timing case cover on the camshaft	x	M70	<input type="checkbox"/>
83 30 0 490 950	113 220	Guide sleeve	04 27 87	A13	used to guide the case cover onto the camshaft	x	M70	<input type="checkbox"/>
83 30 0 490 951	113 230	Degree scale	04 02 90	C10	used with 88 88 6 12 240 to tighten central nut on crankshaft6	x	E34	<input type="checkbox"/>
83 30 0 490 952	113 240	Camshaft locating fixture	04 06 90	A6	used with 88 88 6 112 300 to align and hold camshafts	x	M42	<input type="checkbox"/>
83 30 0 490 956	113 250	Suction cups	04 06 90	A7	used to remove hydraulic lifters. 88 88 6 113 251 was later added to included the M50.	x	M42	<input type="checkbox"/>
83 30 0 490 957	113 251	Suction cups	04 11 90		used with 88 88 6 113 250 to remove hydraulic lifters	x	M50	<input type="checkbox"/>
83 30 0 490 959	113 260	Camshaft jig	04 06 90		Used to hold the camshaft when removing the camshaft bearing caps.		M50 M52, M54 S52, M42	<input type="checkbox"/>
83 30 0 490 961	113 262	Holding bolts	04 06 90		Used on 113 260 to hold camshaft when removing the camshaft bearing caps.		M50 M52 M54 S52	<input type="checkbox"/>

83 30 0 490 962	113 270	Camshaft removing fixture	04 11 90		used with 88 88 6 113 260 to remove camshaft	x	M50	<input type="checkbox"/>
83 30 0 490 965	113 280	Seal installer	04 11 90	B2	used to install timing case seal	x	M50	<input type="checkbox"/>
83 30 0 490 966	113 290	Securing spring	04 11 90	C3	used to hold chain tensioner when R and R timing case cover	x	M50	<input type="checkbox"/>
83 30 0 490 968	113 292	Locking pin	04 07 95	A2	used to lock the secondary chain tensioner	x	M52	<input type="checkbox"/>
83 30 0 490 969	113 300	Mounting plate	04 11 90		used to mount engine to engine stand	x	M50	<input type="checkbox"/>
83 30 0 490 970	113 310	Cam chain clips	04 12 96	B4	used to secure the cam chain tensioner	x	M62	<input type="checkbox"/>
83 30 0 490 973	113 340	Locking Pins			Used to lock the chain tensioner in place during R&R of the cylinder head.		N54 N73 M62	<input type="checkbox"/>
83 30 0 490 981	113 380	T50 torx socket	04 14 92	A2	used to R	x	M70	<input type="checkbox"/>
83 30 0 490 982	113 390	Timing chain tensioner	04 22 92	A10	places proper tension on timing chain during engine assembly	x	M60	<input type="checkbox"/>
83 30 0 490 988	113 410	Valve Board	04 11 03	shelf	Used to R and R cylinder head valves and valve springs.	x	E46 M3	<input type="checkbox"/>
83 30 0 490 992	113 420	Cam clips	04 22 92	B10	locks secondary chain tensioner during repairs	x	M60	<input type="checkbox"/>
83 30 0 490 993	113 430	Camshaft turning tool	04 22 92	B6	used to safely turn the camshafts	x	M60	<input type="checkbox"/>
83 30 0 490 994	113 440	Vibration damper fixture	04 22 92	C11	used to prevent contact between pistons and head when replacing the heads	x	M60	<input type="checkbox"/>
83 30 0 490 995	113 450	Adapter block	04 27 92	B5	used with 126 410 to measure VANOS angle	x	TU, M50	<input type="checkbox"/>
83 30 0 490 996	113 460	Angle disc	04 28 92	B4	measures torque angle on the M60 when tightening crankshaft	x	M60	<input type="checkbox"/>
83 30 0 490 999	113 490	Reference gauge			Used to set Vanos when installing.		S50B30 S50B32	<input type="checkbox"/>
83 30 0 491 002	114 020	Oil filter wrench	04 08 83	C8	used to remove oil filters	x	M10, M20	<input type="checkbox"/>
83 30 0 491 003	114 030	Connection nipple	04 05 88	B5	used to check oil pressure	x	E34	<input type="checkbox"/>

83 30 0 491 005	114 050	Reducer			Used to connect 136 054 to pressure gauge for checking oil pressure		All	<input type="checkbox"/>
83 30 0 491 007	114 070	Assembly tool	04 19 86	C11	used to drive in oil dipstick tube	x	S38	<input type="checkbox"/>
83 30 0 491 011	114 110	Alignment studs	04 04 96	A3/B3/C3	used to hold and align gasket for upper timing case	x	M44	<input type="checkbox"/>
83 30 0 491 015	114 150	Drift		C1	used to install radial oil seals on timing case cover	x	M44	<input type="checkbox"/>
83 30 0 491 018	114 180	T60 torx socket	04 12 94	C1	used to remove dual mass flywheel bolts	x	M60	<input type="checkbox"/>
83 30 0 491 019	114 190	Timing chain adapter	04 18 94	B11	used to pretension timing chain	x	E38	<input type="checkbox"/>
83 30 0 491 025	114 220	Chain tensioner	04 07 95	B4	used to tension primary chain	x	M52	<input type="checkbox"/>
83 30 0 491 047	115 040	Special wrench	04 20 87	B4	used to tighten viscous fan clutch	x	All	<input type="checkbox"/>
83 30 0 491 048	115 050	Fan pulley holder	04 06 90	B12	used to hold front pulley to remove	x	M42	<input type="checkbox"/>
83 30 0 491 056	115 100	Adapter with wrench			Used to turn engine at crankshaft when adjusting valve timing.		S50B30, S54, S50B32	<input type="checkbox"/>
83 30 0 491 057	115 110	Crankshaft seal installer	04 09 95	A11	used to install the front crank seal	x	E31 With M73, E38 With M73	<input type="checkbox"/>
83 30 0 491 058	115 130	Valve depressor	04 04 96	C12	used to depress valves	x	M44	<input type="checkbox"/>
83 30 0 491 062	115 490	Chain tensioner	04 17 94	A5	Used to remove the VANOS adjustment unit	x	M3, E36	<input type="checkbox"/>
83 30 0 491 069	116 060	Special extension	04 17 87	A5	used to R&R intake manifold nuts	x	M70	<input type="checkbox"/>
83 30 0 491 070	116 070	Universal socket	04 02 90	A5	used to R and R exhaust manifold	x	E34	<input type="checkbox"/>
83 30 0 491 073	117 010	Hose	04 01 84		for checking control valve	x	524TD	<input type="checkbox"/>
83 30 0 491 074	117 020	oxygen sensor socket	04 04 85		used to R&R O2 sensor		all	<input type="checkbox"/>
83 30 0 491 078	117 310	Engine support	04 09 95		used to support engine with trans. removed	x	E38 With M73	<input type="checkbox"/>
83 30 0 491 079	117 320	Oil jet adjuster	04 04 96	A5	used to adjust the crankcase oil jets	x	M44	<input type="checkbox"/>
83 30 0 491 080	117 330	Oil pressure adapter	04 04 96	A5	used to measure oil pressure using 90 88 6 136 050.	x	M44	<input type="checkbox"/>
83 30 0 491 086	117 342	Locking pin	04 28 01	A5	Used with 119 130 to lock the camshaft during assembly.	x	E46 M3	<input type="checkbox"/>

83 30 0 491 089	117 370	Engine spacer	04 02 96	C4	used to support engine with trans. removed	x	E39	<input type="checkbox"/>
83 30 0 491 090	117 380	Torque block	04 12 96	A5	use to adj. timing chain tensioner when timing cover is off.	x	M62	<input type="checkbox"/>
83 30 0 491 091	117 450	Oxygen sensor tester	04 04 94		used to test oxygen sensor operation	x	all	<input type="checkbox"/>
83 30 0 491 101	118 000	Valve remover	04 19 86	A5/B5	used with 88 88 6 111 052 to remove valves	x	S38	<input type="checkbox"/>
83 30 0 491 109	118 040	Support Plate			Used in conjunction with 001 450 to secure engine to engine stand.		M50,M52,M54,M56,S54	<input type="checkbox"/>
83 30 0 491 115	121 080	Ignition wire repair kit			used to repair ignition wires. Replaces 112 090	x	E38	<input type="checkbox"/>
83 30 0 491 118	121 083	Replacement crimping jaws	04 24 94	A5/B5	used to crimp 4mm flat connectors with 88 88 6 121 091	x	E38	<input type="checkbox"/>
83 30 0 491 123	121 090	crimping pliers	04 01 84		used to crimp spark plug wires - crimper 88 88 6 121 091, pliers -88 88 6 121 092	x	e23 e24	<input type="checkbox"/>
83 30 0 491 127	121 160	Spark plug socket	04 19 86	A5	used to R and R spark plugs	x	S38	<input type="checkbox"/>
83 30 0 491 128	121 170	Socket and torque converter	04 17 87	A5	used to R and R the spark plugs - 121 171 and 121 172		M70	<input type="checkbox"/>
83 30 0 491 131	121 180	Plug pliers	04 21 88	A5	used to remove spark plug pliers		All	<input type="checkbox"/>
83 30 0 491 133	121 200	Torque limiter	04 22 92	A5	used with 88 88 6 121 171 to tighten spark plugs to proper torque	x	M60 EarlyNG	<input type="checkbox"/>
83 30 0 491 134	121 300	134 pin B.O.B and adapter cable set	04 14 97	shelf	used to diagnose problems in control modules.	x	E46	<input type="checkbox"/>
83 30 0 491 148	126 410	Adapter lead	04 27 92		Actuates VANOS unit for testing	x	TU	<input type="checkbox"/>
83 30 0 491 151	127 010	EML test adapter	04 17 87		used to test the external safety path	x	ALL	<input type="checkbox"/>
83 30 0 491 152	161 160	Tank ventilation leak couplers	04 01 98	B20	used to test tank vent system for leaks in conjunction with 90 88 6 161 150.	x	E38,E39	<input type="checkbox"/>
83 30 0 491 153	127 012	EML cable adapter	04 16 91		Replaced by 90 88 6 127 013	x	All	<input type="checkbox"/>

83 30 0 491 154	127 013	EML safety path adapter	04 03 94		used to test the EML safety path on vehicles from MY93	x	E31 M70	<input type="checkbox"/>
83 30 0 491 156	127 020	Primary adapter	04 01 91		displays primary voltage on scope	x	E30 Newer	<input type="checkbox"/>
83 30 0 491 158	127 030	Secondary adapter	04 16 91		measures secondary voltage	x	M50	<input type="checkbox"/>
83 30 0 491 160	127 040	Coil tester	04 25 92		allows you to read scope patterns on coils. See SIB for details	x	M42 Newer	<input type="checkbox"/>
83 30 0 491 167	127 320	23 Pin test cable	04 05 02		Used in conjunction with the DISplus and BOB 614 390 to troubleshoot the Valvetronic control module.	x	E65, E31,E36, E38	<input type="checkbox"/>
83 30 0 491 168	127 130	Extension	04 09 95	A9	used with 88 88 6 121 171 and 90 88 6 121 200 to remove spark plugs		E38, E31	<input type="checkbox"/>
83 30 0 491 223	130 110	Sampler tubes	04 14 92		used to test CO levels with Gas Bench	x	S38	<input type="checkbox"/>
83 30 0 491 250	131 100	Allen screwdriver	04 08 83		used to adjust CO on L Jet	x	E23, E24, E28	<input type="checkbox"/>
83 30 0 491 254	132 010	Wrench	04 01 84		used to tighten heater element in the fuel filter	x	524TD	<input type="checkbox"/>
83 30 0 491 256	133 010	Hose clamp	04 08 81	A9	used to close off hoses for testing	x	All	<input type="checkbox"/>
83 30 0 491 264	133 065	Adapter			Connection adapter for fuel system.		All except N73	<input type="checkbox"/>
83 30 0 491 270	134 010	Bridging tool	04 16 87	C1	connects to throttle switch plug to ensure proper signal to the control module while adjusting idle	x	E30, E28, E24	<input type="checkbox"/>
83 30 0 491 272	134 030	Current Generator	04 16 85		required for basic adjustment of the idle control valve	x	E30	<input type="checkbox"/>
83 30 0 491 276	135 010	puller	04 01 84		used to pull inj, pump impeller	x	524TD	<input type="checkbox"/>
83 30 0 491 277	135 020	Wrench	04 01 84		used to R&R injection lines	x	524TD	<input type="checkbox"/>
83 30 0 491 285	135 060	Tool set	04 11 85		used to replace the injector pump	x	524TD	<input type="checkbox"/>
83 30 0 491 305	135 220	Fuel pressure adapter	04 04 96		used to measure fuel pressure at rail	x	M44	<input type="checkbox"/>

83 30 0 491 310	135 270	Fuel pressuer adapter hose	04 09 97		used with DIS to test fuel inlet pressure.	x	M62	<input type="checkbox"/>
83 30 0 491 313	135 280	Line plugs	04 09 97	C3	used to plug the fuel lines during testing		M62	<input type="checkbox"/>
83 30 0 491 316	135 300	Exhaust pick-up	04 02 82		used to test CO	x	All Early	<input type="checkbox"/>
83 30 0 491 318	135 320	Socket	04 01 84		use to R&R injectors	x	524TD	<input type="checkbox"/>
83 30 0 491 319	135 330	Gauge holder	04 01 84		used to hold measurement gauge	x	524TD	<input type="checkbox"/>
83 30 0 491 320	135 340	Alignment pin	04 01 84		used to align injection pump with impeller	x	524TD	<input type="checkbox"/>
83 30 0 491 340	136 050	Pressure sensor adapter set	04 30 96		Used with 81 12 9 428 833 to test pressures	x	E36 Newer	<input type="checkbox"/>
83 30 0 491 369	161 020	Fuel sender spanner			used to remove nut on sender. Aluminun tools must use steel jaws pn 161 022	x	all	<input type="checkbox"/>
83 30 0 491 370	161 030	Pin wrench	04 13 90	B14	used to R and R locking pin on gas filler door	x	E31	<input type="checkbox"/>
83 30 0 491 371	161 040	Spreading tool	04 05 93	C3	used to remove vent pipe on carbon canister		M50	<input type="checkbox"/>
83 30 0 491 372	161 050	Charcoal canister line remover	04 18 94	B9	releases canister line	x	E38	<input type="checkbox"/>
83 30 0 491 374	161 150	Evap. system leak tester	04 06 97		test for leaks in the evaporative syatem. used in conjunction with 25 bar pressure sensor 04 30 96.	x	Z3	<input type="checkbox"/>
83 30 0 491 384	170 000	Coolant system pressure tester		A2/B2	used to test coolnt system pressures. Replaced by PN 90 88 6 170 100 and 130.	x	All	<input type="checkbox"/>
83 30 0 491 389	170 005	Cooling system adapter	04 25 86	B3/C3	used with 88 88 6 170 000 to check cooling system for leaks	x	E32	<input type="checkbox"/>
83 30 0 491 391	170 009	Coolant tank test flange	04 17 89	B7	used with pressure tester to test coolant system for leaks	x	M3	<input type="checkbox"/>
83 30 0 491 395	170 013	Rubber seal	04 19 93		rebuild part for 88 88 6 170 002		All	<input type="checkbox"/>
83 30 0 491 396	170 014	Rubber valve	04 19 93		rebuild part for 88 88 6 170 002		All	<input type="checkbox"/>
83 30 0 491 399	170 017	Leather pump	04 19 93		rebuild part for 88 88 6 170 002		All	<input type="checkbox"/>



83 30 0 491 417	212 070	Clutch Gauge	04 07 91		used to measure clutch wear - replaced be tool 90 88 6 212 080	x	E36	<input type="checkbox"/>
83 30 0 491 418	212 080	Clutch depth gauge	04 16 96	C12	used to check disc wear - replaces tool 88 88 6 212 070	x	All	<input type="checkbox"/>
83 30 0 491 421	212 100	Mandrel			Used to center the clutch disc while installing the clutch.		265	<input type="checkbox"/>
83 30 0 491 423	212 120	Clutch alignment pin	04 13 90	B3	used to align clutch during installation	x	E31	<input type="checkbox"/>
83 30 0 491 424	212 130	Clutch alignment tool	04 11 91	C3	used to align clutch during installation	x	M50, M42	<input type="checkbox"/>
83 30 0 491 425	212 140	Clutch alignment tool	04 03 97		used to center and align clutch.	x	E34,E36, E39	<input type="checkbox"/>
83 30 0 491 428	212 150	self adj. clutch reset tool	04 03 97		used to reset SAC during instillation. Do not use this tool, refer to SI B04 14 01.	x	E39	<input type="checkbox"/>
83 30 0 491 435	215 030	Clutch bleeder tool	04 12 97		used to bleed the clutch slave cylinder		E34, E36, E38, E39, E38	<input type="checkbox"/>
83 30 0 491 440	230 020	Holder			used on all 3 and 4 hole flanges	x	All	<input type="checkbox"/>
83 30 0 491 442	230 040	Transmission cradle	04 01 91		used to support trans.		E31	<input type="checkbox"/>
83 30 0 491 454	230 490	Transmission seal puller	04 12 97	A6	used to remove input shaft seals.	x	E39, E31,E34,E36	<input type="checkbox"/>
83 30 0 491 457	231 000	Installer			used to install gearbox housing bearings	x	E12,E21,E28, E30,E32, E34	<input type="checkbox"/>
83 30 0 491 497	231 200	Guide bushing		B7	used with 231 210 for centering	x	All	<input type="checkbox"/>
83 30 0 491 498	231 210	Socket 30/83		A22	used to R and R gearbox output flange	x	All	<input type="checkbox"/>
83 30 0 491 507	231 300	Installation tool		A20/B20	used to install ZF input and output shaft bearings	x	All	<input type="checkbox"/>
83 30 0 491 509	231 302	Rear axle press adapter	04 18 94	22 1 018	used to press on final drive flange with 88 88 6 231 300 and 88 88 6 331 341	x	E38	<input type="checkbox"/>
83 30 0 491 511	231 320	Holding wrench	04 03 84		used to hold output flange to remove nut	x	E23,E24,E28, E30	<input type="checkbox"/>
83 30 0 491 512	231 330	Spacer	04 02 90	22 1 019	used to support rear of engine when trans is removed	x	E34	<input type="checkbox"/>

83 30 0 491 518	231 360	Drift		C8	used with 005 500 to fit output shaft seals	x	E30, E28	<input type="checkbox"/>
83 30 0 491 519	231 370	Drift		C7	used to install radial oil seal Getrag trans	x	E34, E21, E23, E28, E30, E32	<input type="checkbox"/>
83 30 0 491 559	232 150	Bearing installer			used to install front tapered roller bearing in 260 and 245 trans	x	E32, E34, E36, E38, E39	<input type="checkbox"/>
83 30 0 491 570	232 260	Drift	04 09 98	B8/C8	installs the selector shaft seal on the SSD 310D transmission	x	M50, E34, M50	<input type="checkbox"/>
83 30 0 491 578	232 300	Drift	04 09 91		installs the output shaft seal on the SSD 310Z transmission	x	E34, M50	<input type="checkbox"/>
83 30 0 491 580	232 320	36 mm socket	04 19 91		used to R and R output flange nut on manual transmission	x	525i, E34	<input type="checkbox"/>
83 30 0 491 582	232 340	Drift	04 09 98	232 340	installs the input shaft seal on the SSD 310Z transmission	x	M50, E34	<input type="checkbox"/>
83 30 0 491 595	232 470	Drift	04 22 93	C10	used to install lock ring on output flange		E31	<input type="checkbox"/>
83 30 0 491 596	232 480	Drift	04 22 93	C24	used to install output shaft seal		E31	<input type="checkbox"/>
83 30 0 491 597	232 490	Drift	04 22 93	C24	used to install input shaft seal		E31	<input type="checkbox"/>
83 30 0 491 600	233 010	Press	04 22 93	C24	used to press output flange		E31	<input type="checkbox"/>
83 30 0 491 604	233 020	Installer	04 22 93	B24	used to install the bellows on the gear shift lever		E31	<input type="checkbox"/>
83 30 0 491 605	233 030	Support plate	04 18 94	C24	supports trans. with engine removed	x	E38	<input type="checkbox"/>
83 30 0 491 606	233 100	Transmission cup tool	04 16 95	C4	used to R and R the 3rd and 4th gear locking pins on the S5D 310Z	x	M3, E36	<input type="checkbox"/>
83 30 0 491 618	240 020	Adapter set		B2/C2	used to test oil pressure in all automatic transmissions	x	All	<input type="checkbox"/>
83 30 0 491 627	240 029	pressing adapter	04 06 82		used to check transmission pressure	x	e23 e21	<input type="checkbox"/>
83 30 0 491 628	240 030	Pressure adapter		C9/C10	used to test main oil pressure on 4HP 22 transmission	x	E30, E32, E34, E36	<input type="checkbox"/>

83 30 0 491 633	240 050	Puller		C10	used to remove sealing plugs in 3HP 12/20/22 and 4HP 22/24	x	E12,E21,E30, E23,E34,E36	<input type="checkbox"/>	
83 30 0 491 639	240 110	Seal installer	04 09 90		used to install front radial oil seal on 4HP22/24 transmissions	x	E30,E31, E34	<input type="checkbox"/>	
83 30 0 491 642	240 130	Transmission adapter	04 17 87		used to adapt 4hp 22 and 4HP 24 to stand		E34	<input type="checkbox"/>	
83 30 0 491 643	240 140	Trans. pressure adapter	04 14 92	A1	used to check pressure on A4S 310R. See SIB for details	x	E36	<input type="checkbox"/>	
83 30 0 491 645	240 151	Pressure screw	04 07 93		used with 88 88 6 240 150 to support trans for reworking		E34	<input type="checkbox"/>	
83 30 0 491 651	240 170	transmission support	04 34 92		used to support the A5S560Z transmission during R&R.		all	<input type="checkbox"/>	
83 30 0 491 652	240 180	Support			Used to mount engine to the assembly stand. NLA - replaced by 240 200 - 83 30 0 495 446.		A5S560Z, 310Z,325Z,360R	<input type="checkbox"/>	
83 30 0 491 661	240 250	Transmission support	04 32 96		used t support A5S 440Z trans.		E39	<input type="checkbox"/>	
83 30 0 491 667	241 110	Magnetic socket	04 25 86	A15/A16	used to R and R flywheel bolts	x	E32	<input type="checkbox"/>	
83 30 0 491 668	241 120	Alignment tool	04 22 96	A15/A16	used to align transmission selector switch	x	E39	<input type="checkbox"/>	
83 30 0 491 670	241 170	Spanner	04 07 93	A15	Used to R and R the nut on the output flange A5S 310Z	x	E34	<input type="checkbox"/>	
83 30 0 491 671	241 180	Assembly tool	04 07 93	A16	used to mount the oil pump housing		E34	<input type="checkbox"/>	
83 30 0 491 672	241 190	Drift	04 07 93	A16	Used to install the output flange seal	x	E34	<input type="checkbox"/>	
83 30 0 491 673	241 200	Mounting sleeve	04 07 93	A16	Used to properly install the radial oil seal on the selector shaft	x	E34	<input type="checkbox"/>	
83 30 0 491 675	241 220	Support	04 07 93	shelf	used to support the output flange housing		E34	<input type="checkbox"/>	
83 30 0 491 690	241 290	Seal Installer wedges			Used to install seal.		GM5	<input type="checkbox"/>	
83 30 0 491 705	242 300	Holder	04 01 92	6	holds torque converter to flywheel when replacing transmission	x	M30, M50	<input type="checkbox"/>	

83 30 0 491 709	243 140	Pump turner		B15	used to turn oil pump on 3HP 12/22	x	E36, E38, E12, E21, E23, E24, E28, E30, E31, E32, E34	<input type="checkbox"/>	
83 30 0 491 715	244 000	Fitting handle		B16	used to install torque converters	x	All	<input type="checkbox"/>	
83 30 0 491 720	244 044	Hold down bolts	04 17 87		used to check torque converter for leaks		E30, E31, E32, E34	<input type="checkbox"/>	
83 30 0 491 731	244 130	Clamping tool	04 09 97	A24	used to clamp torque converter during R and R		All	<input type="checkbox"/>	
83 30 0 491 758	245 120	Centering tool	04 01 95		Repairs delayed engagement on A4S 310R. Refer to SIB 24 05 94	x	E34, E36	<input type="checkbox"/>	
83 30 0 491 763	245 150	Alignment pins	04 12 90	B24	used to center valve body on THMR 1	x	Z3, E34, E36, E39	<input type="checkbox"/>	
83 30 0 491 764	245 160	Alignment pins	04 13 93	B17	used to maintain proper alignment of trans case during assembly		E36, E34	<input type="checkbox"/>	
83 30 0 491 767	245 190	Pressure adapter	04 12 90		used with 88 88 6 240 021 to test main pressure on THMR 1 trans.	x	E34, E36, E39, Z3	<input type="checkbox"/>	
83 30 0 491 768	245 200	Driving mandrel	04 12 90	B12	used to replace the radial seal on the THMR 1 shift shaft	x	Z3, E34, E36, E39, E34	<input type="checkbox"/>	
83 30 0 491 769	245 210	Holder	04 22 92	B12	used to R and R the trans shift cable on the 4HP 22/24, A5S 310R/Z	x	E36, E34, E32, E31, E30	<input type="checkbox"/>	
83 30 0 491 771	245 230	seal installer	04 02 92		used to install the shift shaft seal	x	4HP22/24	<input type="checkbox"/>	
83 30 0 491 773	245 250	Seal installer	04 08 95	B12	used to install shift shaft seal on A5S 560Z	x	E34, E31, E38	<input type="checkbox"/>	
83 30 0 491 774	245 260	Seal puller	04 08 95	B12	removes shift shaft seal	x	E38, E34, E31	<input type="checkbox"/>	
83 30 0 491 775	245 270	Seal driver	04 32 96	A14	used to install the shift shaft seal on the A5S 440Z trans.	x	E38, E39	<input type="checkbox"/>	
83 30 0 491 776	245 300	Transmission cradle	04 01 91		used to support trans.		E39	<input type="checkbox"/>	
83 30 0 491 781	245 360	Seal remover	04 02 97	A14	used to remove the shift shaft seal		E34, E36	<input type="checkbox"/>	
83 30 0 491 788	245 370	Seal installer	04 02 97	A14	used to install the shift shaft seal		528i, E39	<input type="checkbox"/>	
83 30 0 491 789	245 490	Seal Guide	04 08 95	A14	protects shift shaft seal during installation	x	E31, E34, E38	<input type="checkbox"/>	

83 30 0 491 791	246 000	8 pin test cable	04 26 91		used to troubleshoot the 4HP22/24 transmissions	x	4HP22/24	<input type="checkbox"/>
83 30 0 491 797	246 060	16 pin test cable	04 10 93		used with 88 88 6 611 459 to test trans. circuits		E38	<input type="checkbox"/>
83 30 0 491 799	251 100	Spanner wrench	04 19 86	B17	used in removal of shift lever	x	S38	<input type="checkbox"/>
83 30 0 491 800	251 110	Spanner	04 16 90	B17	used to R and R shifter		E31	<input type="checkbox"/>
83 30 0 491 810	261 020	transmission gauge	04 31 87	shelf	used to align transmission	x	All	<input type="checkbox"/>
83 30 0 491 811	261 030	Gauge	04 08 84		used to align drive train	x	All	<input type="checkbox"/>
83 30 0 491 812	261 040	Wrench	04 08 84	A11	used to remove the sleeve on the driveshaft	x	All	<input type="checkbox"/>
83 30 0 491 814	261 060	46mm wrench	04 23 87		used to R&R propeller shaft nut		E30	<input type="checkbox"/>
83 30 0 491 815	261 070	Puller plate	04 25 86	B17	used when removing driveshaft CV joint		E32	<input type="checkbox"/>
83 30 0 491 816	261 080	Mandrel	04 16 90	C2	used to remove guide bearing form propeller shaft		E31	<input type="checkbox"/>
83 30 0 491 819	271 000	Fixture	04 23 87		used to mount transfer case on stand		E30	<input type="checkbox"/>
83 30 0 491 824	271 050	Oil seal puller	04 23 87	C2	used to remove oil seal from transfer case	x	325IX,E30	<input type="checkbox"/>
83 30 0 491 825	271 080	Seal driver	04 23 87	C2	used to install oil seals into transfer case of front axle shaft to final drive	x	325IX,E30	<input type="checkbox"/>
83 30 0 491 828	271 090	Seal driver	04 23 87		used to install seals into the transfer case/rear output shaft	x	E30	<input type="checkbox"/>
83 30 0 491 829	271 120	Sleeve	04 23 87		used with 88 88 6 231 300 to pull output shaft into rear transfer case		E30	<input type="checkbox"/>
83 30 0 491 830	271 160	Bushing driver	04 23 87		used to install the bushing in the input shaft of the transfer case	x	E30	<input type="checkbox"/>
83 30 0 491 831	271 190	Installer	04 23 87		used to install transfer case mounts		E30	<input type="checkbox"/>
83 30 0 491 868	311 050	Sleeve		C2	used to remove rubber bushings from front struts	x	E24,E28,E32,E34	<input type="checkbox"/>
83 30 0 491 873	311 110	Puller		C2	used to remove tie rod end	x	E23,E24,E28,E32,E34	<input type="checkbox"/>
83 30 0 491 874	311 120	Thrust block	04 25 86	B21/C21	used to remove rubber engine mount bushings	x	E32	<input type="checkbox"/>

83 30 0 491 875	311 400	Tension rod test gauge	04 17 97	A12	used to examine the tension rods for damage	x	M52,E39	<input type="checkbox"/>
83 30 0 491 878	311 430	Ball joint fork	04 21 94	A13	removes front ball joint	x	E36	<input type="checkbox"/>
83 30 0 491 881	311 440	Ball joint press	04 21 94	A12	used to replace ball joint	x	E36	<input type="checkbox"/>
83 30 0 491 895	312 070	Thrust sleeve	04 23 87		used with 88 88 6 312 090 to press out front wheel bearings	x	E30	<input type="checkbox"/>
83 30 0 491 896	312 080	Socket 46 mm		A2	used to R and R front wheel bearing	x	E23,E24,E28,E34,E36	<input type="checkbox"/>
83 30 0 491 898	312 100	Puller		B5	used to remove front wheel bearing unit	x	E24,E28,E30,,E31,E32,E34,E36	<input type="checkbox"/>
83 30 0 491 902	312 104	Plate	04 01 83	A17	used with 312 103 to remove front bearine assembly	x	E30	<input type="checkbox"/>
83 30 0 491 903	312 105	Puler plate	04 25 86	A17	used with 312 101/102/106 to pull off bearing unit.	x	E32	<input type="checkbox"/>
83 30 0 491 904	312 106	Thrust block	04 25 86	A17	used with 312 101/102/105 to pull off bearing unit.	x	E32	<input type="checkbox"/>
83 30 0 491 905	312 110	Installer		A17	used to install front wheel bearing unit	x	E28,E36	<input type="checkbox"/>
83 30 0 491 909	312 120	Puller	04 01 83	B18	used to pull wheel bearing ass.	x	E30	<input type="checkbox"/>
83 30 0 491 913	312 130	Thrust bushing	04 01 83	A17	used with 88 88 6 312 130 to R and R wishbone mount	x	E30	<input type="checkbox"/>
83 30 0 491 917	312 140	Thrust rod remover	04 01 89	A17	used to remove thrust rod	x	E32,E34	<input type="checkbox"/>
83 30 0 491 918	312 150	Puller	04 01 83	B18	used to remove wshbone rubber bushing	x	E30	<input type="checkbox"/>
83 30 0 491 923	312 155	Fixture	04 23 87		used to hold the control arm when installing rubber mount		E30, 325IX	<input type="checkbox"/>
83 30 0 491 924	312 160	Control arm remover	04 23 87	B18	used to remove the control arm from the spring strut	x	325IX,E30	<input type="checkbox"/>
83 30 0 491 930	312 200	Special socket	04 18 94	B18	used to expand the front axle wheel carrier when installing strut	x	E38	<input type="checkbox"/>
83 30 0 491 931	312 210	Strut socket	04 18 94	B17	use to loosen upper strut mount on vehicles with EDC	x	E38	<input type="checkbox"/>
83 30 0 491 932	312 220	Axle support	04 18 94	A21	supports front axle when removing oil pan	x	E38	<input type="checkbox"/>

83 30 0 491 933	312 240	Ball joint remover	04 18 94	B21	used to remove control arm bushings	x	E38	<input type="checkbox"/>
83 30 0 491 939	312 260	Bushing press	04 18 94	B21	used to press (in and out) control arm bushings	x	E38	<input type="checkbox"/>
83 30 0 491 942	312 270	Press	04 02 96	C14	used to R and R the tie rod bushing		E39	<input type="checkbox"/>
83 30 0 491 946	313 010	Ride height measurement tool	04 07 96	C5	use to measure ride height	x	Z3	<input type="checkbox"/>
83 30 0 491 955	313 125	Spring clamping jaws	04 20 96		use in conjunction with 88 88 6 313 120 to compress springs	x	E38	<input type="checkbox"/>
83 30 0 491 961	313 150	Wrench		8	used to R and R strut nut	x	E21,E23,E24,E28,E30,E32,E34	<input type="checkbox"/>
83 30 0 491 962	313 160	Wrench		A2	used to R and R strut nut	x	E12,E28	<input type="checkbox"/>
83 30 0 491 963	313 170	Wrench		C4	used to R and R strut nut	x	E21,E28,E30,E32,E34,E36	<input type="checkbox"/>
83 30 0 491 964	313 180	Wrench		C4	used to R and R strut nut	x	E30	<input type="checkbox"/>
83 30 0 491 965	313 190	Wrench		C5	used to R and R strut nut	x	E30	<input type="checkbox"/>
83 30 0 491 967	313 210	Strut Socket	04 14 92	C5	used to R and the upper strut bolt - 22mm	x	All	<input type="checkbox"/>
83 30 0 491 969	315 000	Fixture	04 23 87		for mounting front axle final drive on stand		E30	<input type="checkbox"/>
83 30 0 491 970	315 010	Puller/adaptor	04 23 87		used to press off the output shaft on the front axle drive	x	E30	<input type="checkbox"/>
83 30 0 491 973	315 020	Seal driver	04 23 87		used to install oil seal onto the input shaft of the front axle final drive	x	E30	<input type="checkbox"/>
83 30 0 491 974	315 030	Seal driver	04 23 87		used to install output shaft seal on front axle drive	x	E30	<input type="checkbox"/>
83 30 0 491 975	315 040	Washer	04 23 87		used to preload shaft gears in final drive		E30	<input type="checkbox"/>
83 30 0 491 976	315 050	Thrust sleeve	04 23 87		used to install roller bearing in differential case		E30	<input type="checkbox"/>
83 30 0 491 977	315 060	Shaft adaptor	04 23 87		used with 88 88 6 002 000 to turn front axle when checking torque		E30	<input type="checkbox"/>
83 30 0 491 978	315 070	Measuring tool	04 23 87		Used to check front axle drive pinion distance		E30	<input type="checkbox"/>
83 30 0 491 981	315 080	Gauge disc	04 23 87		used with 88 88 6 002 510 to check front axle drive		E30	<input type="checkbox"/>

83 30 0 491 982	315 090	Puller	04 23 87		used to remove tapered bearings in front axle drive		E30	<input type="checkbox"/>
83 30 0 491 983	315 100	Installer	04 23 87		used to install outer race in bearing		E30	<input type="checkbox"/>
83 30 0 491 984	315 110	Output Shaft Remover	04 51 02		Used to R	x	E53	<input type="checkbox"/>
83 30 0 491 988	321 050	pressing tool	04 06 82		used to insert rubber bushing in steering arm guide	x	e28 e24 e23	<input type="checkbox"/>
83 30 0 491 992	321 090	Securing ring press	04 01 96	C5	used to install steering wheel column securing ring	x	E36, E32, E34, E31, E38	<input type="checkbox"/>
83 30 0 491 993	321 100	Steering support			Used to support the rack and pinion steering during R&R.		E30	<input type="checkbox"/>
83 30 0 492 002	321 190	Ball joint press	04 18 94	C5	used to remove tie rod ball joints	x	E38	<input type="checkbox"/>
83 30 0 492 013	322 000	Puller		C5	used to remove pitman arm	x	All	<input type="checkbox"/>
83 30 0 492 023	322 040	Puller		A8	used to remove tie rod ends	x	E24, E28, E34	<input type="checkbox"/>
83 30 0 492 024	322 050	Puller		A8	used to remove outside tie rod	x	E21, E23, E28, E31, E32, E34	<input type="checkbox"/>
83 30 0 492 025	322 070	Puller		A8	used to remove center tie rod	x	E12, E30, E36	<input type="checkbox"/>
83 30 0 492 027	322 100	Wrench 27mm		A8	used to R and R left tie rod	x	E21, E30	<input type="checkbox"/>
83 30 0 492 028	322 110	Wrech 32 mm		A8	used to R and R right tie rod	x	E21, E30	<input type="checkbox"/>
83 30 0 492 029	322 120	Gauge	04 25 86	B8	used to adjust the steering drop arm on the vibration damper	x	E32	<input type="checkbox"/>
83 30 0 492 036	322 140	Steering box gauge	04 18 94	B8	used to adjust the steering box arm	x	E38	<input type="checkbox"/>
83 30 0 492 042	323 020	Clamping pliers	04 25 94		used to perform repairs for recall 94V-151, New Cartool PN is 175 500.	x	E36	<input type="checkbox"/>
83 30 0 492 043	323 050	Assembly sleeves			Used to mount the snap ring on the steering spindle.		E12, 32, 3436, 38, 21, 23, 24, 39, 28, 30, 31	<input type="checkbox"/>
83 30 0 492 049	323 070	Mandrel and bushing	04 13 90	A8	used to mount spring circlip on steering spindle	x	E31	<input type="checkbox"/>



83 30 0 492 053	323 090	Ball joint press modification	04 32 03		This tool is used to remove the control arm. Refer to repair manual section 31 21 080. The modification pertains only to the lower section of the tool (PN 323 092). The opening is enlarged to 27.5mm and a chamfer (1) 1.5mm deep and at a 45 angle is applied		E46	<input type="checkbox"/>
83 30 0 492 055	323 110	Ignition lock remover	04 18 94	A8	releases ignition lock tumbler	x	E38, All	<input type="checkbox"/>
83 30 0 492 056	323 120	E8 torx socket	04 01 83	A19	used to tighten bolt on steering	x	E30	<input type="checkbox"/>
83 30 0 492 057	324 000	Gauge		A11	used to test pressure on steering pump	x	All	<input type="checkbox"/>
83 30 0 492 062	324 005	Pressure adapter	04 02 86	B9	used to attach to power steering to test pressures	x	All	<input type="checkbox"/>
83 30 0 492 063	324 006	Pressure adapter	04 02 86	B13	used to attach to power steering to test pressures	x	All	<input type="checkbox"/>
83 30 0 492 064	324 007	Adapter	04 25 86	B14	used with 88 88 6 324 000 to check pressure in regulator	x	E32	<input type="checkbox"/>
83 30 0 492 065	324 008	Pressure adapter	04 25 86	C5	used with 88 88 6 324 000 to check power steering pressure	x	E32	<input type="checkbox"/>
83 30 0 492 066	324 030	clamping fixture	04 06 82		used to check the play in the steering gear	x	e28	<input type="checkbox"/>
83 30 0 492 069	324 060	Clamp fixture	04 25 86	C5	used to hold the steering drop arm when checking for mechanical wear in the power steering	x	E32	<input type="checkbox"/>
83 30 0 492 073	331 010	Holder		C16	used to hold rear axle	x	E28,E30,E32,E34	<input type="checkbox"/>
83 30 0 492 074	331 020	Installer		B15	used to install tapered roller bearings	x	E28	<input type="checkbox"/>
83 30 0 492 075	331 030	Mounting bracket	04 14 88		used to mount rear diff to stand		E32	<input type="checkbox"/>
83 30 0 492 083	331 150	Puller		B7	used to remove front input flange	x	All	<input type="checkbox"/>
83 30 0 492 086	331 190	Drift		B7	used to install output flange oil seals	x	E23,E24,E28,E34	<input type="checkbox"/>

83 30 0 492 087	331 200	Drift		B7	used to install output flange oil seals on 8 bolt differentials	x	E23,E24,E32,E34	<input type="checkbox"/>
83 30 0 492 090	331 230	Drift		A13	used to install output flange oil seals on 6 bolt differentials	x	E23,E28,E30,E32	<input type="checkbox"/>
83 30 0 492 093	331 260	Drift	04 01 83	B16	used to install final drive shaft sealing ring	x	E30	<input type="checkbox"/>
83 30 0 492 096	331 300	Puller		A2	used to remove roller bearings in rear diff.	x	All	<input type="checkbox"/>
83 30 0 492 108	331 312	Mandrel	04 27 94	A2	used with 88 88 6 007 500 to remove output flange inner ring.	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 110	331 340	Installer		A2	used to install drive pinion	x	E23,E24,E28,E32,E34,E38,E39	<input type="checkbox"/>
83 30 0 492 121	331 360	Puller		A2	used to R and R outer race in rear diff.	x	E21, E23, E24,E28,E30,E32,E34	<input type="checkbox"/>
83 30 0 492 163	332 100	Clamp	04 01 83	A3/B3	used to hold output shaft when removing bearing	x	E30	<input type="checkbox"/>
83 30 0 492 169	332 110	Puller	04 01 83	A21	used to remove half shaft in final drive. This tool is replaced by 332 200. 332 111 - 332 203 332 114 - 332 204 332 115 - 332 208 332 116 - 332 201 332 117 - 332 207 332 118 - 332 205 332 119 - 332 206	x	E30	<input type="checkbox"/>
83 30 0 492 177	332 118	Threaded spindle	04 13 90	B13	used with 88 88 6 332 110 to install output shaft into drive flange	x	E31	<input type="checkbox"/>
83 30 0 492 178	332 119	Spindle	04 07 91	A10	used with 88 88 6 332 110 to draw the output shaft into the drive flange	x	E36	<input type="checkbox"/>
83 30 0 492 179	332 120	Puller	04 01 83	B12	used to remove final drive cover bushing	x	E30	<input type="checkbox"/>
83 30 0 492 180	332 121	Spindle	04 27 94	C6	Used with 88 88 6 332 120 to R and R final drive	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 186	332 300	Spring tensioner	04 13 90		used to R&R the rear coil springs	x	E31	<input type="checkbox"/>
83 30 0 492 201	333 030	press adapter	04 09 90		used to remove rear trailing arm		E32	<input type="checkbox"/>

83 30 0 492 210	333 060	Torque wrench adapter	04 02 90	C1/C2	used with torque wrench to set trailing arm	x	E34	<input type="checkbox"/>
83 30 0 492 215	333 100	Bushing tool		A15	used to R and R rear axle rubber bushings	x	E23,E24,E31, E32,E34,E36, E39, E30	<input type="checkbox"/>
83 30 0 492 222	333 107	Spindle	04 23 87		used with 88 88 6 008 550and 88 88 6 333 111 to remove the rear axle rubber mounts	x	325IX	<input type="checkbox"/>
83 30 0 492 223	333 110	Puller	04 01 83	C14	used with 008 550 to remove bushing in rear axle suframe	x	E30	<input type="checkbox"/>
83 30 0 492 227	333 115	Bushing adapter	04 23 87	B15	used with 88 88 6 333 112/103/104 to mount the rubber mounts into the rear axle carrier	x	325IX	<input type="checkbox"/>
83 30 0 492 228	333 120	Extractor/pull in tool	04 25 86	A6	used on rubber bushing at side of rear axle subframe. See SIB for details	x	E32	<input type="checkbox"/>
83 30 0 492 232	333 140	Extractor/pull in tool	04 25 86		used on the rubber bushing in the rear axle sub frame. See SIB for details	x	E32	<input type="checkbox"/>
83 30 0 492 238	333 150	Press	04 13 90		used to press strut bushings		E31	<input type="checkbox"/>
83 30 0 492 248	333 170	Press	04 13 90		used to press bushing in fron ttrailing arm		E31	<input type="checkbox"/>
83 30 0 492 252	333 180	Press	04 13 90		used to press bushing from final drive support		E31	<input type="checkbox"/>
83 30 0 492 260	333 200	Press	04 13 90		used to press bushings from guide arms		E31	<input type="checkbox"/>
83 30 0 492 264	333 210	Press	04 13 90		used to press ball joints		E31	<input type="checkbox"/>
83 30 0 492 269	333 220	Mandrel set	04 13 90		used to R&R rear subframe mounts	x	E31	<input type="checkbox"/>
83 30 0 492 276	333 240	Puller	04 13 90		used to re-move the inner bearing race from the drive flange	x	E31	<input type="checkbox"/>
83 30 0 492 287	333 260	Extractor set			used to R&R whell bearing carrier	x	E38	<input type="checkbox"/>
83 30 0 492 289	333 262	Press housing	04 18 94	A4	Used to R and R wheel bearings. See SIB for additional parts	x	E38	<input type="checkbox"/>
83 30 0 492 293	333 266	Bearing press	04 18 94	B6/B7	removes wheel bearing . See SIB for additional parts	x	E38	<input type="checkbox"/>

83 30 0 492 294	333 267	Bearing press	04 18 94	A4	removes wheel bearing. See SIB for additional parts	x	E38	<input type="checkbox"/>
83 30 0 492 295	333 268	Bearing press	04 18 94	C7	used to replace wheel bearing. See SIB for additional parts	x	E38	<input type="checkbox"/>
83 30 0 492 296	333 270	Support frame	04 27 94		used to support the rear axle subframe. April 2008 - no longer available. See tool number 83 30 0 495 567.		E36 Compact	<input type="checkbox"/>
83 30 0 492 302	333 290	Support jig	04 07 91		used to support the rear axle assembly		E36	<input type="checkbox"/>
83 30 0 492 306	333 300	Support	04 18 91		used with 88 88 6 002 040		E31	<input type="checkbox"/>
83 30 0 492 310	333 310	Press	04 13 90		Used to press final drive bushings. Order PN 83 30 0 495 312 for Cartool PN 333 312 thrust piece. 1/08 - If the spindle or nut are damaged the entire tool must now be replaced. PN 333 312 is no longer available.		E31	<input type="checkbox"/>
83 30 0 492 316	333 316	Puller	04 16 93	A10	used to pull bushing into rear subframe		E31	<input type="checkbox"/>
83 30 0 492 317	333 320	Puller set	04 07 91		used to R&R rear axle rubber mounts	x	E36	<input type="checkbox"/>
83 30 0 492 322	333 330	Puller set	04 07 91		used to R&R upper trailing arm ball joint mount	x	E36	<input type="checkbox"/>
83 30 0 492 327	333 340	Puller disc	04 07 91		used to remove front trailing arm rubber mount	x	E36	<input type="checkbox"/>
83 30 0 492 328	333 350	Puller set	04 07 91		use to R&R traverse arm mounts	x	E36	<input type="checkbox"/>
83 30 0 492 332	333 354	Spacer	04 25 95	A4	used to install rubber bushing in control arm	x	E36,E38	<input type="checkbox"/>
83 30 0 492 333	333 360	Bushing press	04 07 91		used to R&R rear axle rubber mounts	x	E36	<input type="checkbox"/>
83 30 0 492 337	333 410	Spreader bar	04 29 92		used to spread the rear wheels to remove final drive		E31	<input type="checkbox"/>
83 30 0 492 338	333 420	Final drive drift	04 19 94	A14/B14	used to replace the output shaft seal on the 6 bolt/188 final drive	x	E32,E34,E36	<input type="checkbox"/>

83 30 0 492 339	333 430	Input seal driver	04 27 94	A2	used with 88 88 6 005 500 to install final drive output shaft seals	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 340	333 440	Final drive drift	04 19 94	C23	used to replace output shaft seal on 8 bolt/188 final drive	x	E32,E34,E36	<input type="checkbox"/>
83 30 0 492 341	333 450	Final drive drift	04 19 94	C23	used to replace output shaft seal on 8 bolt/210/215 drives	x	E32,E34,E36	<input type="checkbox"/>
83 30 0 492 342	333 460	Output seal driver	04 27 94	C13	used with 88 88 6 005 500 to install final drive output shaft seal	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 343	333 470	Final drive drift	04 19 94	C13	installs seal on 6 bolt /188 final drive	x	E34,E32,E36	<input type="checkbox"/>
83 30 0 492 344	333 480	Input seal driver	04 27 94	C14	used with 88 88 6 005 500 to install input shaft seal on K final drive	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 345	333 490	drift	04 19 94		used to seat the input flange plate on the 8 bolt 210 and 215 final drives	x	E36 e34 e32	<input type="checkbox"/>
83 30 0 492 346	334 000	Support			used to support rear axle flange	x	E34	<input type="checkbox"/>
83 30 0 492 348	334 020	Support			used to support wheel bearing when inserting axle shaft	x	E34	<input type="checkbox"/>
83 30 0 492 349	334 030	Puller			used to R&R rear wheel bearing	x	E36	<input type="checkbox"/>
83 30 0 492 359	334 040	Puller	04 01 83	C13	used to R and R rear wheel bearing	x	E30	<input type="checkbox"/>
83 30 0 492 368	334 049	Guide sleeve	04 07 91	C13	used to draw in wheel bearing	x	E36	<input type="checkbox"/>
83 30 0 492 369	334 050	Drift	04 01 83	C13	used to install the keeper plate in the drive flange	x	E30	<input type="checkbox"/>
83 30 0 492 370	334 060	Drift		C14	used to install locking plate on rear axle shaft	x	E23,E24,E28, E32,E34	<input type="checkbox"/>
83 30 0 492 371	334 070	Adapter		C14	used to insert rear axle shaft	x	E28	<input type="checkbox"/>
83 30 0 492 372	334 080	Adapter		C12	used with 231 300 to insert rear axle shaft	x	E23,E24,E28, E32,E34	<input type="checkbox"/>
83 30 0 492 373	334 090	Puller	04 06 86	B23	used to remove the rear wheel inner race	x	E30	<input type="checkbox"/>
83 30 0 492 397	334 140	Bushing press	04 18 94	B23	use to R and R rear axle carrier bushings with 90 88 6 334 150	x	E38	<input type="checkbox"/>

83 30 0 492 405	334 148	Support feet	04 20 00	Shelf	Used with 334 140 to remove rear rubber mounts.	x	E39	<input type="checkbox"/>
83 30 0 492 406	334 149	Support feet	04 20 00	Shelf	Used with 334 140 to remove rear rubber mounts.	x	E39, E90	<input type="checkbox"/>
83 30 0 492 407	334 150	Bushing press	04 18 94	B10	used to R and R rear axle carrier bushings with 90 88 6 334 140	x	E38	<input type="checkbox"/>
83 30 0 492 413	334 156	Spindle	04 20 00	Shelf	Used with 334 150 & 334 140 to R&R the rear axle mounts	x	E39	<input type="checkbox"/>
83 30 0 492 414	334 157	Pressure plate	04 20 00	B19	Used with 334 150	x	E39	<input type="checkbox"/>
83 30 0 492 415	334 160	Bushing press	04 18 94	B19	used to R and R the rear axle split bushing	x	E38	<input type="checkbox"/>
83 30 0 492 421	334 170	Bushing press	04 18 94	B19	used to R and R rear axle bushings	x	E38	<input type="checkbox"/>
83 30 0 492 426	334 180	Press	04 02 96	B19	used to R and R the final drive bushings		E39	<input type="checkbox"/>
83 30 0 492 431	334 190	Ball joint press	04 18 94	B18	used to R and R the rear ball joint	x	E38	<input type="checkbox"/>
83 30 0 492 436	334 200	Flange remover	04 18 94	B18	used to remove the rear axle wheel bearing flange	x	E38	<input type="checkbox"/>
83 30 0 492 444	334 250	Drift	04 23 96	B19	used to install output flange seal on 220 drive	x	M62	<input type="checkbox"/>
83 30 0 492 447	334 240	Seal Press	04 25 95	B18	used to replace final drive output seal	x	E36, E38	<input type="checkbox"/>
83 30 0 492 448	334 250	Drift	04 23 96		used to install output flange seal on 220 drive	x	E39,E38	<input type="checkbox"/>
83 30 0 492 449	334 390	Support Stand	04 07 91		used to support final drive		E36	<input type="checkbox"/>
83 30 0 492 450	341 000	Puller		B19	used to remove disc brake pads	x	All	<input type="checkbox"/>
83 30 0 492 452	341 020	Socket 7mm		C17	used to remove front brake calipers	x	E24,E28,E32,E34	<input type="checkbox"/>
83 30 0 492 453	341 030	Wrench		C17	used to adjust handbrake cable	x	E23,E36,E39,Z3	<input type="checkbox"/>
83 30 0 492 456	341 060	Pistone pliers			Used to turn the brake piston in fixed calipers.		E23,24,28,12,21	<input type="checkbox"/>
83 30 0 492 459	341 130	Dust cap	04 12 97	C17	used to press the caliper dust cap in place		E39	<input type="checkbox"/>
83 30 0 492 465	341 060	Socket		B17	used to R and R tapered bolts on brake calipers	x	All	<input type="checkbox"/>

83 30 0 492 467	341 260	Brake depth gauge	04 02 96	C17	Used to check the thickness of brake pads without removing wheels	x	E39	<input type="checkbox"/>
83 30 0 492 470	342 000	Brake wrench			Used to adjust the brake shoe on rear drum brakes.		E21,12	<input type="checkbox"/>
83 30 0 492 475	343 110	ASC T Wrench	04 08 91	C17	used to bleed ASC T system	x	E31,E32,E34,E36,E38,E39	<input type="checkbox"/>
83 30 0 492 481	343 160	Reducer		C17	used to check cut in/out pressure of H31 brake system	x	All	<input type="checkbox"/>
83 30 0 492 485	343 200	Holder		C17	used to hold H31 pressure regulator	x	All	<input type="checkbox"/>
83 30 0 492 487	343 220	Holding jaws	04 21 88	C17	used to hold H31 pressure accumulator	x	E31,E32	<input type="checkbox"/>
83 30 0 492 488	344 000	Allen wrench		C17	used to R and R handbrake shoe	x	All	<input type="checkbox"/>
83 30 0 492 499	345 110	ABS/ASC Tester	04 33 92		used to diagnose ABS/ASC in cars without a data link. See SIB for details	x	E34	<input type="checkbox"/>
83 30 0 492 507	345 150	Adjusting gauge	04 23 87		used to adjust the ABS pickup sensor	x	E30	<input type="checkbox"/>
83 30 0 492 508	345 200	V adapter for ABS Mark IV G	04 10 95		used with 83 pin B.O.B. (90 88 6 614 420) to troubleshoot module	x	E36	<input type="checkbox"/>
83 30 0 492 509	350 010	Installation plate	04 09 95	C17	template for installation of PWG	x	E38 With M73	<input type="checkbox"/>
83 30 0 492 510	350 020	Installation plate	04 09 95	C17	template for PWG	x	E31	<input type="checkbox"/>
83 30 0 492 512	361 000	Runout gauge	04 08 88	shelf	used to test tire/wheel runout	x	All	<input type="checkbox"/>
83 30 0 492 515	009 250	Torque wrench	04 12 96		used for low torque applications such as chain tensioner adjustment	x	M52, All	<input type="checkbox"/>
83 30 0 492 516	361 020	Sidewall depressor	04 27 96		used to depress sidewalls of tires in order to place wheel weights		All	<input type="checkbox"/>
83 30 0 492 525	009 280	Navigation calibrator	04 31 96		used with 88 88 6 009 200 to calibrate nav system		E38	<input type="checkbox"/>
83 30 0 492 526	009 300	Grill removal tool	04 09 97		used to remove dash vents.	x	E38	<input type="checkbox"/>
83 30 0 492 545	372 020	Pressuer adapters	04 17 87	C17	used to test steering pump pressure	x	M70	<input type="checkbox"/>

83 30 0 492 562	415 030	Door gauges	04 28 91	C9	set of alignment gauges that helps with door alignment	x	E36	<input type="checkbox"/>
83 30 0 492 568	415 040	Door gauge	04 18 94	C9	used to measure the distance between the front door and the B-pillar	x	E38	<input type="checkbox"/>
83 30 0 492 569	416 100	Torx socket	04 14 92	C9	used to R and R engine hood mounting screws	x	E31	<input type="checkbox"/>
83 30 0 492 571	416 200	Alignment gauge	04 27 94	C9	used to align the rear hatch with the body	x	E36 Compact	<input type="checkbox"/>
83 30 0 492 581	511 040	Pin wrench	04 05 88	C9	used to align bumper	x	E34	<input type="checkbox"/>
83 30 0 492 584	511 061	Plier jaws	04 21 88	C9	used with 88 88 6 511 060 to remove rain gutters		E30	<input type="checkbox"/>
83 30 0 492 586	511 080	Bumper socket	04 18 94	C9	Used to remove the rear bumper	x	E38	<input type="checkbox"/>
83 30 0 492 587	511 110	Rain gutter tool	04 05 90	C9	used to remove rain gutter without harming vehicle	x	E32,E34	<input type="checkbox"/>
83 30 0 492 588	511 130	Adjustment tool	04 07 96	C9	used to adjust the front and rear bumpers		Z3	<input type="checkbox"/>
83 30 0 492 592	512 010	Pillar protector	04 12 97	C9	used to protect the A and B pillars during work		All	<input type="checkbox"/>
83 30 0 492 596	512 070	Pin wrench	04 25 86	C9	used to R and door lock retaining nut	x	E32	<input type="checkbox"/>
83 30 0 492 597	512 080	Door contact gauge	04 22 91	C9	checks door contact switch. See SIB 51 07 91 for details	x	E36	<input type="checkbox"/>
83 30 0 492 601	512 120	Support	04 01 83	B9	used to hold engine hood when removing engine	x	E30	<input type="checkbox"/>
83 30 0 492 602	512 130	Rear window strut tool	04 17 92	A19	used to R and R the rear window strut	x	E34 Touring	<input type="checkbox"/>
83 30 0 492 604	512 150	Tailgat gas spring tool	04 05 99	A15	Used to remove the gas filled springs on the tailgate and rear window frame without damaging the paint. Refer to RM section 51 24 320.	x	E39 wagon	<input type="checkbox"/>
83 30 0 492 609	513 010	Windshield lifting device	04 01 99		This lifting device is used to R&R front, rear and side windows (touring and sport wagon).		All	<input type="checkbox"/>



83 30 0 492 611	513 030	Windshield gauge	04 07 91	A15	used to position windshield (front and rear) during replacement	x	E36	<input type="checkbox"/>
83 30 0 492 628	513 058	filler strip tool	04 06 82		used to install windshield filler strip	x	e21	<input type="checkbox"/>
83 30 0 492 629	513 059	windshield tool	04 08 83		used to install the windshield filler strip	x	e23 e24	<input type="checkbox"/>
83 30 0 492 634	513 080	Window scale	04 01 91	A15	used to check the depth of window insertion	x	E31	<input type="checkbox"/>
83 30 0 492 641	513 110	Spanner	04 17 92	A15	used to R and R the rear window mounts	x	E34 Touring	<input type="checkbox"/>
83 30 0 492 642	513 120	Spanner	04 17 92	A15	used to R and R the threaded collar on the roof rack mounting	x	E34 Touring	<input type="checkbox"/>
83 30 0 492 643	513 140	T wrench	04 25 86		used to install door locking plate	x	e32	<input type="checkbox"/>
83 30 0 492 648	513 190	Door lock plate remover	04 23 94	A19	replaces 88 88 6 513 140. Releases locking plate	x	E36,E31,E32,E34,E32,E34,E36	<input type="checkbox"/>
83 30 0 492 649	513 200	Door handle tool	04 18 94	B15/C15	used to remove the door handle and recess	x	E38	<input type="checkbox"/>
83 30 0 492 652	513 203	Locking release tool	04 05 97	A19	used to release the security locking plate on door handle.	x	E39	<input type="checkbox"/>
83 30 0 492 653	513 210	Windshield adj. gauge	04 04 97	A18	used to aid in the replacement of windshields.	x	E39	<input type="checkbox"/>
83 30 0 492 654	514 000	Headliner installation gauge	04 05 97	Not Stored on a board	used to install headliner in cars with the Katherine antenna		E38, E39	<input type="checkbox"/>
83 30 0 492 669	521 000	armrest socket	04 09 84		used to remove the slotted nut under the armrest		e24 e23	<input type="checkbox"/>
83 30 0 492 670	521 100	Pivot pin installer	04 32 87	A18	used to install seat pivot pin	x	E24,E30,E32,E34	<input type="checkbox"/>
83 30 0 492 671	521 200	Seat rail clamp	04 03 92	521 200	used to adjust clearance on seat rails. See SIB 52 01 92 for details	x	E36	<input type="checkbox"/>
83 30 0 492 689	543 150	Locking pins	04 13 90	A18	used to lock gate in order to adjust sunroof	x	E31	<input type="checkbox"/>
83 30 0 492 690	543 160	2,5mm allen socket	04 12 93	A18	used to R and R headliner tension screw		E36,cabrio	<input type="checkbox"/>
83 30 0 492 691	543 170	Sunroof positioning pins	04 04 97	A19	Used to position sunroof to adjust cables.	x	E39, E38	<input type="checkbox"/>

83 30 0 492 692	543 410	Pin wrench	04 06 91	A18	used to R and R special screw on soft top mechanism - trailing lever	x	E30	<input type="checkbox"/>
83 30 0 492 693	543 420	Microswitch gauge	04 06 91	shelf	used to adjust the electro-mechanical soft top switches	x	E30	<input type="checkbox"/>
83 30 0 492 703	611 110	2.5mm pin remover	04 06 87		used to remove 2.5 mm pins from the connectors	x	All	<input type="checkbox"/>
83 30 0 492 709	611 134	Pin removal tool			Used to remove vehicle connector pins. Originally sent out with 88 88 6 611 130.	x	All	<input type="checkbox"/>
83 30 0 492 714	611 140	Pin removal kit	04 02 91		used to remove connector pins on E31 and newer vehicles. This set supersedes 611 130. Tool 611 140 is now superseded by 90 88 6 611 150.	x	E31 Newer	<input type="checkbox"/>
83 30 0 492 719	611 145	Connector release tool	04 10 96		used to remove connector pins	x	All 94 and On	<input type="checkbox"/>
83 30 0 492 721	611 151	release tool	04 10 96		used to release double spring flat contacts	x	all	<input type="checkbox"/>
83 30 0 492 723	611 153	Relay release tool	04 10 96		used to release relays	x	All 94 and On	<input type="checkbox"/>
83 30 0 492 733	611 230	Rear washer aligner	04 17 92	A18	used to hold the rear washer nozzle while aiming	x	E34 Touring	<input type="checkbox"/>
83 30 0 492 734	611 240	Rear washer spanner	04 17 92	C15	used to R and R the rear washer nozzle	x	E34 Touring	<input type="checkbox"/>
83 30 0 492 735	611 250	Relay pliers	04 07 85	C15	used to remove relays	x	All	<input type="checkbox"/>
83 30 0 492 736	611 300	Pliers	04 08 83	C16	removes outside mirror	x	E23,E28,E30	<input type="checkbox"/>
83 30 0 492 738	611 320	Rear wiper alignment gauge	04 05 99	C16	Used to align the rear window wiper drive axis.	x	E39 wagon	<input type="checkbox"/>
83 30 0 492 742	611 360	Socket release tool	04 12 97	C16	use to release electrical socket holders		All	<input type="checkbox"/>
83 30 0 492 802	612 070	Power supply cable	04 14 94		for safe testing of systems		E36, E31	<input type="checkbox"/>
83 30 0 492 805	612 073	Test cable	04 18 95		used to carry out test on front seats when removed		E38	<input type="checkbox"/>

83 30 0 492 806	612 300	Battery draw test cable	04 33 96		used to test battery draw without interrupting power supply.	x	All	<input type="checkbox"/>
83 30 0 492 811	613 010	Relay test kit	04 03 91		used to test relays in vehicle	x	E30 Newer	<input type="checkbox"/>
83 30 0 492 822	613 030	Yaw sensor cable	04 12 97		used with DSC III to test the yaw sensor		E38	<input type="checkbox"/>
83 30 0 492 823	613 050	Relay test cable	04 15 85		used to activate fuel pump relay when using fuel injector cleaner	x	All	<input type="checkbox"/>
83 30 0 492 824	613 100	Release tool	04 07 96	C18	used to release headlight switch clips	x	Z3	<input type="checkbox"/>
83 30 0 492 825	613 190	EWSIII test cable	04 02 97		used to diagnose EWS III	x	E39	<input type="checkbox"/>
83 30 0 492 827	614 410	88 Pin break out box	04 14 90		used to troubleshoot systems. Cables for testing red 88 88 6 614 413 black 88 88 6 614 412	x	M42 Newer	<input type="checkbox"/>
83 30 0 492 831	614 414	Diagnostic lead black	04 11 92		used to connect 88 88 6 614 410 to a meter (DIS etc) for testing	x	All	<input type="checkbox"/>
83 30 0 492 832	614 415	Diagnostic lead red	04 11 92		used to connect 88 88 6 614 410 to a meter (DIS etc) for testing	x	All	<input type="checkbox"/>
83 30 0 492 834	614 419	88 pin lock lever	04 11 92		used to replace damaged levers on 88 pin BOB		All	<input type="checkbox"/>
83 30 0 492 835	614 420	83 Pin breakout box	04 18 94		Used to perform control module testing in various systems	x	E38	<input type="checkbox"/>
83 30 0 492 838	614 430	Multimeter extension	04 10 91		4.5mm multimeter test cable extension	x	E31 Newer	<input type="checkbox"/>
83 30 0 492 841	614 440	Microswitch test box	04 14 91		used to test switches on EM soft top.	x	E30	<input type="checkbox"/>
83 30 0 492 842	614 450	20 pin test cable	04 06 91		used with 26 pin B.O.B. to test soft top micro switches	x	E30	<input type="checkbox"/>
83 30 0 492 843	614 460	E31 cable set	04 10 91		troubleshoot ELO connectors. See SIB for multiple cable P/Ns	x	E31 Newer	<input type="checkbox"/>
83 30 0 492 848	614 470	18 pin adapter cable	04 16 92		used with 88 88 6 611 459 to check ELO connectors. Non-coded configuration	x	All	<input type="checkbox"/>

83 30 0 492 849	614 480	12 pin test cable	04 13 92		used with 88 88 6 611 459 to check systems. Comes non-coded	x	All	<input type="checkbox"/>
83 30 0 492 851	614 490	2.5mm adapter cable	04 16 91		used with 88 88 6 611 459 to troubleshoot LKM wire harness.	x	E31	<input type="checkbox"/>
83 30 0 492 852	615 410	5 pin adapter cable	04 16 91		used to test the EKM 2.5mm 5 pin	x	E31	<input type="checkbox"/>
83 30 0 492 853	616 000	Wiper puller	04 18 94	A20	Used to remove the wiper arm from the drive spindle	x	E38	<input type="checkbox"/>
83 30 0 492 857	616 010	T80 torx wrench	04 13 90	A20	used to R and R drivers sidewindshield wiper arm	x	E31	<input type="checkbox"/>
83 30 0 492 860	616 020	V adapter cable	04 18 94		used to testing on D22.5 ELA connectors	x	E38	<input type="checkbox"/>
83 30 0 492 868	616 030	ELO V adapter cable	04 06 95		used to test ELO plugs. Set is made up from the following leads. 90 88 6 616 031 - 3 Pin, 90 88 6 616 032 - 4 Pin, 90 88 6 616 033 - 6 Pin Single Row, 90 88 6 616 034 - 6 Pin Double Row, 90 88 6 616 035 - 10 Pin, 90 88 6 616 039 - Instructions	x	E38	<input type="checkbox"/>
83 30 0 492 875	616 040	V adapter cable	04 18 94		used to perform testing on ELO ELA connectors	x	E38	<input type="checkbox"/>
83 30 0 492 882	616 070	ELA pin connector	04 02 95		1.5mm and 2.5mm contacts Electrical kit 4	x	E38 Newer	<input type="checkbox"/>
83 30 0 492 890	616 080	Plug housing	04 02 95		ELO connectors, kit 4	x	E38 Newer	<input type="checkbox"/>
83 30 0 492 893	616 090	Plug housing	04 02 95		ELO - ELA housings, kit 4	x	E38 Newer	<input type="checkbox"/>
83 30 0 492 923	619 062	Repair set L	04 02 95		repairs ELO connectors	x	E38	<input type="checkbox"/>
83 30 0 492 924	619 063	Repair set M	04 02 95		repairs ELO connectors	x	E38	<input type="checkbox"/>
83 30 0 492 925	619 064	Repair set N	04 02 95		repairs ELO connectors	x	E38	<input type="checkbox"/>
83 30 0 493 015	621 110	Service interval reset tool	04 28 89		used to reset service interval. This unit supercedes 88 88 6 621 100. Use with 88 88 6 612 060 for 15 pin vehicles	x	All	<input type="checkbox"/>

83 30 0 493 020	621 140	20- 15 pin adapter	04 25 86		used to adapt 15 pin reset tool to 20 pin car	x	e32	<input type="checkbox"/>
83 30 0 493 029	621 210	Adapter cable ZAE/BAE	04 05 96		used with 88 88 6 621 270 to deploy airbag	x	All 94 and on	<input type="checkbox"/>
83 30 0 493 030	621 230	Airbag test leads	04 18 94		Used to perform testing on airbags	x	E38	<input type="checkbox"/>
83 30 0 493 036	621 250	Airbag plug	04 15 85		used to bridge pins 1 and 6 to troubleshoot airbag	x	E23	<input type="checkbox"/>
83 30 0 493 038	621 270	Ignition cable	04 15 85		used to ignite gas generators when scraping vehicle	x	E23	<input type="checkbox"/>
83 30 0 493 040	621 290	20 Pin SRS reset tool	04 22 89		reads out fault codes and resets memory of SRS	x	E30	<input type="checkbox"/>
83 30 0 493 049	630 010	Headlight wrench	04 13 90	A20	used to R and R headlights	x	E31	<input type="checkbox"/>
83 30 0 493 051	630 030	Headlamp gauge	04 25 91	A20	used to adjust concealed headlamps. See SIB 63 02 91 for details	x	E31	<input type="checkbox"/>
83 30 0 493 052	630 000	Alignment lids	04 13 90	shelf	used to align the headlight covers	x	E31	<input type="checkbox"/>
83 30 0 493 055	630 110	Socket wrench	04 13 90	A20	used with 88 88 6 630 000 to adlust headlight covers	x	E31	<input type="checkbox"/>
83 30 0 493 058	630 113	Headlight adjuster 17MM	04 05 91	A20	used with 88 88 6 630 110 to adlust headlights	x	E31	<input type="checkbox"/>
83 30 0 493 059	630 400	Light check module test cable	04 15 96		used to locate faults in light check module	x	E39	<input type="checkbox"/>
83 30 0 493 060	631 000	Xenon light test cable	04 33 96		used to test Xenon lights	x	E39	<input type="checkbox"/>
83 30 0 493 063	641 110	Spanner socket	04 05 87	A20	used to remove nut on vane type A/C compressors	x	All So Earlyquipped	<input type="checkbox"/>
83 30 0 493 064	641 120	Release tool	04 15 94		used to disconnect the bowden cables from the heat/AC panel	x	E36	<input type="checkbox"/>
83 30 0 493 066	641 160	Test cable	04 13 94		used to test water valve operation while on road test		E32 Newer	<input type="checkbox"/>
83 30 0 493 080	645 000	Puller		A20	used to remove A/C pulley (swash plate)	x	All So Earlyquipped	<input type="checkbox"/>
83 30 0 493 081	645 010	Pulley puller	04 05 87	A20	used with 88 88 6 645 020 to remove clutch pulley on vane type compressors.	x	All So Earlyquipped	<input type="checkbox"/>

83 30 0 493 082	645 020	Clutch holder	04 05 87	A20/B20	used to hold the clutch on vane type A/C compressors. See SIB 64 01 87 for details.	x	All So Earlyquipped	<input type="checkbox"/>	
83 30 0 493 083	645 030	Extractor		A20/B20	used to remove thrust washer on A/C compressor (swash plate)	x	All So Earlyquipped	<input type="checkbox"/>	
83 30 0 493 084	645 040	Installer		B20	used to install housing on swash plate A/C compressor	x	All So Earlyquipped	<input type="checkbox"/>	
83 30 0 493 085	645 060	installer		B20	used to install springs on swash plate A/C compressor	x	All So Earlyquipped	<input type="checkbox"/>	
83 30 0 493 088	645 090	A/C clamp	04 14 92		used to hold compressor to R&R clutch bolts	x	M70	<input type="checkbox"/>	
83 30 0 493 093	652 000	Antenna wrench	04 06 87	B20	used to replace the power antenna mast	x	All So Equipped	<input type="checkbox"/>	
83 30 0 493 094	652 100	Antenna pliers	04 22 87	B20	used to open power antenna housing. See SIB 65 11 87 for details	x	All	<input type="checkbox"/>	
83 30 0 493 099	655 400	Release tool			Used to release the Navigation unit.		All with Navigation	<input type="checkbox"/>	
83 30 0 493 100	657 100	ZAE/MRS Adapter cable	04 26 96		used inconjunction with 88 88 6 614 410 to diagnose ZAE/MRS system	x	E39	<input type="checkbox"/>	
83 30 0 493 101	662 100	Tool Set			Used to R&R the PDC sensors.		All with PDC	<input type="checkbox"/>	
83 30 0 493 108	170 007	Coolant tank cap test adapter	04 15 97	B20	170 007 replaces tool PN 88 88 6 170 006. 88 88 6 170 006 must be scrapped.	x	All	<input type="checkbox"/>	
83 30 0 493 125	613 210	5 pin V adapter cable	04 05 98		used to test seat heating switch	x	E46	<input type="checkbox"/>	
83 30 0 493 126	613 220	8 pin V adapter cable	04 05 98		Used to test pass. power window and interior lights	x	E46	<input type="checkbox"/>	
83 30 0 493 128	613 240	8 pin V adapter cable	04 05 98		Used to test power door locks	x	E46	<input type="checkbox"/>	

83 30 0 493 129	110 235	Compression Tester	04 18 06	NA	Used in conjunction with the GT1 and the 25 bar pressure sensor to test combustion cylinder compression. Refer to Repair Manual section 11 00 039.	x	E60 S85	<input type="checkbox"/>
83 30 0 493 130	116 150	Adjustment plate	04 06 98	B20	Used to adjust valve timing on double VANOS	x	E46	<input type="checkbox"/>
83 30 0 493 134	116 170	Sealing cap pliers	04 06 98	B20	remove VANOS sealing caps	x	E46	<input type="checkbox"/>
83 30 0 493 136	345 220	25 pin V adapter cable	04 05 98		used to test the ABS/DSC module	x	E46	<input type="checkbox"/>
83 30 0 493 137	345 230	43 pin V adapter cable	04 05 98		used to test the ABS/DSC module	x	E46	<input type="checkbox"/>
83 30 0 493 143	116 250	Backlash dial indicator	04 02 06		Used to measure the backlash on the balancing shafts. Refer to Repair Manual section 11 36 140. Precise measurement of the gear backlash is not possible without this tool.		E60 M5	<input type="checkbox"/>
83 30 0 493 149	619 044	Cable crimping jaws	04 16 97		used in conjunction with 90 88 6 619 041 to crimp[ radio antenna connections.	x	All	<input type="checkbox"/>
83 30 0 493 151	651 100	Radio removal tool	04 15 97		used to remove the C33 radio		E39	<input type="checkbox"/>
83 30 0 493 155	613 300	EWS ring remover	04 15 97	B20	used to remove the EWS ring antenna		E39,E38,E39, E46	<input type="checkbox"/>
83 30 0 493 156	242 310	Reverse gear tool			Used to remove the reverse gear piston		A4S270R,310 R	<input type="checkbox"/>
83 30 0 493 172	333 390	Rear diff. seal installer	04 04 98	B20	used to install input flange seal	x	E46	<input type="checkbox"/>
83 30 0 493 176	641 010	Heater control removers	04 04 98		used to unlock and remove heater controls	x	E46	<input type="checkbox"/>
83 30 0 493 179	323 040	Steering angle sensor guide	04 10 98	A19	used to guide the steering angle sensor onto the steering column	x	E46	<input type="checkbox"/>

83 30 0 493 181	333 400	Rear diff. seal installer	04 04 98	C19	used tinstall output flange seal	x	E46	<input type="checkbox"/>	
83 30 0 493 182	611 260	30 pin V adapter cable	04 05 98		used to test 30 pin door harness	x	E46	<input type="checkbox"/>	
83 30 0 493 183	651 150	HiFi test cable	04 01 00		used with B.O.B. 614 390 to troubleshoot the 42 pin hifi/top hifi amplifiers	x	e46	<input type="checkbox"/>	
83 30 0 493 184	613 150	54 pin V adapter cable	04 05 98		Used to test the headlight switch	x	E46	<input type="checkbox"/>	
83 30 0 493 185	611 270	24 pin V adapter cable	04 05 98		used to test 24 pin seat connector	x	E46	<input type="checkbox"/>	
83 30 0 493 186	614 390	60 pin break out box	04 05 98		used to test 27 to 60 pin cables	x	E46	<input type="checkbox"/>	
83 30 0 493 200	512 160	Engine hood brace	04 04 98	C19	used to support the engine hood during repairs	x	E46	<input type="checkbox"/>	
83 30 0 493 221	212 160	SAC Clamping fixture	04 08 99		Used on all SAC self-adjusting clutches to reset the clutch for installation. this tool supercedes 90 88 6 212 150 on SIB 04 03 97. Refer to RM section 21 21 500.	x	All	<input type="checkbox"/>	
83 30 0 493 222	616 200	Washer jet adjuster	04 04 99	C20	Used to adjust the headlight washer jets on the E39. Refer to RM section 61 67 040.		E39	<input type="checkbox"/>	
83 30 0 493 227	333 370	Rear axle bushing remover	04 04 98	C20	used to remove the rear axle bushing	x	E46	<input type="checkbox"/>	
83 30 0 493 243	1116 180	Secondary sprocket fixture	04 06 98	C20	used to install the secondary sprockets	x	E46	<input type="checkbox"/>	
83 30 0 493 249	116 380	Seal Tool	04 07 05		Used to install the valve stem seals on the N52. Refer to repair manual section 11 34 560.	x	N52	<input type="checkbox"/>	
83 30 0 493 253	241 070	Seal Installer	04 27 00	C20	Used to insert the shaft seal in the oil pump.	x	E46	<input type="checkbox"/>	
83 30 0 493 254	241 080	Seal puller	04 27 00	C20	Used with 005 010 to remove the input shaft seal.	x	E46	<input type="checkbox"/>	
83 30 0 493 272	611 139	contact remover tool	04 06 00		used to remove 1.5mm contacts. Spare sleeve PN 90 88 6 611 154	x	e46 e39 e38 Z3	<input type="checkbox"/>	



83 30 0 493 283	113 244	Camshaft retainer	04 06 98	C20	used to secure camshaft with 113 240	x	E46	<input type="checkbox"/>	
83 30 0 493 284	312 156	Control arm brace	04 04 98	C21	used to install the front control arm in conjunction with 312 154/152 and 007 500	x	E46	<input type="checkbox"/>	
83 30 0 493 287	245 304	Transmission support plate	04 27 00	Shelf	Used with 002 030 to support the A5S325Z transmission.		E46	<input type="checkbox"/>	
83 30 0 493 289	313 129	Spring retainer	04 04 98		used to compress the front springs in conjunction with 313 120	x	E46	<input type="checkbox"/>	
83 30 0 493 290	313 101	Spring retainer insert	04 04 98		used to protect spring when using 313 124	x	E46, E65	<input type="checkbox"/>	
83 30 0 493 306	323 030	Rear toe adjustment tool	04 04 98	C21	used to adjust rear toe	x	E46	<input type="checkbox"/>	
83 30 0 493 308	612 074	Seat test cable	04 10 98		Used to test the electric seat adjustment functions with the seat removed.	x	E46	<input type="checkbox"/>	
83 30 0 493 311	350 012	Kickdown gauge	04 13 98	C21	Used to set the kickdown switch on E38 750i vehicles from 8/97. Refer to RM section 35 41 480.	x	E38	<input type="checkbox"/>	
83 30 0 493 321	135 250	Slide hammer	04 18 01	C21	Used with 541 210 to remove convertible top rivets.	x	E46	<input type="checkbox"/>	
83 30 0 493 325	323 140	Camber Adjustment Tool	04 12 99	C21	Used to adjust camber during wheel alignment. Refer to repair manual section 32 00 610. Note- 323 141 replced by 323 145 and 323 142 replaced by 323 144.	x	E46	<input type="checkbox"/>	
83 30 0 493 326	345 160	DSC3 socket	04 13 98	C12	Used to change the DSC3 pressure switch on M73 vehicles from 9/98		E38	<input type="checkbox"/>	

83 30 0 493 337	002 080	Hand pump for lifetime oil	04 03 99		This pump was developed to aid in the filling of manual transmissions with Lifetime oil (MTF-LT1). A pump used with MTF-LT1 should not be used with any other type of oil.		All	<input type="checkbox"/>
83 30 0 493 351	313 120	Spring compressor	04 08 90		used to remove coil springs. This tool has been replaced by 313 340.	x	All	<input type="checkbox"/>
83 30 0 493 363	116 420	VANOS socket	04 12 98	B22/C22	Used to R and R the VANOS solenoid valves. Refer to repair manual section 11 36 585	x	E38/39	<input type="checkbox"/>
83 30 0 493 364	116 430	Assembly gasket	04 12 98	B22/C22	Used to press down on the upper timing case cover during assembly. Refer to RM section 11 14 080.	x	E38/39	<input type="checkbox"/>
83 30 0 493 365	116 440	Camshaft adjuster	04 12 98	B22	Used to check the camshaft stop adjustment. refer to RM section 11 36 610	x	E38/39	<input type="checkbox"/>
83 30 0 493 366	513 130	Windshield mounting blocks	04 01 99		These special hard foam blocks are used during windshield replacement to properly tension the windshield while the glue dries.	x	All	<input type="checkbox"/>
83 30 0 493 370	119 110	Camshaft alignment tool	04 07 98	B22	Used to adjust intake camshaft. Refer also to SIB 11 07 98	x	M44	<input type="checkbox"/>
83 30 0 493 386	117 120	Securing Pin	04 13 99	B22	Used to secure the camshaft in position when adjusting the valve timing. Refer to repair manual section 11 31 505.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 389	116 450	Alignment tool	04 12 98	B22	Used to adjust the camshaft sprocket to the sensor gear. Refer to RM section 11 36 610.	x	E38/39	<input type="checkbox"/>

83 30 0 493 395	345 240	DSC III test cable	04 06 00		used with BOB 614 350 to troubleshoot ABS/DSC (42 pins)	x	all so equipped	<input type="checkbox"/>	
83 30 0 493 396	614 350	23 pin test cable	04 06 00		used with BOB 611 459 to troubleshoot ELO 2.8mm and 5.2 mm contacts	x	e46 e39 e38 Z3	<input type="checkbox"/>	
83 30 0 493 401	616 050	6 pin oval test cable	04 06 00		used to troubleshoot systems with amp-mqs (micro Quadlock System) connectors such as the rotation rate sensor	x	e46 e39 e38 Z3	<input type="checkbox"/>	
83 30 0 493 415	657 110	MRS 3 Test Cable	04 11 99		Used in conjunction with 90 88 6 614 390 60 pin break out box ( 04 05 98) to troubleshoot the MRS 3 system.- Disconnect connector (1) from the MRS 3 control module-connect test cable to 60 pin B.O.B.-connect free end of test cable to the wiring harness	x	E46,E38,E39,Z3	<input type="checkbox"/>	
83 30 0 493 416	334 400	Race removal kit	04 18 00	Shelf	Used to remove rear hub bearing.		All	<input type="checkbox"/>	
83 30 0 493 421	230 200	41mm Socket	04 09 06		This extra long socket is used to R&R the 41mm nut on the SMG output flange.		SMG transmission	<input type="checkbox"/>	
83 30 0 493 422	230 210	Extractor			Used to remove the selector shaft seal on the F transmission.		E90	<input type="checkbox"/>	
83 30 0 493 423	230 220	Impact bushing			Used to install the selector shaft seal.		E90	<input type="checkbox"/>	
83 30 0 493 427	180 050	Catalytic converter wire remover	04 02 99	B22/C22	Used to remove the wires from the electrically heated catalytic converter. Refer to RM section 18 32 030.	x	E38 M73	<input type="checkbox"/>	

83 30 0 493 428	117 140	Locking clips	04 13 99	B22/C22	Used to lock the secondary chain tensioner during R and R of the camshafts. Refer to repair manual section 11 31 011.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 429	126 050	VANOS switching unit	04 15 99		Used with 90 88 6 126 410 (04 27 92) to R&R the VANOS unit. Refer to repair manual section 11 36 030	x	E39 M5	<input type="checkbox"/>
83 30 0 493 430	117 130	VANOS Charging adapter	04 13 99	C21	Screws into the VANOS unit for R and R. Works with compressed air. Refer to repair manual section 11 36 030.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 432	117 150	VANOS Spanner	04 13 99	C21	Used to adjust the splined hub of the VANOS gearbox to R and R the camshafts. Refer to repair manual section 11 31 011.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 433	117 180	Piston Ring Pliers	04 13 99	C20	Used to insert the piston into the cylinder. Refer to repair manual section 11 25 530.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 441	616 060	Wiper arm remover	04 16 00	C20	Used to remove the wiper arm.	x	All	<input type="checkbox"/>
83 30 0 493 442	110 270	Holding Lever	04 13 99	C21	Used to R and R the vibration dampener central bolts. Refer to repair manual section 11 23 010.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 444	111 490	Pressure Testing Plates	04 13 99	B23/C23	Used in conjunction with 111 471 and 111 477 (90 88 6 111 470 04 22 92) to seal head openings for pressure testing. Refer to repair manual section 11 12 729.		E39 M7	<input type="checkbox"/>

83 30 0 493 451	333 228	Bushing sleeve	04 02 01	C23	used to R and R the front bushings on the E46 and E36 series. They can be used in conjunction with special tool 90 88 6 333 280 (SIB 04 19 00) to replace the bushings without performing an alignment. Refer to repair manual section 33 32 042.	x	E46	<input type="checkbox"/>
83 30 0 493 452	333 227	Bushing sleeve	04 02 01	B24	Used to R and R the front bushings on the E46 and E36 series. They can be used in conjunction with special tool 90 88 6 333 280 (SIB 04 19 00) to replace the bushings without performing an alignment. Refer to repair manual section 33 32 042.	x	E46	<input type="checkbox"/>
83 30 0 493 453	130 150	Throttle Valve Synchronizer	04 13 99	shelf	Attaches to the throttle body to synchronize the cylinder banks. Refer to repair manual section 13 54 010. Spacer washer PN-90 88 6 130 154.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 464	110 260	Engine Hoist Frame	04 13 99	shelf	Used with an engine hoist to R		E39 M6	<input type="checkbox"/>
83 30 0 493 517	323 080	Adjustment device	04 07 91	B24	used to adjust the rear wheel alignment	x	E36	<input type="checkbox"/>
83 30 0 493 519	161 157	tank ventilation leak coupler	04 02 00		used with 161 150 to seal the leak diagnosis pump dust filter during system test. Repair manual 16 00 100. Replaced by 161 176.	x	e46	<input type="checkbox"/>
83 30 0 493 539	315 130	oil seal tool	04 50 99	B24	used to install the front output shaft radial oil seal	x	e53	<input type="checkbox"/>
83 30 0 493 541	002 150	T50 torx socket	04 14 00	B24	Used to R and R the rear bumper.		E46	<input type="checkbox"/>

83 30 0 493 542	115 180	TDC pin	04 50 00		used to secure the crankshaft in TDC position for cylinder 1. Refer to repair manual 11 31 010	x	e53	<input type="checkbox"/>	
83 30 0 493 548	114 230	Pretension rod	04 50 00		used with 90 88 6 113 390 to adjust the timing chain tension. Refer to repair manual 11 31 010	x	e53	<input type="checkbox"/>	
83 30 0 493 549	271 360	Drift	04 12 03		Used in conjunction with 005 500 (Tool board #1) to install the input shaft seal on the E46 transfer case. Refer to repair manual section 27 21 010.	x	E46, E53	<input type="checkbox"/>	
83 30 0 493 551	271 340	Seal Installation tool	04 12 03		Used to insert the front and rear differential shaft seals in the transfer case. Refer to repair manual section 27 21 020.	x	E46, E53	<input type="checkbox"/>	
83 30 0 493 555	313 340	spring compressor tool	04 07 00	shelf	this spring compressor tool was developed to handle the greater spring rates on MY 2000 vehicles.	x	all	<input type="checkbox"/>	
83 30 0 493 564	611 149	Pin Removal Tool blade replacement	04 11 99		Replacement blades for pin removal tool 90 88 6 611 148. This tool will not be sent out via the Automatic Tool Shipment Program. Order replacement blades from the PDC.		All	<input type="checkbox"/>	
83 30 0 493 582	118 140	Assembly sleeve for Piston			Used to install piston sizes 84, 84.08 and 84.25 mm.		M54, 52, 52TU	<input type="checkbox"/>	
83 30 0 493 583	118 150	Cylinder wall protector	04 15 03		Used in conjunction with 117 280 to insert the pistons while protecting the rings and cylinder wall.		E66 N73	<input type="checkbox"/>	

83 30 0 493 589	117 210	Seal Press	04 13 99	B24	Used to pull-in the radial oil seal for the lower timing case cover. Hand tighten bolts (1).	x	E39 M5	<input type="checkbox"/>
83 30 0 493 591	112 386	Thrust Plate	04 13 99	B24	Placed on the crankshaft in conjunction with 90 88 6 112 380 (04 22 92) to remove the radial oil seal from the lower timing case cover. Refer to repair manual section 11 14 141.	x	E39 M5	<input type="checkbox"/>
83 30 0 493 592	009 330	Adjustment Lever Set	04 10 99	B23	The set consists of an angle gauge for checking proper adjustment of the windshield wipers, and adjusting levers. Refer to repair manual section 61 61 010.	x	E47	<input type="checkbox"/>
83 30 0 493 596	312 263	Bushing sleeve	04 23 00	Shelf	Tool replaces 312 262 part of 312 260.	x	E38,E39	<input type="checkbox"/>
83 30 0 493 597	221 010	transfer case bushing remover	04 50 99	A24/B24	used to R and R the transfer case bushing. Refer to repair manual 22 32 001	x	e53	<input type="checkbox"/>
83 30 0 493 624	416 120	Door Glass adjustment tool	04 10 99	B11/C11	Used to adjust door glass on the E46/2. This tool replaces tool 90 88 6 416 110 SIB 04 12 93. Additionally this tool can be used to tighten the hood bolts on the E31 as well as the rear power windows on the E31 and E36(convertible). Refer to repair manual	x	E46	<input type="checkbox"/>
83 30 0 493 626	631 010	Xenon test cable	04 07 01	C4	Used with 50-amp test cable to diagnose Xenon light problems. Refer to SIB for details.	x	E38,E39,E46	<input type="checkbox"/>
83 30 0 493 635	416 250	Adjustment Gauge	04 12 00	B9	Used to adjust rear lid	x	E46 sport wagon	<input type="checkbox"/>

83 30 0 493 640	161 022	fuel level sender spanner jaws	04 03 00		must be used with 88 88 6 161 020 to remove fuel sender spanner nut (steel).		e38 e39 e46	<input type="checkbox"/>
83 30 0 493 644	312 264	bushing adapter	04 50 99	B5	used to R and R the lower control arm bushing. Refer to repair manual 31 12 138	x	e53	<input type="checkbox"/>
83 30 0 493 645	334 158	mount remover	04 50 99	B6	used to remove the rear axle mounts. Refer to repair manula 33 33 001	x	E53	<input type="checkbox"/>
83 30 0 493 646	334 159	mount installer	04 50 99	A7	used to install rear axle mounts. Refer to repair manual section 33 33 101	x	e53	<input type="checkbox"/>
83 30 0 493 647	512 170	engine hood extension	04 50 99	A4	used to support the engine hood when in the work position	x	e53	<input type="checkbox"/>
83 30 0 493 648	332 150	shaft remover	04 50 99	A19/B19/C19	used to R and R the wheel bearing and the half shaft on the front axle. epair manual section 31 21 090.	x	e53	<input type="checkbox"/>
83 30 0 493 649	323 150	Rear toe adjuster	04 51 00	B10	Used to adjust the rear toe.	x	E53	<input type="checkbox"/>
83 30 0 493 653	323 160	crowfoot wrench	04 50 00		used to R&R the tie rod from the steering rack. Refer to repair manual 32 11 100	x	E53	<input type="checkbox"/>
83 30 0 493 654	246 070	GM5 diagnostic cable	04 21 00	C1	Used with 611 459 to test GM5 module.	x	E39,E46	<input type="checkbox"/>
83 30 0 493 681	641 020	grill remover	04 50 99	A3/B3	used to remove the fresh air grills	x	E53	<input type="checkbox"/>
83 30 0 493 685	230 250	Output flange nut wrench	04 52 00	B12	Used to R		E53	<input type="checkbox"/>
83 30 0 493 687	009 340	switch block remover	04 50 99	B6/C6	used to R and R the window switch block and IHKA control panel. Refer to repair manual 64 11 331. One piece of this tool 009 341 is also used to adjust the gap on the X5 sunroof.	x	e53	<input type="checkbox"/>
83 30 0 493 688	333 280	Control arm alignment gauge	04 19 00	17	Used to align the rear lower control arm.		E46,E36	<input type="checkbox"/>



83 30 0 493 689	611 330	Alignment Tool	04 10 00	A16	Used to align the rear wiper motor.	x	E46 sport wagon	<input type="checkbox"/>
83 30 0 493 694	333 230	bushing remover	04 50 99	B12	used to R and R the rear axle carrier bushings. Repair manual section 33 17 006	x	e53	<input type="checkbox"/>
83 30 0 493 705	341 040	Allen wrench	04 13 90	C2	used to remove rear calliper - replaced by 90 88 6 341 080	x	E31, all	<input type="checkbox"/>
83 30 0 493 709	114 240	Oil line disconnect tool	04 17 00	A23	Used to release the oil line.		E52	<input type="checkbox"/>
83 30 0 493 710	118 190	Vibration damper brace	04 29 00	C1	Used with 118 200 to R	x	All	<input type="checkbox"/>
83 30 0 493 731	513 220	Window suction cup	04 11 01	Shelf	Used to support window glass during R&R		All	<input type="checkbox"/>
83 30 0 493 732	341 290	Ring spanner	04 52 00	A3	Used to R and R the pressure switch on the DSC unit.		E53	<input type="checkbox"/>
83 30 0 493 739	114 380	Camshaft fixture	04 01 01	Shelf	Used to depress the camshaft during bearing removal.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 742	114 390	Oil pressure adapter	04 01 01	B21		x	E46 M3	<input type="checkbox"/>
83 30 0 493 743	114 400	Magnetic holder	04 01 01	C2	Used to hold the valve shims.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 748	119 120	Piston ring compressor	04 01 01	A1/B1/C1	Used to compress the piston rings.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 749	119 130	Camshaft adjusting gauge	04 01 01	B1	Used to adjust camshaft.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 750	119 140	Camshaft timing gauge	04 01 01	B1/C1	Used to check the timing of the camshaft.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 751	119 150	Flex adapter	04 01 01	B1/C1	Used with 117 030 to remove the oxygen sensor.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 754	113 163	Feeler gauge	04 01 01	A16	Used to check the valve clearance.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 755	119 160	Clamping pliers	04 01 01	A14/B14	Used to R and R the clamps on the intake air manifold. Refer to repair manual section 11 61 050	x	E46 M3	<input type="checkbox"/>
83 30 0 493 756	111 404	Sealing plates	04 01 01	Shelf	Used to check the head for leaks.		E46 M3	<input type="checkbox"/>
83 30 0 493 764	230 110	Transmission support fixture	04 03 01	Shelf	Replaces p/n 230 040. Used to support S6S560G		E39,E31	<input type="checkbox"/>

83 30 0 493 771	361 100	Wheel Clamp adapter	04 16 03		Used in conjunction with 81 10 0 021 292 to align the ACC sensor. Refer to SI for details. Replacement parts - Magnets 361 102 - 83 30 0 493 773, attachment stems 361 103 - 83 30 0 493 774	x	E65/66	<input type="checkbox"/>	
83 30 0 493 797	230 130	Transmission fixture	04 52 00	Shelf	Use with 002 030 to support the transmission		E53	<input type="checkbox"/>	
83 30 0 493 801	230 230	Engine spacer	04 22 00	A7	Used to secure the engine when removing the transmission.	x	E46 Xi	<input type="checkbox"/>	
83 30 0 493 802	118 200	Vibration damper holder	04 29 00	C19	Used with 118 190 to R	x	All	<input type="checkbox"/>	
83 30 0 493 803	118 210	Vibration damper puller	04 29 00	C13/C14	Used to pull the vibration damper.	x	All	<input type="checkbox"/>	
83 30 0 493 805	117 160	VANOS spanner wrench	04 01 01	A13		x	E46 M3	<input type="checkbox"/>	
83 30 0 493 806	221 017	Transfer case nut	04 09 03		Used in conjunction with 221 010 to remove the transfer case rubber mount. Refer to repair manual section 22 32 001.	x	E46/16	<input type="checkbox"/>	
83 30 0 493 807	221 018	Rubber bushing remover	04 52 00	Shelf	Replaces tool 221 011 part of tool 221 010 to remove the transfer case.	x	E53	<input type="checkbox"/>	
83 30 0 493 808	221 019	Rubber bushing remover	04 52 00	C16	Replaces tool 221 012 part of tool 221 010 to remove the transfer case rubber bushing.	x	E53	<input type="checkbox"/>	
83 30 0 493 814	614 300	DIS OBD cable	04 14 00	Shelf	Diagnosis through the OBD port.	x	E46 and newer	<input type="checkbox"/>	
83 30 0 493 815	311 170	Output shaft remover	04 22 00	B9	Used to remove the front output shaft.	x	E46 Xi	<input type="checkbox"/>	
83 30 0 493 822	543 000	Pin wrench	04 25 00	A13	Used to adjust convertible top.	x	E46	<input type="checkbox"/>	
83 30 0 493 824	334 261	Wheel bearing remover	04 52 00	B2	Used to remove the 49mm front wheel bearing.	x	E53	<input type="checkbox"/>	

83 30 0 493 825	334 262	Bearing Installer	04 52 00		Used to install 49mm front wheel bearings. Refer to Repair Manual section 31 21 180.	x	E53	<input type="checkbox"/>
83 30 0 493 829	361 030	Wheel run out gauge	04 09 01	Shelf	Used to measure wheel run out. Replaces 361 000.		All	<input type="checkbox"/>
83 30 0 493 831	313 367	Protective insert	04 11 00	Shelf	Used with 313 252 to protect spring	x	E52	<input type="checkbox"/>
83 30 0 493 832	611 148	Pin Removal Tool	04 11 99		Used to remove the pins from SLK connectors.	x	ALL	<input type="checkbox"/>
83 30 0 493 833	361 040	Wheel weight scraper	04 08 01	A12	Used to safely scrap the weights from vehicle wheels.		All	<input type="checkbox"/>
83 30 0 493 837	138 030	6 pin test cable	04 25 01	C1	Used to test the EDK throttle valve.	x	Z3,E39,E46,E53	<input type="checkbox"/>
83 30 0 493 838	119 170	VANOS spacer	04 01 01	A12	Used to set up the VANOS unit.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 839	212 170	SAC clamping fixture	04 14 01	B4	Refer to important information on SIB 04 14 01.	x	All	<input type="checkbox"/>
83 30 0 493 840	212 180	SAC Centering Ring	04 14 01	B4	Used in combination with 212 170 to ensure that the clutch is properly centered. This tool is applicable for all SAC equipped vehicles.	x	ALL with SAC	<input type="checkbox"/>
83 30 0 493 843	110 280	Brace	04 01 01	B2	Used to hold the vibration damper to R	x	E46 M3	<input type="checkbox"/>
83 30 0 493 847	117 240	Seal installer	04 28 01	A10	Used to replace the crank seal.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 852	612 090	Seat adapter cable	04 12 01		Used to test seat motors.	x	E52	<input type="checkbox"/>
83 30 0 493 854	630 410	LCM Test Cable	04 03 06		Used in conjunction with 614 390 to perform functional checks of the light check module.	x	E38, 39, 46, 90	<input type="checkbox"/>
83 30 0 493 855	611 180	Pin removal tool	04 20 01	Shelf	Used to remove the load carrying terminals found in the fuse box.	x	All	<input type="checkbox"/>
83 30 0 493 863	334 410	Rear differential support	04 17 01	Shelf	Used to support the final drive.		All	<input type="checkbox"/>

83 30 0 493 881	119 180	Seal Installer	04 01 06		Used to pull the rear crankshaft seal into position. Refer to Replacing crankshaft radial sealing ring in the repair manual. Cartool PN 119 180.	x	N52	<input type="checkbox"/>
83 30 0 493 882	119 190	Plug mandrel			Used to lock the flywheel in the TDC position.		N62	<input type="checkbox"/>
83 30 0 493 893	641 450	AC sprayer	04 03 02	Shelf	Used to remove the odor from AC systems. Refer to SI for details and 64 08 91. Used with 99 00 0 002 719.	x	All	<input type="checkbox"/>
83 30 0 493 902	121 120	Release lever	04 01 01	B13	Used to release the connector strip on the fuel injectors.	x	E46 M3	<input type="checkbox"/>
83 30 0 493 903	341 091	Brake caliper brush	04 10 01	A22	Used to clean the brake calipers without damaging them.		All	<input type="checkbox"/>
83 30 0 493 912	612 310	Closed circuit adapter	04 24 00	C4	Used with 612 300 to measure current draw.	x	All	<input type="checkbox"/>
83 30 0 493 915	127 300	9 Pin adapter cable	04 05 02		Used in conjunction with the DISplus to troubleshoot the Valvetronic position sensor.	x	E65	<input type="checkbox"/>
83 30 0 493 916	127 310	10 Pin test cable	04 05 02		Used in conjunction with the DISplus and BOB 611 459 to trouble shoot the Valvetronic Control Module.	x	E65	<input type="checkbox"/>
83 30 0 493 920	230 240	Drift pin remover			Used to remove the transmission gearshift actuator.	x	E46 with S54	<input type="checkbox"/>
83 30 0 493 922	119 400	Engine stand support	04 09 02	Shelf	Used to mount the engine on the engine stand.		E65 N62	<input type="checkbox"/>
83 30 0 493 923	119 410	Seal extractor	04 06 02	C4	Used to remove the front crank seal.	x	E65	<input type="checkbox"/>
83 30 0 493 924	119 420	Seal installer	04 06 02	C17	Used to install the front crank seal.	x	E65	<input type="checkbox"/>
83 30 0 493 926	119 450	Brace	04 06 02	B20	Used to hold the crankshaft to R	x	E65	<input type="checkbox"/>
83 30 0 493 927	119 460	Gauge set	04 31 01	Shelf	Used to hold the camshaft at top dead center.	x	E65	<input type="checkbox"/>

83 30 0 493 929	119 480	Torsion lever	04 06 02	C7	Used to remove Valvetronic torsion spring during R	x	E65	<input type="checkbox"/>	
83 30 0 493 930	119 490	Protective sleeves	04 06 02	B23	Used to protect the camshaft from damage	x	E65	<input type="checkbox"/>	
83 30 0 493 933	119 200	Seal Puller	04 26 05		Used to remove the rear radial oil seal from the N52 engine. Refer to <i>Replacing crankshaft radial sealing ring</i> in the repair manual.	x	N52	<input type="checkbox"/>	
83 30 0 493 934	119 220	Seal remover	04 01 06		Used to remove the front crankshaft seal. Refer to <i>Replacing crankshaft radial sealing ring front</i> in the repair manual. Cartool PN 119 220.	x	N52	<input type="checkbox"/>	
83 30 0 493 935	119 230	Seal Installer	04 01 06		Used to install the front crankshaft seal. Refer to <i>Replacing crankshaft radial sealing ring front</i> in the repair manual. Cartool PN 119 230.	x	N52	<input type="checkbox"/>	
83 30 0 493 936	119 240	Oil Filter Cap Wrench	04 17 05		Used to remove the oil filter cap on all N52 engines. Must be ordered from the local PDC.		N52	<input type="checkbox"/>	
83 30 0 493 938	119 260	Flywheel Lock	04 15 02		Used to lock the flywheel for removal and installation. Refer to repair manual for details.	x	E65/66	<input type="checkbox"/>	
83 30 0 493 940	119 280	Crankshaft Holder	04 26 05		Used to R&R the crankshaft central bolt. Refer to <i>Replacing timing Chain</i> in the repair manual.	x	N52	<input type="checkbox"/>	
83 30 0 493 945	612 190	20 Pin test cable	04 08 02	C4	Used in conjunction with BOB 611 459 to test the seat control module.	x	E65	<input type="checkbox"/>	

83 30 0 493 946	612 180	8 pin test cable	04 30 01	C4	Used in conjunction with the DISplus to adapt to the 8 pin seat module.	x	E65	<input type="checkbox"/>	
83 30 0 493 947	612 170	5 pin adapter cable	04 30 01	C4	Used in conjunction with the DISplus to adapt to the 5 pin seat module.	x	E65	<input type="checkbox"/>	
83 30 0 493 948	612 160	4 Pin test cable	04 30 01	C4	Used in conjunction with DISplus to adapt to the seat module.	x	E65	<input type="checkbox"/>	
83 30 0 493 950	612 150	76 pin test cable	04 08 02	C4	Used in conjunction with BOB 611 380 to test the Lamp Module.	x	E65	<input type="checkbox"/>	
83 30 0 493 951	612 140	9 Pin adapter cable	04 15 02		Used with DISplus/GT1 MFK cables to adapt the 9 pin power window motor for testing.	x	E65/66	<input type="checkbox"/>	
83 30 0 493 952	631 030	16 Pin test cable	04 08 02	C4	Used in conjunction with BOB 611 459 to test the trailer module.	x	E65	<input type="checkbox"/>	
83 30 0 493 953	612 130	10 Pin test cable	04 30 01	C4	Used to adapt the windscreen motor connector (WIM) for testing.	x	E65	<input type="checkbox"/>	
83 30 0 493 954	612 120	16 pin test cable	04 08 02	C4	Used in conjunction with BOB611 459 to test the door module TM.	x	E65	<input type="checkbox"/>	
83 30 0 493 955	612 110	21 pin test cable	04 08 02	C4	Used in conjunction with BOB 611 459 to test the door components.	x	E65	<input type="checkbox"/>	
83 30 0 493 956	372 040	12 pin adapter cable	04 30 01	C4	Used in conjunction with the DIS[plus]to adapt to the Dynamic Drive System ARS.	x	E65	<input type="checkbox"/>	
83 30 0 493 958	324 250	8 pin adapter cable	04 30 01	C5	Used in conjunction with DISplus to test the 8 pin steering column module.	x	E65	<input type="checkbox"/>	

83 30 0 493 961	651 110	Wide screen monitor tool	04 33 01		Used to remove the wide screen board monitor. Refer to repair manual section 65 52 013.	x	E46 from 9/01	<input type="checkbox"/>	
83 30 0 493 962	614 380	Break out box	04 01 02	Shelf	Used to troubleshoot control modules.	x	E65	<input type="checkbox"/>	
83 30 0 493 967	334 205	Thrust rod remover	04 50 02		Used to remove the thrust rods.	x	E53	<input type="checkbox"/>	
83 30 0 493 971	119 340	Chain Tensioner	04 01 06		Used to set the timing chain tension while adjusting the valve timing. Refer to ¿Removing and Installing intake and exhaust camshaft adjustment unit¿ in the repair manual. Cartool PN 119 340.	x	N52	<input type="checkbox"/>	
83 30 0 493 973	119 360	Mandrel	04 01 06		Used to install the basket sealer valve for the crankcase.	x	N52, S85, N52	<input type="checkbox"/>	
83 30 0 494 017	170 008	Radiator cap test hose	04 22 01	C7	Used with 170 000 to test the radiator cap function.	x	All	<input type="checkbox"/>	
83 30 0 494 018	361 080	M-mobility spanner	04 19 01	C6	Used to torque the lid on the M-mobility unit.	x	All with M-mobility	<input type="checkbox"/>	
83 30 0 494 019	541 210	Rivet remover	04 18 01	19 DP9	Used with 1135 250 to remove convertible top rivets.	x	E46	<input type="checkbox"/>	
83 30 0 494 046	334 210	Rubber mount remover jaws			Used in conjunction with 90 88 6 334 140 (E38) to remove the rear axle rubber mounts. Refer to repair manual section 33 33 101.		E46 sport wagon	<input type="checkbox"/>	
83 30 0 494 048	334 280	Bushing extraction tool	04 31 01	A7	Used to R	x	E65	<input type="checkbox"/>	
83 30 0 494 057	346 320	Lever	04 06 02	C12	Used to depress the brake caliper piston on the front axle.	x	E65	<input type="checkbox"/>	
83 30 0 494 058	321 030	Line lever	04 06 02	A12	Used to disconnect the hydraulic lines from the steering gear.	x	E65	<input type="checkbox"/>	

83 30 0 494 062	245 306	Transmission support	04 31 01	Shelf	Used with 002 030 to support the trans. during R&R	x	E65	<input type="checkbox"/>	
83 30 0 494 128	361 460	32 pin test vcable	04 30 01	C4	Used in conjunction with BOB 614 390 to adapt to the 32 pin Tire pressure control RDC.	x	E65	<input type="checkbox"/>	
83 30 0 494 131	613 160	54 Pin Adapter Cable	04 18 02		Used in conjunction with break out box 90 88 6 614 390 (SI B04 05 98) to adapt to the 54 pin Dynamic Drive system. Follow the instructions in the DISplus test plan.	x	E65	<input type="checkbox"/>	
83 30 0 494 137	246 080	16 Pin Adapter cable	04 30 01		Used in conjunction with BOB 611 459 to test the auto trans.	x	E65	<input type="checkbox"/>	
83 30 0 494 138	170 030	Oil cooler pliers	04 06 02	C11	Used to release the trans. oil cooler lines.	x	E65	<input type="checkbox"/>	
83 30 0 494 141	241 350	Piston cover remover	04 21 02		Used to remove the piston sealing cover on the THMR1 transmission. Refer to repair manual section 24 00	x	E36 E39	<input type="checkbox"/>	
83 30 0 494 146	127 420	DME test cable	04 15 05		Used in conjunction with Break Out Box 90 88 6 614 380 (SI B04 01 02) to diagnose the MSV70 DME. 1. Test cable 2. Plates for BOB 614 380 - allow the BOB to be customized for the 2nd DME plug pin assignment.	x	E90	<input type="checkbox"/>	
83 30 0 494 149	119 430	Pressure fixture	04 09 02	Shelf	Used to check the N62 head for cracks.		E65 N62	<input type="checkbox"/>	
83 30 0 494 151	161 060	Fuel line plug	04 10 02	C24	Used to plug fuel line when fuel tank is removed.	x	E65	<input type="checkbox"/>	



83 30 0 494 152	321 260	Crimp clamp pliers	04 15 01		Used to remove and install crimp clamps on BMW vehicles. The pliers have a side cutter that allows you to cut from 2 directions. Refer to repair manual section 32 11.		All	<input type="checkbox"/>
83 30 0 494 155	372 050	10 pin adapter cable	04 30 01	C4	Used in conjunction with the DISplus to adapt to the 10 pin electronic damping control module - EDK.	x	E65	<input type="checkbox"/>
83 30 0 494 156	611 190	Ribbon Cable Pliers	04 10 03		Used to repair vehicle ribbon cables. Insert ribbon cable into housing (1) and lock with handle (2).	x	E65/66	<input type="checkbox"/>
83 30 0 494 157	614 310	16 Pin test cable	04 08 02	C4	Used in conjunction with BOB 611 459 to test the controller.	x	E65	<input type="checkbox"/>
83 30 0 494 158	614 320	Crimping set	04 31 01	Shelf	Used to repair the fiber optic cable.	x	E65	<input type="checkbox"/>
83 30 0 494 165	612 200	8 pin extension cable	04 30 01	C4	Used to check the function of the electric seat removed from the vehicle.	x	E65	<input type="checkbox"/>
83 30 0 494 168	512 180	Hood locking bar	04 06 02		Used to hold the engine hood in the service position.	x	E65	<input type="checkbox"/>
83 30 0 494 171	334 227	Fixture set	04 09 02	Shelf	Used to remove the rear axle carrier.		E65	<input type="checkbox"/>
83 30 0 494 179	321 270	Plug set	04 06 02		Used to seal hydraulic lines during repairs.	x	E65	<input type="checkbox"/>
83 30 0 494 181	323 145	Camber adjustment tool	04 06 02		Used to adjust camber during alignment. 323 145 replaces tools 323 143, 323 141 and 323 142. Update 2/2006 - replace spindle # 323 144 with 323 146. Refer to SI B04 05 06.	x	E65/53	<input type="checkbox"/>
83 30 0 494 182	323 170	Airbag remover	04 06 02		Used to remove the steering wheel airbag.	x	E65	<input type="checkbox"/>

83 30 0 494 183	321 020	Tool set	04 06 02		Used to replace the dirt seal and support ring on the hydraulic steering lines.	x	E65	<input type="checkbox"/>
83 30 0 494 187	313 030	Extraction tool	04 31 01		Used to R and R the rubber bushings in the trailing arm. This tool was replaced in January of 2003. The new tool that replaces it has "N 06/2" stamped next to the Part number. If your tool does not have this replace it and discard the old tool.	x	E65	<input type="checkbox"/>
83 30 0 494 190	641 030	Release hook	04 06 02		Used to remove the face vent grills.	x	E65	<input type="checkbox"/>
83 30 0 494 195	333 181	Bushing tool	04 16 01		used to remove the rubber bushing on the rear axle carrier for the E46 M3. The tool, originally sent out with 88 88 6 333 180 (SIB 04 13 90) can be modified to work on the M3 or purchased new. To purchase new, order PN 90 88 6 333 181 from the PDC. To modify the existing tool refer to illustration R330341.		E46 M3	<input type="checkbox"/>
83 30 0 494 196	121 310	MKA Multi-channel adapter	04 32 01		Used in conjunction with the DISplus and MFK2 cables to perform automatic engine tests on N62 engines and newer. May 2008 - this test box is no longer used.	x	E65/66	<input type="checkbox"/>
83 30 0 494 197	345 250	47 pin test cable	04 25 01	C1	Used with BOB 614 412 & 413 for trouble shooting	x	Z3,E46	<input type="checkbox"/>
83 30 0 494 199	242 370	Seal installer	04 06 02		Used to install the output shaft seal to the proper depth.	x	E65	<input type="checkbox"/>

83 30 0 494 200	242 360	Seal installer	04 06 02		Used to install the torque converter shaft seal.	x	E65	<input type="checkbox"/>	
83 30 0 494 201	242 350	Seal remover	04 31 01		Used to remove the trans. output flange seal.	x	E65	<input type="checkbox"/>	
83 30 0 494 208	245 366	Seal installer	04 06 02		Used in conjunction with 245 360 to install the shift shaft seal.	x	E65	<input type="checkbox"/>	
83 30 0 494 212	242 380	Socket	04 09 02		Used with 230 020 to R&R the nuton the trans. output flange.	x	E65	<input type="checkbox"/>	
83 30 0 494 213	242 390	Protective cap	04 09 02		Used to seal the trans. connector during removal.		E65	<input type="checkbox"/>	
83 30 0 494 217	313 369	Protective inserts	04 06 02	Shelf	Refer to SI for details.	x	E65	<input type="checkbox"/>	
83 30 0 494 219	612 210	5 pin widow test cable	04 14 02		Used to test the window motors with the door panel removed.	x	E65/66	<input type="checkbox"/>	
83 30 0 494 251	513 240	Window Adjutment Wrench			Used to adjust retraction depth. Refer vto repair manual section 51 32 154.		E88	<input type="checkbox"/>	
83 30 0 494 280	212 200	Clutch centering pin	04 28 02		Used to center the clutch disc (1) during installation.	x	E85	<input type="checkbox"/>	
83 30 0 494 308	110 150	Engine support Bracket	04 07 03	shelf	Used to support the engine while mounted on engine stand PN 88 88 6 001 450 (B04 17 87).	x	N73	<input type="checkbox"/>	
83 30 0 494 309	117 270	Pin spanner wrench	04 07 03		Used to R&R the variable valve gearing on the intermediate shaft. Refer to repair manual section 11 12 105.	x	N73	<input type="checkbox"/>	
83 30 0 494 310	117 280	Piston ring pliers	04 18 03		Used in conjunction with 118 150 to insert the pistons while protecting the rings and cylinder wall.		E66 N73	<input type="checkbox"/>	

83 30 0 494 316	112 007	Thrust Bushing	04 07 03		Used in conjunction with 88 88 6 112 000 (tool board #2) to pull the chain sprocket from the crankshaft. Refer to repair manual section 11 31 052.	x	N73	<input type="checkbox"/>
83 30 0 494 317	119 445	Crankshaft shim	04 07 03		Used in conjunction with 90 88 6 113 460 (B04 28 92, tool board 15) and 90 88 6 119 450 (B04 06 02, tool board 18) to hold the crankshaft during R&R of the central bolt. Refer to repair manual section 11 23 031.	x	N73	<input type="checkbox"/>
83 30 0 494 318	119 476	Camshaft Securing Bracket	04 07 03		Used in conjunction with 90 88 6 119 470 (B04 06 02) to secure the intake camshaft while fitting the end bracket. Refer to repair manual section 11 37 012.	x	N73	<input type="checkbox"/>
83 30 0 494 321	621 340	Airbag Adapter Cable Set	04 05 03		This adapter cable set is used to troubleshoot airbag system problems. the set consists of: 621 341-side airbag, head airbag, rear belt. 621 342-front belt, safety battery terminal 621 343-driver	x	E65/66	<input type="checkbox"/>
83 30 0 494 325	512 190	Door Lock Tool	04 16 02		Must be used to pretension the door lock to the correct position for installation. Failure to use this tool may result in door leaks caused by an out of alignment door lock seal. Repair manual section 51 21 090.	x	E65	<input type="checkbox"/>

83 30 0 494 326	311 060	Ball Joint Tester	04 03 03	Shelf	Used to test ball joints for wear. Refer to SI for details. Refer to SI 04 14 06 for E46 M3 adapter (PN 311 071).	x	E46/53	<input type="checkbox"/>
83 30 0 494 332	663 121	OPPS fibreoptic cable - long			Used to diagnose the MOST bus		All	<input type="checkbox"/>
83 30 0 494 334	663 123	OPPS fibreoptic cable - short			Used to diagnose the MOST bus		All	<input type="checkbox"/>
83 30 0 494 362	119 000	Cylinder head clamping fixture	04 21 03	Shelf	This head clamping fixture is used in conjunction with engine stand 001 450 to safely hold the head for disassembly & assembly. It is designed to especially hold the new style N62 heads but will work on all other engines. Refer to repair manual section 11 12 503.	x	All	<input type="checkbox"/>
83 30 0 494 363	513 250	Door Handle Release Tool	04 23 02		Used to remove the front and rear outside door handles without damage. 1. Release slide 2. Release hook Refer to repair manual section 51 21 170	x	E65/66	<input type="checkbox"/>
83 30 0 494 383	127 050	Secondary voltage test cable	04 27 01		Used with DISplus to test secondary voltage on the S54 engine.	x	E46 M3	<input type="checkbox"/>
83 30 0 494 384	323 143	camber adjustment tool	04 50 99		used to adjust camber during wheel alignment. Refer to repair manual section 32 00 610. This tool is replaced by 323 145.	x	e53	<input type="checkbox"/>
83 30 0 494 385	324 011	Pressure adapters	04 21 01		Used with 324 012	x	E38	<input type="checkbox"/>
83 30 0 494 386	324 012	Pressure adapters	04 21 01		Used with 324 012	x	E38	<input type="checkbox"/>

83 30 0 494 397	313 358	Spring Retainer	04 05 05		Used with spring retainer PN 313 354 (SI B04 07 00) to properly tension the coils when removing the springs.Note: Carefully follow the tool use application in SI B04 07 00.	x	E90	<input type="checkbox"/>
83 30 0 494 401	543 200	Folding top support	04 31 02		Used to hold the folding top for fabric replacement while removed from the vehicle. Refer to repair manual section 54 34 101.	x	E85	<input type="checkbox"/>
83 30 0 494 410	233 150	Shaft seal tool set	04 24 02		Used to R and R the transmission input shaft seal.	x	E85	<input type="checkbox"/>
83 30 0 494 416	233 160	Shaft seal tool set	04 24 02		Used to R and R the transmission output shaft seal.	x	E85	<input type="checkbox"/>
83 30 0 494 417	170 100	Coolant system pressure tester	04 08 03	shelf	Used to pressure test the engine coolant system for leaks. Refer to SI for details.	x	All	<input type="checkbox"/>
83 30 0 494 429	170 130	Coolant tester adapter set	04 08 03	shelf	Used to adapt old pressure fittings (PN 88 88 6 170 000) to the new coolant pressure tester (90 88 6 170 100). Refer to SI for details,	x	All	<input type="checkbox"/>
83 30 0 494 436	212 220	Spline cleaner	04 28 02		Used to clean the grease off of the splined transmission input shaft.	x	E85	<input type="checkbox"/>
83 30 0 494 439	230 134	Transmission support	04 28 02	shelf	Used in conjunction with 230 130 to support the transmission during R&R.		E85	<input type="checkbox"/>
83 30 0 494 449	000 451	Support Feet	04 28 02	shelf	Used in conjunction with engine support 000 200 to support the engine during oil pan removal.		E85	<input type="checkbox"/>
83 30 0 494 450	513 260	Release slide	04 24 02		Used to release the door handle during R	x	E85	<input type="checkbox"/>

83 30 0 494 453	613 040	EKP Test Lead	04 14 03		Used to troubleshoot the Electric Fuel Pump (also applicable for the E46 SULEV).	x	E60	<input type="checkbox"/>	
83 30 0 494 464	136 030	Fuel Pressure adapter			The repair manual section 13 31 028 instructs the tech to use this tool to test fuel pressure on the N54. The repair manual is wrong. Use special tool 135 270 to test the fuel pressure.		N54	<input type="checkbox"/>	
83 30 0 494 467	541 220	Rivet pliers	04 23 03		Used to install plastic rivets on bumpers and exterior plastic trim panels. The rivets (available through Parts) range from 1.9 mm to 3.6 mm in diameter.		E46	<input type="checkbox"/>	
83 30 0 494 468	321 280	Hydraulic motor clamp	04 24 02		Used to hold the hydraulic motor on the valve housing assembly during installation. Refer to repair manual section 34 52 516.	x	E85	<input type="checkbox"/>	
83 30 0 494 469	323 180	Clamp	04 24 02		Used to hold the steering gear in the center position during R	x	E85	<input type="checkbox"/>	
83 30 0 494 474	512 195	Door lock jig	04 24 02		Used in conjunction with 512 190 (SI B04 16 02) to correctly pretension the door lock during assembly. Refer to repair manual section 51 21 090.	x	E85	<input type="checkbox"/>	
83 30 0 494 482	114 223	Chain tension spindle	04 07 97		replaces spindle on tool 90 88 6 114 220. Refer to SIB 04 07 95	x	M52,Z3	<input type="checkbox"/>	
83 30 0 494 492	002 240	Plastic rivet pliers	04 23 03		Used to install plastic rivets on bumpers and exterior plastic trim panels. The rivets (available through Parts) range from 1.9 mm to 3.6 mm in diameter.		E46/53	<input type="checkbox"/>	

83 30 0 494 500	233 110	Drift	04 26 02		Used to install the shift pin sleeve and sealing cap on S5D280Z/310Z/320Z transmissions.	x	E36/39/46/53	<input type="checkbox"/>
83 30 0 494 501	161 170	Evap system tester	04 26 00	Shelf	Used to test for leaks in the evaporative system. Order under new PN 83 30 0 494 501. PN 161 176 can be order under PN 83 30 0 495 345.	x	All	<input type="checkbox"/>
83 30 0 494 505	131 340	Fuel Injector remover	04 07 03		Used in conjunction with slide hammer PN 90 88 6 135 250 (B04 18 01, tool board 19) to remove fuel injectors. Refer to repair manual section 13 64 593.	x	N73	<input type="checkbox"/>
83 30 0 494 506	242 400	Seal Drift	04 14 03		Used to fit the radial oil seal on the torque converter for the 6HP19 (GA6 HP19Z) transmission.	x	E60	<input type="checkbox"/>
83 30 0 494 515	641 460	AC sprayer wand	04 07 04		Used in conjunction with AC disinfectant sprayer (SI B04 03 02) to clean and disinfect the AC system on vehicles that exhibit a musty odor. This PN is no longer to be used. Discard the tool and order PN 83 30 0 494 515.		E65/66, E65/66	<input type="checkbox"/>
83 30 0 494 518	641 040	AC belt tool	04 25 04		Used to aid in the installation of the Air Conditioning belt on the N62. Refer to Repair manual section 11 28 050 for details.	x	E60,63,64,65 w/N62	<input type="checkbox"/>
83 30 0 494 529	131 140	Fuel injector installation fixture	04 06 03	shelf	This tool must be used to properly install the fuel injectors. Refer to repair manual section 13 53 240.	x	E46 with M56	<input type="checkbox"/>



83 30 0 494 541	312 230	Strut Wrench	04 20 03		Used to open up the wheel carrier when removing the spring strut. Refer to repair manual section 31 31 000.	x	E65/66	<input type="checkbox"/>	
83 30 0 494 542	321 300	Release Fork	04 20 03		Used to release the quick release couplings on the N73 steering box hydraulic lines. Refer to repair manual: -32 Overview of steering gear -R&R power steering gear -32 13 060 -32 13	x	E65/66	<input type="checkbox"/>	
83 30 0 494 543	233 200	Extractor	04 23 04		Used to remove the input shaft seal. Refer to repair manual section 23 12 510.	x	E46,53,60,83 w/GS6-53BZ	<input type="checkbox"/>	
83 30 0 494 546	233 210	Extractor	04 23 04		Used to remove the output shaft seal. Refer to repair manual section 23 12 059.	x	E46,53,60,83 w/GS6-53BZ	<input type="checkbox"/>	
83 30 0 494 584	330 170	ARS Gauge	04 14 03		Used to properly position the ARS (Active Roll Stabilization lines) at the rear axle.	x	E60	<input type="checkbox"/>	
83 30 0 494 602	613 060	Power Window Test Lead	04 14 03		Used in conjunction with 612 071 (B04 11 92) to actuate the power windows with the battery removed.	x	E60	<input type="checkbox"/>	
83 30 0 494 611	334 420	Support Adapters			Used with support stand 002 030 to support rear differentials.		All	<input type="checkbox"/>	
83 30 0 494 612	612 220	DSC Test Lead	04 14 03		Used to troubleshoot the DSC-8 (Dynamic Stability Control) system.	x	E60	<input type="checkbox"/>	
83 30 0 494 613	612 230	AFS Test Lead	04 14 03		Used to troubleshoot AFS (Active Front Steering) system.	x	E60	<input type="checkbox"/>	
83 30 0 494 624	313 381	Top spring retainer	04 13 03	shelf	Used in conjunction with 313 340 to R	x	E65/66	<input type="checkbox"/>	

83 30 0 494 625	313 382	Bottom spring retainer	04 13 03	shelf	Used in conjunction with 313 340 to R and R E65 (sport suspension) springs.	x	E65/66	<input type="checkbox"/>	
83 30 0 494 626	313 364	Spring Retainer Insert	04 13 03	shelf	Used in conjunction with 313 381 to protect the spring. Always replace the insert if worn or damaged.	x	E65/66	<input type="checkbox"/>	
83 30 0 494 627	520 070	Release Hook	04 14 03		Used to remove the head restraint guides.	x	E60	<input type="checkbox"/>	
83 30 0 494 628	312 158	Base adapter	04 24 01		Used on E46 vehicles from 2/01 production. Refer to SIB for details.	x	E46	<input type="checkbox"/>	
83 30 0 494 635	361 130	ACC Adjuster	04 20 03		This is an extra long T20 Torx used to adjust the ACC sensor (2) via the adjusting screws (3). Refer to repair manual section 66 31 001.	x	E65/E66	<input type="checkbox"/>	
83 30 0 494 640	271 370	Drift	04 12 03		Used to install the output shaft seal (rear axle differential) on the E53 transfer case. Refer to repair manual section 27 21 020.	x	E46, E53	<input type="checkbox"/>	
83 30 0 494 641	271 380	Seal Installer	04 13 04		Used to insert the rear differential output shaft seals. Refer to repair manual section 27 21 020.	x	E46 E53	<input type="checkbox"/>	
83 30 0 494 642	170 113	Coolant System Adapters	04 14 03		Used in conjunction with coolant system test kit 170 100 to check for leaks.	x	E60	<input type="checkbox"/>	
83 30 0 494 643	170 114	Coolant System Adapters	04 14 03		Used in conjunction with coolant system test kit 170 100 (SI B04 xx 03) to check for leaks.	x	E60	<input type="checkbox"/>	
83 30 0 494 645	512 220	T25 Torx Driver	04 14 03		This extra long Torx driver is used to R&R the read door handles.	x	E60	<input type="checkbox"/>	

83 30 0 494 649	212 230	Clutch centering tool	04 17 04		Used to align the clutch (GS6-53BZ) during installation. Refer to repair manual section 21 21 500.	x	E60 545	<input type="checkbox"/>
83 30 0 494 650	212 240	Grease Scraper tool			Used to clean the grease from the input shaft on the GS6-53BZ transmission.		E60 M5	<input type="checkbox"/>
83 30 0 494 651	233 220	Installer	04 23 04		Used to install the input shaft seal. Refer to repair manual section 23 12 510.	x	E46,53,60,83 w/GS6-53BZ	<input type="checkbox"/>
83 30 0 494 652	233 230	Installer	04 23 04		Used to install the output shaft seal. Refer to Repair Manual Section 23 12 059.	x	E46,53,60,83 w/GS6-53BZ	<input type="checkbox"/>
83 30 0 494 653	334 230	Rear Axle Carrier	04 14 03	shelf	Used in conjunction with 002 030		E60	<input type="checkbox"/>
83 30 0 494 654	334 270	Bushing Tool	04 14 03		Used to R&R the rear axle carrier rubber mount. Tool 334 272 replaces a part of special tool 334 270 (83 30 0 494 654 SI B04 13 03). √ Remove and discard old bushing sleeve PN 334 272 (2) from special tool 334 270 √ Replace with new 334 272	x	E60	<input type="checkbox"/>
83 30 0 494 655	324 150	AFS Gauge	04 14 03		Must be used during wheel alignment to fix the steering shaft in place. New barcket and fork sent out to fit new models. Refer to SI B 04 05 04.	x	E60	<input type="checkbox"/>
83 30 0 494 656	323 190	Camber Adjustment Tool	04 14 03		Used to adjust the front axle camber.	x	E60	<input type="checkbox"/>

83 30 0 494 660	110 170	Injector Ring Kit	04 19 03		Used to replace the Teflon sealing ring on the N73 fuel injectors. The Teflon sealing ring must be replaced every time the injector is removed and reinstalled. Refer to repair manual section 13 64 593 for detailed instructions. Bass cone cartool # 110 172 may be ordered from Parts under PN 83 30 0 494 662.	x	E66/N73	<input type="checkbox"/>
83 30 0 494 679	641 240	AC System Adapter	04 31 03		Used to adapt AC fill and testing devices to the vehicle pressure side due to the recessed fitting.	x	E60	<input type="checkbox"/>
83 30 0 494 696	610 052	Vehicle Key Memory OBD cable		NLA	Used with the vehicle key memory unit to program vehicles. Used in conjunction with 90 88 6 610 051 extension cable. This item is no longer used.		All	<input type="checkbox"/>
83 30 0 494 711	334 272	Bushing Sleeve Tool	04 37 06		This tool replaces a part of special tool 334 270 (83 30 0 494 654 SI B04 14 03). Remove and discard old bushing sleeve PN 334 272 (2) from special tool 334 270 Replace with new 334 272	x	E60, 61, 63, 64	<input type="checkbox"/>
83 30 0 494 721	334 310	Bushing fixture	04 19 05		Used to install the front bushing on the rear axle carrier. Refer to repair manual section 33 17 506.	x	E60	<input type="checkbox"/>

83 30 0 494 724	541 230	T10 Torx bit	04 22 03		Used to R&R the headliner without removing the sunroof lid. Must be used in conjunction with a 2-way bit ratchet such as a Blue-Point YA489 available on most Snap On trucks. Refer to repair manual section 51 44 011	x	E60	<input type="checkbox"/>
83 30 0 494 729	610 060	Fiber optic protective cap	04 27 03	shelf	Fiber optic cables are frequently detached from their connections during repairs or bodywork. It is essential to keep the light sensitive contact surfaces clean. Using tape on the surfaces will leave a residue, which will affect the function of the cable. The protective cap can be used on the cable and the equipment side. Ten pieces are delivered with each order.	x	E60/65/66/85	<input type="checkbox"/>
83 30 0 494 730	411 110	Fender adjusting wrench	04 10 04		Used to adjust the fit of the front fenders. Loosen bolt and adjust the spacer sleeve with the wrench.		E63/64	<input type="checkbox"/>
83 30 0 494 733	411 120	Door Brake Ball Pliers	04 09 04		Used to remove without damaging the door brake ball end. Refer to repair manual section 51 21.		E65/66	<input type="checkbox"/>
83 30 0 494 737	117 231	Seal Aligner	04 13 99		Used to install the radial oil shaft seal on the lower timing case cover without damage. Refer to repair manual section 11 14 141.	x	E39 M5	<input type="checkbox"/>

83 30 0 494 745	613 120	Switch adjustment tool	04 19 05		Used to adjust the gap between the switches and trim pieces on the drivers, steering wheel airbag. Refer to repair manual section 61 31 220.	x	E60	<input type="checkbox"/>
83 30 0 494 754	331 110	Bushing Remover Kit	04 12 04	Shelf	This bushing kit was developed to localize several frequently used bushing removal tools. Refer to the SI for details.		All	<input type="checkbox"/>
83 30 0 494 758	230 135	Gearbox support			Used to support G5S-53BZ SMG transmission.		E46/85	<input type="checkbox"/>
83 30 0 494 760	513 290	Trunk lid wrench	04 31 03		Used to R&R the trunk lid tension spring.		E60	<input type="checkbox"/>
83 30 0 494 762	212 050	Flywheel bearing tool set	04 08 04		Used to R&R the dual-mass flywheel roller bearing. Refer to repair manual section 11 22 513.		E60, E63 with M54, N62	<input type="checkbox"/>
83 30 0 494 767	613 080	Transfer case test cable	04 28 03		Used to test the operation of the transfer case drive motor	x	E83	<input type="checkbox"/>
83 30 0 494 768	613 090	Transfer case test adapter	04 28 03		Used to test the operation of the transfer case control module	x	E83	<input type="checkbox"/>
83 30 0 494 769	613 130	Airbag adapter cable MRS4	04 28 03		Used in conjunction with 614 380 (SI B04 01 02) to test the operation of the airbag control module.	x	E83	<input type="checkbox"/>
83 30 0 494 776	271 390	Seal installer	04 28 03		Used to install the output shaft seal in the transmission. Refer to repair manual section 27 21 010.	x	E83	<input type="checkbox"/>
83 30 0 494 777	271 400	Seal Installer	04 28 03		Used to install the output shaft seal in the rear axle differential. Refer to repair manual section 27 21 020.	x	E83	<input type="checkbox"/>

83 30 0 494 778	271 410	Seal installer	04 28 03		Used to install the output shaft seal in the front axle differential. Refer to repair manual section 27 21 030.	x	E83	<input type="checkbox"/>	
83 30 0 494 780	221 021	Bushing installer	04 28 03		Used in conjunction with 90 88 6 221 010 (SI B04 50 99) to insert the transfer case rubber mount. Refer to repair manual section 22 32 001.	x	E83	<input type="checkbox"/>	
83 30 0 494 782	110 250	Engine support	04 28 03		Used to support the engine during gearbox R&R. Refer to repair manual section 23 00 019.	x	E83	<input type="checkbox"/>	
83 30 0 494 786	621 120	Head-Up Display Adjustment Tool	04 04 04		The HUD is essential for proper operational examination as well as height adjustment of the HUD. Adjustment of the HUD must be carried out whenever the windscreen is replaced. The HUD is used in conjunction with a GT1 test module to project a test screen onto the HUD adjustment tool. 1.Projection gauge2.Adjusting tool	x	E63/64	<input type="checkbox"/>	
83 30 0 494 787	510 040	Engine hood support	04 28 03		Used to hold the engine hood in full vertical position when working on the engine. Refer to repair manual section 51 00.	x	E83	<input type="checkbox"/>	
83 30 0 494 794	135 460	Fuel adapter	04 31 03		Used to draw-off residual fuel in conjunction with a fuel-refilling device (not included). Refer to repair manual section 16 00 005.		E60	<input type="checkbox"/>	

83 30 0 494 797	332 160	Spacer Ring			Used to remove and install front and rear wheel flange. Refer to repair manual section 33 41 151.		E65/53/63/64/66/83	<input type="checkbox"/>
83 30 0 494 804	313 383	Spring holder	04 28 03		Used in conjunction with 313 340 (SI B04 07 00) and 313 382 (SI B04 13 03) to R&R the coil springs. Application note: Never use an air impact driver on the spring compressor as damage can result. Instead, use a hand ratchet or a geared electric drill with a low range such as the Milwaukee Hole Hawg (model 1675-6) manufactured by Milwaukee Electric Tool corp. Information regarding sales centers for Milwaukee Electric tool can be found on the web at <a href="http://www.mil-electric-tool.com">www.mil-electric-tool.com</a> or call 262 781 3600. Always use the BMW Spring Compressor in accordance with use and safety procedures as stated in the BMW repair instructions. Never try to use or repair a damaged tool. Refer to repair manual	x	E83	<input type="checkbox"/>
83 30 0 494 805	212 246	Ball joint press	04 01 04		The lower section of ball joint remover 90 88 6 312 240 (SI B04 18 94) is redesigned which prevents the stainless steel sliding ring on the control arm from being damaged when removed. Refer to repair manual section 31 21 090. This tool (312 246) is only for the E53.	x	E53	<input type="checkbox"/>



83 30 0 494 806	251 120	Spanner wrench	04 28 03		Used to remove and install the gear lever. Refer to repair manual section 25 16 056. New BMW number 83 30 0 494 806.	x	E83	<input type="checkbox"/>	
83 30 0 494 807	312 300	Thrust rod remover	04 28 03		Used to press the thrust rod out of the wheel carrier. Refer to repair manual section 31 21 151. Replaced by 312 310.	x	E83	<input type="checkbox"/>	
83 30 0 494 818	245 307	Transmission Support Posts			Used to R&R the automatic transmission 6HP26 all wheel version only. Used in combination with 245 301 and 245 306.		E61/53 All wheel	<input type="checkbox"/>	
83 30 0 494 819	130 130	Residual Fuel Collection Device	04 28 04		Used to safely collect the residual fuel in the N73 fuel lines in order to perform work on the fuel system. Refer to repair manual section 13 53 175.		E66 N73	<input type="checkbox"/>	
83 30 0 494 823	271 420	Seal installer	04 01 04		Used to install the front differential output shaft seal. Refer to repair manual section 27 21 030.	x	E53	<input type="checkbox"/>	
83 30 0 494 826	311 140	Ball joint wrench	04 28 03		Used when removing & installing the ball joint of the front stabilizer. Wrench size is 16mm and 18mm. Refer to repair manual section 31 35 005.	x	E83	<input type="checkbox"/>	
83 30 0 494 833	641 480	AC sprayer wand	04 29 05		Used in conjunction with AC disinfectant sprayer (SI B04 03 02) to clean and disinfect the AC system on vehicles that exhibit a musty odor. Refer to repair manual section RAE6064-6451001		E60, E61, E63, E64	<input type="checkbox"/>	

83 30 0 494 837	314 050	Take up set			Used in to support the front axle carrier during R&R.		E70,93,81,83	<input type="checkbox"/>
83 30 0 494 840	641 490	AC Sprayer Wand	04 27 04		Used in conjunction with AC disinfectant sprayer (SI B04 03 02) to clean and disinfect the AC system on vehicles that exhibit a musty odor. Refer to repair instructions RAE8564-6451001 for application		E85	<input type="checkbox"/>
83 30 0 494 867	324 154	Clamping bracket	04 05 04		The AFS gauge PN 90 88 6 324 150 previously distributed (SI B04 14 03) has been modified in order to fit the available tight space on the above models. See also 324 155.	x	E6063	<input type="checkbox"/>
83 30 0 494 868	324 155	Clamping fork	04 05 04		The AFS gauge PN 90 88 6 324 150 previously distributed (SI B04 14 03) has been modified in order to fit the available tight space on the above models. See also 324 154.	x	E60 E63	<input type="checkbox"/>
83 30 0 494 869	543 110	Lifting frame	04 18 04		The lifting frame used in conjunction with an engine crane, is used to remove and install the convertible top. The top weighs 154 pounds. Refer to repair manual section 54 34 101.		E64	<input type="checkbox"/>
83 30 0 494 872	331 154	Adapter plate	04 23 04		Used to remove the output shaft flange. Refer to Repair Manual Section 23 12 059.	x	E46,53,60,83 w/GS6-53BZ	<input type="checkbox"/>
83 30 0 494 874	612 320	23 Pin adapter cable	04 12 05		Used only in conjunction with 612 330 and 614 390 or 614 380 to diagnose the junction box.	x	E90	<input type="checkbox"/>

83 30 0 494 875	612 330	47 Pin adapter cable	04 12 05		Used in conjunction with 612 320 and 614 390 or 614380 to diagnose the junction box.	x	E90	<input type="checkbox"/>	
83 30 0 494 876	612 340	51 Pin adapter cable	04 12 05		Used in conjunction with 614 390 or 614 380 to diagnose the FRM.	x	E90	<input type="checkbox"/>	
83 30 0 494 877	612 350	4 Pin adapter cable	04 12 05		Used to perform measurements on the roof function center FZD. This tool has a modification that allows it to be used on other modules. Refer to SI B04 17 07 for details.	x	E90	<input type="checkbox"/>	
83 30 0 494 878	612 360	36 Pin adapter cable	04 12 05		Used in conjunction with 614 390 or 614 380 to diagnose the door contacts	x	E90	<input type="checkbox"/>	
83 30 0 494 879	612 370	6 Pin adapter cable	04 12 05		Used to perform measurements on the steering column switch cluster SZL.	x	E90	<input type="checkbox"/>	
83 30 0 494 880	612 380	12 Pin adapter cable	04 12 05		Used to perform measurements on the headlights. May also be used on E53 from 10/2003.	x	E90	<input type="checkbox"/>	
83 30 0 494 881	612 390	3 Pin adapter cable	04 12 05		Used to perform measurements on the Park Distance Control PDC ultrasonic sensors. This cable needs to be converted in order for it to work on other connectors such as Vanos connectors. Refer to SI B04 10 07 for details.	x	E90	<input type="checkbox"/>	

83 30 0 494 882	612 420	88 Pin adapter cable	04 12 05		Used to perform measurements on the Digital Motor Electronics DME in conjunction with 614 380.1.Adapter cable2.Cover plate for 614 380 (pin assignment)	x	E90	<input type="checkbox"/>
83 30 0 494 887	543 120	Lid support	04 18 04		Used to hold the convertible top in the service position so that adjustments or repair work may be performed. Refer to repair manual section 54 00.		E64	<input type="checkbox"/>
83 30 0 494 888	234 020	Drift set for Locking Pins	04 22 04		Used to replace the 5th and reverse gear selector shaft bushings. Refer to service information B23 01 04 and to repair manual section 23 11 565	x	E36, E39, E46, E53 with S5D 280Z/320Z Transmission	<input type="checkbox"/>
83 30 0 494 893	510 050	Tailgate support	04 13 05		Used on the left or right side of the tailgate for support when conducting repairs on the hydraulic piston and support system (service position). Refer to Repair Manual section 51 24 150.		E61	<input type="checkbox"/>
83 30 0 494 898	543 140	Top support	04 18 04		Used in conjunction with 543 201 (SI B04 31 02) to prevent the top linkage from being damaged during work. Refer to repair manual section 54 34 101.		E64	<input type="checkbox"/>
83 30 0 494 905	411 150	Door Hinge Bushing Tool	04 11 05		Used to replace the door hinge bushing. Refer to repair manual section 41 51 XX1 for details.		E90	<input type="checkbox"/>
83 30 0 494 906	512 196	Protective side	04 15 04		Used with 90 88 6 512 197 to update tool 512 190. Refer to SI for complete information.	x	E60,63,64,65, 66,85	<input type="checkbox"/>

83 30 0 494 925	314 060	Front Axle Support Set	04 05 05		Used with 002 030 and 002 040 to support the front axle during R&R. Refer to repair manual section 31 11 506.		E90	<input type="checkbox"/>
83 30 0 494 926	334 430	Rear Axle Bushing Remover	04 05 05		Used to R&R the front rubber mounts of the rear axle carrier. Refer to repair manual section 33 33 101. For nut PN 334 435 order PN 83 30 0 495 034.	x	E90	<input type="checkbox"/>
83 30 0 494 927	334 440	Rear Axle Bushing Remover	04 05 05		Used in conjunction with 334 430 and 334 140 to R&R the rear rubber mount in the rear axle carrier. Refer to repair manual section 33 33 515.	x	E90	<input type="checkbox"/>
83 30 0 494 928	119 470	Valvetronic bridge support	04 06 02	Shelf	Used to support the Valvetronic bridge during R&R	x	E65, E90	<input type="checkbox"/>
83 30 0 494 929	334 460	Rear Axle Bushing Remover King	04 05 05		Used to R&R the king pin control arm rubber mount in the rear axle carrier. Refer to repair manual section 33 32 195. Nut (6) can be ordered through the BMW Parts department under PN 83 30 0 494 982. Spibdle can be ordered under PN 83 30 0 494 981.	x	E90	<input type="checkbox"/>
83 30 0 494 930	334 470	Rear Axle Bushing Remover Trailing Arm	04 05 05		Used to R&R the semi-trailing arm rubber mount in the rear axle carrier and wheel carrier. Refer to repair manual section 33 32 031.	x	E90	<input type="checkbox"/>
83 30 0 494 931	334 480	Ball Joint Remover	04 05 05		Used to R&R the ball joint. Refer to repair manual section 33 32 125	x	E90	<input type="checkbox"/>

83 30 0 494 934	335 020	Reversible Ratchet	04 05 05		The ratchet has a reversible internal hex drive WAF22. It can be utilized on the spring tensioner 335 010. Refer to repair manual section 33 53 000.		E90	<input type="checkbox"/>
83 30 0 494 938	009 010	E18 Socket	04 07 05		Used to R&R the aluminum transmission bolts on the N52 engine. Refer to repair manual section 24 00 030.	x	N52	<input type="checkbox"/>
83 30 0 494 962	212 250	Clutch Tool			Used to center the clutch on all vehicles with S5D-250G transmission. Refer to repair manual section 21 21 500.		E46	<input type="checkbox"/>
83 30 0 494 968	652 010	Antenna Knife	04 04 05		Used on the above models to safely remove the roof-mounted antenna without doing damage to the paint. The knife may be converted for left handed use. Refer to repair manual section 65 20 035. Replacement Blade (3)90 88 6 652 013		E60, 65, 66	<input type="checkbox"/>
83 30 0 494 969	334 233	Rear Axle Carrier Support	04 26 04		Used in conjunction with support stand 002 030 to support the rear axle carrier during R&R. Refer to repair manual section 33 33 111.		E60/63/64	<input type="checkbox"/>
83 30 0 494 991	334 490	Rear Axle Support Set	04 05 05		Used with 002 030 and 002 040 to support the rear axle during R&R. Refer to repair manual section 33 31 000		E90	<input type="checkbox"/>
83 30 0 494 999	114 250	Gauge	04 07 05		Used to properly place the oil spray nozzles. Refer to repair manual section 11 21 531.	x	N52	<input type="checkbox"/>

83 30 0 495 002	114 260	Oxygen sensor wrench	04 07 05		Used to R&R the oxygen sensor. Refer to repair manual section 11 78 510.	x	N52	<input type="checkbox"/>	
83 30 0 495 003	114 270	R	04 07 05		Used to R&R the Valvetronic intermediate lever pressure springs. Refer to repair manual section 11 37 010.	x	N52	<input type="checkbox"/>	
83 30 0 495 004	114 280	Camshaft Fixture	04 07 05		Used to fix the camshaft at TDC. Refer to repair manual section 11 31 505.	x	N52	<input type="checkbox"/>	
83 30 0 495 008	114 290	Alignment Gauge	04 07 05		Used to R&R the camshaft sensor gear. Refer to repair manual section 11 31 505.	x	N52	<input type="checkbox"/>	
83 30 0 495 009	114 490	R	04 07 05		Used to R&R the wrist pin retaining rings.1. Assembly bracket2. Removal pliers3. Assembly pliers4. Assembly driftRefer to repair manual section 11 25 530.		52	<input type="checkbox"/>	
83 30 0 495 014	114 340	Pressure testing fixture	04 07 05		Used to pressure test the cylinder head for leaks. Refer to repair manual section 11 12 729.		N52	<input type="checkbox"/>	
83 30 0 495 018	114 350	Torque wrench	04 07 05		This torque wrench (1-5 Nm) is used to tighten the camshaft bearing strips. Refer to repair manual section 11 31 028.		N52	<input type="checkbox"/>	
83 30 0 495 019	114 360	R	04 07 05		Used to R&R the vacuum pump sealing cp. Refer to repair manual section 1 66 000.		N52	<input type="checkbox"/>	
83 30 0 495 024	114 370	Compound press	04 07 05		Used to insert the crankshaft bed-sealing compound in to the engine block during assembly. Refer to repair manual section 11 21 500.		N52	<input type="checkbox"/>	

83 30 0 495 026	114 420	T0 Torx Socket	04 07 05		Used to R&R the cylinder head bolts. Refer to repair manual section 11 12 100.	x	N52	<input type="checkbox"/>	
83 30 0 495 027	114 430	Hole Plug	04 07 05		Used to seal the oil pump holes. Refer to repair manual section 11 12 100.	x	N52	<input type="checkbox"/>	
83 30 0 495 028	119 017	Valve Spring Cage	04 07 05		Used to R&R the cylinder head valves in conjunction with 119 000. Refer to repair manual section 11 34 552.	x	N52	<input type="checkbox"/>	
83 30 0 495 048	114 440	Engine support fixture	04 07 05		Used in conjunction with 001 450 to support the engine for disassembly.	x	N52	<input type="checkbox"/>	
83 30 0 495 049	114 450	Fixture	04 07 05		Used to lock the link blocks in place during assembly. Refer to repair manual section 11 37 010.	x	N52	<input type="checkbox"/>	
83 30 0 495 050	114 460	Camshaft bearing fixture	04 07 05		Used to hold the camshaft bearing strips in place during assembly. Refer to repair manual section 11 31 028.	x	N52	<input type="checkbox"/>	



83 30 0 495 069	121 305	Zero-Coded Cover	04 02 05		The Safety Gateway Module (SGM) connector on the wiring harness is a coded connector. Therefore, break out box 90 88 6 121 300/304 (SI B04 14 97) cannot be used in it's present configuration for diagnostic work. To eliminate the need for another break out box, a zero-coded cover B.O.B. 121 300/305 has been developed. The new cover is connected to the B.O.B. by a chain. The original SGM connector cover is temporarily replaced with Zero-coded cover 121 305 for diagnostic work. Refer to SI for complete details		E60, 63, 64, 65, 66	<input type="checkbox"/>
83 30 0 495 070	110 300	Alignment Pin	04 07 05		Used to align the crankshaft TO Top Dead Center TDC. Refer to repair manual section 11 31 505.	x	N52	<input type="checkbox"/>
83 30 0 495 071	110 290	Brace	04 07 05		Used to R&R the vacuum pump triangular drive. Refer to repair manual section 11 66 000.	x	N52	<input type="checkbox"/>
83 30 0 495 072	110 320	R	04 07 05		Used to R&R the cylinder head on the engine block. Refer to repair manual section 11 12 100.		N52	<input type="checkbox"/>
83 30 0 495 102	114 470	Cleaning set	04 07 05		This cleaning set is manufactured from special materials to protect the aluminum and magnesium surfaces from damage during gasket removal.	x	N52	<input type="checkbox"/>

83 30 0 495 105	114 480	Storage board	04 07 05		Used to store the individual cylinder head parts during work. Refer to repair manual section 11 37 010. Consists of: Storage board intake side, storage board exhaust side		N52	<input type="checkbox"/>
83 30 0 495 108	009 130	Magnetic connection 1/2	04 07 05		Used to attach the torque angle tool 009 120 (SI B04 21 96) to the vehicle body when tightening the transmission tools. Refer to repair manual section 27 00 030.	x	N52	<input type="checkbox"/>
83 30 0 495 110	115 190	T60 Torx socket	04 07 05		Used to R&R the cylinder head. Refer to repair manual section 11 12 100.	x	N52	<input type="checkbox"/>
83 30 0 495 115	115 210	Protective covers	04 18 05		Used to seal the fuel injector bores on the cylinder head. Refer to repair manual section 11 12 105.	x	S85	<input type="checkbox"/>
83 30 0 495 116	115 220	Protective covers	04 18 05		Used to seal the throttle valve assembly. Refer to repair manual section 11 12 105.	x	S85	<input type="checkbox"/>
83 30 0 495 117	115 230	Pressure test fixture	04 18 05		Used to pressure test the cylinder heads for leaks. Refer to repair manual section 11 12 729.		S85	<input type="checkbox"/>
83 30 0 495 118	115 240	Camshaft pres	04 18 05		Used to press the camshafts down during R&R. Refer to repair manual section 11 31 032. Order PN 83 30 0 495 155 for picture #2 bolt (Cartool PN 115 242).	x	S85	<input type="checkbox"/>
83 30 0 495 119	115 250	Guide Pins	04 18 05		Used when installing the connecting rods. Refer to repair manual section 11 25 530.	x	S85	<input type="checkbox"/>

83 30 0 495 120	115 260	Engine support plate			Used to support the S85 engine on the 002 300 engine stand.		S85	<input type="checkbox"/>	
83 30 0 495 121	115 270	Seal Installer	04 18 05		Used to install the valve stem seals. Refer to repair manual section 11 34 560.	x	S85	<input type="checkbox"/>	
83 30 0 495 122	115 280	Valve spring tool set	04 18 05		Used to R&R the intake and exhaust valves. Refer to repair manual section 11 34 552.	x	S85	<input type="checkbox"/>	
83 30 0 495 123	115 290	Asembly tool	04 18 05		Used to install the bearing journals in the timing chain cover. Refer to repair manual section 11 36 148.	x	S85	<input type="checkbox"/>	
83 30 0 495 124	115 300	Camshaft fixture TDC	04 28 05		Used to fix the camshaft at Top Dead Center (TDC). Refer to repair manual section 11 31 072.	x	E60 M5	<input type="checkbox"/>	
83 30 0 495 125	115 310	Rear Seal Puller	04 18 05		Used to remove the rear crankshaft seal. Refer to repair manual section 11 14 151.	x	E60 M5	<input type="checkbox"/>	
83 30 0 495 126	115 320	Alignment pin	04 18 05		Used to lock the crankshaft in Top Dead Center (TDC). Refer to repair manual section 11 31 072.	x	S85	<input type="checkbox"/>	
83 30 0 495 127	115 330	Seal Installer	04 18 05		Used to install the front crankshaft seal. Refer to repair manual section 11 14 005.	x	S85	<input type="checkbox"/>	
83 30 0 495 128	115 340	Tool set	04 18 05		Used to install the piston wrist pin retaining rings. Refer to repair manual section 11 25 530.	x	S85	<input type="checkbox"/>	
83 30 0 495 129	115 350	Timing chain retainer	04 18 05		Used to hold and pretension the timing chain. Refer to repair manual section 11 12 106.	x	S85	<input type="checkbox"/>	
83 30 0 495 130	115 360	Oil pressure adapter set	04 18 05		Used to test the VANOS oil pressure. Refer to repair manual section 11 36 009	x	S85	<input type="checkbox"/>	

83 30 0 495 131	115 370	VANOS locking tool	04 18 05		Used to lock the VANOS exhaust camshaft when aligning the gears. Refer to repair manual section 11 36 150.	x	S85	<input type="checkbox"/>	
83 30 0 495 132	115 380	VANOS gauge	04 18 05		Used when adjusting VANOS to the basic setting. Refer to repair manual section 11 36 150.	x	S85	<input type="checkbox"/>	
83 30 0 495 133	115 390	Spark plug bore covers	04 18 05		Used to seal the spark plug bore holes while performing work on the head. Refer to repair manual section 11 31 032.	x	S85	<input type="checkbox"/>	
83 30 0 495 134	115 400	VANOS torx T20	04 18 05		Used to R&R the VANOS solenoid valve bolts. Refer to repair manual section 11 36 715.	x	S85	<input type="checkbox"/>	
83 30 0 495 136	212 300	Clutch centering tool	04 18 05		Used to center the twin plate clutch during installation. Refer to repair manual section 21 21 000.	x	S85	<input type="checkbox"/>	
83 30 0 495 137	230 139	Transmission support bracket	04 18 05		Used to support the transmission during R&R. Refer to repair manual section 23 0 613.		S85	<input type="checkbox"/>	
83 30 0 495 138	234 100	Seal Installer	04 18 05		Used to install the input shaft seal on the GS7S47BG transmission. Refer to repair manual section 23 12 512.	x	85	<input type="checkbox"/>	
83 30 0 495 139	234 110	Seal installer	04 18 05		Used to install the output shaft seal on the GS7S47BG transmission. Refer to repair manual section 23 12 057.	x	S85	<input type="checkbox"/>	
83 30 0 495 143	335 030	Seal installer	04 18 05		Used to install the final drive (215 with lock) output shaft seals (Left and Right). Refer to repair manual section 33 11 151.	x	S85	<input type="checkbox"/>	

83 30 0 495 145	663 150	ACC adjustment Wench	04 22 05		This wrench is used to adjust ACC sensor 2 on all current and future models. Adjust sensor 2 (1) using wrench 663 150 at adjustment screws (2). Refer to repair manual section 66 31 001. Test only	x	All	<input type="checkbox"/>
83 30 0 495 182	332 170	Bearing installer	04 18 05		Used to install the front final drive bearing. Refer to repair manual section 33 17 004.		S85	<input type="checkbox"/>
83 30 0 495 183	332 180	Bearng installer	04 18 05		Used to install the rear final drive bearing. Refer to repair manual section 33 17 005.		S85	<input type="checkbox"/>

83 30 0 495 187	002 300	Engine Stand	04 06 06	NA	<p>This new engine stand (introduced @ the 2005 NAC) will accommodate all engines from the S85 and newer. Order PN 90 88 6 002 320 support arm for older V8 and V12 engines. The introduction of the S85 engine necessitated a new way of mounting the engine on a stand for assembly/disassembly. The S85 is mounted from the transmission end. The previous style stand 001 450 must not be used for mounting the S85 engine. The supplied universal flange (#2 in W002300) allows mounting of older style 4 cyl engines. Order PN 83 30 0 495 380 for N73 mounting plates. Order PN 83 30 0 495 381 for N62TU support plates. Order PN 83 30 0 495 201 for item #4 in picture.</p>		All from S85	<input type="checkbox"/>
83 30 0 495 194	612 470	AFS test cable	04 25 05		Used to troubleshoot the electric coolant (1) pumps. Used to troubleshoot active steering (AFS). The test cable is connected between the AFS (1) and the vehicle wiring harness (2)	x	All	<input type="checkbox"/>

83 30 0 495 196	002 320	Support Arm	04 06 06	NA	Support arm required for the above engines when used with Engine Stand 88 88 6 002 300. Order PN 83 30 0 495 380 for N73 mounting plates. Order PN 83 30 0 495 381 for N62TU support plates.		M73, S85, N62	<input type="checkbox"/>
83 30 0 495 220	616 210	Wiper arm remover	04 20 05		Use to remove the left and right wiper arm. Refer to repair manual section 61 61 100.	x	E90	<input type="checkbox"/>
83 30 0 495 231	361 335	Wheel Lock adapter set	04 10 05	NA	90 88 6 361 301=11, 302=12, 303=13, 304=14, 306=16, 307=17, 308=18, 309=19, 311=20, 312=31, 313=32, 314=33, 315=34, 316=35, 317=36, 318=37, 319=38, 321=39, 322=40, 305=15. Must also order 90 88 6 361 300 for complete set.		All	<input type="checkbox"/>
83 30 0 495 235	315 200	Pliers	04 16 05		Used to R&R the low profile dust boot clamps on the front output shafts. Refer to Repair Manual Section 31 60.	x	E60 All-wheel	<input type="checkbox"/>

83 30 0 495 236	004 400	Torque Rotation-Angle Wrench	04 41 06		This wrench measures in the 3 to 60 Nm range. Electronic torque rotation-angle wrenches are used to tighten aluminum bolts. Aluminum bolts are identified by the blue painted head. The torque and angle of rotation are shown on the display. A visual, acoustical or vibration warning is utilized when the measured value is reached. The torque wrench does not use a calibration arm which makes torque rotation-angle easier.		N52/N54	<input type="checkbox"/>
83 30 0 495 237	115 410	VANOS gauge	04 18 05		Used to remove VANOS. Refer to repair manual section 11 36 150.	x	S85	<input type="checkbox"/>
83 30 0 495 239	651 170	CD Magazine Eject Tool	04 14 05		The eject tool is a specially shaped plastic sleeve that is used to mechanically unlock the CD magazine (1) when it is stuck. CD changers (2) with stuck magazines no longer need to be replaced due to this problem. Refer to repair manual section 65 11. One piece will be distributed to every center free of charge.	x	E60, 61, 63, 64	<input type="checkbox"/>
83 30 0 495 240	221 040	Transfer case mount remover	04 16 05		Used in conjunction with 221 017 (SI B04 09 03)	x	E60 all wheel	<input type="checkbox"/>
83 30 0 495 241	271 430	Seal Instaler	04 16 05		Used to install the transfer case input shaft seal. Refer to repair manual section 27 21 010.	x	E60 All-wheel	<input type="checkbox"/>



83 30 0 495 242	271 440	Seal Installer	04 16 05		Used to install the rear-axle differential output shaft seal. Refer to repair manual section 27 21 020.	x	E60 all-wheel	<input type="checkbox"/>	
83 30 0 495 243	271 450	Seal Installer	04 16 05		Used to install the front-axle differential output shaft seal. Refer to repair manual section 27 21 030.	x	E60 All-wheel	<input type="checkbox"/>	
83 30 0 495 251	314 070	Support brackets	04 16 05		Used in conjunction with 314 060 (SI B04 05 05) & 002 040 (SI B04 18 91) to support the front axle carrier during R&R. Refer to repair manual section 31 11 506.		E60 All-wheel	<input type="checkbox"/>	
83 30 0 495 253	614 360	Seat Test Cable	04 25 05		Used to test the seat function (out of vehicle) on E90 vehicles.	x	E90	<input type="checkbox"/>	
83 30 0 495 254	614 370	Engine test cable	04 25 05		All engine-wiring harnesses are equipped with connectors from various suppliers (Kostal, Tyco or Bosch). These connectors are coded differently. This test harness is zero coded which allows the testing of sensors and actuators such as the coolant temp sensor (1).	x	All	<input type="checkbox"/>	
83 30 0 495 255	244 310	Seal Installer	04 16 05		Used to install the GA6HP19Z output shaft seal. Refer to repair manual section 24 13 013.	x	E60 all-wheel	<input type="checkbox"/>	

83 30 0 495 256	004 410	Torque Rotation-Angle Wrench	04 41 06		This wrench measures in the 10 to 200 Nm range. Electronic torque rotation-angle wrenches are used to tighten aluminum bolts. Aluminum bolts are identified by the blue painted head. The torque and angle of rotation are shown on the display. A visual, acoustical or vibration warning is utilized when the measured value is reached. The torque wrench does not use a calibration arm which makes torque rotation-angle easier.		N52/N54	<input type="checkbox"/>
83 30 0 495 259	510 010	Windshield test gauge	04 24 05		Test gauge 513 210 previously distributed (B04 04 97) will not work on new model vehicles. New Test gauge 510 010 will work on all BMW vehicle front and rear windscreens. This gauge is necessary for correct installation.	x	All	<input type="checkbox"/>
83 30 0 495 291	323 130	Steering shaft guide	04 10 98		used to guide the steering shaft bearing onto the upper spindle	x	E46	<input type="checkbox"/>
83 30 0 495 298	350 110	Brake pedal pivot Tool	04 20 02		Used in brake pedal campaign. Refer to SI B35 50 02. Order 90 88 6 350 112 for drill only. Order 90 88 6 350 111 for template only. Or order PN 3083A133 from <a href="http://www.Mcmaster.com">www.Mcmaster.com</a> .	x	X5	<input type="checkbox"/>

83 30 0 495 320	610 200	Crimping set	04 27 05	shelf	The crimping set consists of:1.Plastic storage case2.Crimping pliers3.Allen key for die changingThe pliers will be used on future models by changing the dies. Extra storage for future dies is included in the box. This set is always supplied without dies. Cartool PN 610 200. Refer to SI for complete details.	x	All	<input type="checkbox"/>
83 30 0 495 327	610 210	Die for LSK 8 Contacts	04 27 05		This set of dies comes complete with upper, lower and positioner sections. This set of dies can only be ordered complete (all in one box). Instructions for use are included. Cartool PN 610 210. Refer to SI for complete details.	x	All	<input type="checkbox"/>
83 30 0 495 328	610 220	Die for SLK 2.8 Contacts	04 27 05		This set of dies comes complete with upper, lower and positioner sections. This set of dies can only be ordered complete (all in one box). Instructions for use are included. Cartool PN 610 220. Refer to SI for complete details.		All	<input type="checkbox"/>
83 30 0 495 332	611 370	Wiper Alignment Gauge	04 05 06		Used to align the E91 rear window wiper arm to the drive unit during installation. Refer to repair manual section 61 62 060. Cartool PN 611 370	x	E91	<input type="checkbox"/>

83 30 0 495 339	334 350	Bearing Tool	04 05 06		Used to R&R the rubber bearing for the rear differential mount. Refer to repair manual section 33 17 005. 1. Disc for removing 2. Disc for mounting 3. Support disc for mounting. 4. Bearing shells (2) 5. Fixing ring for bearing shells. 6. Clamp ring 7. Support disc 8. Shaping disc	x	E90/91	<input type="checkbox"/>
83 30 0 495 346	616 100	Windshield Wiper Arm Adjustment Gauge	04 13 06		The contact angle between the windshield and the wiper blade is critical. An improperly adjusted wiper arm may chatter or rub and will give uneven wiper operation. The introduction of the new generation wiper arms on the E90 and E91 vehicles means that the earlier distributed adjustment gauges can no longer be used. This new adjustment gauge can be used on new and prior model vehicles. Refer to Repair Manual sections 61 61 01 and 61 61 010. Refer to SI for mor edetails	x	E90, E91	<input type="checkbox"/>

83 30 0 495 355	323 146	Camber adjuster parts	04 05 06		Used in conjunction with 90 88 6 323 145 to adjust the front wheel camber. ·Remove PN 323 144 from tool 323 145. ·Discard tool 323 144 ·Replace it with 83 30 0 495 355 (323 146).·Refer to repair manual section 32 00 610 for tool operation.	x	E90/91	<input type="checkbox"/>
83 30 0 495 356	323 147	Camber adjuster parts	04 05 06		Used in conjunction with 90 88 6 323 145 to adjust the front wheel camber. ·Remove PN 323 144 from tool 323 145. ·Discard tool 323 144 ·Replace it with 83 30 0 495 355 (323 146).·Refer to repair manual section 32 00 610 for tool operation. Cartool # 323 147.	x	E90/91	<input type="checkbox"/>
83 30 0 495 374	314 080	Support Adapters	04 26 07		Used in conjunction with Transmission stand 83 30 0 490 133 (002 030) to support the front axel carrier during removal and installation. Refer to Repair Manual section 31 11 506 for details.		E90 E91	<input type="checkbox"/>
83 30 0 495 380	002 323	Engine support Arm	04 17 06		Used in conjunction with engine stand 002 300 and support arm 002 320 to support the 12 cylinder N73.		N73	<input type="checkbox"/>
83 30 0 495 381	002 325	Engine support plate	04 17 06		Used in conjunction with engine stand 002 300 and support arm 002 320 to support th e8 cylinder N62TU.		N62TU	<input type="checkbox"/>

83 30 0 495 382	610 300	Electrical Contact Release Kit	04 08 06	NA	The contact release kit has been updated and modified to fully meet the needs set forth by the vehicle connector manufacturers. Utilizing this kit ensures that the connectors will not be harmed during R&R.	x	All	<input type="checkbox"/>
83 30 0 495 403	610 321	Pin Release tool	04 08 06		Used to remove SLK 2.8mm pins. This is a replacement part. It was originally included with kit 610 300 (83 30 0 495 382) SI B0408 06.		All	<input type="checkbox"/>
83 30 0 495 444	241 360	Converter Locking Device	04 26 07		Used to lock the converter in place during transmission removal and installation. Refer to Repair Manual section 24 00 023 for details.	x	E90 E91	<input type="checkbox"/>
83 30 0 495 446	240 200	Transmission Support Fixture	04 15 07		Used to support all manual and automatic transmissions in conjunction with assembly stand 001 450 or 002 300. This special tool supersedes tool PN 240 180 (83 30 0 491 652).		All	<input type="checkbox"/>
83 30 0 495 448	114 650	Oil filter wrench	04 23 87		used to R and R oil filters		E30, 325IX	<input type="checkbox"/>
83 30 0 495 449	212 270	Clutch Alignment Tool	04 14 07		Used to align the clutch on the N54 engine. Refer to repair manual section 21 21 500.	x	E9X, E60	<input type="checkbox"/>
83 30 0 495 477	610 230	Crimping Die	04 10 06		The crimping die for DFK 4 contacts is used with the crimping handle (2) in set PN 610 200 (83 30 0 495 320 SI B04 27 04). Crimping die 610 230 is stored in the kit box.	x	E90/91	<input type="checkbox"/>

83 30 0 495 484	009 324	Trim Remover	04 04 06	In kit 009 310	Cartool PN 009 324. Must be used when removing the window cavity cover trim to prevent damage. The tool removes the trim from the inside preventing paint damage. Refer to repair manual section 51 21 300.		All	<input type="checkbox"/>
83 30 0 495 485	315 220	Support	04 36 06		Used to hold the wheel hub in place when removing or replacing the spring strut. Refer to repair manual section 31 31 000.		E90, E91	<input type="checkbox"/>
83 30 0 495 486	241 370	Torque converter brace	04 36 06		Used to hold the torque converter in place when performing an R&R on the 6HP19 transmission. Refer to repair manual section 24 00 030.	x	E90, E91	<input type="checkbox"/>
83 30 0 495 495	612 240	CAS Test Cable	04 11 06		CAS Test Cable 41 Pin. Used to test the CAS module as described by the appropriate GT1 diagnostic test.	x	E90/91	<input type="checkbox"/>
83 30 0 495 498	234 050	Universal transission holder	04 13 08		Used to support all manual and automatic transmissions in conjunction with 002 030.		All	<input type="checkbox"/>
83 30 0 495 505	510 300	Roller	04 28 06		Used to install strips, rubber seals (1) and noise insulation. The wheel is made to a specified hardness so as to not harm the painted surfaces.		All	<input type="checkbox"/>
83 30 0 495 506	009 350	E box template			Used to remove material from the sode of the Ebox to install the aux wire harness. Used with 009 360.		E85/60	<input type="checkbox"/>

83 30 0 495 507	009 360	Template			Used to remove material from the sode of the Ebox to install the aux wire harness. Used with 009 350.		E85/60	<input type="checkbox"/>
83 30 0 495 519	311 071	Ball Joint Tester Adapter	04 14 06		A new Ball Joint Adapter Plate has been developed for use on vehicles with aluminum Ball Joint end covers. The adapter plate is used with Ball Joint Tester 83 30 0 494 326 (Cartool 31 060 SI B04 03 03). The adapter plate must be used with adhesive pad 83 30 0 495 558. Refer to repair instructions 31 12 023.	x	E46 M3	<input type="checkbox"/>
83 30 0 495 528	110 480	Crankshaft Alignment Pin	04 21 07		Used to hold the crankshaft at Top Dead Center (TDC) when adjusting the camshaft timing. For more details, refer to repair manual section 11 31 505.	x	E85 S54	<input type="checkbox"/>
83 30 0 495 529	234 030	Pilot Bearing Tool	04 19 07		Used in conjunction with a grease gun to R&R the new style pilot bearing on the GS6-53BZ transmission. The pilot bearing is located in the transmission input shaft. Refer to Repair Manual Section 11 22 513.		E92 N54	<input type="checkbox"/>



83 30 0 495 534	641 300	AC Sprayer Wand	04 02 07		Used in conjunction with AC disinfectant sprayer (SI B04 03 02) to clean and disinfect the AC system on vehicles that exhibit a musty odor. Refer to Repair Manual section 64 51 001.		E70	<input type="checkbox"/>
83 30 0 495 551	335 040	Opened Jaw Spanner	04 24 06		Used in conjunction with 335 070 to R&R the driveshaft inner nut (final drive end). Refer to repair manual section 26 11 000.	x	E90, E91, E92 and E70 with N54 B30	<input type="checkbox"/>
83 30 0 495 552	335 050	Multi-Point Ring Spanner	04 24 06		Used in conjunction with 335 070 to R&R the flange nut on the final drive. Refer to repair manual section 33 11 021.	x	E90, E91, E92 and E70 with N54 B30	<input type="checkbox"/>
83 30 0 495 553	335 060	Multi-Toothed Socket	04 24 06		Used in conjunction with 335 070 to hold the input shaft on the final drive when replacing the seal. Refer to repair manual section 33 11 021.	x	E90, E91, E92 and E70 with N54 B30	<input type="checkbox"/>
83 30 0 495 554	335 070	Telescoping Extension	04 24 06		Used in conjunction with 335 040 and 335 050. Refer to 335 040 and 335 050 above for details and repair manual section 33 11 021	x	E90, E91, E92 and E70 with N54 B30	<input type="checkbox"/>
83 30 0 495 555	614 328	Universal crimping die	04 32 06		A universal crimping die has been developed to aid in the repair of a large number of contacts. The die is made to repair contacts with a wire diameter of 0.35 $\phi$ 2.5 mm. Refer to SI for details.	x	All	<input type="checkbox"/>

83 30 0 495 558	311 079	Adhesive Pad	04 14 06		Used with PN 83 30 0 495 519 to attach the adapter plate to the aluminum Ball Joint end cover. One order equals 10 pieces. The Pad has adhesive on both sides. Refer to repair instructions 31 12 023.	x	E46 M3	<input type="checkbox"/>
83 30 0 495 560	121 220	Spark plug socket	04 30 06		Used to R&R the new style spark plugs. It will be necessary to use a short impact extension between the socket 121 220 and the torque limiter 121 172. Do not use an extension with a swivel. Refer to repair manual section 12 12 011.	x	N54	<input type="checkbox"/>
83 30 0 495 567	315 250	Universal Axle Support	04 25 07		The Universal Axle Support is used in conjunction with hydraulic jack P.N. 83 30 0 490 133 (002 030) to support front and rear axle assemblies during removal and replacement. Superceeds 83 30 0 492 296.		All	<input type="checkbox"/>
83 30 0 495 575	334 426	Final Drive Support Adapter	04 23 07		This tool is used in conjunction with 334 420 (83 30 0 494 611) and 002 030 (83 30 0 490 133) to support the final drive during removal and replacement. Refer to the E85 repair manual, section 33 10 010 for complete details.		E85 (M)	<input type="checkbox"/>
83 30 0 495 576	115 160	Lift Latches	04 20 06		Used to lift out the radiator assembly. Refer to Repair Manual Section 17 00.	x	Alpina B7	<input type="checkbox"/>

83 30 0 495 577	115 170	Belt tensioner tool	04 20 06		Used to relax the tension on the serpentine belt. Refer to Repair Manual Section 11 28.	x	Alpina B7	<input type="checkbox"/>
83 30 0 495 578	610 325	JPT conector release tool	04 19 06	NA	Insert special tool 610 325 into the relevant housing release slots and depress the locks. Pull the contact from the housing.	x	All	<input type="checkbox"/>
83 30 0 495 579	135 255	Steering Shaft Adapter	04 31 06		Used in conjunction with 135 250 (SI B04 18 01, 83 30 0 493 321) to remove the steering shaft. Refer to repair manual section 32 32 001.		E85	<input type="checkbox"/>
83 30 0 495 580	324 270	Steering shaft installer	04 31 06		Used to install the steering shaft and steering shaft bearing. Refer to repair manual section 32 32 001.		E85	<input type="checkbox"/>
83 30 0 495 588	161 080	Hose Guide	04 26 06		Starting with 9/2006 production, a new style fuel filler flap will be gradually introduced on all models. This special tool is required in the workshop to remove and refill fuel from the tank during repair work without damage to the flap. The tool has two different size ends. One for Gasoline (18mm), the other for Diesel (24mm).	x	All	<input type="checkbox"/>
83 30 0 495 589	510 310	Clamp Lever	04 12 07		Used to remove the headliner on the E93 RHT and for releasing trim on all model series. Refer to Repair Manual section 54 37 040.		E93	<input type="checkbox"/>

83 30 0 495 590	513 300	Window Adjustment Wrench	04 22 06		To prevent leaks and wind noises the door windows must be correctly adjusted after repairs. The following tools are used to make the adjustments without damage to the doors painted surfaces. Insert tool into door adjustment opening and place end on adjustment screw. To assist in this application the tool has a mark (1) that must be even with the door opening. Refer to repair manual section 51 32 154.		92/93	<input type="checkbox"/>
83 30 0 495 591	513 310	Ratchet Wrench	04 22 06		This wrench has been preconfigured to the geometry of the door. It is used in a square drive torque wrench. The torque wrenches are available through parts (refer to SI B04 29 03) or through Baum Tools @ 800 848 6657.		E92/93	<input type="checkbox"/>
83 30 0 495 593	335 080	Seal Installer	04 24 06		Used to install the final drive input shaft seal. Refer to repair manual section 33 11 021.	x	E90, E91, E92 and E70 with N54 B30	<input type="checkbox"/>
83 30 0 495 597	242 354	Seal Removal Tool	04 11 07		Used to remove the input shaft seal. Refer to repair manual section 24 31 011	x	GM6 Transmission	<input type="checkbox"/>
83 30 0 495 598	244 350	E10 Torx Socket	04 11 07		Used to R&R the securing bolts for the Mechatronic (or VB-TEHCM asm). Refer to repair manual section 24 34 562.	x	GM6	<input type="checkbox"/>

83 30 0 495 599	244 360	Seal Removal Tool	04 11 07		Used to remove the output shaft seal. Refer to repair manual section 24 13 013.	x	GM6	<input type="checkbox"/>	
83 30 0 495 600	244 370	Seal Installation Tool	04 11 07		Used to install the output shaft seal. Refer to repair manual section 24 13 013.	x	GM6	<input type="checkbox"/>	
83 30 0 495 601	244 380	Seal Installation Tool	04 11 07		Used to install the selector shaft seal. Refer to repair manual section 24 14 002.	x	GM6	<input type="checkbox"/>	
83 30 0 495 602	244 390	Seal Removal Tool	04 11 07		Used in conjunction with 135 250 (SI B04 18 01) to remove the oil filter seal. Refer to repair manual section 24.	x	GM6	<input type="checkbox"/>	
83 30 0 495 603	244 400	Seal Installation Tool	04 11 07		Used to install the oil filter seal. Refer to repair manual section 24.	x	GM6	<input type="checkbox"/>	
83 30 0 495 604	541 110	Sunroof centering pins	04 23 06		The sunroof centering pins were developed to eliminate wind noise and rain leaks when the sunroof cassette is replaced. The pins precisely align the cassette in the roof opening. Two pins come with each order. Refer to Repair Manual section 54 13 080. This picture shows how to use the pins on the E61, E83 and E91. On the E53, only the front centering hole is provided.		E53,61,83,91	<input type="checkbox"/>	
83 30 0 495 605	009 140	Rotation Angle Measuring Gauge	04 25 06		Used to tighten the crankshaft central bolt to the correct angle. Refer to repair manual section 11 31 051.		N54, N54	<input type="checkbox"/>	

83 30 0 495 623	334 285	Installation Shim	04 33 06		Used in conjunction with 334 182 (SI B04 02 96), 334 465 (04 05 05) and 334 466 to properly mount the rear differential bushing. Refer to repair manual section 33 17 005.		E85 E86	<input type="checkbox"/>
83 30 0 495 626	212 280	Clutch Centering Tool	04 34 06		Used to center the drive plate to the pressure plate when installing the clutch. Refer to repair manual section 21 21 500.	x	E60 M5	<input type="checkbox"/>
83 30 0 495 627	233 240	Input shaft seal tool	04 34 06		Used to install the input shaft seal. Refer to repair manual section 23 12 510.	x	E60 M5	<input type="checkbox"/>
83 30 0 495 676	610 326	¿MQS¿ Connector Release Tool	04 19 06	NA	Used to release and remove the ¿micro standard¿ and ¿MQS¿ connectors.	x	All	<input type="checkbox"/>
83 30 0 495 677	610 327	Insertion Tool	04 19 06	NA	Used to insert 0.64 to 1.2 mm contacts with sealing ring. The tip of the insertion tool is shaped to prevent damage to the seal. Place the wire (1) into the tool (2) and insert seal (3) into the connector housing. Never press the seal into the connector with a sharp tool. Damaged seals must not be used.	x	All	<input type="checkbox"/>

83 30 0 495 678	610 328	Insertion Tool	04 19 06	NA	Used to insert 2.8 to 4.8 mm contacts with sealing ring. The tip of the insertion tool is shaped to prevent damage to the seal. Place the wire (1) into the tool (2) and insert seal (3) into the connector housing. Never press the seal into the connector with a sharp tool. Damaged seals must not be used.	x	All	<input type="checkbox"/>
83 30 0 495 680	610 331	SLK Connector Release Tool	04 19 06	NA	Used to remove 5.8 mm SLK contacts. Insert the tool into the housing (1) and release the contact.	x	All	<input type="checkbox"/>
83 30 0 495 682	335 100	Spring Tensioner	04 39 06		Used to R&R the rear springs on vehicles without automatic ride height option. Refer to repair manual section 33. Application note: Never use an air impact driver on the spring tensioner as damage can result. Instead, use the supplied special tool. Always use all BMW Spring Compressors in accordance with use and safety procedures as stated in the BMW repair instructions. Never try to use or repair a damaged tool.	x	E70	<input type="checkbox"/>

83 30 0 495 723	114 284	Fixture Screws	04 21 06		Used in conjunction with 114 280 (SI B04 07 05) to hold the camshaft at Top Dead Center (TDC). Refer to repair manual section 11 31 005.		N54	<input type="checkbox"/>	
83 30 0 495 726	118 510	Spray Jet Fixture	04 25 06		Used to hold the oil spray jets in the proper position. Refer to repair manual section 11 21 531.		N54	<input type="checkbox"/>	
83 30 0 495 727	118 520	Gauge	04 21 06		Used to align the camshaft sensor gears. Refer to repair manual section 11 31 505.		N54	<input type="checkbox"/>	
83 30 0 495 728	118 530	Vacuum Pump Tool	04 21 06		Used to R&R the vacuum pump sealing cover. Refer to repair manual section 11 14 010.		N54	<input type="checkbox"/>	
83 30 0 495 736	118 540	Support Plate	04 25 06		Used to mount the engine on the engine stand (83 30 0 495 187 - SI B04 06 06).		N54	<input type="checkbox"/>	
83 30 0 495 739	118 550	Bearing Fixture	04 30 06		Used to hold the camshaft bearings in place when fitting the camshaft. Refer to repair manual section 11 31 025.	x	N54	<input type="checkbox"/>	
83 30 0 495 747	118 580	T60 Torx Socket	04 21 06		Used to R&R the cylinder head bolts. Refer to repair manual section 11 12 100.		N54	<input type="checkbox"/>	
83 30 0 495 748	118 590	Connecting Rod Guides	04 03 07		Used to safely place the piston with connecting rods into the engine. Refer to Repair Manual section 11 25 530.		N54	<input type="checkbox"/>	
83 30 0 495 749	118 610	WAF 5 Hex Socket	04 21 06		Used to R&R the high pressure pump. Refer to repair manual section 13 51 017.		N54	<input type="checkbox"/>	



83 30 0 495 750	118 640	E 10 Torx	04 30 06		Used to R&R the oil pump triangular drive. Refer to repair manual section 11 41 010.	x	N54	<input type="checkbox"/>	
83 30 0 495 751	118 620	WAF 10 Socket	04 30 06		Used to R&R the ground connection for the fuel injectors during valve cover removal. Refer to repair manual section 11 12 000.	x	N54	<input type="checkbox"/>	
83 30 0 495 752	118 650	Brace	04 21 06		Used to R&R the oil pump drive sprocket. Refer to repair manual section 11 66 000.		N54	<input type="checkbox"/>	
83 30 0 495 753	118 660	Flywheel Holder	04 30 06		Used to hold the flywheel in place with the automatic transmission installed. Refer to repair manual section 11 23 010.	x	N54	<input type="checkbox"/>	
83 30 0 495 754	118 670	Clamp	04 25 06		Used to R&R the charge air pipe. Refer to repair manual section 11 61 362.		N54	<input type="checkbox"/>	
83 30 0 495 755	130 180	Injector remover	04 30 06		Used to remove stuck injectors. Refer to repair manual section 13 64 501.	x	N54	<input type="checkbox"/>	
83 30 0 495 756	130 190	Assembly Set	04 30 06		Used to R&R the Teflon rings on the injectors.	x	N54	<input type="checkbox"/>	
83 30 0 495 762	221 100	Mount Remover	04 39 06		Used to R&R the transfer case rubber mount together with 221 010 (04 50 99). Refer to repair manual section 22.	x	E70	<input type="checkbox"/>	
83 30 0 495 763	271 460	Seal Installer	04 39 06		Used to install the transfer case input shaft seal. Refer to repair manual section 27.	x	E70	<input type="checkbox"/>	
83 30 0 495 764	271 470	Seal Installer	04 39 06		Used to install the transfer case output shaft seal. Refer to repair manual section 27.	x	E70	<input type="checkbox"/>	

83 30 0 495 765	271 480	Seal Installer	04 39 06		Used to install the transfer case output shaft seal. Refer to repair manual section 27.	x	E70	<input type="checkbox"/>	
83 30 0 495 769	180 110	Gauge	04 25 06		Used to hold the exhaust manifold in place during installation. Refer to repair manual section 18 32 050.		N54	<input type="checkbox"/>	
83 30 0 495 770	118 680	Adapter	04 03 07		Used to support the engine during lifting and lowering (R&R). Refer to Repair Manual section 11 00 050.		N54	<input type="checkbox"/>	
83 30 0 495 771	610 110	Heater Test Cable	04 40 06		Used to diagnose the 3rd seat heater.	x	E70	<input type="checkbox"/>	
83 30 0 495 772	610 120	DME Test Cable	04 40 06		Used to diagnose connector number 3 on the DME.	x	E70	<input type="checkbox"/>	
83 30 0 495 773	610 130	Electric Coolant Pump Test Cable	04 40 06		Used to diagnose the electric coolant pump.	x	E70	<input type="checkbox"/>	
83 30 0 495 774	610 140	Air Mass Meter Test Cable	04 40 06		Used to diagnose the hot-film air mass meter.	x	E70	<input type="checkbox"/>	
83 30 0 495 775	610 150	Tailgate Test Cable	04 40 06		Used to diagnose the left side tailgate drive.	x	E70	<input type="checkbox"/>	
83 30 0 495 776	610 160	Tailgate Test Cable	04 40 06		Used to diagnose tailgate connector 1.	x	E70	<input type="checkbox"/>	
83 30 0 495 777	610 170	Steering Lock Test Cable	04 40 06		Used to diagnose the steering column lock.	x	E70	<input type="checkbox"/>	
83 30 0 495 799	312 310	Thrust rod remover			Used to press the thrust rod out of the wheel carrier. Refer to repair manual section 31 21 151. Replaced by 312 310.		E83	<input type="checkbox"/>	

83 30 0 495 814	721 200	Rivet Extractor	04 01 07		The E92 Head protection System airbag (HPS) is attached to the vehicle with special rivets not bolts. If removal of the HPS becomes necessary, it is important not to let the back side of the rivet fall into the body cavity. Body noises (rattle) might be evident. This tool is adjustable to fit into body cavities and capture the back side of the rivet before it is lost in the body cavity. Refer to Repair Manual Section 72 12 060. A universal rechargeable rivet gun may be ordered using PN 81 43 0 301 745 if required.		E92	<input type="checkbox"/>
83 30 0 495 829	314 150	Mount Remover	04 39 06		Used to R&R the lower control arm rubber mount. Refer to repair manual section 31 12.	x	E70	<input type="checkbox"/>
83 30 0 495 830	512 240	Hood Support	04 39 06		Used to support the engine hood in the service position. Refer to repair manual section 51.	x	E70	<input type="checkbox"/>
83 30 0 495 850	000 452	Engine Support Feet	04 13 07		Used in conjunction with 000 200 to support the engine. Refer to Repair Manual section 11 00 670.		E70	<input type="checkbox"/>
83 30 0 495 851	335 120	Shaft Remover	04 39 06		Used to R&R the final drive output shaft. Refer to repair manual section 33.	x	E70	<input type="checkbox"/>
83 30 0 495 852	314 100	Support Adapters			Used to support the front axle during R&R. In conjunction with 002 030.		E70	<input type="checkbox"/>

83 30 0 495 858	314 160	Seal Installer	04 39 06		Used to install the output shaft seal on the front axle final drive. Refer to repair manual section 31 51 015.	x	E70	<input type="checkbox"/>	
83 30 0 495 860	335 130	Seal Installer	04 39 06		Used to install the output shaft seal on the final drive. Refer to repair manual section 33.	x	E70	<input type="checkbox"/>	
83 30 0 495 863	335 150	Mount Remover	04 39 06		Used to R&R the rear rubber mount on the final drive. Refer to repair manual section 33.	x	E70	<input type="checkbox"/>	
83 30 0 495 864	335 160	Mount Remover	04 39 06		Used to R&R the front rubber mount on the final drive. Refer to repair manual section 33.	x	E70	<input type="checkbox"/>	
83 30 0 495 865	335 170	Mount Remover	04 39 06		Used to R&R the rubber mount on the rear axle carrier. Refer to repair manual section 33.	x	E70	<input type="checkbox"/>	
83 30 0 495 885	002 260	Hoist Fixture	04 39 06		Must be used to secure the vehicle to the hoist when removing and installing major components such as but not limited to front axle carrier, rear axle carrier and engine/transmission. Refer to repair manual section 00.	x	E70	<input type="checkbox"/>	
83 30 0 495 899	314 170	Locking Tool	04 39 06		Used to lock the universal joint in place while removing and installing the output shaft. Refer to repair manual section 31.	x	E70	<input type="checkbox"/>	
83 30 0 495 908	371 150	Hydraulic Line Tool	04 02 07		Used to R&R the hydraulic lines on the E70 Dynamic Drive (Sport Package) and the N54 fuel injector lines. Refer to Repair Manual sections 13 53 192 (N54) and 37 20 001 (E70).	x	E70 & N54	<input type="checkbox"/>	

83 30 0 495 995	003 070	Floor Mat Awl	04 18 07		A 3 mm hole must be punched into floor mats in order to affix them to the floor. Follow the instructions included with the floor mats.	x	All	<input type="checkbox"/>	
83 30 0 496 006	312 247	Ball Joint Remover	04 13 07		Used in conjunction with 312 240 to remove the tension strut ball joint. Refer to Repair Manual section 31 12 050.	x	E70	<input type="checkbox"/>	
83 30 0 496 007	004 430	Double Torx Tool	04 12 07		This tool has a T20 on one side and a T30 on the other. It is designed for the tight spaces during R&R of roof shell #3 and the headliner. Refer to Repair Manual section 54 37 040.		E93	<input type="checkbox"/>	
83 30 0 496 009	335 200	Rear diff. support	04 22 08		This tool is used to support the rear differential for removing and installation. For more details, refer to repair manual section for E70, 33 10 010.		E70, E90, E92	<input type="checkbox"/>	
83 30 0 496 028	540 110	Cowl Panel Gauge	04 12 07		Used to calibrate the base plate at the cowl panel. This is the zero point for all measuring and calibration work on the RHT. Refer to Repair Manual section entitled ¿Calibrating base plate (cowl panel lock)¿.		E93	<input type="checkbox"/>	

83 30 0 496 029	540 120	Basic Gauge (1-3)	04 12 07	NA	The basic gauge specifies the settings on the X (longitudinal), Y (lateral) and Z (vertical) axis. The gauge is used for the following operations. <ul style="list-style-type: none"> <li>¿ Calibrating/examinin g the coupling</li> <li>¿ Calibrating the coupling after the roof module has been R&amp;R</li> <li>¿ Calibrating the roof module consoles</li> </ul>	E93	<input type="checkbox"/>
83 30 0 496 033	540 130	Coupling Gauge (1-2)	04 12 07		RHT tool. Refer to SI for details.	E93	<input type="checkbox"/>
83 30 0 496 036	540 140	Roof Module Console Gauge	04 12 07		1. Left gauge 2. Right gauge 3. Transverse strut Only use tool 540 140 with tool 540 120. The roof module consoles are only calibrated after performing body repairs. Refer to Repair Manual section entitled ¿Calibrating roof module consoles¿.	E93	<input type="checkbox"/>
83 30 0 496 039	540 150	Rear Module Console Gauge	04 12 07		1. Left gauge 2. Right gauge The rear module consoles are only calibrated after performing body repairs. Refer to Repair Manual section entitled ¿Calibrating rear module consoles¿.	E93	<input type="checkbox"/>
83 30 0 496 040	540 170	Service Position Fixture	04 12 07		Tension strap and securing hooks are used to prevent the RHT from dropping during adjusting work. An example is when removing the headliner or roof shell #3. The hydraulic pressure drops off after ~2 hours.	E93	<input type="checkbox"/>

83 30 0 496 041	540 160	Emergency Tool (1-3)	04 12 07		This tool is used to open and close the RHT. It consists of a slide tool (1), a pulling tool (2) and an adapter (3). Must use 540 240 to support module during emergency tool application. Do not attempt to use this tool if you have not taken the E93 Training Course ST701.	E93	<input type="checkbox"/>
83 30 0 496 042	540 180	Barrel screw socket	04 12 07		RHT tool. Refer to SI for details.	E93	<input type="checkbox"/>
83 30 0 496 043	540 190	Lock Nut Socket	04 12 07		RHT tool, refer to SI for details.	E93	<input type="checkbox"/>
83 30 0 496 044	540 220	Cover for Separator Module	04 12 07		Used to eliminate the risk of triggering the rollover protection. The tool is inserted into the separator module. Refer to Repair Manual section 54 37 130.	E93	<input type="checkbox"/>
83 30 0 496 046	510 020	Rear Window Assembly Aid (1-2)	04 12 07		This tool consists of the left side tool (1) and the right side tool (2). It is used when installing the rear window. Roof shell #3 must be removed so the rear window is glued without tension. This tool is needed to align the rear window X-axis setting correctly. The Y-axis is aligned by centering roof shell #3. The Z-axis is aligned by the spacers. Refer to Repair Manual section entitled "Removing and installing rear window" for E93.	E93	<input type="checkbox"/>

83 30 0 496 047	540 230	Crimping Die	04 12 07		Used in conjunction with 610 200 (SI B04 27 05) to crimp the sleeve on the headliner tensioning straps when replacement is necessary.		E93	<input type="checkbox"/>	
83 30 0 496 048	540 200	Bridging connector	04 12 07		Used to open and close the roof module when the rear module has been removed. Refer to Repair Manual section 54 37 160.		E93	<input type="checkbox"/>	
83 30 0 496 049	540 000	Set 1.1 Roof Module Adjustment gauges	04 12 07	NA	The E93 RHT tools come in 4 kits. Refer to the SIB for details.	x	E93	<input type="checkbox"/>	
83 30 0 496 055	009 450	Torque Wrench	04 12 07		RHT tool, refer to SI for details.		E93	<input type="checkbox"/>	
83 30 0 496 058	510 320	Window Assembly Aid (1-2)	04 12 07		Used to correctly adjust the door side windows along the X-axis (E92&E93). Refer to Repair Manual section 51 32 154.		E93	<input type="checkbox"/>	
83 30 0 496 061	244 166	Converter Bracket	04 11 07		Used to hold the converter in place during transmission R&R. Refer to repair manual section 24 00 030.	x	GM6	<input type="checkbox"/>	
83 30 0 496 062	332 200	Puller		A21	This tool replaces tool 332 110. 332 111 - 332 203 332 114 - 332 204 332 115 - 332 208 332 116 - 332 201 332 117 - 332 207 332 118 - 332 205 332 119 - 332 206		E30, All	<input type="checkbox"/>	
83 30 0 496 064	332 202	Special Spanner	04 13 07		Used in conjunction with 312 100, 312 200 and 335 070 to remove the output flange. Refer to Repair Manual section 31 60.	x	E70	<input type="checkbox"/>	



83 30 0 496 072	540 240	Assembly Supports	04 12 07		Used to support the rear RHT module when there is no hydraulic pressure in the system.		E93	<input type="checkbox"/>	
83 30 0 496 076	009 470	Gap Gauges	04 12 07		Used to check the gap dimensions on the RHT. This tool will also be used on future models.		E93	<input type="checkbox"/>	
83 30 0 496 083	371 160	WAF24 Ring Spanner	04 13 07		Used to R&R the ARS pressure accumulator. Refer to Repair Manual section 37 11.	x	E70	<input type="checkbox"/>	
83 30 0 496 084	111 240	Assembly Set	04 13 07		Used to install the drive belt. Refer to Repair Manual section 11 28 010.	x	E70	<input type="checkbox"/>	
83 30 0 496 090	540 020	Set 2.1 Lifting Frame set for RHT	04 12 07	NA	The E93 RHT tools come in 4 kits. Refer to the SIB for details.		E93	<input type="checkbox"/>	
83 30 0 496 091	540 040	Set 1.2 Mechanical Tools for RHT	04 12 07	NA	The E93 RHT tools come in 4 kits. Refer to the SIB for details.	x	E93	<input type="checkbox"/>	
83 30 0 496 092	540 030	Set 2.2 Gauge set for RHT	04 12 07	NA	The E93 RHT tools come in 4 kits. Refer to the SIB for details.		E93	<input type="checkbox"/>	
83 30 0 496 201	513 303	Door Window Adjustment tools	04 04 08		This tool is used in conjunction with tool 513 304 and 513 300 to adjust the door glass. For more details, refer to repair manual section 51 32 154.	x	E82, E83	<input type="checkbox"/>	
83 30 0 496 202	513 304	Door Window Adjustment tools	04 04 08		This tool is used in conjunction with tool 513 303 and 513 300 to adjust the door glass. For more details, refer to repair manual section 51 32 154.	x	E82, E83	<input type="checkbox"/>	

83 30 0 496 222	510 340	Testing Adapter Set for A/C System Components	04 24 08		This tool is used for leak-testing the air-conditioning system condenser and evaporator. These adapters can only be used in conjunction with the following tools and equipment: 1. Nitrogen (in pressurized bottles) - Not supplied 2. Pressure leak down gauge with a measuring range of at least 10 bar $\dot{\iota}$ to be supplied; see below For more details, refer to Repair Instructions: 1. 645 121 (83 30 0 496 223) Connecting hose 2. 645 122 (83 30 0 496 224) Testing adapter for air conditioning condenser 3. 645 123 (83 30 0 496 258) Plug for air conditioning system condenser 4. 645 124 (83 30 0 496 259) Test adapter for evaporator $\dot{\iota}$ E81, E82, E87, E88, E90, E91, E92, E93 5. 645 125 (83 30 0 496 260) Test adapter for	x	All	<input type="checkbox"/>
83 30 0 496 269	119 990	Engine Brace	04 01 08		This tool is used to hold the engine in place when removing the transmission. For details, refer to repair manual section 23 00 018.	x	E92 M3 with S65	<input type="checkbox"/>
83 30 0 496 270	119 970	Camshaft Fixture Set	04 01 08		This tool is used to align and fix the camshaft at Top Dead Center (TDC) during assembly.	x	E92 M3 with S65	<input type="checkbox"/>

83 30 0 496 274	119 980	Extraction Tool	04 01 08		This tool must be used to remove the ignition coil, or damage to the coil and surrounding area may occur. For more details, refer to repair manual section 12 13 512.	x	E92 M3 with S65	<input type="checkbox"/>
83 30 0 496 287	002 326	Engine Support Plates	04 03 08		This tool is used in conjunction with engine stand 002 300 and support arm 002 320 to support the 12 cylinder N73		M73, N73, N62, S62	<input type="checkbox"/>
83 30 0 496 288	002 327	Engine Support Plates	04 03 08		This tool is used in conjunction with engine stand 002 300 and support arm 002 320 to support the S62 engine.		M73, N73, N62, S62	<input type="checkbox"/>
83 30 0 496 293	315 230	Strut Tool	04 01 08		This tool is used to pull the front spring strut into the steering knuckle. 1. 315 231 (83 30 0 496 294) Body 2. 315 232 (83 30 0 496 295) M10 with spindle and fixture 3. 305 233 (83 30 0 496 296) Nut/bearing	x	E92 M3 with S65	<input type="checkbox"/>
83 30 0 496 310	334 286	Bushing press spacer	04 02 08		This tool is used in conjunction with the following special tools to remove and replace the rear differential rubber mount. For more details, refer to repair manual section 33 17. 1. 334 280 ; 83 30 0 494 048 2. 334 450 ; 83 30 0 494 928 3. 334 460 ; 83 30 0 494 929 4. 334 180 ; 83 30 0 492 426	x	E83, E85	<input type="checkbox"/>

83 30 0 496 312	244 340	Fill plug tool			Used to R&R the oil filler plug in order to fill the transmission fluid. Refer to repair manual section 24 11 007.		E6x, E9X, E81, E87	<input type="checkbox"/>
83 30 0 496 315	413 200	Roof Clamp Set	04 05 08		The clamp set is used for securing the CFK rood in place when glueing. For more details, refer to Repair Manual, section 41 31 000. 1. 413 201 (83 30 0 496 201) Locking pliers 2. 413 202 (83 30 0 496 317) G-clamp 3. 413 203 (83 30 0 496 318) Preformed sections 4. 413 204 (83 30 0 496 319) Preformed sections		E92 M3	<input type="checkbox"/>
83 30 0 496 346	119 950	Valve Spring Collar	04 11 08		This tool is used in conjunction with the valve spring toolset (83 30 0 495 122) for fitting and removing the valve collets. For more details, refer to repair instructions for Series E92, section 11 34 552.	x	E92 M3	<input type="checkbox"/>
83 30 0 496 350	119 960	Pressure Test Cover	04 11 08		This tool is used in conjunction with the pressure test fixture (83 30 0 495 117) for testing the cylinder head for leaks. For more details, refer to repair instructions for Series E92, section 11 12 729.		E92 M3	<input type="checkbox"/>

83 30 0 496 355	315 270	Tension Strap	04 11 08		This tool is used in conjunction with the tension strap set (83 30 0 494 928) for pressing the bearing of the tension rod in and out. For more details, refer to repair instructions for Series E92, section 31 12 138.	x	E92 M3	<input type="checkbox"/>
83 30 0 496 359	119 890	Gauge	04 07 08		This tool is used for fixing the camshaft in place when adjusting the valve timing. For more details, refer to repair instructions for N63 engine, job item 11 31 070. 1. 119 891 Rotary Handle 2. 119 892 Bridge 3. 119 893 Gauges 4. 119 894 Adapter N63	x	N63 engine	<input type="checkbox"/>
83 30 0 496 360	119 900	Chain tensioner	04 07 08		This tool is used for pre-tensioning the timing chain when adjusting the valve timing. For more details, refer to repair instructions for N63 engine, job item 11 31 070.	x	N63 engine	<input type="checkbox"/>
83 30 0 496 365	118 090	Brace	04 07 08		This tool is used for unscrewing the central screw. For more details, refer to repair instructions for N63, job item 11 23 010.	x	N63 engine	<input type="checkbox"/>
83 30 0 496 366	118 570	TDC Alignment tool	04 07 08		This tool is used in conjunction with 11 9 190 for aligning the engine in Top Dead Center (TDC). For more details, refer to repair instructions for N63 engine, job item 11 31 070.	x	N63 engine	<input type="checkbox"/>

83 30 0 496 369	118 920	Oil pump brace	04 07 08		This tool is used in conjunction with 11 9 280 for removing the oil pump hub. For more details, refer to repair instructions for N63, job item 11 41 000.	x	N63 engine	<input type="checkbox"/>
83 30 0 496 370	118 930	Engine Support	04 07 08		This tool is used in conjunction with 00 2 300 for holding up the engine on assembly stand. For more details, refer to repair instructions for N63 engine, job item Assembly stand.	x	N63 engine	<input type="checkbox"/>
83 30 0 496 388	330 100	Fixture	04 08 08		This tool is used for removing and fitting the rear rubber mount on the rear axle final drive. For more details, refer to repair instructions for Series E92, section 33 17 005		E90, E92, E93 M3	<input type="checkbox"/>
83 30 0 496 404	330 110	Mouldings (set)	04 10 08		This tool is used in conjunction with 234 020 and item 1, 002 030, hydraulic jack for supporting the rear-axle final drive.		E71, E70	<input type="checkbox"/>
83 30 0 496 405	330 120	Drift	04 10 08		This tool is used for fitting the input shaft sealing ring on the rear axle final drive. For more details, refer to repair instructions for E71, section 33 11 021.	x	E71, E70	<input type="checkbox"/>
83 30 0 496 406	330 130	Drift	04 10 08		This tool is used for fitting the output shaft sealing ring on the rear axle final drive. For more details refer to repair instructions for section E71, section 33 10 021.	x	E71, E70	<input type="checkbox"/>

83 30 0 496 408	118 080	Pressing-off Device	04 07 08		This tool is used for checking the cylinder head for leaks. For more details, refer to repair instructions for N63 engine, job item 11 12 729	x	N63 engine	<input type="checkbox"/>
83 30 2 148 852		Locking Hook Connectors	04 20 08		The locking hook connectors on the D-CAN cables have a tendency to break over time. New locking hook connectors are now available for the replacement of broken connectors. 1. Locking Hook Connectors		All	<input type="checkbox"/>
84 11 1 468 739		Transfer kit	04 03 95		Allows identity transfer for CMT 2000VR	x	All	<input type="checkbox"/>
88 88 0 000 045		PLCC extraction tool	04 17 95		used to remove EPROMs from CMT 3000 phones	x	E38	<input type="checkbox"/>
88 88 0 000 117		Compression stroke indicator	04 22 95		used to indicate when cylinder 1 is in the compression stroke without removing the valve covers No longer available.	x	M60	<input type="checkbox"/>
88 88 5 000 362		Injector leak test kit	04 17 90		used to check injectors for leaks. See SIB 13 08 90 for complete details	x	All	<input type="checkbox"/>
88 88 6 002 000		Torsion meter	04 03 81		used to measure friction	x	All Early	<input type="checkbox"/>
88 88 6 002 103		T25 torx socket	04 01 83	1	used to R&R sliding roof	x	E30	<input type="checkbox"/>
88 88 6 002 120		T10 torx wrench	04 14 88	1	used to R&R the rear power distribution box cover	x	E32	<input type="checkbox"/>
88 88 6 004 210		Reamer kit	04 18 87		used to ream valve guides. See SIB 11 11 86 for details	x	M20, S14	<input type="checkbox"/>
88 88 6 004 220		Valve guide reamer set	04 03 96		used to ream valve guides (6mm)	x	M60, M52, M50, M42	<input type="checkbox"/>
88 88 6 008 550	008 550	Puller			used to remove rear wheel bearing	x	E21	<input type="checkbox"/>
88 88 6 009 210		wiper gauge	04 21 89		superceded by 90 88 6 009 230	x	E32 E34	<input type="checkbox"/>
88 88 6 110 070		Engine hoist frame	04 09 97		used to remove and install 4 cylinder engines	x	M44, M42	<input type="checkbox"/>

88 88 6 110 080		Engine adapters	04 22 92		used to mount engine on stand		M60	<input type="checkbox"/>
88 88 6 110 192		Guide tube shaft	04 19 96		used with 90 88 6 110 342 to depress valve springs	x	M44, M52	<input type="checkbox"/>
88 88 6 110 210		Valve board	04 22 92		used to support valves when using 88 88 6 001 490		M60	<input type="checkbox"/>
88 88 6 110 341		Valve spring depressor	04 01 97		used to R&R valve springs.	x	M73	<input type="checkbox"/>
88 88 6 110 342		Pressure lever	04 14 96		used to depress valve spring compressor 90 88 6 110 344	x	M52	<input type="checkbox"/>
88 88 6 111 030		Pressure test set	04 01 84		used to pressure test head	x	524TD	<input type="checkbox"/>
88 88 6 111 420		Pressure fixture	04 21 88		used to pressure test engine head		E31, E32	<input type="checkbox"/>
88 88 6 111 470		Head fixture	04 22 92		used to pressure test head		M60	<input type="checkbox"/>
88 88 6 112 010	112 010	Puller			used to remove the rear crankshaft needle bearings	x	E12	<input type="checkbox"/>
88 88 6 112 100	112 100	Flywheel lock			used to hold flywheel on standard transmission	x	E12	<input type="checkbox"/>
88 88 6 112 210		Seal guide			used o guide crankshaft seals during instalation	x	E21, E23, E24	<input type="checkbox"/>
88 88 6 121 080	121 080	Ignition wire repair kit			used to repair ignition wires. Replaces 112 090	x	E36	<input type="checkbox"/>
88 88 6 130 110	130 110	Sampkler tubes	04 14 92		used to test CO levels with Gas Bench	x	S14	<input type="checkbox"/>
88 88 6 134 030		Current Generator	04 16 85		required for basic adjustment of the idle control valve	x	E23, E28, E24	<input type="checkbox"/>
88 88 6 135 320	135 320	Socket	04 01 84		used to R&R injectors	x	524TD	<input type="checkbox"/>
88 88 6 135 380	135 380	Adapter hose	04 01 84		used to check inj. pump pressure	x	524TD	<input type="checkbox"/>
88 88 6 170 006	170 006	Cap adapter	04 25 86		This tool has been replaced by 170 007. PN 88 88 6 170 006 must not be used and must be scrapped.	x	E32	<input type="checkbox"/>
88 88 6 212 100		Mandrel			Used to center the clutch disc while installing the clutch.		265 & 280 5 speed gearbox, 240,260 and 265., 265	<input type="checkbox"/>



88 88 6 231 000	231 000	Installer		5	used to install gearbox housing bearings	x	E30, E28, E21, E12	<input type="checkbox"/>
88 88 6 231 320	231 320	Holding wrench	04 03 84	6	used to hold output flange to remove nut	x	E24, E23	<input type="checkbox"/>
88 88 6 231 370		Drift		6	used to install radial oil seal Getrag trans	x	E28, E21, E30, E23	<input type="checkbox"/>
88 88 6 232 150		Bearing installer		6	used to install front tapered roller bearing in 260 and 245 trans	x	E32, E34, E36	<input type="checkbox"/>
88 88 6 240 030	240 030	Pressure adapter		6	used to test main oil pressure on 4HP 22 transmission	x	E32, E30	<input type="checkbox"/>
88 88 6 240 050		Puller		6	used to remove sealing plugs in 3HP 12/20/22 and 4HP 22/24	x	E21, E30, E32, E12	<input type="checkbox"/>
88 88 6 240 090		Drift		6	used to install radial oil seal 4HP22/24	x	E32, E36, E34, E30	<input type="checkbox"/>
88 88 6 240 110	240 110	Seal installer	04 09 90	6	used to install front radial oil seal on 4HP22/24 transmissions	x	E30	<input type="checkbox"/>
88 88 6 240 130		Transmission adapter	04 17 87		used to adapt 4hp 22 and 4HP 24 to stand		E31, E32, E30	<input type="checkbox"/>
88 88 6 240 150		Transmission holder			used to hold 4HP 22/24	x	E34, E31, E39, E30, E32, E38, 3HP12,20,22, A4S270R, E36	<input type="checkbox"/>
88 88 6 240 190		flange holder	04 23 92		used to hold the output flange	x	A5S560Z	<input type="checkbox"/>
88 88 6 243 140		Pump turner		6	used to turn oil pump on 3HP 12/22	x	E30, E12, E31, E21, E28, E34, E32, E23, E24	<input type="checkbox"/>
88 88 6 244 044	244 044	Hold down bolts	04 17 87	6	used to check torque converter for leaks		E31, E30	<input type="checkbox"/>
88 88 6 244 090	244 090	seal installation tool	04 23 92		used to install the output shaft seal with 005 500	x	A5S560Z	<input type="checkbox"/>
88 88 6 244 100	244 100	input shaft seal tool	04 23 92		used to install the input shaft seal	x	A5S560Z	<input type="checkbox"/>
88 88 6 244 110	244 110	spanner socket	04 23 92		used to remove the spanner nut on the output shaft	x	A5S560Z	<input type="checkbox"/>
88 88 6 245 150	245 150	Alignment pins	04 12 90	7	used to center valve body on THMR 1	x	E36, E34	<input type="checkbox"/>

88 88 6 245 190		Pressure adapter	04 12 90	7	used with 88 88 6 240 021 to test main pressure on THMR 1 trans.	x	E34, E36	<input type="checkbox"/>
88 88 6 245 200		Driving mandrel	04 12 90	7	used to replace the radial seal on the THMR 1 shift shaft	x	E34, E36	<input type="checkbox"/>
88 88 6 245 210		Holder	04 22 92	7	used to R&R the trans shift cable on the 4HP 22/24, A5S 310R/Z	x	E31, E32, E30	<input type="checkbox"/>
88 88 6 245 300	245 300	Transmission cradle	04 01 91		used to support trans.		E36, E34	<input type="checkbox"/>
88 88 6 246 010	246 010	9 Pin test cable	04 26 91		used with 88 88 6 611 459 to test THMR-1	x	E36	<input type="checkbox"/>
88 88 6 261 060	261 060	46mm wrench	04 23 87		used to R&R propeller shaft nut		325IX	<input type="checkbox"/>
88 88 6 271 000	271 000	Fixture	04 23 87		used to mount transfer case on stand		325IX	<input type="checkbox"/>
88 88 6 271 090	271 090	Seal driver	04 23 87		used to install seals into the transfer case/rear output shaft	x	325IX	<input type="checkbox"/>
88 88 6 271 120	271 120	Sleeve	04 23 87		used with 88 88 6 231 300 to pull output shaft into rear transfer case		325IX	<input type="checkbox"/>
88 88 6 271 160	271 160	Bushing driver	04 23 87		used to install the bushing in the input shaft of the transfer case	x	325IX	<input type="checkbox"/>
88 88 6 271 190	271 190	Installer	04 23 87		used to install transfer case mounts		325IX	<input type="checkbox"/>
88 88 6 311 050		Sleeve		7	used to remove rubber bushings from front struts	x	E24, E28	<input type="checkbox"/>
88 88 6 311 110		Puller		7	used to remove tie rod end	x	E24, E28, E23	<input type="checkbox"/>
88 88 6 312 070	312 070	Thrust sleeve	04 23 87		used with 88 88 6 312 090 to press out front wheel bearings	x	325IX	<input type="checkbox"/>
88 88 6 312 080	312 080	Socket 46 mm		7	used to R&R front wheel bearing	x	E34, E28, E24, E23	<input type="checkbox"/>
88 88 6 312 090		Drive flange extractor	04 23 87		used with 88 88 6 331 307 to press out the flange from the front wheel bearings	x	E30, 325IX	<input type="checkbox"/>
88 88 6 312 100		Puller		7	used to remove front wheel bearing unit	x	E30, E32, E28, E24, E31	<input type="checkbox"/>
88 88 6 313 116		take up plate	04 06 82		used to replace coil springs- no longer used	x	e28	<input type="checkbox"/>

88 88 6 313 117		Holding fixture	04 23 87		used with 88 88 6 313 110/115 to hold spring strut during replacement	x	325IX, E30	<input type="checkbox"/>
88 88 6 313 130		Sleeves			used to R and R rubber bushing on the wishbone support	x	E30,E34,E36	<input type="checkbox"/>
88 88 6 313 150		Wrench		8	used to R&R strut nut	x	E21, E28, E30, E24, E23	<input type="checkbox"/>
88 88 6 313 160	313 160	Wrench		8	used to R&R strut nut	x	E12	<input type="checkbox"/>
88 88 6 313 170		Wrench		8	used to R&R strut nut	x	E21, E34, E28, E30, E32	<input type="checkbox"/>
88 88 6 315 000	315 000	Fixture	04 23 87		for mounting front axle final drive on stand		352IX	<input type="checkbox"/>
88 88 6 315 010	315 010	Puller/adaptor	04 23 87		used to press off the output shaft on the front axle drive	x	352IX	<input type="checkbox"/>
88 88 6 315 020	315 020	Seal driver	04 23 87		used to install oil seal onto the input shaft of the front axle final drive	x	325IX	<input type="checkbox"/>
88 88 6 315 030	315 030	Seal driver	04 23 87		used to install output shaft seal on front axle drive	x	325IX	<input type="checkbox"/>
88 88 6 315 040	315 040	Washer	04 23 87		used to preload shaft gears in final drive		325IX	<input type="checkbox"/>
88 88 6 315 050	315 050	Thrust sleeve	04 23 87		used to install roller bearing in differential case		325IX	<input type="checkbox"/>
88 88 6 315 060	315 060	Shaft adaptor	04 23 87		used with 88 88 6 002 000 to turn front axle when checking torque		325IX	<input type="checkbox"/>
88 88 6 315 070	315 070	Measuring tool	04 23 87		Used to check front axle drive pinion distance		325IX	<input type="checkbox"/>
88 88 6 315 080	315 080	Gauge disc	04 23 87		used with 88 88 6 002 510 to check front axle drive		325IX	<input type="checkbox"/>
88 88 6 315 090	315 090	Puller	04 23 87		used to remove tapered bearings in front axle drive		325IX	<input type="checkbox"/>
88 88 6 315 100	315 100	Installer	04 23 87		used to install outer race in bearing		325IX	<input type="checkbox"/>
88 88 6 322 040	322 040	Puller		8	used to remove tie rod ends	x	E24	<input type="checkbox"/>
88 88 6 322 050		Puller		8	used to remove outside tie rod	x	E21, E23, E31, E28	<input type="checkbox"/>
88 88 6 322 070	322 070	Puller		8	used to remove center tie rod	x	E12	<input type="checkbox"/>
88 88 6 331 010		Holder		9	used to hold rear axle	x	E28, E30	<input type="checkbox"/>

88 88 6 331 190	331 190	Drift		9	used to install output flange oil seals	x	E24, E23	<input type="checkbox"/>
88 88 6 331 200		Drift		9	used to install output flange oil seals on 8 bolt differentials	x	E24, E23, E32	<input type="checkbox"/>
88 88 6 331 230		Drift		9	used to install output flange oil seals on 6 bolt differentials	x	E23, E28	<input type="checkbox"/>
88 88 6 331 270		Drift	04 01 83		used to install final drive flange sealing ring	x	E30	<input type="checkbox"/>
88 88 6 331 280		Drift	04 07 91		used to install the rear seal on the axle flange	x	E36	<input type="checkbox"/>
88 88 6 331 340		Installer		9	used to install drive pinion	x	E28, E23, E34, E32, E24	<input type="checkbox"/>
88 88 6 331 360		Puller		10	used to R&R outer race in rear diff.	x	E28, E213, E30, E24	<input type="checkbox"/>
88 88 6 333 040	333 040	Sleeve		10	used to R	x	E34	<input type="checkbox"/>
88 88 6 333 080		Accumulator wrench	04 32 92		used to R and R the H31 accumulator		All	<input type="checkbox"/>
88 88 6 333 100		Bushing tool		10	used to R&R rear axle rubber bushings	x	E32, E31, E23, E34, E24	<input type="checkbox"/>
88 88 6 333 190		Press	04 13 90		used to press bushings of front upper control arms		E31	<input type="checkbox"/>
88 88 6 333 250		flange press	04 13 90		for pressing the drive flange from the rear wheel bearing	x	E31	<input type="checkbox"/>
88 88 6 334 000		Support			used to support rear axle flange	x	E24, E23, E32, E28	<input type="checkbox"/>
88 88 6 334 020		Support			used to support wheel bearing when inserting axle shaft	x	E28, E30, E32, E23, E24	<input type="checkbox"/>
88 88 6 334 030		Puller			used to R&R rear wheel bearing	x	E28, E34, E24, E23, E32	<input type="checkbox"/>
88 88 6 334 060		Drift		11	used to install locking plate on rear axle shaft	x	E23, E24, E28	<input type="checkbox"/>
88 88 6 334 080		Adapter		11	used with 231 300 to insert rear axle shaft	x	E23, E28, E24	<input type="checkbox"/>
88 88 6 341 020	341 020	Socket 7mm		12	used to remove front brake calipers	x	E28, E24	<input type="checkbox"/>
88 88 6 341 030		Wrench		12	used to adjust handbrake cable	x	E23, E36	<input type="checkbox"/>
88 88 6 341 280		Vernier Caliper	04 04 88		used to measure brake rotors	x	All	<input type="checkbox"/>

88 88 6 343 110		Special bleeder wrench	04 08 91		used to bleed the ASC T mineral oil circuit	x	E31 Newer, E31, E36, E32, E34	<input type="checkbox"/>
88 88 6 345 040		Jumper plug	04 05 86		used to test the ABS system. See SIB 04 10 84 for details	x	E30	<input type="checkbox"/>
88 88 6 345 050		Jumper plug	04 14 88		used to test ABS. See SIB 04 10 84 for more details	x	E32	<input type="checkbox"/>
88 88 6 345 150	345 150	Adjusting gauge	04 23 87		used to adjust the ABS pickup sensor	x	325IX	<input type="checkbox"/>
88 88 6 521 100		Pivot pin installer	04 32 87	16	used to install seat pivot pin	x	E24, E30	<input type="checkbox"/>
88 88 6 611 300	611 300	Pliers	04 08 83	13	removes outside mirror	x	E23	<input type="checkbox"/>
88 88 6 611 451	611 451	26 pin adapter cable-yellow	04 06 88		used with 26 pin BOB to test ZKE IHKA SSM etc. See SIB for details	x	E32, E30, E28, E23, E24	<input type="checkbox"/>
88 88 6 611 452		26 pin adapter - white	04 06 88		used with 26 pin BOB to test IHKA ZKE SSM etc. See SIB for details	x	E24, E28, E32, E30, E23	<input type="checkbox"/>
88 88 6 611 453		26 pin adapter cable - blue	04 06 88		used with 26 pin BOB to test IHKA and cluster	x	E23, E28, E30, E24, E32	<input type="checkbox"/>
88 88 6 611 454		26 pin adapter cable-green	04 06 88		used with 26 pin BOB to test ZKE IHKA K/CC etc. See SIB for details	x	E24, E30, E28, E23, E32	<input type="checkbox"/>
88 88 6 611 456		V adapter cable 26 pin	04 25 88		used with 26 pin BOB to troubleshoot wiper/wash module. Refer to 04 06 88, 04 12 88 and 04 13 88 for more cables	x	E32 Newer, E34 Newer	<input type="checkbox"/>
88 88 6 611 457	611 457	26 pin test cable	04 06 88		used with 26 pin BOB to test ZKE	x	E32	<input type="checkbox"/>
88 88 6 611 458	611 458	Fused test cable	04 06 88		used with 26 pin BOB to safely test vehicle systems	x	All	<input type="checkbox"/>
88 88 6 611 459	611 459	26 pin break out box	04 06 88		used with adapter cables to test vehicle systems	x	E23 Newer	<input type="checkbox"/>
88 88 6 611 476	611 476	Fused test lead	04 12 88		used to safely troubleshoot vehicle systems	x	E32 Newer	<input type="checkbox"/>
88 88 6 611 481	611 481	26 pin adapter cable-green	04 06 88		used with 26 pin BOB to test OBC III and IV	x	E32	<input type="checkbox"/>
88 88 6 611 482	611 482	26 pin adapter cable - white	04 13 88		used with 26 pin BOB to troubleshoot instrument cluster	x	E32	<input type="checkbox"/>

88 88 6 611 483	611 483	26 pin adapter cable - Beige	04 13 88		used with 26 pin BOB to troubleshoot instrument cluster	x	E32	<input type="checkbox"/>	
88 88 6 611 484	611 484	26 pin test cable- brown/grey	04 12 88		used with 26 pin BOB to troubleshoot instrument cluster	x	E32	<input type="checkbox"/>	
88 88 6 612 010	612 010	Adapter cable	04 01 90		used to test secondary ignition with 2013. No longer needed	x	M70, E32	<input type="checkbox"/>	
88 88 6 612 020	612 020	frequency simulator cable	04 01 90		used to output cluster speedometer signal	x	E32	<input type="checkbox"/>	
88 88 6 612 040	612 040	Infra-red test cable	04 01 90		used to test IR input signal	x	E34, E32	<input type="checkbox"/>	
88 88 6 612 050	612 050	Servotronic test cable	04 01 90		used to test servotronic signal with multimeter	x	E34, E32	<input type="checkbox"/>	
88 88 6 612 060	612 060	20/15 pin adapter	04 23 89		used with 88 88 6 621 110 to adapt to 15 pin vehicles	x	All	<input type="checkbox"/>	
88 88 6 621 290		20 Pin SRS reset tool	04 22 89		reads out fault codes and resets memory of SRS	x	E23, E24	<input type="checkbox"/>	
88 88 6 641 150		guide sleeve	04 06 85		used to install guide sleeve in evaporative housing	x	e23	<input type="checkbox"/>	
88 88 6 645 090	645 090	A/C clamp	04 14 92		used to hold compressor to R&R clutch bolts	x	M50, M42	<input type="checkbox"/>	
88 88 6 900 301		Fuel injector cleaner	04 07 86		used to clean L-Jetronic or Motronic fuel injectors- 'Bug Sprayer'	x	All	<input type="checkbox"/>	
88 88 6 900 311		Idle control valve	04 14 86		used to test the idle control valve with a multimeter	x	E30	<input type="checkbox"/>	
88 88 6 900 333		Static protection Matt	04 30 87		used to safely exchange E PROMS in control modules	x	All	<input type="checkbox"/>	
88 88 6 930 207		Brake bleeder cap	04 03 82		used to bleed brake system	x	All Early	<input type="checkbox"/>	
90 88 6 000 002		dash drill	04 19 95		used to install the dash stiffening plate. Refer to SIB 51 08 94	x	E36	<input type="checkbox"/>	
90 88 6 110 320		R&R Bracket	04 07 05		Used to R&R the cylinder head on the engine block. Refer to repair manual section 11 12 100.		N52	<input type="checkbox"/>	

90 88 6 111 072	111 072	Retaining bracket	04 09 95		used to attach cylinder head to 88 88 6 111 065	x	E31 With M73	<input type="checkbox"/>
90 88 6 112 007	112 007	Thrust Bushing	04 07 03			x	E66/N73	<input type="checkbox"/>
90 88 6 112 460		Camshaft test jig	04 22 92	shelf	used to check camshaft adjustment at 0 degrees	x	M60	<input type="checkbox"/>
90 88 6 114 270		R&R Fixture	04 07 05		Used to R&R the Valvetronic intermediate lever pressure springs. Refer to repair manual section 11 37 010.	x	N52	<input type="checkbox"/>
90 88 6 114 360		R&R tool	04 07 05		Used to R&R the vacuum pump sealing cp. Refer to repair manual section 1 66 000.		N52, N52	<input type="checkbox"/>
90 88 6 114 490	114 490	R&R tool	04 07 05		Used to R&R the wrist pin retaining rings.1. Assembly bracket2. Removal pliers3. Assembly pliers4. Assembly driftRefer to repair manual section 11 25 530		N52, N52, 52	<input type="checkbox"/>
90 88 6 117 270	117 270	Pin Spanner Wrench	04 07 03			x	E66/N73	<input type="checkbox"/>
90 88 6 117 310	117 310	Engine support	04 09 95		used to support engine with trans. removed	x	E31 With M73	<input type="checkbox"/>
90 88 6 118 490	118 490	Compression adapter			Used in conjunction with 110 220 to test engine compression. Refer to repair manual section 11 00 039. 2005 new number is 90 88 0 118 490.		All	<input type="checkbox"/>
90 88 6 119 455	119 455	Crankshaft Shim	04 07 03			x	E66/N73	<input type="checkbox"/>
90 88 6 119 476	119 476	Camshaft Securing Bracket	04 07 03			x	E66/N73	<input type="checkbox"/>
90 88 6 121 300	121 300	134 pin B.O.B and adapter cable set	04 14 97		used to diagnose problems in control modules.	x	E39, E38	<input type="checkbox"/>

90 88 6 121 310	121 310	Multichannel Adapter	04 12 02		Used in conjunction with the DISplus and MFK2 cables to perform automatic engine tests on N62 engines and newer.	x	E65 and newer	<input type="checkbox"/>
90 88 6 126 410	126 410	Adapter lead	04 27 92		Actuates VANOS unit for testing	x	M50	<input type="checkbox"/>
90 88 6 161 150	161 150	Evap. system leak tester	04 06 97		test for leaks in the evaporative system. used in conjunction with 25 bar pressure sensor 04 30 96.	x	E36	<input type="checkbox"/>
90 88 6 212 150	212 150	self adj. clutch reset tool	04 03 97		used to reset SAC during instillation.	x	E36, E34	<input type="checkbox"/>
90 88 6 212 200	212 200	Clutch mandrel			Used to center the clutch disc.		Gs6-37BZ GS6-37DZ	<input type="checkbox"/>
90 88 6 215 030		Clutch bleeder tool	04 12 97	5	used to bleed the clutch slave cylinder		E34, E36	<input type="checkbox"/>
90 88 6 230 240	230 240	Drift pin remover			Used to remove the transmission gearshift actuator.	x	E46 with S54, E46 with S54 & SMG	<input type="checkbox"/>
90 88 6 230 490		Transmission seal puller	04 12 97	5	used to remove input shaft seals.	x	E31, E34	<input type="checkbox"/>
90 88 6 240 250	240 250	Transmission support	04 32 96		used to support A5S 440Z trans.		E38	<input type="checkbox"/>
90 88 6 245 250	245 250	Seal installer	04 08 95	15	used to install shift shaft seal on A5S 560Z	x	E31	<input type="checkbox"/>
90 88 6 245 260	245 260	Seal puller	04 08 95	15	removes shift shaft seal	x	E31	<input type="checkbox"/>
90 88 6 245 360	245 360	Selector shaft tool			Used to R		A4S200R,270 R,310R,360R, 390R	<input type="checkbox"/>
90 88 6 245 490	245 490	Seal Guide	04 08 95	15	protects shift shaft seal during instillation	x	E31	<input type="checkbox"/>
90 88 6 246 060	246 060	16 pin test cable	04 10 93		used with 88 88 6 611 459 to test trans. circuits		E36, E34, E32	<input type="checkbox"/>
90 88 6 312 074		Seat test cable	04 10 98		used to test seat function when removed	x	E46	<input type="checkbox"/>
90 88 6 312 152		Pressure pad	04 24 01		Replaces 312 152 from SIB 04 01 83.	x	E46	<input type="checkbox"/>
90 88 6 312 153		Brace	04 24 01		Replaces 312 153 from SIB 04 01 83.	x	E 46	<input type="checkbox"/>
90 88 6 321 090		Securing ring press	04 01 96	14	used to install steering wheel column securing ring	x	E32, E34, E31	<input type="checkbox"/>



90 88 6 333 235		Slip Bushing	04 14 03		Used to R&R the front rubber mount on the final drive.	x	E60	<input type="checkbox"/>
90 88 6 333 420	333 420	Final drive drift	04 19 94	10	used to replace the output shaft seal on the 6 bolt/188 final drive	x	E32	<input type="checkbox"/>
90 88 6 333 440	333 440	Final drive drift	04 19 94	10	used to replace output shaft seal on 8 bolt/188 final drive	x	E32	<input type="checkbox"/>
90 88 6 333 450	333 450	Final drive drift	04 19 94	10	used to replace output shaft seal on 8 bolt/210/215 drives	x	E32	<input type="checkbox"/>
90 88 6 333 470	333 470	Final drive drift	04 19 94	11	installs seal on 6 bolt /188 final drive	x	E32	<input type="checkbox"/>
90 88 6 334 163		Support Tube	04 14 03		Used to remove the rear rubber mount on the final drive.	x	E60	<input type="checkbox"/>
90 88 6 334 250	334 250	Drift	04 23 96	11	used to install output flange seal on 220 drive	x	E38	<input type="checkbox"/>
90 88 6 345 110		ABS/ASC Tester	04 33 92		used to diagnose ABS/ASC in cars without a data link. See SIB for details	x	E28, E30, E31, E23, E32, E24	<input type="checkbox"/>
90 88 6 347 262		Wheel bearing installer	04 52 00		Used to install the 49mm front wheel bearing.	x	E53	<input type="checkbox"/>
90 88 6 416 110		Window wrench	04 12 93		used to adjust quarter window	x	E36, E31	<input type="checkbox"/>
90 88 6 513 190		Door lock plate remover	0423 94	13	replaces 88 88 6 513 140. Releases locking plate	x	E32, E34, E36, E31	<input type="checkbox"/>
90 88 6 521 010		OC3 Seat occupancy cable	72 02 05		Used to recode the seat occupancy mat. Refer to SI B72 02 05 fo complete details and instructions.	x	E60,65,66,90, 83,85	<input type="checkbox"/>
90 88 6 611 160		6 pin plug remover	04 11 92		used to R	x	All	<input type="checkbox"/>
90 88 6 611 457		adapter cable	04 13 94		used with 641 160 to test water valves	x	all since E32	<input type="checkbox"/>
90 88 6 612 040		Seat test cable	04 10 98		used to test electric seat when removed	x	E46	<input type="checkbox"/>
90 88 6 612 430	612 430	14 Pin adapter cable	04 12 05		Used to perform measurements on the heating system in conjunction with 611 459.	x	E90	<input type="checkbox"/>
90 88 6 613 190	613 190	EWSIII test cable	04 02 97		used to diagnose EWS III	x	E38	<input type="checkbox"/>

90 88 6 613 300	613 300	EWS ring remover	04 15 97	13	used to remove the EWS ring antenna		E38, E36	<input type="checkbox"/>
90 88 6 616 001		Wiper arm remover	04 15 97		used to remove the wiper arm		E39, E38	<input type="checkbox"/>
90 88 6 619 020		Electrical connector kit #4	04 18 92		Replacement connector parts can be ordered as follows. From ASAP select EPC start, additional information, parts kit, MG83 then search for the replacement part.	x	E31 Newer	<input type="checkbox"/>
90 88 6 630 400	630 400	Light check module test cable	04 15 96		used to locate faults in light check module	x	E38	<input type="checkbox"/>
90 88 6 631 000	631 000	Xenon light test cable	04 33 96		used to test Xenon lights	x	E38	<input type="checkbox"/>
90 88 6 641 120	641 120	Release tool	04 15 94		used to disconnect the bowden cables from the heat/AC panel	x	E34	<input type="checkbox"/>
90 88 6 641 160	641 160	Test cable	04 13 94		used to test water valve operation while on road test		E32 Newer	<input type="checkbox"/>
90 88 6 641 467		Test cable	0413 94		ed to test water valve operation while on road test		E32 Newer	<input type="checkbox"/>
90 88 6 651 100	651 100	Radio removal tool	04 15 97		used to remove the C33 radio		E38	<input type="checkbox"/>
90 88 6 657 100	657 100	ZAE/MRS Adapter cable	04 26 96		used inconjunction with 88 88 6 614 410 to diagnose ZAE/MRS system	x	E38	<input type="checkbox"/>
99 00 0 000 817		Identity transfer kit	04 13 97		used to transfer identity of CMT 5000VR and CPT 6000VR telephones.	x	E39, E38	<input type="checkbox"/>
99 00 0 001 410		Slack tube manometer	04 08 98		Refer to SIB 11 05 98 for operational information.	x	M42, M52, S52, M73, M62, M60	<input type="checkbox"/>
99 00 0 001 501		windshield tape	04 01 99		used to hold the windshield in during glueing. Refer to repair manual section 51 31 000.Cold urethane PN 83 19 0 152 031 or complete kit under PN 83 19 0 147 369.	x	all	<input type="checkbox"/>
99 00 0 001 827		AMP pin removal tool	04 13 00	Shelf	Used to remove pins from D sub connectors.	x	E38,E39,E46, E53	<input type="checkbox"/>

99 00 0 001 855		Exhaust back pressure tool	04 12 00	Shelf	See also 18 02 99. Note: E39 M5 - it may be necessary to remove the protective cap on the CAT end (3)of the tool for proper mounting.	x	All	<input type="checkbox"/>
99 00 0 002 719		Spray gun	04 03 02	Shelf	Used with 90 88 6 641 450 to remove AC odors.	x	All	<input type="checkbox"/>
99 00 0 003 944		Deutronic Battery Charger	04 11 02	Shelf	Battery Chargers now for sale from BMW Parts department. Wall mount bracket available under PN 81 11 0 394 950. Five meter cables available under PN 81 39 0 393 555. Charging voltage now set to 14.8 volts. Refer to SI B04 27 06.		All	<input type="checkbox"/>
99 00 0 006 667		Anti-static Mat for Electro Static Discharge (ESD)	04 19 04		Used to safely remover/replace the CCC components. Damage of computer components will result from improper handling. Refer to SI B84 12 04 for details of CCC replacement.	x	All	<input type="checkbox"/>

99 00 0 006 668		Head Passage Cleaning Kit	11 05 04		Refer to SI B11 05 04 for complete details. A tool kit has been developed that will remove the guesswork in the diagnosis of clogged secondary air passages and provide a method to remove the built up carbon deposits which are causing the fault. This tool has already been distributed to all centers via the Automatic Tool Shipment Program. Additional cleaning kits, Part Number 99 00 0 006 668, may be purchased through your PDC. Replacement brushes can be ordered from Parts. The nylon brush is PN 82 11 0 416 754 and the brass brush is PN 82 11 0 416 755. The 4mm reamer is PN 83 30 0 444 759.	x	M62TU/S62	
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