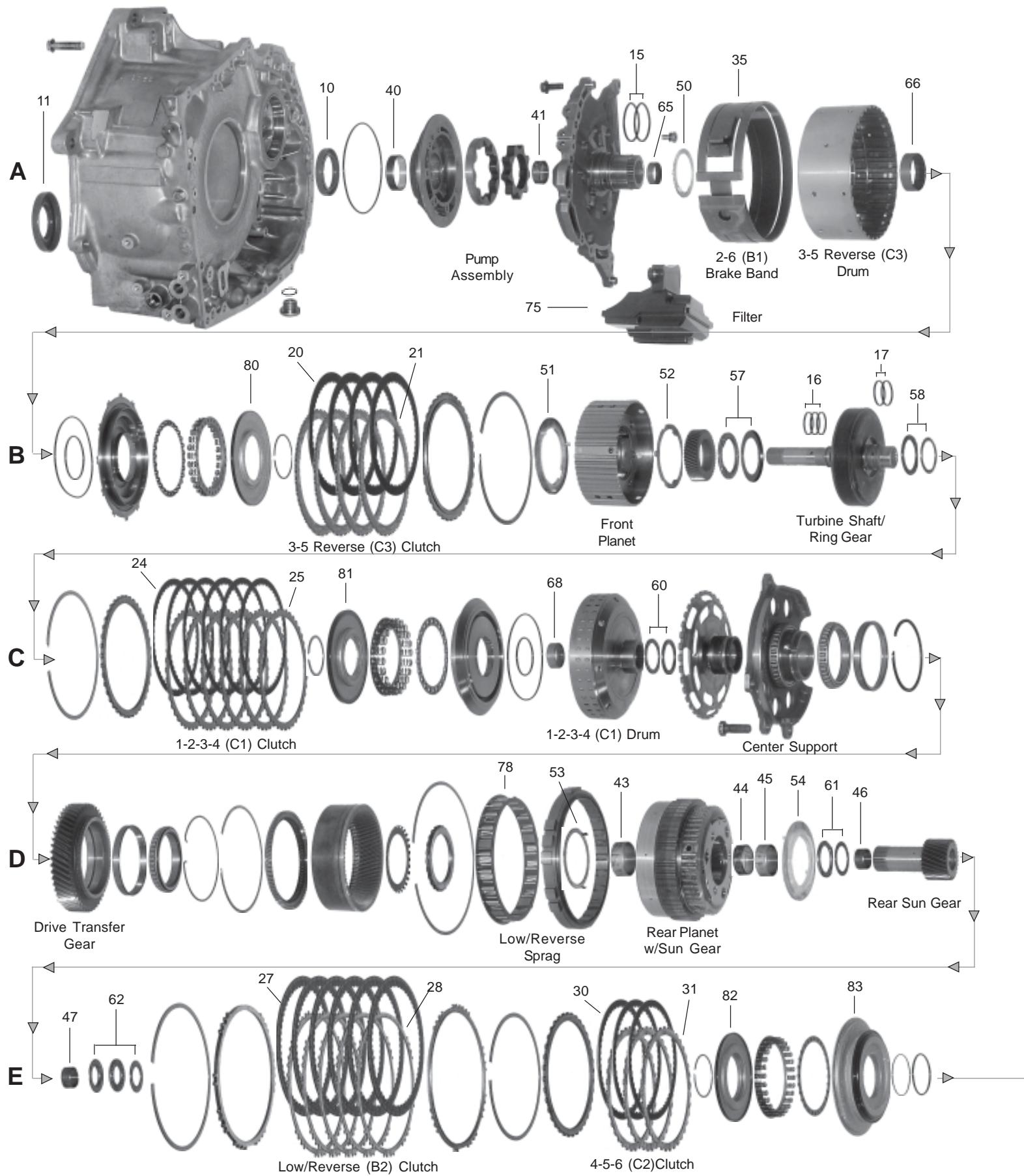
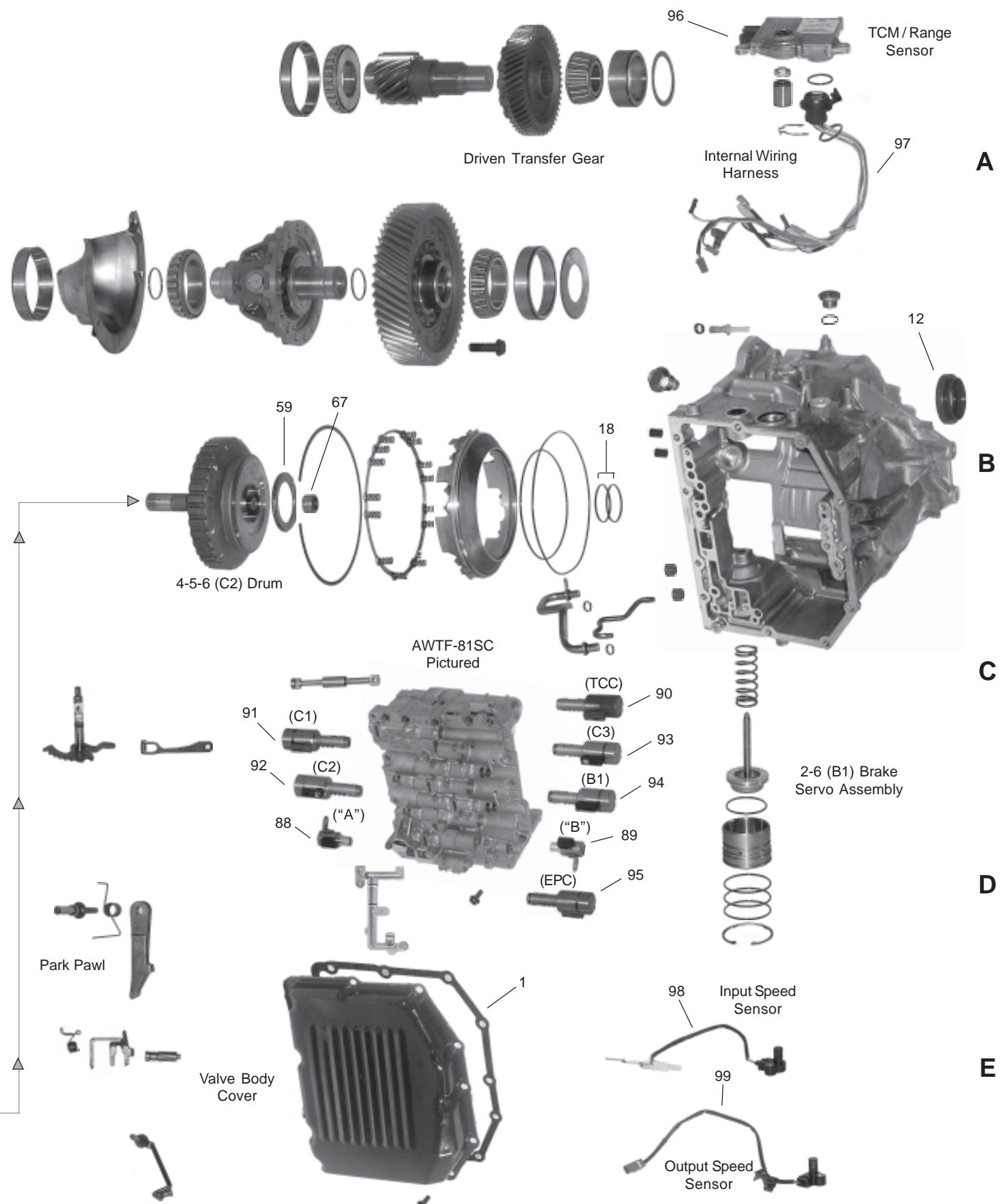


# AWTF80SC / 81SC (AF21/AF40-6)

FWD 6 Speed





# Aisin AWTF-80(AF-40) /81SC(AF-21) FWD 6-Spd.

ILL. NO.	PART NUMBER	PER CAR	DESCRIPTION	YEARS
	TMAWTF80		Technical Manual .....	2005-On
	TMAWTF81		Technical Manual .....	2006-On
<b>REBUILDER KITS</b>				
---	K8900F-S <sup>1</sup>		Master Kit (w/o Steels) .....	AWTF-81SC / AF-21 (Ford/Mazda) ..... 2005-On
---	K8900G-S <sup>1</sup>		Master Kit (w/o Steels) .....	AWTF-80SC / AF-40 (GM/SAAB) ..... 2006-On
---	K8900GV-S <sup>1</sup>		Master Kit (w/o Steels) .....	AWTF-80SC (Volvo) ..... 2006-08
<b>Steel Plate Sub-Kits:</b>				
----	K8900F-9		Steel Plate Kit .....	AWTF-81SC / AF-21 (Ford/Mazda) ..... 2005-On
----	K8900G-9		Steel Plate Kit .....	AWTF-80SC / AF-40 (GM/SAAB/Volvo) ..... 2006-On
<sup>1</sup> Kits do not include Molded Rubber Pistons, please order <b>K89900F-4</b> separately.				
<b>OVERHAUL KITS, VALVE BODY GASKET SETS</b>				
---	K89900F <sup>1</sup>		Overhaul Kit .....	AWTF-81SC / AF-21 (Ford/Mazda) ..... 2005-On
---	K89900G <sup>1</sup>		Overhaul Kit .....	AWTF-80SC / AF-40 (GM/SAAB) ..... 2006-On
---	K89900GV <sup>1</sup>		Overhaul Kit .....	AWTF-80SC (Volvo) ..... 2006-08
---	K89900F-3		Valve Body Gasket Set .....	AWTF-81SC / AF-21 (Ford/Mazda) ..... 2005-On
---	K89900G-3		Valve Body Gasket Set .....	AWTF-80SC / AF-40 (GM/Volvo/SAAB) ..... 2006-On
---	K88900N-5		Overhaul Kit (Volvo AWD Transfer Case Section) .....	2006-On
<b>GASKET AND RUBBER COMPONENTS</b>				
1E	89175F	1	Valve Body Cover Gasket .....	AWTF-81SC / AF-21 (Ford/Mazda) ..... 2005-On
1E	89175G	1	Valve Body Cover Gasket .....	AWTF-80SC / AF-40 (GM/Volvo/SAAB) ..... 2006-On
<b>METAL CLAD SEALS</b>				
10A	89526F	1	Pump Seal .....	All ..... 2005-On
11A	89551F	1	Axle Seal (Right, BellHousing) .....	Fusion, Milan, Zephyr, MKZ, Mazda ..... 2005-On
11A	89551FA	1	Axle Seal (Right, Bellhousing) .....	Five Hundred, Montego ..... 2005-On
11A	89551G	1	Axle Seal (Right, Bellhousing) .....	GM / SAAB ..... 2006-On
11A	89551GV	1	Axle Seal (Right, Bellhousing - 2WD) .....	Volvo ..... 2006-08
11A	89553GV	1	Axle Seal (Right, Bellhousing - AWD) .....	Volvo ..... 2006-08
11A	88551N	1	Axle Seal (Right, Bellhousing) .....	Peugeot ..... 2006-On
12B	89552F	1	Axle Seal (Left, Case) .....	Fusion, Milan, Zephyr, MKZ, Mazda ..... 2005-On
12B	89552FA	1	Axle Seal (Left, Case) .....	Five Hundred, Montego ..... 2005-On
12B	89552G	1	Axle Seal (Left, Case) .....	GM / SAAB ..... 2006-On
12B	89552GV	1	Axle Seal (Left, Case) .....	Volvo ..... 2006-08
12B	89552GP	1	Axle Seal (Left, Case) .....	Peugeot ..... 2006-On
<b>SEALING RINGS</b>				
---	K89901F	1	Sealing Ring Kit (Teflon) .....	All ..... 2005-On
15A	89200FT	2	Pump Stator to C3 Drum .....	2005-On
16B	89201FT	3	Input Shaft to Pump .....	2005-On
17B	89202FT	2	Input Shaft to C1 Drum .....	2005-On
18B	89203FT	2	Case Stator to C2 Drum .....	2005-On
<b>CLUTCH PLATES</b>				
20B	89310F	4	3rd, 5th & Reverse (C3) Friction .....	54T, .067" - 6.520" O.D. ..... 2005-On
21B	89311F	4	3rd, 5th & Reverse (C3) Steel .....	36T, .091" - 5.562" I.D. ..... 2005-On
24C	89304F	6-7	1st, 2nd, 3rd, & 4th (C1) Friction .....	54T, .066" - 6.184" O.D. ..... 2005-On
25C	89305F	6-7	1st, 2nd, 3rd, & 4th (C1) Steel .....	40T, .071" - 5.560" I.D. ..... 2005-On

# Aisin AWTF-80(AF-40) /81SC(AF-21) FWD 6-Spd.

AWTF-80 / 81

ILL. NO.	PART NUMBER	PER CAR	DESCRIPTION	YEARS
<b>CLUTCH PLATES - Cont'd,</b>				
27E	89321F	6-7	1st & Reverse ( <b>B2</b> ) Friction .....	60T, .066" - 7.305" O.D..... 2005-On
28E	89322F	5-6	1st & Reverse ( <b>B2</b> ) Steel .....	14T, .068" - 6.820" I.D..... 2005-On
30E	89308F	3-4	4th, 5th & 6th ( <b>C2</b> ) Friction .....	55T, .066" - 6.290" O.D..... 2005-On
31E	89309F	3-4	4th, 5th & 6th ( <b>C2</b> ) Steel .....	36T, .071" - 5.640" I.D..... 2005-On
<b>BANDS</b>				
35A	89714F	1	2-6 Brake Band ( <b>B1</b> ).....	2005-On
<b>BUSHINGS</b>				
---	K89980F		Bushing Assortment Kit .....	2005-On
40A	89005F	1	Front Pump .....	2005-On
41A	89001F	1	Front Pump Stator .....	2005-On
43D	89004F	1	Rear Planet ( <b>Front - .620" Wide</b> ) .....	2005-On
44D	89006F	1	Rear Planet ( <b>Front - .425" Wide</b> ) .....	2005-On
45D	89007F	1	Rear Planet ( <b>Rear - .620" Wide</b> ) .....	2005-On
46D	89008F	1	Rear Sun Gear ( <b>Front</b> ) .....	2005-On
47E	89009F	1	Rear Sun Gear ( <b>Rear</b> ) .....	2005-On
<b>THRUST WASHERS</b>				
---	K89940F	1	Thrust Washer Kit .....	2005-On
---	K89941F	1	Thrust Bearing Kit .....	2005-On
<b><u>Washers:</u></b>				
50A	89400F	1	Pump Washer to C3 Drum ( <b>Plastic, 1-Tab</b> ) .....	2005-On
51B	89401F	1	C3 Drum to Front Planet ( <b>Plastic, 3 Hollow Alignment Dowels - TF81</b> ) .....	2005-On
51B	89401G	1	C3 Drum to Front Planet ( <b>Plastic, 5 Hollow Alignment Dowels - TF80</b> ) .....	2006-On
52B	89402F	1	Front Planet to Front Ring Gear ( <b>3-Tab</b> ) .....	2005-On
53D	89403F	1	Center Support to Rear Planet ( <b>Brass, 3-Tab</b> ) .....	2005-On
54D	89405F	1	Rear Planet to C2 Drum ( <b>Plastic, 6 Hollow Alignment Dowels</b> ) .....	2005-On
<b><u>Thrust Bearings:</u></b>				
57B	K89420F	1	Front Planet to Ring Gear Bearing and Race .....	2005-On
58B	K89421F	1	Front Ring Gear to C1 Drum Bearing and Race .....	2005-On
59B	89422F	1	C2 Drum to Case Bearing .....	2005-On
60C	K89423F	1	C1 Drum to Drive Shell Bearing and Race .....	2005-On
61D	K89424F	1	Rear Planet to Rear Sun Gear Bearing & Race .....	2005-On
62E	K89425F	1	Rear Sun Gear to C2 Drum Bearing & Race .....	2005-On
<b><u>Caged Bearings:</u></b>				
65A	89430F	1	Rear Stator Caged Needle Bearing .....	2005-On
66A	89431F	1	C3 Drum Caged Needle Bearing .....	2005-On
67B	89432F	1	C2 Drum to Case Caged Needle Bearing .....	2005-On
68C	89433F	1	C1 Drum Caged Needle Bearing .....	2005-On
<b>TRANSMISSION OIL FILTERS</b>				
75A	89600F	1	Oil Filter (Disassembly Required) .....	2005-On
<b>SPRAGS</b>				
78D	89813F	1	Low Roller Clutch ( <b>F1</b> ) .....	2005-On

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ILL. NO.	PART NUMBER	PER CAR	DESCRIPTION	YEARS
<b>MOLDED RUBBER PISTONS</b>				
---	<b>K89900F-4</b>	1	Piston Kit .....	<b>Molded Rubber</b> ..... 2005-On
80B	<b>89846F</b>	1	3-5, Reverse ( <b>C3</b> ) Balance Piston .....	<b>Molded Rubber</b> ..... 2005-On
81C	<b>89847F</b>	1	1st, 2nd, 3rd & 4th ( <b>C1</b> ) Balance Piston .....	<b>Molded Rubber</b> ..... 2005-On
82E	<b>89848F</b>	1	4th, 5th & 6th ( <b>C2</b> ) Balance Piston .....	<b>Molded Rubber</b> ..... 2005-On
83E	<b>89844F</b>	1	4th, 5th & 6th ( <b>C2</b> ) Apply Piston .....	<b>Molded Rubber</b> ..... 2005-On
<b>ELECTRONIC COMPONENTS</b>				
Note : When ordering Solenoids, for Aftermarket please add the (-A) Suffix, for Reman add (-R).				
<b><u>AWTF-81SC, Ford &amp; Mazda:</u></b>				
88D	<b>89871FA</b>	1	SSA Shift "A" Solenoid (On/Off) .....	2005-On
89D	<b>89871FA</b>	1	SSB Shift "B" Solenoid (On/Off) .....	2005-On
90D	<b>89870F</b>	1	TCC Torque Converter Clutch Solenoid (PWM) .... ( <b>Black</b> ) .....	2005-On
91D	<b>89879F</b>	1	SSD ( <b>C1</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Green</b> ) .....	2005-On
92D	<b>89879F</b>	1	SSF ( <b>C2</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Green</b> ) .....	2005-On
93D	<b>89873F</b>	1	SSC ( <b>C3</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Blue</b> ) .....	2005-On
94D	<b>89873F</b>	1	SSE ( <b>B1</b> ) Band Control Solenoid (PWM) ..... ( <b>Blue</b> ) .....	2005-On
95D	<b>89879F</b>	1	PCA ( <b>EPC</b> ) Pressure Control Solenoid (PWM) .... ( <b>Green</b> ) .....	2005-On
---	<b>K89879F-R</b>	1	Solenoid Kit ( <b>Includes Six PWM Solenoids - Sol Pro</b> ) .....	2005-On
96A	<b>K89877F</b>	1	Range Sensor/TCM Control Module .....	2005-On
97A	<b>89869F</b>	1	Internal Wiring Harness w/TFT Sensor .....	2005-On
98E	<b>89875F</b>	1	Input Speed Sensor ( <b>White Connector</b> ) .....	2005-On
99E	<b>89876F</b>	1	Output Speed Sensor ( <b>Brown Connector</b> ) .....	2005-On
<b><u>AWTF-80SC, GM / Volvo / SAAB / Land Rover:</u></b>				
88D	<b>89871GA</b>	1	S1 Shift "A" Solenoid (On/Off) .....	2006-On
89D	<b>89871GA</b>	1	S2 Shift "B" Solenoid (On/Off) .....	2006-On
90D	<b>89870F</b>	1	SLU ( <b>TCC</b> ) Torque Converter Clutch Solenoid (PWM - <b>Black</b> ) .....	2006-On
91D	<b>89879F</b>	1	SLC1 ( <b>C1</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Green</b> ) .....	2006-On
92D	<b>89879F</b>	1	SLC2 ( <b>C2</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Green</b> ) .....	2006-On
93D	<b>89873F</b>	1	SLC3 ( <b>C3</b> ) Clutch Control Solenoid (PWM) ..... ( <b>Blue</b> ) .....	2006-On
94D	<b>89879G</b>	1	SLB1 ( <b>B1</b> ) Band Control Solenoid (PWM) ..... ( <b>Brown</b> ) .....	2006-On
95D	<b>89879G</b>	1	SLT ( <b>EPC</b> ) Pressure Control Solenoid (PWM) .... ( <b>Brown</b> ) .....	2006-On
---	<b>K89879G-R</b>	1	Solenoid Kit ( <b>Includes Six PWM Solenoids - Sol Pro</b> ) .....	2006-On
96A	<b>K89877G</b>	1	Range Sensor/TCM Control Module .....	2006-On
97A	<b>89869G</b>	1	Internal Wiring Harness w/TFT Sensor .....	2006-On
98E	<b>89875G</b>	1	Input Speed Sensor .....	2006-On
99E	<b>89876G</b>	1	Output Speed Sensor .....	2006-On
---	<b>K89879-2</b>	1	Solenoid Rebuilding Kit ( <b>Enough for One Unit, Use w/K89912 Tool</b> ) .....	2006-On
---	<b>89070</b>	AR	Solenoid Bushings ( <b>SolPro, Use for Renewing Solenoids, 2 per Solenoid</b> ) .....	2006-On
---	<b>K89912</b>	1	Solenoid Repair Tool ( <b>Omega/SolPro, Use for Disassembly and Reassembly</b> ) .....	2006-On
<b>SHIFT ENHANCEMENTS</b>				
---	<b>K89944F</b>	1	Shift Kit .....	<b>TF81 SC - TransGo</b> ..... 2005-On <b>Reduces/Corrects/Prevents:</b> Harsh Shifts, Cut-Loose, Rough Coasting Downshifts, Slow Pressure Rise and TCC Slip.
---	<b>K89944G</b>	1	Shift Kit .....	<b>TF80SC - TransGo</b> ..... 2006-On <b>Reduces/Corrects/Prevents:</b> Harsh Shifts, Cut-Loose, Rough Coasting Downshifts, Slow Pressure Rise and TCC Slip.
---	<b>K89947F</b>	1	Pro Proven Valve Body/Solenoid Repair Kit ..	<b>TF81SC - VB Pro</b> ..... 2005-On <b>Addresses:</b> Common Driveability and Wear Issues that Originate in the Valve Body and Solenoids. No Reaming Required all "Drop-in" Components. A Universal Solenoid Tool (K89912) is Required to Rebuild Solenoids.

# Aisin AWTF-80(AF-40) /81SC(AF-21) FWD 6-Spd.

AWTF-80 / 81

ILL. NO.	PART NUMBER	PER CAR	DESCRIPTION	YEARS
<b>SHIFT ENHANCEMENTS - Cont'd.</b>				
---	<b>K89947G</b>	1	Pro Proven Valve Body/Solenoid Repair Kit .. <b>TF80SC - VB Pro</b> .....	2006-On
			<b>Addresses:</b> Common Driveability and Wear Issues that Originate in the Valve Body and Solenoids. No Reaming Required all "Drop-in" Components. A Universal Solenoid Tool (K89912) is Required to Rebuild Solenoids.	
---	<b>K89989F</b>	1	Main Pressure Regulator & Boost Assembly .... <b>Sonnax</b> .....	2005-On
			<b>Addresses:</b> Excess Pressure in Reverse, Fluid and Converter Lining Overheat. Use with K89589F Tool Kit.	
---	<b>K89887</b>	1	Lockup Clutch Control Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Harsh Downshifts, RPM Surging on Coast or Light Acceleration, Converter Apply/Release Complaints and Converter Slip. Use with K89587 Tool Kit.	2005-On
---	<b>K89883F</b>	1	Secondary Regulator Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Overheating of Fluid, Bushings and Converter. Use with K89583F Reamers.	2005-On
---	<b>K89884F</b>	1	Solenoid Modulator Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> DTC's P0734, P0735 or P0729, Slippage or Shock on Kickdown and Slips in 4th, 5th or 6th. Use with K89584F Tool Kit.	2005-On
---	<b>K89882F</b>	1	B1 Brake Band Control Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Harsh Downshifts, Flare on 1-2, 2-3 & 5-6 Upshifts, B-1 Brake Failure, Firm 3-2, 2-1 or 6-5 Coast Downshifts, Driveability Change with Operating Temp. Use with K89582F Tool Kit.	2005-On
---	<b>K89881</b>	1	C1/K1 Clutch Control Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Flare Upshifts or Downshifts, Bind-Up, Clutch Overlap, Pressure Control Out-of-Range Codes. Use with K89581 Tool Kit.	2005-On
---	<b>K89885F</b>	1	C2 Clutch Control Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Flare Upshifts or Downshifts, Bind-Up, Clutch Overlap, Pressure Control Out-of-Range Codes. Use with K89585F Tool Kit.	2005-On
---	<b>K89886F</b>	1	C3 Clutch Control Valve Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Flare Upshifts or Downshifts, Bind-Up, Clutch Overlap, Pressure Control Out-of-Range Codes. Use with K89585F Tool Kit.	2005-On
---	<b>K89783</b>	1-5	Clutch/Band/Line Accumulator Piston Kit .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Delayed Engagements, Slipping in Forward Gears and Burned Friction.	2005-On
---	<b>K89780F</b>	1-2	Solenoid Modulator Accumulator Piston Kit <b>Sonnax, AWTF-81 Only</b> .....	2005-On
			<b>Addresses:</b> Delayed Engagements, Slipping in Forward Gears and Burned Friction.	
---	<b>K89880</b>	1	O'Ringed End Plug Kits ( <b>Five 9mm Plugs</b> ) .....	<b>Sonnax</b> .....
			<b>Addresses:</b> Shift Complaints Associated with Circuit Pressure Loss.	2005-On
---	<b>K89880A</b>	1	O'Ringed End Plug Kits ( <b>Five 11mm Plugs</b> ) .....	<b>Sonnax</b> .....
<b>HARD PARTS</b>				
---	<b>15-153A</b>	1	Reman Valve Body ( <b>Ford, Mercury, Mazda</b> ) .....	2005-On
---	<b>90-103A</b>	1	Reman Valve Body ( <b>Volvo</b> ) .....	2006-08
<b>Notes:</b>				
2013.1.0				