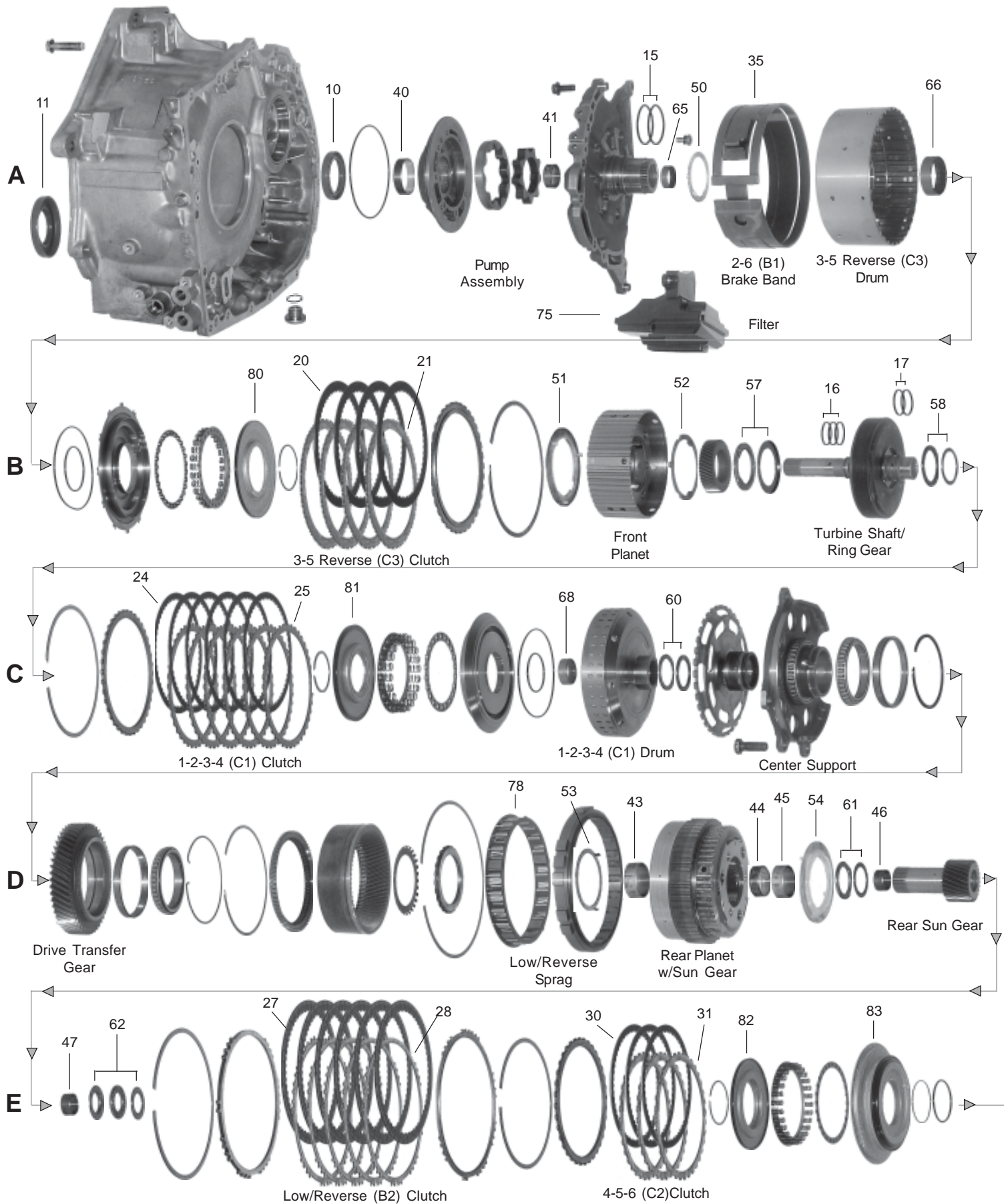
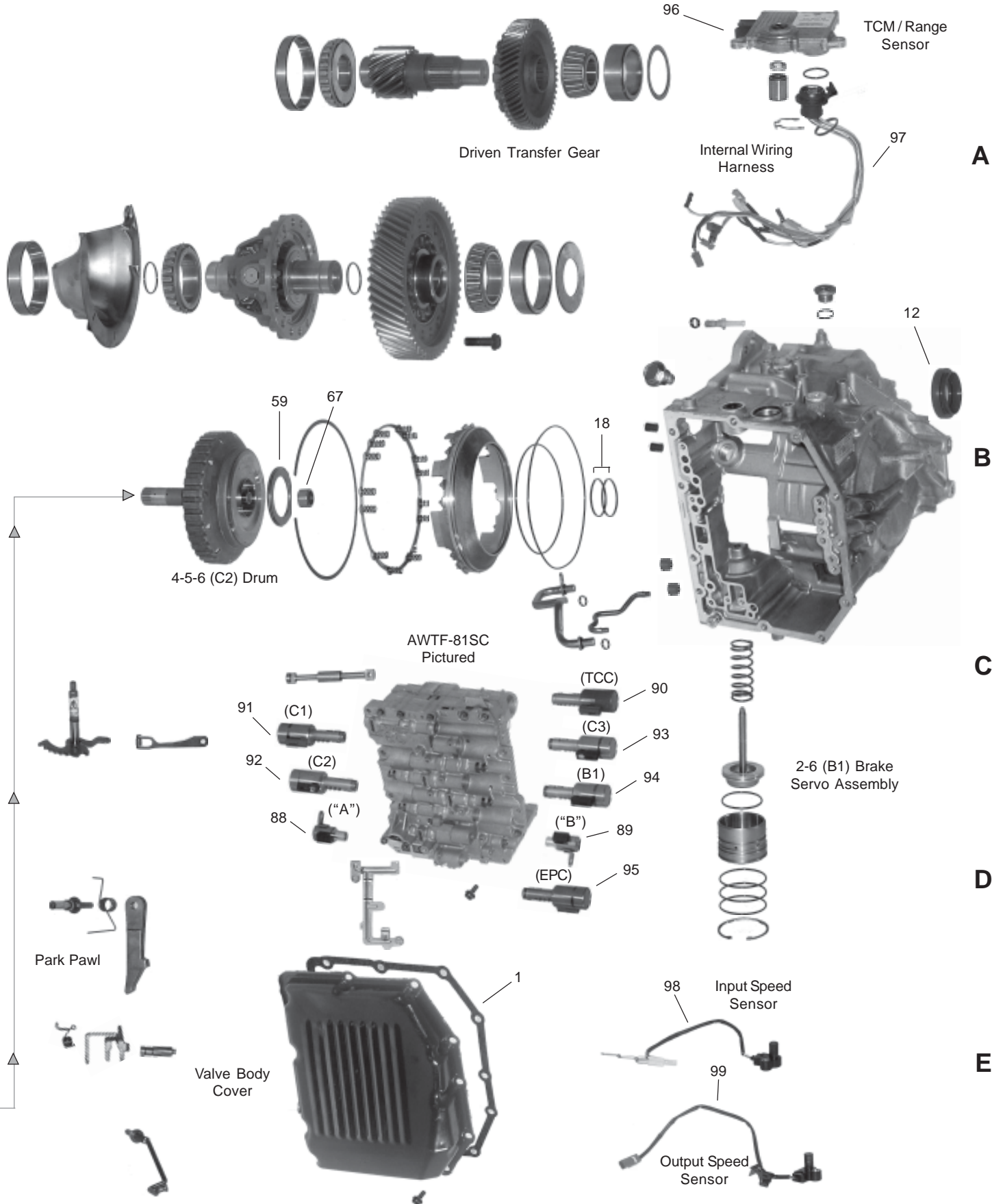


# AWTF80SC / 81SC (AF21/AF40-6)

FWD 6 Speed



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



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

ILL. NO.	PART NUMBER	PER CAR	DESCRIPTION	YEARS
	<b>TMAWTF80</b>		Technical Manual .....	2005-On
	<b>TMAWTF81</b>		Technical Manual .....	2006-On
<b>REBUILDER KITS</b>				
---	<b>K8900F-S<sup>1</sup></b>		Master Kit (w/o Steels) ..... <b>AWTF-81SC / AF-21 (Ford/Mazda)</b> .....	2005-On
---	<b>K8900G-S<sup>1</sup></b>		Master Kit (w/o Steels) ..... <b>AWTF-80SC / AF-40 (GM/SAAB)</b> .....	2006-On
---	<b>K8900GV-S<sup>1</sup></b>		Master Kit (w/o Steels) ..... <b>AWTF-80SC (Volvo)</b> .....	2006-08
<b>Steel Plate Sub-Kits:</b>				
----	<b>K8900F-9</b>		Steel Plate Kit ..... <b>AWTF-81SC / AF-21 (Ford/Mazda)</b> .....	2005-On
----	<b>K8900G-9</b>		Steel Plate Kit ..... <b>AWTF-80SC / AF-40 (GM/SAAB/Volvo)</b> .....	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>				
---	<b>K89900F<sup>1</sup></b>		Overhaul Kit ..... <b>AWTF-81SC / AF-21 (Ford/Mazda)</b> .....	2005-On
---	<b>K89900G<sup>1</sup></b>		Overhaul Kit ..... <b>AWTF-80SC / AF-40 (GM/SAAB)</b> .....	2006-On
---	<b>K89900GV<sup>1</sup></b>		Overhaul Kit ..... <b>AWTF-80SC (Volvo)</b> .....	2006-08
---	<b>K89900F-3</b>		Valve Body Gasket Set ..... <b>AWTF-81SC / AF-21 (Ford/Mazda)</b> .....	2005-On
---	<b>K89900G-3</b>		Valve Body Gasket Set ..... <b>AWTF-80SC / AF-40 (GM/Volvo/SAAB)</b> .....	2006-On
---	<b>K88900N-5</b>		Overhaul Kit ( <b>Volvo AWD Transfer Case Section</b> ) .....	2006-On
<b>GASKET AND RUBBER COMPONENTS</b>				
1E	<b>89175F</b>	1	Valve Body Cover Gasket ..... <b>AWTF-81SC / AF-21 (Ford/Mazda)</b> .....	2005-On
1E	<b>89175G</b>	1	Valve Body Cover Gasket ..... <b>AWTF-80SC / AF-40 (GM/Volvo/SAAB)</b> .....	2006-On
<b>METAL CLAD SEALS</b>				
10A	<b>89526F</b>	1	Pump Seal ..... <b>All</b> .....	2005-On
11A	<b>89551F</b>	1	Axle Seal ( <b>Right, Bellhousing</b> ) ..... <b>Fusion, Milan, Zephyr, MKZ, Mazda</b> .....	2005-On
11A	<b>89551FA</b>	1	Axle Seal ( <b>Right, Bellhousing</b> ) ..... <b>Five Hundred, Montego</b> .....	2005-On
11A	<b>89551G</b>	1	Axle Seal ( <b>Right, Bellhousing</b> ) ..... <b>GM / SAAB</b> .....	2006-On
11A	<b>89551GV</b>	1	Axle Seal ( <b>Right, Bellhousing - 2WD</b> ) ..... <b>Volvo</b> .....	2006-08
11A	<b>89553GV</b>	1	Axle Seal ( <b>Right, Bellhousing - AWD</b> ) ..... <b>Volvo</b> .....	2006-08
11A	<b>88551N</b>	1	Axle Seal ( <b>Right, Bellhousing</b> ) ..... <b>Peugeot</b> .....	2006-On
12B	<b>89552F</b>	1	Axle Seal ( <b>Left, Case</b> ) ..... <b>Fusion, Milan, Zephyr, MKZ, Mazda</b> .....	2005-On
12B	<b>89552FA</b>	1	Axle Seal ( <b>Left, Case</b> ) ..... <b>Five Hundred, Montego</b> .....	2005-On
12B	<b>89552G</b>	1	Axle Seal ( <b>Left, Case</b> ) ..... <b>GM / SAAB</b> .....	2006-On
12B	<b>89552GV</b>	1	Axle Seal ( <b>Left, Case</b> ) ..... <b>Volvo</b> .....	2006-08
12B	<b>89552GP</b>	1	Axle Seal ( <b>Left, Case</b> ) ..... <b>Peugeot</b> .....	2006-On
<b>SEALING RINGS</b>				
---	<b>K89901F</b>	1	Sealing Ring Kit ( <b>Teflon</b> ) ..... <b>All</b> .....	2005-On
15A	<b>89200FT</b>	2	Pump Stator to C3 Drum .....	2005-On
16B	<b>89201FT</b>	3	Input Shaft to Pump .....	2005-On
17B	<b>89202FT</b>	2	Input Shaft to C1 Drum .....	2005-On
18B	<b>89203FT</b>	2	Case Stator to C2 Drum .....	2005-On
<b>CLUTCH PLATES</b>				
20B	<b>89310F</b>	4	3rd, 5th & Reverse ( <b>C3</b> ) Friction ..... <b>54T, .067" - 6.520" O.D.</b> .....	2005-On
21B	<b>89311F</b>	4	3rd, 5th & Reverse ( <b>C3</b> ) Steel ..... <b>36T, .091" - 5.562" I.D.</b> .....	2005-On
24C	<b>89304F</b>	6-7	1st, 2nd, 3rd, & 4th ( <b>C1</b> ) Friction ..... <b>54T, .066" - 6.184" O.D.</b> .....	2005-On
25C	<b>89305F</b>	6-7	1st, 2nd, 3rd, & 4th ( <b>C1</b> ) Steel ..... <b>40T, .071" - 5.560" I.D.</b> .....	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 (B2) Friction ..... 60T, .066" - 7.305" O.D. ....	2005-On
28E	89322F	5-6	1st & Reverse (B2) Steel ..... 14T, .068" - 6.820" I.D. ....	2005-On
30E	89308F	3-4	4th, 5th & 6th (C2) Friction ..... 55T, .066" - 6.290" O.D. ....	2005-On
31E	89309F	3-4	4th, 5th & 6th (C2) Steel ..... 36T, .071" - 5.640" I.D. ....	2005-On
<b>BANDS</b>				
35A	89714F	1	2-6 Brake Band (B1) .....	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 (Front - .620" Wide) .....	2005-On
44D	89006F	1	Rear Planet (Front - .425" Wide) .....	2005-On
45D	89007F	1	Rear Planet (Rear - .620" Wide) .....	2005-On
46D	89008F	1	Rear Sun Gear (Front) .....	2005-On
47E	89009F	1	Rear Sun Gear (Rear) .....	2005-On
<b>THRUST WASHERS</b>				
---	K89940F	1	Thrust Washer Kit .....	2005-On
---	K89941F	1	Thrust Bearing Kit .....	2005-On
<b>Washers:</b>				
50A	89400F	1	Pump Washer to C3 Drum (Plastic, 1-Tab) .....	2005-On
51B	89401F	1	C3 Drum to Front Planet (Plastic, 3 Hollow Alignment Dowels - TF81) .....	2005-On
51B	89401G	1	C3 Drum to Front Planet (Plastic, 5 Hollow Alignment Dowels - TF80) .....	2006-On
52B	89402F	1	Front Planet to Front Ring Gear (3-Tab) .....	2005-On
53D	89403F	1	Center Support to Rear Planet (Brass, 3-Tab) .....	2005-On
54D	89405F	1	Rear Planet to C2 Drum (Plastic, 6 Hollow Alignment Dowels) .....	2005-On
<b>Thrust Bearings:</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>Caged Bearings:</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 (F1) .....	2005-On

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

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>				
<b>Note : When ordering Solenoids, for Aftermarket please add the (-A) Suffix, for Reman add (-R).</b>				
<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> ..... <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.	2006-On
---	<b>K89989F</b>	1	Main Pressure Regulator & Boost Assembly .... <b>Sonnax</b> ..... <b>Addresses:</b> Excess Pressure in Reverse, Fluid and Converter Lining Overheat. Use with K89589F Tool Kit.	2005-On
---	<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> ..... <b>Addresses:</b> Delayed Engagements, Slipping in Forward Gears and Burned Friction.	2005-On
---	<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>Addresses:</b> Shift Complaints Associated with Circuit Pressure Loss.	2005-On

## HARD PARTS

---	<b>15-153A</b>	1	Reman Valve Body ( <b>Ford, Mercury, Mazda</b> ) ..... <b>Addresses:</b> Shift Complaints Associated with Circuit Pressure Loss.	2005-On
---	<b>90-103A</b>	1	Reman Valve Body ( <b>Volvo</b> ) ..... <b>Addresses:</b> Shift Complaints Associated with Circuit Pressure Loss.	2006-08

**Notes:**