

2004 - 2009 Cadillac XLR: 5L50-E Transmission Specifications

Fastener Specifications

Description of Usage	Ref No.*	Qty	Size	Specification	
				Metric	English
Accumulator Housing to Valve Body Channel Plate to Valve Body Converter Housing to Case Drain Plug to Fluid Pan Extension Housing to Case Fluid Pan to Case Front Control Valve Body to Top Channel Plate	318	12	M6x1.0x30.0 mm	11 Y	8 lb ft
Channel Plate to Valve Body Converter Housing to Case Drain Plug to Fluid Pan Extension Housing to Case Fluid Pan to Case Front Control Valve Body to Top Channel Plate	300	7	M6x1.0x38.0 mm	11 Y	8 lb ft
Converter Housing to Case Drain Plug to Fluid Pan Extension Housing to Case Fluid Pan to Case Front Control Valve Body to Top Channel Plate	2	7	M8x1.25x35.0 mm	22 Y	16 lb ft
Drain Plug to Fluid Pan Extension Housing to Case Fluid Pan to Case Front Control Valve Body to Top Channel Plate	63	1	M14x1.5x10.0 mm	20 Y	15 lb ft
Extension Housing to Case Fluid Pan to Case Front Control Valve Body to Top Channel Plate	35	7	M8x1.25x35.0 mm	22 Y	16 lb ft
Fluid Pan to Case Front Control Valve Body to Top Channel Plate	65	20	M6x1.0x16.0 mm	11 Y	8 lb ft
Front Control Valve Body to Top Channel Plate	50	2	M6x1.0x38.0 mm	11 Y	8 lb ft
Input Speed Sensor to Case	45	1	M6x1.0x20.0 mm	11 Y	8 lb ft

Output Speed Sensor to Case	43	1	M6x1.0x30.0 mm	11 Y	8 lb ft
Parking Pawl Actuator Bracket to Case	609	2	M8x1.25x25.0 mm	22 Y	16 lb ft
Prop Shaft Flange to Output Shaft	34	1	M22x1.5x10.0 mm	57 Y	42 lb ft
Torque Converter Housing Seal Bolt	228	2	M4x0.7x10.0 mm	3.6 Y	31.86 lb in
Transmission Fluid Pump Cover to Torque Converter Housing	240	6	M6x1.0x40.0 mm	11 Y	8 lb ft
Transmission Fluid Pump Cover to Torque Converter Housing	241	5	M8x1.25x40.0 mm	22 Y	16 lb ft
Transmission Level Hole Plug to Case	36	1	M18x1.5x12.0 mm	20 Y	15 lb ft
Transmission	40	1	M10x1.0x8.0 mm	11 Y	8 lb ft

n Pressure Test Plug to Case			0 mm		
Valve Body to Case	49	2	M6x1.0x50. 0 mm	11 Y	8 lb ft
Valve Body to Case	51	6	M6x1.0x50. 0 mm	11 Y	8 lb ft
Valve Body to Case	53	1	M6x1.0x68. 0 mm	11 Y	8 lb ft
Valve Body to Channel Plate	53	1	M6x1.0x68. 0 mm	11 Y	8 lb ft

* Reference Number refers to the callout number on the disassembled view.

Fluid Capacity Specifications

Application	Specification	
	Metric	English
Transmission Fluid Capacity – Dry (measurements are approximate)	8.5 liters	9.0 quarts

End Play Specifications (5L50-E)

Dimension B	Washer Thickness (mm)	Washer Thickness (in)
4.43 mm –4.68 mm (0.174 in – 0.184 in)	1.55–1.70	0.061–0.066
4.68 mm –4.93 mm (0.184 in – 0.194 in)	1.80–1.95	0.070–0.076
4.93 mm –5.18 mm (0.194 in – 0.203 in)	2.05–2.20	0.080–0.086
5.18 mm –5.43 mm (0.203 in – 0.213 in)	2.30–2.45	0.090–0.096
5.43 mm –5.68 mm (0.213 in – 0.223 in)	2.55–2.70	0.100–0.106
5.68 mm –5.93 mm	2.80–2.95	0.110–0.116

(0.223 in – 0.233 in)

Clutch Piston Travel Specifications

Component	Product	Number Of Clutches	Specification	
			Metric	English
Reverse Clutch (404)	5L40-E/5L50- E	6	0.98–1.43 mm	0.039–0.056 in
Direct Clutch (406)	5L40-E	8	1.41–1.86 mm	0.056–0.073 in
Direct Clutch (406)	5L50-E	10	1.67–2.12 mm	0.066–0.083 in
Low and Reverse Clutch (517)	5L40-E	10	1.72–2.17 mm	0.068–0.085 in
Low and Reverse Clutch (517)	5L50-E	12	1.93–2.38 mm	0.076–0.094 in
2nd Clutch (520)	5L40-E	10	1.47–1.92 mm	0.056–0.076 in
2nd Clutch (520)	5L50-E	12	1.64–2.09 mm	0.065–0.082 in
2nd Coast Clutch (528)	5L40-E	4	0.94–1.39 mm	0.037–0.055 in
2nd Coast Clutch (528)	5L50-E	6	1.15–1.60 mm	0.045–0.063 in
Intermediate Clutch (495)	5L40-E	6	1.13–1.58 mm	0.044–0.062 in
Intermediate Clutch (495)	5L50-E	8	1.39–1.84 mm	0.055–0.072 in
Overdrive Clutch (487)	5L40-E/5L50- E	6	1.60–2.05 mm	0.063–0.081 in
Forward Clutch (436)	5L40-E	6	1.20–1.65 mm	0.047–0.065 in
Forward	5L50-E	8	1.41–1.86 mm	0.056–0.073 in

Clutch (436)				
Coast Clutch (438)	5L40-E	6	1.17–1.67 mm	0.046–0.066 in
Coast Clutch (438)	5L50-E	8	1.43–1.93 mm	0.056–0.076 in

Clutch Plate Selection Specifications

Clutch	Number of Clutch Plates		
	All Models – except GBG		GBG
	5L40-E	5L50-E	5L40-E
Reverse Clutch (404)	6	6	6
Direct Clutch (406)	10	10	8
Low and Reverse Clutch (517)	10	12	10
2nd Clutch (520)	10	12	10
2nd Coast Clutch (528)	6	6	4
Intermediate Clutch (495)	8	8	6
Overdrive Clutch (487)	6	6	6
Forward Clutch (436)	8	8	6
Coast Clutch (438)	6	8	6

Reverse Clutch Housing Selective Thrust Washer Specifications

Dimension X	Washer Thickness (mm)	Washer Thickness (in)
50.18 mm – 50.36 mm (1.975 in – 1.982 in)	2.53–2.68	0.099–0.105
50.36 mm – 50.54 mm (1.982 in – 1.989 in)	2.71–2.86	0.106–0.112

50.54 mm –50.72 mm (1.989 in – 1.996 in)	2.89–3.04	0.113–0.119
50.72 mm –50.90 mm (1.996 in – 2.003 in)	3.05–3.20	0.120–0.125
50.90 mm –51.08 mm (2.003 in – 2.011 in)	3.25–3.40	0.127–0.133
51.08 mm –51.26 mm (2.011 in – 2.018 in)	3.43–3.58	0.135–0.140
51.26 mm –51.44 mm (2.018 in – 2.025 in)	3.61–3.76	0.142–0.148
51.44 mm –51.62 mm (2.025 in – 2.032 in)	3.79–3.94	0.149–0.155

Intermediate and Overdrive Clutch Housing Retaining Ring Specifications

Dimension M	Retainer Ring Thickness (mm)	Retainer Ring Thickness (in)
0.85 mm –0.95 mm (0.033 in – 0.037 in)	3.80–3.90	0.149–0.153
0.95 mm –1.05 mm (0.037 in – 0.041 in)	3.70–3.80	0.145–0.149
1.05 mm –1.15 mm (0.041 in – 0.045 in)	3.60–3.70	0.141–0.145
1.15 mm –1.25 mm (0.045 in – 0.049 in)	3.50–3.60	0.137–0.141

Transmission Fluid Pump Specifications

Size Classification	Thickness (mm)	Thickness (in)
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Important:

- Rotor and slide must be chosen from the same size classification as the oil pump body.
- Allowable rotor and slide to fluid pump body end play is as follows:

Specification

- Slide to fluid Pump Body End Play — 0.030–0.051 mm (0.0012–0.0020 in)
- Rotor to fluid Pump Body End Play — 0.030–0.051 mm (0.0012–0.0020 in)

The fluid pump assembly has a selective rotor and slide components. These components are chosen based on pump body dimensions. Fluid pump rotor and slide components are available in five size classifications (1, 2, 3, 4, and 5) with the following tolerances:

Rotor Selection

1	17.948–17.961	0.7066–0.7071
2	17.961–17.974	0.7071–0.7076
3	17.974–17.987	0.7076–0.7081
4	17.987–18.000	0.7081–0.7086
5	18.000–18.013	0.7086–0.7091

Slide Selection

1	17.948–17.961	0.7066–0.7071
2	17.991–17.974	0.7071–0.7076
3	17.974–17.987	0.7076–0.7081
4	17.987–18.000	0.7081–0.7086
5	18.000–18.013	0.7086–0.7091

Fluid Pump Body Depth

1	17.978–18.012	0.7077–0.7091
2	17.978–18.025	0.7083–0.7096
3	18.004–18.038	0.7088–0.7101
4	18.017–18.051	0.7093–0.7106
5	18.030–18.064	0.7098–0.7111

Transmission General Specifications

Name	5L40-E/5L50-E
RPO Codes	MV3 AWD, M82, MX5 AWD, M22
Production Location	Strasbourg, France
Vehicle Platform	D, E, Y
(Engine/Transmission) Usage	

Tranmission Drive	Rear Wheel Drive
1st Gear Ratio	3.42:1
2nd Gear Ratio	2.21:1
3rd Gear Ratio	1.60:1
4th Gear Ratio	1.00:1
5th Gear Ratio	0.75:1
Reverse Ratio	3.03:1
Torque Converter Size (Diameter of Torque Converter Turbine)	245 mm / 258 mm
Pressure Taps	Line Pressure
Transmission Fluid Type	Dexron™ III
Transmission Fluid Capacity (Approximate)	Bottom Pan Removal
Transmission Type: 5	Complete Overhaul: Dry 8.5 L (9.0 qt)
Transmission Type: L	Five Forward Gears
Transmission Type: 40	Longitude Mount
Transmission Type: E	Product Series
Position Quadrant	Electronic Controls
Case Material	P, R, N, D, 4, 3, 2
Transmission Weight Dry	Die Cast Aluminum
Transmission Net Weight	(161.0 lb) 73 kg
Maximum Trailer Towing Capacity	(177.0 lb) 80.5 kg
	Domestic: 454 kg
	Export: 1815 kg
Maximum Gross Vehicle Weight	3,500 kg (7,716 lbs)

Online URL:

<https://www.xlr-net.com/knowledgebase/article/2004-2009-cadillac-xlr-5150-e-transmission-specifications-16.html>