

2017 TRANSMISSION

Automatic Transmission - 6T40 (MNH MNK) - Component Locator - Encore, Trax

COMPONENT LOCATOR

DISASSEMBLED VIEWS

Case and Associated Parts - Gen 3

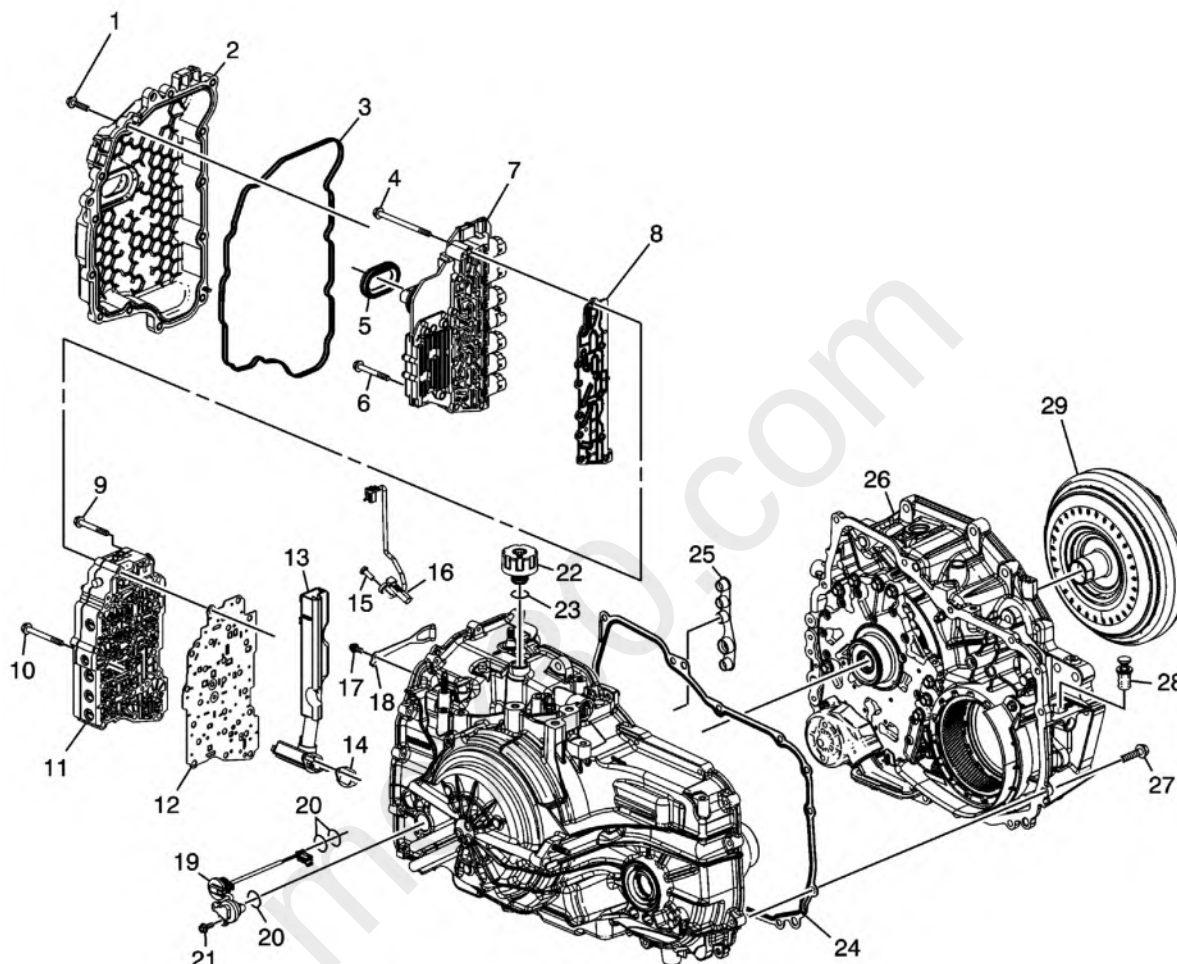


Fig. 1: Disassembled View Of Case & Associated Parts -- Gen 3

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Control Valve Body Cover Bolt
2	Control Valve Body Cover Assembly
3	Control Valve Body Cover Gasket
4	Control Valve Body Bolt
5	Control Valve Body Cover Hole Seal
6	Control Solenoid Valve Heat Sink Bolt
7	Control Solenoid (w/Body and TCM) Valve Assembly
8	Control Valve Body Filter Plate Assembly
9	Control Valve Body Bolt
10	Control Valve Body Bolt
11	Control Valve Body Assembly
12	Control Valve Body Spacer Plate Assembly

Callout	Component Name
13	A/Trans Fluid Level Control Valve
14	A/Trans Fluid Level Control Valve Gasket
15	A/Trans Output Speed Sensor Bolt
16	A/Trans Output Speed Sensor Assembly
17	Manual Shaft Detent Spring Bolt
18	Manual Shaft Detent Lever Spring Assembly
19	A/Trans Input Speed Sensor Assembly
20	A/Trans Input Speed Sensor Assembly O-Ring Seal
21	A/Trans Input Speed Sensor Bolt
22	Fill Cap
23	Fill Cap Seal
24	Torque Converter Housing Gasket
25	A/Trans Fluid Pump Seal Assembly
26	Torque Converter with Fluid Pump Housing Assembly
27	Torque Converter and Differential Housing Bolt
28	A/Trans Fluid Fill Tube Plug Assembly
29	Torque Converter Assembly

Transmission Case Assembly - Gen 3

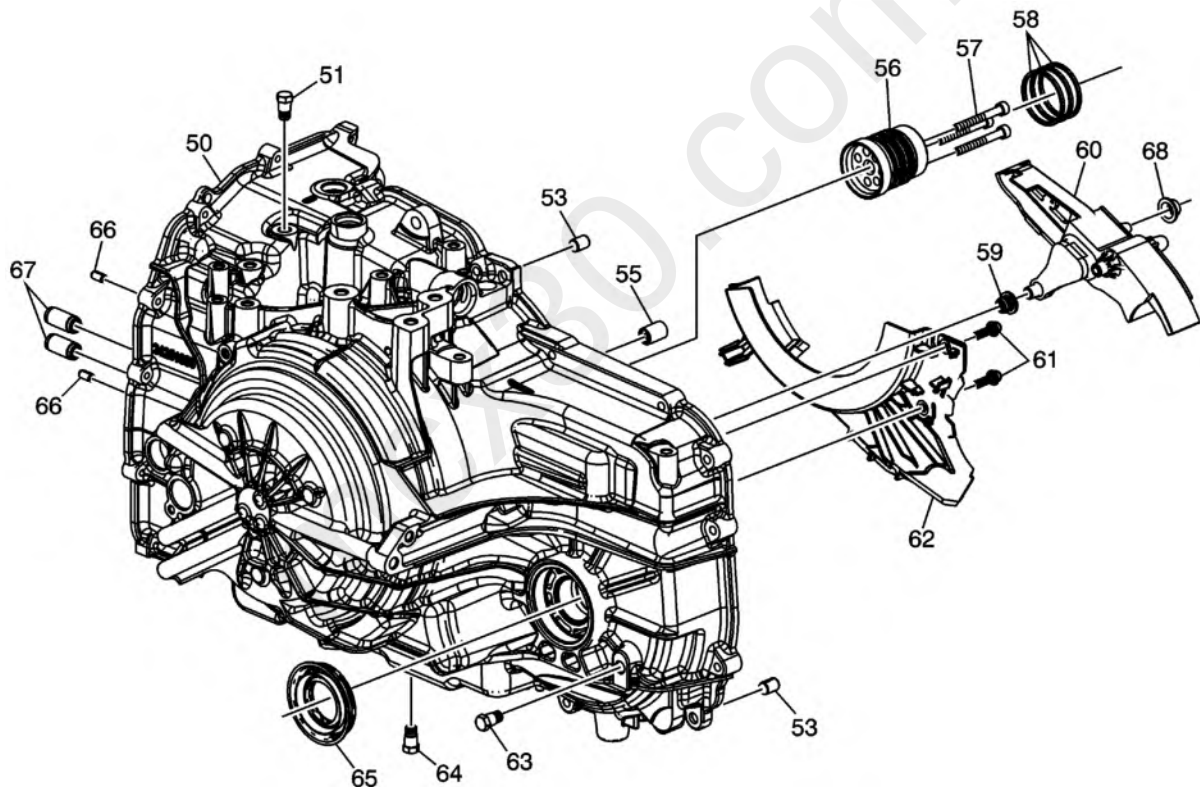


Fig. 2: Transmission Case Assembly Components -- 6T50 -- Gen 3

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
50	A/Trans Case Assembly
51	A/Trans Fluid Pressure Test Hole Plug
53	Transmission Case Cover Locator Pin
55	A/Trans Fluid Check Ball
56	Input Shaft Support
57	Input Shaft Support Bolt
58	3-5-Reverse and 4-5-6 Clutch Fluid Seal Ring (Qty: 3)
59	Drive Link Lube Fluid Seal
60	Drive Link Lube Scoop

Callout	Component Name
61	Front Differential Carrier Baffle Bolt
62	Front Differential Carrier Baffle
63	Oil Level Plug
64	Drain Plug
65	Drive Shaft Oil Seal Assembly
66	Control Valve Body Locator Pin
67	1-2-3-4 and Low Reverse Clutch Fluid Passage Seal
68	Drive Link Lube Fluid Seal

Torque Converter and Fluid Pump Housing Assembly - Gen 3

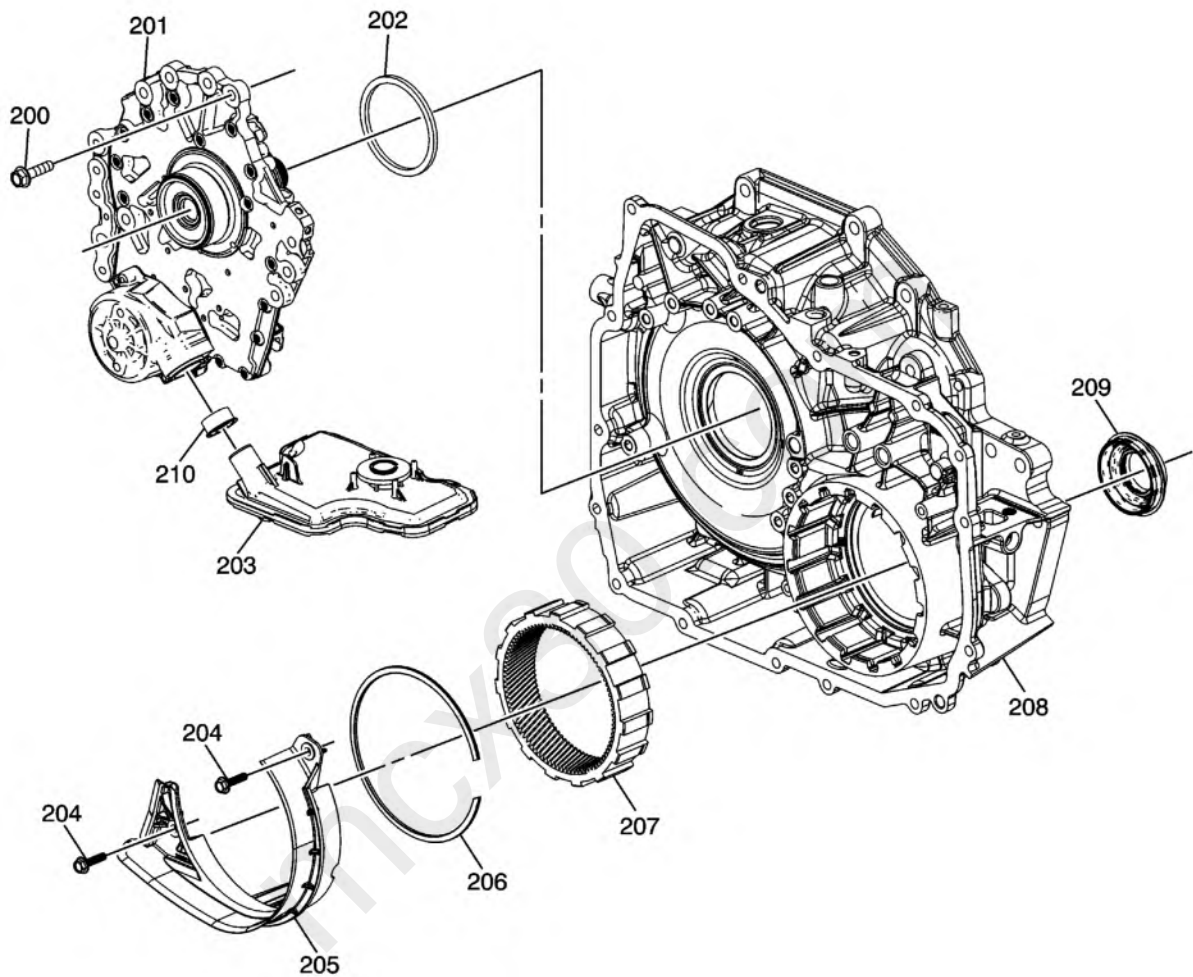


Fig. 3: Torque Converter and Fluid Pump Housing Assembly Components -- 6T50 -- Gen 3
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
200	A/Trans Fluid Pump Bolt
201	A/Trans Fluid Pump Assembly
202	Torque Converter and Differential Housing Seal
203	A/Trans Fluid Filter Assembly
204	Front Differential Carrier Baffle Bolt
205	Front Differential Carrier Baffle
206	Front Differential Ring Gear Retainer
207	Front Differential Ring Gear
208	Torque Converter and Differential Housing
209	Front Wheel Drive Shaft Oil Seal Assembly
210	A/Trans Fluid Pump Inlet Seal

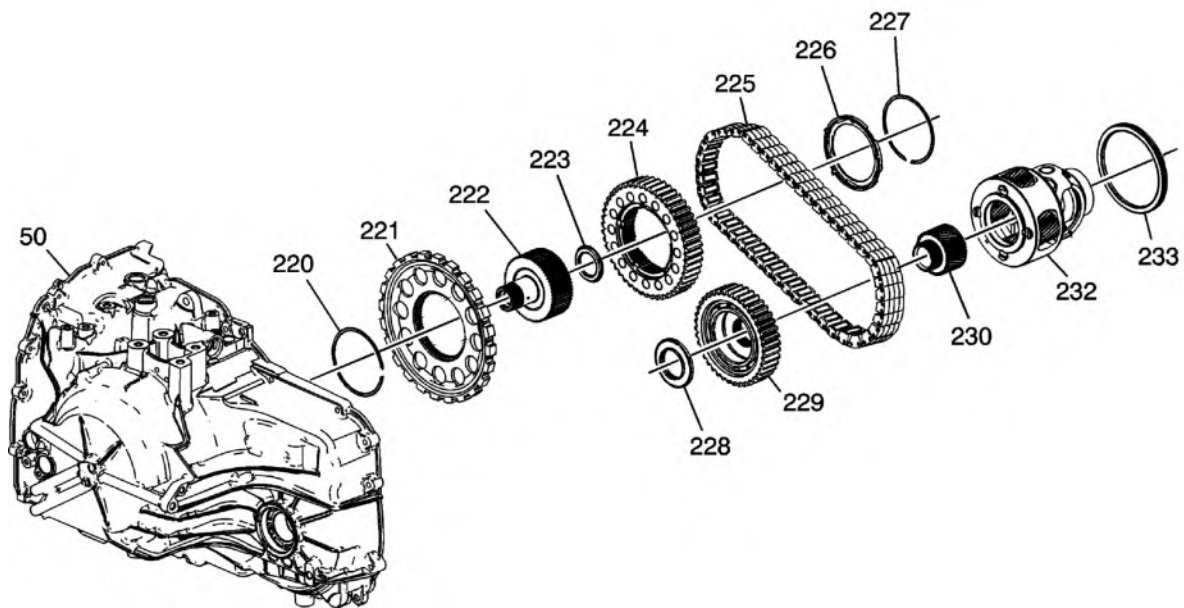


Fig. 4: Disassembled View Of Drive Link Assembly Components

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
50	A/Trans Case
220	Park Gear Retainer Ring
221	Park Gear
222	Output Carrier Transfer Drive Gear Hub
223	Drive Sprocket Bearing Assembly
224	Drive Sprocket
225	Drive Link Assembly
226	Drive Sprocket Thrust Washer
227	Drive Sprocket Retainer Ring
228	Driven Sprocket Bearing Assembly
229	Driven Sprocket
230	Final Drive Sun Gear
232	Differential Carrier Assembly
233	Front Differential Carrier Bearing Assembly

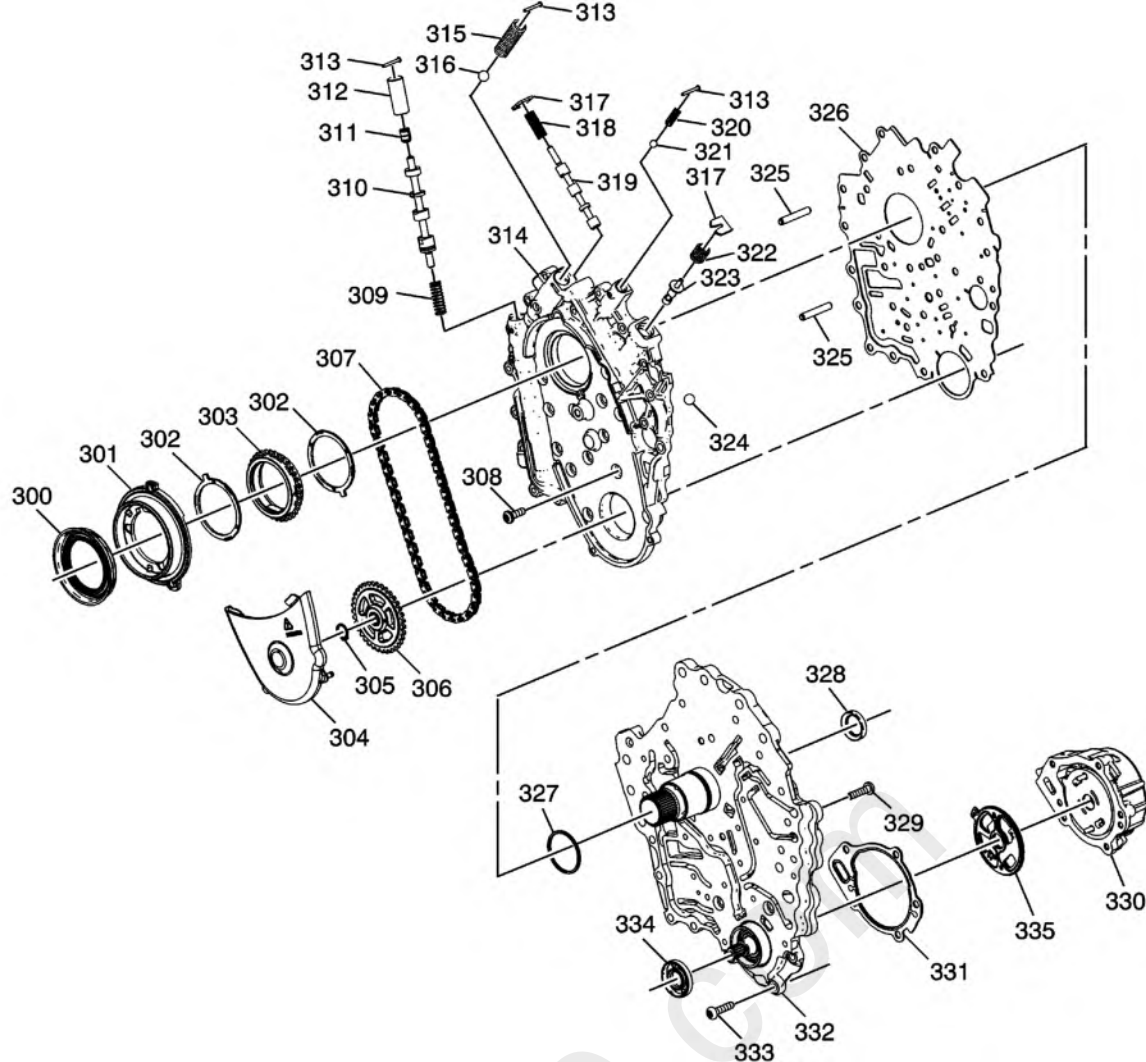


Fig. 5: Oil Pump Assembly Components -- 6T50 -- Gen 3
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
300	Torque Converter Fluid Seal
301	Drive Sprocket Cover
302	Drive Sprocket Thrust Washer
303	Drive Sprocket
304	Pump Sprocket Baffle
305	Driven Sprocket Retainer
306	Driven Sprocket
307	Drive Link Assembly
308	A/Trans Fluid Pump Body Bolt
309	Pressure Regulator Valve Spring
310	Pressure Regulator Valve
311	Pressure Regulator Valve Isolator
312	Pressure Regulator Valve Sleeve
313	Valve Retainer
314	A/Trans Fluid Pump Body
315	Pump Blowoff Ball Valve Spring
316	Pump Blowoff Ball Valve
317	Valve Retainer
318	TCC Control Valve Spring
319	TCC Control Valve
320	TCC Blowoff Ball Valve Spring
321	TCC Blowoff Ball Valve
322	Lube On Demand Valve Spring

Callout	Component Name
323	Lube On Demand Valve
324	Ball Valve
325	A/Trans Fluid Pump Locating Pin
326	A/Trans Fluid Pump Transfer Plate Body Assembly
327	Fluid Seal Ring
328	A/Trans Fluid Pump Seal
329	A/Trans Fluid Pump Assembly Bolt
330	A/Trans Fluid Pump Assembly
331	Pump Body Gasket
332	A/Trans Fluid Pump Cover Assembly
333	A/Trans Fluid Pump Cover Bolt
334	A/Trans Fluid Pump Seal
335	A/Trans Fluid Pump Pressure Plate Seal

Auxiliary Fluid Pump and Hybrid Components - Hybrid Models

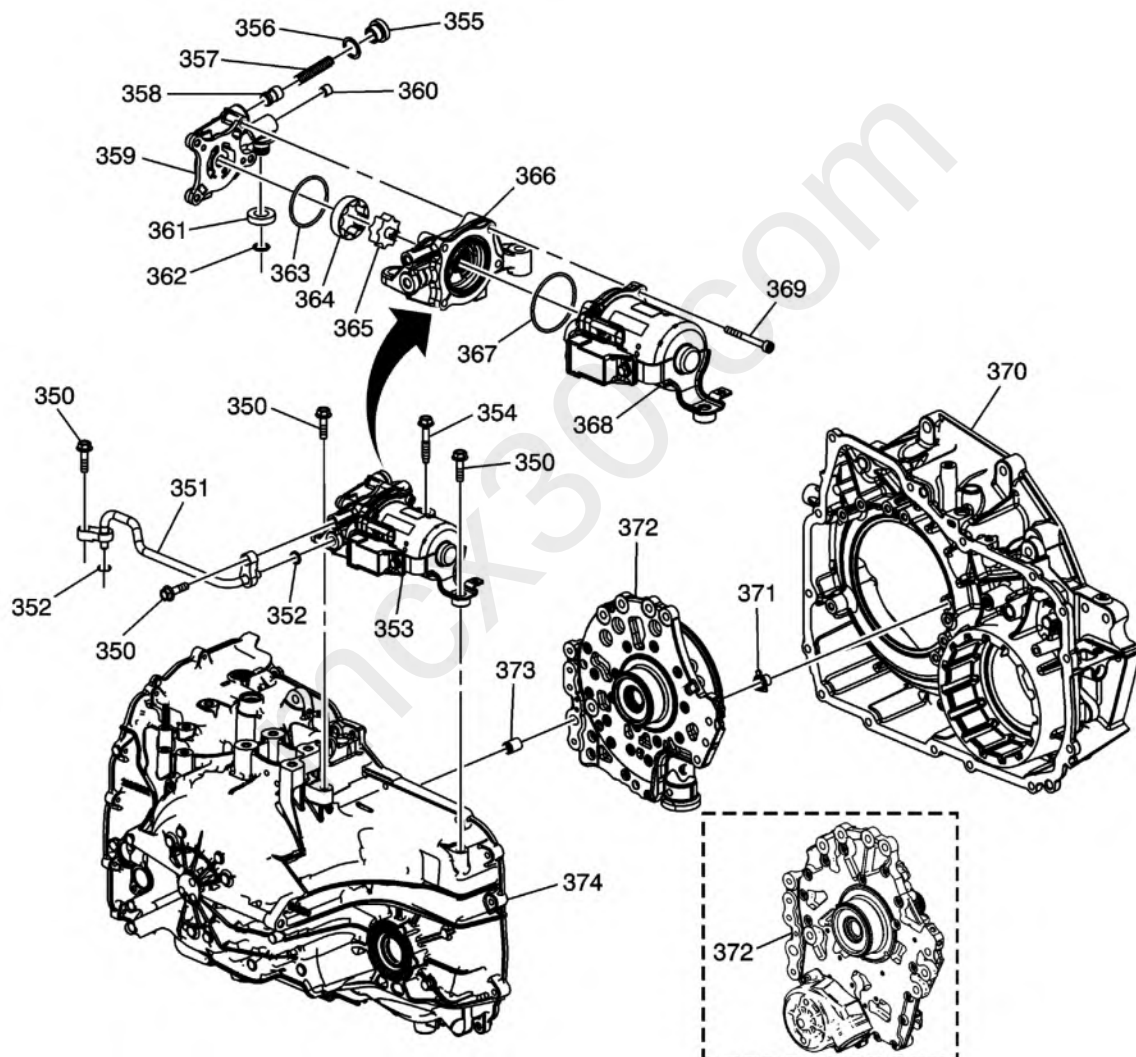


Fig. 6: Auxiliary Fluid Pump and Hybrid Components -- Hybrid Models
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
350	A/Trans Auxiliary Fluid Pump Outlet Bolt (Qty: 4)
351	A/Trans Auxiliary Fluid Pump Outlet Pipe Assembly
352	A/Trans Auxiliary Fluid Pump Outlet Pipe Seal Assembly
353	A/Trans Auxiliary Fluid Pump Assembly
354	A/Trans Auxiliary Fluid Pump Bolt
355	Pressure Regulator Valve Spring Retainer
356	Pressure Regulator Valve Spring Spacer

Callout	Component Name
357	Pressure Regulator Valve Spring
358	Pressure Regulator Valve
359	A/Trans Auxiliary Fluid Pump Cover
360	A/Trans Auxiliary Fluid Pump Cover Hole Plug
361	A/Trans Auxiliary Fluid Pump Gasket
362	A/Trans Auxiliary Fluid Pump Seal
363	A/Trans Auxiliary Fluid Pump Cover Seal
364	A/Trans Auxiliary Fluid Pump Outer Rotor
365	A/Trans Auxiliary Fluid Pump Inner Rotor
366	A/Trans Auxiliary Fluid Pump Body
367	A/Trans Auxiliary Fluid Pump Motor Cover Seal - O-ring
368	A/Trans Auxiliary Fluid Pump Motor Assembly
369	A/Trans Auxiliary Fluid Pump (Pump to Motor) Bolt (Qty: 4)
370	Torque Converter and Differential Housing
371	A/Trans Auxiliary Fluid Inlet Pump Seal
372	A/Trans Fluid Pump Assembly - Model Dependent
373	A/Trans Fluid Trough Check Ball
374	A/Trans Case

Control Valve Body Assembly (1 of 2)

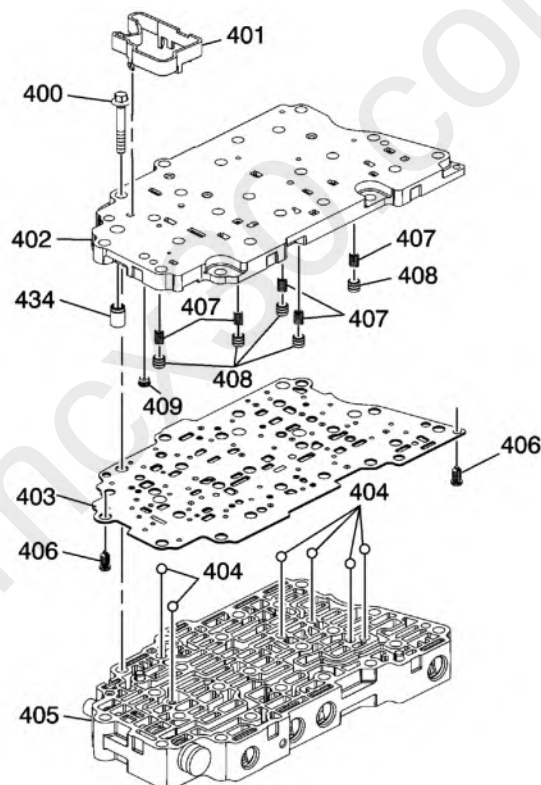


Fig. 7: Control Valve Body Assembly
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
400	Control Valve Body Bolt
401	Control Solenoid Valve Support
402	Valve Channel Plate
403	Channel Plate to Valve Body Spacer Plate Assembly
404	Control Valve Body Ball Check Valve (Qty:6)
405	Control Valve Body Assembly
406	Control Valve Body Spacer Plate Retainer (Qty: 2)
407	Actuator Feed Accumulator Spring (Qty: 5)

Callout	Component Name
408	Actuator Feed Accumulator Piston (Qty: 5)
409	Variable Hi and 2-3-4 Clutch Housing Valve Ball
434	Control Valve Channel Plate Ball Spring Assembly

Control Valve Body Assembly (2 of 2)

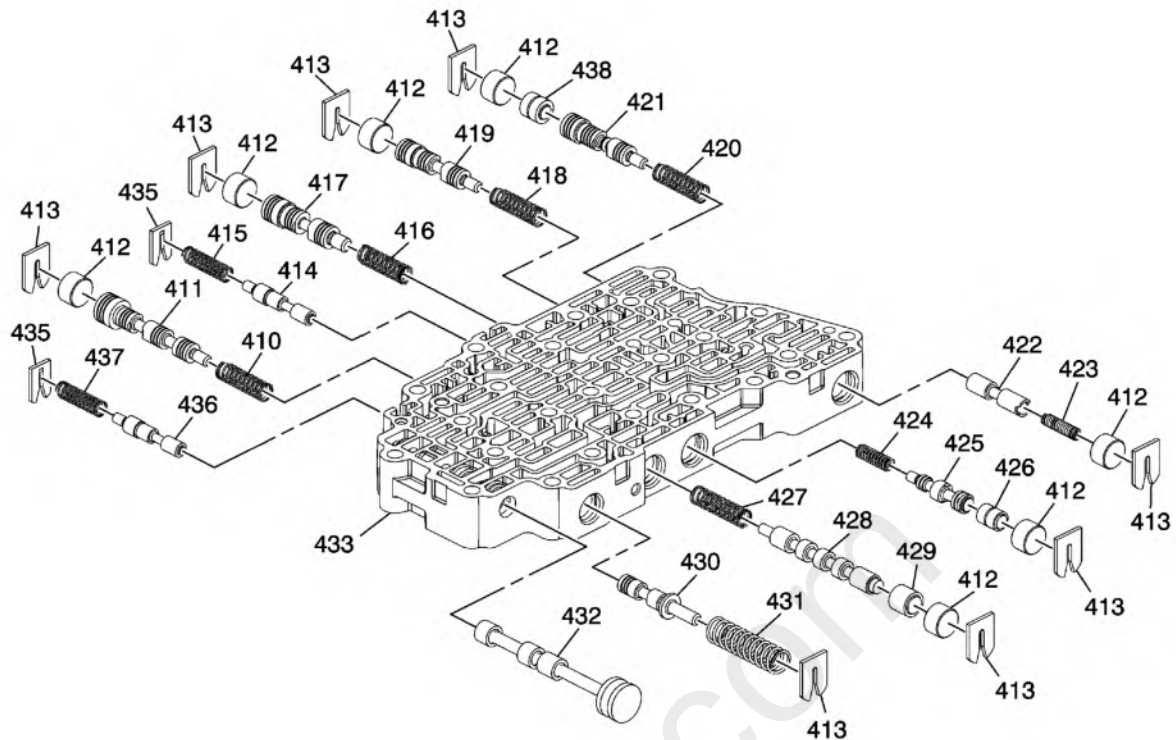


Fig. 8: Control Valve Body Assembly
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
410	Low-Reverse and 4-5-6 Clutch Regulator Valve Spring
411	Low-Reverse and 4-5-6 Clutch Regulator Valve
412	Clutch Valve Bore Plug
413	Valve Spring Retainer
414	1-2-3-4 Clutch Boost Valve
415	1-2-3-4 Clutch Boost Valve Spring
416	1-2-3-4 Clutch Regulator Valve Spring
417	1-2-3-4 Clutch Regulator Valve
418	2-6 Clutch Regulator Valve Spring
419	2-6 Clutch Regulator Valve
420	3-5-Reverse Clutch Regulator Valve Spring
421	3-5-Reverse Clutch Regulator Valve
422	Default Override Valve
423	Default Override Valve Spring
424	Torque Converter Clutch Regulator Apply Valve Spring
425	Torque Converter Clutch Regulator Apply Valve
426	Torque Converter Clutch Regulator Apply Shuttle Valve
427	Clutch Select Valve Spring
428	Clutch Select Valve
429	Clutch Select (Shuttle) Valve
430	Actuator Feed Limit Valve
431	Actuator Feed Limit Valve Spring
432	Manual Valve

Callout	Component Name
433	Control Valve Body Assembly
435	Control Valve Body Bore Plug Retainer
436	Low-Reverse and 4-5-6 Clutch Boost Valve
437	Low-Reverse and 4-5-6 Clutch Boost Valve Spring
438	3-5 Reverse Clutch Regulator (Shuttle) Valve

3-5 Reverse Clutch Assembly

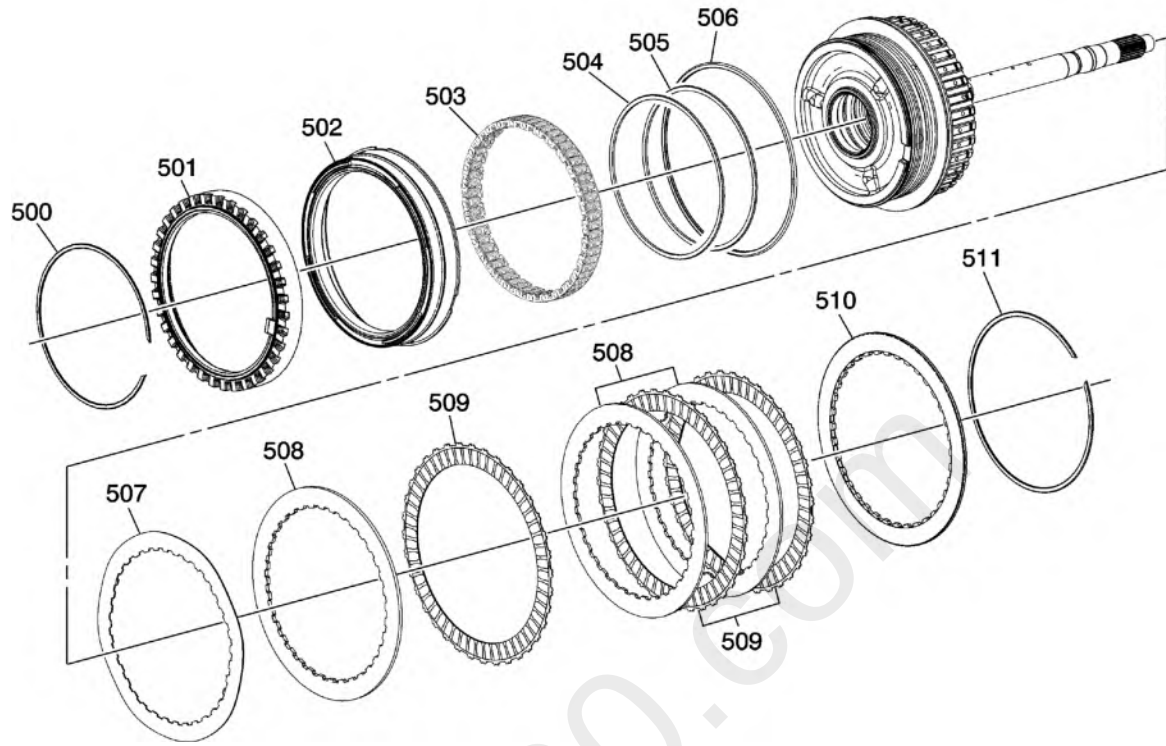


Fig. 9: 3-5 Reverse Clutch Assembly.
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
500	A/Trans Input Shaft Speed Sensor Reluctor Wheel Retainer Ring
501	A/Trans Input Shaft Speed Sensor Reluctor Wheel
502	3-5-Reverse Clutch Piston
503	3-5-Reverse Clutch Piston Return Spring Assembly
504	3-5-Reverse Clutch Piston Inner Seal
505	3-5-Reverse Clutch Piston Inner Seal
506	3-5-Reverse Clutch Piston Dam Seal
507	3-5-Reverse Clutch Apply Plate
508	3-5-Reverse Clutch Plate
509	3-5-Reverse Clutch (w/Friction Material) Plate Assembly
510	3-5-Reverse Clutch Backing Plate
511	3-5-Reverse Clutch Backing Plate Retainer Ring

4-5-6 Clutch Assembly

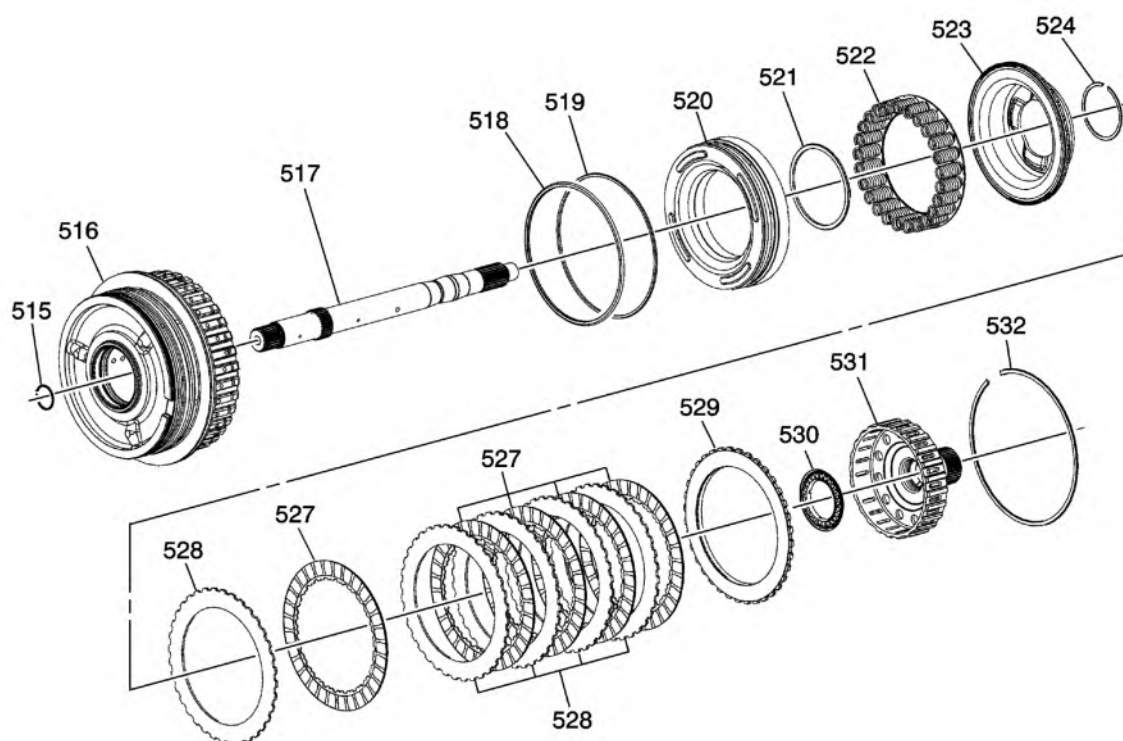


Fig. 10: 4-5-6 Clutch Assembly

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
515	Turbine Shaft Retainer Ring
516	3-5-Reverse and 4-5-6 Clutch Housing Assembly
517	Turbine Shaft
518	4-5-6 Clutch Piston Outer Seal
519	4-5-6 Clutch Piston Outer Seal
520	4-5-6 Clutch Piston
521	4-5-6 Clutch Piston Inner Seal
522	4-5-6 Clutch Piston Return Spring Assembly
523	4-5-6 Clutch Piston Fluid Dam Assembly
524	4-5-6 Clutch Piston Fluid Dam Retainer Ring
527	4-5-6 Clutch (w/Friction Material) Plate Assembly Gen 1 (Qty: 4), Gen 2 (Qty: 5)
528	4-5-6 Clutch Plate - Gen 1 (Qty: 3), Gen 2 (Qty: 5)
529	4-5-6 Clutch Backing Plate
530	Reaction Carrier Hub Thrust Bearing Assembly
531	Reaction Carrier Hub Assembly
532	4-5-6 Clutch Backing Plate Retainer Ring

2-6, Low and Reverse and 1-2-3-4 Clutch Plate Assemblies

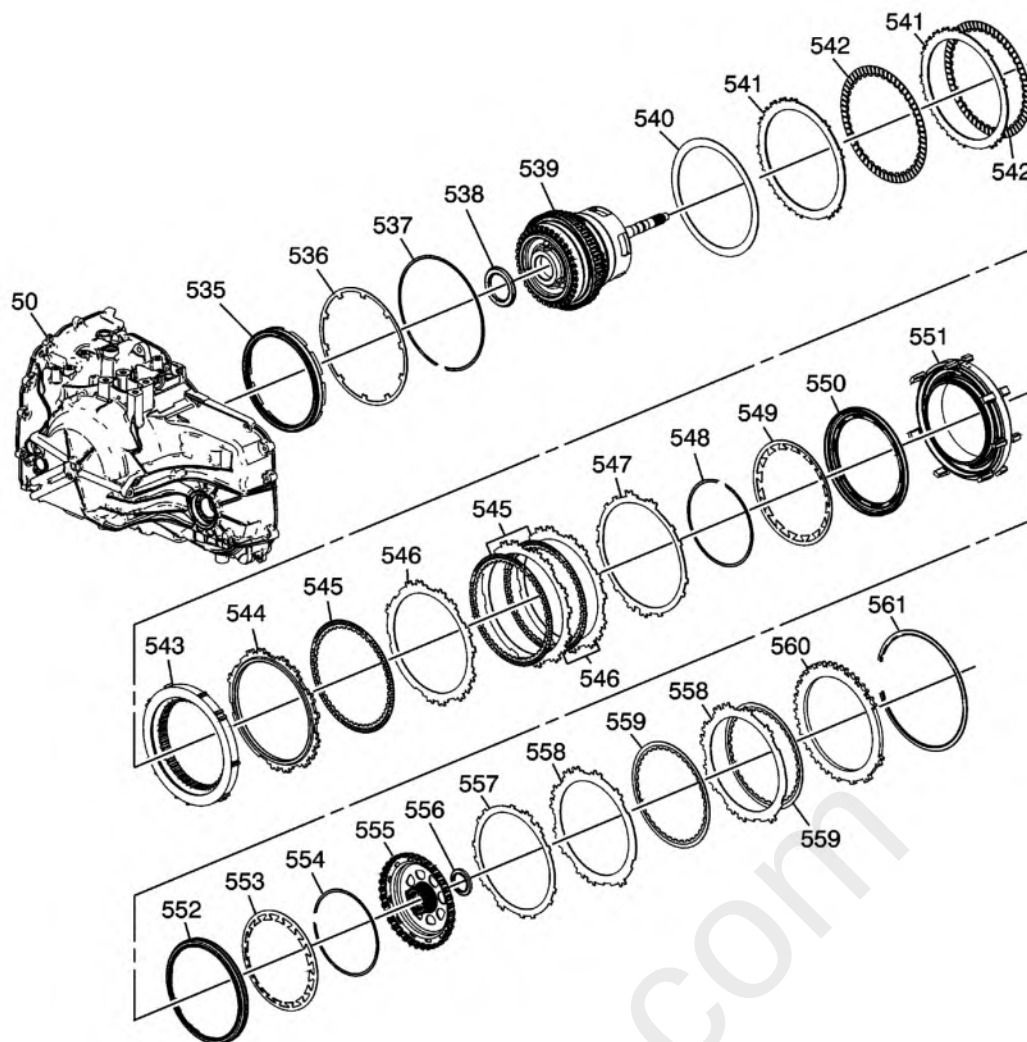


Fig. 11: 2-6, Low and Reverse and 1-2-3-4 Clutch Plate Assemblies
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
50	A/Trans Case
535	2-6 Clutch Piston Assembly
536	2-6 Clutch Spring
537	2-6 Clutch Spring Retainer Ring
538	3-5-Reverse and 4-5-6 Clutch Housing Thrust Bearing
539	3-5-Reverse and 4-5-6 Clutch Housing Assembly
540	2-6 Clutch Apply (Waved) Plate
541	2-6 Clutch Plate (Qty: 2)
542	2-6 Clutch (w/Friction Material) Plate Assembly (Qty: 2) - Model Dependent
543	Low and Reverse Clutch Assembly
544	Low and Reverse Clutch Backing Plate
545	Low and Reverse Clutch (w/Friction Material) Plate Assembly (Qty: 3)
546	Low and Reverse Clutch Plate (Qty: 3)
547	Low and Reverse Clutch Apply (Waved) Plate
548	Low and Reverse Clutch Spring Retainer
549	Low and Reverse Clutch Spring
550	Low and Reverse Clutch Piston
551	Low and Reverse and 1-2-3-4 Clutch Housing
552	1-2-3-4 Clutch Piston
553	1-2-3-4 Clutch Spring
554	1-2-3-4 Clutch Piston Retainer
555	Output Sun Gear Assembly
556	Output Sun Thrust Bearing Assembly

Callout	Component Name
557	1-2-3-4 Clutch (Waved) Plate
558	1-2-3-4 Clutch Plate (Qty: 2)
559	1-2-3-4 Clutch (w/Friction Material) Plate Assembly (Qty: 2)
560	1-2-3-4 Clutch Backing Plate
561	1-2-3-4 Clutch Backing Plate Retainer Ring

Input, Output and Reaction Gearsets

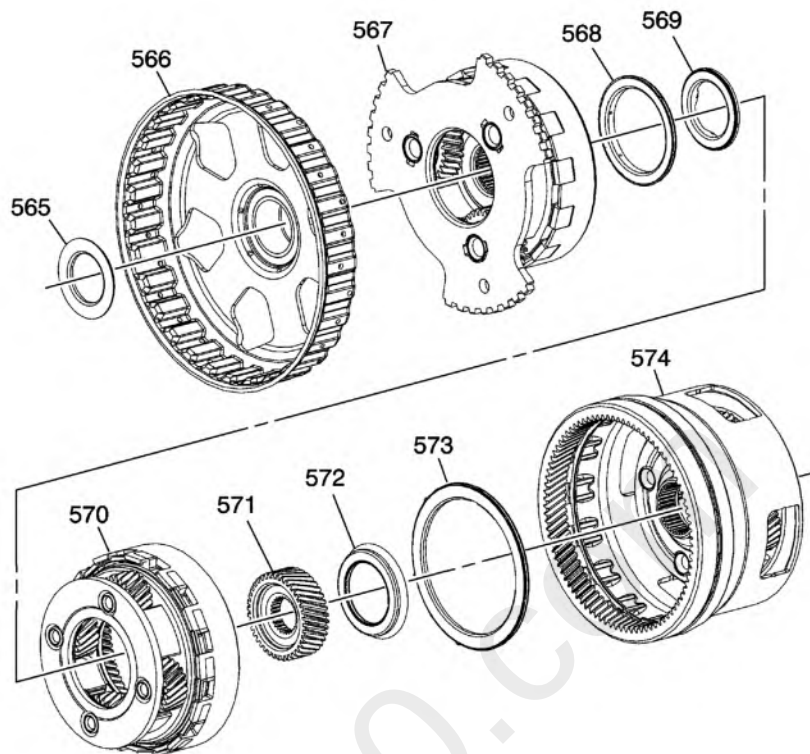


Fig. 12: Input, Output and Reaction Gearsets
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
565	Reaction Sun Gear Thrust Bearing Assembly
566	Reaction Sun Gear Assembly
567	Reaction Carrier Assembly
568	Input Carrier Thrust Bearing Assembly
569	Input Sun Gear Thrust Bearing Assembly
570	Input Carrier Assembly
571	Input Sun Gear
572	Input Sun Gear Thrust Bearing Assembly
573	Output Carrier Thrust Bearing Assembly
574	Output Carrier Assembly

Front Differential Carrier Assembly (2 Pinion)

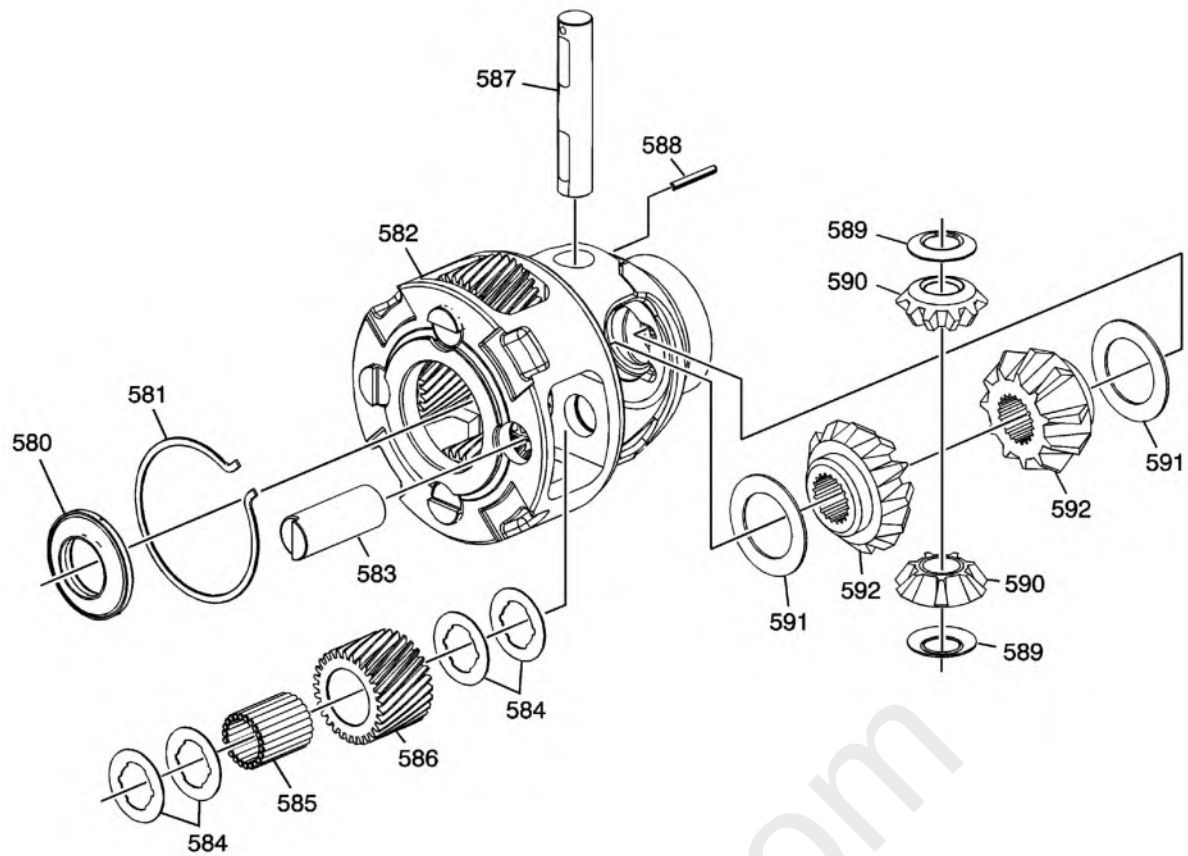


Fig. 13: Disassembled View Of Front Differential Carrier Assembly.
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
580	Differential Sun Gear to Differential Housing Bearing Assembly
581	Final Drive Retainer
582	Differential Carrier Assembly
583	Final Drive Pinion Pin
584	Final Drive Inner and Outer Washer
585	Final Drive Roller
586	Pinion Final Drive Gear
587	Front Differential Pinion Gear Shaft
588	Front Differential Pinion Gear Shaft Pin
589	Front Differential Pinion Gear Thrust Washer
590	Front Differential Pinion Gear
591	Front Differential Side Gear Thrust Washer
592	Front Differential Side Gear

Park System Components

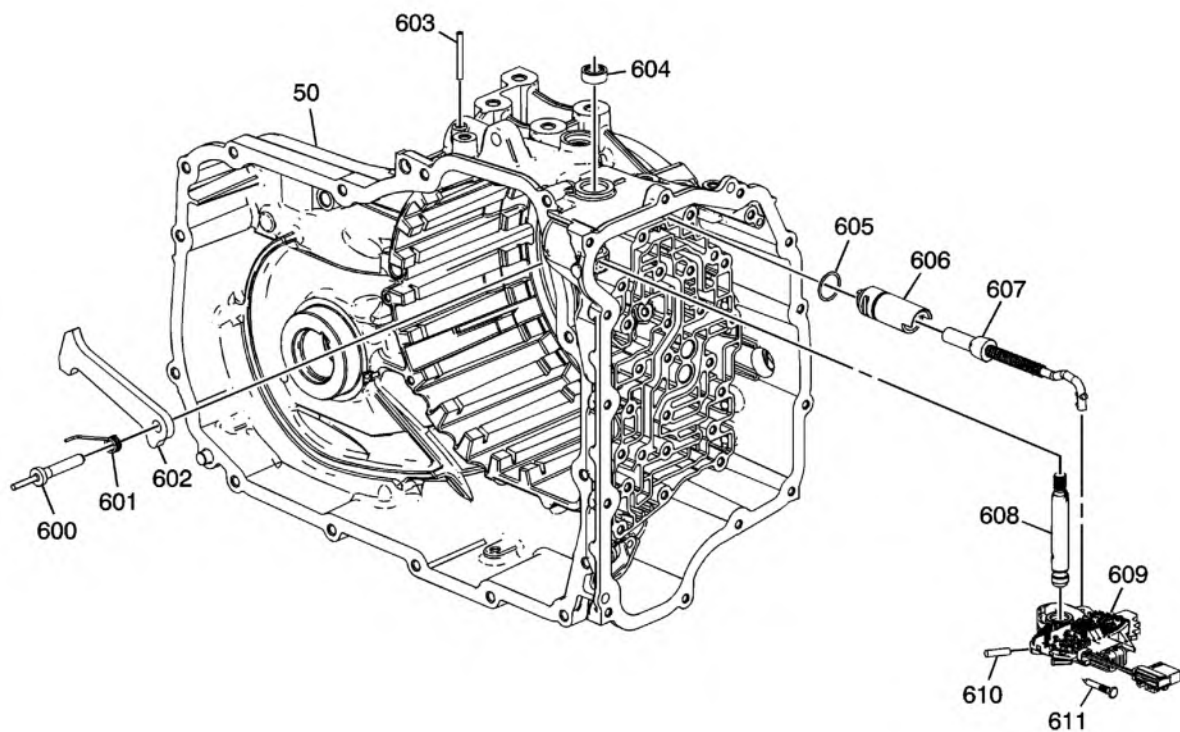


Fig. 14: View Of Park System Components
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
50	A/Trans Case
600	Park Pawl Shaft
601	Park Pawl Spring
602	Park Pawl
603	Park Pawl Actuator Guide Pin
604	Manual Shift Shaft Seal
605	Park Pawl Actuator Guide Seal
606	Park Pawl Actuator Guide
607	Park Pawl Actuator Assembly
608	Manual Shift Detent Lever Shaft
609	Manual Shift Detent (w/Shaft Position Switch) Lever Assembly
610	Manual Shift Detent Lever Pin
611	Manual Shift Shaft Pin

COMPONENT LOCATION

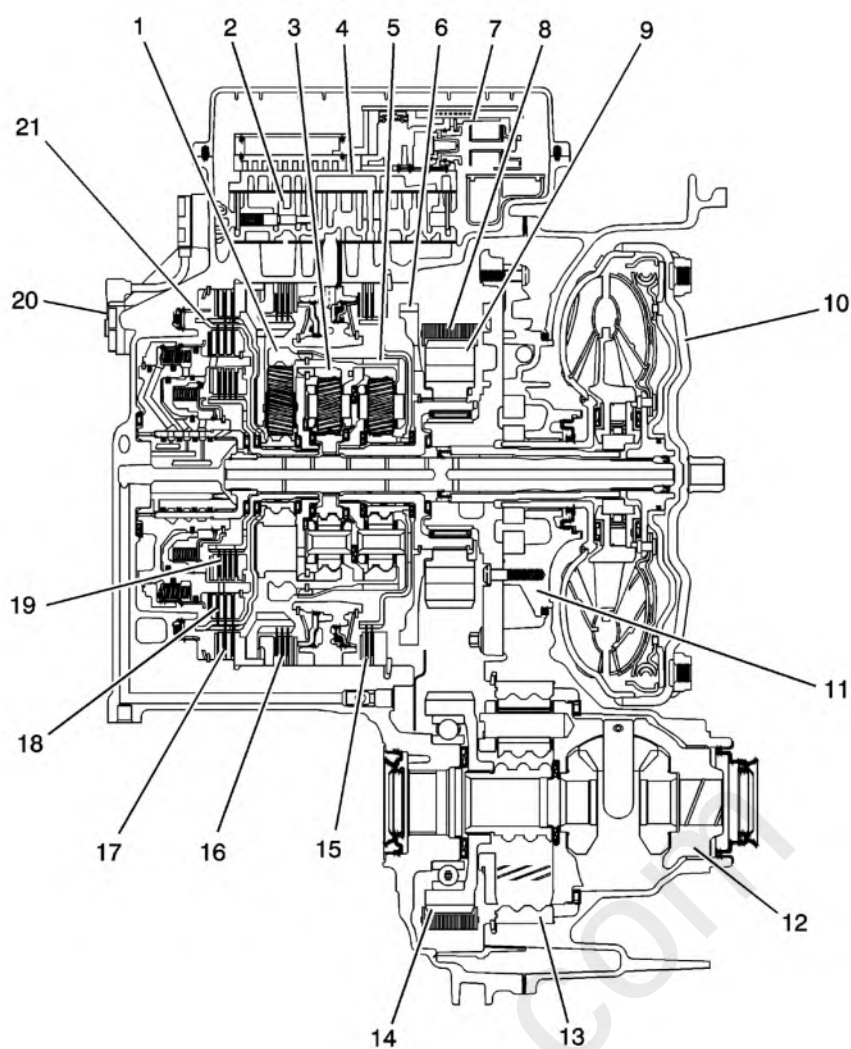


Fig. 15: Identifying A/T Component Locations
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Reaction Carrier Assembly
2	Control Valve Body Assembly
3	Input Carrier Assembly
4	Valve Channel Plate
5	Output Carrier Assembly
6	Park Gear
7	Control Solenoid (w/Body and TCM) Valve Assembly
8	Drive Link Assembly
9	Drive Sprocket
10	Torque Converter Assembly
11	A/Trans Fluid Pump Assembly
12	Differential Carrier Assembly
13	Front Differential Ring Gear
14	Driven Sprocket
15	1-2-3-4 Clutch Assembly
16	Low and Reverse Clutch Assembly
17	2-6 Clutch Assembly
18	3-5 Reverse Clutch Assembly
19	4-5-6 Clutch Assembly
20	A/Trans Input Speed Sensor Assembly
21	Reaction Sun Gear Assembly

BUSHING, BEARING, AND WASHER LOCATIONS

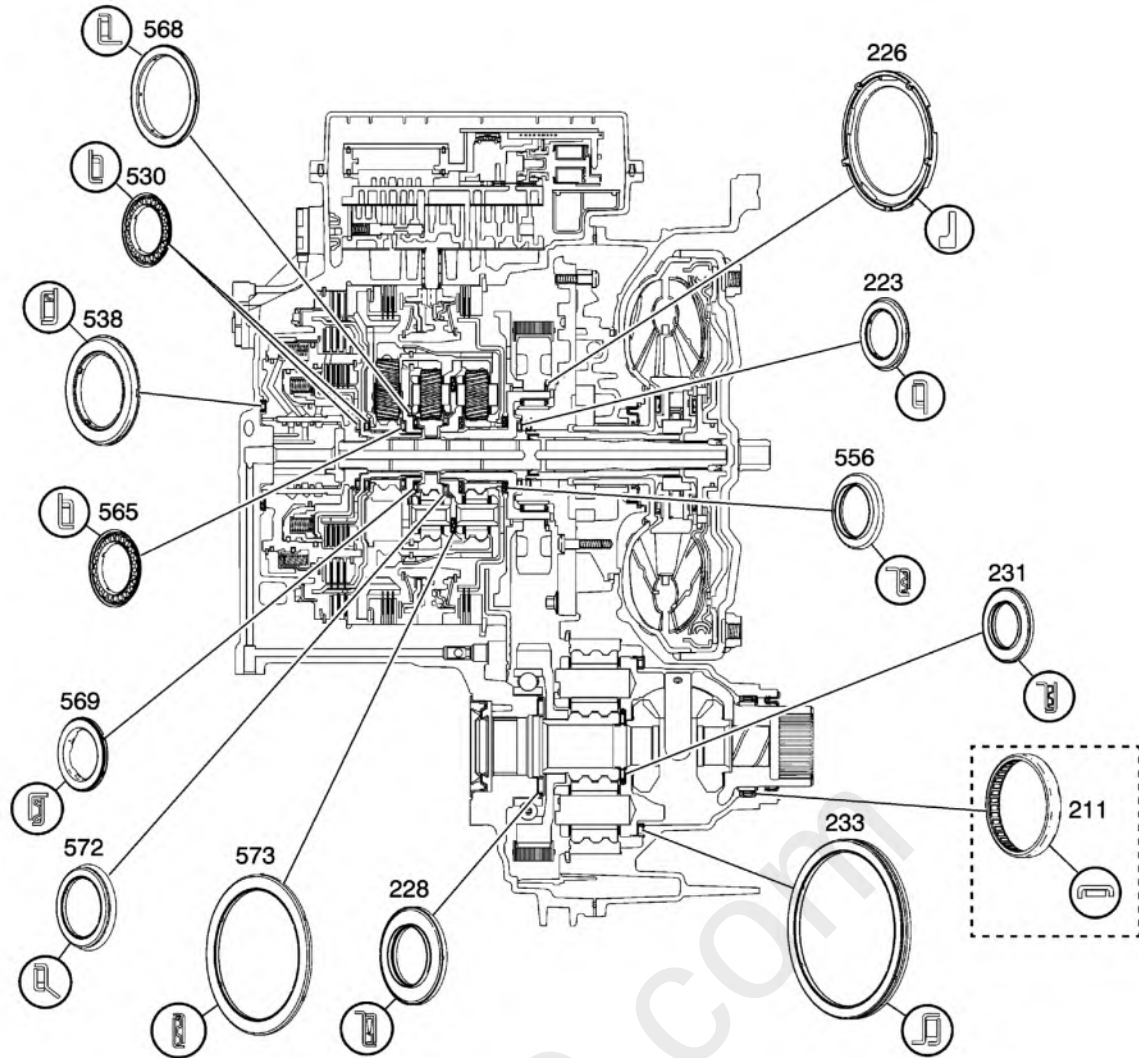


Fig. 16: Bushing, Bearing, and Washer Locations (Gen 2/Hybrid)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
211	Front Differential Carrier Bearing Assembly - AWD Models
223	Drive Spocket Bearing Assembly
226	Drive Sprocket Thrust Washer
228	Drive Sprocket Bearing Assembly
231	Differential Sun Gear to Differential Housing Bearing Assembly
233	Front Differential Carrier Bearing Assembly
530	Reaction Carrier Hub Thrust Bearing Assembly
538	3-5-Reverse and 4-5-6 Clutch Housing Thrust Bearing
556	Output Sun Thrust Bearing Assembly
565	Reaction Sun Gear Thrust Bearing Assembly
568	Input Carrier Thrust Bearing Assembly
569	Input Sun Gear Thrust Bearing Assembly
572	Input Sun Gear Thrust Bearing Assembly
573	Output Carrier Thrust Bearing Assembly

SEAL LOCATIONS

Seal Locations (1 of 2)

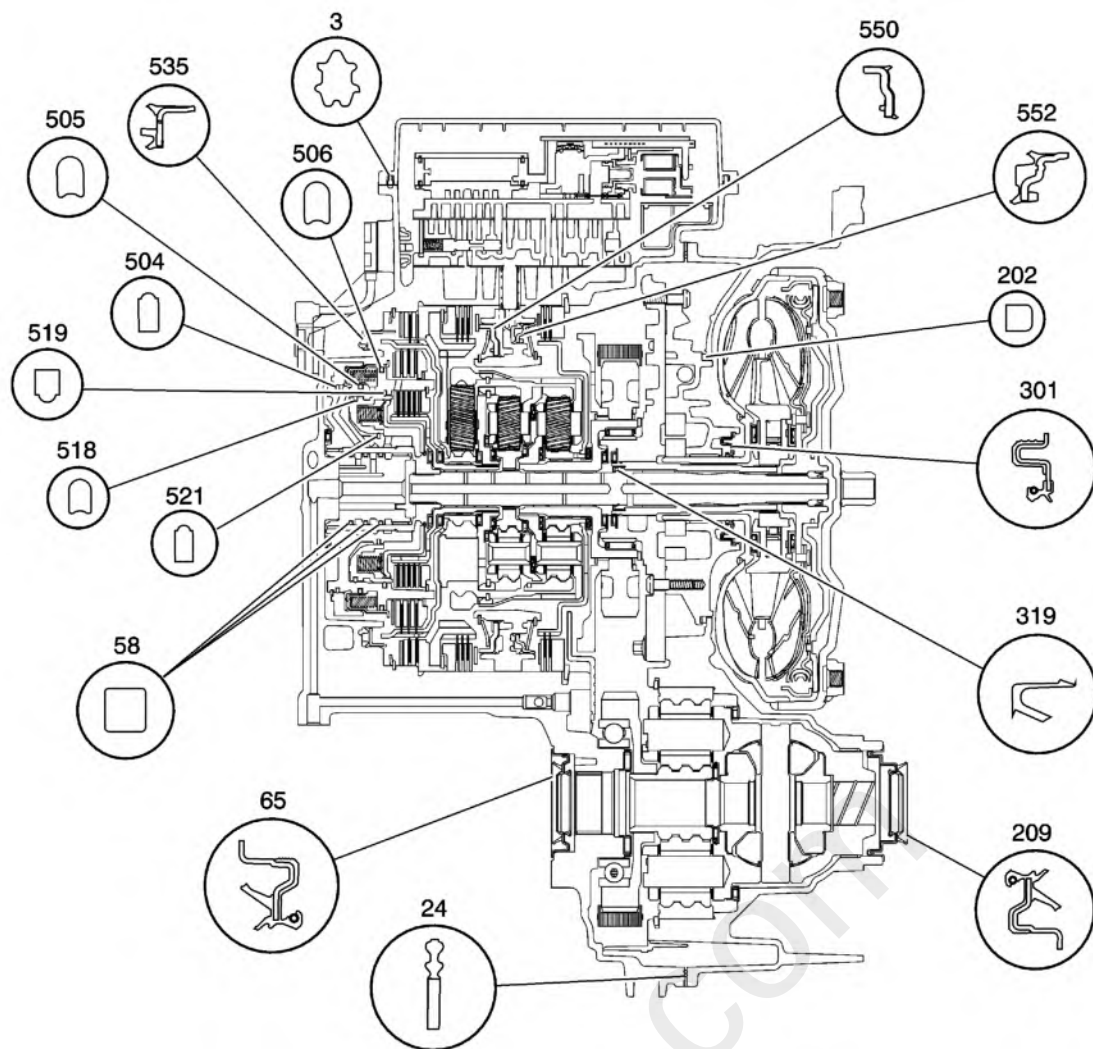


Fig. 17: Seal Locations (1 of 2).(Gen 2/Hybrid)
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
3	Control Valve Body Cover Gasket
24	Torque Converter Housing Gasket
58	3-5-Reverse and 4-5-6 Clutch Fluid Seal Ring (Qty: 3)
65	Drive Shaft Oil Seal Assembly
202	Torque Converter and Differential Housing Seal
209	Front Wheel Drive Shaft Oil Seal Assembly
301	Torque Converter Fluid Seal Assembly
319	Torque Converter Fluid Seal Assembly
504	3-5-Reverse Clutch Piston Inner Seal
505	3-5-Reverse Clutch Piston Inner Seal
506	3-5-Reverse Clutch Piston Dam Seal
518	4-5-6 Clutch Piston Outer Seal
519	4-5-6 Clutch Piston Outer Seal
521	4-5-6 Clutch Piston Inner Seal
535	2-6 Clutch Piston Assembly
550	Low and Reverse Clutch Piston
552	1-2-3-4 Clutch Piston

Seal Locations (2 of 2)

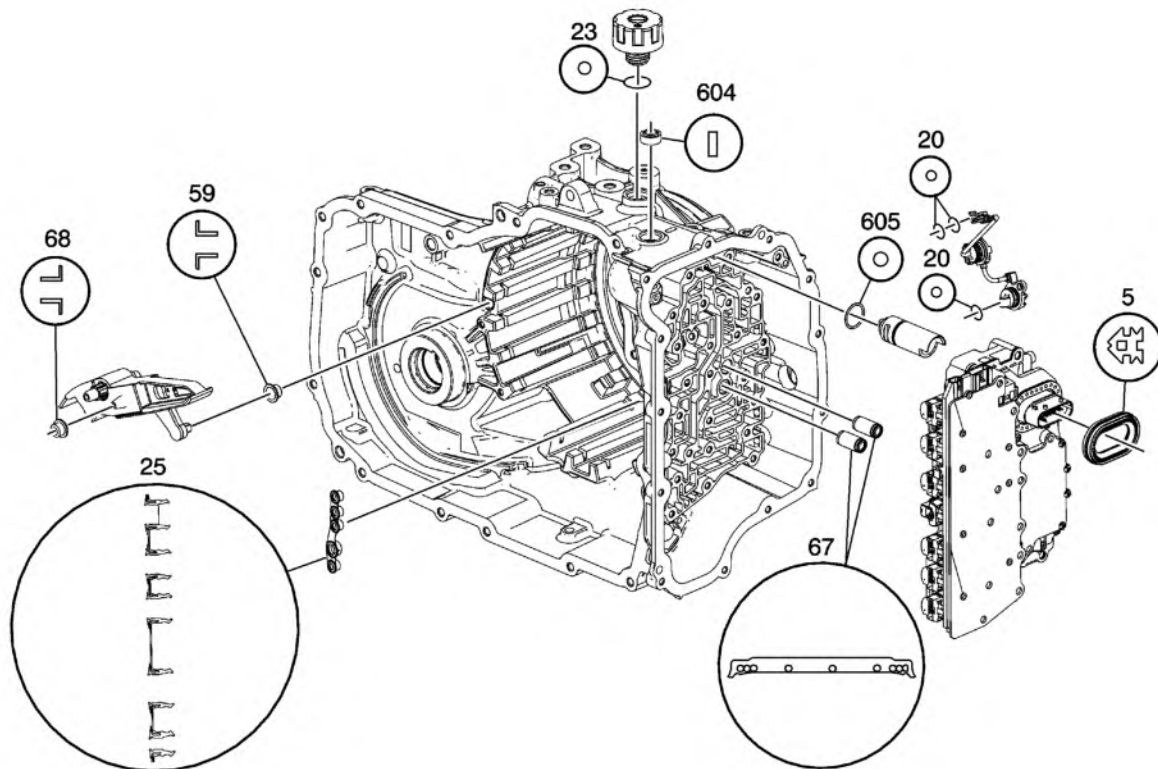


Fig. 18: Seal Locations (2 of 2).(Gen 2/Hybrid)
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
5	Control Valve Body Cover Hole Seal
20	A/Trans Input Speed Sensor Assembly O-Ring Seal
23	Fill Cap Seal
25	A/Trans Fluid Pump Seal Assembly
59	Drive Link Lube Fluid Seal
67	1-2-3-4 and Low Reverse Clutch Fluid Passage
68	Drive Link Lube Fluid Seal
604	Manual Shift Shaft Seal
605	Park Pawl Actuator Guide Seal

Auxiliary Fluid Pump and Hybrid Seals - Hybrid Models

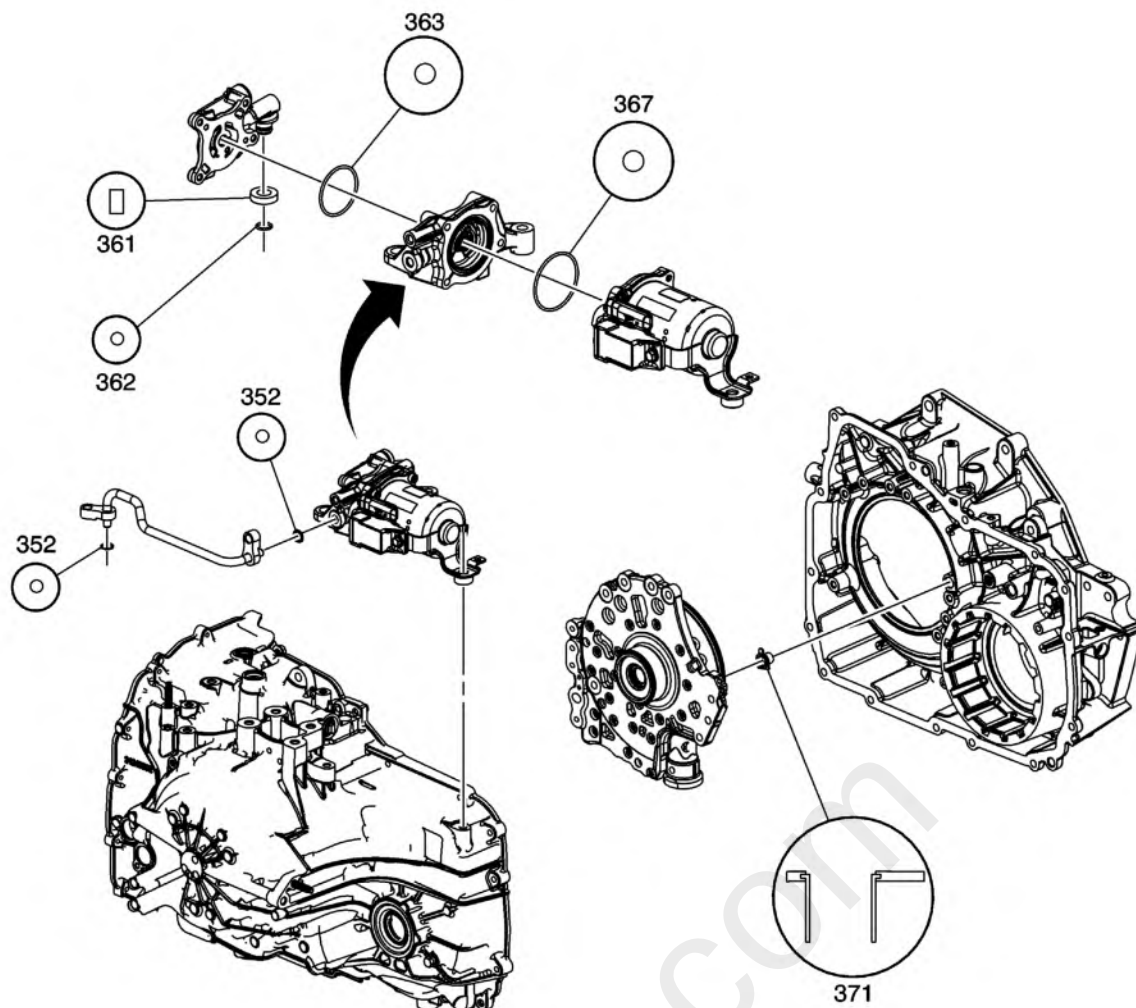


Fig. 19: Auxiliary Fluid Pump and Hybrid Seals - Hybrid Models
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
352	A/Trans Auxiliary Fluid Pump Outlet Pipe Seal Assembly
361	A/Trans Auxiliary Fluid Pump Gasket
362	A/Trans Auxiliary Fluid Pump Seal
363	A/Trans Auxiliary Fluid Pump Cover Seal
367	A/Trans Auxiliary Fluid Pump Motor Cover Seal - O-ring
371	A/Trans Auxiliary Fluid Inlet Pump Seal

BALL CHECK VALVE LOCATIONS (GEN 3)

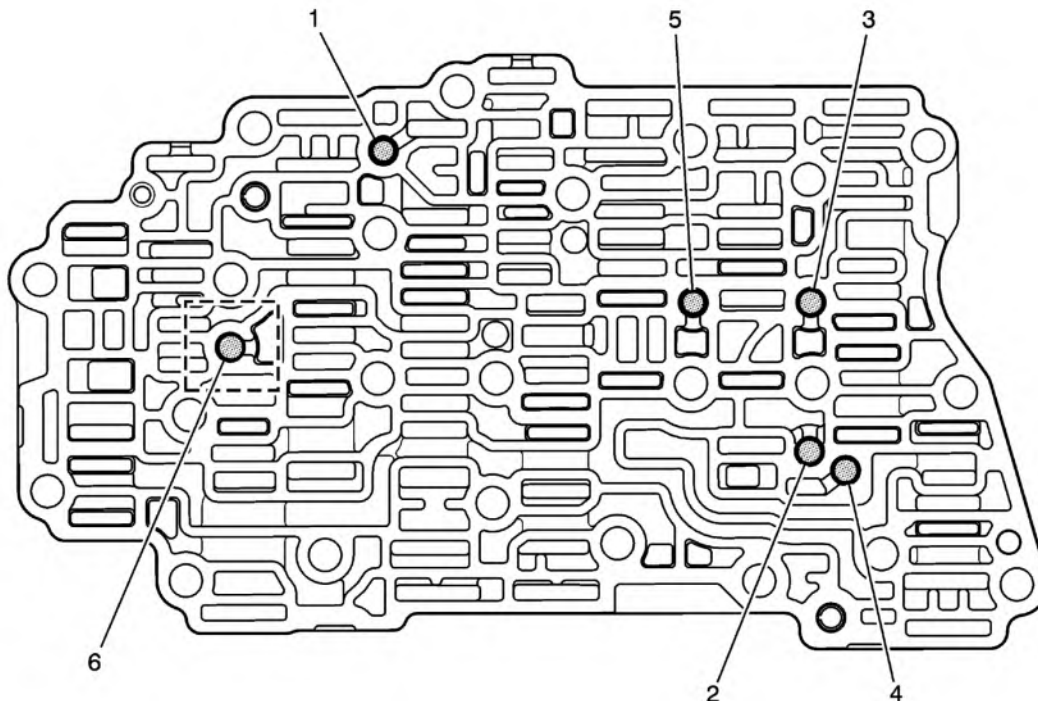


Fig. 20: Identifying Ball Check Valve Locations (Gen 3)
 Courtesy of GENERAL MOTORS COMPANY

I.D.	Input Oil	Input Oil	Output Oil
1	Latch	456 CL	Latch
2	35 Rev CL FD	Drive 1-6	35 Rev CL FD/Drive 1-6
3	35 Rev CL FD/Drive 1-6	-	35 Rev CL FD/Drive 1-6
4	Act FD LM	-	35 Rev CL
5	Drive	-	Drive
6	Line	Auxiliary Line	Line

NOTE:

- Ball check valve #6 is only required for start/stop transmissions equipped with an auxiliary pump.
- Ball check valve #6 is optional in non-start/stop transmissions.
- Ball check valve #6 should NOT be used in start/stop transmissions equipped with an auxiliary accumulator.