

INTRODUCTION

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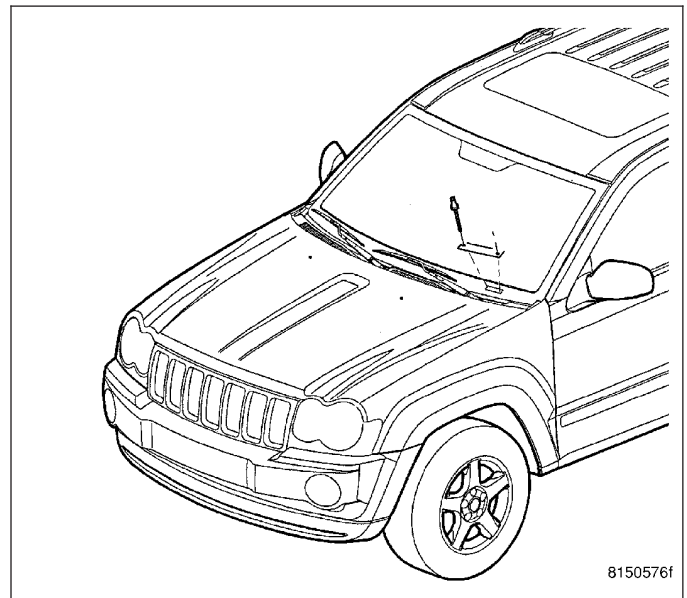
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VEHICLE IDENTIFICATION NUMBER

DESCRIPTION

The Vehicle Identification Number (VIN) plate is attached to the top left side of the instrument panel. The VIN contains 17 characters that provide data concerning the vehicle. Refer to the decoding chart to determine the identification of a vehicle.

To protect the consumer from theft and possible fraud the manufacturer is required to include a Check Digit at the ninth position of the Vehicle Identification Number. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.



8150576f

in-lbs to N•m

N•m to in-lbs

in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m
2	.2260	42	4.7453	82	9.2646	122	13.7839	162	18.3032	.2	1.7702	4.2	37.1747	8.2	72.5792	12.2	107.9837	16.2	143.3882	
4	.4519	44	4.9713	84	9.4906	124	14.0099	164	18.5292	.4	3.5404	4.4	38.9449	8.4	74.3494	12.4	109.7539	16.4	145.1584	
6	.6779	46	5.1972	86	9.7165	126	14.2359	166	18.7552	.6	5.3107	4.6	40.7152	8.6	76.1197	12.6	111.5242	16.6	146.9287	
8	.9039	48	5.4232	88	9.9425	128	14.4618	168	18.9811	.8	7.0809	4.8	42.4854	8.8	77.8899	12.8	113.2944	16.8	148.6989	
10	1.1298	50	5.6492	90	10.1685	130	14.6878	170	19.2071	1	8.8511	5	44.2556	9	79.6601	13	115.0646	17	150.4691	
12	1.3558	52	5.8751	92	10.3944	132	14.9138	172	19.4331	1.2	10.6213	5.2	46.0258	9.2	81.4303	13.2	116.8348	17.2	152.2393	
14	1.5818	54	6.1011	94	10.6204	134	15.1397	174	19.6590	1.4	12.3916	5.4	47.7961	9.4	83.2006	13.4	118.6051	17.4	154.0096	
16	1.8077	56	6.3270	96	10.8464	136	15.3657	176	19.8850	1.6	14.1618	5.6	49.5663	9.6	84.9708	13.6	120.3753	17.6	155.7798	
18	2.0337	58	6.5530	98	11.0723	138	15.5917	178	20.1110	1.8	15.9320	5.8	51.3365	9.8	86.7410	13.8	122.1455	17.8	157.5500	
20	2.2597	60	6.7790	100	11.2983	140	15.8176	180	20.3369	2	17.7022	6	53.1067	10	88.5112	14	123.9157	18	159.3202	
22	2.4856	62	7.0049	102	11.5243	142	16.0436	182	20.5629	2.2	19.4725	6.2	54.8770	10.2	90.2815	14.2	125.6860	18.2	161.0904	
24	2.7116	64	7.2309	104	11.7502	144	16.2696	184	20.7889	2.4	21.2427	6.4	56.6472	10.4	92.0517	14.4	127.4562	19	168.1714	
26	2.9376	66	7.4569	106	11.9762	146	16.4955	186	21.0148	2.6	23.0129	6.6	58.4174	10.6	93.8219	14.6	129.2264	19.5	172.5970	
28	3.1635	68	7.6828	108	12.2022	148	16.7215	188	21.2408	2.8	24.7831	6.8	60.1876	10.8	95.5921	14.8	130.9966	20	177.0225	
30	3.3895	70	7.9088	110	12.4281	150	16.9475	190	21.4668	3	26.5534	7	61.9579	11	97.3624	15	132.7669	20.5	181.4480	
32	3.6155	72	8.1348	112	12.6541	152	17.1734	192	21.6927	3.2	28.3236	7.2	63.7281	11.2	99.1326	15.2	134.5371	21	185.8736	
34	3.8414	74	8.3607	114	12.8801	154	17.3994	194	21.9187	3.4	30.0938	7.4	65.4983	11.4	100.9028	15.4	136.3073	22	194.7247	
36	4.0674	76	8.5867	116	13.1060	156	17.6253	196	22.1447	3.6	31.8640	7.6	67.2685	11.6	102.6730	15.6	138.0775	23	203.5759	
38	4.2934	78	8.8127	118	13.3320	158	17.8513	198	22.3706	3.8	33.6342	7.8	69.0388	11.8	104.4433	15.8	139.8478	24	212.4270	
40	4.5193	80	9.0386	120	13.5580	160	18.0773	200	22.5966	4	35.4045	8	70.8090	12	106.2135	16	141.6180	25	221.2781	

ft-lbs to N•m

N•m to ft-lbs

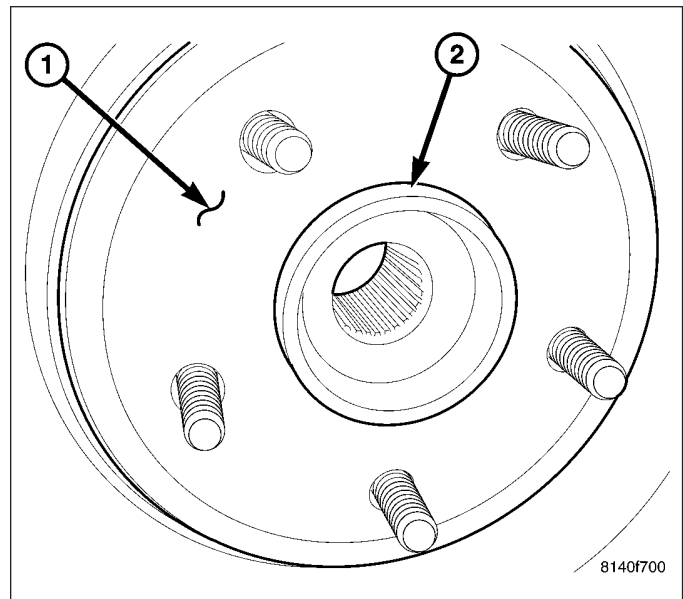
ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m
1	1.3558	21	28.4722	41	55.5885	61	82.7049	81	109.8212	1	.7376	21	15.9888	41	30.2400	61	44.9913	81	59.7425	
2	2.7116	22	29.8280	42	56.9444	62	84.0607	82	111.1770	2	1.4751	22	16.2264	42	30.9776	62	45.7289	82	60.4801	
3	4.0675	23	31.1838	43	58.3002	63	85.4165	83	112.5328	3	2.2127	23	16.9639	43	31.7152	63	46.4664	83	61.2177	
4	5.4233	24	32.5396	44	59.6560	64	86.7723	84	113.8886	4	2.9502	24	17.7015	44	32.4527	64	47.2040	84	61.9552	
5	6.7791	25	33.8954	45	61.0118	65	88.1281	85	115.2446	5	3.6878	25	18.4391	45	33.1903	65	47.9415	85	62.6928	
6	8.1349	26	35.2513	46	62.3676	66	89.4840	86	116.6004	6	4.4254	26	19.1766	46	33.9279	66	48.6791	86	63.4303	
7	9.4907	27	36.6071	47	63.7234	67	90.8398	87	117.9562	7	5.1629	27	19.9142	47	34.6654	67	49.4167	87	64.1679	
8	10.8465	28	37.9629	48	65.0793	68	92.1956	88	119.3120	8	5.9005	28	20.6517	48	35.4030	68	50.1542	88	64.9545	
9	12.2024	29	39.3187	49	66.4351	69	93.5514	89	120.6678	9	6.6381	29	21.3893	49	36.1405	69	50.8918	89	65.6430	
10	13.5582	30	40.6745	50	67.7909	70	94.9073	90	122.0236	10	7.3756	30	22.1269	50	36.8781	70	51.6293	90	66.3806	
11	14.9140	31	42.0304	51	69.1467	71	96.2631	91	123.3794	11	8.1132	31	22.8644	51	37.6157	71	52.3669	91	67.1181	
12	16.2698	32	43.3862	52	70.5025	72	97.6189	92	124.7352	12	8.8507	32	23.6020	52	38.3532	72	53.1045	92	67.8557	
13	17.6256	33	44.7420	53	71.8583	73	98.9747	93	126.0910	13	9.5883	33	24.3395	53	39.0908	73	53.8420	93	68.5933	
14	18.9815	34	46.0978	54	73.2142	74	100.3316	94	127.4468	14	10.3259	34	25.0771	54	39.8284	74	54.5720	94	69.3308	
15	20.3373	35	47.4536	55	74.5700	75	101.6862	95	128.8026	15	11.0634	35	25.8147	55	40.5659	75	55.3172	95	70.0684	
16	21.6931	36	48.8094	56	75.9258	76	103.0422	96	130.1586	16	11.8010	36	26.5522	56	41.3035	76	56.0547	96	70.8060	
17	23.0489	37	50.1653	57	77.2816	77	104.3980	97	131.5144	17	12.5386	37	27.2898	57	42.0410	77	56.7923	97	71.5435	
18	24.4047	38	51.5211	58	78.6374	78	105.7538	98	132.8702	18	13.2761	38	28.0274	58	42.7786	78	57.5298	98	72.2811	
19	25.7605	39	52.8769	59	79.9933	79	107.1196	99	134.2260	19	14.0137	39	28.7649	59	43.5162	79	58.2674	99	73.0187	
20	27.1164	40	54.2327	60	81.3491	80	108.4654	100	135.5820	20	14.7512	40	29.5025	60	44.2537	80	59.0050	100	73.7562	

in. to mm

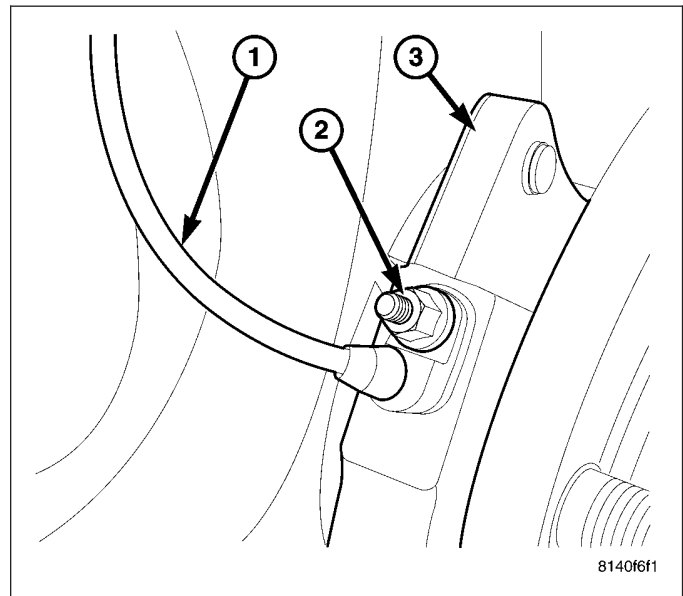
mm to in.

in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
.01	.254	.21	5.334	.41	10.414	.61	15.494	.81	20.574	.01	.00039	.21	.00827	.41	.01614	.61	.02402	.81	.03189		
.02	.508	.22	5.588	.42	10.668	.62	15.748	.82	20.828	.02	.00079	.22	.00866	.42	.01654	.62	.02441	.82	.03228		
.03	.762	.23	5.842	.43	10.922	.63	16.002	.83	21.082	.03	.00118	.23	.00906	.43	.01693	.63	.02480	.83	.03268		
.04	1.016	.24	6.096	.44	11.176	.64	16.256	.84	21.336	.04	.00157	.24	.00945	.44	.01732	.64	.02520	.84	.03307		
.05	1.270	.25	6.350	.45	11.430	.65	16.510	.85	21.590	.05	.00197	.25	.00984	.45	.01772	.65	.02559	.85	.03346		
.06	1.524	.26	6.604	.46	11.684	.66	16.764	.86	21.844	.06	.00236	.26	.01024	.46	.01811	.66	.02598	.86	.03386		
.07	1.778	.27	6.858	.47	11.938	.67	17.018	.87	22.098	.07	.00276	.27	.01063	.47	.01850	.67	.02638	.87	.03425		
.08	2.032	.28	7.112	.48	12.192	.68	17.272	.88	22.352	.08	.00315	.28	.01102	.48	.01890	.68	.02677	.88	.03465		
.09	2.286	.29	7.366	.49	12.446	.69	17.526	.89	22.606	.09	.00354	.29	.01142	.49	.01929	.69	.02717	.89	.03504		
.10	2.540	.30	7.620	.50	12.700	.70	17.780	.90	22.860	.10	.00394	.30	.01181	.50	.01969	.70	.02756	.90	.03543		
.11	2.794	.31	7.874	.51	12.954	.71	18.034	.91	23.114	.11	.00433	.31	.01220	.51	.02008	.71	.02795	.91	.03583		
.12	3.048	.32	8.128	.52	13.208	.72	18.288	.92	23.368	.12	.00472	.32	.01260	.52	.02047	.72	.02835	.92	.03622		
.13	3.302	.33	8.382	.53	13.462	.73	18.542	.93	23.622	.13	.00512	.33	.01299	.53	.02087	.73	.02874	.93	.03661		
.14	3.556	.34	8.636	.54	13.716	.74	18.796	.94	23.876	.14	.00551	.34	.01339	.54	.02126	.74	.02913	.94	.03701		
.15	3.810	.35	8.890	.55	13.970	.75	19.050	.95	24.130	.15	.00591	.35	.01378	.55	.02165	.75	.02953	.95	.03740		
.16	4.064	.36	9.144	.56	14.224	.76	19.304	.96	24.384	.16	.00630	.36	.01417	.56	.02205	.76	.02992	.96	.03780		
.17	4.318	.37	9.398	.57	14.478	.77	19.558	.97	24.638	.17	.00669	.37	.01457	.57	.02244	.77	.03032	.97	.03819		
.18	4.572	.38	9.652	.58	14.732	.78	19.812	.98	24.892	.18	.00709	.38	.01496	.58	.02283	.78	.03071	.98	.03858		
.19	4.826	.39	9.906	.59	14.986	.79	20.066	.99	25.146	.19	.00748	.39	.01535	.59	.02323	.79	.03110	.99	.03898		
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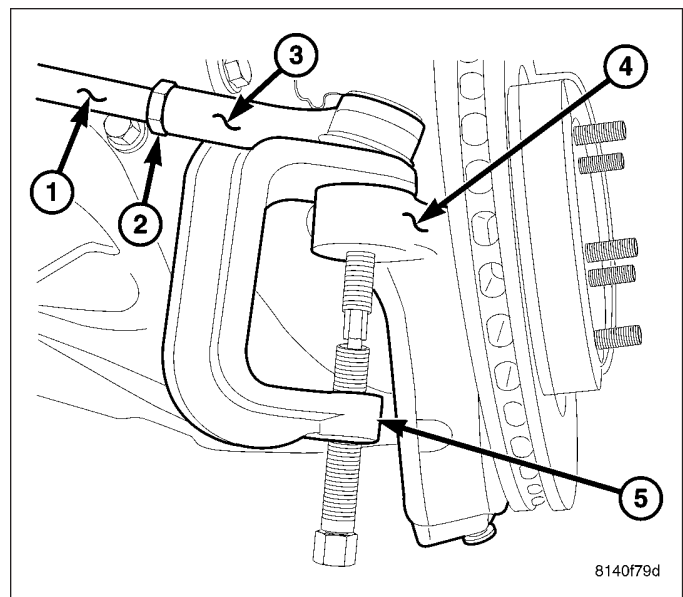
5. Remove the o-ring (2) and discard then remove disc brake rotor (1). (Refer to 5 - BRAKES/HYDRAULIC/MECHANICAL/ROTORS - REMOVAL).



6. Remove the wheel speed sensor (2). (Refer to 5 - BRAKES/ELECTRICAL/Front WHEEL SPEED SENSOR - REMOVAL).
7. Remove the axle shaft nut. (if equipped with four wheel drive)
8. Remove the hub/bearing (3). (Refer to 2 - SUSPENSION/Front/HUB / BEARING - REMOVAL).



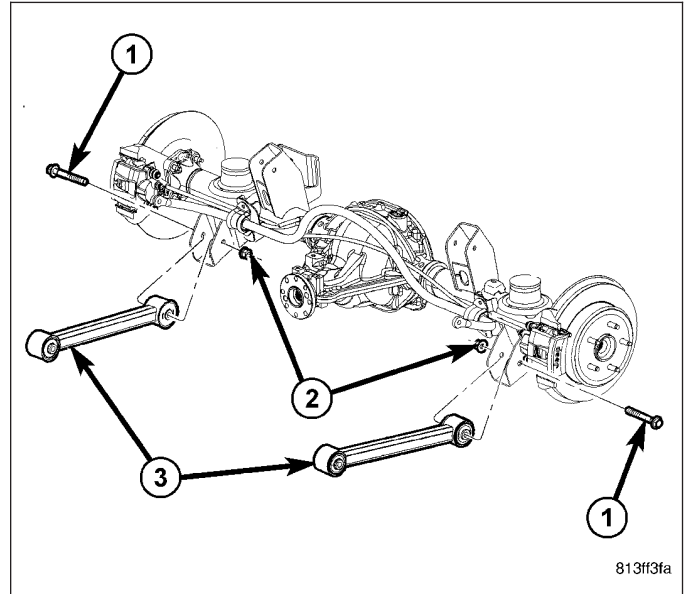
9. Remove the outer tie rod end retaining nut.
10. Separate the outer tie rod end (3) from the steering knuckle using special tool 8677(5). (Refer to 19 - STEERING/LINKAGE/TIE ROD END - REMOVAL).



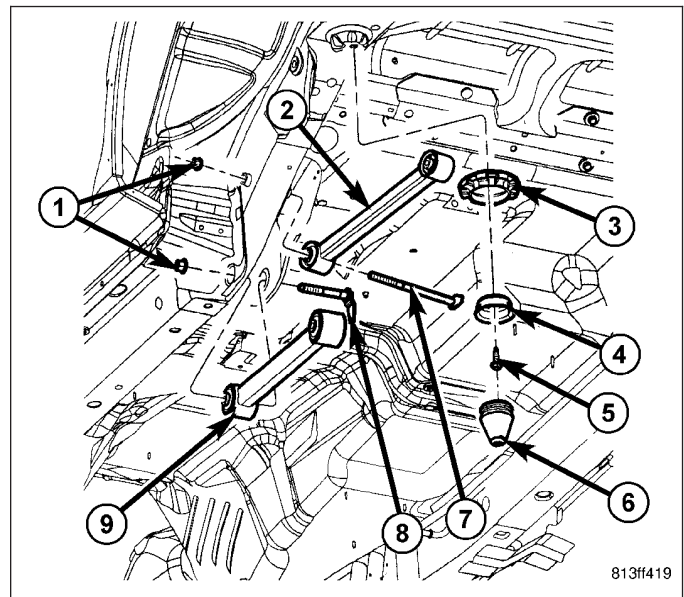
REMOVAL

LEFT SIDE

1. Raise the vehicle and support the rear axle.
2. Remove the fuel tank (Refer to 14 - FUEL SYSTEM/FUEL DELIVERY/FUEL TANK - REMOVAL).
3. Remove the lower suspension arm nut (2) and bolt (1) from the axle bracket.



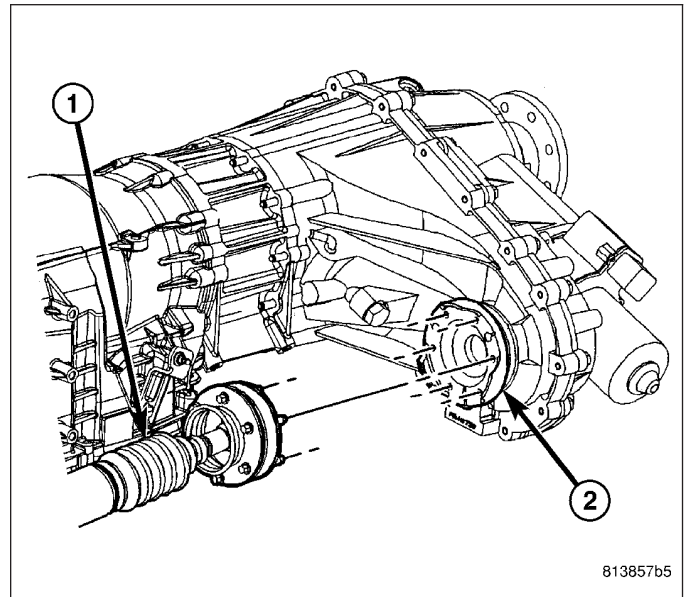
4. Remove the nut (1) and bolt (8) from the frame rail and remove the lower suspension arm (9).



RIGHT SIDE

1. Raise the vehicle and support the rear axle.

4. Install shaft (1) on transfer case flange (2).
5. Install bolts to transfer case flange (2) and tighten bolts to 32 N·m (24 ft. lbs.).
6. Install transmission crossmember.

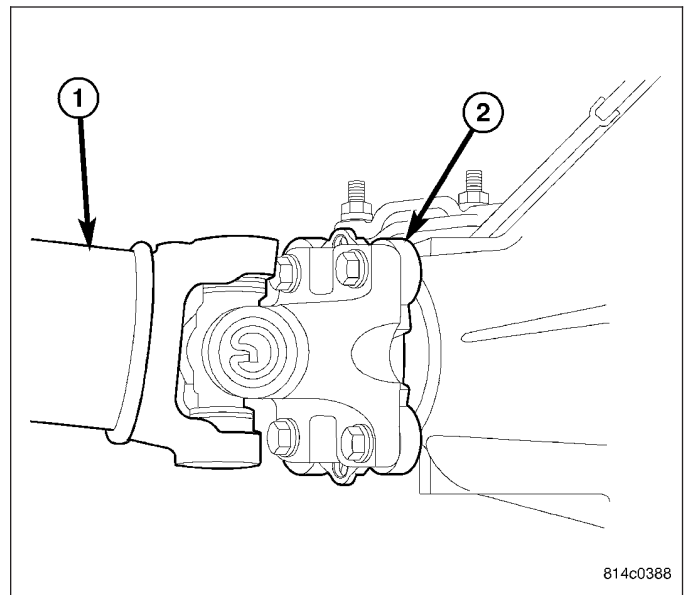


PROPELLER SHAFT-REAR

REMOVAL

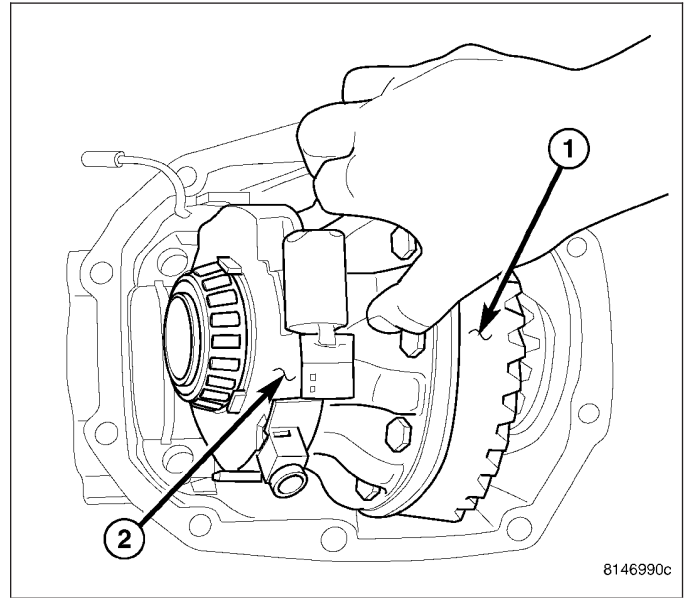
NOTE: The propeller shaft slip joint boot can be replaced. Place reference marks on both sections of the shaft to ensure proper assemble.

1. With vehicle in neutral, position vehicle on hoist.
2. Mark the propeller shaft (1) pinion flange (2), transmission/transfer case flanges and for installation reference.

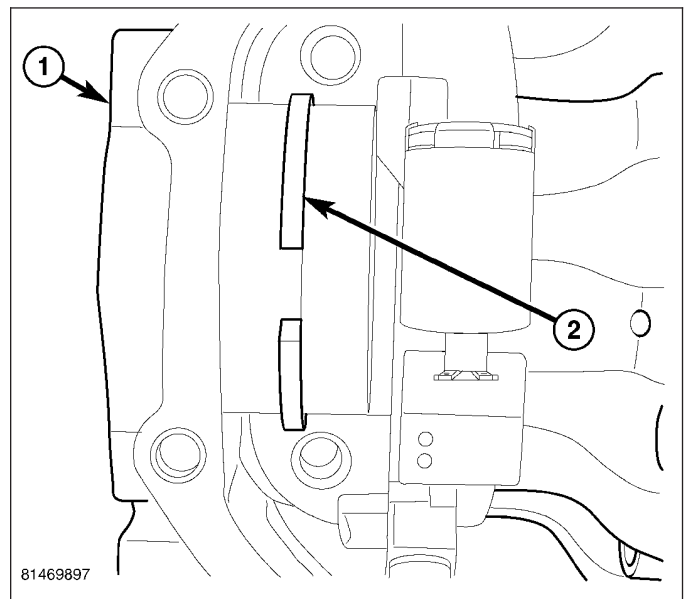


INSTALLATION

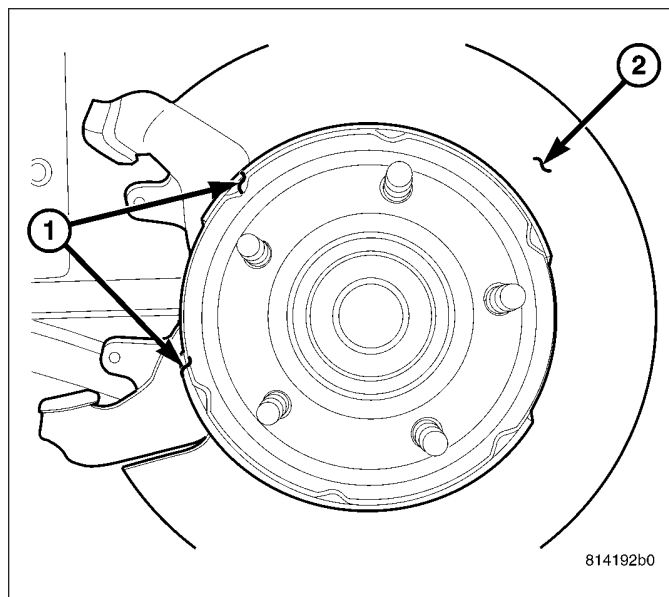
1. Bolt spreader Adapters 9669 to the differential housing.
2. Install Spreader W-129-B on adapters and spread case 3mm (0.011in.).
3. Slide differential assembly (1) into the right of the housing. Then slide ELSD pump (2) and differential into housing.



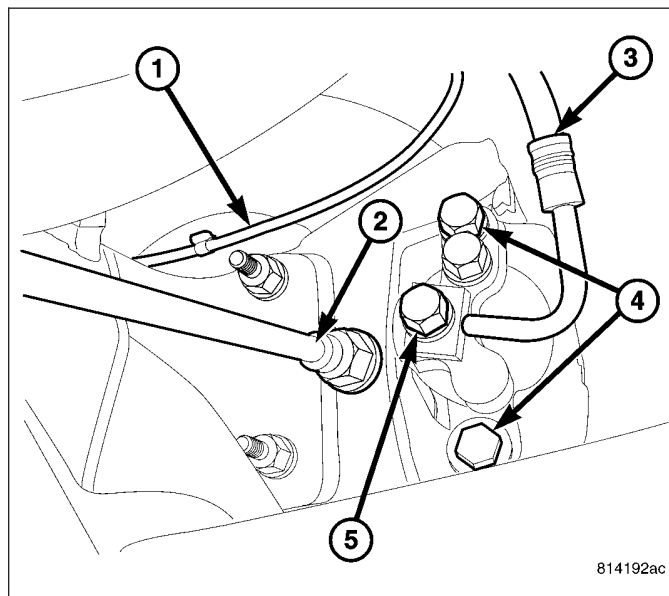
4. Install differential bearing cups into their original locations.
5. Install axle tube side differential housing (1) snap ring (2).



8. Install the rotor (Refer to 5 - BRAKES/HYDRAULIC/MECHANICAL/ROTORS - INSTALLATION).



9. Install the caliper and the slide bolts (4) (Refer to 5 - BRAKES/HYDRAULIC/MECHANICAL/DISC BRAKE CALIPERS - INSTALLATION).
10. Install the wheel and tire assembly (Refer to 22 - TIRES/WHEELS/WHEELS - STANDARD PROCEDURE).



PARKING BRAKE

OPERATION

The parking brakes operated by a automatic tensioner mechanism built into the hand lever and cable system. The front cable is connected to the hand lever and the equalizer. The rear cables attached to the equalizer and the parking brake shoe actuator.

A set of drum type brake shoes are used for parking brakes. The shoes are mounted to the rear disc brake adaptor. The parking brake drum is integrated into the rear disc brake rotor.

Parking brake cable adjustment is controlled by an automatic tensioner mechanism. The only adjustment if necessary is to the park brake shoes if the linings are worn.

DIAGNOSIS AND TESTING - PARKING BRAKE

NOTE: Parking brake adjustment is controlled by an automatic cable tensioner and does not require adjustment. The only adjustment that may be necessary would be to the park brake shoes if they are worn.

C1042-RIGHT FRONT TONE WHEEL PERFORMANCE (CONTINUED)

For the Anti-Lock Brake System circuit diagram. (Refer to 5 - BRAKES - SCHEMATICS AND DIAGRAMS)

For a complete wiring diagram **Refer to Section 8W.**

- **When Monitored:**
With the ignition on.
- **Set Condition:**
When the Anti-Lock Brake Module detects periodic drops of a WSS signal.

Possible Causes
RIGHT FRONT TONE WHEEL

Diagnostic Test**1. CHECK FOR A DTC C1042-RIGHT FRONT TONE WHEEL PERFORMANCE**

NOTE: This DTC must be active for the results of this test to be valid.

Turn the ignition on.

With the scan tool, read DTCs.

Record DTC and Freeze Frame information.

With the scan tool, erase DTCs.

Cycle the ignition switch off then on.

CAUTION: Ensure brake capability is available before road testing.

Test drive the vehicle in a straight line to 40 Km/h (25 mph).

With the scan tool, read DTCs.

Does the scan tool display: C1042-RIGHT FRONT TONE WHEEL PERFORMANCE?

Yes >> Go To 2

No >> Refer to the INTERMITTENT CONDITION diagnostic procedure.
Perform ABS VERIFICATION TEST - VER 1.

2. CHECK THE RIGHT FRONT TONE WHEEL FOR DAMAGE

NOTE: Check the tone wheel teeth for missing teeth, cracks, or looseness. Teeth should be perfectly square, not bent, or nicked.

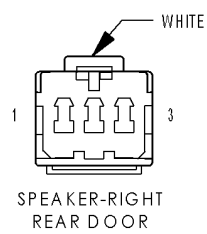
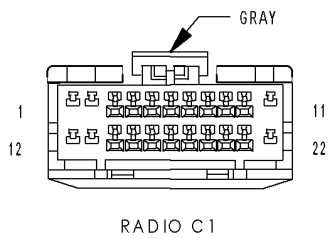
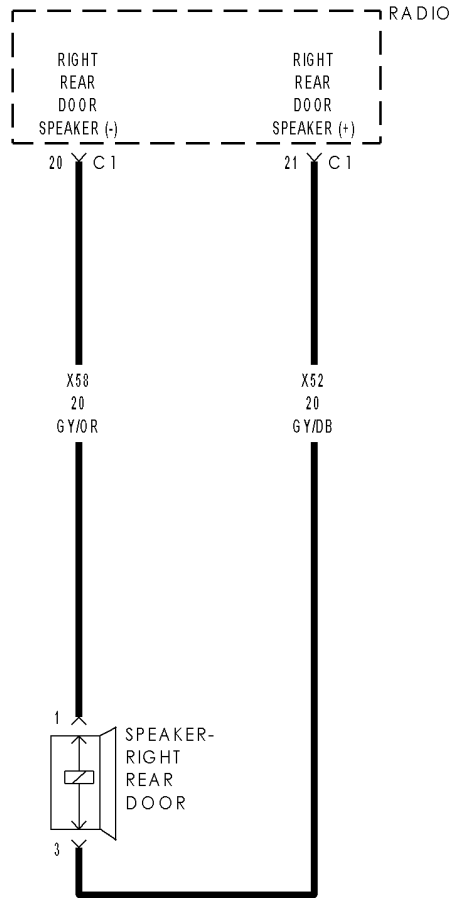
Check the Right Front Tone Wheel for damage.

Were any problems found?

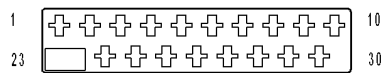
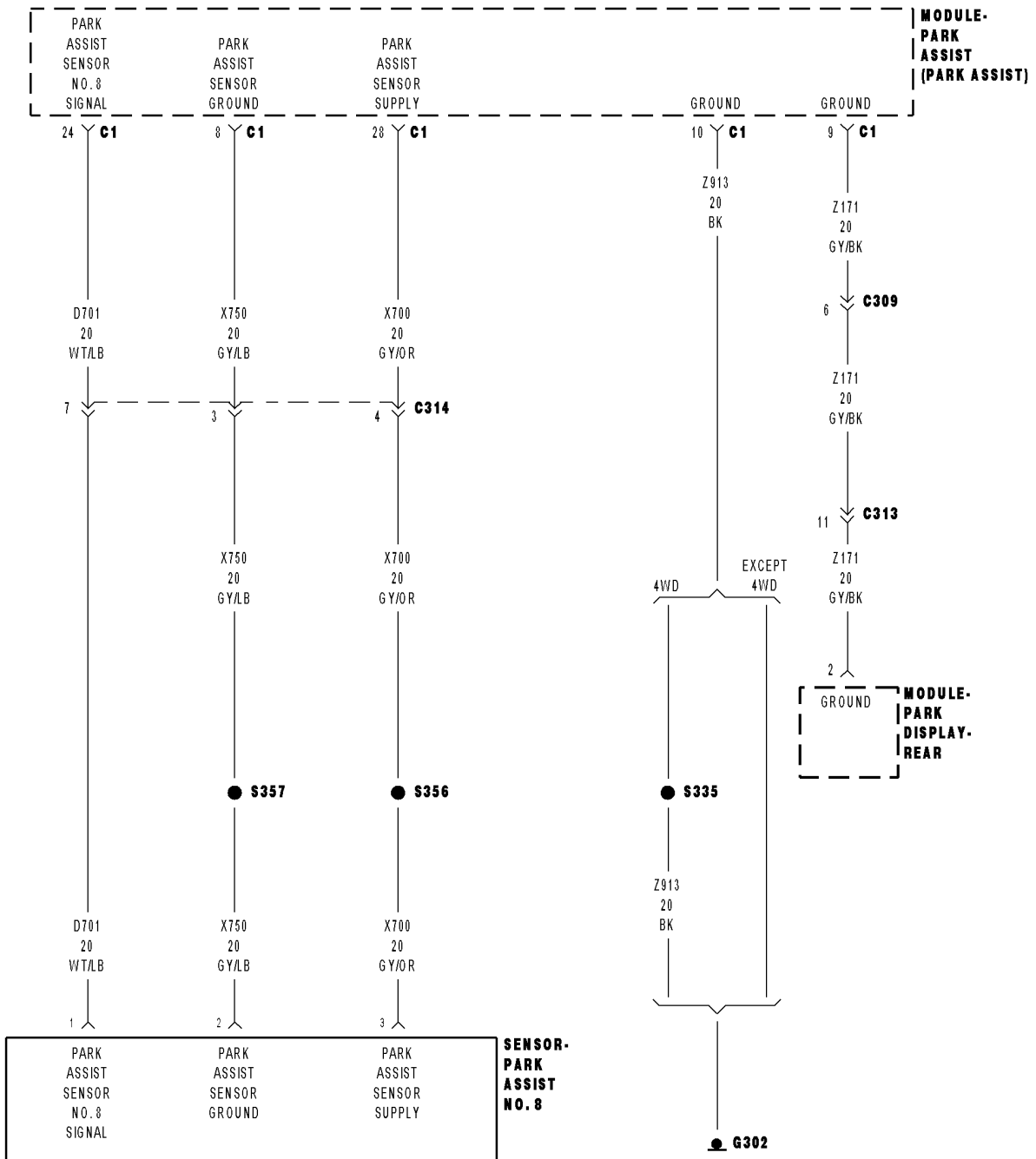
Yes >> Replace the Right Front Tone Wheel in accordance with the Service Information.
Perform ABS VERIFICATION TEST - VER 1.

No >> Test Complete.

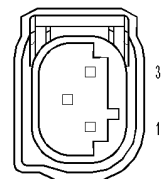
B140D-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW



B1231-PTS SENSOR 8 CIRCUIT LOW



MODULE-PARK ASSIST C1 (PARK ASSIST)



SENSOR-PARK ASSIST NO. 8 (REAR PARK ASSIST)

***NO RESPONSE FROM AHBM (SMARTBEAM) (CONTINUED)**

For a complete wiring diagram Refer to Section 8W.

Possible Causes
(F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN OR SHORTED
(Z915) GROUND CIRCUIT OPEN
(D55) AND (D54) CAN B BUS CIRCUITS OPEN
INSIDE REARVIEW MIRROR (CONTROLS SMARTBEAM FUNCTIONS)

Diagnostic Test

1. TEST FOR INTERMITTENT CONDITION

Turn the ignition on.

NOTE: Ensure the IOD fuse is installed and battery voltage is between 10.0 and 16.0 volts.

With the scan tool, select ECU view.

NOTE: A red X will be next to the module that is not communicating, indicating that the module is not active on the Bus network. A green check indicates that the module is active on the Bus network.

Does the scan tool display a red X next to the module?

Yes >> Go To 2

No >> The no response condition is not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.

2. (F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN OR SHORTED

Turn the ignition off.

NOTE: Check the FCM and the Cluster for any ignition related DTCs. If set, perform the appropriate DTC before proceeding.

Disconnect the Inside Rearview Mirror C1 harness connector.

Turn the ignition on.

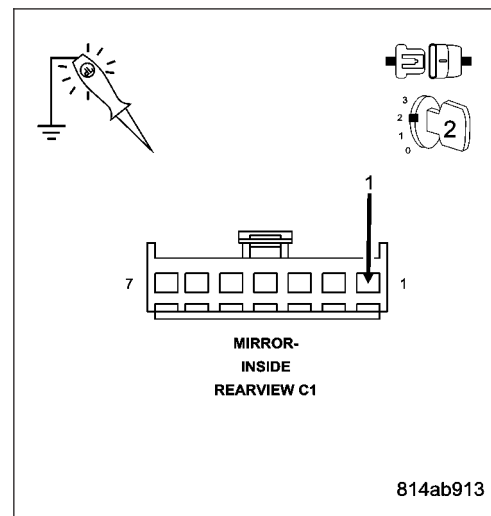
Using a 12-volt test light connected to ground, check the (F921) Fused Run Relay Output circuit.

Does the test light illuminate brightly?

Yes >> Go To 3

No >> Repair the (F921) Fused Run Relay Output circuit for an open or short.

Perform BODY VERIFICATION TEST – VER 1. (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES - STANDARD PROCEDURE).



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B211A-IGNITION RUN/ACC/SPAD CONTROL CIRCUIT LOW (CONTINUED)

For the Power Door Lock circuit diagram (Refer to 8 - ELECTRICAL/POWER LOCKS - SCHEMATICS AND DIAGRAMS)

For a complete wiring diagram Refer to Section 8W.

- **When Monitored:**
Continuously
- **Set Condition:**
When the Cluster senses a low condition on the (F103) Ignition Run/Acc Relay Control circuit for over 10 seconds, this code will set.

Possible Causes
(F103) IGNITION RUN/ACC/SPAD RELAY CONTROL CIRCUIT LOW
JUNCTION BLOCK
INSTRUMENT CLUSTER

Diagnostic Test

1. TEST FOR INTERMITTENT CONDITION

With the scan tool, record and erase DTC's
Operate the door locks several times.
Cycle the ignition from on to off.
Turn the ignition on.
With the scan tool, read DTC's.

Does the scan tool display B211A-IGNITION RUN/ACC/SPAD CONTROL CIRCUIT LOW?

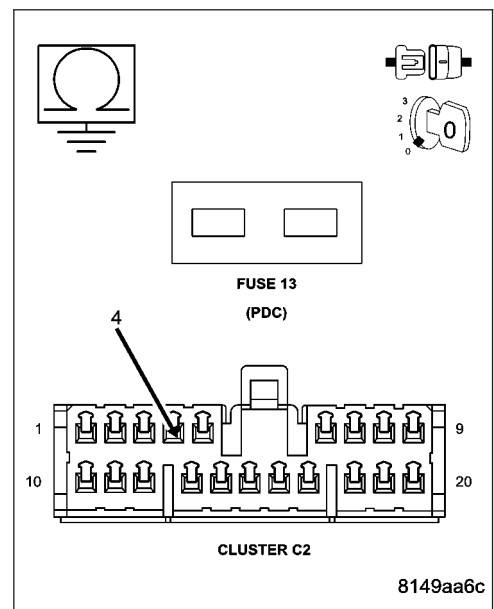
- Yes** >> Go To 2
- No** >> The conditions that caused this code to set are not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.
Perform BODY VERIFICATION TEST - VER 1. (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES - STANDARD PROCEDURE)

2. IGNITION RUN/ACC/SPAD RELAY SHORTED

Turn the ignition off.
Disconnect the Cluster C2 connector.
Remove the PDC fuse #13.
Measure the resistance between ground and the (F103) Ignition Run/Acc/SPAD Relay Control circuit in the Cluster C2 connector

Is the resistance below 1000.0 ohms?

- No** >> Replace the Instrument Cluster in accordance with service information.
Perform BODY VERIFICATION TEST - VER 1. (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES - STANDARD PROCEDURE)
- Yes** >> Go To 3



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- Service interval (Gasoline engines), 3200,...9600 KM, in increments of 800 KM/2000,...6000 miles in increments of 500 miles
- Service interval (Diesel engines), 4000,...20000 KM, in increments of 1000 KM/2500,...12500 miles in increments of 625 miles
- Automatically move seat back on exit, On or Off

Compass/Temperature/Trip Computer Mode

This display provides the outside temperature, one of the eight compass headings to indicate the direction the vehicle is facing, and vehicle trip information. The compass and temperature display is the normal display. When the C/T button is pressed the compass/temperature display returns.

The trip computer function will be displayed if the STEP button is pressed from the Compass/Temperature display mode. The trip computer displays the following information:

- Average fuel economy
- Distance to empty
- Trip A
- Trip B
- Elapsed time
- Miles to service
- Tire pressure display (if equipped)

Universal Garage Door Transceiver

The Electronic Vehicle Information Center (EVIC) features a driver-interactive display which includes HomeLink system messages. For additional information on the universal transceiver (Refer to 8 - ELECTRICAL/OVERHEAD CONSOLE/UNIVERSAL TRANSMITTER - DESCRIPTION).

DIAGNOSIS AND TESTING

ELECTRONIC VEHICLE INFORMATION CENTER

The Electronic Vehicle Information Center (EVIC) data is obtained from several components on the Controller Area Network (CAN) Data Bus circuit. The EVIC will not function properly if the bus messages from any of these components is not receive. If no EVIC data is displayed, check the CAN Data Bus circuit communications, the Instrument Cluster functions and the Front Control Module (FCM). **Any diagnosis of the EVIC system should begin with, the use of a scan tool and the appropriate diagnostic service information.**

The use of a scan tool and the proper diagnostic procedures information are recommended for further testing of the EVIC and the CAN Data Bus circuit.

For complete circuit diagrams, refer to the appropriate wiring information. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin-out information and location views for the various wire harness connectors, splices and grounds.

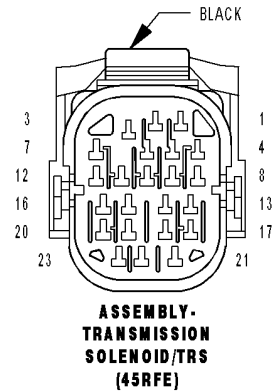
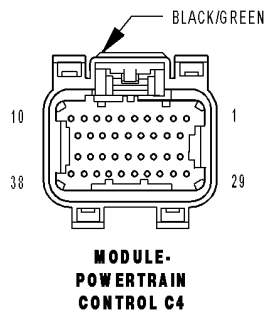
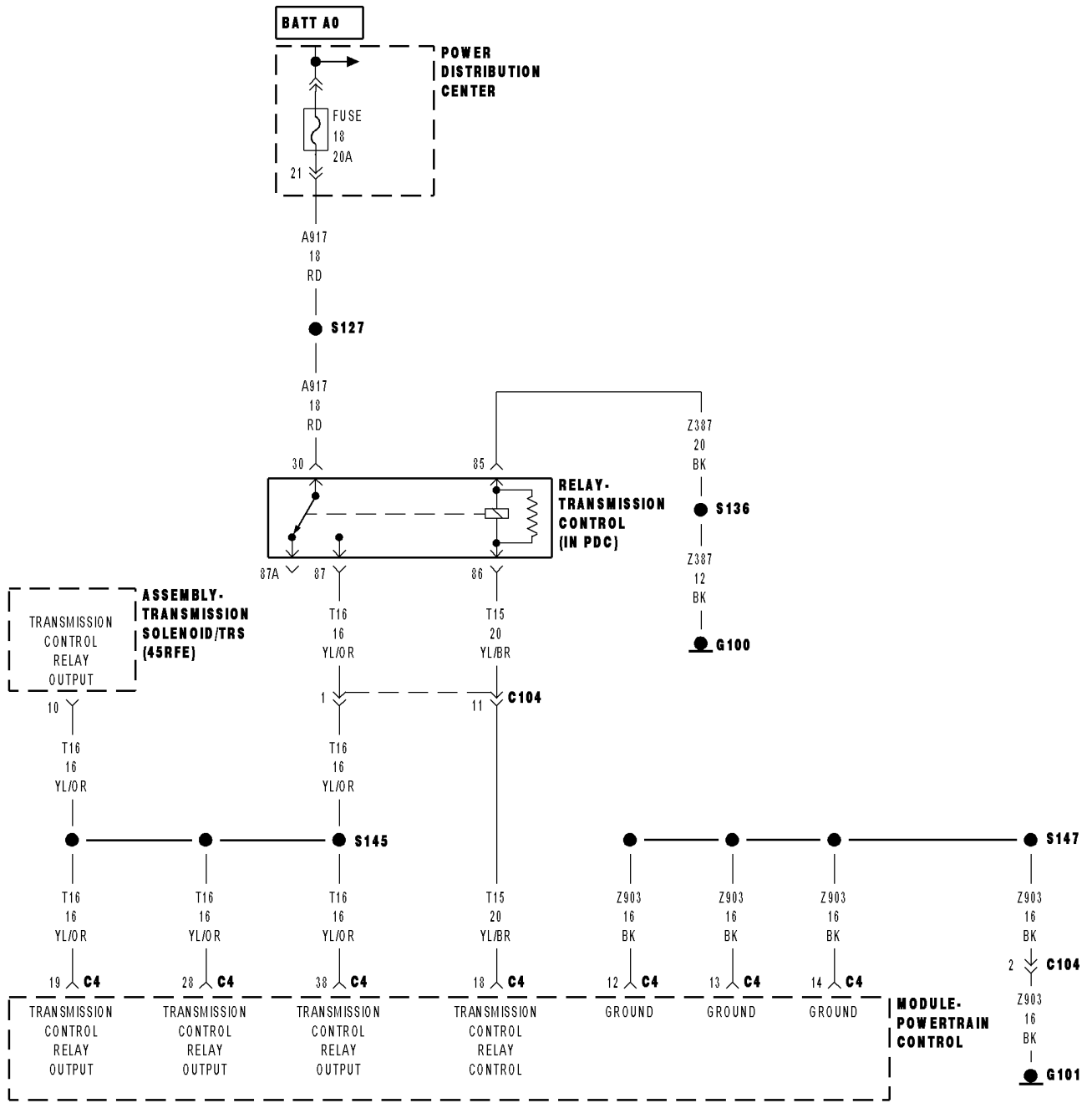
STANDARD PROCEDURE

COMPASS CALIBRATION

CAUTION: Do not place any external magnets, such as magnetic roof mount antennas, in the vicinity of the compass. Do not use magnetic tools when servicing the overhead console.

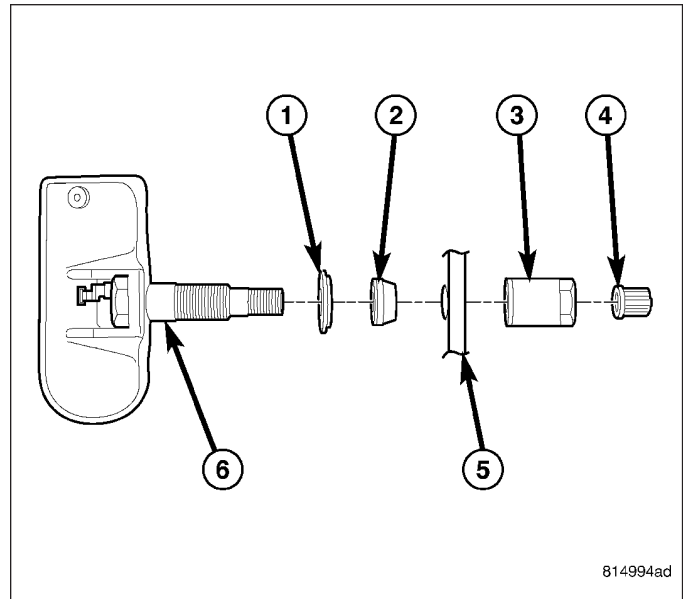
The electronic compass unit features a self-calibrating design, which simplifies the calibration procedure. This feature automatically updates the compass calibration while the vehicle is being driven. This allows the compass unit to compensate for small changes in the residual magnetism that the vehicle may acquire during normal use. If the compass readings appear to be erratic or the Electronic Vehicle Information Center (EVIC) displays "CAL", perform the following calibration procedure. Also, any time EVIC service replacement components are installed, they must be calibrated using this procedure. Do not attempt to calibrate the compass near large metal objects such as other vehicles, large buildings, or bridges; or, near overhead or underground power lines.

P0884-POWER UP AT SPEED



The serviceable components of the tire pressure sensor are :

- Sensor-To-Wheel Seal (2) and Metal Washer (1)
- Valve Stem Cap (4)
- Valve Stem Core
- Valve Stem Nut (with pressed-in washer) (3)



The valve stem caps and cores used are specifically designed for the tire pressure monitoring sensors. Although similar to standard valve stem caps and cores, they are different. The valve stem cap has a special seal inside to keep moisture and corrosion out. The valve stem core has a special nickel coating to protect from corrosion.

OPERATION

The battery operated tire pressure sensors lay dormant (Park Mode), then wake and start transmitting (Drive Mode) when the vehicle first reaches speeds over 20 mph (32 km/h). Once the wheels stop rotating for a period of approximately 20 minutes, the sensors shut down until again awoken. Although not transmitting as when in Drive Mode, while in Park Mode, the sensors still transmit approximately once every 13 hours to let the receiver know air pressure status at that time.

Using an RF signal, each sensor transmits tire pressure data approximately once every minute. Each sensor's (transmitter) broadcast is uniquely coded so that the wireless control module (WCM) can monitor the state of each of the sensors on the four rotating road wheels. The WCM automatically learns and stores the sensor's ID while driving after a sensor has been replaced. **There is no formal retraining procedure necessary.**

For additional information, refer to appropriate diagnostic information.

CAUTION

CAUTION: The use of tire sealants is strictly prohibited for vehicles equipped with the Tire Pressure Monitoring system. Tire sealants can clog tire pressure sensors.

CAUTION: Tire pressure sensor valve stem caps and cores are specially designed for the sensors. Due to risk of corrosion, do not use a standard valve stem cap or core in a tire pressure sensor in place of the original equipment style sensor cap and core.

CAUTION: Do not attempt to install a tire pressure sensor in an aftermarket wheel. Use tire pressure sensors in original style factory wheels only.

CAUTION: Any time a sensor is to be installed in a wheel, a new seal and washer must be installed on the stem to ensure air tight sealing.