
Engine Controls Connector End Views

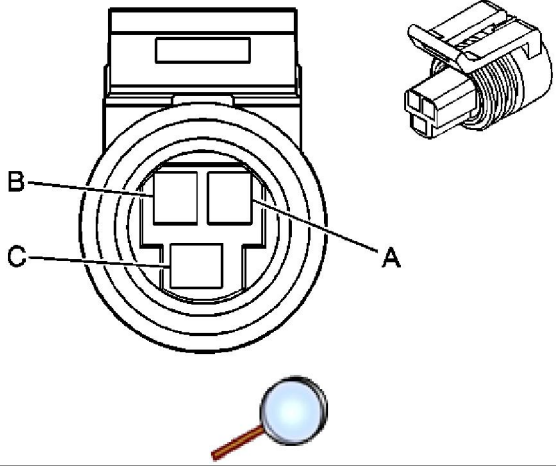
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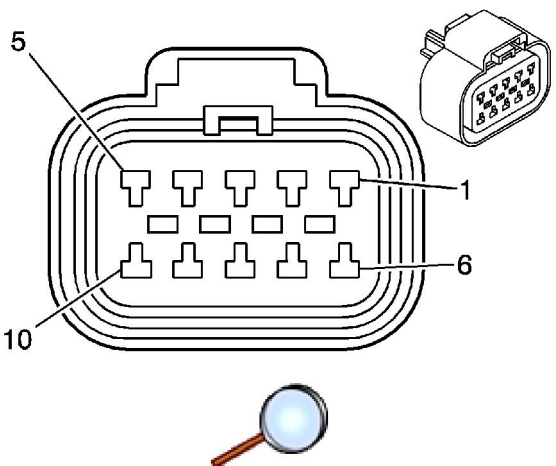
Table 42: [Throttle Actuator Control](#)

Table 43: [Vehicle Speed Sensor](#)

A/C Refrigerant Pressure Sensor

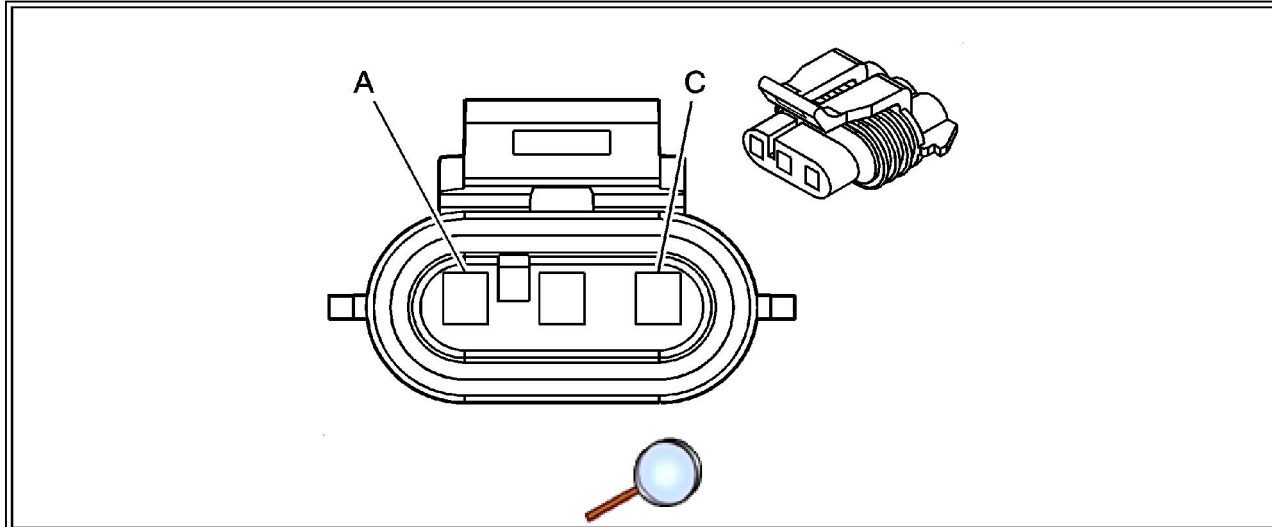
			
Connector Part Information		<ul style="list-style-type: none"> • 7223-9730-30 • 3-Way F (GY) 	
Pin	Wire Color	Circuit No.	Function
A	TN	5514	Low Reference
B	GN	2700	5-Volt Reference
C	GN/BK	380	A/C Refrigerant Pressure Sensor Signal

Accelerator Pedal Position Sensor

			
Connector Part Information		<ul style="list-style-type: none"> • 7223-9730-30 • 10-Way F (GY) 	
Pin	Wire Color	Circuit No.	Function
1	BN	1271	Reference Low Signal
2	WH/BK	1164	5-Volt Reference Signal

3	L-BU	1162	Throttle Pedal Position Signal
4	--	--	Not Used
5	BU	1161	Throttle Pedal Position Signal
6	TN	1274	5-Volt Reference Signal
7	PU	1272	Reference Low Signal
8-10	--	--	Not Used

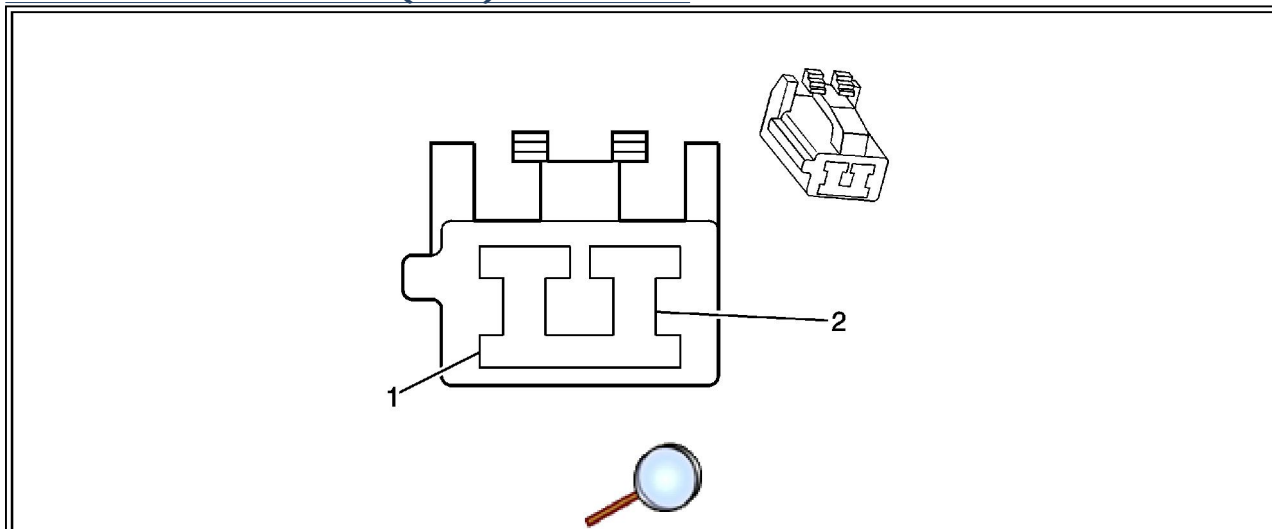
Camshaft Position (CMP) Sensor



Connector Part Information	<ul style="list-style-type: none"> • 7223-9735-30 • 3-Way F (BK)
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Pin	Wire Color	Circuit No.	Function
A	BN	633	CMP Sensor Signal
B	RD/WH	632	Low Reference
C	WH/BK	631	12-Volt Reference

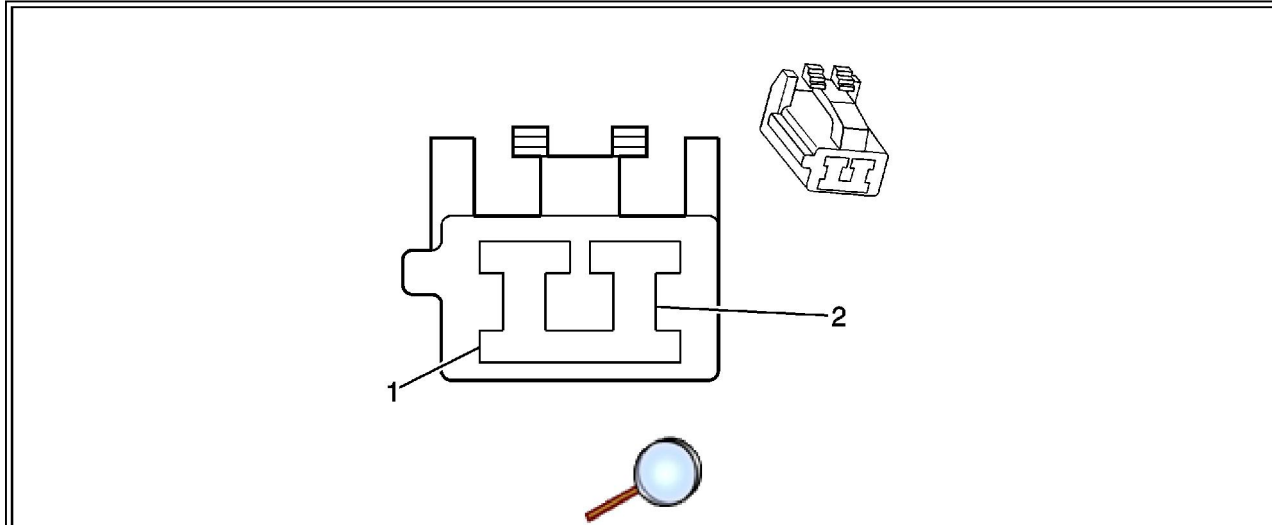
Clutch Pedal Position (CPP) Switch C1



Connector Part Information	<ul style="list-style-type: none"> • S42 • 2-Way F (WH)
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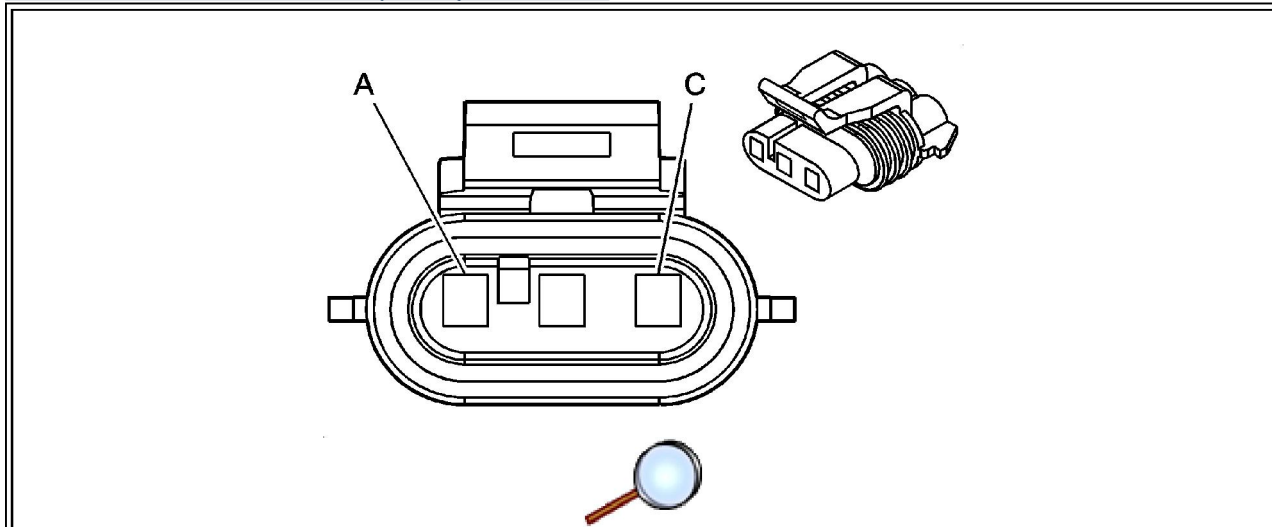
Pin	Wire Color	Circuit No.	Function
1	GN/BU	275	Ignition Voltage
2	GY	434	Park Neutral Position Switch Park Signal

Clutch Pedal Position (CPP) Switch C2



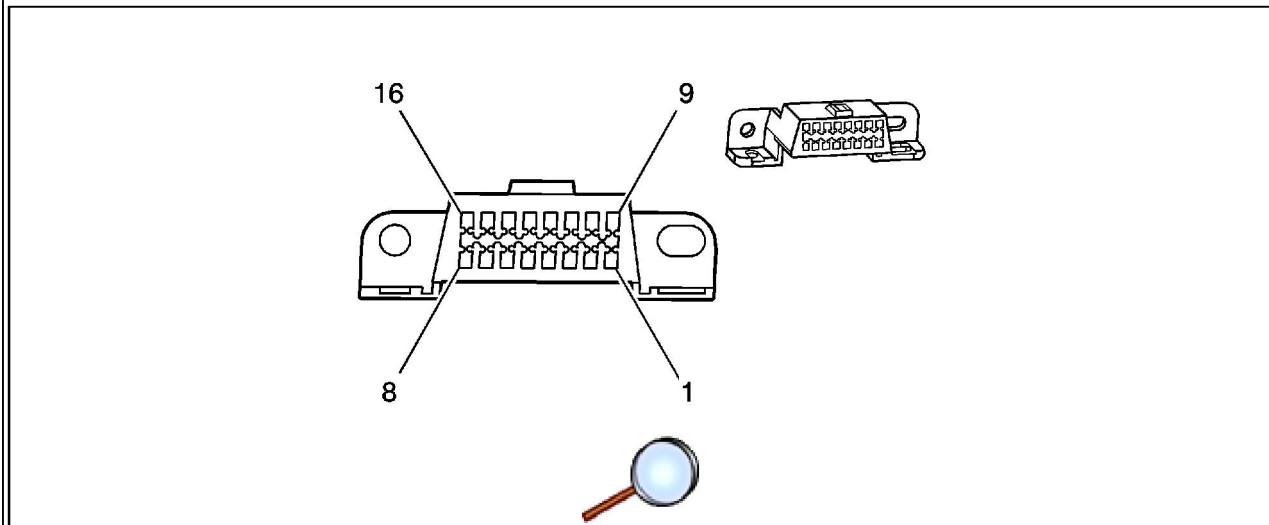
Connector Part Information		<ul style="list-style-type: none"> • S42 • 2-Way F (WH) 	
Pin	Wire Color	Circuit No.	Function
1	PK	139	Ignition Voltage
2	PU/WH	379	Cruise Cancel Signal

Crankshaft Position (CKP) Sensor



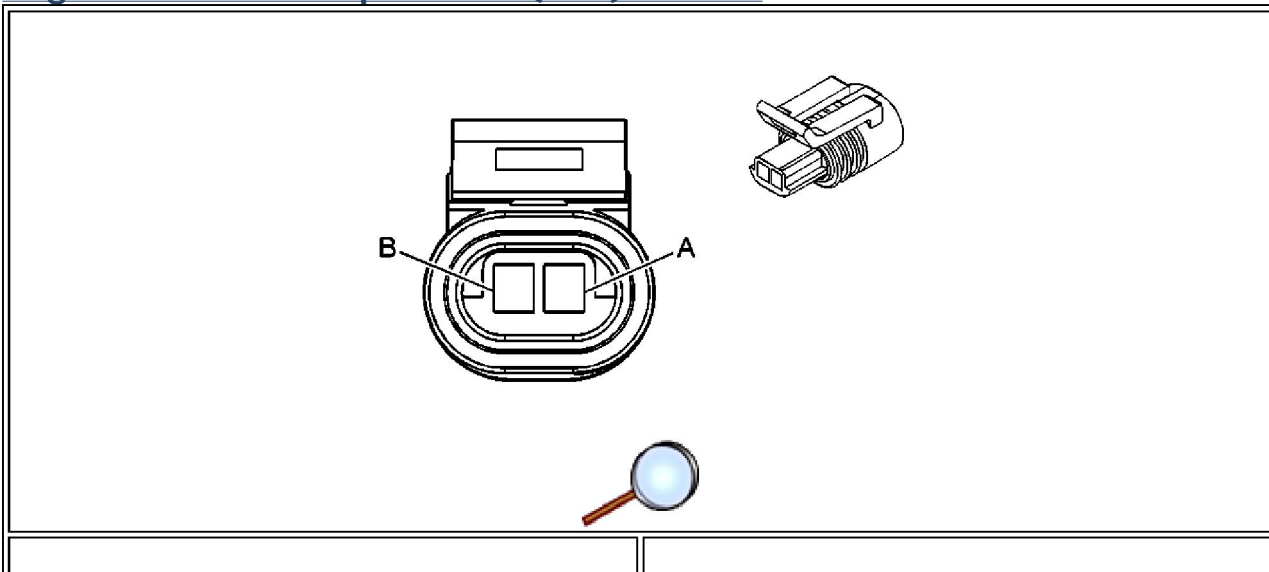
Connector Part Information		<ul style="list-style-type: none"> • 7223-9735-30 • 3-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	L-BU	573	CKP Sensor Signal
B	L-BU/BK	574	Low Reference
C	L-BU/WH	2867	12-Volt Reference

Data Link Connector (DLC)



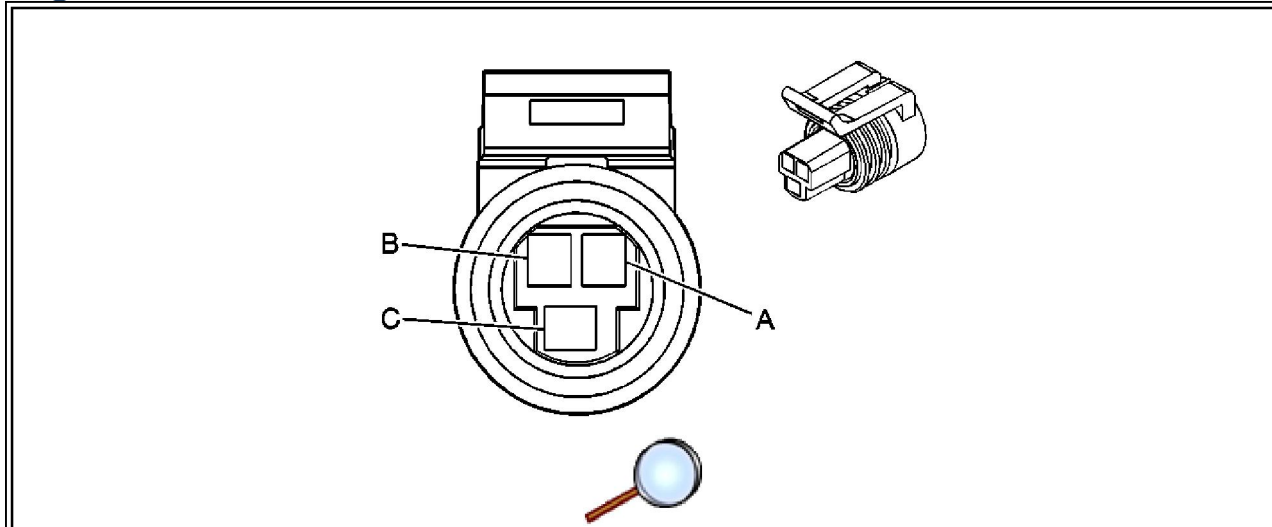
Connector Part Information		<ul style="list-style-type: none"> • 7123-9265-30 • 16-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	--	--	Not Used
2	YE	1045	RFA Class 2 Serial Data
3	--	--	Not Used
4	BK	150	Ground
5	BK/YE	251	Ground
6-8	--	--	Not Used
9	RD/BK	800	UART Serial Data (Primary)
10-11	--	--	Not Used
12	BU/BK	799	ABS Serial Data
13-15	--	--	Not Used
16	OG/BK	740	Battery Positive Voltage

Engine Coolant Temperature (ECT) Sensor



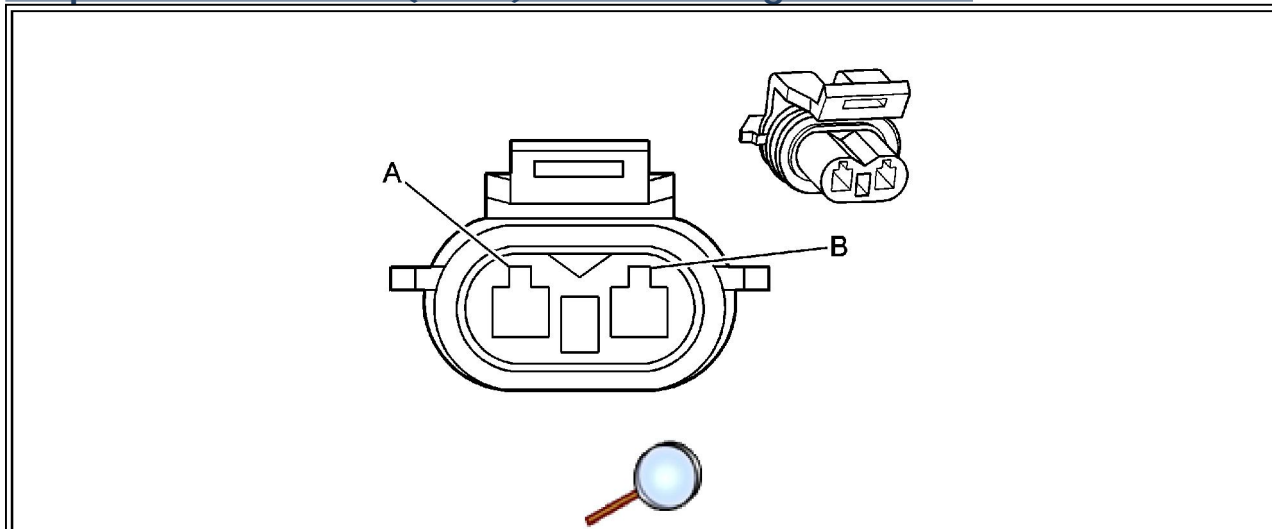
Connector Part Information		<ul style="list-style-type: none"> • 7223-9569-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	GY/BK	2761	Low Reference
B	YE	410	ECT Sensor Signal

Engine Oil Pressure (EOP) Switch



Connector Part Information		<ul style="list-style-type: none"> • 7223-9730-30 • 3-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	GN	470	Low Reference
B	BU/YE	596	5-Volt Reference
C	BU/WH	331	Engine Oil Pressure Signal

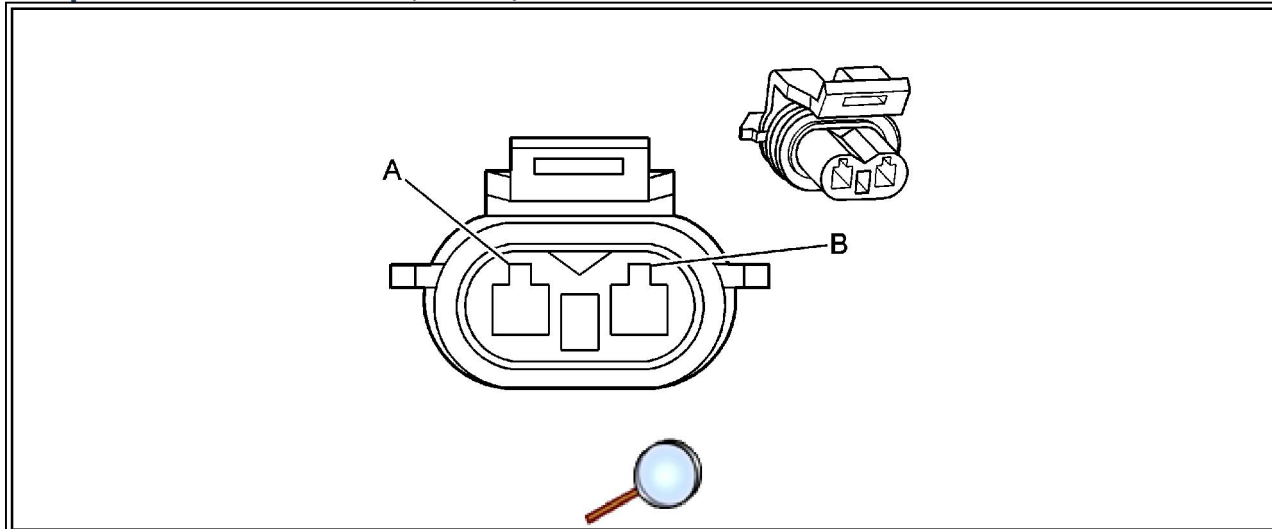
Evaporative Emission (EVAP) Canister Purge Solenoid



Connector Part Information		<ul style="list-style-type: none"> • 9223-4037-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function

A	PK	439	Ignition 1 Voltage
B	GN/YE	428	EVAP Canister Purge Solenoid Control

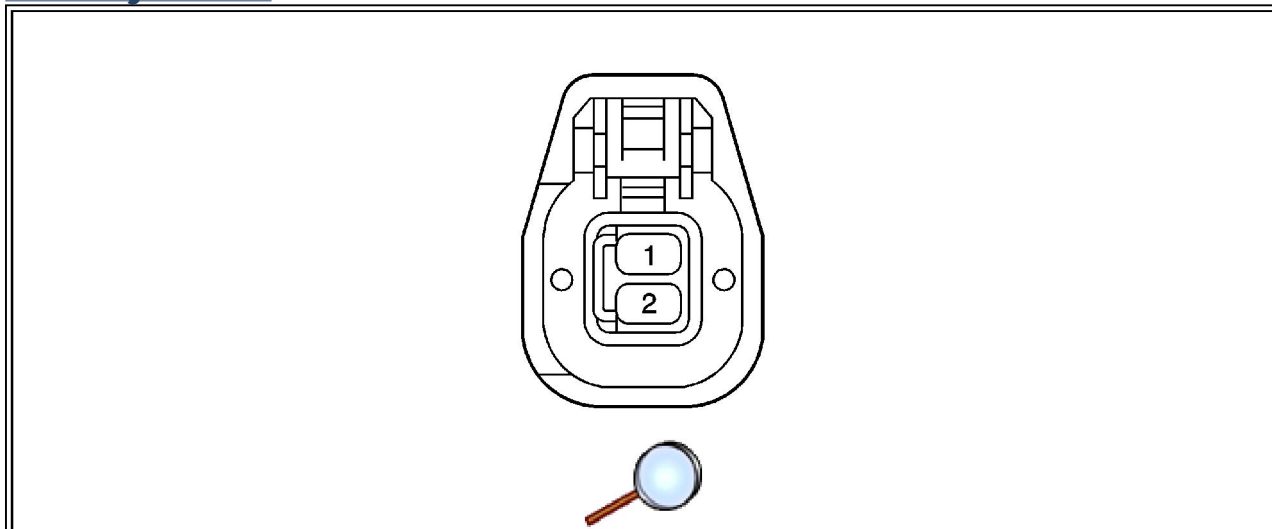
Evaporative Emission (EVAP) Canister Vent Solenoid



Connector Part Information	<ul style="list-style-type: none"> • 7223-9922-50 • 2-Way F (RD)
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Pin	Wire Color	Circuit No.	Function
A	PK	439	Ignition 1 Voltage
B	WH	1310	EVAP Canister Vent Solenoid Control

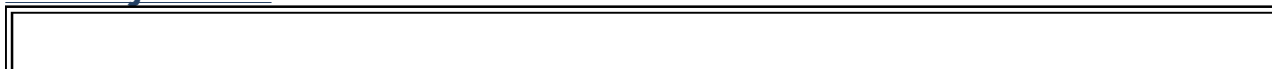
Fuel Injector 1

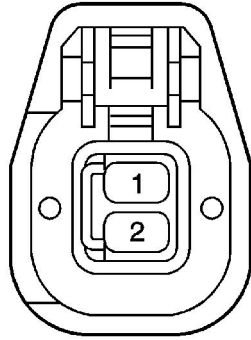


Connector Part Information	<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK)
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Pin	Wire Color	Circuit No.	Function
1	L-GN	1039	Ignition 1 Voltage
2	BU	1744	Fuel Injector #1 Control

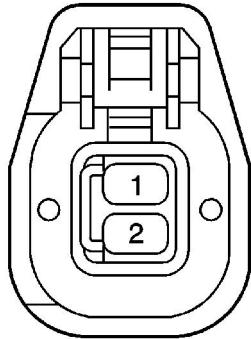
Fuel Injector 2





Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	RD	639	Ignition 1 Voltage
2	GN	1745	Fuel Injector #2 Control

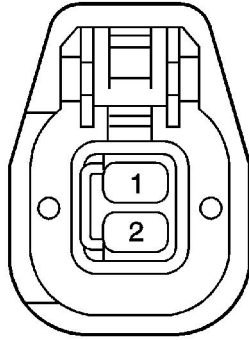
Fuel Injector 3



Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	L-GN	1039	Ignition 1 Voltage
2	PU	1746	Fuel Injector #3 Control

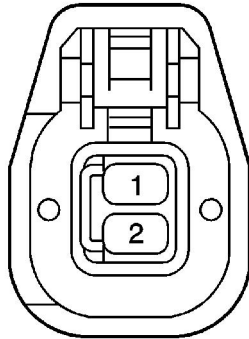
Fuel Injector 4





Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	RD	639	Ignition 1 Voltage
2	BN/YE	844	Fuel Injector #4 Control

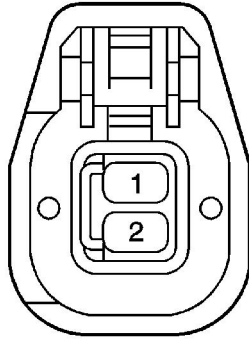
Fuel Injector 5



Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	L-GN	1039	Ignition 1 Voltage
2	GY	845	Fuel Injector #5 Control

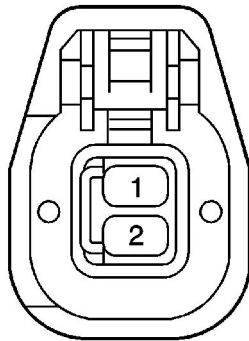
Fuel Injector 6

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Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	RD	639	Ignition 1 Voltage
2	YE	846	Fuel Injector #6 Control

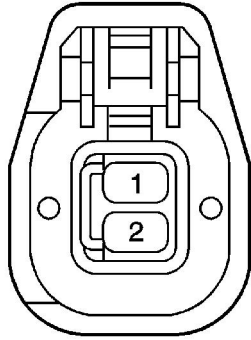
Fuel Injector 7



Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	L-GN	1039	Ignition 1 Voltage
2	PK/BK	877	Fuel Injector #7 Control

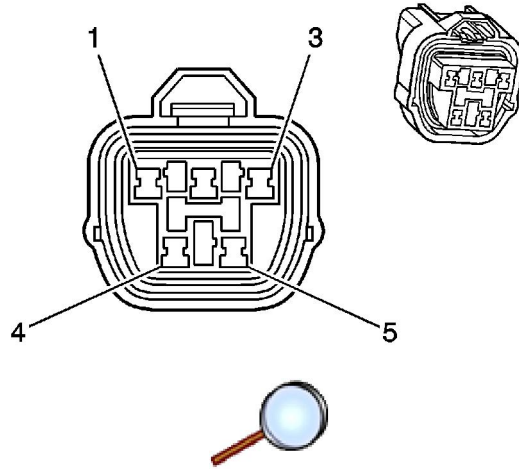
Fuel Injector 8

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Connector Part Information		<ul style="list-style-type: none"> • 7219-5226-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	RD	639	Ignition 1 Voltage
2	L-GN	878	Fuel Injector #8 Control

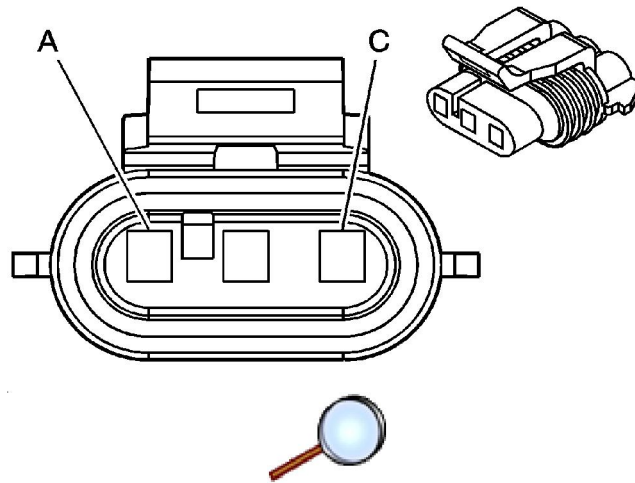
Fuel Pump and Sender Assembly



Connector Part Information		<ul style="list-style-type: none"> • 7283-7053-10 • 5-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	--	--	Not Used
2	PU	30	Fuel Level Sensor Signal
3	BK	2759	Low Reference
4	PU	120	Fuel Pump Supply Voltage
5	BK/BU	650	Ground

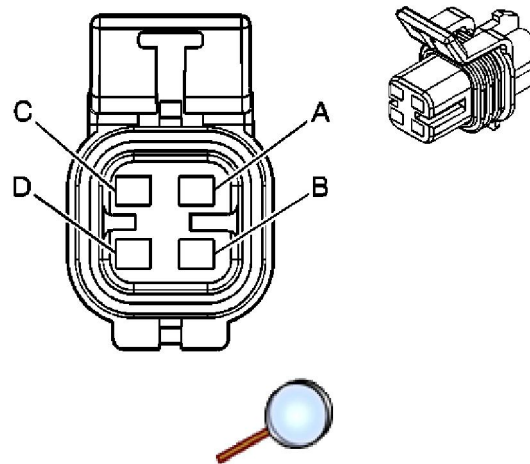
Fuel Tank Pressure (FTP) Sensor

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Connector Part Information		<ul style="list-style-type: none"> • B54 • 3-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	2759	Low Reference
B	D-GN	890	Fuel Tank Pressure Sensor Signal
C	GY	2709	5-Volt Reference Voltage

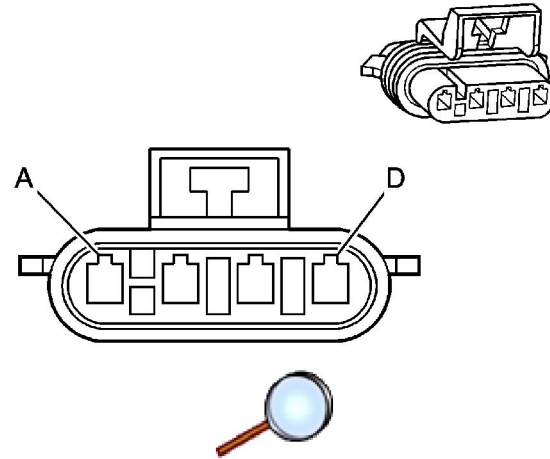
Heated Oxygen Sensor (HO2S) Bank 1 Sensor 1



Connector Part Information		<ul style="list-style-type: none"> • 9723-6897-40 • 4-Way F (GY) 	
Pin	Wire Color	Circuit No.	Function
A	BU/BK	1664	HO2S Low Signal Bank 1 Sensor 1
B	PU	1665	HO2S High Signal Bank 1 Sensor 1
C	BK/WH	1050	HO2S Bank 1 Sensor 1 Heater Low Control
D	PK	439	Ignition 1 Voltage

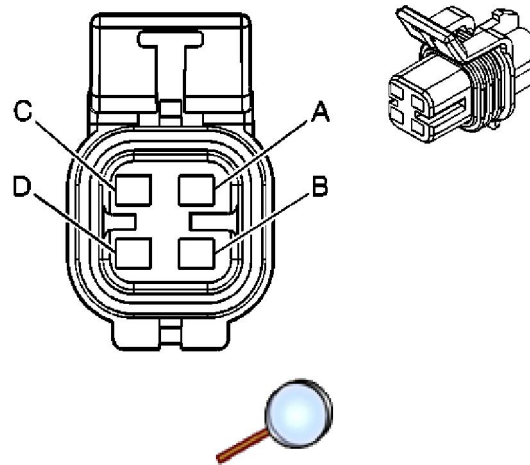
Heated Oxygen Sensor (HO2S) Bank 1 Sensor 2

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Connector Part Information		<ul style="list-style-type: none"> • 9223-9845-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BN/RD	1669	HO2S Low Signal Bank 1 Sensor 2
B	PU/WH	1668	HO2S High Signal Bank 1 Sensor 2
C	L-BU	1150	HO2S Bank 1 Sensor 2 Heater Low Control
D	PK	439	Ignition 1 Voltage

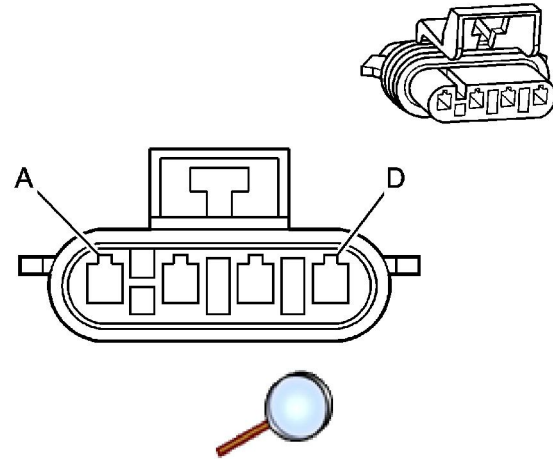
Heated Oxygen Sensor (HO2S) Bank 2 Sensor 1



Connector Part Information		<ul style="list-style-type: none"> • 9123-6897-40 • 4-Way F (GY) 	
Pin	Wire Color	Circuit No.	Function
A	GY/BK	1667	HO2S Low Signal Bank 2 Sensor 1
B	GY	1666	HO2S High Signal Bank 2 Sensor 1
C	L-GN/RD	1250	HO2S Bank 2 Sensor 1 Heater Low Control
D	PK	439	Ignition 1 Voltage

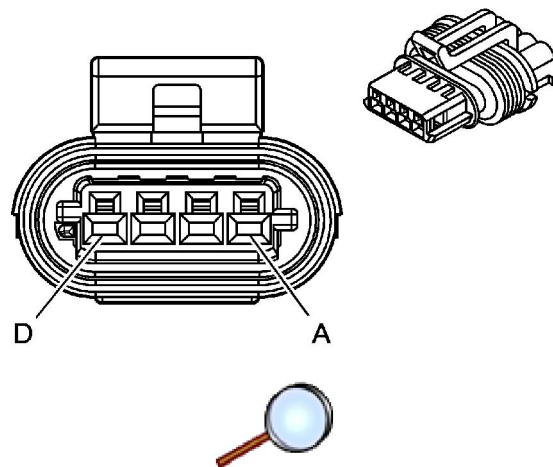
Heated Oxygen Sensor (HO2S) Bank 2 Sensor 2

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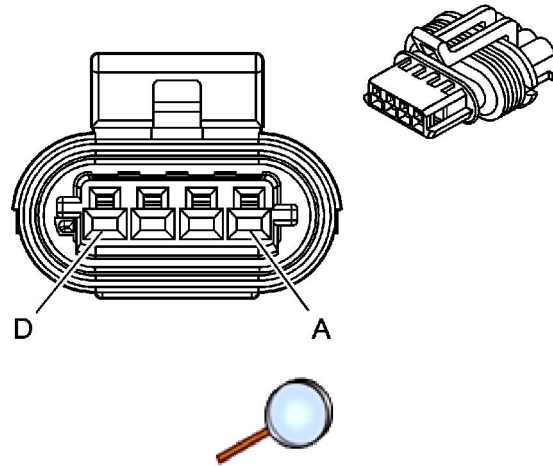
Connector Part Information		<ul style="list-style-type: none"> • 7223-9845-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	TN	1671	HO2S Low Signal Bank 2 Sensor 2
B	PU/BK	1670	HO2S High Signal Bank 2 Sensor 2
C	RD/WH	1350	HO2S Bank 2 Sensor 2 Heater Low Control
D	PK	439	Ignition 1 Voltage

Ignition Coil Cylinder 1



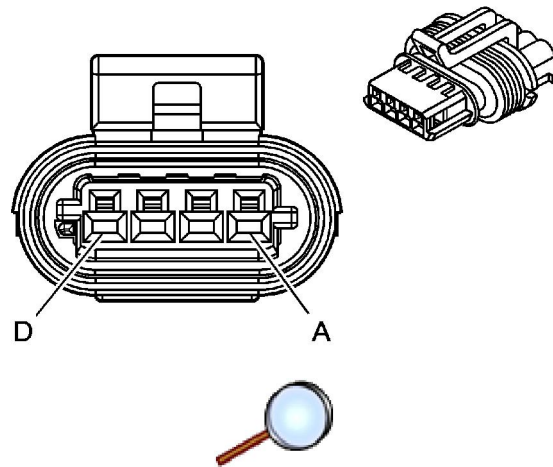
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2129	Low Reference
C	PU	2121	IC 1 Control
D	PK	1039	Ignition 1 Voltage

Ignition Coil Cylinder 2



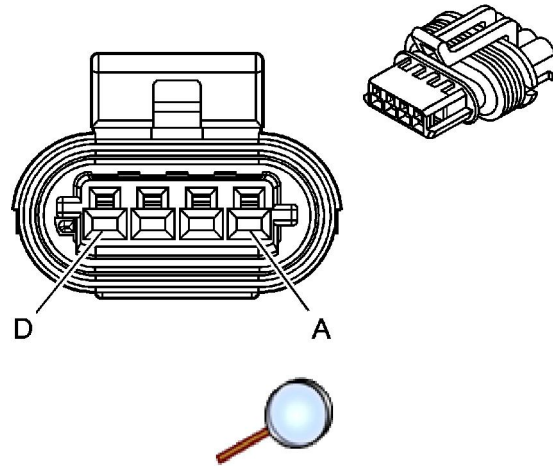
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2122	IC 2 Control
C	RD	2130	Low Reference
D	PK	639	Ignition 1 Voltage

Ignition Coil Cylinder 3



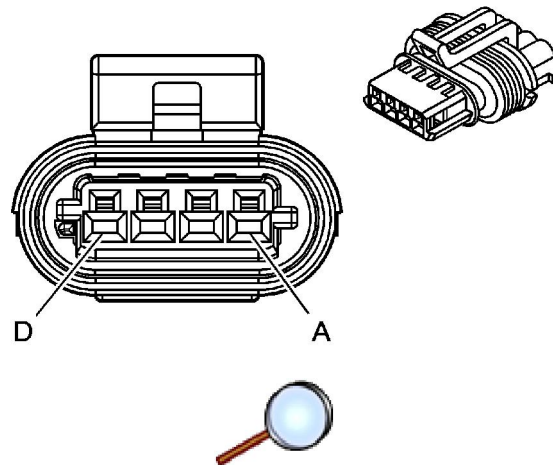
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2129	Low Reference
C	L-BU	2123	IC 3 Control
D	PK	1039	Ignition 1 Voltage

Ignition Coil Cylinder 4



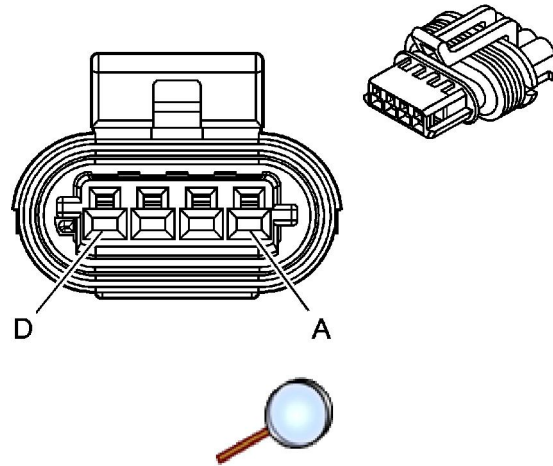
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2130	Low Reference
C	L-GN	2124	IC 4 Control
D	PK	639	Ignition 1 Voltage

Ignition Coil Cylinder 5



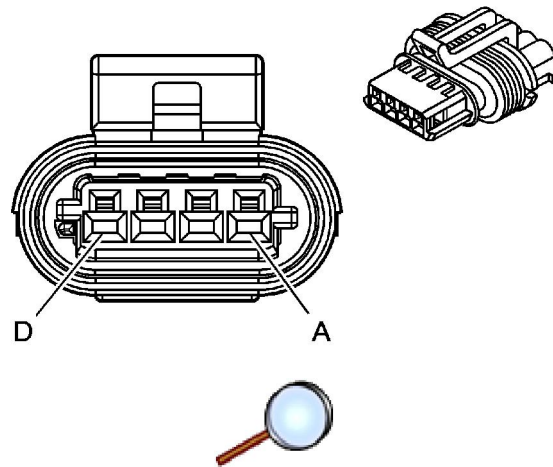
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2129	Low Reference
C	GN	2125	IC 5 Control
D	PK	1039	Ignition 1 Voltage

Ignition Coil Cylinder 6



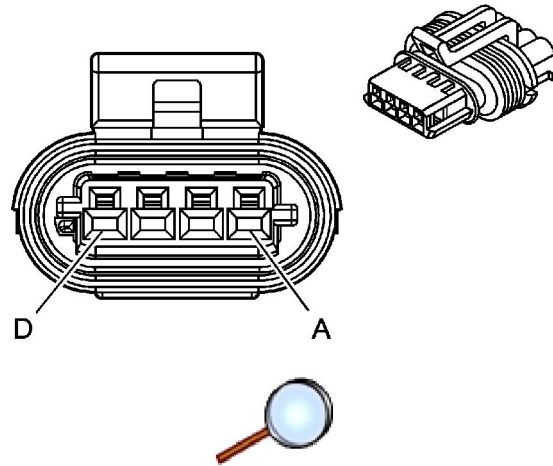
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2130	Low Reference
C	L-BU	2126	IC 6 Control
D	PK	639	Ignition 1 Voltage

Ignition Coil Cylinder 7



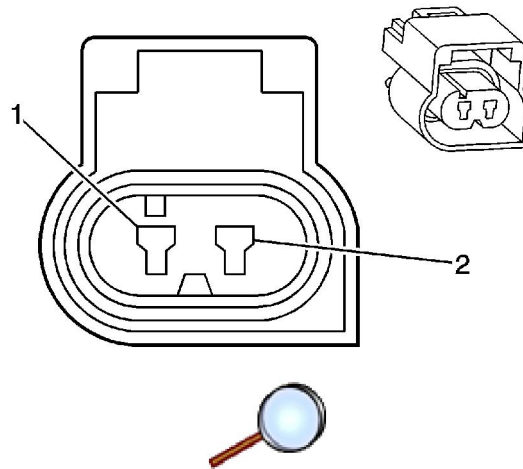
Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2127	IC 7 Control
C	RD	2129	Low Reference
D	PK	1039	Ignition 1 Voltage

Ignition Coil Cylinder 8



Connector Part Information		<ul style="list-style-type: none"> • 9223-6673-30 • 4-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	450	Ground
B	BN	2130	Low Reference
C	PU	2128	IC 8 Control
D	PK	639	Ignition 1 Voltage

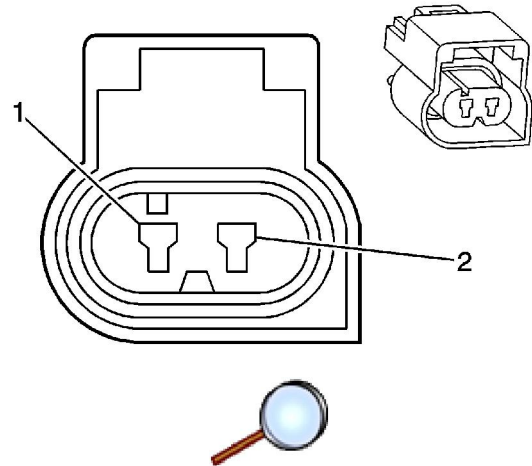
Knock Sensor 1



Connector Part Information		<ul style="list-style-type: none"> • 7223-9415-40 • 2-Way F (WH) 	
Pin	Wire Color	Circuit No.	Function
1	BU	496	Knock Sensor 1 Signal
2	GY	2303	Knock Sensor 1 Return

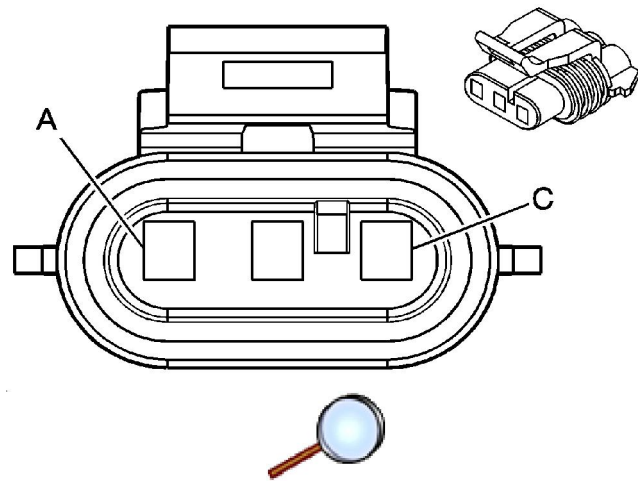
Knock Sensor 2





Connector Part Information		<ul style="list-style-type: none"> • 7223-9415-40 • 2-Way F (WH) 	
Pin	Wire Color	Circuit No.	Function
1	L-BU	1876	Knock Sensor 2 Signal
2	GY	1716	Knock Sensor 2 Return

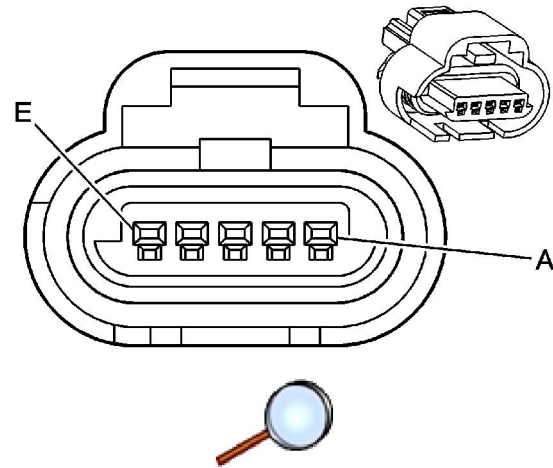
Manifold Absolute Pressure (MAP) Sensor



Connector Part Information		<ul style="list-style-type: none"> • 9223-9946-40 • 3-Way F (GY) 	
Pin	Wire Color	Circuit No.	Function
A	BK	469	Low Reference
B	L-GN	432	MAP Sensor Signal
C	PU/WH	2704	5-Volt Reference

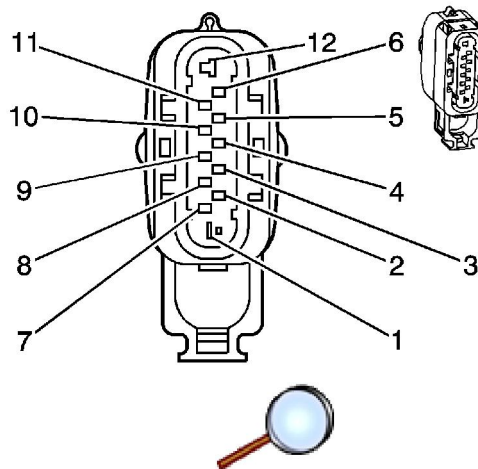
Mass Air Flow (MAF) Sensor





Connector Part Information		<ul style="list-style-type: none"> • 7223-9735-30 • 5-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK	2759	Low Reference
B	BK	472	IAT Sensor Signal
C	BK/RD	450	Sensor Ground
D	PK	439	Sensor Voltage Supply
E	BN/WH	492	MAF Sensor Signal

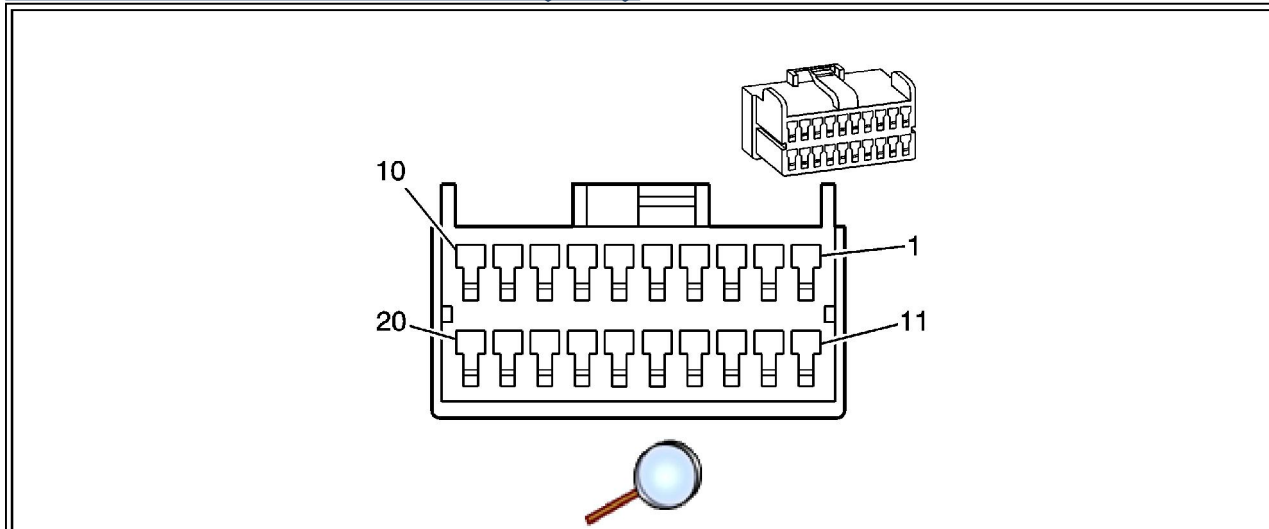
Park/Neutral Position Switch



Connector Part Information		<ul style="list-style-type: none"> • 9223-6722-30 • 12-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	GY/BU	275	Park Neutral Position Switch Park Signal
2	--	--	Not Used
3	YE	1479	A/T Neutral Signal
4	YE/RD	772	Transmission Range Switch Signal B
5	BU/WH	771	Transmission Range Switch Signal A

6	GY	773	Transmission Range Switch Signal C
7	BK/RD	450	Ground
8	WH	776	Transmission Range Switch Signal P
9	--	--	Not Used
10	L-GN	24	Backup Lamp Supply Voltage
11	BN/BU	239	Ignition 1 Voltage
12	GY	434	Neutral Safety Switch Signal

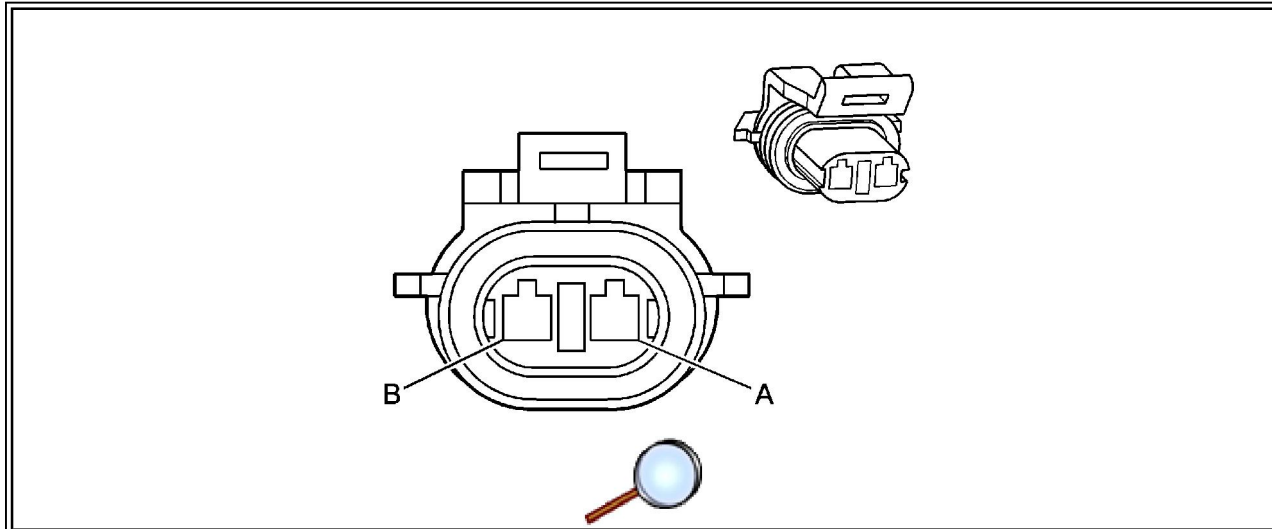
Powertrain Interface Module (PIM)



Connector Part Information		<ul style="list-style-type: none"> • 7283-7367-30 • 20-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
1	--	--	Not Used
2	RD/BK	800	UART Serial Data (Primary)
3	YE	1045	RFA Class 2 Serial Data
4	GY/BU	275	Park Neutral Position Switch Park Signal
5	--	--	Not Used
6	OG	300	Ignition 3 Voltage
7	BK/RD	450	Ground
8	GY/BK	87	Cruise Control Resume/Accel Switch Signal
9	BU	84	Cruise Control Set/Coast Switch Signal
10	RD/BK	800	Serial Data Signal
11-12	--	--	Not Used
13	OG	740	Battery Positive Voltage
14	OG	300	Ignition 3 Voltage
15	BK/GN	151	Ground
16	--	--	Not Used
17	TN/BK	2500	Serial Data - Can Protocol - High
18	TN/BK	2500	Serial Data - Can Protocol - High

19	TN	2501	Serial Data - Can Protocol - Low
20	TN	2501	Serial Data - Can Protocol - Low

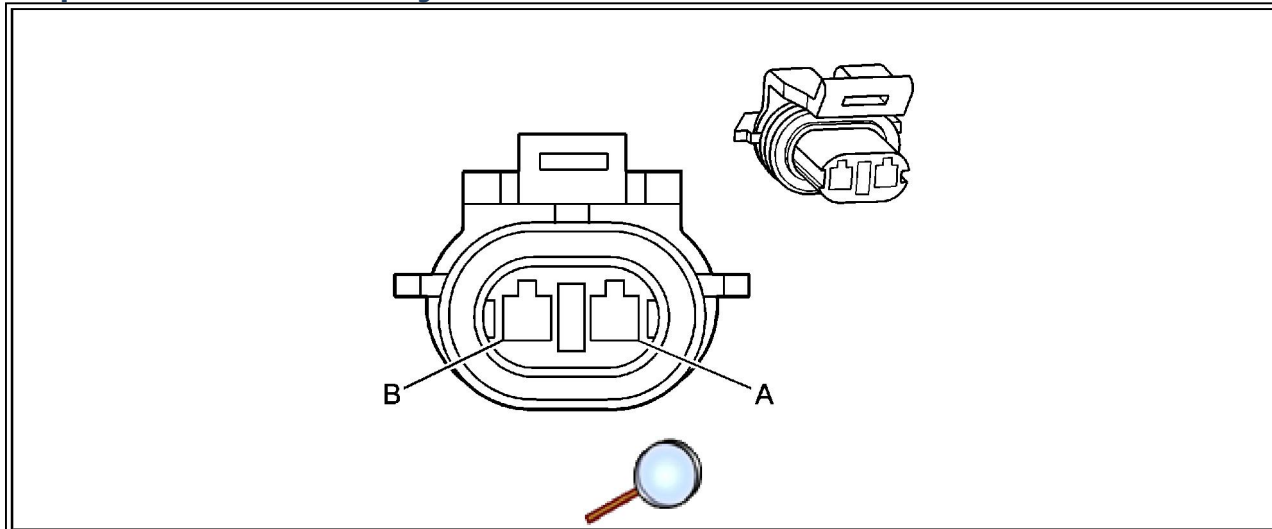
Reverse Lockout Solenoid



Connector Part Information	<ul style="list-style-type: none"> • 9129-2646 • 2-Way F (WH)
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Pin	Wire Color	Circuit No.	Function
A	YE	1652	Reverse Lockout Solenoid Control
B	PK/BU	339	Ignition 1 Voltage

Skip Shift Coil Assembly

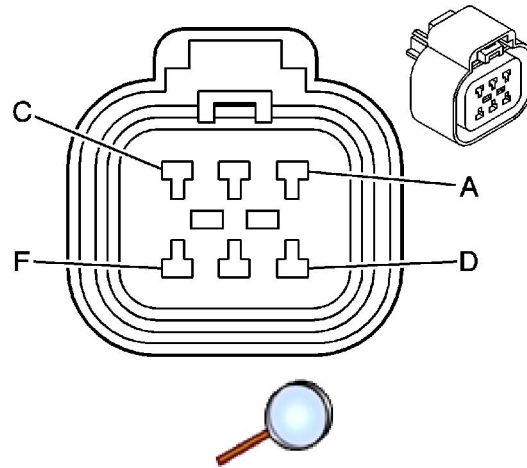


Connector Part Information	<ul style="list-style-type: none"> • 9129-2646 • 2-Way F (YE)
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Pin	Wire Color	Circuit No.	Function
A	GY	587	Skip/Shift Solenoid Control
B	PK/BU	339	Ignition 1 Voltage

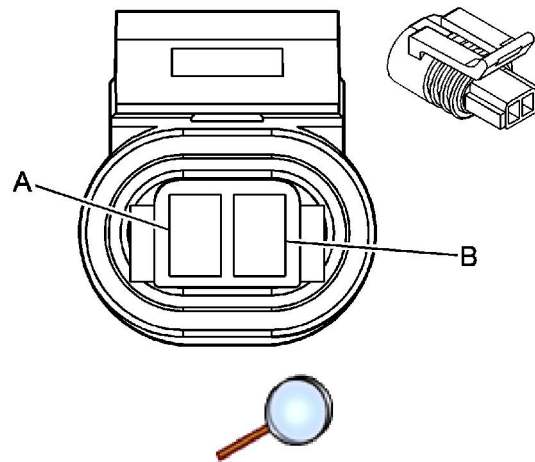
Throttle Actuator Control

Connector Part Information	<ul style="list-style-type: none"> • 9129-2646 • 2-Way F (YE)
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Connector Part Information		<ul style="list-style-type: none"> • GTO-Y38 • 6-Way Connector (BK) 	
Pin	Wire Color	Circuit Number	Function
A	BN	582	Throttle Motor Ground
B	YE	581	Throttle Motor Voltage
C	BN/WH	1704	Low Reference Signal
D	GN	485	Throttle Position Sensor Signal
E	L-BU/BK	1688	5-Volt Reference
F	PU	486	Throttle Position Sensor Signal

Vehicle Speed Sensor



Connector Part Information		<ul style="list-style-type: none"> • 7223-9569-30 • 2-Way F (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BU/WH	1230	AT ISS High Signal
B	BN/RD	1231	AT ISS Low Signal