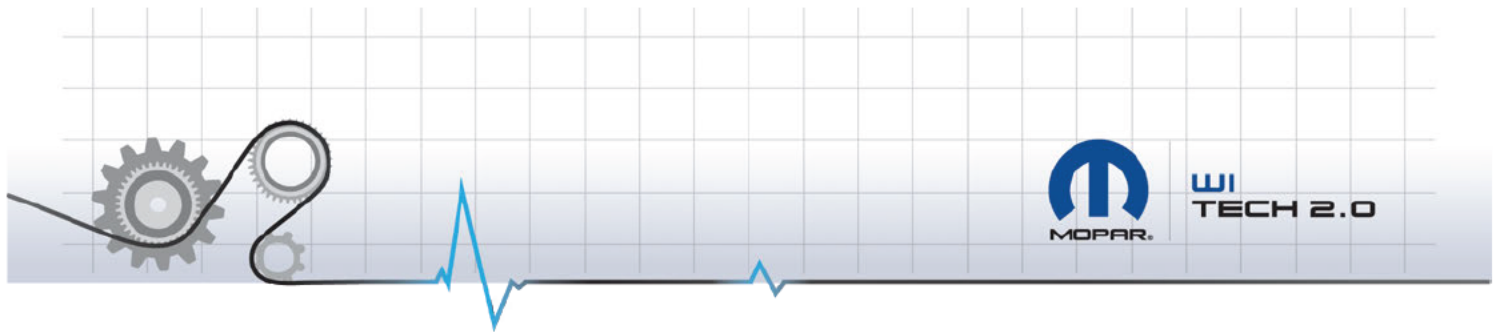


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VEHICLE SCAN REPORT

Vehicle 2021 CHRYSLER PACIFICA (PHEV) 3.6L V6 HYBRID ENGINE
VIN 2C4RC1L79M [REDACTED]

Odometer 12679.7 miles
Publication Date Aug 30, 2022, 2:47:31 PM

ECU SUMMARY INFO

ECU	NAME	BUS TYPE	FLASH PART #	CURRENT VIN	ORIGINAL VIN	PART #
PCM	Powertrain Control Module	CAN-C	68499122AD	2C4RC1L79M	2C4RC1L79M	68499122AD
PLGM	Power Liftgate	CAN-I	68466171AG	2C4RC1L79M	—	68466171AG
ICS	Integrated Center Stack	CAN-I	7AS341X8AA	2C4RC1L79M	2C4RC1L79M	7AS341X8AA
RFH	Radio Frequency Hub	CAN-C	68500152AA	2C4RC1L79M	2C4RC1L79M	68500152AA
ESM	Electronic Shifter	CAN-C	68240089AM	2C4RC1L79M	2C4RC1L79M	68240089AM
ORC	Occupant Restraint	CAN-C	68480710AC	2C4RC1L79M	2C4RC1L79M	68480710AC
EPS	Electric Power Steering	CAN-C	68460392AA	2C4RC1L79M	2C4RC1L79M	68460392AA
HVAC	Heat, Ventilation and A/C	CAN-I	68493454AE	2C4RC1L79M	2C4RC1L79M	68493454AE
DDM	Driver Door Module	CAN-I	68496463AB	2C4RC1L79M	2C4RC1L79M	68496463AB
PDM	Passenger Door Module	CAN-I	68496462AB	2C4RC1L79M	2C4RC1L79M	68496462AB
DMRL	Door Module Rear Left	CAN-I	68508894AB	2C4RC1L79M	2C4RC1L79M	68508894AB
DMRR	Door Module Rear Right	CAN-I	68508894AB	2C4RC1L79M	2C4RC1L79M	68508894AB
PSDML	Power Sliding Doors (Left)	CAN-I	68369596AD	2C4RC1L79M	2C4RC1L79M	68369596AD
PSDMR	Power Sliding Doors (Right)	CAN-I	68369596AD	2C4RC1L79M	2C4RC1L79M	68369596AD
MSM	Memory Seat Module	CAN-I	68321862AC	2C4RC1L79M	2C4RC1L79M	68321862AC
CSWM	Comfort Seat Wheel Module	CAN-I	68517011AB	2C4RC1L79M	2C4RC1L79M	68517011AB
AMP	Amplifier	CAN-I	68476878AA	2C4RC1L79M	2C4RC1L79M	68476878AA
IPC	Instrument Panel Cluster	CAN-C	68434960AE	2C4RC1L79M	2C4RC1L79M	68434960AE
PTS	Parktronics	CAN-C	68485862AA	2C4RC1L79M	2C4RC1L79M	68485862AA
SCCM	Steering Column Control Module	CAN-C	68360889AD	2C4RC1L79M	2C4RC1L79M	68360889AD
BCM	Body Controller	CAN-C	68491085AG	2C4RC1L79M	2C4RC1L79M	68491085AG

ACC	Adaptive Cruise Control	CAN-C	68540436AA	2C4RC1L79		2C4RC1L79M	68540436AA
RADIO	Radio	CAN-I	68465292AC	2C4RC1L79		2C4RC1L79M	68465292AC
OCM	Occupant Classification	CAN-C	68403127AA	2C4RC1L79		2C4RC1L79M	68403127AA
HVACR	Heat, Ventilation and A/C Rear	CAN-I	68373079AB	2C4RC1L79		2C4RC1L79M	68373079AB
LBSS	Left Blind Spot Sensor	CAN-I	04672786AB	2C4RC1L79		2C4RC1L79M	04672786AB
RBSS	Right Blind Spot Sensor	CAN-I	04672786AB	2C4RC1L79		2C4RC1L79M	04672786AB
FFCM	Forward Facing Camera Module	CAN-C	68493395AA	2C4RC1L79		2C4RC1L79M	68493395AA
EDM	External Disc Module	CAN-I	68378304AB	2C4RC1L79		2C4RC1L79M	68378304AB
APM	Accessory Power Module	CAN-C	05185046AB	2C4RC1L79		2C4RC1L79M	05185046AB
BPCM	Battery Pack Control Module	CAN-C	05193183AE	2C4RC1L79		2C4RC1L79M	05193183AE
HCP	Hybrid Control Processor	CAN-C	05185116AF	2C4RC1L79		2C4RC1L79M	05185116AF
OBCM	On Board Charging Module	CAN-C	05185047AE	2C4RC1L79		2C4RC1L79M	05185047AE
MSMP	Memory Seat Module - Passenger	CAN-I	68321862AC	2C4RC1L79		2C4RC1L79M	68321862AC
DSM	Display Screen Module	CAN-I	68438382AD	2C4RC1L79		2C4RC1L79M	68438382AD
VRM	Video Routing Module	CAN-I	68493702AA	2C4RC1L79		2C4RC1L79M	68493702AA
RCCC	Rear Cabin Comfort Controls	CAN-I	6WL30DX9AA	2C4RC1L79		2C4RC1L79M	6WL30DX9AA
CVPM	Central vision processing module	CAN-I	56029920AB	2C4RC1L79		2C4RC1L79M	56029920AB
EAC	Electric A/C Compressor	CAN-C	68237995AG	2C4RC1L79		2C4RC1L79M	68237995AG
AHCP	Auxiliary Hybrid Control Processor	CAN-C	05185117AF	2C4RC1L79		2C4RC1L79M	05185117AF
EBBM	Electronic Brake Booster Module	CAN-C	68461813AB	2C4RC1L79		2C4RC1L79M	68461813AB
ABSO	Anti Lock Brakes OBD	CAN-C	68471122AD	2C4RC1L79		2C4RC1L79M	68471122AD
SGW	Security Gateway Module	CAN-C	68488429AB			2C4RC1L79M	68488429AB
TBM2	Telematic Box Module 2	CAN-C	68546266AB	2C4RC1L79		2C4RC1L79M	68546266AB

ECU SUMMARY INFO (CONT...)

ECU	COUNTRY CODE	HARDWARE VERSION	SOFTWARE VERSION	IDENT	SERIAL NUMBER	CVNS
PCM	USA	1B 47	75 00 01	4422		
PLGM	ROW	0	5270	000200000031		
ICS	USA	0F 0C 00	13 31 01	4700		

RFH	USA / USA	10 17 00	13 26 00	4A00
ESM	USA / USA	0F 24 00	12 28 FF	4402
ORC	USA / USA	12 1A 00	13 2E 00	4301
EPS	USA / USA	12 2A 00	12 1E 01	4502
HVAC	USA	0E 09 00	14 2F 01	4401
DDM	USA	11 07 00	14 07 00	4202
PDM	USA	11 07 00	14 07 00	4202
DMRL	USA / USA	10 0B 00	14 08 00	4201
DMRR	USA / USA	10 0B 00	14 08 00	4201
PSDML	USA / USA	10 17 00	14 10 12	4001
PSDMR	USA / USA	10 17 00	14 10 12	4001
MSM	USA	0F 2B 00	10 27 03	4101
CSWM	USA	11 2A 00	14 25 00	4302
AMP	USA	18 2E 01	13 15 00	4030
IPC	USA / USA	12 06 00	14 2B 00	4705
PTS	USA	0E 32 00	14 07 00	4311
SCCM	USA	13 28 00	13 29 00	4301
BCM	USA	0D 11 00	14 26 90	4420
ACC	USA / USA	14 12 01	14 26 01	4400
RADIO		65	5175	000200000008
OCM	USA / USA	11 1F 01	0E 2F 02	4030
HVACR	USA	0E 09 00	10 03 02	4301
LBSS	USA / USA	11 30 02	12 0D 00	4202
RBSS	USA / USA	11 30 02	12 0D 00	4202
FFCM	USA / USA	11 06 00	13 1E 00	4102
EDM	USA	12 0A 00	11 08 00	4000
APM	USA / USA	11 32 00	11 32 00	4001
BPCM		0E 03 00	14 2C 00	4005
HCP	USA	11 1F 04	0F 2D 00	4006
OBCM	USA	0F 0D 00	12 02 00	4002
MSMP	USA	0F 2B 00	10 27 03	4001
DSM	USA / USA	14 0C 00	14 28 00	4300
VRM	USA / USA	0F 1C 00	14 1E 14	4001
RCCC	USA	0F 1D 00	13 04 00	4000
CVPM	USA / USA	11 27 01	14 0C 01	4004
EAC	USA	0E 34 00	12 0F 00	4102
AHCP	USA	11 1F 04	0F 2D 00	4000
EBBM	USA	0E 19 02	14 0D 18	4000
ABSO	USA	0E 15 02	14 1B 26	4201
SGW		5	969	4103
TBM2	USA	13 0E 02	14 2A 5C	4104

DTC SUMMARY

ECU	DTC CODE	DTC DESCRIPTION	STATUS
PLGM	B1975-00	Power Liftgate Latch Cinch - Ratchet Secondary Switch Performance-	Stored
HVAC	B10EB-00	Blower Power Module-	Stored
MSM	B233C-00	Commanded Position Not Reachable-	Stored
BCM	U151A-87	Hybrid Control Processor Secret Code-Missing Message	Stored
HCP	P0513-00	Invalid SKIM Key-	Stored
HCP	P0A3F-00	Drive Motor A Position Sensor 1 Circuit-	Stored
HCP	P0A43-00	Drive Motor "A" Position Sensor Circuit Intermittent-	Active
HCP	P0C19-00	Drive Motor A Torque Delivered Performance-	Stored
DSM	B156D-00	Low Voltage Differential Signal (LVDS) Video Cable-	Stored

ENVIRONMENTAL DATA SUMMARY

No Environmental Data available for B1975-00

HVAC | B10EB-00 | Stored | Blower Power Module-

NAME	VALUE	UNITS
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
Occurrence flag	ERROR	
Original Odometer Value	11851	miles
Most Recent Odometer Value	12676	miles
Frequency Counter	3	
Ignition Cycle Counter	2	

MSM | B233C-00 | Stored | Commanded Position Not Reachable-

NAME	VALUE	UNITS
Failed Movement Information - Horizontal Motor	Obstacle detected - stall criteria met	
Failed Movement Information - Recliner Motor	Obstacle detected - stall criteria met	
Failed Movement Information - Vertical Front Motor	No Failed Movement	
Failed Movement Information - Vertical Rear Motor	Obstacle detected - stall criteria met	
Obstacle Detection Location - Horizontal Motor	32857	Counts
Horizontal Motor Position - end of movement	32857	Counts
Recliner Motor Position - end of movement	31851	Counts
Vertical Front Motor Position - end of movement	33259	Counts
Vertical Rear Motor Position - end of movement	32817	Counts
Horizontal Motor Position - start of movement	32670	Counts
Recliner Motor Position - start of movement	31851	Counts
Vertical Front Motor Position - start of movement	33259	Counts

Vertical Rear Motor Position - start of movement	32573	Counts
ECU Voltage - at start of movement	36FF	Volts
ECU Voltage - minimum voltage during movement	312A	Volts
Movement Direction - Recliner Motor	Motor not moving	
Movement Direction - Horizontal Motor	Forward / Up	
Movement Direction - Vertical Front Motor	Motor not moving	
Movement Direction - Vertical Rear Motor	Forward / Up	

BCM | U151A-87 | Stored | Hybrid Control Processor Secret Code-Missing Message

NAME	VALUE	UNITS
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
DTC Extended Data Record Number - All	01	
Occurrence flag	ERROR	
Original Odometer Value	12427	miles
Most Recent Odometer Value	12676	miles
Frequency Counter	2	
Ignition Cycle Counter	6	

HCP | P0513-00 | Stored | Invalid SKIM Key-

NAME	VALUE	UNITS
DTC	05 13 00	
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
Occurrence flag	Occurrence	
Original Odometer Value	12429.2	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	2	
Ignition Cycle Counter	13	
Real time clock	51303808	sec
RAM stamps keyOn	0	sec
RAM Stamps	148155	Min

Accelerator Pedal Position	0	%
Brake Switch Status	Applied	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Ignition Off/ACC	
PRND Position Display	P	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	122	°F
Motor B Temp Sensor	127	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	100	°F
Internal EPS Voltage Sense A	8.208	Volts
Internal EPS Voltage Sense B	8.136	Volts
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
Actual Torque - Motor A	0.000	Ft-Lbs
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor A	43.603	Ft-Lbs
Available Motor Torque - Motor B	116.150	Ft-Lbs
Available Regen Torque - Motor A	-43.603	Ft-Lbs
Available Regen Torque - Motor B	-116.150	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	0	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor B - Inverter Current - phase A	-4	AMP
Motor B - Inverter Current - phase B	0	AMP
Motor B - Inverter Current - phase C	0	AMP
Motor B Resolver Angle	190	Degree
Motor A Resolver Angle	50	Degree
Electric Motor A Speed	2.5	rpm
Electric Motor B Speed	0.0	rpm
PIM DC Link Voltage - A	366	Volts
PIM DC Link Voltage - B	365	Volts
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	On	
HCP System Shutdown Command	Default	
HV Battery Voltage from BPCM	365.20	Volts
SW Build Release Version	PIM_21B_2007B0_RU_HCP__	
HCP SW Version	21B	
EPT LOC Diag Enable	Disable LOC Daignostic	
HV Contactor Status	Closed	

APM Status	Idle	
Impact Event	False	
Outside Air Temperature	98.6	°F
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Battery Feed Voltage 1 Sense	12.096	Volts
Battery Feed Voltage 2 Sense	12.168	Volts
Battery Feed Voltage 3 Sense	12.168	Volts
Hybrid System State	High Voltage Enabled	
Inverter A IGBT Temperature for phase A	102	°F
Inverter A IGBT Temperature for phase B	102	°F
Inverter A IGBT Temperature for phase C	102	°F
Inverter B IGBT Temperature for phase A	102	°F
Inverter B IGBT Temperature for phase B	102	°F
Inverter B IGBT Temperature for phase C	102	°F
PHEV Charging Status	No Charging	
Distance Travelled with Light ON	0	miles
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	28	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	32	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	625	ms

HCP | P0A3F-00 | Stored | Drive Motor A Position Sensor 1 Circuit-

NAME	VALUE	UNITS
DTC	0A 3F 00	
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	
Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	76	
Ignition Cycle Counter	0	
Real time clock	51388976	sec
RAM stamps keyOn	1140	sec

RAM Stamps	148220	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Reserved	
PRND Position Display	N	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	93	°F
Motor B Temp Sensor	91	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	91	°F
Motor A Resolver Offset Learn Erase	not requested	
Motor A Resolver Offset Learning Status Flag	Applied	
Motor B Resolver Offset Learning Status Flag	Applied	
Motor A Resolver Angle Offset	2.00	Degree
Motor B Resolver Angle Offset	3.60	Degree
Motor A Resolver Supply Voltage Value	15.75	Volts
Motor B Resolver Supply Voltage Value	15.75	Volts
Motor A Resolver to Digital Low Level Driver Faults	No fault	
Motor B Resolver to Digital Low Level Driver Faults	No fault	
Battery Feed Voltage 2 Sense	10.944	Volts
Internal EPS Voltage Sense A	0.000	Volts
Internal EPS Voltage Sense B	0.000	Volts
Actual Torque - Motor A	0.000	Ft-Lbs
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor B	232.670	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-232.670	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Electric Motor A Speed	0.0	rpm
Electric Motor B Speed	-7.0	rpm
Battery Feed Voltage 1 Sense	10.872	Volts
Battery Feed Voltage 3 Sense	10.800	Volts
Hybrid System State	SNA	
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	-4	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor B - Inverter Current - phase A	0	AMP
Motor B - Inverter Current - phase B	0	AMP

Motor B - Inverter Current - phase C	-4	AMP
Outside Air Temperature	102.2	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	Off	
EPT LOC Diag Enable	Enable LOC Diagnostic	
HV Contactor Status	Open	
HV Battery Voltage from BPCM	180.00	Volts
PIM DC Link Voltage - A	6	Volts
PIM DC Link Voltage - B	6	Volts
Inverter A IGBT Temperature for phase A	97	°F
Inverter A IGBT Temperature for phase B	97	°F
Inverter A IGBT Temperature for phase C	97	°F
Inverter B IGBT Temperature for phase A	97	°F
Inverter B IGBT Temperature for phase B	97	°F
Inverter B IGBT Temperature for phase C	97	°F
APM Status	Idle	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Motor B Resolver Offset Learn Erase	not requested	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	29	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	11	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	269	ms

HCP | P0A43-00 | Active | Drive Motor "A" Position Sensor Circuit Intermittent-

NAME	VALUE	UNITS
DTC	0A 43 00	
Test Failed	True	
Test Failed This Operation Cycle	True	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	

Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	8	
Ignition Cycle Counter	0	
Real time clock	51477444	sec
RAM stamps keyOn	0	sec
RAM Stamps	148311	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Not Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	60	%
Ignition State	Reserved	
PRND Position Display	P	
Propulsion System Active	True	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	84	°F
Motor B Temp Sensor	84	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	84	°F
Motor A Resolver Offset Learn Erase	not requested	
Motor A Resolver Offset Learning Status Flag	Applied	
Motor B Resolver Offset Learning Status Flag	Applied	
Motor A Resolver Angle Offset	2.00	Degree
Motor B Resolver Angle Offset	3.60	Degree
Motor A Resolver Supply Voltage Value	15.75	Volts
Motor B Resolver Supply Voltage Value	15.75	Volts
Motor A Resolver to Digital Low Level Driver Faults	Resolver Degradation of Signal	
Motor B Resolver to Digital Low Level Driver Faults	No fault	
Battery Feed Voltage 2 Sense	14.400	Volts
Internal EPS Voltage Sense A	8.208	Volts
Internal EPS Voltage Sense B	8.136	Volts
Actual Torque - Motor A	0.092	Ft-Lbs
Actual Torque - Motor B	-16.132	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor B	232.301	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-232.301	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	-16.316	Ft-Lbs
Electric Motor A Speed	3.0	rpm
Electric Motor B Speed	0.5	rpm
Battery Feed Voltage 1 Sense	14.400	Volts

Battery Feed Voltage 3 Sense	14.256	Volts
Hybrid System State	Propulsion System Active	
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	0	AMP
Motor A - Inverter Current - phase C	-4	AMP
Motor B - Inverter Current - phase A	-32	AMP
Motor B - Inverter Current - phase B	32	AMP
Motor B - Inverter Current - phase C	-8	AMP
Outside Air Temperature	77.0	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	On	
EPT LOC Diag Enable	Enable Limited LOC Diagnostic	
HV Contactor Status	Closed	
HV Battery Voltage from BPCM	358.20	Volts
PIM DC Link Voltage - A	359	Volts
PIM DC Link Voltage - B	358	Volts
Inverter A IGBT Temperature for phase A	81	°F
Inverter A IGBT Temperature for phase B	81	°F
Inverter A IGBT Temperature for phase C	81	°F
Inverter B IGBT Temperature for phase A	81	°F
Inverter B IGBT Temperature for phase B	82	°F
Inverter B IGBT Temperature for phase C	81	°F
APM Status	Buck CV	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.092	Ft-Lbs
Motor B Torque	-16.132	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	1	Days
Motor B Resolver Offset Learn Erase	not requested	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	30	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	45	
UTC Time - Seconds	1	seconds
ECU Time - Milliseconds	769	ms

HCP | POC19-00 | Stored | Drive Motor A Torque Delivered Performance-

NAME	VALUE	UNITS
DTC	OC 19 00	
Test Failed	False	

Test Failed This Operation Cycle	False	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	
Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	8	
Ignition Cycle Counter	0	
Real time clock	51387968	sec
RAM stamps keyOn	135	sec
RAM Stamps	148203	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Not Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Reserved	
PRND Position Display	N	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Barometric Pressure	14	PSI
Engine Coolant Temperature	90	°F
Actual Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Inverter A Input DC Current	0.0	AMP
Electric Motor A Speed	-17.5	rpm
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	-4	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor A Phase U Short Fault - High-Side	False	
Motor A Phase U Cross Conduction Fault - High-Side	False	
Motor A Phase U Over Current Fault - High-Side	False	
Motor A Phase U Thermal Warning Fault - High-Side	False	
Motor A Phase U Thermal Shutdown Fault - High-Side	False	
Motor A Phase U Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase U Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase U SPI Error Fault - High-Side	False	
Motor A Phase U Hardware Error Fault - High-Side	False	
Motor A Phase U Short Fault - Low-Side	False	
Motor A Phase U Cross Conduction Fault - Low-Side	False	

Motor A Phase U Over Current Fault - Low-Side	False	
Motor A Phase U Thermal Warning Fault - Low-Side	False	
Motor A Phase U Thermal Shutdown Fault - Low-Side	False	
Motor A Phase U SPI Error Fault - Low-Side	False	
Motor A Phase U Hardware Error Fault - Low-Side	False	
Motor A Phase V Short Fault - High-Side	False	
Motor A Phase V Cross Conduction Fault - High-Side	False	
Motor A Phase V Over Current Fault - High-Side	False	
Motor A Phase V Thermal Warning Fault - High-Side	False	
Motor A Phase V Thermal Shutdown Fault - High-Side	False	
Motor A Phase V Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase V Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase V SPI Error Fault - High-Side	False	
Motor A Phase V Hardware Error Fault - High-Side	False	
Motor A Phase V Short Fault - Low-Side	False	
Motor A Phase V Cross Conduction Fault - Low-Side	False	
Motor A Phase V Over Current Fault - Low-Side	False	
Motor A Phase V Thermal Warning Fault - Low-Side	False	
Motor A Phase V Thermal Shutdown Fault - Low-Side	False	
Motor A Phase V SPI Error Fault - Low-Side	False	
Motor A Phase V Hardware Error Fault - Low-Side	False	
Motor A Phase W Short Fault - High-Side	False	
Motor A Phase W Over Current Fault - High-Side	False	
Motor A Phase W Thermal Warning Fault - High-Side	False	
Motor A Phase W Thermal Shutdown Fault - High-Side	False	
Motor A Phase W Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase W SPI Error Fault - High-Side	False	
Motor A Phase W Hardware Error Fault - High-Side	False	
Motor A Phase W Short Fault - Low-Side	False	
Motor A Phase W Cross Conduction Fault - Low-Side	False	
Motor A Phase W Over Current Fault - Low-Side	False	
Motor A Phase W Thermal Warning Fault - Low-Side	False	
Motor A Phase W Thermal Shutdown Fault - Low-Side	False	
Motor A Phase W Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase W SPI Error Fault - Low-Side	False	
Motor A Phase W Hardware Error Fault - Low-Side	False	
Motor A Resolver Supply Voltage Value	15.75	Volts
Battery Feed Voltage 2 Sense	11.448	Volts
Battery Feed Voltage 3 Sense	11.304	Volts
Internal EPS Voltage Sense A	0.000	Volts
Internal EPS Voltage Sense B	0.000	Volts
Hybrid System State	SNA	
PIM DC Link Voltage - A	6	Volts
PIM DC Link Voltage - B	6	Volts

Passive Pump Coolant Temp In Sensor	95	°F
Low Temp Active Pump Speed	0	rpm
High Temp Aux Pump - Actual Speed	0	rpm
Outside Air Temperature	102.2	°F
HV Contactor Status	Open	
Inverter B Status Feedback	Normal OFF	
Battery Feed Voltage 1 Sense	11.376	Volts
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor B	233.776	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-233.776	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Motor B - Inverter Current - phase A	-4	AMP
Motor B - Inverter Current - phase B	-4	AMP
Motor B - Inverter Current - phase C	-4	AMP
Motor B Resolver Angle	312	Degree
Motor B Temp Sensor	90	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	Off	
EPT LOC Diag Enable	Enable LOC Diagnostic	
HV Battery Voltage from BPCM	180.00	Volts
Electric Motor B Speed	23.5	rpm
Inverter A IGBT Temperature for phase A	93	°F
Inverter A IGBT Temperature for phase B	93	°F
Inverter A IGBT Temperature for phase C	93	°F
Inverter B IGBT Temperature for phase A	93	°F
Inverter B IGBT Temperature for phase B	93	°F
Inverter B IGBT Temperature for phase C	93	°F
APM Status	Idle	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Commanded Inverter A State	Inverter Disabled	
Inverter Status Feedback	Inverter Faulted	
Motor A Phase U Over Voltage Fault VH - High-Side	False	
Motor A Phase U Under Voltage Fault VH - High-Side	False	
Motor A Phase U Over Voltage Fault VL - High-Side	False	
Motor A Phase U Under Voltage Fault VL - High-Side	False	

Motor A Phase U Over Voltage Fault VDD - High-Side	False	
Motor A Phase U Under Voltage Fault VDD - High-Side	False	
Motor A Phase U Over Voltage Fault VH - Low-Side	False	
Motor A Phase U Under Voltage Fault VH - Low-Side	False	
Motor A Phase U Over Voltage Fault VL - Low-Side	False	
Motor A Phase U Under Voltage Fault VL - Low-Side	False	
Motor A Phase U Over Voltage Fault VDD - Low-Side	False	
Motor A Phase U Under Voltage Fault VDD - Low-Side	False	
Motor A Phase U Comm Error High Voltage Regulator Fault - Low-Side	False	
Motor A Phase U Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase V Over Voltage Fault VH - High-Side	False	
Motor A Phase V Under Voltage Fault VH - High-Side	False	
Motor A Phase V Over Voltage Fault VL - High-Side	False	
Motor A Phase V Under Voltage Fault VL - High-Side	False	
Motor A Phase V Over Voltage Fault VDD - High-SideSide	False	
Motor A Phase V Under Voltage Fault VDD - High-Side	False	
Motor A Phase V Over Voltage Fault VH - Low-Side	False	
Motor A Phase V Under Voltage Fault VH - Low-Side	False	
Motor A Phase V Over Voltage Fault VL - Low-Side	False	
Motor A Phase V Under Voltage Fault VL - Low-Side	False	
Motor A Phase V Over Voltage Fault VDD - Low-Side	False	
Motor A Phase V Under Voltage Fault VDD - Low-Side	False	
Motor A Phase V Comm Error High Voltage Regulator Fault - Low-Side	False	
Motor A Phase V Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase W Cross Conduction Fault - High-Side	False	
Motor A Phase W Over Voltage Fault VH - High-Side	False	
Motor A Phase W Under Voltage Fault VH - High-Side	False	
Motor A Phase W Over Voltage Fault VL - High-Side	False	
Motor A Phase W Under Voltage Fault VL - High-Side	False	
Motor A Phase W Over Voltage Fault VDD - High-Side	False	
Motor A Phase W Under Voltage Fault VDD - High-Side	False	
Motor A Phase W Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase W Over Voltage Fault VH - Low-Side	False	
Motor A Phase W Under Voltage Fault VH - Low-Side	False	
Motor A Phase W Over Voltage Fault VL - Low-Side	False	
Motor A Phase W Under Voltage Fault VL - Low-Side	False	
Motor A Phase W Over Voltage Fault VDD - Low-Side	False	
Motor A Phase W Under Voltage Fault VDD - Low-Side	False	
Motor A Phase W Comm Error High Voltage Regulator Fault - Low-Side	False	
Inverter A Status Feedback	Inverter Faulted	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	29	Days
UTC Time - Hours	18	Hours

UTC Time - Minutes	54	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	194	ms

DSM | B156D-00 | Stored | Low Voltage Differential Signal (LVDS) Video Cable-

NAME	VALUE	UNITS
DTC	95 6D 00	
Test Failed	False	
Pending DTC	False	
Test Failed This Operation Cycle	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
DTC Extended Data Record Number - All	01	
Occurrence flag	Occurrence	
Original Odometer Value	8411	miles
Most Recent Odometer Value	12358	miles
Frequency Counter	35	
Ignition Cycle Counter	34	

SNAPSHOT DATA SUMMARY

No Snapshot Data available for B1975-00

No Snapshot Data available for B10EB-00

No Snapshot Data available for B233C-00

No Snapshot Data available for U151A-87

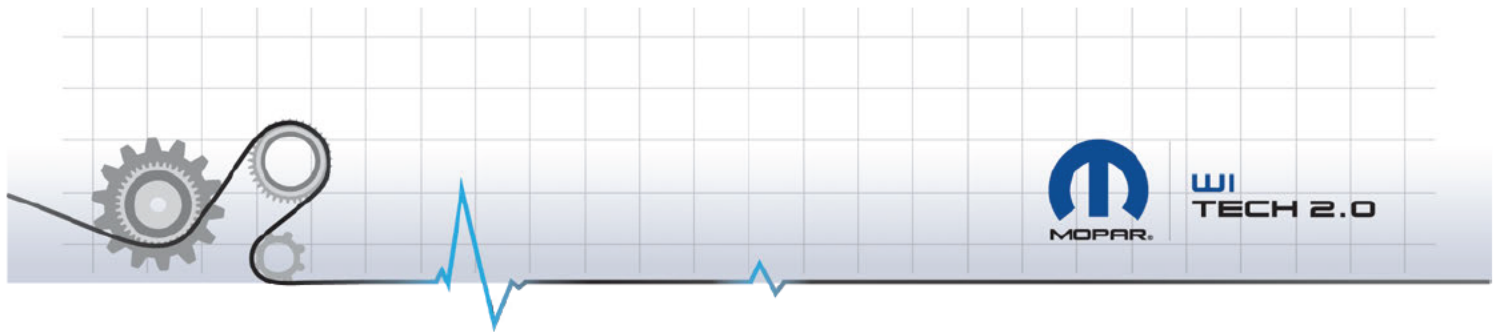
No Snapshot Data available for P0513-00

No Snapshot Data available for P0A3F-00

No Snapshot Data available for P0A43-00

No Snapshot Data available for P0C19-00

No Snapshot Data available for B156D-00



VEHICLE SCAN REPORT

Vehicle 2021 CHRYSLER PACIFICA (PHEV) 3.6L V6 HYBRID ENGINE
VIN 2C4RC1L79 [REDACTED]

Odometer 12679.7 miles
Publication Date Aug 30, 2022, 2:47:31 PM

ECU SUMMARY INFO

ECU	NAME	BUS TYPE	FLASH PART #	CURRENT VIN	ORIGINAL VIN	PART #
PCM	Powertrain Control Module	CAN-C	68499122AD	2C4RC1L79	2C4RC1L79M	68499122AD
PLGM	Power Liftgate	CAN-I	68466171AG	2C4RC1L79	—	68466171AG
ICS	Integrated Center Stack	CAN-I	7AS341X8AA	2C4RC1L79	2C4RC1L79M	7AS341X8AA
RFH	Radio Frequency Hub	CAN-C	68500152AA	2C4RC1L79	2C4RC1L79M	68500152AA
ESM	Electronic Shifter	CAN-C	68240089AM	2C4RC1L79	2C4RC1L79M	68240089AM
ORC	Occupant Restraint	CAN-C	68480710AC	2C4RC1L79	2C4RC1L79M	68480710AC
EPS	Electric Power Steering	CAN-C	68460392AA	2C4RC1L79	2C4RC1L79M	68460392AA
HVAC	Heat, Ventilation and A/C	CAN-I	68493454AE	2C4RC1L79	2C4RC1L79M	68493454AE
DDM	Driver Door Module	CAN-I	68496463AB	2C4RC1L79	2C4RC1L79M	68496463AB
PDM	Passenger Door Module	CAN-I	68496462AB	2C4RC1L79	2C4RC1L79M	68496462AB
DMRL	Door Module Rear Left	CAN-I	68508894AB	2C4RC1L79	2C4RC1L79M	68508894AB
DMRR	Door Module Rear Right	CAN-I	68508894AB	2C4RC1L79	2C4RC1L79M	68508894AB
PSDML	Power Sliding Doors (Left)	CAN-I	68369596AD	2C4RC1L79	2C4RC1L79M	68369596AD
PSDMR	Power Sliding Doors (Right)	CAN-I	68369596AD	2C4RC1L79	2C4RC1L79M	68369596AD
MSM	Memory Seat Module	CAN-I	68321862AC	2C4RC1L79	2C4RC1L79M	68321862AC
CSWM	Comfort Seat Wheel Module	CAN-I	68517011AB	2C4RC1L79	2C4RC1L79M	68517011AB
AMP	Amplifier	CAN-I	68476878AA	2C4RC1L79	2C4RC1L79M	68476878AA
IPC	Instrument Panel Cluster	CAN-C	68434960AE	2C4RC1L79	2C4RC1L79M	68434960AE
PTS	Parktronics	CAN-C	68485862AA	2C4RC1L79	2C4RC1L79M	68485862AA
SCCM	Steering Column Control Module	CAN-C	68360889AD	2C4RC1L79	2C4RC1L79M	68360889AD
BCM	Body Controller	CAN-C	68491085AG	2C4RC1L79	2C4RC1L79M	68491085AG

ACC	Adaptive Cruise Control	CAN-C	68540436AA	2C4RC1L79M	2C4RC1L79M	68540436AA
RADIO	Radio	CAN-I	68465292AC	2C4RC1L79M	2C4RC1L79M	68465292AC
OCM	Occupant Classification	CAN-C	68403127AA	2C4RC1L79M	2C4RC1L79M	68403127AA
HVACR	Heat, Ventilation and A/C Rear	CAN-I	68373079AB	2C4RC1L79M	2C4RC1L79M	68373079AB
LBSS	Left Blind Spot Sensor	CAN-I	04672786AB	2C4RC1L79M	2C4RC1L79M	04672786AB
RBSS	Right Blind Spot Sensor	CAN-I	04672786AB	2C4RC1L79M	2C4RC1L79M	04672786AB
FFCM	Forward Facing Camera Module	CAN-C	68493395AA	2C4RC1L79M	2C4RC1L79M	68493395AA
EDM	External Disc Module	CAN-I	68378304AB	2C4RC1L79M	2C4RC1L79M	68378304AB
APM	Accessory Power Module	CAN-C	05185046AB	2C4RC1L79M	2C4RC1L79M	05185046AB
BPCM	Battery Pack Control Module	CAN-C	05193183AE	2C4RC1L79M	2C4RC1L79M	05193183AE
HCP	Hybrid Control Processor	CAN-C	05185116AF	2C4RC1L79M	2C4RC1L79M	05185116AF
OBCM	On Board Charging Module	CAN-C	05185047AE	2C4RC1L79M	2C4RC1L79M	05185047AE
MSMP	Memory Seat Module - Passenger	CAN-I	68321862AC	2C4RC1L79M	2C4RC1L79M	68321862AC
DSM	Display Screen Module	CAN-I	68438382AD	2C4RC1L79M	2C4RC1L79M	68438382AD
VRM	Video Routing Module	CAN-I	68493702AA	2C4RC1L79M	2C4RC1L79M	68493702AA
RCCC	Rear Cabin Comfort Controls	CAN-I	6WL30DX9AA	2C4RC1L79M	2C4RC1L79M	6WL30DX9AA
CVPM	Central vision processing module	CAN-I	56029920AB	2C4RC1L79M	2C4RC1L79M	56029920AB
EAC	Electric A/C Compressor	CAN-C	68237995AG	2C4RC1L79M	2C4RC1L79M	68237995AG
AHCP	Auxiliary Hybrid Control Processor	CAN-C	05185117AF	2C4RC1L79M	2C4RC1L79M	05185117AF
EBBM	Electronic Brake Booster Module	CAN-C	68461813AB	2C4RC1L79M	2C4RC1L79M	68461813AB
ABSO	Anti Lock Brakes OBD	CAN-C	68471122AD	2C4RC1L79M	2C4RC1L79M	68471122AD
SGW	Security Gateway Module	CAN-C	68488429AB		2C4RC1L79M	68488429AB
TBM2	Telematic Box Module 2	CAN-C	68546266AB	2C4RC1L79M	2C4RC1L79M	68546266AB

ECU SUMMARY INFO (CONT...)

ECU	COUNTRY CODE	HARDWARE VERSION	SOFTWARE VERSION	IDENT	SERIAL NUMBER	CVNS
PCM	USA	1B 47	75 00 01	4422		
PLGM	ROW	0	5270	000200000031		
ICS	USA	0F 0C 00	13 31 01	4700		

RFH	USA / USA	10 17 00	13 26 00	4A00
ESM	USA / USA	0F 24 00	12 28 FF	4402
ORC	USA / USA	12 1A 00	13 2E 00	4301
EPS	USA / USA	12 2A 00	12 1E 01	4502
HVAC	USA	0E 09 00	14 2F 01	4401
DDM	USA	11 07 00	14 07 00	4202
PDM	USA	11 07 00	14 07 00	4202
DMRL	USA / USA	10 0B 00	14 08 00	4201
DMRR	USA / USA	10 0B 00	14 08 00	4201
PSDML	USA / USA	10 17 00	14 10 12	4001
PSDMR	USA / USA	10 17 00	14 10 12	4001
MSM	USA	0F 2B 00	10 27 03	4101
CSWM	USA	11 2A 00	14 25 00	4302
AMP	USA	18 2E 01	13 15 00	4030
IPC	USA / USA	12 06 00	14 2B 00	4705
PTS	USA	0E 32 00	14 07 00	4311
SCCM	USA	13 28 00	13 29 00	4301
BCM	USA	0D 11 00	14 26 90	4420
ACC	USA / USA	14 12 01	14 26 01	4400
RADIO		65	5175	000200000008
OCM	USA / USA	11 1F 01	0E 2F 02	4030
HVACR	USA	0E 09 00	10 03 02	4301
LBSS	USA / USA	11 30 02	12 0D 00	4202
RBSS	USA / USA	11 30 02	12 0D 00	4202
FFCM	USA / USA	11 06 00	13 1E 00	4102
EDM	USA	12 0A 00	11 08 00	4000
APM	USA / USA	11 32 00	11 32 00	4001
BPCM		0E 03 00	14 2C 00	4005
HCP	USA	11 1F 04	0F 2D 00	4006
OBCM	USA	0F 0D 00	12 02 00	4002
MSMP	USA	0F 2B 00	10 27 03	4001
DSM	USA / USA	14 0C 00	14 28 00	4300
VRM	USA / USA	0F 1C 00	14 1E 14	4001
RCCC	USA	0F 1D 00	13 04 00	4000
CVPM	USA / USA	11 27 01	14 0C 01	4004
EAC	USA	0E 34 00	12 0F 00	4102
AHCP	USA	11 1F 04	0F 2D 00	4000
EBBM	USA	0E 19 02	14 0D 18	4000
ABSO	USA	0E 15 02	14 1B 26	4201
SGW		5	969	4103
TBM2	USA	13 0E 02	14 2A 5C	4104

DTC SUMMARY

ECU	DTC CODE	DTC DESCRIPTION	STATUS
PLGM	B1975-00	Power Liftgate Latch Cinch - Ratchet Secondary Switch Performance-	Stored
HVAC	B10EB-00	Blower Power Module-	Stored
MSM	B233C-00	Commanded Position Not Reachable-	Stored
BCM	U151A-87	Hybrid Control Processor Secret Code-Missing Message	Stored
HCP	P0513-00	Invalid SKIM Key-	Stored
HCP	P0A3F-00	Drive Motor A Position Sensor 1 Circuit-	Stored
HCP	P0A43-00	Drive Motor "A" Position Sensor Circuit Intermittent-	Active
HCP	P0C19-00	Drive Motor A Torque Delivered Performance-	Stored
DSM	B156D-00	Low Voltage Differential Signal (LVDS) Video Cable-	Stored

ENVIRONMENTAL DATA SUMMARY

No Environmental Data available for B1975-00

HVAC | B10EB-00 | Stored | Blower Power Module-

NAME	VALUE	UNITS
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
Occurrence flag	ERROR	
Original Odometer Value	11851	miles
Most Recent Odometer Value	12676	miles
Frequency Counter	3	
Ignition Cycle Counter	2	

MSM | B233C-00 | Stored | Commanded Position Not Reachable-

NAME	VALUE	UNITS
Failed Movement Information - Horizontal Motor	Obstacle detected - stall criteria met	
Failed Movement Information - Recliner Motor	Obstacle detected - stall criteria met	
Failed Movement Information - Vertical Front Motor	No Failed Movement	
Failed Movement Information - Vertical Rear Motor	Obstacle detected - stall criteria met	
Obstacle Detection Location - Horizontal Motor	32857	Counts
Horizontal Motor Position - end of movement	32857	Counts
Recliner Motor Position - end of movement	31851	Counts
Vertical Front Motor Position - end of movement	33259	Counts
Vertical Rear Motor Position - end of movement	32817	Counts
Horizontal Motor Position - start of movement	32670	Counts
Recliner Motor Position - start of movement	31851	Counts
Vertical Front Motor Position - start of movement	33259	Counts

Vertical Rear Motor Position - start of movement	32573	Counts
ECU Voltage - at start of movement	36FF	Volts
ECU Voltage - minimum voltage during movement	312A	Volts
Movement Direction - Recliner Motor	Motor not moving	
Movement Direction - Horizontal Motor	Forward / Up	
Movement Direction - Vertical Front Motor	Motor not moving	
Movement Direction - Vertical Rear Motor	Forward / Up	

BCM | U151A-87 | Stored | Hybrid Control Processor Secret Code-Missing Message

NAME	VALUE	UNITS
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
DTC Extended Data Record Number - All	01	
Occurrence flag	ERROR	
Original Odometer Value	12427	miles
Most Recent Odometer Value	12676	miles
Frequency Counter	2	
Ignition Cycle Counter	6	

HCP | P0513-00 | Stored | Invalid SKIM Key-

NAME	VALUE	UNITS
DTC	05 13 00	
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
Occurrence flag	Occurrence	
Original Odometer Value	12429.2	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	2	
Ignition Cycle Counter	13	
Real time clock	51303808	sec
RAM stamps keyOn	0	sec
RAM Stamps	148155	Min

Accelerator Pedal Position	0	%
Brake Switch Status	Applied	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Ignition Off/ACC	
PRND Position Display	P	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	122	°F
Motor B Temp Sensor	127	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	100	°F
Internal EPS Voltage Sense A	8.208	Volts
Internal EPS Voltage Sense B	8.136	Volts
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
Actual Torque - Motor A	0.000	Ft-Lbs
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor A	43.603	Ft-Lbs
Available Motor Torque - Motor B	116.150	Ft-Lbs
Available Regen Torque - Motor A	-43.603	Ft-Lbs
Available Regen Torque - Motor B	-116.150	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	0	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor B - Inverter Current - phase A	-4	AMP
Motor B - Inverter Current - phase B	0	AMP
Motor B - Inverter Current - phase C	0	AMP
Motor B Resolver Angle	190	Degree
Motor A Resolver Angle	50	Degree
Electric Motor A Speed	2.5	rpm
Electric Motor B Speed	0.0	rpm
PIM DC Link Voltage - A	366	Volts
PIM DC Link Voltage - B	365	Volts
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	On	
HCP System Shutdown Command	Default	
HV Battery Voltage from BPCM	365.20	Volts
SW Build Release Version	PIM_21B_2007B0_RU_HCP__	
HCP SW Version	21B	
EPT LOC Diag Enable	Disable LOC Daignostic	
HV Contactor Status	Closed	

APM Status	Idle	
Impact Event	False	
Outside Air Temperature	98.6	°F
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Battery Feed Voltage 1 Sense	12.096	Volts
Battery Feed Voltage 2 Sense	12.168	Volts
Battery Feed Voltage 3 Sense	12.168	Volts
Hybrid System State	High Voltage Enabled	
Inverter A IGBT Temperature for phase A	102	°F
Inverter A IGBT Temperature for phase B	102	°F
Inverter A IGBT Temperature for phase C	102	°F
Inverter B IGBT Temperature for phase A	102	°F
Inverter B IGBT Temperature for phase B	102	°F
Inverter B IGBT Temperature for phase C	102	°F
PHEV Charging Status	No Charging	
Distance Travelled with Light ON	0	miles
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	28	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	32	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	625	ms

HCP | P0A3F-00 | Stored | Drive Motor A Position Sensor 1 Circuit-

NAME	VALUE	UNITS
DTC	0A 3F 00	
Test Failed	False	
Test Failed This Operation Cycle	False	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	
Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	76	
Ignition Cycle Counter	0	
Real time clock	51388976	sec
RAM stamps keyOn	1140	sec

RAM Stamps	148220	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Reserved	
PRND Position Display	N	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	93	°F
Motor B Temp Sensor	91	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	91	°F
Motor A Resolver Offset Learn Erase	not requested	
Motor A Resolver Offset Learning Status Flag	Applied	
Motor B Resolver Offset Learning Status Flag	Applied	
Motor A Resolver Angle Offset	2.00	Degree
Motor B Resolver Angle Offset	3.60	Degree
Motor A Resolver Supply Voltage Value	15.75	Volts
Motor B Resolver Supply Voltage Value	15.75	Volts
Motor A Resolver to Digital Low Level Driver Faults	No fault	
Motor B Resolver to Digital Low Level Driver Faults	No fault	
Battery Feed Voltage 2 Sense	10.944	Volts
Internal EPS Voltage Sense A	0.000	Volts
Internal EPS Voltage Sense B	0.000	Volts
Actual Torque - Motor A	0.000	Ft-Lbs
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor B	232.670	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-232.670	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Electric Motor A Speed	0.0	rpm
Electric Motor B Speed	-7.0	rpm
Battery Feed Voltage 1 Sense	10.872	Volts
Battery Feed Voltage 3 Sense	10.800	Volts
Hybrid System State	SNA	
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	-4	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor B - Inverter Current - phase A	0	AMP
Motor B - Inverter Current - phase B	0	AMP

Motor B - Inverter Current - phase C	-4	AMP
Outside Air Temperature	102.2	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	Off	
EPT LOC Diag Enable	Enable LOC Diagnostic	
HV Contactor Status	Open	
HV Battery Voltage from BPCM	180.00	Volts
PIM DC Link Voltage - A	6	Volts
PIM DC Link Voltage - B	6	Volts
Inverter A IGBT Temperature for phase A	97	°F
Inverter A IGBT Temperature for phase B	97	°F
Inverter A IGBT Temperature for phase C	97	°F
Inverter B IGBT Temperature for phase A	97	°F
Inverter B IGBT Temperature for phase B	97	°F
Inverter B IGBT Temperature for phase C	97	°F
APM Status	Idle	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Motor B Resolver Offset Learn Erase	not requested	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	29	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	11	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	269	ms

HCP | P0A43-00 | Active | Drive Motor "A" Position Sensor Circuit Intermittent-

NAME	VALUE	UNITS
DTC	0A 43 00	
Test Failed	True	
Test Failed This Operation Cycle	True	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	

Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	8	
Ignition Cycle Counter	0	
Real time clock	51477444	sec
RAM stamps keyOn	0	sec
RAM Stamps	148311	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Not Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	60	%
Ignition State	Reserved	
PRND Position Display	P	
Propulsion System Active	True	
Vehicle Speed	0.0000	MPH
Motor A Temp Sensor	84	°F
Motor B Temp Sensor	84	°F
Barometric Pressure	14	PSI
Engine Coolant Temperature	84	°F
Motor A Resolver Offset Learn Erase	not requested	
Motor A Resolver Offset Learning Status Flag	Applied	
Motor B Resolver Offset Learning Status Flag	Applied	
Motor A Resolver Angle Offset	2.00	Degree
Motor B Resolver Angle Offset	3.60	Degree
Motor A Resolver Supply Voltage Value	15.75	Volts
Motor B Resolver Supply Voltage Value	15.75	Volts
Motor A Resolver to Digital Low Level Driver Faults	Resolver Degradation of Signal	
Motor B Resolver to Digital Low Level Driver Faults	No fault	
Battery Feed Voltage 2 Sense	14.400	Volts
Internal EPS Voltage Sense A	8.208	Volts
Internal EPS Voltage Sense B	8.136	Volts
Actual Torque - Motor A	0.092	Ft-Lbs
Actual Torque - Motor B	-16.132	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor B	232.301	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-232.301	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	-16.316	Ft-Lbs
Electric Motor A Speed	3.0	rpm
Electric Motor B Speed	0.5	rpm
Battery Feed Voltage 1 Sense	14.400	Volts

Battery Feed Voltage 3 Sense	14.256	Volts
Hybrid System State	Propulsion System Active	
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	0	AMP
Motor A - Inverter Current - phase C	-4	AMP
Motor B - Inverter Current - phase A	-32	AMP
Motor B - Inverter Current - phase B	32	AMP
Motor B - Inverter Current - phase C	-8	AMP
Outside Air Temperature	77.0	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	On	
EPT LOC Diag Enable	Enable Limited LOC Diagnostic	
HV Contactor Status	Closed	
HV Battery Voltage from BPCM	358.20	Volts
PIM DC Link Voltage - A	359	Volts
PIM DC Link Voltage - B	358	Volts
Inverter A IGBT Temperature for phase A	81	°F
Inverter A IGBT Temperature for phase B	81	°F
Inverter A IGBT Temperature for phase C	81	°F
Inverter B IGBT Temperature for phase A	81	°F
Inverter B IGBT Temperature for phase B	82	°F
Inverter B IGBT Temperature for phase C	81	°F
APM Status	Buck CV	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.092	Ft-Lbs
Motor B Torque	-16.132	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	1	Days
Motor B Resolver Offset Learn Erase	not requested	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	30	Days
UTC Time - Hours	19	Hours
UTC Time - Minutes	45	
UTC Time - Seconds	1	seconds
ECU Time - Milliseconds	769	ms

HCP | POC19-00 | Stored | Drive Motor A Torque Delivered Performance-

NAME	VALUE	UNITS
DTC	OC 19 00	
Test Failed	False	

Test Failed This Operation Cycle	False	
Pending DTC	True	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	True	
Occurrence flag	Occurrence	
Original Odometer Value	12679.7	miles
Most Recent Odometer Value	12679.7	miles
Frequency Counter	8	
Ignition Cycle Counter	0	
Real time clock	51387968	sec
RAM stamps keyOn	135	sec
RAM Stamps	148203	Min
Accelerator Pedal Position	0	%
Brake Switch Status	Not Applied	
PHEV Charging Status	No Charging	
Engine Speed	0	rpm
HV Battery SOC	66	%
Ignition State	Reserved	
PRND Position Display	N	
Propulsion System Active	False	
Vehicle Speed	0.0000	MPH
Barometric Pressure	14	PSI
Engine Coolant Temperature	90	°F
Actual Torque - Motor A	0.000	Ft-Lbs
Available Motor Torque - Motor A	0.000	Ft-Lbs
Inverter A Input DC Current	0.0	AMP
Electric Motor A Speed	-17.5	rpm
Motor A - Inverter Current - phase A	-4	AMP
Motor A - Inverter Current - phase B	-4	AMP
Motor A - Inverter Current - phase C	0	AMP
Motor A Phase U Short Fault - High-Side	False	
Motor A Phase U Cross Conduction Fault - High-Side	False	
Motor A Phase U Over Current Fault - High-Side	False	
Motor A Phase U Thermal Warning Fault - High-Side	False	
Motor A Phase U Thermal Shutdown Fault - High-Side	False	
Motor A Phase U Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase U Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase U SPI Error Fault - High-Side	False	
Motor A Phase U Hardware Error Fault - High-Side	False	
Motor A Phase U Short Fault - Low-Side	False	
Motor A Phase U Cross Conduction Fault - Low-Side	False	

Motor A Phase U Over Current Fault - Low-Side	False	
Motor A Phase U Thermal Warning Fault - Low-Side	False	
Motor A Phase U Thermal Shutdown Fault - Low-Side	False	
Motor A Phase U SPI Error Fault - Low-Side	False	
Motor A Phase U Hardware Error Fault - Low-Side	False	
Motor A Phase V Short Fault - High-Side	False	
Motor A Phase V Cross Conduction Fault - High-Side	False	
Motor A Phase V Over Current Fault - High-Side	False	
Motor A Phase V Thermal Warning Fault - High-Side	False	
Motor A Phase V Thermal Shutdown Fault - High-Side	False	
Motor A Phase V Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase V Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase V SPI Error Fault - High-Side	False	
Motor A Phase V Hardware Error Fault - High-Side	False	
Motor A Phase V Short Fault - Low-Side	False	
Motor A Phase V Cross Conduction Fault - Low-Side	False	
Motor A Phase V Over Current Fault - Low-Side	False	
Motor A Phase V Thermal Warning Fault - Low-Side	False	
Motor A Phase V Thermal Shutdown Fault - Low-Side	False	
Motor A Phase V SPI Error Fault - Low-Side	False	
Motor A Phase V Hardware Error Fault - Low-Side	False	
Motor A Phase W Short Fault - High-Side	False	
Motor A Phase W Over Current Fault - High-Side	False	
Motor A Phase W Thermal Warning Fault - High-Side	False	
Motor A Phase W Thermal Shutdown Fault - High-Side	False	
Motor A Phase W Comm Error Low Voltage Regulator Fault - High-Side	False	
Motor A Phase W SPI Error Fault - High-Side	False	
Motor A Phase W Hardware Error Fault - High-Side	False	
Motor A Phase W Short Fault - Low-Side	False	
Motor A Phase W Cross Conduction Fault - Low-Side	False	
Motor A Phase W Over Current Fault - Low-Side	False	
Motor A Phase W Thermal Warning Fault - Low-Side	False	
Motor A Phase W Thermal Shutdown Fault - Low-Side	False	
Motor A Phase W Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase W SPI Error Fault - Low-Side	False	
Motor A Phase W Hardware Error Fault - Low-Side	False	
Motor A Resolver Supply Voltage Value	15.75	Volts
Battery Feed Voltage 2 Sense	11.448	Volts
Battery Feed Voltage 3 Sense	11.304	Volts
Internal EPS Voltage Sense A	0.000	Volts
Internal EPS Voltage Sense B	0.000	Volts
Hybrid System State	SNA	
PIM DC Link Voltage - A	6	Volts
PIM DC Link Voltage - B	6	Volts

Passive Pump Coolant Temp In Sensor	95	°F
Low Temp Active Pump Speed	0	rpm
High Temp Aux Pump - Actual Speed	0	rpm
Outside Air Temperature	102.2	°F
HV Contactor Status	Open	
Inverter B Status Feedback	Normal OFF	
Battery Feed Voltage 1 Sense	11.376	Volts
Actual Torque - Motor B	0.000	Ft-Lbs
Available Motor Torque - Motor B	233.776	Ft-Lbs
Available Regen Torque - Motor A	0.000	Ft-Lbs
Available Regen Torque - Motor B	-233.776	Ft-Lbs
Commanded Torque - Motor A	0.000	Ft-Lbs
Commanded Torque - Motor B	0.000	Ft-Lbs
Motor B - Inverter Current - phase A	-4	AMP
Motor B - Inverter Current - phase B	-4	AMP
Motor B - Inverter Current - phase C	-4	AMP
Motor B Resolver Angle	312	Degree
Motor B Temp Sensor	90	°F
HCP ePT Wake-Up Output	On	
CBC Wake-Up Input	Off	
EPT LOC Diag Enable	Enable LOC Diagnostic	
HV Battery Voltage from BPCM	180.00	Volts
Electric Motor B Speed	23.5	rpm
Inverter A IGBT Temperature for phase A	93	°F
Inverter A IGBT Temperature for phase B	93	°F
Inverter A IGBT Temperature for phase C	93	°F
Inverter B IGBT Temperature for phase A	93	°F
Inverter B IGBT Temperature for phase B	93	°F
Inverter B IGBT Temperature for phase C	93	°F
APM Status	Idle	
Impact Event	False	
HCP System Shutdown Command	Default	
Distance Travelled with Light ON	0	miles
Motor A Torque	0.000	Ft-Lbs
Motor B Torque	0.000	Ft-Lbs
OBCM Operating Mode	UTC	
J1772 Prox Detected State	Prox Out	
HV Battery Sleep Time	0	Days
Commanded Inverter A State	Inverter Disabled	
Inverter Status Feedback	Inverter Faulted	
Motor A Phase U Over Voltage Fault VH - High-Side	False	
Motor A Phase U Under Voltage Fault VH - High-Side	False	
Motor A Phase U Over Voltage Fault VL - High-Side	False	
Motor A Phase U Under Voltage Fault VL - High-Side	False	

Motor A Phase U Over Voltage Fault VDD - High-Side	False	
Motor A Phase U Under Voltage Fault VDD - High-Side	False	
Motor A Phase U Over Voltage Fault VH - Low-Side	False	
Motor A Phase U Under Voltage Fault VH - Low-Side	False	
Motor A Phase U Over Voltage Fault VL - Low-Side	False	
Motor A Phase U Under Voltage Fault VL - Low-Side	False	
Motor A Phase U Over Voltage Fault VDD - Low-Side	False	
Motor A Phase U Under Voltage Fault VDD - Low-Side	False	
Motor A Phase U Comm Error High Voltage Regulator Fault - Low-Side	False	
Motor A Phase U Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase V Over Voltage Fault VH - High-Side	False	
Motor A Phase V Under Voltage Fault VH - High-Side	False	
Motor A Phase V Over Voltage Fault VL - High-Side	False	
Motor A Phase V Under Voltage Fault VL - High-Side	False	
Motor A Phase V Over Voltage Fault VDD - High-SideSide	False	
Motor A Phase V Under Voltage Fault VDD - High-Side	False	
Motor A Phase V Over Voltage Fault VH - Low-Side	False	
Motor A Phase V Under Voltage Fault VH - Low-Side	False	
Motor A Phase V Over Voltage Fault VL - Low-Side	False	
Motor A Phase V Under Voltage Fault VL - Low-Side	False	
Motor A Phase V Over Voltage Fault VDD - Low-Side	False	
Motor A Phase V Under Voltage Fault VDD - Low-Side	False	
Motor A Phase V Comm Error High Voltage Regulator Fault - Low-Side	False	
Motor A Phase V Comm Error Low Voltage Regulator Fault - Low-Side	False	
Motor A Phase W Cross Conduction Fault - High-Side	False	
Motor A Phase W Over Voltage Fault VH - High-Side	False	
Motor A Phase W Under Voltage Fault VH - High-Side	False	
Motor A Phase W Over Voltage Fault VL - High-Side	False	
Motor A Phase W Under Voltage Fault VL - High-Side	False	
Motor A Phase W Over Voltage Fault VDD - High-Side	False	
Motor A Phase W Under Voltage Fault VDD - High-Side	False	
Motor A Phase W Comm Error High Voltage Regulator Fault - High-Side	False	
Motor A Phase W Over Voltage Fault VH - Low-Side	False	
Motor A Phase W Under Voltage Fault VH - Low-Side	False	
Motor A Phase W Over Voltage Fault VL - Low-Side	False	
Motor A Phase W Under Voltage Fault VL - Low-Side	False	
Motor A Phase W Over Voltage Fault VDD - Low-Side	False	
Motor A Phase W Under Voltage Fault VDD - Low-Side	False	
Motor A Phase W Comm Error High Voltage Regulator Fault - Low-Side	False	
Inverter A Status Feedback	Inverter Faulted	
GPS Date - Year	2022	Year
GPS Date - Month	8	
GPS Date - Day	29	Days
UTC Time - Hours	18	Hours

UTC Time - Minutes	54	
UTC Time - Seconds	0	seconds
ECU Time - Milliseconds	194	ms

DSM | B156D-00 | Stored | Low Voltage Differential Signal (LVDS) Video Cable-

NAME	VALUE	UNITS
DTC	95 6D 00	
Test Failed	False	
Pending DTC	False	
Test Failed This Operation Cycle	False	
Confirmed DTC	True	
Test Not Completed Since Last Clear	False	
Test Failed Since Last Clear	True	
Test Not Completed This Operation Cycle	False	
Warning Indicator Requested	False	
DTC Extended Data Record Number - All	01	
Occurrence flag	Occurrence	
Original Odometer Value	8411	miles
Most Recent Odometer Value	12358	miles
Frequency Counter	35	
Ignition Cycle Counter	34	

SNAPSHOT DATA SUMMARY

No Snapshot Data available for B1975-00

No Snapshot Data available for B10EB-00

No Snapshot Data available for B233C-00

No Snapshot Data available for U151A-87

No Snapshot Data available for P0513-00

No Snapshot Data available for P0A3F-00

No Snapshot Data available for P0A43-00

No Snapshot Data available for P0C19-00

No Snapshot Data available for B156D-00



Pyrex®

3 1/5

3 cups

5 1/5

5 cups

1 1/5

1 1/2 cups

P

Made in USA

1 1/2 cups

1 cup

3/4 cup

1/2 cup

1/4 cup

0





1/3 5/3
3 cubs
1/3 5/3
5 cubs

1400 m

1600 m

1800 m

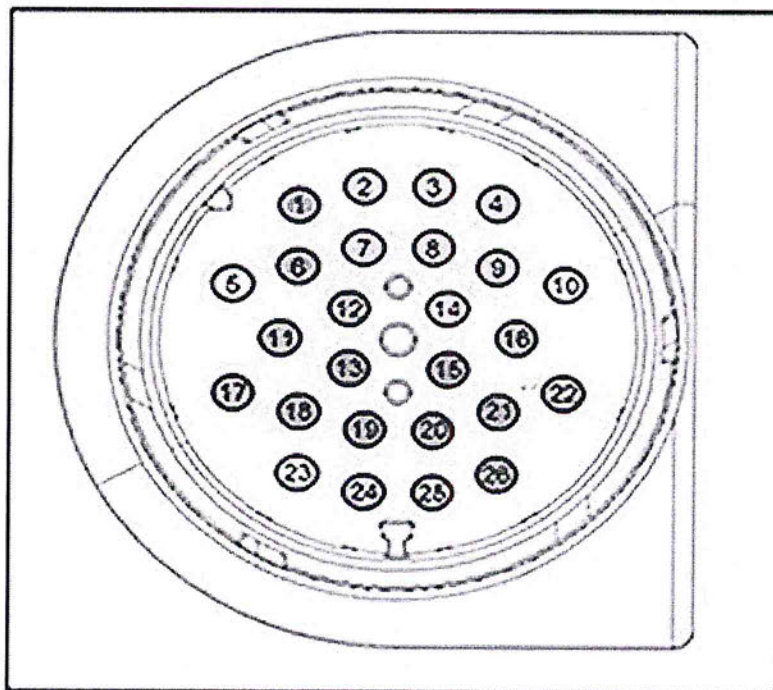
P0A3F-00 - DRIVE MOTOR A POSITION SENSOR 1 CIRCUIT

+ **Special Tools:** Click to display a list of tools used in this procedure

For a complete POWER INVERTER MODULE SYSTEM wiring diagram, ([refer to the Wiring Information](#)).

□ TRANSMISSION CONNECTOR PINOUT INFORMATION

Pinout view of 26 Pin Trans Connector



2017115594

Transmission 26 Way Connector Resistance Measurements

Transmission 26 Way Connector Resistance Measurements				
Circuit 3 Motor A Thermistor	See chart below for resistance values	T366	MOTOR A TEMPERATURE SENSOR SIGNAL	T1
		T359	MOTOR A TEMPERATURE SENSOR GROUND	T6
Circuit 1 Motor A Resolver	14.0-21.0 Ohms	T372	RESOLVER A SINE HI	T2
		T374	RESOLVER A SINE LO	T7
	16.0-24.0 Ohms	T371	RESOLVER A COS HI	T3
		T373	RESOLVER A COS LO	T8

Transmission 26 Way Connector Resistance Measurements				
	6.8–10.2 Ohms	T370	RESOLVER A EXCITOR HI	T4
		T375	RESOLVER A EXCITOR LO	T9
	Z701A		SHIELD CABLE	T14
Circuit 2 Motor B Resolver	14.0-21.0 Ohms	T362	RESOLVER B SIN HI	T19
		T364	RESOLVER B SIN LO	T20
	16.0–24.0 Ohms	T361	RESOLVER B COS HI	T15
		T363	RESOLVER B COS LO	T21
	6.8–10.2 Ohms	T369	RESOLVER B EXCITATION HI	T13
		T368	RESOLVER B EXCITATION LO	T18
	Z701B		SHIELD CABLE	T26
Circuit 4 Motor B Thermistor	See chart below for resistance values	T367	MOTOR B TEMPERATURE SENSOR SIGNAL	T24
		T360	MOTOR B TEMPERATURE SENSOR GROUND	T25
Circuit 6 Trans Aux Pump		Z904A/Z904B	PUMP GROUND	T16/T22
		F748A/F748B	TRANSMISSION OIL PUMP RELAY OUTPUT	T11/T17
		D422	PIM LIN BUS 1(B)	T12

⊕ TEMPERATURE/RESISTANCE CHART

Theory of Operation

The motor position sensor is monitored by the Motor Control Processor (MCP). The MCP monitors the angular position, speed and direction of the motor generator based upon the signals of the resolver type position sensor. The position sensor, or resolver, contains a drive coil, two driven coils, and an irregular shaped metallic rotor. The metallic rotor is attached to the shaft of the motor generator. At ignition ON, the MCP outputs a fixed excitation signal to the drive coil. The drive coil excitation signal creates a magnetic field surrounding the two driven coils and the irregular shaped rotor. The MCP then monitors the two driven coil circuits for a return signal. The position of the irregular metallic rotor causes the magnetically induced return signals of the driven coils to vary in size and shape. A comparison of the two driven coils signals allows the MCP to determine the exact position, speed and direction of the motor generator. The motor Resolver is integrated into the motor and is not serviceable.

When Monitored and Set Conditions

When Monitored: This diagnostic runs continuously when the following conditions are met:

- Ignition is on.
- 12 volt system voltage is within a calibrated range.

Set Conditions:

- The Hybrid Control Processor (HCP) does not detect a signal from the Drive Motor A Resolver (aka Position Sensor).

Default Actions:

- Mil on.
- Loss of propulsion.

Possible Causes
DAMAGED RESOLVER CIRCUITS/TERMINALS
RESOLVER
POWER INVERTER MODULE (PIM)

Always perform the **PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE** before proceeding. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure).

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

WARNING: On vehicles equipped with the high voltage system, you must thoroughly read and follow all High Voltage Safety procedures. In addition, before performing any diagnostic or service procedure near a high voltage component, you must perform the High Voltage Power Down. Failure to follow these instructions may result in possible serious or fatal injury .

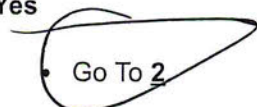
Read the **HIGH-VOLTAGE SAFETY PROCEDURES**, (Refer to 08 - Electrical/Standard Procedure).

When the **HIGH-VOLTAGE POWER-DOWN PROCEDURE** is necessary, (Refer to 08 - Electrical/Standard Procedure).

1. With the scan tool, read Power Inverter Module (PIM) DTCs and record on the repair order.
2. Record the Freeze Frame Data (If available), Event Data (If available), and Environmental Data.
3. With the scan tool, erase DTCs.
4. Using the recorded data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
5. With the scan tool, read PIM DTCs.

Is the DTC active?

Yes



Go To 2

No

- Perform the TESTING FOR AN INTERMITTENT CONDITION procedure. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure).

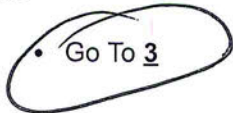
2. CHECK RESOLVER HARNESS CIRCUITS FOR AN OPEN OR HIGH RESISTANCE

1. Turn the ignition off.
2. Disconnect the PIM C1 harness connector.
3. To prevent terminal damage while testing the PIM C1 and C2 harness connectors use Kit, Electrical Test Lead 2064100080
4. Disconnect the Transmission Assembly harness connector.
5. Measure the resistance of the following circuits between the PIM C1 harness connector and the Transmission Assembly harness connector:

- (T372) Resolver A Sin Hi .002
- (T374) Resolver A Sin Lo .002
- (T371) Resolver A Cos Hi .003
- (T373) Resolver A Cos Lo .002
- (T370) Resolver A Excitation Hi .002
- (T375) Resolver A Excitation Lo .003

Is the resistance below 3.0 Ohms for each circuit?

Yes



No

- Repair the affected circuit(s) for an open or high resistance.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

3. CHECK RESOLVER HARNESS CIRCUITS FOR A SHORT TO GROUND

1. Check for continuity between ground and the following circuits at the PIM C1 harness connector.

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

Is there continuity between ground and any of the circuits?

Yes

- Repair the affected circuit(s) for a short to ground.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

• (Go To 4)

~~Out~~ Out of Limits

4. CHECK RESOLVER HARNESS CIRCUITS FOR A SHORT TO ANOTHER CIRCUIT

1. Check for continuity between each of the following circuit(s), and all other circuits at the PIM C1 harness connector.

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

Is there continuity between any of the circuits and any other circuit?

Yes

- Repair the affected circuit(s) for a short to another circuit.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

• Go To 5

Out of Limits

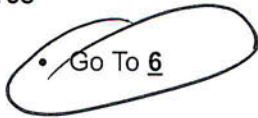
5. CHECK THE RESOLVER RESISTANCES

1. Perform resistance measurements between the circuits at the Transmission Assembly interface connector (Transmission side) and compare the readings to the values shown in the table.

Perform Resistance Measurements Between These Circuits		Resistance Values
(T372) Resolver A Sin Hi — (T374) Resolver A Sin Lo	18.4	14.0–21.0 Ohms
(T371) Resolver A Cos Hi — (T373) Resolver A Cos Lo	21.2	16.0–24.0 Ohms
(T370) Resolver A Excitation Hi — (T375) Resolver A Excitation Lo	9.2	6.8–10.2 Ohms

Are the measurements within the values shown in the table?

Yes



No

- Replace the Transmission in accordance with the Service Information.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

6. CHECK THE RESOLVER FOR A SHORT TO GROUND

1. Check for continuity between ground and each of the following Resolver circuits at the Transmission Assembly interface connector (Transmission side).

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

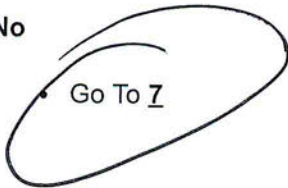
Out of Limits

Is there continuity between ground and any of the circuits?

Yes

- Replace the Transmission in accordance with the Service Information.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No



7. CHECK THE RESOLVER FOR A SHORT TO ANOTHER CIRCUIT

1. Check for continuity between each of the following circuit(s), and all other circuits at the at the Transmission Assembly interface connector (Transmission side).

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

NOTE: Continuity between related circuits is normal. For example, continuity between the Resolver A Sin circuits is normal.

Is there continuity between any of the Resolver circuits and any other circuit?

Yes

- Replace the Transmission in accordance with the Service Information.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

• Go To 8 Out of Limits

8. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all PIM harness connectors.
2. Check PIM C1 harness connector shielding is not damaged.
3. Disconnect all related in-line harness connections (if equipped).
4. Disconnect the related component harness connectors.
5. Inspect harness connectors, component connectors, and all male and female terminals for the following conditions:
 - Proper connector installation.
 - Damaged connector locks.
 - Corrosion.
 - Other signs of water intrusion.
 - Weather seal damage (if equipped).
 - Bent terminals.
 - Overheating due to a poor connection (terminal may be discolored due to excessive current draw).
 - Terminals that have been pushed back into the connector cavity.
 - Perform a terminal drag test on each connector terminal to verify proper terminal tension.

Repair any conditions that are found.

6. Reconnect all PIM harness connectors. Be certain that all harness connectors are fully seated and the connector locks are fully engaged.
7. Reconnect all in-line harness connectors (if equipped). Be certain that all connectors are fully seated and the connector locks are fully engaged.
8. Reconnect all related component harness connectors. Be certain that all connectors are fully seated and the connector locks are fully engaged.
9. With the scan tool, erase DTCs.
10. Using the recorded data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
11. With the scan tool, read PIM DTCs.

Is the DTC active?

Yes

- Replace the PIM in accordance with the Service information. (Refer to 08 - Electrical/8E - Electronic Control Modules/MODULE, Power Inverter/Removal and Installation).
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).
- Test complete.

- P0A3F-00 - DRIVE MOTOR A POSITION SENSOR CIRCUIT
- P0A43-00 - DRIVE MOTOR A POSITION SENSOR CIRCUIT INTERMITTENT
- P1B03-00 - RESOLVER SIGNAL - MCPA RATIONALITY

Set Conditions:

- Power Inverter Module (PIM) detects an incorrect resolver position offset.

Default Actions:

- Malfunction Indicator Lamp (MIL) is illuminated.

Possible Causes
DAMAGED RESOLVER CIRCUITS/TERMINALS RESOLVER A POWER INVERTER MODULE (PIM)

Always perform the **PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE** before proceeding. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure).

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

WARNING: On vehicles equipped with the high voltage system, you must thoroughly read and follow all High Voltage Safety procedures. In addition, before performing any diagnostic or service procedure near a high voltage component, you must perform the High Voltage Power Down. Failure to follow these instructions may result in possible serious or fatal injury .

Read the **HIGH-VOLTAGE SAFETY PROCEDURES**, (Refer to 08 - Electrical/Standard Procedure).

When the **HIGH-VOLTAGE POWER-DOWN PROCEDURE** is necessary, (Refer to 08 - Electrical/Standard Procedure).

1. With the scan tool, read Power Inverter Module (PIM) DTCs and record on the repair order.
2. Record the Freeze Frame Data (If available), Event Data (If available), and Environmental Data.
3. With the scan tool, erase DTCs.
4. Using the recorded data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
5. With the scan tool, read PIM DTCs.

Did the DTC return?

Yes

No

Go To 2

- Perform the TESTING FOR AN INTERMITTENT CONDITION procedure. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure).

2. CHECK RESOLVER HARNESS CIRCUITS FOR AN OPEN OR HIGH RESISTANCE

1. Turn the ignition off.
2. Disconnect the PIM C1 harness connector.
3. To prevent terminal damage while testing the PIM C1 and C2 harness connectors use Kit, Electrical Test Lead 2064100080
4. Disconnect the Transmission Assembly harness connector.
5. Measure the resistance of the following circuits between the PIM C1 harness connector and the Transmission Assembly harness connector:

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

Is the resistance below 3.0 Ohms for each circuit?

Yes

Go To 3

No

- Repair the affected circuit(s) for an open or high resistance.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM)/Standard Procedure).

3. CHECK RESOLVER HARNESS CIRCUITS FOR A SHORT TO GROUND

1. Check for continuity between ground and the following circuits at the PIM C1 harness connector.

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

Is there continuity between ground and any of the circuits?

Yes

- Repair the affected circuit(s) for a short to ground.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

- Go To 4

4. CHECK RESOLVER HARNESS CIRCUITS FOR A SHORT TO ANOTHER CIRCUIT

1. Check for continuity between each of the following circuit(s), and all other circuits at the PIM C1 harness connector.

- (T372) Resolver A Sin Hi
- (T374) Resolver A Sin Lo
- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

Is there continuity between any of the circuits and any other circuit?

Yes

- Repair the affected circuit(s) for a short to another circuit.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

- Go To 5

5. CHECK THE RESOLVER RESISTANCES

1. Perform resistance measurements between the circuits at the Transmission Assembly interface connector (Transmission side) and compare the readings to the values shown in the table. **NOTE: Do NOT use Adapter, GPEC Diagnostic 10436 when performing Resolver resistance testing.**

Perform Resistance Measurements Between These Circuits	Resistance Values
(T372) Resolver A Sin Hi — (T374) Resolver A Sin Lo 18.4	Between 14.0 and 21.0 Ohms
(T371) Resolver A Cos Hi — (T373) Resolver A Cos Lo 21.2	Between 16.0 and 24.0 Ohms

Perform Resistance Measurements Between These Circuits	Resistance Values
(T370) Resolver A Excitation HI — (T375) Resolver A Excitation Lo	Between 6.8 and 10.2 Ohms

9.2

Are the measurements within the values shown in the table?

Yes
Go To 6

No

- Replace the Transmission in accordance with the Service Information. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).
- Perform the PIM VERIFICATION TEST.

6. CHECK THE RESOLVER FOR A SHORT TO GROUND

1. Check for continuity between ground and each of the following Resolver circuits at the Transmission Assembly interface connector (Transmission side).

- (T372) Resolver A Sin HI ✓
- (T374) Resolver A Sin Lo ✓
- (T371) Resolver A Cos HI ✓
- (T373) Resolver A Cos Lo ✓
- (T370) Resolver A Excitation HI ✓
- (T375) Resolver A Excitation Lo ✓

Is there continuity between ground and any of the circuits?

Yes

- Replace the Transmission in accordance with the Service Information. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).
- Perform the PIM VERIFICATION TEST.

No
Go To 7

7. CHECK THE RESOLVER FOR A SHORT TO ANOTHER CIRCUIT

1. Check for continuity between each of the following circuit(s), and all other circuits at the Transmission Assembly interface connector (Transmission side).

- (T372) Resolver A Sin HI
- (T374) Resolver A Sin Lo

10. With the scan tool, read PIM DTCs.

Did the DTC return?

Yes

- Replace the PIM in accordance with the Service information. (Refer to 08 - Electrical/8E - Electronic Control Modules/MODULE, Power Inverter/Removal and Installation).
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).

No

- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM) /Standard Procedure).
- Test complete.

- (T371) Resolver A Cos Hi
- (T373) Resolver A Cos Lo
- (T370) Resolver A Excitation Hi
- (T375) Resolver A Excitation Lo

NOTE: Continuity between related circuits is normal. For example, continuity between the Resolver A Sin circuits is normal.

Is there continuity between any of the Resolver circuits and any other circuit?

Yes

- Replace the Transmission in accordance with the Service Information.
- Perform the PIM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Power Inverter (PIM)/Standard Procedure).

No

- Go To 8

8. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all PIM harness connectors.
2. Disconnect all related in-line harness connections (if equipped).
3. Disconnect the related component harness connectors.
4. Inspect harness connectors, component connectors, and all male and female terminals for the following conditions:
 - Proper connector installation.
 - Damaged connector locks.
 - Corrosion.
 - Other signs of water intrusion.
 - Weather seal damage (if equipped).
 - Bent terminals.
 - Overheating due to a poor connection (terminal may be discolored due to excessive current draw).
 - Terminals that have been pushed back into the connector cavity.
 - Perform a terminal drag test on each connector terminal to verify proper terminal tension.

Repair any conditions that are found.

5. Reconnect all PIM harness connectors. Be certain that all harness connectors are fully seated and the connector locks are fully engaged.
6. Reconnect all in-line harness connectors (if equipped). Be certain that all connectors are fully seated and the connector locks are fully engaged.
7. Reconnect all related component harness connectors. Be certain that all connectors are fully seated and the connector locks are fully engaged.
8. With the scan tool, erase DTCs.
9. Using the recorded data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.

