VSIM (VEHICLE SYSTEM INTERFACE MODULE) USAGE INSTRUCTIONS

Overview:

The RAM Truck engineered upfitter module called the VSIM (Vehicle System Interface Module) with sales code "XXS" is standard with Ambulance Prep (sales code AH2), a "must have" option with PTO Prep (sales codes LBN or LBV), and is available as a stand-alone option. It provides a multitude of useful I/O's to increase upfitter friendliness and upfit simplification. Vehicles not ordered with this option from the factory cannot be retrofitted.

Specifics supplied below:

- 1. Ghost drawings showing the module location within the dash panel.
- 2. The VSIM includes an upfitter wire harness kit (part number 68319578AA) consisting of four separate color coded harness bundles. Each individual color harness must only be plugged into its corresponding VSIM connector cavity, see photos below showing harness color installations.
- 3. A photo of the four individual color coded VSIM upfitter harness bundles. Note that in a few instances an individual wire color is duplicated within a bundle these duplications are further identified with a paper "flag" showing its circuit number. It's recommended that the upfitter, upon harness bundle routing direction determination(s), install additional harness bundle abrasion protection over each bundle (such as harness convolute).
- 4. Photos showing module installation within a vehicle and harness bundles.
- 5. A chart below delineates the circuits within each color harness bundle, circuit number, signal, wire insulation colors, maximum allowable amperage per circuit, and circuit function.
- 6. A chart below delineates the available 250K J1939 Bus messages.
- 7. Note 3: PTO idle speed circuits W541, W542, W543 can only be programmed to function if the vehicle was built with PTO option sales codes LBN or LBV.



Chassis Cab VSIM Usage Instructions



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Note: When inserting the VSIM harness connectors an audible "click" will be heard when the connector is fully seated.





			VSIN	VI 24 -	CAVITY C	GRAY CONNECTOR
Cavity/Pin #	Upfitter VSIM Signal	Circuit #	Wire Color	Max Current (Amps)	Type of Signal	
1	Not Used					Not Used
2	Hazard indicator on - HSD output	W719	WT/VT	0.5	HSD Output	Open circuit when hazard fl selected.
3	Transmission out of "Park" - HSD output	W504	BR	0.5	HSD Output	Open circuit when gear sele in any other position.
4	Diesel Regeneration (DPF) on - HSD output	W545	BR/LB	0.5	HSD Output	Open circuit when diesel rea
5	PTO on indicator - HSD	W743	VT/TN	1	HSD Output	Open circuit when PTO circu energized (W708 must be g
6	MIL lamp on - HSD output	W540	BR/DG	0.5	HSD Output	Open circuit when MIL is no
7	Transmission "Park" position - LSD output	W700	YL/DB	0.5	LSD Output	Open circuit when gear se
8	Transmission "Neutral" position - LSD output	W701	DG/YL	0.5	LSD Output	Open circuit when gear sele
9	HVAC - A/C Clutch engaged - LSD output	W652	LB/BR	0.5	LSD Output	Open circuit when A/C Clute
10	** CAN communication J1939 + 250 Kbaud	W532	BR/DB		J1939 Bus (+)	250 Kbaud J1939 CAN+, us messages.
11	** CAN communication J1939 - 250 Kbaud	W534	BR/LB	0.5	J1939 Bus (-)	250 Kbaud J1939 CAN-, use messages.
12	Transmission "Reverse" Position - LSD output	W702	DG/DB	0.5	LSD Output	Open circuit when gear sele
13	Not Used					Not Used
14	HVAC - when A/C is selected via the dash switch - LSD output	W654	LB/OR	0.5	LSD Output	Open circuit when A/C has r
15	Cargo Lamp Output (timer) - LSD output	W711	WT/TN	0.5	LSD Output	Activated (grounded) when when off. Times out after 3
16	Transmission "Drive" Position - LSD output	W703	DG/LB	0.5	LSD Output	Open circuit when gear sele
17	Any Door Ajar - HSD output	W720	VT/OR	0.5	HSD Output	Open circuit when all the do
18	Not Used					Not Used
19	Not Used					Not Used
20	Not Used					Not Used
21	Not Used					Not Used
22	Not Used					Not Used
23	Not Used					Not Used
24	Not Used					Not Used

Function

lashers are off, battery positive voltage (+12V) when hazard flashers are

ector is in Park, battery positive voltage (+12V) when the gear selector is

generation is not energized battery positive voltage (+12V) when it is

uit is not energized, battery positive voltage (+12V) when PTO circuit is grounded [via PTO pressure switch) for this to function) output

ot illuminated battery positive voltage (+12V) when MIL is illuminated

elector is not in Park, grounded when in Park.

ector is not in Neutral, grounded when in Neutral.

ch is not engaged, grounded when engaged.

se in conjunction with W534, refer to J1939 spreadsheet for available

e in conjunction with W532, refer to J1939 spreadsheet for available

ector is not in Reverse, grounded when in Reverse.

not been selected, grounded when A/C has been selected.

circuit W506 (cavity 4 of brown connector) is grounded. Open circuit 30 minutes. Re-enabled by cycling W506 switch.

ector is not in Drive, grounded when in Drive.

oors are closed, battery voltage (+12V) when any door is ajar.

		VSIM	16 - 0	CAVITY	BLACK CO	NNECTOR
Cavity/Pin #	Upfitter VSIM Signal	Circuit #	Wire Color	Max Current (Amps)	Type of Signal	
1	Howler Siren disable - HSD output	W505	LG		HSD Output	Open circuit when vehicle
2	Horn activation - HSD output	W513	BR/GY	0.5	HSD Output	Open circuit when presse
3	Side Airbag deployed - HSD	W517	BR/LG	0.5	HSD Output	Open circuit battery posit
4	Tire Pressure Monitor active - HSD output applicable only RAM 2500 under 10,000 GVW	W622	VT/YL	0.5	HSD Output	Open circuit positive volta
5	Power feed "Off" - HSD output	W735	РК	0.5	HSD Output	Open circuit when key is i
6	Driver Seat Belt not latched - HSD Output	W710	LG/VT	0.5	HSD Output	Open circuit when the dri
7	Oil Pressure Warning Signal - LSD digital PWM output	W707	VT/GY	0.1	Digital Signal LSD PWM Output	Oil Pressure ground, 100
8	Voltage Gauge - LSD digital PWM output	W733	VT	0.1	Digital Signal LSD PWM Output	Battery Volta ground, 100
9	Front Airbag Deployed - HSD ouput	W518	BR/DG	0.5	HSD Output	Open circuit battery posit
10	Panic Alarm activation - HSD output	W515	BR/LB	0.5	HSD Output	Open circuit the Panic Ala
11	Service Brake Pedal depressed	W726	DG/OR	0.25	HSD Output	Open circuit when the Se
12	Power feed "Accessory" - HSD output	W734	PK/GY	0.5	HSD Output	Open circuit key is in "Acc
13	Power feed "Run/Start" - HSD output	W736	PK/YL	0.5	HSD Output	Open circuit key is in "Rur
14	Fuel Level Signal - LSD digital PWM output	W538	BR/OR	0.1	Digital Signal LSD PWM Output	Fuel Level Sig 100 Hz, linea
15	Engine RPM Signal - LSD digital PWM output	W744	BR/WT	0.25	Digital Signal LSD PWM Output	Engine RPM ground, 0.2 H
16	Vehicle MPH speed signal -LSD Transmission "Drive" Position - LSD output	W524	BR/YL	0.1	Digital Signal LSD PWM Output	Vehicle Spee Hz/MPH (60

when vehicle speed is below 25 MPH, battery positive voltage (+12V) e speed is 25 MPH or above.

when horn not pressed (not energized), battery positive voltage (+12V) ed (energized).

when side airbags have not deployed during current key on cycle, tive (+12V) upon airbag deployment during current key on cycle.

when Tire Pressure Monitor (TPM) indicator lamp is off, battery age (+12V) when the TPM indicator lamp is active.

when key position is in "Accessory/Run/Start", battery positive (+12) in off position.

when the drivers seat belt is latched, battery positive voltage (+12V) ivers seat belt is not latched (key must be in "run" position.

Signal: Pulse Width Modulated (PWM) between open circuit and Hz, linear with 0 % PWM = 0 PSI, and 100 % PWM = 147 PSI.

age Signal: Pulse Width Modulated (PWM) between open circuit and Hz, linear with 0 % PWM = 5V, and 100 % PWM = 18V.

when front airbags have not deployed during current key on cycle, tive (+12V) upon front airbag deployment during current key on cycle.

when Panic Alarm is not active, battery positive voltage (+12V) when arm is active (key must be in "off" or "accessory" position).

when Service Brake Pedal is not active, battery positive voltage (+12V) ervice Brake Pedal is active.

when key position is in "Off/Run/Start", battery positive (+12) when cessory" position.

when key position is in "Off/Accessory", battery positive (+12) when n or Start" position.

gnal: Pulse Width Modulated (PWM) between open circuit and ground, ar with 0 % PWM = empty tank, and 100 % PWM = full tank.

Signal : Pulse Width Modulated (PWM) between open circuit and HZ/RPM (12 pulses per minute per 1 RPM) @50% duty cycle.

ed Signal: Modulation between open circuit and ground, output with 10 0 pulses per minute per 1 MPH) @50% duty cycle.

			VS	IM 16	- CAVITY B	ROWN
Cavity/Pin #	Upfitter VSIM Signal	Circuit #	Wire Color	Max Current (Amps)	Type of Signal	
1	Cluster/Auxiliary lighting dimmer - LSD digital output	W521	BR/WT		Digital Signal LSD PWM Output	uses the ve ground, out
2	Door Unlock (All) function - "Unlock" all - LSD output	W722	DG/TN		LSD Output	Relay drive
3	Auxiliary upfitter added flashing light front output - LSD output	W503	TN/VT		LSD Output	Relay drive per minute
4	Auxiliary Cargo Lamp switch signal - digital input.	W506	WT		Digital Signal Input Switch to Ground	cargo lamp re-enable b
5	Wig Wag switch signal rear - digital input	W501	BR/VT		Digital Signal Input Switch to Ground	when grour duty cycle),
6	Radio mute signal rear - digital input	W640	GY		Digital Signal Input Switch to Ground	when grour
7	Not Used					Not Used
8	PTO pressure switch - digital input	W708	OR/BR		Digital Signal Input Switch to Ground	MANDATO vehicle that Reference t Use the pas
9	Door Lock double lockt function "Lock" all - LSD output	W721	LG/TN	0.5	LSD Output	Relay Drive
10	Auxiliary upfitter added flashing lights rear output - LSD output	W502	TN/BR	0.25	LSD Output	Relay Drive minute (1.3
11	Park Brake applied - LSD output	W725	DG/WT	0.5	LSD Output	Relay drive
12	Wig Wag switch signal front lights digital, input. <u>NOTE</u> : this function must <u>not</u> be used on Laramie, Long Horn, nor 7X91 sales code Power Wagon's - all of which are equipped with Projector Headlamps (sales code LMC)	W500	BR/OR		Digital Signal Input Switch to Ground	when grour duty cycle),
13	Not Used	W537	BR/OR			This wire is
14	Panic alarm and Horn switch mute - digital input.	W536	BR/YL		Digital Signal Input Switch to Ground	When grou
15	Not Used - wire present but not used		OR			This wire is
16	Ground - ground return	W524	ВК		Signal Ground Return	A source fo

CONNECTOR

Function

chicles instrument cluster dimmer control - will dim auxiliary lighing: PWM between open circuit and tput with, 100Hz, linear with 0% PWM = zero intensity, and 100% PWM = full intensity

r, mirrors vehicle unlock All request with a ground potential for 500 ms (key need not be in switch)

r for front auxiliary light(s), open circuit when W500 is "OFF", grounded on (flash) on/off at 80 flashes (1.333Hz square wave @ 50% duty cycle) when W500 is on.

ON/OFF, use normally open switch to ground to activate a relay via W711, times out after 30 minutes, by cycling switch.

nded actuates Wig Wag vehicle rear stop/turn lamps, 80 flashes per minute (1.3 Hz square wave @ 50% , also actuates circuit W502 (key need not be in)

nded mutes the vehicle radio (via vehicles CAN messaging)

DRY CIRCUIT FOR PTO USEAGE When grounded via PTO pressure switch, provides feedback to the it the PTO has pressure: controls PTO actuation and vehicle dash PTO switch LED illumination status. the PTO Operations & Installation Guide chapter, "<u>PTO Quick Start Information</u>" section, pages 2 & 3. ss through circuit G425 (VT/YL) to interconnect the PTO pressure switch to this circuit W708.

r, mirrors vehicle lock request with a switched ground for 500ms (key need not be in switch)

er for rear auxiliary light(s), open circuit when W501 is "OFF", grounded (flash) on/off at 80 flashes per 333 Hz square wave @ 50% duty cycle) when W501 is "ON"

r, open circuit when park brake not set, grounded when park brake set.

nded actuates Wig Wag vehicle front high beams, 80 flashes per minute (1.3 Hz square wave @ 50%, also actuates circuit W503 (key needs to be in switch)

included in the VSIM upfitter harness but is not used

inded mutes the vehicle horns (via vehicles CAN messaging)

included in the VSIM upfitter harness but is not used

r signal or switch ground - for use on VSIM switched digital inputs only

					VSIM	16 - 0	CAVITY	GREEN	CONNEC
Cavity/Pin #	Upfitter VSIM Signal	Circuit #	Wire Color	Max Current (Amps)	Type of Si	gnal			
1	Not Used						Not Used		
2	Split Shaft PTO - digital input	W544	GY		Digital Signal Switch to Gro	Input ound	When gro	unded, signa	Is the controlle
3	Not Used		DB				This wire	is included in	the VSIM upfi
4	Rear Bulb Out Detection off - digital input	W509	WT/BR		Digital Signal Switch to Gro	Input ound	When gro rear LED's bulbs.	unded, turns in place of in	off rear (Turn) ncandescent b
5	PTO idle speed 1 - digital input	W541	GY/OR		Digital Signal Switch to Gro	Input ound	NOTE: vel grounded screen, se & 3: RPM	nicle must ha sets the PTC lect: PTO/Re up/down rar	ve been built v Remote 1 RPI mote/RPM Pre np rate is 200
6	PTO idle speed 3 - digital input	W543	GY/YL		Digital Signal Switch to Gro	Input ound	NOTE: vel grounded screen, se by speeds	nicle must ha sets the PTC lect: PTO/Re 1 or 2; RPM	ve been built v Remote 1 RPI mote/RPM Pre up/down ram
7	Throttle Valve actuator signal - HSD output	W742	BR/OR	0.5	HSD Outp	out	open circu indicator	uit when Elec is illuminatec	tronic Throttle I.
8	Not Used						Not Used		
9	Not Used						Not Used		
10	Not Used						Not Used		
11	HVAC - upfitter remote A/C select - digital input	W656	LB	0.5	Digital Signal Switch to Gro	Input ound	NOTE: for (RH3/RH4 command the vehicl circuit is a cannot be normal op	3500/4500/ combined v s the vehicle e HVAC blow ctivated (gro turned com peration.	5500 Chassis C with the VSIM A/C system to er to Low spee ounded) the ve pletely off. W
12	Separated rear tail lighting - digital input	W546	TN/GY		Digital Signal Switch to Gro	Input ound	When gro	unded rear s	top/turn lamp
13	PTO idle speed 2 - digital input	W542	GY/BR		Digital Signal Switch to Gro	Input ound	NOTE: vel grounded screen, se but is ove	nicle must ha sets the PTC lect: PTO/Re rridden by sp	ve been built v Remote 2 RPI mote/RPM Pre beed 1; RPM u
14	engine running Hour Meter - HSD output	W522	BR/VT	0.5	HSD Outp	out	Open circ	uit when eng	in RPM < 450,
15	Park Lamp on HSD Output	W699	WT/LG	0.5	HSD Out	out	Open circ	uit when Par	k Lamps are no
16	Not Used						Not Used		

Function

er it's ok to initiate split shaft PTO.

itter harness but is not used

n/Tail/Brake/License/Reverse/CHMSL/Cargo) bulb fault detection: allows the use of oulbs. May be grounded before or after disconnecting the vehicles OEM incandescent

with PTO Prep option sales code LBN or LBV for this feature to operate. When M (Set the desired RPM for this ciruit by using the instrument cluster programing reset 1 - then set the desired RPM); speed 1 overrides F425 @ 900 RPM and speeds 2 RPM/sec.

with PTO Prep option sales code LBN or LBV for this feature to operate. When M (Set the desired RPM for this ciruit by using the instrument cluster programing reset 1 - then set the desired RPM); speed 1 overrides F425 @ 900 RPM; is overridden prate is 200 RPM/sec.

e indicator is not illuminated, battery positive voltage (+12V) when Electronic Throttle

Cabs only equipped with either Ambulance Prep (AH2), or with Touch Screen radios module (XXS). Initiated on vehicles built starting Feb., 2014. When grounded it o be activated. If the A/C isn't on, this input will activate the A/C compressor and turn ed on a (3-knob control head): or last selected speed a touch screen contol. Once this ehicles blower speed control can be used to control but the blower -A/C system /hen this circuit is deactivated (un-grounded), the vehicles A/C controls returen to

os become turn on only (via CAN message)

with PTO Prep option sales code LBN or LBV for this feature to operate. When M (Set the desired RPM for this cicuit by using the instrument cluster programing reset 2 - then set the desired RPM); speed 2 overrides F425 @ 900 RPM and speed 3 up/down ramp rate is 200 RPM/sec.

battery postive voltage (+12V) when RPM > 450.

ot on, battery postive voltage (+12V) when Park Lamps are on.



		page 1 of 2					
Parameter Group Number (PGN)	Parameter Group Name	Suspect Parameter Number (SPN)	Suspect Parameter Name	Source Address	Transmission Repetition Rate (ms)	Transmission Type	Ram Specific Information
61441	Electronic Brake Controller 1	561	ASR Engine Control Active	11	100	Cyclic	ASR is RAM equivalent of Electronic Stability Control. There is no differentiation between engine and braking control, both signals will be active at the same time.
61441	Electronic Brake Controller 1	562	ASR Brake Control Active	11	100	Cyclic	ASR is RAM equivalent of Electronic Stability Control. There is no differentiation between engine and braking control, both signals will be active at the same time.
61441	Electronic Brake Controller 1	563	Antilock Braking Active	11	100	Cyclic	
61441	Electronic Brake Controller 1	1438	ABS Amber Warning Signal	11	100	Cyclic	This signal will be active lamp indicator check that occurs at key on from off.
61443	Electronic Engine Controller 2	91	Accelerator Pedal Position 1	0	50	Cyclic	
61444	Electronic Engine Controller 1	190	Engine Speed	0	speed dependent	Cyclic	
61445	Electronic Transmission Controller 2	523	I ransmission Current Gear	3	100	Cyclic	Functions only on Aisin Transmissions.
64791	Beltlock and Airbag Deactivation Switch Information	4952	Driver Belt Lock Status	53	250	Cyclic	
64791	Beltlock and Airbag Deactivation Switch Information	4953	Passenger Belt Lock Status	53	250	Cyclic	
64932	PTO Drive Engagement	3948	At Least One PTO Engaged	0	100	Cyclic	
64972	Operators External Light Controls Message	2875	Hazard Light Switch	33	1000	Cyclic & On Change	
65088	Lighting Command	2348	High Beam Headlight Data	33	1000	Cyclic & On Change	
65088	Lighting Command	2350	Low Beam Headlight Data	33	1000	Cyclic & On Change	
65088	Lighting Command	2368	Left Turn Signal Lights	33	1000	Cyclic & On Change	
65088	Lighting Command	2370	Right Turn Signal Lights	33	1000	Cyclic & On Change	
65088	Lighting Command	2372	Left Stop Light	33	1000	Cyclic & On Change	
65088	Lighting Command	2374	Right Stop Light	33	1000	Cyclic & On Change	
65088	Lighting Command	2376	Center Stop Light	33	1000	Cyclic & On Change	
65088	Lighting Command	2378	Tractor Marker Light	33	1000	Cyclic & On Change	
65088	Lighting Command	2382	Tractor Clearance	33	1000	Cyclic & On Change	
65088	Lighting Command	2392	Back - Up Light and	33	1000	Cyclic & On	
65088	Lighting Command	2404	Running Light	33	1000	Cyclic & On	
65217	High Resolution Vehicle Distance	917	High Resolution Total Vehicle	33	1000	Change Cyclic & On Change	
65226	Active Diagnostic Trouble Codes	3038 (flash)	Flash Malfunction Indicator Lamp	0	100	Cyclic	
65226	Active Diagnostic Trouble Codes	1213 (on/off)	Malfunction Indicator Lamp	0	100	Cyclic	
65248	Vehicle Distance	245	Total Vehicle Distance	33	100	Cyclic	
65260	Vehicle Identification	237	Vehicle Identification Number (VIN)	33	~ 300	Cyclic	Timing is not exact due to bus translations.
65262	EngineTemperature 1	110	Engine Coolant Temperature	0	500	Cyclic	
65263	Engine Fluid Level/Pressure 1	100	Engine Oil Pressure	0	200	Cyclic	
65264	Power Takeoff Information	186	Power Takeoff Speed	0	100	Cyclic	Engine Speed, will not reflect actual PTO shaft speed when the torque converter is unlocked.

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Parameter Group Number (PGN)	Parameter Group Name	Suspect Parameter Number (SPN)	Suspect Parameter Name	Source Address	Transmission Repetition Rate (ms)	Transmission Type	Ram Specific Information
65265	Cruise Control/Vehicle Speed	70	Parking Brake Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	84	Wheel-Based Vehicle Speed	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	86	Cruise Control Set Speed	0	100	Cyclic	The last set speed value is broadcast in this message whether the cruise control is active or not.
65265	Cruise Control/Vehicle Speed	595	Cruise Control Active	0	100	Cyclic	When the value of this signal is '01' cruise control system is actively controlling vehicle speed.
65265	Cruise Control/Vehicle Speed	596	Cruise Control Enable Switch	0	100	Cyclic	When the value of this signal is '01' the cruise control enable switch is depressed.
65265	Cruise Control/Vehicle Speed	597	Brake Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	599	Cruise Control Set Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	600	Cruise Control Coast Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	601	Cruise Control Resume Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	602	Cruise Control Accelerate Switch	0	100	Cyclic	
65265	Cruise Control/Vehicle Speed	976	Power Takeoff Governor State	0	100	Cyclic	
65266	Fuel Economy (Liquid)	183	Engine Fuel Rate	0	100	Cyclic	
65269	Ambient Conditions	108	Barometric Pressure	33	100	Cyclic	
65269	Ambient Conditions	171	Ambient Air Temperature	33	100	Cyclic & On Change	
65269	Ambient Conditions	172	Engine Air Intake Temperature	33	100	Cyclic	
65271	Vehicle Electrical Power 1	167	Charging System Potential	33	1000	Cyclic & On Change	
65272	Transmission Fluids 1	177	Transmission Oil	3	1000	Cyclic & On Change	
65274	Brakes	619	Parking Brake Actuator	33	1000	Cyclic	
65276	Dash Display	96	Fuel Level	33	1000	Cyclic & On Change	
64933	Door Control 2	3412	Lock Status Of Door	33	100	Cyclic	
64933	Door Control 2	3413	Open Status Of	33	100	Cyclic	
64933	Door Control 2	3415	Lock Status Of Door	33	100	Cyclic	
64933	Door Control 2	3416	Open Status Of	33	100	Cyclic	
64933	Door Control 2	3418	Lock Status Of Door	33	100	Cyclic	
64933	Door Control 2	3419	Open Status Of	33	100	Cyclic	
64933	Door Control 2	3421	Lock Status Of Door	33	100	Cyclic	
64933	Door Control 2	3422	Open Status Of	33	100	Cyclic	
53248	Cab Illumination Message	1487	Illumination Brightness Percent	33	1000	Cyclic & On Change	
65110	Aftertreatment 1 Diesel Exhaust Fluid Tank 1 Information	1761	Aftertreatment 1 Diesel Exhaust Fluid Tank 1 Level	0	1000	Cyclic & On Change	
64773	Direct Lamp Control Data 1	5099	Engine Oil Pressure Low Lamp Data	33	1000	Cyclic	

	SAE J1939 Ram Specific Signals												
Parameter Group Number (PGN)	Parameter Group Name	Suspect Parameter Number (SPN)	Suspect Parameter Name	Source Address	Starting Position (bit)	Size (bits)	Data Description	Data Resolution	Data Range	Transmission Repetition Rate (ms)	Transmission Type	Signal Description	Ram Specific Information
65280	Chrysler Interior	100000	A/C Clutch Engaged	33	0	1	00' off 01' clutch engaged	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Active when A/C clutch is engaged	
65280	Chrysler Interior	100001	A/C Select	33	1	1	00' off 01' A/C requested	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Active when A/C is requested either by VSIM, MTC or ATC HVAC	
65280	Chrysler Interior	100002	Ignition Position	33	3	3	'000' IGN_LK '011' IGN_OFF_ACC '100 'IGN_RUN '101' IGN_START '111' SNA	3 bits = 8 states	0 to 7	1000	Cyclic & On Change	Provides status of igntition: off, accessory, run, start	
65280	Chrysler Interior	100003	Air Bag Deployed	33	2	1	00' no Airbag deployed 01' any Airbag deployed	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Follow "any impact" signal from ORC	
65280	Chrysler Interior	100004	Passenger Occupant Detection System	33	6	2	00' not occupied '01' occupied '10' error '11' sna	2 bits = 4 states	0 to 3	1000	Cyclic & On Change	Follows Passenger Occupant detect sensor Sts from ORC	Ram 1500 only.
65281	Chrysler Exterior Lights and Horn	100007	Howler Siren Disable	33	3	1	00' under 25 mph 01' over 25 mph	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Active when vehicle speed is over 25mph	
65281	Chrysler Exterior Lights and Horn	100008	Horn	33	2	1	00' Horn off 01' Horn on	1 bit = 2 states	0 to 1	1000	Cyclic & On Change		
65282	Chrysler Doors and Locks	100009	Door Lock Command	33	0	1	00' no door lock command 01' door lock command active	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Follow VSIM Logic	
65282	Chrysler Doors and Locks	100010	Door Unlock Command	33	1	1	00' no door unlock command 01' door unlock command active	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Follow VSIM Logic	

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