

## ProMaster VEHICLE SYSTEM INTERFACE MODULE (VSIM)

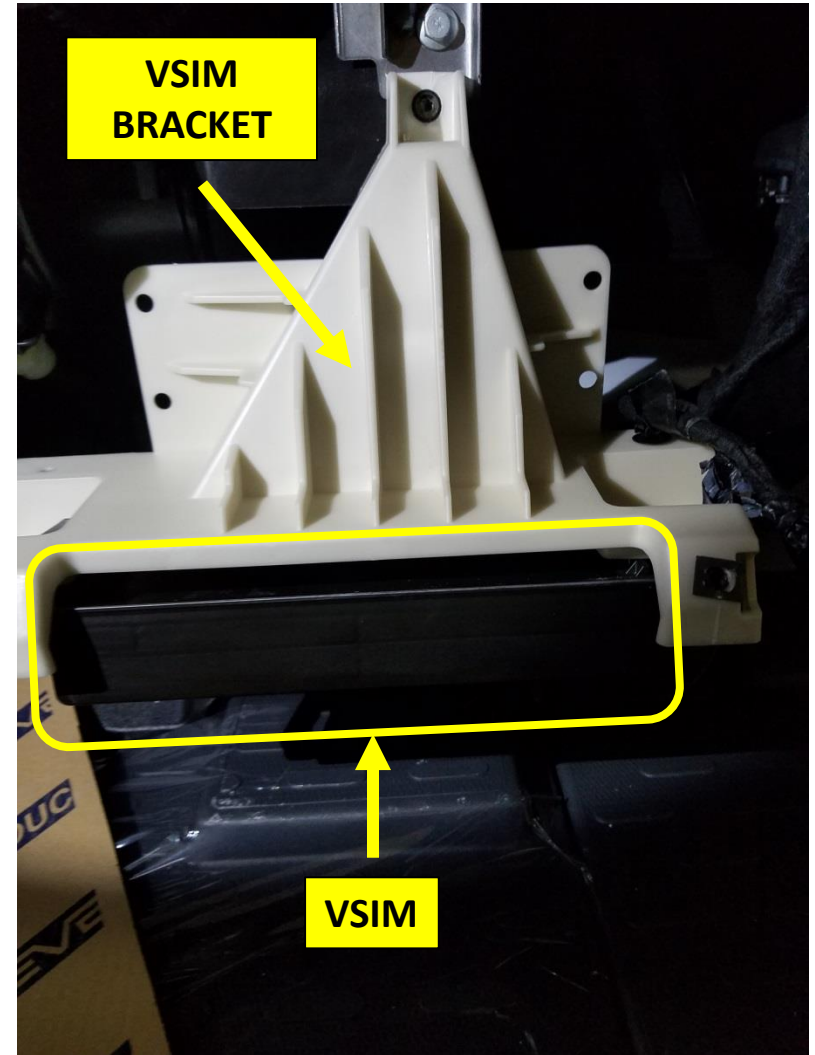
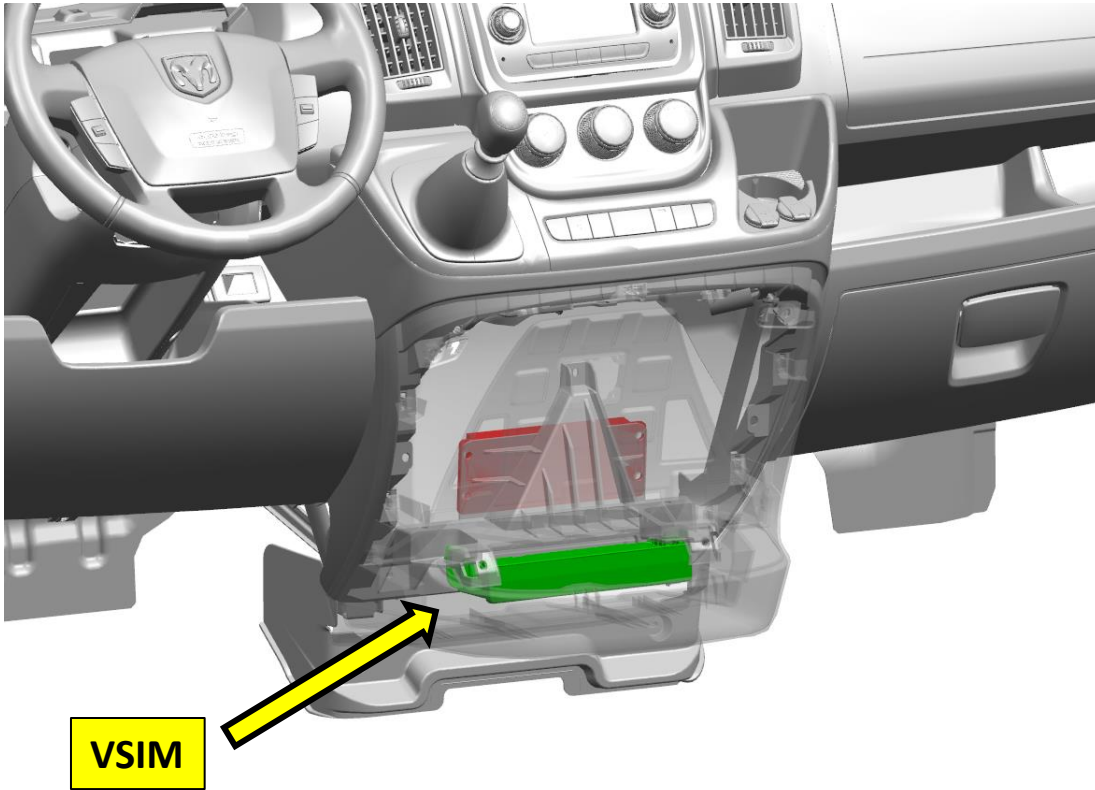
The Vehicle System Interface Module (VSIM) is specifically designed to make it easy to upfit RAM ProMaster. The VSIM has many hard wired inputs and outputs (through the VSIM jumper harnesses and the additional wiring take outs). It also has J1939 communication bus output signals as well as input commands starting in 2019. The VSIM allows the upfitter turn on certain features or functions with hardwired or J1939 commands. It also outputs signals and relay driver control circuits based on the vehicle information.

**All VSIM Inputs, Outputs and J1939 signals only function when the vehicle is awake and the vehicle communication bus is active except for Door Lock and Unlock inputs. The VSIM will not function with the key in the off position and the bus asleep except for those inputs. Outputs such as gear position, including Park Position will turn off when the VSIM goes to sleep (vehicle communication bus goes to sleep). An example would be turning the ignition off with no other feature keeping the vehicle awake.**

**Relays with resistor suppressed relay coils should be used when connecting to the VSIM relay driver outputs.**

### VSIM General Information

The VSIM is located in the center I/P console area behind the cup holders. Shown in green below. Remove the cup holder assemble to access to the VSIM. The connectors are facing forward towards the front of the vehicle, to access the connectors, unscrew VSIM mounting bracket and move the VSIM & Bracket so there is easy access to the connectors.



VSIM Location on ProMaster

The VSIM and bracket shown with the VSIM Jumper connector labels visible the Gray and Blue Connectors are part of the I/P wiring assembly.

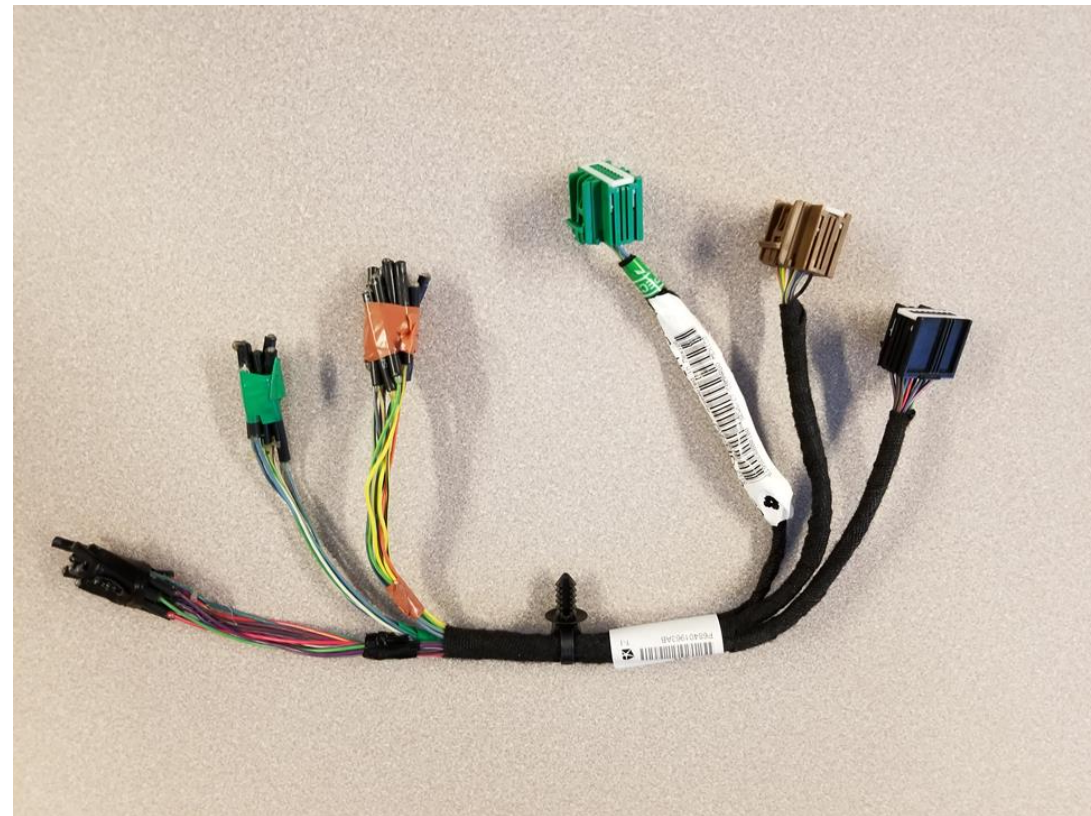


**ProMaster VSIM**

## VSIM Jumper Harnesses

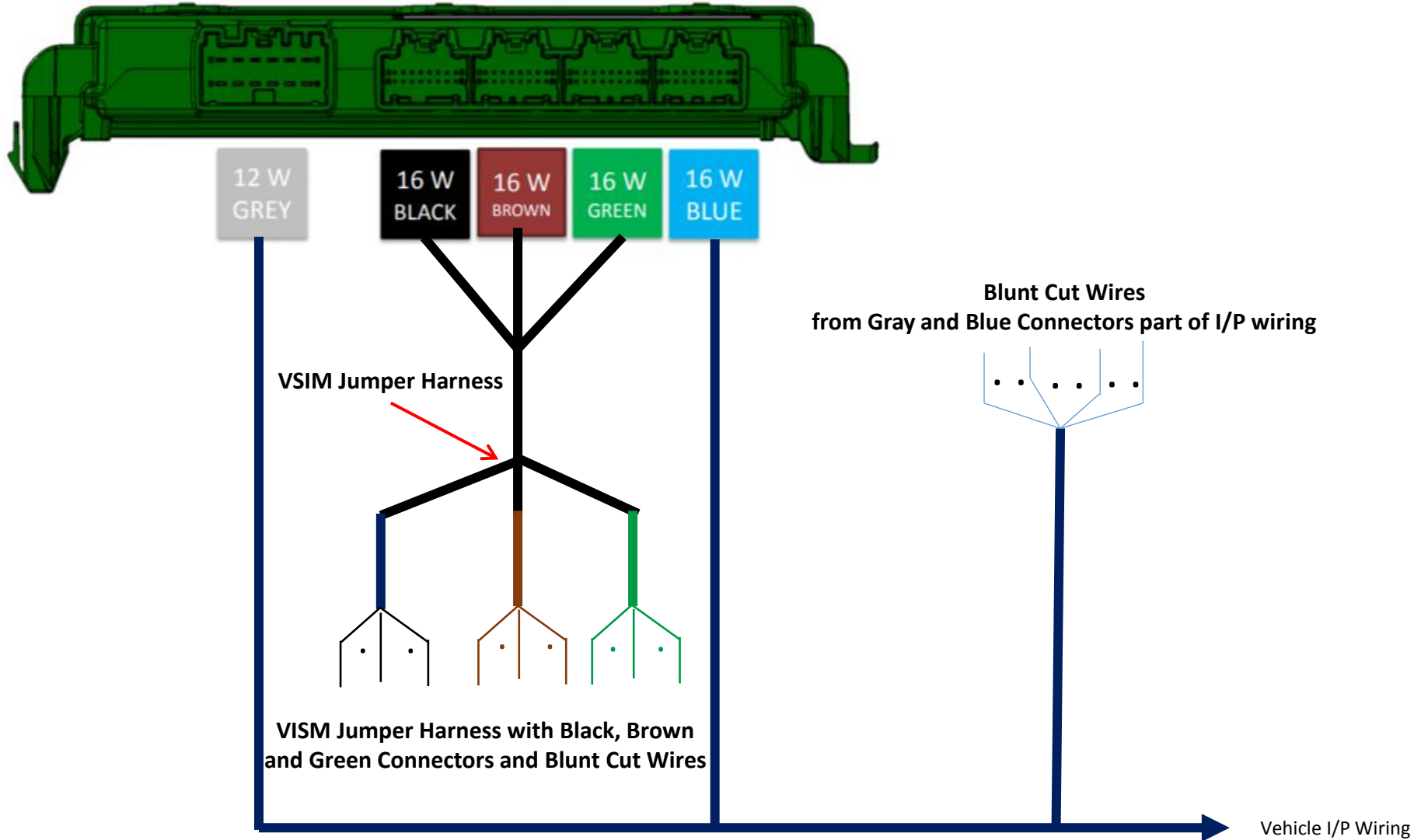
The VSIM jumper harness comes with the vehicle on vehicles equipped with a VSIM. The jumper contains Brown, Black, Green connectors and blunt cut wires on the opposite end. The Brown, Black and Green Connectors plug directly into the VSIM connectors. They must be plugged into the properly labeled connector. There are additional blunt cut wires that come from the VSIM Gray and Blue Connectors that are in the I/P harness with the take out near the VSIM.

\* It is recommended that when routing the harness additional harness protection such as convolute be used to protect the harness from abrasion.



**VSIM Jumper Harness**

## VSIM Jumper and I/P Blunt Cut wires



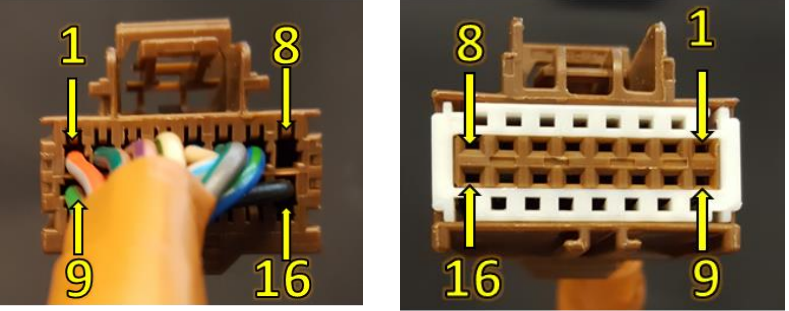
VSIM Jumper Harness with Black, Brown and Green Connectors and Blunt Cut Wires

ProMaster VSIM Blunt Cut Wires

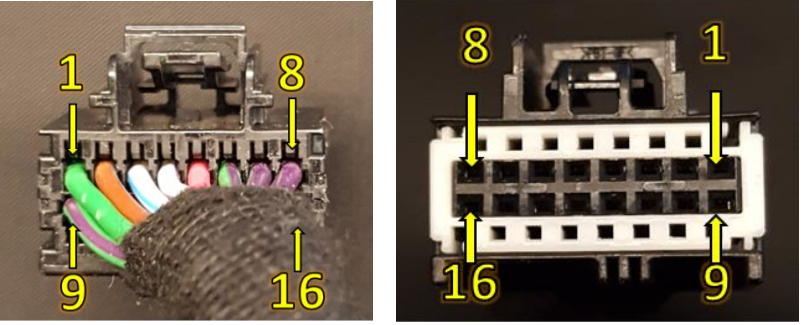
## VSIM Direct Connect Jumper Harnesses

### The 3 Jumper Connectors that plug directly into the VSIM

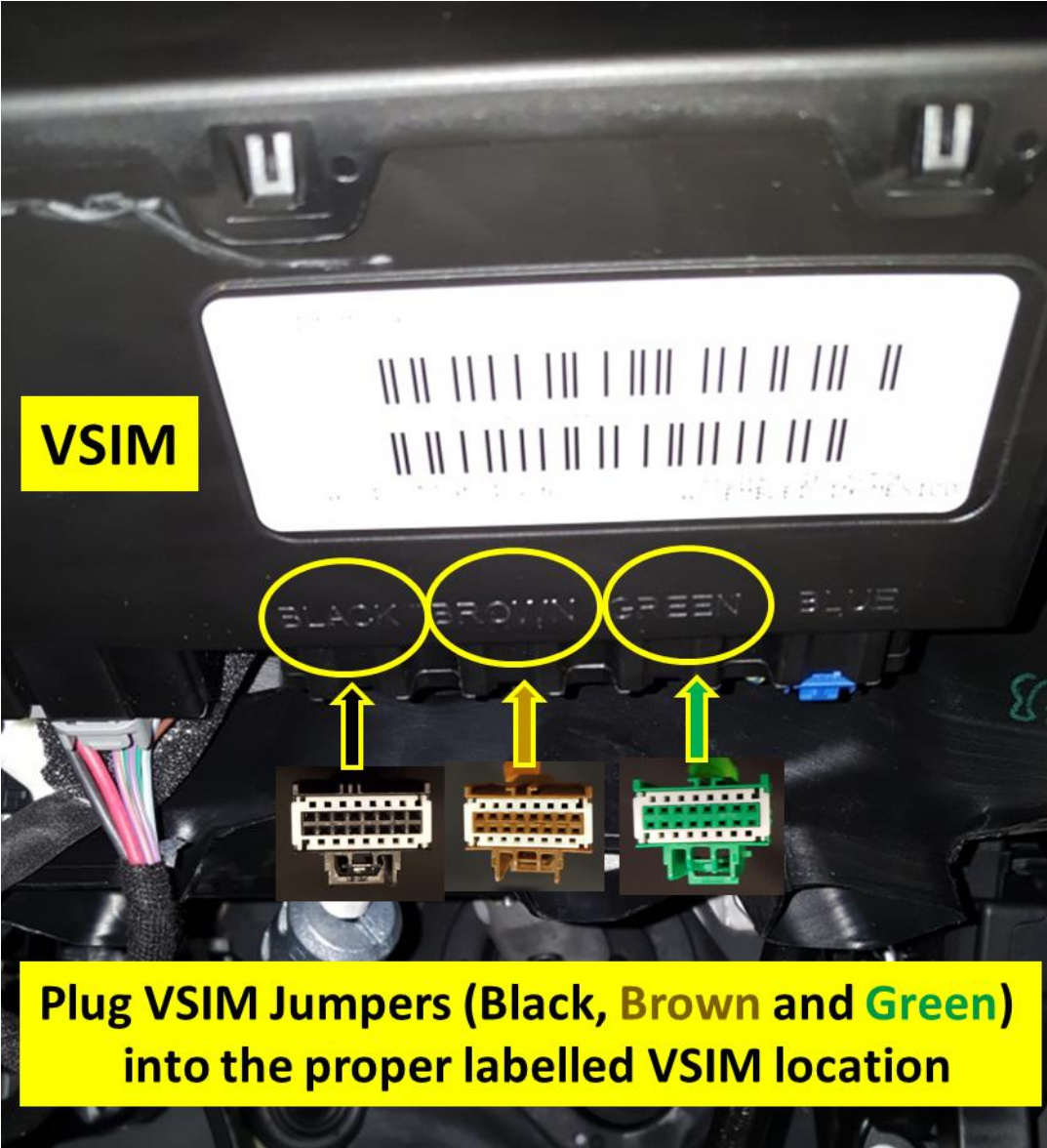
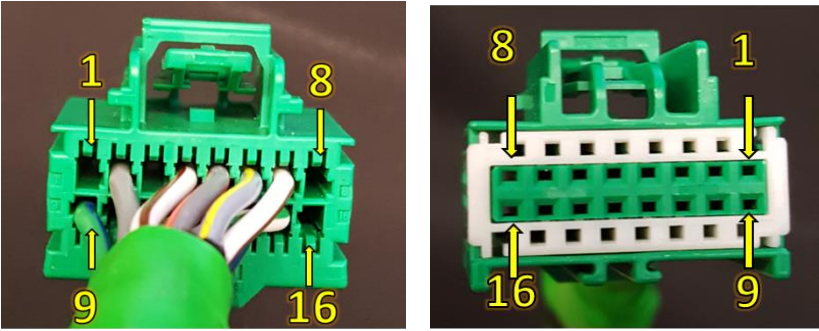
**Brown 16 Cavity VSIM Connector**



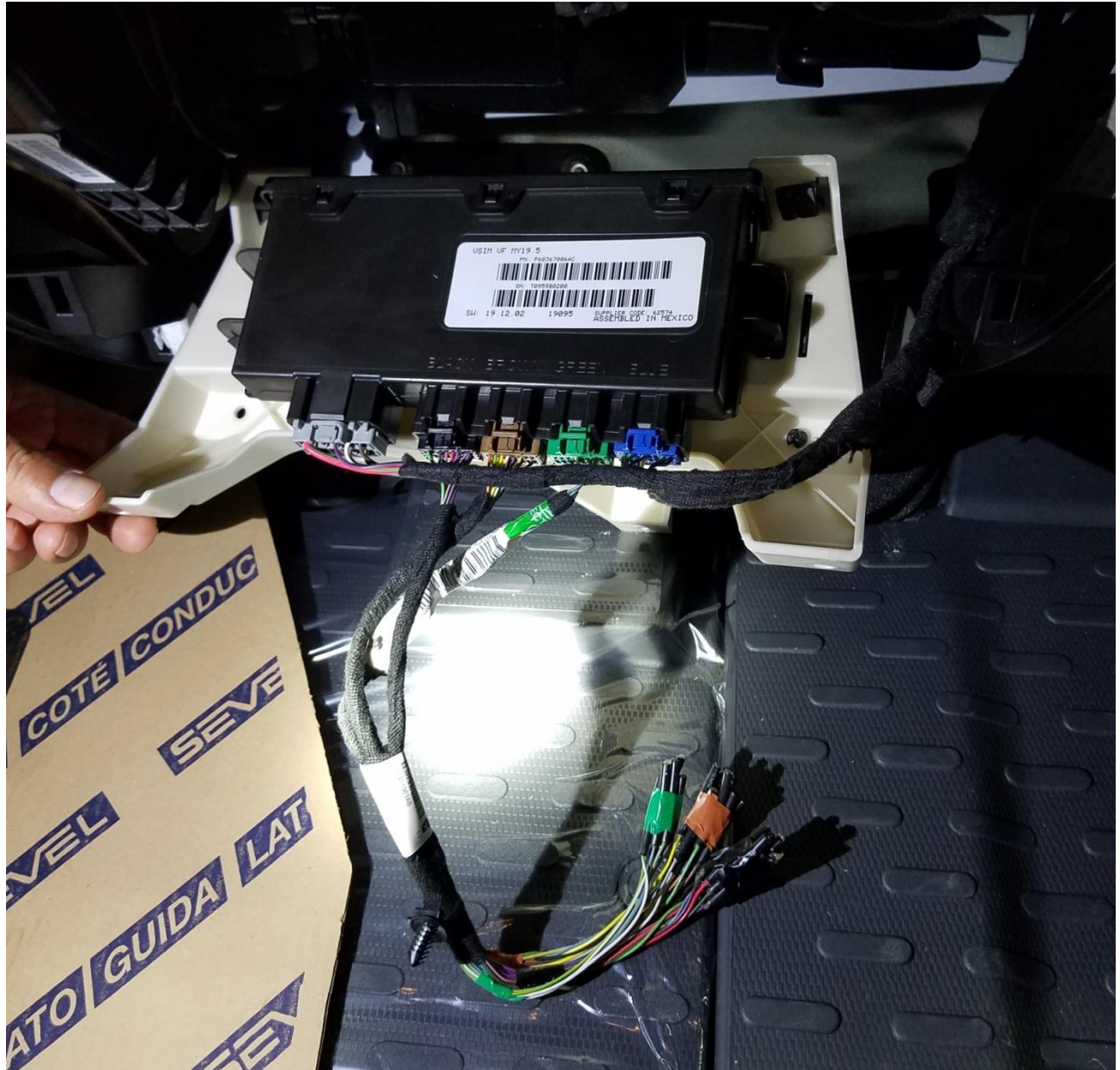
**Black 16 Cavity VSIM Connector**



**Green 16 Cavity VSIM Connector**



**VSIM with jumpers plugged in.**



**VSIM Gray Jumper 24 Cavity In-line Connector Locations**

**ProMaster VSIM 16 - CAVITY BLACK CONNECTOR**

PIN	Upfitter VSIM Signal	Circuit Name	Wire Color	Max Current (Amps)	Type of Signal	Function
1	Howler Siren disable - HSD output	W505	GN		HSD Output	Open circuit when vehicle speed is below 25 MPH, battery positive voltage (+12V) when vehicle speed is 25 MPH or above.
2	Not Used		Not Used			
3	Left Turn Signal - HSD	W682	BN/GN	0.5	HSD Output	Open circuit when turn signals are off High Side (+12 V) turns on and off with left turn signal
4	High Beam - HSD	W684	VT/OR	0.5	HSD Output	Open circuit when high beams off. High Side (+12 V) turns on when high beams are on.
5	Power feed "Off" - HSD output	W735	RD	0.5	HSD Output	Open circuit when key position is in "Accessory/Run/Start", battery positive (+12) when key is in off position as long as the vehicle is awake.
6	Driver Seat Belt not latched - HSD Output	W710	VT	0.5	HSD Output	Open circuit when the drivers seat belt is latched, battery positive voltage (+12V) when the drivers seat belt is not latched (key must be in "run" position).
7	Not Used		Not Used			
8	Voltage Gauge - LSD digital PWM output	W733	VT/GY	0.5	Digital Signal LSD PWM Output	Battery Voltage Signal: Pulse Width Modulated (PWM) between open circuit and ground, 100 Hz, linear with 0 % PWM = 5V, and 100 % PWM = 18V.
9	Airbag Deployed - HSD output	W685	VT	0.5	HSD Output	Open circuit when front airbags have not deployed during current key on cycle, battery positive (+12V) upon front airbag deployment during current key on cycle.
10	Not Used		Not Used			
11	Service Brake Pedal depressed	W726	VT/DB	0.25	HSD Output	Open circuit when Service Brake Pedal is not active, battery positive voltage (+12V) when the Service Brake Pedal is active (key may be in any position).
12	Not Used		Not Used			
13	Power feed "Run/Start" - HSD output	W736	RD/YE	0.5	HSD Output	Open circuit when key position is in "Off/Accessory", battery positive (+12) when key is in "Run or Start" position.
14	Fuel Level Signal - LSD digital PWM output	W538	DB/LG	0.1	Digital Signal LSD PWM Output	Fuel Level Signal: Pulse Width Modulated (PWM) between open circuit and ground, 100 Hz, linear with 0 % PWM = empty tank, and 100 % PWM = full tank.
15	Engine RPM Signal - LSD digital PWM output	W744	BN/WH	0.25	Digital Signal LSD PWM Output	Engine RPM Signal : Pulse Width Modulated (PWM) between open circuit and ground, 0.2 HZ/RPM (12 pulses per minute per 1 RPM) @50% duty cycle.
16	Vehicle MPH speed signal -LSD Transmission "Drive" Position - LSD output	W524	BN	0.1	Digital Signal LSD PWM Output	Vehicle Speed Signal: Modulation between open circuit and ground, output with 10 Hz/MPH (600 pulses per minute per 1 MPH) @50% duty cycle.

ProMaster VSIM 16 - CAVITY BROWN CONNECTOR						
PIN	Upfitter VSIM Signal	Circuit Name	Wire Color	Max Current (Amps)	Type of Signal	Function
1	Cluster/Auxiliary lighting dimmer - LSD digital output	W521	OG/GY	--	Digital Signal LSD PWM Output	uses the vehicles instrument cluster dimmer control - will dim auxiliary lighting: PWM between open circuit and ground, output with, 100Hz, linear with 0% PWM = zero intensity, and 100% PWM = full intensity
2	Not Used	W722	GN/YE	--	Not Used	Not Used
3	Auxiliary upfitter added flashing light front output (Front Wig Wag) - LSD output	W503	YE	--	LSD Output	Relay driver for front auxiliary light(s), open circuit when W500 is "OFF", grounded on (flash) on/off at 80 flashes per minute (1.333Hz square wave @ 50% duty cycle) when W500 is on.
4	Door Lock request Input	W686	WH	--	Digital Signal Input Switch to Ground	Locks Doors when grounded
5	Door Unlock request Input	W687	BN/VT	--	Digital Signal Input Switch to Ground	Unlocks Doors when grounded
6	Radio mute signal - digital input	W640	GY/YE	--	Digital Signal Input Switch to Ground	when grounded mutes the vehicle radio (via vehicles CAN messaging)
7	Not Used		Not Used	-		
8	Not Used		Not Used			
9	Not Used	W721	GN/YE	--	Not Used	Not Used
10	Auxiliary upfitter added flashing lights rear output (Rear Wig Wag) - LSD output	W502	YE/BK	0.25	LSD Output	Relay Driver for rear auxiliary light(s), open circuit when W501 is "OFF", grounded (flash) on/off at 80 flashes per minute (1.333 Hz square wave @ 50% duty cycle) when W501 is "ON"
11	Park Brake applied - LSD output	W725	YE	0.5	LSD Output	Relay driver, open circuit when park brake not set, grounded when park brake set.
12	Wig Wag switch signal front lights digital, input.	W500	BN/OG	--	Digital Signal Input Switch to Ground	when grounded actuates Wig Wag vehicle front high beams, 80 flashes per minute (1.3 Hz square wave @ 50% duty cycle), also actuates circuit W503 (key needs to be in switch)
13	Panic alarm and Horn switch mute - digital input.	W536	DB/YE	--		When grounded mutes the horn during panic alarm and normal horn function.
14	Wig Wag Rear Input	W501	GY/DB	--	Digital Signal Input Switch to Ground	When grounded turns the rear wig wag lamps on and the rear wig wag VSIM output as well.
15	Not Used					
16	Ground - ground return	Z931	BK	--	Signal Ground Return	A source for signal or switch ground - <u>for use on VSIM switched digital inputs only</u>

**ProMaster VSIM Jumper 16 Cavity Brown Connector 2019**

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**ProMaster VSIM 16 - CAVITY GREEN CONNECTOR**

PIN	Upfitter VSIM Signal	Circuit Name	Wire Color	Max Current (Amps)	Type of Signal	Function
1	Not Used		Not Used	--		
2	Not Used		Not Used	--		
3	Not Used		Not Used	--		
4	Rear Bulb Out Detection off - digital input	W509	WH/BN		Digital Signal Input Switch to Ground	When grounded, turns off rear (Turn/Tail/Brake/License/Reverse/CHMSL/Cargo) bulb fault detection: allows the use of rear LED's in place of incandescent bulbs. May be grounded before or after disconnecting the vehicles OEM incandescent bulbs.
5	Not Used		Not Used			
6	Not Used		Not Used			
7	Low Beam active signal - HSD output	W683	DB/GY	0.5	HSD Output	High side output is on when low beams are active
8	Not Used		Not Used			Not Used
9	Not Used		Not Used			
10	Not Used		Not Used			Not Used
11	HVAC - upfitter remote A/C select - digital input	W656	DB	0.5	Digital Signal Input Switch to Ground	When grounded it commands the vehicle A/C system to be activated. If the A/C isn't on, this input will activate the A/C compressor and turn the vehicle HVAC blower to Low speed on a (3-knob control head): or last selected speed a touch screen control. Once this circuit is activated (grounded) the vehicles blower speed control can be used to control but the blower -A/C system cannot be turned completely off. When this circuit is deactivated (un-grounded), the vehicles A/C controls return to normal operation.
12	Separated rear tail lighting - digital input	W546	GN/YE	--	Digital Signal Input Switch to Ground	When grounded rear stop/turn lamps become turn on only (via CAN message)
13	Not Used		Not Used			
14	Engine running Hour Meter - HSD output	W522	DB/YE	0.5	HSD Output	Open circuit when engin RPM < 450, battery positive voltage (+12V) when RPM > 450.
15	Park Lamp on HSD Output	W699	WH/GN	0.5	HSD Output	Open circuit when Park Lamps are not on, battery positive voltage (+12V) when Park Lamps are on.
16	Not Used					Not Used

**ProMaster VSIM 12 - CAVITY GRAY CONNECTOR**

PIN	Upfitter VSIM Signal	Circuit Name	Wire Color	Max Current (Amps)	Type of Signal	Function
1	VSIM Module Battery Feed	A807	RD/GN			Battery 12+ Not Customer Accessible
2	Not Used					
3	Not Used					
4	Any Door Ajar - HSD output	W720	VT/OG	0.5	HSD Output	Open circuit when all the doors are closed, battery voltage (+12V) when any door is ajar.
5	Hazard indicator on - HSD output	W719	WH/VT	0.5	HSD Output	Open circuit when hazard flashers are off, battery positive voltage (+12V) when hazard flashers are selected.
6	Transmission out of "Park" - HSD output	W504	BN	0.5	HSD Output	Open circuit when gear selector is in Park , battery positive voltage (+12V) when the gear selector is in any other position.
7	VSIM Module Ground - ground return	Z930	BK	--	Signal Ground Return	VSIM Module Ground to Vehicle Not Customer Accessible
8	Not Used					
9	Not Used					
10	Right Turn Signal on	W681	BN/GY	0.5	HSD Output	High side relay driver output on and blinks when right turn signals are on.
11	Not Used					Not Used
12	MIL lamp on - HSD output	W540	BN/GN	0.5	HSD Output	Open circuit when MIL is not illuminated battery positive voltage (+12V) when MIL is illuminated

### ProMaster VSIM 16 - CAVITY BLUE CONNECTOR

PIN	Upfitter VSIM Signal	Circuit Name	ProMaster	Max Current (Amps)	Type of Signal	Function
1	Transmission out of "Park" - HSD output	W700	YE/DB	0.5	HSD Output	Open circuit when gear selector is in Park , battery positive voltage (+12V) when the gear selector is in any other position.
2	Transmission "Neutral" position - LSD output	W701	GN/YE	0.5	LSD Output	Open circuit when gear selector is not in Neutral, grounded when in Neutral.
3	Not Used					
4	HVAC - A/C Clutch engaged - LSD output	W652	DB/BN	0.5	LSD Output	Open circuit when A/C Clutch is not engaged, grounded when engaged.
5	Not Used		Not Used			
6	Not Used		Not Used			
7	CAN + Fiat Compact	D45	GN		CAN C +	Not Customer Accessible
8	** CAN communication CAN + 250 Kbaud J1939	W533	BN/DB		J1939 Bus (+)	250 Kbaud CAN+, use in conjunction with W535*, refer to CAN spreadsheet for available messages.
9	Transmission "Reverse" Position - LSD output	W702	RD/DB	0.5	LSD Output	Open circuit when gear selector is not in Reverse, grounded when in Reverse.
10	Transmission "Drive" Position - LSD output	W703	YE/DB	0.5	LSD Output	Open circuit when gear selector is not in Drive, grounded when in Drive.
11	Passenger Seat Belt Not Latched -	W554	WH/BN	0.5	LSD Output	Open circuit when passenger seat belt is latched, grounded when passenger seat belt is not latched.
12	HVAC - when A/C is selected via the dash switch - LSD output	W689	YE	0.5	LSD Output	Open circuit when A/C has not been selected, grounded when A/C has been selected.
13	Not Used		Not Used			
14	Not Used		Not Used			
15	CAN - Fiat Compact	D46	BN		CAN C -	Not Customer Accessible
16	** CAN communication CAN - 250 Kbaud J1939	W535	DB/BN	0.5	J1939 Bus (-)	250 Kbaud CAN-, use in conjunction with W533*, refer to CAN spreadsheet for available messages.

### 2019 RAM ProMaster - SAE J1939 Output Messages

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	Transmission Current Gear	3	100	Cyclic	
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	Only works on 2500 Pick Up
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	

### 2019 RAM ProMaster - SAE J1939 Output Messages

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
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 Light	33	1000	Cyclic & On Change	
65088	Lighting Command	2392	Back - Up Light and Alarm Horn	33	1000	Cyclic & On Change	
65088	Lighting Command	2404	Running Light	33	1000	Cyclic & On Change	
65217	High Resolution Vehicle Distance	917	High Resolution Total Vehicle Distance	33	1000	Cyclic & On Change	
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	
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. Does not function on vehicles equipped with Adaptive Cruise Control (sales code NH3).
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. Does not function on vehicles equipped with Adaptive Cruise Control (sales code NH3).
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. Does not function on vehicles equipped with Adaptive Cruise Control (sales code NH3).
65265	Cruise Control/Vehicle Speed	597	Brake Switch	0	100	Cyclic	

### 2019 RAM ProMaster - SAE J1939 Output Messages

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	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	
65272	Transmission Fluids 1	177	Transmission Oil Temperature	3	1000	Cyclic & On Change	
65274	Brakes	619	Parking Brake Actuator	33	1000	Cyclic	
64933	Door Control 2	3412	Lock Status Of Door 1	33	100	Cyclic	
64933	Door Control 2	3413	Open Status Of Door 1	33	100	Cyclic	
64933	Door Control 2	3415	Lock Status Of Door 2	33	100	Cyclic	
64933	Door Control 2	3416	Open Status Of Door 2	33	100	Cyclic	

### 2019 RAM ProMaster - SAE J1939 Output Messages

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
64933	Door Control 2	3418	Lock Status Of Door 3	33	100	Cyclic	
64933	Door Control 2	3419	Open Status Of Door 3	33	100	Cyclic	
64933	Door Control 2	3421	Lock Status Of Door 4	33	100	Cyclic	
64933	Door Control 2	3422	Open Status Of Door 4	33	100	Cyclic	
64933	Door Control 2	3424	Lock Status Of Door 5	33	100	Cyclic	Tailgate
64933	Door Control 2	3425	Open Status Of Door 5	33	100	Cyclic	Only works on light duty.
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	
65266	Fuel Economy (Liquid)	184	Instantaneous Fuel Economy	0	100	Cyclic	
65253	Hours	247	Eng Total Hours Of Operation	0	1000	Cyclic	
65254	Time/Date	961	Hour	33	1000	Cyclic	
65254	Time/Date	960	Minutes	33	1000	Cyclic	
65102	Position of Doors	1821	Used to indicate the actual position of the doors.	33	100	Cyclic	
65216	Service Information	914	SERV.ServiceDistance	33	1000	Cyclic	
65237	Alternator Information	3353	AS.Alt1Status	33	1000	Cyclic	
65257	Fuel Consumption (Liquid) 1	250	LFC1.EngTotalFuelUsed	0	1000	Cyclic	

**2019 RAM ProMaster Specific J1939 Signals from Vehicle Systems to VSIM to external device (output 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 ignition: 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 and 2500 only.
62581	Chrysler Exterior Lights	100005	Front Wig Wag	33	0	1	If X = 0 then y = 0 If X=1 then y shall toggle between 1 and 0 with f=1.5Hz and duty cycle = 50 %	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Follows duty cycle of Wig Wags like VSIM output	
62581	Chrysler Exterior Lights	100006	Rear Wig Wag	33	1	1	If X = 0 then y = 0 If X=1 then y shall toggle between 1 and 0 with f=1.5Hz and duty cycle = 50 %	1 bit = 2 states	0 to 1	1000	Cyclic & On Change	Follows duty cycle of Wig Wags like VSIM output	
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 Output	33	0	1	00' no door lock command 01' door lock command active	1 bit = 2 states	0 to 1	1000	Cyclic & On Change		
65282	Chrysler Doors and Locks	100010	Door Unlock Output	33	1	1	00' no door unlock command 01' door unlock command active	1 bit = 2 states	0 to 1	1000	Input signal from external device to VSIM to vehicle systems		