Evan Wiring Master List:

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| Component | Desc. | ECU + Fn. |
| **Rear Lighting harness** | **MODIFY: 2 CAN Networks** |  |
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| BSM Sensor + Rear Cam. Power | Purple coming out of radar, splice to same red near each radar unit. One wire goes to each unit. Red wire splices into rear cam wire behind RECU. Rear cam wire is red and goes from RECU R2 to Rear cam pigtail behind CHMSL. | R2 – Pin 8, ECU Connector #4, D47 |
| Left brake light | Red wire coming out of the light. Splices to a blue wire near light. Blue wire goes directly to RECU R1 | R1 – Pin 7, ECU Connector #4, D49 |
| Right brake light | red wire coming out of the light. Splices to a red wire near light. Red wire goes directly to RECU R3. | R3 - pin two, ECU connector #4, D46 |
| Reverse lights | red wire coming out of the light. Splices to a blue wire near light. Blue wire goes directly to RECU R4 | R4 - pin one, ECU connector #4, D45 |
| 3rd brake light | orange wire coming out of the light. Splices to a red wire near light behind rear door spring. Wire goes directly to RECU R5 | R5 – pin 5, ECU connector #4, D43 |
| Task lights\dome lights | white wire coming out of the light. Spices to a green wire near light behind rear door spring. Wire goes to splice with black wire near ECU connector #4. Green wire continues to RECU R6. Black wire exits rear lighting harness at connector #4, and enters the BSM harness At connector 1. Black wire leaves BSM sensor harness and enters BSM indicator harness. Wire splices with orange and brown wires. Orange and brown wires leave BSM harness above driver door and enter windshield wiper harness. Orange and brown wires exit windshield wiper harness at front of driver door and enter roof harness. Brown wire goes to front Dome light. Orange wire goes to rear Dome light. | R6- pin 3, ECU connector #4, D44 |
| Task lights\dome lights switch | **NOT EQUIPPED** |  |
| left tail light\right tail light\marker lights\license plate lamp\charge door light | See diagram | EXT R1, D9 |
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| **BSM harness** |  |  |
| BSM sensor power | See above |  |
| BSM sensor ground | same as power, blue wire, exits BSM harness near R ECU, grounded at G4 |  |
| BSM sensor can high | brown wire exiting left radar sensor, splices to green wire. Green wire goes to RACU connector 1 pin 8. | Square CS pin, D37 |
| BSM sensor can low | yellow wire exiting left radar sensor, splices to black wire. Black wire goes to R ECU connector 1 pin 10 |  |
| internal can | blue and white wires exiting each sensor, splices to blue and black wires respectively to connect the left and right sensors |  |
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| **BSM Indicator Harness** |  |  |
| **BSM indicator right** | pink wire exiting radar sensor, splices to green wire near radar sensor. Exit BSM harness near RBC U and enters BSM indicator harness. Goes to blue wire on right mirror, splice near base of mirror |  |
| **Bsm indicator left** | red wire exiting radar sensor, splices to red wire near radar sensor. Exit BSM harness near R ECU and enters BSM indicator harness goes to blue wire on left mirror, splice near base of mirror. |  |
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| **Wiper Harness** |  |  |
| Wiper HIGH | Purple wire exits pin 2 of wiper motor. Splices with red wire above driver door. Goes to normally open output of relay 2 in rear fuse box. Relay 2 gets power from fuse 1. Normally closed contact of relay 2 feeds wiper low common. Relay 2 control side driven by Q8. Control side is blue wire that splices into yellow silicon wire above RACU. Power for relay two comes from fuse 3 | D5 |
| Wiper low | Gray wire exit pin 1 of wiper motor. Splices with red wire above driver door. Goes to normally open output of relay 3 IN rear fuse box. Normally closed output of relay 3 goes to red wire which splices into yellow wire above driver door. This wire is the power to the park switch. Relay three control side is driven by Q7. Control side is green wire that splices into yellow silicon wire above R ECU. Power for relay three comes from fuse 3. | D4 |
| Wiper Park SW Power |  |  |
| Washer Park SW Override | orange wire, not connected |  |
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| **Main Rear Harness** |  |  |
| J1772 CP | exit charge port as green wire. Spices to wire 9, blue behind rear wheel. Connects to appropriate wire on BMS as per BMS pinout. | To BMS |
| J1772 PD | exit charge port as blue wire. Spices to wire 4, green behind rear wheel. Connects to appropriate wire on BMS as per BMS pinout. |  |
| HVIL + | red wire (22 gauge) exits charger pin 4C. Enters BMS harness near our ECU and Splices at Maxi splice #1 to red wire near fuse box. Red wire is (18 gauge) going to fuse 4. | Hot All Times ?? |
| BMS KAP | green wire from maxi splice one goes to maxi splice 2. Black wire from maxi splice 2 goes to appropriate pen on BMS. Wire 3. | Hot All Times |
| Charger KAP | also from maxi splice two, green wire goes to pan 1H on battery charger. Exit BMS harness near RBC U | Hot All Times |
| RECU KAP | From maxi splice two, a red wire, goes to pin 6 on connector four of RECU. Exits bms harness above RECU. |  |
| DLC Power | From Maxi splice one, red wire goes to pin 16 on the LLC. Exit tarnas near our ECU. |  |
| Lighting Relay Powers | 14 gauge wire from fuse 2 exits fuse box through BMS harness. Goes to maxi splice 3IN harness and connects to two black and one red 18 gauge wires that Exits BMS harness and go to pens 5,9, and 10 on RECU. |  |
| RECU Ground | exit pin one of connector 1. Yellow silicone wire, goes to G4. |  |
| Charger Main Ground | exit pin 4G on charger as blue wire, goes to maxi splice 5 behind our ECU. Splices to another blue wire that goes to one of the grounds on the DLC, to another blue wire that goes to G5, and to a black wire that goes to Maxi splice 6. |  |
| Charger CAN Ground | 22 gauge red wire exits pin 2F on charger, spices with maxi splice 6. Maxi spice 6 also has another blue wire that goes to second DLC ground. |  |
| HVIL - | exits charger on pin 4D (red wire) and goes directly to pin 9 on the DLC |  |
| Charger CAN H | Exits pin 4A on battery charger (orange wire). Goes to splice behind DLC. Splice connects to pen 6 on the DLC And to #2 black wire that enters BMS harness and goes to appropriate pin. | BMS CAN 1 |
| Charger CAN L | Exits pin 4B on battery charger (orange wire). Goes to splice behind DLC. Splice connects to pen 14 on the DLC And to #1 black wire that enters BMS harness and goes to appropriate pin. |  |
| BMS CAN L to RECU | yellow wire exits pen 20 of RECU connector 1. Enters BMS harness and Goes to black wire #7 which goes to appropriate pen on BMS. Continues on blue wire to under dash via splice at BMS – pin 10 IECU | BMS CAN 2, D53 |
| BMS CAN H to RECU | yellow wire exits pen 19 of RECU connector 1. Enters BMS harness and Goes to black wire #6 which goes to appropriate pen on BMS. Continues on green wire to under dash via splice BMS – pin 12 IECU |  |
| BMS Ready | red wire #8, exits R4 normally open pin in fuse box, and goes to appropriate pen on BMS. R4 common power comes from fuse 3 on blue wire. Control side is red wire that goes to Q11. Spices into yellow silicon wire above RECU. Power for relay comes from fuse 3 on blue wire. | Rear ECU IG Signal, D8 |
| Charge Power Source | yellow wire comes from power supply unit. Splices to black wire that splices to silicone yellow wire that goes to pin 2 of connector 3 on RECU (charge detect wire). All splices in BMS harness. Black wire then splices to red wire, wire five that goes to appropriate pen on BMS. In the same spice, there are two diodes that splice two a yellow silicon wire going to pin 12 of connector 1 on RECU (wake wire). In this splice there is a black wire, wire 8 that goes to BMS and splices to a red wire that goes to under dash. | Switch Mode PSU |
| Charge Detection | See charge power source for descp. | A1 – pin 2, connector 3 |
| Charger Contactor | black wire number 11 exit BMS harness and goes to coil of contactor. Power for contactor comes from blue wire that goes to fuse #3. Diode across this contactor with blue wire | BMS Charge Safety Signal Output |
| \IG Signal | See charge power source for descrp. | Rear ECU IG Signal, D8 |
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| **Rear Extras** |  |  |
| Rear Camera Signal |  | **Rear Cam Module** |
| BSM Camera Signal (optional) |  | **Side Cam Module** |
| Battery Coolant Pump |  | **Orion BMS** |
| Battery Coolant Pump On Sig |  | Orion BMS |
| Rear Ped Alert |  | **Not Equipped** |
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| **(Interior) Steering Column** |  | **Interior ECU B+ Signal** |
| SSU + EPS ECU Acc. power |  | R2, D47 |
| SSU Ground + Ilu GND |  | Rightmost Ground Pin on IECU |
| SSU + EPS CAN H (white) |  | CAN 2 |
| SSU + EPS CAN L (red) |  | CAN 2 |
| Horn |  | A1 |
| Ilumination Power |  | R1, D49 |
| Sound - |  | Weatherproof P1 |
| Sound Midtap |  | Weatherproof P2 |
| Sound + |  | Weatherproof P3 |
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| **Motor Harness + HVAC Blower ECU + Pre-charge/Contactors** | **MODIFY: Bluetooth, 3 CAN Network, Accel Pedal Input** |  |
| KAP | F3 |  |
| Non-dedi IG Power +HVIL | Q8, R1 EXT, F3 | D5 |
| Internals (not in harn) | See Inverter Manual |  |
| HVIL Out | Not Connected |  |
| FCAN (2) (500 Kbps) | FCAN 1 to regular can port (Termination), FCAN 2 L to Pin 10 C1, H to Pin 8 (no termination, Circle CS Pin) | D53 regular FCAN2, D35 FCAN |
| Non-dedi GND | Grounds to top ground bolt |  |
| Rear Defog Sig | Goes to defog relay |  |
| Non-dedi GND | Spliced with motor ground |  |
| BCAN (2) (likely 125 kpbs) | Pin 6 C1 High, Pin 7 C1 Low (Termination) Square CS | D37 |
| Non-dedi IG Power | Splice with motor |  |
| Control Panel data | To HVAC switch, pin 12 white bulkhead |  |
| Contactor A + Side Contactor | R4 IECU | D45 |
| Contactor B – Side Contactor | R5 IECU | D43 |
| Pre-charge Activate line | Q7 IECU | D4 |
| Non-dedi GND | Splice with motor ground |  |
| +5V for pre-charge and PEDALS | Goes to IECU Power Pin |  |
| Blower | R0 | D6 |
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| **Dash Harness Dash (screen, radio, gear select, power button, HVAC panel, Accessory pwr, mirrors, hazzard/aux sw)** |  |  |
| /R Defrost Power L | R6 EXT, from Climate ECU, F6 |  |
| NOT IN HARN Backlight Power L |  |  |
| NOT IN HARN BSM Indicator L |  |  |
| NOT IN HARN Frame GND L |  |  |
| /R SW Com L |  |  |
| /R SW Vertical L |  |  |
| /R SW Horizontal L |  |  |
| /R Defrost Power R TAP FOR LEFT |  |  |
| /R Backlight Power R | 22 GAUGE |  |
| /R BSM Indicator R | 22 GAUGE |  |
| NOT IN HARN Frame GND R |  |  |
| /R SW Com R | 18 G |  |
| /R SW Vertical R | 18 G |  |
| /R SW Horizontal R | 18 G |  |
| /R DEDI IG Feed | Splice with IG at weatherproof |  |
| /R DEDI GND | Grounds at dash ground point |  |
| /R Main GND Sig Connection SPLICE WITH MAIN |  |  |
| /R Hazzard Switch Return (green) | Pin 5 Bulk, P5 C3 | A4 |
| /R Hazzard SW GND (black) SPLICE |  |  |
| /R Backlight SPLICE |  |  |
| /R Aux 1 Switch Return | 13 Bulk, P6 C3 | A5 |
| /R GND SPLICE |  |  |
| /R Aux 2 Switch Return | 15 Bulk, , P7 C3 | A6 |
| /R GND SPLICE |  |  |
| /R Illumination SPLICE | Pin 19 Bulkhead, R1 IECU | D49 |
| /R 12 V IG Power **dash**, gear, HVAC, PW SW led) | R2 EXT, F4, Q9 | D6 |
| /R 12 V IG accessory power (**Cigar**) | R3 EXT, F1, Q9 | D6 |
| /R 12 V GND Power (Radio, **CIGAR**, **dash**, gear, HVAC,) | Grounds at dash ground point |  |
| /R 12 V Acc Power Sig (radio, PWR SW) | Pin 7 Bulkhead, R2 IECU | D47 |
| /R 12 V KAP (Radio, HVAC) | F4 |  |
| /R Four Radio Speakers |  |  |
| Radio USB 1 |  |  |
| Radio USB 2 |  |  |
| /R Backlight SPLICE |  |  |
| /R Reverse/Cam Signal | Pin 17 Bulkhead, R3 IECU | D46 |
| /R KAP |  |  |
| /R GND SPLICE WITH MAIN |  |  |
| /R Acc Feed |  |  |
| /R Wheel 1 |  |  |
| /R Wheel 2 |  |  |
| /R Wheel 3 |  |  |
| /R Gear CAN H Twisted Pair | FCAN 2 L to Pin 10 C1, H to Pin 8 (no termination) Splice with motor, BMS, etc. | See above for CS pin |
| /R Gear CAN L Twisted Pair |  |  |
| /R Gear IG SPLICE |  |  |
| /R Gear GND SPLICE WITH MAIN |  |  |
| /R Illumination SPLICE |  |  |
| /R HVAC Data |  |  |
| /R HVAC IG SPLICE |  |  |
| /R HVAC KAP SPLICE WITH RADIO |  |  |
| /R HVAC GND SPLICE WITH MAIN |  |  |
| /R HVAC ILL  UMI SPLICE |  |  |
| /R IG Signal SPLICE |  |  |
| /R Acc Signal SPLICE |  |  |
| /R GND SPLICE WITH MAIN |  |  |
| /R Return SW 1 | Pin 1 Bulk, Pin 3 C3 | A2 |
| /R Return SW 2 | Pin 3 Bulk, Pin 4 C3 | A3 |
| /R Uart + Twister Pair | TX on Mega | TX3 |
| /R Uart - Twisted Pair | RX on Mega | RX3 |
| /R Chip GND SPLICE |  |  |
| /R 5V to Chip |  |  |
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| **Pedals Harness** |  |  |
| Brake SW for ECU Wake | R4 Splice with Keyless box headlamp output |  |
| +5V from precharge circ. (2) | Splice at IECU |  |
| Dedi Signal GND (4) | GND above dash |  |
| Accel Returns (2) | Accel1= pin 16, Accel2= pin 15 C3 | A15, A14 respectively |
| Brake SW Return | Pin 14 C3 | A13 |
| ABS In |  |  |
| ABS Out |  |  |
| **Keyless Access Harness** |  |  |
| Dedicated ACC sig | R2 IECU SPLICED | D6 |
| Gnd |  |  |
| KAP |  |  |
| Lock Sig In | Pin 11 C3 IECU | A10 |
| Unlock Sig in | Pin 10 C3 IECU | A9 |
| Headlamp Sig in | To Wake Relay R1 |  |
| Buzzer Sig in |  |  |
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| **+ LEFT Mirror** |  |  |
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| **Seat Harness** |  |  |
| Constant Power (seat motors) | Pin 1 Weatherproof | F2 |
| Key Power (climate seat) | Pin 2 Weatherproof | EXT R3, Q9, D6 |
| GND | Pin 3 Weatherproof | Ground at BMS |
| Seat Belt Return | Pin 4 Weatherproof, Pin 3 2nd weatherproof, Pin 9 C3 IECU |  |
| **(Exterior)** |  |  |
| A/C Comp HVAC IG |  | EXT R1 F5 Q9, D6 |
| A/C Comp CAN (2) |  |  |
| A/C Comp HV PW |  |  |
| A/C Comp GND |  |  |
| Battery Pump IG Power |  | EXT R1, D6 |
| Bat Pump GND |  |  |
| Bat Pump PWM (0-5v wave) | LOW CURR PWM | Pin 7 C2, D10 |
| Heater PWM Control |  | Q11, D8 |
| Heater PWM IG Power |  |  |
| Heater Temp Sense Sig |  | Pin 5 C1 A4 |
| Heater Temp Sense GND |  |  |
| Heater HV PW |  | CHCK CONNECTIONS! |
| Throttling Valve IG Power ?? | EXT R1 |  |
| Throttling Valve PWM Control |  | D11 |
| Inv Pump IG Power |  | EXT R1, D6 |
| Inv Pump GND |  |  |
| Inv Pump PWM (0-5v wave ) | LOW CURR PWM | Pin 6 C2, D12 |
| AC Pressure SW Output |  | Pin 6 C1, A5 |
| AC pressure SW GND |  |  |
| Rad Fan PWR |  | EXT R5, Q10 F6, D7 |
| Rad Fan GND |  |  |
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| EBB GND |  |  |
| EBB KAP Power |  | F1 |
| EBB IG Signal |  | EXT R1, D6 |
| Horns |  |  |
| EPKB CAN (2) |  |  |
| EPKB B+ |  | EXT R0, Feed from INT R6, F2, D44 |
| EPKB GND |  |  |
| EPKB Y+LB/VT (NO) |  | INT R1/R2, D49/D47 |
| EPKB GY/RD (NC 1) | MOD | Pin 10 C1 |
| EPBK BN (COM 1) | Mod | Pin 5 C1 |
| EPKB LB/BK (COM 2) | MOD | Pin 6 C1 |
| EPKB YE/RD (NC 2) | MOD | Pin 7 C1 |
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| ABS B+ |  |  |
| ABS VSS Input | **MOD (12V Pullup)** | Q12 Pin 13 C1, D9 |
| ABS Brake Warning |  | A2 |
| ABS Light |  | A1 |
| ABS IG Power |  | EXT R0, D44 |
| ABS Brake SW Input |  |  |
| ABS Brake SW Power |  | R0, D44 |
| ABS to DLC 1 |  |  |
| ABS to DLC 2 |  |  |
| ABS GND ?? |  |  |
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| Speakers (2,4)?? |  |  |
| IG Power to Amp |  | EXT R1, D6 |
| GND To Amp |  | bms |
| Sig To amp (cable) |  | RX3, TX3 |
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| Headlamps |  | EXT R3 Q7 F3, D4 |
| Running Lamps |  | EXT R2 Dash Illumi Activates this one F4 |
| Left Turn |  | INT R3, D46 |
| Right Turn |  | INT R4, D45 |
| Horn |  | INT R5, D43 |
| Highbeams |  | EXT R4 Q8 F3, D5 |
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