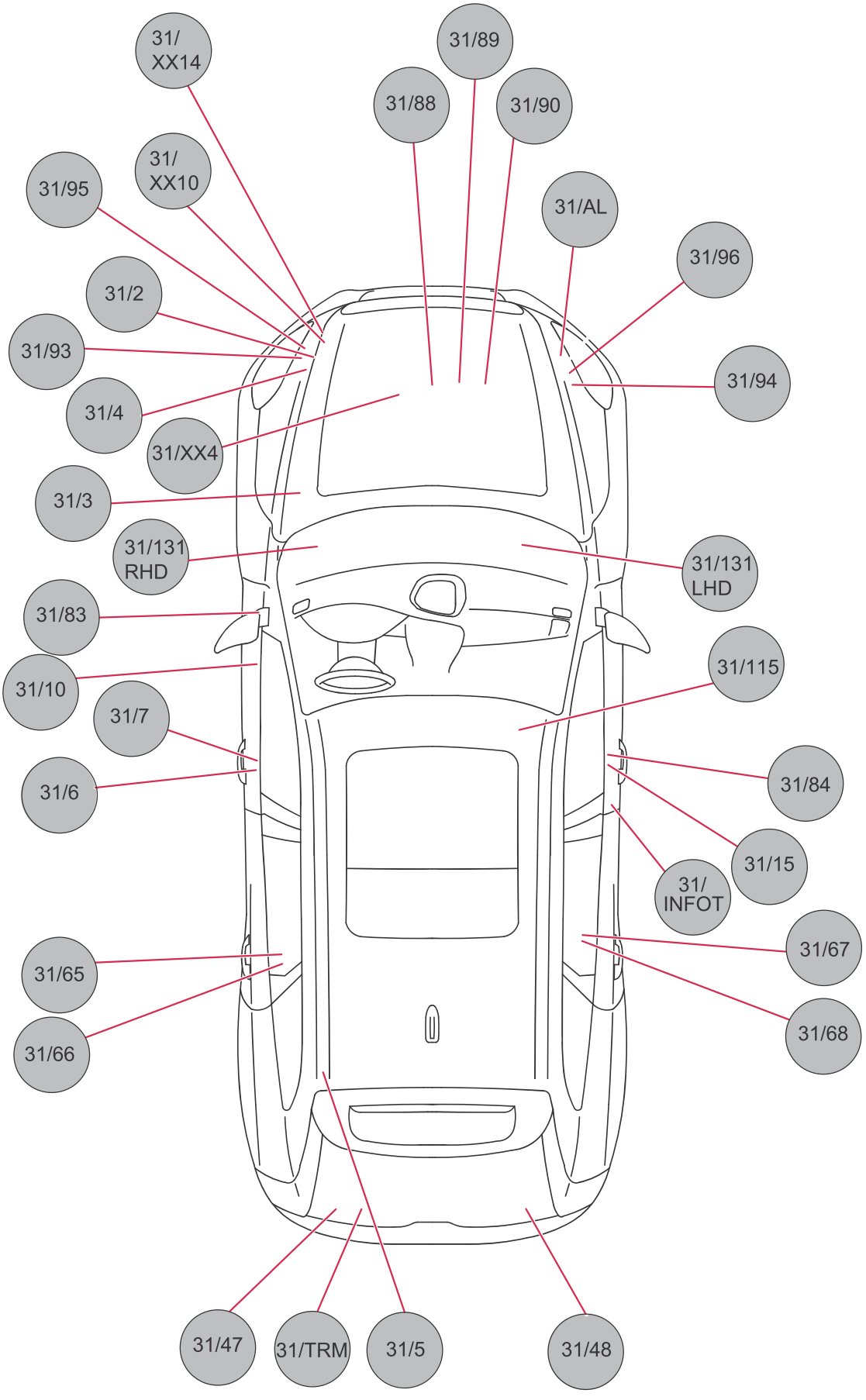
# Ground connections
## Overview



# Ground connections
# 31/2 - 31/6

| 31/2 | Left wheel housing |
|---|---|
| 4/71 | Cooling fan control module |

| 31/3 | Body, battery |
|---|---|
| 1/1 | Battery |
| 7/240 | Battery monitoring sensor |

| 31/4 | Engine |
|---|---|
| 31/XX4 | Ground connection |

| 31/5 | Rear edge roof |
|---|---|
| 9/2 | Heated rear window |
| 27/6 | Camera, parking |

| 31/6 | Bottom rail, left |
|---|---|
| 2/254 | Relay, lumbar support front |
| 3/26 | Switch unit, power driver’s seat, LHD |
| 3/27 | Switch unit, power passenger seat, RHD |
| 3/74 | Lock unit, left front door |
| 3/76 | Lock unit, left rear door |
| 3/126 | Driver Door Module (DDM), LHD |
| 3/127 | Passenger door module (PDM), RHD |
| 3/128 | Left rear door module (LDM) |
| 3/176 | Switch, driver’s door power window, LHD |
| 3/273 | Lock contact, left front door |
| 3/275 | Lock contact, left rear door |
| 4/52 | Power seat module (PSM), LHD |
| 4/131 | Control module back massage left |
| 4/133 | Control back massage right |
| 4/185 | Infotainment Head Unit (IHU) |
| 9/12 | Seat Heating Module (SHM), driver’s side, LHD |
| 9/13 | Seat Heating Module (SHM), passenger side, RHD |
| 10/289PA | Lighting, door pocket, passenger side |
| 16/1 | Integrated Audio Module (IAM) |
| 16/159 | Control module, mobile phone handsfree, RHD |

# Ground connections
# 31/7

| 31/7 Bottom rail, left | |
|---|---|
| 2/92 | Relay, front washer motor, RHD |
| 2/93 | Relay, rear washer motor, RHD |
| 3/271 | Contact, immobilizer, clutch pedal, LHD |
| 3/281 | Infotainment Control Module (ICM), RHD |
| 3/284 | Diagnostic contact, brake light, LHD |
| 4/56 | Central electronic module (CEM), RHD |
| 4/124 | Accessory USB unit (AUU) |
| 4/185 | Infotainment Head Unit (IHU), RHD |
| 6/62 | Left power exterior rearview mirror, RHD |
| 7/51 | Accelerator pedal sensor, LHD |
| 7/93 | Occupant weight sensor (OWS), RHD |
| 7/175 | Weight sensor passenger seat, seat belt reminder, RHD |
| 8/51 | Igniter side airbag front left, LHD |
| 8/52 | Igniter side airbag front right, RHD |
| 9/13 | Seat heating module (SHM), passenger side, RHD |
| 16/1 | Integrated Audio Module (IAM), RHD |
| 16/36 | TV receiver, RHD |
| 16/123 | External equipment input (AUX), RHD |
| 16/145 | Remote Digital Audio Receiver (RDAR), RHD |
| 16/202 | Center console display, RHD |
| 16/162 | Digital Audio Broadcast Module (DABM), RHD |

# Ground connections
# 31/10

| 31/10 Bottom rail, left | |
|---|---|
| 3/6 | Switch, hazard warning flashers |
| 3/173 | Switch, trunk lid/tailgate private lock |
| 4/31 | Fan control module |
| 4/33 | Panoramic roof control module |
| 4/80 | Forward Sensing Module (FSM) |
| 4/102 | Steering column lock module (SCL) |
| 4/119 | Remote Keyless Entry (RKE) |
| 4/119.2 | Remote Receiver Module (RRX) |
| 4/125 | Closing velocity module (CVM) |
| 6/48 | Damper motor module (DMM), recirculation |
| 6/95 | Damper motor module (DMM), temperature, left-hand side |
| 6/96 | Damper motor module (DMM), temperature, right-hand side |
| 6/102 | Damper motor module (DMM), defroster |
| 6/103 | Damper motor module (DMM), floor/ventilation |
| 7/90 | Moisture sensor |
| 7/149 | Rain sensor module (RSM) |
| 7/159 | Air quality sensor (AQS) |
| 7/199 | Ultrasonic sensor |
| 7/238 | Alcolock sensor |
| 8/48 | Auto-dimming rearview mirror |
| 10/22 | Ceiling light |
| 10/29 | Glove compartment lighting |
| 10/114 | Vanity mirror lighting, left |
| 10/115 | Vanity mirror lighting, right |
| 10/150A | Rear reading light |
| 10/150B | Rear reading light |
| 16/60 | Phone Module (PHM) |
| 17/13 | Data link connector |
| 17/45 | Alcolock outlet |
| 26/8 | Alcolock charging cradle |

# Ground connections
# 31/15

| 31/15 Bottom rail, right | |
|---|---|
| 3/26 | Switch unit, power driver’s seat, RHD |
| 3/27 | Switch unit, power passenger seat, LHD |
| 3/65 | Switch, heated rear seat |
| 3/75 | Lock unit, right front door |
| 3/77 | Lock unit, right rear door |
| 3/126 | Driver Door Module (DDM), RHD |
| 3/127 | Passenger door module (PDM), LHD |
| 3/129 | Right rear door module (RDM) |
| 3/156 | Gear selector module (GSM) |
| 3/176 | Switch, driver’s door power window, RHD |
| 3/274 | Lock contact, right front door |
| 3/276 | Lock contact, right rear door |
| 4/52 | Power seat module (PSM), RHD |
| 7/122 | Mass movement sensor module (MMS), front |
| 8/134 | Solenoid, reverse interlock, manual, RHD |
| 9/1 | Outlet 12V front |
| 9/12 | Seat Heating Module (SHM), driver’s side, RHD |
| 9/13 | Seat Heating Module (SHM), passenger side, LHD |
| 9/25 | Outlet 12V rear |
| 10/263 | Cup holder illumination, tunnel console |
| 10/289DR | Lighting, door pocket, driver’s side |
| 10/289PA | Lighting, door pocket, passenger side |
| 16/45 | Portable navigation system |
| 16/164 | Display/DVD headrest left (RSE) |
| 16/165 | Display/DVD headrest right (RSE) |
| 27/8 | Camera, wide angle front |
| 7/122 | Mass movement sensor module (MMS), front |
| 8/134 | Solenoid, reverse interlock, manual, RHD |
| 9/1 | Outlet 12V front |

# Ground connections
# 31/47 - 31/48

| 31/47 | Rear bumper abutment, left |
|---|---|
| 2/16 | Relay, rear window wiper |
| 3/35 | Trunk handle switch |
| 4/110 | Trailer module (TRM) |
| 4/115 | Park Brake Module (PBM) |
| 4/116 | Power Operated Tailgate Module (POT) |
| 6/8 | Central locking motor, tailgate |
| 6/32 | Rear window wiper motor |
| 6/149 | Tailgate closing motor |
| 10/3 | License plate lighting |
| 10/18 | Lamp housing, rear left |
| 10/19 | Brake lights extra |

| 31/48 | Rear bumper abutment, right |
|---|---|
| 4/86 | Parking Assistance Module (PAM) |
| 4/93 | Keyless vehicle module (KVM) |
| 4/126 | Side Obstacle Detection Module left (SODL) |
| 4/127 | Side Obstacle Detection Module right (SODR) |
| 6/37 | Lock motor, fuel filler flap |
| 10/17 | Lamp housing, rear right |
| 10/46 | Fog lights, rear right |
| 10/53 | Fog lights, rear left |
| 17/19 | 12 V outlet, cargo compartment |

# Ground connections
# 31/65 - 31/83

| 31/65 Rear seat riser, left-hand side 1 | |
|---|---|
| 4/82 | Differential electronic module (DEM) |
| 6/141 | Motor folding head restraint left |
| 8/59 | Rear left head restraint solenoid |
| 9/9 | Heating element, left rear seat backrest |
| 9/14 | Control module, rear left seat heater |

| 31/66 Rear seat riser, left-hand side 2 | |
|---|---|
| 4/83 | Control module fuel pump |
| 6/33 | Fuel pump |

| 31/67 Rear seat riser, right-hand side 1 | |
|---|---|
| 4/86 | Parking Assistance Module (PAM) |
| 6/142 | Motor folding head restraint right |
| 8/60 | Rear right head restraint solenoid |
| 9/11 | Heating element, right rear seat backrest |
| 9/15 | Control module, rear right seat heater |

| 31/68 Rear seat riser, right side 2 | |
|---|---|
| 6/35 | Fuel pump, auxiliary heater |
| 9/38 | Electrically heated fuel filter |

| 31/83 Bottom rail, left | |
|---|---|
| 3/111 | Light switch module (LSM) |
| 3/112 | Climate control module (CCM) |
| 3/130 | Steering wheel module (SWM) |
| 3/272 | Switch, parking brake |
| 4/148 | Heated Steering Wheel Module (HSWM) |
| 5/1 | Driver Information module (DIM) |
| 9/42 | PTC-element |
| 10/1 | Lamp housing, front left |
| 10/2 | Lamp housing, front right |
| 16/60 | Phone module (PHM) |
| 16/65 | Immobilizer antenna unit (IAU) |
| 17/13 | Data link connector |

# Ground connections
# 31/84 - 31/90

| 31/84 Bottom rail, right | |
|---|---|
| 2/92 | Relay, front washer motor, LHD |
| 2/93 | Relay, rear washer motor, LHD |
| 3/271 | Contact, immobilizer, clutch pedal, RHD |
| 3/281 | Infotainment control module (ICM), LHD |
| 3/284 | Diagnostic contact, brake light, RHD |
| 4/56 | Central electronic module (CEM), LHD |
| 4/124 | Accessory USB unit (AUU), LHD |
| 4/156 | Accessory Connectivity Unit (ACU), LHD |
| 4/185 | Infotainment Head Unit (IHU), LHD |
| 6/62 | Left power exterior rearview mirror, LHD |
| 7/51 | Accelerator pedal sensor, RHD |
| 7/93 | Occupant weight sensor (OWS), LHD |
| 7/175 | Weight sensor passenger seat, seat belt reminder, LHD |
| 8/51 | Igniter side airbag front driver's seat, RHD |
| 8/52 | Igniter side airbag front passenger seat, LHD |
| 9/13 | Seat heating module (SHM), passenger side, LHD |
| 16/1 | Integrated Audio Module (IAM), LHD |
| 16/36 | TV receiver, LHD |
| 16/60 | Phone Module (PHM), LHD |
| 16/123 | External equipment input (AUX), LHD |
| 16/145 | Remote Digital Audio Receiver (RDAR), LHD |
| 16/162 | Digital Audio Broadcast Module (DABM), LHD |
| 16/202 | Center console display, LHD |

| 31/88 Engine ignition coils | |
|---|---|
| 20/3 | Spark plug with ignition coil, 6-Cyl. & 4-Cyl. Turbo |
| 20/4 | Spark plug with ignition coil, 6-Cyl. & 4-Cyl. Turbo |
| 20/5 | Spark plug with ignition coil, 6-Cyl. Turbo |
| 20/6 | Spark plug with ignition coil, 6-Cyl. Turbo |

| 31/89 Engine ignition coils | |
|---|---|
| 20/5 | Spark plug with ignition coil, 6-Cyl. & 4-Cyl. Turbo |
| 20/6 | Spark plug with ignition coil, 6-Cyl. & 4-Cyl. Turbo |
| 20/7 | Spark plug and ignition coil |
| 20/8 | Spark plug and ignition coil |
| 20/16 | Capacitor, 6-Cyl. |

| 31/90 Engine ignition coils | |
|---|---|
| 20/3 | Spark plug with ignition coil, 6-Cyl. Turbo |
| 20/4 | Spark plug with ignition coil, 6-Cyl. Turbo |
| 20/16 | Capacitor, 6-Cyl. Turbo |

# Ground connections
# 31/93 - 31/115

| 31/93 | Left wheel housing 2 |
|---|---|
| 4/56 | Central electronic module (CEM), RHD |
| 4/99 | Electronic power steering control module |
| 6/1 | Wiper Motor Module (WMM) |
| 6/104 | Washer motor headlights |
| 7/4 | Brake fluid level sensor |
| 7/5 | Washer fluid level sensor |
| 9/58 | Heated windshield washer nozzles |
| 10/1 | Lamp housing, front left |
| 16/10 | Horn 1 |
| 16/35 | Siren control module (SCM) |

| 31/94 | Right wheel housing 2 |
|---|---|
| 4/7 | Combustion preheater module (CPM) |
| 10/2 | Lamp housing, front right |
| 16/11 | Horn 2 |

| 31/95 | Left wheel housing 3 |
|---|---|
| 6/164 | Electrical power steering module (EPS) |

| 31/96 | Right wheel housing 3 |
|---|---|
| 2/81A | Relay, heated windshield passenger side |
| 2/81B | Relay, heated windshield driver’s side |
| 3/62 | Hood alarm contact |
| 4/56 | Central electronic module (CEM), LHD |
| 7/73 | Coolant level sensor |
| 7/203 | Forward-aimed radar (FLR) |
| 10/2 | Lamp housing, front right |
| 10/11 | Running/parking light, front left |
| 10/12 | Running/parking light, front right |

| 31/115 | Roof, left, A-pillar |
|---|---|
| 9/7 | Heated windshield |

# Ground connections
# 31/131 - 31/TRM

| 31/131 | Start/stop function |
|---|---|
| 1/2 | Secondary battery |
| 9/42 | PTC-element |

| 31/XX4 | Engine - Body |
|---|---|
| 31/4 | Ground connection |

| 31/XX10 | Left wheel housing 1 |
|---|---|
| 3/10 | Reversing light contact |
| 3/282 | Switch indicator 1st gear, 5-Cyl. Diesel |
| 4/28 | Transmission control module (TCM) |
| 4/46 | Engine control module (ECM) |
| 4/109 | Glow plug control module, 4-Cyl. Turbo |
| 6/73 | Coolant pump, 4-Cyl. Diesel |
| 6/139 | Upper actuating motor, intake manifold |
| 6/140 | Lower actuating motor, intake manifold |
| 6/179 | Electric oil pump |
| 6/197 | EGR cooling pump, 4-Cyl. Turbo |
| 7/200 | Radiator anti-tampering device, 6-Cyl. PZEV & 4-Cyl. Turbo |
| 9/32 | PTC resistor, crankcase ventilation |
| 9/38 | Electrically heated fuel filter |

| 31/XX14 | Left wheel housing 3 |
|---|---|
| 4/16 | Brake control module (BCM) |

| 31/AL | Auxiliary lights |
|---|---|
| 10/65 | Auxiliary lights, front right |
| 10/69 | Auxiliary lights, front left |

| 31/INFOT | Infotainment |
|---|---|
| 4/185 | Infotainment Head Unit (IHU) |
| 16/1 | Integrated Audio Module (IAM) |
| 16/105 | Audio module (AUD) |
| 16/159 | Control module, mobile phone handsfree, LHD |

| 31/TRM | Accessories |
|---|---|
| 17/37 | 4-pin outlet, tow hitch cable harness |
| 17/38 | 7-pin outlet, tow hitch cable harness |
| 17/39 | 13-pin outlet, tow hitch cable harness |
| 4/110 | Trailer module (TRM) |