

# **Electrical Circuit Diagrams**

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**Elektrische  
Circuitdiagrammen**

**Schémas Électriques**

**Elektrische Schaltpläne**

**Schema di Circuiti**

**Esquemas de Circuitos  
Eléctricos**

**Diagramas dos Circuitos  
Eléctricos**



**F**

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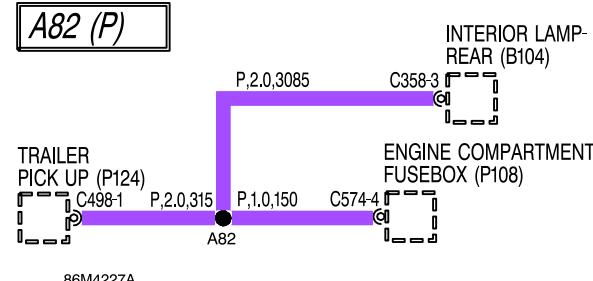
## HOW TO USE THE CIRCUIT DIAGRAMS

All of the information in this folder is intended for use with the Electrical Reference Library booklet.

The circuit diagrams are presented with Power and Earth distribution first, followed by individual circuits for each electrical system on the car.

### Power Distribution

The Power Distribution diagram shows the connections from the battery to the engine and passenger compartment fuseboxes. It also shows the internal circuitry of the fuseboxes.



These fuse box details are followed by a Headers and Splices section outlining the way in which internal harness splices and header joints distribute power in the harnesses. This information should be used during diagnosis of electrical faults to check for symptoms in associated circuits and narrow down the search area.

### Headers and splices

Header and splice tables present the joint(s) and wiring up to the first component. Splices are identified by a number with an alphabetical prefix and the wire colour.

**The splice information shown on individual system circuits is not complete. Always refer to the splices circuit for complete information on each splice.**

### Wire attributes

Additional information (separated by a ',') is shown alongside the wire colour: Wire gauge - the cross-sectional area of the wire in square millimetres. This is included to help you select the correct wire during harness repair.

Some wires do not have a gauge shown, these wires are of unique construction and will have a three or four letter code printed after the colour code, eg MAB. The code identifies the type of wire for manufacturing purposes. Usually, only the first two characters have significance in service, but in some instances the third character also becomes significant, see table.

### Wire type

The following table lists the wire type codes together with an explanation of their meaning.

| Code                              | Description                               |
|-----------------------------------|---|
| D                                 | Single core DIN wire                      |
| F                                 | Single core flexible wire                 |
| H                                 | Single core high temperature wire         |
| SA*                               | Single core resistive wire (0.9 ohms/m)   |
| SB*, SC*, SD*                     | Single core dual extruded wire            |
| SE*, SF*                          | Single core fusible wire                  |
| MA*, MAC, MAD, MAE, MAF, MAG, MAH | Coaxial screened wire                     |
| MB*, MO*, MAK                     | Single core screened wire                 |
| MC*, MI*, MP*, MQ*, MAB, MAP      | Twin core screened wire                   |
| MD*, MJ*, MAM                     | Twin core ABS sensor wire                 |
| ME*, TA*, TB*, MM*, MN*, MU*, MAI | Twisted pair of wires                     |
| MF*                               | Heated oxygen sensor (HO2S) screened wire |
| MG*                               | Twin core twisted, screened wire          |
| MH*                               | Four core twisted, screened wire          |
| MK*                               | Three core SRS sensor wire                |
| ML*, MAA, MAR                     | Four core screened wire                   |
| MR*                               | Six core screened, flexible wire          |
| MS*                               | Four core screened, flexible wire         |
| MT*                               | Single core screened, flexible wire       |
| MV*                               | Twin core flat wire                       |
| MW*                               | Three core round wire                     |

| Code     | Description                        |
|----------|------------------------------------|
| MX*, MY* | Seven core round wire              |
| MZ*      | Three core screened, flexible wire |
| MAJ      | Twin core round cable              |
| MAQ, MAU | Three core screened wire           |
| MAS      | Single core, double sheath wire    |
| MAT      | Double core, double sheath wire    |
| MAL      | SRS wire                           |
| MAN      | Twin core braided, screened wire   |

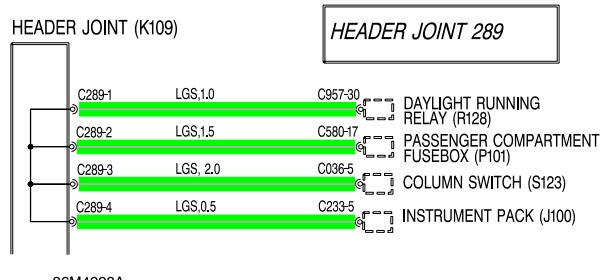
Wire length (Power & Earth Distribution only) - the length of the wire in millimetres. This can be used to locate internal harness splices; look for the shortest wire between the joint and connector. For example, it can be seen that C574-4 is 150mm from joint A82.

### Earth Distribution

The ground distribution section comprises a number of Headers and Splices tables. These are used in a similar manner to those in Power Distribution; to narrow the search area by checking for fault symptoms in associated circuits.

## HOW TO USE THE CIRCUIT DIAGRAMS

### Connectors



Header joints are identified by their corresponding connector number with a numbered suffix to indicate the pin-out detail of the wire, i.e. C289-1 identifies connector 289, pin number 1. Wire insulation colour is identified in the normal way. Where wires have a predominant colour with a secondary colour stripe, the main colour is identified first, i.e. LGS - Light Green with a Slate stripe.

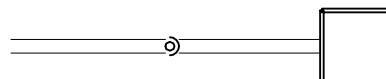
### Line Types

HEATED REAR SCREEN RELAY (R138)

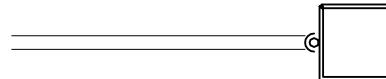
86M4229A

This means the wire connects to another circuit.

A



B

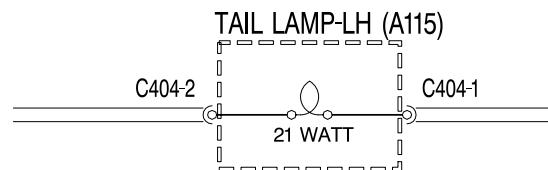


86M4230A

The cup and ball symbol indicates the male and female halves of connector.

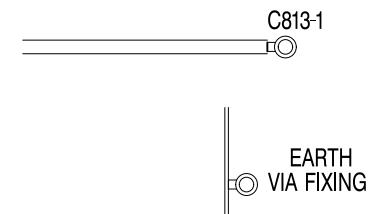
- A. Plug on lead (Flylead) wired directly to the component.
- B. Connector plugs directly into component.

### Components



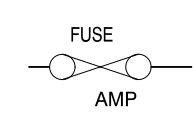
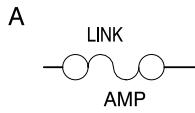
The name or description of the component is shown. A dotted outline indicates that the component is not shown in its entirety.

### Earth points



Earth points are identified with an eyelet symbol and a connector number, except where components are grounded through their fixings, when only the eyelet is shown.

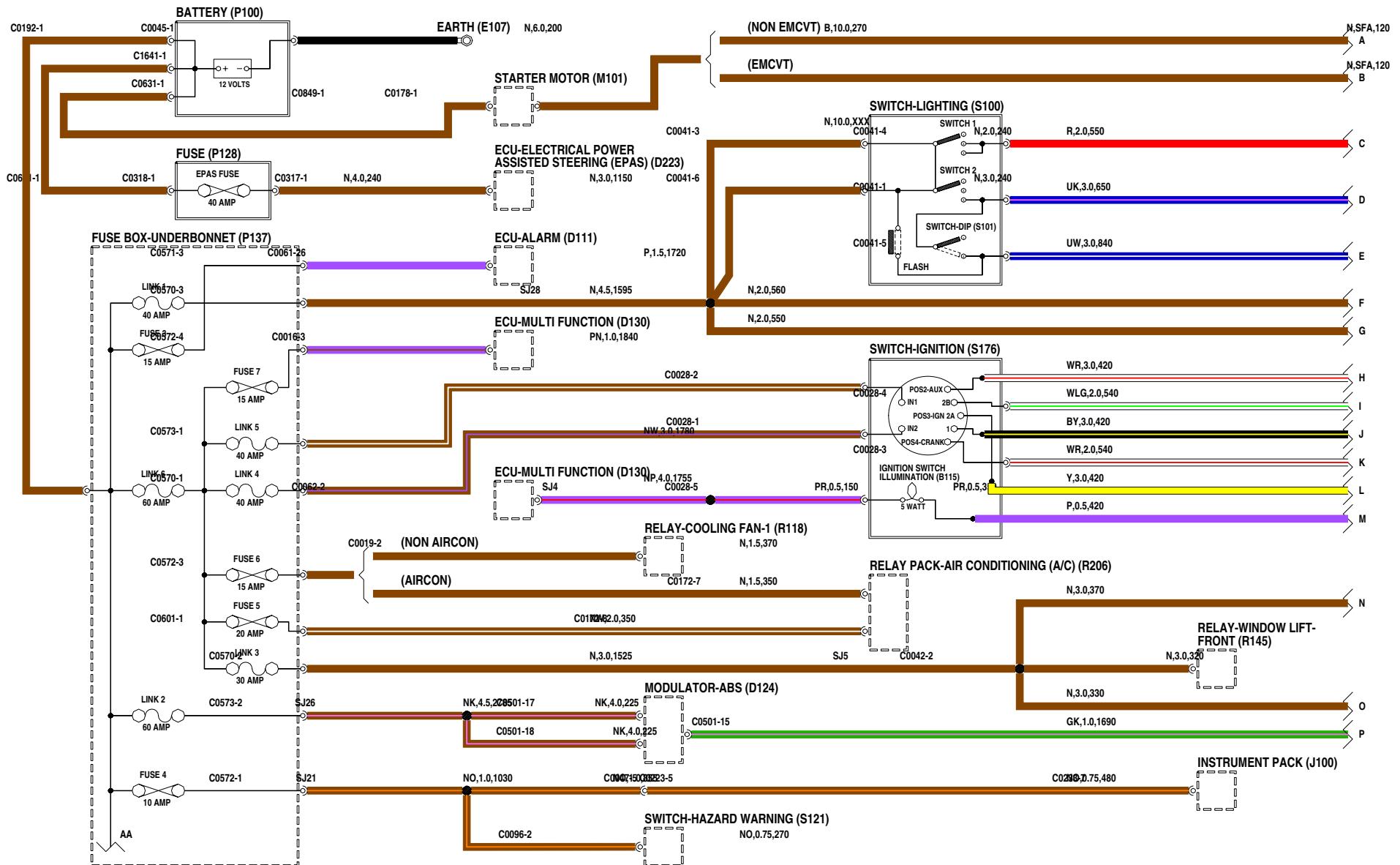
### Fuses and Diodes



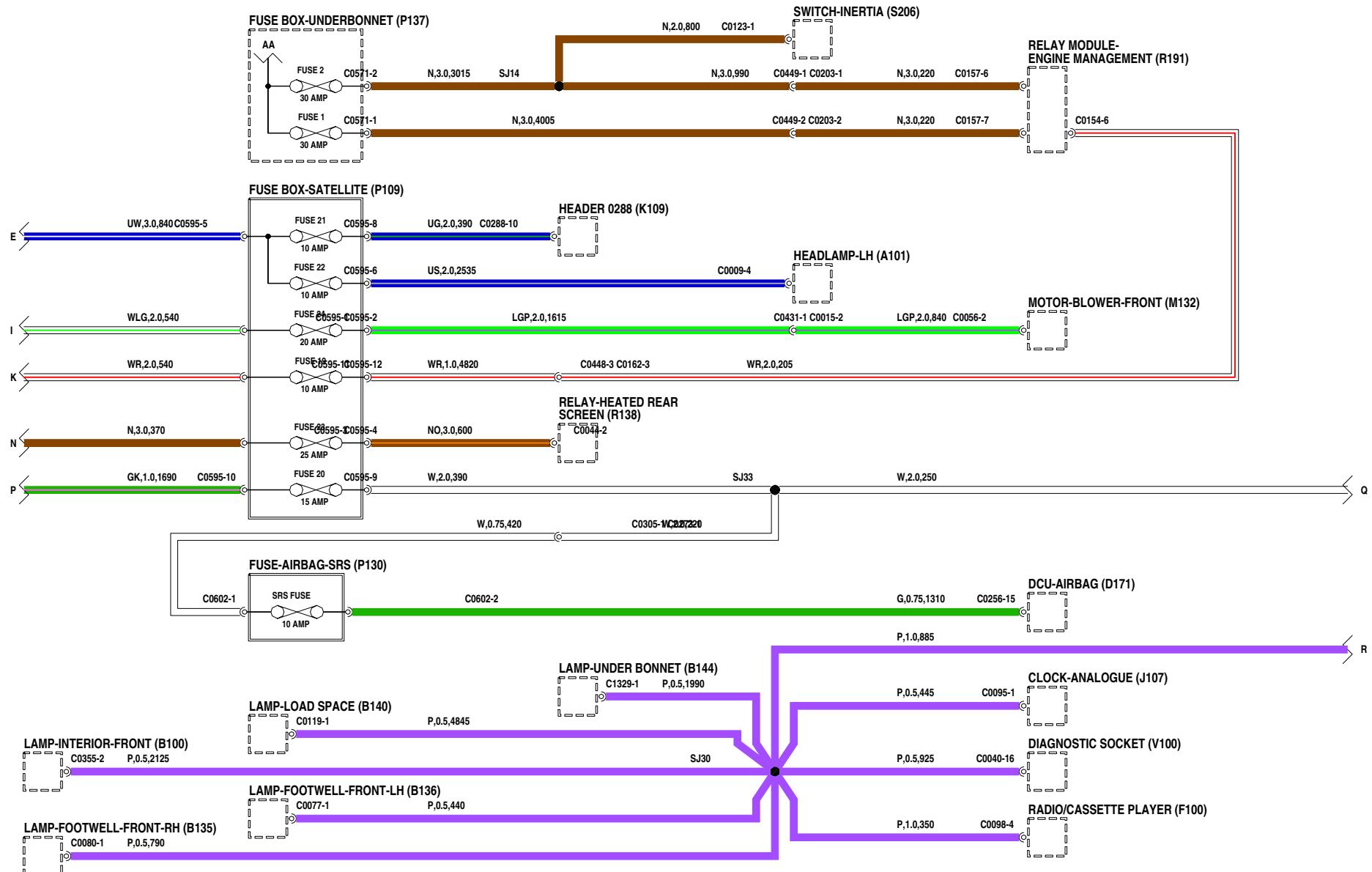
Fusible links (A) and current rated fuses (B) are identified as shown.

The direction of the arrow in a Diode symbol (C) indicates the direction of current flow. The Zener diode (D) - prevents current flow until a precise voltage is reached.

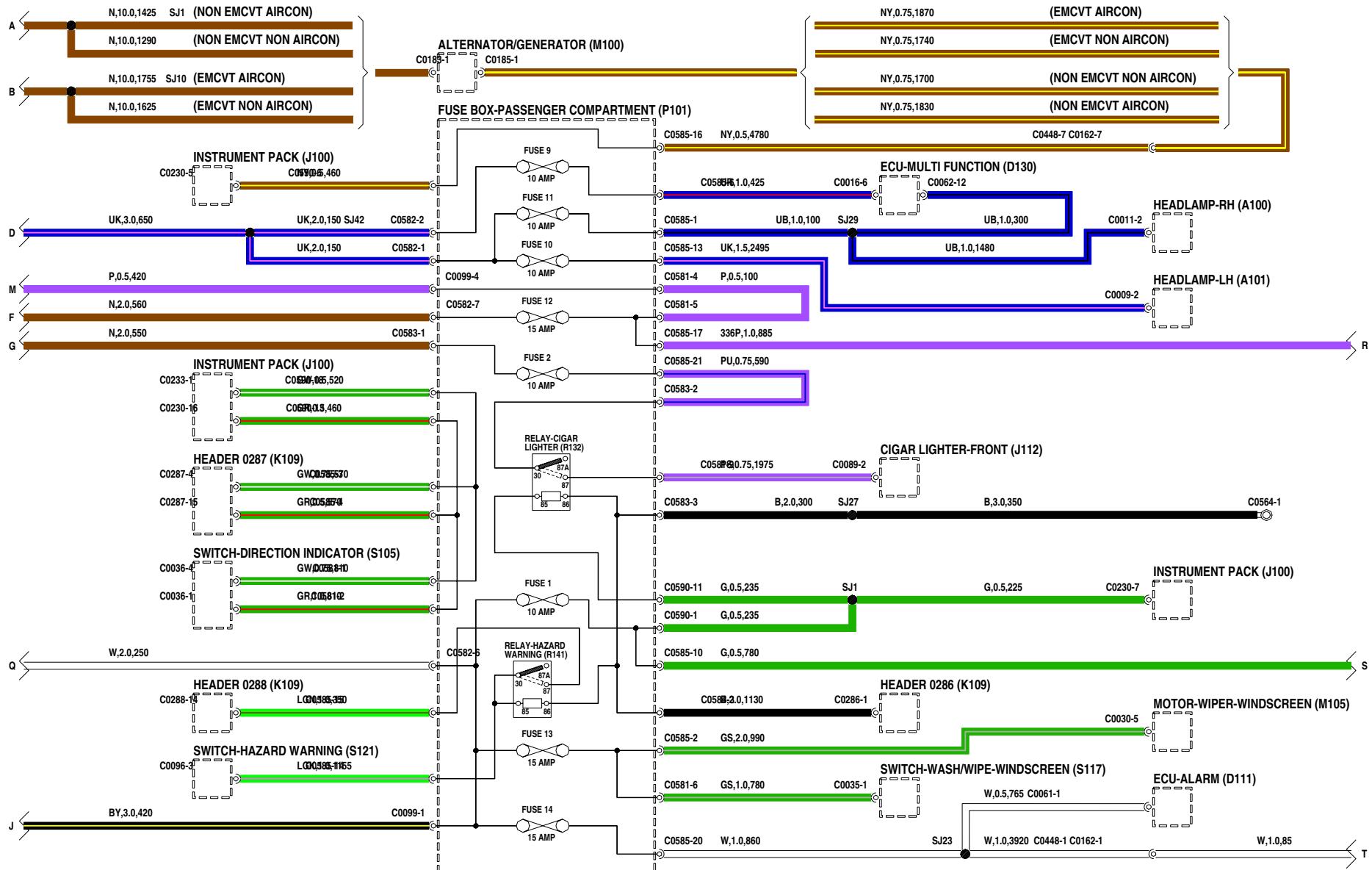
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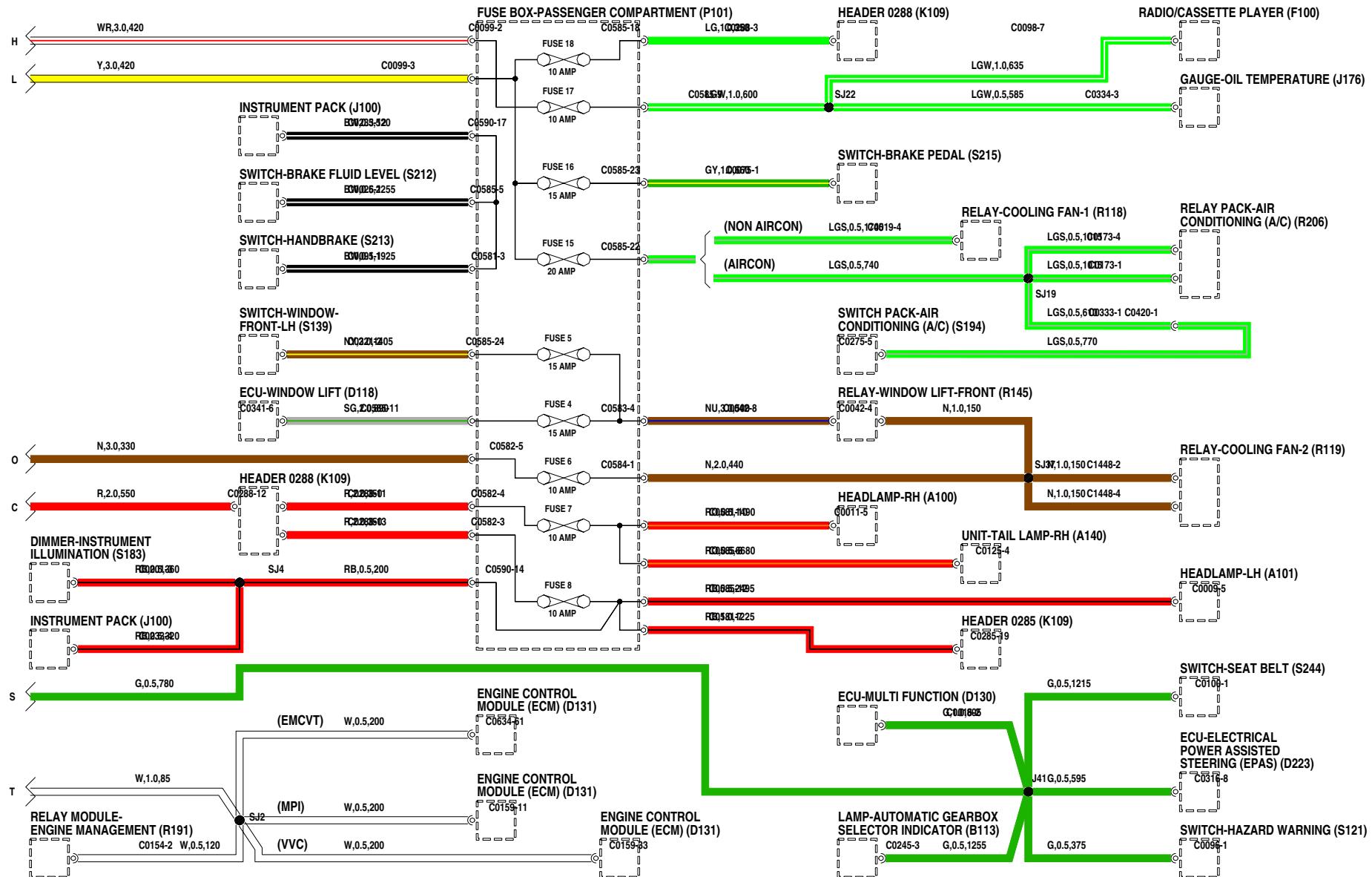
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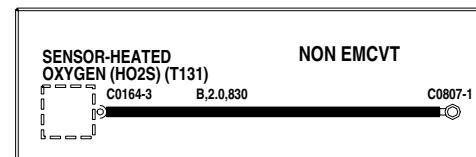
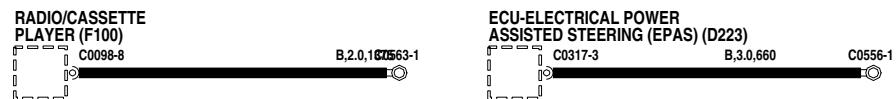
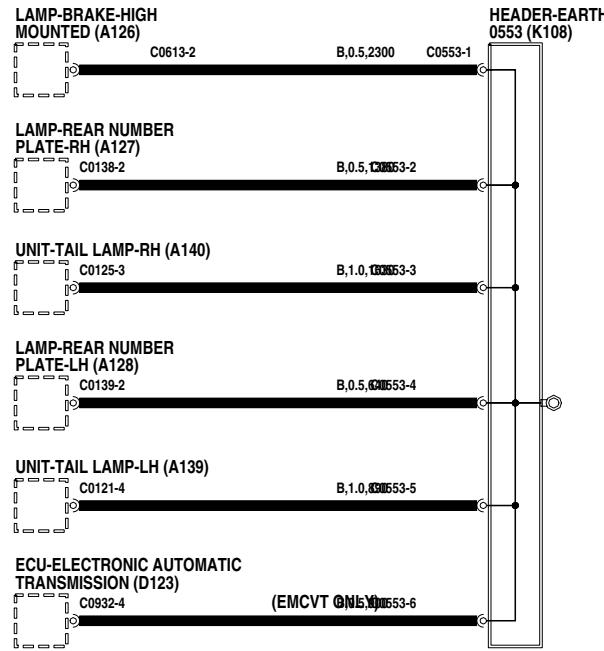
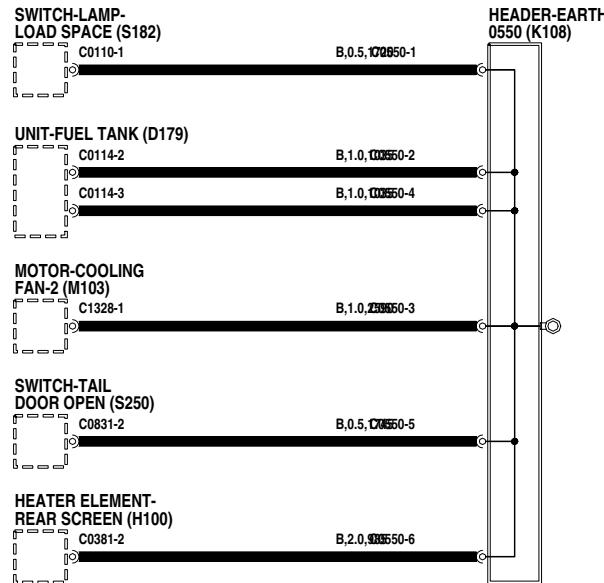


# POWER DISTRIBUTION

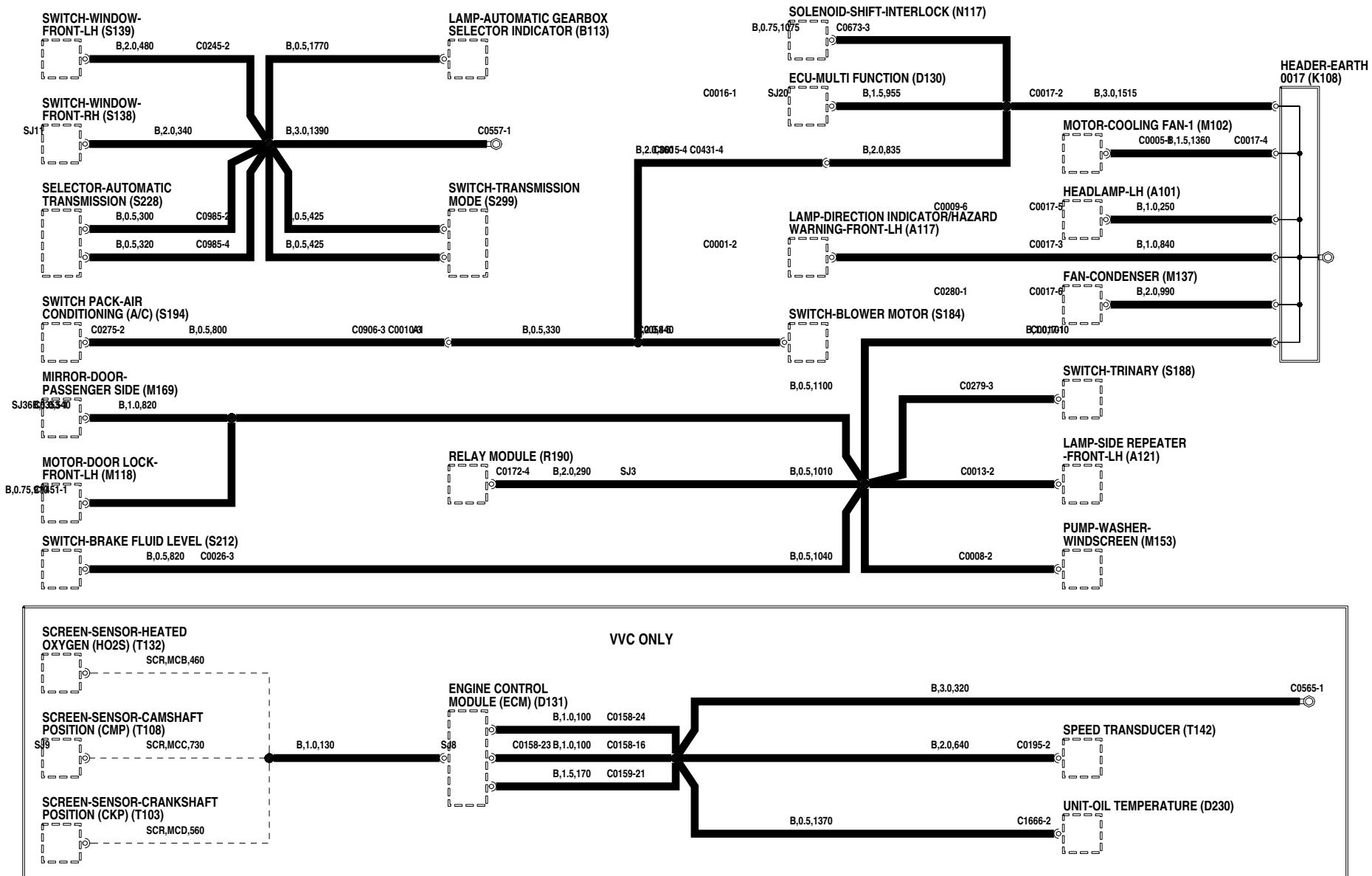


# EARTH DISTRIBUTION

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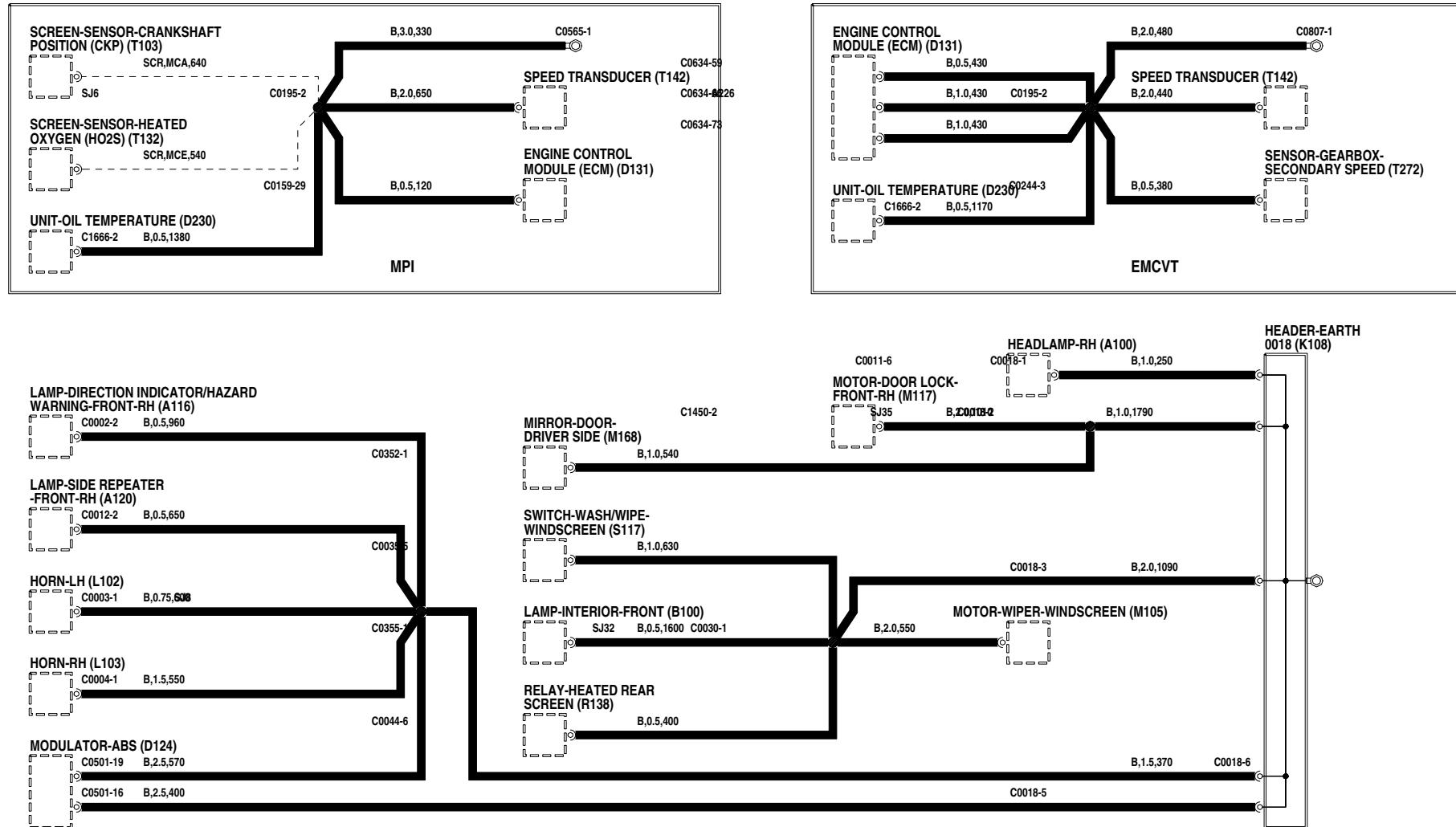


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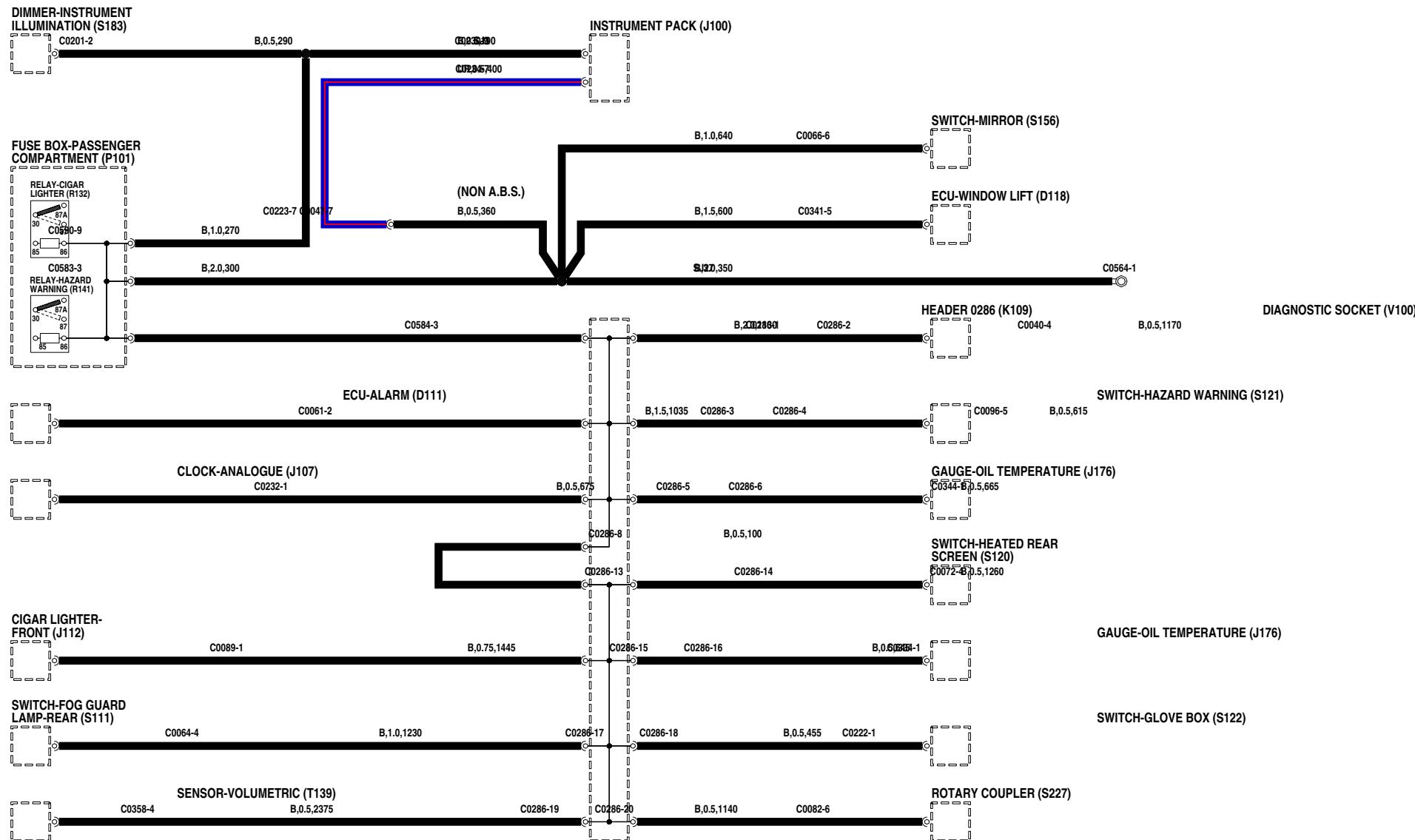
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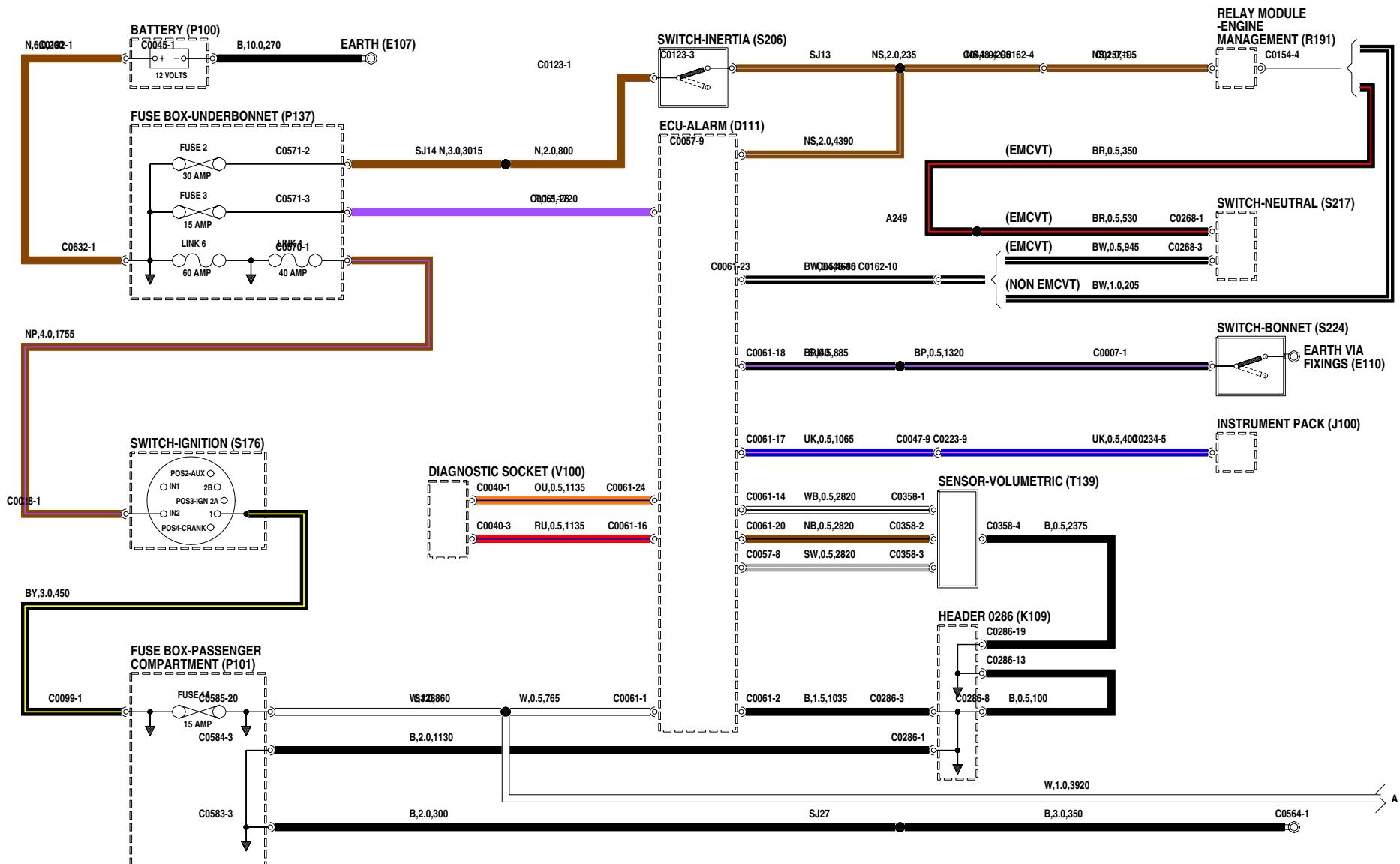


# EARTH DISTRIBUTION

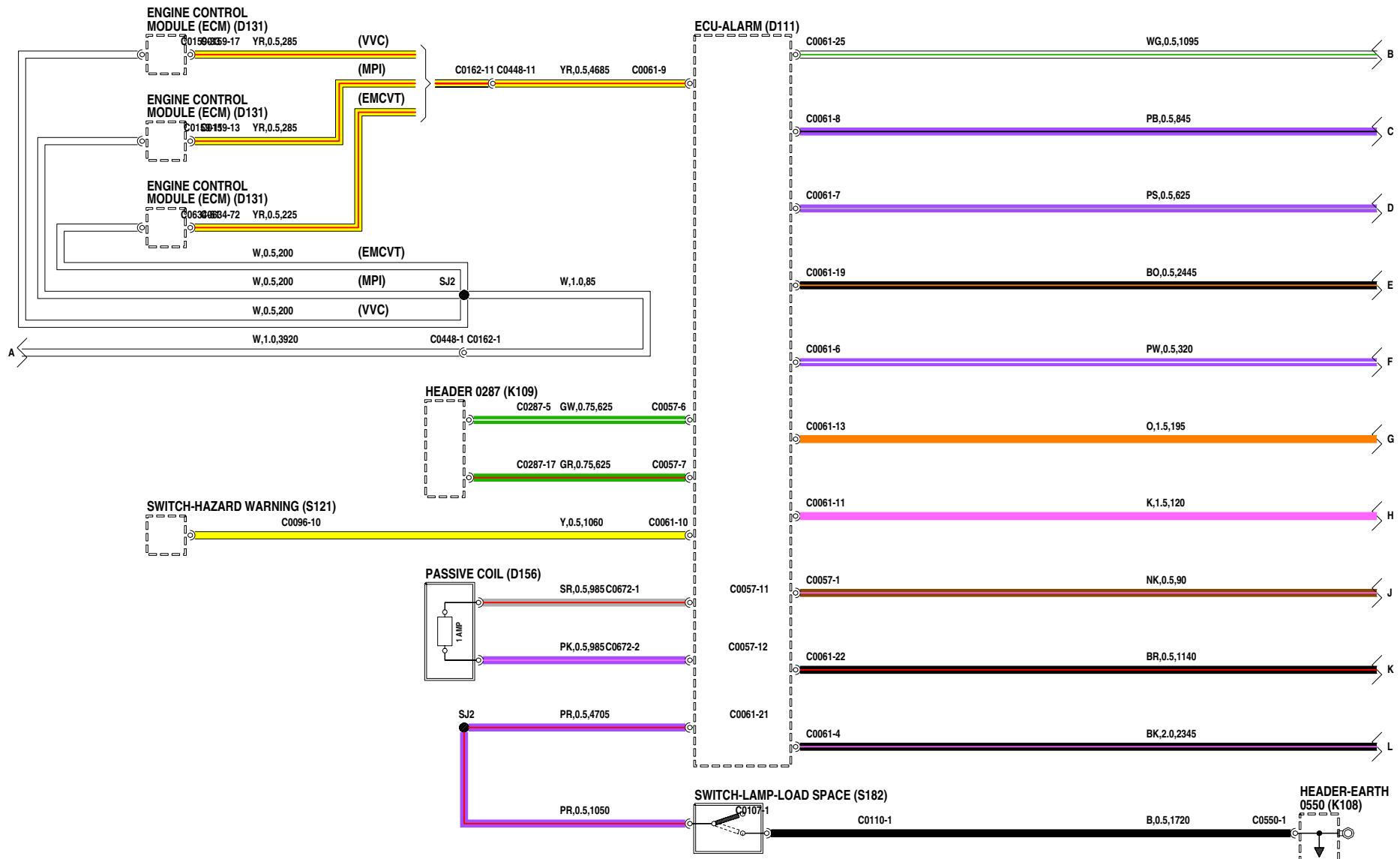
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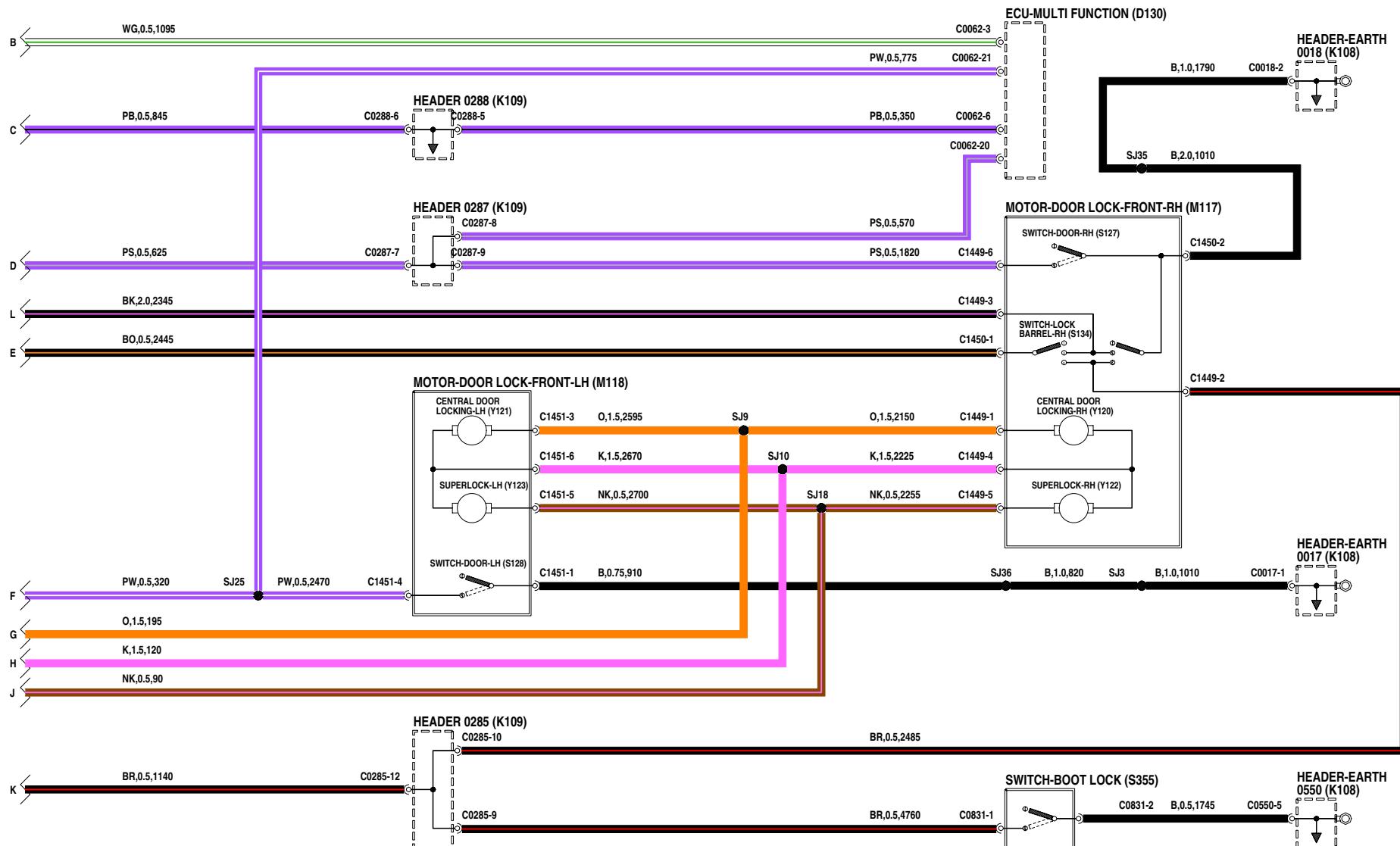
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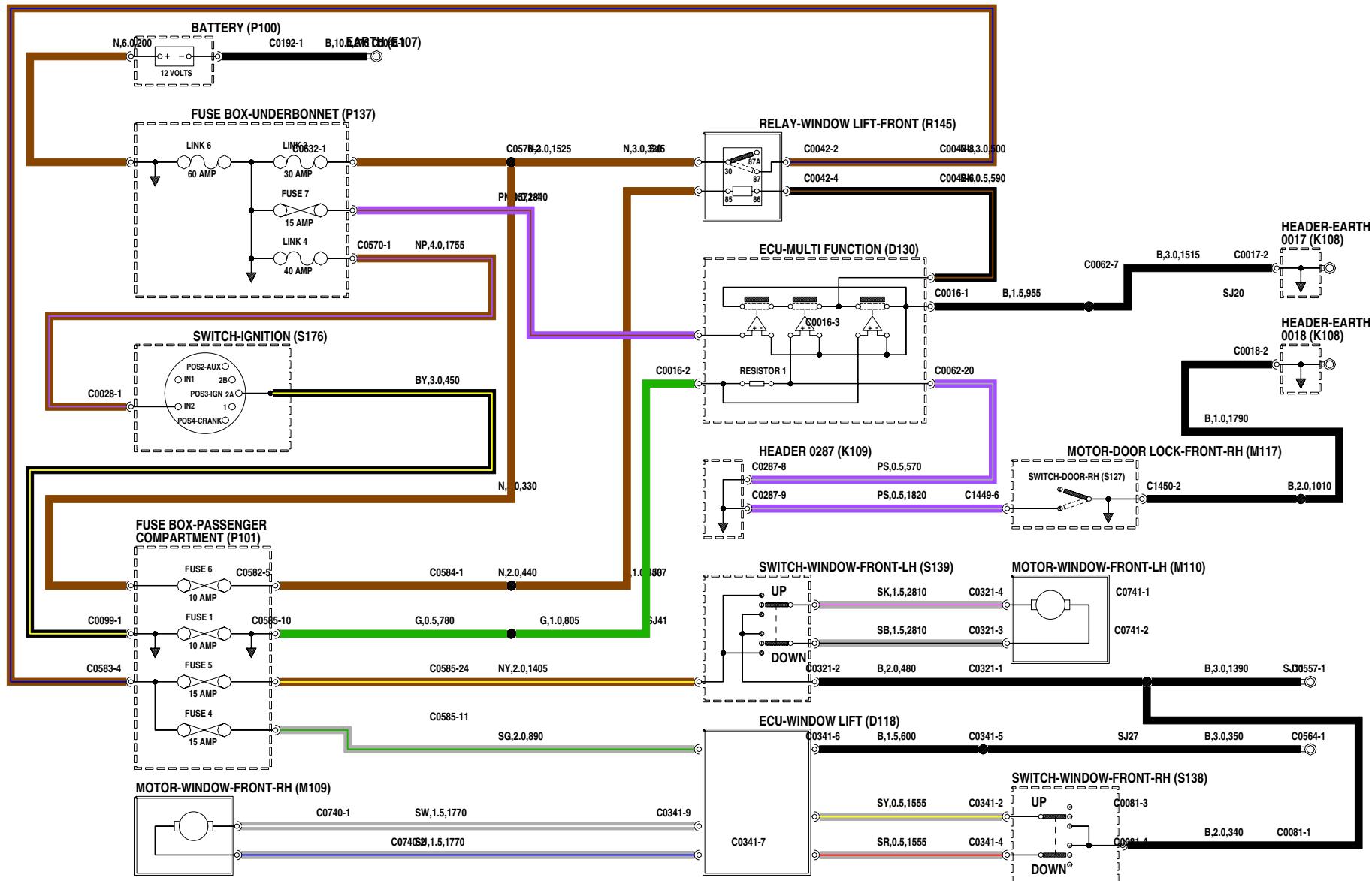
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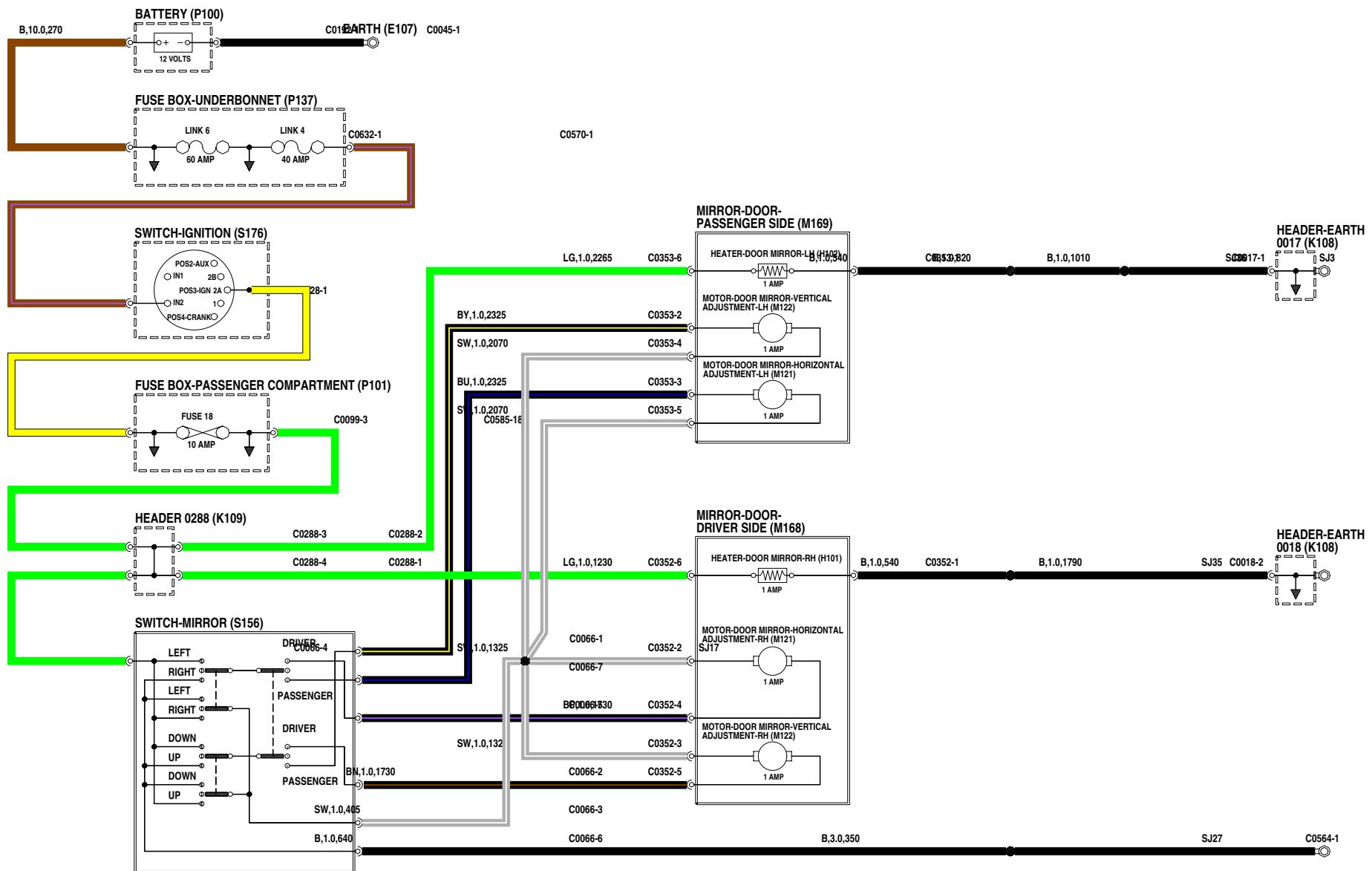
## ANTI-THEFT ALARM AND CENTRAL DOOR LOCKING (CDL)



# WINDOW LIFT

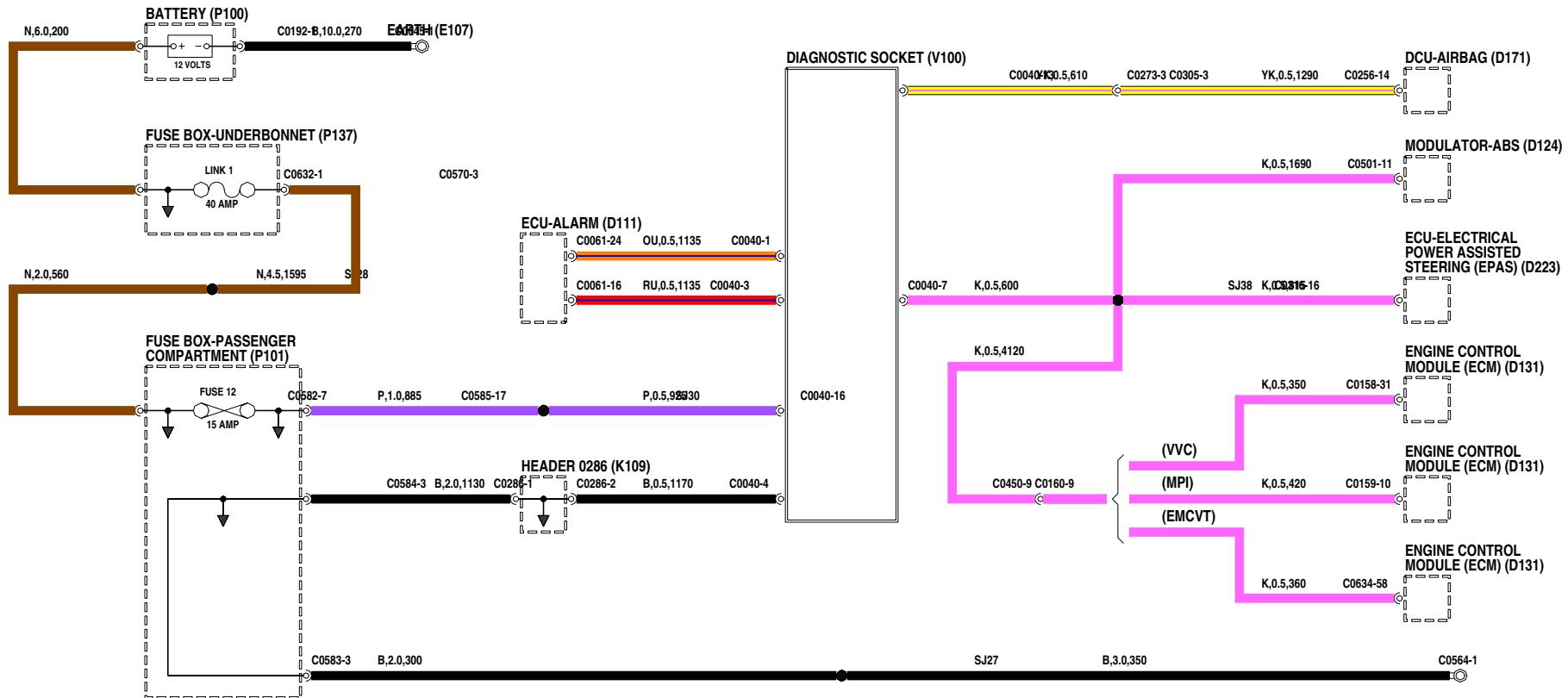


## DOOR MIRRORS

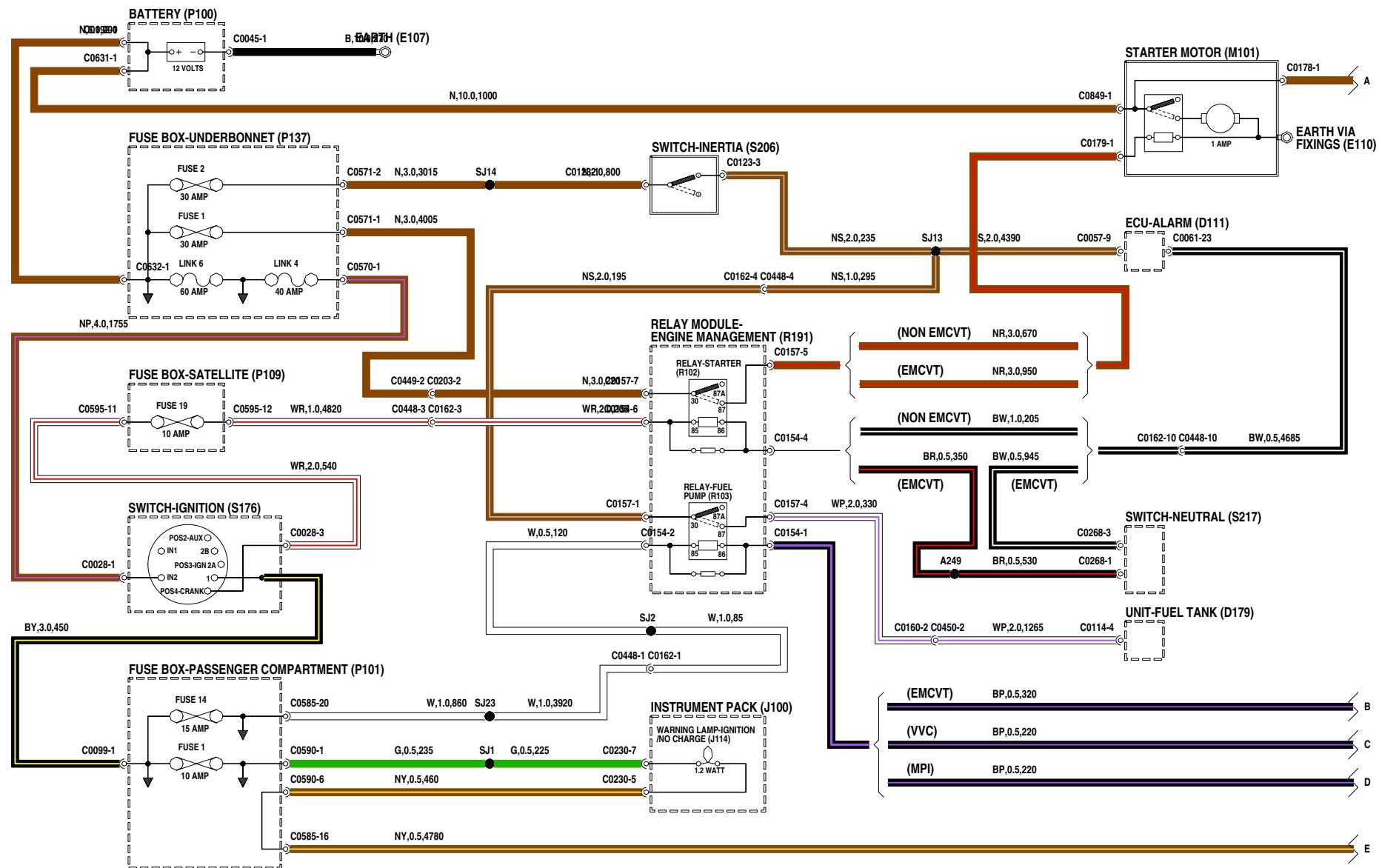


## DIAGNOSTIC SOCKET

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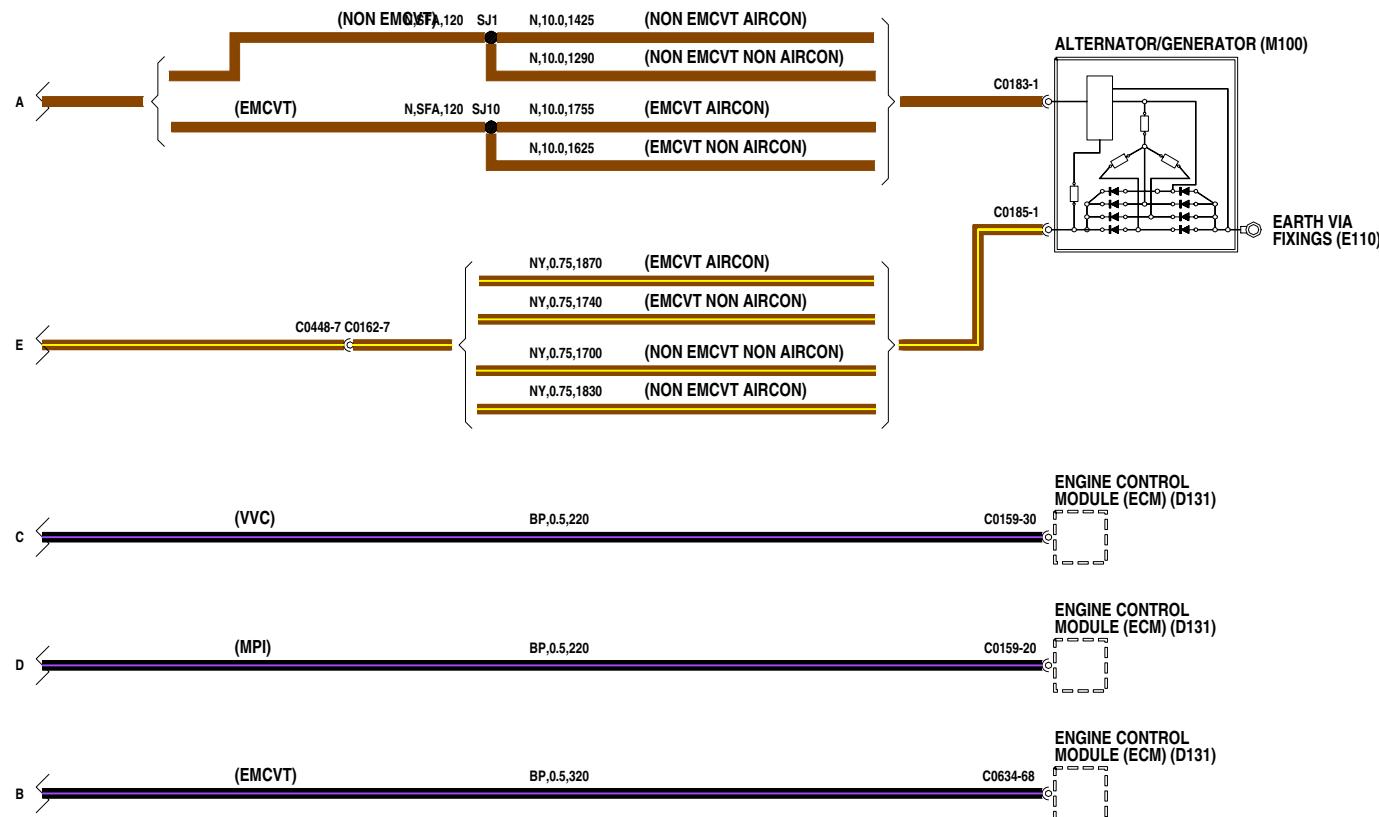


## STARTING AND CHARGING



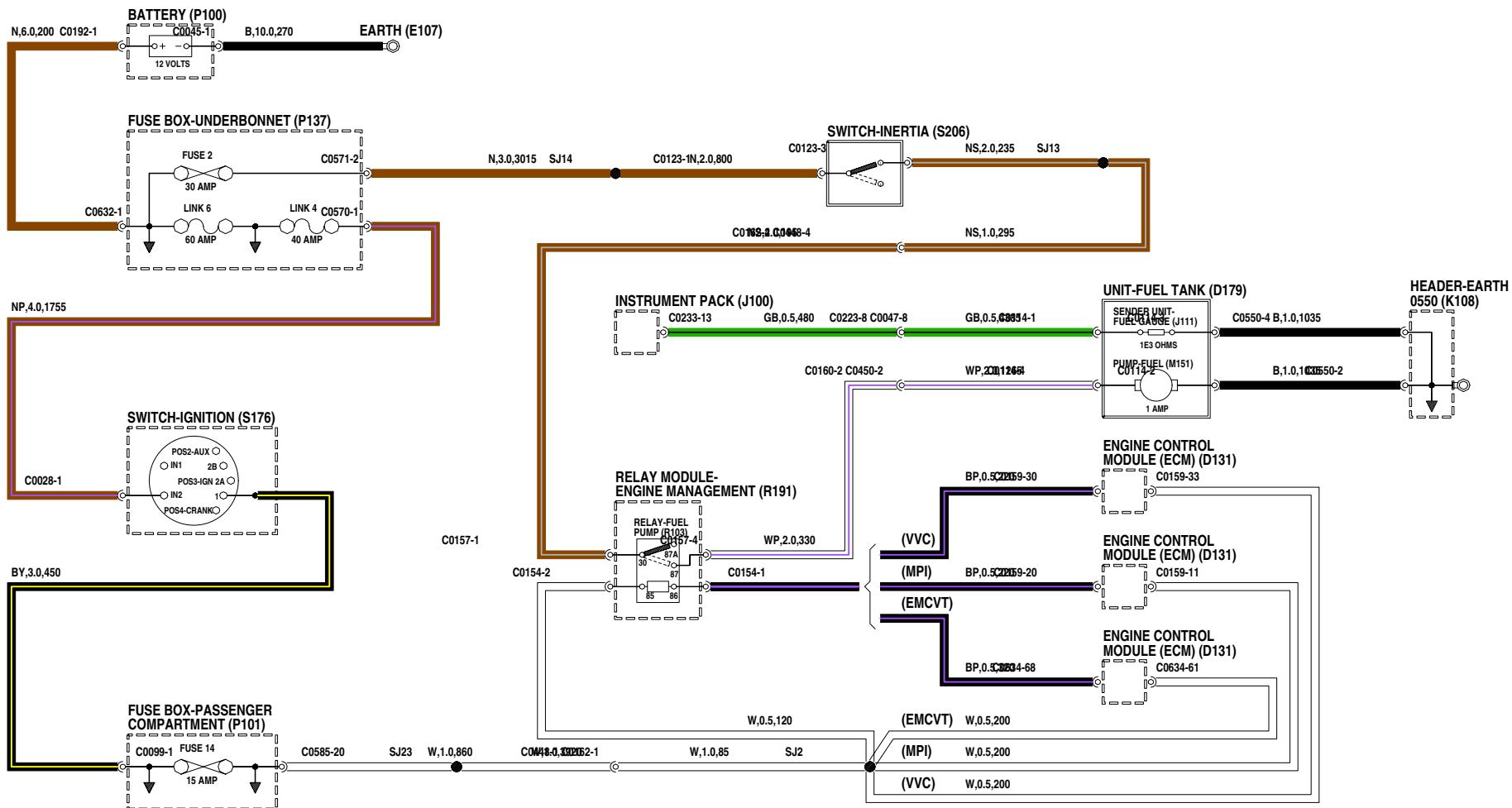
## STARTING AND CHARGING

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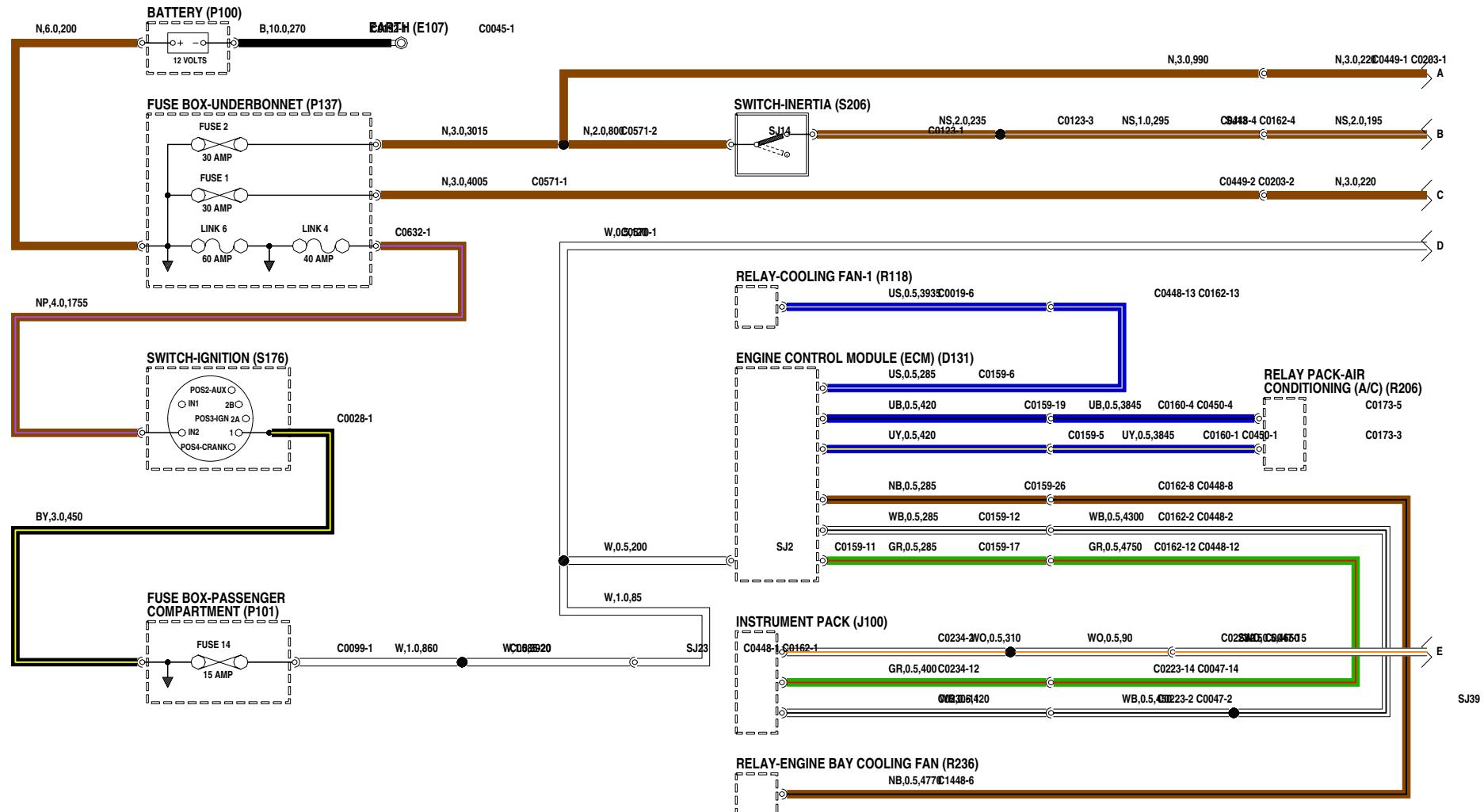
## FUEL PUMP

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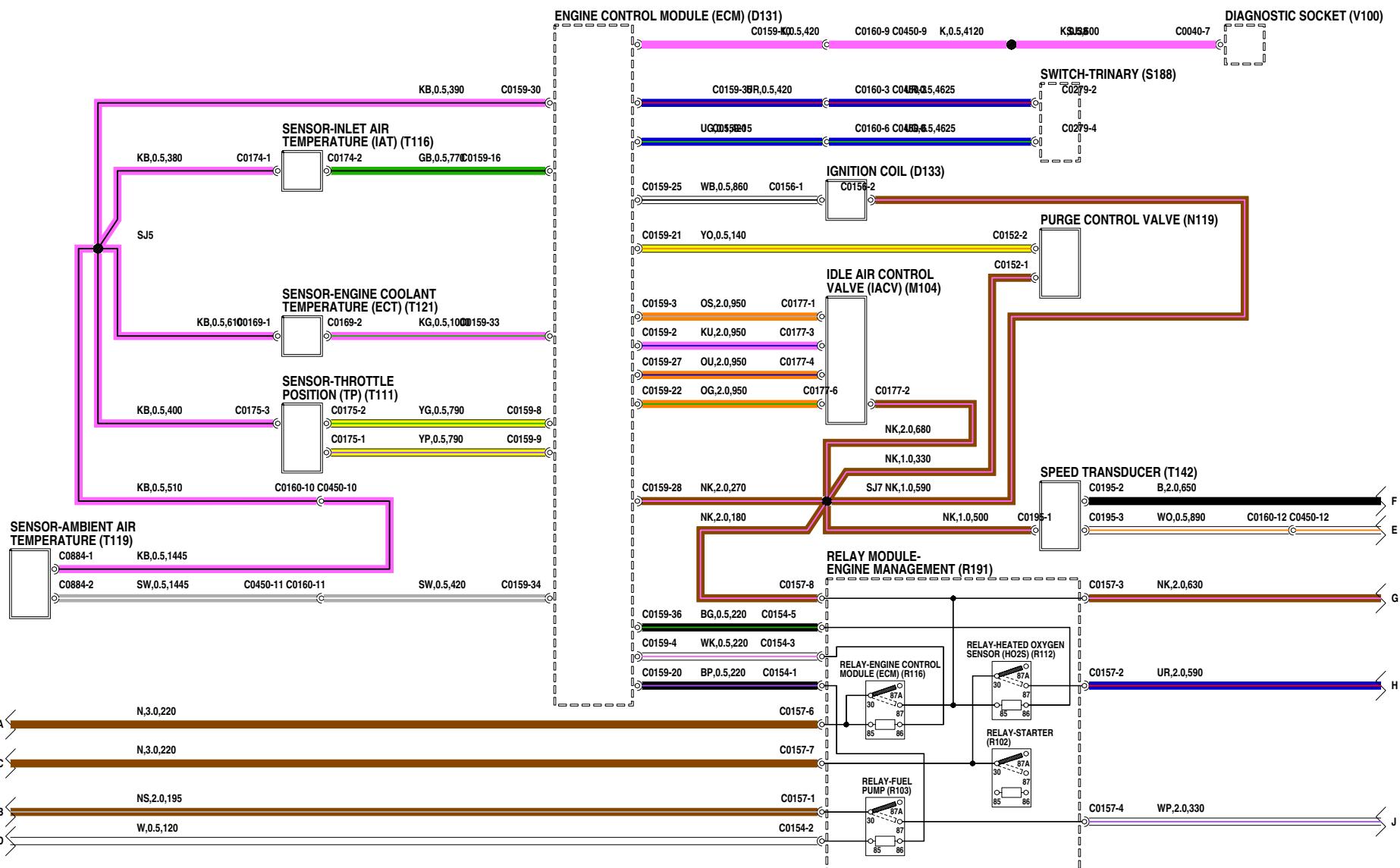
# ENGINE MANAGEMENT

## MPI



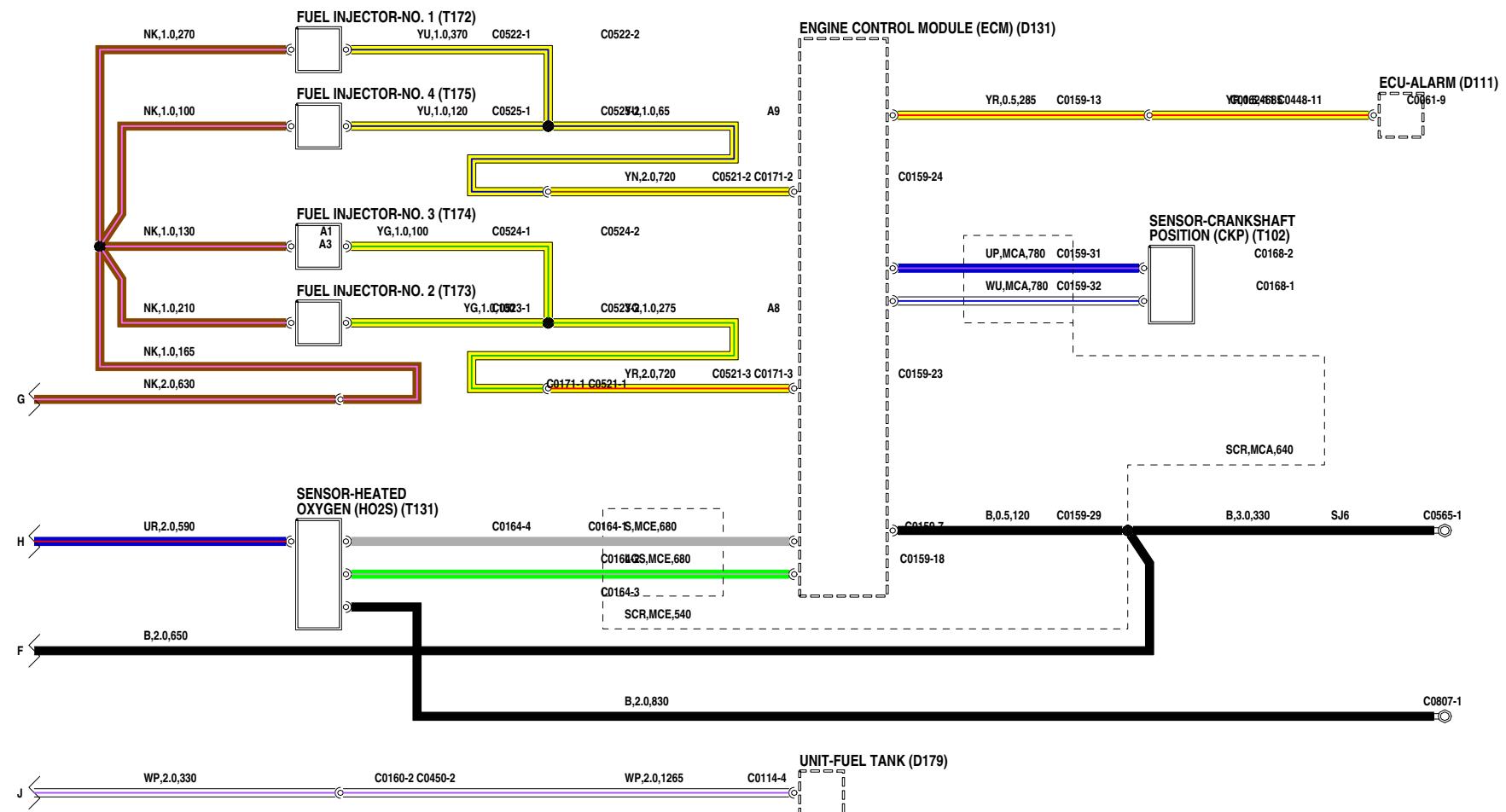
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## MPI



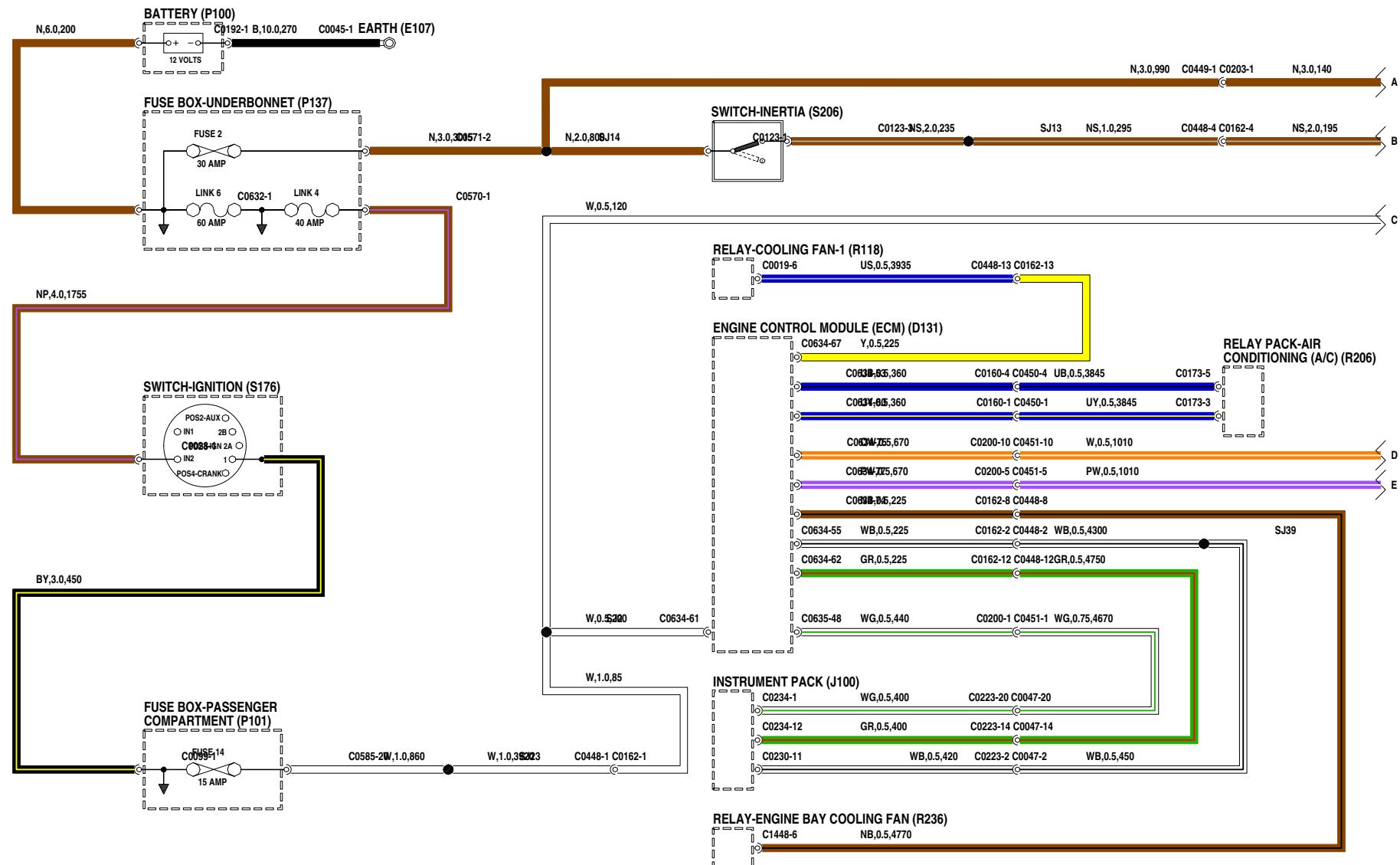
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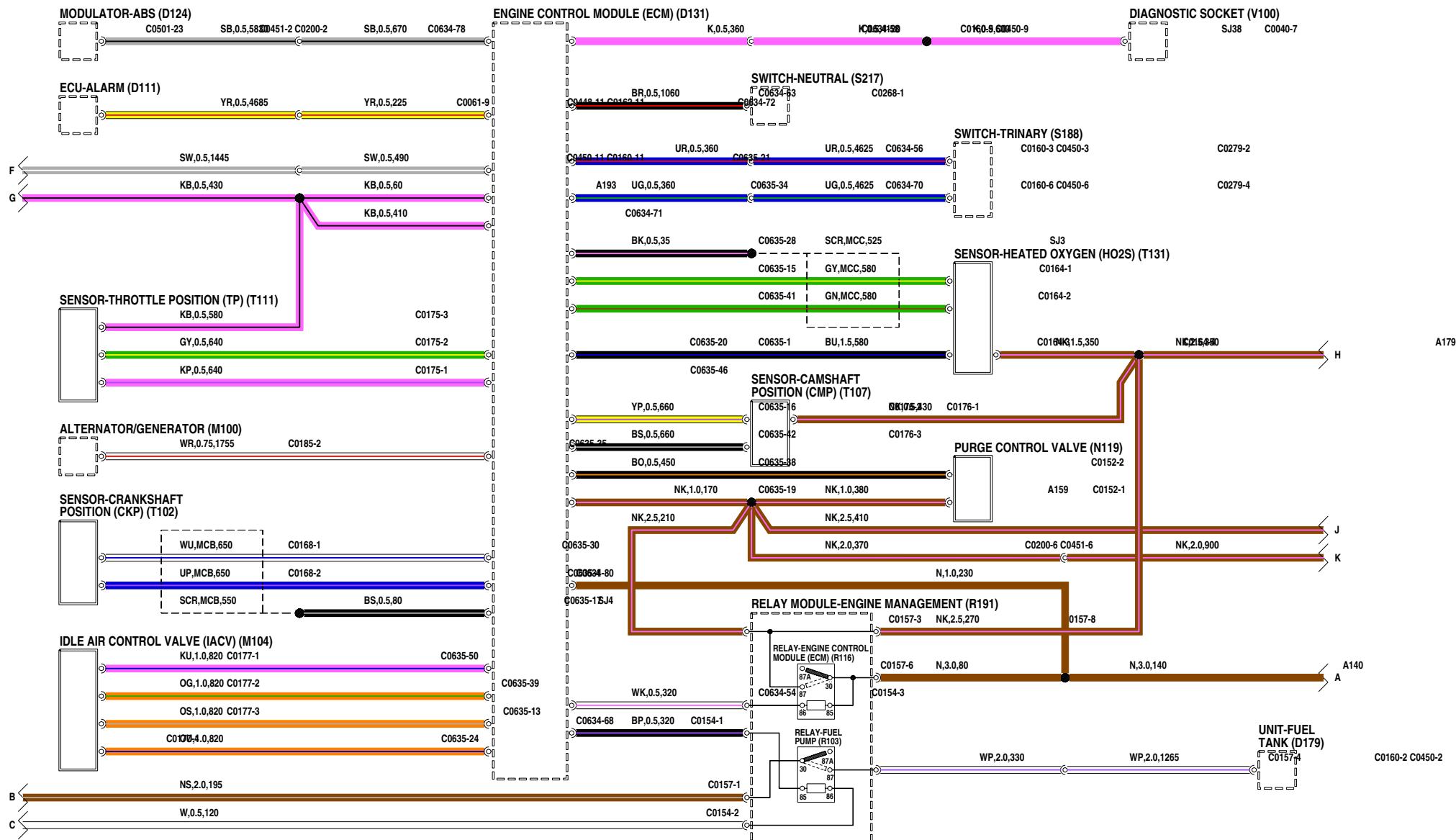
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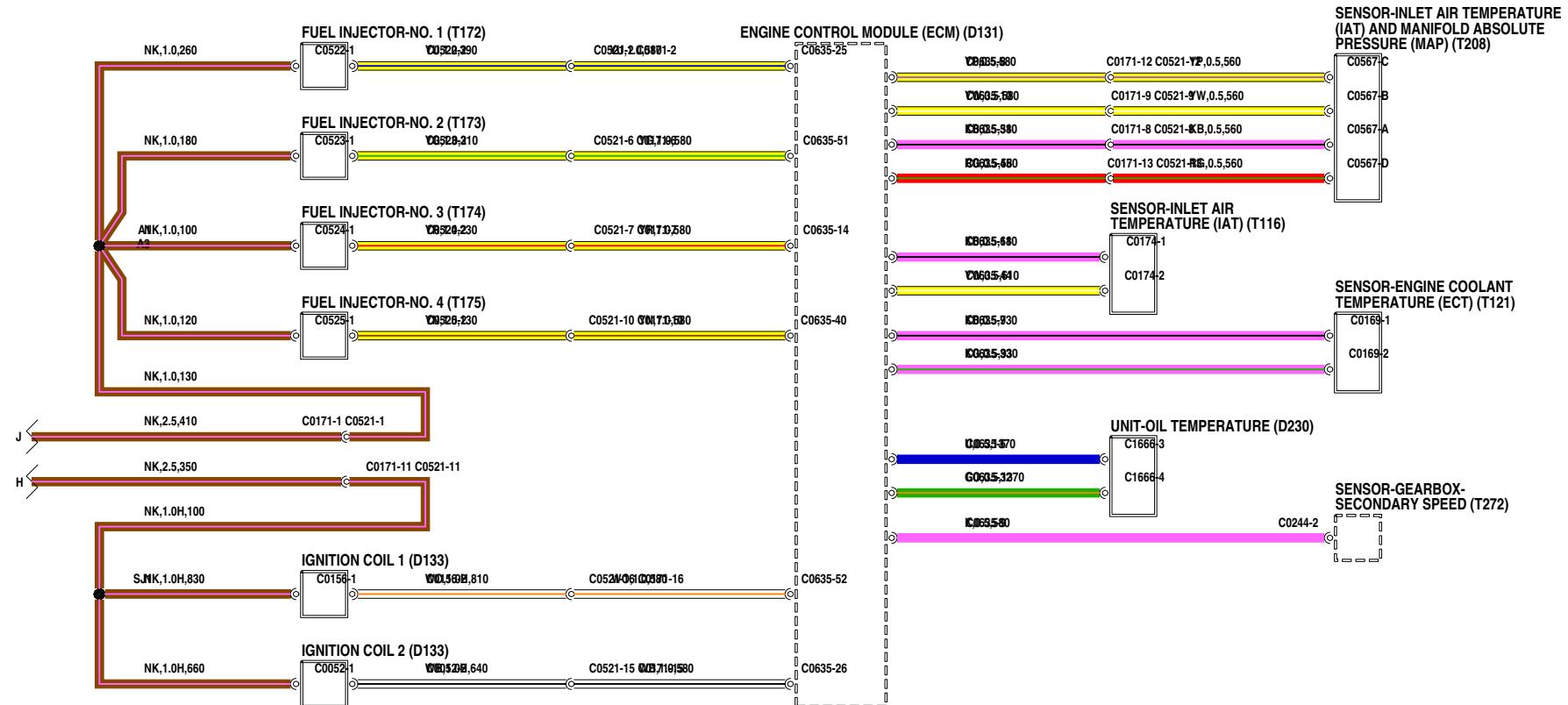
## EMCVT



# ENGINE MANAGEMENT

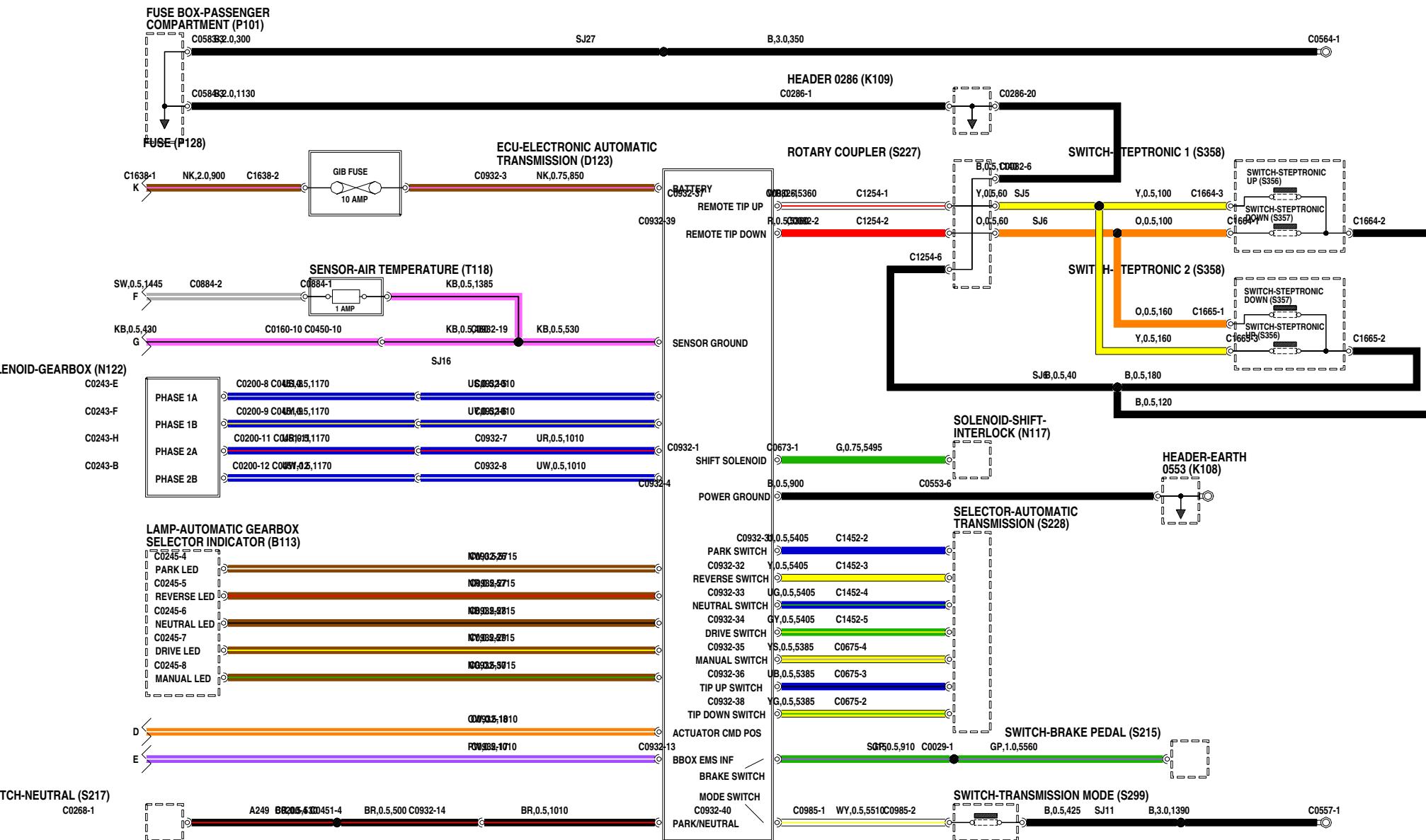
## EMCVT





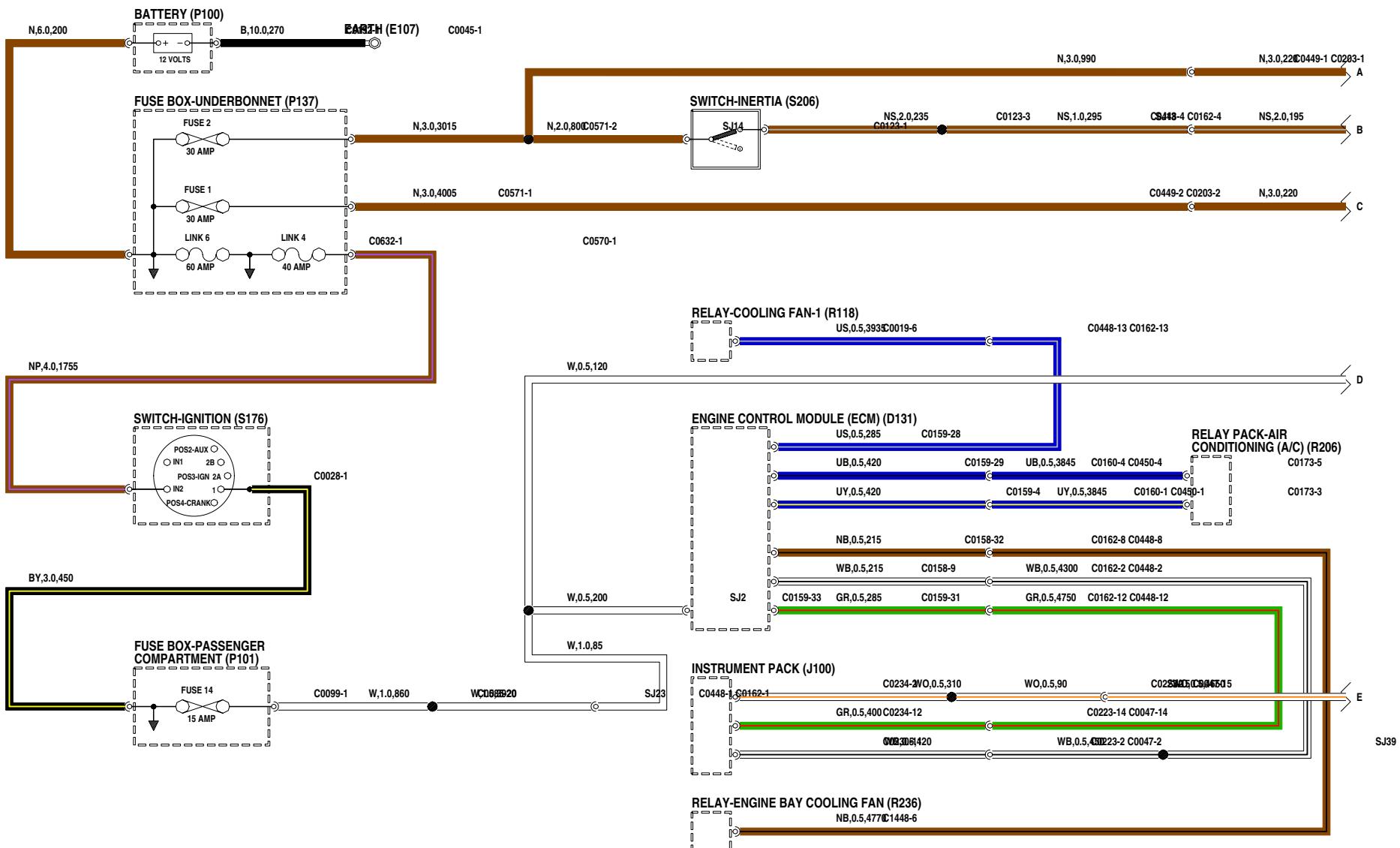
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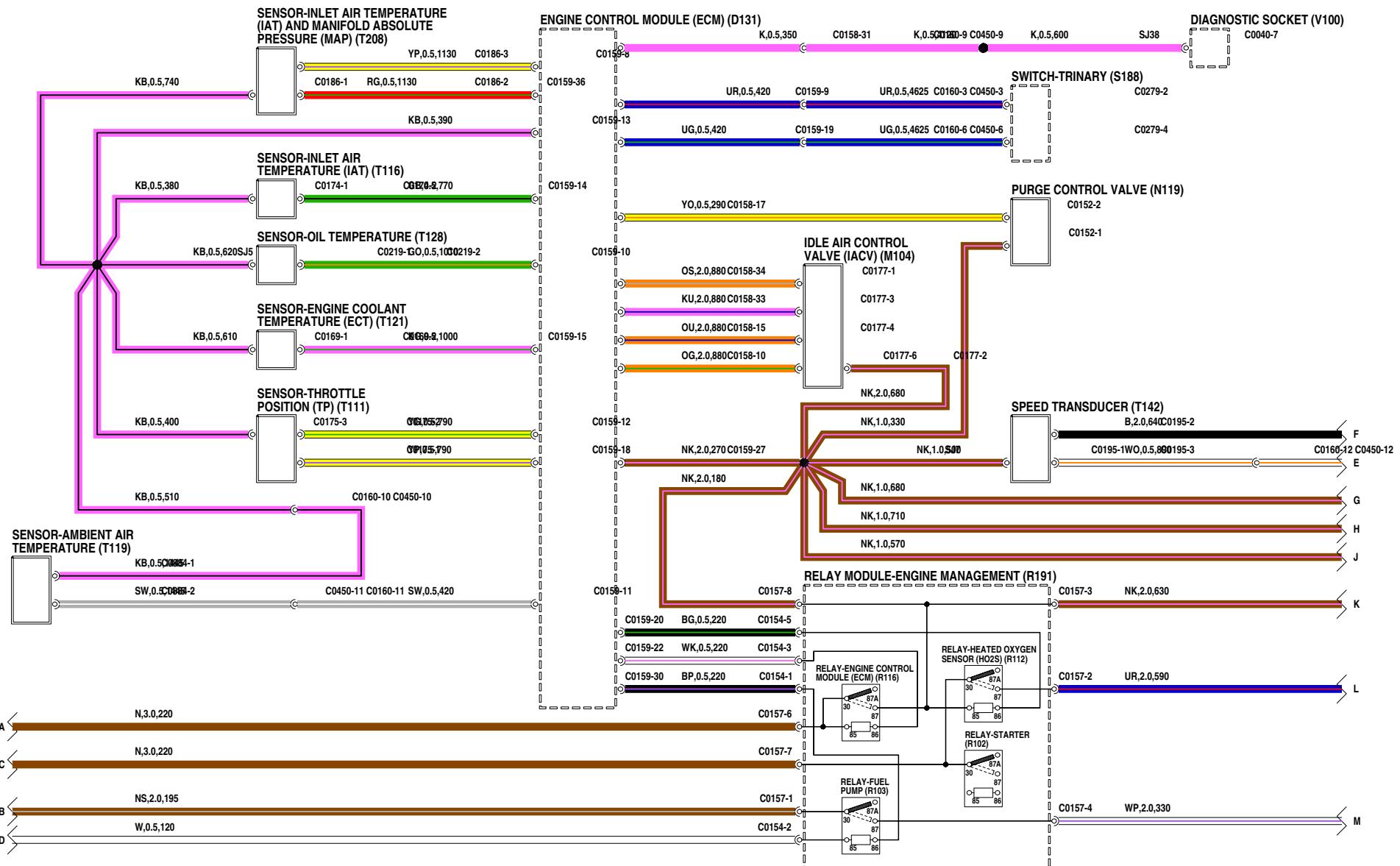
# ENGINE MANAGEMENT

## VVC



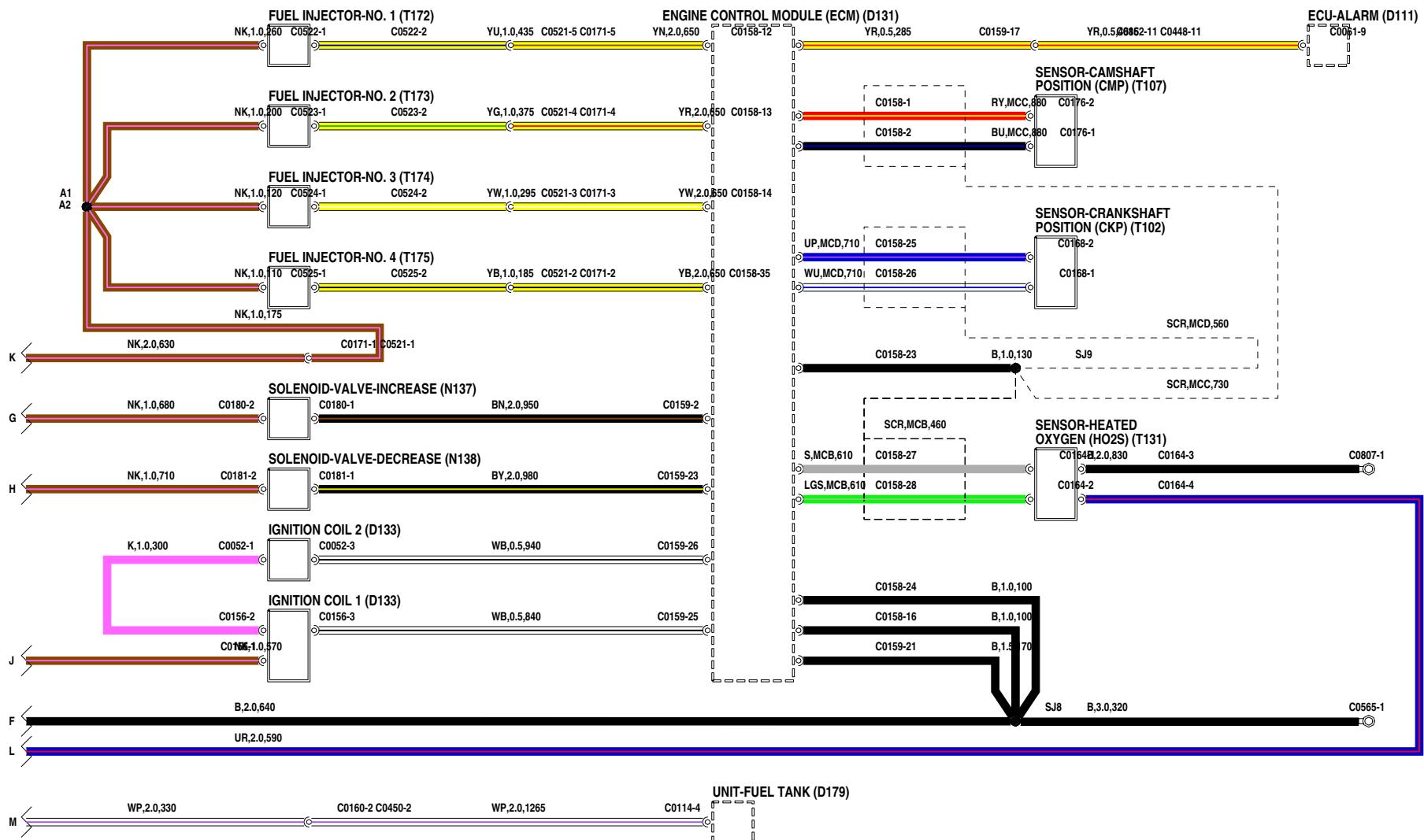
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## VVC



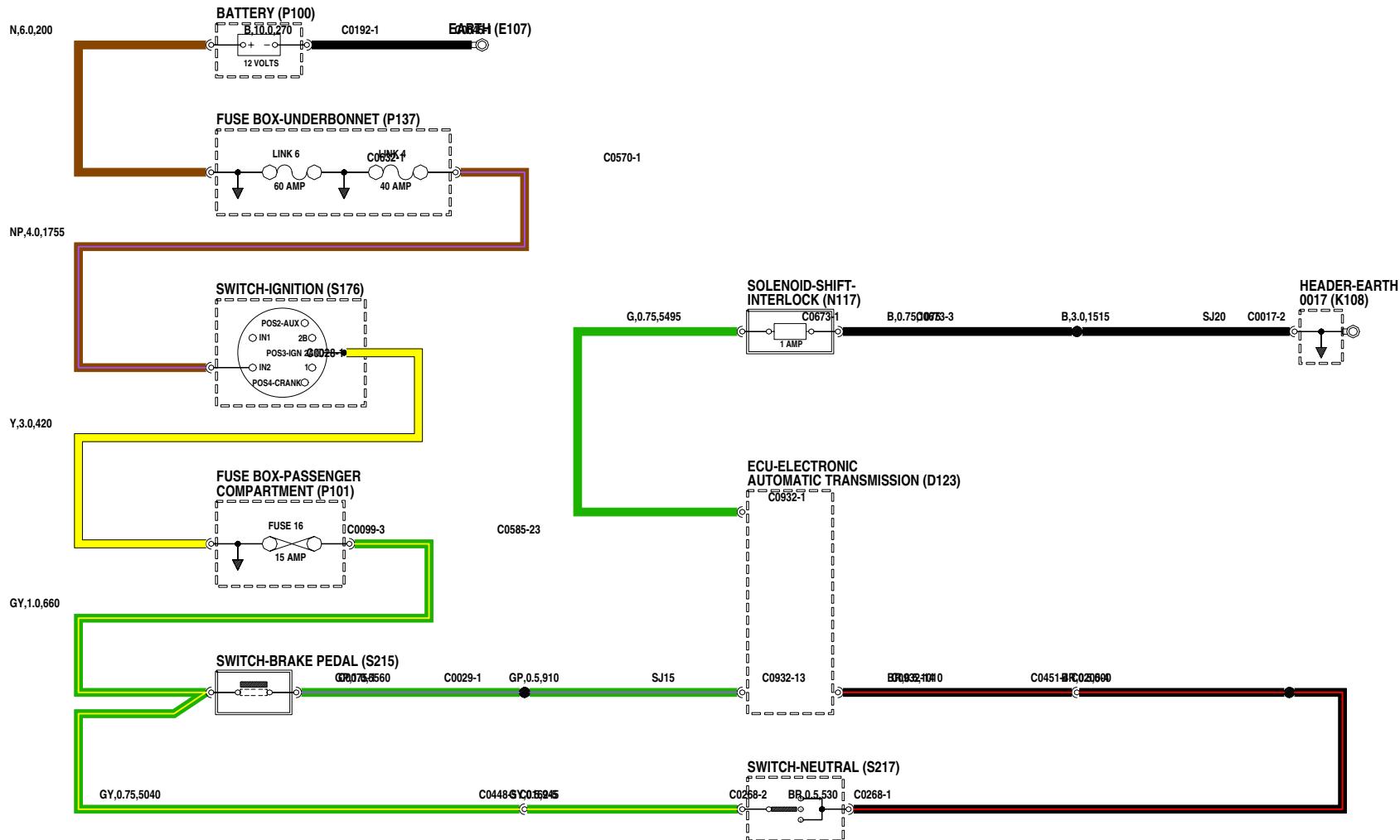
# ENGINE MANAGEMENT

## VVC

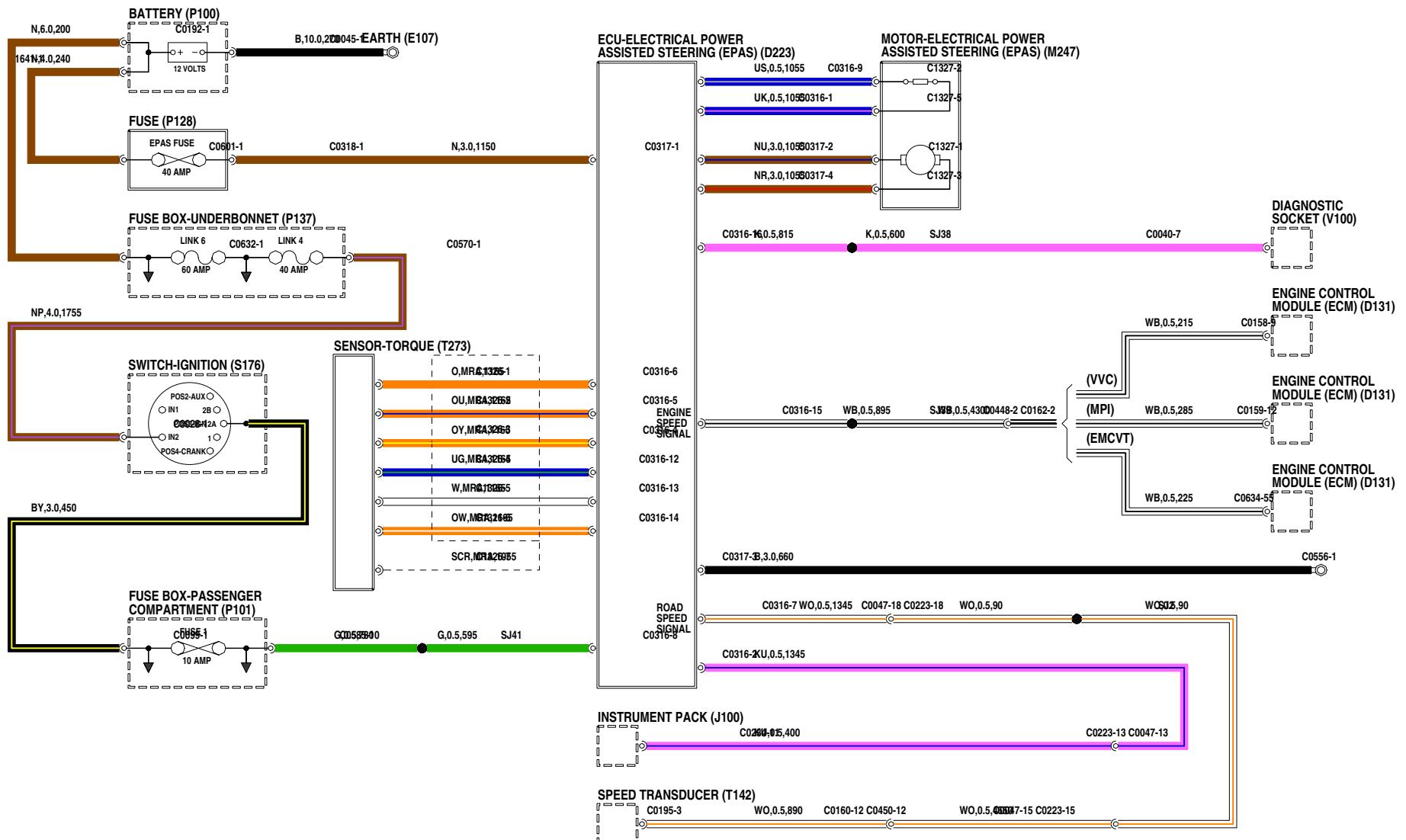


## SHIFT INTERLOCK

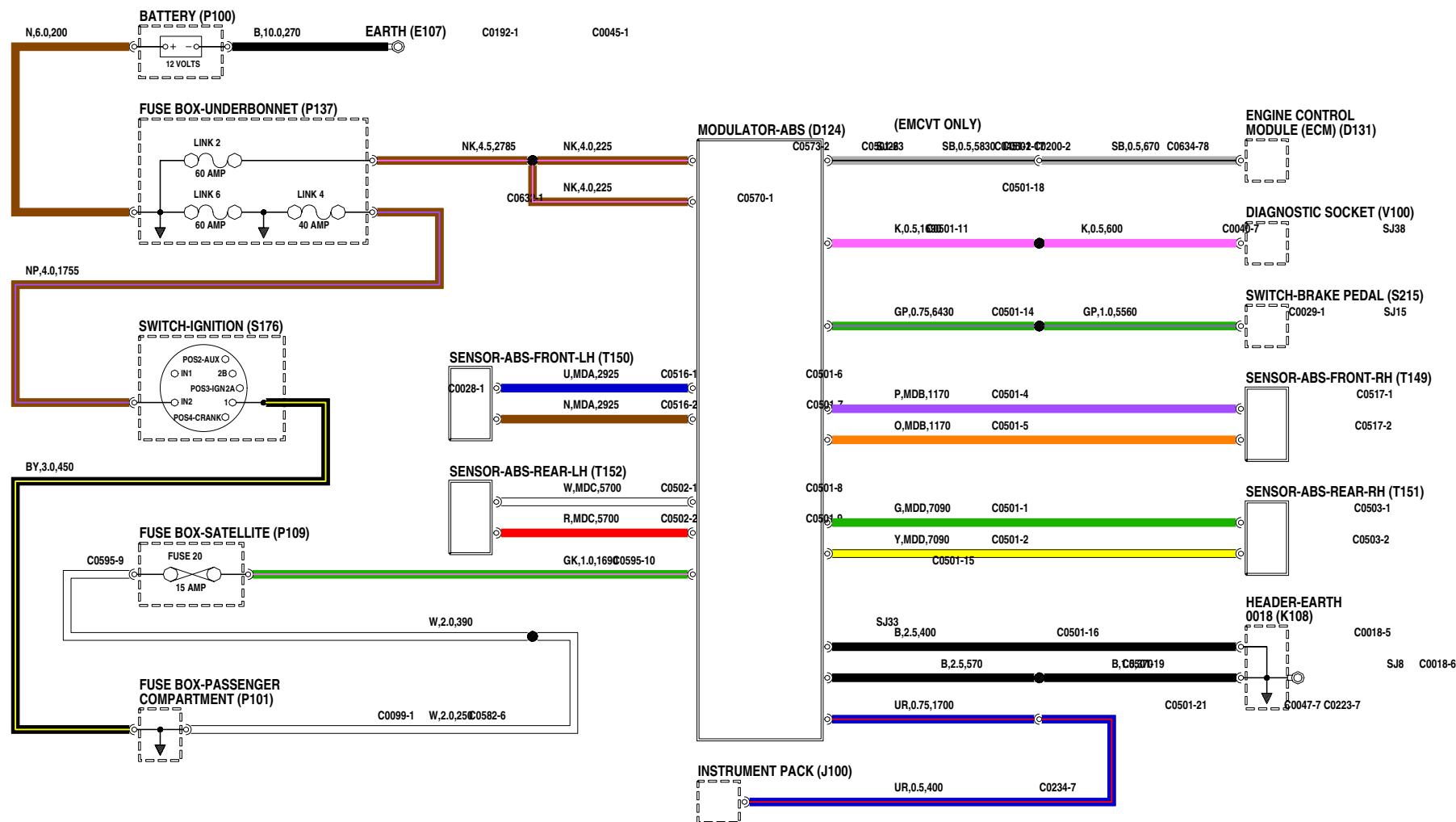
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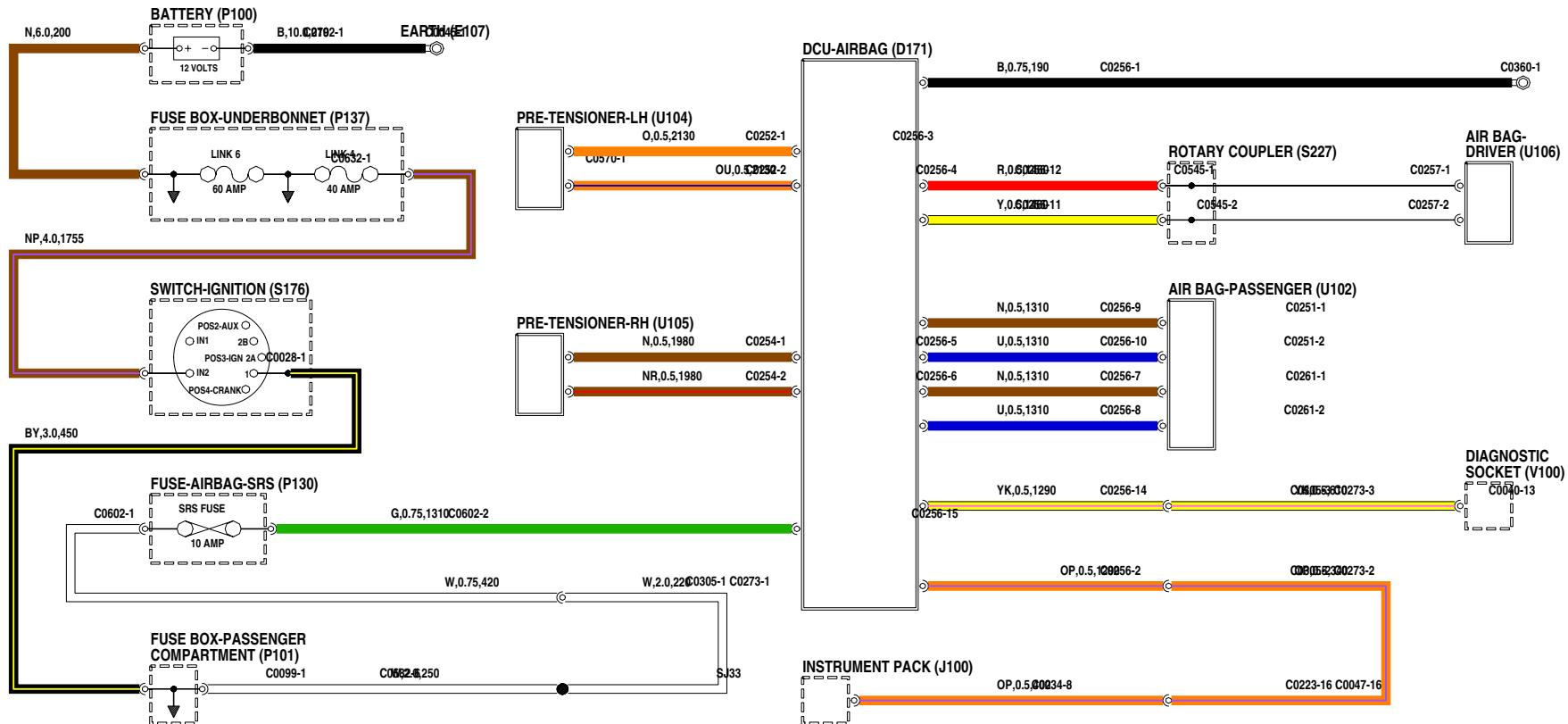
# ELECTRIC POWER ASSISTED STEERING (EPAS)



## ANTI-LOCK BRAKING SYSTEM (ABS)

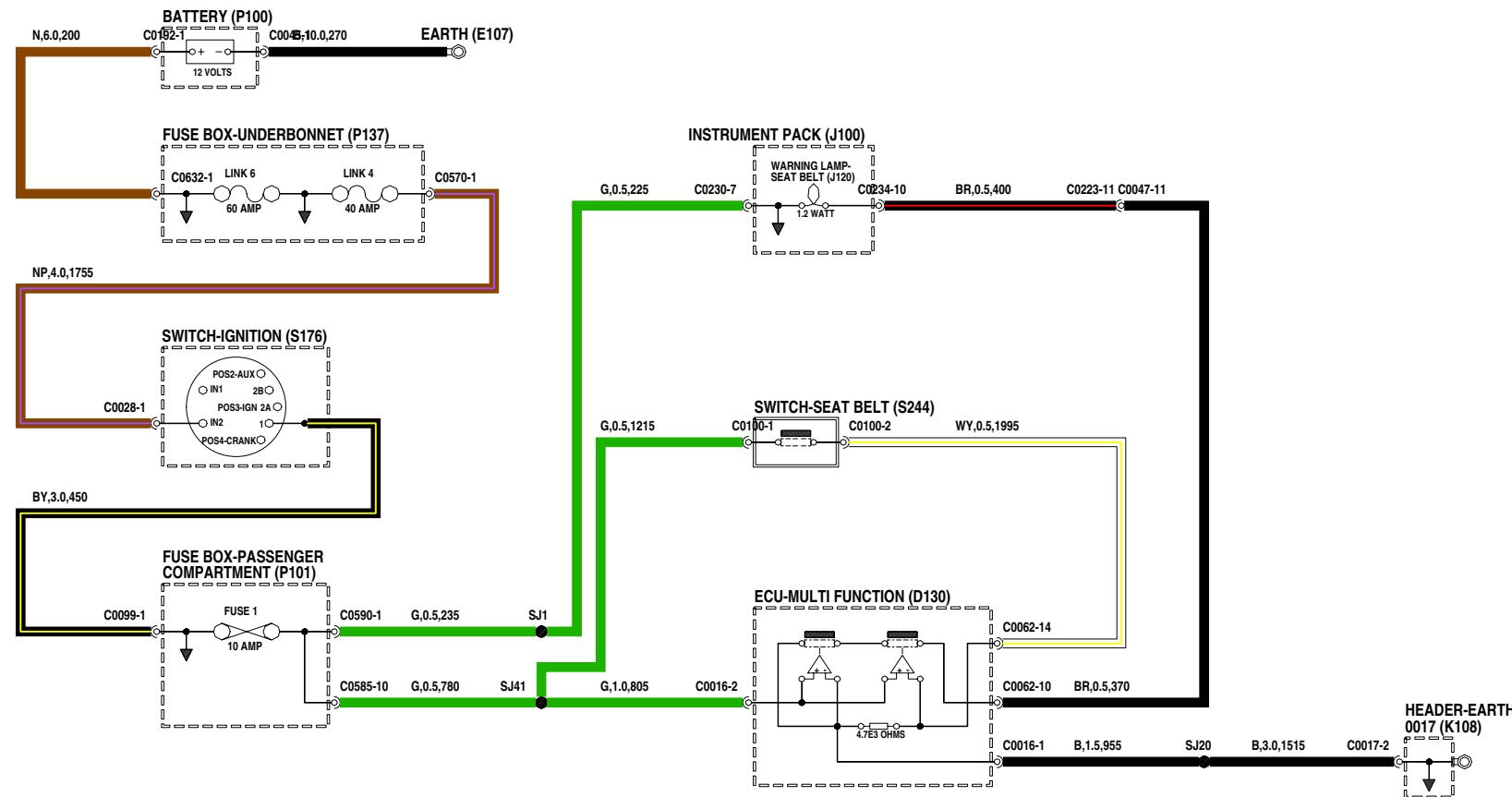


## SUPPLEMENTARY RESTRAINT SYSTEM (SRS)

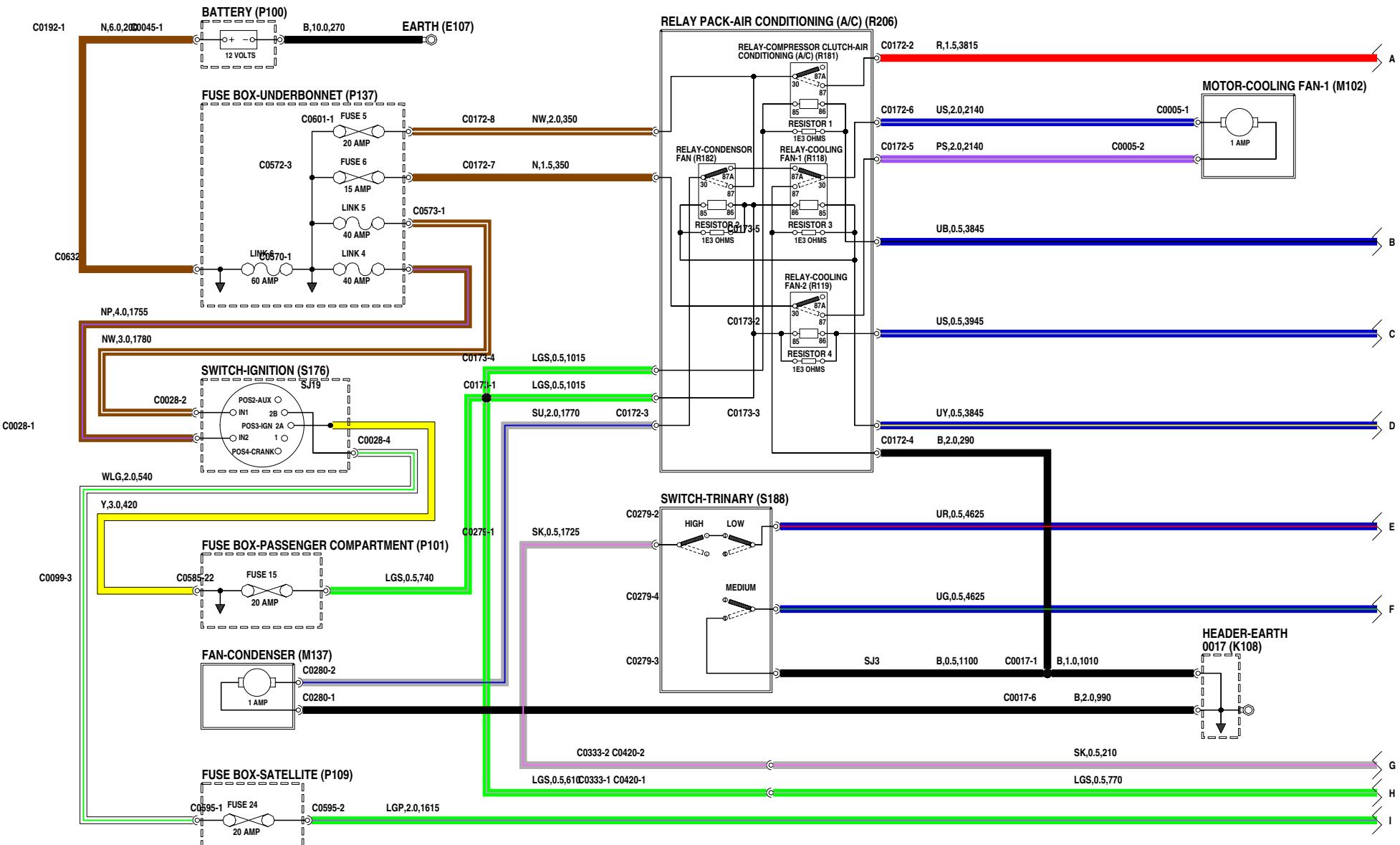


## SEAT BELT WARNING

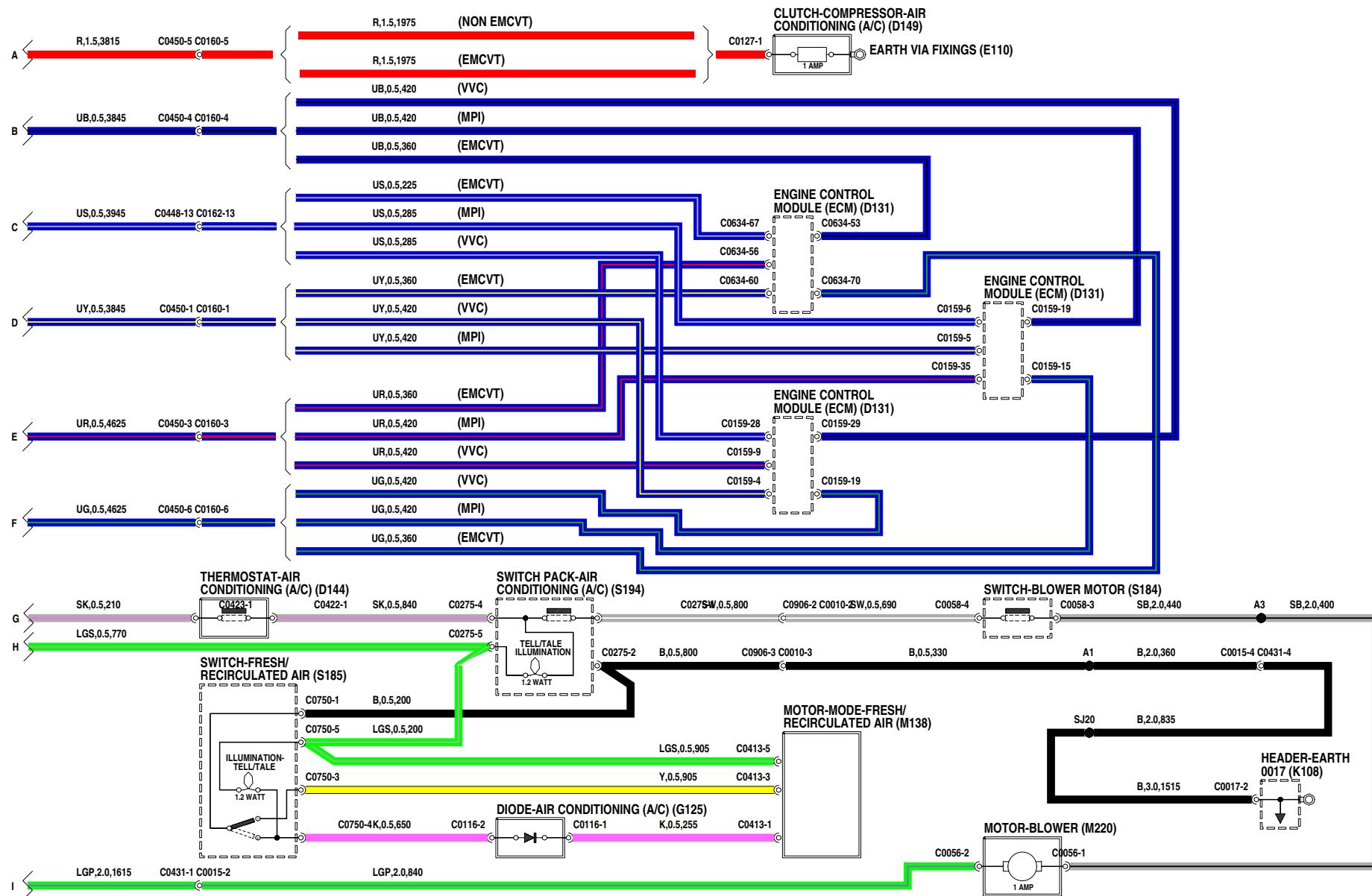
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## AIR CONDITIONING (A/C)

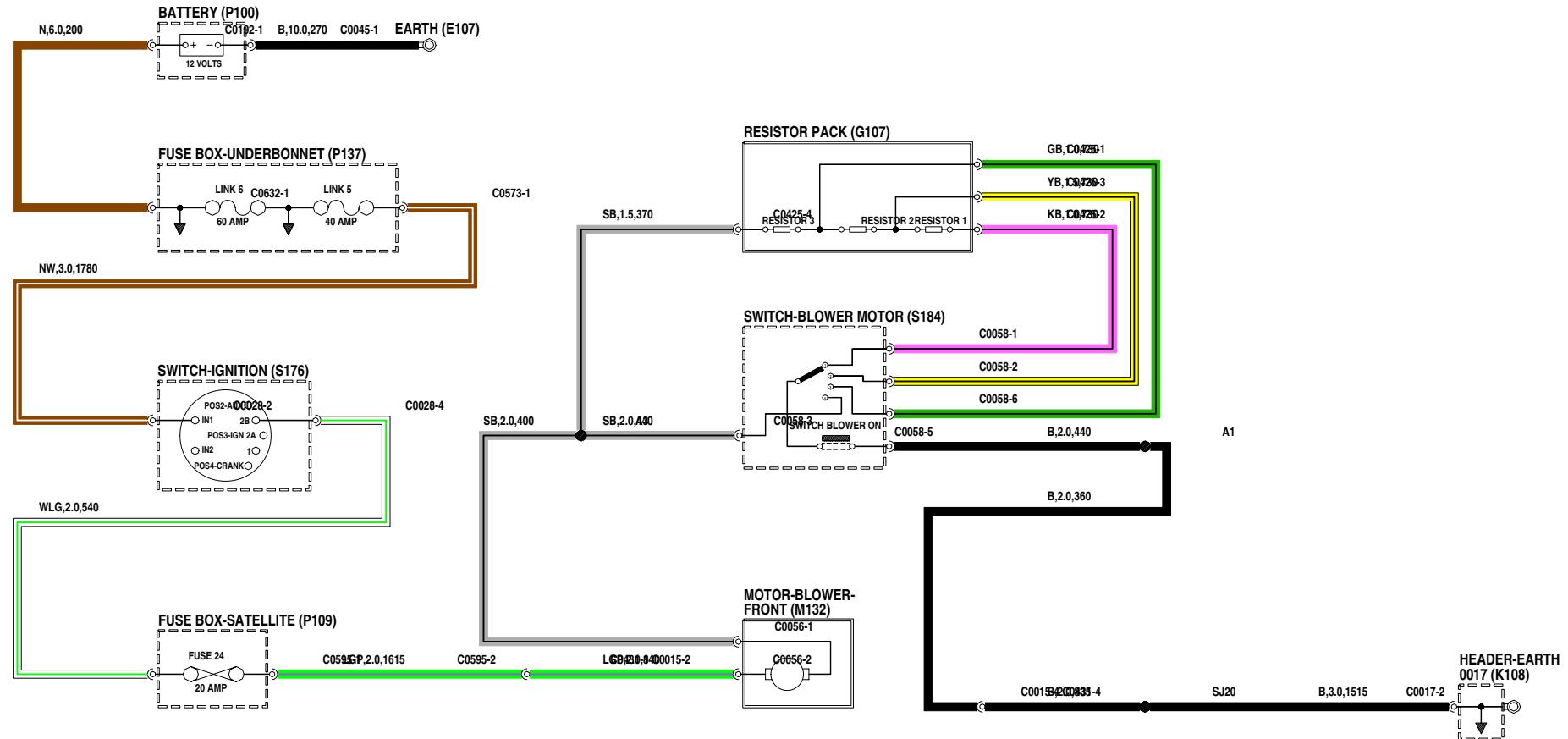


## AIR CONDITIONING (A/C)

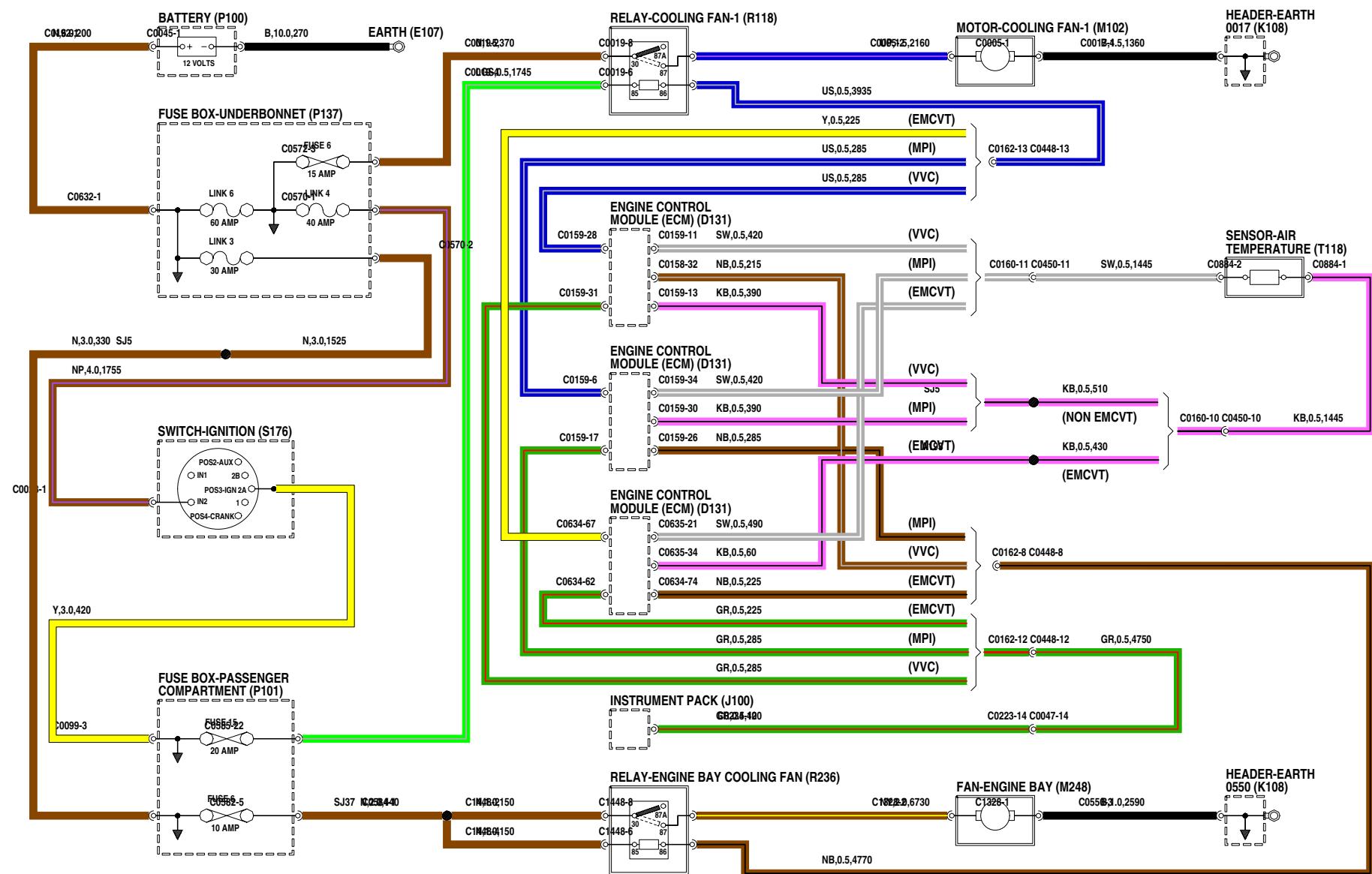


## HEATER BLOWER

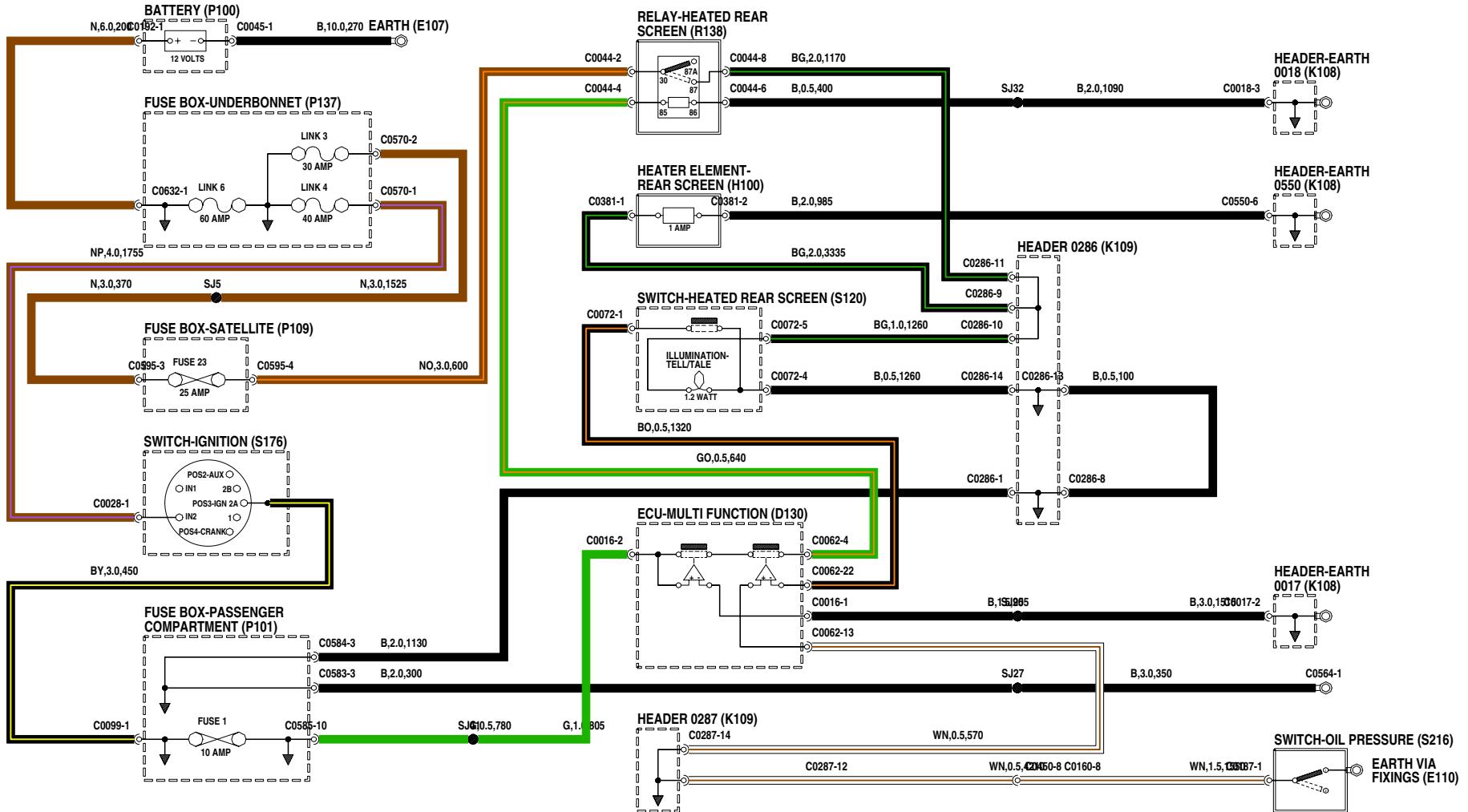
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## COOLING FANS

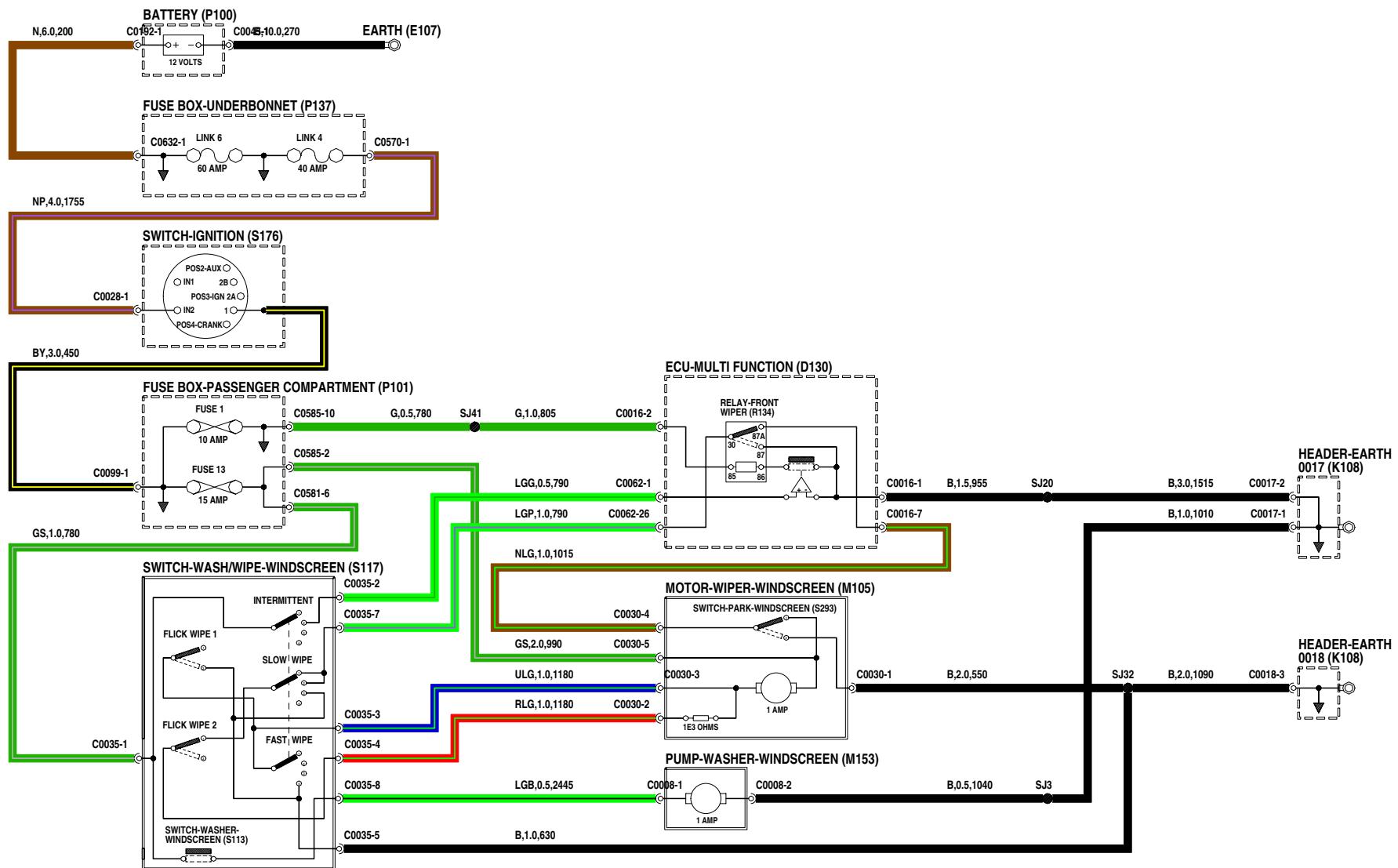


## HEATED REAR WINDOW (HRW)



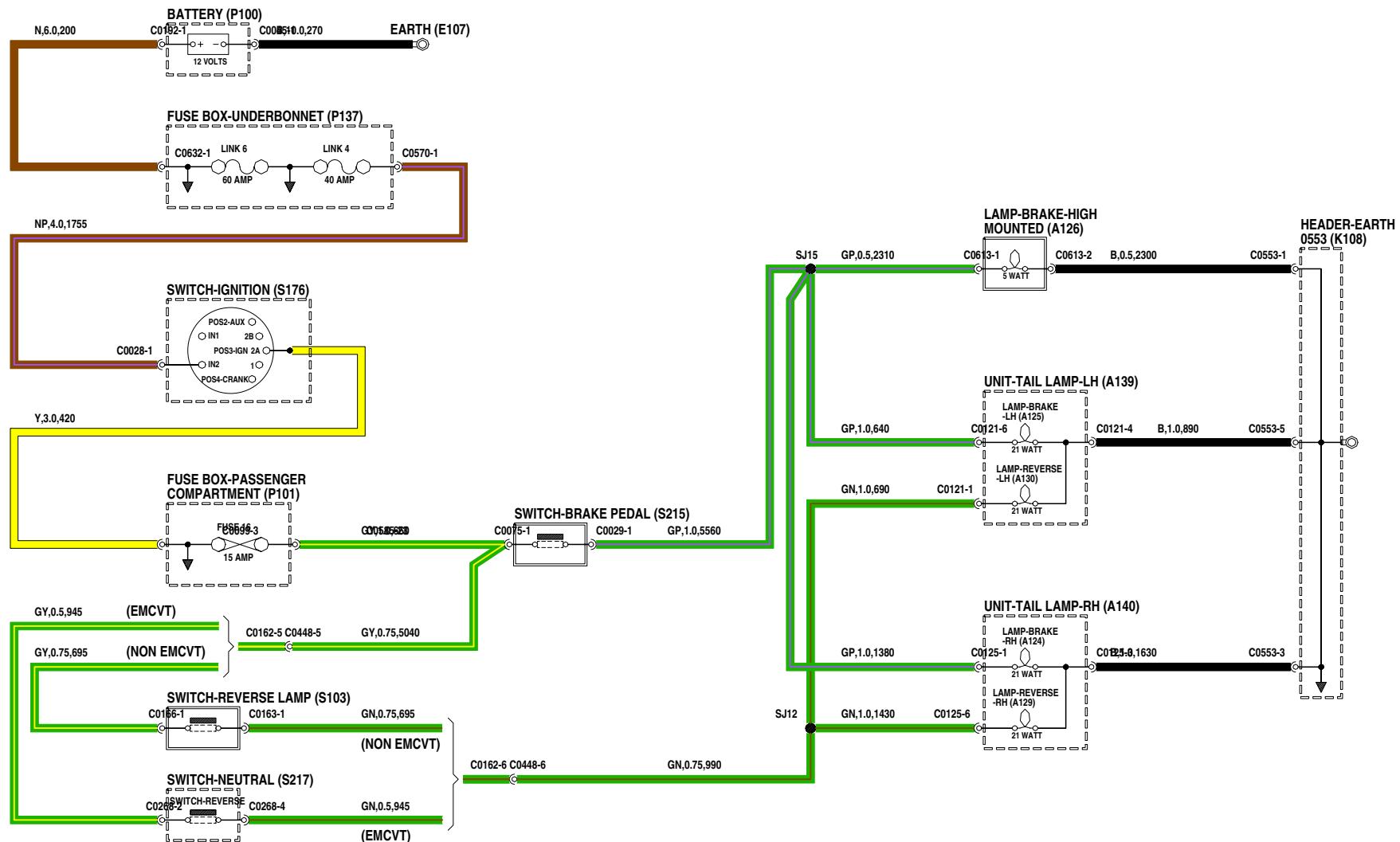
## WIPERS AND WASHERS

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# EXTERIOR LAMPS

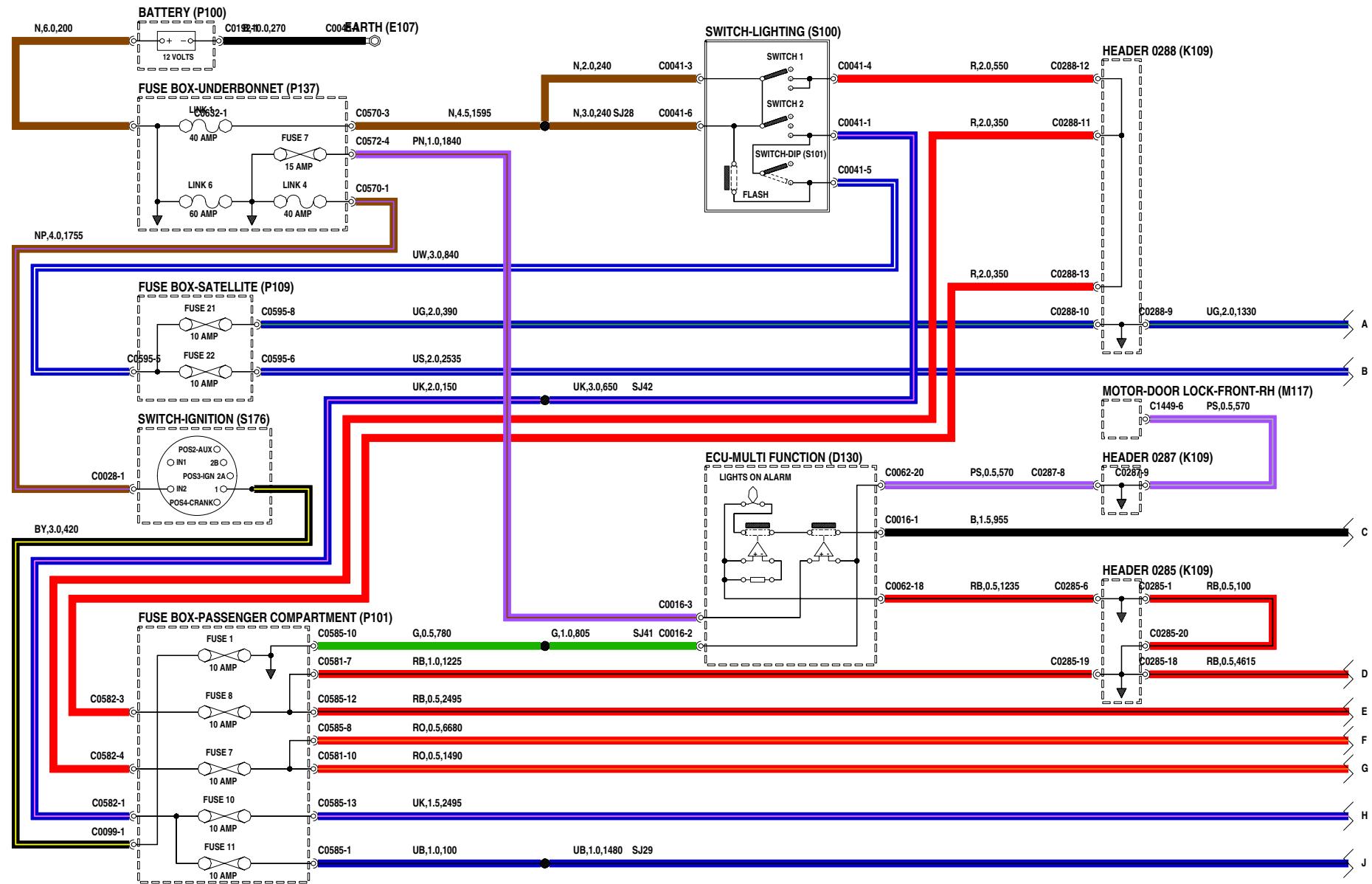
## BRAKE AND REVERSE LAMPS





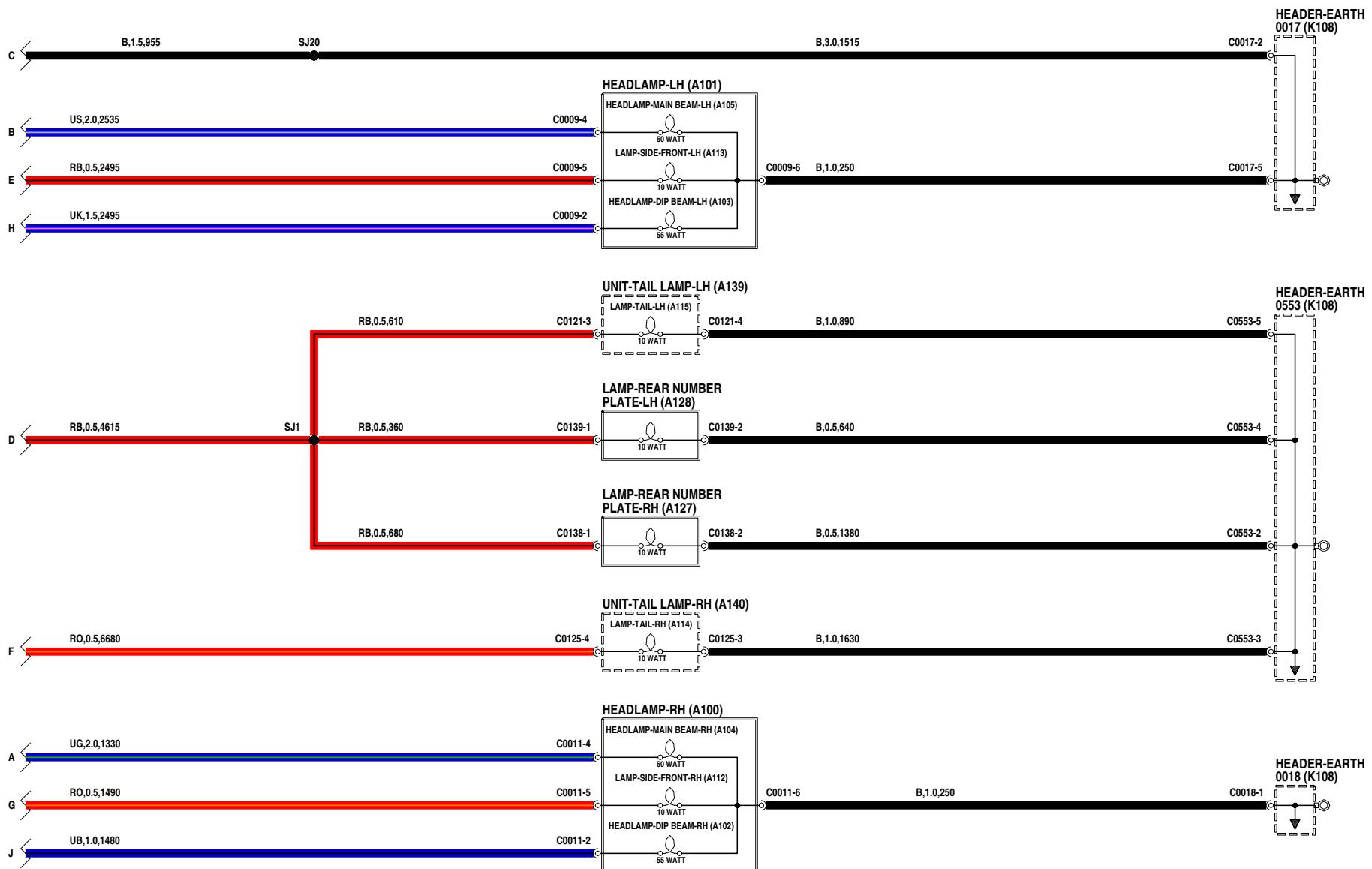
# EXTERIOR LAMPS

## HEAD, SIDE AND TAIL LAMPS



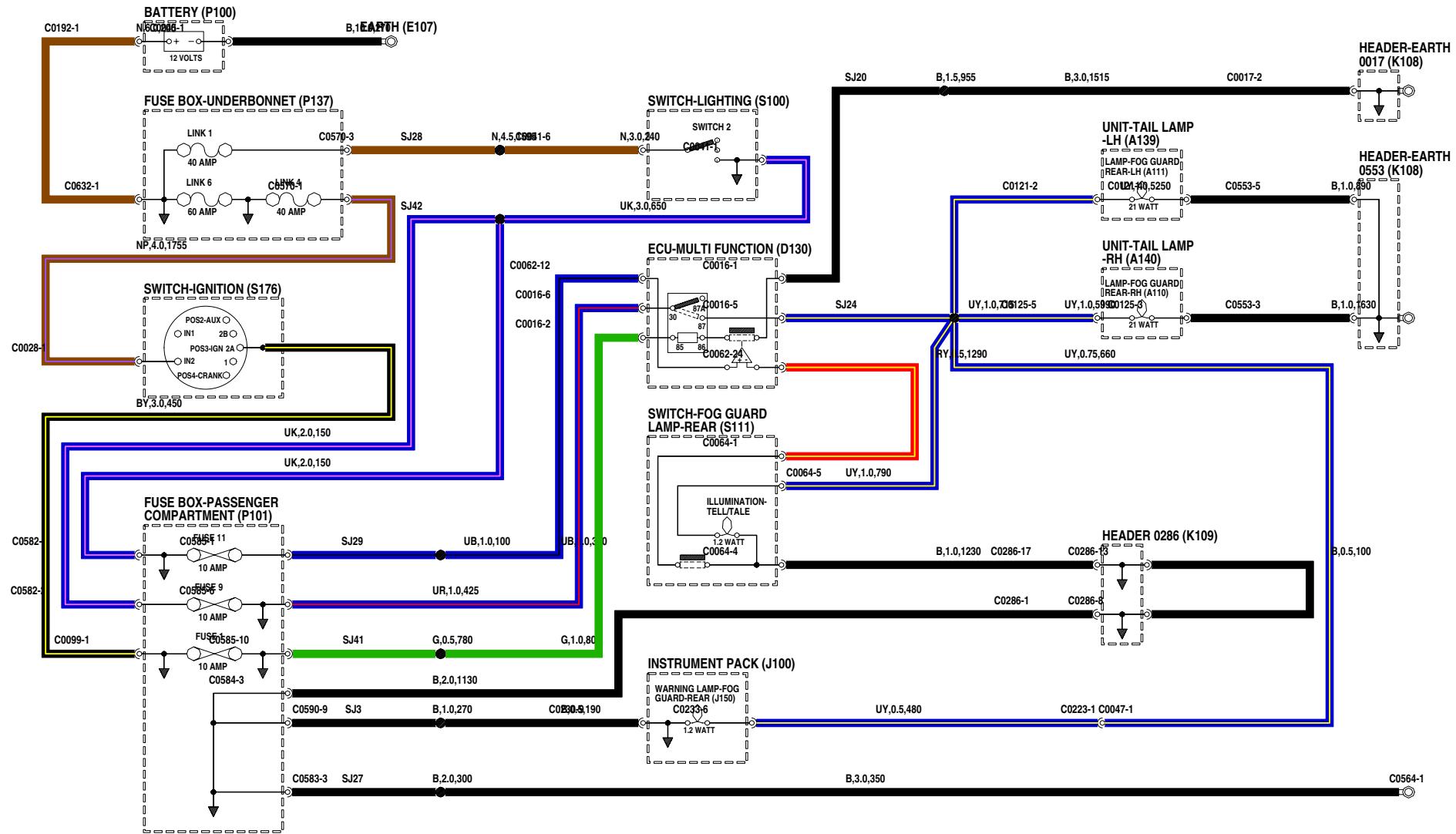
# EXTERIOR LAMPS

## HEAD, SIDE AND TAIL LAMPS



# EXTERIOR LAMPS

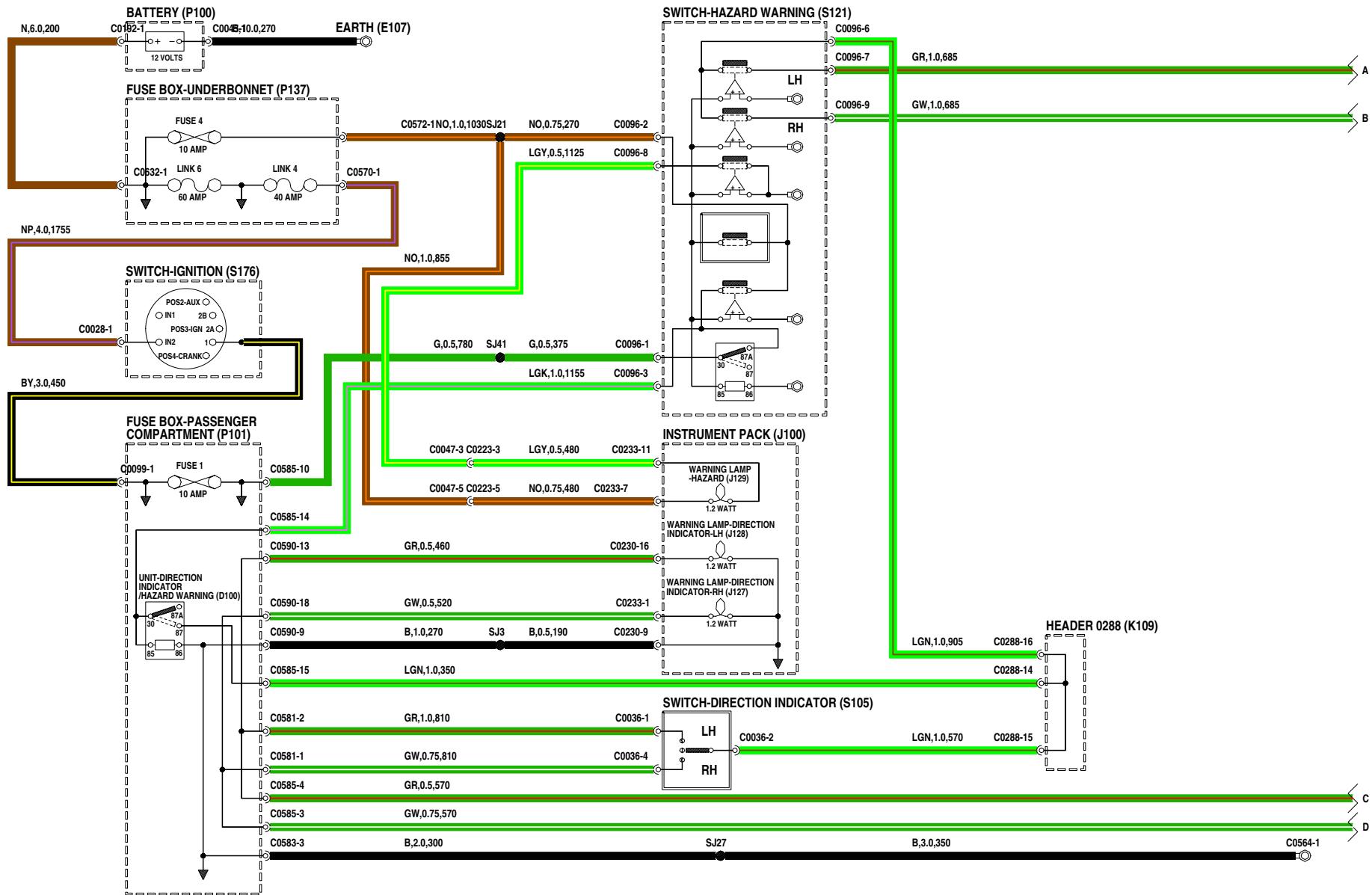
## REAR FOG LAMPS





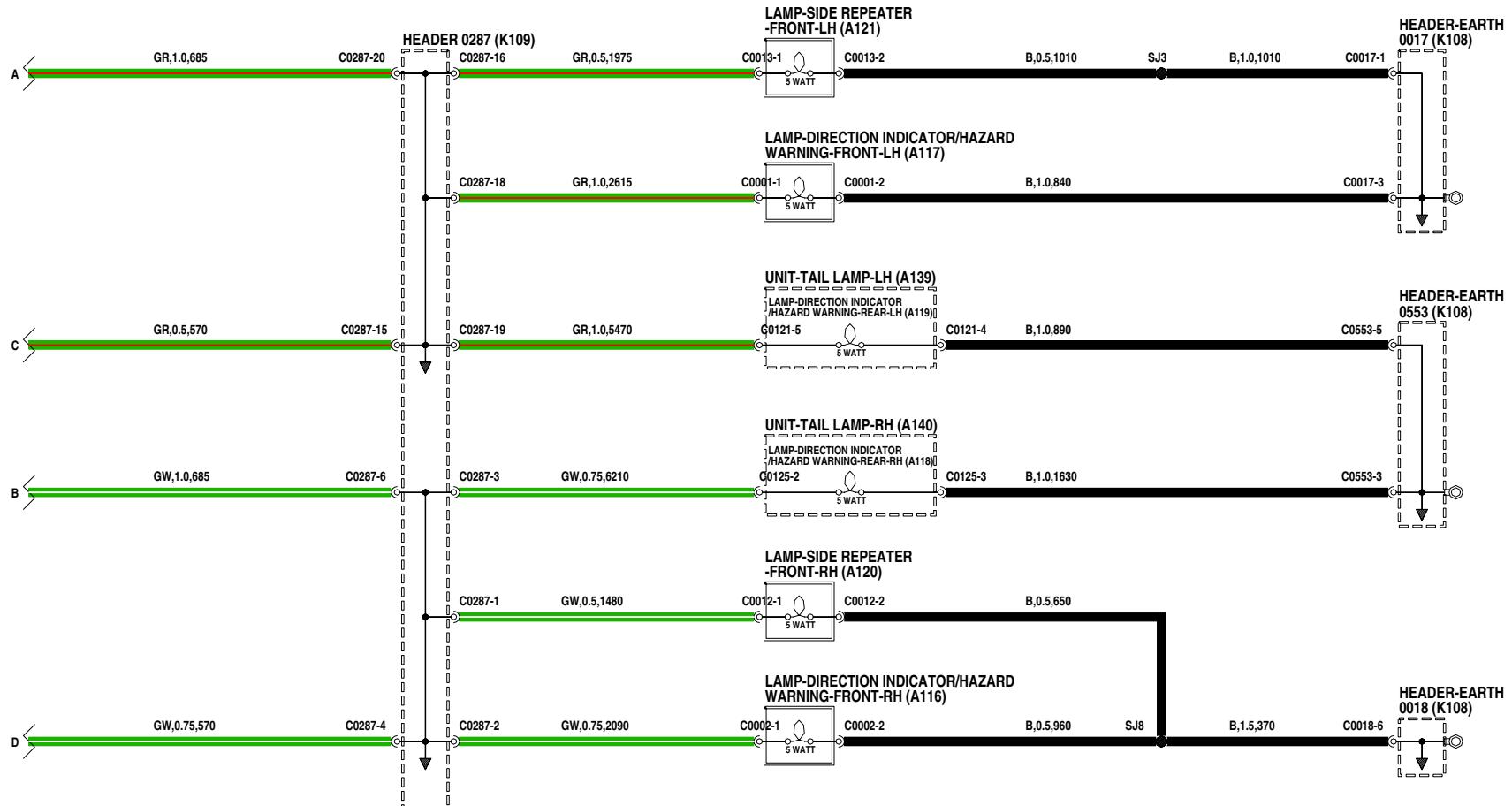
# EXTERIOR LAMPS

## DIRECTION INDICATOR/HAZARD WARNING LAMPS

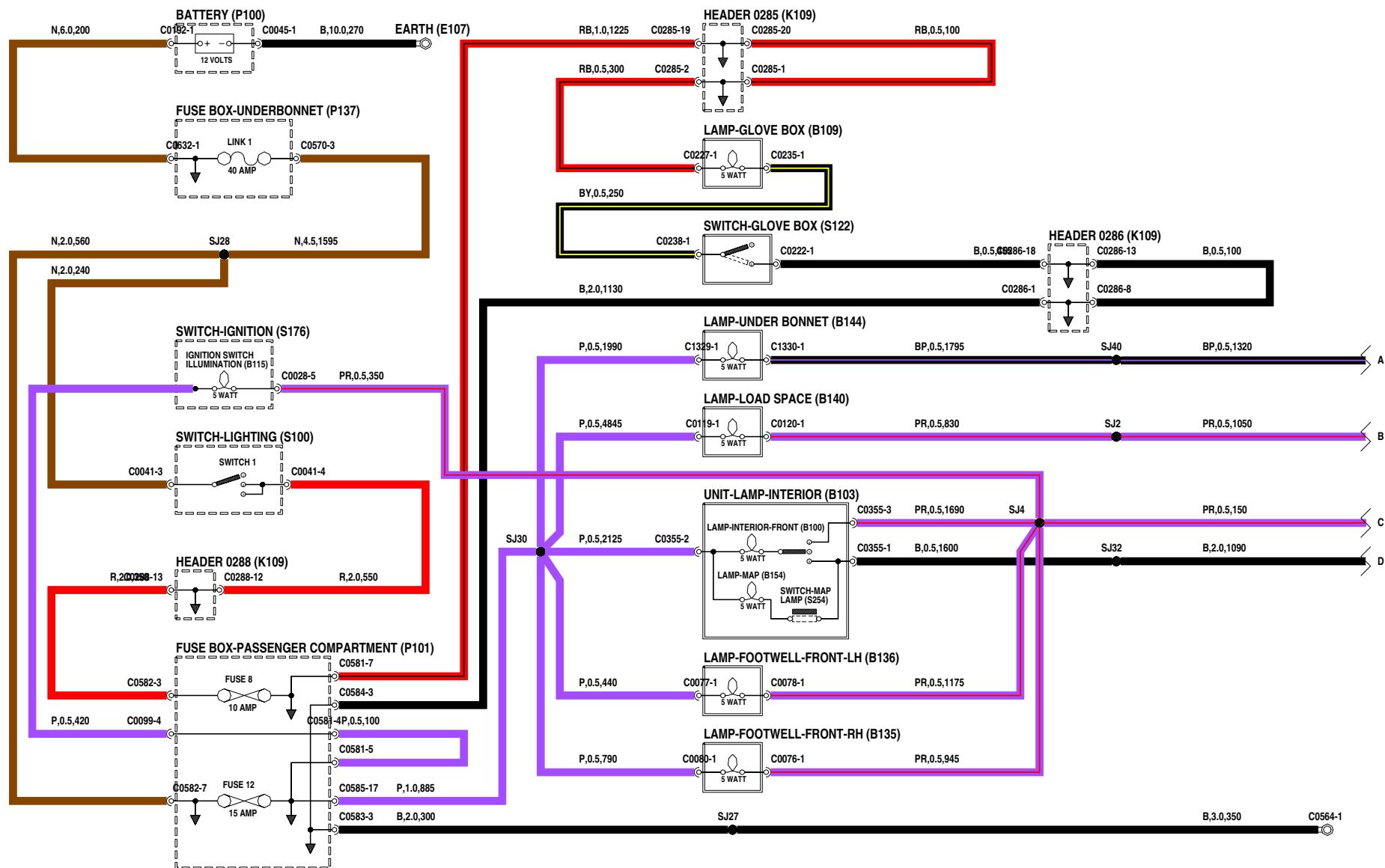


# EXTERIOR LAMPS

## DIRECTION INDICATOR/HAZARD WARNING LAMPS

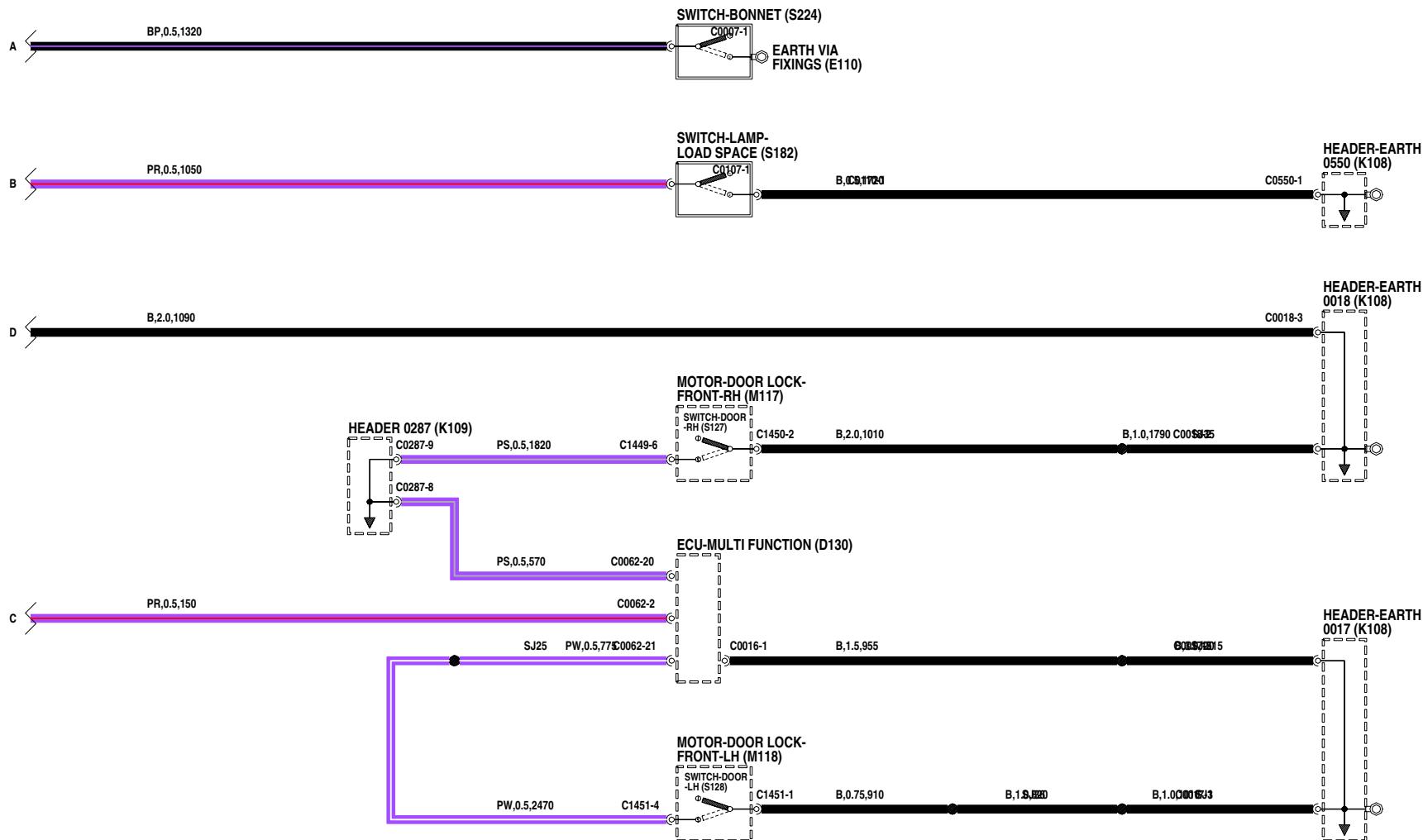


## INTERIOR LAMPS

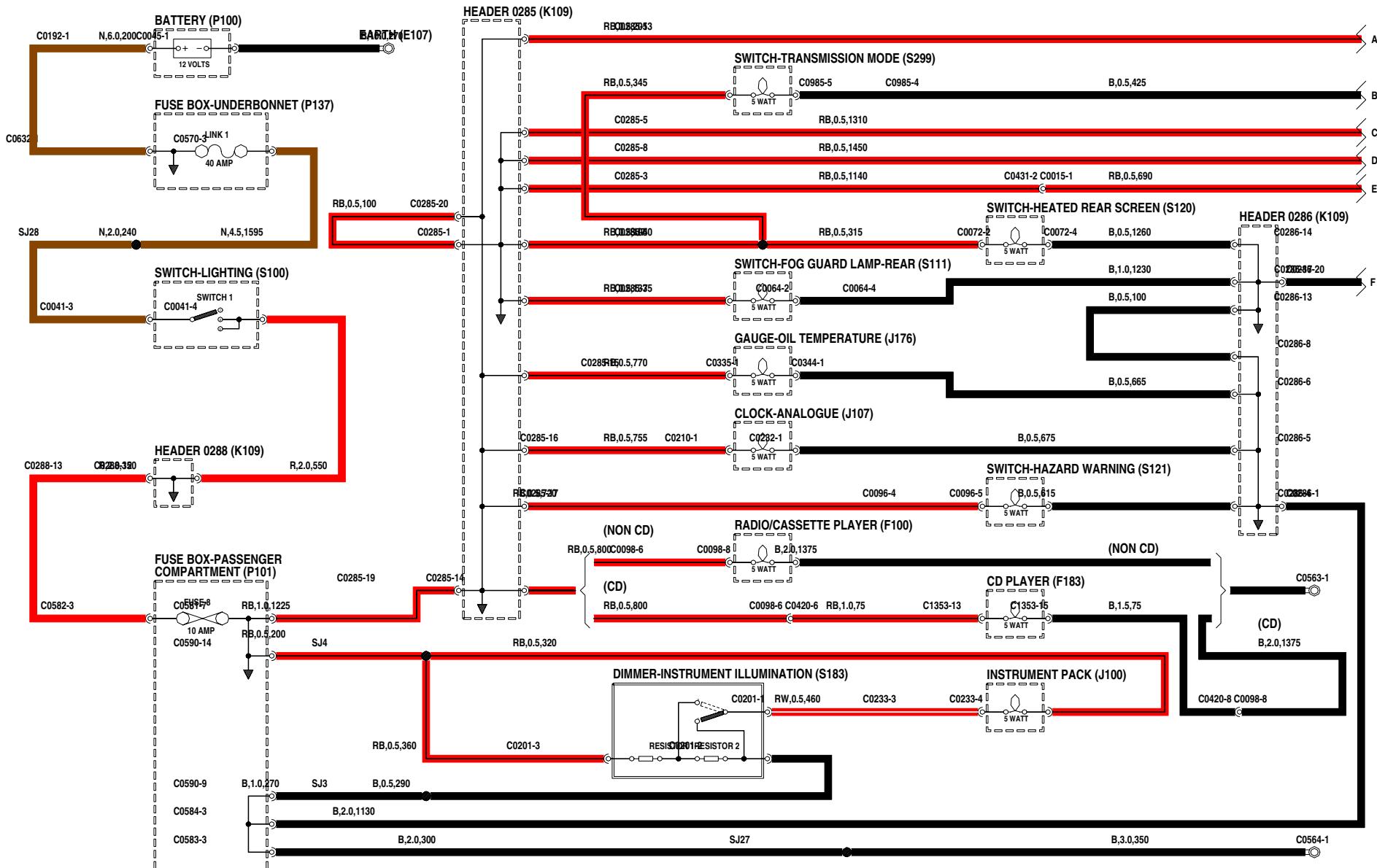


## INTERIOR LAMPS

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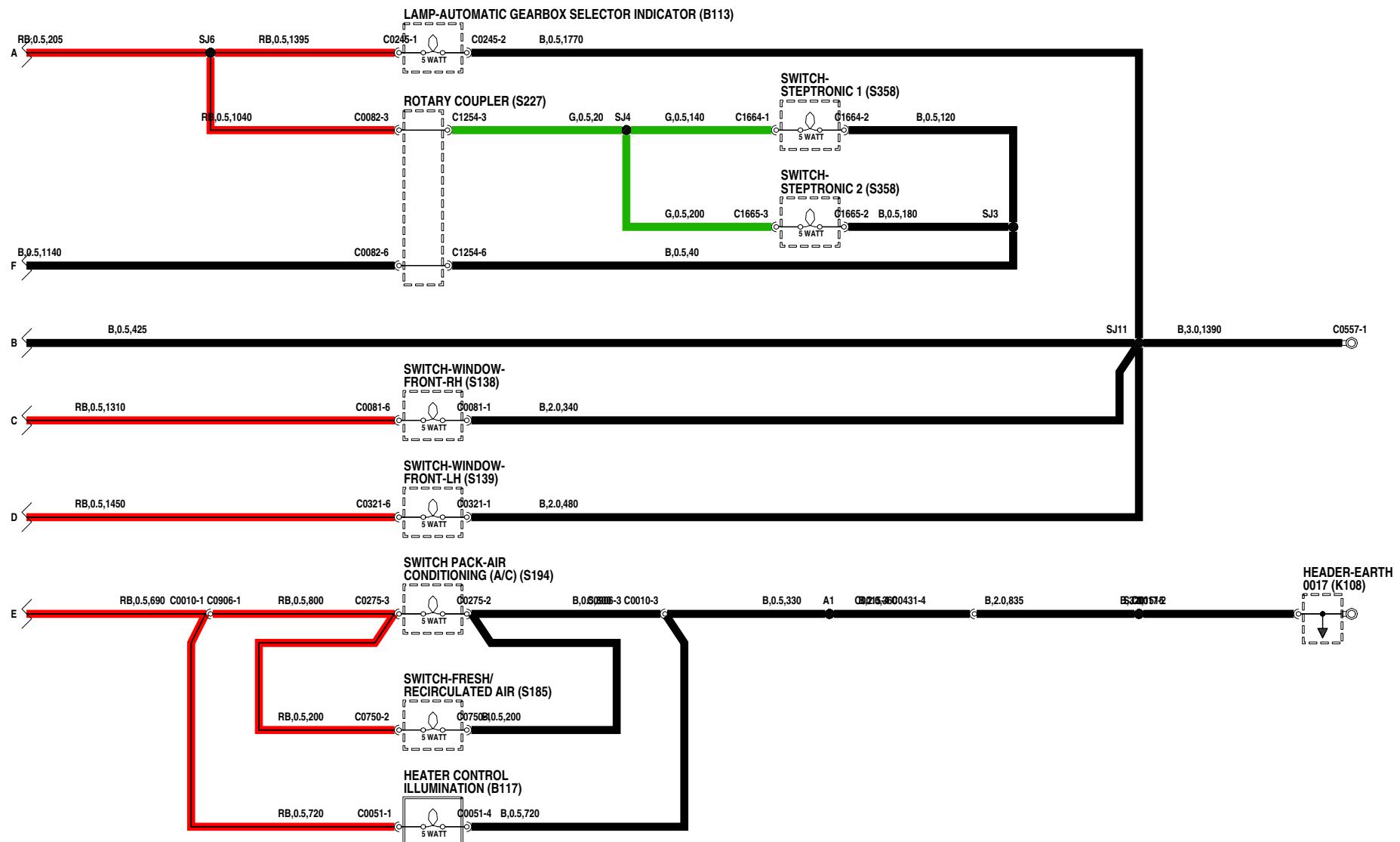


## INTERIOR ILLUMINATION

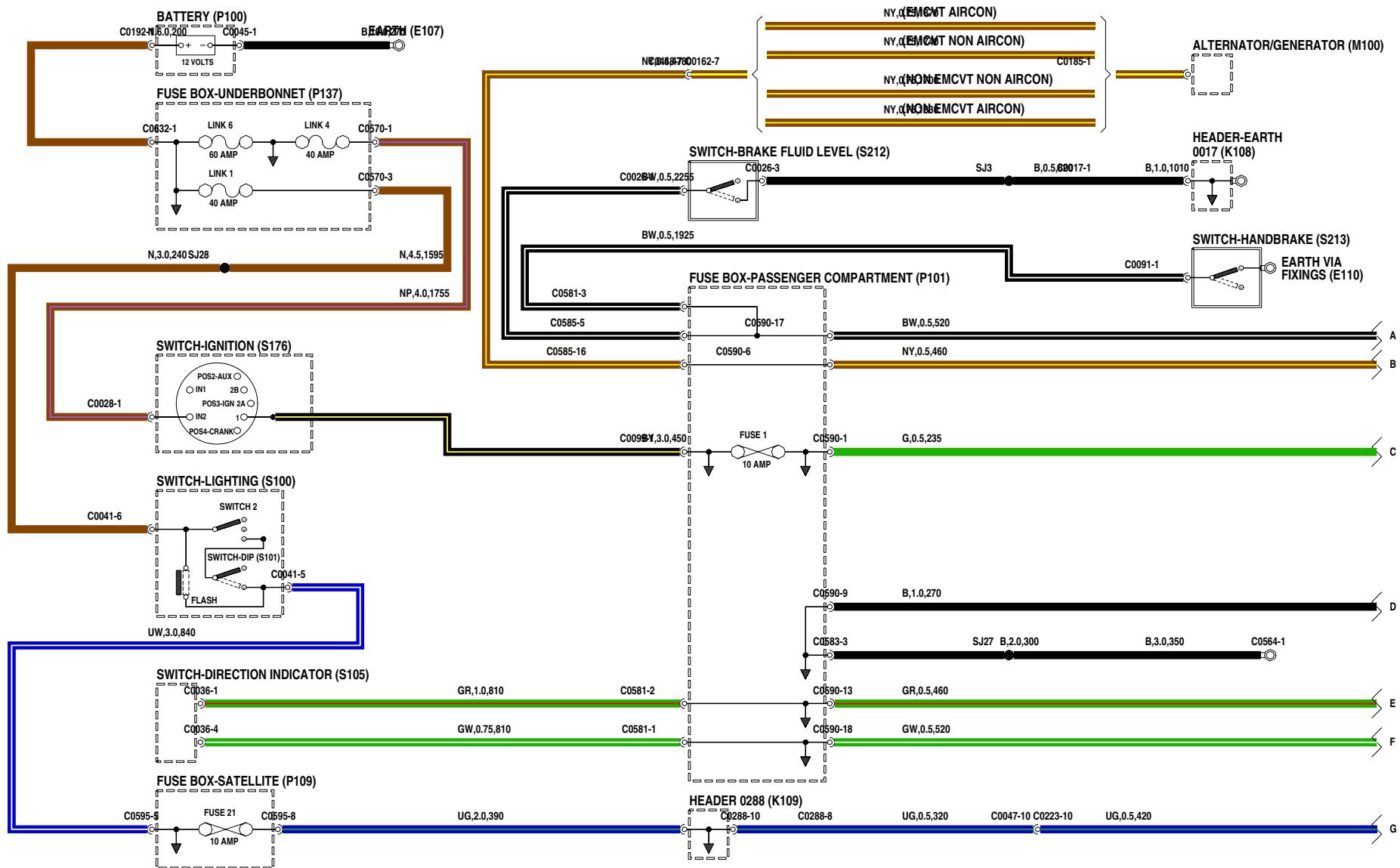


## INTERIOR ILLUMINATION

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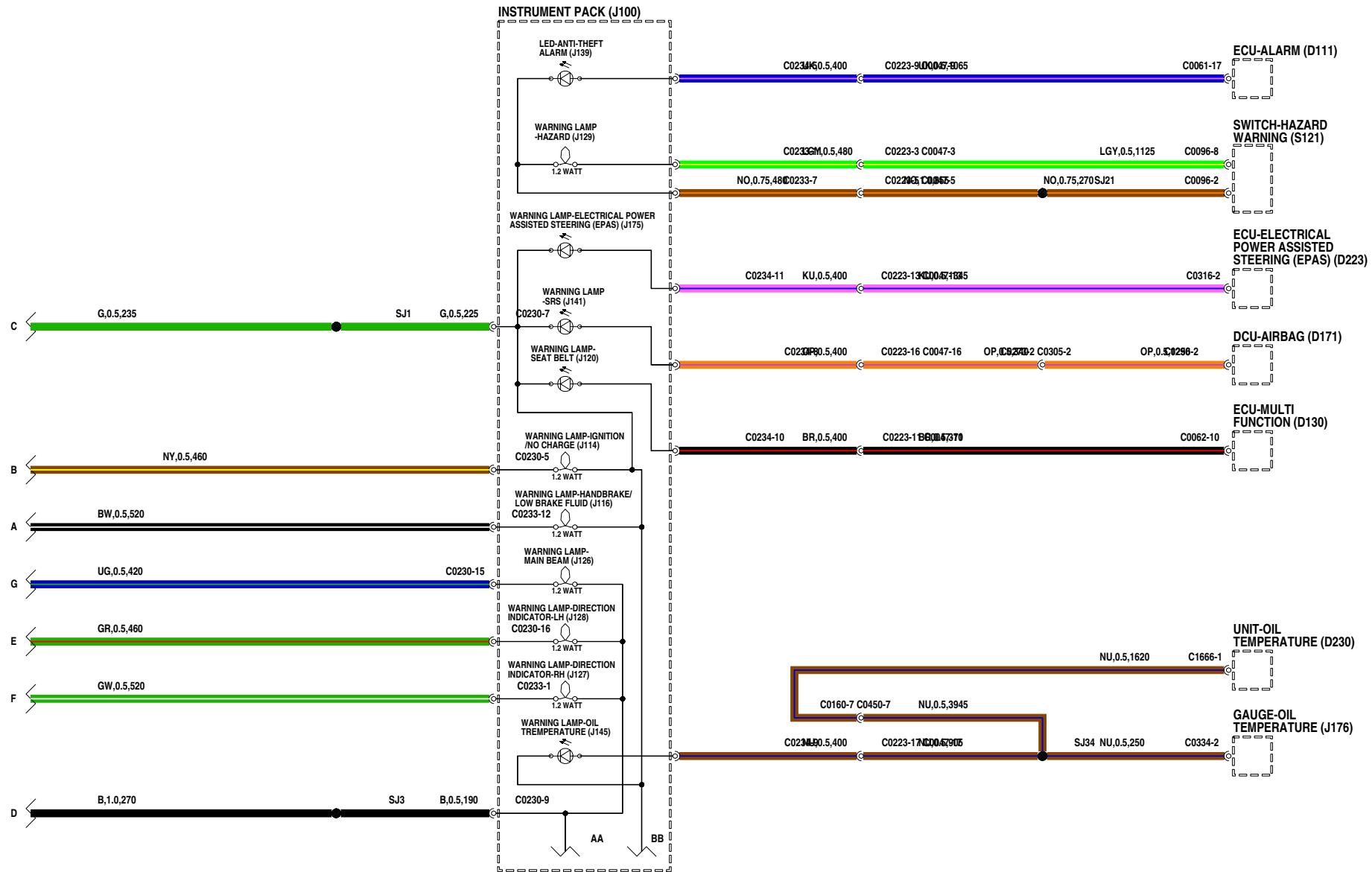


## INSTRUMENTS



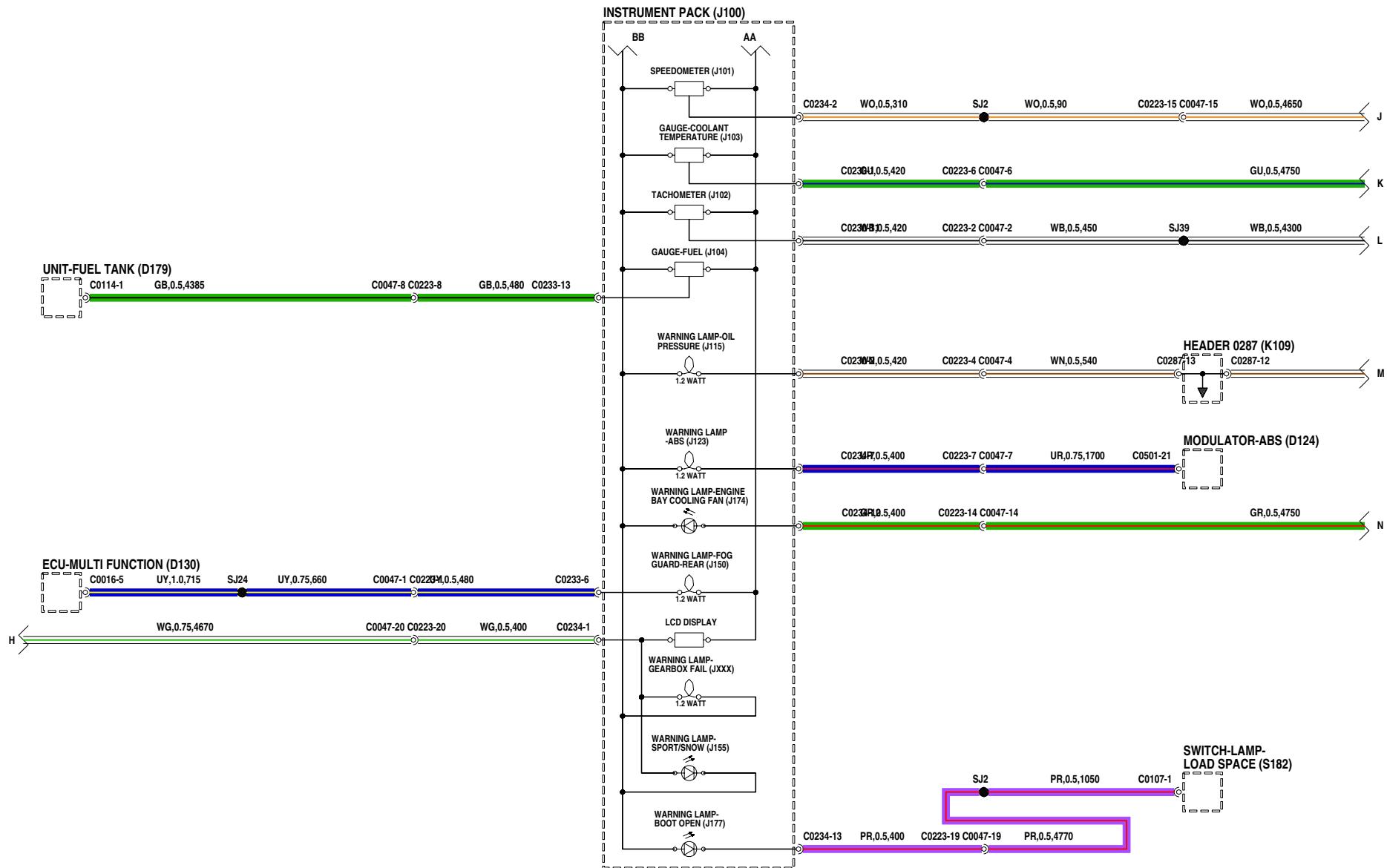
# INSTRUMENTS

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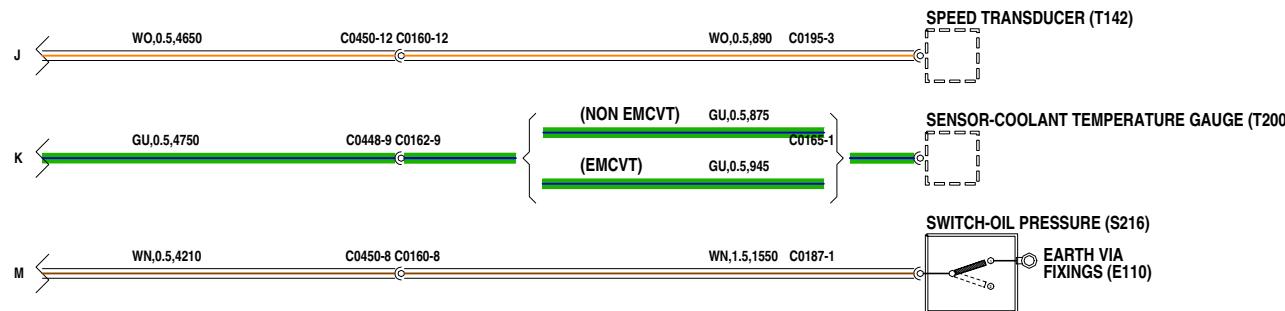
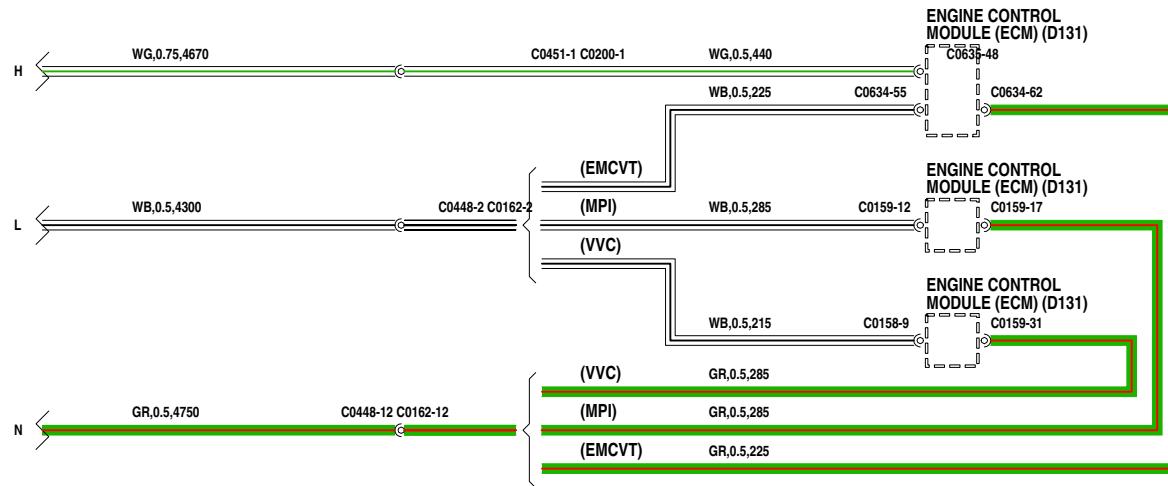
# INSTRUMENTS

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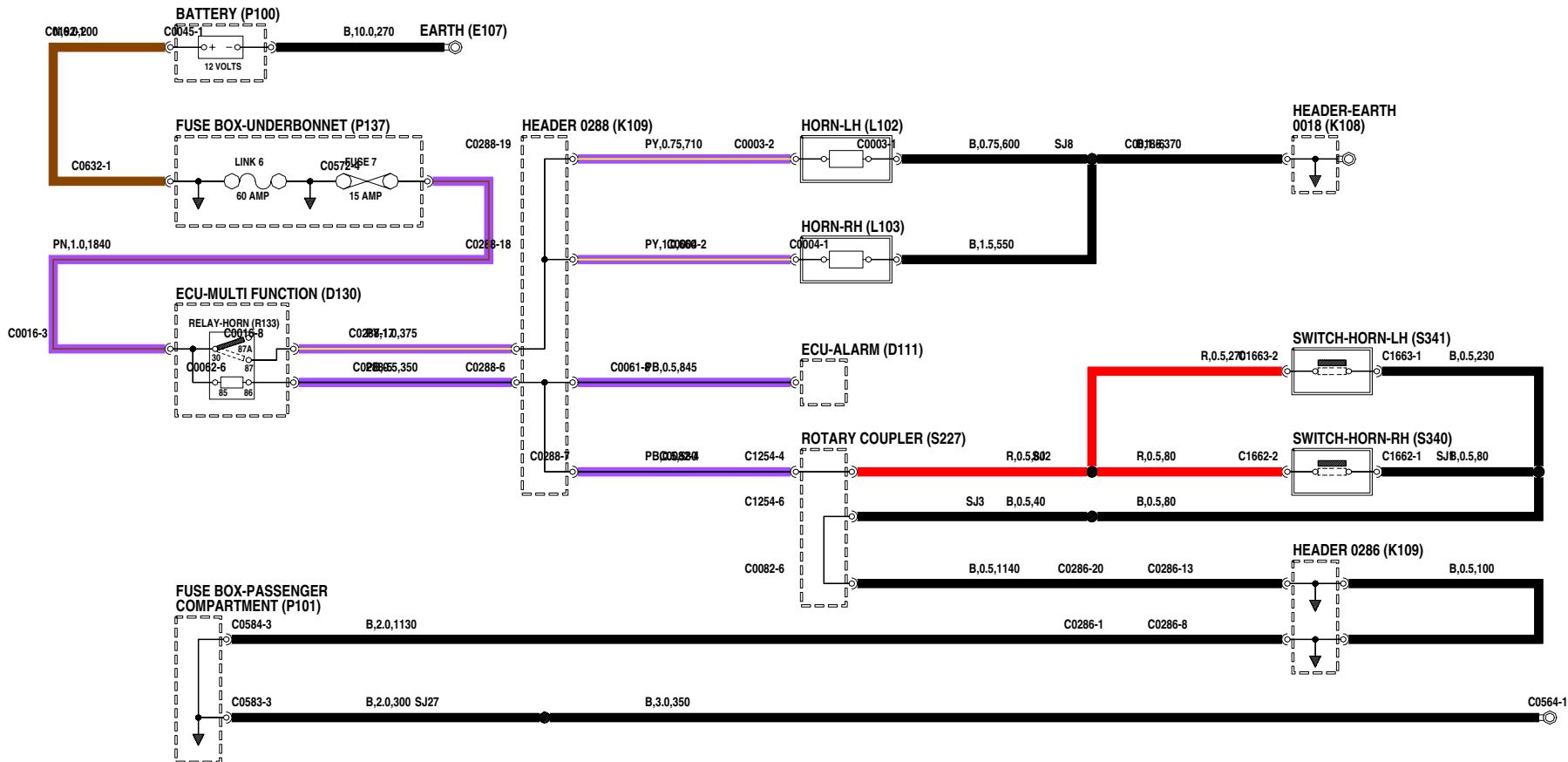
## INSTRUMENTS

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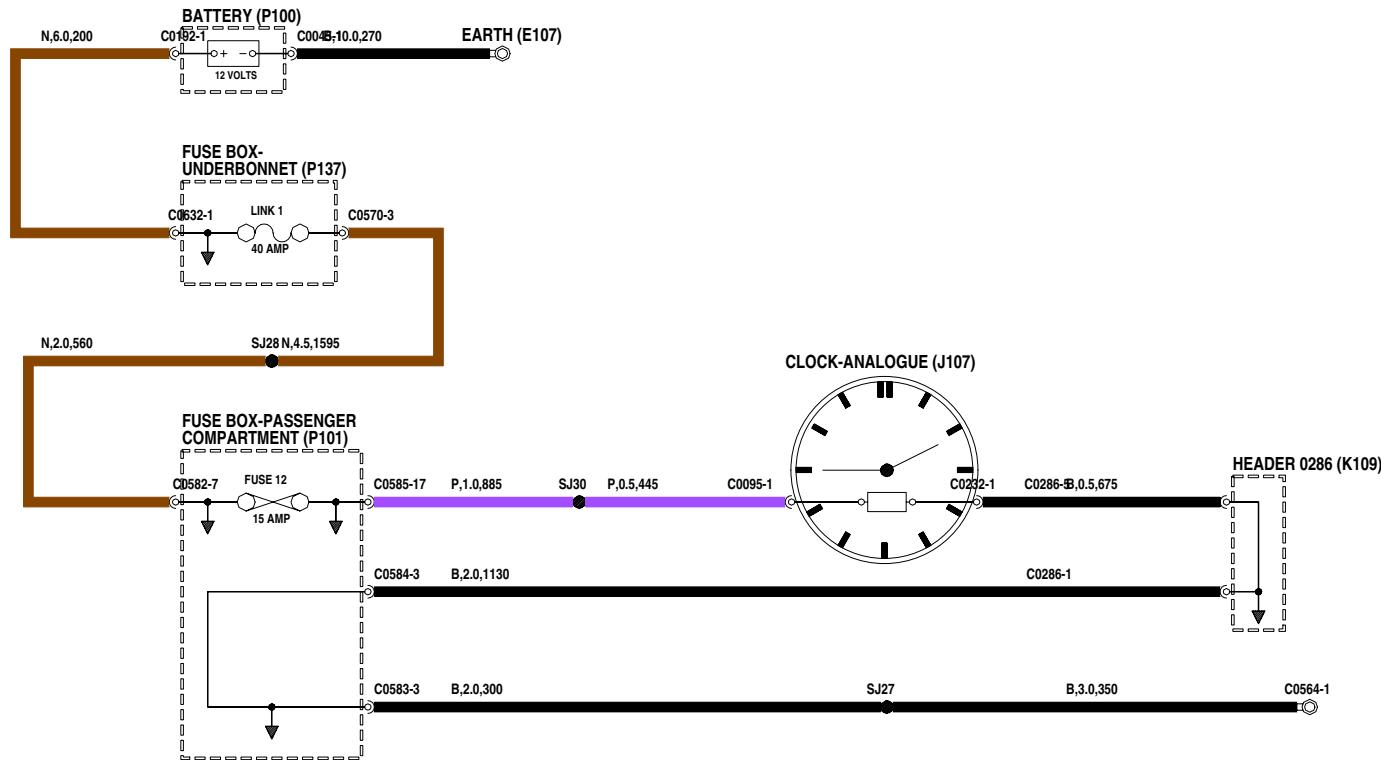
## HORNS

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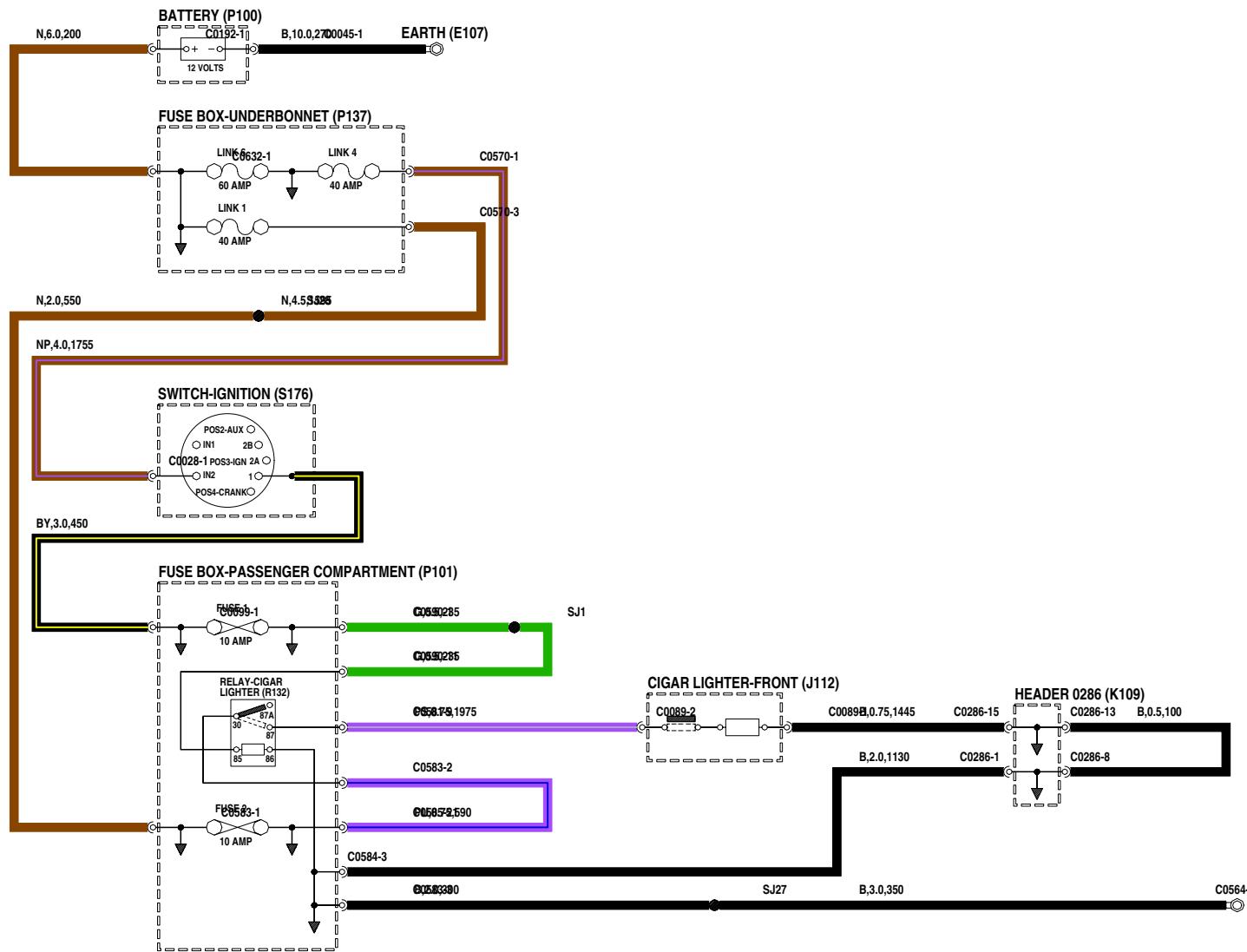
## CLOCK

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## CIGAR LIGHTER

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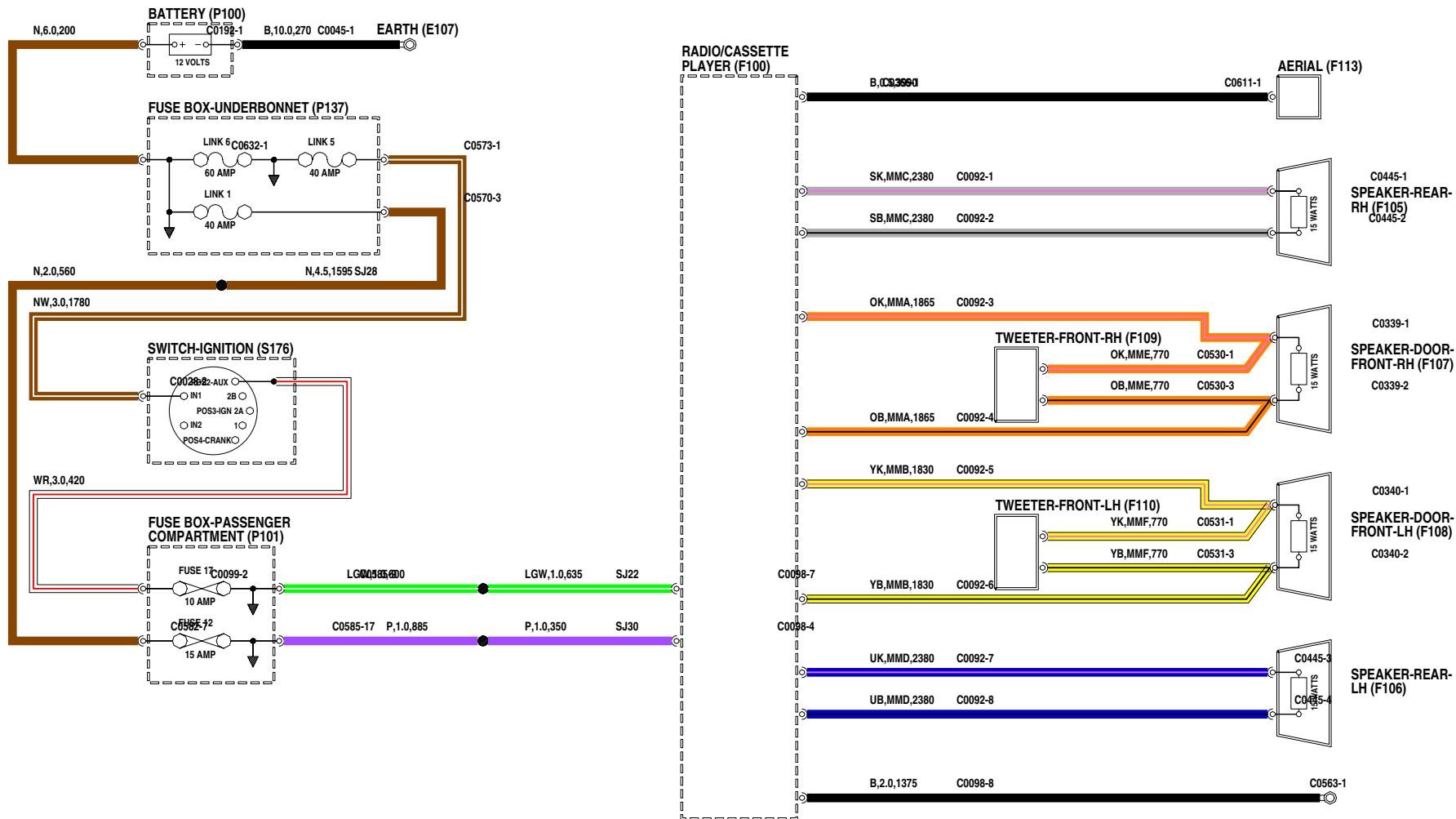




# AUDIO SYSTEMS

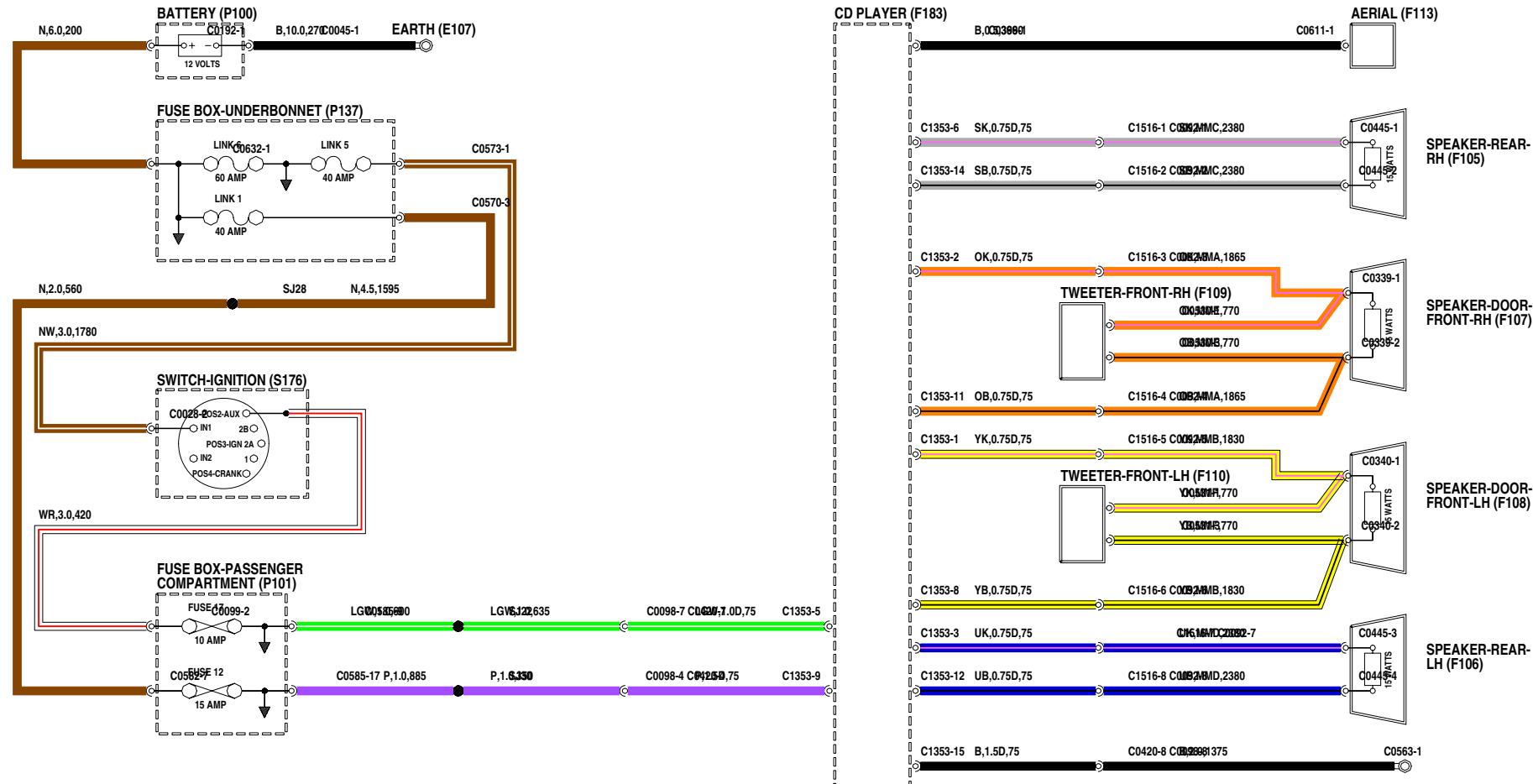
## RADIO/CASSETTE PLAYER

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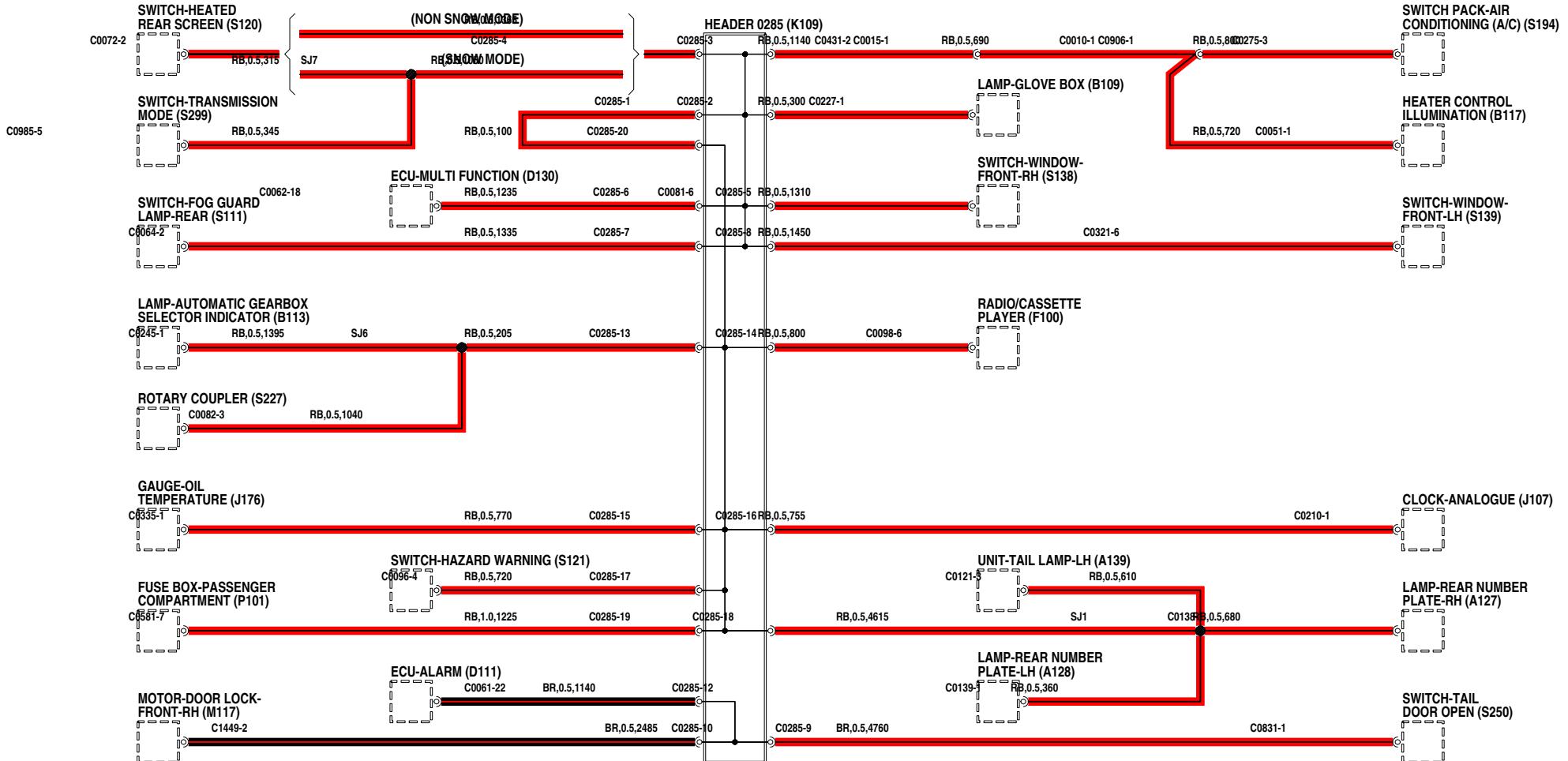
# AUDIO SYSTEMS

## CD PLAYER



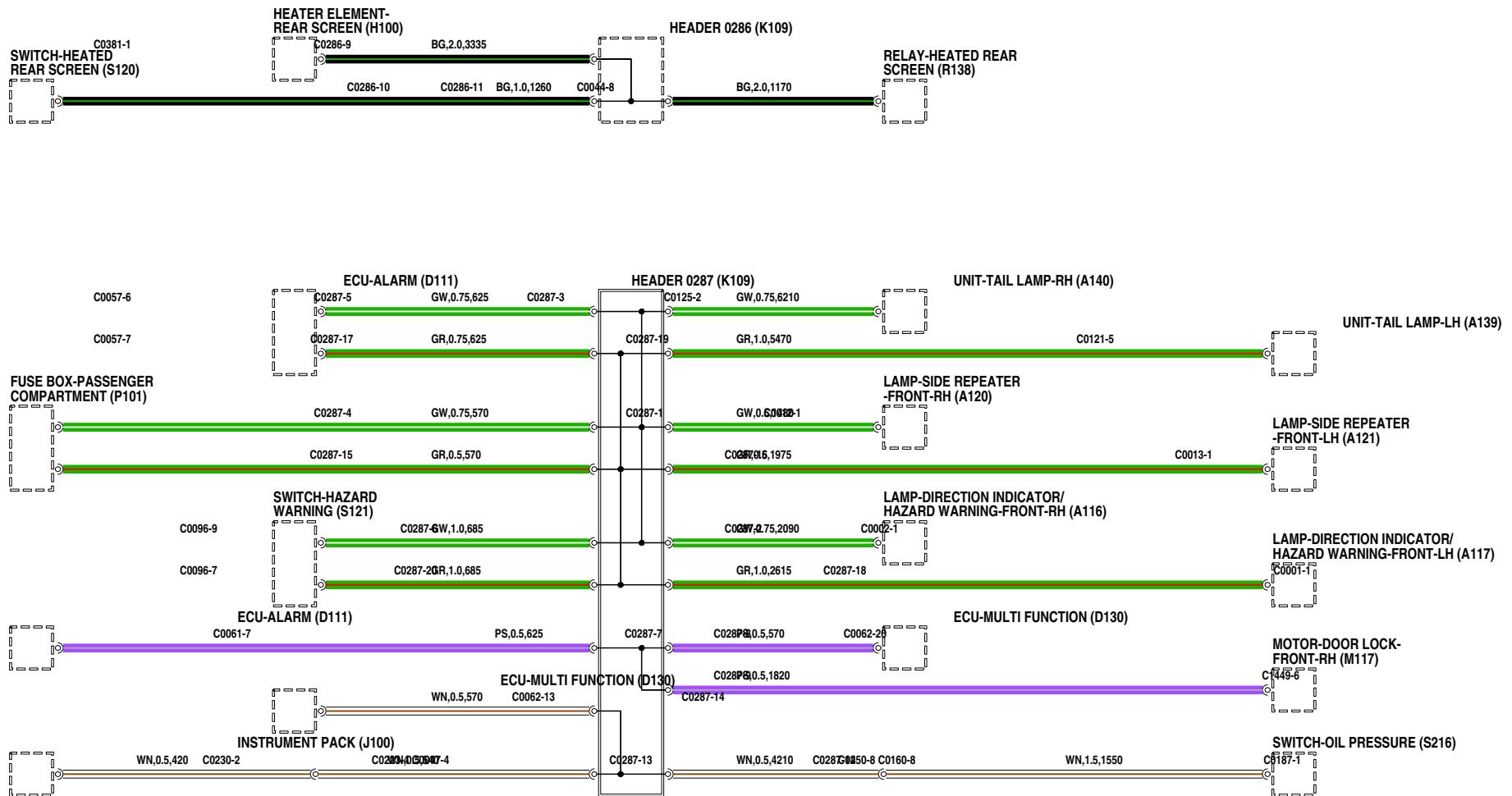
## HEADER JOINTS

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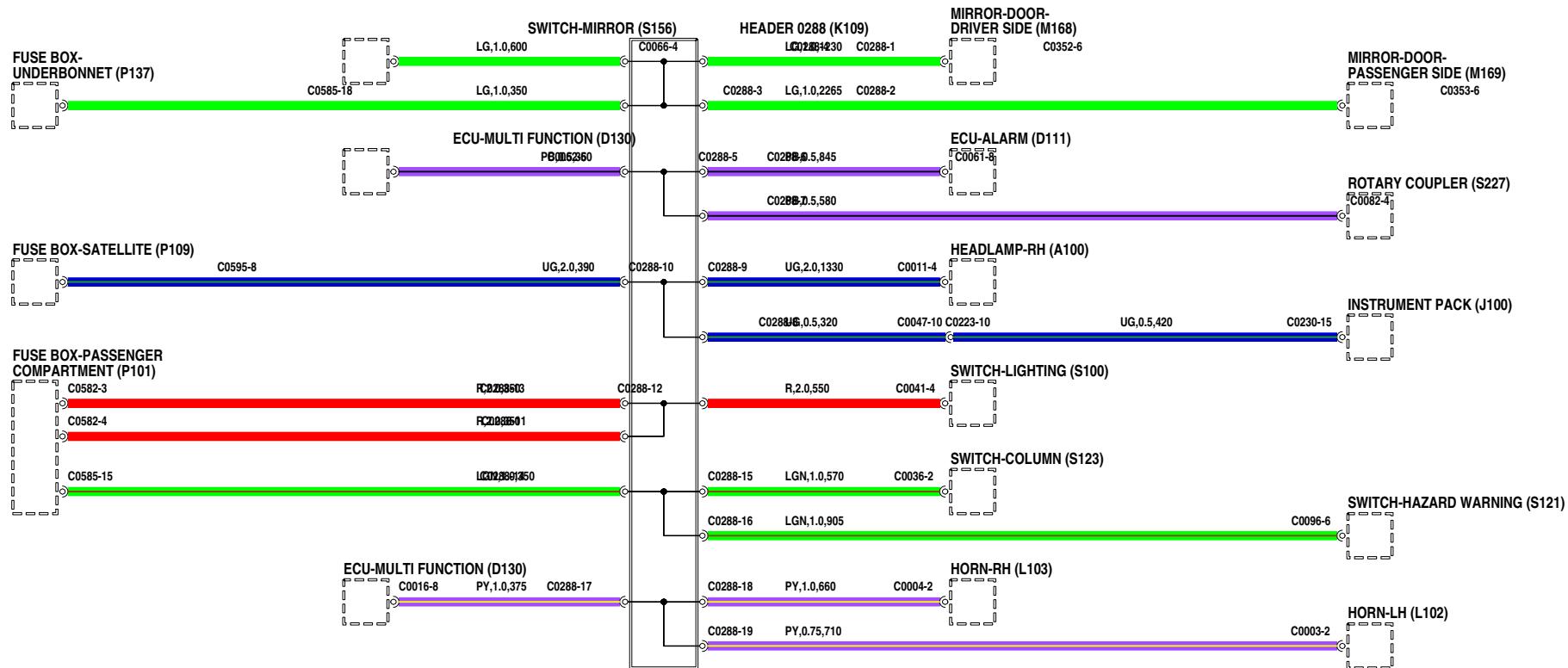
## HEADER JOINTS

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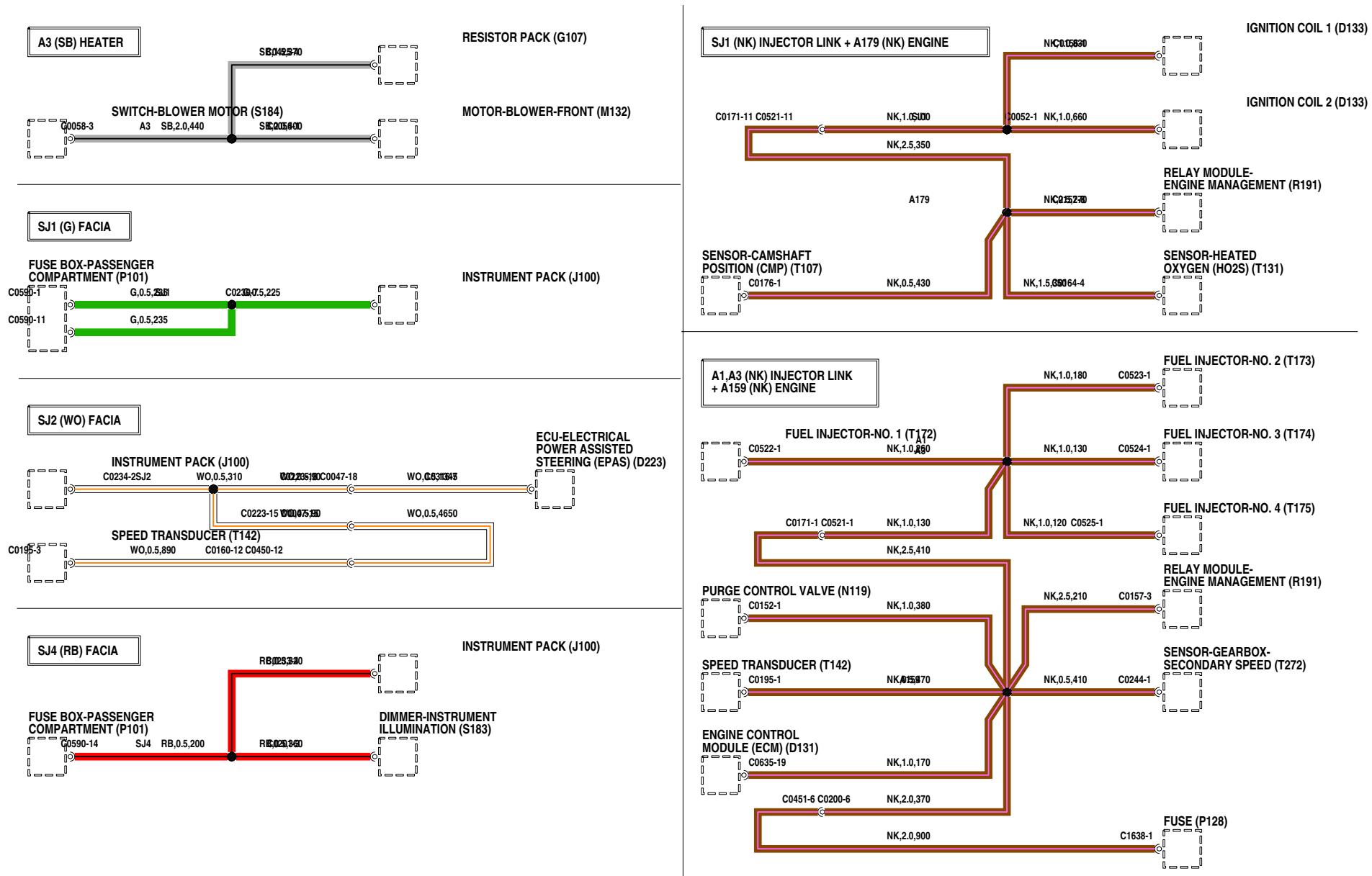
## HEADER JOINTS

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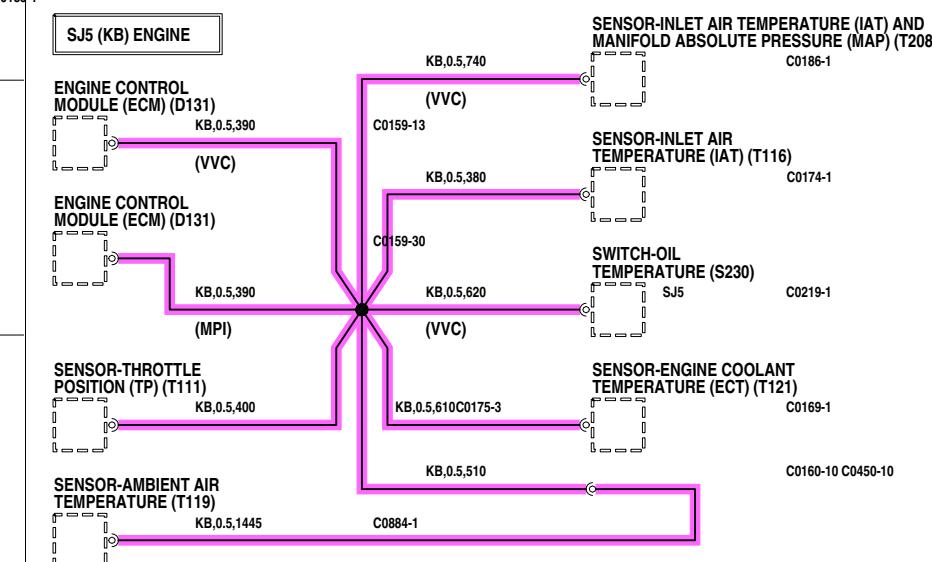
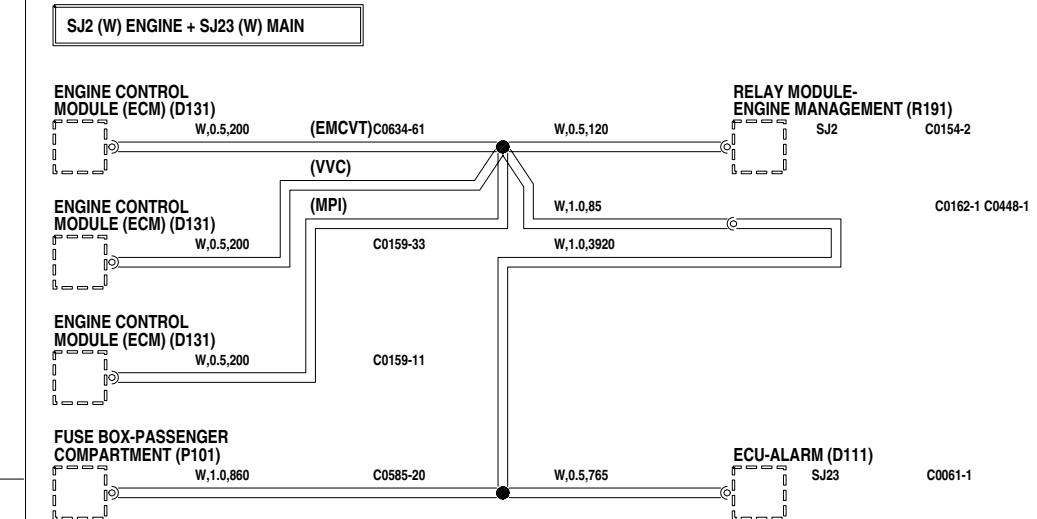
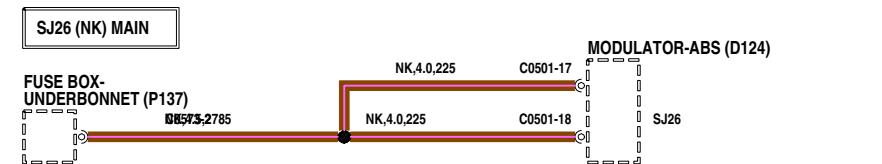
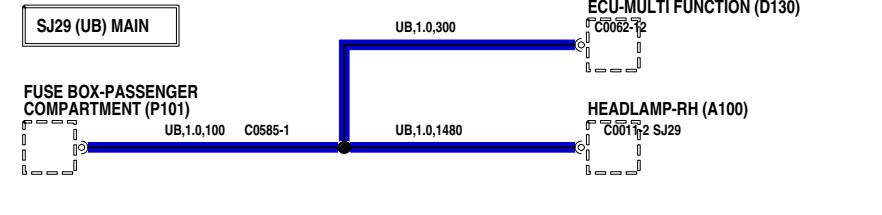
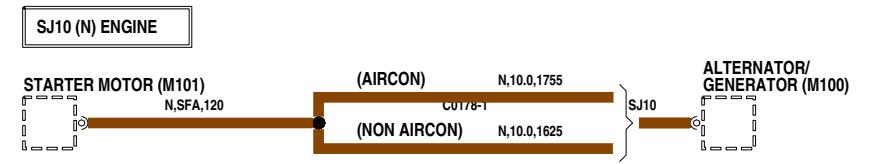
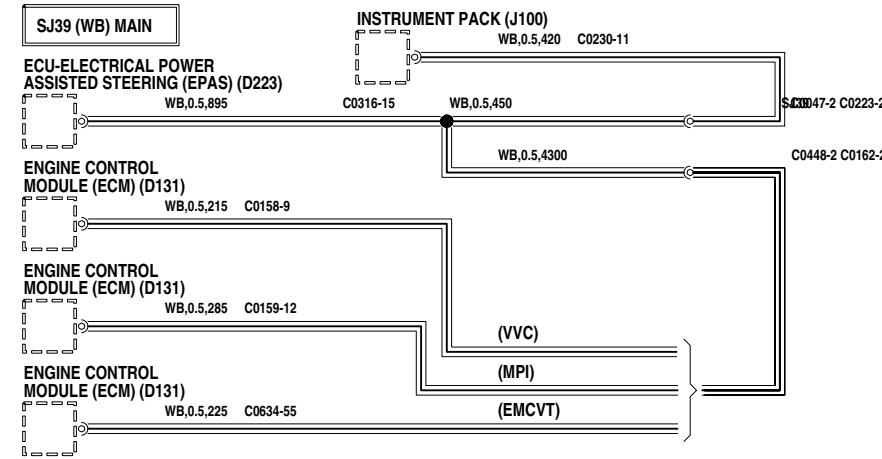




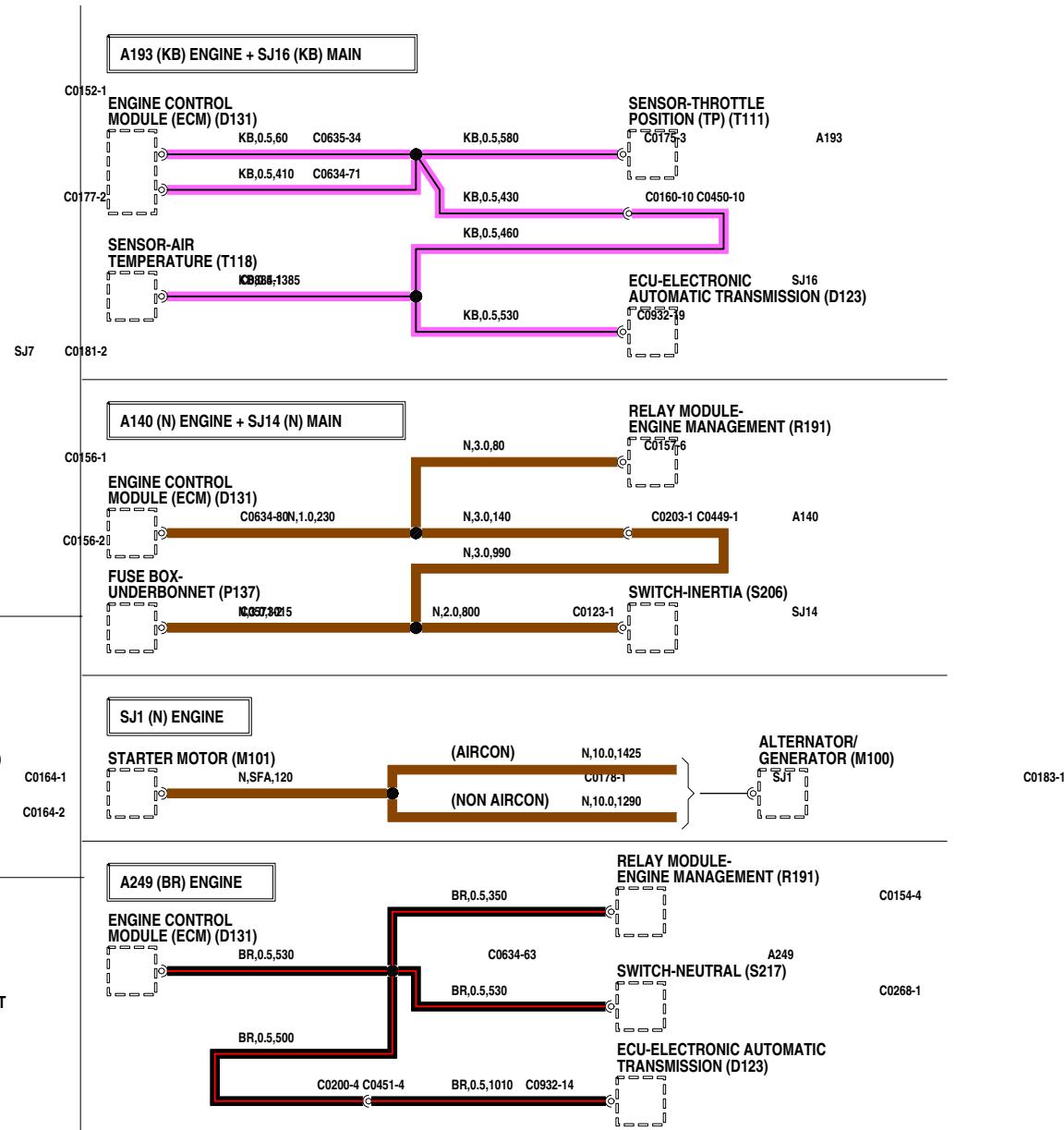
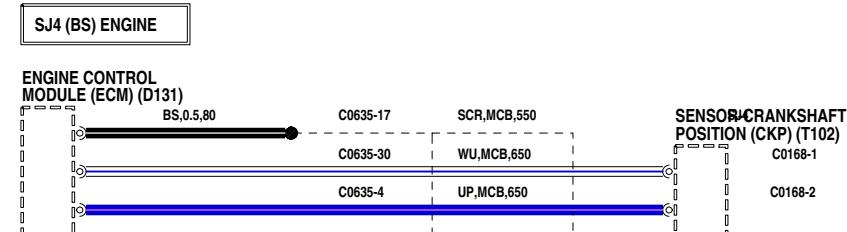
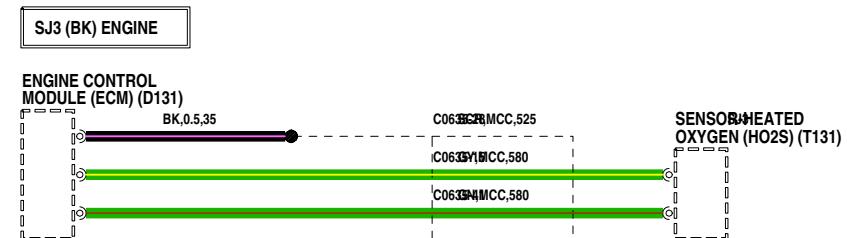
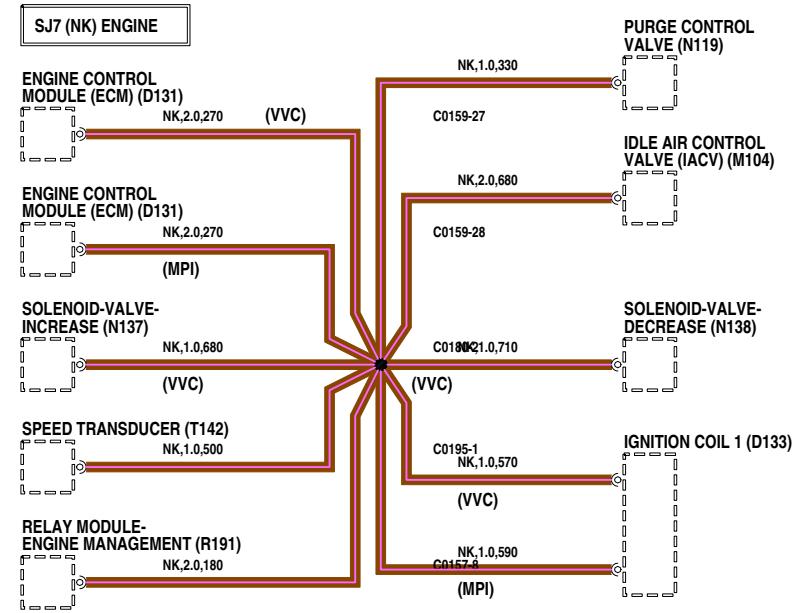
## SPLICES AND CENTRE TAPS



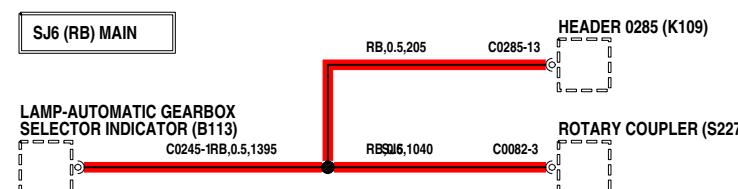
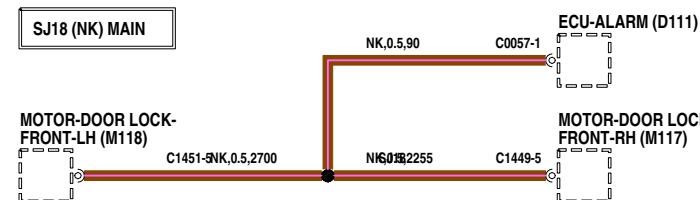
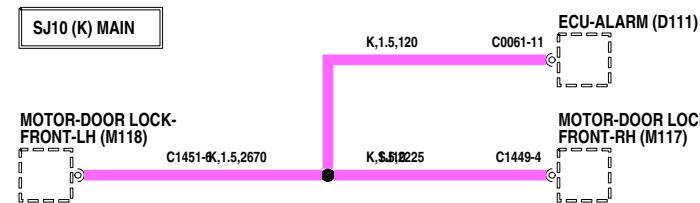
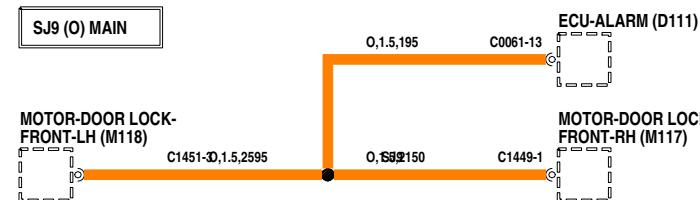
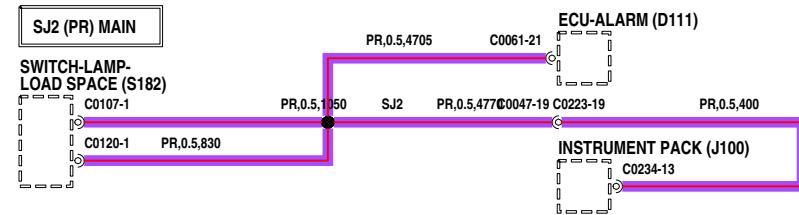
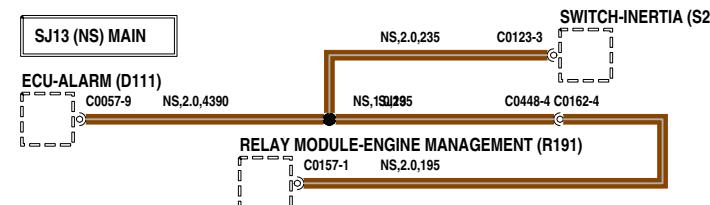
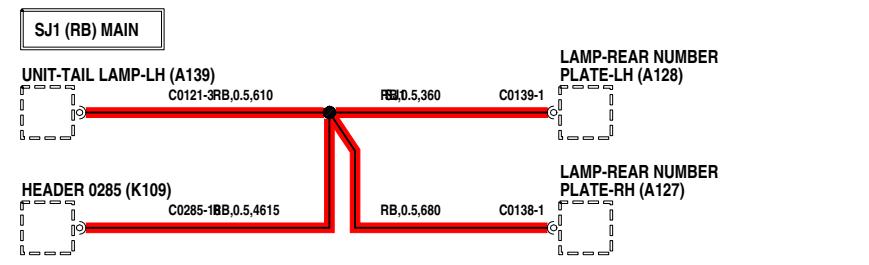
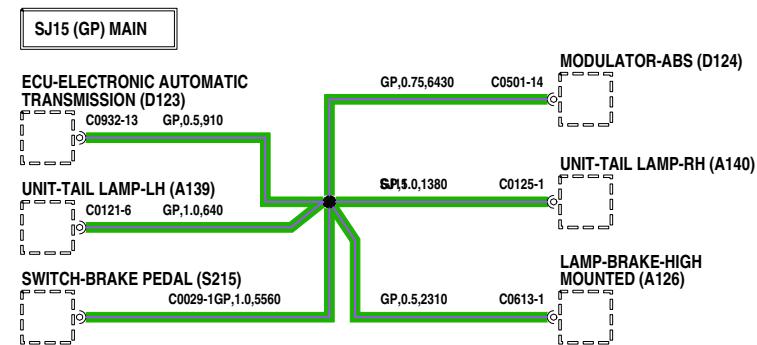
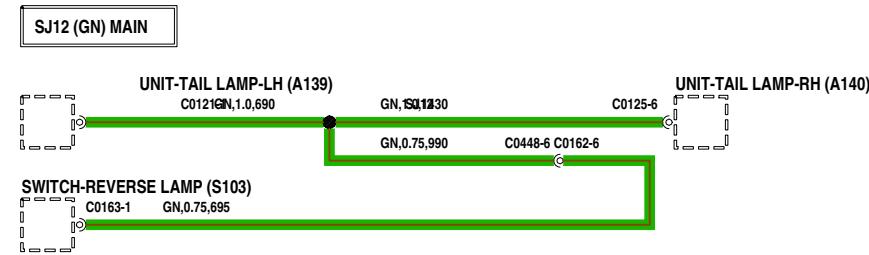
## SPLICES AND CENTRE TAPS



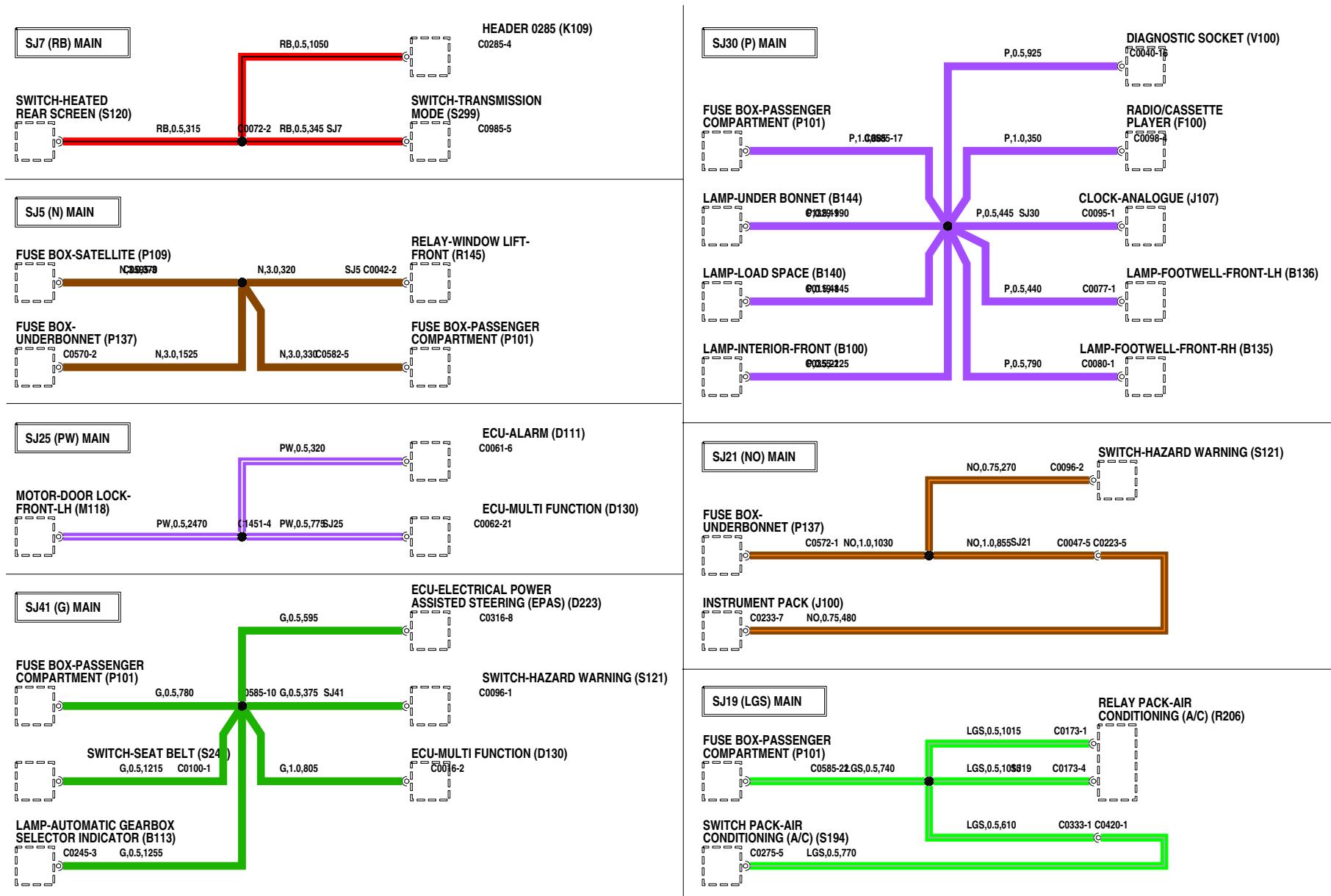
## SPLICES AND CENTRE TAPS



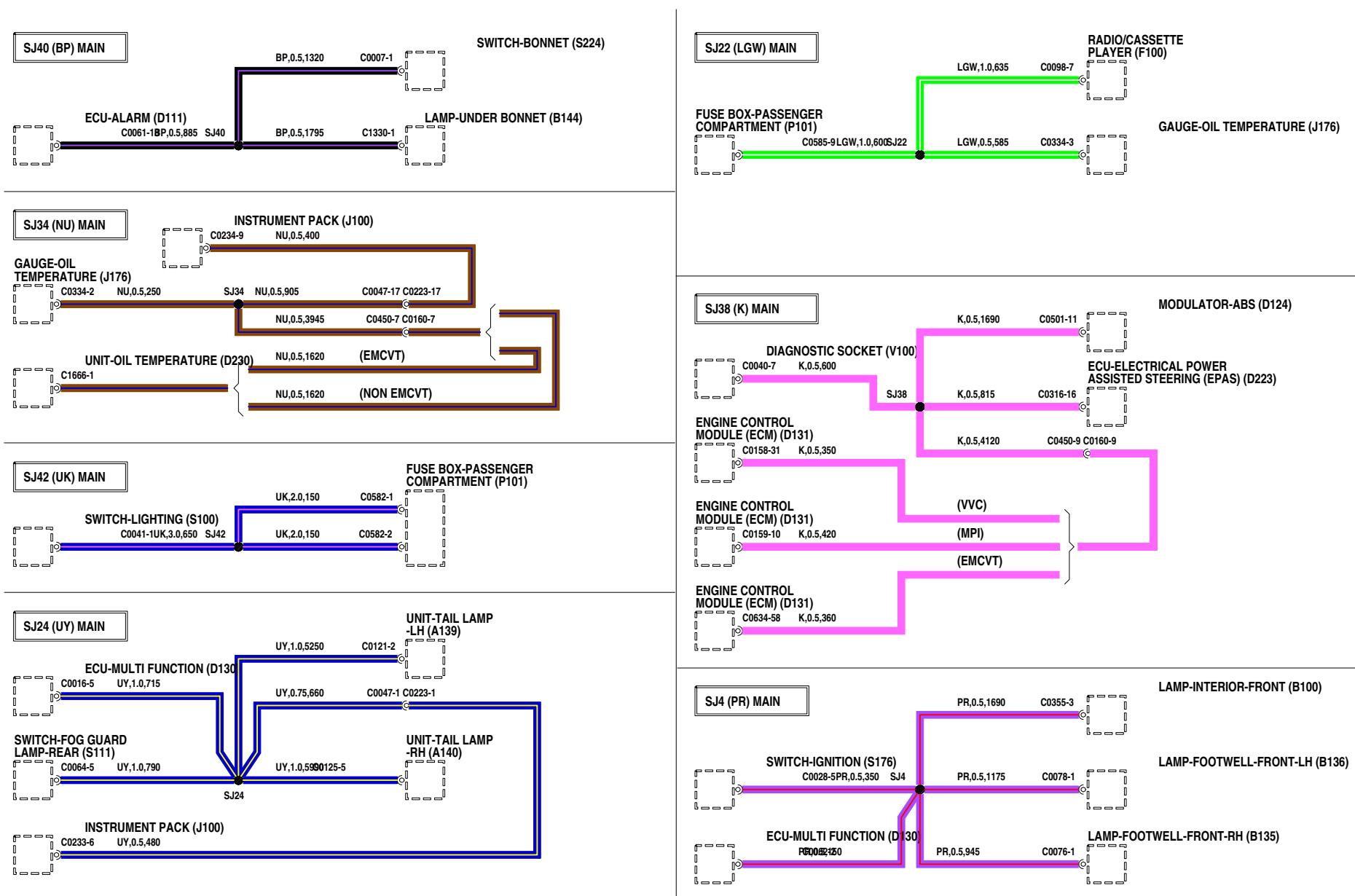
## SPLICES AND CENTRE TAPS



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