Loom Documentation

Each line in diagram represents one fully connected wiring loom inclusive of branches

Key and pin so that where appropriate looms can be plugged in either way and work. Exception being controller connections

Hvd placement for plugs very tight

12 V Battery where? Or soft start DC DC

4 4/6 pin in DASH for sensor connectivity

Toblerone loom through firewall?

Dcdc starter signal from where?

Key:

POWER

SHUTDOWN

DIGITAL

ANALOG

**A HVD-ACC**

HVD: Size 14 - 19 x size 20 contacts

Accumulator: Size 14 - 19 x size 20 contacts

|  |  |  |
| --- | --- | --- |
| **Connections** | **HVD** | **ACCUMULATOR** |
| 12 V (in from glvms, powering acc) |  |  |
| 12 V (out, gated by glvms) |  |  |
| Cool\_PWR\_1 |  |  |
| Cool\_PWR\_2 |  |  |
| Cool\_PWR\_3 |  |  |
| Cool\_GND\_1 |  |  |
| Cool\_GND\_2 |  |  |
| Cool\_GND\_3 |  |  |
| enable |  |  |
| GND |  |  |
| SHUTDOWN (provision)\*\* |  |  |
| BMS\_OK |  |  |
| PRECHARGE\_OK |  |  |
| IMD\_OK |  |  |
| CAN\_HIGH |  |  |
| CAN\_LOW |  |  |
| BSPD\_CURRENT |  |  |
| BSPD\_COMMON\* |  |  |
|  | 18 Connections | 18 Connections |

\*Provision for differential current sensor reading.

\*\*Shutdown line following HV for HVIi rather than in LV loom.

**B DASH-COOLING-HVD**

HVD: Size 14 - 19 x size 20 contacts

DASH: Size 12 - 10 x size 20 contacts

COOLING: Size 12 - 10 x size 20 contacts

|  |  |  |  |
| --- | --- | --- | --- |
| **Connections** | **HVD** | **DASH** | **COOLING** |
| 12 V |  |  |  |
| GND |  |  |  |
| Starter power |  |  |  |
| enable |  |  |  |
| SHUTDOWN |  |  |  |
| BSPD\_OK |  |  |  |
| CAN\_HIGH\_1 |  |  |  |
| CAN\_LOW\_1 |  |  |  |
| CAN\_HIGH\_2 |  |  |  |
| CAN\_LOW\_2 |  |  |  |
| BSPD\_CURRENT |  |  |  |
| BSPD\_COMMON\* |  |  |  |
| Cool\_PWR\_1 |  |  |  |
| Cool\_PWR\_2 |  |  |  |
| Cool\_PWR\_3 |  |  |  |
| Cool\_GND\_1 |  |  |  |
| Cool\_GND\_2 |  |  |  |
| Cool\_GND\_3 |  |  |  |
|  | 16 connections | 10 connections | 10 connections |

\*Provision for differential current sensor reading.

CAN line runs into and out of cooling node as 2 separate lines to avoid having to split the connection.

Can branch can if required

**C HVD-CONTROLLERS**

HVD: Size 14 - 19 x size 20 contacts

|  |  |  |  |
| --- | --- | --- | --- |
| **Connections** | **HVD** | **MC\_Left** | **MC\_Right** |
| 12 V\_Left |  |  |  |
| GND\_Left |  |  |  |
| CAN\_H\_Left |  |  |  |
| CAN\_L\_Left |  |  |  |
| RFE\_Left |  |  |  |
| RUN\_Left |  |  |  |
| AGND\_Left |  |  |  |
| 12 V\_Right |  |  |  |
| GND\_ Right |  |  |  |
| CAN\_H\_ Right |  |  |  |
| CAN\_L\_ Right |  |  |  |
| RFE\_ Right |  |  |  |
| RUN\_ Right |  |  |  |
| AGND\_ Right |  |  |  |
| RTR\_OUT |  |  |  |
| RTR\_IN |  |  |  |
| RTR\_MID |  |  |  |
|  | 16 connections | 9 connections | 9 connections |

RTR creates a loop from HVD around both controllers

**D HVD-Toblerone**

HVD: Size 10 – 6 x size 20 contacts

Toblerone: Size 10 – 6 x size 20 contacts

|  |  |  |
| --- | --- | --- |
|  | **HVD** | **Toblerone** |
| TSAL+ |  |  |
| TSAL- |  |  |
| SHUTDOWN+ |  |  |
| SHUTDOWN- |  |  |
|  | 4 connections | 4 connections |

**E DASH-Pedalbox**

DASH: Size 14 - 19 x size 20 contacts

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Connections** | **DASH** | **Throttle** | **BPS1** | **BPS2** | **Brake Switch** | **BOTS** | **Starter** |
| TPS1\_SIG |  |  |  |  |  |  |  |
| TPS1\_PWR |  |  |  |  |  |  |  |
| TPS1\_GND |  |  |  |  |  |  |  |
| TPS2\_SIG |  |  |  |  |  |  |  |
| TPS2\_PWR |  |  |  |  |  |  |  |
| TPS2\_GND |  |  |  |  |  |  |  |
| BPS1\_SIG |  |  |  |  |  |  |  |
| BPS1\_PWR |  |  |  |  |  |  |  |
| BPS1\_GND |  |  |  |  |  |  |  |
| BPS2\_SIG |  |  |  |  |  |  |  |
| BPS2\_PWR |  |  |  |  |  |  |  |
| BPS2\_GND |  |  |  |  |  |  |  |
| BRAKE\_SWITCH+ |  |  |  |  |  |  |  |
| BRAKE\_SWITCH- |  |  |  |  |  |  |  |
| SHUTDOWN+ |  |  |  |  |  |  |  |
| SHUTDOWN- |  |  |  |  |  |  |  |
| \*\*Starter Power\*\* |  |  |  |  |  |  |  |
| \*\*Starter Ground\*\* |  |  |  |  |  |  |  |
|  | 16 + 2 | 6 | 3 | 3 | 2 | 2 | 2 |

\*\*Starter battery for DCDC, to be placed in dash if enough space

**F DASH-Brakelight**

DASH: Size 10 – 6 x size 20 contacts

|  |  |  |
| --- | --- | --- |
| **Connections** | **DASH** | **Brake lights** |
| BRAKE\_1 |  |  |
| BRAKE\_2 |  |  |
| BRAKE\_3 |  |  |
| GND |  |  |
| GND |  |  |
| GND |  |  |
|  | 6 connections | 6 connections |

**G DASH-SteeringWheel**

DASH: Size 10 – 6 x size 20 contacts

|  |  |  |
| --- | --- | --- |
| **Connections** | **DASH** | **Wheel** |
| 5 V |  |  |
| GND |  |  |
| CAN\_HIGH |  |  |
| CAN\_LOW |  |  |
|  | 4 connections | 4 connections |

