EV3 Enclosure Connections

Documents plug requirements and connections for primary enclosures

# Connector Summary

## Dash

* 1 x Size 12 - 10 x size 20 contacts
* 1 x Size 14 - 19 x size 20 contacts
* 3 x Size 10 – 6 x size 20 contacts

## RCH

* 1 x Size 12 - 10 x size 20 contacts
* 5 x Size 10 – 6 x size 20 contacts
* 1 x Size 14 - 19 x size 20 contacts

## Toblerone

* 1 x Size 10 – 6 x size 20 contacts

## HVD

* 3 x Size 14 - 19 x size 20 contacts

## Accumulator

* 1 x Size 14 - 19 x size 20 contacts

## Other

* Firewall Bulkhead?

## Total Connector Count

|  |  |
| --- | --- |
| **Connector** | **Amount** |
| Size 10 – 6 x size 20 contacts | 9 |
| Size 12 - 10 x size 20 contacts | 2 |
| Size 14 - 19 x size 20 contacts | 6 |

# Loom Connections

A List of each node to node connection and the required plug on each enclosure(s)

## DASH – RCH

RCH: Size 12 - 10 x size 20 contacts

DASH: Size 12 - 10 x size 20 contacts

8 Connections:

* 12 V
* GND
* SHUTDOWN
* BSPD\_OK
* CAN\_HIGH
* CAN\_LOW
* BSPD\_CURRENT
* BSPD\_REFERENCE

## DASH – PEDALBOX

DASH: Size 14 - 19 x size 20 contacts

16 Connections:

* 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\_IN
* BRAKE\_SWITCH\_OUT
* SHUTDOWN\_IN
* SHUTDOWN\_OUT

## DASH – SENSORHUB (X2)

DASH: Size 10 – 6 x size 20 contacts

4 Connections:

* Power
* GND
* CAN\_HIGH
* CAN\_LOW

## DASH – STEERINGWHEEL

DASH: Size 10 – 6 x size 20 contacts

4 Connections:

* Power
* GND
* CAN\_HIGH
* CAN\_LOW

## RCH – TOBLERONE

RCH: Size 10 – 6 x size 20 contacts

TOBLERONE: Size 10 – 6 x size 20 contacts

4 Connections:

* TSAL+
* TSAL-
* SHUTDOWN\_IN
* SHUTDOWN\_OUT

## RCH – SENSORHUB (X2)

RCH: Size 10 – 6 x size 20 contacts

4 Connections:

* Power
* GND
* CAN\_HIGH
* CAN\_LOW

## RCH – MOTORCOOL (X2)

RCH: Size 10 – 6 x size 20 contacts

4 Connections:

* Pump+
* Pump-
* Fan+
* Fan-

## RCH – HVD

RCH: Size 14 - 19 x size 20 contacts

HVD: Size 14 - 19 x size 20 contacts

16 Connections:

* 12 V
* GND
* STARTER\_POWER
* STARTER\_ENABLE
* SHUTDOWN
* BSPD\_OK
* CAN\_HIGH
* CAN\_LOW
* BSPD\_CURRENT
* BSPD\_REFERENCE
* COOL\_PWR1
* COOL\_PWR2
* COOL\_PWR3
* COOL\_GND1
* COOL\_GND2
* COOL\_GND3

## HVD – CONTROLLERS

HVD: Size 14 - 19 x size 20 contacts

18 Connections:

* 12V\_LEFT
* GND\_LEFT
* CAN\_HIGH\_LEFT
* CAN\_LOW\_LEFT
* RFE\_LEFT
* RUN\_LEFT
* AGND\_LEFT
* RTR\_IN\_LEFT
* RTR\_OUT\_LEFT
* 12V\_RIGHT
* GND\_RIGHT
* CAN\_HIGH\_RIGHT
* CAN\_LOW\_RIGHT
* RFE\_RIGHT
* RUN\_RIGHT
* AGND\_RIGHT
* RTR\_IN\_RIGHT
* RTR\_OUT\_RIGHT

## HVD – ACCUMULATOR

HVD: Size 14 - 19 x size 20 contacts

ACCUMULATOR: Size 14 - 19 x size 20 contacts

18 Connections:

* 12 V
* GND
* STARTER\_POWER
* STARTER\_ENABLE
* SHUTDOWN
* BMS\_OK
* PRECHARGE\_OK
* IMD\_OK
* CAN\_HIGH
* CAN\_LOW
* BSPD\_CURRENT
* BSPD\_REFERENCE
* COOL\_PWR1
* COOL\_PWR2
* COOL\_PWR3
* COOL\_GND1
* COOL\_GND2
* COOL\_GND3