JIB-HVT User Manual

Flash Drive Motors

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CAUTION: Please read the entirety of this manual before attempting any installation or configuration of the JIB-HVT system.

Table of Contents

1. Included Parts

- JIB-HVT High Voltage Junction Box
- SurLok 10.3mm Power Connectors x 6
- 12 Pin Molex Signal Connector
- Aux HV Connector x 2

2. Technical Overview / Functionalities

The Flash Drive JIB-HVT Module is a purpose-built high voltage junction box designed to simplify Tesla swaps and conversions.

Its core functionalities include:

- **Simplifying HV Connections:** It condenses the high voltage (HV) connections into a single unit, providing connectors for easy hookup.
- **System Integration:** It performs a similar role for the high voltage side of the conversion as the Flash Drive Motors JIB Module does for the 12V side. The combination of the JIB-HVT and JIB-H9 Module provides a cost-effective and simple solution for electric vehicle conversion.

3. Safety & Critical Configurations

- **High Voltage Safety:** The JIB-HV handles high voltage. Exercise extreme caution during installation to prevent serious injury. Make sure the service disconnect switch is in the Off position until the system is ready.

4. Fuses

Located inside the enclosure

- **Fuses (3):**
  - Main - A50QS400
  - Aux HV - ATM 30/40
  - Aux HV - ATM 30/40

5. Connector Pin-Outs

5.1 Signal Connector

Pin	Color	Gauge	Isolated Logic Function
1	Black	20	Ground
2	–	–	–
3	Purple/Blue	20	HV Precharge
4	White/Red	20	HV Positive Contactor
5	White/Blue	20	HV Negative Contactor
6	Green/Yellow	20	Inverter Precharge
7	Orange/Red	20	Inverter Positive Contactor
8	Yellow/Red	20	Inverter Negative Contactor
9	–	–	–
10	Orange	–	HV Sense + (Optional: for use with CCS)
11	–	–	–
12	Black	–	HV Sense - (Optional: for use with CCS)

5.2 Battery Connectors

The large Batt + and Batt - (these were labelled HV In + and HV In - on previous versions) connect to the high voltage battery pack positive and negative.

5.3 Inverter Connectors

The large Inv + and Inv - supply power to the inverter.

5.4 High Power Aux Connectors

The large HV+ and HV- (these were labelled as CCS Out + and CCS Out - on previous versions) are high power auxiliary high voltage connections that can be used for DC fast charging inputs or can be used to support dual motor applications.

5.5 Aux HV Connector x 2

There are 2 fused HV connectors. These can be used to connect to the onboard charger, DC-DC converter, or other HV accessories as needed. They are internally fused with ATM30/40 fuses. Note that the polarity is labelled on the lid as well.

Pin	Color	Gauge	Function
1	Orange (or Black)	12/14	HV -
2	Red/Blue	12/14	HV +

6. Operational Details

- The JIB-HVT allows an external controller to open and close the contactors along with controlling the precharge resistors.
- A typical controller will close the negative contactor, activate the precharge resistor for a given time, and then close the positive contactor.
- The HV sense wires are for use in systems that require a physical HV connection to monitor voltage, such as a CCS controller.