JIB-T2C 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-T2C system.

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1. Included Parts

- JIB-T2C Interface Module
- 16 Pin Female Molex Connectors x 2
- 10 pin Female Molex Connector
- 14 Pin Female Molex Connector
- 4 Pin Female Molex Connector
- 60 Molex pins

2. System Connectivity Overview

The JIB-T2C is a junction and interface board designed to simplify the installation of an **EV Controls T2C controller** for a **Tesla motor swap** in an electric vehicle conversion. It acts as a central hub, consolidating components and streamlining the 12V architecture and

- **Motor Controller:** EV Controls T2C controller for Tesla drive unit.
- **Tesla Drive Unit:** Supports any drive unit supported by the T2C controller including dual motor installations
- **Battery Management Systems:** Compatible with systems utilizing standard charge/discharge relay logic (e.g., Orion BMS 2, Vero BMS).
- **E-Brake System:** Designed to interface directly with the Flash Drive Motors Wilwood E-brake interface.

3. Safety & Critical Configurations

4. Fuses

Located inside the enclosure

- **Fuses (6):**
  - +12V 15A
  - Key Switch 5A
  - Key Switch 5A
  - Key Switch 5A
  - Fan 10A
  - Pump 10A

5. Connector Pin-Outs

5.1 Chassis Connector - Female 14 Pin Molex

These wires connect to your vehicle's chassis harness, pump, and fan.

Pin	Color	Gauge	Function
1	Black	18	GND
2	Red	18	+12V
3	Red/Blue	20	+12V Key In
4	Red/Black	20	HV Present In (+12V)
5	Green	18	Pump Out
6	Pink	18	Brake Switch In ***Model 3 Only** ***Ground Trigger**
7	Purple/Blue	18	Brake Lights
8	Yellow	18	Reverse Lights
9	Blue	18	Fan Out
10	Green/Yellow	20	Precharge Relay
11	Orange	20	CAN High
12	Gray	20	CAN Low
13	Orange/Red	20	Positive Contactor
14	Yellow/Red	20	Negative Contactor

5.2 Shifter Potentiometer Connector - 4 Pin Female Molex

This plug connects to an analog shifter. In general, this will be a potentiometer connected to a stock column or floor shifter. The shifter must be enabled via the Analog Shift Enable pin or it will default to the tablet or digital direction inputs.

WARNING: Many off-the-shelf potentiometers will use different colors for the Ref, Signal, and Ground wires. Confirm the wiring of your potentiometer and do not assume the colors will match.

Pin	Color	Gauge	Function
1	Red	20	Shifter Signal Ref +3.3V
2	Yellow	20	Shifter Signal
3	Black	20	Shifter Signal Ground
4	Black/Blue	20	Analog Shifter Enable

5.3 T2C Banks A-E Connector - 16 Pin Female Molex (Black)

This plug connects to the T2C Banks A-E Pins. Only necessary wires are pinned.

Pin	Color	Gauge	T2C Pin
1	Red	18	E3 (+12V In)
2	Blue	18	E2 (Fan)
3	Brown	18	E1 (Inverter +12V)
4	–	–	–
5	–	–	–
6	Purple/Blue	18	D1 (Brake Lights)
7	Brown	18	C3 (Reverse Lights)
8	–	–	–
9	Red	18	C1 (+12V Bank 2)
10	Green/Yellow	20	B3 (Precharge Relay)
11	–	–	–
12	–	–	–
13	Red	18	A3 (+12V Bank 1)
14	Yellow/Red	20	A2 (Neg Contactor)
15	Orange/Red	20	A1 (Pos Contactor)
16	–	–	–

5.4 T2C Banks F-K Connector - 16 Pin Female Molex (White)

This plug connects to the T2C Banks F-K Pins. Only necessary wires are pinned.

Pin	Color	Gauge	Function
1	Orange	20	K3 (CAN 1 High)
2	White	20	K2 (CAN 2 High)
3	–	–	–
4	Gray	20	J3 (CAN 1 Low)
5	Green	20	J2 (CAN 2 Low)
6	–	–	–
7	Green	20	H3 (Drive Input)
8	Yellow	20	H2 (Reverse Input)
9	–	–	–
10	White	20	G3 (Neutral Input)
11	Pink	20	G2 (Brake Switch)
12	–	–	–
13	–	–	–
14	–	–	–
15	–	–	–
16	Black	18	F1 (Ground)

5.5 Tesla Connector - 10 Pin Molex

Connects to the Tesla Drive Unit. The wiring is unique for each type of drive unit. The wire colors will not match the colors of the stock Tesla connectors. Pay close attention to the pin numbers.

Pin	Color	Gauge	LDU	SDU	Model 3 Rear (Gray)	Model 3 Rear (Black)
1	Brown	18	1/23 (Power)	10/13 (Power)	9 (Inverter +12V)	
2	Red	18			10 (+12V)	
3	White	20			4 (CAN2 H)	
4	Green	20			5 (CAN2 L)	
5	Black	18			12 (Ground)	
6	Brown	18				10 (Inverter +12V)
7	Orange	20	4 (CAN1 H)	2 (CAN1 H)		6 (CAN1 H)
8	Gray	20	5 (CAN1 L)	1 (CAN1 L)		7 (CAN1 L)
9	Black	18	6/11 (Ground)	18/19 (Ground)		14 (Ground)
10	–	–	–	–	–	

6. Operational Details

6.1 Analog Shifter

<Document Analog Shifter Configuration App>

6.2 Wilwood E-Brake Interface

<Document Wilwood Brake Interface>

7. Example Wiring Diagrams

<Document Example Wiring Diagrams>