

TSI Errata

Box

- Hole on front panel not needed if no key being used.
- Make panels able to detach from box with connectors still on.
- PCB Mounting holes slightly off.
- Mounting plate uses 6-32 screws and all others are 8-32. Make everything us 8-32.
- 8-Pin connector cutout not made correctly. Only 2 holes can be used to screw in now.
- One of the 8-Pin connectors needs to be a 12-Pin.
- Use banana jacks that can be secured to panels for TSMP.
- Change ceramic standoffs to new type that is still electrically insulated.
- Box the MEs made has hole for High Voltage return from motor controller too high.
- Din Rail for CAN Isolator too long and extends under PCB. Make this shorter.
- If possible, push things closer to back wall to allow more space for din rail connections.
- High voltage wall has thin connection points and broke already. Make this more structurally sound and secured in box.

PCB

- Tied +24_RTN & CH_GND
 - Consider using 2nd DC/DC for 10V, or use DC/DC w/ two outputs (5/12)
- Fix footprint outlines for header pins (currently plastic goes outside silkscreen).
- R58 replaced w/ 15kohm (orig. 24.9k). This was due to incorrect gain calculations on isolation circuits.
- Drive Button needed a pull-up. Now using Drive Button pin w/ internal pull-up, and a spare/open GND pin.
- Tied Pins 19 & 20 together for +24V to Brake Overtravel/Brake Pressed
- Replaced R33 w/ 2k resistor to get roughly 17% plausibility window.
 - This was for testing purposes and concern over the accuracy of the potentiometers/method of mounting them.
 - The 500 ohm resistor in original design is incorrect. This will result in 5% window, not 10%. Needs fixed.
 - Another location a pot may be useful is R33 to the plausibility window may be changed.
- Replaced R25 w/ 4.75k resistor to match APPS2 on car pedal cluster.
- Replaced R26 w/ 4.99k resistor to match APPS1 on car pedal cluster.
 - The datasheet for the pots was incorrect, saying 2k, instead of 5k.
 - One suggestion would be to add trimmer pots as R25, R26, that way there may be adjustment depending on the actual potentiometer values.
- Serial Number mask is incorrect. Currently exposes GND plane.
- Board as is installed on the car currently bypasses Throttle Plausibility directly to jumper.
 - Still allows for Drive Button control.
- The HVPL circuit seems burnt out. Traced back to buck converter, seems to go bad there.
- Current Motor Controller cable is incorrect. +5V from Motor Controller does not come as intended, had to splice into +5V being supplied to encoder.

Entire package

- Add Throttle measuring point to TSI subsystem
- Label TSMPs
- Housing around TSMPs
- Implement overcurrent logic, reduce throttle when over current (maybe add LED too)