

Electric Vehicle 7WDC-DC Installation and Wiring Guide

Belktronix

Initial Release 042007

Revised 050107

Rev 1.1

Document Revision History

- 1.0 Initial release
- 1.1 Added Link 10 E-Meter details including shunt and HV Adapter

Special Thanks from Belktronix!

- Thank you for your purchase of this 7W DC-DC converter. It is designed for years of trouble-free use and ease of installation.
- Please read through the manual to familiarize yourself with the installation instructions herein.
- Please contact Belktronix if there are questions or problems with the installation or documentation.

System Wiring

DANGER: Working with HIGH VOLTAGE Systems can be FATAL.

Follow Guidelines. Maximize Caution. Avoid Distractions.

- Each wiring task is illustrated to make it easy to follow, point to point.
- Route low signal wiring away from high current wires.
- A 3 Traction Battery string is illustrated in the diagrams, your system will have more. Limit series connected batteries to 25.
- Crimp tool, 0.250" Fast-On's and hookup wire is needed to install DC-DC converter

Mechanical Installation

DANGER – USE CAUTION WORKING WITH HIGH VOLTAGE AND CURRENT!

- Locate a flat, smooth area in engine compartment which is away from direct exposure to outside elements (i.e. front grill area) where DC-DC converter is to be mounted.
- If outside temperature is less than 70°F, warm area with hot water.
- Clean area on vehicle chassis with alcohol or other suitable film-free cleaner.
- Remove one side of wax paper from double sided tape and stick to bottom of DC-DC converter, pressing for 1 minute.
- Remove other side of wax paper and stick DC-DC to vehicle and press firmly for 1 minute.
- DC-DC converter should now be securely mounted to vehicle

Electrical Installation

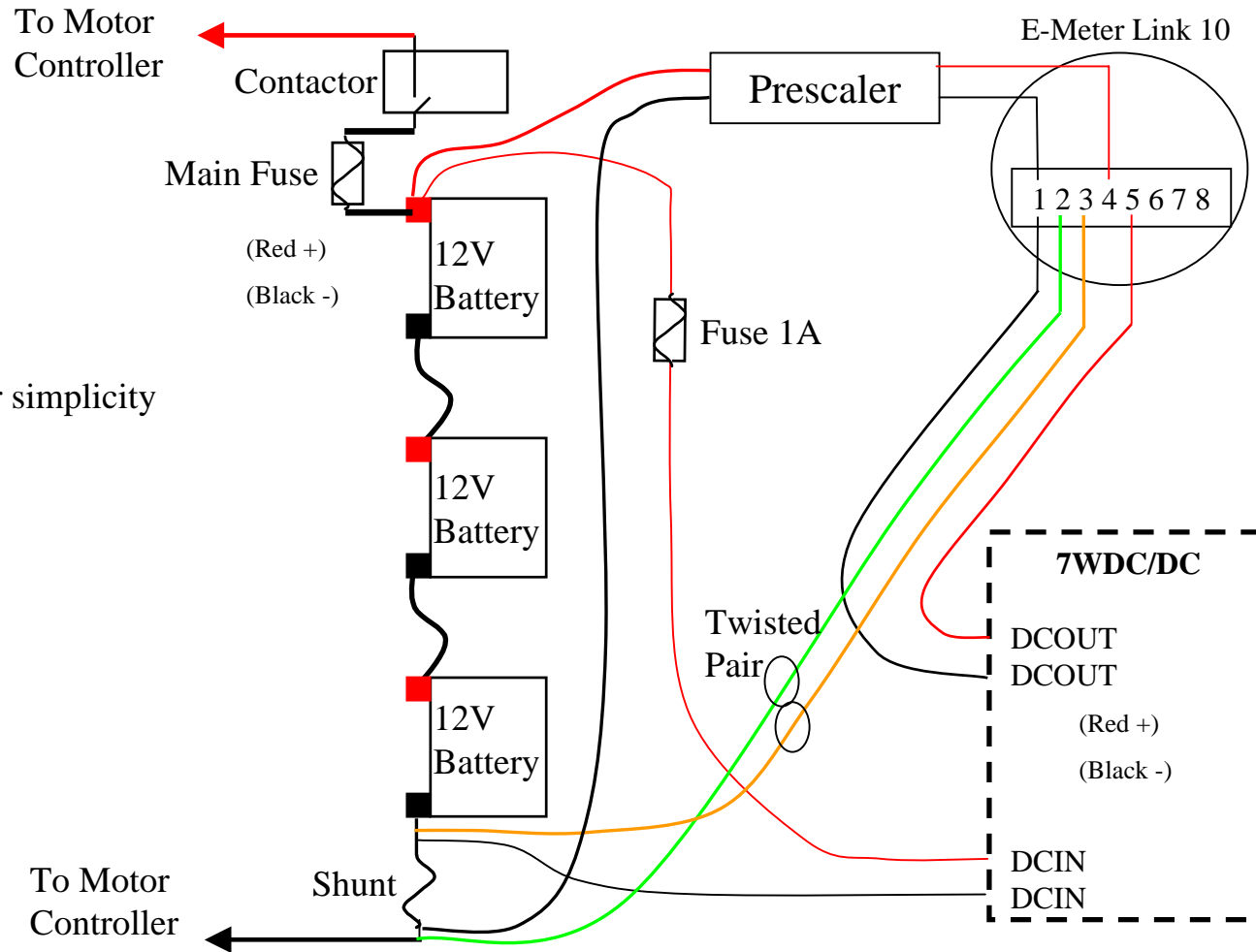
Note: Red is positive terminals to DC-DC converter.

Black is the negative terminals for DC-DC converter

See block diagram on following slide.

- Wire up DCOUT to E-Meter first. Hold Fast-on lugs securely and insert into DC-DC panel sockets.
 - Wire up battery pack minus to DCIN black terminal of DC-DC converter
 - Separate the fuseholder and wire up DCIN red terminal to long side of fuseholder.
 - Prepare battery positive terminal to short side of fuseholder connection. Be Careful!
 - Insert fuse in long side and close fuseholder. There may be a slight spark. Verify E-Meter is powered.
 - If DC-DC fails to start, remove fuse and wait 1 minute. Re-insert fuse and recheck E-Meter display
- >>>The most difficult installation is with power already supplied to the E-Meter and you need to transition it to be powered from the DC-DC converter. This is to retain E-Meter battery information in memory. Contact Belktronix for more details and methods.

DC-DC Power Wiring



Direct Battery Connection

Traction Pack Batteries, 3 shown for simplicity

DC Input wire size 22 AWG

DC Output wire size 22 AWG

RED is Positive (+) terminals

Black is Negative (-) terminals

ZOOM IN for clearer image details