BELKTRONIX

LinkPro CombiUnit Integrated Adapter Manual

Initial Release 03/01/12

Rev 1.0

Document Revision History

- 1.0 Initial release, covers both 72V-200V and 200-350V input ranges.

Thanks from Belktronix!

- Thank you for your purchase of a Belktronix CombiUnit Adapter Module. Its highly integrated to reduce installation time & maintain isolation between traction and vehicle batteries.
- Please read through the manual to familiarize yourself with the installation process before attempting to install the CombiUnit Module.
- Use CAUTION when working with high voltage battery packs and keep unconnected wires from touching vehicle chassis or other battery terminals during the installation process.
- Please contact Belktronix if there are questions or problems with the installation or documentation.
- LinkPro datasheets exclude HV Adapter wiring & startup sequence. The data presented herein is based on existing Link10 & XBM models and verified operational.
- Verify LinkPro prescaler settings are correct once meter is powered.
- Do not connect the 2nd LinkPro battery input to the vehicle battery!

CombiUnit - LinkPro Wiring Steps

Exercise caution when working with HIGH VOLTAGE

- **Adding wire lengths:** Using crimp terminals or solder splices, add wire to either side of the CombiUnit in order to have sufficient length for installing the unit to install in the vehicle. Insulate any crimps or splices carefully from the vehicle chassis.
- **Mounting the CombiUnit:** Locate a flat area on the vehicle chassis for CombiUnit to be mounted with the self-adhesive Velcro tape. For metal surfaces and some plastics, clean the surface with rubbing alcohol. (Note: when cold or dampness is present, it will be necessary to pre-heat the area to help with the adhesive process). Carefully peel back the wax film to expose the sticky tape underneath. Place on cleaned surface and press down for 30 seconds. Adapter should not come back off with light movement of the case. Be sure wire leads are not strained and pull the CombiUnit from the mounting location.
- **Wiring the Current Shunt:** Wire up the current shunt connections to the meter at this time as shown.
- **Wiring -P+ port:** This port is the LinkPro's power port. Twist the wires on the "P" side of the CombiUnit together to improve noise immunity to the meter. Wire the CombiUnit's output side first, Black wire (-) to terminal (-) of the LinkPro meter, Red wire (+) to terminal + of the LinkPro meter.
- **Wiring -DCIN+ port:** This port powers both the internal DC-DC and the prescaler. Wire the DCIN inputs to the vehicle traction pack (shown in the following slide). The meter should power up at this time with 0.00V readout.
- **Set the Prescale factor:** Follow the LinkPro manual instructions on changing the voltage scaling factor to the 10:1 setting for the HV Adapter. Note that other E-Meter features are changed as well. Now disconnect the -DCIN+ inputs.
- **Wiring -M+ port:** This port is the LinkPro's prescaler port. Twist the wires on the "M" side of the CombiUnit together to improve noise immunity. Wire the M port, Black wire (-) to terminal (-) of the LinkPro meter, Red wire (+) to terminal V_M of the LinkPro meter.
- Reconnect the -DCIN+ inputs and the LinkPro should power up and display the correct pack voltage

CombiUnit - LinkPRO Wiring Diagram

Traction Pack, 3 Batteries shown for simplicity

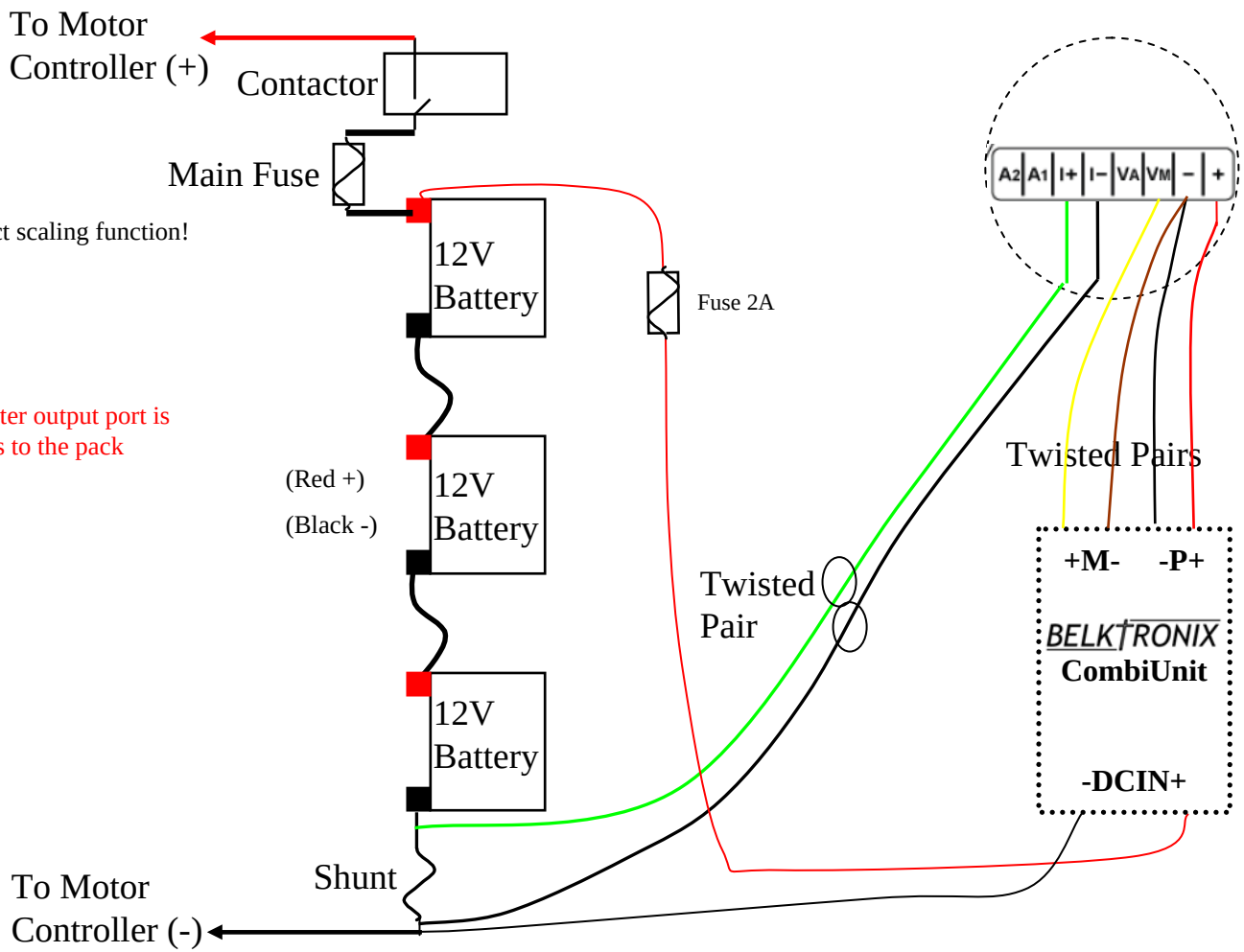
Be sure to set the scaling of the meter to the correct scaling function!

Locate the fuse close to the battery (+) terminal

RED, YELLOW wire is Positive (+)

Black, Brown wire is Negative (-)

CAUTION: Even with an isolated DC-DC, the meter output port is not isolated due to the shunt & meter - connections to the pack Outputs will be referenced to the traction pack (-)!



Working with HIGH VOLTAGE Systems can be Dangerous! Be CAREFUL!