

Technical Service Bulletin

SUBJECT:

DC CONVERTER DOES NOT CONVERT HIGH VOLTAGE TO LOW VOLTAGE WHEN ENABLE WIRE IS PROVIDED 12 VOLTS

NUMBER: TSB-22-001

DATE: August, 2022

PRODUCT: ElCon Converter

PURPOSE

On a small number of affected converters, the provided enable plug, which connects to the DC converter pigtail harness connector, was wired incorrectly. When the enable wire is supplied 12 volts, it is going to the wrong part of the circuit inside the converter. In most cases the converter does not get damaged, but will not power up.

AFFECTED PRODUCTS

ElCon 1KW DC/DC Converter Series TDC-IY-108-12 Similar ElCon models may be affected.



REPAIR PROCEDURE

On systems not using CAN, the enable plug has a single white wire with a black stripe and possibly also a blue stripe. Check to see if the wire is in the #1 labeled hole. If so, use the following procedure.



Disconnect or de-energize high and low voltage during procedure.





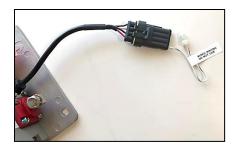
Connector wired correctly? —> Disregard TSB and diagnose using standard procedures. Connector wired incorrectly? —> Proceed to the following repair steps.

Continued 1

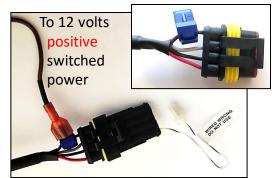
 Disconnect the white wire with the black stripe (or blue/black stripe) from the switched 12 volt power source, if still connected. Cap off the wire in the #1 pin location and label it to prevent future inadvertent use.



 Connect the enable plug into the enable harness connector at the end of the pigtail which is hardwired into the converter.



3. Use a T-tap on the brown wire on the converter side of the harness at the #4 pin location. Use an 18 gauge wire to connect the T-tap to switched 12 volt power (key switch).



4. Reconnect or re-energize high and low voltage lines to the converter. With the key switch on, use a Cat III voltmeter to check that voltage output of the converter is now approximately 14 volts.



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