

Translectric Inc.

SM2412-10

Installation and Trouble Shooting Guide.

ATTENTION: If installing this product on any electric vehicle with *regenerative braking*, an SM480-8 noise/spike filter must also be installed. Failure to do so will *void factory warranty!!!!*

Description: The SM2412-10 is a general-purpose dc-dc converter, allowing operating voltages as low as 18 VDC and as high as 55 VDC input at a regulated 13.8 VDC output.

The **ORANGE** is the **INPUT POSITIVE**. It is always recommended that the input wires be connected directly to the battery.

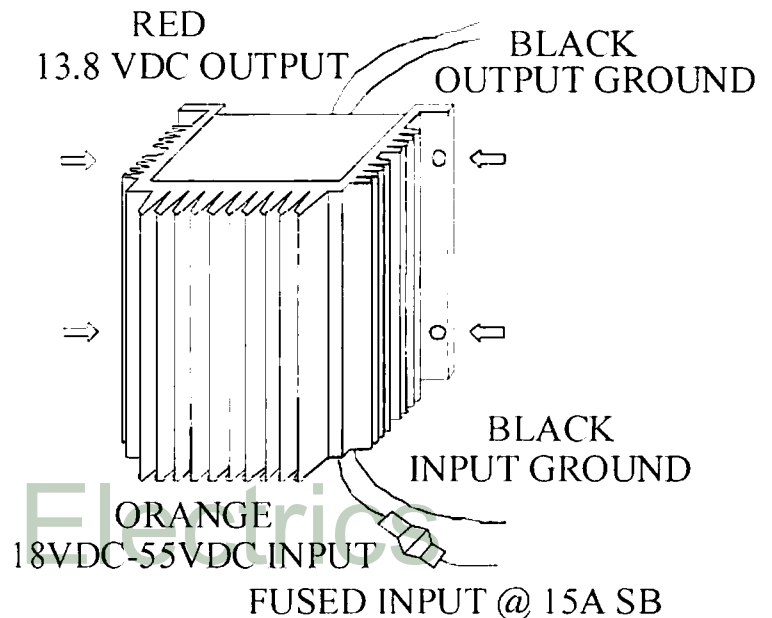
The **BLACK** wire near the orange wire is the **INPUT NEGATIVE**. Connect to battery ground.

The **RED** wire is the **OUTPUT POSITIVE**. Connect to load positive.(Radio, Lights, Computer etc..)

The **BLACK** wire near the red wire is the **OUTPUT NEGATIVE**. Connect to load negative.

(BOTH BLACK WIRES MUST BE CONNECTED DUE TO THE HIGH CURRENTS DEVELOPED IN THIS UNIT)

Installation: Mount the converter with the heat sink fins vertical if at all possible.(This allows for maximum heat dissipation.) Use #10 screws or bolts to mount unit.



The fuse in this unit has no determining factors as to the current carrying capabilities of the converter. The fuse serves only one purpose, and that is to remove the unit from your power source in the event of a failure. The SM2412-10 has a very advanced control section, and will determine when to open (blow) the fuse. (An open (blown) fuse indicates, that a problem had occurred, but does not mean that the problem still exists, or that the problem no longer exists.)

< DO NOT increase or bypass the fuse. USE ONLY A FUSE RATED AT 250V 15A SLO-BLO >

Potential reasons for an open (blown) fuse are as follows: (1)The output voltage rises above 18 VDC. This problem can occur when an inductive load is removed or applied at high currents. This is a noise spike and the converter will shut down if it can not suppress the spike. (2)Reverse polarity on the input or output. (3)Excessive noise or spikes on the input.

Mount this unit as close to the highest current load as possible. (This unit uses true switching techniques to step down the input voltages. The higher the input voltage the lower the input current for a 10 AMP load. The high currents are on the output of the converter.) Use 14 gauge wire for the input up to 10 feet. Increase the wire gauge for each additional 10 feet of wire. NEVER use less than a 14 gauge wire on the output. If the wire length exceeds 5 feet use 12 gauge wire. IMPORTANT: Use a crimp type of connector to attach the wires to the converter. DO NOT twist the wires together. A poor connection will not only allow the converter to operate poorly, but at 10 amps the connection WILL GET HOT AND BURN IN TWO.

WARNING: THE CHASSIS IS ISOLATED FOR HIGH VOLTAGE APPLICATIONS. DO NOT USE THE CHASSIS FOR GROUND.

WARRANTY POLICY: A TWO YEAR LIMITED WARRANTY FROM THE DATE OF MANUFACTURE. TRANSLECTRIC INC. WILL NOT BE RESPONSIBLE FOR ANY DAMAGE AND/OR INJURY TO ANY PERSON OR EQUIPMENT FROM USE OF THIS PRODUCT.