

ECM Vboost Supply, P/N 04-02



The Vboost Supply takes the nominally 12V from a car or truck battery and converts it to a 24V (14.5A max) output. This 24V can then be used to power NOx 5210, Lambda 5220, and EGR 5230 analyzers, NOxCAN and LambdaCAN kits, and BTU200 ceramic sensor heaters.

The Vboost Supply is highly recommended for in-vehicle installations of NOx 5210 analyzers, NOxCAN kits, EGR 5230 analyzers, and BTU200 heaters. The reason why is that a nominally 12V car/truck battery may not be able to power these devices under certain engine operating conditions (ex. high flowrates of cold exhaust). NOx sensors, intake O2 sensors, and BTU200 heaters can be more tightly temperature-controlled when supplied with 24V.

Vboost can also be used to make up for low battery voltages. Vboost will operate a LambdaCAN kit with a battery voltage as low as 8V.

Installation:

1. Mount the Vboost Supply where it will not be exposed to water. It has a fan and hence needs airflow and is not sealed.

2. Run two wires from the “+” and “-“ terminals of the “DC 12V INPUT” on the side of the Vboost Supply to the 12V car/truck battery. These wires should be 10 AWG if up to 2m long, 8 AWG if up to 3m long, or 6 AWG if up to 6m long.
3. The Vboost Supply can be turned on either by the “ON OFF” switch or a 12V (100mA) signal to the “POWER CTRL” terminal of the “DC 12V INPUT”. It is recommended that the “POWER CTRL” terminal be connected to the “KEY ON” circuit of the car/truck for automatic turn-on.



12V Input Side



24V Output Side

4. The output side of the Vboost Supply has two pairs of 24V output terminals. One pair is connected to a DC Power Cable P/N 11-01. This cable has a female Eurofast connector and a female DB9 connector. The DB9 connector is only to be used to CAN communicate with NOxCAN and LambdaCAN kits. To CAN communicate with NOx 5210, Lambda 5220, and EGR 5230 analyzers you use the “CAN” connector on the back of the analyzers.
5. *****IMPORTANT***** NOxCAN or LambdaCAN kits cannot be attached to the same DC Power Cable as NOx 5210, Lambda 5220, or EGR 5230 analyzers. If you have both kits and analyzers, you **MUST** put the kits on one pair of output terminals and the analyzers on the other pair. This is to avoid communication clashes between the CAN bus of the kits and the EIB bus of the analyzers. Therefore, if you have both kits and analyzers, you will additionally need a DC Power Cable P/N 11-15 to power the analyzers (P/N 11-15 is P/N 11-01 without the DB9 connector). BTU200 ceramic sensor heaters can be powered with kits or analyzers.