



Competency 2

The Electrical System

Objective (s) of the Lesson: Recognize the role of the system components and the means to optimize its performance.

The electrical system of trucks is composed of two main elements, the alternator and the batteries.

The role of the alternator is to generate current from the start of the vehicle to produce the electricity that will charge the batteries. In addition, it will provide the necessary power for the proper functioning of the electrical components of the vehicle.

The batteries have a dual function. First, provide the necessary electrical power to the starter to start the engine. Then, supply the truck's electrical components in case of alternator failure.

Notes:

Associated pictogram:

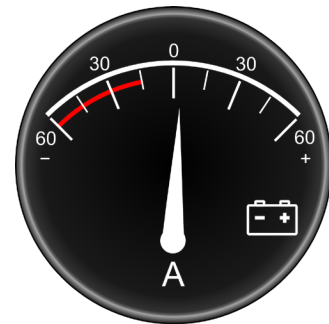


Indicator lights:





The alternator provides the dynamic current which is between 12 and 14 volts.



An ammeter (optional dial) measures the intensity of an electric current. Its normal reading is slightly above zero. If there is a strong current demand, the reading will increase on the positive side. On the other hand, if the alternator stops working, the reading will go to the negative side.

During the inspection, I must make sure that;
The belt and connections are in good condition.

Notes:



(2.2.4)



Four horizontal lines for notes, each enclosed in a bracket on the right side.

In the case of batteries, the inspection is carried out by the mechanic during periodic inspections.

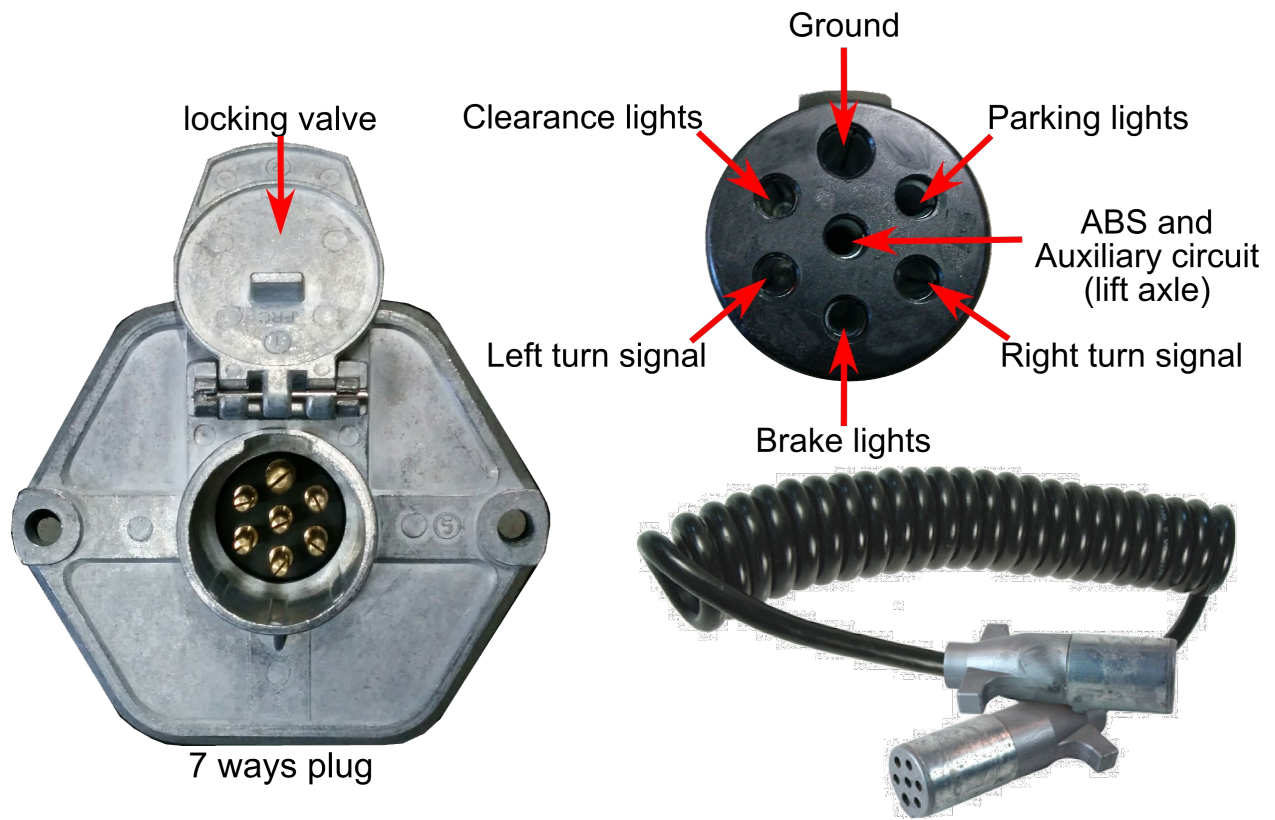


Red (positive +) and black (negative) terminals are usually located near the engine on the left side of the side rail. These terminals will be used for boosting batteries in case of failure.

The electrical connector of the semi-trailer



(2.2.4)



(2.2.4)