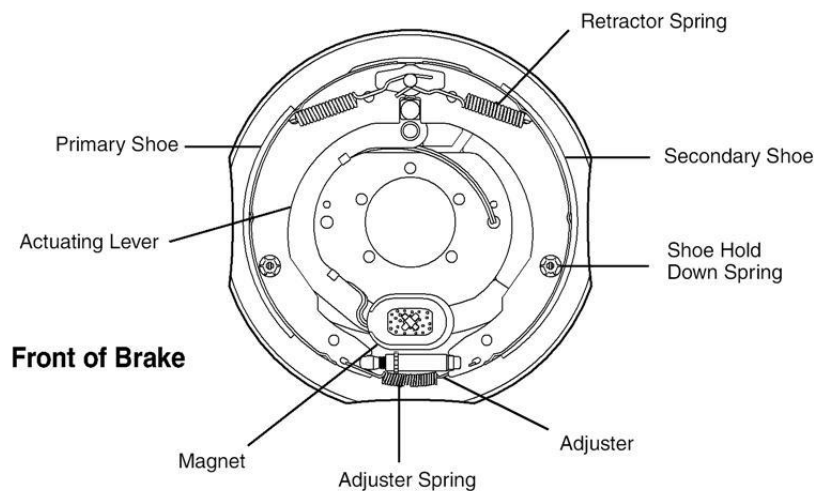


## Electric Brakes

The electric brakes on your trailer are similar to the drum brakes on your automobile. The basic difference is that your automotive brakes are actuated by hydraulic pressure while your electric trailer brakes are actuated by an electromagnet. With all of the brake components connected into the system, the brake will operate as follows:



When the electrical current is fed into the system by the controller, it flows through the electromagnets in the brakes. The high capacity electromagnets are energized and are attracted to the rotating armature surface of the drums which moves the actuating levers in the direction that the drums are turning.

The resulting force causes the actuating cam block at the shoe end of the lever to push the primary shoe out against the inside surface of the brake drum. The force generated by the primary shoe acting through the adjuster moves the secondary shoe out into contact with the brake drum.

Increasing the current flow to the electromagnet causes the magnet to grip the armature surface of the brake drum more firmly. This results in increasing the pressure against the shoes and brake drums until the desired stop is accomplished.





## **Features**

Electrically actuated brakes have several advantages over other brake actuation systems.

1. They can be manually adjusted at the controller to provide the correct braking capability for varying road and load conditions.
2. They can be modulated to provide more or less braking force, thus easing the brake load on the towing vehicle.
3. They have very little lag time from the moment the tow vehicle's brakes are actuated until the trailer brakes are actuated.
4. In an emergency situation, they can provide some braking independent of the tow vehicle.

### ***Parking Brake Option*** ***(Not available on all sizes)***

Dexter electric brakes with parking brake option are mechanically operated by a cable. Cable force applied to the parking lever creates a torque through the pivot pin and cam assembly. Torque transferred to the parking cam results in a spreading force between the primary and secondary shoes. The shoes, in turn, move towards the drum until contact is made. Friction generated between the drum and lining contact surface keeps the drum from rotating under normal loading conditions.

### ***Self Adjusting Feature*** ***(Not available on all sizes)***

Dexter electric brakes may be equipped with a forward self-adjust feature. This will allow the brakes to adjust on both forward and reverse stops. Brake adjustment occurs when lining wear results in enough gap between the shoes and the brake drum surface. This added clearance will allow the adjuster mechanism to rotate the screw assembly at the bottom of the brake. That action expands the distance between the shoes and thus closes the gap to the drum surface.