

Generally speaking, caravan and trailer brakes will fall into drum or disc types with either hydraulic, mechanical or electric actuation.

Bendix



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Media Release

Bendix explains workings of electric trailer brakes

When it comes to trailer or caravan brakes, there are several different options available, namely hydraulic, mechanical and electric actuation – the system you select will depend on several variables including type of towable and application.

One of the most popular systems, particularly in larger, later model caravans

is electric brakes, because they offer smoother braking and are easily paired with brake controllers such as Bendix's Ultimate Tow™ and Ultimate Tow™ Portable products, offering heightened levels of performance, control and safety for owners.

In an electric system, when the brakes are applied a signal is sent to the trailer brakes through the trailer plug – the strength of the signal varies depending on how hard the driver presses on the brake pedal.

With electric drum brakes, the brake assembly in the trailer or caravan includes electromagnets which engage

“One of the most popular systems, particularly in larger, later model caravans is electric brakes”

once the signal is received. The arm that the magnet is mounted to then expands the brake shoe against the drum, creating friction.

The concept is similar in trailers fitted with electric disc brakes, however the electrical signal is transferred to an actuator (technically referred to as electric-over-hydraulic actuator) which



Electric drum brakes include magnets which engage once a signal is received. The arm that the magnet is mounted to then expands the brake shoe against the drum, creating friction.



Electric systems rely on a signal being sent to the trailer brakes through the trailer plug.



Electric disc brakes are popular in higher end caravans. They operate using a similar concept to drums, however the engagement process is more complex with the signal transferred via an actuator.

includes an electric motor; this then drives a pump that pressurises brake fluid in the trailer's brake lines, forcing the caliper pistons and brake pads against the rotors.

In both instances, when coupled with brake controllers owners of towables equipped with electric brake systems gain many benefits. In the case of the Bendix Ultimate Tow™ controllers, they allow braking to be easily modulated by adjusting the in-cabin dial left for a lower setting or right for maximum setting. This adjustment might be needed when descending steep hills or mountain roads, providing the driver with additional controlled braking capacity.

They also feature override functions, so if the driver notices that the trailer/ caravan is swaying, they press the override button which applies the trailer brakes independently of the tow vehicle, pulling the trailer or caravan into line and minimising the swaying affect.

It's worth remembering that by law, all trailers with a gross trailer mass (the weight of the trailer with everything in it) of between 750kg and 2,000kg need to be fitted with either a mechanical or electrical braking system. And anything over 2,000kg requires an electric, or electric over hydraulic brake and an electric break-away controller.



The actuator features an electric motor that drives a pump that pressurises brake fluid in the trailer's brake lines, forcing the caliper pistons and brake pads against the rotors.



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Electric trailer brakes are easily paired with brake controllers such as Bendix's Ultimate Tow™ and Ultimate Tow™ Portable products.



FOR MORE INFORMATION

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*Bendix brake components are appropriate for the purpose intended and if installed by qualified staff, to the vehicle manufacturer's specifications, can be used in logbook servicing.

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