

ELECTRONIC BRAKE-FORCE DISTRIBUTION (EBFD)

WHAT IS ELECTRONIC BRAKE-FORCE DISTRIBUTION (EBFD)?

Electronic brake-force distribution (EBFD) redistributes the braking force on each wheel proportional to the vehicle or weight load on that wheel. For instance, if one of your wheels hits a patch of ice, spins and then locks up, you lose 25% of braking force applied to this now non-functioning wheel. EBFD would sense this and redistribute the 25% braking force to the remaining three operating wheels.

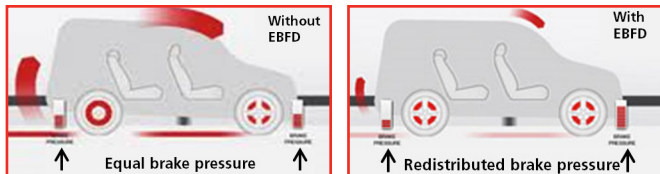
EBFD is similar to ABS and the two often are installed together. ABS prevents your wheels from locking up during braking, while EBFD actually changes the amount of brake-force being applied to each wheel during braking.

HOW DOES EBFD WORK?

EBFD works by monitoring sensors in three areas. Individual sensors monitor the speed of rotation of each wheel, another sensor monitors the vehicle's forward and sideways acceleration/deceleration and a yaw sensor monitors the vehicle's side-to-side motion. The electronic control unit (ECU) gathers and interprets all of the information and, if necessary, sends commands to either increase or decrease brake force for each wheel as needed.

In addition to the above, the yaw sensor in most EBFD systems helps prevent driver oversteering and understeering, common in situations of traction loss. The EBFD will respond by applying brakes on the appropriate wheels to correct steering.

Your brain is your vehicle's most important safety feature.



Images courtesy of Toyota Canada

MAKING THE MOST OF EBF D

EBFD will help you to stop faster and reduce your risk of fishtailing, spinning, oversteering, and understeering. To receive the most of these benefits, during heavy braking apply firm and constant pressure on the brake pedal. Do not pump the brake.

EBFD is limited at high speeds. Some drivers react to heavy braking incidents with 'panicked steering'. Since EBFD/ABS systems allow the driver to control steering, over-turning of the steering wheel at high speeds may cause the driver to lose control of the vehicle.

To maximize the benefits of EBFD, drive at safe speeds and, after a period of heavy braking, steer your vehicle towards safety.

See www.brainonboard.ca for more information on EBFD.

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