Brake Locks

Identifying Your Vehicle Brake System

The typical hydraulic braking systems in use today vary depending on manufacture and size of the vehicle. For instance, a vehicle equipped with a single system may have a firewall mounted booster or possibly a frame mounted remote booster. The same holds true for the dual and split systems. The rear wheel anti-lock system is a dual brake system with an anti-lock valve installed. All-wheel anti-lock systems are defined as 3-channel or 4-channel systems.

(Check the number of outlet lines from the anti-lock control valve). To be absolutely sure which braking system your vehicle is equipped with, check it. Look for identifying features such as dual flex lines at rear axle or front wheels, number of master cylinder lines, anti-lock valve(s), etc. Then, compare with the circuits shown in Figures 1 through 7.

For specific brake lock application information, see Brake Lock Application Guide, Form No. 80-950-152.

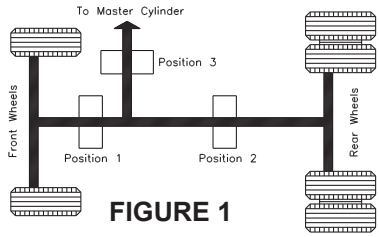

FIGURE 1

Typical Single System

One single hydraulic system serving both front and rear brakes.

Identifying Features:
1. One line from master cylinder.

Brake Lock Position:
(1) Front axle (2) Rear axle (3) 4-wheel

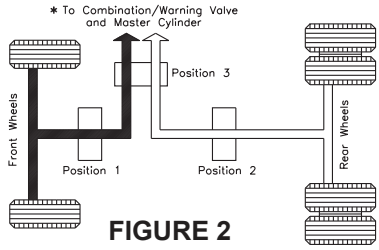

FIGURE 2

Typical Dual System (Vertical Split)

Two independent braking systems. One system leads to the front brakes and the other system to the rear brakes.

Identifying Features:
1. Two lines from master cylinder.
2. Combination valve (used on some models).

Brake Lock Position:
(1) Front axle (2) Rear axle* (3) 4-wheel

* Some imported vehicles use two separate air boosted master cylinders.

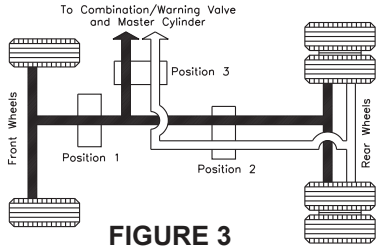

FIGURE 3

Typical Split System (1 1/2 x 1/2)

Two independent braking systems. One system leads to the front and the rear brakes and the other system leads only to the rear brakes.

Identifying Features:
1. Two lines from master cylinder.
2. Single hose to each front wheel.
3. Two hoses to rear axle.

Brake Lock Position:
(1) Front axle (2) Rear axle (3) 4-wheel

CAUTION: Whether position 2 or 3 is used, both halves of the system must be locked.

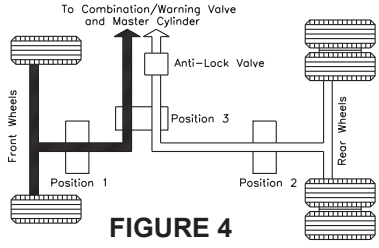

FIGURE 4

Typical Rear Wheel Anti-Lock System (Dual Vertical Split)

Two independent braking systems. One system leads to the front brakes and the other system to the rear brakes.

Identifying Features:
1. Two lines from master cylinder.
2. Anti-lock control valve between master cylinder and rear wheels.

Brake Lock Position:
(1) Front axle (2) Rear axle (3) 4-wheel

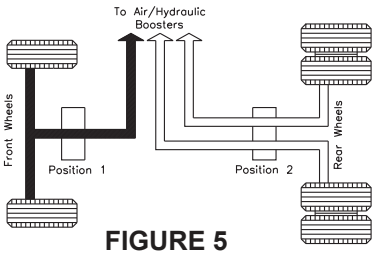

FIGURE 5

Imported Truck 3-Channel All-Wheel Anti-Lock System

Provides braking control by way of independent anti-lock channels for each rear wheel and a third channel for the front wheels.

Identifying Features:
1. Three separate air/hydraulic brake boosters.
2. One line to front brakes.
3. Separate lines to each rear wheel.

Brake Lock Position:
(1) Front axle (2) Rear axle (1 and 2) 4-wheel

NOTE: The anti-lock functions on air booster system, not the hydraulic side.

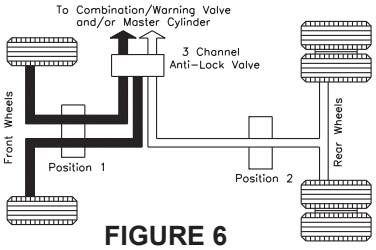

FIGURE 6

Typical 3-Channel All-Wheel Anti-Lock System

Provides braking control by way of independent anti-lock channels for each front wheel and a third channel for both rear wheels.

Identifying Features:
1. Two lines from master cylinder to anti-lock valve(s).
2. One line from anti-lock valve to rear brakes.
3. Separate lines from anti-lock valve to each front wheel.

Brake Lock Position:
(1) Front axle (2) Rear axle (1 and 2) 4-wheel

NOTE: Some 3-channel anti-lock brake systems use two separate anti-lock valves.

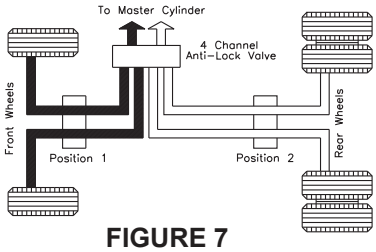

FIGURE 7

Typical 4-Channel All-Wheel Anti-Lock System

Provides braking control by way of an independent channel for each front wheel and each rear wheel.

Identifying Features:
1. Two lines from master cylinder to anti-lock valve.
2. Separate lines from anti-lock valve to each of the front and rear wheels.

Brake Lock Position:
(1) Front axle (2) Rear axle (1 and 2) 4-wheel

NOTE: Some 4-channel anti-lock brake systems use two separate anti-lock valves.

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