

## TROUBLE SHOOTING

Condition	Cause	Remedy
Hard Pedal	<p>Binding pedal linkage</p> <p>Pedal misalignment (side to side)</p> <p>Low booster supply flow</p> <p>Power steering pump flow control valve</p> <p>Power steering pump relief valve setting too low</p> <p>Fluid contamination</p> <p>Master cylinder</p> <p>Booster</p> <p>Tube and hose passages are blocked shut</p>	<p>Contact dealer for service</p> <p>Contact dealer for service</p> <p>Repair/replace power steering pump, check tension in belt</p> <p>Repair/replace power steering pump, check tension in belt</p> <p>Replace power steering pump</p> <p>See vehicle service manual for type of fluid required. Drain, flush and refill system, replace booster or master cylinder as appropriate, and power steering reservoir filter as necessary</p> <p>Replace master cylinder</p> <p>Replace booster</p> <p>Replace parts containing blocked passages</p>
Excessive pedal travel (pedal goes to the floor)	Improper pedal adjustment	See vehicle service manual for pedal rod adjustment (if system is adjustable)

## TROUBLE SHOOTING

Condition	Cause	Remedy
Excessive pedal travel (pedal goes to the floor)  <i>(continued)</i>	External leak in brake fluid system	Check all fittings and connections for the master cylinder, calipers, hoses, and tubes, replace if necessary
	Internal master cylinder leak	Replace master cylinder
	Air in brake fluid system	Bleed system
	Brake linings	Inspect and adjust, or replace brake shoes, if necessary
Pulsating brake pedal	Master cylinder	Replace master cylinder
	Weak brake hoses that expand under pressure	Replace hoses
	Poor quality brake fluid (low boil point)	Drain the system, flush and refill with the recommended fluid.
	Brake self adjusting mechanism	See vehicle service manual (if brakes are adjustable)
Soft, spongy brakes	Air in hydraulic brake system	Bleed brake system
	Poor quality brake fluid (low boil point)	Drain the system, flush and refill with recommended fluid
	Weak brake hoses that expand under pressure	Replace defective hoses
Actuated pedal does not return	Binding pedal linkage	Contact dealer for service

## TROUBLE SHOOTING

Condition	Cause	Remedy
Actuated pedal does not return  <i>(continued)</i>	Fluid contamination  Master cylinder  Binding booster  Self applied booster (fluid flow too high)	See vehicle service manual for type of fluid required. Drain, flush and refill system, replace booster or master cylinder as appropriate, and power steering reservoir filter as necessary  Replace master cylinder  Replace booster  Repair or replace power steering pump.
Pulsating brake pedal	ABS operation  Wheel bearings loose or worn  Excessive rotor hickness variation  Parking brake control valve (HR1) has internal leak	See appropriate service manual  See appropriate service manual  See appropriate service manual  See appropriate service manual
Brake self apply	Self applied booster (fluid flow too high)  Constricted master cylinder reservoir vent	Repair or replace power steering pump  Clean vent passage in reservoir cap
Dragging brake	Self applied booster (fluid flow too high)	Repair or replace power steering pump

## TROUBLE SHOOTING

Condition	Cause	Remedy
Dragging brake  <i>(continued)</i>	Stuck or bound caliper pins or rails	See appropriate service manual
	Binding booster	Replace booster
	Binding pedal linkage	Contact dealer for service
	Master cylinder	Replace master cylinder
	Soft or swollen master cylinder seals due to brake fluid contamination	Flush out old brake fluid then replace master cylinder and add new brake fluid
	Tube and hose passages restricted	Replace the parts containing the restriction
Noise / Whistle	Inherent in some boosters (whistle)	None - Does not affect operation
Backup pump operates continuously	Brake switch	See vehicle service manual
	Monitor module	See vehicle service manual
	Relay	See vehicle service manual
	Flow switch	Remove switch components, clean, inspect for damage or contamination and replace if necessary
	Binding pedal linkage	Contact dealer for service



## TROUBLE SHOOTING

Condition	Cause	Remedy
Backup pump does not operate	Same as above	Repeat as above
	Electrical ground	See service manual
	Backup pump	Replace backup pump
Leakage	Master cylinder	Replace master cylinder
	Booster	Replace booster
	Master cylinder reservoir vent caps	Replace diaphragms and caps
	Fluid contamination	See vehicle service manual for type of fluid required. Drain, flush and refill system, replace booster or master cylinder as appropriate, and power steering reservoir filter as necessary
	Backup pump mounting seals	Replace seals
	Flow switch seal	Replace o-ring
Hydraulic fittings and connections	Hydraulic fittings and connections	See vehicle service manual, tighten and replace if necessary
Silicone floating in master cylinder	This material is an assembly lubricant	None - Does not affect operation

## TROUBLE SHOOTING

<b>Condition</b>	<b>Cause</b>	<b>Remedy</b>
Fluid level indicator light comes on	Low fluid level  Fluid level indicator switch  Brake pads worn out	Inspect brake pads, replace as necessary, add fluid as required  Replace master cylinder  Inspect brake pads, replace as necessary, add fluid as required
Brake indicator light and buzzer malfunction	Vehicle specific	See vehicle service manual