

Brake Pedal Excessive Travel

Step	Action	Yes	No
<p>DEFINITION: Brake pedal travels further than expected to obtain firm pedal and/or firm pedal cannot be obtained, pedal fades away, or pedal is spongy.</p>			
1	<p>Were you sent here from the Hydraulic Brake Symptom table?</p>	<p>Go to Step 2</p>	<p>Go to Diagnostic Starting Point - Hydraulic Brakes</p>
2	<p>Inspect the travel and feel of brake pedal applies. Perform the following:</p> <ul style="list-style-type: none"> • Apply the brake pedal several times to fully deplete the power reserve. • With power reserve depleted, apply the brake pedal with light, steady pressure and hold for 15 seconds. Observe pedal travel and feel. • Apply the brake pedal with light, steady pressure, then without pumping the pedal, reduce pressure and reapply pressure several times. Observe pedal travel and feel for each apply. • Apply the brake pedal slowly, then release and apply the pedal quickly. Observe pedal travel and feel for each apply. <p>Did you complete the brake pedal travel and feel inspections?</p>	<p>Go to Step 3</p>	<p>--</p>
3	<ul style="list-style-type: none"> • Inspect the hydraulic brake system for the conditions listed, based on the following symptoms observed during the pedal travel and feel inspections: <ul style="list-style-type: none"> • Pedal feel was spongy <ul style="list-style-type: none"> - Air in hydraulic system - External brake fluid leaks - Soft, weak or damaged hydraulic hoses; expanding under pressure • Pedal fell away and/or traveled to or almost to floor <ul style="list-style-type: none"> - External brake fluid leaks - Poor brake fluid quality; low boiling point - Internal brake fluid leaks; improperly functioning master cylinder 	<p>Go to Step 8</p>	<p>Go to Step 4</p>

© 2020 General Motors Corporation. All rights reserved.

	<ul style="list-style-type: none"> • Pedal was somewhat firm then dropped slightly, or pedal rose with successive applies, or pedal travel was different between slow and quick applies <ul style="list-style-type: none"> - Internal brake fluid leaks; improperly functioning master cylinder - Poor brake fluid quality; low boiling point • Pedal returned to rest slowly after any of the applies <ul style="list-style-type: none"> - Internally damaged flexible brake hoses; hindering fluid return - Binding caliper pistons - Internal brake fluid leaks; improperly functioning master cylinder • Repair or replace components as necessary. Refer to Hydraulic Brake System Diagnosis. • Re-inspect brake pedal apply travel and feel. <p>Did you find and correct a condition?</p>		
4	<ul style="list-style-type: none"> • Inspect the disc brake system for the following conditions: <ul style="list-style-type: none"> • Cracked, excessively worn or damaged linings • Cracked, excessively worn or damaged rotors • Improperly operating, binding or damaged caliper hardware and/or lining hardware • Loose or missing caliper hardware and/or lining hardware • Excessive assembled lateral runout (LRO) of rotor friction surfaces • Bent or damaged caliper or mounting component • Adjust, repair or replace components as necessary. Refer to Disc Brake System Diagnosis. • Re-inspect brake pedal apply travel and feel. <p>Did you find and correct a condition?</p>	Go to Step 8	Go to Step 5
5	<p>Inspect for proper brake pedal travel. Refer to Brake Pedal Travel Measurement and Inspection.</p> <p>Is the brake pedal travel distance within the acceptable limits?</p>	Go to Step 7	Go to Step 6
6	<ul style="list-style-type: none"> • Inspect for worn, missing, misaligned, bent or damaged brake pedal system components. • For the brake pedal pushrod component inspection, refer to Brake Pedal Pushrod Inspection. 	Go to Step 8	Go to Step 7

	<ul style="list-style-type: none"> • Inspect the brake pedal bushings for binding, excessive wear and/or damage and inspect the brake pedal for a misaligned, bent, and/or damaged condition. • Replace the brake pedal system components that are worn, missing, misaligned, bent or damaged. <p>Did you find and replace any worn, missing, misaligned, bent or damaged brake pedal system components?</p>		
7	<ul style="list-style-type: none"> • Inspect the brake assist system for the following conditions: <ul style="list-style-type: none"> • Vacuum leaks and/or improperly operating check valve, if equipped with vacuum assist • Power steering fluid leaks, if equipped with hydraulic power assist • Damaged or improperly operating brake booster assembly • Adjust, repair or replace components as necessary. Refer to Brake Assist System Diagnosis. <p>Did you find and correct a condition?</p>	Go to Step 8	Go to Diagnostic Starting Point - Hydraulic Brakes
8	<ul style="list-style-type: none"> • Install or connect components that were removed or disconnected during diagnosis. • Road test the vehicle in order to confirm proper operation. Refer to Brake System Vehicle Road Test. <p>Is the condition still present?</p>	Go to Step 2	System OK