

BENDIX SINGLE ANCHOR AUTOMATIC ADJUSTER

American Motors
Chrysler Corp.
Ford Motor Co.
Jeep

NOTE — Some Jeep models use other units. See Delco Moraine Automatic Adjuster in this section.

DESCRIPTION

Unit consists of support plate, two brake shoes, return springs, self-adjusting components, and wheel cylinder. Automatic adjuster consists of a cable (with hook and anchor fitting), cable guide, adjusting lever, adjusting screw (star), pivot nut, socket, and spring.

AUTOMATIC ADJUSTER

Chrysler Corp. — Adjuster screw thread is opposite that of other models; therefore, adjuster moves upward when brakes are applied. A cage and spring on adjuster cable absorbs secondary shoe movement, except when wear results in enough movement to cause adjuster to rotate. This feature reduces possibility of over-adjustment.

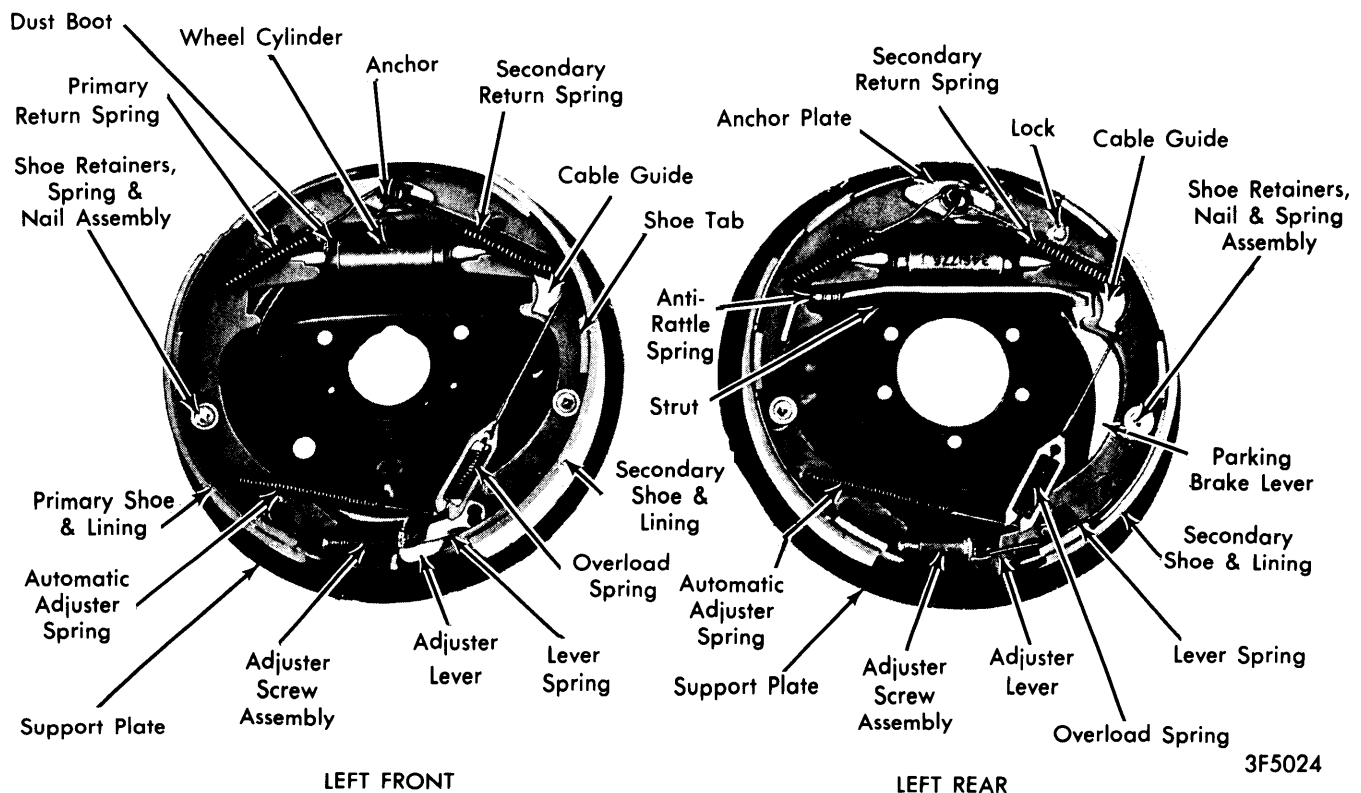
Except Chrysler Corp. — Adjuster uses movement of rear (secondary) shoe during reverse brake application to turn brake adjusting screw a small amount and maintain proper lining-to-drum clearance.

ADJUSTMENT

BRAKE SHOE ADJUSTMENT

This adjustment is made only after brake lining replacement or if brake applications are insufficient to actuate automatic adjuster.

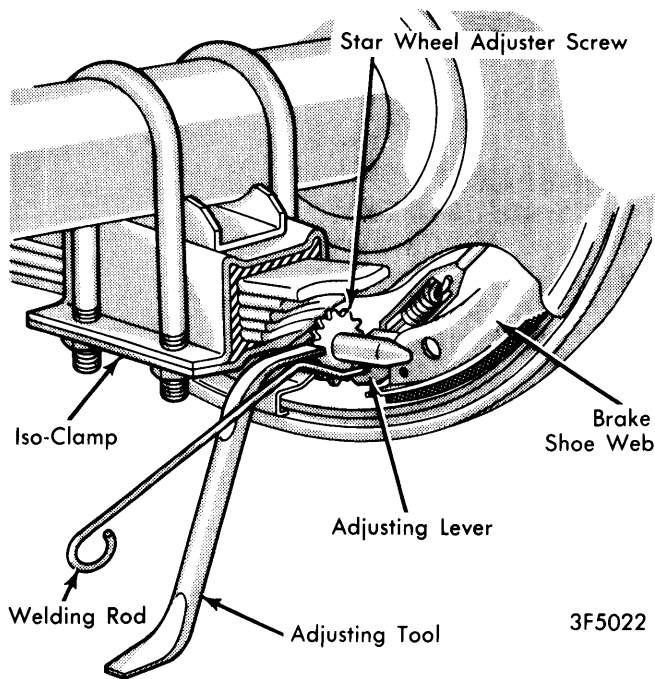
American Motors — After wheel brake units have been disassembled for any reason, an initial adjustment **MUST** be made before drum installation. A suitable clearance gauge tool (J-21177) must be used to pre-set the shoe-to-drum clearance. Install adjuster screw assembly and hook small end of adjuster spring in large hole of primary shoe. Place other end of spring in adjuster lever. Insert adjuster cable hook into adjuster lever and position over cable guide. Grasp adjuster lever with pliers and hook the lever tang in large hole in bottom of secondary shoe. Drive car in reverse, making 10-15 "hard" stops. Ensure pedal travel is adequate before road testing. To adjust brakes without removing drums, remove access hole cover from backing plate, insert adjusting tool and turn star until locked. Insert a thin rod into same hole and push adjuster lever off star. Mark star and back off one complete revolution. Replace cover plug.



BENDIX AUTOMATIC ADJUSTER BRAKE ASSEMBLY

BENDIX SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

Chrysler Corp. — *NOTE* — Adjust parking brake *AFTER* wheel brake adjustment. Remove adjusting hole covers from backing plates. Insert an adjusting wrench (C-3784) into star wheel and tighten brake by moving handle of tool upward until wheel turns with a slight drag. Push adjusting lever away from star wheel (insert rod through access hole) and back off star wheel to ensure free wheel rotation with no brake shoe drag. *NOTE* — On models with Iso-Clamp rear suspension, bend rod to match angle of adjusting tool, plus a 3/4 reverse bend at contact end (see illustration). Adjustments should be equal on all wheels.



**ADJUSTING REAR BRAKES
(WITH ISO-CLAMP SUSPENSION)**

Ford Motor Co. — Using suitable measuring tool (Rotunda No. HRE 8650), determine drum diameter and proper shoe diameter. Hold automatic adjusting lever out of engagement while rotating adjusting screw. Ensure screw rotates freely. Apply a small amount of lubricant at shoe-to-backing plate contact points. *CAUTION* — Do not allow lubricant to contact linings. Install drum and wheel, torquing to specifications. Complete adjustment by applying brakes several times while backing vehicle. Use minimum of 50 lbs. pressure on non-power brakes, or 25 lbs. pressure on power brakes. *NOTE* — After each stop, vehicle must be moved forward.

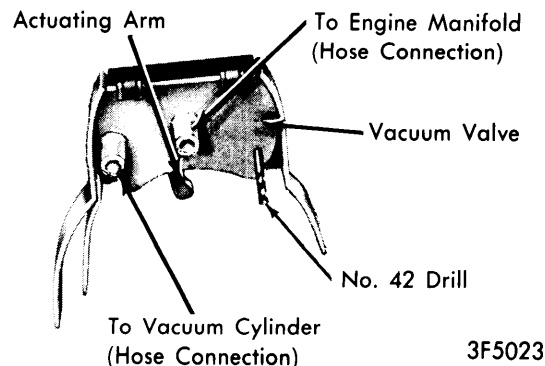
Jeep — After wheel brake units have been disassembled for any reason, an initial adjustment *MUST* be made before drum installation. Initially set adjusting screw such that approximately 3/8" of threads are exposed between star wheel and star wheel nut. Move vehicle cautiously in reverse, making 10-15 "hard" brake applications prior to road testing. Ensure proper pedal height. To adjust brakes without removing drums, remove access hole cover on backing plate insert adjusting tool, and rotate star wheel until locked. Insert a thin rod, push adjusting lever off star wheel and back star at least 15-20 notches (clicks).

PARKING BRAKE ADJUSTMENT

American Motors — Prior to adjusting parking brake, service brakes must be correctly adjusted as outlined above. To assure correct cable adjustment, support vehicle by axle contact. Fully apply and release parking brake approximately 10 times. Apply brake to first notch from released position. Install an INCH lb. torque wrench on a suitable adjusting gauge (J-23462). Place cable adjustment gauge on front parking brake cable, centered between cable housing ferrule and cable equalizer. Apply 50 in. lbs. of torque and note indication on gauge scale. Indicator must fall within "green" band (first band from neutral position). Adjust cable at equalizer to obtain a satisfactory reading. While performing adjustment, the front parking brake cable screw end must be held to prevent cable from turning. Release parking brake and check for brake drag.

Chrysler Corp. — With parking brake lever fully released, loosen cable adjusting nut at rear wheel cable equalizer until cables are slack. *NOTE* — If cables are new, pull down firmly to seat cable fittings in brackets. With rear brakes properly adjusted, tighten cable adjusting nut until slight drag is noticed. Back off nut until rear wheels rotate freely, then back off an additional two full turns. Tighten locknut and apply parking brake several times, then release brake and check for rear wheel drag.

Imperial Parking Brake Vacuum Valve — Place transmission in "D", with engine off. Remove vacuum hoses from unit. Detach vacuum unit from steering column jacket. Move actuating arm on valve against spring to extreme position, or until locating holes line up. Insert a No. 42 drill in hole to position valve for installation. Move transmission selector to "P". Place valve in position on column jacket and install, but do not tighten, attaching screws. Rotate valve clockwise (as viewed from driver's position) until actuating arm contacts tab inside steering column jacket. Tighten retaining screws. Remove drill. Install vacuum hoses (with hose from engine manifold on valve center fitting). Start engine and check that parking brake can be set in "N" and "P", and that it will release in "R" and "D".



**PARKING BRAKE VACUUM VALVE
(IMPERIAL)**

Ford Motor Co. — Release parking brake fully. Place transmission in "N" and raise vehicle on axle type hoist. Tighten adjusting nut against cable equalizer or cable adjusting rod until rear brakes drag. Loosen adjusting nut until brakes turn freely, without drag. Tighten locknut to 7-10 ft. lbs. (if equipped). Lower vehicle and check brake operation.

Brake Systems

BENDIX SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

Continental, Mark IV, Mercury, Thunderbird Vacuum Release Parking Brake – Visually check operation of brake linkage as pedal is depressed. Then, Check operation of brake linkage when manual release lever is activated. During the following check, ensure a minimum of 10 in. vac. is available at all points where vacuum is applied. **CAUTION** – Under no circumstances should air pressure be applied to vacuum system as diaphragm in vacuum motor may be damaged. Perform check with engine at idle. Place transmission in "N" and depress parking brake lever. Shift transmission to "D" and observe that lever moves upward and parking brake releases. If it does not release, check for proper vacuum in system. Replace components, as necessary.

Jeep – Adjust parking brake only AFTER service brakes are correctly adjusted. Support vehicle by axles. Inspect cables and equalizer for freedom of movement and proper operation. Spin wheels and tighten adjusting nut until a slight drag is felt. Then, loosen adjusting nut until no drag is present. Relock nut.

SERVICING

BLEEDING SYSTEM

See *Hydraulic Brake Bleeding* in this section.

SHOE & LINING REPLACEMENT

Install brake shoes on backing plate with hold down spring pin, springs, and cups. Install parking brake link and spring. Connect parking brake cable. Install shoe guide plate on anchor pin. Place cable anchor over anchor pin, with crimped

side toward backing plate. Install primary and secondary shoe to anchor springs. **CAUTION** – Be sure that cable end is not cocked or binding on anchor pin. Install cable guide on secondary shoe web with flanged hole fitted in hole in web. Thread cable through guide groove, NOT between guide and shoe web. **CAUTION** – Adjusting screws are marked "L" and "R" and must be installed as marked. Install adjusting socket on screw, place assembly between shoe ends with adjusting screw nearest secondary shoe. Place cable hook into hole in adjusting lever from backing plate side. Place pivot hook into large hole in secondary shoe web. Place hooked end of adjuster spring into large hole in primary shoe web and loop end of spring to adjuster lever. **NOTE** – On Chrysler Corp. vehicles, install adjuster spring in primary shoe and hook other end in web of secondary shoe. Cable guide groove should be flat against web. Pivot hook surfaces should be square with body of lever. Adjusting screw must be seated in shoe web.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Wheel Attaching Nuts	
American Motors	75
Chrysler Corp.	
Except Dart, Valiant	65
Dart, Valiant	55
Ford Motor Co.	70-115
Jeep	65-90

BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
American Motors				
Gremlin, Hornet (6 Cyl)	9"	1 1/8"	7/8" ①	1"
Gremlin, Hornet (V8), Matador (6 Cyl & 304")	10"	1 3/16" ②	7/8" ③	1"
Matador (360 & 401" V8)	10"	1 3/16"	1 5/16"	1"
Matador Wagon	10"	1 3/32" ④	1 5/16"	1"
Javelin	10"	③	7/8"	1 1/16" ⑤
Matador Coupe & Ambassador	10"	③	1 5/16"	1 1/16" ⑦
Chrysler Corp.				
Dart, Valiant	10" ⑥	1 1/8"	1 5/16" ⑧	1 1/32" ⑩
Barracuda, Challenger, Satellite, Coronet/Charger	10" ⑩	③	1 5/16"	1 1/32" ⑫
Fury, Monaco, Chrysler	11"	③	1 5/16"	1 1/32"
Ford Motor Co.				
Ford, Mercury	11"	③	1"	1"
Montego, Torino ⑬	10"	③	1"	1"
Cougar, Mustang, Pinto	9"	③	7/8"	1 5/16"
Comet, Maverick	10"	1 1/8"	7/8"	1 5/16"
Continental, Mark IV, T-Bird	11"	③	1"	1"
Jeep				
CJ-5, CJ-6	11"	1 1/8"	1 5/16"	1"

- ① – Gremlin – 1 3/16".
- ② – Matador 6 Cyl. – 1 3/32".
- ③ – Matador 1 5/16".
- ④ – V8 – 1 3/16".
- ⑤ – Front Disc Equipped.
- ⑥ – Power – 1".
- ⑦ – Power – 1 1/8".

- ⑧ – Rear – 9" (with four-wheel drum brakes).
- ⑨ – 9" – 1 3/16".
- ⑩ – 1 1/32" Drum & Man. Disc; 1 5/16" Power Disc.
- ⑪ – Heavy Duty – 11" (Exc. Barracuda, Challenger).
- ⑫ – Man. Disc. – 1"; Power Disc – 1 1/32".
- ⑬ – Torino & Montego Wagon & Police same as Ford.

Brake Systems

BENDIX SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

BRAKE LINING SPECIFICATION							
Application	Drum Dia.	Width		Length		Thickness	
		Front	Rear	Primary	Secondary	Primary	Secondary
American Motors							
Gremlin, Hornet (6 Cyl.)	9"	2½"	2"	7 ¹ / ₃₂ "	9 ¹ / ₁₆ "	³ / ₁₆ "	³ / ₁₆ "
Gremlin, Hornet (V-8); Matador (Sedan, Wgn.)	10"	2½"	1¾" ①	8 ²⁹ / ₃₂ " ②	11 ¹ / ₁₆ " ③	³ / ₁₆ "	³ / ₁₆ "
Javelin (6 Cyl.)	10"	④	2"	7 ¹ / ₃₂ "	9 ¹ / ₁₆ "	³ / ₁₆ "	³ / ₁₆ "
Matador (Cpe.), Ambass., Javelin (V-8)	10"	④	2½" ⑤	8 ²⁹ / ₆₄ "	10 ⁷ / ₈ "	³ / ₁₆ "	³ / ₁₆ "
Chrysler Corp.							
Dart, Valiant (6 Cyl.)	9"	2½"	2"	8½" ⑥	11" ⑦	³ / ₁₆ "	¼"
Dart, Valiant (W/Fr. Disc)	10"	④	2½"	8½"	11"	³ / ₁₆ "	¼"
Barracuda, Challenger, Sat., Coronet, Charger	10" ⑧	④	2½"	8½" ⑨	11" ⑩	³ / ₁₆ "	¼"
Fury, Monaco, Chrysler	11"	④	2½" ⑪	9¼"	12 ¹ / ₈ "	³ / ₁₆ "	¼"
Ford Motor Co.							
Ford, Mercury, Meteor	11"	④	2½" ⑫	9 ³ / ₈ "	12 ¹ / ₈ "	⑬	⑬
Torino, Montego, Cougar (Sedans, Taxi)	10"	④	2½"	8 ⁷ / ₁₆ "	10 ¹ / ₁₆ "	⑬	⑬
(Wagons, Police)	11"	④	2¼"	9 ³ / ₈ "	12 ¹ / ₈ "	⑬	⑬
Pinto, Mustang	9"	④	1¾"	6 ¹ / ₈ "	8 ⁵ / ₈ "	⑬	⑬
Maverick, Comet	10"	2½"	1¾"	8 ⁷ / ₁₆ "	10 ¹ / ₁₆ "	⑬	⑬
T-Bird, Cont., Mk IV	11"	④	2½"	9 ³ / ₈ " ⑭	12 ¹ / ₈ "	⑬	⑬

- ① - Matador Wagon - 2½"
- ② - Rear Primary - 8²⁹/₆₄"
- ③ - Rear Secondary - 10⁷/₈"
- ④ - Front Disc Equipped.
- ⑤ - Javelin V-8 - 1¾"
- ⑥ - Rear - 7⁵/₈"
- ⑦ - Rear - 9⁵/₈"

- ⑧ - Heavy Duty - 11" (Exc. Barracuda, Challenger).
- ⑨ - Heavy Duty - 9¼"
- ⑩ - Heavy Duty - 12¹/₈"
- ⑪ - Fury, Monaco Sed. W/360" & 2.71-1 Rear Axle - 2"
- ⑫ - Ford, Mercury Sedans - 2¼"
- ⑬ - Wear Limits - Riveted, .031" from top of rivets; Bonded, .030" total thickness.
- ⑭ - Continental - 10½"

BRAKE DRUM SPECIFICATIONS				
Application	Drum Diameter	Original Diameter	Maximum Refinish Diameter	Discard Diameter
American Motors All Models	9"	9.000"	9.060"	9.090"
	10"	10.000"	10.060"	10.090"
Chrysler Corp. All Models	9"	9.000"	9.060"	9.090"
	10"	10.000"	10.060"	10.090"
	11"	11.000"	11.060"	11.090"
Ford Motor Co. All Models	9"	9.000"	9.060"
	10"	10.000"	10.060"
	11"	11.030"	11.090"
Jeep CJ-5, CJ-6	11"	11.000"	11.060"	11.090"