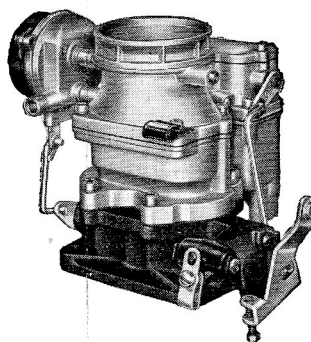


## MOTOR SERIAL NUMBERS

H-238000 and higher



Casting No. 615 on face of flange

# PACKARD EIGHT MODELS 2362-2365-2392-2395 1949-1950

## WGD 728S-728SA DUAL DOWN-DRAFT CLIMATIC CONTROL CARBS.—LIST PRICE \$30.00

An \$8.00 exchange allowance is deducted from the list price if buyer turns in old carburetor.

### CARBURETOR SPECIFICATIONS

For Packard 8 Cylinder Engine: 3 1/2 Inch Bore, 3 3/4 Inch Stroke

**Dimensions:** Flange size, 1 1/4 inch dual, 4 bolt type.

Primary venturi, 1 1/32 inch I. D.

Secondary venturi, 2 1/32 inch I. D.

Main venturi, 1-3/16 inch I. D.

**Float Level:** Distance from float to bowl cover, when needle is seated to be 13/64 inch. Use gauge No. T109-39.**Vents:** Outside, none. Inside balance vent, in air horn, above choke valve.**Gasoline Intake:** Square vertical (push-pull) needle. Seat size No. 42 drill.**Gas Line Connection:** 5/16 inch Weatherhead nipple.**Low Speed Jet Tube:** Jet size, No. 66 (.033") drill.

By-pass, size No. 55 (.052") drill.

Economizer, size 1.15 mm (.045") drill.

Idle bleed, size No. 56 (.0465") drill.

**Idle Ports:** Upper port, slot type, length .187 inch. Width .030 inch.**Idle Port Opening:** .135 to .141 inch above upper edge of valve with valve closed tight.**Lower Port (For Idle Adjustment Screw):** Size, .0615 to .0655 inch diameter.**Set Idle Adjustment Screw:** 1 to 1 1/2 turns open. For richer mixture turn screw out. Do not idle engine above 1450 r.p.m.**Nozzle:** In primary venturi, angle 45°. Flush type. Inside diameter, No. 38 drill (728S), No. 30 drill (728SA). Nozzle

is installed permanently. Do not remove. Anti-percolating well; jet size, No. 66 drill.

**Metering Rod (Vacuometer Type):** Economy step, .0665 inch diameter. Middle step tapers to .064 inch diameter. Power step, .043 inch diameter (728S). Power step, .056 inch diameter (728SA). Length 2-59/64 inches.**Metering Rod Jet:** .089 inch diameter.**Metering Rod Setting:** After adjusting for pump stroke, set metering rod as follows: With throttle tightly closed, hold metering rods (assembled on vacuometer link) in maximum down position, tighten clamp screw securely with metering rod arm contacting vacuometer link.**Accelerating Pump:** Pressure type delayed action plunger (non-adjustable lever).

Discharge jet (twin) size No. 74 drill.

Pump jet air bleed to outside: 1/8" diameter drill.

Intake ball check, size No. 40 (.098") drill.

Discharge (needle seat) size No. 50 (.070") drill.

**Pump Adjustment:** "42" as indicated on gauge T109-117S with throttle valves seated in bores of carburetor or 15/32" from top of dust cover boss to top of plunger shaft.**Choke:** Carter Climatic Control—set one point lean. Butterfly type, offset valve. Choke heat suction hole in body, size No. 36 drill.**Vacuum Spark Port:** .103 to .105 inch diameter. Top of port .052 to .062 inch above valve.

### Motor Tune-Up—Be Accurate! Always Use Feeler Gauges!

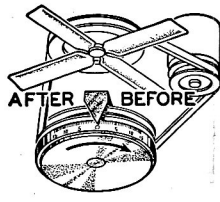
CAUTION: Change worn or leaky flange gaskets. Tighten manifold bolts and test compression before adjusting carburetor.



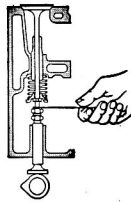
Spark Plug  
Gap  
.025"-.030"



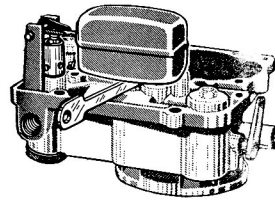
Breaker Point  
Setting  
.012"-.017"



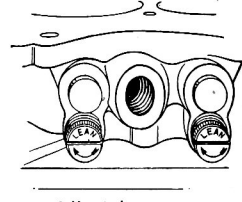
Ignition Timing  
Breaker Points to Open:  
6° B. T. D. C.



Valve Setting  
(Hot)  
Intake .007"  
Exhaust .010"



Float Setting  
(Use Gauge)  
13/64 Inch



Idle Adjustment  
Screw Setting  
1 to 1 1/2  
Turns Open

## CARBURETOR ADJUSTMENTS

### FLOAT ADJUSTMENT (Fig. 1):

With bowl cover gasket removed, bowl cover inverted and needle seated, there should be  $13/64$  inch (gauge T109-39) between top of float and bowl cover.

Adjust by bending lip on float, not float arm.

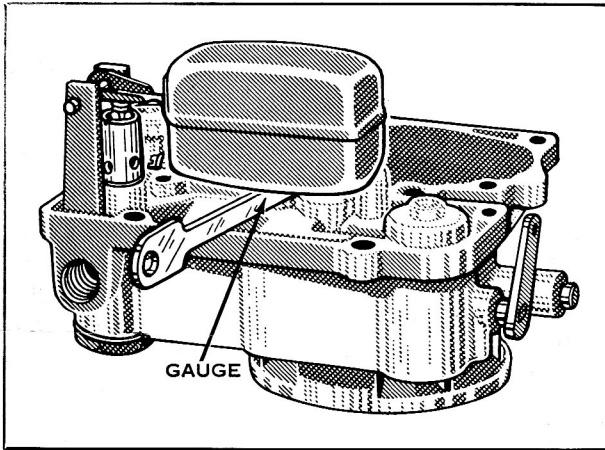


Figure 1  
Float Adjustment

### METERING ROD ADJUSTMENT (Fig. 3):

The metering rods must be adjusted after the pump adjustment or when leaner than standard rods are installed. No metering rod gauges are necessary; procedure is as follows: With the throttle lever set screw backed out and throttle valves seated in bores of carburetor, press down on vacuumer link (D) until metering rods bottom. With rods held in this position, revolve metering rod arm until lip contacts vacuumer link (E). Hold in place and carefully tighten metering rod arm set screw (F).

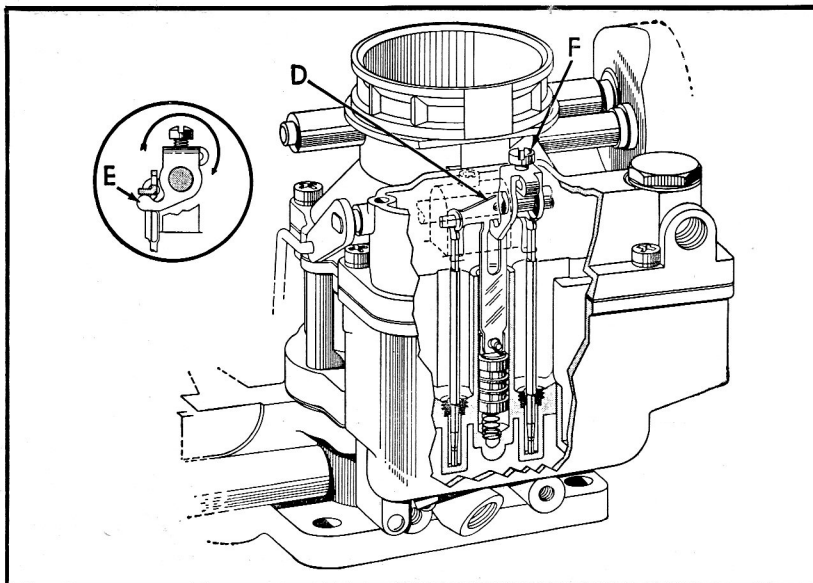


Figure 3  
Metering Rod Adjustment

### PUMP ADJUSTMENT (Fig. 2):

Back out throttle lever set screw until throttle valves seat in bores of carburetor. Place Universal pump travel gauge T109-117S inverted on edge of dust cover boss of bowl cover. Turn knurled nut of gauge until finger boss on gauge just touches top of plunger shaft (A). Number indicated on gauge should be ".42".

Adjust by bending throttle connector rod at upper angle (B).

Optional Adjustment: The distance from the dust cover boss to the top of the plunger shaft should be  $15/32$ ". Adjust as mentioned above.

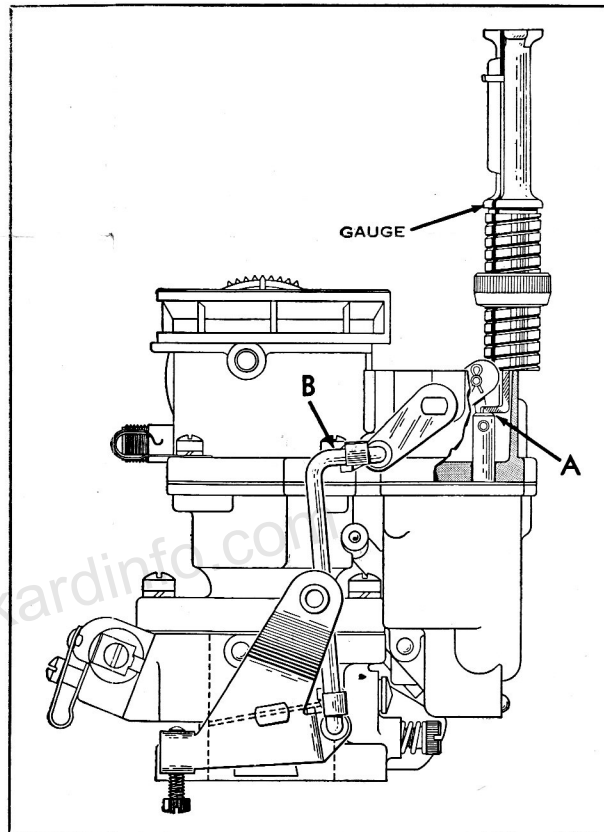


Figure 2  
Pump Adjustment

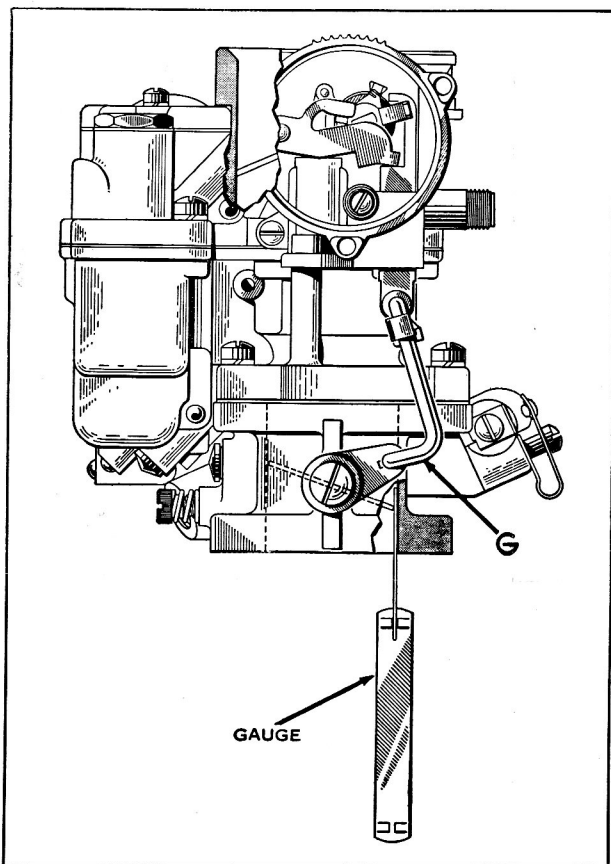


Figure 4  
Fast Idle Adjustment

#### FAST IDLE ADJUSTMENT (Fig. 4):

With the thermostatic coil housing, gasket and baffle plate removed, crack throttle valve and hold choke valve closed. Then close throttle. There should now be .026" clearance (gauge T109-189) between throttle valve and bore of carburetor (side opposite idle port).

Adjust by bending the choke connector rod at lower angle (G).

#### UNLOADER ADJUSTMENT (Fig. 5):

Must be made after fast idle adjustment. Hold throttle valve wide open and close choke valve as far as possible without forcing; there should now be  $\frac{1}{8}$  inch clearance between upper edge of choke valve and inner wall of air horn. Adjust by bending arm (H) on choke trip lever (tool T109-187).

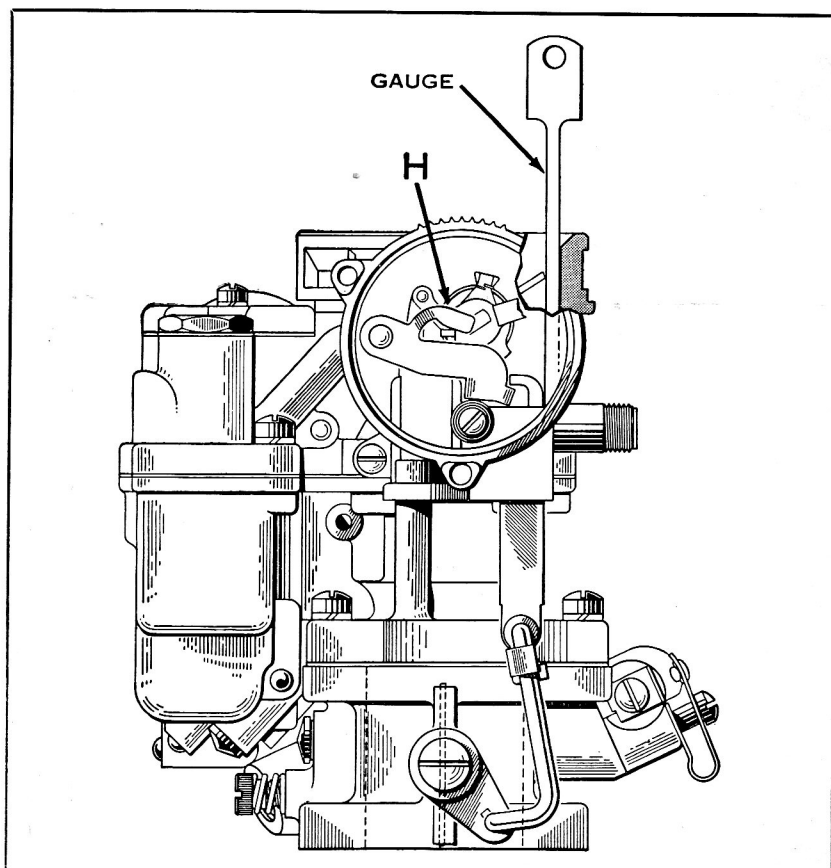
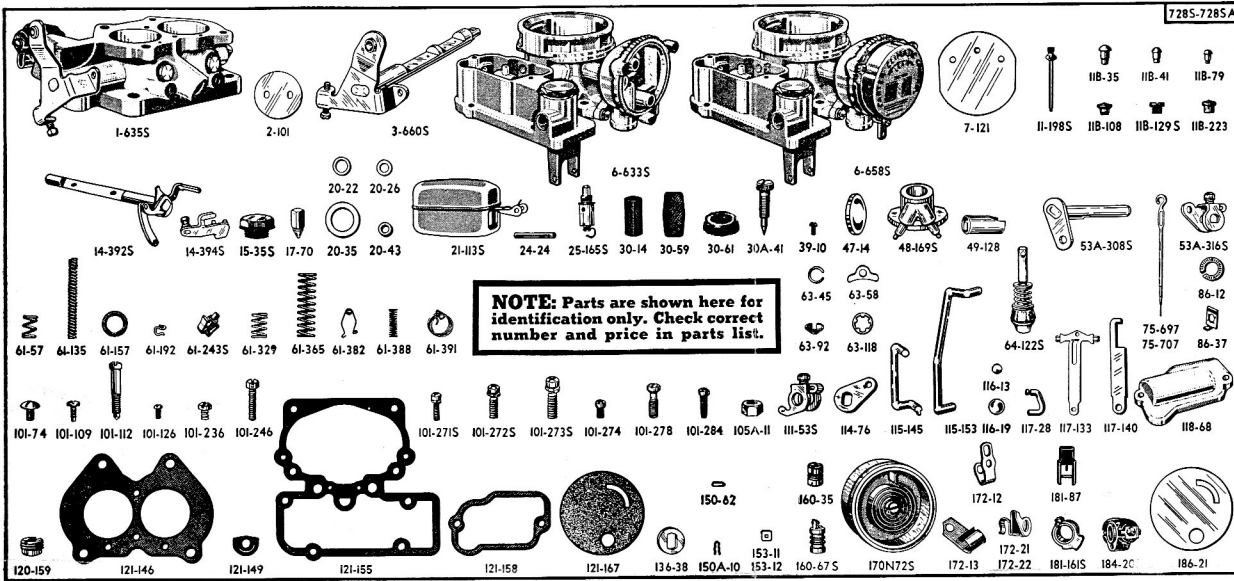


Figure 5  
Unloader Adjustment

EFFECTIVE JANUARY 1, 1948, ADD 30% TO LIST PRICE OF CARBURETERS AND EFFECTIVE OCTOBER 1, 1948, ADD 20% TO ALL OTHER PRICES SHOWN WITH FRACTIONAL ADJUSTMENT TO NEAREST EVEN CENT.



**Packard 8—1949-1950—Carbureters 728S-728SA—List Price \$30.00**

When Servicing, Use Repair Package No. 1524, Price \$4.95 (728S), No. 1525, Price \$4.95 (728SA); Gasket Asst. No. 196, Price \$0.40

**PART NAMES IN BOLD TYPE, LISTED BELOW, INDICATE CONTENTS OF REPAIR PACKAGE**

Part No.	PART NAME	List Price	Part No.	PART NAME	List Price
1-635S	Body flange assembly.....	\$6.25	75-707	Metering rod—standard (.0665"-.0665" to .064"-.056") (728SA).....	(2) .30
2-101	Throttle valve.....	(2) .10	75-709	Metering rod (1 size lean) (728S).....	(2) .30
3-660S	Throttle shaft and lever assembly.....	1.10	75-710	Metering rod (2 sizes lean) (728S).....	(2) .30
6-633S	Air horn and piston housing assembly.....	4.50	86-12	Flange stud lock washer.....	(4) .01
6-658S	Air horn assembly.....	7.50	86-37	Terminal lock washer.....	(2) .01
7-121	Choke valve.....	.20	101-74	Throttle shaft arm attaching screw.....	.05
11-198S	Low speed jet assembly.....	(2) .30	101-109	Switch terminal screw.....	(2) .05
11B-12	Rivet plug.....	(1) .02	101-112	Terminal cap attaching screw.....	.05
11B-35	Rivet plug.....	(2) .02	101-126	Throttle valve attaching screw.....	(4) 2 for .05
11B-41	Rivet plug.....	(4) .02	101-236	Metering rod arm clamp screw.....	(2) .05
11B-79	Rivet plug.....	(1) .02	101-246	Throttle lever adjustment screw.....	.05
11B-108	Idle port rivet plug.....	(2) .02	101-271S	Attaching screw and washer assembly.....	(2) .05
11B-129S	Plug and gasket assembly.....	.10	101-272S	Air horn attaching screw and washer assembly.....	(8) .05
11B-223	Nozzle rivet plug.....	(2) .02	101-273S	Body flange attaching screw and washer assembly.....	(4) .05
14-392S	Choke piston lever, link and shaft assembly.....	.40	101-274	Coil housing attaching screw.....	(3) .05
14-394S	Choke trip lever and pin assembly.....	.30	101-278	Pump jet housing attaching screw.....	.40
15-35S	Strainer nut and gasket assembly.....	.30	101-284	Piston housing attaching screw.....	(3) .05
17-70	Pump check needle.....	.15	105A-11	Flange stud nut.....	(4) .05
20-22	*Needle seat gasket.....	.05	111-53S	Metering rod arm and screw assembly.....	.20
20-26	*Gasket.....	.05	114-76	Throttle shaft arm.....	.06
20-35	*Bowl strainer gasket.....	.05	115-145	Choke connector rod.....	.20
20-43	Piston housing gasket.....	.10	115-153	Throttle connector rod.....	.20
21-113S	Float and lever assembly.....	.80	116-13	Pump intake check ball.....	.02
24-24	Float lever pin.....	.05	116-19	Switch ball.....	.15
25-165S	Needle and seat assembly.....	.80	117-28	Pump arm link.....	.05
30-14	Bowl cover strainer.....	.10	117-133	Vacuumeter piston link.....	.10
30-59	Strainer.....	.10	117-140	Fast idle link.....	.10
30-61	Switch strainer.....	.10	118-68	Dust cover.....	.25
30A-41	Idle adjustment screw.....	(2) .30	120-159	Metering rod jet.....	(2) .30
39-10	Choke valve attaching screw.....	(2) 2 for .05	121-146	Body flange gasket.....	.10
47-14	Choke cylinder welsh plug.....	.02	121-149	Pump jet gasket.....	.05
43-169S	Pump jet and housing assembly.....	1.00	121-155	Air horn gasket.....	.10
49-128	Switch plunger.....	.50	121-158	Dust cover gasket.....	.10
53A-308S	Pump operating lever and countershaft assembly.....	.50	121-167	Coil housing gasket.....	.05
53A-316S	Pump arm and screw assembly.....	.20	136-38	Throttle shaft washer.....	.02
61-57	Idle adjustment screw lock spring.....	(2) .05	150-62	Choke piston pin.....	.02
61-135	Vacuum piston spring.....	.10	150A-10	Pin spring.....	.01
61-157	Plunger spring.....	.05	153-11	Switch contact spring shim (.018").....	(3) .01
61-192	Needle pull clip.....	.05	153-12	Switch contact spring shim (.006").....	(2) .01
61-243S	Switch contact spring and washer assembly.....	.15	160-35	Choke piston.....	.20
61-329	Pump spring (upper).....	.10	160-67S	Vacuum piston and pin assembly.....	.30
61-365	Pump spring (lower).....	.10	170N-72S	Thermostatic coil and housing assembly.....	1.50
61-382	Metering rod spring.....	.10	172-12	Terminal cap hold down clip.....	.10
61-388	Switch return spring.....	.10	172-13	Cable clip.....	.10
61-391	Fast idle cam spring.....	.10	172-21	Throttle connector rod retainer.....	.06
63-45	Pump check ball retainer ring.....	.05	172-22	Throttle and choke connector rod retainer (2).....	.06
63-58	Coil housing retainer.....	(3) .05	181-87	Switch guide block.....	.25
63-92	Pump spring retainer.....	.05	181-161S	Fast idle cam assembly.....	.30
63-118	Throttle shaft retaining ring.....	.05	194-20S	Terminal cap assembly.....	.75
64-122S	Plunger, rod, spring and retainer assembly.....	1.45	186-21	Baffle plate.....	.20
75-679	Metering rod—standard (.0665"-.0665" to .064"-.043") (728S).....	(2) .30	192-11U	Carter starter switch unit.....	1.75

—Parts so marked are new and listed for the first time.

\*Gaskets so marked must be soaked in 90 proof denatured alcohol for 15 minutes, installed on part and let dry before using.

NOTE: Small figures in parentheses preceding list price indicate number of pieces used in one carburetor. Where no figure is shown, only one is used.