

BUICK 1965 "V8"

AFB FOUR-BORE DOWN-DRAFT CLIMATIC CONTROL CARBURETORS NOS. *3645SA-SB - 3826S
3827S - 3921S - 3922S - 3923S - 3924S-SA - 3925S-SA

1965 SERIES	ENGINE DISPL.	ORIGINAL CARB. NO.	SERVICE CARB. NO.	ZIP KIT NO.	GASKET SET NO.	
43000, 44000, 45000, Special, Skylark, LeSabre	A/T	300	3826S	3826S	902-213A	495
43000, 44000, 45000, Special, Skylark, LeSabre	S/T	300	3827S	3827S	902-213A	495
46000, 48000, Wildcat, Electra 225	A/T	401	3921S	4453	902-185A	495
46000, Wildcat	S/T	401 & 425	3922S	4054	902-185A	495
46000, 48000, 49000, Wildcat, Electra 225, Riviera	A/T	425	3923S	3923S	902-185A	495
46000, 48000, 49000, Wildcat, Electra 225, Riviera (Front Carb.)	A/T, S/T	425	3645SA-SB	3645SB	902-185A	495
46000, Wildcat (Rear Carb.)	S/T	425	3924S-SA	4051	902-185A	495
46000, 48000, 49000, Wildcat, Electra 225, Riviera (Rear Carb.)	A/T	425	3925S-SA	4051	902-185A	495

*NOTE: No Choke on 3645SA-SB

CARBURETOR SPECIFICATIONS FOR BUICK 8 CYLINDERS, VACUUM AT IDLE 14 INCHES

Carb. No.	Thro. Bore Prim. & Sec. Size	Main Venturi Prim. & Sec. Size	Vents In Air Horn & Body Amt.	Low Speed Jet In Prim. Venturi Size	By-Pass In Prim. Venturi Size	Econ. In Prim. Venturi Size	Idle Bleed In Prim. Venturi Size	Idle Port & Restr. Jet Size	Anti-Per Bleed In Prim. & Sec. Venturi Size	Main Vent Tube Prim. & Sec. Venturi Amt. Side Holes	Sec. Pick Up Tube (T) & Discharge Port (P); Bleed (B) Size	Pump Jet In Prim. Venturi Size	Choke Setting	Vacuum Spark Port Size
3645SA-SB	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.031	.0453	.043	.0465	.150 x .030 .0275 Jet	.036 (P) .031 (S)	6 (P) 3 (S)	.052 (P) .0292 (B)	.028	No. Choke	None
3826S	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{1}{8}$ (P) 1 $\frac{1}{4}$ (S)	13	.031	.0472	.043	.0511	.180 x .030 x .051	.036 (P) .031 (S)	6 (P) 3 (S)	.052 (P) .0292 (B)	.025	1 P. Rich	None
3827S	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{1}{8}$ (P) 1 $\frac{1}{4}$ (S)	13	.033	.0465	.0465	.0511	.180 x .030 x .051	.036 (P) .031 (S)	6 (P) 3 (S)	.031 (P) .0292 (B)	.025	Index	.130 x .040
3921S	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.035	.0511	.043	.0531	.200 x .030 x .051	.036 (P) .031 (S)	6 (P) 3 (S)	.052 (P) .0292 (B)	.025	Index	.095 Dia.
3922S	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.031	.0452	.043	.0465	.185 x .030	.036 (P) .031 (S)	6 (P) 3 (S)	.0535 (T) .031 .055 (P) .055 (B)	.028	Index	.130 x .040
3923S	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.031	.0472	.043	.0465	.185 x .030	.036 (P) .031 (S)	6 (P) 3 (S)	.031 (T) .031 .055 (P) .055 (B)	.025	Index	.095 Dia.
3924S-SA	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.031	.0452	.043	.0465	.180 x .030 x .051	.036 (P) .031 (S)	6 (P) 3 (S)	.052 (P) .0292 (B)	.028	Index	.130 x .040
3925S-SA	1 $\frac{1}{16}$ (P) 1 $\frac{1}{16}$ (S)	1 $\frac{3}{16}$ (P) 1 $\frac{1}{16}$ (S)	13	.031	.040	.043	.0465	.150 x .030	.036 (P) .031 (S)	6 (P) 3 (S)	.052 (P) .0292 (B)	.028	Index	.130 x .040

MOTOR TUNE-UP — BE ACCURATE!

Spark Plug Gap .035"	Breaker Point Setting .016" or 30° Dwell	Ignition Timing Breaker Points to Open: 12° B.U.D.C. for A/T W/(2) Carb. Inst.; All Others 2½ B.U.D.C. At Vibration Damper Vacuum Hose Disconnected.	Float Setting See Adjustments	Idle Adjustment Screw Setting ¼ to 1¼ Turns Open Idle R.P.M. 500 to 550 (550 to 600 W/A/C) AT In Drive Range, S/M/T In Neut.
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Carter
Carburetor
Division



CARBURETOR ADJUSTMENTS

Adjustments Illustrated on Service Procedure Form 3701

FLOAT ALIGNMENT: Side of floats parallel to edge of casting. Minimum clearance between lever and air horn lugs without binding. To adjust, bend float lever.

FLOAT LEVEL: (3826 - 3827 11/64 inch) (all others 15/64 inch) plus or minus 1/64 inch between top of floats (at outer end) and air horn gasket. To adjust, bend float lever.

FLOAT DROP: 23/32 inch plus or minus 1/16 inch between top of floats (at outer end) and air horn gasket. To adjust, bend stop tabs on float brackets.

PUMP: (3645A-B - 3924-A - 3925-A 1/2 inch) (all others 7/16 inch) from the top of the bowl cover to the top of the plunger shaft, with throttle connector rod (3924-A - 3925-A in inner hole) (all others in center hole) of pump arm with throttle valves tightly closed. To adjust, bend throttle connector rod.

CHOKE PISTON LINKAGE ADJUSTMENT: (1) Bend a .026 inch wire gauge (tool T109-189) at a 90° angle approximately 1/8 inch from its end. (2) Open the choke valve and insert the wire gauge so that the bent portion is between the top of the slot in the choke piston cylinder and the bottom of the slot in the piston. Hold the wire gauge in position and close the choke valve by pressing on the piston lever in the choke housing until resistance is felt. There should now be (3826 - 3827 .086 inch) (all others 7/64 inch) between the top of the choke valve and the air horn. (3) To adjust, bend choke connector rod.

FAST IDLE LINKAGE ADJUSTMENT: With choke valve closed center index mark on cam should align with adjusting screw. To adjust, bend fast idle connector rod.

NOTE: It may be necessary to bend stop lug on fast idle cam.

FAST IDLE THROTTLE VALVE CLEARANCE: (3826 - 3827 .024"), (3921 - 3922 - 3923 - 3925-A .030"), (3924-A .014")

Between lower edge of throttle valve and bore with adjusting screw on center index mark of cam.

FAST IDLE ON CAR: 600 R.P.M. hot engine with fast idle screw at end of bottom step of cam.

UNLOADER: (3826 - 3827 1/8 inch) (all others 7/32 inch) between upper edge of choke valve and inner wall of air horn with throttle valves wide open. To adjust, bend unloader lip on throttle lever.

SECONDARY THROTTLE LEVER ADJUSTMENT: (1) Block choke valve wide open. (2) (3645A-B - 3924-A - 3925-A 27/64 inch) (all others 23/64 inch) between lower edge of primary valve and bore (opposite idle port) secondary valves should just start to open. To adjust, bend throttle operating rod. **NOTE:** Secondary throttle valves will be a few degrees from wide open when primary valves are wide open. Upper edge of secondary valve should just contact auxiliary valve when auxiliary valve is wide open. If necessary, bend stop lug on secondary lever to prevent secondary valves from going past wide open. (3) With primary and secondary throttle valves tightly closed, there should be .010 to .030 inch between positive closing shoes on primary and secondary throttle lever. To adjust, bend shoe on secondary lever.

SECONDARY THROTTLE LOCK-OUT ADJUSTMENT: Crack throttle valves and manually open and close the choke valve. Tang on secondary throttle lever should freely engage in notch of lockout dog. To adjust, bend tang on secondary throttle lever.

IDLE SPEED AND MIXTURE ADJUSTMENT (3924-A - 3925-A) (Normal Engine Temp.): In making the idle adjustment on the engine, the air adjustment screw is used to adjust idle speed in a similar manner as the throttle speed screw used previously. Turning the air adjustment screw outward increases engine speeds, but also leans the mixture supplies to the manifold which must be compensated for by adjustment of the idle mixture adjusting screws.

PARTS LIST

Part No.	PART NAME	Part No.	PART NAME
1A-119	Flange gasket	11B-389	Idle port rivet plug (2)
2-185	Primary throttle valve (3826 - 3827) (2)	11B-390	Passage plug (primary) (2)
2-189	Secondary throttle valve (3826 - 3827) (2)	11B-406	Passage plug (secondary) (2)
	(Use 2-284)	11B-407	Rivet plug
2-196	Secondary throttle valve (all except 3826 - 3827) (2)	11B-439	Primary venturi plug (2)
2-211	Primary throttle valve (3921 - 3922 - 3923) (2)	14-5685	Choke lever and shaft assy. (all except 3645A-B)
2-255	Primary throttle valve (3645A-B - 3924-A - 3925-A) (2)	14-6095	Choke piston lever and link assy. (all except 3645A-B)
2-281	Primary throttle valve (3921 - 3922 - 3923)	14-6125	Choke shaft and lever assy. (piston hsg.) (all except 3645A-B)
2-284	Secondary throttle valve (3826 - 3827) (2)	14-619	Choke shaft lever (all except 3645A-B)
3-10745	Secondary throttle shaft and lvr. assy. (all except 3645A-B) (Use 3-1633S)	14-620	Cam trip lever (all except 3645A-B)
3-1221	Secondary throttle shaft (3645A-B)	15-585	Fuel inlet fitting assy. (3924-A - 3925-A)
3-12775	Auxiliary throttle shaft, valve and weight assy. (3921 - 3923)	15-625	Fuel inlet fitting assy. (3645A-B)
3-14415	Auxiliary throttle shaft, valve and weight assy. (3922)	16-167	Step-up rod (.0695" x .063") std. (3923) (2)
3-14635	Auxiliary throttle shaft, valve and weight assy. (3645A-B)	16-219	Step-up rod (.0685" x .063") std. (3921 - 3922 - 3925-A) (2)
3-14645	Auxiliary throttle shaft, valve and weight assy. (3924-A - 3925-A)	16-252U	Step-up rod package (2) 16-255, (2) 61-400, (2) 120-233 1 size lean (3921)
3-14655	Primary throttle shaft and lever assy. (3645A) (use 3-1549S)	16-253U	Step-up rod package (2) 16-256, (2) 61-400, (2) 120-165 1 size lean (3923)
3-15005	Primary throttle shaft and lever assy. (3826 - 3827 - 3921 - 3922 - 3923)	16-254U	Step-up rod package (2) 16-255, (2) 61-400, (2) 120-165 1 size lean (3922)
3-15015	Primary throttle shaft and lever assy. (3924 - 3925) (use 3-1550S)	16-286	Step-up rod (.0675" x .063") std. (3645A-B) (2)
3-15095	Auxiliary throttle shaft, valve and weight assy. (3926 - 3927)	16-298	Step-up rod (.066" x .063") std. (3924-A) (2)
3-15495	Primary throttle shaft and lever assy. (3645A-B)	16-311U	Step-up rod package (2) 16-127, (2) 61-400, (2) 120-185 1 size lean (3645A-B)
3-15505	Primary throttle shaft and lever assy. (3924-A - 3925-A)	16-312U	Step-up rod package (2) 16-255, (2) 61-400, (2) 120-185 1 size lean (3925-A)
3-16335	Secondary throttle shaft and lever assy. (all except 3645A-B)	16-313U	Step-up rod package (2) 16-323, (2) 61-400, (2) 120-185 1 size lean (3924-A)
4A-175	Primary throttle shaft dog	16-341	Step-up rod (.0695" x .059") std. (3826 - 3827) (2)
7-235	Choke valve (all except 3645A-B)	16-383U	Step-up rod package (2) 16-382, (2) 61-400, (2) 120-185 1 size lean (3826 - 3827)
11B-35	Rivet plug (all except 3645A-B)	17-51	Pump discharge check needle
11B-79	Rivet plug (2)	20-35	Fuel inlet fitting gasket (3754A-B)
11B-194	Pipe plug (3922 - 3924-A)	20-43	Piston housing gasket (all except 3645A-B)
11B-287	Spark port rivet plug (3827 - 3924)	20-127	Fuel inlet fitting gasket (all except 3645A-B)

Part No.	PART NAME	Part No.	PART NAME
20-204	Needle seat gasket (2)	101-452	Throttle lever adjusting screw (3826 - 3827 - 3921 - 3922 - 3923)
21-1795	Floater and lever assy. (2)	101-4535	Thermostatic valve attaching screw and washer assy. (all except 3645A-B) (2)
24-29	Floater lever pin (2)	101-484	Fast idle adj. screw (all except 3645A-B)
25-8605	Needle and seat assy. (flared tip) (all except 3826 - 3827) (2)	101-560	Step-up piston cover plate attaching screw (2)
25-10065	Needle and seat assy. (flared tip) (3826 - 3827) (2)	103-14	Lead shot (.180") (3645A-B) (3) (all others) (1)
30A-75	Idle adjustment screw (all except 3645A-B) (2)	103-16	Lead shot (.200")
30A-126	Idle air adj. screw (3924-A - 3925-A)	111-76	Pump arm
39-11	Choke valve attaching screw (all except 3645A-B) (2)	114-146	Primary throttle shaft arm
47-30	Piston housing welsh plug (all except 3645A-B)	114-147	Primary throttle shaft arm (inner)
47-34	Spark port welsh plug (3922 - 3925-A)	115-285	Choke connector rod (all except 3645A-B)
47-36	Secondary venturi welsh plug (2)	115-314	Fast idle connector rod (all except 3645A-B)
48-2645	Pump jet and housing assy. (3645A-B - 3924) (3922-A - 3925-A use 48-324S)	115-317	Throttle operating rod
48-2695	Pump jet and housing assy. (3826 - 3827 - 3921 - 3923)	115-372	Pump connector rod
48-3245	Pump jet assy. (3922 - 3925S)	117-190	Pump connector link
53A-412	Lockout dog (all except 3645A-B)	120-158	Secondary metering jet (.082") (3921) (2)
53A-430	Secondary throttle operating lever	120-159	Secondary metering jet (.089") (3923) (2)
58-3475	Secondary venturi assy. choke side (3645A-B - 3921 - 3924-A - 3925-A)	120-165	Secondary metering jet (.086") (3922) (2)
58-3485	Secondary venturi assy. pump side (3645A-B - 3921 - 3924-A - 3925-A)	120-222	Secondary metering jet (.070") (3645A-B - 3826 - 3827 - 3924-A - 3925-A) (2)
58-6965	Primary venturi assy. choke side (3921)	120-256	Primary metering jet (.092") (2)
58-6975	Primary venturi assy. pump side (3921)	121-287	Pump jet housing gasket
58-7215	Secondary venturi assy. choke side (3923)	121-292	Air horn gasket
58-7225	Secondary venturi assy. pump side (3923)	121-293	Secondary venturi cluster gasket (all except 3922 - 3923) (2)
58-7255	Primary venturi assy. choke side (3645A-B - 3922 - 3924-A)	121-302	Primary venturi cluster gasket (2)
58-7265	Primary venturi assy. pump side (3645A-B - 3922 - 3924-A)	121-314	Thermo. valve gasket (all except 3645A-B)
58-7315	Secondary venturi assy. choke side (3922)	121-500	Coil housing gasket (all except 3645A-B)
58-7325	Secondary venturi assy. pump side (3922)	121-511	Secondary venturi cluster gasket (3922 - 3923) (2)
58-7435	Primary venturi assy. choke side (3923)	122-1085	Pump intake check assy. (3826 - 3827 - 3921 - 3923 - 3924) (3645A-B - 3922 - 3925 use 122-135S)
58-7445	Primary venturi assy. pump side (3923)	122-1355	Pump intake check assy. (3645A-B - 3922 - 3925)
58-7765	Primary venturi assy. choke side (3925-A)	136-34	Choke shaft lever retaining washer (all except 3645A-B)
58-7775	Primary venturi assy. pump side (3925-A)	136-159	Primary throttle shaft washer
58-8205	Secondary venturi assy. choke side (3826 - 3827)	136-160	Secondary throttle shaft washer
58-8215	Secondary venturi assy. pump side (3826 - 3827)	136-174	Throttle lever adjusting screw washer (3826 - 3827 - 3921 - 3922 - 3923)
58-8245	Primary venturi assy. choke side (3826)	150-190	Choke piston pin (all except 3645A-B)
58-8255	Primary venturi assy. pump side (3826)	150A-10	Pin spring (3-3645A-B) (all others-6)
58-8545	Primary venturi assy. choke side (3827)	156-1165	Fuel inlet fitting assy. (3826 - 3827 - 3921 - 3922 - 3923)
58-8555	Primary venturi assy. pump side (3827)	160-117	Choke piston (3826 - 3927)
61-58	Fast idle adj. screw spring (all except 3645A-B)	160-207	Step-up piston (2)
61-84	Idle adj. screw spring (all except 3645A-B) (2)	160-128	Choke piston (3921 - 3922 - 3923 - 3924-A - 3925-A)
61-171	Pump spring (lower) (3922 - 3924-A - 3925-A) (2)	169-925	Thermostatic valve assy. (all except 3645A-B)
61-259	Vacuum piston spring (2)	170-6785	Piston housing and plug assy. (3924-A - 3925-A) (use 170-911S)
61-291	Throttle lever adj. screw spring (3826 - 3827 - 3921 - 3922 - 3923)	170-8095	Piston housing and plug assy. (3922) (use 170-912S)
61-398	Pump spring (lower) (3826 - 3827 - 3921 - 3923)	170-8395	Piston housing and plug assy. (3921 - 3923) (use 170-911S)
61-483	Secondary throttle return spring	170-8405	Piston housing and plug assy. (3826 - 3827 use 170-885S)
61-585	Step-up rod retaining spring (2)	170-8855	Piston housing and plug assy. (3826 - 3827)
61-599	Idle air adjusting screw (3924-A - 3925-A)	170-9115	Piston housing and plug assy. (3921 - 3924-A - 3925)
61-623	Throttle flex spring	170-9125	Piston housing and plug assy. (3922)
61-658	Pump spring (lower) (3645A-B)	170AW-4785	Thermostatic coil and housing assy. (3922 - 3924-A - 3925-A)
63-58	Coil housing retainer (all except 3645A-B) (3)	170AZ-4785	Thermostatic coil and housing assy. (3826 - 3827)
64-2175	Pump plunger, rod and spring assy. (all except 3645A-B)	170BE-4785	Thermostatic coil and housing assy. (3921 - 3923)
64-2185	Pump plunger, rod and spring assy. (3645A-B)	181-2935	Fast idle cam assy. (3922)
65-43	Step-up piston cover plate (2)	181-3525	Fast idle cam assy. (3921 - 3923 - 3925-A)
101-65	Choke shaft lever attaching screw (all except 3645A-B) (2)	181-3555	Fast idle cam assy. (3826)
101-74	Throttle shaft lever attaching screw (2)	181-3575	Fast idle cam assy. (3827)
101-136	Coil housing att. screw (all except 3645A-B) (3)	181-3595	Fast idle cam assy. (3924-A)
101-1525	Airhorn attaching screw and washer assy.	186-70	Fuel bowl baffle (2)
101-1845	Pump jet hsg. att. screw and washer assy. (2)	186-106	Flange baffle plate (all except 3826 - 3827)
101-323	Fast idle cam attaching screw (all except 3645A-B)	186-107	Choke baffle plate assy. (3922 use 186-120S) (3924 - 3925 use 186-109S)
101-3625	Air horn att. screw and washer assy. (8)	186-1095	Choke baffle plate assy. (3924 - 3925) (3921 - 3923 use 186-120S)
101-3795	Secondary and primary venturi attaching screw and washer assy. (8)	186-1125	Choke baffle plate assy. (3826 - 3827)
101-419	Secondary throttle valve att. screw (4)	186-113	Flange baffle plate (3826 - 3827)
101-420	Primary throttle valve att. screw (4)	186-1205	Choke baffle plate assy. (3921 - 3922 - 3923)
101-421	Pump arm attaching screw		
101-4315	Air horn attaching screw and washer assy.		
101-436	Piston housing attaching screw (all except 3645A-B) (3)		

NOTE: Figures in parentheses indicate number of pieces used in one carburetor. Where no figure is shown, only one is used.