

1969 "V8" CHRYSLER EC1, EC2, EC3 DART EL1, EL2 & BARRACUDA EB1, EB2 DODGE ED2, EW1, EW2 PLYMOUTH EP1, EP2, ER1, ER2

AVS FOUR-BORE DOWN-DRAFT CLIMATIC CONTROL CARBURETORS Nos. 4611S-SA - 4612S-SA - 4615S-SA - 4616S-SA - 4617S-SA - 4618S-SA - 4638S-SA - 4639S-SA - 4640S-SA - 4682S-SA - 4711S-SA

YEAR AND MODEL				ENGINE DISPL.	ORIGINAL CARB. NO.	SERVICE CARB. NO.	ZIP KIT NO.
1969	EB1, EB2, EL1, EL2		S/T	340	4611S-SA	4611S-SA	902-269
1969	EB1, EB2, EL1, EL2	W/O A.C.	A/T	340	4612S-SA	4612S-SA	902-269
1969	EB1, EB2, EL1, EL2	W/A.C.	A/T	340	4639S-SA	4639S-SA	902-269
1969	EC1, EB2, ED2, EL2, EP2, ER2, EW2	W/A.C.	S-T	383	4711S-SA	4711S-SA	902-270
1969	EC1, EB2, ED2, EL2, EP2, ER2, EW2	W/O A.C.	A/T	383	4616S-SA	4616S-SA	902-270
1969	ER1, ER2, EW1, EW2	W/O A.C.	S/T	383	4615S-SA	4615S-SA	902-270
1969	ER1, ER2, EW1, EW2	W/O A.C.	A/T	383	4682S-SA	4682S-SA	902-270
1969	EC1, EC2, EC3, EP1, EP2, ER1, ER2, EW2	W/A.C.	A/T	383	4638S-SA	4638S-SA	902-270
1969	EC1, EC2, EC3, ED2, EP2, ER2, EW1, EW2	W/O A.C.	S/T	440	4617S-SA	4617S-SA	902-270
1969	EC1, EC2, EC3, ED2, EP2, ER2, EW2	W/O A.C.	A/T	440	4618S-SA	4618S-SA	902-270
1969	EC1, EC2, EC3, ED2, EP2, ER2, EW2	W/A.C.	A/T	440	4640S-SA	4640S-SA	902-270

CARBURETOR SPECIFICATIONS

Carb. No.	Thro. Bore Prim. & Sec.	Main Venturi Prim.	Idle Speed Jet In Prim. Venturi	Idle By-Pass In Prim. Venturi	Idle Econ. In Prim. Venturi	Idle Bleed In Prim. Venturi	Idle Port	Anti-Per. Bleed In Prim. Venturi Sec. In Air Horn	Pump Jet In Prim. Venturi	Choke Setting	Vacuum Spark Port
4611S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.033	.0492	.0492	.0465	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4612S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.031	.052	.0492	.035	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4615S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.033	.053	.0465	.0492	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4616S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.031	.052	.0492	.040	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4617S-SA	1 $\frac{11}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{7}{16}$	.035	.0492	.0492	.040	.225 x .030	.035 (P) .067 (S)	.035	Index	None
4618S-SA	1 $\frac{11}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{7}{16}$	.031	.049	.059	.040	.254 x .030	.035 (P) .067 (S)	.035	Index	None
4638S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.031	.052	.0492	.040	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4639S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.031	.0492	.0492	.035	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4640S-SA	1 $\frac{11}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{7}{16}$	.031	.049	.059	.040	.254 x .030	.035 (P) .067 (S)	.035	Index	None
4682S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.031	.0492	.0492	.040	.200 x .030	.031 (P) .067 (S)	.035	Index	None
4711S-SA	1 $\frac{7}{16}$ (P) 1 $\frac{11}{16}$ (S)	1 $\frac{3}{16}$	.033	.052	.0465	.0492	.200 x .030	.031 (P) .067 (S)	.035	Index	None

Carter
Carburetor
Division



St. Louis, Missouri 63107 U.S.A.

3 Pages
Form 5534A

MOTOR TUNE-UP — BE ACCURATE

Spark Plug Gap .035"	Breaker Point Setting .014"-.019"	Ignition Timing See Decal in Engine Compartment	("S" Carbs Idle Air Adjustment screw setting (one only) Turn Clockwise To Lean (SA" Carbs) (Lock Type)	Idle R.P.M. See Decal In Engine Compartment
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CARBURETOR ADJUSTMENTS

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: (4615, A, 16, A, 38, A, 82, A, 4711, A — 5/16 inch) (4611, A, 12, A, 17, A, 18, A, 39, A, 40, A — 7/32 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: 7/16 inch from the top of the bowl cover to the top of the plunger shaft with throttle connector rod in center hole (medium stroke) of pump arm with throttle valves tightly closed. To adjust, bend throttle connector rod.

FAST IDLE LINKAGE: With fast idle screw on second step and against shoulder of first step of cam, adjust choke connector rod to give 1/16 inch between top edge of choke valve and inner wall of air horn. (Open and close throttle so fast idle cam is free to operate.)

FAST IDLE THROTTLE VALVE CLEARANCE: (4611, A, 16, A, 38, A, 4711, A, — .019) (4615, A, 18, A, 40, A, 82, A, — .023") (4617, A, — .020") (4617, A, 39, A, — .015") between lower edge of throttle valve and bore with adjusting screw on second step of cam.

FAST IDLE ON CAR: 1700 R.P.M. hot engine with fast idle screw on second step and against shoulder of first step of cam.

DASHPOT: (If equipped) With throttle valves held at 2000 R.P.M., adjust dashpot so that stem just contacts lever. Tighten lock nut.

UNLOADER: 1/4 inch between upper edge of choke valve and inner wall of air horn, with throttle wide open. To adjust, bend tang on fast idle cam.

BOWL VAPOR VENT: 1/8 inch between the heel (low side of seal) of the rubber grommet and its seat on the bowl cover with throttle valves seated. To adjust, bend tang on vapor vent arm. If the pump has been changed from standard setting, readjust the bowl vapor vent.

SECONDARY THROTTLE LEVER: 1. Block choke valve wide open. 2. (4617, A, 18, A, 40, A, — 11/32 inch) (All others — 19/64 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: at wide open throttle, primary and secondary valves will reach full vertical position. 3. With primary and secondary throttle valves in tightly closed position there should be .010" to .030" between positive closing shoes on primary and secondary throttle levers. To adjust, bend shoe on secondary lever. NOTE: If necessary, bend stop lug on secondary lever to prevent secondary valves from going past wide open.

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

CHOKE DIAPHRAGM LINKAGE: With vacuum diaphragm plate (not stem) bottomed, close choke valve as far as possible without forcing. Adjust connector rod to give (4612, A, 16, A, 38, A, 39, A, 82, A, — 5/64 inch) (4617, A, — 5/32 inch) (4611, A, 15, A, 18, A, 40, A, 4711, A, — 7/64 inch) between top edge of choke valve and inner wall of air horn. Remove connector rod to adjust, to prevent damage to rod and diaphragm.

SECONDARY AIR VALVE: Loosen lock screw and allow air valve to position itself wide open. Check to see that air valve and shaft are operating freely. To adjust, turn the shaft bearing counter-clockwise until the spring just contacts air valve, then turn the shaft bearing two additional turns.

CHOKE (CROSS OVER TYPE): 1. Loosen mounting post lock nut and turn mounting post with screwdriver until index mark on disk is positioned as listed on carburetor specification page. Hold in this position with screwdriver and tighten lock nut. NOTE: Screwdriver may be held in vise so that one hand may be used to support housing while tightening nut. 2. After adjustment is completed and coil housing and rod assembly and carburetor is installed on engine lift cover disk and open and close choke valve manually to see if connector rod clears sides of hole in housing cover. If rod does not clear hole in housing cover without binding replace with a new unit since connector rod cannot be bent without affecting calibration.

PARTS LIST

Part No.	PART NAME	Part No.	PART NAME
1A-303	Flange gasket	15-585	Fuel inlet fitting assembly
2-281	Secondary throttle valve	16-160	Step up rod (.0645"x.062"x.055") Std (4612, A, 4639, A, 4682, A, 4711, A)
2-289	Primary throttle valve (4611, A, 12, A, 15, A, 16, A, 38, A, 39, A, 82, A, 4711, A)	16-164	Step up rod (.065"x.060"x.053") Std. (4615, A) (2)
2-291	Primary throttle valve (4617, A, 18, A, 40, A)	16-165	Step up rod (.0635"x.060"x.053") Std. (4682, A) (use 16-160)
3-1618S	Secondary throttle shaft and dog assembly	16-176	Step up rod (.067"x.065"x.055") Std. (4617, A) (use 16-575)
3-1732S	Primary throttle shaft, lever & dog assembly (4611, A, 12, A, 39, A)	16-546	Step up rod (.066"x.064"x.055") Std. (4611, A, 17, A)
3-1734S	Primary throttle shaft, lever and dog assy., (4615, A, 16, A, 17, A, 18, A, 38, A, 40, A, 82, A, 4711, A)	16-574	Step up rod (.065"x.060"x.053") Std. (4616, A, 4638, A)
4A-203	Throttle shaft dog	16-575	Step up rod (.065"x.062"x.053") Std. (4617, A, use 16-546) 4618, A, 4640, A)
7-293S	Choke valve assembly	16-581	Step up rod (.065"x.063"x.055") Std. (4611, A) (use 16-546)
7-294	Air valve	17-51	Pump discharge check needle
11B-79	Rivet plug	20-127	Fuel inlet fitting gasket
11B-390	Passage plug	20-204	Needle seat gasket
11B-480	Idle port rivet plug (4611, A, 12, A, 15, A, 16, A, 38, A, 39, A, 82, A, 4711, A)	21-241S	Float assembly (4615, A, 16, A, 38, A, 82, A, 4711, A)
11B-481	Idle port rivet plug (4617, A, 18, A, 40, A)	21-245S	Float assembly (4611, A, 12, A, 17, A, 18, A, 39, A, 40, A)
13-244	Air valve shaft	24-29	Float pin
13-262	Choke shaft		
14-555	Choke shaft lever		
14-559	Counter shaft lever to choke valve		
14-893	Choke lever		

PARTS LIST (Cont'd,

Part No.	PART NAME	Part No.	PART NAME
25-1031S	Needle and seat assembly (4611, A, 12, A, 39, A) (2)	101-453S	Thermostatic valve screw assembly (4638, A, 39, A, 40, A) (2)
25-1032S	Needle and seat assembly (4615, A, 16, A, 17, A, 18, A, 38, A, 40, A, 82, A, 4711, A) . . . (2)	101-558	Choke and air valve screw (4)
30-78	Fuel inlet strainer	101-560	Step up piston cover plate & air valve retainer screw (3)
30A-158	Idle air screw ("S" Carbs. only)	101-584	Pump arm screw
30A-199	Idle mixture screw (all except 4617A, 18A, 40A) (2)	101-621	Fast idle speed screw (late prod.)
30A-200	Idle mixture screw (4617A, 18A, 40A) (2)	103-14	Lead shot (.180)
48-339S	Pump jet assembly	103-16	Lead shot (.200)
53A-481	Bowl vent arm	105A-60	Dashpot lock nut (4611, A, 15, A, 17, A, 4711, A)
53A-482	Secondary throttle operating lever	111-76	Pump arm
53A-489	Lockout dog	113-90S	Choke shaft and lever assembly
58-1164S	Primary venturi assy. (opposite pump) (4611, A) (use 58-1263S)	114-146	Primary throttle shaft arm (outer)
58-1193S	Primary venturi assy. (pump side) (4611, A)	114-180	Dashpot lever (4611, A, 15, A, 17, A, 4711, A)
58-1200S	Primary venturi assy. (opposite pump side) (4639, A) (4612, A — use 58-1266)	114-181	Primary throttle shaft arm (inner)
58-1201S	Primary venturi assy. (pump side) (4639, A) (4612, A — use 58-1267)	115-308	Throttle operating rod
58-1203S	Primary venturi assy. (opposite pump) (4711, A)	115-372	Throttle connector rod
58-1204S	Primary venturi assy. (pump side) (4711, A)	115-438	Choke diaphragm connector rod
58-1206S	Primary venturi assy. (opposite pump side) (4616, A, 38, A, 82, A — use 58-1264)	115-452	Fast idle connector rod
58-1207S	Primary venturi assy. (pump side) (4616, A, 38, A, 82, A — use 58-1265)	117-190	Pump connector link
58-1209S	Primary venturi assy. (opposite pump) (4617, A)	117-208	Choke valve link
58-1210S	Primary venturi assy. (pump side) (4617, A)	120-392	Secondary metering jet (.092") (16, A, 38, A, 82, A, 4711, A) (2)
58-1213S	Primary venturi assy. (opposite pump side) (4618, A, 40, A)	120-395	Secondary metering jet (.095") (4611, A, 4615, A, 17, A, 18, A, 40, A) (2)
58-1214S	Primary venturi assy. (pump side) (4618, A, 40, A)	120-398	Secondary metering jet (4612, A, 4639, A, (.098") (2)
58-1243S	Primary venturi assy. (opposite pump) 4615, A)	120-489	Primary metering jet (.089") (4611, A, 12, A, 15, A, 16, A, 38, A, 39, A, 82, A, 4711, A) . . . (2)
58-1244S	Primary venturi assy. (pump side) (4615, A)	120-501	Primary metering jet (.101") (4617, A, 18, A, 40, A) (2)
58-1263S	Primary venturi assy. (opposite pump side) (4611, A)	121-302	Primary venturi cluster gasket (2)
58-1264S	Primary venturi assy. (opposite pump side) (4616, A, 38, A, 82, A)	121-314	Thermostatic valve gasket (4638, A, 39, A, 40, A, 4711, A)
58-1265S	Primary venturi assy. (pump side) (4616, A, 38, A, 82, A)	121-613	Air horn gasket
58-1266S	Primary venturi assy. (opp. pump side) (4612, A)	121-619	Pump jet housing gasket
58-1267S	Primary venturi assy. (pump side) (4612, A)	122-119S	Pump in'ake ball check assembly
61-291	Idle speed screw spring	136-47	Choke diaphragm connector rod washer
61-475	Idle air screw spring ("S" Carbs. only)	136-159	Primary throttle shaft washer (4612, A, 16, A, 18, A, 38, A, 39, A, 40, A, 82, A)
61-585	Step up rod retaining spring (2)	136-160	Secondary throttle shaft washer
61-604	Vacuum piston spring (2)	136-174	Idle speed screw washer
61-649	Throttle lever spring	136-219	Choke lever retainer washer
61-798	Air valve spring	145-304	Choke diaphragm hose
61-816	Pump spring (lower)	150A-10	Pin spring (5)
61-829	Bowl vent arm spring	150A-21	Choke diaphragm connector rod pin spring
61-841	Secondary throttle return spring	160-207	Step up piston (2)
61-873	Idle mixture & fast idle speed screw spring (late prod.) (3)	163-113	Venturi vent seal (2)
63-336	Choke diaphragm connector rod retainer	164-24	Grommet seal
64-391S	Pump plunger, assembly	169-48S	Thermostatic valve assembly (4638, A, 39, A, 40, A, 4711, A)
65-59	Step up piston cover plate (opposite pump)	170BA-974S	Thermostatic coil, housing and rod assembly
65-60	Step up piston cover plate (pump side)	180-169	Dashpot bracket (4611, A, 15, A, 17, A, 4711, A)
96-36	Idle mixture screw limiter cap (late prod.) . . . (2)	181-418S	Fast idle cam assy. (4616, A, 38, A, 82, A)
101-65	Choke shaft lever screw	181-422S	Fast idle cam assy. (4611, A, 15, A, 17, A, 18, A, 40, A, 4711, A)
101-74	Throttle shaft lever screw (2)	181-424S	Fast idle cam assy. (4612, A, 39, A)
101-120	Fast idle speed screw (early prod.)	186-70	Fuel bowl baffle (2)
101-184S	Pump jet screw assembly (2)	202-89S	Dashpot assembly (4611, A, 15, A, 17, A, 4711, A)
101-323	Fast idle cam screw	202-338S	Choke diaphragm and bracket assembly (4611, A, 15, A, 17, A, 18, A, 40, A, 4711, A)
101-337	Counter shaft lever screw	202-339S	Choke diaphragm and bracket assembly (4612, A, 16, A, 38, A, 39, A, 82, A)
101-362S	Air horn screw assembly (4611, A, 15, A, 17, A, 4711, A-6) (all others -8)	210-22	Air valve shaft bearing (for adjusting spring tension) (early prod. (use 210-24U)
101-386S	Dashpot bracket screw assembly (4611, A, 15, A, 17, A, 4711, A) (2)	210-23	Air valve shaft bearing (early prod.) (Use 210-24U)
101-419	Secondary throttle valve attaching screw (4)	210-24U	Air valve shaft bearing package (early prod.)
101-420	Primary throttle valve attaching screw (4)	210-27	Air valve shaft bearing (for adjusting spring tension) (late prod.)
101-428	Choke diaphragm bracket screw (2)		
101-442S	Venturi screw assembly (4)		
101-452	Idle speed screw		

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