

2354S
Cars Without
Air Conditioning

CADILLAC
1955

(Use 2255S with 195-64U
to replace 2354S)

2355S
Cars With
Air Conditioning

All Models Except
Eldorado

(Use 2255S with 195-64U
and 202-44U to
replace 2355S)

WCFB Four Bore Down-Draft Climatic® Control Carburetors
Nos. 2354S-2355S

CARBURETOR SPECIFICATIONS

For Cadillac 8 Cylinder Engine: 3-13/16 Inch Bore, 3⁵/₈ Inch Stroke

Dimensions: Flange Four Bore — 4 bolt type, size 1¹/₈ inch (primary side) and 1¹/₄ inch (secondary side).
Primary venturi size, 1¹/₃₂ inch (I. D.).
Main venturi size, 1-1/16 inch (primary side) and 1-3/16 inch (secondary side).

Float Level: See adjustments.

Vent: Outside, None.

Inside, balance vent tube in air horn; 2 on primary side, 3 on secondary side.

Gasoline Intake: Size No. 38 (.1015 inch) drill hole in needle seat.

Low Speed Jet Tube: Jet, size No. 70 (.028 inch) drill. By-pass (2 in low speed jet), size No. 54 (.055 inch) drill.
Economizer, in body, size No. 54 (.055 inch) drill.
Idle bleed, in body, size No. 52 (.0635 inch) drill.

Idle Port: (Upper) slot type. Primary, length .175 inch; width .030 inch.
Secondary, length .100 inch; width .030 inch.

Idle Port Opening: Primary, .091 to .097 inch, secondary .050 to .056 inch above upper edge of valve with valve tightly closed.

Lower Port: Primary (for idle adjustment screw), size No. 53 (.0595 inch) drill.
Secondary, None.

Set Idle Adjustment Screw: 3/4 to 1³/₄ turns open. For richer mixture turn screw out. Do not idle engine below 400 RPM. (Transmission in Drive range).

Main Nozzle: Installed permanently. DO NOT REMOVE. Anti-percolating jet (secondary only), size No. 70 (.028 inch) drill.

Metering Rod: Primary, economy step .0715 inch diameter. Middle step tapers to .067 inch diameter.
Power step, .053 inch diameter.
Secondary, None.

Metering Rod Jet: Primary, size .0935 inch diameter (for metering rod).
Secondary, size, .082 inch diameter. (No metering rod).

Secondary, size, .082 inch diameter. (No metering rod).

Metering Rod Setting. See adjustments.

Accelerating Pump: Discharge jet (twin) primary only, size No. 74 (.0225 inch) drill.

Intake ball check seat, size .115 to .120 inch diameter.

Discharge needle seat, size .070 inch diameter.

Relief ball check, size No. 55 (.052 inch) drill.

Relief passage (vent) to fuel chamber No. 42 (.0935 inch) drill.

Choke: Carter Climatic® Control, set one point lean. Butterfly type, offset choke valve, primary side only. Choke heat suction hole, restriction in piston housing, size No. 44 (.086 inch) drill.

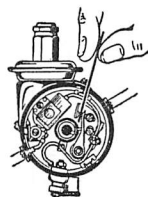
Vacumm Spark Port: Round type, .127 to .129 inch diameter. Top of port .035 to .043 inch above top edge of valve with valve tightly closed.

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.



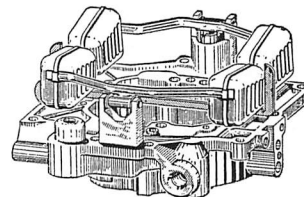
Spark Plug
Gap
.035"



Breaker Point
Setting
.0125"-.0175"



Ignition Timing
Breaker Points to Open:
2¹/₂° B.T.C.
1/2 Distance C to A
Distributor vacuum line
disconnected



Float Setting
See Adjustment

Idle Adjustment
Screw Setting
3/4 to 1³/₄
Turns Open
Idle Engine at
400 R.P.M.
in Drive range

NOTE: These cars are equipped with Hydraulic Valve Lifters—NO ADJUSTMENTS.

CARBURETER ADJUSTMENTS

FLOAT ADJUSTMENT. Two separate float adjustments must be made—lateral and vertical.

LATERAL ADJUSTMENT: With bowl cover assembly inverted, bowl cover gasket removed and float resting on seated needle, place float gauge directly under center of floats with notched portions of gauge fitted over edges of casting. Sides of floats should just clear the vertical upright of float gauge. Adjustment should be made by bending arms of floats.

VERTICAL ADJUSTMENT: With float gauge in same position, floats should just clear the horizontal portion of gauge. The vertical distance between top of float and machined surface of casting must be $\frac{1}{8}$ inch (gauge T109-232) for primary floats and $\frac{3}{16}$ inch (gauge T109-222) for secondary floats. Adjust by bending float arms.

FLOAT DROP ADJUSTMENT: With bowl cover held in upright position and measuring from center of float, the distance between top of floats and bowl cover should be $\frac{5}{8}$ inch for primary floats and $\frac{11}{16}$ inch for secondary floats. Adjust by bending stop tabs on float bracket.

PUMP ADJUSTMENT: Install pump connector link in outer hole (long stroke) of pump arm, with ends extending toward counter-shaft arm. Seat throttle valves in bores of carbureter. Hold straight edge across top of dust cover boss at pump arm. The flat on top of pump arm should be parallel to straight edge. Adjust by bending throttle connector rod at lower angle. (Use tool T109-213.)

METERING ROD ADJUSTMENT: Metering rod adjustment is important and must be made after completing the pump adjustment. No metering rod gauges are necessary. Procedure is as follows: 1. Seat throttle valves in bores of carbureter and loosen metering rod arm clamp screw. 2. With metering rods in place, press down on vacuumeter link until metering rods bottom in carbureter body casting. 3. Holding rods in downward position and throttle valves seated, revolve metering rod arm until finger on arm contacts lip of vacuumeter link. Hold in place and carefully tighten clamp screw.

BOWL VAPOR VENT ADJUSTMENT: This adjustment should be made after completing pump and metering rod adjustments. Install dust cover gasket and dust cover. Seat throttle valves in bores of carbureter. There should be $\frac{1}{16}$ inch (gauge T109-197) between lower edge of bowl vapor vent valve and dust cover. To adjust, remove dust cover and bend vapor vent arm.

CHOKE MODIFIER ADJUSTMENT: 1. Set Climatic® Control assembly on index. 2. Loosen clamp screw. 3. Remove lower end of connector rod. 4. Rotate metal pointer until it is in line with raised pointer on coil housing. 5. Align scribed line on lever so that it is straight up and down. Hold in place and tighten clamp screw. 6. Seat throttle valves (hold choke valve

wide open). 7. Hold pointer as indicated in No. 4. Lower end of rod must slide freely into hole in throttle arm. Bend rod at upper angle to adjust.

FAST IDLE AND SECONDARY THROTTLE LOCK-OUT ADJUSTMENT:

1. Preliminary Adjustment Loosen choke lever clamp screw on choke shaft. Insert .020 inch feeler gauge (T109-29) between lip of fast idle cam and boss of flange casting. Hold choke valve tightly closed and take slack out of linkage by pressing choke lever towards closed position—hold in place and tighten clamp screw. 2. Secondary Throttle Lock-Out Adjustment: (a) With choke valve tightly closed, tighten fast idle adjusting screw until there is .015 inch (gauge T109-44) opening between primary throttle valve and bore of carbureter (side opposite idle port). Lock pawl should now be in unlocked position; if not, adjust by bending tang on lock pawl (use bending tool T109-105). (b) Hold primary throttle valves half way open. Open choke valve fully, then open primary throttle valves all the way. Tang on secondary throttle arm should engage in notch on lock-out lever preventing secondary throttle shaft movement. Keep choke valve in wide open position. Close primary throttle valves so that lock pawl is unlocked, then open primary throttle valves all the way. Lock-out lever should fall free allowing secondary throttle valves to be open before primary throttle valves are fully open. If necessary, bend tang on secondary throttle lever to provide clearance for proper operation of lock-out lever.

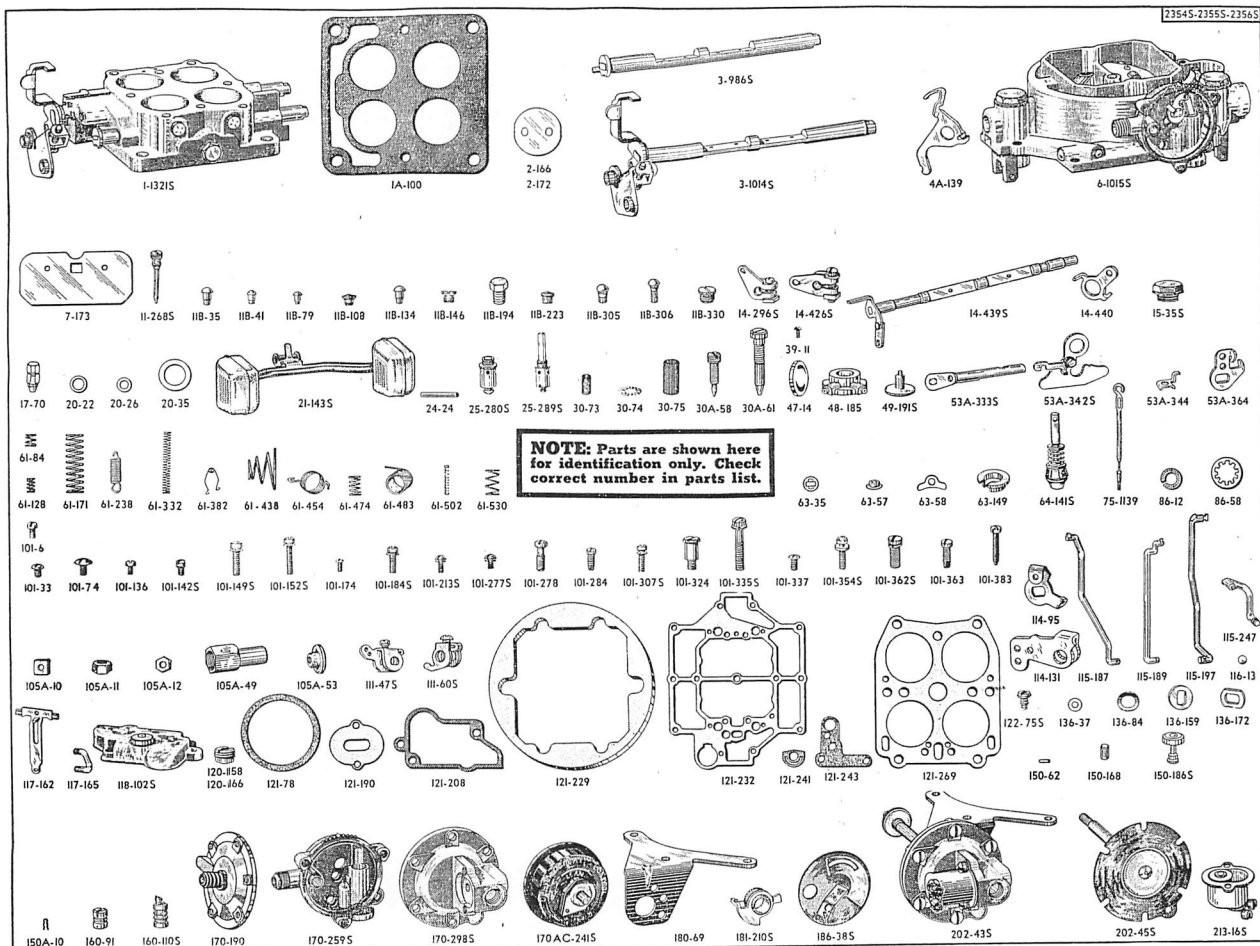
UNLOADER ADJUSTMENT: With throttle wide open there should be $\frac{13}{64}$ inch (gauge T109-39) clearance between upper edge of choke valve and inner wall of air horn. Adjust by bending unloader lip on throttle shaft lever (use bending tool T109-41).

SECONDARY THROTTLE LEVER ADJUSTMENT: Primary and secondary throttle valves should reach wide open position at the same time. To adjust bend throttle operating rod at upper angle. (Use bending tool T109-213.) With primary and secondary throttle valves in tightly closed position there should be .017-.022 inch (gauge T109-29) clearance between positive closing shoes on primary and secondary throttle levers. To adjust bend shoe on primary lever.

AIR CONDITIONER FAST IDLE DEVICE ADJUSTMENT: This adjustment must be made after carbureter is installed on car, engine at normal operating temperature and slow idle adjustment is completed. With shift lever in neutral and air conditioner turned on, engine should idle 900 RPM. To adjust, loosen lock nut on diaphragm shaft and adjust knurled nut to obtain specified RPM., then tighten lock nut.

IDLE SPEED AND MIXTURE ADJUSTMENT (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 speed, but also leans the mixture supplied to the manifold which must be compensated for by adjustment of the idle mixture adjusting screws.



Cadillac 8—1955—Carburetors Nos. 2354S-2355S

WHEN SERVICING, USE GASKET ASSORTMENT No. 263; REPAIR PACKAGE No. 1792

PART NAMES IN CAPITAL LETTERS, LISTED BELOW, INDICATE CONTENTS OF REPAIR PACKAGE

Part No.	PART NAME	Part No.	PART NAME
1-1321S	—Body flange assembly.....	20-22	Needle seat gasket.....(2)
1A-100	FLANGE GASKET	20-26	Relief valve gasket.....
2-166	Primary throttle valve.....(2)	20-35	BOWL STRAINER GASKET.....(2)
2-172	Secondary throttle valve.....(2)	21-143S	Float and lever assembly.....(2)
3-986S	Secondary throttle shaft and dog ass'y.....	24-24	Float lever pin.....(2)
3-1014S	Primary throttle shaft, lever and bushing ass'y.....	25-280S	PRIMARY NEEDLE AND SEAT ASSEMBLY.....
4A-139	Throttle shaft dog.....	25-289S	SECONDARY NEEDLE AND SEAT ASSEMBLY.....
6-1015S	Air horn assembly.....	30-73	PRIMARY NEEDLE SEAT STRAINER.....
7-173	Choke valve	30-74	SECONDARY FUEL INLET STRAINER.....
11-268S	LOW SPEED JET ASSEMBLY.....(4)	30-75	BOWL STRAINER
11B-35	Rivet plug	30A-58	Idle adjustment screw.....(2)
11B-41	Rivet plug	30A-61	Idle air adjustment screw.....
11B-79	Rivet plug	39-11	Choke valve attaching screw.....(2)
11B-108	Idle port rivet plug.....(4)	47-14	Welsh plug
11B-134	Rivet plug, (2354S (1) (2355S (2)).....	48-185	Pump jet housing.....
11B-146	Level sight plug.....(2)	49-191S	Electro magnet plunger assembly (2355S).....
11B-194	Pipe plug	53A-333S	Pump operating lever and countershaft ass'y.....
11B-223	Nozzle passage rivet plug.....(4)	53A-342S	Lockout arm and pawl assembly.....
11B-305	Rivet plug	53A-344	VENT ARM
11B-306	Rivet plug	53A-364	Secondary operating lever.....
11B-330	Flange plug	61-84	Idle adjustment screw and air conditioning unit adjustment nut spring (2354S (2) (2355S (3)).....
14-296S	Choke lever and screw assembly.....	61-128	CONNECTOR ROD SPRING.....(2)
14-426S	Coil shaft lever and screw assembly.....	61-171	PUMP SPRING
14-439S	Choke piston lever, link and shaft ass'y.....	61-238	Throttle flex spring.....
14-440	Cam trip lever.....	61-332	VACUUM PISTON SPRING.....
15-35S	Strainer nut assembly.....(2)		
17-70	PUMP CHECK NEEDLE.....		

Part No.	PART NAME	Part No.	PART NAME
61-382	METERING ROD SPRING.....	105A-53	Air conditioning unit adjusting nut (2355S).....
61-438	Diaphragm return spring (2355S).....	111-475	Pump arm and screw assembly.....
61-454	Fast idle cam spring.....	111-605	Metering rod arm and screw assembly.....
61-474	Bowl vent spring.....	114-95	Outer throttle shaft arm.....
61-483	SECONDARY THROTTLE RETURN SPRING.....	114-131	Inner throttle shaft arm.....
61-502	Electro magnet plunger spring (2355S).....	115-187	Choke connector rod (Climatic® control side).....
61-530	Idle air adjustment screw spring.....	115-189	Choke connector rod.....
63-35	Connector rod spring retainer..... (2)	115-197	THROTTLE CONNECTOR ROD.....
63-57	CHECK BALL RETAINER.....	115-247	Throttle operating rod.....
63-58	Coil housing retainer..... (3)	116-13	PUMP INTAKE AND AIR CONDITIONING UNIT CHECK BALL (2354S (1) (2355S (2).....
63-149	Bowl vent spring retainer.....	117-162	Vacuumeter piston link.....
64-141S	PUMP PLUNGER, ROD, SPRING AND RETAINER ASS'Y.....	117-165	PUMP CONNECTOR LINK.....
75-1139	METERING ROD—STANDARD (2)	118-102S	Dust cover assembly.....
75-1201U	—Metering rod and jet unit for altitude use (Consists of 1—61-246, 2—75-1199 and 2—120-194) (2)	120-158	SECONDARY METERING JET..... (2)
86-12	Flange stud lock washer..... (4)	120-166	PRIMARY METERING ROD JET..... (2)
86-58	Air conditioning unit lock washer (2355S).....	121-78	COIL HOUSING GASKET.....
101-6	Pump arm clamp screw.....	121-190	Electro magnet housing gasket (2355S).....
101-33	Metering rod arm clamp screw.....	121-208	DUST COVER GASKET.....
101-74	Throttle shaft screw..... (2)	121-229	AIR CLEANER GASKET.....
101-136	Coil housing attaching screw..... (3)	121-232	AIR HORN GASKET.....
101-142S	Electro magnet housing attaching screw and washer assembly (2355S)..... (2)	121-241	PUMP JET HOUSING GASKET.....
101-149S	Body flange attaching screw and washer ass'y..... (4)	121-243	PISTON HOUSING GASKET.....
101-152S	Air horn attaching screw and washer assembly.....	121-269	BODY FLANGE GASKET.....
101-174	Primary throttle valve attaching screw..... (4)	122-75S	PUMP RELIEF VALVE ASSEMBLY.....
101-184S	Dust cover attaching screw and washer ass'y..... (2)	136-37	Throttle operating rod washer..... (2)
101-213S	Diaphragm cover attaching screw and washer assembly (2355S) (6)	136-84	Throttle shaft spring washer.....
101-277S	Vent arm attaching screw and washer ass'y.....	136-159	Primary throttle shaft washer.....
101-278	Pump jet housing attaching screw.....	136-172	Secondary throttle shaft washer.....
101-284	Piston housing attaching screw..... (2)	150-62	Choke piston pin.....
101-307S	Air horn attaching screw and washer assembly (2354S (8) (2355S (5).....	150-168	Air conditioning unit diaphragm air bleed pin (2355S) (2)
101-324	Fast idle cam screw.....	150-186S	Pin and valve cap assembly.....
101-335S	Air horn attaching screw and washer ass'y..... (7)	150A-10	PIN SPRING (5)
101-337	Secondary throttle valve attaching screw..... (4)	160-91	Choke piston (2)
101-354S	Coil shaft and choke lever clamp screw ass'y..... (2)	160-110S	Vacuum piston and pin assembly.....
101-362S	Air horn attaching screw and washer ass'y. (2355S) (3)	170-190	Inner diaphragm housing (2355S).....
101-363	Piston housing attaching screw.....	170-259S	Piston housing and plug assembly.....
101-383	Fast idle adjustment screw.....	170-298S	Outer diaphragm housing and plug ass'y. (2355S)....
105A-10	Choke lever clamp screw nut..... (2)	170AC241S	Thermostatic coil and housing assembly.....
105A-11	Flange stud nut..... (4)	180-69	Air conditioning unit bracket (2355S).....
105A-12	Air conditioning diaphragm unit lock nut (2355S)....	181-210S	Fast idle cam assembly.....
105A-49	Air conditioning unit to bracket attaching nut (2355S) (2)	186-38S	Choke baffle plate and spring assembly.....
		202-43S	Air conditioning (fast idle device) assembly (complete) (2355S) (2)
		202-45S	Air conditioning unit diaphragm and shaft ass'y. (2355S) (2)
		213-16S	Electro magnet and housing assembly (2355S).....

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

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