

1963 Corvette: Delco Service Bulletins: Delco Radio Service

The following service bulletins from Delco apply to all 1963 Corvettes equipped with RPO #U65 - Signal Seeking AM Band Radio:



Delco Radio SERVICE Bulletin

Section	2
Corvette	1963
Model	985686
Date	4-30-63
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SUBJECT: SERVICE INSTRUCTIONS - CHEVROLET CORVETTE
AM-FM RADIO - MODEL 985686

GENERAL

MOUNTING—1963 Chevrolet Corvette Cars.

TRANSISTORS—9, Plus 9 Diodes.

SPEAKER—6 x 9 Elliptical Permanent Magnet. 10 ohm V.C.

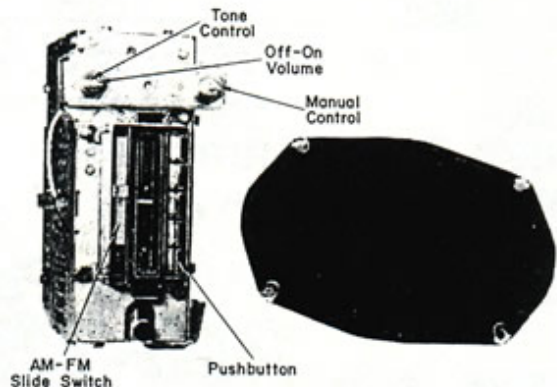
TUNING—Manual and 5 P.B. Mechanical.

ANTENNA TRIMMER COMPENSATION
—for Antennas Between .000050 - .000100 Mfd.

TUNING RANGE—AM 540-1600 KC.
FM 88-108 MC.

PUSHBUTTON SETUP PROCEDURE

Pull Push Button out. Tune in desired station manually. (Either AM or FM). Push Button all the way in.



IMPORTANT: With the radio installed and the car antenna plugged in, adjust the antenna trimmer "G" for maximum volume with the radio on AM and tuned to a weak station between 600 KC and 1000 KC. (Prevents fading and station mixing) The antenna trimmer is located on the right side near the rear of the radio.

ALIGNMENT AND TROUBLESHOOTING PROCEDURES

I. A.M. Alignment

A. Connections

1. A. C. Voltmeter Across speaker voice coil
2. Signal Generator Connect capacitor (see chart below for value) in series with generator lead and connect to antenna terminal. Connect generator ground lead to chassis.

B. Preliminary Adjustments (in order)

1. Volume control Maximum volume
2. Radio Tuning Pointer Extreme right end of dial
3. Radio tuner cores Rear of core 1 1/2" from end of coil form. Adjustment is made using a plastic alignment tool marked 1 1/2" from end.

C. Alignment Adjustments

1. Generator Output Readable A.C. voltage (1/2 to 1 volt) across speaker voice coil
2. Proceed according to chart - - -

Step	Capacitor	Signal Generator Frequency	Tune Receiver to	Adjust for Maximum in Sequence
a.	.1 mfd.	262 KC	Hi freq. stop	A, B, C, D
b.	68 mmfd.	1615 KC	Hi freq. stop	E, F, G
c.	68 mmfd.	600 KC	Sig. Gen. Freq.	I, J
d.	68 mmfd.	1615 KC	Sig. Gen. Freq.	F, G
e.	68 mmfd.	900 KC	Sig. Gen. Freq.	Pointer Adjustment

3. Pointer AdjustmentWith incoming 900 KC signal, insert a screwdriver in the slot of the pointer calibration adjustment link and twist until the pointer is in line with "9" on the radio dial.
4. Antenna AdjustmentSee notice above

II. F.M. Alignment

A. Connections

1. D.C. VoltmeterPositive lead to Orange wire (island #24)
Negative lead to chassis. Use Lowest Scale.

B. Preliminary Adjustments

1. Radio tuning pointerExtreme right end of dial.
2. Ratio detector transformerBlue (P) slug for .1 volts.

C. Additional Connections

1. Generator Output (AM with no modulation or FM) Set to 10.7 mc.Connect 68 mmfd. capacitor in series with generator lead and connect to antenna terminal. Connect generator ground lead to chassis.

Ref. 6D-899

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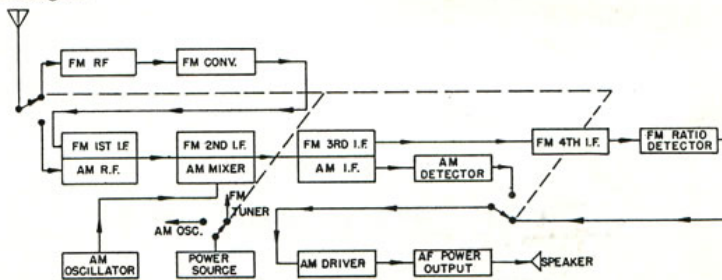
ALIGNMENT PROCEDURE (Continued)

D. Alignment Adjustments

1. Adjust in sequence for maximum voltageR, S, T, V, W, X, Y, Z
2. Ratio detector transformerRemove generator and adjust blue (P) slug for zero volts.
3. TunerK, Q for maximum on a weak station near the top of the dial with antenna connected.

III. Trouble Shooting Procedure

A. Block Diagram



B. A.M. Troubleshooting

1. Turn radio on (ear near speaker). If no "thump" is heard, suspect: open fuse, open "Fuse resistor," loose speaker plug, open speaker, or shorted DS-501 transistor.
2. Isolate trouble to a stage (AF, IF, Mixer, RF—see letters on circuit board).
3. Measure voltages in defective stage. Note: Voltage between 11 V. line (printed conductor #2) & emitter (E) of each stage checks conduction of that stage.

C. Typical A.M. Troubles

Indication	Probable Trouble
Weak, fading, whistles, or station mixing	Antenna trimmer not peaked in car*
No "thump." "0" volts on DS-501 case	Shorted DS-501, open fuse res. (Also check value of 10 ohm res., Illus. 99)
Very high DS-34 collector voltage	Defective AGC diode (Normal voltage across each AGC diode is .1 volt)
Intermittent or noisy when tapped	Loose connection or defective I.F. coil
High bias Voltage (B to E) and no conduction in a stage	**Open small transistor.

*Antenna Trimmer has no effect on FM and must be peaked on A.M.
 **Check by bridging good one across, similar to way capacitors are checked in circuit.

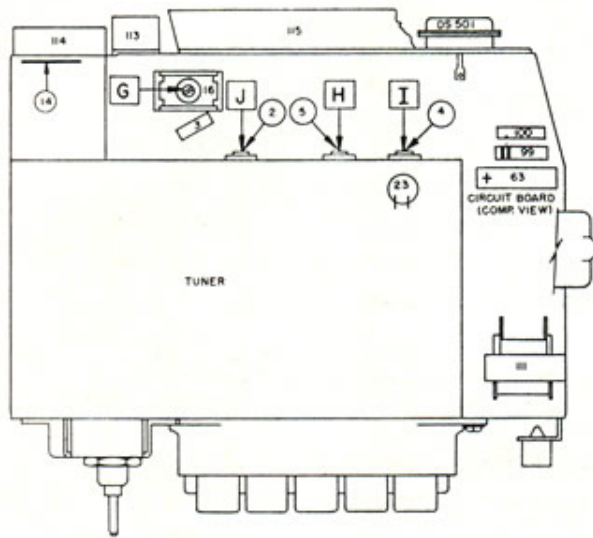
D. F.M. Troubleshooting Procedure

1. If F.M. is out, check for A.M. reception. If A.M. is normal, the following stages are working: RF, Mixer, Oscillator, IF, Detector, AF, Output (see black part of schematic). This indicates the trouble is in one of the stages used for FM only. (See green on schematic.)
2. Touch screwdriver to island #65. If a click or increased noise is heard in the speaker, trouble is in tuner section of radio. If no click or noise is heard, check Ratio Detector and 4th I.F. stages.
3. Ratio Detector Check—Disconnect antenna from radio and connect positive lead of a d.c. voltmeter to island #24. Adjust the blue slug in the ratio detector transformer for zero volts. Note: When the proper zero is reached, a positive voltage can be obtained by turning the screwdriver one way; and a negative voltage can be obtained by turning the screwdriver in the opposite direction. If this zero cannot be obtained, check the diodes and transformer windings of this stage.
4. 4th I.F. check—Measure the conduction of this stage by measuring the voltage drop across the emitter resistor. (Measure from island #2 to the emitter of the transistor.) This voltage should be about 1.2 volts for normal conduction. Measure the forward bias on the transistor by measuring from emitter to base. This voltage should be .2 volts. Check the emitter-base and the collector-base diodes of the transistor.
5. Tuner checks—Z+ check—Measure the voltage on island #1. It should be about 7.5 volts. If zero, check for shorts to ground, check AM-FM band switch, and zener diode.
6. Transistor checks—Check the DS 41 and 42 transistors. If either is defective, replace with a DS 41. If the tuner trouble is not due to a loose connection, solder short, defective zener diode (which mounts on outside of tuner and looks like a tiny resistor), or transistor, the tuner should be replaced.
7. If an F.M. signal generator is available, a stage by stage check of gain can be used in checking the F.M. section of the radio. CAUTION: A noise generator or an A.M. signal generator with modulation cannot be used on F.M. If a weak or dead stage is located with the F.M. signal generator, proceed as in an A.M. radio to locate the trouble.

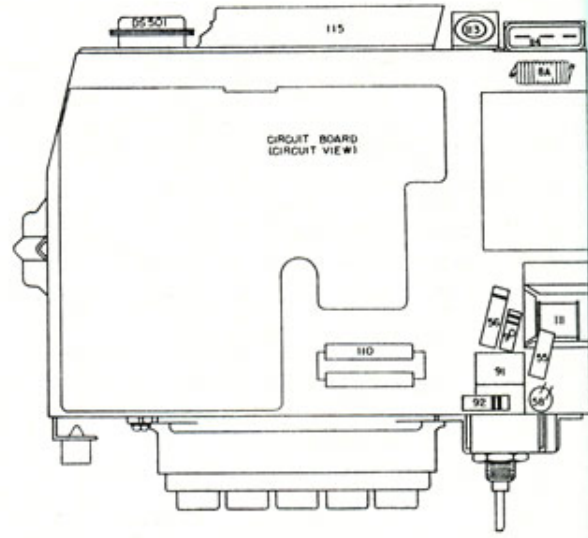
E. Typical FM Troubles

Indication	Probable Trouble
Distorted Sound	Ratio Detector Transformer out of adjustment due to open DS-39 diode or open winding.
Dead Tuner	* Z+ line shorted to ground, or zener diode shorted.
No signal gets through tuner, but Z+ voltage normal.	* Defective DS 41 or DS 42.

* In the FM tuner, transistors and the zener diode are serviced separately. If the trouble is not one of these parts, the complete tuner should be replaced.



COMPONENT VIEW



CIRCUIT VIEW

RECEIVER PARTS LAYOUT

SERVICE PARTS LIST

CHEVROLET CORVETTE MODEL 985686

ILLUS. NO.	SERVICE PART NO.	DESCRIPTION	ILLUS. NO.	SERVICE PART NO.	DESCRIPTION
ELECTRICAL PARTS			CAPACITORS (Continued)		
COILS			*35	*7283364	.001 mfd., 100 v., ceramic
*1	*1221874	FM Tuner, Complete	*36	*7284909	.05 mfd., 16 v., ceramic
*2	*7282586	Antenna, tuning	*37	*7284909	.05 mfd., 16 v., ceramic
3	7255738	Choke, antenna series	*38	*7283356	.000120 mfd., 100 v., ±5%, ceramic
*4	*7282585	R.F., tuning	*39	*7283845	.000110 mfd., 100 v., ±5%, ceramic
5	1221616	Oscillator, tuning	*40	*7283363	.000470 mfd., 100 v., ±5%, ceramic
*6	*1221858	1st I.F., AM	*41	*7284909	.05 mfd., 16 v., ceramic
*7	*1221859	2nd I.F., AM	*42	*7283696	.0022 mfd., 100 v., ceramic
*8	*7286353	Choke, "A" supply, input	*43	*7283696	.0022 mfd., 100 v., ceramic
8A	7241708	Choke, "A" Filter	*44	*7284909	.05 mfd., 16 v., ceramic
*9	*1221860	1st I.F., FM	*45	*7285233	.000018 mfd., 100 v., ±5%, ceramic
*10	*1221861	2nd I.F., FM	*46	*7283624	.000056 mfd., 100 v., ±5%, ceramic
*11	*1221861	3rd I.F., FM	*47	*7283361	.000330 mfd., 100 v., ±5%, ceramic
*12	*7283623	Ratio Detector	*48	*7283361	.000330 mfd., 100 v., ±5%, ceramic
CAPACITORS			*49	*7282359	3 mfd., 6 v., electrolytic
14	7271564	Spark Plate	*50	*7283947	.01 mfd., 100 v., ceramic
14A	7271564	Spark Plate	*51	*7283361	.000330 mfd., 100 v., ±5%, ceramic
*15	*7283361	.000330 mfd., 100 v., ±5%, ceramic	*52	*7282165	Osc., Trim, 30-160 Mmfd.
*16	*7282004	Antenna Trimmer	*53	*7283674	.000180 mfd., 100 v., ±5%, ceramic
*17	*7283369	.05 mfd., 20 v., ceramic	*54	*7283366	.0047 mfd., 100 v., ceramic
*18	*7285385	.1 mfd., 16 v., ceramic	*55	*7283372	100 mfd., 16 v., electrolytic
*19	*7283366	.0047 mfd., 100 v., ceramic	*56	*7282046	.10 mfd., 75 v., tubular
20	7279896	30 mfd., 6 v., Electrolytic	*57	*7283834	10 mfd., 12 v., electrolytic
*21	*7283834	10 mfd., 12 v., electrolytic	58	7279901	1.0 mfd., 3 v., ceramic
22	7279771	.000002 mfd., 100 v., ceramic	*59	*7283372	100 mfd., 16 v., electrolytic
*23	*7284515	.000091 mfd., 100 v., ceramic	60	7279888	100 mfd., 3 v., electrolytic
*24	*7281932	R.F. Trim, 125-300 Mmfd.	*61	*7283675	Electrolytic, 3-Section 1000, 500, 4 mfd.
*25	*7283696	.0022 mfd., 100 v., ceramic	*62	*7283368	.022 mfd., 100 v., ceramic
*26	*7283369	.05 mfd., 20 v., ceramic	*63	*7285035	1000 mfd., 2 v., electrolytic
*27	*7285416	.022 mfd., 20 v., ceramic	RESISTORS		
*28	*7283946	.000010 mfd., 100 v., ceramic	65	1213224	330 ohm, 1/2 watt
*29	*7283360	.000220 mfd., 100 v., ±5%, ceramic	66	1213482	390 ohm, 1/2 watt
*30	*7283362	.000330 mfd., 100 v., ±5%, ceramic	67	1213271	120,000 ohm, 1/2 watt
*31	*7283657	.000150 mfd., 100 v., ±5%, ceramic	68	1213237	1500 ohm, 1/2 watt
*32	*7283696	.0022 mfd., 100 v., ceramic	69	1213235	1000 ohm, 1/2 watt
*33	*7283369	.05 mfd., 20 v., ceramic	70	1213235	1000 ohm, 1/2 watt
*34	*7283366	.0047 mfd., 100 v., ceramic	71	1214548	5600 ohm, 1/2 watt
			72	1213483	6800 ohm, 1/2 watt

* NEW PARTS FOR 1963

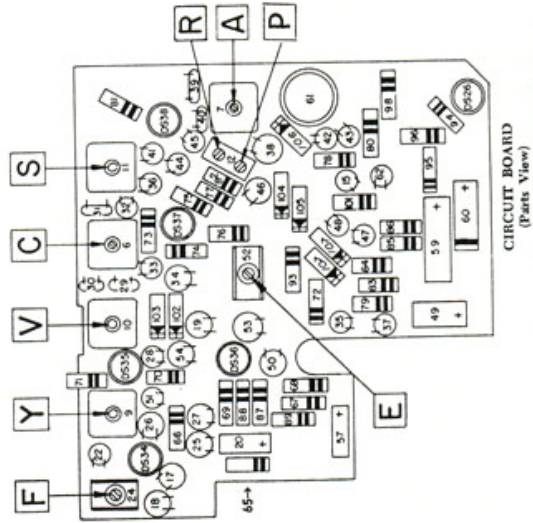
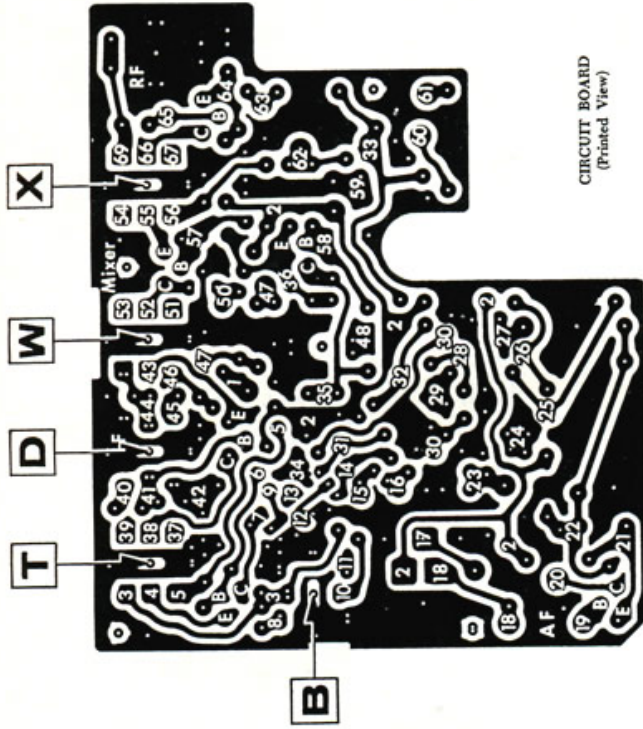
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SERVICE PARTS LIST

CHEVROLET CORVETTE MODEL 985686

ILLUS. NO.	SERVICE PART NO.	DESCRIPTION	ILLUS. NO.	SERVICE PART NO.	DESCRIPTION
RESISTORS (Continued)			CHASSIS (Continued)		
73	1214548	5600 ohm, 1/2 watt	*	*1221897	Arm Pkg., FM tuner, drive
74	1213235	1000 ohm, 1/2 watt	*	*7283476	Ring, retaining
75	1213235	1000 ohm, 1/2 watt	*	*1221939	Arm Pkg., slide switch control
76	1213235	1000 ohm, 1/2 watt	*	*7285157	Backplate, dial
77	1213235	1000 ohm, 1/2 watt	*	*7285143	Backplate, pointer
78	1213235	1000 ohm, 1/2 watt	*	*7285159	Bar, "AM-FM" slide switch control
79	1213272	150,000 ohm, 1/2 watt		1221507	Bell Crank Pkg., pointer
80	1214548	5600 ohm, 1/2 watt		7276550	Spring, pivot
81	1214548	5600 ohm, 1/2 watt		7271911	Board, tuning coils mtg.
82	1215559	180 ohm, 1/2 watt	*	*7282020	Bushing, manual shaft
83	1213235	1000 ohm, 1/2 watt		7271180	Clutch disc, adjustable
84	1214543	680 ohm, 1/2 watt		6085	Set Screw, slab head
85	1214547	4700 ohm, 1/2 watt	*	*7285149	Cord, dial drive
86	1214547	4700 ohm, 1/2 watt		7268626	Core Bar
87	1213481	3300 ohm, 1/2 watt		7273859	Core, tuning (3)
88	1214546	3900 ohm, 1/2 watt	*	*7285327	Dial, calibrated, drum shape
89	1213229	560 ohm, 1/2 watt	*	*7285156	Dial Glass, clear
90	1215559	180 ohm, 1/2 watt	*	*1221940	Drive Shaft & Worm Pkg., manual
92	1214544	820 ohm, 1/2 watt	*	*7285155	Escutcheon
93	1213845	33,000 ohm, 1/2 watt		1221405	Finger Bar Pkg., declutching
94	1214543	680 ohm, 1/2 watt		1221317	Gear & Bushing, clutch anti-backlash
95	1213218	120 ohm, 1/2 watt		7258565	Grommet, ant. & R.F. coils mtg.
96	1213235	1000 ohm, 1/2 watt		7258564	Grommet, osc. coil mtg.
98	1214541	82 ohm, 1/2 watt	*	*7283463	Housing, tuning coils
99	7271133	10 ohm, 1/2 watt		7271505	Sleeve, ant. R.F. coils (2)
100	7281890	.47 ohm, Fuse Resistor		1221120	Lever Pkg., clutch operating
101	1213481	3300 ohm, 1/2 watt		7270006	Roller, clutch oper. lever
DIODES AND TRANSISTORS			*	*7285383	Link, control to AM-FM slide switch
102	DS-27	DS-27 Diode		7268078	Link, core bar connecting (2)
103	DS-27	DS-27 Diode	*	7270245	Link, pointer calibration adj.
104	DS-27	DS-27 Diode	*	*1221941	Pointer Assy, Pkg.
105	DS-27	DS-27 Diode		7271706	Spring, pivot
106	DS-27	DS-27 Diode	*	*1221825	Pushbuttons, frt. bear. plate and slides (Set of 5)
*	*DS-43	DS-43 Diode, Zener, FM Tuner	*	*7282011	Pushbutton, individual (5 required)
*107	*DS-39	DS-39 Diodes, Matched Pair		7284104	Retainer, AM-FM slide switch control
*	*DS-34	DS-38 Transistor		7276994	Retainer, dial glass (2)
*	*DS-34	DS-37 Transistor	*	*1221868	Set Screw & Nut Pkg., treadle pivot
*	DS-26	DS-26 Transistor		1221149	Spring Pkg., clutch operating
*	DS-25	DS-36 Transistor		7268072	Spring, core bar connecting link (2)
*	*DS-34	DS-35 Transistor	*	*7285148	Spring, dial return, drum shape
*	*DS-34	DS-34 Transistor	*	*7282060	Spring, drive shaft retainer
*	*DS-41	DS-41 Transistor, FM Tuner	*	*7283601	Spring, FM tuner arm
*	*DS-41	DS-42 Transistor, FM Tuner		7268610	Spring, pointer calibration link
*	DS-501	DS-501 Transistor, output		1220975	Spring Pkg., PB return (set of 5)
MISCELLANEOUS ELECTRICAL			*	7276426	Spring Pkg., treadle bearing
*91	*7282024	Control, vol., tone and switch	*	*1221874	Tuner Pkg., FM
91A		Volume	*	*7283287	Treadle Bar
91B		Tone	*	*7281987	Wheel, manual tuning, drive
91C		Switch	*	*1221826	Wheel, manual tuning, driven
		Lamp, dial light #1893	*	*7281994	Wheel, manual tuning, idler
97	1221422	Rheostat, 175 ohms, T.C.	INSTALLATION PARTS		
*109	*7282256	Speaker, front, 6" x 9", P.M., slotted mtg. holes, 10 ohm voice coil	*	*3824898	Bezel, radio dial trim
*110	*7285141	Switch, AM-FM selector (Slide type)	*	*7284057	Bracket, radio mtg.
111	7277230	Transformer, input	*	*1960959	Capacitor, ammeter
*112	*7282278	Transformer, output	*	*1960960	Capacitor, ignition switch
MECHANICAL PARTS			*	*1960958	Capacitor, ignition coil
CHASSIS			*	*1960957	Capacitor, voltage regulator
*	*1221894	Bead, ferrite shielding (25 in pkg.)	*	*1960961	Capacitor, directional sig. light
*	*7285367	Connector & Terminal Assy, "A" supply (on receiver)	*	*1960962	Capacitor, stop light switch
*	*7282618	Dial Light Assembly	*	*7286030	Fuse, 7 1/2 amp. type AGC
*	*7282800	Lead & Connector Assy, (on speaker)	*	*3820083	Knob, control (2)
*114	*7285753	Lead & Plug Assy, speaker (on receiver)	*	*3820084	Knob, dummy
*115	*1221821	Radiator Pkg., transistor heat	*	*7281953	Knob, tone control
*	*1221822	Insulator, heat radiator	*	*7282801	Nut, radio bushing (2)
113	1221114	Socket, antenna connector	*	7276494	Plate, output transformer mtg.
*	*7283605	Arm Assy, FM tuner, driven	*	*2981856	Static Collector, front wheel (2)
			*	*2981858	Strap, engine ground
			*	*2981859	Strap, accelerator lever ground
			*	6279	Strap, exhaust system
					Washer, wave, knob anti-rattle (2)

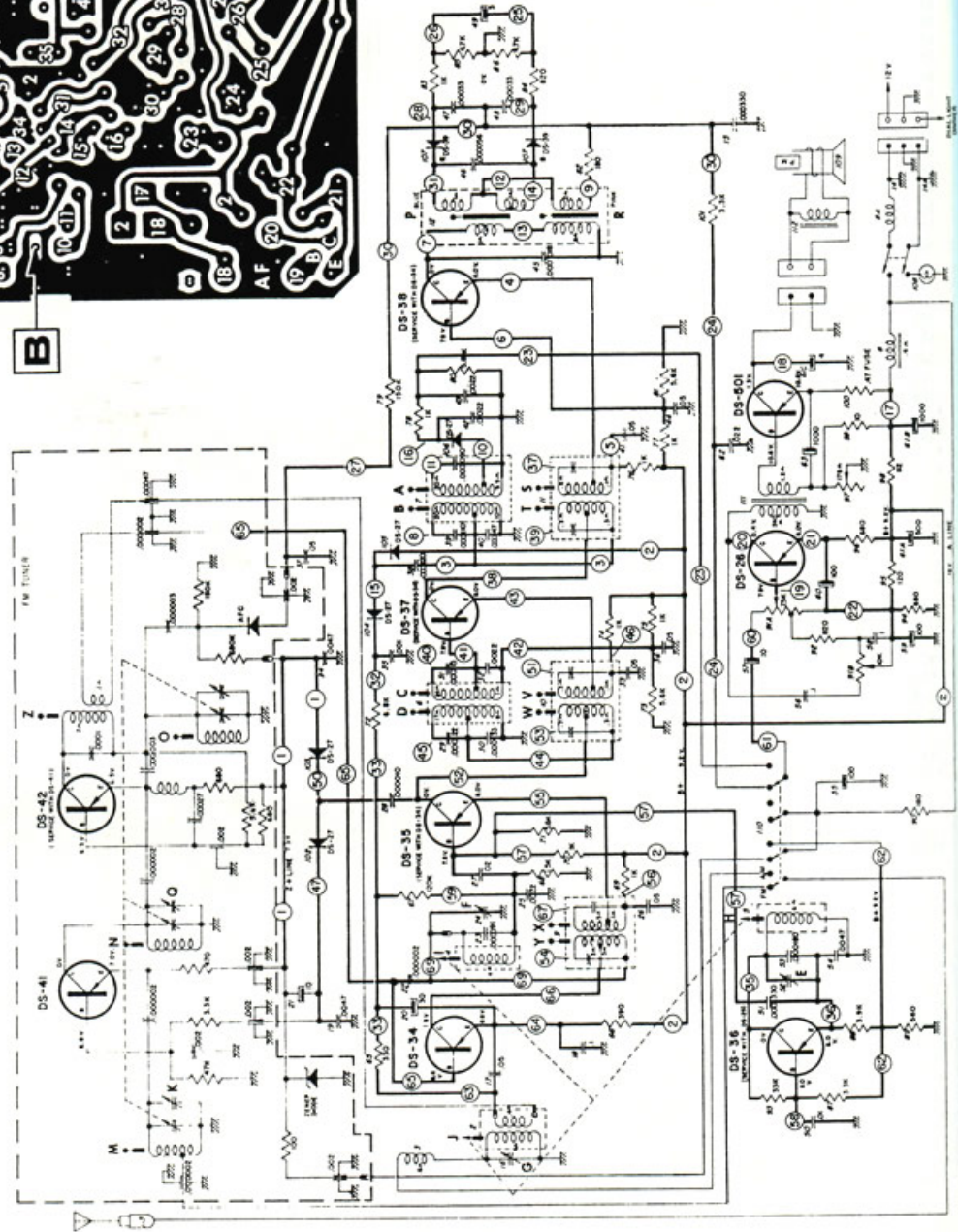
*NEW PARTS FOR 1963



DIODE OR TRANSISTOR

DS-41	FM USE	AM USE
DS-42	R.F. Conv.	R.F. Mixer
DS-54	1st I.F.	Osc.
DS-35	2nd I.F.	I.F.
DS-36	3rd I.F.	
DS-37	4th I.F.	
DS-38	Det.	Det.
DS-39 (2)	AF	AF
DS-26	Output	Output
DS-501		

Voltagess Measured to Chassis with a VOM - Antenna Disconnected and 12 Volts Applied to Radio.
 Total Battery Drain 1.3 Amps at 12 Volts.
 Illustration 100 is Fuse Resistor for DS-501. Open Fuse Resistor Causes 0 Volts on DS-501 collector. Service With Exact Delco Part.
 When DS-501 is Replaced, Set Bias Pot (Illus. 97) for Reading of 1.3V. on Transistor Case with 12 Volts Applied to Radio and 10 Ohm Speaker Connected.



SCHEMATIC DIAGRAM



Delco Radio

SERVICE Bulletin

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 Chevrolet Corvette 1963
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 Page 1

**SUBJECT: SERVICE INSTRUCTIONS - CHEVROLET CORVETTE
 WITH AUTOMATIC TUNING - MODEL 985396**

GENERAL

MOUNTING—All 1963 Chevrolet Corvette Cars.

TUBE—Trigger.

TRANSISTORS—5 plus 6 diodes.

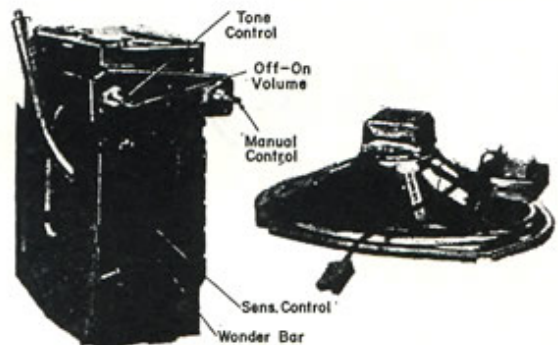
SPEAKER—6" x 9" Elliptical, P.M., 10 ohm V.C.

TUNING—Manual, Pushbutton, and Electronic.

CAUTION: Fuse may blow if pushbuttons are held in while tuner is seeking. After using manual or pushbutton tuning, it is normal for tuner to make one incomplete sweep of the dial; after that, the full dial will be covered.

ANTENNA TRIMMER COMPENSATION—For Antennas Between 0.000050 - 0.000090 mfd.

TUNING RANGE—540 - 1600 KC.



MODEL 985396

IMPORTANT: With the radio installed and the car antenna plugged in, adjust the antenna trimmer "G" for maximum volume with the radio tuned to a **WEAK** station between 600 KC and 1000 KC. (Prevents fading and station mixing). The antenna trimmer is located on left side toward the top and rear of receiver.

ALIGNMENT PROCEDURE

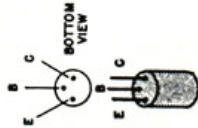
- A. Connections
1. A. C. Voltmeter Across speaker voice coil
 2. Signal Generator Connect capacitor (see chart below for value) in series with generator lead and connect to antenna terminal. Connect generator ground lead to chassis.
- B. Preliminary Adjustments (in order)
1. Volume control Maximum volume
 2. Radio Tuning Pointer Extreme right end of dial
 3. Radio tuner cores Rear of core 1 1/2" from end of coil form. Adjustment is made using a plastic alignment tool marked 1 1/2" from end.
- C. Alignment Adjustments
1. Generator Output Readable A.C. voltage (1/2 to 1 volt) across speaker voice coil
 2. Proceed according to chart - - -

Step	Capacitor	Signal Generator Frequency	Tune Receiver to	Adjust in Sequence
a.	.1 mfd.	262 KC	Hi freq. stop	A, B, C, D
b.	68 mmfd.	1615 KC	Hi freq. stop	E, F, G
c.	68 mmfd.	600 KC	Sig. Gen. Freq.	J, K
d.	68 mmfd.	1615 KC	Sig. Gen. Freq.	F, G
e.	68 mmfd.	900 KC	Sig. Gen. Freq.	Pointer Adjustment

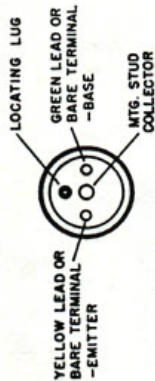
3. Pointer Adjustment With incoming 900 KC signal, insert a screwdriver in the slot of the pointer calibration adjustment link (illustration #124) and twist until the pointer is in line with "9" on the radio dial.
4. Antenna Adjustment See notice above

ADDITIONAL INFORMATION

Tuner—Bulletin 6D-624 and 6D-626.
 Transistor—Bulletin 6D-207 and 6D-206.
 Printed Circuit—Bulletin 6D-555.



DS-22—Transistor
 DS-24 Terminals
 DS-25
 DS-26



DS-501 TRANSISTOR TERMINALS

Note: Mfg. Insulators #1221822 not packaged with DS-501.

WHITE NUMBERS ON PRINTED CIRCUIT DRAWING CORRESPOND TO THE ENCIRCLED NUMBERS ON SCHEMATIC
ILLUSTRATION 74 IS A FUSE RESISTOR. IF THIS IS OPEN, THE TRANSISTOR COLLECTOR VOLTAGE WILL BE "0."

SCHEMATIC DATA

Voltages measured terminal to chassis with a volt-ohm meter - no signal and 12 volts applied to the radio.

Total battery drain 1.9 amps at 12 volts.

Tolerance on voltages $\pm 10\%$.

• Indicates lead from Tuner Assembly.

•• Before measuring transistor voltage a 10 ohm speaker must be connected to the radio. If power transistor is replaced, adjust bias potentiometer (III. #85) to obtain proper collector voltage with 12 volts applied to radio. Voltage should be measured from power transistor case to ground.

† III. #74 is a fuse resistor for the power transistor. Service with exact Delco service replacement.

○ Printed on circuit board.

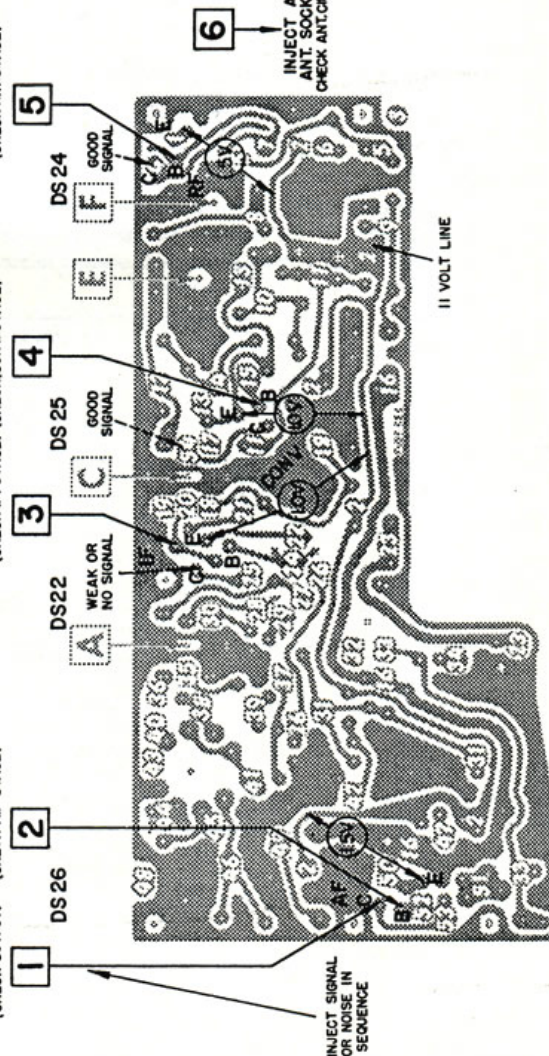
Trigger tube voltages are read with a VTVM and with the tuner seeking. Use a Delco P-612 power supply or battery for proper tuner action.

CAUTION: Only a 10 ohm speaker should be used on this radio.

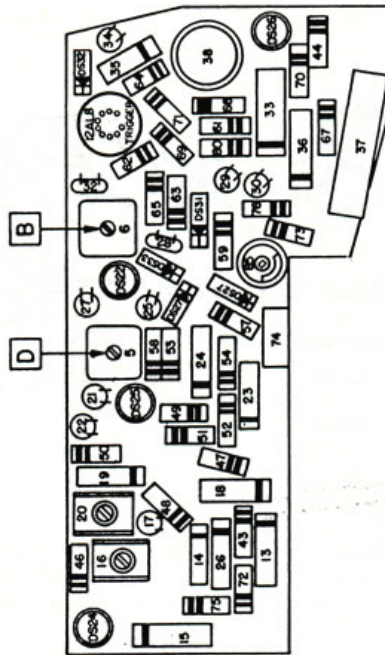
ABOUT SAME OR SLIGHTLY WEAKER (CHECK R.F. STAGE)

LOUD SIGNAL LOUDER SIGNAL (CHECK I.F. STAGE) (CHECK CONV. STAGE)

WEAK SIGNAL LOUDER SIGNAL (CHECK A.F. STAGE)



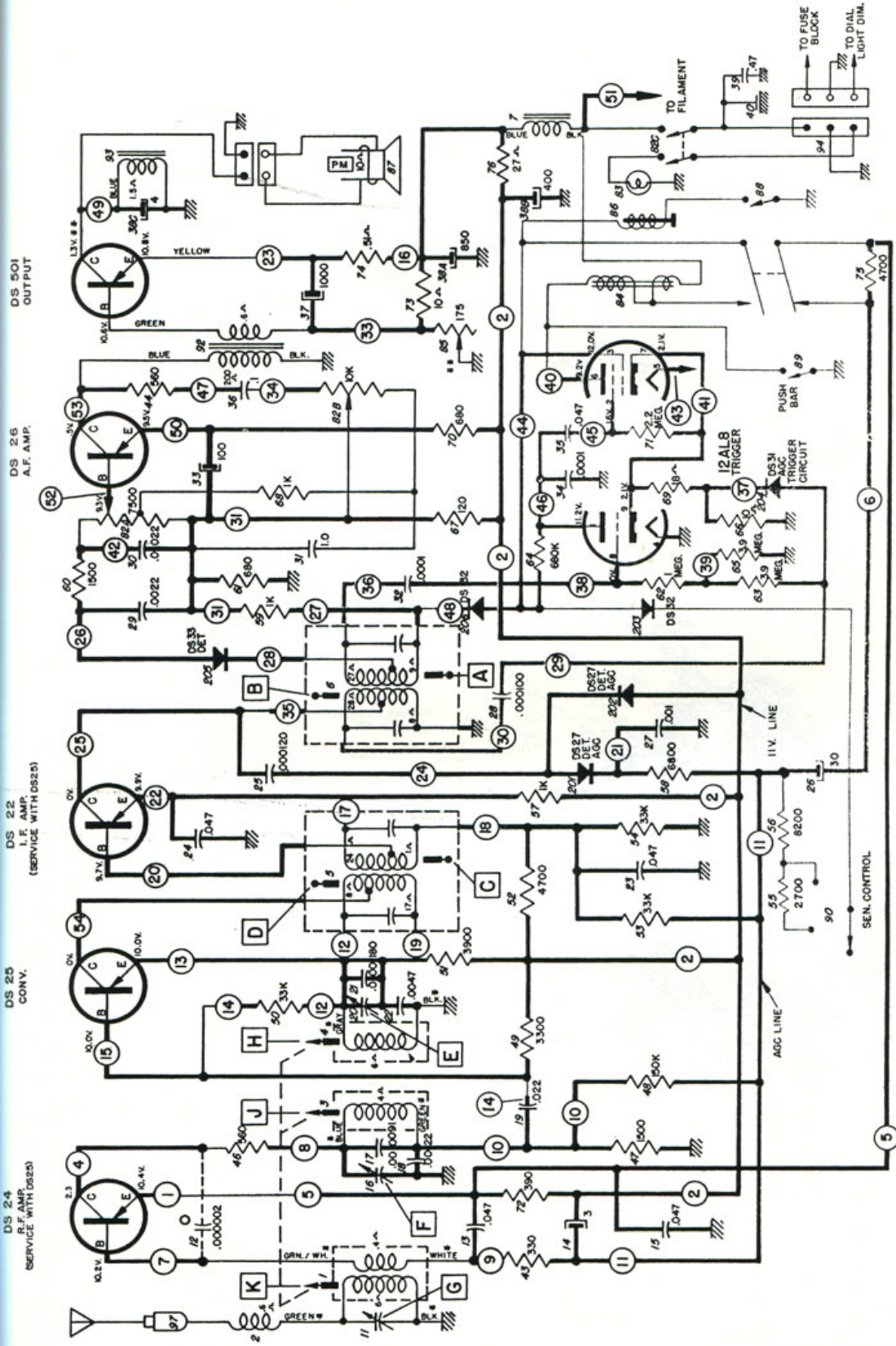
PRINTED VIEW



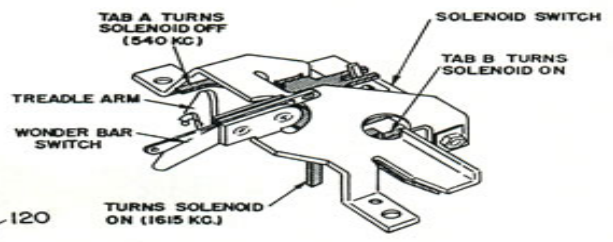
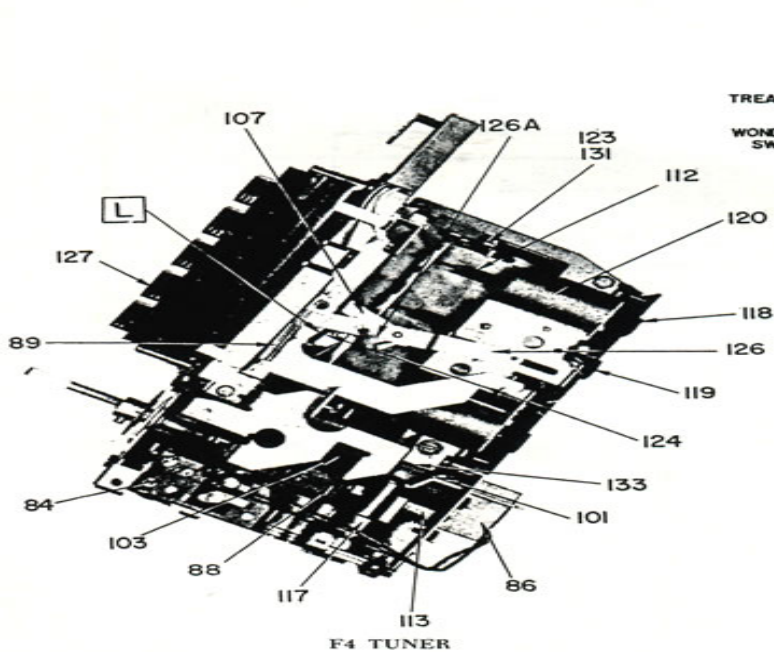
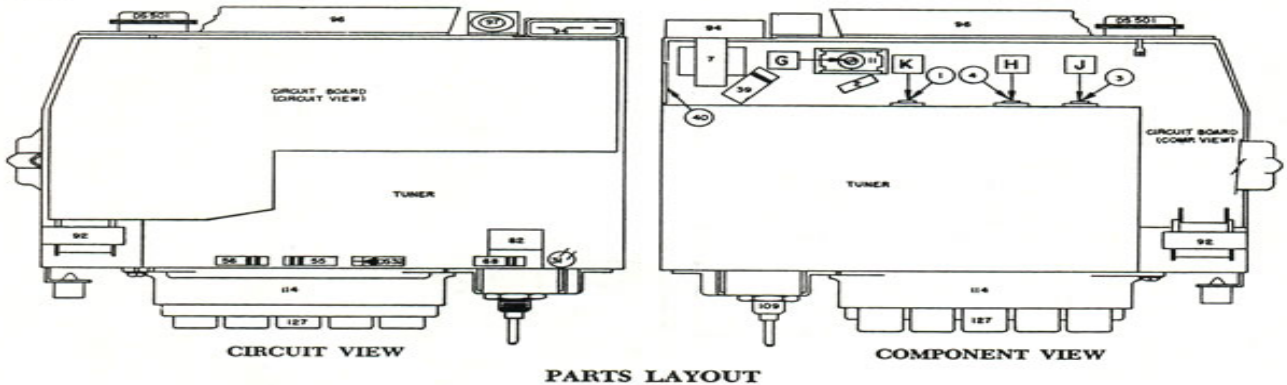
COMPONENT VIEW

CIRCUIT BOARD

IF RADIO IS POWERED BY BATTERY ELIMINATOR, USE 16 VOLTS FOR PROPER SOLENOID ACTION.



TUNER CIRCUIT COMPONENTS
 CORVETTE 985396
 PRINTED CIRCUIT SHOWN IN HEAVY LINES



SOLENOID SWITCH ADJUSTMENTS
 Tab A should open switch when solenoid plunger goes in. Tab B should close switch when worm reaches front of tuner regardless of pointer position.

NOTE: FOR COMPLETE DISCUSSION OF THE TUNER SEE BULLETINS SECTION 3

I. TROUBLESHOOTING PROCEDURE

1. Turn radio on (ear near speaker). If no "thump" is heard, suspect: open fuse, open "Fuse resistor," loose speaker plug, open speaker, or shorted DS-501 transistor.
2. Isolate trouble to a stage (AF, IF, Conv., RF—see letters on circuit board below). Note that the triggering signal passes through the RF, Conv. and IF before reaching the trigger tube.
3. Measure voltages in defective stage. Note: Voltage between 10.8 V. line (printed conductor #2) & emitter (E) of each stage checks conduction of that stage.

II. TYPICAL TROUBLES

Indication	Probable Trouble
Weak, fading, whistles, or station mixing	Antenna trimmer not peaked in car
No "thump." "0" volts on DS-501 case	Shorted DS-501, open fuse res. (Also check value of 10 ohm res., Illus. 73)
Very high DS24 collector voltage	Defective AGC diode (Normal voltage across each AGC diode is .1 volt)
Intermittent or noisy when tapped	Loose connection or defective I.F. coil
Very high bias (B to E) or wrong conduction in a stage (See circled voltages Page 2)	*Open or leaky small transistor. (Also check emitter capacitor).

*Check for open by bridging good one across, similar to way capacitors are checked in circuit.

SERVICE PARTS LIST

CHEVROLET CORVETTE 1963 MODEL 985396

ILLUS. NO.	SERVICE PART NO.	DESCRIPTION	ILLUS. NO.	SERVICE PART NO.	DESCRIPTION
ELECTRICAL PARTS			RESISTORS (Continued)		
COILS			46	1213229	560 ohm, 1/2 watt
* 1	*7282586	Antenna, tuning	47	1213237	1500 ohm, 1/2 watt
2	7255738	Choke, antenna series	48	1213272	150,000 ohm, 1/2 watt
* 3	*7282585	R.F., tuning	49	1213481	3300 ohm, 1/2 watt
4	1221616	Oscillator, tuning	50	1213845	33,000 ohm, 1/2 watt
* 5	*1221856	1st I.F.	51	1214546	3900 ohm, 1/2 watt
* 6	*1221857	2nd I.F.	52	1214547	4700 ohm, 1/2 watt
7	1221623	Choke, 12V supply, input	53	1213845	33,000 ohm, 1/2 watt
CAPACITORS			54	1213845	33,000 ohm, 1/2 watt
* 11	*7282004	Antenna Trimmer	55	Part of the sen-	
12		.000002 mfd., part of printed circuit board	56	sitivity switch	2700 ohm, 1/2 watt
13	7272519	.047 mfd., 75 V., tubular		and not ser-	8200 ohm, 1/2 watt
* 14	*7282359	3 mfd., 25 V., electrolytic		viced separately	
15	7272519	.047 mfd., 75 V., tubular	57	1213235	1000 ohm, 1/2 watt
* 16	*7281932	R. F. Trim., 125-300 Mmfd.	58	1213483	6800 ohm, 1/2 watt
17	7280995	.000091 mfd., 100 V., ceramic	59	1213235	1000 ohm, 1/2 watt
* 18	*7281895	.0022 mfd., 75 V., tubular	60	1213237	1500 ohm, 1/2 watt
19	7278751	.022 mfd., 75 V., tubular	61	1214543	680 ohm, 1/2 watt
* 20	*7282165	Osc. Trim., 30-160 Mmfd.	62	1213282	1 megohm, 1/2 watt
21	7279821	.000180 mfd., 100 V., ±5%, T. C.	* 63	*7279841	3.9 megohm, 1/2 watt, ±5%
22	7280703	.0047 mfd., 100 V., ceramic	64	1213488	680,000 ohm, 1/2 watt
23	7272519	.047 mfd., 75 V., tubular	* 65	*7279841	3.9 megohm, 1/2 watt, ±5%
24	7272519	.047 mfd., 75 V., tubular	* 66	*7282812	10 ohm, 1/2 watt, ±5%
25	7279895	.000120 mfd., 100 V., ±5%, ceramic	67	1213218	120 ohm, 1/2 watt
26	7279896	30 mfd., 6 V., electrolytic	68	1213235	1000 ohm, 1/2 watt
27	7279773	.001 mfd., 100 V., ceramic	69	1215944	18 ohm, 1/2 watt
28	1219498	.000100 mfd., 500 V., ±5%, dipped mica	70	1214543	680 ohm, 1/2 watt
29	7280630	.0022 mfd., 100 V., ceramic	71	1214563	2.2 megohm, 1/2 watt
30	7280630	.0022 mfd., 100 V., ceramic	72	1213482	390 ohm, 1/2 watt
31	7279901	1 mfd., 3 V., ceramic	73	7271133	10 ohm, 1/2 watt
32	1219498	.000100 mfd., 500 V., ±5%, dipped mica	* 74	*7281027	.51 ohm, Fuse Resistor, T. C.
33	7279888	100 mfd., 3 V., electrolytic	75	1214547	4700 ohm, 1/2 watt
34	6371	.000100 mfd., 500 V., ceramic	76	1215557	27 ohm, 1/2 watt
35	7272519	.047 mfd., 75 V., tubular	DIODES, TRANSISTORS AND TUBE		
* 36	*7282046	0.1 mfd., 75 V., tubular	201	DS27	DS27 Diode, AGC
* 37	*7282789	1000 mfd., 1 V., electrolytic	202	DS27	DS27 Diode, AGC
38	7279775	Electrolytic, 3-section	*203	*DS32	DS32 Diode Sensitivity Control
38A		850 mfd., 16 volts	*204	*DS31	DS31 Diode AGC Trigger Circuit
38B		400 mfd., 16 volts	*205	*DS27	DS33 Diode Audio Detector
38C		4 mfd., 11.5 R.M.S.	*206	*DS32	DS32 Diode, Trigger Circuit
39	6692	.47 mfd., 100 V., tubular	DS25	DS24 Transistor, R. F. Amp.	
40	7271564	Spark Plate	DS25	DS25 Transistor, Converter	
RESISTORS			DS25	DS22 Transistor, I. F. Amp.	
43	1213224	330 ohm, 1/2 watt	DS26	DS26 Transistor, AF Amp.	
44	1213229	560 ohm, 1/2 watt	12AL8	12AL8 Tube, trigger	
			DS501	DS501 Transistor, output	
			*1221822	Insulators, transistor and radiator mtg.	

* New Parts for 1963

Section 2
 Chevrolet Corvette 1963
 Model 985396
 Date 11-15-62
 Page 6

SERVICE PARTS LIST

CHEVROLET CORVETTE 1963 MODEL 985396					
ILLUS. NO.	SERVICE PART NO.	DESCRIPTION	ILLUS. NO.	SERVICE PART NO.	DESCRIPTION
MISCELLANEOUS ELECTRICAL			TUNER PARTS (Continued)		
* 82	*7282024	Control, vol., tone & switch	*114B	*7282017	Dial, calibrated
82A		Volume	114C	7268765	Gasket, dial
82B		Tone	114D	7268764	Retainer Pkg., dial (2)
82C		Switch	115	1221405	Finger Bar Pkg., declutching
83		Lamp, dial light, #1816	116	1221319	Gear & Bushing, clutch anti-backlash
* 84	*7282263	Relay, tuner operating	117	1221191	Governor Gear Train
85	1221422	Rheostat, 175 ohms, T. C.	118	7258565	Grommet, ant. & R.F. coils mtg. (2)
86	1221409	Solenoid and Plunger Assy.	119	7258564	Grommet, osc. coil mtg.
* 87	*7282256	Speaker, front 6 x 9", P.M., 10 ohm V. C., slotted mtg. holes	*120	*7282309	Housing, tuning coils
88	7268030	Switch, solenoid		7271505	Sleeve, ant. & R.F. coils (2)
89	7279443	Switch, pushbar	121	1221120	Lever Pkg., clutch operating
* 90	*7282014	Switch, sensitivity (incl. pushbar)		7270006	Roller, clutch oper. lever
* 92	*7280915	Transformer, input	122	1221640	Lever Assy., power arm to treadle
* 93	*7282278	Transformer, output	123	7268078	Link, core bar connecting (2)
MECHANICAL PARTS			124	7270245	Link, pointer calibration adj.
CHASSIS			125	1221414	Link Pkg., solenoid
* 94	*7282008	Cable Assy., radio to speaker lead assy.	*126	*1221824	Pointer Assy., Pkg.
* 95	*7282114	Connector, 12V & Dial Light (on Radio)	126A	7271706	Spring, pivot
* 96	*7282734	Dial Light Assy.	*127	*1221825	Pushbuttons, Frt. Bear. Plate & Slides (Set of 5)
95	*7282801	Plate, output transformer mtg.	*127A	*7282011	Pushbutton, individual (5 req'd)
96	*1221821	Radiator Pkg., transistor heat	128	1221417	Retainer Ring Pkg., mech, linkage (10 in Pkg.)
	*1221822	Insulators, transistor & radiator mtg.	129	1221514	Sat Screw & Nut Pkg., treadle pivot
97	1221114	Socket, antenna connector	130	1221149	Spring Pkg., clutch operating
	6076	Socket, tube, 9-pin miniature	*131	*7282808	Spring, core bar connecting link (2)
TUNER PARTS			132	7268610	Spring, pointer calibration link
101	1221415	Arm Package, power	133	7273574	Spring, power
102	1221638	Arm Package, treadle return	134	1220975	Spring Pkg., PB return (set of 5)
*103	*1221837	Arm Package, sliding solenoid	135	7274182	Spring, solenoid return
*104	*7284592	Backplate, pointer	136	7276426	Spring Pkg., treadle bearing
105	1221131	Bell Bearing Pkg., (13 + retainer - cup)	137	7280166	Spring, treadle return
106	7275426	Bearing Plate, manual shaft, rear	138	7270014	Treadle Bar
107	1221507	Bell Crank Pkg., pointer	*139	*7281987	Wheel, manual tuning, drive
	7276550	Spring, pivot	*140	*1221826	Wheel, manual tuning, driven
*109	*7282020	Bushing, manual shaft	*141	*7281994	Wheel, manual tuning, idler
110	7280668	Clutch disc, adjustable	INSTALLATION PARTS		
	6085	Set Screw, slab head	*3824898	Bezel, radio dial trim	
111	7268626	Core Bar	*1960957	Capacitor, voltage regulator	
112	7273859	Core, tuning (3)	7277055	Fuse, 7 1/2 Amp., type AGC	
*113	*1221823	Drive Shaft, Worm, & Rack Pkg.	*7281953	Knob, control (2)	
*114	*7282016	Escutcheon Assy. (Dial glass & trim)	*7282801	Nut, radio bushing (2)	
	*114A	*7281988	7276494	Plate, output trans. mtg.	
			*3824899	Static Collector, front wheel (2)	
			6279	Trimplate, radio dial	
				Washer, Wave, knob anti-rattle (2)	

* New Parts for 1963

Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/1963-corvette-delco-service-bulletins-delco-radio-service-1171.html>