

ERRORS FOUND IN THE CORVAIR SHOP MANUALS

Edited by Bob Helt with help from Kent Sullivan and others

The following items are errors that we have been able to find in the Chevrolet issued **Corvaair Shop Manuals**. Many of these errors are trivial or simply typos, but in the interest of thoroughness, I have included them too. In addition I have found many omissions in these manuals and these are also listed. Sometimes the omissions are more important than the actual errors. This is, unfortunately, not a complete list since many unnoticed errors still exist. But let's consider it a start. Additions and corrections are welcomed. Contact me at Bobhelt@aol.com

Note in the following, S/B means should be.
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EARLY MODEL CORVAIRS

ENTRY	YEAR	<u>PAGE</u> NUMBER	CURRENT PROBLEM OR STATEMENT	CORRECTED INFORMATION
1	<u>1960</u>	2-9	Never change or drain PG fluid	Change every 12000-24,000 miles
		6E-3	No periodic draining PG fluid	same as above
2		3-5	Omission	Rear springs may be cause of out-of-specs rear camber.
3		4-1	Use steering gear lubricant	N/A. Use moly CV-U-joint lube
4		5-3	Hydraulic brake fluid Super #11	Use Dot 3 or 4
5		6A-1	Omission	Add "Static" ahead of 6A-51 entry
5-1		6A-20	Blower Installation	
			Step 2, 20-25 ft-lbs	Wrong torque. Suggest 5 ft-lbs
6		6A-44	Omission	Add "in the plunger" to the note in the RH column
7		6A-46	Crank hub is rotated in fig 6A-95	holes in hub should be at 12, 2, 4, 6, 8 and 10 o'clock
8		6A-51	Omission	Add "Static" ahead of "valve lash adjustment"
9		6C-22	fig 6C-54, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
10		6E-2	fig 6E-1, diff lip seals wrong	Pinion shaft front seal lips should point toward diff. PS rear seal lips should point toward converter.
11		6E-15	fig 6E-31, item #7 location	#7 should go between #8 and the transmission case
12		8-41	fig 8-73 & 74, delete "thermostat"	replace with "circuit breaker"
13	<u>1961</u>	2-7	Never change or drain PG fluid	Change every 12,000-24,000 miles.
14		3-5	Omission	Rear springs may be cause of out-of-specs rear camber
15		4-2	Use steering gear lubricant	N/A. Use moly CV-U-joint lube
16		6A-2	Omission	Add "static" ahead of 6A-53 entry
16-1		6A-20	Blower Installation	
			Step 2, 20-25 ft-lbs	Wrong torque. Suggest 5 ft-lbs

17	6A-22	#4, fig 6A-105	S/B 6A-104
18	6A-34	#4b, "last word indicator"	S/B "dial micrometer"
19	6A-44	#5 note, "2.0993-2.0883"	S/B "2.0883-2.0993"
20	6A-48	Crank hub is rotated in fig 6A-94	holes in hub should be at 12, 2, 4, 6, 8 and 10 o'clock
21	6A-49	#16 "torque bolts 20-26 ft-lbs"	add, "for flex plate and 40-50 ft-lbs for flywheel"
22	6A-49	#18 "away from piston top"	Change to "toward piston top"
23	6A-49	#22 "crankcase"	S/B "crankshaft"
24	6A-49	#24 fig 6A-98	S/B fig 6A-94
25	6A-54	#52 "foot pounds"	S/B "inch-pounds"
26	6C-4	diff lip seals wrong	Pinion shaft front seal lips should point toward diff. PS rear seal lips should point toward converter.
27	6C-22	fig 6C-54, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
28	6D-24	#18 Omission	add "install both forks"
29	6E-3	No periodic draining PG fluid	Change every 12,000-24,000 miles
30	6E-15	fig 6E-29, item #7 location	#7 should go between #8 and the transmission case
31	8-41	fig 8-73 & 74, delete "thermostat"	replace with "circuit breaker"
32	12-6	camshaft journal-Omission	add "bearing clearances. .0015-.0035" new and .002-.004" used"
33	12-9	under gear data	show that 35/9 is 3.89, 36/11 is 3.27, and 32/9 is 3.55
34	12-9	gear ratios at lower-right of page	Greenbrier: 3-speed 2d s/b 1.99 rev s/b 3.97 4-spd 3d s/b 1.68 95: 4-spd 1 st s/b 4.27
35	<u>1962</u>	12-9 gear ratios	Greenbrier: 3-speed 2d s/b 1.99 rev s/b 3.97
36	<u>1962-63</u>	8-17 fig 27, "two switches on right side"	"eng temp switch is on right side, oil pressure switch is on top of engine near generator"
37	11-42	fig 11-61, relay coil grounding.	Relay coil is not grounded as shown. It gets its ground thru the Headlights (this may raise some questions)
38	12-8	gear ratios	Greenbrier: 3-speed 2d s/b 1.99 rev s/b 3.97
39	8-25,26	Omission	heater motor circuit is missing on the Corvair 95 wiring diagram
40	<u>1964</u>	6A-1 Omission	Add to general description: new 11 vane magnesium fan and 12 plate oil cooler on A/C and turbocharged cars.
41	8-28,29	Omission	heater motor circuit is missing on

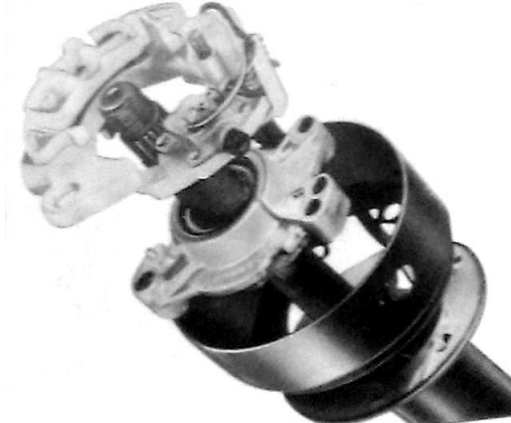
42	11-42	fig 11-61, relay coil grounding.	the Corvair 95 wiring diagram Relay coil is not grounded as shown. It gets its ground thru the headlights (this may raise some questions)
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LATE MODEL CORVAIRS

<u>ENTRY</u>	<u>YEAR</u>	<u>PAGE</u> <u>NUMBER</u>	<u>CURRENT PROBLEM OR STATEMENT</u>	<u>CORRECTED INFORMATION</u>
43	1965	index	Omission	Add "Tune Up" to index #6
44		3-7	#5 in RH lower column	Change lbs-ft to ft-lbs
45		3-8	lower note: "joint is a loose fit"	Should take at least some torque to turn
46		4-3	diff lip seals wrong	Pinion shaft front seal lips should point toward diff. PS rear seal lips should point toward converter.
47		4-6	top, LH page "Specifications"	Specification is 35 ft-lbs
48		4-10	fig 17, item 41. missing shaft "J"	add shaft "J" to fig 41
49		4-20	fig 52, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
50		4-21	LH top, 3d and 5 th paragraphs	"left hand S/B right hand" "Right hand S/B left hand"
51		4-21	6 th paragraph	"front" S/B "rear"
52		4-28,29	LH column, Opinion	Step "b" S/B "d" & "d" S/B "d"
53		5-1	fig 1, Omission	add "Right Front" to title
54		5-9	fig 18 & 19, Omission	add "Right Front" to title
55		6-5	Step 5	change "L/H to R/H"
56		6-5	Step 7	change "R/H to L/H"
56-1		6-17	Blower Installation—"Specifications"	No Specs given. Suggest 5 ft-lbs
57		6-27	#16, "right bolt"	change to "left bolt"
58		6-30	#12, Opinion	change 4-5/8" to 4-1/4" change 3-3/4" to 3-1/2"
59		6-31	#27, "tang and first"	change to "tang end first"
60		6-31	fig 54, "crankcase valve"	change to "crankcase half"
61		6-32	fig 58, Crank hub is rotated	Holes in hub should be at 12, 2, 4, 6, 8 and 10 o'clock
62		6-35	#20, Omission	add: "Install baffles under the cylinders before installing the pushrod tubes"
63		6-37	#27, Opinion	check for axial motion instead of twisting the pushrods
64		6-38	#41, no spec exists	tighten securely
65		6-53	under "Inspection", 7 th line	delete "both" add, "new"
66		6-55	under "Assembly" Opinion	better to heat gear and freeze cam for assembly
67		9-2	under "Lubrication" "use EP lube"	Don't use grease. Use CV joint lube
68		12-10	under temperature gauge	change "manifold temperature" to "head temperature"

69	12-10	under "General Description"	Note that only the turbocharged engine received a buzzer
70	12-15	under "Disassembly-gearbox"	Add "ed" to "explod" and "view"
71	12-19	fig 40, "oil press & eng tell-tale lamp"	Very awkward. Change to "TEMP/Press warning light"
72	12-24	heater resistor wires changed	See page 15-38 for changes
73	12-25	fig 47, title is wrong	S/B "fuse and instrument panel"
73-1	12-26	Wiring error on 500 & Monza connector	Hi-beam and Instrument panel lamps S/B connected as shown for the Corsa connector
74	12-27	fig 49, title is wrong	S/B "Engine and tail lamps"
75	12-27	LH tail wiring is wrong.	Upper wire from RH tail should connect to lower LH wire.
76	12-28	Omission	Greenbrier wiring diag. is missing
76-1	15-38	Wiring diagram shows fan relay.	Relay was deleted. Use diagram in 1966 Shop Manual
77	Specs 1	Rear strut rod nut- <u>inner</u>	75-90 ft-lbs is too tight, Use 1967 spec of 35 ft-lbs inner, and 80 ft-lbs for the outer nut
78	Specs 1	add: U-joint yoke retaining bolt	S/B 35 ft-lbs
79	Specs 2	Brake lining width	Change "2.5 to 2 and 2 to 2.5 inches"
80	Specs 3	camshaft journal-Omission	add "bearing clearances. .0015-.0035" new and .002-.004" used"
81	Specs 5	Table at bottom of page	Rochester H S/B 7025226 with one .12 pump jet
82	Specs 8	under bearings-release lube	add "high" after "packed with..."
83	Specs 9	under manual transmission	change case material from "aluminum" to "cast iron"
84	1966	0-3	Don't use special positraction lube
85		4-5	fig 14, gear teeth, confusing info
			1969 manual says, OK to use The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
86		6-2	timing 140 hp w/ auto & A/C
			Spec is 24 deg. Opinion says this is wrong. S/B 14 degrees BTDC
87		12-4	heater wires changes
			See page 15-4 for latest wiring
88		12-6	fig 6, fuel gage
			S/B fuel sender
88-1		12-6	Wiring error on 500 & Monza connector
			Hi-beam and Instrument panel lamps S/B connected as shown for the Corsa connector
89		15-3	freon charge
			changed from 4-1/2 to 4 lbs
90		Specs 1	transmission lube capacity
			change from "qts" to "pints"
91		Specs 1	add: U-joint yoke retaining bolt
			S/B 35 ft-lbs
91-1		Specs 1	Axle shaft retaining bolt
			Change to U-Joint strap bolts
92		Specs 1	Rear Strut rod nut
			S/B outer 80 ft-lbs, inner 35 ft-lbs
93		Specs 3	180 hp cam lobe lift
			S/B .249-.250 inches
93-1		Specs 4	torque spec for the 4-nuts retaining the bottom of the rear engine housing.
			S/B 20 ft-lbs. Code word is "skid plate". Ignore the rear mounting bracket number that is wrong.

94	1967	0-4	Don't use special positraction lube	1969 manual says OK to use
95		4-5	fig 13, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
95-1		6-2	timing 140 hp w/ auto & A/C	
			Spec is 24 deg Opinion says this is wrong. S/B 14 degrees BTDC	
95-2	Specs 8		timing 140 hp w/ auto & A/C	
			Spec is 24 deg Opinion says this is wrong. S/B 14 degrees BTDC	
96		9-4, 12-3 &12-4	Directional Signal housing	No mention is made of the round rubber gasket that seals the inside of the hazard flasher hole (nor is it shown in the exploded view diagram).
97		9-4, 12-3 &12-4	Directional Signal housing	No mention is made, either, of the square rubber gasket that seals the turn signal lever hole (nor is it shown in the exploded view diagram). Note: This gasket is shown in the assembly manual (UPC 12, Page C1).
98		9-4, 12-3 &12-4	Directional Signal housing	Likewise, no mention is made of the circular plastic dust shield that sits on top of the switch, just underneath the cancelling cam (nor is it shown in the exploded view diagram). This shield is also shown in the assembly manual.
99		9-4, 12-3 &12-4	Directional Signal housing	Likewise, no mention is made of the circular plastic dust shield that sits on top of the switch, just underneath the cancelling cam (nor is it shown in the exploded view diagram). This shield is also shown in the assembly manual.
100		9-4, 12-3 &12-4	Directional Signal Assembly	No mention is made, either, of the round retaining ring that is about 1" lower on the steering shaft than the "C" clip (#13 in exploded view diagram) which retains the thrust washer, wave washer, and upper bearing support (nor is it shown in the exploded view diagram).
101		12-3	Directional Signal Assembly	Shows both the Boyne (left).and Delco (right) switches. Only the Boyne switch was used in the Corvair, so it's misleading to show both. Perhaps this photo was

102	12-4	Directional Signal Assembly	<p>repurposed from a car line that used both. Also, the photo is printed upside down (putting the hazard flasher knobs incorrectly on the left).</p> <p>Boyne switch picture is reversed The picture is printed reversed left-to-right putting the hazard flasher switch on the left again. S/B as shown below.</p>
			
103	12-7	fuel MTR	S/B fuel gauge sender
104	Specs 1	Axle shaft retaining bolts	S/B U-joint strap retaining bolts
105	Specs 1	add: U-joint yoke retaining bolt	S/B 35 ft-lbs
105-1	Specs 4	torque spec for the 4-nuts retaining the bottom of the rear engine housing.	S/B 20 ft-lbs. Code word is "skid plate". Ignore the rear mounting bracket number that is wrong.
105-2	Specs 5	timing 140 hp w/ auto & A/C Spec is 24 deg Opinion says this is wrong.	S/B 14 degrees BTDC
106	<u>1968</u>	0-4 RH col, Under Powerglide	Says a drain plug is provided. Not true. 1969 manual says drain plug is not provided. Corvair Powerglides never had a drain plug.
107	4-5	fig 13, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
107-1	6-4	Bottom line	A/C was not available in 1968
107-2	6-5	Line 27 first column & Line 12 from bottom in 2 nd column	Ignition coil is not connected to the cylinder head
107-3	9-2	Fig. 2: turn lever/mast covers shown on wrong side	Lever S/B on left side
107-4	9-3	Fig. 4: No slot showing in telescopic horn button for lock lever.	S/B
108	12-1	Under Key reminder system, fig 2	Buzzer is separate and is NOT part

109	12-3 & 12-4	Directional Signal Assembly	of the horn relay See the 1967 corrections for details.
110	12-12	fuel MTR	S/B fuel gauge sender
111	12-13	missing electrical connection	add a connection between the left hand wire of "LH marker LP" and the LH tail light wire
112	Specs 1	Axle shaft retaining bolts	S/B U-joint strap retaining bolts
113	Specs 1	add: U-joint yoke retaining bolt	S/B 35 ft-lbs
113-1	Specs 4	torque spec for the 4-nuts retaining the bottom of the rear engine housing.	S/B 20 ft-lbs. Code word is "skid plate". Ignore the rear mounting bracket number that is wrong.
113-2	Specs 5	Specs show 46FF plugs for 95 HP engines	While 46FF plugs may be desirable, this data should be changed to 44FF to be consistent with other data.
113-3	Specs 8	Specs show 46FF plugs for 95 HP engines	While 46FF plugs may be desirable, this data should be changed to 44FF to be consistent with other data.
113-4	Specs 8	Specs show 140 HP engines idle: 650 MT & 550 PG	While these speeds might be desirable, probable they should be changed to 700 MT & 600 PG to be consistent with other data.
114	<u>1969</u>	0-1 Under Vehicle Serial Number	Numbering starts at 700,001, not 100,001.
115	0-5	fig 4, -30 degrees is marked wrong	S/B one slot to the right
116	0-7	Under Rear Axle,	Says OK to use Special Positraction lubricant. 1967 and 1968 manuals said not to use with manual transmissions. Causes hard shifting
117	4-5	fig 13, gear teeth, confusing info	The patterns are correct but the "drive teeth" and the "coast teeth" are interchanged
118	6-1	Accelerator linkage	change 1968 to 1969
119	6-4	fig 5, head tightening sequence	Opinion: Sequence is incorrect. Do not use. See 1960, 61 or 65 manual for correct sequence
120	12-1	Under key reminder system, fig 2	Buzzer is separate and is NOT part of the horn relay
121	12-3	fuel MTR	S/B fuel gauge sender
122	12-3 & 12-4	Directional Signal Assembly	See the 1967 corrections for details.
123	12-14	missing electrical connection	Add a connection between the left hand wire of "LH marker LP" and the LH tail light wire
124	Specs 1	Axle shaft retaining bolts	S/B U-joint strap retaining bolts
125	Specs 1	add: U-joint yoke retaining bolt	S/B 35 ft-lbs
125-1	Specs 4	torque spec for the 4-nuts retaining the bottom of the rear engine housing.	S/B 20 ft-lbs. Code word is "skid plate".
126`	Specs 10	Under fuse and circuit breaker	in #5, "turn" S/B listed in #6