

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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229-14

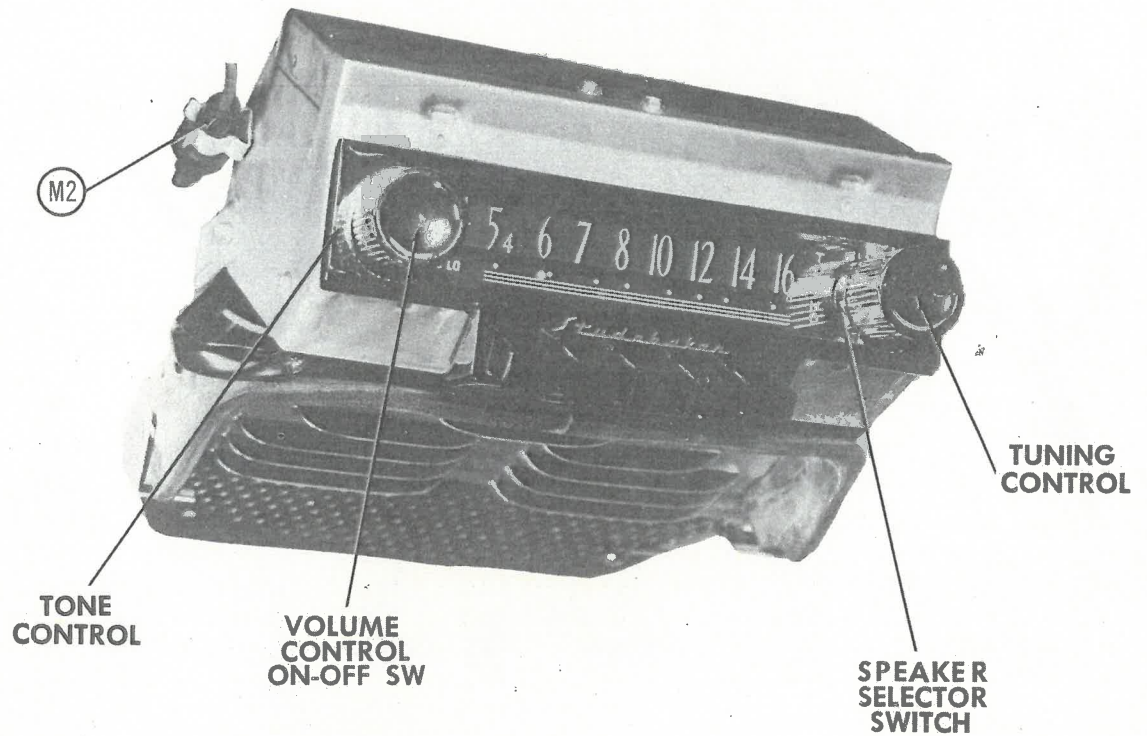
- 1 - DC voltage measurements are at 20,000 ohms per volt, AC voltages measured at 1000 ohms per volt.
- 2 - Socket connections are shown as bottom views.
- 3 - Measured values are from socket pin to common negative.
- 4 - Battery voltage maintained at 6.3 volts for voltage readings.
- 5 - Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
- 6 - Volume control at maximum, no signal applied for voltage measurements.

PHOTOFACT* Folder



STUDEBAKER
MODEL AC-2300 (S-5327)

STUDEBAKER MODEL AC-2300 (S-5327)



TRADE NAME Studebaker Model AC-2300 (Philco Model S-5327) For 1953 Studebaker Automobiles
MANUFACTURER Philco Corp., Tioga & "C" Sts., Philadelphia, Pa.
TYPE SET Battery Operated Custom Built Automobile Superheterodyne Receiver
TUBES (Eight) Types 6BA6 RF Amp., 6BE6 Conv., 6BA6 IF Amp., 6AV6 Amp., 6AV6 Det.-AVC-AF Amp., 6C4 Phase Inv., (2) 6AQ5 Audio Output, 6X4 Rectifier

POWER SUPPLY 6 Volt Storage Battery
TUNING RANGE—BROADCAST 535-1605KC

RATING 5.6 Amp. @ 6.3 Volts DC

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .05MFD	High side to pin 7 (grid) of 6BE6 (V2). Low side to chassis.	455KC (400 μ Mod)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum deflection.
2. 40MMF	High side to antenna receptacle. Low side to chassis.	1605KC	"	"	A5	"
3. "	"	1400KC	tune to 1400KC signal	"	A6, A7	"

4. With set installed in car and antenna fully extended tune in a weak station between 600 and 1000KC and adjust A7 for maximum volume.

To set push buttons tune manually to desired station and pull push button out and then press push button all the way in. Repeat procedure for remaining push buttons.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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DATE 2-54

SET 229

FOLDER 14

STUDEBAKER
MODEL AC-2300 (S-5327)

PARTS LIST AND DESCRIPTIONS
 TUBES (SYLVANIA, GENERAL ELECTRIC, WESTINGHOUSE)

ITEM No.	USE	REPLACEMENT DATA		RETNIA BASE TYPE	NOTES
		STUDEBAKER PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	6BA6	6BA6	7BK	
V2	Converter	6BE6	6BE6	7CH	
V3	IF Amplifier	6BA6	6BA6	7BK	
V4	Det-AVC-AF Amp.	6AV6	6AV6	7BT	
V5	Phase Inverter	6C4	6C4	6BG	
V6	Audio Output	6AQ5	6AQ5	7BZ	
V7	Audio Output	6AQ5	6AQ5	7BZ	
V8	Rectifier	6X4	6X4	6BS	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	VOLT	REPLACEMENT DATA				NOTES
			STUDEBAKER PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	
C1A	#20	350	61-0086	AFN3-106		CO78	
C1B	A10	350					
C2	10	500	60-00105417	1468-00001	D6-100	5W5Q1	IFM-41
C3	.047	200	30-4650-45	P288-047	DF-503	PTE4S47	2TM-S47
C4	10	500	60-00105417	1469-00001		5W5Q1	PT4147
C5	60	500	30-1224-110	SI60	D6-600		MC-215
C6	65	200	30-1224-87				MC-215
C7	.047	200	30-4650-45	P288-047	DF-503	PTE4S47	2TM-S47
C8	.0047	400	30-4650-56	P488-0047	D6-502	PTE4D47	4TM-D47
C9	100	400	62-110001021	SI100	D6-102	TM571	5CA-T1
C10	.1	400	30-4650-41	P488-1	DF-104	PTE4P1	4TM-P1
C11	.25	400	30-4650-49	P488-25		PTE4P25	4TM-P25
C12	.01	400	30-4650-41	P488-01	D6-103	PTE4S1	4TM-S1
C13	330	400	62-133001001	SI330	D6-331		5CA-T33
C14	.0047	400	30-4650-56	P488-0047	D6-472	PTE4D47	4TM-D47
C15	.01	400	30-4650-41	P488-01	D6-103	PTE4S1	4TM-S1
C16	.01	400	30-4650-41	P488-01	D6-103	PTE4S1	4TM-S1
C17	.0068	1000	30-4650-91	P1088-0068		MP2P5	MB-D68
C18	.5	100	61-0183	VHC-36			HC-3
C19	.5	100	62-133001001	SI330	D6-331	GP2L-331	RF-480
C20	330	400	62-133001001	SI330	D6-331	GP2L-331	UC-5333
C21	330	400	62-133001001	SI330	D6-331	GP2L-331	5CA-T33
C22	.0068	1600	30-4661-8	P1688-0068			MD-D68

CONTROLS

ITEM No.	RATING RESISTANCE	WATTS	REPLACEMENT DATA			INSTALLATION NOTES
			STUDEBAKER PART No.	IRC PART No.	CENTRALAB PART No.	
R1	350K	$\frac{1}{2}$	33-5570			Tone SW, volume & switch

RESISTORS

ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA		NOTES
			STUDEBAKER PART No.	IRC PART No.	
R2	330K		66-1338340	BTS-330	
R3	68K Ω		66-3688340	BTS-68K	
R4	10K Ω		66-3106340	BTS-10K	
R5	22K Ω		66-3228340	BTS-22K	
R6	27K Ω		66-3274340	BTA-27K	
R7	330 Ω		66-1335340	BTS-330	
R8	1Meg		66-5106340	BTS-1Meg	
R9	22K Ω		66-3228340	BTS-22K	
R10	15Meg		66-6156340	BTS-15Meg	
R11	220K Ω		66-4228340	BTS-220K	
R12	2200 Ω		66-2228340	BTS-2200	

PARTS LIST AND DESCRIPTIONS (Continued)
 TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	STUDEBAKER PART No.	STANCOR PART No.	MERT PART No.	NOTES
T1	6.3VCT @ 3.1A	348VCT		32-6313-3			
				32-6313-1 ①			① Alternate audio output.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING			REPLACEMENT DATA			
IMPEDANCE	DC RES.	PRI.	SEC.	STUDEBAKER PART No.	STANCOR PART No.	MERT PART No.	NOTES
T2	9.2K Ω	3.1 Ω	440 Ω	32-8316-8		A2998	
				32-8316-7 ①			① Alternate audio output.

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	STUDEBAKER PART No.	JENSEN PART No.		
					QUAM	PART No.	
SPI	6"X9"	PM	3.1Ω	36-1631-2	ST-810 Mod P69-V	69A2	

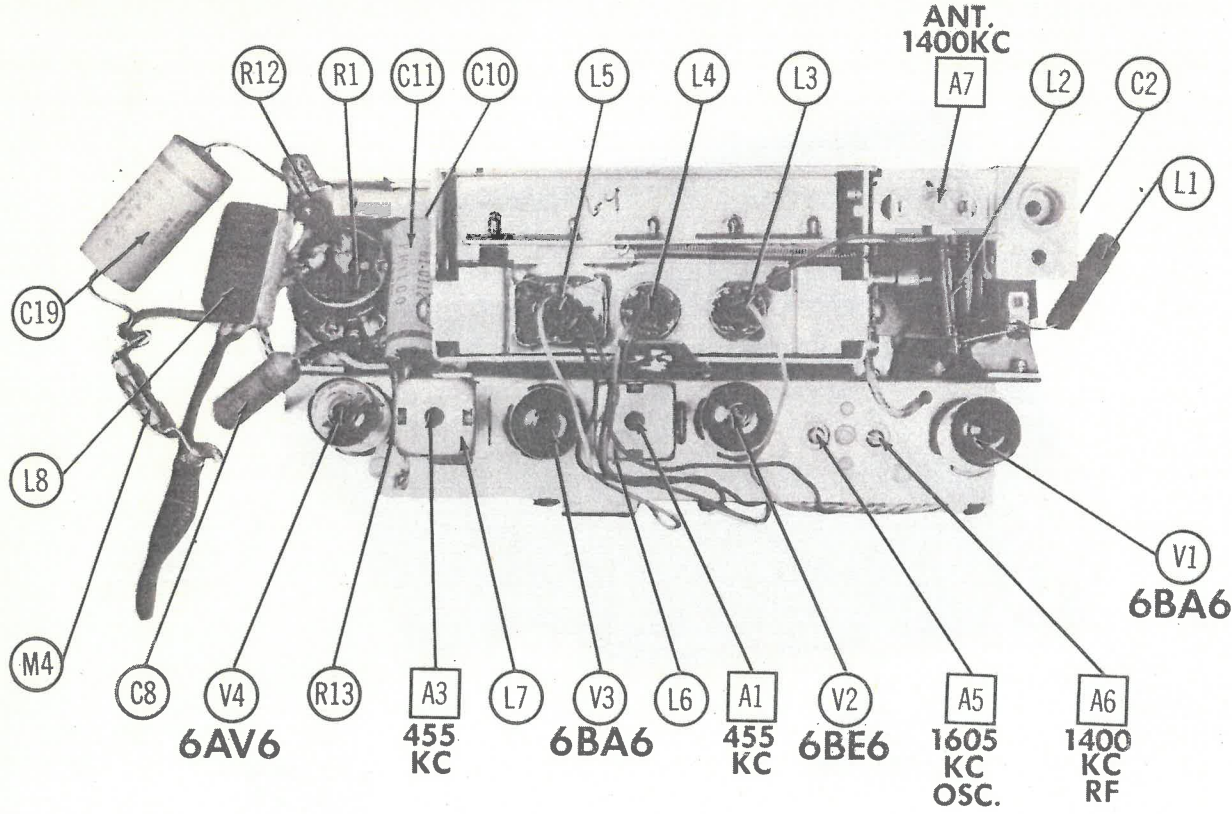
COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA			NOTES
		PRI.	SEC.	STUDEBAKER PART No.	MEISSNER PART No.	MILLER PART No.	
L1	Ant. Loading Coil	4 Ω		32-4422-24		4610	5.6Microhenries; IRC Part #C1-1
L2	RF Coupling	.7 Ω		65-0378		4612	11 Microhenries
L3	Ant. Coil	13 Ω		32-4586			Less core; core Part # 28-9336; complete Tuning unit assembly Part # 76-7856
L4	RF Coil	13 Ω		32-4585			Less core; core Part # 28-9336
L5	Osc. Coil	2.8 Ω tap @ .9 Ω		32-4587			Less core; core Part # 28-9336
L6	Input IF	13 Ω	13 Ω	32-4160A	BC-352	12-C1	.2 Microhenry
L7	Output IF	15 Ω	15 Ω	32-4240A	BC-355	12-C6	
L8	F.I.L. Choke	0 Ω		32-1644			
L9	Vibrator						
	Flash Choke	0 Ω		32-4170-4			

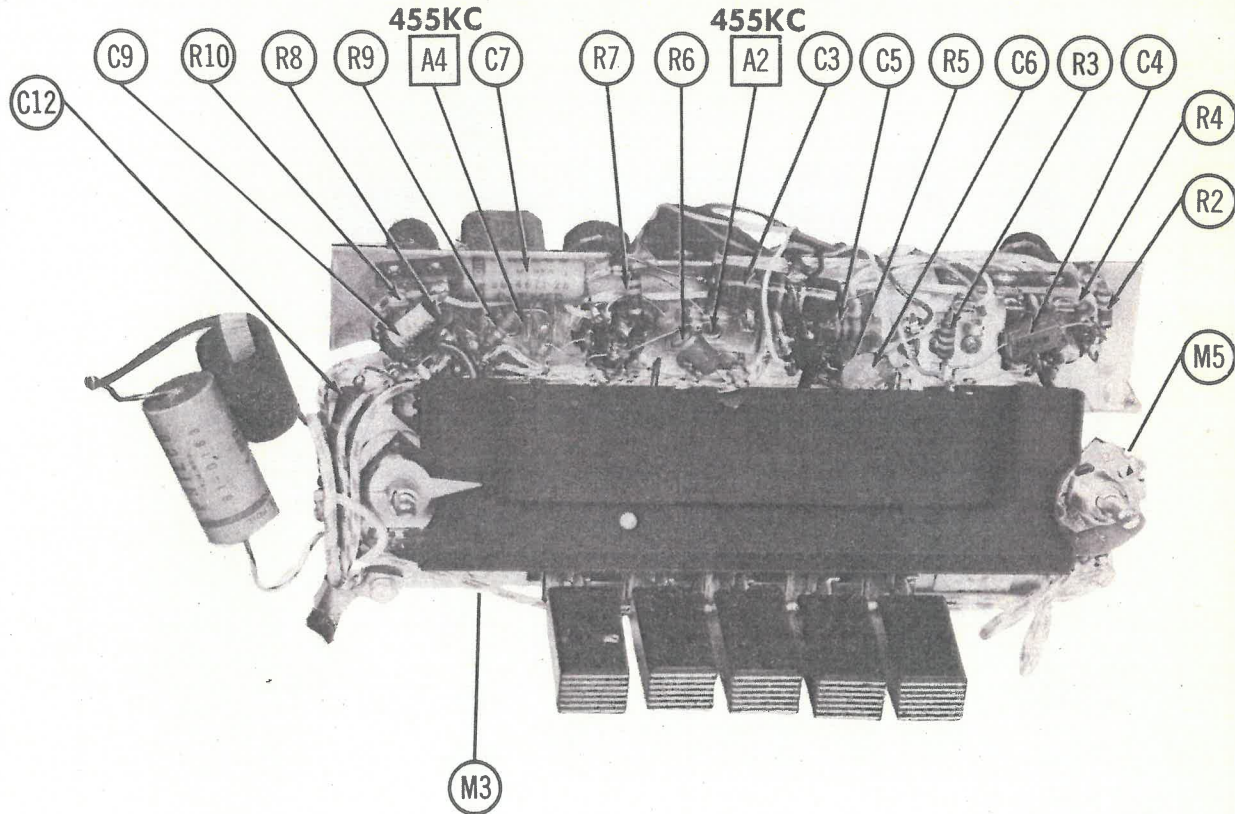
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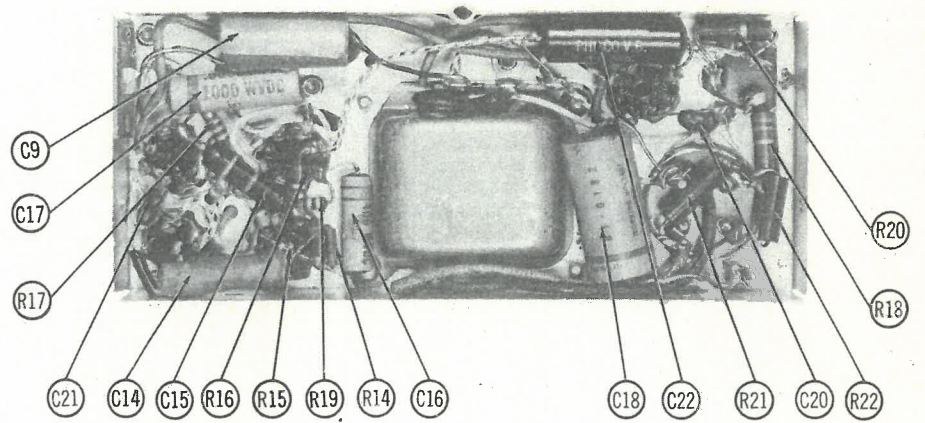
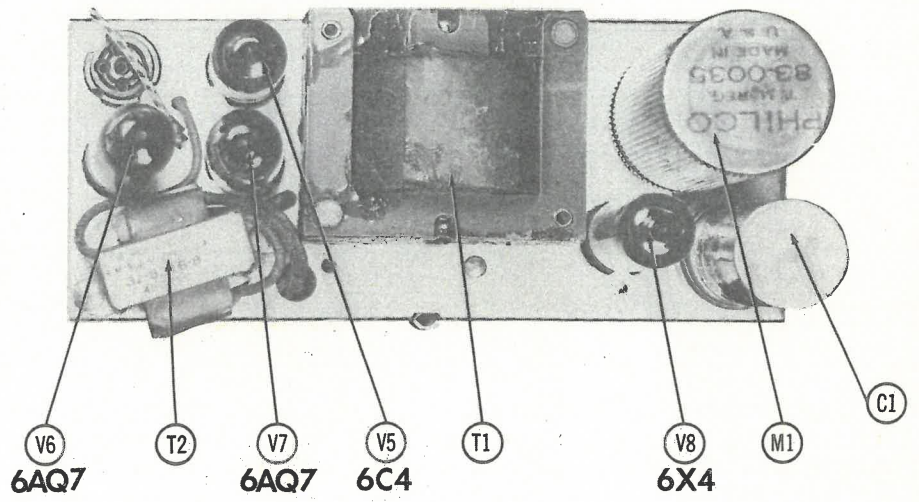
ITEM No.	TYPE	INPUT VOLTS-FREQUENCY	REPLACEMENT DATA			NOTES
			STUDEBAKER PART No.	CORNELL DUBILIER PART No.	MALLORY PART No.	
M1	Int.	6.3V 115 ϕ	83-0035	5326	5326	

CHASSIS—TOP VIEW



CHASSIS—BOTTOM VIEW





PARTS LIST AND DESCRIPTIONS (Continued)

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				
			STUDEBAKER PART No.	LITELFUSE PART No.	FUSE	HOLDER	BUSSE PART No.
M2	SFE	14A	45-2559	56-3807-4	307014 (SFE-14A)	155014	SFE-14 HDI

DIAL LIGHTS

ITEM No.	PART NAME	STUDEBAKER PART No.	NOTES
M3	Dial Light	34-6024	2 Used (#44)

MISCELLANEOUS

ITEM No.	PART NAME	STUDEBAKER PART No.	NOTES
M4	Spark plate	30-1235-1	
M5	Switch	42-2000	
A5, A6	Trimmer cap	31-6522-4	Rear seat speaker
A7	Trimmer cap	31-6502-3	Osc. and RF Adj.-dual
	Back cover	56-9920	Antenna Adj.
	Dial glass	54-5153	
	Knob	27-4687-20	Off-on volume and tuning (2 used)
	Knob	54-4995	Push button (5 used)
	Knob	56-9880	Tone and rear speaker (2 used)
	Rear Speaker Kit	41-4172	Includes speaker, cable and hardware