

SERVICE MANUAL

FOR

1941 HUDSON AUTOMOBILE RADIO RECEIVERS

SPECIFICATIONS AND CIRCUIT FEATURES

Description	JA-41 Junior	SA-41 DELUXE	DB-41 Custom
Number of tubes	5	6	8
Tube complement	6SA7—Osc. & 1st det. 6SK7—I. F. Amplifier 6SQ7—2nd detector, AVC, audio 6V6GT—Beam power output 6X5GT—Rectifier	6SK7—R. F. Amplifier 6SA7—Osc. & 1st det. 6SK7—I. F. Amplifier 6SQ7—2nd detector, AVC, audio 6V6GT—Beam power output 6X5GT—Rectifier	6SK7—R. F. Amplifier 6SA7—Osc. & 1st det. 6SK7—I. F. Amplifier 6SQ7—2nd detector, AVC, audio 6J5GT—Phase inverter 6V6GT—Push pull beam power output 6V6GT Push pull beam power output OZ4—Rectifier
Tuning range	540 to 1600 KC	540 to 1600 KC	540 to 1600 KC
SPEAKER			
Type	5 inch dynamic	6 inch dynamic	8 inch dynamic
Voice coil impedance	3.5 at 400 cycles	3.2 at 400 cycles	3.2 at 400 cycles
Field resistance	4.6 ohms (cold)	4 ohms (cold)	4 ohms (cold)
POWER OUTPUT			
Maximum	3.2 watts	4.0 watts	6.0 watts
Undistorted	1.5 watts	2.0 watts	5.0 watts
Vibrator	Non-synchronous	Non-synchronous	Non-synchronous
POWER RATING			
Current drain	5.7 amp. at 6.6 volts	6.4 amp. at 6.6 volts	8.3 amp. at 6.6 volts
Fuse protection	20 amperes	20 amperes	20 amperes
GENERAL SPECIFICATIONS			
Tuning ratio	5 $\frac{3}{4}$ to 1	12 to 1	12 to 1
Temperature compensated oscillator circuit	No	Yes	Yes
Iron core coils	Ant., Osc.	Ant., Osc., RF, IF,	Ant., IF, Osc.
Ant. motor noise filter	No	Yes	Yes
"A" circuit motor noise filter	Yes	Yes	Yes
Band-pass I.F. Amplifier for high fidelity	No	No	Yes
Delayed AVC for maximum sensitivity	No	No	Yes
Inverse feed back audio amplifier	No	Yes	Yes
Variable tone control	No	No	Yes
Tuning condenser	None (permeability tuned)	2 gang	3 gang
Push button tuning	No	Yes	Yes

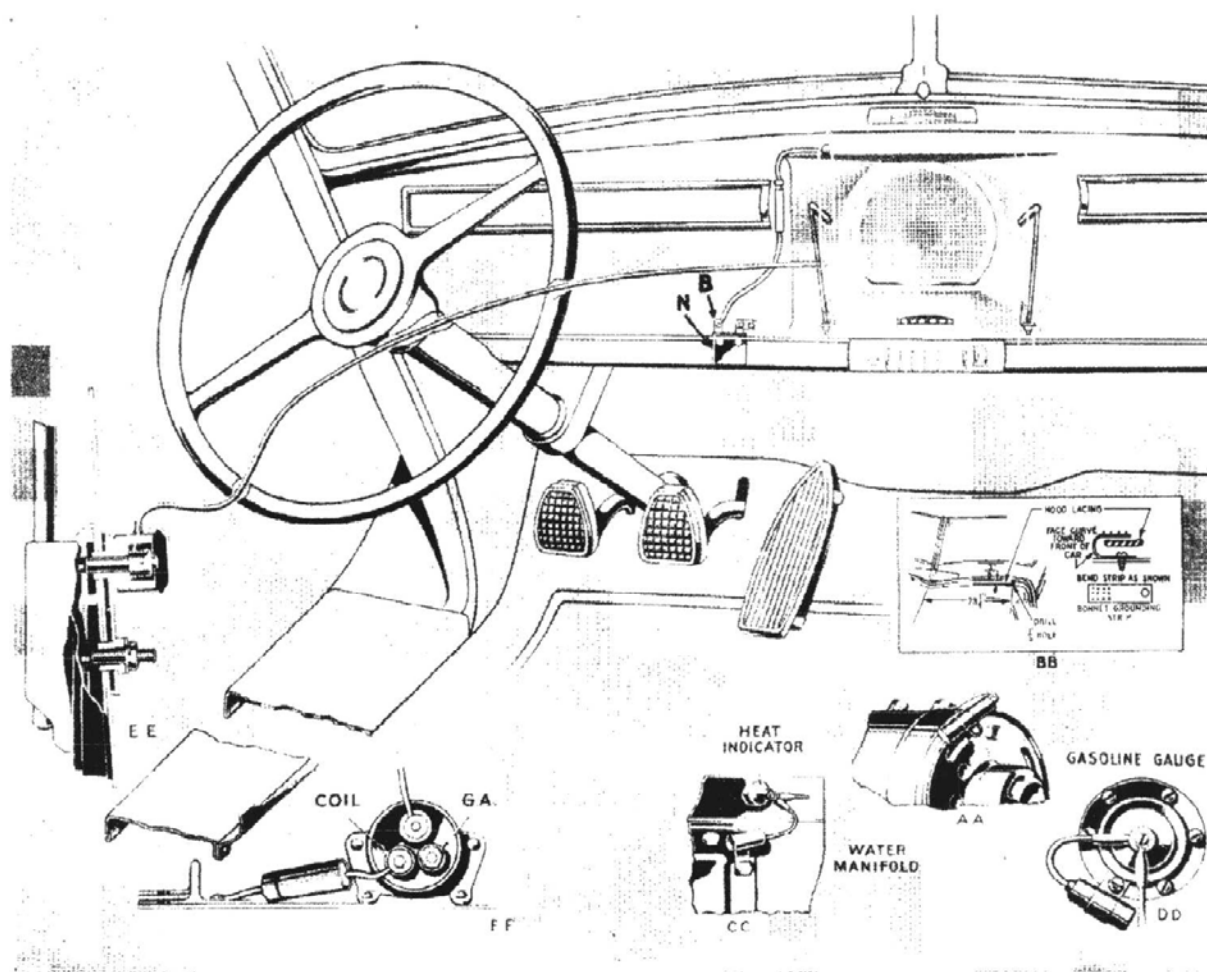


FIG. A—MOUNTING DETAILS AND CONNECTIONS

RADIO RECEIVER KITS

HA-200202—5 Tube Junior Radio,
Model JA-41

HA-200200—6 Tube DeLuxe Radio,
Model SA-41

HA-200201—8 Tube Custom Radio,
Model DB-41

NOTE: Escutcheon plates are not included in radio kits. Before starting installation of SA-41 or DB-41, be sure correct escutcheon is on hand to match instrument panel finish. No escutcheon is needed for the JA-41.

ITEMS INCLUDED IN KITS:

Radio Receiver
Mounting Rods, Washers and Wing Nuts
Distributor Suppressor
Generator Condenser (No. 114456)
Water Temperature Gauge Condenser
(No. 114454)

Ignition Lock Condenser (No. 200210)
Gasoline Gauge Condenser (No. 114455)
"A" Lead and Fuse Assembly
Bonnet Ground Strip
Bonnet Ground Strip Screw
Engine To Dash Ground Strap
Ground Strap Attaching Parts
Generator Condenser Attaching Screw and Lock Washer

RADIO ANTENNA KITS

HA-160348—Manually Operated Cowl Antenna
(60 Inch)

HA-160519—Manually Operated Cowl Antenna
(90 Inch)

HA-200249—Vacuum Operated Cowl Antenna
(Kits include lead-in and all necessary attaching parts)

INSTALLATION INSTRUCTIONS

HUDSON AUTO RADIO

MODELS

JA-41—FIVE TUBE—JUNIOR

SA-41—SIX TUBE—DELUXE

DB-41—EIGHT TUBE—CUSTOM

ANTENNA INSTALLATION INSTRUCTIONS:—

Complete instructions for the installation of the Antenna are packed with each Antenna Kit.

RADIO INSTALLATION INSTRUCTIONS:—

- 1—Remove and discard instrument panel Radio dial hole cover, which is snapped into panel, by pressing it downward.
- 2—When installing Receiver Models SA-41 or DB-41, remove instrument panel Radio hole cover, by removing two spring nuts on attaching studs on back of panel. When installing Receiver Model JA-41, this Radio hole cover must be left in place.
- 3—Mount washers and wing nuts on two Radio support rods and place hooked end of rods in position in instrument panel behind grille as shown. (Not necessary to remove grille—make installation from back of panel).
- 4—Place Radio in position and at same time engage support rods in brackets attached to side of Radio. Tighten wing nuts on rods securely, at same time checking alignment of dial and control head in instrument panel.
- 5—Connect the "A" lead (with fuse housing) to the battery terminal "B" of fuse block "N" (See Fig. A on page 2).
- 6—Mount ignition lock condenser (Part No. 200210) under the nut holding the ventilator handle bracket assembly (see insert FF in Fig. A). Connect the lead from this condenser to (IGN) terminal on ignition lock.
- 7—Connect the Antenna lead into socket "D" on left side of the case. Keep Antenna lead away from Wiring Harness.
- 8—Attach Condenser, Part No. 114456, to rear of generator with machine screw and lockwasher provided. Clean off dirt and paint around mounting screw. Connect condenser terminal to generator "A" terminal (insert "AA").
- 9—Attach condenser, Part No. 114455 on the gasoline tank gauge unit under one of the unit mounting screws. Attach condenser terminal to gauge unit terminal (insert "DD").
- 10—Attach condenser, Part No. 114454, to the upper rear cap screw in the engine water manifold plate and attach condenser terminal to terminal of water temperature gauge element (insert "CC").
- 11—Install suppressor in central terminal of Distributor.
- 12—Remove tape from special hole in dash and install the flat ground strap (Part No. 155821) from left rear cylinder head stud to dash. Fasten it to the dash with a metal screw and a shake-proof lockwasher. Paint and dirt must be removed from the points of attachment to insure good electrical contact.
- 13—Mount bonnet grounding strip as follows: Lift bonnet lacing. Drill $\frac{1}{8}$ " hole at a point $23\frac{1}{4}$ " from center of car on the Antenna side of body, as illustrated in Fig. "BB." CAREFULLY SCRAPE paint from cowl around hole. Mount grounding strip (No. 118718) with a No. 8 Self Tapping Screw (No. 118717) and bend strip back over lacing so projections will make good contact under bonnet. CAREFULLY SCRAPE paint from bonnet at point of contact.
- 14—When installing Model DB-41 or SA-41, mount the instrument panel Radio escutcheon and fasten in place by pressing spring pins into sockets in Radio set.
- 15—After the set is installed, the Antenna compensator must be adjusted. Carefully tune the set to a weak station around 1400 KC. Remove the snap button on the bottom of the set on the left side. Using a narrow screwdriver, adjust the compensator for maximum volume. This adjustment insures maximum sensitivity.
- 16—To set up push buttons on the DB-41 or SA-41, see page 7 or Customer's Instruction Tag.
- 17—After installing the JA-41, check whether the stations come in at the proper places on the dial. If they do not, merely turn the dial drum with a pencil eraser to read correctly, while holding the tuning control.
- 18—Test the Radio and if there is excessive ignition noise after the above procedure has been carried out, check the following points:
 - (a) Make sure the distributor suppressor is the 10000 ohm type Part Number 114326-A.
 - (b) Check to see that condenser on ignition lock is No. 200210 (0.5 mfd.).
 - (c) Check ground strap from motor block to fire-wall, and be sure it is tight and that contact surfaces are clean.
 - (d) Remove ignition coil mounting screws. Clean the paint from the coil mounting bracket and from the firewall beneath the bracket and then replace the mounting screws, making sure they are tight.
 - (e) Remove screws holding bonnet latch bar mounting brackets to firewall, then clean paint from brackets and from firewall so good contact is made. Replace the screws tightly. Also clean paint where latch hooks bonnet.
 - (f) Check antenna installation, making sure that the grounding bracket is making good contact with the automobile body, and that the lead-in shield is properly grounded and has not pulled loose.
 - (g) Dress Antenna lead-in so that it lies along the top of the cowl and as far away from the auto wiring harness as possible.

HUDSON AUTOMOBILE RADIO RECEIVER—JUNIOR MODEL JA-41

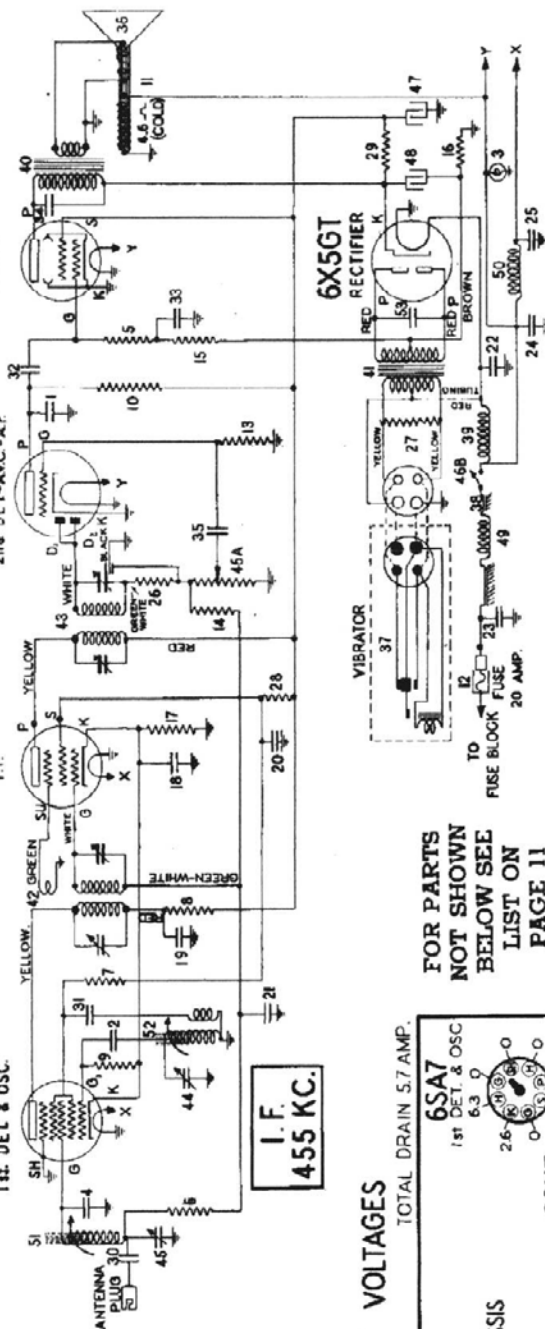
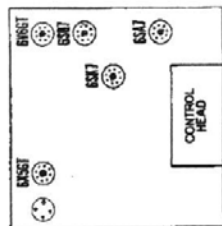
6SA7
1st DET & OSC.

6SK7
I.F.

6SQ7
2nd DET-AVC-AF

6V6GT
OUTPUT

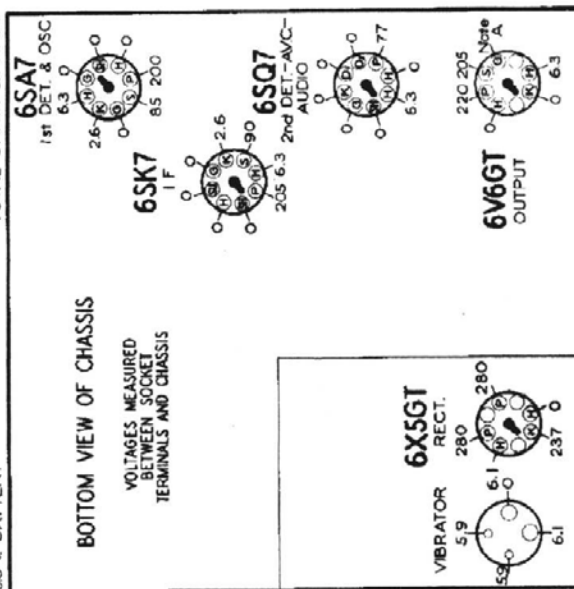
TUBE LOCATIONS



SOCKET VOLTAGES

66 V. BATTERY

FOR PARTS
NOT SHOWN
BELOW SEE
LIST ON
PAGE 11



VOLTAGES MEASURED
BETWEEN SOCKET
TERMINALS AND CHASSIS

Diagram Number	Wagner Part Number	Hudson Part Number	Description	List Price
1	83839	BO-159447	Condenser—mica 250 mfd.	\$0.20
2	86061	BO-159450	Condenser—mica 51 mfd.	.15
3	116228	BO-200371	Dial light—6.3 volt	.15
4	112008	BO-200254	Condenser—mica 120 mfd.	.15
5-6	112971	BO-159477	Resistor—insulated 470,000 ohms 1/2 watt	.15
7	112977	BO-159481	Resistor—insulated 470 ohms 1/2 watt	.15
8	112980	BO-159483	Resistor—insulated 1,000 ohms 1/2 watt	.15
9-10	112982	BO-159489	Resistor—insulated 220,000 ohms 1/2 watt	.15
11	U-115121	BO-200681	Speaker—dynamic 8"	3.90
12	116049	BO-170420	Fuse—20 amp. 25 volt	.06
13	116050	BO-200251	Resistor—insulated 10 meg. 1/2 watt	.12
14	116056	BO-200252	Resistor—insulated 47,000 ohms 1/2 watt	.10
15	116058	BO-161479	Resistor—insulated 47,000 ohms 1/2 watt	.12
16	116063	BO-200238	Resistor—insulated 300 ohms 2 watts wire wound	.24
17	116098	BO-161488	Resistor—220 ohms 1/2 watt	.12
18-19-20	116625	BO-161461	Condenser—1 mfd. 600 volt	.25
21	116819	BO-161463	Condenser—.05 mfd. 600 volt	.20
22-23	116225	BO-161473	Condenser—.5 mfd. 150 volt	.32
24-25	116231	BO-200205	Condenser—.25 mfd. 150 volt	.32
26	116829	BO-200239	Resistor—47,000 ohms 1/10 watt	.10
27	116833	BO-200240	Resistor—220 ohms 1 watt	.15
28	116834	BO-200241	Resistor—insulated 15,000 ohms 1 watt	.15
29	115835	BO-200642	Resistor—insulated 1500 ohms 1 watt	.15
30-31	116183	BO-200206	Condenser—.01 mfd. 600 volt	.15
32-33	119414	BO-200207	Condenser—.02 mfd. 600 volt	.15
34	119415	BO-200208	Condenser—.015 mfd. 600 volt	.15
35	119817	BO-200211	Condenser—.004 mfd. 600 volt	.15
36	U-160762	BO-200684	Cone & voice coil for U-115121 speaker	3.80
37	160768	BO-200277	Vibrator	3.00
38	160849	BO-200218	Condenser—metal clad—0002 mfd.	.18
39	160858	BO-200383	Clock coil	1.00
40	160938	BO-200386	Output transformer—6 volt primary	1.50
41	160940	BO-200387	Power transformer—6 volt primary	3.85
42	160578	BO-200389	Transformer—1st I.F.	1.35
43	160581	BO-200390	Transformer—2nd I.F.	1.35
44	161006	BO-200221	Condenser—trimmer	.25
45	161007	BO-200222	Condenser—trimmer	.22
46A-46B	161019	BO-200592	Volume control—1 mg. with switch	1.30
47	161024	BO-200223	Condenser—electrolytic 10 mfd. 450 volt	.70
48	161025	BO-200224	Condenser—electrolytic 10 mfd. 450 volt	.70
49-50	161078	BO-200593	Clock coil & tuning core (less shield case)	.25
51	161081	BO-200594	Alnico coil & tuning core (less shield case)	1.40
52	161086	BO-200595	Oscillator coil & tuning core (less shield case)	1.40
53	161101	BO-200227	Buffer condenser—.01 mfd. 2000 volts	.35

IMPORTANT: Use a high resistance voltmeter of at least 1000 ohms per volt.
NOTE A: The bias for the control grid of the 6V6GT tube is—12 volts measured across resistor No. 16.

ALIGNMENT PROCEDURE FOR MODEL JA-41 ONLY

IMPORTANT: The "Simplified Alignment Procedure" should always be used unless the adjustments on the tuner cores have become loose or if someone has tampered with them.

Use the "General Alignment Procedure" only in instances of poor calibration, and poor sensitivity at the low frequency end even after the Simplified Procedure has been completed. The General Alignment Procedure is also necessary if the antenna or oscillator coils or cores are replaced.

SIMPLIFIED ALIGNMENT PROCEDURE

REMOVE TOP COVERS OF RECEIVER - BOTH SPEAKER SECTION AND CONTROL COVER

Dummy Antenna in Series with Signal Generator	Connection of Sig. Gen. output to Receiver	Signal Generator Frequency	Receiver Dial Setting	Trimmer Number	Trimmer Description	Type of Adjustment
.1 MFD. Condenser	Antenna Connection on Set	455 KC	Any point where it does not affect the signal.	1-2	2ND I.F.	Adjust for maximum output.
				3-4	1ST I.F.	
50 MMFD. Mica Condenser	Antenna Connection on Set	1600 KC	Turn tuning knob to max. clockwise position.	5	Oscillator (Shunt) Condenser	Carefully adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection on Set	1400 KC	Accurately tune to 1400 KC generator signal.	6	Antenna (Shunt) Condenser	Adjust for maximum output.

CALIBRATE DIAL AS SHOWN UNDER HEADING "DIAL CALIBRATION" OVER FIG. 2 BELOW

After the set has been installed in the car, tune in a fairly weak station near 1400 KC and adjust trimmer No. 6 until maximum volume is obtained. This trimmer can be reached by removing the plug button at the left front corner of the bottom of the case.

GENERAL ALIGNMENT PROCEDURE

TO PERFORM THIS ALIGNMENT PROCEDURE THE RECEIVER CHASSIS MUST BE REMOVED FROM THE CASE.

Dummy Antenna in Series with Signal Generator	Connection of Sig. Gen. output to Receiver	Signal Generator Frequency	Receiver Dial Setting	Trimmer Number	Trimmer Description	Type of Adjustment
.1 MFD. Condenser	Antenna Connection on Set	455 KC	Any point where it does not affect the signal.	1-2	2ND I.F.	Adjust for maximum output.
				3-4	1ST I.F.	

ADJUSTMENT OF TUNING CORES IN ANTENNA AND OSCILLATOR COILS:

- Loosen the lock nuts at the ends of the threaded tuning core shafts (see Fig. 2 below).
- Rotate the tuning knob of the receiver to the maximum clockwise position so that tuning cores are out as far as possible.
- Rotate each tuning core so it extends out of the coil form exactly the amount shown in Fig. 2, below. Hold the core stationary, tighten the lock nut on the oscillator core (top coil) (see Fig. 2 below). Use a small amount of speaker cement on the lock nut to insure against change in setting. Do not tighten the lock nut on the antenna core as further adjustment is necessary.

50 MMFD. Mica Condenser	Antenna Connection on Set	1600 KC	Turn tuning knob to max. clockwise position.	5	Oscillator (Shunt) Condenser	Carefully adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection on Set	1600 KC	Same as above	6	Antenna (Shunt) Condenser	Adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection on Set	1400 KC	Accurately tune to 1400 KC generator signal.	7	Tuning core of Antenna coil.	Rotate core in or out for max. output. Tighten lock nut; use speaker cement on nut.

CALIBRATE DIAL AS SHOWN UNDER HEADING "DIAL CALIBRATION" OVER FIG. 2 BELOW

After the set has been installed in the car, tune in a fairly weak station near 1400 KC and adjust trimmer No. 6 until maximum volume is obtained. This trimmer can be reached by removing the plug button at the left front corner of the bottom of the case.

DIAL CALIBRATION: Place the case nose on the receiver case. Check the calibration by tuning in a station of known frequency on the high frequency end of the dial. If calibration is incorrect, hold the tuning knob and turn the dial drum, using the eraser on your pencil to rotate the drum, to the correct frequency. Repeat this after set is installed in car.

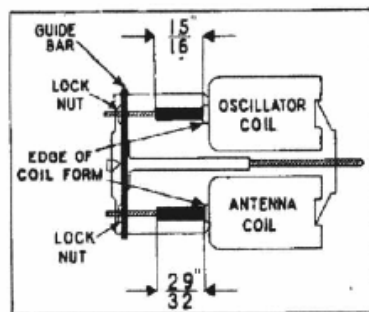


FIG. 2

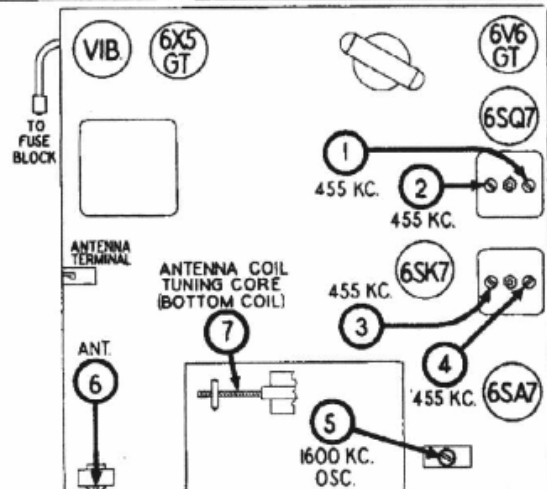
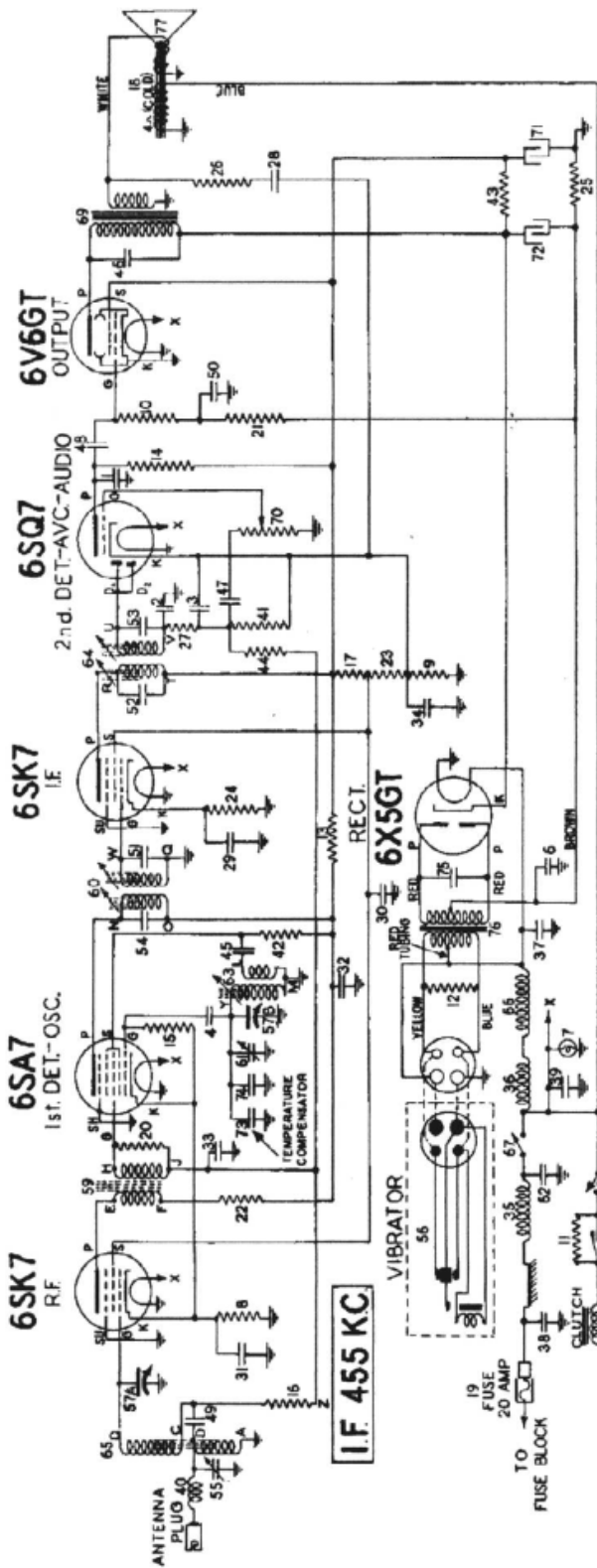


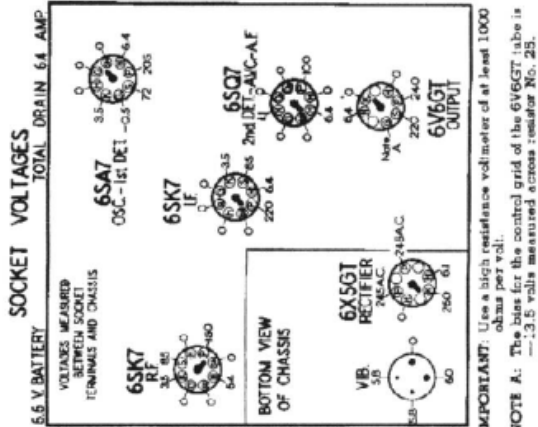
FIG. 3

HUDSON AUTOMOBILE RADIO RECEIVER—DELUXE MODEL SA-41



PARTS LIST—For Parts Not Shown Below See List on Page 11

Diagram Number	Stewart Warner Part Number	Description	List Price
1	BO-158447	Condenser—mica 250 mmfd.	\$0.20
2,3	BO-158448	Condenser—mica 110 mmfd.	.20
4	BO-158449	Condenser—mica 25 mmfd.	.20
5	BO-158450	Condenser—mica 10 mmfd.	.30
6	BO-158451	Condenser—mica 2,000 mmfd.	.35
7	BO-158452	Condenser—mica 100 mmfd.	.15
8,9	BO-158453	Condenser—mica 100 mmfd.	.15
10	BO-158454	Condenser—mica 100 mmfd.	.15
11,12	BO-158455	Condenser—mica 100 mmfd.	.15
13	BO-158456	Condenser—mica 100 mmfd.	.15
14,15	BO-158457	Condenser—mica 100 mmfd.	.15
16	BO-158458	Condenser—mica 100 mmfd.	.15
17	BO-158459	Condenser—mica 100 mmfd.	.15
18	BO-158460	Condenser—mica 100 mmfd.	.15
19	BO-158461	Condenser—mica 100 mmfd.	.15
20	BO-158462	Condenser—mica 100 mmfd.	.15
21	BO-158463	Condenser—mica 100 mmfd.	.15
22	BO-158464	Condenser—mica 100 mmfd.	.15
23	BO-158465	Condenser—mica 100 mmfd.	.15
24	BO-158466	Condenser—mica 100 mmfd.	.15
25	BO-158467	Condenser—mica 100 mmfd.	.15
26	BO-158468	Condenser—mica 100 mmfd.	.15
27	BO-158469	Condenser—mica 100 mmfd.	.15
28,29,30	BO-158470	Condenser—mica 100 mmfd.	.15
31,32	BO-158471	Condenser—mica 100 mmfd.	.15
33,34	BO-158472	Condenser—mica 100 mmfd.	.15
35,36	BO-158473	Condenser—mica 100 mmfd.	.15
37,38	BO-158474	Condenser—mica 100 mmfd.	.15
39	BO-158475	Condenser—mica 100 mmfd.	.15
40	BO-158476	Condenser—mica 100 mmfd.	.15
41	BO-158477	Condenser—mica 100 mmfd.	.15
42	BO-158478	Condenser—mica 100 mmfd.	.15
43	BO-158479	Condenser—mica 100 mmfd.	.15
44	BO-158480	Condenser—mica 100 mmfd.	.15
45	BO-158481	Condenser—mica 100 mmfd.	.15
46	BO-158482	Condenser—mica 100 mmfd.	.15
47	BO-158483	Condenser—mica 100 mmfd.	.15
48	BO-158484	Condenser—mica 100 mmfd.	.15
49	BO-158485	Condenser—mica 100 mmfd.	.15
50	BO-158486	Condenser—mica 100 mmfd.	.15
51	BO-158487	Condenser—mica 100 mmfd.	.15
52	BO-158488	Condenser—mica 100 mmfd.	.15
53	BO-158489	Condenser—mica 100 mmfd.	.15
54	BO-158490	Condenser—mica 100 mmfd.	.15
55	BO-158491	Condenser—mica 100 mmfd.	.15
56	BO-158492	Condenser—mica 100 mmfd.	.15
57	BO-158493	Condenser—mica 100 mmfd.	.15
58	BO-158494	Condenser—mica 100 mmfd.	.15
59	BO-158495	Condenser—mica 100 mmfd.	.15
60	BO-158496	Condenser—mica 100 mmfd.	.15
61	BO-158497	Condenser—mica 100 mmfd.	.15
62	BO-158498	Condenser—mica 100 mmfd.	.15
63	BO-158499	Condenser—mica 100 mmfd.	.15
64	BO-158500	Condenser—mica 100 mmfd.	.15
65	BO-158501	Condenser—mica 100 mmfd.	.15
66	BO-158502	Condenser—mica 100 mmfd.	.15
67	BO-158503	Condenser—mica 100 mmfd.	.15
68	BO-158504	Condenser—mica 100 mmfd.	.15
69	BO-158505	Condenser—mica 100 mmfd.	.15
70	BO-158506	Condenser—mica 100 mmfd.	.15
71	BO-158507	Condenser—mica 100 mmfd.	.15
72	BO-158508	Condenser—mica 100 mmfd.	.15
73	BO-158509	Condenser—mica 100 mmfd.	.15
74	BO-158510	Condenser—mica 100 mmfd.	.15
75	BO-158511	Condenser—mica 100 mmfd.	.15
76	BO-158512	Condenser—mica 100 mmfd.	.15
77	BO-158513	Condenser—mica 100 mmfd.	.15
78	BO-158514	Condenser—mica 100 mmfd.	.15
79	BO-158515	Condenser—mica 100 mmfd.	.15
80	BO-158516	Condenser—mica 100 mmfd.	.15
81	BO-158517	Condenser—mica 100 mmfd.	.15
82	BO-158518	Condenser—mica 100 mmfd.	.15
83	BO-158519	Condenser—mica 100 mmfd.	.15
84	BO-158520	Condenser—mica 100 mmfd.	.15
85	BO-158521	Condenser—mica 100 mmfd.	.15
86	BO-158522	Condenser—mica 100 mmfd.	.15
87	BO-158523	Condenser—mica 100 mmfd.	.15
88	BO-158524	Condenser—mica 100 mmfd.	.15
89	BO-158525	Condenser—mica 100 mmfd.	.15
90	BO-158526	Condenser—mica 100 mmfd.	.15
91	BO-158527	Condenser—mica 100 mmfd.	.15
92	BO-158528	Condenser—mica 100 mmfd.	.15
93	BO-158529	Condenser—mica 100 mmfd.	.15
94	BO-158530	Condenser—mica 100 mmfd.	.15
95	BO-158531	Condenser—mica 100 mmfd.	.15
96	BO-158532	Condenser—mica 100 mmfd.	.15
97	BO-158533	Condenser—mica 100 mmfd.	.15
98	BO-158534	Condenser—mica 100 mmfd.	.15
99	BO-158535	Condenser—mica 100 mmfd.	.15
100	BO-158536	Condenser—mica 100 mmfd.	.15



NOTE A: The bias for the control grid of the 6V6GT tube is —3.5 volts measured across resistor No. 25.

HOW TO SET UP PUSH BUTTONS ON MODELS SA-41 AND DE41

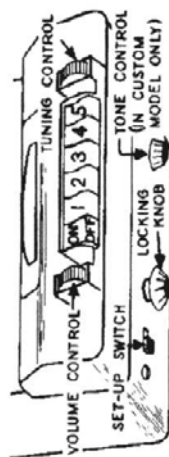
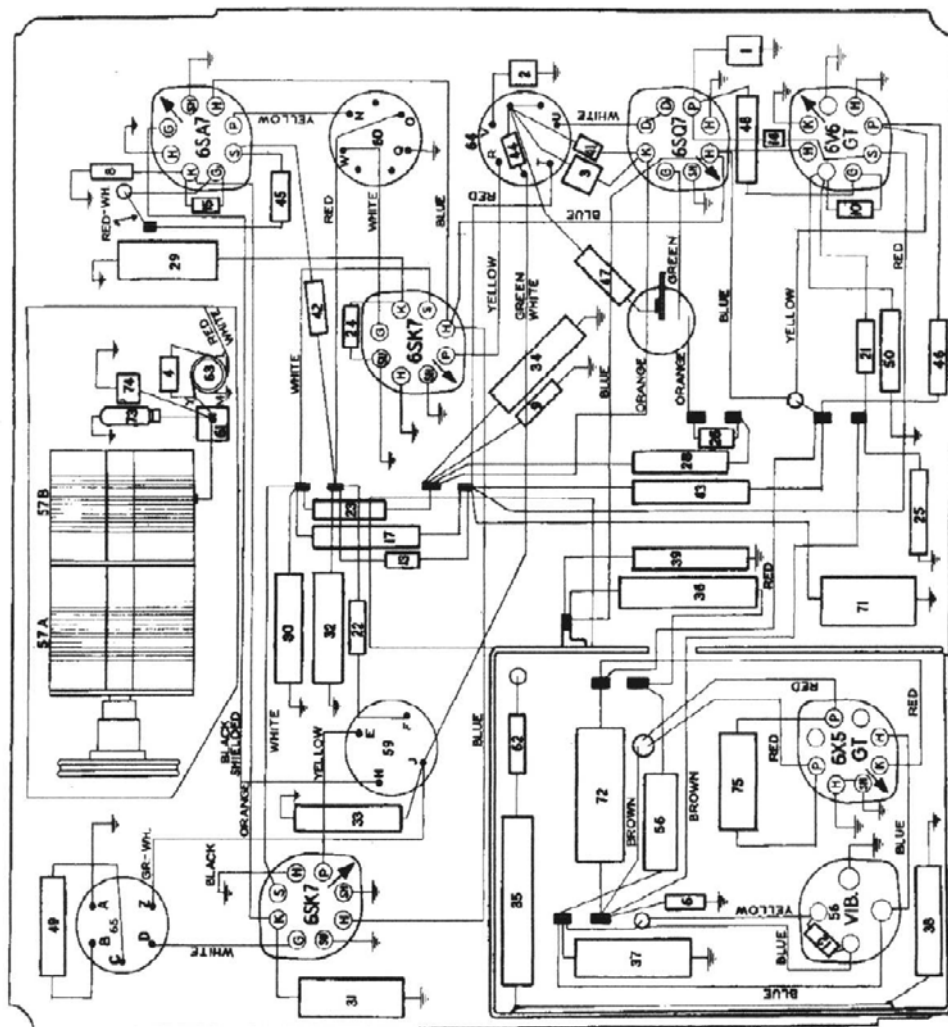
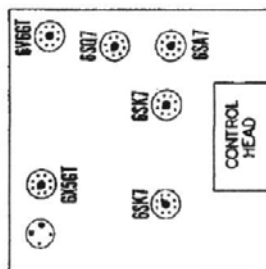


FIG. 4

(Radio must be connected to battery when buttons are operated). Numbered buttons can be set to stations on any part of the dial.

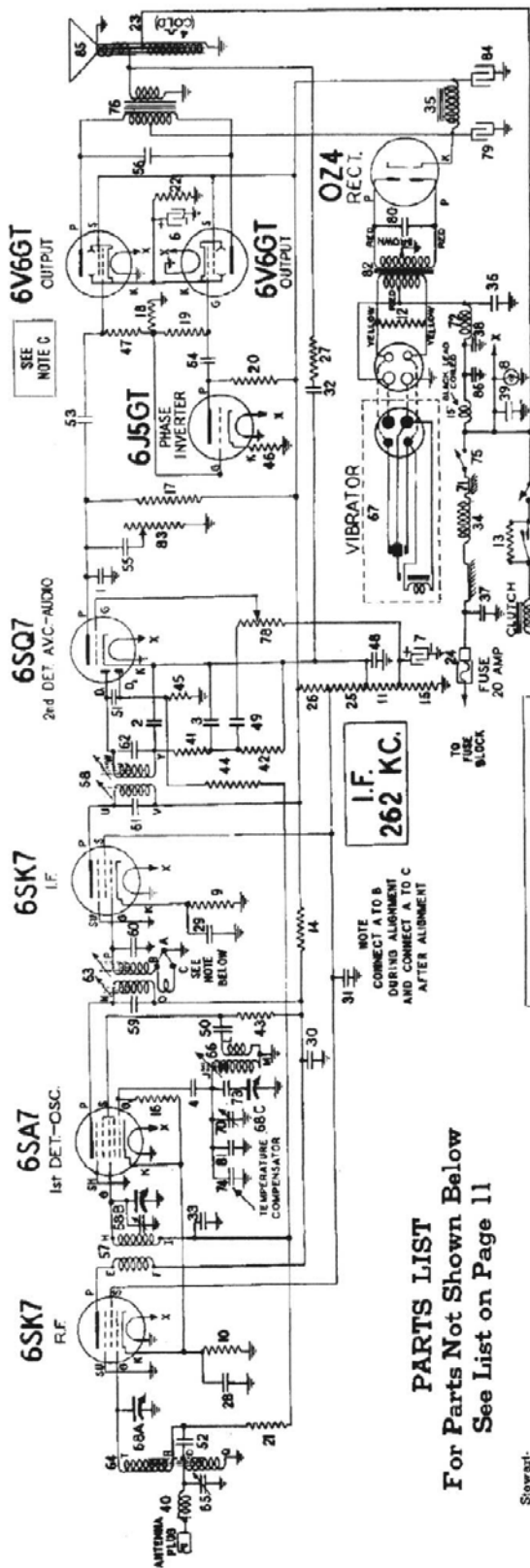
1. Operate set for 10 minutes before set-up.
2. **TO UNLOCK MECHANISM**
 - (a) Rotate tuning control downward until dial pointer is at "RE-SET."
 - (b) Move black set-up switch to right.
 - (c) Push up locking knob and turn counter-clockwise approximately 2 turns, or until slight resistance is felt. Pull locking knob down to disengage.
3. Push in selected button as far as it will go and tune manually to desired station, while holding button in. Release button.
4. Follow same procedure for other buttons. After setting any button, do not touch it again until mechanism is locked as in 5. Otherwise, it must be reset as in 3.
5. **TO LOCK MECHANISM**
 - (a) Rotate tuning control downward until dial pointer is at "RESET."
 - (b) Push up locking knob and turn clockwise as tightly as possible by hand. Pull locking knob down to disengage.
 - (c) Push set-up switch to the left.

MODEL SA-41 TUBE LOCATIONS



Terminals of coils shown in the circuit diagrams on the adjacent page are lettered to correspond to similarly lettered terminals on the chassis wiring diagrams and coil illustrations shown on this page. Terminals which are connected together carry the same letter.

HUDSON AUTOMOBILE RADIO RECEIVER—CUSTOM MODEL DB-41

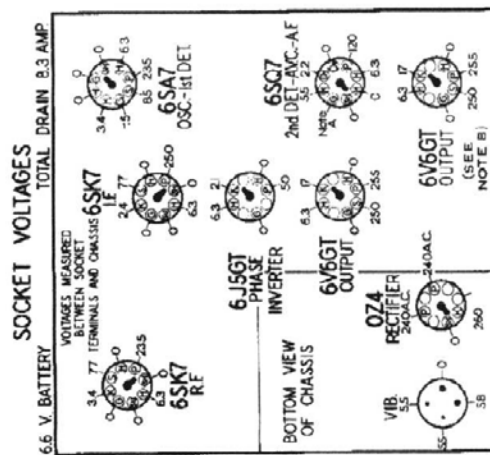


PARTS LIST
For Parts Not Shown Below
See List on Page 11

Diagram Number	Swamp Part	Hudson Part	Description	List Price
1	835 393	BO 158447	Condenser—mics 250 mmd.	\$0.20
2,3	52983	BO 158448	Condenser—mics 10 mmd.	.15
4	52984	BO 158449	Condenser—mics 25 mmd.	.15
5	58025	BO 202570	Switch for "set-up."	.30
6,7	103377	BO 158460	Condenser—electrolytic 10 mld. 35 volt	.60
8	105298	BO 202571	Dial light—6.3 volt.	.15
9, 10-11	125963	BO 158470	Resistor—insulated 330 ohms $\frac{1}{2}$ watt.	.15
12	125976	BO 158471	Resistor—wire wound 200 ohms $\frac{1}{2}$ watt.	.15
13	125980	BO 158463	Resistor—insulated 1000 ohms $\frac{1}{2}$ watt.	.15
15, 17-18	125987	BO 158468	Resistor—insulated 220,000 ohms $\frac{1}{4}$ watt.	.15
19, 20	125993	BO 161477	Resistor—carbon 470,000 ohms $\frac{1}{10}$ watt.	.12
22	142338	BO 158493	Resistor—wire wound 430 ohms 2 watts.	5.00
23, M	150431	BO 170423	Spool—dynamometer	.05
24	150432	BO 170424	Resistor—20 ohms .25 watt.	.05
25	150578	BO 200234	Resistor 27000 ohms 1 watt.	.18
26	150580	BO 200235	Resistor 680 Ohms $\frac{1}{4}$ Watt.	.15
26	150584	BO 200237	Resistor—insulated 27000 ohms 2 watts.	.15
27, 28	150591	BO 200243	Resistor—insulated 6800 ohms $\frac{1}{2}$ watt.	.15
30, 31	150625	BO 161466	Condenser—1 mld. 600 volt.	.25
32	150628	BO 161465	Condenser—.05 mld. 500 volt.	.20
33	172332	BO 161466	Choke coil in "A" line.	.50
34	172334	BO 170772	Filter Choke for "A" line.	.50
35	182334	BO 200202	Condenser—5 mld. 150 volt.	.45
36, 37	182331	BO 200203	Condenser—25 mld. 150 volt.	.32
38, 39	182726	BO 161580	Armature motor noise choke.	.24
40	182829	BO 200239	Resistor—47000 ohms 1/10 watt.	.10
41	182836	BO 200243	Resistor—330,000 ohms 1/10 watt.	.10
42	182837	BO 200244	Resistor—330,000 ohms 1/10 watt.	.10
43	182838	BO 200245	Resistor—330,000 ohms 1/10 watt.	.10
44, 45	182841	BO 200247	Resistor—2,200 ohms $\frac{1}{2}$ watt.	.10
46	182841	BO 200248	Resistor—130,000 ohms $\frac{1}{2}$ watt.	.10
47	182841	BO 200249	Resistor—130,000 ohms $\frac{1}{2}$ watt.	.10
48-49	191933	BO 200206	Condenser—.01 mld. 600 volt.	.15
50, 51	191934	BO 200207	Condenser—.02 mld. 600 volt.	.15
52, 53	191935	BO 200208	Condenser—.03 mld. 600 volt.	.15
54	192436	BO 200212	Condenser—.06 mld. 600 volt.	.15
56	192440	BO 200212	Condenser—.001 mld. 600 volt.	.15

NOTE C: In later sets, 680 ohm resistors (Part No. 116080) are connected in series with each output tube grid. A few sets used 800 ohms.

Stewart Diagram Number	Warner Part Number	Hudson Part Number	Description	List Price
57	160661	BO-200572	Coil—R. F.	1.25
58	160681	BO-200573	Transformer—2nd I.F.	2.20
59	160685	BO-200213	Condenser—mica 1.0 mmd. (9%)	.25
60	160689	BO-200573	Transformer—1st I.F.	2.20
61	160721	BO-200575	Coil—antenna	2.00
62	160735	BO-200214	Condenser—trimmer	1.24
63	160763	BO-200576	Coil—oscillator	3.00
64	160796	BO-200577	Fluxcore—variable range	3.65
65	160805	BO-200515	Coil—1st I.F.	.89
66	160817	BO-200619	Contact switch for clutch	.89
67	160844	BO-200217	Condenser—air trimmer	1.18
68	160848	BO-200218	Condenser—metal clad—0002 mfd.	1.08
69	160859	BO-200219	Condenser—mica 840 mmd.	.45
70	160860	BO-200582	Temperature compensator condenser	.45
71	160869	BO-200583	Choke coil	1.20
72	160898	BO-200585	Output transformer	1.70
73	160917	BO-200645	Clutch case & coil assembly	1.25
74	160954	BO-200588	Volume control—1 megohm	1.00
75	161025	BO-200584	Condenser—electrolytic 10 mfd. 450 volt	.70
76	161101	BO-200227	Buffer condenser—.01 mfd. 500 volts	.25
77	161126	BO-200598	Condenser—mica 2—well primary	4.90
78	161160	BO-200598	Condenser—mica 2—well primary	.75
79	161166	BO-200620	Fuse control—500,000 ohms	.40
80	161188	BO-200229	Condenser—electrolytic 15 mfd. 450 volt	.75
81	161205	BO-200696	Case & voice coil assembly	1.90
82	161205	BO-200696	Case & voice coil assembly	.35
83	161268	BO-158445	Condenser 0021 mfd. mica	.35



... ..

NOTE 3: This socket mounted with keyway in opposite direction in later sets.

Terminals of coils shown in the circuit diagrams on the adjacent page are lettered to correspond to similarly lettered terminals on the chassis wiring diagrams and coil illustrations shown on this page. Terminals which are connected together carry the same letter.

INSTRUCTIONS FOR SETTING UP
PUSH BUTTONS ARE GIVEN ON
PAGE 7.

[illegible]

THIS SOCKET MOUNTED WITH KEYWAY IN OPPOSITE DIRECTION IN LATE SETS

ALIGNMENT PROCEDURE FOR MODELS DB-41 OR SA-41

For alignment an output meter and accurately calibrated signal generator are required.

1. Remove the top and bottom covers of the receiver case.
2. Connect output meter across voice coil or between the plates of the 6V6GT output tubes.
3. Connect the ground lead of the signal generator to the receiver chassis and leave it connected throughout this procedure.
4. Turn volume control to maximum volume position.
5. Check to see that pointer is $\frac{3}{4}$ " from end of dial window (Vol. Control end) when gang condenser is fully meshed.

Dummy Antenna in Series with Signal Generator	Connection of Sig. Gen. output to Receiver	Signal Generator Frequency	Receiver Dial Setting	Trimmer Number	Trimmer Description	Type of Adjustment
I. F. ALIGNMENT FOR MODEL DB-41 ONLY (8 tube Set)						
BEFORE ALIGNING THE I. F. TRANSFORMERS, CONNECT GREEN-WHITE JUMPER LOCATED UNDER 1ST I.F. TRANSFORMER BETWEEN TERMINALS A AND B AS SHOWN IN FIGURE 6.						
.1 MFD. Condenser	To point Marked "X" in Fig. 6	262 KC	Any point where it does not affect the signal.	1-2 (See Figs. 5 & 6)	2ND I.F.	Adjust for maximum output. Reconnect green-jumper (under 1st I. F.) between terminals A and C (see Fig. 6). This must be done before alignment of the rest of the receiver.
				3-4 (See Figs. 5 & 6)	1ST I.F.	
I. F. ALIGNMENT FOR MODEL SA-41 ONLY (6 tube Set)						
.1 MFD. Condenser	To point marked "X" in Fig. 8	455 KC	Any point where it does not affect the signal.	1-2 (See Figs. 7 & 8)	2ND I.F.	Adjust for maximum output. Then repeat adjustment.
				3-4 (See Figs. 7 & 8)	1ST I.F.	
R. F. ALIGNMENT FOR EITHER MODEL SA-41 OR DB-41						
50 MMFD. Mica Condenser	Antenna Connection of Set	1600 KC	Gang condenser completely open. Dial pointer as far to right as possible.	5	Oscillator (Shunt) Condenser	Carefully adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection on Set	1400 KC	Carefully tune to 1400 KC. generator signal.	8 This trimmer used on model DB-41 only (See Fig. 5)	R.F. (Shunt) Condenser	Adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection on Set	1400 KC	Carefully tune to 1400 KC. generator signal.	6	Antenna (Shunt) Condenser	Adjust for maximum output.
50 MMFD. Mica Condenser	Antenna Connection of Set	600 KC	Tune to 600 K.C. generator signal.	7	Adjustable core of oscillator coil.	Adjust for maximum output. Try to increase output by detuning adjusting screw and retuning receiver dial until maximum output is obtained.
NOW REPEAT ADJUSTMENTS MADE ON TRIMMERS 5, 8, 6 AND 7						
After the set had been installed in the car tune in a fairly weak station near 1400 KC. and adjust trimmer No. 6 until maximum volume is reached by removing the plug button at the left front corner of the bottom of the case.						

After the set had been installed in the car tune in a fairly weak station near 1400 KC. and adjust trimmer No. 6 until maximum volume is obtained. This trimmer can be reached by removing the plug button at the left front corner of the bottom of the case.

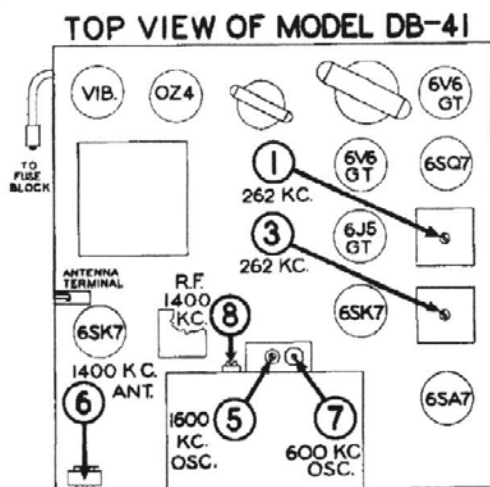


FIG. 5

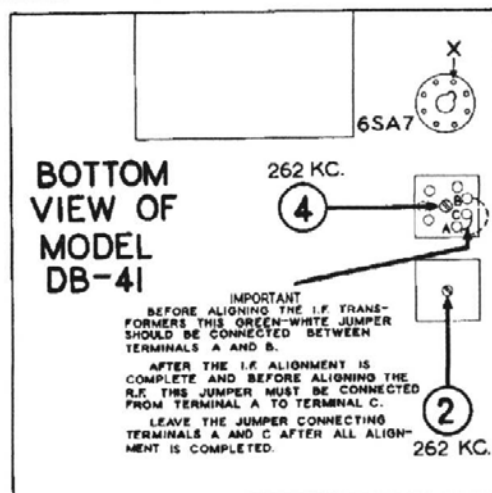
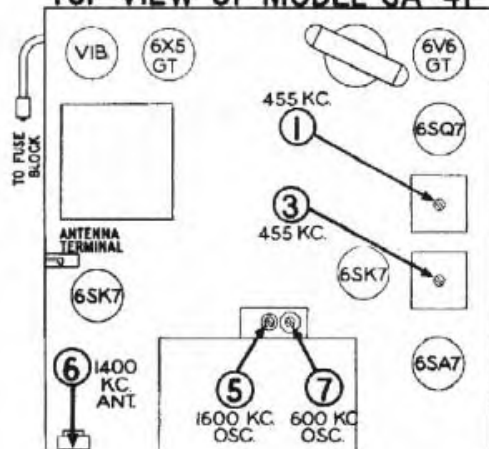


FIG. 6

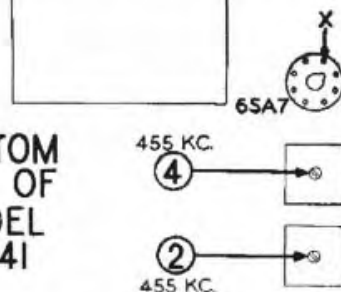
FOR ELECTRICAL PARTS NOT LISTED HERE SEE PAGES 4, 6, AND 8. PARTS LISTED
BELOW ARE USED ON MODELS DB-41, SA-41 AND JA-41 UNLESS OTHERWISE SPECIFIED

Stewart Warner Part Number	Hudson Part Number	Description	List Price	Stewart- Warner Part Number	Hudson Part Number	Description	List Price
TUNING MECHANISM PARTS FOR MODEL JA-41				CASE SECTIONS & MOUNTING PARTS			
83624	BO-200705	Screw—self tapping 8x14 for case	\$0.01	79173	BO-20098	Lockwasher for receiver mtg.	.01
89027	BO-200602	Washer—spring type (for spiral drive shaft)	.01	88319	BO-158551	Screws for mtg. cover (No. 8 x 1/4 S.H.S.)	.02
110413	BO-200690	Pin button—chrome plated	.00	10000	BO-151564	Plug button	.08
111686	BO-200603	Hairpin clip—for dial drum bushing	.01	10303	BO-200659	Ground clip for case	.02
114254	BO-158648	"C" Washer for tuning shafts... For dos.	.10	160794	BO-200691	Gasket—sponge rubber; for speaker cover	.18
114251	BO-161416	Clip—hairpin type—for retaining spiral shaft	.01	160806	BO-200692	Case nose—section around controls (Models DB-41 & SA-41 only)	1.45
116948	BO-200607	Cord—dial drive (supplied in 6 ft. lengths)	.18	160867	BO-200687	"J" bolt for receiver mtg.	.10
117481	BO-200608	Clutch spring—for tuning dial drum	.03	160974	BO-200693	Case Nose section around controls (Model JA-41 only)	1.45
117466	BO-200609	Dial drive drum (less scale)	.25	160999	BO-200688	Wing nut for receiver mtg.	.03
160824	BO-200820	Escutcheon for dial face	.80	161102	BO-200694	Receiver case (Model DB-41 only)	3.00
160993	BO-200650	Retainer spring for spiral drive shaft (acts as threaded for spiral shaft)	.10	161114	BO-200685	Bottom cover for case (Model DB-41 & SA-41 only)	1.20
161036	BO-200653	Set Screw for spiral shaft retainer collar	.04	161115	BO-200696	Bottom cover for case (Model JA-41 only)	1.20
161065	BO-200659	Knob—push on	.12	161119	BO-200697	Speaker cover & gasket (Model JA-41 only)	1.30
161070	BO-200670	Dial scale and mounting disc	.36	161122	BO-200698	Receiver case—wrap around section (Model JA-41 only)	3.00
161071	BO-200671	Flexible tuning shaft & support bracket	.50	161133	BO-200699	Receiver case—wrap around section (Model SA-41 only)	3.00
161073	BO-200672	Frame & coil shield assembly for tuner	.62	161136	BO-200700	Speaker cover & gasket (Model SA-41 only)	1.30
161074	BO-200673	Slide bar for tuning core	.08	161180	BO-200701	Speaker cover & gasket (Model DB-41 only)	1.30
161075	BO-200674	Spiral drive shaft & collar for tuner	.27	SPEAKER & SPEAKER PARTS			
161166	BO-200676	Socket & bracket for dial lamp	.08	U-115121	BO-200681	Speaker dynamic 8" (Model JA-41 only)	3.80
161272	BO-200685	Spring—dial cord tension	.03	M-115122	BO-200682	Speaker—dynamic—8" (Model SA-41 only)	4.50
TUNING MECHANISM & DIAL PARTS FOR MODELS DB-41 OR SA-41				M-115123	BO-200683	Speaker—dynamic—8" (Model DB-41 only)	5.80
81145	BO-200601	Retaining clip—for drive wheels & gears Per C.	.50	160782	BO-200684	Cone & Voice coil for M-115121 speaker	1.60
111981	BO-200604	Anti-backlash spring for clutch (on body of clutch)	.03	161186	BO-200685	Cone & Voice coil for M-115122 speaker	1.80
112138	BO-200704	Set Screw—8/32 slotted head	.03	161189	BO-200686	Cone & Voice coil for M-115123 speaker	1.90
113178	BO-158821	Cord—dial (supplied in 4 ft. lengths)	.30	SUPPRESSOR EQUIPMENT			
114324	BO-158526	Spring—tension—for dial cord	.03	114325-A	BO-151399	Distributor suppressor (10,000 ohm)	.46
114501	BO-200606	Special mtg. nut for "Unlock" knob	.10	114454	BO-152021	Condenser—filter—for temperature gauge	.50
118279	BO-200642	Set screw for clutch retainer collar	.02	114455	BO-181402	Condenser—filter—for gas gauge	.50
150602	BO-200610	Push button—"1"	.16	114456	BO-152022	Condenser—filter—for generator	.60
160603	BO-200611	Push button—"on-off"	.16	118717	BO-170304	Screw—No. 8 self tapping (for mtg. grd. strip)	.02
160604	BO-200612	Push button—"2"	.16	118718	BO-161417	Grounding strip for motor hood	.02
160605	BO-200613	Push button—"3"	.16	161221	BO-200210	Condenser for ignition hood—5 mfd. 150 volt	.50
160606	BO-200614	Push button—"4"	.16	MISCELLANEOUS COMMON PARTS			
160607	BO-200615	Push button—"5"	.16	83319	BO-158497	Fuse insulator tube	.02
160611	BO-200616	Escutcheon for push buttons	1.00	88362	BO-158500	Vibrator socket (4 prong)	.14
160612	BO-200617	Lockup screw (Phillips screw)	.06	114283	BO-188504	Clamp—for vibrator	.12
160613	BO-200618	Trip rod—actuates clutch switch	.32	116049	BO-170420	Fuse—20 amp. 25 volt	.06
160617	BO-200619	Contact switch for clutch	.90	116690	BO-161494	Socket—octal base	.12
160625	BO-200621	Escutcheon for dial scale	.54	118237	BO-161410	"A" cable & fuse housing	.24
160631	BO-200622	Pointer for dial	.07	118768	BO-200706	Screw for mtg. push button escutcheon to base nose (No. 8-32 F.H.S.)	.01
160632	BO-200623	Clip—retainer for dial scale	.02	160984	BO-200891	"A" cable & bracket (in chassis)	.12
160634	BO-200624	Spring for push button return (on escutcheon)	.02				
160635	BO-200625	Rod for mtg. push buttons to escutcheon	.03				
160641	BO-200626	Switch—on-off	1.20				
160648	BO-200627	Tuner frame & gear studs	.80				
160676	BO-200627	Spring—between cams (phosphor bronze)	.03				
160677	BO-200628	Cam for tuner mechanism (on main shaft)	.06				
160678	BO-200629	Spacer between cams	.07				
160680	BO-200630	Spring washer on cam shaft (black steel)	.02				
160683	BO-200631	Wedge bracket for locking cams (U shaped—on cam shaft)	.10				
160684	BO-200632	Pin for locking cams (on shaft)	.05				
160685	BO-200633	Cam shaft only (factory must make replacement)	.40				
160688	BO-200634	End plate & dial cord pulley	.26				
160691	BO-200635	Sector gear for condenser drive	.25				
160695	BO-200636	Bushing & bush for cam levers	.20				
160698	BO-200637	Volume control wheel & pinion gear	.25				
160902	BO-200638	Tuning wheel & pinion gear	.30				
160904	BO-200639	Pinion gear—on gang shaft	.32				
160907	BO-200640	Drum for cord drive—with counter weight & set screw (for DB-41 only)	.80				
160912	BO-200641	Knob—"Unlock"	.80				
160914	BO-200643	1st intermediate pinion & gear (long hub)	.55				
160915	BO-200644	2nd intermediate pinion & gear (short hub)	.55				
160919	BO-200645	Clutch case & coil assembly	1.25				
160923	BO-200646	Clutch pressure plate (copper plated)	.18				
160926	BO-200647	Clutch face & gear	.50				
160930	BO-200648	Torsion spring for clutch switch trip rod	.05				
160953	BO-200649	Cup gear on volume control shaft	.07				
160955	BO-200650	Retainer collar for clutch	.12				
160966	BO-200652	Cam lever with pulley—upper right (on clutch end)	.26				

TOP VIEW OF MODEL SA-41



BOTTOM VIEW OF MODEL SA-41



ADDITIONAL SERVICE DATA

REPLACEMENT OF TUBES

In order to replace tubes the entire receiver case must be removed from its mounting back of the dash. Then remove the speaker section of the case cover and the tubes will be accessible.

In order to remove the 6SA7 tube from Model DB-41 or SA-41, first remove the case cover and the case nose and take out the 6SK7 I.F. tube. Then remove the 6SA7 from its socket and tilt it sideways so that you can slide it back between the I.F. transformer and tuner mechanism.

EXCESSIVE IGNITION NOISE

Refer to paragraph No. 18 of Installation Instructions on page 3 if ignition noise is excessive.

TUNER TROUBLES AND REMEDIES

1. SET TUNES IMPROPERLY: Receiver will not tune in stations accurately with push buttons.

(a) Push buttons incorrectly set-up. Reset buttons as explained on page 7, being sure to tune in stations carefully after set has been turned on at least 10 minutes.

(b) Mechanism improperly "locked up." Read paragraph 5 under "How to Set Up Push Buttons" (page 7) and be sure the set-up knob is turned clockwise as tightly as possible.

(c) Cams slipping—impossible to "lock up" tight enough to hold cams permanently. To check for this effect first lock up as tightly as possible as explained in above paragraph, then hold the dial cord drive drum stationary and using a screwdriver, apply pressure on the edge of any cam to see if it will slip with respect to its shaft. If slipping occurs, unlock the mechanism and place a shim (thin horseshoe shaped washer) between the black spring washer (located next to the last cam on the end of the mechanism) and the cam spacer. Do not use too thick a shim as it will be impossible to loosen the cams sufficiently to set up stations. The correct thickness is that which will allow the cams to be tightly locked-up and yet will be sufficiently free when unlocked to set-up the push buttons.

(d) Check to see that all set screws are securely tightened, especially the ones in the hub of the dial cord drive drum.

(e) The model DB-41 (8 tube) set has a broad band pass 1st I.F. transformer which if improperly connected may cause excessively sharp tuning, this may result in improper tuning when using push buttons. The correct connection of this transformer for normal operation is shown in Fig. 6 on page 10. Terminals A and C must be connected together.

2. IMPOSSIBLE TO TUNE SET WITH PUSH BUTTONS: If you cannot tune in stations by using the push buttons or if the push buttons are very hard to push in, and if the Manual tuning control turns when a button is pushed, one of the following remedies will apply:—

(a) Make sure set is connected to battery and is turned on.

(b) Push button set-up switch (small black switch on bottom of case) is in wrong position. It must be to the LEFT for normal operation.

(c) Contacts of clutch switch (located under tuning wheel) not closing when a button is pushed in. These contacts must "make" as soon as the button starts in but must be open when the buttons are all out.

(d) Open circuit in clutch wiring. Make continuity check. The clicking sound of the clutch disengaging can be heard when a button is pushed in.

(e) Clutch spacing incorrect. See THIRD paragraph under "Slipping Clutch" (below) for checking for correct clutch spacing.

3. IMPROPER MANUAL TUNING—SLIPPING CLUTCH. If turning the tuning wheel fails to tune in stations or the gang condenser movement is erratic when the tuning wheel is rotated it may indicate one or more of the following troubles:—

(a) **SLIPPING CLUTCH:** The set up knob must be pulled out from the case as far as possible, since if the knob were pushed in it would engage the cam shaft and prevent free rotation. Check the contacts on the clutch switch (located under the tuning wheel) to see that they remain open when all the push buttons are in the "out" position. Failure of these contacts to stay open while tuning manually means that the clutch will be disengaged and of course it will be impossible to tune manually under these conditions. Adjust this switch so that it only makes contact when a button is depressed.

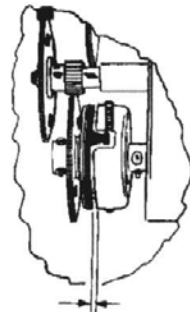
Slipping may also be due to mechanical binding at the bearing areas on the ends of the main cam shaft or due to some obstruction around the dial drive drum. To check for this type of binding depress one of the push buttons very slightly (do not push all the way in but only until a click is heard, indicating the clutch is disengaged). Now attempt to rotate the dial drive drum and see where the binding actually occurs. If it is found after checking all of the above points that the clutch continues to slip, it may be due to improper spacing of the clutch or a defective clutch compression spring.

First check the clutch spacing by observing the clearance between the copper plated clutch pressure plate and the steel housing of the clutch with all push buttons in out position. (See Fig. 10). This clearance must be between 10 and 15 thousandths of an inch (the average business card is 10 to 15 thousandths and when cut in the shape of a horseshoe it will make an adequately accurate gauge); it must be this shape so that both sides of the clutch are gauged simultaneously. If the clutch setting is incorrect, release the two set screws on the clutch body (between clutch and mechanism end plate) place gauge in correctly as just described, and push clutch housing against the pressure plate until tight. Retighten set screws securely and remove gauge. If this adjustment fails to correct the slipping, the clutch compression spring should then be checked.

The clutch compression spring is located between the sections of the clutch pressure plate. To reach it, first remove the large center gear and then remove the 6SA7 tube. Remove the anti-backlash springs on the clutch and then release the set screws holding the collar next to the large brass gear at the end of the cam shaft. Remove the brass drive gear and the copper plated clutch pressure plate. The defective or weak clutch compression spring can now be replaced. In replacing the clutch pressure plate, main drive gear and retaining collar, be sure to slip the copper plated clutch pressure plate over the shoulder on the shaft, then push the brass gear tightly against this shoulder and lock in position with the retaining collar. Recheck the clearance as described in the previous paragraph.

(b) **BACKLASH:** Check to see if the anti-backlash springs are compressed in each of the large brass gears as well as the sector gear on the left. This compression should be equivalent to the amount obtained by a displacement of two gear teeth between sections of each gear. Also check to see that both of the anti-backlash springs on the clutch are in place and that set screws on the clutch as well as the dial drum are tightened securely.

4. STICKING BUTTONS: If it is found that any of the push buttons stick, it is quite often possible to cure the trouble by removing and stretching the springs located on the keys, directly under the buttons. Buttons that stick due to burrs or rough spots on the keys should be corrected by smoothing such burrs and rough spots. When it is found that buttons stick because of excessive pressure of the $\frac{1}{8}$ " diameter clutch contact bar against the keys, loosen the screws on the plates holding this bar in position and re-adjust. When this bar is properly adjusted, it should fit in the notches in the keys, but should not exert pressure against them when all buttons are out. At the same time, the end of this bar should just touch but not exert pressure against the clutch release switch. The screw holding the clutch release switch can be loosened to permit slight adjustment of the position of this switch.



**CLEARANCE
.010 TO .015
WITH POWER OFF.**

FIG. 10

HOW TO REPLACE DIAL CORD ON MODELS SA-41 AND DB-41

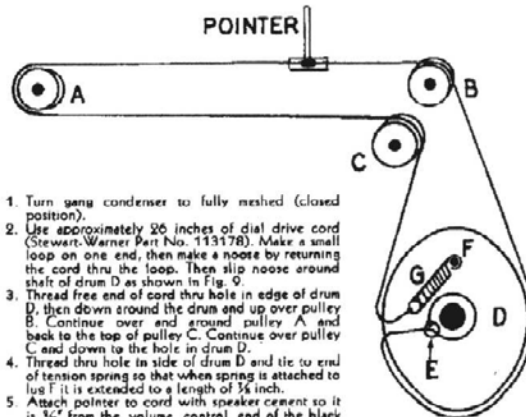


FIG. 9

1. Turn gang condenser to fully meshed (closed position).
2. Use approximately 26 inches of dial drive cord (Stewart-Warner Part No. 113178). Make a small loop on one end, then make a noose by returning the cord thru the loop. Then slip noose around shaft of drum D as shown in Fig. 9.
3. Thread free end of cord thru hole in edge of drum D, then down around the drum and up over pulley B. Continue over and around pulley A and back to the top of pulley C. Continue over pulley C and down to the hole in drum D.
4. Thread thru hole in side of drum D and tie to end of tension spring so that when spring is attached to lug F it is extended to a length of $\frac{3}{8}$ inch.
5. Attach pointer to cord with speaker cement so it is $\frac{1}{8}$ " from the volume control end of the black dial background when the variable condenser is fully meshed.

DEALER

1941

ACCESSORY
AND SUPPLIES GROUP

INSTALLED
NET PRICE LIST

REVISED APRIL 14th, 1941

HUDSON MOTOR CAR COMPANY
DETROIT, MICHIGAN

PRINTED IN U S A

DEALER INSTALLED PRICE LIST

Part Number	Name	Installed Price	Dealer Net
HA-160348	*Antenna—Standard—60"	\$ 4.90	\$ 2.55
HA-160519	*Antenna—Optional—90"	4.90	2.55
HA-200249	Antenna—Vacuum Operated.....	10.00	5.69
HA-162659	*Battery Filler—Automatic.....	4.95	2.76
HA-147988	Bumper Wing Kit (Set of 4), (Model 11 with Commodore Bumper).....	5.00	2.93
HA-148190	Cigarette Lighter.....	2.60	1.35
HA-163294	*Cowl Ventilator Dust Filter.....	1.25	.65
HA-200292	Clock—Electric.....	13.50	8.35
HA-147959	Deck Guard—Models 12 and 14.....	6.50	3.90
HA-147996	Deck Guard—Models 10P and 11.....	6.50	3.90
HA-161909	*Defroster Kit—With Heaters 160293-4.....	4.25	2.44
HA-163237	Defroster Kit—With Heaters 163239 on 1940 and 1941 Cars.....	4.25	2.44
HA-163298	Direction Indicator—Painted.....	13.75	8.13
HA-163299	Direction Indicator—Plated.....	13.75	8.13
HA-48647	*Exhaust Deflector.....	1.00	.60
HA-123031	*Fender Guides—Pair.....	2.50	1.63
HA-201063	Fender Lamps.....	10.90	5.85
HA-200314	Fender Moulding Kit (for 4 Fenders).....	7.50	4.23
HA-147876	*Fog Lamps.....	12.75	7.15
HA-128397	Fog Lamp—Single Installation Kit.....		1.00
HA-150638	*Gas Tank Locking Cap.....	1.50	.90
HA-142997	*Grille and Fender Guard—Models 10P and 11.....	11.60	7.12
HA-147958	Grille Guard—Models 12 to 15.....	6.50	3.90
HA-141850	*Headlamp Sealed Beam Unit.....	1.10	.66
HA-163239	*Heater—Recirculating.....	17.35	9.57
	Lots of 12—Each (Freight Prepaid).....		8.62
	With Defroster.....	21.45	
HA-161900	Heater—Weather-Master—Brown.....	33.50	20.54
HA-161901	Heater—Weather-Master—Gray.....	33.50	20.54
HA-161902	Heater—Weather-Master—Green.....	33.50	20.54
	Orders for Weather-Master may be combined with other models to obtain quantity discount on Re-circulating.....		
HA-163851	Hill-Hold—All 1941 Models.....	11.85	6.24
HA-163431	Hub Cap Kit—Custom—Models 10, 11 and 18—Set of 4.....	10.25	6.50
HA-115526	*License Plate Frames.....	1.50	.90
HA-148166	License Plate Guards—Front Bumper—Models 10P and 11.....	2.75	1.63
HA-148167	License Plate Guards—Front Bumper—Models 12 to 17.....	2.75	1.63
HA-161378	*Locker Box Light Kit.....	1.00	.49
HA-114539	*Mirror—Vanity.....	1.00	.60
HA-129119	*Mirror—Oval—Rear View.....	1.50	.98
HA-200128	*Mirror—Door Mounting—Rear View—Interchangeable R. & L. H.....	2.25	1.46
HA-161040	*Oil Filter.....	7.25	3.90
HA-161007	*Oil Filter Cartridge.....	1.00	.65
HA-200293	Radiator Grille Cover.....	1.75	.98
HA-200294	Radiator Insect Screen.....	1.50	.81
HA-200202	Radio—Junior—Each.....	29.50	18.10
HA-200200	Radio—DeLuxe.....	46.50	25.35
HA-200201	Radio—Custom.....	63.50	35.55
	Note: Installed prices quoted include either 60" or 90" manually operated Antenna. When Vacuum Antenna is installed, add to installed price.....	6.50	
HA-200470	Running Board Moulding Kit—Side only—Model 10.....	2.00	.98
HA-200471	Running Board Moulding Kit—Complete—Model 10.....	15.00	8.78
HA-200472	Running Board Moulding Kit—Side only—Model 11.....	2.00	.98
HA-200473	Running Board Moulding Kit—Complete—Model 11.....	15.00	8.78
HA-200162	Seat Covers—Front—Models 10, 11, 12 and 14 Sedan and 3-passenger Coupe..	7.25	4.39
HA-200163	Seat Covers—Rear—Models 10, 11, 12 and 14—Brougham and Sedan.....	7.25	4.39
HA-200156	Seat Covers—Front—Models 10, 11, 12, 14 and 15—Brougham and Club Coupe, Model 15—3-passenger Coupe.....	7.25	4.39
HA-200174	Seat Covers—Front—Model 17 Sedan except 7-passenger.....	9.75	6.01

*Applicable to previous year's cars.

Prices subject to change without notice

Part Number	Name	Installed Price	Dealer Net
HA-200179	Seat Covers—Rear—Model 17 Sedan except 7-passenger.....	\$ 9.75	\$ 6.01
HA-200178	Seat Covers—Rear—All Club Coupes except 15.....	7.25	4.39
HA-200168	Seat Covers—Rear—Model 15 Club Coupe.....	9.75	6.01
HA-202220	Sleeper Kit.....	18.75	11.38
HA-157052	*Spark Plug—C-7 } Retail price—Each.....	.65	
HA-157053	*Spark Plug—J-5 } 4 or more.....	.59	
HA-157054	*Spark Plug—J-9 } Less than 10.....		.45
	(Replaces J-8) } 10 to 99.....		.41
HA-157055	*Spark Plug—H-10 } 100 to 499.....		.37
HA-157056	*Spark Plug—7 } 500 or more.....		.34
	Dealers holding Champion Franchises will continue to buy at contract prices.		
HA-147877	*Spot Light—L. H.....	15.50	9.43
HA-147878	*Spot Light—R. H.....	15.50	9.43
HA-161999	Steering Wheel and Horn Ring Kit.....	14.50	9.10
HA-163290	Vacumotive Drive—6-cylinder—Without Overdrive.....	30.00	19.50
HA-163590	Vacumotive Drive—6-cylinder—With Overdrive.....	30.00	19.50
HA-163292	Vacumotive Drive—8-cylinder—Without Overdrive.....	30.00	19.50
HA-163591	Vacumotive Drive—8-cylinder—With Overdrive.....	30.00	19.50
HA-200784	Venetian Sun Shade.....	4.60	2.99
HA-134990	*Visor—R. H. Swivel.....	3.00	1.65
HA-134991	*Visor—L. H. Swivel.....	3.00	1.65
HA-134987	*Visor—R. H. Hinged.....	2.25	1.20
HA-152687	*Wheel Trim Rings—15".....	1.75	1.11
HA-156273	*Wheel Trim Rings—16".....	1.75	1.11
HA-141819	*Windshield Wiper Blades—8½" long—Laminated.....	.45	.29
HA-142398	*Windshield Wiper Blades—8¾" long—Laminated.....	.45	.29
HA-122528	*Windshield Wiper Blades—8½" long—Molded.....	.45	.29
HA-136456	*Windshield Wiper Blades—8¾" long—Molded.....	.45	.29
	All Wiper Blades Shipped in Assorted Lots of 12 with Display Card.		

SHOP AND OWNER SUPPLIES

Part Number	Name	Installed Price	Dealer Net
HA-129368	*All Purpose Cleaner—Quarts.....	\$ 1.25	\$.81
HA-129365	*All Purpose Cleaner—Gallons.....		2.95
HA-157838	*Anti-Freeze Fluid—Quart Can.....	.25	.1625
HA-157839	*Anti-Freeze Fluid—Gallon Can.....	1.00	.60
HA-157840	*Anti-Freeze Fluid—54 Gallon Drum.....	54.00	29.16
HA-136419	*Chrome Polish—4 oz. Can—Package of 12 Cans.....	.50	.33
HA-160671	*Clutch Compound—Hudsonite—6 oz. Can (carton of 12 cans) (12 cartons per case)—Per Can.....	.25	.15
HA-151961	*Clutch Compound—Hudsonite—Case of 12 Quarts—Per Quart.....	.75	.45
HA-151962	*Clutch Compound—Hudsonite—Case of 6 Gallons—Per Gallon.....	2.25	1.35
HA-151963	*Clutch Compound—5 Gallon Drum.....		6.00
HA-47567	*Gasket Paste—Perfect Seal—2 oz. Tube—Case of 36 Tubes—Per Tube.....	.55	.36
HA-47568	*Gasket Paste—Perfect Seal—5 oz. Tube—Case of 12 Tubes—Per Tube.....	1.00	.65
HA-119902	*Hand Rubbing Compound—Gallon.....		1.25
HA-151967	*Hydraulic Brake Fluid No. 21—Case of 12 Quarts—Per Quart.....	1.25	.94
HA-151968	*Hydraulic Brake Fluid No. 21—Case of 5 Gallons—Per Gallon.....	4.25	3.19
HA-162016	Hydraulic Top Lift Fluid—Per Pint.....	.30	.20
HA-118680	*Polish and Cleaner—Case of 12 Pints—Per Pint.....	.60	.36
	(4 Cases) (48 Pints)—Per Pint.....		
HA-118681	*Polish and Cleaner—Case of 4 Gallons—Per Gallon.....	2.75	1.79
HA-118682	*Polish-Wax Base—Case of 12 Pints—Per Pint.....	.75	.45
	(4 Cases) (48 Pints)—Per Pint.....		
HA-118683	*Polish-Wax Base—Case of 4 Gallons—Per Gallon.....	4.50	2.93
HA-118684	*Pre-Wax Cleaner—Case of 12 Pints—Per Pint.....	.60	.36
	(4 Cases) (48 Pints)—Per Pint.....		
HA-118685	*Pre-Wax Cleaner—Case of 4 Gallons—Per Gallon.....	2.75	1.79
HA-111684	*Radiator Cleaner and Inhibitor—Combination Package—Carton of 12—Per Package.....	.50	.33
HA-151964	*Shock Absorber Fluid—Case of 12 Quarts—Per Quart.....	.60	.36
HA-151965	*Shock Absorber Fluid—Case of 6 Gallons—Per Gallon.....	1.50	.90
HA-151966	*Shock Absorber Fluid—5 Gallon Can.....		3.60
HA-111685	*Spot Remover—Case of 12 Pints—Per Pint.....	.75	.45
	(4 Cases) (48 Pints)—Per Pint.....		
HA-111939	*Wax—7 oz. Can—Case of 12 Cans—Per Can.....	.60	.36
	(4 Cases) (48 Cans)—Per Can.....		
HA-119849	*Wax—1 lb. Can—Case of 12 Cans—Per Can.....		.60
	(4 Cases) (48 Cans)—Per Can.....		

*Applicable to previous year's cars.

Prices Subject to Change Without Notice

1940 AND PREVIOUS

Part Number	Name	Installed Price	Dealer Net
HA-155999	Defroster Kit—With Heaters 163239 on 1937, 1938, 1939 Cars.....	\$ 4.25	\$ 2.44
HA-140928	Radiator Grille Cover—1940 Cars.....	1.50	.98
HA-136403	Radiator Grille Cover—1939 "112".....	1.50	.98
HA-136404	Radiator Grille Cover—1939, all except "112".....	1.50	.98
HA-140929	Radiator Insect Screen—all 1940 cars.....	1.25	.81
HA-136405	Radiator Insect Screen—1939 "112".....	1.25	.81
HA-136538	Radiator Insect Screen—1939, all except "112".....	1.50	.98
HA-161659	Radio Antenna Vacuum Operated.....	9.50	5.53
HA-142613	Seat Covers—Front Custom—Models 40-41-44 Sedan, 3-Pass. Cpe.....	9.12	5.36
HA-142614	Seat Covers—Front Custom—Models 43-47 Sedan.....	9.62	5.69
HA-142615	Seat Covers—Front Custom—All 2-Door Sedans and Vict. Cpe.....	9.25	5.36
HA-142616	Seat Covers—Rear Custom—Models 40-41-44 Sedans.....	8.88	5.36
HA-142617	Seat Covers—Rear Custom—Models 43-47 Sedans.....	9.75	5.69
HA-142637	Seat Covers—Front DeLuxe—Models 40-41-44 Sedan and 3-Pass. Cpe.....	6.00	3.41
HA-142638	Seat Covers—Front DeLuxe—40-41-44 2-Door Sedan and Vict. Cpe.....	6.00	3.41
HA-142639	Seat Covers—Rear DeLuxe—Model 40-41-44 All Sedans.....	5.75	3.41

DISPLAYS AND POSTERS

Part Number	Name	Installed Price	Dealer Net
HA-200266	Hudson Approved Accessories Sign (F.O.B. Lima, Ohio).....		\$12.90
HA-200475	Accessory Display Board (F.O.B. Aurora, Illinois).....		11.00
HA-137367	Hudson Authorized Accessories Sign—Illuminated.....		10.25
HA-137366	Hudson Authorized Accessories Sign—Non-Illuminated.....		5.50
	Supplies Display Wire Rack.....		N/C
	Radio Display Stand.....		N/C
	Anti-Freeze Poster.....		N/C
	Oil Filter Poster.....		N/C
	Hudsonite Display Card.....		N/C
	Wiper Blade Display Card.....		N/C
	Automatic Battery Filler Display.....		N/C