

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT									
To set pointer turn tuning cap. fully closed and set pointer parallel with base of dial. If alignment of both AM and FM channels is required it is necessary to align the AM channel first.									
Loop should be maintained in same relative position to chassis as when receiver is in cabinet.									
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	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS	ADJUST	REMARKS
1 .1 MFD	High side to pin 7 (Grid) of 12A7. Low side to chassis. (Loop must be connected).	455KC	Center position	Tuning cap. fully open. Voice coil AS/A4 put.	"	A1, A2	Adjust for maximum output.	A1, A2	Adjust for maximum output.
2 250 MFD	High side to external antenna clip. Low side to chassis. (Loop must be connected).	1500KC	"	1500KC	"	A5	"	A5	"
3 250 MFD	"	1500KC	"	Tune for max. output.	"	A5, A7	"	A5, A7	"
4 250 MFD	"	600KC	"	"	"	A8, A9	"	A8, A9	"
FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM									
Dress FM circuit leads as short and straight as possible, particularly those in the oscillator circuit. If plate and grid leads should also be kept short and straight.									
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS	ADJUST	REMARKS
5 .01 MFD	High side to pin 7 (Grid) of 12A7. Low side to chassis.	10.7MC (400 Amp. Mod)	Fully counter-clockwise.	Tuning cap. fully open.	Connect DC probe to point common to chassis.	A10, A11, A12, A13, A14	Adjust for maximum deflection.	A10, A11, A12, A13, A14	Adjust for maximum deflection.
6 .01 MFD	High side to pin 7 (Grid) of 12A7. Low side to chassis.	10.7MC (400 Amp. Mod)	Fully counter-clockwise.	Tuning cap. fully open.	DC probe to point common to chassis.	A15	Adjust for zero deflection. Note that as A15 is rotated a point will be found where the deflection will be from positive to negative or vice versa. This is a critical adjustment and misalignment will lead to distortion of FM signal.	A15	Adjust for zero deflection. Note that as A15 is rotated a point will be found where the deflection will be from positive to negative or vice versa. This is a critical adjustment and misalignment will lead to distortion of FM signal.
7 3000 carbon resistor	High side to ungrounded FM ant. side to chassis.	108KC	"	108KC	DC probe to point common to chassis.	A16	Adjust for maximum deflection. The 108KC signal will be received at two different settings of A16. Select the setting which is nearest the low capacity end of its range. (See prealignment notes.)	A16	Adjust for maximum deflection. The 108KC signal will be received at two different settings of A16. Select the setting which is nearest the low capacity end of its range. (See prealignment notes.)
8 3000 carbon resistor	High side to ungrounded FM ant. side to chassis.	108KC	Fully counter-clockwise.	Tune for max. deflection.	DC probe to point common to chassis.	A17	Adjust for maximum deflection.	A17	Adjust for maximum deflection.
9 3000 carbon resistor	"	"	"	"	"	A13, A14	Recheck for maximum deflection.	A13, A14	Recheck for maximum deflection.

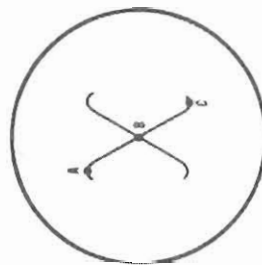


FIG. 1

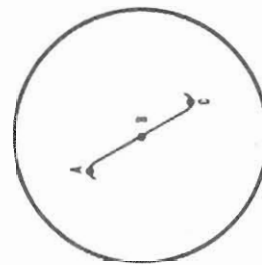
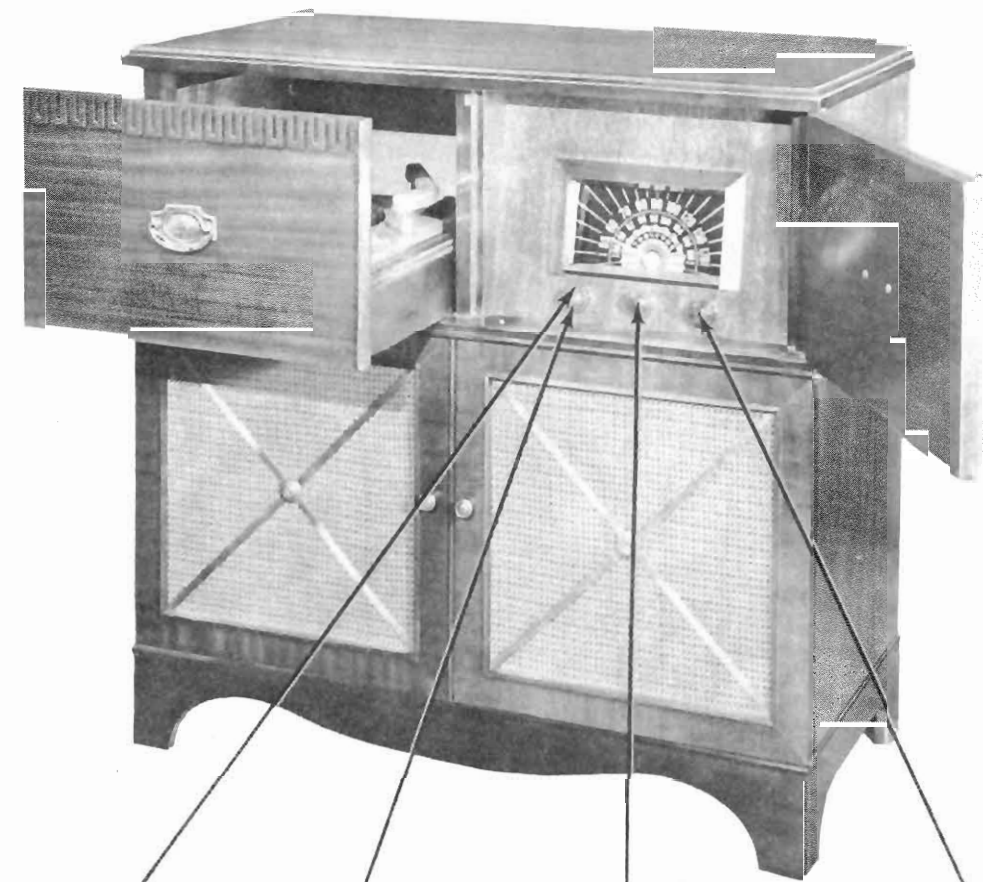


FIG. 2

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE									
If the internal sawtooth generator (12A7) of the scope is used for horizontal deflection, a pattern similar to that of Fig. 1 should be obtained. If the properly phased 60V sine wave sync voltage from the FM signal generator is used for horizontal deflection, a pattern similar to that in Fig. 2 should be obtained.									
Use frequency modulated signal with 60V modulation and 40KC sweep.									
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	SCOPE CONNECT	ADJUST	REMARKS	ADJUST	REMARKS
5 .01 MFD	High side to pin 7 (Grid) of 12A7. Low side to chassis.	10.7MC (Freq. Mod.)	Fully counter-clockwise.	Tuning cap. fully open.	Vertical input to point common to chassis.	A15	Adjust A10 thru A14 for maximum output audibly. Adjust A15 for centering of B on pattern per Fig. 1 or Fig. 2 depending on type of sweep used.	A15	Adjust A10 thru A14 for maximum output audibly. Adjust A15 for centering of B on pattern per Fig. 1 or Fig. 2 depending on type of sweep used.
6 .01 MFD	"	"	"	"	"	A10, A11, A12, A13, A14	Adjust for maximum amplitude and steepness of curve between A & C per Fig. 1 or Fig. 2.	A10, A11, A12, A13, A14	Adjust for maximum amplitude and steepness of curve between A & C per Fig. 1 or Fig. 2.
7 3000 carbon resistor	High side to ungrounded FM ant. side to chassis.	108KC	"	108KC	"	A16	Adjust for centering of point B of pattern per Fig. 1 or Fig. 2.	A16	Adjust for centering of point B of pattern per Fig. 1 or Fig. 2.
8 3000 carbon resistor	"	"	"	Tune to center point B.	"	A17, A18	Adjust for maximum amplitude of pattern per Fig. 1 or Fig. 2.	A17, A18	Adjust for maximum amplitude of pattern per Fig. 1 or Fig. 2.
9 3000 carbon resistor	"	"	"	"	"	A13, A14	Recheck for maximum amplitude of pattern per Fig. 1 or Fig. 2.	A13, A14	Recheck for maximum amplitude of pattern per Fig. 1 or Fig. 2.

PHOTOFACT* Folder

TRUETONE
MODELS D1949, D1952



TONE CONTROL

VOLUME CONTROL
ON-OFF SWITCH

TUNING CONTROL

BAND
PHONO-SWITCH

TRUETONE, MODEL D1949

TRADE NAME Truetone, Models D1949, D1952

SUPPLIER Western Auto Supply Co., 2107 Grand Ave., Kansas City, Mo.

TYPE SET AC Operated Combination Phono-Radio, AM-FM Superheterodyne Receiver with Loop Ant.

TUBES (EIGHT) Types 6A05 RF Amp., 12A7 Converter, 6BA6 1st IF Amp., 6BA6 FM 2nd IF Amp., 6AL5 FM DET-AVC- 6SQ7 AM DET-AVC-AF, 6V6GT Power Output, 5Y3GT Rectifier

POWER SUPPLY 105-125 Volts AC RATING .65 Amp. @ 117 Volts AC

TUNING RANGE-BROADCAST 540-1700KC FREQ. MOD. 88-108 MC

HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

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DATE 4/49 498-20 SET #60 FOLDER 20

TRUETONE
MODELS D1949, D1952

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		TRANSISTOR PART No.	STANDARD REPLACEMENT		
1	RF AMP.	6A05	6A05	7BD	
2	Converter	12A77	6A05		
3	1st IF AMP.	6B10	12A77	7BK	
4	2nd IF AMP.	6B18	6B16	7BK	
5	FM DET-AVC	6A15	6A15	6BT	
6	FM DET-AVC-AF	6A15	6A15	6BT	
7	Power Output	6V80T	6V80T	8Q	
8	Rectifier	6Y20T	6Y20T	7AC	
				5T	

PARTS LIST AND DESCRIPTIONS (Continued)

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA			INSTALLATION NOTES
		TRISTORE PART No.	JENSEN PART No.	GUAM PART No.	
83	FIELD PM 3.68SQ	C-502464	SP-120 T MOD P10-S	10431	↑ Replace output transformer to match 6-8Ω voice coil.
84	GEN. DIA. 9 5/8"	VC DIA. 3 1/4"			

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	TRISTONE PART No.	AEROVOX PART No.	CORNING DUBLIN PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
9A	40	508908	AF868314A	2F43145A		DY-406	EL-424	● Filter.
B	450							▲ Filter.
C	20							▲ Filter.
D	25							Cathode By-pass.
10	50	504937	PS8150-4	BR4116		M-4-450	T4-55	Stabilizing Cap.
11	50	512256	484-01	TR781		ST-6-01	TC-11	Line Filter.
12	60	512016	484-705	TR703	GP2M-006	ST-6-05	TC-25	Output plate By-pass.
13	60	512016	484-02	TR782	GP2M-006	ST-4-02	TC-12	Audio Coupling.
14	600	512006	684-705	TR703	GP2M-006	ST-6-05	TC-25	Audio Coupling.
15	600	512006	684-705	TR703	GP2M-006	ST-6-05	TC-25	Audio Coupling.
16	1	512034	484-1	TR781		ST-4-1	TC-1	AF Plate Decoupling.
17	1	512006	684-005	TR703	GP2M-006	ST-6-05	TC-25	Tone Compensation.
18	0.03	512004	684-003	TR702	GP2M-003	ST-3-003	TC-23	De-emphasis.
19	0.05	512026	484-08	TR783	GP2M-003	ST-3-003	TC-23	AVC Filter.
20	200	512009	484-01	TR781	GP2-235-01	ST-4-01	TC-15	Cathode By-pass.
21	01	508340	1468-0001	SW71	GP1K-100	MO-5-31	1P4-31	AF Plate By-pass.
22	100	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	Tone Compensation.
23	5000	508341	1468-0002	SW73	GP2K-200	MO-5-31	1P4-31	FM Det. Diode RF Filter.
24	330	508340	1468-0001	SW71	GP1K-100	MO-5-31	1P4-31	AF Plate By-pass.
25	100	508340	1468-0001	SW71	GP1K-100	MO-5-31	1P4-31	AF Plate By-pass.
26	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	2nd IF Plate Decoupling.
27	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	2nd IF Screen By-pass.
28	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	Final IF By-pass.
29	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	AVC Diode RF Filter.
30A	100	Note	1468-0001	SW71	GP1K-100	MO-5-31	1P4-31	AVC Filter.
30B	400		1468-0001	SW71	GP1K-100	MO-5-31	1P4-31	1st IF Plate Decoupling.
31	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	1st IF Screen By-pass.
32	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	AVC Filter.
33	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	Final IF By-pass.
34	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	AVC Filter.
35	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	2nd IF Plate Decoupling.
36	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	2nd IF Screen By-pass.
37	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	Final IF By-pass.
38	5000	508544	1468-0004	SW73	GP2K-200	MO-5-41	1P4-41	Oscillator Feedback.
39	100	508544	1468-0004	SW73	GP2K-200	MO-5-41	1P4-41	Osc. Feedback. ± 10%.
40	300	513429	1468-0005	SW73	GP2K-200	MO-5-41	1P4-41	Osc. Feedback. ± 10%.
41	330	508341	1468-0002	SW73	GP2K-200	MO-5-41	1P4-41	Osc. Feedback. ± 10%.
42	39	513409	1468-0004	SW73	GP2K-200	MO-5-41	1P4-41	Osc. Feedback. ± 10%.
43	1	504983	1468-0004	SW75	GP1K-50	MO-5-45	1P4-45	Osc. Grid Cap. ± 5%.
44	5	504906	1468-0005	SW75	GP1K-50	MO-5-45	1P4-45	RF Coupling. ± 10%.
45	47	504974	1468-0005	SW75	GP1K-50	MO-5-45	1P4-45	Fixed Trimmer. ± 10%.
46	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	AF Plate By-pass.
47	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	2nd IF Screen By-pass.
48	5000	508573	1467-0005	1DS6	GP2M-005	MO-5-25	1P4-25	Final IF By-pass.
49	47	504974	1468-0005	SW75	GP1K-50	MO-5-45	1P4-45	AF Cathode By-pass.
50	22	504973	1468-0005	SW75	GP1K-50	MO-5-45	1P4-45	RF Coupling.

Note: Items number 30A & B and 61 are combined into one unit obtainable under Hfrs. p. 506338.

PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	TRIP POINT	IBC PART No.	CLAROSTAT PART No.	
50A B	2 Yag. 200KΩ	1 1/2	506616			Volume control and switch tapped @ 400K. Tone control entered together.

RESISTORS

ITEM No.	RATING		PERFORMANCE DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	TRUSTONE PART No.	IRC PART No.	
61	47KΩ	1/2	S10067	B7S-47K	Y1-V1-Or.
62	82Ω	1/2	S10017	B7S-47K	Gray-Red-Blk.
63	33KΩ	1/2	S10154	B7S-33K	Or-Or-Or.
64	100KΩ	1/2	S10137	B7S-100K	Br-Blk-Red.
65	1800Ω	1/2	S10041	B7S-1800	Br-Gray-Red.
66	100Ω	1/2	S10137	B7S-100K	Br-Blk-Red.
67	1KΩ	1/2	S10055	B7S-10K	Br-Blk-Or.
68	100Ω	1/2	S10137	B7S-100K	Br-Blk-Red.
69	39KΩ	1/2	S10165	B7S-39K	Or-White-Or.
70	100Ω	1/2	S10137	B7S-100K	Br-Blk-Red.
71	47KΩ	1/2	Note	B7S-47K	Y1-V1-Or.
72	47KΩ	1/2	S10085	B7S-47K	Red-Red-Orn.
73	2.2 KΩ	1/2	S10093	B7S-2.2 Meg.	AVC Network.
74	39KΩ	1/2	S10165	B7S-39K	Or-White-Or.
75	100Ω	1/2	S10137	B7S-100K	Br-Blk-Red.
76	18KΩ	1/2	S10059	B7S-18K	Br-Gray-Or.
77	820Ω	1/2	S10063	B7S-820Ω	Gray-Red-Red.
78	820Ω	1/2	S10063	B7S-820Ω	Gray-Red-Red.
79	2.2KΩ	1/2	S10070	B7S-22KΩ	Red-Red-Y1.
80	68KΩ	1/2	S10070	B7S-68K	Blue-gray-Or.
81	68KΩ	1/2	S10070	B7S-68K	Blue-gray-Or.
82	1.5 Meg.	1/2	S10089	B7S-1.5 Meg.	Br-Orn-Blau.
83	2.2 Meg.	1/2	S10093	B7S-2.2 Meg.	Red-Red-Orn.
84	22KΩ	1/2	S10079	B7S-22KΩ	Red-Red-Y1.
85	47KΩ	1/2	S10065	B7S-47KΩ	Y1-V1-Y1.
86	330Ω	1/2	S10129	BM-1-330	Or-Or-Br.
87	47Ω	1/2	S10063	BM-1-47	Or-Or-Br.
88	60Ω	1/2	S10063	AB-60Ω	Y1-V1-Blk.
89	60Ω	1/2	S10063	AB-60Ω	Y1-V1-Blk.
90	2.2 Meg.	1/2	S10093	B7S-2.2 Meg.	Red-Red-Orn.

Note: Items #61 and 30A & B are combined into one unit obtainable under Mfrs. Pt. #506338.

Note: Items #61 and 30A & B are combined into one unit obtainable under Mfrs. Pt. #506338.

TRANSFORMER (POWER)

ITEM No.	RATINGs				REPLACEMENT DATA			
	PRI	SEC. 1	SEC. 2	SEC. 3	TRISTOR PART No.	STANCOR PART No.	CHICAGO PART No.	HERIT PART No.
81	117 VAC 5.4 VAC	680 VOT 5.4 VAC	063 ATC 5.4 VAC	6.8 VAC 2.04	506709	P-4012	PH-80	P-2952

TRANSFORMER (OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		QUICKSTONE PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
B2	54709	3.65Ω	525Ω	.4Ω	QSG12	A-3840	RO-0 *	A-2502	* Drill one new mounting hole.

