

RECEIVER PARTS LIST AND DESCRIPTIONS (Continued)

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	ELMCO PART No.	MALLOY PART No.	SPRAGUE PART No.
C3	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C4	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C5	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C6	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C7	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C8	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C9	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C10	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C11	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C12	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C13	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C14	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C15	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C16	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C17	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520
C18	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	10TS-T47
C19	0.02	-80-20%	BPD-02	DD-203	BYB652	CCD-203	58K-520

CONTROLS

ITEM No.	USE	RESISTANCE	EMERSON PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLOY PART No.
R1	Sensitivity	50000	390502	TT-10, or (BX-10)	A47-5000-S, ESR-3	BU-114, TMA or BU-11, CFB, 980 †	PTA53L, or (U14)

RESISTORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA	ITEM No.	RATING	REMARKS
R2	10K			R17	2.2meg	
R3	100K			R18	2.2meg	
R4	100K			R19	2.2meg	
R5	4700			R20	2.2meg	
R6	2.2meg			R21	2.2meg	
R7	100K			R22	10K	1W
R8	4700			R23	10K	1W
R9	100K			R24	150	2W
R10	4700			R25	2200	1W
R11	47K			R26	15000	1W
R12	470K			R27	150K	1W
R13	470K			R28	47K	1W
R14	2.2meg			R29	47K	1W
R15	47K			R30	33K	
R16	2.2meg					

* Alternate Value

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA	ITEM No.	REMARKS
L1	40KC Interstage			
L2	Discriminator			

MISCELLANEOUS

ITEM No.	PART NAME	EMERSON PART No.	NOTES
M1	Transducer	825004A	
M2	Relay		
M3	Relay		

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord Use BELDEN No. 8534 (Stranded) Available in 12 Colors
Power Cord Use BELDEN No. 1708 (Plastic) or 1712 (Rubber) - 8 Ft.
Power Cord (Interlock Type) Use BELDEN No. 1709 (Plastic) or 1712 (Rubber) - 9 Ft.

TRANSISTOR

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA	NOTES
			GENERAL ELECTRIC PART No.	RAYTHEON PART No.
X3	2N408	Oscillator	GE-2	2N408 PNP, Emerson Part #610068

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	EMERSON PART No.	AEROVOX PART No.	REPLACEMENT DATA	SPRAGUE PART No.
				CONRAD ELECTRIC PART No.	MALLOY PART No.
C20	10	10	PTT-39	NLW10-25 MTI-5	TT15X10

FIXED CAPACITORS

ITEM No.	BATING	REMARKS	REPLACEMENT DATA	ITEM No.	BATING	REMARKS
			AEROVOX PART No.	CENTRALAB PART No.	ELMCO PART No.	MALLOY PART No.
C21	0.05	-80-20%	BPD-005	DD-503	BYA1005	CCD-503
C22	0.05	-80-20%	BPD-005	DD-503	BYA1005	CCD-503
C23	22	-45%	14681S-22	DD-220	CM-2B-220K	MS-422
C24	22	-45%	14681S-22	DD-220	CM-2B-220K	MS-422
C25	8-40	-10%				

RESISTORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA	ITEM No.	RATING	REMARKS
			EMERSON PART No.	WORKMAN PART No.	IRC PART No.	REMARKS
R31	10K					

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA	ITEM No.	REMARKS
			EMERSON PART No.	WORKMAN PART No.
L3	Disc.		73B85	

BATTERIES

ITEM No.	VOLTAGE	EMERSON PART No.	BURGESS PART No.	REPLACEMENT DATA	NOTES
				EVEREADY PART No.	MALLOY PART No.
M4	4.2V	81830	B163	E163	TE183

MISCELLANEOUS

ITEM No.	PART NAME	EMERSON PART No.	NOTES
M5	Switch		
M6	Push-button Tuner Control	925007	
M7	Transducer		

EMERSON REMOTE CONTROL RECEIVER 471345, TRANSMITTER 471346

SET 639 FOLDER 2-A



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement

DATE 6-63

SET 639 FOLDER 2-A

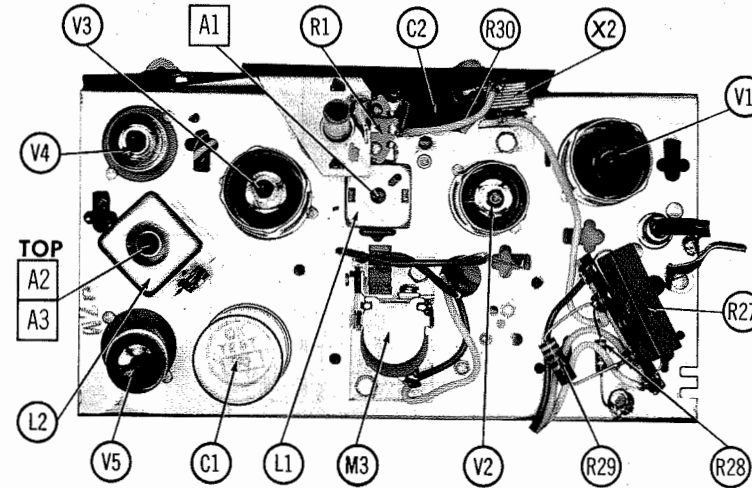
PHOTOFACT® Folder

with CIRCUITRACE®

EMERSON REMOTE CONTROL RECEIVER 471345, TRANSMITTER 471346

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 639 FOLDER 2. File this Folder with the TV Folder in the yellow filing jacket provided.



TUBES
TRANSISTOR
POWER SUPPLY
RATING

Five (Remote Control Receiver)
One (Remote Control Transmitter)
110-120 Volts AC, 60 Cycle (Remote Control Receiver)
4.2V Battery (Remote Control Transmitter)
Remote Control Receiver: 20 Watts, .4 Amp. @ 117 Volts
Remote Control Transmitter: 37ma. @ 4.2Volts

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

Allow a 20 minute warm-up period for the receiver and test equipment.
Use only enough generator output to provide a usable indication.
Suggested Alignment Tools: A2, A3 GENERAL CEMENT #8282, 8606, 8606L, 9295, 9440
WALSCO #2526, 2543, 2544, 2545
A1 GENERAL CEMENT #8607, 9291, 9294
WALSCO #2520, 2522, 2523, 2524, 2534, 2537, 2538

REMOTE CONTROL RECEIVER ALIGNMENT

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
1.	High side to Point (B). Low side to chassis.	40KC	DC Probe to Point (A). Common to Chassis.	A1	Adjust for maximum output.
2.	"	"	DC Probe to Point (C). Common to Point (D).	A2, A3	"
3.	"	"	DC Probe to Point (E). Common to Chassis.	A3	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Retouch Steps 1 and 2.

REMOTE CONTROL TRANSMITTER ALIGNMENT

The Remote Control Receiver must be properly aligned before proceeding with the transmitter alignment.
Check batteries for proper voltage of at least 4.2 volts.
Connect a DC Probe of a VTVM to Point (B). Common to chassis. Adjust A4 for maximum deflection.
Place Transmitter unit approximately 15 feet from front of Receiver Transducer and alternately depress Volume and Channel Switch while slowly increasing the distance between Transmitter and Receiver.
If either switch ceases to operate, adjust A5 until normal operation resumes. If adjustment of A5 was required, readjust A4 for maximum deflection.

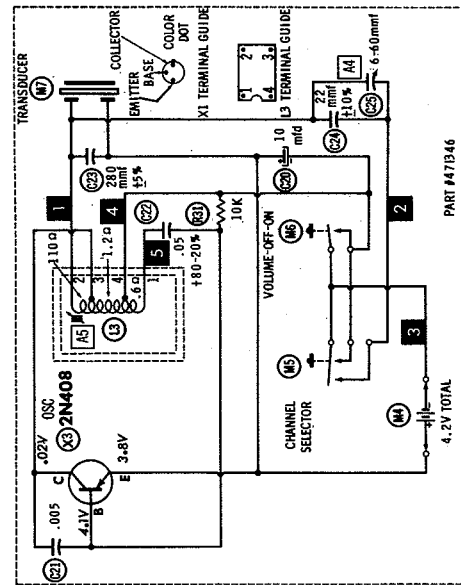
HOWARD W. SAMs & CO., INC. Indianapolis 6, Indiana

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EMERSON REMOTE CONTROL RECEIVER 471345, TRANSMITTER 471346

SET 639 FOLDER 2-A



RESISTANCE READINGS							
TEAM	TUBE	Pin1	Pin 2	Pin 3	Pin 4		
V1	12AX7A	*100K	10K	470 Ω	0 Ω		
V2	12AM6	3.2meg	0 Ω	15 Ω	22 Ω		
V3	19X8	0 Ω	3.2meg	*5500 Ω	22 Ω		
V4	12AL5	2meg	2.4meg	40 Ω	33 Ω		
V5	35C5	0 Ω	3.8meg	40 Ω	55 Ω		

TEAM	TUBE	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AX7A	15 Ω	*100K	2.2meg	0 Ω	NC
V2	12AM6	*800 Ω	*100K	*8 Ω		
V3	19X8	33 Ω	0 Ω	480K	*50K	*200 Ω
V4	12AL5	1.5meg	0 Ω	2.4meg		
V5	35C5	NC	*11K	*3000 Ω		

THE READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.
 NC = NO CONNECTION
 MEASURED FROM OUTPUT OF X1

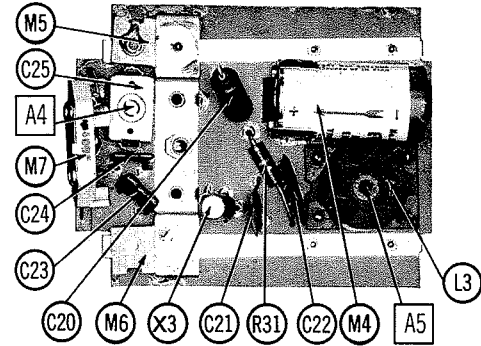
V5	35C5	NC	• 11K	• 3000Ω
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• THIS READING WILL VARY, CONTROL SET FOR NORMAL OPERATION.

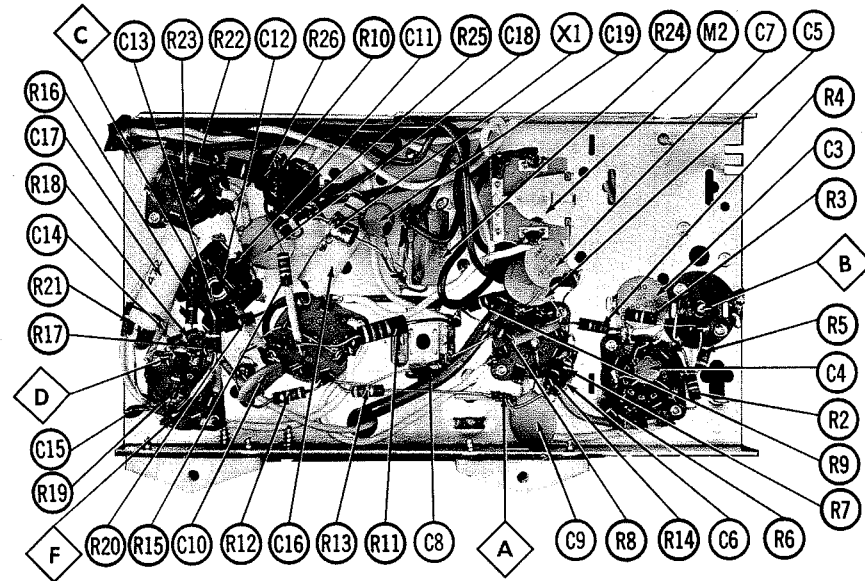
• MEASURED FROM OUTPUT OF X1. NC NO CONNECTION

A PHOTOFAC STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**

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TRANSMITTER



RECEIVER—BOTTOM VIEW

TUBES

AMPEREX			GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
V1	40KC Amp.	12AX7A		V4	Discriminator	12AL5		V4	Discriminator	12AL5	
V2	40KC Amp.	12AU6		V5	Volume Relay Control	35C5		V5	Volume Relay Control	35C5	
V3	Limiter-Channel Relay Control	19X8									

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKS TARZIAN PART No.	RAYTHEON PART No.	
X1	.025A	817086	1N3194	40H		Silicon Selenium
X2	.001A	817084	1N3193	Model 10		

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	EMERSON PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
CLA	80	175	①	PWH3-13-70		XC3-45.1			TVL83454.8
B	100	175							
C	40	160							
C2	25	50		SRE50V10	NLW25-50	MT1-12	TT50X35	MLV25-50	TE-1306

① Some versions may use a 40mfd, 100mfd, 80mfd @ 160V (Part #925492).

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

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**EMERSON REMOTE CONTROL RECEIVER 471345,
TRANSMITTER 471346**

FOLDER 2-A