

SONY®

STR-6065

USA Model Only

No. 1
Jun. 1971

SERVICE MANUAL SUPPLEMENT

Subject: Changes on Model STR-6065

1. INTRODUCTION

SONY has changed the Model STR-6065's front end and a-m conv./i-f amplifier section to improve its electrical performance. In addition, some transistors are changed in the power amplifier section.

2. DESCRIPTION OF THE MODIFICATIONS

2-1. NEW FRONT END

To obtain more stable reception, a new front end with a dual gate MOS FET (3SK37) is incorporated. The mounting and schematic diagrams of new front end are given on page 7 and 8.

Part Number	Description
8-982-572-11	New Front End (FAF-020 AW)

Interchangeability

New and old front ends are mutually interchangeable.

Applicable Serial Numbers

803,701 and later

2-2. NEW A-M CONV./I-F AMPLIFIER

To obtain more stable reception in strong signal areas, a new circuit is employed. The mounting and schematic diagrams of the new circuit are given on page 4 to 6.

Note: This circuit is identical with the a-m conv./i-f amplifier section employed in Model STR-6045 except for reference numbers.

Part Number	Description
8-982-572-81	Mounted circuit board (a-m conv./i-f amplifier)

Interchangeability

New and old circuit boards are mutually interchangeable.

Applicable Serial Numbers

804,201 and later

2-3. PARTS CHANGED

- (1) Some transistors employed in the power amplifier have been changed. Only the new transistors are available for repair work.

Reference Numbers	Former Type	New Type
Q701(Q751), Q702(Q752)	2SA621	2SA705
Q707(Q757)	2SA610	2SA677
Q802	2SA621	2SA706

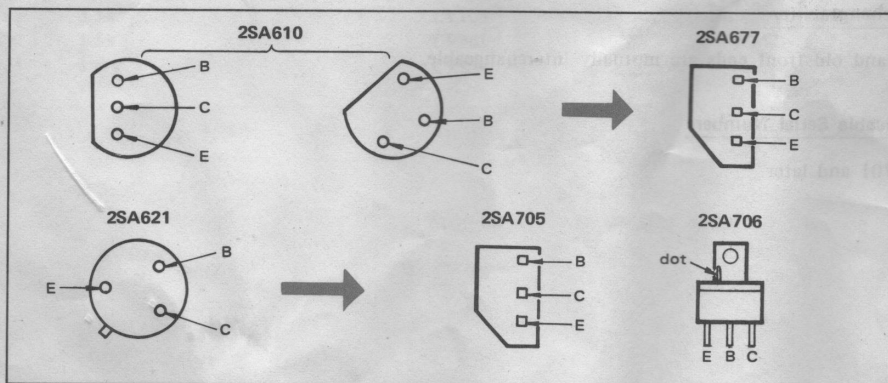


Fig. 1. Former and new type transistors

Interchangeability

New and old type transistors are mutually interchangeable.

Applicable Serial Numbers

805,001 and later

- (2) Power-supply diode D804 for the tuner section was changed to increase the current-supply capability.

Former Ref. Number	Former Type	New Ref. Numbers	New Type
D804	CD-2	D818, D819	10D-2

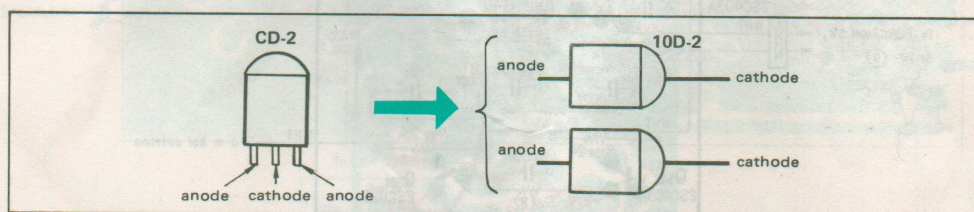


Fig. 2. Former and new type diodes

Interchangeability

New and old type diodes are mutually interchangeable.

Applicable Serial Numbers

805,001 and later

2.4. PARTS ADDED

Additional capacitors are now connected across filter capacitors C811 and C812.

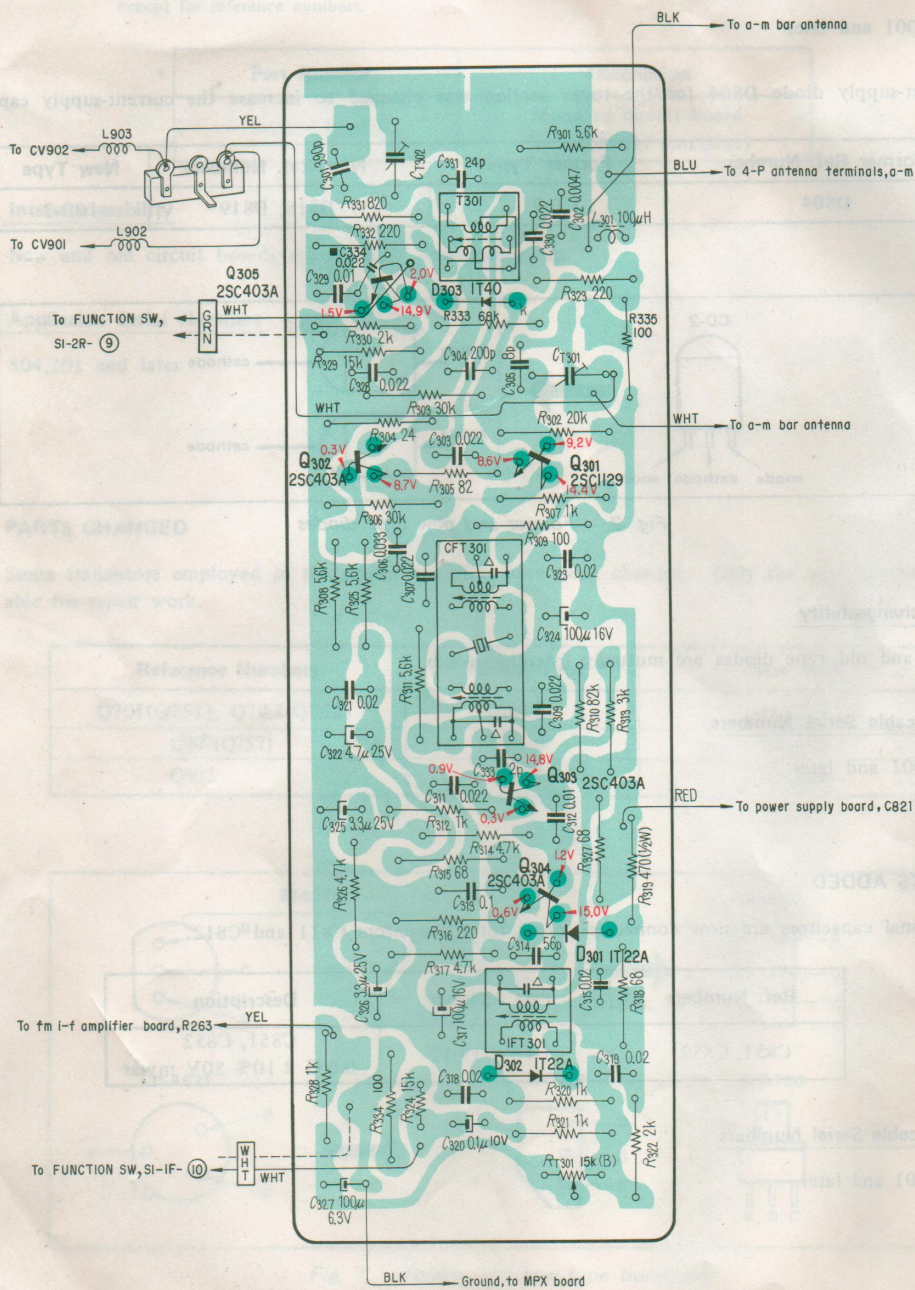
Ref. Numbers	Part Number	Description
C851, C852	1-105-719-12	C851, C852 0.033 $\pm$ 10% 50V mylar

Applicable Serial Numbers

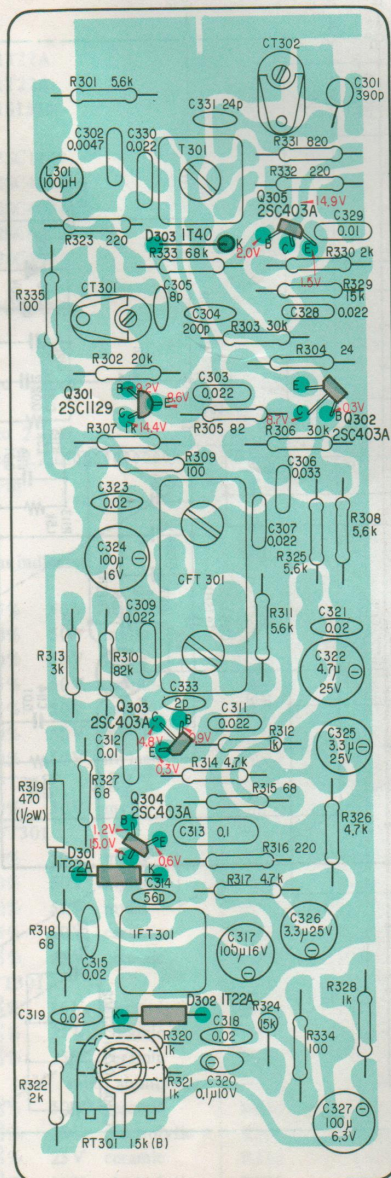
805,001 and later

2.5. MOUNTING DIAGRAM - A-m I-f Board -

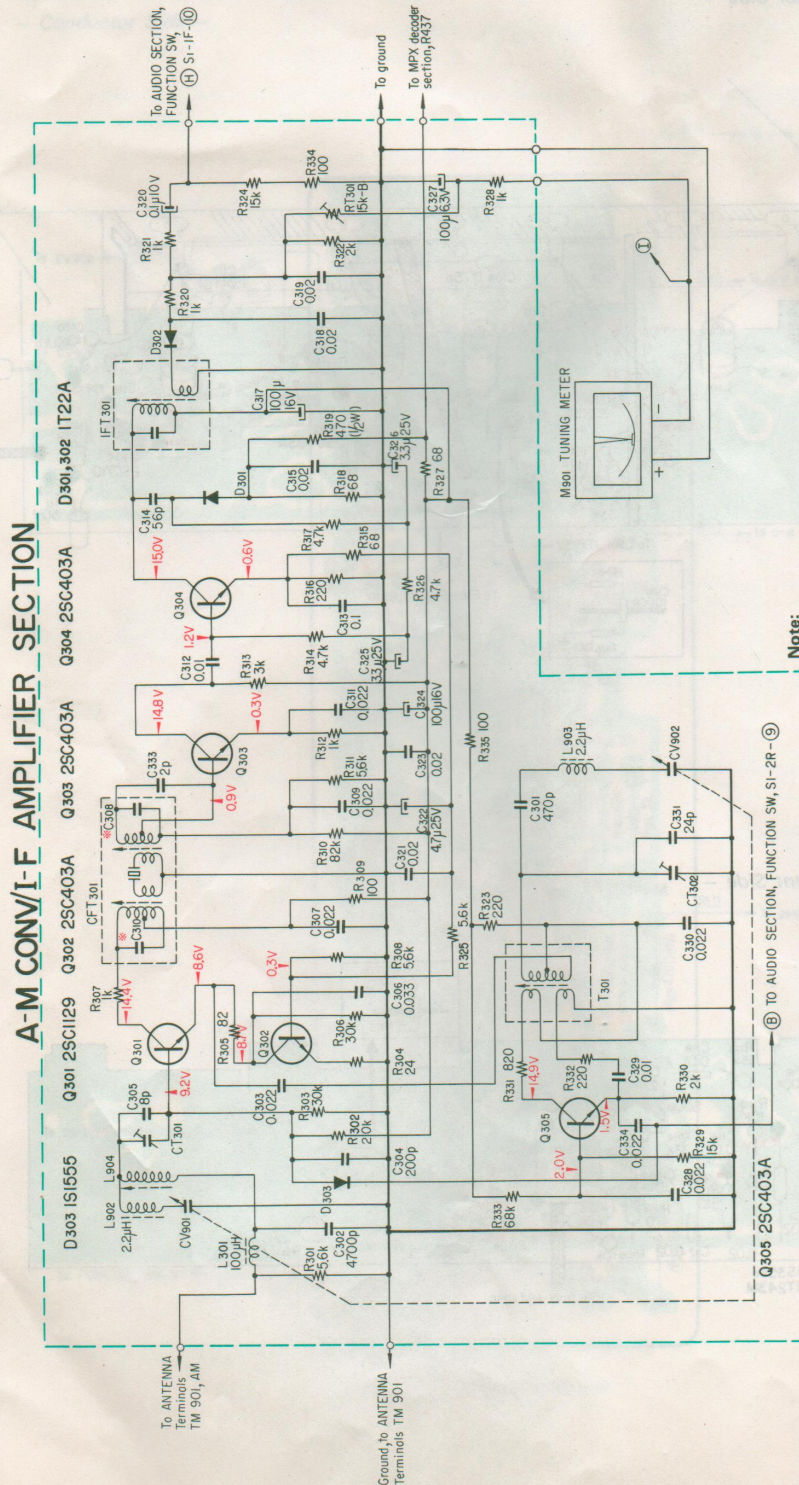
- Conductor Side -



— Component Side —



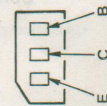
2-6. SCHEMATIC DIAGRAM - A-m I-f Section -



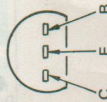
Note:

All resistance values are in ohms. $k = 1,000$, $M = 1,000$ k
All capacitance values are in μF except as indicated with p,
which means μF .
All voltages represent an average value and should hold
within $\pm 10\%$.
All voltages are dc measured with a VOM which has an
input impedance of 20 k ohms/volt. No signal in.

2SC403A



2SC1129

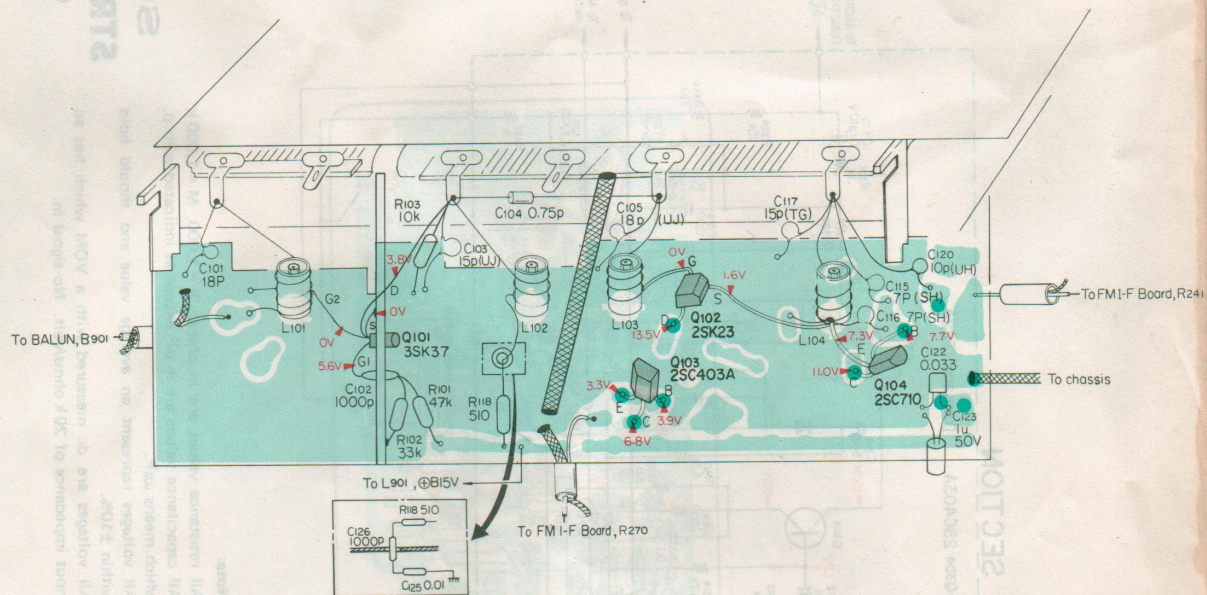


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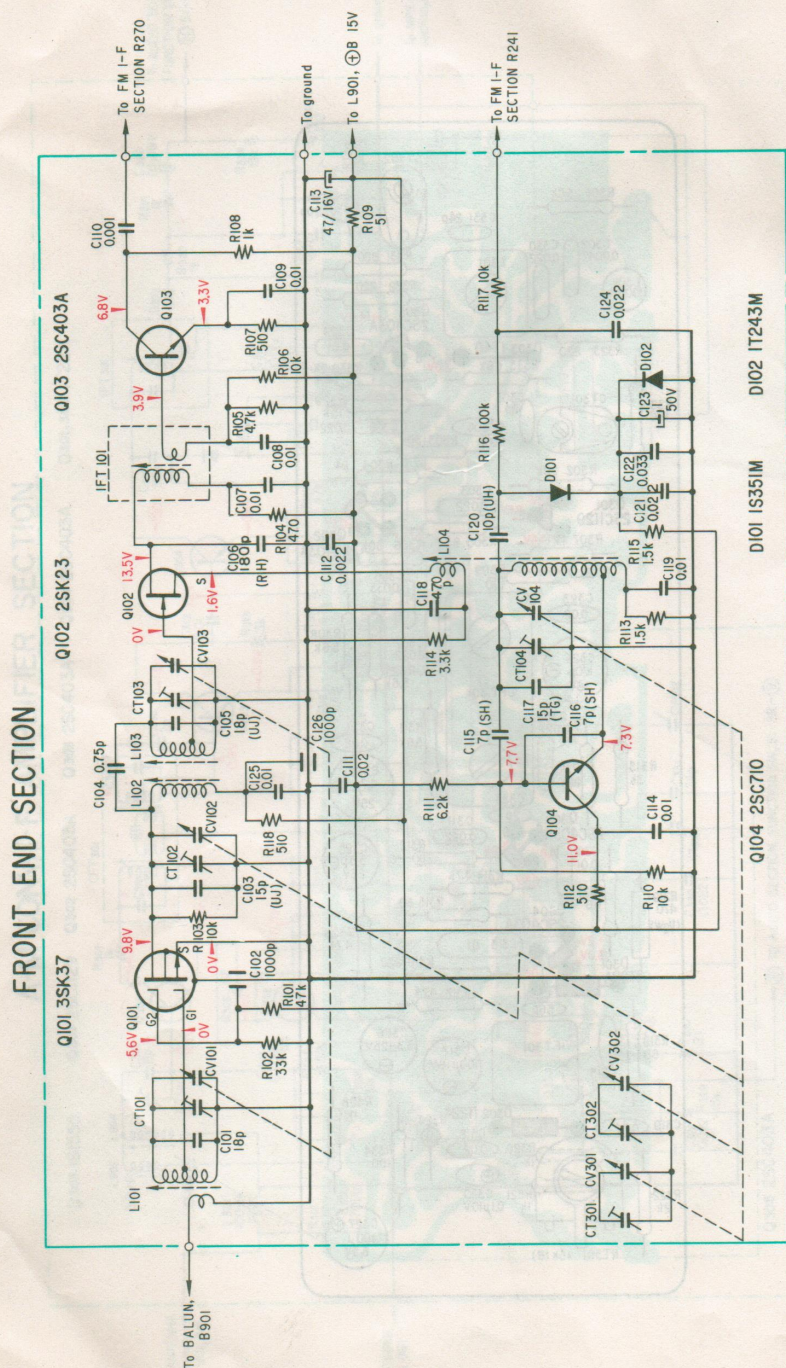
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2-7. MOUNTING DIAGRAM - Fm Front End -

- Conductor Side -

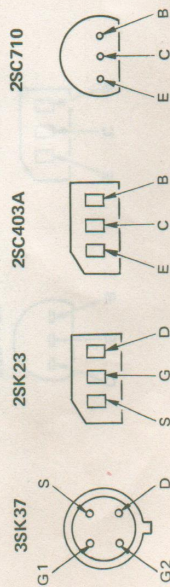


2-8. SCHEMATIC DIAGRAM — Fm Front End Section —



Note:

All resistance values are in ohms. $k = 1,000$, $M = 1,000,000$.
 All capacitance values are in μF except as indicated with p, which means pF .
 All voltages represent an average value and should hold within $\pm 10\%$.
 All voltages are dc measured with a VOM which has an input impedance of 20k ohms/volt. No signal in.



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2-9. ELECTRICAL PARTS LIST

A-m I-f Section

Ref. No.	Part No.	Description
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MOUNTED CIRCUIT BOARD

8-982-572-81	a-m circuit board
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SEMICONDUCTORS

D301	diode	1T22A
D302	diode	1T22A
D303	diode	1S1555
Q301	transistor	2SC1129
Q302	transistor	2SC403A
Q303	transistor	2SC403A
Q304	transistor	2SC403A
Q305	transistor	2SC403A

TRANSFORMERS, COILS AND INDUCTORS

CFT301	1-403-150	CFT, 455 kHz
IFT301	1-403-149	IFT, 455 kHz
L301	1-407-169	inductor, micro 100 μ H
T301	1-405-459	coil, a-m osc.
L902	1-407-182	inductor, micro 2.2 μ H
L903	1-407-182	inductor, micro 2.2 μ H
L904	1-401-439-31	bar antenna, a-m

CAPACITORS

All capacitance values are in μ F except as indicated with p, which means μ F.

C301	1-103-617	470 p	$\pm 5\%$	50V	styrol
C302	1-105-829	0.047	$\pm 20\%$	50V	mylar
C303	1-105-837	0.022	$\pm 20\%$	50V	mylar
C304	1-102-977	200 p	$\pm 5\%$	50V	ceramic
C305	1-102-945	8 p	$\pm 5\%$	50V	ceramic
C306	1-105-679	0.033	$\pm 20\%$	50V	mylar
C307	1-105-837	0.022	$\pm 20\%$	50V	mylar
C308		included in CFT301			
C309	1-105-837	0.022	$\pm 20\%$	50V	mylar
C310		included in CFT301			
C311	1-105-837	0.022	$\pm 20\%$	50V	mylar
C312	1-105-673	0.01	$\pm 20\%$	50V	mylar
C313	1-105-685	0.1	$\pm 20\%$	50V	mylar
C314	1-101-884	56 p	$\pm 5\%$	50V	ceramic
C315	1-101-073	0.02	$\pm 20\%$	25V	ceramic
C316		included in IFT301			
C317	1-121-415	100	$\pm 10\%$	16V	electrolytic
C318	1-101-073	0.02	$\pm 20\%$	25V	ceramic
C319	1-101-073	0.02	$\pm 20\%$	25V	ceramic
C320	1-127-019	0.1	$\pm 20\%$	10V	solid, aluminium
C321	1-102-073	0.02	$\pm 20\%$	50V	ceramic
C322	1-121-395	4.7	$\pm 10\%$	25V	electrolytic
C323	1-101-073	0.02	$\pm 20\%$	25V	ceramic
C324	1-121-415	100	$\pm 10\%$	16V	electrolytic
C325	1-121-456	3.3	$\pm 10\%$	25V	electrolytic
C326	1-121-456	3.3	$\pm 10\%$	25V	electrolytic

Ref. No.	Part No.	Description
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C327	1-121-413	100 $\pm 10\%$ 6.3V electrolytic
C328	1-105-837	0.022 $\pm 20\%$ 50V mylar
C329	1-105-673	0.01 $\pm 20\%$ 50V mylar
C330	1-105-837	0.022 $\pm 20\%$ 50V mylar
C331	1-102-960	24 p $\pm 5\%$ 50V ceramic
C332		- deleted -
C333	1-102-935	2 p ± 0.25 pF 50V ceramic
C334	1-105-837	0.022 $\pm 20\%$ 50V mylar
C335	1-102-935	2 p ± 0.25 pF 50V ceramic

CT301	1-141-095	capacitor, trimmer
CT302		

RESISTORS

All resistance values are in Ω , $\pm 5\%$, $\frac{1}{4}$ W and carbon type unless otherwise indicated.

R301	1-244-691	5.6 k
R302	1-244-704	20 k
R303	1-244-708	30 k
R304	1-244-634	24
R305	1-244-647	82
R306	1-244-708	30 k
R307	1-244-673	1 k
R308	1-244-691	5.6 k
R309	1-244-649	100
R310	1-244-719	82 k
R311	1-244-691	5.6 k
R312	1-244-673	1 k
R313	1-244-684	3 k
R314	1-244-689	4.7 k
R315	1-244-645	68
R316	1-244-657	220
R317	1-244-689	4.7 k
R318	1-244-645	68
R319	1-202-565	470 $\pm 10\%$ $\frac{1}{4}$ W composition
R320	1-244-673	1 k
R321	1-244-673	1 k
R322	1-244-680	2 k
R323	1-242-657	220
R324	1-242-701	15 k
R325	1-244-691	5.6 k
R326	1-244-689	4.7 k
R327	1-244-645	68
R328	1-244-673	1 k
R329	1-244-701	15 k
R330	1-244-680	2 k
R331	1-244-671	820
R332	1-244-657	220
R333	1-244-717	68 k
R334	1-244-649	100
R335	1-244-649	100

Fm Front End Section

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
MOUNTED CIRCUIT BOARD			R117	1-244-697	10k
	8-982-572-11	fm front end ass'y	R118	1-244-666	510
SEMICONDUCTORS			CAPACITORS		
D101		diode 1S351M	All capacitance values are in μF except as indicated with p, which means μF .		
D102		diode 1T243M	C101	1-102-893	18p $\pm 5\%$ 50V ceramic
Q101		FET 3SK37	C102	1-102-217	1,000p $\pm 100\%$ 50V ceramic
Q102		FET 2SK23	C103	1-102-880	15p(UJ) $\pm 5\%$ 50V ceramic
Q103		transistor 2SC403A	C104	1-101-937	0.75p $\pm 10\%$ 500V ceramic
Q104		transistor 2SC710	C105	1-102-893	18p(UJ) $\pm 5\%$ 50V ceramic
TRANSFORMER AND COILS			C106	1-102-848	180p(RH) $\pm 5\%$ 50V ceramic
IFT101	1-403-295	IFT, fm	C107	1-101-923	0.01 $\pm 20\%$ 25V ceramic
L101	1-401-453	coil, fm antenna	C108	1-101-923	0.01 $\pm 20\%$ 25V ceramic
L102	1-425-446	coil, fm rf	C109	1-101-923	0.01 $\pm 20\%$ 25V ceramic
L103	1-425-668	coil, fm rf	C110	1-101-918	0.001 $\pm 20\%$ 25V ceramic
L104	1-405-377	coil, fm osc.	C111	1-101-924	0.022 $\pm 20\%$ 25V ceramic
RESISTORS			C112	1-101-924	0.022 $\pm 20\%$ 25V ceramic
All resistance values are in Ω , $\pm 5\%$, $\frac{1}{4}\text{W}$ and carbon type unless otherwise indicated.			C113	1-121-409	47 $\pm 10\%$ 16V electrolytic
R101	1-244-713	47k	C114	1-101-923	0.01 $\pm 20\%$ 25V ceramic
R102	1-244-709	33k	C115	1-102-875	7p(SH) $\pm 5\%$ 50V ceramic
R103	1-244-697	10k	C116	1-102-875	7p(SH) $\pm 5\%$ 50V ceramic
R104	1-244-665	470	C117	1-102-894	15p(TG) $\pm 5\%$ 50V ceramic
R105	1-242-689	4.7k	C118	1-102-114	470p $\pm 10\%$ 50V ceramic
R106	1-242-697	10k	C119	1-101-118	0.01 $\pm 20\%$ 50V ceramic
R107	1-242-666	510	C120	1-102-986	10p(UH) $\pm 0.5\text{pF}$ 50V ceramic
R108	1-242-673	1k	C121	1-101-924	0.022 $\pm 20\%$ 25V ceramic
R109	1-242-642	51	C122	1-105-679-12	0.033 $\pm 10\%$ 50V mylar
R110	1-242-697	10k	C123	1-121-391	1 $\pm 15\%$ 50V electrolytic
R111	1-244-692	6.2k	C124	1-101-924	0.022 $\pm 20\%$ 25V ceramic
R112	1-242-666	510	C125	1-101-118	0.01 $\pm 20\%$ 50V ceramic
R113	1-242-673	1.5k	C126	1-102-217	1,000p $\pm 100\%$ 50V ceramic
R114	1-242-685	3.3k	CV101	1-151-193-13 capacitor, tuning	
R115	1-242-677	1.5k	CV102		
R116	1-242-721	100k	CV104		
			CV901		
			CV902		

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