

SONY®

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STR-6065

9313

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

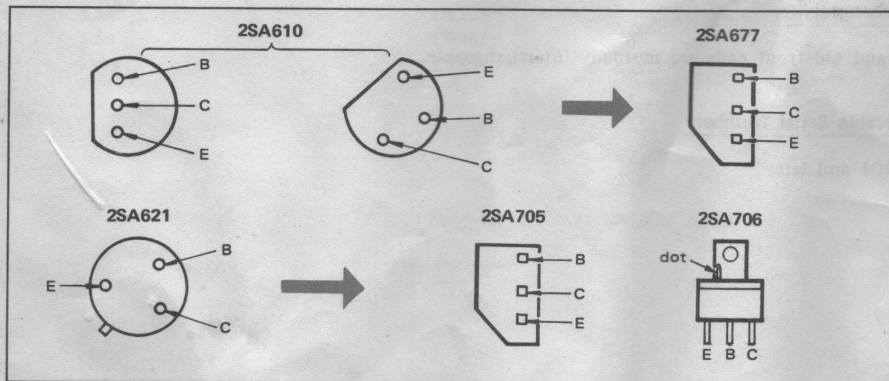


Fig. 1. Former and new type transistors



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

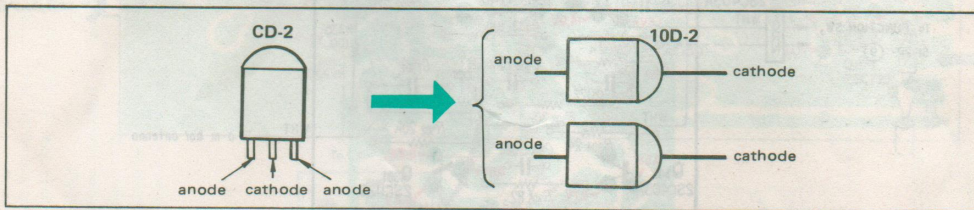


Fig. 2. Former and new type diodes

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.

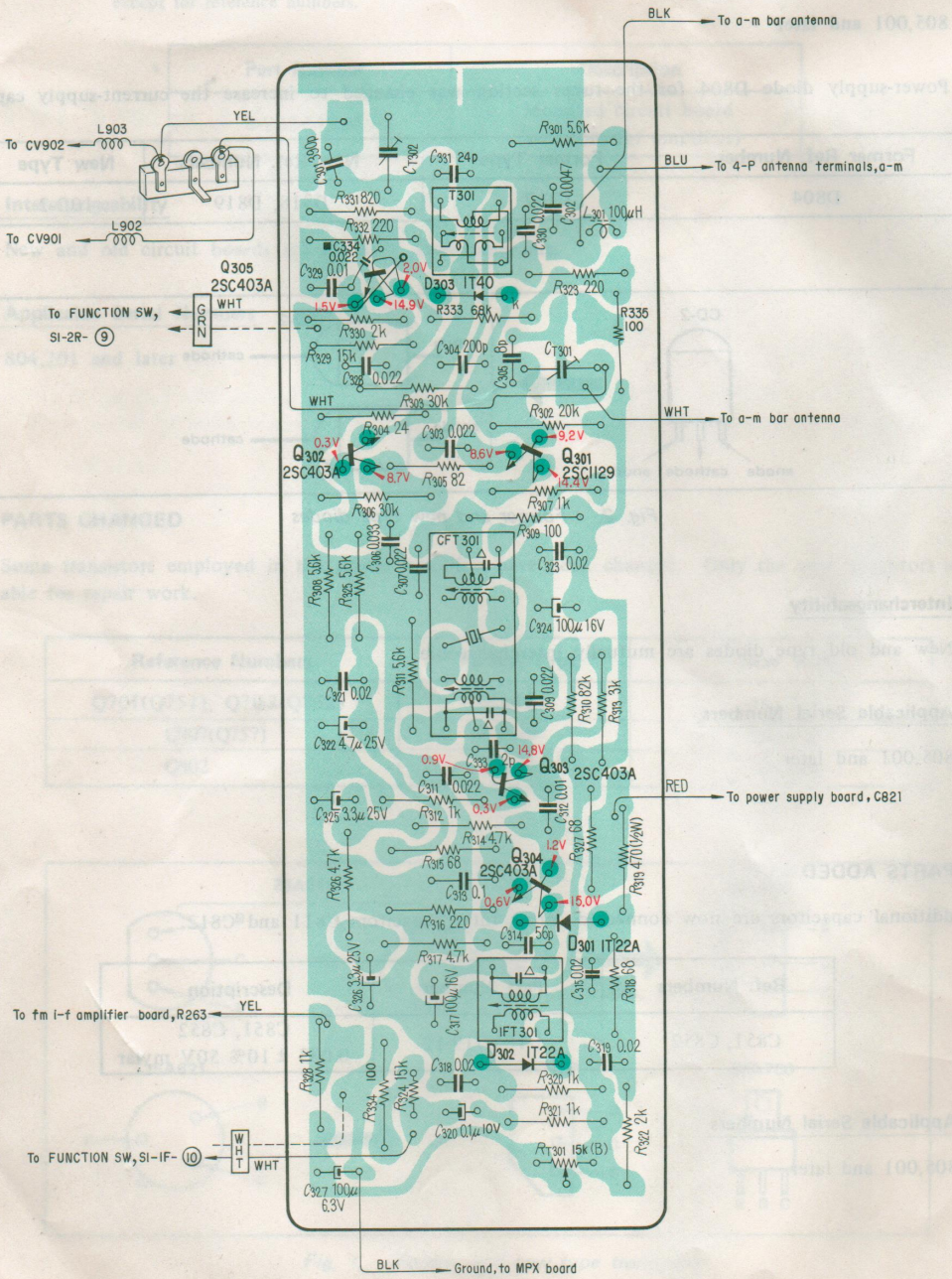
Ref. Numbers	Part Number	Description
C851, C852	1-105-719-12	C851, C852 0.033 ± 10% 50V mylar

Applicable Serial Numbers

805,001 and later

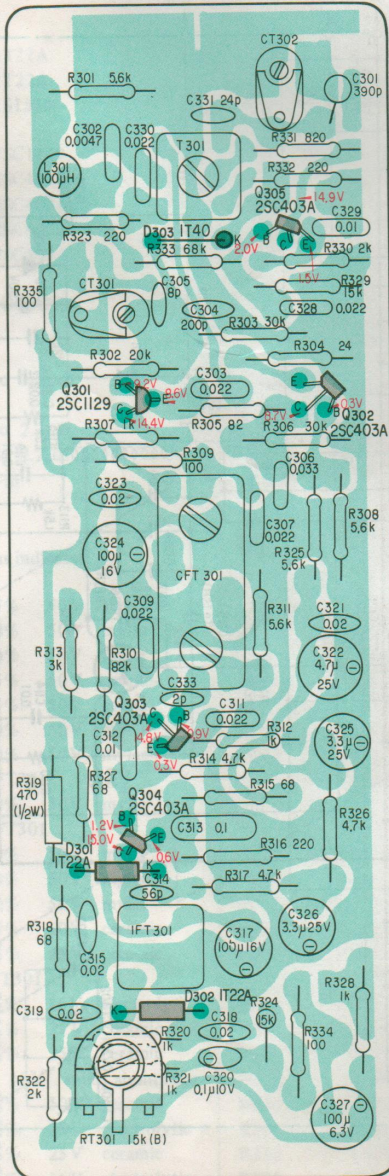


25. MOUNTING DIAGRAM - A-m I-f Board -  
- Conductor Side -





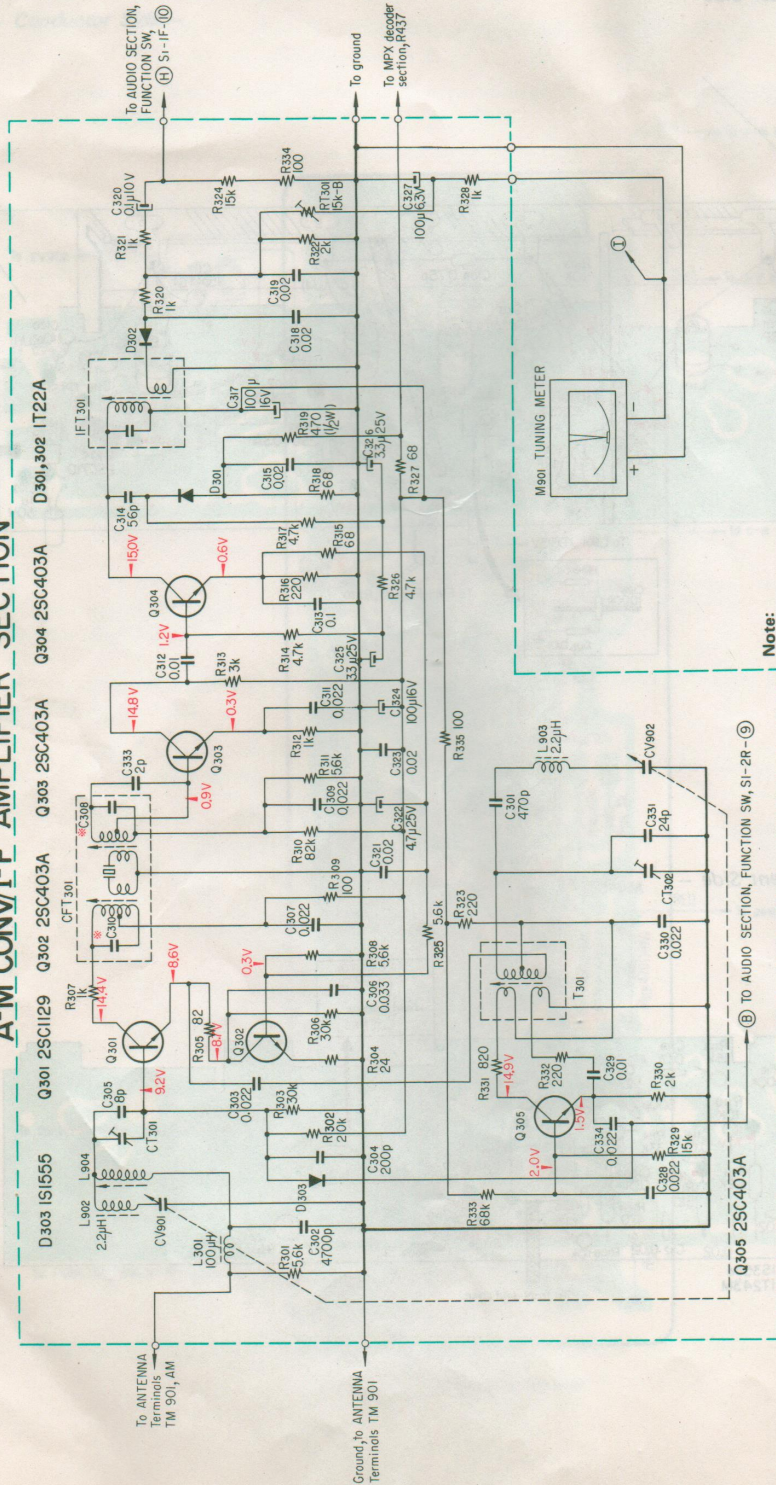
- Component Side -





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

A-M CONV/I-F AMPLIFIER SECTION



Note:

All resistance values are in ohms.  $k = 1,000$ ,  $M = 1,000$  k  
 All capacitance values are in  $\mu F$  except as indicated with p,  
 which means  $\mu F$ .  
 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.



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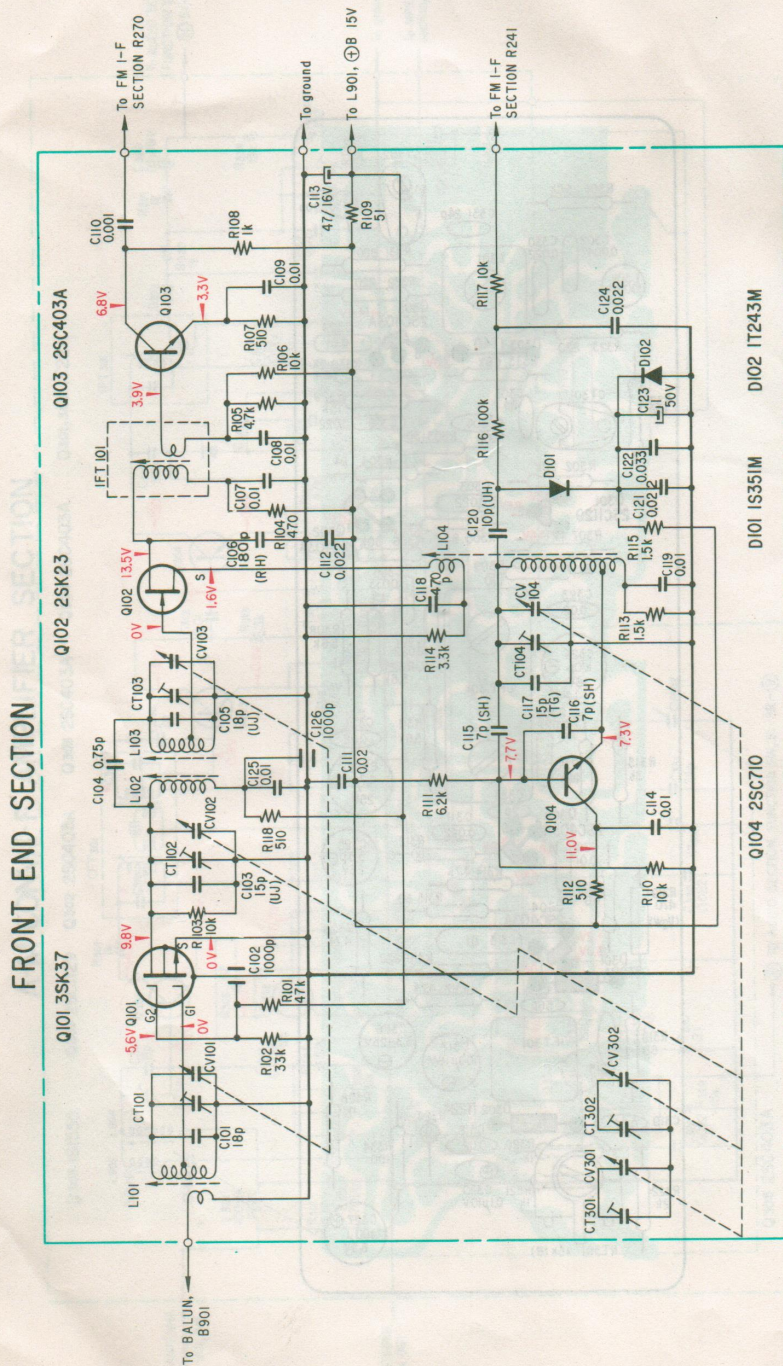
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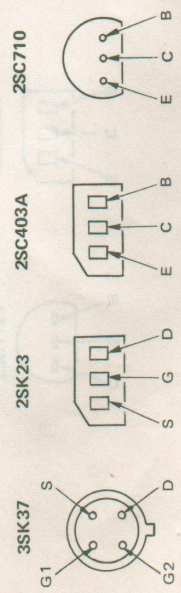


2-8. SCHEMATIC DIAGRAM - Fm Front End Section -



Note:

All resistance values are in ohms. k = 1,000, M = 1,000 k  
 All capacitance values are in  $\mu$ F except as indicated with p, which means  $\mu$ F.  
 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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
<b>MOUNTED CIRCUIT BOARD</b>					
	8-982-572-81	a-m circuit board			
<b>SEMICONDUCTORS</b>					
D301		diode 1T22A	C327	1-121-413	100 $\pm 100\%$ 6.3V electrolytic
D302		diode 1T22A	C328	1-105-837	0.022 $\pm 20\%$ 50V mylar
D303		diode 1S1555	C329	1-105-673	0.01 $\pm 20\%$ 50V mylar
			C330	1-105-837	0.022 $\pm 20\%$ 50V mylar
Q301		transistor 2SC1129	C331	1-102-960	24p $\pm 5\%$ 50V ceramic
Q302		transistor 2SC403A	C332		- deleted -
Q303		transistor 2SC403A	C333	1-102-935	2p $\pm 0.25$ pF 50V ceramic
Q304		transistor 2SC403A	C334	1-105-837	0.022 $\pm 20\%$ 50V mylar
Q305		transistor 2SC403A	C335	1-102-935	2p $\pm 0.25$ pF 50V ceramic
<b>TRANSFORMERS, COILS AND INDUCTORS</b>					
CFT301	1-403-150	CFT, 455 kHz	CT301		
IFT301	1-403-149	IFT, 455 kHz	CT302	1-141-095	capacitor, trimmer
L301	1-407-169	inductor, micro 100 $\mu$ H			
T301	1-405-459	coil, a-m osc.			
L902	1-407-182	inductor, micro 2.2 $\mu$ H			
L903	1-407-182	inductor, micro 2.2 $\mu$ H			
L904	1-401-439-31	bar antenna, a-m			
<b>CAPACITORS</b>					
All capacitance values are in $\mu$ F except as indicated with p, which means $\mu$ F.					
C301	1-103-617	470p $\pm 5\%$ 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	200p $\pm 5\%$ 50V ceramic			
C305	1-102-945	8p $\pm 5\%$ 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	56p $\pm 5\%$ 50V ceramic			
C315	1-101-073	0.02 $\pm 20\%$ 25V ceramic			
C316		included in IFT301			
C317	1-121-415	100 $\pm 100\%$ 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 $\pm 100\%$ 25V electrolytic			
C323	1-101-073	0.02 $\pm 20\%$ 25V ceramic			
C324	1-121-415	100 $\pm 100\%$ 16V electrolytic			
C325	1-121-456	3.3 $\pm 100\%$ 25V electrolytic			
C326	1-121-456	3.3 $\pm 100\%$ 25V electrolytic			
<b>RESISTORS</b>					
All resistance values are in $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W and carbon type unless otherwise indicated.					
R301	1-244-691	5.6k			
R302	1-244-704	20k			
R303	1-244-708	30k			
R304	1-244-634	24			
R305	1-244-647	82			
R306	1-244-708	30k			
R307	1-244-673	1k			
R308	1-244-691	5.6k			
R309	1-244-649	100			
R310	1-244-719	82k			
R311	1-244-691	5.6k			
R312	1-244-673	1k			
R313	1-244-684	3k			
R314	1-244-689	4.7k			
R315	1-244-645	68			
R316	1-244-657	220			
R317	1-244-689	4.7k			
R318	1-244-645	68			
R319	1-202-565	470 $\pm 10\%$ $\frac{1}{4}$ W composition			
R320	1-244-673	1k			
R321	1-244-673	1k			
R322	1-244-680	2k			
R323	1-242-657	220			
R324	1-242-701	15k			
R325	1-244-691	5.6k			
R326	1-244-689	4.7k			
R327	1-244-645	68			
R328	1-244-673	1k			
R329	1-244-701	15k			
R330	1-244-680	2k			
R331	1-244-671	820			
R332	1-244-657	220			
R333	1-244-717	68k			
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>
<b>MOUNTED CIRCUIT BOARD</b>			R117	1-244-697	10k
	8-982-572-11	fm front end ass'y	R118	1-244-666	510
<b>SEMICONDUCTORS</b>			<b>CAPACITORS</b>		
D101		diode 1S351M	All capacitance values are in $\mu$ F except as indicated with p, which means $\mu$ F.		
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
<b>TRANSFORMER AND COILS</b>			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
<b>RESISTORS</b>			C112	1-101-924	0.022 $\pm 20\%$ 25V ceramic
All resistance values are in $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ 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) $\pm 0.5$ 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 $\pm 150\%$ 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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