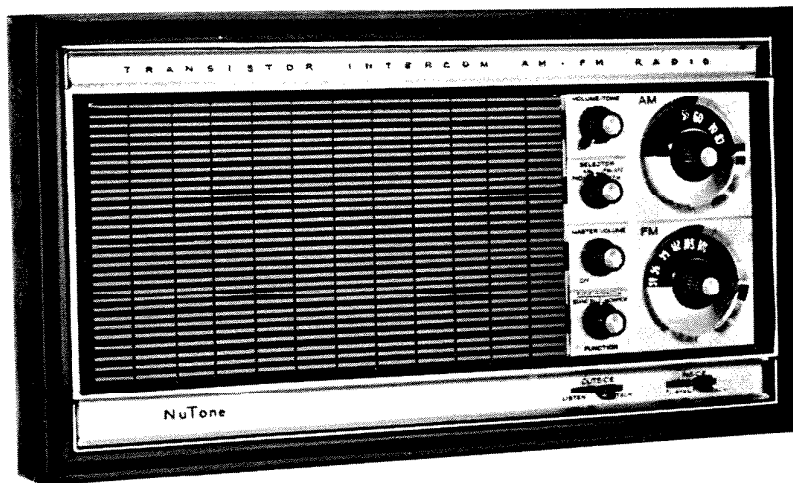


NuTone

Supplemental Information

REVISED CIRCUIT AND PARTS LIST



AM-FM TRANSISTOR RADIO and INTERCOM

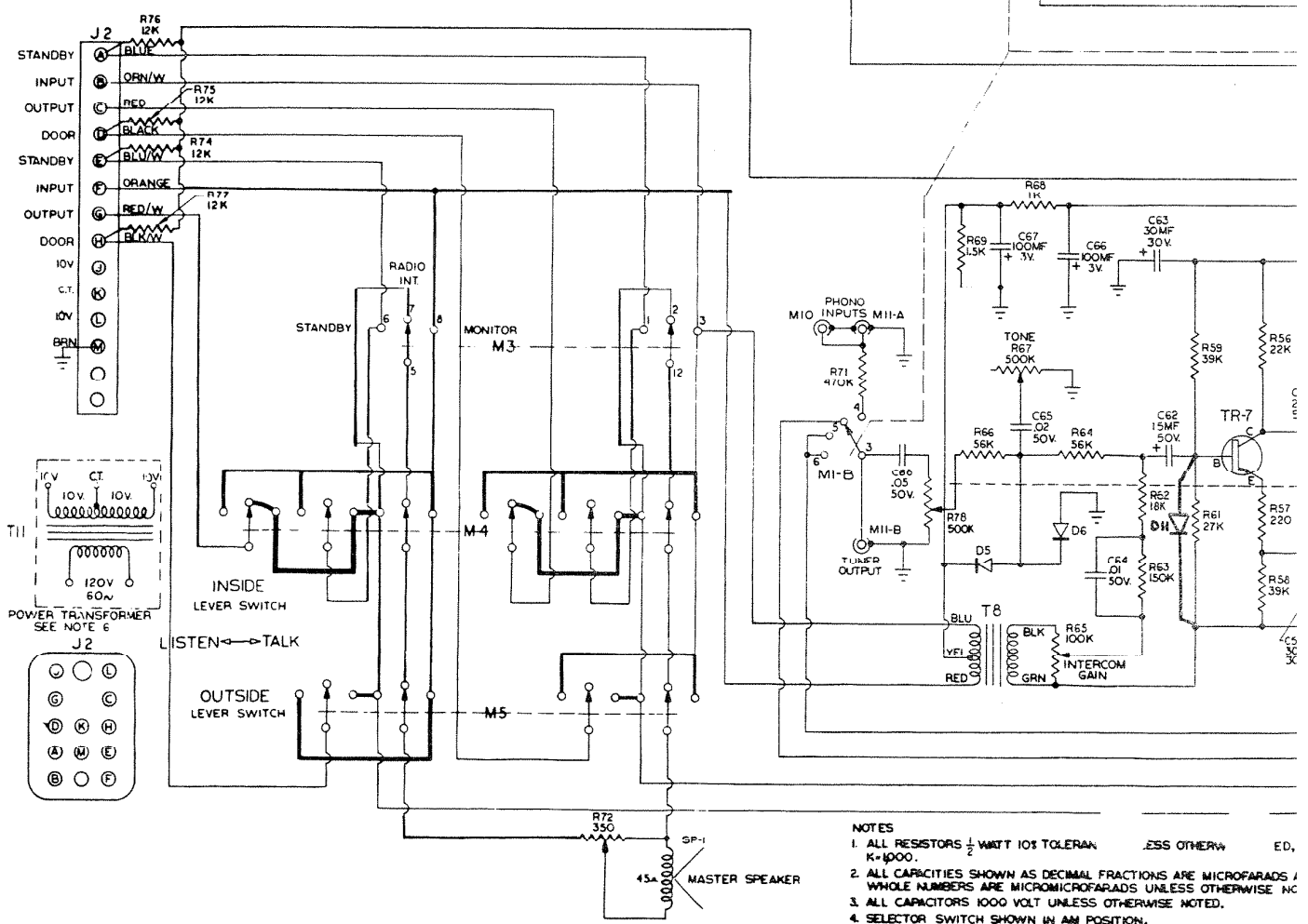
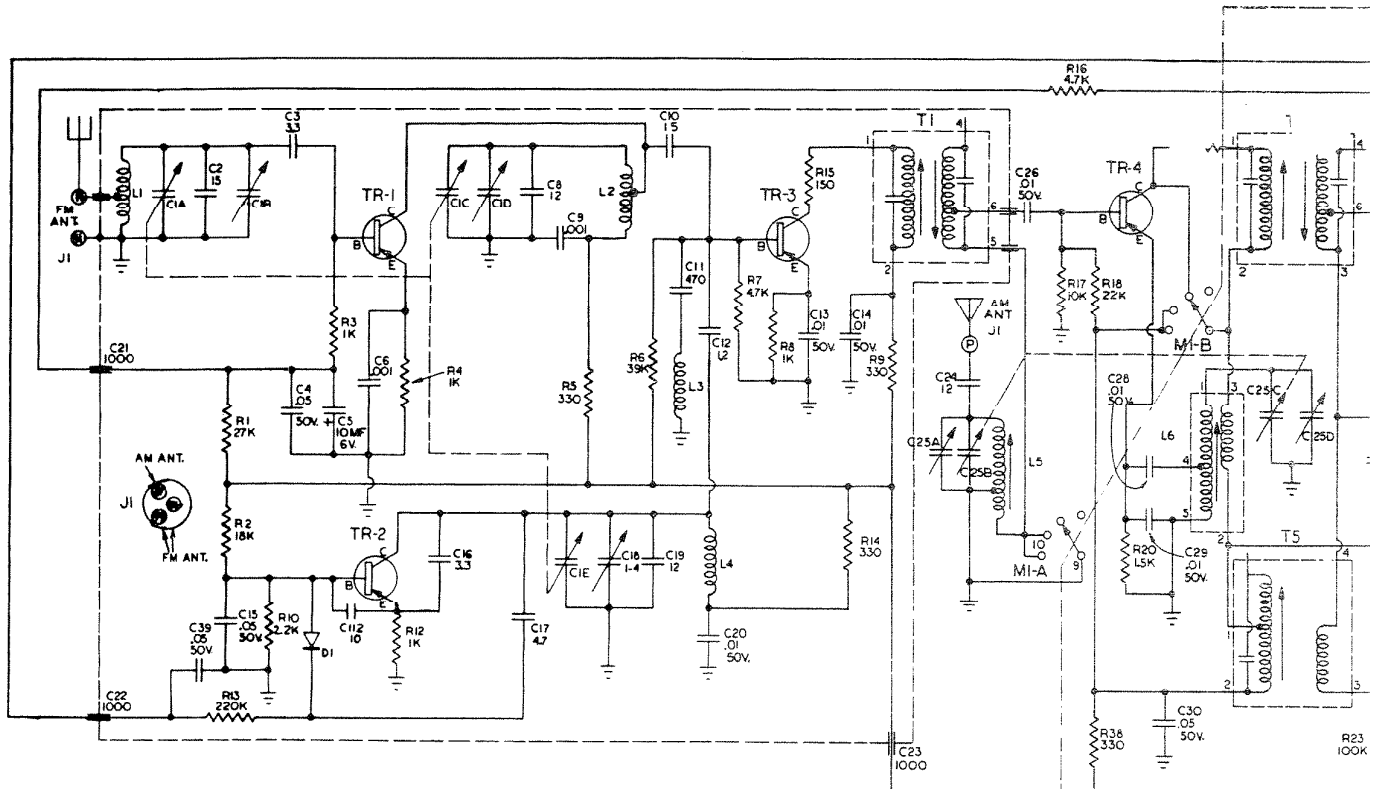
Models N2561-N2562

NuTone

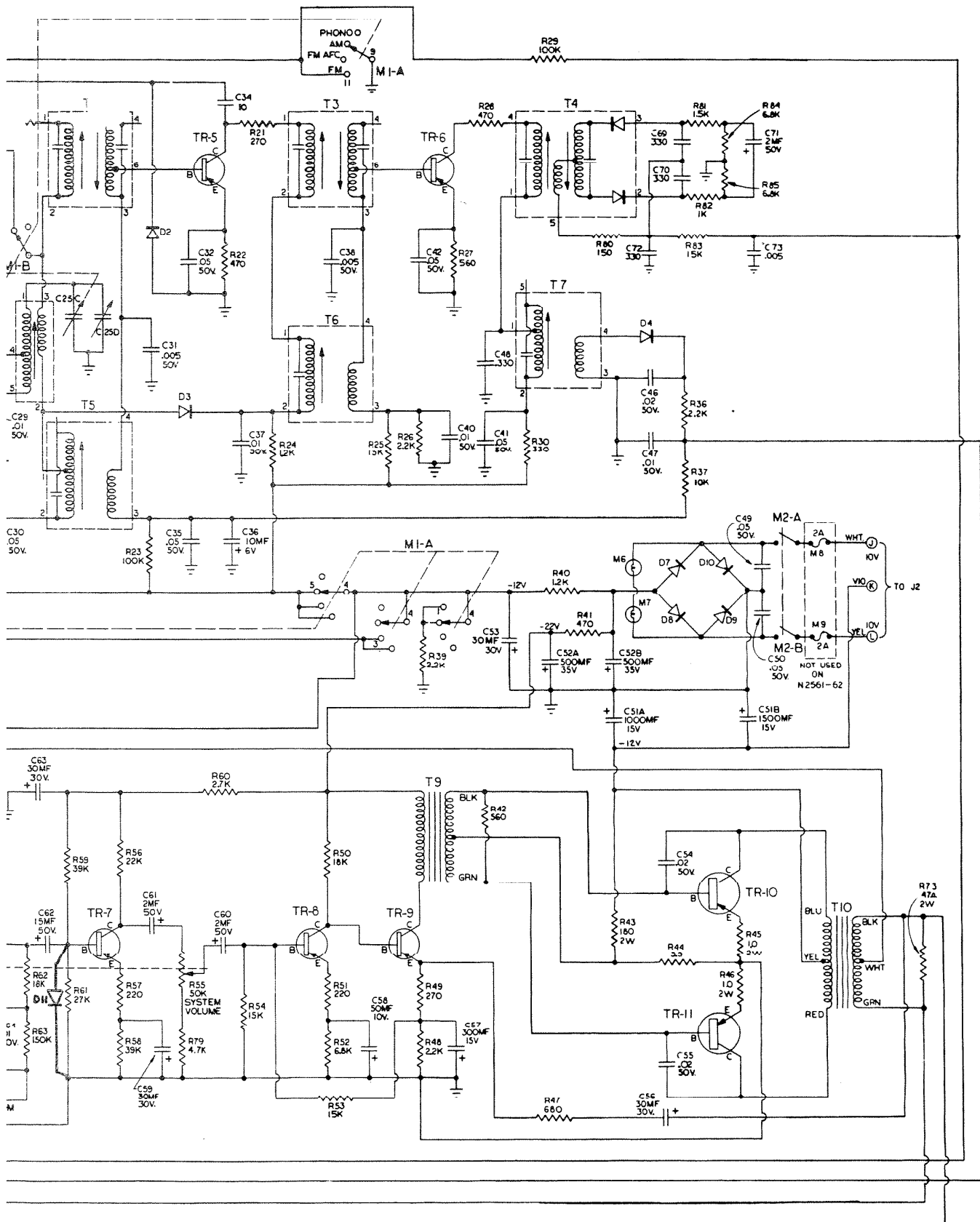
Madison and Red Bank Roads, Cincinnati, Ohio 45227

Printed in U.S.A.

Part No. 45219



- NOTES
1. ALL RESISTORS $\frac{1}{2}$ WATT 10% TOLERANCE UNLESS OTHERWISE NOTED.
 2. ALL CAPACITIES SHOWN AS DECIMAL FRACTIONS ARE MICROFARADS / WHOLE NUMBERS ARE MICROMICROFARADS UNLESS OTHERWISE NOTED.
 3. ALL CAPACITORS 1000 VOLT UNLESS OTHERWISE NOTED.
 4. SELECTOR SWITCH SHOWN IN AM POSITION.
 5. SOCKET CONNECTIONS ARE SHOWN AS TOP (OR PLUS END) VIEWS.
 6. TRANSFORMER IS MOUNTED REMOTE FROM SET. (T1)
 7. HEAVY LINES ON M4 AND M5 INDICATE INTERNAL SWITCH CONNECTIONS.



LESS OTHERWISE ED, VALUES IN OHMS,

Master station schematic.

ACTIONS ARE MICROFARADS AND SHOWN AS UNLESS OTHERWISE NOTED.

MODELS - N2561 - N2562

FOR ALIGNMENT AND VOLTAGE CHARTS, REFER TO PERMANENT SERVICE MANUAL.

TOP (OR PLUS END) VIEWS.
 INTERNAL SWITCH CONNECTION.

REVISED CIRCUIT PARTS LIST

The following parts have been changed, added or deleted in late production units - effective with unit chassis number designated.

NOTE: Revised circuit component parts are not interchangeable with earlier production units unless so designated.

LATE PRODUCTION PRIOR TO CHASSIS NUMBER DESIGNATION

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Change:			*R37		10K 10% 1/2 watt Carbon
*D1	35019	AFC	*T1	30550	1st FM IF
*D7,D8	36549	T1-55 Silicon Rectifier	*T2,T3	30551	2nd & 3rd FM IF
*C27		2.2 mmf NPO Ceramic Disc	*L3	30062	RF Choke
*C33		2.2 mmf NPO Ceramic Disc	*M1	34552	Selector Switch, 4-Pos. Rotary
*C34		15 mmf NPC Ceramic Disc	*M4	34527	Inside Talk-Listen Switch
*C51A	35018	1000 mfd 15V Electrolytic	*M5	34528	Outside Talk-Listen Switch
B		1500 mfd 15V Electrolytic	Add: (Omitted from basic service manual)		
*C52A	35017	500 mfd 35V Electrolytic	D11	36549	T155 Silicon Rectifier
B		500 mfd 35V Electrolytic	* -	40220	FM Tuner Assembly
C56		30 mfd 30V Electrolytic			
Delete:			<u>CHASSIS NUMBER 561C</u>		
L7	30055	Choke			
Change:			<u>CHASSIS NUMBER 561D</u>		
			Add:		
TR2	36571	(TIMX 203) FM Oscillator	C69		330 mmf @ 1000V Ceramic Disc
TR3	36572	(TIMX 202) FM Mixer	C70		330 mmf @ 1000V Ceramic Disc
TR4	36573	(T1 403) 1st FM IF, AM Converter	C71		2 mfd @ 50V Electrolytic
TR5	36573	(T1 403) 2nd FM IF, 1st AM IF	C72		330 mmf @ 1000V Ceramic Disc
TR6	36573	(T1 403) 3rd FM IF, 2nd AM IF	C73		.005 mfd @ 100V Ceramic Disc
*TR7,TR8	36569	(2N 408) AF Amp	R80		150, 1/2 Watt, Carbon
*TR9	36569	(2N 581) Driver	R81		1500, 1/2 Watt, Carbon
C8		12 mmf 10% Ceramic Disc	R82		1000, 1/2 Watt, Carbon
C10		15 mmf N 330 Ceramic Disc	R83		15K, 1/2 Watt, Carbon
C16		3.3 mmf NPO Ceramic Disc	R84		6800, 1/2 Watt, Carbon
C31		.005 mfd @ 100V Ceramic Disc	R85		6800, 1/2 Watt, Carbon
C34		10 mmf NPO Ceramic Disc			
C38		.005 mfd @ 100V Ceramic Disc	Delete:		
*C59		30 mfd @ 30V Electrolytic	C7		4.7 mmf NPO Ceramic Disc
*C60,C61		2 mfd @ 50V Electrolytic	C27		4.7 mmf NPO Ceramic Disc
*C63		30 mfd @ 30V Electrolytic	C33		4.7 mmf NPO Ceramic Disc
R2		18K, 10%, 1/2 Watt, Carbon	C43		.005 mfd @ 50V Ceramic Disc
R10		2200, 10%, 1/2 Watt, Carbon	C44		.005 mfd @ 50V Ceramic Disc
R18		22K, 10%, 1/2 Watt, Carbon	C45		.005 mfd @ 50V Ceramic Disc
R27		560, 10%, 1/2 Watt, Carbon			
T1	30570	1st FM IF	R31		1500, 1/2 Watt, Carbon
T2	30567	2nd FM IF	R32		1500, 1/2 Watt, Carbon
T3	30568	3rd FM IF	R33		15K, 1/2 Watt, Carbon
T4	30566	Ratio Detector	R34		6800, 1/2 Watt, Carbon
L2	30061	FM Mixer	R35		6800, 1/2 Watt, Carbon
-	40318	FM Tuner Assembly	L2B	30052	FM Neutralizer

* Interchangeable with earlier production units.

NUTONE

Supplemental Information

No. 2

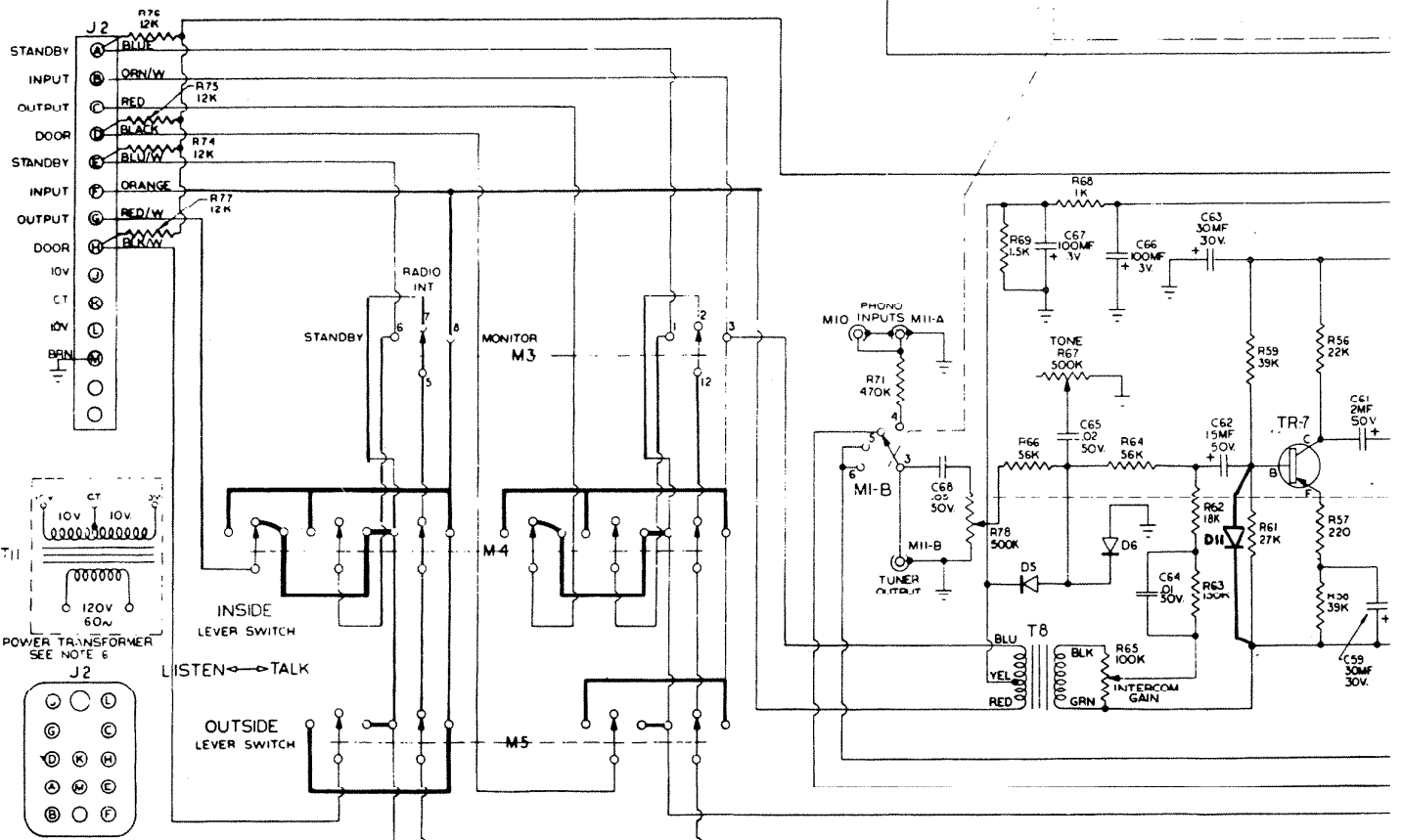
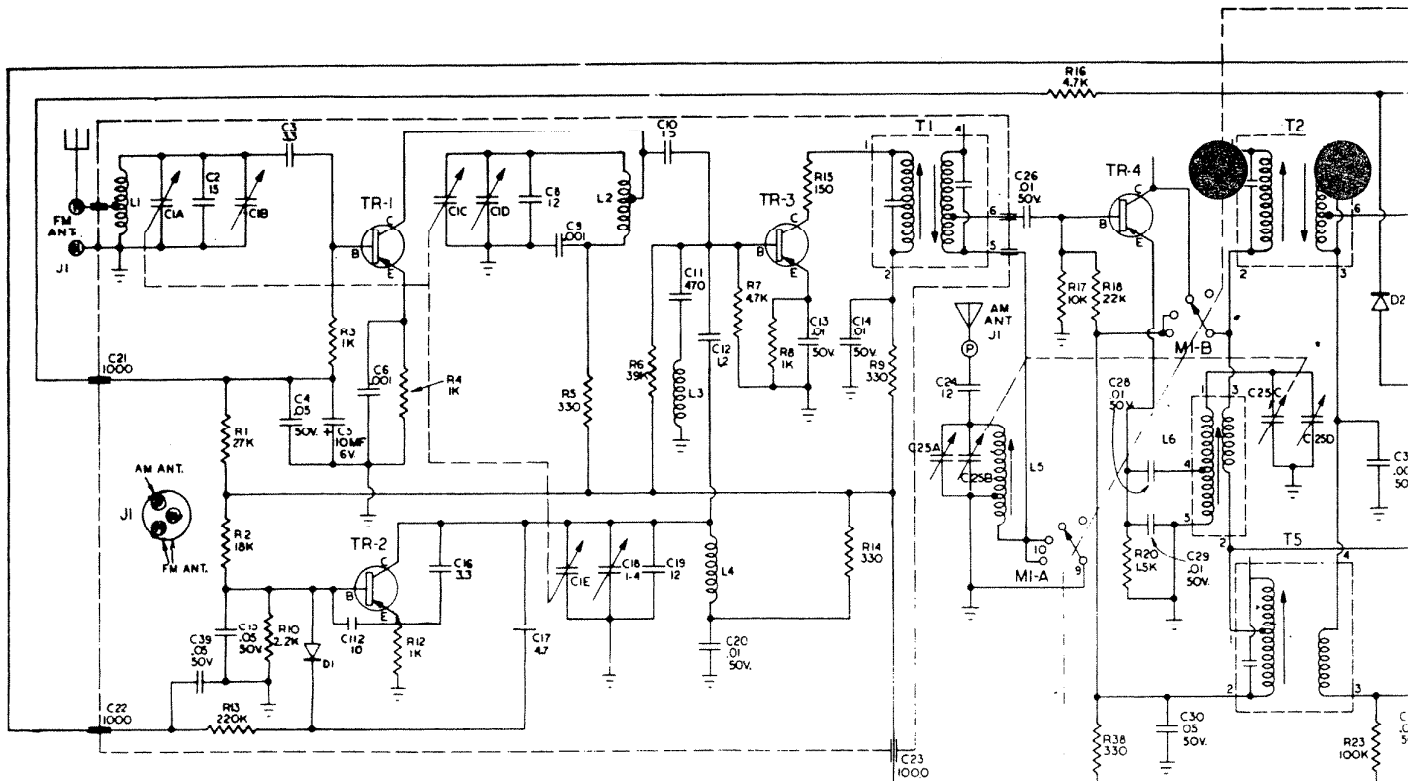
REVISED CIRCUIT & PARTS LIST

AM-FM TRANSISTOR RADIO & INTERCOM

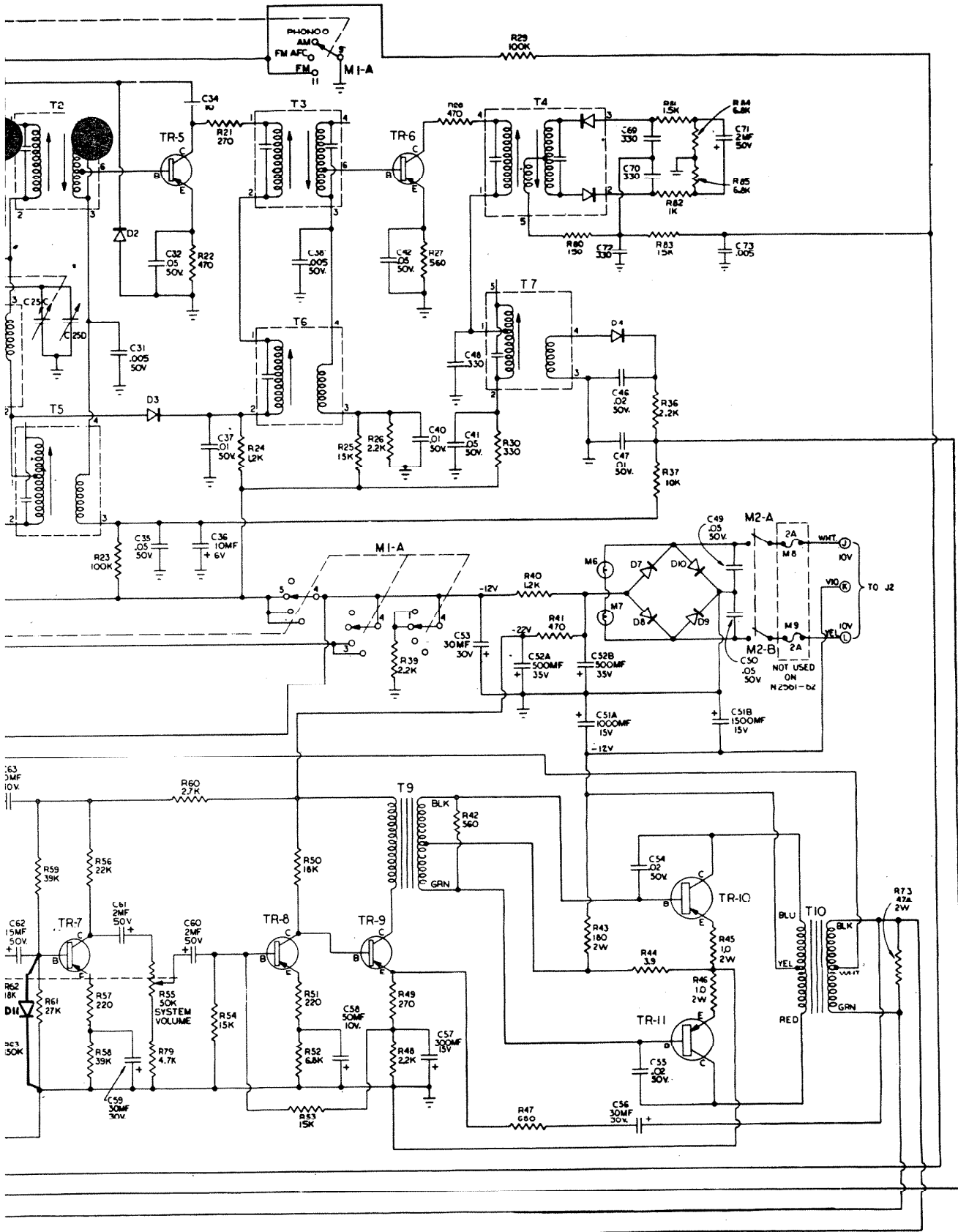
Models N2561-N2562

CHASSIS NO. 561-E





- NOTES
1. ALL RESISTORS $\frac{1}{2}$ WATT 10% TOLERANCE UNLESS OTHERWISE NOTED.
 2. ALL CAPACITIES SHOWN AS DECIMAL FRACTIONS ARE MICROFARADS AND WHOLE NUMBERS ARE MICROMICROFARADS UNLESS OTHERWISE NOTED.
 3. ALL CAPACITORS 1000 VOLT UNLESS OTHERWISE NOTED.
 4. SELECTOR SWITCH SHOWN IN AM POSITION.
 5. SOCKET CONNECTIONS ARE SHOWN AS TOP (OR PLUG END) VIEWS.
 6. TRANSFORMER IS MOUNTED REMOTE FROM SET. (T1)
 7. HEAVY LINES ON M4 AND M5 INDICATE INTERNAL SWITCH CONNECTION.



UNLESS OTHERWISE SPECIFIED, ALL VALUES IN OHMS,
 ARE MICRO- AND SHOWN AS
 UNLESS OTHERWISE NOTED.
 USE NOTED.
 OR PLUG END) VIEWS.
 ET. (T)

Master station schematic.

MODELS - N2561 - N2562

FOR ALIGNMENT AND VOLT-
 AGE CHARTS, REFER TO
 PERMANENT SERVICE MANUAL.

REVISED CIRCUIT PARTS LIST

The following parts have been changed, added or deleted in late production units - effective with uni chassis number designated.

NOTE: Revised circuit component parts are not interchangeable with earlier production units unless so designated.

LATE PRODUCTION PRIOR TO CHASSIS NUMBER DESIGNATION

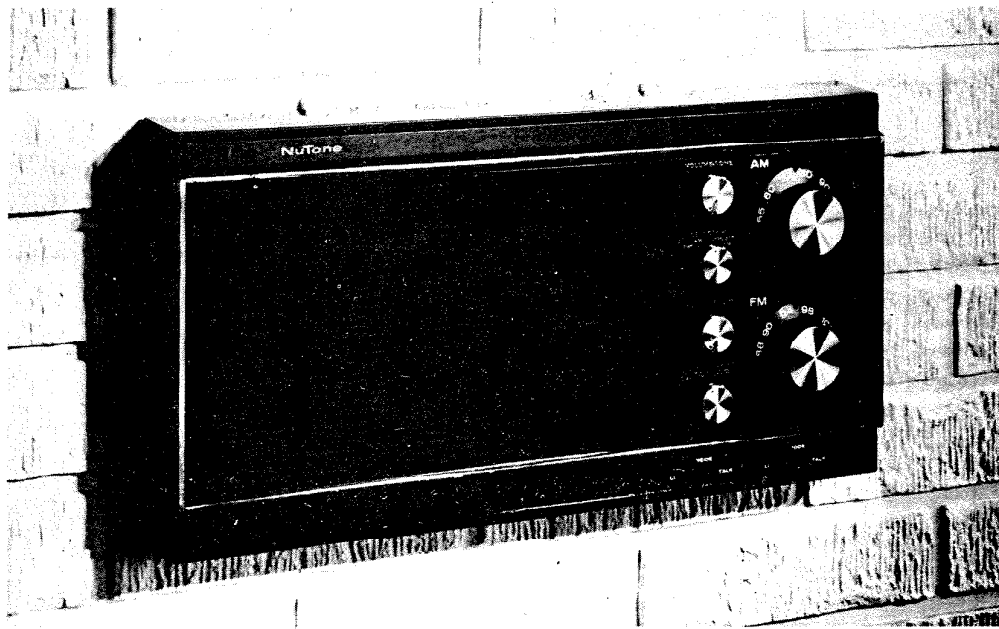
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Change:			*R37		10K 10% 1/2 watt Carbon
*D1	35019	AFC	*T1	30550	1st FM IF
*D7,D8	36549	T1-55 Silicon Rectifier	*T2,T3	30551	2nd & 3rd FM IF
*C27		2.2 mmf NPO Ceramic Disc	*L3	30062	RF Choke
*C33		2.2 mmf NPO Ceramic Disc	*M1	34552	Selector Switch, 4-Pos. Rot
*C34		15 mmf NPC Ceramic Disc	*M4	34527	Inside Talk-Listen Switch
*C51A	35018	1000 mfd 15V Electrolytic	*M5	34528	Outside Talk-Listen Switch
B		1500 mfd 15V Electrolytic	Add: (Omitted from basic service manual)		
*C52A	35017	500 mfd 35V Electrolytic	D11	36549	T155 Silicon Rectifier
B		500 mfd 35V Electrolytic	* -	40220	FM Tuner Assembly
C56		30 mfd 30V Electrolytic			
Delete:			<u>CHASSIS NUMBER 561C</u>		
L7	30055	Choke			
Change:			<u>CHASSIS NUMBER 561D</u>		
			Add:		
TR2	36571	(TIMX 203) FM Oscillator	C69		330 mmf @ 1000V Ceramic Di
TR3	36572	(TIMX 202) FM Mixer	C70		330 mmf @ 1000V Ceramic Di
TR4	36573	(T1 403) 1st FM IF, AM Converter	C71		2 mfd @ 50V Electrolytic
TR5	36573	(T1 403) 2nd FM IF, 1st AM IF	C72		330 mmf @ 1000V Ceramic Di
TR6	36573	(T1 403) 3rd FM IF, 2nd AM IF	C73		.005 mfd @ 100V Ceramic Di
*TR7,TR8	36569	(2N 408) AF Amp	R80		150, 1/2 Watt, Carbon
*TR9	36569	(2N 581) Driver	R81		1500, 1/2 Watt, Carbon
C8		12 mmf 10% Ceramic Disc	R82		1000, 1/2 Watt, Carbon
C10		15 mmf N 330 Ceramic Disc	R83		15K, 1/2 Watt, Carbon
C16		3.3 mmf NPO Ceramic Disc	R84		6800, 1/2 Watt, Carbon
C31		.005 mfd @ 100V Ceramic Disc	R85		6800, 1/2 Watt, Carbon
C34		10 mmf NPO Ceramic Disc	Delete:		
C38		.005 mfd @ 100V Ceramic Disc	C7		4.7 mmf NPO Ceramic Disc
*C59		30 mfd @ 30V Electrolytic	C27		4.7 mmf NPO Ceramic Disc
*C60,C61		2 mfd @ 50V Electrolytic	C33		4.7 mmf NPO Ceramic Disc
*C63		30 mfd @ 30V Electrolytic	C43		.005 mfd @ 50V Ceramic Disc
R2		18K, 10%, 1/2 Watt, Carbon	C44		.005 mfd @ 50V Ceramic Disc
R10		2200, 10%, 1/2 Watt, Carbon	C45		.005 mfd @ 50V Ceramic Disc
R18		22K, 10%, 1/2 Watt, Carbon	R31		1500, 1/2 Watt, Carbon
R27		560, 10%, 1/2 Watt, Carbon	R32		1500, 1/2 Watt, Carbon
T1	30570	1st FM IF	R33		15K, 1/2 Watt, Carbon
T2	30567	2nd FM IF	R34		6800, 1/2 Watt, Carbon
T3	30568	3rd FM IF	R35		6800, 1/2 Watt, Carbon
T4	30566	Ratio Detector	L2B	30052	FM Neutralizer
L2	30061	FM Mixer			
-	40318	FM Tuner Assembly			

* Interchangeable with earlier production units.

**Supplemental Information
NO. 3**

REVISED CIRCUIT AND PARTS LIST

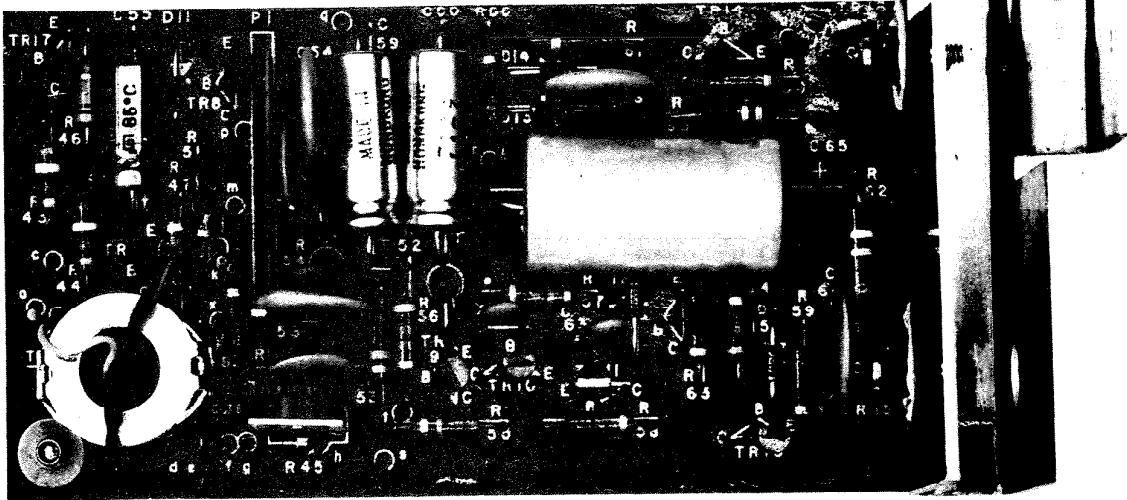
CHASSIS NO. 561 H



AM-FM TRANSISTOR RADIO and INTERCOM

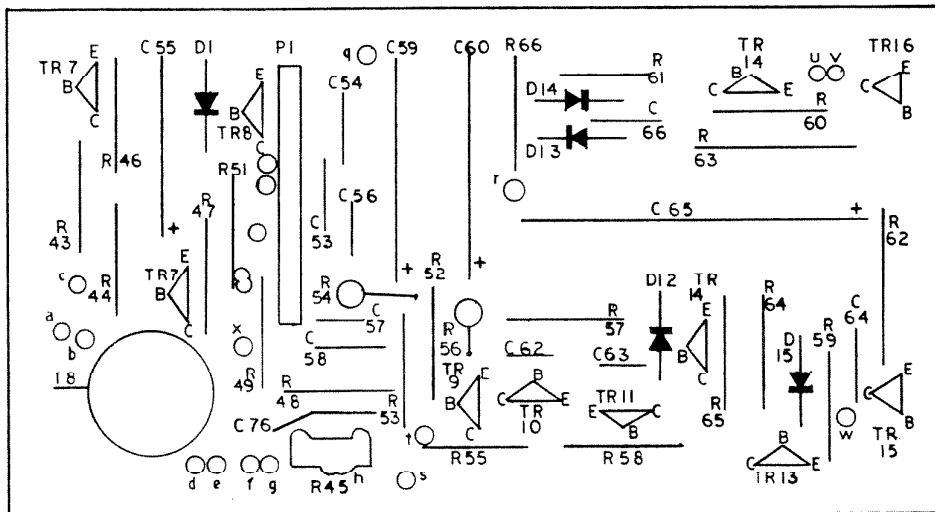
Models N2561-N2562

AMPLIFIER P/C BOARD

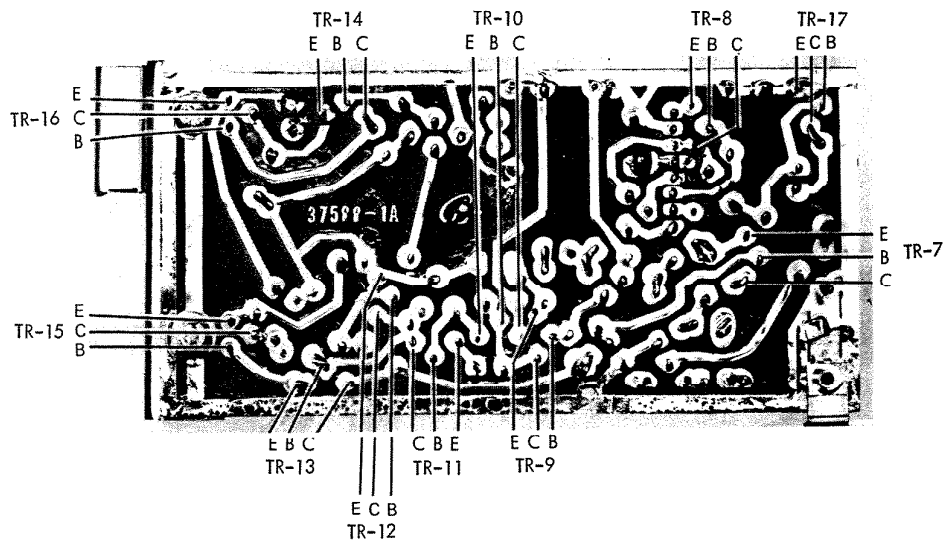


P/C BOARD COMPONENT LOCATION

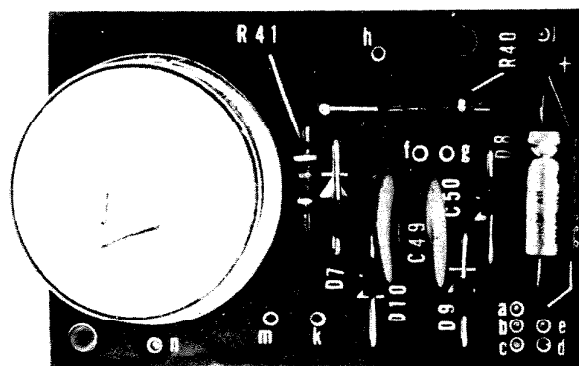
C53 is mislabeled. Should be C51.



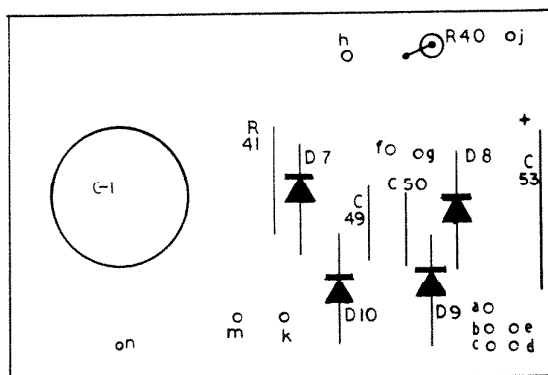
FOIL SIDE CALL OUTS



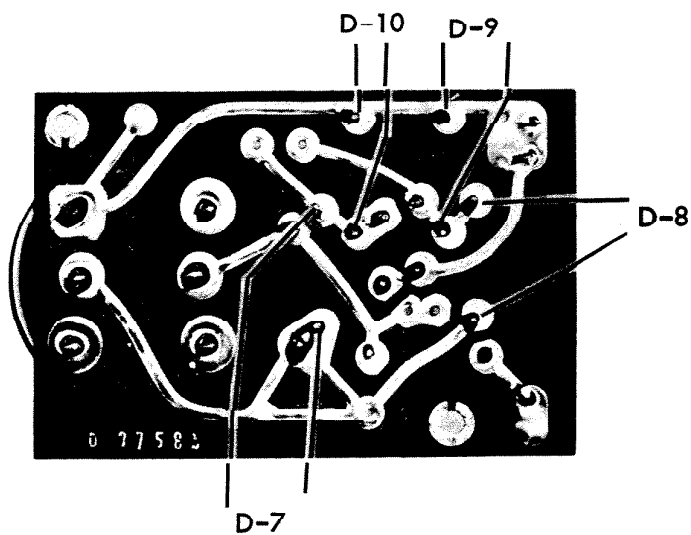
POWER SUPPLY P/C BOARD



P/C BOARD COMPONENT LOCATION



FOIL SIDE CALLOUTS

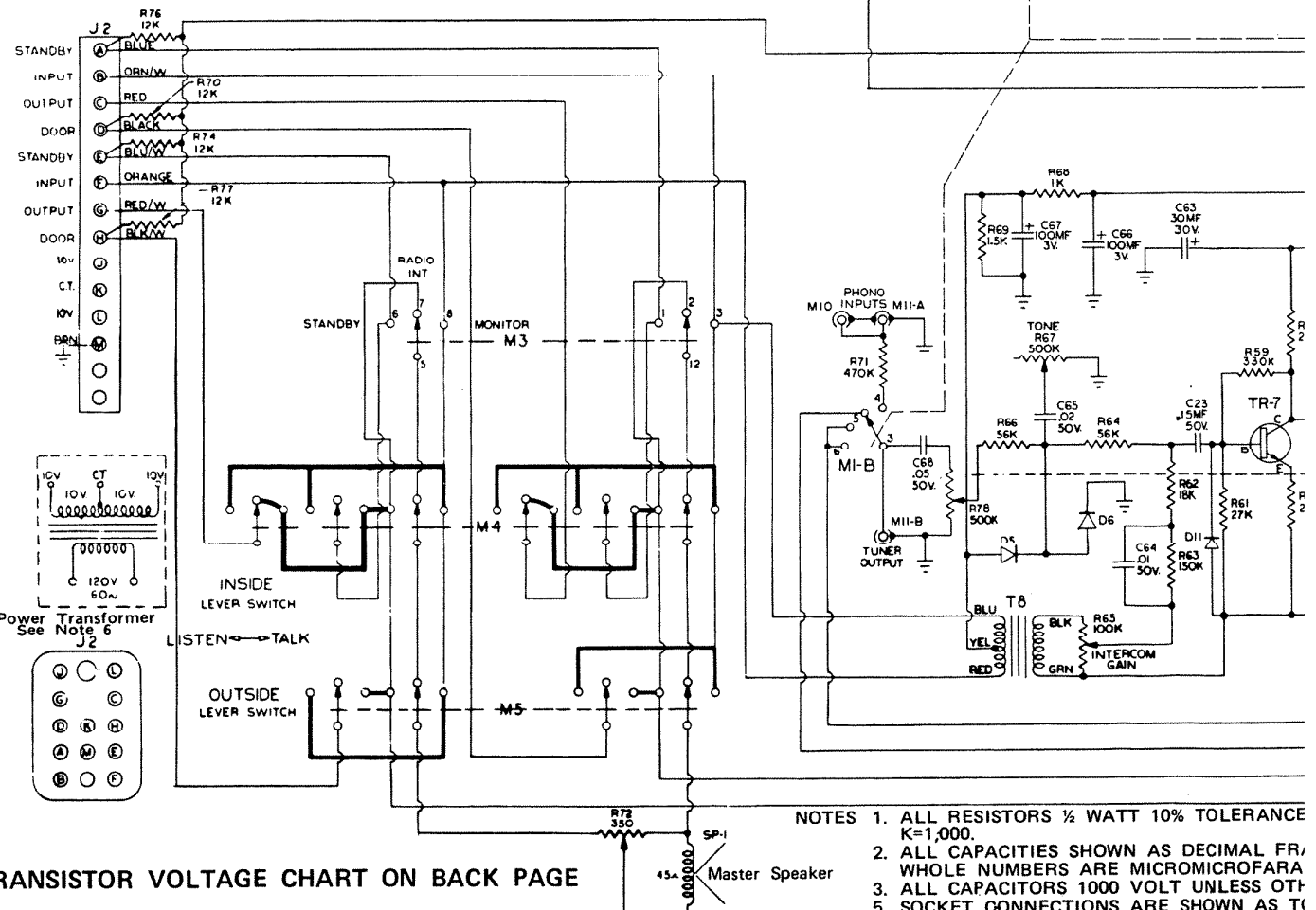
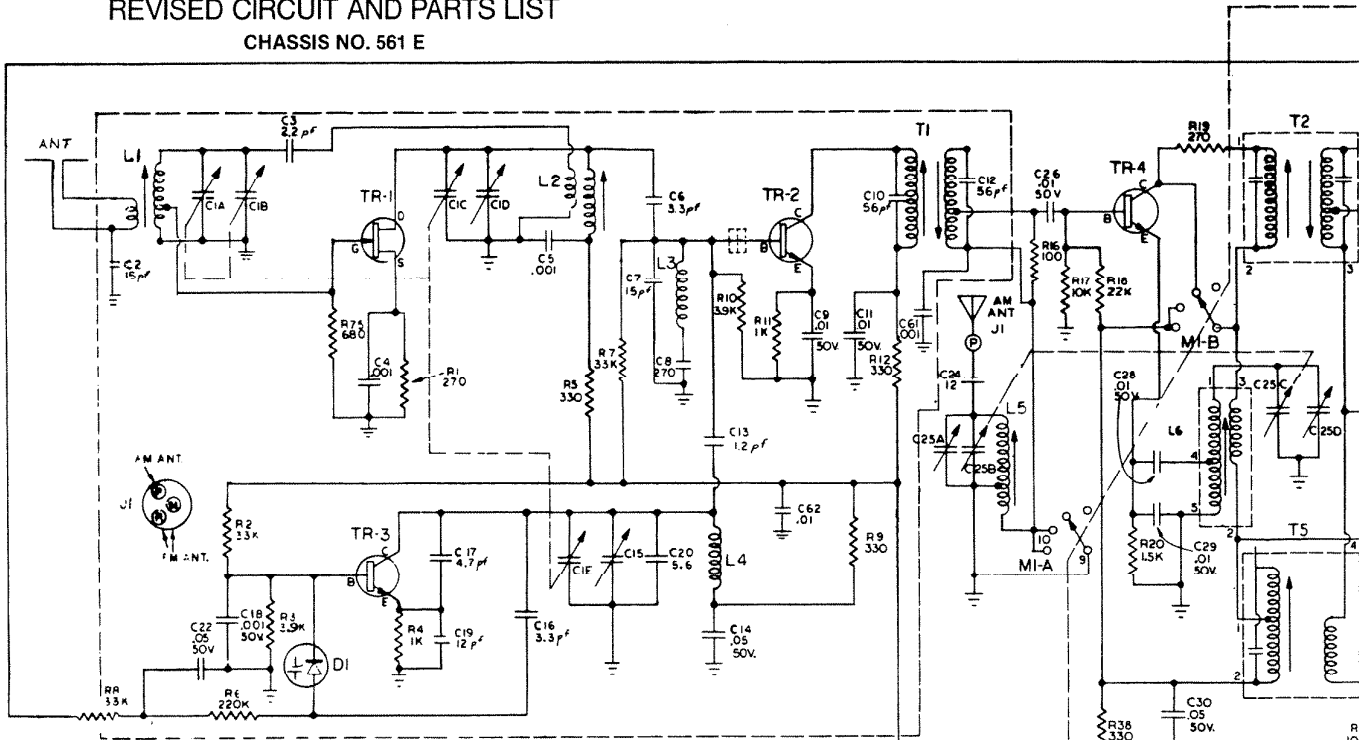


Supplemental Information No. 2

FOR ALIGNMENT, IF, RF, SEE FRONT SECTION THIS SERVICE MANUAL

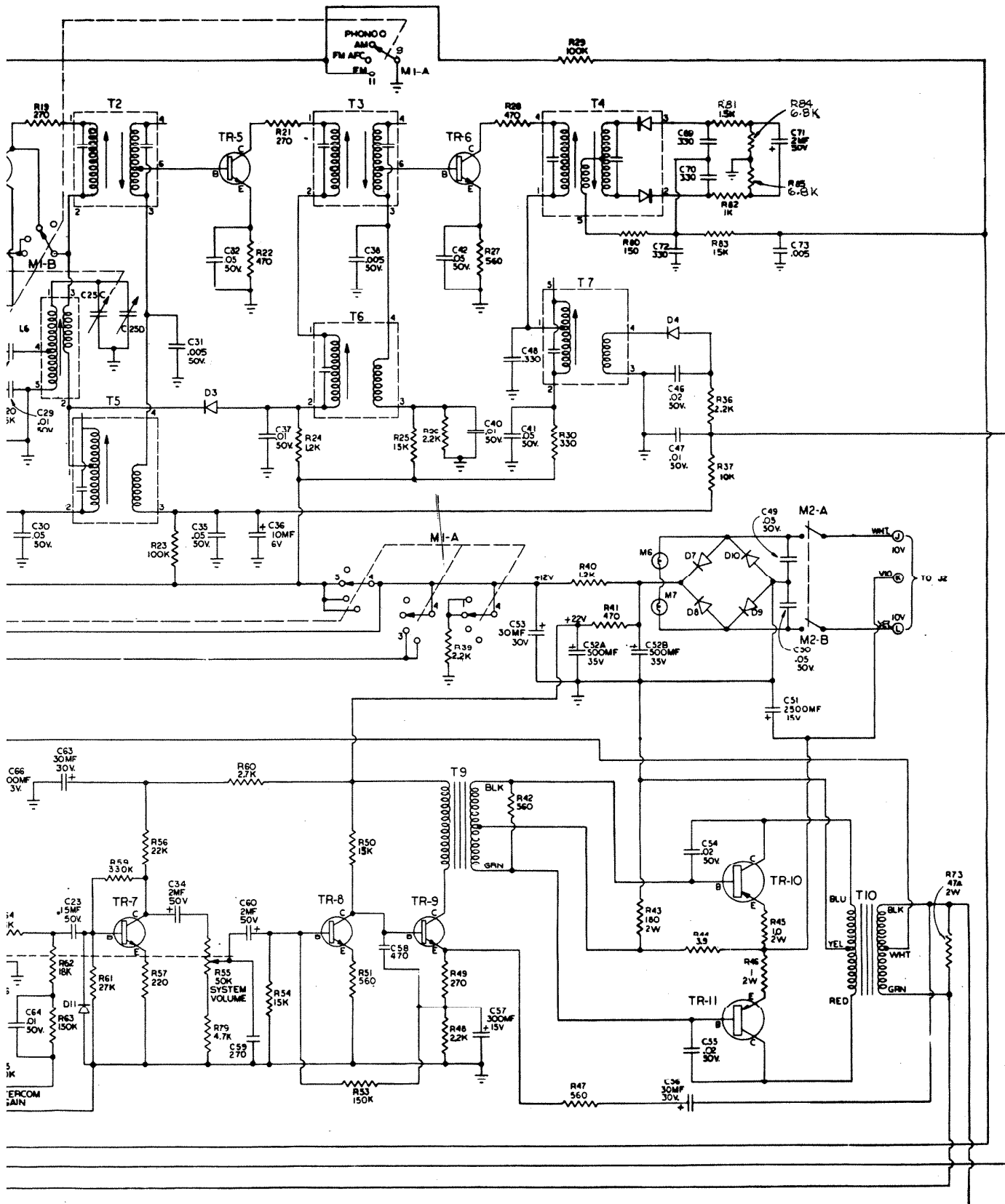
REVISED CIRCUIT AND PARTS LIST

CHASSIS NO. 561 E



- NOTES
1. ALL RESISTORS 1/2 WATT 10% TOLERANCE K=1,000.
 2. ALL CAPACITIES SHOWN AS DECIMAL FR/WHOLE NUMBERS ARE MICROMICROFARA
 3. ALL CAPACITORS 1000 VOLT UNLESS OT
 5. SOCKET CONNECTIONS ARE SHOWN AS T
 6. TRANSFORMER IS MOUNTED REMOTE FR
 7. HEAVY LINES ON M4 AND M5 INDICATE

TRANSISTOR VOLTAGE CHART ON BACK PAGE
ALL TRANSISTOR VOLTAGES ARE POSITIVE

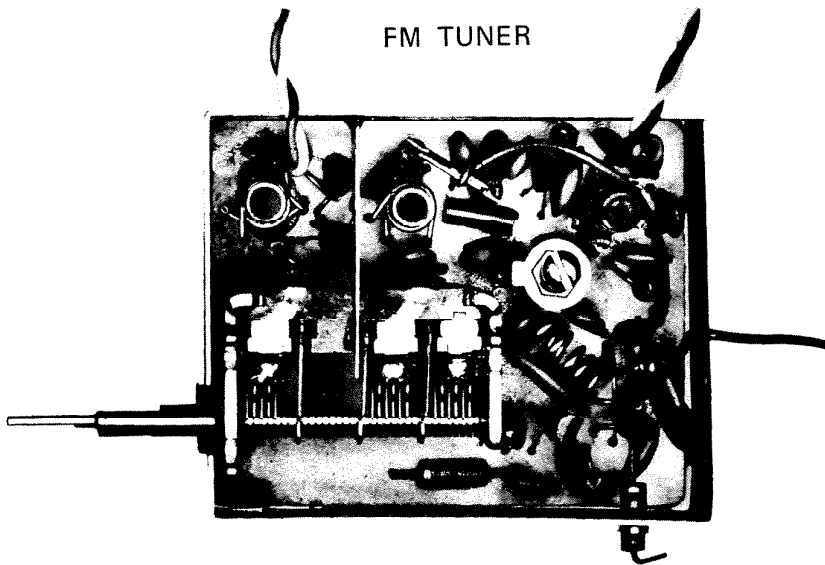


TT 10% TOLERANCE UNLESS OTHERWISE NOTED, VALUES IN OHMS,

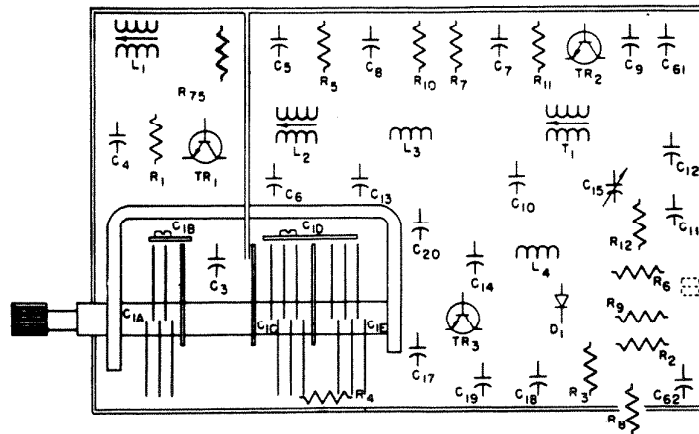
N AS DECIMAL FRACTIONS ARE MICROFARADS AND SHOWN AS
 E MICROMICROFARADS UNLESS OTHERWISE NOTED.
 V VOLT UNLESS OTHERWISE NOTED.
 S ARE SHOWN AS TOP (OR PLUG END) VIEWS.
 UNTED REMOTE FROM SET. (T11)
 AND M5 INDICATE INTERNAL SWITCH CONNECTION.

NUTONE
 Model N2561B - N2562B
 Chassis No. 561E
FET FM RF AMPLIFIER
 All Silicon Transistors

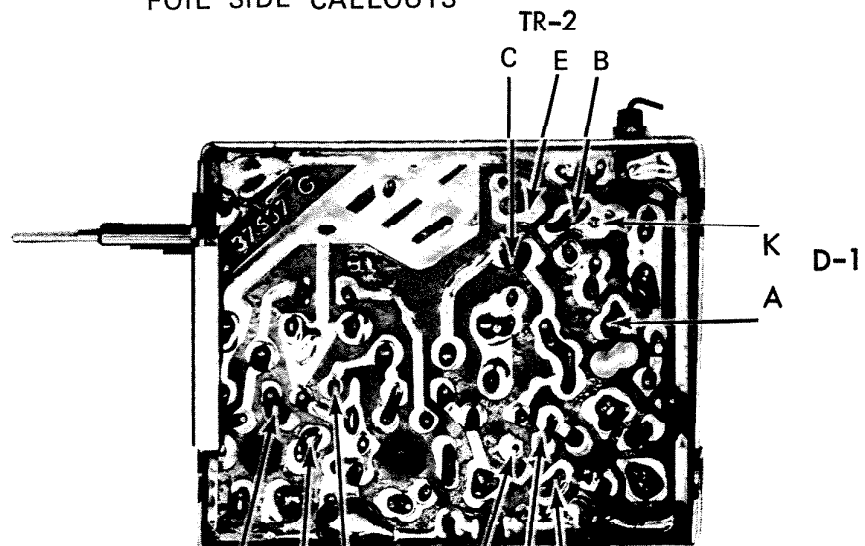
FM TUNER



P/C BOARD COMPONENT LOCATION



FOIL SIDE CALLOUTS



S G D
TR-1

B C E
TR-3

AMPLIFIER PARTS LIST

CHASSIS 561H - SUPPLEMENT NO.3

Ref. No.	NuTone Part No.	Description	Ref. No.	NuTone Part No.	Description
TRANSISTORS			RESISTORS (contd)		
TR-7	36606 (Motorola M052)	Driver	R-65	33101-272	2.7 K ohms
TR-8	36580 (Motorola M-7)		R-66	33101-101	100 ohms
TR-9	36580 (Motorola M-7)		CAPACITORS		
TR-10	36606 (Motorola M052)	Driver	*C-51	35100-140	.02 mfd @ 50V
TR-11	36606 (Motorola M052)	Driver	C-54	35100-141	.05 mfd @ 50V
TR-12	36613 (Motorola MPS A20)	Driver	C-55	35068-107	100 mfd @ 3V
TR-13	36613 (Motorola MPS A20)	Driver	C-56	35100-134	470 pf
TR-14	36606 (Motorola M052)	Driver	C-57	35100-142	330 pf
TR-15	36614	Power Output	C-58	35100-127	.1 mfd @ 100V
TR-16	36614	Power Output	C-59	35068-115	100 mfd @ 25V
TR-17	36613 (Motorola MPS A20)	Driver	C-60	35068-115	100 mfd @ 25V
DIODES			C-62	35100-144	56 pf
D-11	36549 (Motorola 1N4002)	Silicon Rectifier	C-63	35100-144	56 pf
D-12	36549 (Motorola 1N4002)	Silicon Rectifier	C-64	35100-127	.1 mfd @ 100V
D-13	36549 (Motorola 1N4002)	Silicon Rectifier	C-65	35085-101	500 mfd @ 25V
D-14	36549 (Motorola 1N4002)	Silicon Rectifier	C-66	35100-141	.05 mfd @ 25V
D-15	36549 (Motorola 1N4002)	Silicon Rectifier	C-76	35100-140	.02 mfd @ 50V
RESISTORS			*Shown as C-53 on P/C board.		
R-43	33101-393	39 K ohms	TRANSFORMERS		
R-44	33101-393	39 K ohms	T-1	30587	Input
R-45	34023	Potentiometer	COMPONENT COMBINATIONS		
R-46	33101-153	15 K ohms	P-1	33032	Resistor Pack
R-47	33101-103	10 K ohms	POWER SUPPLY		
R-48	33101-272	2.7 K ohms	DIODES		
R-49	33101-102	1 K ohms	D-7	36549 (Motorola 1N4002)	Silicon Rectifier
R-51	33101-104	100 K ohms	D-8	36549 (Motorola 1N4002)	Silicon Rectifier
R-52	33101-473	47 K ohms	D-9	36549 (Motorola 1N4002)	Silicon Rectifier
R-53	33101-104	100 K ohms	D-10	36549 (Motorola 1N4002)	Silicon Rectifier
R-54	33101-124	120 K ohms	RESISTORS		
R-55	33101-683	68 K ohms	R-40	33101-102	1 K ohm
R-56	33101-820	82 ohms	R-41	33101-470	47 ohms
R-57	33101-473	47 K ohms	CAPACITORS		
R-59	33101-221	220 K ohms	C-1	35083	500/500 mfd. @ 40V
R-60	33101-221	220 K ohms	C-49	35100-141	.05 mfd. @ 50V
R-61	33101-152	1.5 K ohms	C-50	35100-141	.05 mfd. @ 50V
R-62	33101-010	1 ohm 2 watt W/W	C-53	35068-104	30 mfd. @ 30V
R-63	33101-010	1 ohm 2 watt W/W			
R-64	33101-471	470 ohms			

TUNER PARTS LIST

Ref. No.	NuTone Part No.	Description	Ref. No.	NuTone Part No.	Description
TRANSISTORS			RESISTORS (contd)		
TR-1	36582	FET FM RF Amplifier	R-8	33101-333	33 K ohms
TR-2	36578	FM Mixer	R-10	33101-392	3.9 K "
TR-3	36581	FM Oscillator	R-11	33101-102	1 K ohm
C-3	35101-127	2.2 pf	R-12	33101-331	330 ohms
C-4	35100-120	.001 mfd	R-75	33101-681	680 ohms
C-5	35100-120	.001 mfd	VARIABLE CAPACITORS		
C-6	35101-134	3.3 pf	C-1	35084	FM Tuning Capacitor
C-7	35101-130	15 pf	C-15	35078	Tubular FM Oscillator Trimmer
C-8	35100-124	270 pf	TRANSFORMERS		
C-9	35100-139	.01 mfd	T-1	30524	FM IF Transformer
C-10	35100-144	56 pf	T-2	30567	FM IF Transformer
C-11	35100-139	.01 mfd	T-3	30574	FM Ratio Detector
C-12	35100-144	56 pf	COILS		
C-13	35101-126	1.2 pf	L-1A	30068	Antenna Primary
C-14	35100-141	.05 mfd	L-1B	30069	FM Antenna
C-18	35100-120	.001 mfd	L-1C	30070	Antenna Trap
C-19	35101-132	12 pf	L-2A	30071	Mixer
C-20	35101-137	5.6 pf	L-4	30063	FM Oscillator
C-22	35100-141	.05 mfd	COMPLETE FM TUNER ASSEMBLY 41301		
C-74	35100-120	.001 mfd	NOTE: This Tuner is not interchangeable with prior		
C-75	35100-139	.01 mfd	Production Units.		
RESISTORS					
R-1	33101-271	270 K ohms			
R-2	33101-333	33 K "			
R-3	33101-392	3.9 K "			
R-4	33101-102	1 K "			
R-5	33101-331	330 "			
R-6	33101-224	220 K "			
R-7	33101-333	33 K "			

NuTone Division

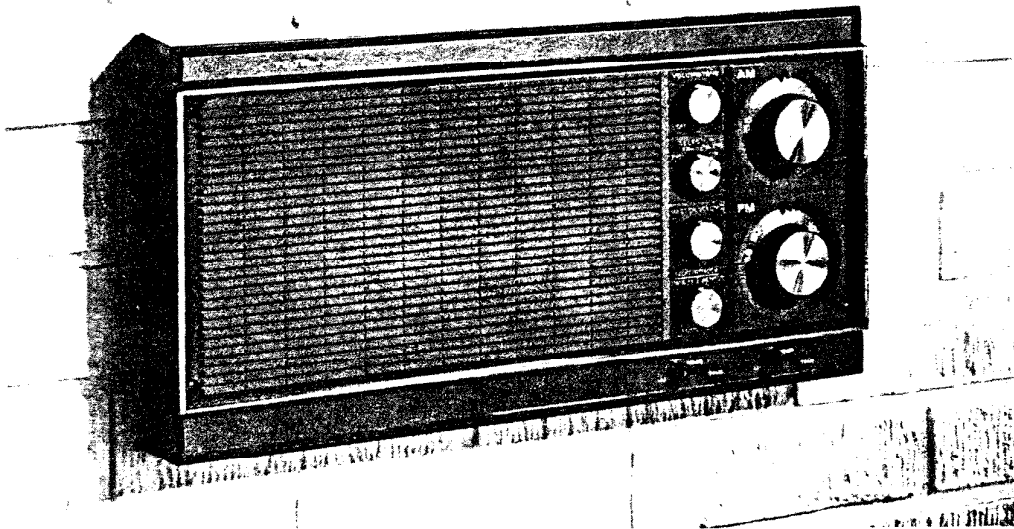
Supplemental Information

NO.4

FOR ALIGNMENT, IF, RF, SEE NUTONE
SERVICE MANUAL PART NO. 37382

REVISED CIRCUIT AND PARTS LIST

CHASSIS NO. 561 J



AM-FM TRANSISTOR RADIO and INTERCOM

Models N2561-N2562

NuTone

Madison and Red Bank Roads • Cincinnati, Ohio 45227

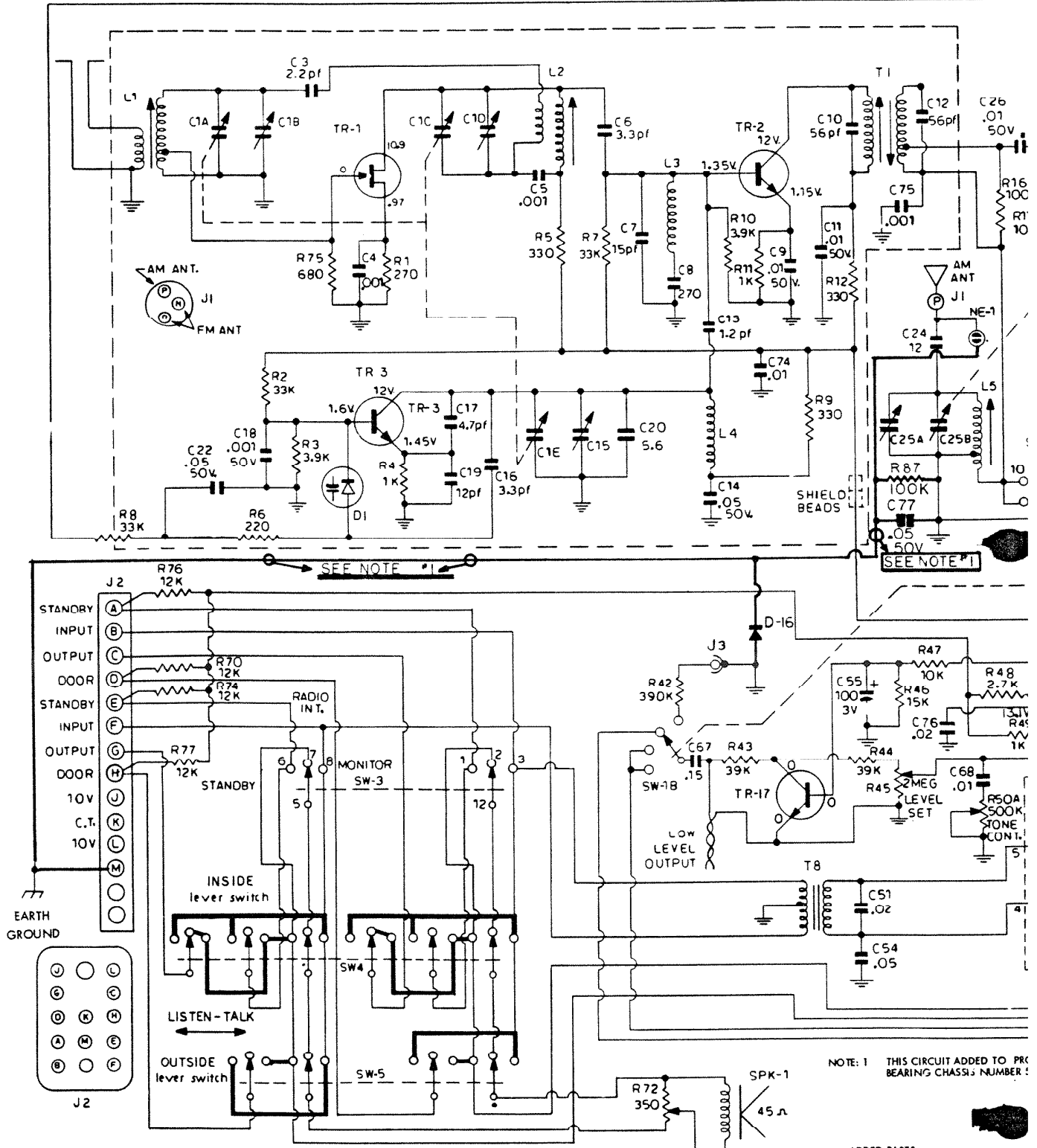
Supplemental Information No. 4

FOR ALIGNMENT, IF, RF, SEE NUTONE
SERVICE MANUAL PART NO. 37382

REVISED CIRCUIT AND PARTS LIST

CHASSIS NO. 561 J

MODEL N2561-N2
SCHEMATIC DIAG
FOR PRODUCTION
CHASSIS NO. 561-



SEE NOTE #1

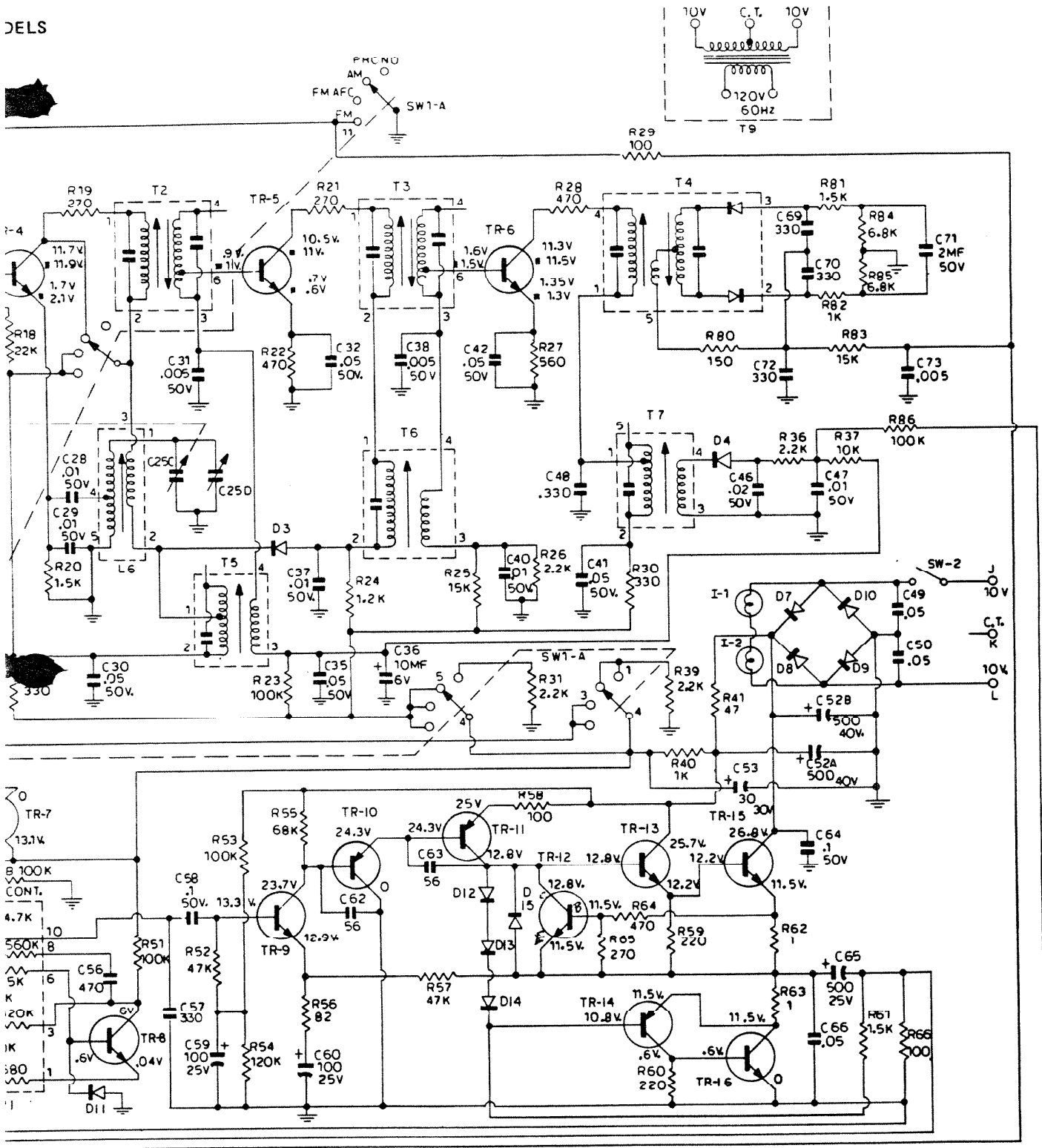
SEE NOTE #1

NOTE: 1 THIS CIRCUIT ADDED TO PRE BEARING CHASSIS NUMBER:

ADDED PARTS:	NUTONE PART NO
REF. NO.	
D-16	#36612
R-87	31101-104
C-77	35100-141

33

DELS



IN UNITS
 VOLTAGE MEASUREMENTS TAKEN IN AM POSITION UNLESS OTHERWISE INDICATED.
 ■ VOLTAGE MEASUREMENTS TAKEN IN FM POSITION.

DESCRIPTION
 CON DIODE
 K OHMS
 @ 50 V

34

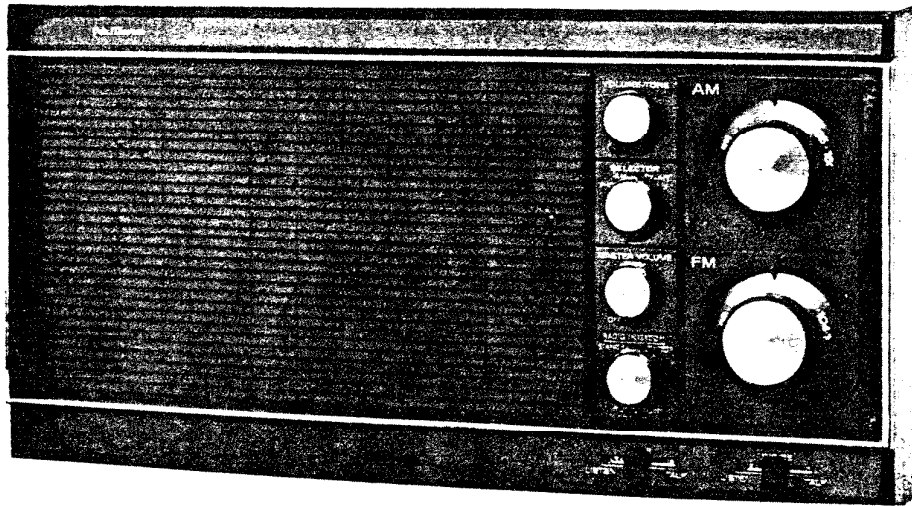
Supplemental Information

NO. 5

FOR ALIGNMENT, IF, RF, SEE NUTONE
SERVICE MANUAL PART NO. 37382

REVISED CIRCUIT AND PARTS LIST

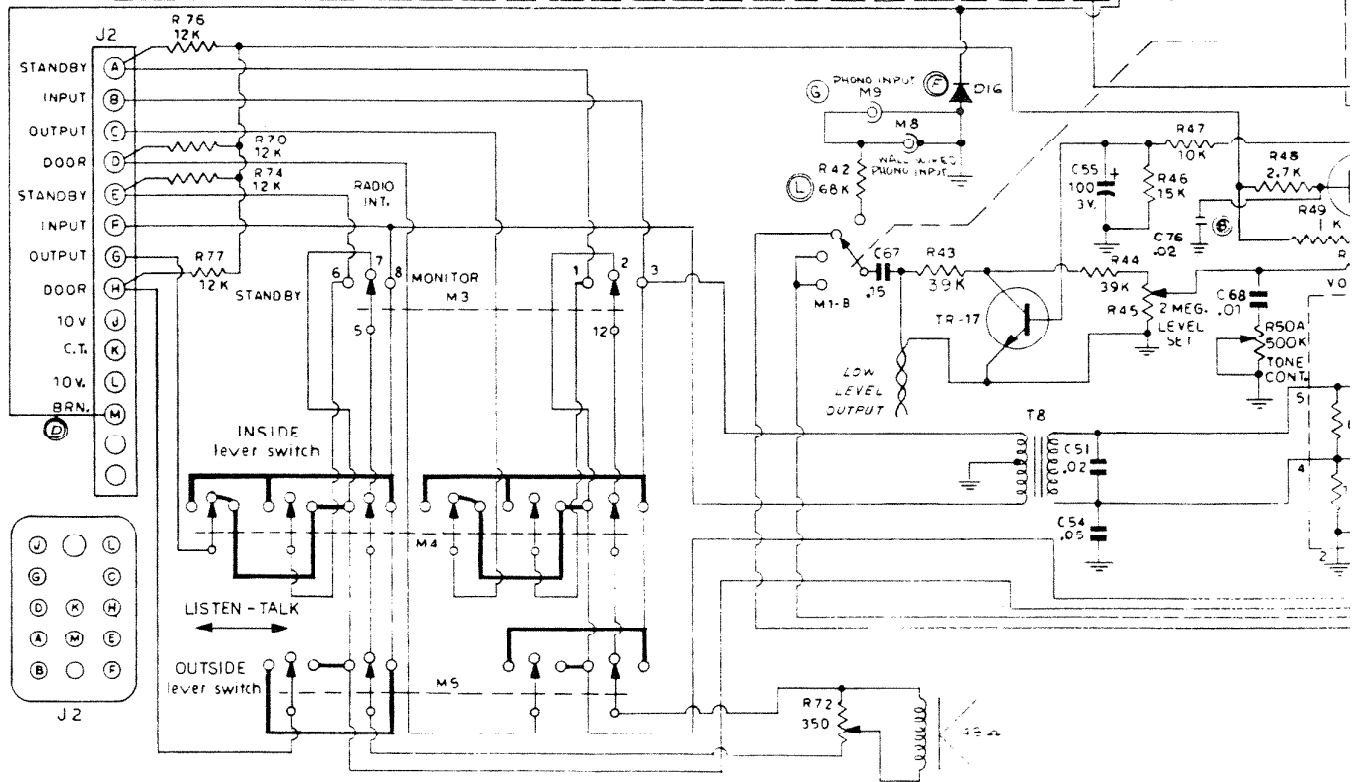
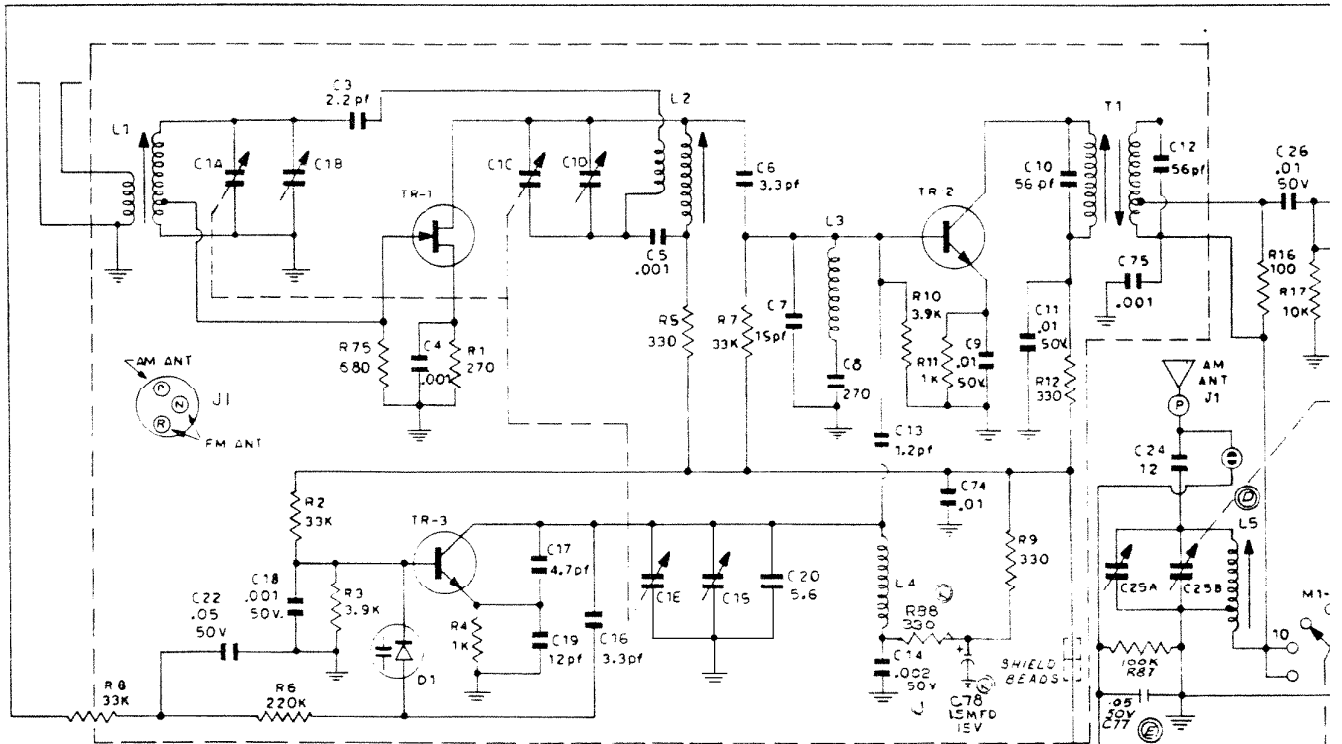
CHASSIS NO. 561 K

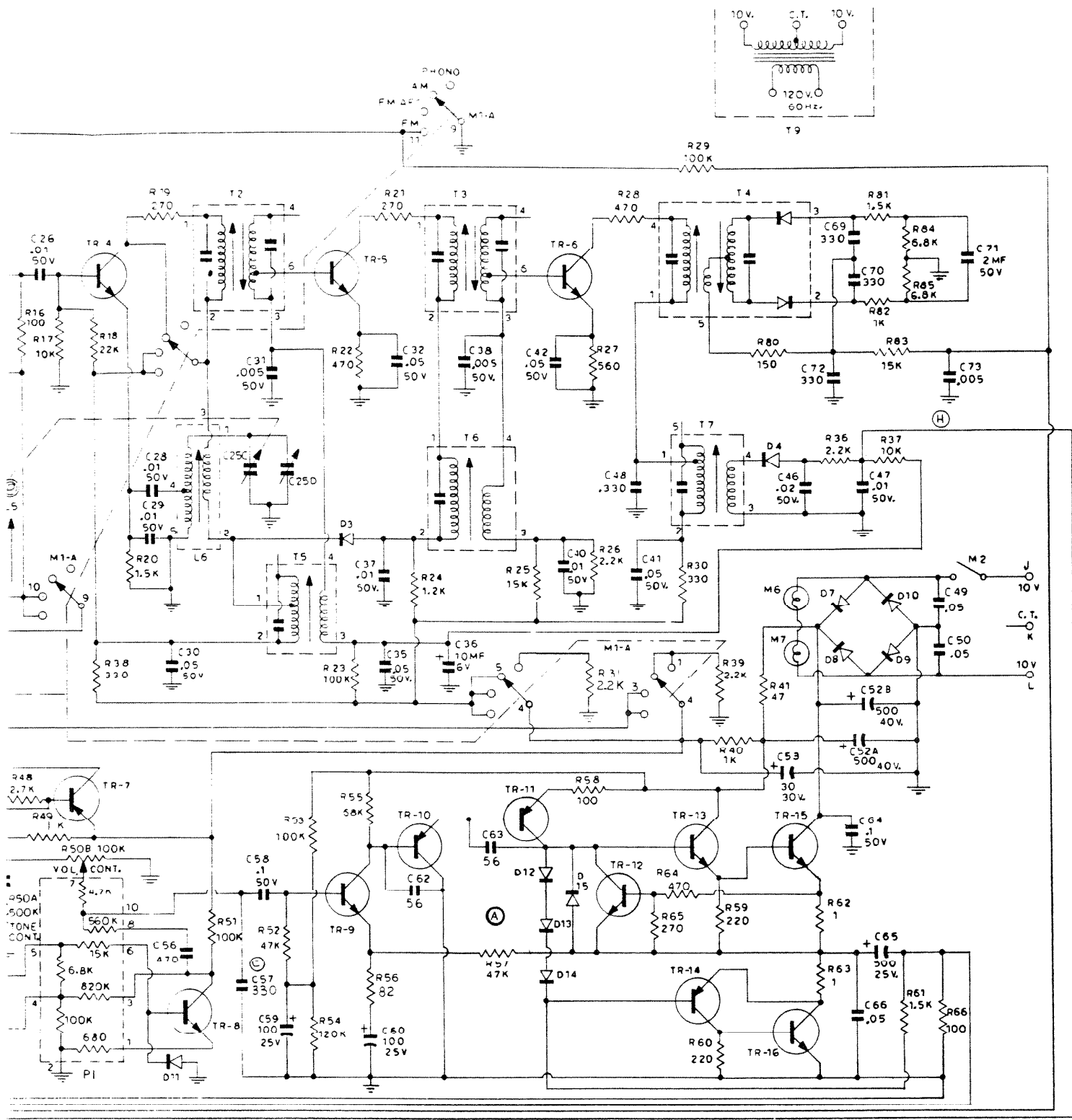


AM-FM TRANSISTOR RADIO and INTERCOM

Models N2561-N2562

NuTone





SCHEMATIC
Models N-2561 - N2562

REVISED CIRCUIT PARTS LIST AND VOLTAGE DATA

The following parts have been changed or added to stabilize FM reception and prevent drift.

ADD:

REF. NO.	PART NO.	DESCRIPTION
C-78	35068-109	15 Mfd. 15 Volt Electrolytic Capacitor
R-88	33101-331	330 Ohm ½ Watt Carbon Resistor

CHANGE:

C-14	35100-141	.05Mfd. 50V TO .002Mfd. 50V—Part #35110-106
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The following part has been changed in order to allow the Nutone Model 2603 Record Changer and 2605 8-Track Tape Player to be utilized without any circuit modifications.

CHANGE:

R-42 FROM 390K Ohms Part #33101-394 TO 68K Part #33101-683

The following resistor was removed in order to obtain increased sensitivity of radio operation.

REMOVE:

R-86 100K Ohms

TRANSISTOR VOLTAGE CHART (Average DC Voltages)

	<u>S</u>	<u>G</u>	<u>D</u>		<u>E</u>	<u>B</u>	<u>C</u>
TR-1	1.5	0	10	TR-7	*11.9	11.2	11.8
				TR-8	.04	.6	6
	<u>E</u>	<u>B</u>	<u>C</u>	TR-9	12.9	13.3	23.7
TR-2	.7	1.2	11.5	TR-10	24.3	23.7	0
TR-3	.7	1.1	12	TR-11	25	24.3	12.8
TR-4 (FM)	2.7	3.3	11.3	TR-12	11.5	11.5	12.8
TR-4 (AM)	3	3.6	12.8	TR-13	12.2	12.8	25.7
TR-5 (FM)	.5	1.2	11	TR-14	11.5	10.8	.6
TR-5 (AM)	.6	1.3	11.5	TR-15	11.5	12.2	26.8
TR-6 (FM)	.8	1.5	11.5	TR-16	0	.6	11.5
TR-6 (AM)	.9	1.6	12	TR-17	0	0	0
TR-7	13.1	13.1	0	TR-17	*0	.7	0

* Voltages during Intercom Operation (Inside Listen Talk or Outside Listen Talk)

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