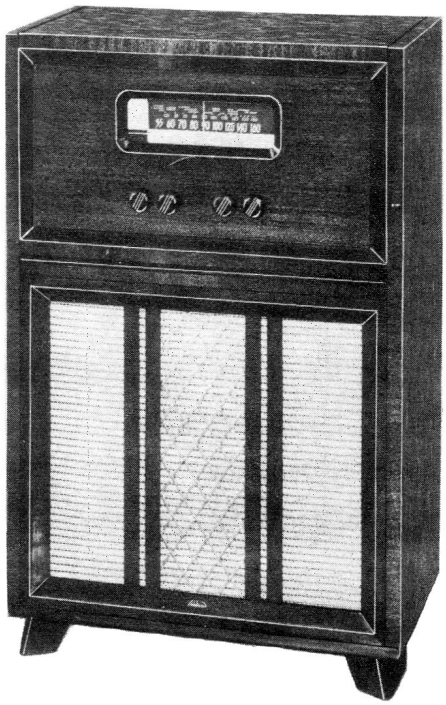
Addison NORGE

SERVICE BULLETIN

ADDISON MODEL A44, B44 RADIO CONSOLE

Electrical and Mechanical Specifications



Frequency Ranges
- Standard Broadcast 540-1650 kcs.
- Short Wave 5.5-18.0 mcs.

Tube Complement
- Type 6SA7 Frequency Converter
- " 6SK7 I.F. Amplifier
- " 6SQ7 2nd Det., A.V.C. 1st A.F. Amplifier
- Type 6J5 Phase Inverter
- " 6K6GT Power Output
- " 6K6GT Power Output
- " 5Y3GT Full Wave Rectifier

Pilot Lamps (2) Mazda No. 44 6.3 volt .25 amp bayonet base.

Power Supply Ratings
- Model A44 105-125 volts, 25 cycles, 90 watts
- Model B44 105-125 volts, 60 cycles, 90 watts

Power Output
- Undistorted 6.0 watts
- Maximum 8.0 watts

Loudspeaker
- Type 10" Electrodynamic
- Field Resistance 500 ohms
- Impedance of V.C. 3.2 ohms at 400 C.P.S.

Cabinet Dimensions
- Height - 36 inches
- Width - 22.7/8 inches
- Depth - 11.5/8 inches

Phono attachment Jack
- Phono power receptacle

Controls

1. Volume and Off-on switch
2. Tone control
3. Broadcast-Short Wave and Phono switch
4. Dial Tuning

GENERAL DESCRIPTION

The Model 44 employs a seven tube A.C. operated two band super-heterodyne chassis, the physical arrangement of which is indicated in Fig. 1, the electrical arrangement is outlined in the Schematic Diagram Fig. 3 Features of design include: Built-in Antenna, continuously variable tone control, low volume bass compensation circuit and large easily read edge - lighted dial, accurately calibrated for each band.

CIRCUIT ARRANGEMENT

The circuit consists of a first detector and local oscillator stage incorporating the antenna system as the first tuned circuit; I.F. Amplifier stage; second detector, A.V.C. and first audio amplifier stage; degenerative phase inverter; push pull pentode output stage and a well regulated power supply.

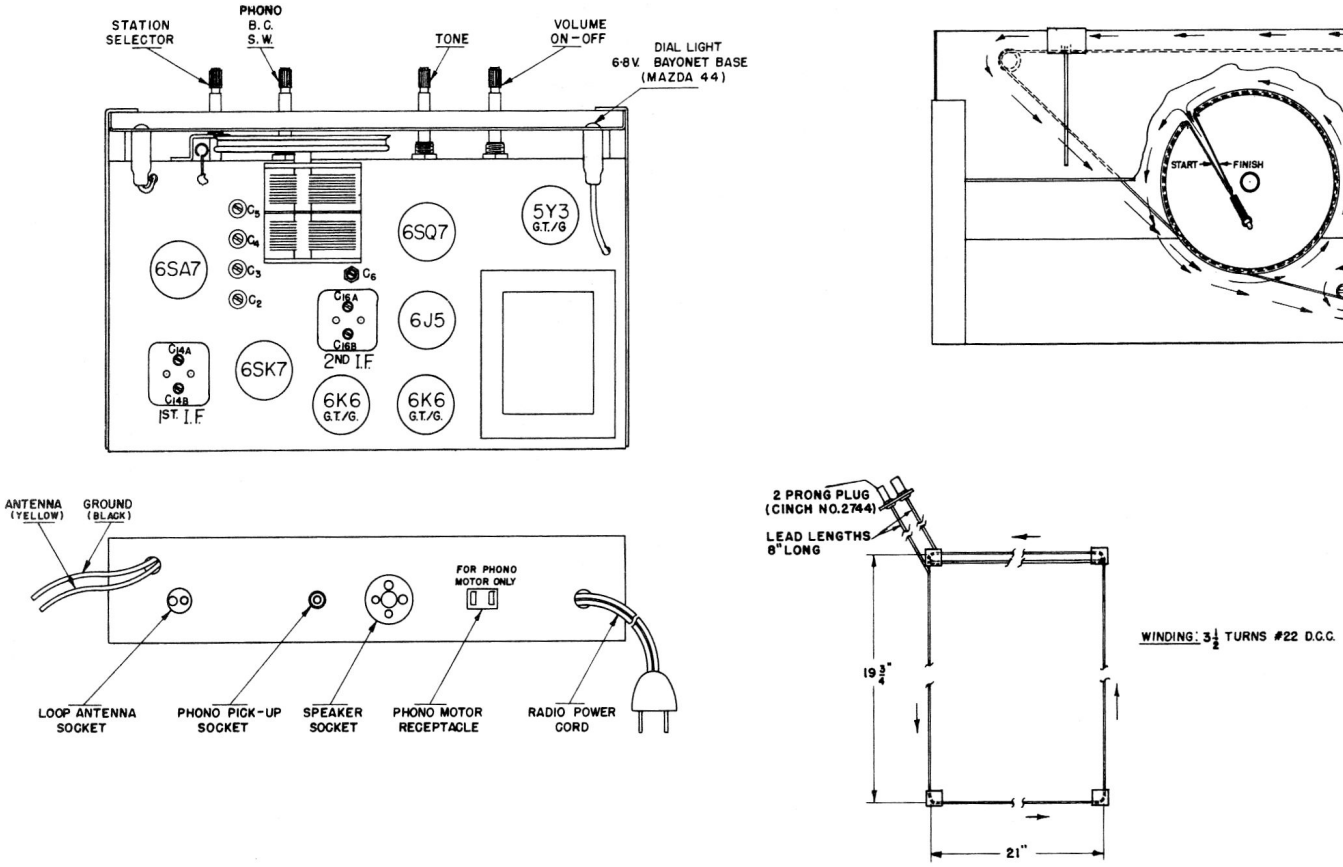


Fig. 1

ALIGNMENT PROCEDURE

All tuned circuits in this receiver have been accurately adjusted at the factory, and any further adjustment should not be necessary. If any re-alignment is required the procedure outlined in the Chart of Alignment Fig. 2 should be followed in the order shown.

Output Meter - Connect meter leads to the voice coil terminals of the speaker and turn the receiver volume control to maximum.

Test Oscillator or Signal Generator - For all alignment operations connect the ground side of the test apparatus to the receiver chassis, and keep the signal input to the circuit being tuned as low as possible to avoid A.V.C. action.

CHART OF ALIGNMENT PROCEDURE

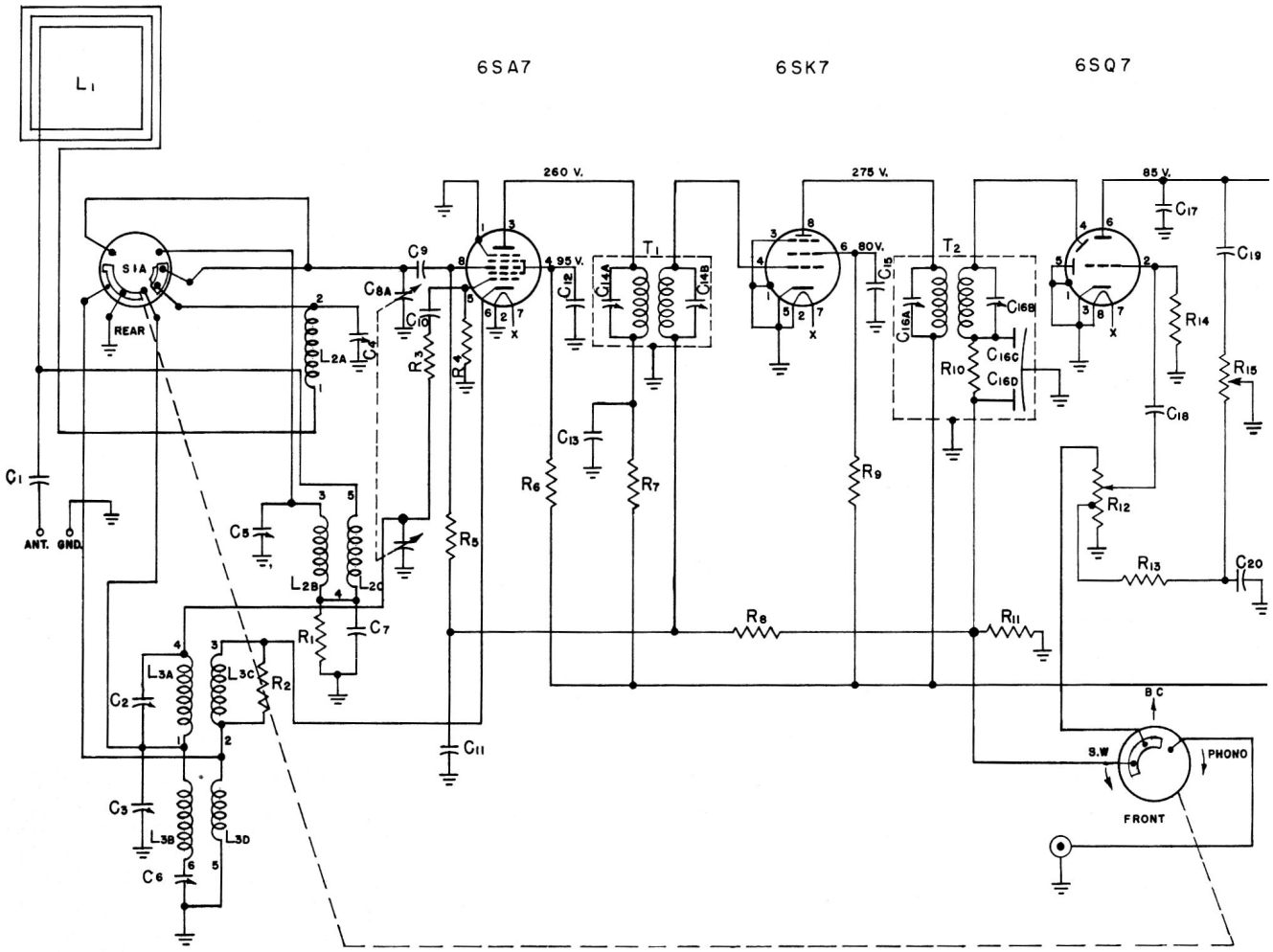
TEST OSCILLATOR				BAND SWITCH SETTING	RECEIVER DIAL SETTING	CIRCUIT TO ADJUST	SYMBOL ON SCHEMATIC
STEPS IN ALIGNMENT	CONNECTION TO RECEIVER	DUMMY ANTENNA	FREQUENCY SETTING				
1.	CONTROL GRID 6SK7 PIN NO. 4	.05 MFD.	456 KC.	B.C.	NO SIGNAL 540-700KC.	2ND I.F. TRANS-FORMER	C16A C16B
2.	CONTROL GRID 6SA7 PIN NO. 8	.05 MFD.	456 KC.	B.C.	NO SIGNAL 540-700 KC.	1ST I.F. TRANS-FORMER	C14A C14B
3.	ANTENNA LEAD (YELLOW)	400 OHMS.	16 MC.	S.W.	16 MC.	S.W. OSC.	C2
4.	ANTENNA LEAD (YELLOW)	400 OHMS	16 MC.	S.W.	16 MC.	S.W. ANT.	C5
5. SEE NOTE 1.	ANTENNA LEAD (YELLOW)	400 OHMS.	16 MC.	S.W.	APPROX. 16.9 MC.	NONE - INCREASE IN-PUT SIGNAL FROM TEST-OSCILLATOR APPROX. 5 TIMES.	
6.	ANTENNA LEAD (YELLOW)	200 MMF.	600 KC.	B.C.	600 KC.	B.C.OSC. LOW FREQUENCY PADDER.	C6
7.	ANTENNA LEAD (YELLOW)	200 MMF.	1500 KC.	B.C.	1500 KC.	B.C.OSCILLATOR TRIMMER	C3
8. SEE NOTE 2.	ANTENNA LEAD (YELLOW)	200 MMF.	1500 KC.	B.C.	1500 KC.	B.C. ANTENNA	C4

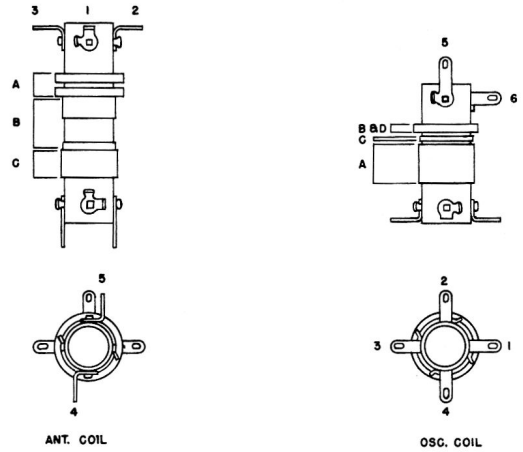
NOTE:- 1. THE PURPOSE OF STEP NO. 5 IS TO PROVE THAT THE SHORT WAVE BAND HAS BEEN CALIBRATED TO THE SIGNAL FREQUENCY AND NOT AN IMAGE.

ON SHORT WAVE THE OSCILLATOR OF THIS RECEIVER TUNES LOWER THAN THE SIGNAL FREQUENCY. IF THE TEST SIGNAL IS HEARD AT APPROX. 16.9 MC. THE OSCILLATOR IS TUNED TO THE CORRECT FREQUENCY.

NOTE:- 2. ALIGNMENT OF THE BROADCAST BAND SHOULD BE MADE WITH THE LOOP ANTENNA CONNECTED. FOR CONVENIENCE IT MAY BE NECESSARY TO USE EXTENSION LEADS BETWEEN THE LOOP PLUG AND THE RECEIVER CHASSIS.

Fig. 2


L1
6SA7
6SK7
6SQ7
260 V.
275 V.
85 V.
95 V.
80V.
S1A
REAR
C1
ANT. GND.
L2A
L2B
L2C
C4
C5
C8A
C9
C10
R3
R4
R5
C12
C14A
C14B
T1
R6
C13
R7
R8
C15
R9
T2
C16A
C16B
C16C
C16D
R10
R11
C17
C18
C19
R12
R13
R14
R15
C20
R1
C7
L3A
L3C
R2
C2
C3
L3B
L3D
C6
C11
B C
S.W
PHONO
FRONT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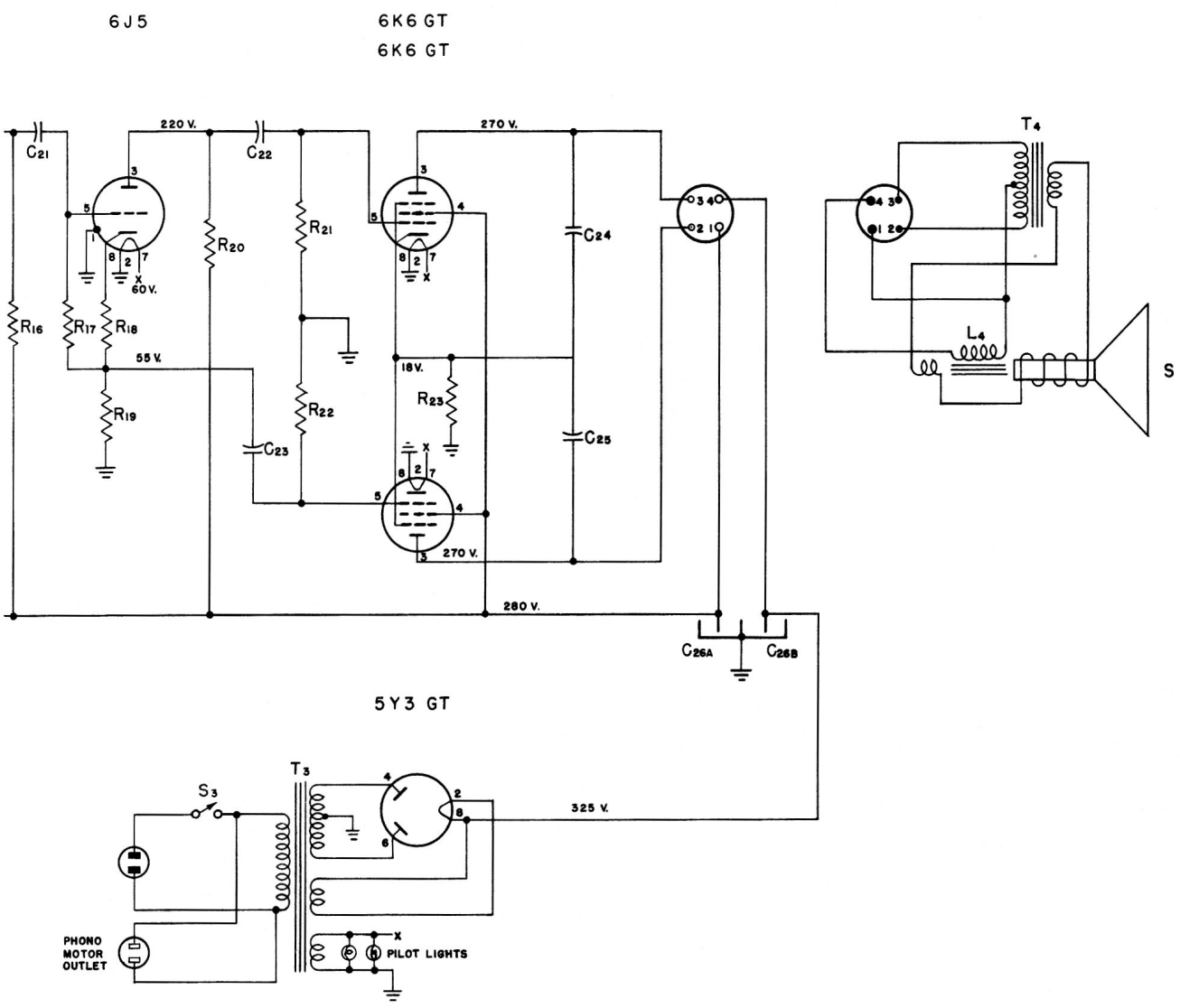

NOTE:

ALL VOLTAGES MEASURED TO CHASSIS WITH PHONO-RADIO SWITCH IN RADIO POSITION. METER SENSITIVITY 20,000 OHMS. PER VOLT

PHONO & R.F. SWITCH GANGED ON SAME WAFER

SELECTOR SWITCH SHOWN IN BROADCAST POSITION

PARTS LIST FOR MODEL 44

CODE	PART NO.	DESCRIPTION
R1		. . . . . 10,000 ohms 1/2 W. Resistor
R2		. . . . . 220 ohms +/- 10% 1/2 W. Wire Wound Resistor
R3		. . . . . 27 ohms 1/2 W. "
R4		. . . . . 25,000 ohms +/- 10% 1/4 W. "
R5		. . . . . 470,000 ohms 1/4 W. "
R6		. . . . . 22,000 ohms +/ - 10% 2 W. "
R7		. . . . . 10,000 ohms 1/2 W. "
R8		. . . . . 2 Megohms 1/4 W. "
R9		. . . . . 68,000 ohms 1/2 W. "
R10		. . . . . 47,000 ohms 1/4 W. Part of T2 "
R11		. . . . . 470,000 ohms 1/4 W. "
R12	76	. . . . . Volume Control 2 megohms with S3 "
R13		. . . . . 75,000 ohms +/- 10% 1/4 W. "
R14		. . . . . 10 Megohms 1/4 W.
R15	78	. . . . . Tone Control 2 Megohms
R16		. . . . . 330,000 ohms 1/4 W. "
R17		. . . . . 100,000 ohms 1/4 W. "
R18		. . . . . 2,200 ohms +/- 10% 1/2 W. "
R19		. . . . . 22,000 ohms 10% 1/2 W. "
R20		. . . . . 22,000 ohms 10% 1/2 W. "
R21		. . . . . 470,000 ohms 1/4 W. "
R22		. . . . . 470,000 ohms 1/4 W. "
R23		. . . . . 390 ohms +/- 10% 2 W.
C1		. . . . . Paper Tubular .001 mfd. 600 V.
C2)	56A	. . . . . (S.W. Osc. Trimmer 16 Mc) Variable
C3)		. . . . . (B.C. Osc. Trimmer 1500 Kc) Condensers
C4)		. . . . . (B.C. Ant. Trimmer 1500 Kc) each 2-22 mmfd.
C5)		. . . . . (S.W. Ant. Trimmer 16 Mc) complete 4 section unit
C6		. . . . . B.C. Osc. Padder 600 Kc. 300-850 mmfd.
C7		. . . . . Mica 4300 mmfd. +/- 5%
C8A	48	. . . . . (Tuning Condenser Ant. Section
C8B		. . . . . (Tuning Condenser Osc. Section
C9		. . . . . Mica 100 mmfd.
C10		. . . . . Mica 100 mmfd.
C11		. . . . . Paper Tubular .05 mfd. 400 V.
C12		. . . . . Paper Tubular .05 mfd. 400 V.
C13		. . . . . Paper Tubular .05 mfd. 400 V.
C14A		. . . . . Trimmer Condenser)
C14B		. . . . . Trimmer Condenser) Part of T1
C15		. . . . . Paper Tubular .05 mfd. 400 V.
C16A		. . . . . Trimmer Condenser)
C16B		. . . . . Trimmer Condenser) Part of T2
C16C		. . . . . Mica 100 mmfd.)
C16D		. . . . . Mica 100 mmfd.) Part of T2
C17		. . . . . Mica 220 mmfd.)
C18		. . . . . Paper Tubular .005 mfd. 600 V.
C19		. . . . . Paper Tubular .005 mfd. 600 V.

CODE	PART NO.	DESCRIPTION
C20		Paper Tubular .005 mfd. - 20% 600 V.
C21		" " .001 " - 40-20% "
C22		" " .005 " - 20% "
C23		" " " " - 20% "
C24		" " " " - 20% "
C25		" " " " - 20% "
C26A	99	(Electrolytic Condenser 30 mfd. 450 V.
C26B		(Electrolytic Condenser 30 mfd. 450 V.
T1	72	Transformer I.F. Input
T2	73	Transformer I.F. Output
T3	9A-25 cycle	Transformer Power
	10A-60 cycle	
T4	4A	Transformer Output
L2A	35A	(Antenna Coil B.C. Sec.
L2B		(Antenna Coil B.C. & S.W. Pri.
L2C		(Antenna Coil S.W. Sec.
L3A	34A	(Oscillator Coil S.W. Sec.
L3B		(Oscillator Coil B.C. Sec.
L3C		(Oscillator Coil S.W. Pri.
L3D		(Oscillator Coil B.C. Pri.
S1A	8F	Wave Change and Phono Switch
S	3A	Speaker 10" Electro - Dynamic
	56H. A & B	Dial Glass
	39A	Dial Pointer
	51A	Dial Pad, Rubber
	53A	Dial Light Socket
	35B	Dial Drive Cord
	62	Dial Backing
	79	Dial Drive Shaft
	71	Dial Drive Bracket
	73H. A, B & C	Knob
	52A	Speaker complete with Output Transformer
	97A	Glider Feet

NOTE: PARTS PRICE LIST WILL BE MAILED TO ALL DEALERS AS SOON AS POSSIBLE.

ADDISONS LIMITED

NATIONAL SERVICE DEPT.