MODELS 0526, 526A, 526B, 526C, 526E

AC-DC SUPERHETERODYNE RADIO RECEIVER

GENERAL

The Bendix Radio Models O526 and 526 incorporate two similar chassis designated as O-1 and R-1. They are both AC-DC operated, 5 tube, superheterodyne receivers providing reception of the Standard Broadcast Band. A high impedance loop antenna is installed on the back of the chassis. An outside antenna may be connected to the terminal, marked EXTERNAL ANTENNA, on the bottom of Models 526A and 526B and on the rear of Models 526C and 526E. The tuning gang is isolated from the chassis and carries AVC. Care must be exercised so that it is not grounded at any time. The Models shown in Fig. 1 and Fig. 2 use both the O-1 and R-1 chassis, but only the O-1 chassis is employed in Model 526E (see Fig. 3).

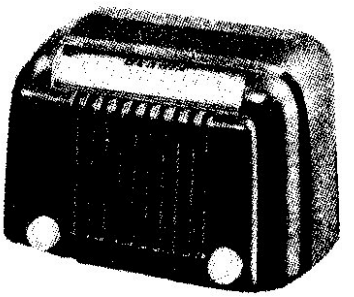


Fig. 1
Model 526A Brown Plastic
Model 526B Ivory Plastic

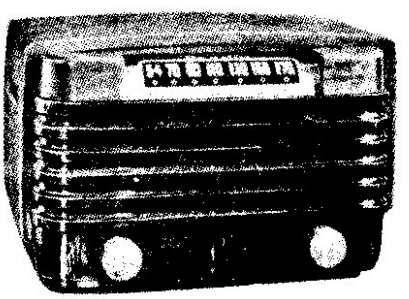


Fig. 2
Model 526C Black & Green Catalin

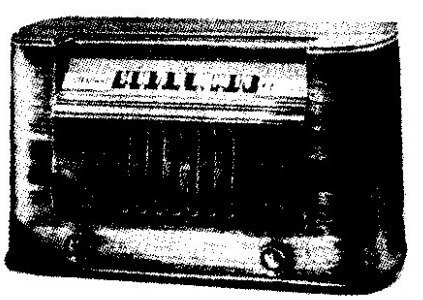


Fig. 3
Model 526E Walnut

SPECIFICATIONS

Power Requirements
105 - 125 Volts, 60 cycles AC
105 - 125 Volts DC
Power Consumption
30 Watts
Tuning Frequency Range
O526 - 540-1700KC
526 - 550-1600KC
Intermediate Frequency - 455KC
Power Output
Maximum - 1.88 Watts
Tube Complement - 5 Tubes
1-12SA7, 1-12SK7, 1-12SQ7, 1-50L6, 1-35Z5
Tuning Drive Ratio - 14:1
Pointer Travel - 4 Inches
Loudspeaker
4" Diameter PM
Voice Coil Impedance - 3.2 ohms @ 400 CPS

Stock No.	Description	0526C	526C
	CABINET COMPONENTS FOR 0526C & 526C		
BZ0B04	BACK—Tekwood, Cabinet	X	X
BZ0R03	BUMPER—Rubber, Cabinet	X	X
DS0A00	DIAL—Plastic (540-1700)	X	
DS0A13	DIAL—Plastic (550-1600)		X
GC0D00	GASKET—Cork, Dial	X	X
GF0S00	GASKET—Felt, Speaker	X	X
GR0D00	GASKET—Rubber, Dial	X	X
HC0S08	CLIP—Knob Retainer Spring	X	X
HZ0S01	STUD—Trimount, Cabinet	X	X
ID0M01	INDICATOR—Metal Dial Pointer	X	X
KC0G00	KNOB—Control, Green	X	X
XS0C00	STRIP—Dial Cord Protector	X	X
ZC0B01	RETAINER—Dial, R.H.	X	X
ZC0B02	RETAINER—Dial, L.H.	X	X
ZC0T00	CABINET—Complete	X	X

	CABINET COMPONENTS FOR 0526E
BZ0B01	BACK—Tekwood, Cabinet
BZ0R02	BUMPER—Rubber, Cabinet
DS0A07	DIAL—Glass (540-1700)
GC0D00	GASKET—Cork, Dial
GZ0C01	GRILLE—Cloth & Cardboard Baffle
HG0D02	CLAMP—Dial Retainer
HK0R00	RING—Retainer Spring
ID0M03	INDICATOR—Metal Dial Pointer
KC0B00	KNOB—Control, Mottled Brown
PI0B01	PLATE—Asbestos Base
XS0C00	STRIP—Dial Cord Protector
ZW5A00	CABINET—Walnut

MODELS 0526, 526A,
526B, 526C, 526E

PRELIMINARY ALIGNMENT PROCEDURE

Connect line cord plug to 117 volt AC power source and allow receiver and test equipment to warm up for at least five minutes. Set Volume control at maximum and connect output meter across voice coil. (If a DC VTVM is available it may be more convenient to connect from tuning gang stator to chassis ground, thus using AVC voltage to indicate circuit resonance. Volume can then be kept low, no modulated signal is needed, and a steadier indication on the meter is obtained.) Make all adjustments in order given in table and tune for maximum output. Keep input as low as possible at all times.

For the O-1 chassis, pre-set dial pointer with gang condenser fully counterclockwise by sliding pointer on dial cord until it is exactly 2 inches from left end of dial back plate. Refer to alignment chart and to diagram of Dial Reference Points, Fig. 4, for proper input signals and their corresponding reference points.

On the R-1 chassis dial settings and frequency check points are indicated on the dial back plate.

PRECAUTIONS

An isolating transformer should be used between the power supply and the receiver if any of the test equipment is AC operated. The use of isolating capacitors is not recommended as AC through the capacitor may introduce hum modulation, and if the capacitors should break down, the test instruments are likely to be damaged.

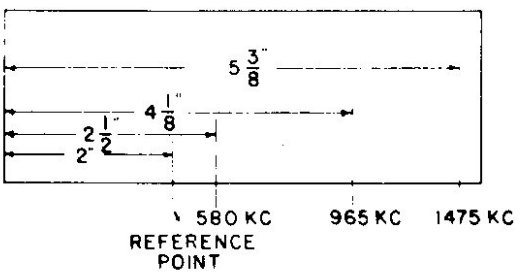


Fig. 4 Dial Reference Points O-1 Chassis

ALIGNMENT CHART

Generator Frequency	Generator Coupling	Circuit Aligned	Dial Setting	Adjust	Remarks
1) 455KC	Through .05 mfd to antenna	2nd IF	Maximum to right	C6a, C6b	Adjust for Maximum output
2) 1475KC	"	1st IF	5⅜" (See Fig. 4)	C3a, C3b	Adjust for Maximum output
3) 1475KC	"	RF	5⅜" (See Fig. 4)	C1b, C10	Adjust for Maximum output
4) REPEAT STEP 3 SEVERAL TIMES TO INSURE MAXIMUM OUTPUT					
5) 965KC	Through .05 mfd to antenna		4⅛" (See Fig. 4)		*Check Calibration
6) 580KC	"		2½" (See Fig. 4)		*Check Calibration

* If calibration is off more than 10KC bend plates of gang condenser. This is a very delicate operation and should be attempted only by experienced technicians.

CIRCUIT FOOTNOTES

The Schematic Diagram, Fig. 8, combines the two similar chassis O-1 and R-1. Where differences occur, changes are noted on the diagram by dotted lines, and a letter beside each circuit element involved indicates the corresponding footnote.

A. Capacitor C13a, b (40-40 mfd) is found in O-1 chassis. Capacitor C13a, b, c (40-40-12 mfd) is found in R-1 chassis.

B. R11 is 2200 ohms in O-1 chassis and 1500 ohms in R-1 chassis.

C. R14 (230 ohms) is used in R-1 chassis, not in O-1 chassis.

D. R10 (33 ohms) is not used in R-1 chassis.

E. R12 (33 ohms) is not used in R-1 chassis.

F. R9 (100 ohms) is not used in R-1 chassis.

G. R6 is 4.7 meg in O-1 chassis, but may be either 4.7 or 10 meg in R-1 chassis.

H. R15 (33 ohms) is not used in O-1 chassis.

I. C2 is .004 mfd in R-1 chassis, but may be .004 mfd or 470 mmf in O-1 chassis.

J. C4 (47 mmf) is 50 mmf in some receivers.

K. C9 may be either 300 mmf or 330 mmf in O-1 chassis. It is not used in R-1 chassis.

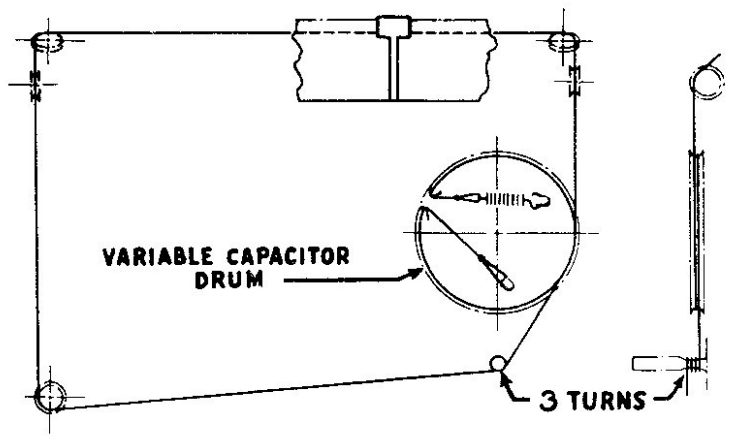
L. C11 is .01 mfd in O-1 chassis and .03 mfd in R-1 chassis.

M. C12 (.05 mfd) is used in O-1 chassis, not in R-1 chassis.

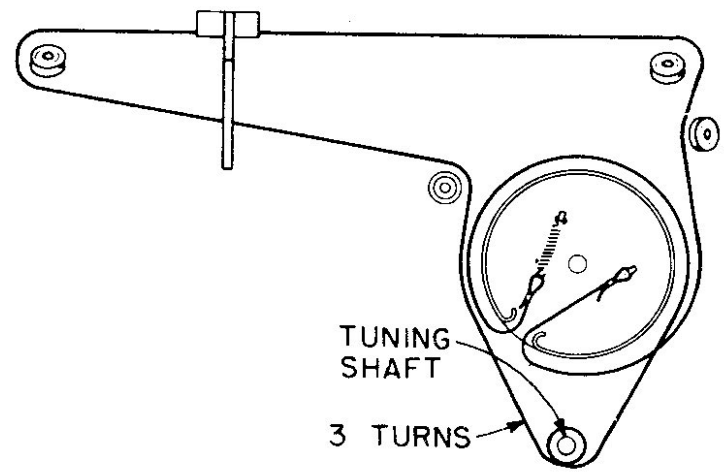
N. C15 (.05 mfd) is used in R-1 chassis, not in O-1 chassis.

O. In R-1 chassis only, T1 may be a "K" transformer in some units.

P. In some units of R-1 chassis only, C5 (.05 mfd) may be connected between the untuned winding of L2 and the lower end of R2.



Dial Stringing Diagram
Model O526



Dial Stringing Diagram
Model 526

MODELS 0526, 526A,
526B, 526C, 526E

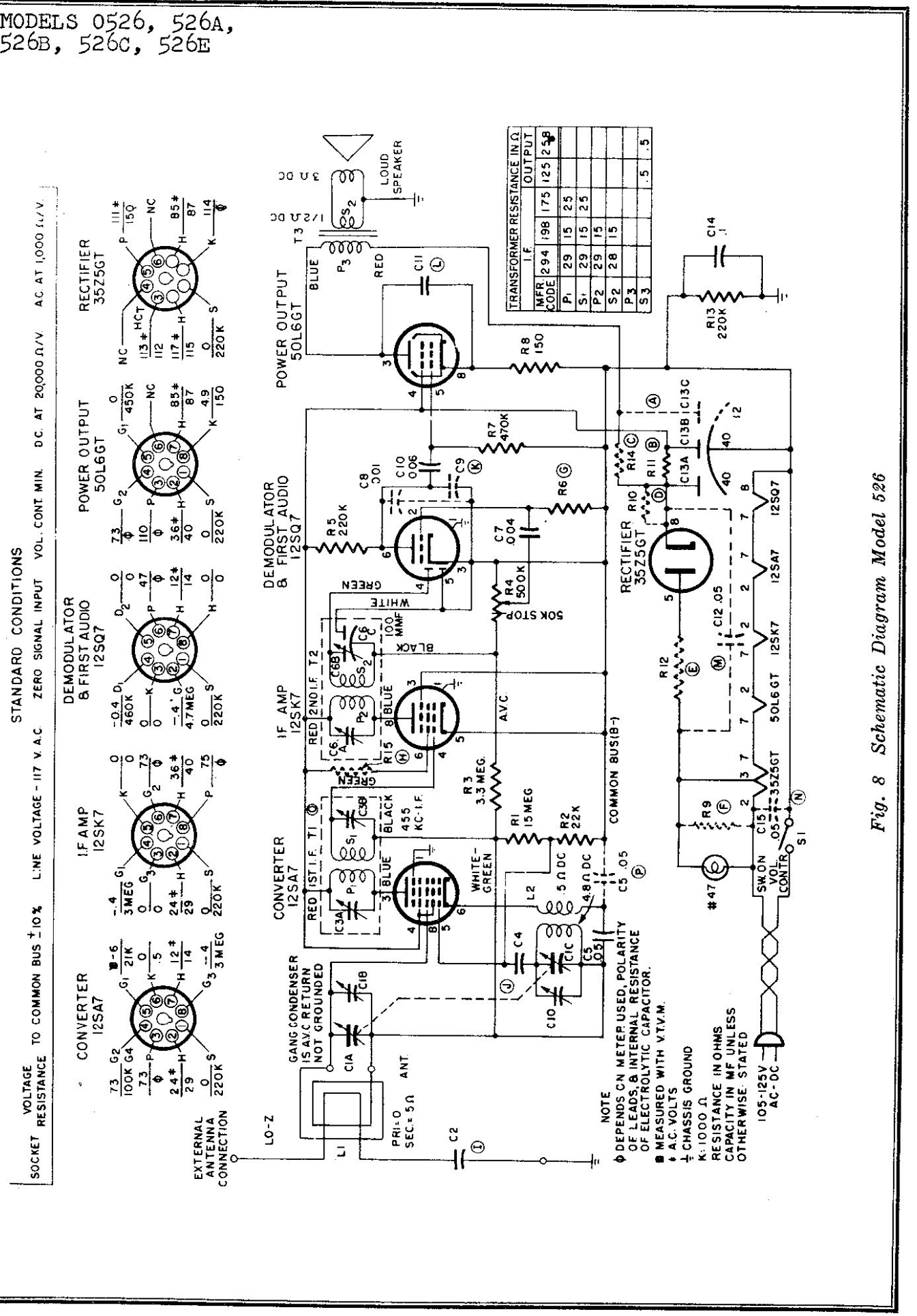
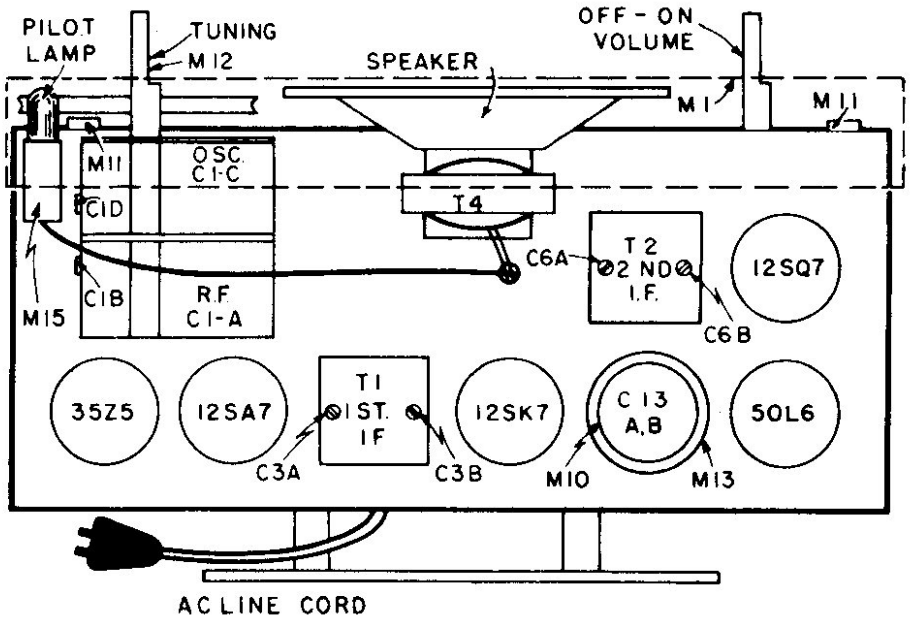


Fig. 8 Schematic Diagram Model 526

MODELS 0526, 526A, 526B, 526C, 526E



NOTE: In the O-1 chassis the positions of the electrolytic capacitor (C13a, b) and 2nd IF transformer (T2) are reversed.

Where trimmers have been removed from gang, the RF trimmer will be found on the antenna, the oscillator trimmer on the side of the chassis.

Fig. 5 Trimmer Location Diagram

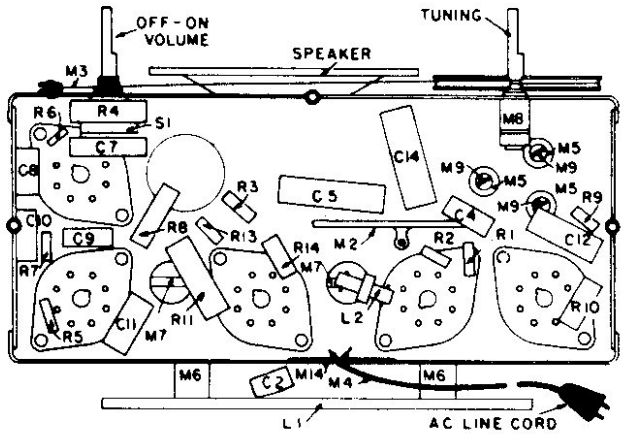


Fig. 6 Component Diagram Bottom View

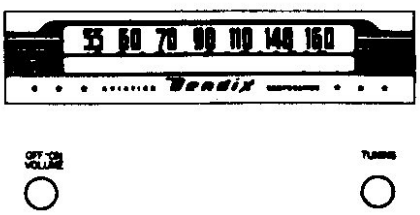


Fig. 7 Front Panel Controls

Figure 7 shows Front Panel Controls for 526A & B Models. On all 0526 Models the Frequency Range is 540-1700KC, but otherwise the Controls are similar.

MODELS 0526, 526A,
526B, 526C, 526E

PRELIMINARY ALIGNMENT PROCEDURE

Connect line cord plug to 117 volt AC power source and allow receiver and test equipment to warm up for at least five minutes. Set Volume control at maximum and connect output meter across voice coil. (If a DC VTVM is available it may be more convenient to connect from tuning gang stator to chassis ground, thus using AVC voltage to indicate circuit resonance. Volume can then be kept low, no modulated signal is needed, and a steadier indication on the meter is obtained.) Make all adjustments in order given in table and tune for maximum output. Keep input as low as possible at all times.

For the O-1 chassis, pre-set dial pointer with gang condenser fully counterclockwise by sliding pointer on dial cord until it is exactly 2 inches from left end of dial back plate. Refer to alignment chart and to diagram of Dial Reference Points, Fig. 4, for proper input signals and their corresponding reference points.

On the R-1 chassis dial settings and frequency check points are indicated on the dial back plate.

PRECAUTIONS

An isolating transformer should be used between the power supply and the receiver if any of the test equipment is AC operated. The use of isolating capacitors is not recommended as AC through the capacitor may introduce hum modulation, and if the capacitors should break down, the test instruments are likely to be damaged.

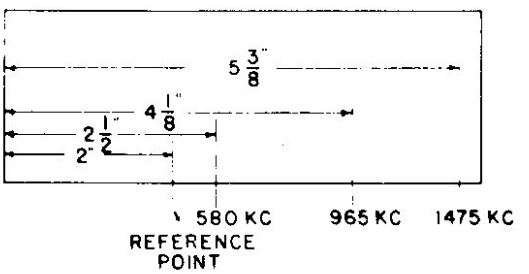


Fig. 4 Dial Reference Points O-1 Chassis

ALIGNMENT CHART

Generator Frequency	Generator Coupling	Circuit Aligned	Dial Setting	Adjust	Remarks
1) 455KC	Through .05 mfd to antenna	2nd IF	Maximum to right	C6a, C6b	Adjust for Maximum output
2) 1475KC	"	1st IF	5⅜" (See Fig. 4)	C3a, C3b	Adjust for Maximum output
3) 1475KC	"	RF	5⅜" (See Fig. 4)	C1b, C10	Adjust for Maximum output
4) REPEAT STEP 3 SEVERAL TIMES TO INSURE MAXIMUM OUTPUT					
5) 965KC	Through .05 mfd to antenna		4⅛" (See Fig. 4)		*Check Calibration
6) 580KC	"		2½" (See Fig. 4)		*Check Calibration

* If calibration is off more than 10KC bend plates of gang condenser. This is a very delicate operation and should be attempted only by experienced technicians.

MODELS 0526, 526A, 526B, 526C, 526E

AC-DC SUPERHETERODYNE RADIO RECEIVER

GENERAL

The Bendix Radio Models O526 and 526 incorporate two similar chassis designated as O-1 and R-1. They are both AC-DC operated, 5 tube, superheterodyne receivers providing reception of the Standard Broadcast Band. A high impedance loop antenna is installed on the back of the chassis. An outside antenna may be connected to the terminal, marked EXTERNAL ANTENNA, on the bottom of Models 526A and 526B and on the rear of Models 526C and 526E. The tuning gang is isolated from the chassis and carries AVC. Care must be exercised so that it is not grounded at any time. The Models shown in Fig. 1 and Fig. 2 use both the O-1 and R-1 chassis, but only the O-1 chassis is employed in Model 526E (see Fig. 3).

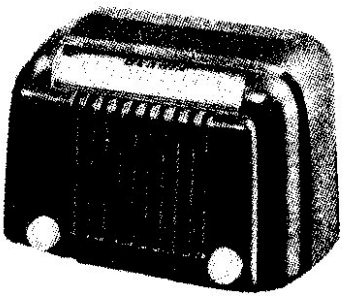


Fig. 1
Model 526A Brown Plastic
Model 526B Ivory Plastic

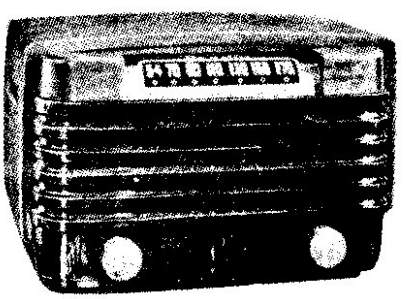


Fig. 2
Model 526C Black & Green Catalin

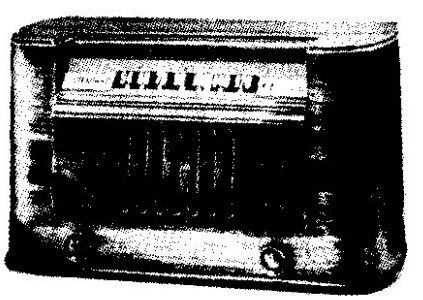


Fig. 3
Model 526E Walnut

SPECIFICATIONS

Power Requirements
105 - 125 Volts, 60 cycles AC
105 - 125 Volts DC
Power Consumption
30 Watts
Tuning Frequency Range
O526 - 540-1700KC
526 - 550-1600KC
Intermediate Frequency - 455KC
Power Output
Maximum - 1.88 Watts
Tube Complement - 5 Tubes
1-12SA7, 1-12SK7, 1-12SQ7, 1-50L6, 1-35Z5
Tuning Drive Ratio - 14:1
Pointer Travel - 4 Inches
Loudspeaker
4" Diameter PM
Voice Coil Impedance - 3.2 ohms @ 400 CPS

Stock No.	Description	0526C	526C
	CABINET COMPONENTS FOR 0526C & 526C		
BZ0B04	BACK—Tekwood, Cabinet	X	X
BZ0R03	BUMPER—Rubber, Cabinet	X	X
DS0A00	DIAL—Plastic (540-1700)	X	
DS0A13	DIAL—Plastic (550-1600)		X
GC0D00	GASKET—Cork, Dial	X	X
GF0S00	GASKET—Felt, Speaker	X	X
GR0D00	GASKET—Rubber, Dial	X	X
HC0S08	CLIP—Knob Retainer Spring	X	X
HZ0S01	STUD—Trimount, Cabinet	X	X
ID0M01	INDICATOR—Metal Dial Pointer	X	X
KC0G00	KNOB—Control, Green	X	X
XS0C00	STRIP—Dial Cord Protector	X	X
ZC0B01	RETAINER—Dial, R.H.	X	X
ZC0B02	RETAINER—Dial, L.H.	X	X
ZC0T00	CABINET—Complete	X	X

	CABINET COMPONENTS FOR 0526E
BZ0B01	BACK—Tekwood, Cabinet
BZ0R02	BUMPER—Rubber, Cabinet
DS0A07	DIAL—Glass (540-1700)
GC0D00	GASKET—Cork, Dial
GZ0C01	GRILLE—Cloth & Cardboard Baffle
HG0D02	CLAMP—Dial Retainer
HK0R00	RING—Retainer Spring
ID0M03	INDICATOR—Metal Dial Pointer
KC0B00	KNOB—Control, Mottled Brown
PI0B01	PLATE—Asbestos Base
XS0C00	STRIP—Dial Cord Protector
ZW5A00	CABINET—Walnut

MODELS 526A,-B,-C,-D,-E
Preliminary

BENDIX RADIO DIV.

REPLACEMENT PARTS LIST

Stock No.	Description	List Price
ALOC00	ANTENNA - Loop Assembly (L1).....	
CE2A00	CAPACITOR - Electrolytic - 40-40-150 W.V. (C17A, C17B).....	
CL2A00	CORD - AC Power.....	
CM5A14	CAPACITOR - 47 mmf. mica (C5).....	
CM5A34	CAPACITOR - 330 mmf. mica (C13).....	
CM5A46	CAPACITOR - .001 mmf mica 500 V.D.C. (C19)..	
CP4T20	CAPACITOR - .006 mfd. - 400 V.D.C. Paper (C14).....	
CP4T31	CAPACITOR - .01 mfd. - 400 V.D.C. Paper (C15).....	
CP4T40	CAPACITOR - .05 mfd. - 400 V.D.C. Paper (C6)	
CP4T51	CAPACITOR - .1 mfd. - 400 V.D.C. Paper (C18)	
CP6T16	CAPACITOR - .004 mfd. - 600 V.D.C. Paper (C1, C12).....	
CP6T40	CAPACITOR - .05 mfd. - 600 V.D.C. Paper (C16)	
CV0B01	CAPACITOR - Variable (C2A, C2B, C3RF - 25 mmf max. C4 Osc. 25 mmf. max.).....	
L01B00	COIL - Oscillator (L2).....	
RC1H40	RESISTOR - 22 K ohms, 1/4 W. Comp. (R2).....	
RC1H54	RESISTOR - 220 K ohms, 1/4 W. Comp. (R5,R12)	
RC1H58	RESISTOR - 470 K ohms, 1/4 W. Comp. (R7)....	
RC1H68	RESISTOR - 3.3 meg. 1/4 W. Comp. (R3).....	
RC1H70	RESISTOR - 4.7 meg. 1/4 W. Comp. (R6).....	
RC1H76	RESISTOR - 15 meg. 1/4 W. Comp. (R1).....	
RC3H12	RESISTOR - 100 ohms, 1 W. Comp. (R9).....	
RC4G28	RESISTOR - 2200 ohms, 2 W. Comp. (R11).....	
RV0S00	POTENTIOMETER - with switch - 500 K ohms (R4)	
RW1A06	RESISTOR - 33 ohms,1 W. W. W. (R10).....	
RW1B14	RESISTOR - 150 ohms, 1 W.W.W. (R8).....	
S00D00	SOCKET - Dial Lamp.....	
S08S00	SOCKET - Octal Tube.....	
TI0C00	TRANS. - Converter I.F. (1st).....	
TI0D00	TRANS. - Diode I.F. (2nd).....	
	SPEAKER AND COMPONENTS	
SP4R00	SPEAKER - 4" P.M.....	
CS4R00	CONE - 4" Cone & V.C. Assy. - Spkr. SP4R00, Code 252.....	
CS4R01	CONE - 4" Cone & V.C. Assy. - Spkr. SP4R00, Code 328.....	
CS4R02	CONE - 4" Cone & V.C. Assy. - Spkr. SP4R00, Code 277.....	
CS4R03	CONE - 4" Cone & V.C. Assy. - Spkr. SP4R00, Code 258.....	
CS4R04	CONE - 4" Cone & V.C. Assy. - Spkr. SP4R00, Code 191.....	
TA0000	TRANSFORMER - Output Trans.....	
	MECHANICAL COMPONENTS	
AD0B00	PLATE ASSEMBLY - Dial Back.....	
BT4S00	BOARD - Strip Terminal - 4 lugs.....	
CD0C01	CABLE - Dial 40½".....	
GR0S00	GROMMET - Cond. Shockmount.....	
HB0A00	BRACKET - Loop Antenna.....	
HC0C03	CLAMP - Cable Dial.....	
HC0S00	CLIP - Tuning Shaft Spring.....	
HN0P00	NUT 3/8 X 32 Palnut.....	
HR0S02	RIVET - Shoulder (.218).....	
HS0C00	SPRING - Dial Cable Tension.....	
HS6F00	SLEEVE - Spacer - Tuning Cond. Mtg.....	
IT0C00	TUBE - Capacitor Insulating.....	
MP0F00	PULLEY - Idler (Fiber).....	
MS0T00	SHAFT TUNING.....	
PI0C00	PLATE - Mounting Elect. Cap.....	
PI0P00	PLATE - Power Cord Insulator.....	

Stock No.	Description	List Price
	PARTS COMMON TO MODEL 0526A & B	
BTIT00	POST - Binding (Base Plate).....	
BZ0D00	BAFFLE - Corrugated Paper Speaker.....	
DS0A03	DIAL - Plastic Scale (54-170).....	
FZ0R00	FOOT - Rubber (Vinylite) Mtg.....	
HK0R00	RING - Knob Retainer Spring (.015).....	
HP0B00	PLATE - Base Assy.....	
HZ0S00	STUD - Trimount.....	
ID0M00	INDICATOR - Metal Dial (Pointer).....	
PI0B01	PLATE - Asbestos Base Insulator.....	
	PARTS FOR MODEL 0526A	
KC0B01	KNOB - Mottled Brown - Push on.....	
ZP0B01	CABINET - Mottled Brown Plastic.....	
	PARTS FOR MODEL 0526B	
KC0B03	KNOB - Mottled Brown - Push On.....	
ZP0101	CABINET - Ivory Plastic.....	
	PARTS COMMON TO MODELS 0526C & D	
BZ0B00	BACK - Teakwood - Catalin Cabinet.....	
GF0S00	GASKET - Felt 3/16" X 3-1/4" ID (spkr.).....	
FZ0R01	FOOT - Cabinet (Rubber).....	
GR0D00	GASKET - Rubber Dial (1/16" X 1/8" X 4").....	
GR0D01	GASKET - Rubber Dial (3/16" X 1/32" X 1/4")..	
HK0C00	CLIP - Knob Retainer Spring.....	
HZ0S01	STUD - Trimount.....	
ID0M01	INDICATOR - Metal Dial (Pointer).....	
	PARTS FOR MODEL 0526C	
DS0A00	DIAL - Glass Scale (54 - 170).....	
DX0R00	RETAINER - Dial, R.H. (Trim).....	
DX0R01	RETAINER - Dial, L.H. (Trim).....	
KC0G00	KNOB - Plain Push-on (Green).....	
ZC0G00	CABINET - Green & Black Catalin.....	
	PARTS FOR MODEL 0526D	
DS0A05	DIAL - Glass (54 - 170).....	
DX0R02	RETAINER - Dial, R.H. (Trim).....	
DX0R03	RETAINER - Dial, L.H. (Trim).....	
KC0G01	KNOB - Brown Push-ON.....	
ZC0B00	CABINET - Two-Tone Brown Catalin.....	
	PARTS FOR MODEL 0526E	
BZ0B01	BACK - Cabinet Teakwood.....	
BZ0D00	BAFFLE - Corrugated Card Board.....	
BZ0D02	BAFFLE - Paper.....	
DS0A07	DIAL GLASS (54-170 K.C.).....	
DX0R06	RETAINER - Metal Dial.....	
FZ0R02	FOOT - Black Rubber.....	
GF0S06	GASKET - Blk. Felt (1/16 X 1/4 X 5/8).....	
GF0S07	GASKET - Blk. Felt (1/16 X 3/16 X 8½).....	
GF0S08	GASKET - Blk. Felt (1/16 X 1/4 X 13/16).....	
GZ0C01	GRILL-CLOTH - (Dk. Br.).....	
HK0R00	RING - Retainer Spring (.015).....	
ID0M03	INDICATOR - Metal Dial Pointer.....	
KC0B07	KNOB - Dk. Mottled Brown (Cont'l).....	
PI0B01	PLATE - Asbestos Base Insulator.....	
ZW5A00	CABINET ASS'Y - (Wood) BW76.....	

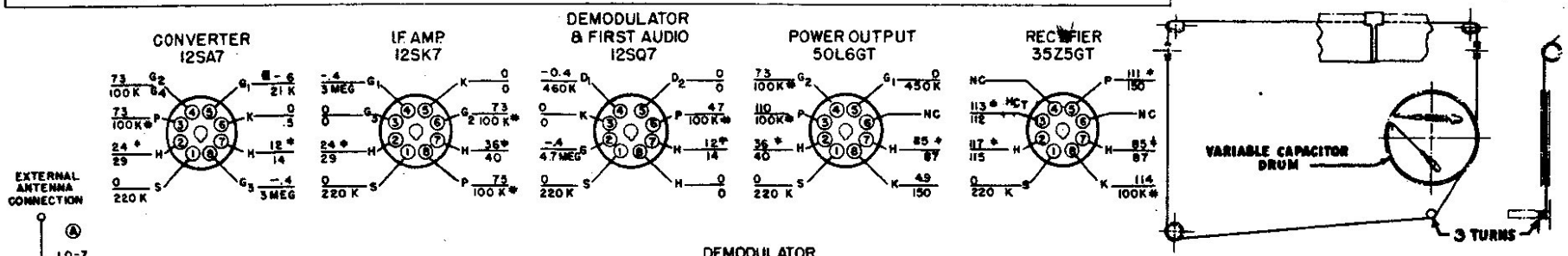
BENDIX RADIO DIV.

MODELS 526A,-B,-C,-D,-E

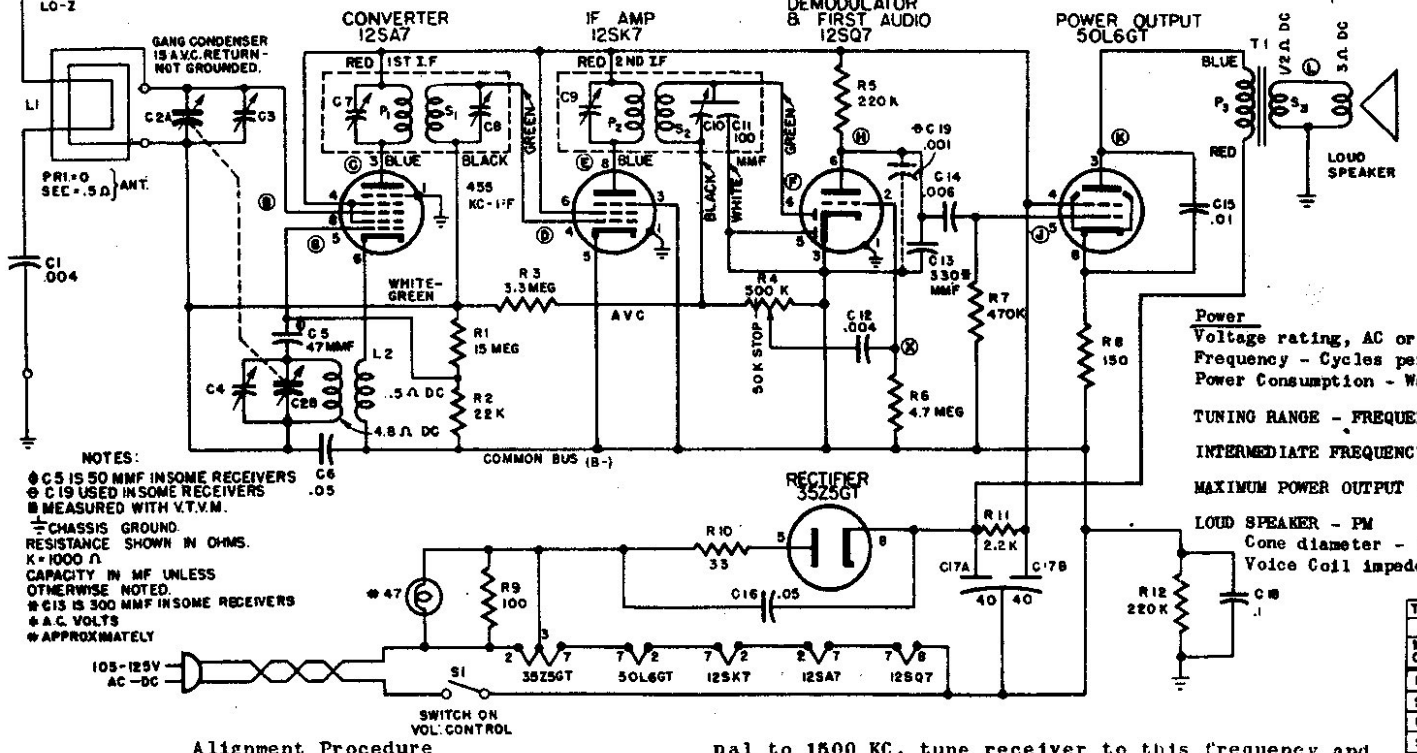
Preliminary

STANDARD CONDITIONS

SOCKET VOLTAGE / RESISTANCE TO COMMON BUS ± 10% LINE VOLTAGE - 117 V. A.C. ZERO SIGNAL INPUT. VOL. CONT. MIN. D.C. AT 20,000 Ω/V. A.C. AT 1,000 Ω/V.



DIAL STRINGING DIAGRAM



NOTES:
- ◆ C5 IS 50 MMF IN SOME RECEIVERS
- ⊖ C19 USED IN SOME RECEIVERS
- ▣ MEASURED WITH V.T.V.M.
- ⏚ CHASSIS GROUND
- RESISTANCE SHOWN IN OHMS. K = 1000 Ω
- CAPACITY IN MF UNLESS OTHERWISE NOTED.
- ✱ C13 IS 300 MMF IN SOME RECEIVERS
- ✱ A.C. VOLTS
- ✱ APPROXIMATELY

Power	
Voltage rating, AC or DC	105 - 125
Frequency - Cycles per second	50 - 60
Power Consumption - Watts	30
TUNING RANGE - FREQUENCY IN KC	535 - 1725
INTERMEDIATE FREQUENCY (KC)	455
MAXIMUM POWER OUTPUT IN WATTS	1.4
LOUD SPEAKER - PM	
Cone diameter - inches	4
Voice Coil impedence (ohms at 400 cycles)	3.2

TRANSFORMER RESISTANCE IN Ω					
	I.F			OUTPUT	
MFR CODE	294	198	175	125	256
P1	29	15	25		
S1	29	15	25		
P2	29	15			
S2	29	15			
P3					
S3				.5	.5

Alignment Procedure

Set volume control at maximum and connect output meter across voice coil. Keep input as low as possible at all times. IF - Set signal generator at 455 KC and connect to converter grid through a .05 mfd. capacitor. Tune progressively the 2nd. and 1st. IF trimmers for maximum output.

RF - Set gang tuning condenser wide open. Set signal generator at 1750 KC and loosely couple to antenna. Tune oscillator coil for maximum output. Change signal to 1500 KC, tune receiver to this frequency and peak antenna trimmer for maximum output.

Precautions

An insolating transformer should be used between the power supply and the receiver if any of the test equipment is AC operated. The use of isolating capacitors is not recommended as AC through the capacitor may introduce hum modulation and if the capacitors should break down the test instruments will likely be damaged.