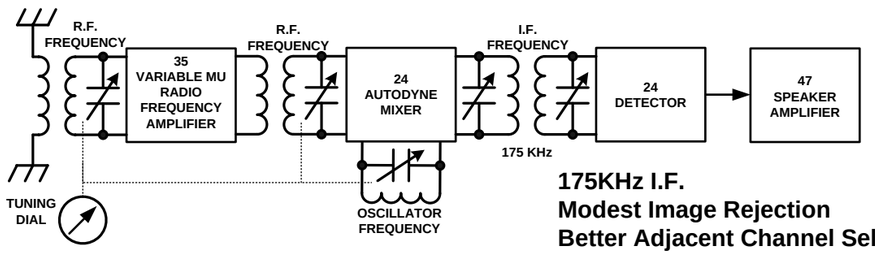
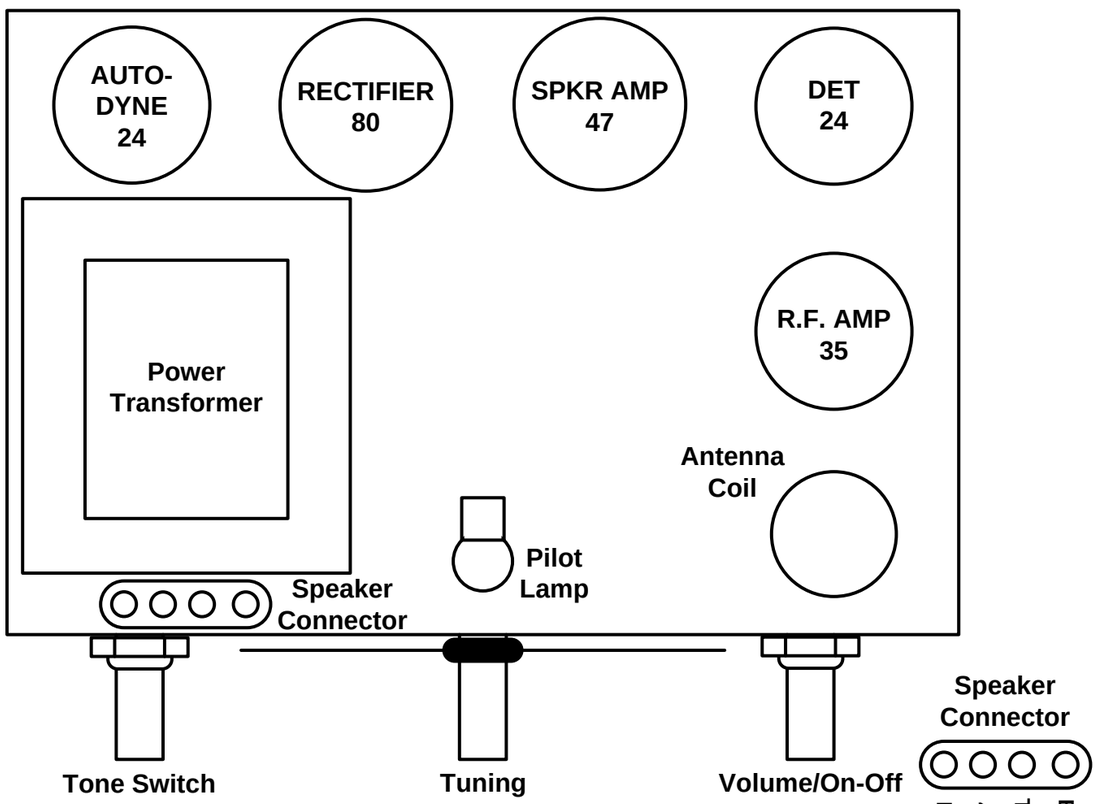
JB-25 Chassis Notes, 14DEC2022RAG JB-25_ServiceInfo.pdf Richard Gray

25, Early Version, Tone Switch



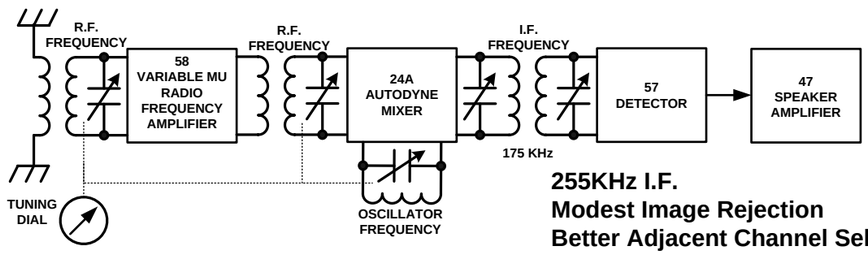
175KHz I.F.
Modest Image Rejection
Better Adjacent Channel Selectivity



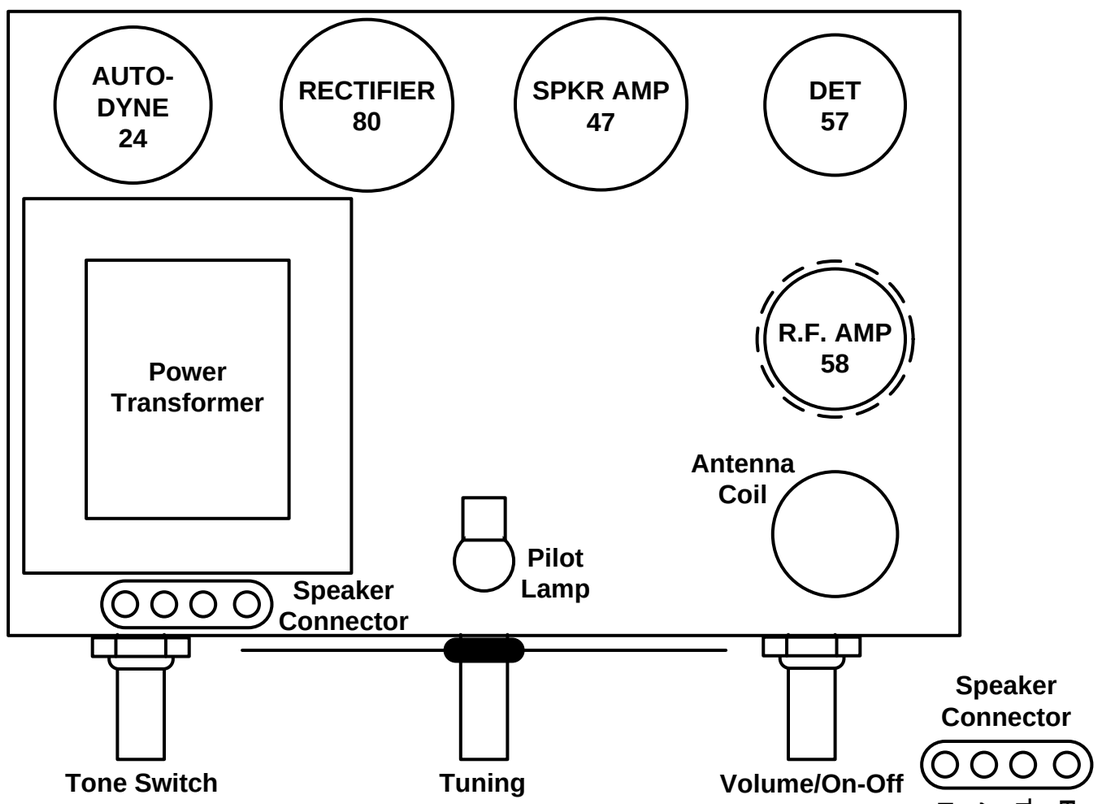
The Tuning Condenser is mounted below the Chassis
The Translucent *Logging Scale, 0 to 100* is Backlighted Dial

Introduced 1 May 1932

25A, 25U, Tone Switch



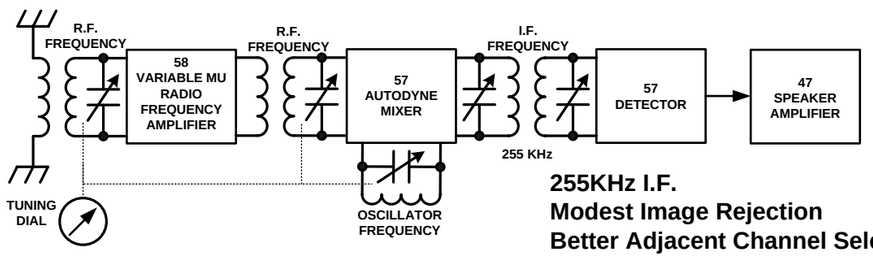
255KHz I.F.
Modest Image Rejection
Better Adjacent Channel Selectivity



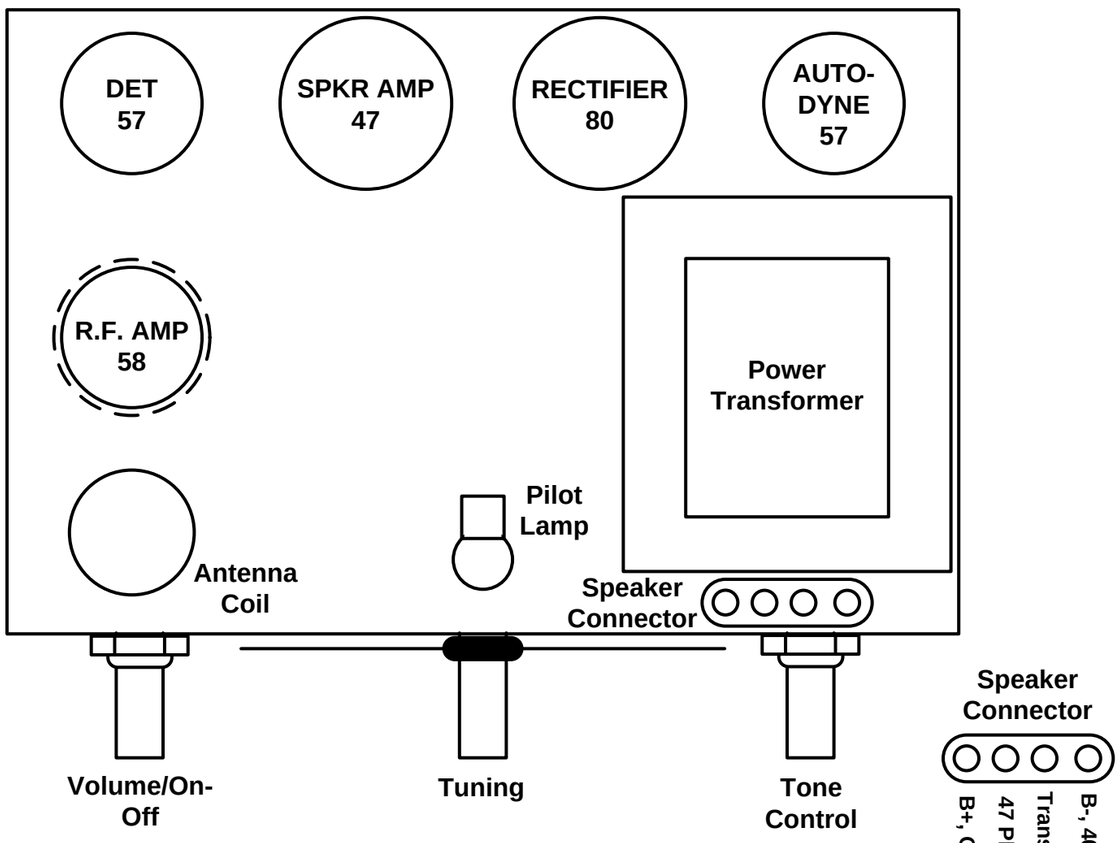
The Tuning Condenser is mounted below the Chassis
The Translucent *Logging Scale, 0 to 100* is Backlighted Dial

Introduced 25 June 1932

25A or 25U, Tone Control



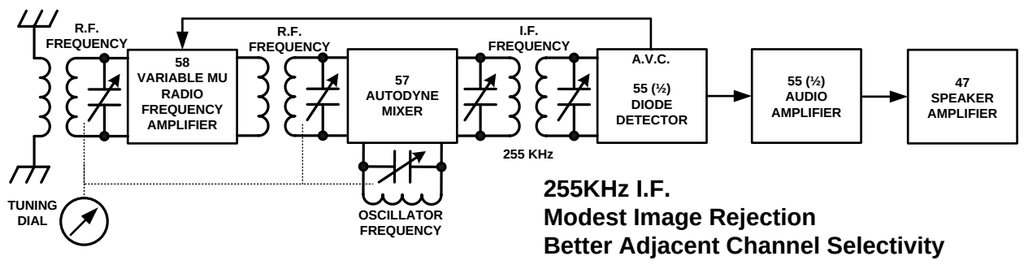
255KHz I.F.
Modest Image Rejection
Better Adjacent Channel Selectivity



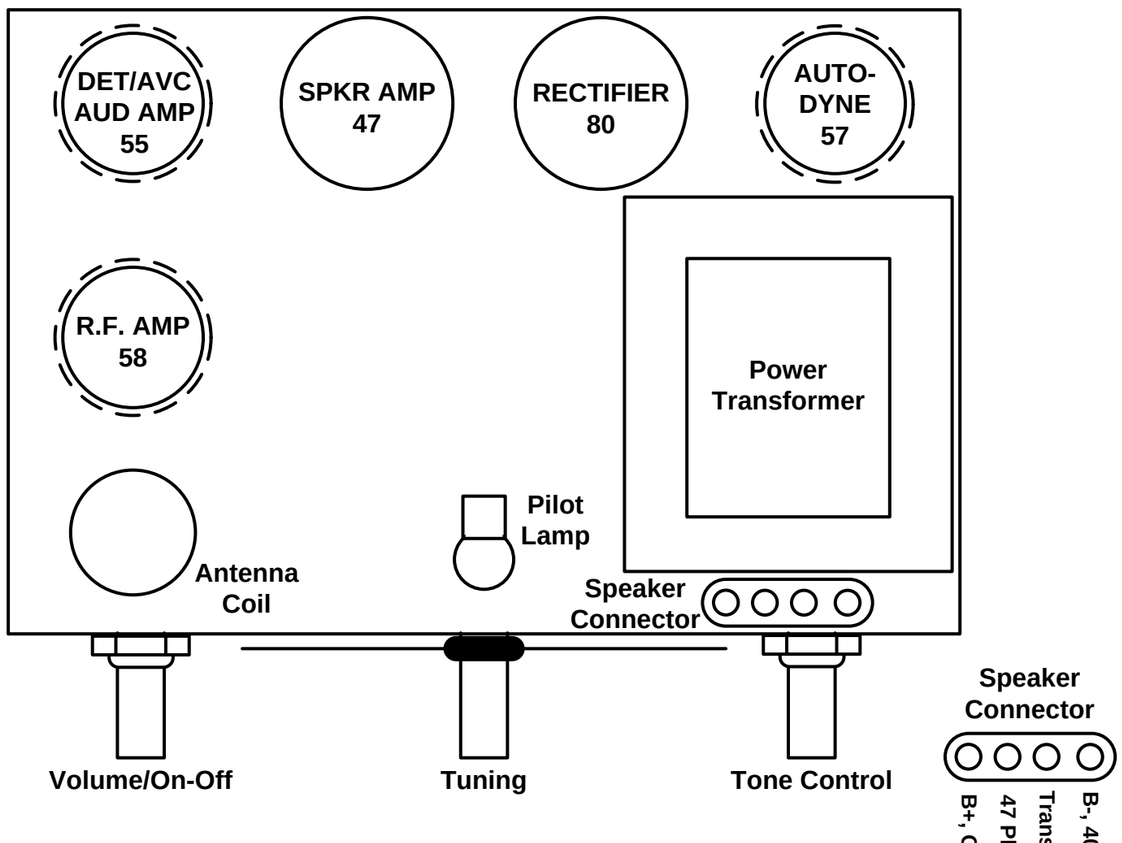
The Tuning Condenser is mounted below the Chassis
The Translucent *Logging Scale, 0 to 100* is Backlighted Dial

Introduced August 1932
We have a Chassis with this Configuration Dated from August 1932
We have Schematic Card, with a Peter Pan Image, from 20 September 1932

25AV or 25U, Forth Version, Automatic Volume Control



255KHz I.F.
Modest Image Rejection
Better Adjacent Channel Selectivity



The Tuning Condenser is mounted below the Chassis
The Translucent *Logging Scale, 0 to 100* is Backlighted Dial

Introduced September 1932
We have Chassis stamped 932 & 1032
September & October of 1932

***** In the Last Sets built, this Shield is missing!**

This Chassis, in a "Pandora" Chest Cabinet, and Peter Pan Tombstone Cabinet was advertised as part of the 1933 Lineup

SERVICE NOTES

JACKSON-BELL MODEL 25

CIRCUIT

The circuit of the 4-tube super-heterodyne employing one stage of T.R.F. autodyne oscillator detector, a second detector operating at 175 KC and the conventional resistance coupled audio fed into a 47 type out-put tube. Power supply is obtained from a full wave rectifier circuit.

OPERATION

To put set in operation, insert the proper tubes, as follows:- Looking at rear of set forward and left, place a type 51 or 35 tube, rear left type 24, next in order to the right, type 47, type 80 and type 24. Insert AC plug in circuit and turn on the set by means of switch on volume control, (small knob on lower right side of set.) The small knob on lower left side of set, turns the tone control off and on by means of a switch. The large knob in the center tunes the set from approximately 1700 to 500 KC.

TROUBLES

HUM

Hum may often be traced to defective tubes. After you have checked this and are sure all tubes are O.K. and in correct position, first check set for filter ground - then make sure bias on 247 tube is O.K. Check resistor in 47 grid circuit for open and short to chassis. Check coupling condenser as defective condenser will cause hum. Also, check 1 MFD and bias for open.

If trouble is not found in above tests, remove the 47 tube and if hum still exists, a faulty filter condenser will be found.

POOR QUALITY

Usually caused by $\frac{1}{2}$ meg. resistor in grid of 47 tube grounded to chassis, bad coupling condenser or resistor reversed in drop across speaker field. Be sure .25 meg. resistor is in ground end of drop.

All resistros should be checked for accuracy. If tone is too deep with tone control off, check same making sure it opens up in off position. Poor quality may also be traced to defective autodyne 24 tube.

HOWL

Make sure set is not pushed too far forward in cabinet or resonate howl will occur. Loosen bolts in bottom of cabinet and slide chassis as far back in cabinet as shafts will permit. If this does not cure trouble, remove chassis and loose bolts holding variable, making sure rubber supports holding same are intact and variable is floating in same.

If set has been realigned, be sure plates in variable are not too close, as howl will result.

ALIGNMENT AND BALANCE

MODEL 25

1st.

Make all adjustments with volume control at maximum. Before aligning set make sure all tubes are in correct position and primary on oscillator and R.F. coils are well down towards grid end of coil.

To align 175 KC alignment.
Put set in operation and set tuning condenser to full 100 degree position. Next, remove the screen grid cap from the autodyne oscillator and apply 175 modulated signal to this tube. (Looking at rear of set this tube is the fourth on the extreme right.) Next, remove license plate and adjust trimmers for maximum out-put.

2nd.

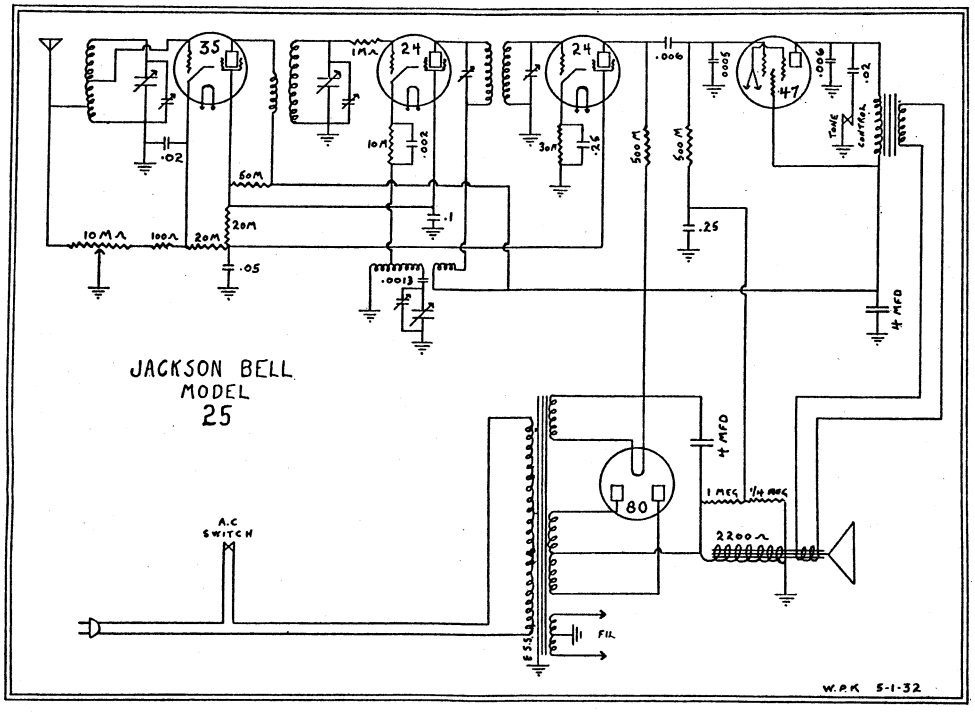
Broadcast Alignment.
With external modulated signal generator set at approximately 1710 KC (Police frequency). The dial should be set at approximately 5 degrees past minimum. Adjust oscillator trimmer on variable and resonate the other 2 trimmers from maximum out-put at this position. Apply 855 KC modulated signal and align set at this point by bending plates of variable. Do not readjust trimmers. Repeat this operation at 600 KC.

3rd.

With set at 600 KC readjust trimmers on I.F. transformers, for maximum output. If set oscillates when properly aligned, shift external ground lead from center section of variable to point where oscillation ceases.

JACKSON-BELL COMPANY, LTD.

SCHEMATIC DIAGRAM

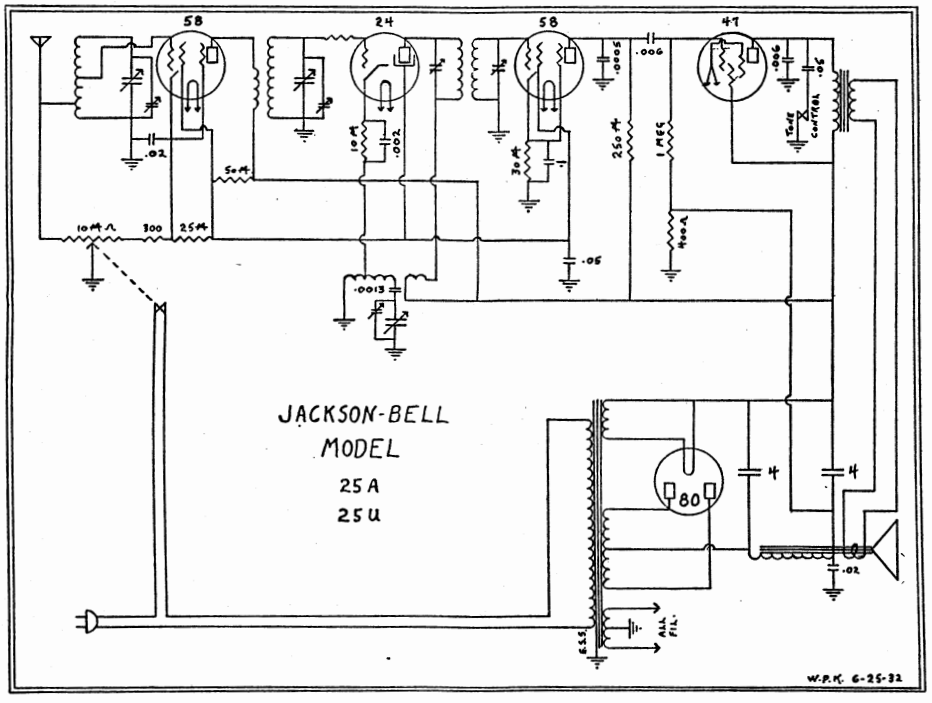


JACKSON BELL

MODEL 25

SUPER

SCHEMATIC DIAGRAM



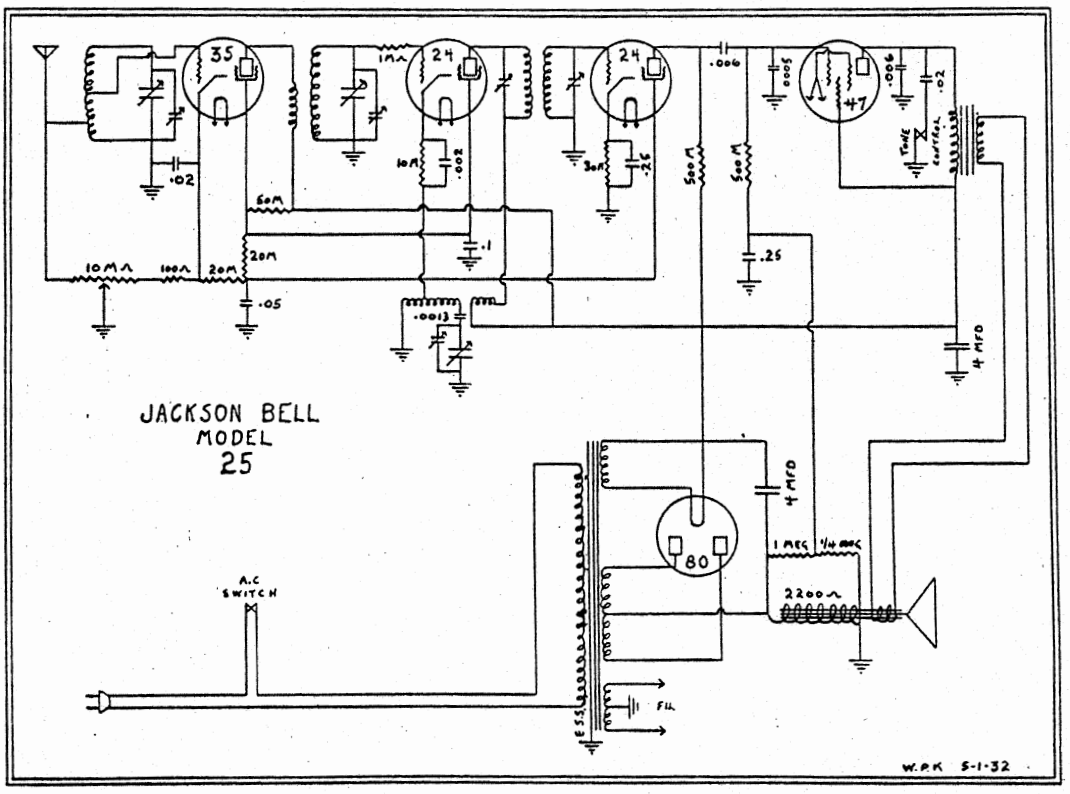
JACKSON BELL

MODEL 25A--25U

SUPER

SCHEMATIC DIAGRAM

175KC IF .0013 PADDER CAPACITOR

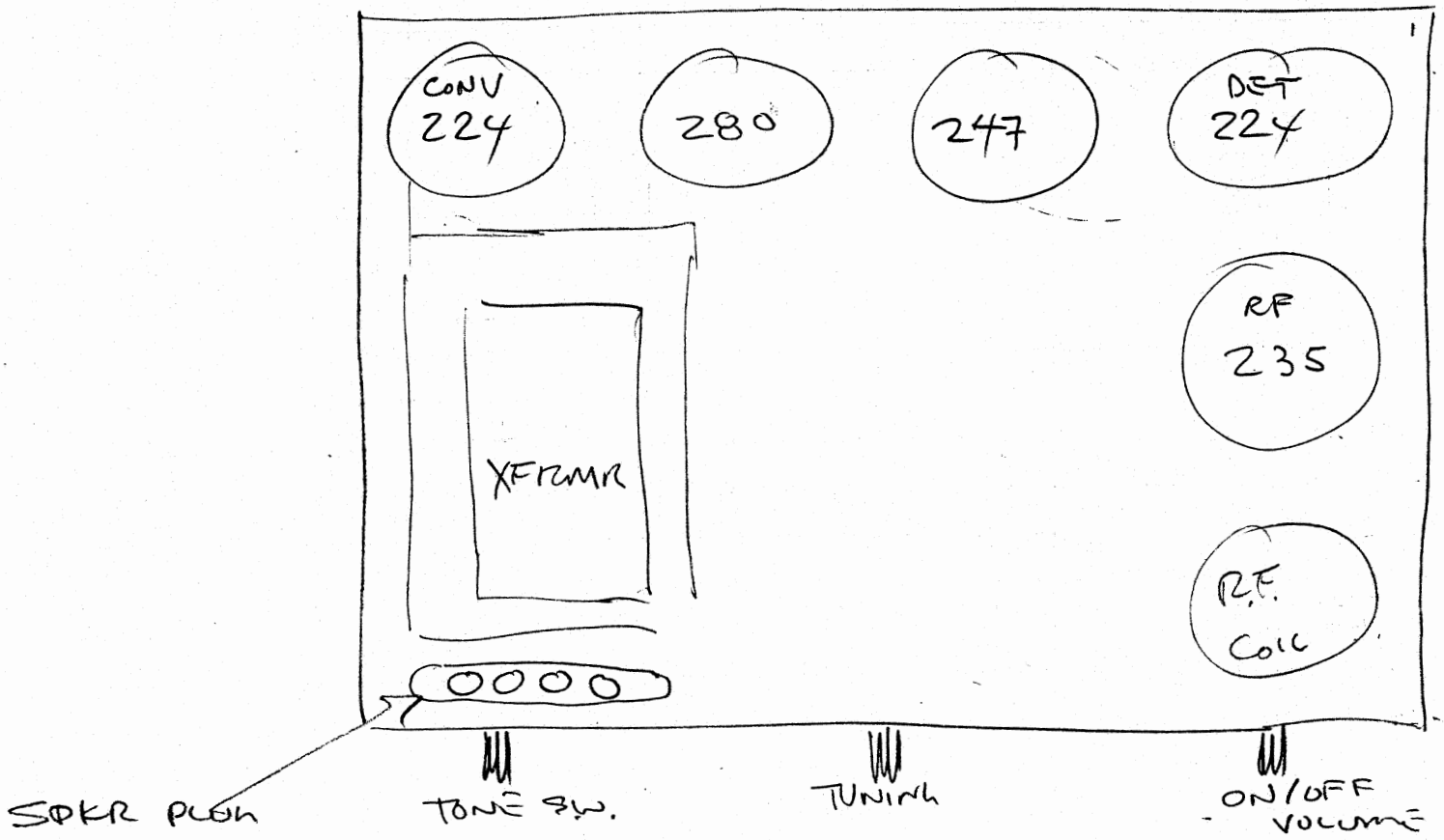


VERSION 1

JACKSON BELL

MODEL 25

SUPER


CONV
224
280
247
DET
224
RF
235
XFRMR
R.F.
COIL
SPKR PLUG
TONE SW.
TUNING
ON/OFF
VOLUME

JB-25

VERSION 1

175KC IF

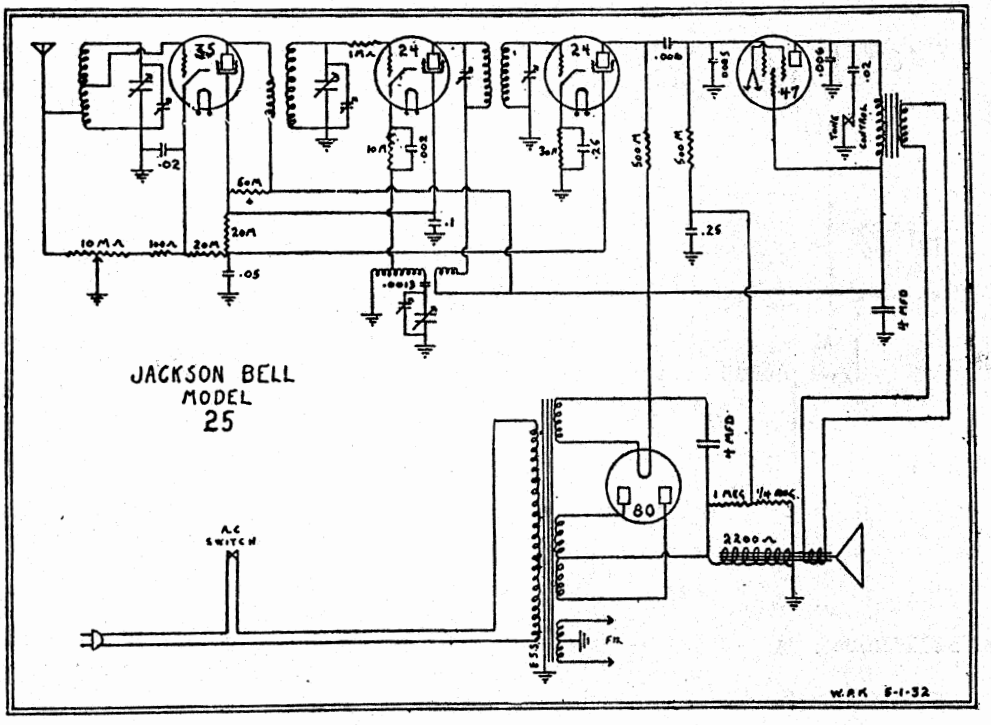
MODEL 25
Schematic
Data

JACKSON-BELL CO., LTD.

R.F. AMP & NO I.F. AMP!

SCREEN VOLTAGE ON DETECTOR CHANGES WITH VOLUME CONTROL!

CHANGING VOLUME CONTROL DE TUNES R.F. COIL!



1 MAY 32

Make all adjustments with volume control at maximum. Before aligning set make sure all tubes are in correct position and primary on oscillator and R.F. coils are well down towards grid end of coil.

TO ALIGN 175 KC ALIGNMENT.

Put set in operation and set tuning condenser to full 100 degree position. Next, remove the screen grid cap from the autodyne oscillator and apply 175 KC modulated signal to this tube. (Looking at rear of set this tube is the fourth on the extreme right.) Next, remove license plate and adjust trimmers for maximum out-put.

BROADCAST ALIGNMENT.

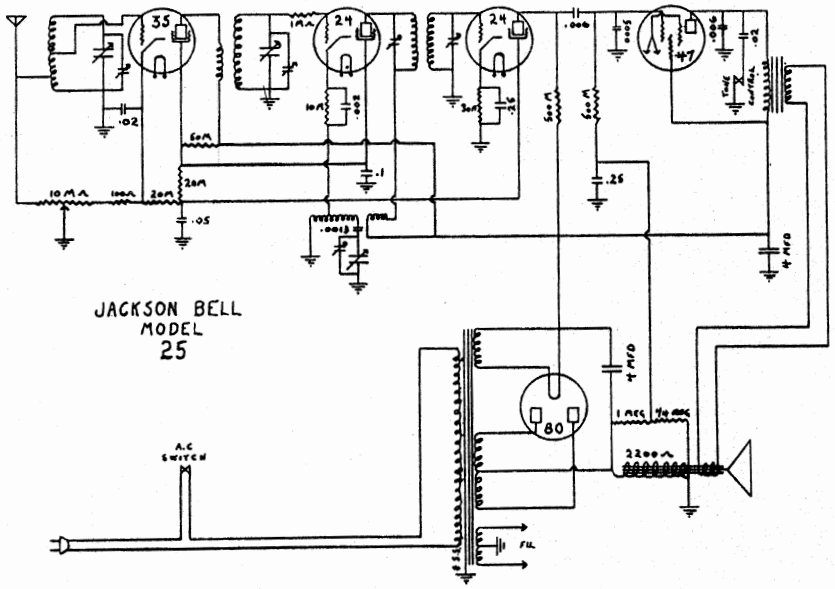
With external modulated signal generator set at approximately 1710 KC (Police frequency). The dial should be set at approximately 5 degrees past minimum. Adjust oscillator trimmer on variable and resonate the other 2 trimmers from maximum out-put at this position. Apply 855 KC modulated signal and align set at this point by bending plates of variable. Do not readjust trimmers. Repeat this operation at 600 KC.

With set at 600 KC readjust trimmers on I.F. transformers, for maximum output. If set oscillates when properly aligned, shift external ground lead from center section of variable to point where oscillation ceases.

MAY 1932

175KC IF

JACKSON BELL, Ltd.



SERVICE NOTES

Jackson-Bell Model 25

CIRCUIT

The circuit of the 4-tube super-heterodyne employing one stage of T.R.F. autodyne oscillator detector, a second detector operating at 175 KC and the conventional resistance coupled audio fed into a 47 type out-put tube. Power supply is obtained from a full wave rectifier circuit.

OPERATION

To put set in operation, insert the proper tubes, as follows: Looking at rear of set forward and left, place a type 51 or 35 tube, rear left type 24, next in order to the right, type 47, type 80 and type 24. Insert AC plug in circuit and turn on the set by means of switch on volume control, (small knob on lower right side of set). The small knob on lower left side of set, turns the tone control off and on by means of a switch. The large knob in the center tunes the set from approximately 1700 to 500 KC.

TROUBLES

HUM

Hum may often be traced to defective tubes. After you have checked this and are sure all tubes are O.K. and in correct position, first check set for filter ground —then make sure bias on 247 tube is O.K. Check resistor in 47 grid circuit for open and short to chassis. Check coupling condenser as defective condenser will cause hum. Also, check 1 MFD and bias for open.

If trouble is not found in above tests, remove the 47 tube and if hum still exists, a faulty filter condenser will be found.

POOR QUALITY

Usually caused by ½ meg. resistor in grid of 47 tube grounded to chassis, bad coupling condenser or resistor reversed in drop across speaker field. Be sure .25 meg. resistor is in ground end of drop.

All resistors should be checked for accuracy. If tone is too deep with tone control off, check same making sure it opens up in off position. Poor quality may also be traced to defective autodyne 24 tube.

HOWL

Make sure set is not pushed too far forward in cabinet or resonate howl will occur. Loosen bolts in bottom of cabinet and slide chassis as far back in cabinet as shafts will permit. If this does not cure trouble, remove chassis and loose bolts holding variable, making sure rubber supports holding same are intact and variable is floating in same.

If set has been realigned, be sure plates in variable are not too close, as howl will result.

ALIGNMENT AND BALANCE

First

Make all adjustments with volume control at maximum. Before aligning set make sure all tubes are in correct position and primary on oscillator and R.F. coils are well down towards grid end of coil.

TO ALIGN 175 KC ALIGNMENT.

Put set in operation and set tuning condenser to full 100 degree position. Next, remove the screen grid cap from the autodyne oscillator and apply 175 modulated signal to this tube. (Looking at rear of set this tube is the fourth on the extreme right.) Next, remove license plate and adjust trimmers for maximum out-put.

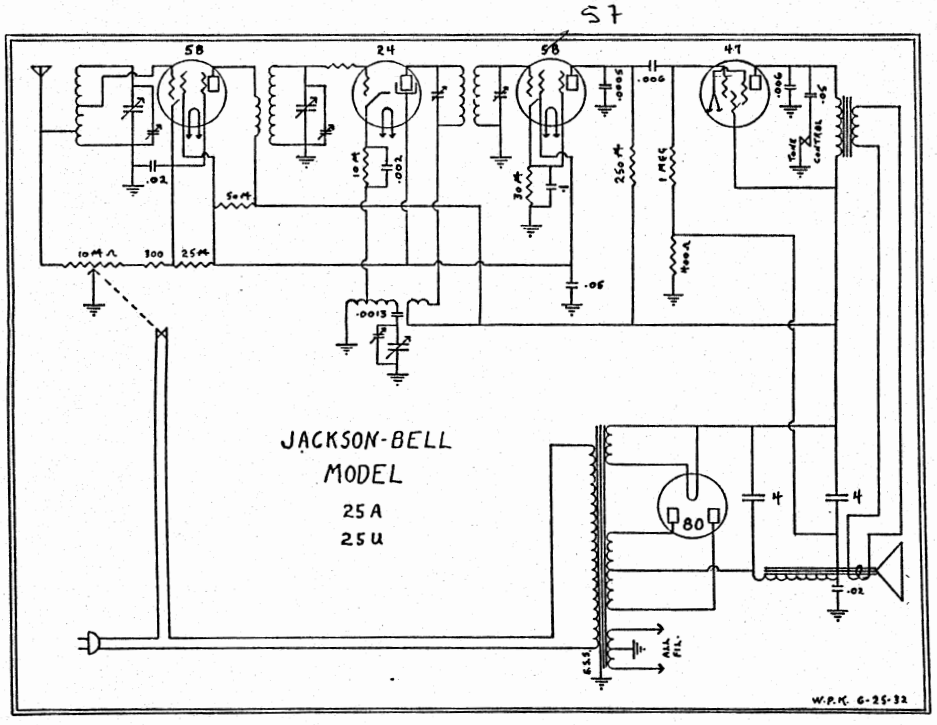
Second. BROADCAST ALIGNMENT.

With external modulated signal generator set at approximately 1710 KC (Police frequency). The dial should be set at approximately 5 degrees past minimum. Adjust oscillator trimmer on variable and resonate the other 2 trimmers from maximum out-put at this position. Apply 855 KC modulated signal and align set at this point by bending plates of variable. Do not readjust trimmers. Repeat this operation at 600 KC.

Third.

With set at 600 KC readjust trimmers on I.F. transformers, for maximum output. If set oscillates when properly aligned, shift external ground lead from center section of variable to point where oscillation ceases.

SCHEMATIC DIAGRAM



25 JUNE 1932

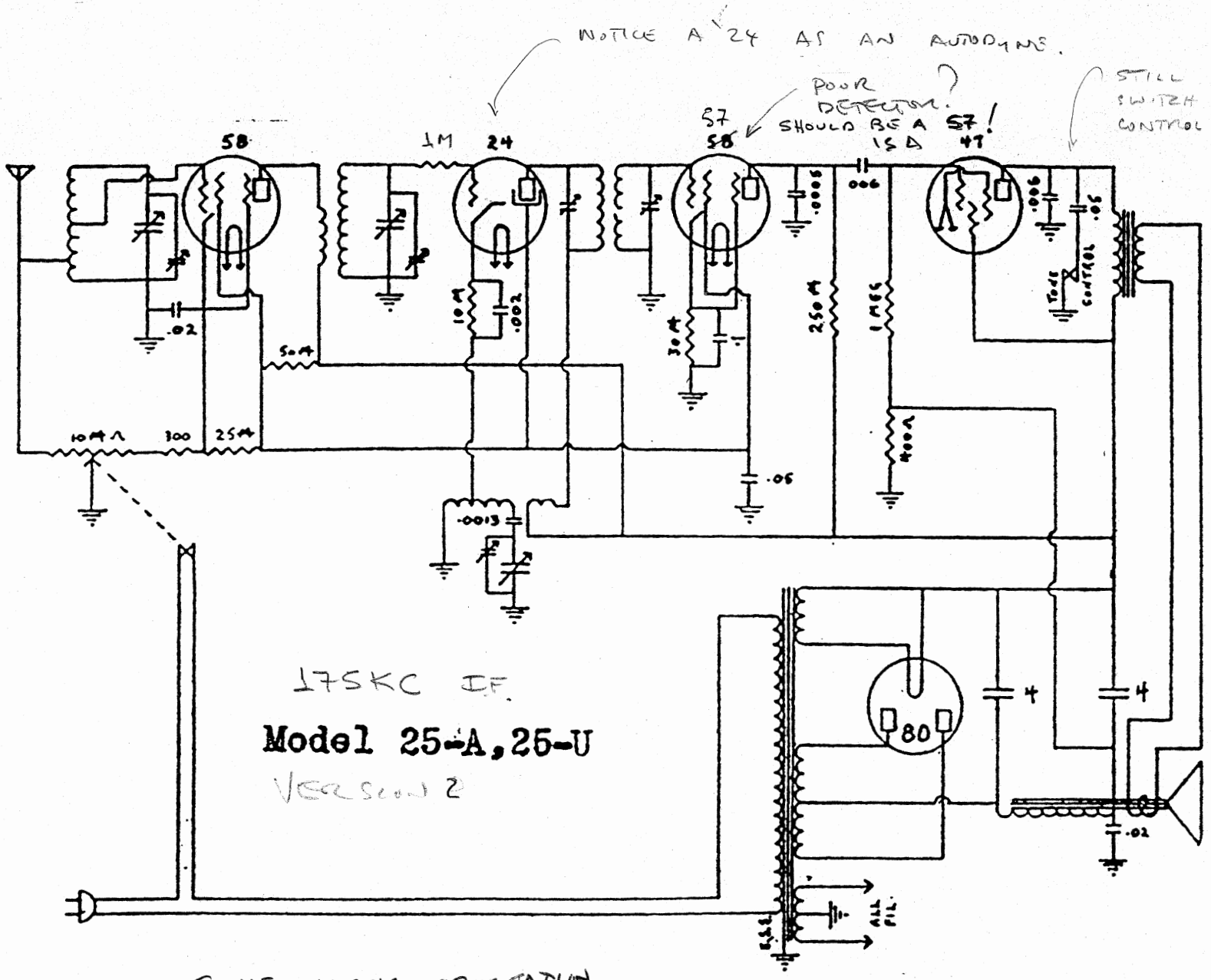
JACKSON BELL

MODEL 25A--25U

SUPER

VERSION 2

175KC IF !



USED A TEMPLATE

JUNE 1932

SHORT LINED ATTRD

SCHEMATIC DIAGRAM

REVERSE CHASSIS ORIENTATION FROM VERSIONS 1 & 2

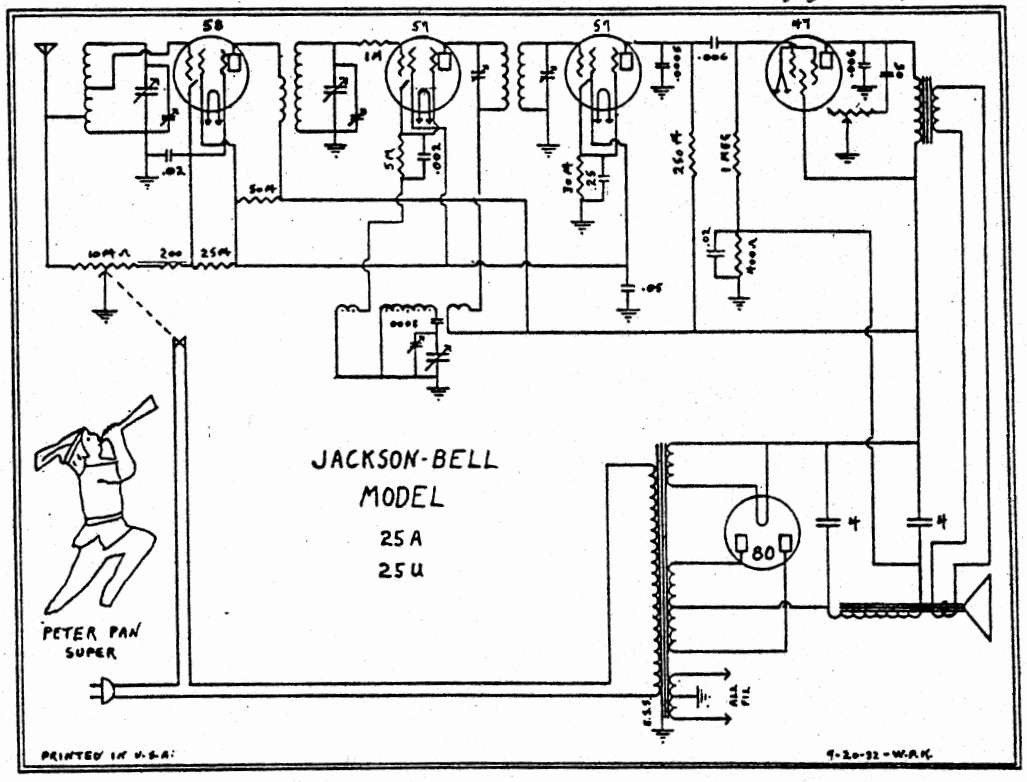
.0008 PADDER CAPACITOR

NOTICE A 57 AS AN "AUTODYNE"

PROBABLY THIS!

455 KC I.F.

POT AS TONE CONTROL



2ϕ SEP 32

I HAVE THIS CHASSIS MARKED 8/32? ??? 800

PERHAPS THERE WAS ANOTHER VERSION - BETWEEN THESE?

JACKSON BELL

MODEL 25A--25U

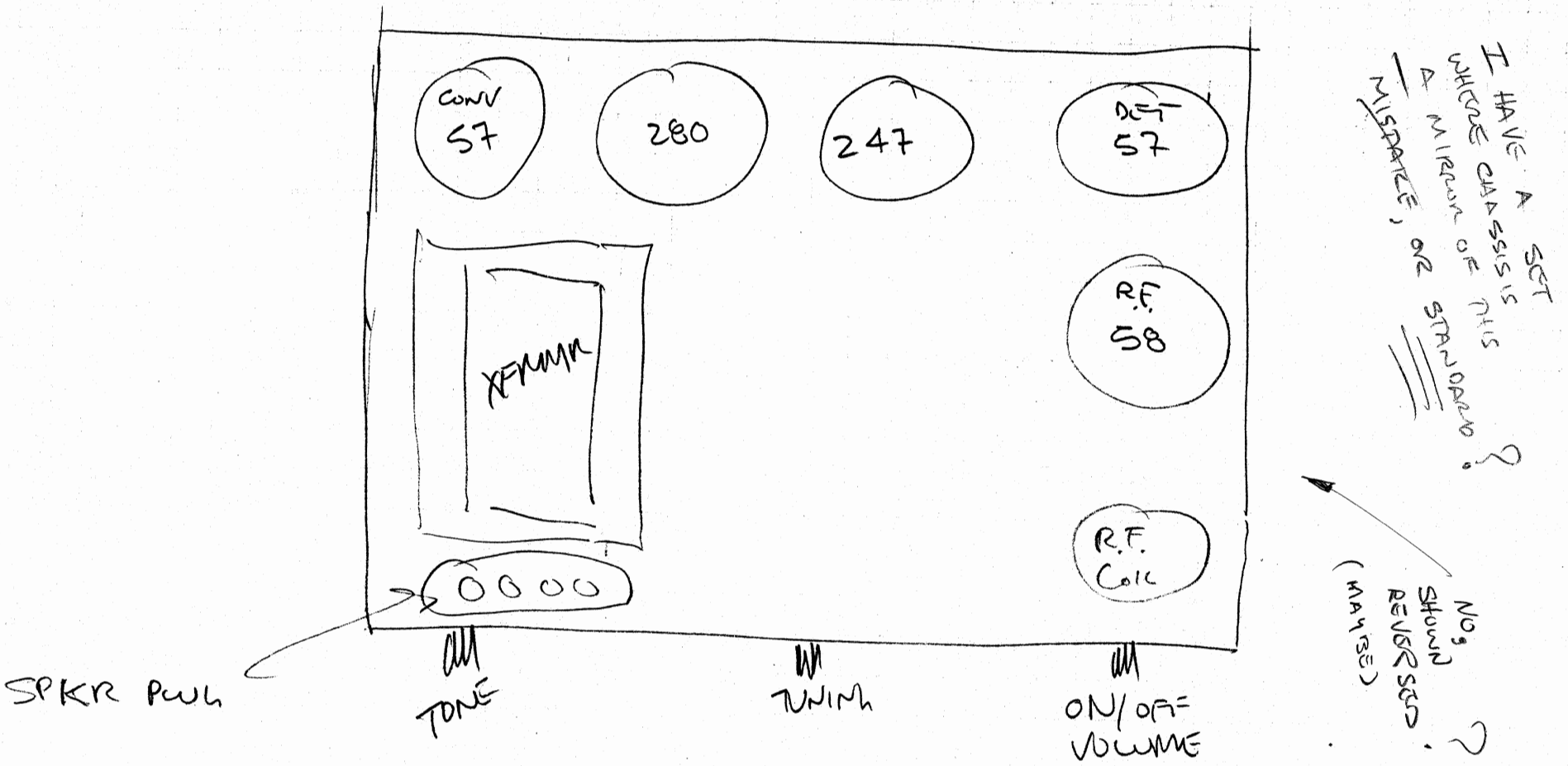
VERSION 3

SUPER

PETER PAN

E

Circa 1993 RAG

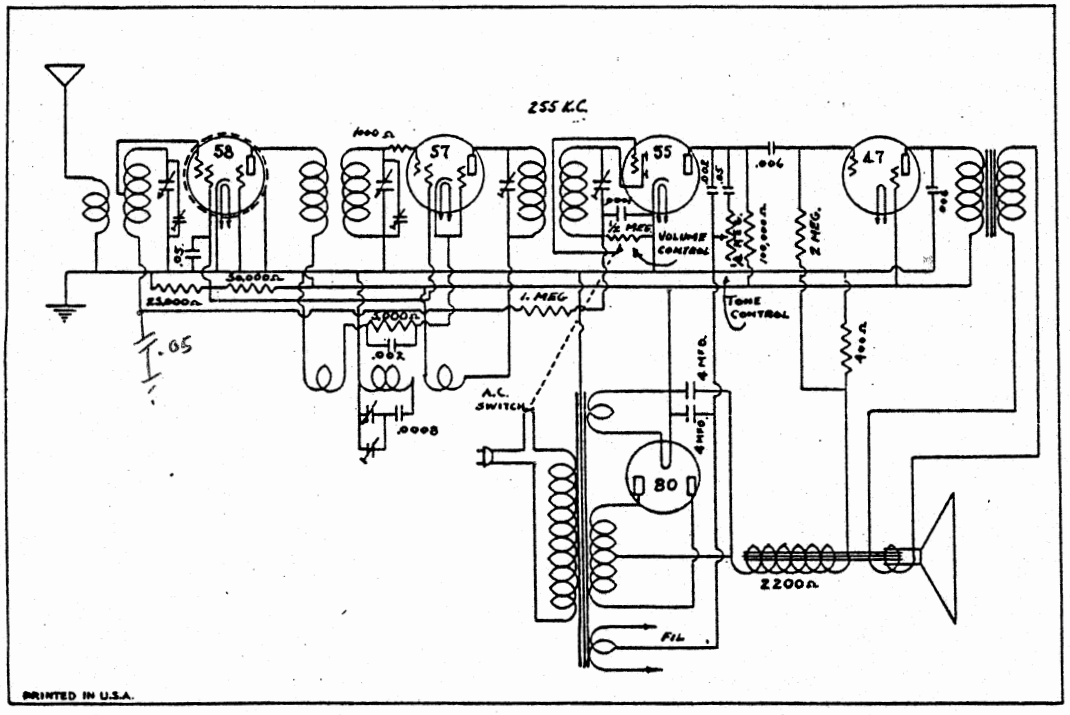


JB-25A

SCHEMATIC DIAGRAM

NOTICE A DIFFERENT STYLE DRAWING !!!

.0008 PADDER CAPACITOR 255 KC I.F.



PROBABLY NOVEMBER OF 1932

↑ BOTTOM OF COIL NEEDS A BY-PASS CAP!

VERSION 4

JACKSON BELL

MODEL 25AV -- 25UV

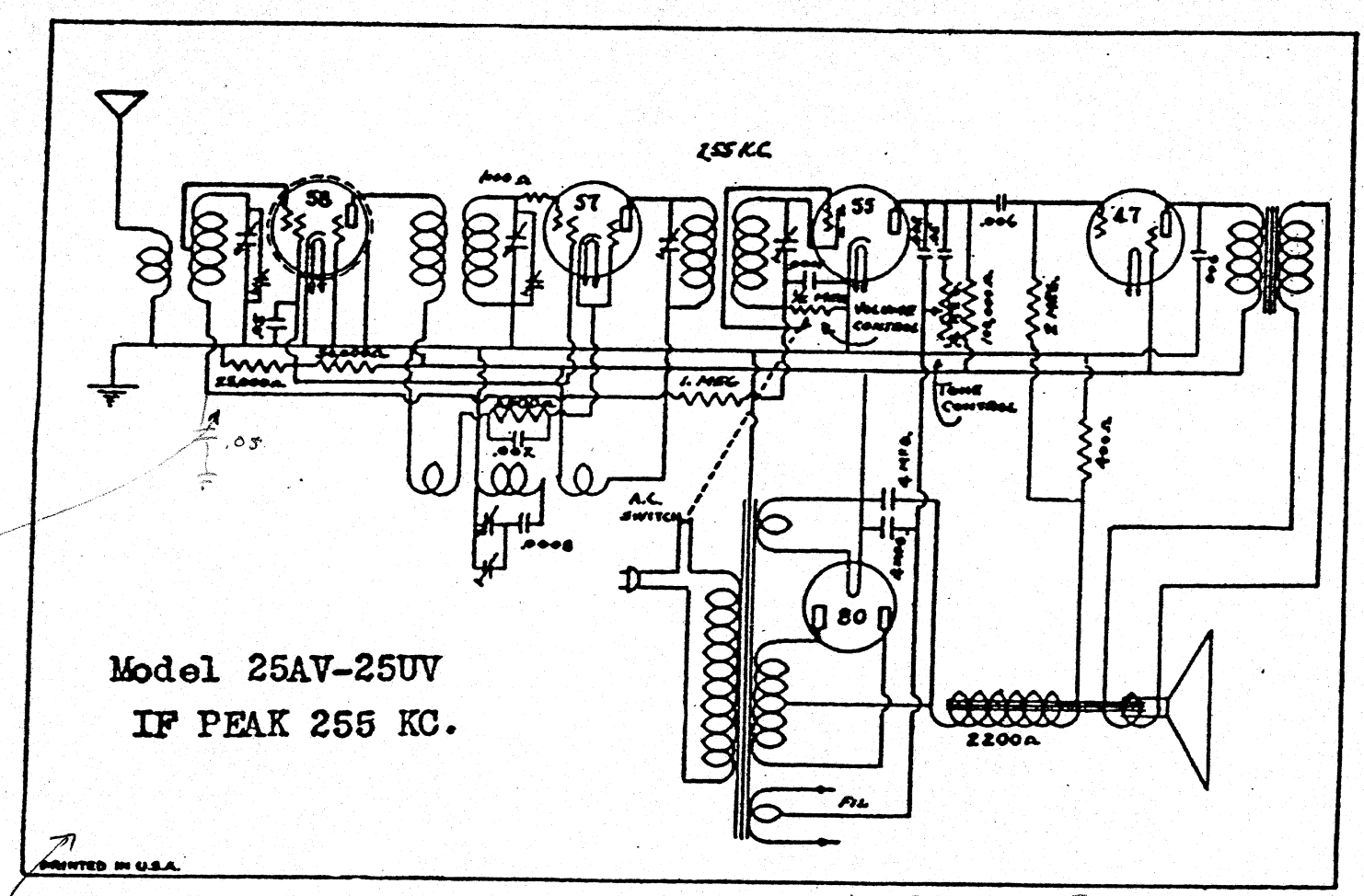
SUPER A.V.C.

F

CHASS SAME ORIENTATION
AS VERSION 3

.0008 PAPER
CAPACITOR

MISSING
BY-PASS
CAPACITOR



PETER PAN - SAME AS J-B -

NOTE TONE CONTROL
HAS BEEN MOVED
PROBABLY NOV'32, SEE AD'S
PETER PAN