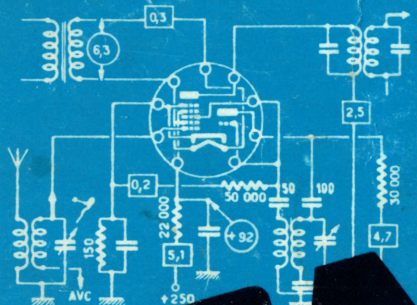


★ E. AISBERG ★ L. GAUDILLAT ★ R. DE SCHEPPER ★

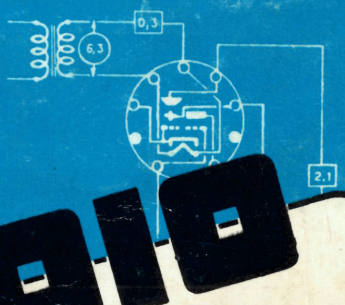
ECH81 / 6AJ8 (N)  
C (V) (FM)

S<sub>c</sub> = 0,7  
P = 1 MΩ  
V = 2 - 28,5



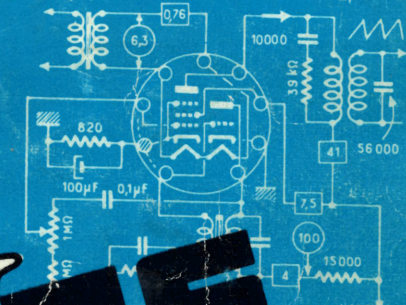
EM85 / 6DU6 (N)  
I

V = 0 - 16

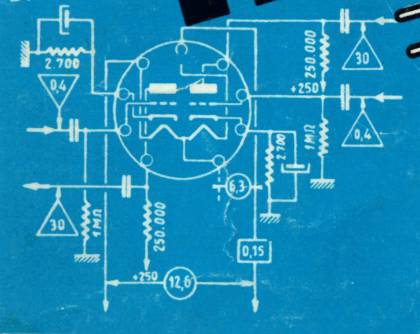


ECL82 / 6BM8 (N)  
O + P (T)

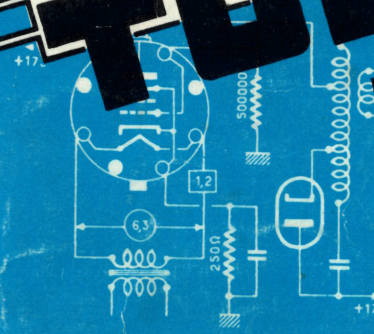
IRIODE S = 7,5  
V = 0,1 MΩ  
PENTIODE P = 25000  
V = -11



ECC83 / 12X7 (N)  
BF

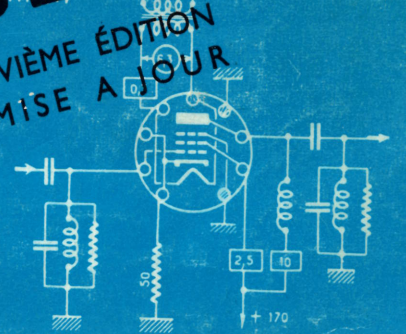


EM85 / 6DU6 (N)  
I



ECL82 / 6BM8 (N)  
O + P (T)

S = 7,4  
P = 0,4 MΩ  
V = -2



# RADIO TUBES

NEUVIÈME ÉDITION  
REMISE À JOUR

SOCIÉTÉ DES ÉDITIONS RADIO — PARIS

4 revues

## TÉLÉVISION

Magazine mensuel  
fondé en 1939

Directeur : E. AISBERG

Le numéro franco : 180 F

## TOUTE LA RADIO

Revue mensuelle de technique  
expliquée et appliquée  
Fondée en 1934

Directeur : E. AISBERG

Rédact. en chef : M. BONHOMME

Le numéro franco : 270 F

françaises

## ÉLECTRONIQUE Industrielle

Revue bimestrielle  
de technique moderne  
destinée aux promoteurs  
et aux utilisateurs des  
méthodes et appareils  
— électroniques. —

Le numéro franco : 390 F

## RADIO CONSTRUCTEUR & DÉPANNÉUR

Revue mensuelle  
de pratique radioélectrique  
Fondée en 1937

Rédacteur en chef : W. SOROKINE

Le numéro franco : 180 F

de réputation

mondiale

SOCIÉTÉ DES ÉDITIONS RADIO

9, RUE JACOB, 9  
PARIS-6° (ODE. 13-65)

☆ E. AISBERG ☆ L. GAUDILLAT ☆ R. DE SCHEPPER ☆

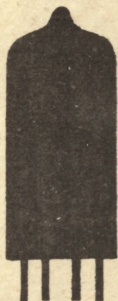
# RADIO-TUBES

CARACTÉRISTIQUES ESSENTIELLES ET SCHÉMAS D'UTILISATION

Essential constants and  
practical circuit diagrams



Características esenciales  
y esquemas de utilización



Wichtigsten Charakteristiken  
und Schaltungs - Schemata



Onmisbare Karakteristieken  
en gebruikschemas

**SOCIETE DES EDITIONS RADIO**

9, rue Jacob - Paris - 6°

## PRÉFACE

RADIO-TUBES ne prétend pas remplacer les recueils de caractéristiques détaillées avec diverses courbes. Il est destiné à l'utilisateur des tubes électroniques et vise à lui en faciliter l'usage. C'est donc un ouvrage essentiellement pratique qui a sa place au laboratoire et à l'atelier.

Chaque tube est représenté par son culot vu par en dessous. Il est accompagné de ses **caractéristiques de service** essentielles, et les conditions normales d'emploi figurent dans un schéma-type où sont indiquées les valeurs des éléments principaux.

Les abréviations et signes conventionnels suivants y sont utilisés :

### I. FONCTION (sous le nom du tube) :

- BF** - Amplification à fréquence acoustique;
- D** - Détection, démodulation;
- C** - Changement de fréquence, mélangeur;
- HF** - Amplification haute fréquence ou moyenne fréquence;
- I** - Indicateur visuel d'accord;
- M** - Tube spécial pour appareil de mesure;
- O** - Oscillateur;
- P** - Etage final de puissance;
- PH** - Inverseur de phase (amplificateur BF);
- R** - Redresseur;
- S** - Séparatrice;
- T** - Tube utilisé en télévision;
- TH** - Très haute tension;
- V** - Indique que le tube est à pente variable;
- VF** - Amplification à vidéo-fréquence;
- VHF** - Tube pouvant fonctionner à des fré-

quences supérieures à 5 MHz ou spécialement étudié pour ondes ultra courtes.

### 2. SUPPORT (lettre entourée d'un cercle à côté ou en dessous de la fonction) :

- A8** 8 broches allemand;
- E** Européen ancien;
- L** Loctal (ou « clef »);
- M** Miniature;
- N** Noval;
- O** Octal;
- R** Rimlock;
- S** Spécial;
- SM** Subminiature;
- T** Transcontinental;
- US** Américain ancien.

### 3. CORRESPONDANCE :

Le signe / indique que le **même** tube existe sous deux noms (exemple : EBF80/6N8);

Le signe = signale une interchangeabilité complète malgré quelques faibles différences de structure (exemple : 5749 = 6BA6). Les caractéristiques ne figurent alors qu'une fois et ce sous la dénomination la plus usuelle;

Un tube inscrit entre parenthèses à côté d'un autre indique qu'ils ont des caractéristiques plus ou moins semblables, mais qu'ils diffèrent par le chauffage, les capacités internes ou le culot.


### 4. CARACTERISTIQUES STATIQUES


(en haut à droite des schémas) :


- S** - Pente en milliampères par volt;


- Sc** - Pente de conversion dans le cas d'un changeur de fréquence;
- $\mu$  - Coefficient d'amplification;
- $\rho$  - Résistance interne;
- V** - Tension de polarisation de la grille de commande;
- Req** - Résistance équivalente de soufflé (tubes utilisés en VHF).


### 5. SYMBOLES DANS LES SCHEMAS :


 Un chiffre dans un cercle indique la tension continue entre deux points ou entre un point et la masse ainsi que la tension alternative ou continue de chauffage.


 Un chiffre dans un rectangle indique l'intensité en ampères dans le circuit de chauffage et en milliampères.


 Un chiffre dans un triangle indique la tension efficace du signal appliqué entre deux points ou entre un point et la masse.


 Le chiffre à l'intérieur de la figure donne la puissance maximum en watts (généralement pour une distorsion totale de 10%). Le nombre placé extérieurement donne la valeur de l'impédance de charge recommandée.

 Les flèches indiquent l'entrée et la sortie des signaux.

 Signe indiquant que le tube fonctionne en régime d'impulsion.

 Broche connectée intérieurement; doit obligatoirement rester libre.

 Broche connectée à un écran; doit être mise à la masse.

 Broche non connectée intérieurement.

## PREFACE

RADIO-TUBES is not intended to supersede a collection of detailed data, characteristics and graphs. Its aim is to help all those who make use of electronic tubes by enabling them to find easily the necessary information.

Each tube is shown with its base as seen from underneath. The information given includes the essential service characteristics and a circuit diagram showing the normal value of the principal components to be used in its most usual function.

The following abbreviations and symbols are used:

### 1. FUNCTION (below the name of the tube):

- BF** - Audio frequency amplification;
- D** - Detection, demodulation;
- C** - Frequency changer, mixer;
- HF** - High or intermediate frequency amplification;
- I** - Tuning indicator;
- M** - Special tube for measure instruments;
- O** - Oscillator;
- P** - Power amplifier, output tube;
- PH** - Phase inverter (AF amplifier);
- R** - Rectifier;
- S** - Sync separator tube;
- T** - Tube normally used in television receivers;
- THT** - Very high tension (television receivers);
- V** - Variable mu tube (remote cutoff);
- VF** - Video frequency amplification;
- VHF** - Very high frequency. Tube suitable for frequencies higher than 5 MHz or specially built for ultra-short waves.

### 2. TUBE BASE (letter enclosed in a circle or besides below the function):

- A8** German 8 pin;
- E** Old type european base;
- L** Loctal (lock-in);
- M** Miniature (7 pin);
- N** Noval (miniature 9 pin);
- O** Octal;
- R** Rimlock;
- S** Special;
- SM** Subminiature;
- T** Transcontinental (european side-contact);
- US** Old type american base.

### 3. INTERCHANGEABILITY :

The sign / means that the **same** tube exists under two names (example: EBF80 / 6N8).

The sign = indicates that the tubes are completely interchangeable notwithstanding small structural differences (example: 5749 = 6BA6). The characteristics are then only given once and apply to the most commonly used type.


A tube enclosed by brackets placed next to another one indicates that they are more or less similar as regards their electronic properties but have different filament characteristics, internal capacities or base.


### 4. STATIC CHARACTERISTICS (right hand upper corner);


- S** - Mutual conductance (mA/V);
- Sc** - Conversion conductance (frequency changer);


- $\mu$  - Amplification factor;
- $\rho$  - Internal resistance;
- V** - Negative grid voltage;
- Req** - Equivalent noise resistance (VHF tubes).


### 5. SYMBOLS USED IN THE CIRCUIT DIAGRAMS:


 A number enclosed in a circle shows the DC voltage between two points or between a point and the ground and also the RMS or DC filament voltage.


 A number in a rectangle shows the current in amperes flowing through the heater circuit and in mA elsewhere.


 A number in a triangle indicates the maximum alternating voltage allowable between two points or between a point and the ground.


 The number inside this symbol is the maximum output power in watts (generally for 10% total distortion). The number along the side of the symbol is the recommended anode load resistance.

 Arrows indicate the points of input and output of the signals.

 This symbol shows that the signal delivered to the tube is in form of pulses.

 Internally connected pins that must be left free. *istetan vapauk*

 Pins connected to an internal screen and must be grounded. *maadoit tetan*

 Pins that are not internally connected. *etole yhd. mihiinkään*

## PREFACIO

Cada válvula está representada por su casquillo visto **por debajo**. Va acompañada de sus **características esenciales de servicio** y, en un esquema-tipo, figuran las condiciones normales de funcionamiento, donde se indican los valores de los elementos principales.

En el manual se emplean las abreviaturas y signos convencionales siguientes :

**I. FUNCION** (Inmediatamente debajo de la denominación de la válvula) :

- BF** - Amplificación de audiofrecuencia;
- D** - Detección, demodulación;
- C** - Conversora de frecuencia;
- HF** - Amplificación en mediana y alta frecuencia;
- I** - Indicador visual de sintonía;
- M** - Tubo especial para instrumentos de medida;
- O** - Osciladora;
- P** - Etapa final de potencia;
- PH** - Inversora de fase (amplificador BF);
- R** - Rectificadora;
- S** - Separadora;
- T** - Tubo utilizado en televisión;
- THT** - Muy alta tensión;
- V** - Indica que el tubo es de pendiente variable;
- VF** - Amplificación en video-frecuencia;
- VHF** - Válvula capaz de funcionar a frecuencias superiores a los 5 Mc/s o especialmente diseñada para ondas ultracortas.

**2. BASE** (Letra rodeada de un círculo y situada, bien debajo o al lado de la que expresa la función) :

- AB** 8 patitas de conexión tipo alemán;
- E** Europea antigua;
- L** Local;
- M** Tipo miniatura;
- N** Tipo noval;
- O** Octal;
- R** Rimlock;
- S** Especial;
- SM** Tipo subminiatura;
- T** Transcontinental;
- US** Americana antigua.

### 3. CORRESPONDENCIA :

El signo / indica que la misma válvula existe con dos denominaciones distintas (ejemplo : EBF80/6N8).

El signo = expresa que pueden intercambiarse completamente a pesar de algunas pequeñas diferencias en su estructura (ejemplo : 5749 = 6BA6). Las características no figuran, en consecuencia, más que una sola vez y precisamente bajo la denominación más usual.

Una válvula encerrada entre paréntesis al lado de otra indica que son de características más o menos semejantes, pero que, sin embargo, difieren en cuanto a las características del encendido de filamentos, las capacidades internas o el casquillo.


### 4. CARACTERISTICAS ESTATICAS


(Parte superior derecha de los esquemas) :


- S** - Pendiente en miliamperios por voltio;
- Sc** - Pendiente de conversión en el caso de conversora de frecuencia;
- $\mu$  - Coeficiente de amplificación;


- $\rho$  - Resistencia interna;
- V** - Tensión de polarización de la rejilla de control;
- Req** - Resistencia equivalente de soplo (Tubos utilizados en VHF).


### 5. SIMBOLOS EN LOS ESQUEMAS :


 Una cifra encerrada en un círculo indica la tensión continua que existe entre dos puntos o entre un punto y masa, así como también la tensión alterna o continua de alimentación de filamentos.


 Una cifra encerrada en el interior de un rectángulo indica la intensidad en amperios en el circuito de alimentación de filamentos y en miliamperios en todos los demás lugares.


 Una cifra en el interior de un triángulo indica la tensión eficaz de la señal aplicada entre dos puntos o entre un punto y masa.


 La cifra colocada en el interior de la figura da la potencia máxima en vatios (generalmente para una distorsión total de 10%). El número situado exteriormente da el valor de la impedancia de carga recomendada.

 Las flechas indican la entrada y la salida de las señales.

 Este signo indica que la válvula funciona en régimen de impulsos.

 Pata conectada al interior; debe quedar libre obligatoriamente.

 Pata conectada a una pantalla; debe reunirse a la masa.

 Pata no existente en el zocalo de la lámpara.

## VORWORT

RADIO-TUBES ist nicht bestimmt, die ausführlichen Datensammlungen mit Kurvenblättern zu ersetzen. Es wurde geschaffen, um dem Benutzer eine schnelle Übersicht über die derzeit gebräuchlichen Typen von Elektronenröhren zu geben. In erster Linie für den Praktiker bestimmt, hat dieses Buch seinen Platz in den Laboratorien und den Werkstätten.

Es umfasst alle modernen Rundfunk-, Tonverstärker- und Fernsehröhren, sowie einige ältere, noch verwendete Typen.

Jede Röhre ist durch seinen von unten gesehenen Sockelanschluss dargestellt. Daneben sind die wichtigsten **Betriebsdaten** angegeben; die normalen Betriebsbedingungen lassen sich aus einem Prinzipschaltbild ersehen, in dem die hauptsächlichsten Schaltelemente eingezeichnet sind.

Hierbei werden die folgenden Abkürzungen und Zeichen benutzt :

### I. VERWENDUNG (unter der Röhrenbezeichnung) :

- BF** - Tonfrequenzverstärkung;
- D** - Defektion, Demodulation;
- C** - Mischstufe;
- HF** - Hoch- oder Zwischenfrequenzverstärkung;
- I** - Abstimmmanzeige;
- M** - Spezialröhre für Messgeräte;
- O** - Oszillator;
- P** - Leistungsstufe;
- PH** - Phasenumkehr (NF-Verstärkung);
- R** - Gleichrichter;
- S** - Impulssieb;
- T** - Fernsehgeräte;

**THT** - Höchstspannungsgleichrichter;

**V** - Veränderliche Steilheit;

**VF** - Videoverstärkung;

**VHF** - Röhre, die bei Frequenzen über 5 MHz verwendet werden kann, oder gute UKW- Eigenschaften besitzt.

### 2. SOCKEL (Buchstabe im Kreis, unter oder neben der Verwendung) :

**A8** Deutscher 3 + 5- Stiff Stahlröhrensockel;

**E** Alter Europasockel;

**L** Loktal;

**M** Miniatur 7 Stifte;

**N** Noval;

**O** Oktal;

**R** Rimlock;

**S** Spezial;

**SM** Subminiatur;

**T** Transkontinental;

**US** Alter Amerikasockel.

### 3. AUSTAUSCHMÖGLICHKEITEN :

Das Zeichen / bedeutet, dass für dieselbe Röhre zwei Bezeichnungen gebraucht werden (Beispiel : EBF 80/6N8).

Beim Zeichen = ist ein vollkommener Austausch trotz einiger Bauverschiedenheiten möglich (Beispiel : 5749 = 6BA6). Die Daten werden dann nur einmal angegeben, und zwar unter der gebräuchlichsten Bezeichnung.

In Klammern erscheint eine Röhre neben einer anderen bei fast gleichen Daten, aber mit Unterschieden in Heizung, Elektrodenkapazitäten oder Sockel.

### 4. STATISCHE DATEN (oben rechts in den Schaltbildern) :

**S** - Steilheit in Milliampere pro Volt;

**Sc** - Mischsteilheit bei Verwendung als Mischröhre;

$\mu$  - Verstärkungsfaktor;

$\rho$  - Innenwiderstand;

**V** - Vorspannung des Steuergitters;

**Req** - Äquivalenter Rauschwiderstand (VHF- Röhren).

### 5. SCHALTSYMBOLE :

② Eine Zahl im Kreis gibt die Gleichspannung zwischen zwei Punkten, oder einem Punkte und Masse, oder auch die Heizspannung (Gleich- oder Wechselspannung) an.

5 Eine Zahl im Rechteck gibt im Heizkreis den Strom in Ampere und anderorts den Strom in Milliampere an.

4 Eine Zahl im Dreieck bezeichnet die effektive Signal-Wechselspannung zwischen zwei Punkten oder einem Punkt und Masse.

3W Die Zahl im Symbol bezeichnet die Maximalleistung (meist bei 10 % Gesamtverzerrung). Der empfohlene Aussenwiderstand ist durch die danebenstehende Zahl angegeben.

→ Die Pfeile bezeichnen Signal Ein- und Ausgang.

Bezeichnet Impulsbetrieb einer Röhre.

⊗ Innen verbundener Anschluss.

⊙ Anschluss der Abschirmung, mit Masse zu verbinden.

● Innen nicht verbundener Anschluss.

## VOORWOORD

RADIO-TUBES wil niet de verzamelingen van omstandige karakteristieken met verscheidene krommen vervangen. Het is bestemd voor de gebruiker van elektronische buizen en beoogd hem het gebruik ervan te vergemakkelijken. Het is dus een wezenlijk praktisch werk dat zijn plaats heeft in het laboratorium en in het werkhuis.

Het bevat alle moderne buizen bruikbaar voor de radio, de geluidsversterking of de televisie evenals sommige verouderde buizen thans nog in gebruik.

Elke buis is voorgesteld door haar voet langs onder gezien. Ze is begeleid door hare hoofdzakelijke karakteristieken en de normale gebruiksvoorwaarden komen voor in een principeschema dat de waarden der belangrijkste elementen aanduidt.

De volgende afkortingen en symbolen komen erin voor :

### 1. FUNCTIE (onder de benaming der buis) :

- BF - Audiofrequentieversterking;
- D - Defectie, demodulatie;
- C - Frequentieomvorming (mengbuis);
- HF - Hoogfrequentie of middenfrequentie versterking;
- I - Visueel afstemmingsbuis (toveroog);
- M - Bijzondere buis voor meetapparaat;
- O - Oscillator;
- P - Eindversterkerbuis;
- PH - Phaseomkeerder (in LF versterkers);
- R - Gelijkrichter;
- S - Scheidingsbuis (televisie);
- T - Televisiebuis;
- THT - Zeer hoge spanning (televisie);
- V - Duidt aan dat de buis een veranderbare steilheid heeft;

VF - Videofrequentie versterking;  
VHF - Buis kunnende werken op hogere frequenties dan 5 MHz of bijzonder ontworpen voor ultra korte golflengten.

### 2. VOETTYPE (letter waarrond een cirkel onder of naast de functie) :

- A8 Acht pinnen (Duits);
- E Oud europeer;
- L Loctal;
- M Miniatuur;
- N Noval;
- O Octal;
- R Rimlock;
- S Speciaal;
- SM Subminiatuur;
- T Transcontinentaal (type P);
- US Oud americaans.

### 3. OVEREENSTEMMING :

Het teken/duidt aan dat dezelfde buis onder twee benamingen bestaat (b.v. EBF80/6N8).

Het teken = duidt een volledige wisselbaarheid aan niettegenstaande enkele lichtstructuurverschillen (b.v. 5749 = 6BA6). De karakteristieken worden dan slechts één maal aangehaald en onder de meest gebruikte benaming.


En buis tussen haakjes naast een andere betekent dat ze min of meer gelijkaardige eigenschappen bezitten doch dat ze verschillen uit hoofde van de gloeidraad, de inwendige capaciteiten of de voet.


### 4. STATISCHE KARAKTERISTIEKEN


(boven rechterzijde der schemas) :


- S - Steilheid in mA/V;
- Sc - Conversiesteilheid in geval van een mengbuis;
- $\mu$  - Versterkingsfactor;
- $\rho$  - Inwendige weerstand;
- V - Stuurroosterspanning;
- Req - Gelijkaardige ruisweerstand (buizen in VHF gebruikt).

### 5. SYMBOLEN IN DE SCHEMAS :

 Een cijfer in een cirkel betekent de gelijkspanning tussen twee punten of tussen een punt en de massa, evenals de gloeispanning (gelijk of wissel).

 Een cijfer in een rechthoek betekent de stroomsterkte uitgedrukt in ampere in de verhittingskring en elders in milliampere.

 Een cijfer in een driehoek betekent de effectieve signaalspanning tussen twee punten of tussen één punt en

 Het cijfer binnen de figuur geeft de maximum uitgangsvermogen in watts (in het algemeen voor 10 % totale vervorming). Het getal erbuiten geplaatst geeft de waarde van de aanbevole belastingsimpedantie (aanpassingswaarde).

De pijlen duiden de in- en uitgang der signalen aan.

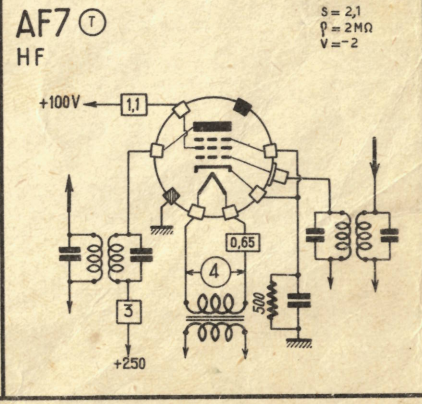
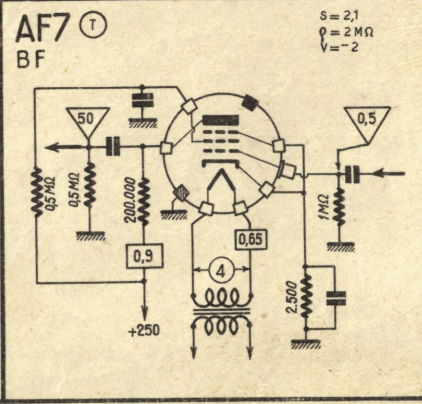
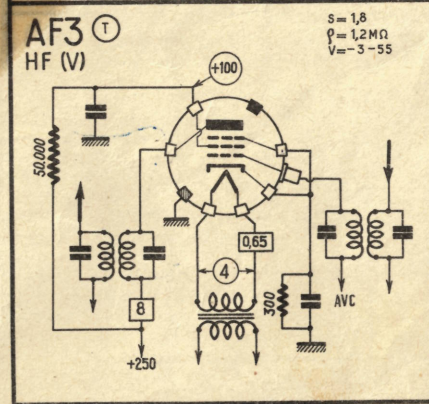
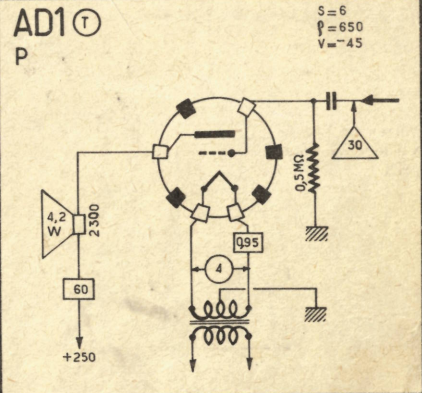
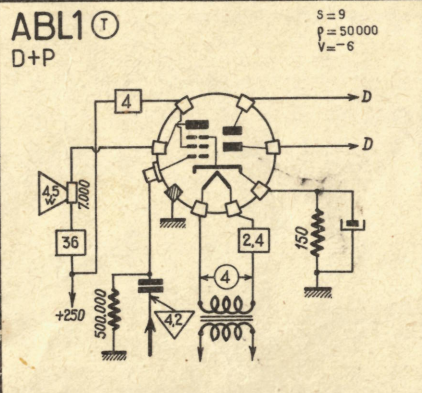
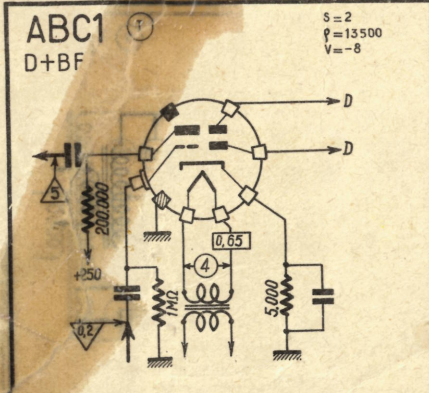
Teken beduidend dat de buis in impulsregiem werkt.

Inwendige verbinding (vrij laten!).  
Inwendige scherm (moet met de chassis verbonden worden).

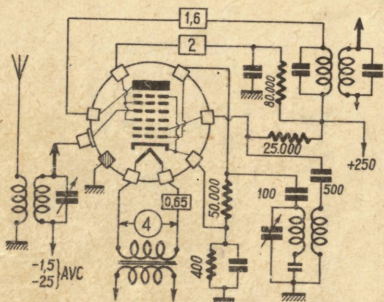
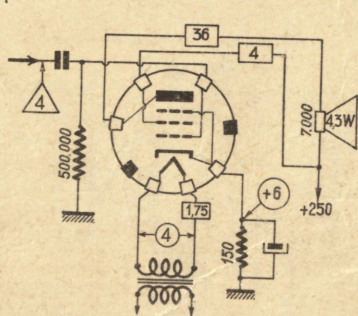
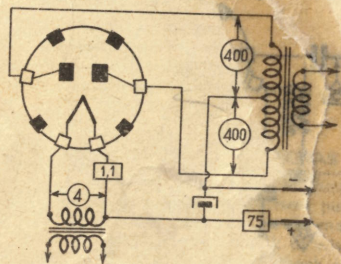
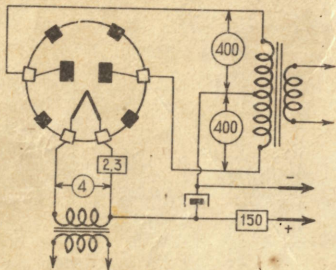
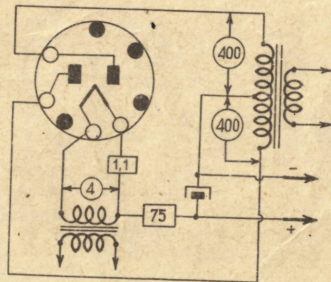
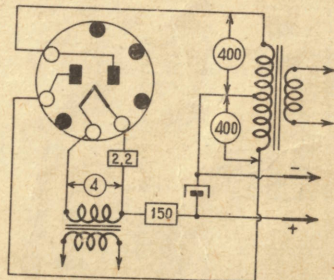
Mag gebruikt worden als steunpunt.

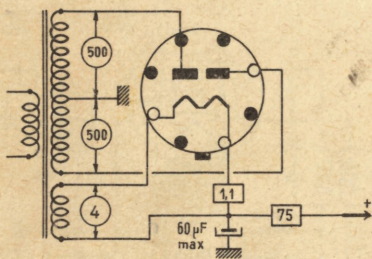
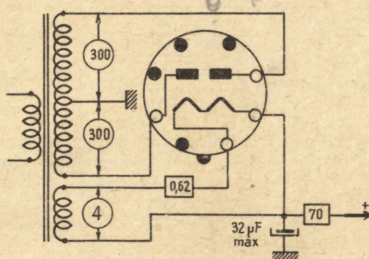
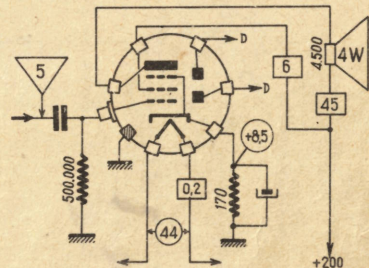




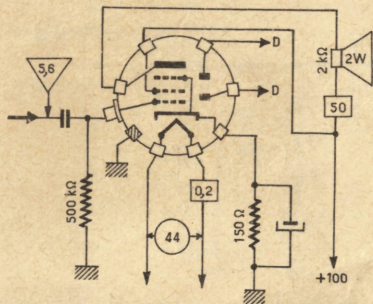


AA61 = ECC40 - AL2 = 4682

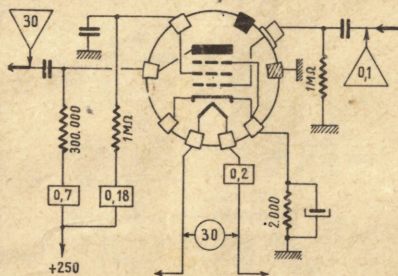
AK2 (T)  
C(V)S<sub>c</sub> = 0,6  
P = 1,6 MΩ  
V = -1,5 - 25AL4 (T)  
PS = 9,5  
P = 50,000  
V = -6AZ1 (T)  
RAZ4 (T)  
RAZ11 (A8)  
RAZ12 (A8)  
R

AZ31 (O)  
RAZ41 (R)  
RCBL1 (T)  
D+P

S = 8  
 $\rho = 35000$   
 $V = -8,5$

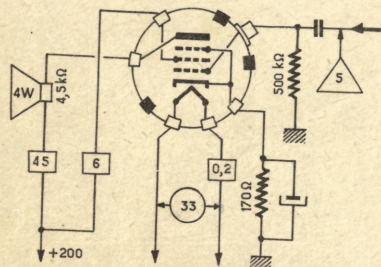
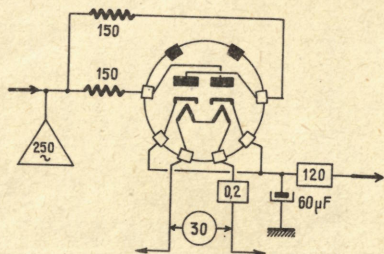
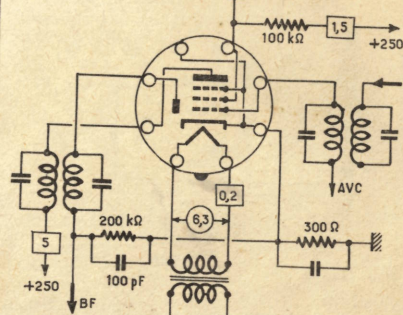
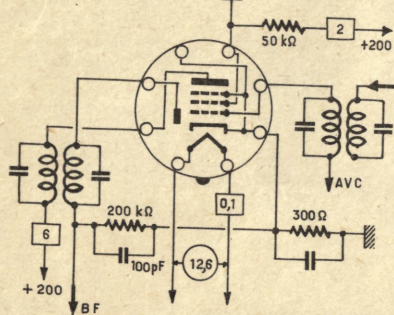
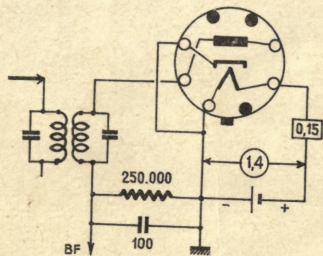
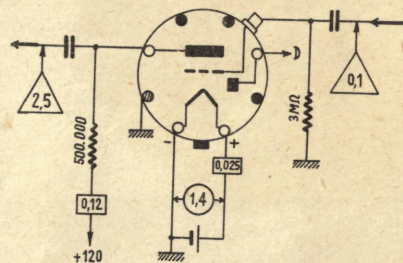
CBL6 (T)  
D+P

S = 8,5  
 $\rho = 12000$   
 $V = -8,3$

CF50 (T)  
BF

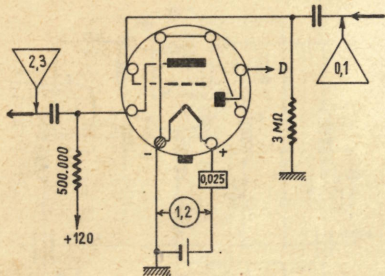
S = 3,3  
 $\rho = 2,5 M\Omega$   
 $V = -2$

BF61 = EL41  
 BF62 = EL42  
 BF451 = UL41  
 CF61 = ECH41  
 CF141 = UCH41

CL4 (T)  
PS=8  
P=45000  
V=-8,5CY2 (T)  
RD61/EAF41 (R)  
HF+DS=1,8  
P=1,2MΩ  
V=-2-40D121/UAF41 (R)  
HF+DS=1,9  
P=1,3MΩ  
V=-2,5-34DA90/1A3 (O)  
DDAC21 (O)  
D+BFS=0,4  
P=0,1MΩ  
V=0

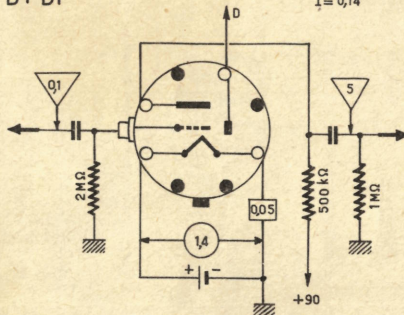
**DAC25** (O)  
D + BF

$S = 0,35$   
 $P = 0,11 \text{ M}\Omega$   
 $V = 0$



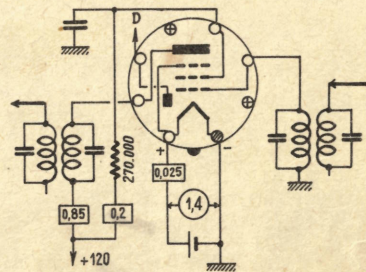
**DAC32/1H5** (O)  
D + BF

$S = 0,275$   
 $P = 0,24 \text{ M}\Omega$   
 $V = 0$   
 $I = 0,14$



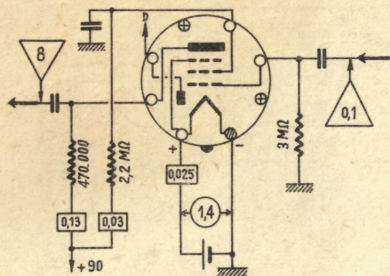
**DAF40** (R)  
HF + D

$S = 0,7$   
 $P = 2,5 \text{ M}\Omega$   
 $V = 0$



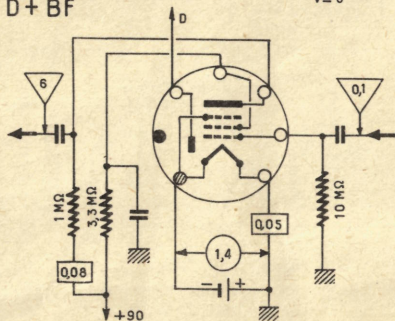
**DAF41** (R)  
D + BF

$S = 0,8$   
 $P = 1,5 \text{ M}\Omega$   
 $V = 0$



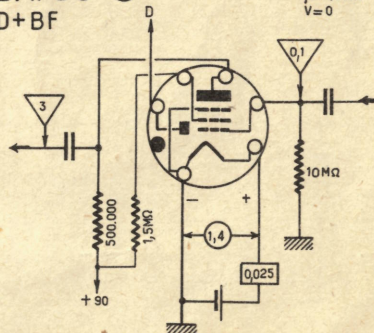
**DAF91/1S5** (M)  
D + BF

$S = 0,62$   
 $P = 0,6 \text{ M}\Omega$   
 $V = 0$



**DAF96** (M)  
D + BF

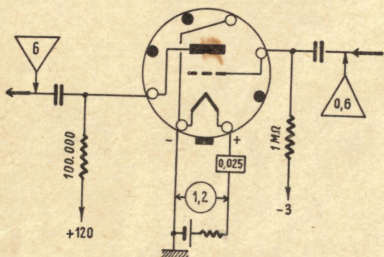
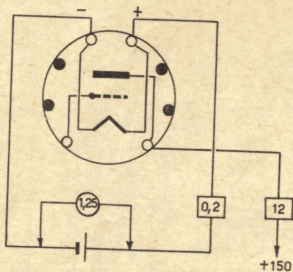
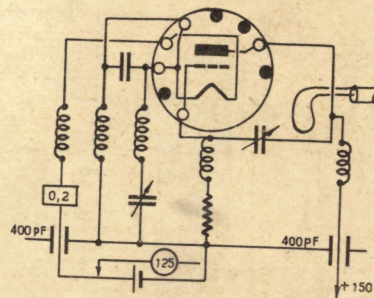
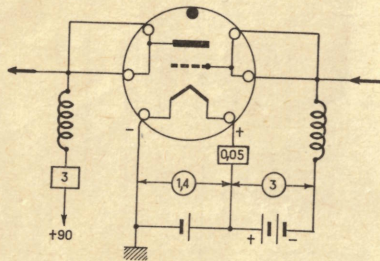
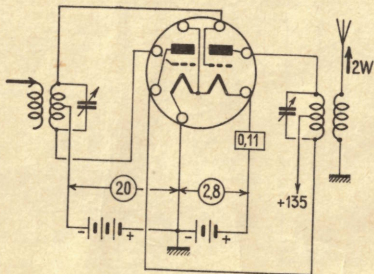
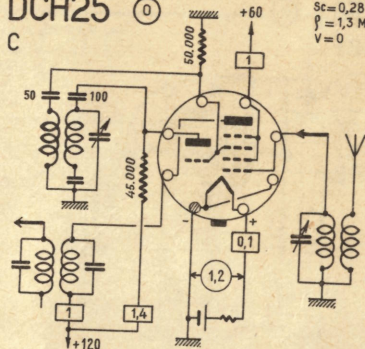
$S = 0,4$   
 $P = 1,6 \text{ M}\Omega$   
 $V = 0$

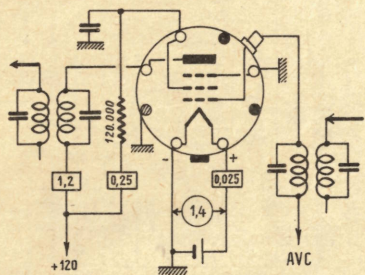
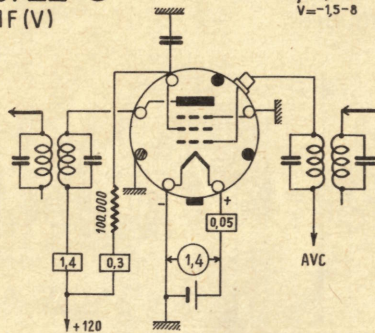
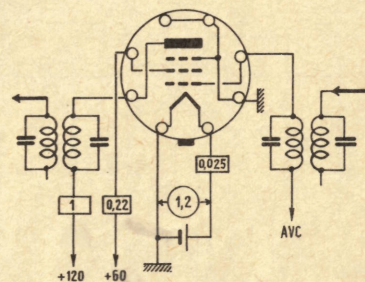
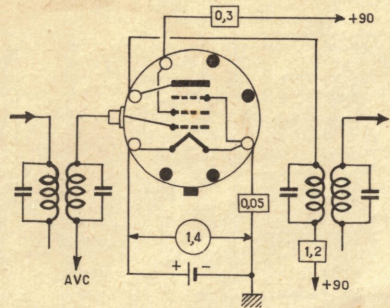
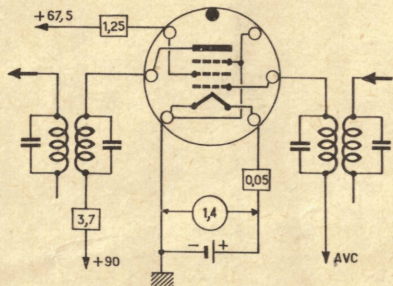
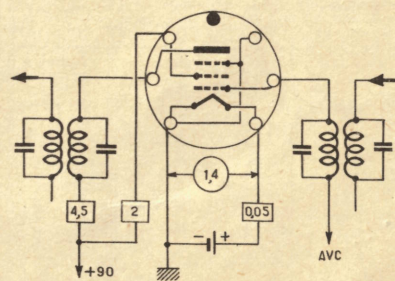


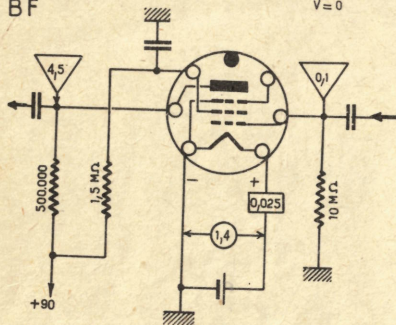
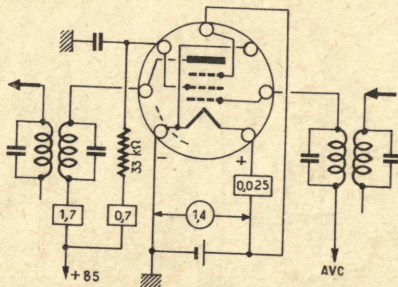
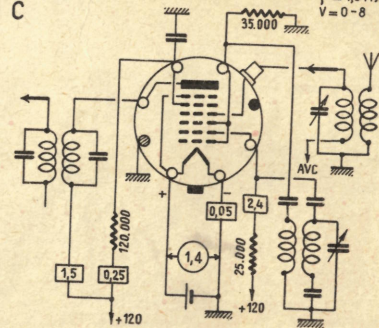
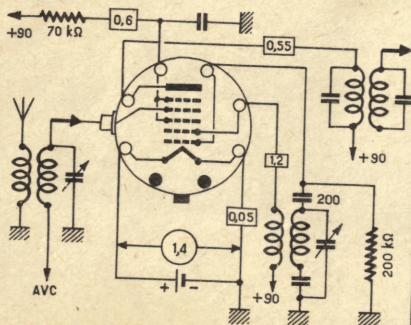
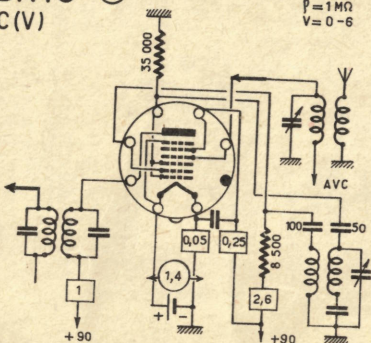
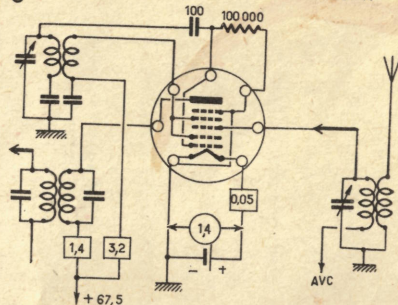
DC25

12

DCH25

DC25 (O)  
BFS = 0,85  
P = 15000  
V = -5,5DC70 (SM)  
O (500MHz)S = 3,4  
P = 4000  
V = -4,5DC80 (N)  
O (VHF)S = 3,5  
V = -3,5  
F = 470 MHz  
W = 0,45 WDC90 (M)  
HF (VHF)S = 1,1  
V = -3DCC90/3A5 (M)  
HF (VHF) CI. CS = 1,8  
P = 8.300  
V = -2,5  
I = 3,7DCH25 (O)  
CSc = 0,28  
P = 1,3 MΩ  
V = 0

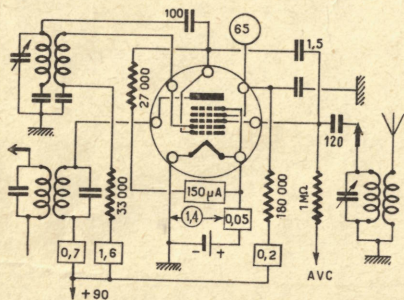
DF21 (O)  
HF (V)S = 0,7  
P = 2,5 MΩ  
V = 0-4,5DF22 (O)  
HF (V)S = 1,1  
P = 2,5 MΩ  
V = -1,5-8DF25 (O)  
HF (V)S = 0,63  
P = 2,5 MΩ  
V = 0-10DF33/1N5 (O)  
HF (V)S = 0,75  
P = 1,5 MΩ  
V = 0-4DF91/1T4 (M)  
HF (V)S = 0,9  
P = 0,5 MΩ  
V = 0-18DF92/1L4 (M)  
HF (V)S = 1,02  
P = 0,35 MΩ  
V = 0-8

DF96/1AJ4 (M)  
BFS = 0,85  
P = 1,4 MΩ  
V = 0DF97/1AN5 (M)  
HF (V)S = 0,94  
P = 0,45 MΩ  
V = 0,7DK21 (O)  
CS<sub>c</sub> = 0,5  
P = 1,5 MΩ  
V = 0-8DK32/1A7 (O)  
C (V)S<sub>c</sub> = 0,25  
P = 0,6 MΩ  
V = 0-3DK40 (R)  
C (V)S = 0,42  
P = 1 MΩ  
V = 0-6DK91/1R5 (M)  
CS = 0,3  
P = 0,5 MΩ  
V = 0-14



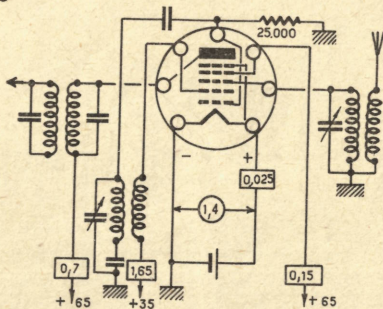
DK92/1AC6 (M)  
C (V)

S = 0,325  
P = 0,6 MΩ  
V = 0 - 12



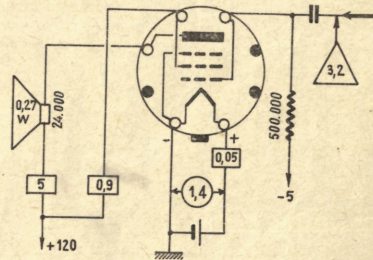
DK96/1AB6 (M)  
C

S<sub>c</sub> = 0,3  
P = 1 MΩ  
V = 0



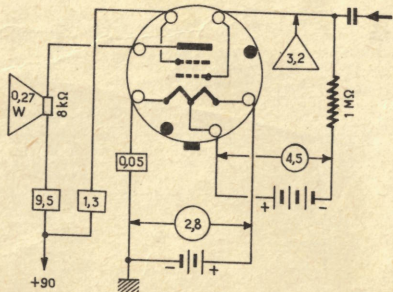
DL21 (O)  
P

S = 1,4  
P = 0,35 MΩ  
V = -5



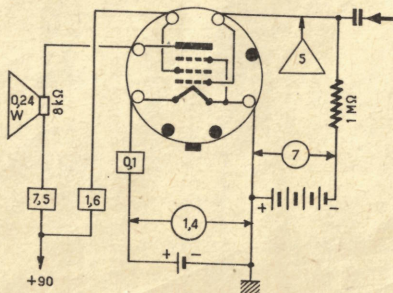
DL33/3Q5 (O)  
P

S = 2,2  
P = 80 000  
V = -4,5



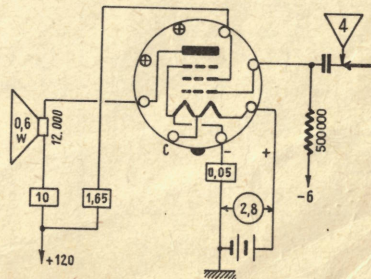
DL35/1C5 (O)  
P

S = 1,5  
P = 0,11 MΩ  
V = -7,5



DL41 (R)  
P

S = 2,55  
P = 80 000  
V = -5,7



DF96

DF  
BF

500.000

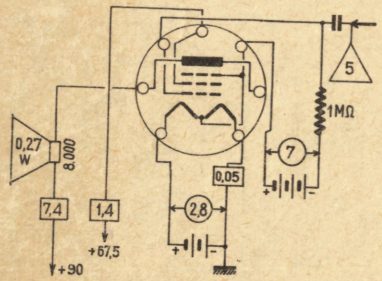
DK  
C (V)

AV

DL92

DL92/3S4 (M)  
P

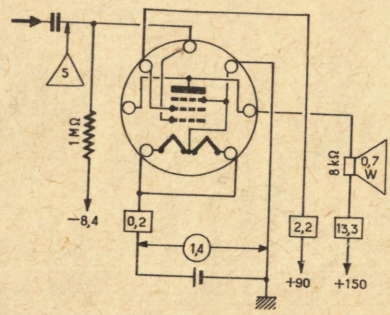
$S = 1,6$   
 $P = 0,1 \text{ M}\Omega$   
 $V = -7$



16

DL93/3A4 (M)  
P

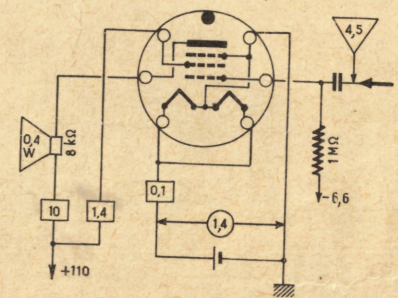
$S = 1,9$   
 $V = -8,4$



DL21

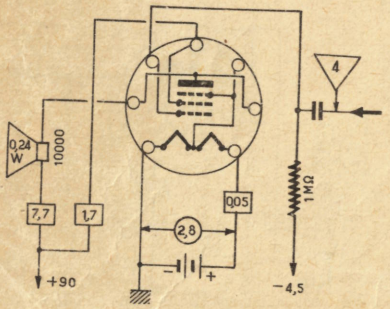
DL94/3V4 (M)  
P

$S = 2,2$   
 $P = 0,1 \text{ M}\Omega$   
 $V = -6,6$



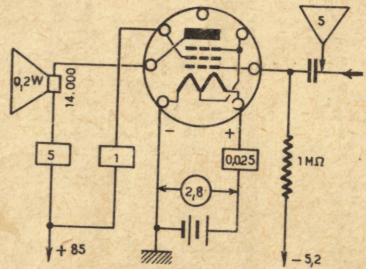
DL95/3Q4 (M)  
P

$S = 2$   
 $P = 0,12 \text{ M}\Omega$   
 $V = -4,5$

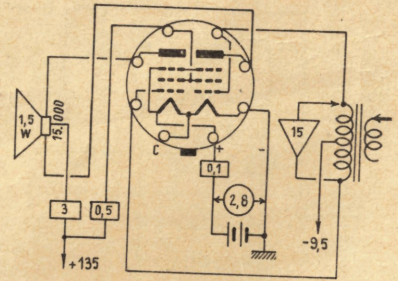


DL96/3C4 (M)  
P

$S = 1,4$   
 $V = -5,2$

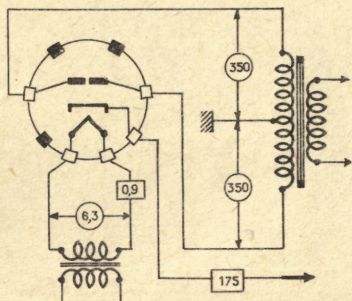


DL21 (O)  
P (Cl. B)



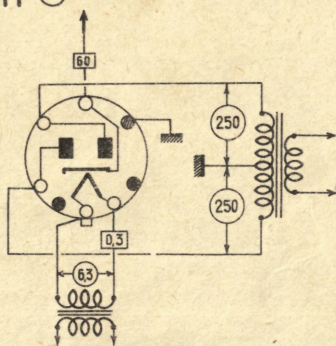
EZ4 (T)

R



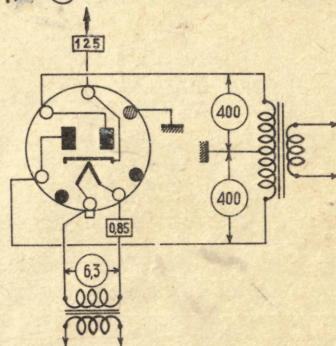
EZ11 (AB)

R



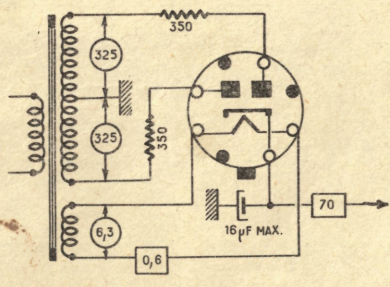
EZ12 (AB)

R



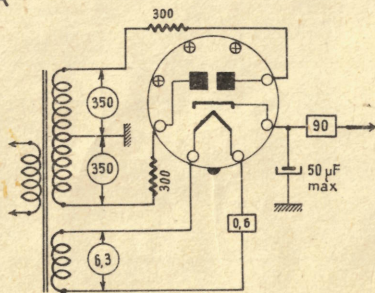
EZ35 (O)

R



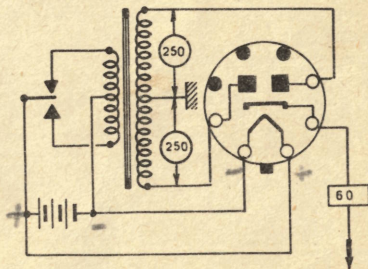
EZ40 / 6BT4 (R)

R



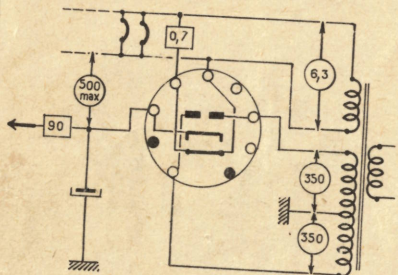
EZ41 (R)

R



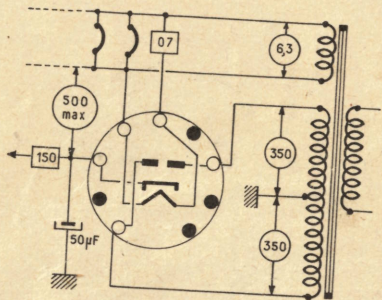
EZ80 / 6V4 (N)

R



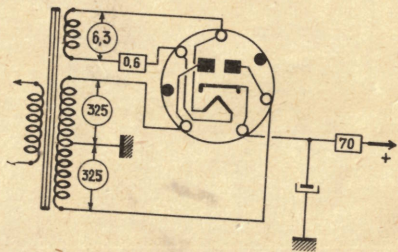
EZ81 / 6CA4 (N)

R



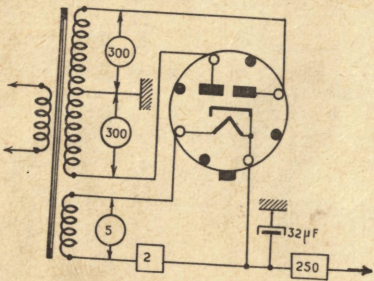
EZ90 / 6X4 (M)

R



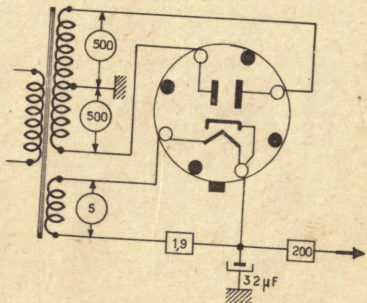
GZ32 / 5V4 (O)

R



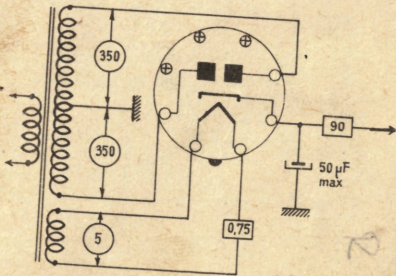
GZ34 / 5AR4 (O)

R



GZ40 (R)

R



28603

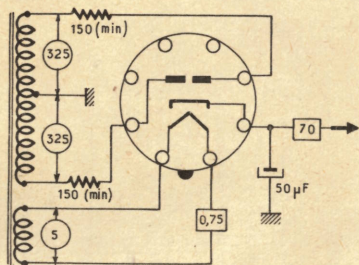
129024

10107

2745  
52806

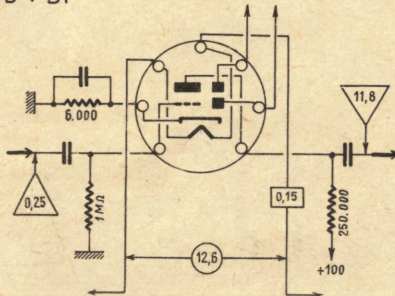
GZ41 (R)

R



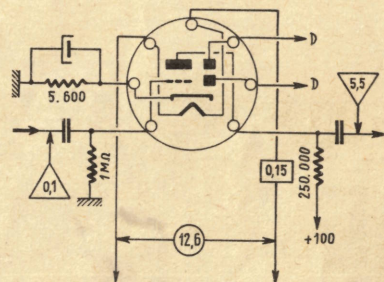
HBC90/12AT6 (M)

D + BF

 $S = 1,2 -$   
 $p = 58.000$   
 $V = -3$ 


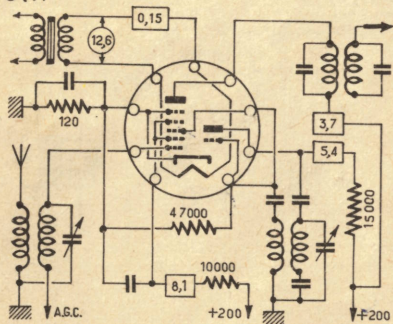
HBC91/12AV6 (M)

D + BF

 $S = 1,6$   
 $p = 62.500$   
 $V = -2$ 


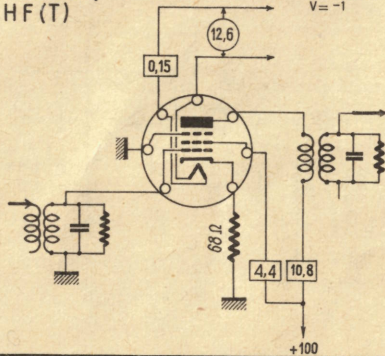
HCH81/12D8 (N)

C(V)

 $S_c = 0,77$   
 $p = 1 M\Omega$   
 $V = -2,3 - 28$ 


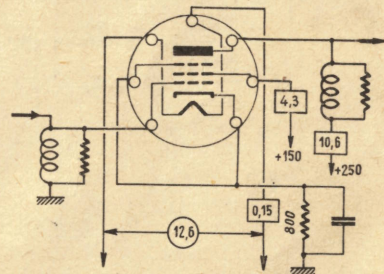
HF93/12BA6 (M)

HF (T)

 $S = 4,3$   
 $p = 0,25 M\Omega$   
 $V = -1$ 


HF94/12AU6

HF (T) (M)

 $S = 5,2$   
 $p = 1 M\Omega$   
 $V = -1$ 


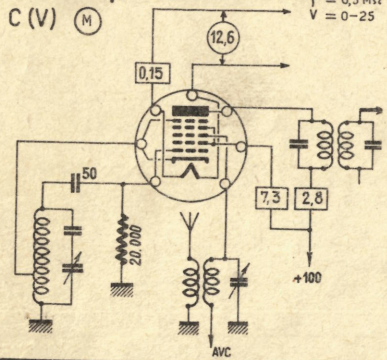
HK90

46

KF3

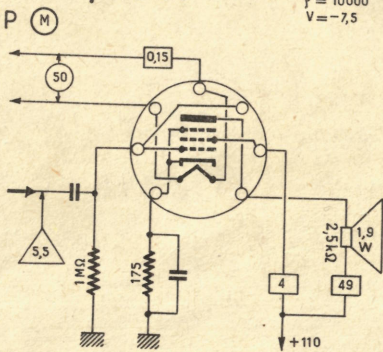
HK90 / 12BE6

$S_c = 0,45$   
 $\rho = 0,5 M\Omega$   
 $V = 0-25$



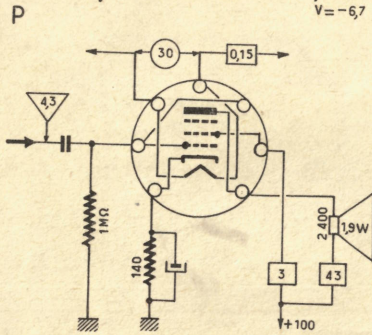
HL92 / 50C5

$S = 7,5$   
 $\rho = 10000$   
 $V = -7,5$



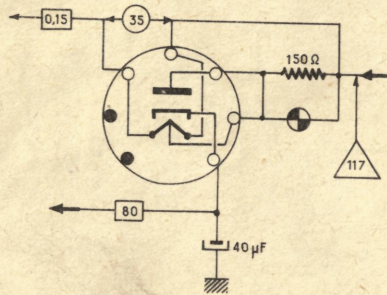
HL94 / 30A5 (M)

$S = 9,2$   
 $\rho = 22 k\Omega$   
 $V = -6,7$



HY90 / 35W4 (M)

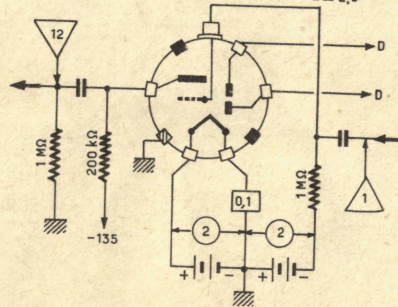
R



KBC1 (T)

D + BF

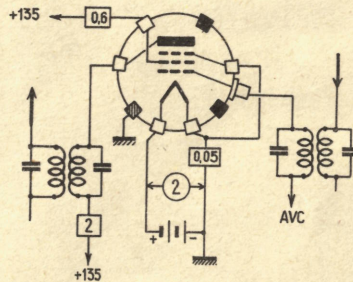
$S = 1$   
 $\rho = 16000$   
 $V = 4,5$   
 $I = 2,5$



KF3 (T)

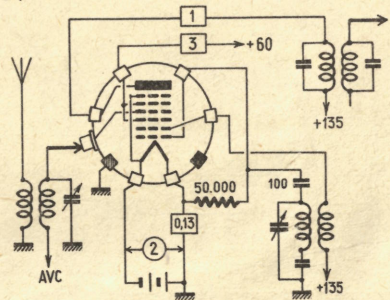
HF (V)

$S = 0,65$   
 $\rho = 1,3 M\Omega$   
 $V = -0,5-15$



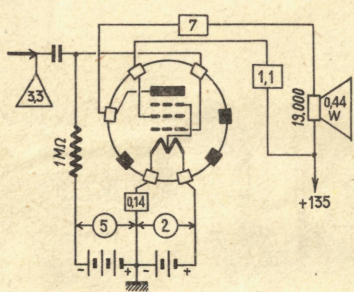
KK2 (T)  
C(V)

$S_c = 0,3$   
 $f = 1,7 \text{ M}\Omega$   
 $V = -15-15$



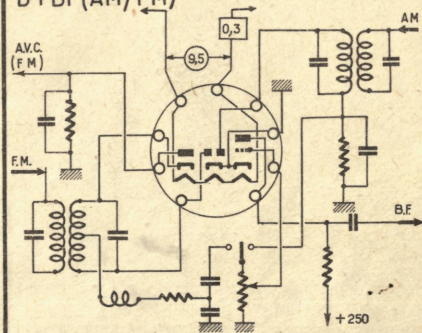
KL4 (T)  
P

$S = 2,1$   
 $f = 0,13 \text{ M}\Omega$   
 $V = -5$



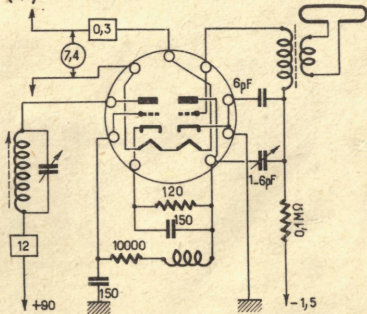
PABC80/9AK8 (N)  
D+BF(AM/FM)

$S = 1,2$   
 $f = 58 \text{ 000}$   
 $V = -3$



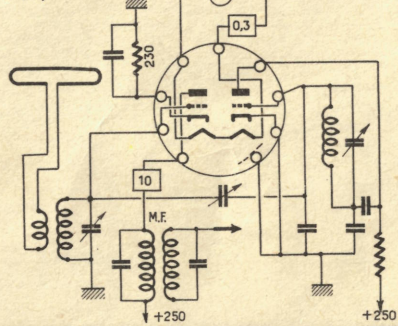
PCC84/7AN7 (N)  
HF(T)

$S = 6$   
 $f = 10 \text{ 000}$   
 $V = -1,5$



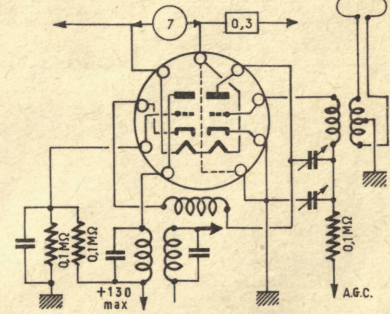
PCC85/9AQ8 (N)  
C(T)

$S = 6$   
 $f = 9 \text{ 500}$   
 $V = -2,5$



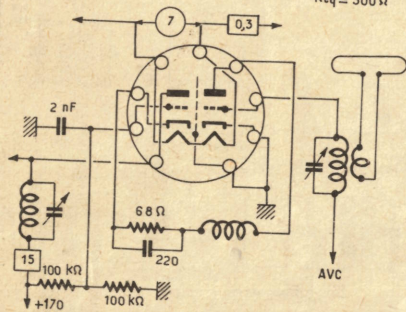
PCC88 (N)  
HF(T)

$S = 12,5$



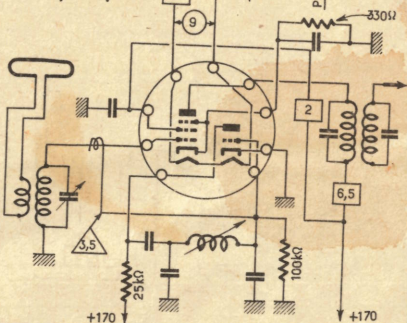
**PCC89** (N)  
HF(V) (T)

$S = 12,5$   
 $P = 2,6 \text{ k}\Omega$   
 $V = 1,2 - 12$   
 $R_{eq} = 300 \Omega$



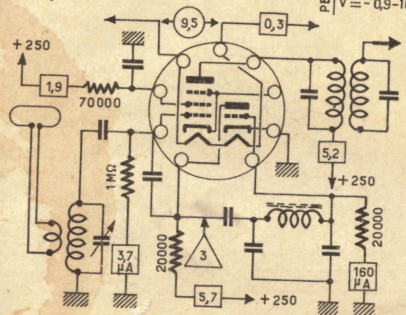
**PCF80** (N)  
C(T) /8A8/9A8

TRIODE  $S = 5$   
 $V = -2$   
PENTHODE  $S = 6,2$   
 $S_1 = 5 \text{ k}\Omega$   
 $S_2 = 2,2$   
 $V = -2$



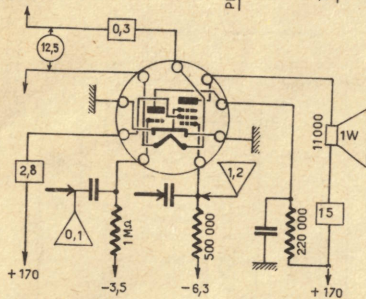
**PCF82/9U8** (N)  
C (T)

TRIODE  $S = 8,5$   
 $V = -1$   
PENTHODE  $S = 5,2$   
 $S_1 = 5 \text{ k}\Omega$   
 $S_2 = 1,9$   
 $P = 0,4 \text{ M}\Omega$   
 $V = -0,9 - 10$



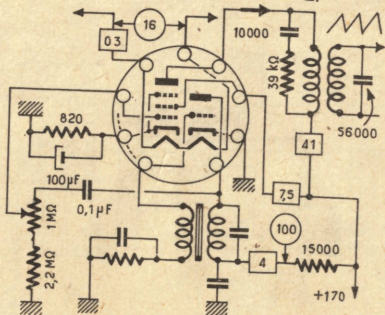
**PCL81** (N)  
BF+P(T)

PENTHODE  $S = 3,3$   
 $V = 0,15 \text{ M}\Omega$   
 $V = -6,3$   
TRIODE  $S = 1,9$



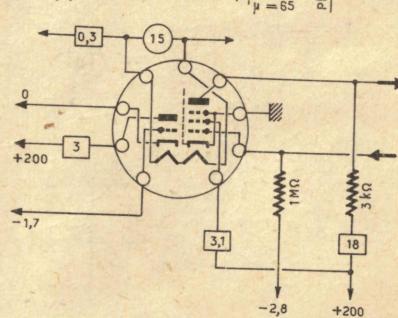
**PCL82/16A8** (N)  
O+P(T)

TRIODE  $S = 4$   
 $V = 0$   
PENTHODE  $S = 7,5$   
 $P = 25000^*$   
 $V = -11$



**PCL84** (N)  
S+VF

TRIODE  $S = 4$   
 $V = -1$   
 $V = -1,7$   
 $V = 65$   
PENTHODE  $S = 10,4$   
 $V = 130 \text{ k}\Omega$   
 $V = -2,9$

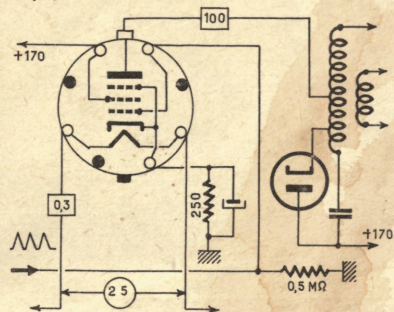




PL36/25E5 (O)

S = 8  
 $\rho = 10 \text{ k}\Omega$   
 V = -25

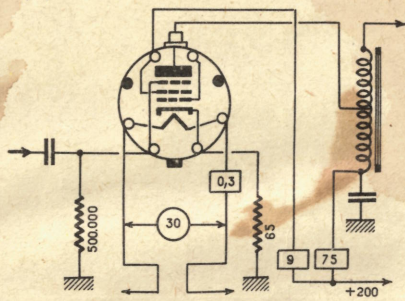
P(T)



PL38 (O)

S = 13,5  
 $\rho = 20000$   
 V = -5,5

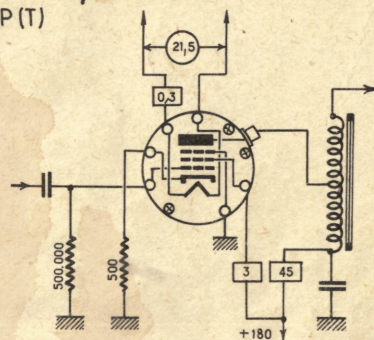
P(T)



PL81/21A6 (N)

S = 6,5  
 V = -23,5

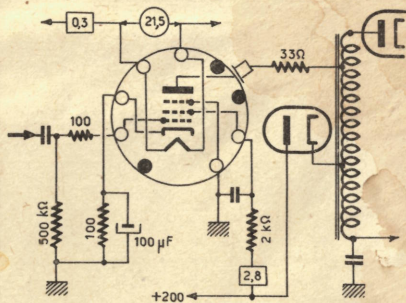
P(T)



PL81F (N)

S = 6  
 $\rho = 11 \text{ k}\Omega$   
 V = -28

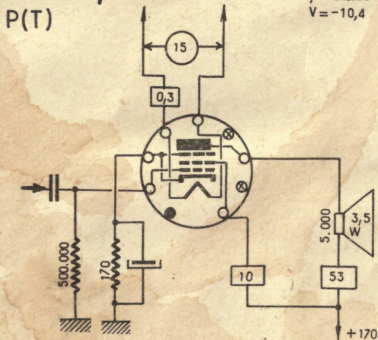
P(T)



PL82/16A5 (N)

S = 9,5  
 $\rho = 20000$   
 V = -10,4

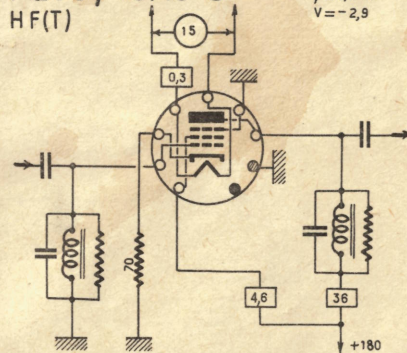
P(T)



PL83/15A6 (N)

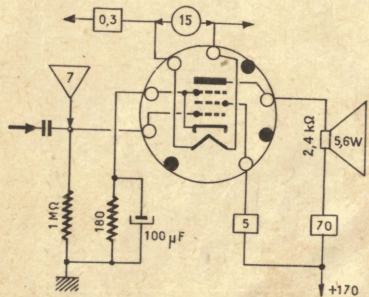
S = 10  
 $\rho = 0,1 \text{ M}\Omega$   
 V = -2,9

H F(T)



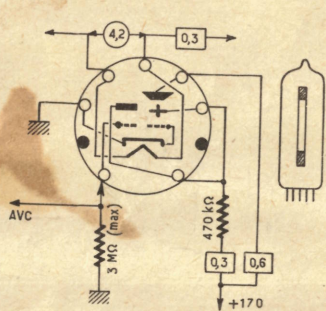
PL84 (N)  
P

$S = 10$   
 $\rho = 23 \text{ k}\Omega$   
 $V = -12,5$

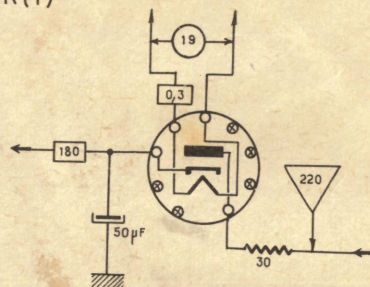


PM84 (N)  
I

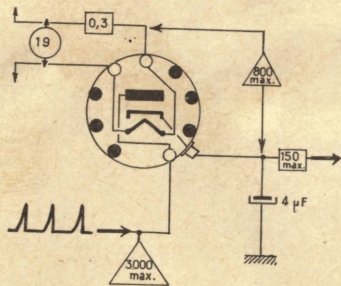
$V = 0 - 15$



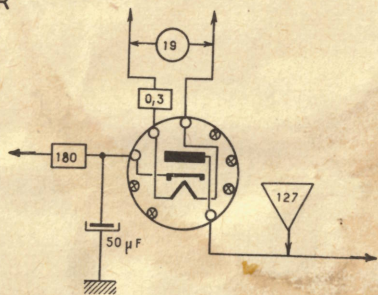
PY80 / 19W3 (N)  
R (T)



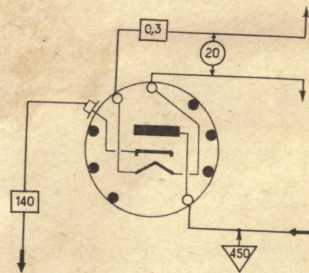
PY81 / 17Z3 (N)  
R (T) (T H T)



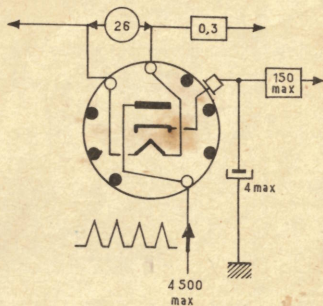
PY82 / 19Y3 (N)  
R



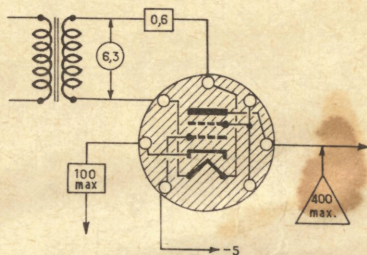
PY83 (N)  
R (T)



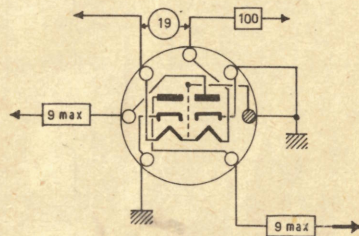
**PY88** (N)  
R(T)



**RL21/2D21** (M)  
THYR.

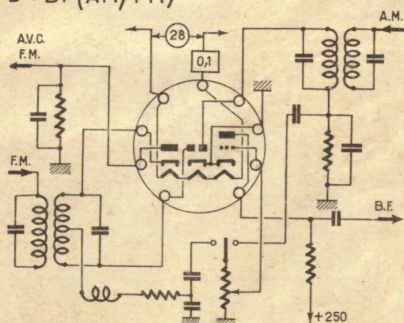


**UAA91** (M)  
D



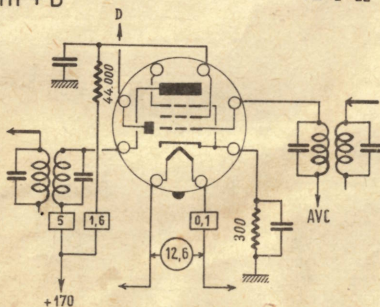
**UABC80** (N)  
D+BF(AM/FM)

$S = 1,2$   
 $\rho = 58,000$   
 $V = -3$



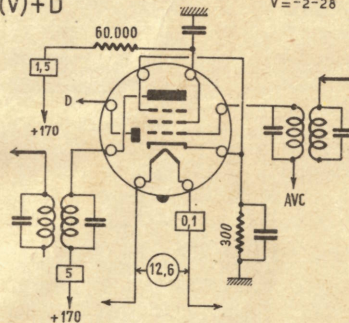
**UAF41** (R)  
HF+D

$S = 1,6$   
 $\rho = 1,2 \text{ M}\Omega$   
 $V = -2-22$

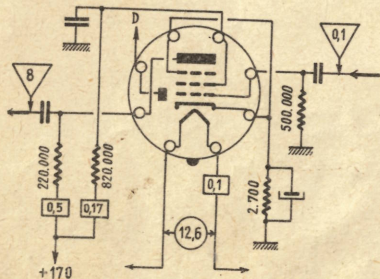


**UAF42** (R)  
HF(V)+D

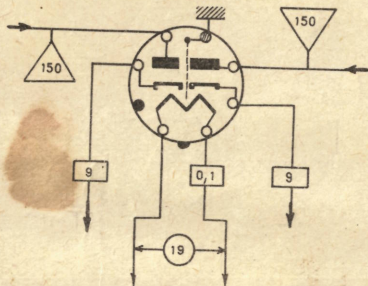
$S = 2$   
 $\rho = 0,9 \text{ M}\Omega$   
 $V = -2-28$



**UAF42/12S7** (R)  
D+BF

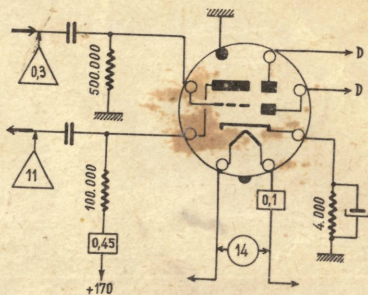


**UB41** (R)  
D



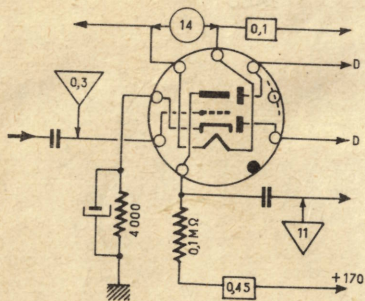
**UBC41/14L7** (R)  
D+BF

S = 1,65  
p = 42000  
V = 1,5



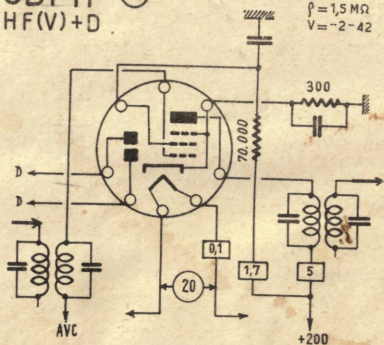
**UBC81** (N)  
BF+D

S = 1,65  
p = 42000  
V = 1,5



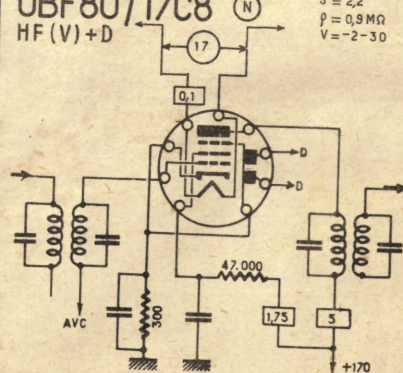
**UBF11** (AB)  
HF(V)+D

S = 1,6  
p = 1,5 MΩ  
V = -2-42



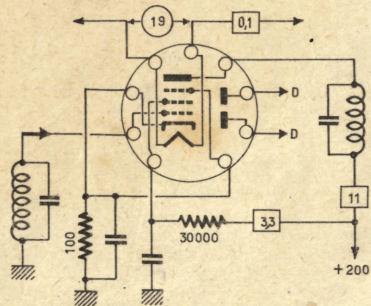
**UBF80/17C8** (N)  
HF(V)+D

S = 2,2  
p = 0,9 MΩ  
V = -2-30



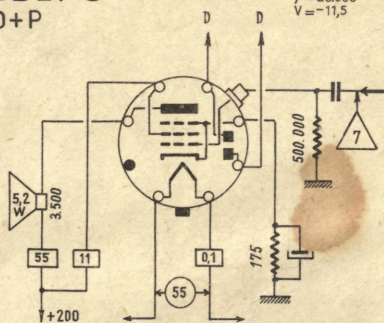
**UBF89** (N)  
HF + D(T)

$S = 4,5$   
 $\rho = 0,6 \text{ M}\Omega$   
 $V = -1,5$



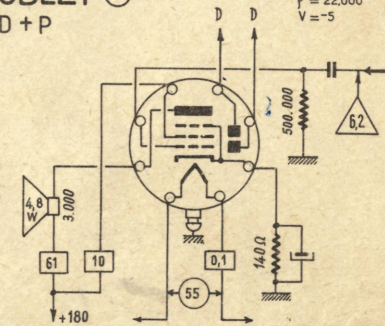
**UBL1** (O)  
D + P

$S = 8,5$   
 $\rho = 20,000$   
 $V = -11,5$



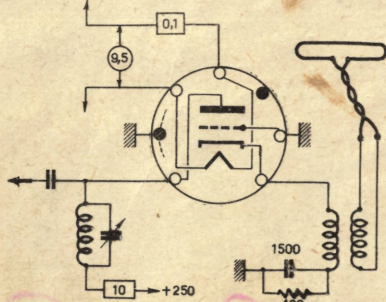
**UBL21** (L)  
D + P

$S = 9$   
 $\rho = 22,000$   
 $V = -5$



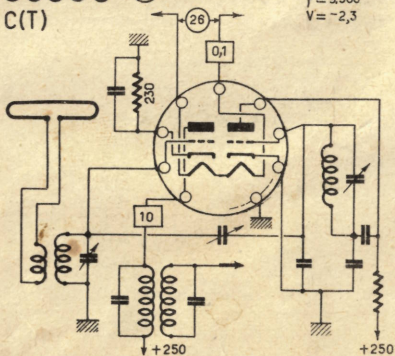
**UC92** (N)  
HF (VHF)

$S = 5$   
 $\rho = 12,000$   
 $V = -2$



**UCC85** (N)  
C(T)

$S = 6$   
 $\rho = 3,500$   
 $V = -2,3$

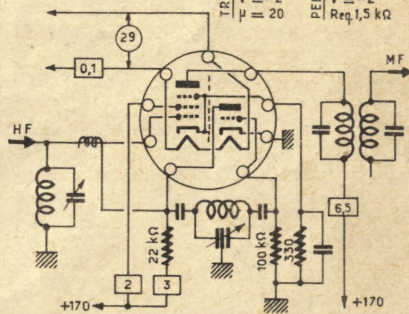


**UCF80** (N)  
C

$S_c = -$   
 $S = 5$   
 $\rho = -$   
 $V = -2$   
 $\rho = 20$

TRIODE  
 $S_c = 2,2$   
 $S = 6,2$   
 $\rho = 0,4 \text{ M}\Omega$   
 $V = -2$   
Req 1,5 k $\Omega$

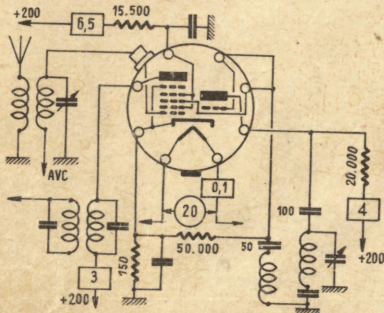
PENTHODE



**UCH4** (O)  
HF(V)+BF

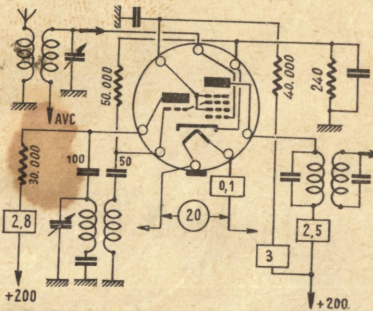
HEXODE  $S = 2,2$   
 $P = 0,7 \text{ M}\Omega$   
 $V = -21-27$

TRIODE  $S = 3,2$   
 $P = 8000$   
 $V = -2$



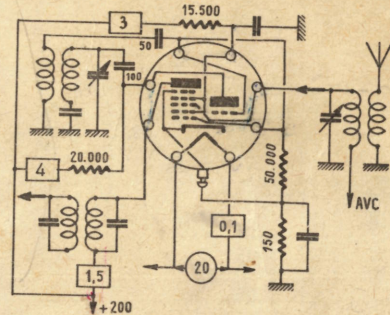
**UCH11** (AB)  
C(V)

$S_c = 0,75$   
 $P = 1 \text{ M}\Omega$   
 $V = -2-18$



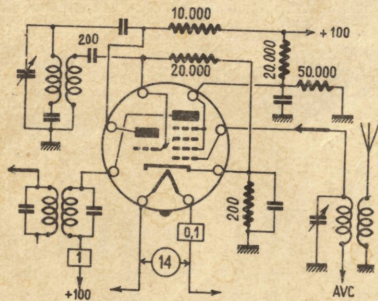
**UCH21** (L)  
C(V)

$S_c = 0,58$   
 $P = 1 \text{ M}\Omega$   
 $V = -2-28$



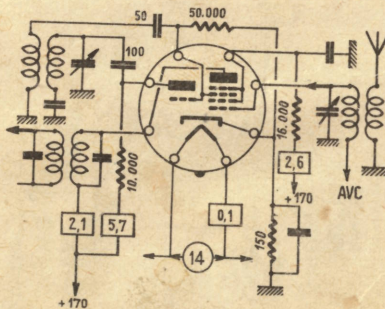
**UCH41** (R)  
C(V)

$S_c = 0,5$   
 $P = 1 \text{ M}\Omega$   
 $V = -1-14$



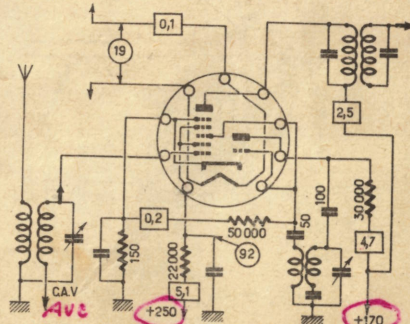
**UCH42 / 14K7** (R)  
C(V)

$S_c = 0,67$   
 $P = 1 \text{ M}\Omega$   
 $V = -18-25$



**UCH81 / 19D8** (N)  
C(V)

$S = 0,7$   
 $P > 1 \text{ M}\Omega$   
 $V = -2-24$

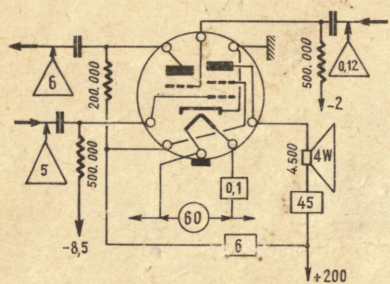


200 -  
170V = 4,2kΩ

**UCL11** (AB)

BF + P

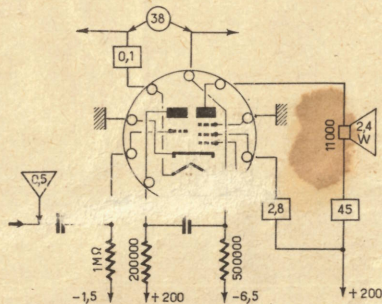
$$P \begin{cases} S = 9 \\ \rho = 18000 \\ V = -8,5 \end{cases} \quad BF \begin{cases} S = 2,1 \\ \rho = 30000 \\ V = -2 \end{cases}$$



**UCL81** (N)

BF + P

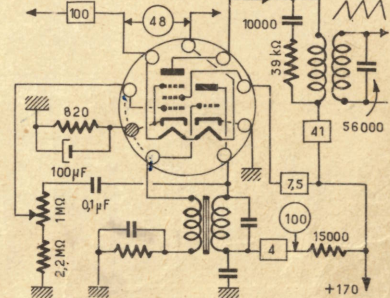
$$S = 8,7 \\ \rho = 18.000 \\ V = -6,5$$



**UCL82** (N)

O + P(T)

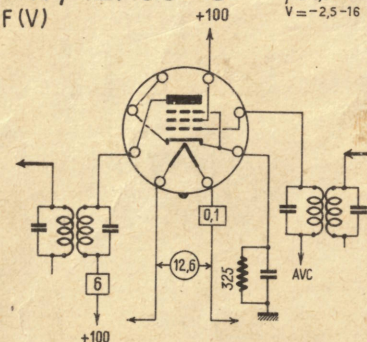
$$\text{Triode} \begin{cases} S = 3 \\ V = 0 \end{cases} \quad \text{Pentode} \begin{cases} S = 7,5 \\ \rho = 25.000 \\ V = -11 \end{cases}$$



**UF41 / 12AC5** (R)

HF (V)

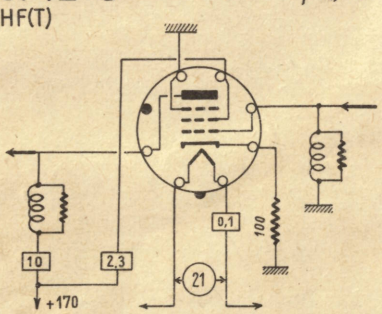
$$S = 1,9 \\ \rho = 0,6 \text{ M}\Omega \\ V = -2,5 - 16$$



**UF42** (R)

HF (T)

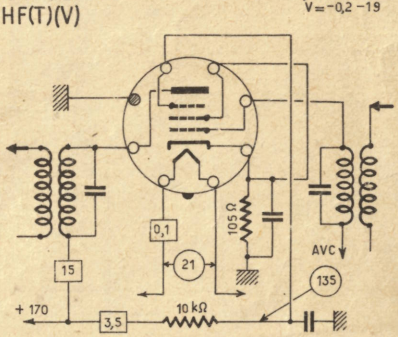
$$S = 8,5 \\ \rho = 0,3 \text{ M}\Omega$$



**UF43** (R)

HF (T) (V)

$$S = 6,3 \\ \rho = 0,3 \text{ M}\Omega \\ V = -0,2 - 19$$



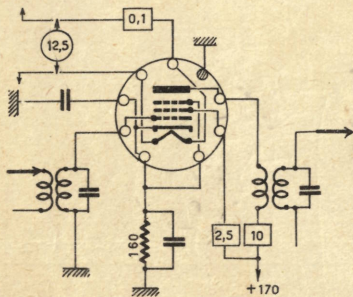
UF80

56

UM4

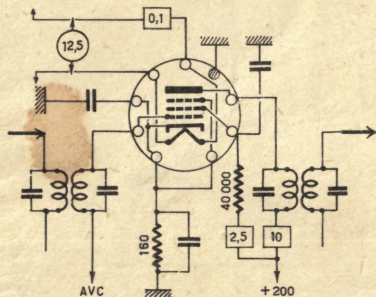
UF80 (N)  
HF(T)

$S = 7,4$   
 $\rho = 0,4 M\Omega$   
 $V = -2$



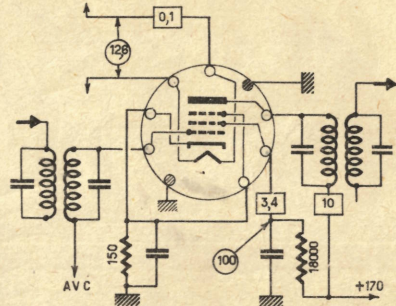
UF85 (N)  
HF(V)

$S = 6,1$   
 $\rho = 0,4 M\Omega$   
 $V = -2 - 35$



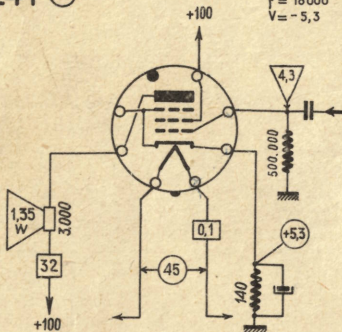
UF89 (UF41) (N)  
HF(V)

$S = 3,6$   
 $\rho = 0,5 M\Omega$   
 $V = -3 - 10$



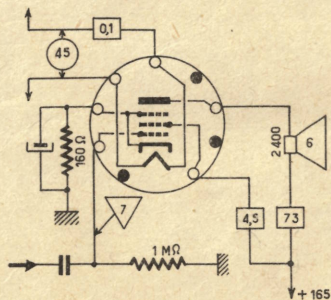
UL41 (R)  
P

$S = 8,5$   
 $\rho = 18000$   
 $V = -5,3$



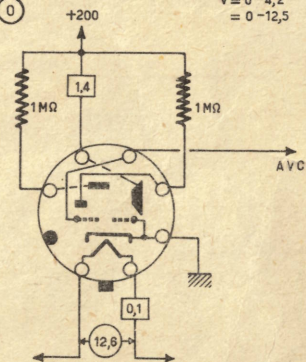
UL84/45B5 (R)  
P

$S = 10,5$   
 $\rho = 20 k\Omega$   
 $V = -12$

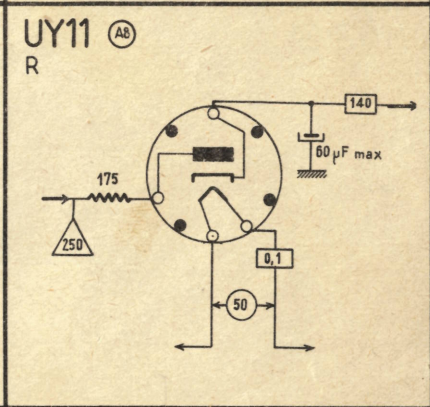
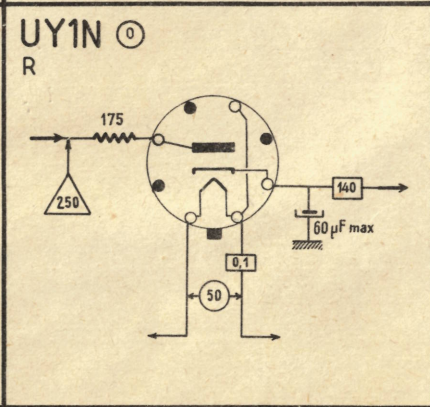
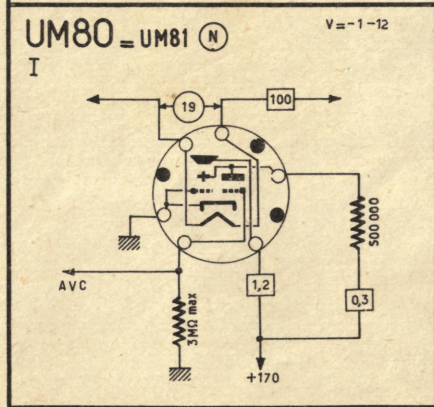
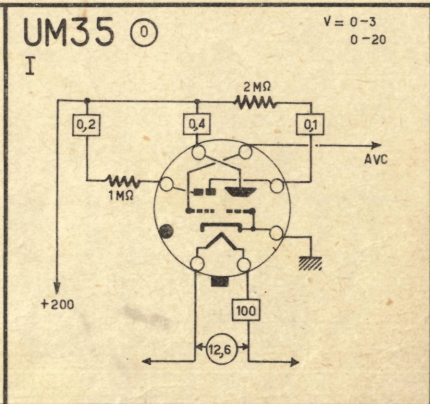
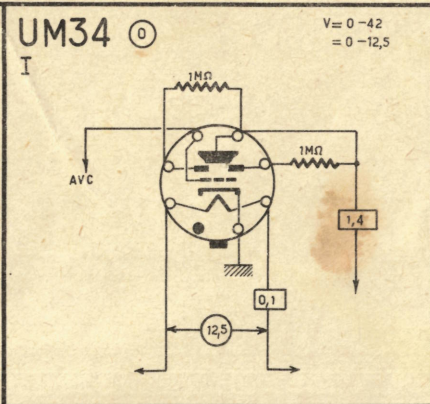
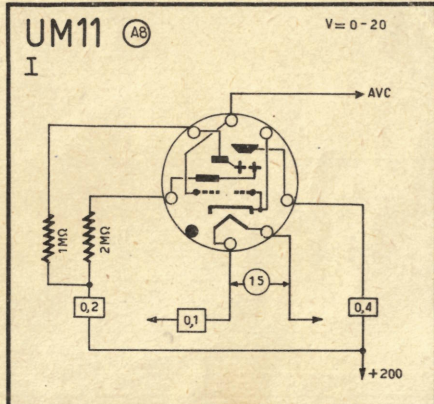


UM4 (O)  
T

$V = 0 - 4,2$   
 $= 0 - 12,5$





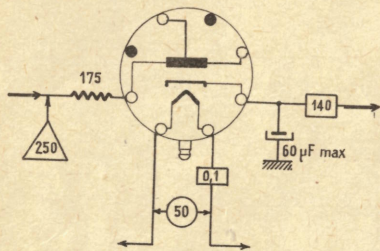


UY21

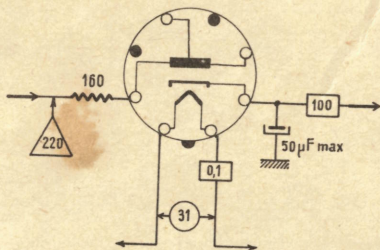
58

UY88

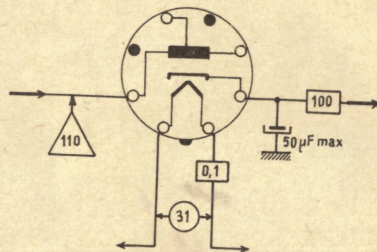
UY21 (L)  
R



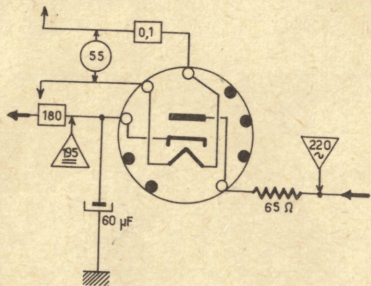
UY41 / 31A3 (R)  
R



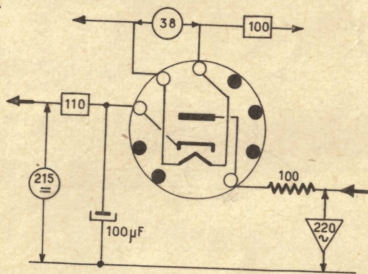
UY42 (R)  
R



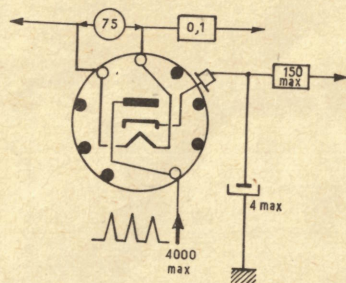
UY82 (M)  
R



UY85 / 38A3 (N)  
R

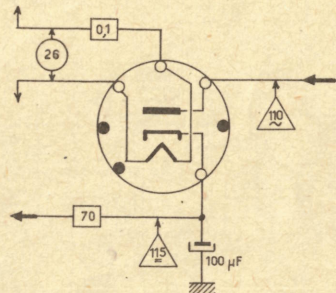


UY88 (N)  
R (T)



UY92 (M)

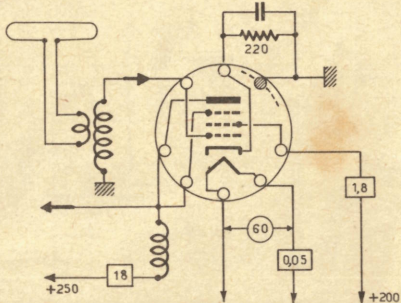
R



VF14 (A8)

HF(T)

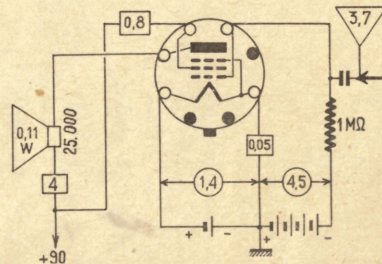
$S = 9,5$   
 $\rho = 45 \text{ k}\Omega$   
 $V = -4,5$   
 $R_{eq} = 600 \Omega$



1A5 (D)

P

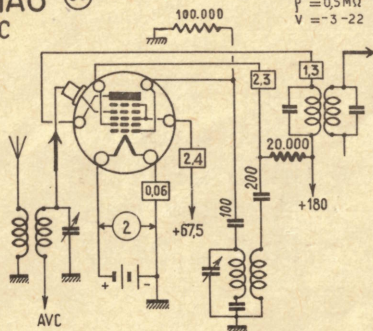
$S = 0,85$   
 $\rho = 0,3 \text{ M}\Omega$   
 $V = -4,5$



1A6 (US)

C

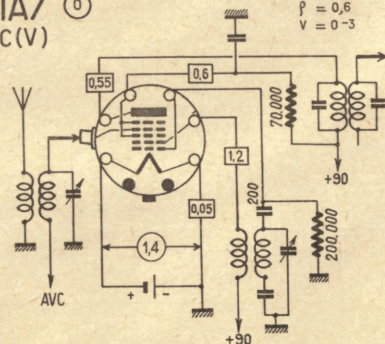
$S_c = 0,25$   
 $\rho = 0,5 \text{ M}\Omega$   
 $V = -3 - 22$



1A7 (D)

C(V)

$S_c = 0,25$   
 $\rho = 0,6$   
 $V = 0 - 3$

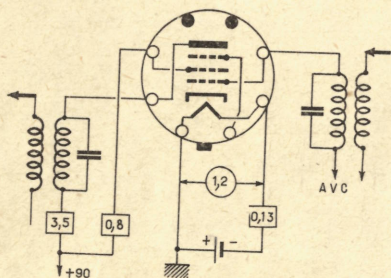
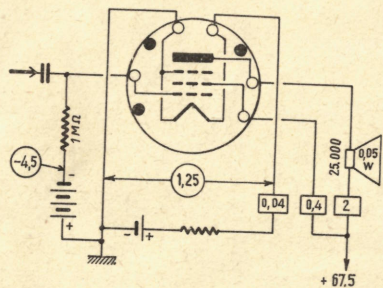
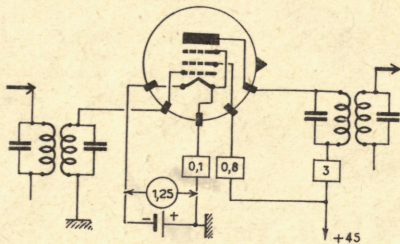
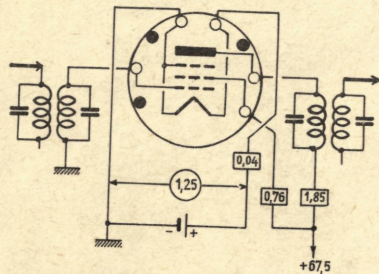
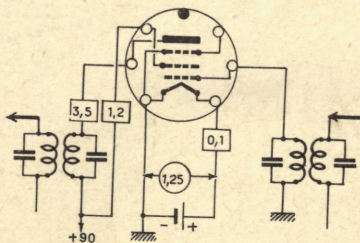


- V41 = AZ41
- V51 = GZ40
- V61 = EZ40
- V311 = UY41
- V312 = UY42
- 1A3 = DA90

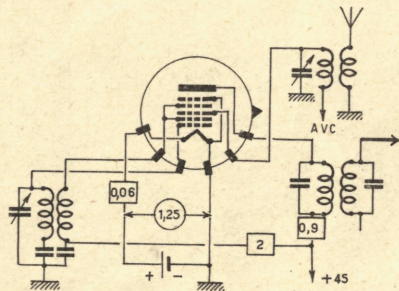
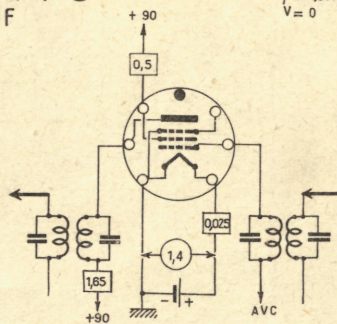
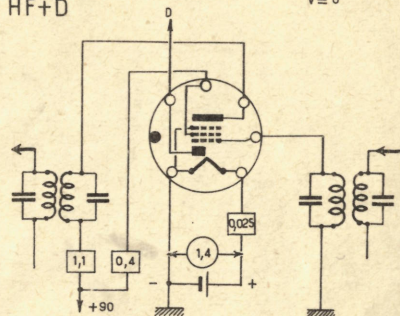
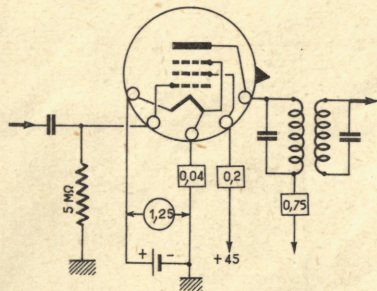
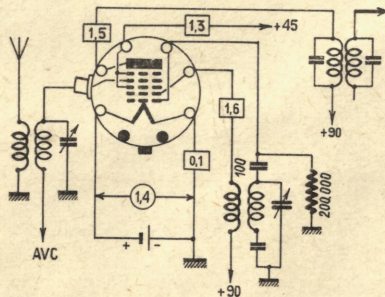
1AB5

60

1AN5

1AB5 (O)  
HF(V)
 $S = 11$   
 $\rho = 275 \text{ k}\Omega$   
 $V = -1,5 - 12$ 
1AC5 (SM)  
P
 $S = 0,75$   
 $\rho = 0,15 \text{ M}\Omega$   
 $V = -4,5$ 
1AD4 (S)  
HF
 $S = 2$   
 $\rho = 0,15 \text{ M}\Omega$   
 $V = 0$ 
1AD5 / 1W5 (SM)  
HF
 $S = 0,735$   
 $\rho = 0,7 \text{ M}\Omega$   
 $V = 0$ 
1AE4 (M)  
HF
 $S = 1,55$   
 $\rho = 0,5 \text{ M}\Omega$   
 $V = 0$ 


1AB6 = DK96  
 1AC6 = DK92  
 1AH5 = DAF96  
 1AJ4 = DF96  
 1AN5 = DF97

1AE5 (S)  
C
 $S = 0,2$   
 $\rho = 0,2 \text{ M}\Omega$   
 $V = 0$ 
1AF4 (M)  
HF
 $S = 0,95$   
 $\rho = 1,8 \text{ M}\Omega$   
 $V = 0$ 
1AF5 (M)  
HF+D
 $S = 0,6$   
 $\rho = 2 \text{ M}\Omega$   
 $V = 0$ 
1AH4 (S)  
HF
 $S = 0,75$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = 0$ 
1B7 (O)  
C(V)
 $S_c = 0,35$   
 $\rho = 0,35 \text{ M}\Omega$   
 $V = 0 - 15$ 


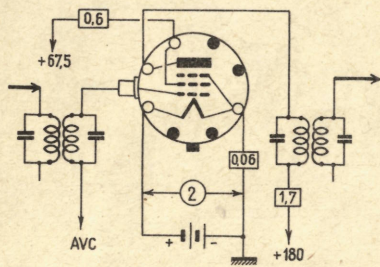
1AU4 = DF96  
 1C8 = 1E8  
 1L4 = DF92  
 1M3 } = DM70  
 1M6 }  
 1R5 = DK91





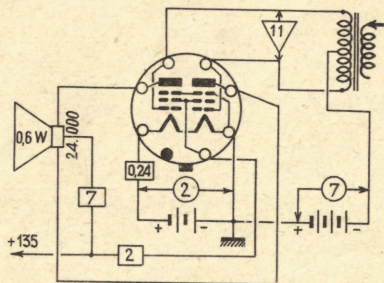
1E5 (O)  
HF(V)

$S = 0,65$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = -3-8$



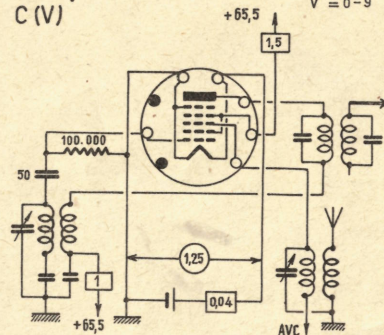
1E7 (O)  
P

$S = 1,4$   
 $\rho = 0,26 \text{ M}\Omega$   
 $V = -7$



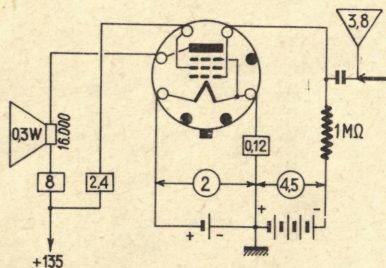
1E8/1C8 (SM)  
C (V)

$S_c = 0,15$   
 $\rho = 0,4 \text{ M}\Omega$   
 $V = 0-9$



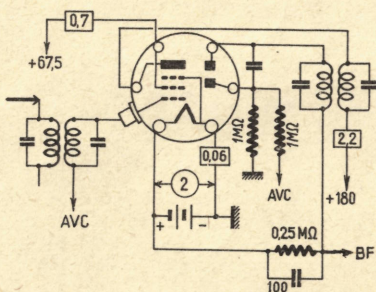
1F5 (O)  
P

$S = 1,7$   
 $\rho = 0,2 \text{ M}\Omega$   
 $V = -4,5$



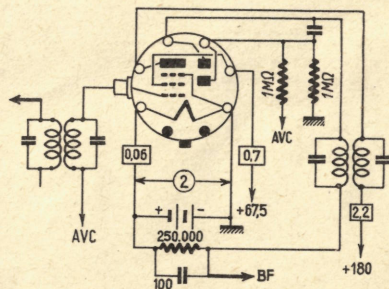
1F6 (US)  
HF (V) + D

$S = 0,65$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -1,5-12$



1F7 (O)  
HF (V) + D

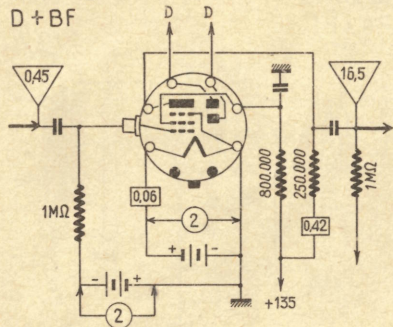
$S = 0,65$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -1,5-12$





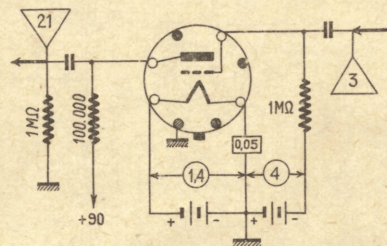
1F7 (0)

D + BF

 $V = -2$ 

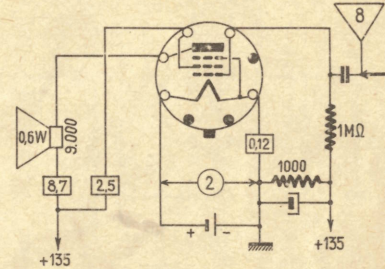
1G4 (0)

BF

 $S = 0,825$   
 $\rho = 10,700$   
 $V = -6$   
 $I = 3$ 


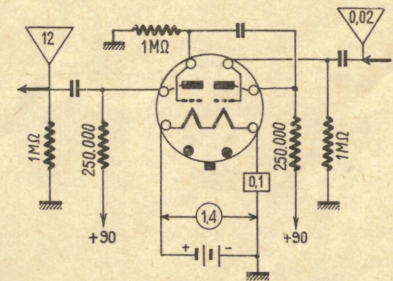
1G5 (0)

P

 $S = 1,55$   
 $\rho = 0,16 \text{ M}\Omega$   
 $V = -13,5$ 


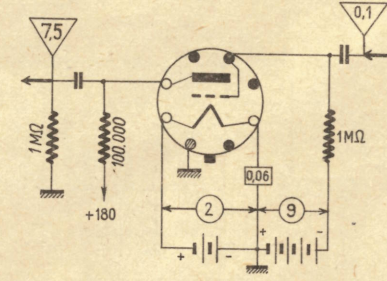
1G6 (0)

BF

 $S = 0,67$   
 $\rho = 45,000$   
 $V = 0$   
 $I = 1 \text{ mA}$ 


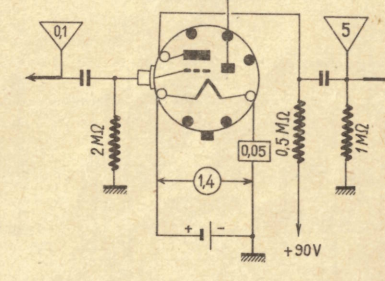
1H4 (0)

BF

 $S = 0,9$   
 $\rho = 10,300$   
 $V = -13,5$   
 $I = 3,1$ 


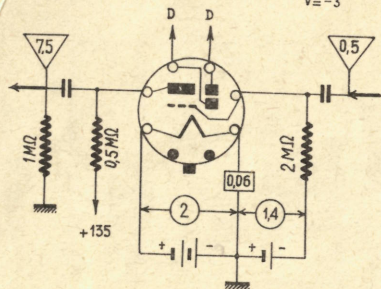
1H5 (0)

D + BF

 $S = 0,275$   
 $\rho = 0,24 \text{ M}\Omega$   
 $V = 0$   
 $I = 0,14$ 


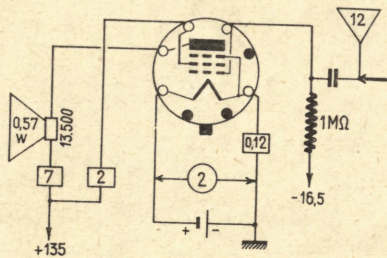
1H6 (O)  
D + BF

$S = 0,575$   
 $\rho = 35,000$   
 $I = 0,8$   
 $V = -3$

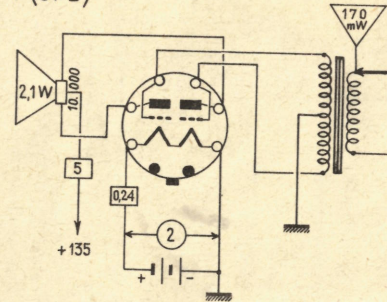


1J5 (O)  
P

$S = 0,95$   
 $\rho = 0,1M\Omega$   
 $V = -16,5$

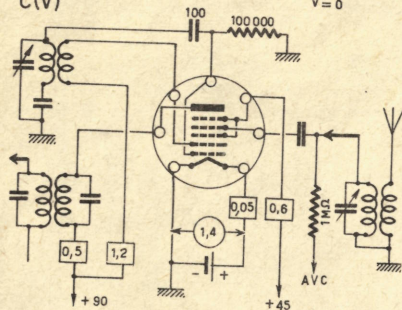


1J6 (O)  
P (CI.B)



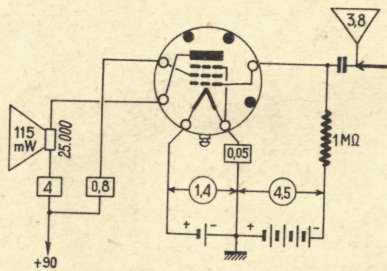
1L6 (M)  
C(V)

$S = 0,3$   
 $\rho = 0,65M\Omega$   
 $V = 0$



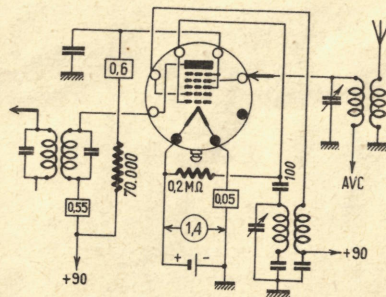
1LA4 (L)  
P

$S = 0,85$   
 $\rho = 0,3M\Omega$   
 $V = -4,5$



1LA6 (L)  
C

$S_c = 0,25$   
 $\rho = 0,75M\Omega$   
 $V = 0$



1LB4

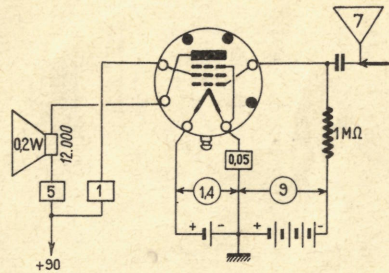
1LB4 (L)

P

$$S = 0,925$$

$$f = 0,2 \text{ M}\Omega$$

$$V = -9$$



67

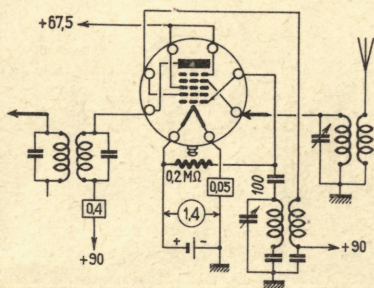
1LB6 (L)

C

$$S_c = 0,1$$

$$f = 2 \text{ M}\Omega$$

$$V = 0$$



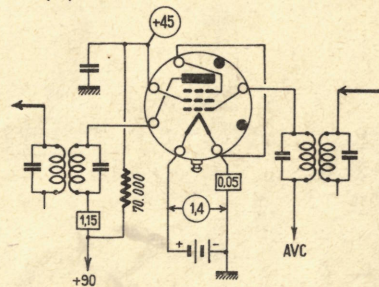
1LC5 (L)

HF(V)

$$S = 0,77$$

$$f = 1,5 \text{ M}\Omega$$

$$V = 0-5$$



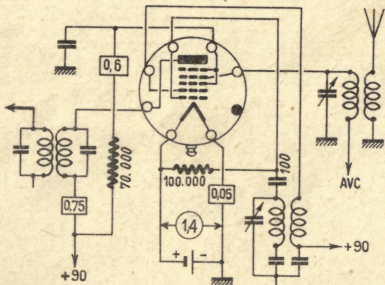
1LC6 (L)

C(V)

$$S_c = 0,25$$

$$f = 0,3$$

$$V = 0$$



1LD5 (L)

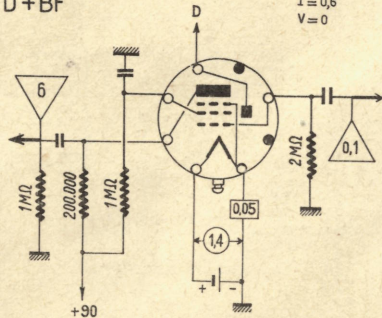
D+BF

$$S = 0,6$$

$$f = 0,95 \text{ M}\Omega$$

$$I = 0,6$$

$$V = 0$$



1LE3 (L)

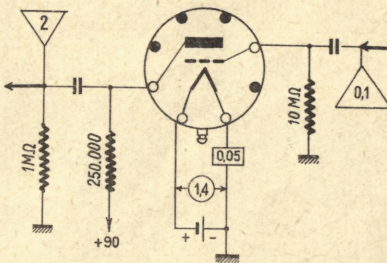
BF

$$S = 1,3$$

$$f = 11200$$

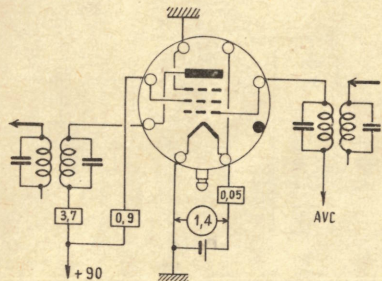
$$V = -3$$

$$I = 4,5$$



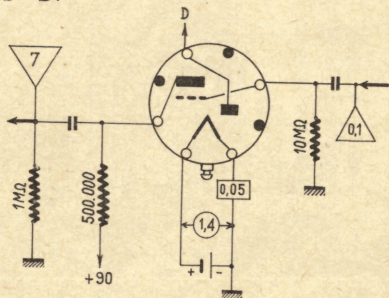
1LG5 (L)  
HF (V)

$S = 1,15$   
 $\rho = 0,5 \text{ M}\Omega$   
 $V = -1,5 - 19$



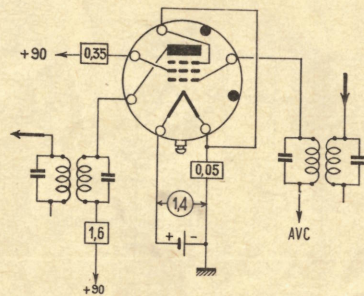
1LH4 (L)  
D+BF

$S = 0,27$   
 $\rho = 0,24 \text{ M}\Omega$   
 $V = 0$



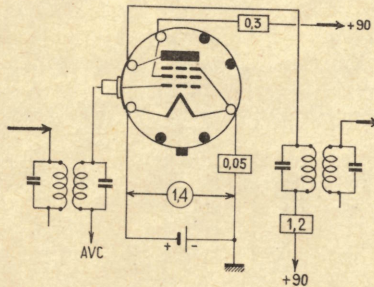
1LN5 (L)  
HF (V)

$S = 0,8$   
 $\rho = 1,1 \text{ M}\Omega$   
 $V = 0 - 4,5$



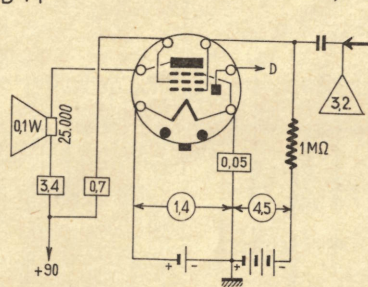
1N5 (O)  
HF (V)

$S = 0,75$   
 $\rho = 15 \text{ M}\Omega$   
 $V = 0 - 4$



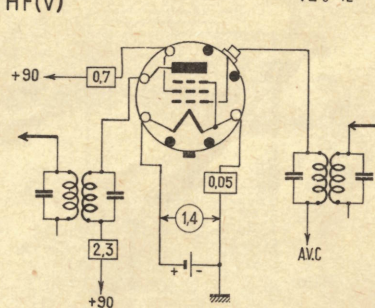
1N6 (O)  
D+P

$S = 0,8$   
 $\rho = 0,3 \text{ M}\Omega$   
 $V = -4,5$

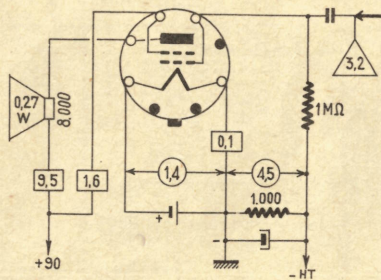


1P5 (O)  
HF (V)

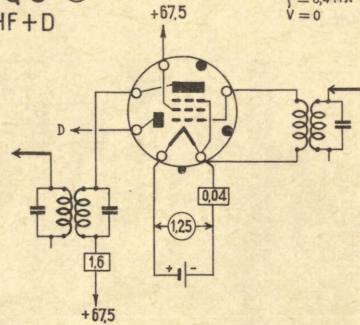
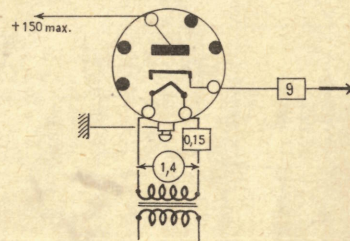
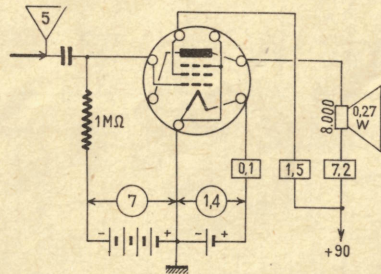
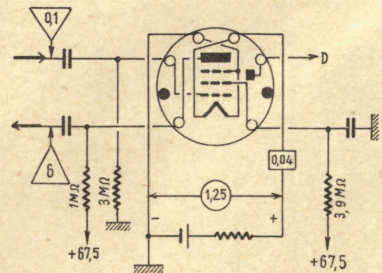
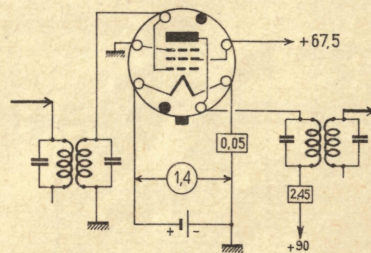
$S = 0,75$   
 $\rho = 0,8 \text{ M}\Omega$   
 $V = 0 - 12$



1Q5

1Q5 (O)  
PS = 0,21  
V = -4,5

69

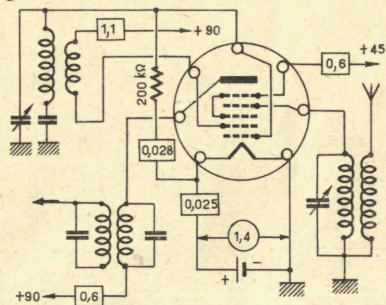
1Q6 (SM)  
HF + DS = 0,6  
V = 0,4 MΩ  
V = 01R4 (L)  
D (T) (VHF)1S4 (M)  
PS = 1,55  
V = 0,1 MΩ  
V = -71S6 (SM)  
D + BFS = 0,6  
V = 0,4 MΩ  
V = 01SA6 (O)  
HFS = 0,97  
V = 0,8 MΩ  
V = 0



1U6 (M)

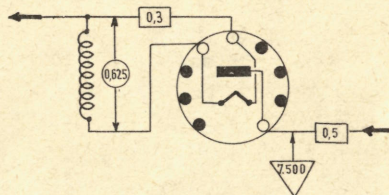
C

$$\begin{aligned} S &= 0,3 \\ P &= 500 \text{ k}\Omega \\ V &= 0 \end{aligned}$$



1V2 (N)

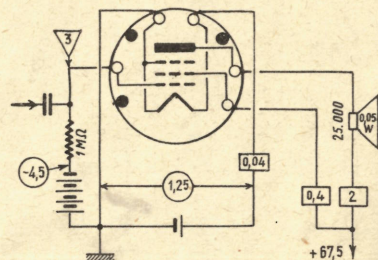
R(T)(THT)



1V5 (SM)

P

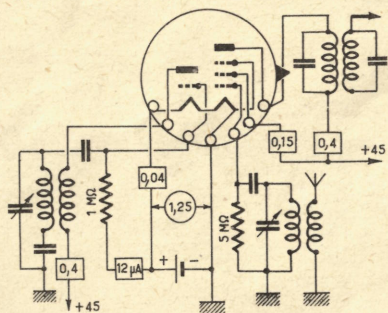
$$\begin{aligned} S &= 0,75 \\ P &= 0,15 \text{ M}\Omega \\ V &= -4,5 \end{aligned}$$



1V6 (S)

C

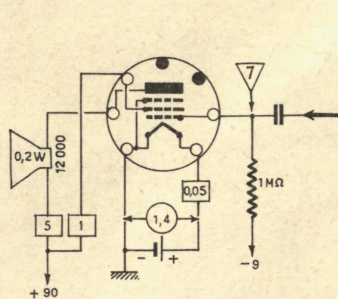
$$\begin{aligned} S_c &= 0,2 \\ P &= 1 \text{ M}\Omega \\ V &= 0 \end{aligned}$$



1W4 (M)

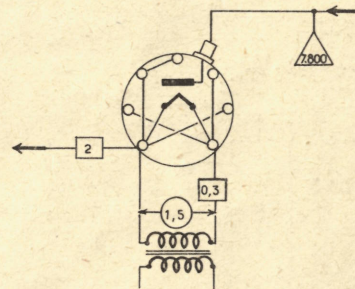
P

$$\begin{aligned} S &= 0,925 \\ P &= 0,25 \text{ M}\Omega \\ V &= -9 \end{aligned}$$



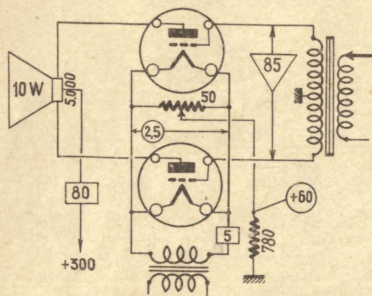
1Z2 (M)

R(T)(THT)



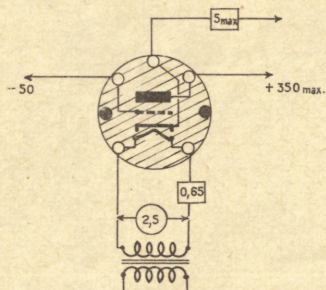
2A3 (US)  
P(C.I.A.)

$S = 5,25$   
 $\rho = 800$   
 $S_v = -45$



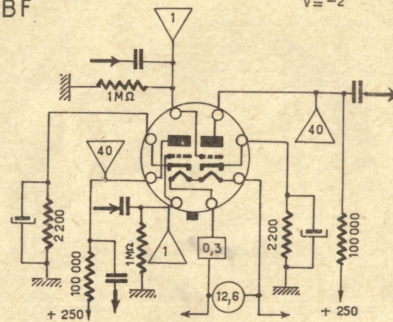
2C4 (M)  
THYR.

$V = -50$

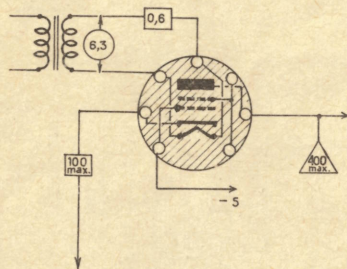


2C52 (O)  
BF

$S = 1,9$   
 $\rho = 52\ 700$   
 $V = -2$

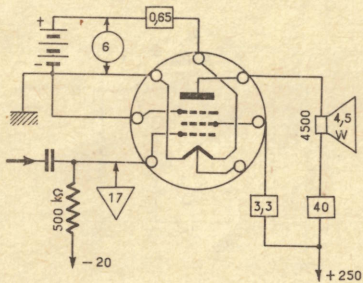


2D21 (M)  
THYR.



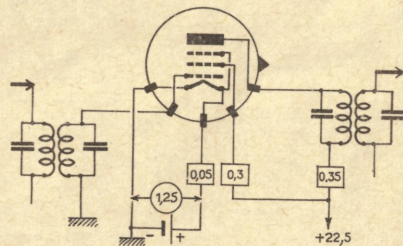
2E30 (M)  
P

$S = 3,7$   
 $\rho = 63\ k\Omega$   
 $V = -20$



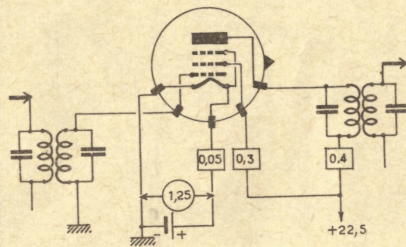
2E31 (SM)  
HF

$S = 0,5$   
 $\rho = 350\ 000$   
 $V = 0$

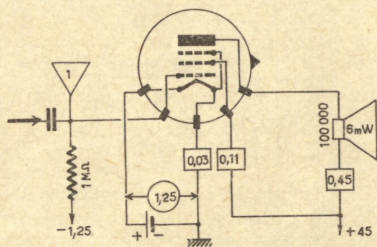




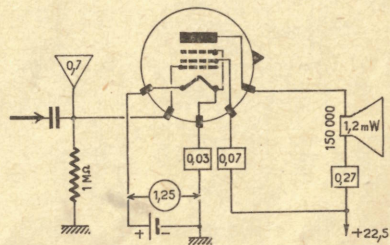
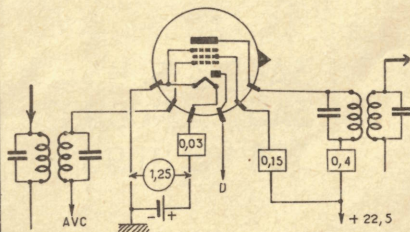
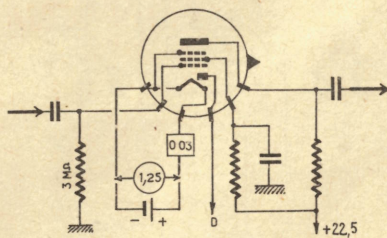
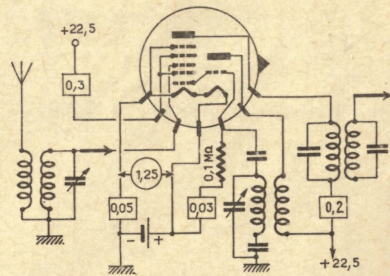
2E32

2E32 (SM)  
HF (V)
 $S = 0,45$   
 $\rho = 350,000$   
 $V = 0 - 3$ 


73

2E35 (SM)  
P
 $S = 0,5$   
 $\rho = 0,25 \text{ M}\Omega$   
 $V = -1,25$ 


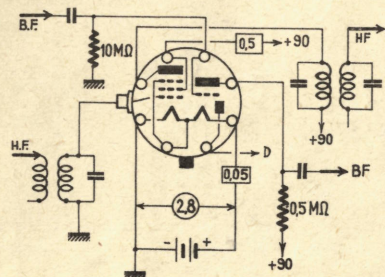
2G21

2E36 (SM)  
P
 $S = 0,385$   
 $\rho = 0,22 \text{ M}\Omega$   
 $V = 0$ 
2E41 (SM)  
HF-D
 $S = 0,4$   
 $\rho = 0,25 \text{ M}\Omega$   
 $V = 0 - 3$ 
2E42 (SM)  
D-BF
 $S = 0,4$   
 $\rho = 0,25 \text{ M}\Omega$   
 $V = 0$ 
2G21 (2G22) (SM)  
C
 $S = 0,06$   
 $\rho = 0,5 \text{ M}\Omega$   
 $V = 0$ 


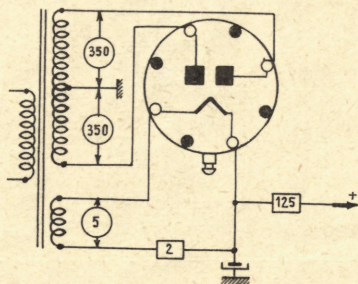
**3A8** (O)  
D-HF-BF

PENTHODE  
S = 0,75  
P = 0,8 MΩ  
V = 0

TRIODE  
S = 0,325  
P = 0,2 MΩ  
V = 0

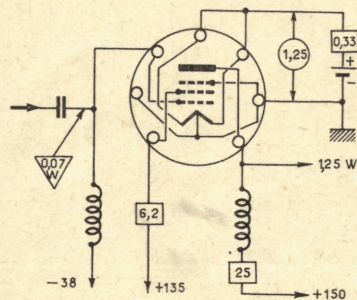


**3AZ4** (L)  
R



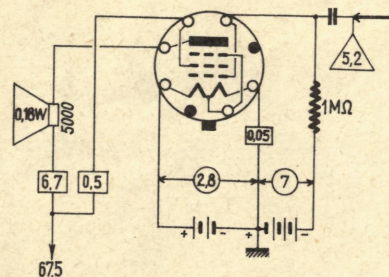
**3B4** (M)  
P (C.I.C.)

V = -38



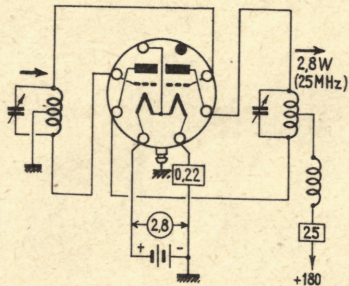
**3B5** (O)  
P

S = 1,5  
P = 100 000



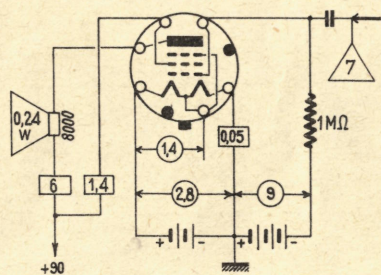
**3B7** (L)  
HF (VHF)

S = 1,9  
P = 11300  
I = 5,2

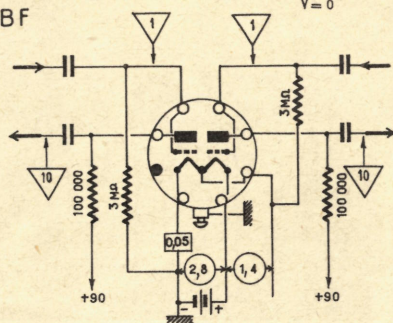


3A4 = DL93  
3A5 = DCC90  
3C4 = DL96

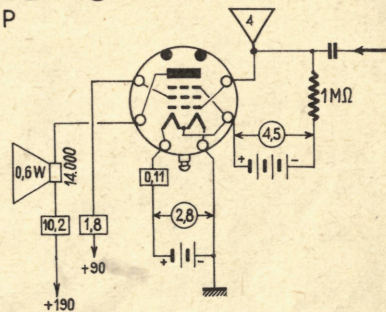
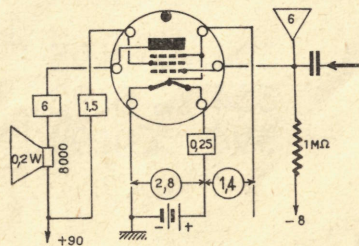
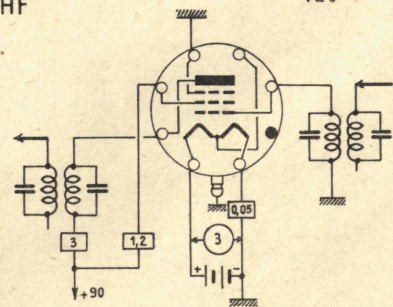
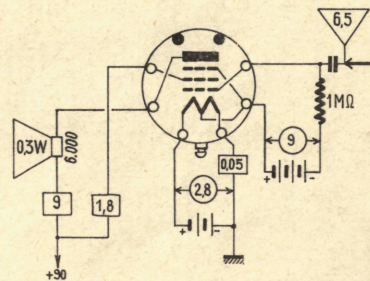
3C5

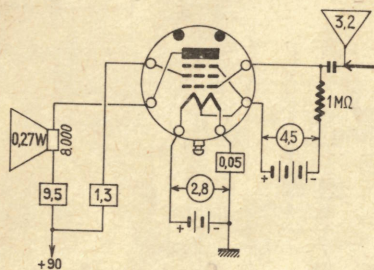
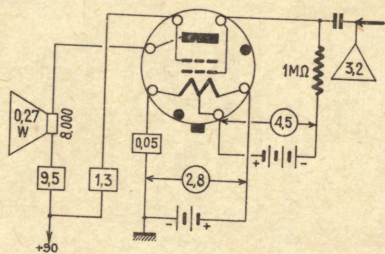
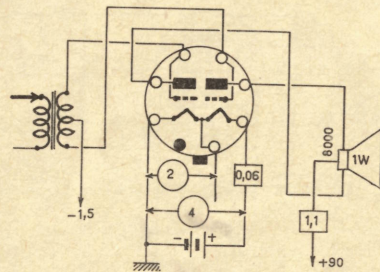
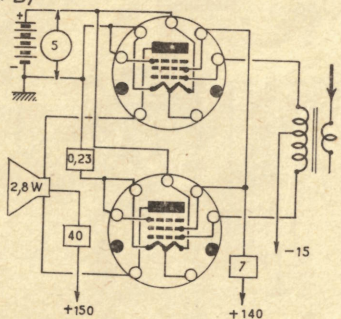
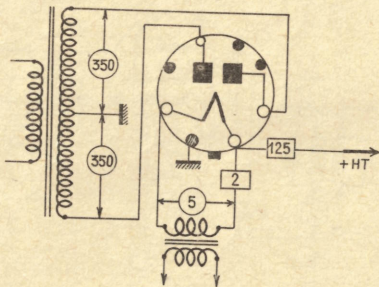
3C5 (O)  
PS = 1,55  
V = -9

75

3C6 (L)  
BFS = 1,3  
P = 11,200  
V = 0

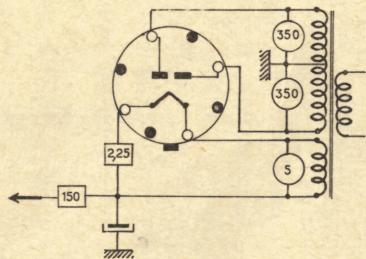
3LE4

3D6 (L)  
PS = 2,4  
V = -4,53E5 (M)  
PS = 1,2  
P = 0,12 MΩ  
V = -83E6 (L)  
HFS = 1,7  
P = 0,32 MΩ  
V = 03LE4 (L)  
PS = 1,6  
P = 0,1 MΩ  
V = -9

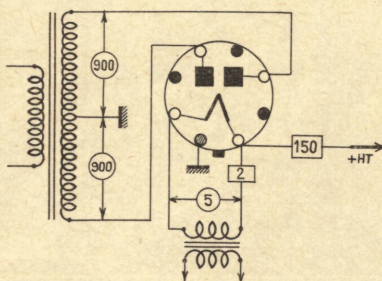
3LF4 (L)  
PS = 2,2  
P = 75,000  
V = -4,53Q5 (O)  
PS = 2,2  
P = 80,000  
V = -4,54A6 (O)  
P (Cl B)S = 0,75  
P = -26,000  
V = -1,55A6 (N)  
P(Cl. B)5AZ4 (O)  
R

3Q4 = DL95  
3S4 = DL92  
3V4 = DL94

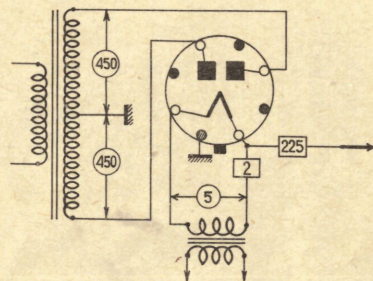
5AX4 (O)  
R



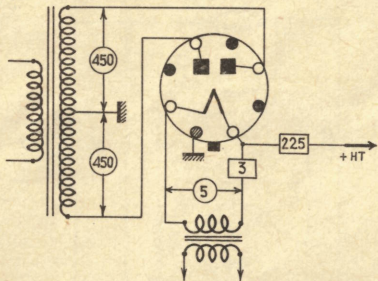
5R4 (O)  
R



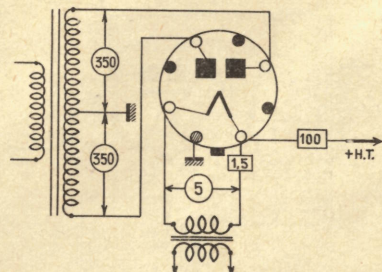
5T4 (O)  
R



5U4 (O)  
R



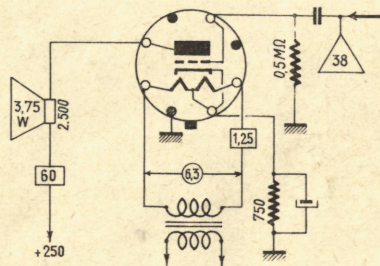
5W4 (O)  
R



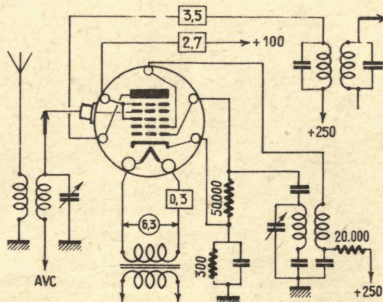
5AR4 = GZ34  
5P29 = EL38  
5V4 = GZ32



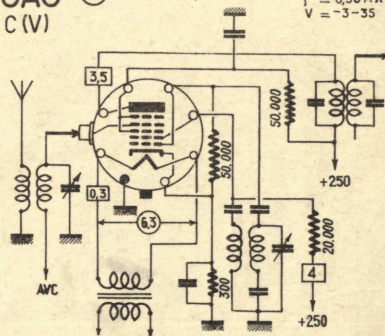
6A5

6A5 (6A3) (O)  
PS = 5,25  
p = 800  
V = -45

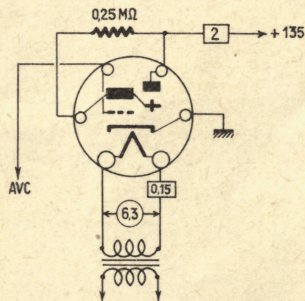
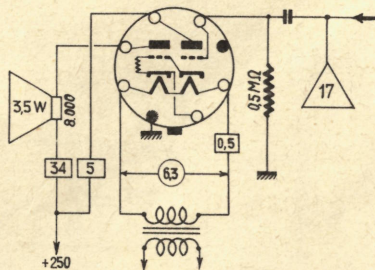
79

6A7 (6A8) (US)  
C (V)S<sub>c</sub> = 0,55  
P<sub>c</sub> = 0,36 MΩ  
V = -3-35

6AK8

6A8 (O)  
C (V)S<sub>c</sub> = 0,55  
P<sub>c</sub> = 0,36 MΩ  
V = -3-356AB5 (US)  
I

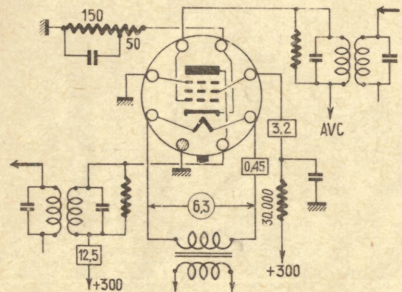
V = 0-10

6AB6 (O)  
PS = 1,8  
p = 40,000  
V = 0

6AB4 = EC92  
 6AB8 = ECL80  
 6AC7 = EL34  
 6AJ8 = ECH81  
 6AK5 = EF95  
 6AK8 = EABC80

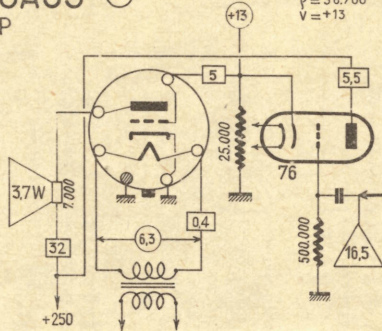
6AB7 (O)  
HF (V) (T)

S = 5  
p = 0,7  
V = -3 - 22,5



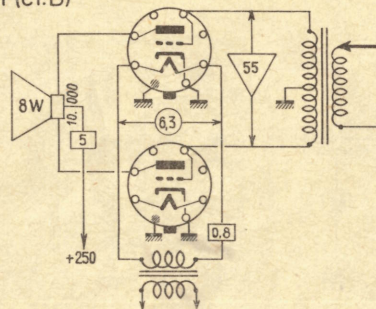
6AC5 (O)  
P

S = 3,4  
p = 36.700  
V = +13



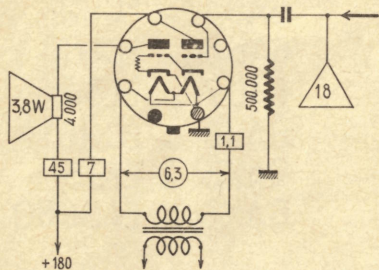
6AC5 (O)  
P(Cl.B)

V = 0



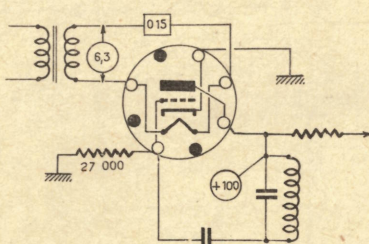
6AC6 (O)  
P

S = 2  
p = 20.000  
V = 0



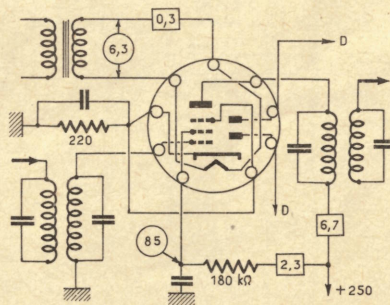
6AD4 (SM)  
O(T) (FM)

S = 2  
p = 35.000  
V = -1



6AD8 (N)  
HF + D

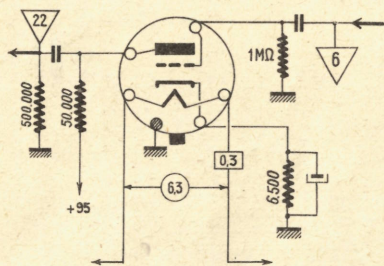
S = 1,1  
p = 1MΩ  
V = -2





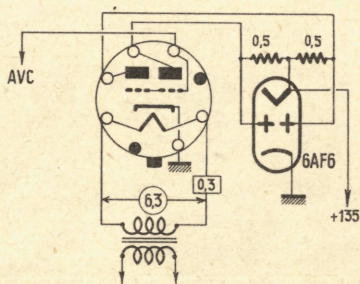
6AE5 (O)  
BF

$S = 1,2$   
 $\rho = 3.500$   
 $V = -15$   
 $I = 7$



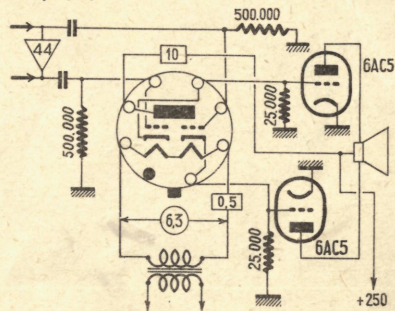
6AE6 (O)  
I

$S = 1$   
 $\rho = 35.000$   
 $V = -1,5 - 3,5$



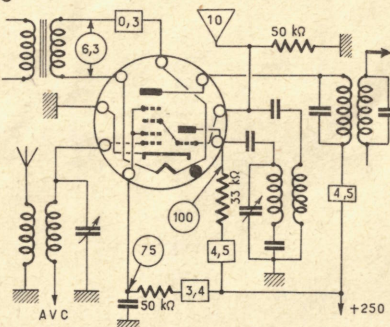
6AE7 (O)  
BF (Cl.B)

$S = 3$   
 $\rho = 4650$   
 $V = -13,5$



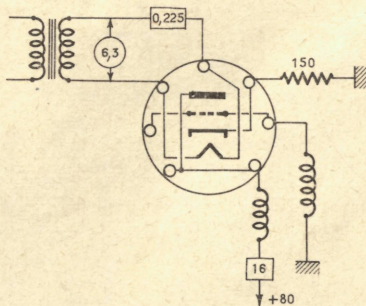
6AE8 (N)  
C

$S_c = 0,78$   
 $\rho = 700 \text{ k}\Omega$   
 $V = 0$



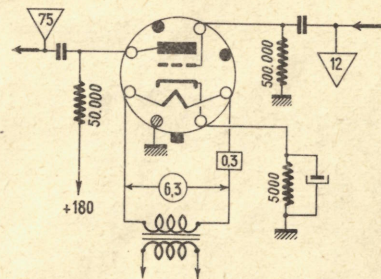
6AF4 (M)  
O (VHF)

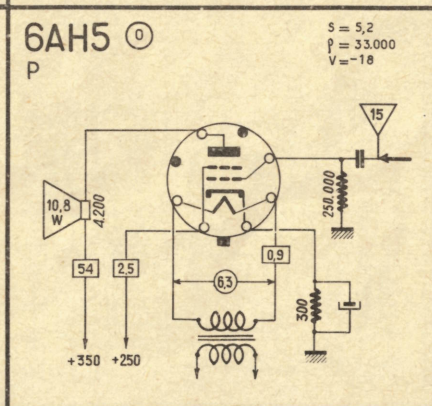
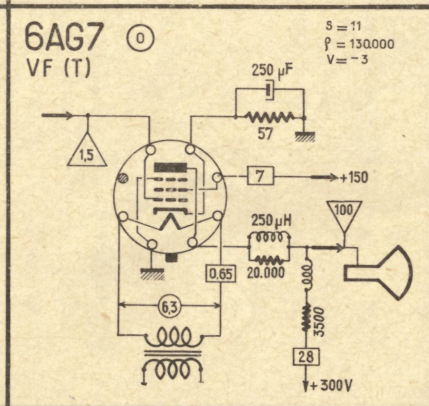
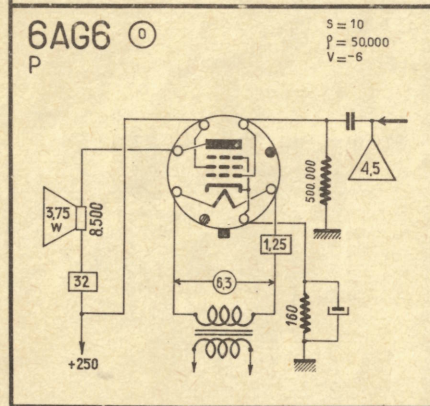
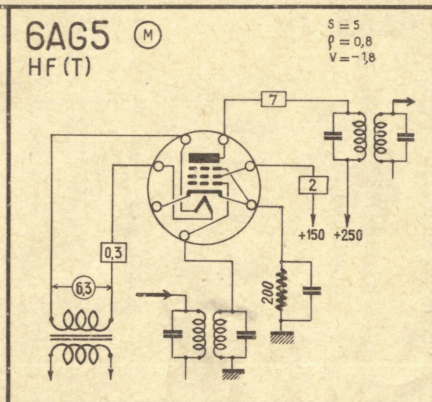
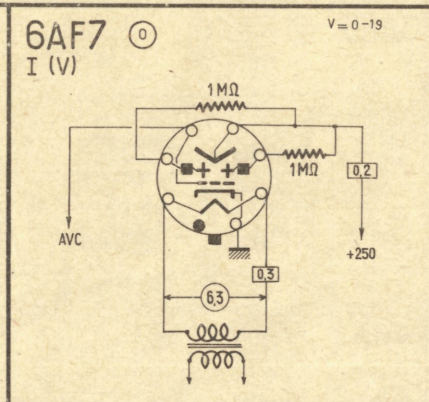
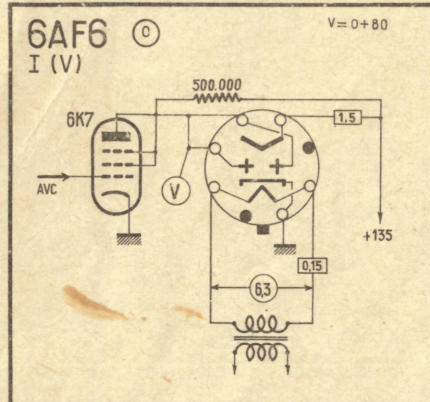
$S = 6,6$   
 $\rho = 2.270$   
 $\mu = 15$



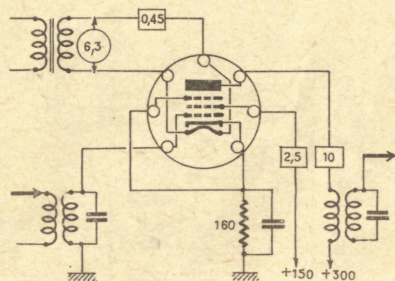
6AF5 (O)  
BF

$S = 1,5$   
 $\rho = 4.900$   
 $V = -18$   
 $I = 7$

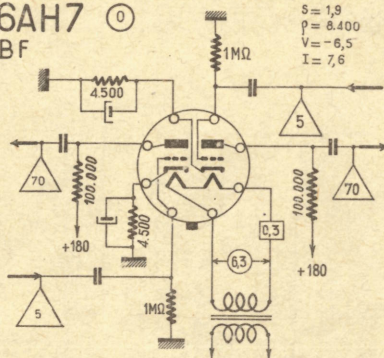




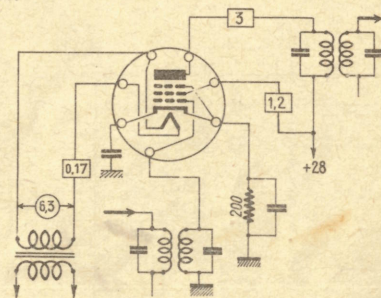
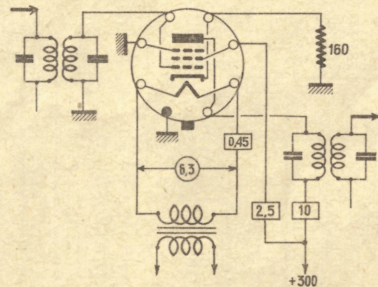
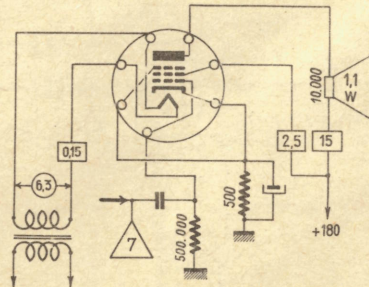
6AH6

6AH6 (M)  
HF (T)
 $S = 9$   
 $\rho = 0,5 M\Omega$   
 $V = -2$ 


83

6AH7 (O)  
BF
 $S = 1,9$   
 $\rho = 8,400$   
 $V = -6,5$   
 $I = 7,6$ 


6AT6

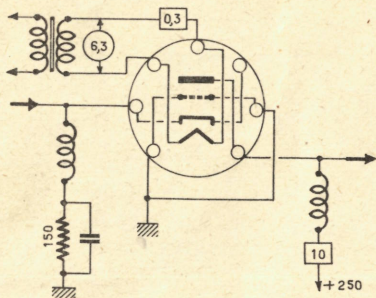
6AJ5 (M)  
HF
 $S = 2,75$   
 $\rho = 90,000$ 
6AJ7 (O)  
HF (T)
 $S = 9$   
 $\rho = 1 M\Omega$ 
6AK6 (M)  
P
 $S = 2,3$   
 $\rho = 0,2 M\Omega$   
 $V = -9$ 


6AL5 = EAA91  
 6AM5 = EL91  
 6AM6 = EF91  
 6AQ8 = ECC85  
 6AT6 = EBC90



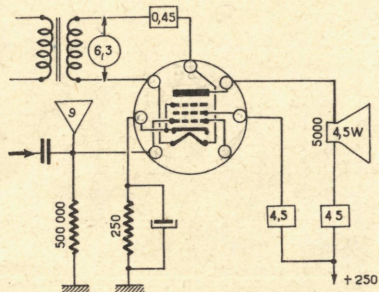
6AQ4 (M)  
HF (250 MHz)

S = 6,5  
P = 12000  
V = -1,5



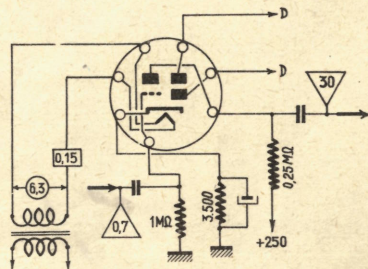
6AQ5/EL90 (M)  
P

S = 4,1  
P = 52000  
V = -12,5



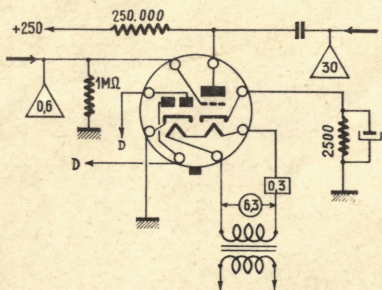
6AQ6 (M)  
D + BF

S = 1,2  
P = 58000  
V = -3  
I = 1



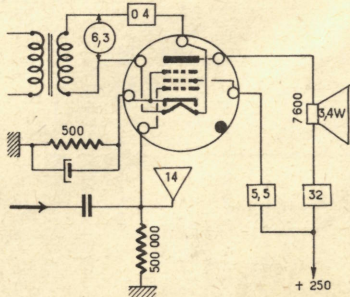
6AQ7 (O)  
D + BF

S = 1,6  
P = 44,000  
V = -2  
I = 2,3



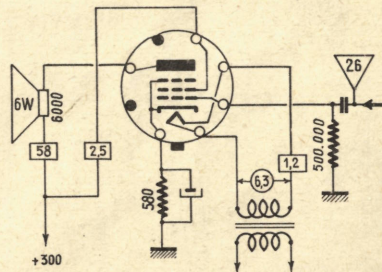
6AR5 (M)  
P

S = 2,3  
P = 68,000  
V = -18



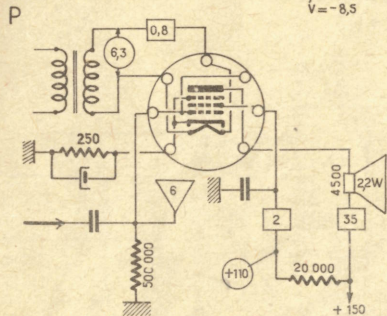
6AR6 (O)  
P

S = 1,2  
P = 22,000  
V = -36



6AS5

(M)

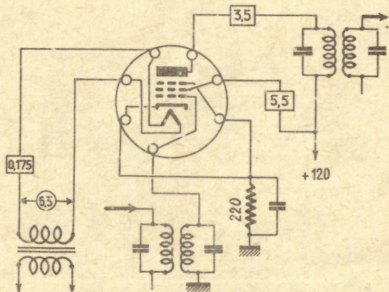
 $S = 5,6$   
 $f = 25.000$   
 $V = -8,5$ 


6AS6

(M)

 $S = 3,5$   
 $V = -2$ 

HF (T)

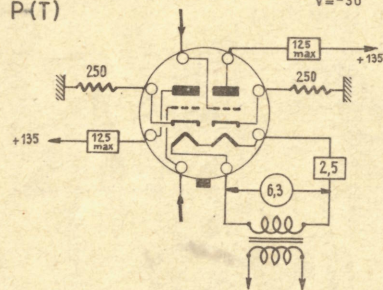


6AS7

(O)

 $S = 7$   
 $P = 280$   
 $V = -30$ 

P(T)

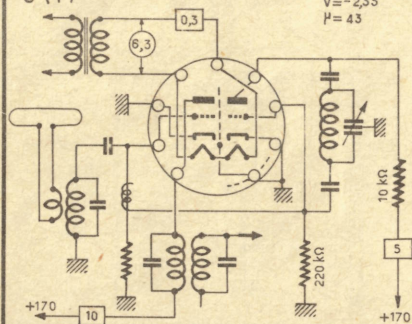


6AT7N

(N)

 $S = 4,9$   
 $S_c = 1,9$   
 $S = 11 \text{ k}\Omega$   
 $V = -2,35$   
 $F = 43$ 

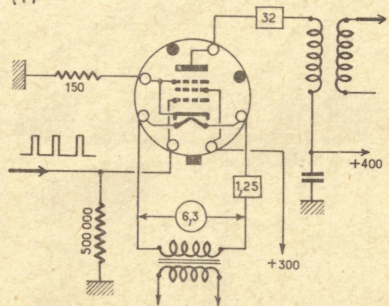
C (T)



6AU5

(O)

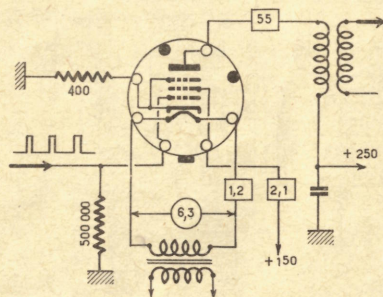
P (T)



6AU6 = EF94  
 6AV4 = EZ91  
 6AV6 = EBC91

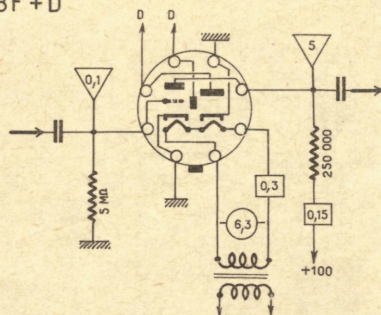
6AV5 (O)  
P(T)

$S = 5,8$   
 $V = -22,5$

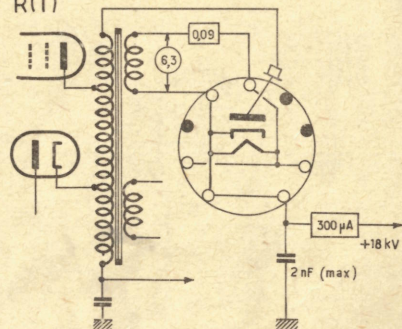


6AW7 (O)  
BF + D

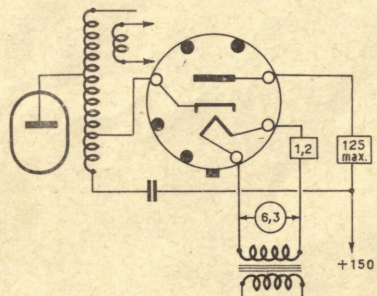
$S = 1,2$   
 $P = 70,000$   
 $V = 0$



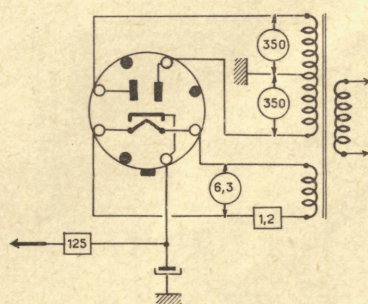
6AX2N (N)  
R(T)



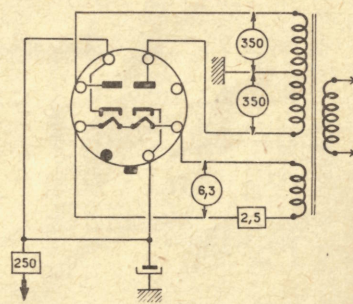
6AX4 (O)  
D(T)



6AX5 (O)  
R

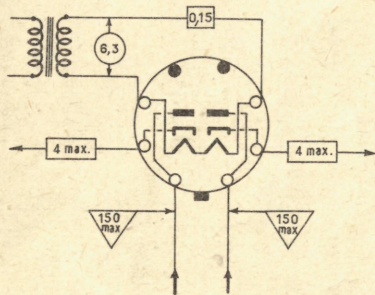


6AX6 (O)  
R



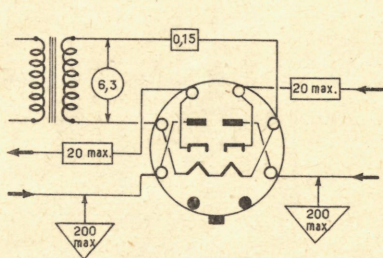
6AZ5 (SM)

D



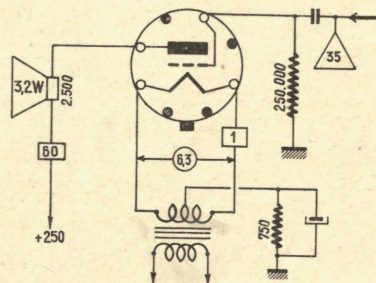
6AZ6 (SM)

D



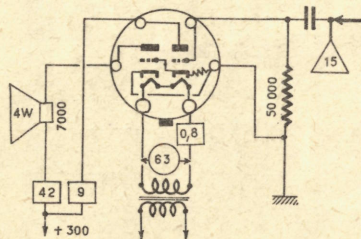
6B4 (6A3) (O)

P

 $s = 5,25$   
 $p = 800$   
 $v = -45$ 


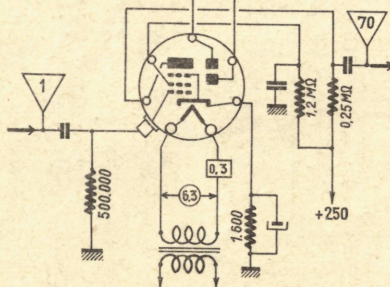
6B5 (US)

P

 $s = 2,4$   
 $p = 24,000$   
 $v = 0$ 


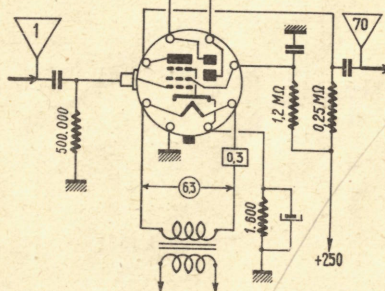
6B7 (6B8) (US)

D + BF

 $s = 1,3$   
 $p = 0,6 \text{ M}\Omega$   
 $v = -3$ 


6B8 (O)

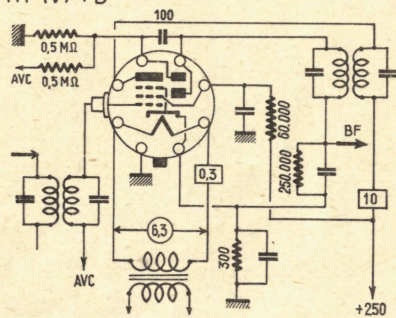
D + BF

 $s = 1,3$   
 $p = 0,6 \text{ M}\Omega$   
 $v = -3$ 




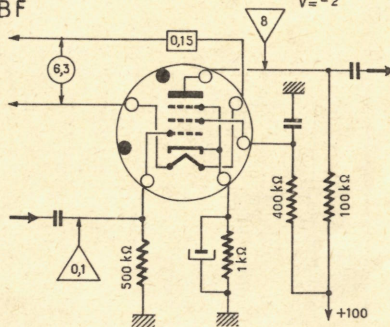
6B8 (O)  
HF (V) + D

$S = 1,3$   
 $P = 0,8 \text{ M}\Omega$   
 $V = -3 \text{ -} 21$



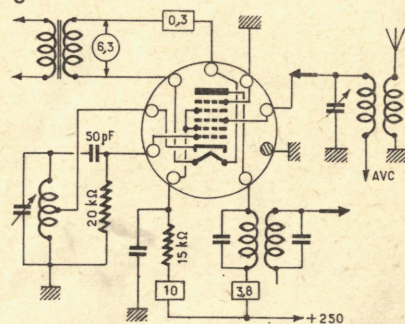
6BA5 (SM)  
BF

$S = 2,15$   
 $P = 175,000$   
 $V = -2$



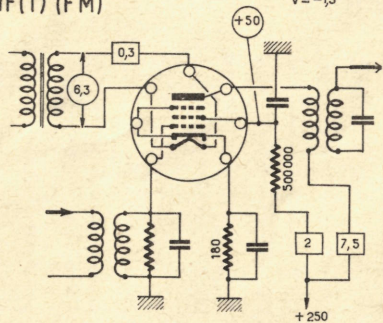
6BA7 (N)  
C

$S_c = 0,95$   
 $P = 1 \text{ M}\Omega$   
 $V = 0 \text{ -} 20$

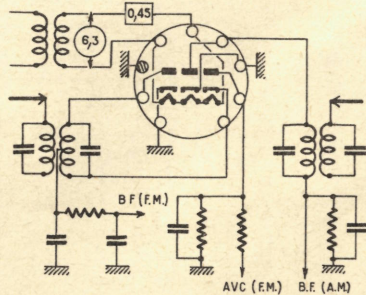


6BC5 (M)  
HF(T) (FM)

$S = 5,7$   
 $P = 0,8 \text{ M}\Omega$   
 $V = -15$



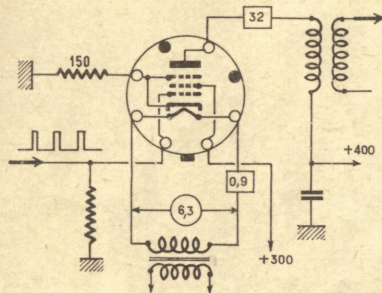
6BC7 (N)  
D (FM/AM)



6BA6 = EF93  
6BD7 = EBC81  
6BE6 = EK90  
6BE7 = EQ80  
6BK6 = { 6AV6  
EBC91

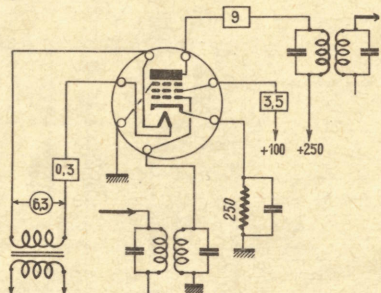
6BD5 (O)

P (T)



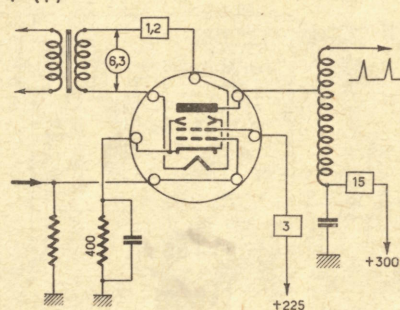
6BD6 (M)

HF

 $S = 2$   
 $\rho = 0,7 M\Omega$   
 $V = -3$ 


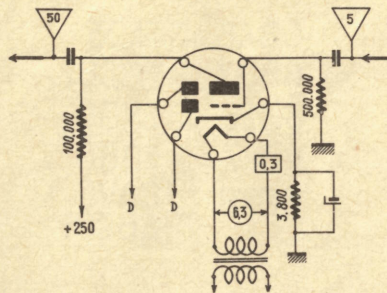
6BF5 (M)

P (T)

 $S = 4,2$   
 $\rho = 0,1 M\Omega$   
 $V = -6$ 


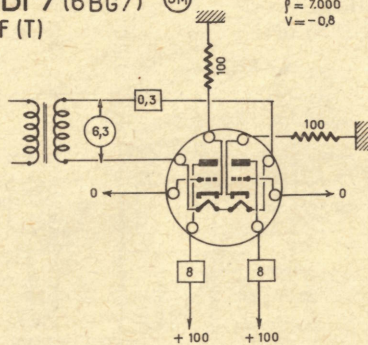
6BF6 (M)

D + BF

 $S = 1,9$   
 $\rho = 8,500$   
 $V = -9$ 


6BF7 (6BG7) (SM)

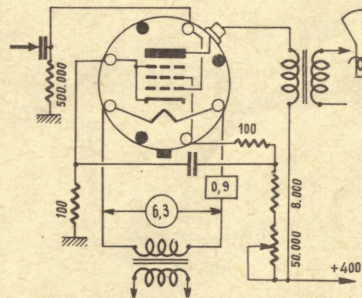
HF (T)

 $S = 4,8$   
 $\rho = 7,000$   
 $V = -0,8$ 


6BG6 (O)

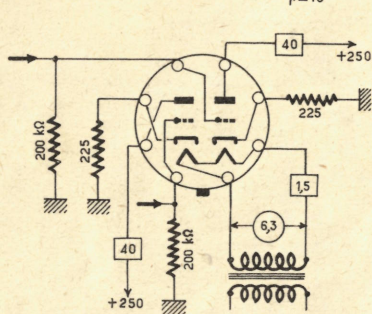
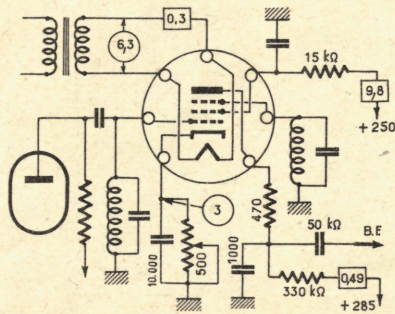
P (T)

S = 6

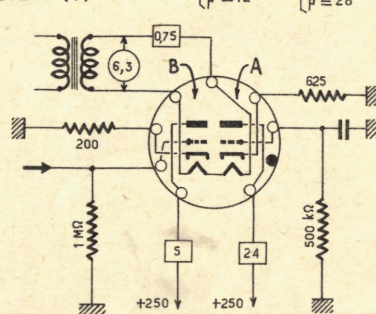


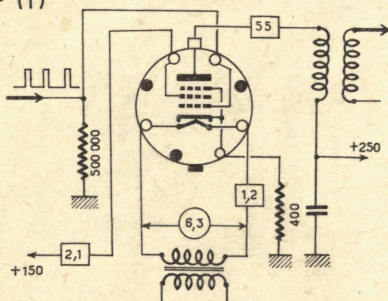


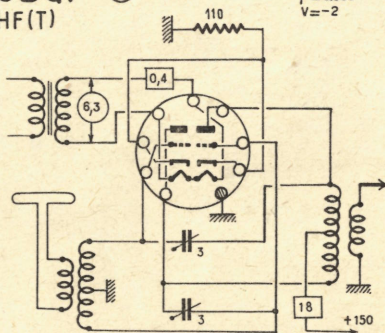
**6BL7** (D)  
 BF\_VF (T)

 $S = 7$   
 $\rho = 2,15 \text{ k}\Omega$   
 $V = -9$   
 $\mu = 15$ 

**6BN6** (M)  
 D (FM)

**6BN7** (N)  
 BF\_VF (T)

A	$S = 5,5$	B	$S = 2$
	$\rho = 2,2 \text{ k}\Omega$		$\rho = 14 \text{ k}\Omega$
	$V = -15$		$V = -1$
	$\mu = 12$		$\mu = 28$

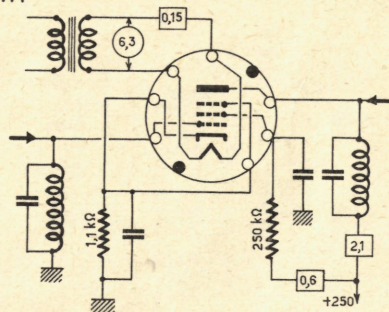

**6BQ6** (D)  
 P (T)

 $S = 5,5$   
 $V = -22,5$ 

**6BQ7** (N)  
 HF (T)

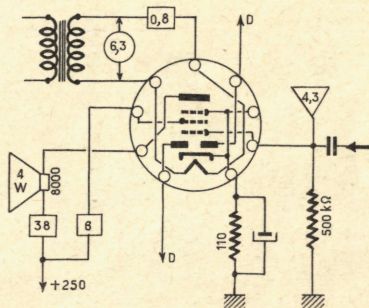
 $S = 6$   
 $\rho = 5,800$   
 $V = -2$ 


6BM5 = 6P9  
 6BM8 = ECL82  
 6BQ5 = EL84  
 6BL8 = ECF80  
 6BR5 = EM80  
 6BS4 = EC93

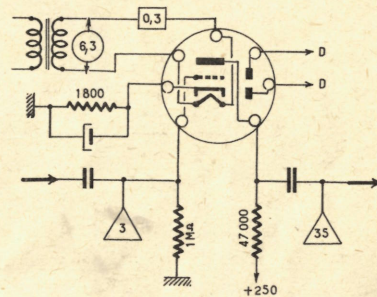
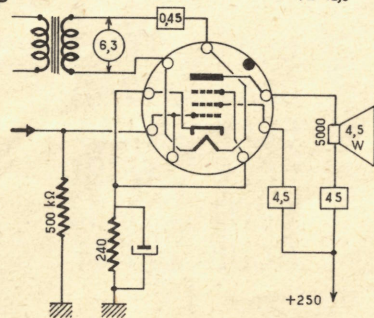
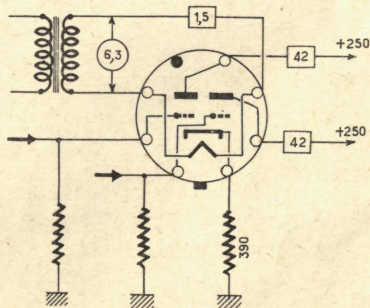
6BR7

6BR7 (N)  
HF
 $s = 1,25$   
 $\rho = 2,5 \text{ M}\Omega$   
 $V = -3$ 


93

6BV7 (N)  
P+D (T)
 $s = 10$   
 $\rho = 100 \text{ k}\Omega$   
 $V = -5$ 


6BY7

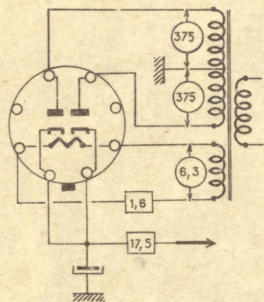
6BU6 (M)  
BF + D
 $s = 1,9$   
 $\rho = 8,500$   
 $V = 9$ 
6BW6 (M)  
P
 $s = 4,1$   
 $\rho = 52 \text{ k}\Omega$   
 $V = -12,5$ 
6BX7 (SM)  
BF (T)
 $s = 7,6$   
 $\rho = 1300$   
 $\mu = 10$ 


6BT4 = EZ40  
 6BT6 = 6AT6  
 6BX4 = 6Z4  
 6BX6 = EF80  
 6BY7 = EF85

6BY5

6BY5 (0)

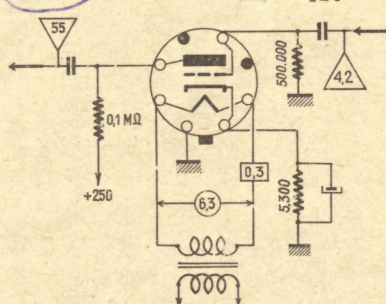
R



94

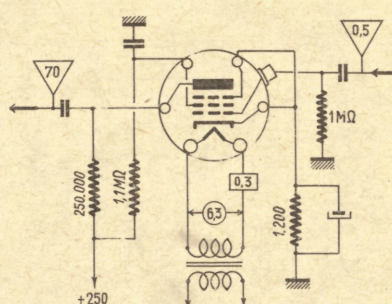
6C5 (0)

BF

 $S = 2$   
 $\rho = 10,000$   
 $V = -8$   
 $I = 8$ 


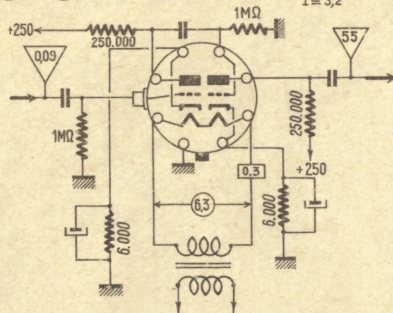
6C6 (0)

BF

 $S = 1,2$   
 $\rho = 1 M \Omega$   
 $V = 3$ 


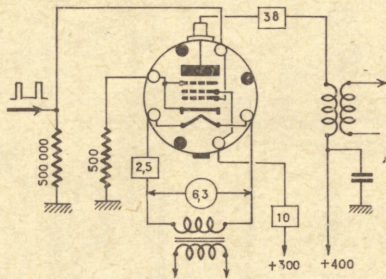
6C8 (0)

BF + BF

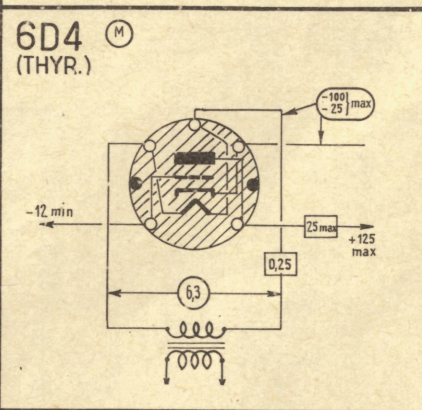
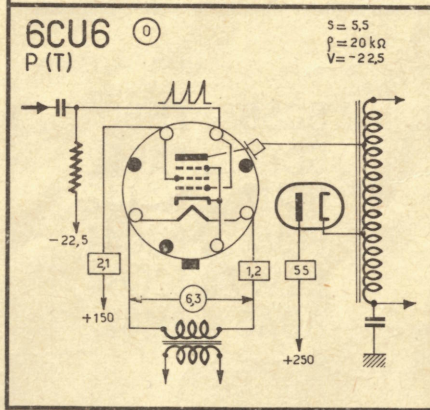
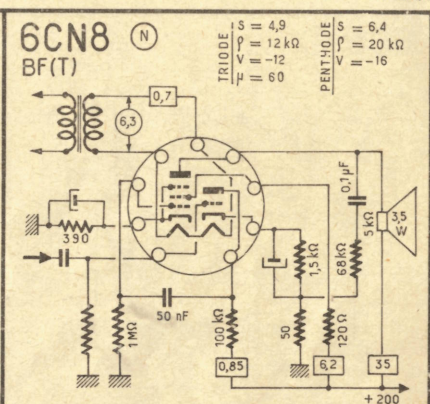
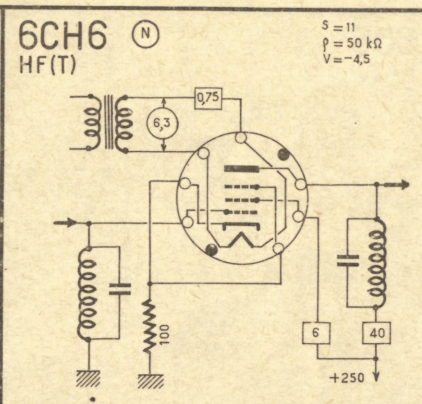
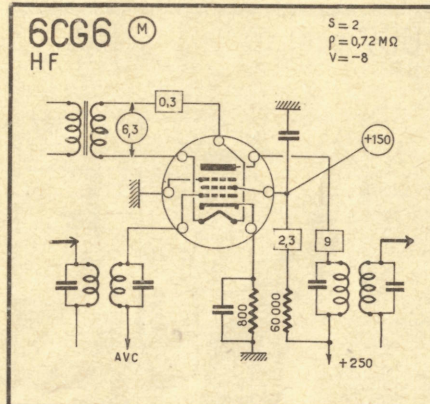
 $S = 1,6$   
 $\rho = 22,500$   
 $V = -4,5$   
 $I = 3,2$ 


6CD6 (0)

P (T)



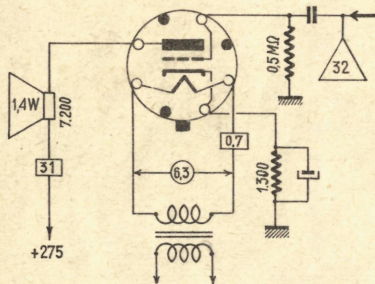
6C4 = EC90  
 6CA4 = EZ81  
 6CA7 = EL34  
 6CB6 = EF190  
 6CD7 = EM34  
 6CJ5 = EF41



- 6CJ6 = EL81
- 6CK5 = EL41
- 6CK6 = EL83
- 6CM5 = EL36
- 6CN6 = EL38
- 6CQ6 = EF92

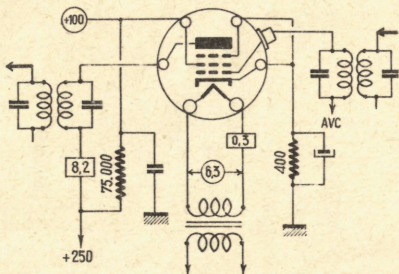
6D5 (O)

P

 $S = 2,1$   
 $\rho = 2.250$   
 $V = -40$ 


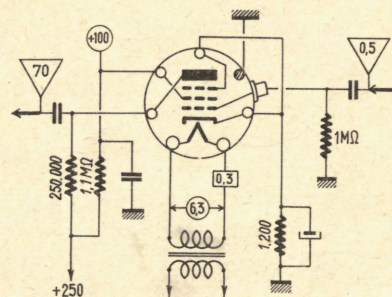
6D6 (US)

HF (V)

 $S = 1,6$   
 $\rho = 0,8 M\Omega$   
 $V = -3 - 50$ 


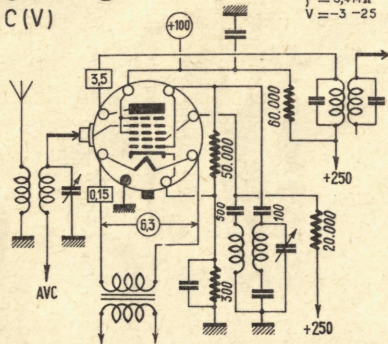
6D7 (6C6) (O)

BF

 $S = 1,2$   
 $\rho = 1 M\Omega$   
 $V = -3$ 


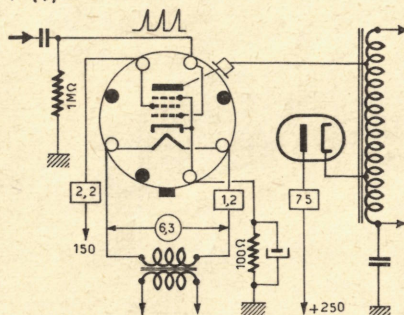
6D8 (O)

C (V)

 $S_c = 0,55$   
 $\rho = 0,4 M\Omega$   
 $V = -3 - 25$ 


6DQ6A (O)

P (T)

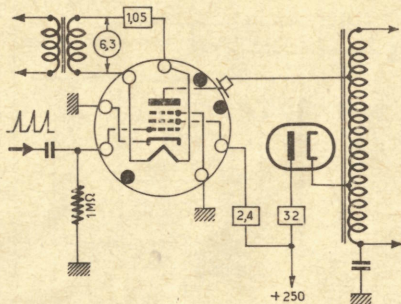
 $S = 6,6$   
 $\rho = 20 k\Omega$   
 $V = -22,5$ 


6CS6 = EH90  
 6CT7 = EAF42  
 6CU7 = ECH42  
 6CV7 = EBC41  
 6CW7 = ECC84  
 6DA5 = EM81



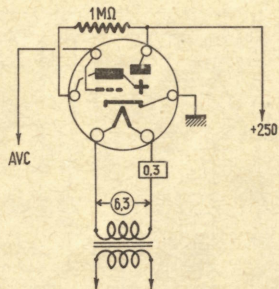
6DR6 (N)  
P (T)

$S = 4,6$   
 $\rho = 15 \text{ k}\Omega$   
 $V = -38,5$



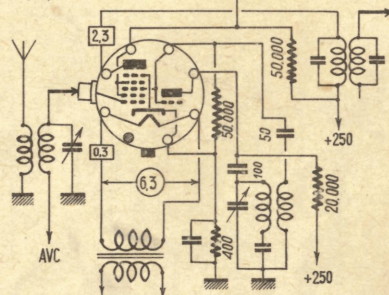
6E5 (US)  
I

$V = 0-8$



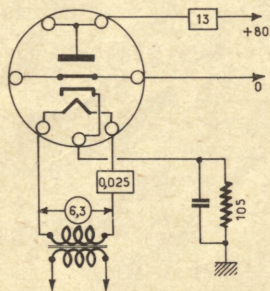
6E8 (D)  
C (V)

$S_c = 0,65$   
 $\rho = 1,2 \text{ M}\Omega$   
 $V = -2-21$



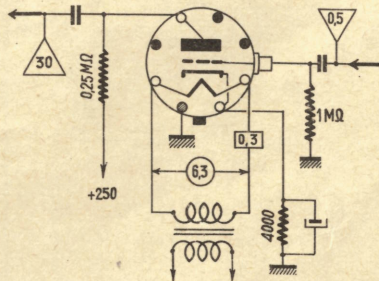
6F4 (S)  
VHF (T) 400MHz

$S = 5,8$   
 $\rho = 2,9 \text{ k}\Omega$   
 $\mu = 17$



6F5 (D)  
BF

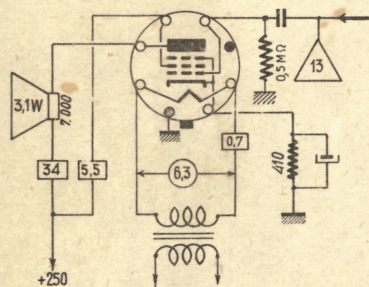
$S = 1,5$   
 $\rho = 68,000$   
 $V = -2$   
 $I = 0,9$



6DA6 = EF89  
6DC8 = EBF89  
6DL5 = EL95  
6DU6 = EM85

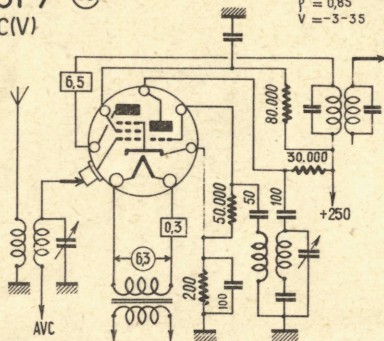
6F6 (0)

P

 $S = 2,5$   
 $p = 80,000$   
 $V = -16,5$ 


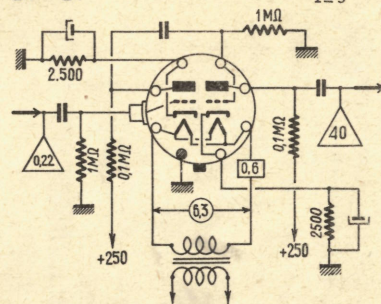
6F7 (US)

C(V)

 $S_c = 0,350$   
 $p = 0,85$   
 $V = -3-35$ 


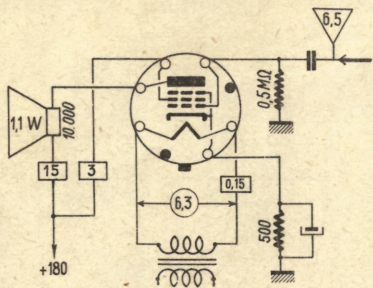
6F8 (2x6J5) (0)

BF + BF

 $S = 2,6$   
 $p = 7,700$   
 $V = -8$   
 $I = 9$ 


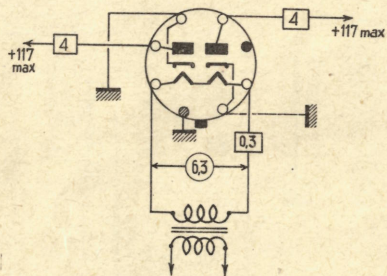
6G6 (0)

P

 $S = 2,3$   
 $p = 0,175 M\Omega$   
 $V = -9$ 


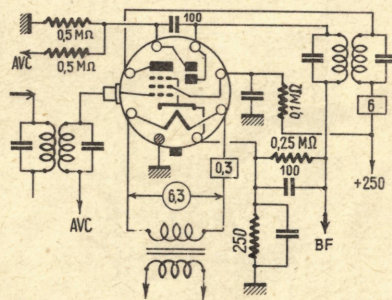
6H6 (0)

D



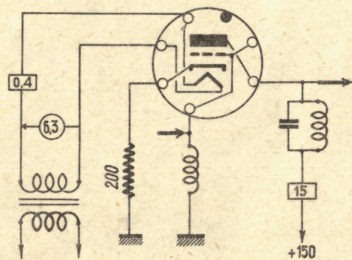
6H8 (0)

HF (V) + D

 $S = 1,8$   
 $p = 1,2 M\Omega$   
 $V = -3-22$ 


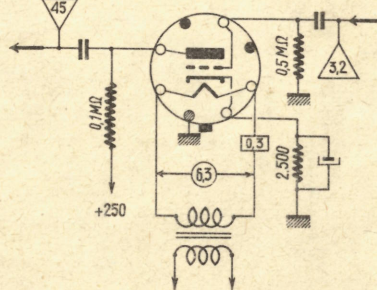
**6J4** (M)  
HF (T)

$S = 12$   
 $\rho = 4.500$   
 $V = -3$



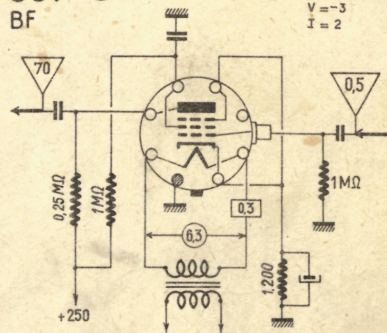
**6J5** (O)  
BF

$S = 2,6$   
 $\rho = 7.700$   
 $V = -8$   
 $I = 9$



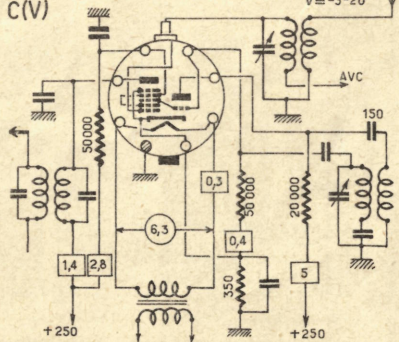
**6J7** (O)  
BF

$S = 1,22$   
 $\rho = 1,5 M\Omega$   
 $V = -3$   
 $I = 2$



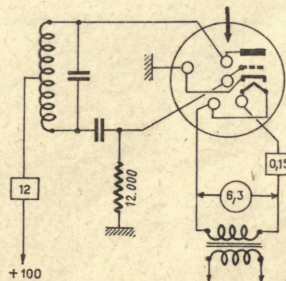
**6J8** (O)  
C(V)

$S = 0,29$   
 $\rho = 4 M\Omega$   
 $V = -3-20$



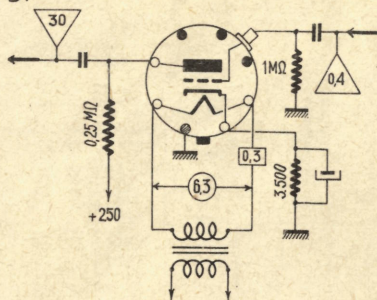
**6K4** (SM)  
O (VHF)

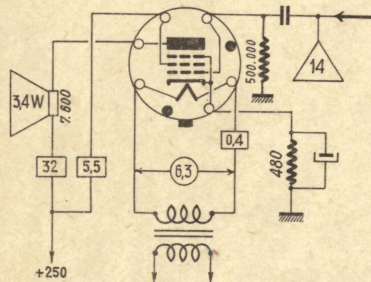
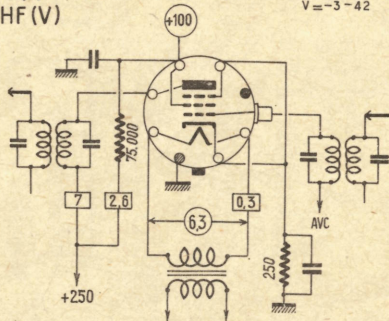
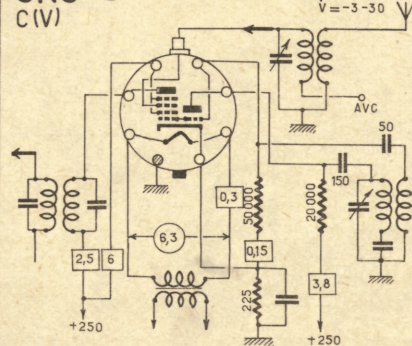
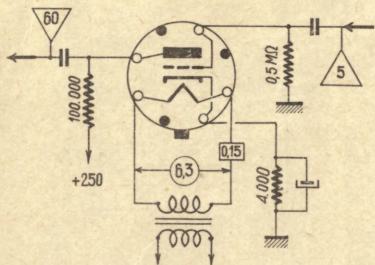
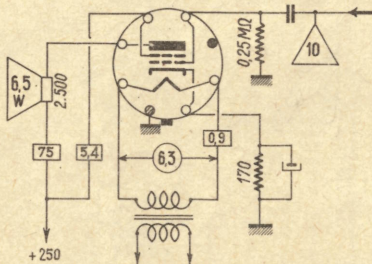
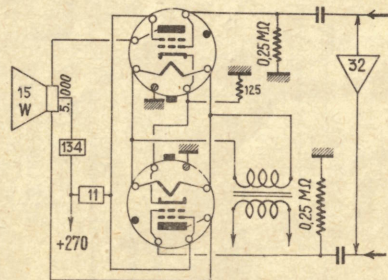
$S = 5,5$   
 $\rho = 3.500$   
 $V = -2$



**6K5** (O)  
BF

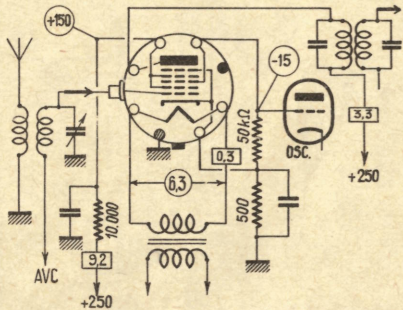
$S = 14$   
 $\rho = 50000$   
 $V = -3$



6K6 (0)  
PS = 2,3  
P = 68.000  
V = -186K7 (0)  
HF (V)S = 1,45  
P = 0,8 MΩ  
V = -3-426K8 (0)  
C (V)S = 0,35  
P = 0,6 MΩ  
V = -3-306L5 (0)  
BFS = 1,9  
P = 9.000  
V = -9  
I = 86L6 (0)  
PS = 6  
P = 22.500  
V = -146L6 (0)  
P (Cl. AB)

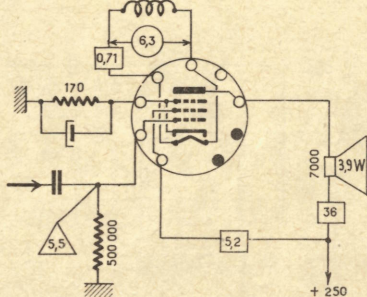
6L7 (V)  
C(V)

$S_c = 0,35$   
 $\rho = 1,5 M\Omega$   
 $V = -6 - 45$



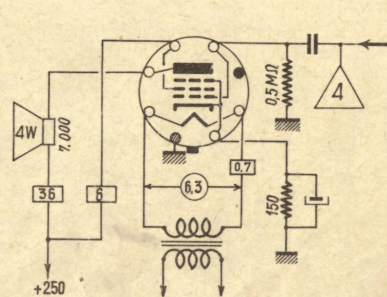
6M5 (N)  
P

$S = 10$   
 $\rho = 40,000$   
 $V = -7$



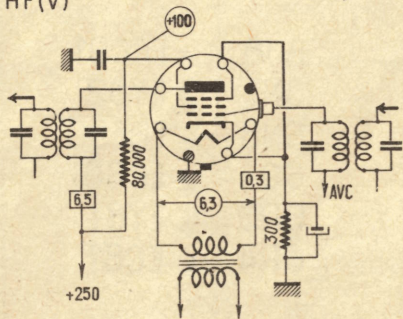
6M6 (V)  
P

$S = 9,5$   
 $\rho = 50,000$   
 $V = -6$



6M7 (V)  
HF(V)

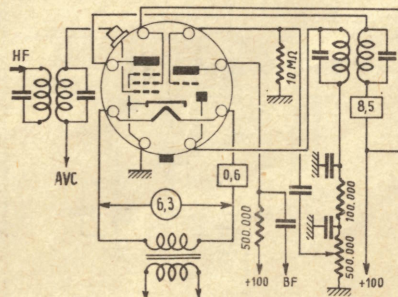
$S = 2,8$   
 $\rho = 1,5 M\Omega$   
 $V = -2,5 - 26$



6M8 (V)  
HF(V) + D + BF

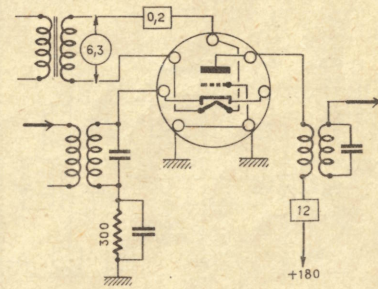
PENTHODE  
 $V_5 = 1,9$   
 $V_6 = 0,2$   
 $V_7 = -3 - 20$

TRIODE  
 $V_8 = 1,1$   
 $V_9 = 91,000$   
 $V_{10} = -1$



6N4 (M)  
HF (VHF)

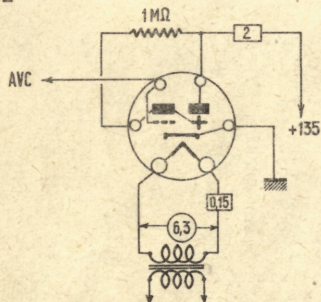
$S = 6$   
 $\rho = 5,400$   
 $V = -3,5$



6N5 (US)

V = 0 -15,5

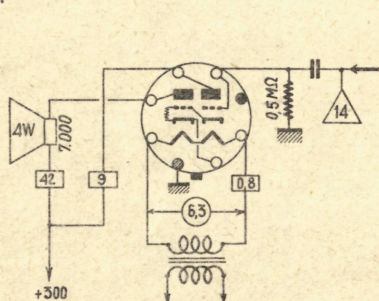
I



6N6 (O)

S = 24  
P = 24.000  
V = 0

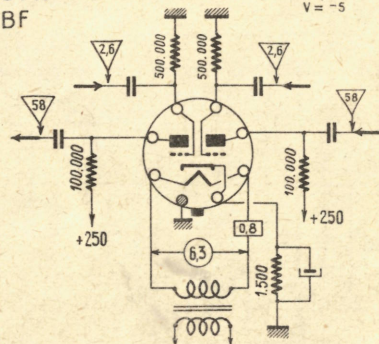
P



6N7 (O)

S = 1,6  
P = 22.000  
V = -5

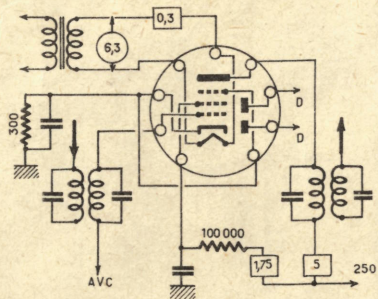
BF



6N8 (N)

S = 2,2  
P = 1,6 MΩ  
V = -2 -20

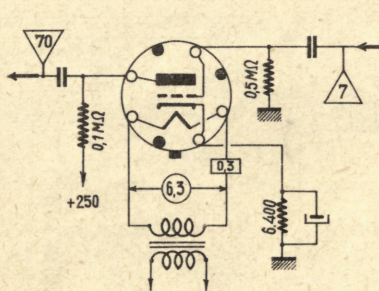
HF (V) + D



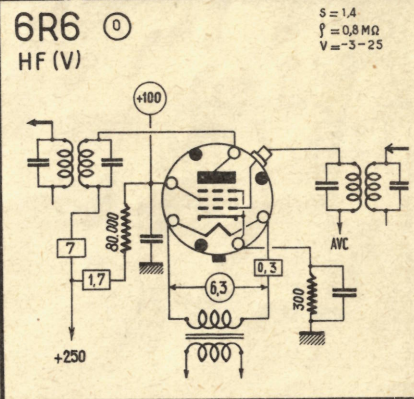
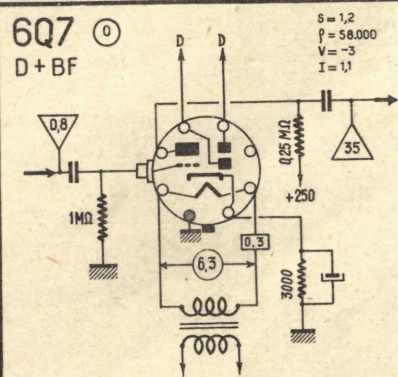
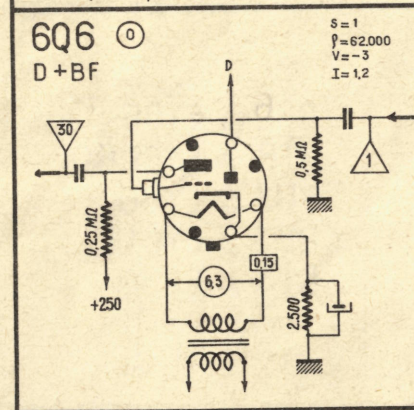
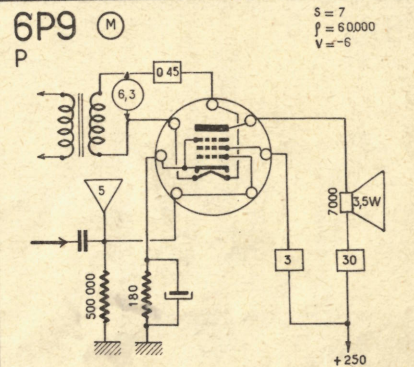
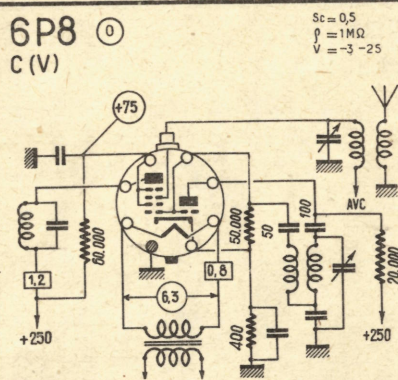
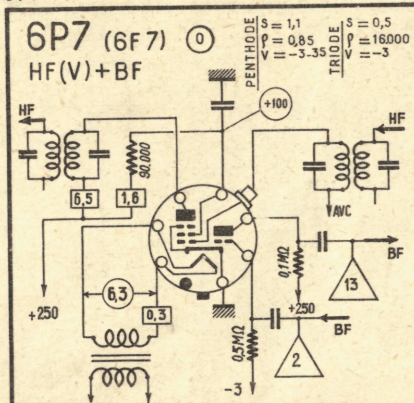
6P5 (O)

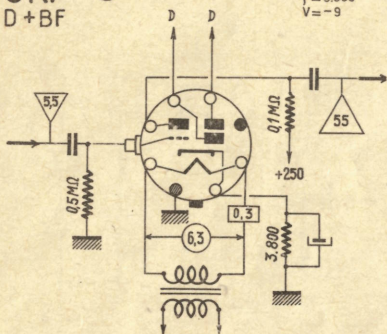
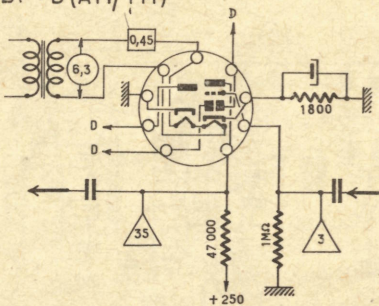
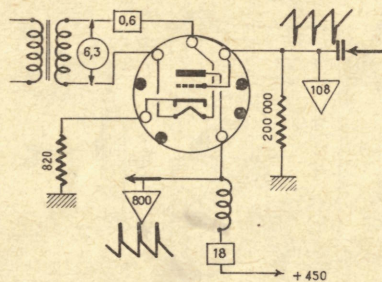
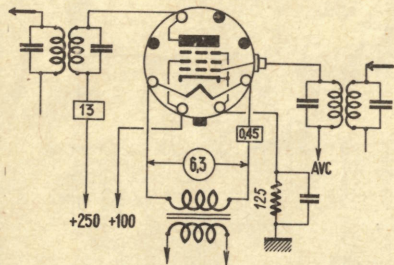
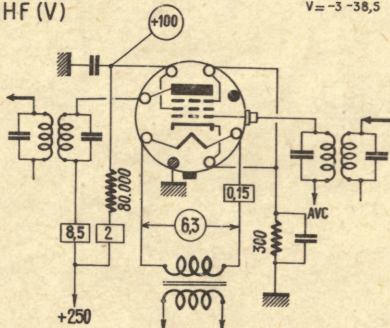
S = 1450  
P = 9.500  
V = -13,5  
I = 5

BF



6J6 = ECC91  
 6N3 = EY82  
 6N8 = EBF80  
 6Q4 = EC80  
 6R3 = EY81  
 6R4 = EC81



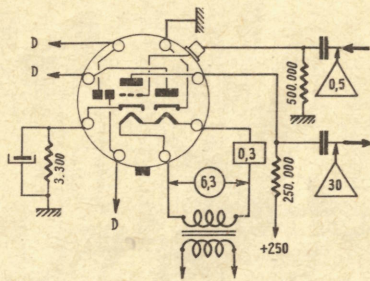
6R7 (O)  
D+BFS = 1,9  
P = 8,500  
V = -96R8 (N)  
BF+D (AM/FM)S = 1,9  
P = 8,500  
V = -96S4 (N)  
HF (T)S = 4,5  
P = 3,600  
V = -86S6 (O)  
HF (V)S = 4  
P = 0,35 MΩ  
V = -2 -256S7 (O)  
HF (V)S = 1,7  
P = 1MΩ  
V = -3 -38,5

6S2 = EY86  
 6T8 = EABC80  
 6U3 = EY80  
 6V3 = EY81F  
 6V4 = EZ80



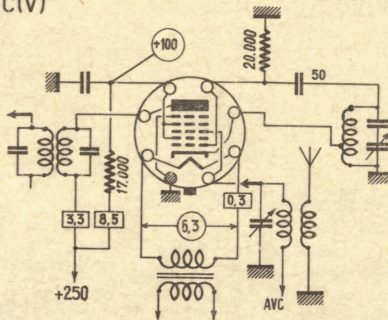
6S8 ○

D+BF (FM)

 $S = 1,1$   
 $\rho = 91.000$   
 $V = -1$ 


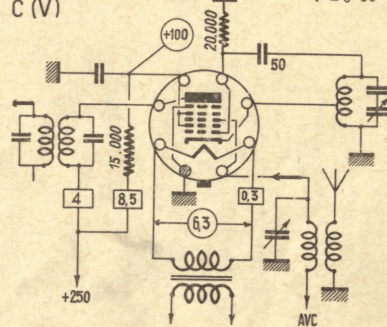
6SA7 ○

C(V)

 $S_c = 0,45$   
 $\rho = 1 \text{ M}\Omega$   
 $V = 0-35$ 


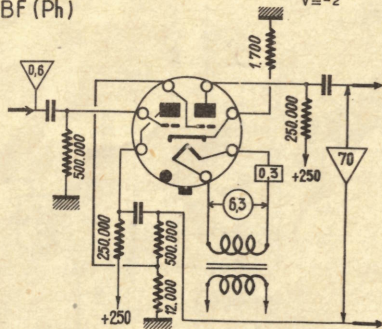
6SB7 ○

C (V)

 $S_c = 0,88$   
 $\rho = 0,8 \text{ M}\Omega$   
 $V = 0-30$ 


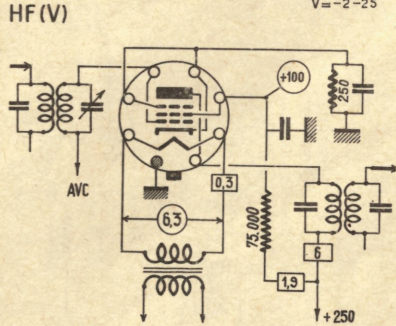
6SC7 ○

BF (Ph)

 $S = 1,325$   
 $\rho = 53.000$   
 $V = -2$ 


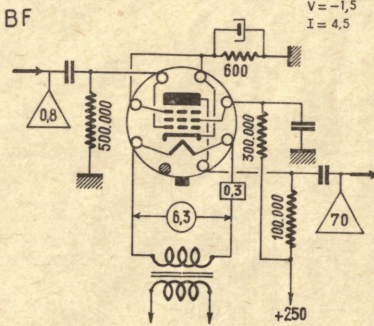
6SD7 ○

HF (V)

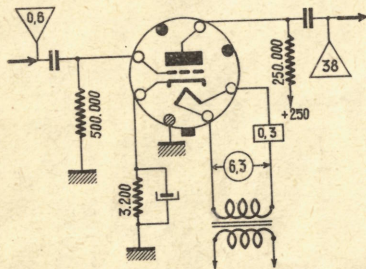
 $S = 3,6$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -2-25$ 


6SE7 ○

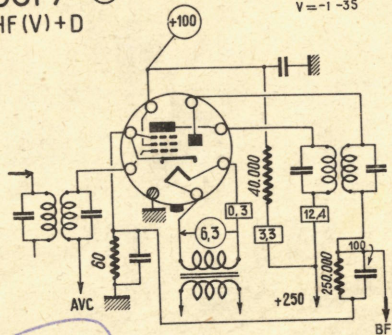
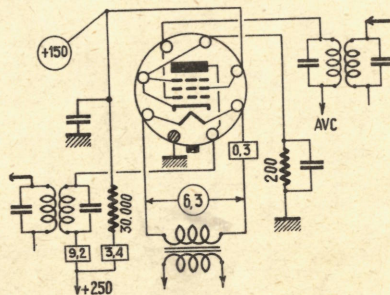
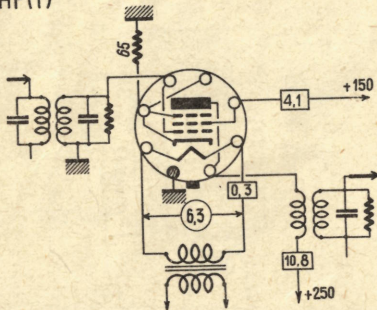
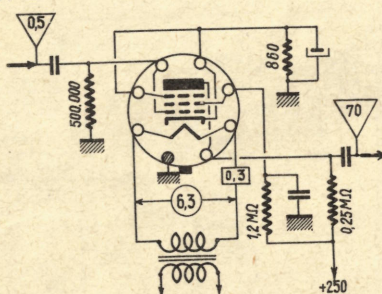
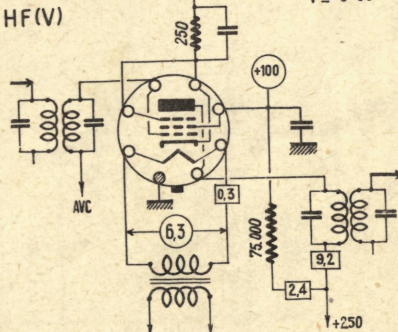
BF

 $S = 3,4$   
 $\rho = 1,1 \text{ M}\Omega$   
 $V = -1,5$   
 $I = 4,5$ 


6SF5

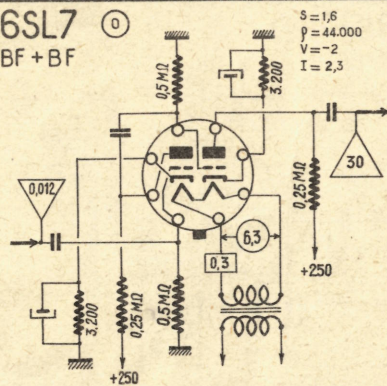
6SF5 (0)  
BF
 $S = 1,5$   
 $\rho = 66000$   
 $V = -2$ 


106

6SF7 (0)  
HF(V)+D
 $S = 2$   
 $\rho = 0,7 M\Omega$   
 $V = -1 -35$ 
6SG7 (0)  
HF(V)
 $S = 4$   
 $\rho = 1 M\Omega$   
 $V = -2,5 -17,5$ 
6SH7 (0)  
HF(T)
 $S = 4,9$   
 $\rho = 0,9 M\Omega$   
 $V = -1$ 
6SJ7 (0)  
BF
 $S = 1,6$   
 $\rho = 1,5 M\Omega$   
 $V = -3$   
 $I = 9,2$ 
6SK7 (0)  
HF(V)
 $S = 2$   
 $\rho = 0,8 M\Omega$   
 $V = -3 -35$ 


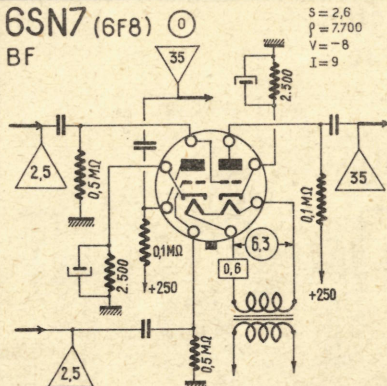
6SL7

BF + BF



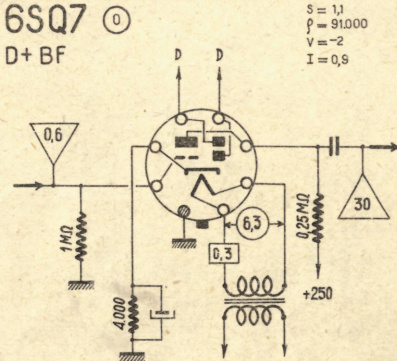
6SN7 (6F8)

BF



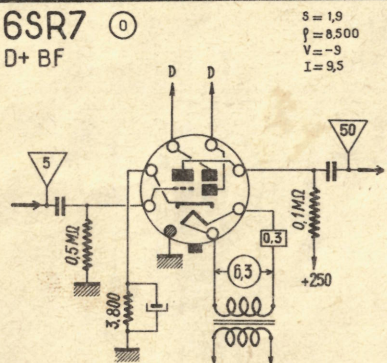
6SQ7

D + BF



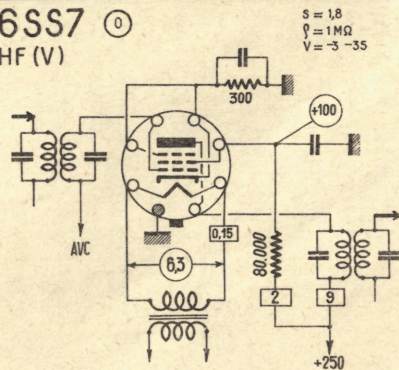
6SR7

D + BF



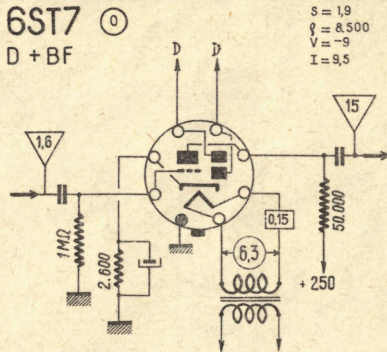
6SS7

HF (V)



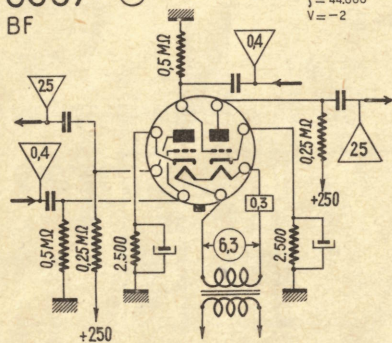
6ST7

D + BF



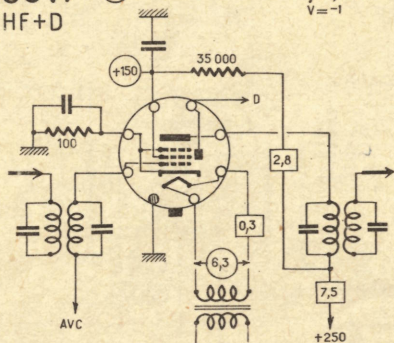
6SU7 (0)  
BF

$S = 1,6$   
 $\rho = 44,000$   
 $V = -2$



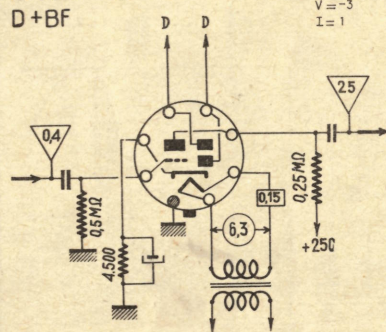
6SV7 (0)  
HF+D

$S = 3,6$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = -1$



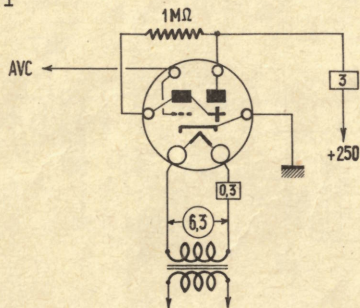
6SZ7 (0)  
D+BF

$S = 1,2$   
 $\rho = 58,000$   
 $V = -3$   
 $I = 1$



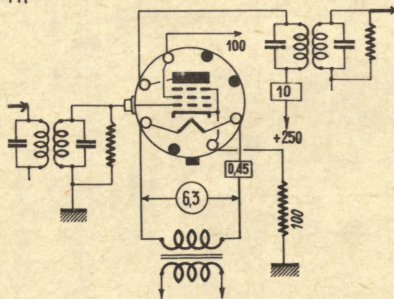
6T5 (US)  
I

$V = 0-22$



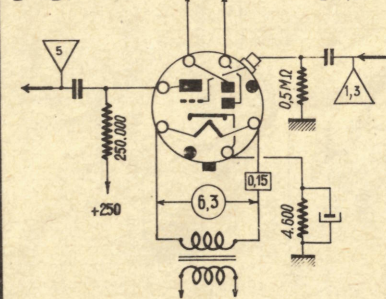
6T6 (0)  
HF

$S = 5,5$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -1$



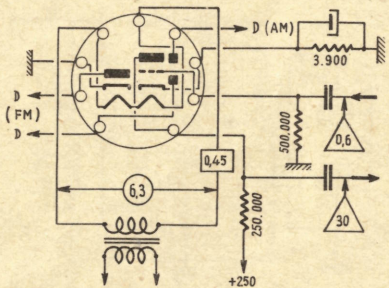
6T7 (0)  
D+BF

$S = 1$   
 $\rho = 62,000$   
 $V = -3$   
 $I = 1,2$



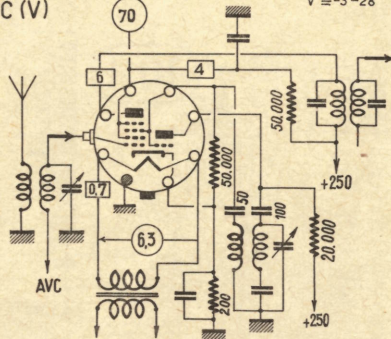
**6T8 (AM/FM) (N)**  
D + BF

$S = 1,2$   
 $f = 58,000$   
 $V = -3$

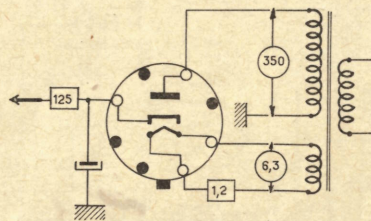


**6TH8 (V)**

$S_c = 0,8$   
 $f = 1 M\Omega$   
 $V = -3 - 28$

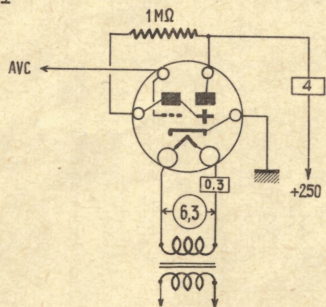


**6U4 (R)**



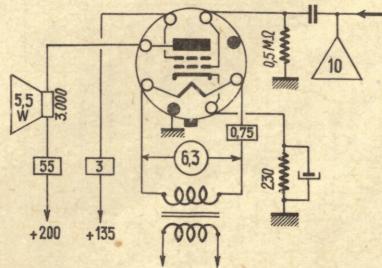
**6U5/6G5 (US)**  
I

$V = 0 - 22$



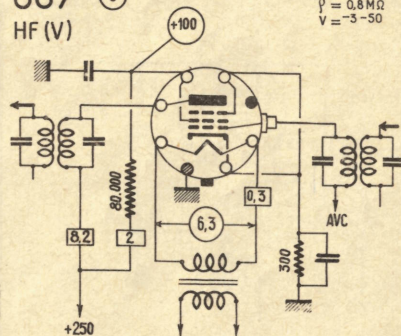
**6U6 (D)**

$S = 6,2$   
 $f = 20,000$   
 $V = -14$



**6U7 (V)**  
HF (V)

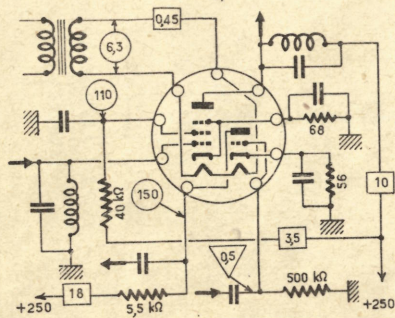
$S = 1,6$   
 $f = 0,8 M\Omega$   
 $V = -3 - 50$



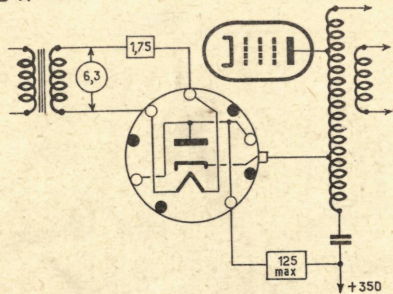
**6U8** (N)  
HF. BF(T)

PENTHODE  
S = 5,2  
p = 400 kΩ

TRIODE  
S = 8,5  
p = 5 kΩ  
H = 40

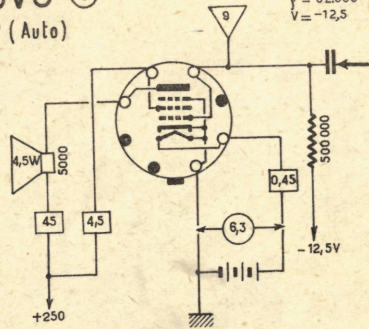


**6V3** (N)  
D(T)



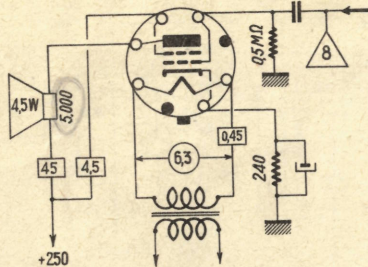
**6V5** (O)  
P (Auto)

S = 4,1  
p = 52,000  
V = -12,5



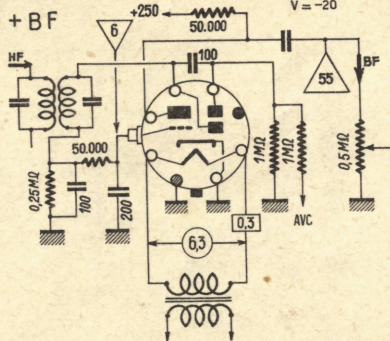
**6V6** (O)  
P

S = 4,1  
p = 52,000  
V = -12,5



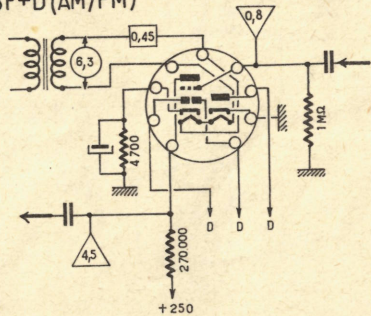
**6V7=85** (O)  
D + BF

S = 1,1  
p = 7,500  
V = -20

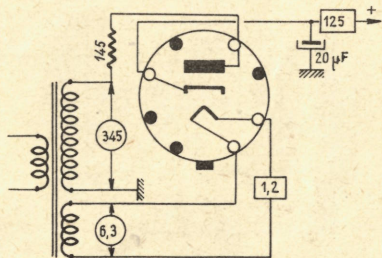


**6V8** (N)  
BF+D(AM/FM)

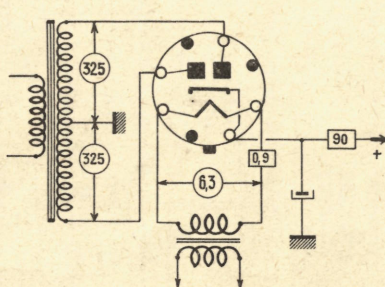
S = 12  
p = 58,000  
V = -3



6W4 (T)  
R(T)

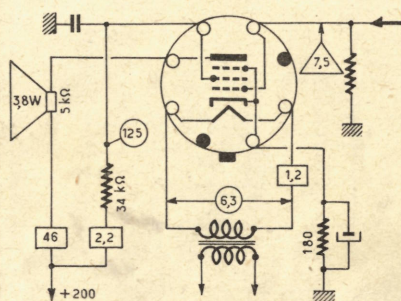


6W5 (T)  
R



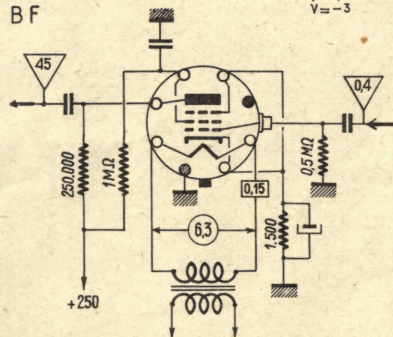
6W6 (T)  
P(T)

$S = 8$   
 $\rho = 28 \text{ k}\Omega$   
 $V = -75$

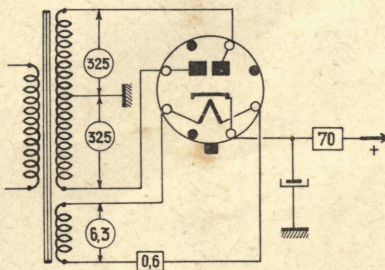


6W7 (6J7) (T)  
BF

$S = 1,22$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = -3$



6X5 (T)  
R

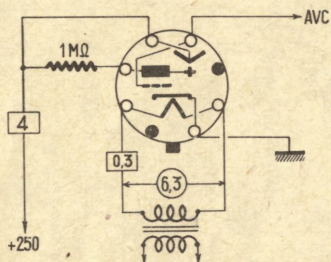


6X2 = EY51  
6X4 = EZ90  
7AN7 = PCC84

6X6 (6E5) Ⓞ

V = 0-8

I

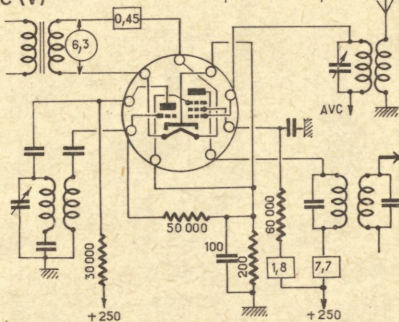


6X8 Ⓞ

C (V)

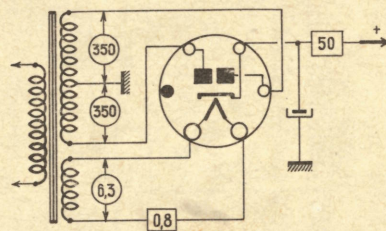
TRIODE S = 58  
P = 6000  
V = -3

PENTHODE S = 4,6  
P = 0,75MΩ  
V = -3



6Y5 Ⓞ

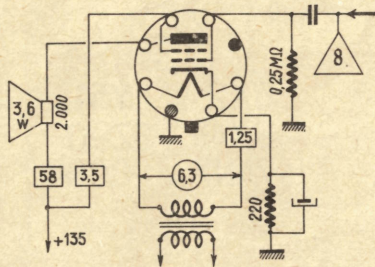
R



6Y6 Ⓞ

P

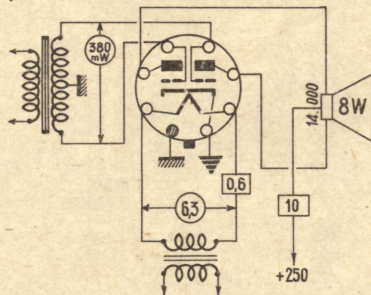
S = 7  
P = 9.300  
V = -13,5



6Y7 (79) Ⓞ

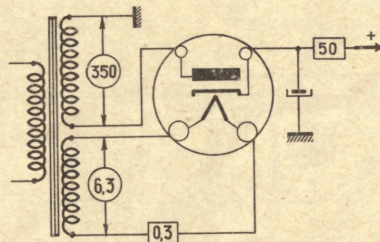
P (Cl.B)

V = 0

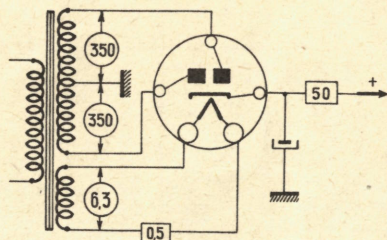
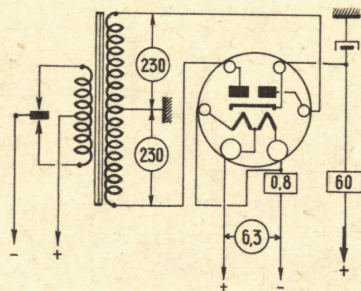
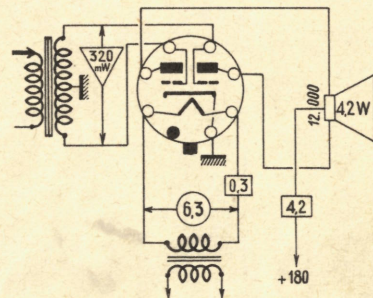
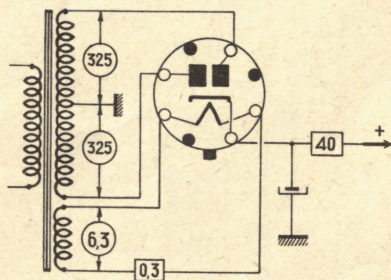
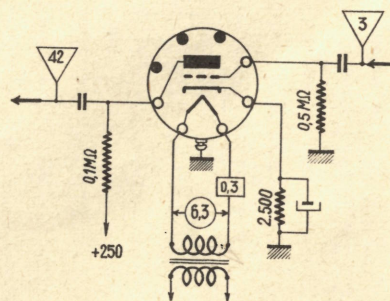
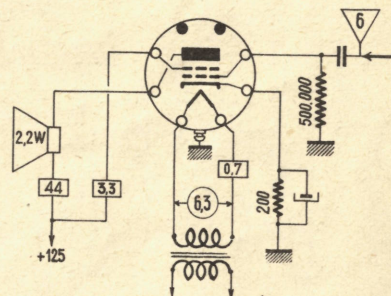


6Z3 Ⓞ

R

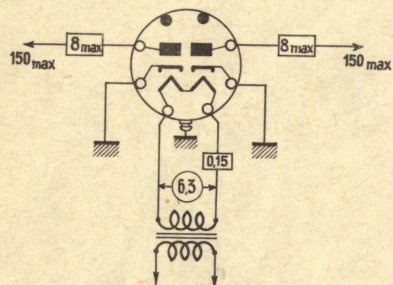




6Z4 (US)  
R6Z5 (US)  
R6Z7 (O)  
P(Cl.B)6ZY5 (O)  
R7A4 (6J5) (L)  
BF
 $S = 2.6$   
 $P = 7700$   
 $V = -8$   
 $I = 9$ 
7A5 (L)  
P
 $S = 6$   
 $P = 17.000$   
 $V = -9$ 


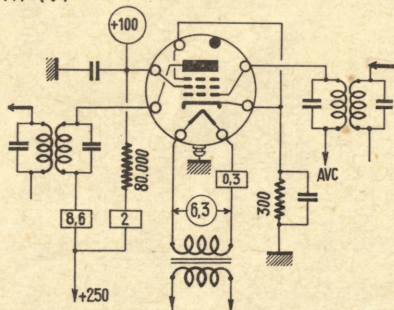
7A6 (6H6) (L)

D



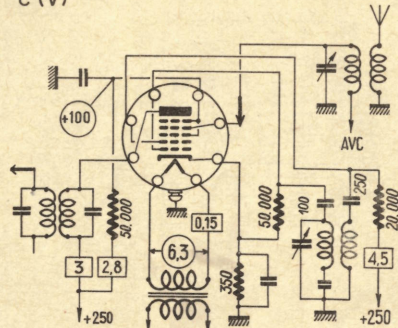
7A7 (6SK7) (L)

HF (V)

 $S = 2$   
 $\rho = 0,8 \text{ M}\Omega$   
 $V = -3 -35$ 


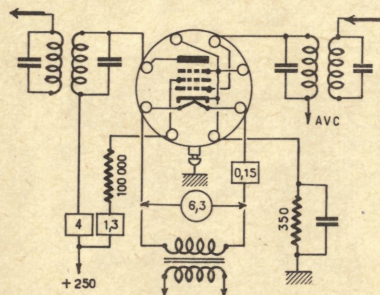
7A8 (6A8) (L)

C (V)

 $S_c = 0,6$   
 $\rho = 0,7$   
 $V = -3 -30$ 


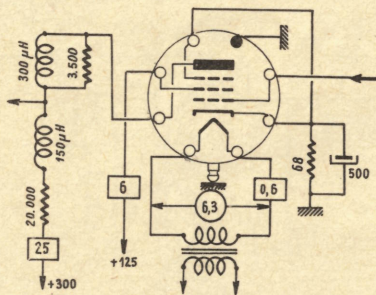
7AB7 (L)

HF

 $S = 1,8$   
 $\rho = 0,5 \text{ M}\Omega$   
 $V = -2 -18$ 


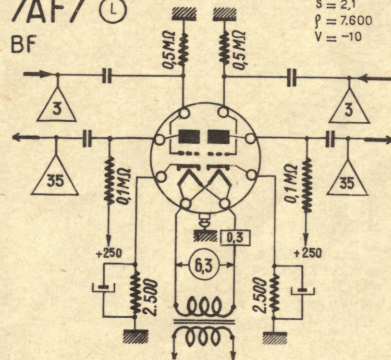
7AD7 (L)

HF (T)

 $S = 9,5$   
 $\rho = 0,3 \text{ M}\Omega$   
 $V = -3$ 


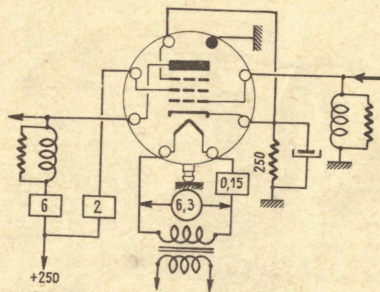
7AF7 (L)

BF

 $S = 2,1$   
 $\rho = 7,600$   
 $V = -10$ 


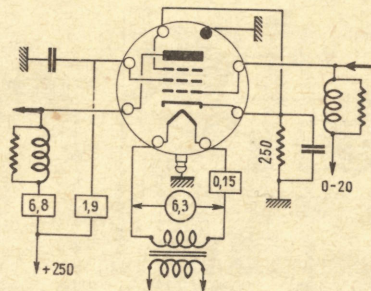
7AG7 (L)  
HF (T)

S = 4,2  
P = > 1M $\Omega$   
V = -2



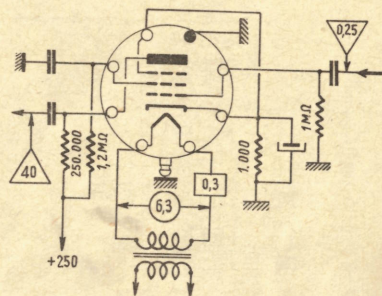
7AH7 (L)  
HF (T)

S = 3,3  
P = 1M $\Omega$   
V = -2 -20



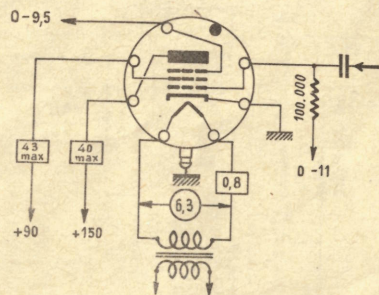
7AJ7 (6SJ7) (L)  
BF

S = 1,57  
P = 1M $\Omega$   
V = -3



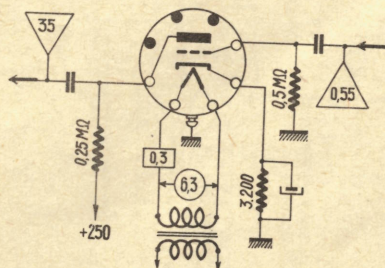
7AK7 (L)  
HF (T)

S = 6,5  
P = 11.500  
V = 0 -11



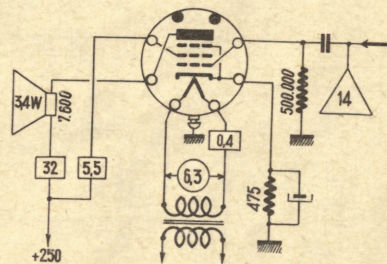
7B4 (6SF5) (L)  
BF

S = 1,5  
P = 66.000  
V = -2



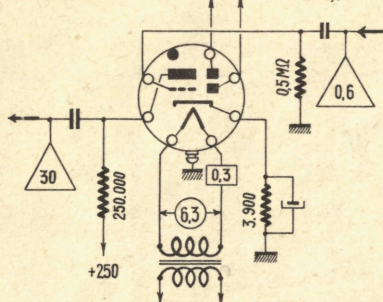
7B5 (6K6) (L)  
P

S = 2,3  
P = 68.000  
V = -18



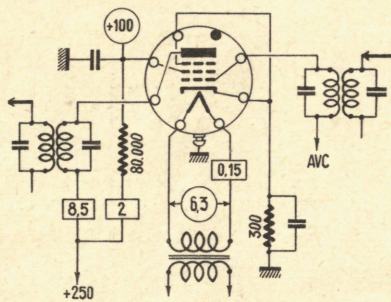
7B6 (6SQ7) (L)  
D + BF

$S = 1,1$   
 $P = 91,000$   
 $V = -2$   
 $I = 0,9$



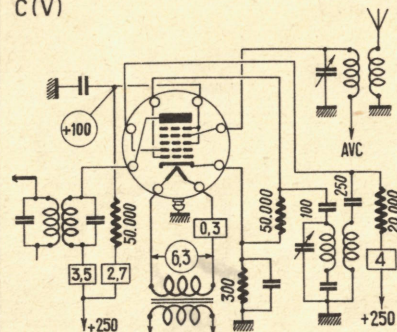
7B7 (L)  
HF (V)

$S = 1,7$   
 $P = 0,75 M\Omega$   
 $V = -3-40$



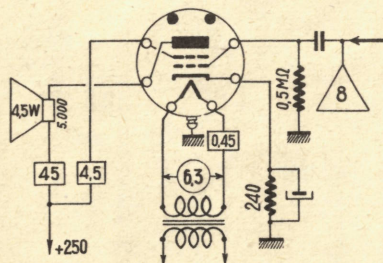
7B8 (L)  
C (V)

$S_c = 0,55$   
 $P = 0,36 M\Omega$   
 $V = -3-35$



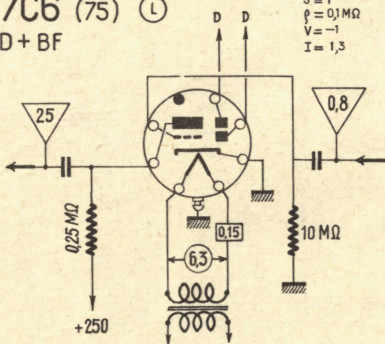
7C5 (6V6) (L)  
P

$S = 4,1$   
 $P = 52,000$   
 $V = -12,5$



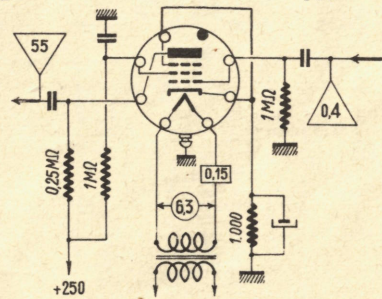
7C6 (75) (L)  
D + BF

$S = 1$   
 $P = 0,1 M\Omega$   
 $V = -1$   
 $I = 1,3$

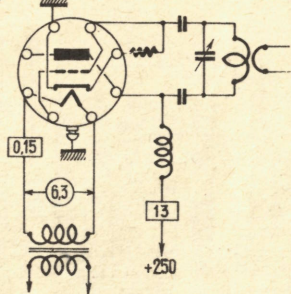


7C7 (6J7) (L)  
B F

$S = 1,3$   
 $P = 2 M\Omega$   
 $V = -3$   
 $I = 2$

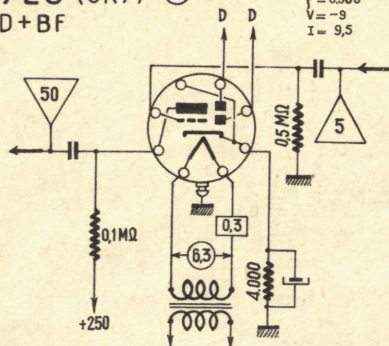


7E5 (L)  
0 (VHF)



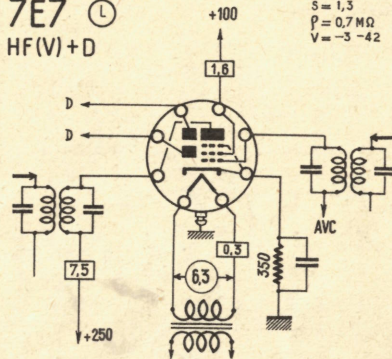
7E6 (6R7) (L)  
D+BF

$S = 1,9$   
 $\rho = 8,500$   
 $V = -9$   
 $I = 9,5$



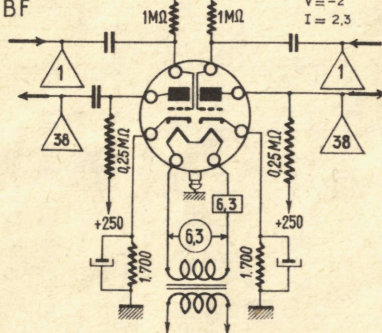
7E7 (L)  
HF(V)+D

$S = 1,3$   
 $\rho = 0,7 M\Omega$   
 $V = -3 -42$



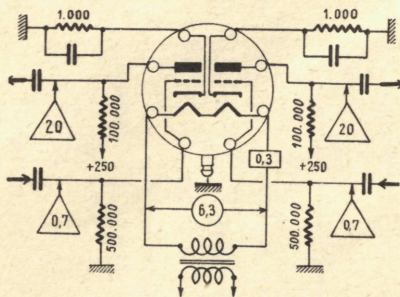
7F7 (L)  
BF

$S = 1,6$   
 $\rho = 44,000$   
 $V = -2$   
 $I = 2,3$



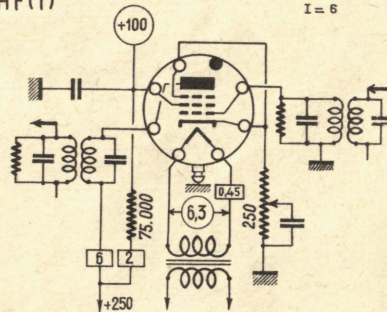
7F8 (L)  
BF

$S = 3,3$



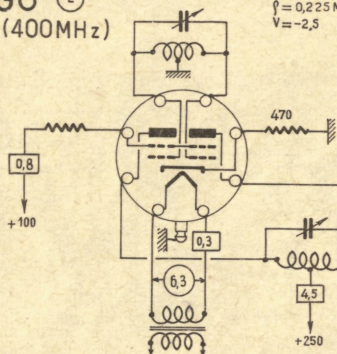
7G7 (L)  
HF(T)

$S = 4,5$   
 $\rho = 0,8 M\Omega$   
 $V = -2$   
 $I = 6$



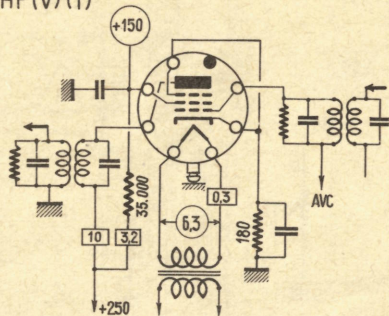
7G8 (L)  
HF (400MHz)

$S = 2,1$   
 $\rho = 0,225 \text{ M}\Omega$   
 $V = -2,5$



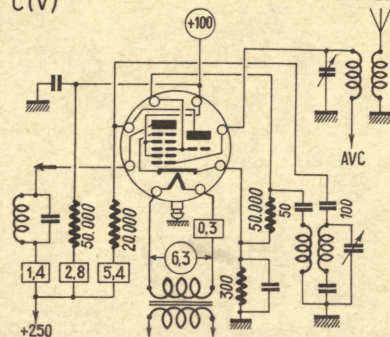
7H7 (L)  
HF (V) (T)

$S = 4,2$   
 $\rho = 0,8 \text{ M}\Omega$   
 $V = -1 -19$



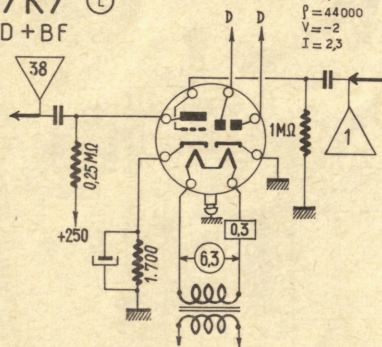
7J7 (L)  
C (V)

$S_c = 0,3$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = -3 -20$



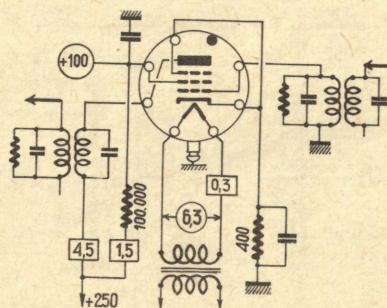
7K7 (L)  
D + BF

$S = 1,6$   
 $\rho = 44,000$   
 $V = -2$   
 $I = 2,3$



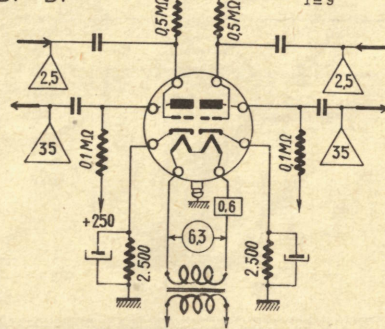
7L7 (L)  
HF (T)

$S = 3,1$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -1,5$



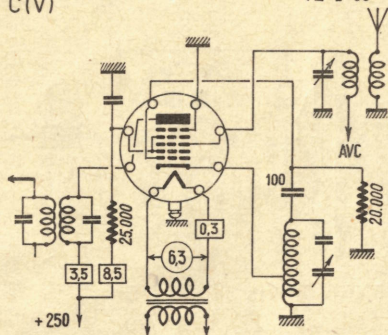
7N7 (6F8) (L)  
BF + BF

$S = 2,5$   
 $\rho = 7,700$   
 $V = -8$   
 $I = 9$



7Q7 (6SA7) (L)  
C (V)

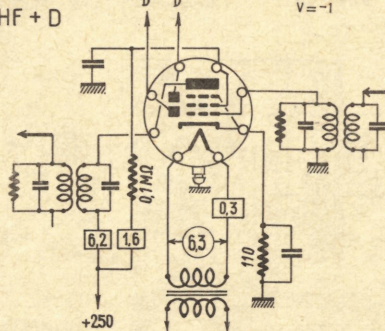
$S = 0,5$   
 $P = 1M\Omega$   
 $V = -2 -3,5$



7R7  
HF + D

(L)

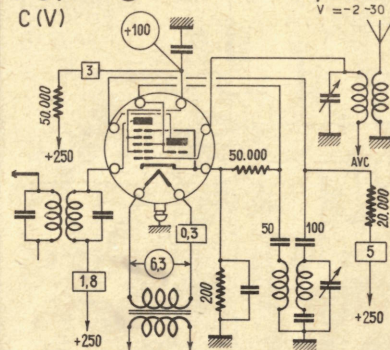
$S = 3,4$   
 $P = 1M\Omega$   
 $V = -1$



7S7  
C (V)

(L)

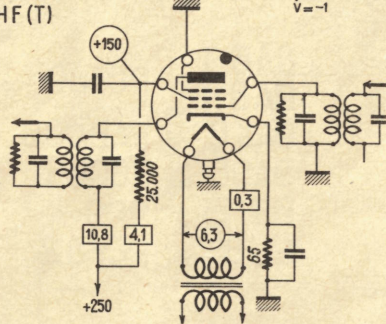
$S_c = 0,5$   
 $P = 1M\Omega$   
 $V = -2 -3,0$



7T7  
HF (T)

(L)

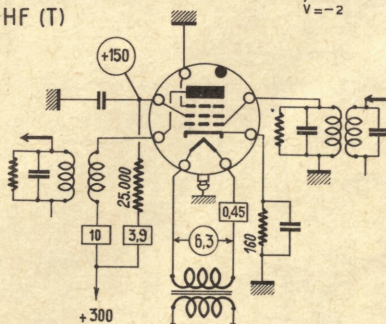
$S = 4,9$   
 $P = 0,9M\Omega$   
 $V = -1$



7V7  
HF (T)

(L)

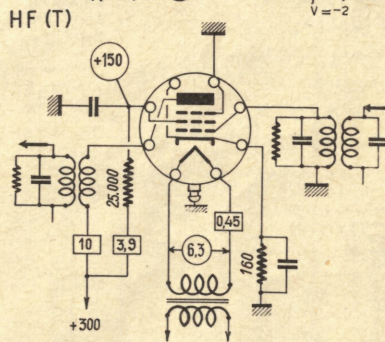
$S = 5,8$   
 $P = 0,3M\Omega$   
 $V = -2$

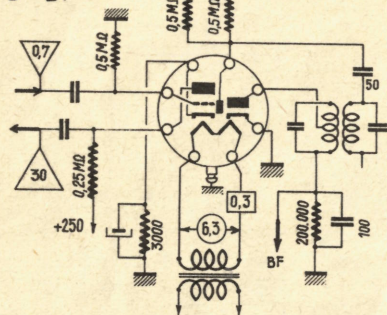
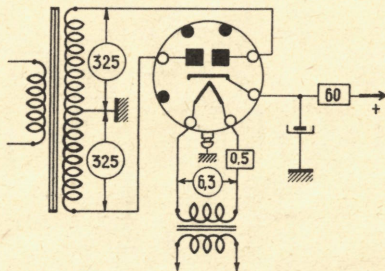
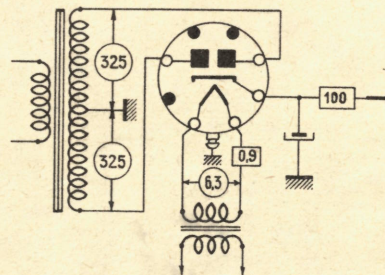
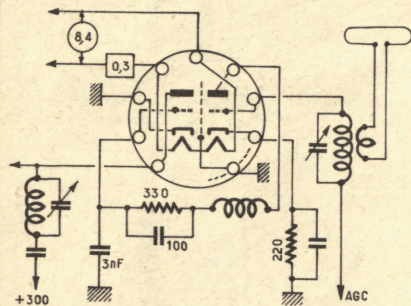
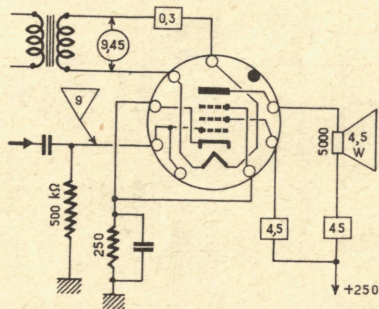


7W7 (7V7) (L)  
HF (T)

(L)

$S = 5,8$   
 $P = 0,3M\Omega$   
 $V = -2$

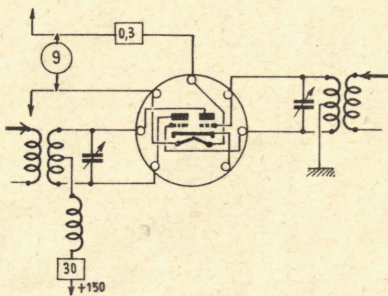


7X7 (L)  
D + BFS = 1,5  
P = 67,000  
V = -17Y4 (L)  
R7Z4 (L)  
R8BQ7A (N)  
HF (V) (T)S = 6,4  
P = 6,1 kΩ  
V = -2  
μ = 399BW6 (N)  
PS = 4,1  
P = 52 kΩ  
V = -12,5

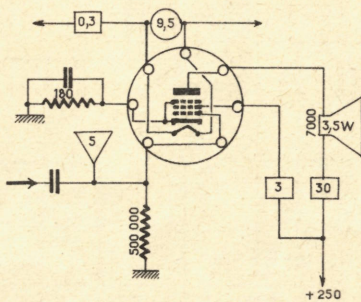
8A8	}	= PCF80
9A8		
9AK8	= PABC80	
9AQ8	= PCC85	
9BM5	= 9P9	
9U8	= PCF82	



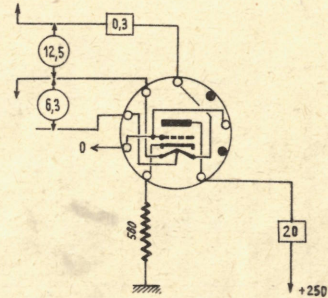
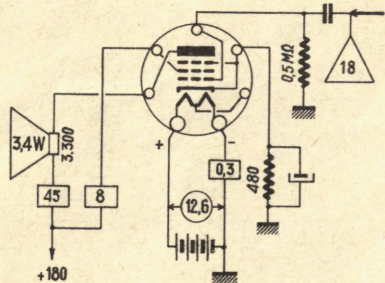
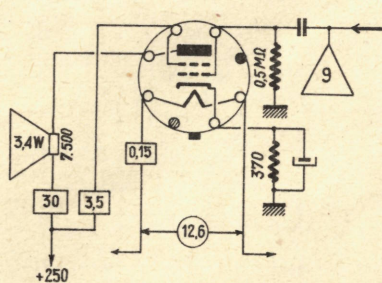
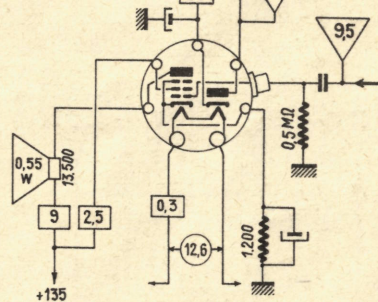
9J6

9J6 (M)  
HF (T)
 $S = 5,3$   
 $f = 7,100$   
 $V = -10$ 


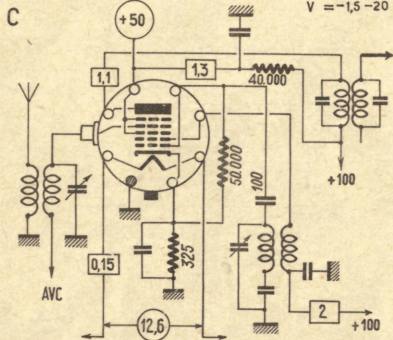
121

9P9/9BM5 (M)  
P
 $S = 7$   
 $f = 60,000$   
 $V = -6$ 


12A7

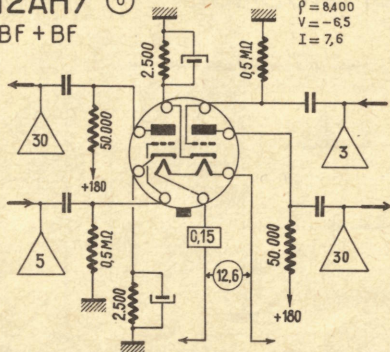
12A4 (N)  
BF (T)
 $S = 7,8$   
 $f = 2,560$   
 $V = -9$ 
12A5 (US)  
P
 $S = 2,4$   
 $f = 35,000$   
 $V = -25$ 
12A6 (O)  
P
 $S = 3$   
 $f = 70,000$   
 $V = -12,5$ 
12A7 (US)  
R+P
 $S = 0,9$   
 $f = 0,1M$   
 $V = -13,5$ 


12A8 (O)

 $S_r = 0,36$   
 $\rho = 0,6 M\Omega$   
 $V = -1,5 - 20$ 


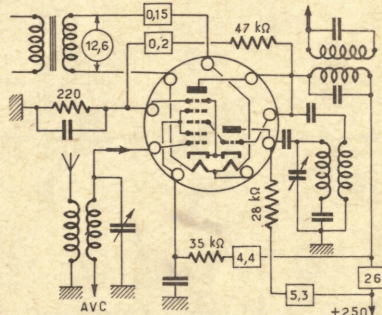
12AH7 (O)

BF + BF

 $S = 1,9$   
 $\rho = 8400$   
 $V = -6,5$   
 $I = 7,6$ 


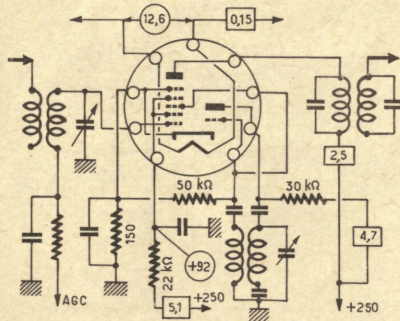
12AH8 (N)

C

 $S_c = 0,5$   
 $\rho = 1,5 M\Omega$   
 $V = -3 - 25$ 


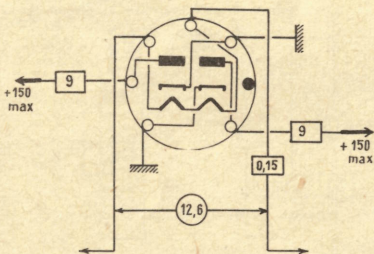
12AJ8 (N)

C (V)

 $S_c = 0,7$   
 $\rho = 1 M\Omega$   
 $V = -2 - 28,5$ 


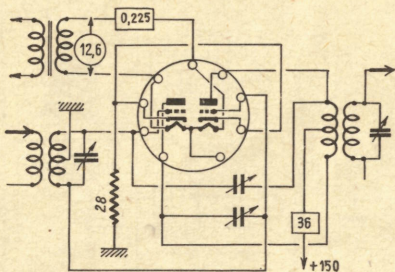
12AL5 (6AL5) (M)

D

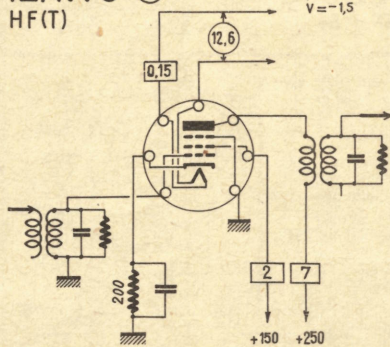


12AC5 = UF41  
 12AT6 = HBC90  
 12AT7 = ECC81  
 12AU6 = HF94  
 12AU7 = ECC82  
 12AV6 = HBC91

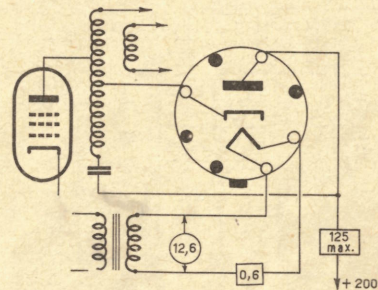
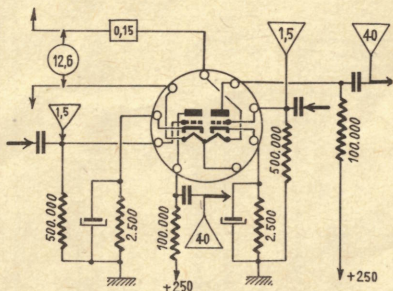
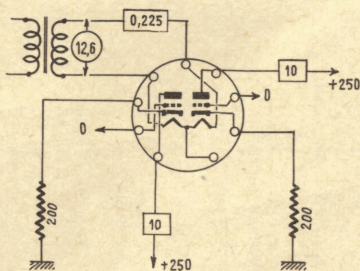
12AV7

12AV7 (N)  
HF (T)S = 8,5  
P = 4800  
V = -1

123

12AW6 (M)  
HF (T)S = 5  
P = 0,8 MΩ  
V = -1,5

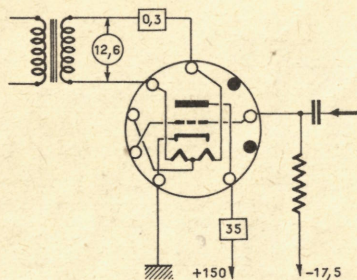
12S7

12AX4 (O)  
D (T)12AY7 (N)  
BFS = 1,75  
P = 43.000  
V = -412AZ7 (N)  
HF (T)S = 5,5  
P = 10.900  
V = -2

12AY6 = 12AT6  
 12AX7 = ECC83  
 12BA6 = HF93  
 12BE6 = HK90  
 12D8 = HCH81  
 12S7 = UAF42

12B4 (N)  
BF (T)

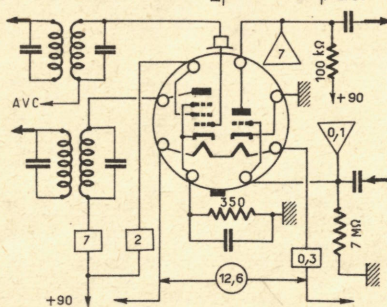
$S = 6,5$   
 $V = -17,5 \text{ k}\Omega$   
 $\mu = 6,5$



12B8 (O)  
HF + BF

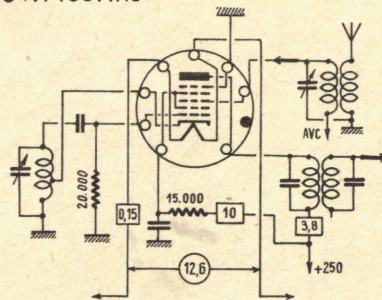
PENTHODE  
 $S = 1,8$   
 $\mu = 200 \text{ k}\Omega$   
 $V = -3 - 35$

TRIODE  
 $S = 2,4$   
 $\mu = 37 \text{ k}\Omega$   
 $V = 0$   
 $V = 90$



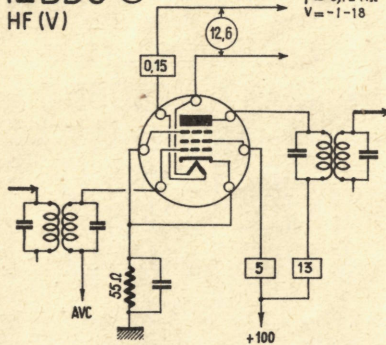
12BA7 (N)  
C (V) 100MHz

$S_c = 0,95$   
 $\rho = 1 \text{ M}\Omega$   
 $V = 0 - 20$



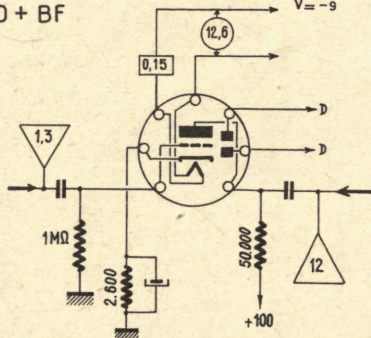
12BD6 (M)  
HF (V)

$S = 2,3$   
 $\rho = 0,12 \text{ M}\Omega$   
 $V = -1 - 18$



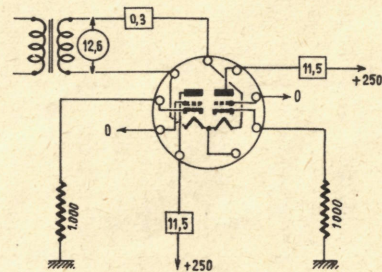
12BF6 (M)  
D + BF

$S = 1,9$   
 $\rho = 6.500$   
 $V = -9$

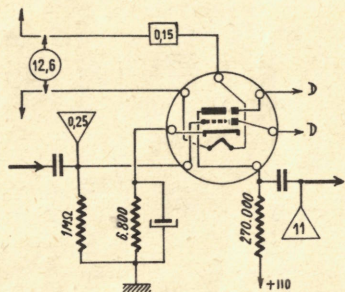


12BH7 (N)  
HF (T)

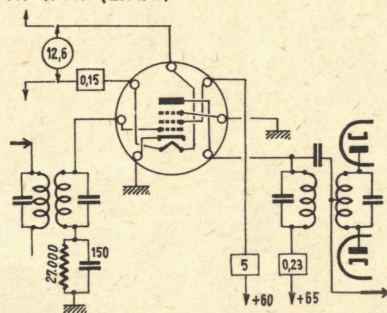
$S = 3,1$   
 $\rho = 5.500$   
 $V = -10,5$



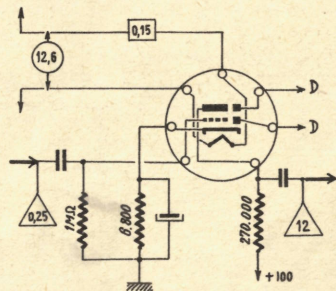
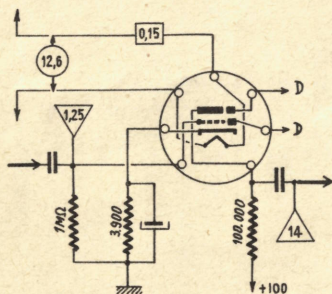
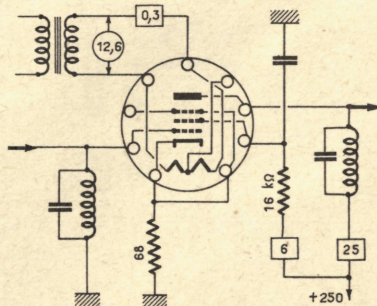
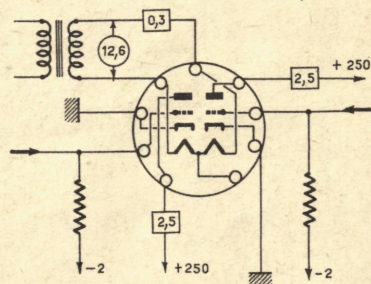
12BK6

12BK6 (M)  
BF + DS = 1,6  
P = 62,000  
V = -2

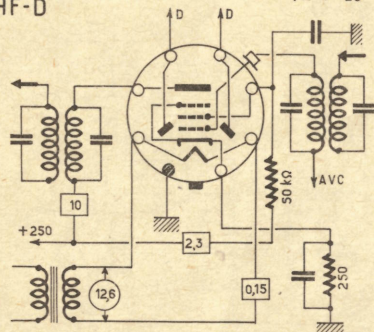
125

12BN6 (M)  
HF (FM) (LIMIT.)

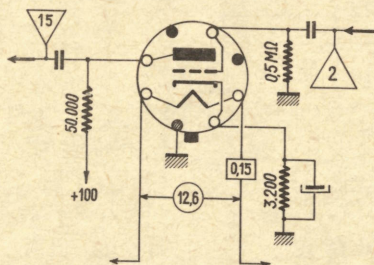
12BZ7

12BT6 (M)  
BF + DS = 1,3  
P = 54,000  
V = -112BU6 (M)  
BF + DS = 1,9  
P = 8,500  
V = -912BY7 (N)  
HF + VF (T)S = 12  
P = 110 kΩ  
V = -0,512BZ7 (N)  
BF + VF (T)S = 3,2  
P = 31,8 kΩ  
V = -2  
μ = 100

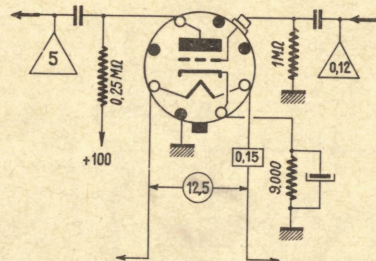
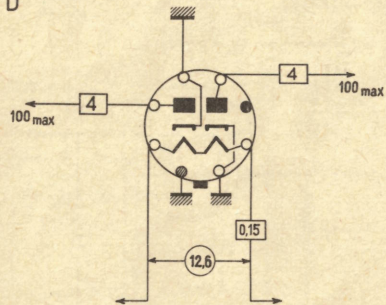
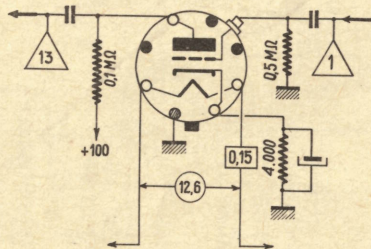
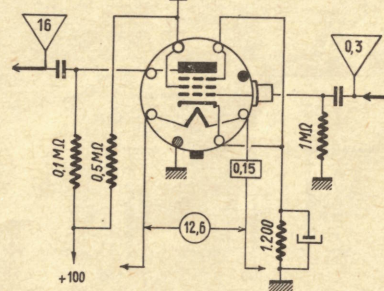
12C8

12C8 (C)  
HF-D
 $S = 1,325$   
 $\rho = 600 \text{ k}\Omega$   
 $V = -3 \text{--} -20$ 


126

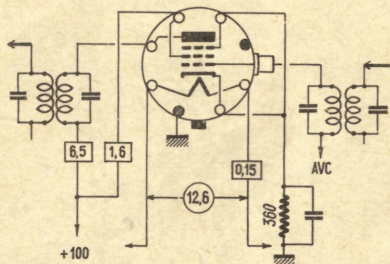
12E5 (6P5) (C)  
BF
 $S = 1,15$   
 $\rho = 12,000$   
 $V = -5$ 


12J7

12F5 (6F5) (C)  
BF
 $S = 1,5$   
 $\rho = 60,000$   
 $V = -2$ 
12H6 (6H6) (C)  
D12J5 (6J5) (C)  
BF
 $S = 3$   
 $\rho = 6,700$   
 $V = -3$ 
12J7 (6J7) (C)  
BF
 $S = 1,18$   
 $\rho = 1 \text{ M}\Omega$   
 $V = -3$ 


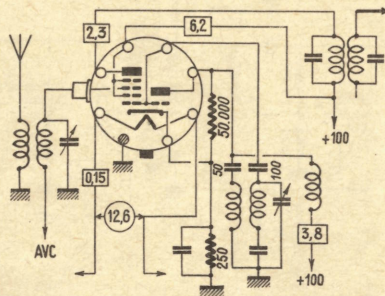
12K7

**12K7 (6K7) (O)**  
 HF (V)

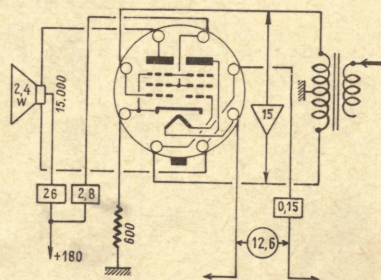
 $S = 1,32$   
 $\rho = 0,25 \text{ M}\Omega$   
 $V = -3 -38,5$ 


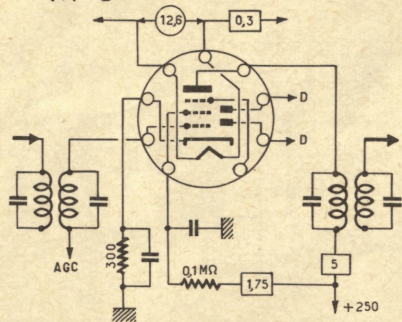
127

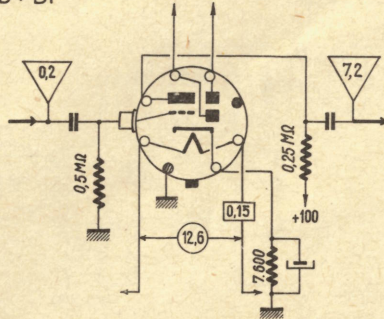
**12K8 (6K8) (O)**  
 C (V)

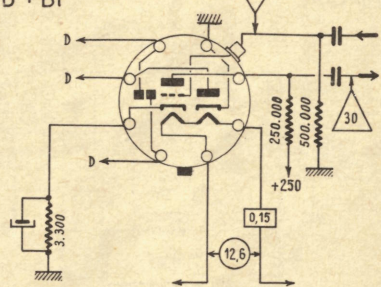
 $S_c = 0,325$   
 $\rho = 0,4 \text{ M}\Omega$   
 $V = -3 -30$ 


12S8

**12L8 (O)**  
 P (Cl. AB)
 $V = -9$ 
**12N8 (N)**  
 HF (V) + D

 $S = 2,2$   
 $\rho = 1,5 \text{ M}\Omega$   
 $V = -2 -35$ 

**12Q7 (6Q7) (O)**  
 D + BF

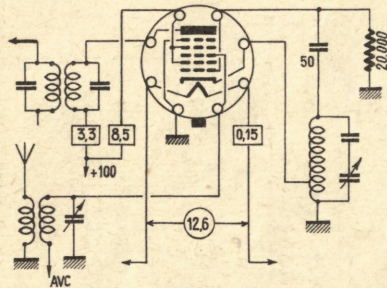
 $S = 0,8$   
 $\rho = 87,500$   
 $V = -1,5$ 

**12S8 (O)**  
 D + BF

 $S = 1,1$   
 $\rho = 91,000$   
 $V = -2$ 


### 12SA7 (6SA7) ⓪

C (V)

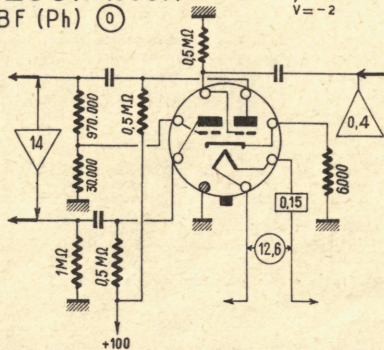
$S_c = 0,425$   
 $\rho = 0,5 M\Omega$   
 $V = 0,35$



### 12SC7 (6SC7) ⓪

BF (Ph) ⓪

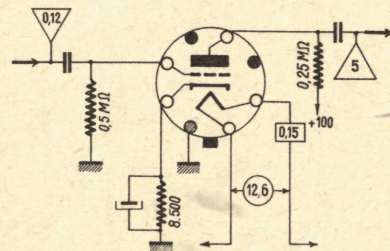
$S = 1,32$   
 $\rho = 53,000$   
 $V = -2$



### 12SF5 (6SF5) ⓪

BF

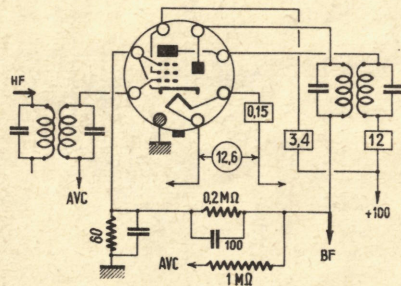
$S = 1,5$   
 $\rho = 66,000$   
 $V = -2$



### 12SF7 (6SF7) ⓪

HF (V)

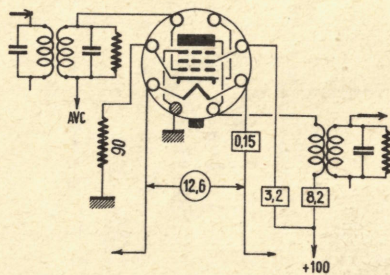
$S = 1,9$   
 $\rho = 0,2 M\Omega$   
 $V = -1 -3.5$



### 12SG7 (6SG7) ⓪

HF (V) (T)

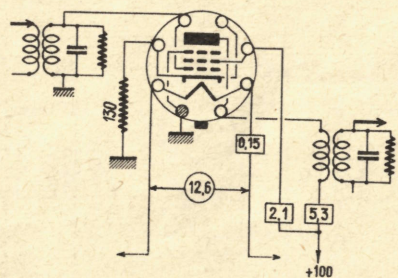
$S = 4,1$   
 $\rho = 0,25 M\Omega$   
 $V = -1$



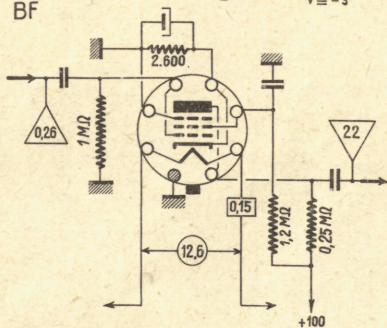
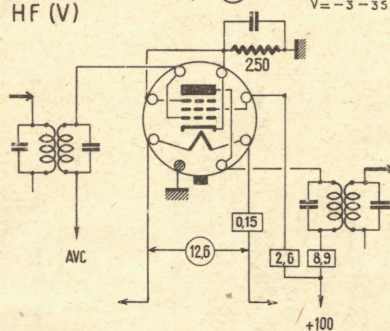
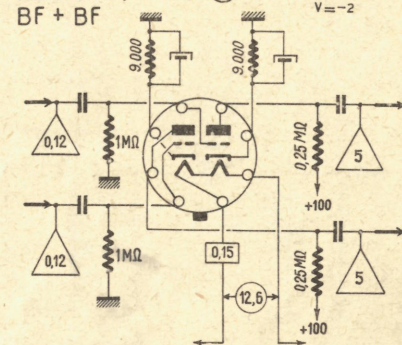
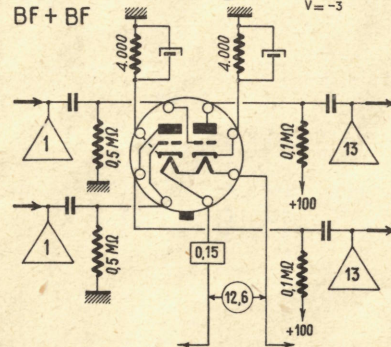
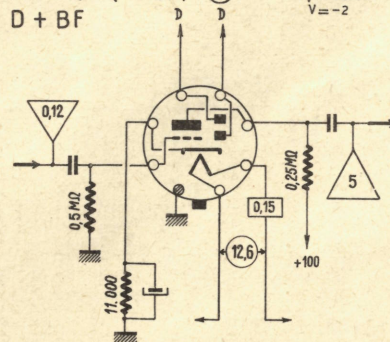
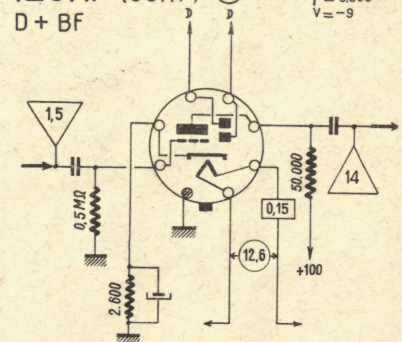
### 12SH7 ⓪

HF (T)

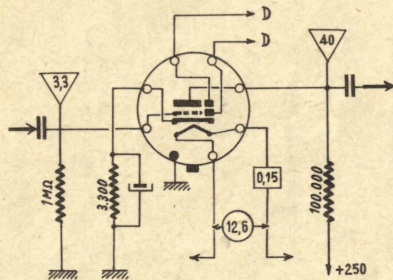
$S = 4$   
 $\rho = 0,35 M\Omega$   
 $V = -1$



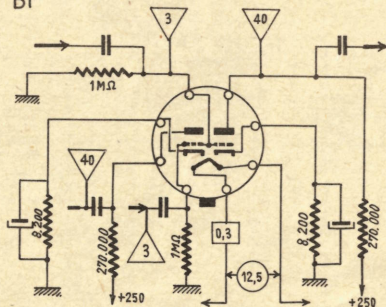


12SJ7 (6SJ7) (O)  
BF
 $S = 1,5$   
 $\rho = 0,7 \text{ M}\Omega$   
 $V = -3$ 
12SK7 (6SK7) (O)  
HF (V)
 $S = 1,9$   
 $\rho = 0,25 \text{ M}\Omega$   
 $V = -3 - 35$ 
12SL7 (6SL7) (O)  
BF + BF
 $S = 1,6$   
 $\rho = 14,000$   
 $V = -2$ 
12SN7 (6SN7) (O)  
BF + BF
 $S = 3$   
 $\rho = 6,700$   
 $V = -3$ 
12SQ7 (6SQ7) (O)  
D + BF
 $S = 1,1$   
 $\rho = 91,000$   
 $V = -2$ 
12SR7 (6SR7) (O)  
D + BF
 $S = 1,9$   
 $\rho = 8,500$   
 $V = -9$ 


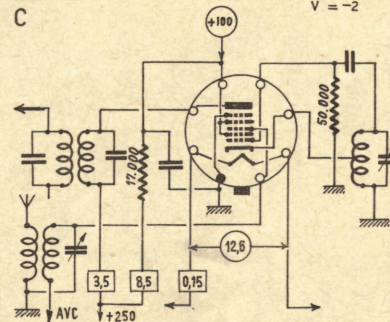
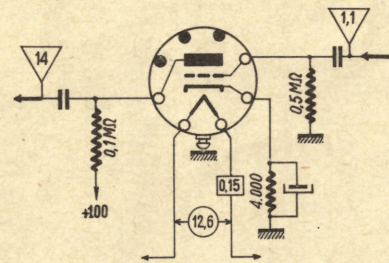
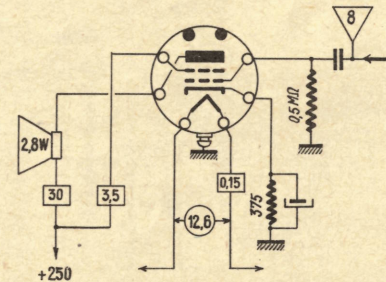
12SW7

12SW7  $\odot$   
BF+D
 $s = 1,9$   
 $\rho = 8.500$   
 $V = -9$ 


130

12SX7  $\odot$   
BF
 $s = 2,5$   
 $\rho = 7.700$   
 $V = -8$ 


15A6

12SY7  $\odot$   
C
 $s c = 0,45$   
 $\rho = 1 M\Omega$   
 $V = -2$ 
14A4  $\odot$   
BF
 $s = 3$   
 $\rho = 6.700$   
 $V = 0$ 
14A5  $\odot$   
P
 $s = 3$   
 $\rho = 70.000$   
 $V = -12,5$ 


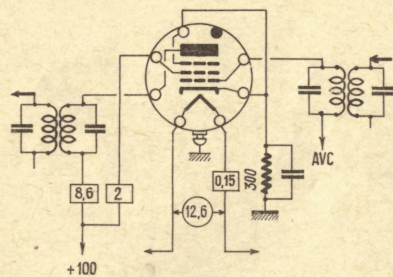
14K7 = UCH42  
 14L7 = UBC41  
 15A6 = PL 83

14A7 (L)  
HF (V)

$$S = 2$$

$$\rho = 0,8$$

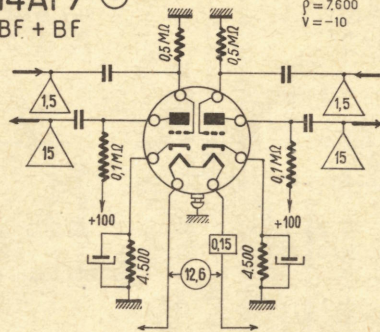
$$V = -3 \text{--} 35$$

14AF7 (L)  
BF + BF

$$S = 2,1$$

$$\rho = 7,600$$

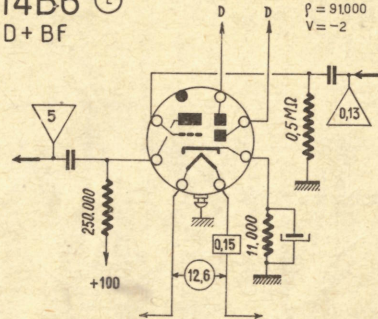
$$V = -10$$

14B6 (L)  
D + BF

$$S = 1,1$$

$$\rho = 91000$$

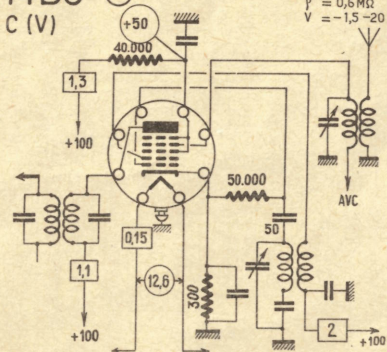
$$V = -2$$

14B8 (L)  
C (V)

$$S_c = 0,35$$

$$\rho = 0,6 \text{ M}\Omega$$

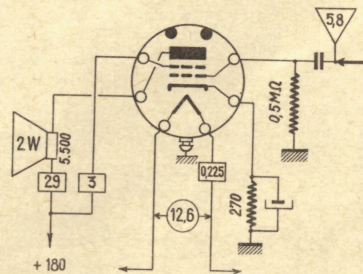
$$V = -1,5 \text{--} 20$$

14C5 (7C5) (L)  
P

$$S = 3,7$$

$$\rho = 58.000$$

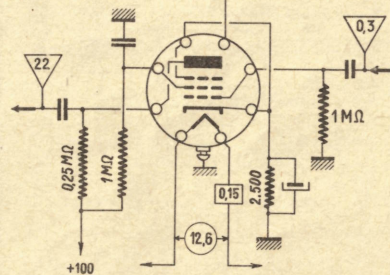
$$V = -8,5$$

14C7 (7C7) (L)  
BF

$$S = 2,2$$

$$\rho = 0,4 \text{ M}\Omega$$

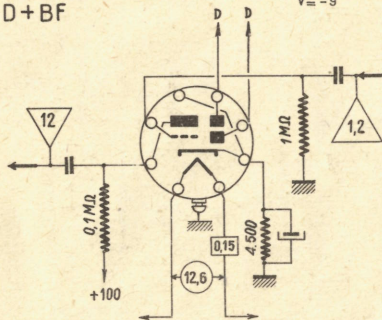
$$V = -3$$



### 14E6 (7E6) (L)

D+BF

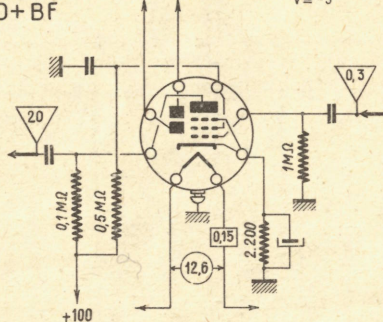
$S = 1,9$   
 $\rho = 8,500$   
 $V = -9$



### 14E7 (L)

D+BF

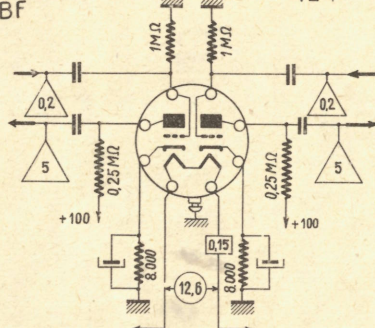
$S = 1,3$   
 $\rho = 0,7 M\Omega$   
 $V = -3$



### 14F7 (7F7) (L)

BF

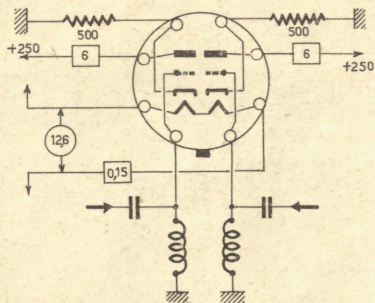
$S = 1,125$   
 $\rho = 62,000$   
 $V = -1$



### 14F8 (O)

HF

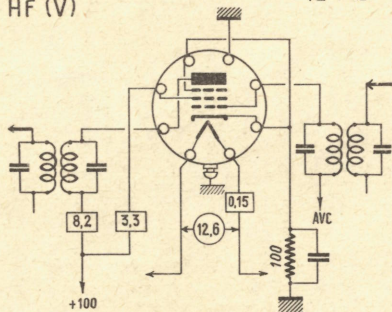
$S = 3,3$   
 $\mu = 48$



### 14H7 (7H7) (L)

HF (V)

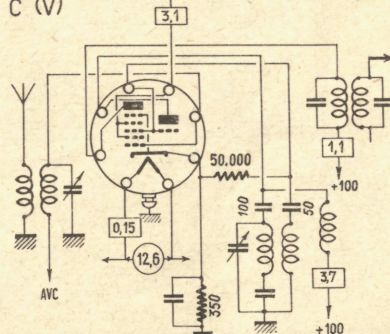
$S = 3,8$   
 $\rho = 0,25 M\Omega$   
 $V = -1 -12$



### 14J7 (7J7) (L)

C (V)

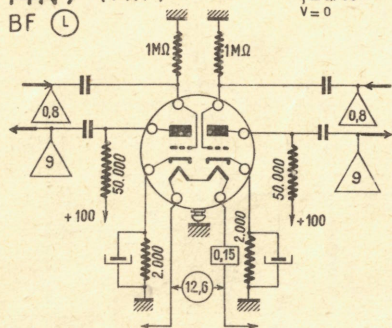
$S = 0,26$   
 $\rho = 0,3 M\Omega$   
 $V = -3 -20$



14N7

14N7 (7N7)

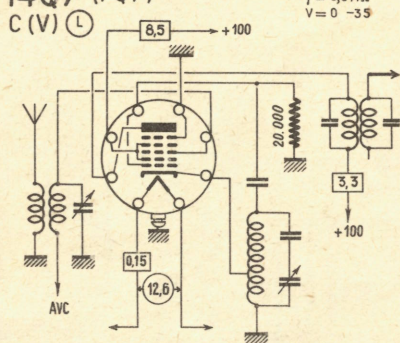
BF (L)



133

14Q7 (7Q7)

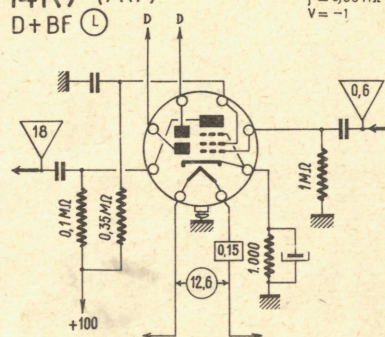
C (V) (L)



14X7

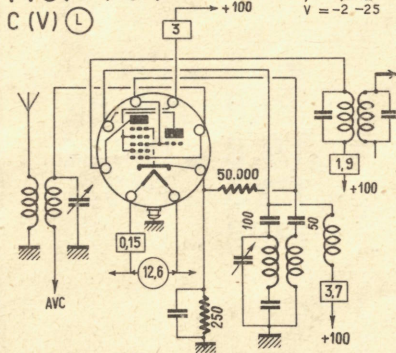
14R7 (7R7)

D+BF (L)



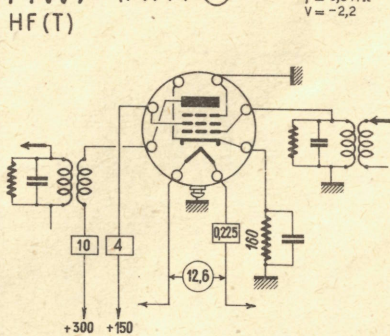
14S7 (7S7)

C (V) (L)



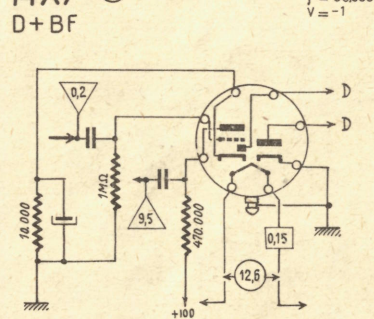
14W7 (7W7) (L)

HF (T)

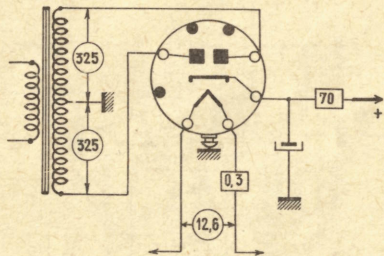


14X7 (L)

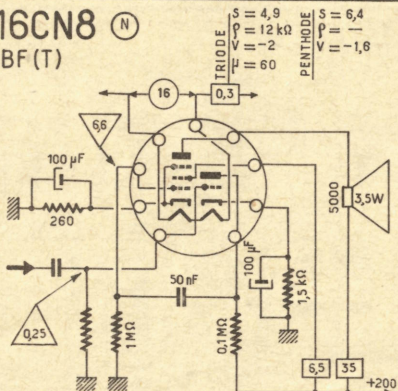
D+BF



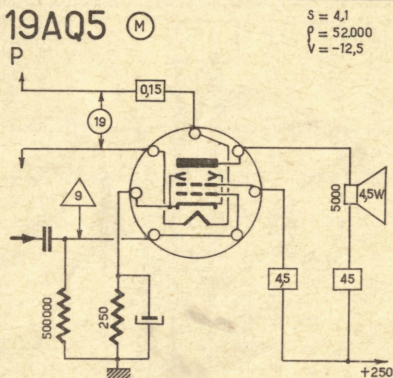
14Y4 (L)  
R



16CN8 (N)  
BF (T)

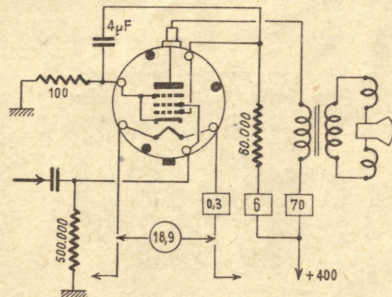


19A05 (M)  
P



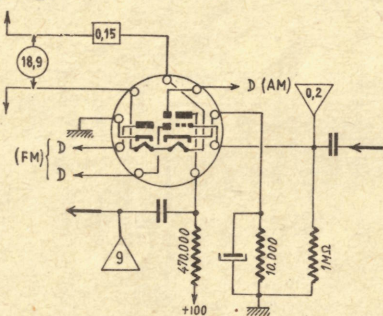
19BG6 (O)  
P(T)

S = 6  
V = -50(max)



19C8 (AM/FM) (N)  
D + BF

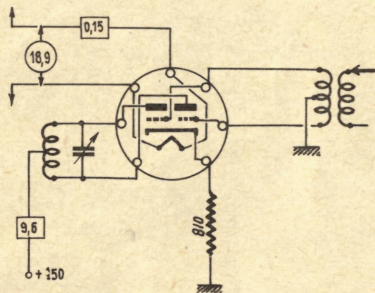
S = 1,25  
P = 80000  
V = -1



- 16A5 = PL82
- 16A8 = PCL82
- 17C8 = UBF80
- 17Z3 = PY81
- 19D8 = UCH81

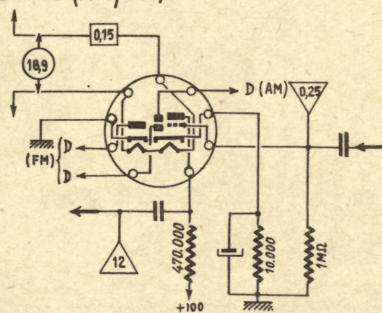
19J6 (M)  
HF (T)

$S = 1,9$   
 $P = 10,200$   
 $V = -8$



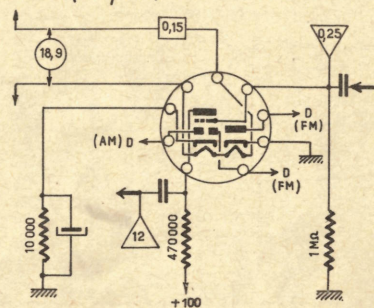
19T8 (N)  
BF + D (AM/FM)

$S = 1,3$   
 $P = 54,000$   
 $V = -1$

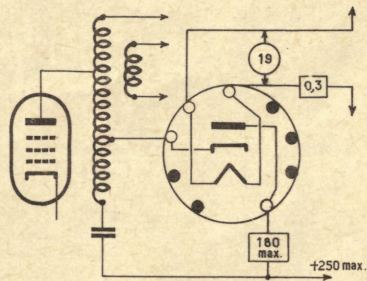


19V8 (N)  
BF + D (AM/FM)

$S = 1,3$   
 $P = 54,000$   
 $V = -1$

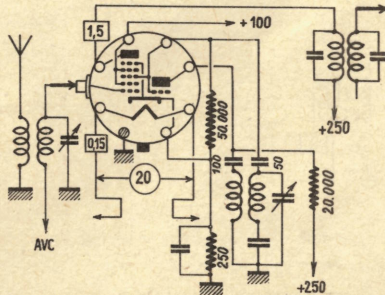


19X3 / PY80 (N)  
R (T)



20J8 (O)  
C (V)

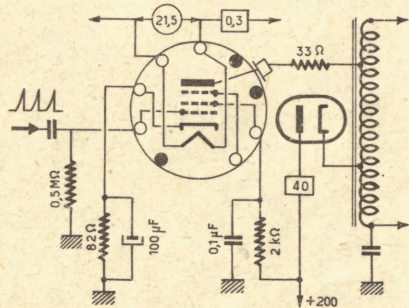
$S_c = 0,27$   
 $P = 2 M\Omega$   
 $V = -3 - 25$



- 19Y3 = PY82
- 21A6 = PL81
- 25E5 = PL36
- 19W3 } = PY80
- 19U3 }

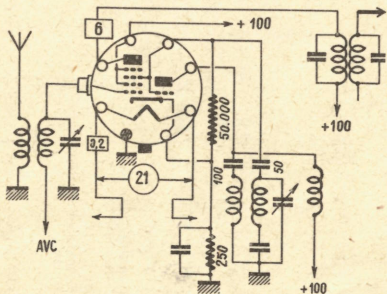
21B6 (N)  
P (T)

S = 6  
f = 11 MΩ  
V = -28



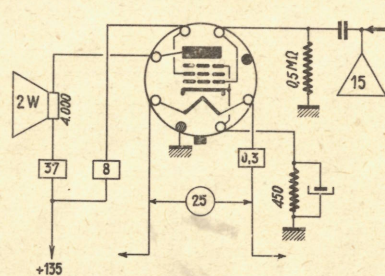
21TH8 (6TH8) (O)  
C (V)

S<sub>c</sub> = 0,27  
f = 2 MΩ  
V = -3 -28



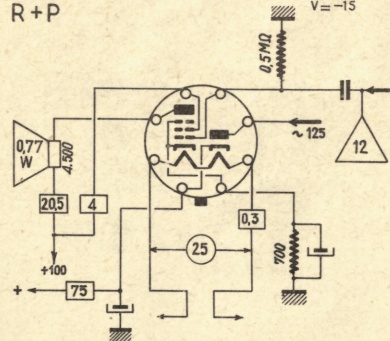
25A6 (O)  
P

S = 2,4  
P = 35,000  
V = -20



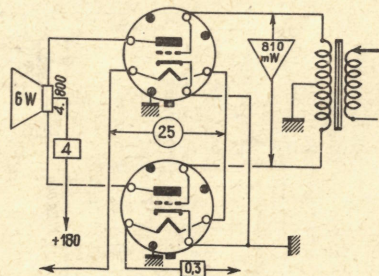
25A7 (O)  
R + P

S = 18  
f = 50,000  
V = -15



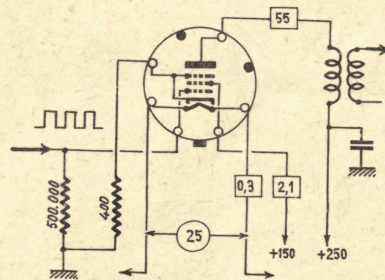
25AC5 (O)  
P (C.I. B)

S = 3,8  
f = 15,200 Ω



25AV5 (6AV5) (O)  
P (T)

S = 5,8  
V = -22,5

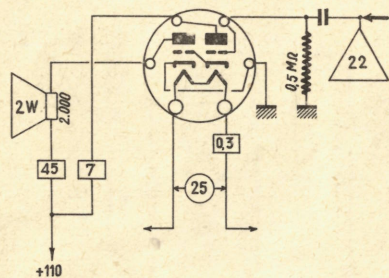




25B5 (US)

 $S = 2,2$   
 $P = 11,500$   
 $V = 0$ 

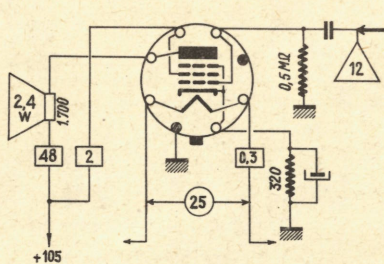
P



25B6 (0)

 $S = 4,8$   
 $P = 15,500$   
 $V = -16$ 

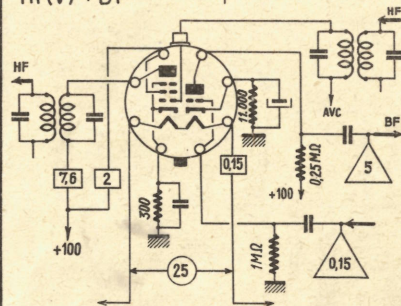
P



25B8 (0)

HF(V) + BF

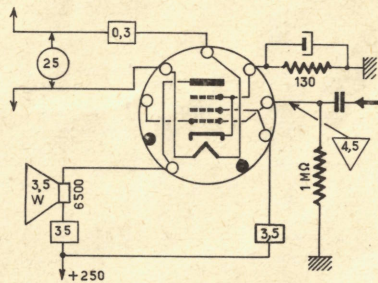
PENTHODE	$S =$	TRIODE	$S = 1,5$
$V =$	$0,185 \text{ M}\Omega$	$P =$	$75,000 \Omega$
		$V =$	$-1$



25BK5 (N)

 $S = 8,5$   
 $P = 100 \text{ k}\Omega$   
 $V = -5$ 

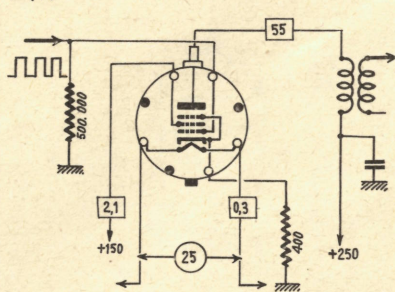
P



25BQ6 (6BQ6) (0)

 $S = 5,5$   
 $V = -22,5$ 

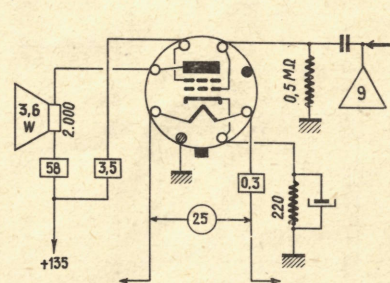
P (T)



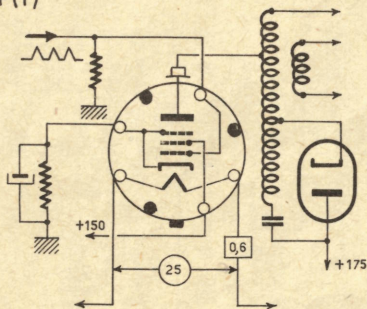
25C6 (0)

 $S = 7$   
 $P = 9,300$   
 $V = -13,5$ 

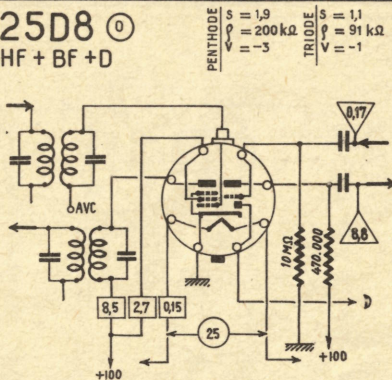
P



**25CD6** (T)



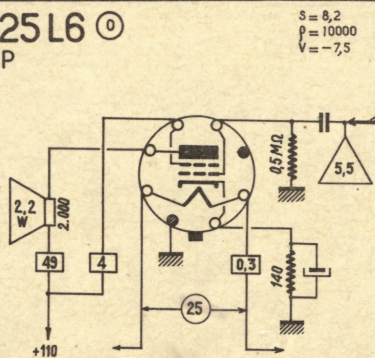
**25D8** (HF + BF + D)



PENTHODE  
 $s = 1,9$   
 $p = 200 \text{ k}\Omega$   
 $v = -3$

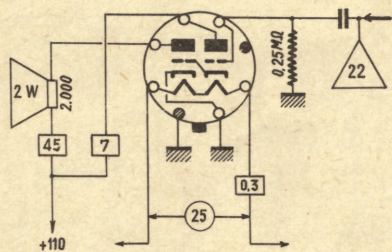
TRIPLODE  
 $s = 1,1$   
 $p = 91 \text{ k}\Omega$   
 $v = -1$

**25L6** (P)



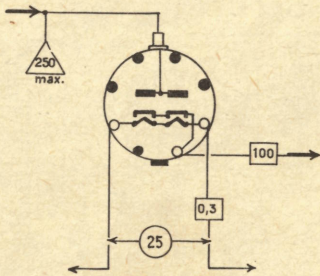
$s = 8,2$   
 $p = 10000$   
 $v = -7,5$

**25N6 (25B5)** (P)

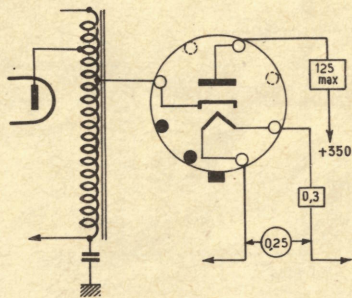


$s = 2,2$   
 $p = 11500$   
 $v = 0$

**25T3G** (R (T))



**25W4** (R (T))



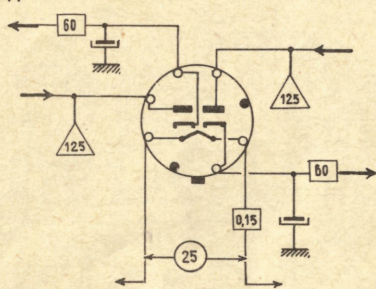
25X6

139

25Z5

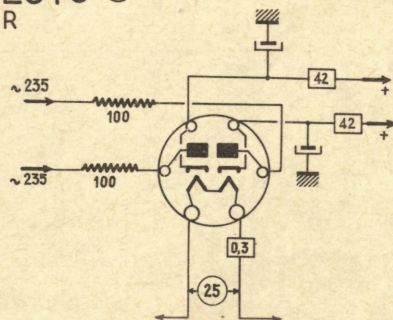
25X6 (O)

R



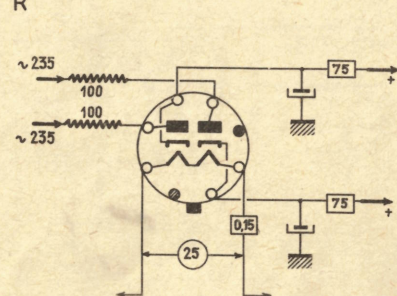
25Y5 (US)

R



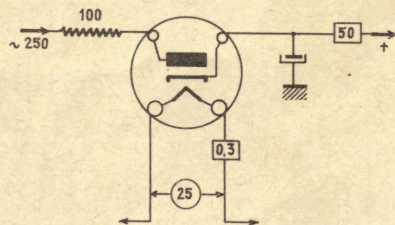
25Y6 (O)

R



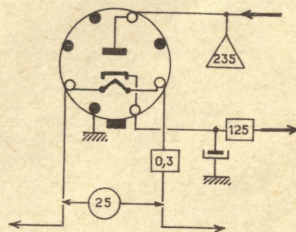
25Z3 (US)

R



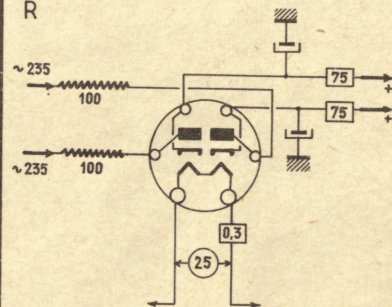
25Z4 (O)

R



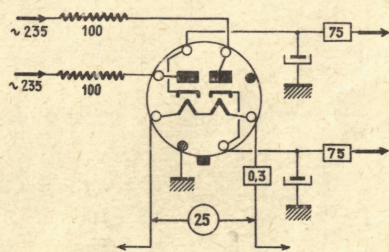
25Z5 (US)

R



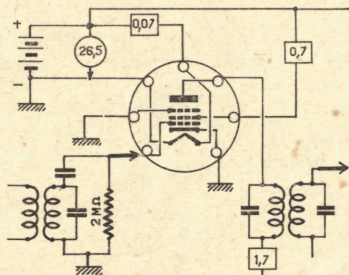
2576 (O)

R



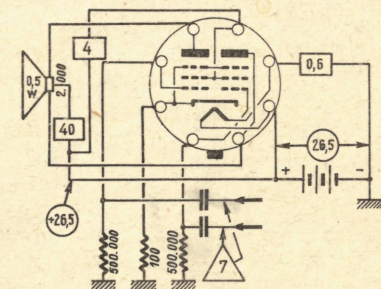
26A6 (M)

HF

 $S = 4$   
 $P = 1M\Omega$   
 $V = -2$ 


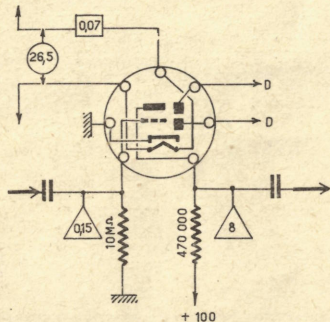
26A7 (28D7) (O)

P(Cl. A2)

 $S = 5$   
 $V = -4,5$ 


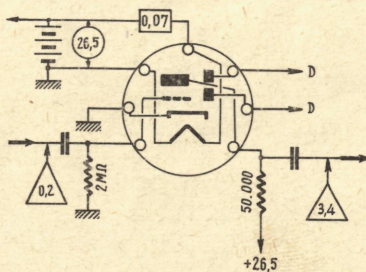
26BK6 (M)

BF + D

 $S = 1,25$   
 $P = 80,000$   
 $V = -1$ 


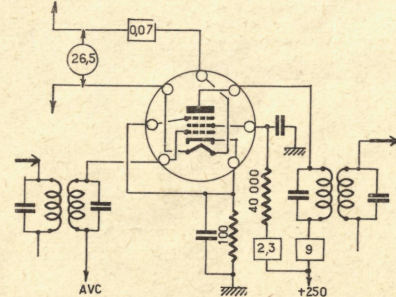
26C6 (M)

D + BF

 $S = 11$   
 $P = 15,500$   
 $V = 0$ 


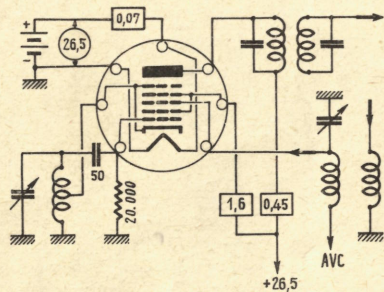
26CG6 (M)

HF (V)

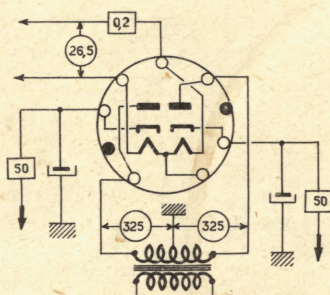
 $S = 2$   
 $P = 720,000$   
 $V = -1 - 8$ 


26D6 (M)  
C (V)

$S_c = 0,27$   
 $\rho = 1 \text{ M}\Omega$   
 $V = 0-30$

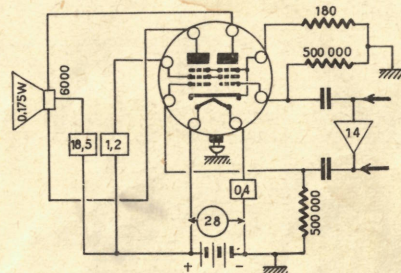


26Z5 (N)  
R

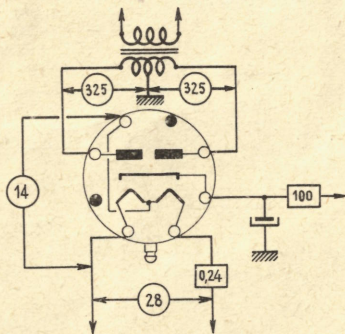


28D7 (L)  
P (CI.AB)

$S = 3,4$   
 $\rho = 4,200$   
 $V = -3,5$

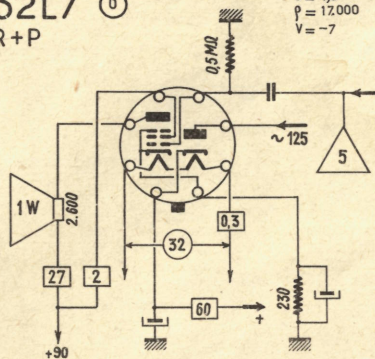


28Z5 (L)  
R



32L7 (O)  
R+P

$S = 4,8$   
 $\rho = 17,000$   
 $V = -7$

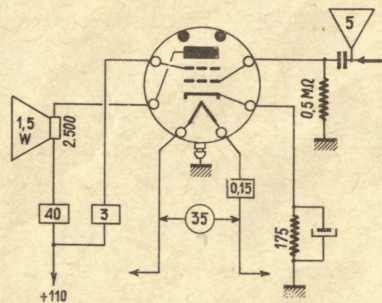


31A3 = UY41  
35W4 = HY90  
38A3 = UY85  
45B5 = UL84  
50C5 = HL92  
30A5 = HL94

35A5 (35L6) (L)

 $s = 5,8$   
 $f = 14,000$   
 $V = -7,5$ 

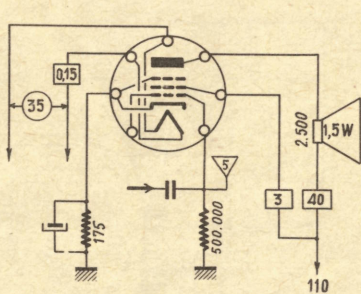
P



35B5 (M)

 $s = 5,8$   
 $f = 15,000$   
 $V = -7,5$ 

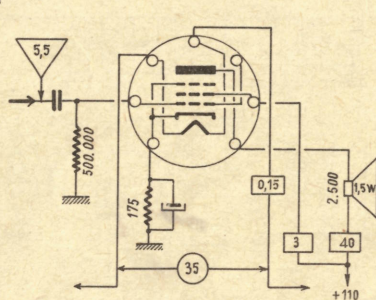
P



35C5 (M)

 $s = 5,8$   
 $f = 14,000$   
 $V = -7,5$ 

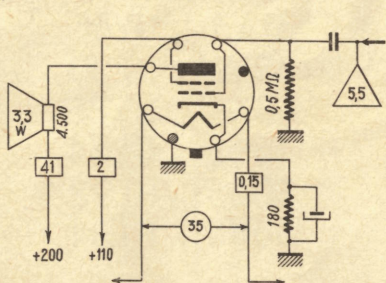
P



35L6 (35A5) (O)

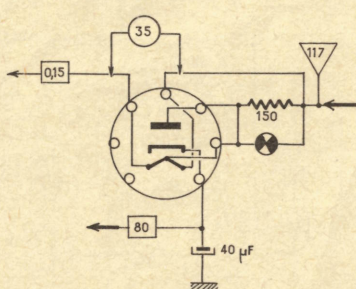
 $s = 5,8$   
 $f = 14,000$   
 $V = -7,5$ 

P



35W4 (M)

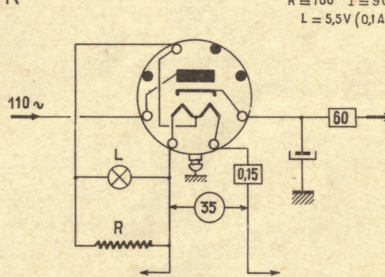
R



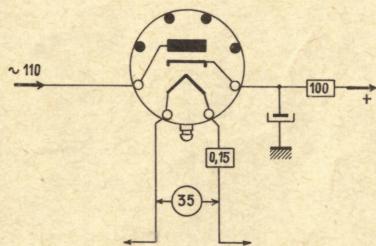
35Y4 (35Z5) (L)

 $I = 60$   
 $R = 300 \quad I = 70$   
 $R = 150 \quad I = 80$   
 $R = 100 \quad I = 90$   
 $L = 5,5V (0,1A)$ 

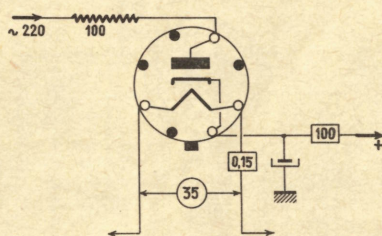
R



**35Z3** (35Z4) (L)  
R

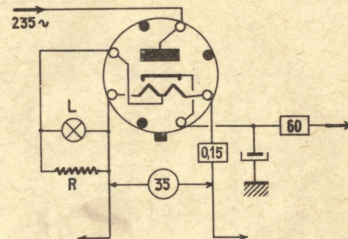


**35Z4** (35Z3) (O)  
R

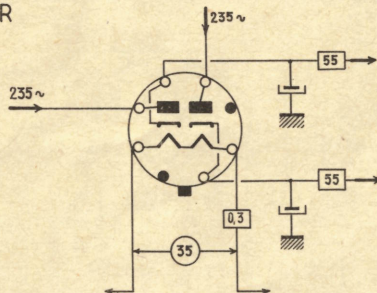


**35Z5** (35Y4) (O)  
R

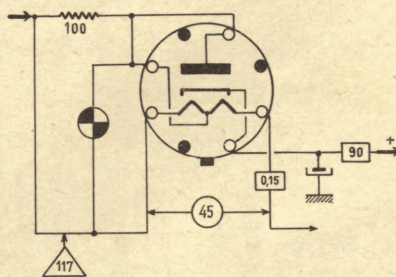
I = 60  
R = 300 I = 70  
R = 150 I = 80  
R = 100 I = 90  
L = 5,5V (0,1A)



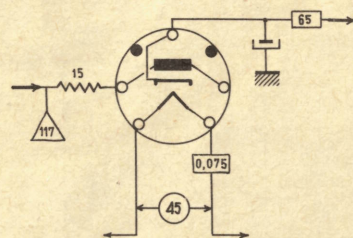
**35Z6** (O)  
R



**40Z5** (O)  
R



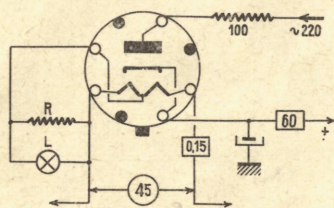
**45Z3** (M)  
R



45Z5 (35Z5) (O)

R

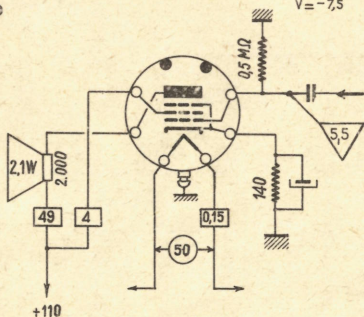
$R = 300$     $I = 60$   
 $R = 150$     $I = 70$   
 $R = 100$     $I = 80$   
 $L = 5,5V$  (0,1A)



50A5 (L)

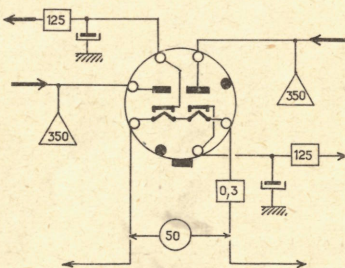
P

$S = 8,2$   
 $P = 10,000$   
 $V = -7,5$



50AX6 (O)

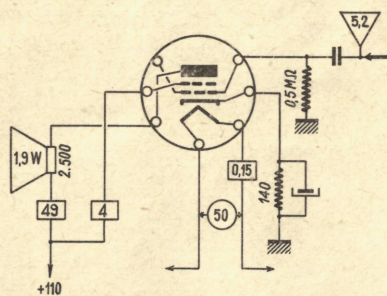
R



50B5 (M)

P

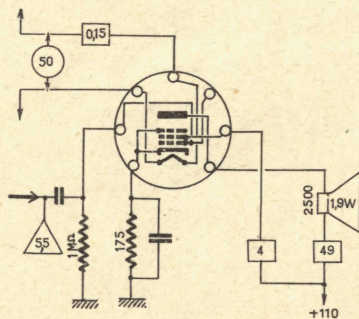
$S = 7,5$   
 $P = 14,000$   
 $V = -7,5$



50C5 (M)

P

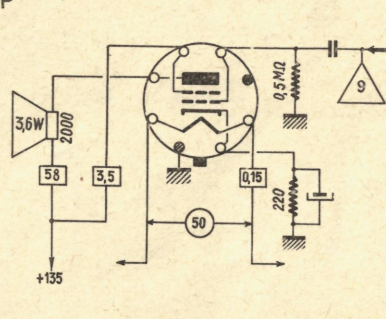
$S = 7,5$   
 $P = 10,000$   
 $V = -7,5$



50C6 (6Y6) (O)

P

$S = 7$   
 $P = 9,300$   
 $V = -13,5$

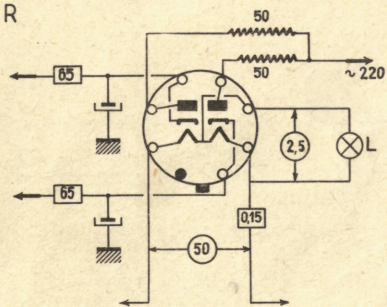






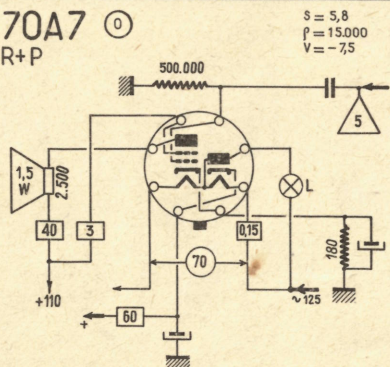
50Z7

R



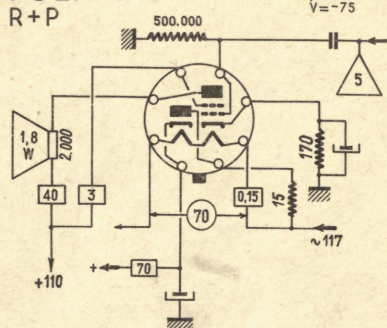
70A7

R+P


 $S = 5,8$   
 $P = 15.000$   
 $V = -7,5$ 

70L7

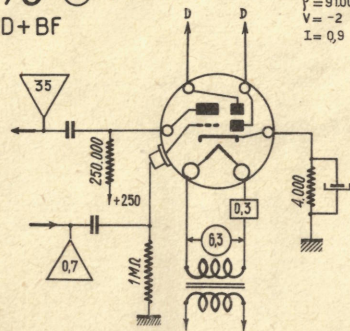
R+P


 $S = 7,5$   
 $P = 15.000$   
 $V = -7,5$ 

75

(US)

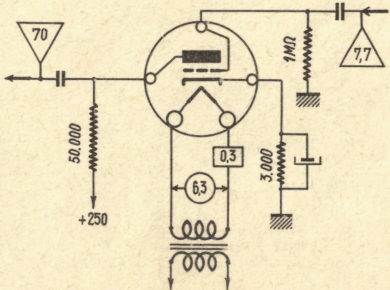
D+BF

 $S = 1,1$   
 $P = 91000$   
 $V = -2$   
 $I = 0,9$ 


76 (56)

(US)

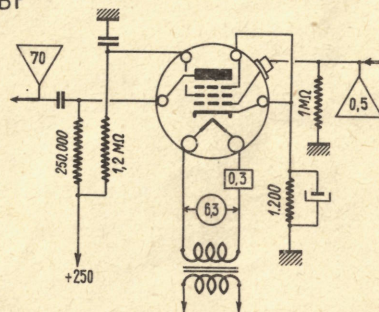
BF

 $S = 1,4$   
 $P = 9.500$   
 $V = -13,5$   
 $I = 1,3$ 


77 (6J7)

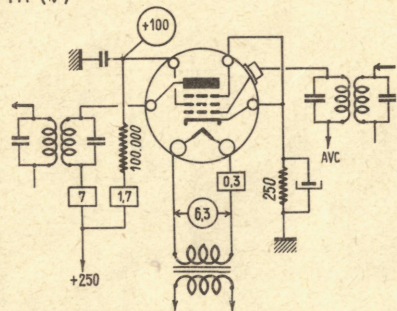
(US)

BF

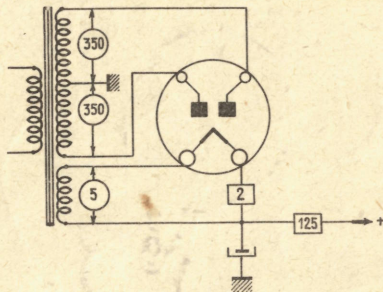
 $S = 1,2$   
 $P = 1M\Omega$   
 $V = -3$ 


78 (6K7) (US)  
HF (V)

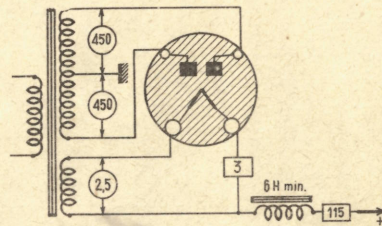
$S = 1,45$   
 $\rho = 0,8 \text{ M}\Omega$   
 $V = -3 - 52,5$



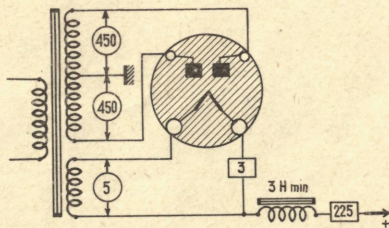
80 (5Y3) (US)  
R



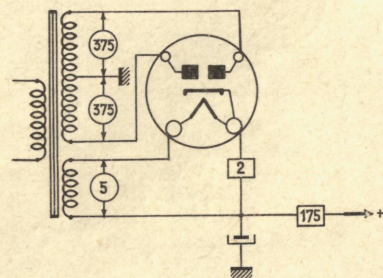
82 (US)  
R



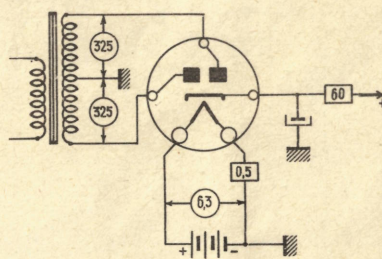
83 (US)  
R



83 (5V4) (US)  
R

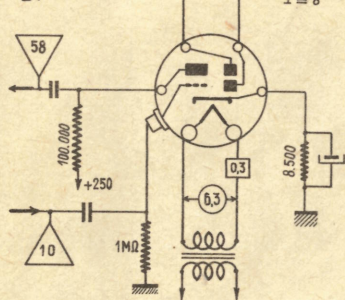


84 (6Z4) (US)  
R



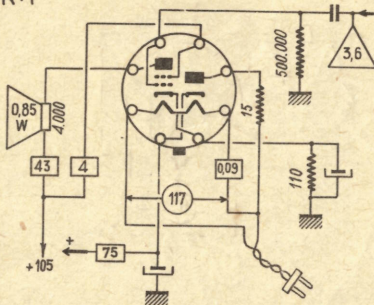
85 (6V7) (U)

D+BF

 $S = 1,1$   
 $P = 7.500$   
 $V = -20$   
 $I = 8$ 


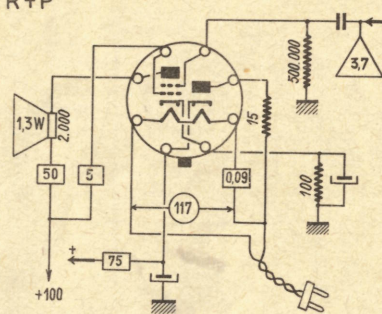
117L7 (117P7) (O)

R+P

 $S = 5,3$   
 $P = 17.000$   
 $V = -5,2$ 


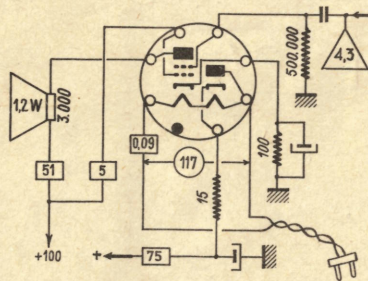
117M7 (O)

R+P

 $S = 7$   
 $P = 15.000$   
 $V = -5,5$ 


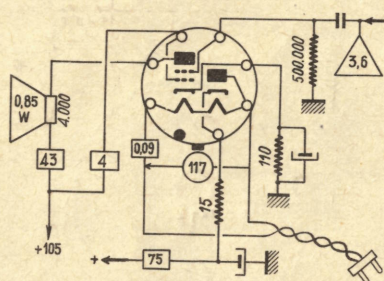
117N7 (O)

R+P

 $S = 7$   
 $P = 16.000$   
 $V = -6$ 


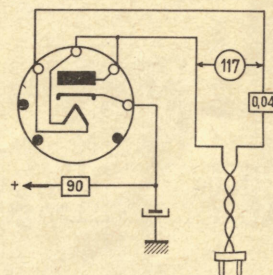
117P7 (117L7) (O)

R+P

 $S = 5,3$   
 $P = 12.000$   
 $V = -5,2$ 


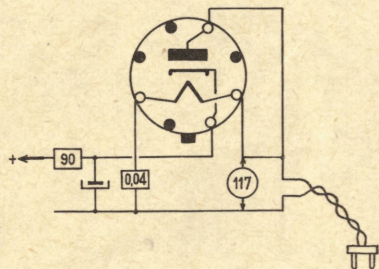
177Z3 (M)

R



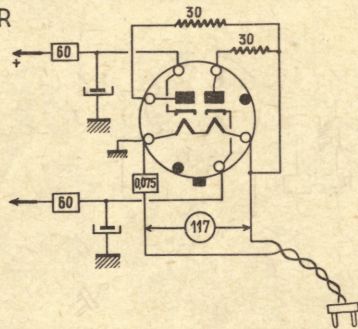
117Z4 (O)

R



117Z6 (O)

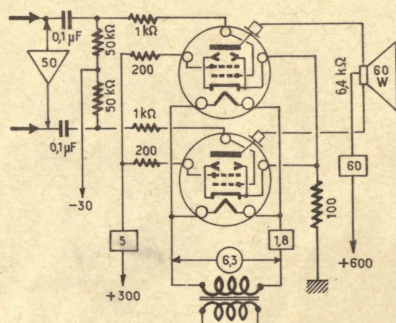
R



807 (US)

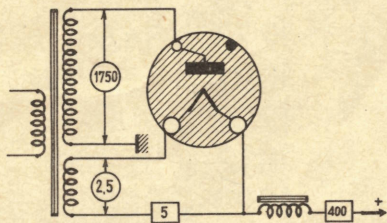
P (CI. AB2)

S = 6  
 P = 2,5 kΩ  
 V = -14



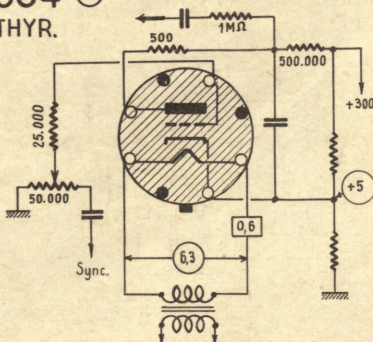
866 (US)

R



884 (O)

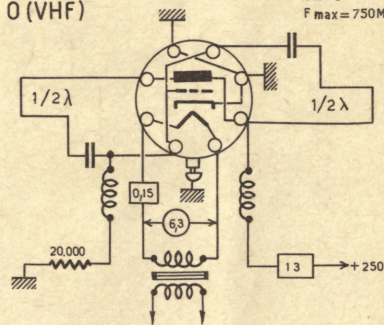
THYR.



1201 (7E5) (L)

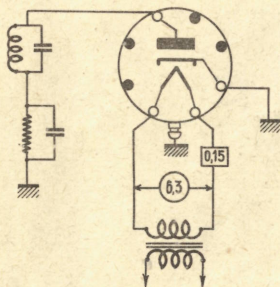
O (VHF)

S = 3  
 P = 0,12 MΩ  
 V = -3  
 F max = 750 MHz



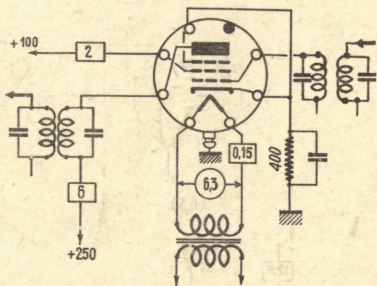
1203 (7C4) (L)

D



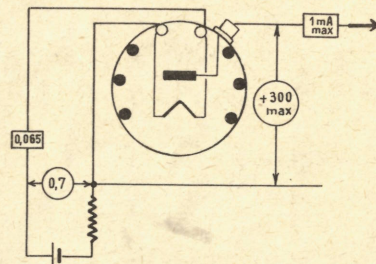
1232 (7G7) (L)

HF (T)

 $S = 4,5$   
 $P = 800,000$   
 $V = -2$ 


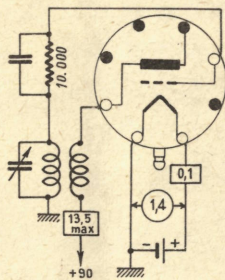
1247 (5M)

M



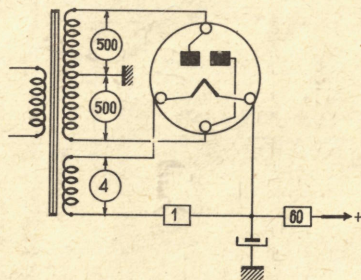
1293 (L)

0 (VHF)

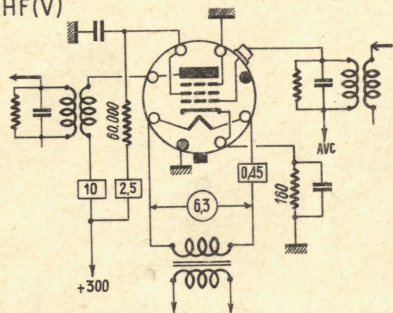
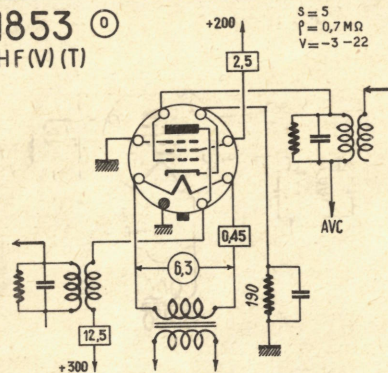
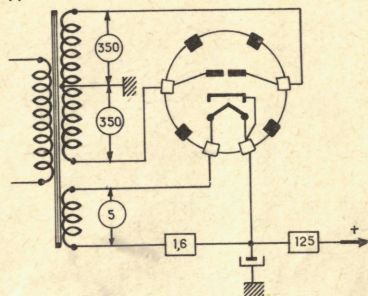
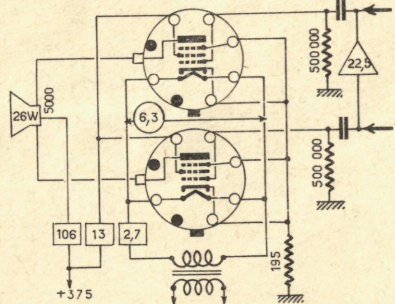
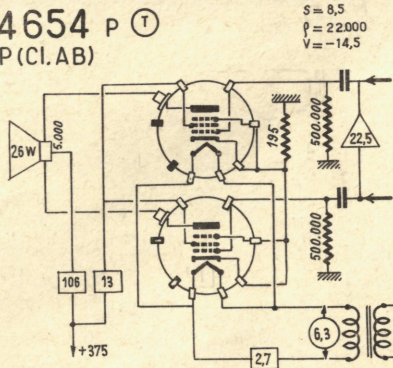
 $S = 1,5$   
 $V = 0$ 


1805 (E)

R

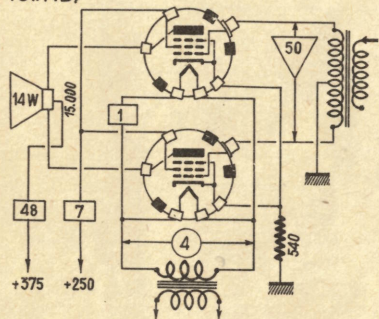


1275 = 5Z3  
 1276 = 6A3  
 1291 = 3B7  
 1299 = 3D6  
 1612 = 6L7  
 1629 = 6E5

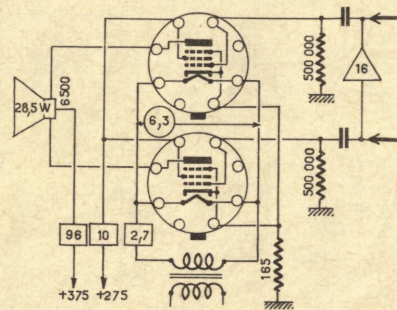
1851 (O)  
HF(V)1853 (O)  
HF(V) (T)1883 (T)  
R4654 K (O)  
P(Cl.AB)4654 P (T)  
P(Cl.AB)

1852 = 6AC7  
 4683 = AD1  
 4699 = EL6

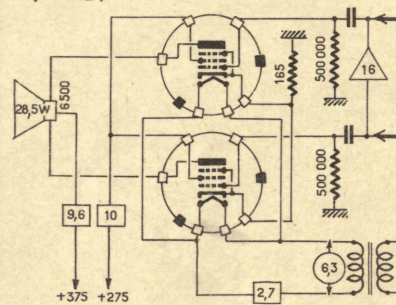
4682/AL2 (T)  
P (Cl. AB)



4689 K (O)  
P (Cl. AB)

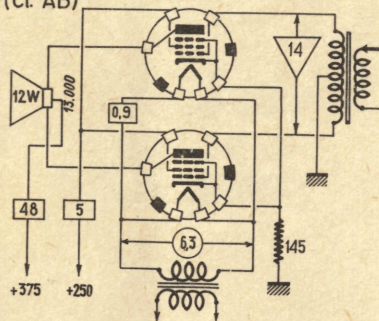


4689 P (T)  
P (Cl. AB)



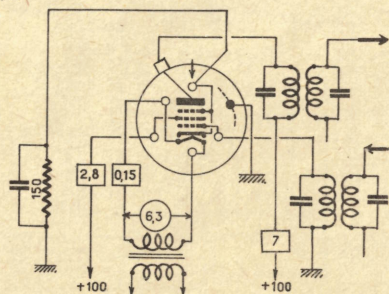
4694 (T)  
P (Cl. AB)

$s = 8$   
 $p = 7.000$   
 $v = -7,5$

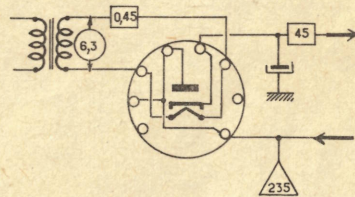


5633 (SM)  
HF

$s = 3,4$   
 $p = 200.000$   
 $v = -1,5$

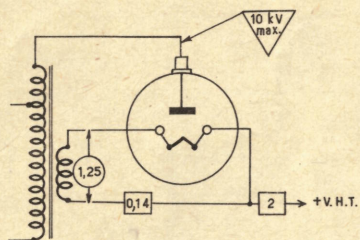


5641 (SM)  
R

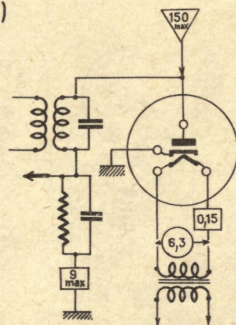




5642 (SM)  
R (THT)

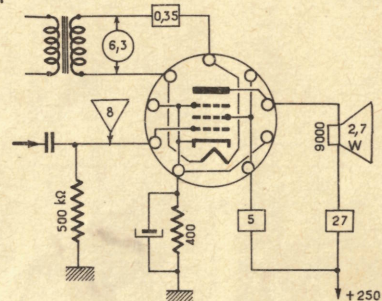


5647 (SM)  
D (VHF)



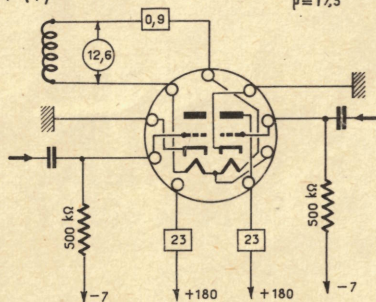
5686 (N)  
P

$S = 3,1$   
 $V = -12,5$



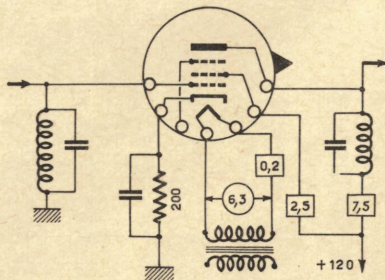
5687 (N)  
VF (T)

$S = 6,4$   
 $P = 2,7 \text{ k}\Omega$   
 $V = -7$   
 $\mu = 17,5$

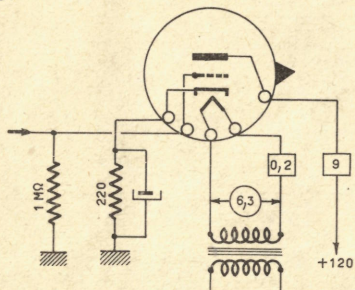
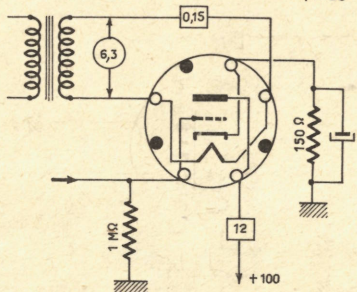
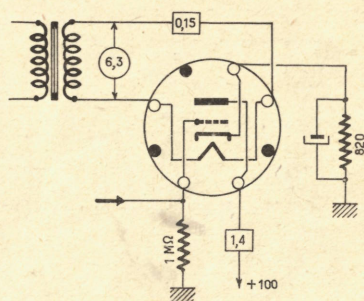
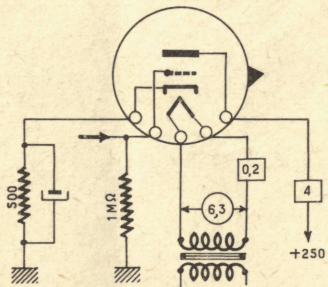
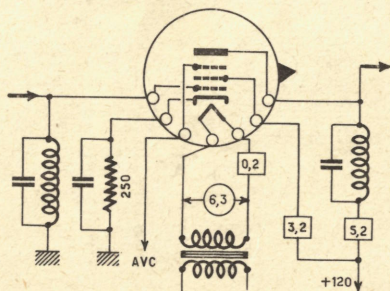


5702 (SM)  
HF (T)

$S = 5$   
 $P = 340 \text{ k}\Omega$   
 $V = -2$



5654 = 6AK5  
5670 = 2C51  
5725 = 6AS6  
5726 = 6AL5  
5727 = 2D21  
5732 = 6K7

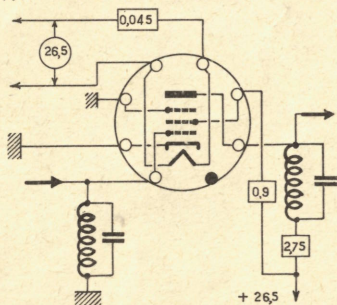
5703 (SM)  
BFS = 5  
 $\mu = 25$ 5718 (SM)  
BFS = 5,5  
 $\mu = 3.650$   
V = -2  
 $\mu = 20$ 5719 (SM)  
BFS = 2,7  
 $\mu = 26k\Omega$   
 $\mu = 70$ 5744 (SM)  
BFS = 4  
 $\mu = 70$ 5784 (SM)  
HF (V)S = 3,2  
V<sub>g1</sub> = -2  
V<sub>g3</sub> = 0 -10

5749 = 6BA6  
 5750 = 6BE6  
 5751 = 12AX7  
 5814 = 12AU7

5797

SM

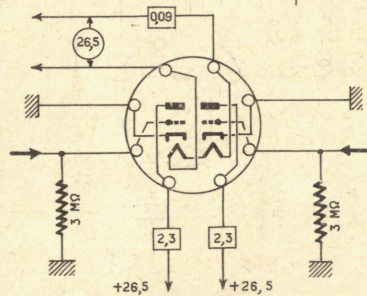
HF (T)

 $S = 3,45$   
 $\rho = 70 \text{ k}\Omega$   
 $V = 0$ 


5798

SM

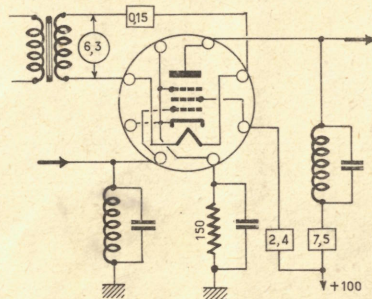
BF

 $S = 3,15$   
 $\rho = 6,7 \text{ k}\Omega$   
 $V = 0$   
 $\mu = 21$ 


5840

SM

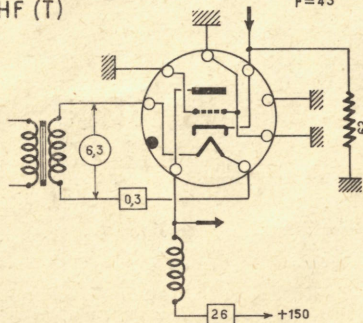
HF (T)

 $S = 5$   
 $\rho = 230 \text{ k}\Omega$ 


5842

N

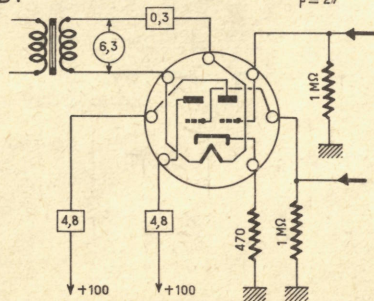
HF (T)

 $S = 24$   
 $\rho = 1,8 \text{ k}\Omega$   
 $\mu = 43$ 


5844

M

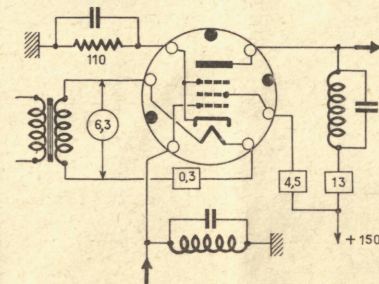
BF

 $S = 3,4$   
 $\rho = 7,950$   
 $V = -4,5$   
 $\mu = 27$ 


5847

N

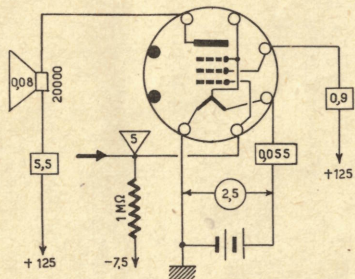
HF (T)

 $S = 12,5$ 


5851

5851 (SM)

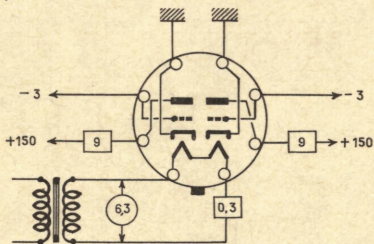
P

 $S = 1,6$   
 $\rho = 17,5 \text{ k}\Omega$   
 $V = -7,5$ 


156

5873 (SM)

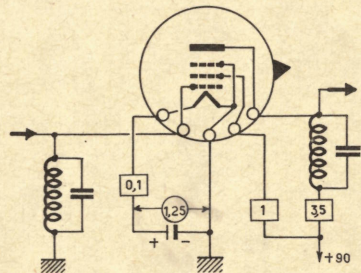
BF

 $S = 2,9$   
 $V = -3$   
 $\rho = 22$ 


5899

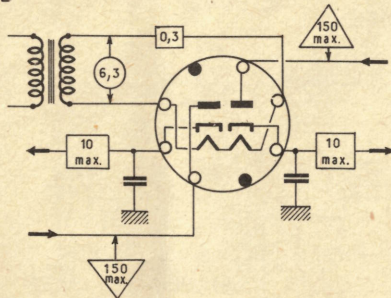
5875 (SM)

HF

 $S = 2,5$   
 $V = 0$ 


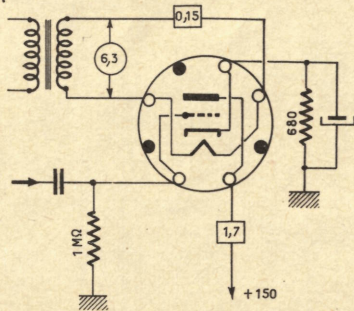
5896 (6H6) (SM)

D



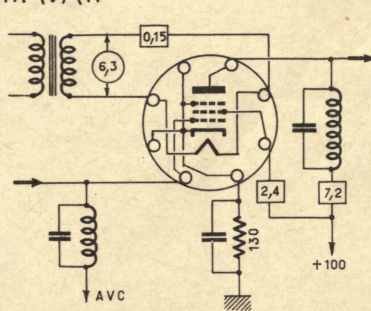
5898 (SM)

BF

 $S = 2,7$   
 $\rho = 70$ 


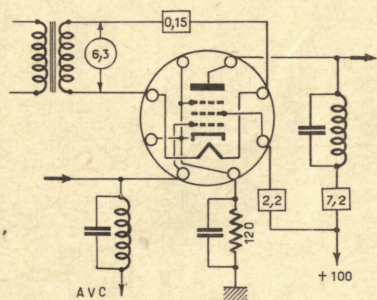
5899 (SM)

HF (V) (T)

 $S = 4,5$   
 $\rho = 260 \text{ k}\Omega$   
 $V = -1,5 - 20$ 


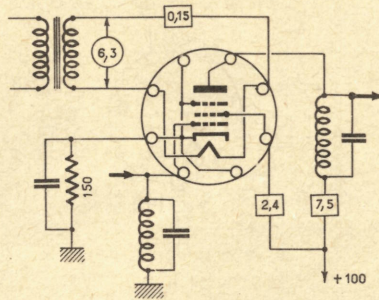
**5900** (SM)  
HF(V) (T)

$S = 4,5$   
 $\rho = 260 \text{ k}\Omega$   
 $V = -1,5 - 10$



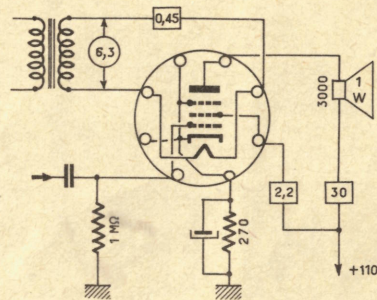
**5901** (SM)  
HF (T)

$S = 5$   
 $\rho = 230 \text{ k}\Omega$   
 $V = -1,5$

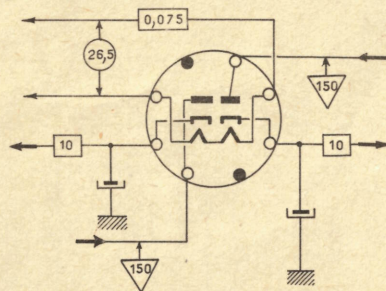


**5902** (SM)  
P

$S = 4,2$   
 $\rho = 15 \text{ k}\Omega$   
 $V = -12,5$

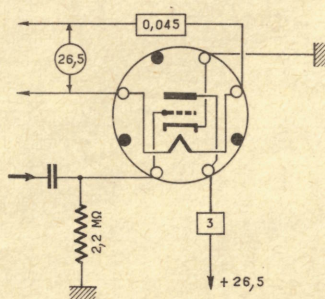


**5903** (SM)  
R



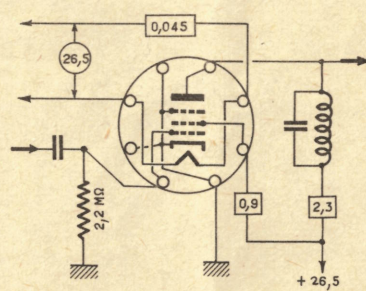
**5904** (SM)  
BF

$S = 5$   
 $V = 0$   
 $\mu = 19$



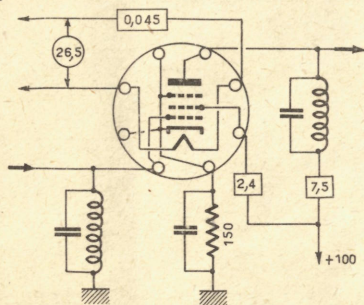
**5905** (SM)  
HF

$S = 2,85$   
 $\rho = 110 \text{ k}\Omega$   
 $V = 0$



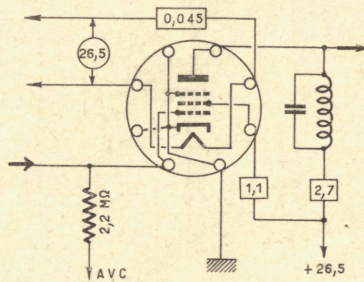
5906 (SM)

HF

 $S = 5$   
 $P = 230 \text{ k}\Omega$   
 $V = -1,5$ 


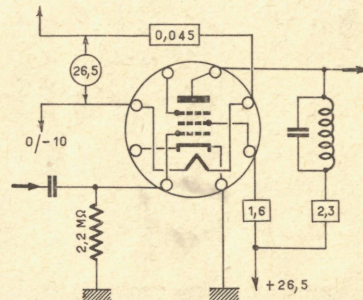
5907 (SM)

HF (V)

 $S = 3$   
 $P = 125 \text{ k}\Omega$   
 $V = 0 -10$ 


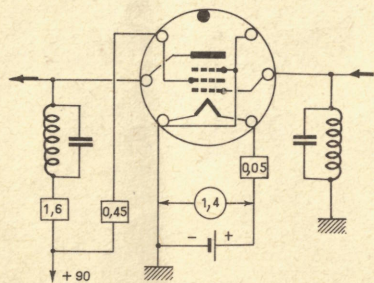
5908 (SM)

HF (V)

 $S = 1,75$   
 $P = 30 \text{ k}\Omega$   
 $V = 0$ 


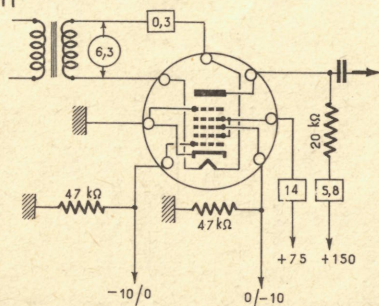
5910 (M)

HF

 $S = 0,9$   
 $P = 1,5 \text{ k}\Omega$   
 $V = 0$ 


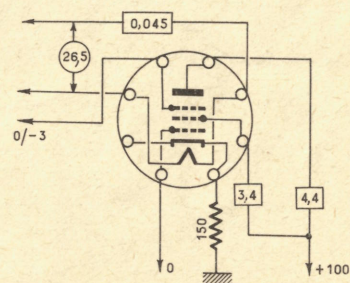
5915 (M)

HF

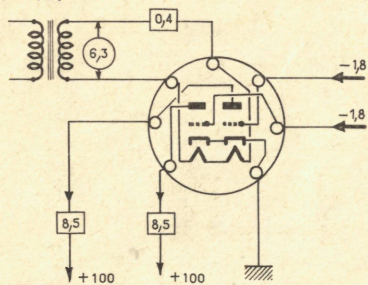


5916 (SM)

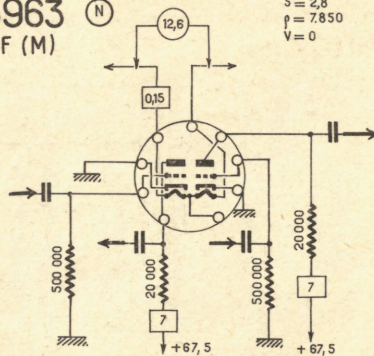
HF

 $S = 3$   
 $P = 130 \text{ k}\Omega$ 


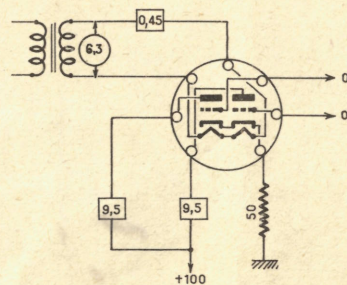
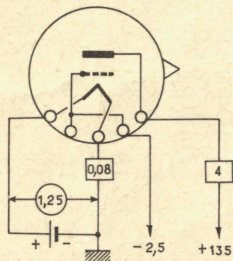
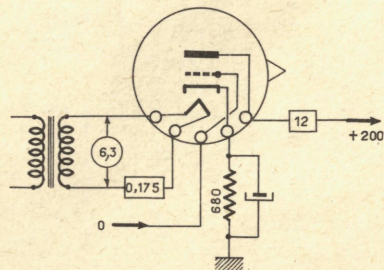
5920

5920 (M)  
VF (T)
 $S = 5,5$   
 $V = -1,8$   
 $\mu = 25$ 


159

5963 (N)  
BF (M)
 $S = 2,8$   
 $\rho = 7850$   
 $V = 0$ 


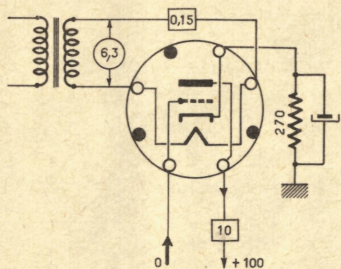
5961

5964 (M)  
HF/ BF
 $S = 6$   
 $\rho = 6.500$ 
5971 (SM)  
BF
 $S = 2,15$   
 $V = -2,5$   
 $\mu = 23$ 
5975 (SM)  
BF (T)
 $S = 4$   
 $\rho = 4 \text{ k}\Omega$   
 $\mu = 16$ 


5930 = 2A3  
 5931 = 5U4  
 5932 = 6L6  
 5961 = 6SA7

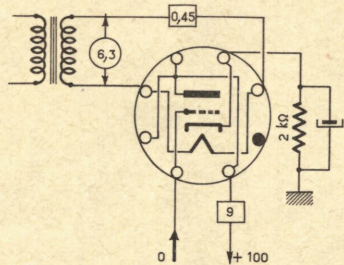
5977 (SM)  
BF (T)

$S = 4,5$   
 $\mu = 16$

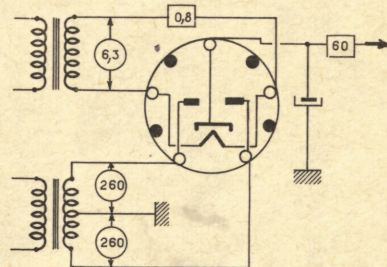


5987 (SM)  
BF

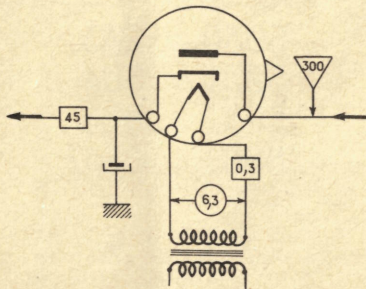
$S = 1,8$   
 $V = -18$   
 $\mu = 4,1$



5993 (N)  
R

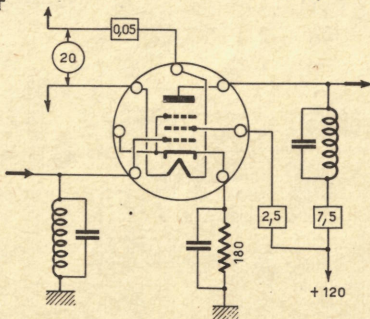


5995 (SM)  
R



6028 (M)  
HF

$S = 5$   
 $\mu = 300 \text{ k}\Omega$   
 $V = -18$

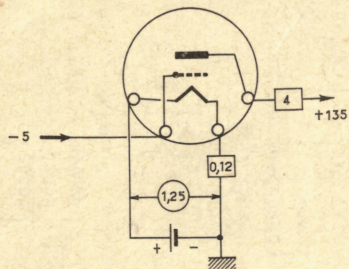


6005 = 6AQ5  
6057 = 12AX7  
6058 = 6AL6  
6060 = 12AT7  
6063 = 6X4



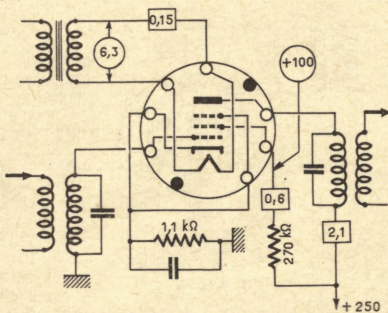
6050 (SM)  
HF

S = 1,6  
V = -5  
μ = 16



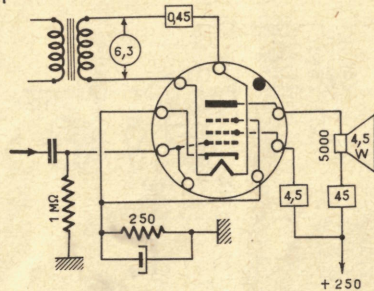
6059 (N)  
HF

S = 1,25  
P = 2,5 MΩ  
V = -3



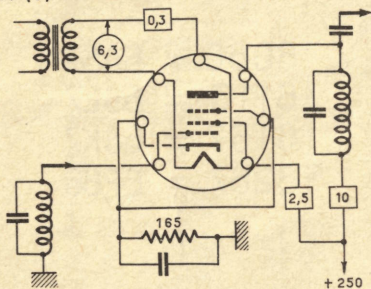
6061 (N)  
P

S = 4,1  
P = 52 kΩ  
V = -12,5



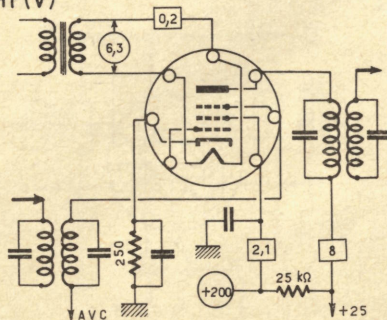
6064 (M)  
HF(T)

S = 7,5  
P = 1 MΩ  
V = -2



6065 (M)  
HF(V)

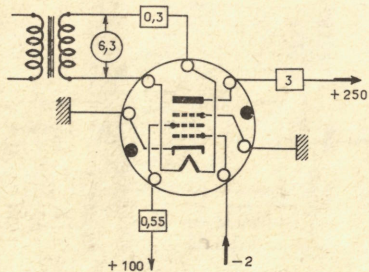
S = 2,5  
P = 1 MΩ  
V = -2,5 -3,5



6066 = 6AT6  
6067 = 12AU7  
6072 = 12AY7  
6080 = 6AS7

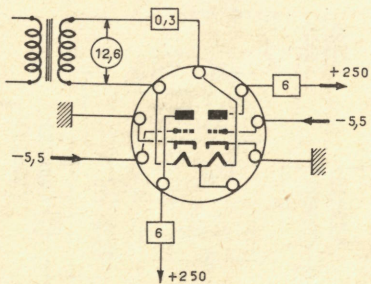
6084 (N)  
BF

$S = 1,85$   
 $\rho = 1,8 M\Omega$   
 $V = -2$



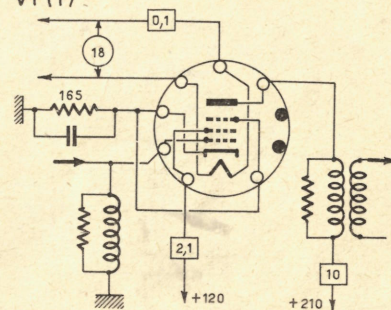
6085 (N)  
BF

$S = 2,7$   
 $V = -5,5$   
 $\mu = 30$



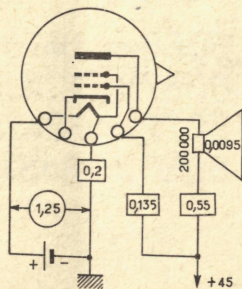
6086 (N)  
VF(T)

$S = 9$   
 $\rho = 500 k\Omega$   
 $V = -1,5$



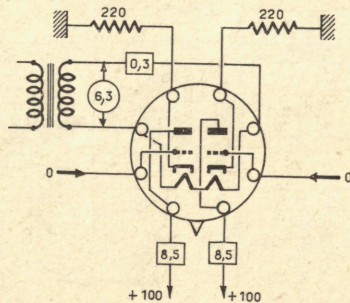
6088 (SM)  
P

$S = 0,55$   
 $\rho = 850 k\Omega$   
 $V = -1,25$

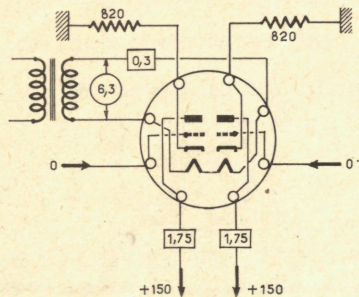
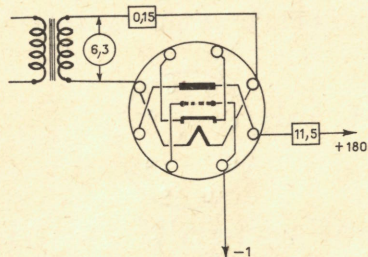
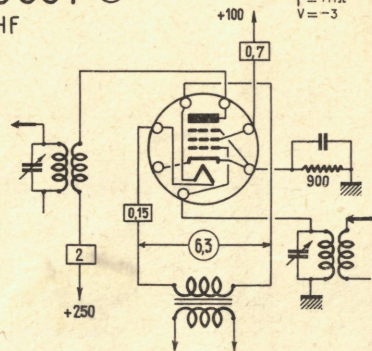
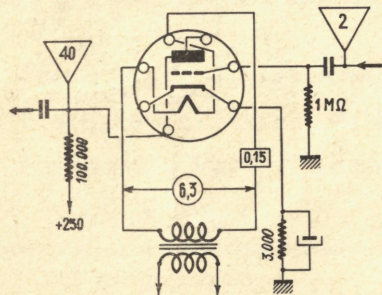
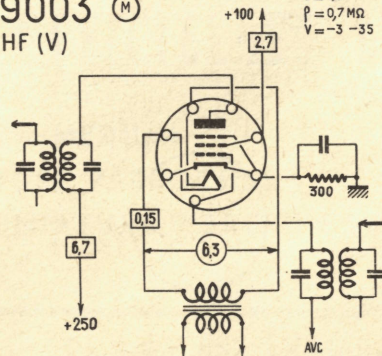
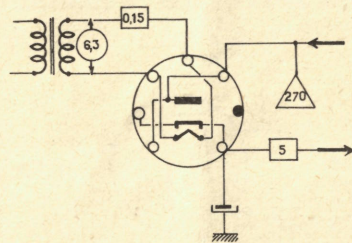


6111 (SM)  
BF

$S = 5$   
 $V = -1,9$   
 $\mu = 20$



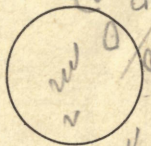
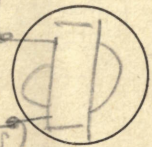
6080 = 6AS7  
6113 = 6SL7  
6137 = 6SK7  
6267 = EF86

6112 (SM)  
BF
 $S = 2,5$   
 $P = 40 \text{ k}\Omega$   
 $V = 1,25$   
 $\mu = 70$ 
6169 (SM)  
VHF
 $S = 6,5$   
 $P = 8,5 \text{ k}\Omega$   
 $V = -1$   
 $\mu = 55$ 
9001 (M)  
HF
 $S = 1,4$   
 $P = 1 \text{ M}\Omega$   
 $V = -3$ 
9002 (M)  
BF
 $S = 2,2$   
 $P = 11,4 \text{ M}\Omega$   
 $V = -7$ 
9003 (M)  
HF (V)
 $S = 1,8$   
 $P = 0,7 \text{ M}\Omega$   
 $V = -3 -35$ 
9006 (M)  
D

e



l'annee 1920



Handwritten notes in the bottom-right cell, including a diagonal line and several rows of small 'w' characters and numbers.

Handwritten notes in the bottom-left cell, including a circle with a horizontal line and some illegible text.

Pour connaître avec certitude

- Les capacités interélectrodes
- Les caractéristiques pour les différents régimes d'utilisation
- Les caractéristiques limites

*des tubes les plus courants*

Pour calculer vos montages d'après les courbes de ces tubes

## CARACTERISTIQUES OFFICIELLES DES LAMPES RADIO

- Fascicule 3 : Tubes RIMLOCK-MEDIUM
- Fascicule 4 : Tubes MINIATURE 7 BROCHES
- Fascicules 6, 7 et 8 : Tubes MINIATURE 9 BROCHES (NOVAL)

Prix de chaque fascicule :  
300 francs — Par poste : 360 francs

**Société des Éditions Radio**

9, RUE JACOB, PARIS-6°  
C. C. P. : PARIS 1164-34

DÉPOT LÉGAL 1<sup>er</sup> TR. 1959 : N° ÉDITEUR 255

# Miniwatt



**TOUS LES TUBES DE RADIO**

SÉRIES "NOVAL" ET "RIMLOCK"

SÉRIE EUROPÉENNE

TUBES - IMAGES POUR TÉLÉVISION : RECTANGULAIRES - GRAND ÉCRAN - SPOT FIN

**TUBES ÉLECTRONIQUES SPÉCIAUX POUR TOUTES APPLICATIONS**

MESURES - TÉLÉCOMMUNICATIONS - INDUSTRIE - PHYSIQUE NUCLÉAIRE - ETC...

SÉRIE AMÉRICAINE

## **SEMI-CONDUCTEURS**

TRANSISTORS A JONCTIONS - DIODES AU GERMANIUM ET AU SILICIUM

### **S. A. LA RADIOTECHNIQUE**

DIVISION TUBES ÉLECTRONIQUES ET SEMI-CONDUCTEURS

DÉPARTEMENT CONSTRUCTEURS

130, Av. Ledru-Rollin - PARIS XI<sup>e</sup>

DÉPARTEMENT COMMERCE RADIO

47, Rue de Monceau - PARIS VIII<sup>e</sup>