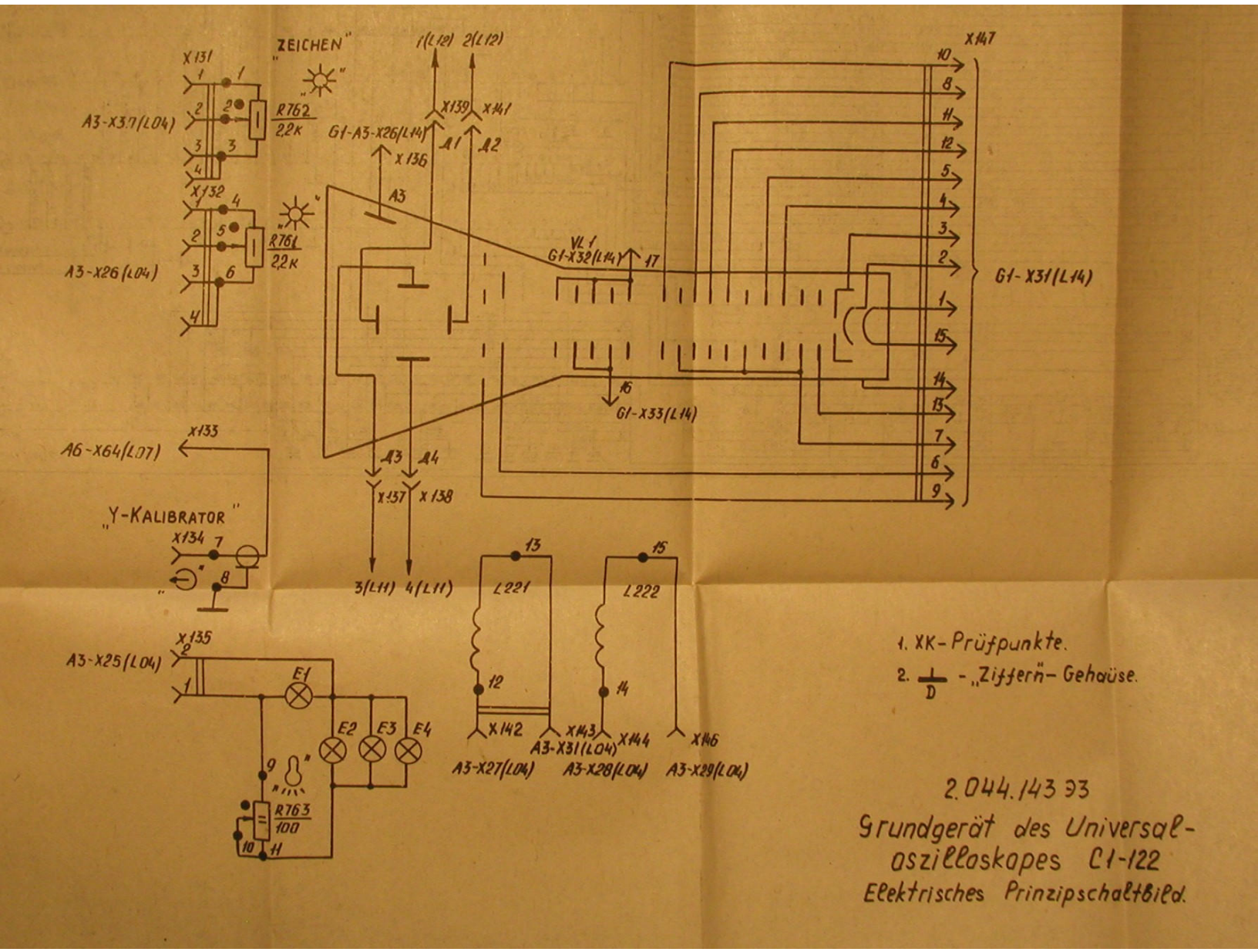
C1-122

Grundgerät des Universaloszilloskopes

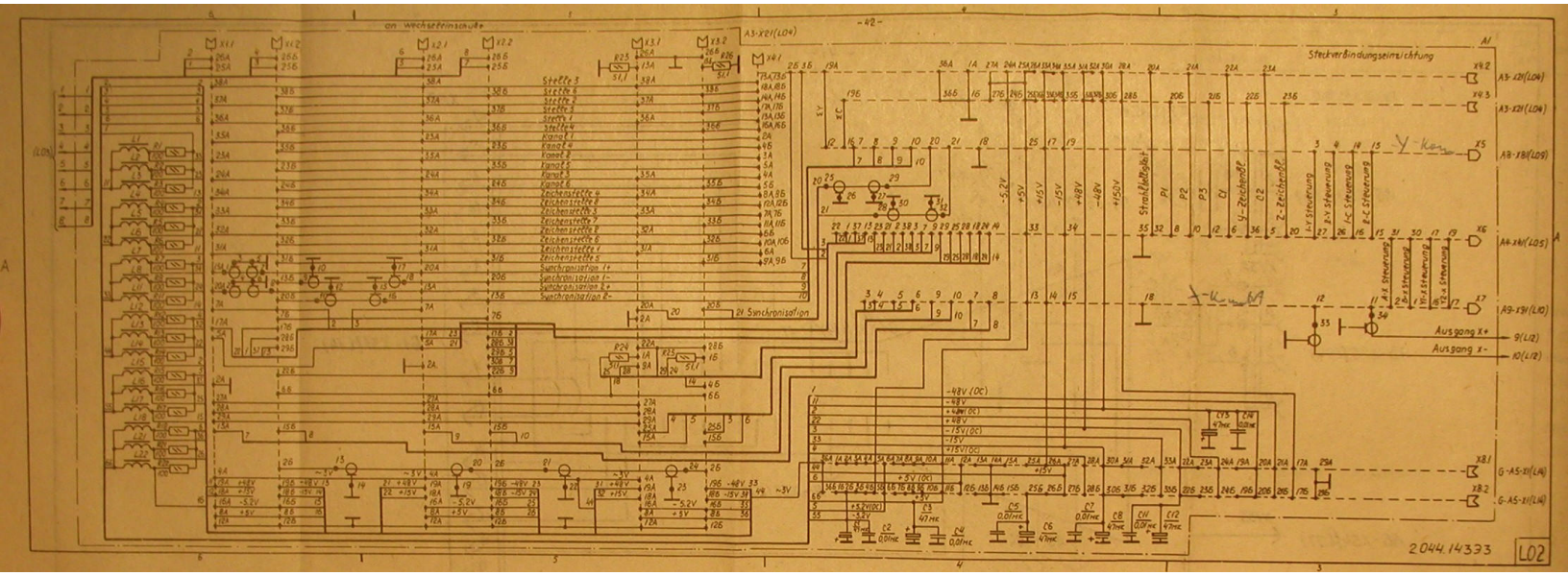
Elektrische Prinzipschaltbilder und Elementenliste

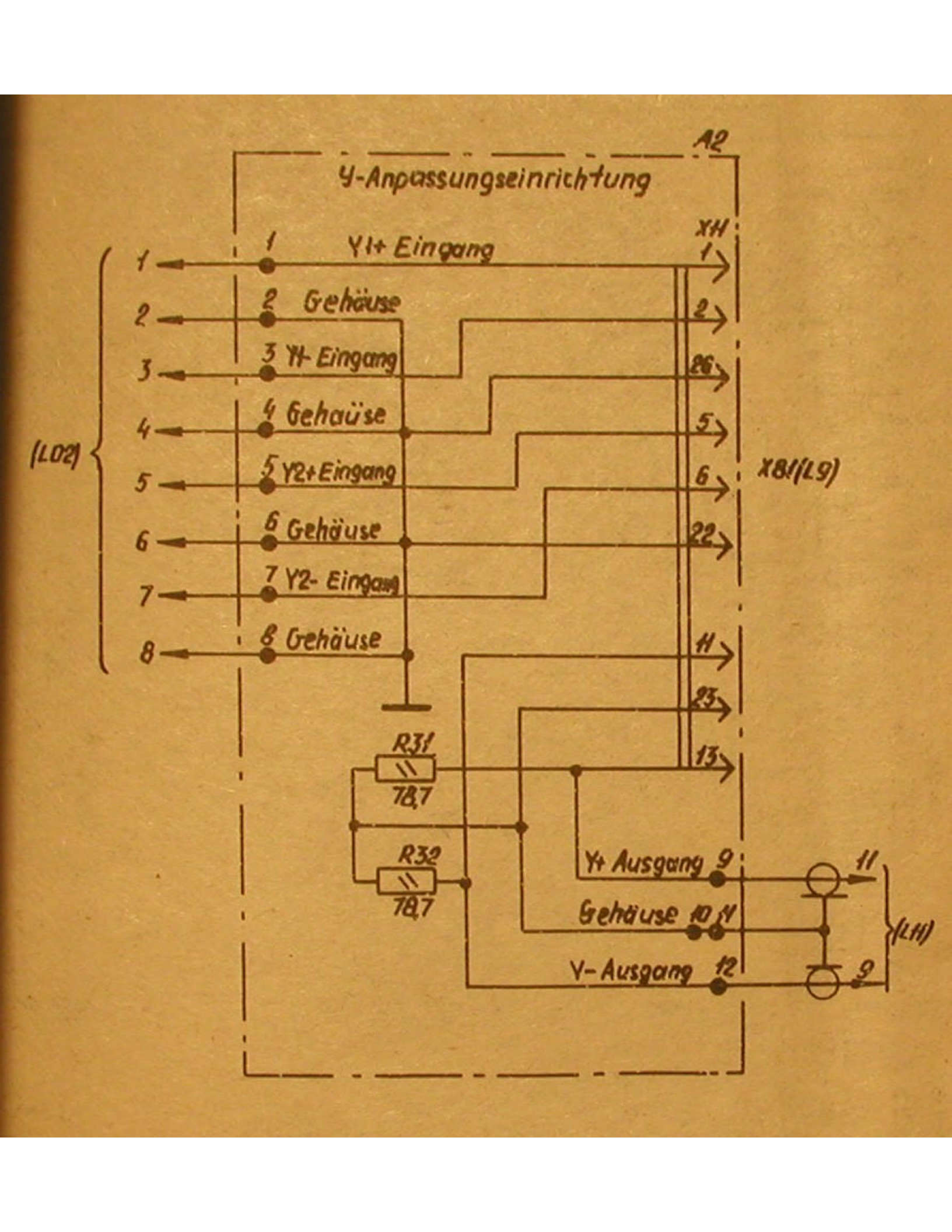


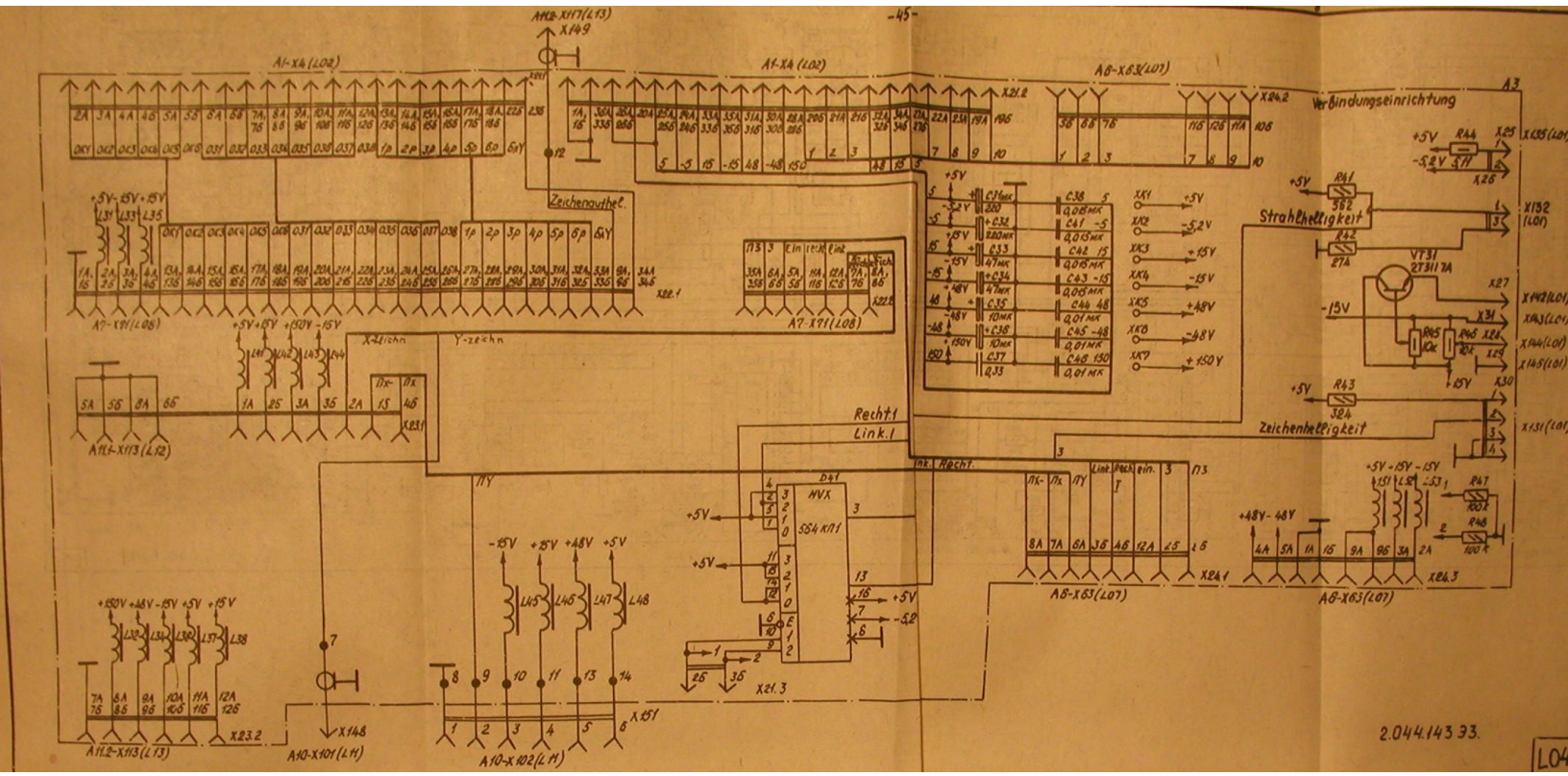
1. XK-Prüfpunkte.
2. ⊥ - „Zittern"- Gehäuse.

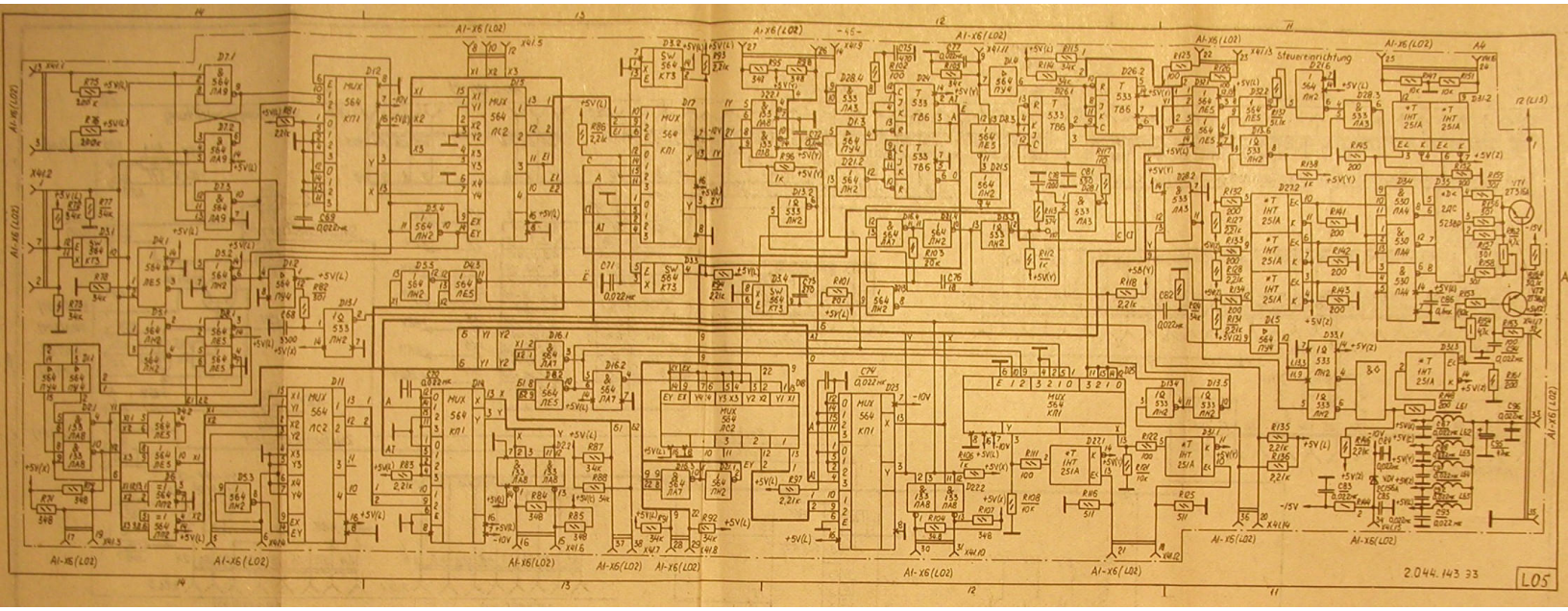
2.044.143 93

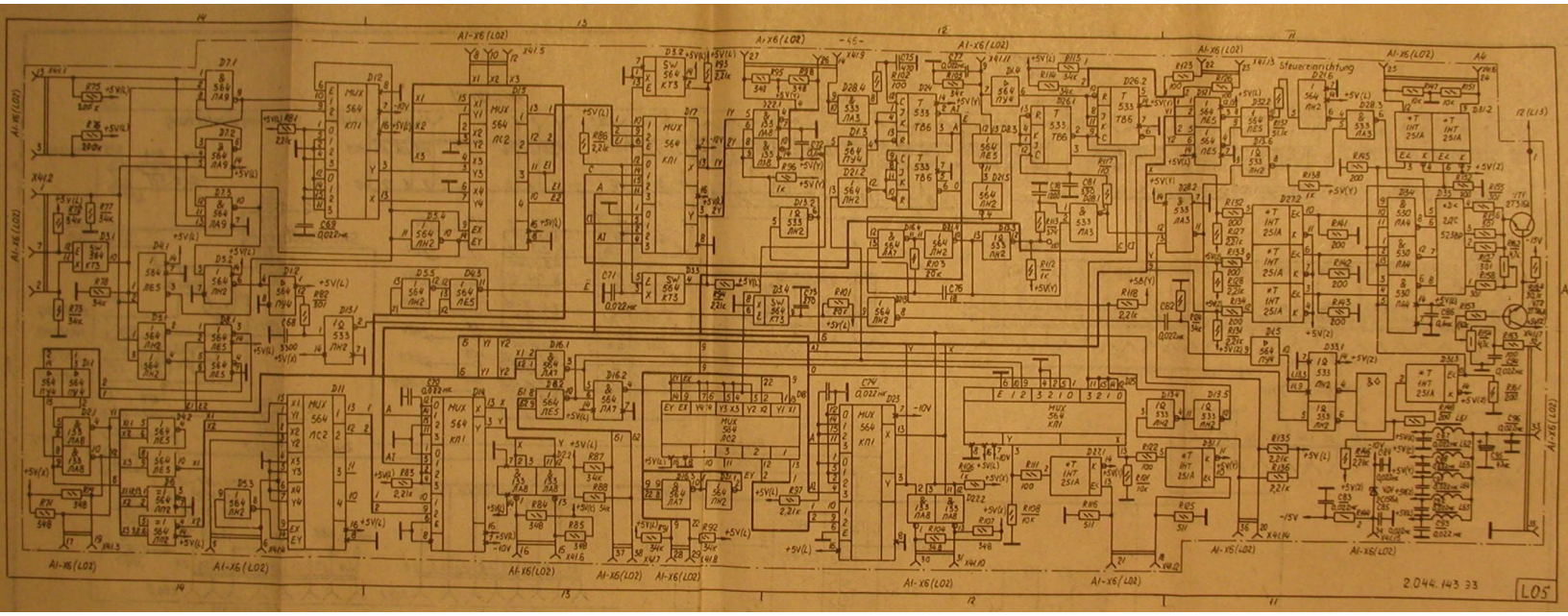
Grundgerät des Universal-
oszilloskopes C1-122
Elektrisches Prinzipschaltbild.

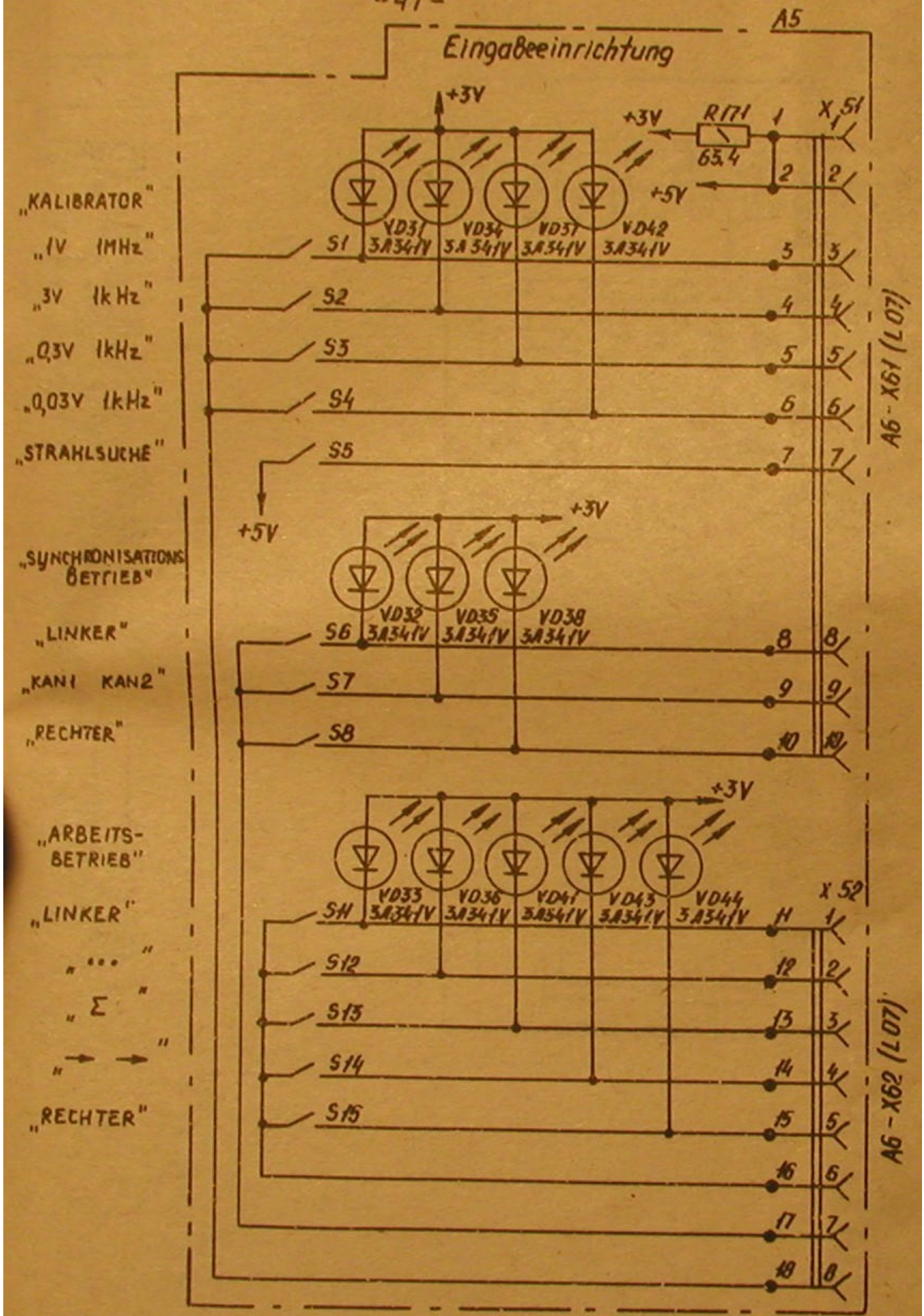

-42-
Steckerbindungseinrichtung
A3-X21(L04)
A3-X20(L04)
A3-X21(L04)
A8-X8(L09)
A8-X6(L05)
A9-X9(L10)
Ausgang X+
9(L12)
Ausgang X-
10(L12)
G-A5-X1(L14)
G-A5-X1(L14)
Strahlbetrieb
Y-Zeichenöl
Z-Zeichenöl
X-Steuerung
Y-Steuerung
Z-Steuerung
Synchronisation
2044.14333
L02

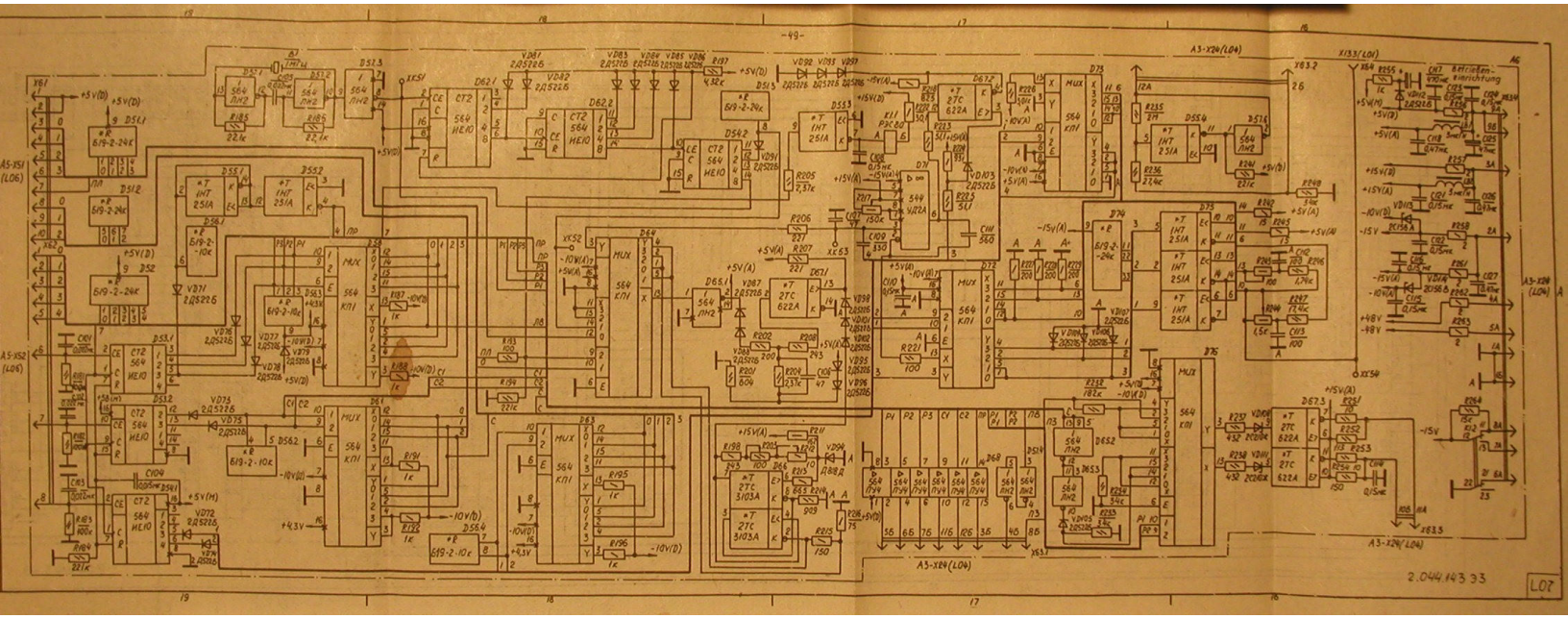

A2
Y-Anpassungseinrichtung
XH
1
Y1+ Eingang
2
Gehäuse
3
Y1- Eingang
4
Gehäuse
5
Y2+ Eingang
6
Gehäuse
7
Y2- Eingang
8
Gehäuse
(LD2)
1
2
3
4
5
6
7
8
1
2
26
5
6
22
11
23
13
X81(LG)
R31
78,7
R32
78,7
Y+ Ausgang
9
Gehäuse
10
14
V- Ausgang
12
11
9
(LH)

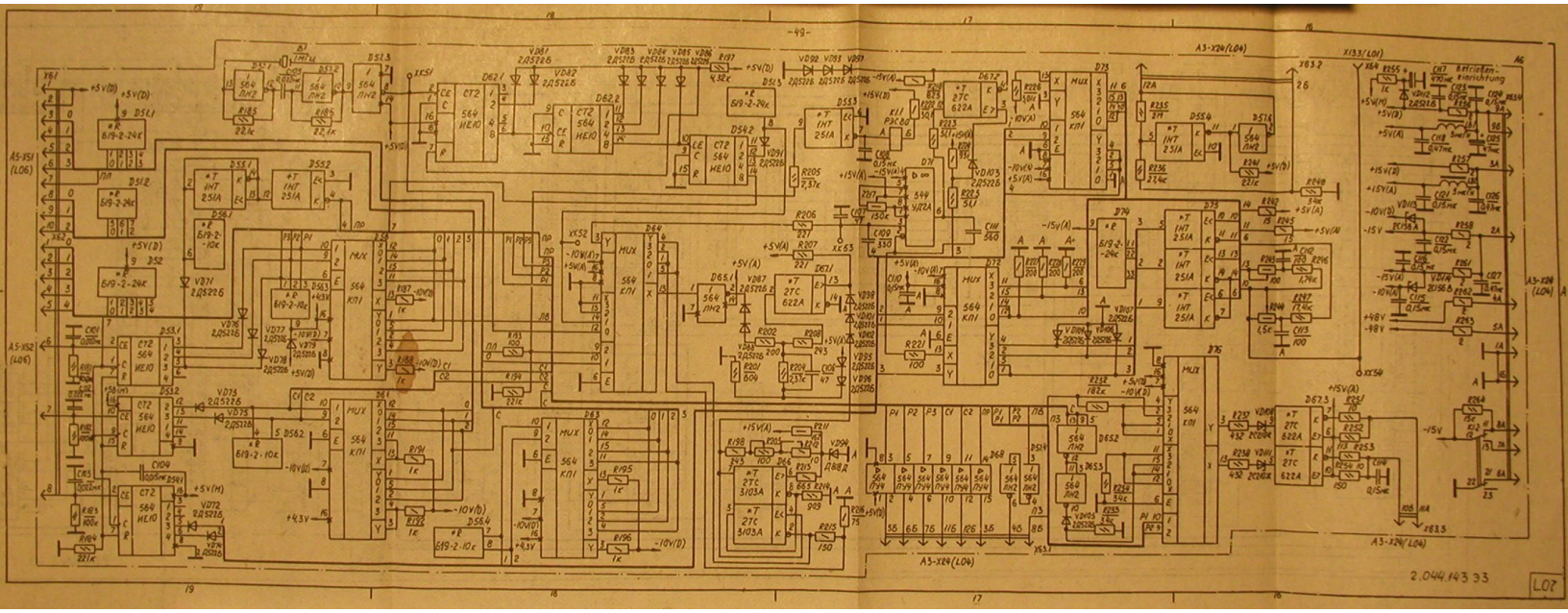

Verbindungseinrichtung
Strahlhelligkeit
Zeichenhelligkeit
Zeichenauthel.
Rechtl
Link.l
A1-X4 (L02)
A8-X63(L07)
A7-X71(L08)
A11-X113(L12)
A10-X101(L14)
A10-X102(L14)
2.044.143 33.

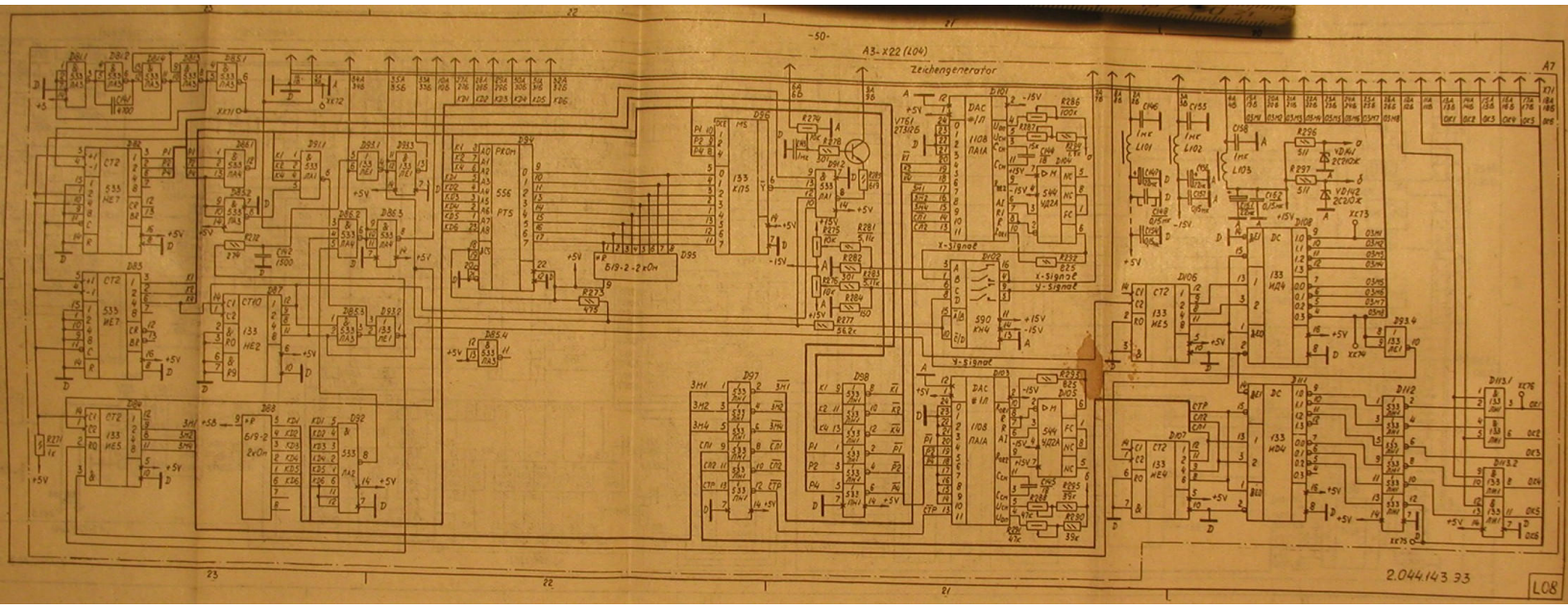

Steuereinrichtung
2.044.143 33
L05


Steuereinrichtung
2.044.143 33
L05


A5
Eingabeeinrichtung
+3V
+3V
R171
65,4
+5V
X51
„KALIBRATOR"
„1V 1MHz"
„3V 1kHz"
„0,3V 1kHz"
„0,03V 1kHz"
„STRAHLSUCHE"
S1
S2
S3
S4
S5
VD31 3A341V
VD34 3A341V
VD37 3A341V
VD42 3A341V
A6-X61 (L07)
+5V
+3V
„SYNCHRONISATIONS BETRIEB"
„LINKER"
„KAN1 KAN2"
„RECHTER"
S6
S7
S8
VD32 3A341V
VD35 3A341V
VD38 3A341V
+3V
„ARBEITS-BETRIEB"
„LINKER"
„ ... "
„ Σ "
„ → → "
„RECHTER"
S11
S12
S13
S14
S15
VD33 3A341V
VD36 3A341V
VD41 3A341V
VD43 3A341V
VD44 3A341V
X52
A6-X62 (L07)

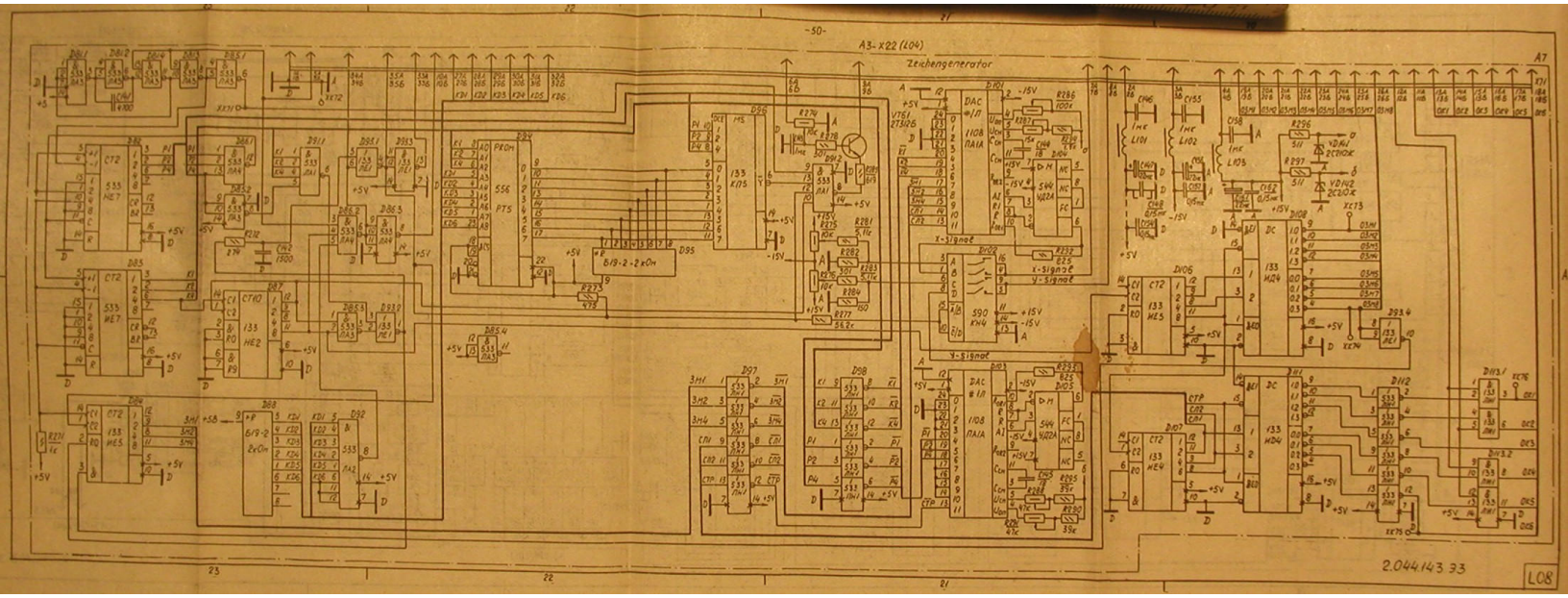

A3-X24(L04)
A3-X25(L06)
A3-X52(L04)
A3-X28(L04)
A3-X29(L04)
A3-X24(L04)
Antriebs-einrichtung
2.044.143 33
L07

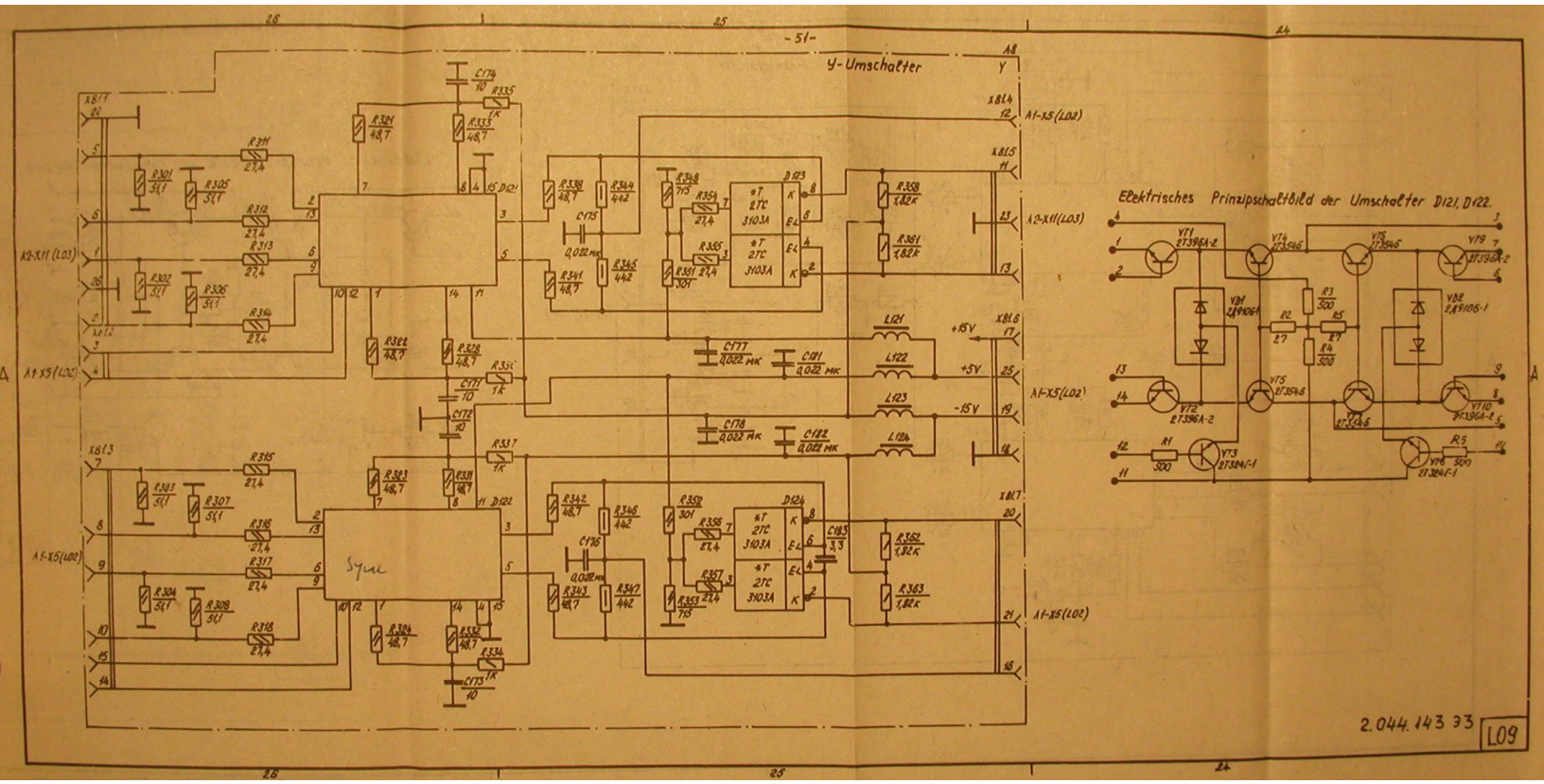

A5-X24(L04)
A5-X24(L04)
A5-X24(L04)
A5-X24(L04)
A5-X51 (L06)
A5-X52 (L06)
X133(L01)
X83.2
X83.3
X59
X61
X62
X63
X64
Entriegelungseinrichtung
2.044.143 33
L07

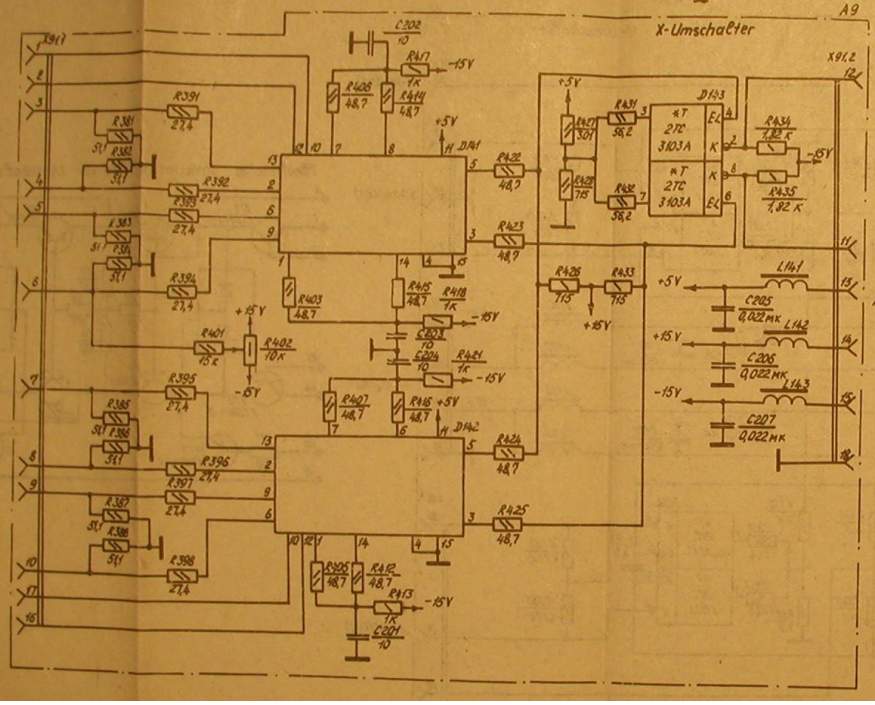

-50-
A3-X22 (L04)
Zeichengenerator
A7
X-signal
Y-signal
2.044143 33
L08

A3-X22 (L04)

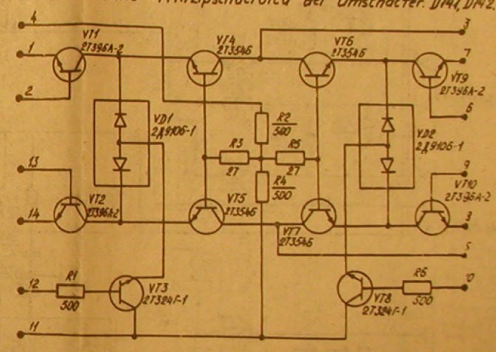
Zeichengenerator

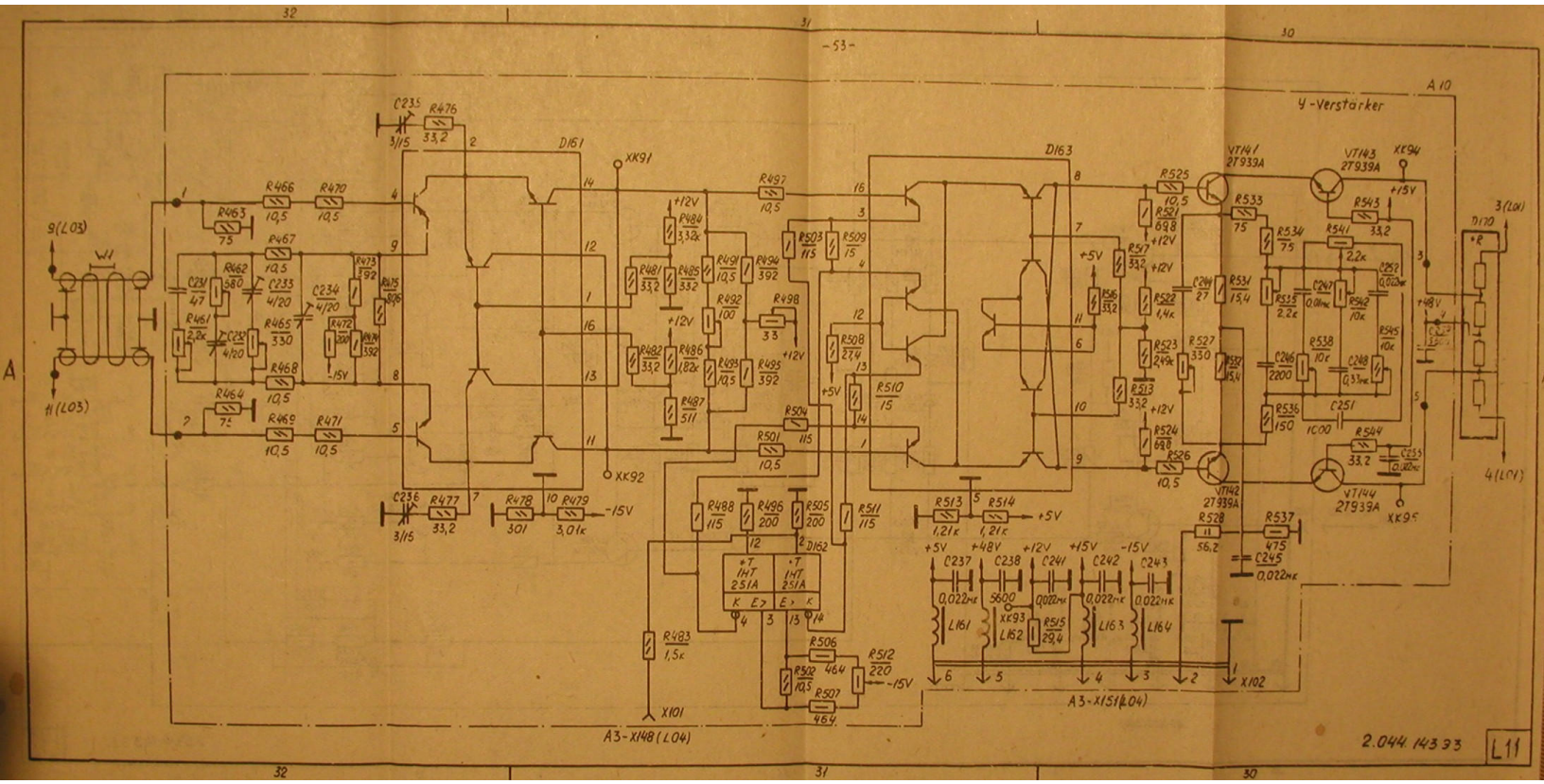

PROM
556 PT5
133 KP5
DAC 108 PA1A
x-Signal
y-Signal
133 HE7
133 HE5
133 HE2
133 HE4
133 HE1
133 HE6
133 HE3
133 HE4
133 HE2

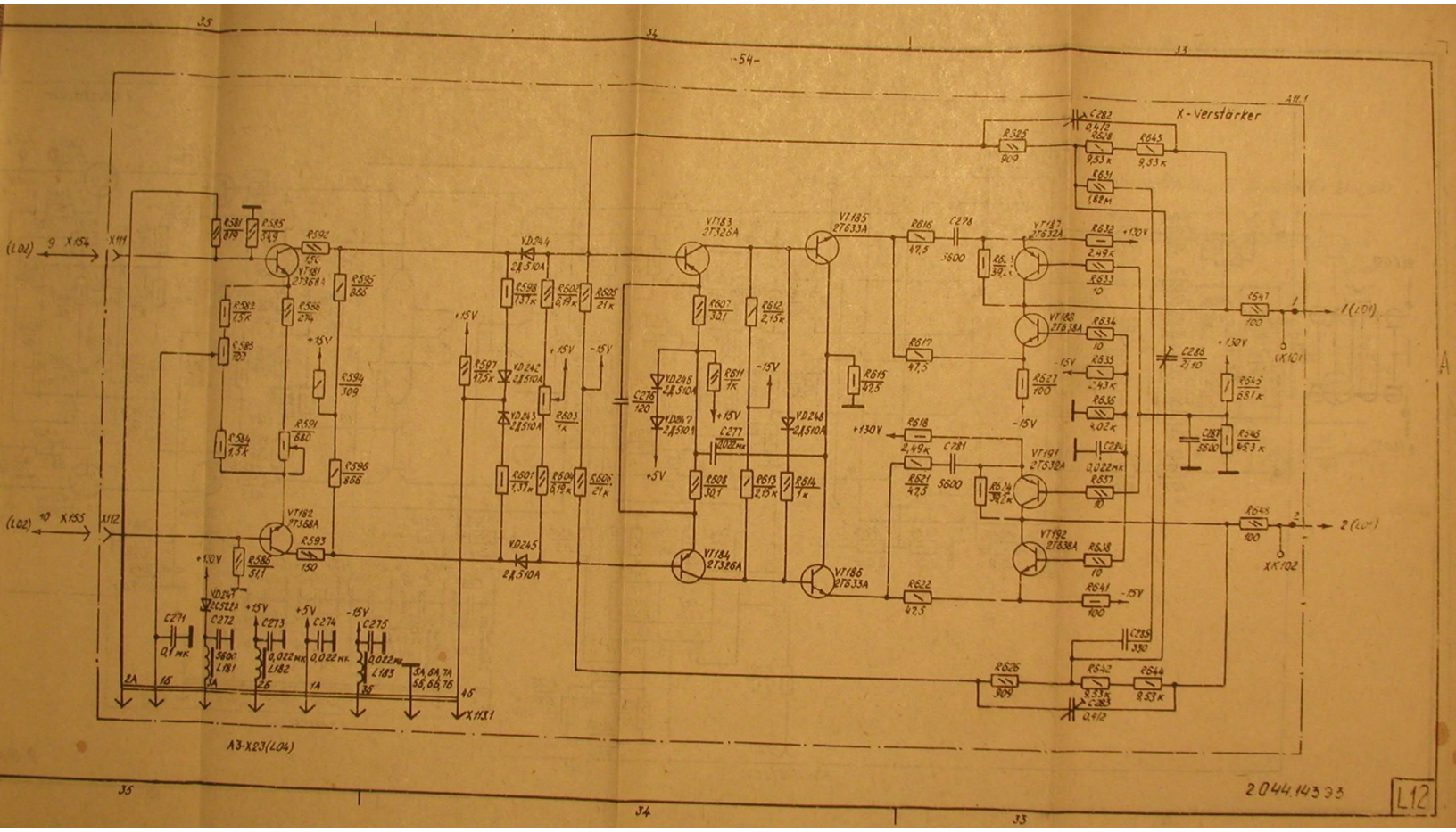

Y-Umschalter
Elektrisches Prinzipschaltbild der Umschalter D121, D122.
Sync
X8:7
X8:6
X8:5
X8:4
X8:3
X8:2
X8:1
A1-X5(L02)
A2-X11(L03)
+15V
+5V
-15V
D121
D122
D123
D124
2.044.143 33
L09

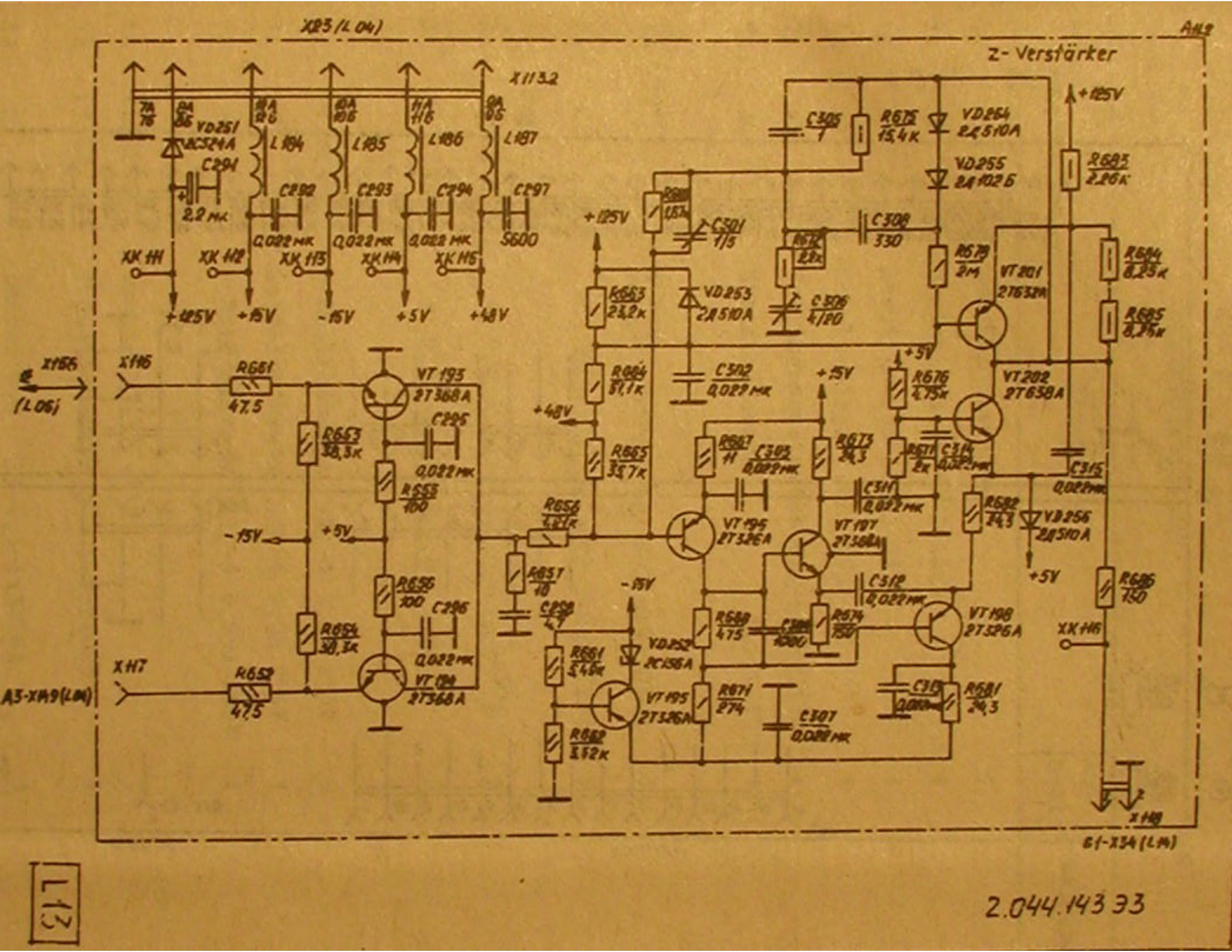


Elektrisches Prinzipschaltbild der Umschalter D141, D142.



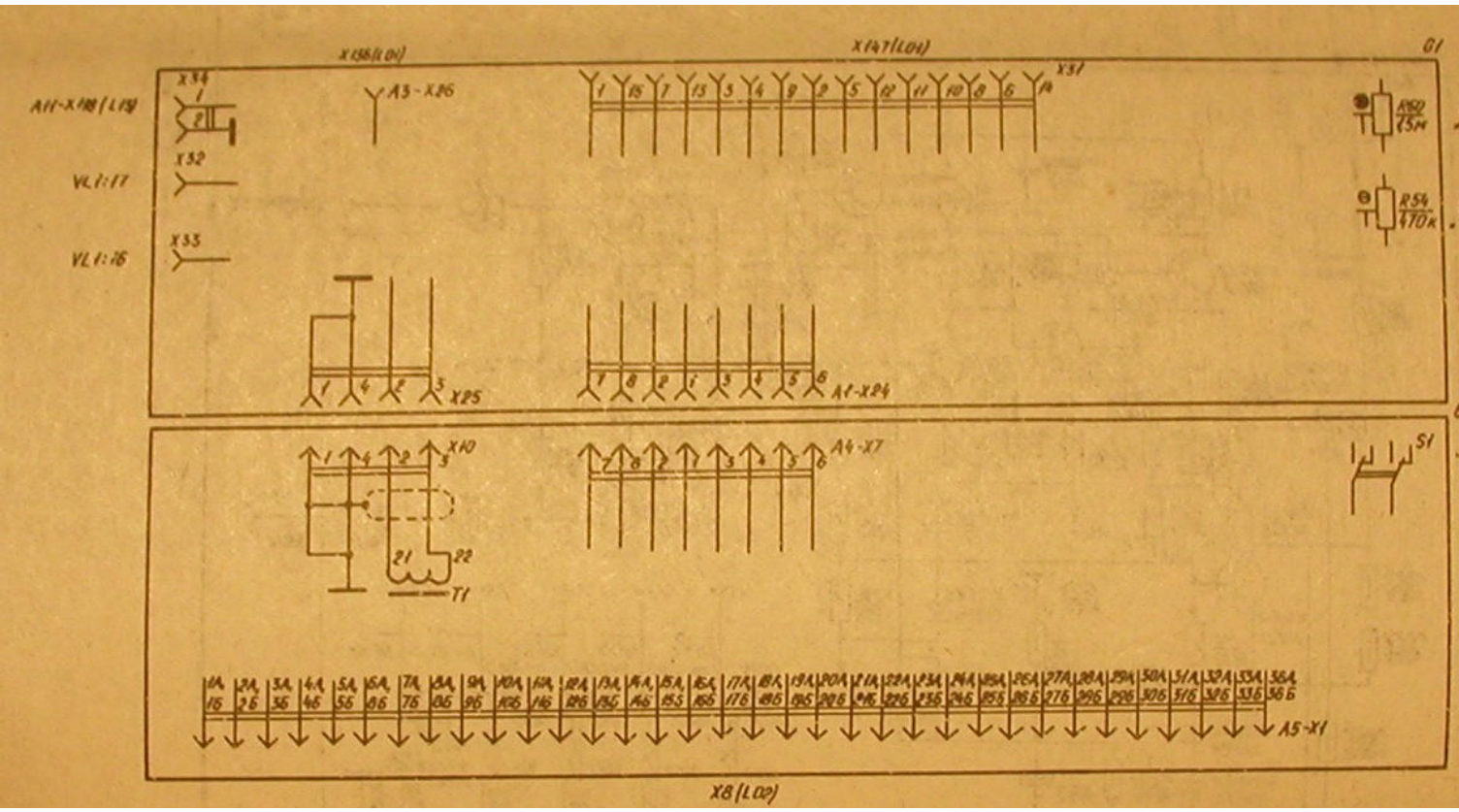

Y-Verstärker
A10
A3-X148 (L04)
A3-X151 (L04)
2.044.143.33
L11

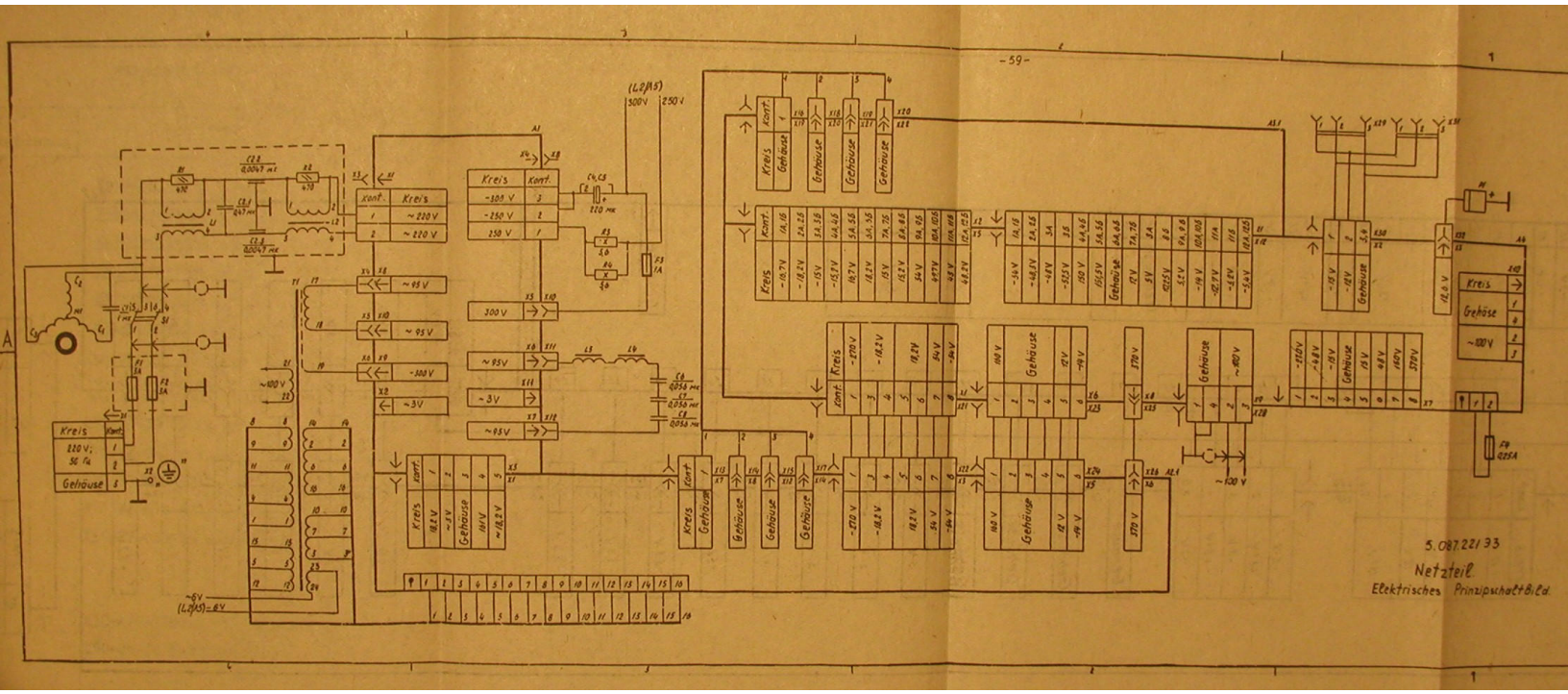

X-Verstärker
A11.1
(L02) 9 X154
(L02) 10 X155
X111
X112
VT181 2T368A
VT182 2T368A
VT183 2T326A
VT184 2T326A
VT185 2T633A
VT186 2T633A
VT187 2T632A
VT188 2T638A
VT191 2T632A
VT192 2T638A
VD244 2Д510А
VD245 2Д510А
VD242 2Д510А
VD243 2Д510А
VD246 2Д510А
VD247 2Д510А
VD248 2Д510А
VD249 2С522А
+15V
-15V
+5V
-5V
+130V
+100V
C271 0,1 мк
C272 5600 L181
C273 0,022 мк L182
C274 0,022 мк
C275 0,022 мк L183
C276 120
C277 0,022 мк
C278 5600
C281 5600
C282 0,47 5600
C283 0,47 2
C285 330
C286 2,10
C287 5600
C288 0,022 мк
R581 470
R585 39,9
R592 150
R595 866
R586 511
R593 150
R594 309
R591 880
R596 866
R597 47,5к
R598 1,37к
R599 0,19к
R605 21к
R601 1,37к
R604 0,19к
R606 21к
R607 30,1
R612 2,15к
R611 1к
R608 30,1
R613 2,15к
R614 1к
R615 47,5
R616 47,5
R617 47,5
R618 2,49к
R621 47,5
R622 47,5
R625 909
R626 39,2к
R627 100
R634 39,2к
R632 2,49к
R633 10
R634 10
R635 2,43к
R636 4,02к
R637 10
R638 10
R639 100
R641 100
R642 9,53к
R643 9,53к
R644 9,53к
R645 9,53к
R631 182м
R647 100
R648 100
R646 453к
R649 881к
XK101
XK102
1 (L01)
2 (L01)
A3-X23(L04)
X113.1
2A 1б 1A 2б 1A 3б 3A,6A,7A 5б,6б,7б 4б
2044143 93
L12

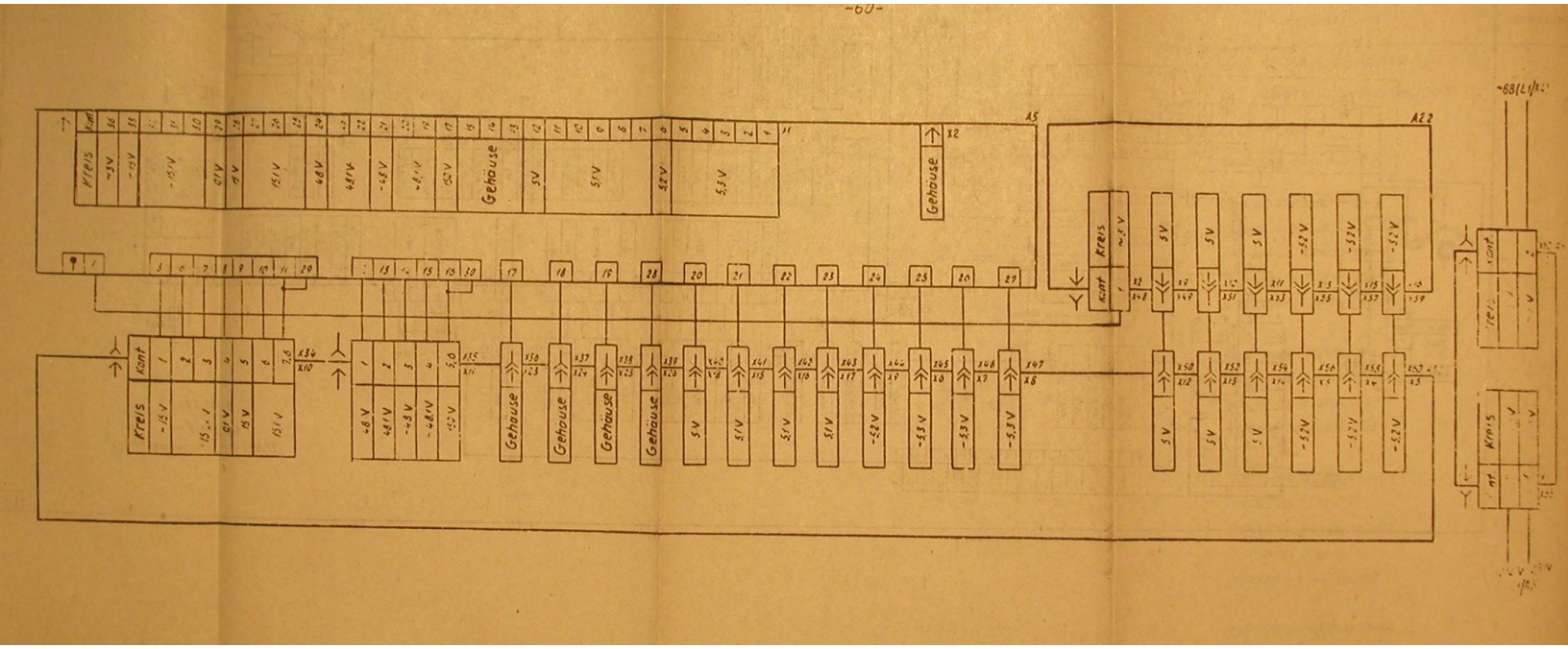


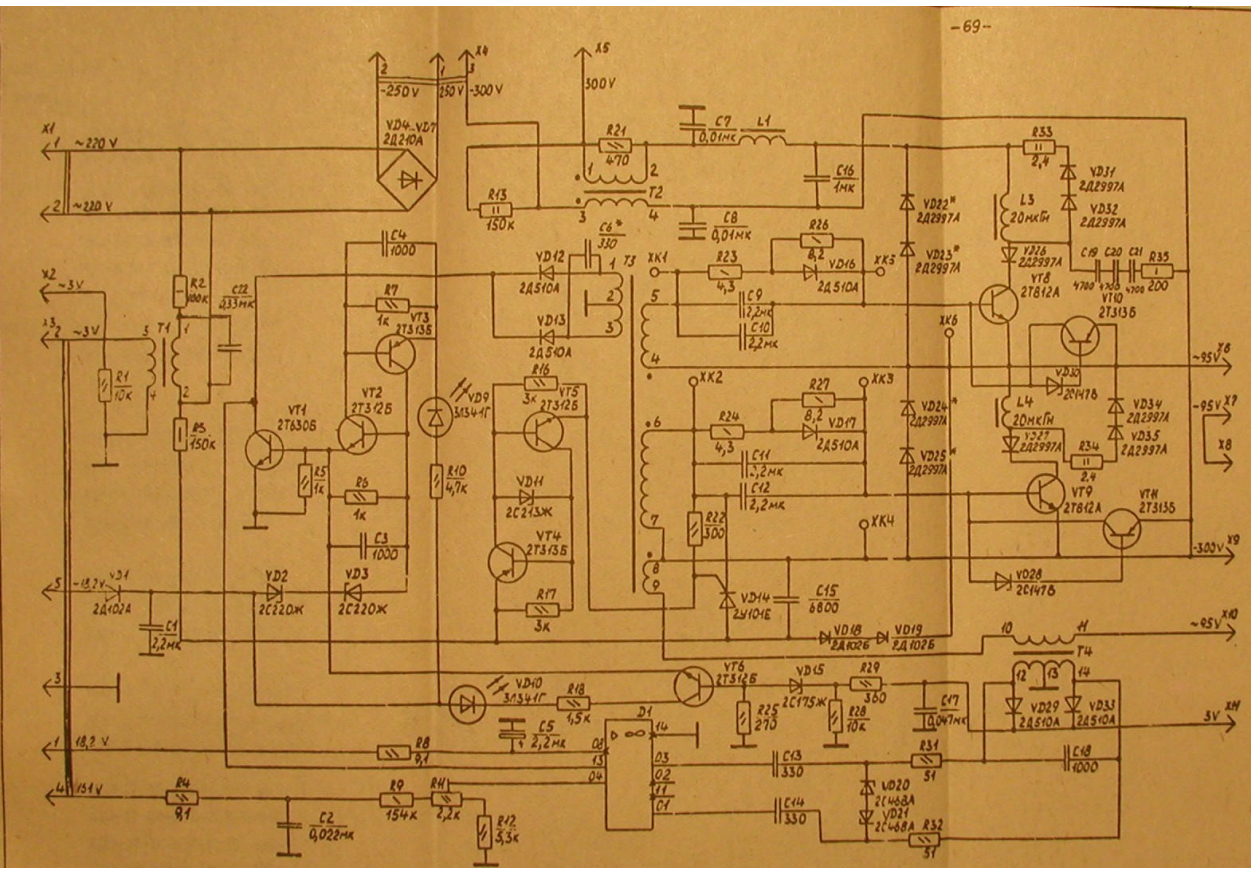
L13

2.044.1433 3


X138(LO1)
X147(LO4)
G1
X34
A11-X148(LO4)
A3-X26
X31
R52
75M
X32
VL1:17
R54
470K
X33
VL1:16
X25
A1-X24
G2
X10
A4-X7
S1
„NETZ.
AUS"
T1
A5-X1
X8(LO2)


5.087.221/33
Netzteil
Elektrisches Prinzipschaltbild
Kreis
Gehäuse
Kont.
~220 V
~95 V
~100 V
~3V
300 V
-300 V
-250 V
250 V
(L2/L5)
500V
~8V
(L2/L5)=8V
~120 V
~180 V
~110V
~100V
0,25A

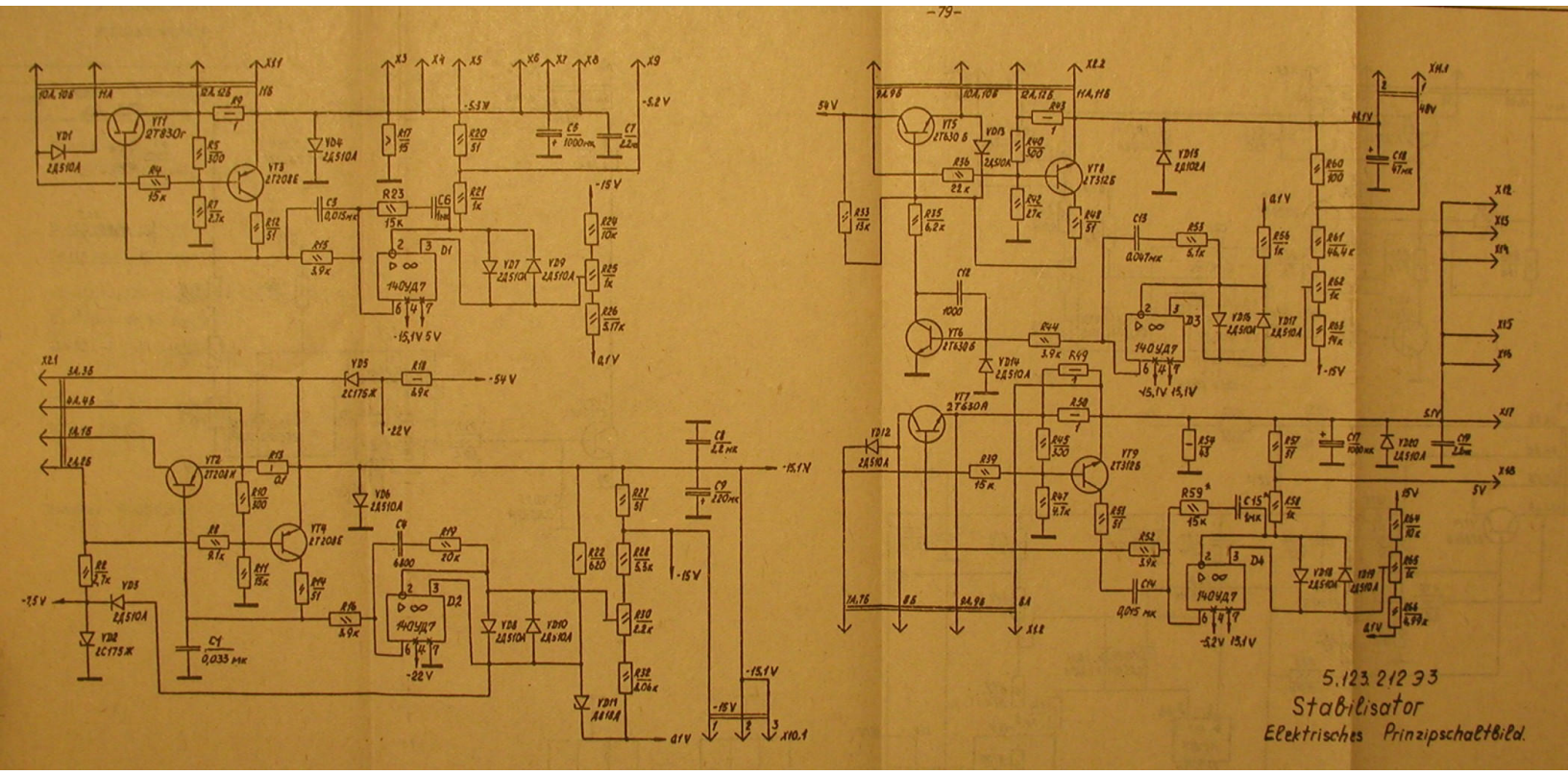

A5
A22
X2
Gehäuse
Kreis
Kont
5V
-5V
5,5V
-5,5V
-68(L)

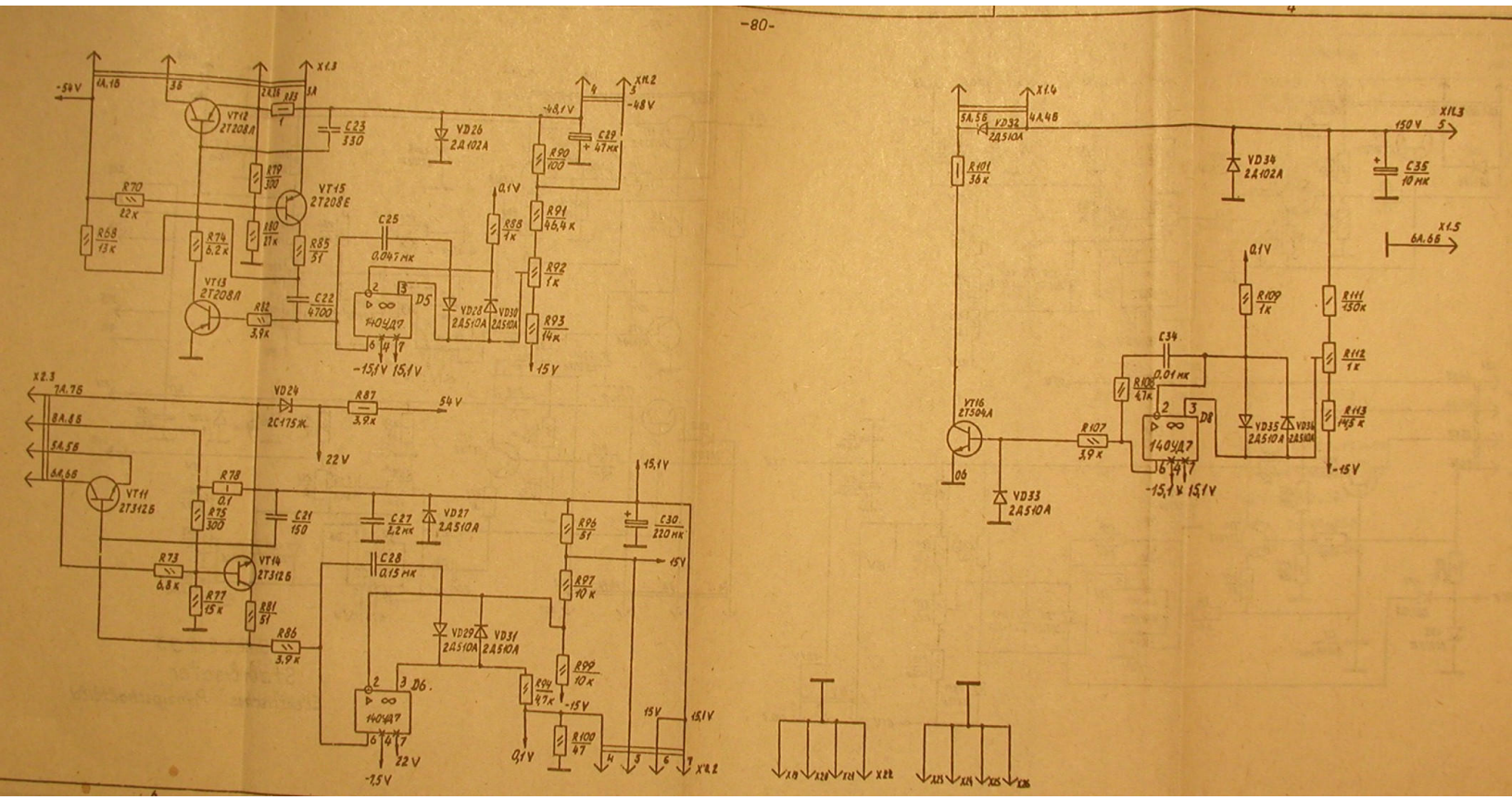


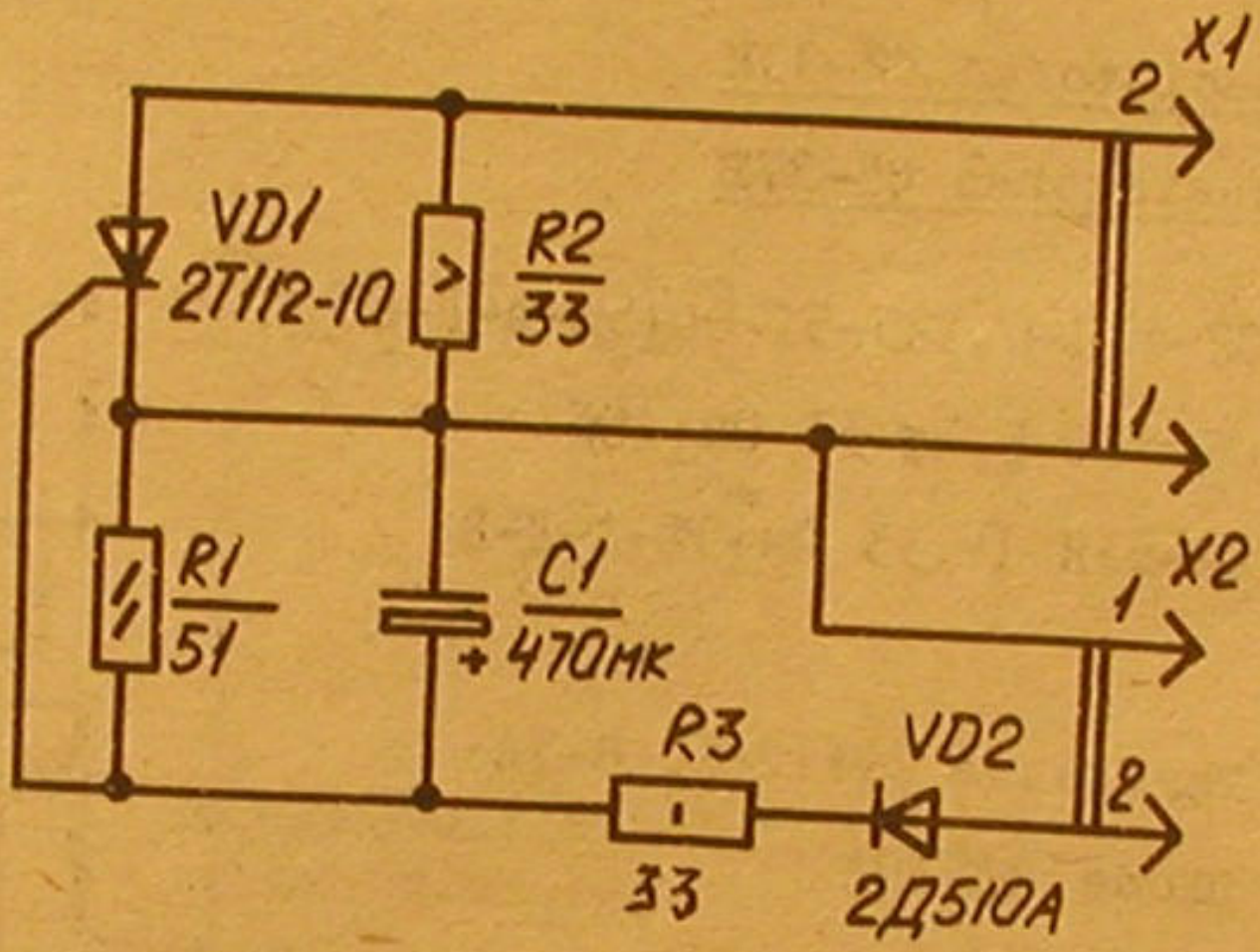
1. * Bei Regelung ausgelötet.
2. XK - Kontrollpunkte

5.121.264 35
Wandler

Elektrisches Prinzipschaltbild.


X11
X3
X4
X5
X6
X7
X8
X9
-5,3V
-5,2V
VT1 2T830Г
VT3 2T208Е
VD1 2Д510А
VD4 2Д510А
R4 15к
R5 300
R7 2,7к
R12 51
R17 15
R20 51
C8 1000мк
C7 22мк
C5 0,015мк
R23 15к
LC6 10мк
R21 1к
R15 3,9к
D1 140УД7
-15,1V 5V
VD7 2Д510А
VD9 2Д510А
R24 10к
R25 1к
R26 3,17к
0,1V
X2.1
VD5 2С175Ж
R18 4,9к
-54V
-22V
VT2 2T208Н
R13 0,1
R10 200
VT4 2T208Е
R8 9,1к
R11 15к
R14 51
VD6 2Д510А
C4 0,033мк
R2 4,7к
VD3 2Д510А
-7,5V
VD2 2С175Ж
C6 6800
R19 20к
D2 140УД7
R16 4,9к
VD8 2Д510А
VD10 2Д510А
R22 620
R28 5,6к
R30 8,2к
R32 4,04к
VD11 АА118
C8 2,2мк
C9 220мк
-15,1V
-15V
-18V
X10.1
X12
X13
X14
X15
X16
X17
X18
X2.2
54V
VT5 2Т630Б
VD13 2Д510А
R40 300
R36 22к
VT8 2Т312Б
R42 27к
R48 51
R33 13к
R35 6,2к
VD15 2Д510А
VD16 2Д510А
R60 100
C18 47мк
48V
R61 46,4к
R62 1к
R63 14к
C13 0,047мк
R53 5,1к
R56 1к
C12 1000
VT6 2Т630Б
R44 3,9к
R49
D3 140УД7
VD14 2Д510А
VD16 2Д510А
VD17 2Д510А
-15,1V 15,1V
VT7 2Т630А
R50
VD12 2Д510А
R39 15к
R45 300
VT9 2Т312Б
R47 9,1к
R51 51
R54 43
R57 51
C17 1000мк
VD20 2Д510А
C19 2,2мк
5V
R59* 15к
C15* 1мк
R58 1к
R52 3,9к
C14 0,015мк
D4 140УД7
-5,2V 15,1V
VD18 2Д510А
VD19 2Д510А
R64 10к
R65 1к
R66 4,99к
0,1V
5.123.212 93
Stabilisator
Elektrisches Prinzipschaltbild.

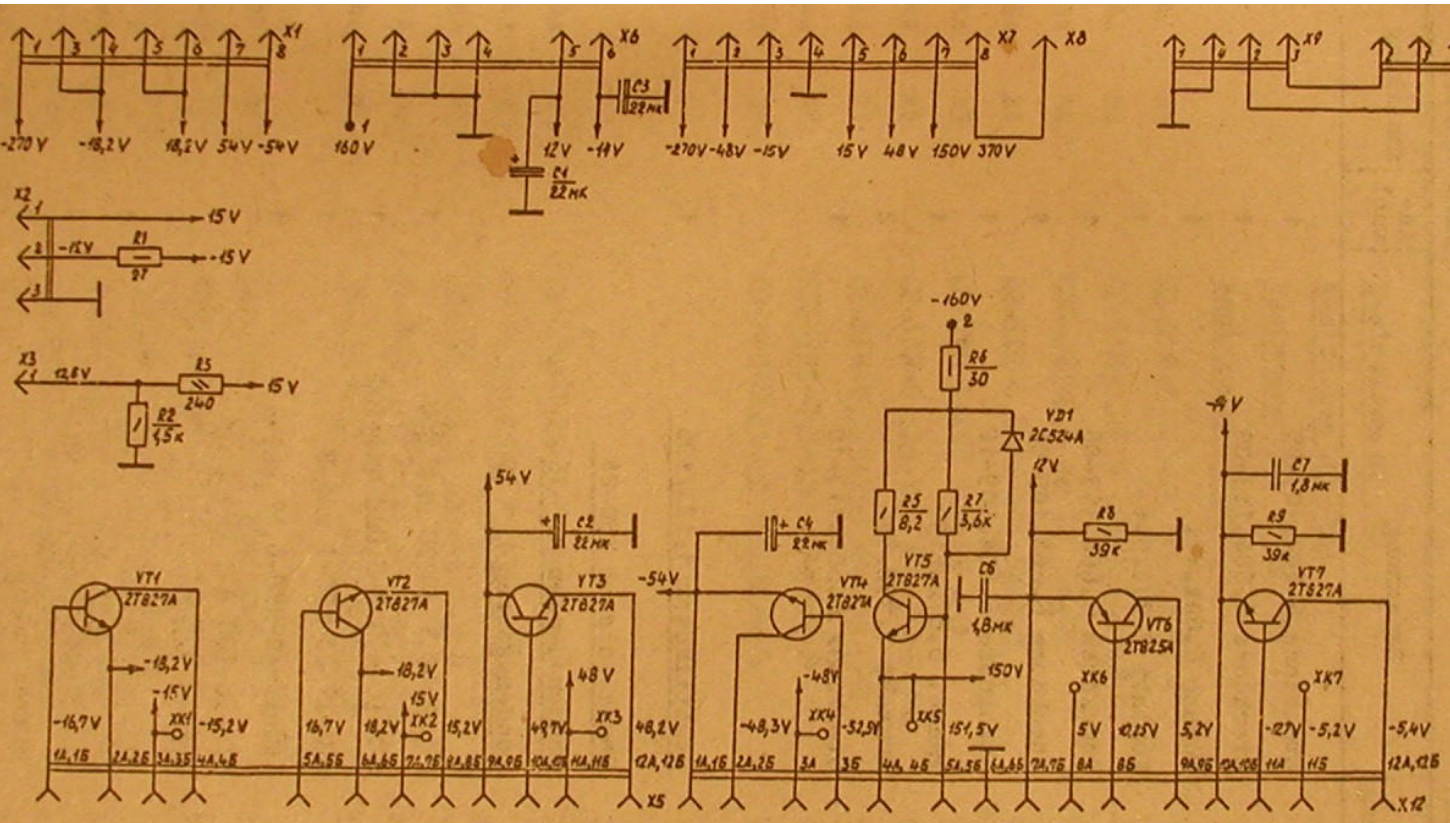

X1.3
-54V
VT12 2T208A
VT15 2T208E
VT13 2T208Л
VD26 2Д102А
C23 330
C29 47мк
R90 100
R91 46,4к
R92 1к
R93 14к
R88 1к
R70 22к
R68 13к
R74 6,2к
R79 300
R80 27к
R85 51
R82 3,9к
C22 4700
C25 0,047мк
D5
140УД7
VD28 2Д510А
VD30 2Д510А
-15,1V 15,1V
-48,1V
-48V
X1.2
X2.3
VD24 2С175Ж
R87 3,9к
54V
22V
VT11 2Т312Б
VT14 2Т312Б
R78 0,1
R75 300
C21 150
C27 2,2мк
VD27 2Д510А
C28 0,15мк
R96 51
C30 220мк
15V
R97 10к
R73 6,8к
R77 15к
R81 51
R86 3,9к
VD29 2Д510А
VD31 2Д510А
D6
R94 4,7к
R99 10к
R100 47
-7,5V
X1.4
VD32 2Д510А
R101 36к
VD34 2Д102А
150V
X1.3
C35 10мк
X1.5
VT16 2Т304А
R107 3,9к
R108 4,7к
C34 0,01мк
D8
VD35 2Д510А
VD36 2Д510А
R109 1к
R111 150к
R112 1к
R113 1,8к
VD33 2Д510А



5.129.163 Э3

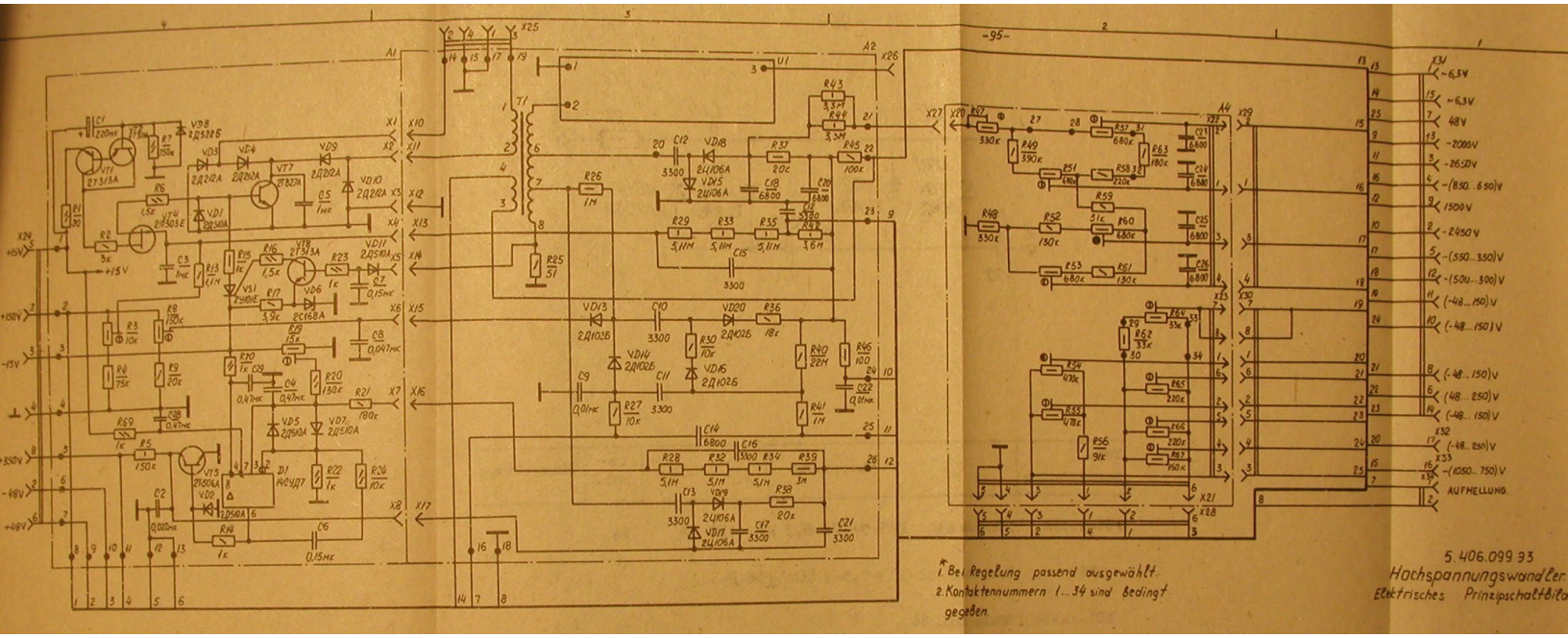
Strombegrenzer

Elektrisches Prinzipschaltbild.



XK- Prüfpunkt.

5.284.175 Э3
Schaltanlage.
Elektrisches Prinzipschaltbild.

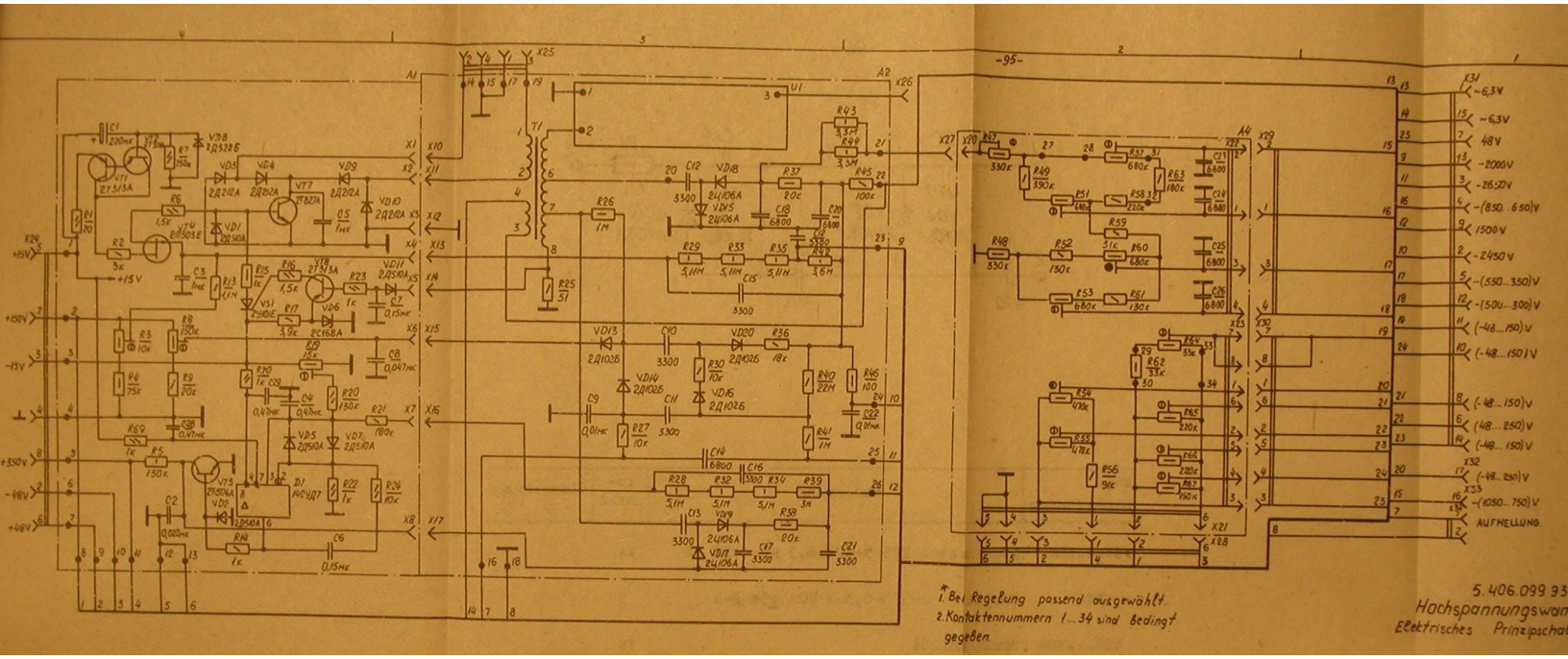


*1. Bei Regelung passend ausgewählt.
2. Kontaktennummern 1...34 sind bedingt gegeben.

5.406.099 93

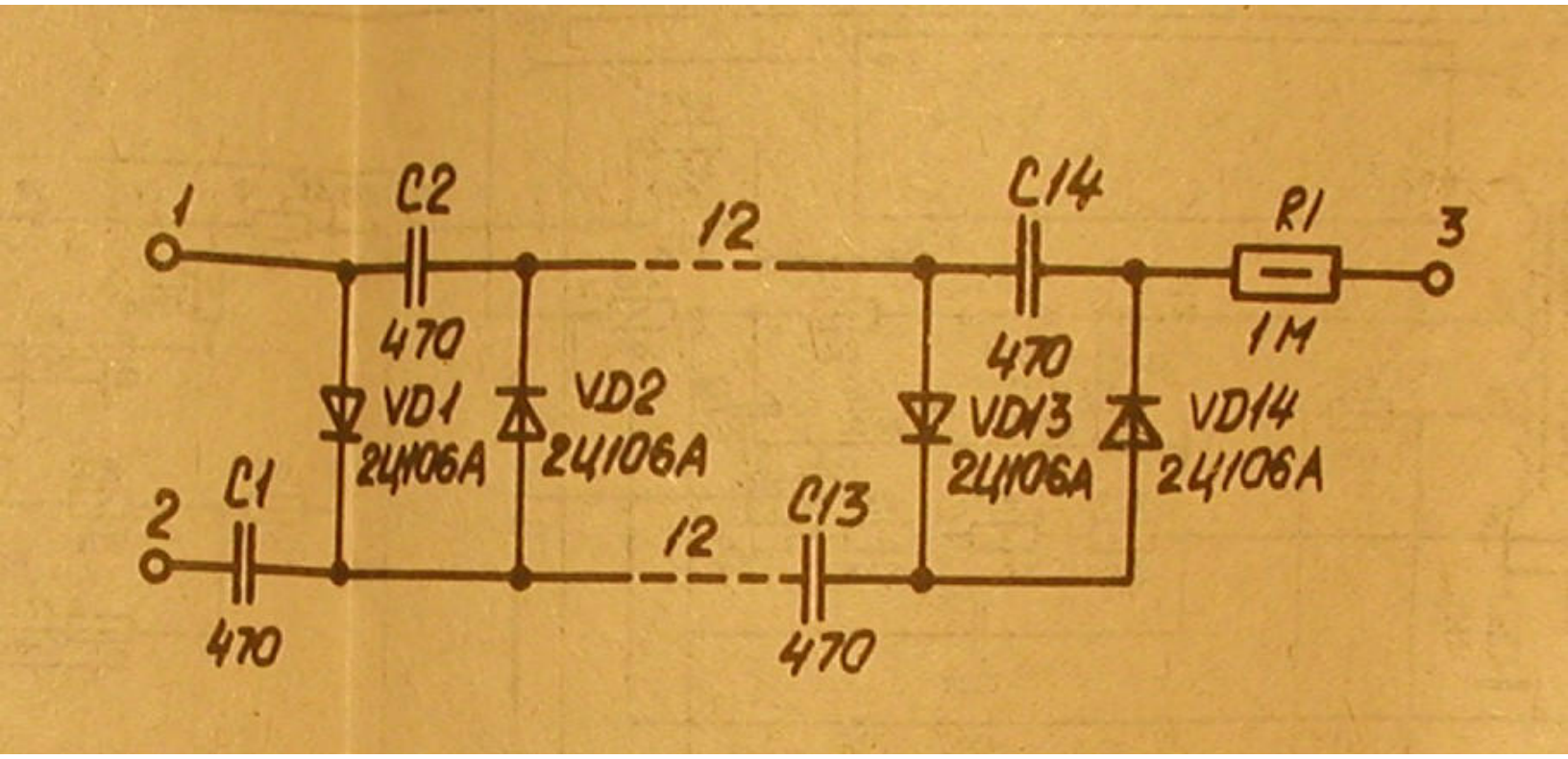
Hochspannungswandler

Elektrisches Prinzipschaltbild



1. Bei Regelung passend ausgewählt.
2. Kontaktennummern 1...34 sind bedingt gegeben.

5.406.099 93
Hochspannungswan
Elektrisches Prinzipschal


1
C2
12
C14
R1
3
470
470
1M
VD1
2Д106А
VD2
2Д106А
VD13
2Д106А
VD14
2Д106А
2
C1
12
C13
470
470