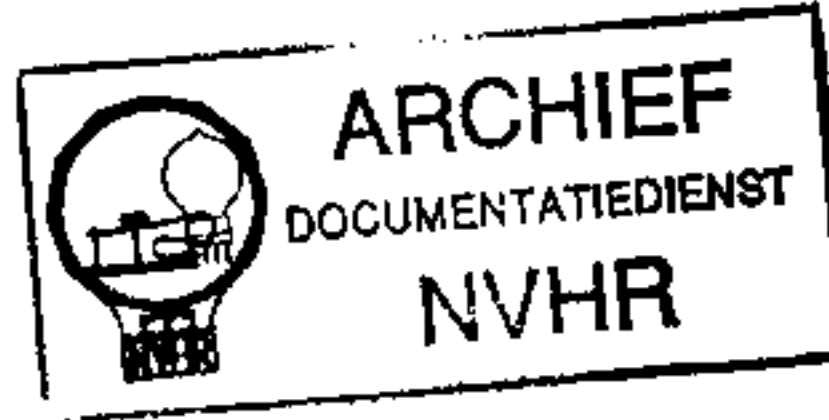


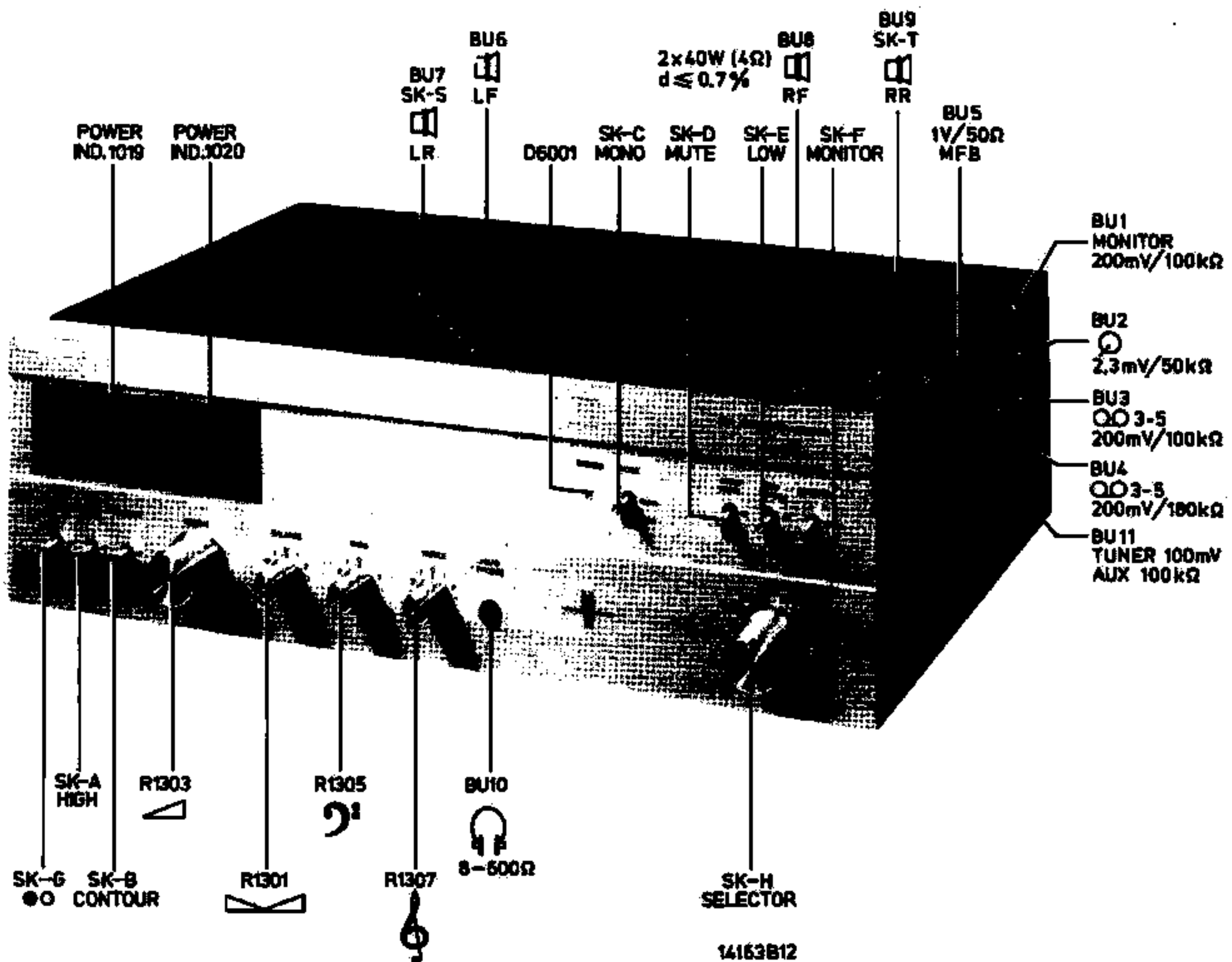
Service
Service
Service

Met dank aan www.radiomuseum-hengelo.nl

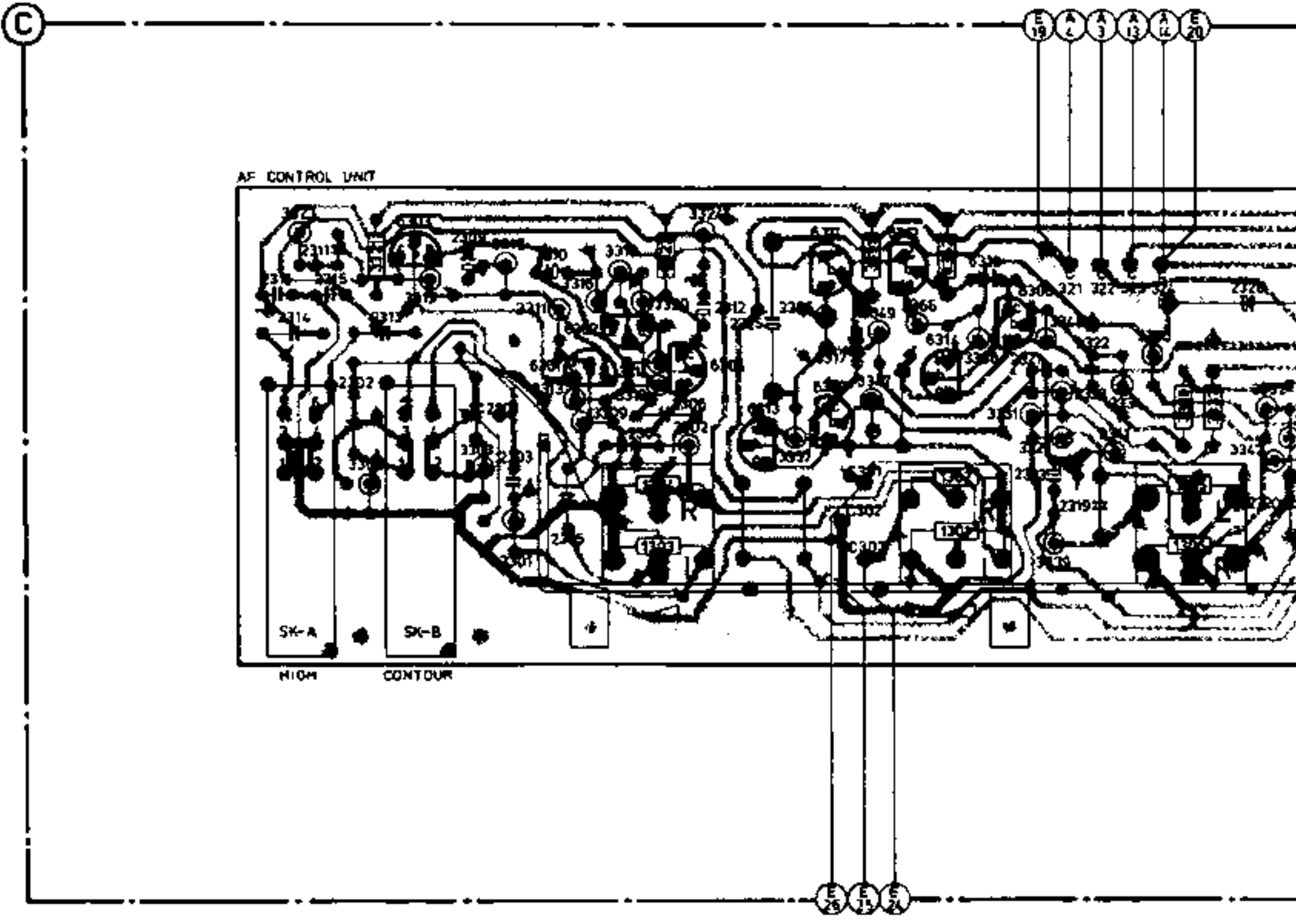
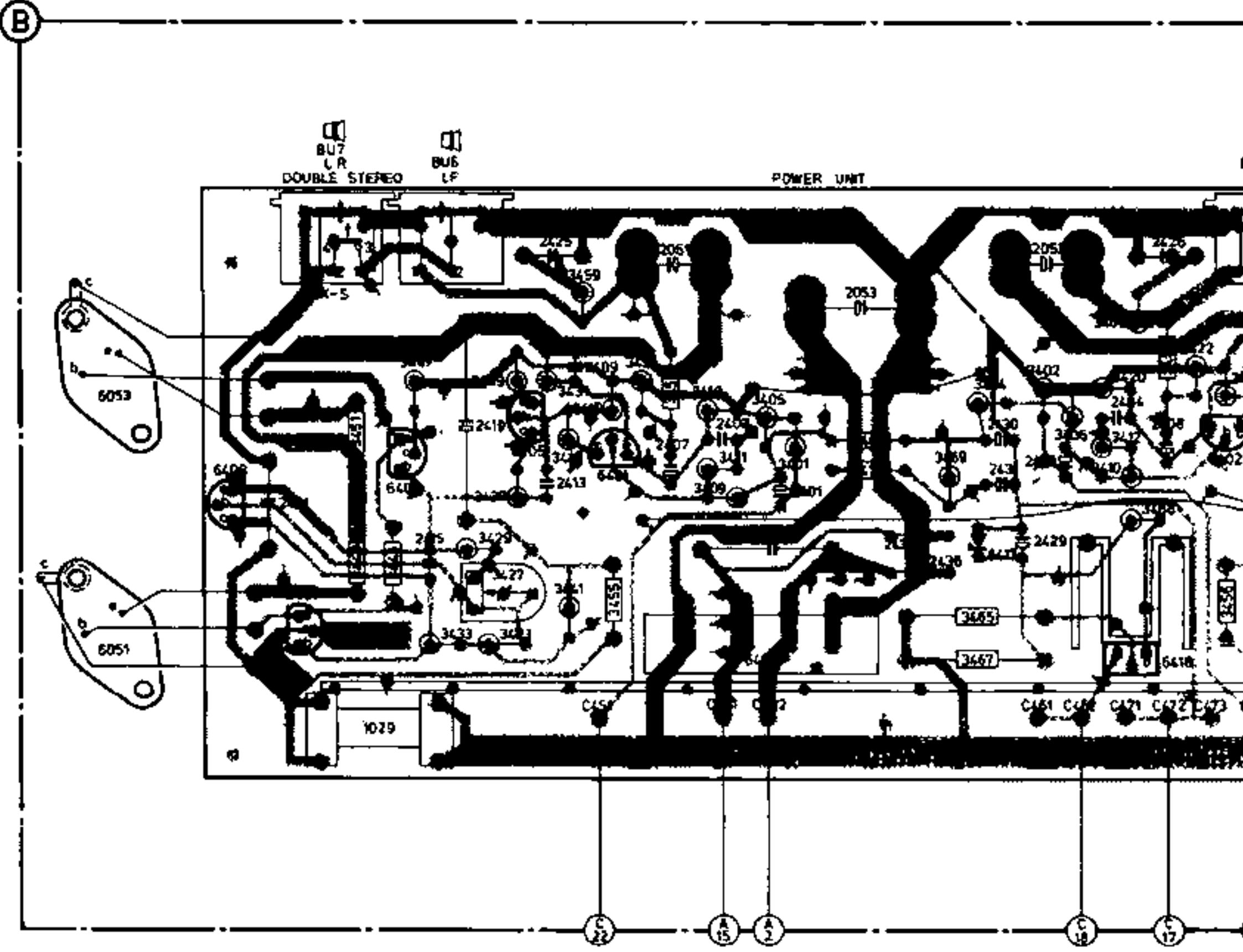
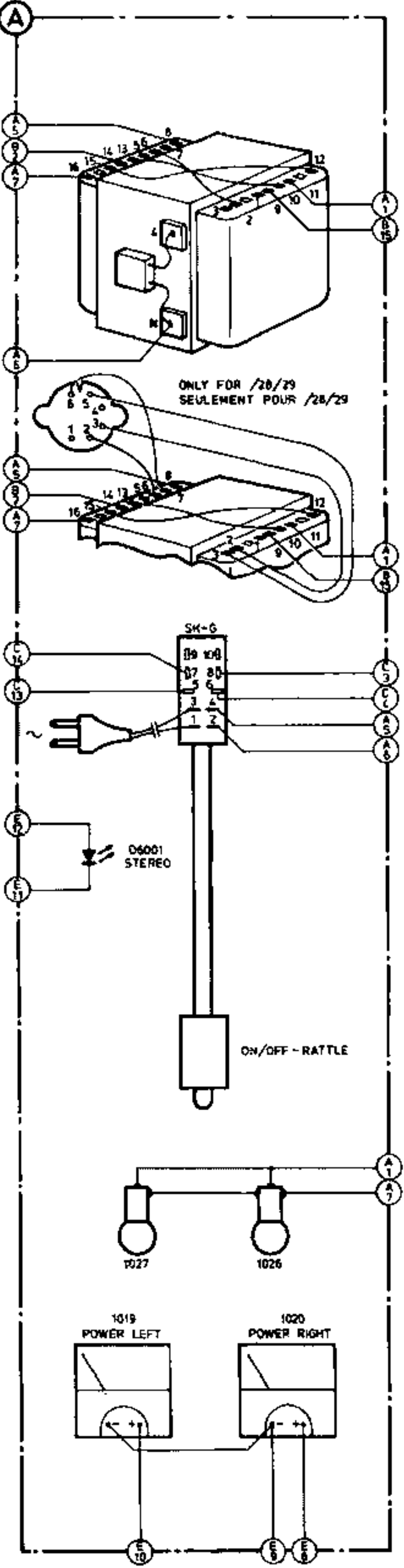
Ned. Ver. v. Historie v/d Radio



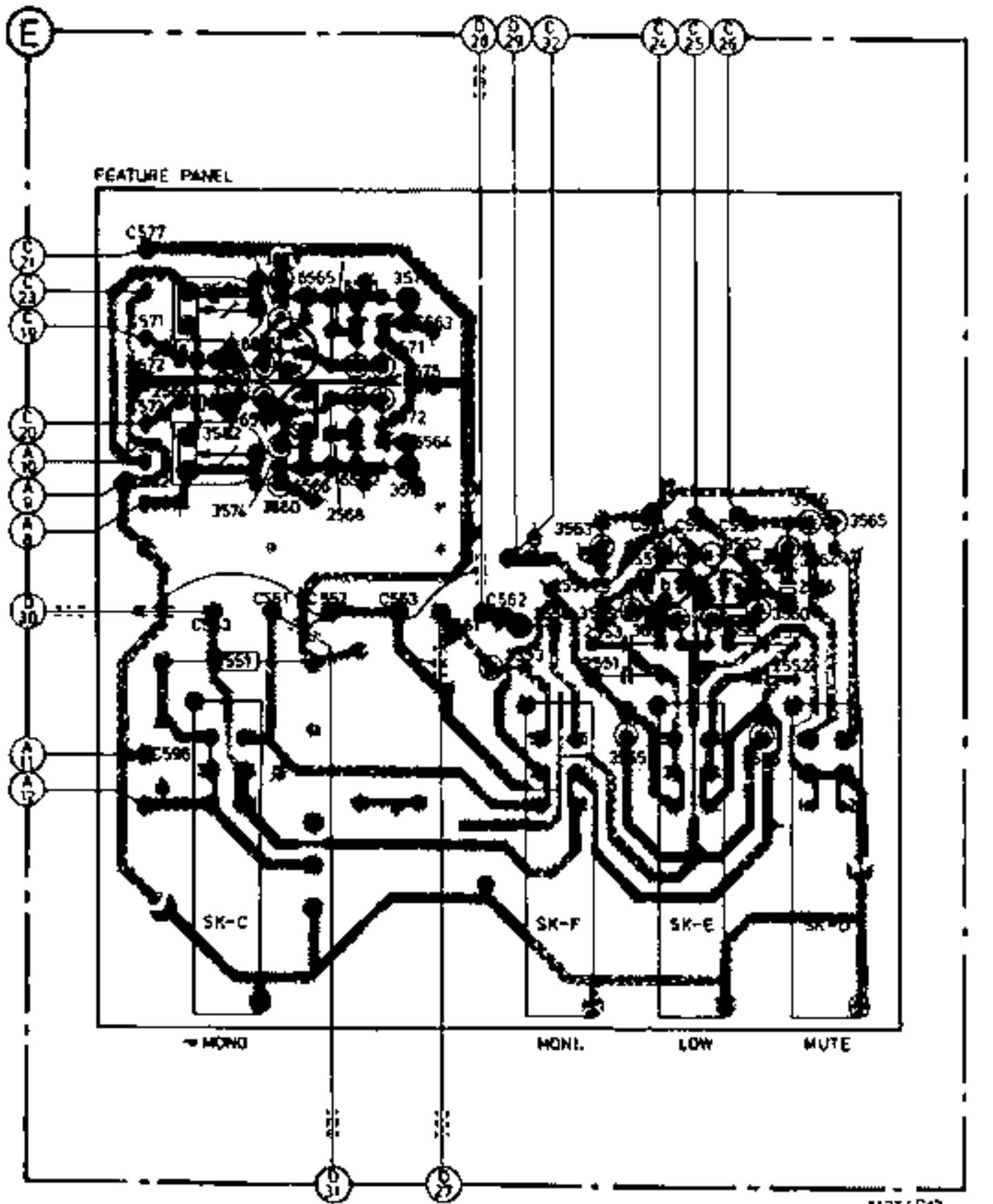
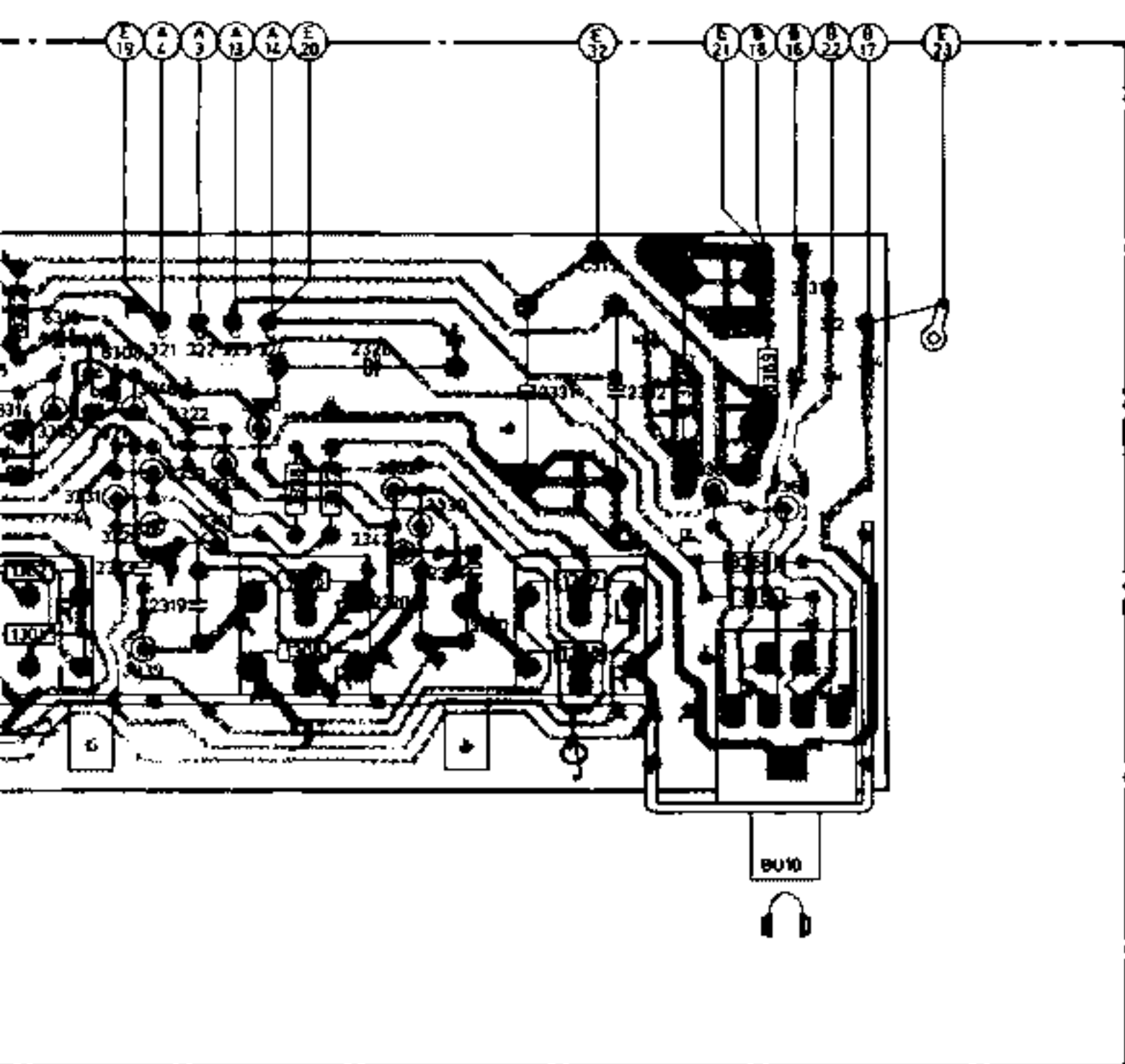
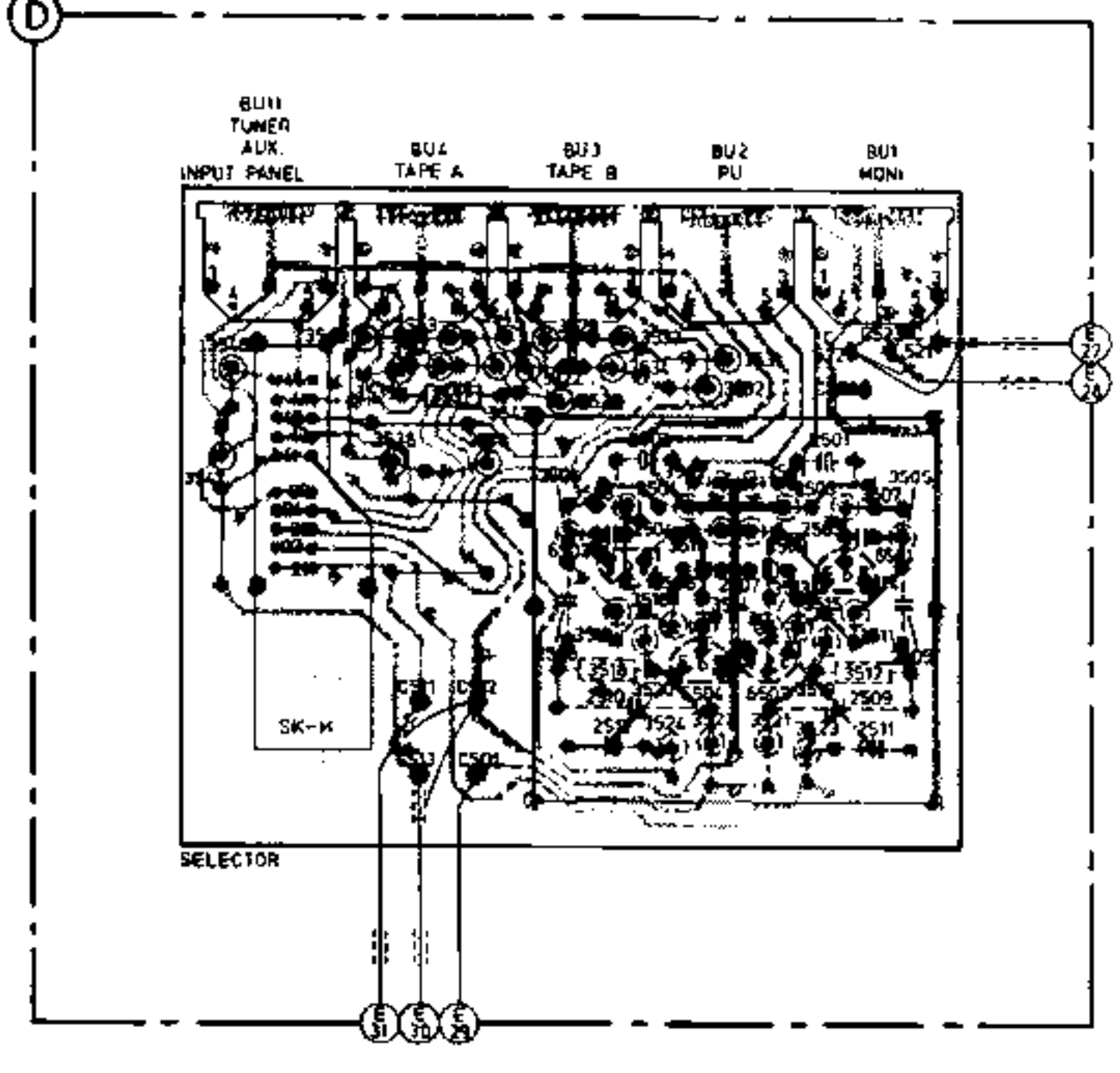
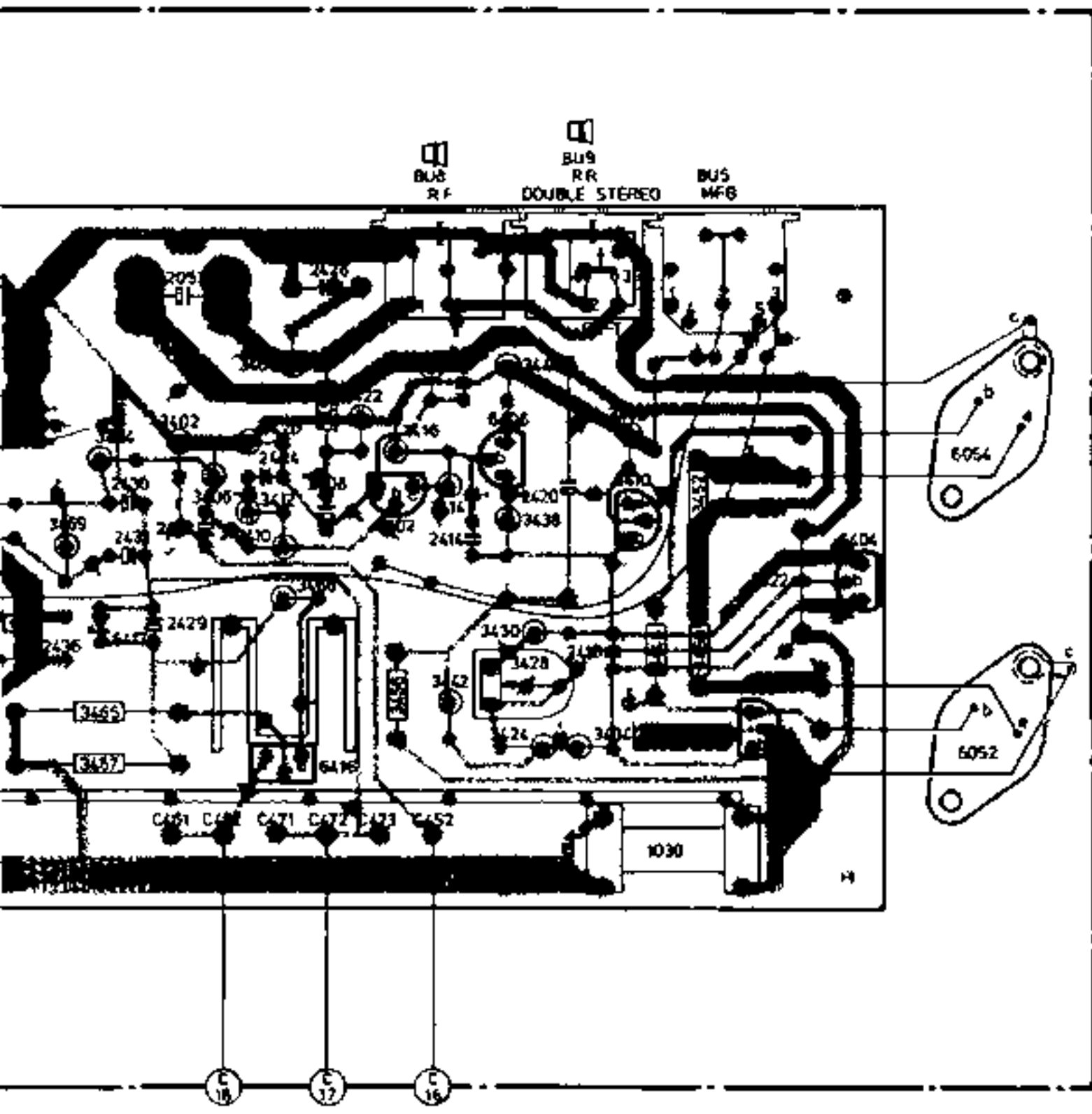
Service Manual



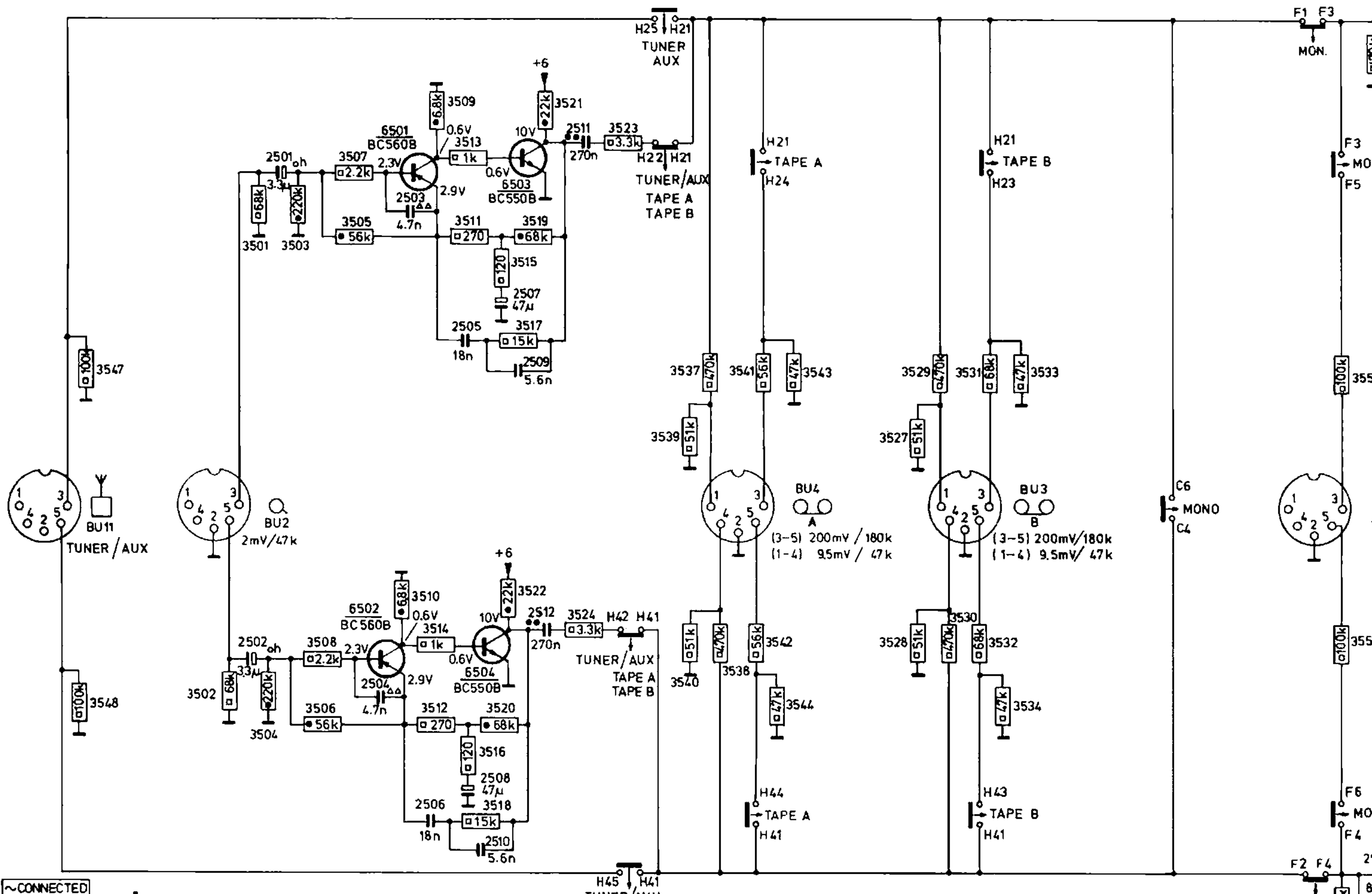
MISC.	D6001	SK-G	6051,6053,SK-A	6403,SK-B,6407	SK-S	6409	6405	6401	6418	6417	6416	6402
MISC.			6303	1029,6301,6302		6304	6313,6311,6307,6317,6312,6314	6318	6309			
C	2051...2332		2313...2318,2311	2302,2309,2301,2303,2310,2305,2304,2308		2312,2326,2051	2053,2321...2323,2319	2062	2320,2326,2324			
	2401...2445		2421	2495	2419	2425,2413,2409	2407	2403,2434,2401	2435,2426,2429...	2421,2402	2404,2426,2408	2431
	3301...3319		3304,3318,3303	3301,3310	3316,3309,3304,3303,3302		3302,3301		3305,3306			
R	3320...3370		3323	3321		3320,3322,3324,3325,3357,3351,3349,3347,3356,3352,3354,3331,3338,3329,3348,3333,3344,3334,3350,3337,3338,3332,3339						
	3401...3434					3433,3429,3427,3423,3419,3431,3415,3421,3419,3409,3411,3405,3401,3403,3407	3404	3402,3406,3400,3417,3420,3422,3424				
	3435...3530					3449,3451,3445	3429,3427	3441,3459,3455	3457	3469,3485,3467	3480,3466,3458,3452	



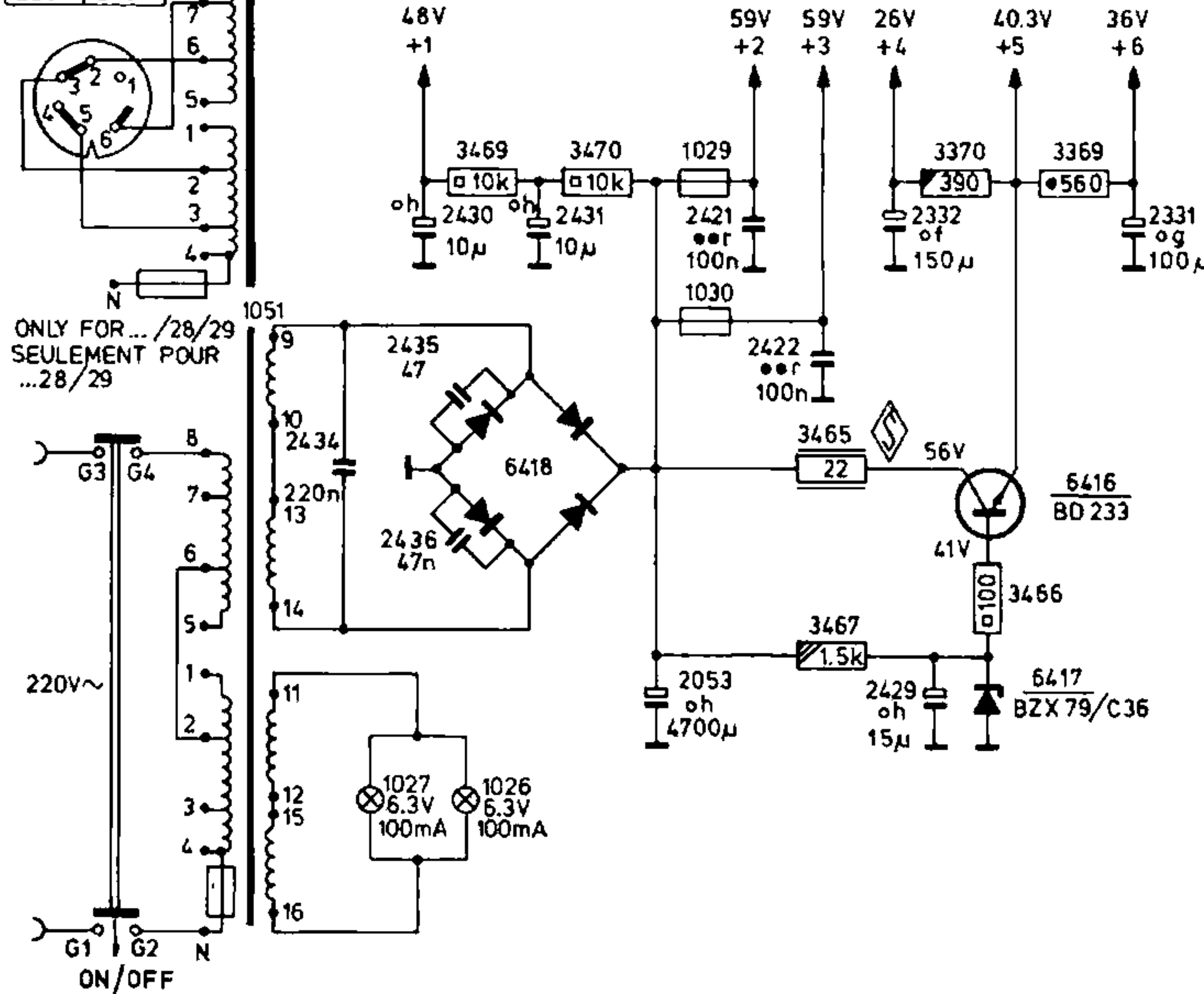
6417	6415	6402	6406	SK-T.8490	6408	6404	6052, 6054	SK-H 6565	6561	6563	6502	6504	6503	6501	MISC.
321... 7223, 2319	2052	2120, 2326, 2324	2331	2332				6566	6562	6564		6551	6552		MISC.
2435, 2436, 2429...	2431, 2402	2404, 2428, 2408	2414, 2410	2420, 2416	2422			2506, 2506	2507, 2508		2502, 2504, 2504	2508, 2507, 2503, 2501, 2511, 2509, 2505	2501	2512	C
	1305, 1306	1307, 1308						2505, 2506	2507, 2508		2515, 2513, 2511	2514, 2512, 2516	2511	2508	
3125, 3148, 3133, 3141, 3134, 3150, 3137, 3138, 3122, 3120, 3142, 3140, 3170, 3161, 3164, 3169								3547, 3548	3537	3544, 3530, 3527	3528, 3531	3534, 3520	3524	3501, 3519	
3131, 3107	3404	3402, 3408, 3410, 3412, 3420, 3422, 3432, 3406, 3414, 3430, 3424, 3428, 3434						3551		3553	3555, 3559, 3557	3558	3556	3520	3548
3469, 3465, 3467	3460	3466, 3458, 3456, 3442	3440, 3438	3448, 3446, 3450, 3452				3579	3582, 3569	3574, 3575	3576	3563	3561	3562, 3560, 3564	3566
														3560	3582



M	BU11	BU 2	F 1029 TS 6501	TS6503	BU2	BU3	
M	1051	LA1026.1027	D6418	F1030 TS 6502	TS6504 TS6416		
C		2502 2501	2504 2503	2506 2505 2507...2510 2511			
C	2434	2436 2430 2431	2053 2421 2422 2332 2429	2512 2331			
R	3547	3501 3503 3507	3509 3513 3511 3519 3521	3523 3537 3541 3543 3527 3529 3531	3533		3553
R		3508 3505	3514 3516 3515 3517	3539			
R		3502 3504 3506	3510 3512 3518 3520 3522 3524	3540 3538 3542 3528 3530 3532 3534			3554
R		3469 3470	3467 3465 3466 3370 3369	3544			

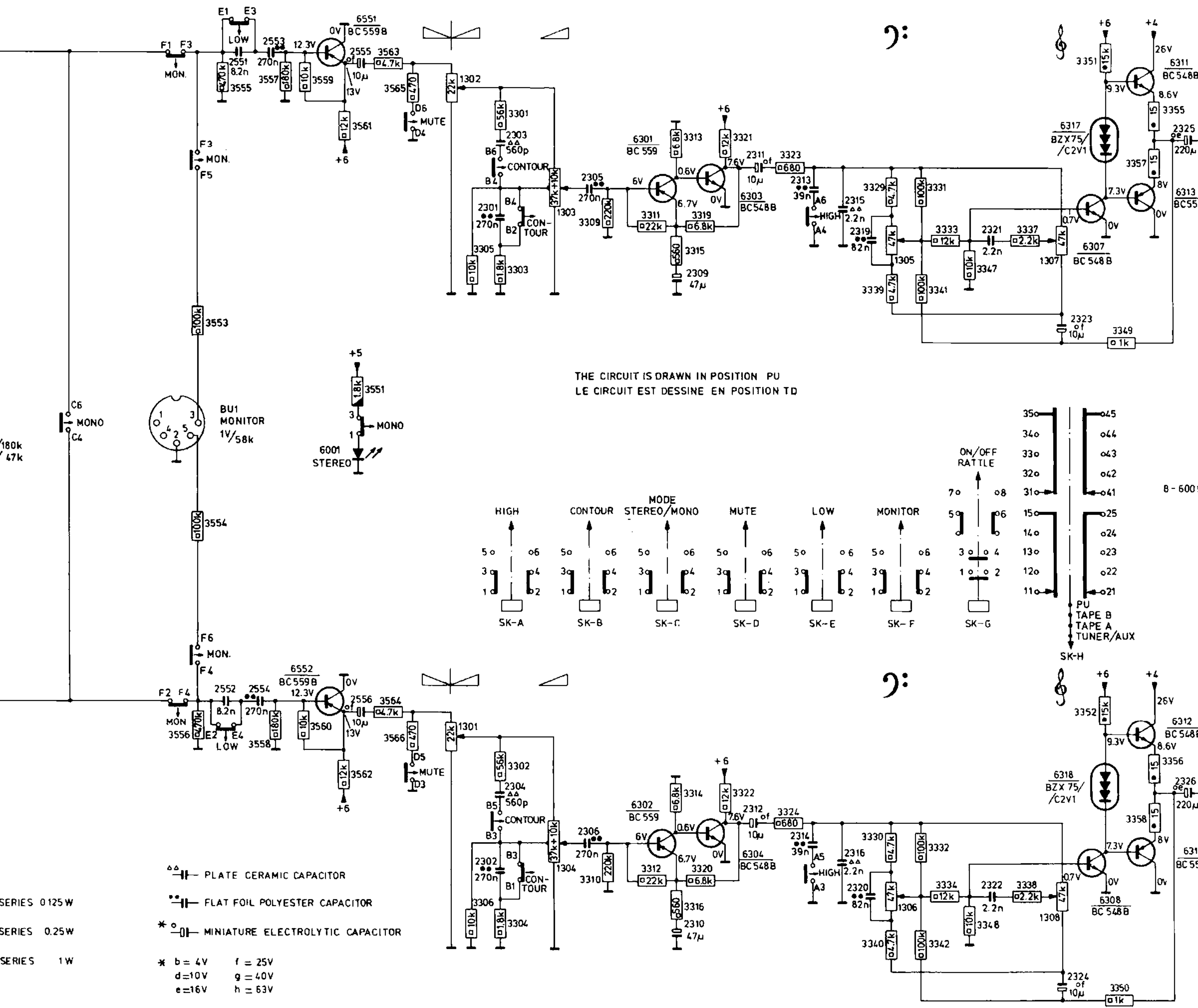


~CONNECTED	
127V	5-6
220V	2-3

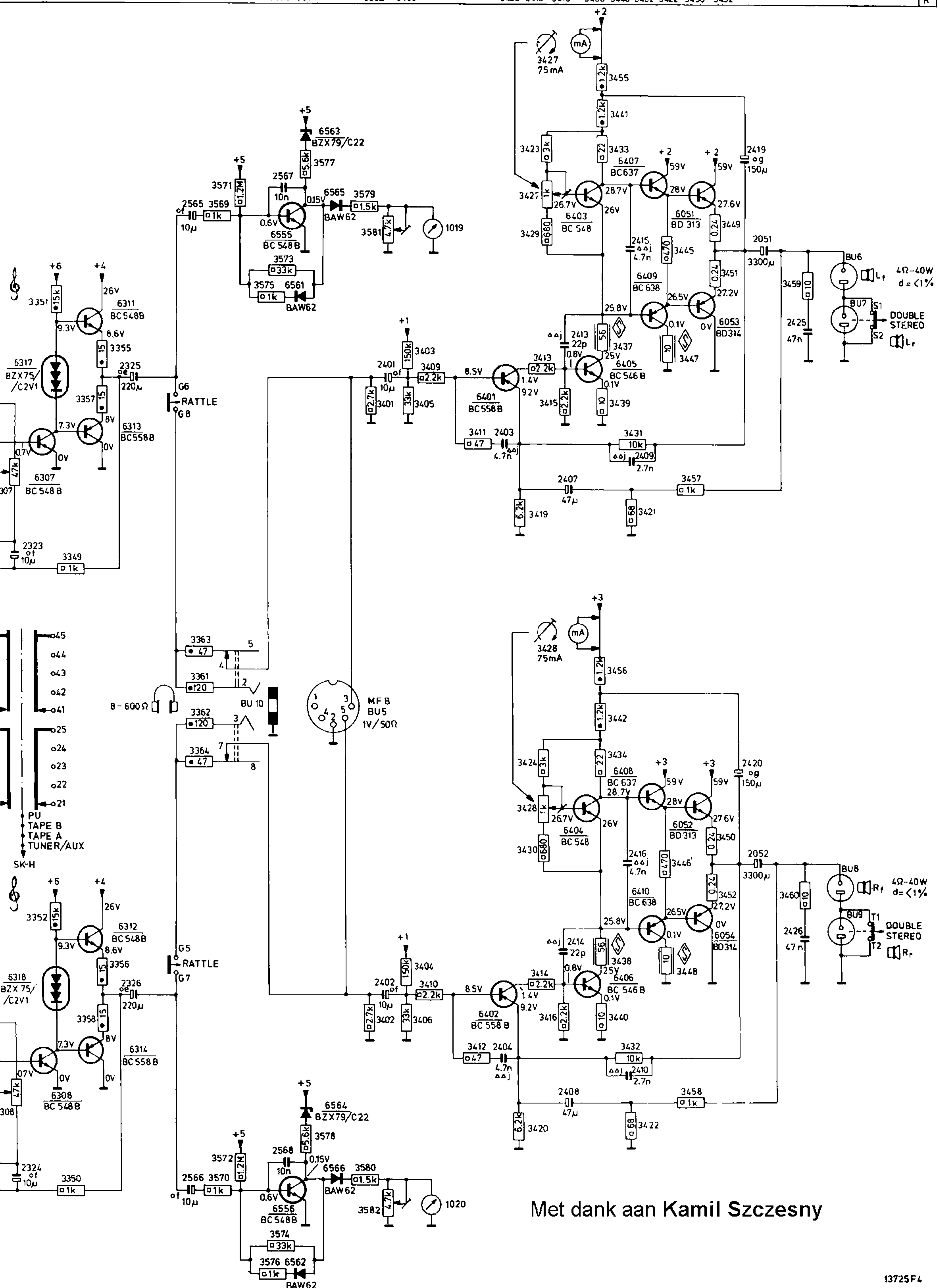


- SAFETY RESISTOR
 - CARBON RESISTOR E24 SERIES 0.125W
 - CARBON RESISTOR E12 SERIES 0.25W
 - CARBON RESISTOR E12 SERIES 1W
 - POLARIZED CAPACITOR
 - FLAMEPROOF CAPACITOR
 - MINIMUM CAPACITOR
- * b = 4V
d = 10V
e = 16V

BU1		TS 6551		TS 6301		TS 6303		D6317		TS 6307, 6311, 6313																					
		TS 6552		TS 6302		TS 6304		D6318		TS 6308, 6312, 6314																					
2551	2553	2555		2301	2303	2305	2309	2311	2313	2315	2319	2321	2323	2325																	
2552	2554	2556		2302	2304	2306	2310	2312	2314	2316	2320	2322	2324	2326																	
3553	3555	3557	3559	3561	3563	3565	1302	3305	3301	1303	3309	3311	3313	3319	3321	3323	3329	1305	3331	3333	3337	1307	3351	3355							
								3303				3315				3339				3341				3349				3357			
3554	3556	3558	3560	3562	3564	3566	1301	3306	3302	1304	3310	3312	3314	3320	3322	3324	3330	1306	3332	3334	3348	3338	1308	3352	3356						
								3304				3316				3340				3342				3350				3358			



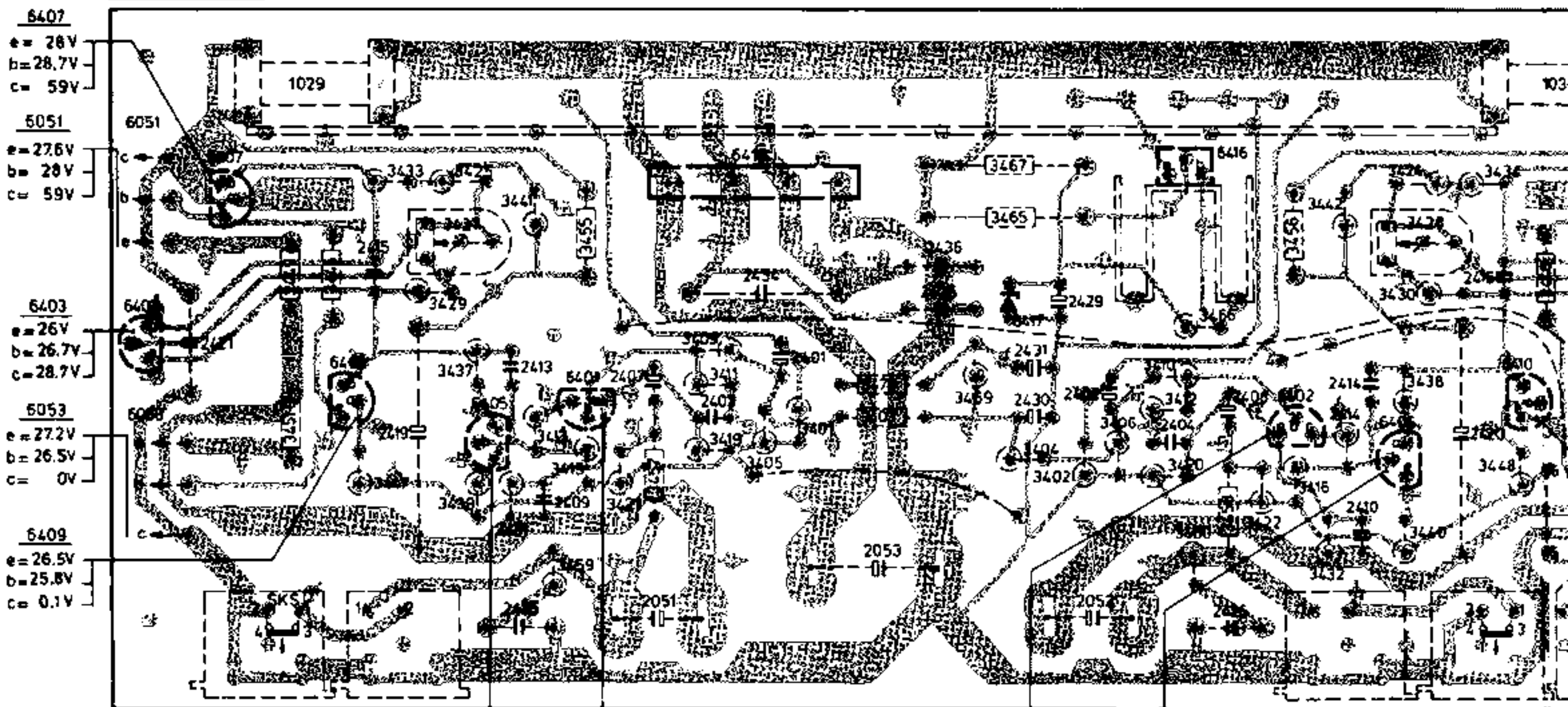
D6317	TS 6307, 6311, 6313	TS6555	D 6561, 6563, 6565	ME1019	TS6401	TS 6403, 6405, 6407, 6409, 6051 6053	M
D6318	TS 6308, 6312, 6314	TS6556	D 6562, 6564, 6566	ME1020	TS6402	TS 6404, 6406, 6408, 6410, 6052 6054	M
2323	2325	2565	2567	2401	2403	2407 2413 2409 2415	C
2324	2326	2566	2568	2402	2404	2408 2414 2416 2416	C
1307	3351	3355	3363 3569 3571	3577 3579 3401 3403	3411	3423 3427 3429 3433 3455 3441 3445 3447 3449	R
	3349	3357	3361	3575 3573	3581 3405	3419 3413 3415 3437 3439 3431 3421 3457 3451	R
1308	3352	3356	3362 3570 3572	3578 3580 3402 3404	3412	3424 3428 3430 3434 3456 3442 3446 3448 3450	R
	3350	3358	3364	3576 3574	3582 3406	3420 3414 3416 3438 3440 3432 3422 3458 3452	R



Met dank aan Kamil Szczesny

MISC.	6403	6407.BU	1029.6409	BU6	6405	6401	6418	6417	6416	6402.BU8	6406	BU9.6410.1080.6
C	2421	2415,2419	2425,2413,2409	2407,2051,2403,2434,2401	2053,2436,2435,2429...	2431,2402,2052,2404,2426,2408	2414,2410	2416,2420				
R	3401...3429		3429,3427,3425,3413,3415,3421,3409,3411	3419	3405,3401,3403		3404,3402,3406,3410,3412,3420,3422	3416,3414,3424,3428				
	3430...3470		3449,3451,3445,3447,3433,3437,3439,3441,3431,3455,3457		3470	3469,3467,3465	3460,3466,3458,3456,3432,3442,3430,3438,3440,3448,34					

POWER AMPLIFIER

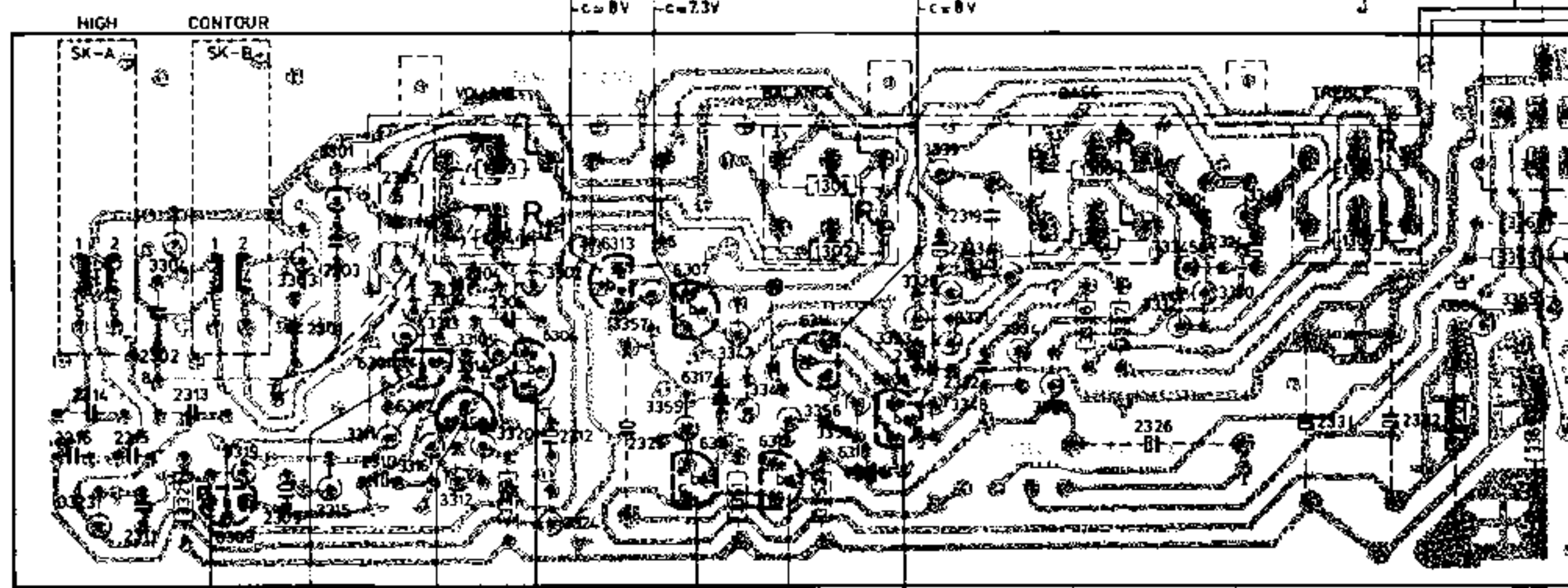


- 6407**
e = 28V
b = 28.7V
c = 59V
- 6051**
e = 27.6V
b = 28V
c = 59V
- 6403**
e = 26V
b = 26.7V
c = 28.7V
- 6053**
e = 27.2V
b = 26.5V
c = 0V
- 6409**
e = 26.5V
b = 25.8V
c = 0.1V

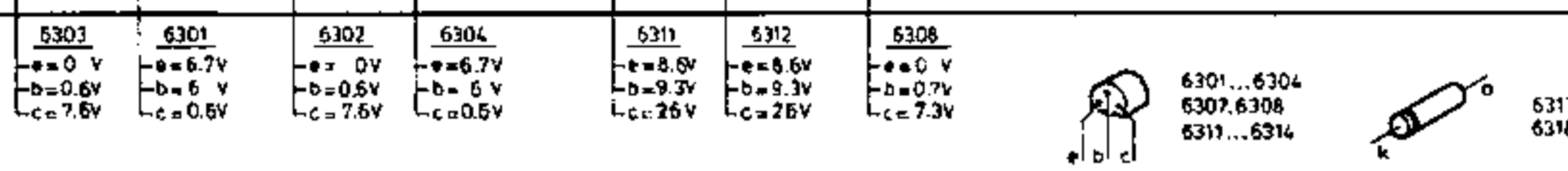


MISC.	SK-A	SK-B.6303	6301,6302	6304	6313,6307,6317,6311	6314	6308					
C	2313...2316,2311	2302	2309,2301,2303,2310,2305,2304,2306	2312	2325	2319...2323	2326,2320,2324	2331	2332			
R	3331...3334	3323,3304	3321,3319,3303	3301,3309...	3316,3322,3303,3304,3320,3302,3324	3301,3302,3333,3325,3331,3334	3306,3305,3332,3330	3308,3307				
	3335...3370				3357,3355,3347,3351,3349,3356,3352,3358	3339,3348,3341,3350,3338	3345	3340				3370,3381...306

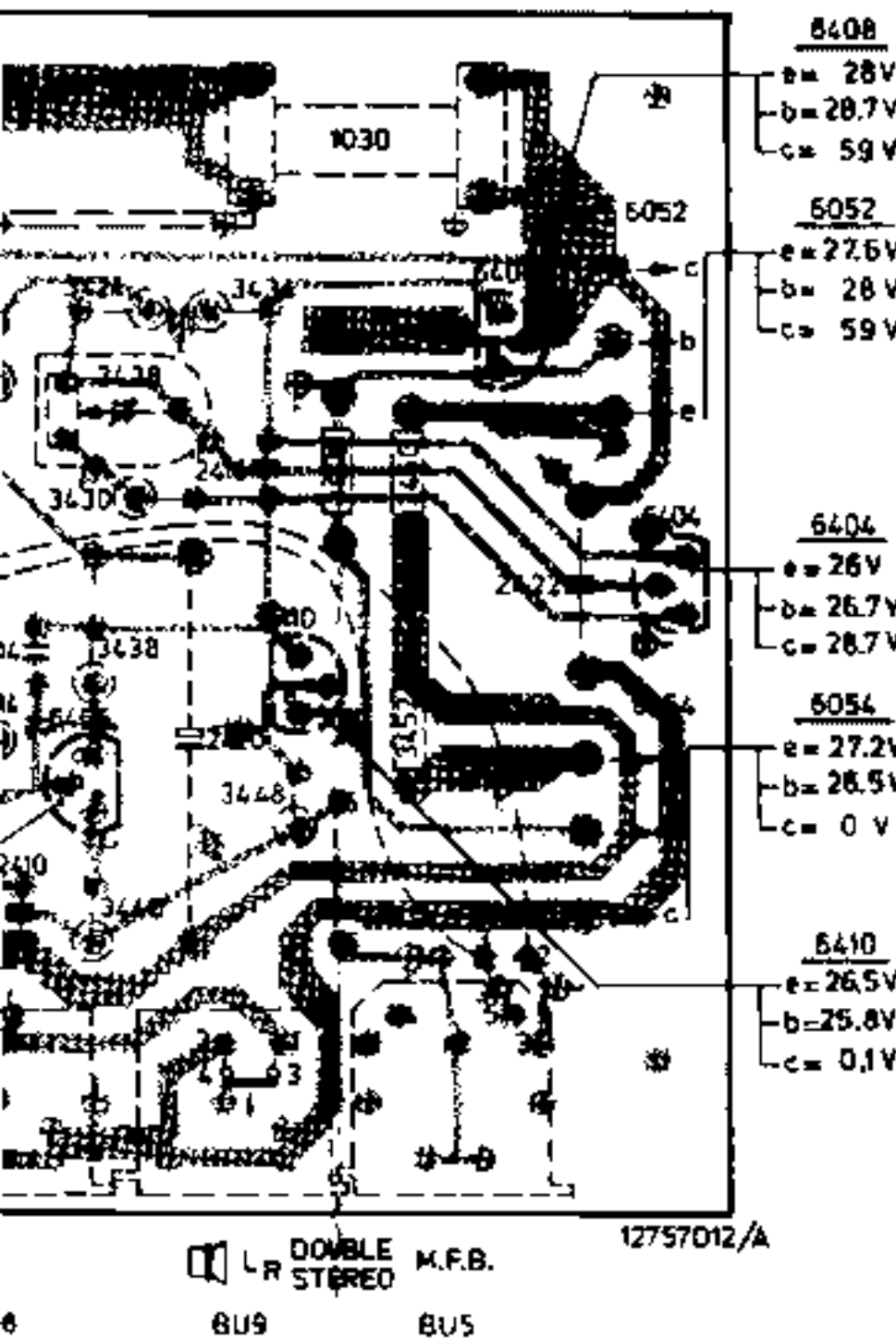
AF - CONTROL UNIT



- 6313**
e = 0V
b = 7.3V
c = 8V
- 6307**
e = 0V
b = 0.7V
c = 7.3V
- 6314**
e = 0V
b = 7.3V
c = 8V

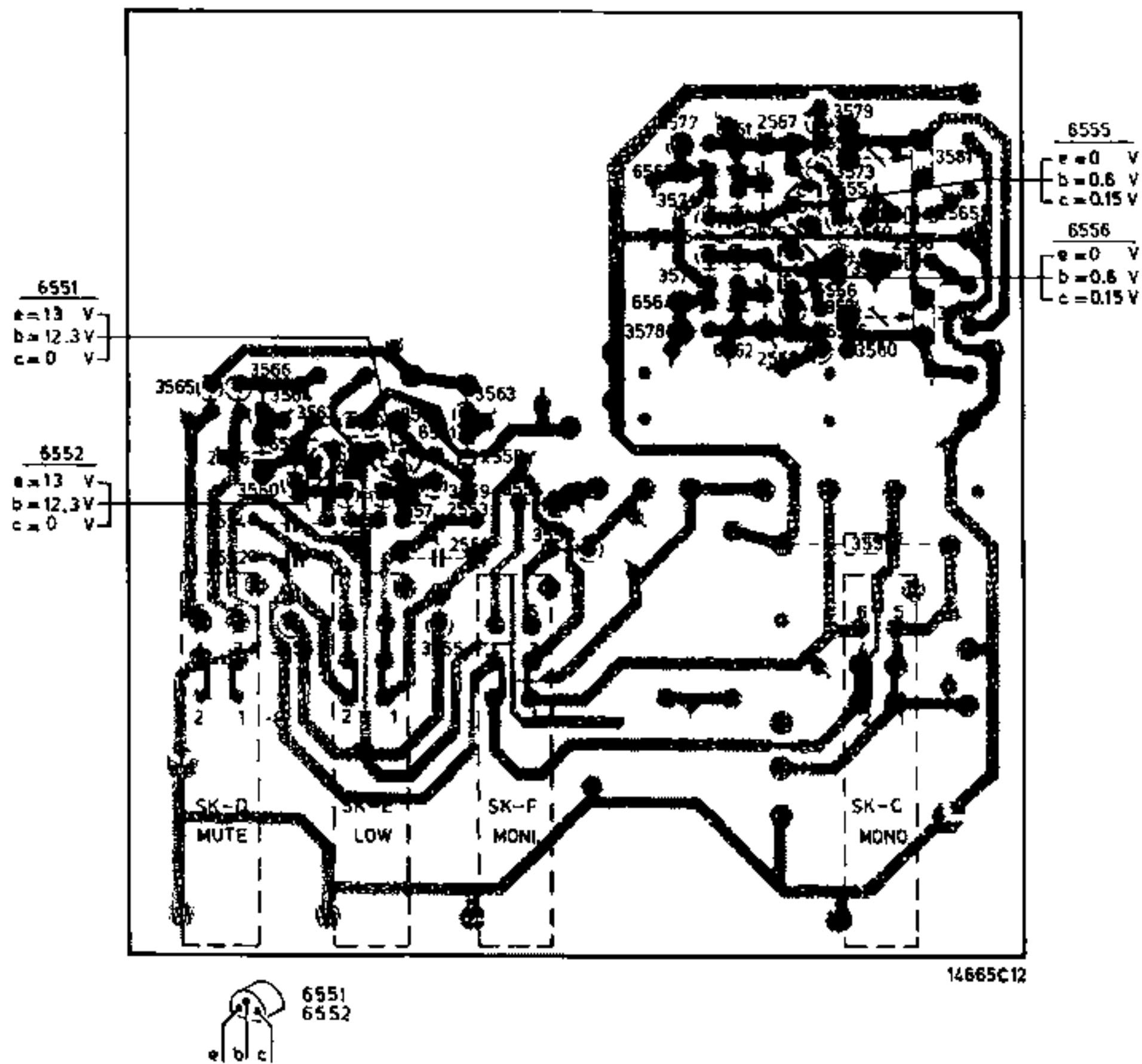


6406	BU9,6410,3070,BU5	6408	6404	MISC.
2410	2416,2420	2422		C
3414,3424,3428			3401...3429	R
442,3430,3438,3440,3446,3434,3446,3450,3452			3430...3470	



6408	e = 28 V
	b = 20.7 V
	c = 59 V
6052	e = 27.5 V
	b = 28 V
	c = 59 V
6404	e = 26 V
	b = 26.7 V
	c = 20.7 V
6054	e = 27.2 V
	b = 28.5 V
	c = 0 V
6410	e = 26.5 V
	b = 25.8 V
	c = 0.1 V

MISC.	SK-D	6552,6551	SK-E	SK-F	6561-6566,6555,6556	SK-C
C 2551-2568		2556,2554,2552	2553,2551,2555		2567,2568	2566,2565
R 3551-3582		3564-3566	3555-3563	3554,3553	3569-3580	3551 3581,3582

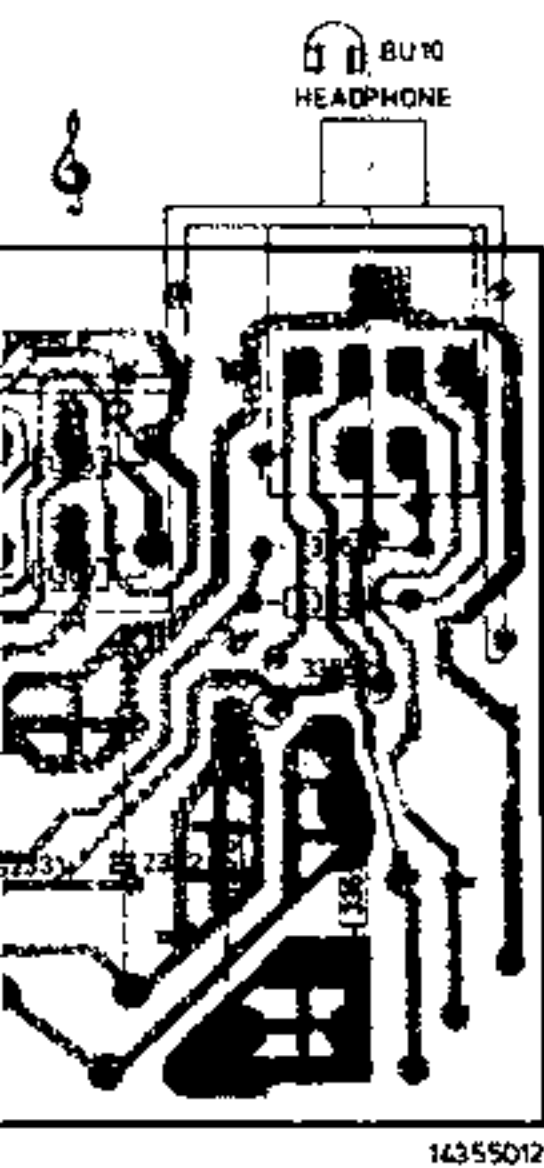


6551	e = 13 V
	b = 12.3 V
	c = 0 V
6552	e = 13 V
	b = 12.3 V
	c = 0 V

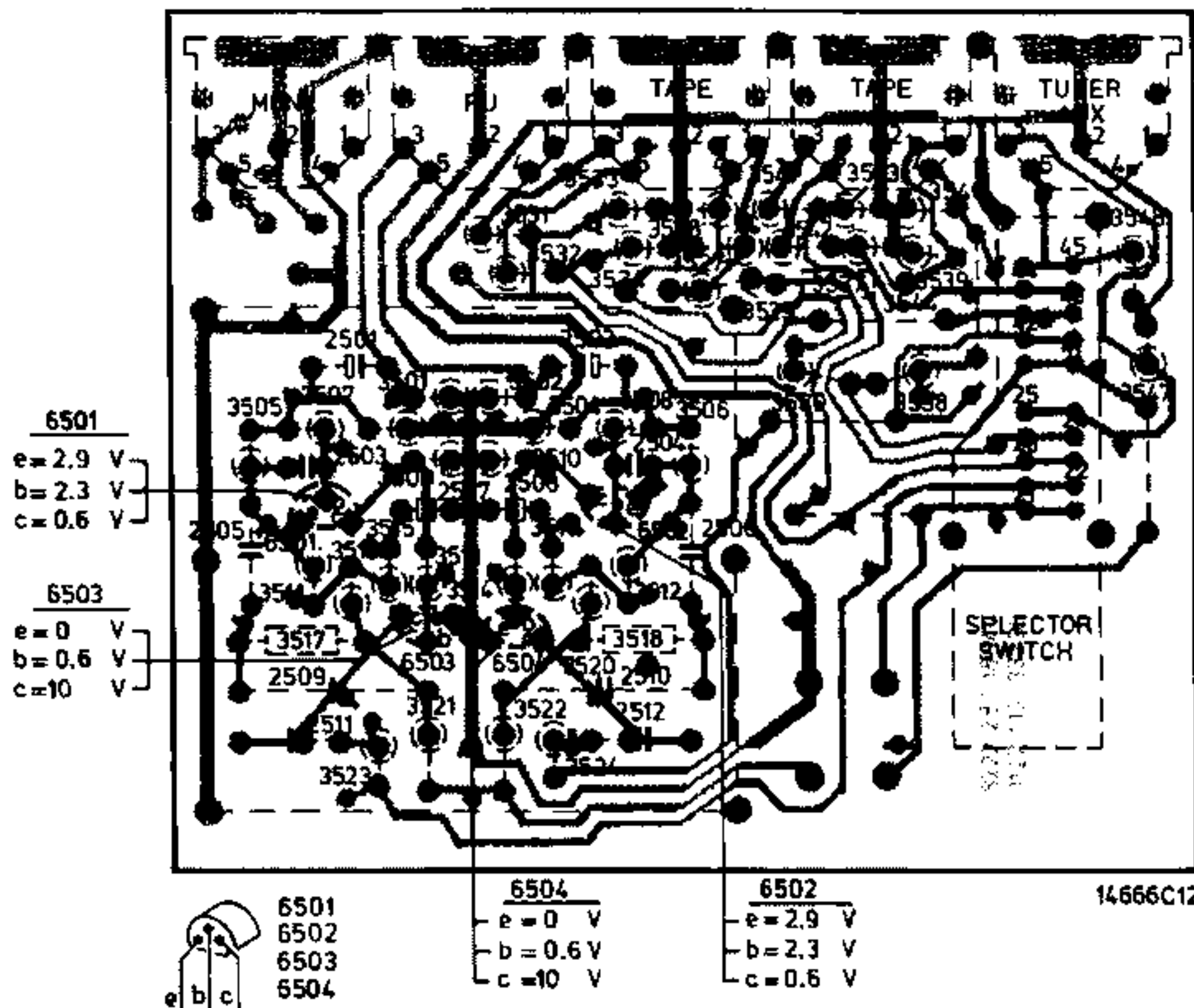
6555	e = 0 V
	b = 0.6 V
	c = 0.15 V
6556	e = 0 V
	b = 0.6 V
	c = 0.15 V

MISC.	6501	6503,6504	6502
C 2501-2512	2505,2511,2509,2503,2501,2507,2508,2502,2510,2504,2512,2506		
R 3501-3548	3501-3511	3512-3524,3531-3534,3527-3530,3537-3544	3548,3547

	BU10	MISC.
1	2332	C
	1308,1307	1301...3334
	3370,3361...3365,3369	3335...3370



14355012

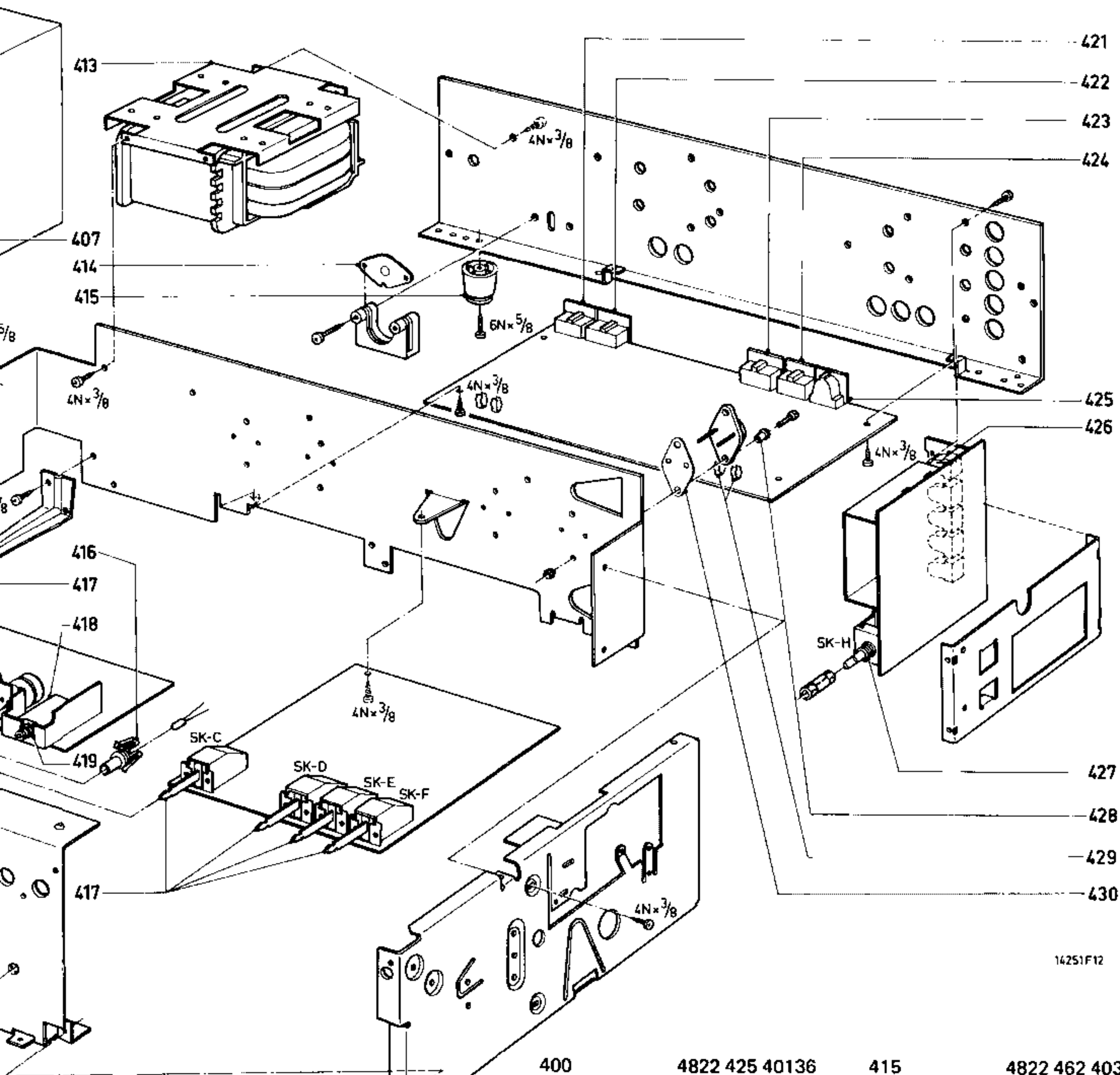


6501	e = 2.9 V
	b = 2.3 V
	c = 0.6 V
6503	e = 0 V
	b = 0.6 V
	c = 10 V

6504	e = 0 V
	b = 0.6 V
	c = 10 V
6502	e = 2.9 V
	b = 2.3 V
	c = 0.6 V

6501	e = 2.9 V
6502	e = 2.9 V
6503	e = 0 V
6504	e = 0 V

14666C12


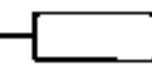



14251F12

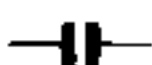
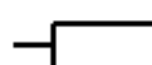

400	4822 425 40136	415	4822 462 40352
401	4822 276 10651	416	4822 256 90201
402	4822 691 10245	417	4822 277 10451
403	4822 134 40326	418	4822 267 30277
404	4822 255 10007	419	4822 505 10571
405	4822 347 10189	420	4822 413 50928
406	4822 333 30107	421	4822 267 30271
407	4822 532 51052	422	4822 267 30264
408	4822 426 50254	423	4822 267 30264
409	4822 411 40023	424	4822 267 30271
410	4822 413 50958	425	4822 267 40209
411	4822 413 30696	426	4822 267 40209
412	4822 492 61974	427	4822 273 60108
413	4822 146 40228	428	4822 532 60653
414 for /29 pour /29	4822 272 10119	429	4822 492 60063
		430	5322 466 90433

420


AF CONTROL PANEL

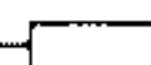

		
2309-2310	Elco 47 μ F - 10 V	
2321-2322	Micro poco 2.2 nF	4822 121 50415
		
1301-1302	Balance pot. 20K	4822 102 10144
1303-1304	Volume pot 50K	4822 102 10142
1305-1306	Bass pot. 50K	4822 102 10143
1307-1308	Treble pot. 50K	4822 102 10143
3370	Carbon res. 390 Ω -1 W	4822 110 23096
		
6301-6302	BC559	4822 130 40963
6303-6304	BC548b	4822 130 40937
6307-6308	BC548b	4822 130 40937
6311-6312	BC548b	4822 130 40937
6313-6314	BC558b	4822 130 44197
6317-6318	BZX75/C2V1	5322 130 34049

FEATURE PANEL



		
2551-2552	Flat cap. 8.2 nF	4822 121 40147
2567-2568	Flat cap. 10 nF	4822 121 41134
		
3551	Carbon res. 1.8 k Ω - 1 W	4822 110 23114
3581-3582	Trimpot. 4.7 k Ω	4822 100 10036
		
6551-6552	BC559b	4822 130 44358
6555-6556	BC548b	4822 130 40937
6561-6562	BAW62	4822 130 30613
6563-6564	BZX79/C22	5322 130 34441
6565-6566	BAW62	4822 130 30613

LF POWER PANEL

		
2051-2052	Elco 3300 μ F-55 V	4822 124 70264
2053	Elco 4700 μ F-63 V	4822 124 70198
2407-2408	Elco 47 μ F-10 V	
2425-2426	Flat cap. 47 nF	4822 121 40525
2434	Flat cap. spec. 220 nF	4822 121 40538
2435-2436	Flat cap. 47 nF	4822 121 40336

		
3403-3404	Metal film res. 150 k Ω	5322 116 54713
3405-3406	Metal film res. 33 k Ω	5322 116 50482
3419-3420	Metal film res. 6.2 k Ω	5322 116 50608
3427-3428	Trimpot. 1 k Ω	4822 100 10037
3431-3432	Metal film res. 10 k Ω	5322 116 54619
3437-3438	Safety res. 56 Ω	4822 111 30412
3445-3446	Safety res. 470 Ω	4822 111 30411
3447-3448	Safety res. 10 Ω	4822 111 30405
3449 - 3452	W.W. res. 0.24 Ω - 2 W	4822 113 60122
3465	Safety res. 22 Ω	4822 111 50346
		
6051-6052	BD313	4822 130 41154
6053-6054	BD314	4822 130 41155
6401-6402	BC558b	4822 130 44197
6403-6404	BC548	4822 130 40938
6405-6406	BC546b	4822 130 44461
6407-6408	BC637	4822 130 41041
6409-6410	BC638	4822 130 41087
6416	BD233	5322 130 44281
6417	BZX79/C36	5322 130 34098
6418	Bridge rectifier B80-C5500/3300	4822 130 50311

INPUT PANEL

		
2505-2506	Micro poco 18 nF	5322 121 54113
2507-2508	Elco 47 μ F-10 V	
2509-2510	Micro poco 5.6 nF	4822 121 50543
		
6501-6502	BC560b	4822 130 41124
6503-6504	BC550b	5322 130 44454

MISCELLANEOUS

F1029- F1030	} Fuse 3.15A slow	4822 253 30027
D6001		
	LED LD37/1	4822 130 30923
	Silicon grease	5322 390 20019
	Solder tag	5322 290 34028
	Mains lead with plug	4822 321 10084

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

D

Die Sicherheitsvorschriften erfordern, dass das Gerät sich nach der Reparatur in seinem originalen Zustand befindet und dass die benutzten Einzelteile den aufgeführten Teilen identisch sind.

SF

Korjatesa laitetta on turvallisuussyistä ehdottomasti eneteltävä oikein ja käytettävä tehtaan määräämiä alkuperäisvaraosia.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

S

Säkerhetsbestämmelserna kräver att varje reparation skall utföras korrekt med hänsyn till ursprunglig placering av komponenter, ledningar etc. och med användning af föreskrivna reservdelar.

DK

Myndighedernes sikkerheds- og radiostøjbestemmelser kræver, at enhver reparation skal udføres korrekt m.h.t. overholdelse af originalplacering og montering af komponenter, ledningsbundter, etc., og ved anvendelse af de foreskrevne reservedele.

N

Sikkerhetsbestemmelser kreves at apparatet blir gjenopprettet til original utførelse og at deler som er identiske med de som er spesifisert, blir benyttet.

Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. 244 PH

Type 22 AH 594/00/28/29


Datum januari '80

RADIO

Voor verbetering van de ruststroom zijn TS 6403 en TS 6404 vervangen door TS 6601 en TS 6602.

TS 6601 en TS 6602 worden, electrisch gezien, op dezelfde wijze gemonteerd als TS 6403 en TS 6404.


C2505 - C2506 zijn voor een verbetering van de gevoeligheidsinstelling gewijzigd in flat cap 18 nF..W.

R 3525 en R 3526, 470 kohm  zijn toegevoegd

R 3525 is gemonteerd tussen H22 en massa


R 3526 is gemonteerd tussen H 42 en massa (gevoeligheidsinstelling)

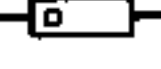
R 3541 en R 3542 zijn gewijzigd in 47 Kohm 

R 3543 en R 3544 zijn gewijzigd in 100 Kohm 

R 3547 en R3548 vervallen


Voor de /15 uitvoering is het printspoor aangepast (zie fig. 2)

R 3531 en R 3532 zijn gewijzigd in 47 Kohm 


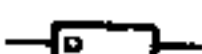
R 3533 en R 3534 zijn gewijzigd in 100 Kohm 



Voor verbetering van de H.F. onderdrukking zijn de volgende condensatoren en weerstanden toegevoegd:

- C 2327/2328 - 2,2 nF parallel aan R 3311/3312
- C 2329/2330 - 220 pF parallel aan R 3319/3320
- C 2335/2336 - 2,7 nF parallel aan R 3347/3348
- R 3305/3306 - 2,2 Kohm  in serie met C 2305/2306

Voor onderdrukking van de inschakelimpuls zijn de volgende weerstanden toegevoegd (zie fig. 3).

- R 3359 - 270 ohm  gemonteerd tussen G6 (Rattle) en aarde
- R 3360 - 270 ohm  gemonteerd tussen G7 (Rattle) en aarde

Na enige tijd kan stof de platte schakelaarcontacten van de "Rattle" schakelaar ongunstig beïnvloeden. Om dit te voorkomen is schakelaar 401 gewijzigd.

De nieuwe schakelaar kan men herkennen aan het puntcontact op de rattleschakelaar (zie fig. 1).

Het bestelnummer 4822 276 10651 is niet gewijzigd.

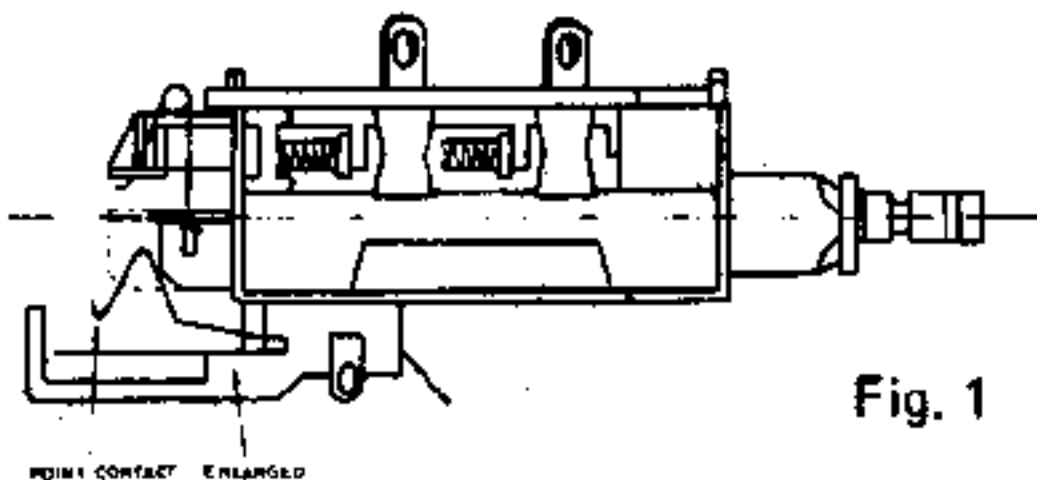


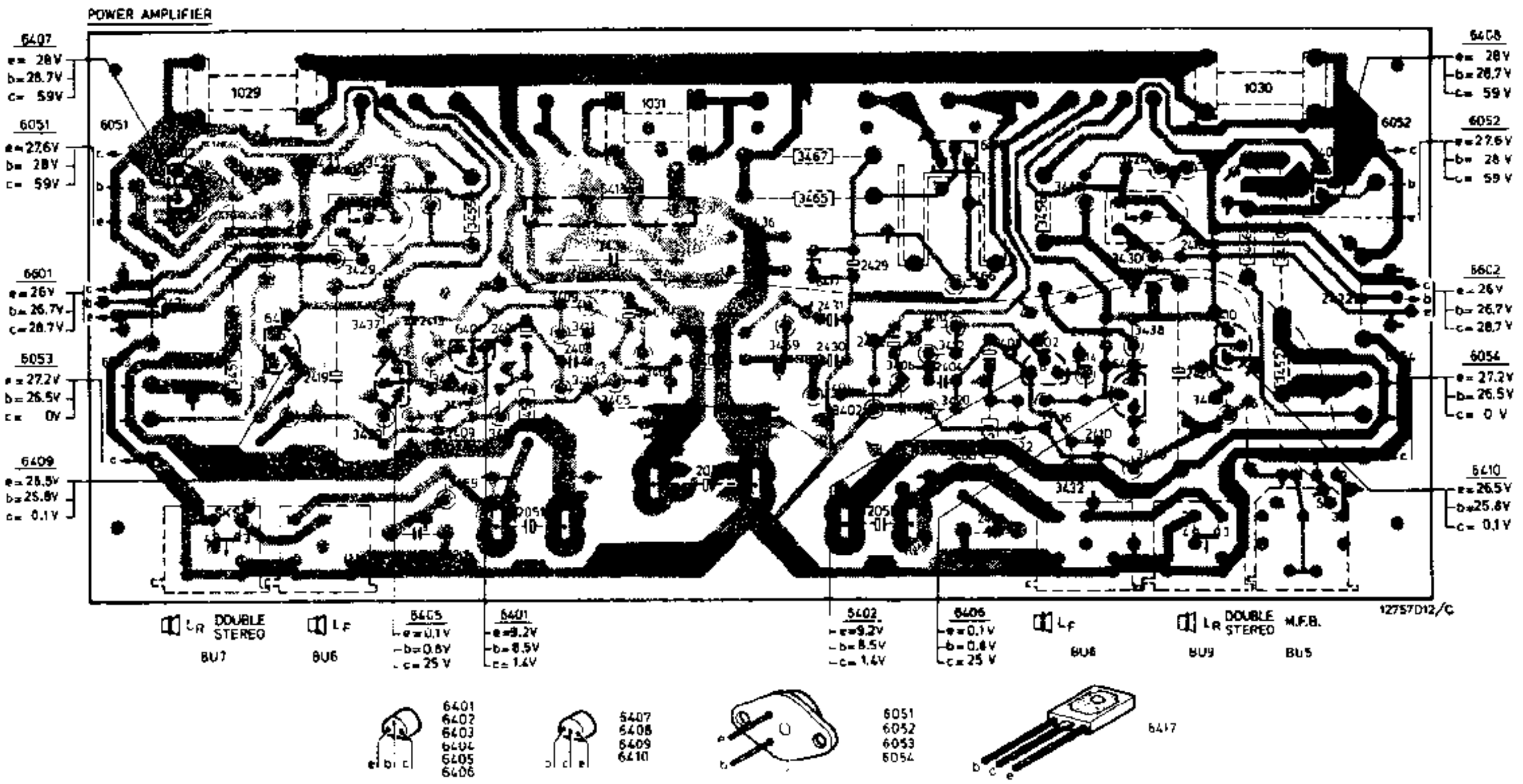
Fig. 1

22 AH 594/00/29

Vanaf stempeling PL 02 is de transformator gewijzigd. Het bestelnummer is 4822 146 40242.

De aansluitdraden voor de signaallampjes moeten i.p.v. in serie nu parallel worden gemonteerd (zie fig. 4).

MISC.	6407, BU7	1029, 6409, BU6	6405	6401	6418	1031	6417	6416	6402, BU8	6406	BU9, 6410, 1030, BU5	6408	MISC.
C	2471	2415, 2419	2425, 2413, 2409	2407, 2051, 2403, 2434, 2401	2053, 2436, 2435, 2429...	2431, 2462, 2052, 2404, 2426, 2408	2414, 2410	2416, 2420	2422				C
R	3401...3429	3429, 3427, 3425, 3413, 3415	3421, 3409, 3411	3419, 3405, 3401, 3403	3404, 3402, 3406, 3410, 3412, 3420, 3422	3416, 3414, 3424, 3428	3401...3429						R
	3430...3470	3449, 3451, 3445, 3447	3433, 3437, 3439, 3441, 3431, 3455, 3457	3470	3459, 3467, 3465	3460, 3466, 3458, 3456, 3432, 3442, 3470, 3438, 3440, 3448, 3434, 3446, 3450, 3452	3430...3470						



MISC.	SK-A	SK-B, 6303	6301, 6302	6304	6313, 6307, 6317, 6311	6314	6308	BU10	MISC.
C	7313... 2316, 2311, 2302	2329, 2309, 2301	2303, 2310, 2327	2304... 2308, 2328, 2330, 2312, 2325, 2051	2336, 2319... 2323	2326, 2320, 2324	2337	2322	C
R	3331... 3334	3323, 3304	3321, 3319, 3303, 3315, 3301, 3309	3313, 3305, 3316, 1303, 1304, 3302, 3324, 3314, 3322, 3301, 1302, 3333, 3329, 3331, 3334	1306, 1305, 3332, 3330	1308, 1307	3370, 3361... 3362, 3369	3335... 3370	R

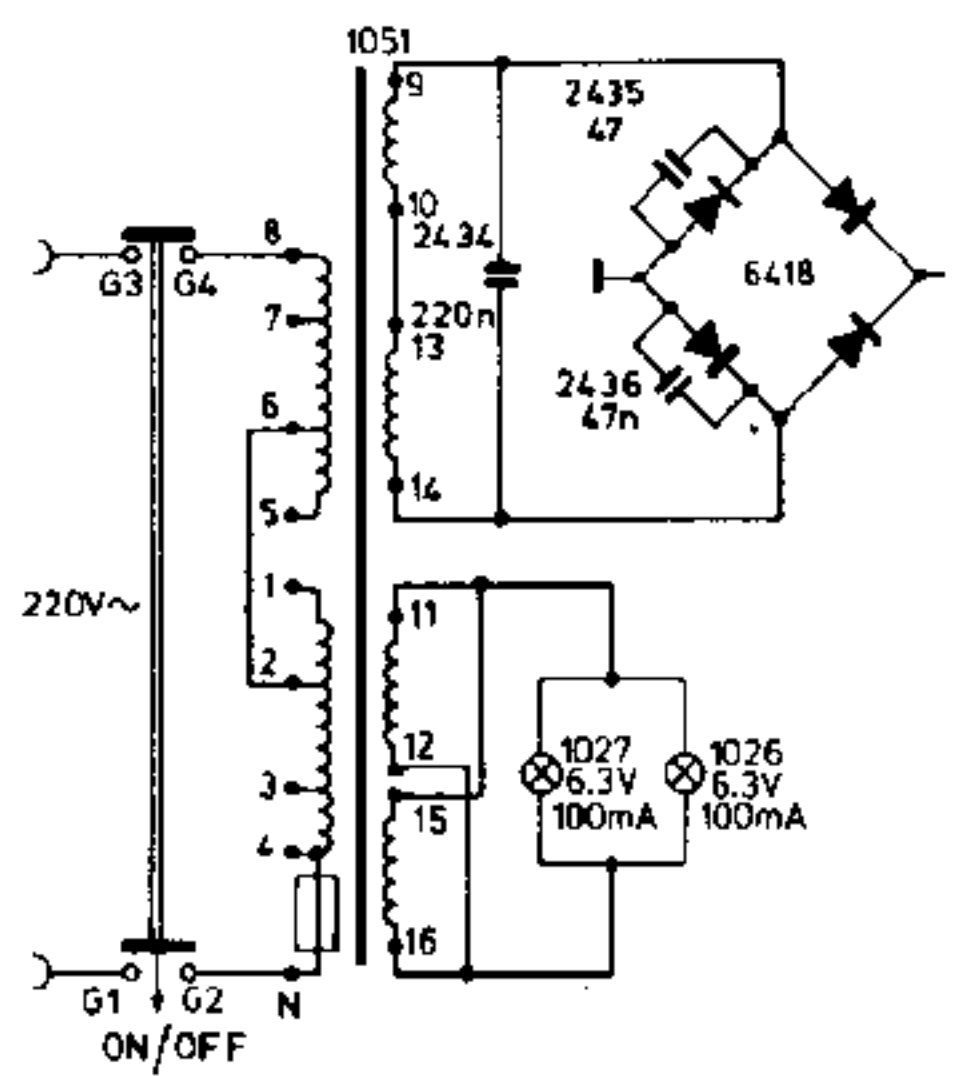
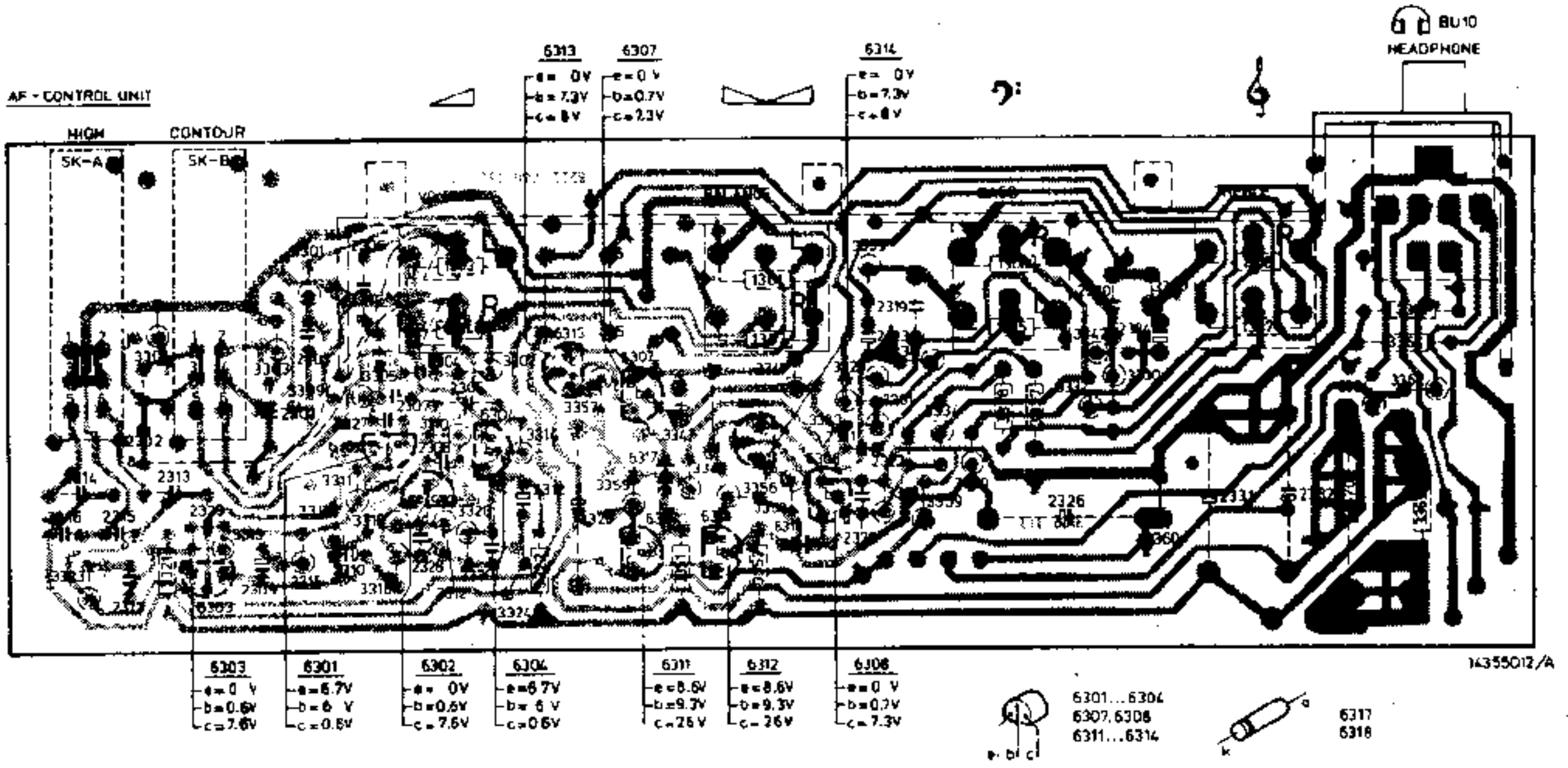


Fig. 3

Fig. 4