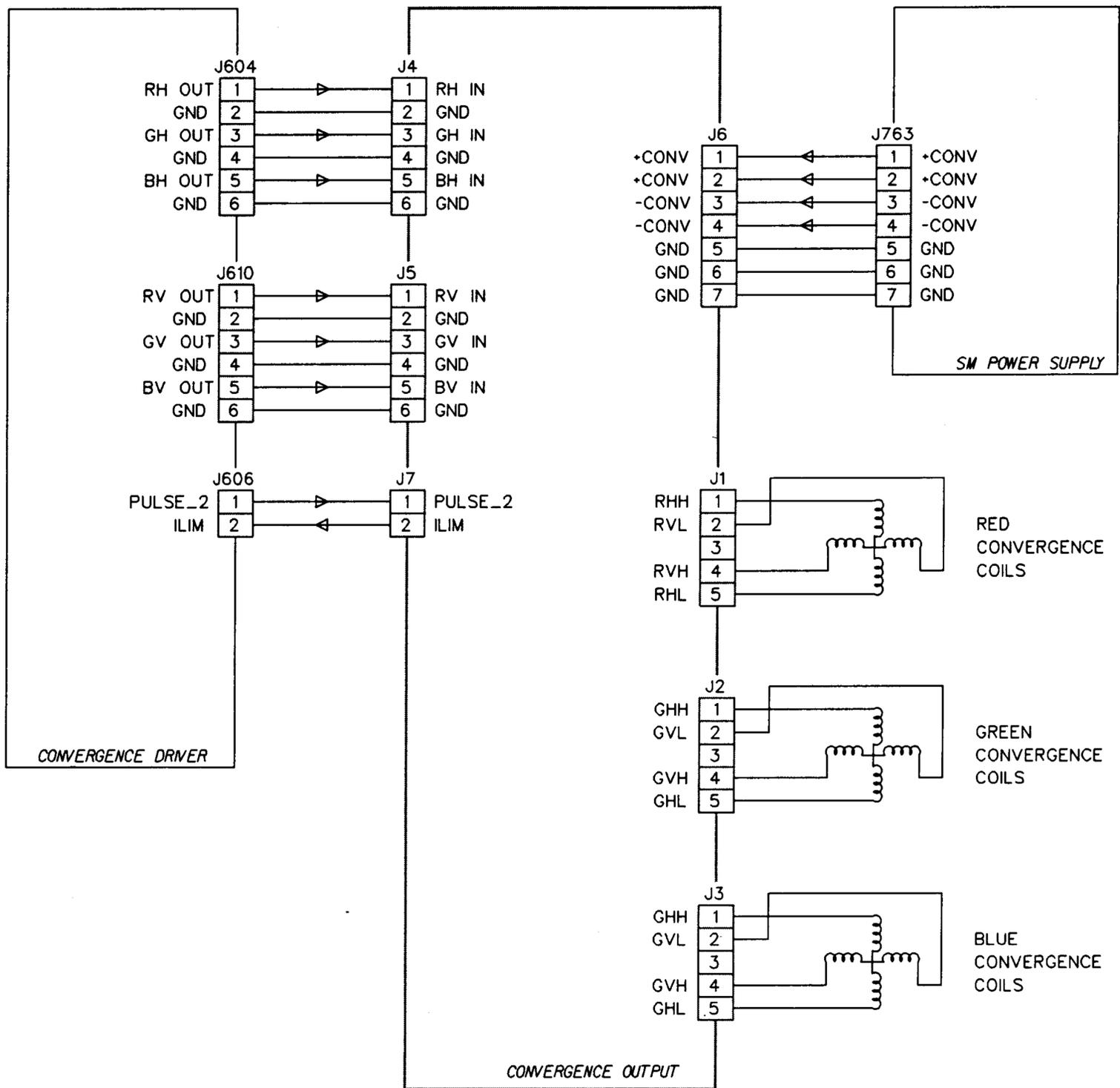


Convergence module (Output) R762455



Name Interconnection CONVERGENCE OUTPUT		Article nr. 76 2455
Date 18-04-1995	Drawn JVDY	Checked GM

BARCO PROJECTION SYSTEMS

Modifications reserved

	COMP.	LOC.	COMP.	LOC.	COMP.	LOC.
1	C1	D 2	L31	E 4	R85	F 4
	C2	D 3	L41	D 4	R86	F 4
	C3	C 3	L51	E 4	R87	E 4
	C4	C 3			R88	E 4
	C5	C 2	P1	C 3	R89	F 4
	C6	D 2	P11	F 2	R90	E 4
	C7	D 3	P21	C 3	R91	D 4
	C8	D 3	P31	F 3	R92	F 5
	C9	C 3	P41	C 4	R93	F 5
	C10	C 3	P51	F 4	R95	F 5
	C11	E 2			R100	C 5
	C12	E 3	Q1	D 3	R101	C 5
	C13	F 3	Q2	C 3	R102	C 5
	C14	F 2	Q3	C 3	R103	C 5
	C15	F 3	Q4	C 3	R104	C 5
	C16	D 3	Q5	C 3	R105	C 5
	C18	E 3	Q11	E 2	R106	C 5
	C19	F 3	Q12	F 3	R107	C 5
	C20	F 3	Q13	F 3	R110	D 2
	C21	D 3	Q14	F 2	R111	D 2
	C22	D 4	Q15	F 3	R112	D 2
	C23	C 3	Q21	D 4	R113	D 2
	C24	C 4	Q22	C 3	R114	D 2
	C25	C 3	Q23	C 3	R115	D 2
	C26	D 3	Q24	C 4	R116	D 2
	C27	D 3	Q25	C 3	R117	D 2
	C28	D 3	Q31	E 3	R118	E 2
	C29	C 3	Q32	F 4	R119	E 2
	C30	C 3	Q33	F 3	R120	E 2
	C31	E 3	Q34	F 3	R121	E 2
C32	E 3	Q35	F 4	R122	E 2	
C33	F 3	Q41	D 4	R123	E 2	
C34	F 3	Q42	C 4			
C35	F 4	Q43	C 4	SR1	D 4	
C36	D 4	Q44	C 4	SR2	E 4	
C38	E 3	Q45	C 4			
C39	F 3	Q51	E 4	Z1	E 4	
C40	F 4	Q52	F 4	Z2	E 4	
C41	D 4	Q53	F 4	Z3	E 2	
C42	D 4	Q54	F 4			
C43	C 4	Q55	F 4			
C44	C 5	Q100	D 5			
C45	C 4	Q101	D 4			
C46	E 4	Q102	D 2			
C47	D 4	Q103	D 2			
C48	D 4	Q104	C 2			
C49	C 4	Q105	C 2			
C50	C 4	Q106	F 2			
C51	E 4	Q107	E 2			
C52	E 4					
C53	F 4	R1	D 2			
C54	F 4	R2	D 2			
C55	F 4	R3	D 2			
C56	D 4	R4	D 3			
C58	E 4	R5	D 3			
C59	F 4	R6	D 3			
C60	F 4	R7	C 3			
C61	E 4	R8	C 3			
C62	D 4	R9	C 3			
C63	C 2	R10	C 3			
C64	F 2	R11	C 3			
C65	D 4	R12	D 2			
C66	D 4	R13	D 2			
C67	D 2	R14	C 2			
C68	C 2	R15	D 3			
C69	C 5	R16	E 3			
C70	E 2	R17	E 2			
C71	D 2	R18	E 2			
C72	D 2	R19	E 3			
C73	F 2	R20	F 2			
C74	E 4	R21	F 3			
C75	E 4	R22	F 3			
C76	E 2	R23	F 3			
C78	E 2	R24	F 3			
4	D1	D 3	R25	F 3		
	D2	D 3	R26	F 3		
	D3	C 3	R27	E 2		
	D4	D 3	R28	E 2		
	D5	D 3	R29	F 3		
	D11	E 3	R31	D 3		
	D12	E 3	R32	D 3		
	D13	F 3	R33	D 3		
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	D44	D 4	R49	E 4		
	D45	D 4	R50	F 3		
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	D52	E 4	R52	F 3		
	D53	E 4	R53	F 3		
	D54	E 4	R54	F 3		
	D55	E 4	R55	F 3		
D99	E 2	R56	F 3			
D100	D 2	R57	E 3			
D101	F 2	R58	E 3			
D102	E 2	R59	F 4			
6	IC1	D 2	R61	D 4		
	IC2	E 3	R62	D 4		
	IC3	D 4	R63	D 4		
	J1	E 3	R64	D 4		
	J2	E 4	R65	D 4		
	J3	E 4	R66	D 4		
	J4	D 2	R67	C 4		
	J5	E 2	R68	C 4		
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	J7	F 2	R70	C 4		
	J9	F 2	R71	C 4		
	J10	C 2	R72	D 4		
J11	F 2	R73	D 4			
J12	E 4	R74	C 4			
L1	D 3	R75	D 4			
L2	E 5	R76	E 4			
L3	E 4	R77	E 4			
L4	D 2	R78	E 4			
L11	E 3	R79	E 4			
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		R84	F 4			

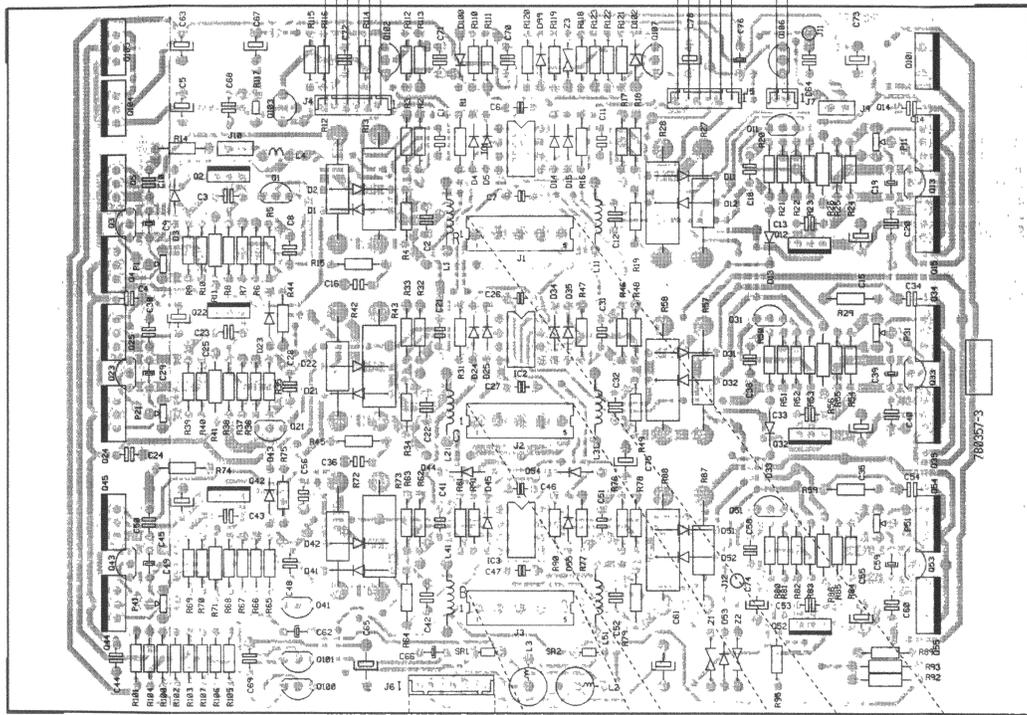
From CONVERGENCE DRIVER (J606)

From CONVERGENCE DRIVER (J610)

From CONVERGENCE DRIVER (J604)

PI, PII, P2I, P3I, P4I AND P5I:
ADJUSTMENTS OF THE BIAS-CURRENT
IN ENDSTAGES.

FACTORY PREADJUSTED ON 5mA
FOR EACH ENDSTAGE.



From SM POWER SUPPLY (J763)

To RED CONVERGENCE COILS

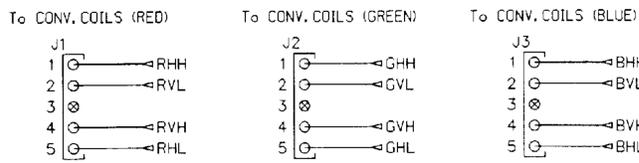
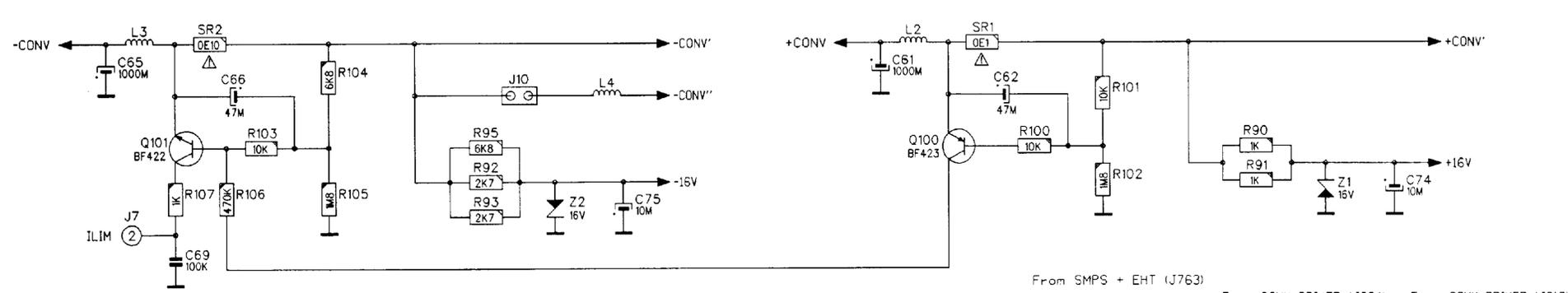
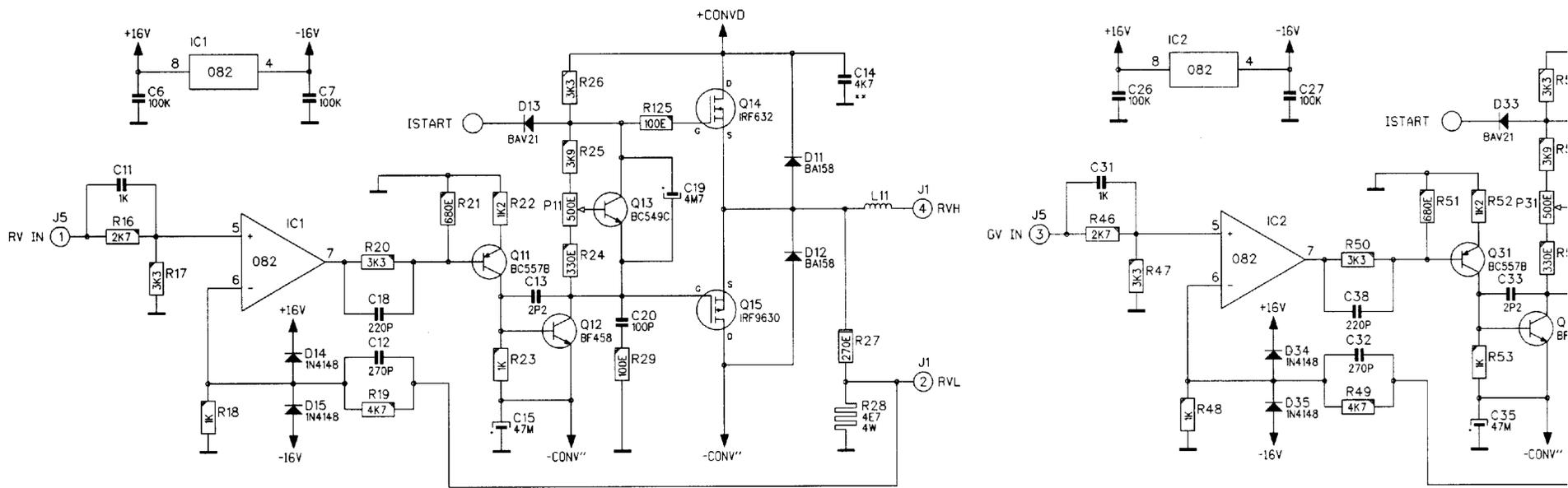
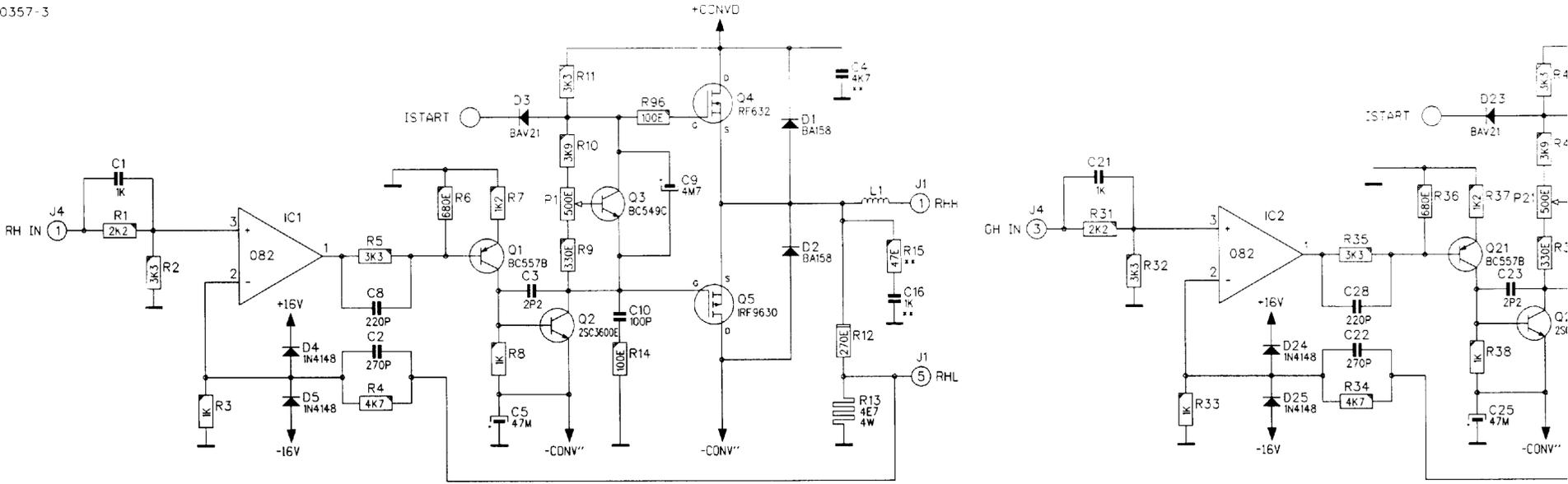
To GREEN CONVERGENCE COILS

To BLUE CONVERGENCE COILS

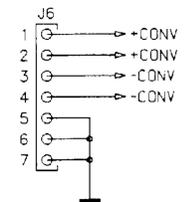
Modifications reserved

Name		Article nr.	
CONVERGENCE OUTPUT		76 2455-3	
Date	Drawn	Checked	
24-04-1995	JVDY	GM	
BARCO PROJECTION SYSTEMS			

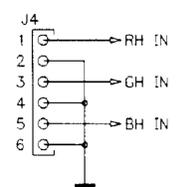
780357-3



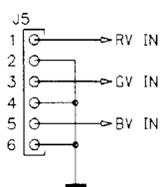
From SMPS + EHT (J763)

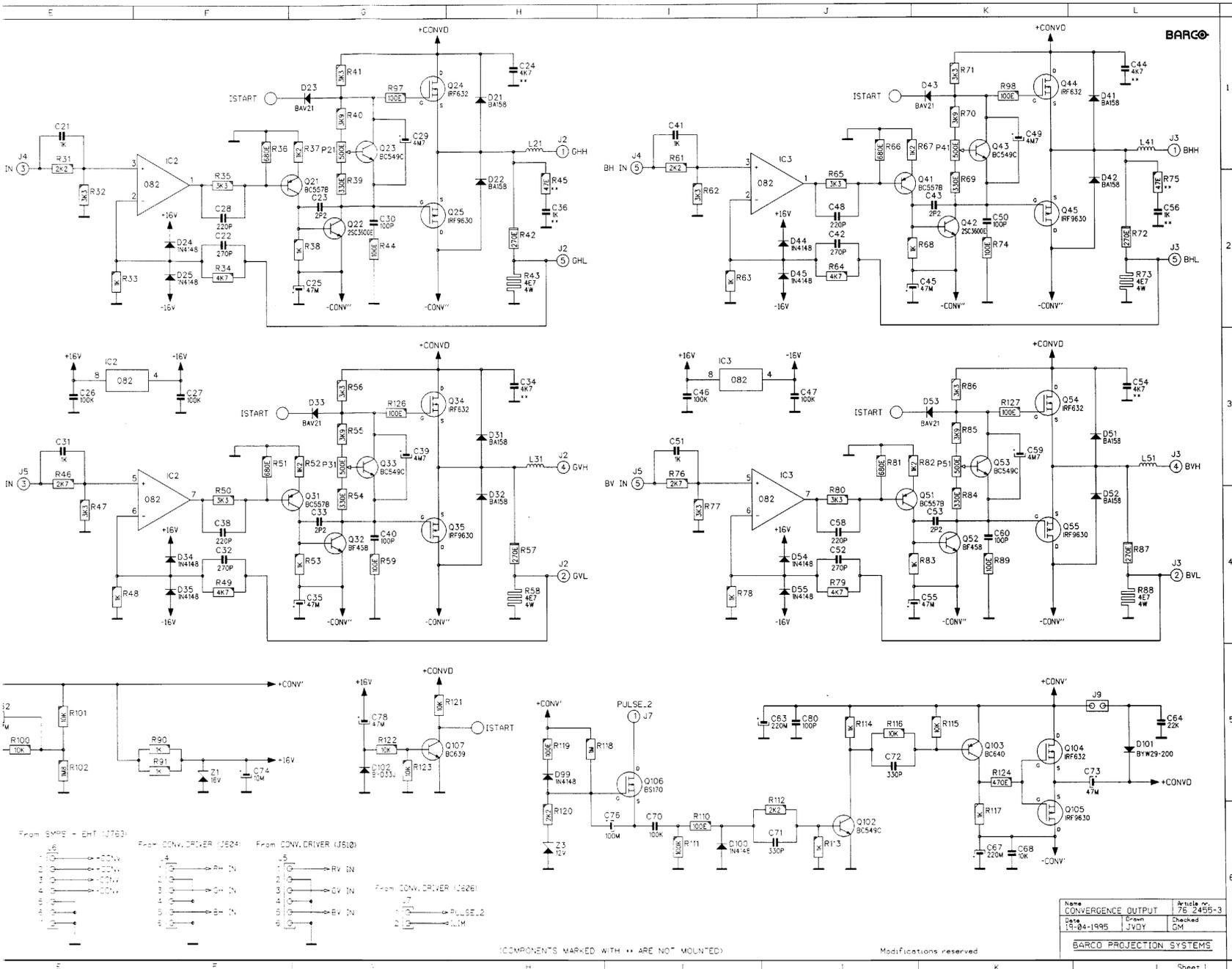


From CONV. DRIVER (J604)



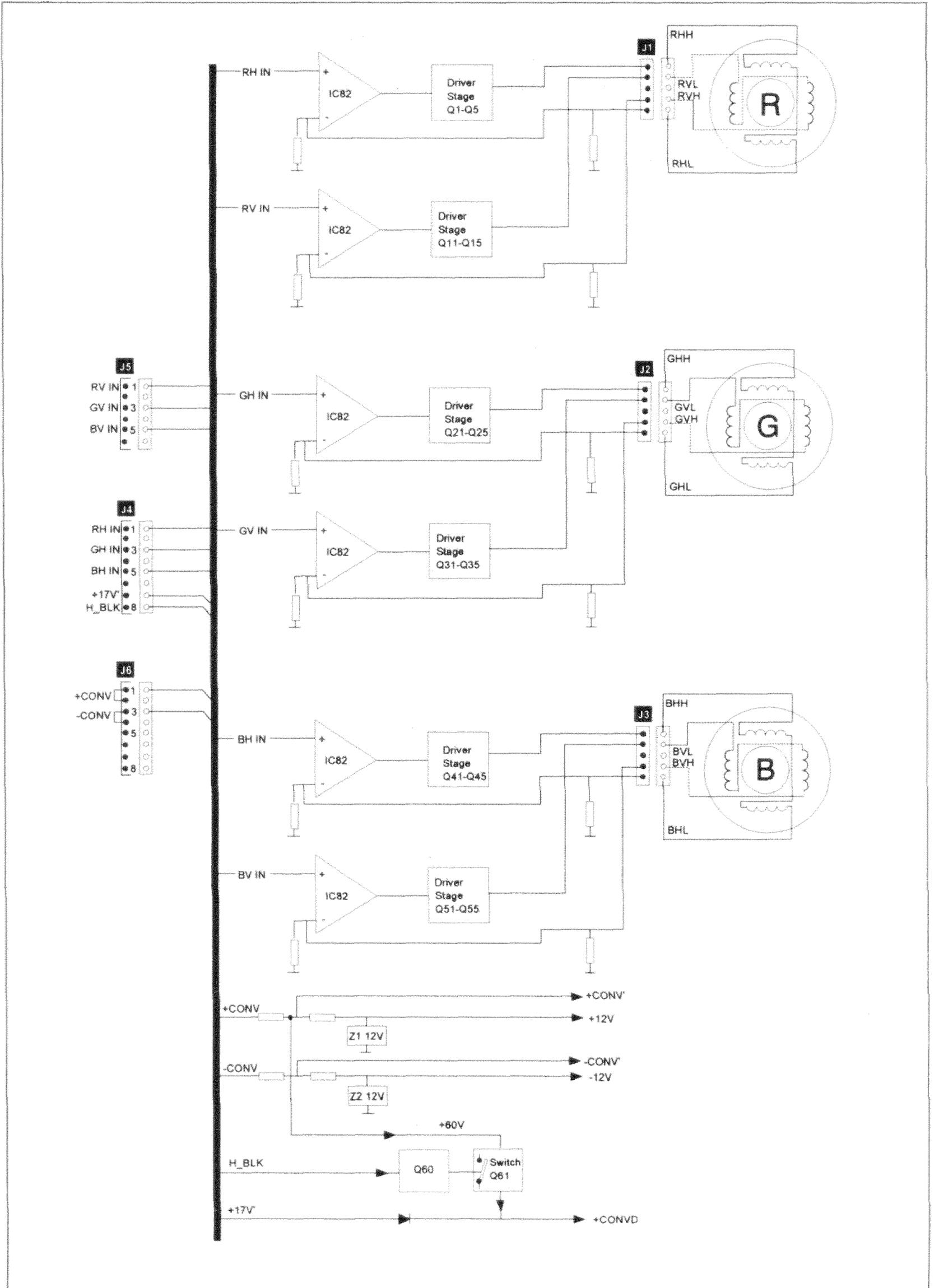
From CONV. DRIVER (J610)





COMP. LOC.	COMP. LOC.	COMP. LOC.
IC1	B 3	R38
IC2	B 3	R39
IC3	B 3	R40
Q1	B 3	R41
Q2	B 3	R42
Q3	B 3	R43
Q4	B 3	R44
Q5	B 3	R45
Q6	B 3	R46
Q7	B 3	R47
Q8	B 3	R48
Q9	B 3	R49
Q10	B 3	R50
Q11	B 3	R51
Q12	B 3	R52
Q13	B 3	R53
Q14	B 3	R54
Q15	B 3	R55
Q16	B 3	R56
Q17	B 3	R57
Q18	B 3	R58
Q19	B 3	R59
Q20	B 3	R60
Q21	B 3	R61
Q22	B 3	R62
Q23	B 3	R63
Q24	B 3	R64
Q25	B 3	R65
Q26	B 3	R66
Q27	B 3	R67
Q28	B 3	R68
Q29	B 3	R69
Q30	B 3	R70
Q31	B 3	R71
Q32	B 3	R72
Q33	B 3	R73
Q34	B 3	R74
Q35	B 3	R75
Q36	B 3	R76
Q37	B 3	R77
Q38	B 3	R78
Q39	B 3	R79
Q40	B 3	R80
Q41	B 3	R81
Q42	B 3	R82
Q43	B 3	R83
Q44	B 3	R84
Q45	B 3	R85
Q46	B 3	R86
Q47	B 3	R87
Q48	B 3	R88
Q49	B 3	R89
Q50	B 3	R90
Q51	B 3	R91
Q52	B 3	R92
Q53	B 3	R93
Q54	B 3	R94
Q55	B 3	R95
Q56	B 3	R96
Q57	B 3	R97
Q58	B 3	R98
Q59	B 3	R99
Q60	B 3	R100
Q61	B 3	R101
Q62	B 3	R102
Q63	B 3	R103
Q64	B 3	R104
Q65	B 3	R105
Q66	B 3	R106
Q67	B 3	R107
Q68	B 3	R108
Q69	B 3	R109
Q70	B 3	R110
Q71	B 3	R111
Q72	B 3	R112
Q73	B 3	R113
Q74	B 3	R114
Q75	B 3	R115
Q76	B 3	R116
Q77	B 3	R117
Q78	B 3	R118
Q79	B 3	R119
Q80	B 3	R120
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D4	B 3	R124
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D24	B 3	R144
D25	B 3	R145
D26	B 3	R146
D27	B 3	R147
D28	B 3	R148
D29	B 3	R149
D30	B 3	R150
D31	B 3	R151
D32	B 3	R152
D33	B 3	R153
D34	B 3	R154
D35	B 3	R155
D36	B 3	R156
D37	B 3	R157
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D57	B 3	R177
D58	B 3	R178
D59	B 3	R179
D60	B 3	R180
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D68	B 3	R188
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D71	B 3	R191
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D73	B 3	R193
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D76	B 3	R196
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D78	B 3	R198
D79	B 3	R199
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D84	B 3	R204
D85	B 3	R205
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D88	B 3	R208
D89	B 3	R209
D90	B 3	R210
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D92	B 3	R212
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D110	B 3	R230
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D125	B 3	R245
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D144	B 3	R264
D145	B 3	R265
D146	B 3	R266
D147	B 3	R267
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D149	B 3	R269
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D152	B 3	R272
D153	B 3	R273
D154	B 3	R274
D155	B 3	R275
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D177	B 3	R297
D178	B 3	R298
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D345	B 3	R465
D346	B 3	R466
D347	B 3	R467
D348	B 3	R468
D349	B 3	R469
D350	B 3	R470
D351		

Blockdiagram Power output stage convergences



TECHNICAL DESCRIPTION" OUTPUT" (76 2455).

Video Amplifier

The video amplifier is a hybrid amplifier VPH05 which may be supplied with a maximum of 210V and is therefore limited with the zeners Z2-Z6.

As there are always tolerances, the gain is adjustable with P1 and the cutoff (DC level) with P2 in the current source.

A feedback circuit consisting of R5 / R34 provides a stabilisation of the gain and avoids thermal drift away.

Furthermore, the output voltage may not drop below a minimum to avoid oscillations. Following circuit is taken care of above :

The base of Q4 is at approximately 25 volts (12V + 13V on the zener). There is a constant current flow through transistor Q4 / R41 / P2 / R18 / -12V as long the output voltage is beyond the minimum threshold of the emitter of Q4. If the output drops too much, diodes D4 and D14/D15 get forward biased and the above current no more flows through the transistor but directly via the feedback R34 / R5. The bias of the input is adapted to avoid a saturation of the output.

Positive composite blanking pulses arrive at pin 5 of the J1 connector and saturate Q3. The video input pin 4 is pulled at a low level then and the output goes high to drive the crt's black.

IBCL and ABL

Two more signals are taken from the cathode drive :

a) The **IBCL** voltage : Individual Beam Current Limiting voltage, to reduce the contrast voltage as soon the current through that typical tube exceeds a maximum.

The IBCL is smoothened by C12 and leaves at pin 9 of the J1 connector.

b) The **ABL** voltage : The collector-emitter current of Q6 flows through R23 and the corresponding current resistor on the DRIVE board.

We refer to the description of the ABL circuit of the DRIVER module for more information on this subject.

The heater of the picture tube is set at an average of half the supply voltage of 210V with the divider R26 / R27 to prevent a heavy current when there would be a short between heater and cathode.

Spot suppression

The G1 is at approximately zero level (just a diode drop). At switching off it gets heavily negative for the spot suppression.

Parts listing Convergence module (Output) R762455

SIT.	ITEM NO.	DESCRIPTION	QUANTITY	SIT.	ITEM NO.	DESCRIPTION	QUANTITY
100	R133036	SPR L 6 D 6 D 2.4 C	3	C 62	R111500	C EL RA 47M M 10E2 85	
130	R133039	SPR L 8 D 4 D 1.2 C	12	C 63	R111488	C EL RA 220M Z 40E2 85	1
200	R133074	Q ACC ISO SIL600 W 30	0,24	C 64	R1137161	C POMERA 22N K100E2	
120	R3133921	J MD JMP P 1 E1SN	2	C 65	R1114909	C EL RA1000M M 50E3 SM	1
	R34698902	SLVU SHR D1,2/0,6 BLK 20	1	C 66	R111500	C EL RA 47M M 10E2 85	
	R34840611	CD CT FTMT P 6 65	2	C 67	R111488	C EL RA 220M Z 40E2 85	1
	R3485022	CD CT FTMT P 2 60	1	C 68	R1137121	C POMERA 10N K250E2 85	
220	R3631059	SCR D933 M 3 X 8 XIC	15	C 69	R113724	C POMERA 100N K 63E2	
1010	R3631059	SCR D933 M 3 X 8 XIC	4	C 70	R113724	C POMERA 100N K 63E2	
1000	R803711	HTSNK PJ53 CNV	2	C 71	R112733	C CE MI 330P K100E2	1
210	R804832	Q ACC SPG 1XM3 LONG	15	C 72	R112368	C N750MI 330P G100E2	
C 1	R112739	C CE MI 1N K100E2		C 73	R1113889	C EL RA 47M M100E2 85	1
C 2	R112367	C N750MI 270P G100E2		C 74	R111531	C EL RA 10M M 35E2 85	
C 3	R112222	C NP0 MI 2P2C100E2	1	C 75	R111531	C EL RA 10M M 35E2 85	
C 5	R1113889	C EL RA 47M M100E2 85	1	C 76	R111477	C EL RA 100M Z 25E2 85	1
C 6	R1127741	C Z5U MU 100N Z 50E2 85		C 78	R111486	C EL RA 47M M 40E2 85	1
C 7	R1127741	C Z5U MU 100N Z 50E2 85		C 80	R112362	C N750MI 100P G100E2	1
C 8	R112366	C N750MI 220P G100E2		D 1	R131637	D R BA158 600400 DO7	
C 9	R1115915	C EL5 RA 4M7M 35E2 85		D 2	R131637	D R BA158 600400 DO7	
C 10	R112242	C NP0 MI 100P G100E2		D 3	R131627	D S BAV21 200250 DO35	
C 11	R112739	C CE MI 1N K100E2		D 4	R131621	D S 1N4148 075150 DO35	
C 12	R112367	C N750MI 270P G100E2		D 5	R131621	D S 1N4148 075150 DO35	
C 13	R112222	C NP0 MI 2P2C100E2	1	D 11	R131637	D R BA158 600400 DO7	
C 15	R1113889	C EL RA 47M M100E2 85	1	D 12	R131637	D R BA158 600400 DO7	
C 18	R112366	C N750MI 220P G100E2		D 13	R131627	D S BAV21 200250 DO35	
C 19	R1115915	C EL5 RA 4M7M 35E2 85		D 14	R131621	D S 1N4148 075150 DO35	
C 20	R112242	C NP0 MI 100P G100E2		D 15	R131621	D S 1N4148 075150 DO35	
C 21	R112739	C CE MI 1N K100E2		D 21	R131637	D R BA158 600400 DO7	
C 22	R112367	C N750MI 270P G100E2		D 22	R131637	D R BA158 600400 DO7	
C 23	R112222	C NP0 MI 2P2C100E2	1	D 23	R131627	D S BAV21 200250 DO35	
C 25	R1113889	C EL RA 47M M100E2 85	1	D 24	R131621	D S 1N4148 075150 DO35	
C 26	R1127741	C Z5U MU 100N Z 50E2 85		D 25	R131621	D S 1N4148 075150 DO35	
C 27	R1127741	C Z5U MU 100N Z 50E2 85		D 31	R131637	D R BA158 600400 DO7	
C 28	R112366	C N750MI 220P G100E2		D 32	R131637	D R BA158 600400 DO7	
C 29	R1115915	C EL5 RA 4M7M 35E2 85		D 33	R131627	D S BAV21 200250 DO35	
C 30	R112242	C NP0 MI 100P G100E2		D 34	R131621	D S 1N4148 075150 DO35	
C 31	R112739	C CE MI 1N K100E2		D 35	R131621	D S 1N4148 075150 DO35	
C 32	R112367	C N750MI 270P G100E2		D 41	R131637	D R BA158 600400 DO7	
C 33	R112222	C NP0 MI 2P2C100E2	1	D 42	R131637	D R BA158 600400 DO7	
C 35	R1113889	C EL RA 47M M100E2 85	1	D 43	R131627	D S BAV21 200250 DO35	
C 38	R112366	C N750MI 220P G100E2		D 44	R131621	D S 1N4148 075150 DO35	
C 39	R1115915	C EL5 RA 4M7M 35E2 85		D 45	R131621	D S 1N4148 075150 DO35	
C 40	R112242	C NP0 MI 100P G100E2		D 51	R131637	D R BA158 600400 DO7	
C 41	R112739	C CE MI 1N K100E2		D 52	R131637	D R BA158 600400 DO7	
C 42	R112367	C N750MI 270P G100E2		D 53	R131627	D S BAV21 200250 DO35	
C 43	R112222	C NP0 MI 2P2C100E2	1	D 54	R131621	D S 1N4148 075150 DO35	
C 45	R1113889	C EL RA 47M M100E2 85	1	D 55	R131621	D S 1N4148 075150 DO35	
C 46	R1127741	C Z5U MU 100N Z 50E2 85		D 99	R131621	D S 1N4148 075150 DO35	
C 47	R1127741	C Z5U MU 100N Z 50E2 85		D100	R131621	D S 1N4148 075150 DO35	
C 48	R112366	C N750MI 220P G100E2		D101	R131954	D R BYW29 20008A TO220	1
C 49	R1115915	C EL5 RA 4M7M 35E2 85		D102	R1319481	D R BYD33J 6001A3 SOD81	1
C 50	R112242	C NP0 MI 100P G100E2		I 1	R134124	U 082 TL DIP8 P	1
C 51	R112739	C CE MI 1N K100E2		I 2	R134124	U 082 TL DIP8 P	1
C 52	R112367	C N750MI 270P G100E2		I 3	R134124	U 082 TL DIP8 P	1
C 53	R112222	C NP0 MI 2P2C100E2	1	J 1	R3137271	J SL FH MBT P 5 M3,96 RP	1
C 55	R1113889	C EL RA 47M M100E2 85	1	J 2	R3137271	J SL FH MBT P 5 M3,96 RP	1
C 58	R112366	C N750MI 220P G100E2		J 3	R3137271	J SL FH MBT P 5 M3,96 RP	1
C 59	R1115915	C EL5 RA 4M7M 35E2 85		J 6	R313927	J CT H MBT P 7 M2SN	1
C 60	R112242	C NP0 MI 100P G100E2		J 9	R3132862	J MD1 MBT P 2 E1SN	1
C 61	R1114909	C EL RA1000M M 50E3 SM	1	J 10	R3132862	J MD1 MBT P 2 E1SN	1
				J 11	R315302	J PIN PR D1.3L 5.5+3	1
				J 12	R315302	J PIN PR D1.3L 5.5+3	1

Convergence module (OUTPUT)

R762455

L 1	R3061222	CH AX NS 1.5 UH	1	R 11	R1012425	R CF H 3K3 J 0W5	
L 2	R775164	COIL CH HOR DEF	1	R 12	R103229	R MO H270E J 2W	1
L 3	R775164	COIL CH HOR DEF	1	R 13	R103620	R WW H 4E7 K 4W	1
L 4	R774154	CH HOR PJ45 DHR	1	R 14	R101124	R CF H100E J 0W25	
L 11	R3061222	CH AX NS 1.5 UH	1	R 16	R101141	R CF H 2K7 J 0W25	
L 21	R3061222	CH AX NS 1.5 UH	1	R 17	R101142	R MF H 3K32F 0W6 E4	
L 31	R3061222	CH AX NS 1.5 UH	1	R 18	R101136	R CF H 1K J 0W25	
L 41	R3061222	CH AX NS 1.5 UH	1	R 19	R101144	R CF H 4K7 J 0W25	
L 51	R3061222	CH AX NS 1.5 UH	1	R 20	R101142	R MF H 3K32F 0W6 E4	
P 1	R107005	R TCE H500E K 0W5 S 7TS	1	R 21	R101134	R CF H680E J 0W25	
P 11	R107005	R TCE H500E K 0W5 S 7TS	1	R 22	R101137	R MF H 1K21F 0W6 E4	
P 21	R107005	R TCE H500E K 0W5 S 7TS	1	R 23	R101136	R CF H 1K J 0W25	
P 31	R107005	R TCE H500E K 0W5 S 7TS	1	R 24	R101530	R MF H330E F 0W4 E3	
P 41	R107005	R TCE H500E K 0W5 S 7TS	1	R 25	R101143	R CF H 3K9 J 0W25	
P 51	R107005	R TCE H500E K 0W5 S 7TS	1	R 26	R1012425	R CF H 3K3 J 0W5	
PC	R780357	PCD PJ53 D700 CNV OUT	1	R 27	R103229	R MO H270E J 2W	1
Q 1	R1314131	Q BC557B P SS TO92		R 28	R103620	R WW H 4E7 K 4W	1
Q 2	V132527	Q 2SC3600E N P TO126	1	R 29	R101124	R CF H100E J 0W25	
Q 3	R131411	Q BC549C N SS TO92		R 31	R101140	R MF H 2K21F 0W6 E4	
Q 4	R132941	Q IRF632 FN P TO220	1	R 32	R101142	R MF H 3K32F 0W6 E4	
Q 5	R132942	Q IRF9630 FP P TO220	1	R 33	R101136	R CF H 1K J 0W25	
Q 11	R1314131	Q BC557B P SS TO92		R 34	R101144	R CF H 4K7 J 0W25	
Q 12	R131471	Q BF458 N P TO126	1	R 35	R101142	R MF H 3K32F 0W6 E4	
Q 13	R131411	Q BC549C N SS TO92		R 36	R101134	R CF H680E J 0W25	
Q 14	R132941	Q IRF632 FN P TO220	1	R 37	R101137	R MF H 1K21F 0W6 E4	
Q 15	R132942	Q IRF9630 FP P TO220	1	R 38	R101136	R CF H 1K J 0W25	
Q 21	R1314131	Q BC557B P SS TO92		R 39	R101530	R MF H330E F 0W4 E3	
Q 22	V132527	Q 2SC3600E N P TO126	1	R 40	R101143	R CF H 3K9 J 0W25	
Q 23	R131411	Q BC549C N SS TO92		R 41	R1012425	R CF H 3K3 J 0W5	
Q 24	R132941	Q IRF632 FN P TO220	1	R 42	R103229	R MO H270E J 2W	1
Q 25	R132942	Q IRF9630 FP P TO220	1	R 43	R103620	R WW H 4E7 K 4W	1
Q 31	R1314131	Q BC557B P SS TO92		R 44	R101124	R CF H100E J 0W25	
Q 32	R131471	Q BF458 N P TO126	1	R 46	R101141	R CF H 2K7 J 0W25	
Q 33	R131411	Q BC549C N SS TO92		R 47	R101142	R MF H 3K32F 0W6 E4	
Q 34	R132941	Q IRF632 FN P TO220	1	R 48	R101136	R CF H 1K J 0W25	
Q 35	R132942	Q IRF9630 FP P TO220	1	R 49	R101144	R CF H 4K7 J 0W25	
Q 41	R1314131	Q BC557B P SS TO92		R 50	R101142	R MF H 3K32F 0W6 E4	
Q 42	V132527	Q 2SC3600E N P TO126	1	R 51	R101134	R CF H680E J 0W25	
Q 43	R131411	Q BC549C N SS TO92		R 52	R101137	R MF H 1K21F 0W6 E4	
Q 44	R132941	Q IRF632 FN P TO220	1	R 53	R101136	R CF H 1K J 0W25	
Q 45	R132942	Q IRF9630 FP P TO220	1	R 54	R101530	R MF H330E F 0W4 E3	
Q 51	R1314131	Q BC557B P SS TO92		R 55	R101143	R CF H 3K9 J 0W25	
Q 52	R131471	Q BF458 N P TO126	1	R 56	R1012425	R CF H 3K3 J 0W5	
Q 53	R131411	Q BC549C N SS TO92		R 57	R103229	R MO H270E J 2W	1
Q 54	R132941	Q IRF632 FN P TO220	1	R 58	R103620	R WW H 4E7 K 4W	1
Q 55	R132942	Q IRF9630 FP P TO220	1	R 59	R101124	R CF H100E J 0W25	
Q100	R132552	Q BF423 P SS TO92		R 61	R101140	R MF H 2K21F 0W6 E4	
Q101	R132516	Q BF422 N SS TO92		R 62	R101142	R MF H 3K32F 0W6 E4	
Q102	R131411	Q BC549C N SS TO92		R 63	R101136	R CF H 1K J 0W25	
Q103	R132968	Q BC640 P SS TO92	1	R 64	R101144	R CF H 4K7 J 0W25	
Q104	R132941	Q IRF632 FN P TO220	1	R 65	R101142	R MF H 3K32F 0W6 E4	
Q105	R132942	Q IRF9630 FP P TO220	1	R 66	R101134	R CF H680E J 0W25	
Q106	R132910	Q BS170 FN SS TO92	1	R 67	R101137	R MF H 1K21F 0W6 E4	
Q107	R132922	Q BC639 N SS TO92	1	R 68	R101136	R CF H 1K J 0W25	
R 1	R101140	R MF H 2K21F 0W6 E4		R 69	R101530	R MF H330E F 0W4 E3	
R 2	R101142	R MF H 3K32F 0W6 E4		R 70	R101143	R CF H 3K9 J 0W25	
R 3	R101136	R CF H 1K J 0W25		R 71	R1012425	R CF H 3K3 J 0W5	
R 4	R101144	R CF H 4K7 J 0W25		R 72	R103229	R MO H270E J 2W	1
R 5	R101142	R MF H 3K32F 0W6 E4		R 73	R103620	R WW H 4E7 K 4W	1
R 6	R101134	R CF H680E J 0W25		R 74	R101124	R CF H100E J 0W25	
R 7	R101137	R MF H 1K21F 0W6 E4		R 76	R101141	R CF H 2K7 J 0W25	
R 8	R101136	R CF H 1K J 0W25		R 77	R101142	R MF H 3K32F 0W6 E4	
R 9	R101530	R MF H330E F 0W4 E3		R 78	R101136	R CF H 1K J 0W25	
R 10	R101143	R CF H 3K9 J 0W25		R 79	R101144	R CF H 4K7 J 0W25	
				R 80	R101142	R MF H 3K32F 0W6 E4	
				R 81	R101134	R CF H680E J 0W25	
				R 82	R101137	R MF H 1K21F 0W6 E4	
				R 83	R101136	R CF H 1K J 0W25	

Convergence module (OUTPUT)

R762455

R 84	R101530	R MF H330E F 0W4 E3		R117	R101336	R CF H 1K J 1W	1
R 85	R101143	R CF H 3K9 J 0W25		R118	R101172	R CF H 1M J 0W25	
R 86	R1012425	R CF H 3K3 J 0W5		R119	R101124	R CF H100E J 0W25	
R 87	R103229	R MO H270E J 2W	1	R120	R101140	R MF H 2K21F 0W6 E4	
R 88	R103620	R WW H 4E7 K 4W	1	R121	R101148	R CF H 10K J 0W25	
R 89	R101124	R CF H100E J 0W25	1	R122	R101148	R CF H 10K J 0W25	
R 90	R101136	R CF H 1K J 0W25		R123	R101148	R CF H 10K J 0W25	
R 91	R101136	R CF H 1K J 0W25		R124	R101532	R MF H470E F 0W4 E3	1
R 92	R101241	R MF H 2K74F 0W6 E4	1	R125	R101524	R MF H100E F 0W4 E3	1
R 93	R101241	R MF H 2K74F 0W6 E4	1	R126	R101524	R MF H100E F 0W4 E3	1
R 95	R101546	R MF H 6K8 F 0W4 E3		R127	R101524	R MF H100E F 0W4 E3	1
R 96	R101524	R MF H100E F 0W4 E3	1				
R 97	R101524	R MF H100E F 0W4 E3	1	SR 1	△R1013997	R CFFH E1 K 1W	1
R 98	R101524	R MF H100E F 0W4 E3	1	SR 2	△R1012997	R CFFH E1 K 0W7	1
R100	R101148	R CF H 10K J 0W25					
R101	R101148	R CF H 10K J 0W25		Z 1	R131786	D ZEN 16V 0W5 B DO35	1
R102	R101175	R MF H 1M82F 0W6 E4		Z 2	R131786	D ZEN 16V 0W5 B DO35	1
R103	R101148	R CF H 10K J 0W25		Z 3	R131740	D ZEN 12V 0W5 C DO35	
R104	R101146	R MF H 6K81F 0W6 E4					
R105	R101175	R MF H 1M82F 0W6 E4					
R106	R101168	R CF H470K J 0W25					
R107	R101136	R CF H 1K J 0W25					
R110	R101124	R CF H100E J 0W25					
R111	R101160	R CF H100K J 0W25					
R112	R101140	R MF H 2K21F 0W6 E4					
R113	R101136	R CF H 1K J 0W25					
R114	R101136	R CF H 1K J 0W25					
R115	R101148	R CF H 10K J 0W25					
R116	R101148	R CF H 10K J 0W25					

PRODUCT SAFETY NOTICE

Components identified by  have SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. Before replacing any of these components, read carefully the service safety precautions.

