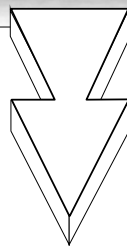
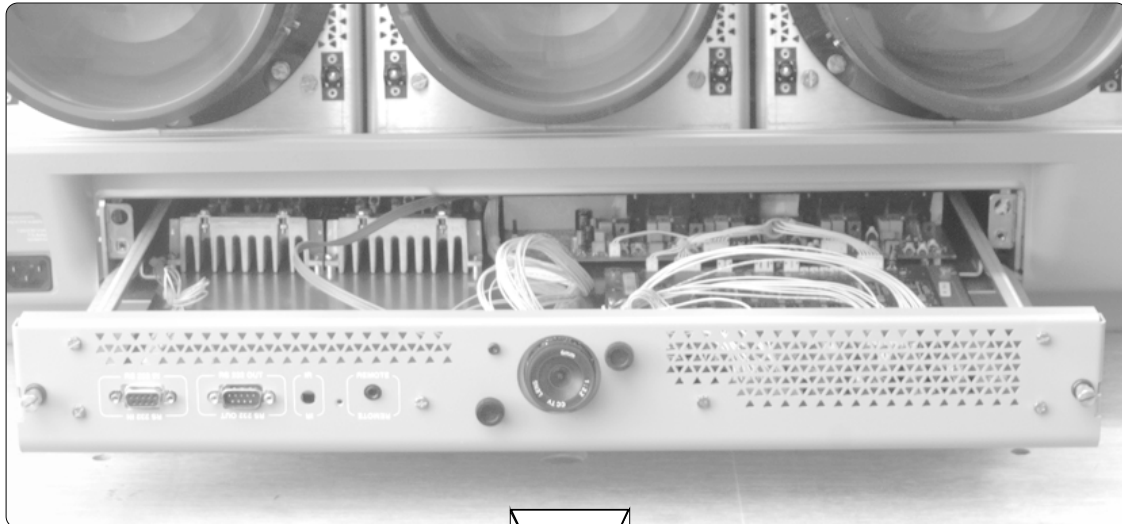




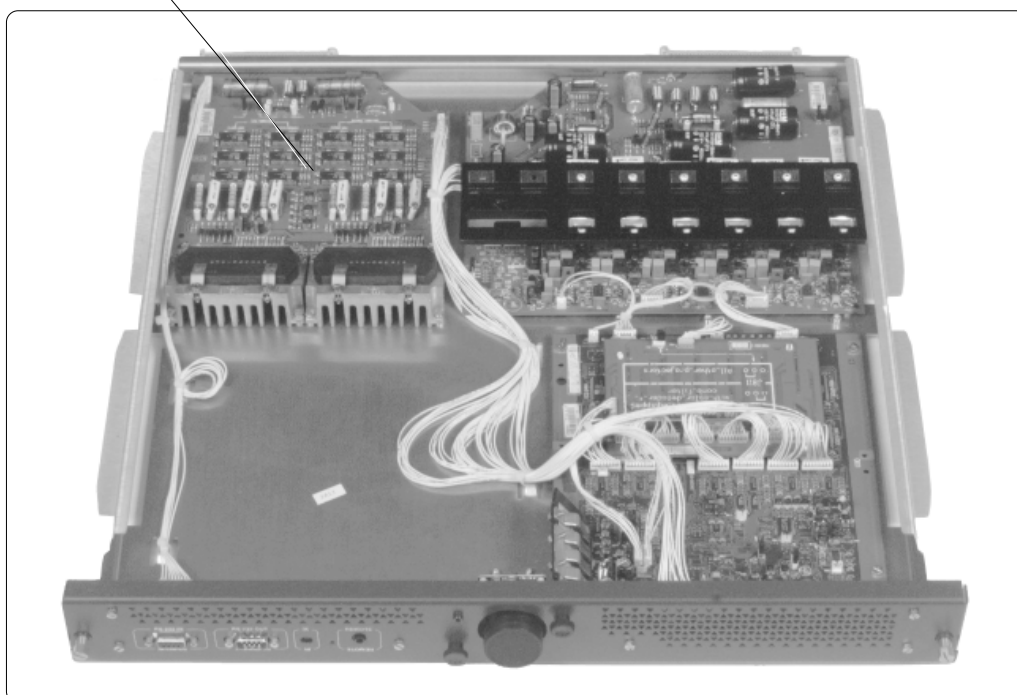
**BARCO Projection Systems**

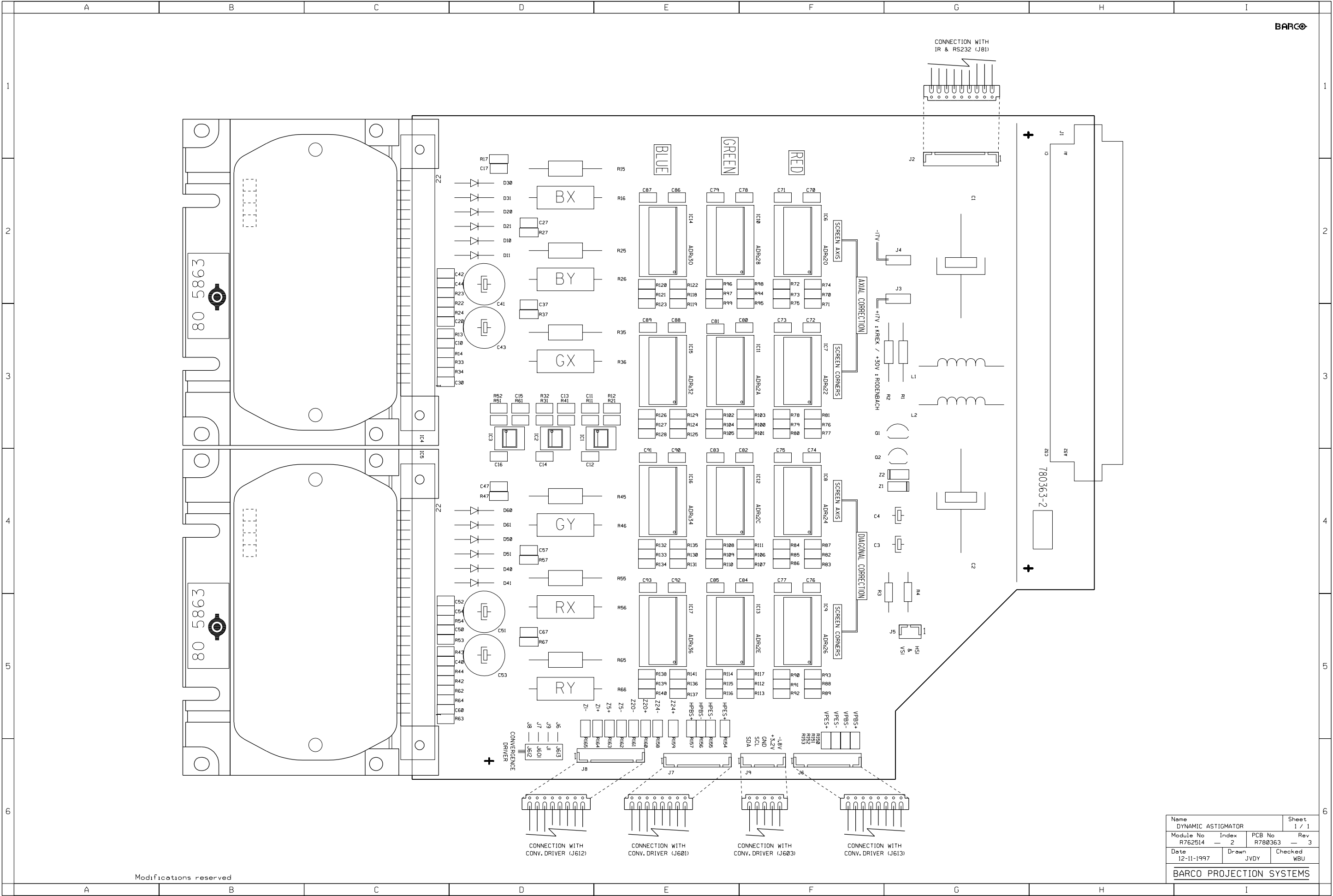
**SECTION U**

**service sheet**

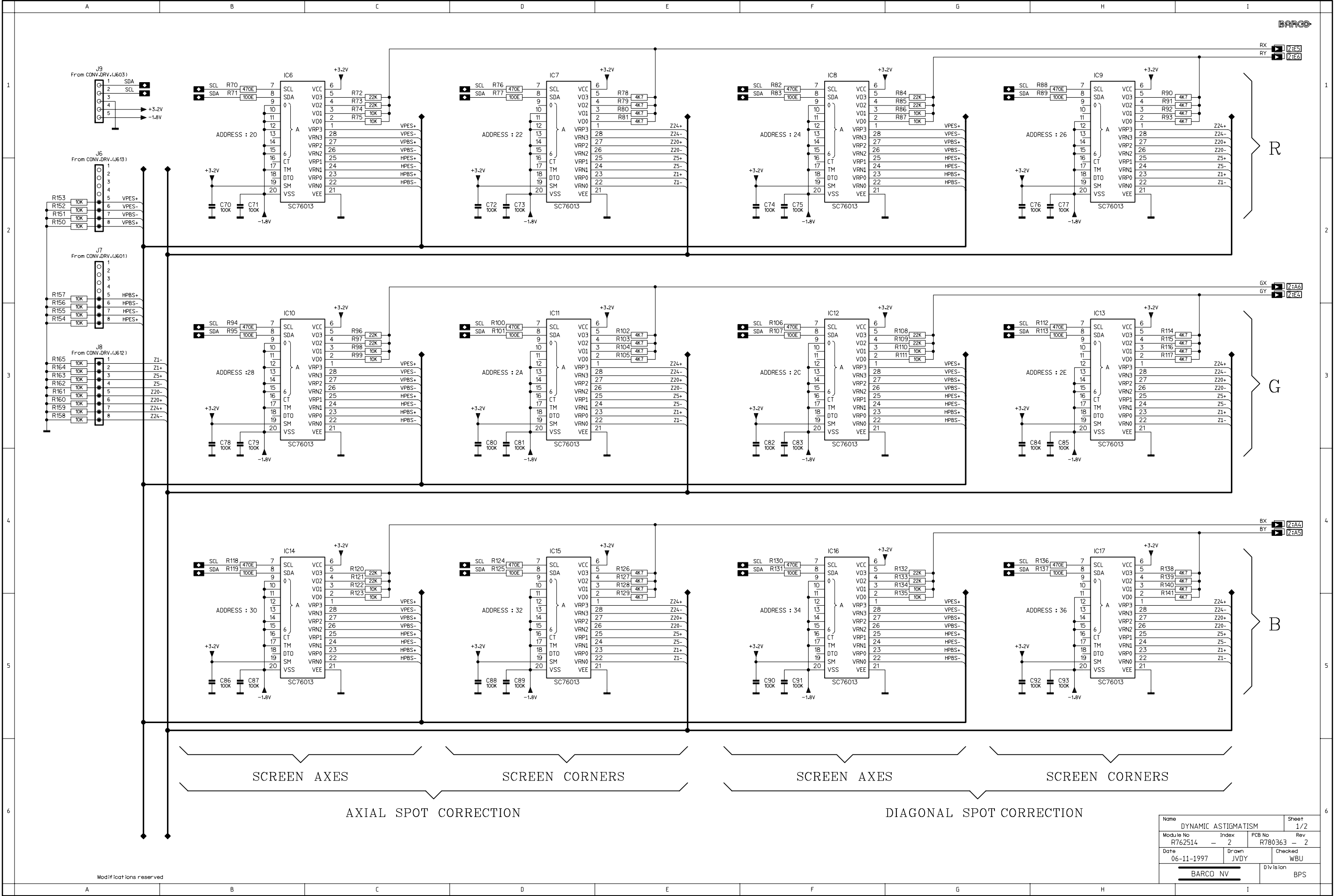


Dynamic Astigmatism module  
R762514

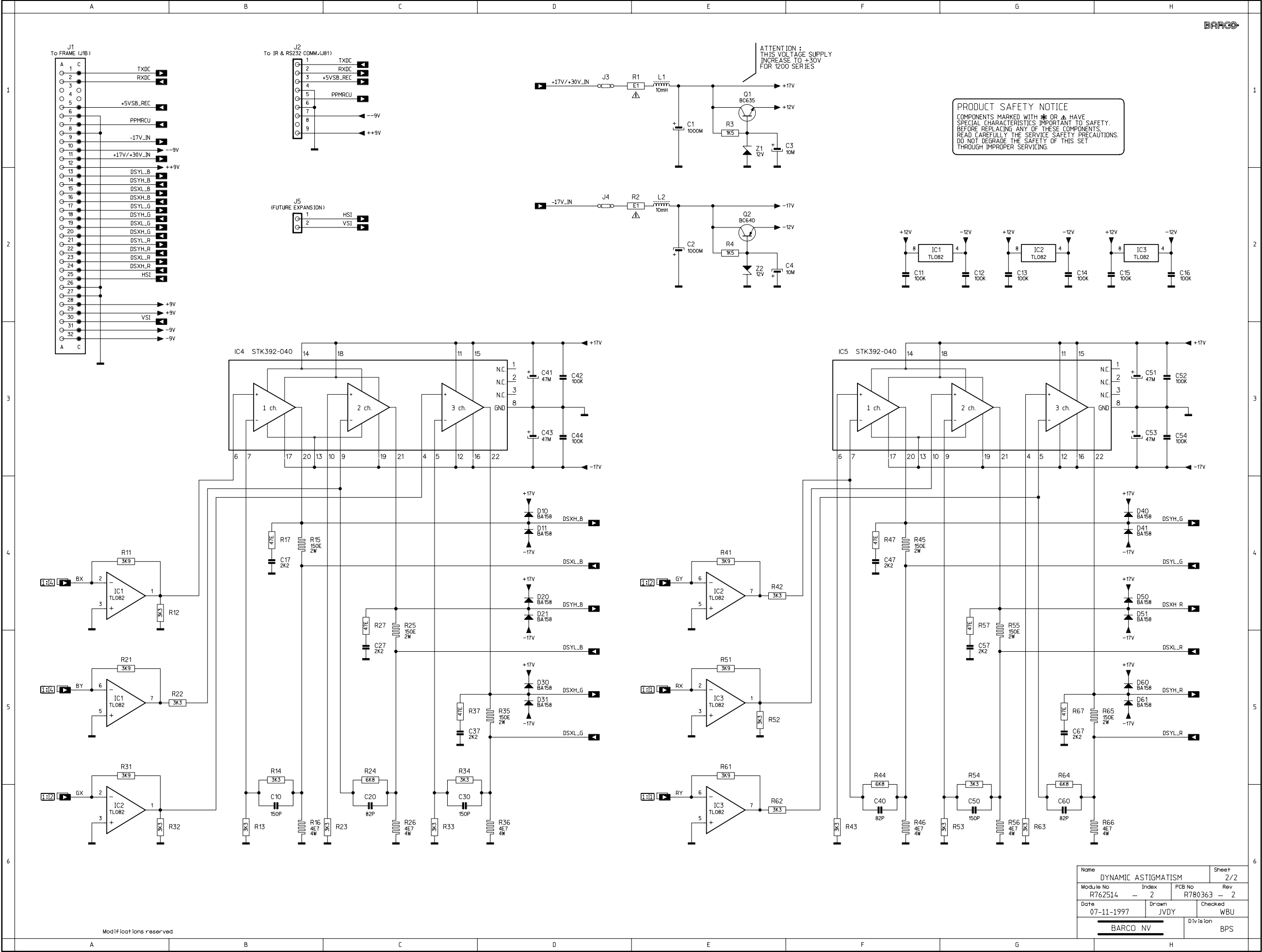


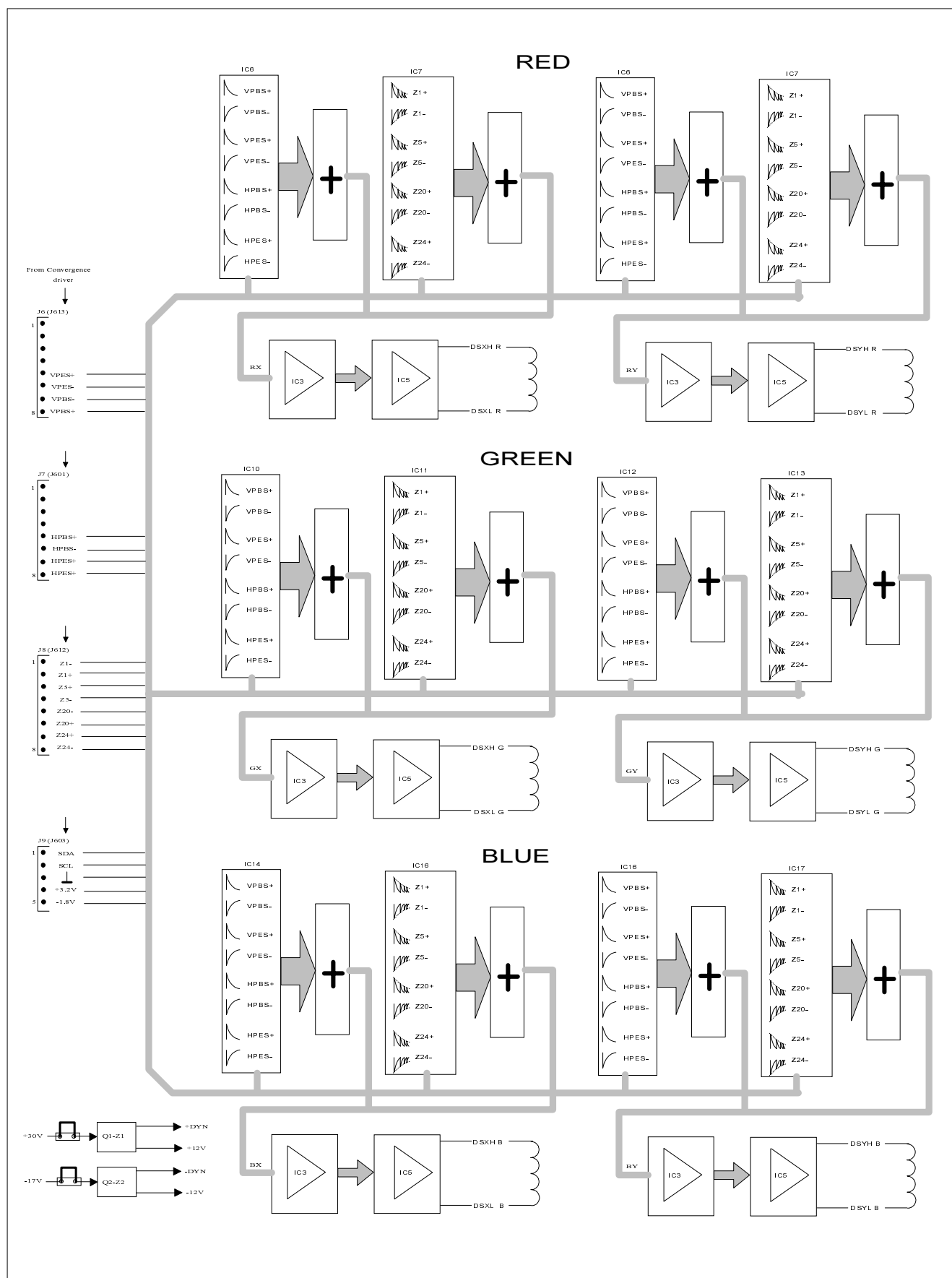


Name DYNAMIC ASTIGMATOR			Sheet 1 / 1
Module No R762514	Index 2	PCB No R780363	Rev 3
Date 12-11-1997	Drawn JVDY	Checked WBU	
BARCO PROJECTION SYSTEMS			



Name	DYNAMIC ASTIGMATISM	Sheet	1/2
Module No	R762514	Index	2
PCB No	R780363	Rev	2
Date	06-11-1997	Drawn	JVDY
Checked	WBU	Division	BPS





Axial and Diagonal Corrections on screen per IC

VO0 IC7 +	VO2 IC6 +	VO1 IC7 +
VO0 IC9 x	VO2 IC8 x	VO1 IC9 x
VO0 IC6 +	RED	VO1 IC6 +
VO0 IC8 x		VO1 IC8 x
VO2 IC7 +	VO3 IC6 +	VO3 IC7 +
VO2 IC9 x	VO3 IC8 x	VO3 IC9 x

VO0 IC11 +	VO2 IC10 +	VO1 IC11 +
VO0 IC13 x	VO2 IC12 x	VO1 IC13 x
VO0 IC10 +	GREEN	VO1 IC10 +
VO0 IC12 x		VO1 IC12 x
VO2 IC11 +	VO3 IC10 +	VO3 IC11 +
VO2 IC13 x	VO3 IC12 x	VO3 IC13 x

VO0 IC15 +	VO2 IC14 +	VO1 IC15 +
VO0 IC17 x	VO2 IC16 x	VO1 IC17 x
VO0 IC14 +	BLUE	VO1 IC14 +
VO0 IC16 x		VO1 IC16 x
VO2 IC15 +	VO3 IC14 +	VO3 IC15 +
VO2 IC17 x	VO3 IC16 x	VO3 IC17 x

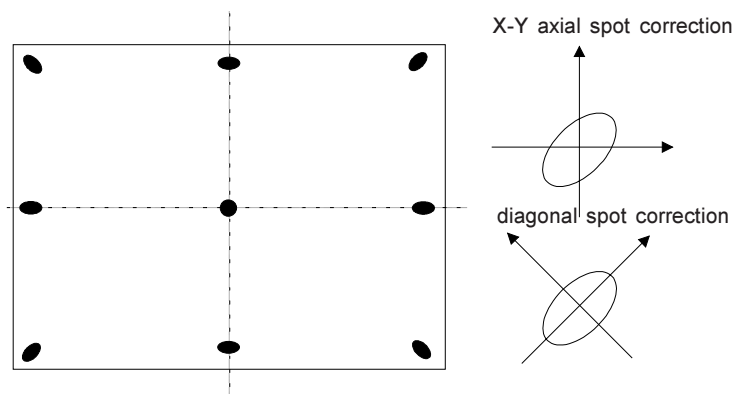
'+' :axial correction  
'x' :diagonal correction

## TECHNICAL DESCRIPTION " DYNAMIC ASTIGMATISM " 762514

The waveforms for the dynamic astigmatism are parabolic and resemble the waveforms for the convergence corrections. It is then logic that the adjusted waveforms in the Bella's are delivered by, and coming from, the convergence driver board.

These waveforms are carried to the module via the connectors J6 / J7 / J8. These connectors carry the split (clamped) parabolic waveforms at horizontal and vertical frequency and opposite polarity.

Each correction consists of an orthogonal spot correction (\*X) and a diagonal spot correction (\*Y). To facilitate the correction a separate centre or 'screen axis' and corner 'screen corners' is provided.



In sheet 1 of the schematics you find the 12 Bella's for these corrections. As the waveforms have opposite polarity, the supply voltages for these Bella's is +3.2V and -1.8V taken from the convergence board.

The "corner" and "axis" corrections are added per colour and then passed onto the power amplifiers. These power amplifiers are fully integrated hybrid amplifiers supplied with + / - DYN.

The supply voltage for these amplifiers is **+30V** (+ DYN) and **- 17V** (- DYN) .

Each time the output current flows in 150 Ohm damping resistor across the stigmator coils and a series feedback resistor of 4.7 Ohm. The voltage developed across this resistor is sent back to the inverting input of the amplifier for stability reasons.

Note that the jumpers J3 and J4 can be removed in order to isolate the power stages of the astigmatism and thus to investigate whether an excess of load on the supply voltages of the whole convergence board is caused by one of these amplifiers (or caused by another power amplifier of this convergence module).



# Dynamic Astigmatism module

R762514

## Partslisting Dynamic Astigmatism module R762514

SIT.	ITEM NO.	DESCRIPTION	QUANTITY	SIT.	ITEM NO.	DESCRIPTION	QUANTITY
60	R133039	SPRL 8 D 1,2D 4 CE	12	C 92	P210122	C# X7R MU 100N K 50 1206	1
80	R133039	SPRL 8 D 1,2D 4 CE	16	C 93	P210122	C# X7R MU 100N K 50 1206	1
50	R3133921	JMDSHUNT F P2E1SNIRD	2	D 10	R131637	D R BA158 600400 DO7	1
20	R3631049	SCR Z933 M 3 X 6 SS	4	D 11	R131637	D R BA158 600400 DO7	1
10	R3631069	SCR Z933 M 3 X 10 SS	4	D 20	R131637	D R BA158 600400 DO7	1
30	R3661026	NUT D934 M 3 SS	4	D 21	R131637	D R BA158 600400 DO7	1
90	R367699	RVT AVTRON2,5L 8,1 AL	2	D 30	R131637	D R BA158 600400 DO7	1
40	R804525	HTSNA GEN SPG 1X 3.1SH	4	D 31	R131637	D R BA158 600400 DO7	1
70	R805863	HTSN C PJ56 G808 CNV 2	2	D 40	R131637	D R BA158 600400 DO7	1
C 1	R111193	C EL AX1000M T 40E18 85	1	D 41	R131637	D R BA158 600400 DO7	1
C 2	R111193	C EL AX1000M T 40E18 85	1	D 50	R131637	D R BA158 600400 DO7	1
C 3	R111531	C EL RA 10M M 35E2 85	1	D 51	R131637	D R BA158 600400 DO7	1
C 4	R111531	C EL RA 10M M 35E2 85	1	D 60	R131637	D R BA158 600400 DO7	1
C 10	P210158	C# COG MU 150P J 50 1206	1	D 61	R131637	D R BA158 600400 DO7	1
C 11	P210122	C# X7R MU 100N K 50 1206	1	I 1	P230293	U#082 TL SO8 P	1
C 12	P210122	C# X7R MU 100N K 50 1206	1	I 2	P230293	U#082 TL SO8 P	1
C 13	P210122	C# X7R MU 100N K 50 1206	1	I 3	P230293	U#082 TL SO8 P	1
C 14	P210122	C# X7R MU 100N K 50 1206	1	I 4	R134303	U 392-040 STK PACK	1
C 15	P210122	C# X7R MU 100N K 50 1206	1	I 5	R134303	U 392-040 STK PACK	1
C 16	P210122	C# X7R MU 100N K 50 1206	1	I 6	P230653	U#BELLA 4 SOL28 P	1
C 17	P210029	C# COG MU 2N2J 50 1206	1	I 7	P230653	U#BELLA 4 SOL28 P	1
C 20	P210073	C# COG MU 82P J 50 1206	1	I 8	P230653	U#BELLA 4 SOL28 P	1
C 27	P210029	C# COG MU 2N2J 50 1206	1	I 9	P230653	U#BELLA 4 SOL28 P	1
C 30	P210158	C# COG MU 150P J 50 1206	1	I 10	P230653	U#BELLA 4 SOL28 P	1
C 37	P210029	C# COG MU 2N2J 50 1206	1	I 11	P230653	U#BELLA 4 SOL28 P	1
C 40	P210073	C# COG MU 82P J 50 1206	1	I 12	P230653	U#BELLA 4 SOL28 P	1
C 41	R111486	C EL RA 47M M 50E2 85	1	I 13	P230653	U#BELLA 4 SOL28 P	1
C 42	P210122	C# X7R MU 100N K 50 1206	1	I 14	P230653	U#BELLA 4 SOL28 P	1
C 43	R111486	C EL RA 47M M 50E2 85	1	I 15	P230653	U#BELLA 4 SOL28 P	1
C 44	P210122	C# X7R MU 100N K 50 1206	1	I 16	P230653	U#BELLA 4 SOL28 P	1
C 47	P210029	C# COG MU 2N2J 50 1206	1	I 17	P230653	U#BELLA 4 SOL28 P	1
C 50	P210158	C# COG MU 150P J 50 1206	1	J 1	R313525	JEUR2CMBSP64 E1C2S1,6	1
C 51	R111486	C EL RA 47M M 50E2 85	1	J 2	R313929	JCT H MBT P 9 M2SN WH	1
C 52	P210122	C# X7R MU 100N K 50 1206	1	J 3	R3132862	JMD1 C MBT P 2 E1SN 6,7	1
C 53	R111486	C EL RA 47M M 50E2 85	1	J 4	R3132862	JMD1 C MBT P 2 E1SN 6,7	1
C 54	P210122	C# X7R MU 100N K 50 1206	1	J 5	R313922	JCT H MBT P 2 M2SN WH	1
C 57	P210029	C# COG MU 2N2J 50 1206	1	J 6	R313928	JCT H MBT P 8 M2SN WH	1
C 60	P210073	C# COG MU 82P J 50 1206	1	J 7	R313928	JCT H MBT P 8 M2SN WH	1
C 67	P210029	C# COG MU 2N2J 50 1206	1	J 8	R313928	JCT H MBT P 8 M2SN WH	1
C 70	P210122	C# X7R MU 100N K 50 1206	1	J 9	R313925	JCT H MBT P 5 M2SN WH	1
C 71	P210122	C# X7R MU 100N K 50 1206	1	L 1	R775164	CH AX NS 0,5 51	1
C 72	P210122	C# X7R MU 100N K 50 1206	1	L 2	R775164	CH AX NS 0,5 51	1
C 73	P210122	C# X7R MU 100N K 50 1206	1	PC	R780363	PCBD700ASTIGMATISM	1
C 74	P210122	C# X7R MU 100N K 50 1206	1	Q 1	R132557	Q BC635 N SS TO92	1
C 75	P210122	C# X7R MU 100N K 50 1206	1	Q 2	R132968	Q BC640 P SS TO92	1
C 76	P210122	C# X7R MU 100N K 50 1206	1	R 1	R1012997	R CFFH E1 K 0W7	1
C 77	P210122	C# X7R MU 100N K 50 1206	1	R 2	R1012997	R CFFH E1 K 0W7	1
C 78	P210122	C# X7R MU 100N K 50 1206	1	R 3	V1026176	R MF H 1K5 F 0W6 E4	1
C 79	P210122	C# X7R MU 100N K 50 1206	1	R 4	V1026176	R MF H 1K5 F 0W6 E4	1
C 80	P210122	C# X7R MU 100N K 50 1206	1	R 11	P200425	R# CE H 3K9 F 0W12 1206	1
C 81	P210122	C# X7R MU 100N K 50 1206	1	R 12	P200423	R# CE H 3K3 F 0W12 1206	1
C 82	P210122	C# X7R MU 100N K 50 1206	1	R 13	P200423	R# CE H 3K3 F 0W12 1206	1
C 83	P210122	C# X7R MU 100N K 50 1206	1	R 14	P200423	R# CE H 3K3 F 0W12 1206	1
C 84	P210122	C# X7R MU 100N K 50 1206	1	R 15	R103226	R MO H150E J 2W E10	1
C 85	P210122	C# X7R MU 100N K 50 1206	1	R 16	R103620	R VVW H 4E7 K 4W E10	1
C 86	P210122	C# X7R MU 100N K 50 1206	1	R 17	P202220	R# MF H 47E F 0W25 MMELF	1
C 87	P210122	C# X7R MU 100N K 50 1206	1	R 21	P200425	R# CE H 3K9 F 0W12 1206	1
C 88	P210122	C# X7R MU 100N K 50 1206	1	R 22	P200423	R# CE H 3K3 F 0W12 1206	1
C 89	P210122	C# X7R MU 100N K 50 1206	1				
C 90	P210122	C# X7R MU 100N K 50 1206	1				
C 91	P210122	C# X7R MU 100N K 50 1206	1				

# Dynamic Astigmatism module

R762514

SIT.	ITEM NO.	DESCRIPTION	QUANTITY	SIT.	ITEM NO.	DESCRIPTION	QUANTITY
R 23	P200423	R# CE H 3K3 F 0W12 1206	1	R104	P200427	R# CE H 4K7 F 0W12 1206	1
R 24	P200431	R# CE H 6K8 F 0W12 1206	1	R105	P200427	R# CE H 4K7 F 0W12 1206	1
R 25	R103226	R MO H150E J 2W E10	1	R106	P200403	R# CE H470E F 0W12 1206	1
R 26	R103620	R VVW H 4E7 K 4W E10	1	R107	P200387	R# CE H100E F 0W12 1206	1
R 27	P202220	R#MF H 47E F 0W25 MMELF	1	R108	P200443	R# CE H 22K F 0W12 1206	1
R 31	P200425	R# CE H 3K9 F 0W12 1206	1	R109	P200443	R# CE H 22K F 0W12 1206	1
R 32	P200423	R# CE H 3K3 F 0W12 1206	1	R110	P200435	R# CE H 10K F 0W12 1206	1
R 33	P200423	R# CE H 3K3 F 0W12 1206	1	R111	P200435	R# CE H 10K F 0W12 1206	1
R 34	P200423	R# CE H 3K3 F 0W12 1206	1	R112	P200403	R# CE H470E F 0W12 1206	1
R 35	R103226	R MO H150E J 2W E10	1	R113	P200387	R# CE H100E F 0W12 1206	1
R 36	R103620	R VVW H 4E7 K 4W E10	1	R114	P200427	R# CE H 4K7 F 0W12 1206	1
R 37	P202220	R#MF H 47E F 0W25 MMELF	1	R115	P200427	R# CE H 4K7 F 0W12 1206	1
R 41	P200425	R# CE H 3K9 F 0W12 1206	1	R116	P200427	R# CE H 4K7 F 0W12 1206	1
R 42	P200423	R# CE H 3K3 F 0W12 1206	1	R117	P200427	R# CE H 4K7 F 0W12 1206	1
R 43	P200423	R# CE H 3K3 F 0W12 1206	1	R118	P200403	R# CE H470E F 0W12 1206	1
R 44	P200431	R# CE H 6K8 F 0W12 1206	1	R119	P200387	R# CE H100E F 0W12 1206	1
R 45	R103226	R MO H150E J 2W E10	1	R120	P200443	R# CE H 22K F 0W12 1206	1
R 46	R103620	R VVW H 4E7 K 4W E10	1	R121	P200443	R# CE H 22K F 0W12 1206	1
R 47	P202220	R#MF H 47E F 0W25 MMELF	1	R122	P200435	R# CE H 10K F 0W12 1206	1
R 51	P200425	R# CE H 3K9 F 0W12 1206	1	R123	P200435	R# CE H 10K F 0W12 1206	1
R 52	P200423	R# CE H 3K3 F 0W12 1206	1	R124	P200403	R# CE H470E F 0W12 1206	1
R 53	P200423	R# CE H 3K3 F 0W12 1206	1	R125	P200387	R# CE H100E F 0W12 1206	1
R 54	P200423	R# CE H 3K3 F 0W12 1206	1	R126	P200427	R# CE H 4K7 F 0W12 1206	1
R 55	R103226	R MO H150E J 2W E10	1	R127	P200427	R# CE H 4K7 F 0W12 1206	1
R 56	R103620	R VVW H 4E7 K 4W E10	1	R128	P200427	R# CE H 4K7 F 0W12 1206	1
R 57	P202220	R#MF H 47E F 0W25 MMELF	1	R129	P200427	R# CE H 4K7 F 0W12 1206	1
R 61	P200425	R# CE H 3K9 F 0W12 1206	1	R130	P200403	R# CE H470E F 0W12 1206	1
R 62	P200423	R# CE H 3K3 F 0W12 1206	1	R131	P200387	R# CE H100E F 0W12 1206	1
R 63	P200423	R# CE H 3K3 F 0W12 1206	1	R132	P200443	R# CE H 22K F 0W12 1206	1
R 64	P200431	R# CE H 6K8 F 0W12 1206	1	R133	P200443	R# CE H 22K F 0W12 1206	1
R 65	R103226	R MO H150E J 2W E10	1	R134	P200435	R# CE H 10K F 0W12 1206	1
R 66	R103620	R VVW H 4E7 K 4W E10	1	R135	P200435	R# CE H 10K F 0W12 1206	1
R 67	P202220	R#MF H 47E F 0W25 MMELF	1	R136	P200403	R# CE H470E F 0W12 1206	1
R 70	P200403	R# CE H470E F 0W12 1206	1	R137	P200387	R# CE H100E F 0W12 1206	1
R 71	P200387	R# CE H100E F 0W12 1206	1	R138	P200427	R# CE H 4K7 F 0W12 1206	1
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R 73	P200443	R# CE H 22K F 0W12 1206	1	R140	P200427	R# CE H 4K7 F 0W12 1206	1
R 74	P200435	R# CE H 10K F 0W12 1206	1	R141	P200427	R# CE H 4K7 F 0W12 1206	1
R 75	P200435	R# CE H 10K F 0W12 1206	1	R150	P200435	R# CE H 10K F 0W12 1206	1
R 76	P200403	R# CE H470E F 0W12 1206	1	R151	P200435	R# CE H 10K F 0W12 1206	1
R 77	P200387	R# CE H100E F 0W12 1206	1	R152	P200435	R# CE H 10K F 0W12 1206	1
R 78	P200427	R# CE H 4K7 F 0W12 1206	1	R153	P200435	R# CE H 10K F 0W12 1206	1
R 79	P200427	R# CE H 4K7 F 0W12 1206	1	R154	P200435	R# CE H 10K F 0W12 1206	1
R 80	P200427	R# CE H 4K7 F 0W12 1206	1	R155	P200435	R# CE H 10K F 0W12 1206	1
R 81	P200427	R# CE H 4K7 F 0W12 1206	1	R156	P200435	R# CE H 10K F 0W12 1206	1
R 82	P200403	R# CE H470E F 0W12 1206	1	R157	P200435	R# CE H 10K F 0W12 1206	1
R 83	P200387	R# CE H100E F 0W12 1206	1	R158	P200435	R# CE H 10K F 0W12 1206	1
R 84	P200443	R# CE H 22K F 0W12 1206	1	R159	P200435	R# CE H 10K F 0W12 1206	1
R 85	P200443	R# CE H 22K F 0W12 1206	1	R160	P200435	R# CE H 10K F 0W12 1206	1
R 86	P200435	R# CE H 10K F 0W12 1206	1	R161	P200435	R# CE H 10K F 0W12 1206	1
R 87	P200435	R# CE H 10K F 0W12 1206	1	R162	P200435	R# CE H 10K F 0W12 1206	1
R 88	P200403	R# CE H470E F 0W12 1206	1	R163	P200435	R# CE H 10K F 0W12 1206	1
R 89	P200387	R# CE H100E F 0W12 1206	1	R164	P200435	R# CE H 10K F 0W12 1206	1
R 90	P200427	R# CE H 4K7 F 0W12 1206	1	R165	P200435	R# CE H 10K F 0W12 1206	1
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R 92	P200427	R# CE H 4K7 F 0W12 1206	1	Z 1	P234046	D#ZEN 12V 0W5 C DMMELF	1
R 93	P200427	R# CE H 4K7 F 0W12 1206	1	Z 2	P234046	D#ZEN 12V 0W5 C DMMELF	1
R 94	P200403	R# CE H470E F 0W12 1206	1				
R 95	P200387	R# CE H100E F 0W12 1206	1				
R 96	P200443	R# CE H 22K F 0W12 1206	1				
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R 98	P200435	R# CE H 10K F 0W12 1206	1				
R 99	P200435	R# CE H 10K F 0W12 1206	1				
R100	P200403	R# CE H470E F 0W12 1206	1				
R101	P200387	R# CE H100E F 0W12 1206	1				
R102	P200427	R# CE H 4K7 F 0W12 1206	1				
R103	P200427	R# CE H 4K7 F 0W12 1206	1				

