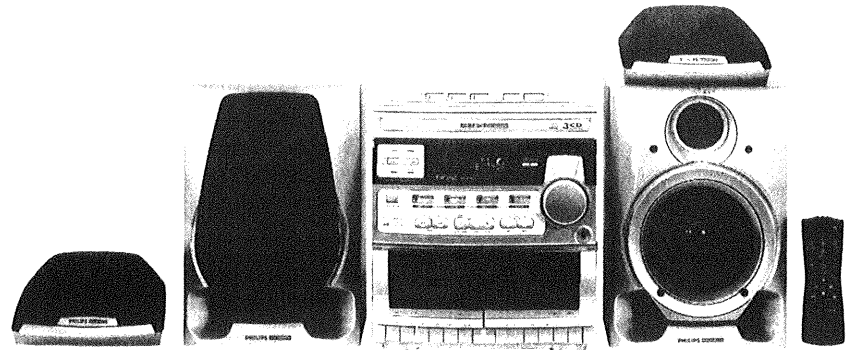


Service
Service
Service



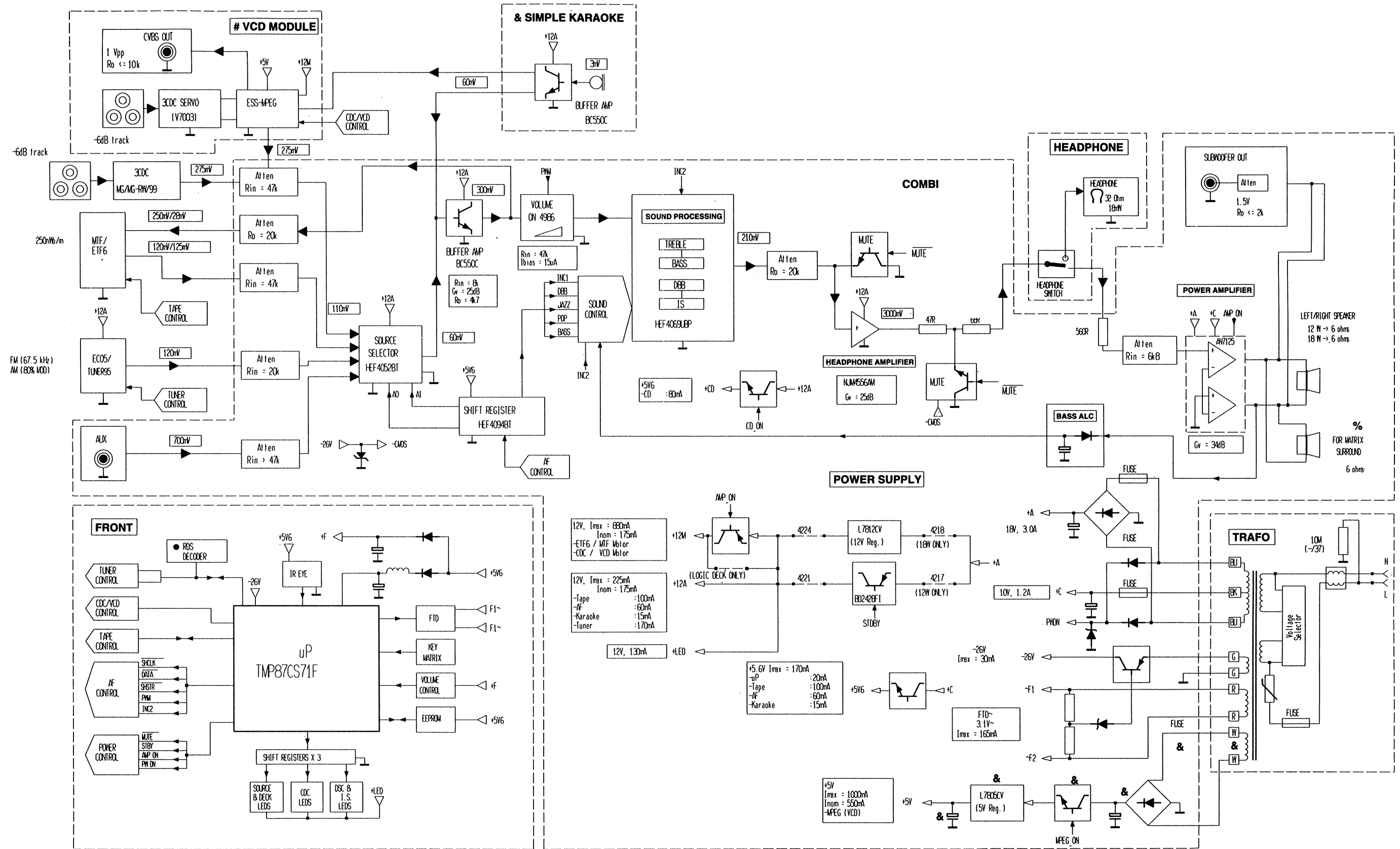
Service Manual

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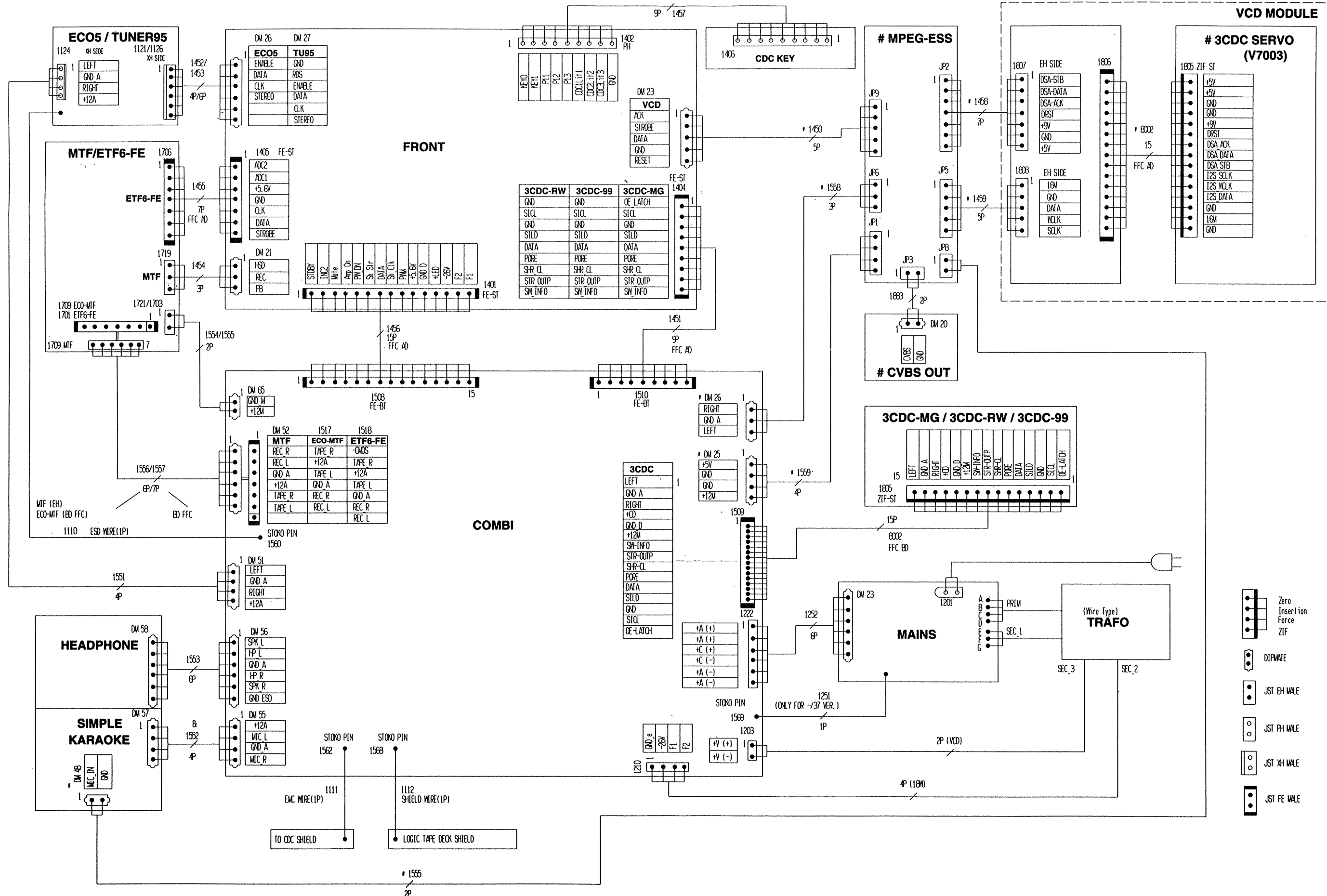


SET BLOCK DIAGRAM



LEGEND:
 [Symbol] AC SIGNAL LEVEL
 [Symbol] SIGNAL FLOW
 [Symbol] CONTROL SIGNAL
 ALL OUTPUTS FROM SOURCES ARE 1kHz, 0dB UNLESS STATED OTHERWISE.
 % MATRIX SURR. FEATURE ONLY FOR FVCEEC, FVCEEC, FVCEC
 * VCD FEATURE ONLY FOR FVCEB0/21
 & SIMPLE KARAOKE FEATURE FOR -21 VER.

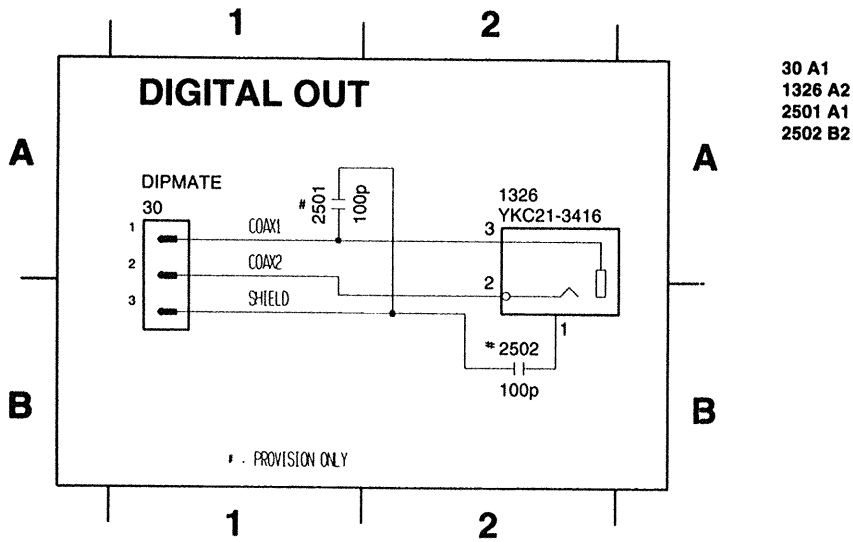
SET WIRING DIAGRAM



: VCD VERSION FOR FW390V/21
 & : FOR VERSIONS WITH SIMPLE KARAOKE

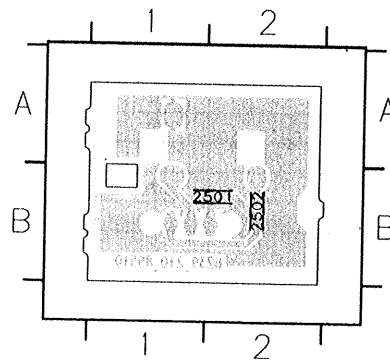
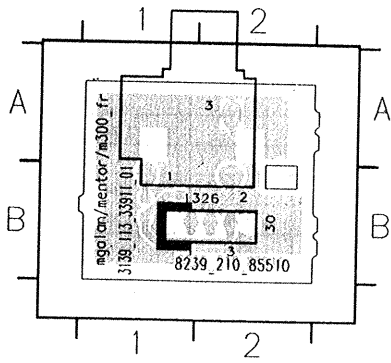
UPDATED : 23/10/98

DIGITAL OUT - CIRCUIT & LAYOUTS

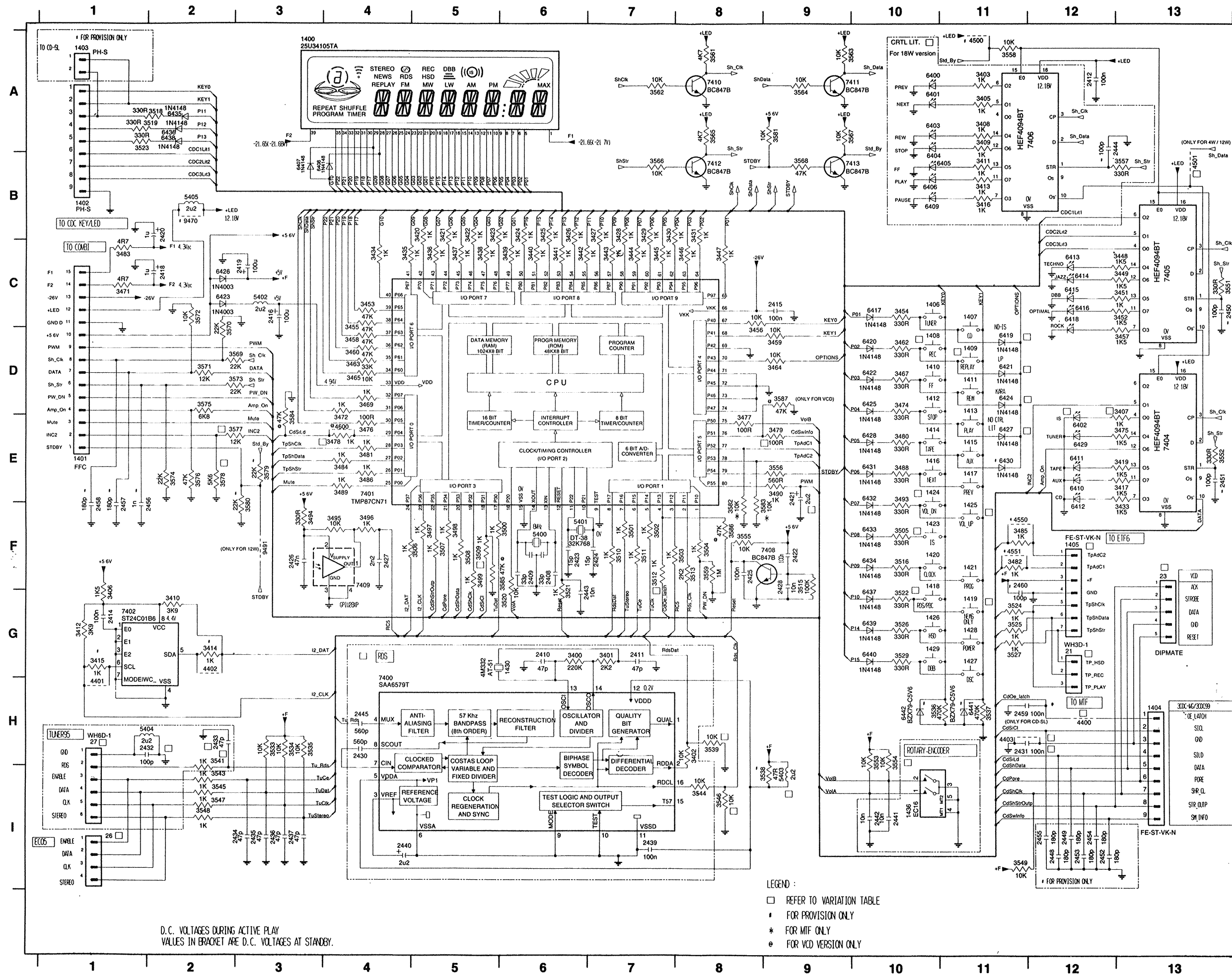


30 B2 1326 B2

2501 B2 2502 B2



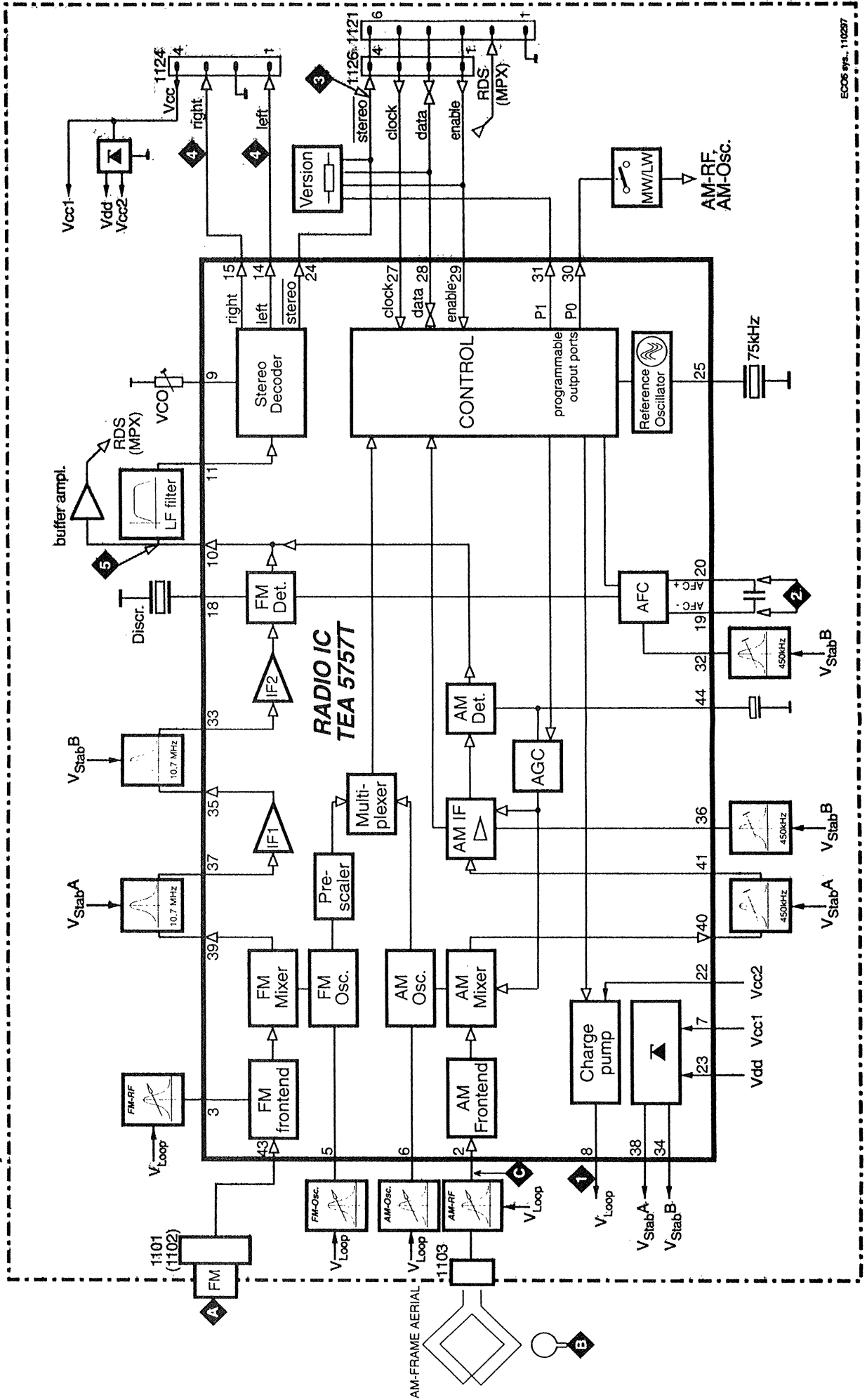
CIRCUIT DIAGRAM



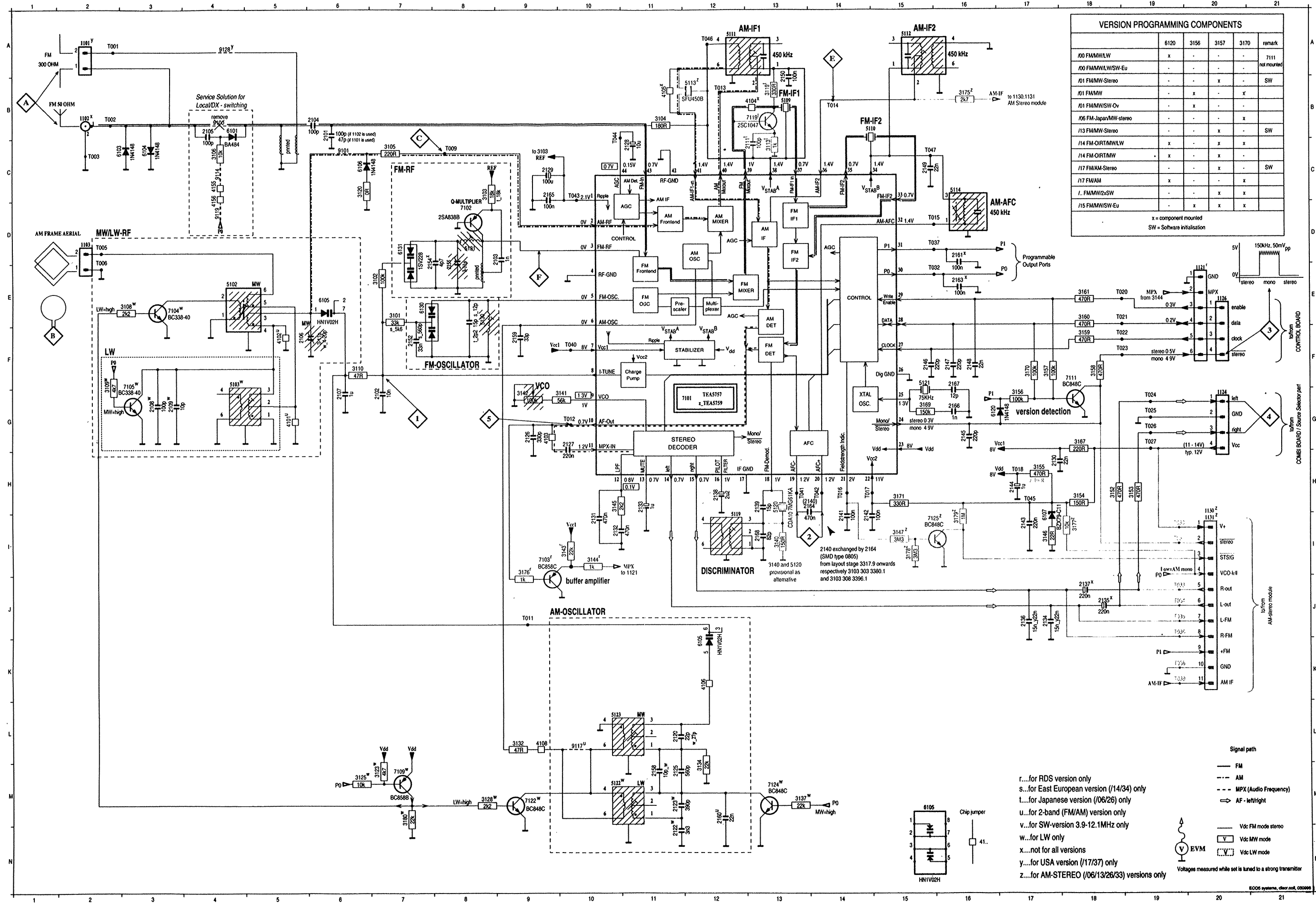
21 G12	3439 C6	3576 E2
23 F13	3440 C6	3577 E3
26 I1	3441 C6	3578 E2
27 H1	3442 C6	3579 E3
1400 A3	3443 C7	3580 F3
1401 E1	3444 C7	3581 A9
1402 B1	3445 C7	3582 F8
1403 A1	3446 C8	3583 F9
1404 H13	3447 C8	3584 E3
1405 F12	3448 C13	3585 F6
1406 C10	3449 C13	3586 F8
1407 C11	3451 C13	3587 D9
1408 D10	3452 C13	4400 H12
1409 D11	3453 C4	4401 H1
1410 D10	3454 C10	4402 G2
1411 D11	3455 D4	4403 H11
1412 D10	3456 D8	4500 A12
1413 D11	3457 D13	4501 B13
1414 E10	3458 D4	4550 F11
1415 E11	3459 D9	4551 F11
1416 E10	3460 D4	4600 E4
1417 E11	3462 D10	5400 F6
1418 E10	3463 D4	5401 F6
1419 G11	3464 D9	5402 C3
1420 F10	3465 D4	5403 I9
1421 F11	3467 D10	5404 H1
1423 F10	3469 D4	5405 B2
1424 E10	3471 C1	6000 A10
1425 F11	3472 E4	6401 A10
1426 G10	3474 D10	6402 E12
1427 G11	3475 E13	6403 A10
1428 G11	3476 E4	6404 B10
1429 G10	3477 E8	6405 B11
1430 G6	3478 E4	6406 B10
1436 I10	3479 E9	6407 B3
2408 F6	3480 E10	6408 B3
2409 F6	3481 E4	6409 B10
2410 G6	3482 F11	6410 E12
2411 G7	3483 C1	6411 E12
2412 A12	3484 E4	6412 F12
2414 G11	3485 F11	6413 D12
2415 C9	3486 E4	6414 C12
2416 C3	3488 E10	6415 C12
2418 C2	3489 E4	6416 C12
2419 C3	3490 E9	6417 C10
2420 B2	3493 E10	6418 C12
2421 E9	3494 F3	6419 D11
2422 F9	3495 F4	6420 D10
2423 F6	3496 F4	6421 D11
2424 F7	3497 F5	6422 D10
2425 F8	3498 F5	6423 C2
2426 F3	3499 F5	6424 D11
2427 F4	3500 F6	6425 D10
2428 F9	3501 F7	6426 C2
2430 H4	3502 F7	6427 E11
2431 H11	3503 F8	6428 E10
2432 H1	3504 F8	6429 E12
2433 H2	3505 F10	6430 E11
2434 I2	3506 F5	6431 E10
2435 I3	3507 F5	6432 E10
2436 I3	3508 F5	6433 F10
2437 I3	3509 F5	6434 F10
2439 I7	3510 F7	6435 A2
2440 I4	3511 F7	6436 A2
2441 I10	3512 F7	6437 G10
2442 I10	3513 F8	6438 A2
2443 G6	3515 F9	6439 G10
2444 A12	3516 F10	6440 G10
2445 H4	3518 A2	6441 H11
2448 I12	3519 A2	6442 H10
2449 I12	3520 G6	7400 H4
2450 C13	3521 G6	7401 E4
2451 E13	3522 G10	7402 G1
2452 I12	3523 A1	7404 E13
2453 I12	3524 G11	7405 C13
2454 I12	3525 G11	7406 A12
2455 I12	3526 G10	7408 F9
2456 F1	3527 G11	7409 F4
2457 F1	3529 G10	7410 A8
2458 F1	3533 H3	7411 A9
2459 H11	3534 H3	7412 B9
2460 F11	3535 H3	7413 B9
3400 G6	3536 H10	9470 B2
3401 G7	3537 H11	9491 F3
3402 H8	3538 I9	
3408 A11	3539 H8	
3405 A11	3541 H2	
3406 G1	3543 I2	
3407 D13	3544 I8	
3408 A11	3545 I2	
3409 A11	3546 I8	
3410 G2	3547 I2	
3411 H1	3548 I2	
3412 G1	3549 I11	
3413 H1	3551 C13	
3414 G2	3552 E13	
3415 G1	3553 H10	
3416 H1	3554 H10	
3417 E13	3555 F8	
3418 E13	3556 E9	
3420 B5	3557 B13	
3421 B5	3558 A11	
3422 B5	3559 F8	
3423 B5	3561 A8	
3424 B6	3562 A7	
3425 B6	3563 A9	
3426 B6	3564 A9	
3427 B7	3565 A8	
3428 B7	3566 B7	
3429 B7	3567 A9	
3430 B7	3568 B9	
3431 B8	3569 D3	
3433 F13	3570 D2	
3434 C4	3571 D2	
3435 C4	3572 C2	
3436 C5	3573 D3	
3437 C5	3574 E2	
3438 C5	3575 D2	

Tuner Board - Module

TUNER BOARD
ECO 5 systems



TUNER BOARD ECO5 / Systems

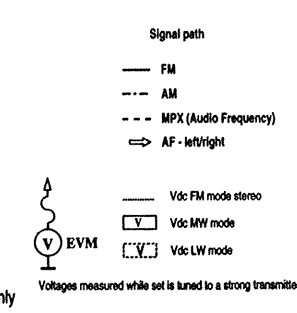


VERSION PROGRAMMING COMPONENTS					
	6120	3156	3157	3170	remark
/00 FMMW/LW	x	-	-	-	7111
/00 FMMW/LW/SW-Eu	-	-	-	-	not mounted
/01 FMMW-Stereo	-	-	x	-	SW
/01 FMMW	-	x	-	x	
/01 FMMW/SW-Ov	-	x	-	-	
/06 FM-Japan/MW-stereo	-	-	-	x	
/13 FMMW-Stereo	-	-	x	-	SW
/14 FM-OIRTAR/WLW	x	-	x	x	
/14 FM-OIRTAR	-	x	-	-	
/17 FM/AM-Stereo	-	-	x	-	SW
/17 FM/AM	x	-	-	x	
/1. FMMW/2-SW	-	-	x	x	
/15 FMMW/SW-Eu	-	x	x	x	

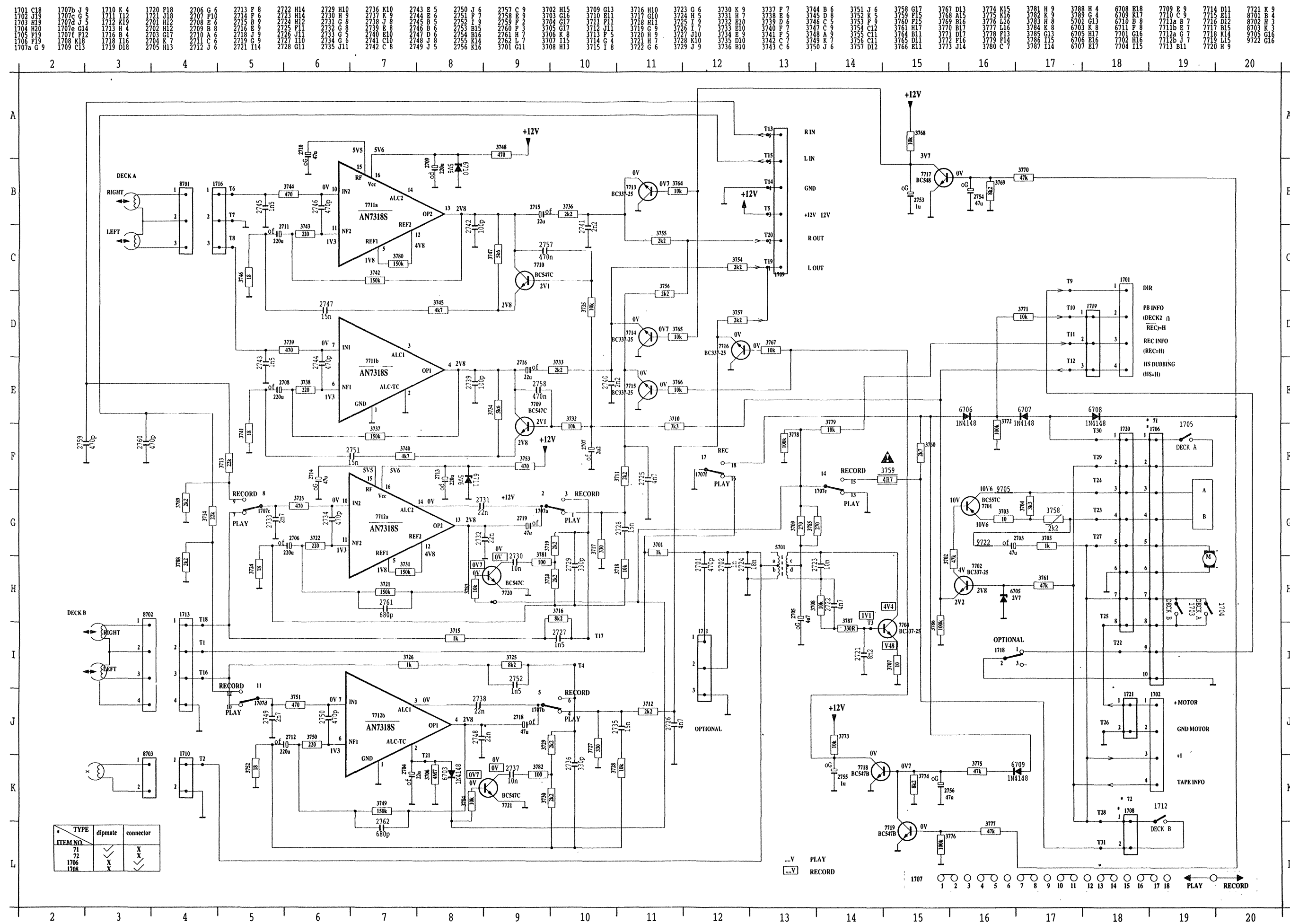
x = component mounted
SW = Software initialisation

- 1101 A 1
- 1102 B 2
- 1103 D 2
- 1121 E 20
- 1124 G 20
- 1126 E 20
- 1130 I 20
- 1131 I 20
- 2101 C 6
- 2102 G 7
- 2103 D 9
- 2104 B 6
- 2106 F 5
- 2107 G 6
- 2108 G 3
- 2109 G 3
- 2111 C 13
- 2120 L 13
- 2122 N 11
- 2123 M 11
- 2125 M 11
- 2126 G 9
- 2127 G 10
- 2128 C 11
- 2129 C 9
- 2130 H 17
- 2131 H 10
- 2132 H 10
- 2133 H 11
- 2134 J 17
- 2135 J 18
- 2136 J 17
- 2137 J 18
- 2138 H 12
- 2139 H 13
- 2140 H 14
- 2141 H 14
- 2142 H 14
- 2143 I 17
- 2144 H 17
- 2145 G 16
- 2146 F 15
- 2147 F 16
- 2148 F 16
- 2149 C 15
- 2150 B 13
- 2152 F 7
- 2153 E 8
- 2154 E 7
- 2155 D 8
- 2158 M 11
- 2159 F 12
- 2160 M 12
- 2161 D 16
- 2163 E 16
- 2164 H 14
- 2165 C 9
- 2166 G 16
- 2167 F 16
- 2168 I 13
- 3101 E 7
- 3102 E 7
- 3103 C 9
- 3104 B 11
- 3105 C 7
- 3106 E 3
- 3107 F 6
- 3108 F 6
- 3109 B 13
- 3110 C 6
- 3113 C 13
- 3119 B 13
- 3120 C 6
- 3123 M 7
- 3125 M 6
- 3126 M 8
- 3128 M 8
- 3132 L 9
- 3134 M 12
- 3137 M 13
- 3140 I 13
- 3141 G 10
- 3142 G 9
- 3143 I 10
- 3144 H 10
- 3145 H 10
- 3146 I 17
- 3147 H 5
- 3152 H 18
- 3153 H 18
- 3154 H 18
- 3155 H 17
- 3156 G 17
- 3157 F 17
- 3158 F 18
- 3159 F 18
- 3160 E 18
- 3161 E 18
- 3167 G 18
- 3169 G 15
- 3170 F 17
- 3171 H 15
- 3175 B 16
- 3176 J 9
- 3177 H 8
- 3178 H 5
- 3179 H 6
- 3180 M 7
- 4101 G 5
- 4102 F 5
- 4103 G 9
- 4104 B 13
- 4105 B 11
- 4106 K 12
- 4108 L 9
- 5100 E 4
- 5103 F 4
- 5106 B 13
- 5110 B 14
- 5111 A 13
- 5112 A 15
- 5113 B 12
- 5114 C 16
- 5119 I 12
- 5120 H 13
- 5121 F 15
- 5122 M 11
- 5123 L 11
- 5130 E 8
- 5131 D 8
- 6103 C 2
- 6104 C 3
- 6105 K 12
- 6106 E 8
- 6106 C 6
- 6107 H 7
- 6108 G 16
- 6130 E 4
- 6131 D 7
- 7101 G 11
- 7102 D 8
- 7103 I 9
- 7104 E 3
- 7105 F 2
- 7109 M 7
- 7111 F 18
- 7119 B 13
- 7120 M 9
- 7124 M 13
- 8100 B 4
- 8101 C 6
- 8117 L 10
- 9128 A 4

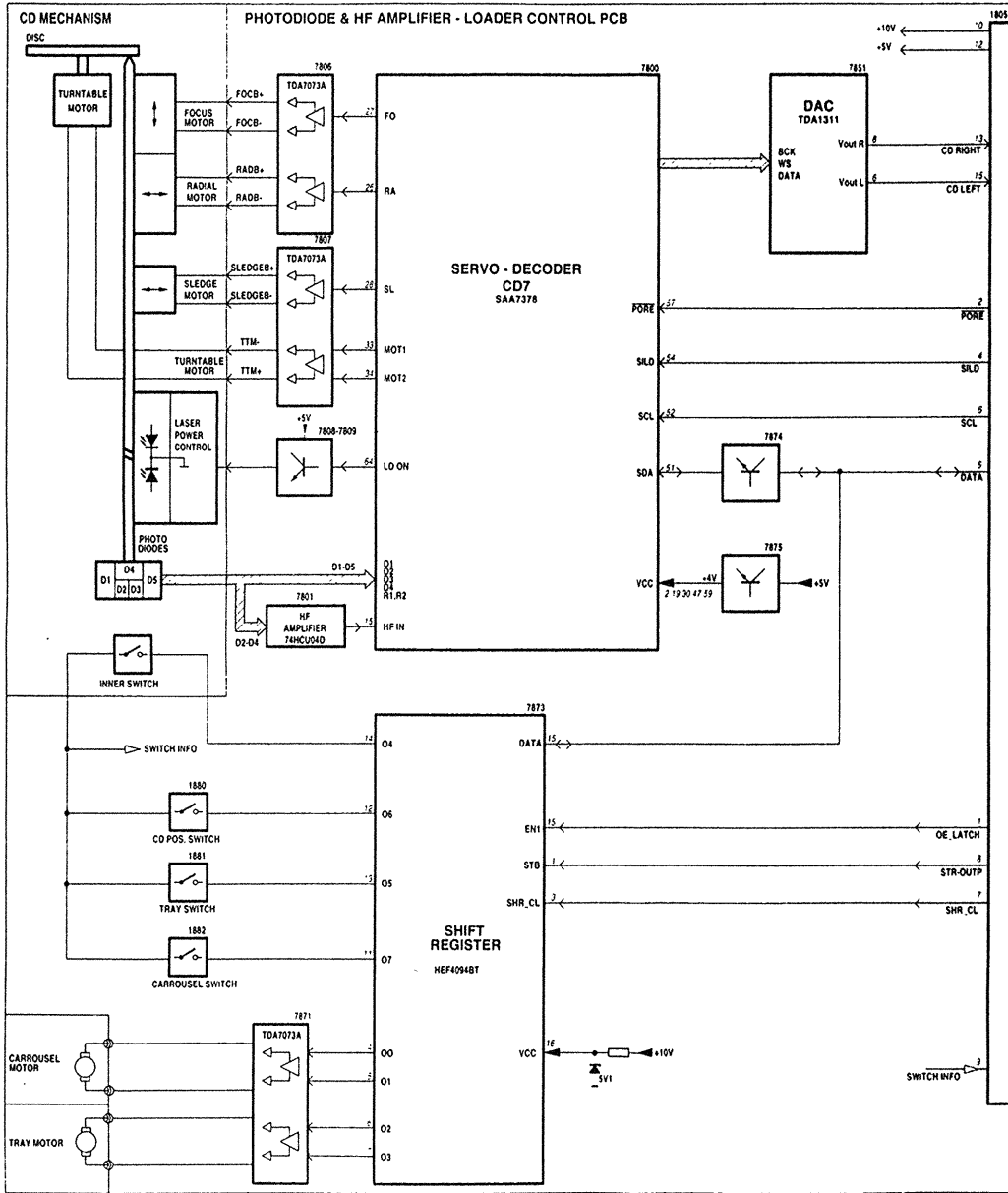
r...for RDS version only
s...for East European version (14/34) only
t...for Japanese version (06/26) only
u...for 2-band (FM/AM) version only
v...for SW-version 3.9-12.1MHz only
w...for LW only
x...not for all versions
y...for USA version (17/37) only
z...for AM-STEREO (06/13/26/33) versions only



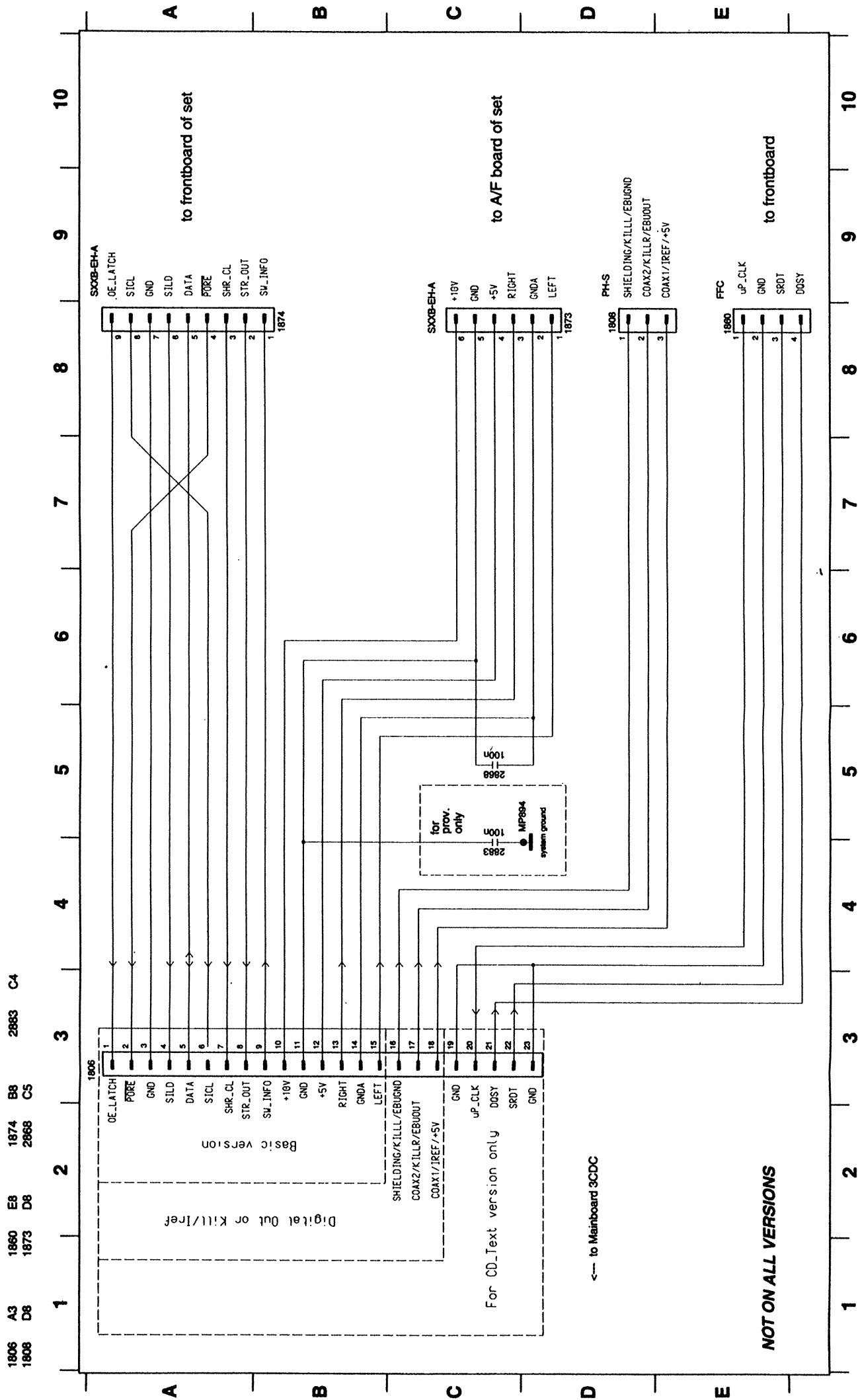
CIRCUIT DIAGRAM



Blockdiagram



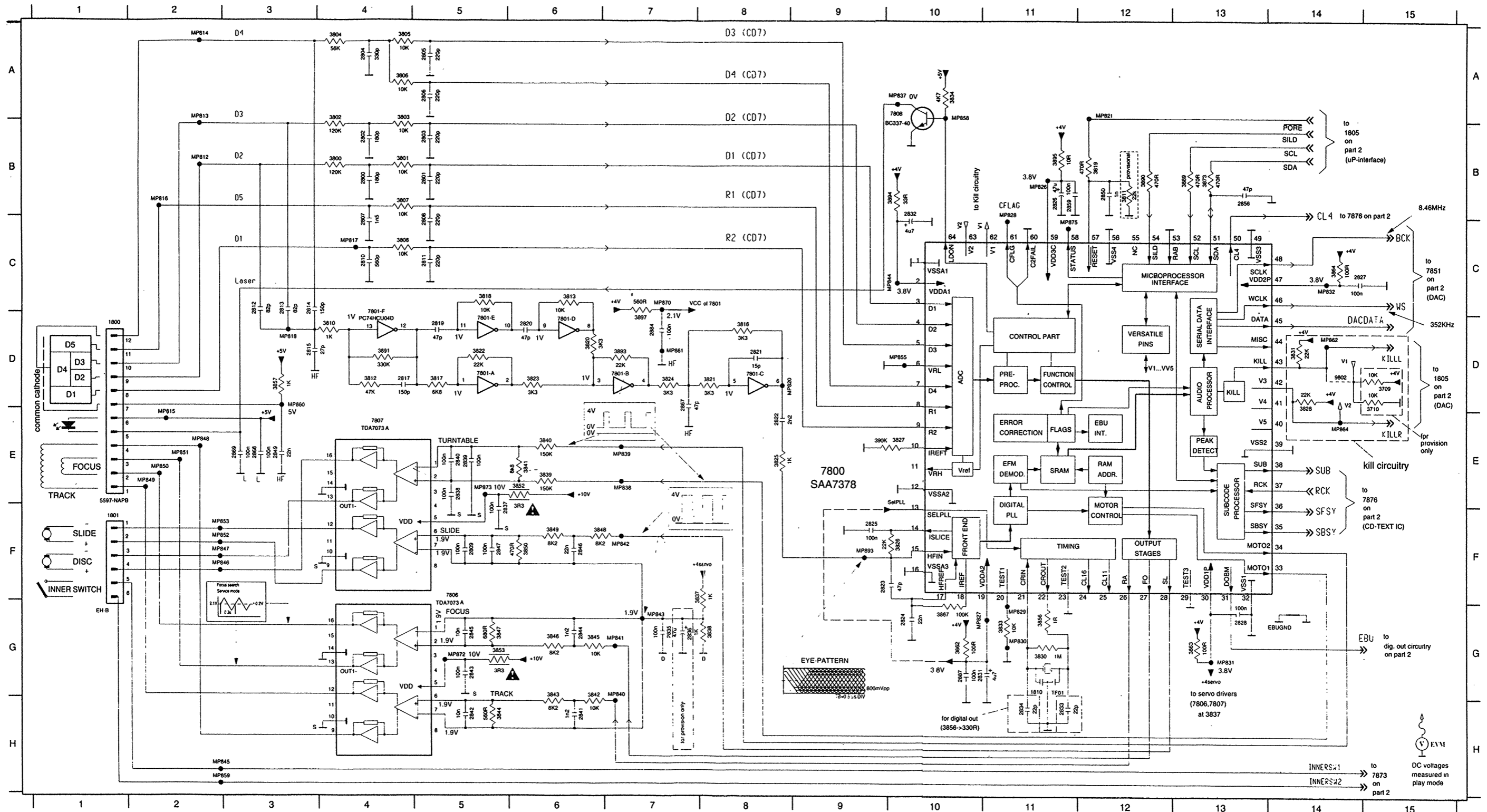
Circuit diagram Connector Board



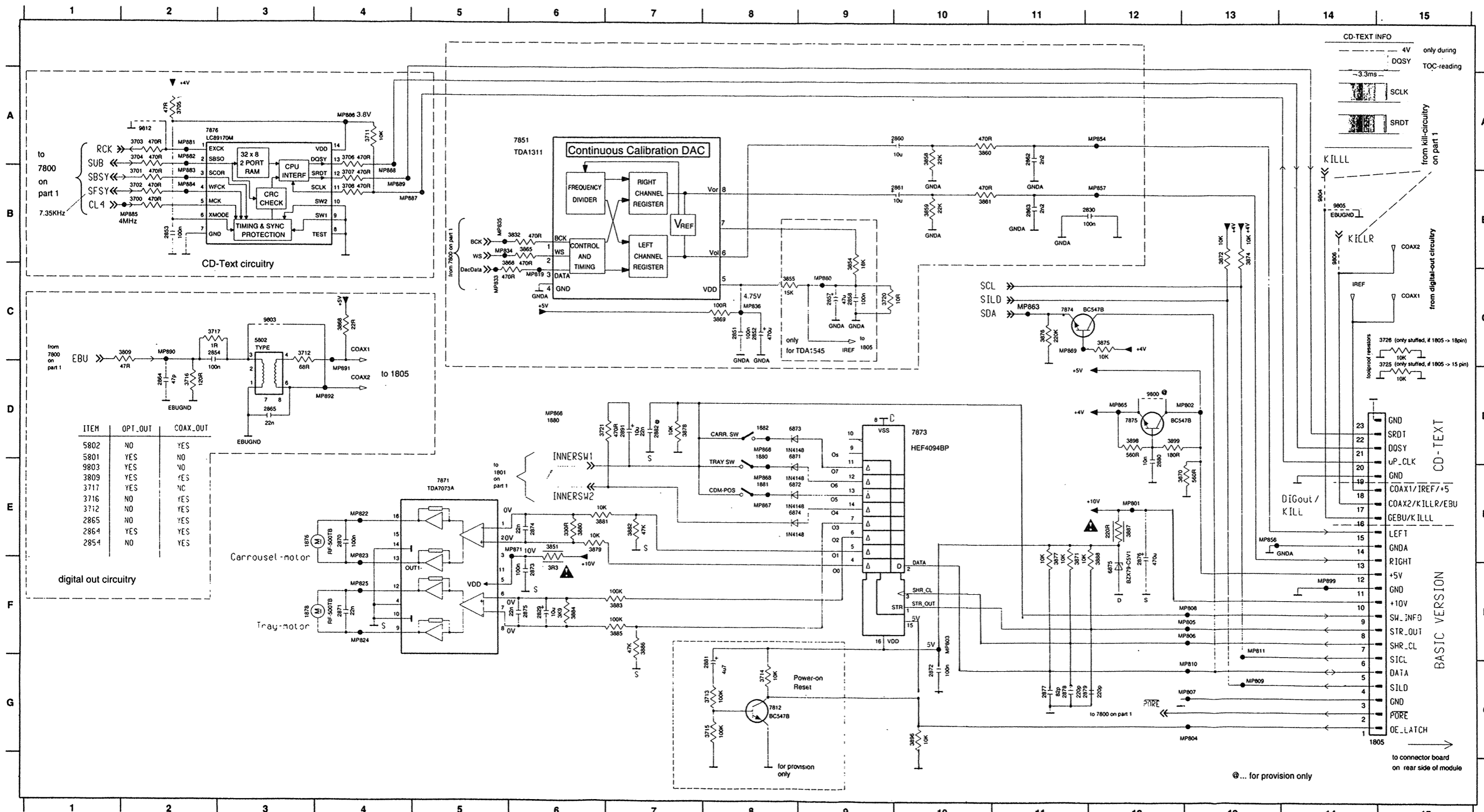
NOT ON ALL VERSIONS

← to Mainboard 30DC

Circuit Diagram Main Board part1



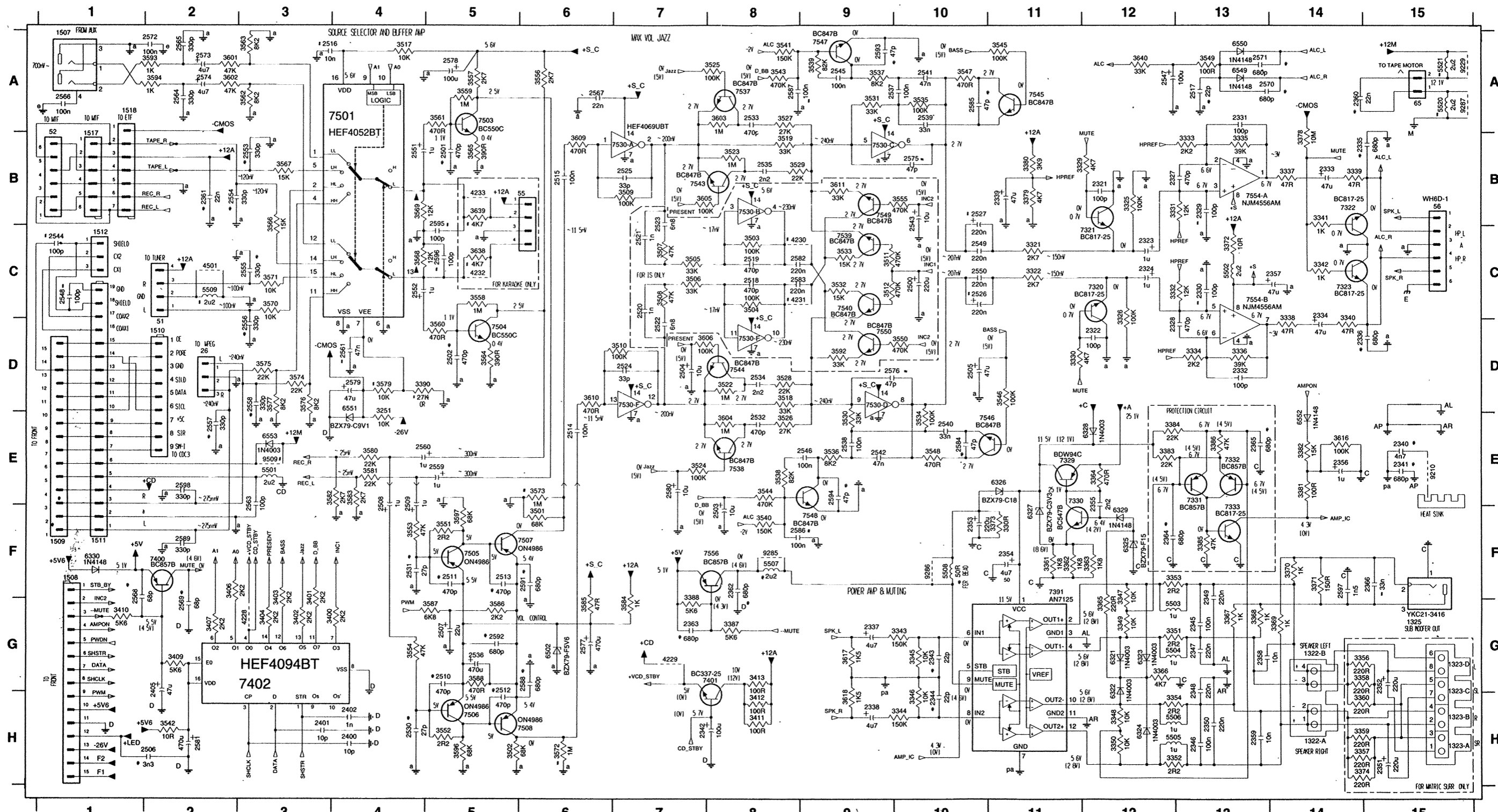
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1801	G3	2822	C1	2851	C4	2881	E4	3803	D2	3834	E3	3864	C4	3892	F2	9807	A2	9850	E2	9885	D4
1805	A1	2823	C2	2852	A4	2882	G4	3804	E2	3835	B2	3865	B4	3893	F3	9808	A2	9851	A4	9886	D1
1810	B2	2824	C2	2853	A3	2884	F2	3805	D2	3836	B2	3866	B4	3894	D3	9809	A2	9852	A4	9887	D1
1876	H4	2825	C2	2854	B2	2887	C2	3806	D2	3837	B2	3867	C2	3895	F4	9810	A2	9853	E4	9888	F2
1878	H1	2826	D3	2856	C4	2890	C4	3807	F2	3838	B3	3868	B1	3896	B1	9811	A2	9854	D4	9889	D1
1880	B4	2827	C4	2857	C4	2891	C4	3808	E1	3839	B3	3869	B3	3897	A3	9812	A3	9855	B3	9890	F1
1881	C2	2828	B3	2858	C4	2892	B3	3809	B3	3840	B3	3870	C1	3898	C1	9813	G3	9856	D2		
1882	B4	2829	H2	2859	C3	2893	H2	3810	E2	3841	F3	3871	G4	3899	C1	9814	H3	9857	B2		
2800	D2	2830	C4	2860	A2	2894	B3	3811	D3	3842	F3	3872	D4	3900	C1	9815	H3	9858	B1		
2801	D3	2831	C2	2861	A2	2895	A3	3812	E2	3843	F3	3873	G4	3901	C1	9816	H3	9859	B1		
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2804	D2	2834	B2	2864	B3	2898	A3	3815	F2	3846	B2	3876	D4	3904	C1	9819	H3	9862	D1		
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2806	D2	2836	E3	2866	E3	2900	E4	3817	D4	3848	B2	3878	E4	3906	C1	9821	H3	9864	G4		
2807	E2	2837	G2	2867	F1	2901	E4	3818	D4	3849	F3	3879	G4	3907	C1	9822	H3	9865	A4		
2808	D2	2838	G4	2868	F1	2902	F1	3819	D4	3850	F3	3880	G3	3908	C1	9823	H3	9866	C1		
2809	F3	2839	F3	2870	H4	2903	F1	3820	F1	3851	G3	3881	H3	3909	C1	9824	H3	9867	G4		
2810	E2	2840	F3	2871	H2	2904	E4	3821	G1	3852	G2	3882	H3	3910	C1	9825	H3	9868	A1		
2811	D2	2841	B2	2872	F4	2905	E4	3822	F2	3853	F2	3883	H3	3911	C1	9826	H3	9869	D1		
2812	E2	2842	F3	2873	G2	2906	E4	3823	F2	3854	B4	3884	H3	3912	C1	9827	H3	9870	B1		
2813	E2	2843	F2	2874	H3	2907	E4	3824	G1	3855	B4	3885	H3	3913	C1	9828	H3	9871	B1		
2814	E2	2844	B2	2875	H2	2908	E4	3825	C2	3856	B3	3886	H3	3914	C1	9829	H3	9872	B2		
2815	E2	2845	F3	2876	G3	2909	E4	3826	C2	3857	E1	3887	H3	3915	C1	9830	H3	9873	B2		
2816	F1	2846	B2	2877	H2	2910	E4	3827	C2	3858	A2	3888	G2	3916	C1	9831	H3	9874	B1		
2817	F1	2847	F3	2878	G4	2911	E4	3828	C4	3859	A2	3889	G2	3917	C1	9832	H3	9875	B1		
2818	F1	2848	F3	2879	G4	2912	E4	3829	C4	3860	A2	3890	G2	3918	C1	9833	H3	9876	B1		
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2821	F1	2851	F3	2882	G4	2915	E4	3832	C4	3863	A2	3893	G2	3921	C1	9836	H3	9879	B1		
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2823	F1	2853	F3	2884	G4	2917	E4	3834	C4	3865	A2	3895	G2	3923	C1	9838	H3	9881	B1		
2824	F1	2854	F3	2885	G4	2918	E4	3835	C4	3866	A2	3896	G2	3924	C1	9839	H3	9882	B1		
2825	F1	2855	F3	2886	G4	2919	E4	3836	C4	3867	A2	3897	G2	3925	C1	9840	H3	9883	B1		
2826	F1	2856	F3	2887	G4	2920	E4	3837	C4	3868	A2	3898	G2	3926	C1	9841	H3	9884	B1		
2827	F1	2857	F3	2888	G4	2921	E4	3838	C4	3869	A2	3899	G2	3927	C1	9842	H3	9885	B1		
2828	F1	2858	F3	2889	G4	2922	E4	3839	C4	3870	A2	3900	G2	3928	C1	9843	H3	9886	B1		
2829	F1	2859	F3	2890	G4	2923	E4	3840	C4	3871	A2	3901	G2	3929	C1	9844	H3	9887	B1		
2830	F1	2860	F3	2891	G4	2924	E4	3841	C4	3872	A2	3902	G2	3930	C1	9845	H3	9888	B1		
2831	F1	2861	F3	2892	G4	2925	E4	3842	C4	3873	A2	3903	G2	3931	C1	9846	H3	9889	B1		
2832	F1	2862	F3	2893	G4	2926	E4	3843	C4	3874	A2	3904	G2	3932	C1	9847	H3	9890	B1		
2833	F1	2863	F3	2894	G4	2927	E4	3844	C4	3875	A2	3905	G2	3933	C1	9848	H3	9891	B1		
2834	F1	2864	F3	2895	G4	2928	E4	3845	C4	3876	A2	3906	G2	3934	C1	9849	H3	9892	B1		
2835	F1	2865	F3	2896	G4	2929	E4	3846	C4	3877	A2	3907	G2	3935	C1	9850	H3	9893	B1		
2836	F1	2866	F3	2897	G4	2930	E4	3847	C4	3878	A2	3908	G2	3936	C1	9851	H3	9894	B1		
2837	F1	2867	F3	2898	G4	2931	E4	3848	C4	3879	A2	3909	G2	3937	C1	9852	H3	9895	B1		
2838	F1	2868	F3	2899	G4	2932	E4	3849	C4	3880	A2	3910	G2	3938	C1	9853	H3	9896	B1		
2839	F1	2869	F3	2900	G4	2933	E4	3850	C4	3881	A2	3911	G2	3939	C1	9854	H3	9897	B1		
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2842	F1	2872	F3	2903	G4	2936	E4	3853	C4	3884	A2	3914	G2	3942	C1	9857	H3	9900	B1		
2843	F1	2873	F3	2904	G4	2937	E4	3854	C4	3885	A2	3915	G2	3943	C1	9858	H3	9901	B1		
2844	F1	2874	F3	2905	G4	2938	E4	3855	C4	3886	A2	3916	G2	3944	C1	9859	H3	9902	B1		
2845	F1	2875	F3	2906	G4	2939	E4	3856	C4	3887	A2	3917	G2	3945	C1	9860	H3	9903	B1		
2846	F1	2876	F3	2907	G4	2940	E4	3857	C4	3888	A2	3918	G2	3946	C1	9861	H3	9904	B1		
2847	F1	2877	F3	2908	G4	2941	E4	3858	C4	3889	A2	3919	G2	3947	C1	9862	H3	9905	B1		
2848	F1	2878	F3	2909	G4	2942	E4	3859	C4	3890	A2	3920	G2	3948	C1	9863	H3	9906	B1		
2849	F1	2879	F3	2910	G4	2943	E4	3860	C4	3891	A2	3921	G2	3949	C1	9864	H3	9907	B1		
2850	F1	2880	F3	2911	G4	2944	E4	3861	C4	3892	A2	3922	G2	3950	C1	9865	H3	9908	B1		
2851	F1	2881	F3	2912	G4	2945	E4	3862	C4	3893	A2	3923	G2	3951	C1	9866	H3	9909	B1		
2852	F1	2882	F3	2913	G4	2946	E4	3863	C4	3894	A2	3924	G2	3952	C1	9867	H3	9910	B1		
2853	F1	2883	F3	2914	G4	2947	E4	3864	C4	3895	A2	3925	G2	3953	C1	9868	H3	9911	B1		
2854	F1	2884	F3	2915	G4	2948	E4	3865	C4	3896	A2	3926	G2	3954	C1	9869	H3	9912	B1		
2855	F1	2885	F3	2916	G4	2949	E4	3866	C4	3897	A2	3927	G2	3955	C1	9870	H3	9913	B1		
2856	F1	2886	F3	2917	G4	2950	E4	3867	C4	3898	A2	3928	G2	3956	C1	9871	H3	9914	B1		
2857	F1	2887	F3	2918	G4	2951	E4	3868	C4	3899	A2	3929	G2	3957	C1	9872	H3	9915	B1		
2858	F1	2888	F3	2919	G4	2952	E4	3869	C4	3900	A2	3930	G2	3958	C1	9873	H3	9916	B1		
2859	F1	2889	F3	2920	G4	2953	E4	3870	C4	3901	A2	3931	G2	3959	C1	9874	H3	9917	B1		
2860	F1	2890	F3	2921	G4	2954	E4	3871	C4	3902	A2	3932	G2	3960	C1	9875	H3	9918	B1		
2861	F1	2891	F3	2922	G4	2955	E4	3872	C4	3903	A2	3933	G2	3961	C1	9876	H3	9919	B1		
2862	F1	2892	F3	2923	G4	2956	E4	3873	C4	3904	A2	3934	G2	3962	C1	9877	H3	9920	B1		
2863	F1	2893	F3	2924	G4	2957	E4	3874	C4	3905	A2	3935	G2	3963	C1	9878	H3	9921	B1		
2864	F1	2894	F3	2925	G4	2958	E4	3875	C4	3906	A2	3936									



1805 G14	2880 D12	3861 B10	6874 E8	MP819 C6	MP891 D4
1876 E3	2881 G9	3865 B6	6875 F12	MP822 E4	MP892 D4
1878 F3	2882 D7	3866 C8	7812 G8	MP823 E4	
1880 D8	3700 B2	3868 C4	7851 A6	MP824 F4	
1881 E8	3701 B2	3869 C8	7871 E5	MP825 F4	
1882 D8	3702 B2	3870 E12	7873 D10	MP833 C5	
2829 F6	3703 A2	3871 E11	7874 C11	MP834 B5	
2830 B12	3704 A2	3872 B13	7875 D12	MP835 B5	
2851 C8	3705 A2	3874 B13	7876 A2	MP836 C8	
2852 C8	3706 A4	3707 C12	9800 D12	MP854 A12	
2853 B2	3707 B4	3876 C11	9803 C3	MP856 E13	
2854 C2	3708 B4	3877 E11	9804 B14	MP857 B12	
2857 C9	3711 A4	3878 D7	9805 B14	MP863 C11	
2858 C9	3712 C3	3879 E6	9806 B14	MP865 D12	
2860 A10	3713 G8	3880 E8	9808 A10	MP866 D8	
2861 B10	3714 G8	3881 E6	9809 A10	MP867 E8	
2862 A11	3715 G8	3882 E7	9810 B10	MP868 E8	
2863 B11	3716 D2	3883 F7	9811 B10	MP869 C11	
2864 D2	3717 C2	3884 F6	9812 A2	MP871 E6	
2865 D3	3720 C9	3885 F7	MP801 E12	MP880 C9	
2870 E4	3725 D15	3886 F7	MP802 D13	MP881 A2	
2871 F4	3726 C15	3887 E12	MP803 F10	MP882 A2	
2872 G10	3809 C2	3888 E12	MP804 G13	MP883 B2	
2873 F6	3832 B6	3896 G10	MP805 F13	MP884 B2	
2874 E6	3851 E6	3898 D12	MP806 F13	MP885 B2	
2875 F6	3854 B9	3899 D12	MP807 G13	MP886 A4	
2876 E12	3855 C8	5802 C3	MP808 F13	MP887 B4	
2877 G11	3858 A10	6871 D8	MP809 G13	MP888 B4	
2878 G11	3859 B10	6872 E8	MP810 G13	MP889 B4	
2879 G11	3860 A10	6873 D8	MP811 F13	MP890 C2	

CIRCUIT DIAGRAM - SOURCE SELECT & AMPLIFIER PART

26 D2	1509 F1	2332 D13	2347 G13	2362 F8	2506 H2	2521 C7	2538 E9	2553 B3	2569 G2	2584 E10	3321 C11	3340 D14	3356 G14	3371 F14	3390 D4	3503 C8	3524 E7	3539 A9	3554 G4	3569 B4	3585 G6	3609 B5	4501 C2	6324 H12	7322 B14	7506 H5	7545 A11
51 D2	1510 D2	2333 B14	2348 G13	2363 G7	2507 G5	2522 D7	2539 A10	2554 B2	2570 A13	2585 A10	3322 C11	3341 B14	3357 H14	3372 C13	3400 G4	3504 C8	3525 A8	3540 F8	3555 B10	3570 C3	3586 G5	3610 D6	4501 C2	6325 F12	7323 C14	7507 F5	7546 E11
52 A1	1511 F1	2334 C14	2349 F13	2364 F12	2508 E4	2523 B7	2540 E10	2555 C3	2571 A13	2586 F8	3325 B12	3342 C14	3358 G14	3373 H14	3401 F3	3505 C7	3526 E8	3541 A8	3556 A6	3571 C3	3587 G5	3611 B9	4502 C13	6326 E11	7329 E11	7508 H5	7547 A9
55 B5	1512 C1	2335 B14	2350 H13	2365 E13	2509 E4	2524 D7	2541 A10	2556 D3	2572 A2	2587 A8	3326 C12	3343 G10	3359 H14	3374 H14	3402 G3	3506 C7	3527 A8	3542 H2	3557 A5	3572 H6	3588 G5	3616 E14	4503 G12	6327 F11	7330 F11	7530 A11	7548 F9
56 B15	1517 B1	2336 D14	2351 H15	2366 F15	2510 G5	2525 B7	2542 E9	2557 E2	2573 A2	2588 G6	3329 B12	3344 H10	3360 H14	3379 B14	3403 F3	3507 C7	3528 D8	3543 A8	3558 C5	3573 E6	3589 D9	3617 G9	4504 G12	6328 E12	7331 E13	7530 B11	7549 B9
65 A15	1516 A1	2337 G9	2352 G10	2400 H4	2511 F5	2526 C10	2543 C10	2558 D3	2574 A2	2589 F2	3330 D11	3345 G10	3361 F11	3379 B11	3404 G3	3508 C7	3529 B8	3544 E8	3559 A5	3574 D3	3593 A2	3618 H9	4505 H12	6329 F12	7332 E13	7530 C11	7550 D9
1322-A H14	2321 B12	2338 H9	2353 F10	2401 H3	2512 H5	2527 B10	2544 B10	2559 E5	2575 B10	2591 F6	3331 B13	3346 H10	3362 F11	3380 B11	3406 F2	3509 B7	3530 E9	3545 A11	3560 D5	3575 D3	3594 A2	3628 C5	4506 H12	6330 F11	7333 F13	7530 D11	7551 A13
1322-B G14	2322 D12	2339 B11	2354 F11	2402 H4	2513 F5	2528 H4	2545 A9	2560 E4	2576 D9	2592 G5	3332 C13	3347 F12	3363 F12	3381 E14	3407 G2	3510 D7	3531 A9	3546 D11	3561 A5	3576 D3	3595 H5	3639 B5	4507 F8	6331 F11	7331 F11	7530 E11	7551 B13
1323-A H15	2323 C12	2340 E15	2355 E12	2405 G2	2514 E6	2529 H4	2546 E9	2561 D4	2577 G6	2593 A9	3333 B13	3348 H12	3364 E12	3382 E12	3409 G2	3511 C9	3532 C9	3547 A10	3562 A3	3577 D3	3597 F5	3640 A12	4508 F10	6332 G12	7332 F13	7530 F11	7551 C13
1323-B H15	2324 C12	2341 E15	2356 E14	2500 C10	2515 B6	2532 E8	2547 A12	2563 E3	2578 A5	2594 E9	3334 D13	3349 G12	3365 G12	3383 E12	3410 G1	3512 C9	3533 C9	3548 E10	3563 A3	3579 D4	3601 A2	4228 G3	4509 C2	6333 G12	7332 F13	7530 G11	7551 D13
1323-C G15	2327 B12	2342 H7	2357 C14	2501 B5	2516 A3	2533 A8	2548 C1	2564 A2	2579 D4	2595 C5	3335 B13	3350 H12	3366 G12	3384 E12	3411 H8	3517 A4	3534 E10	3549 A13	3564 D5	3580 E4	3602 A2	4229 G7	4520 A15	6334 G12	7333 F13	7530 H11	7551 E13
1323-D G15	2328 D12	2343 G10	2358 G13	2502 D5	2517 A13	2534 D8	2549 C10	2565 A2	2580 E7	2596 C5	3336 D13	3351 G12	3367 G13	3385 F13	3412 H8	3518 D8	3535 A10	3550 D10	3565 B5	3581 E4	3603 A8	4230 C8	4521 A15	6335 G12	7333 F13	7530 I11	7551 F13
1325 G15	2329 B13	2344 H10	2359 H13	2503 F8	2518 C8	2535 B8	2550 C10	2566 A1	2581 H2	2597 F14	3337 B14	3352 H12	3368 G13	3386 E13	3413 G8	3519 B8	3536 E9	3551 F5	3566 B3	3582 E4	3604 E8	4231 C8	4522 G12	6336 G12	7333 F13	7530 J11	7551 G13
1507 A1	2330 C13	2345 G13	2360 A14	2504 D7	2519 C8	2536 G5	2551 B4	2567 A6	2582 C8	2598 E2	3338 D14	3353 F12	3369 G14	3387 G8	3501 F6	3522 D8	3537 A9	3552 H5	3567 B3	3583 E4	3605 B7	4232 C5	4523 G12	6337 G12	7333 F13	7530 K11	7551 H13
1508 F1	2331 A13	2346 H13	2505 D10	2520 C7	2537 A9	2552 C4	2568 F1	2583 C8	2591 E4	2598 E2	3339 B14	3354 H12	3370 F14	3388 G7	3502 H5	3523 B8	3538 E8	3553 F4	3568 C4	3584 G7	3606 D7	4233 B5	4524 G12	6338 G12	7333 F13	7530 L11	7551 I13



- Precision on layout
- ▲ For set with Karaoke
- ▲ For set without Karaoke
- FOR MONITOR /2 ONLY

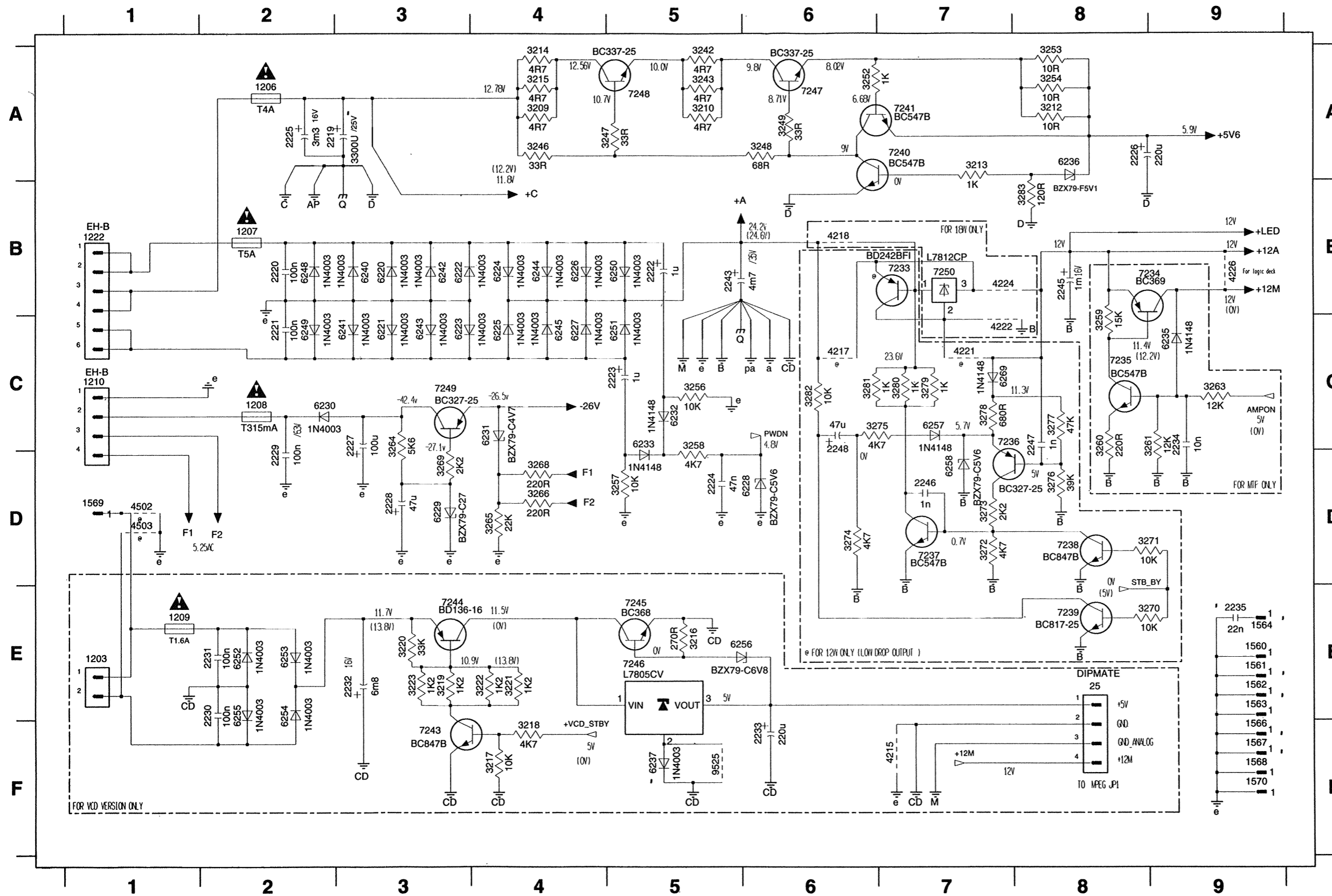
	INC1/2	DBB	Jazz	Bass	PRESENT
Optimal	x	x	L	H	L
Jazz	x	x	H	L	L
Rock	x	x	L	H	L
TECHD	x	x	H	H	H

	ALK	AD	AI
TUNER	•	•	•
TARE	•	•	•
CD	•	•	•

	Jazz	Inc 1	Inc 2	Jazz	Bass	POP	DBB
Jazz	x	x	x	L	H	L	L
Rock	x	x	x	H	H	H	H
Techno	x	x	x	L	H	L	H
Optimal	x	x	x	L	L	H	L
IS (vol < 24)	H	H	x	x	x	x	x
IS (vol > 24)	L	H	x	x	x	x	x

(only FW390C)

CIRCUIT DIAGRAM - POWER SUPPLY PART



- 25 E8
- 1203 E1
- 1206 A2
- 1207 B2
- 1208 C2
- 1210 C1
- 1222 B1
- 1560 E9
- 1561 E9
- 1562 E9
- 1563 E9
- 1564 E9
- 1566 F9
- 1567 F9
- 1568 F9
- 1569 D1
- 1570 F9
- 2219 A2
- 2220 B2
- 2221 C2
- 2222 B5
- 2223 C5
- 2224 D5
- 2225 A2
- 2226 A8
- 2227 C3
- 2228 D3
- 2229 D2
- 2230 E2
- 2231 E2
- 2232 E3
- 2233 F6
- 2234 C9
- 2235 E9
- 2243 B5
- 2245 B8
- 2246 D7
- 2247 C8
- 2248 C6
- 3209 A4
- 3210 A5
- 3212 A8
- 3213 A7
- 3214 A4
- 3215 A4
- 3216 E5
- 3217 F4
- 3218 F4
- 3219 E3
- 3220 E3
- 3221 E4
- 3222 E4
- 3223 E3
- 3242 A5
- 3243 A5
- 3247 A5
- 3248 A6
- 3249 A6
- 3252 A6
- 3253 A8
- 3254 A8
- 3256 C5
- 3257 D5
- 3258 C5
- 6269 C7
- 7233 B7
- 7234 B8
- 7235 C8
- 7236 C7
- 7237 D7
- 7238 D8
- 7239 E8
- 7240 A7
- 7241 A7
- 7243 F3
- 7244 E3
- 7245 E5
- 7246 E5
- 7247 A6
- 7248 A5
- 7249 C3
- 7250 B7
- 9525 F5

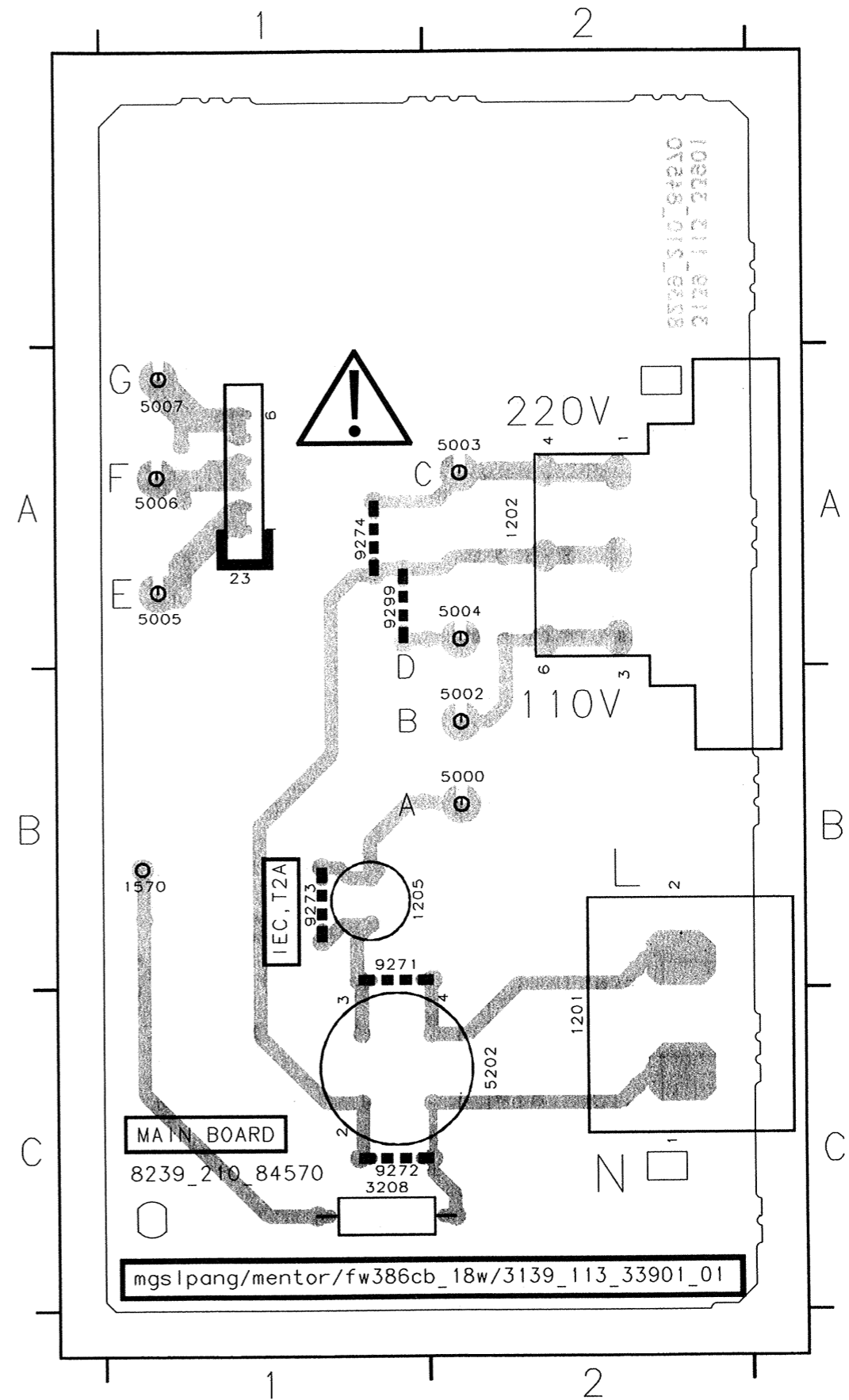
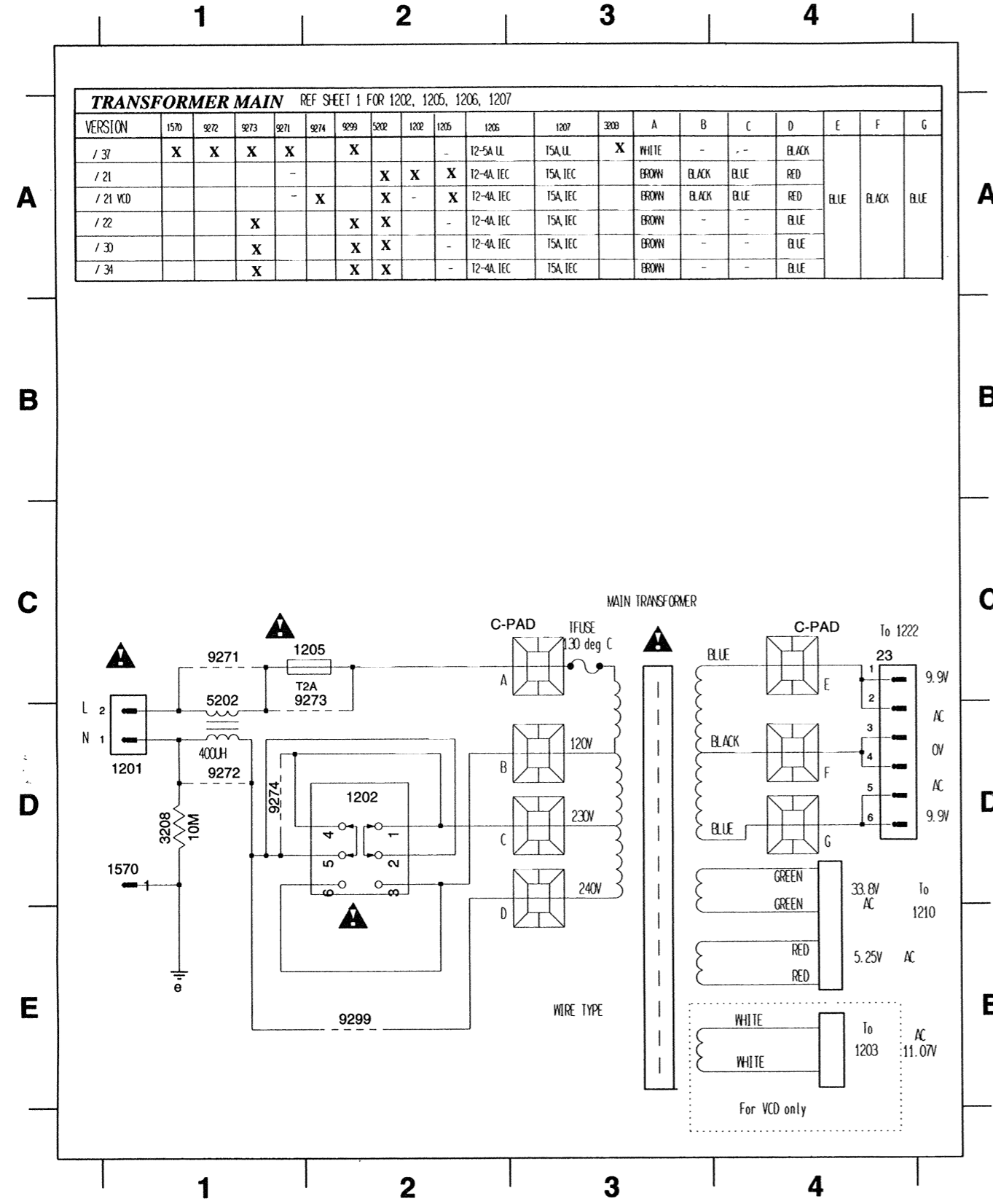
Provision on Layout

CIRCUIT DIAGRAM - TRANSFORMER PRIMARY PART

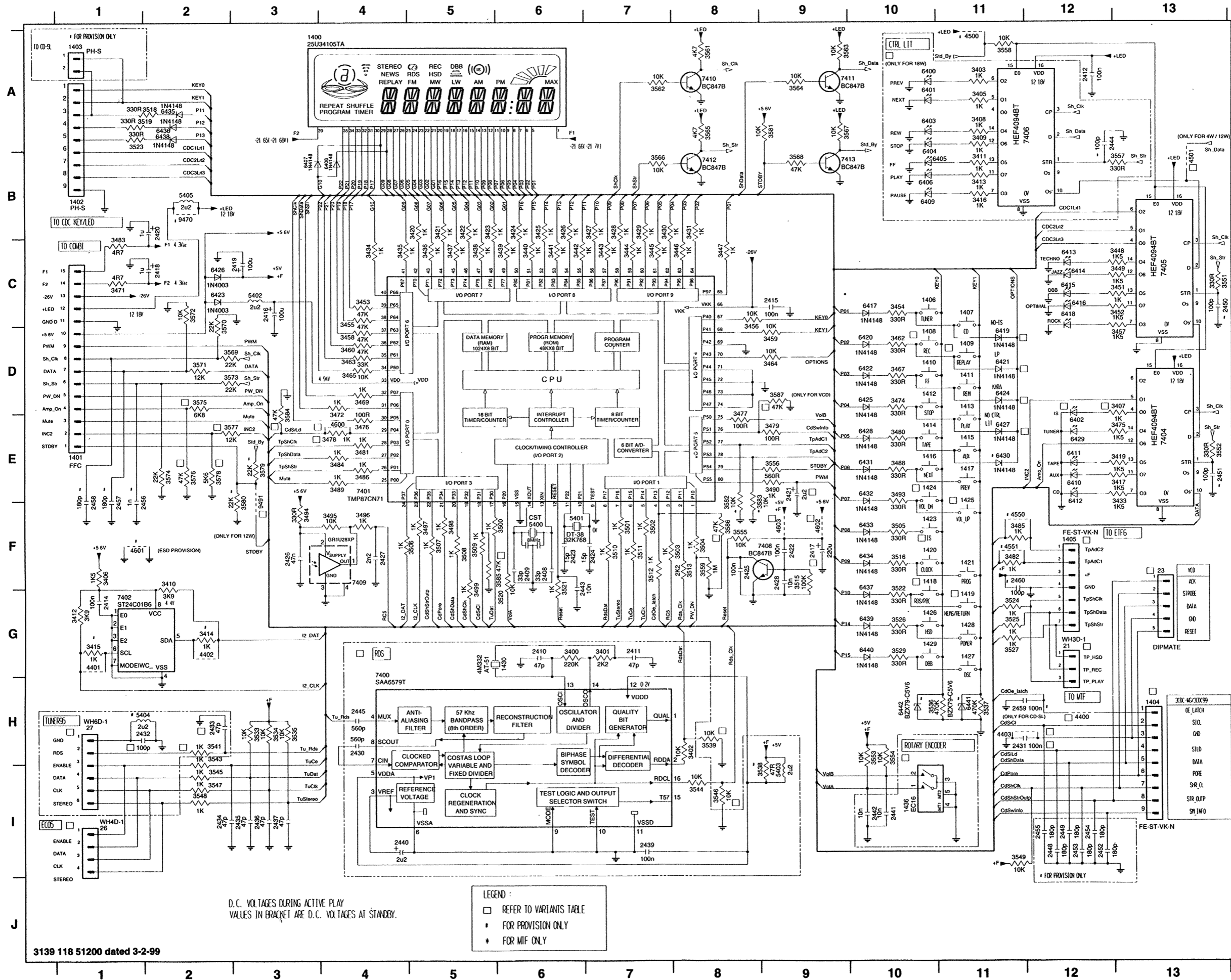
COMPONENT LAYOUT - TRANSFORMER PRIMARY

23 C4 1201 D1 1202 D2 1205 C2 1570 D1 3208 D1 5202 D1 9271 C1 9272 D1 9273 D2 9274 D1 9299 E2

23 A1 1570 B1 5003 A2 5007 A1 9273 B1
 1201 C2 3208 C1 5004 A2 5202 C2 9274 A1
 1202 A2 5000 B2 5005 A1 9271 B1 9299 A1
 1205 B1 5002 B2 5006 A1 9272 C1



CIRCUIT DIAGRAM

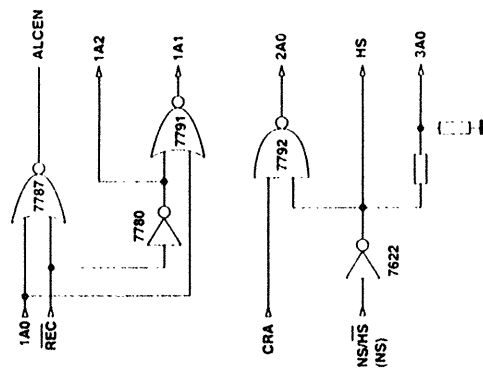
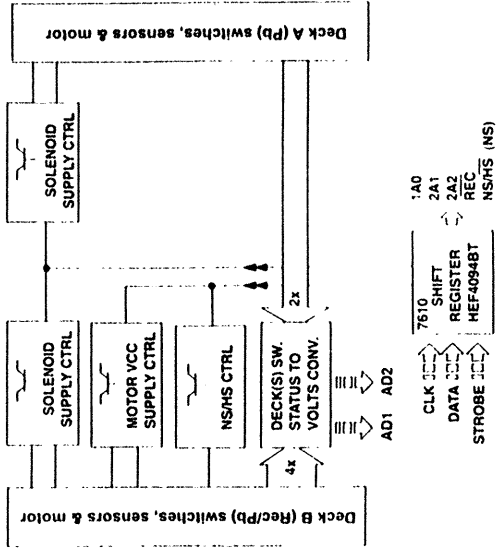
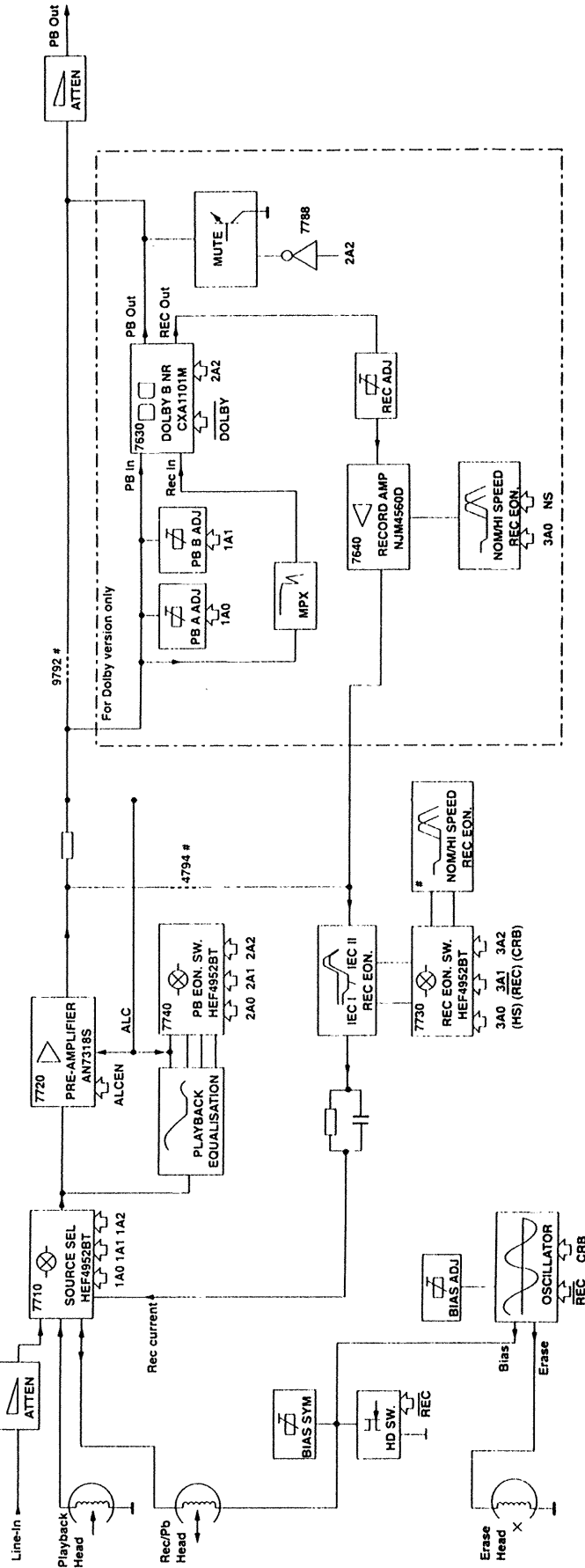


21 G12	3424 B6	3547 I2	7406 A11
23 F13	3425 B6	3548 I2	7408 F9
26 H1	3426 B6	3549 I11	7409 F4
27 H1	3427 B7	3551 C13	7410 A8
1400 A3	3428 B7	3552 E13	7411 A9
1401 E1	3429 B7	3553 H10	7412 B8
1402 B1	3430 B7	3554 H10	7413 B8
1403 A1	3431 B8	3555 F8	7414 B1
1404 H13	3432 F13	3556 E9	9491 F3
1405 F12	3433 C4	3557 B13	
1406 C10	3434 C4	3558 A11	
1407 C11	3435 C4	3559 F8	
1408 D10	3436 C5	3561 A8	
1409 D11	3437 C5	3562 A7	
1410 D10	3438 C6	3563 A9	
1411 D11	3439 C6	3564 A9	
1412 D10	3440 C6	3565 A8	
1413 D11	3441 C6	3566 B7	
1414 E10	3442 C7	3567 A9	
1415 E11	3443 C7	3568 B9	
1416 E10	3444 C7	3569 D2	
1417 E11	3445 C7	3570 D2	
1418 F10	3446 C8	3571 D2	
1419 F11	3447 C8	3572 C2	
1420 F10	3448 C13	3573 D2	
1421 F11	3449 C13	3574 E2	
1422 F10	3450 C13	3575 D2	
1423 F11	3451 C13	3576 E2	
1424 E10	3452 C13	3577 E2	
1425 F11	3453 C4	3578 E2	
1426 F10	3454 C10	3579 E3	
1427 G11	3455 D4	3580 F3	
1428 G11	3456 D4	3581 A9	
1429 G10	3457 D9	3582 F8	
1430 G6	3458 D9	3583 F9	
1436 I10	3460 D4	3584 E3	
2408 F6	3462 D10	3585 F6	
2409 F6	3463 D4	3586 F8	
2410 G6	3464 D9	3587 D9	
2411 G7	3465 D4	3588 D9	
2412 A12	3467 D10	4400 H12	
2414 G1	3469 D4	4401 G1	
2415 C9	3471 C1	4402 G2	
2416 C3	3472 D4	4403 H11	
2417 F9	3474 D10	4500 A11	
2418 C2	3475 E13	4501 B13	
2419 C3	3476 E4	4550 F11	
2420 B2	3477 E8	4551 F11	
2421 E9	3478 E4	4600 E4	
2422 F9	3479 E9	4601 F1	
2423 F6	3480 E10	4602 F9	
2424 F7	3481 E4	4603 F9	
2425 F8	3482 F11	5400 F6	
2426 F3	3483 C1	5401 F6	
2427 F4	3484 E4	5402 C3	
2428 F9	3485 F11	5403 I9	
2429 H4	3486 E4	5404 H1	
2431 H11	3488 E10	5405 B2	
2432 H1	3489 E4	5406 A10	
2433 H2	3490 E9	6401 A10	
2434 I2	3493 E10	6402 E12	
2435 I3	3494 F3	6403 A10	
2436 I3	3495 F4	6404 B10	
2437 I3	3496 F4	6405 B11	
2439 I7	3497 F5	6406 B10	
2440 I4	3498 F5	6407 B3	
2441 I10	3499 G5	6408 B4	
2442 I10	3500 F6	6409 B10	
2443 G6	3501 F7	6410 E12	
2444 A12	3502 F7	6411 E12	
2445 H4	3503 F8	6412 F12	
2448 I12	3504 F8	6413 C12	
2449 I12	3505 F10	6414 C12	
2450 C13	3506 F5	6415 C12	
2451 E13	3507 F5	6416 C12	
2452 I12	3508 F5	6417 C10	
2453 I12	3509 F5	6418 C12	
2454 I12	3510 F7	6419 D11	
2455 I12	3511 F7	6420 D10	
2456 F1	3512 F7	6421 D11	
2457 F1	3513 F8	6422 D10	
2458 F1	3515 F9	6423 C2	
2459 H11	3516 F10	6424 D11	
2460 F11	3518 A2	6425 D10	
3400 G6	3519 A2	6426 C2	
3401 G7	3520 G6	6427 E11	
3402 H8	3521 F6	6428 D10	
3403 A11	3522 G10	6429 E12	
3405 A11	3523 A1	6430 E11	
3407 D13	3524 G11	6431 E10	
3408 A11	3526 G10	6433 F10	
3409 A11	3527 G11	6434 F10	
3410 F2	3529 G10	6435 A2	
3411 B11	3533 H3	6436 A2	
3412 G1	3534 H3	6437 G10	
3413 B11	3535 H3	6438 A2	
3414 G2	3536 H10	6439 G10	
3415 G1	3537 H11	6440 G10	
3416 B11	3538 I9	6441 H11	
3417 E13	3539 H8	6442 H10	
3419 E13	3541 H2	7400 H4	
3420 B5	3543 H2	7401 E4	
3421 B5	3544 I8	7402 G1	
3422 B5	3545 I2	7404 E13	
3423 B5	3546 I8	7405 C13	

D.C. VOLTAGES DURING ACTIVE PLAY
VALUES IN BRACKET ARE D.C. VOLTAGES AT STANDBY.

LEGEND:
 □ REFER TO VARIANTS TABLE
 * FOR PROVISION ONLY
 † FOR MIF ONLY

BLOCK DIAGRAM

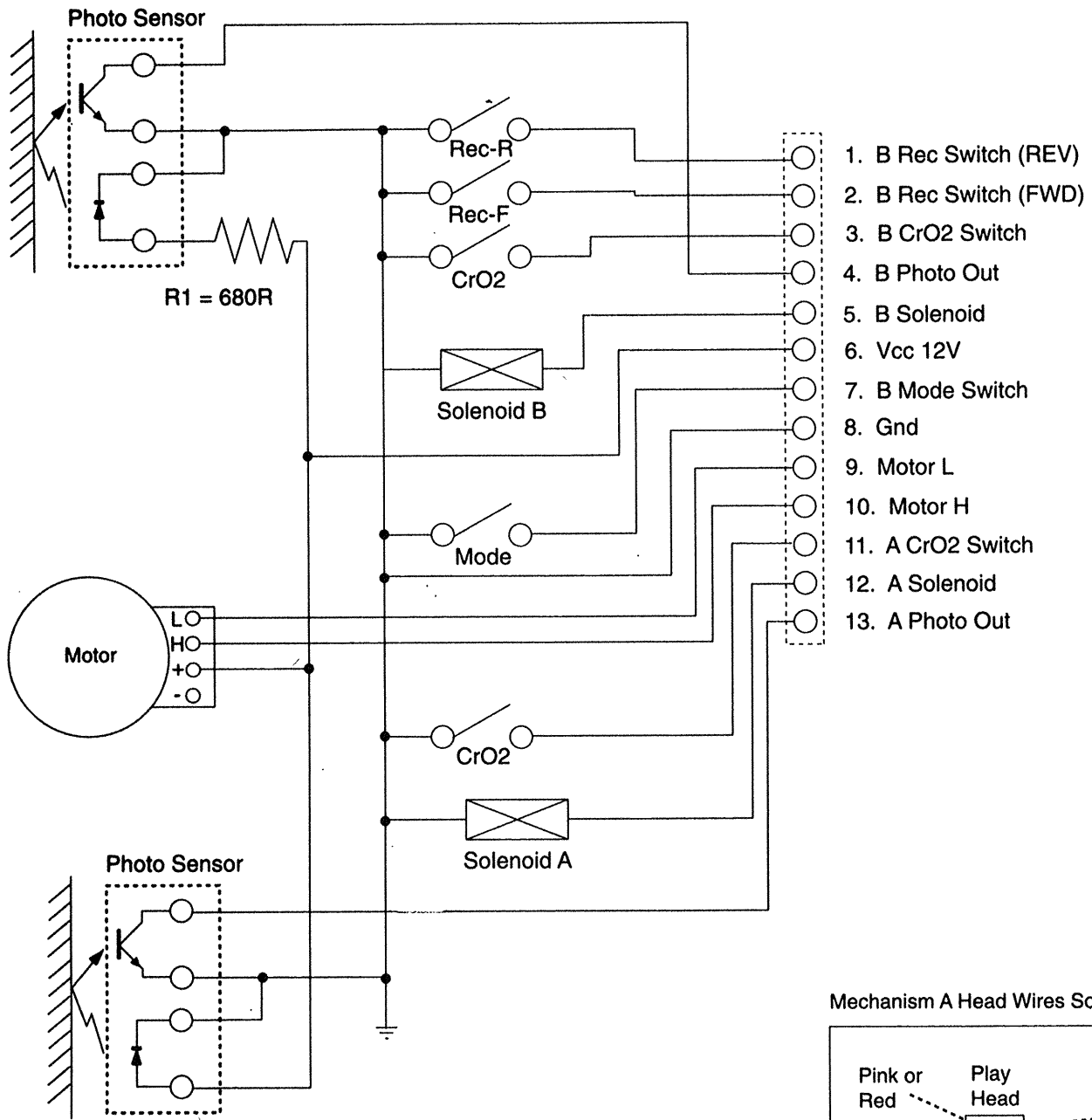


NOTE: # For Non-dolby version only
 Only 1 channel is presented.

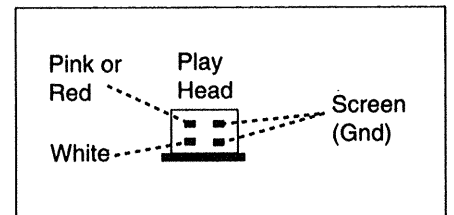
MicroProcessor Control / Communication lines

Direct / Indirect Control lines from Shift Registers

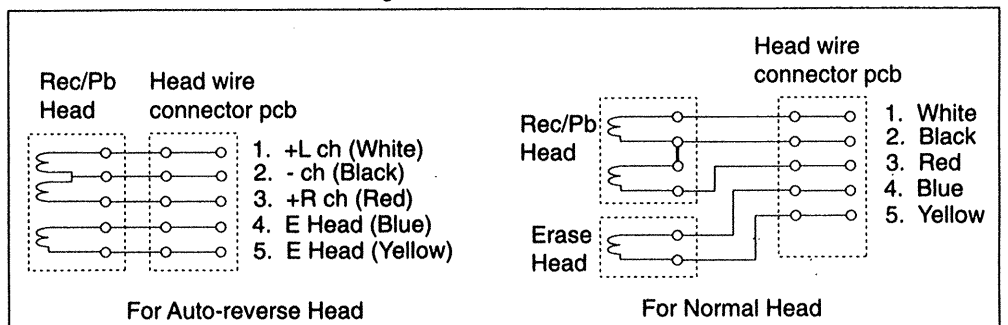
TAPE MECHANISM ELECTRONICS



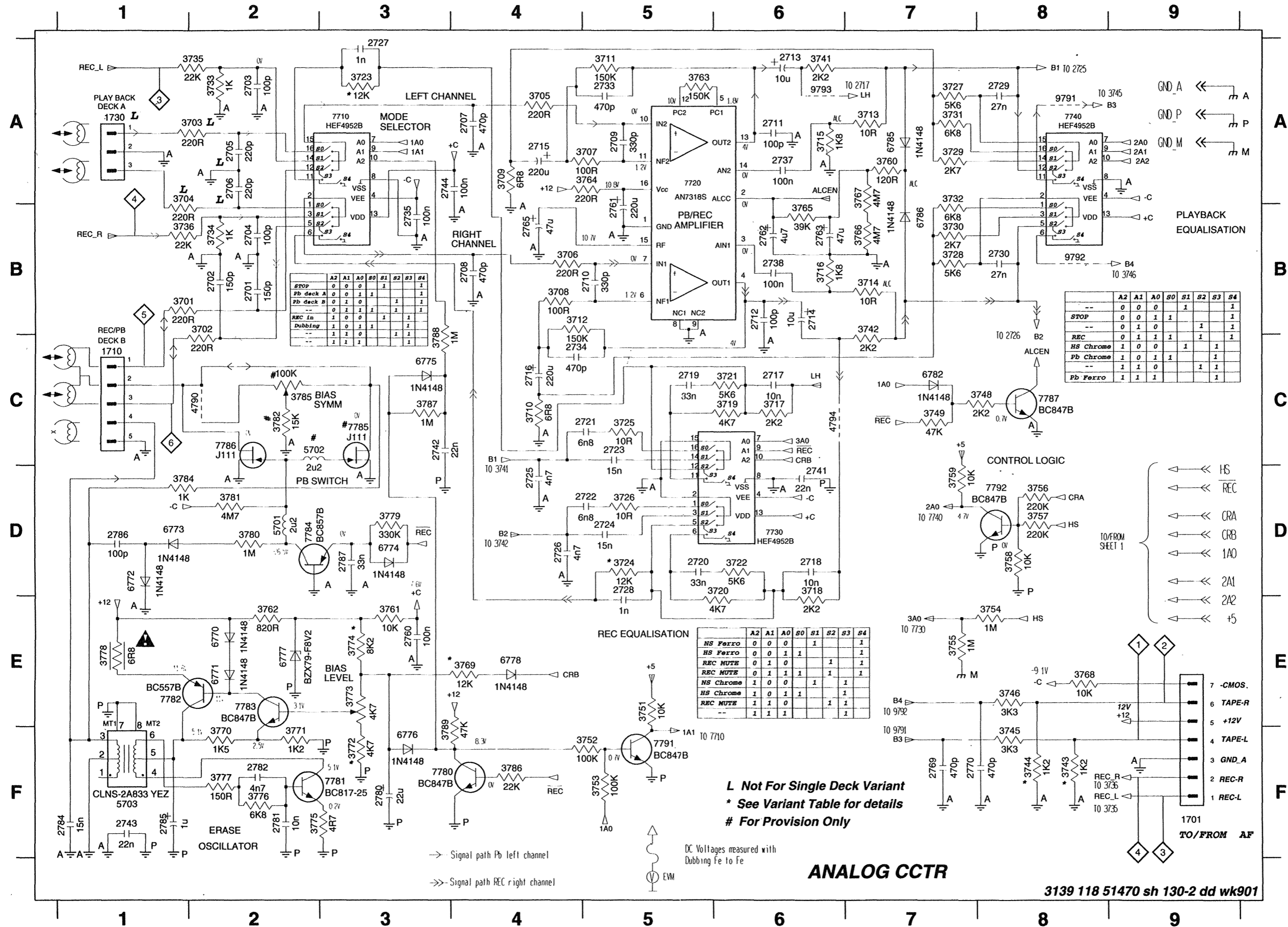
Mechanism A Head Wires Soldering



Mechanism B Head Wires Soldering



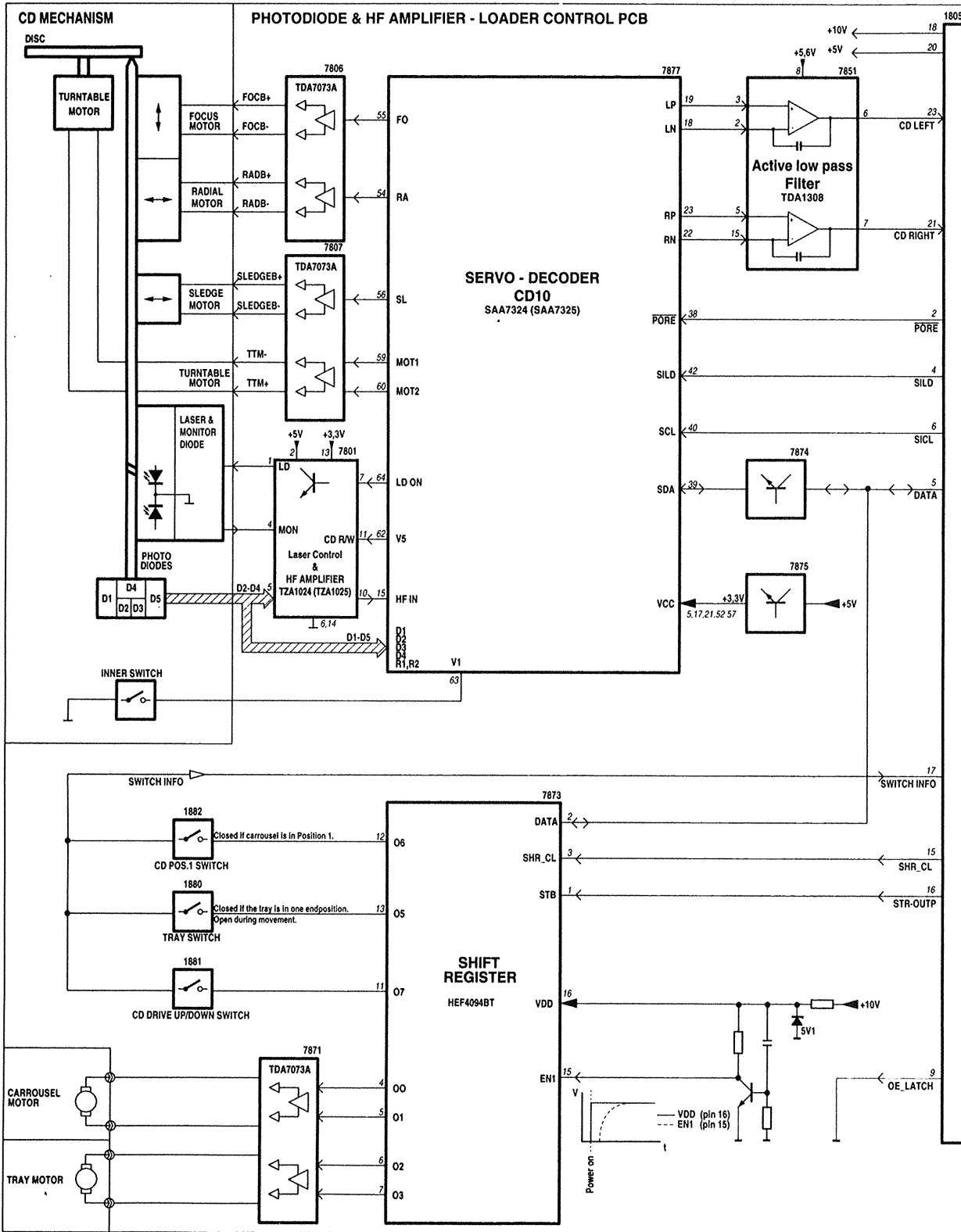
ANALOG CIRCUIT



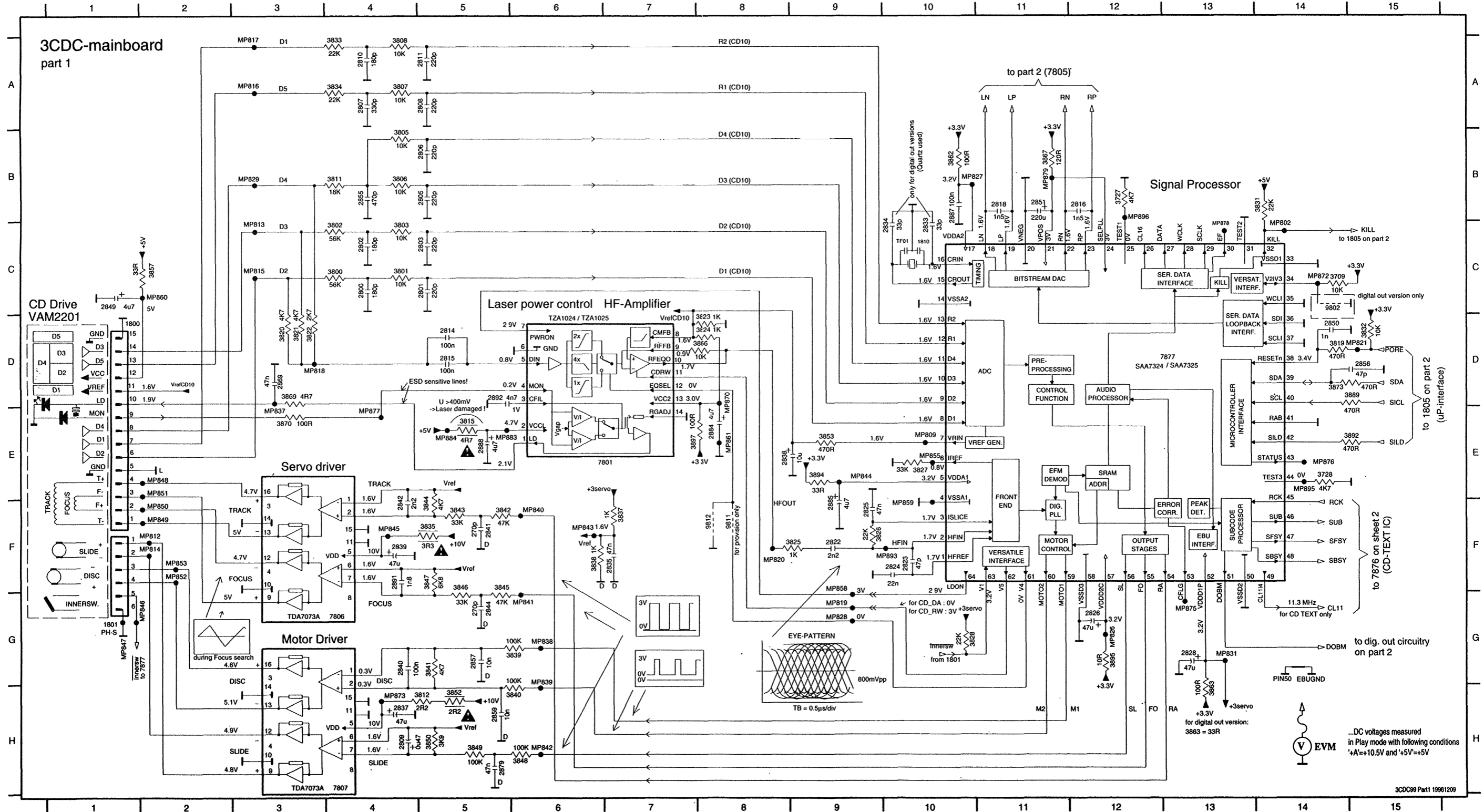
1701 F9	3716 B6	5703 F1
1710 C1	3717 C6	6770 E2
1730 A1	3718 D6	6771 E2
2701 B2	3719 C6	6772 D1
2702 B2	3720 D6	6773 D1
2703 A2	3721 C6	6774 D3
2704 B2	3722 D6	6775 C3
2705 A2	3723 A3	6776 F3
2706 A2	3724 D5	6777 E2
2707 A4	3725 C5	6778 E4
2708 B4	3726 D5	6782 C7
2709 A5	3727 A7	6785 A7
2710 B5	3728 B7	6786 B7
2711 A6	3729 A7	7710 A3
2712 B6	3730 B7	7720 A5
2713 A6	3731 A7	7730 D6
2714 B6	3732 A7	7740 A8
2715 A4	3733 A2	7780 F4
2716 C4	3734 B2	7781 F3
2717 C6	3735 A2	7782 E1
2718 D6	3736 B1	7783 E2
2719 C5	3741 A6	7784 D2
2720 D5	3742 B7	7785 C3
2721 C5	3743 F8	7786 C2
2722 D5	3744 F8	7787 C8
2723 C5	3745 F8	7791 F5
2724 D5	3746 E8	7792 D8
2725 D4	3748 C8	9791 A8
2726 D4	3749 C7	9792 B8
2727 A3	3751 E5	9793 A6
2728 D5	3752 F5	
2729 A8	3753 F5	
2730 B8	3754 E8	
2731 A5	3755 E7	
2732 C4	3756 D8	
2733 B3	3757 D8	
2734 A6	3758 D8	
2735 B6	3759 D7	
2741 D6	3760 A7	
2742 C3	3761 E3	
2743 F1	3762 E2	
2744 A3	3763 A5	
2760 E3	3764 A5	
2761 B5	3765 B6	
2762 B6	3766 B7	
2763 B6	3767 A7	
2765 B4	3768 E8	
2769 F7	3769 E4	
2770 F7	3770 F2	
2780 F3	3771 F2	
2781 F2	3772 F3	
2782 F2	3773 E3	
2784 F1	3774 E3	
2785 F1	3775 F2	
2786 D1	3776 F2	
2787 D3	3777 F2	
3701 B1	3778 E1	
3702 B2	3779 D3	
3703 A2	3780 D2	
3704 A1	3781 D2	
3705 A4	3782 C2	
3706 B4	3784 D1	
3707 A5	3785 C2	
3708 B4	3786 F4	
3709 A4	3787 C3	
3710 C4	3788 C3	
3711 A5	3789 F3	
3712 B4	4790 C2	
3713 A7	4794 C6	
3714 B7	5701 D2	
3715 A6	5702 C2	

3CDC 99 - Module (ONLY FW390C)

Blockdiagram



1800 D2	2805 B5	2814 D5	2825 F9	2838 E8	2850 D14	2879 H5	2892 D5	3803 C4	3815 E5	3825 F9	3834 A4	3842 F5	3849 H5	3866 D8	3894 E9	9802 C14
1801 G1	2806 B5	2815 D5	2826 G12	2839 F4	2851 B11	2880 D8	3709 C14	3805 B4	3819 D14	3826 F9	3835 F5	3843 F5	3850 H5	3867 B11	3895 G12	9811 F8
1810 C10	2807 A4	2816 B12	2828 G13	2840 G4	2855 B4	2884 E8	3727 B12	3806 B4	3820 D3	3827 E10	3837 F7	3844 F5	3852 H5	3869 D3	3897 E7	9812 F8
2800 C4	2808 A5	2818 B11	2833 C10	2841 F5	2856 D15	2885 F9	3728 E14	3807 A4	3821 D3	3828 G10	3838 F6	3845 F5	3853 E9	3870 E3	7801 E7	
2801 C5	2809 H4	2822 F9	2834 C10	2842 F4	2857 G5	2887 B10	3800 C4	3808 A4	3822 D3	3831 B14	3839 G6	3846 F5	3857 C2	3873 D14	7806 G4	
2802 C4	2810 A4	2823 F10	2835 F7	2844 G5	2859 H5	2888 E5	3801 C4	3811 B4	3823 D8	3832 D15	3840 H6	3847 F5	3862 B10	3889 D15	7807 H4	
2803 C5	2811 A5	2824 F10	2837 H4	2849 C1	2869 D3	2891 F4	3802 C4	3812 H5	3824 D8	3833 A4	3841 G5	3848 H6	3863 H13	3892 E15	7877 D12	



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1805 H14	2804 G4	2853 G4	2863 B8	2872 F10	2881 F8	3707 G4	3715 G8	3740 A7	3750 B7	3855 B11	3868 C4	3877 E11	3883 E6	3890 F11	5803 E4	6874 G7	7805-B B10	7876 G3	9835 G11
1876 E3	2829 E6	2854 C3	2864 C2	2873 E6	2882 B10	3708 H4	3716 C3	3741 A7	3751 C7	3858 A11	3871 E11	3878 D7	3884 E6	3891 F11	5804 E4	6875 E12	7812 G8	9801 E8	9838 D14
1878 F3	2830 C10	2858 A10	2865 C3	2875 F6	2893 F12	3711 G4	3717 B3	3742 B7	3809 C2	3859 B11	3872 B13	3879 E7	3885 D6	3893 F11	5805 C11	6876 C13	7871 D5	9803 B3	9839 C14
1880 D8	2831 B9	2860 A11	2867 A9	2876 C8	3700 H2	3712 C4	3718 G3	3743 B7	3814 C12	3860 B8	3874 B13	3880 F6	3886 F7	3896 G10	6871 D8	6877 D12	7873 D9	9813 G14	9876 C13
1881 D8	2832 A8	2861 B11	2870 E3	2877 F11	3705 G4	3713 F8	3730 G2	3744 A9	3851 E6	3861 B8	3875 C12	3881 F7	3887 E12	3899 D12	6872 D8	6878 E8	7874 C12	9827 G14	9898 D4
1882 D8	2852 H2	2862 B8	2871 F4	2878 F11	3706 G4	3714 F8	3731 G2	3746 B10	3854 A11	3864 A7	3876 C12	3882 E7	3888 E12	5802 B3	6873 D8	7805-A A9	7875 D12	9834 G10	9899 E4

