


SECTION 4 CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

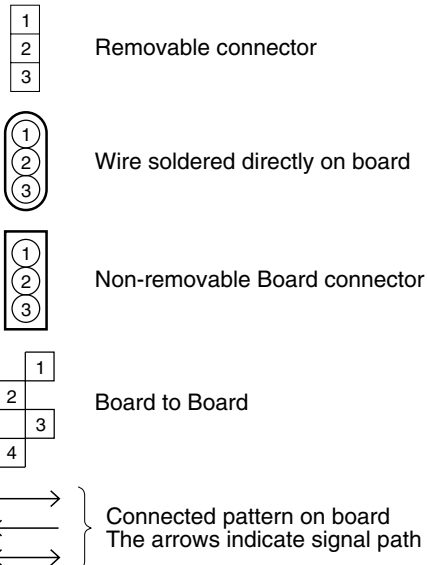
- 1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K or k: k Ω (1000 Ω), M: M Ω (1000k Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

AUX or AUX(L) : Active at low

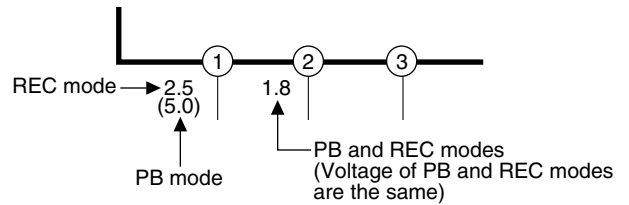
3. Interpreting Connector indications



4. Voltage measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
— : Unmeasurable or unnecessary to measure
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode

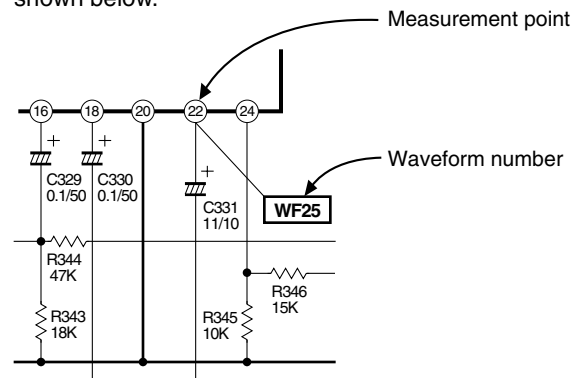
- 4) Indication on schematic diagram
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



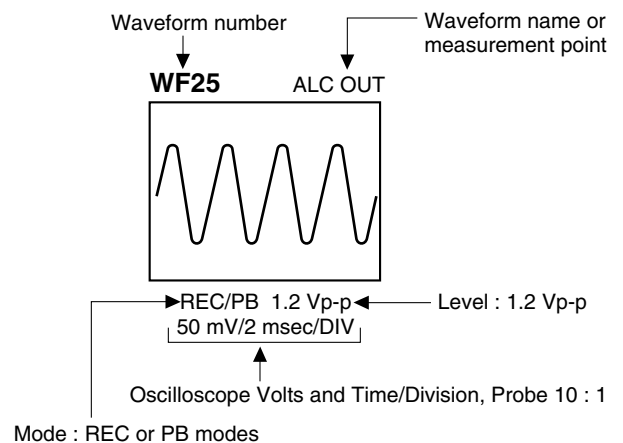
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
- 4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.








5) Waveform indications





6. Signal path Symbols

The arrows indicate the signal path as follows.

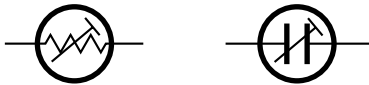
-  Playback signal path
-  Playback and recording signal path
-  Recording signal path (including E-E signal path)
-  Capstan servo path
-  Drum servo path

(Example)

-  R-Y Playback R-Y signal path
-  Y Recording Y signal path

7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

“OPEN” is indicated by the parts not mounted on the circuit board.



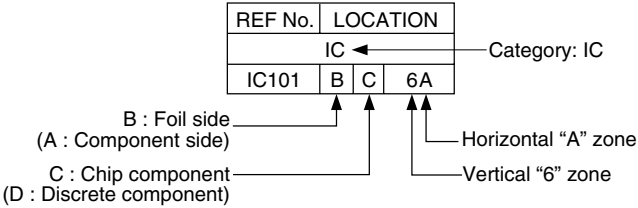
CIRCUIT BOARD NOTES

1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

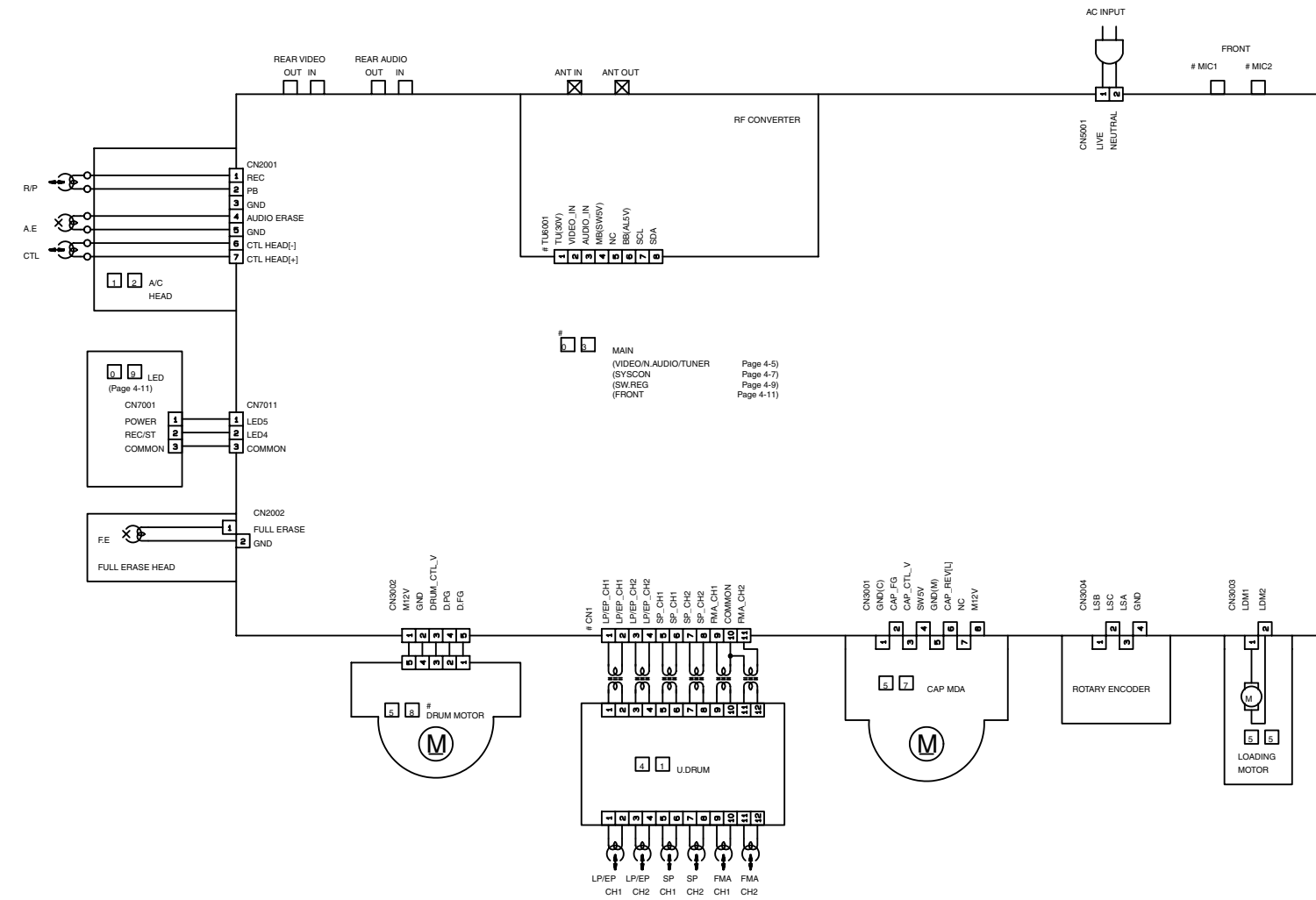
Parts location are indicated by guide scale on the circuit board.



Note:

For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

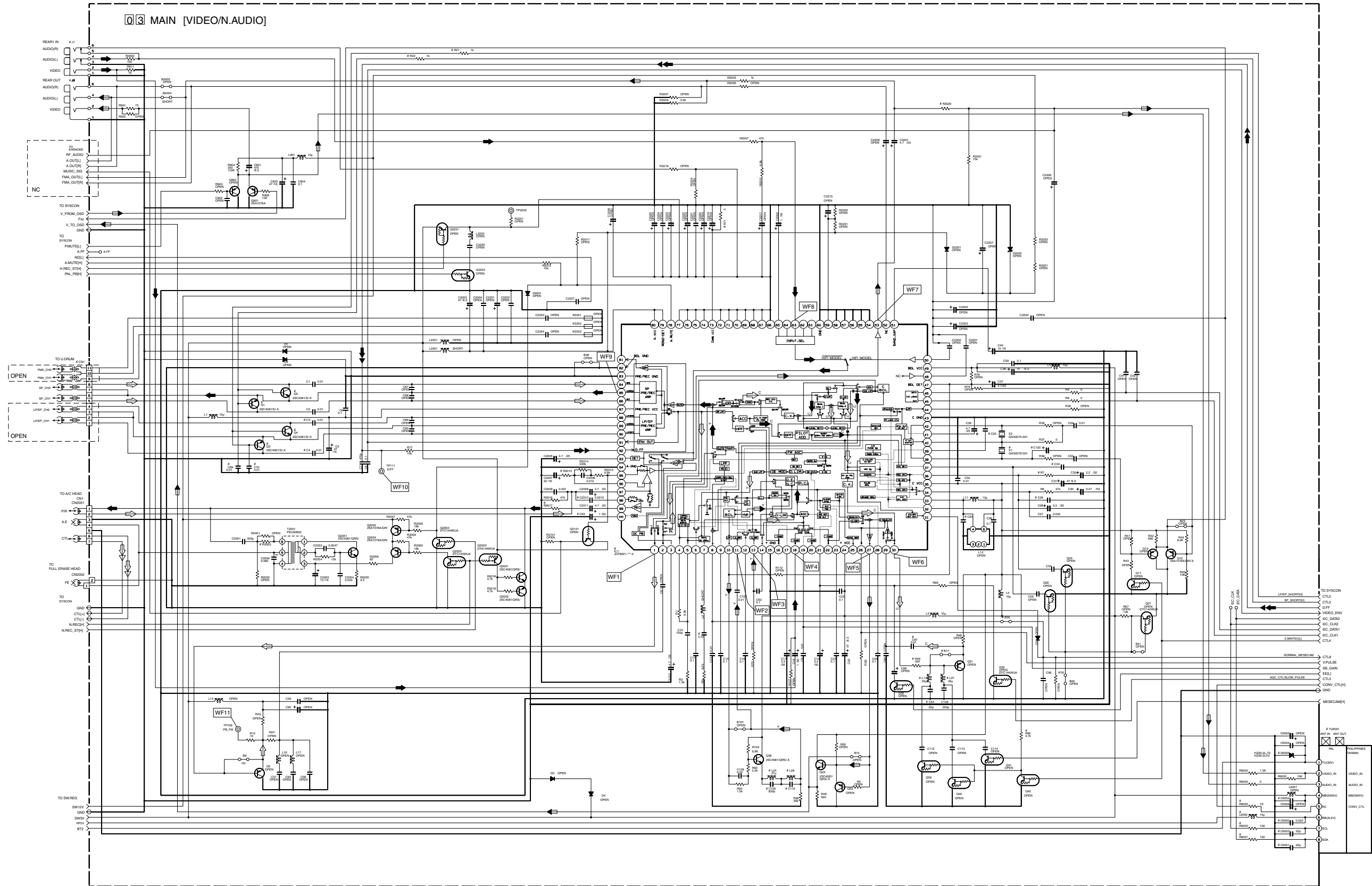
4.1 BOARD INTERCONNECTIONS

[illegible]

Different between models
p10307001a_rev0

4.2 VIDEO/N.AUDIO/TUNER SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



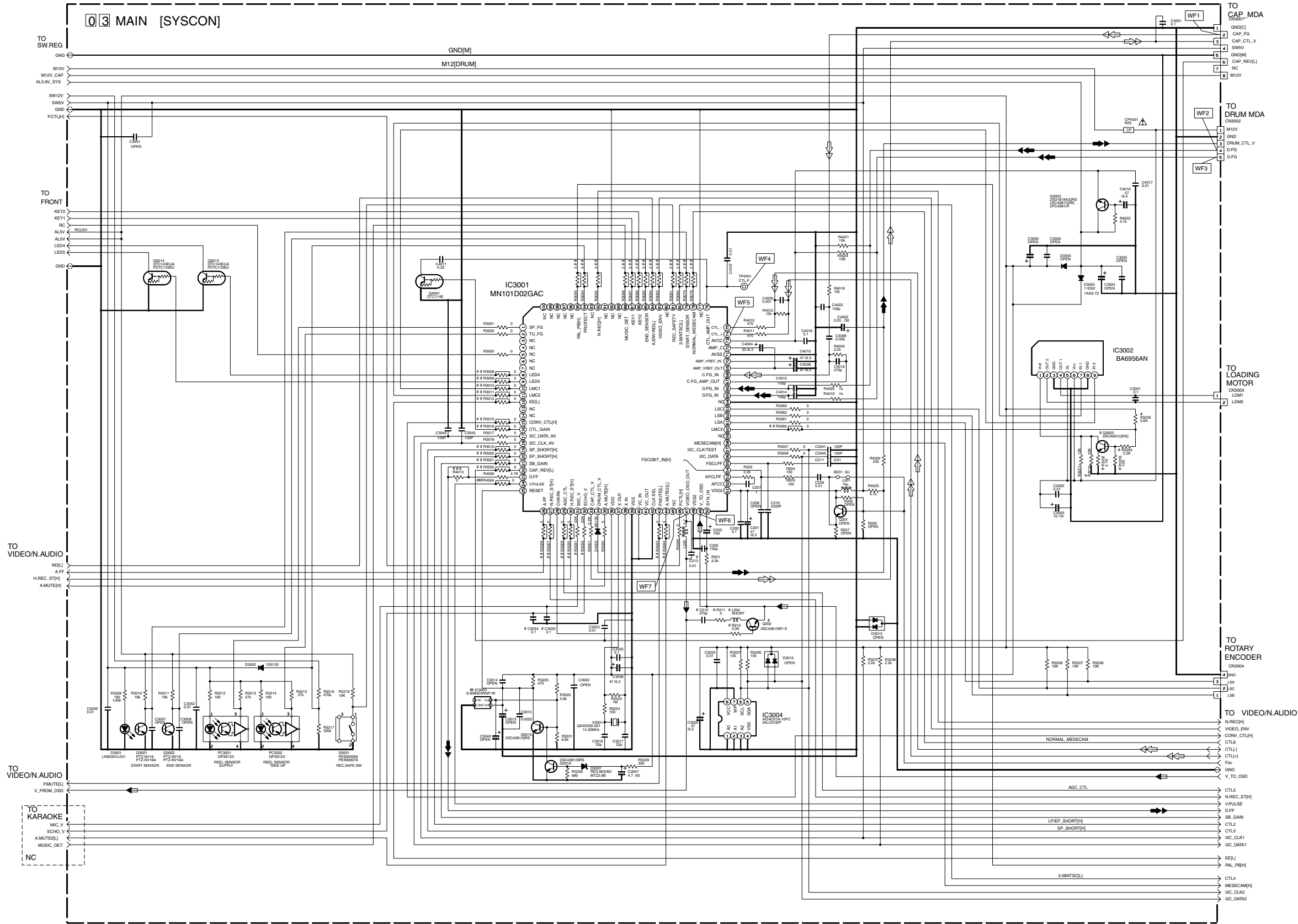
Note : For the waveforms in this schematic diagram, refer to page 4-18.

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# DIFFERENCE TAPE		○ : Used × : Not used																																
		IC1	B17	B36	Q1-Q4	R7	R21,R22	R46	R71	R95	C3,C4	C12	C25	C29	C34	C35	C64,C65	C69,C70	C81	C106	C110	C120	L13	L24	L27	L28	X1							
P54A, P100A, P185EE		MVD	○	○	×	680	×	×	×	×	×	47p	6p	0.033	0.22	0.01	○	×	×	×	○	82p	×	×	○	○	68u	○						
P54T, P54T/P		NVD	×	×	×	820	×	×	×	×	×	33p	5p	0.0047	0.1	0.033	×	×	×	×	×	330p	×	×	○Ω	×	15u	×						
		TU6001	R6052	R6051, R6053 L6050, D6050	C6050, C6051 C6053	C6052											R2015	R2017	R2020	R2053	C2010									J1	J2	CN1		
P54A, P100A, P185EE		QAU0179	×	○	×	0.0047											P54A, P100A	150	18k	3.3k	6.8k	×									P54A, P100A, P185EE	2P	2P	4P
P54T		QAU0180	○	×	×	0.001											P185EE	150	18k	3.3k	6.8k	×									P54T, P54T/P			
P54T/P		QAU0181															P54T	180	15k	2.7k	5.6k	○												
																	P54T/P	180	15k	2.2k	5.6k	○												

4.3 SYSTEM CONTROL SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



Note : For the waveforms in this schematic diagram, refer to page 4-18.

Marked elements may differ depending on the model.
Be sure to check the Parts List.

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○ : Used
× : Not used

DIFFERENCE TABLE

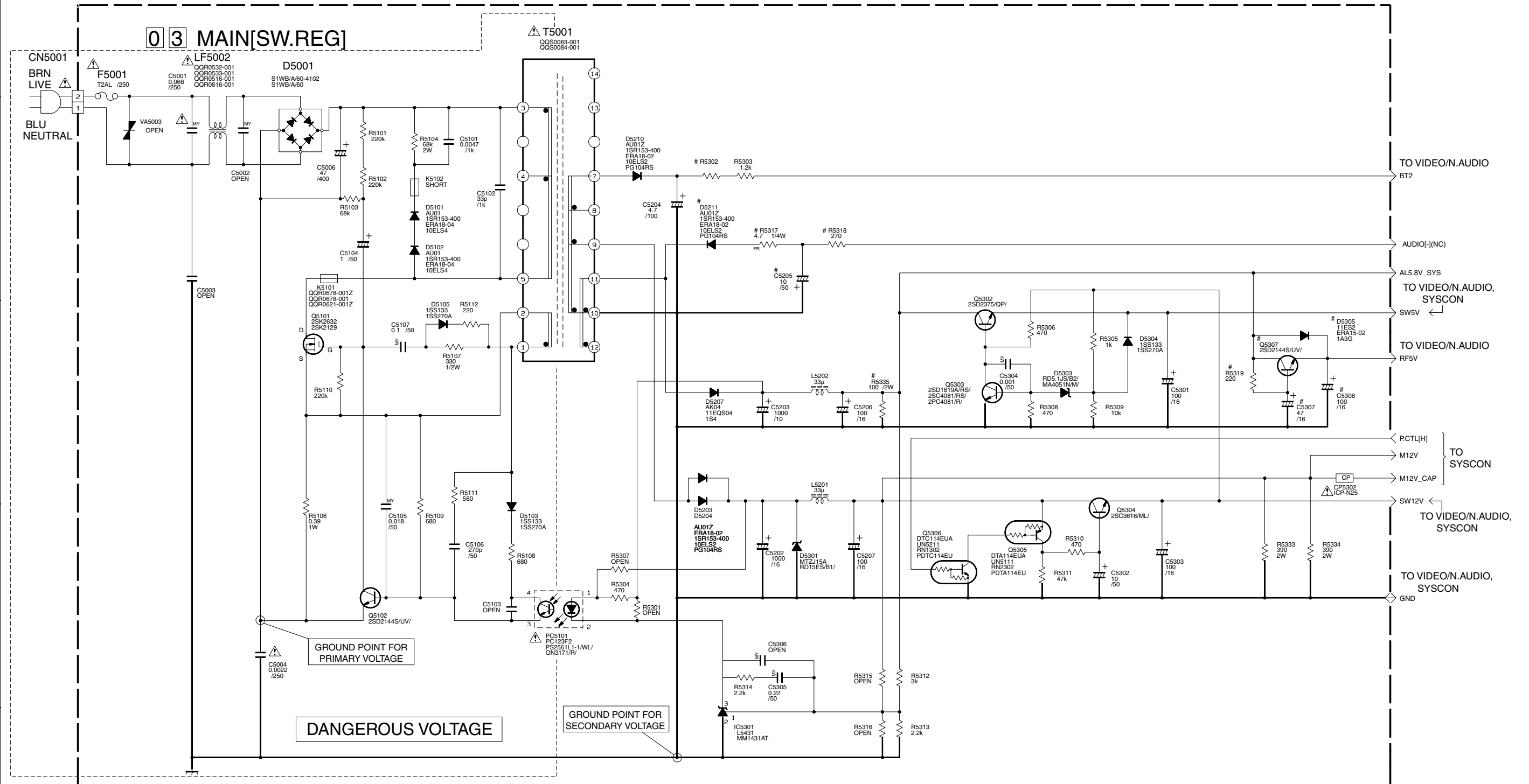
		P54A, P100A P185EE P34K, P500K	P54T P54T/P
V_TO_OSD	Q202 R210, R211 C212 L204	○	×
VIDEO_OSD_OUT	C213	○	×

MARK ELEMENTS ARE NOT MONITED

	R3031, R3032 C3033, C3034	Q3003 R3202 - R3205	R3218
P54A, P100A, P185EE P54T, P54T/P	×	○	×
P94K, P500K	○	○	×

4.4 SWITCHING REGULATOR SCHEMATIC DIAGRAM

*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*



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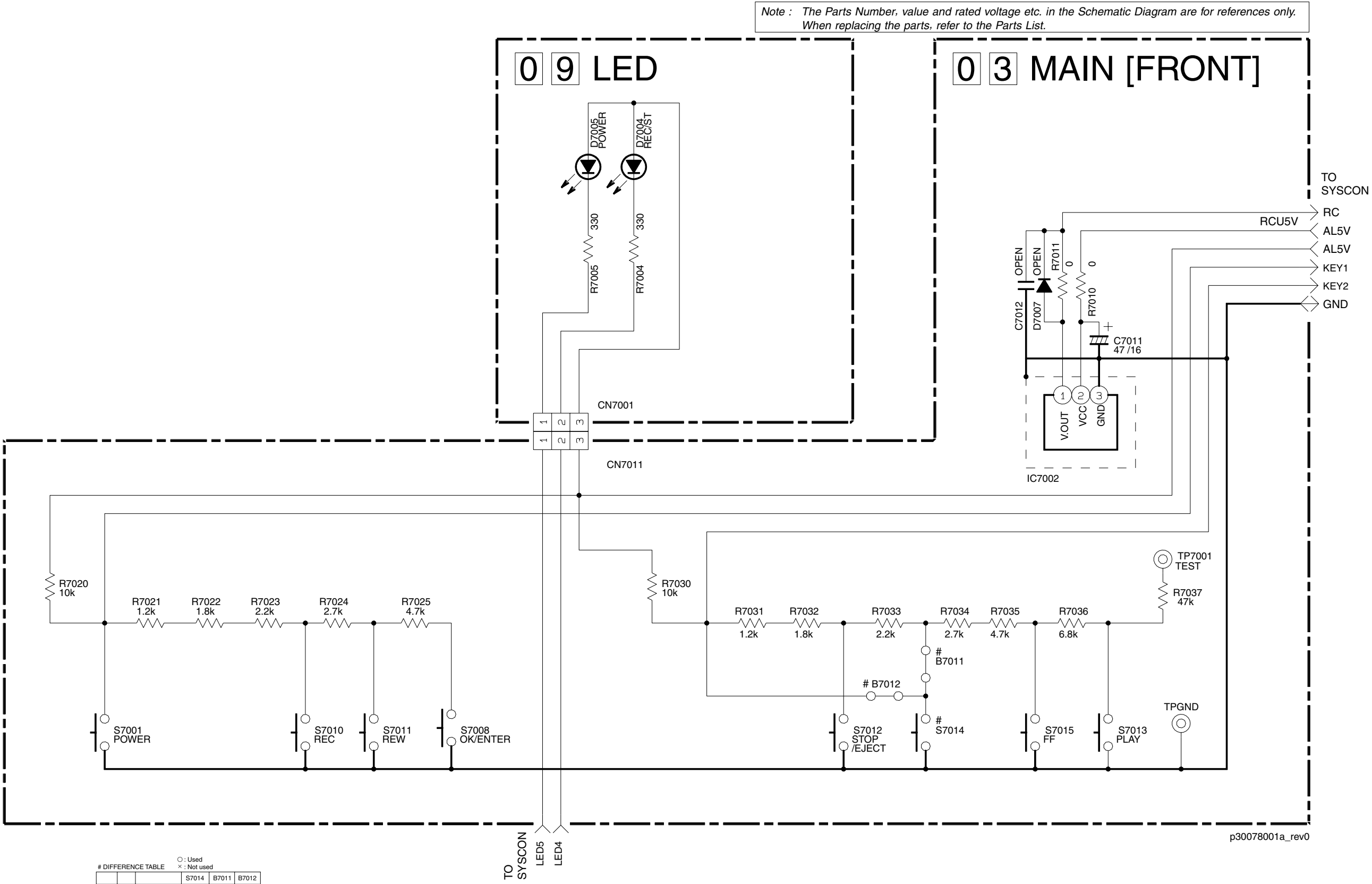
DIFFERENCE TABLE 1

	C5205, R5317 D5211, R5318	R5302
P94K, P500K	YES	1.5k
P54A, P100A, P185EE P54T, P54T/P	NO	1k

DIFFERENCE TABLE 2

	D5305	Q5307, C5307 R5319, C5308	R5335
P54A, P100A, P185EE P94K, P500K	YES	NO	NO
P54T, P54T/P	NO	NO	YES

4.5 FRONT AND LED SCHEMATIC DIAGRAMS



○ : Used
× : Not used

# DIFFERENCE TABLE			S7014	B7011	B7012
JVC	360 GP	P54A, P100A, P54T, P54T/P, P94K, P500K	SP/EP	○	×
		P185EE	PAUSE	×	○



COMPONENT PARTS LOCATION GUIDE < MAIN >

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR				CONNECTOR				DIODE				RESISTOR	
C1	B C	C2223	A D	C1	B C	C2224	A D	C1	B C	C2225	A D	C1	B C
C2	B C	C2226	A D	C2	B C	C2227	A D	C2	B C	C2228	A D	C2	B C
C3	B C	C2229	A D	C3	B C	C2230	A D	C3	B C	C2231	A D	C3	B C
C4	B C	C2232	A D	C4	B C	C2233	A D	C4	B C	C2234	A D	C4	B C
C5	A D	C2235	A D	C5	A D	C2236	A D	C5	A D	C2237	A D	C5	A D
C6	B C	C2238	A D	C6	B C	C2239	A D	C6	B C	C2240	A D	C6	B C
C7	B C	C2241	A D	C7	B C	C2242	A D	C7	B C	C2243	A D	C7	B C
C8	B C	C2244	A D	C8	B C	C2245	A D	C8	B C	C2246	A D	C8	B C
C9	B C	C2247	A D	C9	B C	C2248	A D	C9	B C	C2249	A D	C9	B C
C10	B C	C2250	A D	C10	B C	C2251	A D	C10	B C	C2252	A D	C10	B C
C11	B C	C2253	A D	C11	B C	C2254	A D	C11	B C	C2255	A D	C11	B C
C12	B C	C2256	A D	C12	B C	C2257	A D	C12	B C	C2258	A D	C12	B C
C13	B C	C2259	A D	C13	B C	C2260	A D	C13	B C	C2261	A D	C13	B C
C14	B C	C2262	A D	C14	B C	C2263	A D	C14	B C	C2264	A D	C14	B C
C15	B C	C2265	A D	C15	B C	C2266	A D	C15	B C	C2267	A D	C15	B C
C16	B C	C2268	A D	C16	B C	C2269	A D	C16	B C	C2270	A D	C16	B C
C17	A D	C2271	A D	C17	A D	C2272	A D	C17	A D	C2273	A D	C17	A D
C18	A D	C2274	A D	C18	A D	C2275	A D	C18	A D	C2276	A D	C18	A D
C19	A D	C2277	A D	C19	A D	C2278	A D	C19	A D	C2279	A D	C19	A D
C20	A D	C2280	A D	C20	A D	C2281	A D	C20	A D	C2282	A D	C20	A D
C21	A D	C2283	A D	C21	A D	C2284	A D	C21	A D	C2285	A D	C21	A D
C22	A D	C2286	A D	C22	A D	C2287	A D	C22	A D	C2288	A D	C22	A D
C23	A D	C2289	A D	C23	A D	C2290	A D	C23	A D	C2291	A D	C23	A D
C24	A D	C2292	A D	C24	A D	C2293	A D	C24	A D	C2294	A D	C24	A D
C25	A D	C2295	A D	C25	A D	C2296	A D	C25	A D	C2297	A D	C25	A D
C26	A D	C2298	A D	C26	A D	C2299	A D	C26	A D	C2300	A D	C26	A D
C27	A D	C2301	A D	C27	A D	C2302	A D	C27	A D	C2303	A D	C27	A D
C28	A D	C2304	A D	C28	A D	C2305	A D	C28	A D	C2306	A D	C28	A D
C29	A D	C2307	A D	C29	A D	C2308	A D	C29	A D	C2309	A D	C29	A D
C30	A D	C2310	A D	C30	A D	C2311	A D	C30	A D	C2312	A D	C30	A D
C31	A D	C2313	A D	C31	A D	C2314	A D	C31	A D	C2315	A D	C31	A D
C32	A D	C2316	A D	C32	A D	C2317	A D	C32	A D	C2318	A D	C32	A D
C33	A D	C2319	A D	C33	A D	C2320	A D	C33	A D	C2321	A D	C33	A D
C34	A D	C2322	A D	C34	A D	C2323	A D	C34	A D	C2324	A D	C34	A D
C35	A D	C2325	A D	C35	A D	C2326	A D	C35	A D	C2327	A D	C35	A D
C36	A D	C2328	A D	C36	A D	C2329	A D	C36	A D	C2330	A D	C36	A D
C37	A D	C2331	A D	C37	A D	C2332	A D	C37	A D	C2333	A D	C37	A D
C38	A D	C2334	A D	C38	A D	C2335	A D	C38	A D	C2336	A D	C38	A D
C39	A D	C2337	A D	C39	A D	C2338	A D	C39	A D	C2339	A D	C39	A D
C40	A D	C2340	A D	C40	A D	C2341	A D	C40	A D	C2342	A D	C40	A D
C41	A D	C2343	A D	C41	A D	C2344	A D	C41	A D	C2345	A D	C41	A D
C42	A D	C2346	A D	C42	A D	C2347	A D	C42	A D	C2348	A D	C42	A D
C43	A D	C2349	A D	C43	A D	C2350	A D	C43	A D	C2351	A D	C43	A D
C44	A D	C2352	A D	C44	A D	C2353	A D	C44	A D	C2354	A D	C44	A D
C45	A D	C2355	A D	C45	A D	C2356	A D	C45	A D	C2357	A D	C45	A D
C46	A D	C2358	A D	C46	A D	C2359	A D	C46	A D	C2360	A D	C46	A D
C47	A D	C2361	A D	C47	A D	C2362	A D	C47	A D	C2363	A D	C47	A D
C48	A D	C2364	A D	C48	A D	C2365	A D	C48	A D	C2366	A D	C48	A D
C49	A D	C2367	A D	C49	A D	C2368	A D	C49	A D	C2369	A D	C49	A D
C50	A D	C2370	A D	C50	A D	C2371	A D	C50	A D	C2372	A D	C50	A D
C51	A D	C2373	A D	C51	A D	C2374	A D	C51	A D	C2375	A D	C51	A D
C52	A D	C2376	A D	C52	A D	C2377	A D	C52	A D	C2378	A D	C52	A D
C53	A D	C2379	A D	C53	A D	C2380	A D	C53	A D	C2381	A D	C53	A D
C54	A D	C2382	A D	C54	A D	C2383	A D	C54	A D	C2384	A D	C54	A D
C55	A D	C2385	A D	C55	A D	C2386	A D	C55	A D	C2387	A D	C55	A D
C56	A D	C2388	A D	C56	A D	C2389	A D	C56	A D	C2390	A D	C56	A D
C57	A D	C2391	A D	C57	A D	C2392	A D	C57	A D	C2393	A D	C57	A D
C58	A D	C2394	A D	C58	A D	C2395	A D	C58	A D	C2396	A D	C58	A D
C59	A D	C2397	A D	C59	A D	C2398	A D	C59	A D	C2399	A D	C59	A D
C60	A D	C2400	A D	C60	A D	C2401	A D	C60	A D	C2402	A D	C60	A D
C61	A D	C2403	A D	C61	A D	C2404	A D	C61	A D	C2405	A D	C61	A D
C62	A D	C2406	A D	C62	A D	C2407	A D	C62	A D	C2408	A D	C62	A D
C63	A D	C2409	A D	C63	A D	C2410	A D	C63	A D	C2411	A D	C63	A D
C64	A D	C2412	A D	C64	A D	C2413	A D	C64	A D	C2414	A D	C64	A D
C65	A D	C2415	A D	C65	A D	C2416	A D	C65	A D	C2417	A D	C65	A D
C66	A D	C2418	A D	C66	A D	C2419	A D	C66	A D	C2420	A D	C66	A D
C67	A D	C2421	A D	C67	A D	C2422	A D	C67	A D	C2423	A D	C67	A D
C68	A D	C2424	A D	C68	A D	C2425	A D	C68	A D	C2426	A D	C68	A D
C69	A D	C2427	A D	C69	A D	C2428	A D	C69	A D	C2429	A D	C69	A D
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C72	A D	C2436	A D	C72	A D	C2437	A D	C72	A D	C2438	A D	C72	A D
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C74	A D	C2442	A D	C74	A D	C2443	A D	C74	A D	C2444	A D	C74	A D
C75	A D	C2445	A D	C75	A D	C2446	A D	C75	A D	C2447	A D	C75	A D
C76	A D	C2448	A D	C76	A D	C2449	A D	C76	A D	C2450	A D	C76	A D
C77	A D	C2451	A D	C77	A D	C2452	A D	C77	A D	C2453	A D	C77	A D
C78	A D	C2454	A D	C78	A D	C2455	A D	C78	A D	C2456	A D	C78	A D
C79	A D	C2457	A D	C79	A D	C2458	A D	C79	A D	C2459	A D	C79	A D
C80	A D	C2460	A D	C80	A D	C2461	A D	C80	A D	C2462	A D	C80	A D
C81	A D	C2463	A D	C81	A D	C2464	A D	C81	A D	C2465	A D	C81	A D
C82	A D	C2466	A D	C82	A D	C2467	A D	C82	A D	C2468	A D	C82	A D
C83	A D	C2469	A D	C83	A D	C2470	A D	C83	A D	C2471	A D	C83	A D
C84	A D	C2472	A D	C84	A D	C2473	A D	C84	A D	C2474	A D	C84	A D
C85	A D	C2475	A D	C85	A D	C2476	A D	C85	A D	C2477	A D	C85	A D
C86	A D	C2478	A D	C86	A D	C2479	A D	C86	A D	C2480	A D	C86	A D
C87	A D	C2481	A D	C87	A D	C2482	A D	C87	A D	C2483	A D	C87	A D
C88	A D	C2484	A D	C88	A D	C2485	A D	C88	A D	C2486	A D	C88	A D
C89	A D	C2487	A D	C89	A D	C2488	A D	C89	A D	C2489	A D	C89	A D
C90	A D	C2490	A D	C90	A D	C2491	A D	C90	A D	C2492	A D	C90	A D
C91	A D	C2493	A D	C91	A D	C2494	A D	C91	A D	C2495	A D	C91	A D
C92	A D	C2496	A D	C92	A D	C2497	A D	C92	A D	C2498	A D	C92	A D
C93	A D	C2499	A D	C93	A D	C2500	A D	C93	A D	C2501	A D	C93	A D
C94	A D	C2502	A D	C94	A D	C2503	A D	C94	A D	C2504	A D	C94	A D
C95	A D	C2505	A D	C95	A D	C2506	A D	C95	A D	C2507	A D	C95	A D
C96	A D	C2508	A D	C96	A D	C2509	A D	C96	A D	C2510	A D	C96	A D
C97	A D	C2511	A D	C97	A D	C2512	A D	C97	A D	C2513	A D	C97	A D
C98	A D	C2514	A D	C98	A D	C2515	A D	C98	A D	C2516	A D	C98	A D
C99	A D	C2517	A D	C99	A D	C2518	A D	C99	A D	C2519	A D	C99	A D
C100	A D	C2520	A D	C100	A D	C2521	A D	C100	A D	C2522	A D	C100	A D
C101	A D	C2523	A D	C101	A D	C2524	A D	C101	A D	C2525	A D	C101	A D
C102	A D	C2526	A D	C102	A D	C2527	A D	C102	A D	C2528	A D	C102	A D
C103	A D	C2529	A D	C103	A D	C2530	A D	C103	A D	C2531	A D	C103	A D
C104	A D	C2532	A D	C104	A D	C2533	A D	C104	A D	C2534	A D	C104	A D
C105	A D	C2535	A D	C105	A D	C2536	A D	C105	A D	C2537	A D	C105	A D
C106	A D	C2538	A D	C106	A D	C2539	A D	C106	A D	C2540	A D	C106	A D
C107	A D	C2541	A D	C107	A D	C2542	A D	C107	A D	C2543	A D	C107	A D
C108	A D	C2544	A D	C108	A D	C2545	A D	C108	A D	C2546	A D	C108	A D
C109	A D	C2547	A D	C109	A D	C2548	A D	C109	A D	C2549	A D	C109	A D
C110	A D	C2550	A D	C110	A D	C2551	A D	C110	A D	C2552	A D	C110	A D
C111	A D	C2553	A D	C111	A D	C2554	A D	C111	A D	C2555	A D	C111	A D
C112	A D	C2556	A D	C112	A D	C2557	A D	C112	A D	C2558	A D	C112	A D
C113	A D	C2559	A D	C113	A D	C2560	A D	C113	A D	C2561	A D	C113	A D
C114	A D	C2562	A D	C114	A D	C2563	A D	C114	A D	C2564	A D	C114	A D
C115	A D	C2565	A D	C115	A D	C2566	A D	C115	A D	C2567	A D	C115	A D
C116	A D	C2568	A D	C116	A D	C2569	A D	C116	A D	C2570	A D	C116	A D
C117	A D	C2571	A D	C117	A D	C2572	A D	C117	A				

COMPONENT PARTS LOCATION GUIDE < MAIN >

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION						
CAPACITOR		C2223	A D	16M	C6051	B C	190	Q27	B C	10K	R2054	B C	9P	R3086	B C	10D	TEST POINT		
C1	B C	C2224	A D	16M	C6052	B C	15P	Q32	B C	16H	R2055	B C	90	R3087	B C	10D	TP106	A D	6P
C2	B C	C2225	A D	16M	C6053	B C	190	Q35	B C	14H	R2056	B C	80	R3088	B C	10D	TP111	A D	5P
C3	B C	C2226	A D	15M	C6054	B C	16P	Q38	B C	11N	R2057	B C	70	R3089	B C	10D	TP2253	A D	6P
C4	B C	C2227	A D	15M	C6055	A D	16P	Q39	B C	10L	R2058	B C	70	R3094	B C	10D	TP4001	A D	6P
C5	A D	C2251	A D	15N	C6056	A D	15P	Q41	B C	10L	R2059	B C	70	R3095	B C	10D	TP7001	A D	3A
C6	B C	C2252	A D	15M	C7011	A D	7B	Q41	B C	10L	R2060	B C	70	R3201	B C	6M	TPGND	A D	4A
C7	B C	C2253	A D	16N	C7012	B C	8B	Q42	B C	9L	R2101	B C	140	R3202	B C	6M	OTHER		
C8	B C	C2254	B C	15N	CONNECTOR			Q201	B C	10G	R2201	B C	17L	R3203	B C	6M	CP4001	A D	4G
C9	B C	C2255	B C	16L	CN1	A D	140	Q202	B C	12G	R2206	B C	14K	R3204	B C	6M	CP5302	A D	4F
C10	B C	C2301	B C	21D	CN2001	A D	90	Q901	B C	21N	R2207	B C	14K	R3205	B C	6L	F5001	A D	10
C11	B C	C2302	B C	21D	CN2002	A D	90	Q902	B C	21N	R2219	B C	15L	R3206	B C	9F	FC5001	A D	20
C12	B C	C2303	A D	20D	CN3001	A D	7L	Q2001	B C	11O	R2224	B C	15L	R3207	B C	9F	FC5002	A D	10
C13	B C	C2304	A D	21E	CN3002	A D	7P	Q2002	B C	11O	R2230	B C	15K	R3208	B C	9F	K2251	B C	16N
C14	B C	C2305	A D	21D	CN3003	A D	7N	Q2003	B C	10O	R2231	B C	15K	R3209	B C	12I	K2252	B C	16N
C15	B C	C2306	A D	22D	CN3004	A D	9F	Q2051	B C	9P	R2232	B C	17L	R3210	B C	9E	K2253	B C	16N
C16	B C	C2308	A D	21D	CN5001	A D	10	Q2052	B C	7O	R2251	B C	17L	R3211	B C	16C	K5101	A D	2K
C17	A D	C2401	A D	21F	CN7001	A D	4C	Q2053	B C	7O	R2301	B C	21D	R3212	B C	17F	K5102	A D	1M
C18	A D	C2402	A D	20F	CN7011	A D	12A	Q2054	B C	7O	R2302	B C	21D	R3213	B C	16F	LF5002	A D	4O
C19	A D	C2403	A D	21F	DIODE			Q2055	B C	7O	R2303	B C	20D	R3214	B C	7G	PC3001	A D	16F
C20	B C	C2404	A D	21G	D1	A D	15P	Q2101	B C	13O	R2304	B C	21D	R3215	B C	7G	PC3002	A D	8G
C21	A D	C2405	A D	20F	D2	A D	15P	Q2251	B C	17M	R2305	B C	20E	R3216	B C	5F	PC3003	A D	4K
C22	B C	C2406	A D	20F	D3	A D	7F	Q2401	B C	16G	R2306	B C	20D	R3217	B C	9D	T2051	A D	9P
C23	B C	C2407	A D	19F	D4	A D	9M	Q2402	B C	18F	R2307	B C	21E	R3218	B C	9D	T5001	A D	1K
C24	B C	C2408	B C	19F	D5	A D	8M	Q2403	B C	19E	R2308	B C	22E	R3219	B C	14E	TU6001	A D	19P
C25	B C	C2409	B C	19F	D2001	A D	17M	Q3001	A D	4I	R2311	B C	21E	R3220	B C	14E	VA5003	A D	2P
C26	B C	C2410	A D	19G	D2201	A D	16K	Q3002	A D	19I	R2312	B C	21E	R3221	B C	12F	X1	A D	12L
C27	B C	C2411	A D	20G	D2202	A D	16L	Q3003	B C	6M	R2401	B C	21F	R3222	B C	12F	X2	A D	13F
C28	A D	C2412	B C	19G	D2401	A D	20E	Q3013	B C	12D	R2402	B C	21F	R3223	B C	13E	X3001	A D	
C29	B C	C2413	A D	20G	D2402	A D	19D	Q3014	B C	12D	R2403	B C	20G	R3224	B C	17C			
C30	B C	C2414	A D	19G	D3001	A D	12H	Q3015	B C	14E	R2404	B C	20F	R3225	B C	16C			
C31	A D	C2415	B C	19G	D3002	A D	5E	Q3016	B C	14E	R2405	B C	20F	R3226	B C	14E			
C32	B C	C2416	B C	19F	D3003	A D	9C	Q4001	B C	9C	R2406	B C	19F	R3227	B C	14D			
C33	B C	C2417	B C	20F	D3004	A D	10C	Q4002	B C	9C	R2407	B C	19F	R3228	B C	13H			
C34	B C	C2418	A D	22G	D3007	A D	14E	Q5101	A D	2L	R2408	B C	19F	R3229	B C	14H			
C35	B C	C2419	A D	20H	D3013	B C	7N	Q5102	A D	3M	R2409	B C	19G	R3230	B C	14G			
C36	A D	C2420	A D	19G	D3015	B C	16C	Q5302	A D	2E	R2410	B C	19G	R3231	B C	7H			
C37	B C	C2421	A D	20E	D4003	A D	14G	Q5303	B C	2E	R2411	B C	19G	R3232	B C	8F			
C38	A D	C2422	A D	21I	D5001	B C	3N	Q5304	A D	3F	R2412	B C	19G	R3233	B C	14D			
C39	B C	C2423	A D	22H	D5101	A D	1M	Q5305	B C	3F	R2413	B C	19G	R3234	B C	13E			
C40	A D	C2424	A D	21I	D5102	A D	2K	Q5306	B C	4G	R2414	B C	19H	R3235	B C	10E			
C41	B C	C2425	A D	18G	D5103	A D	3K	Q5307	A D	1F	R2415	B C	21F	R3236	B C	10F			
C42	B C	C2426	B C	17H	D5105	A D	3K	RESISTOR			R2417	B C	21I	R3237	B C	9F			
C43	B C	C2427	B C	17G	D5203	A D	3I	R1	B C	12N	R2418	B C	21H	R3238	B C	13D			
C44	B C	C2428	B C	18H	D5204	A D	2I	R2	B C	12N	R2419	B C	21H	R3239	B C	7F			
C45	B C	C2429	B C	7N	D5207	A D	2I	R3	B C	10N	R2420	B C	21H	R3240	B C	8G			
C46	B C	C2430	B C	6N	D5210	A D	3I	R4	B C	9L	R2421	B C	21H	R3241	B C	8G			
C47	B C	C2431	B C	6M	D5211	A D	2H	R5	B C	11L	R2422	B C	21H	R3242	B C	8G			
C48	A D	C2432	B C	4I	D5301	A D	2H	R6	B C	11K	R2423	B C	21G	R3243	B C	9C			
C49	B C	C2433	B C	20I	D5303	A D	4E	R7	B C	12K	R2424	B C	21G	R3244	B C	7G			
C50	B C	C2434	A D	13E	D5304	A D	4D	R8	B C	12J	R2425	B C	19G	R3245	B C	7H			
C51	B C	C2435	B C	13E	D5305	A D	1F	R9	B C	12J	R2426	B C	18G	R3246	B C	3N			
C52	A D	C2436	B C	13E	D6050	A D	15P	R12	A D	10O	R2427	B C	18G	R3247	B C	4M			
C53	B C	C2437	B C	12F	D7004	A D	5C	R21	B C	16N	R2428	B C	22H	R3248	B C	3M			
C54	B C	C2438	B C	12F	D7005	A D	3C	R22	B C	10N	R2429	B C	22H	R3249	B C	1L			
C55	B C	C2439	B C	13E	D7007	A D	8B	R23	B C	10N	R2430	B C	22H	R3250	B C	2L			
C56	B C	C2440	B C	16C	IC			R24	B C	10N	R2431	B C	21H	R3251	B C	4D			
C57	B C	C2441	B C	9C	IC1	B C	13M	R36	B C	12K	R2432	B C	22H	R3252	B C	3K			
C58	B C	C2442	B C	9C	IC2301	A D	20E	R37	B C	11K	R2433	B C	22H	R3253	B C	3L			
C59	B C	C2443	B C	9B	IC2401	A D	20F	R38	B C	10K	R2434	B C	21G	R3254	B C	3L			
C60	B C	C2444	B C	16G	IC2402	B C	19G	R39	B C	10K	R2435	B C	19E	R3255	B C	3K			
C61	B C	C2445	B C	16G	IC2404	B C	21H	R40	B C	10K	R2436	B C	19E	R3256	B C	3H			
C62	B C	C2446	B C	12F	IC2405	B C	22H	R41	B C	10K	R2437	B C	22F	R3257	B C	4H			
C63	B C	C2447	B C	13G	IC2471	B C	18H	R42	B C	10K	R2438	B C	18F	R3258	B C	4H			
C64	B C	C2448	B C	9G	IC2472	B C	17H	R43	B C	12M	R2439	B C	19E	R3259	B C	3D			
C65	B C	C2449	B C	10G	IC3001	B C	11E	R44	B C	9L	R2440	B C	21H	R3260	B C	3H			
C66	B C	C2450	A D	13E	IC3002	A D	7N	R45	B C	9K	R2441	B C	22H	R3261	B C	3D			
C67	B C	C2451	A D	13E	IC3003	B C	14E	R46	B C	9K	R2442	B C	18G	R3262	B C	4H			
C68	B C	C2452	A D	14E	IC3004	A D	16C	R47	B C	9K	R2443	B C	18G	R3263	B C	4D			
C69	B C	C2453	A D	14E	IC5301	A D	4G	R48	A D	16H	R2444	B C	18G	R3264	B C	3D			
C70	B C	C2454	B C	11I	IC7002	A D	8A	R49	B C	8K	R2445	B C	18H	R3265	B C	3F			
C71	A D	C2455	B C	16H	JACK			R69	B C	9M	R2481	B C	18H	R3266	B C	4F			
C72	A D	C2456	B C	17F	J1	A D	21P	R71	B C	15L	R2482	B C	17H	R3267	B C	3G			
C73	A D	C2457	B C	14E	J2	A D	22P	R75	B C	11M	R2483	B C	17H	R3268	B C	4G			
C74	B C	C2458	A D	16B	J2301	A D	19A	R76	B C	9E	R2484	B C	17G	R3269	B C	4G			
C75	B C	C2459	A D	7M	J2302	A D	21A	R77	B C	13P	R2485	B C	18G	R3270	B C	3G			
C76	B C	C2460	A D	8G	COIL			R78	B C	12K	R2486	B C	17G	R3271	B C	4G			
C77	B C	C2461	A D	8F	L1	A D	16N	R79	B C	12K	R2487	B C	17G	R3272	B C	1H			
C78	B C	C2462	B C	10E	L2	A D	10N	R90	B C	11M	R2488	B C	21P	R3273	B C	1G			
C79	B C	C2463	B C	7F	L3	A D	9L	R91	B C	12N	R2489	B C	21P	R3274	B C	1F			
C80	B C	C2464	B C	9F	L4	A D	9L	R92	B C	9L	R2490	B C	21P	R3275	B C	3F			
C81	A D	C2465	A D	8F	L5	A D	12J	R93	B C	11N	R3001	B C	12D	R3276	B C	3E			
C82	B C	C2466	B C	9E	L6	A D	11L	R94	B C	9N	R3002								

DANGEROUS VOLTAGE



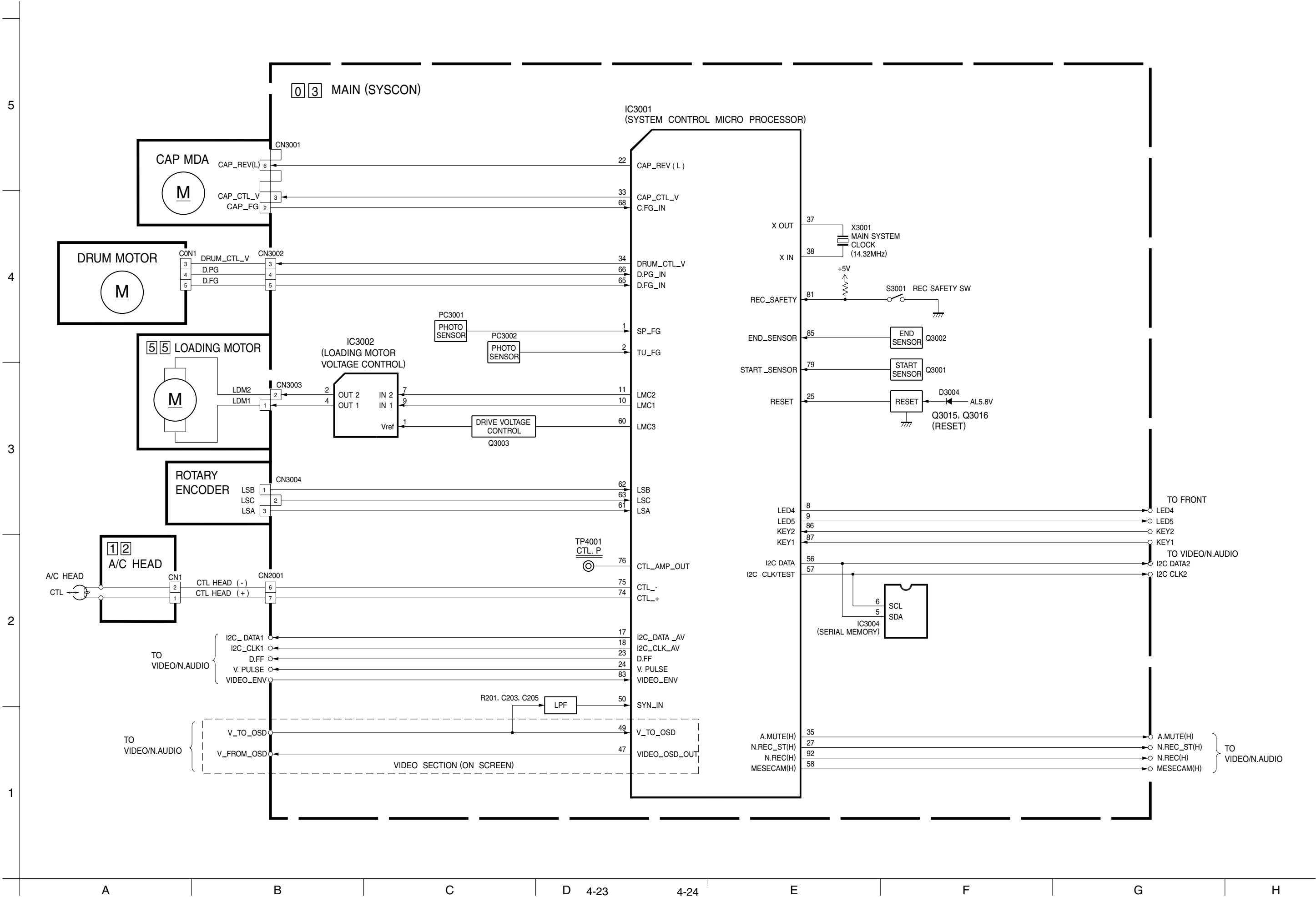
4.9 VOLTAGE CHARTS

<VIDEO/AUDIO>			<SW.REG>			<FRONT>			<LED>		
MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY
IC1			IC3001			IC3002			CN7001		
1	1.5	2.1	5	2.3	2.3	1	11.9	11.9	1	0	0
2	2.9	2.9	6	2.4	2.2	2	0	0	2	0	3.9
3	0	2.6	7	2.4	2.2	3	0	0	3	5.1	5.1
4	0	1.4	8	0	2.2	4	0	0			
5	0	1.4	CN2001			5	11.9	11.9			
6	2.4	2.1	1	0	0	6	11.9	11.9			
7	1.5	0.7	2	0	0	7	0	0			
8	0	0	3	0	0	8	0	0			
9	2.6	3.0	4	0	0	9	4.9	0			
10	2.4	2.4	5	0	0	10	0	0			
11	3.1	3.1	6	2.3	2.3	11	0	0			
12	2.8	2.4	7	2.6	2.4	12	0	5.1			
13	3.1	3.1	CN2002			13	0	0			
14	2.3	2.3	1	0	0	14	0	0			
15	0	0	2	0	0	15	0	0			
16	2.8	2.8				16	5.0	5.0			
17	1.5	1.5				17	5.0	5.0			
18	2.8	2.8				18	4.8	4.8			
19	1.3	2.5				19	0	0			
20	2.8	2.8				20	5.1	5.1			
21	2.0	2.0				21	1.3	2.4			
22	2.8	2.8				22	5.1	5.1			
23	2.8	2.8				23	2.5	2.5			
24	4.9	4.9				24	0	0			
25	0.3	0.3				25	-	-			
26	0	0				26	0	0			
27	2.4	2.4				27	5.1	0			
28	2.3	2.3				28	0	0			
29	1.9	1.9				29	0	0			
30	2.1	2.1				30	0	5.1			
31	0	0				31	0	0			
32	3.4	3.4				32	0	0			
33	4.8	4.8				33	2.4	2.4			
34	2.7	2.3				34	1.2	1.2			
35	4.8	4.8				35	0	0			
36	3.4	3.4				36	5.1	5.1			
37	2.3	2.3				37	-	-			
38	-	-				38	-	-			
39	1.3	1.3				39	0	0			
40	-	-				40	0	0			
41	2.6	2.6				41	0	0			
42	-	-				42	0	0			
43	0	0				43	5.1	5.1			
44	2.2	2.2				44	0	0			
45	4.8	4.8				45	0	0			
46	5.0	5.0				46	5.0	5.0			
47	2.8	2.8				47	1.7	1.7			
48	2.6	2.6				48	0	0			
49	4.8	4.8				49	1.6	1.6			
50	2.5	2.5				50	2.4	2.4			
51	2.8	2.8				51	4.9	4.9			
52	0	0				52	2.4	2.4			
53	2.5	2.5				53	2.4	2.4			
54	0	0				54	2.4	2.4			
55	0	0				55	2.0	2.0			
56	0	0				56	2.0	4.9			
57	0	0				57	4.9	4.9			
58	0	0				58	0	0			
59	0	0				59	0	0			
60	0	0				60	0	0			
61	0	0				61	0	0			
62	0	0				62	5.1	5.1			
63	0	0				63	5.1	5.1			
64	0	0				64	0	0			
65	2.0	2.0				65	2.6	2.6			
66	0	0				66	0.4	0.4			
67	0	0				67	2.4	2.4			
68	0	0				68	2.4	2.4			
69	0	0				69	2.4	2.4			
70	0	0				70	2.4	2.4			
71	0	0				71	0	0			
72	0	0				72	2.4	2.4			
73	0	0				73	4.9	4.9			
74	0	0				74	2.9	2.4			
75	0	0				75	2.0	2.4			
76	0	0				76	2.4	2.4			
77	0	0				77	0	0			
78	0	0				78	0	0			
79	4.9	4.9				79	4.9	4.9			
80	4.9	4.9				80	5.1	5.1			
81	0	0				81	5.1	5.1			
82	0	0				82	0	0			
83	0	0				83	0	2.5			
84	2.3	2.3				84	0	0			
85	2.4	2.2				85	4.8	4.8			
86	2.4	2.2				86	5.1	5.1			
87	4.9	4.9				87	5.1	5.1			
88	0	0				88	0	0			
89	0	0				89	0	0			
90	0	0				90	0	0			
91	0	2.6				91	0	0			
92	2.6	2.6				92	5.1	0			
93	0.5	0.5				93	0	0			
94	0	0				94	4.6	4.6			
95	2.6	2.6				95	0	5.2			
96	2.5	2.5				96	0	0			
97	2.5	2.5				97	0	0			
98	0	0				98	0	0			
99	2.5	2.5				99	0	0			
100	4.6	4.4				100	0	0			

4.10 CPU PIN FUNCTION

<SYSCON IC3001>				<SYSCON IC3001>			
PIN NO.	LABEL	IN/OUT	FUNCTION	PIN NO.	LABEL	IN/OUT	FUNCTION
1	SP_FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN	51	VDD2	-	SYSTEM POWER
2	TU_FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN	52	AFCC	IN	FILTER INPUT FOR HORIZONTAL SYNCHRONIZING OF OSD CHARACTER
3	NC	-	NC	53	AFCLPF	OUT	FILTER OUTPUT FOR HORIZONTAL SYNCHRONIZING OF OSD CHARACTER
4	NC	-	NC	54	FSCI/BIT_IN(H)	IN	FSC INPUT FOR OSD/NC
5	RC	IN	REMOTE CONTROL DATA INPUT	55	FSCLPF	OUT	FSC OUTPUT FOR OSD
6	NC	-	NC	56	I2C_DATA	IN/OUT	I/O DATA FOR MEMORY IC
7	NC	-	NC	57	I2C_CLK/TEST	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC/MECHANISM TEST SIGNAL
8	LED4	OUT	REC/START LED DRIVE	58	MESECAM(H)	-	NC
9	LED5	OUT	POWER LED DRIVE	59	NC	-	NC
10	LMC1	OUT	LOADING MOTOR DRIVE (1)	60	LMC3	OUT	LOADING MOTOR DRIVE(3)
11	LMC2	OUT	LOADING MOTOR DRIVE (2)	61	LSA	IN	MECHANISM MODE DETECT(A)
12	EE(L)	-	NC	62	LSB	IN	MECHANISM MODE DETECT(B)
13	NC	-	NC	63	LSC	IN	MECHANISM MODE DETECT(C)
14	NC	-	NC	64	NC	-	NC
15	CONV_CTL(H)	OUT	R/F CONVERTER ON/OFF (ON:H, OFF:L)	65	D.FG_IN	IN	DRUM FG PULSE INPUT
16	CTL_GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING	66	D.PG_IN	IN	DRUM PICKUP PULSE INPUT(SWITCHING PULSE)
17	I2C_DATA_AV	IN/OUT	I/O DATA FOR THE VIDEO/AUDIO IC	67	C.FG_AMP_OUT	OUT	SET-UP OUTPUT FOR CAPSTAN FG AMPLIFICATION FACTOR
18	I2C_CLK_AV	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC	68	C.FG_IN	IN	CAPSTAN FG PULSE INPUT
19	SP_SHORT(H)	OUT	MODE SELECT	69	AMP_VREF_OUT	OUT	AMP CIRCUIT REFERENCE VOLTAGE OUTPUT
20	EP_SHORT(H)	OUT	MODE SELECT	70	AMP_VREF_IN	IN	AMP CIRCUIT REFERENCE VOLTAGE INPUT
21	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE	71	AVSS	-	GND FOR ANALOG CIRCUIT
22	CAP_REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD:H/REV:L)	72	AMP_C	IN	CAPACITOR CONNECT TERMINAL FOR CTL AMP CIRCUIT
23	D.FF	OUT	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC	73	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
24	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL	74	CTL_+	IN/OUT	CTL(+) SIGNAL
25	RESET	-	RESET TERMINAL (RESET ON:L)	75	CTL_-	IN/OUT	CTL(-) SIGNAL
26	A.FF	-	NC	76	CTL_AMP_OUT	OUT	CTL PULSE OUTPUT
27	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START	77	NC	-	NC
28	CHARA	OUT	OSD CHARACTER DATA OUTPUT	78	NORMAL_MESECAM	-	NC
29	AGC_CTL	OUT	DETECTION SIGNAL FOR AGC	79	START_SENSOR	IN	START SENSOR
30	H.REC_ST(H)	-	NC	80	3.58NTSC(L)	-	NC
31	MIC_V	-	NC	81	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
32	ECHO_V	-	NC	82	NC	-	NC
33	CAP_CTL_V	OUT	CAPSTAN MOTOR CONTROL	83	VIDEO_ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
34	DRUM_CTL_V	OUT	DRUM MOTOR CONTROL	84	A_ENV/ND(L)	-	NC
35	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)	85	END_SENSOR	IN	END SENSOR
36	VDD	-	SYSTEM POWER	86	KEY2	IN	OPERATION CONTROL SIGNAL
37	X OUT	-	MAIN SYSTEM CLOCK (14.32MHz)	87	KEY1	IN	OPERATION CONTROL SIGNAL
38	X IN	-	MAIN SYSTEM CLOCK (14.32MHz)	88	MUSIC_DET	-	NC
39	VSS	-	GND	89	NC	-	NC
40	VC IN	-	NC	90	NC	-	NC
41	VC OUT	-	NC	91	NC	-	NC
42	CLK SEL	-	NC	92	N.REC(H)	OUT	NORMAL AUDIO REC MODE CONTROL (REC:H)
43	P.MUTE(L)	-	NC	93	NC	-	NC
44	A.MUTE2(L)	-	NC	94	PROTECT	IN	DETECTION SIGNAL FOR SW. POWER SUPPLY
45	NC	-	NC	95	PAL_PB(H)	-	NC
46	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY	96	NC	-	NC
47	VIDEO_OSD_OUT	OUT	COMPOSITE VIDEO SIGNAL OUTPUT	97	NC	-	NC
48	VSS2	-	GND	98	NC	-	NC
49	V_TO_OSD	IN	COMPOSITE VIDEO SIGNAL INPUT	99	NC	-	NC
50	SYN_IN	IN	COMPOSITE SYNCHRONIZING SIGNAL FOR SERVO, VERTICAL SYNCHRONIZING SIGNAL FOR OSD	100	NC	-	NC

4.11 SYSTEM CONTROL BLOCK DIAGRAM



[illegible]

4.13 AUDIO BLOCK DIAGRAM

