



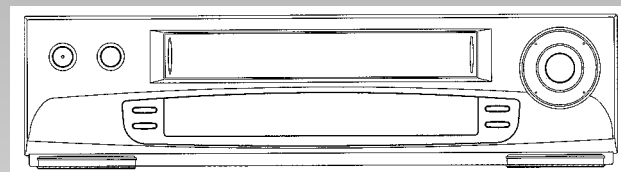
VIDEO CASSETTE PLAYER VIDEO CASSETTE LINE RECORDER SV-A12G/SP-A12G



SERVICE Manual

For mechanical disassembly and adjustment, refer to the "Mechanical Manual"
(DX7-R/DX-7RC, DX8-R/DX-8RC → AC68-20316A).

VIDEO CASSETTE PLAYER/VIDEO CASSETTE LINE RECORDER



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1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including : control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1) :
Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).
5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.
6. X-ray Limits :
The picture tube is designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original.

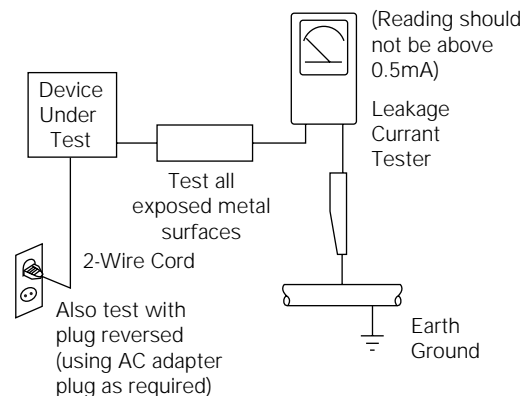




Fig. 1-1 AC Leakage Test

7. Antenna Cold Check :
With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.
8. High Voltage Limit :
High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.

Heed the high voltage limits. These include the *X-ray protection Specifications Label*, and the *Product Safety and X-ray Warning Note* on the service data schematic.
9. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
10. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)

11. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.
12. Design Alteration Warning :
Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
13. Hot Chassis Warning :
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

To confirm that the AC power plug is inserted correctly, do the following : Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.
14. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, *regardless of the AC plug polarity*. These units can be safely serviced *only* if an isolation transformer inserted between the receiver and the power source.
15. Never defeat any of the B+ voltage interlocks.
Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
16. Always connect a test instrument's ground lead to the instrument chassis ground *before* connecting the positive lead; always remove the instrument's ground lead last.
17. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
18. Picture Tube Implosion Warning :
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.
19. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.
20. Product Safety Notice :
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

Components that are critical for safety are indicated in the circuit diagram by shading, ( or ).
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

2. Reference Information

2-1 Servicing Jigs and Special Tools

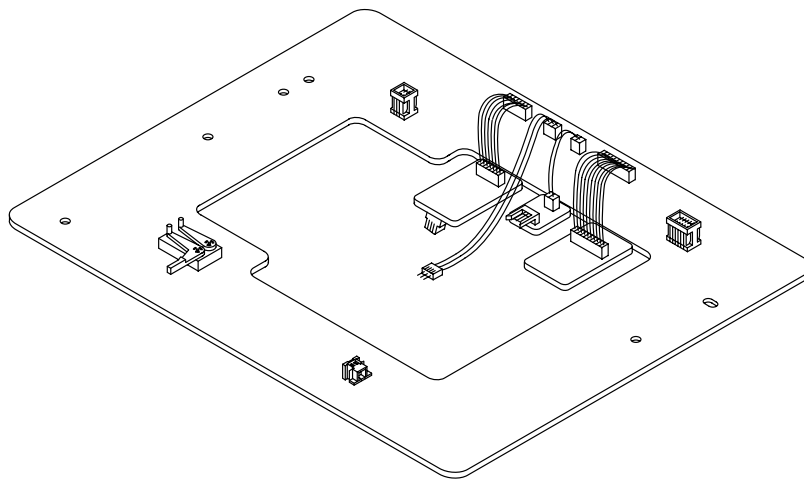
2-1-1 Servicing guide

1. For this VCP chassis, the program switch and the sensors (start/end/reel) are located on the main PCB, not on the deck ass'y.
2. As long as the deck ass'y is connected to the main PCB, all repairs are possible.
Important : In order to repair the main PCB without the deck ass'y connected, the X-5 chassis jig should be used.
3. To emulate the function of the sensors, plug the power cord to outlet with pressing SW711 on the function PCB.
4. The X-5 chassis jig can be used for the following :
 - 1) When repairing or confirming the operation of the deck ass'y.
 - 2) When replacing or repairing the components located under the deck ass'y.
 - 3) When repairing the function PCB.
5. The X-5 chassis jig can not be used for the following :
 - 1) Repairing defects in the video section.
 - 2) Repairing defects in the audio section.
 - 3) If the defect is related to tape speed.

Note : Accurate repair may not be possible due to external noise between the deck ass'y and main PCB.

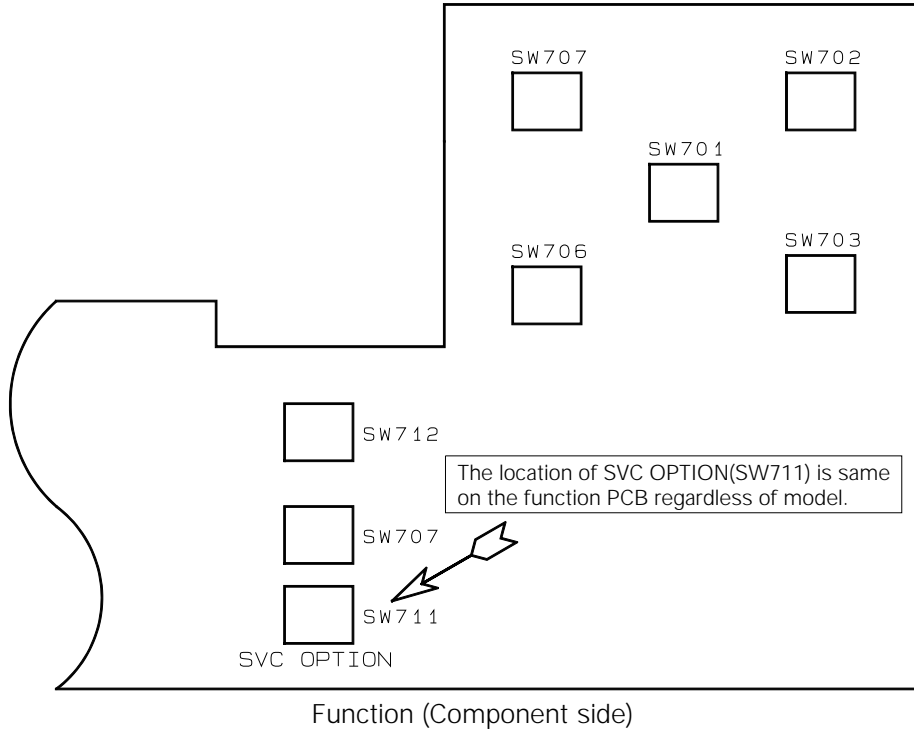
2-1-2 Servicing Jig

Jig Item	Part No.	Use
X-5 Chassis Jig	68140-500-013	Connects the deck ass'y to the main PCB connecting cable.



2-1-4 How to Connect X-5 chassis jig

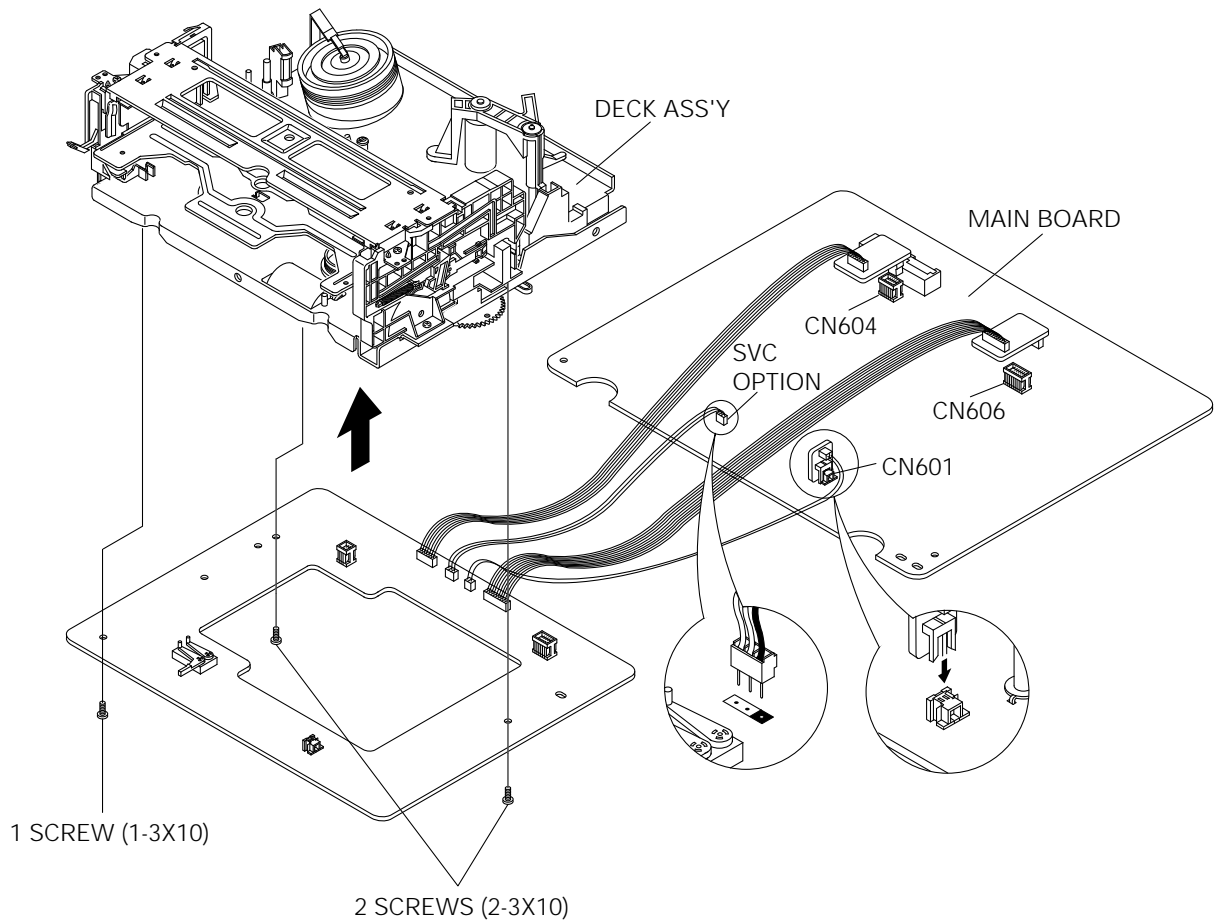
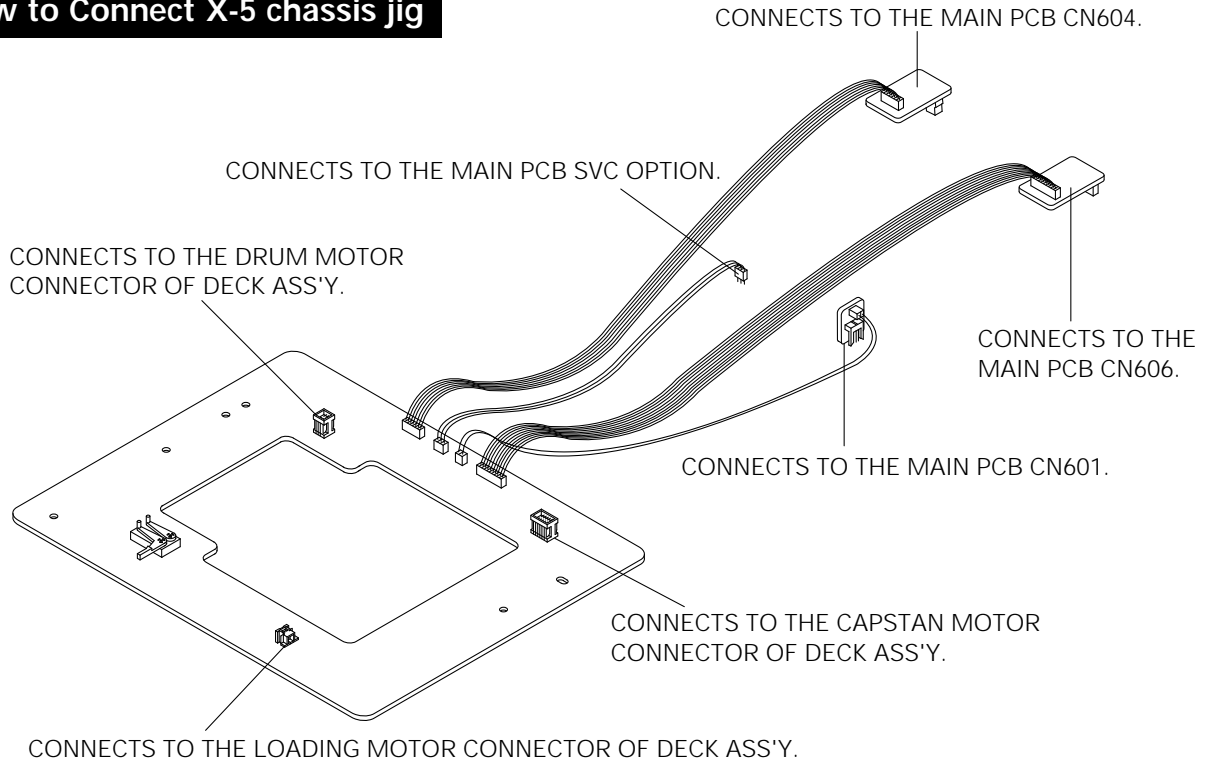
1. Unplug the power cord from AC outlet.
2. Remove the deck ass'y from main PCB (See Page 4-4 of service manual).
3. To emulate the function of the sensors, plug the power cord to outlet with pressing SW711 on the function PCB (See diagram below).



Note : After completing repairs, unplug and plug the power cord in order to reset.

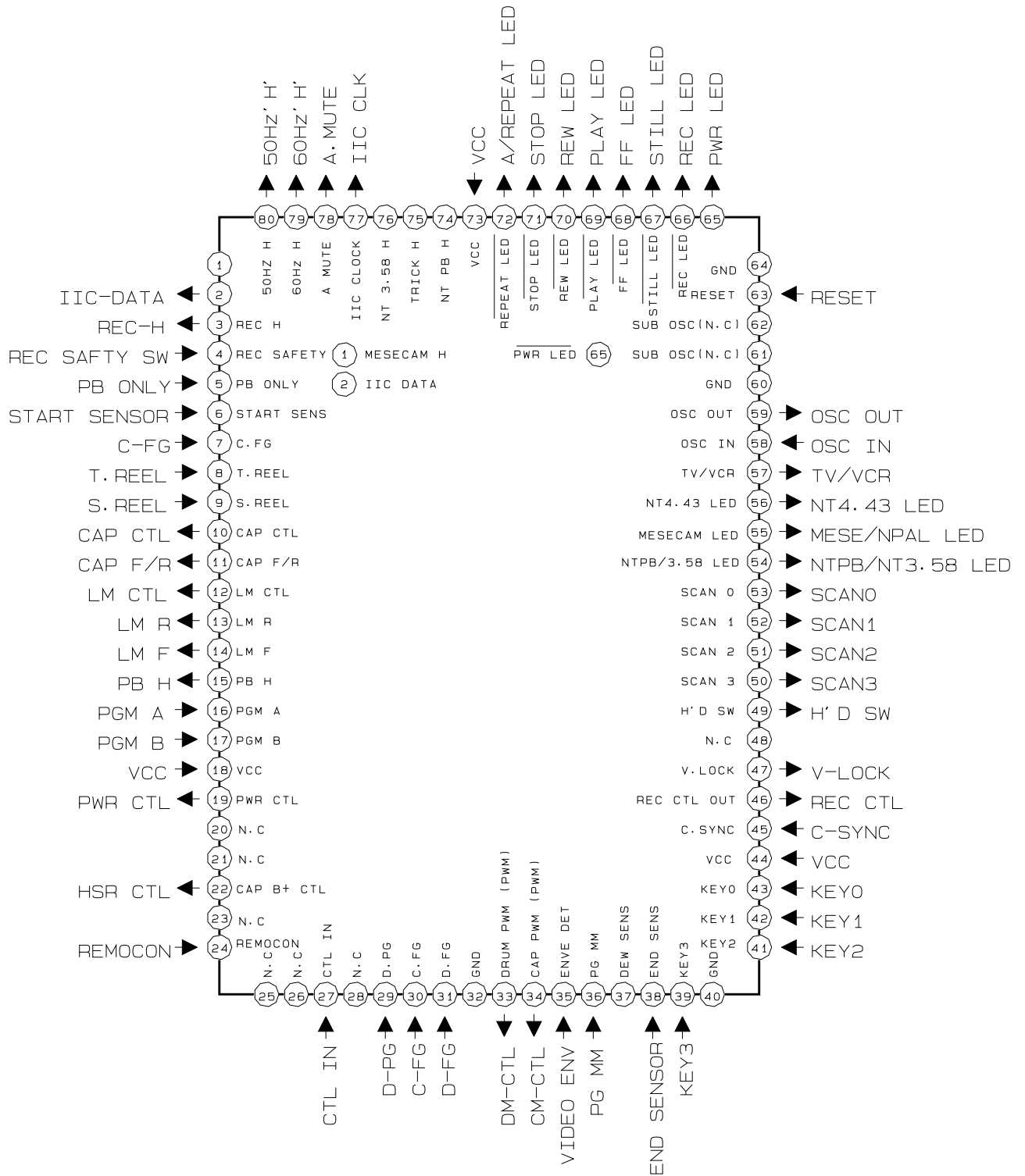
4. Insert wafers of drum motor, capstan motor and loading motor on X-5 chassis jig into each of the connectors of deck ass'y, and then secure with three screws.
5. Solder the 3 leads of the jig cable to "SERVICE OPTION" on the main PCB.
6. Apply power to the function PCB.
7. Insert a test tape into the housing ass'y.
8. Simultaneously touch the start and end sensor LEDs on the PCB, so that the tape loads automatically. After the tape is loaded, all of the function buttons on the function PCB can be used.
9. If the test tape is ejected while the jig is in use, attempt to re-load the tape by simultaneously touching the start and end sensor LEDs.

How to Connect X-5 chassis jig

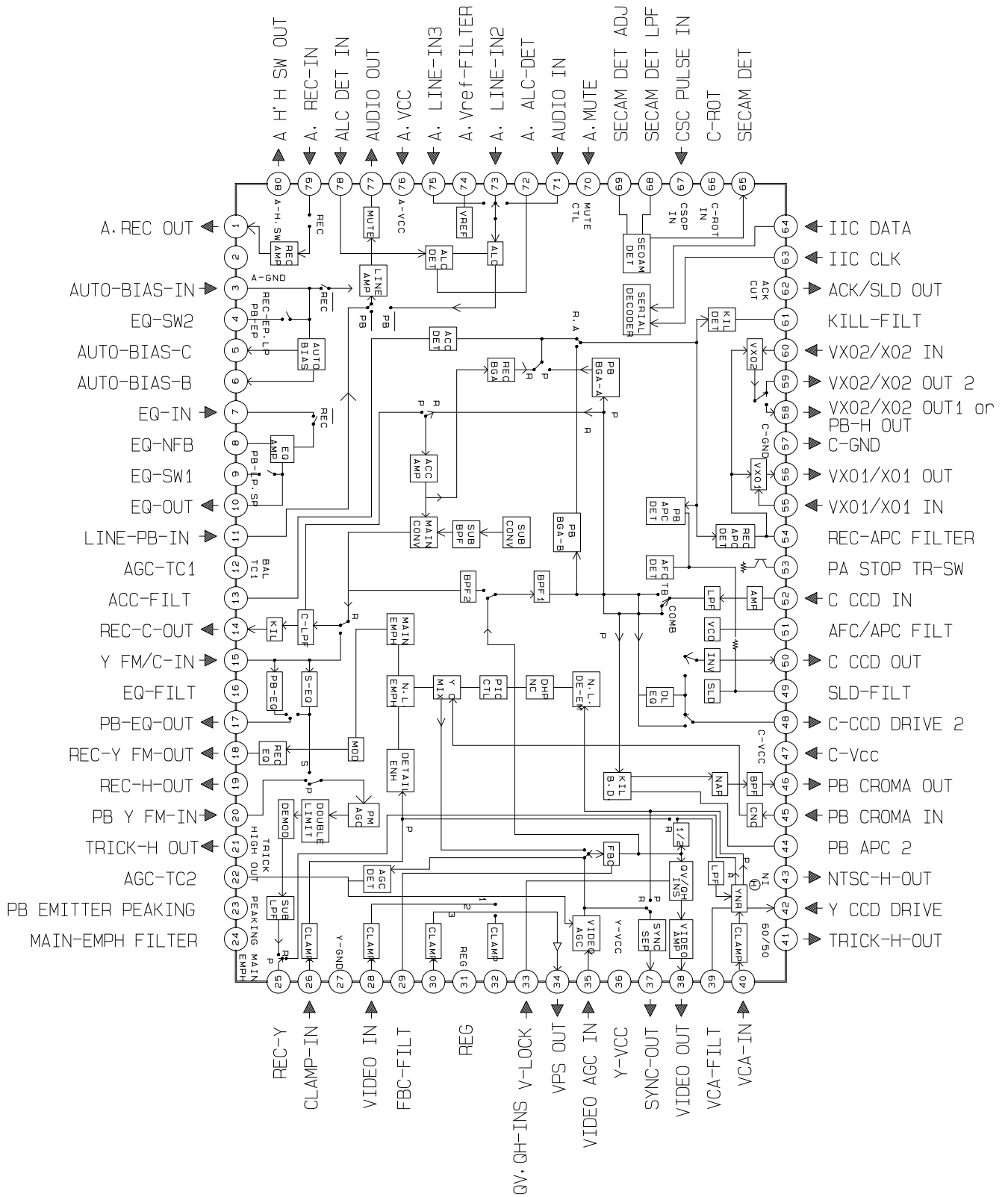


2-2 IC Blocks

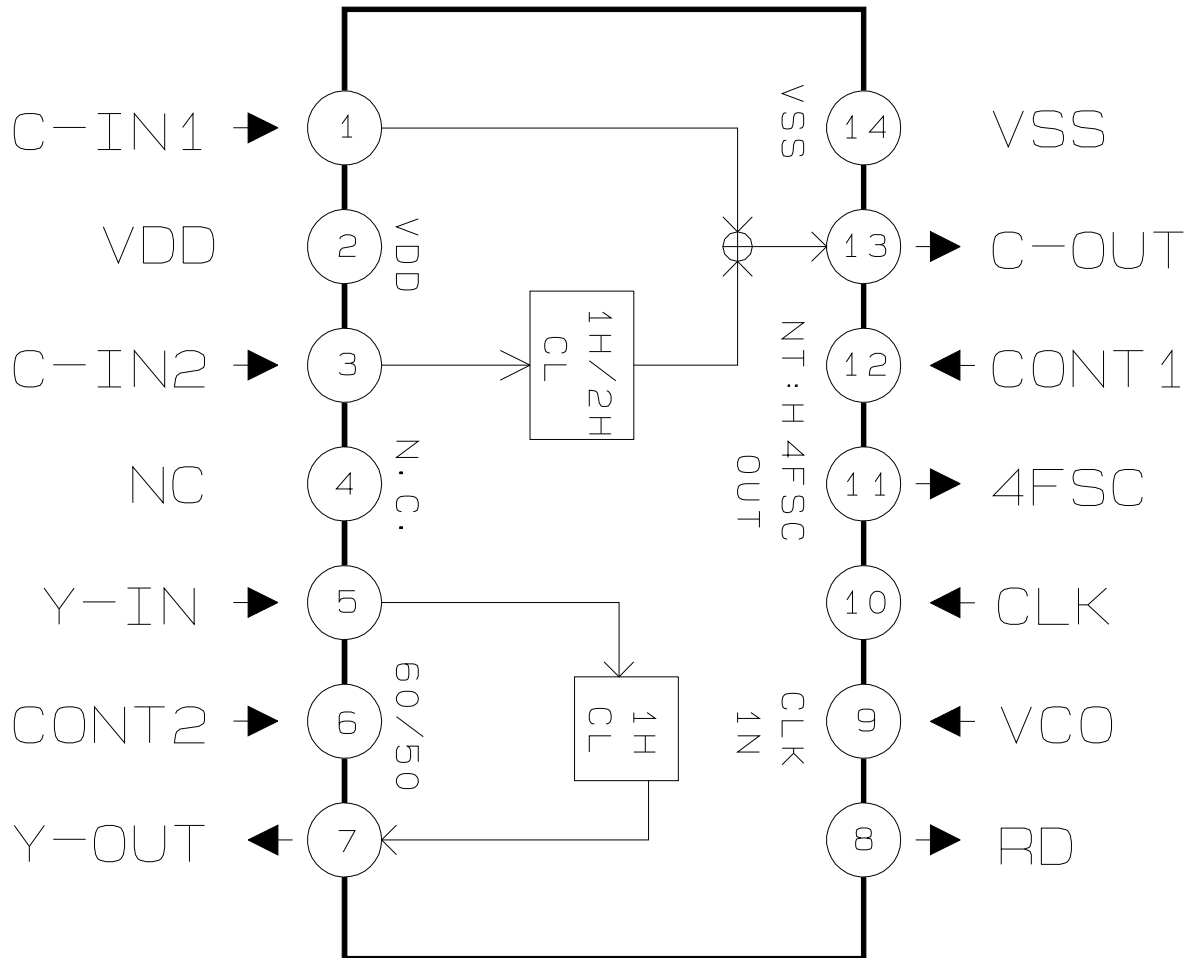
2-2-1 IC601 (KS88C8016)



2-2-2 IC301 (SS11511M)



2-2-4 IC303 (SS23377M)



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3. Product Specifications and Comparison Chart

3-1 Product Specifications

Design and specifications are subject to change without notice.

Operation	Description
Format	VHS PAL standard
Video Recording System	2 Rotary Heads, Helical Scanning System Luminance : FM azimuth recording Color : Down converted subcarrier phase shifted
Television System	CCIR Standard G, K
Color System	PAL, MESECAM, NT 4.43, NT PB (NT 3.58 REC)
Tape Width	12.65 mm (1/2 inch)
Tape Speed	SP : (PAL) 23.39 mm/sec, (NTSC) 33.35 mm/sec
Record/Playback Time	SP : 4 hours (E-240 Tape)
F.F/REW Time	100 sec ~ 4 min with E-180
Heads	Video : 2 Rotary Heads Audio/Control : 1 stationary head Erase : 1 full track erase head
VIDEO	
Input Output Signal-to-Noise Ratio Horizontal Resolution	0.5 to 2.0 Vp-p : 75 ohm unbalanced 1.0 Vp-p : 75 ohm unbalanced Better than 43 dB (SP) More than 240 lines (SP)
Audio	
Input Output Signal-to-Noise Ratio Frequency Response	Line : -8 dBm, 47 Kohm unbalanced Line : -8 ± 3 dBm, 1.5 Kohm unbalanced More than 39dB 100Hz ~ 8KHz(SP)
Output Channel	Channels 30 ~ 39 (preset CH 36)
Power Requirement	AC 100 ~ 240V 50/60Hz, DC 12V (CAR BATTERY ONLY)
Power Consumption	Approx. 17 watts
Operation Temperature	41°F-104°F (5°C-40°C)
Operation Humidity	10%-75%
Weight	4.0 Kg
Dimensions (W x H x D)	360 x 92 x 309 mm

3-2 Comparison Chart

FUNCTION MODEL	LINE RECORD	REMARK
SV-A12G	O	
SP-A12G	X	

4. Disassembly and Reassembly

4-1 Cabinet Assembly

Note : Disassemble in the order shown.
Reassemble in reverse order.

4-1-1 Top Cabinet removal

1. Remove 5 screws and slide the top cabinet to the rear to remove.

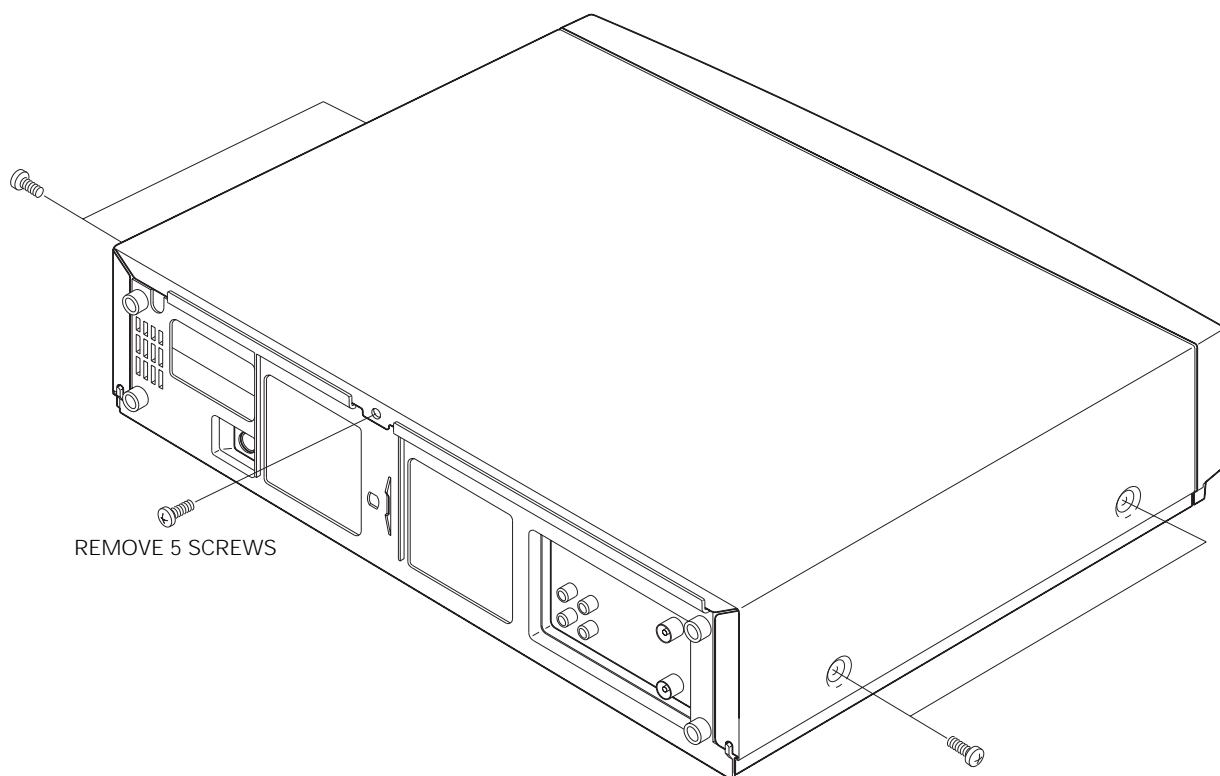


Fig. 4-1 Top Cabinet removal

4-1-2 Bottom cover removal

1. Remove 1 screw.
2. Lift up the bottom cover toward arrow "A".

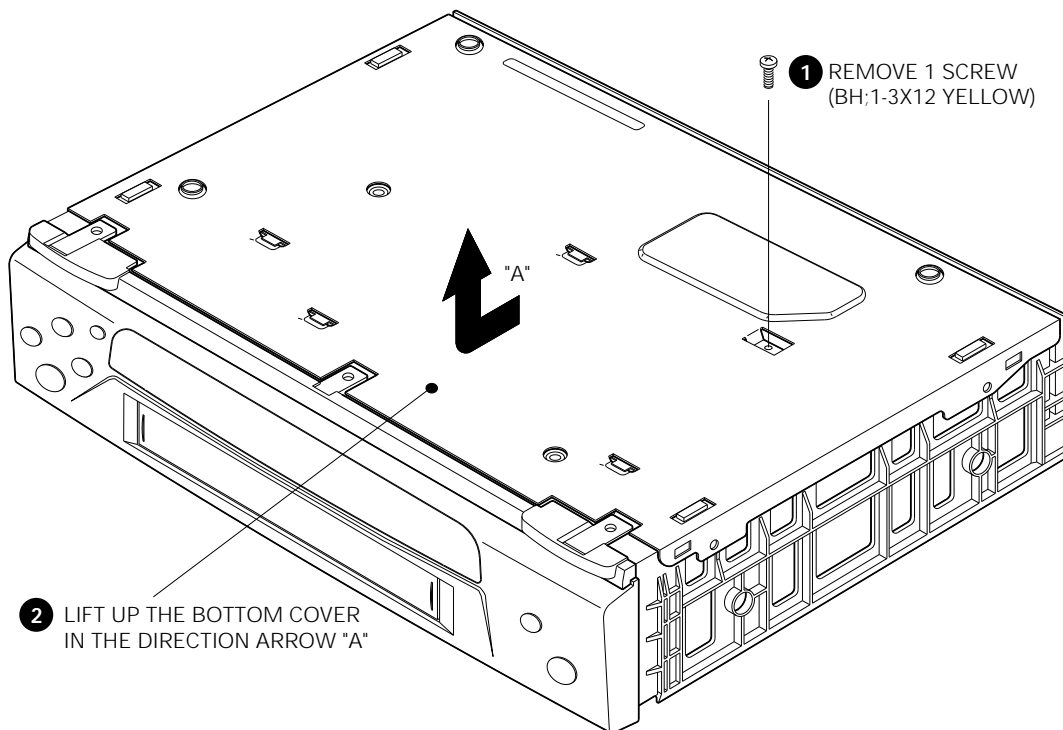
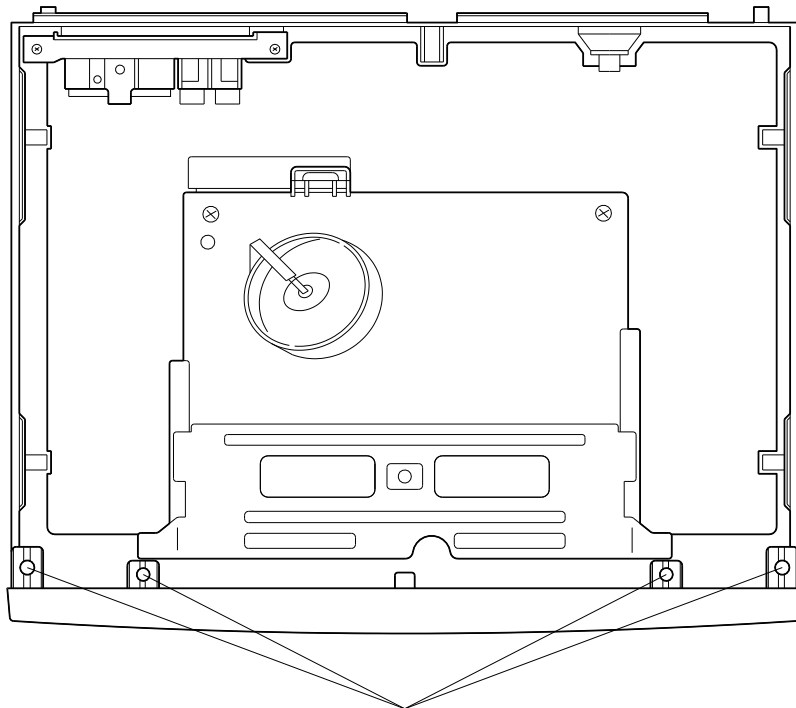


Fig. 4-2 Bottom Cover Removal

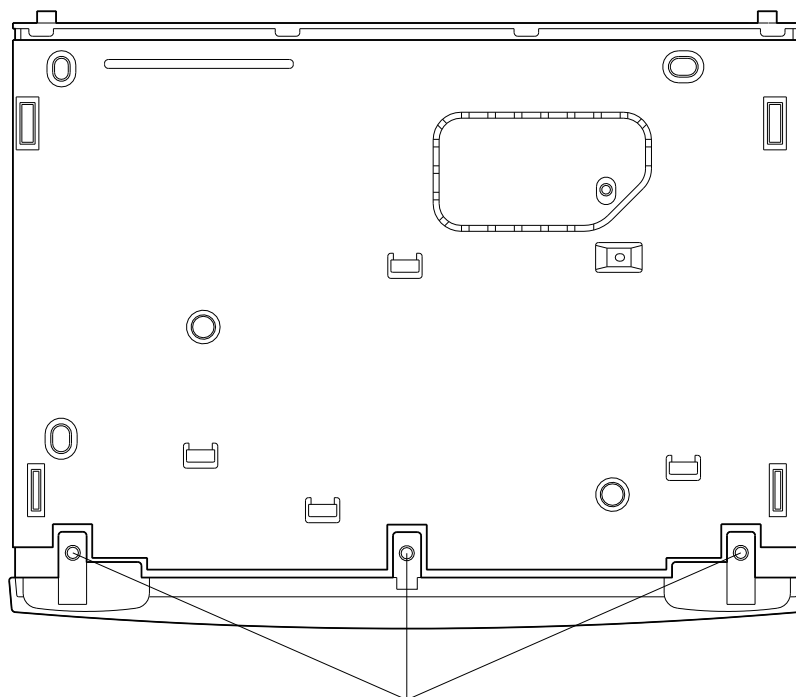
4-1-3 Ass'y Front Panel removal

1. Remove the knob-shuttle.
2. Release 4 hooks on the top side and 3 hooks on the bottom side and then, pull the ass'y front panel to remove.



RELEASE 4 TABS

(Top view)



RELEASE 3 TABS

(Bottom view)

Fig. 4-3 Ass'y Front Panel removal

4-1-4 Ass'y Function removal

1. Release 5 hooks and remove the ass'y function.

Note : Take extreme care not to damage the PCB when removing it.

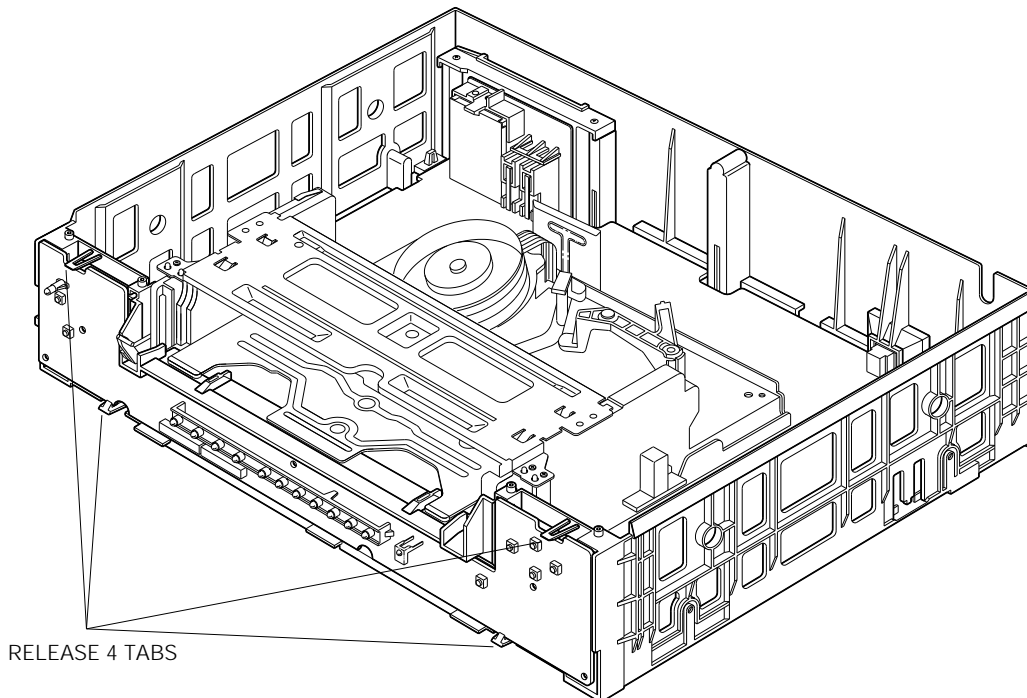


Fig. 4-4 Ass'y Function Removal

4-1-5 Chassis Removal

1. Remove 2 screws holding the frame.
2. Remove 2 screws holding the connector board ass'y.
3. Remove 2 screws holding the housing ass'y.
4. Remove 2 screws holding the ass'y full deck.
5. Release 2 hooks holding the ass'y main.
6. Lift the ass'y full deck up.
7. Lift the ass'y main up to remove.

Note : 1. When removing chassis, take extreme care not to damage the main PCB front.
2. When reinstalling the deck on the main PCB, take extreme care not to damage the sensor.

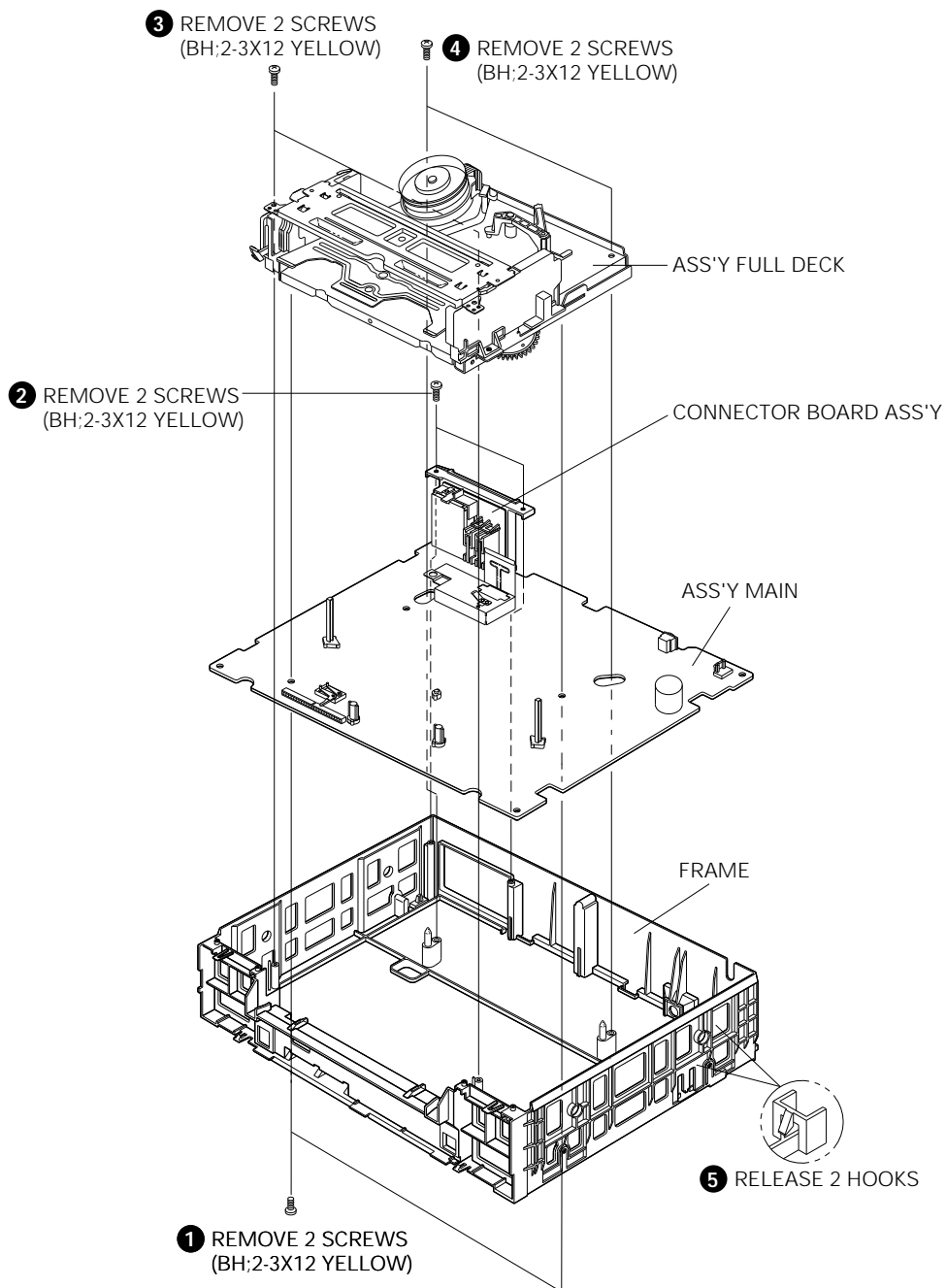


Fig. 4-5 Chassis Removal

4-2 Circuit Board Locations

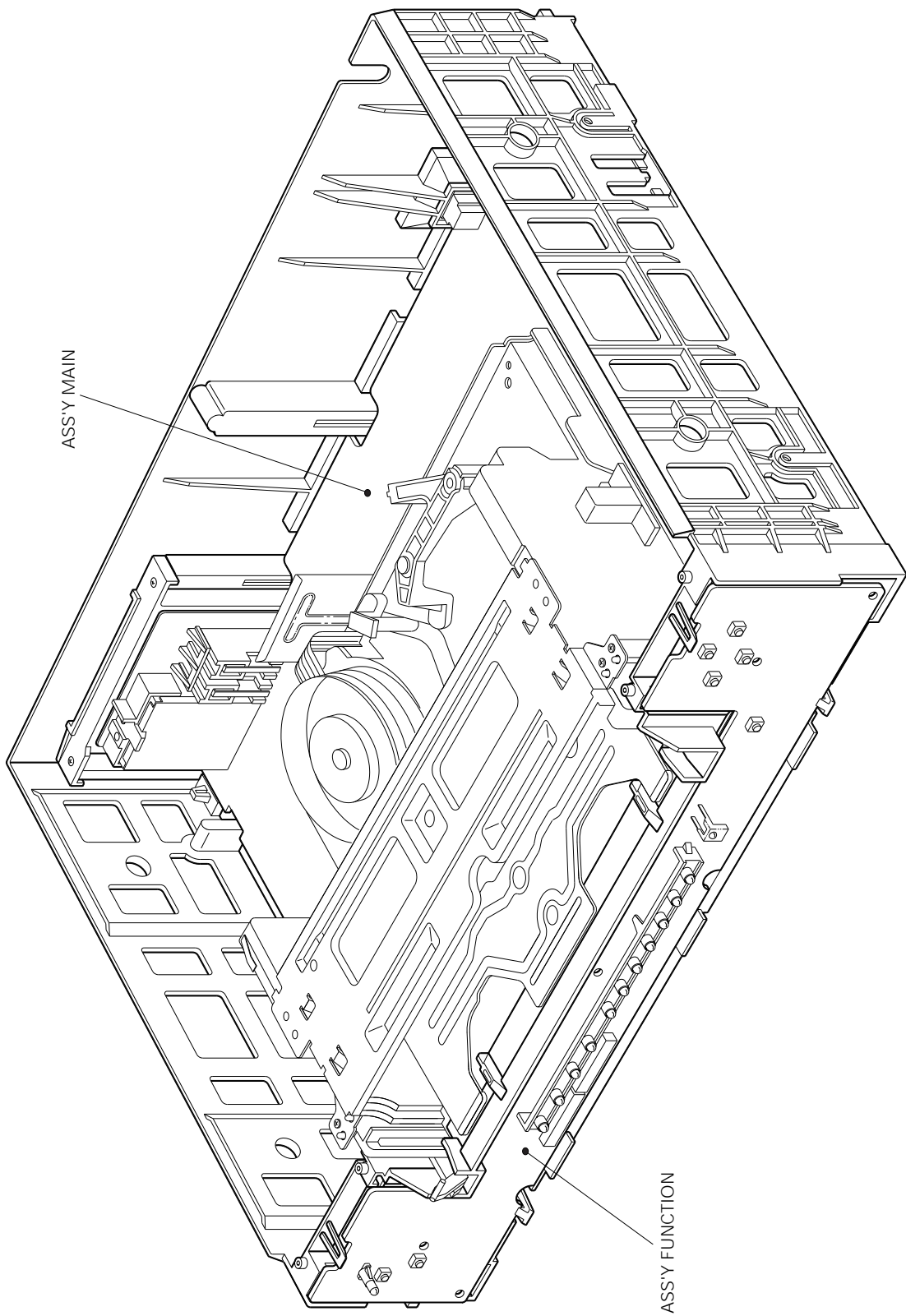


Fig. 4-6 Circuit Board Locations (SV-A10G/SP-A10G)

5. Alignment and Adjustment

5-1 Mechanical Adjustment

Reference :

For other mechanical adjustments except A/C Head position (X-point) adjustment, refer to the mechanical manual (DX7-R/DX7-RC/DX8-R/DX8-RC, AC68-20316A).

Test point : TP05 (Envelope) TP04 (H'D S/W -Trigger) TP03 (CTL Pulse) TP06 (Audio out)	Test tape : PAL Color bar Mono scope Blank tape (E-240)
-------------------------------------------------------------------------------------------------	---------------------------------------------------------------

5-1-1 A/C Head Point (X-point) Adjustment

1. Playback the mono scope alignment tape.
2. Connect CH-1 scope probe to TP03 and CH-2 scope probe to TP04. And then, trigger head switching pulse.
3. Set tracking preset to 1msec using the "Tracking" button ▲ / ▼ of remote control. (Refer to Fig. 1 and 2)
4. Connect CH-1 scope probe to TP05 and the CH-2 to "H'D S/W" trigger on CH-1.
5. Insert the adjusting driver(+) into X-point adjusting gear. Adjust the driver in either direction for maximum envelope waveform.

Note : Since the adjusting gear unit may be damaged, do not adjust by force when adjusting the X-point using the adjusting driver(+). After turn the X-point adjusting screw(D) counterclockwise a little, perform the adjustment. After adjustment is completed, tighten the screw. (Refer to Fig. 3)

<Setting of scope>

- Volt/div. : CH-1 = 0.1V - Time/div. : 5msec
 CH-2 = 0.2V

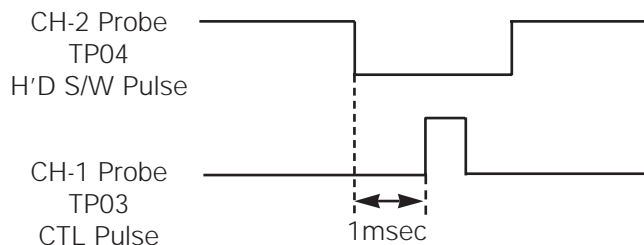


Fig. 5-1 Tracking preset adjustment

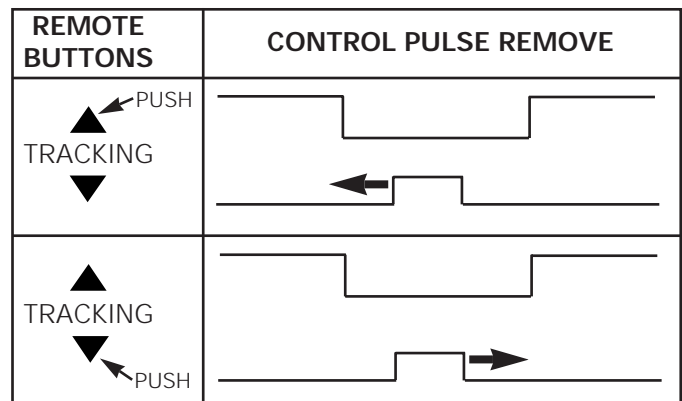


Fig. 5-2 Control pulse adjustment

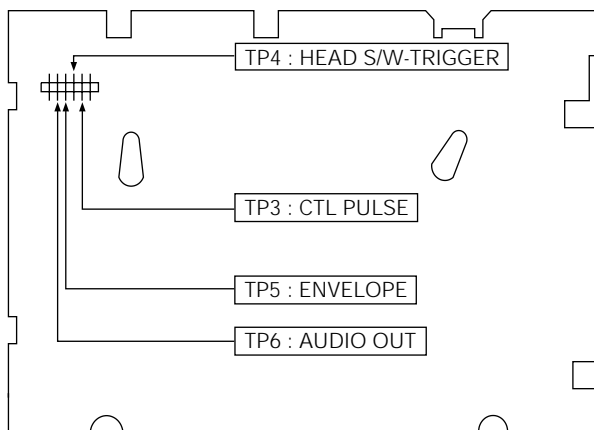


Fig. 5-3 PCB Layout

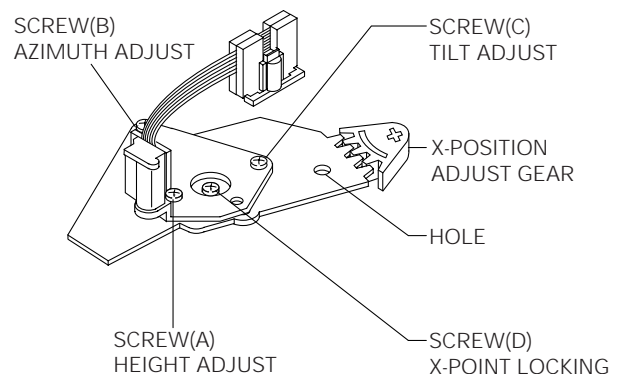


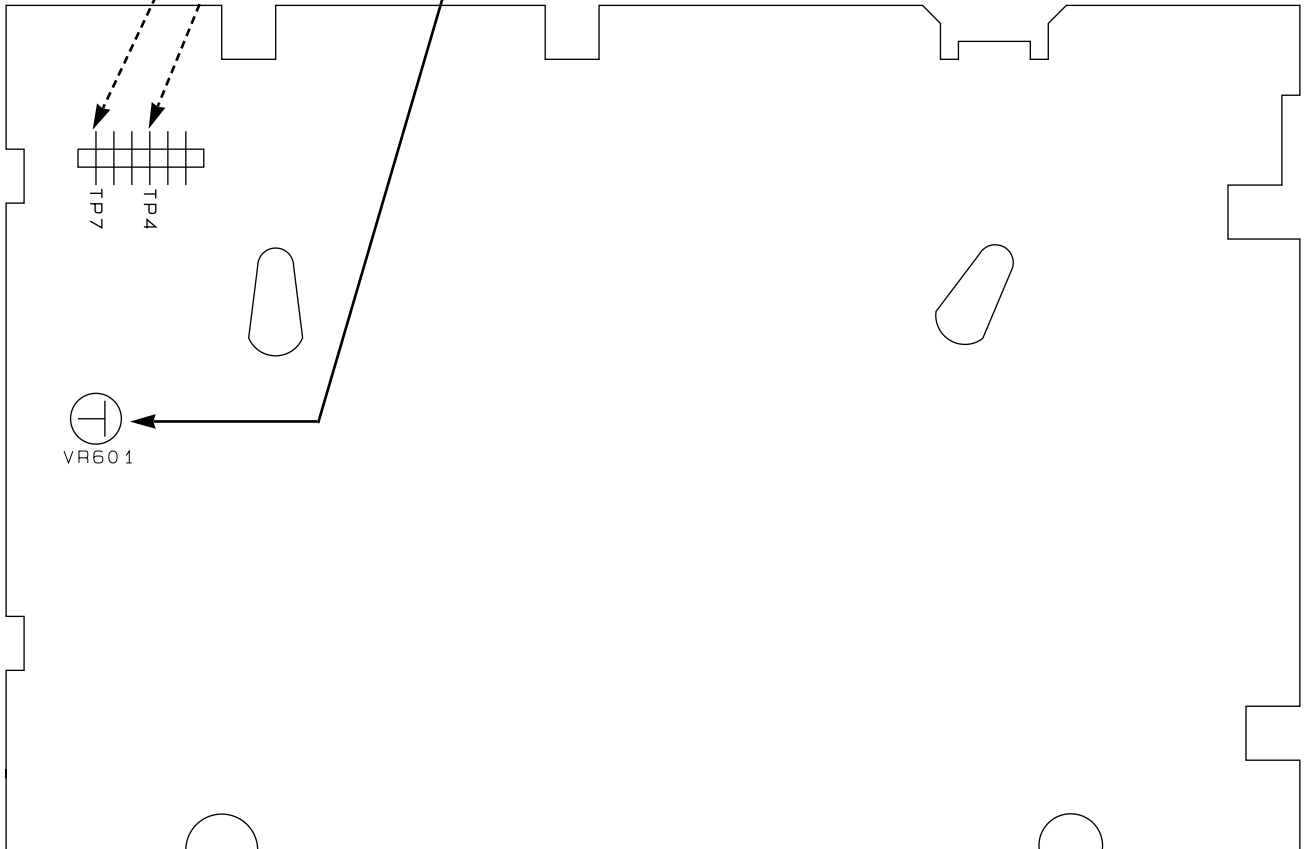
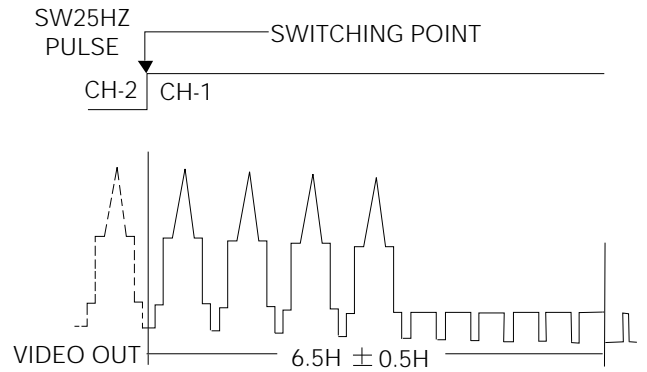
Fig. 5-4 Location of A/C Head adjustment screw

5-2 Electrical Adjustment

Step	Adjustment Item
1.	Mode and input signal/alignment tape
2.	Test point and ADJ. part
3.	Result and Remarks

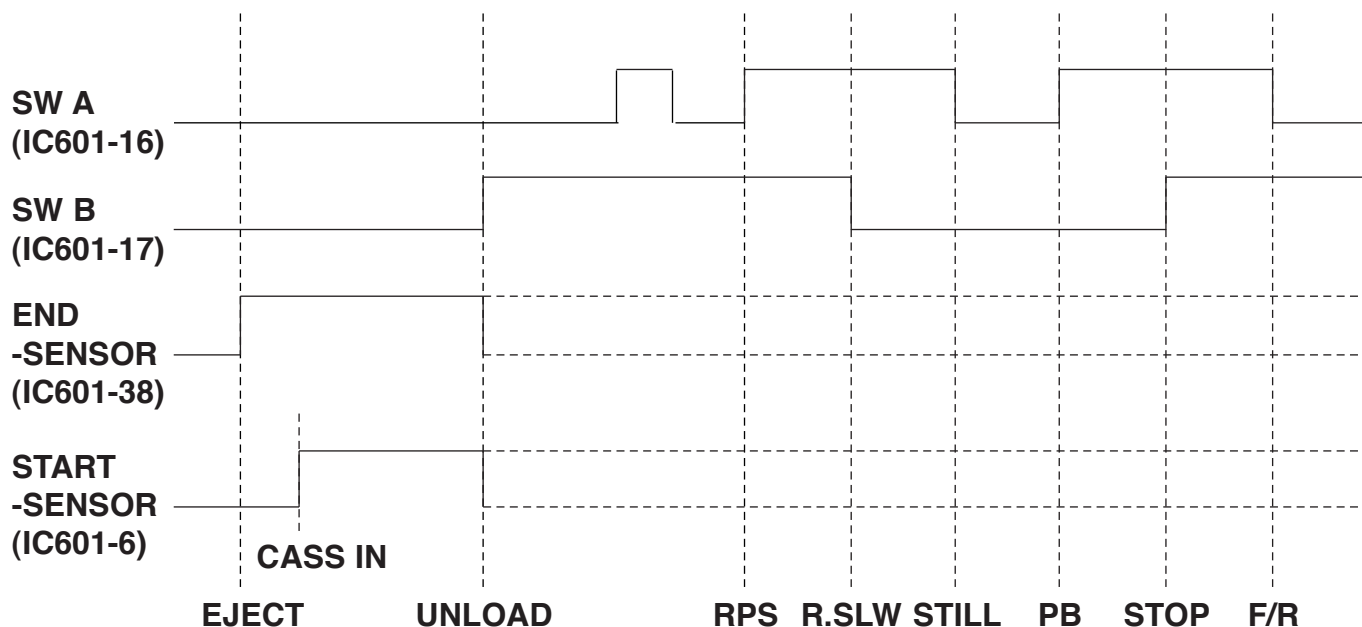
5-2-1 Head switching point

1. "PB", Alignment tape color bars.
2. TP4 (H'D S/W), TP7(Video out) and VR601.
3. Connect an oscilloscope's CH-1 to TP4 for triggering and CH-2 to TP7.
4. Adjust VR601 so that the head switching point is positioned $6.5 \pm 0.5H$ from the V-SYNC left edge as shown.



(Main PCB - Component Side)

5-3 Timing Chart of Program S/W



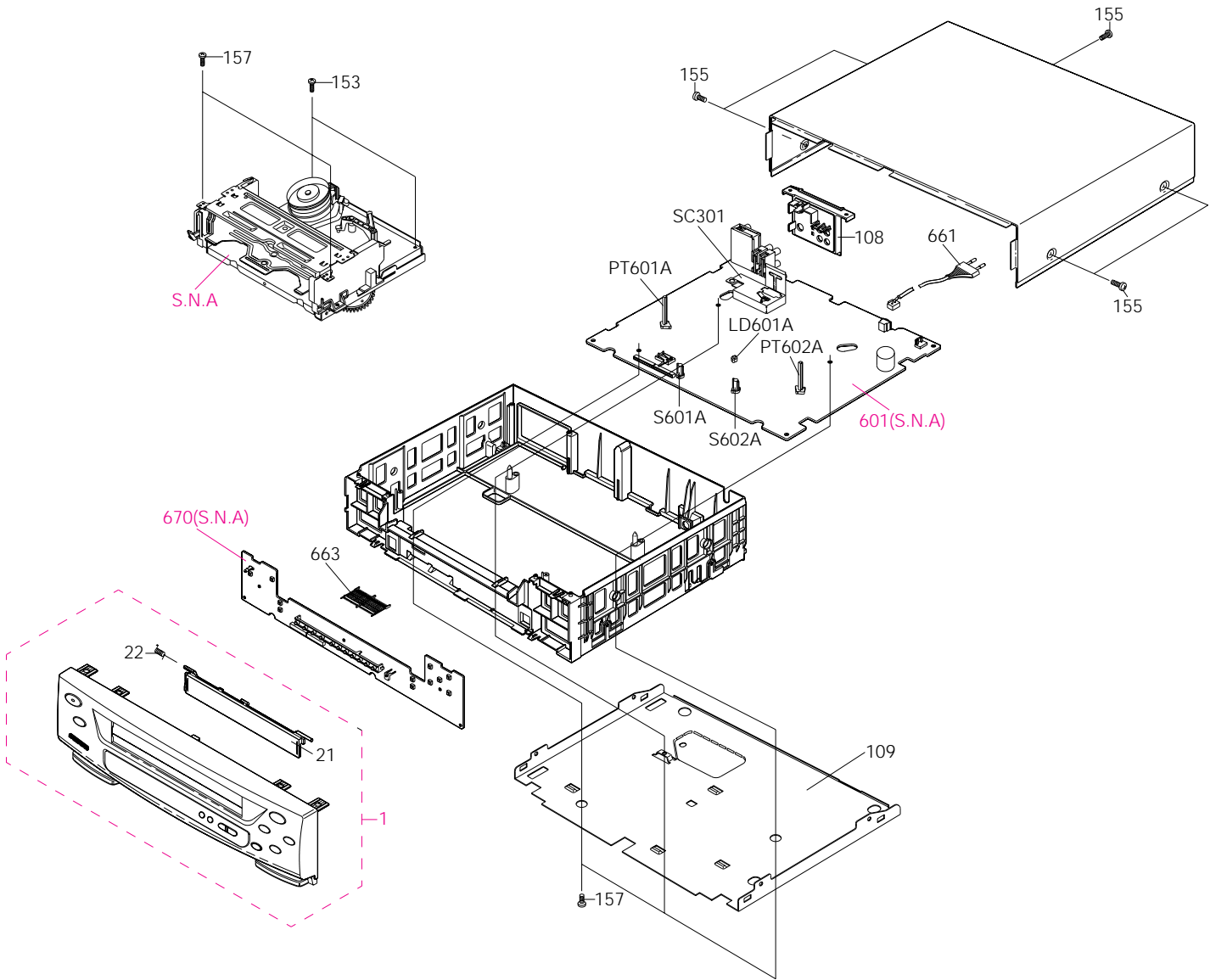
POSITION	PROGRAM S/W (SW601)				ACTION MODE
	E/S	S/S	SW A	SW B	
EJECT	L	L	L	L	EJECT
CASSETTE IN	H	L H	L	L	CASSETTE IN
UNLOAD	-	-	L	L H	UNLOAD
R. PS	-	-	L H	H	R. PS, Z-R. PS
R. SLOW	-	-	H	H L	PINCH ROLLER OFF POSITION
STILL	-	-	H L	L	STILL
PLAY	-	-	L H	L	PB, T-STOP, REC, PAUSE, F. PS, Z-FPS
STOP	-	-	H	L H	STOP, POWER OFF
FF/REW	-	-	H L	H	FF, REW

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6. Exploded View and Parts List

	Page
6-1 Cabinet Assembly - - - - -	6-2
6-2 Mechanical Parts (Top Side) - - - - -	6-4
6-3 Mechanical Parts (Bottom Side) - - - - -	6-6
6-4 Housing Assembly - - - - -	6-8

6-1 Cabinet Assembly



● S.N.A : SERVICE NOT AVAILABLE

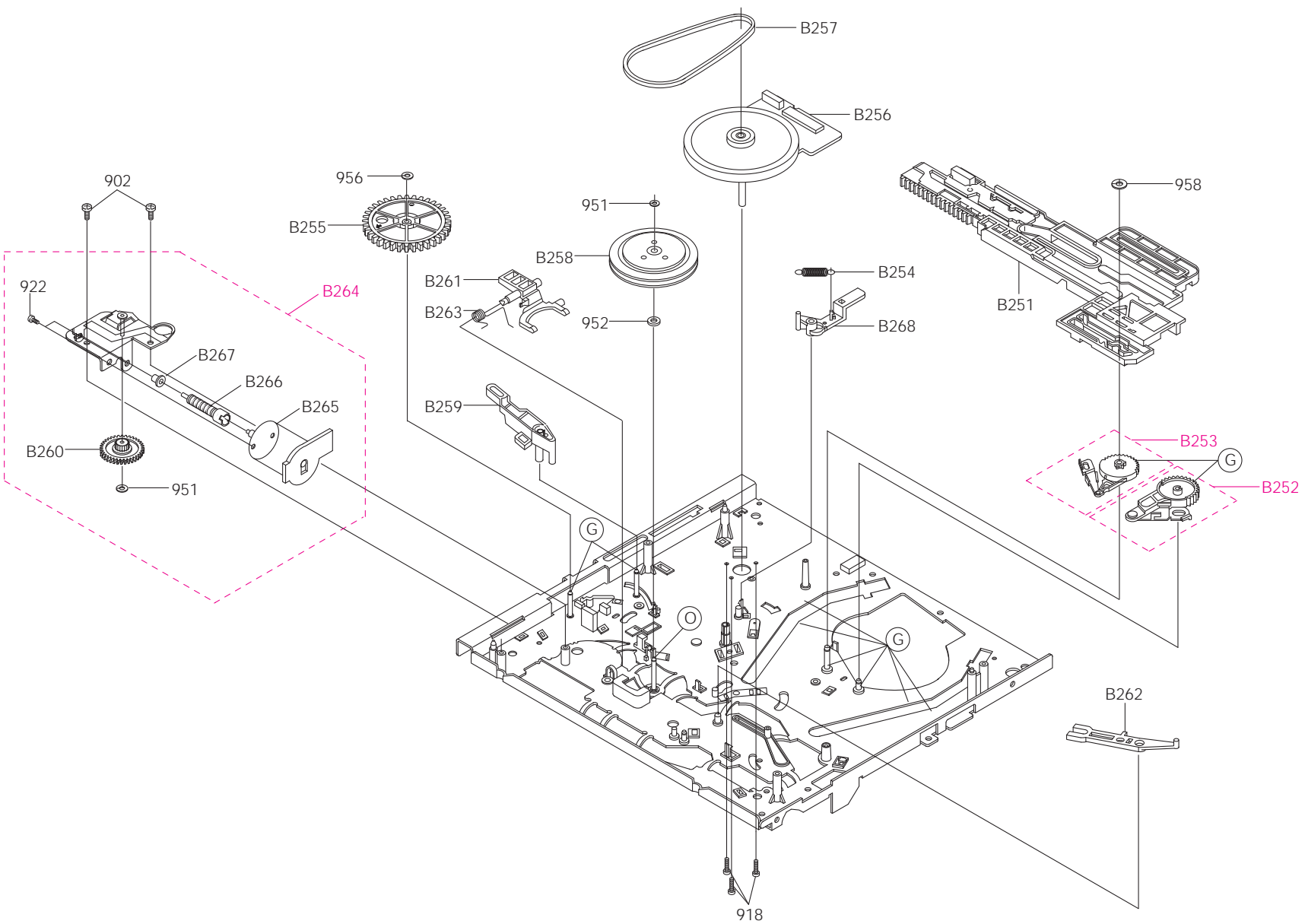
Loc. No	Part No	Description and Specification	Remark
-	DO NOT ORDER	ASSY-DECK (DX7-R)	(S.N.A)
1	AC98-11213S	ASSY-PANEL FRONT;SV-A12G/SGE,M/GRAY	TSEC LOCAL
21	AC64-50076E	DOOR-CASSETTE;-ABS,94HB,-,-,-,-,SV-A12G/SGE	TSEC LOCAL
22	AC61-62003A	SPRING;-SUS304,(GE/RCA),-,-,-,-	TSEC LOCAL
108	AC61-12265A	CONNECTOR-BOARD(ASSY;HIPS94,HB,-,-,-,-,-,SV-11	TSEC LOCAL
109	AC63-30078A	COVER-BOTTOM;SECC,-,T0.5,NTR,-,-,SV-160X,-	TSEC LOCAL
153	AC60-12126A	SCREW-BH;-BH,-,4*12,FE,FZY,-,-,-	
155	AC60-12134A	SCREW-TAP BH;-BH,-,2-4X16,-,FE	
157	AC60-10063A	SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18A	
158	AC60-10063A	SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18A	
601	DO NOT ORDER	ASSY-MAIN	(S.N.A)
661	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-KE	TSEC LOCAL
663	3711-002602	CONNECTOR-HEADER;NOWALL,40P,1R,1.5MM,STRAIGHT,SN	
670	DO NOT ORDER	ASSY-FUNCTION	(S.N.A)
LD601A	AC61-22345A	HOLDER-LED;POM,-,-,-,-,-	TSEC LOCAL
PT601A	AC61-22344A	HOLDER-PHOTO;POM,-,-,-,-,-	TSEC LOCAL
PT602A	AC61-22344A	HOLDER-PHOTO;POM,-,-,-,-,-	TSEC LOCAL
S601A	AC61-22321A	HOLDER-TR;POM,-,-,-,-,-	
S602A	AC61-22321A	HOLDER-TR;POM,-,-,-,-,-	
SC301	AC63-42222A	SHIELD-CASE P/AMP(AS;3516ET,T0.3,SIL,SV-80Z,-	TSEC LOCAL

Note : Location number 1, 21 are only for model SV-A12G/SGE.

Please, refer to the separate information for the other models combind.

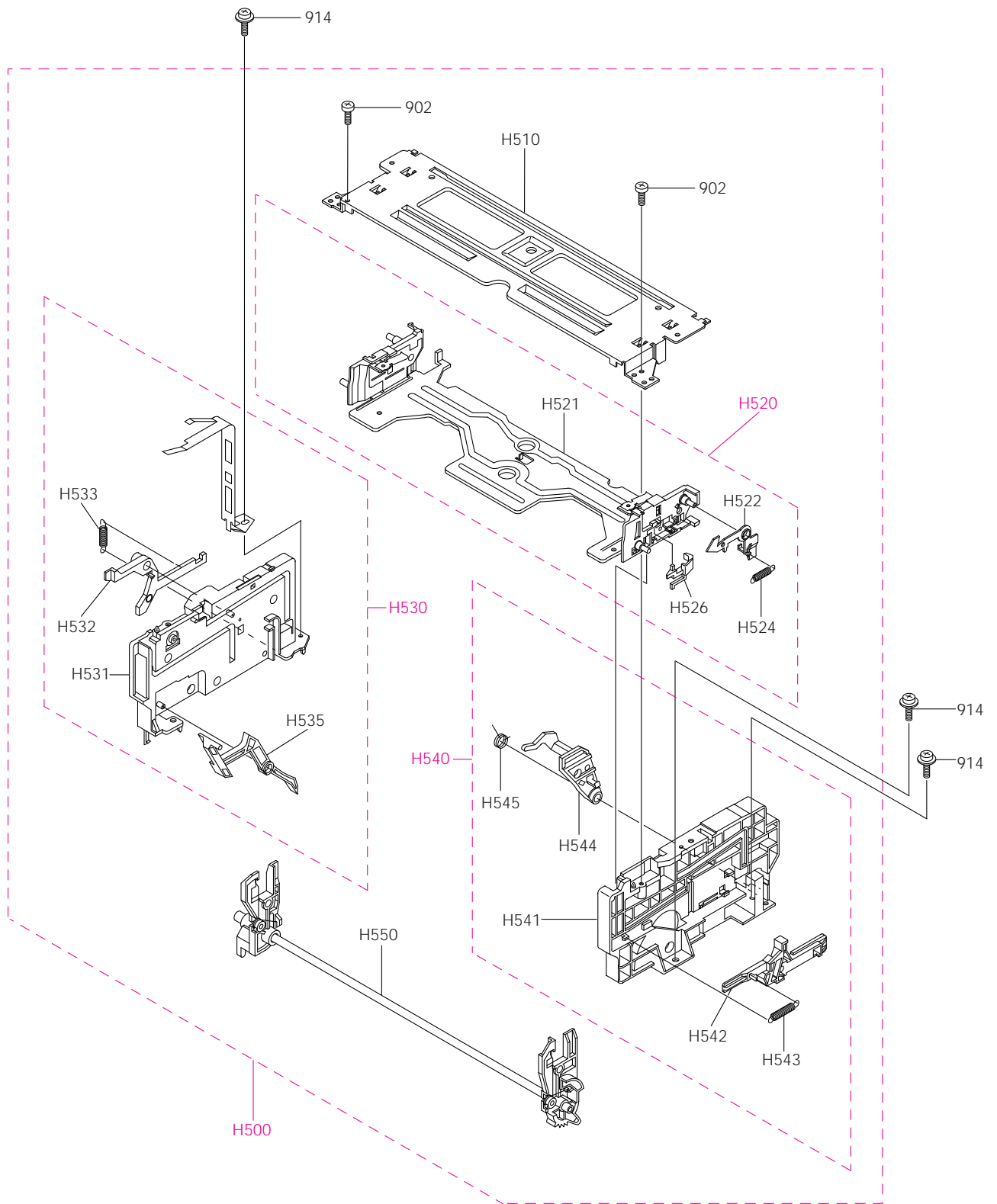
Loc. No	Part No	Description and Specification	Remark
900	AC60-12091A	SCREW-MACHINE;FP,BH,-,M3,L4,SWRCH10A,YEL ROB	
901	AC60-10012A	SCREW-MACHINE;BH,+,M3,L8,-,FE,-,-,-	
904	AC60-12125A	SCREW-PH;-,-,-,M3X6 TAP TITE,-,-,-,-,-	
905	AC60-12096A	SCREW-MACHINE;FP,PH,-,M2.6,X10,SWRCH1-A,YEL	
912	67094-604-710	SCREW-DAMPER;M2.0X7.0 SWCM10(MFZN2-C)	
919	AC60-10004A	SCREW-MACHINE;BH,+,M3,L8,ZPC,SWRCH18A,-,-,-	
920	AC60-10007A	SCREW-TAPPING;BH,+,M2.6,L12,-,SWRCH18A,-,-,-	
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER,	
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,-	
957	AC60-30008A	WASHER-SLIT;-,-,ID3.5,OD9,T0.5,SPC1,-,-	
T201	AC66-10023A	REEL-DISK L ASSY;POM,-,PACKAGE,X-5,-	TSEC LOCAL
T202	AC66-10022A	REEL-DISK R (ASSY);POM,-,PACKAGE,X-5,-	TSEC LOCAL
T203	AC66-30474A	BRAKE-SUB L;-,-,PBT,-,-,-,X-5/IS	
T204	AC66-30148A	BRAKE SUB R-ASSY;PBT,-,-,-,X5,-	
T207	AC66-30475A	BRAKE-MAIN L ASSY;-,-,POM+PELT,-,-,-,X-5/IS	
T208	AC66-30476A	BRAKE-MAIN R ASSY;-,-,POM+PELT,-,-,-,X-5/IS	
T209	AC61-60112A	SPRING- BRAKE MAIN;ES,SUS304WPB,PI0.35,ID2.8,OD4	
T210	AC66-20073A	GEAR RELAY S-ASSY;-,-,PEBAX,M0.5,M48,SP,X5,-	
T211	AC66-20037A	GEAR- RELAY T;PEBAX7033,X-5,Z39,GEAR-SPUR,D1	
T212	AC66-30073A	ARM-TENSION ASSY;-,-,-,CKD,DX5-R,-	
T216	AC61-60119A	SPRING TENSION;ES,SWPB,PI0.35,ID2.1,L33(OD3.8),-	
T217	AC66-30470A	LEVER-REC S/W;-,-,PBT #3300,T4.0,L32,-,(X-5/IS	TSEC LOCAL
T218	AC61-62017A	SPRING-SUB BRAKE L;ES,SUS304,PI0.23,D3.5,L14.8,-	
T219	AC33-10003P	HEAD- MAGNET F/E;MH131S,-,-,-,L51.05XW7.4XH12.3	
T220	AC66-82050A	SLIDER-G/R ASSY(S);-,-,-,-,X-5	
T221	AC66-82059A	SLIDER-G/R ASSY T;-,-,-,-,X-7(VW31H)	
T222	AC33-10002E	HEAD-CLEANER;-,-,-,-,-,X-5 (OPTIONAL)	TSEC LOCAL
T223	AC66-20065A	RACK-HOUSING;L74.29,POM M90-44,BLK,M1,3.14,	TSEC LOCAL
T224	AC33-10215A	HEAD-ACE ALL ASSY;-,-,X-7,-,-,-	
T225	AC66-82045A	SLIDER-PINCH;POM,T2,-,NAT PACKAGE,-	
T226	AC66-30014A	LEVER-REVIEW;ZYTEL(70G-43L),T3.8,-,PCD25.6,	TSEC LOCAL
T227	AC66-30099A	ARM REVIEW CKD;-,-,-,-,DX5-RV,-	
T228	AC66-30013A	LEVER-PINCH CAM;PBT 6300T,-,L45,W9,X-5,-	TSEC LOCAL
T229	AC66-30003A	LEVER PINCH COUP;PBT 3300,T7.5,L45.25,-,-,X-5	TSEC LOCAL
T230	AC61-60116A	SPRING- PINCH COMP;TS,SWPB,PI1.0,D6,L38(OD8),-,-	TSEC LOCAL
T231	AC67-32001A	PRISM-LED;PMMA,D5,IF-850,-,-,-	
T232	V1643-0025-00	SLIDER-PUSH;LUPOX 2150 T2 NTR LOCAL	TSEC LOCAL
T233	AC61-62016A	SPRING-SLIDE PUSH;ES,SUS304WPB,PI0.55,D3.55,L24.	
T234	AC59-90001B	UNIT-PINCH ROLLER;X-5,-,YAMAUCHI	
T236	AC66-10010A	IDLER-ASSY;PACKAGE,-,X-5,-	TSEC LOCAL
T237	V3383-0031-00	STOPPER-TAPE;POM T2 NAT X-5 DECK LOCAL (OPTIONAL)	TSEC LOCAL
T238	AC61-60132A	SPRING ARM PINCH;CS,SUS304WPB,PI0.4,D7.1,OD7.9,	
T239	AC66-30132A	LEVER JOG-ASSY;-,-,-,-,X-5,- (OPTIONAL)	
T240	AC61-60505A	SPRING-REC S/W;-,-,ES,SUS304 WPB,PI0.29,PI3.5,-	
T300	AC96-10011L	ASSY-CYLINDER;CX5-S2P/DLC,-	TSEC LOCAL
T302	AC31-12001M	MOTOR-CYLINDER;E20XL03,-,-	TSEC LOCAL
T303	AC33-12004S	HEAD-BRUSH(ASSY);SECC20/20+CARBON,-,-,-,-	TSEC LOCAL
T309	AC73-12001A	RETRINER-RUBBER(ASSY);SECC+SILICON,-,-,-	TSEC LOCAL

6-3 Mechanical Parts (Bottom Side)



Loc. No	Part No	Description and Specification	Remark
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
918	AC60-10006A	SCREW-MACHINE;BH,+I90,M2.6,L7,ZPC,SWRCH18A,-	
922	67008-130-171	SCREW PH;+M3X3 FE FZY	
951	AC60-30025A	WASHER-SLIT;- ,ID2.5,OD5.0,T0.5,POLY SLIDE,	
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER,	
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,-	
958	AC60-30028A	WASHER-SLIT;- ,D2.5,D9.0,T0.5,NUMIRROR,-,-	
B251	AC66-82042A	SLIDER-MAIN;PBT2002K,T12.4,-,NAT PACKAGE,-	
B252	AC66-20019A	GEAR-LOADING L ASSY;-,-,-,PACKAGE,-,X-5,-	TSEC LOCAL
B253	V1473-0105-00	GEAR-LOADING R ASSY;X-5 LOCAL	TSEC LOCAL
B254	AC61-60115A	SPRING-BRAKE CAPSTAN;ES,SUS304WPB,PI0.4,D22,L16.	
B255	AC66-20003A	GEAR-MASTER;LUPOXE G5000H,M 1,Z 60,SP,PACK	TSEC LOCAL
B256	AC31-12001L	MOTOR-D.D CAPSTAN;F2QTB04,-,-	
B257	AC66-62008A	BELT-CAPSTAN;- ,DLB-601,T2,8,L134.9,BLK,X-5	
B258	AC66-20066A	CLUTCH-ASSY;-,-,-,-,X5,-	TSEC LOCAL
B259	V1533-0095-00	LEVER-SLIDER PINCH;PBT T4 NAT LOCAL	TSEC LOCAL
B260	AC66-20016A	GEAR- WORM WHEEL;POM SW-01,M0.55/M1,Z57/Z10,GEA	TSEC LOCAL
B261	AC66-30011A	LEVER- SHIFT;PBT2002K,T10.9,L35,-,-,-	TSEC LOCAL
B262	AC66-30012A	LEVER- IDELR CHANGE;PBT330,T3.3,L50,-,W6.0,-	TSEC LOCAL
B263	AC61-60111A	SPRING-LEVER SHIFT;TS,SWPB,PI0.7,D5.5,L13.8(OD6.	TSEC LOCAL
B264	AC59-90001A	UNIT-LOADING ASSY;X-5,-,-	TSEC LOCAL
B265	66823-0060-00	MOTOR-LOADING ASSY;POM+RF370C X-5	TSEC LOCAL
B266	AC66-20039A	GEAR- WORM LO;PBT 2002K,-,-,-,D4.5,3,-	TSEC LOCAL
B267	AC61-20224A	HOLDER SHAFT;POM M90-44,T1.25,NAT,PI5XH5.5,	TSEC LOCAL
B268	AC66-30149A	BRAKE CAPSTAN-ASSY;POM,-,-,-,X5,-	

6-4 Housing Assembly



Loc. No	Part No	Description and Specification	Old Part No
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
914	AC60-10067A	SCREW-TAPTITE;PWH,+,-,M3,L8,MFZN2-C,SWCH1018	
H500	AC61-82005A	HOUSING-ASSY;X5FL2326A,-,X-5,-,-	TSEC LOCAL
H510	AC61-10006A	CHASSIS- UPPER;SECC 20/20,-,T1.0,BLK,-,X5,-	TSEC LOCAL
H520	63322-0317-00	HOLDER-CASSETTE(ASSY);SECC X5FL0810A X-5	TSEC LOCAL
H521	AC61-20083A	HOLDER-CASSETTE;SECC 20/20,T1.2,-,-,HRB50,-	TSEC LOCAL
H522	AC66-30018A	LEVER-LOCK R;SECC 20/20,T1.2,L44,W32,-,-	TSEC LOCAL
H524	AC61-60121A	SPRING-LEVER LOCK;ES,SUS304 WPB,PI0.2,D2.6,L9.9(TSEC LOCAL
H526	AC66-30019A	LEVER-KEY CASSETTE;LUCEL N109-LD,T2.5,L20,W15.2,	TSEC LOCAL
H530	62203-0105-00	CHASSIS-SIDE L(ASSY)	TSEC LOCAL
H531	AC61-10004A	CHASSIS- SIDE L;ABS HF-380,-,T10,BLK,-,X5,BLK	TSEC LOCAL
H532	AC66-30004A	LEVER- LIGHT SHUTTER;LUCEL N109-LD,T2.5,L61.7,BL	TSEC LOCAL
H533	AC61-60142A	SPRING- LIGHT;ES,SUS304WPB,PI0.2,L11.4(OD3.7	TSEC LOCAL
H535	AC66-30017A	LEVER- DOOR;LUCELN109-LD,T5,L74.3,W21.1,-,	TSEC LOCAL
H540	62203-0104-00	CHASSIS-SIDE R(ASSY)	TSEC LOCAL
H541	AC61-10003A	CHASSIS- SIDE R;ABS HF-380,-,T10,BLK,-,X5,BLK	TSEC LOCAL
H542	AC66-80008A	SLIDER DAMPER;LUCEL N109-LD,T4,L87,-,-,-	TSEC LOCAL
H543	AC61-60120A	SPRING-SLIDE DAMPER;ES,SUS 304WPB,PI0.4,D3.8,L25	TSEC LOCAL
H544	AC66-30016A	LEVER- LID OPENER;LUCEL N109-LD,T5.0,L34.7,W16.6	TSEC LOCAL
H545	AC61-60123A	SPRING-LID OPENER;TS,SWPB,PI0.55,D8.9,L15(OD10),	TSEC LOCAL
H550	61403-0073-00	SHAFT-ARM(ASSY);SUM24L X5FL0405A X-5	TSEC LOCAL

MEMO

7. Electrical Parts List

Loc. No	Part No	Description and Specification	Remark
601	DO NOT ORDER	ASSY-MAIN	(S.N.A)
SMPS/POWER PARTS			
BD1S1	3301-000297	CORE-FERRITE BEAD;AA,3.6X1.2X5.7MM,1400,2900G	
BD1S2	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
C1P03	2401-001952	C-AL;4.7UF,20%,50V,-,TP,6.3X7,5	TSEC LOCAL
C1P04	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C1P05	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C1P06	2401-001915	C-AL;1UF,20%,50V,GP,TP,3X5,1MM	TSEC LOCAL
C1P08	2401-000303	C-AL;100UF,20%,25V,GP,-,6.3X11,2.5M	TSEC LOCAL
C1P09	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C1P12	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C1P13	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C1P14	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C1S03	2305-001021	△ C-FILM,MPEF;100NF,20%,275V,TP,17.5X7X13.5,	
C1S04	2305-001021	△ C-FILM,MPEF;100NF,20%,275V,TP,17.5X7X13.5,	
C1S05	2201-000808	△ C-CERAMIC,DISC;2.2NF,10%,400V,Y5P,TP,12X7.5,7	TSEC LOCAL
C1S06	2201-000934	△ C-CERAMIC,DISC;3.3NF,20%,400V,Y5P,TP,18X8,10	TSEC LOCAL
C1S08	2401-001682	△ C-AL;82UF,20%,400V,GP,BK,22X25,10MM	TSEC LOCAL
C1S09	2301-000140	C-FILM,PEF;10NF,10%,630V,BK,16.5X9.5X5.7X	TSEC LOCAL
C1S10	2201-000915	C-CERAMIC,DISC;100PF,10%,1KV,Y5P,TP,6X5,5	TSEC LOCAL
C1S15	2201-000379	C-CERAMIC,DISC;22NF,+80-20%,50V,Y5V,TP,8.0X4.	
C1S16	2201-000934	C-CERAMIC,DISC;3.3NF,20%,400V,Y5P,TP,18X8,10	TSEC LOCAL
C1S17	2401-001939	C-AL;22UF,20%,50V,GP,BK,6.3X11MM,2.	TSEC LOCAL
C1S18	2201-000379	C-CERAMIC,DISC;22NF,+80-20%,50V,Y5V,TP,8.0X4.	
C1S19	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C1S31	2401-001134	C-AL;330UF,20%,35V,WT,TP,10X16,5MM	TSEC LOCAL
C1S32	2401-001998	C-AL;1000UF,20%,25V,GP,TP,10X20,5MM	
C1S33	2401-001125	C-AL;330UF,20%,25V,WT,TP,10X12.5,5MM	TSEC LOCAL
C1S34	2401-000128	C-AL;1000UF,20%,16V,GP,TP,10X16,7.5	TSEC LOCAL
C1S35	2401-001479	C-AL;470UF,20%,10V,GP,TP,-,-	
C1S38	2301-000129	C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM	TSEC LOCAL
CN1S1	3711-000178	△ CONNECTOR-HEADER;1WALL,2P,1R,3.96MM,STRAIGHT,SN	
D1P01	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D1P02	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D1P03	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D1P06	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D1P20	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D1S01	0402-001009	△ DIODE-RECTIFIER;1SR139,600V,1A,MSR	
D1S02	0402-001009	△ DIODE-RECTIFIER;1SR139,600V,1A,MSR	
D1S03	0402-001009	△ DIODE-RECTIFIER;1SR139,600V,1A,MSR	
D1S04	0402-001009	△ DIODE-RECTIFIER;1SR139,600V,1A,MSR	
D1S05	0402-000378	DIODE-RECTIFIER;EG01C,1000V,500MA,DO-41	
D1S07	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41	
D1S31	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41	
D1S32	0402-001069	DIODE-RECTIFIER;RL10Z,200V,2A,DO,TP	
D1S33	0402-001069	DIODE-RECTIFIER;RL10Z,200V,2A,DO,TP	
D40	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D41	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D46	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D47	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	

Loc. No	Part No	Description and Specification	Remark
D48	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
F1S01	A3065-0157	△ FUSE;FST 250V 1.6A 20MM SEMKO S505 C	
IC1P01	AC14-12001E	IC;KA7809,-,-	
IC1S1	1203-001049	△ IC-PWM CONTROLLER;1L0380,TO-220F,4P,10MIL,PLASTI	
IC1S2	0604-000186	△ PHOTO-COUPLER;TR,-,-,200MW,DIP-4,ST	
IC1S3	AC14-12006D	△ IC;KA431Z,TO-92,TAPING	
JC01	3722-000458	JACK-DIN;4P/2C,-,-,SN,BLK,-	
L1S01	A1151-0042	△ COIL-LINE FILTER;BSF-2120Z 25MH 3.2OHM	
L1S05	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
L1S30	AC27-12001N	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-,	TSEC LOCAL
L1S31	AC27-12001N	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-,	TSEC LOCAL
L1S33	AC27-92001M	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
PT01	AC26-20120A	△ TRANS-SWITCHING;-,-,220V,UL/CSA,-,-,1000UH,-,-,SV-D1	
Q1P01	0501-000610	TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,TP,160	
Q1P02	0504-000116	TR-DIGITAL;KSR1001,NPN,300MW,4.7K-4.7K,TO	
Q1P03	0501-000610	TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,TP,160	
Q1P04	0504-000116	TR-DIGITAL;KSR1001,NPN,300MW,4.7K-4.7K,TO	
Q1P05	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L,TP,16	
Q1P06	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
R1P03	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R1P04	2001-000611	R-CARBON;3.9KOHM,5%,1/4W,AA,TP,2.4X6.4M	TSEC LOCAL
R1P05	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R1P06	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R1P07	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R1P08	2001-000034	R-CARBON;220OHM,5%,1/4W,AA,TP,2.4X6.4MM	TSEC LOCAL
R1S02	2003-000273	R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM	
R1S03	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1S06	2003-000273	R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM	
R1S07	2001-000302	R-CARBON;10OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R1S11	2006-000262	R-CEMENT;2.7OHM,10%,2W,CB,ST,7.5X11X20.	
R1S12	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1S13	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1S14	2001-000076	R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1S15	2003-000148	R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM	
R1S30	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R1S31	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R1S32	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R1S33	2004-000869	R-METAL;3KOHM,1%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R1S34	2004-000459	R-METAL;2.2KOHM,1%,1/8W,AA,TP,1.8X3.2M	
VAS01	1405-000186	△ VARISTOR;470V,4500A,17X12MM,TP	
VAS02	1405-000186	△ VARISTOR;470V,4500A,17X12MM,TP	
ZD1P02	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500MW,	
ZD1S1	0403-000539	DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500MW,	
ZD1S2	0403-000294	DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500MW,	
SYSTEM CONTROL/SERVO PARTS			
BD501	3301-000297	CORE-FERRITE BEAD;AA,3.6X1.2X5.7MM,1400,2900G	
BD601	3301-000297	CORE-FERRITE BEAD;AA,3.6X1.2X5.7MM,1400,2900G	
BD602	3301-000297	CORE-FERRITE BEAD;AA,3.6X1.2X5.7MM,1400,2900G	
BD605	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
C601	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X	TSEC LOCAL
C602	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C603	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C604	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C605	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
C606	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X	TSEC LOCAL
C607	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C608	2401-001887	C-AL;100NF,20%,50V,-,TP,4X7MM,5	TSEC LOCAL
C609	2301-000445	C-FILM,PEF;4.7NF,5%,50V,TP,5.5X7X3MM,5MM	TSEC LOCAL
C610	2401-000918	C-AL;22UF,20%,16V,GP,-,6.3X7,5	TSEC LOCAL
C611	2201-000281	C-CERAMIC,DISC;1NF,+80-20%,50V,Y5V,4.0X4.0MM,2.5	TSEC LOCAL
C612	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C613	2401-001917	C-AL;1UF,20%,50V,-,TP,5X7MM,5	TSEC LOCAL
C614	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C615	2401-001978	C-AL;47UF,20%,25V,GP,TP,6.3X5,5	
C616	2401-001952	C-AL;4.7UF,20%,50V,-,TP,6.3X7,5	TSEC LOCAL
C617	2401-001917	C-AL;1UF,20%,50V,-,TP,5X7MM,5	TSEC LOCAL
C618	2401-000591	C-AL;1UF,20%,50V,BP,TP,3X5,2.5MM	TSEC LOCAL
C619	2401-001893	C-AL;100UF,20%,16V,-,TP,6.3X7MM,5	TSEC LOCAL
C620	2401-000650	C-AL;2.2UF,20%,50V,GP,BK,3X5,1MM	TSEC LOCAL
C620	2401-001919	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	TSEC LOCAL
C621	2202-000821	C-CERAMIC,MLC-AXIAL;560PF,10%,50V,Y5P,TP,3.5X19,	TSEC LOCAL
C622	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C623	2301-000415	C-FILM,PEF;22NF,5%,50V,TP,6.5X10.5X4MM,5M	TSEC LOCAL
C624	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C625	2301-000415	C-FILM,PEF;22NF,5%,50V,TP,6.5X10.5X4MM,5M	TSEC LOCAL
C626	2202-000821	C-CERAMIC,MLC-AXIAL;560PF,10%,50V,Y5P,TP,3.5X19,	TSEC LOCAL
C627	2401-001895	C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2	TSEC LOCAL
C628	2401-001511	C-AL;47UF,20%,16V,GP,-,6X7,5	TSEC LOCAL
C629	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X	TSEC LOCAL
C630	2401-000459	C-AL;10UF,20%,35V,GP,TP,5X7,2MM	TSEC LOCAL
C631	2301-000424	C-FILM,PEF;3.3NF,5%,50V,TP,5.5X7X3MM,5MM	TSEC LOCAL
C632	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,-	TSEC LOCAL
C633	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,-	TSEC LOCAL
C634	2401-000303	C-AL;100UF,20%,25V,GP,-,6.3X11,2.5M	TSEC LOCAL
C635	2401-001893	C-AL;100UF,20%,16V,-,TP,6.3X7MM,5	TSEC LOCAL
C636	2301-000129	C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM	TSEC LOCAL
C637	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C638	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C639	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C640	2401-001893	C-AL;100UF,20%,16V,-,TP,6.3X7MM,5	TSEC LOCAL
C641	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C642	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C643	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C646	2201-000281	C-CERAMIC,DISC;1NF,+80-20%,50V,Y5V,4.0X4.0MM,2.5	TSEC LOCAL
C647	2202-000162	C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
C648	2202-000162	C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
C649	2401-001915	C-AL;1UF,20%,50V,GP,TP,3X5,1MM	TSEC LOCAL
C650	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C654	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C660	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C6601	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C6602	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C661	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C662	2401-001895	C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2	TSEC LOCAL
C663	2202-000279	C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
CN601	3711-002445	CONNECTOR-HEADER;BOX,2P,2R,1.5MM,STRAIGHT,SN	
CN602	3710-000546	CONNECTOR-SOCKET;20P,1R,1.5MM,ANGLE,SN	
CN603	3710-000546	CONNECTOR-SOCKET;20P,1R,1.5MM,ANGLE,SN	
CN604	3711-003149	CONNECTOR-HEADER;BOX,6P,2R,2.0MM,STRAIGHT,SN	

Loc. No	Part No	Description and Specification	Remark
CN606	3711-003148	CONNECTOR-HEADER;BOX,10P,2R,2.0MM,STRAIGHT,SN	
D601	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D602	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D603	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D604	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D605	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D606	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D607	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D608	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	
D609	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D615	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D6601	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D6602	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
IC601	AC09-10454F	IC-MCU;KS88C8016-18 A10G,80,QFP,SS MA	
IC602	AC14-12003K	IC;KA8301(N.M),-,-	
IC603	AC14-12001K	IC;KA324,-,-	
IC604	AC14-12003U	IC-LINEAR;KA358S,-,-	
IC605	AC14-12003Q	IC;KA393,-,-	
IC606	AC14-12002G	IC;MN1280-Q,-,-	
L602	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L603	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L604	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
LD601	0601-000495	LED-IR;ROUND,3MM,150MW,6V,950NM,BK	
PT601	0604-000188	PHOTO-INTERRUPTER;TR,-,-,DIP-4,TR	
PT602	0604-000188	PHOTO-INTERRUPTER;TR,-,-,DIP-4,TR	
Q601	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q602	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q603	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q604	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q605	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K-22K,TO-9	
Q620	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q6601	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q6602	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q6603	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q6604	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q6605	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	
Q6606	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	
Q6607	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
R6001	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6002	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6003	2001-000837	R-CARBON;51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6004	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6005	2003-000259	R-METAL OXIDE;3.9OHM,5%,2W,AE,TP,6X16MM	
R6006	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6007	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6008	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6009	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R601	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6020	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP (RECORD OPTION)	TSEC LOCAL
R6024	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM (PB OPTION)	TSEC LOCAL
R6025	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP (RECORD OPTION)	TSEC LOCAL
R603	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6030	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R604	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R605	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
R607	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R608	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R611	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R613	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R614	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R615	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R616	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R617	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R618	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R619	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R620	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R621	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R622	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R623	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R624	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R632	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R633	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R634	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R635	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R636	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R637	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R638	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R639	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R640	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R641	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R642	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R643	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R644	2001-000679	R-CARBON;36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R645	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R646	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R647	2001-000633	R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R648	2001-001000	R-CARBON;82KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R649	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R650	2001-000319	R-CARBON;120KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R651	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R652	2001-001015	R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R654	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R655	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R656	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R657	2001-000454	R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R658	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R659	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R660	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6601	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6602	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6603	2001-000793	R-CARBON;47OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R6604	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6605	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6606	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R6607	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R661	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R662	2001-000633	R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R663	2001-000954	R-CARBON;750KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R664	2001-000011	R-CARBON;75KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R665	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
R666	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R667	2001-000954	R-CARBON;750KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R668	2001-001000	R-CARBON;82KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R669	2001-000319	R-CARBON;120KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R670	2001-000679	R-CARBON;36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R671	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R672	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R673	2001-000908	R-CARBON;62KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R674	2001-000954	R-CARBON;750KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R675	2001-000244	R-CARBON;1.5MOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R676	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R677	2001-000011	R-CARBON;75KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R678	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R679	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R680	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R681	2001-000244	R-CARBON;1.5MOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R682	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R683	2001-000305	R-CARBON;110KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R684	2001-000435	R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R685	2001-000908	R-CARBON;62KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R686	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R687	2001-000012	R-CARBON;680KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R688	2001-000011	R-CARBON;75KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R689	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R690	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R691	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R692	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R693	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R694	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R695	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R696	2001-000380	R-CARBON;160KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R697	2001-000761	R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R698	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R699	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
S601	0603-000112	PHOTO-TR;NPN,35V,6V,50MA,75MW,-	
S602	0603-000112	PHOTO-TR;NPN,35V,6V,50MA,75MW,-	
SW601	AC34-22001E	SWITCH-PROGRAM;MXS00281MLB0,-,-,-,-,-,-	
SW602	3409-000176	SWITCH-DETECTOR;30VDC,100MA,SPST,-,-	
VR601	2103-000171	VR-SEMI;10KOHM,30%,1/10W,TP	
W6605	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
W666	3301-000297	CORE-FERRITE BEAD;AA,3.6X1.2X5.7MM,1400,2900G	
W6668	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
W6669	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
XT601	2801-001109	CRYSTAL-UNIT;8MHZ,50PPM,28-AAM,16PF,40OHM,B	
AUDIO/VIDEO PARTS			
C301	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C302	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,-	TSEC LOCAL
C303	2202-000243	C-CERAMIC,MLC-AXIAL;33PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
C304	2202-000243	C-CERAMIC,MLC-AXIAL;33PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
C305	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C306	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C309	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C310	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C311	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
C312	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C314	2401-001511	C-AL;47UF,20%,16V,GP,-,6X7,5	TSEC LOCAL
C315	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C316	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C317	2401-001917	C-AL;1UF,20%,50V,-,TP,5X7MM,5	TSEC LOCAL
C320	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C321	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C322	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C324	B1102-0113	C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J	
C325	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C326	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C327	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C328	2202-000216	C-CERAMIC,MLC-AXIAL;27PF,5%,50V,SL,TP,3.5X19,-	
C330	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C331	2401-000912	C-AL;22UF,20%,16V,GP,-,5X5,5	
C332	2202-000806	C-CERAMIC,MLC-AXIAL;220PF,10%,50V,Y5P,TP,3.5X19,-	TSEC LOCAL
C333	2201-000836	C-CERAMIC,DISC;390PF,5%,50V,SL,TP,8X5,5	TSEC LOCAL
C335	2202-000849	C-CERAMIC,MLC-AXIAL;18PF,5%,50V,CH,TP,3.5X1.9,-	TSEC LOCAL
C336	61407-101-201	C-CERAMIC TEMP;CC45SL TAPG 50V 201J	TSEC LOCAL
C337	2201-000930	C-CERAMIC,DISC;220PF,10%,500V,Y5P,TP,6X4,5	
C338	2202-000162	C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL
C340	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C341	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C342	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C343	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C344	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C345	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C346	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C347	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C348	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C349	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C350	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C351	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C352	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C353	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C355	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C356	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C357	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C358	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C359	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C360	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C361	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C362	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C363	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X	TSEC LOCAL
C364	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C366	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C367	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C368	B1102-0113	C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J	
C369	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C370	B1102-0113	C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J	
C371	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C372	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C373	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C374	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C375	2202-000243	C-CERAMIC,MLC-AXIAL;33PF,5%,50V,SL,3.5X19,-,TP	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
C3A01	2401-001895	C-AL;100UF,20%,16V,GP,BK,6.3X11MM,2	TSEC LOCAL
C3A02	B1102-0113	C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J	
C3A03	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C3A04	2301-000464	C-FILM,PEF;6.8NF,5%,50V,TP,5.5X7X3MM,5MM	TSEC LOCAL
C3A05	2301-000264	C-FILM,PEF;4.7NF,5%,50V,TP,6.5X5.5X3.0X5,	
C3A06	2301-000405	C-FILM,PEF;2.2NF,5%,50V,TP,5.5X7X3.2MM,5M	TSEC LOCAL
C3A07	2301-000402	C-FILM,PEF;1NF,5%,50V,TP,5X7X2.8MM,5MM	TSEC LOCAL
C3A08	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C3A09	2401-001250	C-AL;4.7UF,20%,35V,GP,TP,4X5,5	TSEC LOCAL
C3A10	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C3A11	2401-000419	C-AL;10UF,20%,16V,GP,-,4X7,5	TSEC LOCAL
C3A12	2301-000383	C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM	TSEC LOCAL
C3A15	2401-001911	C-AL;1UF,20%,50V,BP,BK,6X11MM,2MM	TSEC LOCAL
C3A16	2401-001912	C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM	TSEC LOCAL
C3A17	2301-000464	C-FILM,PEF;6.8NF,5%,50V,TP,5.5X7X3MM,5MM	TSEC LOCAL
C3A18	2301-000464	C-FILM,PEF;6.8NF,5%,50V,TP,5.5X7X3MM,5MM	TSEC LOCAL
C3A19	2301-000473	C-FILM,PEF;8.2NF,10%,50V,TP,5.7X7X3MM,5MM	TSEC LOCAL
C3A20	2301-000217	C-FILM,PEF;220NF,5%,50V,TP,8.0X9.5X4.5X5,	TSEC LOCAL
C3A21	2401-000907	C-AL;22UF,20%,16V,GP,-,5X11,2MM	TSEC LOCAL
C3A23	2401-001164	C-AL;33UF,20%,16V,GP,-,5X11,2MM	TSEC LOCAL
C3A25	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C3A26	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C3A27	2401-001954	C-AL;4.7UF,20%,50V,GP,BK,5X11MM,5	TSEC LOCAL
C3A28	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C3A29	2301-000381	C-FILM,PEF;10NF,5%,50V,TP,6.5X5.5X3MM,5MM	
C3A30	2301-001046	C-FILM,PEF;15NF,5%,50V,TP,6.5X3.5X9,5	
CN3A01	3708-001053	CONNECTOR-FPC/FC/PIC;7P,1.25MM,STRAIGHT,SN	
CN3P01	3708-000395	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,SN	
CN502	3711-000371	CONNECTOR-HEADER;- ,2P,1R,2MM,STRAIGHT,-	
D301	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
FL3A01	AC27-80100A	COIL-OSC;126QN-K5272YHC=K,-,AM	
IC301	1204-001056	IC-SIGNAL PROCESSOR;SS11501M,QFP,80P,-,PLASTIC,7	
IC302	AC14-12014L	IC-LINEAR;LA7411,DIP,PRE-AMP	
IC303	1209-001024	IC-DELAY LINE;SS23378M,SOP,14P,225MIL,PLASTI	
L301	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L303	2701-000206	INDUCTOR-AXIAL;56UH,5%,2.4X3.4MM	TSEC LOCAL
L304	2701-000135	INDUCTOR-AXIAL;180UH,5%,2.4X3.4MM	TSEC LOCAL
L305	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L306	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L308	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L310	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L312	2701-000149	INDUCTOR-AXIAL;2.7UH,10%,2.5X3.4MM	
L3A02	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
L3A03	2702-000120	INDUCTOR-RADIAL;15MH,5%,6.2X7.4MM	TSEC LOCAL
L3A04	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
Q302	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q303	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q304	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q306	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q307	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q309	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q310	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q312	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q313	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q3A01	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	

Loc. No	Part No	Description and Specification	Remark
Q3A02	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q3A03	0501-000010	TR-SMALL SIGNAL;KSC1008-Y,NPN,80V,60V,700MA,80	
Q3A04	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q3A05	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q3A06	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
R303	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R305	2001-000252	R-CARBON;1.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R309	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R310	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R311	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R312	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R314	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R315	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R316	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R317	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R318	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R319	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R320	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R321	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R322	2001-001015	R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R323	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R324	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R327	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R328	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R329	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R331	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R332	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R333	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R334	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R337	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R338	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R351	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R352	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R353	2001-000628	R-CARBON;300OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R354	2001-000858	R-CARBON;56KOHM,1%,1/8W,AD,TP,1.8X3.2MM	TSEC LOCAL
R355	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A02	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A03	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A04	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A05	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A06	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A07	2001-000458	R-CARBON;2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A08	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A09	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A10	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A11	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A12	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A13	2001-000645	R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A15	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A17	2001-000802	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A18	2001-000718	R-CARBON;4.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A19	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A20	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A24	2001-000454	R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A26	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
R3A27	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A28	2001-001015	R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A29	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A30	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R3A31	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R3A32	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
XT301	B1280-0169	CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES TYPE	
XT302	64539-012-009	CRYSTAL;3.579545 HC/49U(8PF) TAPG	
I/O PARTS			
AV1	AC37-22001U	JACK-PIN DOUBLE;DSP-8906,PI3.5 (RECORD OPTION)	TSEC LOCAL
AV2	AC37-22001U	JACK-PIN DOUBLE;DSP-8906,PI3.5,2P,A/V MONO,-	TSEC LOCAL
C401	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C402	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C403	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C404	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C405	2401-000369	C-AL;100UF,20%,6.3V,GP,-,6.3X11,5	TSEC LOCAL
C408	2401-001355	C-AL;470UF,20%,10V,GP,-,8X11.5,5MM	TSEC LOCAL
C409	2401-001355	C-AL;470UF,20%,10V,GP,-,8X11.5,5MM	TSEC LOCAL
C410	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,	TSEC LOCAL
C411	2401-001250	C-AL;4.7UF,20%,35V,GP,TP,4X5,5	TSEC LOCAL
C413	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V (RECORD OPTION)	TSEC LOCAL
C414	2201-000936	C-CERAMIC,DISC;330PF,5%,50V,SL,TP (RECORD OPTION)	TSEC LOCAL
C415	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V (RECORD OPTION)	TSEC LOCAL
C416	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C420	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C421	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20% (RECORD OPTION)	TSEC LOCAL
C422	2401-001975	C-AL;47UF,20%,16V,GP,TP,5X11MM,5	TSEC LOCAL
C460	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,	TSEC LOCAL
D401	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
L402	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	TSEC LOCAL
L403	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM (RECORD OPTION)	TSEC LOCAL
L404	AC27-92001B	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	TSEC LOCAL
Q401	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	
Q402	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q403	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120-	
Q404	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120	
Q406	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
R401	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R403	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R404	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R405	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R406	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R407	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R408	2001-000036	R-CARBON;330OHM,5%,1/4W,AA,TP,2.4X6.4MM	TSEC LOCAL
R409	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R410	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R412	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R413	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R414	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP (RECORD OPTION)	TSEC LOCAL
R419	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP (RECORD OPTION)	TSEC LOCAL
R450	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	TSEC LOCAL
R451	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
RF1	AC40-20100C	RF-MODULATOR;ENC479N8,PAL-BG/DK	TSEC LOCAL

Loc. No	Part No	Description and Specification	Remark
670	DO NOT ORDER	ASSY-FUNCTION	(S.N.A)
C701	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C702	2401-001893	C-AL;100UF,20%,16V,-,TP,6.3X7MM,5	TSEC LOCAL
C703	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,-	TSEC LOCAL
C704	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
C705	2202-000780	C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5	TSEC LOCAL
CN701	3710-000545	CONNECTOR-SOCKET;20P,1R,1.5MM,STRAIGHT,SN	
CN702	3710-000545	CONNECTOR-SOCKET;20P,1R,1.5MM,STRAIGHT,SN	
D701	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D702	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D703	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D704	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
D706	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	
LD701	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD702	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD703	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD704	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD705	62309-110-340	LED;GL-3HD7/GL3HD8	(RECORD OPTION)
LD706	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD707	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD708	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD709	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD710	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD711	0601-000497	LED;ROUND,GRN,3MM,565NM	
LD712	0601-000497	LED;ROUND,GRN,3MM,565NM	
Q701	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q702	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q703	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
Q704	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	
R701	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R702	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R703	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R704	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R705	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP	(RECORD OPTION) TSEC LOCAL
R706	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R707	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R708	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R709	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R710	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R711	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R712	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R713	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R714	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R715	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R716	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
R717	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	TSEC LOCAL
RM701	B1294-0076	MODULE-REMOCON;GP1U281R/SHARP 38KHZ	
SW701	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW702	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW703	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW704	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW705	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW706	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	

Loc. No	Part No	Description and Specification	Remark
SW707	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW708	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF	(RECORD OPTION)
SW709	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW710	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW711	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
SW712	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	
	AC93-10042K	ASSY-REMOCON	TSEC LOCAL
	64042-0165-00	DOOR-BATTERY;ABS94HB T2 D/GRY PR-3209	TSEC LOCAL
CT01	2401-001954	C-AL;4.7UF,20%,50V,GP,BK,5X11MM,5	TSEC LOCAL
CT02	2203-000239	C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,2012,-	TSEC LOCAL
CT03	2203-000239	C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,2012,-	TSEC LOCAL
CT04	2203-000199	C-CERAMIC,CHIP;100NF,+80-20%,50V,Z5U,TP,2012,	TSEC LOCAL
ICT01	AC09-12014C	IC-MCU;KS51810-76,QFP,V-PAL	
LDT01	0601-000498	LED-IR;ROUND,5MM,150MW,5V,940NM,BK	TSEC LOCAL
QT01	0501-000534	TR-SMALL SIGNAL;2SC2412K,NPN,200MW,SOT-23,TP,1	TSEC LOCAL
RT01	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	TSEC LOCAL
XT01	64539-102-311	CERAMIC RESONATOR;CSB455EBL/KBR455BKTL	

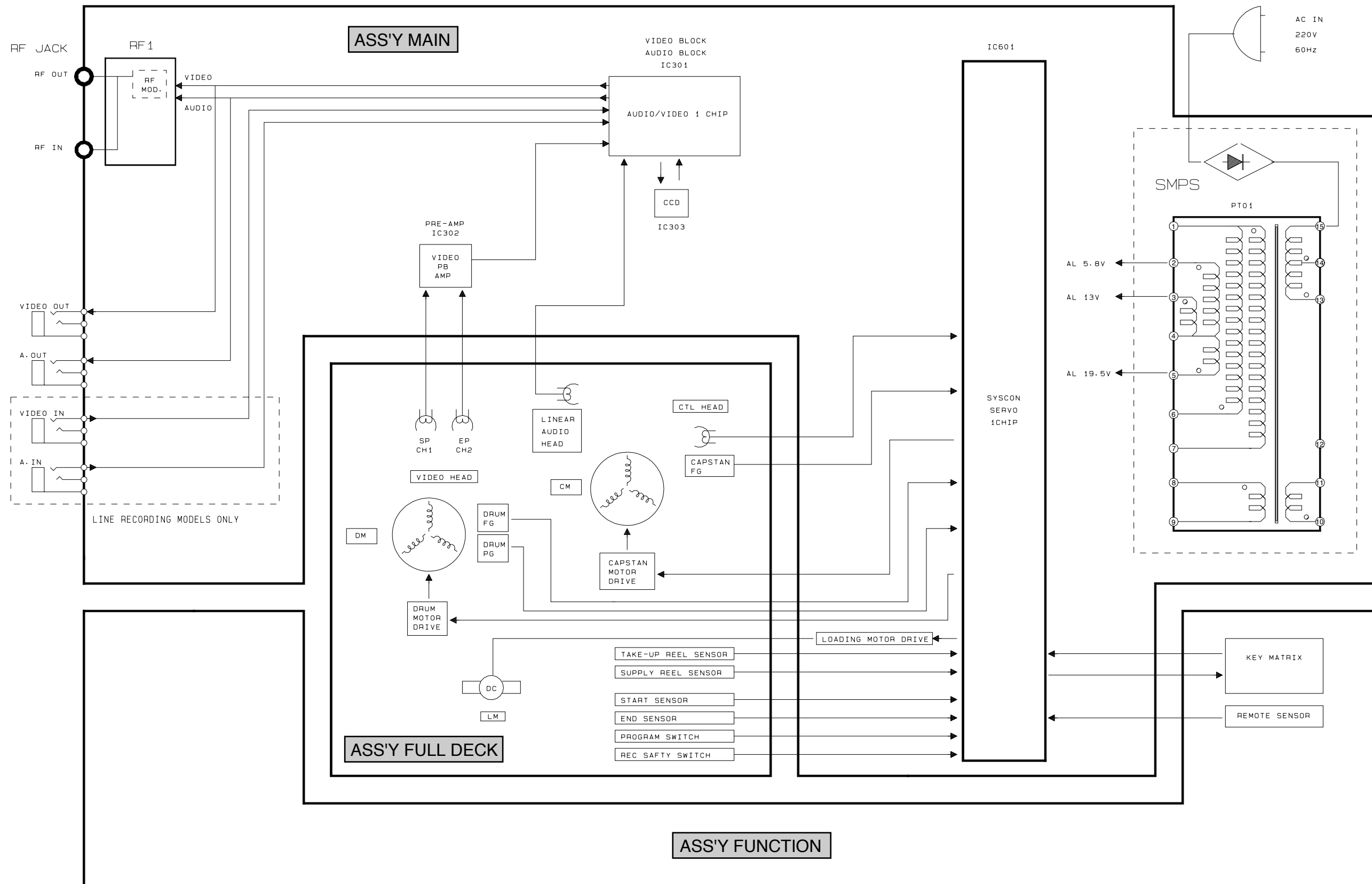
Note : ASS'Y REMOCON is only SV-A12G/SGE.

Please, refer to the separate information for the other models combind.

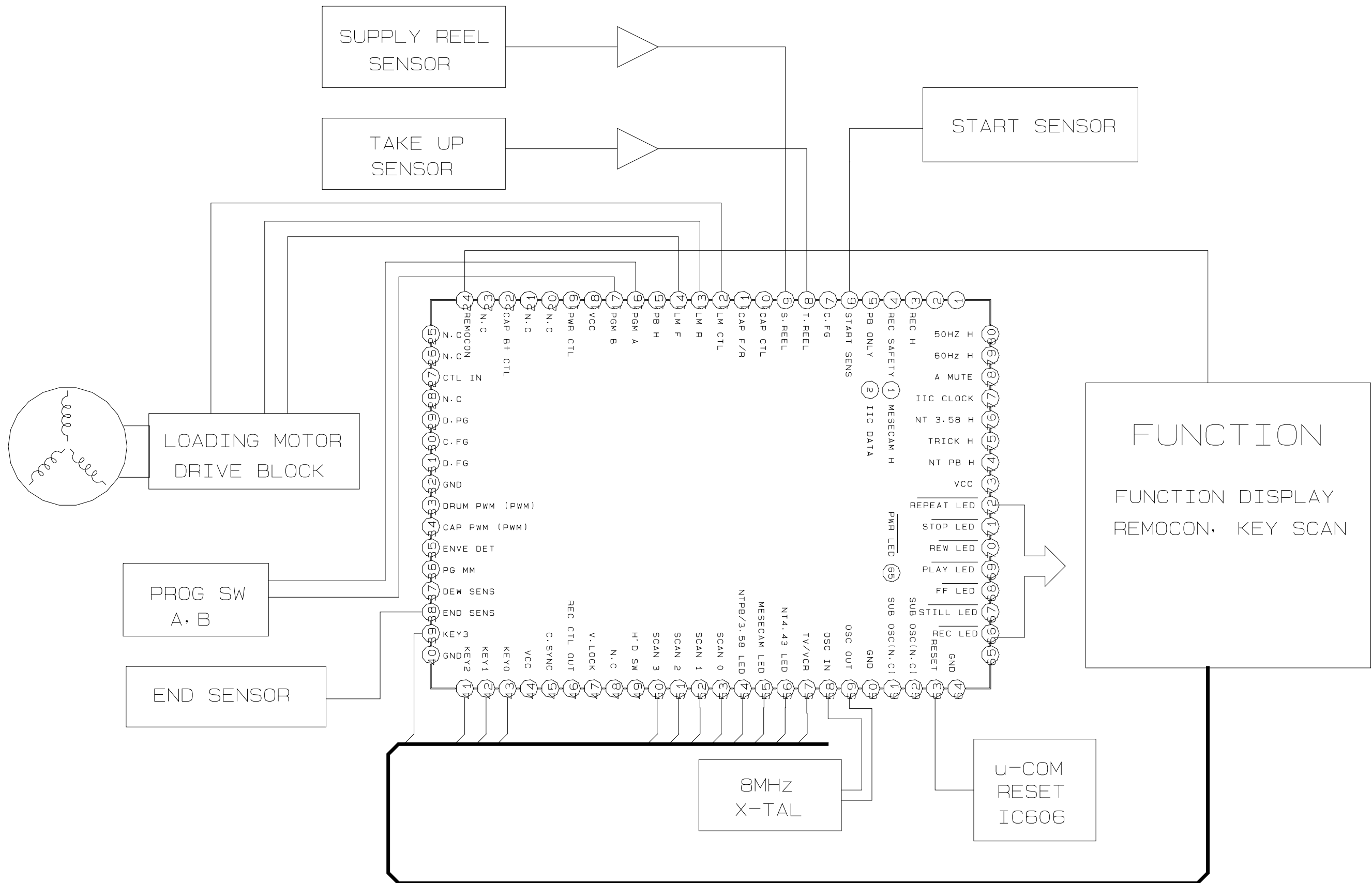
8. Block Diagrams

	Page
8-1 Overall Block Diagram	8-2
8-2 System Control	8-3
8-3 Video	8-4

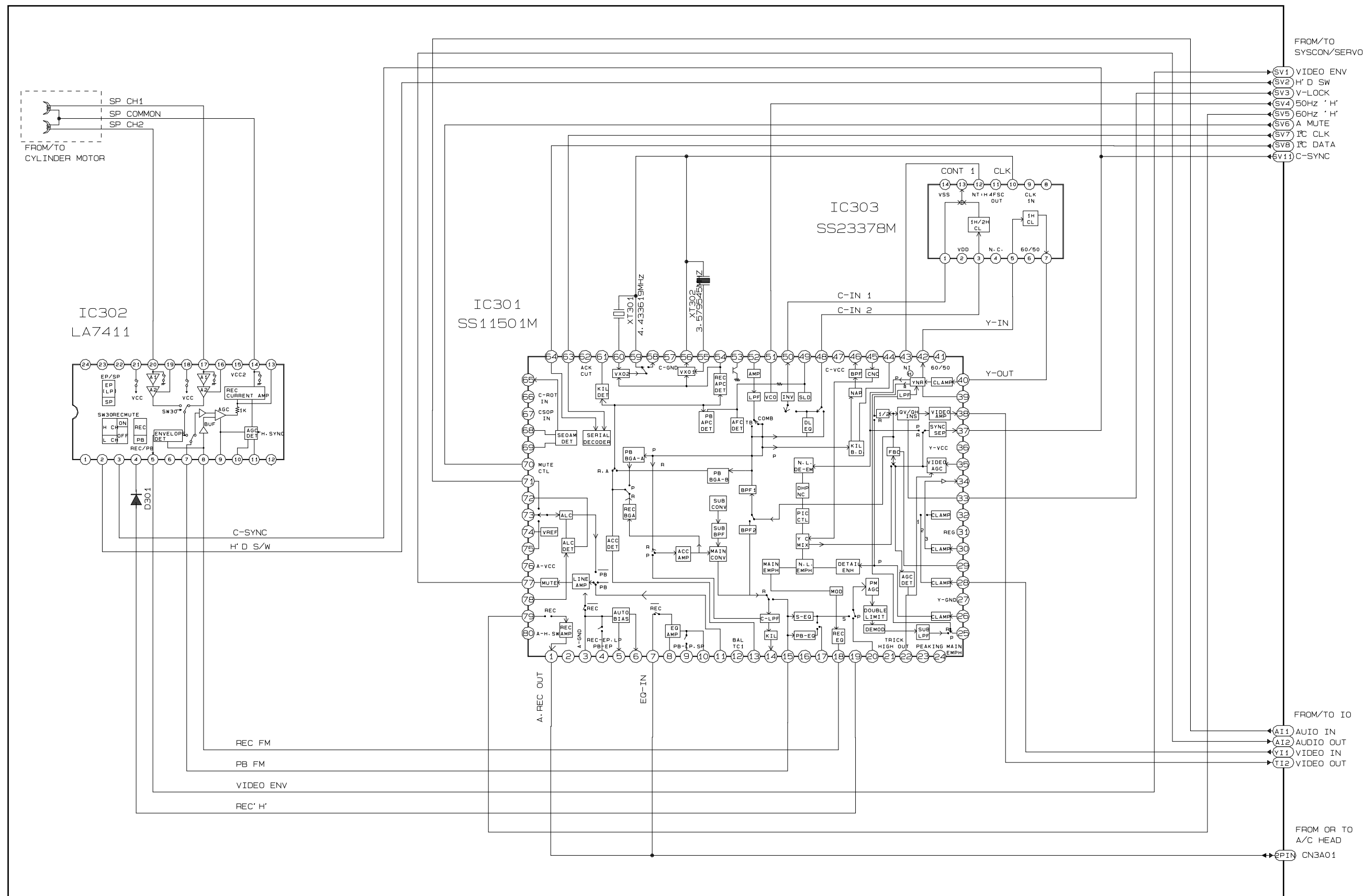
8-1 Overall Block Diagram



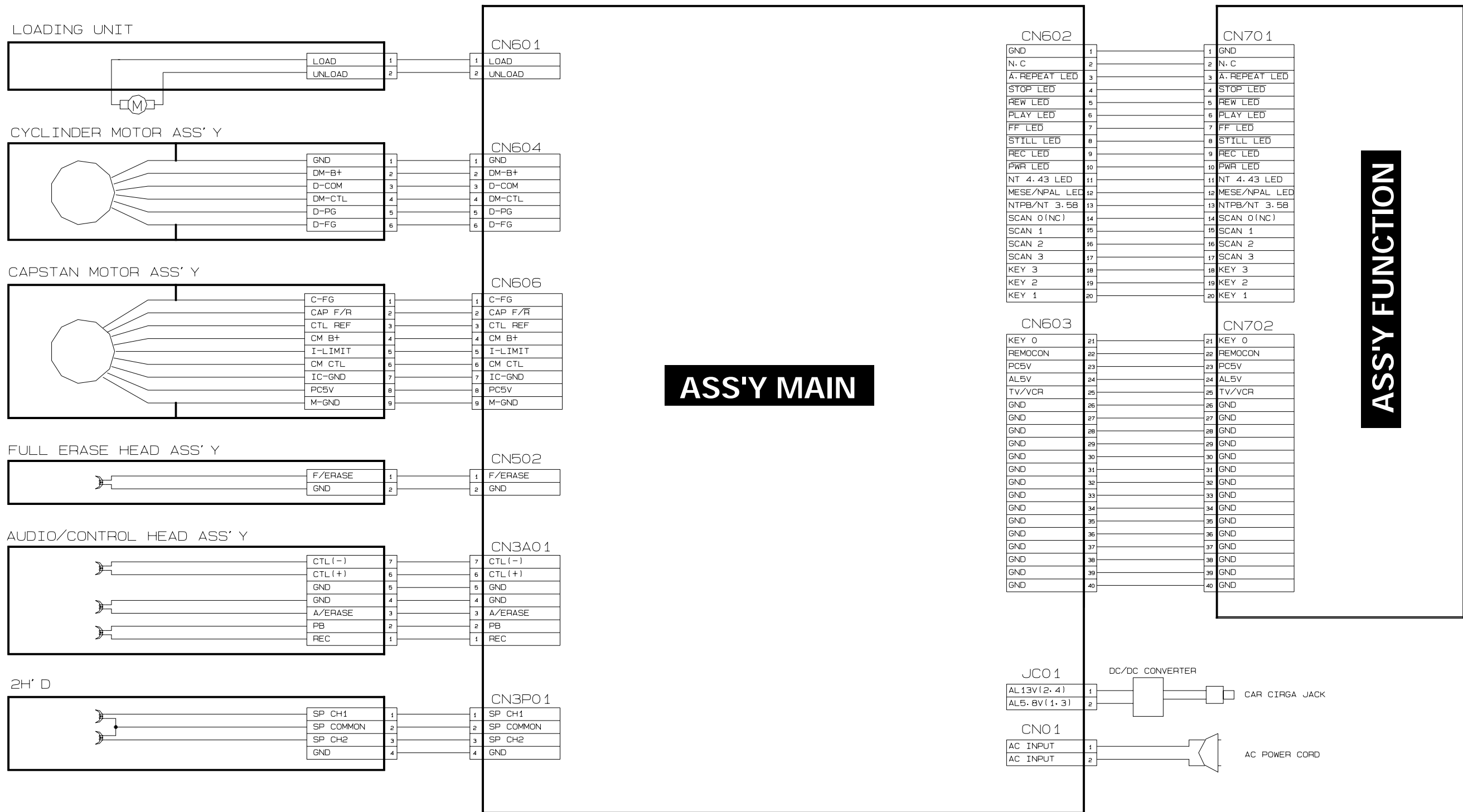
8-2 System Control/Servo



8-3 Audio/Video



10. Wiring Diagram



11. Schematic Diagrams

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◆ Block Identification of Main PCB	11-2
11-1 S.M.P.S/Power	11-3
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11-3 Audio/Video	11-5
11-4 I/O	11-6
11-5 Function	11-7
11-6 Remote-Control	11-8

Note

For schematic Diagram

- Resistors are in ohms, 1/8W unless otherwise noted.
- Circled numbers refer to waveforms.


Special note :

Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

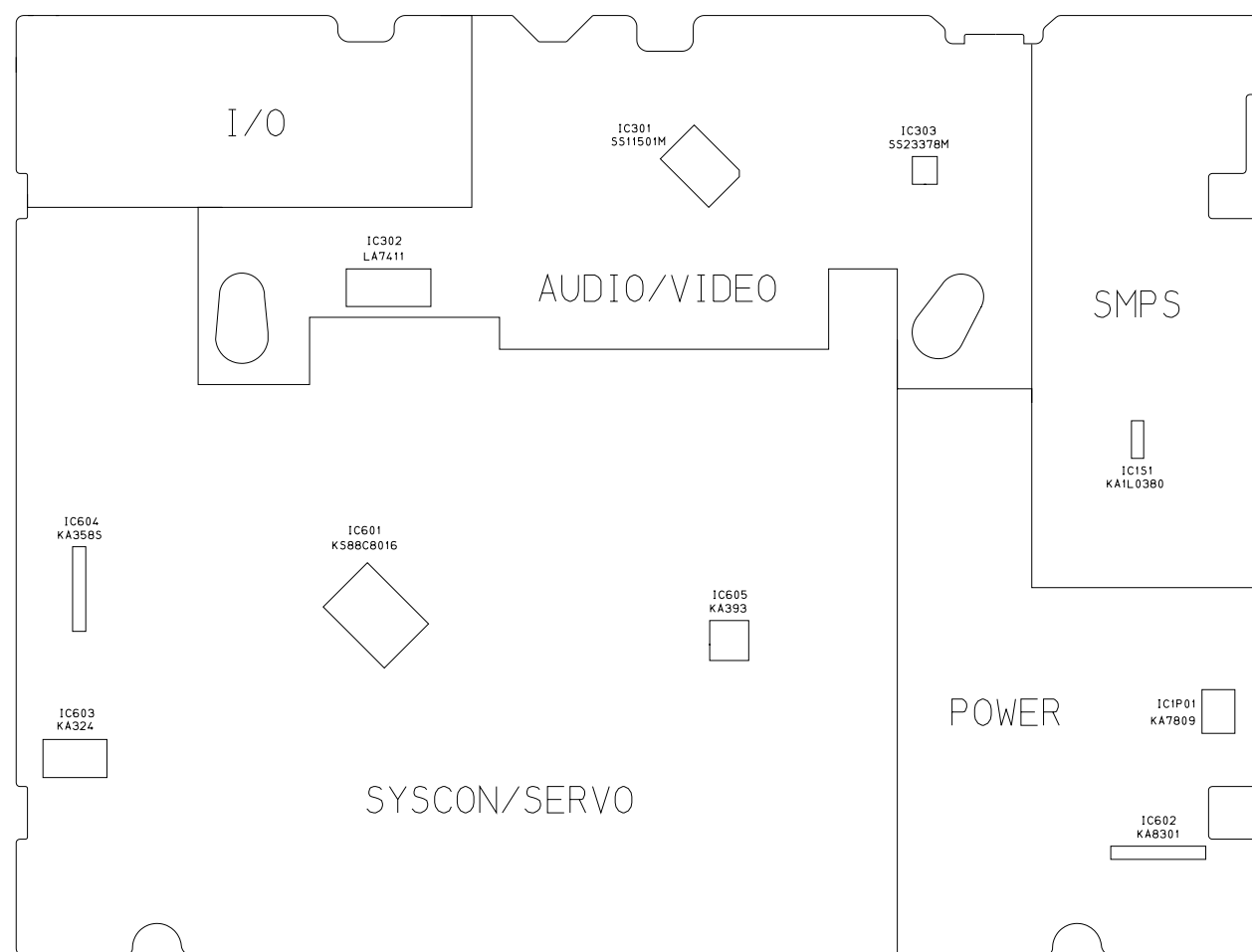
Note :

Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

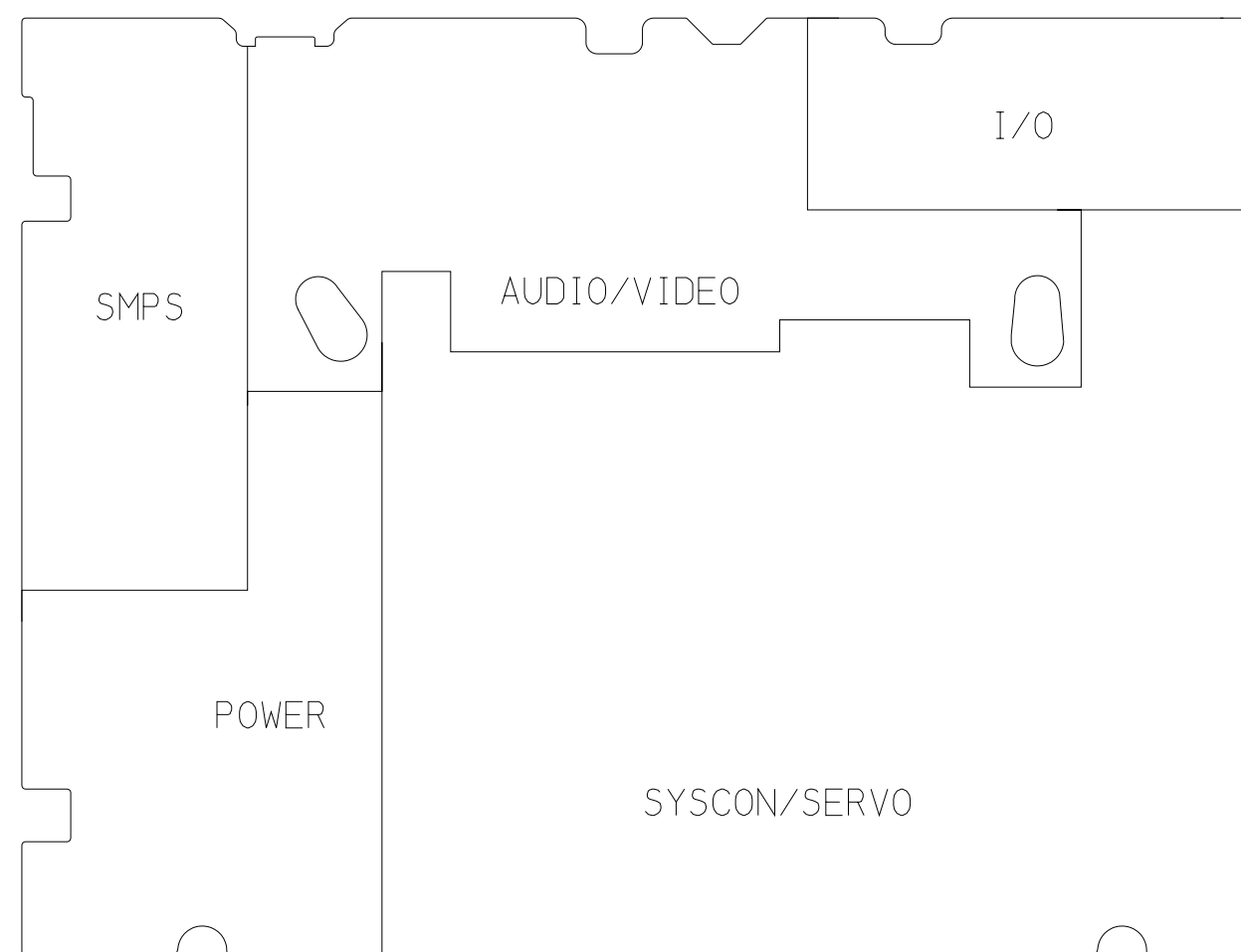
Important safety notices :

Components identified with the mark  have the special characteristics for safety. When replacing any of these components. Use only the same type.

◆ **Block Identification of Main PCB**

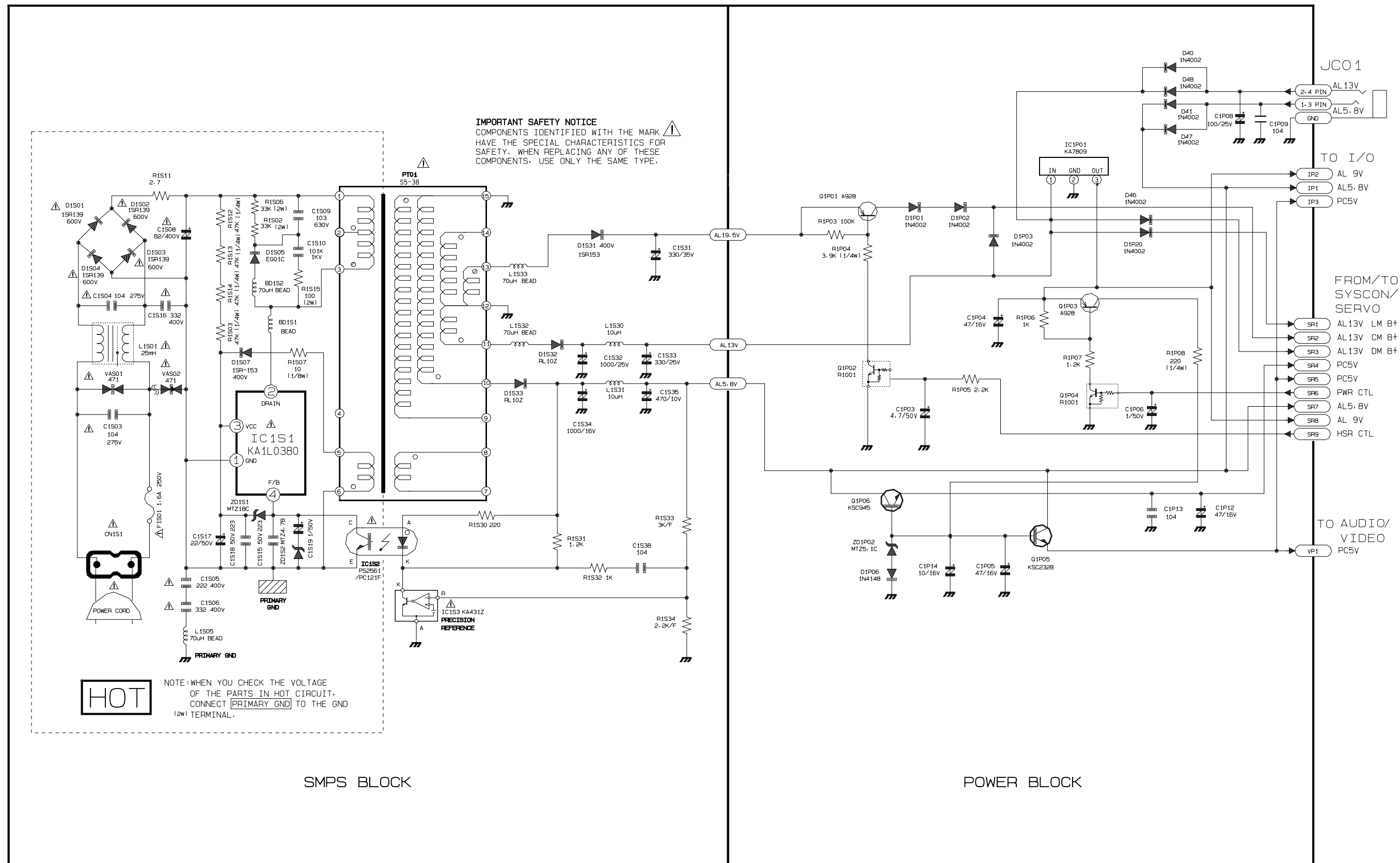


(Component Side)



(Conductor Side)

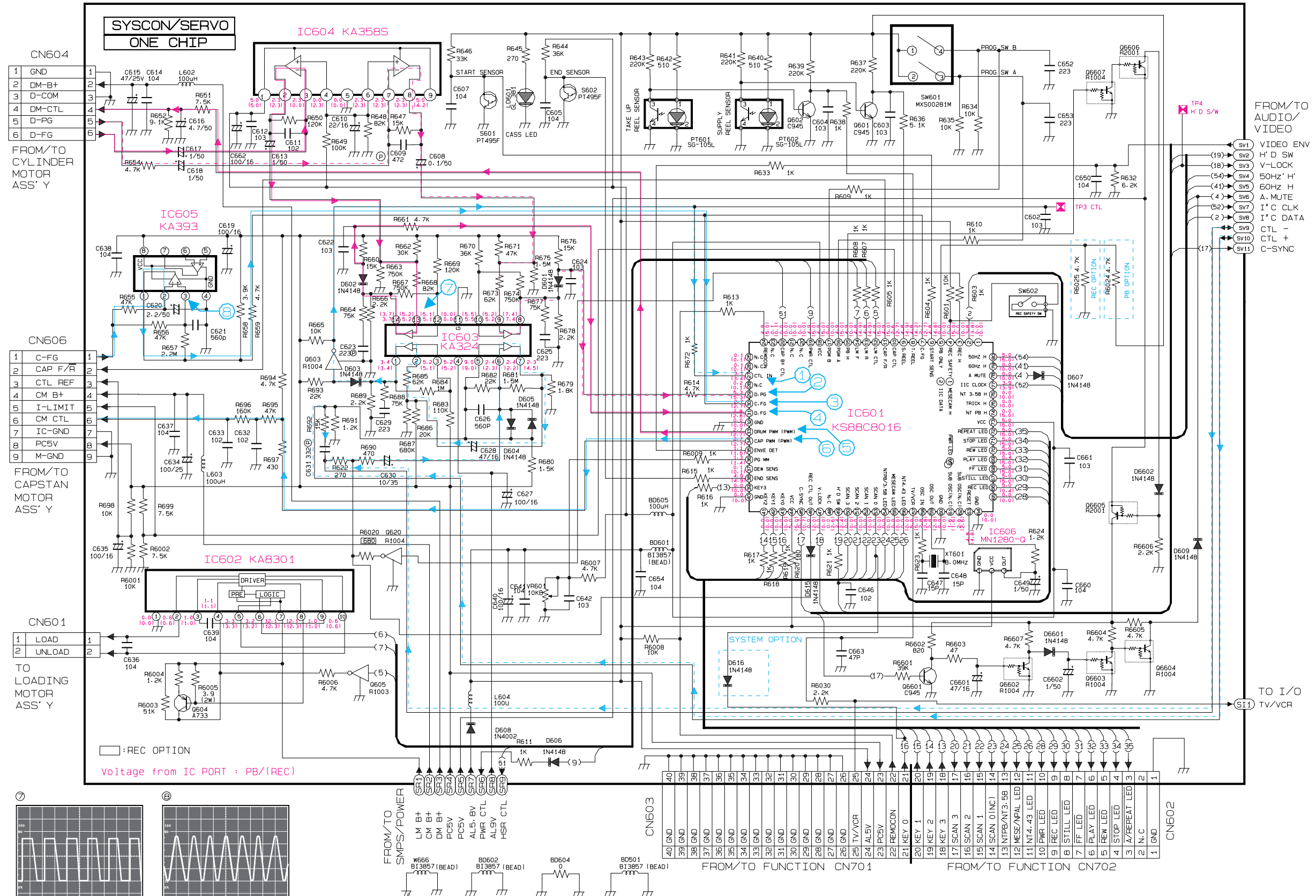
11-1 S.M.P.S/POWER



11-2 System Control/Servo

— CYLINDER SPEED CONTROL
 - - - CYLINDER PHASE CONTROL

— CAPSTAN SPEED CONTROL
 - - - CAPSTAN PHASE CONTROL



CN604

1	GND
2	DM-B+
3	D-COM
4	DM-CTL
5	D-PG
6	D-FG

FROM/TO CYLINDER MOTOR ASS'Y

CN605

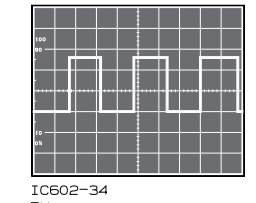
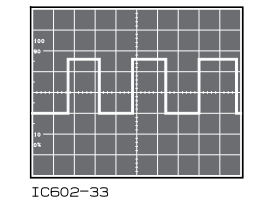
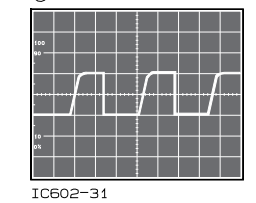
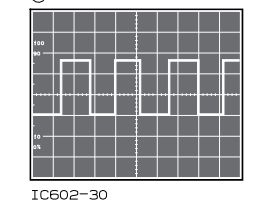
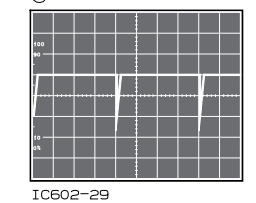
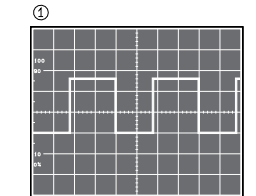
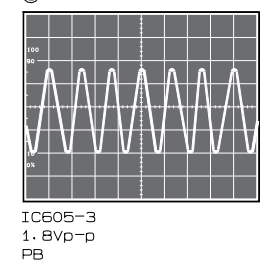
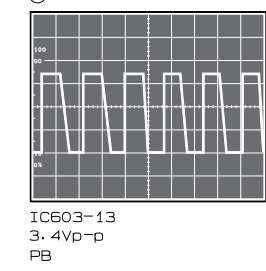
1	C-FG
2	CAP F/R
3	CTL R/R
4	CM B+
5	I-LIMIT
6	CM CTL
7	IC-GND
8	PC5V
9	M-GND

FROM/TO CAPSTAN MOTOR ASS'Y

CN601

1	LOAD
2	UNLOAD

TO LOADING MOTOR ASS'Y



- FROM/TO AUDIO/VIDEO
- SV1 VIDEO ENV
 - (19) SV2 H'D SW
 - (18) SV3 V-LOCK
 - (54) SV4 50HZ 'H'
 - (41) SV5 60HZ H
 - (4) SV6 A. MUTE
 - (52) SV7 I'C CLK
 - (2) SV8 I'C DATA
 - SV9 CTL -
 - SV10 CTL +
 - SV11 C-SYNC

CN603

40	GND
39	GND
38	GND
37	GND
36	GND
35	GND
34	GND
33	GND
32	GND
31	GND
30	GND
29	GND
28	GND
27	GND
26	GND
25	TV/VCR
24	ALSV
23	PCSV
22	REMOCON
21	KEY 0
20	KEY 1
19	KEY 2
18	KEY 3
17	SCAN 3
16	SCAN 2
15	SCAN 1
14	SCAN 0(NC)
13	NTPB/NT3-5B
12	MESE/APAL LED
11	NT4-43 LED
10	PWR LED
9	STILL LED
8	FF LED
7	PLAY LED
6	REW LED
5	STOP LED
4	A/REPEAT LED
3	N.C
2	GND
1	GND

FROM/TO FUNCTION CN701

CN602

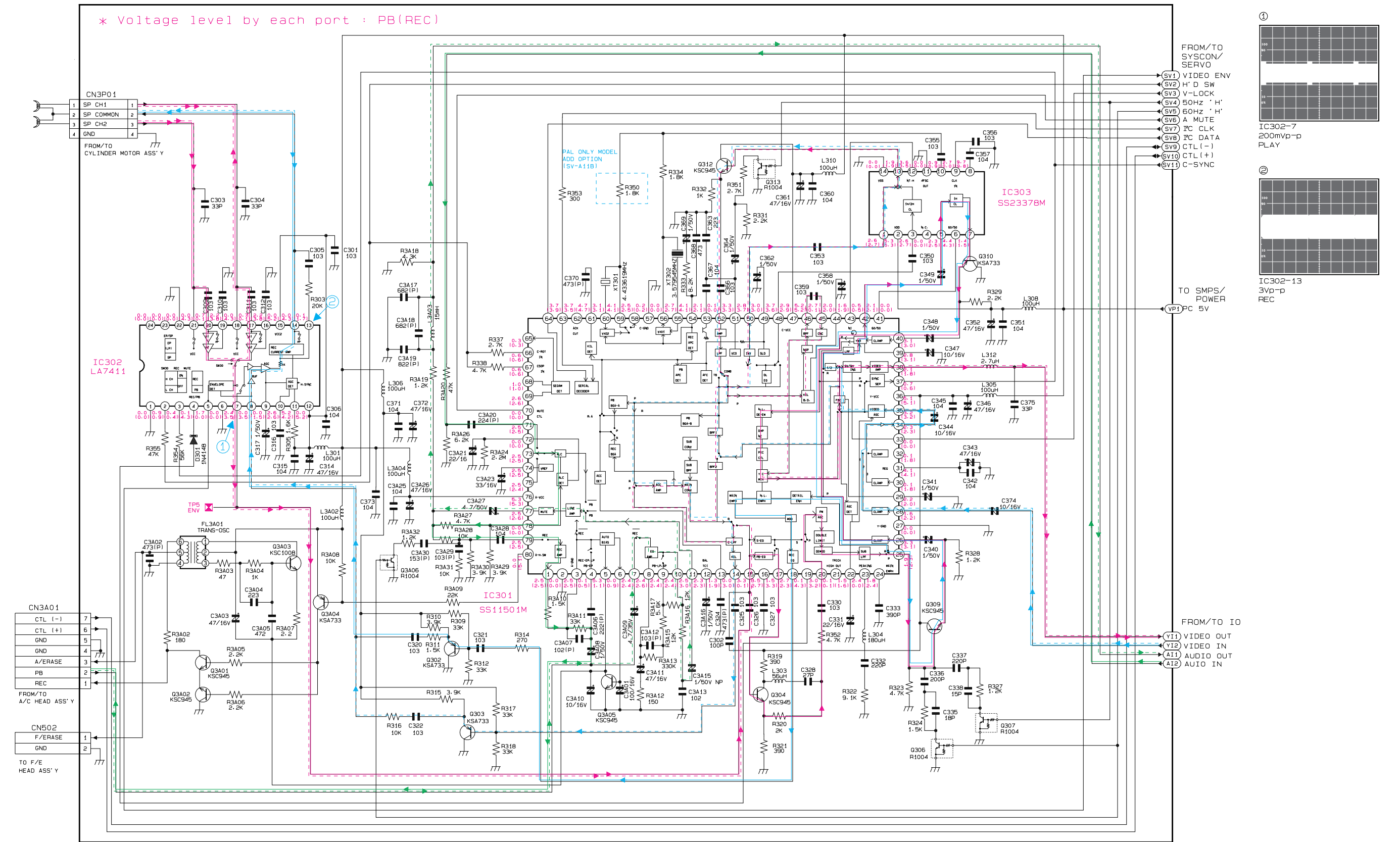
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2	GND
3	GND
4	GND
5	GND
6	GND
7	GND
8	GND
9	GND
10	GND
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12	GND
13	GND
14	GND
15	GND
16	GND
17	GND
18	GND
19	GND
20	GND
21	GND
22	GND
23	GND
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25	GND
26	GND
27	GND
28	GND
29	GND
30	GND
31	GND
32	GND
33	GND
34	GND
35	GND
36	GND
37	GND
38	GND
39	GND
40	GND

FROM/TO FUNCTION CN702

□ : REC OPTION
 Voltage from IC PORT : PB/(REC)

11-3 Audio/Video

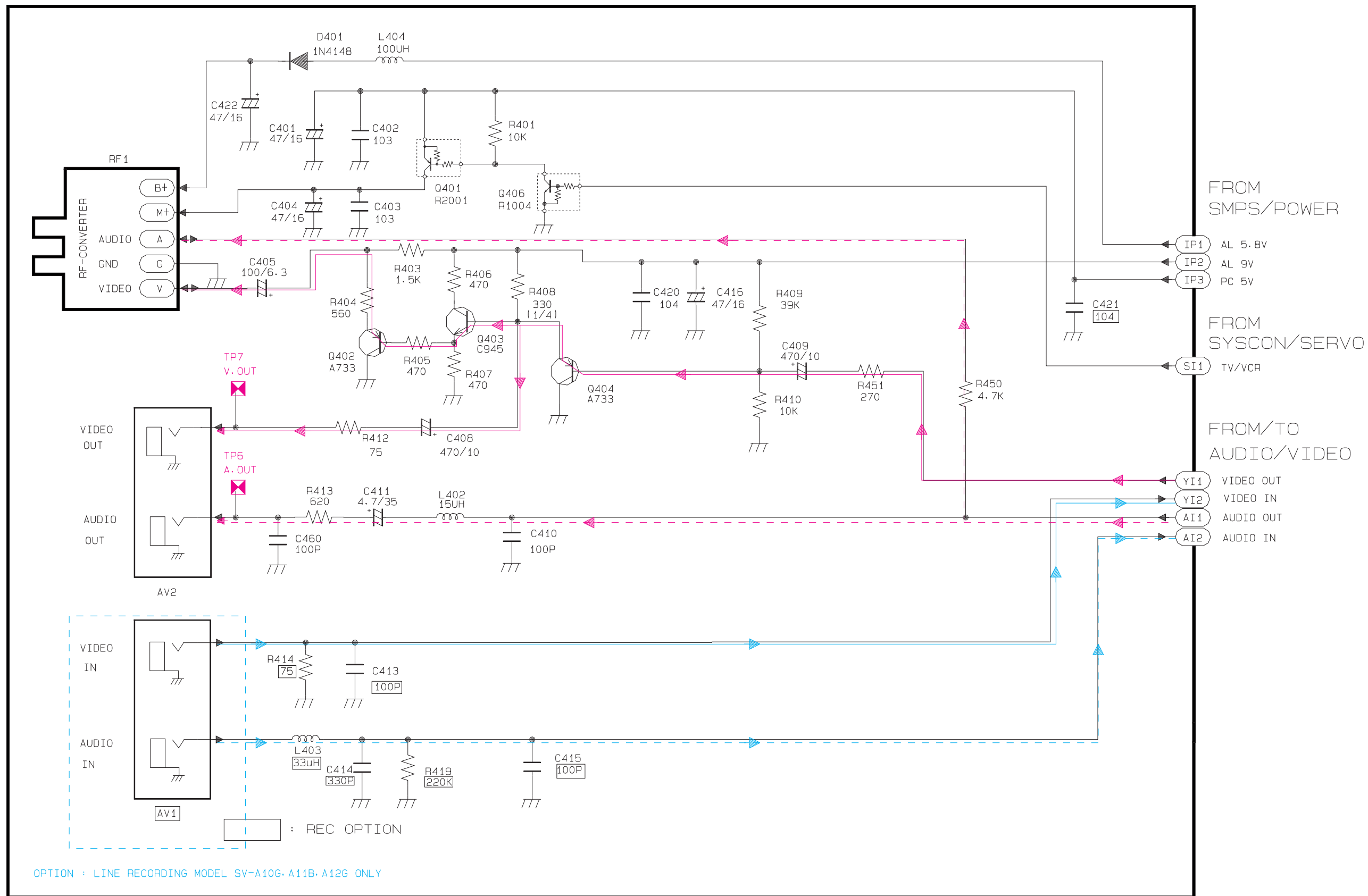
— PB Y PROCESS — REC Y PROCESS — PB AUDIO PROCESS
- - - PB C PROCESS - - - REC C PROCESS - - - REC AUDIO PROCESS



11-4 I/O

— PB VIDEO PROCESS
 - - - PB AUDIO PROCESS

— REC VIDEO PROCESS
 - - - REC AUDIO PROCESS



11-6 Remote-Control

