

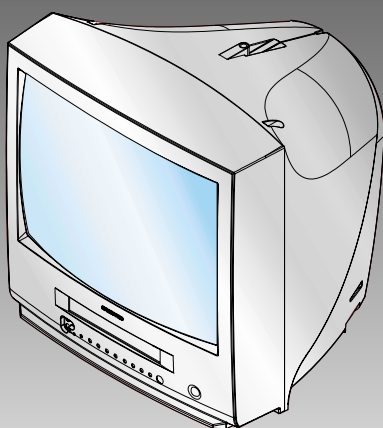
SAMSUNG

Television Video Cassette Recorder

Chassis : C17A (TS-10)
Model : TW20P14X/BWT

SERVICE Manual

Television Video Cassette Recorder



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1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety 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: nonmetallic 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 (Figure 1-1):
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 (ANIS 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 into 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.

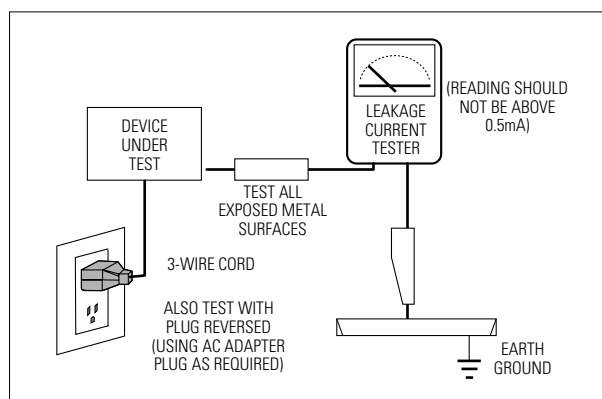


Fig. 1-1 AC Leakage Test

6. 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.
7. X-ray Limits:
The picture tube is especially 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. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.
8. High Voltage Limits:
High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

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.

1-1 Safety Precautions (Continued)

9. 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.
10. 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.
11. 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.
12. 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.
13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.
14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.
15. 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.
16. 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.
17. 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.
18. 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.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.
5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (430V) to the blades of the AC plug.

The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
7. 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.
8. 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.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. 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.
2. 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.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.
4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.
5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static”; these can accumulate sufficient electrical charge to damage ESDs.
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Specifications

The descriptions and characteristics given in this booklet are given for information purposes only and are subject to modification without notice.

TELEVISION PART	
Colour systems	PAL(option) / SECAM(option) (UK;PAL)
TV standards	L/L'(option), B/G(option), D/K(option) (UK;I)
Number of channels	100 programmes
Reception range/cable TV	Hyperband/interband tuner
Aerial input	75 Ohms, coaxial cable
VCR PART	
Format	VHS standard (PAL / SECAM(option) / MESECAM(option) / NTSC in playback only)
Heads	Video: 2 rotary heads, LP(option), 4 Heads(option) Audio/Control: 1 stationary head (linear) Erase: 1 full track erase head
	System Video Normal CCIR
	System Audio Mono / NICAM&A2-STEREO
Luminance	FM azimuth recording
Colour	Down converted subcarrier phase shifted direct recording
FF/REW time	Less than 100 seconds in FF with E-120
Wow and flutter (WTD)	0.4% maximum (SP)
Frequency response	100 Hz - 8 KHz
GENERAL	
Power supply	220-240V~, 50Hz (110-260V~, 50/60Hz; option),(160-300V~50/60Hz;Russia)
Consumption	14"15" (50W) 20"/21" (60W)
Audio output power	14"15" (2W) 20" (2W) 21" (1.0Watts x 2)
Number of loudspeakers	14"/15"/20" (1) 21" (2)
Tube size	14" (37cm/34cmV) 15" (39cm/36cmV) 20" (51cm/48cmV) 21" (55cm/51cmV)
Tube type	BLACK MATRIX
Sockets	1 full RGB SCART on the rear 1 RCA input (audio and video) on the front Earphones output (3.5 mm mini-jack) 1 aerial/cable TV coaxial input
Dimensions (W x D x H)	14" (368 x 390 x 381) 15" (411 x 401 x 417) 20" (486 x 473 x 485) 21" (520 x 495 x 508)
Weight	14" (11.1 kg) 15" (14.8 kg) 20" (19 kg) 21" (23.4 kg)
Operating temperature	5°C - 40°C (41°F - 104°F)
Relative humidity	10% - 75%

MEMO

4. Alignment and Adjustments (Electrical)

4-1 Preadjustment

4-1-1 Factory Mode

1. Do not attempt these adjustments in the Video Mode.
2. The Factory Mode adjustments are necessary when either the EEPROM (IC902) or the CRT is replaced.
3. Do not tamper with the “Adjustment” screen of the Factory Mode menu. This screen is intended only for factory use.

4-1-3 When CRT Is Replaced

Make the following adjustments after setting up purity and convergence:

White Balance
Sub-Brightness
Vertical Center
Vertical Size
Horizontal Size

4-1-2 When EEPROM (IC902S) Is Replaced

1. When IC902 is replaced all adjustment data revert to initial values. It is necessary to re-program this data.
2. After IC902 is replaced, warm up the TV for 10 seconds.

4-2 Factory (“Service”) Mode

4-2-1 Procedure for the “Adjustment” Mode

1. This mode uses the standard remote control. The Service Mode is activated by: (1) pressing the “FACTORY” service key on the local-keyboard, or (2) by entering the following remote-control sequence (within 2 seconds):

STAND-BY → DISPLAY → MENU → MUTE → POWER ON
2. The “SERVICE (FACTORY)” message will be displayed. The Service Mode has three components: Adjustment, Option and Reset.
3. Access the Adjustment Mode by pressing the “VOLUME” keys (Up or Down). The adjustment parameters are listed in the accompanying table, and selected by pressing the CHANNEL keys (▲, ▼).
4. Selection sequences for the PAL / SECAM B / G, L / systems:

down or up key:
AGC>TXP>AFW>SBT>SCT>SCR>STT>RG>GG>BG>TCT>SC>SL>PVS>PHS>NVS>NHS>CDL>BKS
5. The VOLUME keys increase or decrease the adjustment values, (stored in the non-volatile memory) when Adjustment Mode is cancelled.

4-2-2 Main Adjustment Parameters

OSD ABBREVIATION	RANGE	INITIAL DATA
AGC	63	28
XP	7	5
QSS	1	1
SBT	23	6
SCT	23	10
SCR	13	6
STT	13	9
RG	63	38
GG	63	32
BG	63	32
TCT	1	0
SC	63	11
SL	63	30
VA	63	38
PVS	63	27
PHS	63	40
NVS	63	38
NHS	63	22
CDL	15	4
SCL	3	1
PWL	15	12
OMD	63	26
BLR	63	31
BLB	63	27
AGC2T	31	15
PF	3	2
RP	3	2
YD	15	5

NOTE : PVS, PVA, PHS, NVS, NVA,NHS parameters must be aligned using both the 50 Hz and 60 Hz vertical-field rates.

4-2-3 AGING Mode (Reference Only)

This pattern is used for pre-heating the CRT during manufacturing--it is accessed in the factory by twice pressing the "FACTORY" key .

Even if the TV power is cut off, the Aging Mode is not cancelled.

The "AGING" marking is displayed on the screen.

The AGINGmode is cancelled by repressing the "FACTORY" key.

4-2-4 Option

BYTE	ITEM	0
1	LANGUAGE	EUROPE/URSSIA
2	SYSTEM	CF/CI/CW/CX/CB/CII
3	TUNER	1/2
4	HELP MESSAGE	ON/OFF
5	VCR HEAD	2HD/2HDLP/4HD/HIFI
6	G-CODE	SHOWVIEW/VIDEO PLUS/NONE
7	ATS OPTION	ON/OFF
8	VPS/PDC	PDC/VPS/NONE
9	TTX	ON/OFF

4-3 Reset

BYTE	ITEM	0
1	Contrast	
2	Bright	
3	Sharpness	
4	Color	
5	Tint	
6	Volume	
7	Program Number	
8	Color System	
9	Sound System	
	3DB LNA	
	Panel Lock	
	Language	
	Clock	
	Timer	
	On Time	
	Sleep	
	PICTURE MODE	

4-4 Other Adjustments

4-4-1 General

1. Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.
2. The picture should have good black and white details. There should be no objectionable color shading; if color shading is present, perform the purity and convergence adjustments described below.
3. Use the specified test equipment or its equivalent.
4. Correct impedance matching is essential.
5. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test results.
6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
7. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
8. To protect against shock hazard, use an isolation transformer.

4-4-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set has been moved or turned in a different direction, disconnect its AC power for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before removing power.

4-4-3 High Voltage Check

CAUTION: There is no high voltage adjustment on this chassis. The B+ power supply must be set to +125 volts (Full color bar input and normal picture level).

1. Connect a digital voltmeter to the second anode of the picture tube.
2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).
3. The high voltage should not exceed 27.5KV.
4. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 27.5KV under any conditions.

4-4-4 FOCUS Adjustment

1. Input a black and white signal.
2. Adjust the tuning control for the clearest picture.
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

4-4-5 Screen Adjustment

1. Turn to the ACTIVE channel.
2. Adjust the VR screen for a normal picture is (no blooming or flyback line).
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

4-4-6 Purity Adjustment

1. Warm up the receiver for at least 20 minutes.
2. Plug in the CRT deflection yoke and tighten the clamp screw.
3. Plug the convergence yoke into the CRT and set in as shown in Fig. 4-1.
4. Input a black and white signal.
5. Fully demagnetize the receive by applying an external degaussing coil.
6. Turn the CONTRAST and BRIGHTNESS controls to maximum.
7. Loosen the clamp screw holding the yoke. Slide the yoke backward or forward to provide vertical green belt. (Fig. 4-2).
8. Tighten the convergence yoke.
9. Slowly move the deflection yoke forward, and adjust for the best overall green screen.
10. Temporarily tighten the deflection yoke.
11. Produce blue and red rasters by adjusting the low-light controls. Check for good purity in each field.
12. Tighten the deflection yoke.

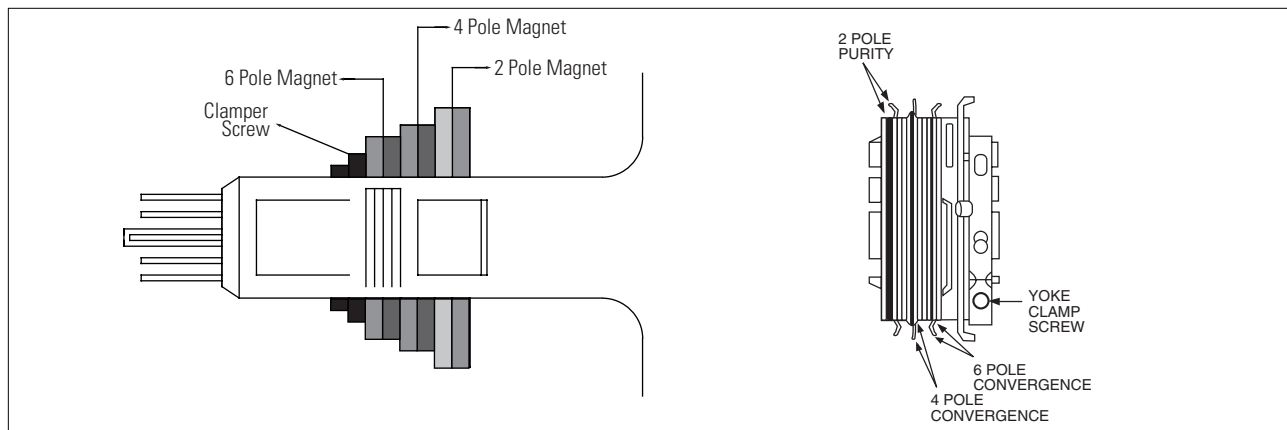


Fig. 4 -1 Convergence Magnet Assembly

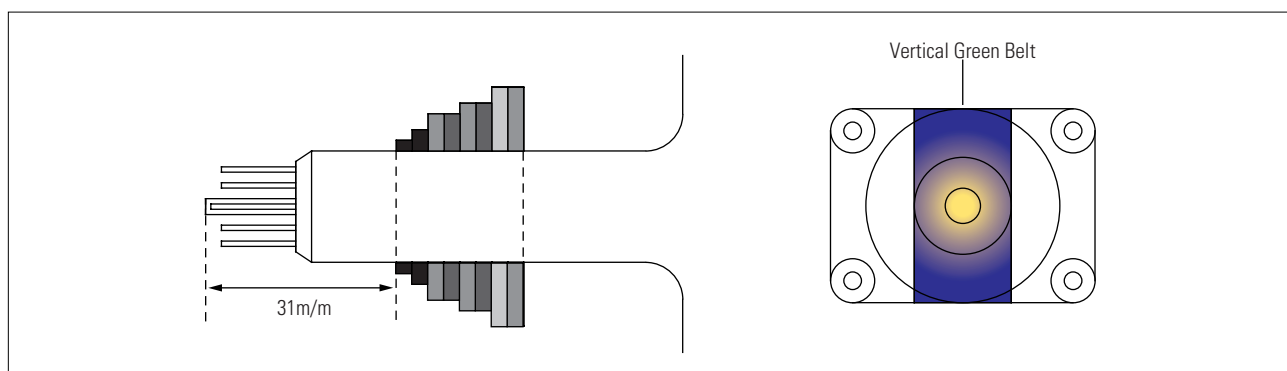


Fig.4-2 Center Convergence Adjustment

4-4-7 White Balance Adjustment

4-4-7 (A) HIGH-LIGHT ADJUSTMENT

1. Input either a Lion Head or a “pure white” pattern.
2. Warm up the TV for 30 minutes.
3. Check the data in the Service Mode
4. Adjust RG, BG in the Factory Mode.

4-4-7 (B) LOW-LIGHT ADJUSTMENT

1. Automatically accomplished during the high-light adjustment.

4-4-8 Center Convergence Adjustment

1. Warm up the receiver for at least 20 minutes.
2. Adjust the two tabs of the 4 pole magnets to change the angle between them. Superimpose the red and blue vertical lines in the center area of the screen.
3. Adjust the Brightness and Contrast controls for a well defined picture.
4. Adjust the two-tab pairs of the 4 pole magnets, and change the angle between them. Superimpose the red and the blue vertical lines in the center area of the screen.
5. Turn the both tabs at the same time, keeping the angle constant, and superimpose the red and blue horizontal line in the center of the screen.
6. Adjust the two-tab pairs of the 6-pole magnets to superimpose the red and blue line onto the green. (Changing the angle affects the vertical lines, and rotating both magnets affects the horizontal lines.)
7. Repeat adjustments 2~6, if necessary.
8. Since the 4-pole magnets and 6-pole magnets interact, the dot movement is complex (Fig. 4-3).

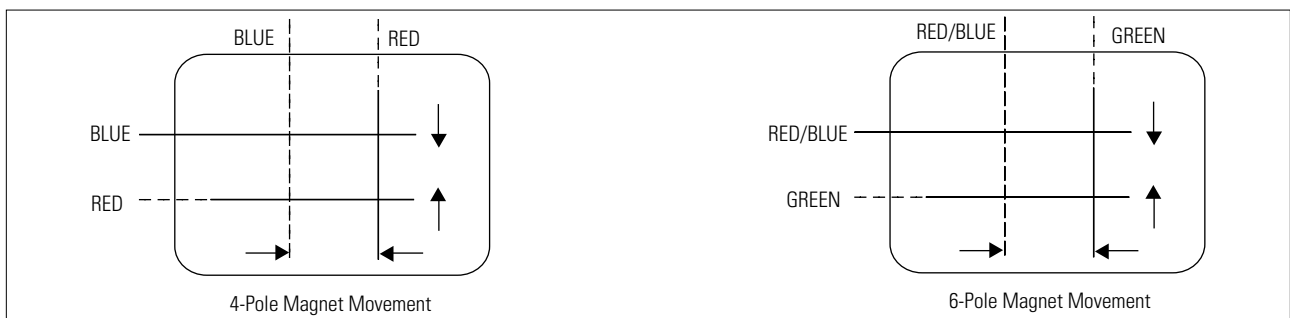


Fig 4-3 Center Convergence Adjustment

4-4-9 Dual Tuner AFT Adjustment

Test Equipment

1. TV Generator(PM5518, PM5418, ETC)
2. DC VOLTMETER

1. Connect DC Voltmeter to AFT terminal of TUNER IF-MODULE.
2. After selecting P00, input to IF1 terminal of TU002(38.9 MHz Using PM5518)
3. After selecting P00, set to $2.5V \pm 0.2V$ (Using FRANCE : T101, PAL/SCAM B/G,I,D/K : L102)

4-5 Electrical Adjustment (VCR Section)

4-5-1 Preparation

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustment only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

4-5-2 Required Test Equipment

1. Color Television or Monitor
2. Oscilloscope : Wide-band, dual-trace, triggered delayed sweep.
3. DC Voltmeter
4. TV CH Generator
5. Attenuator
6. Recording tape. (Blank tape)
7. Pattern Generator : PAL color bar. 100% White.

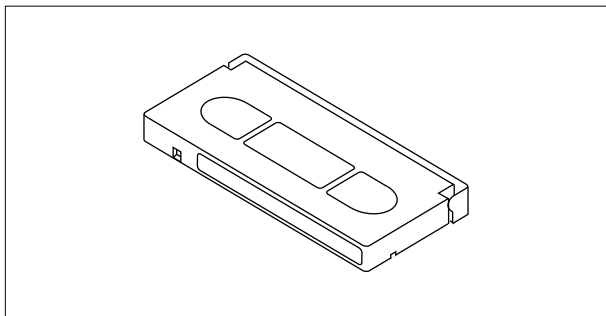


Fig. 4-4 Alignment Tape

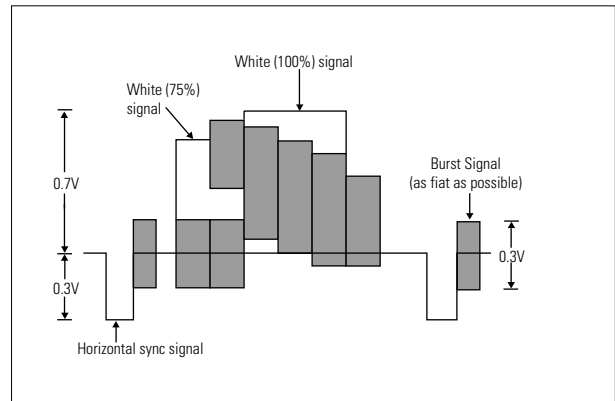


Fig. 4-5 Color bar signal of pattern generator

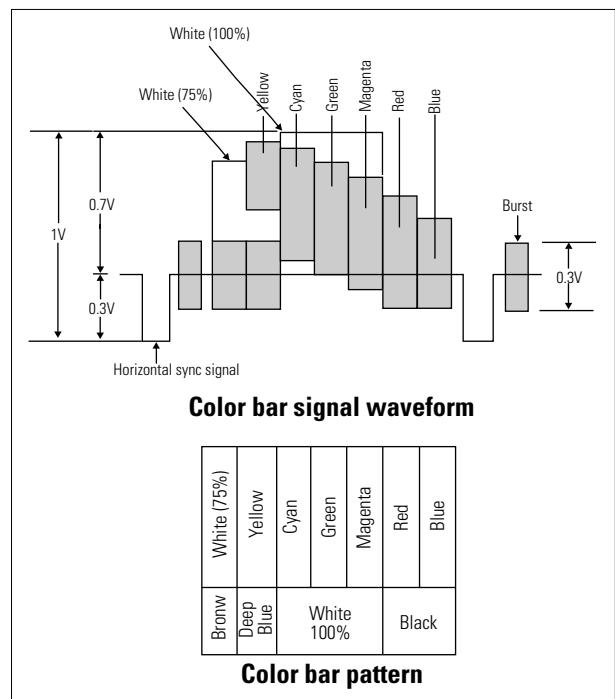
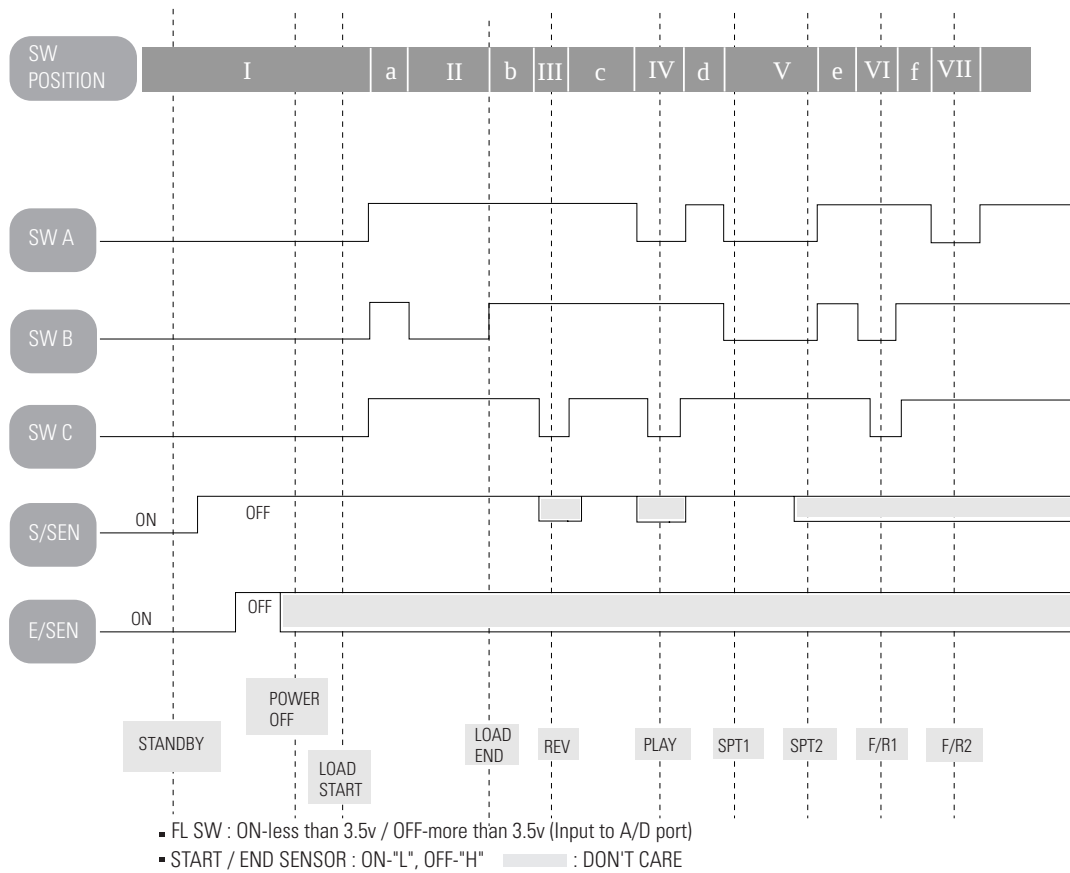


Fig. 4-6 Color bar signal of alignment tape (75% Color Bars)

4-5-3 PROGRAM SW



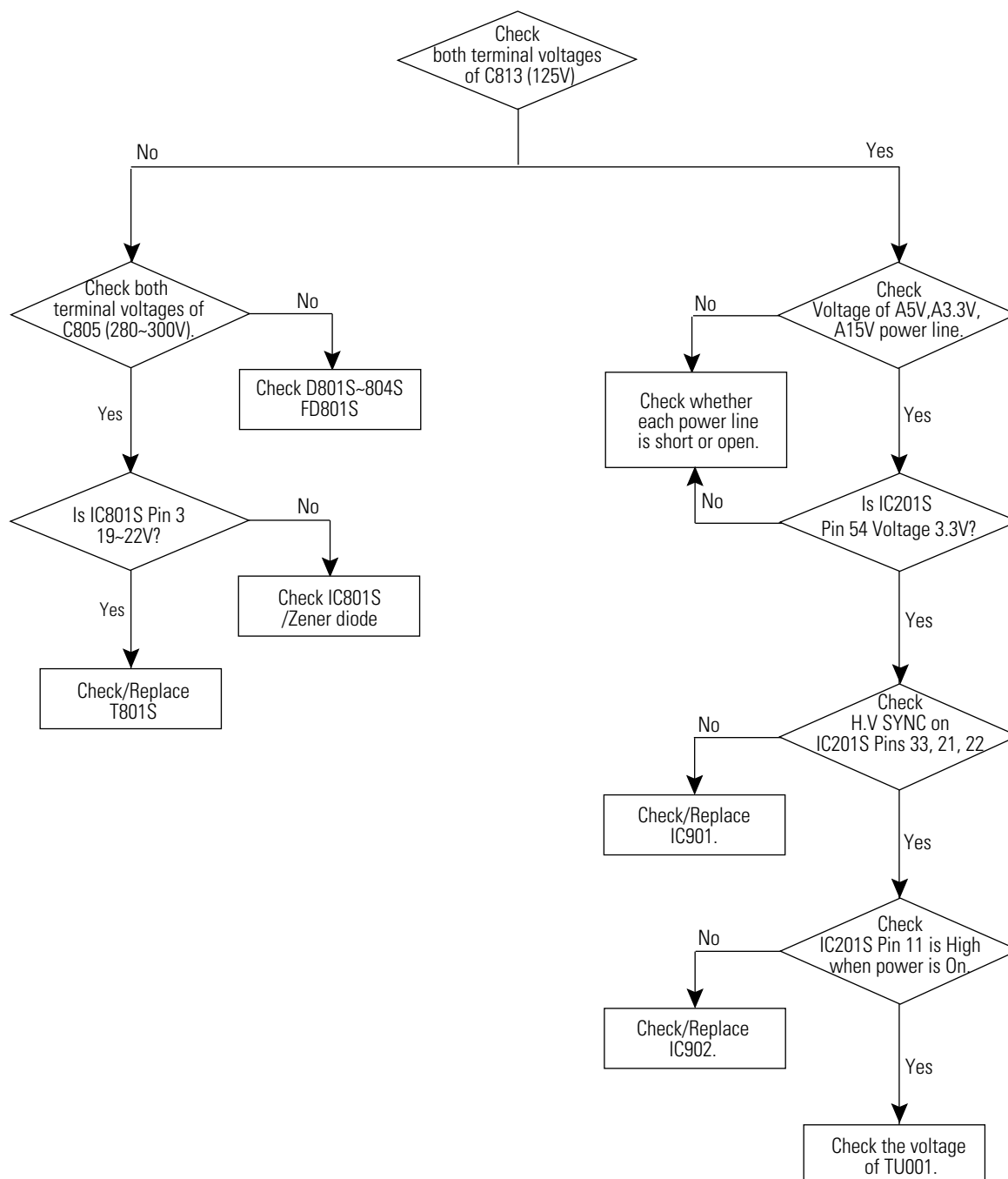
POSITION	PROGRAM S/W			TAPE SEN		OPERATION MODE
	A	B	C	S	F	
STANBY	0	0	0	0	0	Eject
POWER OFF	0	0	0	1	X	Unload POWER OFF
LOADING START	0	0	0	1	X	(Tape loading start point)
LOADING END	1	0 → 1	1	1	X	(Tape loading end point)
REV	1	1	0	X	X	Reverse Picture Search, Reverse SLOW
PLAY	0	1	0	X	X	Play, Rec, F-PS, Still, SLOW, F-ADV
STOP1	0	0	1	1	X	Stop (Play position 5 Min. over)
STOP 2	0	0	1	X	X	(MAIN Break ON MODE)
FF / REW 1	1	0	0	X	X	High speed Rew, Low speed FF
FF / REW 2	0	1	1	X	X	High speed FF, Low speed Rew

X : DON'T CARE

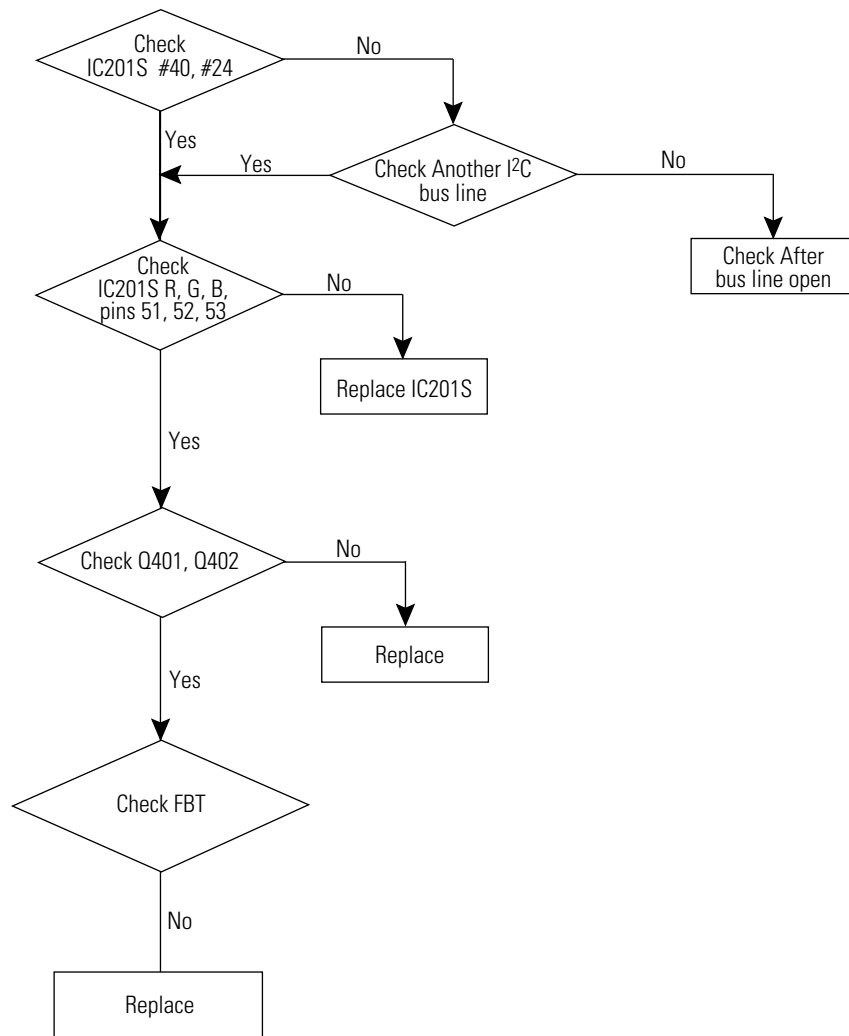
MEMO

5. Troubleshooting

5-1 No Power (No Picture on)



5-2 No RF Picture / Sound



5-3 No Picture (Sound OK)

1. Check the Brightness, Contrast and Color adjustments
2. Check: AV Picture, Video Playback
3. See Video Block Diagram

5-4 No Sound (Picture OK)

1. Check the Volume adjustment level.
2. Check AV Video, Sound Playback
3. See Audio Block Diagram

5-5 RF Weak Signal (Playback, AV Mode OK)

1. Check Tuner (TU01S) B+. Check : 9V, 33V, 5V (CN802A)

5-6 Recording Defect

1. CN802A Check : Retouch
2. 2nd Tuner (TU02S) B+. Check : 33V(LT02)
5V (JTV501)
3. 2nd If : Check 5V (ICT01), Video out, Audio out
4. Video Defect : IC701 Check
5. Audio Defect : IC701 Check
6. Standby Recording Defect, ICM601 #42 Line:
7. VPS (PDC) Recording Defect: Check ICP01, #5, #27, #24, #2

5-7 No Color

1. Check the Color Adjustment level
2. Check the Sandcastle Pulse Line : IC201S #34
3. Check the R-Y, B-Y Line : IC201S #51~#53

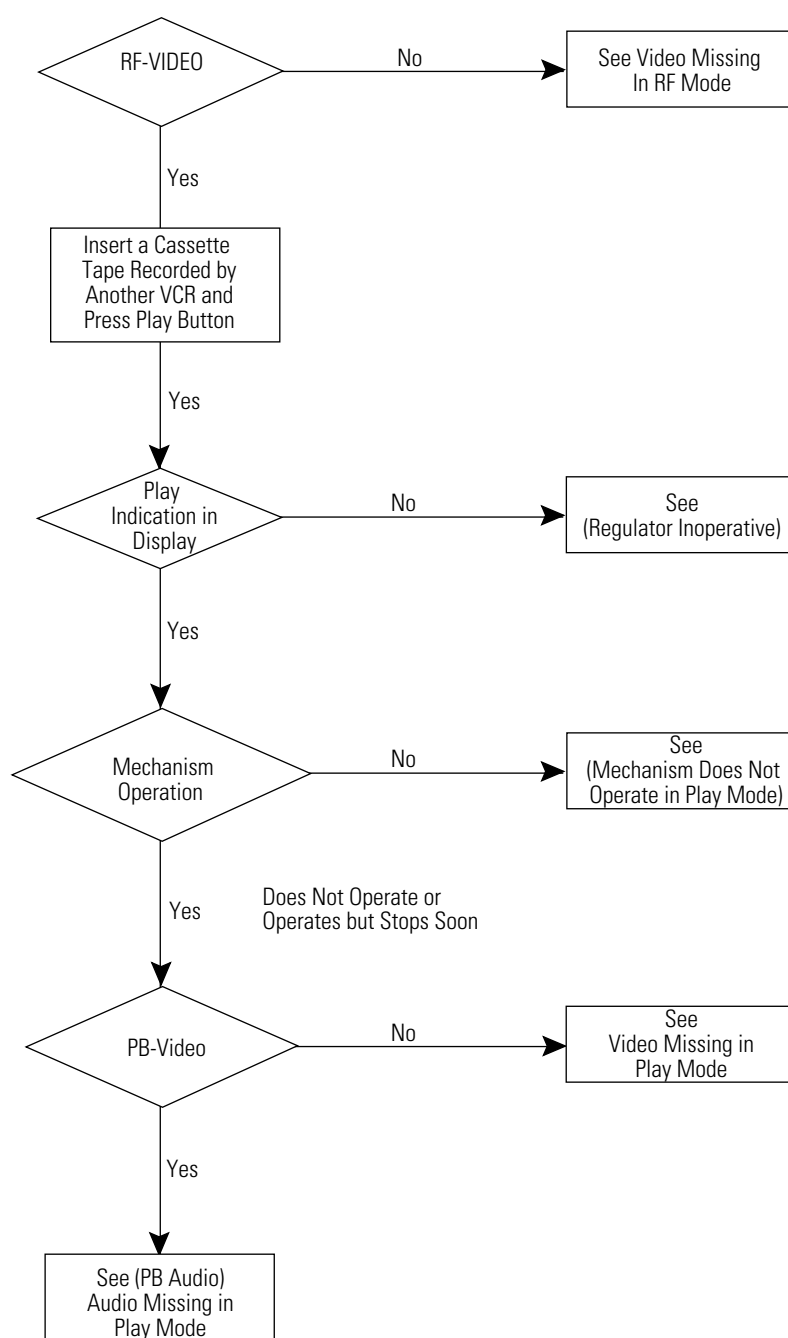
5-8 No Vertical SCAN

1. Check L301, L302, C310
2. Check IC301, #2
3. Check IC201S #21, #22
4. Check DY Connector

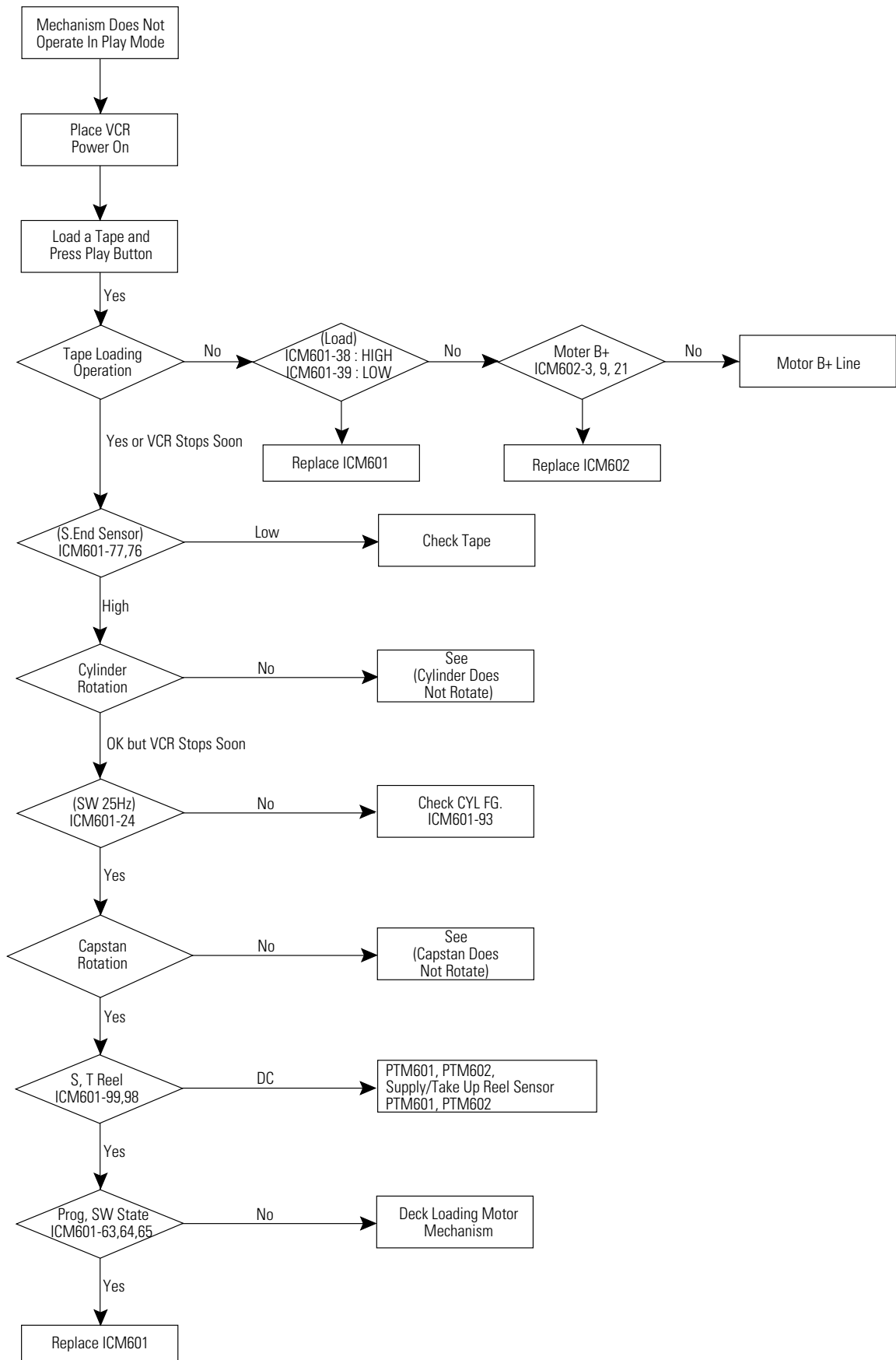
5-9 Horizontal Size

1. Check LR401S, L402, CR402S

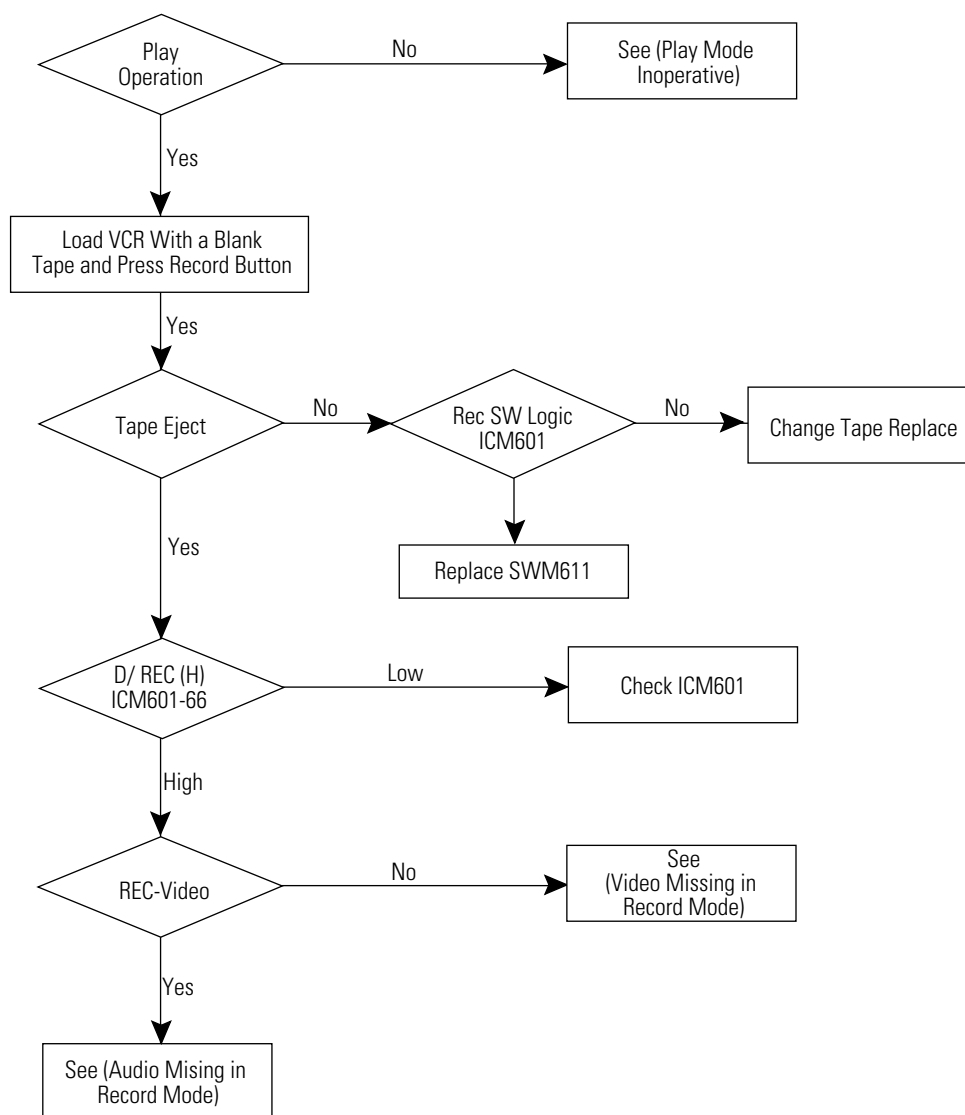
5-10 Play Mode Inoperative



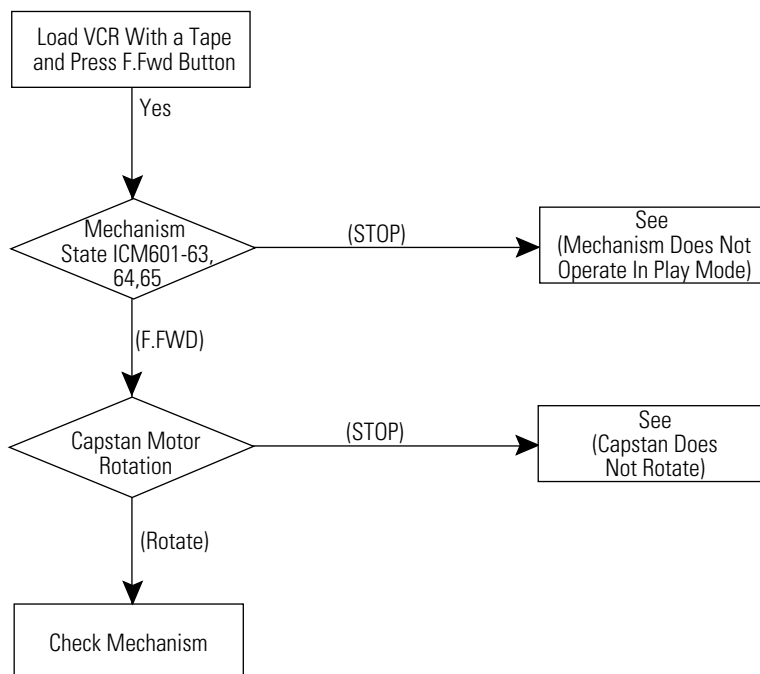
5-11 Mechanism Does Not Operate In Play Mode



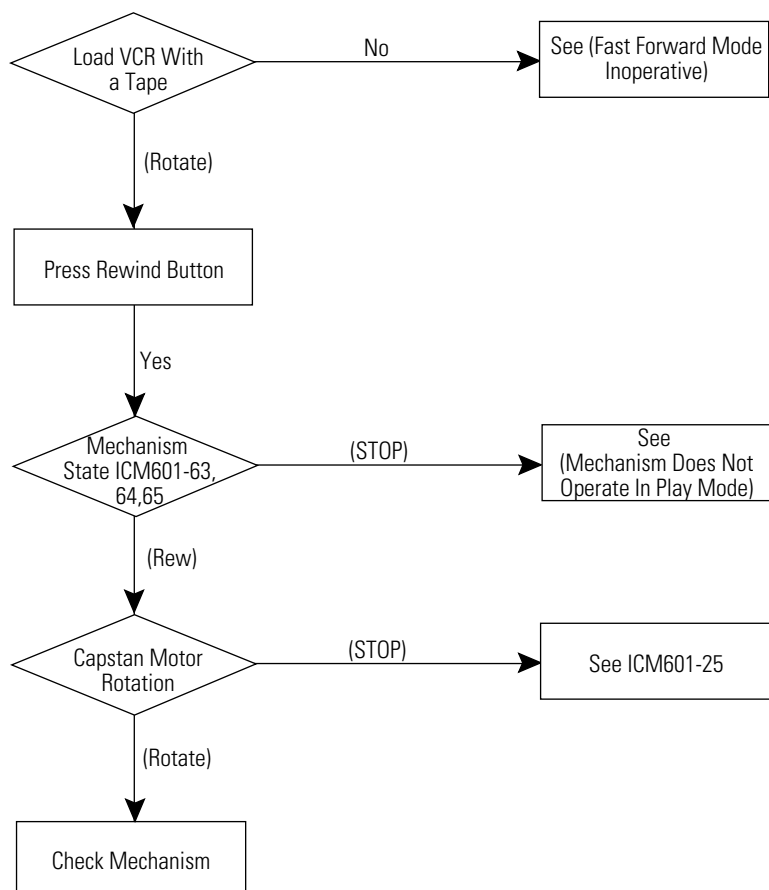
5-12 Record Mode Inoperative



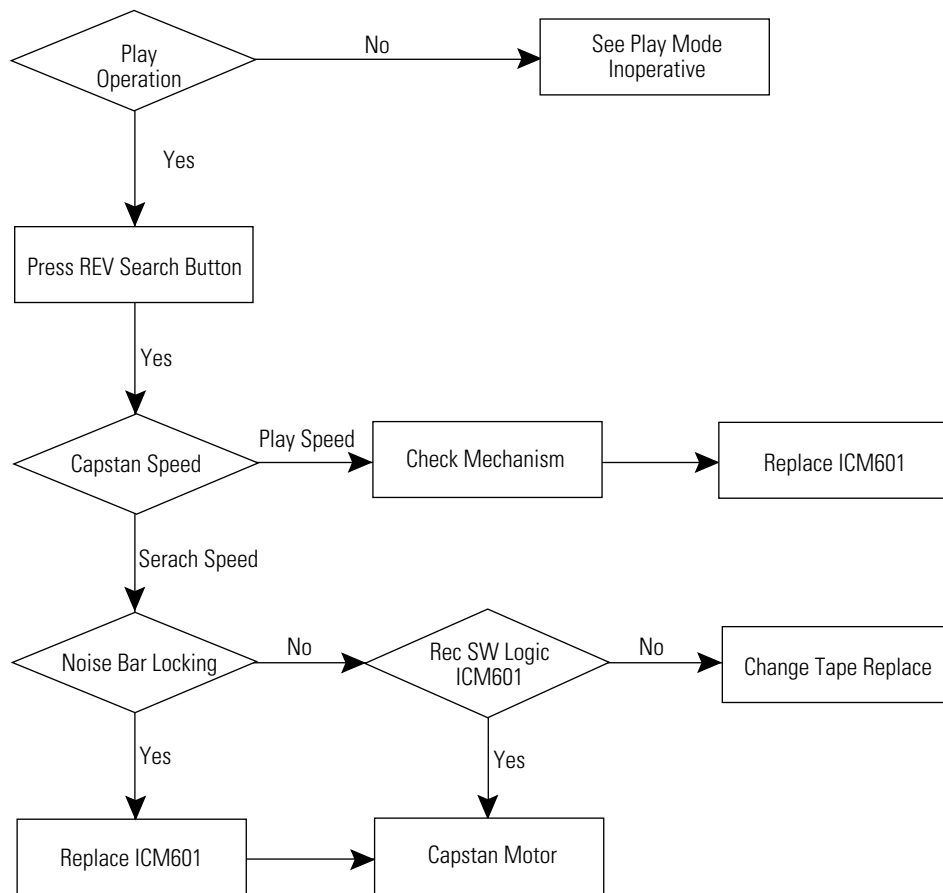
5-13 Fast Forward Mode Inoperative



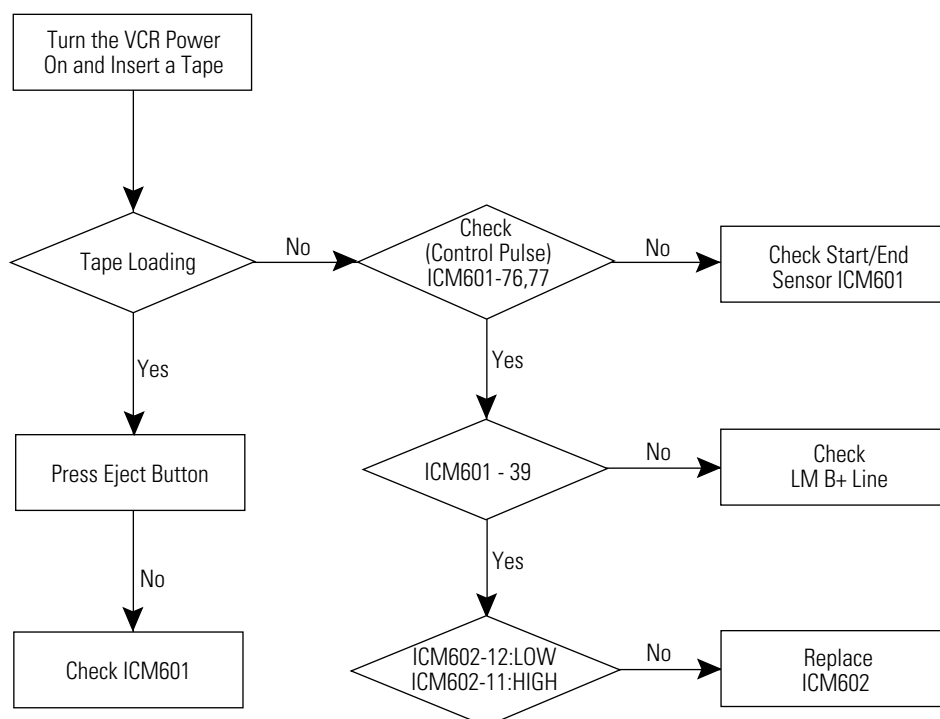
5-14 Rewind Mode Inoperative



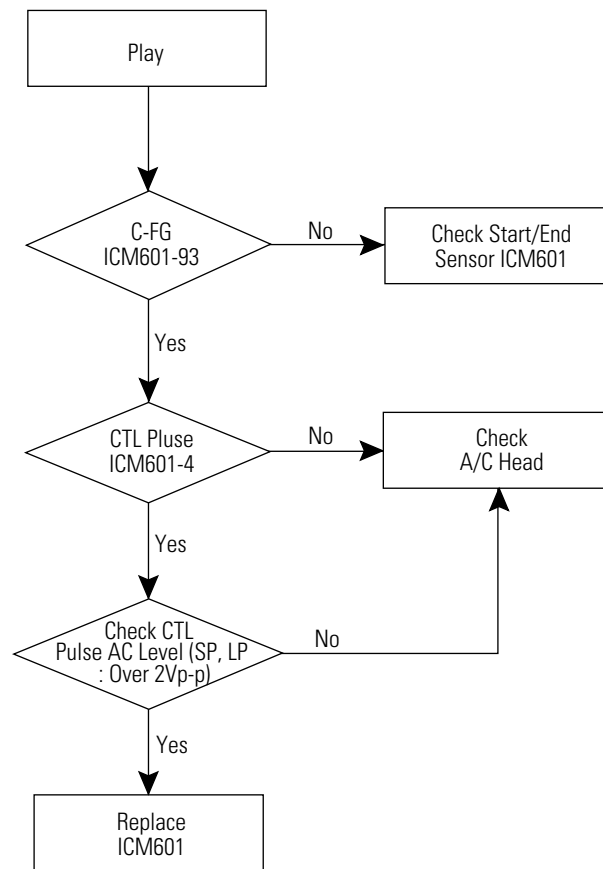
5-15 Rev Search Mode Inoperative



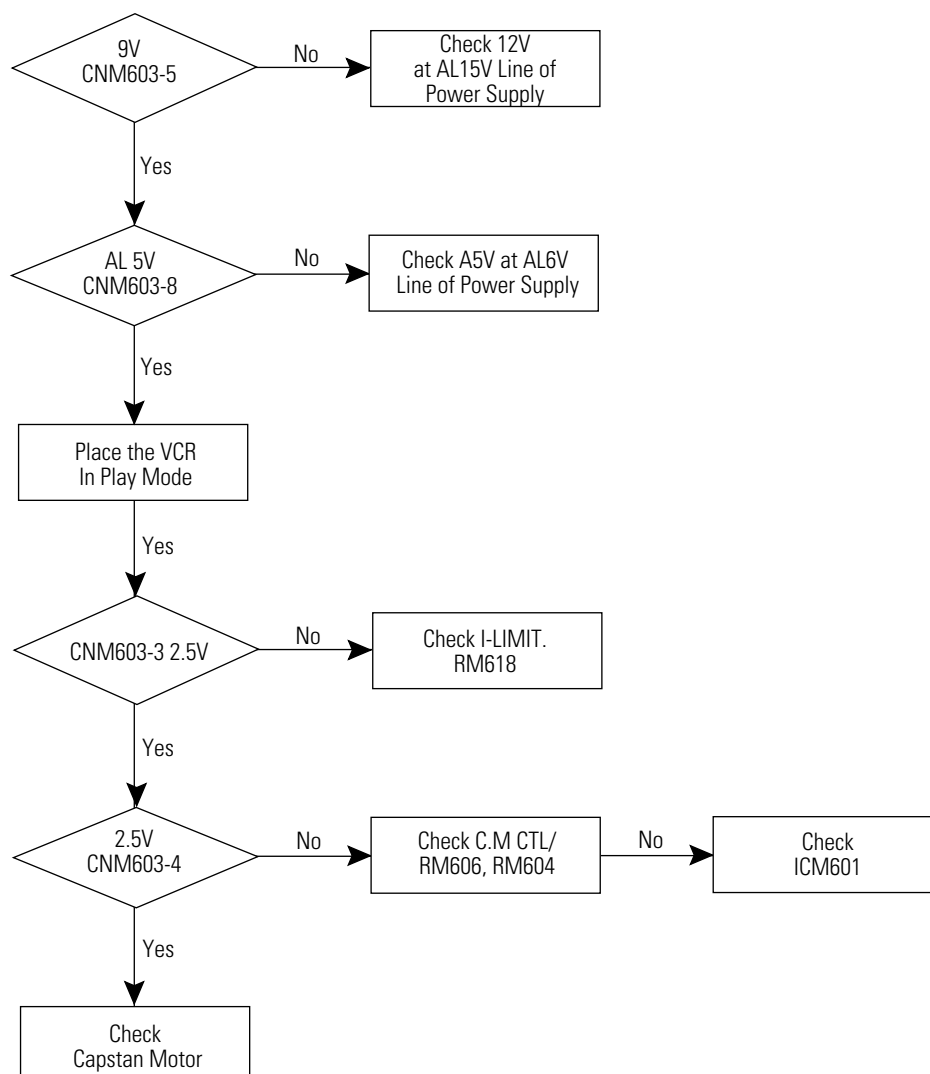
5-16 Cassette Loading Mechanism Does Not Operate



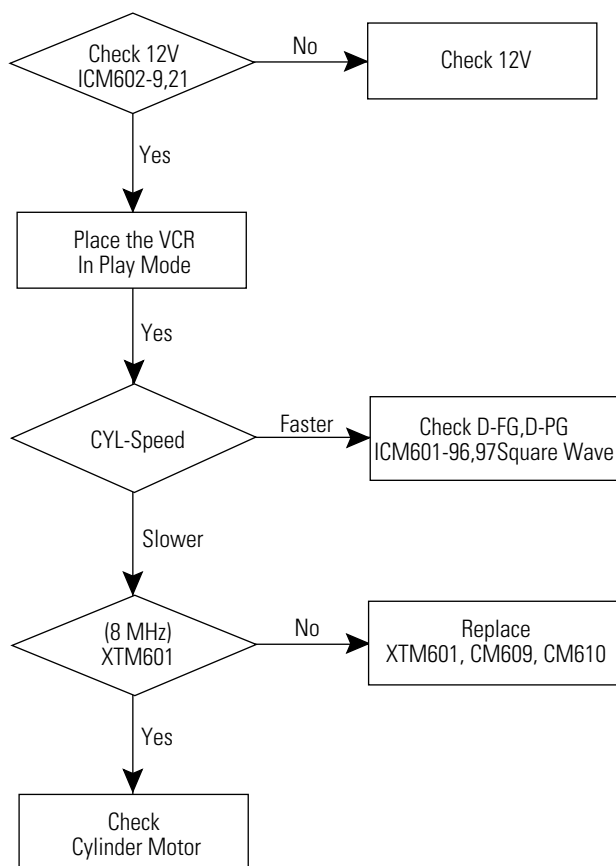
5-17 No Servo Lock



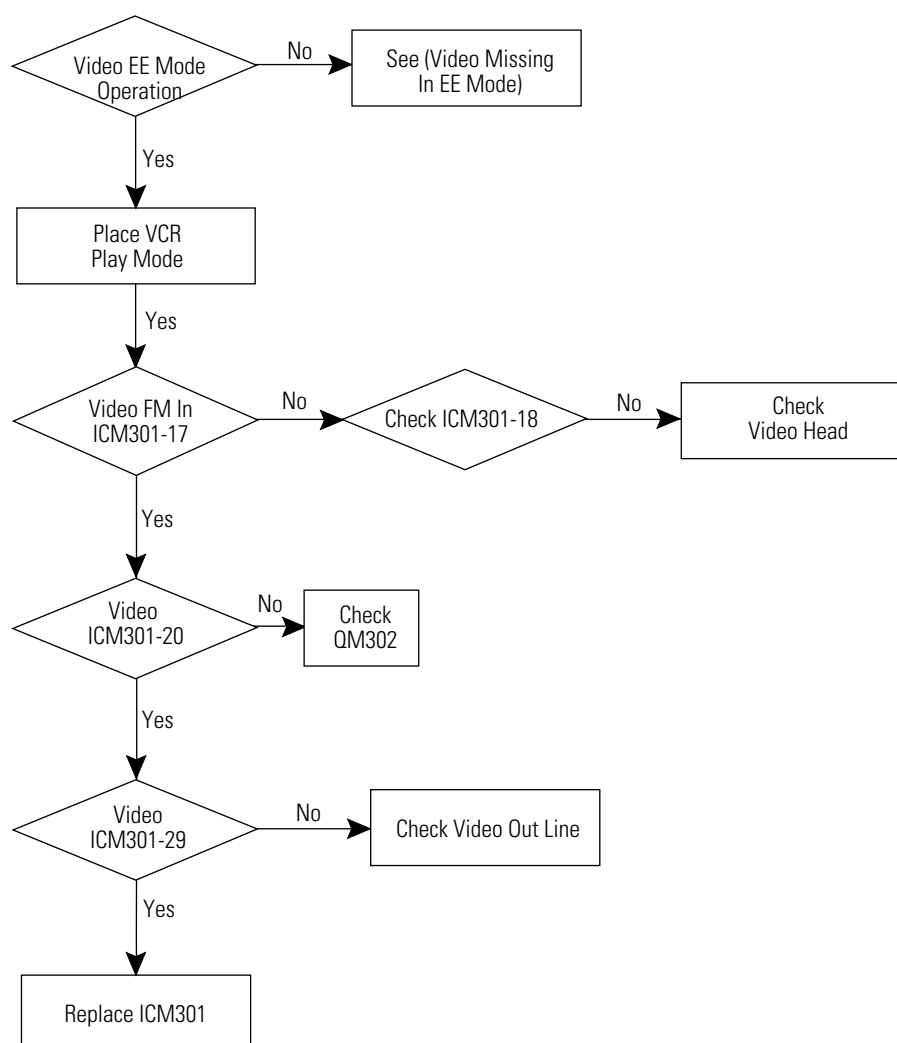
5-18 Capstan Does Not Rotate



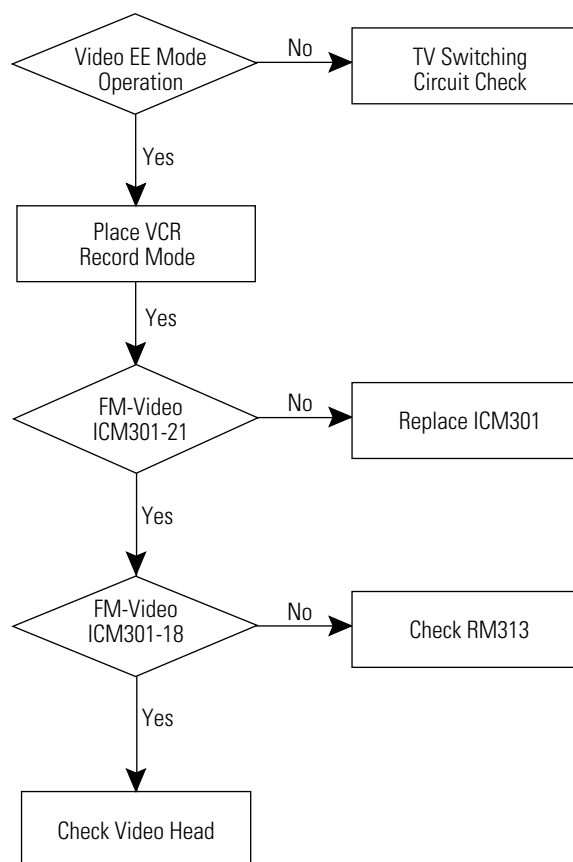
5-19 Drum Does Not Rotate



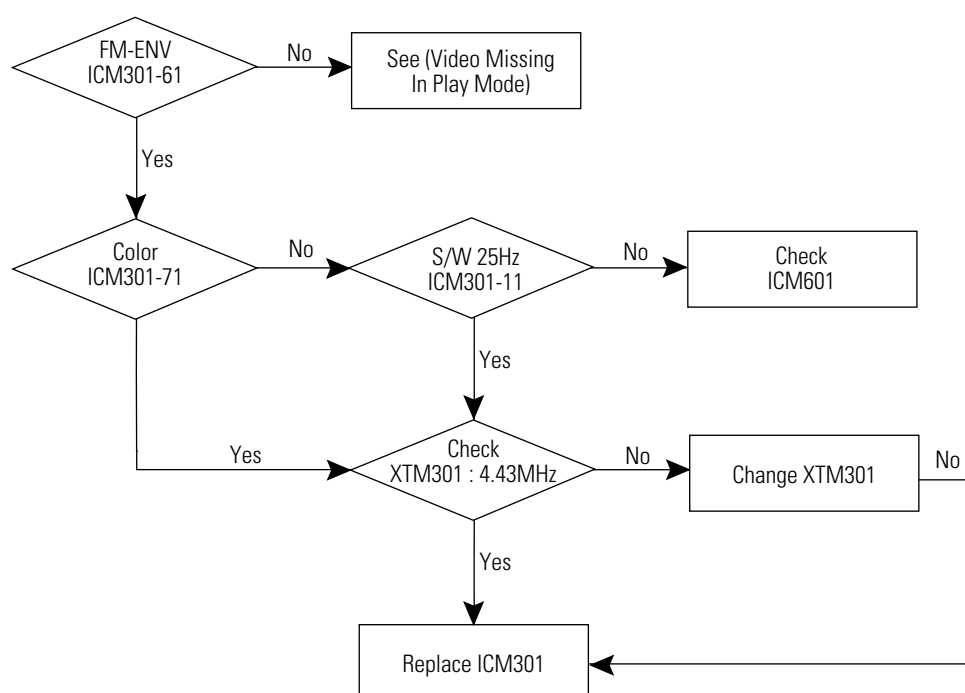
5-20 Video Missing In Play Mode



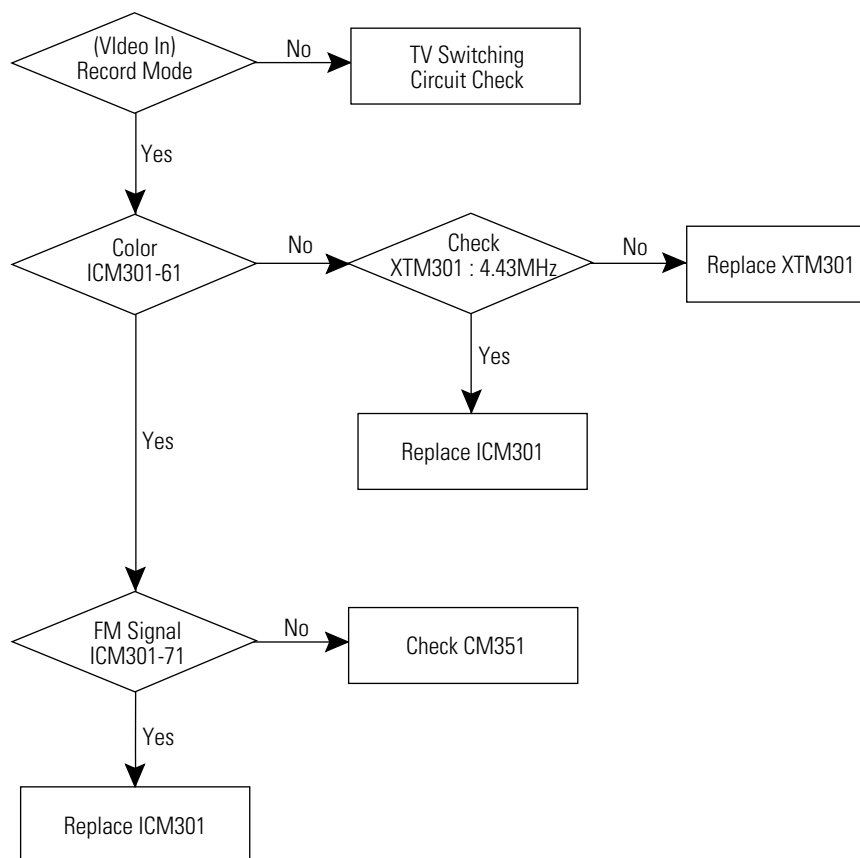
5-21 Video Missing In Record Mode



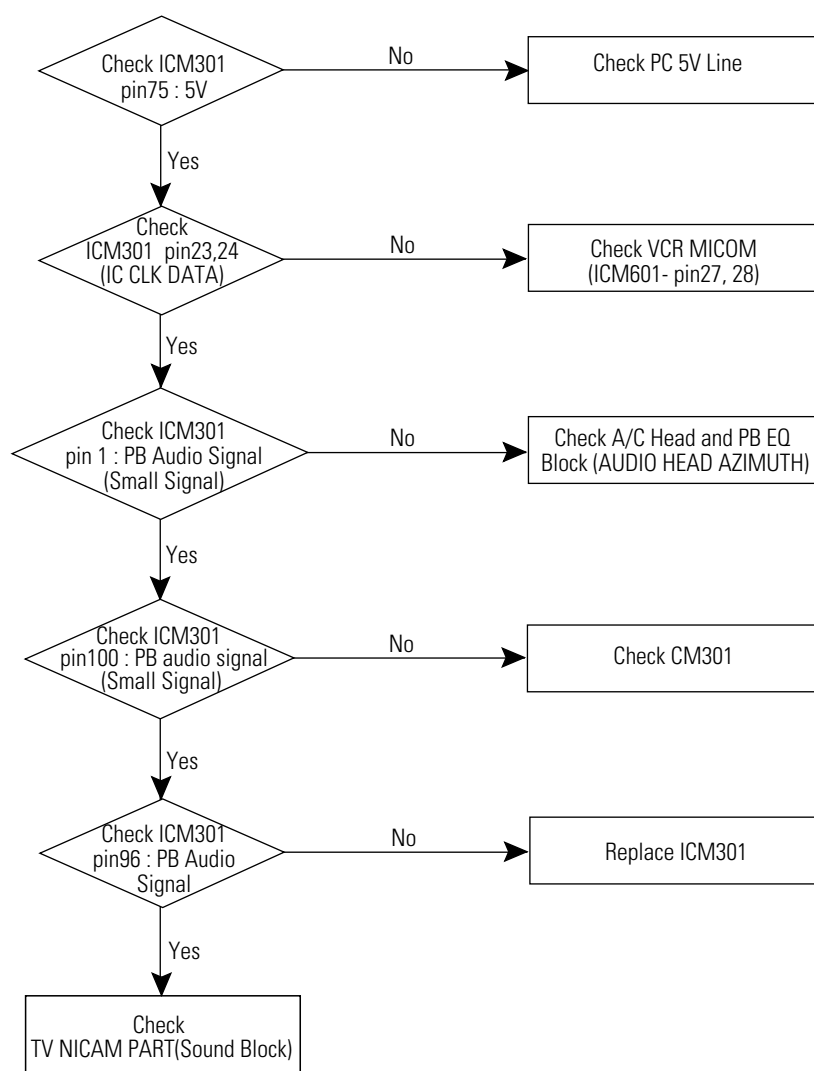
5-22 Color Missing In Play Mode



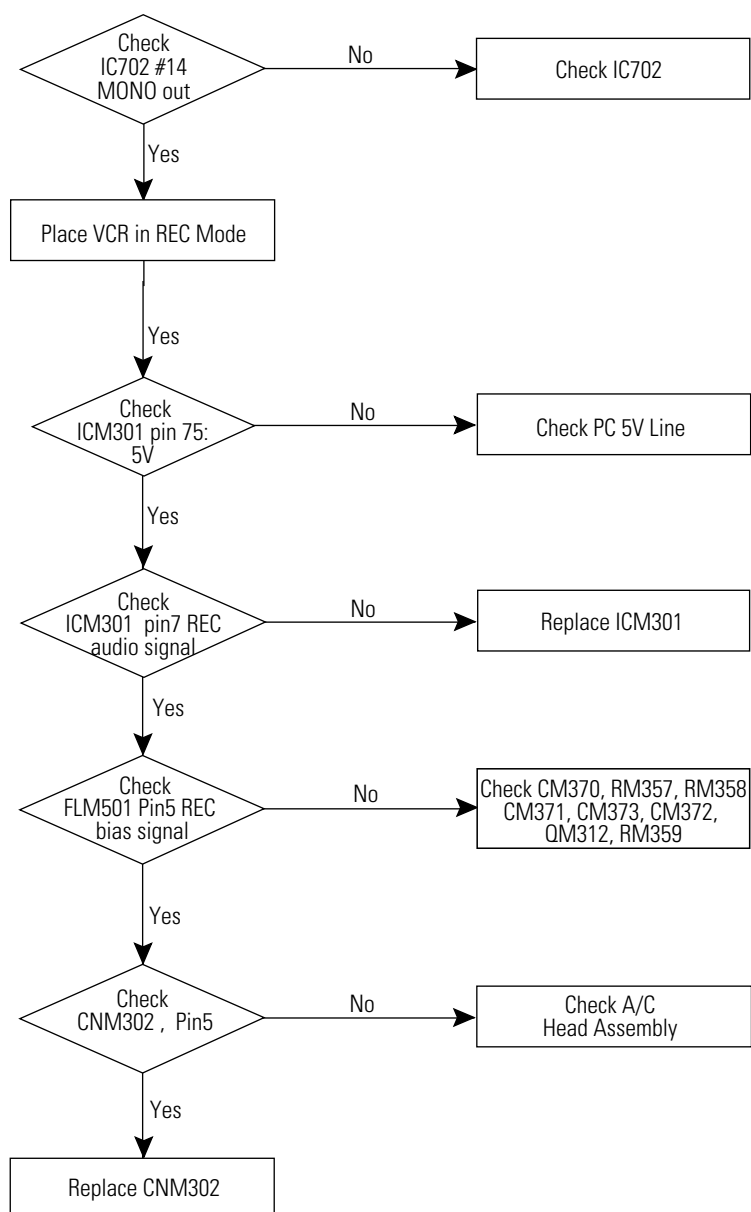
5-23 Color Missing In Record Mode



5-24 Audio Signal Missing in Play Mode (MONO MODE)



5-25 Audio Signal Missing After Recording (MONO MODE)



You can search for the updated part code through ITSELF web site.
URL : <http://itself.sec.samsung.co.kr>

7. Electrical Parts List

7-1 TW20P14X/BWT

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
ASSY CHASSIS				5	DZ903	0403-000508	DIODE-ZENER
1	AA91-05353C	ASSY CHASSIS	TW20P14X/BWT,C17A,RUSS,SEB&	5	DZ902	0403-000508	DIODE-ZENER
2	AA94-11841A	ASSY PCB MISC-M/DECK	TF20P1D4X/XEF,C17A	5	DZ901	0403-000508	DIODE-ZENER
3	0201-000280	ADHESIVE-TS	EH-260D,RED,450°±50PS,10CC	5	DZ101	0403-000508	DIODE-ZENER
3	0202-000008	SOLDER-WIRE	S63S-W3,0,S63S,D3,63Sn/37Pb,	5	DZ206	0403-000720	DIODE-ZENER
3	0202-000187	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb	5	DZ701	0403-000720	DIODE-ZENER
3	0204-000442	SOLVENT	1M-1000,C3H7OH,96,-	5	ZDM602	0403-000720	DIODE-ZENER
3	0204-001024	FLUX	DF-98TVS,-,20%,-	5	DZ201	0403-000720	DIODE-ZENER
3	PTM601	0604-001122	PHOTO-INTERRUPTER	5	DZ203	0403-000720	DIODE-ZENER
3	PTM602	0604-001122	PHOTO-INTERRUPTER	5	DZ204	0403-000720	DIODE-ZENER
3	ICM602	1003-001318	IC-MOTOR DRIVER	5	DZ205	0403-000720	DIODE-ZENER
3	IC601	1201-001386	IC-POWER AMP	5	KEZ1	0403-000720	DIODE-ZENER
3	XTM301	2801-000277	CRYSTAL-UNIT	5	DZ202	0403-001322	DIODE-ZENER
3	CNM301	3708-000394	CONNECTOR-FPC/FFC/PIC	5	QM312	0501-000010	TR-SMALL SIGNAL
3	CNM302	3708-000394	CONNECTOR-FPC/FFC/PIC	5	Q701	0501-000283	TR-SMALL SIGNAL
3	CNM602	3708-001053	CONNECTOR-FPC/FFC/PIC	5	Q201	0501-000283	TR-SMALL SIGNAL
3	CNM303	3710-001648	CONNECTOR-SOCKET	5	QM315	0501-000303	TR-SMALL SIGNAL
3	CN601B	3711-002642	CONNECTOR-HEADER	5	QM311	0501-000303	TR-SMALL SIGNAL
3	CN601A	3711-002643	CONNECTOR-HEADER	5	QM305	0501-000303	TR-SMALL SIGNAL
3	CN501A	3711-002644	CONNECTOR-HEADER	5	QM317	0501-000389	TR-SMALL SIGNAL
3	TPCN01	3711-002648	CONNECTOR-HEADER	5	QM304	0501-000389	TR-SMALL SIGNAL
3	CNM603	3711-003749	CONNECTOR-HEADER	5	Q205	0501-000389	TR-SMALL SIGNAL
3	LDM602	3722-001742	JACK-PIN	5	Q202	0501-000389	TR-SMALL SIGNAL
3	CNM302	3809-001206	CABLE-FLAT	5	Q203	0501-000389	TR-SMALL SIGNAL
3	CNM602	3809-001312	CABLE-FLAT	5	Q204	0501-000389	TR-SMALL SIGNAL
3	FLM301	AA26-10006C	TRANS RF	5	QM605	0501-000398	TR-SMALL SIGNAL
3	SWM610	AA34-20001A	SWITCH-MODE	5	QM604	0501-000398	TR-SMALL SIGNAL
3	SWM611	AA34-40001A	SWITCH-REC.	5	QM603	0501-000398	TR-SMALL SIGNAL
3	W01	AA39-00046C	LEAD CONNECTOR-ASSY	5	QM308	0501-000398	TR-SMALL SIGNAL
3	CN802A	AA39-00180C	LEAD CONNECTOR-ASSY	5	QM306	0501-000398	TR-SMALL SIGNAL
3	CN801A	AA39-20055B	LEAD CONNECTOR-ASSY	5	QM302	0501-000398	TR-SMALL SIGNAL
3	CNM601	AA39-20603A	LEAD CONNECTOR-ASSY	5	QM301	0501-000398	TR-SMALL SIGNAL
3	REM601	AA59-60003V	MODULE REMOCOIN	5	QM314	0501-000442	TR-SMALL SIGNAL
3	GPM01	AA63-00444B	GROUND	5	QM313	0501-000442	TR-SMALL SIGNAL
3	LDM601	AA91-60318A	ASSY HOLDER-LED	5	QM303	0504-000119	TR-DIGITAL
4	LED	0601-001303	LED-IR	5	Q601	0504-000123	TR-DIGITAL
4	HOLDER	AA61-00003A	HOLDER-LED	5	ICM603	1203-000642	IC-RESET
3	SM601	AA91-60319A	ASSY HOLDER-SENSOR	5	RM638	2001-000003	R-CARBON
3	SM602	AA91-60319A	ASSY HOLDER-SENSOR	5	RM633	2001-000003	R-CARBON
4	TR	0603-001011	PHOTO TR	5	RM632	2001-000003	R-CARBON
4	HOLDER	AA61-00005A	HOLDER-SENSOR	5	RM319	2001-000003	R-CARBON
3	AA97-12679A	ASSY ROBOT	CS21K5	5	RM318	2001-000003	R-CARBON
4	IC702	0801-000213	IC-CMOS LOGIC	5	RM655	2001-000005	R-CARBON
4	IC701	0801-000961	IC-CMOS LOGIC	5	RM654	2001-000005	R-CARBON
4	IC902	1103-001177	IC-EEPROM	5	R205	2001-000005	R-CARBON
4	SF101S	2904-000267	FILTER-SAW AV	5	RM352	2001-000006	R-CARBON
4	JS701	3722-000183	JACK-SCART	5	R212	2001-000008	R-CARBON
4	IC201S	AA09-00315A	IC MICOM	5	RM370	2001-000008	R-CARBON
4	TU01S	HA83-00061A	LA-TUNER	5	RM612	2001-000009	R-CARBON
4	AA97-12960A	ASSY AUTO	C17A	5	RM644	2001-000010	R-CARBON
5	DM301	0401-000005	DIODE-SWITCHING	5	RM610	2001-000010	R-CARBON
5	DM601	0401-000005	DIODE-SWITCHING	5	R203	2001-000011	R-CARBON
5	DM603	0401-000005	DIODE-SWITCHING	5	R711	2001-000037	R-CARBON(S)
5	DM609	0401-000005	DIODE-SWITCHING	5	RM641	2001-000118	R-CARBON(S)
5	DJ01	0401-000005	DIODE-SWITCHING	5	RM349	2001-000221	R-CARBON
5	D201	0401-000005	DIODE-SWITCHING	5	RM316	2001-000221	R-CARBON
5	D202	0401-000005	DIODE-SWITCHING	5	RM335	2001-000232	R-CARBON
5	D205	0401-000005	DIODE-SWITCHING	5	RM323	2001-000241	R-CARBON
5	D601	0401-000005	DIODE-SWITCHING	5	RM307	2001-000241	R-CARBON
5	D602	0402-000132	DIODE-RECTIFIER	5	RM339	2001-000258	R-CARBON
5	D203	0402-000132	DIODE-RECTIFIER	5	RM358	2001-000258	R-CARBON
5	ZDM601	0403-000508	DIODE-ZENER	5	RM623	2001-000273	R-CARBON
				5	R917	2001-000281	R-CARBON
				5	R916	2001-000281	R-CARBON
				5	R915	2001-000281	R-CARBON

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Loc. No.	Code No.	Description ; Specification	Remark
5	RM317	2001-000429	R-CARBON
5	RM312	2001-000429	R-CARBON
5	RM310	2001-000429	R-CARBON
5	R903	2001-000429	R-CARBON
5	RM609	2001-000429	R-CARBON
5	RM643	2001-000429	R-CARBON
5	RM629	2001-000429	R-CARBON
5	RM628	2001-000429	R-CARBON
5	RM626	2001-000429	R-CARBON
5	RM625	2001-000429	R-CARBON
5	RM613	2001-000429	R-CARBON
5	RM621	2001-000429	R-CARBON
5	RM622	2001-000429	R-CARBON
5	RM624	2001-000429	R-CARBON
5	R721	2001-000429	R-CARBON
5	RM340	2001-000449	R-CARBON
5	R913	2001-000449	R-CARBON
5	R912	2001-000449	R-CARBON
5	RM344	2001-000454	R-CARBON
5	RM359	2001-000458	R-CARBON
5	RM346	2001-000472	R-CARBON
5	RM334	2001-000472	R-CARBON
5	RM313	2001-000472	R-CARBON
5	R210	2001-000490	R-CARBON
5	R211	2001-000490	R-CARBON
5	RM372	2001-000515	R-CARBON
5	RM326	2001-000515	R-CARBON
5	RM315	2001-000515	R-CARBON
5	RM660	2001-000522	R-CARBON
5	RM642	2001-000522	R-CARBON
5	RM602	2001-000522	R-CARBON
5	RM363	2001-000522	R-CARBON
5	RM354	2001-000522	R-CARBON
5	R706	2001-000522	R-CARBON
5	R722	2001-000527	R-CARBON
5	R227	2001-000531	R-CARBON
5	RM669	2001-000539	R-CARBON
5	RM661	2001-000554	R-CARBON
5	RM601	2001-000554	R-CARBON
5	RM320	2001-000554	R-CARBON
5	R605	2001-000563	R-CARBON
5	R204	2001-000563	R-CARBON
5	R206	2001-000591	R-CARBON
5	RM675	2001-000613	R-CARBON
5	R214	2001-000613	R-CARBON
5	RM640	2001-000633	R-CARBON
5	R719	2001-000633	R-CARBON
5	RM304	2001-000645	R-CARBON
5	RM616	2001-000660	R-CARBON
5	RM604	2001-000660	R-CARBON
5	RM306	2001-000660	R-CARBON
5	R704	2001-000660	R-CARBON
5	R201	2001-000689	R-CARBON
5	RM331	2001-000723	R-CARBON
5	RM636	2001-000734	R-CARBON
5	RM635	2001-000734	R-CARBON
5	RM634	2001-000734	R-CARBON
5	RM365	2001-000734	R-CARBON
5	RM345	2001-000734	R-CARBON
5	R221	2001-000734	R-CARBON
5	R914	2001-000734	R-CARBON
5	R919	2001-000734	R-CARBON
5	RM324	2001-000734	R-CARBON
5	R220	2001-000739	R-CARBON
5	R219	2001-000739	R-CARBON
5	RM379	2001-000766	R-CARBON
5	RM328	2001-000766	R-CARBON
5	RM357	2001-000780	R-CARBON
5	RM327	2001-000780	R-CARBON
5	RM618	2001-000786	R-CARBON
5	RM377	2001-000786	R-CARBON
5	RM375	2001-000786	R-CARBON
5	R226	2001-000786	R-CARBON
5	R223	2001-000786	R-CARBON
5	R106	2001-000786	R-CARBON
5	R207	2001-000793	R-CARBON
5	RM369	2001-000800	R-CARBON

Loc. No.	Code No.	Description ; Specification	Remark
5	RM373	2001-000812 R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM351	2001-000812 R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM302	2001-000812 R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	R703	2001-000812 R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	R702	2001-000812 R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM611	2001-000832 R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM348	2001-000832 R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM347	2001-000832 R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM627	2001-000850 R-CARBON	560KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	R202	2001-000857 R-CARBON	560OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM607	2001-000864 R-CARBON	56KOHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM353	2001-000904 R-CARBON	620OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM314	2001-000924 R-CARBON	680OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R225	2001-000924 R-CARBON	680OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R107	2001-000924 R-CARBON	680OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM380	2001-000947 R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM350	2001-000947 R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM329	2001-000947 R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	R215	2001-000947 R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	R105	2001-000947 R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RJ702	2001-000958 R-CARBON	750OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RJ701	2001-000958 R-CARBON	750OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R714	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R715	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R716	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R717	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R720	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R222	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R701	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R705	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R708	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R713	2001-000969 R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM338	2001-000977 R-CARBON	8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M
5	RM378	2001-000995 R-CARBON	820OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	RM371	2001-001000 R-CARBON	82KOHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R224	2001-001026 R-CARBON	910OHM,5%,1/8W,AA,TP,1.8X3.2MM
5	R213	2004-001914 R-METAL	39Kohm,2%,1/8W,AA,TP,1.8x3.5mm
5	RM630	2008-000253 R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m
5	CM319	2201-000345 C-CERAMIC,DISC	0.2NF,5%,50V,SL,TP,7X3MM,
5	C226	2201-000472 C-CERAMIC,DISC	0.33NF,5%,50V,SL,TP,8.5X3
5	CM316	2201-000499 C-CERAMIC,DISC	0.39NF,5%,50V,SL,TP,8.5X3
5	C905	2201-000573 C-CERAMIC,DISC	0.047NF,5%,50V,COG,TP,5X3
5	C906	2201-000573 C-CERAMIC,DISC	0.047NF,5%,50V,COG,TP,5X3
5	CM360	2201-000611 C-CERAMIC,DISC	0.056NF,5%,50V,COG,TP,7X3
5	CM359	2201-000611 C-CERAMIC,DISC	0.056NF,5%,50V,COG,TP,7X3
5	CM315	2201-002031 C-CERAMIC,DISC	0.005NF,0.5PF,50V,COG,TP,
5	CM640	2202-000121 C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP
5	CJ702	2202-000121 C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP
5	CM613	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM612	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM397	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM396	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM379	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM378	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM615	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CT19	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM656	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM635	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM634	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM624	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM621	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM330	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM321	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM313	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	C602	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	C106	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	C102	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM334	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM349	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM341	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM338	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM337	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM336	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM335	2202-000127 C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V
5	CM318	2202-000162 C-CERAMIC,MLC-AXIAL	0.015NF,5%,50V,SL,TP
5	CM636	2202-000183 C-CERAMIC,MLC-AXIAL	2.2NF,20%,16V,Y5R,TP
5	CM637	2202-000183 C-CERAMIC,MLC-AXIAL	2.2NF,20%,16V,Y5R,TP

Loc. No.	Code No.	Description ; Specification	Remark
5	CM610	2202-000205 C-CERAMIC,MLC-AXIAL	22pF,5%,50V,SL,TP,1.
5	CM609	2202-000205 C-CERAMIC,MLC-AXIAL	22pF,5%,50V,SL,TP,1.
5	CM314	2202-000216 C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP
5	C716	2202-000231 C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T
5	C715	2202-000231 C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T
5	C703	2202-000231 C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T
5	C731	2202-000243 C-CERAMIC,MLC-AXIAL	33pF,5%,50V,SL,TP,3.
5	CM638	2202-000263 C-CERAMIC,MLC-AXIAL	470pF,10%,50V,Y5P,TP
5	CM395	2202-000279 C-CERAMIC,MLC-AXIAL	47pF,5%,50V,SL,TP,3.
5	CM606	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM394	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM393	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM367	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM358	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM659	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM652	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM651	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM631	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM607	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM327	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM301	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	C231	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	C205	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	C204	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM354	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM352	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM342	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM339	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM329	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM617	2202-000718 C-CERAMIC,MLC-AXIAL	3.9nF,20%,16V,Y5R,TP
5	CM616	2202-000718 C-CERAMIC,MLC-AXIAL	3.9nF,20%,16V,Y5R,TP
5	C704	2202-000719 C-CERAMIC,MLC-AXIAL	6.8nF,20%,16V,Y5R,TP
5	CM325	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	CM650	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	CM657	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	C904	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	C224	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	C223	2202-000796 C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3
5	CM601	2202-000806 C-CERAMIC,MLC-AXIAL	220pF,10%,50V,Y5P,TP
5		0203-001123 TAPE-PAPER	#53131,TO,15,W6.0,L200000,YEL
5	CM630	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM629	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM628	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM622	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM604	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM351	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM347	2202-000807 C-CERAMIC,MLC-AXIAL	22nF,+80-20%,25V,Y5V
5	CM320	2202-000849 C-CERAMIC,MLC-AXIAL	0.018NF,5%,50V,COG,T
5	C211	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	C911	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CL08	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
5	CM350	2202-002055 C-CERAMIC,MLC-AXIAL	47nF,+80-20%,50V,Y5V
5	CM345	2202-002055 C-CERAMIC,MLC-AXIAL	47nF,+80-20%,50V,Y5V
5	CM309	2202-002055 C-CERAMIC,MLC-AXIAL	47nF,+80-20%,50V,Y5V
5	C227	2301-000104 C-FILM,PEF	1.2NF,5%,50V,TP,6.5X3.0X5.5MM
5	CM372	2301-000160 C-FILM,PEF	12nF,5%,50V,TP,11.0x6.0x9.0mm
5	CM368	2301-000175 C-FILM,PEF	15nF,5%,50V,TP,7.1x3.5x13mm,5
5	CM306	2301-000192 C-FILM,PEF	1nF,5%,50V,TP,5.3x10mm,5mm
5	C201	2301-000204 C-FILM,PEF	2.7nF,5%,50V,TP,7.4x3.9x13mm,
5	C604	2301-000204 C-FILM,PEF	2.7nF,5%,50V,TP,7.4x3.9x13mm,
5	C108	2301-000224 C-FILM,PEF	22nF,5%,50V,TP,7.4x3.9x13mm,5
5	CM370	2301-000254 C-FILM,PEF	39nF,5%,50V,TP,7.5x3.5x6.5mm,
5	CM362	2301-000301 C-FILM,PEF	6.8nF,5%,50V,TP,6.5X5.5X3.0X5
5	CM363	2301-000301 C-FILM,PEF	6.8nF,5%,50V,TP,6.5X5.5X3.0X5
5	CM371	2301-000301 C-FILM,PEF	6.8nF,5%,50V,TP,6.5X5.5X3.0X5
5	CM603	2301-000310 C-FILM,PEF	68nF,5%,50V,TP,8.0X8.5X4.0X5,
5	CM364	2301-000314 C-FILM,PEF	8.2nF,5%,50V,TP,6.5x3.0x5.5mm
5	C217	2301-000342 C-FILM,PEF	2.2nF,5%,50V,TP,7.4x3.9x13mm,
5	CM305	2301-000342 C-FILM,PEF	2.2nF,5%,50V,TP,7.4x3.9x13mm,
5	CM303	2301-000383 C-FILM,PEF	10nF,5%,50V,TP,6x7x3.2mm,5mm
5	C903	2301-000383 C-FILM,PEF	10nF,5%,50V,TP,6x7x3.2mm,5mm
5	C232	2301-000445 C-FILM,PEF	4.7nF,5%,50V,TP,5.5x7x3mm,5mm
5	CM660	2305-000289 C-FILM,MPEF	220nF,5%,63V,TP,-5mm
5	C712	2305-000289 C-FILM,MPEF	220nF,5%,63V,TP,-5mm
5	C216	2305-000289 C-FILM,MPEF	220nF,5%,63V,TP,-5mm
5	C215	2305-000289 C-FILM,MPEF	220nF,5%,63V,TP,-5mm
5	C901	2305-000412 C-FILM,MPEF	470nF,5%,63V,TP,-5mm

Electrical Parts List

Loc. No.	Code No.	Description ; Specification	Remark
5 C207	2305-000412	C-FILM, MPEF	470nF, 5%, 63V, TP, -, 5mm
5 CM311	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C909	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C230	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C218	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C210	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C208	2305-000665	C-FILM, MPEF	100nF, 5%, 63V, TP, 7.5x4.0x5.0mm
5 C225	2309-000138	C-FILM, PE-PPF	100nF, 5%, 50V, TP, 20x16x8.5
5 C233	2401-002075	C-AL	4.7uF, 20%, 50V, GP, TP, 5x11.5
5 C104	2401-000939	C-AL	22uF, 20%, 25V, GP, TP, 5x11.5
5 CM332	2401-000426	C-AL	10uF, 20%, 16V, GP, TP, 3.5x5.5
5 CM323	2401-000426	C-AL	10uF, 20%, 16V, GP, TP, 3.5x5.5
5 CM304	2401-000426	C-AL	10uF, 20%, 16V, GP, TP, 3.5x5.5
5 CM361	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM348	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM333	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM331	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM317	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM310	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 C605	2401-000590	C-AL	1uF, 20%, 50V, GP, TP, 3x5.5
5 CM611	2401-000598	C-AL	1uF, 20%, 50V, GP, TP, 4x7.5
5 CM346	2401-000598	C-AL	1uF, 20%, 50V, GP, TP, 4x7.5
5 CM344	2401-000598	C-AL	1uF, 20%, 50V, GP, TP, 4x7.5
5 C219	2401-000603	C-AL	1uF, 20%, 50V, GP, TP, 5x11.5
5 CM392	2401-000603	C-AL	1uF, 20%, 50V, GP, TP, 5x11.5
5 C212	2401-000649	C-AL	2.2uF, 20%, 50V, BP, TP, 5x11.5
5 C221	2401-000660	C-AL	2.2uF, 20%, 50V, GP, TP, 5x11.5
5 CM308	2401-000665	C-AL	2.2uF, 20%, 50V, GP, TP, 3.5x5.5
5 CM355	2401-000922	C-AL	22uF, 20%, 16V, GP, TP, 5x5.5
5 CM324	2401-000922	C-AL	22uF, 20%, 16V, GP, TP, 5x5.5
5 C606	2401-000922	C-AL	22uF, 20%, 16V, GP, TP, 5x5.5
5 C101	2401-001101	C-AL	330uF, 20%, 16V, GP, TP, 8x11.5
5 CT18	2401-001101	C-AL	330uF, 20%, 16V, GP, TP, 8x11.5
5 C601	2401-001115	C-AL	330uF, 20%, 25V, GP, TP, 10x12.5
5 CM307	2401-001250	C-AL	4.7uF, 20%, 35V, GP, TP, 4x5.5
5 CM365	2401-001250	C-AL	4.7uF, 20%, 35V, GP, TP, 4x5.5
5 CM639	2401-001250	C-AL	4.7uF, 20%, 35V, GP, TP, 4x5.5
5 CM326	2401-001325	C-AL	470nF, 20%, 50V, GP, TP, 3x5.5
5 CM605	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM602	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM399	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM373	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM312	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM340	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM343	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 C603	2401-001496	C-AL	47uF, 20%, 16V, GP, TP, 5x7.5
5 CM632	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C907	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C902	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C229	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C209	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C213	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C214	2401-000025	C-AL	100uF, 20%, 16V, GP, TP, 6.3x11.5
5 C228	2401-001989	C-AL	4.7uF, 20%, 50V, BP, TP, 5x11.5
5 CM623	2401-001998	C-AL	100uF, 20%, 25V, GP, TP, 10x20.5mm
5 CM641	2401-002009	C-AL	100uF, 20%, 16V, GP, TP, 6.3x7.5
5 CM357	2401-002144	C-AL	47uF, 20%, 16V, GP, TP, 5x11.5
5 CM353	2401-002144	C-AL	47uF, 20%, 16V, GP, TP, 5x11.5
5 C711	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C713	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C714	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C717	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 CL06	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 CM328	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C710	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C103	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C206	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C220	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C234	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C701	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 C702	2401-000050	C-AL	10uF, 20%, 16V, GP, TP, 5x11.2, 5
5 CM356	2401-002462	C-AL	33uF, 20%, 16V, GP, TP, 5x11.5
5 C203	2401-002462	C-AL	33uF, 20%, 16V, GP, TP, 5x11.5
5 C202	2401-002462	C-AL	33uF, 20%, 16V, GP, TP, 5x11.5
5 CM618	2401-002463	C-AL	470uF, 20%, 16V, GP, TP, 8x11.5
5 C705	2401-002463	C-AL	470uF, 20%, 16V, GP, TP, 8x11.5
5 LM603	2701-000002	INDUCTOR-AXIAL	100uH, 10%, 4.2x9.8mm

Loc. No.	Code No.	Description ; Specification	Remark
5 LM602	2701-000002	INDUCTOR-AXIAL	100uH, 10%, 4.2x9.8mm
5 LM306	2701-000002	INDUCTOR-AXIAL	100uH, 10%, 4.2x9.8mm
5 LM301	2701-000002	INDUCTOR-AXIAL	100uH, 10%, 4.2x9.8mm
5 LM307	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM305	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM304	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM309	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM601	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM604	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LM605	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LJ702	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L201	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L202	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L203	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L701	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L702	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L704	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 L902	2701-000114	INDUCTOR-AXIAL	10uH, 10%, 2.5x3.4mm
5 LJ701	2701-000116	INDUCTOR-AXIAL	10uH, 10%, 4.2x9.8mm
5 LM303	2701-000118	INDUCTOR-AXIAL	120uH, 10%, 2.5x3.4mm
5 L205	2701-000142	INDUCTOR-AXIAL	1uH, 10%, 2.5x3.4mm
5 L206	2701-000142	INDUCTOR-AXIAL	1uH, 10%, 2.5x3.4mm
5 L102	2701-000159	INDUCTOR-AXIAL	22uH, 10%, 4.2x9.8mm
5 L204	2701-000169	INDUCTOR-AXIAL	3.9uH, 10%, 2.5x3.4mm
5 L101	2701-000171	INDUCTOR-AXIAL	330nH, 10%, 2.5x3.4mm
5 L903	2701-000180	INDUCTOR-AXIAL	33uH, 5%, 2.5x3.4mm
5 L901	2701-000180	INDUCTOR-AXIAL	33uH, 5%, 2.5x3.4mm
5 LM310	2701-000180	INDUCTOR-AXIAL	33uH, 5%, 2.5x3.4mm
5 LM302	2701-000207	INDUCTOR-AXIAL	56uH, 5%, 2.5x3.4mm
5 LM308	2702-000120	INDUCTOR-RADIAL	15mH, 5%, 6.2x7.4mm
5 XTM601	2801-003750	CRYSTAL-UNIT	8MHz, 30PPM, 28-AAA, 22PF, 800H
5 X901	2801-003937	CRYSTAL-UNIT	12MHz, 25ppm, 28-AAM, 30pf, 300
5 L104	2901-000299	FILTER-EMI ON BOARD	-.6A, UL/CSA, -, 9x7.5,
5 L103	2901-000299	FILTER-EMI ON BOARD	-.6A, UL/CSA, -, 9x7.5,
5 Z202	2903-001240	FILTER-CERAMIC	TR, 5.5MHz, -, 28dB, -, TP,
5 Z201	2903-001040	FILTER-CERAMIC	TR, 5.5/6.0/6.5MHz, -, 1dB, -
5 SWM716	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM715	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM714	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM713	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM712	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM701	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM703	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM708	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 SWM711	3404-000244	SWITCH-TACT	15V, 20mA, 90-170gf, 7.5x7mm, SP
5 JB902	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB903	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB905	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB906	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB907	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB901	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB802	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB803	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB804	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB805	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB806	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB908	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG006	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG007	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG008	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG009	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG010	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG005	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB909	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG001	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG002	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG003	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JG004	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JA5V09	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JA5V10	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JA5V12	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JA5V13	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JB1201	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 JA5V05	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 J273	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 J275	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)
5 J276	3812-000219	WIRE-NO SHEATH CU	TCWA, 300V, 52mm(TAPING)

Electrical Parts List

Loc. No.	Code No.	Description ; Specification	Remark
5 J202	3812-000219	WIRE-NO SHEATH CU TCWA,300V,52mm(TAPING)	
5 HIC01	AA13-20004W	IC HYBRID -,PAP103T,SIP,6P,PRE-AMP,TP	
5 GT01	AA60-40014A	PIN-GT,ASSY AUTO	
5 GT02	AA60-40014A	PIN-GT,ASSY AUTO	
5 A	AA97-12501A	ASSY SMD CMC13410X/KMT	
6 ICM301	1204-001649	IC-VIDEO PROCESS LA71598M,QFP,100P,-,PLA	
6 PCB	AA41-00549C	PCB-MAIN TF20P1D4X,FR-1,1L,C,1.6T,330X2	
6	AA97-06858A	ASSY MICOM ,C17A,UPD784928,SNM-740MD,011	
7 ICM601	AA09-00261A	IC MICOM UPD784927GF-230-3BA,TF20P1DF,1	
6	HA68-02176A	LABEL LABEL	
3 C612	2401-000703	C-AL 2200uF,20%,25V,GP,-,12.5x25mm,	
3 C607	2401-001998	C-AL 1000uF,20%,25V,GP,TP,10x20,5mm	
2	AA94-12224A	ASSY PCB POWER	
3	0202-000008	SOLDER-WIRE S63S-W3.0,S63S,D3,63Sn/37Pb,	
3	0202-000187	SOLDER-WIRE FLUX -,RS60S,D1.2,63Sn/37Pb	
3	0204-000442	SOLVENT 1M-1000,C3H7OH,96,-	
3	0204-001024	FLUX DF-98TVS,-,20%,	
3 Q401	0502-001115	TR-POWER KSC5386,NPN,50W,TO-3PF,ST,8-	
3 PC801S	0604-001038	PHOTO-COUPLER TR,130-260V,200mW,DIP-4,ST	
3 PT801S	1404-000002	THERMISTOR-PTC 9ohm,20%,-,TR,RECT,-	
3 NT801S	1404-001045	THERMISTOR-NTC 4.7ohm,15%,2900K,35.0mW,T	
3 CY801S	2201-000446	C-CERAMIC,DISC 3.3NF,20%,400V,Y5U,TP,15X	
3 CR402S	2306-001004	C-FILM,MPPF 300nF,5%,400V,TP,26x14x21mm,	
3 CR410S	2306-000328	C-FILM,MPPF 6.8nF,5%,1.6KV,TP,28.5x18x10	
3 CX801S	2306-000318	C-FILM,MPPF 220nF,20%,250V,TP,-,22.5mm	
3 C805	2401-003030	C-AL 220uF,20%,450V,GP,BK,30x35,10	
3 RL801S	3501-001040	RELAY-POWER 12VDC,500MW,10000MA,1FORMA,1	
3 CN502A	3711-002643	CONNECTOR-HEADER BOX,4P,1R,2.5mm,STRAIGH	
3 CN801B	3711-002645	CONNECTOR-HEADER BOX,6P,1R,2.5mm,STRAIGH	
3 CN802B	3711-003975	CONNECTOR-HEADER BOX,14P,1R,2.5mm,STRAIGH	
3 PCB+SC	AA60-10008A	SCREW-TAPPING -,SWRCH18A,M3,L10,TH,+,-,-	
3 T801S	AA26-00163A	TRANS SWITCHING 35B125-DM,V17A,SMV-20A5S	
3 T444S	AA26-00171A	TRANS FBT FCA173,TVPD,5.7MH,FEERITE,-,1.	
3 T401	AA26-50001B	TRANS-HORIZ.DRIVE-,-,7.1mH,-,102uH,	
3 LR401S	AA27-30001B	COIL LINEARITY -,195uH,QIC1010,PI0,4,4,5	
3 L402	AA27-40001N	COIL HORIZ. WIDTH -,90/260uH,SB-5S620,PI	
3 LX801S	AA29-30001D	FILTER LINE NOISE SQ1913,-,6.0MH,0.8A,-	
3 GT101A	AA39-20010D	LEAD CONNECTOR-ASSY ,1P,400,YFH800-01,S,	
3	AA61-01045A	SUPPORT-PCB DASS-T 9N,NYLON ,9,4,NTR	
3	AA63-00518A	SHIELD-CASE 20P1,SECC,TO.5,C17A	
3	AA65-30018A	CLAMPER CORE-WIRE DONG-A,NYLON-66,-,-,-	
3	AA65-30111A	CLAMPER CORE-WIRE ALL MODEL,NYLON,V0,-,W	
3 D810	AA96-00243D	ASSY H/S -,BRIDGE,AA62-00045A,D06U20S,D	
4	0205-000129	GREASE-SILICON SC102,JAPAN	
4	0402-001374	DIODE-RECTIFIER FFFP06U20S,200V,6A,TO-22	
4	6003-000334	SCREW-TAPTITE RH,+,2S,M3,L6,ZPC(YEL),SWR	
4	AA62-00065A	HEAT SINK-PS DP,-,-,AA62-00045A,-,-,-	
3 Q803	AA96-00243G	ASSY H/S -,POWER,AA62-00045A,C2073-H2,V	
4	0205-000129	GREASE-SILICON SC102,JAPAN	
4	0502-001007	TR-POWER KSC2073-H2,NPN,25W,TO-220,ST,6	
4	6003-000334	SCREW-TAPTITE RH,+,2S,M3,L6,ZPC(YEL),SWR	
4	AA62-00065A	HEAT SINK-PS DP,-,-,AA62-00045A,-,-,-	
3 IC301	AA96-00244A	ASSY H/S -,AA62-00046A,LA7840,-	
4	0205-000129	GREASE-SILICON SC102,JAPAN	
4	1204-001483	IC-VERTICAL PROCESSO LA7840,SIP,7P,708MI	
4	6003-000334	SCREW-TAPTITE RH,+,2S,M3,L6,ZPC(YEL),SWR	
4	AA62-00064A	HEAT SINK-PS DP,-,-,AA62-00046A,-,-,-	
3 IC801S	AA96-00662B	ASSY H/S -,POWER,AA62-30171J,KA5Q0765R,	
4	0205-000129	GREASE-SILICON SC102,JAPAN	
4	1203-001932	IC-PWM CONTROLLER 5Q0765,TO-220F,5P,185M	
4	6003-000333	SCREW-TAPTITE RH,+,2S,M3,L10,ZPC(YEL),SW	
4	AA62-30171J	HEAT SINK-ES -,-,-,SILVER,-,DREAM1,-,-,-	
3 Q813	AA96-50305D	ASSY H/S -,POWER,AA62-30012E,KSD73Y,STY	
4	0502-000298	TR-POWER KSD73,NPN,30000mW,TO-220,TP,12	
4	6003-000333	SCREW-TAPTITE RH,+,2S,M3,L10,ZPC(YEL),SW	
4	AA62-30012E	HEAT SINK-ES -,A6063 EXTR,-,-,TO-220 H55	
3	AA97-13460A	ASSY AUTO-POWER C17A,20,RUSSIA,SEB&SDIH	
4 D822	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D823	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D825	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D827	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D811	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D812	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D816	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D820	0401-000005	DIODE-SWITCHING 1N4148,100V,200mA,DO-35,	
4 D806	0401-000006	DIODE-SWITCHING BAV21,250V,250mA,DO-35,T	
4 D828	0402-000132	DIODE-RECTIFIER 1N4004,400V,1A,DO-41,TP	

Loc. No.	Code No.	Description ; Specification	Remark
4 D815	0402-000132	DIODE-RECTIFIER 1N4004,400V,1A,DO-41,TP	
4 D301	0402-000132	DIODE-RECTIFIER 1N4004,400V,1A,DO-41,TP	
4 D405	0402-000132	DIODE-RECTIFIER 1N4004,400V,1A,DO-41,TP	
4 D809	0402-000132	DIODE-RECTIFIER 1N4004,400V,1A,DO-41,TP	
4 D814	0402-000493	DIODE-RECTIFIER 1R5GU41,400V,1.5A,DO-15L	
4 D404	0402-000534	DIODE-RECTIFIER RG10V,400V,1.2A,DO-201,T	
4 D808	0402-001105	DIODE-RECTIFIER ERB43-04SV1,400V,1.0A,-	
4 D403	0402-001105	DIODE-RECTIFIER ERB43-04SV1,400V,1.0A,-	
4 D402	0402-001105	DIODE-RECTIFIER ERB43-04SV1,400V,1.0A,-	
4 D804S	0402-001111	DIODE-RECTIFIER 1N5397GP,600V,1.5A,DO-20	
4 D803S	0402-001111	DIODE-RECTIFIER 1N5397GP,600V,1.5A,DO-20	
4 D802S	0402-001111	DIODE-RECTIFIER 1N5397GP,600V,1.5A,DO-20	
4 D801S	0402-001111	DIODE-RECTIFIER 1N5397GP,600V,1.5A,DO-20	
4 D807	0402-001443	DIODE-RECTIFIER EGP20K,800V,2A,DO-15,TP	
4 DZ401	0403-000058	DIODE-ZENER MTZJ5.6B,5.6V,5.45-5.73V,500	
4 DZ807	0403-000699	DIODE-ZENER TZP27B,27V,27-30.8V,1W,DO-41	
4 DZ303	0403-000700	DIODE-ZENER TZP33A,33V,31-35V,1W,DO-41,T	
4 DZ810	0403-000700	DIODE-ZENER TZP33A,33V,31-35V,1W,DO-41,T	
4 DZ811	0403-000714	DIODE-ZENER MTZJ3.3B,3.3V,3.32-3.53V,500	
4 DZ805	0403-000714	DIODE-ZENER MTZJ3.3B,3.3V,3.32-3.53V,500	
4 DZ804	0403-000720	DIODE-ZENER MTZJ9.1B,9.1V,8.57-9.01V,500	
4 DZ808	0403-001211	DIODE-ZENER MTZJ12B,11.44-12.03V,500MW,D	
4 DZ803	0403-001211	DIODE-ZENER MTZJ12B,11.44-12.03V,500MW,D	
4 DZ302	0403-001221	DIODE-ZENER UZ39BSB,35.36-37.19V,500MW,D	
4 DZ806	0403-001318	DIODE-ZENER MTZJ4.3B,4.17-4.43V,500mW,DO	
4 DZ802	0403-001327	DIODE-ZENER MTZJ18A,16.22-17.06V,500mW,D	
4 DZ301	0403-001328	DIODE-ZENER MTZJ22A,20.15-21.20V,500mW,D	
4 DZ304	0403-001328	DIODE-ZENER MTZJ22A,20.15-21.20V,500mW,D	
4 DZ813	0403-001373	DIODE-ZENER MTZJ5.1A,4.81V-5.07V,500mW,D	
4 DZ812	0403-001373	DIODE-ZENER MTZJ5.1A,4.81V-5.07V,500mW,D	
4 Q810	0501-000362	TR-SMALL SIGNAL KSA2328A-Y,NPN,1W,TO-92L	
4 Q811	0501-000362	TR-SMALL SIGNAL KSA2328A-Y,NPN,1W,TO-92L	
4 Q812	0501-000362	TR-SMALL SIGNAL KSA2328A-Y,NPN,1W,TO-92L	
4 Q402	0501-000369	TR-SMALL SIGNAL KSC2331-Y,NPN,1000mW,TO-	
4 Q805	0501-000389	TR-SMALL SIGNAL KSC815,NPN,400mW,TO-92,T	
4 Q806	0501-000398	TR-SMALL SIGNAL KSC945,NPN,250mW,TO-92,T	
4 Q807	0501-000398	TR-SMALL SIGNAL KSC945,NPN,250mW,TO-92,T	
4 Q804	0504-000142	TR-DIGITAL KSR2001,PNP,300MW,4.7K/4.7K,T	
4 Q808	0504-000142	TR-DIGITAL KSR2001,PNP,300MW,4.7K/4.7K,T	
4 Q801	1203-001217	IC-POS.ADJUST REG. 431,TO-92,3P,4.58MIL	
4 VX801S	1405-000187	VARIATOR 750V,1250A,12.5x7mm,TP	
4 R301	2001-000016	R-CARBON(S) 10HM,5%,1/2W,AA,TP,2.4X6.4MM	
4 R408	2001-000022	R-CARBON(S) 330HM,5%,1/2W,AA,TP,2.4X6.4M	
4 R829	2001-000028	R-CARBON(S) 100OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R825	2001-000028	R-CARBON(S) 100OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R823	2001-000037	R-CARBON(S) 330OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R808	2001-000109	R-CARBON(S) 470OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R828	2001-000117	R-CARBON(S) 680HM,5%,1/2W,AA,TP,2.4X6.4M	
4 R405	2001-000117	R-CARBON(S) 680HM,5%,1/2W,AA,TP,2.4X6.4M	
4 R814	2001-000281	R-CARBON 100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R824	2001-000302	R-CARBON 100HM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R840	2001-000429	R-CARBON 1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R835	2001-000429	R-CARBON 1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R816	2001-000429	R-CARBON 1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R821	2001-000515	R-CARBON 220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R809	2001-000522	R-CARBON 22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R822	2001-000660	R-CARBON 33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R831	2001-000734	R-CARBON 4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R841	2001-000734	R-CARBON 4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R842	2001-000734	R-CARBON 4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R843	2001-000734	R-CARBON 4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R811	2001-000800	R-CARBON 5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R827	2001-000812	R-CARBON 5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4 R817	2001-000924	R-CARBON 680OHM,5%,1/8W,AA,TP,1.8X3.2MM	
4 R407	2001-001037	R-CARBON(S) 0.39OHM,5%,1/2W,AA,TP,2.4X6.	
4 R813	2001-001078	R-CARBON(S) 15KOHM,5%,1/2W,AA,TP,2.4X6.4	
4 R812	2001-001078	R-CARBON(S) 15KOHM,5%,1/2W,AA,TP,2.4X6.4	
4 R410	2001-001078	R-CARBON(S) 15KOHM,5%,1/2W,AA,TP,2.4X6.4	
4 R422S	2001-001088	R-CARBON(S) 1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
4 R409	2001-001114	R-CARBON(S) 270OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R818	2001-001134	R-CARBON(S) 360ohm,5%,1/2W,AA,TP,2.4X6.4	
4 R838	2001-001150	R-CARBON(S) 470KOHM,5%,1/2W,AA,TP,2.4X6.	
4 R839	2001-001150	R-CARBON(S) 470KOHM,5%,1/2W,AA,TP,2.4X6.	
4 R830	2001-001170	R-CARBON(S) 6.8OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R806	2001-001170	R-CARBON(S) 6.8OHM,5%,1/2W,AA,TP,2.4X6.4	
4 R810	2001-001192	R-CARBON(S) 820OHM,5%,1/2W,AA,TP,2.4X6.4	
4 RX801S	2002-001011	R-COMPOSITION 3.3Mohm,5%,1/2W,AA,TP,3.7x	

Loc. No.	Code No.	Description ; Specification	Remark
⚠ 4	RY801S	2002-001012 R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x
4	R805	2003-000586 R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12
4	R804	2003-000586 R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12
4	R803	2003-000586 R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12
4	R315	2003-001018 R-METAL OXIDE(S)	220ohm,5%,2W,AF,TP,3.9x
4	R303	2003-002070 R-METAL OXIDE	1ohm,5%,2W,AF,TP,3.9x10mm
4	R402	2003-002178 R-METAL OXIDE(S)	1Kohm,5%,2W,AG,TP,3.9x1
4	R413	2004-001137 R-METAL	6.8Kohm,1%,1/8W,AA,TP,1.8x3.2m
4	R412	2004-001373 R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4
4	R306	2004-001390 R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm
4	R833	2004-001983 R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.
4	R815	2004-004089 R-METAL(S)	123Kohm,1%,1/2W,AA,TP,2.5x6.5
4	R302	2004-004969 R-METAL(S)	1.1Kohm,1%,1/2W,AA,TP,2.4x6.4
4	R415	2008-000253 R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10mm
4	R406	2008-000253 R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10mm
4	R404	2008-000253 R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10mm
4	R414	2008-000264 R-FUSIBLE(S)	1ohm,5%,1W,AF,TP,3.9x10mm
4	R317	2008-001013 R-FUSIBLE(S)	1.2ohm,5%,2W,AF,TP,3.9x10mm
4	R411	2008-001015 R-FUSIBLE(S)	1.5ohm,5%,2W,AF,TP,3.9x10mm
4	C302	2201-000259 C-CERAMIC,DISC	0.18NF,10%,500V,Y5P,TP,5.
4	C801	2201-000332 C-CERAMIC,DISC	2.2NF,20%,250V,Y5U,TP,9X4
4	C817	2201-000374 C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5
4	C818	2201-000556 C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.
4	C305	2201-000556 C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.
4	C303	2201-000556 C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.
4	C814	2201-000599 C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.
4	C408	2201-000599 C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.
⚠ 4	CR404S	2201-000639 C-CERAMIC,DISC	0.68NF,10%,2KV,Y5P,TP,9X5
4	C812	2201-000991 C-CERAMIC,DISC	0.56NF,10%,2KV,Y5P,TP,7.5
4	C825	2202-000121 C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP
4	C826	2202-000121 C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP
4	C824	2202-000632 C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP
4	C809	2301-000016 C-FILM,PEF	22nF,5%,100V,TP,7.2x4.5x9.0mm
4	C816	2301-000224 C-FILM,PEF	22nF,5%,50V,TP,7.4x3.9x13mm,5
4	C807	2301-000235 C-FILM,PEF	3.9nF,5%,50V,TP,6.5x3.0x5.5mm
4	C310	2301-000254 C-FILM,PEF	39nF,5%,50V,TP,7.5x3.5x6.5mm,
4	C407	2301-000383 C-FILM,PEF	10nF,5%,50V,TP,6x7x3.2mm,5mm
4	C411	2301-001065 C-FILM,MPPF	47nF,5%,630V,TP,19x15.5x7.7.
4	C806	2301-001435 C-FILM,PPF	1.5nF,5%,1.2KV,TP,15x8x12.5mm
4	C309	2305-000149 C-FILM,MPEF	100nF,5%,100V,TP,12x12.5x6.5
4	C301	2305-000285 C-FILM,MPEF	220nF,5%,100V,TP,10.5X5.5X15
⚠ 4	CR405S	2305-000382 C-FILM,MPEF	4.7nF,5%,400V,TP,-,5mm
4	C810	2305-000665 C-FILM,MPEF	100nF,5%,63V,TP,7.5x4.0x5.0m
4	C821	2305-000665 C-FILM,MPEF	100nF,5%,63V,TP,7.5x4.0x5.0m
4	C813	2401-000262 C-AL	100uF,20%,160V,HR,TP,16x25,7.5
4	C307	2401-000365 C-AL	100uF,20%,50V,WT,TP,10x12.5mm,
4	C815	2401-000703 C-AL	2200uF,20%,25V,GP,-,12.5x25mm,
4	C827	2401-000901 C-AL	22uF,20%,160V,GP,TP,10x20,5
4	C401	2401-000927 C-AL	22uF,20%,250V,GP,TP,13x20,5
4	C304	2401-001115 C-AL	330uF,20%,25V,GP,TP,10x12.5,5
4	C808	2401-001192 C-AL	33uF,20%,50V,GP,TP,6.3x11,5
4	C306	2401-001397 C-AL	470uF,20%,25V,GP,TP,10x16,5
4	C820	2401-002144 C-AL	47uF,20%,16V,GP,TP,5x11,5
4	C823	2401-002144 C-AL	47uF,20%,16V,GP,TP,5x11,5
4	C406	2401-002619 C-AL	47uF,20%,25V,GP,TP,5x11,5
4	C308	2401-003028 C-AL	100uF,20%,25V,WT,TP,6.3x11,5
4	C819	2401-003139 C-AL	1000uF,20%,25V,WT,TP,10*20,5mm
⚠ 4	L401	2701-000002 INDUCTOR-AXIAL	100uH,10%,4.2x9.8mm
4		0203-001123 TAPE-PAPER	#53131,TO.15,W6.0,L200000,YEL
4	L404	2701-000142 INDUCTOR-AXIAL	1uH,10%,2.5x3.4mm
4	L302	2701-000142 INDUCTOR-AXIAL	1uH,10%,2.5x3.4mm
4	L301	2701-000142 INDUCTOR-AXIAL	1uH,10%,2.5x3.4mm
4	L405	2701-000159 INDUCTOR-AXIAL	22uH,10%,4.2x9.8mm
4	J804	2701-001030 INDUCTOR-AXIAL	43uH,10%,5x14mm
⚠ 4	L804	2901-000297 FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-
4	L403	2901-000297 FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-
4	L803	3301-001223 CORE-FERRITE BEAD AA	62ohm,3.5x0.8x5mm,-
4	L802	3301-001223 CORE-FERRITE BEAD AA	62ohm,3.5x0.8x5mm,-
⚠ 4	FP801S	3601-000261 FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS
⚠ 4	FD801S	3601-001086 FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS
⚠ 4	FD802S	3601-001086 FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS
4	F801B	3602-000114 FUSE-HOLDER	-,30mohm
4	F801A	3602-000114 FUSE-HOLDER	-,30mohm
4	J818	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J817	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J815	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J814	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)

Loc. No.	Code No.	Description ; Specification	Remark
4	J813	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J824	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J822	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J821	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J820	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J819	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J812	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J806	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J805	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J803	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J802	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J801	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J811	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J810	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J809	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J808	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	J807	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	PCB	AA41-00548B PCB-POWER	TF21B5S,FR-1,1L,A,1.6T,245X245
4	EY811	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY812	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY813	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY814	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY815	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY802	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY803	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY804	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY805	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY806	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY816	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY822	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY825	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY827	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY828	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY829	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY817	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY818	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY819	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY820	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY821	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY801	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY406	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY407	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY408	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY409	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY410	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY401	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY402	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY403	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY404	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY405	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY411	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY419	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY420	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY421	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY422	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY423	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY412	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY414	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY415	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY416	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY417	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EL802	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL803	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL804	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL805	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL801	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL301	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL302	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL403	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	EL404	6042-000001 EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/
4	GT805	AA60-40014A PIN-GT,ASSY	AUTO
4	GT804	AA60-40014A PIN-GT,ASSY	AUTO
4	GT803	AA60-40014A PIN-GT,ASSY	AUTO
4	GT806	AA60-40014A PIN-GT,ASSY	AUTO
4	GT807	AA60-40014A PIN-GT,ASSY	AUTO
4	GT808	AA60-40014A PIN-GT,ASSY	AUTO
4	GT301	AA60-40014A PIN-GT,ASSY	AUTO

Loc. No.	Code No.	Description ; Specification	Remark
4	GT302	AA60-40014A PIN-GT,ASSY	AUTO
4	GT401	AA60-40014A PIN-GT,ASSY	AUTO
4	GT402	AA60-40014A PIN-GT,ASSY	AUTO
4	GT801	AA60-40014A PIN-GT,ASSY	AUTO
4	GT802	AA60-40014A PIN-GT,ASSY	AUTO
4		HA68-02176A LABEL	LABEL
2		AA95-01756G ASSY SUB-PCB CRT	,C17A20,21,PAL ALL SE
3		0202-000008 SOLDER-WIRE	S63S-W3.0,S63S,D3,63Sn/37Pb,
3		0202-000187 SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb
3		0204-000442 SOLVENT	1M-1000,C3H7OH,96,-
3		0204-001024 FLUX	DF-98TVS,-,20%,-
3	V999S	3704-001105 SOCKET-CRT	11P,20PI,26.5PI,NL,-
3	CN502B	AA39-20052A LEAD CONNECTOR-ASSY	,4P,300,YBNH025-04,Y
3	CN501B	AA39-20069A LEAD CONNECTOR-ASSY	,5P,500,YBNH025-05,6
3	IC501	AA96-00842A ASSY H/S	,VIDEO,AA62-30175D,TDA6107Q
4	IC501	1201-001159 IC-VIDEO AMP	6107,ZSIP,9P,-,SINGLE,-,PLA
4	SCR501	6003-000334 SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR
4	H/S501	AA62-30175D HEAT SINK-PS	-,SECC,T1.0,-,33X15X30 FT-2
3		AA97-05570A ASSY AUTO-SUB	14/20/21,C17A,PAL
4	D502	0402-000132 DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP
4	D503	0402-000132 DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP
4	D504	0402-000132 DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP
4	D501	0402-000254 DIODE-RECTIFIER	RGP1QJ,600V,1A,DO-41,TP
4	DZ501	0403-000508 DIODE-ZENER	MTZJ5.6B,5.6V,5.45-5.73V,500
4	R507	2001-000281 R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM
4	R508	2001-000281 R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM
4	R509	2001-000281 R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM
4	R506	2001-001062 R-CARBON(S)	10MOHM,5%,1/2W,AA,TP,2.4X6.4
4	R501H	2002-001008 R-COMPOSITION	1.8Kohm,10%,1/2W,AA,TP,3.7
4	R502H	2002-001008 R-COMPOSITION	1.8Kohm,10%,1/2W,AA,TP,3.7
4	R503	2002-001008 R-COMPOSITION	1.8Kohm,10%,1/2W,AA,TP,3.7
4	C503	2201-000723 C-CERAMIC,DISC	4.7NF,20%,3KV,Y5U,TP,16X5
4	C501	2202-000825 C-CERAMIC,MLC-AXIAL	680pF,10%,50V,Y5P,TP
4	C502	2301-000213 C-FILM,PEF	220nF,5%,250V,TP,21.5x11.7,5
4	C506	2401-000430 C-AL	10uF,20%,250V,GP,TP,10x16mm,5m
4	C504	2401-001232 C-AL	4.7uF,20%,250V,GP,TP,10x12.5,5
4	JC500	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	JC501	3812-000219 WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING)
4	PCB	AA41-00550A PCB-CRT	TF21B5S,FR-1,1L,A,1.6T,330X245
4	GT502	AA60-40014A PIN-GT,ASSY	AUTO
2		AA95-01822B ASSY SUB-PCB,MASTER	20P1,C17A,AA95-01615
3	SW811S	3403-001134 SWITCH-PUSH	250V,5A,DPST,ON-OFF,-
3		6001-000057 SCREW-MACHINE	RH,+,M3,L6,ZPC(BLK),SWRCH1
3	CN801	AA39-00206B LEAD CONNECTOR-ASSY	,2P,400MM,YFH800-02,
3		AA61-10320A BRACKET-MASTER	T3350,SECC,T1.0,-,-,-
3		AA97-00562A ASSY AUTO-SUB	20P1,C17A
4	PCB	AA41-00587A PCB-MASTER	20P1,FR-1,1L,A,1.6T,245X245,C
4	EY801	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY802	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY803	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY804	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY805	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	EY806	6042-000002 EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H
4	GTM801	AA60-40014A PIN-GT,ASSY	AUTO
4	GTM802	AA60-40014A PIN-GT,ASSY	AUTO
2		AA96-01127B ASSY POWER CORD	DP,AA39-10001M,CP2,H/C40
3		AA39-10001M CBF POWER CORD	-,KJP-140,KLCE-2F,2.4m,HO
3		AA61-20284A HOLDER	P-CORD,PP,-,-,BLK,VO,KE-002
2		AA64-03102W DOOR-HOUSING	14P1,20P1(SEH),ABS HB,BLK,S
3		HA83-00040A LP-MARKING PAINT	,METALLIC SILVER,SV-012
3		HA83-00006A LP-RESIN HIPS	,BASF495F,NTR,HB
3		HA83-00012A LP-RESIN	,M BATCH,WILSON 6053-GY-60,GRY
2		AA61-00050A SPRING ETC-DOOR	TVCR TVI,SUS304,-,-,-,-
2		AA90-00947A ASSY-FULL DECK	2HD,SVTS-M2P/XEC
3		AA91-00741A ASSY-DECK	,SCORPIO TOSHIBA
3		AA91-00744A ASSY-DRUM	2HD,NON-DLC,SCORPIO
3		AA91-00782A ASSY-S-IMP ROLLER	,PAL 2HD SESA,TF14N53,
3		6006-001092 SCREW-ASS'Y MACH	WS,PH,+,M3.0,L6.0,ZPC(Y
2		AA90-02598A ASSY COVER MISC-FRAMESEH	TVCR,STYX C17A
3	DE+FD	6003-001268 SCREW-TAPTITE	TH,+,B,M4.0,L12.0,ZPC(YEL)
3	PW+FD	6003-001268 SCREW-TAPTITE	TH,+,B,M4.0,L12.0,ZPC(YEL)
3	FD+BF	6003-001023 SCREW-TAPTITE	RWH,+,B,M3,L10,ZPC(YEL),SW
3		AA61-00862A FRAME-DECK	S-PJT,HIPS V0,BLK,ONE-BOARD
3		AA61-01214A BRACKET-FRAME	,SECC,T1.0
3		AA63-00520A SHIELD-BOTTOM	20A5S,SPTE,T0.3
3		AA63-00521A SHIELD-DRUM	20A5S,SECC,T0.5
2		AA65-30009A CLAMPER CORE-FBT	-,ABS,VO,-,BLK,-

ASSY COVER FRONT

Loc. No.	Code No.	Description ; Specification	Remark
1	AA90-03682A	ASSY COVER FRONT TW20P14X/BWT	
2	CRT+CF	AA60-10050Q SCREW-ASSY	-,SWRCH18A,M5,L26.5,HH,+,WC,-
2	CB+CF	6002-000515 SCREW-TAPPING	RH,+,2,M4,L15,ZPC(WHT),SWR
2		AA65-30107A CLAMPER CORE-D,COIL	20-22 INCH,NYLON 66,
2		AA96-01028A ASSY COVER P-FRONT	20P1,HB,SV-012P
3	KF+CF	6003-001019 SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR
3	WIN+CF	6003-001019 SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR
3	SPK+CF	6003-001023 SCREW-TAPTITE	RWH,+,B,M3,L10,ZPC(YEL),SW
3		AA61-60003J SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,
3		AA64-02325H KNOB-POWER	14.20P1 SEH,ABS,HB,G3676,SV01
4		HA83-00040A LP-MARKING PAINT	,METALLIC SILVER,SV-012
4		HA83-00006A LP-RESIN HIPS	,BASF495F,NTR,HB
4		HA83-00012A LP-RESIN	,M BATCH,WILSON 6053-GY-60,GRY
3		AA64-02326H KNOB-FAMILY	14.20P1 SEH,ABS,HB,G3676,SV0
4		HA83-00040A LP-MARKING PAINT	,METALLIC SILVER,SV-012
4		HA83-00006A LP-RESIN HIPS	,BASF495F,NTR,HB
4		HA83-00012A LP-RESIN	,M BATCH,WILSON 6053-GY-60,GRY
3		AA64-02327A DECORATION-POWER	20P1,PC,HB,SEMI-VIOLET
3		AA64-02328A WINDOW-LED	14.20P1,PC,CLR
3		AA64-03104A CABINET-FRONT	20P1 SEH,HIPS,HB,G7666,SV0
4		HA83-00040A LP-MARKING PAINT	,METALLIC SILVER,SV-012
4		HA83-00006A LP-RESIN HIPS	,BASF495F,NTR,HB
4		HA83-00012A LP-RESIN	,M BATCH,WILSON 6053-GY-60,GRY
3		AA64-70010B BADGE-BRAND	-,AL,-,-,L50,-,SILVER,SS R20
3		0203-001290 TAPE-OPP MASKING ANT	100C,T0.073,W30,L50
3		3001-001186 SPEAKER	3W,8OHM,80°±2DB,270HZ
3		AA39-20501A LEAD CONNECTOR-ASSY	,3(2),200,67096-003,
2		HA60-00140A SPACER-GUM	
2		HA68-02177B	
2	KP+CF	6003-001023 SCREW-TAPTITE	RWH,+,B,M3,L10,ZPC(YEL),SW
2		HA68-02179A LABEL-RATING	LABEL-RATING:58MM,53MM,WHIT
2	qms	HA83-00052A LP-TAPE-INK	,WIDTH 55 MM
2	rating	HA83-00052A LP-TAPE-INK	,WIDTH 55 MM

ASSY COVER REAR

Loc. No.	Code No.	Description ; Specification	Remark
1	AA90-03734A	ASSY COVER REAR TW20P14X/BWT	
2		AA64-02322D CABINET-BACK	20P1,HIPS,FV2,G4309
3		HA83-00006A LP-RESIN HIPS	,BASF495F,NTR,HB
3		HA83-00012A LP-RESIN	,M BATCH,WILSON 6053-GY-60,GRY
2		AA65-30008A CLAMPER CORE-CORD	-,PE,HB,-,BLK,-
2		HA68-02179A LABEL-RATING	LABEL-RATING:58MM,53MM,WHIT

ASSY BOX

Loc. No.	Code No.	Description ; Specification	Remark
1	AA92-07410A	ASSY BOX	20P
2		AA69-01585B PACKING CASE	20P1 SEH,CB D-1 BB,A1,YEL,G
2		HA68-02178A LABEL-BOX	LABEL-BOX:250MM,89MM,WHITE
2		HA83-00046A LP-TAPE INK	,WIDTH 105 MM

ASSY P/MATERIAL

Loc. No.	Code No.	Description ; Specification	Remark
1	AA92-03070B	ASSY P/MATERIAL	20P1
2		AA81-00112A TAPE-OPP,MASKING	CRL,W75
2		AA69-00744C BAG-SHEET	-,HDPE PE FOAM,T0.015,W1050,H9
2		AA69-01472A CUSHION-SET	20P1,PS FOAMED,C=0.02

ASSY ACCESSORY

Loc. No.	Code No.	Description ; Specification	Remark
1	AA92-06494A	ASSY ACCESSORY	TW20P14X/BWT

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
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2	AA59-00221E	REMOCON	,TM66,SAA5554PS,38,G6671B,S/S,
2	4301-000121	BATTERY-MN	1.5V,-,AAA,10.5x44.5m,HOLDER
2	HA69-00276A	BAG VINYL	HDPE,T0.025,L400,W240,-,W/O LO
2	AA68-02264A	MANUAL USERS	,RUS,W/P100(G),2,B5,C17A,56
2	HA68-00816B	CARD WARRANTY	RUSSINA,2,W/P 120G,BOTH FA
2	AA68-01120A	MANUAL SERVICE	-,CIS,A4,6PAGE(FOLD),W/
2	6801-001073	CARD-REGISTRATION	RUS,XEV,RUS,MOJO100,-,

ASSY CPT

1	AA91-05783A	ASSY CPTC17A,20,SEB&SDIHU,A48ECR43X52	
2	LC801S	AA27-20003Y	COIL DEGAUSSING -,20,15.2ohm,28T,L2170,E
	2	AA03-00280A	CRT COLORA48ECR43X,+380MG,1.85MH,28.7MH
2	AA98-70031A	ASSY TBC WIRE(P)	DP,20,AA98-70014B,1P,TV

MEMO

8. Block Diagrams

8-1 Notes

The TVCR's 1st and 2nd tuners are "multi-system." compatible:
 IC201S (TDA9361/9381) is the video, chroma, and deflection (UOC) IC.

8-1-1 TAPE PLAYBACK (REGARDLESS OF ORIGINAL RECORDING SYSTEM)

If the output PB signal of micom pin 12 is high, the PB signal outputs from ICM301 pin 29, passes through IC 702 pins 2 and 3 and out to another VCR. The output signal of IC701 pin 1 (pin 15) outputs from IC201S pin 42.

8-1-2 VIEWING NORMAL CHANNEL WHILE RECORDING A SCRAMBLED CHANNEL:

The output CVBS (Composite Video Signal) of the 2nd IF outputs to IC702 pin 3 when the VCRmicom's pin 13 (VCR tuner high) is high. The decoded signal goes to IC701 pin 2, where it is fed to IC 701 pin 9 (high output of VCR micom's pin 11—AV/Tuner), and out to VCR pin 4 for recording.

8-1-3 VIEWING A SCRAMBLED CHANNEL WHILE RECORDING AN UNSCRAMBLED CHANNEL.

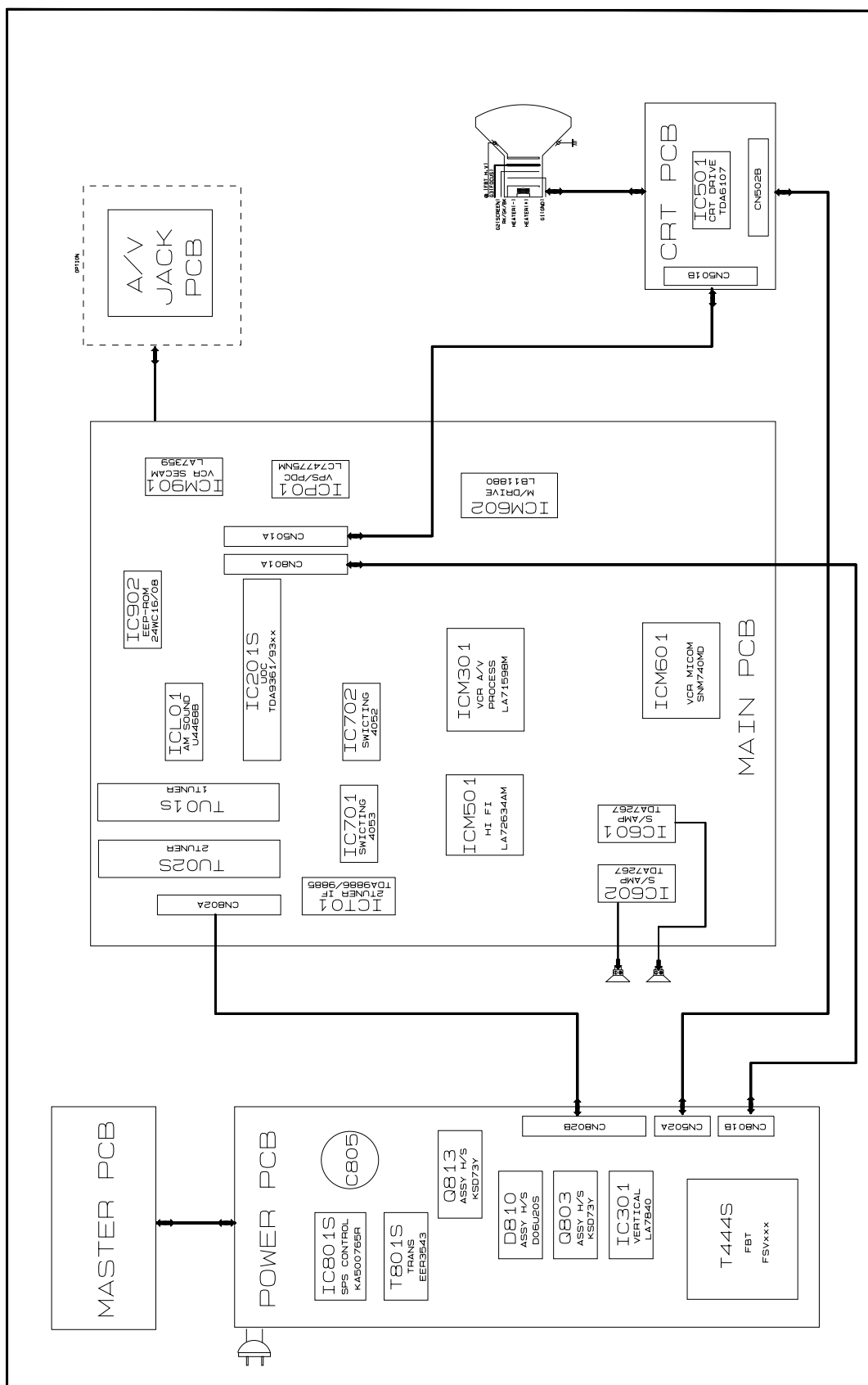
The output CVBS of the 2nd IF is fed from IC701 pin 5 to IC701 pin 4 (low output of VCR micom pin 11—AV/tuner). Then it goes to the VCR PART pin 4 for recording.

The scrambled signal (CVBS) is fed to IC702 pin 1 through the 1st IF, and then to IC702 pin 3. Then it goes to the decoder input. The descrambled signal goes to IC701 pins 2 and 15, and then to IC201S pin 42, where it outputs as RGB.

8-1-4 SYNCHRONOUS RECORDING:

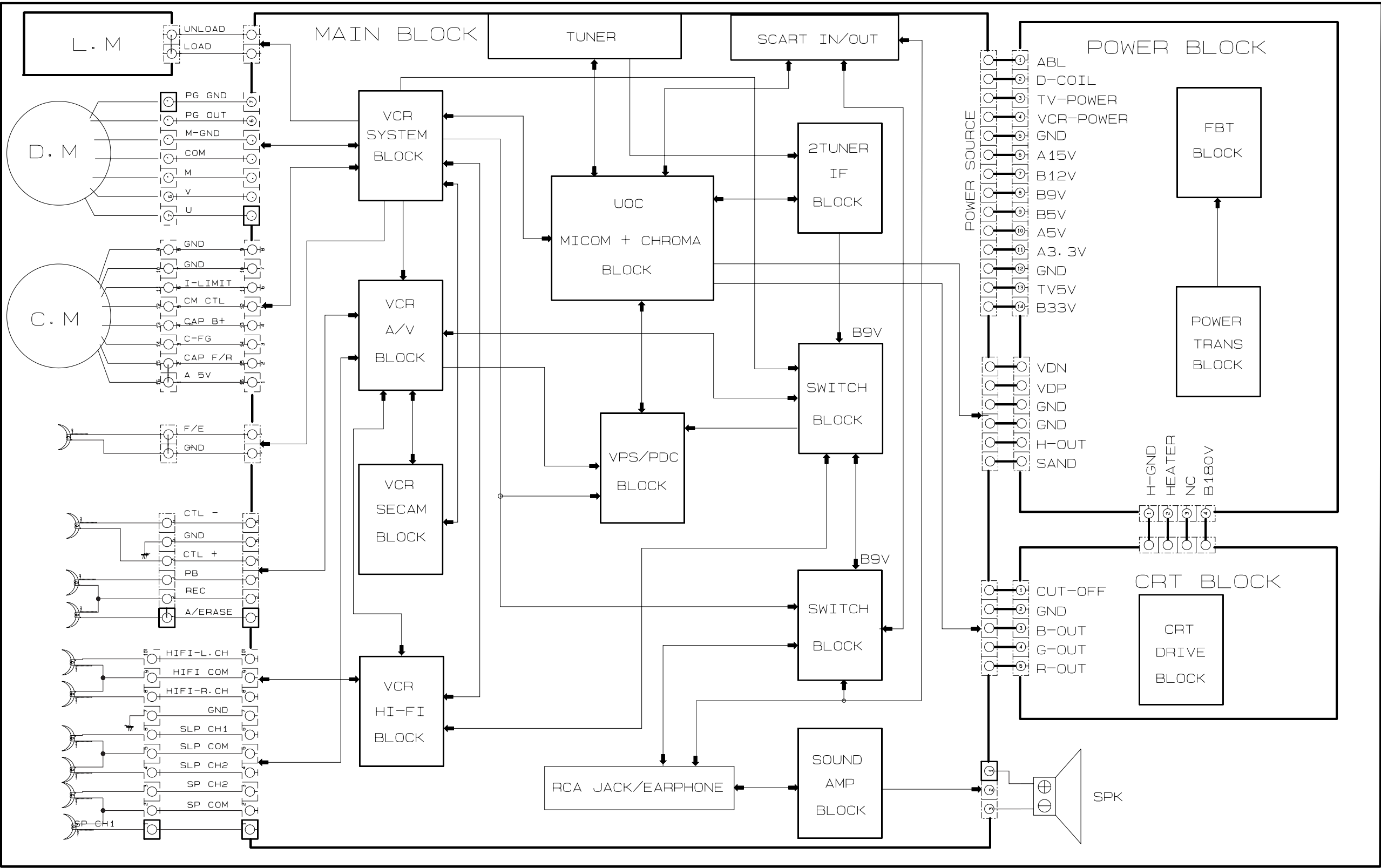
The viewer sees the signal from the 1st tuner, while the signal from the second tuner is recorded. Audio processing for the French system type is shown in the table.

8-2 C17A PCB Layout



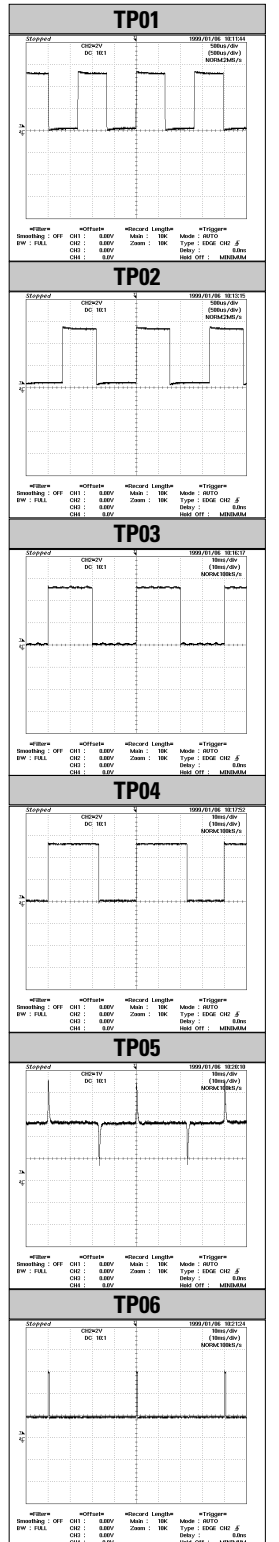
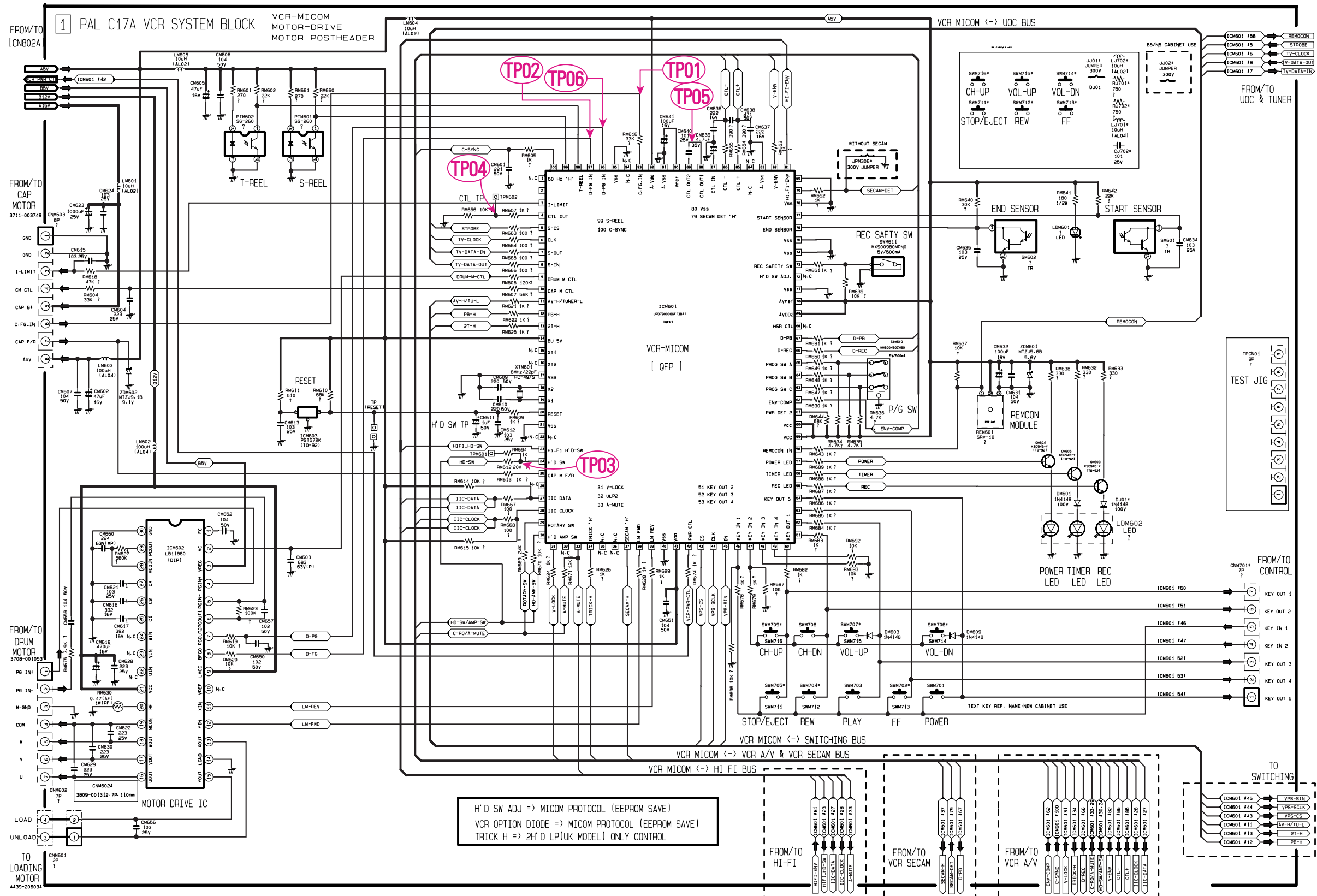
9. Wiring Diagram

9-1 C17A Wiring Diagram

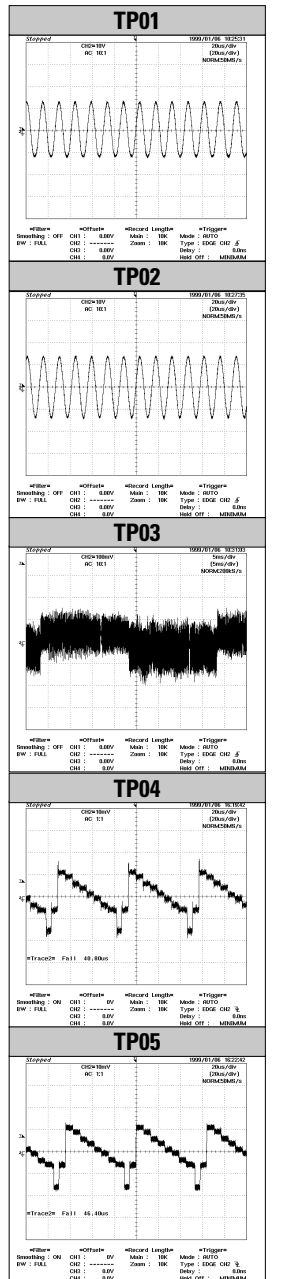


10. Schematic Diagrams

10-1 MAIN1 (VCR SYSTEM BLOCK)





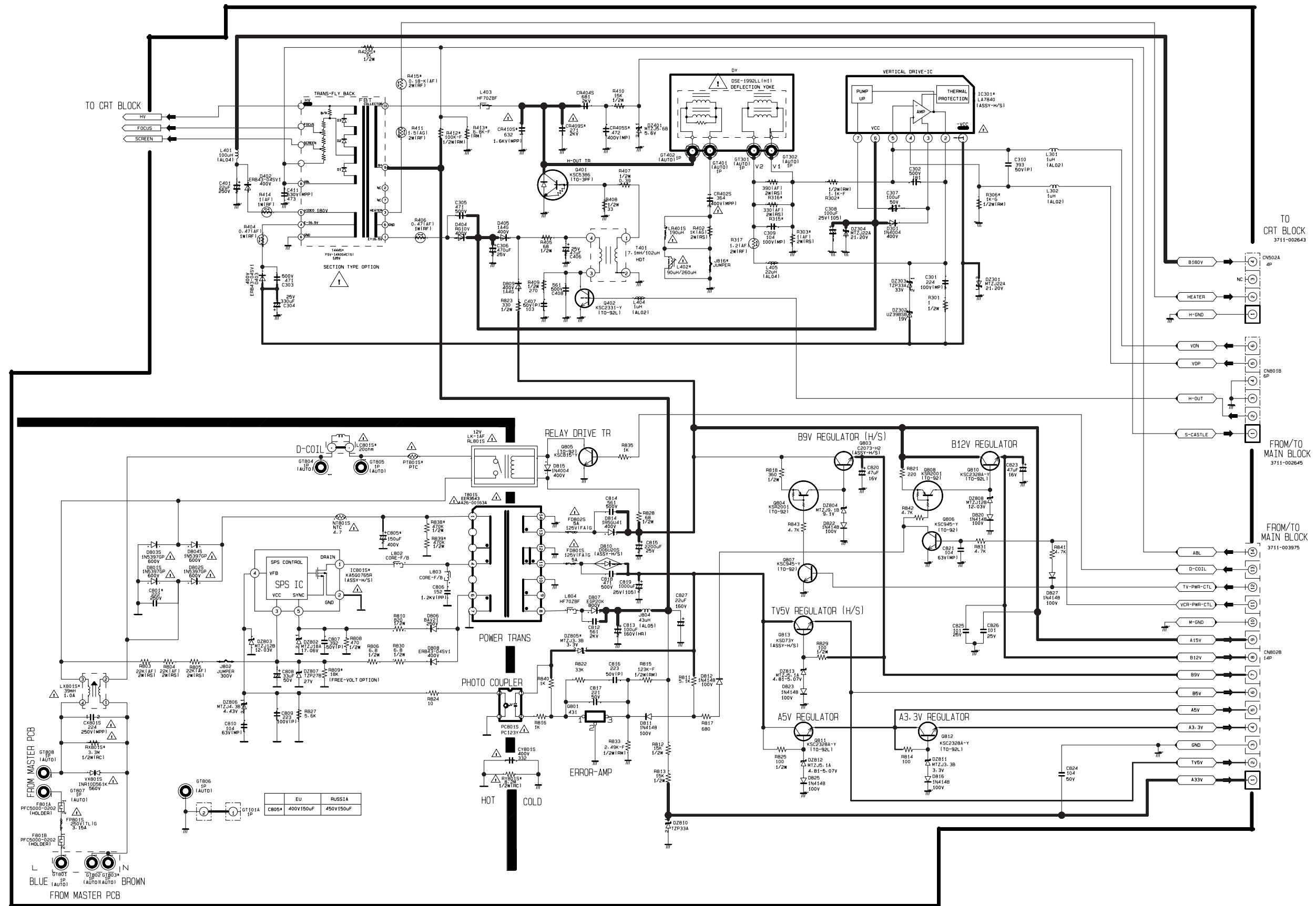




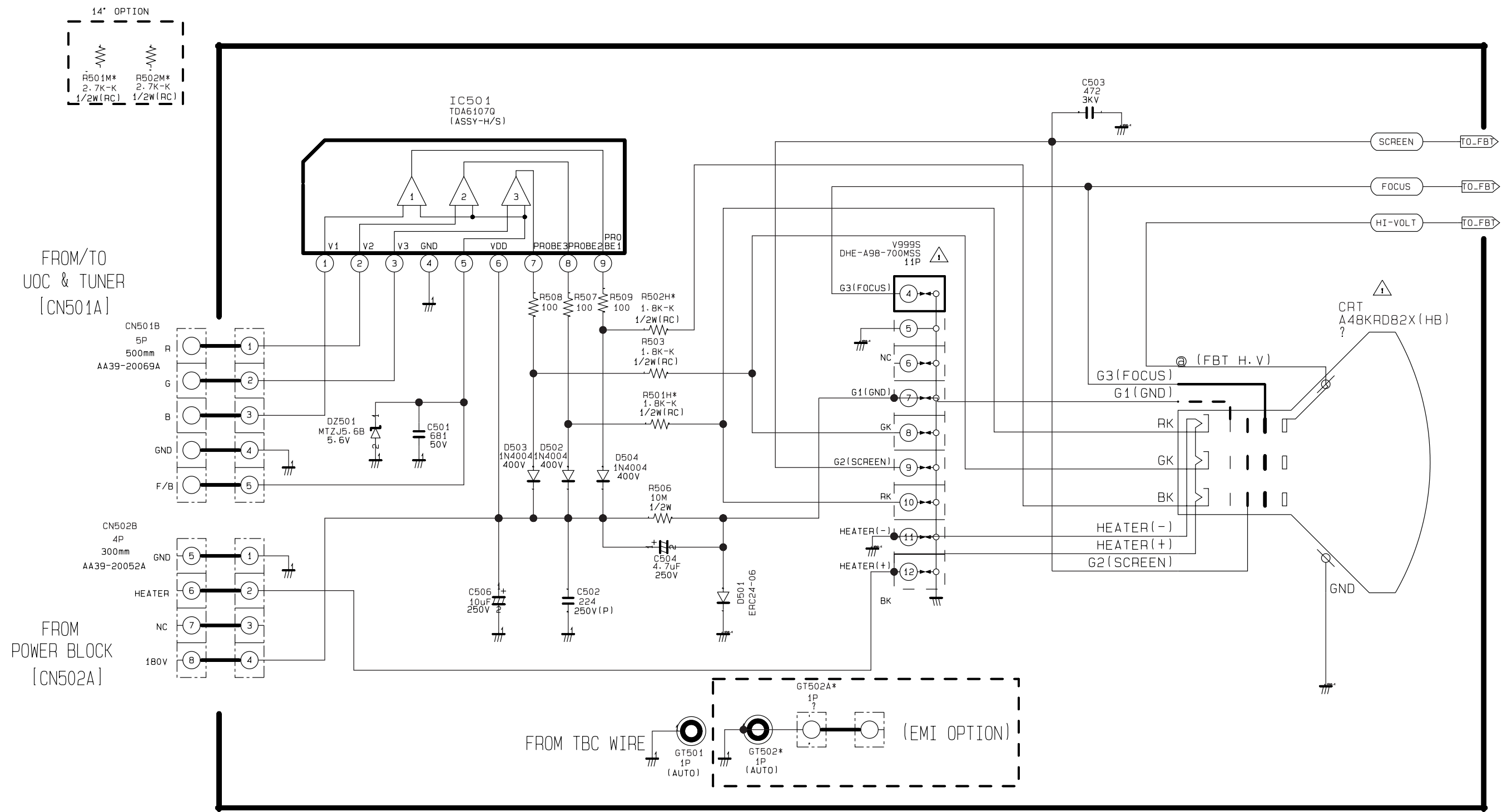




10-7 POWER & FBT

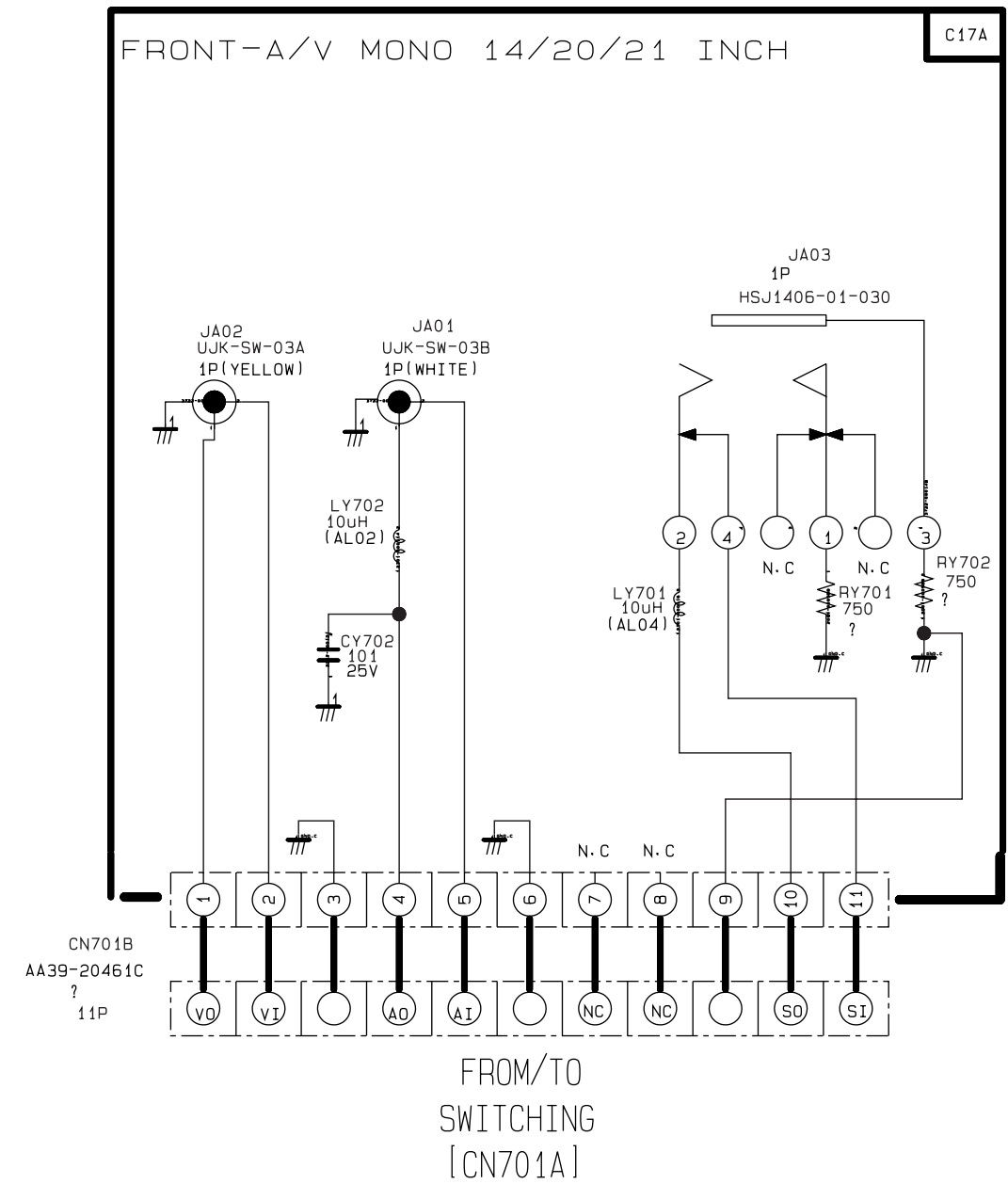


10-8 CRT



10-9 FRONT A/V, MASTER SW

FRONT A/V



MASTER SW

