

TEAC

SERVICE MANUAL

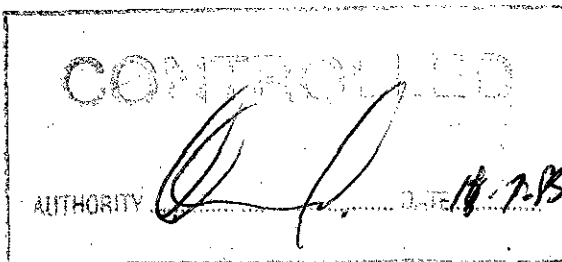
CE 3703

CT-M1401

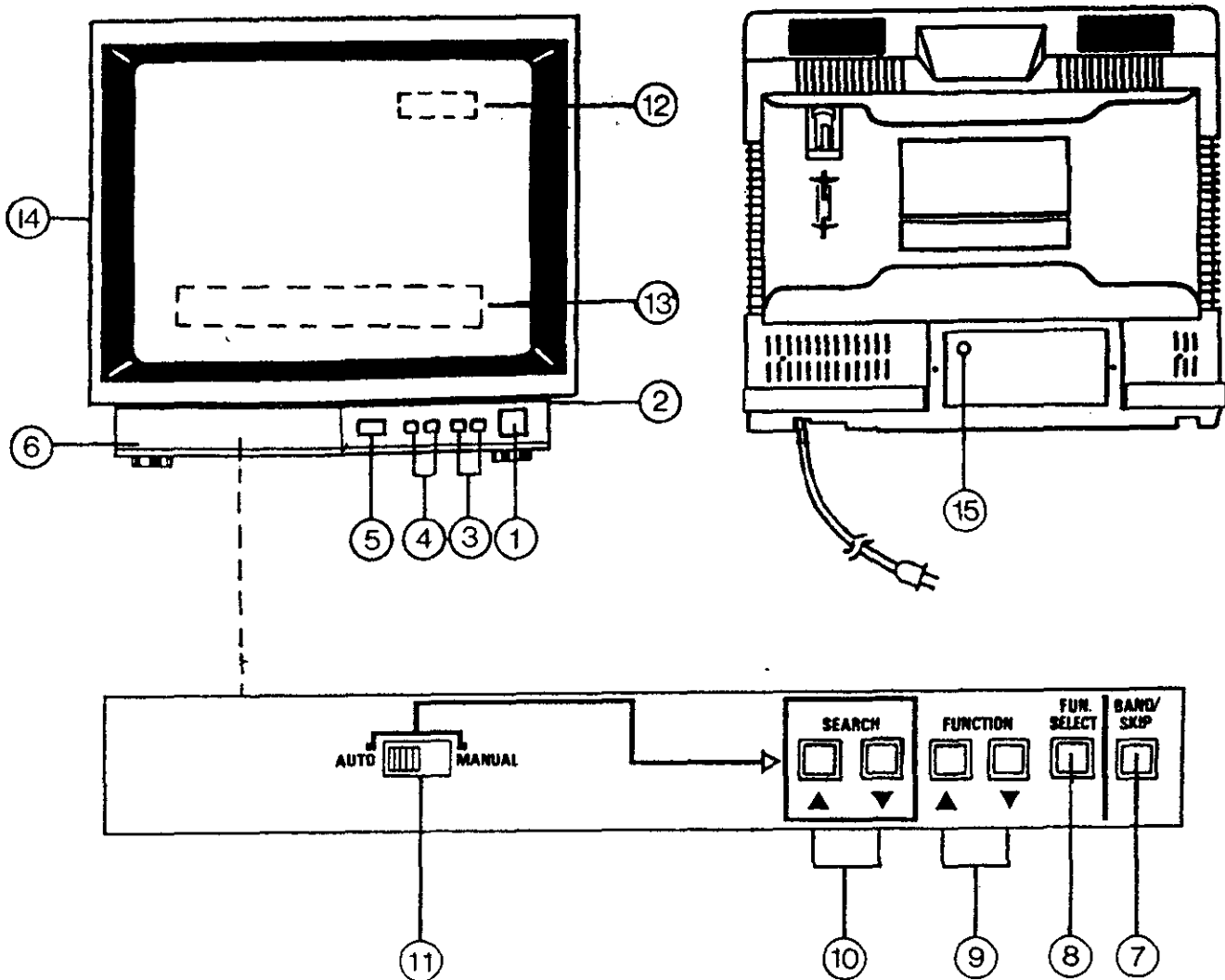
COLOUR TELEVISION

PWSW (⇒) MV2020 (V1623356)

REMOTE SENSOR: 690200101



OPERATING CONTROL



1. Main Power Switch
2. Power On Indicator (RED)
3. Volume Control Up/Down
4. Programme Up/Down
5. Infrared Sensor
6. Tuning Compartment Door
7. Band/ Skip
8. Function Select
(Colour/ Contrast/ Brightness)

9. Function Up/Down
10. Search Up/Down
11. Manual/Auto Search Selector
12. Programme Position or Tuning Indication
13. Function Indication
(Colour/ Contrast/ Brightness)
14. Speaker
15. 75 Ohm Aerial Socket

SAFETY INSTRUCTIONS

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION," "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" DESCRIBED BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous **X-RAY RADIATION**. To avoid such hazards, the high voltage must not exceed the specified limit. The nominal value of the high voltage of this receiver is 22 kv at zero beam current (minimum brightness) under 220V/240V AC power source. The high voltage must not, under any circumstances, exceed 30 kv. Each time a receiver requires servicing, the high voltage should be checked following the **HIGH VOLTAGE CHECK** procedure in this manual. It is recommended the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The primary source of **X-RAY RADIATION** in this TV receiver is the picture tube. For continued **X-RAY RADIATION** protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some parts in this receiver have special safety-related characteristics for **X-RAY RADIATION** protection. For continued safety, parts replacement should be undertaken only after referring to the **PRODUCT SAFETY NOTICE** below.

SAFETY PRECAUTION

1. Potentials as high as 22K volts are present when this receiver is operating. Operation of the receiver outside the cabinet or with cabinet back removed involves a shock hazard from the receiver.
 - a) Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high-voltage equipment.
 - b) Always discharge the picture tube anode to the receiver chassis to deep off the shock hazard before removing the anode cap.
 - c) Perfectly discharge the high potential of the picture tube before handling the tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled.
2. If any Fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list.
3. The receiver is designed to operate with 220V/240V 50Hz AC mains.
4. When replacing a high wattage resistor (oxide metal film resistor) in circuit board, keep the resistor 10mm away from circuit board.
5. Keep wires away from high voltage or high temperature components.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the **X-RAY RADIATION** protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements, electrical components having such features are identified by shading on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create **X-RAY RADIATION**.

GENERAL ADJUSTMENT INSTRUCTIONS

- * This receiver is transistorized and special care should be taken when servicing. Read the following matters that demand special attention before attempting adjustment.
- * Adjustment requires an exact procedure and should be undertaken only when necessary.
- * An isolation transformer should be used during any dynamic service to avoid possible shock hazard.
- * The test equipment specified or its equivalent is required to perform the alignment properly. Use of equipment which does not meet these requirements may result in improper alignment.
- * Correct matching of the equipment is essential. Failure to use proper matching will result in responses which can not represent the true operation of the receiver.
- * Use of excessive signal from a sweep generator can cause overloading of receiver circuit. Overloading should be avoided to obtain a true response curve. Insertion of markers from the marker generator should not cause distortion of the response.
- * The AC power line voltage should be kept accurately during alignment.
- * Do not attempt to connect or disconnect any wire while the receiver is in operation. Make sure the power cord is disconnected before replacing parts in the receiver.
- * Unless otherwise noted, do not perform any adjustments until the receiver has been turned on for at least 10 minutes.

TEST EQUIPMENT

EQUIPMENT	SPEC.
HIGH IMPEDANCE VOLTMETER OSCILLOSCOPE	Having an impedance of at least 100 Ω Volt sensitivity: over 10mV input impedance: over 1M ohm, below 10PF
SWEEP/MARKER GENERATOR	Output adjustable to at least 0.1 volts rms
COLOUR BAR GENERATOR	With BAR/DOT/CROSS HATCH functions
POWER SUPPLY	Source such as a battery or a well regulated and isolated DC bias supply.
AC/DC VOLTMETER	Sensible
ISOLATION TRANSFORMER	Voltage adjustable type having capacity of more than 150 watts.
PROBE	Low-capacitance.

INSTALLATION AND SERVICE ADJUSTMENTS

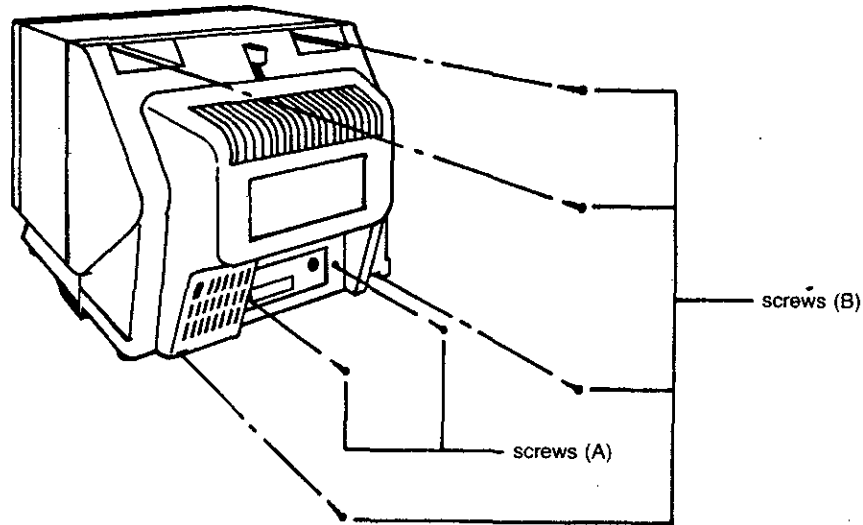
GENERAL :

In the majority of cases, a colour television receiver will need only slight touch-up adjustment upon installation. Check the basic characteristics such as height, vertical sync., and focus. Observe the picture for good black and white details without objectionable colour shading. If colour shading is evident, demagnetize the receiver.

If colour shading still persists, perform purity and convergence adjustments. This should be all that is necessary to achieve optimum receiver performance.

CABINET BACK REMOVAL

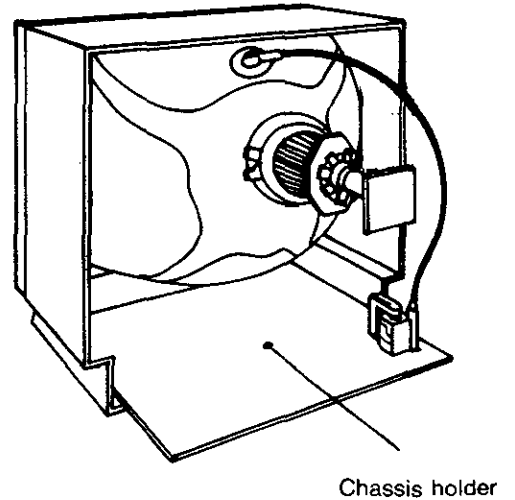
1. Disconnect the antenna leads from the antenna terminals.
2. Remove 2 screws (A) securing the antenna terminal board to the Cabinet Back.
3. Remove 4 screws (B) securing the Cabinet Back to the Cabinet Front and detach the cabinet back.



CHASSIS REMOVAL

Following the steps under Cabinet Back Removal, proceed as follows:-

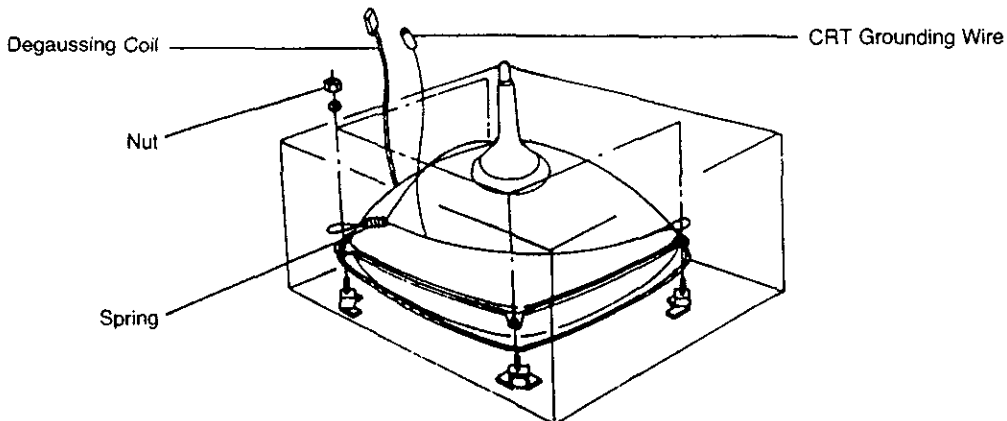
1. Unplug the CRT grounding wire socket connected to the CRT Socket Board.
2. Detach the picture tube anode cap.
3. Detach the CRT Socket (CRT Socket Board)
4. Take out the chassis from the chassis holder



PICTURE TUBE REMOVAL

Following the steps under CHASSIS REMOVAL proceed as follows:

1. Place the cabinet with the front down on a rolled pad or some suitable cushion place near the top edge of the front panel.
2. Remove 4 nuts securing the picture tube to the cabinet, and detach the CRT with the degaussing coil, then grasp the face plate edge of the picture tube with both hands and take out the picture tube.
3. Detach the CRT grounding wire which is attached to the picture tube lugs with spring.



NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARKS
7.	WHITE BALANCE ADJUSTMENT	<ol style="list-style-type: none"> 1. Tune in a mono-chrome channel and warm up the set for 15 minutes. 2. Set the R.G.B. cut off controls VR402, VR404 and VR502 about 1/4 position from maximum value and the G.B. drive controls (VR401, VR403) at centre position. 3. Rotate the screen control fully counter clockwise. 4. Set the switch S201 to 'service' position. 	<ol style="list-style-type: none"> 5. Rotate the screen control gradually clockwise until the first horizontal line appears on the screen. 6. If the first horizontal line is blue, adjust VR402 and VR405 to increase the red and green component level to get a white horizontal line. 7. Set S201 to 'Normal' position. Set the luminance and contrast controls at normal position. Adjust VR401, VR403 to maintain a good white balance at the brightness part of the screen. 8. Turn the brightness and contrast controls to maximum and minimum. Observe the screen white balance, if it is not proper in high brightness condition, adjust R.G.B. cut off controls or G.B. drive controls respectively, in order to maintain a good white balance in both low and high luminance conditions. 	Refer to "Chassis Top View"
8.	PAL MATRIX ADJUSTMENT	<ol style="list-style-type: none"> 1. Tune in the colour programme of Philips pattern. 2. Set the colour control to obtain the proper colour. 3. If the PAL matrix adjustment is incorrect the Venetian Blind would appear in the colour bars area. This case needs the adjustment. 	<ol style="list-style-type: none"> 4. Adjust DL Phase ADJ. coil (L201) to minimize the Venetian Blind. 5. Next adjust 1 H-DL ADJ. (VR201) to minimize the Blind. 6. If the Venetian Blind still remains, adjust 1 H-DL Phase ADJ. coil to minimize the Blind again. 7. Repeat the item 5 and 6 procedures, adjust the VR and coil until the Blind does not appear. 	

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

GENERAL ADJUSTMENTS

NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARKS
1.	B+110V POWER ADJUSTMENT	1. Tune in an air signal. Adjust the BRIGHTNESS and CONTRAST controls for normal picture 2. Check that AC power line voltage is normal. (AC 220/240 volts 50Hz) 3. Connect a electronic voltmeter across C518 on the Main Board.	4. Adjust the B+ ADJ (VR501) for +110 Volt reading.	CAUTION : B+ voltage closely relates to the high voltage. To prevent hazardous X-Ray RADIATION the B+ voltage must properly adjusted to + 110 volts.
2.	HEIGHT ADJUSTMENT	1. Tune in an active Channel.	2. The HEIGHT control (VR202) changes the size of the picture or pattern. Make final adjustment to overscan the mask about 10% vertically.	Refer to "Chassis Top View"
3.	HORIZONTAL PHASE ADJUSTMENT	1. Tune in the colour-programe of Philips pattern.	2. Adjust VR203 for the horizontal phase of the picture.	Refer to "Chassis Top View"
4.	FOCUS ADJUSTMENT	1. Tune in an active channel.	2. Adjust the FOCUS control for well defined scanning lines on the picture screen.	Refer to "Chassis Top View"
5.	HIGH VOLTAGE CHECK	1. Connect an accurate high voltage meter to the second anode of the picture tube. 2. Turn on the receiver. 3. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current)	4. Adjust the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions. <u>Note</u> : High voltage should be measured below 26KV.	There is no HIGH VOLTAGE on this chassis.
6.	AGC DELAY ADJUSTMENT	1. Tune the strongest station in your area.	2. Adjust the AGC DELAY control (VR102) fully clockwise, then turn it counter clockwise until snow noise just disappears from the screen.	

NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARK
11.	CENTER CONVERGENCE ADJUSTMENT	1. Receive crosshatch pattern with a colour bar signal generator. 2. Adjust the BRIGHTNESS and CONTRAST controls for well defined pattern.	1. Adjust two tabs of the 4 pole Magnets to change the angle between them (See fig. 2) and obtain a blue vertical line in the center area of the picture screen (See fig. 3) 2. Turn both tabs at the same time keeping their angles constant to superimpose red and blue horizontal lines at the center of the screen. (See fig. 3) 3. Adjust two tabs of 6 pole Magnets to super-impose red/blue line with green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines. 4. Repeat adjustments 1, 2, 3, keeping in mind red, green & blue movements because 4-pole magnets and make dot movement complex.	

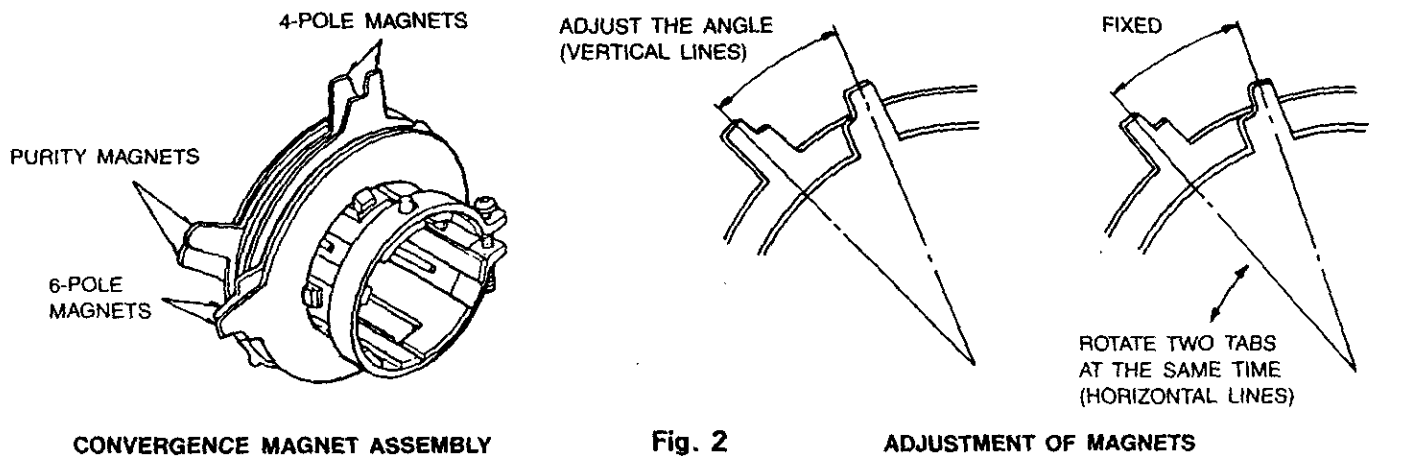
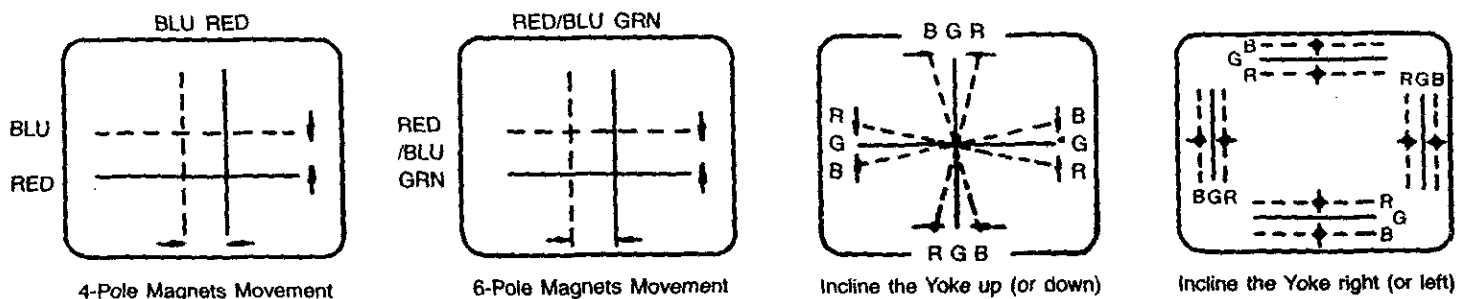


Fig. 2

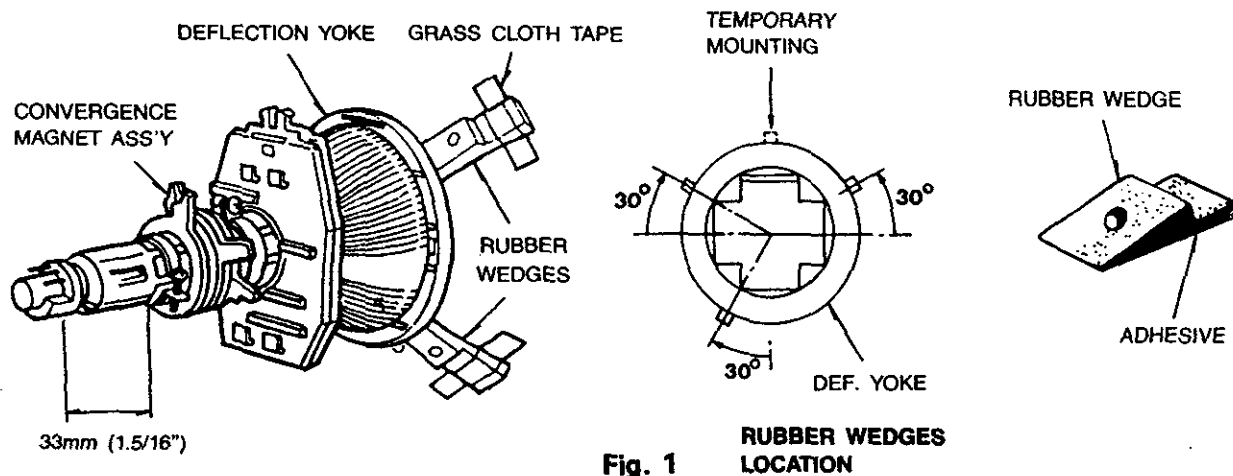


Center Convergence by Convergence Magnets

Circumference Convergence by DEF Yoke

Fig. 3 Dot Movement Pattern

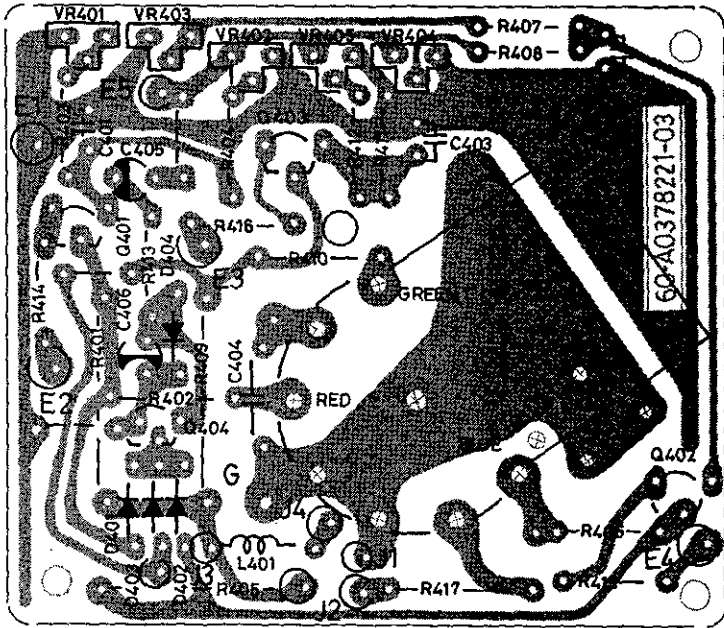
NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARK
9.	ON-SCREEN DISPLAY ALIGNMENT	1. Receive a test pattern.	2. Press the "Fun. Select" button. 3. Press the "Fun. Up" button to maximum. 4. Adjust L801 so that the OSD is symmetrically shown.	
10.	COLOUR PURITY ADJUSTMENT	1. Demagnetize the picture tube and cabinet using an external degaussing coil. 2. Turn the CONTRAST and BRIGHTNESS controls to maximum. 3. Adjust RED and BLUE Bais controls (VR401) & (VR405) to provide only a green raster. Advance the GREEN Baiscontrol (VR403) if necessary. 4. Loosen the clamp screw holding the yoke, and slide the yoke backward to provide vertical green belt (zone) in the picture screen. 5. Remove the Rubber wedges	1. Rotate and spread the tabs of the purity magnet (See fig. 1) around the neck of the picture tube until the green belt is in center of the screen. At the same time, center the raster vertically. 2. Move the yoke slowly forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily. 3. Check the purity of the red and blue rasters by adjusting the BIAS controls. 4. Obtain a white raster, referring to " WHITE " Balance adjustment.. 5. Proceed with convergence adjustment.	



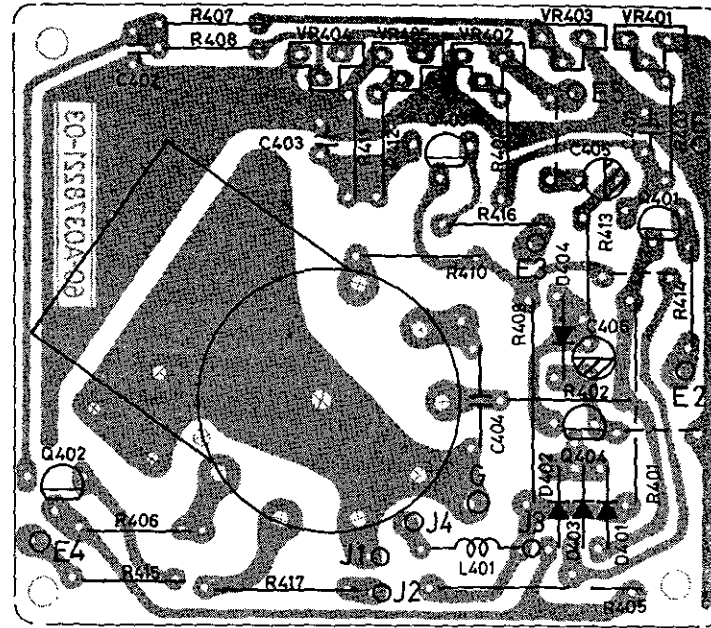
NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARK
13.	PICTURE IF AND AFC ADJUSTMENT	<ol style="list-style-type: none"> 1. Apply 16.5VDC voltage across C318. 2. Connect Tuner pins BM and BU together. 3. Apply 38.9MHz, 15mVrms CW to Tuner TP through 1Kohm resistor in series with 0.001uf cap. 6. Repeat Step 5 if Tuner AGC saturation occurs. 7. Now connect a 10 Kohm resistor across C139. 9. Remove the 10 Kohm resistor. 	<ol style="list-style-type: none"> 4. Adjust VR102 so that Tuner AGC is about 4 VDC. 5. Adjust the video detector AGC is minimum. 8. Adjust VR101 so that the D.C. voltage of terminal #24 (AFT output) will be 4.5V. 10. Adjust the AFT tank coil L106 so that the DC voltage of terminal #24 will be 4.5V. 	Use 38.9 MHz for B/G system and 38.0 MHz for I/D system.
14.	SIF ADJUSTMENT	<ol style="list-style-type: none"> 1. Apply 16.5VDC voltage across C318. 2. Apply 5.5 MHz, 100mVrms, 400Hz FM 50KHz Dev. signal to pin 16 of IC102 through a 0.001uF capacitor. 	<ol style="list-style-type: none"> 3. Adjust SIF tank coil L112 so that the 400Hz output of terminal #11 will be the maximum of the lowest T.H.D. 	
15.	IF TRAPS ADJUSTMENT (FOR FTZ ONLY)	<ol style="list-style-type: none"> 1. Apply 16.5VDC voltage across C318. 2. A sweep signal is applied to Tuner TP through 1K resistor in series with 0.001uF capacitor. 3. Connect Tuner pins BM and BU together. 4. Connect a suitable detector across R137. 	<ol style="list-style-type: none"> 5. Adjust L102 and L101 for maximum attenuation of 40.16MHz and 31.9 MHz respectively. 6. Adjust Tuner output coil for maximum value of 37.9MHz. 	
16.	I/D SIF ADJUSTMENT	<ol style="list-style-type: none"> 1. Apply 16.5VDC voltage across C318. 2. Apply a 6.0MHz, 100mVrms 400HZ FM 50KHZ Dev. signal to the intersertion point of C142 and R121. 3. Connect an oscilloscope to pin 16 of IC102. 	<ol style="list-style-type: none"> 4. Adjust L114 for maximum amplitude signal with 	

NO.	ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK	REMARK
12.	CIRCUMFEER- ENCE CONVERGENCE ADJUSTMENT	<ol style="list-style-type: none"> 1. Loosen the clamping screw of deflection yoke to allow the yoke to tilt. 2. Place a wedge as shown in figure 8 temporarily. (Do not remove cover paper on adhesive part of the wedge.) 	<ol style="list-style-type: none"> 1. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See fig. 2) Push the mounted wedge into the space between picture tube and the yoke to hold the yoke temporarily. 2. Place other wedge into bottom space and remove the cover paper to stick. 3. Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure 3). 4. Hold the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to hold the yoke. 5. Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke. After placing three wedges, recheck overall convergence. 6. Tighten the screw firmly to hold the yoke tightly in place. Stick 3 adhesive tapes on wedges as shown in figure 1. 	

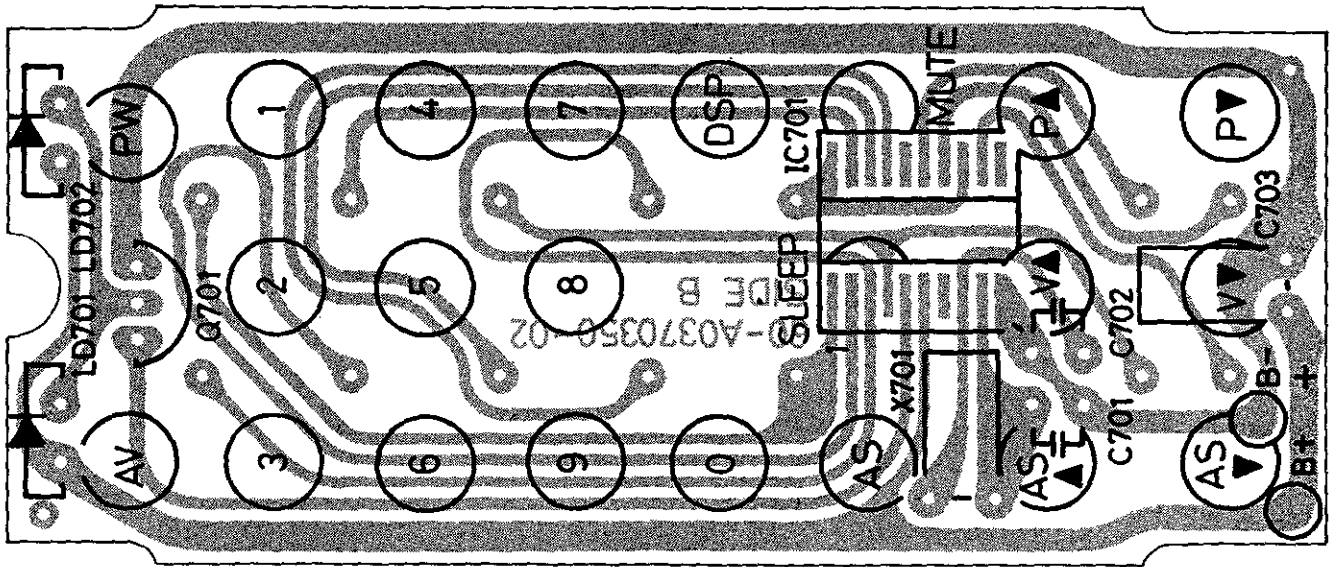
BOTTOM VIEW OF CRT BOARD



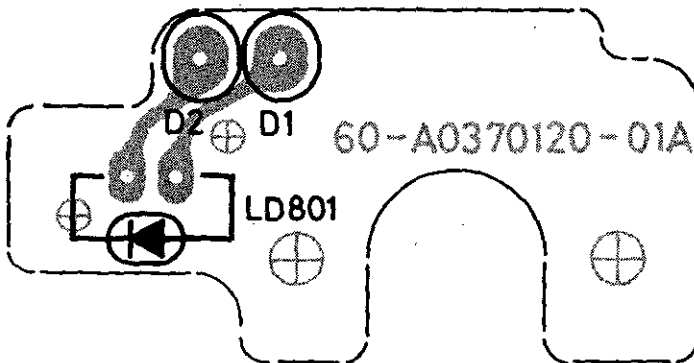
TOP VIEW OF CRT BOARD



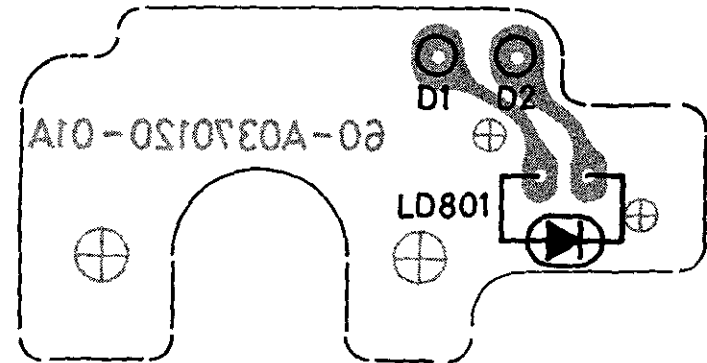
TRANSMITTER BOARD



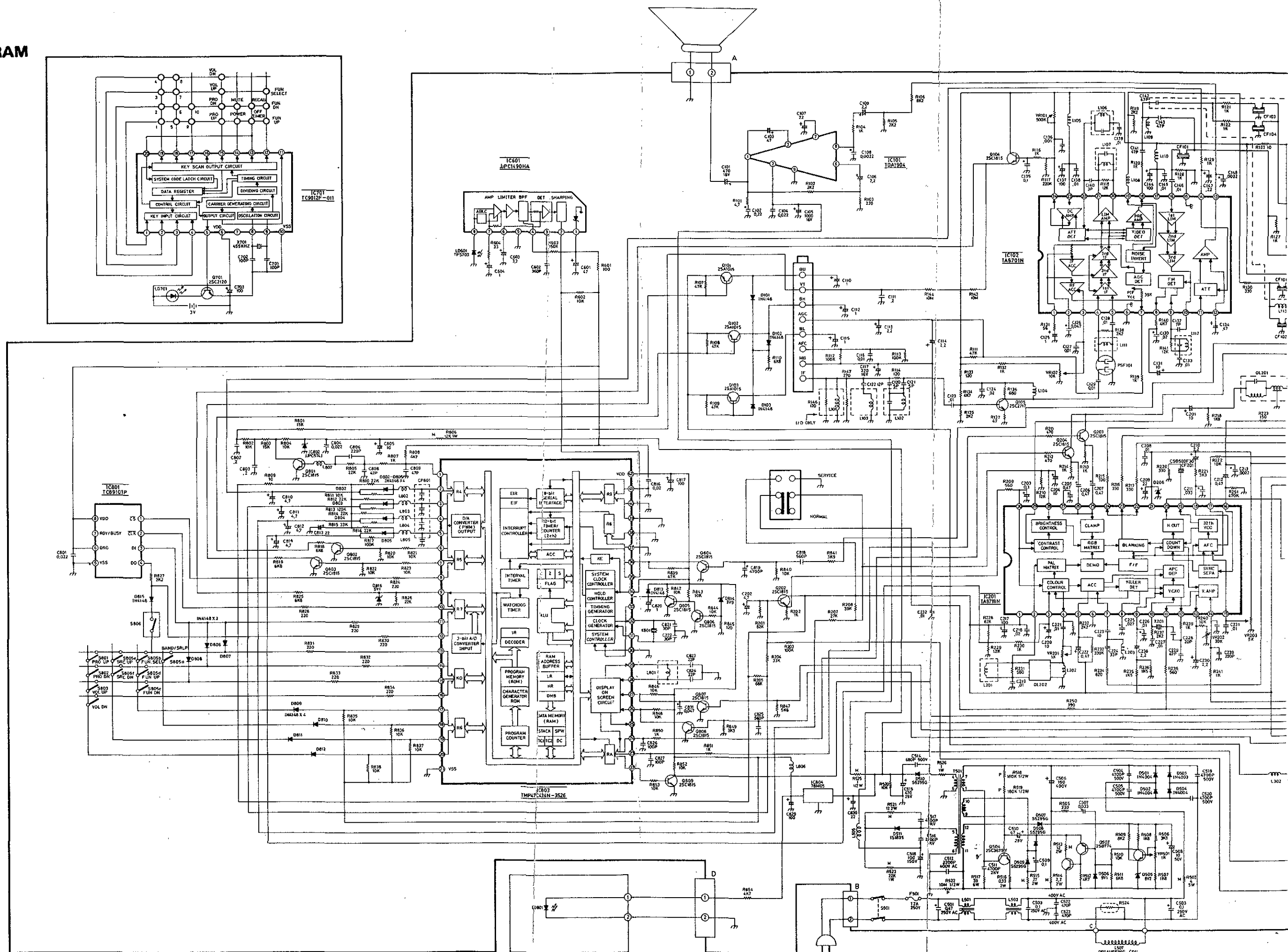
BOTTOM VIEW OF LED DISPLAY

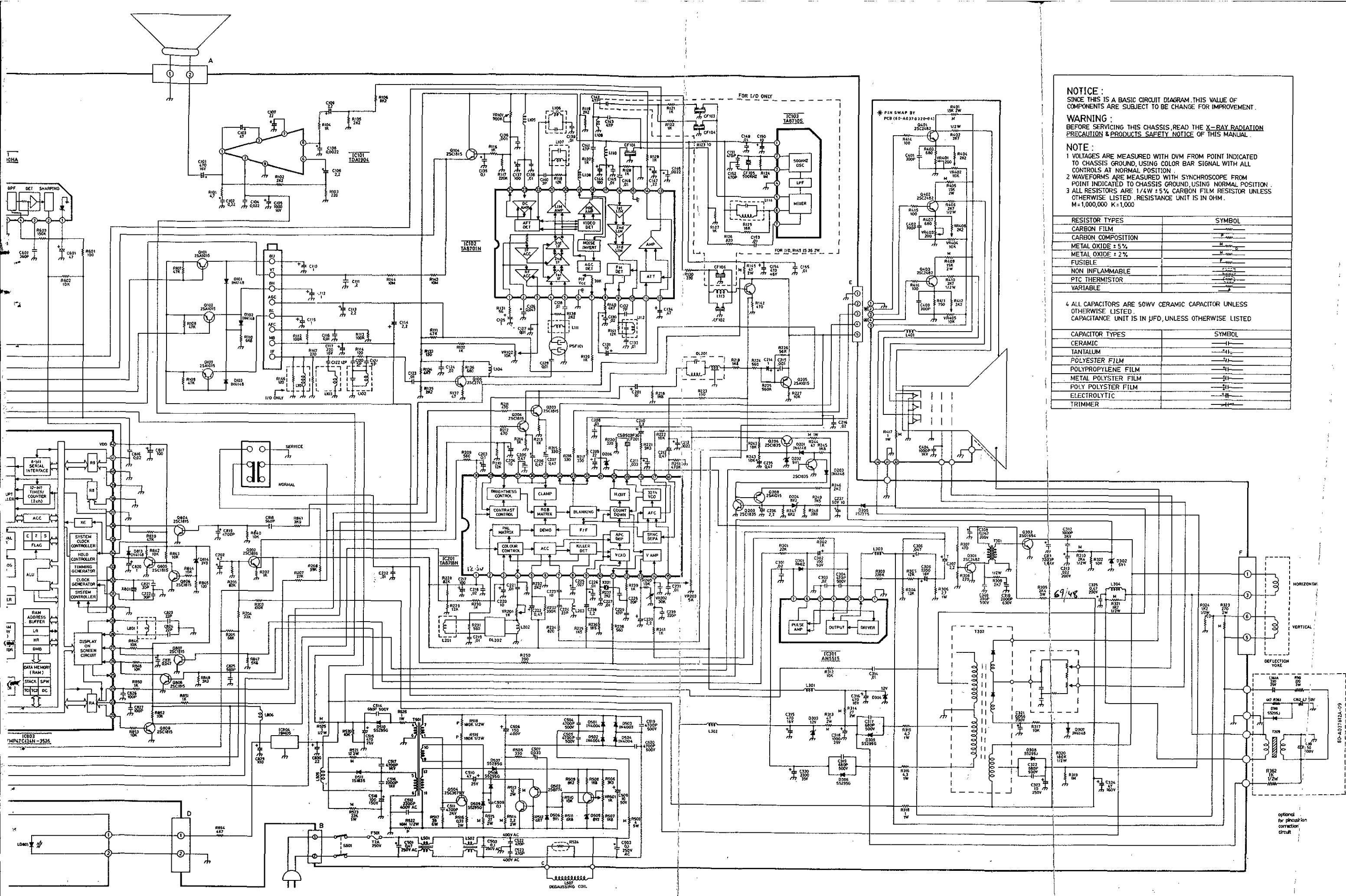


TOP VIEW OF LED DISPLAY



SCHEMATIC DIAGRAM





NOTICE :
 SINCE THIS IS A BASIC CIRCUIT DIAGRAM, THIS VALUE OF COMPONENTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

WARNING :
 BEFORE SERVICING THIS CHASSIS, READ THE X-RAY RADIATION PRECAUTION & PRODUCTS SAFETY NOTICE OF THIS MANUAL.

NOTE :

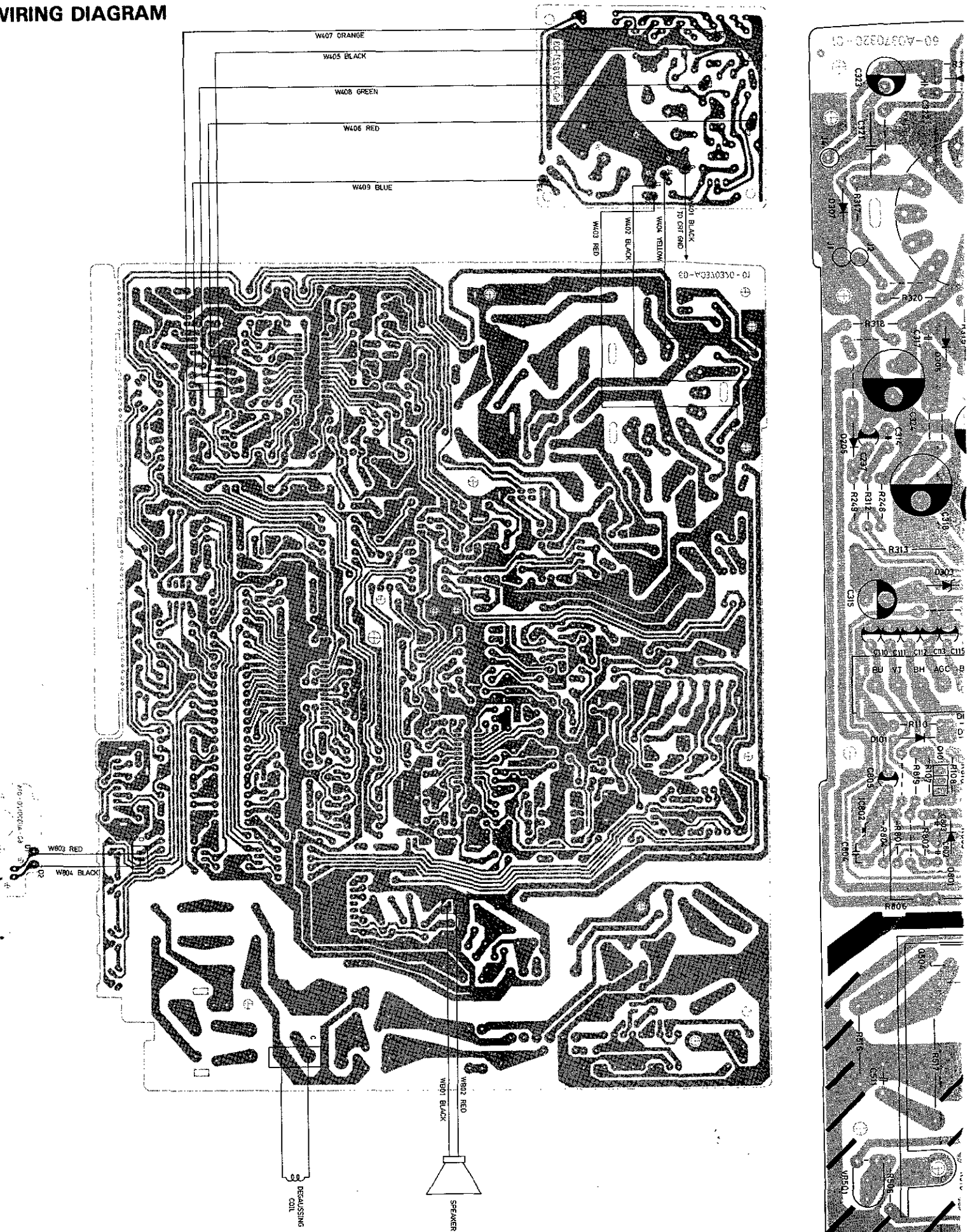
- 1 VOLTAGES ARE MEASURED WITH DVM FROM POINT INDICATED TO CHASSIS GROUND, USING COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL POSITION.
- 2 WAVEFORMS ARE MEASURED WITH SYNCHROSCOPE FROM POINT INDICATED TO CHASSIS GROUND, USING NORMAL POSITION.
- 3 ALL RESISTORS ARE 1/4W ± 5% CARBON FILM RESISTOR UNLESS OTHERWISE LISTED. RESISTANCE UNIT IS IN OHM. M=1,000,000 K=1,000.

RESISTOR TYPES	SYMBOL
CARBON FILM	—
CARBON COMPOSITION	—
METAL OXIDE ± 5%	—
METAL OXIDE ± 2%	—
FUSIBLE	—
NON INFLAMMABLE	—
PTC THERMISTOR	—
VARIABLE	—

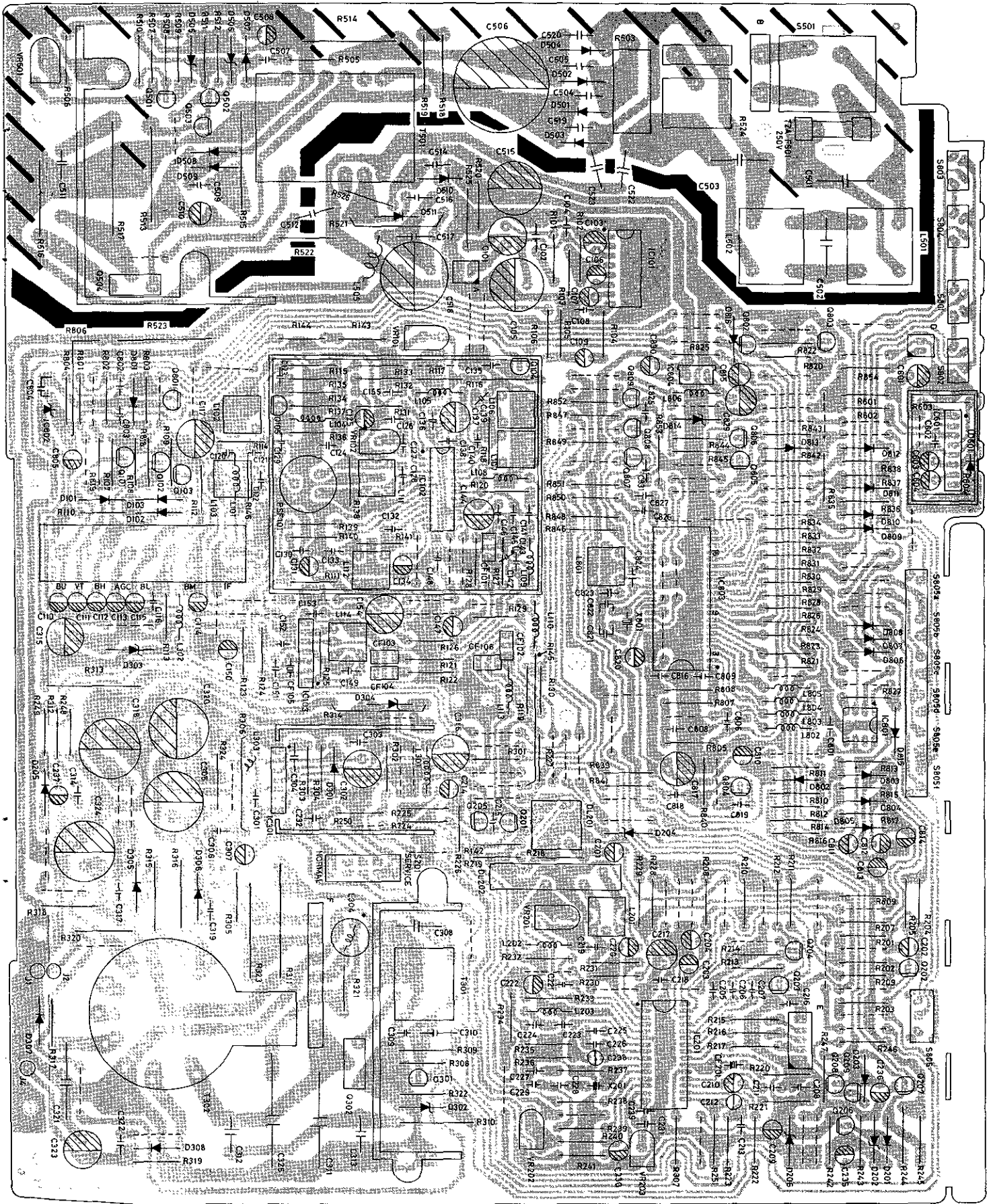
4 ALL CAPACITORS ARE 50VW CERAMIC CAPACITOR UNLESS OTHERWISE LISTED. CAPACITANCE UNIT IS IN JFD, UNLESS OTHERWISE LISTED.

CAPACITOR TYPES	SYMBOL
CERAMIC	—
TANTALUM	—
POLYESTER FILM	—
POLYPROPYLENE FILM	—
METAL POLYESTER FILM	—
POLY POLYESTER FILM	—
ELECTROLYTIC	—
TRIMMER	—

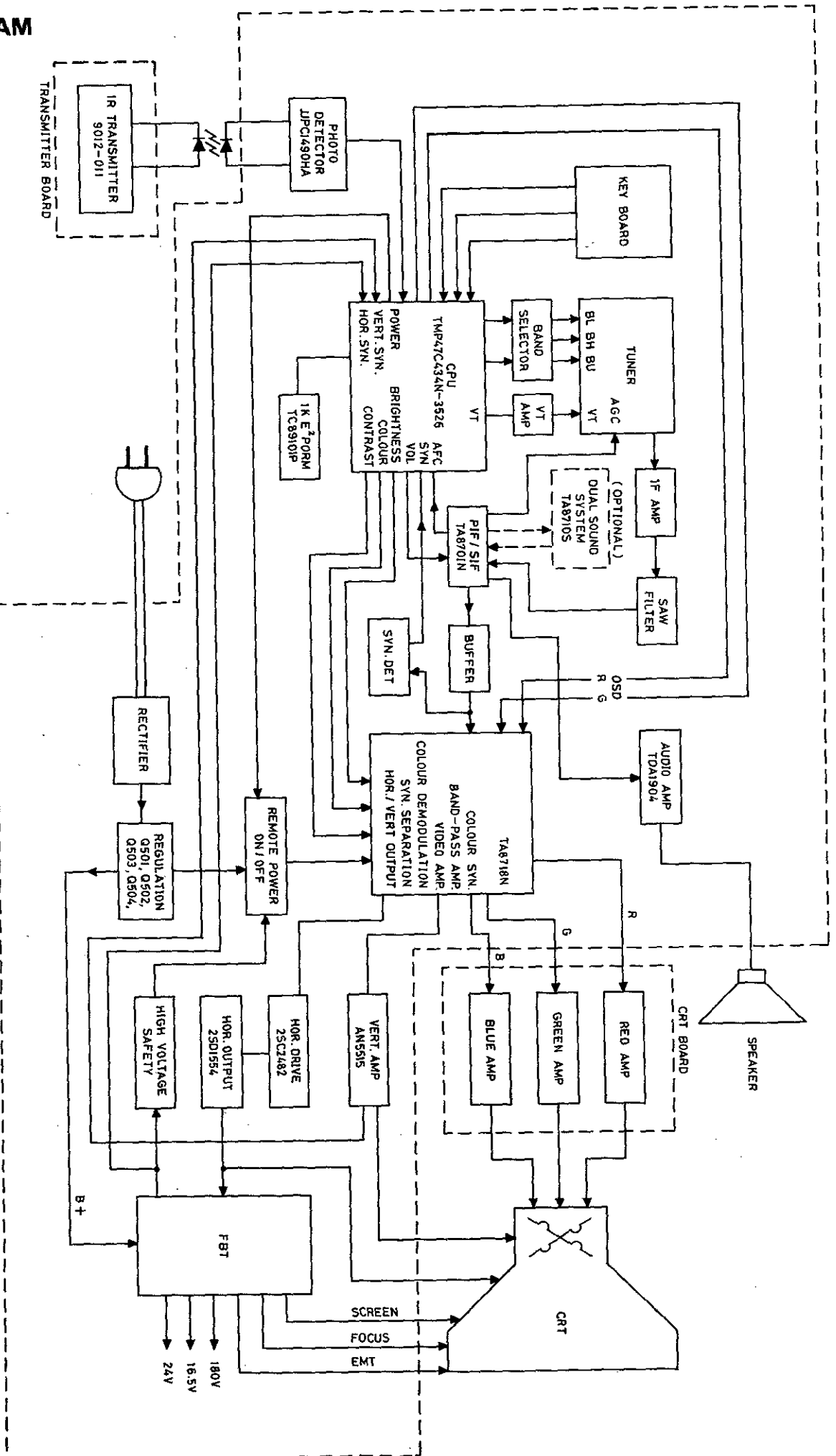
WIRING DIAGRAM



COMPONENT VIEW OF MAIN BOARD



BLOCK DIAGRAM



ELECTRICAL PART LIST

LOC.	PART NO.	DESCRIPTION	LOC.	PART NO.	DESCRIPTION
C0101	54-A4707EAC-00	470 UF 16V +20% ELECTROLYTIC CAPACITOR (UVX1C471MPA)	C0204	54-01008EAC-01	10 UF 16V +20% ELECTROLYTIC CAPACITOR 'D.F.<0.08' (SMR SERIES)
C0102	54-E2204DCF-00	0.22 UF 50V +-10% POLYESTER FILM CAPACITOR	C0205	54-P4704CCV-00	0.47 UF 63V +-5% PLASTIC FILM CAP. (MM TYPE)
C0103	54-74708-54	47 UF 16V +60% -10% ELECTROLYTIC CAP	C0206	54-P4704CCV-00	0.47 UF 63V +-5% PLASTIC FILM CAP. (MM TYPE)
C0104	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP	C0207	54-P4704CCV-00	0.47 UF 63V +-5% PLASTIC FILM CAP. (MM TYPE)
C0105	54-A1008EAC-00	1000 UF 18V +20% ELECTROLYTIC CAPACITOR (UVX1C102MPA)	C0208	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0106	54-02205EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0209	54-02206EAC-00	22 UF/18V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0107	54-02206EAC-00	22 UF/18V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0210	54-02205EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0108	54-E2202DCF-00	0.0022 UF 50V +-10% POLYESTER FILM CAPACITOR	C0211	54-E3303DCF-00	0.033 UF 50V +-10% POLYESTER FILM CAPACITOR
C0109	54-02206EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0212	54-A4704EGF-00	0.47 UF 50V +-20% ELECTROLYTIC CAP "SP NICHICON"
C0110	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0213	54-E2202DCF-00	0.0022 UF 50V +-10% POLYESTER FILM CAPACITOR
C0111	54-P2204DFV-00	0.22 UF 83V +-10% METALLIZED POLYESTER FILM CAP	C0214	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0112	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0215	54-E1002DCF-00	0.001 UF 50V +-10% POLYESTER FILM CAPACITOR
C0113	54-02205EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0216	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP
C0114	54-02206EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0217	54-C1007EAC-00	100 UF 16V +-20% ELECTROLYTIC CAP
C0115	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0218	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP
C0116	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0219	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0117	54-A2207EAC-00	220 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C221MPA)	C0220	54-01008EAC-01	10 UF 16V +-20% ELECTROLYTIC CAPACITOR 'D.F.<0.08' (SMR SERIES)
C0120	54-10500-75	5 PF 50V +-0.25PF CERAMIC CAP	C0221	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0121	54-10500-75	5 PF 50V +-0.25PF CERAMIC CAP	C0222	54-04704EAF-00	0.47 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0122	54-41200-75	12 PF 50V +-5% CERAMIC CAP	C0223	54-41000-75	10 PF 50V +-5% CERAMIC CAP
C0123	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0224	54-48200-75	82 PF 50V +-5% CERAMIC CAP
C0124	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP	C0225	54-E2703CCF-00	0.027 UF 50V +-5% POLYESTER FILM CAP (J273J47Y6DF52L4G)
C0125	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0226	54-51003-75	0.01 UF 50V +-10% MYLAR CAP
C0126	54-E4703DCF-00	0.047 UF 50V +-10% POLYESTER FILM CAPACITOR	C0227	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0127	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0228	54-42200-75	22 PF 50V +-5% CERAMIC CAP
C0128	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0228	54-E4700CBF-00	CERAMIC DISC CAPACITOR - (47 PF/50V +-5%) D470J22S2LF52L2H
C0129	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0230	54-02205EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0130	54-E2203DCF-00	0.022 UF 50V +-10% POLYESTER FILM CAPACITOR	C0231	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0131	54-01008EAC-01	10 UF 16V +-20% ELECTROLYTIC CAPACITOR 'D.F.<0.08' (SMR SERIES)	C0232	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0132	54-10700-75	7 PF 50V +-0.25PF CERAMIC CAP	C0235	54-04704EAF-00	0.47 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0133	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0236	54-02205EAF-00	2.2 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0134	54-01008EAC-01	10 UF 16V +-20% ELECTROLYTIC CAPACITOR 'D.F.<0.08' (SMR SERIES)	C0237	54-81006-74	10 UF 50V +-20% ELECTROLYTIC CAP (SINGLE ENDED TYPE)
C0136	54-51002-75	0.001 UF 50V +-10% CERAMIC CAP	C0238	54-A2205EGF-00	2.2 UF 50V +-20% ELECTROLYTIC CAP "SP NICHICON"
C0137	54-C1007EAC-00	100 UF 16V +-20% ELECTROLYTIC CAP	C0239	54-42201-75	220 PF 50V +-5% CERAMIC CAP
C0138	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0301	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0139	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0302	54-A1007EAF-01	100UF 50V +-20% ELECTROLYTIC CAPACITOR (UVX1H101MPA)
C0140	54-10300-75	3 PF 50V +-0.25PF CERAMIC CAP	C0303	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP
C0141	54-E4700CBF-00	CERAMIC DISC CAPACITOR - (47 PF/50V +-5%) D470J22S2LF52L2H	C0304	54-E4701DBL-00	470 PF 500V +-10% CERAMIC CAP.
C0143	54-E4700CBF-00	CERAMIC DISC CAPACITOR - (47 PF/50V +-5%) D470J22S2LF52L2H	C0305	54-A2208EAC-00	2200 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C222MHA)
C0144	54-C1007EAC-00	100 UF 16V +-20% ELECTROLYTIC CAP	C0306	54-E4703DCF-00	0.047 UF 50V +-10% POLYESTER FILM CAPACITOR
C0145	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0307	54-52216-78	2.2 UF 50V +-10% TANTALUM CAP
C0146	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP	C0308	54-54703-89	0.047 UF 200V +-10% POLYPROPYLENE FILM CAP (DTW TYPE)
C0147	54-A2204EAF-00	0.22 UF 50V +-20% ELECTROLYTIC CAPACITOR (UVX1HR22MDA)	C0309	54-H3801DKL-00	380 PF 500V +-10% CERAMIC CAP
C0148	54-E2202DCF-00	0.0022 UF 50V +-10% POLYESTER FILM CAPACITOR	C0310	54-42202-89	0.0022 UF 830V +-5% POLYPROPYLENE FILM CAP (DTW TYPE)
C0154	54-A2207EAC-00	220 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C221MPA)	C0311	54-17202CMO-00	0.0072 UF 1600V +-5% POLYPROPYLENE FILM CAP 50
C0155	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP	C0312	54-E1002DBP-00	1000 PF 2KV +-10% CERAMIC CAP (D102K38Y6PP62L8A) 50
C0201	54-01008EAC-01	10 UF 16V +-20% ELECTROLYTIC CAPACITOR 'D.F.<0.08' (SMR SERIES)	C0313	54-42003-89	0.02 UF 200V +-5% POLYPROPYLENE FILM CAP (DTW TYPE) 50
C0202	54-A4706EAD-00	4.7 UF 25V +-20% ELECTROLYTIC CAP (UVX1E4R7MAA)	C0314	54-71003-75	0.01 UF 50V +80% -20% CERAMIC CAP
C0203	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	C0315	54-A4707EAC-00	470 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C471MPA)

ELECTRICAL PART LIST

LOC.	PART NO.	DESCRIPTION	LOC.	PART NO.	DESCRIPTION
C0318	54-A4707EAC-00	470 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C471MPA)	C0810	54-A4705EAD-00	4.7 UF 25V +-20% ELECTROLYTIC CAP (UVX1E4R7MAA)
C0317	54-H6801DKL-00	680 PF 500V +-10% CERAMIC CAP	C0811	54-A4705EAD-00	4.7 UF 25V +-20% ELECTROLYTIC CAP (UVX1E4R7MAA)
C0318	54-A1008EAD-00	1000 UF 25V +-20% ELECTROLYTIC CAP (ULB1E102MRA)	C0812	54-A4705EAD-00	4.7 UF 25V +-20% ELECTROLYTIC CAP (UVX1E4R7MAA)
C0319	54-H6801DKL-00	680 PF 500V +-10% CERAMIC CAP	C0813	54-02208EAC-00	22 UF/16V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0320	54-A2208EAE-00	2200 UF 35V +-20% ELECTROLYTIC CAPACITOR (UVX1V222MHA)	C0814	54-A4705EAD-00	4.7 UF 25V +-20% ELECTROLYTIC CAP (UVX1E4R7MAA)
C0321	54-55603-89	0.058 UF 200V +-10% POLYPROPYLENE FILM CAP (DTW TYPE)	C0815	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0322	54-H6801DKL-00	680 PF 500V +-10% CERAMIC CAP	C0816	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP
C0323	54-A1008GAJ-00	10 UF 250V +50% -10% ELECTROLYTIC CAP	C0817	54-A2207EAC-00	220 UF 16V +-20% ELECTROLYTIC CAPACITOR (UVX1C221MPA)
C0324	54-A4706GAH-00	47 UF 160V +50% -10% ELECTROLYTIC CAP	C0818	54-55601-75	580 PF 50V +-10% CERAMIC CAP
C0325	54-54704-89	0.47 UF 200V +-10% POLYPROPYLENE FILM CAP (DTW TYPE)	C0819	54-E4702DCF-00	0.0047 UF 50V +-10% POLYESTER FILM CAPACITOR
C0401	54-43001-75	300 PF 50V +-5% CERAMIC CAP	C0820	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0402	54-43901-75	390 PF 50V +-5% CERAMIC CAP	C0821	54-43000-75	30 PF 50V +-5% CERAMIC CAP
C0403	54-43001-75	300 PF 50V +-5% CERAMIC CAP	C0822	54-43000-75	30 PF 50V +-5% CERAMIC CAP
C0404	54-51002-25	1000 PF 2KV +-10% CERAMIC CAP	C0823	54-42200-75	22 PF 50V +-5% CERAMIC CAP
C0501	54-I4704EMJ-00	0.47 UF 250VAC +-20% METALLIZED POLYPROPYLENE FILM CAP (DHV)	C0824	54-42200-75	22 PF 50V +-5% CERAMIC CAP
C0503	54-11004EMJ-00	0.1 UF 250VAC +-20% METALLIZED POLYPROPYLENE FILM CAP	C0825	54-55601-75	680 PF 50V +-10% CERAMIC CAP
C0504	54-H4702EBL-00	0.0047 UF 500V +-20% CERAMIC CAP	C0826	54-41001-75	100 PF 50V +-5% CERAMIC CAP
C0505	54-H4702EBL-00	0.0047 UF 500V +-20% CERAMIC CAP	C0827	54-41001-75	100 PF 50V +-5% CERAMIC CAP
C0506	54-A1507EAK-00	150 UF 400V +-20% ELECTROLYTIC CAP. (LLK2G151MHSA)	C0828	54-C1007EAC-00	100 UF 16V +-20% ELECTROLYTIC CAP
C0507	54-E3303DCF-00	0.033 UF 50V +-10% POLYESTER FILM CAPACITOR	C0830	54-02208EAC-00	22 UF/16V +-20% ELECTROLYTIC CAP. - SMR SERIES
C0508	54-A1008EAF-00	10 UF 50V +-20% ELECTROLYTIC CAP	C0831	54-E2203DCF-00	0.022 UF 50V +-10% POLYESTER FILM CAPACITOR
C0508	54-51004-76	0.1 UF 50V +-10% MYLAR CAP	CF0101	66-55001-02	SFE 5.6MB CERAMIC FILTER
C0510	54-04708EAD-00	47 UF/25V +-20% ELECTROLYTIC CAP. - SMR SERIES	CF0102	66-55001-03	TPS 5.6MB CERAMIC FILTER 5.6MHZ
C0511	54-64702-25	4700 PF 2KV +-20% CERAMIC CAP	CF0201	66-50350-01	CERAMIC RESONATOR 503.5 KHZ (CSB503F30)
C0512	54-H2202EGK-00	2200 PF 400 VAC +-20% CERAMIC CAP. (DE1410E222MACT4K-KD)	D0101	51-08004-06	DIODE 1N4148
C0514	54-H6801DKL-00	680 PF 500V +-10% CERAMIC CAP	D0102	51-08004-06	DIODE 1N4148
C0515	54-A4707EAD-00	470 UF 25V +-20% ELECTROLYTIC CAPACITOR (UVX1E471MPA)	D0103	51-08004-06	DIODE 1N4148
C0516	54-72202-15	0.0022 UF 1KV +80% -20% CERAMIC CAP	D0201	51-08004-06	DIODE 1N4148
C0517	54-E4702EBN-00	0.0047 UF 1KV +-20% CERAMIC CAP (D472M39Z6UN62L6A)	D0202	51-02027-04	ZENER DIODE GZA 9.1V
C0518	54-A1007GAH-00	100 UF 180V +50% -10% ELECTROLYTIC CAP	D0203	51-08004-06	DIODE 1N4148
C0518	54-H4702EBL-00	0.0047 UF 500V +-20% CERAMIC CAP	D0204	51-02030-01	ZENER DIODE 8.2V HZ8A3 1/2W TAPED REELED PACKAGE
C0520	54-H4702EBL-00	0.0047 UF 500V +-20% CERAMIC CAP	D0205	51-03018-01	DIODE 1S2775 "TOSHIBA" TAPED REELED PACKAGE
C0522	54-H4701DGK-00	470 PF 400 VAC +-10% CERAMIC CAP (DE1010B471KACT4K-KD)	D0206	51-02027-04	ZENER DIODE GZA 9.1V
C0523	54-H4701DGK-00	470 PF 400 VAC +-10% CERAMIC CAP (DE1010B471KACT4K-KD)	D0301	51-03028-35	RECTIFIER DIODE RMIZ (FOR HIGH SPEED)
C0801	54-74706-54	47 UF 18V +50% -10% ELECTROLYTIC CAP	D0302	51-02023-01	ZENER DIODE 5.1V HZ5C2
C0802	54-43801-75	380 PF 50V +-5% CERAMIC CAP	D0303	51-02028-04	ZENER DIODE 12V GZA12X
C0803	54-A3305EAF-00	3.3 UF 50V +-20% ELECTROLYTIC CAP	D0304	51-02028-04	ZENER DIODE 12V GZA12X
C0804	54-01005EAF-00	1 UF/50V +-20% ELECTROLYTIC CAP. - SMR SERIES	D0305	51-03020-02	DIODE S5295 G
C0701	54-41001-75	100 PF 50V +-5% CERAMIC CAP	D0306	51-03021-02	DIODE S5295 J TPA2 TAPED REELED PACKAGE
C0702	54-41001-75	100 PF 50V +-5% CERAMIC CAP	D0307	51-08004-06	DIODE 1N4148
C0703	54-A4706EAB-00	47 UF 10V +-20% ELECTROLYTIC CAP	D0308	51-03021-02	DIODE S5295 J TPA2 TAPED REELED PACKAGE
C0801	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP	D0501	51-03017-01	DIODE 1N4004
C0802	54-P2204DFV-00	0.22 UF 63V +-10% METALLIZED POLYESTER FILM CAP	D0502	51-03017-01	DIODE 1N4004
C0803	54-P2204DFV-00	0.22 UF 63V +-10% METALLIZED POLYESTER FILM CAP	D0503	51-03017-01	DIODE 1N4004
C0804	54-72203-75	0.022 UF 50V +80% -20% CERAMIC CAP	D0504	51-03017-01	DIODE 1N4004
C0805	54-81006-74	10 UF 50V +-20% ELECTROLYTIC CAP (SINGLE ENDED TYPE)	D0505	51-02028-04	ZENER DIODE GZA 9.2X
C0806	54-42201-75	220 PF 50V +-5% CERAMIC CAP	D0506	51-02027-04	ZENER DIODE GZA 9.1V
C0808	54-E4700CBF-00	CERAMIC DISC CAPACITOR - (47 PF/50V +-5%) D470J22S2LF52L2H	D0507	51-03020-02	DIODE S5295 G
C0809	54-E4700CBF-00	CERAMIC DISC CAPACITOR - (47 PF/50V +-5%) D470J22S2LF52L2H	D0508	51-03020-02	DIODE S5295 G

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LOC.	PART NO.	DESCRIPTION
D0609	61-03020-02	DIODE S5295 G
D0610	61-03020-02	DIODE S5295 G
D0611	61-03024-02 25	DIODE 1S1836 TPA2 TAPED REELED PACKAGE
D0802	61-08004-06	DIODE 1N4148
D0803	61-08004-06	DIODE 1N4148
D0804	61-08004-06	DIODE 1N4148
D0805	61-08004-06	DIODE 1N4148
D0806	61-08004-06	DIODE 1N4148
D0807	61-08004-06	DIODE 1N4148
D0808	61-08004-06	DIODE 1N4148
D0809	61-08004-06	DIODE 1N4148
D0810	61-08004-06	DIODE 1N4148
D0811	61-08004-06	DIODE 1N4148
D0812	61-08004-06	DIODE 1N4148
D0813	61-08004-06	DIODE 1N4148
D0814	61-02028-01 25	ZENER DIODE (3.9V) HZ482
D0816	61-08004-06	DIODE 1N4148
D0818	61-02023-01 25	ZENER DIODE 5.1V HZ5C2
DL0201	88-21001-06 25	DELAY LINE MDL-CT R22-6781 TYC-4008-TW 25-KEY
DL0202	88-21004-02 25	GLASS DELAY LINE YJD-8-S6
F0501	72-01047-01	FUSE T2A 250V 20X6MM
IC0101	67-80108-01 30	I.C. TDA1904P
IC0102	67-36509-01 30	I.C. - TA8701N
IC0201	67-32015-03 30	I.C. - TA8718N
IC0301	67-66730-02 30	I.C. AN6515
IC0601	67-80105-01 30	I.C. UPC1490HA
IC0701	67-32720-04 30	I.C. TC8012F-011
IC0801	67-32705-01 30	I.C. TC88101P
IC0802	67-90430-01 30	I.C. UPC674J
IC0803	67-32708-08 30	I.C. - TMP47C434N-3528 (CTS-140)
IC0804	67-84735-02 30	I.C. L7805CV
L0102	69-01813-06	PIF & AFC COIL (10 MM)
L0103	69-01812-05	PIF MATCHING COIL
L0104	69-62901-17	1.2 UH +-10% PEAKING COIL TAPED/REELED PACKAGE (AL0410ST-1R2K)
L0106	69-62901-17	1.2 UH +-10% PEAKING COIL TAPED/REELED PACKAGE (AL0410ST-1R2K)
L0108	69-01813-05	PIF & AFC COIL (10 MM)
L0107	69-01813-05	PIF & AFC COIL (10 MM)
L0108	69-62901-03	5.6 UH PEAKING COIL AL0410ST-5R6M TAPED REELED PACKAGE
L0109	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0110	69-62901-08	68 UH PEAKING COIL (AL0410ST-680K) (TAPED/REEL PACKAGE)
L0111	69-01812-05	PIF MATCHING COIL
L0112	69-31828-03	CHROMA TRAP COIL
L0113	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0201	69-01817-05	BURST CLEANING COIL 10 MM
L0202	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0203	69-62901-15	33 UH PEAKING COIL +-5% TAPED/REELED PACKAGE
L0301	69-62901-08	68 UH PEAKING COIL (AL0410ST-680K) (TAPED/REEL PACKAGE)
L0302	69-62901-08	68 UH PEAKING COIL (AL0410ST-680K) (TAPED/REEL PACKAGE)
L0303	69-02401-08	1 UH CHOKE COIL

LOC.	PART NO.	DESCRIPTION
L0304	69-53102-01 20	LINEARITY COIL LS-11379
L0401	69-62901-08	68 UH PEAKING COIL (AL0410ST-680K) (TAPED/REEL PACKAGE)
L0501	68-73782-01 20	LINE FILTER
L0502	68-73782-01	LINE FILTER
L0506	69-02401-07	5 UH CHOKE COIL
L0507	69-02705-02	DEGAUSSING COIL GU-1401-A
L0801	69-03601-01	10MM TANK COIL (YBTKANS-A8058HM) TYPE NO. 10K
L0802	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0803	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0804	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0805	69-62901-04	15 UH PEAKING COIL AL0410ST-150M TAPED REELED PACKAGE
L0806	69-62901-08	68 UH PEAKING COIL (AL0410ST-680K) (TAPED/REEL PACKAGE)
L0807	69-62901-03	5.6 UH PEAKING COIL AL0410ST-5R6M TAPED REELED PACKAGE
LD0801	69-02001-01 25	SILICON PHOTO DIODE TP5703
LD0701	69-02005-01 30	INFRARED LED TLN111
LD0801	69-01014-05 30	LED TLR208 (RED) "TOSHIBA"
PSF101	68-18001-05	PIF SAW FILTER F1037B (38.9MHZ)
Q0101	60-30715-07 25	TRANSISTOR 2SA1015-Y
Q0102	60-30715-07	TRANSISTOR 2SA1015-Y
Q0103	60-30715-07	TRANSISTOR 2SA1015-Y
Q0104	60-40708-07 25	TRANSISTOR 2SC1815-Y
Q0105	60-40726-06 25	TRANSISTOR 2SC2717
Q0201	60-40708-07	TRANSISTOR 2SC1815-Y
Q0202	60-40708-07	TRANSISTOR 2SC1815-Y
Q0203	60-40708-07	TRANSISTOR 2SC1815-Y
Q0204	60-40708-07	TRANSISTOR 2SC1815-Y
Q0205	60-30715-07	TRANSISTOR 2SA1015-Y
Q0206	60-40708-07	TRANSISTOR 2SC1815-Y
Q0207	60-40708-07	TRANSISTOR 2SC1815-Y
Q0208	60-30715-07	TRANSISTOR 2SA1015-Y
Q0209	60-40708-07	TRANSISTOR 2SC1815-Y
Q0301	60-40733-04 25	TRANSISTOR 2SC2482
Q0302	60-40746-03 25	TRANSISTOR 2SD1554
Q0401	60-40733-04	TRANSISTOR 2SC2482
Q0402	60-40733-04	TRANSISTOR 2SC2482
Q0403	60-40733-04	TRANSISTOR 2SC2482
Q0501	60-40708-07	TRANSISTOR 2SC1815-Y
Q0502	60-10308-07 25	TRANSISTOR 2SB774T
Q0503	60-40708-07	TRANSISTOR 2SC1815-Y
Q0504	60-41303-03 25	TRANSISTOR 2SC3678-Y WITH MICA SHEET
Q0701	60-40712-08 25	TRANSISTOR 2SC2120-Y
Q0801	60-40708-07	TRANSISTOR 2SC1815-Y
Q0802	60-40708-07	TRANSISTOR 2SC1815-Y
Q0803	60-40708-07	TRANSISTOR 2SC1815-Y
Q0804	60-40708-07	TRANSISTOR 2SC1815-Y
Q0805	60-40708-07	TRANSISTOR 2SC1815-Y
Q0806	60-40708-07	TRANSISTOR 2SC1815-Y
Q0807	60-40708-07	TRANSISTOR 2SC1815-Y
Q0808	60-40708-07	TRANSISTOR 2SC1815-Y

ELECTRICAL PART LIST

LOC.	PART NO.	DESCRIPTION	LOC.	PART NO.	DESCRIPTION
R0841	52-02393-21	3.8 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0201	53-10320-18	1 KOHM B +-30% SEMI-FIXED RESISTOR (EVN-DBA A03 B13)
R0842	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0202	53-30420-22	30 KOHM B +-30% SEMI-FIXED RESISTOR (EVN-DBA A03 B34)
R0843	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0203	53-50320-22	5 KOHM B +-30% SEMI-FIXED RESISTOR (EVN-DBAA03B53)
R0844	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0401	53-20220-05	200 OHM B +-25% SEMI-FIXED RESISTOR (RVFBW01-201)
R0845	52-02122-21	120 OHM 1/4W +-5% CARBON FILM RESISTOR	VR0402	53-10420-24	10 KOHM B +-25% SEMI-FIXED RESISTOR (RVFBW01A-103)
R0846	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0403	53-20220-05	200 OHM B +-25% SEMI-FIXED RESISTOR (RVFBW01-201)
R0847	52-02563-21	5.6 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0404	53-10420-24	10 KOHM B +-25% SEMI-FIXED RESISTOR (RVFBW01A-103)
R0848	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0405	53-10420-24	10 KOHM B +-25% SEMI-FIXED RESISTOR (RVFBW01A-103)
R0849	52-02333-21	3.3 KOHM 1/4W +-5% CARBON FILM RESISTOR	VR0501	53-10320-06	1 KOHM B +-25% SEMI-FIXED RESISTOR (RVFBP01-102)
R0850	52-02103-21	1 KOHM 1/4W +-5% CARBON FILM RESISTOR	W0401	58-33301-00	300 MM BLACK (AWG 24) 1016 STRAND JUMPER WIRE
R0851	52-02103-21	1 KOHM 1/4W +-5% CARBON FILM RESISTOR	W0402	58-23301-00	300 MM BLACK (AWG 24) 1007 STRAND JUMPER WIRE
R0852	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	W0403	58-23301-02	300 MM RED (AWG 24) 1007 STRAND JUMPER WIRE
R0853	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR	W0404	58-23321-04	320 MM YELLOW (AWG 24) 1007 STRAND JUMPER WIRE
R0854	52-02473-21	4.7 KOHM 1/4W +-5% CARBON FILM RESISTOR	W0405	58-23481-00	480 MM BLACK (AWG 24) 1007 STRAND JUMPER WIRE
S0201	64-20202-16	SLIDE SWITCH 2P2T	W0406	58-23481-02	480 MM RED (AWG 24) 1007 STRAND JUMPER WIRE
S0501	64-30202-23	POWER PUSH SWITCH 2P2T (SDDSA3)	W0407	58-23481-03	480 MM ORANGE (AWG 24) 1007 STRAND JUMPER WIRE
S0801	64-30101-17	TACT SWITCH 1P1T (SKHHLN0002)	W0408	58-23481-05	480 MM GREEN (AWG 24) 1007 STRAND JUMPER WIRE
S0802	64-30101-17	TACT SWITCH 1P1T (SKHHLN0002)	W0409	58-23560-08	560 MM BLUE (AWG 24) 1007 STRAND JUMPER WIRE
S0803	64-30101-17	TACT SWITCH 1P1T (SKHHLN0002)	W0701	58-23400-02	40 MM RED (AWG 24) 1007 STRAND JUMPER WIRE
S0804	64-30101-17	TACT SWITCH 1P1T (SKHHLN0002)	W0702	58-23400-00	40 MM BLACK (AWG 24) 1007 STRAND JUMPER WIRE
S0805	64-30101-19	TACT SWITCH 1P1T (KUBHH00253)	W0801	58-23401-00	400 MM BLACK (AWG 24) 1007 STRAND JUMPER WIRE
S0806	64-20102-11	SLIDE SWITCH 1P2T HSW0847-01-010	W0802	58-23401-02	400 MM RED (AWG 24) 1007 STRAND JUMPER WIRE
T0301	58-28135-03	HORIZONTAL DRIVE TRANSFORMER	W0803	58-23121-02	120 MM RED (AWG 24) 1007 STRAND JUMPER WIRE
T0302	58-61381-02	FLYBACK TRANSFORMER (154-138U)	W0804	58-23121-00	120 MM BLACK (AWG 24) 1007 STRAND JUMPER WIRE
T0501	58-95164-02	SWITCHING POWER TRANSFORMER	X0201	66-44331-10	CRYSTAL 4.43MHZ HC18-U 'SHEN FENG'
VR0101	53-50520-01	500 KOHM B +-30% 50V DC SEMI-FIXED RESISTOR (RVFBP61A-5-504N)	X0701	66-45500-02	CERAMIC RESONATOR CSB455EB
VR0102	53-10420-40	10 KOHM B +-30% SEMI-FIXED RESISTOR (EVN-DBA A03 B14)	X0801	66-40001-04	CERAMIC RESONATOR 4.00MHZ (CSA400MG)

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T902588519802 Pin Cushion Tx,

2 CE 3703 - Remote Control Assy - 300 pcs R.R.M.C.

CTM14012RV SERVICE MANUAL 200 PCS. SERVICE
CTM14010VN OWNERS MANUAL 300 PCS. OWNERS

XPO34

The design and specifications are subject to change without notice

ELECTRICAL PART LIST

LOC.	PART NO.	DESCRIPTION	LOC.	PART NO.	DESCRIPTION
Q0808	60-40708-07	TRANSISTOR 2SC1815-Y	R0212	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR
R0101	62-02200-21	2 OHM 1/4W +5% CARBON FILM RESISTOR	R0213	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR
R0102	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0214	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR
R0103	62-02222-21	220 OHM 1/4W +5% CARBON FILM RESISTOR	R0215	62-02332-21	330 OHM 1/4W +5% CARBON FILM RESISTOR
R0104	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0216	62-02332-21	330 OHM 1/4W +5% CARBON FILM RESISTOR
R0106	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0217	62-02332-21	330 OHM 1/4W +5% CARBON FILM RESISTOR
R0106	62-02823-21	8.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0218	62-02183-21	1.8 KOHM 1/4W +5% CARBON FILM RESISTOR
R0107	62-02474-21	47 KOHM 1/4W +5% CARBON FILM RESISTOR	R0218	62-02183-21	1.8 KOHM 1/4W +5% CARBON FILM RESISTOR
R0108	62-02474-21	47 KOHM 1/4W +5% CARBON FILM RESISTOR	R0220	62-02332-21	330 OHM 1/4W +5% CARBON FILM RESISTOR
R0109	62-02474-21	47 KOHM 1/4W +5% CARBON FILM RESISTOR	R0221	62-02333-21	3.3 KOHM 1/4W +5% CARBON FILM RESISTOR
R0110	62-02883-21	8.8 KOHM 1/4W +5% CARBON FILM RESISTOR	R0222	62-02104-21	10 KOHM 1/4W +5% CARBON FILM RESISTOR
R0111	62-02474-21	47 KOHM 1/4W +5% CARBON FILM RESISTOR	R0223	62-02162-21	160 OHM 1/4W +5% CARBON FILM RESISTOR
R0112	62-02106-21	100 KOHM 1/4W +5% CARBON FILM RESISTOR	R0224	62-02682-21	680 OHM 1/4W +5% CARBON FILM RESISTOR
R0113	62-02106-21	100 KOHM 1/4W +5% CARBON FILM RESISTOR	R0225	62-02685-21	680 KOHM 1/4W +5% CARBON FILM RESISTOR
R0114	62-02122-21	120 OHM 1/4W +5% CARBON FILM RESISTOR	R0226	62-02584-21	58 KOHM 1/4W +5% CARBON FILM RESISTOR
R0116	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0227	62-02104-21	10 KOHM 1/4W +5% CARBON FILM RESISTOR
R0117	62-02226-21	220 KOHM 1/4W +5% CARBON FILM RESISTOR	R0228	62-02824-21	82 KOHM 1/4W +5% CARBON FILM RESISTOR
R0118	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR	R0228	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR
R0118	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0230	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR
R0120	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0231	62-02682-21	680 OHM 1/4W +5% CARBON FILM RESISTOR
R0128	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0232	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR
R0129	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0233	62-02336-21	330 KOHM 1/4W +5% CARBON FILM RESISTOR
R0130	62-02332-21	330 OHM 1/4W +5% CARBON FILM RESISTOR	R0234	62-02822-21	820 OHM 1/4W +5% CARBON FILM RESISTOR
R0131	62-02681-21	68 OHM 1/4W +5% CARBON FILM RESISTOR	R0235	62-02163-21	1.6 KOHM 1/4W +5% CARBON FILM RESISTOR
R0132	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0236	62-02163-21	1.6 KOHM 1/4W +5% CARBON FILM RESISTOR
R0133	62-02122-21	120 OHM 1/4W +5% CARBON FILM RESISTOR	R0237	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR
R0134	62-02473-21	4.7 KOHM 1/4W +5% CARBON FILM RESISTOR	R0238	62-02582-21	580 OHM 1/4W +5% CARBON FILM RESISTOR
R0136	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0238	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR
R0138	62-02682-21	680 OHM 1/4W +5% CARBON FILM RESISTOR	R0240	62-02184-21	18 KOHM 1/4W +5% CARBON FILM RESISTOR
R0137	62-02471-21	47 OHM 1/4W +5% CARBON FILM RESISTOR	R0241	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR
R0138	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR	R0242	62-02104-21	10 KOHM 1/4W +5% CARBON FILM RESISTOR
R0139	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0243	62-02104-21	10 KOHM 1/4W +5% CARBON FILM RESISTOR
R0140	62-02473-21	4.7 KOHM 1/4W +5% CARBON FILM RESISTOR	R0244	62-04701CBD-00	47 OHM 1/2W +5% METAL OXIDE RESISTOR (RS1/2FB TYPE)
R0141	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR	R0245	62-02183-21	1.8 KOHM 1/4W +5% CARBON FILM RESISTOR
R0142	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR	R0246	62-02223-21	2.2 KOHM 1/4W +5% CARBON FILM RESISTOR
R0143	62-02107-21	10 MOHM 1/4W +5% CARBON FILM RESISTOR	R0247	62-02823-21	8.2 KOHM 1/4W +5% CARBON FILM RESISTOR
R0144	62-02107-21	10 MOHM 1/4W +5% CARBON FILM RESISTOR	R0248	62-02393-21	3.9 KOHM 1/4W +5% CARBON FILM RESISTOR
R0146	62-04701CBF-00	47 OHM 2W +5% METAL OXIDE RESISTOR (RS2FB TYPE)	R0249	62-02763-21	7.5 KOHM 1/4W +5% CARBON FILM RESISTOR
R0147	62-02272-21	270 OHM 1/4W +5% CARBON FILM RESISTOR	R0250	62-02382-21	380 OHM 1/4W +5% CARBON FILM RESISTOR
R0201	62-02824-21	82 KOHM 1/4W +5% CARBON FILM RESISTOR	R0251	62-02476-21	470 KOHM 1/4W +5% CARBON FILM RESISTOR
R0202	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR	R0301	62-02224-21	22 KOHM 1/4W +5% CARBON FILM RESISTOR
R0203	62-02106-21	100 KOHM 1/4W +5% CARBON FILM RESISTOR	R0302	62-02103-21	1 KOHM 1/4W +5% CARBON FILM RESISTOR
R0204	62-02334-21	33 KOHM 1/4W +5% CARBON FILM RESISTOR	R0303	62-02226-21	220 KOHM 1/4W +5% CARBON FILM RESISTOR
R0206	62-02684-21	68 KOHM 1/4W +5% CARBON FILM RESISTOR	R0304	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR
R0207	62-02274-21	27 KOHM 1/4W +5% CARBON FILM RESISTOR	R0305	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR
R0208	62-02384-21	38 KOHM 1/4W +5% CARBON FILM RESISTOR	R0308	62-02200CCF-00	2.2 OHM 2W +5% WIRE WOUND RESISTOR (NON-INFLAMMABLE)
R0209	62-02582-21	580 OHM 1/4W +5% CARBON FILM RESISTOR	R0307	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR
R0210	62-02124-21	12 KOHM 1/4W +5% CARBON FILM RESISTOR	R0308	62-02222-21	220 OHM 1/4W +5% CARBON FILM RESISTOR
R0211	62-02472-21	470 OHM 1/4W +5% CARBON FILM RESISTOR	R0309	62-02273-31	2.7 KOHM 1/2W +5% CARBON FILM RESISTOR

ELECTRICAL PART LIST

LOC.	PART NO.	DESCRIPTION
RO310	52-G2403BBD-00	2.4K OHM 1/2W +-2% METAL OXIDE RESISTOR (RS1/2FB TYPE)
RO311	52-G2403CBG-00	2.4 KOHM 3W +-5% METAL OXIDE RESISTOR (NOBLE)
RO312	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO313	52-G4701CBF-00	47 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO314	52-G2701CBF-00	27 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO315	52-F4300CDE-00	4.3 OHM 1W +-5% FUSIBLE RESISTOR
RO316	52-F4300CDE-00	4.3 OHM 1W +-5% FUSIBLE RESISTOR
RO317	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO318	52-B1000CDE-00	1 OHM 1W +-5% FUSIBLE METAL FILM RESISTOR (FRN TYPE)
RO319	52-02108-21	1 MOHM 1/4W +-5% CARBON FILM RESISTOR
RO320	52-11805CFD-00	180 KOHM 1/2W +-5% CARBON COMPOSITION RESISTOR (RC1/2GF TYPE)
RO321	52-G1203CBD-00	1.2 KOHM 1/2W +-5% METAL OXIDE RESISTOR (RS1/2FB TYPE)
RO322	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO323	52-G2702CBF-00	270 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO324	52-G1203CBD-00	1.2 KOHM 1/2W +-5% METAL OXIDE RESISTOR (RS1/2FB TYPE)
RO401	52-G1504CBF-00	15 KOHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO402	52-02273-31	2.7 KOHM 1/2W +-5% CARBON FILM RESISTOR
RO403	52-02682-21	880 OHM 1/4W +-5% CARBON FILM RESISTOR
RO404	52-02223-21	2.2 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO406	52-G1504CBF-00	15 KOHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO406	52-02273-31	2.7 KOHM 1/2W +-5% CARBON FILM RESISTOR
RO407	52-02682-21	880 OHM 1/4W +-5% CARBON FILM RESISTOR
RO408	52-02223-21	2.2 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO409	52-G1504CBF-00	15 KOHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO410	52-02273-31	2.7 KOHM 1/2W +-5% CARBON FILM RESISTOR
RO411	52-02752-21	750 OHM 1/4W +-5% CARBON FILM RESISTOR
RO412	52-02223-21	2.2 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO414	52-02102-21	100 OHM 1/4W +-5% CARBON FILM RESISTOR
RO415	52-02102-21	100 OHM 1/4W +-5% CARBON FILM RESISTOR
RO416	52-02102-21	100 OHM 1/4W +-5% CARBON FILM RESISTOR
RO417	52-B1000CDE-00	1 OHM 1W +-5% FUSIBLE METAL FILM RESISTOR (FRN TYPE)
RO503	52-B4000DCI-00	4 OHM 6W +-10% NON-INFLAMMABLE RESISTOR (SQP TYPE)
RO606	52-02332-21	330 OHM 1/4W +-5% CARBON FILM RESISTOR
RO608	52-02333-21	3.3 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO607	52-02183-21	1.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO608	52-02183-21	1.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO608	52-02823-21	8.2 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO610	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO611	52-02683-21	6.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO612	52-02473-21	4.7 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO613	52-G1201CBF-00	12 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO614	52-M2200DCF-00	2.2 OHM 2W +-10% WIRE WOUND RESISTOR (KW-KNP TYPE)
RO615	52-G2701CBF-00	27 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO616	52-G0330CBF-00	0.33 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)
RO617	52-M3901DCO-01	39 OHM 6W +-10% WIRE WOUND RESISTOR (KW-KNP TYPE)
RO618	52-11805DFD-00	180 KOHM 1/2W +-10% CARBON COMPOSITION RESISTOR (RC1/2GF)
RO619	52-11805DFD-00	180 KOHM 1/2W +-10% CARBON COMPOSITION RESISTOR (RC1/2GF)
RO620	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO621	52-G1201CBF-00	12 OHM 2W +-5% METAL OXIDE RESISTOR (RS2FB TYPE)

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LOC.	PART NO.	DESCRIPTION
RO622	52-11007DFD-00	10 MOHM 1/2W +-10% CARBON COMPOSITION RESISTOR (RC1/2GF TYPE)
RO623	52-G2204CBE-00	22 KOHM 1W +-5% METAL OXIDE RESISTOR (RS1FB TYPE)
RO624	52-11801FIX-00	PTC THERMISTOR PTH461A02BG 180N270
RO625	52-B1000CBD-00	1 OHM 1/2W +-5% METAL OXIDE RESISTOR (RSN TYPE)
RO626	52-B1000CDE-00	1 OHM 1W +-5% FUSIBLE METAL FILM RESISTOR (FRN TYPE)
RO601	52-02102-21	100 OHM 1/4W +-5% CARBON FILM RESISTOR
RO602	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO603	52-02165-21	150 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO604	52-02331-21	33 OHM 1/4W +-5% CARBON FILM RESISTOR
RO801	52-02164-21	15 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO802	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO803	52-02164-21	15 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO804	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO805	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO806	52-G1204CBE-00	12 KOHM 1W +-5% METAL OXIDE RESISTOR (RS1FB TYPE)
RO807	52-02103-21	1 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO808	52-02473-21	4.7 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO809	52-02101-21	10 OHM 1/4W +-5% CARBON FILM RESISTOR
RO810	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO811	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO812	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO813	52-02126-21	120 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO814	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO815	52-02334-21	33 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO816	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO817	52-02106-21	100 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO818	52-02683-21	6.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO819	52-02683-21	6.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO820	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO821	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO822	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO823	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO824	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO825	52-02683-21	6.8 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO826	52-02224-21	22 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO827	52-02223-21	2.2 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO828	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO828	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO830	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO831	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO832	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO833	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO834	52-02222-21	220 OHM 1/4W +-5% CARBON FILM RESISTOR
RO835	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO836	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO837	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO838	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO839	52-02474-21	47 KOHM 1/4W +-5% CARBON FILM RESISTOR
RO840	52-02104-21	10 KOHM 1/4W +-5% CARBON FILM RESISTOR

EXPLODED VIEW

CTM1401

