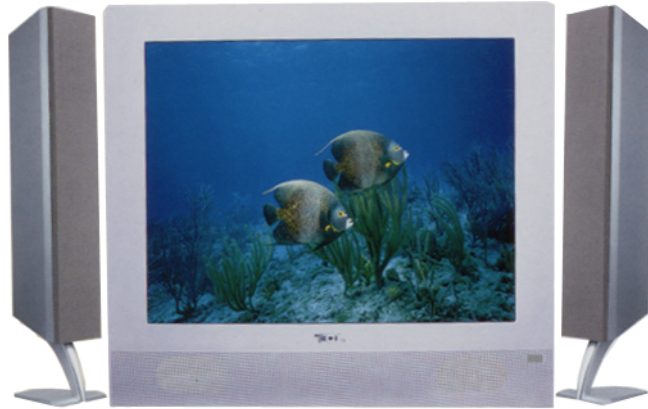


# TEAC

## SERVICE MANUAL

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**CTM5110H**

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<b>1. Caution.....</b>	<b>2</b>
<b>2. Specification.....</b>	<b>6</b>
<b>3. BOM List .....</b>	<b>9</b>
<b>4. Alignment Procedure.....</b>	<b>29</b>
<b>5. Block Diagram.....</b>	<b>36</b>
<b>6. Schematic Diagram.....</b>	<b>37</b>
<b>7. PCB Layout.....</b>	<b>38</b>
<b>8. Explode Diagram.....</b>	<b>39</b>

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This manual is the latest at the time of printing, and does not include the modification which may be made after the printing, by the constant improvement of product.

**CAUTION:**

Use of controls, adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

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**CAUTION**  
**RISK OF ELECTRIC SHOCK DO NOT OPEN.**



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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The lightning flash with arrowhead symbol, with an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to the person.

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The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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**WARNING: TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

# IMPORTANT SAFETY INSTRUCTIONS

## **CAUTION:**

**Read all of these instructions. Save these instructions for later use. Follow all Warnings and Instructions marked on the audio equipment.**

1. Read Instructions- All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions- The safety and operating instructions should be retained for future reference.
3. Heed Warnings- All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions- All operating and use instructions should be followed.

## FOR YOUR PERSONAL SAFETY

1. When the power cord or plug is damaged or frayed, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
2. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
3. Do not allow anything to rest on or roll over the power cord, and do not place the TV where power cord is subject to traffic or abuse. This may result in a shock or fire hazard.
4. Do not attempt to service this television set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
5. Never push objects of any kind into this television set through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television set.
6. If the television set has been dropped or the cabinet has been damaged, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
7. If liquid has been spilled into the television set, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
8. Do not subject your television set to impact of any kind. Be particularly careful not to damage the picture tube surface.
9. Unplug this television set from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 10.1. Do not place this television set on an unstable cart, stand, or table. The television set may fall, causing serious injury to a child or an adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television set. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 10.2. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



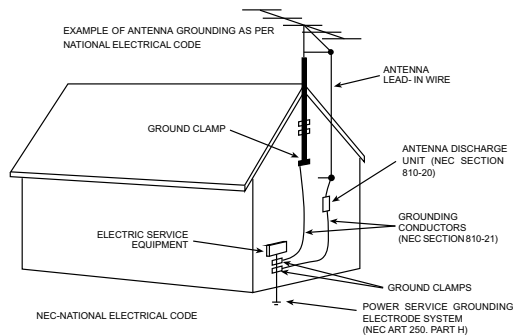
## **PROTECTION AND LOCATION OF YOUR SET**

11. • Do not use this television set near water ... for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
  - Never expose the set to rain or water. If the set has been exposed to rain or water, unplug the set from the wall outlet and refer servicing to qualified service personnel.
12. Choose a place where light (artificial or sunlight) does not shine directly on the screen.
13. Avoid dusty places, since piling up of dust inside TV chassis may cause failure of the set when high humidity persists.
14. The set has slots, or openings in the cabinet for ventilation purposes, to provide reliable operation of the receiver, to protect it from overheating. These openings must not be blocked or covered.
  - Never cover the slots or openings with cloth or other material.
  - Never block the bottom ventilation slots of the set by placing it on a bed, sofa, rug, etc.
  - Never place the set near or over a radiator or heat register.
  - Never place the set in a "built-in" enclosure, unless proper ventilation is provided.

## **PROTECTION AND LOCATION OF YOUR SET**

- 15.1. If an outside antenna is connected to the television set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges, Section 810 of the National Electrical Code, NFPA No. 70-1975, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrode, and requirements for the grounding electrode.

### EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS



- 15.2. Note to CATV system installer : (Only for the television set with CATV reception)

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

16. An outside antenna system should not be located in the vicinity of overhead power lines or other electric lights or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. For added protection for this television set during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage due to lightning and power-line surges.

## **OPERATION OF YOUR SET**

18. This television set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your television dealer or local power company. For television sets designed to operate from battery power, refer to the operating instructions.
19. If the television set does not operate normally by following the operating instructions, unplug this television set from the wall outlet and refer servicing to qualified service personnel. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television set to normal operation.
20. When going on a holiday : If your television set is to remain unused for a period of time, for instance, when you go on a holiday, turn the television set " off " and unplug the television set from the wall outlet.

## **IF THE SET DOES NOT OPERATE PROPERLY**

21. If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustment. Unplug the set and call your dealer or service technician.
22. Whenever the television set is damaged or fails, or a distinct change in performance indicates a need for service, unplug the set and have it checked by a professional service technician.
23. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the set and consult your dealer or service technician.

## **FOR SERVICE AND MODIFICATION**

24. Do not use attachments not recommended by the television set manufacturer as they may cause hazards.
25. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
26. Upon completion of any service or repairs to the television set, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.

PFS2 FORMAT-1 Report	
Date: 2003-9-16 15:12 ProductView.....: Report by.....:	Product: CT-M5110H
<b>Specs / Products</b>	
<b>MasterData</b>	
Customer Id	TEAC AUSTRALIA PTY LTD
Version	0.1
Status	New
Brand	TEAC
EAN	\
UPC	\
<b>Reception</b>	
+Tuning - presets/channels	100
+Tuning - technology	VST
+Tuning - Indication	X
+Freq Bands	UVSH
+Channels	100
+IF Freq	
+TV Systems Off Air	PAL B/G
+Add Systems Ext In	NTSC 3.58, NTSC 4.43, NTSC Play Back, PAL 60
+TV Systems Multi	PAL-Multi
+Sound Systems	AV Stereo
<b>Picture - Processing</b>	
+Scan	Standard
+Scan Modes	4:3
+Wide Screen Switching	
+Combfiler	
+Picture Control	Brightness, Colour, Contrast, Color Temperature, Hue, Sharpness Cont Var, Smart Pict. 4 Modes
+Pict Enhancement	Black Stretch
+Pict Noise Reduction	
<b>Picture - Display</b>	
+Display Type	DV - CRT - RF
+Screen Format	4:3
+Size(Visual)" - size/vis. cm	21"
+Deflection System (CRT only)	
+Tube Technology (CRT only)	Black Matrix, Iron
+CRT Defl	
+CRT Gun	Stand Gun
+CRT Magn field	Neutral
+Resolution	
+Coating (only for D.V. sets)	
+White Point	
<b>Sound</b>	
+RMS Power Intern	
+RMS Power Extern	
+Surround Sound	
+Sound Features	Mute
+Sound Control	Volume
<b>Sound - Speakers</b>	
+Speaker configuration	2
+Speakers used	Normal
+Speaker Size	
<b>User Interface</b>	
+Interface Name	L01- Full Interface
+Voice Control	
+Menu	Cursor Control
+Menu Colours	
+Menu Languages	English
+Special Features	No signal Auto Standby,Timer Power ON/OFF, Favorite Channel, Sleep timer, Game, Calendar, Notebook, Hotel lock , Auto Search
+Operational Features	
+PP Features	
+Tuning/Install Features	Auto Store, Factory Mode, Fine Tuning, Manual Search/Store, Manual Sort, Service Mode
+Clock/Timer Functions	Clock, On/off timer, Sleep timer

<b>Date: 2003-9-16 15:12</b>	
<b>ProductView.....:</b>	
<b>Report by.....:</b>	<b>Product:</b>
<b>Specs / Products</b>	<b>CT-M5110H</b>
+Local Controls Front	Channel +/-, Volume +/-, TV/AV,MENU, Power Switch,
+Local Controls Top	
+Indicators - screen	
+Indicators - front	RC Recvd LED, SB LED
+Numb of Loc Cont (incl Mains)	7
+Number of Ind. (incl Mains)	1
+Local Controls (Old)	
<b>Remote Control</b>	
<b>Connectors Rear</b>	
+Scart RGB+Y/C+CVBS	
+Scart RGB+CVBS	
+Scart CVBS+Y/C	
+Component In (Y/U/V) Cinch	
+In Y/C+Cinch(CVBS+St)	
+In Y/C+Cinch(CVBS+Mo)	
+In Y/C+Cinch(St)	
+In BNC (CVBS)	
+In Cinch(CVBS+St)	X
+In Cinch(CVBS+Mo)	
+Out Cinch(CVBS+St)	
+Out Cinch(CVBS+Mo)	X
+Out Cinch Audio Stereo	
+Out Cinch Audio Mono	
+Out Cinch Dolby Surround	
+Out Cinch Subwoofer	
+Dig Audio Out	
+Loudspeakers	
+Control Busses	
+Feature Slot	
+ITV Smart Port	
+Terr. Antenna in	75 Ohms (IEC type)
<b>Guide + IR Blaster Jack</b>	
<b>Connectors Front</b>	
+In Y/C + Cinch(CVBS+St)	
+In Y/C + Cinch Stereo	
+In Cinch (CVBS + St+ Mo)	
+In Cinch (CVBS+Mo)	
+Headphone Out	
+Feature Slot	
<b>Connectors Side</b>	
+In Y/C + Cinch(CVBS+St)	
+In Y/C + Cinch Stereo	
+In Cinch (CVBS + St+ Mo)	X
+IN Cinch (CVBS + Mo)	
+Headphone Out	
<b>Connectors Top</b>	
+In Cinch (CVBS + St)	
+Headphone Out	
<b>Connectors Mechanical</b>	
+Headphone	
+Cinch A/V in/out	
+Cinch Component	
+Cinch Y/C	
<b>Styling</b>	
+Cabinet Name	21166
+Configuration	
+Graphics/Logo's	
-Cabinet Colour and Finish	
Silver Frost	
+Mechanics	
+Speaker Visibility	Standard
<b>General</b>	
+Segment	Standard 4:3
+Chassis	M28
+Software Delivery Mode	
+Software Version	
+Mains Voltage	240V
+Mains Frequency	50Hz
+Type Mains Cord	
<b>Power Consumption (P)TV in On</b>	

<b>Date: 2003-9-16 15:12</b>	
<b>ProductView.....:</b>	
<b>Report by.....:</b>	
<b>Specs / Products</b>	<b>Product:</b> CT-M5110H
Power Consumption SB in Watts	Less then 3W
Power Consumption Semi SB in W	
+Power in "ON" for	
+Power in Standby for	
+Power in "OFF" for	
Weight (P)TV (incl. Packaging)	
Weight (P)TV (excl. Package)	
Weight AVUnit excl Packaging	
+INDICATION on BACKCOVER	
+Channel	
<b>Final Equipment</b>	
+Packaging - methods	
+Documents and manuals	
+Languages DFU	
+Cables Supplied	
+Antenna Supplied	
+Stand Supplied	
+Aux Equipm Supplied	
Packaging - width cm	
Packaging - height cm	
Packaging - depth cm	
<b>Miscellaneous</b>	
+EAN Indication	
+Approbation	
+Tests	
+Local Integration	
<b>Various Perf. Param.</b>	
+Service Call-Rate	
<b>PIP/POP</b>	
+Type	
+Features	No
<b>Digital Reception</b>	
+Transmission	
<b>Built-in Data System</b>	
+Text Standard	
+(Tele)text Features	No
+Nbr bckgrnd page / Mem Size	No
+Text Technology	No
+Digital Data handling	
+Program Guide	
<b>Built-in Clock/Timer</b>	
+Type	
+Features	
<b>Built-in Radio</b>	
+Type	
<b>Built-in PC display</b>	
+PC Synch	
+PC Control	
<b>Built-in DVD drive</b>	
+Type of Medium	
+Type of Deck	
+Version of Deck	
<b>Phased Out Items</b>	
+Tuner/Frontend	
+Sensitivity	
+CRT EHT	
+Lightning Protection	
+Account	
+XX(Radio Antenna in)	
+Non Volatile Memory	
+In Y/C + Cinch(CVBS+Mo)	
Version of deck	



Item No.	Description	Quantity Req.	Designator	Remarks
08-HS46FO-M28A	ASS'Y - IR HANDSET	1		
13-00AS12-13B	IC AS1213B	1	IC1501	
14-IRE05B-XX0	IR EMITTING DIODE TSAL6200	1	D1501	
18-CB0221-JNX	RES. C.F. 220 OHM 1/6W +/-5%	1	R1502	
18-CB0229-JNX	RES. C.F. 2.2 OHM 1/6W +/-5%	1	R1501	
25-HBB479-M1X	CAP. ELEC 4.7 UF 10V +/-20%	1	C1502	
26-EBP101-JCX	CAP. CER 100PF 50V +/-5% CH	1	C1503	
26-EBP101-JCX	CAP. CER 100PF 50V +/-5% CH	1	C1504	
40-113SLF-RMB	P.C.B. REMOTE HANDSET BD	1		
41-WJ0070-B00	WIRE BARE JUMPER 7MM	1	J1501	
45-COS455-KY1	CERAMIC RESONATOR 455KHz	1	X1501	
49-HS46FO-00X	RUBBER PAD KEYS	1		
55-HS46FB-OHA	CASE LOWER - REMOTE HANDSET	1		
55-HS46FD-OHA	DOOR BATT. - REMOTE HANDSET	1		
55-HS46FT-OHA	CASE UPPER - REMOTE HANDSET	1		
58-HS46F3-7UI	INLAY REMOTE HANDSET	1		
63-B26060-BT2	S/T SCREW B 2.6 X 6 BT	1		
67-X26968-0E2	BATT. TERMINAL (+/-)	1		
67-X31028-0E2	SPRING - BATTERY (-)	1		
67-X31029-0E2	SPRING - BATTERY (+)	1		
74-009022-60C	POLYBAG HANDSET (9CMX22CM)	1		
11-OBC337-OBX	TRANSISTOR (NPN) BC337-40	1	Q1501	
08-02135H-CRY	ASS'Y - CRT BD	1		
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D502	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D501	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q510	
11-SC2482-OBX	TRANSISTOR 2SC2482	1	Q501	
11-SC2482-OBX	TRANSISTOR 2SC2482	1	Q502	
11-SC2482-OBX	TRANSISTOR 2SC2482	1	Q503	
18-CB0101-JNX	RES. C.F. 100 OHM 1/6W +/-5%	1	R501	
18-CB0101-JNX	RES. C.F. 100 OHM 1/6W +/-5%	1	R504	
18-CB0101-JNX	RES. C.F. 100 OHM 1/6W +/-5%	1	R507	
18-CB0102-JNX	RES. C.F. 1K OHM 1/6W +/-5%	1	R522	
18-CB0272-JNX	RES. C.F. 2.7k OHM 1/6W +/-5%	1	R524	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R502	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R505	

Item No.	Description	Quantity Req.	Designator	Remarks
18-CB0472-JNX	RES. C.F. 4.7K OHM 1/6W +/-5%	1	R508	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1	R525	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1	R526	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1	R527	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1	R523	
18-CB0751-JNX	RES. C.F. 750 OHM 1/6W +/-5%	1	R503	
18-CB0751-JNX	RES. C.F. 750 OHM 1/6W +/-5%	1	R506	
18-CB0751-JNX	RES. C.F. 750 OHM 1/6W +/-5%	1	R509	
18-CD0104-JNX	RES. C.F. 100K OHM 1/4W +/-5%	1	R521	
18-FE0272-JNX	RES. M.O. 2.7K OHM 1/2W +/-5%	1	R514	
18-FE0272-JNX	RES. M.O. 2.7K OHM 1/2W +/-5%	1	R515	
18-FE0272-JNX	RES. M.O. 2.7K OHM 1/2W +/-5%	1	R518	
18-FG0153-JHX	RES. M.O. 15k OHM 2W +/-5%	1	R510	
18-FG0153-JHX	RES. M.O. 15k OHM 2W +/-5%	1	R511	
18-FG0153-JHX	RES. M.O. 15k OHM 2W +/-5%	1	R512	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C507	
26-EBP181-JCX	CAP. CER 180PF 50V +/-5% CH	1	C510	
26-EBP181-JCX	CAP. CER 180PF 50V +/-5% CH	1	C511	
26-EBP181-JCX	CAP. CER 180PF 50V +/-5% CH	1	C512	
26-EBP681-JCX	CAP. CER 680 pF 50V +/-5%	1	C501	
26-EBP681-JCX	CAP. CER 680 pF 50V +/-5%	1	C502	
26-EBP681-JCX	CAP. CER 680 pF 50V +/-5%	1	C503	
26-AIM103-KBX	CAP. CER 0.01UF 500V +/-10% B	1	C504	
26-AMK221-KBX	CAP. CER 220PF 2KV +/-10% B	1	C505	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C514	
35-139730-00X	FERR. BEAD BF60	2		FOR C514 (L505 & L506)
40-02135S-CRD	P. C. B. CRT BD	1		
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1		FOR Q509 (B - E)
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1		FOR Q507 (B - E)
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1		FOR Q505 (B - E)
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J502	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J503	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J501	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J504	
46-10967W-01X	PIN BASE *1 TJC1-1A	1	P503	
46-30615H-04X	HS 4P24 460 F/W TJC3-4Y/SCN-4	1		P502 FOR M. BD P402

Item No.	Description	Quantity Req.	Designator	Remarks
46-28816H-05X	HS 5P24 500 TJC3-5Y/SCN-5Y	1		P501 FOR M. BD P201
25-BCB221-M1X	CAP. ELEC 220 UF 16V +/-20%	1	C508	
47-CRT004-XX0	CRT SOCKET GZS10-2-108	1		FOR CRT
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J505	
08-OD166H-AVY	ASS'Y - AV BD	1		
40-21166F-SIA	P. C. B. SIDE AV BD	1		
46-30790H-06X	HS 6P24 400 TJC3-6Y/SCN-6Y	1		P1104B FOR M. BD P904
47-RCA001-XX0	RCA SOCKET AV-8.4-6 (RED)	1	P1103	
47-RCA002-XX0	RCA SOCKET AV-8.4-6 (WHITE)	1	P1102	
47-RCA003-XX0	RCA SOCKET AV-8.4-6 (YELLOW)	1	P1101	
08-OD166H-KEY	ASS'Y - KEY BD	1		
18-CB0152-JNX	RES. C. F. 1.5k OHM 1/6W +/-5%	1	R022A	
18-CB0182-JNX	RES. C. F. 1.8k OHM 1/6W +/-5%	1	R023A	
18-CB0272-JNX	RES. C. F. 2.7k OHM 1/6W +/-5%	1	R024A	
18-CB0432-JNX	RES. C. F. 4.3k OHM 1/6W +/-5%	1	R025A	
18-CB0622-JNX	RES. C. F. 6.2k OHM 1/6W +/-5%	1	R026A	
46-38628H-02X	HS 2P 2468#24 850 TJC3-2Y/JC25-2Y	1		P001A FOR M. BD P001
48-TAC001-XX0	TACT SWITCH	1	S001A	
48-TAC001-XX0	TACT SWITCH	1	S002A	
48-TAC001-XX0	TACT SWITCH	1	S003B	
48-TAC001-XX0	TACT SWITCH	1	S004A	
48-TAC001-XX0	TACT SWITCH	1	S005A	
48-TAC001-XX0	TACT SWITCH	1	S006A	
40-21166H-KEB	P. C. B. KEY BD	1		
08-OD166H-PW2	ASS'Y - POWER PARTS (AUST, 220UF)	1		
10-OFR104-FBX	DIODE FR104 (FAST RECTIFIER)	1	D830	
10-OFR104-FBX	DIODE FR104 (FAST RECTIFIER)	1	D802	
10-OFR104-FBX	DIODE FR104 (FAST RECTIFIER)	1	D833	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D805	
10-1SS136-ABX	DIODE 1SS136	1	D804	
10-1SS136-ABX	DIODE 1SS136	1	D835	
10-79C8V2-DBX	DIODE ZENER 8V2 1/2W 5%	1	D839	
10-HER108-FBX	DIODE HER108	1	D806	
10-HS16VC-DBX	DIODE 500mW 16HSC	1	D838	
10-HS6V2B-DBX	DIODE 6V2 500mW	1	D840	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q832	

Item No.	Description	Quantity Req.	Designator	Remarks
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q831	
11-SC2688-LAX	TRANSISTOR 2SC2688L (NPN)	1	Q830	
11-SK2996-OAX	TRANSISTOR 2SK2996 (MOS)	1	Q801	
13-OHPC92-2CP	PHOTO COUPLER HPC922-C	1	IC802	
13-44608P-40P	IC MC44608P40	1	IC801	
18-CB0102-JNX	RES. C.F. 1K OHM 1/6W +/-5%	1	R809	
18-CB0103-JNX	RES. C.F. 10K OHM 1/6W +/-5%	1	R844	
18-CB0332-JNX	RES. C.F. 3.3k OHM 1/6W +/-5%	1	R834	
18-CB0333-JNX	RES. C.F. 33K OHM 1/6W +/-5%	1	R838	
18-CB0362-JNX	RES. C.F. 3.6K OHM 1/6W +/-5%	1	R807	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R806	
18-CB0622-JNX	RES. C.F. 6.2k OHM 1/6W +/-5%	1	R850	
18-CD0123-JNX	RES. C.F. 12K OHM 1/4W +/-5%	1	R804A	
18-CD0220-JNX	RES. C.F. 22 OHM 1/4W +/-5%	1	R811A	
18-CD0221-JNX	RES. C.F. 220 OHM 1/4W +/-5%	1	R833	
18-CD0392-JNX	RES. C.F. 3.9K OHM 1/4W +/-5%	1	R835	
18-CD0471-JNX	RES. C.F. 470 OHM 1/4W +/-5%	1	R811	
18-CE0479-JNX	RES. C.F. 4.7 OHM 1/2W +/-5%	1	R832	
18-CE0563-JNX	RES. C.F. 56k OHM 1/2W +/-5%	1	R831	
18-DD0104-FNX	RES. M.F. 0.1M OHM 1/4W +/-1%	1	R804	
18-FG0153-JHX	RES. M.O. 15k OHM 2W +/-5%	1	R837	
18-GJ0103-KTX	RES. CEMENT 10K OHM 5W +/-10%	1	R836	
18-GJ0223-KTX	RES. WIRE ROUND 5W 22K OHM +/-10%	1	R808	
18-KF0825-JH3	RES. H.VOLT.CC 8.2M OHM 1W +/-5%	1	R812	
20-TR103H-5CX	TRIMMER B10K HORIZ TYPE	1	VR830	
22-NTC479-XX0	NTC 4.7 OHM +/-18% NTC4.7D2-14	1	RT802	
25-382890-M1X	CAP. ELEC 150UF 400V +/-20% 30X30	1	C806	
25-BCA102-M1X	CAP. ELEC 1000 UF 16V +/-20%	1	C849	
25-BEB100-M1X	CAP. ELEC 10 UF 35V +/-20%	1	C812	
25-BJG101-M1X	CAP. ELEC 100 UF 160V +/-20%	1	C835	
26-ABC221-JZX	CAP. CER 220 PF 50V +/-5% SL	1	C841	
26-AGK221-KRX	CAP. CER 220 PF 250V +/-10%	1	C830	
26-AIC472-KBX	CAP. CER 4700 PF 500V +/-10% B	1	C807	
26-AIC472-KBX	CAP. CER 4700 PF 500V +/-10% B	1	C808	
26-AIM103-KBX	CAP. CER 0.01UF 500V +/-10% B	1	C834	
26-AIM103-KBX	CAP. CER 0.01UF 500V +/-10% B	1	C805	

Item No.	Description	Quantity Req.	Designator	Remarks
26-AKK221-KRX	CAP. CER 220 PF 1KV +/-10% R	1	C833	
26-AMK102-KRX	CAP. CER 1000 pF 2KV +/-10% R	1	C815	
26-APK102-ME4	CAP. CER 1000PF 400VAC+/-20% E	1	C816	
26-APK102-ME4	CAP. CER 1000PF 400VAC+/-20% E	1	C803	
26-APK102-ME4	CAP. CER 1000PF 400VAC+/-20% E	1	C804	
26-EBP102-KBX	CAP. CER 1000 PF 50V +/-10% B	1	C848	
26-EBP102-KBX	CAP. CER 1000 PF 50V +/-10% B	1	C804A	
27-AQT224-MVH	CAP. M.PP 0.22 UF 250VAC 20%	1	C801	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C836	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C850	
27-MHM104-KOX	CAP. METAL P.E. 0.1UF 400V 10%	1	C802A	
27-RJP472-JOX	CAP. PP 4700 PF 630V +/-5%	1	C809	
34-R101K2-1BX	COIL CHOKE 100 UH +/-10%	1	L804	
34-R330J2-OEX	COIL PL - 33 UH +/-5%	1	L843	
35-139730-00X	FERR. BEAD BF60	2		FOR D806
35-139730-00X	FERR. BEAD BF60	2		FOR D833
35-139730-00X	FERR. BEAD BF60	2		FOR D831
35-139730-00X	FERR. BEAD BF60	2		FOR D830
36-LIF004-AX0	LINE FILTER	1	T801	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J800A	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J800B	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J800C	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J800D	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J801A	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J801B	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J801C	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J801D	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J810	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J809	
41-WJ0085-B00	WIRE BARE JUMPER 8.5MM	1	J812	
41-WJ0090-B00	WIRE BARE JUMPER 9MM	1	J805	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	R804B	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J822	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J827	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	R807A	
41-WJ0105-B00	WIRE BARE JUMPER 10.5MM	1	J824	

Item No.	Description	Quantity Req.	Designator	Remarks
41-WJ0110-B00	WIRE BARE JUMPER 11MM	2		FOR S801
41-WJ0115-B00	WIRE BARE JUMPER 11.5MM	1	J823	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J804	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J808	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J832	
41-WJ0145-B00	WIRE BARE JUMPER 14.5MM	1	J826	
41-WJ0150-B00	WIRE BARE JUMPER 15MM	1	J802	
41-WJ0150-B00	WIRE BARE JUMPER 15MM	1	J821	
41-WJ0160-B00	WIRE BARE JUMPER 16MM	1	J825	
41-WJ0170-B00	WIRE BARE JUMPER 17MM	1	J830	
41-WJ0175-B00	WIRE BARE JUMPER 17.5MM	1	J807	
41-WJ0175-B00	WIRE BARE JUMPER 17.5MM	1	J831	
41-WJ0190-B00	WIRE BARE JUMPER 19MM	1	J811	
41-WJ0195-B00	WIRE BARE JUMPER 19.5MM	1	J828	
41-WJ0195-B00	WIRE BARE JUMPER 19.5MM	1	J829	
46-10962W-02X	PIN BASE *2 TJC2-2A	1	P801	
46-28559W-02X	PIN BASE *2 TJC1-2A	1	P802	
50-02000D-1VS7	FUSE 250V/2A	1	F801	
64-B30100-104	M/C SCREW B 3 X 10	1		FOR Q801
66-20516X-0B0	FUSE HOLDER	2		FOR FUSE
66-343730-0B0	HOLLOW RIVET 1.6X3.0XL3.2	2		FOR C835
66-343730-0B0	HOLLOW RIVET 1.6X3.0XL3.2	4		FOR T803
66-343730-0B0	HOLLOW RIVET 1.6X3.0XL3.2	3		FOR RT801
66-343730-0B0	HOLLOW RIVET 1.6X3.0XL3.2	6		FOR D830, D831, L804
71-DYP000-WX1	LABEL	1		STICK ON H. SINK(Q801)
90-209770-SR1	SILICONE GREASE G-746	0.0006		
66-382330-0B7	RIVET 2.0X3.7X3.5	8		FOR R808, R836, C806, P801
67-H35984-5A0	HEAT SINK	1		FOR Q801
18-RG0228-JHX	RES. WIRE ROUND 0.22 OHM 2W +/-5%	1	R810	
26-EBP101-JCX	CAP. CER 100PF 50V +/-5% CH	1	C814	
25-BCB471-M1X	CAP. ELEC 470 UF 16V +/-20%	1	C843	
25-BCA102-M1X	CAP. ELEC 1000 UF 16V +/-20%	1	C832	
26-EBP471-JCX	CAP. CER 470PF 50V +/-5% CH	1	C851	
10-ORU3AM-FOX	DIODE RU3AM (FAST RECOVERY)	1	D831	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C813	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C831	

Item No.	Description	Quantity Req.	Designator	Remarks
26-EBP103-ZFX	CAP. CER 0.01UF 50V +/-20% F	1	C842	
10-ORL255-EBX	DIODE RL255 (POWER RECTIFIER)	1	D815	
10-ORL255-EBX	DIODE RL255 (POWER RECTIFIER)	1	D816	
10-ORL255-EBX	DIODE RL255 (POWER RECTIFIER)	1	D817	
10-ORL255-EBX	DIODE RL255 (POWER RECTIFIER)	1	D818	
22-PTC200-XX1	PTC 20 OHM +/-20%	1	RT801	
36-TRF133-AX0	TRANSFORMER CONV. BCK-3546	1	T803	
08-D1664H-FC1	ASS'Y - FRONT CAB(94V0, LS-SG1A)	1		
02-GND021-XX0	ASS'Y - CRT GND WIRE&HOUSE	1		FOR CRT GROUNDING
36-DEG210-BX3	DEGAUSSING COIL 2500mm	1		
42-50908D-XX0	SPEAKER 8 OHM 5W (50mmX90mm)	1	W601	
42-50908D-XX0	SPEAKER 8 OHM 5W (50mmX90mm)	1	W602	
44-210FLS-SG1A	CRT A51JSY63X13(CR)RED (AUST)	1	CRT01	
46-27250H-02X	HS 2P24 450/5 F/W TJC3-02H	1		P602H FOR M. BD P602
46-27688H-04X	HS 4P A/B 400/13 RBGW TJC1/4Y	1		P401H FOR D.Y COIL
46-37144H-02X	HS 2P 2468#22 450mm S11-2Y/7mm	1		P601H FOR M. BD P601
54-113970-0U0	PVC TUBE #5 L=ROLL	0.32		FOR SPK HOUSING
54-205140-000	SPACER CRT MOUNTING T=2MM	4		
54-271620-000	SPACER CRT MOUNTING T=1mm	4		MTG CRT & F. CAB.
54-314740-0X0	CRT FIBRE SHEET (22mmX22mmX0.8mm)	16		
54-314740-0X0	CRT FIBRE SHEET (22mmX22mmX0.8mm)	8		FOR CRT & F. CAB.
56-D166FB-OHA	PUSH BUTTON (11)	1		
56-D166LS-OHC	LENS	1		
56-D166PK-OHA	POWER KNOB	1		
59-130460-00X	RUBBER PAD (25mmX7mm)	2		STICK ON F. CAB.(FOOTING)
62-10654X-00F	UNI-TIE (2.5mmX95mm)	13		
62-369290-OCN	CRT BRACKET	2		
63-B30080-AB4	S/T SCREW B 3 X 8 AB	3		MTG KEY BD & PUSH BUTTON
63-B40150-AB4	S/T SCREW B 4 X 15 AB	2		MTG CRT HOLDER TO F. CAB.
63-H60300-BT4	S/T SCREW H 6 X 30 BT	4		MTG CRT & F.CAB
63-W30100-AB4	S/T SCREW W 3 X 10 AB	4		MTG TRACK TO F. CAB.
63-W30100-AB4	S/T SCREW W 3 X 10 AB	2		MTG PUSH BUTTON & F.CAB.
63-W30100-AB4	S/T SCREW W 3 X 10 AB	8		MTG SPK & F. CAB.
63-W35100-AB4	S/T SCREW W 3.5 X 10 AB	2		MTG F. CTL BKT & F. CAB.
65-A60200-20E	WASHER 6 X 20 X 2MM	4		MTG CRT
62-216340-OUA	HOLDER POWER CORD HIPS-KINGFA 113(V0)	1		

Item No.	Description	Quantity Req.	Designator	Remarks
62-378080-1UN	TRACK	1		
62-345690-1UN	ASSISTANT RAIL HIPS-KINGFA 113 (V0)	1		
67-X12668-OEO	SPRING CRT 6mmX40mmX0.5mm	1		
67-X24970-OEO	SPRING	1		
55-D166FC-2AN	FRONT CABINET	1		
18-CB0225-JNX	RES. C. F. 2.2M OHM 1/6W +/-5%	1	R1	
41-BF0450-0BB	WIRE UL1007#24 450 BLACK	1		FOR R1
54-343300-0X0	HEAT SHRINKABLE TUBE 3 X 0.25	0.02		FOR R1
67-105580-OE2	SOLDERING TAG	1		FOR R1
08-D1664H-MA2	ASS'Y -MAIN BD	1		
10-0FR104-FBX	DIODE FR104 (FAST RECTIFIER)	1	D401	
10-0FR104-FBX	DIODE FR104 (FAST RECTIFIER)	1	D402	
10-1N4001-EBX	DIODE 1N4001 (RECTIFIER)	1	D301	
10-1N4002-EBX	DIODE 1N4002 (RECTIFIER)	1	D405	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D005	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D206	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D006	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D007	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D601	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D008	
10-1N4148-ABX	DIODE 1N4148 (SWITCHING)	1	D002	
10-79C5V1-DBX	DIODE ZENER 5V1 1/2W 5%	1	D001	
10-79C6V2-DBX	DIODE ZENER 6V2 1/2W 5%	1	D404	
11-2N3904-OBX	TRANSISTOR 2N3904 (NPN)	1	Q103	
11-C124ES-OBX	TRANSISTOR PDTC124ES (NPN)	1	Q604	
11-C144ES-OBX	TRANSISTOR PDTC144ES (NPN)	1	Q606	
11-C144ES-OBX	TRANSISTOR PDTC144ES (NPN)	1	Q607	
11-C144ES-OBX	TRANSISTOR PDTC144ES (NPN)	1	Q211	
11-DD1555-OAX	TRANSISTOR 3DD1555	1	Q402	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q003	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q202	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q005	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q209	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q210	
11-SA1015-YBX	TRANSISTOR 2SA1015Y	1	Q605	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q203	



Item No.	Description	Quantity Req.	Designator	Remarks
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q002	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q208	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q905	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q609	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q603	
11-SC1815-YBX	TRANSISTOR 2SC1815Y	1	Q608	
11-SC2482-OBX	TRANSISTOR 2SC2482	1	Q401	
11-SC3779-DBX	TRANSISTOR 2SC3779D (RF AMPL)	1	Q101	
13-000040-66P	IC 4066 (ANALOG SW.)	1	IC603	
13-00M24C-08P	IC EEPROM 8K M24C08	1	IC001	
13-L7809C-VAP	IC L7809CV	1	IC401	
13-LA7840-00S	IC LA7840	1	IC301	
13-TDA705-7AS	IC TDA7057AQ (R/L AUDIO O/P)	1	IC601	
13-UA7805-C0S	IC UA7805C	1	IC402	
18-CB0101-JNX	RES. C. F. 100 OHM 1/6W +/-5%	1	R001A	
18-CB0101-JNX	RES. C. F. 100 OHM 1/6W +/-5%	1	R033	
18-CB0101-JNX	RES. C. F. 100 OHM 1/6W +/-5%	1	R034	
18-CB0101-JNX	RES. C. F. 100 OHM 1/6W +/-5%	1	R047	
18-CB0101-JNX	RES. C. F. 100 OHM 1/6W +/-5%	1	R218	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R005	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R013	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R015	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R029	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R116	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R415	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R604A	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R610	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R622	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R637	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R901	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R912	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R961	
18-CB0102-JNX	RES. C. F. 1K OHM 1/6W +/-5%	1	R962	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R003	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R004	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R009	

Item No.	Description	Quantity Req.	Designator	Remarks
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R001	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R019	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R030	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R032	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R611	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R614	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R406	
18-CB0103-JNX	RES. C. F. 10K OHM 1/6W +/-5%	1	R017	
18-CB0104-JNX	RES. C. F. 100K OHM 1/6W +/-5%	1	R031	
18-CB0122-JNX	RES. C. F. 1.2k OHM 1/6W +/-5%	1	R010	
18-CB0123-JNX	RES. C. F. 12k OHM 1/6W +/-5%	1	R212	
18-CB0151-JNX	RES. C. F. 150 OHM 1/6W +/-5%	1	R217	
18-CB0151-JNX	RES. C. F. 150 OHM 1/6W +/-5%	1	R115	
18-CB0151-JNX	RES. C. F. 150 OHM 1/6W +/-5%	1	R117	
18-CB0153-JNX	RES. C. F. 15k OHM 1/6W +/-5%	1	R111	
18-CB0153-JNX	RES. C. F. 15k OHM 1/6W +/-5%	1	R112	
18-CB0183-JNX	RES. C. F. 18k OHM 1/6W +/-5%	1	R414	
18-CB0221-JNX	RES. C. F. 220 OHM 1/6W +/-5%	1	R201	
18-CB0221-JNX	RES. C. F. 220 OHM 1/6W +/-5%	1	R202	
18-CB0221-JNX	RES. C. F. 220 OHM 1/6W +/-5%	1	R203	
18-CB0222-JNX	RES. C. F. 2.2k OHM 1/6W +/-5%	1	R016	
18-CB0222-JNX	RES. C. F. 2.2k OHM 1/6W +/-5%	1	R042	
18-CB0223-JNX	RES. C. F. 22k OHM 1/6W +/-5%	1	R014	
18-CB0223-JNX	RES. C. F. 22k OHM 1/6W +/-5%	1	R215	
18-CB0223-JNX	RES. C. F. 22k OHM 1/6W +/-5%	1	R633	
18-CB0223-JNX	RES. C. F. 22k OHM 1/6W +/-5%	1	R636	
18-CB0224-JNX	RES. C. F. 220k OHM 1/6W +/-5%	1	R206	
18-CB0271-JNX	RES. C. F. 270 OHM 1/6W +/-5%	1	R233	
18-CB0273-JNX	RES. C. F. 27k OHM 1/6W +/-5%	1	R922A	
18-CB0303-JNX	RES. C. F. 30K OHM 1/6W +/-5%	1	R205	
18-CB0331-JNX	RES. C. F. 330 OHM 1/6W +/-5%	1	R219	
18-CB0331-JNX	RES. C. F. 330 OHM 1/6W +/-5%	1	R228	
18-CB0331-JNX	RES. C. F. 330 OHM 1/6W +/-5%	1	R227	
18-CB0331-JNX	RES. C. F. 330 OHM 1/6W +/-5%	1	R220	
18-CB0332-JNX	RES. C. F. 3.3k OHM 1/6W +/-5%	1	R218A	
18-CB0332-JNX	RES. C. F. 3.3k OHM 1/6W +/-5%	1	R046	

Item No.	Description	Quantity Req.	Designator	Remarks
18-CB0333-JNX	RES. C.F. 33K OHM 1/6W +/-5%	1	R110	
18-CB0333-JNX	RES. C.F. 33K OHM 1/6W +/-5%	1	R602	
18-CB0333-JNX	RES. C.F. 33K OHM 1/6W +/-5%	1	R922	
18-CB0333-JNX	RES. C.F. 33K OHM 1/6W +/-5%	1	R232	
18-CB0392-JNX	RES. C.F. 3.9K OHM 1/6W +/-5%	1	R213	
18-CB0392-JNX	RES. C.F. 3.9K OHM 1/6W +/-5%	1	R307	
18-CB0392-JNX	RES. C.F. 3.9K OHM 1/6W +/-5%	1	R214	
18-CB0392-JNX	RES. C.F. 3.9K OHM 1/6W +/-5%	1	R007	
18-CB0470-JNX	RES. C.F. 47 OHM 1/6W +/-5%	1	R002	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R119	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R238	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R243	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R401	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R923	
18-CB0471-JNX	RES. C.F. 470 OHM 1/6W +/-5%	1	R020	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R244	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R308	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R612	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R613	
18-CB0472-JNX	RES. C.F. 4.7k OHM 1/6W +/-5%	1	R011	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R109	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R216	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R245	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R924	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R927	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R925	
18-CB0473-JNX	RES. C.F. 47K OHM 1/6W +/-5%	1	R926	
18-CB0560-JNX	RES. C.F. 56 OHM 1/6W +/-5%	1	R114	
18-CB0561-JNX	RES. C.F. 560 OHM 1/6W +/-5%	1	R209	
18-CB0564-JNX	RES. C.F. 560K OHM 1/6W +/-5%	1	R210	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1	R028	
18-CB0683-JNX	RES. C.F. 68K OHM 1/6W +/-5%	1	R211	
18-CB0750-JNX	RES. C.F. 75 OHM 1/6W +/-5%	1	R904	
18-CB0820-JNX	RES. C.F. 82 OHM 1/6W +/-5%	1	R914	
18-CB0821-JNX	RES. C.F. 820 OHM 1/6W +/-5%	1	R118	
18-CB0822-JNX	RES. C.F. 8.2K OHM 1/6W +/-5%	1	R237	

Item No.	Description	Quantity Req.	Designator	Remarks
18-CB0822-JNX	RES. C.F. 8.2K OHM 1/6W +/-5%	1	R006	
18-CB0912-JNX	RES. C.F. 9.1K OHM 1/6W +/-5%	1	R312	
18-CD0100-JNX	RES. C.F. 10 OHM 1/4W +/-5%	1	R027	
18-CD0479-JNX	RES. C.F. 4.7 OHM 1/4W +/-5%	1	R640	
18-CD0682-JNX	RES. C.F. 6.8k OHM 1/4W +/-5%	1	R310	
18-CD0822-JNX	RES. C.F. 8.2K OHM 1/4W +/-5%	1	R309	
18-CE0109-JNX	RES. C.F. 1 OHM 1/2W +/-5%	1	R314	
18-CE0122-JNX	RES. C.F. 1.2k OHM 1/2W +/-5%	1	R316	
18-CE0331-JNX	RES. C.F. 330 OHM 1/2W +/-5%	1	R409	
18-CE0560-JNX	RES. C.F. 56 OHM 1/2W +/-5%	1	R317	
18-EF0109-JGX	RES. FUS. 1 OHM 1W +/-5% (LS)	1	R403	
18-EF0109-JGX	RES. FUS. 1 OHM 1W +/-5% (LS)	1	R405	
18-EF0109-JGX	RES. FUS. 1 OHM 1W +/-5% (LS)	1	R418	
18-EG0159-JHX	RES. FUS. 1.5 OHM 2W +/-5%	1	R407	
18-FF0103-JGX	RES. M.O. 10k OHM 1W +/-5%	1	R410	
18-FF0122-JGX	RES. M.O. 1.2k OHM 1W +/-5%	1	R441	
18-FF0123-JGX	RES. M.O. 12k OHM 1W +/-5%	1	R408	
18-FF0221-JGX	RES. M.O. 220 OHM 1W +/-5%	1	R336	
18-FF0560-JGX	RES. M.O. 56 OHM 1W +/-5%	1	R108	
18-FG0129-JHX	RES. M.O. 1.2 OHM 2W +/-5%	1	R313	
18-FG0153-JHX	RES. M.O. 15k OHM 2W +/-5%	1	R404	
18-GJ0332-JTX	RES. CEMENT 3.3K OHM 5W +/-5%	1	R402	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C004	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C023	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C227	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C242	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C907	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C908	
25-BCB100-M1X	CAP. ELEC 10 UF 16V +/-20%	1	C220	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C016	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C240	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C605	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C211	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C416	
25-BCB101-M1X	CAP. ELEC 100 UF 16V +/-20%	1	C009	
25-BCB220-M1X	CAP. ELEC 22 UF 16V +/-20%	1	C909	

Item No.	Description	Quantity Req.	Designator	Remarks
25-BCB220-M1X	CAP. ELEC 22 UF 16V +/-20%	1	C305	
25-BCB221-M1X	CAP. ELEC 220 UF 16V +/-20%	1	C232	
25-BCB221-M1X	CAP. ELEC 220 UF 16V +/-20%	1	C635	
25-BCB221-M1X	CAP. ELEC 220 UF 16V +/-20%	1	C903	
25-BCB470-M1X	CAP. ELEC 47 UF 16V +/-20%	1	C423	
25-BCB470-M1X	CAP. ELEC 47 UF 16V +/-20%	1	C202	
25-BCB470-M1X	CAP. ELEC 47 UF 16V +/-20%	1	C108	
25-BCB470-M1X	CAP. ELEC 47 UF 16V +/-20%	1	C081	
25-BCB470-M1X	CAP. ELEC 47 UF 16V +/-20%	1	C418	
25-BCB471-M1X	CAP. ELEC 470 UF 16V +/-20%	1	C217	
25-BDA102-M1X	CAP. ELEC 1000 UF 25V +/-20%	1	C308	
25-BDA471-M1X	CAP. ELEC 470 UF 25V +/-20%	1	C604	
25-BEA221-M1X	CAP. ELEC 220 UF 35V +/-20%	1	C302	
25-BEA471-M1X	CAP. ELEC 470 UF 35V +/-20%	1	C413	
25-BEB101-M1X	CAP. ELEC 100 UF 35V +/-20%	1	C303	
25-BFB109-M1X	CAP. ELEC 1 UF 50V +/-20%	1	C208	
25-BFB109-M1X	CAP. ELEC 1 UF 50V +/-20%	1	C622	
25-BFB109-M1X	CAP. ELEC 1 UF 50V +/-20%	1	C624	
25-BFB109-M1X	CAP. ELEC 1 UF 50V +/-20%	1	C203	
25-BFB109-M1X	CAP. ELEC 1 UF 50V +/-20%	1	C214	
25-BFB229-M1X	CAP. ELEC 2.2 UF 50V +/-20%	1	C008A	
25-BFB478-M1X	CAP. ELEC 0.47 UF 50V +/-20%	1	C218	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C307	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C101	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C103	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C216	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C601	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C602	
25-BFB479-M1X	CAP. ELEC 4.7 UF 50V +/-20%	1	C603	
25-BHB100-M1X	CAP. ELEC 10 UF 100V +/-20%	1	C420	
25-BLA100-M1X	CAP. ELEC 10 UF 250V +/-20%	1	C408	
26-AIC102-KBX	CAP. CER 1000 PF 500V +/-10% B	1	C401	
26-AIC102-KBX	CAP. CER 1000 PF 500V +/-10% B	1	C404	
26-AIC332-KBX	CAP. CER 3300 PF 500V +/-10% B	1	C407	
26-AIC391-KBX	CAP. CER 390 PF 500V +/-10% B	1	C409	
26-AIC391-KBX	CAP. CER 390 PF 500V +/-10% B	1	C412	

Item No.	Description	Quantity Req.	Designator	Remarks
26-AMK331-JZX	CAP. CER 330 pF 2KV +/-5% SL	1	C406B	
26-EBP100-JCX	CAP. CER 10PF 50V +/-5% CH	1	C304	
26-EBP102-KBX	CAP. CER 1000 PF 50V +/-10% B	1	C112	
26-EBP102-KBX	CAP. CER 1000 PF 50V +/-10% B	1	C219	
26-EBP102-KBX	CAP. CER 1000 PF 50V +/-10% B	1	C306	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C212	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C109	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C019	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C114	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C024	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C201	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C241	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C005	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C228	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C230	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C233	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C425	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C417	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C110	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C239	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C020	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C017	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C636	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C931	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C135	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C082	
26-EBP103-ZFX	CAP. CER 0.01UF 50V +80/-20% F	1	C221	
26-EBP181-JCX	CAP. CER 180PF 50V +/-5% CH	1	C207	
26-EBP221-JCX	CAP. CER 220PF 50V +/-5% CH	1	C007	
26-EBP221-JCX	CAP. CER 220PF 50V +/-5% CH	1	C104	
26-EBP221-JCX	CAP. CER 220PF 50V +/-5% CH	1	C427	
26-EBP270-JCX	CAP. CER 27PF 50V +/-5% CH	1	C010	
26-EBP270-JCX	CAP. CER 27PF 50V +/-5% CH	1	C011	
26-EBP331-JCX	CAP. CER 330PF 50V +/-5% CH	1	C006	
26-EBP331-JCX	CAP. CER 330PF 50V +/-5% CH	1	C003	
26-EBP390-JCX	CAP. CER 39PF 50V +/-5% CH	1	C021	

Item No.	Description	Quantity Req.	Designator	Remarks
26-EBP390-JCX	CAP. CER 39PF 50V +/-5% CH	1	C022	
27-AGQ394-JSX	CAP. M.PP 0.39UF 250VAC +/-5%	1	C421	
27-AGQ563-JOX	CAP. M.PP 0.056 UF 250V +/-5%	1	C410	
27-ALR103-JOX	CAP. M.PP 0.01 UF 1.6KV +/-5%	1	C402	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C106	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C301	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C309	
27-MBC104-JOX	CAP. M.P.E 0.1 UF 63V +/-5%	1	C610	
27-PBA224-JOX	CAP. P.E 0.22UF 63V +/-5%	1	C105	
27-PBC103-JOX	CAP. P.E. 0.01UF 63V +/-5%	1	C215	
27-PBC152-JOX	CAP. P.E 0.0015UF 63V +/-5%	1	C209	
27-PBC222-JOX	CAP. P.E 0.0022UF 63V +/-5%	1	C213	
27-PBC222-JOX	CAP. P.E 0.0022UF 63V +/-5%	1	C204	
27-PBC272-JOX	CAP. P.E 0.0027UF 63V +/-5%	1	C210	
27-PBC472-JOX	CAP. P.E 0.0047UF 63V +/-5%	1	C607	
27-PBC472-JOX	CAP. P.E 0.0047UF 63V +/-5%	1	C608	
27-PBC473-JOX	CAP. P.E 0.047 UF 63V +/-5%	1	C107	
27-PBC562-JOX	CAP. P.E 0.0056UF 63V +/-5%	1	C422	
27-PBC822-JOX	CAP. P.E 0.0082UF 63V +/-5%	1	C235	
34-A109K0-11X	COIL CHOKE 1 UH +/-10%	1	L103	
34-R100J2-OEX	COIL PL - 10 UH +/-5%	1	L002	
34-R120J2-OEX	COIL PL - 12 UH +/-5%	1	L204	
34-R220J2-OEX	COIL PL - 22 UH +/-5%	1	L208	
34-R220J2-OEX	COIL PL - 22 UH +/-5%	1	L201	
34-R220J2-OEX	COIL PL - 22 UH +/-5%	1	L207	
34-R330J2-OEX	COIL PL - 33 UH +/-5%	1	L080	
36-HDR001-AX1	TRANSFOR HOR. DRIVE (MAGNETIC CORE)	1	T401	
36-LIN500-XX1	COIL LINEARITY 50 UH	1	L412	
36-WID400-XX2	COIL WIDTH 40UH	1	L411	
37-SC2502-99DOX	FLYBACK TRANS. BSC25-0299D	1	T402	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J411	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J412	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	J420	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	L101	
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	L202	
41-WJ0055-B00	WIRE BARE JUMPER 5.5 MM	1	J008	

Item No.	Description	Quantity Req.	Designator	Remarks
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	C243	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	C915	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J010	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J101	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J104A	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J107	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J109	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J110	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J210	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J218	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J222	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J226	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J406	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J421	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J605	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J901A	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J915	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J916	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	J919	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R008	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R012	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R200	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R917	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J011	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J208	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J305	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J908	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J913	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J920	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	R311	
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J911	
41-WJ0070-B00	WIRE BARE JUMPER 7MM	1	J104	
41-WJ0070-B00	WIRE BARE JUMPER 7MM	1	J307	
41-WJ0070-B00	WIRE BARE JUMPER 7MM	1	J906	
41-WJ0070-B00	WIRE BARE JUMPER 7MM	1	J015	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J001	



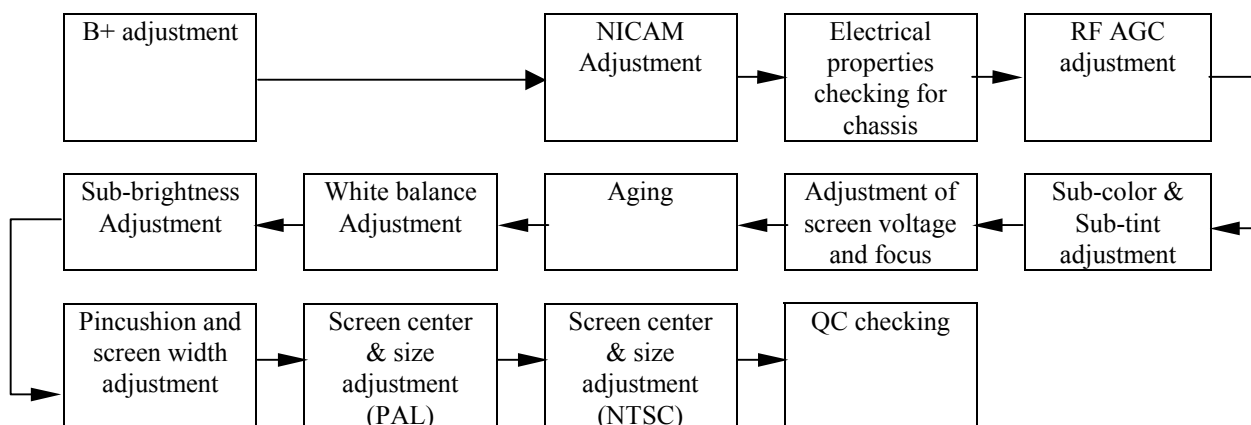
Item No.	Description	Quantity Req.	Designator	Remarks
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J005	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J013	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J103	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J205	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J206	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J207	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J209	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J303	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J304	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J602	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J907	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J914	
41-WJ0075-B00	WIRE BARE JUMPER 7.5MM	1	J603	
41-WJ0080-B00	WIRE BARE JUMPER 8 MM	1	J014	
41-WJ0085-B00	WIRE BARE JUMPER 8.5MM	1	J219	
41-WJ0085-B00	WIRE BARE JUMPER 8.5MM	1	J227	
41-WJ0090-B00	WIRE BARE JUMPER 9MM	1	J225	
41-WJ0090-B00	WIRE BARE JUMPER 9MM	1	J601	
41-WJ0095-B00	WIRE BARE JUMPER 9.5MM	1	J404	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J012	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J221	
41-WJ0100-B00	WIRE BARE JUMPER 10MM	1	J403	
41-WJ0105-B00	WIRE BARE JUMPER 10.5MM	1	J212	
41-WJ0105-B00	WIRE BARE JUMPER 10.5MM	1	J223	
41-WJ0105-B00	WIRE BARE JUMPER 10.5MM	1	J224	
41-WJ0110-B00	WIRE BARE JUMPER 11MM	1	J009	
41-WJ0115-B00	WIRE BARE JUMPER 11.5MM	1	J604	
41-WJ0115-B00	WIRE BARE JUMPER 11.5MM	1	J918	
41-WJ0120-B00	WIRE BARE JUMPER 12MM	1	J401	
41-WJ0120-B00	WIRE BARE JUMPER 12MM	1	J910	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	D408	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J002	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J003	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J102	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J105	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J106	

Item No.	Description	Quantity Req.	Designator	Remarks
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J216	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J306	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	J402	
41-WJ0125-B00	WIRE BARE JUMPER 12.5MM	1	R306	
41-WJ0130-B00	WIRE BARE JUMPER 13MM	1	J204	
41-WJ0130-B00	WIRE BARE JUMPER 13MM	1	J211	
41-WJ0135-B00	WIRE BARE JUMPER 13.5MM	1	J006	
41-WJ0135-B00	WIRE BARE JUMPER 13.5MM	1	J215	
41-WJ0150-B00	WIRE BARE JUMPER 15MM	1	C406A	
41-WJ0150-B00	WIRE BARE JUMPER 15MM	1	L402	
41-WJ0150-B00	WIRE BARE JUMPER 15MM	1	J112	
41-WJ0165-B00	WIRE BARE JUMPER 16.5MM	1	J220	
41-WJ0165-B00	WIRE BARE JUMPER 16.5MM	1	J302	
41-WJ0175-B00	WIRE BARE JUMPER 17.5MM	1	J004	
41-WJ0180-B00	WIRE BARE JUMPER 18MM	1	R045	
41-WJ0195-B00	WIRE BARE JUMPER 19.5MM	1	J217	
41-WJ0200-B00	WIRE BARE JUMPER 20MM	1	J213	
45-OSC8M0-0Y0	CRYSTAL 8.0MHZ	1	X001	
45-SAW296-6MOOG	SAW FILTER K2966M	1	Z101	
45-TRA5M5-0Y0	CER TRAP TPS 5.5MHZ	1	X203	
46-12866W-02X	PIN BASE *2 S11-02Y	1		P601 FOR FRONT CAB. (SPK)
46-20598W-04X	PIN BASE *4 TJC1-4A	1		P401 FOR DY CONNECTOR
46-33079W-02X	PIN BASE *2 TJC3-2A	1		P602 FOR FRONT CAB. (SPK)
46-33079W-02X	PIN BASE *2 TJC3-2A	1		P001 FOR KEY BD P001A
46-33079W-03X	PIN BASE *3 TJC3-3A	1	P203	
46-33079W-04X	PIN BASE *4 TJC3-4A	1		P002 FOR SW. BD P105
46-33079W-04X	PIN BASE *4 TJC3-4A	1		P402 FOR CRT BD P502
46-33079W-05X	PIN BASE *5 TJC3-5A	1		P201 FOR CRT BD P201
46-33079W-06X	PIN BASE *6 TJC3-6A	1		P904 FOR SIDE AV BD
47-RCA035-XX0	RCA JACK AV-3.2-6W-K	1	P901	
62-227680-0UA	BRACKET ABS-KINGFA 606 (UO)	1		
64-P30060-104	M/C SCREW 3 X 6 (ZINC)	2		FOR IC401 & IC402
64-P30100-104	M/C SCREW P 3 X 10	2		FOR IC601
64-P30100-104	M/C SCREW P 3 X 10	2		FOR Q402 & IC301
65-Z30050-23M	NUT M 3	2		FOR Q402 & IC301
66-343730-0B0	HOLLOW RIVET 1.6X3.0XL3.2	2		FOR L411

Item No.	Description	Quantity Req.	Designator	Remarks
66-343730-OBO	HOLLOW RIVET 1.6X3.0XL3.2	2		FOR L412
66-343730-OBO	HOLLOW RIVET 1.6X3.0XL3.2	3		FOR Q402
66-343730-OBO	HOLLOW RIVET 1.6X3.0XL3.2	4		FOR T402
66-382330-OB7	RIVET 2.0X3.7X3.5	2		FOR R402
67-H30752-3A0	HEAT SINK	2		FOR IC301 & Q402
67-H34423-CA0	HEAT SINK	1		FOR IC601
70-271510-00A	SERVICE CARD	1		FOR PRODUCTION USE
71-270870-0A9	LABEL	2		
90-269080-ZU0	CLEAN COATING TC-131L 14KG/BARREL	0.0001		
40-2135MH-MAE	P.C.B. MAIN PCB BD	1		
66-343730-OBO	HOLLOW RIVET 1.6X3.0XL3.2	2		FOR D407
41-WJ0050-B00	WIRE BARE JUMPER 5MM	1	L209	
18-CB0102-JNX	RES. C.F. 1K OHM 1/6W +/-5%	1	C226	
18-RG0228-JHX	RES. WIRE ROUND 0.22 OHM 2W +/-5%	1	R620	
07-389VI5-NX0	TUNER UVS1053-EW(HB 5V 38.9)	1	TU101	
25-BJA470-M1X	CAP. ELEC 47 UF 160V +/-20%	1	C411	
67-H10918-4M2	HEAT SINK	1		FOR IC401
67-H10918-4M2	HEAT SINK	1		FOR IC402
26-EBP471-JCX	CAP. CER 470PF 50V +/-5% CH	1	C008	
25-BCB221-M1X	CAP. ELEC 220 UF 16V +/-20%	1	C231	
18-CB0681-JNX	RES. C.F. 680 OHM 1/6W +/-5%	1		FROM PIN 31 IC201 TO GND
41-WJ0065-B00	WIRE BARE JUMPER 6.5MM	1	J108	
13-A19V04-TOP	IC A19V04-T0	1	IC201	
25-GFB228-K1X	CAP. ELEC 0.22 UF 50V +/-10%	1	C205	
25-GFB478-K1X	CAP. ELEC 0.47 UF 50V 10%CEC-K	1	C236	
27-RCP333-JOX	CAP. PP 0.033 UF 100V +/-5%	1	C405	
25-GFB478-K1X	CAP. ELEC 0.47 UF 50V 10%CEC-K	1	C234	
10-CW574C-DJX	DIODE CW574CD	1	D102	
25-DFB109-M1X	CAP. ELEC 1 UF 50V +/-20% NP	1	C916	
08-D1664H-PAN	ASS'Y - PACKING	1		
49-382550-BAT	BATTERY R06P AA 1.5V 5#	2		
72-D1664H-E23	OPERATION MANUAL	1		
74-022032-6WE	POLYBAG (23cmX34cmX0.06mm)	1		
74-120120-80HAA	POLYBAG W/SUFFOCATION WARNING	1		
75-D166LL-CCO	POLYFOAM "LL"	1		
75-D166LR-CCO	POLYFOAM "LR"	1		

Item No.	Description	Quantity Req.	Designator	Remarks
75-D166UL-CCO	POLYFOAM "UL"	1		
75-D166UR-CCO	POLYFOAM "UR"	1		
76-AD166G-1AT	CARTON BOX	1		
08-D1664H-RC1	ASS'Y - REAR CAB(94V0, RCA-2)	1		
54-114000-00X	FELT TAPE (150mmX19mmX0.3mm)	9		STICK ON REAR CAB.
58-D166MP-JKT	PLATE MODEL NO.	1		
58-D166SI-2UI	INLAY SIDE AV	1		
59-130460-00X	RUBBER PAD (25mmX7mm)	2		FOR FOOTING OF R. CAB.
63-F30100-BT3	S/T SCREW F 3 X 10 BT (BLACK)	2		MTG RCA JACK & REAR CAB.
63-W30100-AB4	S/T SCREW W 3 X 10 AB	2		MTG M. BD TRACK & R. CAB.
63-W30100-AB4	S/T SCREW W 3 X 10 AB	2		MTG SIDE AV BD & R. CAB.
55-D166RC-2AN	REAR CABINET	1		
58-D166RI-2UI	INLAY REAR AV	1		
62-378080-1UN	TRACK	1		
63-B40200-AB4	S/T SCREW B 4 X 20 AB	4		MTG F. CAB & R. CAB
63-B40300-AB4	S/T SCREW B 4*30 AB	2		MTG F. CAB & R. CAB
08-21166H-SW1		1		
11-IRR001-3X0	IR RECEIVER MODULE HK381A	1	IR001	
14-LED05R-XX1	LED RED FB205	1	D051C	
18-CB0470-JNX	RES. C. F. 47 OHM 1/6W +/-5%	1	R018A	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R016A	
41-WJ0060-B00	WIRE BARE JUMPER 6mm	1	R013A	
25-BCB220-M1X	CAP. ELEC 22 UF 16V +/-20%	1	C011A	
46-27266H-04X	HS 4P24 350F/W TJC3-4Y/JC25-4Y	1		P002A FOR M BD P002
46-28559W-02X	PIN BASE *2 TJC1-2A	1		P804A FOR POWER CORD
46-28559W-02X	PIN BASE *2 TJC1-2A	1	P804	
46-35049H-02X	HS 2P 1617#22 350 TJC1-2Y/TJC1-2Y	1		FOR PWR BD/PWR PARTS
48-POW001-AX0	SWITCH POWER	1	SW801	
51-JC0243-OCH01	POWER CORD SAA PLUG W/HOUSING	1		
62-226920-OHA	LED HOLDER ABS-LG H121 (HB)	1		FOR D051C
62-265160-OHA	POWER SW. ADAPTOR	1		
63-B30060-BT4	S/T SCREW B 3 X 6 BT	2		MTG SW BD/BKT
40-21166H-SWA	P. C. B. POWER SW BD	1		
62-378070-1UN	FRONT CTL BD BRACKET	1		

## Flowchart chart of alignment procedure for M28 chassis:



## ALIGNMENT PROCEDURE FOR M28 CHASSIS:

### **I) Adjustment of B+ voltage**

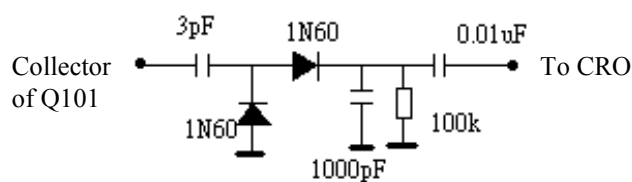
1. Apply 110-240VAC( $\pm 5V$ ) to mains power input, and Philips standard testing pattern to RF input.
2. Adjust VR830 in STANDARD mode until voltage at TP2 (B+) is  $112V \pm 0.5V$ .

### **II) NICAM Adjustment (for NICAM model only)**

1. Apply a 38.9MHz color bar with NICAM signal to the IF input.
2. Monitor the DC voltage at pin 15 of IC1101.
3. Adjust T1101 until the voltage at pin 15 of IC1101 becomes  $2.5 \pm 0.1V$ .
4. Then check the waveform at pin 4 and 6 of P1103 and it must show correct audio signal.

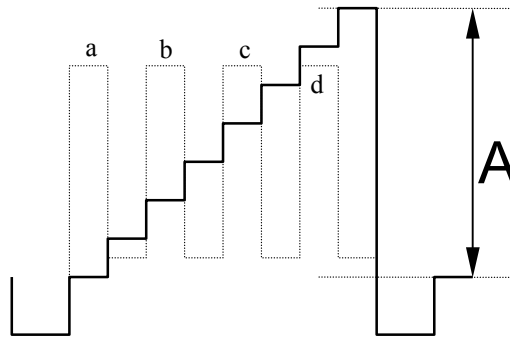
### **III) The alignment of RFAGC**

1. Connect the detector shown below to collector of Q101.
2. Receive a grey scale signal with  $70dB \mu V$  amplitude.
3. Adjust RFAGC item until the output of the detector becomes  $0.8V_{pp}$



#### **IV) Adjustment of Sub-contrast, Sub-tint and Sub-colour for NSTC and PAL signal.**

1. Enter D-mode, and connect the probe of Oscilloscope to the conjunction between R201 and P201 (B-out).
2. Apply the Grey-scale/Colour-bar (NTSC signal) to the AV input, in STANDARD status.
3. Select CNTC to adjust the sub-contrast, until that the amplitude "A" is  $2.5V_{p-p}$  as shown below.
4. Select COLC to adjust the sub-colour by tuning the amplitude of "a" and "d" to the same.
5. Select TNTC to adjust the sub-tint by tuning the amplitude of "b" and "c" to the same.
6. Apply the Grey-scale/Colour-bar (PAL signal) to the AV input, in STANDARD status.
7. Select COLP to adjust the sub-colour by tuning the amplitude of "a", "b", "c" and "d" to the same.



#### **V) Adjustment of Focus, Screen Voltage and Sub-brightness**

1. Receive a crosshatch pattern.
2. Adjust the "FOCUS" VR on the flyback to make the picture clear.
3. Enter D-mode and press "MUTE" key and the screen will become a horizontal line. Then adjust the "SCREEN" VR on the flyback transformer to set the intensity of the line to a minimum visible level (the line can just be seen).
4. Press "MUTE" key again and the TV will become full raster.
5. Select BRTC to adjust the sub-brightness, until that the 2<sup>nd</sup> dark bar of 8 level grey scales just can be seen.

#### **VI) Adjustment of White balance**

1. Receive a black and white pattern at STANDARD status.
2. Use a color analyzer to measure the black side of the screen. By changing the value of BB and GB, set the reading of the color analyzer to  $x=284, y=299$ .
3. Then measure the white side of the screen. By changing the value of BD and GD, set the reading of the color analyzer to  $x=284, y=299$ .
4. Repeat step 2&3 until you can get the correct reading for both black and white sides.

#### **VII) Adjustment of Pincushion and Picture Width (for pure flat model only)**

1. Receive a crosshatch pattern.
2. Adjust VR302 until the vertical line become straight.
3. Adjust VR303 for horizontal size.

### **VIII) Adjustment of Picture Geometry (PAL)**

1. Apply the crosshatch pattern (PAL signal) to the RF input, in STANDARD status.
2. Select HPOS to adjust the Horizontal center.
3. Select VP50 to adjust the Vertical center.
4. Select HIT to adjust the Vertical amplitude.
5. Select VLIN to adjust the vertical linearity.
6. Select VSC to adjust the vertical S-correction.

### **IX) Adjustment of Picture Geometry (NTSC)**

1. Apply the crosshatch pattern (NTSC signal) to the RF input, in STANDARD status.
2. Select HPS to adjust the Horizontal center.
3. Select VP60 to adjust the Vertical center.
4. Select HITS to adjust the Vertical amplitude.
5. Select VLIS to adjust the vertical linearity.
6. Select VSS to adjust the vertical S-correction.

### **X) Adjustment of OSD position**

1. Enter D-mode and press key “1”, then choose OSDH(OSDHS) item and adjust the OSD vertical position 50HZ(60HZ).
2. Enter D-mode and press key “NOTE”, then choose the OSD1 item and adjust the OSD horizontal position(Volume bar,Picture bar,Half blue panel OSD).
3. Enter D-mode and press key “NOTE”, then choose the OSD2 item and adjust the OSD horizontal position except OSD1 item.

### **XI)D-mode:**

1. press D-Mode ON/OFF key, and then you can enter the D-mode.
2. press VOLUME DOWN key on the unit until the volume decrease to minimum level, then press the DISPLAY key on the remote handset (don't release the volume key) and you can enter D- mode.

After enter D-mode you can adjust the setting according to the following procedure,

ITEM	Description	Initial
<b>GROUP1</b>	<b>KEY 0</b>	
RB	R CUT OFF	
GB	G CUT OFF	
BB	B CUT OFF	
GD	G DRIVE	
BD	B DRIVE	

<b>GROUP2</b>	<b>KEY 1</b>	
HPOS/	Horizontal Position 50HZ	
HPS	Horizontal Position 60HZ	
HIT/	Hight 50Hz	
HITS	hight 60 hz	
VP50	Vertical Position 50Hz	
VP60	Vertical Position 60HZ	
VLIN	V Linearity 50Hz	
VLIS	V Linearity 60hz	
VSC	VS Correction 50Hz	
VSS	VS Correction 60HZ	
VLK	V BLK Start / Stop	
VCEN	V CENTERING	
OSDH	OSD vertical position 50HZ	
OSDHS	OSD vertical position 60HZ	

<b>GROUP 3</b>	<b>KEY 3</b>	
CNTX	CONTRAST MAX.	
CNTN	CONTRAST MIN.	
BRTX	BRIGHT MAX.(difference from center)	
BRTN	BRIGHT MIN.(difference from center)	
COLX	COLOR MAX.(difference from center)	
COLN	COLOR MIN.	
TNTX	TINT MAX.(difference from center)	
TNTN	TINT MIN.(difference from center)	

<b>GROUP 4</b>	<b>KEY 4</b>	
BRTC	BRIGHT CENTER	
COLC	COLOR CENTER NTSC	
COLS	COLOR CENTER SECAM	
COLP	COLOR CENTER PAL(shift data from COLC)	
SCOL	SUB COLOR ( Cr input (#21) gain up)	
SCNT	SUB CONTRAST	
CNTC	CONTRAST CENTER	
TNTC	TINT CENTER	

<b>GROUP 5</b>	<b>KEY 5</b>	
ST3	SHARP CENTER 3.58NTSC TV	
SV3	SHARP CENTER 3.58NTSC VIDEO	
ST4	SHARP CENTER OTHER TV	
SV4	SHARP CENTER OTHER VIDEO	
SVD	SHARP CENTER DVD	
ASSH	ASYMMETRY-SHARPNESS	
SHPX	SHARP MAX.(difference from center)	



SHPN	SHARP MIN.(difference from center)	
GROUP 6	KEY 6	
OPT	OPTION DATA	
	0 D mode key 0: No use 1 :use	
	1 0:normal 1: mute sound when no sync in TV	
	2 0:NORMAL 1: mute video during change channle	
	3 au gain 0:50khz 1: 25khz	
	4 when no sync 1: AFT 0: no AFT	
	5 AV change 1: mute 0: no mute sound	
	6 Korea PAL50 BLINK function 1:enable 0:disable	
	7 standby state 0: high standby 1: low standby	
FLG0		
	0 OVER MOD	
	1 N Buzz Cancel	
	2	
	3 SLO f0 shift	
	4 hotel mode TV mode enter	
	5 hotel mode av mode enter	
	6 hotel mode	
	7 vco readjust when position select 0:enable 1:disable	
FLG1		
	0 1: 7 key 0: 6 key	
	1 Secam 0:disable 1:enable	
	2 LOGO 0:disable 1:enable	
	3 TINT por	
	4 PIF SELECT 01:45.75 MHZ	
	5 011 :38.9MHZ	
	6 100 :38MHZ	
	7 APC 1:AUTO 0:PRESET	
STBY		
	0	
	1	
	2 hd kill timer set *40us	
	3	
	4 when STBY.5=0 ,after AC on 0: standby 1: power on	
	5 after AC power on, 0: ref STBY.4 1: last state	
	6 auto sleep function	
	7	
MODE0		
	0 NICAM 0:DISABLE 1:ENABLE	
	1 English language select	
	2 Russia language select	
	3 vietnam language select	
	4 mute type 0: y mute 1: RGB mute	
	5 when mode0.7 = 1 ; preset sound system after ASM	
	6 00: BG 01 :I 10:DK 11: M	
	7 preset sound system after ASM 0:disable 1:enable	
MODE1		
	0 BG system enable	
	1 I system enable	
	2 DK system enable	

	3	M system enable	
	4	VIDEO2 enable	
	5	video3 enable	
	6	YUV enable	
	7	Thailand Dual language 0:Disable 1:Enable	
MUTT		standby -->wake time	
STAT		contrast up timer afer standby off	

GROUP 7	KEY 7	
RF AGC	RF AGC	
SBY	SECAM B-Y BLACK ADJUST	
SRY	SECAM R-Y BLACK ADJUST	
BRTS	SUB BRIGHT shift data of BRTC	
TXCX	TEXT RGB CONTRAST MAX.	
RGCN	TEXT RGB CONTRAST MIN.	
SECD	SECAM MODE	

GROUP 9	KEY 8	
V25	VOLUME 25	
V50	VOLUME 50	
V100	VOLUME 100	

GROUP 10	KEY 9	
SVM	SVM	
PYNX	Normal H.SYNC max	
PYNN	Normal H.SYNC min	
PYXS	Search H.SYNC max	
PYNS	Search H.SYNC min	

GROUP 11	KEY CALENDAR	
CLTO	TV mode & SOUND SYS != M	
CLTM	TV mode & SOUND SYS = M	
CLVO	VIDEO	
CLVD	YUV MODE	

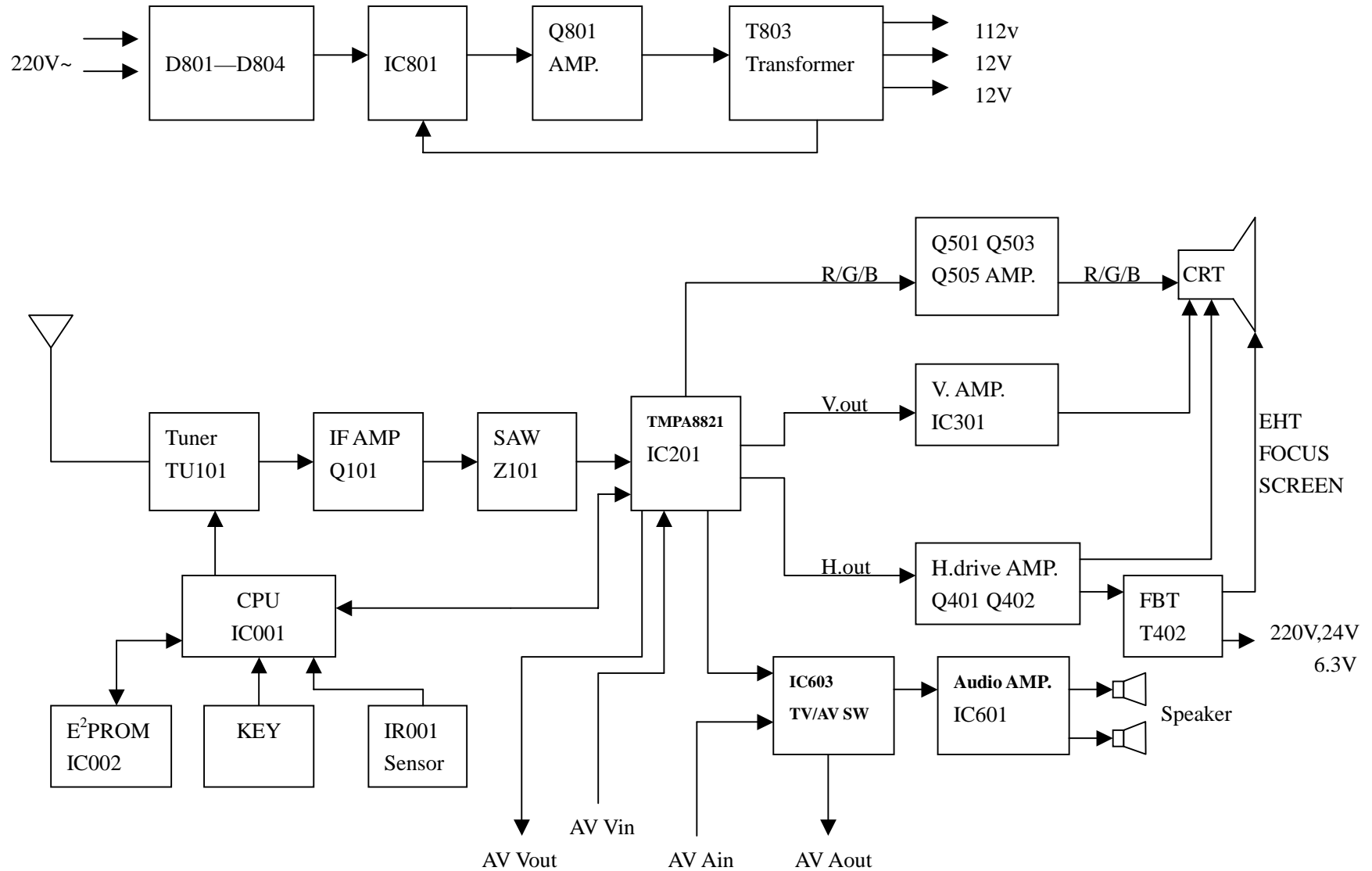
CLTO CLTM CLVO CLVD bit setting		
	7	KILLER OFF
	6	P/N ID
	5	C GAMMA
	4	NTSC-MATRIX
	3	
	2	Y DL
	1	
	0	

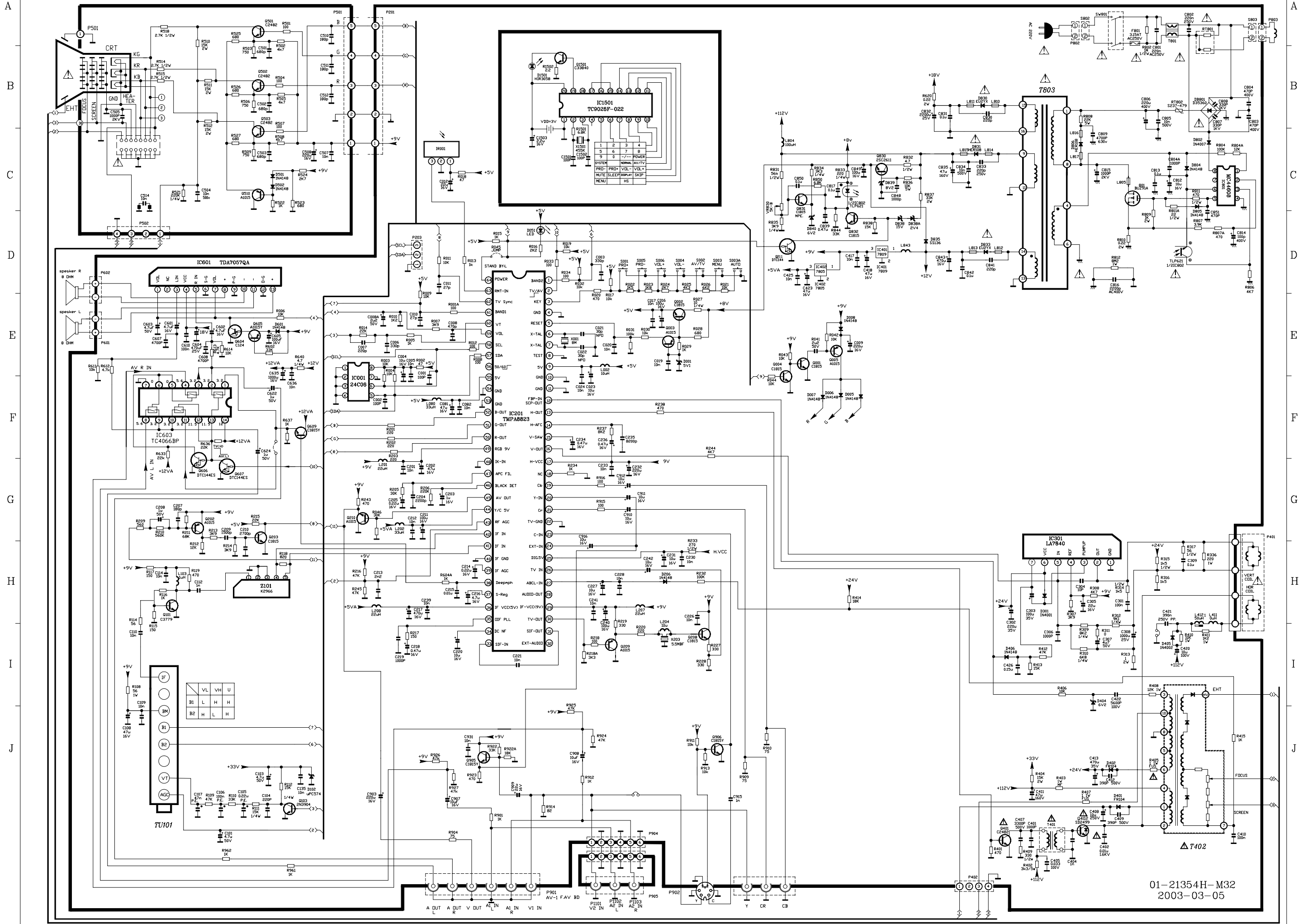
ABL	ABL SETUP	
	5	TB1254N RGB ABL
	4	TB1254N WPS
	3	ABLpoint setup
	2	
	1	
	0	
DCBS	VIDEO DATA SETUP	

	0~3	Y GAMMA BLACK STRETCH	
	4~5	OSD LEVEL	
DEF		V AGC SELECT	
	0	V AGC reference, 0:depends on YC Vcc	
	1	Depends on integrated regulator	

GROUP 14		KEY NOTE-BOOK	
OSD1		OSD Horizontal Position(volume bar, Picture bar,Half blue panel OSD)	
OSDF1		OSD PLL DATA(volume bar, Picture bar,Half blue panel OSD)	
OSD2		OSD Horizontal Position except OSD1 items	
OSDF2		OSD PLL DATA except OSDF1 items	
HAFC			
	0	when nois.2 = 1 ; TV hafc gain	
	1	if nois.2 = 0 TV hafc gain depend on noise(0~1)	
	2	in video mode hafc gain	
	3		
NOIS		HAFC DATA	
	0	noise det	
	1		
	2	fix the hafc gain	
UCOM		MCU DATA	

\*Reset EEPROM Data: Press D-mode and Press 0752.





	VL	VH	U
B1	L	H	H
B2	H	L	H

