

ALIGNMENT INSTRUCTION (3Y03)

INSUED :2001/9/20

REVISED1 :2002/1/08 Add factory menu description

REVISED2 :2002/1/23 Change the procedure of screen voltage setting

Revised 3 :2002/4/11 Reason: accelerate the step for setting the screen voltage

1. Please notice the following before alignment and equipment:

- 1-1 Don't short any two soldering points, which should not be shorted and don't touch any components, which should not be touched.
- 1-2 Please pull out plug before equipment.
- 1-3 For safety reasons, all components equipped or replaced should be identical with BOM.
- 1-4 Must be warm up for 30 minutes or more and degauss CRT thoroughly with demagnetizer before alignment.
- 1-5 The data of EEPROM must be stored before the adjustment for main chassis. And EEPROM must be corrected by the correct file "[3Y03_ROM_CORRECT.hex](#)" to avoid signal of CH6 weaken. R.bias, G.bias, B.bias, R.drv, G.drv, B.drv should be set to proper values. Sub_bright is set to 63 usually.

2. Tools and equipments for adjustment

- 2-1 small "-" screwdriver
- 2-2 screwdriver without inductance
- 2-3 Pattern Generator
- 2-4 DC Regulated power supply
- 2-5 Digital Voltmeter
- 2-6 Sweep Signal Generator
- 2-7 20MHz 2-channel Oscilloscope

3. Signal condition

ITEMS	LOGO	PICTURE CARRIER	PATTERN	SYSTEM	SOUND MODE	REMARK
1	CH14	471.25MHZ	COLOR BAR	NTSC/M	MONO 1KHz	
2	CH3	61.25MHZ	GRAY SCALE	NTSC/M	BTSC 0.3k,3kHz	

3	CH8	181.25MHz	MONOSCOPE	NTSC/M	MONO MUSIC	
4	CH12	205.25MHz	CROSS HATCH	NTSC/M	MONO 1KHz	
5						
6						
7						
8						

4. Adjust for main chassis

4-1 PIF Adjustment (45.75MHz)

4-1-1 Tuner AGC connects to GND. Pattern Generator outputs 45.75MHz I.F. signal (70db ∞ V) and connects to SAW filter output terminal through a capacitor.

4-1-2 Connect Digital voltmeter across C227. DC Regulated power supply positive terminal output +14V to C617.

4-1-3 Adjust L203 coil to obtain 3.6V Digital voltage meter reading.

NOTE: To cancel this adjustment, L203 can be adjusted before inserted to the chassis with a special equipment.

4.2 B+ adjustment

4-2-1 Disconnect horizontal load. Connect a bulb (100 W) AC 250V across C321.

4-2-2 Add 220V AC 50HZ to CN601 and switch on power switch.

4-2-3 Test the voltage with digital voltage meter between C321 two terminals.

4-2-4 Adjust VR601 to obtain +110V \pm 0.5V.

4-3 AGC alignment

4-3-1 Receive 60dB RF signal. Connect Digital voltmeter positive terminal to tuner AGC terminal and negative terminal to GND.

4-3-2 Press "MENU" key, then press "Q.VIEW" key, "MUTE" key in turn on telecontroller. TV SET will go to factory mode. Press "TIMER" key to go to the next factory menu. Go to MENU5 status by this means. Press "MENU" key to exit factory mode.

- 4-3-3 Select RF.AGC by pressing “CH+” and “CH-” keys. Adjust “VOL+” and “VOL-” keys to obtain 4V Digital voltage meter reading.

5. COMPLETE MACHINE GENERAL ADJUSTMENT

- 5-1 Go to factory mode according to 4-2-2 before warm up line.
- 5-2 Focus Adjustment.
- 5-2-1 Receive monoscope pattern.
- 5-2-2 Set TV to work in dynamic status.
- 5-2-3 Adjust the focus knob of FBT to get the clearest picture.
- 5-3 Screen Voltage Adjustment.
- 5-3-1 Receive the “Center Cross with Border Castellations” RF signal.
- 5-3-2 Check the R.bias, G.bias, B.bias, R.drv, G.drv, B.drv and sub_bright. Go to factory mode “MENU2” status according to 4-2-2. Usually G.bias should be same as the value of auto white balance equipment. And SUB_BRIGHT is 63.
- 5-3-3 In menu 5, select SUBB.ADJ and set it to “1”. Adjust the screen knob of FBT to get a faintness “+”.
- 5-3-4 Restore the SUBB.ADJ to “0”.
- 5-4 White Balance Adjustment (Applied in factory)
- 5-4-1 Set TV AV status in custom mode(Or other mode need for the adjustment) . Receive black white pattern.
- 5-4-2 Insert six-row-wire into CN002.Press adjustment keys, and then go to automatic white balance adjustment.
- 5-4-3 **PIN DISCRPTIONN OF CN002:**
1•SDA• 2•SCL• 3•GND• 4•GND• 5•SCL• 6•SDA•
- 5-4-4 After adjusting well, pull out six-row-wire.
- 5-4(1) White balance adjustment (Applied when servicing)
- 5-4(1)-1 Set TV AV status and receive GREY SCAL.
- 5-4(1)-2 The one sampling tube of CRT color analyzer (CA-100) covers on GREY signal and the another covers on white signal.
- 5-4(1)-3 Go to factory mode “MENU2”. Obtain GREY signal X=281 and y=311 by adjusting R-CUT and B-cut. Obtain white signal X=281 and y=311 by adjusting R-DRV and B-DRV. Obtain both X=281 and Y=311 by adjusting the two status repeatedly.
- 5-5 Sub_bright adjustment
- Receive the gray scale . Get into the menu5 of factory mode. Set SUBB.ADJ to “1”. Then adjust the SUB.BRI option to get a scale to be seen a little brightness(Only two rows can be

seen).

5-6 Vertical Size and PinCushion Adjustment

- 5-6-1 Receive monoscope pattern. Set TV standard status. Adjust V.size to obtain picture's vertical redisplay ratio more than 90% in factory mode "MENU1".
- 5-6-2 Receive cross hatch pattern. Set TV standard status. Adjust V.LINE and V.SC to obtain picture's vertical pin cushion a good status in factory mode "MENU1".
- 5-6-3 Receive cross hatch pattern. Set TV standard status. In factory mode "MENU1" adjust V.POS to obtain picture's vertical center at the center of CRT screen.

5-7 Horizontal Center Adjustment and horizontal position of OSD adjustment

- 5-7-1 Receive monoscope PATTERN. Set TV standard status. Adjust H.PHASE in menu 1 to obtain horizontal center at the center of CRT screen.
- 5-7-2 Adjust the "OSD.HPOS" to get right display position.

5-8 SUB.TINT ADJUSTMENT

Receive the color bar signal of NTSC system. Set the picture mode at normal mode. Adjust the 'SUB.TINT' option in menu5 at service mode to get the right hue .

5-9 MTS ADJUSTMENT

Receive the RF CROSS-TALK signals , but FM with BTSC .Enter into the factory mode. Set ADJ.FREQ to 1 in "9852 AUTO.ADJ". Wait 1 second . Quit factory menu after "ADJUSTING " change to "0".

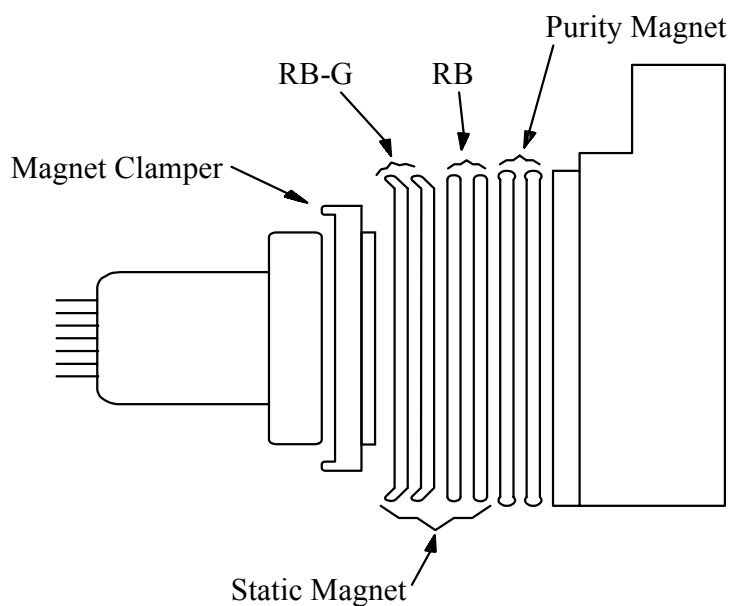
5-10 COLOR PURITY ADJUSTMENT

- 5-10-1 Before color purity adjustment, Warm up the TV set over 15 minutes and fully degauss.
- 5-10-2 Receive pure white signal in AV status and set the TV receiver dynamic.
- 5-10-3 Go to factory mode "MENU2". After write down the values of R-BIAS and B-BIAS, set the values of R-BIAS and B-BIAS zero.
- 5-10-4 Loosen the clamp screw of the deflection yoke and pull the deflection yoke towards color purity magnetic loop.
- 5-10-5 Adjust color purity magnetic loop to make the green area at the center of CRT screen.
- 5-10-6 Slowly push the deflection yoke toward the front of CRT and set it where a uniform green field is obtained. Tighten the clamp screw of the deflection yoke.
- 5-10-7 Restore the values of R-BIAS, G-BIAS and B-BIAS.

5-11 CONVERGENCE ADJUSTMENT

- 5-11-1 Receive a dotted pattern. Set the TV receiver dynamic.

- 5-11-2 Loose the convergence magnet clamber and align red with blue dots at the center of the screen by rotating (R, B) static convergence magnets.
- 5-11-3 Align Red/Blue with green dots at the center of the screen by rotating (RB-G) static convergence magnet.
- 5-11-4 Remove the DY wedges and slightly tilt the deflection yoke horizontally and vertically to obtain the good overall convergence. Fix them after the good overall convergence got.
- 5-11-5 Fix the convergence magnets by turning the clamber.
- 5-11-6 If purity error is found, follow "PURITY ADJUSTMENT" instructions.



APPENDIX:

1. FACTORY MENU DISCRIPTION:

	MENU1	VALU E	DISCRIPTION
1	V.SIZE	101	Align vertical amplitude
2	V.POS	32	Align vertical DC bias
3	V.LINE	16	Align vertical linearity
4	V.SC	0	Align vertical S-correction
5	H.PHASE	8	Align sync to flyback phase
6	H.BLK.RL	4	H-blanking Control(Width /Phase)
7	H.FREQ	22	Align ES Sample horizontal frequency

8			
	MENU2		
1	V.KILL	0	Disable vertical output
2	R.B	138	Align Red out DC level
3	G.B	182	Align Green out DC level
4	B.B	148	Align Blue out DC level
5	R.D	67	Align Red out AC level
6	G.D	8	Align Green out AC level
7	B.D	45	Align Blue out AC level
8			
	MENU3		
1	RG.GAM	1	Disable R/G gamma correction (0/ON; 1/OFF)
2	B.GAM	3	Select and Disable B gamma correction(0~2/ON;3/OFF)
3	R.B.ANG	1	Adjust the demodulation angle of R-Y and B-Y
4	AT.FLESH	0	
5	GRAY.MODE	0	Select Test mode (0/White; 1/Gray)
6	CROSS.BW	0	Service Test mode (0/TV; 1/Black; 2/White; 3/Crosshatch)
7	AFC.GAIN	0	Select Horiz. 1st loop gain & H-sync gate on/off(0/auto;1/enforce)
8	H.BLK.SW	0	H BLK R&L selection(0/right side blanking can be adjusted;1/left)
	MENU4		
1	FILT.SYS	1	Select Y/C filter mode(0,2/3.58 unsymm.; 1,3/3.58 sym.; 4~7/no filt)
2	CORING	1	Enable Luminance coring(0/Off; 1/ON)
3	OSD.CONT	1	
4	OSD.HPOS	30	Align the horizontal position of OSD
5	BLK.STR.D	0	Disable black stretch
6	BRIABL.T	0	Align brightness ABL threshold
7			
8			
	MENU5		

1	RF.AGC	31	Align RF AGC threshold
2	VOL.FIL	0	
3	VIF.SW	0	Select 45.75/58.75
4	VIDEO.LVL	7	Align IF video output level(to keep output 2Vpp+-0.1Vpp)
5	SUBB.ADJ	0	Disable fast switch to the min mode(0/disable; 1/min mode)
6	SUB.BRI	38	Align common R G B DC level
7	SUB.TINT	0	Align sub.TINT
8			
	OPTION		
1	2 AV.CH	3	Select AV numbers(0/ No AV; 1/1 AV; 2,3/2AV)
2	SRH.SPEED	0	Select auto search speed(0/fastest, 7/lowest)
3	TDA9852	1	Disable 9852(0/disable; 1/able)
4	TUN.AS.V	1	Select the Tuner address(0/Tuner pin3 to ground; 1/pin3 not used)
5			
6			
7			
8			
	9852 AUTO.ADJ		
1	ADJ.FREQ	0	Disable auto adjusting(0/disable; 1/get into autoadjust mode)
2	ADJUSTING	0	
3	FM.LVL	16	
4	76075.VOL	0	
5	L3-L0	0	input level adjust
6	TC2-TC0	0	timing current alignment data
7	A14-A10	0	stereo alignment data for wideband expander
8	A24-A20	0	stereo alignment data for spectral expander
	TDA1		
1	VOL.RIGHT	125	volume control right
2	VOL.LEFT	125	volume control left
3	GMU	0	mute control for all outputs (general mute)
4	AVLON	0	auto volume control (with 0.1Vrms-1.1Vrms input to get constant output 0.2Vrms)
5	LOFF	0	switch loudness on/off
6	CCD	0	
7	SC2-SC0	2	selection between line in and line out

8	SAP.ID	0	
	TDA2		
1	STERO.ID	1	
2	TZCM	0	zero cross mode in volume operation
3	LMU	0	mute control for line out
4	EF2-EF0	0	selection between mono, stereo linear, spatial stereo and pseudo mode
5	L3-L0	0	input level adjust
6	A14-A10	0	stereo alignment data for wideband expander
7	A24-A20	0	stereo alignment data for spectral expander
8	STS	0	stereo level switch
	TDA3		
1	ADJ	0	stereo adjust on/off
2	AT1-AT2	0	attack time at AVL
3	TC2-TC0	0	timing current alignment data
4	WR.ERR	0	
5	RD ERR	0	
6	MANU ADJ	0	
7	STEREO	0	mode selection for line out
8	SAP	0	mode selection for line out

2. White Balance address

White Balance address(●●●●●●●)		
Data Name	E2PROM Address (• 3Y01)	LA76814 ADDRESS
		#1011 1010B
bright	12H	#0001 0100B
contrast	11H	#0001 0101B
color	10H	#1011 1010B
Sub-bright	24H	#0001 0011B
R.B	1EH	#0000 1101B
G.B	1FH	#0000 1110B

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B.B	20H	#0000 1111B
R.D	21H	#0001 0000B
G.D	22H	#0001 0000B
B.D	23H	#0001 0010B

Modelo: TCR-1421

AP00-142200-12	ALL MECHANICAL PARTS	MMN010074	1	ST
1. 0301-142200-01	POLYFOAM END CAP. R & L (TOP & BOTTOM)		CH 1.0000	ST
2. 0404-090140-03	POLYBAG 9" X 14" X 0.04 MM (PO) W/PE	CH 1.0000	PC FOR ACCESSORIES	
3. 0404-142200-03	POLYBAG (PEARL SPONGE) (PO) W/PE		CH 1.0000	PC
4. 1002-142200-08	BACK CABINET - DARK GREY #DG001 (HIPS)		CH 1.0000	PC
5. 1003-142200-01	SPEAKER BRACKET		CH 2.0000	PC
6. 1005-219900-01	JACK PLATE BRACKET - BLACK (HIPS)		CH 1.0000	PC
7. 1007-142200-01	FRONT LENS - DARK RED		CH 1.0000	PC
8. 1008-142200-01	CONTROL KEY KNOB - METAL SILVER GREY #MSG001		CH 1.0000	PC
9. 1009-142200-01	POWER KNOB - MET.SILVER GREY		CH 1.0000	PC
10. 1010-202148-00	CABINET MTG. HOLDER - (HIPS)		CH 2.0000	PC
11. 1011-142200-01	POWER ROD	MMN010040	CH 1.0000	PC
12. 1012-142200-01	LED HOLDER - 8MM		CH 1.0000	PC
13. 1018-500218-00	INSULATOR RING - DIA. 4.1 MM	MNC010450	CH 2.0000	PC
14. 1019-29F100-01	WIRE HOLDER DIA. 10 MM		CH 5.0000	PC
15. 1019-400218-00	WIRE HOLDER		CH 2.0000	PC
16. 1020-142200-01	PCB SUPPORTER		CH 1.0000	PC
17. 1207-814000-03	INLAY (C) - TUNER FOR WORLDWIDE		CH 1.0000	PC
18. 1305-200020-00	TAPE LABEL 200 X 20 X 0.5mm	CH 4.0000	PC FOR SPEAKER BRACKET.	
19. 1305-280025-00	TAPE 280 X 25 X 0.3mm	CH 3.0000	PC FOR BACK CABINET.	
20. 1312-292800-03	RUBBER PAD (C)		CH 2.0000	PC
21. 1320-212800-01	ADHESIVED TAPE CUSHION 180 X 20 X 1 MM		CH 1.0000	PC
22. 1320-298200-05	ADHESIVED TAPE CUSHION 90 X 20 X 2 MM	CH 2.5000	PC 2 FOR SPEAKER BRACKET,0.5	
	FOR PCB MTG.			
23. 1503-038218-00	FUSE HOLDER		CH 2.0000	PC
24. 1505-212200-02	HEAT SINK (144)	CH 1.0000	PC FOR IC602.	
25. 1505-219800-01	HEAT SINK (70)	CH 1.0000	PC FOR IC403.	
26. 1505-219900-02	HEAT SINK (75)	CH 1.0000	PC FOR Q302,IC301.	
27. 1505-821800-11	HEAT SINK (3)	CH 1.0000	PC FOR IC203.	
28. 1901-008212-10	POWER KNOB SPRING - DIA. 0.6 SPRING WIRE		CH 1.0000	PC
29. 1902-008218-10	GROUNDING WIRE SPRING - FOR KNITTING WIRE		CH 1.0000	PC
30. 2401-000400-00	CABLE TIE - L = 4"		CH 6.0000	PC
31. 2401-001100-00	CABLE TIE - L = 11"		CH 4.0000	PC
32. 2402-000400-00	COLOUR TIE - L = 100 MM		CH 3.0000	PC
33. 26BA-030080-N0	BA 3 X 8	MMN010074	CH 4.0000	PC 2 FOR HEATSINK(144),2 FOR HEATSINK(75).
34. 26BA-030100-N0	BA 3 X 10	CH 8.0000	PC FOR CONTROL KNOB & CONTROL PCB,IC301,Q302.	
35. 26BA-035160-B0	BA 3.5 X 16 (BLACK)	CH 2.0000	PC FOR JACK PLATE BKT.	
36. 26BA-035200-B0	BA 3.5 X 20 (BLACK)		CH 2.0000	PC
37. 26BA-040120-B0	BA 4 X 12 (BLACK)	CH 1.0000	PC FOR FLYBACK	
38. 26BA-040200-B0	BA 4 X 20 (BLACK)	CH 2.0000	PC FOR BACK & FRONT CAB.	
39. 26BM-030080-N0	BM 3 X 8	CH 2.0000	PC FOR IC203,IC403.	
40. 26BM-030100-N0	BM 3 X 10	CH 1.0000	PC FOR IC602.	
41. 26HC-045300-H0	HC 4.5 X 30	CH 4.0000	PC FOR CRT MTG. W/WASHER	
42. 26PA-030120-N0	PA 3 X 12	CH 1.0000	PC FOR PCB MTG	
43. 26WA-030120-N0	WA 3 X 12	CH 8.0000	PC FOR SPK.BKT	
44. 26WA-035120-N0	WA 3.5 X 12	CH 8.0000	PC FOR SPK.	
45. 27MH-M3050N-03	M3 NUT	CH 2.0000	PC FOR IC203,IC602.	
46. 2801-031412-F0	FIBRE WASHER - DIA. 3 X 14 X 1.2 MM	CH 2.0000	PC FRO CONTROL PCB	
47. 2801-062210-R0	RUBBER WASHER - DIA. 6 X 22 X 1 MM	CH 4.0000	PC FOR CRT MTG.	
48. 2801-062250-R0	RUBBER WASHER - DIA. 6 X 22 X 5 MM		CH 4.0000	PC
49. 2802-030508-M2	M3 SPRING WASHER	CH 3.0000	PC FOR IC203,IC602,IC403.	
CM00-142204-10	CABINET COLOUR MATCH - SILVER WHITE	MNC000618	1	ST
1. 1001-142200-59	FRONT CABINET - METAL SILVER GREY #MSG001 W/S ENG (3Y03)		CH 1.0000	PC
HS08-S03000-00	HANDSET - 30 KEYS FOR OVERSEAS NORMAL GREY ENG (3Y03)	MMN020132	1	ST

Televisor color 14"

Preparado por: Rolando Céspedes

Modelo: TCR-1421

1.	0404-035090-03	POLYBAG 3.5" X 9" X 0.04 MM (PO) W/PE				CH	1.0000	PC
2.	0801-UM3AA0-01	BATTERY UM-3AA (DESAY)			MMN010173	CH	2.0000	PC
3.	1014-HS0800-12	TOP CABINET - NORMAL GREY #NG001 (ABS)			MNC000851	CH	1.0000	PC
4.	1015-HS0800-02	BOTTOM CABINET - NORMAL GREY #NG001 (ABS)				CH	1.0000	PC
5.	1016-HS0800-03	BATTERY DOOR - NORMAL GREY #NG001 (ABS)				CH	1.0000	PC
6.	1017-HS0800-01	INFRARED LENS - DARK RED (PC)				CH	1.0000	PC
7.	1130-HS0800-09	RUBBER KEYPAD 30 KEYS ENG (5Y02)				CH	1.0000	PC
8.	1230-S20003-59	INLAY (C) - 30 KEYS NORMAL GREY #NG001 "IRT" (3Y03) W/S				CH	1.0000	PC *
9.	26PA-023080-B0	PA 2.3 X 8 (BLACK)				CH	1.0000	PC
10.	3560-010014-01	BATTERY CONTACT "+"				CH	1.0000	PC
11.	3560-010015-01	BATTERY CONTACT "-"				CH	1.0000	PC
12.	3560-010016-01	BATTERY CONTACT "+" & "-"				CH	1.0000	PC
OP00-141800-07		OTHER PARTS		MMN020126	1	ST		
1.	1205-L21000-02	INLAY (B) - JACK PLATE (V-OUT-A,V-IN-A) ENG (3Y03)				CH	1.0000	PC
PP00-142200-13		PRINTING PARTS		MMN020137	1	ST		
1.	0100-142201-11	CARTON BOX "IRT" TCR 1424				CH	1.0000	PC
2.	0501-142200-08	WARRANTY CARD "IRT"				CH	1.0000	PC
3.	0601-142201-M6	BACK LABEL "IRT" TCR 1424 SPA				CH	1.0000	PC
4.	0602-201218-00	QC PASSED LABEL (GOLD)			CH	1.0000	PC FOR BACK CAB.	
5.	0603-142201-M6	SCREEN LABEL "IRT"				CH	1.0000	PC
6.	0604-020219-00	SERIAL NO.LABEL			CH	2.0000	PC FOR OVERSEAS	
7.	0605-142200-M6	BAR CODE LABEL				CH	2.0000	PC
8.	0612-21F100-M6	WARRANTY LABEL				CH	1.0000	PC
9.	0762-142201-12	INSTRUCTION BOOKLET "IRT" TCR 1424 SPANISH				CH	1.0000	PC
10.	0902-010093-01	NAME PLATE - ALUMINIUM "IRT" BRIGHT SILVER				CH	1.0000	PC
11.	1320-821800-01	ADHESIVED TAPE (TRANSPARENT)			MMN020137	CH	0.0263	RL
12.	1523-821800-01	STAPLE (SILVER)			CH	8.0000	PC FOR CARTON BOX USE	
13.	2001-010800-00	ROD ANTENNA L=0.8 M				CH	1.0000	PC
14.	3600-000002-00	MATCHING X'FORMER 75-300 OHM FOR F-TYPE TUNER				CH	1.0000	PC

Televisor color 14"

Preparado por: Rolando Céspedes

Modelo: TCR-1421

TCR-1421									
MODEL 3Y03-1422NM-01M NTSC M FST 181CH W/AV IN/OUT RCA JACK 110V-260V							ST		
Item	Part Number	Description							
	013Y-A3Y032-02M	MAIN ASSEMBLY NTSC M FST 181CH W/AV IN/OUT RCA JACK 110V-260V	MEN021152	1	ST				
1	4100-AD1010-T0	CARBON FILM RESISTOR 100 OHM 1/4W +/-5% (TAPE TYPE)							
2	4100-AD1020-T0	CARBON FILM RESISTOR 1K OHM 1/4W +/-5% (TAPE TYPE)	R643	R709	R719				
3	4100-AD1030-T0	CARBON FILM RESISTOR 10K OHM 1/4W +/-5% (TAPE TYPE)							
4	4100-AD1040-T0	CARBON FILM RESISTOR 100K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R318	CH 3.0000 PC R007			R008	R240	
5	4100-AD1050-T0	CARBON FILM RESISTOR 1M OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R038						
6	4100-AD1210-T0	CARBON FILM RESISTOR 120 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R211						
7	4100-AD1220-T0	CARBON FILM RESISTOR 1.2K OHM 1/4W +/-5% (TAPE TYPE)	MEN020117	CH 1.0000 PC R632					
8	4100-AD1240-T0	CARBON FILM RESISTOR 120K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R103						
9	4100-AD1520-T0	CARBON FILM RESISTOR 1.5K OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R032	R213	R330				
10	4100-AD1530-T0	CARBON FILM RESISTOR 15K OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R319	RD21					
11	4100-AD1820-T0	CARBON FILM RESISTOR 1.8K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R467						
12	4100-AD2020-T0	CARBON FILM RESISTOR 2K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R642						
13	4100-AD2030-T0	CARBON FILM RESISTOR 20K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R201						
14	4100-AD2210-T0	CARBON FILM RESISTOR 220 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R114						
15	4100-AD2220-T0	CARBON FILM RESISTOR 2.2K OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R226	R611					
16	4100-AD2230-T0	CARBON FILM RESISTOR 22K OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R022	R222					
17	4100-AD2430-T0	CARBON FILM RESISTOR 24K OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R067	R219	R220				
18	4100-AD2710-T0	CARBON FILM RESISTOR 270 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R109						
19	4100-AD3310-T0	CARBON FILM RESISTOR 330 OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R029	R030	R301				
20	4100-AD3320-T0	CARBON FILM RESISTOR 3.3K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R210						
21	4100-AD3330-T0	CARBON FILM RESISTOR 33K OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R021	R107					
22	4100-AD3910-T0	CARBON FILM RESISTOR 390 OHM 1/4W +/-5% (TAPE TYPE)	MEN020288	CH 2.0000 PC R233	R	645			
23	4100-AD3920-T0	CARBON FILM RESISTOR 3.9K OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R324	R646					
24	4100-AD4700-T0	CARBON FILM RESISTOR 47 OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R110	R208	R609				
25	4100-AD4710-T0	CARBON FILM RESISTOR 470 OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R200	R209					
26	4100-AD4720-T0	CARBON FILM RESISTOR 4.7K OHM 1/4W +/-5% (TAPE TYPE)	R002	R013	R034	R046	R047	R048	
R212	R413	R466							R049
27	4100-AD4730-T0	CARBON FILM RESISTOR 47K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R301						
28	4100-AD5110-T0	CARBON FILM RESISTOR 510 OHM 1/4W +/-5% (TAPE TYPE)	CH 4.0000 PC D007	D008	D009	D010			
29	4100-AD5120-T0	CARBON FILM RESISTOR 5.1K OHM 1/4W +/-5% (TAPE TYPE)	CH 6.0000 PC R235	R303	R340	R710			
30	4100-AD5620-T0	CARBON FILM RESISTOR 5.6K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R108						R711
31	4100-AD6800-T0	CARBON FILM RESISTOR 68 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC J058						R712
32	4100-AD6810-T0	CARBON FILM RESISTOR 680 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R610						
33	4100-AD7500-T0	CARBON FILM RESISTOR 75 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R450						
34	4100-AD8220-T0	CARBON FILM RESISTOR 8.2K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R033						
35	4100-AF0220-T0	CARBON FILM RESISTOR 2.2 OHM 1/2W +/-5% (TAPE TYPE)	MEN021152	CH 1.0000 PC R470					
36	4100-AF2200-T0	CARBON FILM RESISTOR 22 OHM 1/2W +/-5% (TAPE TYPE)	CH 1.0000 PC R310						
37	4100-AF2720-T0	CARBON FILM RESISTOR 2.7K OHM 1/2W +/-5% (TAPE TYPE)	CH 1.0000 PC R308						
38	4100-DF1540-01	METAL OXIDE FILM RESISTOR 150K OHM 1/2W +/-5%	CH 1.0000 PC R620						
39	4100-DF4700-01	METAL OXIDE FILM RESISTOR 47 OHM 1/2W +/-5%	CH 1.0000 PC R613						
40	4100-DG0022-01	METAL OXIDE FILM RESISTOR 0.22 OHM 1W +/-5%	CH 2.0000 PC R603	R604					
41	4100-DG1810-01	METAL OXIDE FILM RESISTOR 180 OHM 1W +/-5%	CH 1.0000 PC R311						
42	4100-DG2230-01	METAL OXIDE FILM RESISTOR 22K OHM 1W +/-5%	CH 1.0000 PC R315						
43	4100-DH0068-01	METAL OXIDE FILM RESISTOR 0.68 OHM 2W +/-5%	CH 1.0000 PC R322						
44	4100-DH0220-01	METAL OXIDE FILM RESISTOR 2.2 OHM 2W +/-5%	CH 1.0000 PC R327						
45	4100-DH1040-01	METAL OXIDE FILM RESISTOR 100K OHM 2W +/-5%	CH 1.0000 PC R644						
46	4100-DH1530-01	METAL OXIDE FILM RESISTOR 15K OHM 2W +/-5%	CH 1.0000 PC R625						
47	4100-DI3930-01	METAL OXIDE FILM RESISTOR 39K OHM 3W +/-5%	CH 1.0000 PC R607						
48	4100-DK5120-01	METAL OXIDE FILM RESISTOR 5.1K OHM 5W +/-5%	CH 1.0000 PC R306						
49	4100-FK0400-01	WIRE WOUND RESISTOR 4 OHM 5W +/-5%CH 1.0000 PC R602							
50	4100-HF2250-T0	HIGH-VOLT RESISTOR 2.2M OHM 1/2W +/-5% (TAPE TYPE) KO 2.0000 PC R605	R608						
51	4100-HG8250-T0	HIGH-VOLT RESISTOR 8.2M OHM 1W +/-5% (TAPE TYPE) MEN020819	ZZ 1.0000 PC R622						
52	4100-KZ1000-02	"P.T.C. THERMISTOR RESISTOR 10 OHM FOR 14""-21"" TV +/-20%"	CH 1.0000 PC R601						
53	4200-220200-00	SEMI-FIXED RESISTOR 2KB (H) JP 1.0000 PC VR601							
54	4300-AF101C-T0	CERAMIC CAPACITOR 100PF 50V +/-5% (TAPE TYPE)	CH 3.0000 PC C005	C236	C237				
55	4300-AF103H-T0	CERAMIC CAPACITOR 0.01uF 50V +/-80-20% (TAPE TYPE)	CH 14.0000 PC C001	C011	C107	C109	C111	C114	
			C214	C222	C227	C250	C621	C630	
			C231	C612	C642				
56	4300-AF104H-T0	CERAMIC CAPACITOR 0.1uF 50V +/-80-20% (TAPE TYPE)	CH 3.0000 PC C010						
57	4300-AF221C-T0	CERAMIC CAPACITOR 220PF 50V +/-5% (TAPE TYPE)	CH 1.0000 PC C004						
58	4300-AF223H-T0	CERAMIC CAPACITOR 0.022uF 50V +/-80-20% (TAPE TYPE) MEN011903	CH 1.0000 PC C012						
59	4300-AF471C-T0	CERAMIC CAPACITOR 470PF 50V +/-5% (TAPE TYPE) MEN020853	CH 1.0000 PC C614						
60	4300-AM472D-T0	CERAMIC CAPACITOR 0.0047uF 500V +/-10% (TAPE TYPE)	CH 2.0000 PC C601A	C601D					
61	4300-AM561D-T0	CERAMIC CAPACITOR 560PF 500V +/-10% (TAPE TYPE)	CH 1.0000 PC C302						
62	4300-AM681D-T0	CERAMIC CAPACITOR 680PF 500V +/-10% (TAPE TYPE)	CH 7.0000 PC C302	C317	C318	C605	C615	C619	
63	4300-AR222D-T0	CERAMIC CAPACITOR 0.0022uF 1KV +/-10% (TAPE TYPE)	CH 1.0000 PC C306	C641					
64	4300-BC106E-T0	ELECTROLYTIC CAPACITOR 10uF 16V +/-20% (TAPE TYPE)	CH 1.0000 PC C203						
65	4300-BC107E-T0	ELECTROLYTIC CAPACITOR 100uF 16V +/-20% (TAPE TYPE)	CH 2.0000 PC C235	C328					
66	4300-BC227E-T0	ELECTROLYTIC CAPACITOR 220uF 16V +/-20% (TAPE TYPE)	CH 1.0000 PC C309						
67	4300-BC337E-T0	ELECTROLYTIC CAPACITOR 330uF 16V +/-20% (TAPE TYPE)	CH 2.0000 PC C020	C110					
68	4300-BC476E-T0	ELECTROLYTIC CAPACITOR 47uF 16V +/-20% (TAPE TYPE) CH 4.0000 PCC101	C227	C234	C431				
69	4300-BC477E-T0	ELECTROLYTIC CAPACITOR 470uF 16V +/-20% (TAPE TYPE)	CH 1.0000 PC C212						
70	4300-BD106E-T0	ELECTROLYTIC CAPACITOR 10uF 25V +/-20% (TAPE TYPE) CH 1.0000 PC C240							
71	4300-BD107E-T0	ELECTROLYTIC CAPACITOR 100uF 25V +/-20% (TAPE TYPE)	CH 1.0000 PC C448						
72	4300-BD108E-00	ELECTROLYTIC CAPACITOR 1000uF 25V +/-20%	CH 3.0000 PC C452	C617	C640				
73	4300-BD227E-00	ELECTROLYTIC CAPACITOR 220uF 25V +/-20%	CH 2.0000 PC C447	C618					
74	4300-BD228E-00	ELECTROLYTIC CAPACITOR 2200uF 25V +/-20%(16 X 25mm)	CH 1.0000 PC C326						
75	4300-BE107E-T0	ELECTROLYTIC CAPACITOR 100uF 35V +/-20% (TAPE TYPE)	CH 2.0000 PC C325	C610					
76	4300-BE477E-00	ELECTROLYTIC CAPACITOR 470UF 35V +/-20%	CH 1.0000 PC C306						
77	4300-BF105E-T0	ELECTROLYTIC CAPACITOR 1uF 50V +/-20% (TAPE TYPE)	CH 7.0000 PC C014	C108	C216	C230	C315	C323	
78	4300-BF106E-T0	ELECTROLYTIC CAPACITOR 10uF 50V-63V +/-20% (TAPE TYPE)	CH 4.0000 PC C435	C438	C453	C620	C451		
79	4300-BF225E-T0	ELECTROLYTIC CAPACITOR 2.2uF 50V +/-20% (TAPE TYPE) MEN011903	CH 2.0000 PC C013	C221					
80	4300-BF227E-T0	ELECTROLYTIC CAPACITOR 220uF 50V +/-20% (TAPE TYPE)	CH 1.0000 PC C304						
81	4300-BF474E-T0	ELECTROLYTIC CAPACITOR 0.47uF 50V-100V +/-20% (TAPE TYPE)	CH 2.0000 PC C225	C247					
82	4300-BF475E-T0	ELECTROLYTIC CAPACITOR 4.7uF 50V-100V +/-20% (TAPE TYPE)	CH 1.0000 PC C104						
83	4300-BF476E-T0	ELECTROLYTIC CAPACITOR 47uF 50V +/-20% (TAPE TYPE)	CH 1.0000 PC C301						
84	4300-BH107E-C1	"ELECTROLYTIC CAPACITOR 100uF 160V +/-20%(FORMED, PITCH=7.5mm)"	CH 2.0000 PC C321	C616					
	4300-BH107E-00	ELECTROLYTIC CAPACITOR 100uF 160V +/-20%							
85	4300-BH475E-T0	ELECTROLYTIC CAPACITOR 4.7uF 160V +/-20%(TAPE TYPE)	CH 1.0000 PC C623						
86	4300-BJ106E-C0	"ELECTROLYTIC CAPACITOR 10uF 250V +/-20% (FORMED, PITCH=5mm)"	CH 1.0000 PC C303						
87	4300-BJ475E-C0	"ELECTROLYTIC CAPACITOR 4.7UF 250V +/-20% (FORMED,PITCH=5mm)"	MEN012326	CH 1.0000 PC C312					
	4300-BJ475E-00	ELECTROLYTIC CAPACITOR 4.7UF 250V +/-20%							
88	4300-BL227E-00	ELECTROLYTIC CAPACITOR 220uF 400V +/-20%	MA 1.0000 PC C607						
89	4300-EF104D-T0	METALLIZED POLYESTER FILM CAPACITOR 0.1UF 63-100V +/-10% (TAPE TYPE) MEN021152	CH 4.0000 PC C016	C217	C465	C611			

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Preparado por: Rolando Céspedes

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90	4300-EF224D-T0	METALLIZED POLYESTER FILM CAPACITOR 0.22UF 63-100V +/-10% (TAPE TYPE)	CH 1.0000 PC C239		
91	4300-EF334D-T0	METALLIZED POLYESTER FILM CAPACITOR 0.33uF 63-100V +/-10% (TAPE TYPE)	CH 1.0000 PC C219		
92	4300-EF474D-T0	METALLIZED POLYESTER FILM CAPACITOR 0.47UF 63-100V +/-10% (TAPE TYPE)	CH 2.0000 PC C209	C324	
93	4300-EJ563C-01	METALLIZED POLYESTER FILM CAPACITOR 0.056uF 250V +/-5%	CH 2.0000 PC C308	C310	
94	4300-ET102C-00	METALLIZED POLYPROPYLENE FILM CAPACITOR 0.001uF 2KV +/-5%	KO 1.0000 PC C608		
95	4300-FW224D-00	AC CAPACITOR 0.22uF AC250V-500V +/-10% CH 1.0000 PC C602			
96	4300-LF105E-T0	NONPOLAR ELECTROLYTIC CAPACITOR 1UF 50V +/-20% (TAPE TYPE)	CH 1.0000 PC C232		
97	4300-MG102D-T0	MYLAR CAPACITOR 0.001uF 100V +/-10% (TAPE TYPE)	CH 3.0000 PC C224	C228	C242
98	4300-MG103D-T0	MYLAR CAPACITOR 0.01UF 100V +/-10% (TAPE TYPE)	CH 2.0000 PC C246	C455	
99	4300-MG152D-T0	MYLAR CAPACITOR 0.0015UF 100V +/-10% (TYPE TAPE) MEN020853	CH 1.0000 PC C809		
100	4300-MG223D-T0	MYLAR CAPACITOR 0.022uF 100V +/-10% (TAPE TYPE)	CH 2.0000 PC C203	C215	
101	4300-MG333D-T0	MYLAR CAPACITOR 0.033uF 100V +/-10% (TAPE TYPE)	CH 1.0000 PC C316		
102	4300-MG562D-T0	MYLAR CAPACITOR 0.0056uF 100V +/-10% (TAPE TYPE)	CH 1.0000 PC C238		
103	4300-NF150C-T0	NPO CERAMIC CAPACITOR 15PF 50V +/-5% (TAPE TYPE)	CH 3.0000 PC C007	C008	C235
104	4300-NF390C-T0	NPO CERAMIC CAPACITOR 39PF 50V +/-5% (TAPE TYPE)	CH 2.0000 PC C241	C245	
105	4300-SX222E-00	SAFETY CERAMIC CAPACITOR 0.0022uF AC250V-400V +/-20%	ZZ 1.0000 PC C613		
106	4500-141481-T0	NORMAL RECTIFIER DIODE 1N4148 150mA/100V(TAPE TYPE)	ZZ 6.0000 PC &C308	D401	D602 D604 D605 D609
107	4500-153970-00	NORMAL RECTIFIER DIODE 1N5397 1.5A/600V (DO-15)	CH 4.0000 PC D601A	D601B	D601C D601D
108	4500-215800-T0	HIGH SPEED RECTIFIER DIODE BA158 600V/1A(TAPE TYPE)	CH 10.0000 PC D301	D304	D305 D306 D310
D608	D610				
109	4500-400036-T5	ZENER DIODE 3V6 1/2W +/-5% (TAPE TYPE) ZZ 1.0000 PC ZD003			
110	4500-400039-T5	ZENER DIODE 3V9 1/2W (TAPE TYPE) ZZ 1.0000 PC ZD601			
111	4500-400039-T5	00-400039-T5 ZENER DIODE 3V9 1/2W +/-5% (TAPE TYPE)			
112	4500-400082-T0	ZENER DIODE 8V2 1/2W (TAPE TYPE) ZZ 3.0000 PC ZD210	ZD211	ZD212	
113	4500-400150-T0	ZENER DIODE 15V 1/2W +/-5% (TAPE TYPE) CH 1.0000 PC ZD602			
114	4500-400150-T5	ZENER DIODE 15V 1/2W +/-5% (TAPE TYPE)			
115	4505-2BYW36-00	HIGH SPEED RECTIFIER DIODE BYW36 2A/600V TELEFUNKEN	CH 1.0000 PC D607		
116	4505-2BYW36 05-2BYW36-T0	HIGH SPEED RECTIFIER DIODE BYW36 2A/600V (TAPE TYPE)			
117	4600-A09660-00	TRANSISTOR 2SA966Y	CH 1.0000 PC Q611		
118	4600-A10150-T0	TRANSISTOR 2SA1015Y2PA1015 (TAPE TYPE)	TW 2.0000 PC Q003	Q006	
119	4600-C18150-T0	TRANSISTOR 2SC1815Y2PC1815 (TAPE TYPE)	CH 8.0000 PC Q007	Q008	Q221 Q402 Q462 Q464 Q602
120	4600-C24822-T0	TRANSISTOR 2SC2482Y (TAPE TYPE)			
121	4600-C24822-01	TRANSISTOR 2SC2482	CH 2.0000 PC Q301	Q601	
122	4600-C27170-T0	TRANSISTOR 2SC2717 (TAPE TYPE)	CH 1.0000 PC Q101		
123	4601-D24990-00	TRANSISTOR 2SD2499 TOSHIBA (FOR HOR. DEFLECTION)	ZZ 1.0000 PC Q302		
124	4601-D24990-00	TRANSISTOR 2SD2499/3DD2499 (FOR HORIZONTAL DEFLECTION)			
125	4701-T6210J-04	I.C. TLP621 TOSHIBA (PHOTO TRANSISTOR)	JP 1.0000 PC IC603		
126	4703-L42850-10	I.C. LA4285 SANYO (3W AUDIO OUTPUT)	JP 1.0000 PC IC403		
127	4703-L76814-54	I.C. LA76814 SANYO (ONE CHIP IC FOR NTSC ONLY)	JP 1.0000 PC IC201		
128	4703-L78400-07	I.C. LA7840 SANYO (VERTICAL DEFLECTION)	JP 1.0000 PC IC301		
129	4703-L86241-42	I.C. LC863224A-5V23 SANYO (8-BIT SINGLE CHIP MICROCOMPUTER) DIP PACKAGE	JP 1.0000 PC IC001		
130	4704-R66530-05	I.C. STR-G6653 SANKEN (FLYBACK SWITCHING REGULATOR 650V 120W)	JP 1.0000 PC IC602		
131	4707-C24C04-08	I.C. ST24C04 OR M24C04 SGS (EEPROM)	SG 1.0000 PC IC002		
132	4707-H40520-16	I.C. HCF4052BF SGS (4CH SWITCH) OR 4701-A40520-16	SG 1.0000 PC IC401		
133	4707-L7805E-03	I.C. L7805CV SGS (STABILIZING)	SG 2.0000 PC IC203	IC601	
134	4707-L78090-03	I.C. L7809CV SGS (STABILIZING) OR 4717-L78090-03	SG 1.0000 PC IC302		
135	4707-L78L09-03	I.C. L78L09CV SGS TO-92 (POSITIVE VOLTAGE REGULATOR)	SG 1.0000 PC Q609		
136	4709-KA33VT-02	I.C. KA33V SAM SUNG (VT) (TAPE TYPE)	KO 1.0000 PC IC004		
137	4800-010082-00	PEAKING COIL 0.82uH	CH 1.0000 PC L102		
138	4800-011010-T0	PEAKING COIL 100uH +/-10% (TAPE TYPE)	CH 1.0000 PC L101		
139	4800-011500-T0	PEAKING COIL 15uH +/-10% (TAPE TYPE)	CH 1.0000 PC L241		
140	4800-063005-00	LINE FILTER 30mH X 2	MEN020029	CH 1.0000 PC T601	
141	4800-204575-00	PIF AND AFC COIL FOR NTSC 45.75MHz TDA8222 I.C. USE	CH 1.0000 PC L203		
142	4900-132752-00	CRYSTAL 32.768000KHz JU38 CL:12.5PF +/-20PPM	CH 1.0000 PC X001		
143	4900-135842-00	CRYSTAL 3.579545MHz HC-49U CL:16PF	CH 1.0000 PC X201		
144	4900-300625-00	NTSC-M SAW FILTER Q062QSM 45.75MHz FOR VIDEO	CH 1.0000 PC SAW101		
145	5100-041000-00	HORIZONTAL DRIVE TRANSFORMER FOR LOW VOLTAGE	CH 1.0000 PC T301		
146	5200-457W02-00	MN 181CH WORLD STANDARD FS TUNER IF45.75MHz FOR 5V W/O AFT AGC 4V F-TYPE	CH 1.0000 PC TUNER		
147	5400-910000-02	WAFER 10mm 2.35mm TJC1-2A 2 PIN	CH 2.0000 PC CN601	CN602	
148	5400-925000-02	WAFER 2.5mm H X 2 PIN	CH 1.0000 PC CN402		
149	5400-925000-06	WAFER 2.5mm H X 6 PIN	CH 1.0000 PC CN002		
150	5400-950000-05	WAFER 5MM TV-50P-05-V1 5 PIN	CH 1.0000 PC CN302		
151	5800-A3Y031-03	MAIN P.C. BOARD 304 X 246 X 1.6mm FOR 3Y03 CHASSIS W/CRT BOARD	MEN012320	CH 1.0000 PC PCB	
152	5900-E12222-00	MULTI TWIST WIRE #AWG22 1015 BLACK 120mm	CH 1.0000 PC &GND		
153	5900-E20222-60	MULTI TWIST WIRE AWG22 UL1015 BLUE 200mm	CH 1.0000 PC PE-PF		
154	5900-E40122-00	MULTI TWIST WIRE #AWG22 1015 BLACK 40mm	CH 1.0000 PC &GND1		
155	6001-350001-00	FUSE T3.15A 250V W/APPROVAL MARKING HOLLYLAND	CH 1.0000 PC F601		
156	6100-160320-40	RCA JACK H=8mm YELLOW H-TYPE	CH 2.0000 PC P404	P406	
157	6100-160320-90	RCA JACK H=8mm WHITE H-TYPE	CH 2.0000 PC P405	P407	
158	6400-030041-00	FERRITE BEAD 3.5 X 1 X 9 W/JUMPER FOR 5T01	MEN021115	CH 2.0000 PC L601	L602
159	6400-030041-01	FERRITE BEAD 3.5 X 1 X 9.5mm W/JUMPER PITCH=15mm	MEN021115	CH 2.0000 PC R618	R619
033Y-C3Y033-00M		*CRT BOARD ASSEMBLY 14" FOR 29.1mm CRT 3Y03 CHASSIS	1	ST*	
1	4100-AD1030-T0	CARBON FILM RESISTOR 10K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R523		
2	4100-AD1510-T0	CARBON FILM RESISTOR 150 OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R501	R502	R503
3	4100-AD2220-T0	CARBON FILM RESISTOR 2.2K OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R504	R507	R508
4	4100-AD2710-T0	CARBON FILM RESISTOR 270 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R524		
5	4100-AD3910-T0	CARBON FILM RESISTOR 390 OHM 1/4W +/-5% (TAPE TYPE)	CH 3.0000 PC R505	R506	R515
6	4100-BF2720-T0	CARBON COMPOSITION RESISTOR 2.7K OHM 1/2W +/-5% (TAPE TYPE)	KO 3.0000 PC R509	R510	R511
7	4100-DG1540-01	METAL OXIDE FILM RESISTOR 150K OHM 1W +/-5%	CH 1.0000 PC R530		
8	4100-DH1530-01	METAL OXIDE FILM RESISTOR 15K OHM 2W +/-5%	CH 3.0000 PC R512	R513	R514
9	4300-AF103H-T0	CERAMIC CAPACITOR 0.01uF 50V +/-20% (TAPE TYPE)	CH 1.0000 PC C505		
10	4300-AF151C-T0	CERAMIC CAPACITOR 150PF 50V +/-5% (TAPE TYPE)	CH 3.0000 PC C501	C502	C503
11	4300-AT102D-T0	CERAMIC CAPACITOR 0.001UF 2KV +/-10% (TAPE TYPE)	CH 1.0000 PC C504		
12	4300-BC477E-00	ELECTROLYTIC CAPACITOR 470uF 16V +/-20%	CH 1.0000 PC C506		
13	4300-BD106E-T0	ELECTROLYTIC CAPACITOR 10uF 25V +/-20% (TAPE TYPE)	CH 1.0000 PC C507		
14	4500-141481-T0	NORMAL RECTIFIER DIODE 1N4148 150mA/100V(TAPE TYPE)	ZZ 3.0000 PC D505	D506	D507
15	4500-215800-T0	HIGH SPEED RECTIFIER DIODE BA158 600V/1A(TAPE TYPE)	CH 1.0000 PC D504		
16	4600-C18150-T0	TRANSISTOR 2SC1815Y2PC1815 (TAPE TYPE)	CH 1.0000 PC Q508		
17	4600-C24822-01	TRANSISTOR 2SC2482	CH 3.0000 PC Q501	Q502	Q503
18	5400-900000-01	WAFER 2.35mm 1 PIN	CH 1.0000 PC GND		
19	5400-925000-04	WAFER 2.5mm H X 4 PIN	CH 1.0000 PC CN301		
20	5400-925000-05	WAFER 2.5mm H X 5 PIN	CH 1.0000 PC CN201		
21	5401-020342-04	PIN 04 + HOUSING 04 (TJC3) + 340mm FLAT CABLE (3C) UL2468 AWG22	CH 1.0000 PC CN310B		
22	5401-020402-05	PIN 05 + HOUSING 05 (TJC3) + 400mm FLAT CABLE UL2468 AWG24	CH 1.0000 PC CN201B		
23	5800-C3Y010-01	CRT P.C. BOARD 98 X 78 X 1.6mm FOR 3Y01 CAI HONG 29.1mm AUTO WHITE BALANCE			CH 1.0000 PC PCB

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Preparado por: Rolando Céspedes

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24	5900-G40106-00	COPPER JUMPER 0.6MM DIA. L=40mm	H 8.0000 PC J500 J501 J502 J505 J506 Q505 Q506 Q507
25	6100-061242-29	"CRT SOCKET GZS12-4-2A OR B OR E FOR 14"" 29.1mm CAI HONG C.R.T.	" CH 1.0000 PC CN504
	043Y-D1422Y-01M	CONTROL ASSEMBLY FOR 1422 3Y02 CHASSIS 8 KEYS	MEN021412 1 ST
1	4100-AD1000-T0	CARBON FILM RESISTOR 10 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RR1
2	4100-AD1020-T0	CARBON FILM RESISTOR 1K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD11
3	4100-AD1130-T0	CARBON FILM RESISTOR 11K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD4
4	4100-AD2020-T0	CARBON FILM RESISTOR 2K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD9
5	4100-AD2230-T0	CARBON FILM RESISTOR 22K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD3
6	4100-AD3020-T0	CARBON FILM RESISTOR 3K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD8
7	4100-AD4320-T0	CARBON FILM RESISTOR 4.3K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD7
8	4100-AD4720-T0	CARBON FILM RESISTOR 4.7K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD6
9	4100-AD5630-T0	CARBON FILM RESISTOR 56K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD2
10	4100-AD6820-T0	CARBON FILM RESISTOR 6.8K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC RD5
11	4300-AF223H-T0	CERAMIC CAPACITOR 0.022uF 50V +80-20% (TAPE TYPE)	CH 1.0000 PC CR1
12	5300-142812-00	INFRARED RECEIVER MODULE 38KHz GP1U281Q/GP1UA281QK VERTICAL TYPE	KO 1.0000 PC M002
13	5400-925000-05	WAFER 2.5mm H X 5 PIN	CH 1.0000 PC CN001
14	5401-420362-05	90 DEGREE PIN 05+HOUSING 05/(TJC3)+360mm FLAT CABLE UL2468 AWG26	CH 1.0000 PC CN003
15	5500-110150-00	TACT SWITCH VERTICAL TYPE H = 5mm KPT-1105A 4 PINS CH	8.0000 PC SW1 SW2 SW3 SW4 SW5 SW6 SW7 SW8
16	5700-150120-00	LED LIGHT EMISSION 3.1mm RED LONG LEAD	MEN021412 CH 1.0000 PC LED001
17	5800-D1422Y-01	"CONTROL P.C.BOARD 174 X 30 X 1.6mm FOR 1422, 3Y01 CHASSIS 8 KEYS	" CH 1.0000 PC PCB
18	5900-G40106-00	COPPER JUMPER 0.6MM DIA. L=40mm	CH 1.0000 PC JN2
	0608-F5N010-00M	HANDSET ASSEMBLY FOR IC UPD6134 5N01 CHASSIS	MEN021211 1 ST
1	4100-AB1040-T0	CARBON FILM RESISTOR 100K OHM 1/16-1/6W +/-5% (TAPE TYPE)	CH 1.0000 PC R805
2	4100-AD0100-T0	CARBON FILM RESISTOR 1 OHM 1/4W +/-5% (TAPE TYPE)	CH 2.0000 PC R802 R803
3	4300-AF104H-T0	CERAMIC CAPACITOR 0.1uF 50V +80-20% (TAPE TYPE)	CH 1.0000 PC C804
4	4300-AF221C-T0	CERAMIC CAPACITOR 220PF 50V +/-5% (TAPE TYPE)	CH 2.0000 PC C802 C803
5	4300-BA476E-02	ELECTROLYTIC CAPACITOR 47UF 4V-6.3V +/-20% (4 x 5mm)	CH 1.0000 PC C801
6	4500-800103-00	INFRARED DIODE ZZ 2.0000 PC LED801 LED802	
7	4600-C21200-T0	TRANSISTOR 2SC2120Y (TAPE TYPE)	CH 1.0000 PC Q801
8	4738-UB1340-20	I.C. uPD6134GS NEC (INFRARED REMOTE CONTROL TRANSMISSION)	CH 1.0000 PC IC801
9	4900-245532-01	CERAMIC RESONATOR 455KHz TW455E FOR HANDSET (90 DEGREE PIN)	CH 1.0000 PC X801
10	5800-FHS08A-00	"HANDSET P.C.BOARD 129 X 53 X 1.6mm NEC UPD6134 IC FOR 4S, P.N CHASSIS"	CH 1.0000 PC PCB801
11	5900-G40106-00	COPPER JUMPER 0.6MM DIA. L=40mm	CH 1.0000 PC J801
	2014-T3Y031-00M	"TABLE ASSEMBLY FOR 14"" CAI HONG CRT 37SX110Y22-DC05 (NORTH) B+110V 29.1mm"	MEN021175 1 ST
1	4100-AD1030-T0	CARBON FILM RESISTOR 10K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R329
2	4100-AD1040-T0	CARBON FILM RESISTOR 100K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R318
3	4100-AD1220-T0	CARBON FILM RESISTOR 1.2K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R236
4	4100-AD2200-T0	CARBON FILM RESISTOR 22 OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R628
5	4100-AD5640-T0	CARBON FILM RESISTOR 560K OHM 1/4W +/-5% (TAPE TYPE)	CH 1.0000 PC R237
6	4100-DG1020-01	METAL OXIDE FILM RESISTOR 1K OHM 1W +/-5%	CH 1.0000 PC R309
7	4100-DG1520-01	METAL OXIDE FILM RESISTOR 1.5K OHM 1W +/-5%	CH 1.0000 PC R331
8	4100-DH0068-01	METAL OXIDE FILM RESISTOR 0.68 OHM 2W +/-5%	CH 1.0000 PC R317
9	4100-DH0120-01	METAL OXIDE FILM RESISTOR 1.2 OHM 2W +/-5%	CH 1.0000 PC R320
10	4100-DH0390-01	METAL OXIDE FILM RESISTOR 3.9 OHM 2W +/-5%	CH 1.0000 PC R316
11	4100-DH2200-01	METAL OXIDE FILM RESISTOR 22 OHM 2W +/-5%	CH 1.0000 PC J143
12	4100-DH2710-01	METAL OXIDE FILM RESISTOR 270 OHM 2W +/-5%	CH 1.0000 PC R326
13	4300-EF104D-T0	METALLIZED POLYESTER FILM CAPACITOR 0.1UF 63-100V +/-10% (TAPE TYPE)	CH 1.0000 PC C327
14	4300-EJ474C-00	METALLIZED POLYPROPYLENE FILM CAPACITOR 0.47uF 250V +/-5%	KO 1.0000 PC C311
15	4300-ET392C-00	METALLIZED POLYPROPYLENE FILM CAPACITOR 0.0039uF 2KV +/-5%	MEN021175 CH 1.0000 PC C313
16	4300-ET762C-00	METALLIZED POLYPROPYLENE FILM CAPACITOR 0.0076uF 2KV +/-5%	CH 1.0000 PC C314
17	4500-141481-T0	NORMAL RECTIFIER DIODE 1N4148 150mA/100V(TAPE TYPE)	ZZ 1.0000 PC D202
18	4500-400082-T0	ZENER DIODE 8V2 1/2W (TAPE TYPE)	ZZ 1.0000 PC D201
19	4800-044402-13	"LINEAR COIL 44uH 13mm W/BACKET FOR 14""-21"" TV (SHORT LEAD PITCH=5mm)	" CH 1.0000 PC L301
20	4800-081000-01	"DEGAUSSING COIL FOR 14"" TV L=1000mm T=70110V-260V"	CH 1.0000 PC H602
21	5010-34010B-51	"14"" CAI HONG COLOR PICTURE TUBE 37SX110Y22-DC05 (SOUTH) DIA. 29.1mm"	CH 1.0000 PC CRT
22	5100-050014-00	"14"" FLYBACK TRANSFORMER (MULTI-LAYER) JF0501-1901"	CH 1.0000 PC T302
23	5100-063500-00	SWITCHING TRANSFORMER BCK-35-087A FOR 3Y03	MEN012314 CH 1.0000 PC T603
24	5400-215542-01	"HOUSING 01 + 260mm 1015 #20 WIRE + 540mmKNITTING COPPER WIRE (FOR 14"" TV)"	CH 1.0000 PC H501
25	5400-250402-05	HOUSING 05 + 400mm WIRE X 4 1=RED 3=BLUE4=YELLOW 5=GREEN UL1015 AWG22	CH 1.0000 PC H301
26	5900-G40106-00	COPPER JUMPER 0.6MM DIA. L=40mm	CH 3.0000 PC C3F1 J019 JW1
	273Y-1422NM-00M	NON COMMON PARTS FOR MODEL 1422NM 3Y03 CHASSIS	1 ST
1	5401-220302-02	HOUSING 02 (TJC3) + 300mm WIRE X 2 1=BLACK 2=WHITE UL1007 AWG24	CH 1.0000 PC SPLINE
2	5500-210104-00	TACT SWITCH FOR NTSC POWER ON/OFF	KO 1.0000 PC SW
3	5600-116051-23	SPEAKER 16 OHM 3W 5W MAX 2 x 3 1/2 INCH fo <or= 200Hz SENS >or= 85dB	CH 2.0000 PC SPL SPR
4	5900-A27375-08	"AC LINE CORD 9' VDE STANDARD W/HOLDER + 2 PIN HOUSING X 1 FOR 14""-21"""	CH 1.0000 PC H601
5	5900-B50222-00	MULTI TSIWT WIRE #AWG22 1007 BLACK 500mm	CH 1.0000 PC SP-
6	5900-B50222-90	MULTI TSIWT WIRE #AWG22 1007 WHITE 500mm	CH 1.0000 PC SP+

Televisor color 14"

Preparado por: Rolando Céspedes

ELECTRICAL SPECIFICATION

REFERENCE NO. : COV-ESP3Y03
REVISION : 0
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14" - 21" COLOUR TV
NTSC M, NTSC PLAYBACK, 1 AV IN OR 2 AV IN
(OPTION), 1 AV OUT, MTS(OPTION), 181CH F.S.
TUNER
AC 110V 60Hz, AC90V - 260V(OPTION) 60Hz

*MATCH TO COT-ESP3Y03 (REV 0)

CHECKED BY :

APPROVED BY :

ELECTRONIC ENGINEER

ENGINEERING MANAGER

CHECKED BY :

APPROVED BY :

ELECTRONIC ENGINEER

ENGINEERING MANAGER

REVISION NO.	REVISION DETAILS	DATE
0	INITIAL RELEASE	24/10/2001

ELECTRICAL SPECIFICATION

REFERENCE NO. : COT-ESP3Y03
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SUPPLY VOLTAGE : AC 110V, AC90V - 260V(OPTION) 60 Hz

1.	SYSTEM	NTSC M(3.58)		
		NTSC 3.58		
2.	CHANNELS RECEIVED	CABLE	CH1-CH125	
		ANTENA	CH2-CH69	
3.	SCANNING	HORIZONTAL	15734Hz	
		VERTICAL	60Hz	
4.	VISION INTERMEDIATE FREQUENCY		45.75 MHz	
5.	SOUND INTERMEDIATE FREQUENCY	FM	41.25 MHz (M)	
6.	INTER-CARRIER FREQUENCY		4.5 MHz (M)	
7.	CHROMA IF FREQUENCY PAL/NTSC		42.17 MHz	
8.	ANTENNA INPUT IMPEDANCE		75 OHM	
9.	CRT		14",21" FST	
		<u>NORMAL</u>	<u>LIMIT</u>	<u>UNIT</u>
10.	VIDEO SENSITIVITY AT 30dB S/N	(ACCORDING TO CCEE)		
	VHF	45	≤48	dBuV
	UHF	50	≤51	dBuV
	(50% WHITE, 1KHz-50Hz, UNWEIGHTED, SC TRAPPED)			
11.	FM SOUND SENSITIVITY AT 30dB S/N	20	≤30	dBuV
12.	SYNCHRONIZING SENSITIVITY	25	≤30	dBuV
13.	AGC CHARACTERISTIC	65	≥60	dB
14.	SELECTIVITY	40	≥30	dB
15.	I.F. REJECTION	63	≥50	dB
16.	IMAGE REJECTION	60	≥50	dB
17.	AUDIO OUTPUT POWER 1khz (10% THD)	>1.5 x 2	≥1.5 x 2	W
18.	MAXIMUM OUTPUT POWER	>3 x 2	≥3 x2	W
19.	THD SUPPLYING 1KHz 500mW TO SPKR	0.3	≤0.5	%
20.	MINIMUM VOLUME HUM	3	≤10	mVrms

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		<u>NORMAL</u>	<u>LIMIT</u>	<u>UNIT</u>
21.	MAX. BRIGHTNESS 100% WHITE, CONTROLS MAX	100	≥80	cd/m ²
22.	H SYNC. PULL IN	±600	≥400 ≤-400	Hz
23.	V.SYNC. PULL IN	--	45-64	Hz
24.	OVERSCAN	94	88-96	%
25.	COLOUR SENSITIVITY	26	≤35	dBuV
26.	LINEARITY NTSC			
	HORIZONTAL	--	≤10/12	%
	VERTICAL	--	≤8/15	%
27.	RESOLUTION			
	HORIZONTAL	400	≥350	LINES
	VERTICAL	450	≥450	LINES
28.	PICTURE POSITION			
	HORIZONTAL	--	≥-5 ≤+5	mm
	VERTICAL	--	≥-6 ≤+6	mm
29.	CONVERGENCE			
	C	0.3	≤0.4	mm
	T, B, R, L	1.0	≤1.6	mm
	TR, TL, BR, BL	1.6	≤2.0	mm
30.	WHITE BALANCE (9300°K, LOW BRI <10cd/m ² , HI BRI >80cd/m ²) (SET BURST OFF OF PATTERN GENERATOR OR SET COLOUR SAT. TO MIN MEASURED BY MINOLTA CA-100)			
		--	x:0.288±0.015	
		--	y:0.298±0.015	
31.	HIGH VOLTAGE (.CRT Spec. .)	25	≤27	KV
32.	X-RAY RADIATION	0.2	≤0.2	MR/HR
33.	REMOTE CONTROL RECEPTION (30 DEGREES)	6	≥5	m
34.	VIDEO INPUT (AV1 /AV2)	1	0.9-1.1	Vp-p
35.	AUDIO OUTPUT(RCA, AV1 / LINE OUT)	--	0.5(-0.1+0.3)	Vrms
36.	COLOUR LEVEL (RED CATHODE, STANDARD PICTURE MODE, COLOUR BAR TEST PATTERN)	90	≥80	%
37.	POWER CONSUMPTION	54	≤ 70	W
38.	STANDBY POWER CONSUMPTION (AT 220V AC)	--	≤ 5.5	W
39.	TELETEXT SENSITIVITY	--	≤50	dBuV
40.	FREQUENCY RESPONSE			
	(1 KHz = 0dB, REF : 500mW)			
	100Hz	+3, -6	+3, -6	dB (TBC)
	10KHz	+3, -6	+3, -6	dB

REFERENCE NO. : COT-ESP3Y03
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		<u>NORMAL</u>	<u>LIMIT</u>	<u>UNIT</u>
41.	DIELECTRIC STRENGTH TEST (3 KV Vrms 2SEC)	--	≤6	mArms
42.	OPERATING WORKING VOLTAGE RANGE	--	110-260	V
43.	AFC PULL IN RANGE	--	≥+1 ≤-0.75	MHz
44.	TV/AV CROSSTALK (REF : 2W) (WEIGHTED DIN NOISE)	48	≥40	dB
45.	PICTURE MODE (••••)			
	CUSTOM:			PESONAL PREFERENCE.
	STANDARD:			Max Contrast, Half Bright.
	MOVIES:			2/3 CONTRAST, 1/3 Bright.
	SPORTS:			Max Contrast, Half Bright.
	MILD:			2/3 Contrast, Half Bright

TEST CONDITIONS :

TEMPERATURE : 23°C ±5°C
 HUMIDITY : 50% ±20
 OPERATING VOLTAGE : AC 110 Vrms ±5V 60Hz
 PICTURE MODULATION DEPTH : 87.5%
 SOUND MODULATION DEPTH : 54%
 PICTURE TO SOUND RATIO : 10dB
 VIDEO REFERENCE OUTPUT AT RED GUN : 25 Vp-p
 AUDIO REFERENCE OUTPUT AT SPEAKER : 1 W
 ANTENNA INPUT IMPEDANCE : 75 OHM UNBALANCED
 WHITE BALANCE CHECKED BY MINOLTA CA-100

