

Sanyo CP21SE1 Service Manual

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SERVICE MANUAL Colour Television

Specifications

Power Source

FILE NO.

Model No. CP21SE1

(Australia/New Zealand)

Service Ref. No. CP21SE1-00





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Related Manuals for Sanyo CP21SE1

TV Sanyo CP21SE1(V) Service Manual (37 pages) TV Sanyo 21VF1K Instruction Manual Sanyo colour television instruction manual (20 pages) TV Sanyo CP14SE1 Instruction Manual (13 pages) Colour television Sanyo CP14G1 Service Manual (26 pages) Colour television Sanyo CP21KX2 Service Manual (30 pages)

Summary of Contents for Sanyo CP21SE1

Page 1 0-11, 5A(Aus), 1-11(NZ) - NOTE - UHF: 21-69, A14-A69, J13-J62, 28-69(Aus) Service Ref. No. CP21SE1-00 is electrically the CATV: S1-S41, X, Y, Z, Z+1, Z+2 same as Service Ref. No. CP21SE1-50. Video IF38.0 MHz The difference between Service Ref.

Page 2: Table Of Contents

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Page 3: Chassis Block Diagram

Chassis Block Diagrams SDA/SCL...

Page 4 Chassis Block Diagrams System Control (AS-042B) IIC SDA IIC SCL...

Page 5: Ic Block Diagrams

IC Block Diagrams IC201 < CPU/IF/Video/Chroma/Def.> LA76931AD56S1-E 0.022U 0.022U 0.1U 1500P 10K 0.01U 560 0.47U 100U 2.2U 0.01U 680K 100U 0.01U 100U 0.01U 0.047U 0.1U 4.43M V RAMP 0.47U 0.1U 0.015U (METAL FILM) 4.7K 100U 0.01U 0.015U 0.1U 1CHIP GND 100U 0.01U CPU GND...

<u>Page 6</u> IC Block Diagrams IC001 < Audio AMP.> LA42032-E IC501 < Vertical Output > LA78040/LA78040N Standby Thermal Protection Input amplifier +OUT1 Output amplifier $30k\Omega$ - OUT1 Pump Vcc / ground shorting protection circuit Load shorting protection circuit Thermal protection circuit MUTE +OUT2 Output amplifier $30k\Omega$...

Page 7: Cpu Port Functions

CPU Port Functions Pin No. Function Function Name FBP-IN Fly Back Pulse Input SIFout SIF Output (NICAM) YC-C Y/C-C Input function IFAGC-F IF AGC Filter YC-Y Y/C-Y Input function C-APC2 AFC filter pin of chroma VCO. SIF-IN SIF Input (3.58MHz) FM-F Filter for the DC loop of FM detector DVD-Y...

Page 8: Service Adjustment With Replacing Memory Ic(Ic801)

Service Adjustments with Replacing Memory IC(IC801) Note: The CPU (IC201) and memory IC (IC801) store the service adjustments data and controls data for each circuit. When the Memory IC(IC801) is replaced, some of the service adjustments should be readjusted to obtain the best performance. The necessary service adjustments are carried out by using the RC handset. Please set up the TV set with following steps [1] to [2].

Page 9 Service Adjustments with Replacing Memory IC(IC801) [Entering to Service Mode]

Press and hold the MENU button on the Remote Control and press the VOLUME (+) button on the TV set. Following setting items appears on the screen. MENU Display for [RF AGC] RF AGC adjustment MENU Read Status SI.

<u>Page 10</u> Service Adjustments with Replacing Memory IC(IC801) Following table shows the initial values which have been stored in the CPU ROM, and items for the service adjustments. Service mode adjustments table in CPU ROM DATA INITIAL DATA INITIAL ITEM RANGE SETUP DESCRIPTION ITEM RANGE SETUP...

Page 11 Service Adjustments with Replacing Memory IC(IC801) DATA INITIAL DATA INITIAL ITEM RANGE SETUP DESCRIPTION ITEM RANGE SETUP DESCRIPTION DATA DATA Gain Control LV1116 IFTEST1 0, 1 IF Test 1 AUDGAIN 130 L/RGAIN L/R Output Gain Control LV1116 TRAPT Sound Trap-Test H-FRQ 0~63 Horizontal Frequency...

Page 12 Service Adjustments with Replacing Memory IC(IC801) DATA INITIAL ITEM RANGE SETUP DESCRIPTION DATA 0~255 ROM Correction 0~255 ROM CORECTION 0~255 ROM COR

Page 13: Service Mode Adjustments

Service Mode Adjustments Items 17-20, 22-24 GREY SCALE (1) Receive a monochrome circular pattern. (2) Set the brightness and colour to normal, contrast to maximum. (3) Enter to the service mode. (4) Select No. 17 RBIAS (Red Bias), No, 18 GBIAS (Green Bias), and No. 19 BBIAS (Blue Bias) and set each data to 0 by pressing the VOLUME + or - key.

Page 14 Service Mode Adjustments Following adjustments should be carried out when the memory IC is replaced. How to enter the service mode and adjust values, please refer to " Entering to Service mode" on page 9. Item 01 [RF AGC] AGC Item 05 [V-SIZ] VERTICAL SIZE NOTE: Do not attempt this adjustment with weak signal.

Page 15: Service Adjustments

Service Adjustments Following adjustments are not required to readjust when replacing the memory IC. B-VOLTAGE SUPPLY CHECKING HIGH VOLTAGE CHECK (1) Connect DC meter to TP-B and the ground. Note: +B (+130V) Voltage Check and Grayscale Adjustment (2) Tune the receiver to an active channel and synchro- must be completed before attempting High Voltage Check.

Page 16: Special Function

Special Function The following special functions can be set up on this TV How to set the special function: set. Note: When making the VOLUME LOCK setting, set the (1) Volume Lock setting desired maximum sound volume by pressing the VOLUME + or - button before entering Special Function setting mode.

Page 17: Purity And Convergence Adjustment

Purity and Convergence Adjustment CAUTION: The Convergence and Purity adjustments have been made at the factory. Readjustment should be made only after picture tube or deflection yoke replacement, following the steps below: PURITY ADJUSTMENT 8. Tighten the mounting screw of the Deflection Yoke. Adjust 1.

Page 18: Mechanical Disassembly

Mechanical Disassembly CABINET BACK REMOVAL 1. Refer to Figure 1, remove 10 screws. 2. Pull off cabinet back and remove. INPUT MONITOR AV1/DVD AUDIO ANT. 75 Ω S-VIDEO VIDEO Figure 1. Cabinet Back Removal Protection Circuit This TV set has a built-in power supply protection circuit. It is provided to protect the TV set in case of a power supply circuit malfunctions.

Page 19: Cabinet Parts List

610 229 8406 SPRING-E3HA 610 331 7274 DEC IND-BB2A 610 331 7380 BUTTON UNITED-BB2A 610 331 7588 CABINET FRONT-BB2A 645 069 2185 BADGE,SANYO*43.5X10L43.5 610 331 7540 CABINET BACK-BB2A 645 071 1145 ASSY,REMOCON JXPSC 652 002 0634 REMOCON,JXPSG 610 313 3393 RC-BATTERY LID-JXPLA...

Page 20: Chassis Electrical Parts List

BB2V/BB2W Chassis Electrical Parts List Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a mark in this parts list and the circuit diagram show components whose value have special significance to product safety.

Page 21 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4051472215 TR 2SA1037AK-S-T146 4050599903 TR 2SD1913-R-RA 4050020318 TR 2SA1037K T146 R 4050600005 TR 2SD1913-S-RA 4050020417 TR 2SA1037K T146 S Q681 4051413317 TR KTC3198-GR-T 4050026726 TR 2SA1179-M6-TB 4050118411 TR 2SC1740S-Q 4050026924 TR 2SA1179-M7-TB 4050118510...

Page 22 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description C011 4040968504 ELECT 10U M 4040875406 ELECT 22U M 4040848905 ELECT 10U M 4032001529 ELECT 22U M 4031957748 ELECT 10U M C202 4031793217 POLYESTER 0.015U J C013 4041087709 ELECT 220U M C203 4032152211...

Page 23 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4032001123 ELECT 1U M C511 4032113519 ELECT 10U M C3710 4040968405 ELECT 1U M C514 4032118019 ELECT 4.7U M 4040848806 ELECT 1U M C515 4040972303 ELECT 1K U M 4032001123 ELECT 1U M...

Page 24 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4034084510 CERAMIC 470P K 4011050613 MT-GLAZE 10K JA 1/16W C634 4032475023 CERAMIC 470P K R1001 4012562719 MT-GLAZE 75 JA 1/10W 4034084510 CERAMIC 470P K 4011134412 MT-GLAZE 75 JA 1/16W 4034084510 CERAMIC 470P K...

Page 25 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4011056011 MT-GLAZE 5.6K JA 1/16W 4011050910 MT-GLAZE 120 JA 1/16W R114 4011523216 MT-GLAZE 330 JA 1/10W R243 4010679211 OXIDE-MT 390 JA 4011054017 MT-GLAZE 330 JA 1/16W R244 4012566311 MT-GLAZE 47K JA 1/10W R115 4010272135...

Page 26 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description R635 4010075815 CARBON 120K JA 1/2W 4011055915 MT-GLAZE 560 JA 1/16W R636 4011624111 MT-GLAZE 5.6K JA 1/10W R893 4012556015 MT-GLAZE 1M JA 1/10W 4011056011 MT-GLAZE 5.6K JA 1/16W 4011058015 MT-GLAZE 1M JA 1/16W R640...

Page 27 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4070541827 ZENER DIODE RD11EB3 4070096921 DIODE RM11C D1007 4070638329 ZENER DIODE MTZJ11C 4080614003 DIODE ERC05-10B 4070541827 ZENER DIODE RD11EB3 D606 4070066310 DIODE ERC05-10BV1 D1008 4070638329 ZENER DIODE MTZJ11C 4070096921 DIODE RM11C 4070541827 ZENER DIODE RD11EB3...

Page 28 BB2V/BB2W Ref. No. Part No. Description Ref. No. Part No. Description 4070134336 DIODE 1S2076A SW601 6450590061 SWITCH, POWER 1P-1TX1 D742 4080093204 DIODE 1N4148 VA601 4071712008 VARISTOR ERZV14D471 4070124426 DIODE 1SS133 4072471300 VARISTOR SVC471D-07ABW7 4070134336 DIODE 1S2076A VA602 4080575809 TH ICL B57237S0220M054 X161 4210121906 SAW F TSF6376BL...

Page 29: Component Locations

Component Locations Main Board (Parts Side) CH UP CH DOWN VOL UP VOL DOWN MENU AV/TV SW1901 SW1902 SW1903 SW1904 SW1905 SW1906 Q1902 A1901A AC6A1 K1005A D1910A C1902 CHASSIS K1005 D1910 L601-H7 L601-H8 KE-1 KE-2 L601-H2 L601-H1 SW601-H1 C618 C618A L601-H3 L601-H4 IC001-1...

Page 30 Component Locations CRT Board (Parts Side) K701-M R732 C701 K701L JS741 Q721 R743 JW7Y C702 C721 R703 D742 C710 R723 R702 D741 R701 R724 C703 R707 R704A R704 R707A Q701A C705 Q701 R715 R705 D731 Q703A D732 J701 D733 Q705 Q703 R706 R717...

Page 31: Voltages And Waveforms Charts

Voltages and Waveforms Charts Note: Voltages and waveforms were measured with colour bar signal and controls adjusted for normal picture. Main Board Q002 Q1001 Q1002 Q1003 Q111

Q122 Q130 Q131 Q132 Q133 Q1902 Q3701 E 4.2V 4.1V E 3.3V E 0.5V E 4.9V E 0.5V 8.5V...

Page 32 B 2.6V B 2.2V B 2.3V B 0.9V Q701-C Q701-B Q703-C Q703-B Q705-C Q705-B <Bout> <B drive> <G-out> <G drive> <R-out> <R drive> 4.7Vp-p 112Vp-p 4.6Vp-p 101Vp-p 4.6Vp-p 112Vp-p SANYO Electric Co., Ltd. Oct. /'06 /30 CPS Printed In Indonesia...

<u>Page 33</u> Allowable error (\pm 5%) scope and a low capacity probe. N: Metalized carbon Kind (M.carbon) S: Oxied metalized 8. This circuit diagram covers a basic or representative chassis only. CP21SE1-00 W: Wire wounding POSISTER Rated wattage (1/2W) There SERVICE C: Solid...