



Sanyo DP47840 Service Manual

Remote control digital color television

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SERVICE MANUAL

Servicing should be performed by only trained and qualified service personnel.

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DP47840, N8VE, PRODUCT CODE 113014104

**Remote Control Digital
 Color Television**

FILE NO.

DP47840

ORIGINAL VERSION

Chassis No. P47840-00

NOTE: Match the Chassis No. on

the unit's back cover with
 the Chassis No. in the
 Service Manual.

**If the Original Version
 Service Manual Chassis
 No. does not match the
 unit's, additional Service**

Literature is required. You
**must refer to "Notices" to the
 Original Service Manual**
 prior to servicing the unit.

Specifications

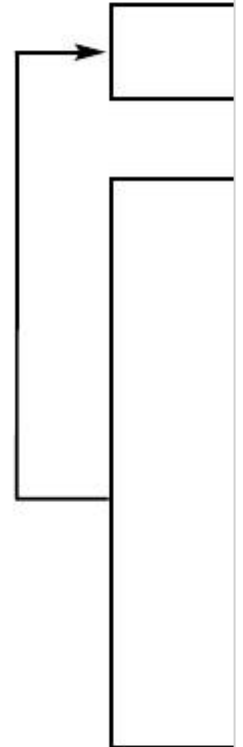
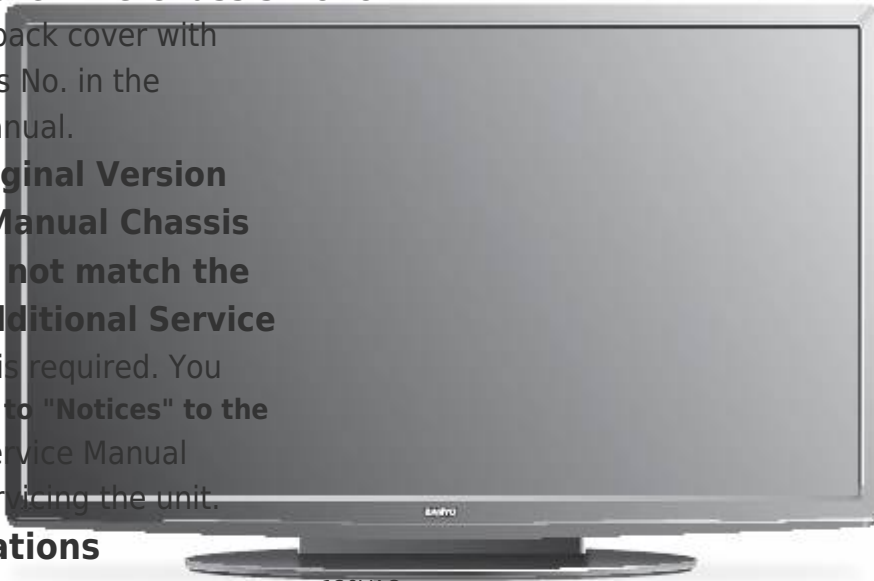
POWER RATING	120VAC
ANTENNA INPUT IMPEDANCE.....	75Ω
RECEIVING CHANNEL	2 - 13 (VHF),
REMOTE READY.	36 KEY REMOTE CONTROL
SOUND OUTPUT.....	10.0 W/CH
INTERMEDIATE FREQUENCY	
PICTURE IF CARRIER	45.75MHz
SOUND IF CARRIER	41.25MHz
COLOR SUB CARRIER	42.17MHz
CABINET DIMENSIONS	
WIDTH	1130mm
HEIGHT.....	746mm
DEPTH INCLUDING BASE.....	324mm

REFERENCE No.

(U.S.A.)

(CANADA)

221 W (AVG.)
 UHF/VHF/CATV
 DIGITAL
 14 - 69 (UHF),
 01, 14-94, 95-135 (CATV)



1-135 (DIGITAL)

SM

780182

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Related Manuals for Sanyo DP47840

[HDTV Sanyo DP47840 Owner's Manual](#)

47" 1080p hdtv lcd (56 pages)

[Color television Sanyo DS19330 Service Manual](#)

Remote control (28 pages)

Summary of Contents for Sanyo DP47840

[Page 1: Table Of Contents](#)

HEIGHT 746mm DEPTH INCLUDING BASE324mm DP47840, N8VE, PRODUCT CODE 113014104 REFERENCE No.

[Page 2: Safety Instructions](#)

SAFETY INSTRUCTIONS SAFETY PRECAUTIONS WARNING: The chassis of this receiver has a floating ground with the potential of one half the AC line voltage in respect to earth ground. Service should not be attempted by anyone not familiar with the precautions necessary when working on this type of equipment.

[Page 3: Service Adjustments](#)

SERVICE ADJUSTMENTS GENERAL This set has an On-screen Service Menu system included in Volume - the CPU that allows remote operation for most of the Enter Service Menu service adjustments. ON-SCREEN SERVICE MENU SYSTEM 1. Enter the Service Menu: • Turn off the receiver and disconnect the AC power supply.

[Page 4: On-Screen Service Menu](#)

ON-SCREEN SERVICE MENU Table 1. ON-SCREEN SERVICE MENU When IC5750 (Flash Memory) is replaced, check the bus data to confirm they are the same as below. See page 3 for On-Screen Service Menu access and adjustments. Title Initial Data Note MUTE Audio mute at Power ON Volume setup inspection...

[Page 5: Power Failure Circuit](#)

POWER FAILURE CIRCUIT Check the following if the unit is turned off by the power Internal sub_CPU on main IC 5500 is programmed so the failure detector. set will go to standby mode when there is circuit failure as described below. (Refer to "Block Diagram Power Lines".) 1.

[Page 6: Mechanical Disassembly](#)

MECHANICAL DISASSEMBLY CAUTION: This LCD TV uses several different kinds of screws. Using the correct screw is necessary to prevent damage. Lead wires must be redressed to their previous locations after servicing. The Earth sheet and gasket are provided to pre-vent interference to other radio and television receivers.

[Page 7](#) ELECTROSTATICALLY SENSITIVE DEVICES Many solid-state devices (especially Integrated Circuits) are Electrostatically Sensitive, and, therefore, require special handling techniques as described under "Servicing Electrostatically Sensitive Devices," on page two in this service literature. BACK CABINET REMOVAL Remove 17 screws to take the back cabinet off. (C: 3x14, 13pcs;...

[Page 8: Chassis Electrical Parts List](#)

CHASSIS ELECTRICAL PARTS LIST CAUTION: To Protect against electrical shock and for continued product safety, refer to SAFETY PRECAUTIONS and PRODUCT SAFETY NOTICE on Page 2. PRODUCT SAFETY NOTICE PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER. COMPONENTS INDICATED BY A IN THIS PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATE COMPONENTS IN WHICH SAFETY CAN

BE OF SPECIAL SIGNIFICANCE.

[Page 9](#) Schematic Schematic Part No. Part No. Description Description Location Location
C5531 F1G1C104A077 CERAMIC 0.1U K "ASSY,PWB,DIGITAL_Z-N8VE" C5532 F1J0J106A004
CERAMIC 10U K 6.3V CAPACITORS C5532 F1J0J106A020 CERAMIC 10U K 6.3V C001
F1G1C104A077 CERAMIC 0.1U K C5533 F1G1C104A077 CERAMIC 0.1U K C003 F1G1C104A077
CERAMIC 0.1U K...

[Page 10](#) Schematic Schematic Part No. Part No. Description Description Location Location
C5586 F1G1E473A091 CERAMIC 0.047U K C6330 F1G1C104A077 CERAMIC 0.1U K C5588
F1G1E473A091 CERAMIC 0.047U K C6332 F2G1C221A066 ELECT 220U M C5590 F1G1E473A091
CERAMIC 0.047U K C6500 F1G1C104A077 CERAMIC 0.1U K C5592 F1G1C104A077 CERAMIC...

[Page 11](#) Schematic Schematic Part No. Part No. Description Description Location Location
IC6500 C0JBAA000502 "IC TC7SET08FU(5L,JF,T" TXXLBB006—P TR MMBTSC3928R
C0JBAA000505 IC 74AHCT1G08GW Q6251 B1ADCF000194 TR ISA1235AC1F IC6530
C0JBAA000502 "IC TC7SET08FU(5L,JF,T" B1ADCF000201 TR ISA1235AC1E C0JBAA000505 IC
74AHCT1G08GW TXXLBB005—P TR MMBTSA1235F IC6560 C0JBAA000502 "IC
TC7SET08FU(5L,JF,T" Q6252 B1ABDF000013 TR 2SC3928A1R...

[Page 12](#) Schematic Schematic Part No. Part No. Description Description Location Location
R5518 D0GB101JA069 MT-GLAZE 100 JA 1/10W R5576 D0GB103JA072 MT-GLAZE 10K JA 1/10W
R5519 D0GB101JA069 MT-GLAZE 100 JA 1/10W R5577 D0GBR00JA071 MT-GLAZE 0.000 ZA
1/10W R5520 D0GBR00JA071 MT-GLAZE 0.000 ZA 1/10W R5578 D0GB103JA072 MT-GLAZE...

[Page 13](#) Schematic Schematic Part No. Part No. Description Description Location Location
R6606 D0GBR00JA071 MT-GLAZE 0.000 ZA 1/10W R6315 D0GBR00JA071 MT-GLAZE 0.000 ZA
1/10W R6317 D0GBR00JA071 MT-GLAZE 0.000 ZA 1/10W R6607 D0GBR00JA071 MT-GLAZE
0.000 ZA 1/10W R6318 D0GBR00JA071 MT-GLAZE 0.000 ZA 1/10W R6608 RGF000ZTAANL MT-
GLAZE...

[Page 14](#) Schematic Schematic Part No. Part No. Description Description Location Location
"ASSY,PWB,ANALOG-COMP- DDCRS20I30AMG DIODE CRS20I30A D1641 B0ACCK000005 DIODE
1SS355-TE-17 N8VE" B0ACDJ000007 DIODE 1SS352-(TPH3) CAPACITORS DDDA2J10100LG
DIODE DA2J10100L C1020 F2A1V4700087 ELECT 47U M D1668 B0ACCK000005 DIODE 1SS355-
TE-17 C1051 F1H1H102A219 CERAMIC 1000P K B0ACDJ000007 DIODE 1SS352-(TPH3) C1052...

[Page 15](#) Schematic Schematic Part No. Part No. Description Description Location Location
TXXLBB006—P TR MMBTSC3928R R1754 D0GB332JA072 MT-GLAZE 3.3K JA 1/10W Q1611
TCPH3338-T-EP TR CPH3338-T-TL-E R1771 J0JCC0000371 "INDUCTOR, 120 OHM" Q1750
B1ABDF000013 TR 2SC3928A1R R1772 J0JCC0000371 "INDUCTOR, 120 OHM" B1ABDF000024
TR 2SC3928A1S R1776 D0GB103JA072 MT-GLAZE...

[Page 16](#) Schematic Schematic Part No. Part No. Description Description Location Location
MISCELLANEOUS "ASSY,PWB,POWER N7AP" A100 1AA0B10N302C0 "ASSY,PWB,DIGITAL_Z-
N8VE" CAPACITORS A200 1AA0B10N303C0 "ASSY,PWB,ANALOG-COMP- C605 CGXAV27224ABC
MT-POLYEST 0.22U M 275V N8VE" FOCAF224A030 MT-POLYEST 0.22U K 275V A201
1AA0B10N303CA "ASSY,PWB,ANALOG-N8VE" C606 CGXAV27224ABC MT-POLYEST 0.22U M
275V A202 1AA0B10N303AB "ASSY,PWB,KEY_SW-N8LJ"...

[Page 17](#) Schematic Schematic Part No. Part No. Description Description Location Location
C706 CK3A102KANHAN CERAMIC 1000P K DDDA2J10100LG DIODE DA2J10100L F1B3A102A048
CERAMIC 1000P K D613 B0ACCK000005 DIODE 1SS355-TE-17 C707 CK3A102KANHAN CERAMIC
1000P K B0ACDJ000007 DIODE 1SS352-(TPH3) F1B3A102A048 CERAMIC 1000P K
DDDA2J10100LG DIODE DA2J10100L C708 CE1E102M6QANC ELECT...

[Page 18](#) Schematic Schematic Part No. Part No. Description Description Location Location
B0BC6R2A0384 ZENER DIODE MM3Z6V2B TXXLBB005—P TR MMBTSA1235F DZDZ2J062M0LG
ZD DIODE DZ2J062M0L Q610 B1ABDF000013 TR 2SC3928A1R D639 B0BC01700015 ZENER
DIODE UDZS18B-TE-17 B1ABDF000024 TR 2SC3928A1S B0BC018A0383 ZENER DIODE MM3Z
18B TXXLBB006—P TR MMBTSC3928R DZDZ2J180M0LG ZD DIODE DZ2J180M0L Q611...

[Page 19](#) Schematic Schematic Part No. Part No. Description Description Location Location
R701 D0C2821JA119 OXIDE-MT 820 JA R702 D0GB221JA069 MT-GLAZE 220 JA 1/10W R703
D0GZ472JA018 MT-GLAZE 4.7K JA 1/4W R705 D0GZ103JA018 MT-GLAZE 10K JA 1/4W R706

D0GB152JA072 MT-GLAZE 1.5K JA 1/10W R707 D0GB153ZA038 MT-GLAZE 15K FA 1/10W...

[Page 20](#) "For Digital board replacement please get the correct assembly name/part number" Service Name: ASSY,PWB,DIGITAL_Z-N8VE Japan BOM part number: 1AA0B10N302C0 "For Analog board replacement please get the correct assembly name/part number" Service Name: ASSY,PWB,ANALOG-N8VE Japan BOM part number: 1AA0B10N303CA NOTE: This sub assembly (A201) is from ASSY,PWB,ANALOG-COMP-N8VE (A200) "For KEW_SW unit replacement please get the correct assembly name/part number"...

[Page 21: Component And Test Point Locations](#)

COMPONENT AND TEST POINT LOCATIONS DIGITAL BOARD PARTS SIDE K5LV C6700 R6710 R6705 C6703 2ndReflow 1LG4B10Y06900 PWB,MAIN DIGITAL N7AP L6314 L6312 L6310 ***.??? C6707 CL11 K6500 L6315 L6313 L6311 A30C5 R5504 R5503 K56CPU R6307 CL10 R5528 R5529 R5531 C6332 C5575 IC5500 R5533 R5950...

[Page 22](#) ANALOG BOARD PARTS SIDE 4 K8CTRA K8CTR J1627 J1628 J1681 K8FRA J1630 J1629 J1631 J1632 J1623 J1633 J1634 J1622 J1620 J1635 J1621 J1619 J1637 J1618 J1638 J1639 J1640 J1643 J1641 J1642 24/15V J1647 J1610 J1648 J1649 JW1603 J1650 J1604 AUDIO_P 3.3V_STBY J1606 JW1602...

[Page 23](#) CONTROL BOARD PART SIDE SW1902 SW1902A SW1901 SW1903 SW1904 SW1905 SW1906 SW1907 SW1901A MENU SW1903A SW1904A SW1905A SW1906A SW1907A POWER INPUT VOL.+ VOL.- CH.+ CH.- K19CTRB L1901 (4PIN) J1901 K19K PWB,KEY_SW N8LJ K19CTRA 1LG4B10Y0660B K19CTR (4PIN) A30C5 (8PIN) SIDE SIDE CONTROL BOARD SOLDER SIDE SW1901A SW1901...

[Page 24](#) POWER BOARD PART SIDE K604 L611 PARTS SIDE PWB.POWER.N7AL A30C5 K605 1LG4B10Y04800 _A R650 T602 Q601HD Q602HD R650H2 R650H1 C705 R628 R628H2 R628H1 Q601 Q602 J653 C653 D601AH3 Q601HS D601AH4 C703 C704 J660 J604 VA603 C702A C702 D628H2 D629H2 C645 R755 C645H2...

[Page 25: Block Diagram Power Lines](#)

BLOCK DIAGRAM POWER LINES - 25 -...

[Page 26: Block Diagram Signal Lines](#)

BLOCK DIAGRAM SIGNAL LINES BLOCK DIAGRAM SIGNAL LINES DP42840 (N7AP/N7AR) IC5700 IC5750 DDR2 D3.3V D1.8V_DDR 512Mbit (64Mbit) (400MHz) Video2 IC5500 (Component/ S/P DIF Composite) Video3 (Component) MPEG2 DEMUX Video UART(Debug) Decode HDMI1 3.3V (or DVI) 1.8V HDMI HDMI2 (MIPS) Scalar 1.1V (or DVI) Clock...

[Page 27: Ic Block Diagrams](#)

IC BLOCK DIAGRAMS IC001, Audio AMP - 27 -...

[Page 28](#) IC BLOCK DIAGRAMS (CONT.) IC1600, IC1640 DC to DC Converter IC1620, DC-DC converter - 28 -...

[Page 29](#) IC5650, IC5660, IC5900 Voltage detector IC5750, Flash Memory - 29 -...

[Page 30](#) IC BLOCK DIAGRAMS (CONT.) IC5500 Main Chip signal processor JTAG/EJTAG CPU (300 MHz) Control Memory Interface Unit (MIF) 8VSB/QAM/ NTSC/BTSC/A2K DEMOD Xport Demux Memory Interface Unit Commom MPEG2 Decode Unit 1080P Motion Adaptive De-Interlacer 3rd Generation TCON HDMI Link List LVDS Output Graphics HDMI...

[Page 31](#) IC6250, Voltage comparator IC5700, DDR: Double Data Rate SDRAM - 31 -...

[Page 32](#) IC BLOCK DIAGRAMS (CONT.) IC6500, IC6530, IC6560, Logic AND gate IC 6600, USB Protection - 32 -...

[Page 33: Troubleshooting Flow Charts](#)

TROUBLESHOOTING FLOW CHARTS NO POWER Check: Power Unit fuse open? the voltage Check: Power Unit to "5V_STBY" line supplied? All 0V (except '5V_STBY' line) the voltage to all

lines Check: arround supplied? MAIN IC (IC5500), Crystal (X5500), Power Unit (or the voltage to some lines is not supplied.) After a few seconds, the set will be switched off.

[Page 34](#) TROUBLESHOOTING FLOW CHARTS (CONT.) NO VIDEO Trouble Shooting Video US1Y(42-N7AP) Check: RF(TV) ,Digital(TV) All Inputs? Line: A6100 21pin - IC5500 A12pin A6100 20pin - IC5500 B12pin only Parts: Around A6100 (TU_IF), IC5500 Check: AV1 only Line: Terminal(CV) - IC5500 B13pin Parts: Around IC5500 Check: AV2 only...

[Page 35](#) TROUBLESHOOTING FLOW CHARTS (CONT.) NO AUDIO Is there Check: All Modes ? signal at speaker Speaker (SP901, SP902) terminal ? Is there Check: signal at IC001 ? Line: IC001 30,24pin(L), 21,15pin(R) Parts: Around IC001 (Audio AMP.) Check: Line: IC001 37pin - IC5500 F1pin (ACLK) IC001 3pin - IC5500 G4pin (ADATA1) IC001 4pin - IC5500 F2pin (LRCLK) IC001 5pin - IC5500 L3pin (BCLK)

[Page 36: Main Ic\(Signal Processor\) & Peripherals](#)

MAIN IC(SIGNAL PROCESSOR) & PERIPHERICALS DDR2 SPI Flash 512Mbit (64Mbit) (400MHz) Video2 (Component/ Composite) Video3 DEMUX MPEG2 (Component) Video Decode HDMI1 HDMI2 (MIPS) UART(Debug) (or DVI) port HDMI2 HDMI UART(Factory) HDMI1 Scalar (or DVI) port Clock HDMI3 HDMI0 (25MHz) Audio (or DVI) NTSC port...

[Page 37: Schematic Notes](#)

SCHEMATIC NOTES NOTES ON SCHEMATIC DIAGRAMS 1. All resistance values in ohms K=1,000 M=1,000,000. 2. Resistors specified with resistance value are "1/6DJ." 3. Resistors specified with type of resistor, tolerance and resistance value are "1/4." 4. Unless otherwise noted on schematic, all capacitor values less than 1 are expressed in μF (Micro Farad), and the values more than 1 are in pF.

[Page 38: Ic, Diode, And Transistor Pin Layouts](#)

IC, DIODE, AND TRANSISTOR PIN LAYOUTS - 38 -...

[Page 39: Pc Board Connections And Locations](#)

PC BOARD CONNECTIONS AND LOCATIONS - 39 -...

[Page 40: Capacitor And Resistor Code Chart](#)

SOxide Metalized YWire Wound CSolid DCarbon Film WWire Wound For parts or service contact Sanyo Manufacturing Corporation P.O. Box 2000 3333 Sanyo Road Forrest City, Arkansas 72335-2000 April 2011 SMC Published in Mexico...

[Page 41: Schematic Diagrams](#)

MODEL DP47840 Chassis No. P47840-00 SCHEMATIC DIAGRAMS For Debug C6334 ELECTROSTATICALLY SENSITIVE DEVICES K5DL J10AU045N Pch-MOSFET A12/15V K5DL_1 Many solid-state devices (especially Integrated Circuits) are Electrostatically K5DL_2 UART0TX R5701 *Q6329 K5DL_3 Sensitive, and, therefore, require special handling techniques as described under...

[Page 42](#) MODEL DP47840 Chassis No. P47840-00 SCHEMATIC DIAGRAMS K16A K16B R2400 1/10GZ0C JW1603 PC_AUDIOL B4J11B0500N B4J11B0740N *R2418 GND_FLM R2402 *IC2401 LED1 K2401 QXXAVD258P B4J12B11900 R2401 3.3V_STBY *C2410 V_SYNC 1/10GZ0C SC2400 KZ0.1GQF PC_AUDIOR K2401_2 C1602 IC1600 PC_VSYNC SC2401 K2401_3 LM1117S-ADJP 6.3EM220LBVD *R2416...

[Page 43](#) MODEL DP47840 Chassis No. P47840-00 SCHEMATIC DIAGRAMS ELECTROSTATICALLY SENSITIVE DEVICES Many solid-state devices (especially Integrated Circuits) are Electrostatically Sensitive, and, therefore, require special handling techniques as described under C701 "Servicing Electrostatically Sensitive Devices," on page two in this service literature.