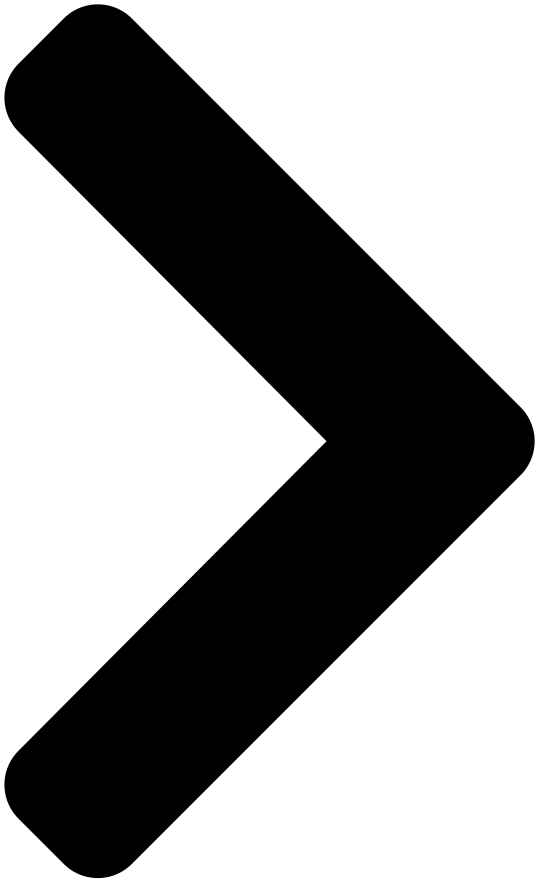




Sanyo DP46840 Service Manual



SERVICE MANUAL

Remote Control Digital Color Television

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

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DP46840, N7EK, PRODUCT CODE 113020129

FILE NO.

DP46840

ORIGINAL VERSION

Chassis No. P46840-00

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

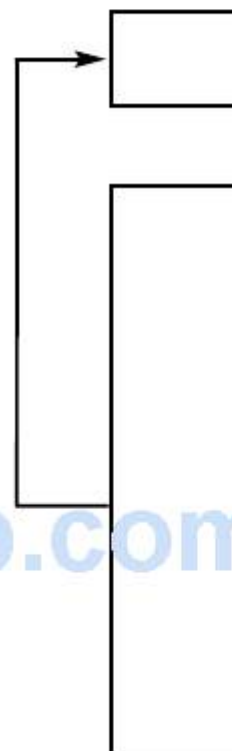
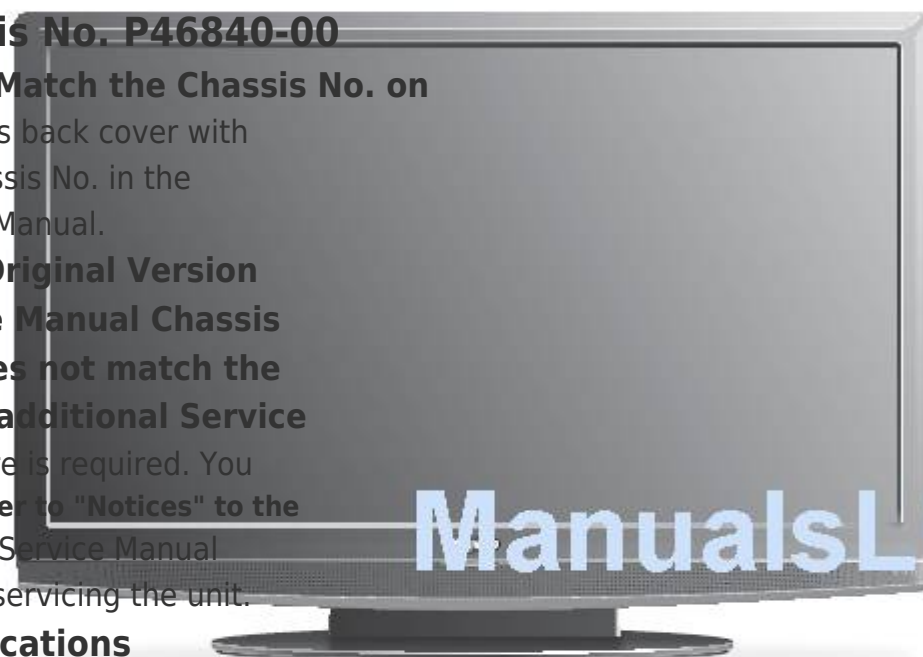
POWER RATING	120VAC
ANTENNA INPUT IMPEDANCE	75Ω
RECEIVING CHANNEL	2 - 13 (VHF),
REMOTE READY	48 KEY REMOTE CONTROL
SOUND OUTPUT	10.0 W/CH
INTERMEDIATE FREQUENCY	
PICTURE IF CARRIER	45.75MHz
SOUND IF CARRIER	41.25MHz
COLOR SUB CARRIER	42.17MHz
CABINET DIMENSIONS	
WIDTH	1111mm
HEIGHT	779mm
DEPTH INCLUDING BASE	324mm

REFERENCE No.

(U.S.A.)

(CANADA)

213 W (AVG.)
UHF/VHF/CATV
DIGITAL



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14 - 69 (UHF),
01, 14-94, 95-135 (CATV)
1-135 (DIGITAL)

SM
780172

[Next Page](#)

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2
3
4
5

Related Manuals for Sanyo DP46840

[LCD TV Sanyo DP42840 Owner's Manual](#)

42"/46" 1080p hdtv lcd (52 pages)

[Plasma TV Sanyo DP50740 Owner's Manual](#)

50" plasma hdtv (56 pages)

[TV Sanyo P46841-03 Service Manual](#)

Remote control digital color televisio (48 pages)

[TV Sanyo DP42840 Service Manual](#)

(47 pages)

[TV Sanyo DP42840 Service Manual](#)

Remote control digital color television chassis no. p42840-05 (43 pages)

[TV Sanyo DP26649 Service Manual](#)

Remote control digital color television (46 pages)

[TV Sanyo DP42849 Service Manual](#)

Remote control digital color television (43 pages)

[TV Sanyo DP46142 Manual Del Propietario](#)

Hdtv lcd de 720p/1080p (28 pages)

[TV Sanyo DP42746 Quick And Easy Setup](#)

Sanyo dp42746: quick start (2 pages)

[TV Sanyo DP42746 Connection Manual](#)

Sanyo dp42746: connection guide (3 pages)

[TV Sanyo DP42545 Quick Start](#)

Sanyo dp42545: quick start (2 pages)

[TV Sanyo DP46848 Service Manual](#)

Remote control digital color television (58 pages)

[TV Sanyo DP42142 Service Manual](#)

Remote control digital (52 pages)

[TV Sanyo DP46812 Owner's Manual](#)

1080p hdtv lcd 1080p hdtv lcd (2 pages)

[TV Sanyo DP47460 Service Manual](#)

Remote control digital color television (48 pages)

[TV Sanyo FVM4612 Service Manual](#)

(37 pages)

Summary of Contents for Sanyo DP46840

[Page 1: Table Of Contents](#)

HEIGHT 779mm DEPTH INCLUDING BASE324mm DP46840, N7EK, PRODUCT CODE 113020129 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 IC801 (EEPROM) 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 Option 1 Data (HDMI)

[Page 5: Power Failure Circuit](#)

POWER FAILURE CIRCUIT Check the following if the unit is turned off by the power CPU (IC800) is programmed so the set will go to standby failure detector. 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 prevent 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
C1009 CK1A105KLZBNG CERAMIC 1U K C1010 CK1A105KLZBNG CERAMIC 1U K
C001 CK1H102KLZBNG CERAMIC 1000P K C1012 CK1A105KLZBNG CERAMIC 1U K C002
CK1H102KLZBNG CERAMIC 1000P K C1014 CK1A105KLZBNG CERAMIC 1U K C003
CK1E105KGM BNG CERAMIC...

[Page 10](#) Schematic Schematic Part No. Part No. Description Description Location Location
C2405 CK1A105KLZBNG CERAMIC 1U K C5550 CK1A105KLZBNG CERAMIC 1U K C2407
CK1A105KLZBNG CERAMIC 1U K C5551 CK1H104ZLZFN G CERAMIC 0.1U Z C2409
CC1H101JLZCNG CERAMIC 100P J C5552 CK1A105KLZBNG CERAMIC 1U K C2410
CC1H101JLZCNG CERAMIC...

[Page 11](#) Schematic Schematic Part No. Part No. Description Description Location Location
C5609 CK1H104ZLZFN G CERAMIC 0.1U Z C5750 CK1A105KLZBNG CERAMIC 1U K C5610
CK1H104ZLZFN G CERAMIC 0.1U Z C5901 CK1H104ZLZFN G CERAMIC 0.1U Z C5611
CK1A105KLZBNG CERAMIC 1U K C5902 CK1E224KLZBNG CERAMIC 0.22U K C5612
CK1H103KLZBNG CERAMIC...

[Page 12: Integrated Circuits](#)

Schematic Schematic Part No. Part No. Description Description Location Location C6633
CK1H104ZLZFN G CERAMIC 0.1U Z D1671 DD1SS352—G DIODE 1SS352-(TPH3) C6634
CEXLB0J221VDN ELECT 220U M 6.3V DD1SS355—G DIODE 1SS355-TE-17 C6650
CK1H104ZLZFN G CERAMIC 0.1U Z DD1LBB053—G DIODE 1SS35 C6651 CK1E105KGM BNG
CERAMIC 1U K D1681 DD1SS352—G DIODE 1SS352-(TPH3)

[Page 13](#) Schematic Schematic Part No. Part No. Description Description Location Location
L5508 1LB4L26B0700G "INDUCTOR , 120 OHM" IC5900 QXXAVD046---P IC XC6108N28AMR
IC6200 QBA4558RF-E2P IC BA4558RF-E2 L5509 1LB4L26B0700G "INDUCTOR , 120 OHM"
QNJM4558M---P IC NJM4558M-TE2 L5511 1LB4L26B0700G "INDUCTOR , 120 OHM" IC6600
QTDA9996---M IC TDA9996 L5512...

[Page 14](#) Schematic Schematic Part No. Part No. Description Description Location Location
TRANSISTORS Q1806 T2SC3928A1R-P TR 2SC3928A1R T2SC3928A1S-P TR 2SC3928A1S Q800
T2SC3928A1R-P TR 2SC3928A1R TXXLBB006---P TR MMBTSC3928R T2SC3928A1S-P TR
2SC3928A1S Q2401 TUM6K1N-----P TR UM6K1N-TN TXXLBB006---P TR MMBTSC3928R Q5580
T2SC3928A1R-P TR 2SC3928A1R Q801 TISA1235AC1EP TR ISA1235AC1E T2SC3928A1S-P...

[Page 15](#) Schematic Schematic Part No. Part No. Description Description Location Location
R1200 RGF1002JTCANL MT-GLAZE 10K JA 1/10W R883 RGF1000JTCANL MT-GLAZE 100 JA 1/10W
R884 RGF1002JTCANL MT-GLAZE 10K JA 1/10W R1201 RGF1002JTCANL MT-GLAZE 10K JA 1/10W
R885 RGF1000JTCANL MT-GLAZE 100 JA 1/10W R1202 RGF1002JTCANL MT-GLAZE...

[Page 16](#) Schematic Schematic Part No. Part No. Description Description Location Location
R1709 RGF5600JTCANL MT-GLAZE 560 JA 1/10W R2445 RGF1000JTCANL MT-GLAZE 100 JA
1/10W R1800 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W R2446 RGF1000JTCANL MT-GLAZE
100 JA 1/10W R1801 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W R2448 RGF1002JTCANL MT-
GLAZE...

[Page 17](#) Schematic Schematic Part No. Part No. Description Description Location Location
R5563 RGF1001JTCANL MT-GLAZE 1K JA 1/10W R6200 RGF2201FTCANL MT-GLAZE 2.2K FA
1/10W R5565 RGF1001JTCANL MT-GLAZE 1K JA 1/10W R6201 RGF2201FTCANL MT-GLAZE 2.2K
FA 1/10W R5566 RGF1002JTCANL MT-GLAZE 10K JA 1/10W R6202 RGF3302FTCANL MT-GLAZE...

[Page 18](#) Schematic Schematic Part No. Part No. Description Description Location Location
R6546 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W CRYSTAL/OSCILLATORS R6547
RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W X5500 1AV4V10B9220G "OSC,CRYSTAL 54.1MHZ"
R6548 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W X5501 1AV4V10B9280G "OSC,CRYSTAL
24MHZ" R6549 RGF47R0JTCANL MT-GLAZE 47 JA 1/10W X800 1AV4V11B1771G...

[Page 19](#) Schematic Schematic Part No. Part No. Description Description Location Location
MISCELLANEOUS POWER BOARD PARTS LIST A100 1AA0B10N281H0 "ASSY,PWB,MAIN_B-N7EK"
CAPACITORS A200 1AA0B10N284A0 "ASSY,PWB,KEY_SW N7AL" C605 CGXAV27224ABC MT-
POLYEST 0.22U M 275V A300 1AA0B10N28800 "ASSY,PWB,RC_LED B N7AL" CGXAV27224BBC
MT-POLYEST 0.22U K 275V A400 1AA0B10N29000 "ASSY,PWB,POWER N7AL"...

[Page 20](#) Schematic Schematic Part No. Part No. Description Description Location Location
CE1V681M6QANN ELECT 680U M D609 DD1SS352---G DIODE 1SS352-(TPH3) C704
CE1V681M2FANN ELECT 680U M DD1SS355---G DIODE 1SS355-TE-17 CE1V681M6QANN ELECT
680U M DDXLBB053---G DIODE 1SS35 C705 CE1V471M2FANN ELECT 470U M D611
DDAG01A---N DIODE AG01A CE1V471M6QANN ELECT...

[Page 21](#) Schematic Schematic Part No. Part No. Description Description Location Location
D636 DD1SS352---G DIODE 1SS352-(TPH3) T2SC3928A1S-P TR 2SC3928A1S DD1SS355---G
DIODE 1SS355-TE-17 TXXLBB006---P TR MMBTSC3928R DDXLBB053---G DIODE 1SS35 Q609
TISA1235AC1EP TR ISA1235AC1E D637 DD1SS352---G DIODE 1SS352-(TPH3) TISA1235AC1FP
TR ISA1235AC1F DD1SS355---G DIODE 1SS355-TE-17 TXXLBB005---P TR MMBTSA1235F
DDXLBB053---G...

[Page 22](#) Schematic Schematic Part No. Part No. Description Description Location Location
R650 RS2R220JGDAGN OXIDE-MT 0.22 JA R766 RGF1003JTCANL MT-GLAZE 100K JA 1/10W R660
RGB1802JTBANL MT-GLAZE 18K JA 1/4W R661 RGB10R0JTBANL MT-GLAZE 10 JA 1/4W PB
MISCELLANEOUS R662 RGB47R0JTBANL MT-GLAZE 47 JA 1/4W F601 FFXLBB007CQ-J FUSE...

[Page 23: Component And Testpoint Locations](#)

COMPONENT AND TESTPOINT LOCATIONS MAIN BOARD PARTS SIDE K801 K802 K803 K8CTRA 1
3 K8E R1661 R1662 L800 K1003 R1011 D802 R805 D1001 R820 R1012 XL1002 R806 D800
R800 R804 C1802 C801 R803 R802 C1801 R1845 R1840 SC1002 R1800 C820 Q1660 XL1003
C806...

[Page 24](#) MAIN BOARD SOLDER SIDE K802 K8CTRA K801 K803 C1025 R873 R883 CL14 CL11 C819 K8FRA R1005 C802 L1802 C806 L1801 R876 R1833 C1814 Q801 C1821 C1807 R871 R811 R1829 R1843 R810 R869 C804 C1820 R1844 R812 R813 C1818 C1809 R1827 C807 R1847 C1815...

[Page 25](#) 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 (3PIN) PWB,KEY_SW N7AL K19K 1AA4B10N2460A_A K19CTRA K19CTR (3PIN) (8PIN) A30C5 SIDE SIDE CONTROL BOARD SOLDER SIDE SW1901A SW1901...

[Page 26](#) 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 J653 Q602 C653 D601AH3 Q601HS D601AH4 C703 C704 J660 J604 VA603 C702A C702 D628H2 D629H2 C645 R755 C645H2...

[Page 27: Block Diagram Power Lines](#)

BLOCK DIAGRAM POWER LINES - 27 -...

[Page 28: Block Diagram Signal Lines](#)

BLOCK DIAGRAM SIGNAL LINES - 28 -...

[Page 29: Ic Block Diagrams](#)

IC BLOCK DIAGRAMS IC001, Audio AMP C ctrl Protection current/thermal interface Logic Volume control Regulators Bias Digital signal processing Power stage - 29 -...

[Page 30](#) IC BLOCK DIAGRAMS (CONT.) IC1640, IC5730 DC to DC Converter IC801, EEPROM - 30 -...

[Page 31](#) IC1660, DC to DC Converter IC1670, DC to DC Converter BOOT (SW+Vreg.) BOOT C2 = 10 μ F/25V V IN = 12V Current Sense C8 = 10 μ F/25V Rb = 0 Pre Drive C1 = 0.01 μ F UVLO 1 : N V OUT = 3.3V R10 = 4.3k Ω ...

[Page 32](#) IC BLOCK DIAGRAMS (CONT.) IC5500 Block Diagram IC6200, Low output Amplifier - 32 -...

[Page 33](#) IC8500, USB Protection IC5700, DDR: Double Data Rate SDRAM - 33 -...

[Page 34](#) IC BLOCK DIAGRAMS (CONT.) IC6600, HDMI SELECTOR DDH(3V3) TDA9996 DDH(1V8) RXA_C+ OUT_C+ RXA_C- OUT_C- RXA_D0+ RXA_D0- RXA_D1+ RXA_D1- RXA_D2+ OUT_D0+ RXA_D2- OUT_D0- RXB_C+ RXB_C- RXB_D0+ RXB_D0- RT AND EQ RXB_D1+ RXB_D1- OUT_D1+ RXB_D2+ HDMI OUT_D1- RXB_D2- SWITCH RXC_C+ RXC_C- RXC_D0+ RXC_D0-...

[Page 35: 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? CPU (IC800), IC (IC803), Crystal (X801), Power Unit (or the voltage to some lines is not supplied.) After a few seconds, the set will be switched off.

[Page 36: Digital](#)

TROUBLESHOOTING FLOW CHARTS (CONT.) NO VIDEO Trouble Shooting Video US1P(46) Check: RF(TV) ,Digital(TV) All Inputs? Line: A6100 19pin - IC5500 153pin A6100 21pin - IC5500 152pin only Parts: Around A6100 (TU_IF), IC5500 Check: AV1 only Line: Terminal(CV) - IC5500 155pin Terminal(Y) - IC5500 177pin Terminal(C) - IC5500 176pin Parts: Around IC5500...

[Page 37](#) TROUBLESHOOTING FLOW CHARTS (CONT.) NO AUDIO Trouble Shooting Audio US1P(42) Is there Check: All Modes ? signal at speaker Speaker (SP901, SP902) terminal ? Is there Check: signal at IC001 ? Line: IC001 23pin - IC800 (CPU) 22pin (Mute) Parts: Around IC001 (Audio AMP.) Check: Parts: Around IC5500 209-215pin,IC5623,IC5624 Check:...

[Page 38: Control Port Functions](#)

CONTROL PORT FUNCTIONS System Control (CPU : IC800) IC specification Assignment
Explanation P12/SCK0 REG SW4 no use (REG SW4) P13/SO1 REG SW5 no use (REG SW5)
P14/SI1/SB1 IIC-BUS for NV Data of IIC Bus Active 'L' for IIC data NV P15/SCK1 IIC-BUS for NV
Clock of IIC Bus Active 'L'...

[Page 39](#) IC specification Assignment Explanation P73/INT3/T0IN Rcin Remote control signal
input RESET in CPU Reset input RESET : Low (and for on-board write) 32.678KHz X'tal input (for
clock timer) Xout 32.678KHz X'tal output (for clock timer) VSS1 GND (0Vdc) CF1/AN12 Main
clock input (8MHz ceramic oscillator) CF2/AN13 Main clock output (8MHz ceramic oscillator)
VDD1...

[Page 40: Main Sheet Block Diagram & Peripherals](#)

MAIN SHEET BLOCK DIAGRAM & PERIPHERALS USB Power SW +3.3V +1.8V DDR2 SPI Flash
+12V +1.0V/+3.3V/+9V/ +12V (128Mb) 512Mb (366MHz) fault +24V +12V Write protect RF-IN
BCM35143 Digital/ USB2.0 8VSB/QAM Analog DEMUX Tuner MPEG2 Demod. Video Video1
Decode (Composite/S) S-Detect Video AC-3 JTAG...

[Page 41: 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 μ F (Micro Farad), and the values
more than 1 are in pF.

[Page 42: Ic, Diode, And Transistor Pin Layouts](#)

IC, DIODE, AND TRANSISTOR PIN LAYOUTS - 42 -...

[Page 43: Pc Board Connections And Locations](#)

PC BOARD CONNECTIONS AND LOCATIONS - 43 -...

[Page 44: 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 July 2010 SMC Published in Mexico...

[Page 45: Schematic Diagrams](#)

MODEL DP46840 Chassis No. P46840-00 SCHEMATIC DIAGRAMS J10EA043N
ELECTROSTATICALLY SENSITIVE DEVICES Many solid-state devices (especially Integrated
Circuits) are Electrostatically C1620 R1617 Sensitive, and, therefore, require special handling
techniques as described under R1616 R1618 R1613 1/10GF 1/10GF 1/10 "Servicing
Electrostatically Sensitive Devices," on page two in this service literature.

[Page 46](#) MODEL DP46840 Chassis No. P46840-00 SCHEMATIC DIAGRAMS *R6335 *R6336
C6331 LVDS_POW *C6332 16EM100LBVD *R6339 D D G 1/10GJ 4.7KC *R6340 *R6337 C6335
R6343 *Q6329 1/10GJ 1/10GJ MCH6331 1.5MC 4.7KC -S-EG R5959 *C6330 *Q6331 1/10GJ1KC
SN6001 KZ0.1LZF 3P_IN TXXLBB006P TCON_POW_ON H:OFF L:ON ;2SC3928A1SP...

[Page 47](#) MODEL DP46840 Chassis No. P46840-00 SCHEMATIC DIAGRAMS C701
1000KK1000NHA R650 :1000KK1000CR D628A 2HEA0431-- 2SJ0.22D D628B ZB13 T602 :ZB29
D628 R650H1 R650H2 B4L51B1840N :ZAV6120KE24 DDXLBB088 D628C Q601ADA
SM2PS308R0SV 24VH ZAV9700CH01 R628H1 R628H2 :DDXLBB090 R751 T602H10 2NF0.02
D628H2 R628 Q601AD B4Z21B0340N R629 2SJ0.22D...

This manual is also suitable for:

[Dp50740113020129](#)