



# Sanyo DP32649 Service Manual

Remote control digital color television

# Summary of Contents for Sanyo DP32649

## [Page 1: Table Of Contents](#)

HEIGHT ..... 563mm DEPTH INCLUDING BASE ....228mm DP32649, N7HK, PRODUCT CODE 113019904 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 - : Volume in 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: •...

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

ON-SCREEN SERVICE MENU Table 1. ON-SCREEN SERVICE MENU When IC803 (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 (TV Guide/HOTEL mode)

## [Page 5: Power Failure Circuit](#)

POWER FAILURE CIRCUIT Check the following if the unit is turned off by the power SUB-CPU (IC800) is programmed so the set will go to stand- failure detector. by 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. STAND REMOVAL Position TV face down on a padded or cushioned surface to protect the screen and finish.

## [Page 7: Lcd Panel Removal](#)

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. LCD PANEL REMOVAL Lift up the LCD panel from front cabinet. SPEAKER REMOVAL Remove 2 screws (E: 3x14) to take off each speaker.

## [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 C C A  
A P P A A C C I I T T O O R R S S C1620 CK0J106KGBNG CERAMIC 10U K 6.3V C1622  
CEXLB0J221VEN ELECT 220U M 6.3V C016 CK1E105KGBNG...

[Page 10](#) Schematic Schematic Part No. Part No. Description Description Location Location  
C5532 CC1H471JLZCNG CERAMIC 470P J C5598 CK1E224KLZBNG CERAMIC 0.22U K C5599  
CK1E224KLZBNG CERAMIC 0.22U K C5533 CC1H471JLZCNG CERAMIC 470P J C5600  
CK1E224KLZBNG CERAMIC 0.22U K C5534 CK0J106KGBNG CERAMIC 10U K 6.3V C5535

CK1H104ZLZFN...

[Page 11](#) Schematic Schematic Part No. Part No. Description Description Location Location  
C5806 CC1H150JLZCNG CERAMIC 15P J D D I I O O D D E E S S C5807 CC1H150JLZCNG CERAMIC  
15P J D017 DDSS3P3-E3—G DIODE SS3P3-E3/84A C5808 CC1H150JLZCNG CERAMIC 15P J D020  
DDSS3P3-E3—G DIODE SS3P3-E3/84A...

[Page 12](#) Schematic Schematic Part No. Part No. Description Description Location Location C C  
O O I I L L S S L6103 1AV4L2FB3R3MG "INDUCTOR,3.3U M" L6250 RGFR000ZTAANL MT-GLAZE  
0.000 ZA 1/10W L011 1LB4L26B1180G INDUCTOR 10U M L6270 RGFR000ZTAANL MT-GLAZE  
0.000 ZA 1/10W L012 1LB4L26B1180G INDUCTOR 10U M...

[Page 13](#) Schematic Schematic Part No. Part No. Description Description Location Location  
TXXLBB006—P TR MMBTSC3928R R030 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W Q2400  
T2SC3928A1R-P TR 2SC3928A1R R800 RGF4700JTCANL MT-GLAZE 470 JA 1/10W T2SC3928A1S-  
P TR 2SC3928A1S R801 RGF2202JTCANL MT-GLAZE 22K JA 1/10W TXXLBB006—P TR  
MMBTSC3928R R802 RGF1002JTCANL MT-GLAZE...

[Page 14](#) Schematic Schematic Part No. Part No. Description Description Location Location  
R890 RGFR000ZTCANL MT-GLAZE 0.000 ZA 1/10W R1622 RGF2200FTCANL MT-GLAZE 220 FA  
1/10W R893 RGF4702JTCANL MT-GLAZE 47K JA 1/10W R1641 RGF1000JTCANL MT-GLAZE 100 JA  
1/10W R895 RGF4702JTCANL MT-GLAZE 47K JA 1/10W R1642 RGF1002FTCANL MT-GLAZE...

[Page 15](#) Schematic Schematic Part No. Part No. Description Description Location Location  
R5515 RGF1000JTCANL MT-GLAZE 100 JA 1/10W R5598 RGF27R0FTCANL MT-GLAZE 27 FA  
1/10W R5516 RGF1000JTCANL MT-GLAZE 100 JA 1/10W R5599 RGF1000FTCANL MT-GLAZE 100  
FA 1/10W R5517 RGF1002JTCANL MT-GLAZE 10K JA 1/10W R5600 RGF1000FTCANL MT-GLAZE...

[Page 16](#) Schematic Schematic Part No. Part No. Description Description Location Location  
R5807 RGF6800JTCANL MT-GLAZE 680 JA 1/10W R6336 RGF1002JTCANL MT-GLAZE 10K JA  
1/10W R5808 RGF6800JTCANL MT-GLAZE 680 JA 1/10W R6338 RGF1001JTCANL MT-GLAZE 1K JA  
1/10W R5812 RGF6800JTCANL MT-GLAZE 680 JA 1/10W R6380 RGF3300JTCANL MT-GLAZE...

[Page 17](#) Schematic Schematic Part No. Part No. Description Description Location Location C C  
R R Y Y S S T T A A L L / / F F I I L L T T E E R R S S P P O O W W E E R R B B O O A A R R D D  
X5500 1AV4V10B9210G...

## [Page 18: Component And Testpoint Locations](#)

COMPONENT AND TESTPOINT LOCATIONS MAIN BOARD PARTS SIDE C1609 R1615 R1617 R1600  
R1614 Q1610 C1616 R1605 R1640 C1601 C1605 CL14 CL03 IC1600 C1641 Q1695 R1643 R1702  
C1645 C1674 C1607 C1644 L1725 IC1640 C1000 C1640 L1706 D1640 Q5803 L1711 R5818  
L1710 D1641 L1708 C6304...

[Page 19](#) MAIN BOARD SOLDER SIDE R1602 C1600 C1700 C1603 R1705 R1601 R1706 C1604  
R1603 D1701 SC1001 R1002 R1697 R1604 R1642 R1641 R1696 R1644 D1670 C1607 R1009  
D1696 C1674 R1645 C1646 C1606 R5834 C5812 D1695 C1642 C1608 C5813 R1687 R5832  
R1688 C1670 R5829 R5833 L1601...

[Page 20](#) CONTROL BOARD PART SIDE SW1901 SW1902 SW1903 SW1904 SW1905 POWER  
VOL.+ VOL.- CH.+ CH.- PWB,KEY\_SW N7AE L1901 1AA4B10N2320A A30C5 K19CTRA K19CTR  
(3PIN) (8PIN) CONTROL BOARD SOLDER SIDE SW1902 SW1905 SW1904 SW1903 SW1901 L1901  
PWB,KEY\_SW N7AE 1AA4B10N2320A K19CTRA (3PIN) A30C5 K19CTR (8PIN) PWB RC\_LED PART  
SIDE PWB RC\_LED SOLDER SIDE...

## [Page 21: Block Diagram Power Lines](#)

BLOCK DIAGRAM POWER LINES - 21 -...

## [Page 22: Block Diagram Signal Lines](#)

BLOCK DIAGRAM SIGNAL LINES - 22 -...

IC BLOCK DIAGRAMS IC001, Audio AMP - 23 -...

[Page 24](#) IC BLOCK DIAGRAMS (CONT.) IC1670 Voltage Regulator IC803 EEPROM - 24 -...

[Page 25](#) IC1680 DC to DC Regulator IC1600, DC to DC Converter - 25 -...

[Page 26](#) IC BLOCK DIAGRAMS (CONT.) IC5500 Video Processing - 26 -...

[Page 27](#) IC6270, Low output Amplifier IC6600, USB protection - 27 -...

[Page 28](#) IC BLOCK DIAGRAMS (CONT.) IC5700, DDR: Double Data Rate SDRAM - 28 -...

### [Page 29: 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 30](#) TROUBLESHOOTING FLOW CHARTS NO VIDEO Check: RF(TV) ,Digital(TV) All Inputs? Line: A6100 21pin - IC5500 AA17pin A6100 20pin - IC5500 AA18pin only Parts: Around A6100 (TU\_IF), IC5500 Check: AV1 only Line: Terminal(CV) - Q5802,5806 - IC5500 AD19pin Terminal(Y) - Q5803,5807 - IC5500 AB14pin Terminal(C) - Q5804,5808 - IC5500 AB10pin Parts: Around IC5500 Check:...

[Page 31](#) TROUBLESHOOTING FLOW CHARTS NO AUDIO Is there Check: All Modes ? signal at speaker Speaker (SP901, SP902) terminal ? Is there Check: signal at IC001 7pin (L) Line: IC001 1pin - IC800 (CPU) 22pin (Mute) or 3pin (R) ? Parts: Around IC001 (Audio AMP.) Check: Parts: Around IC6250 (DAC) Check:...

### [Page 32: Control Port Functions](#)

CONTROL PORT FUNCTIONS System Control (SUB CPU : 801) IC specification Assignment Explanation P12/SCK0 REG SW4 REG SW4 (ON : High OFF : Low) P13/SO1 REG SW5 REG SW5 (ON : Low OFF : High) 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 33](#) IC specification Assignment Explanation P72/INT2/T0IN CEC output CEC output 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...

### [Page 34: Zoran 772 Peripherals](#)

Zoran 772 Peripherals DDR2 Nand Flash 512Mbit (128Mbit) (400MHz) (D -Sub) Vi deo2 (Component) MPEG2 DEMUX Video Decode Vi deo3 (Component) RS -232C HD MI1 (or DVI) Clock HDMI Sca ler HD MI2 (25MHz) (MIPS) (or DVI) RE SE T NTSC Audi o Pr oc essing...

### [Page 35: 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  $\mu\text{F}$  (Micro Farad), and the values more than 1 are in pF.

### [Page 36: Ic, Diode, And Transistor Pin Layouts](#)

IC, DIODE, AND TRANSISTOR PIN LAYOUTS - 36 -...

### [Page 37: Pc Board Connections And Locations](#)

PC BOARD CONNECTIONS AND LOCATIONS - 37 -...

### [Page 38: Capacitor And Resistor Code Chart](#)

S .....Oxide Metalized Y .....Wire Wound C .....Solid D .....Carbon Film W .....Wire Wound For parts or service contact Sanyo Manufacturing Corporation P.O. Box 2000 3333 Sanyo Road Forrest City, Arkansas 72335-2000 October 2009 SMC Published in Mexico.

### [Page 39: Schematic Diagrams](#)

MODEL DP32649 (N7HK) Chassis No. P32649-05 SCHEMATIC DIAGRAMS J10EA043N ELECTROSTATICALLY SENSITIVE DEVICES Many solid-state devices (especially Integrated Circuits) are Electrostatically R1601 R1603 R1604 Sensitive, and, therefore, require special handling techniques as described under C1609 R1602 C1603 "Servicing Electrostatically Sensitive Devices," on page two in this service literature.

[Page 40](#) MODEL DP32649 (N7HK) Chassis No. P32649-05 SCHEMATIC DIAGRAMS ELECTROSTATICALLY SENSITIVE DEVICES Many solid-state devices (especially Integrated Circuits) are Electrostatically HS\_DET R2449 Sensitive, and, therefore, require special handling techniques as described under IC2445 C2445 L2400 R2447 KZ0.1LZF R2448 "Servicing Electrostatically Sensitive Devices," on page two in this service literature.

This manual is also suitable for:

[113019904](#)