





## Sanyo DP42545 Service Manual

Remote control plasma color television



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18

19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

• PAGE

1

OF 60 GO

•

[Table of Contents](#)

- 

Troubleshooting

•

## Bookmarks



## Quick Links

[1 Power Failure Circuit](#)

[2 Component and Testpoint Locations](#)

[3 Troubleshooting Flow Charts](#)

[Download this manual](#)

See also: [Owner's Manual](#)



# SERVICE MANUAL

## Contents

<a href="#">Safety Instructions</a> . . . . .	2
<a href="#">Service Adjustments</a> . . . . .	3 - 12
<a href="#">Power Failure Circuit</a> . . . . .	13
<a href="#">Mechanical Disassemblies</a> . . . . .	14 - 19
<a href="#">Chassis Electrical Parts List</a> . . . . .	20 - 34
<a href="#">Cabinet Parts List</a> . . . . .	35
<a href="#">Component and Test Point Locations</a> . . . . .	36 - 40
<a href="#">Block Diagrams</a> . . . . .	41 - 50
<a href="#">Trouble Shooting Flow Charts</a> . . . . .	51 - 53
<a href="#">Control Port Functions</a> . . . . .	54 - 55
<a href="#">Schematic Notes</a> . . . . .	57
Pin Layouts . . . . .	57
Capacitor and Resistor Codes . . . . .	57
<a href="#">Board Connections</a> . . . . .	58 - 60



DP42545, J3TR, PRODUCT CODE 111008200

# Remote Control Plasma Color Television

## Specifications

- Power Rating . . . . . 120VAC
- Antenna Input Impedance . . . . . 75
- Receiving Channel . . . . . 2 - 13 (VHF),
- Remote Ready . . . . . 32 Key Remote Control
- Sound Output . . . . . 5.0 W/CH
- Intermediate Frequency
- Picture IF Carrier . . . . . 45.75MHz
- Sound IF Carrier . . . . . 41.25MHz
- Color Sub Carrier . . . . . 42.17MHz
- Cabinet Dimensions
- Width . . . . . 1206mm
- Height . . . . . 716mm
- Depth including base . . . . . 249mm

# AS

FILE NO.

# DP42545

(U.S.A.)

(CANADA)

**ORIGINAL VERSION**

**Chassis No. 42545-00**

**NOTE: Match the Chassis No. on**

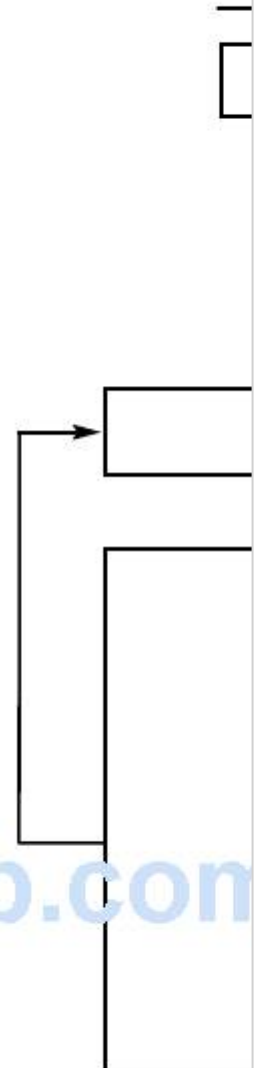
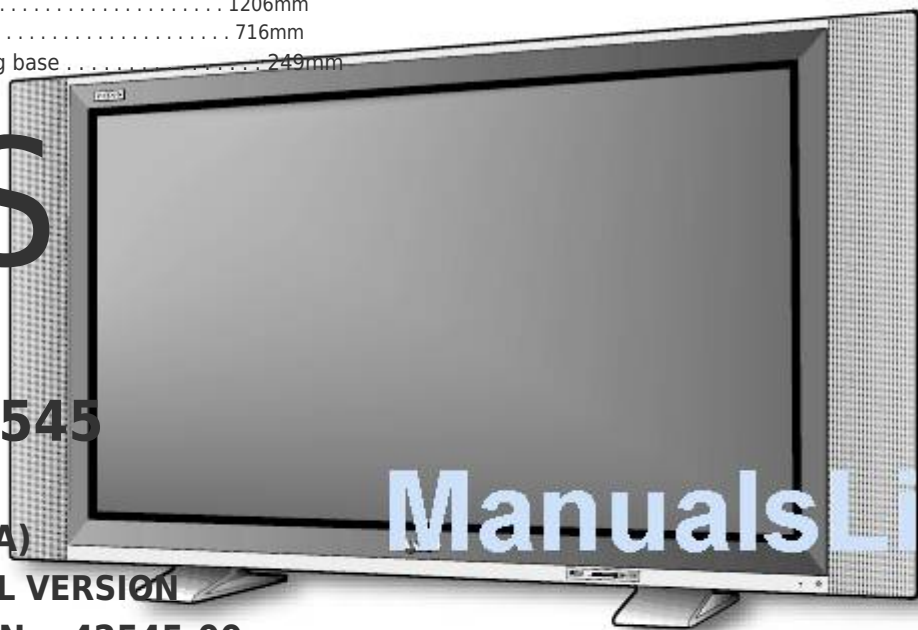
the unit's back cover with  
the Chassis No. in the  
Service Manual.

**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.**

- 300W, 3.5A (Max)
- UHF/VHF/CATV
- 14 - 69 (UHF),
- 01, 14-94, 95-125 (CATV)
- 1-99 (Digital)

**SM**



**REFERENCE No.**

Digital

**780103**

[Next Page](#)

1  
2  
3  
4  
5

## Related Manuals for Sanyo DP42545

### [Plasma TV Sanyo DP42545 Owner's Manual](#)

Sanyo dp42545: instruction manual (31 pages)

### [TV Sanyo DP42545 Quick Start](#)

Sanyo dp42545: quick start (2 pages)

### [Plasma TV Sanyo DP50719 Owner's Manual](#)

50" plasma hdtv (19 pages)

### [Plasma TV Sanyo DP50710 Owner's Manual](#)

50" plasma hdtv (60 pages)

### [Plasma TV Sanyo DP50710 Owner's Manual](#)

50" plasma hdtv (24 pages)

### [Plasma TV Sanyo DP50741 Setup Manual](#)

50" diagonal plasma 720p 600hz hdtv (2 pages)

### [Plasma TV Sanyo DP50741 Owner's Manual](#)

50" plasma hdtv (48 pages)

### [Plasma TV Sanyo DP50749 Owner's Manual](#)

50" hdtv plasma (67 pages)

### [Plasma TV Sanyo DP50749 Service Manual](#)

Remote control digital color television (48 pages)

### [Plasma TV Sanyo DP42746 Owner's Manual](#)

(59 pages)

### [Plasma TV Sanyo DP42746 Service Manual](#)

Remote control plasma color television (38 pages)

### [Plasma TV Sanyo Vizzon DP50747 Owner's Manual](#)

Sanyo plasma hdtv owner's manual (52 pages)

### [Plasma TV Sanyo DP50747 Owner's Manual](#)

Sanyo high-definition digital plasma television owner's manual (52 pages)

### [Plasma TV Sanyo DP50747 Owner's Manual](#)

Plasma hdtv (52 pages)

### [Plasma TV Sanyo DP50747 Service Manual](#)

Sanyo remote control plasma color television (52 pages)

### [Plasma TV Sanyo DP50747 Service Manual](#)

Remote control plasma color television (62 pages)

## Summary of Contents for Sanyo DP42545

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

Board Connections ... . 58 - 60 Schematic Diagrams ... . 61 - 72 DP42545, J3TR, PRODUCT CODE 111008200 Remote Control Plasma...

### [Page 2: 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](#)

GENERAL This set has an On-screen Service Menu system included in the CPU that allows remote operation for most of the service adjustments. ON-SCREEN SERVICE MENU SYSTEM 1. Enter the Service Menu: While pressing the Volume (-) button on the television, press the Number Key 1 on the remote control unit.

[Page 4](#) ON-SCREEN SERVICE MENU Name CVBS/S\_W/B\_R Drive CVBS/S\_W/B\_G Drive CVBS/S\_W/B\_B Drive CVBS/S\_B/B\_R Cutoff CVBS/S\_B/B\_G Cutoff CVBS/S\_B/B\_B Cutoff RF\_W/B\_R Drive RF\_W/B\_G Drive RF\_W/B\_B Drive RF\_B/B\_R Cutoff RF\_B/B\_G Cutoff RF\_B/B\_B Cutoff D1/D2\_W/B\_R Drive D1/D2\_W/B\_G Drive D1/D2\_W/B\_B Drive D1/D2\_B/B\_R Cutoff D1/D2\_B/B\_G Cutoff D1/D2\_B/B\_B Cutoff D3/D4\_W/B\_R Drive D3/D4\_W/B\_G Drive D3/D4\_W/B\_B Drive...

[Page 5](#) Name Sub Image\_CVBS/S\_V\_Coring Sub Image\_CVBS/S\_V\_Pairing Sub Image\_CVBS/S\_V\_Vlinsw Sub Image\_CVBS/S\_3DYCSH Sub Image\_CVBS/S\_Filter\_1 Sub Image\_CVBS/S\_Filter\_2 Sub Image\_RF\_Contrast Sub Image\_RF\_Bright Sub Image\_RF\_Color Sub Image\_RF\_Tint Sub Image\_RF\_H\_Sharp Sub Image\_RF\_Sub\_Sharp Sub Image\_RF\_Detail Sub Image\_RF\_H\_Shoot Sub Image\_RF\_H\_Coring Sub Image\_RF\_H\_PeakF Sub Image\_RF\_V\_Sharp Sub Image\_RF\_V\_Coring Sub Image\_RF\_V\_Pairing Sub Image\_RF\_V\_Vlinsw Sub Image\_RF\_3DYCSH Sub Image\_RF\_Filter\_1 Sub Image\_RF\_Filter\_2...

[Page 6](#) Name Sub Image\_D2\_V\_Pairing Sub Image\_D2\_V\_Vlinsw Sub Image\_D2\_Filter\_1 Sub Image\_D2\_Filter\_2 Sub Image\_D3\_Contrast Sub Image\_D3\_Bright Sub Image\_D3\_Color Sub Image\_D3\_Tint Sub Image\_D3\_H\_Sharp Sub Image\_D3\_Sub\_Sharp Sub Image\_D3\_H\_Detail Sub Image\_D3\_H\_Shoot Sub Image\_D3\_H\_Coring Sub Image\_D3\_H\_PeakF Sub Image\_D3\_V\_Sharp Sub Image\_D3\_V\_Coring Sub Image\_D3\_V\_Pairing Sub Image\_D3\_V\_Vlinsw Sub Image\_D3\_Filter\_1 Sub Image\_D3\_Filter\_2 Sub Image\_D4\_Contrast Sub Image\_D4\_Bright Sub Image\_D4\_Color...

[Page 7](#) Name Sub Image\_Digital\_Filter\_2 Step\_Contrast Step\_Bright Step\_Color Step\_Tint Step\_Sharp StaticGamma\_Selg1stc StaticGamma\_Selg2stc B/S\_CVBS/S/D1/D2\_Start B/S\_CVBS/S/D1/D2\_Bapl B/S\_CVBS/S/D1/D2\_Area B/S\_CVBS/S/D1/D2\_Bpgstp2 B/S\_CVBS/S/D1/D2\_Bpgstp1 B/S\_CVBS/S/D1/D2\_Areadet B/S\_CVBS/S/D1/D2\_Detlevel Black Stretch\_D3/D4\_Start Black Stretch\_D3/D4\_Bapl Black Stretch\_D3/D4\_Area Black Stretch\_D3/D4\_Bpgstp2 Black Stretch\_D3/D4\_Bpgstp1 Black Stretch\_D3/D4\_Areadet Black Stretch\_D3/D4\_Detlevel Black Stretch\_Digital\_Start Black Stretch\_Digital\_Bapl Black Stretch\_Digital\_Area Black Stretch\_Digital\_Bpgstp2 Black Stretch\_Digital\_Bpgstp1 Black Stretch\_Digital\_Areadet Black Stretch\_Digital\_Detlevel Black Level\_Con\_Blvcgain...

[Page 8](#) Name CTI\_Cselfil CTI\_Cselfil CTI\_Selcoa CTI\_Selclim N/H\_ON CVBS/S\_Venhslice N/H\_ON CVBS/S\_Noise Gain N/H\_ON CVBS/S\_Sharpdown N/H\_OFF CVBS/S\_Venhslice N/H\_OFF CVBS/S\_Noise Gain OFFSET\_CR\_OUT\_D1 OFFSET\_CB\_OUT\_D1 OFFSET\_CR\_IN\_D1 OFFSET\_CB\_IN\_D1 OFFSET\_CR\_OUT\_D2 OFFSET\_CB\_OUT\_D2 OFFSET\_CR\_IN\_D2 OFFSET\_CB\_IN\_D2 OFFSET\_CR\_OUT\_Digital OFFSET\_CB\_OUT\_Digital OFFSET\_CR\_IN\_Digital OFFSET\_CB\_IN\_Digital Image Menu\_Sports\_Contrast Image Menu\_Sports\_Bright Image Menu\_Sports\_Color...

[Page 9](#) Name PLL\_Cont\_RF\_SEPA LVL PLL\_Cont\_RF\_HD AMP1 PLL\_Cont\_RF\_HD\_GAIN1 PLL\_Cont\_RF\_HD AMP2 PLL\_Cont\_RF\_HD\_GAIN2 PLL\_Cont\_RF\_HD AMP3 PLL\_Cont\_RF\_HD\_GAIN3 PLL\_Cont\_AV\_SEPA LVL PLL\_Cont\_AV\_HD AMP1 PLL\_Cont\_AV\_HD\_GAIN1 PLL\_Cont\_AV\_HD AMP2 PLL\_Cont\_AV\_HD\_GAIN2 PLL\_Cont\_AV\_HD AMP3 PLL\_Cont\_AV\_HD\_GAIN3 PLL\_Cont\_D1/D2\_SEPA LVL PLL\_Cont\_D1/D2\_HD AMP1...

[Page 10](#) Name SRT\_Digital\_Clock Polarity Rotation\_Minute ROM\_Correction\_Number\_01 ROM\_Correction\_Number\_02 D-Clamp\_D1 D-Clamp\_D1 Power\_ON\_Enable Time AD9985\_Phase\_D2 AD9985\_Phase\_D3 AD9985\_Phase\_D4 AD9985\_Gain\_D2-R AD9985\_Gain\_D2-G AD9985\_Gain\_D2-B AD9985\_Gain\_D3-R AD9985\_Gain\_D3-G AD9985\_Gain\_D3-B AD9985\_Gain\_D4-R AD9985\_Gain\_D4-G AD9985\_Gain\_D4-B AD9985\_Offset\_D2-R AD9985\_Offset\_D2-G AD9985\_Offset\_D2-B AD9985\_Offset\_D3-R AD9985\_Offset\_D3-G AD9985\_Offset\_D3-B AD9985\_Offset\_D4-R AD9985\_Offset\_D4-G AD9985\_Offset\_D4-B AD9985\_Clamp\_Placement\_D2 AD9985\_Clamp\_Placement\_D3 AD9985\_Clamp\_Placement\_D4 AD9985\_Clamp\_Duration\_D2 AD9985\_Clamp\_Duration\_D3...

[Page 11](#) Name TA1318\_FAN\_Td TA1318\_FAN\_Te TA1318\_FAN\_Tf TA1318\_Power\_Error OSD\_H-POS\_Color\_Temp\_Warm\_Color Color\_Temp\_Warm\_Tint Color\_Temp\_Cool\_Color Color\_Temp\_Cool\_Tint SIDE\_BAR\_APL\_Auto\_Ratio SIDE\_BAR\_APL\_Auto\_Max Other\_D2\_Phase\_Adjust DM\_DM\_WDT - - Aging\_Pattern\_Select GAM\_SEL\_CVBS/S\_Gamma Table GAM\_SEL\_RF\_Gamma



Table GAM SEL\_D1\_Gamma Table GAM SEL\_D2\_Gamma Table GAM SEL\_D3\_Gamma Table GAM SEL\_D4\_Gamma Table...

[Page 12](#) SERVICE ADJUSTMENTS WHITE BALANCE ADJUSTMENT Composite (External Video Input) 1. Connect a color-bar generator to the external (composite) video input terminal. 2. Switch the generator to the white pattern. 3. Set the television to following conditions: Picture: SPORTS Color Enhancer: Normal Picture Size: Full...

### [Page 13: Power Failure Circuit](#)

The CPU (IC801) is programmed so the set will go to the standby mode when there is a circuit failure as described below. (Refer to "Power Supply Lines" page 38.) 1. Power Failure 1: Detected voltage failure for analog circuit. (Connected to IC801 pin 52.) (Normal: High, Failure: Low) 2.

### [Page 14: Mechanical Disassembly](#)

MECHANICAL DISASSEMBLY BACK CABINET REMOVAL - SIDES Remove 24 screws to take the side cabinets off. (A:3X8, 6pcs; B:4X12, 18pcs) SERVICE DIGITAL DIGITAL UHF/VHF/CATV AUDIO ANTENNA IN OUTPUT BACK CABINET REMOVAL- CENTER Remove 32 screws to take the back cabinet off. (C:3X8, 11pcs;...

[Page 15](#) 1: Main Board 2: D-TU (Digital) Board 3: Filter Board 1: MAIN BOARD REMOVAL Remove 4 screws (3X8) to take the main board with the shield case (assembly parts) off. 2: D-TU BOARD REMOVAL Remove 3 screws (3X8) to take the D-TU (digital) board with the shield case (assembly parts) off.

[Page 16](#) MECHANICAL DISASSEMBLY (CONT.) Position TV face down on a padded or cushioned surface to protect the screen and finish. Remove 2 screws (6X18) from each foot and remove. FILTER GLASS REMOVAL 1. Remove the key switch board. 2. Disconnect the following socket connections. Control Board ~ Main Board: Speakers ~ Main Board: 3.

[Page 17](#) 4. Remove 20 screws (G:3X8) to take the filter glass and upper plates off. FRONT CABINET REMOVAL 1. Remove 18 screws (F:4X12) to take the filter glass with upper and lower plates (assembly parts) off. 2. Remove the speakers. 3. Remove a screw (4X10) to take the control board and holder off. —...

[Page 18](#) MECHANICAL DISASSEMBLY (CONT.) PANEL MODULE REMOVAL 1. Remove the key switch board. 2. Disconnect the following socket connections. Main Board ~ Power Unit: D-TU Board ~ Power Unit: Filter Board ~ Power Unit: Control Board ~ Main Board: Speakers ~ Main Board: PDP Module ~ Main Board: 3.

[Page 19](#) POWER UNIT REMOVAL Remove 9 screws to take the power unit off. This PDP TV uses several different kinds of screws. Using the correct screw is required to prevent damage The gasket is provided to prevent interference to other radio and television receivers. The gasket should be returned to its previous position after servicing.

### [Page 20: 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 SHOULD BE CONSIDERED WHEN A REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER. COMPONENTS INDICATED BY A STAR ( ) IN THIS PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATE COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE.

[Page 21](#) Schematic Part No. Location MISCELLANEOUS DIGITAL PC BOARD MAIN PC BOARD CAPACITORS Schematic Description Location — 21 — Part No. Description...

[Page 22](#) Schematic Part No. Location Schematic Description Location — 22 — Part No. Description...

[Page 23](#) Schematic Part No. Location Schematic Description Location — 23 — Part No. Description...

[Page 24](#) Schematic Part No. Location Schematic Description Location — 24 — Part No.

Description DIODES INTEGRATED CIRCUITS...

[Page 25](#) Schematic Part No. Location COILS Schematic Description Location — 25 — Part No. Description TRANSISTORS...

[Page 26](#) Schematic Part No. Location Schematic Description Location — 26 — Part No. Description...

[Page 27](#) Schematic Part No. Location Schematic Description Location — 27 — Part No. Description...

[Page 28](#) Schematic Part No. Location Schematic Description Location — 28 — Part No. Description...

[Page 29](#) Schematic Part No. Location RESISTORS Schematic Description Location — 29 — Part No. Description...

[Page 30](#) Schematic Part No. Location Schematic Description Location — 30 — Part No. Description...

[Page 31](#) Schematic Part No. Location Schematic Description Location — 31 — Part No. Description...

[Page 32](#) Schematic Part No. Location Schematic Description Location — 32 — Part No. Description...

[Page 33](#) Schematic Part No. Location Schematic Description Location — 33 — Part No. Description SURGE-ABSORBERS CRYSTAL/FILTERS...

[Page 34](#) Schematic Part No. Location MISCELLANEOUS FILTER PC BOARD CAPACITORS RESISTORS MISCELLANEOUS CONTROL PC BOARD CAPACITORS RESISTORS Schematic Description Location — 34 — Part No. Description MISCELLANEOUS KEY PC BOARD RESISTORS SWITCHES MISCELLANEOUS...

### [Page 35: Cabinet Parts List](#)

CABINET PARTS LIST P O W CABINET PARTS LIST ACCESSORY PARTS LIST KEY NO. PARTS NO. DESCRIPTION KEY NO. PARTS NO. DESCRIPTION — 35 —...

### [Page 36: Component And Testpoint Locations](#)

COMPONENT AND TESTPOINT LOCATIONS MAIN BOARD PARTS SIDE — 36 —...

[Page 37](#) — 37 —...

[Page 38](#) COMPONENT AND TESTPOINT LOCATIONS (Cont.) MAIN BOARD FOIL SIDE — 38 —...

[Page 39](#) — 39 —...

[Page 40](#) COMPONENT AND TESTPOINT LOCATIONS (Cont.) CONTROL BOARD PART SIDE KEY BOARD PART SIDE KEY BOARD FOIL SIDE FILTER BOARD PARTS SIDE FILTER BOARD FOIL SIDE CONTROL BOARD FOIL SIDE — 40 —...

[Page 41](#) BLOCK DIAGRAM DATA BUS LINES IC801 DM OUT DM SOUT DM SIN Serial Line DM SCLK BUSY SCL1 IC803 IIC Bus SW SDA1 IC804 EEPROM 24CL16BT SCL2 (3.3V) SDA2 IC2001 Decoder TC90288XBG SCL3 (5V) SDA3 A201 Tuner/IF/MTS F1FAM0152 IC805 Factory PC Flash-Writing IC301 IC4101...

[Page 42](#) BLOCK DIAGRAM POWER LINES — 42 —...

## [Page 43: Block Diagrams](#)

BLOCK DIAGRAM SIGNAL LINES Audio — 43 —...

[Page 44](#) BLOCK DIAGRAM SIGNAL LINES (Cont.) Video — 44 —...

[Page 45](#) IC BLOCK DIAGRAMS Digital Decoder (IC2001) — 45 —...

[Page 46](#) IC BLOCK DIAGRAMS (Cont.) D/A Converter (IC004) De-emphasis Serial Interface Interpolation Multibit Filter Modulator Interpolation Multibit Filter Modulator — 46 — Switched Capacitor DAC and Filter Switched Capacitor DAC and Filter Internal Voltage Reference...

[Page 47](#) Scan Converter (IC301) — 47 —...

[Page 48](#) IC BLOCK DIAGRAMS (Cont.) LVDS Transmitter (IC7001) CMOS /T TL IN PU TS TA 0-6 TB 0-6 TC 0-6 TD 0-6 TRANSMITTER CLOCK IN (20 to 85MHz) R/ F /PDWN THC63LVDM83R PL L — 48 — DATA (LVDS) TA + /- TB + /- TC + /- TD + /-...

[Page 49](#) A/D Converter (IC4101) — 49 —...

[Page 50](#) IC BLOCK DIAGRAMS (Cont.) Audio AMP (IC101) — 50 —...

## [Page 51: Troubleshooting Flow Charts](#)

TROUBLESHOOTING FLOW CHARTS NO POWER — 51 —...

[Page 52](#) TROUBLESHOOTING FLOW CHARTS (Cont.) NO AUDIO All Modes ? D-TU Digital Tuner Input Is there Check: signal at speaker Speaker (SP901, SP902) terminal ? Check: there signal at IC001 21pin (L) or 10pin (R) ? Check: Video 1, Component 2, Component 3, (Analog) Tuner, or Audio Out Check:...

[Page 53](#) NO VIDEO All Modes? Check: Line: IC2001 - IC301 - IC7001 - PDP Panel Parts: Around IC2001 (Digital Decoder), IC301 (Scan Converter), IC7001 (LVDS Interface), PDP Panel (Analog) TV only Check: Line: Video 1 only IC1201 1pin (Composite Video: CV), 9pin (S-Input: Y), Q2104/Q2103 - IC2001 163pin (S-Input: C) Parts: Around Q2103, Q2104 Check:...

## [Page 54: Control Port Functions](#)

CONTROL PORT FUNCTIONS System Control (CPU : IC801) — 54 —...

[Page 55](#) — 55 —...

[Page 56](#) For parts or service contact SANYO Fisher Service Corporation 21605 Plummer Street Chatsworth, CA 91311 (U.S.A.) 300 Applewood Crescent, Concord, Ontario L4K 5C7 (CANADA) March / 2005 / 2000 SMC Printed in U.S.A. — 56 —...

## [Page 57: Schematic Diagrams](#)

MODEL DP42545 Chassis No. 42545-00 SCHEMATIC DIAGRAMS NOTES ON SCHEMATIC DIAGRAMS 1. All resistance values in ohms K=1,000 M=1,000,000. 2. Unless otherwise noted on schematic, all capacitor values less than 1 are expressed in  $\mu$ F (Micro Farad), and the values more than 1 are in pF.

[Page 58](#) MODEL DP42545 Chassis No. 42545-00...

[Page 59](#) MODEL DP42545 Chassis No. 42545-00...

[Page 60](#) MODEL DP42545 Chassis No. 42545-00...