



Sanyo C28W1 Service Manual

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Colour Television

PRODUCT CODE

1113 29315 (C28W1)

1113 29316 (C28WN1)

ORIGINAL VERSION

Chassis No. WB2-B

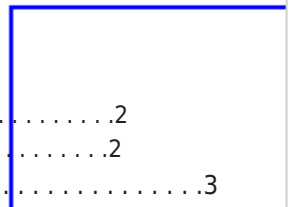
Give complete "SERVICE REF. NO." for parts order or servicing, it is shown on the rating sheet on the cabinet back of the TV set.

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Part No. SKSM0216
F2HT/HV SEPTEMBER 1997

Service Manual Model C28W1

C28WN1

Service Ref. No. C28W1-00

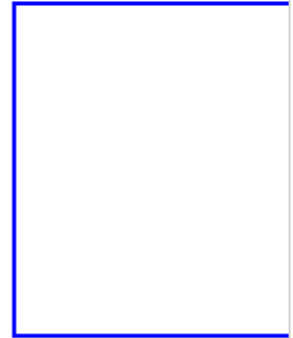
Service Ref. No. C28WN1-00

Note

This TV receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specifications for the design specifications

(Europe)

(Europe)



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[TV Sanyo C28EH25N Service Manual](#)

(2 pages)

[TV Sanyo 28H1 Service Manual](#)

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[TV Sanyo C28ER57 Service Manual](#)

Colour television (25 pages)

[TV Sanyo 28D2 Service Manual](#)

(25 pages)

[TV Sanyo C28WP1 Service Manual](#)

(48 pages)

[TV Sanyo 28DN2 Service Manual](#)

(25 pages)

[TV Sanyo 14MT2 Instruction Manual](#)

(53 pages)

[TV Sanyo 28S2 Instruction Manual](#)

(56 pages)

[TV Sanyo 14MT2 Instruction Manual](#)

(28 pages)

[TV Sanyo C29LK40S Service Manual](#)

(30 pages)

[TV Sanyo C29LK39S Service Manual](#)

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[TV Sanyo C14PA20 Service Manual](#)

Colour television (32 pages)

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(45 pages)

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(26 pages)

[TV Sanyo C21ZM15 Service Manual](#)

(23 pages)

[TV Sanyo C29LF37 Service Manual](#)

(33 pages)

Summary of Contents for Sanyo C28W1

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Colour Television Service Manual Model C28W1 (Europe) C28WN1 (Europe) Service Ref. No. C28W1-00 Service Ref. No. C28WN1-00 PRODUCT CODE 1113 29315 (C28W1) 1113 29316 (C28WN1) ORIGINAL VERSION Chassis No. WB2-B Note This TV receiver will not work properly in foreign countries where the television transmission system Give complete "SERVICE REF.

[Page 2: Safety Notice](#)

/!\ . No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark /!\ . SPECIFICATIONS Specifications (C28W1/C28WN1) Power source

AC 220~240V 50Hz Television system...

[Page 3: Pin Configuration Of System Control, Cpu](#)

PIN CONFIGURATION OF SYSTEM CONTROL, CPU SYSTEM CONTROL IC801 IC101 M37207MB-TDA8361 Vcc +5V IDENT IDENT 4 H-SYNC CHROMA ID COLOUR 26 SANDCASTLE PLS V-SYNC KEY IN BRIGHT 17 OSD RED RC SIGNAL CONTRAST 25 OSD GREEN COLOUR Q203, SHARPNESS 14 Q204, Q205...

[Page 4: Chassis Block Diagrams](#)

CHASSIS BLOCK DIAGRAMS F2HT...

[Page 5](#) F2HT...

[Page 6](#) BLOCK DIAGRAM <H&V DEFLECTION> IC101 T402 VIDEO/CHROMA/DEFLECTION FLYBACK <TDA8361> Q403 H-OUTPUT HIGH T401 VOLTAGE H-DRIVE C421 C422 H-DRIVE Q402 C465 L461 Q461 Q462 C425 DELECTION C424 C426 YOKE C427 MODE SW IC423 FROM CPU HORIZ. NORMAL/ PITTARI Q421 VERT. IC521 <BA4558N>...

[Page 7: Ic Block Diagrams](#)

IC BLOCK DIAGRAMS TDA8361 <IF/VIDEO/CHROMA/DEF.> F2HT...

[Page 8](#) TDA4661 <1H DELAY LINE> SIGNAL \pm (R-Y) CLAMPING \pm (R-Y) SAMPLE- LINE AND- MEMORY colour-difference HOLD input signals addition pre-amplifiers colour-difference stages output output signals buffers \pm (B-Y) SIGNAL CLAMPING \pm (B-Y) SAMPLE- LINE AND- MEMORY HOLD analogue supply n.c. 3MHz shifting clock n.c. TDA4661 FREQUENCY n.c.

[Page 9](#) TA8747N <AV SELECTOR> R IN VIDEO IN L IN C IN Y IN 32 16 10 20 34 14 8 19 36 17 11 5 21 35 MUTE MUTE \div 2 DECODER CLAMP COMB FILTER TA8216H/TA8200AH<AUDIO OUTPUT> TA8200AH AMP2 AMP1 SPEAKER SPEAKER F2HT...

[Page 10](#) TDA2545A <SIF DEMODULATOR> 5.5MHz 38.9MHz (5.742MHz) TDA2546A 2nd Sound IF & FM Demo. 1st Sound IF & Demodulator REF. LIMITER AMP. AMP. DEMO. DEMODULATOR INPUT MUTE LIMITER DEMO. AMP. 5.5MHz (5.742MHz) External FM demodulator TDA9821 <DUAL CHANNEL SOUND DEMODULATOR> TDA9821 5.5MHz (B/G) 7-STAGE...

[Page 11](#) SAA7283ZP <NICAM DECODER> SAA7283ZP OP-R MIXREF DQPSK OP-L 26 24 30 31 36 37 21 20 34 33 35 39 48 43 40 41 42 50 49 51 46 44 17 3 4 11 5 REPRESENTS CONTROLLER BUS TDA9840 <STEREO/DUAL SOUND PROCESSOR> 500mV RMS 15 17 -2dB...

[Page 12](#) TDA8424 <SOUND CONTROLLER> treble L treble R bass L bass R stereo/spatial mono L-OUT L-IN spatial stereo/mono treble bass spatial mono R-IN R-OUT stereo/mono stereo/spatial POWER IIC BUS TDA8424 SUPPLY Vcap D.GND MM1369AD <3D SURROUND PROCESSOR> Lout SIMULATED STEREO VIRTUAL AUDIO MM1369AD QXPANDER PROCESSOR SIMULATED...

[Page 13: Service Control Adjustments](#)

SERVICE CONTROL ADJUSTMENTS Main Board Grey Scale Adjustment R014 C010 C012 C006 AFT ADJUSTMENT IC801 C013 C003 C002 C003 1. Receive the clearest station. 2. By using T121, adjust AFT to obtain the best C009 X801 picture. IC802 MEMORY TP-D C810 AGC ADJUSTMENT C673...

[Page 14](#) SERVICE CONTROL ADJUSTMENTS Power & Deflection Board C621 C633 T611 C618 CONVERTER C624 TRANS. IC651 L633 Q615 Q633 C652 POWER Q634 Q614 DRIVE C616 POWER C651 V-CENTRE ADJUSTMENT SWITCH Q632 IC611 Q631 1. Receive circular pattern signal. 2. Adjust V-centre by using SW501. Q616 Q505 IC423...

[Page 15: Circuit Alignments](#)

2. By using T3801, adjust "P" (Side b) to be equal centre line. Input probe IC3801-pin12 Sweep ATT 10dB Marker Frequency 38.9/39.5MHz Marker frequency SIF Board T3801 39.5MHz --> C28WN1B 38.9MHz --> C28W1/WN1 C3807 X3801 IC3801 SIF Alignment K38H2 K38H2 -15-F2HT...

[Page 16](#) Deviation 27kHz Mode Stereo NICAM & Stereo Board C3414 IC3401 1C3431 C3433 C3409 C3431 TJ3401 Pilot Alignment X3401 C3405 C3432 Required only model C28W1/WN1 C3405 L3454 C3408 IC3451 C3478 C3482 C3484 X3461 C3485 C3467 C3495 C3488 C3469 C3472 C3486 C3462...

[Page 17: Adjustments In The Service Mode](#)

ADJUSTMENTS IN THE SERVICE MODE Since some chassis circuit adjustments are controlled by the CPU built into the chassis, adjustments can now be made by inputting data directly via the remote control handset supplied with the set. Memory IC replacement Since adjustment data for the circuit is stored in the memory IC (IC802) that comes with the CPU, the adjustment data must be re-input when the memory IC is replaced.

[Page 18](#) Item Adjustment Screen Mode Initial Data Range of Data Remarks 11.P H-W H-Width 50Hz NORMAL ± 63 12.P PCC Pincushion 50Hz NORMAL ± 63 13.P V-W V-Size 50Hz PITTARI ± 127 14.P V-S V-S Correction 50Hz PITTARI ± 31 15.P H-W H-Width 50Hz PITTARI ± 63 16.P PCC Pincushion...

[Page 19](#) Service mode adjustments V-SIZE ADJUSTMENT PINCUSHION ADJUSTMENT 1. Receive circular pattern signal. 1. Receive cross hatch pattern signal. 2. Set the TV to the service mode. 2. Set the TV to the service mode. 3. Select service item " 1.P V-W" by pressing the 3.

[Page 20: Special Functions](#)

SPECIAL FUNCTIONS This TV set allows you to set up the following special functions. Prohibition of presetting ITEM-1 ITEM-1 SET 0 Sets the prohibition of presetting and CS key entry. Start up programme position ITEM-2 Presets the programme position when the set is switched on.

[Page 21: Cabinet Parts List](#)

SERVICE REF. NO. C28W1/WN1 CABINET PARTS LIST Note: Parts order must contain Service Ref. No., Part No., and descriptions. MENU SURROUND BASS -/- WIDE Ref. No. Part No. Description CABINET PARTS 610 267 9441 ASSY,CABINET FR A-F2HV 610 257 2827...

[Page 22: Electrical Parts List](#)

Q: +30-10% T: +50-10% U: +75-10% V: +20-10% W: +100-10% X: +40-20% Y: +150-10% Z: +80-20% SERVICE REF. NO. C28W1-00 Rated value: P=pico farad, U=Micro farad 610 267 7010 ASSY,PWB,CRT F2HV (See page 24) Material: 610 267 6860 ASSY,PWB,FRONT F2HV...

[Page 23](#) Ref. No. Part No. Description Ref. No. Part No. Description 610 267 7010 ASSY,PWB,CRT F2HV R782 401 027 2303 CARBON 560 JA 1/6W R786 401 064 9907 OXIDE-MT 10K JA 1AA0B10E125A0 R788 401 009 1508 CARBON 2.7K JA 1/2W R792 401 007 5805 CARBON 120K JA...

[Page 24](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription C1102 403 069 0507 CERAMIC 1000P K 407 013 6508 DIODE 1S2471 C1103 403 248 1905 ELECT 10U M D686 407 053 6803 ZENER DIODE MTZ5.6C C1104 403 248 1905 ELECT 10U M 407 057 0104...

[Page 25](#) Ref. No. Part No. Description Ref. No. Part No. Description MISCELLANEOUS 405 012 2002 TR 2SC1815-GR / ! \ 405 019 2708 TR 2SC536-F-NP F601 423 022 2102 FUSE 250V 405 019 3804 TR 2SC536-G-NP F601A 645 000 5077 HOLDER,FUSE 405 020 7501 TR 2SC945A-PA F601B...

[Page 26](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription C465 403 084 0308 POLYPRO 0.022U J 630V R422 401 016 4806 CARBON 22K JA 1/4W C466 403 083 9807 POLYPRO 0.018U J 630V R424 401 022 4104 CARBON 68K JA 1/4W C467 403 188 0808...

[Page 27](#) Ref. No. Part No. Description Ref. No. Part No. Description R636 402 061 1109 FUSIBLE RES 47 J- 1/4W 407 013 6508 DIODE 1S2471 R637 401 025 1605 CARBON 1.5K JA 1/6W D492 407 057 9602 ZENER DIODE RD9.1EB1 R638 401 024 9305 CARBON 1.2K JA...

[Page 28](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription D636 407 005 4505 DIODE DS442X 405 004 3208 TR 2SA564A-R(CU) 407 007 9904 DIODE GMA01 405 004 4205 TR 2SA608-E-CTV-NP 408 008 2406 DIODE 1N4148 405 004 4809 TR 2SA608-F-CTV-NP 407 012

4406 DIODE 1SS133 405 006 1103...

[Page 29](#) Ref. No. Part No. Description Ref. No. Part No. Description 409 317 7205 IC UPC78M08AHF 403 181 8207 POLYESTER 0.1U K IC801 410 284 2506 IC M37207MF-072SP C214 403 014 3409 CERAMIC 18P J IC802 409 376 6201 IC ST24C04B6 C215 403 014 3409 CERAMIC...

[Page 30](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription R137 401 027 5205 CARBON 680 JA 1/6W R280 401 024 6700 CARBON 100 JA 1/6W R139 401 025 3807 CARBON 180 JA 1/6W R283 401 037 5004 MT-GLAZE 0.000 ZA 1/10W R140 401 024 7004 CARBON...

[Page 31](#) Ref. No. Part No. Description Ref. No. Part No. Description R859 401 038 3504 MT-GLAZE 330 JA 1/10W 407 012 4406 DIODE 1SS133 R860 401 025 8208 CARBON 22K JA 1/6W 407 012 5809 DIODE 1SS176 R861 401 038 5102 MT-GLAZE 3.9K JA 1/10W D209...

[Page 32](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription 610 266 4300 ASSY,PWB,SIF F2HV IC3451 409 404 3707 IC SAA7283ZP/M2 1AA0B10E3690A CAPACITOR C3401 403 248 1905 ELECT 10U M TRANSISTOR C3402 403 069 5601 CERAMIC 0.01U K Q3802 405 109 4407 TR BC848-B C3403 403 068 0409...

[Page 33](#) Ref. No. Part No. Description Ref. No. Part No. Description RESISTOR Q1309 405 015 8704 TR 2SC2812-L6-TB R3401 401 037 5202 MT-GLAZE 100 JA 1/10W Q1311 405 015 8704 TR 2SC2812-L6-TB R3402 401 037 5202 MT-GLAZE 100 JA 1/10W Q1313 405 015 8704 TR 2SC2812-L6-TB R3403...

[Page 34](#) Ref. No. Part No. Deacription Ref. No. Part No. Deacription R1333 401 037 5608 MT-GLAZE 10K JA 1/10W 409 405 6004 IC MM1369BD R1334 401 038 2200 MT-GLAZE 27K JA 1/10W CAPACITOR R1335 401 037 5608 MT-GLAZE 10K JA 1/10W C1001 403 069 1702 CERAMIC...

[Page 35](#) Ref. No. Part No. Description Ref. No. Part No. Description 403 178 9309 POLYESTER 0.01U J R1234 401 038 0602 MT-GLAZE 220 JA 1/10W C3512 403 105 9501 CERAMIC 1000P J R1235 401 038 0602 MT-GLAZE 220 JA 1/10W C3513 403 166 6808 MT-POLYEST 0.1U J...

[Page 36](#) MT-POLYEST 0.1U J ----- 403 237 8007 MT-COMPO 0.1U J C2902 403 248 1608 ELECT 47U M For SERVICE REF. NO. C28W1-00 C2903 403 166 6808 MT-POLYEST 0.1U J 403 237 8007 MT-COMPO 0.1U J C2904 403 032 8608 CERAMIC...

[Page 37](#) Ref. No. Part No. Description Ref. No. Part No. Description 405 015 8704 TR 2SC2812-L6-TB 407 163 9107 ZENER DIODE UZ-10BCA Q3484 405 014 4509 TR 2SC2412K T146 R ----- 405 015 8704 TR 2SC2812-L6-TB INTEGRATED CIRCUIT IC3401 409 371 6206 IC TDA9840/V2 IC3431 409 316 4601...

[Page 38](#) Some voltages may vary with gio presi usando un segnale di barre col- lare importanza per il sicuro funziona- ficato altrimenti. C28W1 cancel to product safety. It is particu- signal strength. ore sono con tutti i controlli alle loro Il transistore 2SA608(E,F) puo essere mento del TV.

[Page 40](#) K2BB1-3 SUB VIDEO <R/C> J10EA090N J10EA070N J10EA030N <KEY1> R009 D002 D001 K20J DSB015 DSB015 K2CC4-6 D063 D062 DSB015 DSB015 J10EA030N D061 DSB015 IC001H1 IC001H2 2400010 2400010 R014H1 R014 R1828 2400010 5WK1I J11EG120N R014H2 ST/MN 2400010 Q-SW R1827 IC001 D687 D688 TA8200AH R683 R001...

[Page 41](#) P-SW RC5V D-SW KEY IN THRESHOLD VOLTAGE SHARPNESS CONTROL AV3-R PAL/NTSC AV3-L AV3-V H/V.BLK L041 R-IN Z21B0040N L-IN MUTE Y OUT L042 L2G3120KN S.C.PULSE L043 L2G3120KN V-PULSE 12V-1 H-BLK ON/OFF H-PULSE 9V-1 Y IN...

[Page 42](#) Part No. 1AA6P2P0706-- F2HV (SHEET 3/7)

[Page 44](#) 1C3431 Part No. 1AA6P2P0706-- F2HV (SHEET 4/7)

[Page 46](#) Part No. 1AA6P2P0706-- F2HV (SHEET 5/7)

[Page 48](#) Part No. 1AA6P2P0706-- F2HV (SHEET 6/7)

[Page 49](#) SERVICE CONTROL ADJUSTMENTS SERVICE CONTROL ADJUSTMENTS Power & Deflection Board Main Board Grey Scale Adjustment C621 C633 R014 T611 C010 C012 C618 C006 CONVERTER AFT ADJUSTMENT C624 IC801 TRANS. C013 C003 IC651 L633 C003 C002 Q615 1. Receive the clearest station. Q633 C652 POWER...

[Page 50](#) ADJUSTMENTS IN THE SERVICE MODE Item Adjustment Screen Mode Initial Data Range of Data Remarks 11.P H-W H-Width 50Hz NORMAL ± 63 Since some chassis circuit adjustments are controlled by the CPU built into the chassis, adjustments can now be 12.P PCC Pincushion 50Hz NORMAL ± 63 ...

[Page 51](#) WAVEFORMS AND VOLTAGES MAIN Q122 Q132 Q135 Q202 Q203 Q204 B 8.3V B 2.6V B 2.6V B 10V B 10V B 10V C 0V C 0V C 0V C 32.5V C 32.5V C 32.5V E 8.0V E 3.1V E 3.1V E 7.0V E 7.0V E 7.0V...

This manual is also suitable for:

[C28wn1C28w1-00C28wn1-001113 293151113 29316](#)