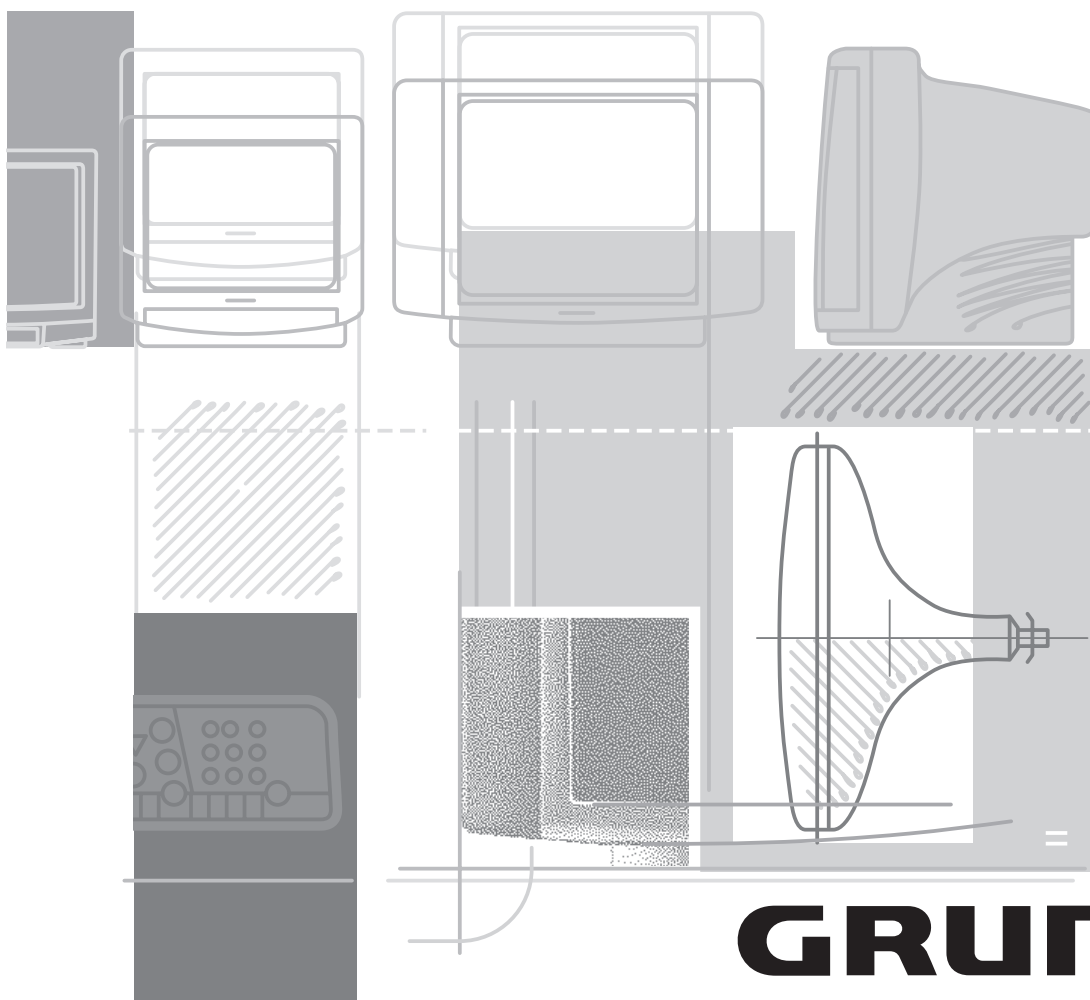


Service Information Bulletins

1997



GRUNDIG
made for you

Table of Contents

Audio / Hifi

RR 3500 CD, RR 650 CD Serial no. 1/97	4
UMS1, UMS2 Serial no. 2/97	5
R14 DPL5 Serial no. 3/97	6
CD 436, CD 437, CD 11, CD 12, CD-IR, M30 CD Serial no. 4/97	7
RCD400, UMS2 Serial no. 5/97	8

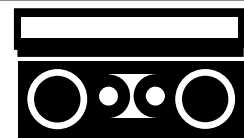
TV / Sat

Chassis Digi Basic, e.g. ST 70-255 IDTV/LOG, M 70-280 IDTV/LOG, SE 7089 IDTV/LOG Serial no. 1/97	9
Chassis Digi Basic (CUC 1825, 1826), Digi Basic+ (CUC 1827) and Digi 6 (CUC 1952, 1983, 1984) Serial no. 1/97	9
TVR 3701 SV Serial no. 2/97	10
Chassis CUC 7301 text, e.g. P 37-730 text Serial no. 3/97	11
Chassis CUC 7303 and 7305, e.g. P 37-071, T 51-720 text, T 55-731 text Serial no. 5/97	12
Chassis CUC 7350, e.g. ST 55-750 text Serial no. 6/97	13
Chassis CUC 7300, e.g. P 37-740 SAT, and all sets retrofitted with the built-in Satellite Receiver SER 7300 Serial no. 7/97	14
Chassis Digi Basic CUC 1825, 1826 and 1827 - e.g. ST 63-255 IDTV/LOG, M 70-281 IDTV/LOG, SE 7089 IDTV/LOG Serial no. 8/97	15
Chassis Digi 6 - CUC 1952, 1983, 1984 and built-in Satellite Receiver SER 150/SER 150 ET - e.g. Denver SE 8216/9 Ref./PIP, M 82-269/9 Reference Serial no. 9/97	16
Mono-TV-Recorders TVR 3710, 5100 and 5500 Serial no. 10/97	17
Chassis Digi IV - CUC 1821/1851/1881/1892 and 1981 e.g. M 70-781 IDTV, M 70-791 IDTV, M 82-102 IDTV, M 95-102 IDTV, M 82-169 PALplus Serial no. 11/97	18
Colour television receivers with 82/70 cm Toshiba picture tube and chassis Digi 6 - e.g. M 82-269/9 Ref, SE 8216/9 Ref/PIP, M 70-269/9 Ref, SE 7016/9 Ref/PIP Trento Colour television receivers with chassis Digi Basic CUC 1805/1825/1826 and 1827 e.g. ST 63-255 IDTV/LOG, ST 72-261 IDTV/LOG, Boston SE 7090 IDTV/LOG Serial no. 12/97	19

Chassis CUC 7301/7301F, e.g. P 37-070, T 51-730 text, T 55-730/5 text Chassis Digi 6 - CUC 1952, 1983, 1984 and built-in Satellite Receiver SER 150/SER 150 ET e.g. Denver SE 8216/9 Ref./PIP, M 82-269/9 Reference Serial no. 13/97	20
Chassis CUC 7303 e.g. P 37-731 text, P 45-731 text, T 55-731 text Chassis CUC 7303/7305/7350 and CRT panels 29305-022.16/-022.17, e.g. P 37-731 text, P 45-731 text, T 55-731 text, P 37-731/12 text, ST 55-750 text, XS 55/1, Lissabon SE 5576 text Serial no. 14/97	21
Chassis Digi 6 - CUC 1842, 1894, 1952, 1962 and 1983 e.g. M 72-410 Ref., Denver SE 8216/9 PAL Plus, M 70-269/9 Ref. Serial no. 15/97	22
Chassis Digi Basic and Digi 6 - CUC 1805, 1825, 1826, 1827, 1828, 1842, 1894, 1952, 1962 and 1983, e.g. M 72-410 Ref., Denver SE 8216/9 PAL Plus, M 70-269/9 Ref Serial no. 16/97	23
Chassis Digi Basic - CUC 1806, 1825, 1826, 1827, 1829, 1830 with CRT panels 29305-122.04/10/12/17 z.B. ST 70-255 IDTV/LOG, ST 72-261 IDTV/LOG, Atlanta SE 7220 IDTV/LOG, ST 72-261 IDTV/LOG Serial no. 17/97	24
CTV sets ST 72-261 IDTV/LOG and ST 72-261/8 IDTV/LOG with Toshiba picture tube Serial no. 18/97	25
Satellite Receivers STR 631/632/641/642 Serial no. 19/97	26
Colour television receivers MW 70-100/8, M 72-100 and M 72-100/8 Serial no. 20/97	27

Video

Series GV 4xx video recorders with " World Deck " Serial no. 1/97	28
GV 560HIFI Serial no. 2/97	29
GV 6096 SV Serial no. 3/97	30
Series GV 4xx video recorders with " World Deck " Serial no. 4/97	31
GV 6096 SV Serial no. 5/97	32
GV 660 / GV 690 Serial no. 6/97	33
GV 5xx and GV 6xx range of video recorders Serial no. 7/97	34
GV 403, 407, 411/1, 411/2, 417, 437, 4001, 4002VPS, 4003VPS. Serial no. 8/97	35
GV 7400 HIFI and variants, SE 7105 HIFI Serial no. 9/97	36



Product: RR 3500 CD, RR 650 CD

Audio No 1/97

RR 3500 CD, RR 650 CD

Possible complaint:

The working distance of the remote control handset is too short (<2m).

Reason:

Reverse connection of the collector and emitter of the transistor Q 901 (remote control RC CD).

Cure:

Exchange the remote control or connect the transistor terminals correctly.

Workshop:

Check all available remote control handsets for a working range of about 4.5m and exchange or repair them where necessary.

Stores:

Remote control handset for RR 3500 CD / RR 650 CD, part no. 75954-046.34.

Technical Services / Information

Product: UMS1, UMS2**Audio No.** 2/97**UMS1, UMS2****Possible complaint:**

No playback at all or distorted playback of a CD.

Reason:

Reversed polarity of capacitors C222 and C223 (1 μ F, 50V).

Cure:

Solder in new capacitors C222 and C223 (1 μ F, 50V) with the negative terminal connected to IC 07 and the positive terminal to R220 or R221. Please note that the polarity of the capacitors as shown in the Service Manual is reversed.

Workshop:

Check the polarity of C222 and C223 in each system coming in for repair and change the capacitors if necessary. Please correct the polarity of the capacitors C222 and C223 on page 3-15 of your Service Manual.

Stores:

None

Technical Services / Information

Service Information

Product **R14 DPL**

VDE Safety Compliance - R14 DPL

To ensure that the R14 DPL receivers with the listed serial numbers are in compliance with these safety regulations, a lead for intensifying the chassis connection of these receivers must be connected additionally on the transformer circuit board.

For this, press the wire lead which is soldered on the copper side between P2 and the transformer TR1 towards the upper edge of the circuit board (pin 2 is the 4th pin in the top row from the edge of the circuit board). Secure the lead in this position at 3 points, one in the middle and two at a distance of about 1cm each from the solder pad, using a heat-setting adhesive.

Alternatively, this wire lead may also be removed from the copper side and reconnected on the component side. Corresponding holes are already provided.

This change is to be carried out in all receivers with the serial numbers listed below.

8002	8051	8100	8367	8397	8709	9146
8007	8056	8102	8368	8399	8714	9147
8012	8064	8105	8369	8400	8732	9151
8013	8066	8135	8370	8401	8734	9158
8014	8067	8158	8371	8402	8735	9159
8015	8074	8172	8372	8403	8736	9160
8017	8075	8177	8373	8404	8737	9161
8018	8076	8181	8374	8405	8760	9162
8019	8078	8203	8375	8406	8772	9164
8020	8079	8204	8376	8407	8799	9165
8021	8080	8207	8377	8413	8859	9166
8022	8082	8208	8378	8431	8896	9167
8023	8083	8211	8379	8535	8949	9168
8024	8084	8218	8380	8561	9032	9169
8025	8085	8219	8381	8594	9057	9173
8027	8086	8223	8382	8633	9069	9174
8028	8087	8226	8383	8636	9076	9175
8029	8088	8281	8384	8637	9079	9180
8030	8089	8282	8385	8638	9080	9181
8031	8090	8304	8386	8639	9088	9183
8032	8091	8327	8387	8641	9090	9184
8033	8092	8354	8388	8652	9095	9197
8034	8093	8356	8389	8674	9097	9230
8036	8094	8358	8390	8682	9131	9231
8038	8095	8360	8391	8684	9132	9240
8040	8096	8363	8393	8686	9134	9252
8041	8098	8365	8394	8704	9137	9265
8043	8099	8366	8395	8707	9142	9266

Audio / HiFi

Serial No. 3/97

Service Information

Product **CD 436, CD 437, CD 11, CD 12, CD-IR, M30 CD**

Possible complaint:

Smoke comes out of the player, capacitors are charred.

Reason:

The electric strength of the capacitors C 354, C 355, C 356, C 357 is too low (2.2nF). These capacitors are connected in parallel with the diodes in the secondary-side rectifier.

Cure:

Change the capacitors C 354, C 355, C 356, C 357 to versions with an electric strength of 50V/22nF.

Workshop:

Generally check the electric strength of the capacitors C 354, C 355, C 356, C 357 in above mentioned players and change them if necessary.

Stores:

None

Audio / HiFi

Serial No. 4/97

Service Information

Product **RCD 400, UMS 2**

Possible complaint:

Faulty radio text.

Reason:

Tolerance limit of the RDS quartz Q3 is too high.

Cure:

Replace the RDS quartz by a version available under part number 8382-170-433.

Workshop:

On request.

Stores:

Quartz 4.332 MHz, part number 8382-170-433.

Audio / HiFi

Serial No. 5/97



Product: TV's with Digi Basic chassis

Television No. 1/97

Colour television receivers with Digi Basic chassis, e.g. ST 70-255 IDTV/LOG, M 70-280 IDTV/LOG, SE 7089 IDTV/LOG

Possible complaint:

Brown colouration of the circuit board near the diode D 60222 BZT 03D180. Simultaneously the "+Eco" voltage is approx. 5V too high.

Reason:

Coincidence of unfavourable component tolerances.

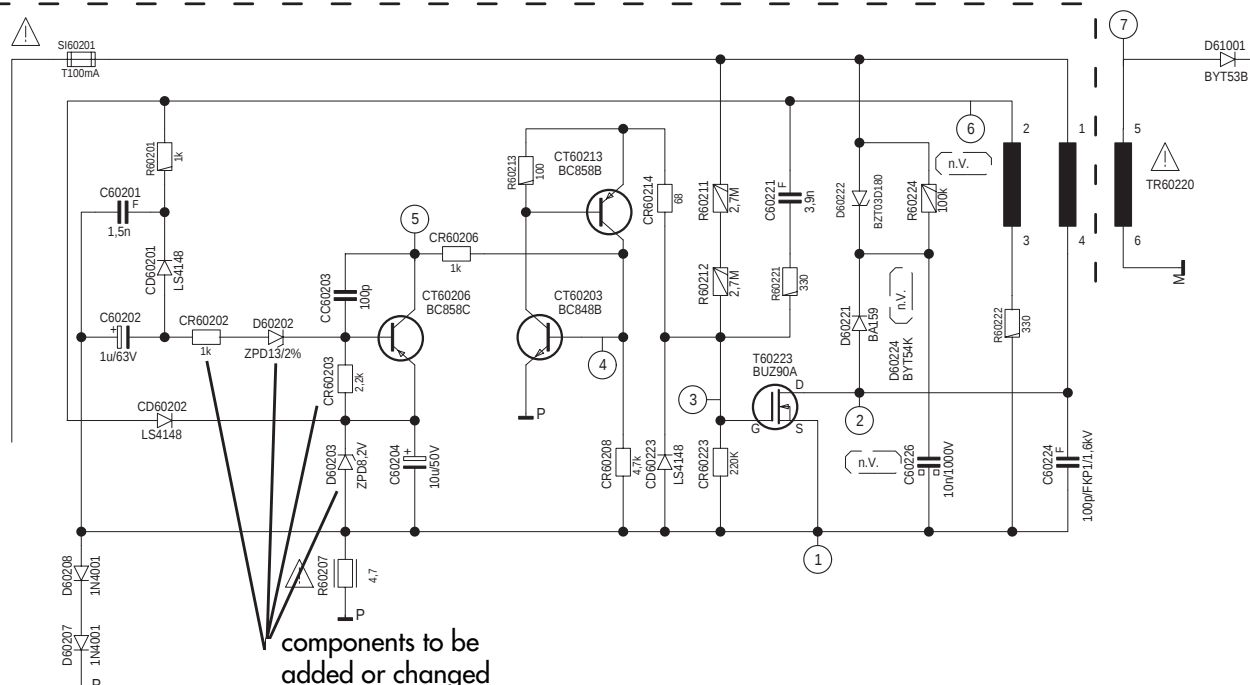
Cure:

Carry out the following changes in the stand-by mains stage:

- Change the Z-diode D 60203 from ZPD 9.1V to 8.2V.
- Change R 60202 from 68 k Ω to 1 k Ω .
- Connect an additional Z-diode ZPD 13 in series with R 60202. Connect the cathode of the diode to the base of the transistor CT 60206.
- Check the rating of the resistor CR 60203 to be 2.2 k Ω .

Workshop:

Check the "+Eco" voltage. Carry out the changes if this voltage is higher than +17 V.



Stores:

Z-diode ZPD 8.2 V part no. 8309-720-083

Z-diode ZPD 13 V part no. 8309-720-131

SMD resistor 1 k Ω part no. 8706-100-473

Technical Services / Information



Product: TVR 3701 SV

Television No. 2/97

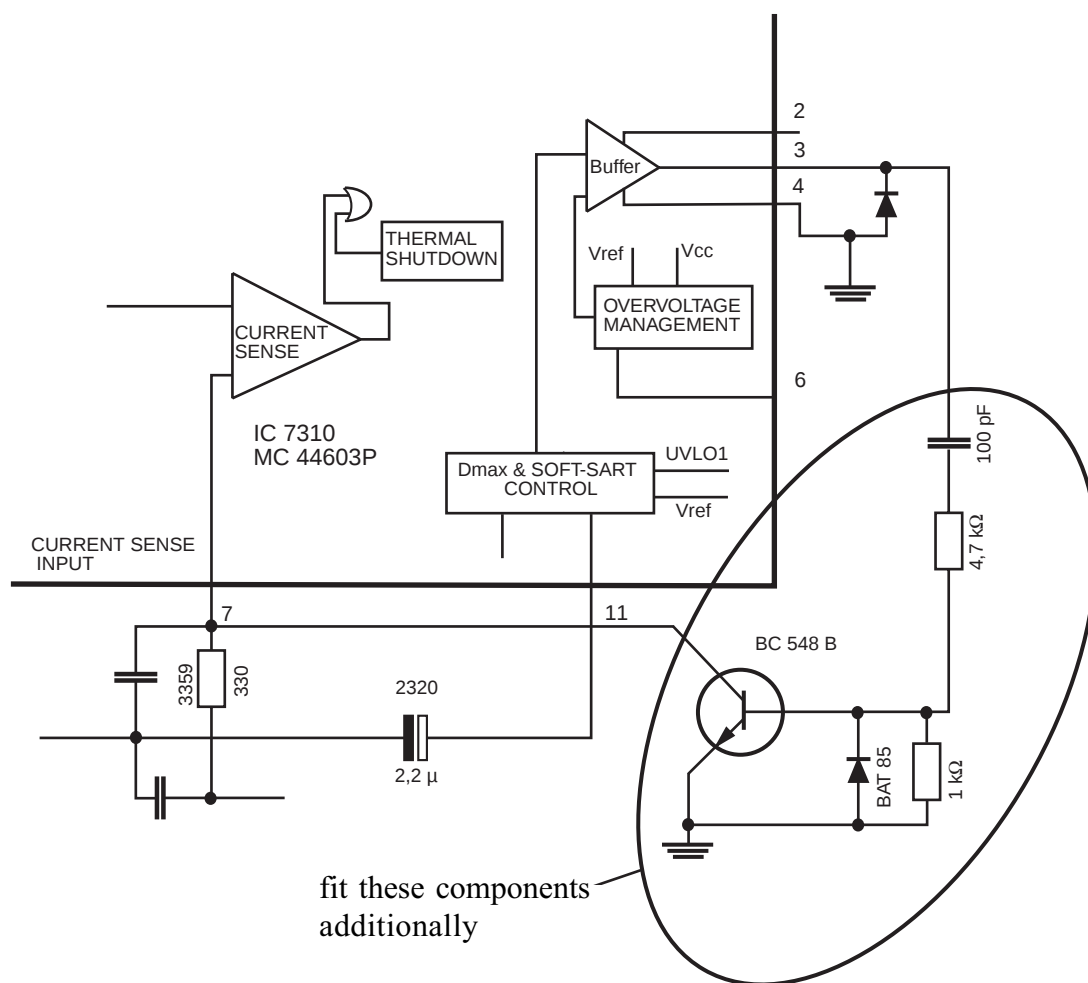
Portable mono TV/VCR combination TVR 3701 SV

Possible complaint:

Mains voltage dependent chirp audible in stand-by mode.

Cure:

Fit an additional transistor stage as shown below into the power supply unit at IC 7310 (MC 44603 P).



Workshop:

Carry out when complaints are received.

Stores:

Diode BAT 85 part no. 8309-198-085

Technical Services / Information

Product: CUC 7301

Television No. 3/97

37 cm colour television receivers with chassis CUC 7301 text e.g.: P 37-730 text

Possible complaint:

Teletext operation is not possible in "AV" programme position.

Reason:

The video switch-IC 2807 (TEA 2114) is not fitted in 37 cm television receivers.

Cure:

Retrofit the following components:

IC 2807 TEA 2114

C 2815 1 μ F

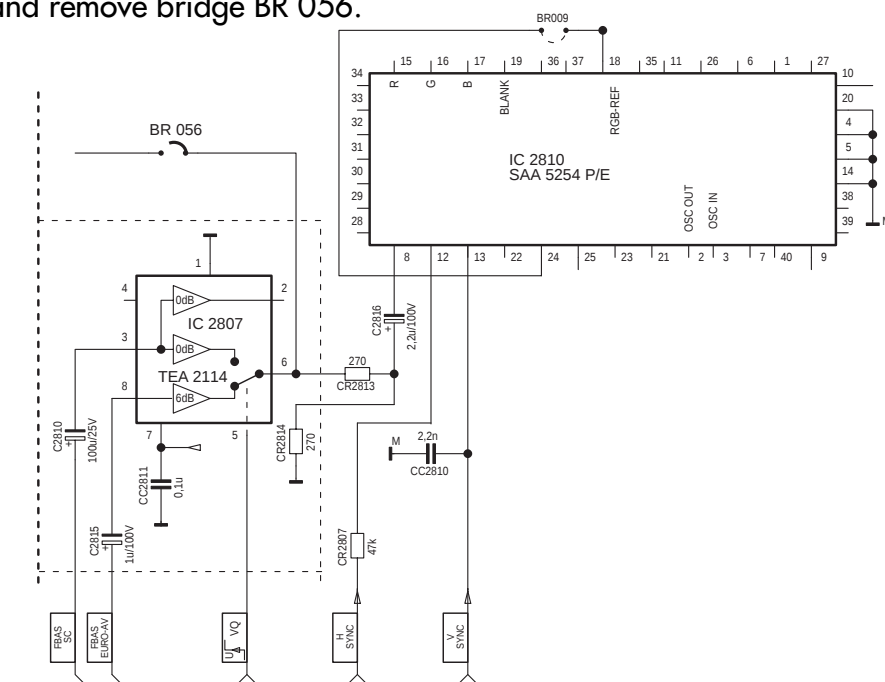
C 2810 100 μ F

C 2811 0.1 μ F

CR 2813 270 Ω

CR 2814 270 Ω

In addition, change the polarity of 2.2 μ F electrolytic capacitor C 2816 (negative terminal to pin 8 of IC 2810) and remove bridge BR 056.



Workshop:

Carry out when complaints are received.

The circuit board is already prepared to be fitted with these components.

Stores:

IC TEA 2114

part no. 8305-362-114

Electrolytic capacitor 1 μ F/100 V

part no. 8452-967-325

Electrolytic capacitor 100 μ F/25 V

part no. 8452-967-135

Capacitor 0.1 μ F

part no. 8555-267-173

SMD resistor 270 Ω

part no. 8706-297-059

Service Information

Product **Colour television receivers with chassis CUC 7303 and 7305, e.g. P 37-071, T 51-720 text, T 55-731 text**

Possible complaint:

After having replaced EEPROM IC 830 X24C02, the Automatic Tuning System does not find all stations.

Reason:

The EEPROM on this chassis contains information about so-called band limits in its memory cells 235 to 239. These values are programmed in the factory in a special alignment adapter and vary with the individual tuner and Z-diode D 683 (ZTK 33). When fitting a new EEPROM, any value is stored in the memory cells. Consequently, the ATS does not scan the complete frequency range.

Cure:

Clear the band limit values (content of the memory cells 235 to 239) as follows:

1. Call up the Service Menu (depress button „i“ on the remote control while switching on with the mains switch).
2. With the remote control buttons „P+/P-“ select line „AGC ALIGN“.
3. During a period of 5 seconds operate the buttons „AUX“ and „OK“ sequentially.

The ATS search function now scans the whole frequency range.

Note: When the band limits are cleared individual stations may be found twice!

Workshop:

Clear the band limit values when having replaced the tuner, Z-diode D 683 or EEPROM IC 830.

Stores:

none

Note to our Service Information 1/97 (subject: Digi Basic colour television receivers - „Eco“ voltage is about 5V too high)

Due to repeated inquiries we would like to point out that resistor R 60202 that is to be changed from 68 k Ω to 1 k Ω is a lead-type version and not a SMD component.



Serial No 5/97

Service Information

Product **Colour television receivers with chassis CUC 7350, e.g. ST 55-750 text**

Possible complaint:

Despite the modifications carried out according to our TV Service Information 9/96 the television sets switch occasionally to Standby after a prolonged time of operation.

Reason:

Temperature drift of the +E operating voltage by about 0.2 to 0.3V caused by Z-diode CD 61023. Consequently, IC 34015 TDA 8374 switches off with sudden black/white changes in the picture content or changing scenes.

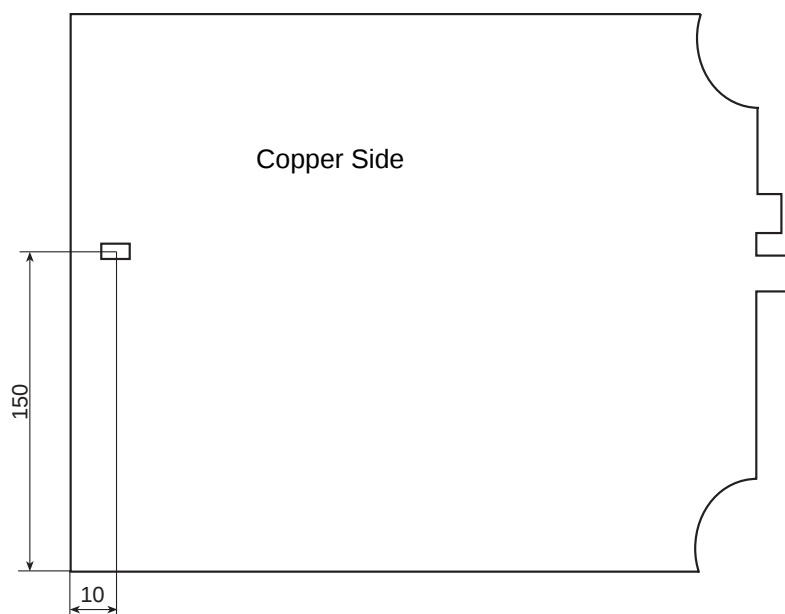
This Z-diode has been introduced later and therefore is drawn in only in the 1st Supplement to the CUC 7350 Service Manual.

Cure:

The position of the Z-diode is X=10, Y=150. Unsolder this diode and insert a SMD resistor 1206 1.2Ω 1% in this place.

Stores

SMD resistor 1206 1.2Ω 1% part no. 8706-297-475



Serial No 6/97

Service Information

Product Colour television receivers with chassis CUC 7300, e.g. P 37-740 SAT, and all sets retrofitted with the built-in satellite receiver SER 7300

Possible complaint:

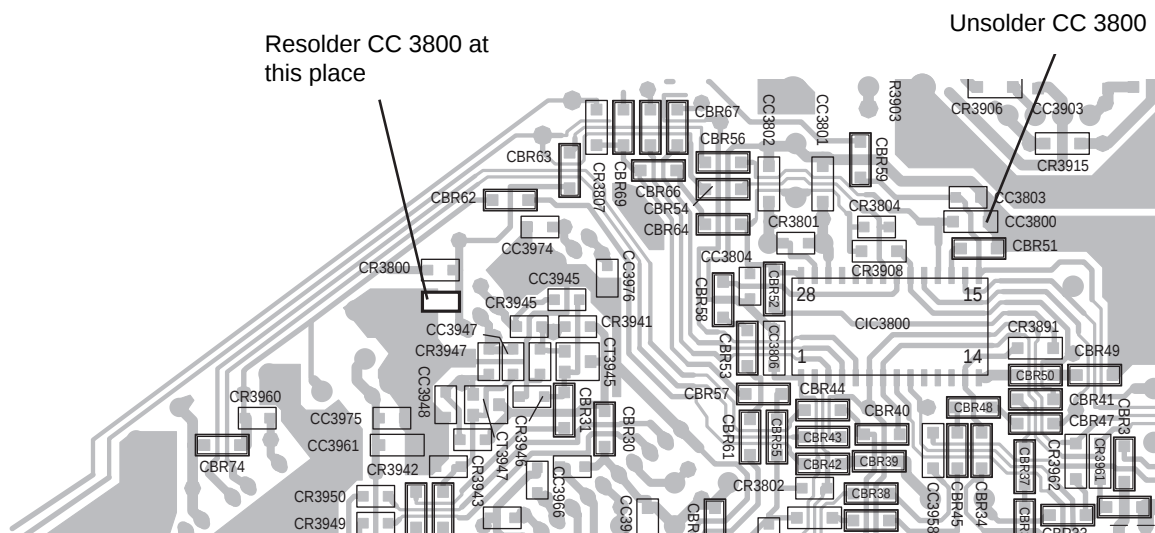
The sound disappears suddenly during the reception of a satellite programme and is audible again only when changing the programme or switching the TV off and on again.

Reason:

IC MSP 3400 on the SAT Module hangs up by static charges entering the Reset input of the IC.

Cure:

Unsolder the SMD capacitor CC 3800 from its place on the SAT Module and resolder it at the place indicated on the figure below.

**Stores:**

none

Serial No.7/97

Service Information

Product **Colour television receivers with chassis Digi Basic CUC 1825, 1826 and 1827, e.g. ST 63-255 IDTV/LOG, M 70-281 IDTV/LOG, SE 7089 IDTV/LOG**

Possible complaint:

The TV receiver can be switched on only with the remote control handset. When switching on with the mains switch, the receiver always goes to Standby mode.

Reason:

Unwanted activation of the protection circuit at the moment the TV receiver is switched on.

Cure:

Change the electrolytic capacitor C 58004 (on pin 6 of IC 58010) from 10 μ F to 22 μ F/25V.

Workshop:

Carry out when complaints are received.

Important note: Since the Digi Basic TV receivers work without a wiper contact in the mains switch the EEPROM stores the operating mode (Standby or „On“) at the time the set is switched off with the mains switch. That is why the set will only start with „On“ the next time it is switched on (power on) if it was switched off from this mode.

Stores:

Electrolytic capacitor 22 μ F/25V part no. 8452-967-126



Serial No 8/97

Service Information

Product **Colour television receivers with Digi 6 chassis - CUC 1952, 1983, 1984 with built-in SER 150/SER 150 ET Satellite Receiver - e.g. Denver SE 8216/9 Ref./PIP, M 82-269/9 Reference**

Possible complaint:

On reception of the channel Premiere via satellite the connected decoder does not operate while this station is decoded perfectly when received via a cable installation.

Reason:

The video crossbar IC TDA 6417 is overloaded on satellite reception.

Cure:

Change the SMD resistor CR 43209 from 1 M Ω to 470 k Ω . It is also possible to connect another 1 M Ω resistor in parallel when carrying out repairs.

Workshop:

The position of the SMD resistor is X=102, Y=187.

Stores:

SMD resistor 470 k Ω 0805	part no. 8706-100-337
SMD resistor 1 M Ω 0805	part no. 8706-100-145



Serial No 9/97

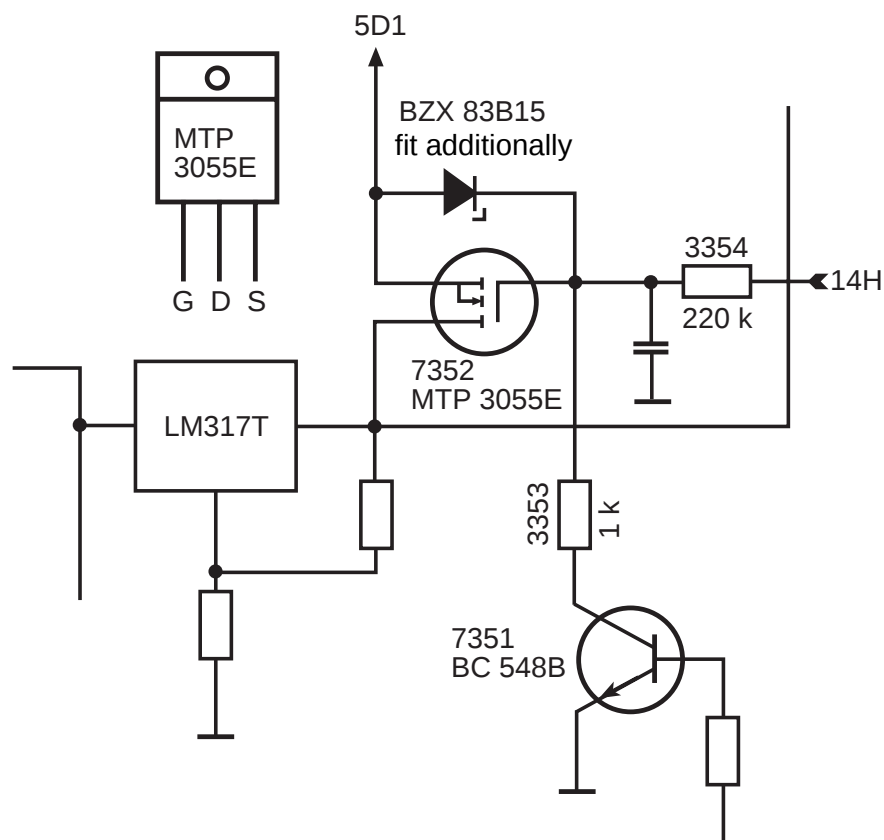
TV Recorder does not operate.

Defect in transistor 7352 (MTP 3055E) caused by static discharges in the TV Recorder.

Fit an additional Z-diode BZX 83B15 between gate and source to suppress voltage peaks at the gate.

The Z-diode must strictly be retrofitted if the transistor 7352 fails. This change is carried out already in the factory.

Z-diode BZX 83B15 part no. 8309-720-115



Serial No 10/97

Service Information

Product **Colour television receivers with Digi IV chassis - CUC 1821/1851/1881/1892 and 1981, e.g. M 70-781 IDTV, M 70-791 IDTV, M 82-102 IDTV, M 95-102 IDTV, M 82-169 PALplus**

Possible complaint:

Mains supply switching transistor fails occasionally.

Reason:

Breaks may be found after a long time of use at the solder pads in the area of the mains supply stage especially at the connections of the mains supply transformer.

Cure:

Re-solder the connections in this area.

Workshop:

For reasons of operational reliability and irrespective of the fault, re-solder the 1.5Ω resistor R 622 and the choke L 663 (both components are in the area of the mains supply) with great care using ample tin.

Stores:

None



Serial No 11/97

Service Information

Product **Colour television receivers with 82/70 cm Toshiba picture tube and Digi 6 chassis - e.g. M 82-269/9 Ref, SE 8216/9 Ref/PIP, M 70-269/9 Ref, SE 7016/9 Ref/PIP Trento**

Possible complaint:

Audible hum or buzzing noise from the bass loudspeaker.

Reason:

Magnetic radiation from the deflection yoke into the loudspeaker.

Cure:

To reduce the radiation from the yoke exchange the bass box loudspeaker for a type with compensating coil.

Workshop:

Carry out when complaints are received.

Stores:

Loudspeaker with compensating coil, part no. 19154-031.61

Product **Colour television receivers with Digi Basic chassis CUC 1805/1825/1826 and 1827, eg. ST 63-255 IDTV/LOG, ST 72-261 IDTV/LOG, Boston SE 7090 IDTV/LOG**

Possible complaint:

TV set does not start occasionally.

Reason:

„Cold“ solder connection of the wire bridge „BR 129“ with the earthing pad on the component side in the area of the mains supply stage. Consequently, the standby power supply does not start up reliably.

Workshop:

Re-solder the chassis connection in every television receiver coming in for repair using ample solder tin.

Stores:

None

Serial No. 12/97

Service Information

Product **Colour television receivers with chassis CUC 7301/7301F, e.g. P 37-070, T 51-730 text, T 55-730/5 text**

Possible complaint:

No picture. High tension is available.

Reason:

The transistors CT 181, CT 186, CT 191 and CT 193 failed because of high voltage sparks inside the picture tube.

Cure:

Replace the defective transistors and solder an additional diode 1N4148 from pin 7 of the „RGB“ lead (to picture tube panel) to the ground pin 4 on the chassis. Connect the anode of the diode with pin 4.

Workshop:

Fit the additional diode when the transistors failed.

Stores:

Diode 1N4148 part no. 8309-215-045

Product **Correction of Service Information 9/97
Colour television receivers with Digi 6 chassis 1952, 1983, 1984 and built-in satellite receiver SER 150/SER 150 ET - e.g. Denver SE 8216/9 Ref./PIP, M 82-269/9 Reference**

Possible complaint:

On reception of the channel Premiere via satellite the connected decoder does not operate while this station is decoded perfectly when received via a cable installation.

Reason:

The video crossbar IC TDA 6417 is overloaded on satellite reception.

Cure:

The change of the resistor CR 43209 from 1 M Ω to 470 k Ω as described in our Service Information 9/97 does not produce the desired effect in every case. Therefore change the resistor CR 43209 from 1 M Ω to 330 k Ω when carrying out repairs. It is also possible to connect a 560 k Ω resistor in parallel with the 1 M Ω .

Workshop:

The position of the SMD resistor is X = 102, Y = 187.

Stores:

SMD resistor 330 k Ω 0805 part no. 8706-100-333
SMD resistor 560 k Ω 0805 part no. 8706-100-139



Service Information

Product Colour television receivers with chassis CUC 7303, e.g. P 37-731 text, P 45-731 text, T 55-731 text

Possible complaint:

Pronounced NF crackling when switching off with the mains switch.

Cure:

Change the Z-diode D 323 from ZPD 8.2V to 9.1V 2%. Additionally, solder a diode 1N 4148 in parallel with the resistor CR 323. Connect the cathode of this diode with the +B voltage.

Workshop:

Carry out on request. This change has already been introduced in production.

Stores:

Z-diode ZPD 9.1V 2% part no. 8309-720-092
Diode 1N4148 part no. 8309-215-045

Product Colour television receivers with chassis CUC 7303/7305/7350 and the picture tube panels 29305-022.16/-022.17, e.g. P 37-731 text, P 45-731 text, T 55-731 text, P 37-731/12 text, ST 55-750 text, XS 55/1, Lissabon SE 5576 text

Possible complaint:

Failure of the RGB output stages (picture tube panels 29305-022.16 and -022.17) or of the teletext function.

Reason:

The semiconductors are destroyed by high-voltage sparks within the picture tube.

Cure:

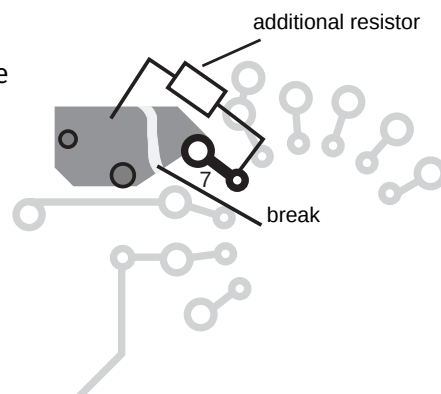
On the picture tube panels -022.16/-022.17, insert an additional 1.5 k Ω composite carbon resistor (do not use a carbon film resistor!) into the circuit path to the screen grid connection of the picture tube socket. Ensure that the break is 2mm wide at least (see figure) to avoid sparking.

Workshop:

Refit the resistor in any case if the above mentioned semiconductors failed.

Stores:

Only altered picture tube panels 29305-022.16/-022.17
Composite carbon resistor 1.5 k Ω , part no. 8702-401-077.



Serial No 14/97

Service Information

Product **Colour television receivers with Digi 6 chassis CUC 1842, 1894, 1952, 1962 and 1983, e.g. M 72-410 Ref., Denver SE 8216/9 PAL Plus, M 70-269/9 Ref.**

Possible complaint:

Vertical output stage TDA 4173 fails or thin white lines similar to retrace stripes are visible.

Reason:

Inherent instability of the vertical output stage IC TDA 4173 AF.

Cure:

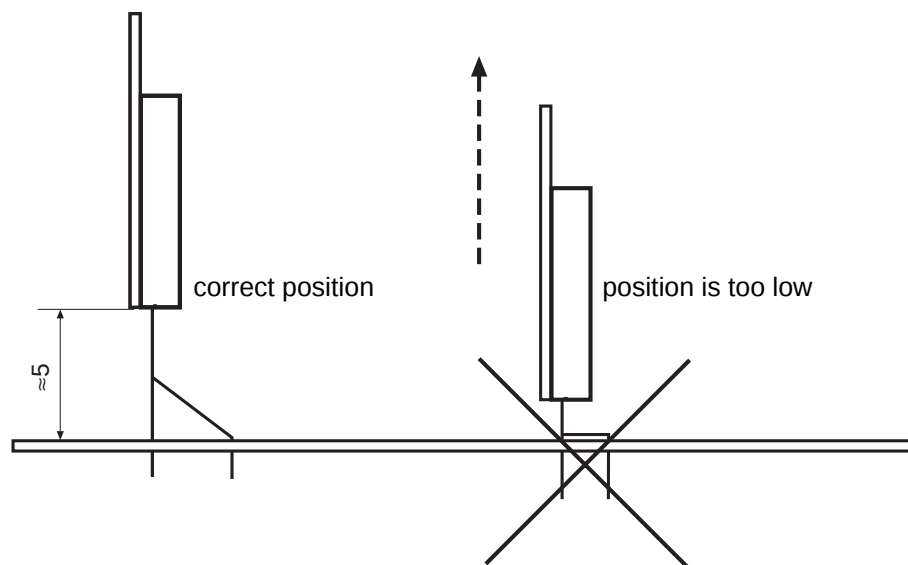
- Should above mentioned symptoms appear do not fail to exchange TDA 4173 AF and solder additionally a 1 nF foil capacitor from pin 1 and from pin 7 each to pin 4 (-K voltage) on the copper side.
- Check the mounting position of the vertical output-IC. If the position of the IC is too low, the pins may temporarily come into contact with the chassis connection on the upper side causing the IC to fail. Additionally, the circuit may already be damaged by the building up force of pressure resulting in a long-term failure. Therefore replace TDA 4173 AF also if it has not been fitted correctly!

Workshop:

When fitting the new IC TDA 4173 AF take care of the correct position of the holding clamp and solder in the additional capacitors!
This change has been generally introduced.

Stores:

Foil capacitor 1 nF	part no. 8555-367-525
IC TDA 4173 AF	part no. 8305-344-173



Serial No 15/97

Service Information

Product Colour television receivers with Digi Basic and Digi 6 chassis - CUC 1805, 1825, 1826, 1827, 1828, 1842, 1894, 1952, 1962 and 1983
e.g. M 72-410 Ref., Denver SE 8216/9 PAL Plus, M 70-269/9 Ref.

Possible complaint:

Interference lines in the picture or complete failure of the tuner.

Reason:

Failure of the PLL-IC TY 44860 within the tuner.

Cure:

After having replaced the tuner, solder an additional Z-diode ZPD 33 B (2% tolerance) on the copper side of the chassis board from pin 1 to the multipoint connector of the signal module to chassis (anode to chassis).

Workshop:

Retrofit the Z-diode if the tuner failed.

Stores:

Z-diode ZPD 33 B (2%) part no. 8309-707-135



Serial No 16/97

Service Information

Product Colour television receivers with Digi Basic chassis - CUC 1806, 1825, 1826, 1827, 1829, 1830 with the picture tube panels 29305-122.04/-122.10/-122.12 and -122.17
e.g. ST 70-255 IDTV/LOG, ST 72-261 IDTV/LOG, Atlanta SE 7220 IDTV/LOG, ST 72-261 IDTV/LOG

Possible complaint:

Failure of the RGB output IC's TDA 6111.

Reason:

The RGB output IC's are destroyed by high voltage sparks.

Cure:

Directly from the outputs (pin 8) of the three output IC's TDA 6111 connect one additional diode BAV 21 each to chassis and one diode each to the +200 voltage (see figure).

Workshop:

The insertion of the three diodes which are to be connected to +200 is already prepared on the picture tube panel by the diodes D 734, D 754 and D 774.

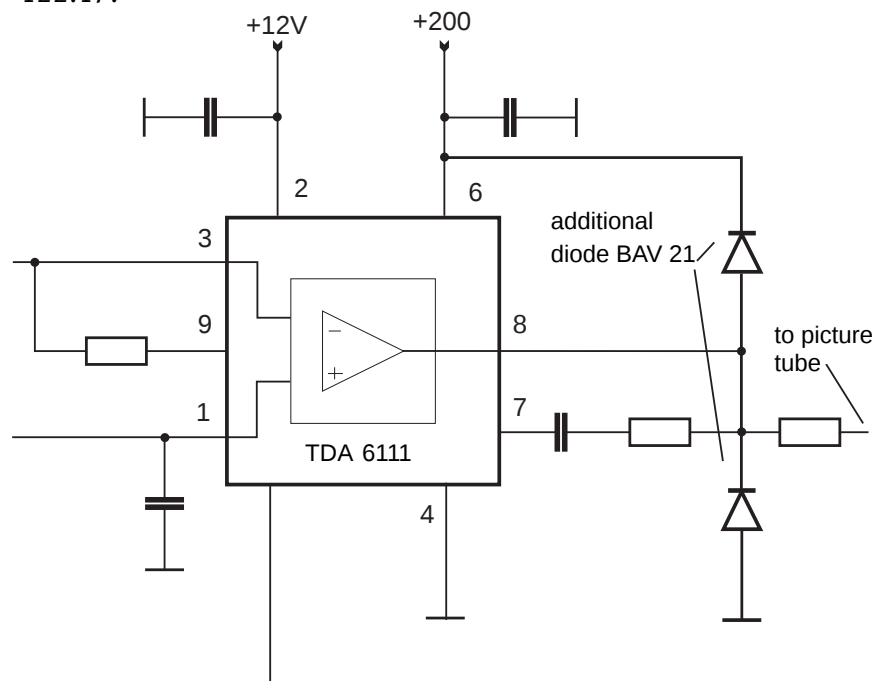
The three diodes which are to be connected to chassis are to be soldered on to the copper side from pin 8 to pin 4 (anode to pin 4).

Stores:

Diode BAV 21 part no. 8309-200-021

IC TDA 6111 part no. 8305-336-111

Only modified picture tube panels 29305-122.04/-122.10/-122.12 and -122.17.



Serial No 17/97

Service Information

Product **Colour television receivers ST 72-261 IDTV/LOG and ST 72-261/8 IDTV/LOG with Toshiba picture tube**

Possible complaint:

Picture seems to be unsharp or the TV switches occasionally to Standby.

Reason:

Short circuit in the serially connected capacitors C 64001 and C 64002 (150pF/6kV each) on the dynamic focusing board.

Cure:

1. Replace the capacitors C 64001 and C 64002 on the dynamic focusing board.
2. Check the Ug2/focus control unit on the picture tube socket board 29305-122.12.
If the TV is fitted with version 29201-361.01 or -361.11, this focus control unit must be replaced by version 29201-361.04. Version 29201-361.20 needs not to be replaced but can remain in the TV set.
3. Attention: When fitting the new Ug2/focus control unit, please note the following wiring instructions:
 - Insert the blue lead - provided with a white mark - of the Ug2/focus control unit into the focus voltage connection of the diode split transformer.
 - Solder the shorter blue lead of the Ug2/focus control on to the focus voltage connection of the focusing board.
 - Route this lead from the focusing board to the focus voltage connection of the picture tube socket.
 - Re-attach the cover of the focusing board.
4. Replace the diode split transformer 29201-680.01. Due to the failure of the capacitor C 64001 or C 64002 the resistance of the focus resistor in the diode split transformer changes so that an optimum adjustment of the picture sharpness is no longer possible.

Workshop:

Please check the wiring of the focus leads according to point 3 of every TV receiver of type ST 72-261 IDTV/LOG and ST 72-261/8 IDTV/LOG coming in for repair!

Focus adjustment:

- Feed in a convergence test pattern.
Set contrast to maximum. Set the brightness so that the black background of the test pattern just becomes visible.
- With the focus control on the picture tube socket board, adjust the horizontal lines for maximum sharpness.
- Afterwards, adjust the vertical lines with the focus control on the focusing board for maximum sharpness.
- Repeat this adjustment to achieve the best result possible.

Stores:

Capacitor 150pF/6kV	part no. 8502-200-066
Ug2/focus control unit	part no. 29201-361.04
Diode split transformer	part no. 29201-680.01
Dynamic focusing board	part no. 29305-025.26



Service Information

Product **Satellite Receivers STR 631/632/641 and 642**

Possible complaint:

No sound after the receiver has been operated in standby mode for a prolonged period of time. The sound is audible again only on disconnecting the mains plug and switching the satellite receiver on again.

Reason:

As advised by our Service Information 4/97, this phenomenon is caused by IC STV 400 STV 0056A but cannot be limited to certain IC lots.

Cure:

Solder one SMD Z-diode 8.2V each in parallel with the electrolytic capacitors C 427 (pin 49 IC400) and C 436 (pin 38 IC400) which are connected to chassis.

Workshop:

The additional Z-diodes can be soldered on to the copper side directly between the connections of the electrolytic capacitors (anode to negative connection of the electrolytic capacitor).

Retrofit the diodes in every satellite receiver coming in for repair.

Stores:

SMD Z-diode 8.2 C part no. 8309-455-082



Serial No. 19/97

Service Information

Product **Colour television receivers MW 70-100/8, M 72-100 and M 72-100/8**

Possible complaint:

Audible buzzing noise that does not come out from the loudspeaker.

Reason:

The mains suppressor chokes on the mains switch module may be in contact with the protective screen producing vibrations thereby.

Cure:

Unsolder the protective screen and the mains suppressor choke and fit a suppressor choke with part number 29500-834.97. Since this choke is provided with an additional compensating coil the protective screen is no more needed.

Workshop:

Carry out on request.

Stores:

Mains suppressor choke part no. 29500-834.97



Serial No. 20/97

Service Information

Product **Series GV 4xx video recorders with „World Deck“**

Possible complaint:

Drive mechanism does not move.

Reason:

Slipping of the bevel gear of the pulley shaft (pos. 47) and / or worm shaft (pos. 48).

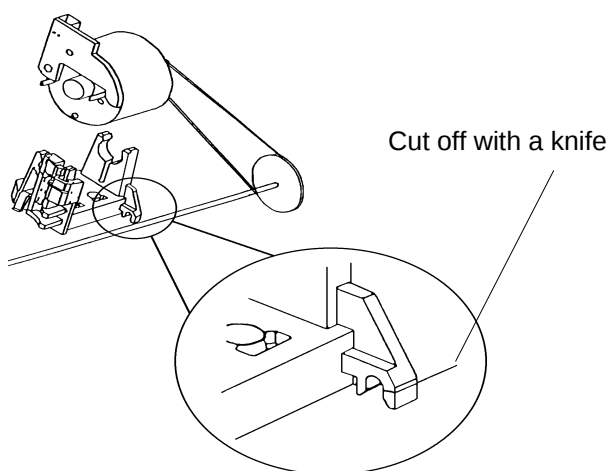
Cure:

Replace the pulley shaft and / or worm shaft.

Note:

To replace the pulley shaft quickly follow the instructions given below:
Dismantle the drive mechanism, set the drive mechanism to EJECT position, remove the cassette compartment, remove the threading belt, detach the worm shaft and the pulley shaft,

cut the motor holder with a knife as shown on the figure below,
pull out the pulley shaft, fit and snap in the new pulley shaft and worm shaft, refit the cassette compartment as described in the Service Manual.



Stores:

Pulley shaft (pos. 47)	part no. 75988-001.14
Worm shaft (pos. 48)	part no. 75988-001.24

VIDEO

Serial No. 1/97

Service Information

Product **GV 560 HiFi**

Possible complaint:

Video recorders react to the TV remote control handset.

Reason:

The 10bit evaluation is active.

Cure:

Replace the EPROM by the current version COG 560HI / 1.92

The 10bit evaluation can be disabled as follows:

Depress the „CODE“ button.

Enter the number „8527“ and confirm with the „OK“ button.

The entry will not be acknowledged by a message like „ON“ or „OFF“ on the display.

If the video recorder was disconnected from the mains supply the code number is to be entered anew.

Test:

Depress and hold the „VIDEO“ button on the TV remote control handset and call up a video recorder function.

If above mentioned setting is successfully transferred to the video recorder, the selected function must not be carried out.

Stores:

EPROM COG 560HI / 1.92 part no. 27599-007.64

VIDEO

Serial No. 2/97

Service Information

Product **GV 6096 SV**

Possible complaint:

Controlling a satellite receiver is not possible.

Reason:

The Cinch connecting socket for controlling a satellite receiver is not fitted.

Cure:

Retrofit the Cinch connecting socket on request.

Stores:

Cinch connecting socket part no. 27511-495.01

VIDEO

Serial No. 3/97

Service Information

Product **Series GV 4xx video recorders with „World Deck“**

Part number changed from that specified in Service Information 1/97

The pulley shaft (pos. 47) and the worm shaft (pos. 48) are combined and offered as one repair kit.

Stores:

Repair kit part no. 75988-018.24

Kit A is still available under part no. 75988-001.24

VIDEO

Serial No. 4/97

Service Information

Product **GV 6096 SV**

Possible complaint:

The scanning clock of VPS-controlled timer recordings is carried out incorrectly or not at all.

Reason:

Faulty software.

Cure:

Change the EPROM to version PCOG 1 - 4 U.

Stores:

EPROM PCOG 1 - 4 U part no. 27599-007.76

VIDEO

Serial No. 5/97

Service Information

Product **GV 660 / GV 690**

Possible complaint:

Master/Slave and Synchro Edit control functions do not work.

Reason:

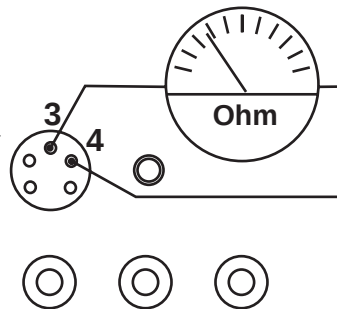
In a small number of GV 660 and GV 690 video recorders, the 7-pin cable (pos. 9511) from the keyboard control unit to the teletext module is not inserted correctly (laterally inverted) on the keyboard control unit.

Cure:

Disconnect the 7-pin cable from connector 1511 on the teletext module, turn it by 180 degrees and refit it.

Test:

Check the 5-pin Edit socket (from pin 3 to pin 4)



Good = 1-2 MOhm approximately

Bad = 5 kOhm approximately

Note:

There is a description of the PC interface used in the GV 660 and GV 690 video recorders.

It is available under part number 72010-529.30.

VIDEO

Serial No. 6/97

Service Information

Product **Series GV 5xx and GV 6xx**

Supplement to Service Information 2/97

The 10bit evaluation function can be switched off with all video recorders which can be operated with the RP 500 or RP 540 remote control handset.

VIDEO

Serial No. 7/97

Service Information

Product **GV 403, 407, 411/1, 411/2, 417, 437, 4001, 4002 VPS, 4003 VPS**

Original mains supply units: 27599-003.05/.10

A few video recorders are fitted with a mains supply unit with the wrong part number label on it (27599-003.00).

When ordering the IC SPH 4690 with part number 75988-000.60, the type IC TDA 4605/3 with a MOSFET will be supplied under part number 75988-002.40 as a replacement.

Note:

Changes are necessary when fitting the delivered replacement to original mains supply units.

Changes:

1. Solder a 4.7 kOhm resistor instead of bridge 3035.
2. Bridge 8002 is omitted.
3. Solder bridge 8003 (connection between Y 7035 gate and IC 7005 pin 5).
4. Pos. No. Y 7035 for MOSFET.
5. Pos. No. Y 7005 for TDA 4605/3.

The 4.7 kOhm resistor is commonly available.

VIDEO

Serial No. 8/97

Service Information

Product **GV 7400 HIFI and variants, SE 7105 HIFI**

Possible complaint:

Disturbances and noise along with the HIFI sound.

Reason:

No steady audio-FM signal identified on playing back.

Cure:

Carry out the following changes on the chassis board - head amplifier.

1. Change CR 3082 from 100Ω to 470Ω.
2. Change CC 2089 from 220p to 150p.
3. Add CR 1kΩ to CC2089.

Stores:

Components are commonly available.

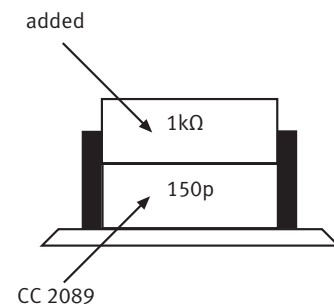
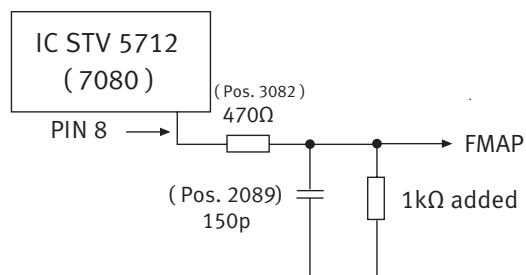
VIDEO

Circuit extract:

Chassis Board - Head Amplifier

Service Manual 72010-530.25

page 4 - 30



Serial No. 9/97