

Television MG3.1E, MG3.1A, MG3.1U, MG3.2E

Chassis: MG3.1E, MG3.1A, MG3.1U, MG3.2E

Reference Number: HE-03/0017

Fault Area: A = Power supply faults

Symptom: Set does not start up and/or goes into protection, errors 67 and 68 generated

Cure: Check and replace if necessary position 2204 (680nF; 5322 121 51214) on the Top Supply.

Remarks: Check the component by ticking on the component. In this case the value can change and the set will go into protection. This is an intermittent problem.

Television EM5E, EM5A, EM5U, MG3.2E

Chassis: EM5E, EM5A, EM5U, MG3.2E

Reference Number: HE-03/0008

Fault Area: C = Picture faults

Symptom: Visible artefacts (so called halos, see below) around moving objects in front of a non-moving background (e.g. a walking person in front of a building).

Cure: A special featurebox software has been developed to reduce this effect. It is located on position 7711 of the Small Signal Board (for EM5) or on position 7711 of the Feature Box (for MG3.2). You can order this software under number 3104 317 44521.

Remarks: This new FBX software is only meant as a 'Service' solution, and will not be implemented in production. It will significantly decrease the 'halo' effect (= 'watery' rim), but as it is a compromise, it will slightly increase the 'judder' effect ('jerky' movements).

Television EM5E, EM5A-P/M, EM5A-NTSC

Chassis: EM5E, EM5A-P/M, EM5A-NTSC

Reference Number: HE-02/0059

Fault Area: C = Picture faults

Symptom: Several symptoms are possible:

- 1) One or more colours missing in the picture, or
- 2) Switch-off spot, or
- 3) Long start-up time (about 30 seconds).

Cure: Check transistors 7500, 7503, and 7506 (BFS20, 5322 130 42718) on the CRT-panel and replace when defective. As a future flash protection, add three diodes (BAW62, 9331 012 20133) to pins 7, 8, and 9 of connector 1940. Connect the three diode anodes together to the ground signal pin 10 of connector 1940.



Remarks:

- 1) Due to a picture tube flash, transistors 7500, 7503, and 7506 on the CRT-panel can become defective.
- 2) Due to the defective transistors. the tube will discharge via a different

path, resulting in a switch-off spot.

3) Due to the defective transistors, the loop between the HOP and the CRT is interrupted. This means that the loop can not stabilise. However, after about 30 seconds, the software will release the picture, even when the loop is not stabilised.

This is valid for all sets before production week 0244. After this date, the problem was solved by a new layout including the extra diodes.

Television EM5x

Chassis: EM5x

Reference Number: HE-03/0001

Fault Area: C = Picture faults

Symptom: Several symptoms are possible:

- 1) One or more colours missing in the picture, or
- 2) Switch-off spot, or
- 3) Long start-up time (about 30 s), or
- 4) No picture.

Cure: Check, and replace if necessary, the RGB amplifiers 7330/7340/7350. You can order this component under number 9352 694 46112 (TDA6118JF). To prevent the amplifiers from failing again, change R3338, R3339, and R3340 from 220 Ohm to 470 Ohm (ordering code is 3198 013 04710).

Note: Another possibility is that the RGB pre-amplifiers are defective. See Symptom Cure Information HE-02/0059 for this.

Remarks: After production week 0250 the solution was introduced in production.

Television EM2E

Chassis: EM2E

Restrictions: ONLY 25" and 28"-sets

Reference Number: HE-02/0026

Fault Area: C = Picture faults

Symptom: In a static picture with a lot of 'white' (e.g. TXT/OSD), the white becomes reddish and/or bluish at the side areas.

Cure: Use software version 3104 317 03221 (or later). With this software a new option is introduced called 'Txt sync L edge'. You will find this option in [SAM]-[Alignments]-[Options]-[Miscellaneous]. There are 2 possible executions: - For sets with the new 'txt/anti-jitter' circuit on the SSB (check for presence of TS7012 and TS7013), set above mentioned option to 'Yes'. - For sets without the new 'txt/anti-jitter' circuit on the SSB (absence of TS7012 and TS7013), set above mentioned option to 'No'.

Remarks: This 'local dooming' occurs mainly in static pictures with a lot of 'white' (TXT/OSD). The shadowmask is warmed up and expands (this is most valid for iron masks used in 25 and 28" 4:3 'BLD' CRTs). This expansion generates a colour fault in the picture (reddish and/or bluish white). To prevent this, the amplitude of the TXT/OS output is decreased.

Chassis: FM23, FM24

Typenumber(s): FM23, FM24

Reference Number: HE-02/0047

Fault Area: C = Picture faults

Symptom: Greenish discolouration due to clamp error or sync loss and flashes or jagged lines or flashing horizontal stripes can be seen on the screen

Cure: Check and replace: - position 7655 on the Scavio panel by 3122 357 00403 (FM23GB4000403) - position 7605 on the Scavio panel by 3122 357 00269 (F23GA-1.7-00269) - position 7170 on the Scavio panel by 9322 160 96671 (AD9887KS-140) For the greenish discolouration also change the following components on the Scavio panel: - position 2109, 2110 and 2111 into 3198 017 44740 (470nF) - position 3129, 3130 and 3131 into 4822 051 30331 (330 Ohm) - position 3133, 3162 and 3166 into 4822 051 30331 (330 Ohm) - position 3177, 3179 and 3180 into 4822 051 30561 (560 Ohm) - position 7129, 7130 and 7131 into 9340 217 80115 (BC847CW)

Television F21RE

Chassis: F21RE

Restrictions: F21RE

Typenumber(s): F21RE

Reference Number: HE-02/0046

Fault Area: B = Function or Programming or Tuning faults

Symptom: Intermittently switching off and on

Cure: Check and replace position 7002 on the SSP into F21RE1_1.7_V00344 (3122 357 40344).

Television EM2E

Chassis: EM2E
Typenumber(s): EM2E
Reference Number: HE-02/0007 + 0008

Fault Area: A = Power supply faults

Symptom: The set starts intermittently not up; goes into protection or switches off during pictures with peak white contents

Cure: Check if the two resistors R3514 and 3515 are replaced by their original values. There are two combinations possible:

- | | | |
|-----------|------------------|----------------|
| 1. | R3514 = 1.0 Ohm | 4822 053 10108 |
| | R3515 = 1.0 Ohm | 4822 053 10108 |
| 2. | R3514 = 0.68 Ohm | 3198 012 16870 |
| | R3515= 1.2 Ohm | 2322 193 53128 |

Combination 2 is the recently used version

Remarks: The problem may occur after repair of the set with the (3122 785 90100) 'main supply' repair kit.

From week 0206 onwards, the 'main supply' repair kit is extended with these two resistors.

Television EM2E, EM3E

Chassis: EM2E, EM3E
Typenumber(s): EM2E, EM3E
Reference Number: HE-02/0014

Fault Area: C = Picture faults

Symptom: Horizontal jitter when the set is 'cold' (during the first half minute after switching the TV 'on')

Cure: Replace the Motorola MC33269D 3V3 stabiliser on the SSB (item 7005, see diagram B5-OTC) by type LD1117D33 from ST
The ordering code is 9322 116 74668

Television EM2E**Chassis:** EM2E**Typenumber(s):** EM2E**Reference Number:** HE-02/0006**Fault Area:** A = Power supply faults**Symptom:** Set will not start anymore after warming up (via Standby or Switch)**Cure:**

- Check if diode 6517 on the LSP is a BAT85 (4822 130 31983).
- Check if resistor R3530 on the LSP is 27 kOhm (4822 116 52264).

Remarks: This problem can be valid for both Real Flat as Super Flat sets, with production date from August 2001 onwards.

Cause: When line output transistor TS7421 warms up, the 'V_be' will decrease. As a result of this, the pulse amplitude on the base (STANDBY-signal) will decrease. This signal is used to start-up the power supply. In some sets, this signal became so small that transistor TS7529 kept on conducting, making it impossible for the set to start-up (TS7504 is switched off).