

<b><u>MODELS</u></b>	56FW53H	66FW53H	66FW54H	76FW53H
	76FW54H	59ESD7H	66ESD7H	

**Faults experienced on the DA100 (50Hz) Chassis**

The following faults have been experienced on the DA100 (50Hz) chassis (see models listed above).

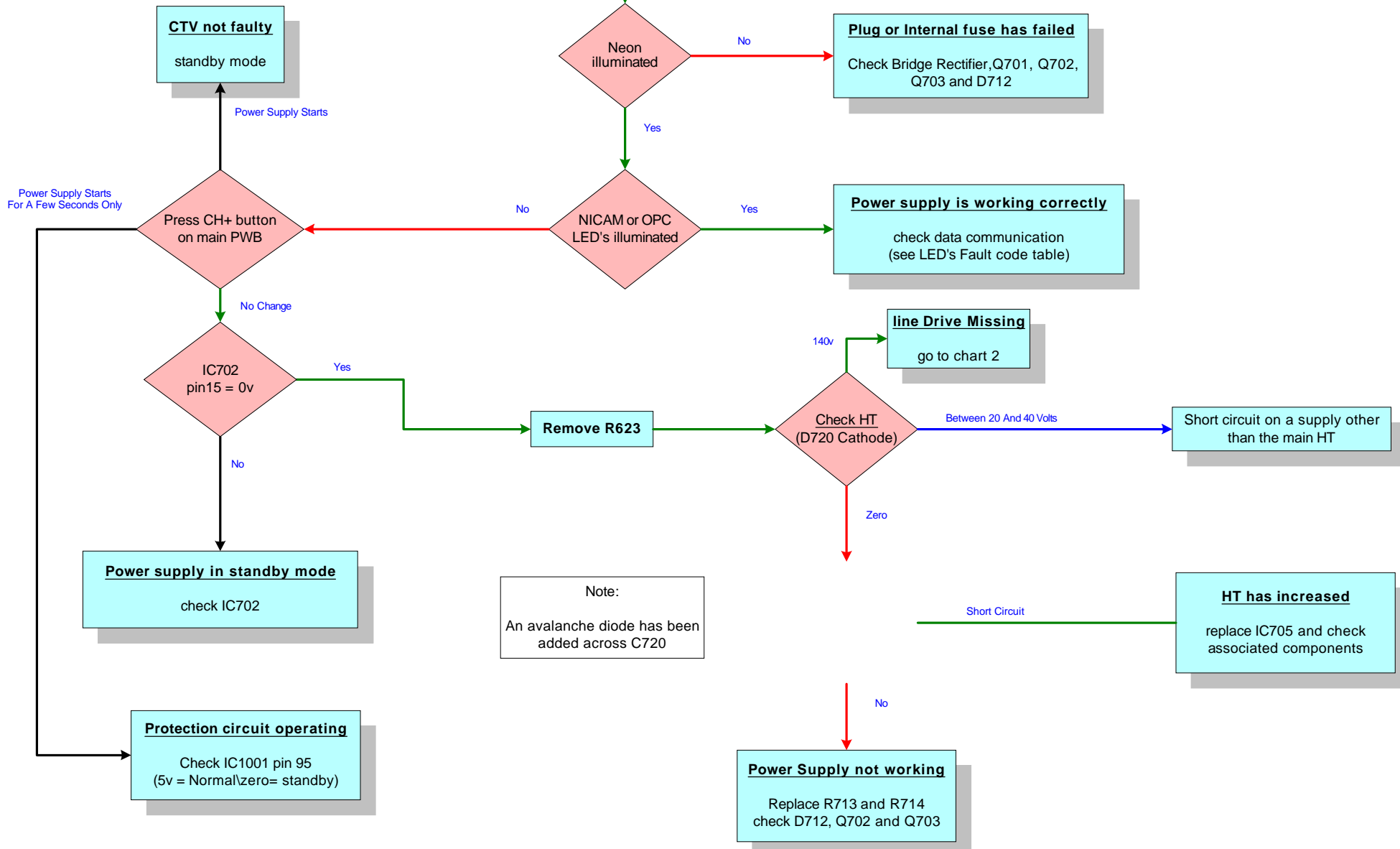
When servicing any model fitted with a FW chassis, ensure that the internal speakers are connected.

1. [Fault finding flow chart](#). (See page 2)
2. [LED fault code table](#) (See page 4)
3. [NVM associate problems](#). (See page 5)

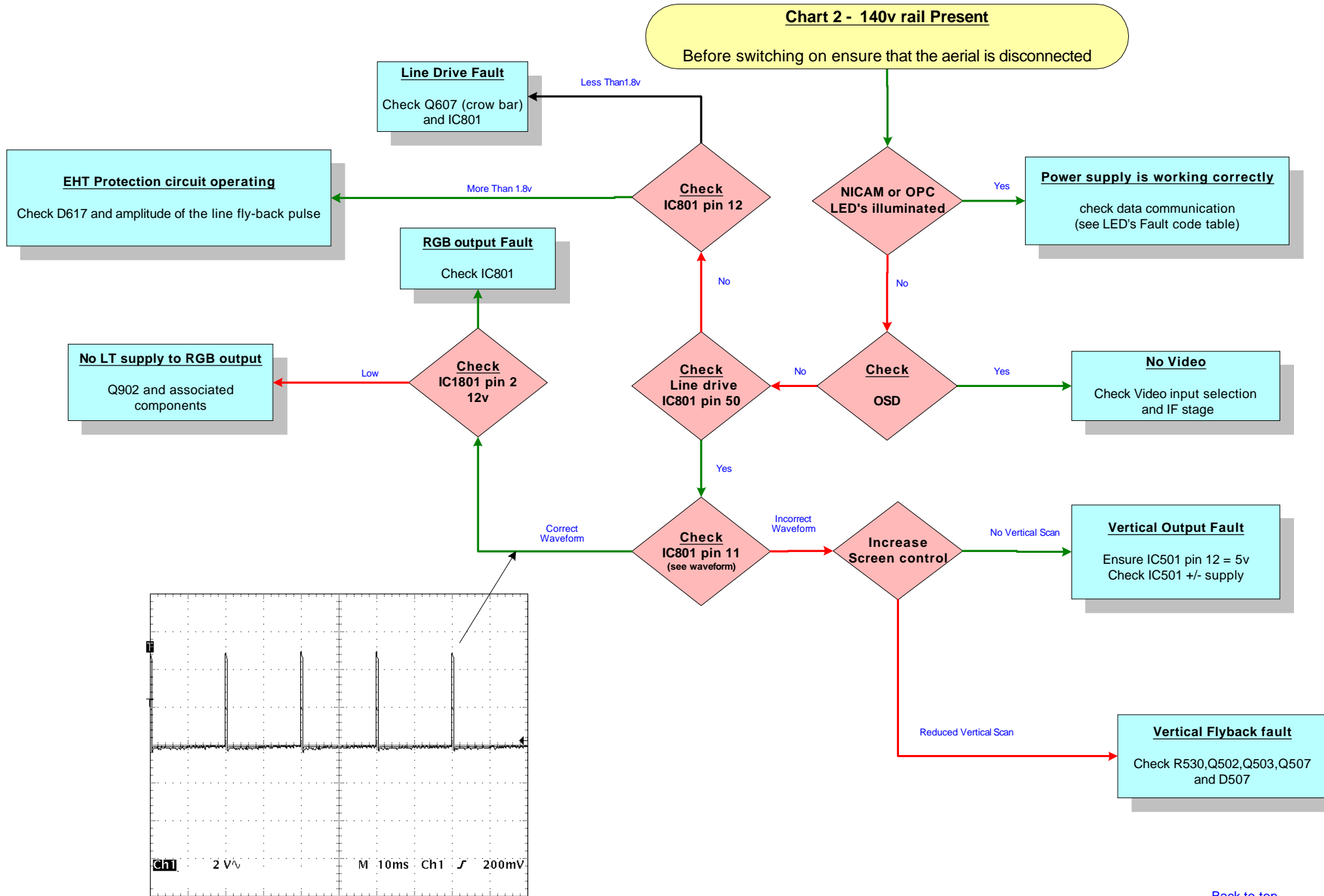
RGB brightness  
Green LED ON permanently  
Low contrast  
Teletext problem

4. [Set may not turn on, when it does there is a rainbow effect on the screen](#). (See page 7)
5. [Very high HT in excess of 200V](#). (See page 8)
6. [Field fold over at the bottom of the screen after about fifteen minutes](#). (See page 9)

**Chart 1 - No 140v rail**  
 Before switching on ensure that the aerial is not connected



Note:  
 An avalanche diode has been added across C720



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### LED Fault Code Table

Fault \ LED	Green NICAM	Orange OPC
Main reset or EPROM	off	
NVM's	2 Flashes/Pause	
MSP	3 Flashes/Pause	
Video	4 Flashes/Pause	
I2C 1 Locked	Keeps repeating the boot sequence	
I2C 2 Locked	On	On
Mega Text/M3 bus	On	1 Flash/Pause (1:3)
Boot Sequence	Green - On	Orange - on
	Green - On	Orange - off
	Green - Off	Orange - off
Notes	Boot sequence can repeat six times before the fault code is shown	
	Time taken for re-boot will vary depending on which section is faulty	

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**Sharp Electronics (UK) Limited**

Reference AM20092000-1  
Revision 1



White – Carry out as required  
Yellow – Carry out as required and whenever the unit comes in for service  
Red – Carry out on all units

**TELEVISION TECHNICAL BULLETIN**

**SYMPTOM** In some instances, when a RGB signal is applied to the EURO-SCART socket, the brightness varies with picture content.

**CAUSE** Incorrect black level clamping.

**ACTION** Adjust NVM data on page 0D, position 0C from 73 to 57.

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**SYMPTOM** Set fails to start, green LED stays on permanently. Only one burst of activity on the NVM I<sup>2</sup>C bus.

**CAUSE** Serial data problem.

**ACTION** Remove the NVM (IC1003) and turn the set on.

If the LED gives two flashes, this means that there is no NVM data and that the processor and OTP are working correctly. This probably means that the NVM is faulty.

<b><u>REF NO</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PART NUMBER</u></b>	<b><u>PRICE CODE</u></b>
IC1003	IC, NVM	RH-IX1603BMZZ	AV

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**SYMPTOM** Low contrast, but when the test mode is entered, it returns to normal.

**CAUSE** NVM corrupted.

**ACTION** Adjust G2 as described on the following page.

NB. If the fault does not clear, replace the NVM.

<b><u>REF NO</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PART NUMBER</u></b>	<b><u>PRICE CODE</u></b>
IC1003	NVM	RH-IX1603BMZZ	AV

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**SYMPTOM** After changing the NVM (or possibly due to data corruption), the half page text appears in the wrong part of the screen - too far left or right.

**CAUSE** Corruption of NVM memory.

**ACTION** Enter the service mode and change the following NVM position to the value shown.

Page: 00  
Position: 68  
Value: 36

Note: To enter the service mode, take the following steps.

1. Turn the set on and ensure that a picture is being displayed.
2. Turn the set off using the mains switch.
3. Press the volume down and channel up buttons on the front of the set.
4. Keeping the buttons pressed, turn the set on using the mains switch.
5. Release the buttons when the service mode is displayed.

Use the channel buttons to move between functions, the volume buttons to change values and the standby button to store.

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**SYMPTOM** Set may not turn on, when it does there may be a rainbow effect on the screen.  
Note the NICAM LED may be on.

**CAUSE** Low voltage on IC501 pin 12 (standby/mute).

**ACTION** Replace IC501.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
IC501	Amplifier	VHITDA7480/-1	AK

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**SYMPTOM** Very high HT (in excess of 200V) leading to failure of C720. Note that the set may trip in the fault condition.

**CAUSE** No power supply feed back due to the opto coupler diode going open circuit.

**ACTION** In most cases, when the HT rises C720 fails and no other components are damaged. If this is the case, replace C720 and IC705 using the part numbers listed below.

Occasionally other components can fail, normally this will be the line output transistor, Q601 (BUH515 - RH-TX0144BMZZ) and IC1801 (TEA5101A - RH-IX1416BMZZ) on the CRT Base PWB.

**It is important that before the set is switched on after replacing any faulty parts, continuity is checked as follows:**

1. From pin 1 of IC705 to the cathode of D725.
2. From pin 2 of IC705 to R724.
3. From pin 4 of IC705 to the base of Q703.
4. From pin 5 of IC705 to the junction of R722 and C717.

It is also advisable to check the components around the feedback opto coupler for failure.

To ensure that excessive HT does not cause further problems, make sure that an avalanche diode (D735) is fitted across C720 on the print side of the PWB. The cathode of the diode should be connected to the positive side of C720.

<b><u>REF NO</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PART NUMBER</u></b>	<b><u>PRICE CODE</u></b>
IC705	IC, CNY17F-2	RH-FX0110BMZZ	AD
C720	Capacitor, 100 $\mu$ F 200V	RC-EZ0258CEZZ	AH
D735	Diode, avalanche	RH-EX0875BMZZ	AD

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**Sharp Electronics (UK) Limited**

Reference JC20062000-2  
Revision 4



White – Carry out as required  
Yellow – Carry out as required and whenever the unit comes in for service  
Red – Carry out on all units



## TELEVISION TECHNICAL BULLETIN

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**SYMPTOM** Field fold over at the bottom of the screen after about fifteen minutes, which gradually gets worse as the set warms up.

**CAUSE** C505 breaking down when warm.

**ACTION** Replace C505 using the part number given below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
C505	SMD Capacitor, 100nF	VCKYTV1HF104Z	AA

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