

TELEVISION TECHNICAL BULLETIN

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

Power and other 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. [Set may not turn on, when it does there is a rainbow effect on the screen](#). (See page 5)
4. [Very high HT in excess of 200V](#). (See page 6)
5. [Field fold over at the bottom of the screen after about fifteen minutes](#). (See page 7)
6. [Receiver does not come out of standby or operation erratic](#). (See page 7)
7. [Receiver does not come out of standby - power supply inoperative](#). (See page 8)
8. [Receiver intermittently returns to standby or intermittently does not come out of standby](#). (See page 8)
9. [Loss of remote control functions and front buttons after five minutes](#). (See page 9)
10. [Blank raster](#). (See page 9)
11. [Doughnut effect on the screen \(purity error\)](#). (See page 10)
12. [Intermittent whistle or speaking from speakers](#). (66FW53H, 66FW54H, 76FW53H, and 76FW54H only) (See page 11)
13. [No operation](#) (76FW53H and 76FW54H only) (See page 11)
14. [Set trips once picture appears](#). (Only 66FW54H & 76FW54H) (See page 12)

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

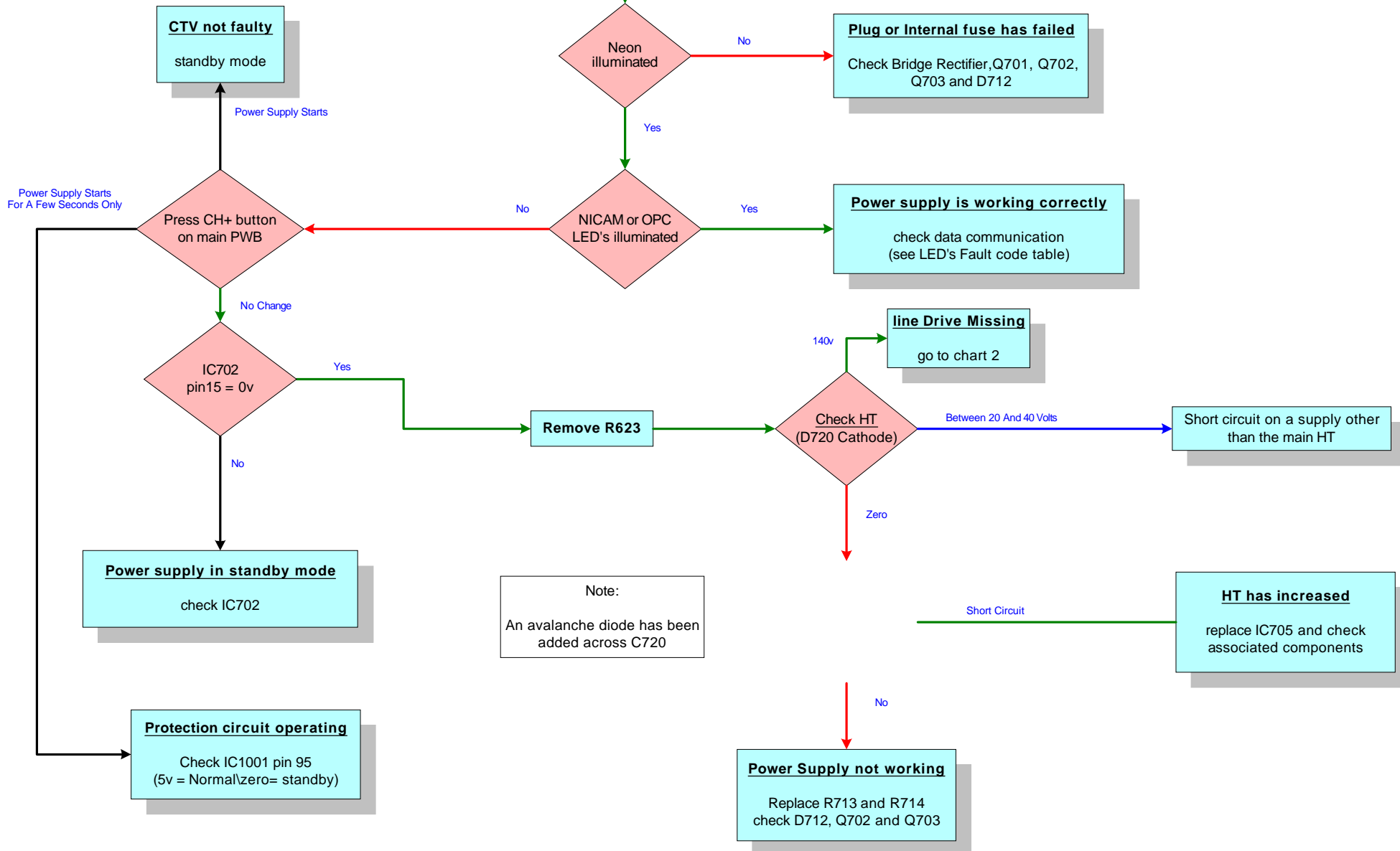
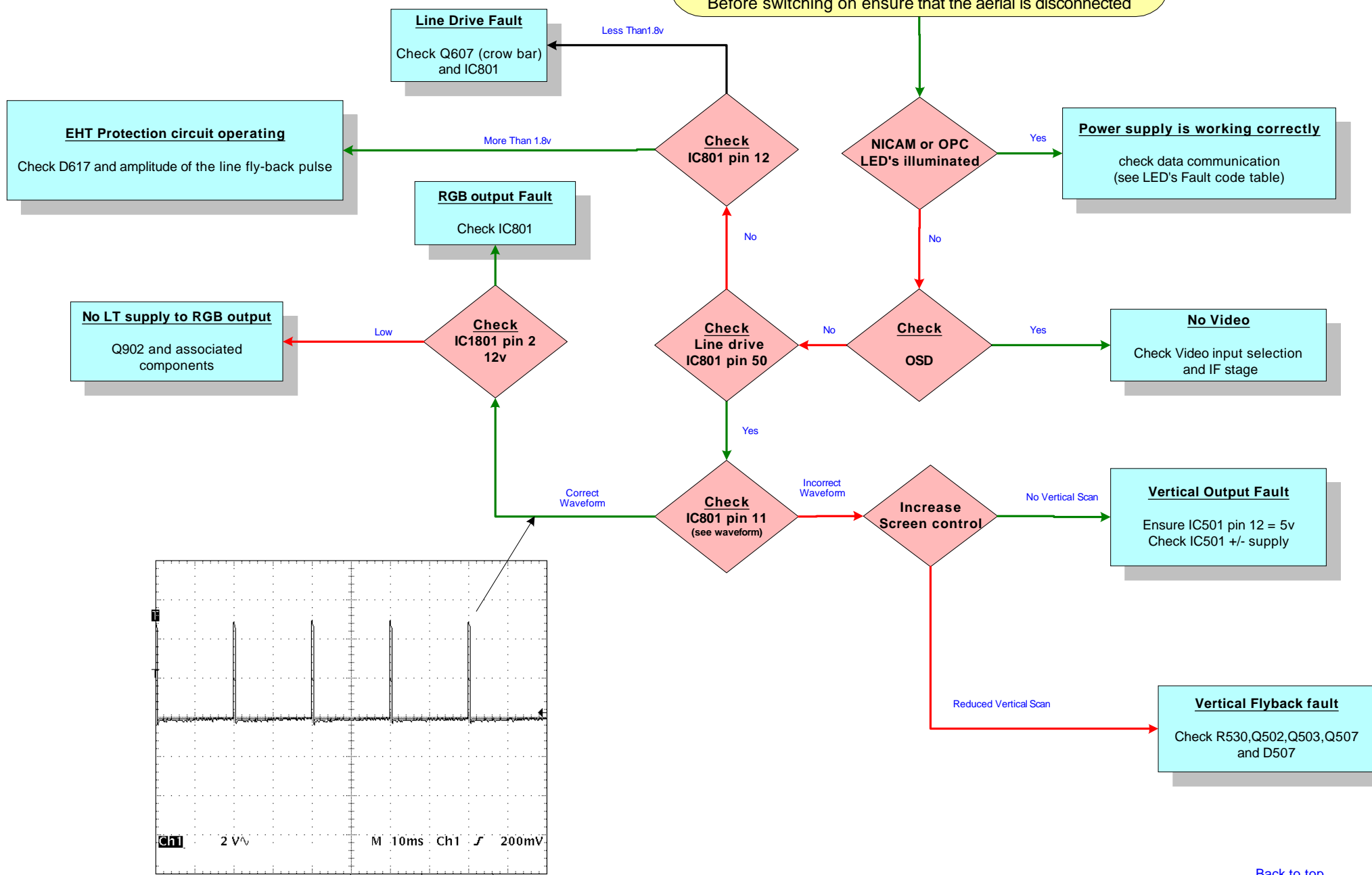


Chart 2 - 140v rail Present
 Before switching on ensure that the aerial is disconnected



[Back to top](#)

LED Fault Code Table

LED Fault	Green NICAM	Orange OPC
Main reset or EPROM	Off	On
NVM's	2 Flashes/Pause	On
	or	
	On	Off
	or	
	On	On
MSP	3 Flashes/Pause	On
Video	4 Flashes/Pause	On
I2C 1 Locked	Keeps repeating the boot sequence	
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	<p>Boot sequence can repeat six times before the fault code is shown</p> <p>Time taken for re-boot will vary depending on which section is faulty</p>	

[Back to top of file](#)

TELEVISION TECHNICAL BULLETIN

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

[Back to top of file](#)

TELEVISION TECHNICAL BULLETIN

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, IC705, 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.

Please see Technical Bulletin CTV2001 01 01 for guidance on fitting IC705.

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.

IMPORTANT

NOTE 1 When replacing the opto coupler in the DA100 chassis, ensure that the soldering temperature is below 250°C. If the soldering temperature is too high it may result in repeat failure of the device.

NOTE 2 After replacing any faulty components, check the continuity 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.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
IC705	IC, CNY17F-2	RH-FX0110BMZZ	AD
C720	Capacitor, 100µF 200V	RC-EZ0258CEZZ	AH
D735	Diode, avalanche (BZW104)	RH-EX0875BMZZ	AD

[Back to top of file](#)

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Revision 8



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 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

[Back to top of file](#)

SYMPTOM Receiver does not come out of standby or operates erratically.

REASON Dry joint on the microprocessor crystal, X1002.

CURE Resolder X1002.

[Back to top of file](#)

TELEVISION TECHNICAL BULLETIN

SYMPTOM The receiver does not come out of standby - power supply inoperative.

CAUSE R713 and / or R714 going high or open circuit.

ACTION Replace R713 and R714 with 560k Ω ½W metal film resistors.

Use the part numbers below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
R713	Resistor 560k Ω ½W metal film	VRC-MA2HG564J	AA
R714	Resistor 560k Ω ½W metal film	VRC-MA2HG564J	AA

[Back to top of file](#)

SYMPTOM Receiver intermittently returns to standby when running, or will not come out of standby intermittently.

CAUSE IC703 breaks down under load.

ACTION Replace IC703 using the part number given below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
IC703	Opto Coupler	RH-FX0106BMZZ	AD

[Back to top of file](#)

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TELEVISION TECHNICAL BULLETIN

SYMPTOM Loss of remote control functions and front buttons after five minutes.

CAUSE D704

ACTION Replace D704, using the part number given below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
D704	Diode, RF2005	RH-DX0555BMZZ	AB

[Back to top of file](#)

SYMPTOM Blank raster.

CAUSE Low of missing VPROT signal on pin 11 of IC801, caused by failure of Q503.

Note that this signal should be a 50Hz pulse at approximately 5V amplitude.

ACTION Replace Q503, using the part number given below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
Q503	FET, IRFR010TM	RH-TX0172BMZZ	AE

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SYMPTOM Doughnut effect on the screen (purity error).
Intermittent random switch on from cold.
Sound increases intermittently without the OSD appearing.
Sound decreases intermittently without the OSD appearing.

CAUSE C749 missing from the circuit or is faulty.

ACTION Replace C749 using the part number given below (between pins 1 and 3 of IC708).

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
C749	Capacitor, 470nF 16v	VCKYTV1CF474Z*	AC

[Back to top of file](#)

TELEVISION TECHNICAL BULLETIN

MODELS 66FW53H 66FW54H 76FW53H 76FW54H

SYMPTOM Intermittent whistle or squealing from speakers.
Whistle or squealing from speakers at switch on.
Whistle or squealing from speakers at all times.

CAUSE Instability of the centre speaker amplifier.

ACTION Replace IC1300 and IC1302 on the centre speaker amplifier PWB.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
IC1300	IC, CB4558F	VHIBA4558F/-1	AK
IC1302	IC, TDA7480	VHITDA7480/-1	AK

[Back to top of file](#)

MODELS 76FW53H 76FW54H

SYMPTOM No operation.

CAUSE D1601 on focus PWB short circuit or leaky.

ACTION Replace D1601, using the part number given below.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
D1601	Diode	RH-DX0484BMZZ	AC

[Back to top of file](#)

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Revision 8



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TELEVISION TECHNICAL BULLETIN

MODELS 66FW54H 76FW54H

SYMPTOM Set will trip (re-boot) once the picture appears, if plug SA is disconnected from the Dolby PWB the set will work correctly

Note:

Sound will only appear if By-Pass mode has been select in the Audio menu.

CAUSE Dolby power supply not operating

ACTION Normally this is due to R1721 and R1722, in the Dolby PWB power supply circuit going high or open circuit. However, a similar fault can be experienced if any of the output IC's (IC1302, IC1303, IC1304 and IC1305) go short circuit, causing an overload of the Dolby power supply.

NOTE R1721 and R1722 have been changed in value during production. Use the part number listed below to order these parts.

<u>REF NO</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE CODE</u>
R1721	Resistor, 560K 0.5W	VRC-MA2HG564J	AA
R1722	Resistor, 560K 0.5W	VRC-MA2HG564J	AA
IC1302	IC, TDA7480	VHITDA7480/-1	AK
IC1303	IC, TDA7480	VHITDA7480/-1	AK
IC1304	IC, TDA7480	VHITDA7480/-1	AK
IC1305	IC, TDA7481	VHITDA7481/-1	AK

[Back to top of file](#)

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