

## Service Information

**1. Switch-off possibility multi PIP through the introduction of V67 software**

This software makes it possible to switch a multi PIP (mosaic screen) on and off by means of an option bit. The number 32 has been added to option code 4 for this purpose.

This software has been introduced in all FL1.17 sets and all FL2.14 and FL1/2.16 sets with a serial number beginning with AG02 and higher. The code number of the V67 or higher is 4822 900 10423.

The accompanying control panel is 4822 212 30803.

**2. Introduction of V71 software to improve FL1.10 start-up characteristics**

This software generates an extra reset in order to eliminate the incorrect internal 'power-on-reset'. In this manner the split characters in OSD and Teletext in FL1.10 sets are avoided.

This can also be solved by a hardware modification. The following two components should be modified for this purpose:

- change jumper 4108 to 220nF.
- add a 1M $\Omega$  resistor between pin 7 and 15 of IC7111.

All FL1.10 sets produced from week 9332 are equipped with one of these two solutions.

The code number of the V71 software is 4822 900 10423.

**3. Correction to Scavem in service manual FL1/2.14, FL1/2.16 and FL1.17 AA**

In this service manual the code number of the Scavem amplifier panel is incorrect. This should be 4822 212 31469.

**4. New deflection unit on 25" picture tubes in FL1.17 and FL2.16 sets**

In week 9405 the picture tube of the 25" sets was changed from an A59EAK252X43 (4822 131 20501) to an A59EAK252X44 (4822 131 20602). These picture tubes have a different deflection unit. This modification has been introduced in sets with a serial number beginning with AG12 or higher. At the same time as the introduction of this modification the following components on the LSP have also been modified:

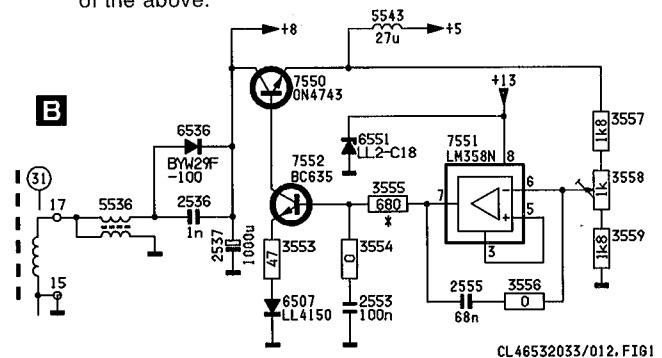
- 2504 and 2505 are now 270pF (4822 122 20054)
- 2520 is now 390pF (4822 121 51527)
- 3504 and 3506 are now 1 $\Omega$ 2 (4822 053 11128)
- 3602 is now 22k (4822 100 11213)
- 3603 is now 10k (4822 051 10103)
- for -/19 sets 3603 is now 6k8 (4822 051 10682)
- 3633 is now 150k (4822 051 10154)

**5. Operational reliability of the LM358 (IC7551) on the LSP of FLx.16 and FLx.17**

In order to increase the operational reliability of the LM358 (IC7551) on the LSP the following modification was introduced from week 9344:

- In the 25", 28" and 33" sets a zener diode (BZX79C18; 4822 130 31024) has been added to position 2551, between pin 8 of position 7551 and position 9240, with the cathode on pin 8 of position 7551.
- In the 29" position 2551 has been modified to an LLZC18 (4822 130 80922) with the cathode on pin 8 of position 7551.

The figure below illustrates the correct situation for both of the above.

**6. New software in the LFR box**

In week 9337 new software was introduced in the LFR box. Use of this new software is recommended in FLx.16 and FLx.14 sets (with easy TEXT) instead of the old version (PCF83C652P/AB043). The code number of this new software is 4822 209 33289 (P83C652FFP/50).

## 7. Reintroduction of sets with an FQ816 front-end for SECAM DK and PAL I NICAM reception

The IF sound bandwidth of the FQ916 front-end is not sufficient for SECAM DK and PAL I NICAM sound. To nevertheless offer SECAM DK and PAL I NICAM sound the following sets have been equipped with an FQ816 front-end:

28PT910A/42  
28PW960B/58  
29PT910B/42  
32PW960B/58/62  
33PT702B/07  
46PP912A/07

Because an FQ816 with a built-in splitter does not exist the sets with a second PIP tuner have been provided with a separate splitter.

In addition to the front-end the following components should also be modified:

	FQ916	FQ816	Code number
2124	22nF	----	
2161	----	100nF	4822 122 33496
2162	1000µF	----	
2166	----	150µF	4822 124 40684
2180	100nF	----	
2181	22nF	----	
3160	10Ω	7Ω5	4822 052 10758
3162	15Ω	7Ω5	4822 052 10758
3164	1Ω	100Ω	4822 052 10101
3165	1Ω	100Ω	4822 052 10101
3166	----	2Ω2	4822 052 10228 <sup>5</sup>
3172	15Ω	22Ω	4822 111 41424
3211	470Ω	270Ω	4822 116 52217
3219	0Ω	270Ω	4822 116 52217
3220	560Ω	470Ω	4822 051 10471
3600	300Ω	3k6	4822 051 01362
3603	1Ω	3k3	4822 051 10332
3604	2k7	1k8	4822 051 10182
4066	----	0Ω	4822 051 10008
4148	----	0Ω	4822 051 10008
4161	0Ω	----	
9148	1	----	
9282	----	1	
9615	1	----	

When converting a set with an FQ916 tuner to a SECAM DK version the following work should be performed:

- Change the components as indicated in the list above.
- Positions 2604 and 4610 must be present on the SSP.

### A. For NICAM sets:

- Add position 9017 on the NICAM module.
- Solder the NICAM DK module 4822 212 30039 in connector N50 on the NICAM module.

### B. For non-NICAM sets:

- Add jumper 4166 on the SSP.
- Solder the SECAM DK module (4822 212 30039) in connector S43 on the SSP.

For sets with a second PIP tuner:

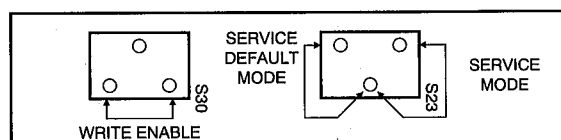
- Add splitter holder 4822 256 91807.
- Add splitter 4822 218 21069.
- Change SSP cover into 4822 432 93233 for FL2.24 and into 4822 466 93028 for FL1-PTV.

## 8. Modification to position 4210 on the SSP when replacing the 100Hz box in FL1.1 and FL1.7 sets

When the 100Hz box is being replaced in these sets position 4210 on the SSP should also be modified to 1kΩ (4822 051 10102) in order to increase reliability.

## 9. Introduction of new SSP with EAROM protection in FL1.10, FL2.16 and FL1.17

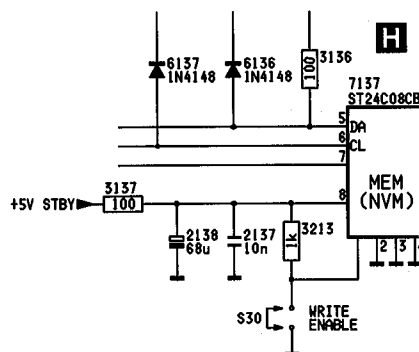
During production a new SSP was introduced in the FL1.10, FL2.16 and FL1.17 sets. The EAROM protection only works if pin 1 of IC7137 is high. If this pin is made low by means of the pins of S30 on the SSP the protection is switched off and the protected area can again be written to. During adjustments in the service menu these two pins should be connected to each other continuously. The error codes are only displayed when the 'Service Mode' or the Service Default Mode' are switched on.



CL 46532022.015  
220294

The difference between the old and the new SSP is as follows (see figure below):

- Position S30 pin strip 3P added (4822 265 31009)
- Position 3213 1kΩ added (4822 051 10102)
- Position 4127 jumper added (4822 051 10008)
- Positions 4135 and 9228 removed
- Position 7137 modified to ST24C08CB1 (4822 209 32283)



S30 = OPEN: READ ONLY SERVICE SETTINGS  
S30 = CLOSE: READ/WRITE SERVICE SETTINGS

CL46532033/012.FIG2

In the FL1.17 Classic Line sets an SVHS connection has also been added to the front.

This new SSP has been fitted in the following sets:

- FL1.10 with AG05 and higher
- FL2.16 with AG13 and higher
- FL1.17 with AG14 and higher