

Service  
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**Service**

**FL4.17**  
AA

# Service Manual

## Service Manual Chassis FL4.17 AA

This Service Manual contains modified instructions and prints for the FL4.17.  
For all remaining information the Service Manual FL1.14/FL2.14/FL1.16/FL2.16/FL1.17AA should be consulted.

FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 GB	4822 727 19919
FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 NL	4822 727 19921
FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 D	4822 727 19922
FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 F	4822 727 19923
FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 IT	4822 727 19924
FL1.14/FL2.14/FL1.16/FL2.16/FL1.17 ES	4822 727 19925

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In addition to the Service Manual FL1.14/FL2.14/FL1.16/FL2.16/FL1.17AA the following service information bulletins should also be consulted.

FL 93.05 AA GB	4822 727 20005
FL 93.05 AA NL	4822 727 20006
FL 93.05 AA D	4822 727 20007
FL 93.05 AA F	4822 727 20008
FL 93.05 AA IT	4822 727 20009
FL 93.05 AA ES	4822 727 20011

FL 93.07 4822 727 20265

## 4. Mechanical instructions

### 4.1 Model overview (fig. 4.1)

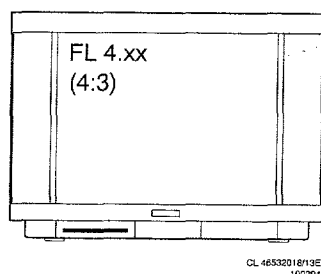


Fig. 4.1

### 4.2 Service position FL4 (fig. 4.2)

An FL4 model can be put into service position 1 in the same manner as an FL2 model.

Service position 2 is accomplished by tilting the whole frame once the cabling has been disconnected (the cable to the front connectors (E47, E48) may be disconnected). A stud on the frame and a hook on the case ensure a stable service position.

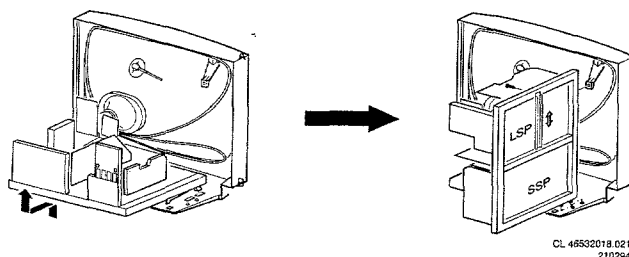


Fig. 4.2

## 6. Electrical diagrams and PWB-layouts

### Large signal panel

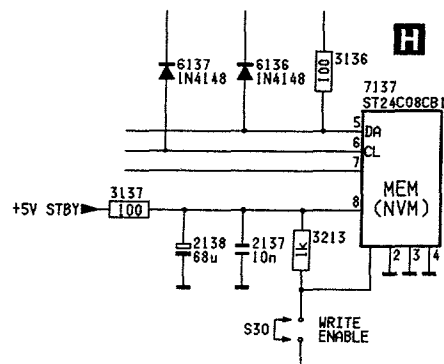
The modifications for the FL4.17 on the large signal panel with respect to the FL1.17 are:

- 2011 becomes 3.9nF	4822 122 32566
- 2035 becomes 3.9nF	4822 122 32566
- 2039 add	4822 122 31765
- 2504 becomes 270pF 2kV	4822 122 20054 for 25"
- 2505 becomes 270pF 2kV	4822 122 20054 for 25"
- 2505 becomes 330pF 2kV	4822 126 11254 for 29"
- 2520 becomes 390nF	4822 121 51527
- 3504 becomes 1.2W	4822 053 11128
- 3506 becomes 1.2W	4822 053 11128
- 3602 becomes 22k	4822 100 11213
- 3603 becomes 10k	4822 051 10103
- 3633 becomes 150k	4822 051 10154

### Small signal panel

In addition the EROM protection has also been added to the small signal panel, this consists of the following modifications (see figure):

- S30 add pin strip 3P	4822 265 31009
- 3213 add 1kΩ	4822 051 10103
- 9228 add	
- 4135 remove	
- 7137 becomes ST24C08CB1	4822 209 32283

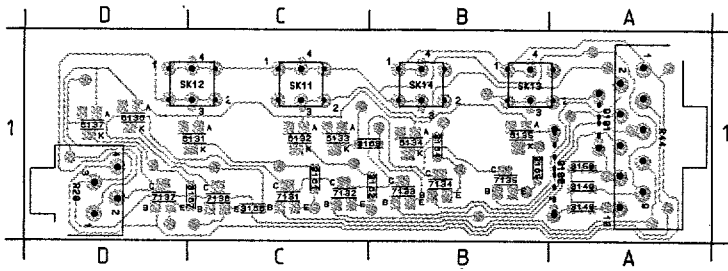


S30 = OPEN: READ ONLY  
SERVICE SETTINGS  
S30 = CLOSE: READ/WRITE  
SERVICE SETTINGS

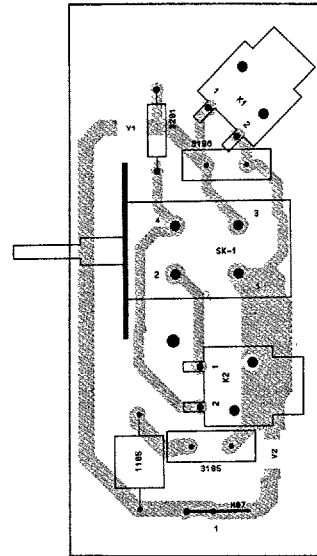
CL46532033/012.F1B2

FL4 LED/Control

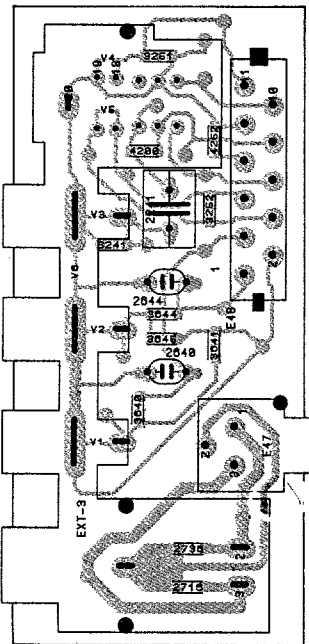
3149 A 1	3103 C 1	0131 C 1	0130 D 1	7134 B 1	Q101 A 1	SK13 B 1
3140 A 1	3104 B 1	0132 C 1	0137 D 1	7135 B 1	R20 D 1	SK14 B 1
3158 A 1	3105 B 1	0133 C 1	7131 C 1	7136 C 1	R44 A 1	
3161 C 1	3106 C 1	0134 B 1	7132 C 1	7127 D 1	SK11 C 1	
3162 B 1	3107 C 1	0135 B 1	7133 B 1	Q100 A 1	SK12 D 1	



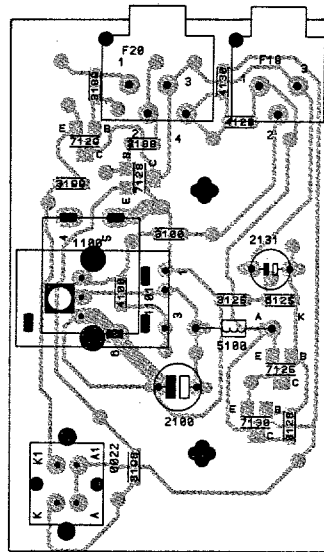
Mains switch FL4



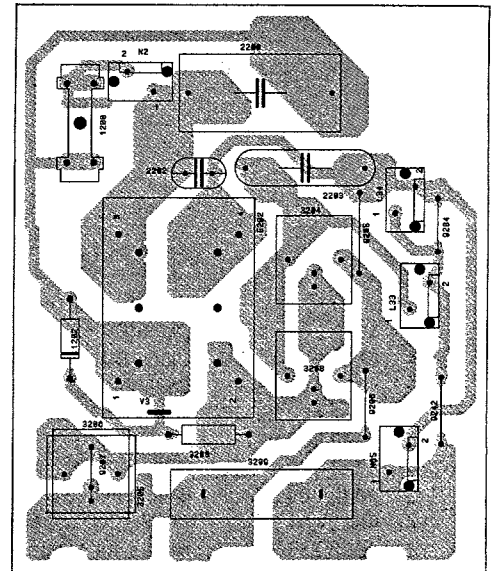
FL4 Front



FL4 IR LED panel



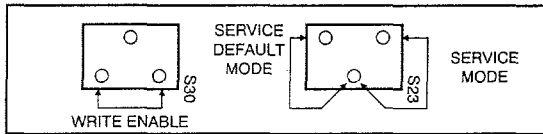
Mains filter FL4



## 7. Electrical adjustments

### Alignments in the Service Menu

The FL4.17 sets are equipped with EAROM protection. The EAROM protection will only work if pin 1 of IC7137 is high. If this point is made low by the pins of S30 on the SSP, the protection is switched off and the protected area can once more be written to. During adjustment in the service menu these pins must therefore remain connected together continuously.



- 7.1 Switch in the Service Menu by momentarily connecting together pins 2S23 and 1S23 on the small signal panel (diagram H). The Service Menu will then appear on the screen. The procedure is as follows:
- Select the required alignment with the coloured keys A to E.
  - Change the values set using the "Menu +/-" key.
  - Store the values set in the EAROM and leave the Service Menu by selecting STORE.

- The error codes are only displayed when the 'Service Mode' or the 'Service Default Mode' are switched on.

## 8. Repair tips

### 2. Error messages

- The error codes are only displayed when the 'Service Mode' or the 'Service Default Mode' are switched on.

In both FL1 and FL2/4 models the I<sup>2</sup>C error messages are indicated by a combination of flashing LED's. In FL1 7 LED's on the front of the set are used. In FL2/4 only 2 LED's have been fitted to the front of the set: 'on' and 'stand-by'; for service purposes the 7 LED's have been fitted inside the set in an SMD version. These are located on the solder side of the panel with buttons for local control. The 2 LED's on the front of the set are connected in parallel with the corresponding service LED's. Figure 8.1 illustrates the situation for FL1 and FL2/4. A table of error messages is provided at the end of this chapter.

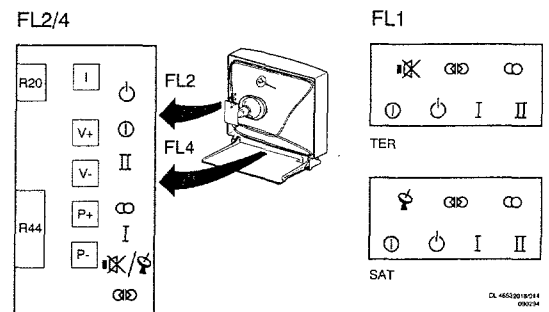


Fig. 8.1

## 10. Mechanical FL2/4

- |    |                |  |
|----|----------------|--|
| 1  | 4822 267 41005 | Cinch/SVHS connector                   |
| 1  | 4822 267 20409 | Cinch/SVHS connector FL4.17            |
| 2  | 4822 466 93249 | SSP cover FL2.14                       |
| 2  | 4822 432 92767 | SSP cover FL1.16                       |
| 2  | 4822 432 93138 | SSP cover FL1.17                       |
| 2  | 4822 432 93231 | SSP cover FL4.17                       |
| 3  | 4822 404 31287 | Bracket                                |
| 4  | 4822 404 31196 | Bracket for second tuner PIP           |
| 5  | 4822 256 91807 | Holder for splitter                    |
| 6  | 4822 492 70789 | Spring                                 |
| 7  | 4822 267 51058 | Euroconnector                          |
| 8  | 4822 267 20427 | Euro/4 x cinch connector               |
| 8  | 4822 267 20411 | Euro/2 x cinch connector               |
| 8  | 4822 267 20457 | Euro/4 x cinch connector FL4.17        |
| 9  | 4822 432 92839 | LSP cover FL2.14                       |
| 9  | 4822 432 92695 | LSP cover FL2.16                       |
| 9  | 4822 432 92743 | LSP cover FL2.16 33"                   |
| 9  | 4822 432 92991 | LSP cover FL1/4.17                     |
| 10 | 4822 410 25036 | Mute knob                              |
| 11 | 4822 464 70616 | Bracket for mains filter               |
| 11 | 4822 464 70638 | Bracket for mains filter FL2.16/FL4.17 |
| 12 | 4822 462 42016 | Service stand                          |
| 13 | 4822 492 62076 | Spring                                 |
| 14 | 4822 464 70615 | Frame for chassis                      |
| 15 | 4822 492 70143 | Spring                                 |
| 16 | 4822 492 70788 | Spring                                 |
| 17 | 4822 290 60812 | Connector for LS                       |

