

Replacement of analog modules of the IM6/IM6e

Initial Note:



Please read all steps of this instruction and get familiar with the IM6(e) by following the replacement instructions step by step.

Be cautious and do not hurry!

Get 'uncharged' by touching the case of the IM6.

OPEN) Preparation

1. Before You open the IM6(e) switch off the instrument and remove all cables at the front. Leave line cable connected to IM6(e).
2. Remove the front panel by opening the 4 screws of the right most plate named "IM6(e)" (Fig1).

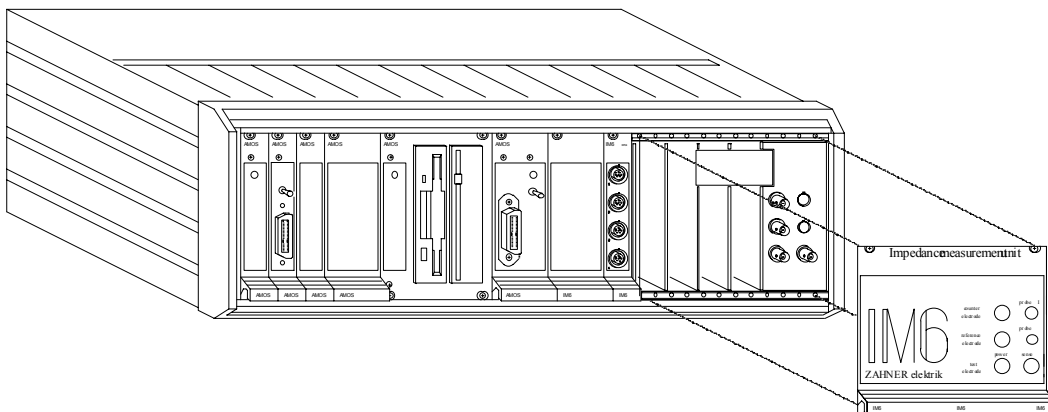


Figure 1: Removal of front plate

3. Before removing any of the cards get familiar with the setting of the modules 1 to 6 (see below).
4. Get 'uncharged' by touching the case of the IM6.

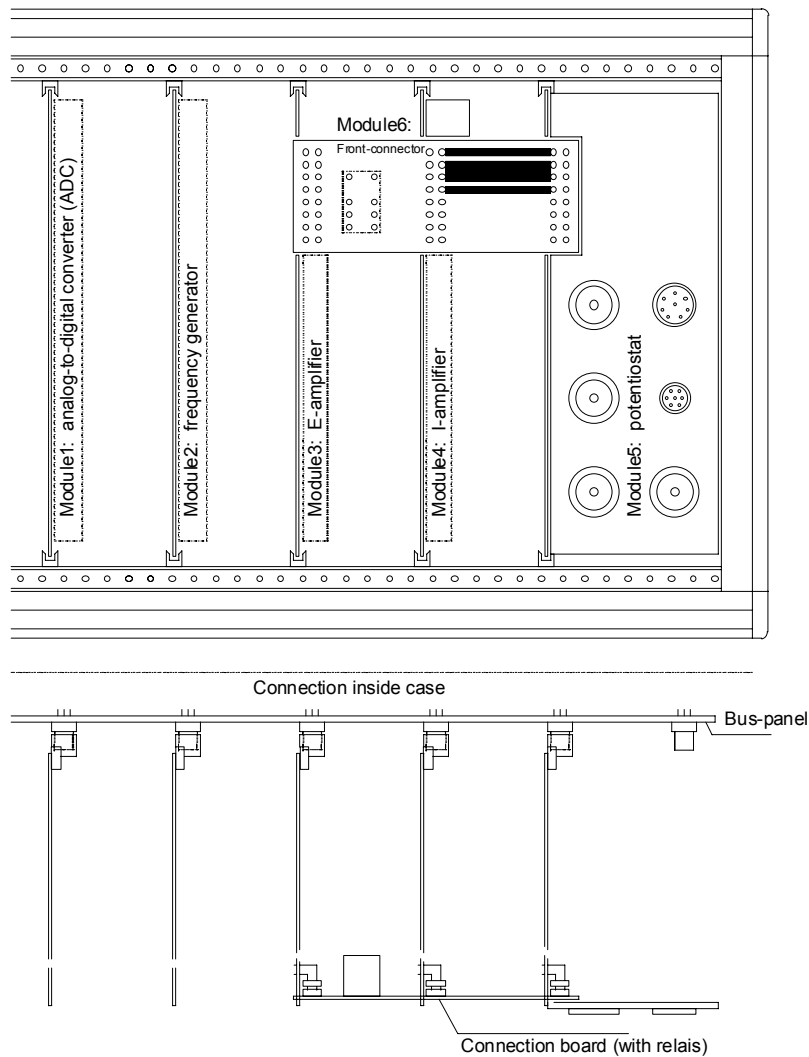


Figure 2: What is behind the front plate?

NOTE:



Most components have reasonable susceptibility to damage by electrostatic discharge. Make sure to maintain equal potential throughout the working area.

Turn off all equipment but leave supply connected. Touch case before you touch any interior.

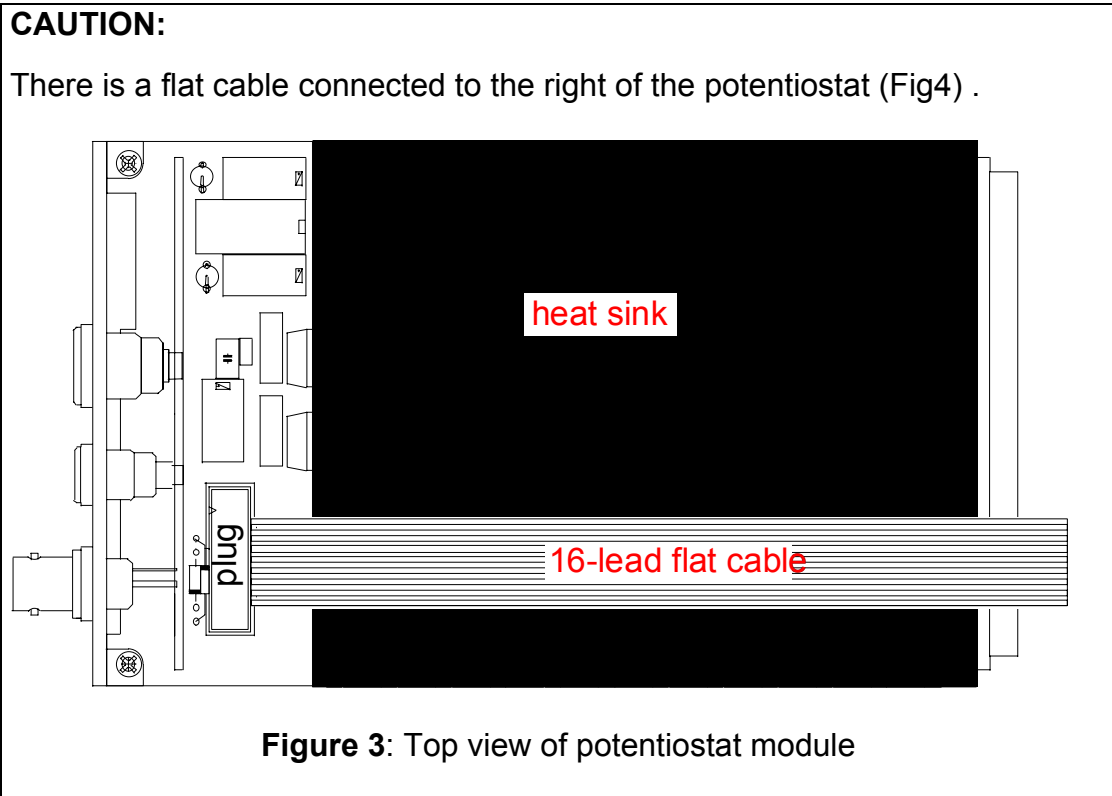
NOTE:



To put in a module the print must be oriented to the left, the component side will point to the right.

POT) Replacement of potentiostat

- POT1) To replace the potentiostat the front connector (module6) must be removed. Carefully remove module6 (front connector). Pull with equal force at both sides and avoid any torsion during pulling. Check module6 that no pin has been bend or broken.
- POT2) Remove defect potentiostat (module5).



Pull until you can see the plug of the flat cable. Realize and remind the position of the plug. Carefully pull out cable, then pull out potentiostat.

- POT3) Put in new potentiostat. Take care that the print will be inserted correctly into the right most guide grooves at the top and at the bottom of the instrument. Push in potentiostat half way. Now connect flat cable to the potentiostat.

NOTE:



The plug must point to the front of the IM6(e), the side with the cable must point to the rear of the instrument.

- POT4) In case of additional replacement of the amplifier modules continue with step AMP) of this instruction.
- POT5) Connect modules 3 to 5 with the front connector (module6).

NOTE:



The relay must point to the left and will be placed in between of E- and I-amplifier. The solid traces of the connector will point to the upper right between I-amplifier and potentiostat.

CAUTION:



Be very careful! Make sure all pins will fit to the corresponding socket. Then push with moderate power at both sides of the connector plate. Avoid hard pushing and torsion, otherwise pins may bend or brake.

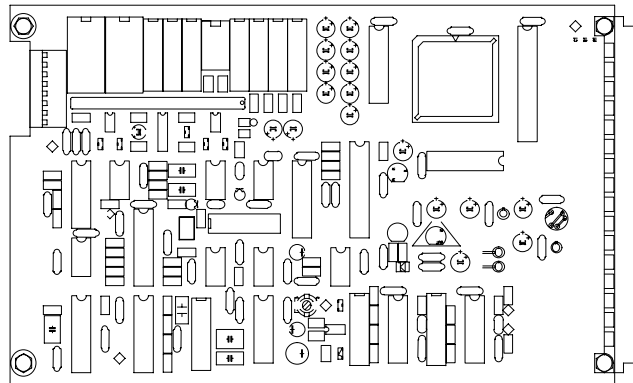
- POT6) Reassemble case of IM6(e) following the steps CLOSE) of this instruction.

AMP) Replacement of amplifier(s)

! **NOTE:** The amplifiers will be replaced as pairs

- AMP1) To replace the amplifier(s) the front connector (module6) must be removed. Carefully remove module6 (front connector). Pull with equal force at both sides and avoid any torsion during pulling. Check module6 that no pin has been bend or broken.
- AMP2) Remove defective amplifier(s) (module3 & module4)

Module 4, I-AMP



Module 3, E-AMP

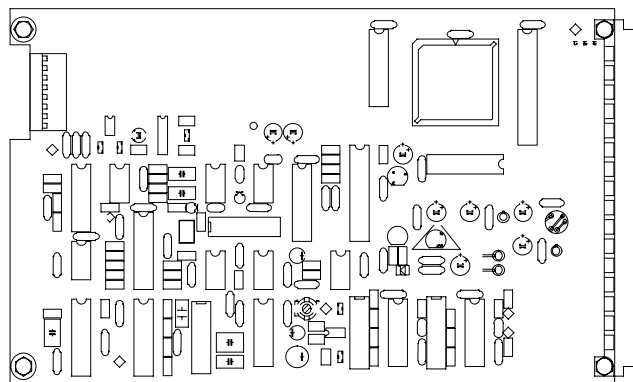


Figure 4: The modules 3 and 4, the amplifiers

- AMP3) Put I-amplifier (module4) into the next slot left of the potentiostat. The I-amplifier will be distinguished from the E-amplifier by the lot of additional relays on it (Fig4).
- AMP4) Put E-amplifier (module3) into next slot left of I-amplifier.

- AMP5) Connect modules 3 to 5 with the front connector (module6).



NOTE:

The relay must point to the left and will be placed in between of E- and I-amplifier. The solid traces of the connector will point to the upper right between I-amplifier and potentiostat.



CAUTION:

Be very careful! Make sure all pins will fit to the corresponding socket. Then push with moderate power at both sides of the connector plate. Avoid hard pushing and torsion, otherwise pins may bend or brake.

- AMP6) Reassemble case of IM6(e) following the steps CLOSE) of this instruction.

FRQ) Replacement of frequency generator

- FRQ1) Carefully remove the defective frequency generator (module2).
- FRQ2) Put new frequency generator into the free slot left of the E-amplifier.
- FRQ3) Reassemble case of IM6(e) following the steps CLOSE) of this instruction.

ADC) Replacement of analog-to-digital converter ADC

- ADC1) Carefully remove the defective ADC (module1).
- ADC2) Put new ADC into the free slot left of the frequency generator.

CLOSE) Reassembly of IM6(e)

- Reassemble IM6(e).
- Finally install the front plate and fix the four screws.