16 FILAMENT CIRCUITS.

The filament heating will evoke a certain current in the X-ray tube.

In a MEDIO-CP one board(EZ115) generates ignition pulses for the Filament Power part.
The ignition frequency depends on the wanted heating current.
The selected focal spot gets a fixed wanted pre-heating current setting via the 5V power supply from the CPU board EZ 102.
The not selected focal spot gets a fixed wanted pre-heating currentsetting from the fluo board EZ 123. If a fluo board is not present the not selected focal spot is not preheated.

The selected focal spot gets a changing current setting from EZ 115.
The value is depending on:

- Tube type
- A fixed minimum current (2A)
- Wanted tube current (MAEXNV DA-Convertor)
- Real tube characteristic (FILNV DA-Convertor)

At PREP the current will be boosted via FILNV to bring the slow(400mS.) reacting filament quickly to the wanted temperature.

During the exposure deviations in Tubecurrent are corrected via the comparison MAEXNV - MAEXIN.

On the filament board the real filemant current is compared to:

- Minimum value	< 0.5 A	--> **RED LED MIN**
- Maximum value	> 4A in stand by	--> **RED LED MAX**
	> 8A during Boost-time	
	> 6.5A in PREP after Boost	
- Wanted value	+/- 0.5A	--> **RED LED NJT**

If an error occurs in the generator, the computer will immediately shut down the filament current(via FILSTOP/) to protect the tube against hazardous conditions.

With a jumper W1(EZ115) this command FILSTOP/ can be overruled and the circuits should generate approximately 2Amp's Filament current(Filament Actual V

alue).

If the power supply detects a current >60A the circuit breaker ENF3 will interrupt the filament current.