

Status of HV electronics

M. De Giorgi 24/9/2001

- End of september Beijing will have sent back ~ 1/2 of HVC's, HVB's and HV connections production
- HVB's are now tested also for continuity while HVC's for short circuits on the spark gaps (cf. presentations at the Catania meeting); what we have at home must be checked by us
- There is a quality problem affecting ~ 10% of the pc boards of the HVB's; a solution is being worked out with the manufacturer.
In principle (but unfortunately not 100% sure) problem spotted by entry tests.
- Noise: found that HV p.s. injects switching noise essentially on layers 2&3; sensitivity to the problem correlated with our internal cabling. Stay tuned for solutions! (B.T.W.: did you observe anything ???)
- Observed that, in the HV side, the internal grounding strip can damage the cabling. Solution found, tests for ageing:OK. Adopted?

Status of FE electronics

M. Pegoraro 24/9/2001

- **1000 FEB's being delivered to Padova today. Re-routing to Ac + M for their share will happen ASAP**
- **Other FEB's will follow (2500 every 3 months)**
- **Signal feedthru: 1200 PCB in 2 weeks; will be partially assembled in house for check (all in Pd?)**
- **Order for the assembly of remaining signal feed-thru's (~ 10000 pcs) being signed**
- **test-pulse feed-thru: the one already existing should satisfy the 2001 production. Order for the assembly of the completion of the full prod. being placed**
- **slow-control feed thru: the one already existing should satisfy the 2001 production. The prod. completion will occur in 2-3 months**
- **Internal bus (slow-control & predecode): order placed.**

Some thoughts on welding machine

- **the output voltage** on the welding head (that is after a transformer) is at most **20 V**
- **the duration of the welding pulse** is essentially determined by the machine itself and marginally (< 50%) by the welding point resistance. It **is in the order of 20 ms max.**
- the **15 kA** are specified for **15 $\mu\Omega$** resistance in the welding point.

On a **human body** the current is determined by its own resistance (that is always **»than 1 k Ω**) subject to 20 Volts max for 20 ms max.

Following point 1,2,3 it doesn't seem possible to have damages from the welding since no arc is involved. To be safe just use protection glasses, as we do.