

Plans/Needs for Installation

CMS Week March 16th 2004

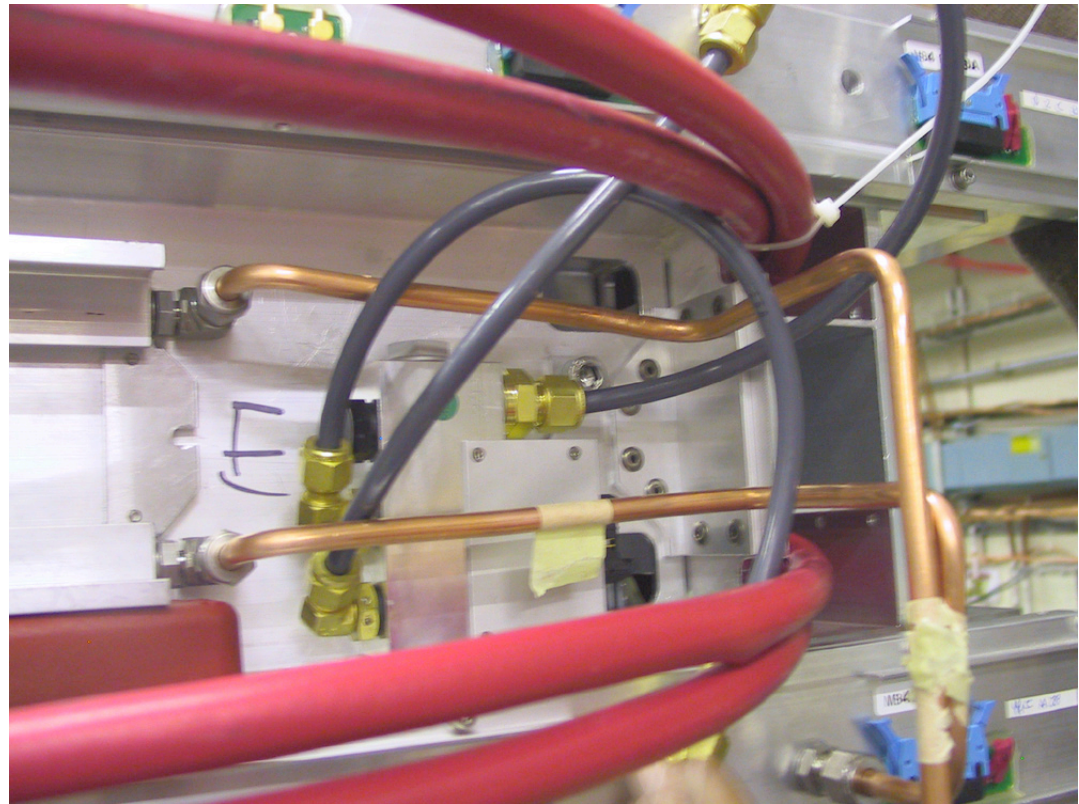
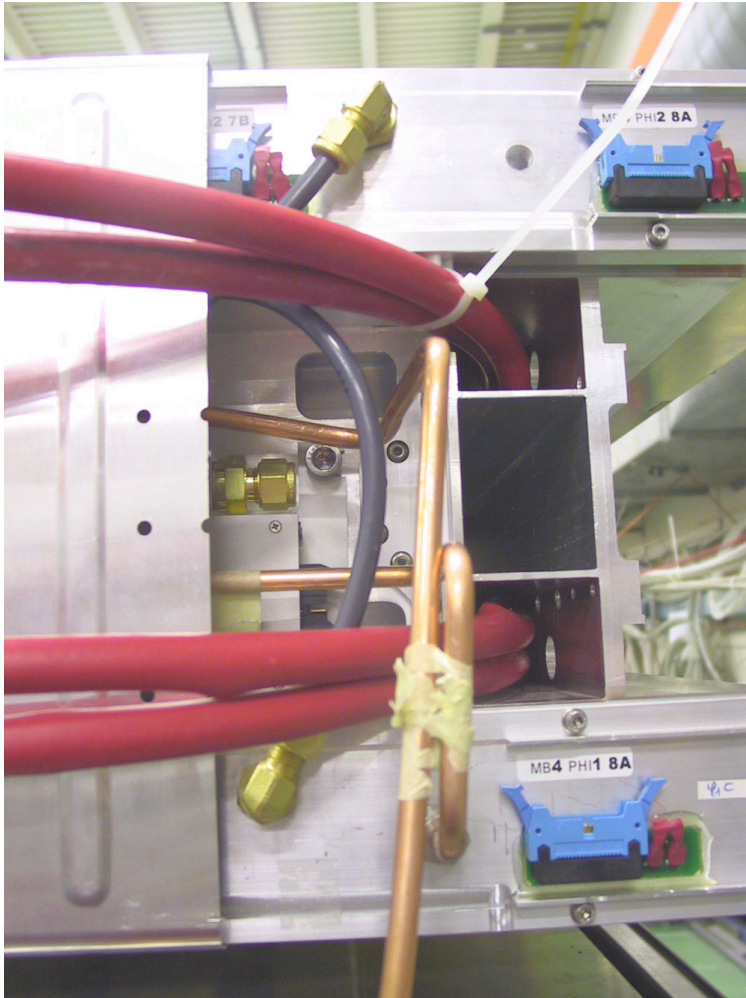
A. Benvenuti
INFN Bologna

Missing Items

- **High Voltage Boards both HVB_I and HVB_F**
- **PADCs**
- **HV cable lengths for MB4 (Urgent for MB4/9-11, MB4/10, MB4/4)**
- **Cooling pipes for MB4**
- **Jigs to drill the holes for the minicrate in the MB4 HC frame**
- **Front covers**
- **Support plates for HV Junction Boxes, LV disconnect on Wheels**
- **LV Splitter Boards**
- **Minicrates**
- **Software/hardware for data taking with minicrates**
- **Software/hardware to test minicrate functionality and cabling**

Work in Progress

- MB4 cooling pipes prototyping and drawings (Massimo)



Note labels and protections on front end connectors

Work in Progress

- First dressing exercise for small MB4 chambers, need minicrates to make realistic exercise
- HV junction boxes preparation for installation:
 - Correct the cabling of MB1 Phi JB
 - Check the HV JB cabling maps. **One error found due to jumper cable not soldered, difficult to find, other bad jumpers could go undetected.**
 - HV isolation test using the same procedure as for HV cables.
 - Gluing of protective cover on HV JB and sealing of seams.

Chamber Production and Installation

- In the CMS planning the YB2+ top installation is done with chambers equipped with HVB_F.
- I don't understand or share the motivation for this decision that is blocking the completion of 17 chambers.
- If we are allowed to install YB2+ top we can use most of the chambers already ~dressed for YB+1 bottom.
- In order to do this the chambers must be completed with minicrates.
- The production of chimney chambers is becoming urgent since the next wheel to install is YB+1
- Since we are not going to install all the Torino MB4 at SX5 we should decide the construction priority. I would opt for the top chambers first in particular YB0.

Chambers needed for the first Installation
June-September 2004

	YB + 2				
Sectors	+8	+9	+10	+11	+12
Services	Left (ZpB)	Right (ZpA)	Left (ZpB)	Right (ZpA)	Left (ZpB)
Chambers	MB1P10	MB1P14	MB1P15	MB1P17	MB1P20
Chambers	MB2P22	MB2P23	MB2P24	MB2P17	MB2P26
Chambers	MB3P08	MB3P10	MB3P12	MB3P14	MB3P16
Balance B	Right	Right	Right	Left	Left
Chambers		MB4C29	MB4 L34	MB4 R30	MB4C31
Balance B			R	L	

The chambers with HVB_I (apart for HVB20 and HVB8) are listed in blue.

	YB + 2					
Sectors	+2	+3	+4		+5	+6
Services	Left (ZpB)	Right(ZpA)	Left (ZpB)	Right(ZpA)	Left (ZpB)	
Chambers	MB1P28	MB1P21	MB1P09		MB1P16	MB1P13
Chambers	MB2P18	MB2P21	MB2P35		MB2P25	MB2P20
Chambers	MB3P18	MB3P30	MB3P32		MB3P24	MB3P04
Balance B	Left	Left	Right		Right	Right
Chambers			MB4 4C3	MB4 4C4		
Balance B			L	R		

All chambers , apart the one in red, were for the YB+1 bottom installation.

Comments

- Minicrates are urgently needed for the chamber installation in the on the top part of YB+2 and also (if not more urgently) to test the chambers with cosmics once the HVBs are replaced in “dressed chambers”.
- To use the minicrates and/or test their functionality we need hardware and “user friendly” monitoring programs. **This is likely to be the next crisis.**
- **Once a sector is cabled, the minicrates are not accessible any more.** This requires some running in and tests before the cabling operation.
- The HVB crisis is compressing a lot of work in an ever shrinking time frame. There is no margin for other surprises or delays.