

# Status of Chamber Material Components

M. Cerrada  
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# Some general remarks

After a difficult start in the logistics of material flow to all the labs, we reached a smooth period without any significant problem.

I prepared a file of material in each lab with the aim of updating it periodically. This turned out to be not easy.

- Too many different components
- I was not always aware of material procured, and/or shipped from one lab to another one.
- Possible mistakes in the shipments, material rejected and not properly recorded, ...
- Spare chambers not included in the original calculations of needed components.

We are now approaching the end of production and we face the problem that, in some cases, there are not enough components to complete the job.

There are some components which I will not discuss today:

Aluminium plates	(OK)
I beams	(OK)
HC panels	(OK)
HVBoards	
Minicrates	

	A	B	C	D	E	F
1		MISSING MATERIAL			FE SIDE	
2						
3		Aachen	Ciemat	Torino	Legnaro	TOTAL miss
4						
5	HVC boards 16 channels	138	157	290		585
6	HVC boards 20 channels	OK	OK			
7						
8	Front End Boards 16 channels	333	53	202		588
9	Front End Boards 20 channels	30	7			37
10						
11	Signal Feedthroughs 16 channels	336	300	110		746
12	Signal Feedthroughs 20 channels	13	2			15
13						
14	Internal signal conn. Cables 16 chann	OK	42	1238		1280
15	Internal signal conn. Cables 4 channe	OK	OK			
16						
17	Test Pulse connectors 4	87	54	48		189
18	Test Pulse connectors 3	0	21	0		21
19	Test Pulse connectors 2	4	3	0		7
20						
21	Slow Control Connectors	29	21	8		58
22	Slow Control Covers	16	31	8		55
23						
24	LV connector feedthroughs	9	0	8		17
25						
26	Slow Control bus (PHI)	28	13	6		47
27	Slow Control bus (THETA)	7	6	2		15
28						
29	Predecode bus (PHI)	19	20	6		45
30	Predecode bus (THETA)	4	0	2		6
31						
32	Bus bar (plastic + conductor)	OK	OK	OK		
33						
34	Cu Be contacts			480		480

# FE side

- Disagreement with numbers from Matteo Pegoraro (once spare chambers are taken into account)

~ 70 FEB's	0.7%
~ 270 signal feedthroughs	2.7%
~ 60 test pulse connectors	4.0%
~ 30 slow control connectors	5.0%
~ 20 slow control bus	3.0%
~ 20 predecode bus	3.0%

CIEMAT will need all components required to equip FE profiles by february-march 05  
I guess the same applies to Aachen

CIEMAT can survive until may-june for the missing HVC's and FEB's.

Urgency is much less important for Torino

With the exception of LV feedthroughs (CIEMAT) and internal signal cables (Aachen)  
the supply of all this FE side material is Matteo's responsibility.

	A	B	C	D	E	F
2						
3		<b>Aachen</b>	<b>Ciemat</b>	<b>Torino</b>	<b>Legnaro</b>	<b>TOTAL miss</b>
4						
5	<b>Daisy Chains 4 w</b>	572	1592	810	840	3814
6	<b>Daisy Chains 4 y</b>	972	1182	808	0	2962
7	<b>Daisy Chains 5 w</b>	89	OK		20	109
8	<b>Daisy Chains 5 y</b>		OK	32	100	132
9	<b>Daisy Chains 6 w</b>	24	OK		0	24
10	<b>Daisy Chains 6 y</b>	150	OK		0	150
11	<b>Daisy Chains 7</b>	29	OK		4	33
12						
13	<b>JL7 w</b>	348	232	204	40	824
14	<b>JL7 y</b>	290	212	204	81	787
15	<b>JL8 w</b>	47		8	0	55
16	<b>JL8 y</b>	27		8	0	35
17	<b>3 GND</b>	OK	42	83	65	190
18	<b>Interlocks</b>	OK	20	83	87	190
19						
20	<b>Wire Bunches Phi A</b>	23	12	10	9	54
21	<b>Wire Bunches Phi B</b>	23	12	10	9	54
22	<b>Wire Bunches Theta A</b>	7	6	2	4	19
23	<b>Wire Bunches Theta B</b>	7	6	2	4	19
24						
25	<b>Gas plastic tubes</b>		OK			
26						
27	<b>HV red connectors</b>		OK	20		20
28						
29	<b>HVB plastic support pieces</b>	OK				
30						
31						

# HV side

- Disagreement with numbers I got from an e-mail of Fabrizio

~ 2000 DC4	2.3%
~ 60 DC5	2.3%
~ 100 DC6	8.0%
~ 10 DC7	10.0%
~ 760 JL7	4.0%
~ 90 JL8	6.5%
~ 68 Wire bunches	4.7%

CIEMAT will need DC4's as early as possible (february-march 05). The rest will depend on the availability of new HVB's.

Aachen urgently needs DC6 and other components (shipment being made from Legnaro).

Urgency is much less important for Torino, with the exception of a few components they need immediately.

With the exception of HV connectors (CIEMAT), the supply of all this HV side material is Enrico Borsato's responsibility.

# Components to be requested at CIEMAT if missing

- Aluminium profiles (side covers, front L profiles, HV and FE covers)
- Endplugs (all kinds)
- HV connectors
- LV connectors
- Gas stoppers

Needs from Aachen and Torino are known

No problems to supply them



# Components to be requested at Aachen if missing

- Wire (Everything has been ordered)
- Crimping blocks
- Corner block pieces

Needs from CIEMAT are known

# Other missing components

	Aachen	CIEMAT	Torino
HV contacts (strips FE)		1500	5300
HV contacts (strips HV)		1000	3000
HV contacts (cathodes FE)		0	6500
HV contacts (cathodes HV)		2500	2800

# Other items under control of Alberto Benvenuti (CERN-ISR)

- ❖ HV cables
- ❖ LV cables +LV splitter boards
- ❖ Signal cables, SC and TP cables, ...
- ❖ Gas infrastructure
- ❖ Cooling infrastructure
- ❖ Alignment forks and other related components
- ❖ Chamber support pieces (bilancino beams, etc)