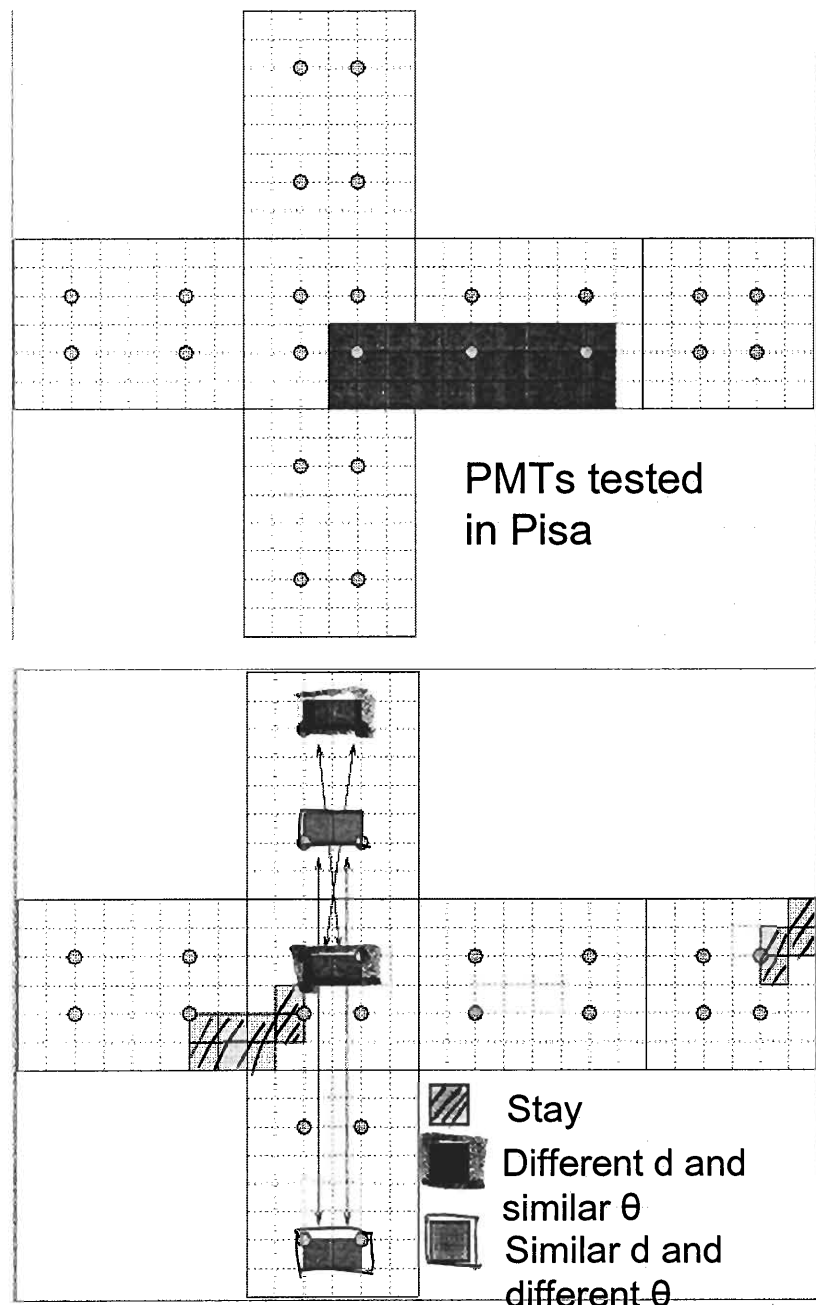


17/June/2005

PMT replacement of LP started.



	A	B	C	D	E
1	name	serial	LPPmtMode	comment	
2	T14	OM23G6	1	[NULL]	
3	T15	OM22G1	1	[NULL]	
4	F5	OM06G3	1	[NULL]	
5	BK28	OM07G6	1	[NULL]	
6	F20	OL24G3	1	[NULL]	
7	BK24	OM12G2	1	[NULL]	
8	L6	OM15G5	1	[NULL]	
9	BK23	1A16M1	1	[NULL]	
10	F14	1A18G2	1	[NULL]	
11	F4	OM19M2	1	[NULL]	
12	F9	TB0392	4	[NULL]	
13	F10	TB0380	4	[NULL]	
14	BT37	TB0371	4	[NULL]	
15	BT38	TB0345	4	[NULL]	
16	L0	TB0555	4	[NULL]	
17	L1	TB0357	4	[NULL]	
18	L7	TB0527	4	[NULL]	
19	BK34	TB0462	4	[NULL]	
20	T38	TB0312	4	[NULL]	
21	T37	TB0344	4	[NULL]	
22	F21	TC0370	9	from PISA	
23	F22	TC0379	9	from PISA	
24	F23	TC0321	9	from PISA	
25	F27	TC0329	9	from PISA	
26	F28	TC0397	9	from PISA	
27	F29	TC0299	9	from PISA	
28	F33	TC0240	9	from PISA	
29	F34	TC0244	9	from PISA	
30	F35	TC0402	9	from PISA	
31	R3	TC0335	9	from PISA	
32	R4	TC0369	9	from PISA	
33	R5	TC0357	9	from PISA	
34	R9	TC0142	9	from PISA	
35	R10	TC0024	9	from PISA	
36	R11	TC0353	9	from PISA	
37	R15	TC0317	9	from PISA	
38	R16	TC0058	9	from PISA	
39	R17	TC0333	9	from PISA	
40	R21	TC0231	9	from PISA	
41	R22	TC0331	9	from PISA	
42	R23	TC0378	9	from PISA	
43	R27	TC0387	9	from PISA	
44	R28	TC0048	9	from PISA	
45	R29	TC0362	9	from PISA	
46	R33	TC0327	9	from PISA	
47	R34	TC0138	9	from PISA	
48	R35	TC0285	9	from PISA	
49	R38	TC0103	9	from PISA	
50	R39	TC0386	9	from PISA	
51	R41	TC0342	9	from PISA	
52	F0	TC0031	9	ICEPP	
53	F1	TC0036	9	ICEPP	
54	F2	TC0030	9	ICEPP	
55	F3	TC0037	9	ICEPP	
56	F6	TC0039	9	ICEPP	
57	F7	TC0038	9	ICEPP	
58	F8	TC0045	9	ICEPP	
59	F11	TC0040	9	ICEPP	
60	F12	TC0044	9	ICEPP	
61	F13	TC0051	9	ICEPP	
62	F15	TC0106	9	ICEPP	
63	F16	TC0475	9	ICEPP	
64	F17	TC0062	9	ICEPP	
65	F18	TC0067	9	ICEPP	
66	F19	TC0046	9	ICEPP	
67	F24	TC0057	9	ICEPP	
68	F25	TC0305	9	ICEPP	
69	F26	TC0824	9	ICEPP	
70	F30	TC0060	9	ICEPP	
71	F31	TC0068	9	ICEPP	
72	F32	TC0052	9	ICEPP	
73	R0	TC0076	9	ICEPP	
74	R1	TC0123	9	ICEPP	
75	R2	TC0022	9	ICEPP	
76	R6	TC0021	9	ICEPP	
77	R7	TC0476	9	ICEPP	
78	R8	TC0025	9	ICEPP	
79	R12	TC0090	9	ICEPP	
80	R13	TC0108	9	ICEPP	
81	R14	TC0263	9	ICEPP	

from BT37
from BT38

from T37

from T38

from T14
from T15

from F14
from F20

→ R9869 TC0697

→ photo cathode bad?

	A	B	C	D	E
82	R18	TC0249	9	ICEPP	
83	R19	TC0131	9	ICEPP	
84	R20	TC0795	9	ICEPP	
85	R24	TC0270	9	ICEPP	
86	R25	TC0127	9	ICEPP	
87	R26	TC0267	9	ICEPP	
88	R30	TC0243	9	ICEPP	
89	R31	TC0189	9	ICEPP	
90	R32	TC0275	9	ICEPP	
91	R36	TC0261	9	ICEPP	
92	R37	TC0118	9	ICEPP	
93	R40	TC0148	9	ICEPP	
94	T0	TC0146	9	ICEPP	
95	T1	TC0175	9	ICEPP	
96	T2	TC0245	9	ICEPP	
97	T3	TC0232	9	ICEPP	
98	T4	TC0239	9	ICEPP	
99	T5	TC0177	9	ICEPP	
100	T6	TC0158	9	ICEPP	
101	T7	TC0120	9	ICEPP	
102	T8	TC0536	10	ICEPP	
103	T9	TC0543	10	ICEPP	
104	T10	TC0545	10	ICEPP	
105	T11	TC1010	10	ICEPP	
106	T12	TC0539	10	ICEPP	
107	T13	TC0982	10	ICEPP	
108	T16	TC0997	10	ICEPP	
109	T17	TC0534	10	ICEPP	
110	T18	TC1024	10	ICEPP	
111	T19	TC0564	10	ICEPP	
112	T20	TC0568	10	ICEPP	
113	T21	TC0562	10	ICEPP	
114	T22	TC0566	10	ICEPP	
115	T23	TC0574	10	ICEPP	
116	T24	TC0573	10	ICEPP	
117	T25	TC0570	10	ICEPP	
118	T27	TC0572	10	ICEPP	
119	T28	TC0571	10	ICEPP	
120	T29	TC0578	10	ICEPP	
121	T30	TC0575	10	ICEPP	
122	T31	TC0563	10	ICEPP	
123	T32	TC0586	10	ICEPP	
124	T33	TC1027	10	ICEPP	
125	T34	TC1025	10	ICEPP	
126	T35	TC0518	10	ICEPP	
127	T36	TC0521	10	ICEPP	
128	T39	TC1023	10	ICEPP	
129	T40	TC0517	10	ICEPP	
130	T41	TC0515	10	ICEPP	
131	L2	TC0527	10	ICEPP	
132	L3	TC0529	10	ICEPP	
133	L4	TC0595	10	ICEPP	
134	L5	TC0526	10	ICEPP	
135	L8	TC1020	10	ICEPP	
136	L9	TC0525	10	ICEPP	
137	L10	TC0551	10	ICEPP	
138	L11	TC0548	10	ICEPP	
139	L12	TC0559	10	ICEPP	
140	L13	TC0533	10	ICEPP	
141	L14	TC1021	10	ICEPP	
142	L15	TC0560	10	ICEPP	
143	L16	TC0524	10	ICEPP	
144	L17	TC0561	10	ICEPP	
145	L18	TC1017	10	ICEPP	
146	L19	TC0597	10	ICEPP	
147	L20	TC0522	10	ICEPP	
148	L21	TC0528	10	ICEPP	
149	L22	TC0569	10	ICEPP	
150	L23	TC0565	10	ICEPP	
151	T26	TC0576	10	ICEPP	
152	L24	TC0217	9	to PISA	
153	L25	TC0479	9	to PISA	
154	L26	TC0465	9	to PISA	
155	L27	TC0226	9	to PISA	
156	L28	TC0054	9	to PISA	
157	L29	TC0304	9	to PISA	
158	L30	TC0209	9	to PISA	
159	L31	TC0372	9	to PISA	
160	L32	TC0223	9	to PISA	
161	L33	TC0318	9	to PISA	
162	L34	TC0407	9	to PISA	

→ R9869

TC0598

→ R9869 TC 1.5 85

	A	B	C	D	E
163	L35	TC0371		9 to PISA	
164	L36	TC0230		9 to PISA	
165	L37	TC0439		9 to PISA	
166	L38	TC0117		9 to PISA	
167	L39	TC0207		9 to PISA	
168	L40	TC0375		9 to PISA	
169	L41	TC0445		9 to PISA	
170	BK0	TC0455		9 to PISA	
171	BK1	TC0169		9 to PISA	
172	BK2	TC0210		9 to PISA	
173	BK3	TC0398		9 to PISA	
174	BK4	TC0382		9 to PISA	
175	BK5	TC0401		9 to PISA	
176	BK6	TC0441		9 to PISA	
177	BK7	TC0248		9 to PISA	
178	BK8	TC0508		9 to PISA	
179	BK9	TC0218		9 to PISA	
180	BK10	TC0035		9 to PISA	
181	BK11	TC0487		9 to PISA	
182	BK12	TC0256		9 to PISA	
183	BK13	TC0089		9 to PISA	
184	BK14	TC0395		9 to PISA	
185	BK15	TC0506		9 to PISA	
186	BK16	TC0426		9 to PISA	
187	BK17	TC0280		9 to PISA	
188	BK18	TC0069		9 to PISA	
189	BK19	TC0312		9 to PISA	
190	BK20	TC0228		9 to PISA	
191	BK21	TC0147		9 to PISA	
192	BK22	TC0686		10 to PISA	
193	BK25	TC0715		10 to PISA	
194	BK26	TC0685		10 to PISA	
195	BK27	TC0661		10 to PISA	
196	BK29	TC0709		10 to PISA	
197	BK30	TC0705		10 to PISA	
198	BK31	TC0631		10 to PISA	
199	BK32	TC0731		10 to PISA	
200	BK33	TC0706		10 to PISA	
201	BK35	TC0667		10 to PISA	
202	BT0	TC0656		10 to PISA	
203	BT1	TC0720		10 to PISA	
204	BT2	TC0712		10 to PISA	
205	BT3	TC0673		10 to PISA	
206	BT4	TC0714		10 to PISA	
207	BT5	TC0659		10 to PISA	
208	BT6	TC0653		10 to PISA	
209	BT7	TC0707		10 to PISA	
210	BT8	TC0718		10 to PISA	
211	BT9	TC0663		10 to PISA	
212	BT10	TC0674		10 to PISA	
213	BT11	TC0645		10 to PISA	
214	BT12	TC0692		10 to PISA	
215	BT13	TC0639		10 to PISA	
216	BT14	TC0713		10 to PISA	
217	BT15	TC0698		10 to PISA	
218	BT16	TC0647		10 to PISA	
219	BT17	TC0670		10 to PISA	
220	BT18	TC0679		10 to PISA	
221	BT19	TC0678		10 to PISA	
222	BT20	TC0669		10 to PISA	
223	BT21	TC0662		10 to PISA	
224	BT22	TC0640		10 to PISA	
225	BT23	TC0687		10 to PISA	
226	BT24	TC0677		10 to PISA	
227	BT25	TC0693		10 to PISA	
228	BT26	TC0657		10 to PISA	
229	BT27	TC0672		10 to PISA	
230	BT28	TC0676		10 to PISA	
231	BT29	TC0642		10 to PISA	
232	BT30	TC0648		10 to PISA	
233	BT31	TC0628		10 to PISA	
234	BT32	TC0660		10 to PISA	
235	BT33	TC0665		10 to PISA	
236	BT34	TC0643		10 to PISA	
237	BT35	TC0608		10 to PISA	
238	BT36	TC0580		10 to PISA	
239	BT39	TC0537		10 to PISA	

→ (old one TB0461 photocathode bad).

Installed. PMTs. to LP.

30 PMTs tested in the PISA

20 PMTs. used in previous LP test, left.

(12 PMTs in the same positions.
8 PMTs into different positions.)

100 PMTs. from Tokyo.

88 PMTs. from PISA. $\frac{1}{2}$

In total, 238 PMTs will be tested.

6/17	12 PMTs. done
18	6.
19	9.
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	

spare will be installed to all Tokyo PMTs. and several PISA PMTs

Notice

Some PMTs ~~was~~^{were} installed to the different positions from the defined positions.

Defined position	serial	HT cable	G-10
L40	TB0568	165	7-3
L41	ZA2066	170	7-4
R40	TB0415	187	7-1
R41	TB0439	189	7-2

Installed ~~was~~

L40	TB0439	189	7-2
L41	TB0415	187	7-1
R40	ZA2066	170	7-4
R41	TB0568	165	7-3

So, the previous database was modified.
and HT and signal cable connection were fixed.

8/7/2005. all installation work finished.
 11/7/2005. PHT holder into LP. but. some problems
 12/7/2005. 2nd trial of holder into LP.
 after putting on the teflon spacer to Back plane.

↓
 evacuation of outer & inner vessels.
 started.

13/7/2005
 He leak test of inner tube
 ↓
 fixed two leaks
 ↓
 check again 10^{-4} mbar l/sec
 OK. with background ↓
 Start evacuation of inner vessels
 with TMP

15/7/2005
 15:00 IV 1.1×10^{-1} Pa
 He leak test
 Fixed some leaks

17/7/2005 18:00 5.9×10^{-2} Pa

21/7/2005 18:00 3.1×10^{-2} Pa

22/7/2005 12:00 2.9×10^{-2} Pa

25/7/2005 6 Russian bottles connected by high pressure pipe
 & evacuation started

26/7/2005 12:00 IV 2.3×10^{-2} Pa
 gas line & bottles line. 3.9×10^{-5} Pa

He leak test for bottle connection.
 Several leaks fixed.
 restart evacuation.

MSCB setting.

Address	10	3	5
0	transducer for IP (C)	cold head	level up
1	pt100 Xe top (V)		
2			level low
3	Flow meter (V)	pt100 Xe bot	
4		pt100 holder top	
5		pt100 holder bottom	
6		pt100 Xe middle	
7		pt100 Minco	

27/7/2005

17:00 IV 2.2×10^{-2} Pa
Purif. 4.1×10^{-5} Pa
OV 3.1×10^{-1} Pa

Close a gate valve of IV & stop the turbo pump.

17:30 IV 1.6×10^0 Pa.

17:35 Close a gate valve of purification line. & stop the turbo pump.

Weight of 11 Russian cylinders 1429.78 kg

18:00 IV 3.4×10^0 Pa
Purif. 5.6×10^{-2} Pa.

21:00 Xe gas install into IV (0.2 MPa)

21:45 Pre-cooling start. by using N₂.

21:55 Refrigerator start.

28/Jul/2005

10:45 liquefaction start

Xe tank 7 MPa

29/July 2005

13:00 MSCB address 3 (Pt100) ch 8 was broken

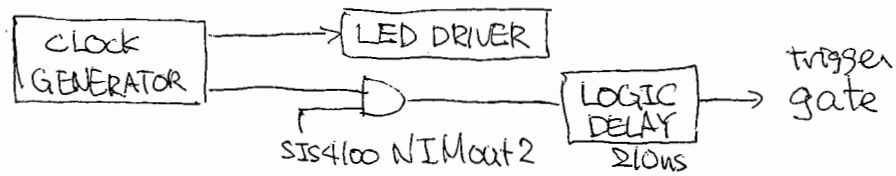
Cold head → ch 10

SM middle → ch 9 (broken)

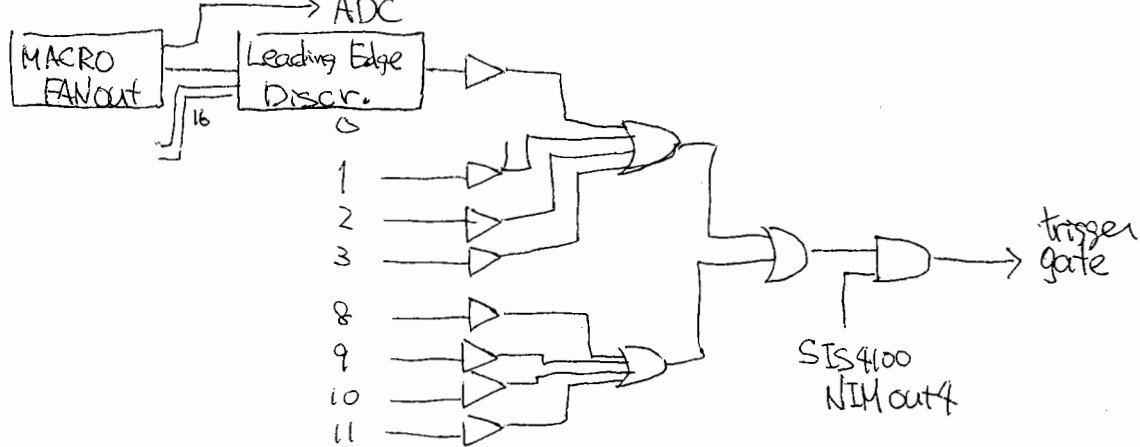
Trigger electronics

27 Jul 2005

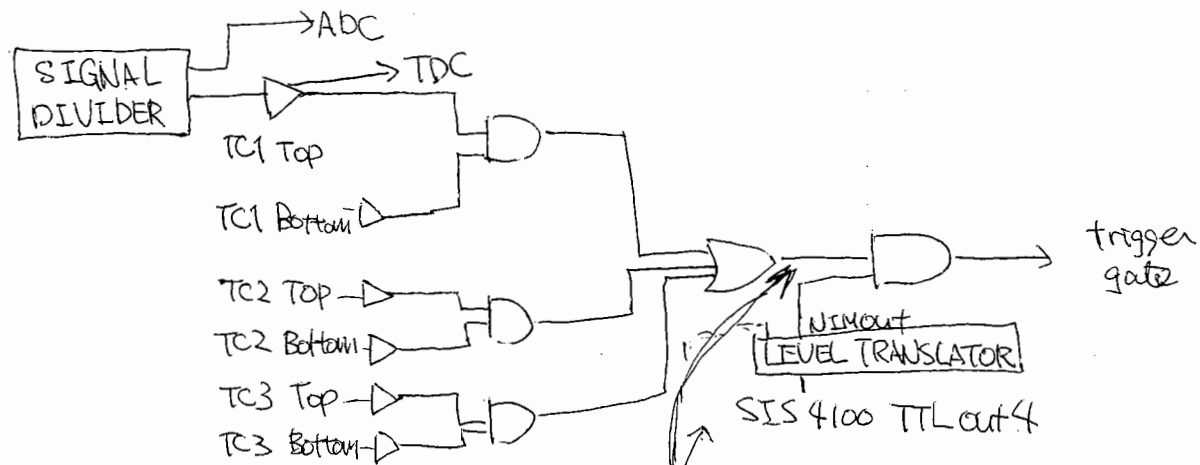
o pedestal, LED (RUN MODE 0, 2, 3)



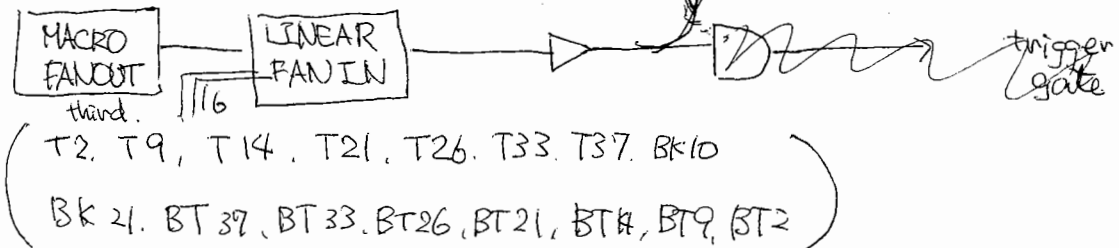
o α (RUN MODE 4)



o CR Counter (RUN MODE 5)



o CR Self



10:13 Liquefaction is ongoing

Level Meter	Flow rate	Inner Pressure	HLup	low	Cold level	Micro
up/down	19.81 l/min	0.119 MPa	-111.52	-107.8	-106.92	-116.01

14:40

0.07/0.87	19.81 l/min	0.119 MPa	-111.36	-107.44	-106.97	-115.77
-----------	-------------	-----------	---------	---------	---------	---------

14:23

Flow rate reduced \rightarrow 14.16 l/min
by changing output pressure from the pressure reducer 0.5 MPa \rightarrow 0.25 MPa
in order to fill the N₂ dewar.
(150 l)

15:15

N₂ dewar filled (350 l) and connected
Flow rate restored 19.89 l/min
Pressure reducer output 0.25 MPa \rightarrow 0.5 MPa
Primary pressure 5 MPa

30. Jul. '05

4:55

Liquefaction almost completed (
• flow \sim 0
• Xe bottle primary pressure \sim 0.1 MPa

6:00

PT100 (top) 57.7 mV (I = 1 mA)
58.7 mV (I = 10 mA)

\Rightarrow PT100 (top) is below the LXe surface.

Liquefaction completed. (level meter up 0.6)

6:25

Refrigerator pressure control ON at 0.11 MPa

30/Jul/2005

7:50 Start transfer of the rest of the GXe in the Russian bottles to the small bottle (half gallon)

~~the first three Russian bottles~~

16:20 stopped transfer to half gallon bottle
start transfer from half gallon to LP

18:00 finished transfer from 0.5 gallon to LP

Russian bottles 1106.6 kg
 $(1429.78 - 1106.6) / 3 = \underline{107.7 \text{ L}}$

31/Jul 2005

1:10 circulation test with flow control valve maximum open
Flow rate $\sim 6.8 \text{ L/min}$.
 \Rightarrow stop circulation

- HV mainframes can not be accessed via network. Probably fixed address of them are invalid in East sight. Maybe we have to ask to give new IP address for them.
 - ~~SCFE can not be executed maybe due to the same reason~~
 - Labview cannot be reached after installing AFS client.
 - SCFE also does not work
- \Rightarrow remove AFS client
- \rightarrow After rebooting it, megscot cannot connect to network.

4:26

Problems

- ① It seems that megscot is getting mad. I decided to use megwin3 for slow control. Followings was already done on megwin3
 - Labview slow control
 - SCFE
 - HV edit.

To be done

- set up of SSH server on megwin3
it is necessary to boot SCFE from web-interface.

- ② HV frameworks have invalid IP. Solution is one of followings
 - Set HV from front panel or RS-232
 - Give valid IP
- ③ TNetFolder class has some bug. Currently Ipmonitor does not work.

8:28

Circulation start.

flow rate = $6.7 \sim 7.1$ lpm

~~Inner pres. = 0.11 MPa~~
Inner pres. = 0.11 MPa

31/Jul/2005

9:30 enabled cygwin sshd on megwin3

1. ssh-host-config -y
2. ssh-user-config -y -p "mu_e_gamma"
3. 'control panel' → 'Administrative tools' → 'Service' → ^{right-click} CYGWIN sshd → 'start'
4. cygrunsrv -S sshd

⊗ Signal check

only for HV ch 1- (0~3) - (0~11)

HV-ch 1-29
F30: resistance of HV is 10Ω, unplugged at HV back panel.

1/Aug/2005

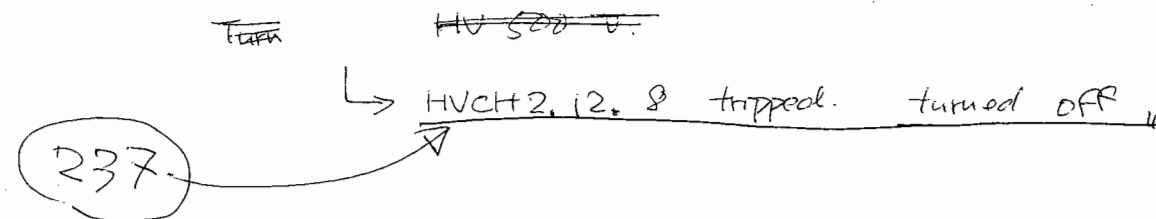
8:00 Circulation has been CN all night long. In this test, there is no night shift. It was dangerous. Be careful with that!!

15:15 stop circulation for piping work

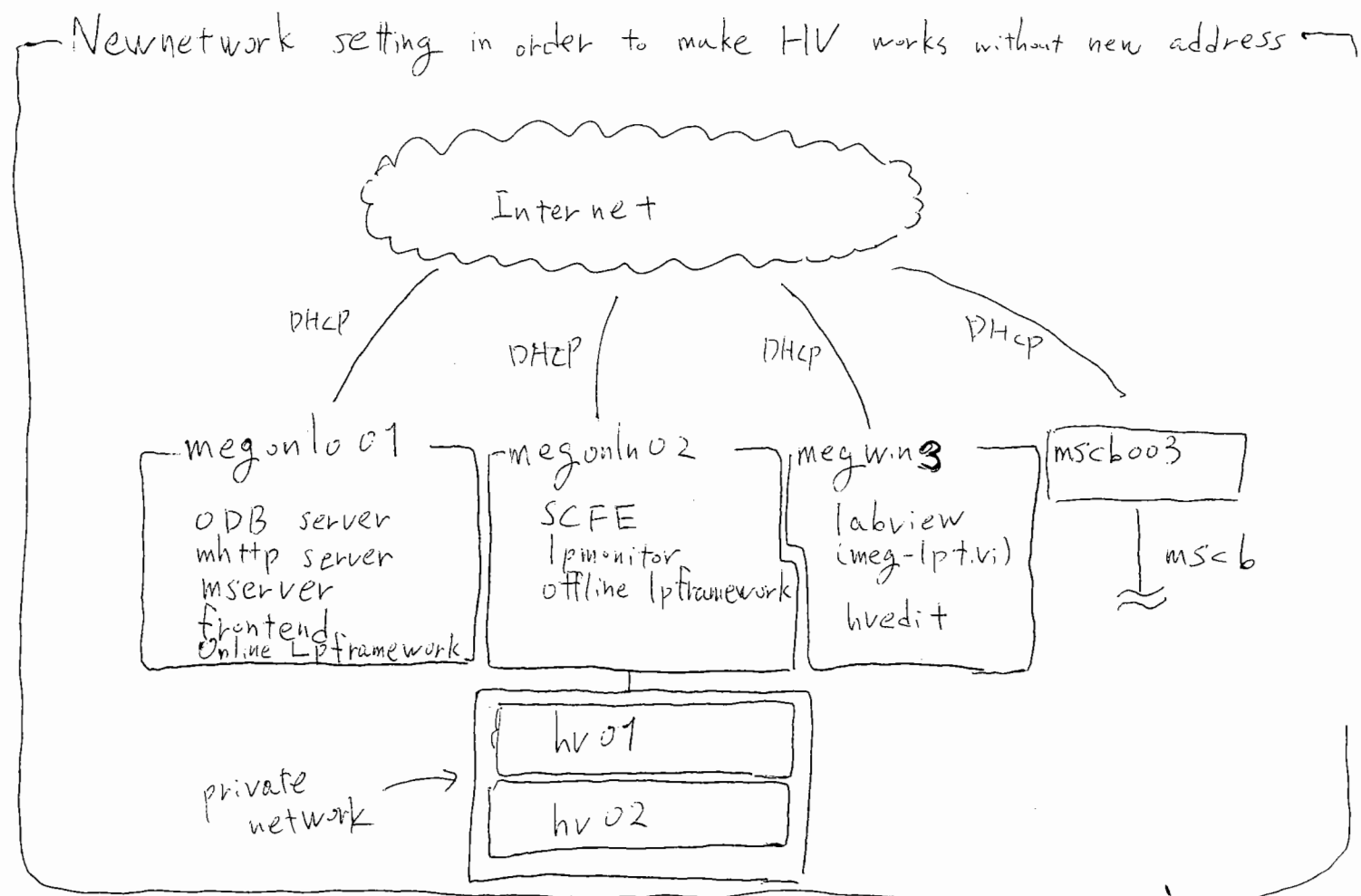
• finished piping between 250L tank and purification system

16:40 • evacuation 250L → P.S. start

18:40 hvch 2 (Model 1458) #0.0 - #15.11 Enabled @ 500V.



18:55 hvch 2.0.0 - 2.15.11 800V



About private network

eth1 ↑ megonln02
 PC
 eth0 ↓ 192.168.0.1
 hv01 192.168.0.2
 hv02 192.168.0.3

- SCFE is moved from windows
- /etc/hosts is changed for this change

- No IP masquerade
 - No IP forward
 - No DNS
- on megonln02

1/ Aug / 2005

Save hv setting

all 800V except F30, R37 → saved as 050801-1.hv

22:30 Status of piping work.

(Evaluating line between Tank and purification system.
Circulation has been stopped.

02/ Aug / 2005.

7:30 HV01, HV02 HV ERROR.

Interface is not responding → Restart, OK.

8:40 HV01 restarted - OK.

9:00 HV01 HV Error again, → HV01, #14-5. not applied. turn off, DV. B#18.

Restarted. B#18, 800V applied again. OK.

11:32 Circulation start, flow ~ 2.2.

10:00 HT01 HV error HT01 #10-1, (BT33)

BT33 turned off, restart, OK. BT33, applied again. OK.

10:32 HV01 & HV02, network interface hang up. Restart.

↑ This was caused by hardware problem, namely, network cable was unplugged @ NIC of megolinc's. Because this cable cannot be plugged strictly.

12:00 Mysql database updated.

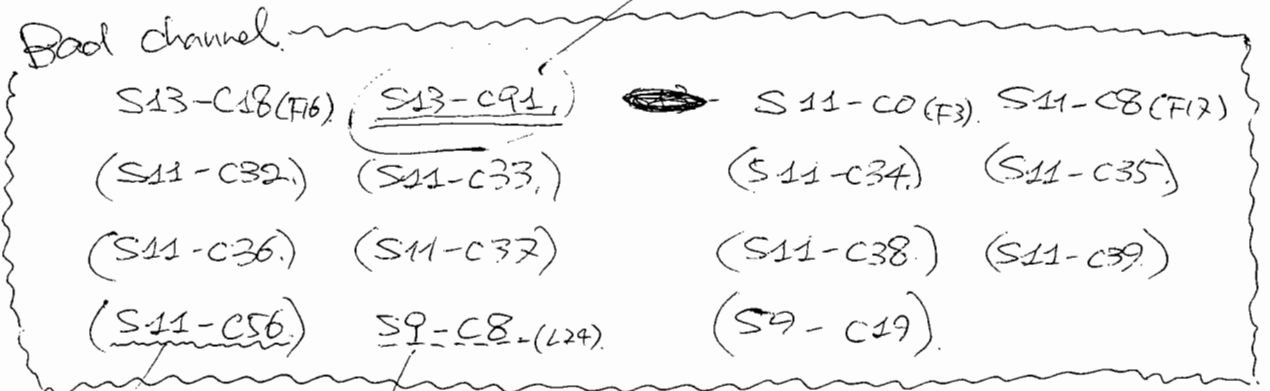
F22 TC 0379 → TC 0697
T30 TC 0575 → TC 0598
T26 TC 0576 → TC 0585

12:05 HT Error HT01, #4-1 (BT15) → reboot o.k.

TO DO:

- Signal / Pedestal check.
- Cosmic ray counter setup.
- LED/α data-taking.

14:40 TEST FAQ



No entry. overflow. all other channel has broad pedestal distribution.

TO BE FIXED:

- @ F16 (S13-C18)
- @ F3 (S11-C0)
- @ F12 (S11-C8)
- @ L24 (S9-C8)

purifying patch pan	Active F/O	Mini Cond
✓		
✓		
✓		

16:30 Found that FB input card was connected wrongly.
 ↳ fixed

18:00 HV Error HV01 #4-11 (T17)

18:30 signal check again.

ADC #152 (S11-C56) : 3 peaks → NOT CONNECTED

• 182 (S11-C86) RMS ~ 8

• 183 (S11-C87) RMS ~ 2.4

L24 200 (S9-C8) : ~~not flow~~ NO ENTRIES within OS ADC count ≤ 4096. only overflows

210 (S9-C8) RMS ~ 8.7 → NOT CONNECTED

L40 215 (S9-C23) RMS ~ 3.

BK33 221 (S9-C29) RMS ~ 2.4

~~240~~ (S9-C48) RMS ~ 2.9 → NOT CONNECTED

BK7. 268 (S9-C76) RMS ~ 5.8 → Now RMS ~ 1.6

20:10. Burndy plug ^{was} also connected wrongly. (S6 ↔ S11)
 ↳ fixed.

21:00 HV error HV01 -4-6 (L16)

R26 • 162 (S11-C66) RMS ~ 8.3

T18 • 173 (S11-C77) RMS ~ 2.5

BK13 266 (S9-C74) RMS ~ 2.3

To Be Checked

R26 ADC 162 (S11-C66) ✓ ✓ @ ADC card minicard replaced → NG. replaced again ✓

T18 173 (S11-C77) NG.

182 (S11-C86) ✓ minicard replaced. ~~NG~~

183 (S11-C87) ✓ minicard replaced → NG RMS ~ 6.5 ✓

L24 200 (S9-C8) ✓ minicard replaced

L40 215 (S9-C23) ✓ minicard replaced → NG RMS ~ 24 ✓

BK33 221 (S9-C29) ✓ minicard replaced → NG RMS ~ 19 ✓

~~240 (S9-C48)~~
 BK13 266 (S9-C74) ✓ minicard replaced → NG RMS ~ 30 ✓
~~S9-74~~

BK7 268 (S9-C76) ✓ keep watching seems ok. → ok.

91 (S13-91) RMS ~ 4

168 (S11-72) RMS ~ 4

176 (S11-80) ~~3 peaks~~ RMS ~ 170

~~18~~
 191 (S11-95) 2 peaks

218 (S9-26) RMS ~ 19

248 (S9-56) 2 peaks

269 (S9-77) 2 peaks

~~271 (S)~~

ⓐ Investigating T-18 : ADC 173 (S11-C77) : NG
 G10 : 5-30. @ patch panel : NG.

Input to splitter : NOISY

↳ problem of soldering at the G10 card #5-32.

TO BE FIXED



FIXED (HN), OS/ACS

23:20 HV01 4-9 HV error.

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07:10 HV01 HVERROR @ ALL module !!

⇒ Restart.

08:48 HV01 HVERROR again @ hv01, 9-7. (T25)

08:52 Kenon Circulation start.

9:50 signal connection check. (ADC#0~8, completed).

HV Error HV01 #0-7 (T8) → O.K.

10:20 HV01 Error #0-9. (BT2).

{ ADC162 (S11-C66):
 ADC218 (S9-C26):
 ADC221 (S9-C29):
 ADC240 (S9-C48): } CIA check RUN

#3-10. (L11)

LM

▲ ADC 162 (S11-C66) was replaced new minicard twice. but this seems still bad, so we swapped this card with neighbor.

▲ Replaced (S9-C26/S9-C29). ← same minicard. with new one.

Try again.

ADC 218, ADC 221 FIXED!

ADC 162. is still bad. Mini card is OK, ~~but~~ Cable???

@ADC162.

* The noisy pedestal distribution was caused by MACRO F70,

Another MACRO splitter module is installed.

11:20 HV ERROR HV01, 2-8. (R-5).

▲ Test FAQ. again. ⇒ ADC162 FIXED!

ALL ADC channel, ready!

11:42 HV. ERROR HV01. 3-7. (BT6)

11:45 COSMIC Ray Counters setting, completed.

But, we have no HV supply for CR counters...

11:55 HV error HV01 15-8 (L41)

12:10 sig check restart

F22, F13
↙ SWAP ↘

This means that HV cable connection and signal cable connection are inconsistent.

Probably HV cable connection is correct, and there maybe maybe exist misconnection about the splitter.

12:20 HV01 #14-10 (BK13) Error

12:31 HV01. 11-4 (R31) Error

14:10 " someone?

15:40 HV01 11-4 (R31)

HV01 3-10 (L11)

17:00 HV01 6-4 (R22)

" 7-8 (R18)

17:05 3-1 (BT6)

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17:10 HV01 #4-0 (R15) error

17:10 pedestal @ all 800V #9340

17:11 LED 3 & 7

50	0	0	0	0
50	0	0	0	0
50	0	0	0	0
50	0	0	0	0
50	0	0	0	0
50	0	0	0	0

17:15 HV01 #1-11 (T7), #1-0 (R9), #0-4 (R8), #8-7 (T28)

HV02 #15-8 (L41), #7-0 (R20), #4-6 (L16)
 #6-6 (L22), #13-4 (BK4), #13-6 (BK6)
 #0-1, #0-11 (BK30), (BK27)

18:02 Since lots of HV error appeared, unstable channel HV values are reduced by 100V, 800V → 700V.

Currently R87 and F30 are OFF

TRT to flush the LEDs to see signal histograms

LEDs 3 and 7 are used,
 CAMAC LED driver output channel 2 and 4 are used

width	channel 2 start	channel 4 start	step	
50	109	122	1	too bright
50	105	118	1	"
50	100	113	1	"
50	90	103	1	"
50	80	93	1	rather good
50	75	88	1	"

change all HV to 700

TRT to adjust above

18:30

pedestal RUN again

#9342

09/Aug/05

Noisy channel

S13-C50

S13-C55

Underflow (<0)

S11-C56

(not connected)

20:20

HV adjust option in the LP framework

There was a bug in this option when calling the tree, which is fixed now

There was a inconsistency between frontend and LP framework for handling number of events.

This is fixed now, too, but we should store these information in ODB

#9344

HV adjust RUN

no data written

Take pedestal data after adjustment

no data written

21:00

#9345

HV adjust RUN

no data written

21:16

#9346

HV adjust RUN

no data written

21:42

#9347

HV adjust RUN

no data written

22:22

#9348

HV adjust RUN

no data written

22:45

#9349

pedestal for HV adjust

??? Pedestal data is not filled in the tree

LP framework cannot calculate the pedestals

ooo need to be fixed tomorrow

09 Aug 05

Try again, HV adjust with reduced LED intensity

width 50 channel 2 start 75 channel 4 start 83 step 1

#9350 HV adjust RUN no data written

List of PMTs whose signals cannot be seen.

ped neg	OK	ADC NUM	slit	channel	HV (count)	
		F9	20	13	20	901V overflow V
		F19	19	13	19	819V overflow V
		F22 (swapped with F13)	22	13	22	650V overflow V
		F2	99	11	3	867V overflow V
		T1	53	13	53	836V overflow V
		R1	54	13	54	791V overflow V
		T6	41	43	41	731V → 700 overflow V
		T7	57	13	57	774V overflow V
		T10	48	13	48	772V overflow V
✓		R10	150	11	54	1001V only pedestal
✓		BT10	50	13	50	691V underflow
		L13	76	13	76	835V might be only pedestal overflow V
✓		L14	149	11	53	982V only pedestal
		T13	77	13	77	877V overflow V
		T14	81	13	81	885V overflow V
		T16	88	13	88	870V overflow V
		T17	84	13	84	870V overflow V
		R12	74	13	74	825V overflow V
		R13	78	13	78	842V overflow V
✓		R16	91	13	91	759V overflow?
		L19	116	11	20	754V negative slope overflow V

ped neg	OK						
✓		L20	148	11	52	969V	only pedestal
		L21	69	13	69	800V	overflow V
		L23	121	14	25	823V	overflow V
✓		T20	148	11	52	758V	only pedestal
		T21	69	13	69	786V	overflow V
o		T22	125	11	29	812V	OK?
		R22	127	11	31	871V	overflow V
✓		L24	200	9	8	813V	negative slope
		L26	160	11	64	866V	overflow V
		T24	204	9	9	821V	overflow V
		T25	155	11	39	747V → 700	overflow V
		T26	164	14	65	881V	overflow V
		T27	168	11	72	828V	overflow V
		T28	164	11	68	805V	overflow V
		T29	204	9	12	835V	overflow V
		R25	158	11	62	805V	overflow V
		R28	167	11	71	912V	overflow V
		T30	177	14	81	829V	overflow V
		T31	181	14	85	792V	overflow V
		T33	196	9	4	828V	overflow V
		T34	208	9	46	947V	overflow V
		T36	225	9	33	864V	overflow V
		T38	236	9	44	877V	overflow V
		BT39	234	9	42	1083V	overflow V
		BK10	269	9	77	691V	underflow V
		BK4	271	9	79	720V	overflow V
✓		BK3	258	9	66	793V	only pedestal
		BK6	249	9	57	736V	overflow V
		BK13	266	9	74	756V	overflow V

03/Aug/05

~~Reduce HV by 50V (min 700V) for channels with overflow~~

Reduce HV by 50V (min 700V) for channels with overflow

Saved as 050803_3.lv

Things to be done tomorrow

- check signal swap between F22 & F13.
- check no signal channels listed previous page & adjust gain to 1×10^6 .
- & data taking (?)

04/Aug/05
08:05

Stop the circulation

Values for circulation are not closed.

Please switch on the pump to start circulation.

Reactor power ~ 67% cold head temp -99°C .

8:05 HV ERROR. HV01. many PMTs

Restart HV01 because network interface hang up.

8:35 Xenon Circulation Start.

- Check Signal Swapping b/w F22 and F13.

check-1: @ CIAFB input: Swapped (checked yesterday).

check-2: @ bundy patch panel: Swapped.

check-3: @ MACRO F6 output: Swapped.

check-4: @ MACRO F6 input: Correct!!

→ LEMO-Bundy cable (MACRO F6 → patch panel) was swapped at the output connector of Fan/out module!!

- Now, Signal Swapping F13/F22 is solved!!

- Check NO SIGNAL PMTs listed. 03/Aug.

▶ Load new hv setting file "050803-3.lv".

9:12 RUN # 9351 pedestal NO DATA written.

→ S13-C50/S13-C55 has very wide pedestal. 

∴ FASTBUS digit card was slanted, ← fixed.

RUN # 9352 again. (0% data written). → S13/50,55 OK.

10:14 HV02. #10-7 (T34)
#5-7 (T13) 1100V → 1000V error again → 900V OK

24/ Aug 2005.

12:30 HV01. #5-2 (T13). tripped again and again,
So, turn off this PMT for a moment.

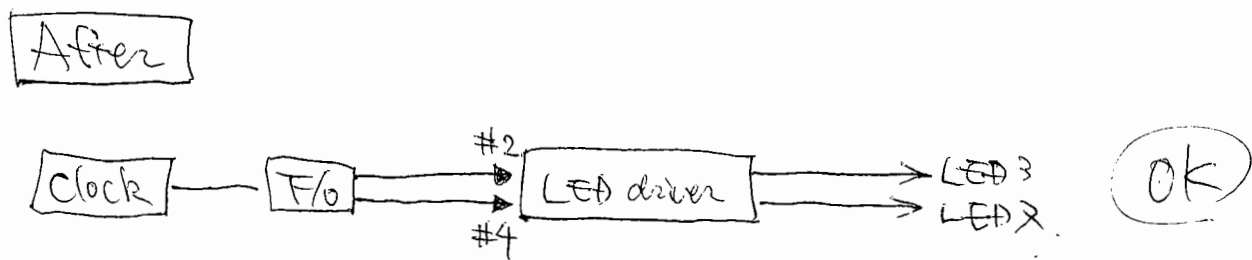
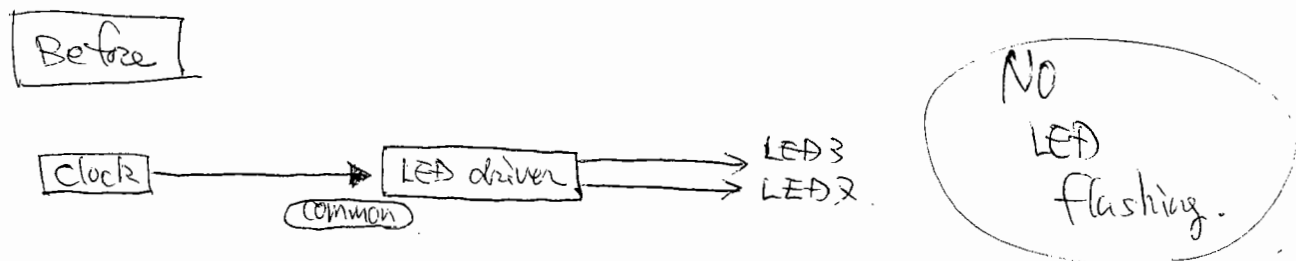
Try again Gain adjustment RUN, start from "050803-3.hv"

9360. pedestal run @ 050803-3.hv.
(and T13 OV.)

We cannot use "common input" for CAEN LED driver.
We don't know why.

We can execute LED run using individual input port.

So, for a moment, we adopt divided clock signal for LED driver.



We have to investigate source of this problem.

But for a moment, we can use this recipe.

14:38 # 9361. Gain Adjustment RUN. (w/o data written)
for 1E6 starting from 050803-3.hv.

04/ Aug. / 2005.

14:00 Slow control computer. "megscot" comes back!

From now on, Slow control system is carried out by megscot.
Bye-bye megwin3!

16:00 According to result of Adjustment RUN #9361.

The most of channel has significant spectra, but many channel seems strange.

These strange channels are corresponding to upper part of FASTBUS Slot 11.

& lower part of FASTBUS Slot 13.

→ Actually, these channels are connected to 1 crate of MACRO F/O, and this was down because 1 module dead.
So, we replaced 1 MACRO F/O module. (label-18)

Save HV setting file { HV adjustment 1E6. & T13 → OV. } ⇒ 050804-1.hv

Currently, F30 / R37 / T13 are OFF.

17:21 #RUN 9362. pedestal run.

All channels seems OK.

17:23 RUN # 9363. HV adjustment run for 1E6.

LED net: { LED3 : 75~80v.
LED2 : 83~86v

17:38. HV ERROR. 0-5-2(L14).

Bad PMT re-check for TC0575, TC0576

TC0575 K~DY1 : $\sim 1.3 M\Omega$
DY1~DY2 : $\sim 0.94 M\Omega$
DY10~DY11 : $\sim 9.03 M\Omega$
other resistance seen: o.k.

After removing board, all resistors seen o.k.
then, re-installed, all resistors work well.
Something were contaminated between board and PMT?

TC0576 ~~already~~

Board was already removed by Natori.
R6, R12, R13 is o.k. but board itself has $\infty \Omega$.
So, board itself works fine. \uparrow
this is caused by removing work.

We can use these TC0575, TC0576 at the next PMT test
if new boards are installed to them.

Another bad PMT. TC0379.
the board should be exchanged.

04/Aug/2005.

Bad channel @ HV adjustment #9361.

Too HIGH : T11, R14, R33
Too LOW : BT7, BT10, R17, BT13, BT3
only pedestal : R10, L14, L20

Too HIGH / Too Low channels will be better
~~after~~ after this adjustment.

3 PMTs (R10, L14, L20) should be checked by hand.

inlogger has some trouble. Restarted \rightarrow OK.

RUN # 9362 ~ 9365 : DUMMY.

18:36 RUN # 9366 pedestal

9367. HV adjust RUN.

R10 / L14 / L20 are not ordinary configuration
because corresponding delay cables are broken.

So, these channels were swapped with another spare line
in past beam tests.

But, these 3 cables are not connected busidly \Leftrightarrow F/O.

So, we connected these cables.