

J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN#

		Date(submitted)	July 23, 2015
Group	E36	Beam line	K1.1BR
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<p>Summary and Results</p> <p><u>Beam tuning</u></p> <ol style="list-style-type: none"> 1) K1.1BR beam was tuned for the first time for the new configuration of short FF distance and the new T1 target. The expected K⁺ intensity and K/pi ratio could be confirmed. 2) Degraded thickness tuning: For the nominal "800 MeV/c+α" beam momentum, optimum degraded thickness was determined by looking at the K⁺ stopping distribution in the target. <p><u>Detector commissioning without magnet</u></p> <ol style="list-style-type: none"> 1) Central Detector (CD) consisting of Target, SFT, TOF1 and AC was commissioned and data was taken together with C2 chambers under the condition of K⁺ stop in the Target. 2) The EASIROCK parameters of SFT were carefully tuned, and a calibration data was acquired for Target+SFT+C2 for position calibration. <p><u>Detector tuning with magnet</u></p> <ol style="list-style-type: none"> 1) MWPCs of C3 and C4, TOF2, and PGC were commissioned. And the tracking was started under the SC Toroid operation. 2) Defects were figured out in the MWPC, TOF2 elements <i>etc.</i> Also a number of TKO-ADC for MWPCs were found not working properly. Some TOF2s were found broken. <p><u>Study of DAQ conditions</u></p> <ol style="list-style-type: none"> 1) The trigger logic for "physics run" was constructed and tested. 2) Csl(TI) DAQ by means of VF48 FADC was studied how to synchronize with the main DAQ. <p><u>Test of physics run</u></p> <ol style="list-style-type: none"> 1) Data taking was tested under the "physics trigger" condition by using 6 gaps of the detector system. And some data were acquired for checking data quality and confirm the tracking validity. Kμ2 peak could be observed in the momentum spectrum 2) Csl(TI) calibration data was acquired in order to estimate necessary time. 			
<p>SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority <i>etc.</i></p> <p>Machine time <i>etc.</i></p> <ul style="list-style-type: none"> ● User time : 16 days <ul style="list-style-type: none"> ➢ Detector commissioning time including "down time" : about 10 days ➢ DAQ ON time : about 6 days for test physics run. ➢ No time yet for data acquisition of physics data for analysis. 			
<p><u>Comments/Requests</u></p> <ul style="list-style-type: none"> ➢ Beam line magnets Q6 and Q7 were unstable for some time. ➢ There was neither tent nor air conditioning in the electronics area. 			