



Jefferson Lab Alignment Group

Data Transmittal

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Checked:

: A969

DETAILS:

The Big Bite magnet, photon detectors and the neutron detector were surveyed on January 3, 2005. The magnet and photon detectors are at the calibration angle of 70° beam right of the straight ahead beam. The reference position for the Big Bite magnet is the upstream face, centered on the poletip. Values for the detectors are centered horizontally on the frame, and vertically centered at the mid point between the upper and lower detectors. Along beam direction, the detectors are centered between the upstream and downstream face of the detectors.

Relative to the Hall A coordinate system with the origin at the target center, and using the straight ahead beam as the principle axis, the equipment is located at:

Element	z (mm)	x (mm)	y (mm)	heading (deg)	yaw (deg)	pitch (deg)	roll (deg)
Big Bite Magnet	370.4	-1035.5	1.0	-70.3166	-69.9505	-0.2309	0.0436
Upstream Photon Detector	728.8	-2004.2	376.2	-70.0175	-69.9603	25.3066	-0.0483
Downstream Photon Detector	1034.2	-2841.5	736.4	-70.0006	-70.1793	25.2930	0.0453
Neutron Detector	9918.6	-11815.6	-26.5	-49.9884	-50.2537	0.2693	-0.0054

Note: Heading is the angle from the straight ahead line to the center point of the equipment. The yaw angle is the angle that the individual piece of equipment's centerline lies at in the coordinate system.