

CERN LIBRARIES, GENEVA



CM-P00053064

 PH I/COM-73/4
 25 January 1973

Addendum to the Letter of Intention

A STUDY OF THE EXCITED STATES OF ${}^4_{\Lambda}\text{H}$ AND ${}^4_{\Lambda}\text{He}$ HYPERNUCLEI

A. Filipkowski, H. Piekarz, J. Piekarz and J. Pniewski

Institute of Experimental Physics, University of Warsaw

Institute of Nuclear Research, Warsaw, Poland

Since the K-202 computer became available for the hypernuclear γ -spectroscopy experiment the data taking system will be modified. The block scheme of the electronics is presented in Fig. 1. In the proposed experiment the following quantities will be measured:

- i) E_{γ} , the energy of the γ -rays (for the pulse discrimination this energy will be obtained for two different integration times, $E_{1\gamma}$ for long and $E_{2\gamma}$ for short ones).
- ii) T_{γ} , the time-of-flight of the γ -rays.
- iii) E_{π} , the energy of the decay pions of ${}^4_{\Lambda}\text{H}$.

The energies and the time-of-flight of γ -rays are digitized with the help of the analog-to-digital converters. The range telescope containing 48 scintillation counters is used to determine the pion energy. The information from this telescope is stored in a 48-bit register. All data, including the tests scaled by 20 scalers are transferred to the K-202 computer with the CAMAC crate controller. After sorting they are stored on magnetic tape (Racal thermionic T-7000). For monitoring purposes a part of the information ($E_{1\gamma}$, T_{γ} , E_{π}) is also registered in a system composed of a two-dimensional TRIDAC analyser and an incremental KENNEDY magnetic tape recorder.

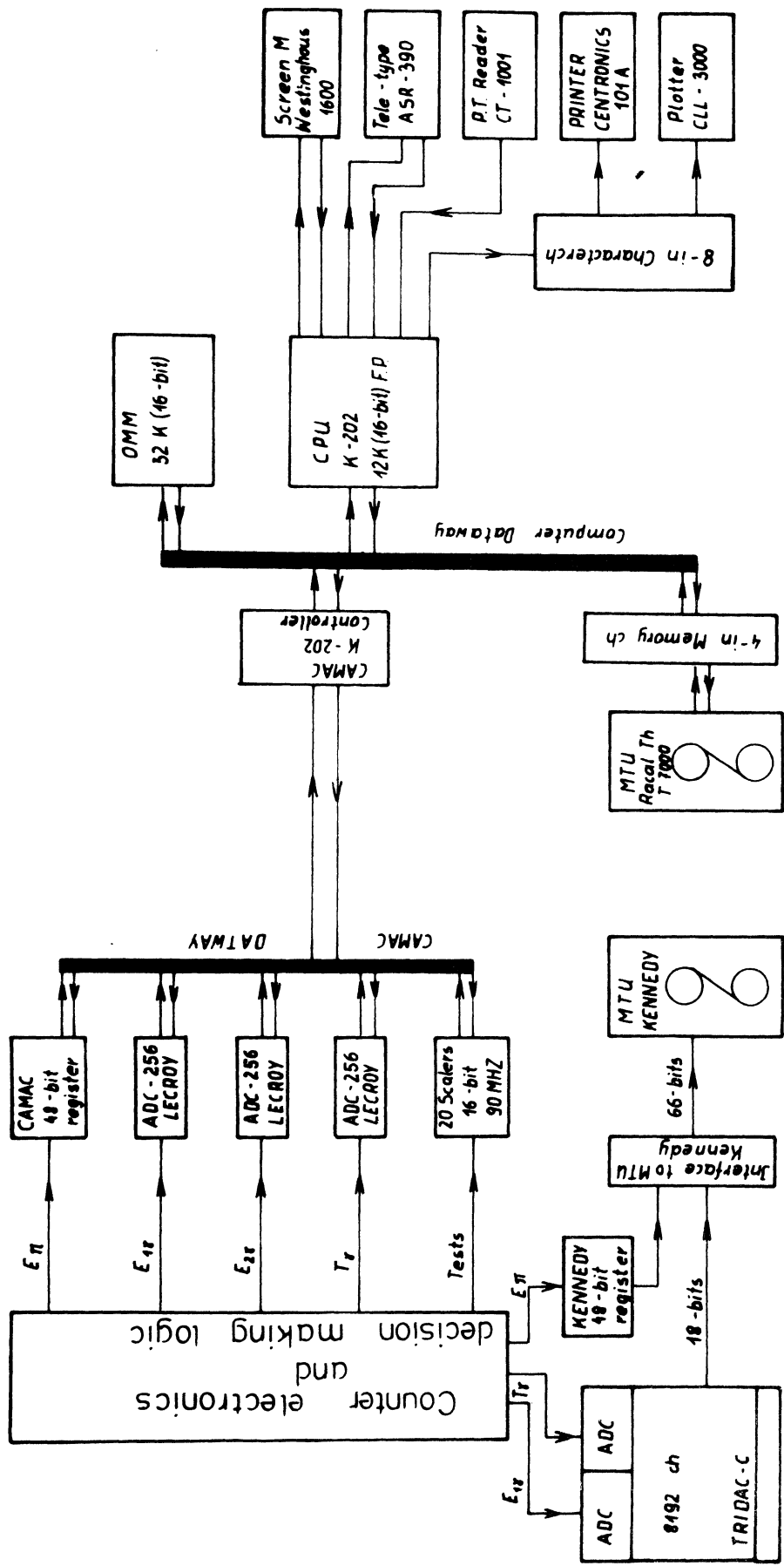


Fig. 1