A Timing System for DIAMOND, C.W. HORRABIN,

CLRC Daresbury Laboratory, Warrington, WA4 4AD, UK - This paper describes in some detail the organisation of the timing system for the proposed new electron storage ring DIAMOND and its injectors. In addition to the philosophy of the overall timing scheme, details will be given of some of the electronic circuit techniques to be used, which will realise enhanced stability and flexibility from the timing system. This will include a master oscillator control driven by a Direct Digital Synthesiser (DDS). Combined ECL and analogue delay units for precision control of storage ring clocks, and a booster/storage ring coincidence unit for single bunch injection timing, will also be described.