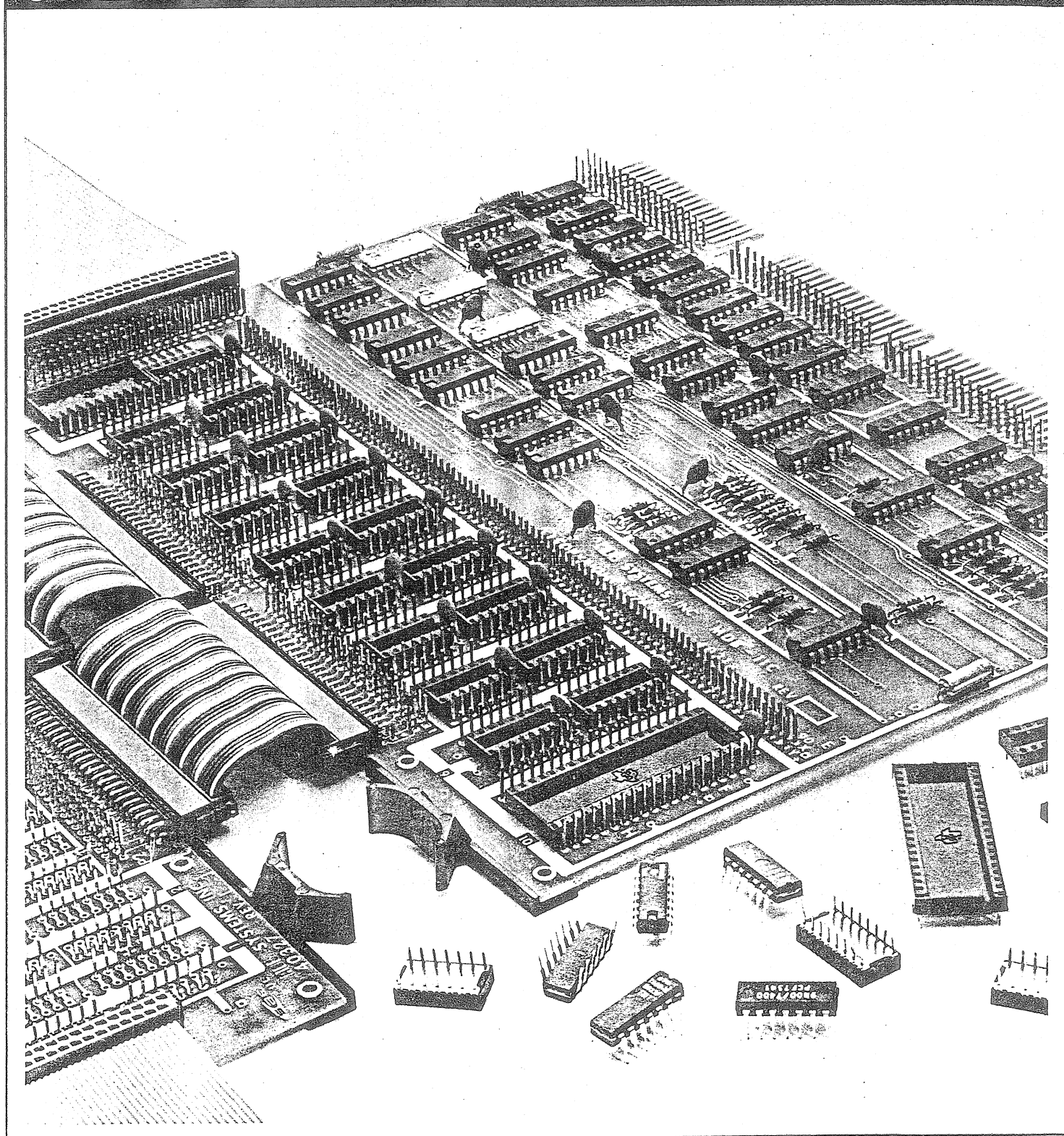


MOB PDP-11

GENERAL PURPOSE INTERFACE MODULE



PDP-11 GENERAL PURPOSE INTERFACE MODULE

The MDB-11C General Purpose Interface Module provides an interface between the Digital Equipment Corporation PDP-11 Unibus and a user's peripheral. The MDB-11C is contained on a single quad module which has provisions for mounting up to twenty wire-wrap sockets or directly mounted 1 C's in 14, 16, 22, 24 or 40 pin device configurations. Wirewrap posts are installed on the component side of the module which will permit DEC's 1/2" board spacing with no interference. The MDB-11C fits into either the BB-11 or DD11-A Peripheral Mounting Panel.

The MDB-11C consists of four functional sections: Address Selection Logic; Interrupt Control Logic; Input/Output Registers; and User Interface Logic.

ADDRESS SELECTION LOGIC

The address selection logic provides the necessary circuitry for communication with the MDB-11C Interface and the PDP-11 Unibus. Wire-wrap posts provide the hardware selection of addresses from 760000 through 777777. Decoding Logic is supplied to allow for 16 unique sequential addresses (8 in and 8 out). Buffered BYTE I/O Logic is also provided for custom application and is available at Users Logic Section on wire-wrap posts.

SSYN Logic is provided to notify the CPU of device addressing and also provide a Device Sync for output and input data transfers. Further

use is made of this signal to provide a convenient pulse for CPU/Interface communication.

All pertinent ADDRESS, SSYN, MSYN, COL, CIL and other signals are terminated on wire-wrap posts to provide additional flexibility for numerous applications.

INTERRUPT CONTROL LOGIC

Two separate interrupt control sections provide the capability of vectoral interrupt requests to the PDP-11C processor through two unique vector addresses. Any two vectoral addresses 4 thru 374 may be selected by jumpers on the module. Bus Request levels 4 thru 7 are selected by jumpers on the module. Bus requests are accomplished by applying a logic 1, (+5V) to the DEVINT inputs, pins Y41 and Y45. These pins must be grounded if not used.

INPUT/OUTPUT REGISTERS

Two separate 16 Bit Input and Output registers are provided. The output register outputs are available on wire-wrap pins adjacent to the User Interface Logic Section of the board. The input register is Byte segmented for both loading and Bus gating. Both input and output registers are latch type registers which are loaded by a 0 volt logic level to the register load input.

USER INTERFACE LOGIC

Twenty wire-wrappable integrated circuit positions are available on the board to accommodate custom designs which will accept 14, 16, 22, 24 and 40 pin integrated circuits. Eight of the twenty positions in locations 2H thru 8H are dedicated 14 pin positions and have prewired power and ground on pins 14 and 7. The remaining twelve positions can accommodate either 14 or 16 pin integrated circuits. These twelve positions have prewired power and ground for 14 or 16 pin positions, but when using 16 pin components in these positions a jumper must be

removed, between pins 7 and 8. Twenty-two, twenty-four and forty pin integrated circuits can also be installed in columns 1 and 10 in place of 14 and 16 pin components. Two 40 pin integrated circuits can be installed which will reduce the number of 16 pin positions by four, or two 24 pin integrated circuits can be installed which will reduce the number of 16 pin positions by two. These two sections on the board are also useful for installing discrete components if not used for integrated circuits. These sections have wire-wrap posts installed at the outermost positions which will allow mounting discrete components in 0.3, 0.4 and 0.6 inch center plated through holes.

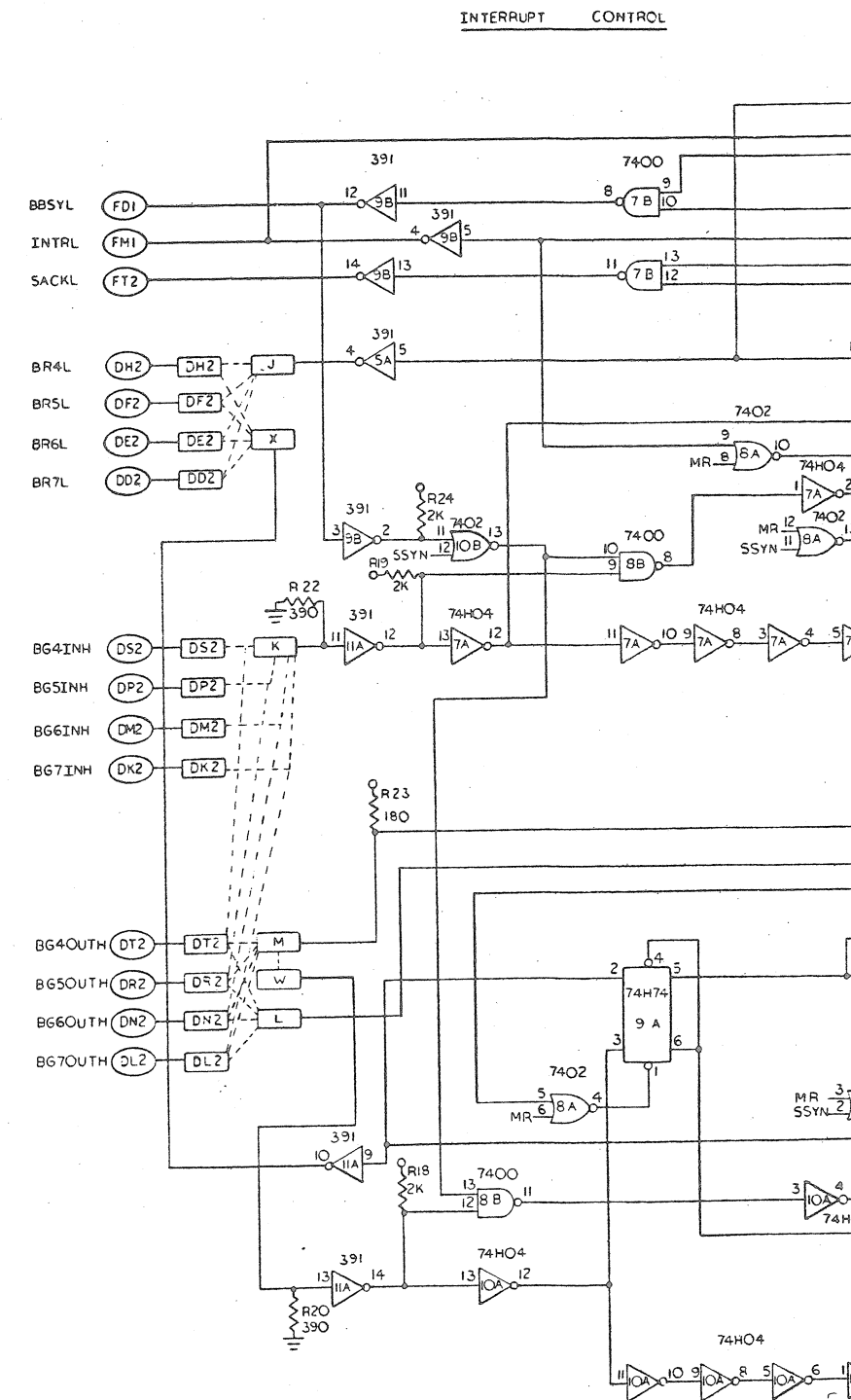
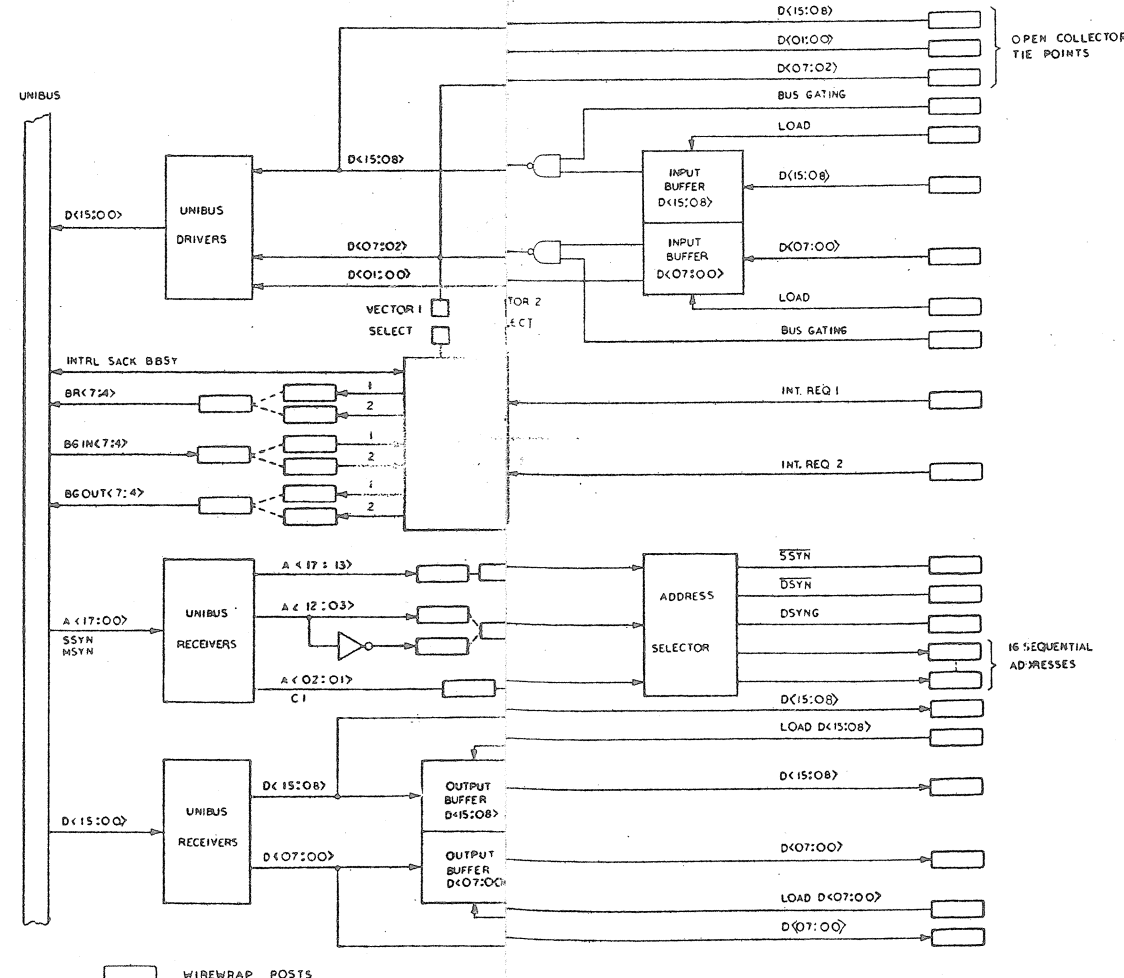
All unibus driver inputs and receiver outputs are available on wire-wrap posts so they may be used for multiple controller interfaces if

desired. Inputs to the unibus drivers are 7403 or equivalent open collector gates which permit OR typing of additional inputs to the drivers. Thirty unit loads are available on the unibus receiver outputs.

Three input/output ribbon cable connectors are provided as options on the module. Two 50 pin connectors are mounted on the top edge of the module which can be used as input/output cables to external devices or for interconnection between the MDB-11C and additional MDB-11W wire-wrap modules. (The MDB-11W will accommodate 70 1 C's or sockets.)

The MDB-11W wire-wrap module also has two ribbon cable connectors on the top of the board in the same locations. Interconnecting cabling is available to provide board to board jumpering and bussing or cabling to external devices. The

third 50 pin I/O connector is located on the edge of the board which is normally used for cabling to peripheral devices. Wire-wrap posts are provided on the three I/O connectors for interconnection into the user logic.

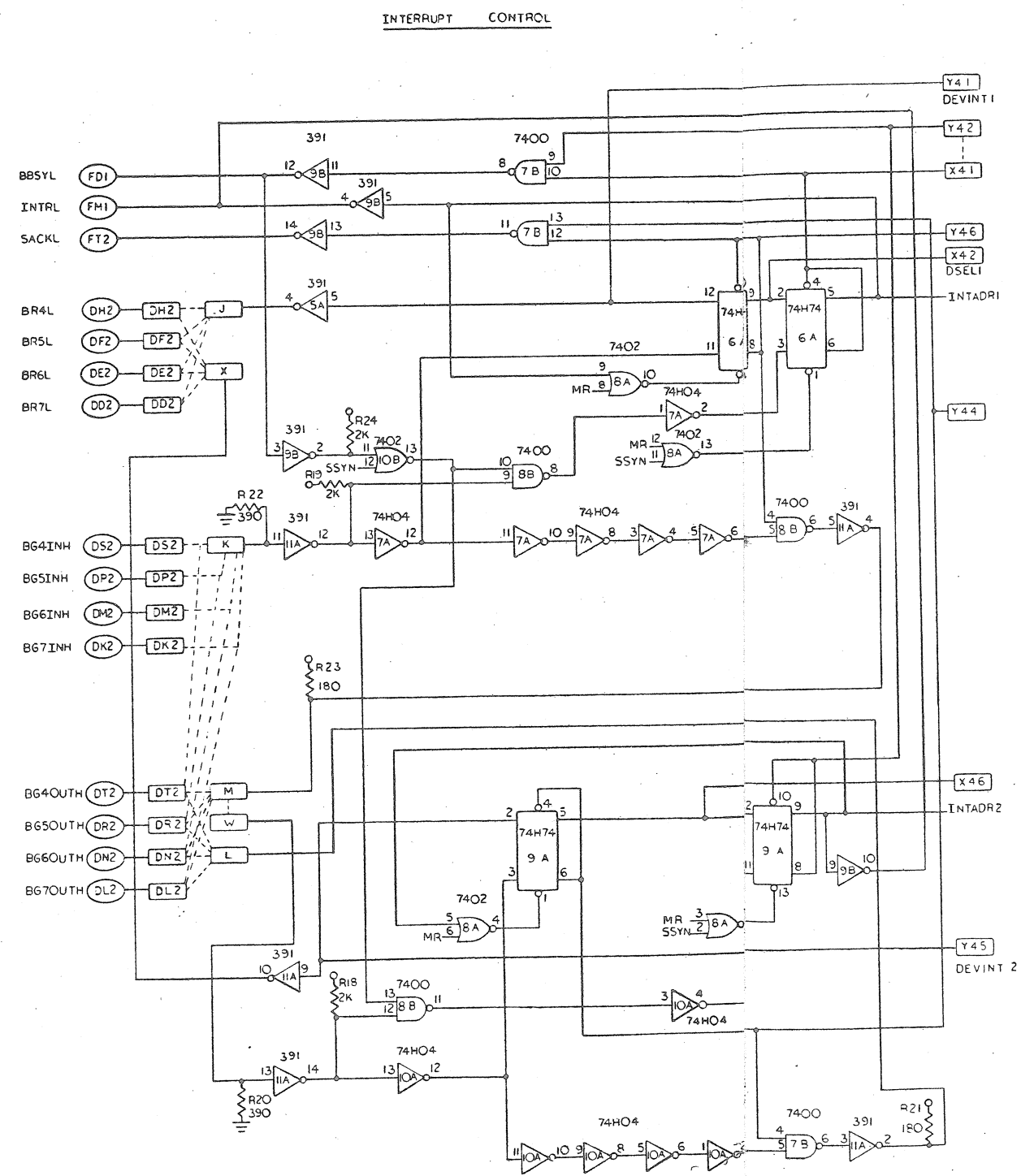
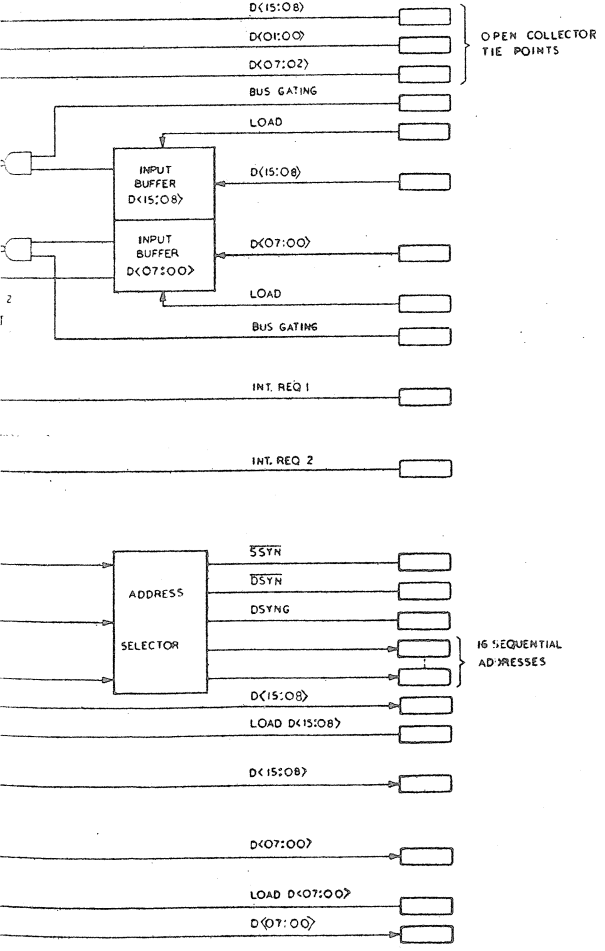


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CBI
CCI
CDI
CNI
CPI
CSI
CUI
CVI
DCI
DVI
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