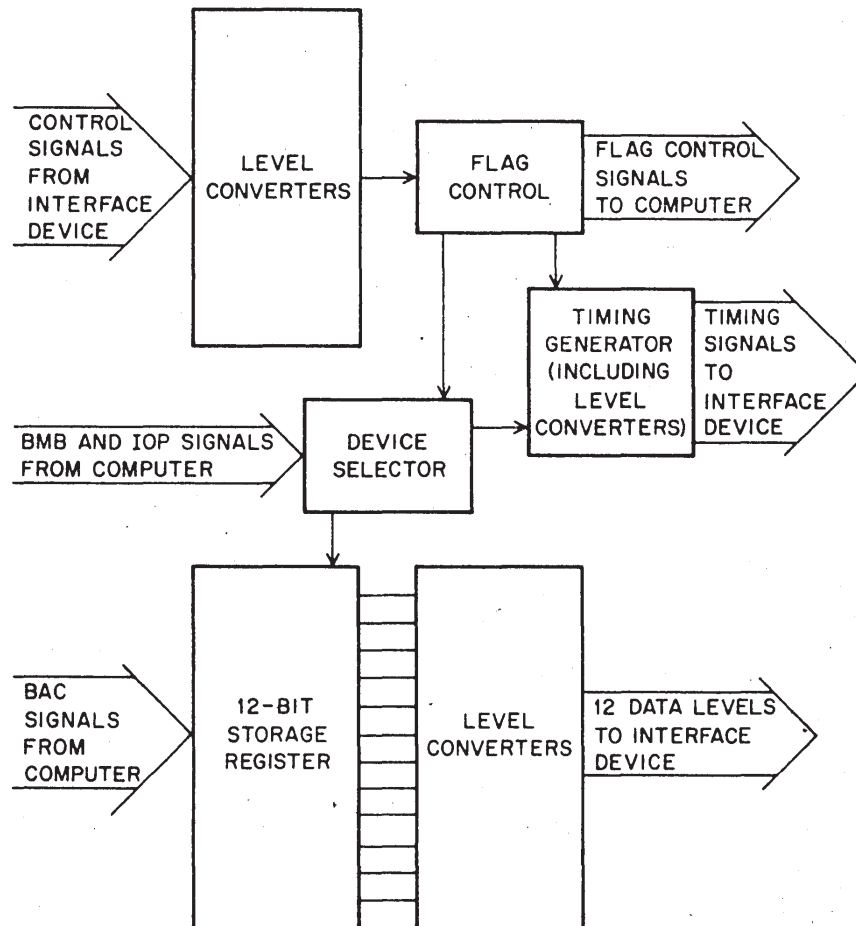


BUS INTERFACE TYPES M730 & M731

M SERIES



The M730 and M731 interface modules provide extremely flexible interface control logic to connect devices, systems, and instruments to the output half of the programmed I/O transfer bus of either a PDP8/I or a PDP8/L positive bus computer. Peripheral equipment which operates either asynchronously or synchronously to a computer and expects to receive data from that computer, can to a large degree be interfaced by either the M730 or M731. Basic restrictions on the device or system to be interfaced are simply that it receive data in parallel, provide one or more control lines, and operate at a data transfer rate of less than 20 KHz. Complete interfaces to such peripheral gear as card punches and other repetitive devices is possible using the M730 and M731; however part of the controlling functions, such as counting etc. must be performed by computer software.

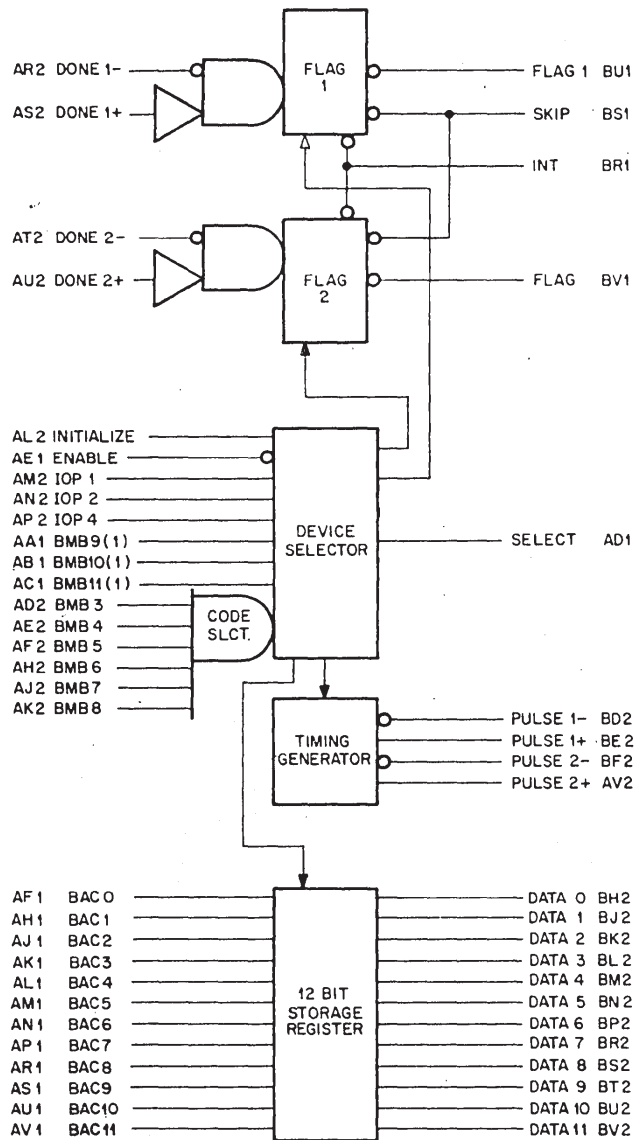


Figure 1

BUS INTERFACE — M730 (POSITIVE OUTPUT)

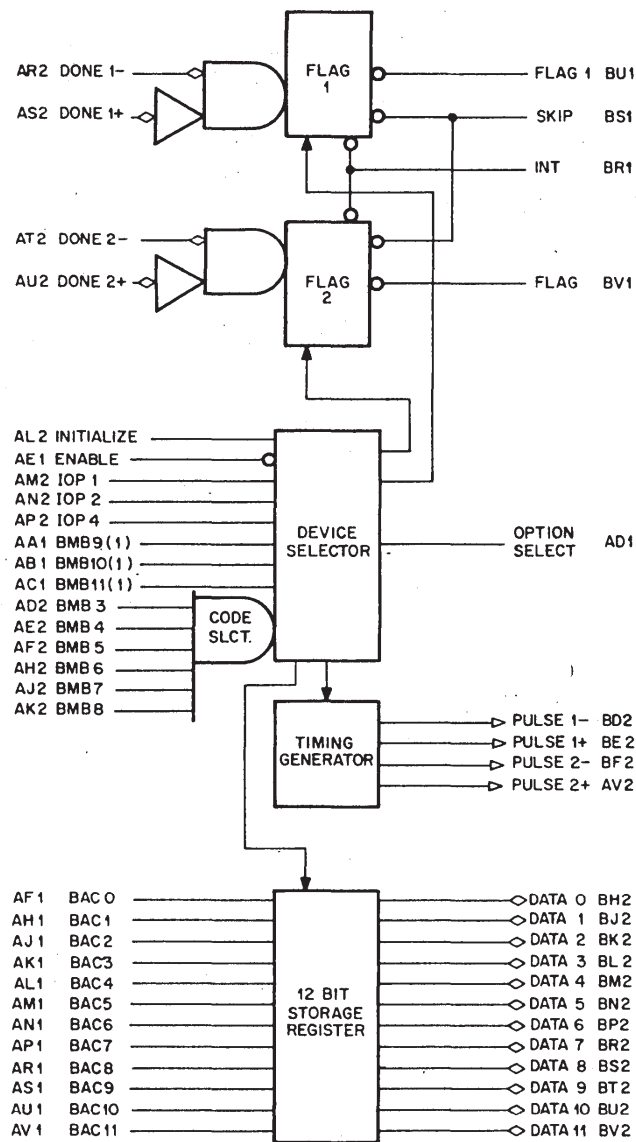
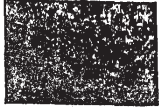


Figure 2

BUS INTERFACE — M731 (NEGATIVE OUTPUT)

Functionally, these modules contain five distinct sections which are as follows:



1. Device Selector—This logic network converts the buffered memory buffer (BMB) signals and IOP timing pulses from the computer into internal module control pulses.
2. Timing Generator—Through the use of device selector signals, control signals from the interfaced device, and module jumpers, this unit can supply variable width pulses or synchronous control levels at amplitudes specified in section 5 below.
3. Storage Register—This 12-bit flip-flop buffer register provides output data storage for information to be transmitted to the interfaced device.
4. Flag Control—Provisions for generation of I/O Skip and Program Interrupt signals for the computer are made in this area.
5. Level Converters—All level converters from the storage register or timing generator are open-collector transistor types which can drive 30 ma at ground. The M730 has npn drivers and can interface loads returned to a maximum positive supply of +20 volts and the M731 has pnp drivers which can interface loads returned to a maximum negative supply of -20 volts. Level converters which input control signals to the Flag control can receive signals of the same polarity and magnitude as the output drivers can sustain.

Thresholds on the input converters are +1.5 volts and -1.5 volts for the M730 and M731 respectively. All positive voltage levels are compatible with K and M series and all negative voltage signals are compatible with R, B and W Series.

For additional information, technical specifications and applications assistance, a Digital module specialist can be contacted at any Digital Sales office. Application Note AP-M-017 contains useful information concerning the use of the M730 and M731.

M730	—	\$160
M731	—	\$160
