Interfacing to Teletype Equipment

A FLIP CHIP module socket provided in each PT08 duplex channel accepts a W070 cable connector, to which local teletype interconnecting cables may be wired. (DEC offers a Teletype Conversion Kit which includes the W070, the cabling, and terminals for attachment to a standard Teletype or equivalent.) Interconnections for one channel and simplified schematics of the W706, W707, and W070 appear in Figure 3-3. (Detailed schematics appear in Appendix A.)

Input Data - The W070 provides a 32 mA current source to be switched by the teletype keyboard generator contacts, and includes a biased diode and voltage divider network to make the switched signal compatible with the data input circuit of W706 module:

Keyboard Generator Contacts	Voltage at W070 pin D (Serial data input)
open	$\leq$-3V
closed (32 mA) xz	Ground

In the standard supplied connection, closed contacts are interpreted as a mark. However, the polarity can be reversed by changing jumpers in the W706 module. Filter capacitors prevent noise spikes from activating the W706 input circuit.

Reader Run Signal - The W706 Module drives a READER RUN line (on DEC supplied Teletypes) that clutches the Teletype's reader using the RCV flag. (Reader will not read next character until the flag is cleared.) The driver circuit is capable of switching up to 20 mA from a source of -15V supplied on pin B of the W070. This reader clutching is part of the Teletype modification kit.

Output Data - The W070 provides a 20 mA current source for the teleprinter print selection magnet (or equivalent). Switching is done by the output circuit (pin AH) of the W070 module. In the standard connection, current represents a binary 1 (mark); this may be reversed by changing jumpers in the W707.

Cabling - Teletype Conversion Kits may be ordered for each duplex channel. Cable length is 25 ft. The free end of the cable connects to terminal boards in a Teletype Model 33,35 or equivalent.

Interfacing to EIA Devices (PT08F Option)

The EIA interface modification adds W511 and W602 level conversion modules in series with the input and output data lines as shown in Figure 3-4. The modules make the serial data to and from the W706 and W707 modules compatible with the requirements of Electronics Industries Association Standard RS-232A (reproduced in Appendix B of this document). EIA interface signals are polarities more positive than +3V and more negative than -3V. Detailed information on the W706 and W707 modules appears in Appendix A.