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KEYBOARD APPLICATION NOTE
SUBJECT: INTERFACING GRI KEYBOARDS TO POLYMORPHIC SYSTEMS

As part of our continuing efforts to make microcomputer system design easier, we are happy to pass along the following information on using our Keyboards with the Polymorphic System.

This information is courtesy of Mark Bower of Microtech Inc., 3230 S. 13th St., Lincoln, NE 68502 (402) 423-8404.

Poly 88 Keyboard interfaces by way of a standard 25 pin "D" connector. Pins 1 through 8 are the ASCII data inputs, (1=LSB) and pin 9 is the strobe signal. Pins 10-23 are ground, pin 25 is +5 volts, and pin 24 must be wired for -12 volts. To do this, add a 180 OHM 1/2 watt resistor and 1N4742 (or equiv. 12 v.) Zener diode to the VTI board. This regulates the -18 volt d.c. buss to the -12 needed by the keyboard.

The keyboard end of the cable should be wired to appropriate data pins, (use B6A for both upper and lower case), to the positive level strobe output, and to the power pins. Jumper the keyboard data-strobe invert pin to ground, selecting positive logic output. This should complete the interconnections.

No problems have been reported using the Poly BASIC. But the North Star Minidisc BASIC does require one patch when the GRI keyboard is used. The reason for this is to fix one routine which allows the user to "exit BASIC" by typing a control "C". Since this routine does not sense the strobe signal, it is possible to inadvertently read in the exit command. To eliminate this problem Mark suggests either re-writing the routine to first check for a valid strobe, or to simply insert a "RET" after the "EXIT" routine is called, which eliminates the "CTRL C" command altogether. (Hardware reset will still interrupt BASIC, as before).

We hope this information is useful to you, and encourages you to share your solutions to interfacing problems with others. Just drop me a line describing your approach to a keyboard problem, and I'll include it in this Series.

Sincerely,

Robert Nickels

Robert Nickels
Keyboard Product Manager

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