Model 3291

System Monitor and Dataway Display

INSTRUCTION MANUAL

February, 1987

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CONTROL REGISTER BIT ASSIGNMENT

The five-bit Control register contains three bits for mode selection, a bit for holding data and a Clear bit. The register is loaded by N.F(17).A(0).S1. The load command does not update the Command or Data registers.

Mode Selection

MODE	BIT		
	3	2	1
S1	0	0	0
N.S1	0	0	1
Q.S1	0	1	0
DC Write	0	1	1
DC Read	1	0	0

Hold (Bit 4)

Writing the Control register with a one at Bit 4 inhibits further loading of the Command and Data registers. The data previously loaded in these registers remains there and continues to be displayed on the front panel. Either DC mode of operation will override the holding of data.

Clear (Bit 5)

Writing the Control register with a one at Bit 5 clears the LAM and the Command, Data and Control registers. The Control register is returned to the S1 mode of operation.

CONTROL REGISTER LOADING INHIBITED

The Command and Data registers of the 3291 are inhibited from being updated during any of the following: N.F(0).A(1), N.F(1).A(0), N.F(17).A(0) or the assertion of the external Hold signal. The display registers are not updated for these three commands when they are directed to the 3291 N-slot since they are used to read or write internal registers in the 3291. (For example, the 3291 Command register should be read without destroying the previously stored command data by updating it with the F(1).A(0) command information.) To assure that these commands occur, direct them to any other slot in the crate and then read the 3291 via the N.F(0).A(1) command.

FRONT PANEL

LED Indicators

N — Flashes when the module is addressed.

DATA — 24 LEDs which show the current contents of the Data register. The LEDs are arranged vertically and are marked to show octal and hexadecimal groupings.

COMMAND — 21 LEDs which show the current contents of the Command register.

CONTROL — A group of six LEDs which show the current mode of operation and the state of the Hold latch (H).

Switches

MODE/HOLD — A three-position, center-off toggle switch. When pushed down, it steps the module through its five operating modes. When pushed up, it places the module into the Hold mode.

The operation of the HOLD latch is governed by the position of the T/$\overline{T}$ (toggle/no toggle) strap option located between I.C. locations AM and AT on the printed circuit board. With the strap in the T position, the HOLD latch will toggle from state to state as the switch is pressed up. The HOLD latch will be cleared if the mode switch is depressed to advance the 3291 through all modes of operation. As the mode changes from DCR to S1, the HOLD latch will be cleared. The CLEAR switch (see below) has no effect on the state of the HOLD latch when the option strap is in the T position.

When the strap is in $\overline{T}$ position the HOLD latch can be cleared by depressing the CLEAR switch, or by any change of operating mode initiated from the front-panel MODE switch. Pressing the HOLD switch will not clear the latch.

The HOLD latch will always be cleared by writing a "0" into bit position 4 of the control register.

CLEAR — A normally closed pushbutton. When pushed, it performs a lamp test, lighting the 53 front panel LED indicators. Upon release, it clears the LAM and the Command and Data registers.

REAR PANEL

Connectors

BLACK JACK — This pin jack (for 0.080" pin) provides for connection to the Clear signal of the Model 3295. This signal clears the LAM and the Command and Data registers. It also "clears" Hold.

RED JACK — This pin jack provides for "HOLDING" the data in the Model 3291 and updating only on a compare from the Model 3296.