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Service Note

96-016 Rev B
2 May, 2007

CONVERTING M200 TO RS232 SILENT MODE

SCOPE:

This document provides guidelines to change your existing M200 to add RS232 "quiet mode." To order the part, ask for Kit 4.

MODE OF OPERATION:

The RS-232 interface is designed to be used by human operators via a terminal, and to be connected to other equipment such as printers, host computers, and data loggers. Consequently, it provides two primary modes of operation: terminal mode and computer mode.

When a human operator is communicating with the analyzer via a terminal, the analyzer should be placed into "terminal" mode, which echoes keystrokes, allows editing of the command line using the backspace and escape keys, and allows recall of the previous command. When a host computer or data logger is connected to the analyzer, it should be placed into "computer" mode, which does not echo characters received or allow the special editing keys.

The RS-232 interface also provides a normal and quiet mode, which may be used in combination with terminal and computer mode. Usually, the RS-232 interface reports status conditions such as mode changes and warnings as they occur. This is called "normal" mode. In some cases, however, it is desirable to have the analyzer report information only on request in order to reduce the amount of RS-232 communication. This is called "quiet mode."

The RS-232 modes described above are controlled by the setup variable called *RS232_MODE*. This variable is a 16-bit integer in which groups of bits represent mode selections. The table below shows which bits of this variable select which modes.

Bit Number	Value	Mode
0	0	Normal
0	1	Quiet
1	0	Terminal
1	1	Computer

For example, setting *RS232_MODE* to *0* (the default) selects the terminal and normal modes, meaning that echo is on, line editing is enabled, and that warning, status, and DAS messages will be printed whenever they occur. Setting *RS232_MODE* to *3* selects the computer and quiet modes, meaning that echo is off, line editing is disabled, and warning and DAS messages are not printed unless explicitly requested.

Note that bit 1 of the *RS232_MODE* variable selects terminal or computer mode only when the analyzer is powered up. You can change the mode during operation by sending a Control-T (ASCII code 14 hex) to select terminal mode or Control-C (ASCII code 3 hex). Changing the mode this way does not affect the *RS232_MODE* variable. Bit 0 (normal/quite mode) is examined prior to printing any warning or status message.

TOOLS:

1. Phillips screwdriver
2. IC extraction tool
3. Needle nose pliers

PARTS:

Kit 4

PROCEDURE:

1. Turn the power off to the M200.
2. Remove the CPU assembly.
3. Configure the CPU assembly for large memory. You can use your existing EEROM on the CPU assembly. (See attached drawing).
4. Now insert the PROM and memory chips in the large memory location.
5. Re-insert the CPU assembly.
6. Apply power to the M200 and re-calibrate.

Large Memory