

**DATE:** August 27, 2001  
**SUBJECT:** 20 mA Module Use, Model ADC-33-3

## **Warning!**

**The 20 mA DC signal conditioning module, model ADC-33-3, can be damaged by transient voltages if it is connected to the current loop circuit while the circuit is energized.**

Always turn off the loop power supply before connecting or disconnecting a 20 mA module. Keep in mind that any filter capacitors in the power supply circuit can remain charged for some time after the AC power is turned off.

Test for this condition by using a DC voltmeter to measure the voltage between the + and – output terminals of the power supply. Connect the meter and turn off the AC voltage input to the power supply. Observe how long it takes for the DC output voltage to drop to zero volts.

If voltage is still present after the supply is turned off, discharge the power supply capacitor by momentarily connecting a piece of wire between the + and – output terminals of the supply. After the module and transducer are wired up to the power supply, the AC input to the power supply may be turned on and off safely without damaging the module.

**Failure to follow this procedure may result in a permanently damaged module.**

In general, when working with electrical and electronic devices, the safest procedure is to always turn off the power supply and make sure that its output voltage has discharged to zero before connecting or disconnecting any circuit.

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