

Alarm and Control Relay Caution Note

Alarm and Control Relay

CAUTION

The alarm and control relay output suppression (snubber) circuitry can be extremely critical when controlling processes and maintaining plant safety. The UDC 5000 Universal Digital Controller is shipped with a board-mounted R-C suppression circuit. Its purpose is to protect the relay contacts from arcing due to high energy spikes. These spikes could occur when driving highly inductive loads and fast cycle-time processes. However, in certain AC-powered, external solid state relays with very high input impedance, an undesirable leakage current can flow in the R-C suppression circuit and cause a voltage across the external load. This prevents deactivation of your external device (such as Solid State relay) even though our display and internal relay are functioning correctly.

The fix, as shown in Figure 2-9 below, is to open the correct R-C circuit by cutting one of the capacitor leads. This is acceptable because if the above problem occurred, the suppression circuit was not needed. Opening the circuit eliminates any leakage current flow and allows the external relay to function normally.

Refer to Figure 2-9 and follow the procedure in Table 2-6 to make the fix.

Table 2-6 Procedure to Open the R-C Circuit

Step	Action
1	Pull the front door down, loosen the screw on the front, and pull the chassis out of the case.
2	Open the desired circuit by cutting the appropriate capacitor lead (see Figure 2-9).
3	Return the chassis to the case.

Figure 2-9 R-C Circuit Capacitor Location

