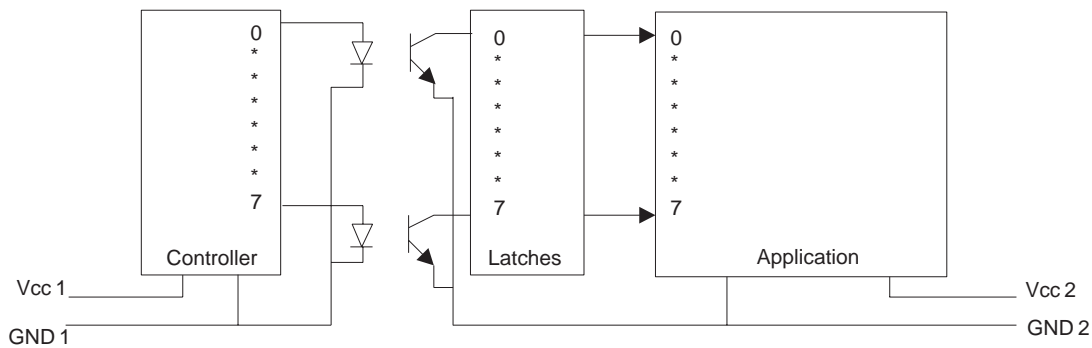


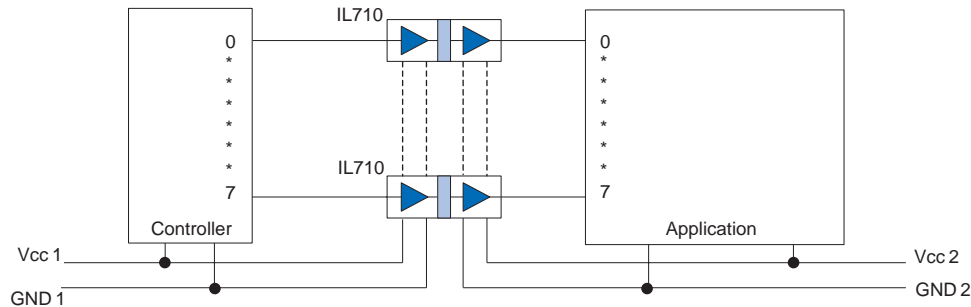
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**IL700/IL200 Inherent Latching Application**

In many isolated circuits it is desirable to ensure a defined “fail-safe” state after the loss of power to either side of the isolation barrier. In less critical applications, latches could be used to retain the last defined state, although this may not be reliable enough for critical systems. Without latches, the system would have to be designed for fail-safe or acceptable “stand-by” condition in the event of controller power loss. Figure 1 shows a typical power supply arrangement and circuit configuration using latches and optocouplers:



**Figure 1. Isolated Latches Using Optocouplers**

IsoLoop<sup>®</sup> IL700/IL200-Series Isolators have a unique inherent memory feature that can eliminate the need for latches. Figure 2 shows the same function using a much simpler circuit using IL710s:



**Figure 2: Application Memory without Latches**

If power is lost to the controller, the output side of the IL710s retain the last state posted from the controller. After controller power is restored, the output of the IL710s will only change state when the controller resumes sending data. Unlike optocouplers where the state is changed immediately on power-up, the IL710-based system remains undisturbed until the controller is ready to resume command.

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