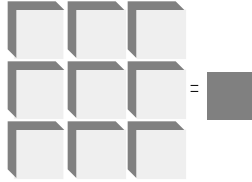


LSI/CSI



**APPLICATION
NOTE
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LSI Computer Systems, Inc. 1235 Walt Whitman Road, Melville, NY 11747 (516) 271-0400 FAX (516) 271-0405

USING THE LS7210 AS A STATE-GENERATOR FOR A BLOWER-MOTOR CONTROLLER

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The LS7210 can be used with multiple inputs to achieve different modes of operation. Figure 1 shows how two inputs are used to control a blower motor. I1 provides normal control while I2 provides emergency control. The Circuit State Diagram is shown in Figure 2. In addition to the LS7210, one Quad Nor Gate such as a 4001, and one inverter such as a 4009 are required. In this example, the circuit will power up the motor in the OFF State (S0) if either I1 or I2 is a logic "1". If both I1 and I2 are logic "0" upon power up, the LS7210 is brought into the Delayed Operate Mode (S1). If either I1 or I2 is brought to a logic "1" before the end of the ON time delay, then the delay is aborted and the motor does not turn ON. Otherwise, after the time delay expires, the blower will turn ON (S2). If, at this time the emergency switch I2 is brought to a logic "1", the blower is immediately turned OFF (S0). If I1 is brought to a logic "1" while the motor is ON, the LS7210 is brought into the Delayed Release Mode (S3). After the time delay, the blower will turn OFF (S0). One application of this control is a blower for a "Hot Air Heating System." The normal control, I1, could be used to turn the blower on after the heater has warmed up and turn the blower off after the heater cools down. The emergency control, I2, will turn the blower off immediately under all conditions.

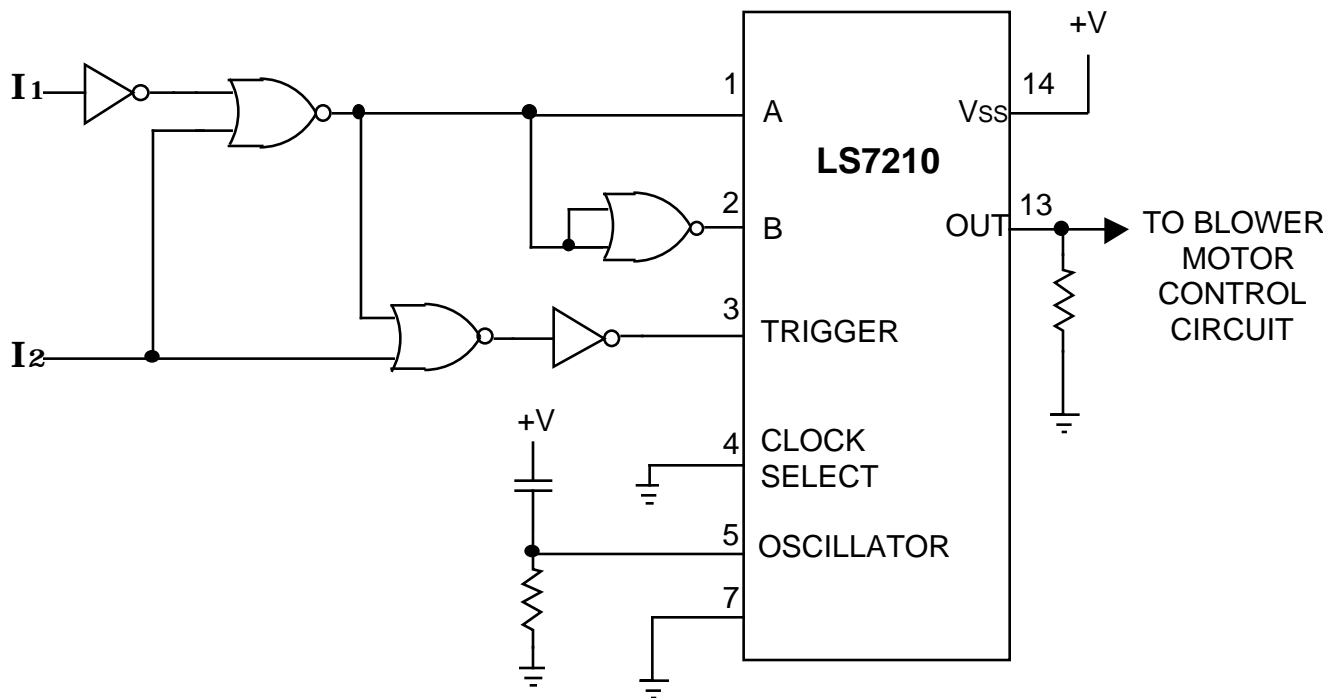


FIGURE 1. BLOWER MOTOR CONTROLLER

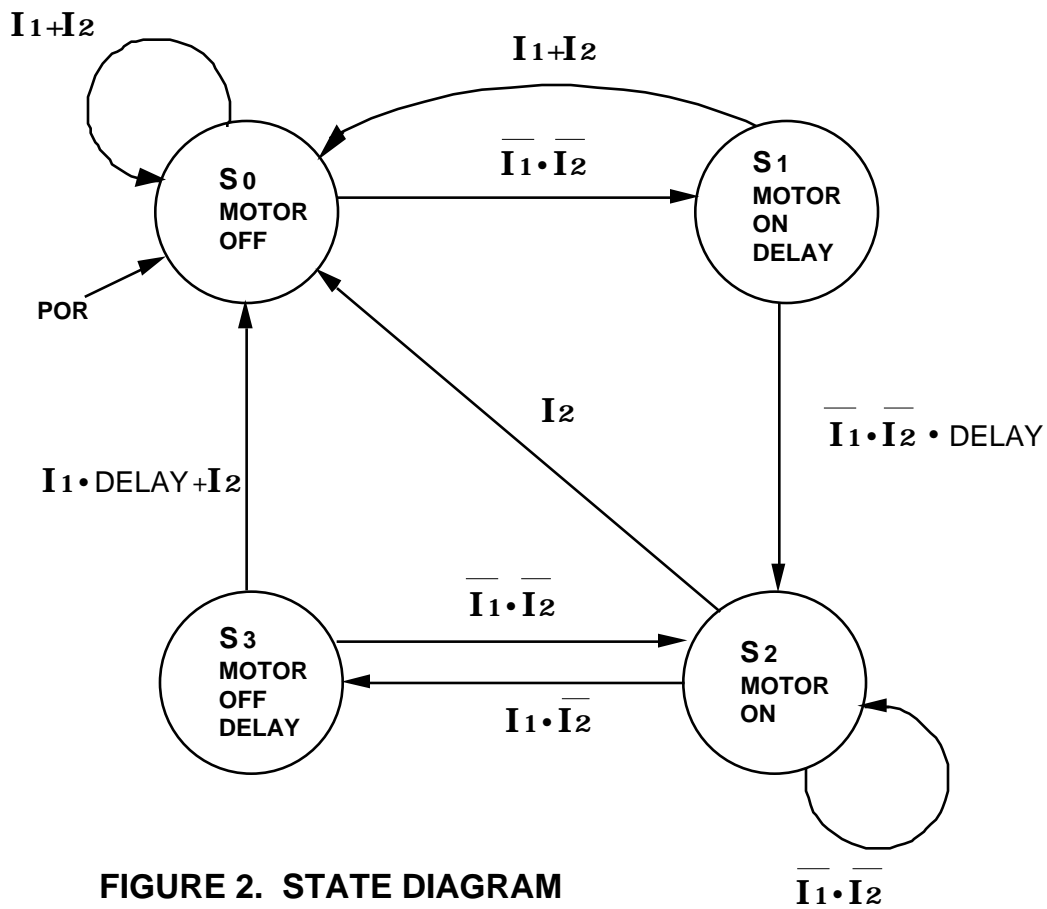


FIGURE 2. STATE DIAGRAM