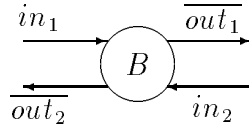


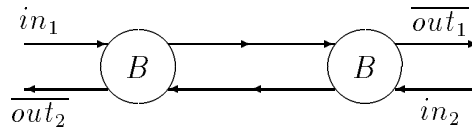
exercise 2

- 1) Give the defining equations for the modified vending machine.
- 2) Let the following be a two-way buffer:



$$B \stackrel{def}{=} in_1.\overline{out_1}.B + in_2.\overline{out_2}.B$$

It is able to transmit any number of messages in both directions and that as long as you want to do it. Now, take a look at two copies of B linked together:



- a) Make yourself familiar with the functionality of the two linked buffers. If there are any doubts draw the transition-graph! Discuss significant derivations of the specification.
 - b) Give possible defining equations.
 - c) Does it work reliable?
 - d) Change the specification so that it is reliable. But for any user the intended behavior doesn't change.
- 3) Make yourself familiar with Proposition 2.2.4. and the corresponding proof!