

Operation Instructions for Back-flow and Cross-Connection Model

SET-UP

- 1) Take all acrylic pieces out of the large carrying case
- 2) Take all tubes out of the inlet reservoir
- 3) Feed the three water tower lines up through the tower and connect them to Q1, Q2 and Q3 on the water tower basin
- 4) Set the tower on the water tower base
- 5) Connect each quick disconnect to appropriate connection feeding the fire-flow, house overflow and subsurface lines through their holes in the bottom of the encasing (Figure 2)
- 6) Make sure each flexible tubing end outlets to its appropriate reservoir
- 7) Attach the house, subsurface scenario and other flexible tubing to their appropriate quick disconnects
- 8) Place model decorations in correct positions
- 9) Make sure each ball valve is in its proper position (Figure 3)
- 10) Plug in main pump
- 11) Prime the model by running water through the model network and through each flexible tubing line including fire-flow, house overflow and scenario A, C and D.
- 12) Add dye to scenarios.

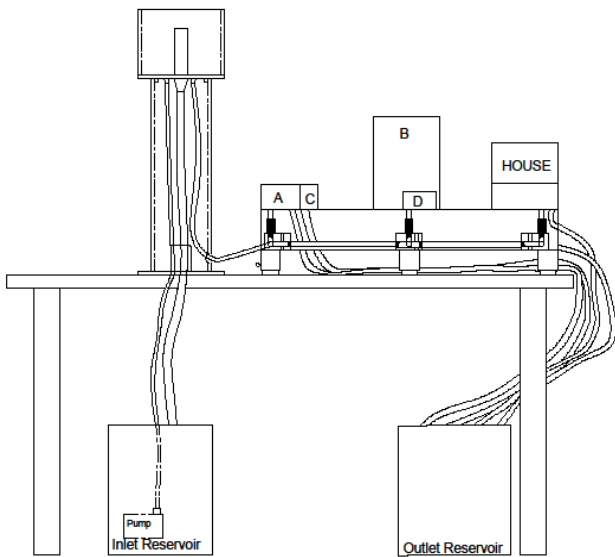


Figure 1. Model Setup

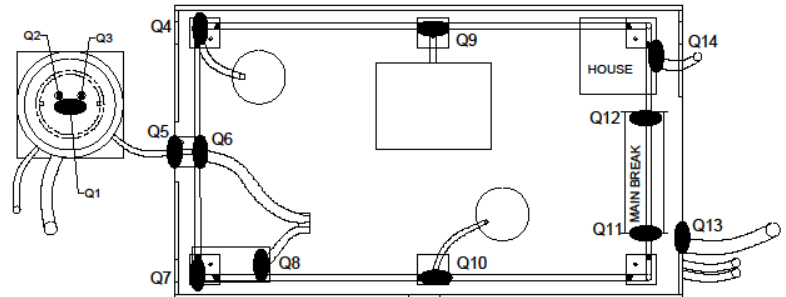


Figure 2. Quick Disconnects

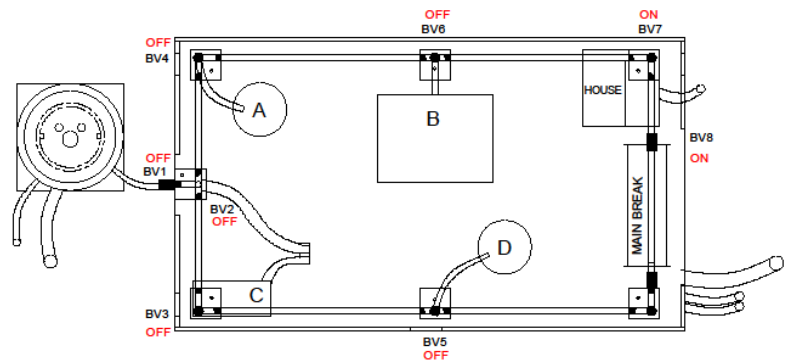


Figure 3. Ball Valve Orientation at Start

TEAR-DOWN

- 1) Shut BV1
- 2) Put away all model accessories
- 3) Remove flexible tubing in main break area
- 4) Tilt the model so that all water drains from rigid tubing network
- 5) Reattach main break area.
- 6) Disconnect and clean each reservoir and scenario
- 7) Empty both inlet and exit reservoirs
- 8) Disconnect all quick disconnects and empty and gather flexible tubing to be placed in the empty inlet reservoir.
- 9) Store each component in their proper storage place
- 10) Wipe down model and clean acrylic using provided solution
- 11) Return each acrylic piece to its appropriate location in the carrying case

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OPERATING THE MODEL

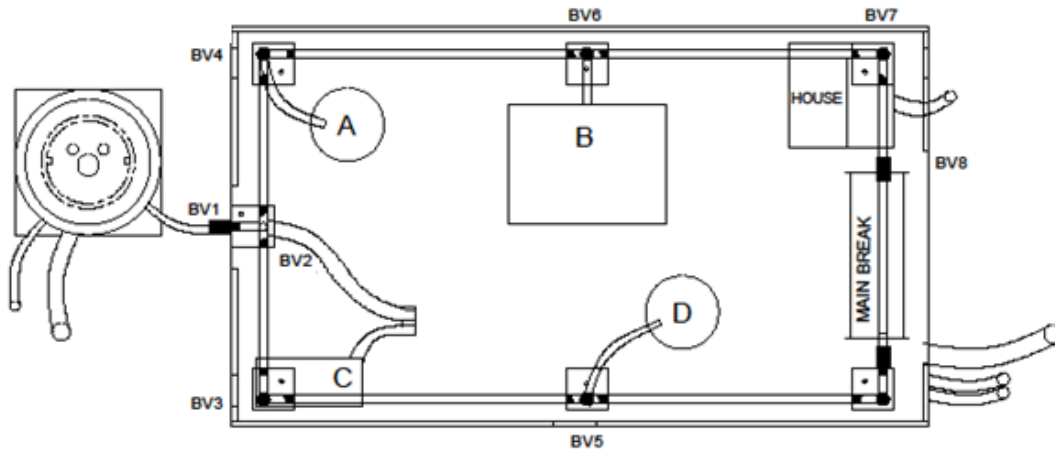


Figure 4. Model Setup (Above)

Scenario A: Private Water Well

- 1) Plug in well pump
- 2) Turn ON BV4
- 3) Once dye enters house turn OFF BV4

Scenario B: Pressurized Vessel

- 1) Pump pressurized vessel handle 3 times
- 2) Turn ON BV 6
- 3) Once dye enters house turn OFF BV 6.

Scenario C: Subsurface Contamination/Main Break (or Submerged Inlet/Main Break)

- 1) Turn ON BV3
- 2) Open ball valve on subsurface scenario allowing dye into the unit
- 3) Take out flexible main section using quick disconnects
- 4) Turn BV8 and BV1
- 5) Once dye has entered the main lines reconnect flexible main section
- 6) Turn ON BV8 and BV1
- 7) Turn OFF BV3

Note: If scenario C is truck fill station, step 2 is not necessary.

Scenario D: Submerged Inlet/Fireflow

- 1) Turn ON BV5
- 2) Turn ON BV2
- 3) Once dye has entered the main lines turn OFF BV2
- 4) Turn ON BV5