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.

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
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 BV6
3) Once dye enters house turn OFF BV6.

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