

Step 4 - Assembly of the manifold and connection to your tap

The control and “brains” of the entire irrigation system includes the controller and its connection to the solenoid valves.

The number of outlets from the manifold and the number of solenoid valves will depend on the number of Zones your system requires.

The connection between the tap and the manifold will be subjected to full mains pressure all the time so it needs to use higher pressure solid PVC pipe, well-sealed joints that use thread tape, have O-ring seals or are glued joints.

Hose Connections

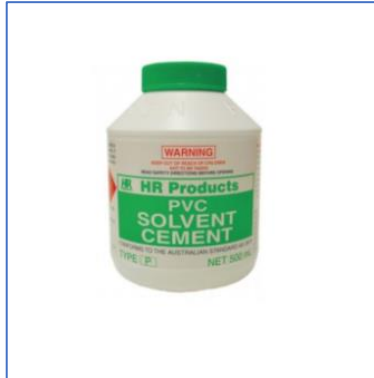
If you wish to use the tap for a normal hose, a Y- Connector needs to be connected to the tap outlet. Ideally this should have isolating valves on it so the hose and the irrigation system can both be isolated separately (See image below).

Tap fittings tend to be 19mm while the manifold is 25mm. Therefore, use the correct 19 to 25mm adapter from the tap to allow connection to 25mm PVC pipe and fittings

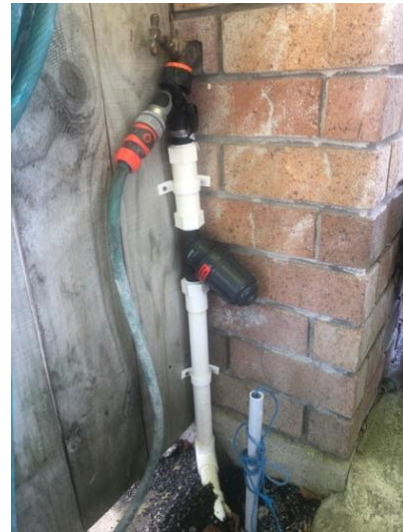


Use glued joints

To connect everything from the tap to the manifold use 25mm (white) higher pressure PVC pipe with glued joints. This provides the greatest integrity.



PVC Glue



Add a Filter



It is advisable to add a filter to the system to ensure impurities or debris will not make their way into the irrigation system and cause blockages or damage.

Filter

Assemble the manifold

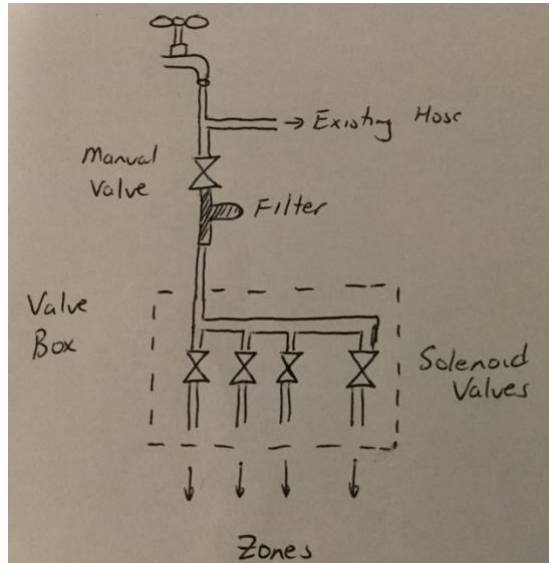
- Add the nipples to the manifold and caps on any outlets that will not be used (these have screwed threads on either end)
- Ensure the solenoid valves are connected in the correct direction. There is an arrow on the body of the valve.
- Screw the nipple with the O-Ring into the inlet of the solenoid valve as this will act as a tight seal (The solenoid valves do not have O-Rings).
- Add some thread tape to the connector on the outlet of the solenoid valve (this is the connector that you will attach the 19mm pipe to that then goes to each Zone).



- Use pipe clamps on the outlet of the solenoid valves to ensure the best security of the joints (rather than a ratchet clip).



The lateral pipework after the solenoid valve in the yard will not be under full pressure, as the pressure will drain out through the sprinkler heads as they close. This is why only ratchet clamps are needed.



Schematic of the connections to and outlet from the manifold



Fully assembled manifold



After you have wired up the solenoid valves and , place a cover over the manifold and valves to protect them. The cover allows access.

Cover for manifold and wiring (once all valves are wired up)