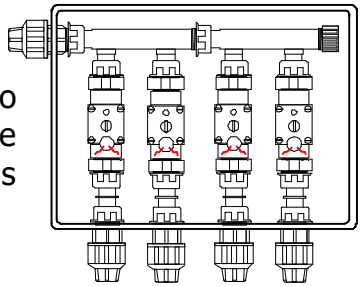
# QUICK INSTALL GUIDE
# LANDSCAPE SOLENOID VALVE CHAMBER



Where remote solenoids are specified, a single supply pipe is taken from the pump or tap supply and connected to a single-entry point on the solenoid manifold. From each solenoid valve outlet, a separate zone pipe is then taken to supply sprinklers, dripline etc. Remote solenoids are supplied preassembled and comprise a manifold with inlet pipe fitting, solenoid valves with outlet pipe fittings an underground chamber and root guard matting. 1no 6core cable runs from the controller to each chamber.

**Method**

- The location of the chamber will be highlighted on the system layout drawing and each valve will be numbered. For 2-4 valves a rectangular chamber with a lid secured with a 14mm headed bolt is supplied.

- The ground should be excavated to accommodate the chamber dimensions, allowing for the connection of pipework.

| Chamber Type | Base Width | Base Length | Assembled Height | Pipe Depth | Standard Load |
|---|---|---|---|---|---|
| Standard KHCSTD | 400mm | 540mm | 310mm | 300mm | 1.5T |

*Note: to aid with system draining, the pipe should be higher than the valves.*

- The base of the excavated area should be firm and level (ensure lid will be flush with finished ground level). Root guard matting is supplied with the chamber; this should be spread out on the ground prior to installation of any components.

- Place the manifold assembly on the matting, route and connect the supply and distribution pipes to it. To ease installation the pipe fitting can be removed from the union and put on the pipe first (see instructions I09). Manifolds if linked together are connected to the manifold ends.

- Remove the chamber lid by unscrewing the 14mm bolt and prizing the edge up. Temporarily place the chamber on top of the manifold assembly ensuring it fits correctly and is at the right level (taking lid into account). Remove chamber and tighten all manifold fittings. It is a good idea, if possible, to pressure test the pipework and manifold assembly before fitting the chamber.

- Finally place the chamber on top of the manifold assembly, fit the lid and pull the matting up around the sides and pipework. Back fill in stages compacting the soil around the chamber as you go and ensure it is secure and level.

**Dripper zones**

Dripline and drippers run at a lower pressure than sprinklers therefore for each solenoid valve that supplies a drip zone an Accu-Sync adjustable pressure regulator is fitted. To adjust simply screw the end knob clockwise or anti-clockwise whilst checking the needle and scale.

**Wiring**

Multi-core cable is used to connect the solenoid valves to the controller and grease crimp connectors (ELCG-T) are provided to ensure a watertight connection.

***ELCG***

- The outer sheath of the individual wire does **not** need to be stripped back.
- Push a single wire into each entry hole fully past centre (The translucent back allows the wires to be seen).
- Use pliers or grips to firmly squeeze the blue top fully down.
- Ensure all wires are secure.
- Do not take connector apart as waterproof sealing may be compromised.
- If joining wires outside valve chamber use Direct Burial type connectors (ELCGD).

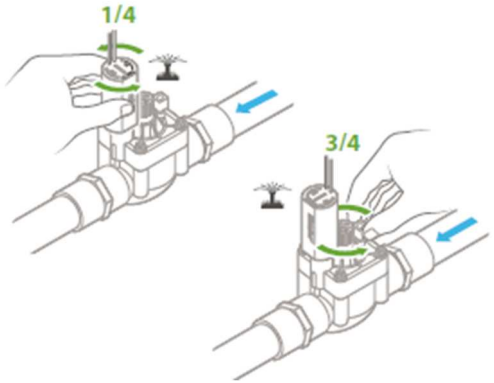
1. Route the cable alongside the main supply pipe and bring the end into the chamber, cut the surplus leaving a 500mm tail.
2. Carefully strip 100mm of the grey outer sheathing to reveal the inner cores (no need to strip the inner core sheathing).
3. Cut off the white plastic filler (ensure you do not cut the white wire).
4. Take the 2 red wires from each of the solenoid valves and trim 100mm from the ends.
5. Take one of the red solenoid wires from each of the first two solenoids and the BLACK wire from the multi-core cable and push ends individually into the entry holes of the grease crimp (check the back to ensure they are fully inserted).
6. Using pliers/grips firmly squeeze the blue cover down into the main body and ensure all three wires are secure.
7. Repeat for the other two valves this time using the WHITE wire.
8. Take the remaining red wire from solenoid no1 and the RED wire from the multi-core cable and join with a grease crimp.
9. Repeat for solenoid no2 this time using the YELLOW wire.
10. Repeat for solenoid no3 this time using the GREEN wire.
11. Repeat for solenoid no4 this time using the BLUE wire.
12. Test each valve using the controller to ensure connections are sound and secure loose wires with tape.

## Maintenance

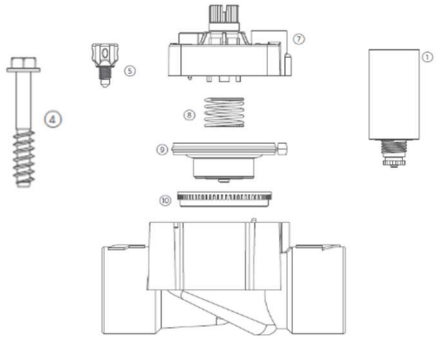
The solenoid valve manifold should be drained of water during periods of likely frost, use the drain cap at the end of the manifold, manually open each valve by removing the bleed screw (keep safe). Do not totally disconnect fittings as ground movement over time may make it difficult to reconnect.

Solenoid valves can be cleaned out in situ by firstly depressurising the system and then removing the top 4 screw bolts. Ensure the valve is re-assembled correctly.

Manual operation




Parts Explosion



1 Solenoid 24vac.

4 Retaining screw/ring.

5 Bleed screw (manual op).

7 Bonnet with flow control.

8 Diaphragm spring.

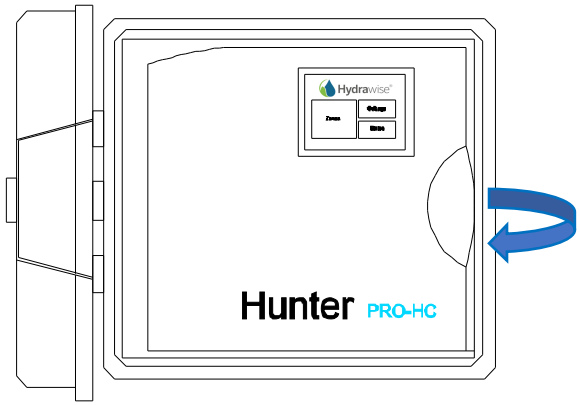
9 Diaphragm assembly.

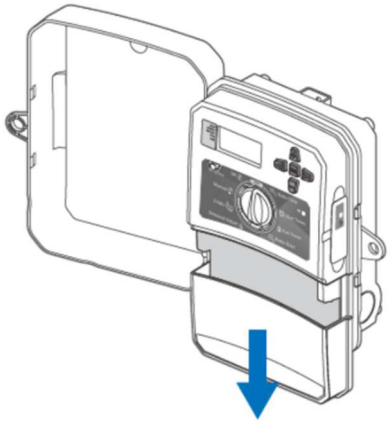
10 Diaphragm support ring.

## Controllers

The controller will be supplied either fixed onto the pressure booster set or on a backboard ready for wall mounting. If using several chambers label the separate cables at the controller end to ensure correct zone valve identification.

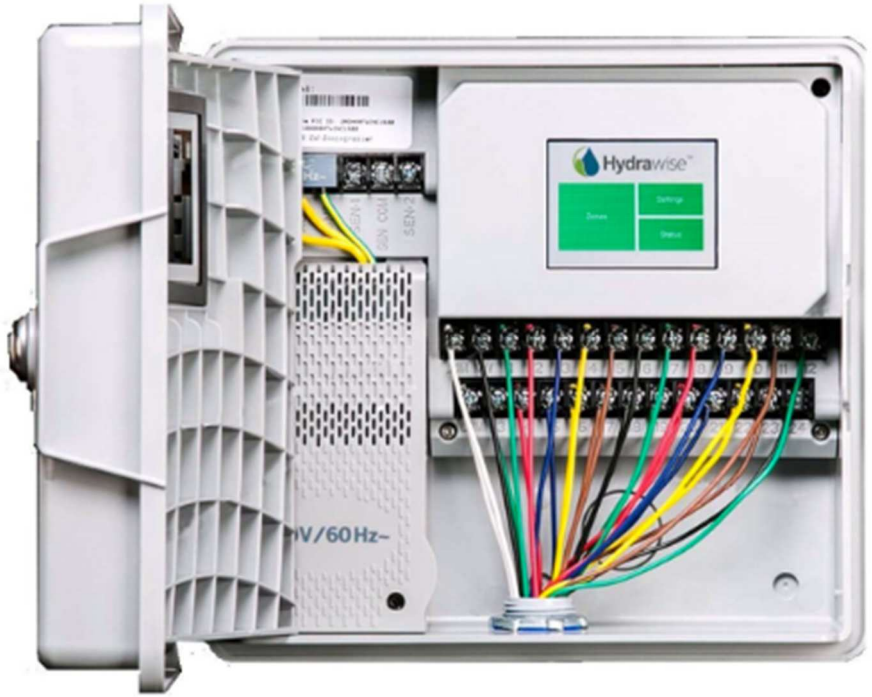
- **X2** Remove the contact access lid by pulling downwards firmly.
- **PRO-HC** pull open the inner hinged lid.



## Controller wiring (6 CORE)

1. Route signal cable into RHS bottom entry hole (PRO-HC fit 20mm cable gland).
2. Cut cable to length and strip 50mm of outer sheathing to expose the inner coloured cores.
3. Strip 10mm of sheathing on the **BLACK** & **WHITE** cores, slacken terminal **C** screw, insert wires and tighten securely.
4. Repeat for the **RED** core, slacken terminal **1** screw, insert wire and tighten securely.
5. Repeat for the **YELLOW** core, slacken terminal **2** screw, insert wire and tighten securely.
6. Repeat for the **GREEN** core, slacken terminal **3** screw, insert wire and tighten securely.
7. Repeat for the **BLUE** core, slacken terminal **4** screw, insert wire and tighten securely.
8. Use tape to secure the cables inside the controller and refit/close wiring cover.


Hydrawise
V/60Hz~


X2
Hunter
9:25