Darwin Waterfront Corporation – Controller Upgrades



Project Overview:

Provide new WIFI Irrigation controllers that will ensure greater control over the irrigation system incorporating soil moisture probes for greater irrigation efficiency.

- Controllers: We Replaced the existing Toro Custom command controller and others around the precinct (including battery timers) with Hunter HCC Hydrawise controllers equipped with modem for a web/cloud-based system. The Hunter HCC controller, when connected to the Hunter Hydrawise Software, offers powerful and flexible remote irrigation management capabilities.

- Water Meter Readings: To enable comprehensive flow monitoring and water usage reporting, we installed new flow meters where required for flow monitoring. This data is transmitted back to the controller, providing valuable insights for water management.

- Instant shut-off rain sensor installed to ensure irrigation is not ran after or during rain events.

- Sentek Bluetooth Probes: Sentek Bluetooth probes are market leaders in soil moisture monitoring. Although this proposed solution does not interface directly with the controller, it provides a full history of soil moisture levels and offers easy-to-read graphs depicting events such as water application and usage throughout the day. This additional data ensures water reaches the root zones, enabling adjustments based on real-time information.

- List of sites with controller installations: (locations and areas covered by controllers shown on attached map)
    - Jervois Park
    - Goyder Park
    - Anchorage 7
    - Residential Block
    - Wave Pool 1
    - Wave Pool 2 & 3

System Description:

- Hunter HCC controllers installed x 7.
- Hunter HCC decoder module (Ez decoder) installed within the Goyder park controller, this allows for additional valves to be added anywhere along the twin wire path.
- Each controller connects to the internet using Wi-Fi dongles. The data is inclusive until the EOFY 24/25

Installation Details:

- See below for specific adjustments and customizations made to each controller during installation.
- New 1.5mm2 wiring and elec conduits have been installed at Jervois Park including new main to the rear of the Deck chair cinema for relocation of the valves for this area. Wiring has also been ran to the new 4 x solenoids that were running off battery controllers roughly halfway along the foreshore in Jervois park.
- New post and cabinet for controller installation within anchorage 7 – this has power supplied from the existing light post. Stainless steel cabinet to house the controller. This system has also had new wiring 1.5mm2 ran through elec conduit to service all the valves within this location. New flow meter has been installed.
- New stainless-steel cabinet installed with the residential Block and hunter HCC controller with dongle inside.
- Additionally, seven Sentek 12" Drill & Drop probes were installed throughout the precinct for soil moisture monitoring. These probes use Bluetooth technology, and data is retrieved manually via the app. This data is used to assist with programming the irrigation system.

Operation and Maintenance:

- Basic operating instructions for the Hunter HCC controllers and Sentek Drill & Drop probes has been provided on site. Links to online training are provided below.

Links to Manuals and Training Resources:

- **Hunter HCC Controller Manuals**:
  - rc-005-br-revb-hydrawisesystem-contractor-comm-em-web.pdf (hunterindustries.com) – HCC commercial brochure
  - rc-081-br-hcc-em.pdf (hunterindustries.com) – HCC specification sheet
  - RC-081-RevC-QG-HCC-Multi-web.pdf (hunterindustries.com) – HCC user manual
  - rc-101-ig-ez1-us-web.pdf (hunterindustries.com) EZ decoder manual
- **Hunter Industries Training Resources**:
  - Hunter University: Hydrawise Specialist (hunterindustries.com) – Training for HCC controllers – anyone can sign up and complete.
  - Hydrawise® Software | Hunter Industries – link to videos for training on Hydrawise software.
- **Sentek Drill & Drop Probe Resources**:
  - Sentek Drill & Drop Probe Information (attached)
  - Sentek Drill & Drop Probe App Guide (attached)

Warranty and Support Information:

- Warranty information for the Hunter HCC controllers and Sentek Drill & Drop probes.

- Hunter Warranty information:-

WARRANTY

HUNTER RESIDENTIAL AND COMMERCIAL IRRIGATION

Hunter Industries Incorporated ("Hunter") warrants the following products to be free of defects in materials or workmanship under normal use in landscape irrigation applications for the specified period of time outlined below from the original date of manufacture:

Valves
Two Years: PGV Family, Accu Sync
Five Years: HQ, ICV, IBV

Micro
One Year: Micro Sprays, PLD Fittings, Rigid Risers, Air Relief Valves, RZB
Two Years: ACZ, PCZ, RZWS, Point Source Emitters, Tubing, Multi-Port Emitters, IH Risers, MLD, Eco-Indicator, Multi-Purpose Box, Senniger Regulators, PLD-LOC Fittings
Five Years: ICZ, PLD, HDL, HDL-COP**, Eco-Mat, Eco-Wrap

Controllers
Two Years: ACC (Legacy), BTT, Eco Logic, HC, HCC, HPC, I-Core/DUAL Families (Legacy), NODE, NODE-BT, Pro-C Families, Pro-HC, PSR, ROAM, X2, X-Core, XC Hybrid, WAND
Three Years: ROAM XL, EZ Decoder System, EZ-DT
Five Years: ACC2, ICC2, ICD Decoders, ICD-HP

Sensors
Two Years: HC Flow Meter, ET Sensor
Five Years: Clik Sensors, Flow-Sync, MWS, Solar Sync, Wireless Flow Sensor

Tools
Two Years: SpotShot

Central
Two Years: IMMS Central Control Products (Legacy), A2C-WIFI, A2C-LAN, A2C-CELL-E, WIFIKIT, LANKIT, CELLKIT

Sentek Warranty Information :-

Warranty

1. Unless otherwise notified to You, We offer a manufacturer's warranty for Our Products for a period of 24 months from delivery. To the maximum extent permitted by law, Our warranty is limited to the rectification of Our faulty workmanship, defective in material and/or non-compliance by Us.

2. To the maximum extent permitted by law, We do not provide any representation or warranty except as expressly provided in these Terms and all conditions, warranties or other terms implied by statute or common law are excluded.

3. We will undertake in-warranty service for those products for which the existence of warranty conditions can satisfactorily be verified. The satisfaction of warranty conditions will be subject to the proof of purchase and purchase date.

4. Warranty repairs include only freight costs back to You. To the maximum extent permitted by law, freight costs to send repairs to Us will not be covered.

5. To the maximum extent permitted by law, We accept no liability for:

    1. any defect or failure due to accident, misuse, abuse, negligence and non-observance of installation and operating instructions, choice of location, configuration or connection, or faulty power supply not caused by Us;

    2. Products which have been repaired or serviced by a person not authorised by Us or which have been fitted with non-approved parts;

- failure to obtain proper maintenance;

1. Products used other than for any reasonable purpose for which they were manufactured, or used in a way not specified by Us;

2. Products You sell, lease or otherwise part with possession of;

3. deterioration due to normal use and exposure, including abnormal environmental conditions such as lightning strike, flood, extreme heat and insect infestation;

- expenses relating to transportation of the Product to and from You; and

- any damage, indirect or incidental, to the Products of whatever nature.

1. Our warranty is extended to non-warranty repairs carried out by Us but is limited to 3 months from delivery and is applicable to the repair work done and not to any subsequent failure of unrelated parts and software. Charges will be at the fixed, scheduled rate, which includes part costs and labour.

2. To the maximum extent permitted by law, the remedy in respect of any breach of clause 11 (a) or any breach of any condition or warranty not otherwise excluded by clause 11 (b), is limited at Our option to the replacement of Products or the supply of equivalent Products or the re-supply of Services rendered or the cost of having those Services re-supplied.

3. If you should make any claim against Us, however arising, for which We are found or admit to be liable, to the maximum extent permitted by law, the amount of damages payable to You in respect of any loss that You sustain will be an amount not exceeding the total amount of fees rendered by Us in respect of the supply of the Products or Services.

- Hunter_ReplacementPartsPriceList_dom.pdf (hunterindustries.com) – replacement parts for HCC plastic cabinet
- Hunter_ReplacementPartsPriceList_dom.pdf (hunterindustries.com) – Replacement parts for HCC metal cabinet
- Contact details for customer support from Hunter Industries and Sentek Technologies.

As-Built Documentation:

- As-built diagrams have been provided showing the layout and control areas of each controller as per attached Map. 1 x copy is attached

Handover Checklist:

- This document has been provided with links to all relevant product details, support and training.