

## DX3 SPECIFICATIONS

The DX3™ irrigation controller shall be manufactured by Rain Master® Control Systems. The controller shall have the following features and functions:

### **1.0 - Hardware Features**

- 1.1 Available in painted or stainless steel wall mount cabinet, stainless steel single and double wide pedestal and sand colored plastic pedestal.
- 1.2 Conventional station configurations options range from 8 to 96\* in multiples of 8, TWICE configurations and Hybrid systems range from 1 to 200 stations (48 conventional & 152 Twice). Dedicated outputs for 3 configurable NO/NC MV's and two dedicated pumps.  
  
\*Note conventional station counts above 48 requires specific enclosure.
- 1.3 Connectivity for three flow sensors, 3 pulse input type devices e.g. anemometer, rain bucket & ET and three alarm input (open/closed) devices.
- 1.4 4.4" QVGA HR-TFT reflective TFT LCD monochrome display and backlight.
- 1.5 Built-in remote control jack for Pro Max™. Permanent internal remote mount available.
- 1.6 Built-in transient protection.
- 1.7 Built-in lightning protection.
- 1.8 Audible tones and illuminating overlay for user feedback.
- 1.9 Lifetime retention of the user's program data without the use of batteries.
- 1.10 All outputs are protected from field wiring short circuits.
- 1.11 Built in amperage meter to accurately measure and diagnose valve solenoid electrical problems.
- 1.12 Modular architecture. Modular output boards (8 station) facilitate maintenance and eliminates total controller down time. Modular wireless communication options.
- 1.13 Accessible power junction box with GFCI protected dual 120 VAC outlet and power switch for irrigation controller maintenance.



## **2.0 - Scheduling Capabilities**

- 2.1 Operation of 16 conventional programs with 12 start times and up to 200 ISC (individual station control) or a combination of each.
- 2.2 Watering based on 14-day calendar, 31-day calendar, odd/even or interval water schedules.
- 2.3 Continuous cycling of programs based upon user established start and end times, with a programmable delay/soak time.
- 2.4 Water budget per program from 0 to 999% in 1% increments for adjustment of program run times.
- 2.5 Program by time.
- 2.6 Programmable monthly water total terminates over budget irrigation.
- 2.7 Quick station programming allows groups of stations to be programmed with the same runtime.
- 2.8 Programmable water window.
- 2.9 Two establishment programs for grow in schedules.
- 2.10 Programmable rain delay.
- 2.11 Manual rain shut-off.

## **3.0 - Program Setup Options**

- 3.1 Program overlap protection or concurrent operation.
- 3.2 Irrigation programs, lighting programs, security, etc. (Non-irrigation programs are independent of rain shutdown mode.)
- 3.3 Inter station delay from 0 to 255 seconds.
- 3.4 Runtimes from 1 second to 24 hours programmable in hours/minutes or minutes/seconds.
- 3.5 Master valve selections: 3 configurable NO/NC with programable delay from 0 - 600 seconds.
- 3.6 Program review options to view schedules by program, controller, day , week and month at a glance.

## 4.0 - Maintenance and Alarm Diagnostic Capabilities

- 4.1 Flow monitoring. Automatic alarm processing (which provides station and/or master valve shut down and program advance as required) diagnosing and reporting station underflow and overflow, mainline breaks, and unscheduled flows.
- 4.2 Electrical field wire monitoring. Automatic alarm processing (which provides station shutdown and program advance) for station over current, short circuits, broken field wiring or faulty solenoids.
- 4.3 Power monitoring. Automatic alarm processing/reporting for power outages and power restoration. Intelligent program resumption for all outages or power glitches, no lost cycles or water window violations.
- 4.4 Communication monitoring. Automatic alarm generation/reporting for lost communications or restoration when using hard wire communications. Automatic fault isolation of communication wiring problems to wire path between controllers.
- 4.5 Diagnostic lights (LEDs) for system power and all station outputs as well as the dedicated outputs: MV1, MV2, MV3, PUMP1 and PUMP2. Lights indicate when 24 VAC is at output terminal.
- 4.6 Built-in test (BIT) functions allow selected controller circuitry to be field-tested.
- 4.7 Manual test mode. Allows user to automatically advance from station to station using manual run time while displaying valve solenoid electrical current for each station as well as station flow in GPM.
- 4.8 Manual station and manual multi-station modes. - Turns on any station for user entered runtime and automatically selects usage of the proper master valve and/or pump for this station. Multistation mode allows any single station or output to be turned on individually or in combination with any other station(s). Valve solenoid electrical current is displayed.
- 4.9 Manually entered program. Allows user to enter a one-time program to be run immediately or scheduled for later in the day. The manual program is independent of automatic programs and shall start only one time.
- 4.10 Manual start of automatic programs (1-16). Start any program independent of the scheduled start time and water day.
- 4.11 Interior lighting (fridge light) for service & maintenance.
- 4.12 Pivoting brackets (Pivotech™) for ease of field wiring connections.

## 5.0 - Miscellaneous Features

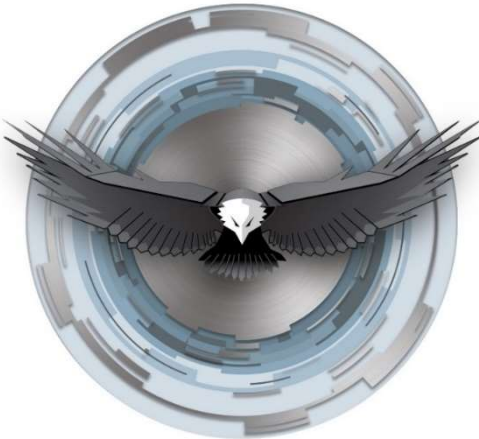
- 5.1 Central control capable with Rain Master® Laguna™ Software.
- 5.2 Operates as a standalone.



- 5.3 Automatic limit setup (learn mode) for flow and current. Global percentage adjust for limit establishment.
- 5.4 365-day calendar for selecting watering restriction days. Up to 48 omit days allowed.
- 5.5 Flow Max - This exclusive feature allows controllers with a single point of connection to share pumps, master valves, and flow meters without the need for peripheral wiring/relays. All flow limits are dynamically managed as stations across controllers transition off and on. Features include:
  - A. Automatic protection and report for main line breaks, unscheduled flow, station high and low flow
  - B. Read flow at any controller
  - C. Dynamic monitor shows system status at all times
  - D. Pump protection during exception conditions
- 5.6 EPA WaterSense™ approved.
- 5.7 Underwriters Laboratories (UL) listed.
- 5.8 5-year limited warranty.
- 5.9 Promax Connect™ smartphone application compatible for cellular, Ethernet and WiFi connect controllers.
- 5.10 Compatible with up to 3 Toro AC flow decoders (TW-DAC-FLOW) per controller. For use with most pulsed output 2 and 3 wire flow sensors.
- 5.11 Compatible with up to 16 Toro AC moisture decoders (TW-DAC-SOIL) per controller. For soil moisture and temperature monitoring and evaluation.

## **6.0 - Electrical Specifications**

- 6.1 Input Power Required: 120 VAC +/- 15%, 60 HZ.
- 6.2 Maximum load current per station, master valve or pump output: 2.5 AMP.
- 6.3 Maximum combined load current: 2.75 AMPS.
- 6.4 No batteries required.



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