

# HUNTER XC HYBRID IRRIGATION CONTROLLER

The controller shall be powered by one of two power sources: 6 AA batteries, or a 24 VAC transformer. When using either power source, any valves attached to the controller will be required to have DC latching solenoids.

The controller shall have three independent programs with 4 start times per program for a total of up to 12 start times per day. Watering times shall be available from 0 minutes to 4 hours in 1-minute increments per station. Controller shall have a weekly 7-day schedule that allows user to choose day(s) of week for desired watering as well as the option for interval watering of between 1 and 31 days. Operation shall be available in automatic, semi-automatic and manual modes. It shall also have a 365-day calendar clock to accommodate true odd-even watering. All programming shall be accomplished by use of a programming dial and selection buttons with user feed back provided by a LCD display. The controller shall be equipped with a rain sensor on-off switch that allows the user to override a sensor that has suspended watering. The controller shall have a programmable rain delay that turns off the controller for a predetermined period of time, from 1 to 7 days, and shall allow the sensor input to be programmed by station. The controller shall also have a seasonal adjust feature that allows for station run times to be changed from 0% to 150% in 10% increments to compensate for weather changes. Program backup shall be provided by a non-volatile memory circuit that will hold the program data indefinitely. The controller shall also be capable of keeping the time clock current in the event of a power outage, by using an onboard lithium battery.

The controller shall be equipped with a programmable event day off to prevent watering on a selected day of the week. It shall also have a programmable delay between valve stations. Delays between stations shall be programmable in 5 second increments from 0 to 60 seconds and in 1-minute increments from 60 seconds up to 4 hours. A pump start/master valve circuit shall be included, and shall be programmable by station.

Transformer input shall be 120 VAC, 60Hz. Transformer output shall be 24 VAC, 1.0 A. Maximum output per station shall be 24 VAC, 0.56 amps. Program backup shall be provided by a non-volatile memory circuit that will hold the program data indefinitely. The controller shall have a Metal Oxide Varistor (MOV) on the power input portion to help protect the micro-circuitry from power surges. The controller shall have electronic short circuit protection that protects the controller from faulty field wiring or damaged solenoids. Electronic short circuit protection shall also allow zones that are not faulty to be operated as programmed. An indication of a fault shall be provided to the user on the LCD display. The controller shall also provide a user-initiated diagnostic function to assist in identifying field wiring problems. The controller shall be compatible with micro-switch type weather sensors and provide sensor terminals for wiring the sensor to the controller. A pump/master valve circuit shall be provided. Controller shall be enclosed in a durable plastic case for indoor installation. It shall also be available in an outdoor model that has a key-lock mechanism. The controller shall also provide a user-initiated diagnostic function to assist in identifying field wiring problems.

The controller shall be installed in accordance with the manufacturer's published instructions. The controller shall carry a conditional two year exchange warranty. The automatic controller(s) shall be the XC Hybrid series with 4, 6, 8, 10 or 12 stations in

indoor or outdoor models, as manufactured for Hunter Industries Incorporated, San Marcos, California.