

# Logic Plus 2 Wire Controller

## FEATURE SPECIFICS

- Primary power input shall be 120 VAC 60 Hz or 240 VAC 50 Hz. Specify primary power when ordering LogicPLUS Controller. Secondary power output shall be 24 VAC. Non-volatile memory. Internal battery provides backup for time and date.
- When controller is not operating no power shall be delivered to field receivers. A 15 second "power up" delay shall occur when the controller initiates any activity to supply power to field receivers.
- Use only LogicPLUS Receivers (Gray color). Part number LP-RP.
- Maximum pressure of 100 PSI at solenoid valve. For higher operating pressure consult factory.
- Minimum wire size is 14 gauge Irrigation solid core copper direct burial wire. It is recommended to use two colors for field wire from the controller to valves. It is recommended to change colors at each tee, cross or wagon wheel connection. This will help with any possible future trouble shooting.
- Wire layout allows for Tees, Crosses and Wagon wheel layouts. Do not loop any wire layouts. Install all wire splices in valve boxes.
- Use only HIT/LogicPLUS DBC-BR splice kits, supplied with Receiver, to make all field wire connections from 2 wire path to Red wires on Receiver.
- Use only HIT/LogicPLUS DBC-BR or HIT/LogicPLUS DBC-Y splice kits to make receiver to solenoid connections. (use Black wires on receiver)
- Use only standard 24 VAC solenoid, do not use low power or diode bridge solenoids.
- In multiple controller installations, each controller shall have its' own dedicated ground rod (customer to supply) and grounding system. Do not connect multiple controller installations together in any way or share ground system.
- For lightning protection, install HIT/LogicPLUS Field Surge Protection, part number L-SPD-F, every 300-500 feet along two wire path, and attach to ground rod (customer supplied). Install Field Surge Protectors in valve box.

- Install LogicPLUS controllers at least 15 feet from all power source or high voltage power meters, magnetic starters, pumps, variable speed controllers, etc., to eliminate any possible EMI. This is a computer.
- Program all LogicPLUS Receivers at the controller or use LogicPLUS hand-held programmer (part number LP-HHRP) before installing Receivers at each valve location.
  - Maximum number of receivers per controller shall be 80 for LogicPLUS 42, and 128 for LogicPLUS 128.
  - A maximum of four (4) Receivers of the same or different number may be operated at one time.
  - Each controller shall have available four (4) field wire outputs. This allows for up to a maximum of four (4) field wire runs of 12,000 feet each in four directions from the controller.
  - Each controller shall have the capacity to be remote ready. Contact the factory for this option.
  - Each controller is pre-wired for a Pump Start/Master Valve Relay and a Fertigation relay. Use 24 VAC slave relay (maximum power 350 Ma in rush, 250 Ma holding) or HIT PS 200 or PS 500 pump start relays to activate pump starter and Fertigation pumps.
  - Each controller is pre-wired for a "Rain Off" function, designed for interfacing with a "Rain Sensor" (Normally closed).
  - LogicPLUS controllers have a modular surge protection board to protect the main controller board. In case of lightning strike or power surge this board is sacrificial.
  - LogicPLUS controllers are equipped with "short" sensing capability. Contact factory or consult Instruction/Installation manuals for directions of using "short" sensing capabilities.
  - LogicPLUS two-wire systems are compatible with certain wire tracing equipment. Consult Factory.
  - Stainless Steel Wall mount box measures 13.56" H, 10.25" W, 5" D.



**LP-RP**  
Programmable Receiver for  
LogicPlus and Universal 2



**LP-HHRP**  
Hand-held battery operated  
programming device for  
LogicPlus receivers



**DBC-BR**  
Logic receiver waterproof brass splice kit  
with direct bury gel filled housing for  
receiver to Two-wire path connection.

Included with every LP-RP Receiver

