HARMONY MARKETS, FT. COLLINS, CO

PROJECT OVERVIEW:
Harmony Markets, is a commercial retail shopping center in Ft. Collins, CO, with a greenway around the shopping center and an irrigation system consisting of nine rotor zones. The center was recently expanded and during construction, electricity running from the irrigation controller to the valves was permanently disrupted.

CHALLENGE:
Evergreen Landscaping and Sprinkler maintains the irrigation system and landscaping at Harmony Markets. After new construction began, Evergreen’s irrigation manager, Jeff Sergi, discovered that the field wires running from the irrigation controller to the valves were destroyed. Further, the bid from the city was too costly to run new electrical service needed to restore operation to the irrigation system. Mr. Sergi needed to be able to control the irrigation schedule at the valve without electricity – the solution was the Rain Bird TBOS-II™ battery-operated controller.

Battery-operated Controller Offers Simple Solution
The use of battery-operated controllers has grown in recent years as a temporary or permanent solution to control the irrigation schedule at the valve in the absence of electrical power. “10 years ago, we were installing 2 to 3 battery-operated controllers a year, now I probably put 100 in the ground (a year),” said Mr. Sergi. TBOS-II offered a simple solution for the Harmony Markets project, where it would be cost-prohibitive to run new electrical service. Mr. Sergi was still able to get all of the advanced control features of a commercial wall-mounted controller with the TBOS-II.

Advanced Programming Features Shorten Set-up Time and Reduce Trips Back to the Control Module
The TBOS-II field transmitter features seven time-saving programming features. As battery-operated controller use grows, and becomes a permanent control solution for budget-conscious customers, the TBOS-II offers the same advanced controller features found on wall-mounted controllers – a real advantage to contractors and maintenance personnel.

One of these features, Seasonal Adjust, lets contractors pre-program seasonal adjustments to the irrigation schedule so trips back to control module are reduced. The TBOS-II also features Programming Templates that allow contractors to save commonly used scheduling programs which can then be transferred to other control modules.
COMMON APPLICATIONS FOR TBOS-II

• Electrical service is either too costly to install or unavailable.
• Construction sites where electrical service is disrupted or moved.
• Temporary installs needed to establish landscaping while property is still under construction.
• Additional valve is needed, but no control wires are available.
• High-traffic areas where traditional irrigation controller might be subject to vandalism.

TBOS II ADVANTAGES:

• Commercial controller programming features that help save trips back to the controller.
• Redesigned field transmitter simplifies set-up time with seven advanced programming features.
• Robust control module, which is IP68* rated ensures long-lasting performance in muddy and wet conditions.

Robust Control Module Construction Ensures Long-lasting Performance

The TBOS-II control module is attached to the valve and tells the valve when to open and close based on the irrigation schedule. Since the control module is repeatedly exposed to moisture, and can be submerged in mud and water, it’s durability and construction is the key to a long-lasting battery-operated controller performance.

Unlike competitors, the TBOS-II control module features tighter more robust construction because the programming is done with the hand-held transmitter that connects to the control module. With fewer opportunities for water to seep into the control module through a keypad or programming buttons, it can withstand repeated exposure to moisture for long-lasting performance in the field. Further, the control module has earned IP68 rating*, which certifies its performance in wet and muddy conditions.

Infrared Connector Cable Reliably Transmits Schedule

The infrared connector cable on the TBOS-II field transmitter connects to the control module and transmits the irrigation schedule to the module. “A big improvement over the original TBOS is a better quality infrared optical connector,” Mr. Sergi commented. The updated connector cable ensures that the schedule is transmitted reliably and easily to the control module.

RESULTS:

Jeff Sergi installed the TBOS-II at Harmony Markets to ensure the greenways were irrigated during the expansion of the retail development. The TBOS-II will be the permanent irrigation control solution at Harmony Markets as it is too costly to run new electrical service. “With a robust control module and tight construction, it looks as if water will not penetrate into the module, plus advanced programming features of the TBOS-II is a real advantage over other battery-operated controllers,” said Mr. Sergi.

*The IP or Ingress Protection rating classifies the degree of protection provided by the intrusion of solids or water for mechanical casings with electrical components. IP68 signifies that the control module has complete protection from the ingress of dust and it is suitable for immersion in water.