

**2022 IRRIGATION CONTROLLERS
SPECIFICATION CHARTS**

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Secure your supply

By McKenna Corson

Irrigation & Lighting



Planning ahead helps irrigation contractors ensure they have the parts they need during a supply shortage. Photo: Michael Derewenko

Plan ahead and involve clients early to work through a smart irrigation controller supply shortage.

The supply chain around the world has felt the pinch of the microchip shortage since 2020. It's limited the production of electronics like cars, computers and gaming consoles. But for the progressively modernizing irrigation industry, it's also limiting the production of smart controllers.

"It's happening everywhere," says Matt Love, the vice president of technology at Smart Rain, Centerville, Utah. "People are having to take drastic steps to make it work for their businesses."

While the microchip shortage itself is painful, it goes deeper for irrigation controller manufacturers and distributors, Love says.

"It's the whole thing from start to finish, whether it's boxes, shipping processes, wires or a flow sensor from a third party," Love says.

Couple the lack of microchips and other electronic parts with pandemic shipping route disruptions, business reforecasts, labor shortages and the sunset of 3G this year, the availability of irrigation controllers hit yet another roadblock.

"The sunset of 3G made the situation worse and many of the cellular providers made no concessions," says Richard Restuccia, the vice president of water management solutions at Jain Irrigation Inc., Fresno, California. "This created a bad situation for the landscape industry as well as many other industries."

What has sprouted from this supply chain shortage is a slowdown in the manufacturing process of products like smart controllers.

David Peters, the business development manager in North America for Mottech Water Management, Aubrey, Texas, explains that items that would have a 15-30 day lead time in the past can now have a six month or longer lead-time, "presenting new challenges for product managers attempting to have a finished product ready for sale to a contractor."

Another issue from the shortage: Sky-high prices that will only increase.

"Prices of materials have and continue to rise, placing additional pressure on manufacturers to cover increased material costs, which in turn increases the cost of the final product the contractor purchases," Peters says.

When to plan projects

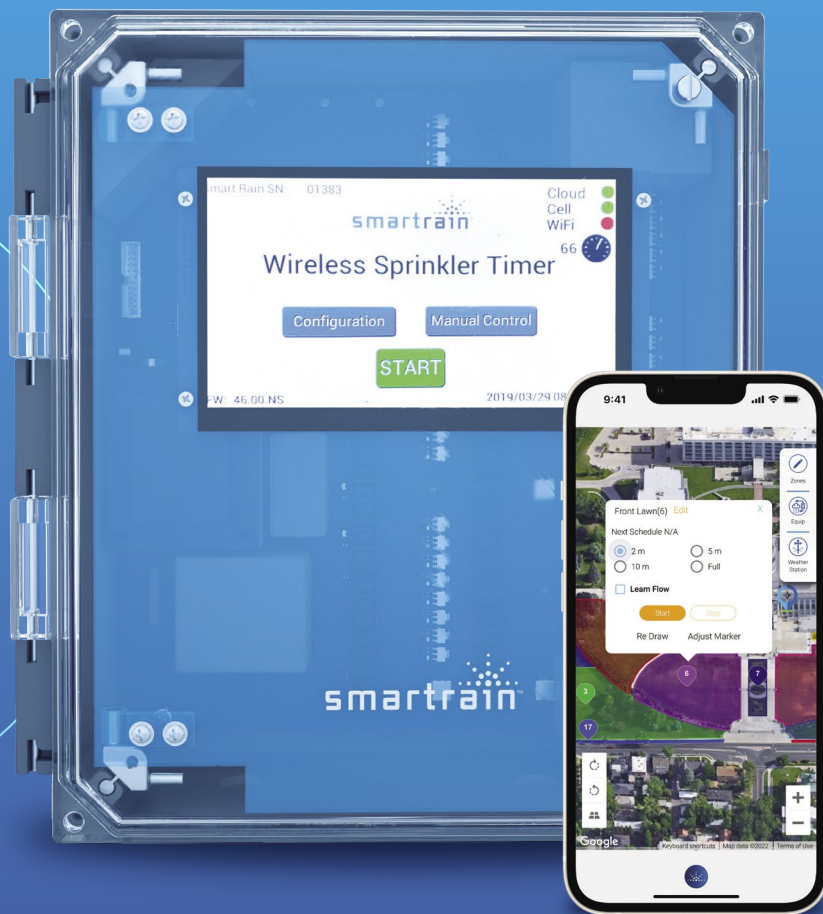
Just because this international supply chain shortage is occurring doesn't mean business halts for the irrigation industry.

The best way Mike Merlesena, the commercial national sales manager for Dig Corporation, Vista, California, advises contractors to avoid feeling the heat is by planning ahead.



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Install controllers with upgrade options to allow for future expansion.
Photo: The Toro Company



“This year, the past couple of years and definitely a decent chunk of next year, it’s all about planning,” Merlesena says. “Stay ahead of the game as much as humanly possible when things tighten up, especially if you’re a smaller contractor.”

Merlesena explains that it depends on the product a contractor needs, but they should be planning projects months ahead rather than weeks.

“As soon as they know (an irrigation system) is going in, it’s better to put the order in and come check on lead times,” he says.

Peters urges contractors work with their suppliers to let them know their anticipated needs well in advance of needing their smart controllers.

“The more information and advanced notice the contractor can provide their distributor, the better the odds are of the distributor being able to supply the contractor with what they need, when they need it,” Peters says.

How to prepare

With an entirely new process of going about setting up projects, contractors need to learn to prepare in new ways as well.

Peters says that on top of advanced communication with distributors, contractors should anticipate allocating financial resources to stocking more inventory than they may have in prior years.

“It would be wise to have smart controllers in inventory versus not having a controller when needed and sidelining a crew because they could not finish a job,” Peters says.

Matthew Hall, product manager for ResCom controllers and sensors at The Toro Company, Bloomington, Minnesota, offers the idea of installing a traditional controller that has the capability of being upgraded to a smart controller at a later date.

“At any time, but in these times in particular, choose components that provide maximum flexibility and options for add-ons,” Hall says. “Beyond supply chain issues, a lot can change over time. Irrigation components that enable easy retrofit, upgrades and maintenance will save time and money as landscapes mature, needs change or conditions evolve.”

Restuccia encourages contractors take advantage of this time and focus on impactful water management.

“Water management is a lot more than hanging a smart controller on the wall,” Restuccia says. “Now is the time to do water analysis, create potential return on investment calculations, set water budget goals and focus on pressure issues and spray to drip conversions.”

Love furthers this idea of diving into the steps prior to installing a controller. He encourages contractors figure out whether all of the smart data parts are available. Consider if the system will be plugged into a virtual or physical weather station, is a flow sensor available, is a moisture sensor available, is a rain sensor available?

The process is a lot like baking cookies, he says.

“If you just throw a bunch of flour and sugar together and expect the cookie to happen, it’s not going to work,” Love says. “You’ve got to make certain that all parts are there. It’s the same thing with setting up a controller site

or a customer site. You've got to make sure all the parts are available and let the customer know the appropriate time constraints and time problems that might arise."

If a contractor is left without a smart controller when it's needed for a project, Restuccia encourages contractors find creative alternatives. Contractors should evaluate the system and take the time to improve distribution uniformity.

"The key here is to satisfy the customer's need for water savings," he says. "You may have to make manual adjustments more often than usual. With DU improvements and a smart controller, your customer will be really satisfied."

Talking to customers

In the midst of a flurry of unknowns, it can be difficult to let customers know specific dates or part availabilities. For many contractors, they themselves don't even know when to expect certain items from manufacturers.

Merlesena says it's all about being aware and keeping others updated, and this awareness trickles down from the manufacturer to the distributor, from the distributor to the contractor, and from the contractor to the homeowner or customer.

"This is one of those things that everyone is involved in, and it's affecting everybody to some degree," Merlesena says.

Similarly, Love urges contractors to put the customer first. It's important for a contractor to have options, so when a customer asks for a specific item type, the contractor knows, for example, that product one and two aren't available, but product three is two months out.

"It's just like going to an interview: You've got to get dressed up, you've got to know a little bit about the position you're interviewing for and the person you're interviewing with," Love says. "It's the same thing with irrigation — you've got to know your customer."

At the crux of speaking to customers is making sure they're aware of the worldwide shortage situation, says Peters. This, he says, will allow for a contractor to be successful in meeting budgetary and production deadlines if a customer is able to provide earlier commitment.

"Managing customer expectations is more critical today than ever before, and including the customer in the process by securing an early commitment is key," Peters says.

The smart controller shortage isn't expected to be solved any time soon. Restuccia shares that it's estimated that the shortage will continue well into 2022 and 2023.

So while performing certain irrigation projects are completely different and take longer, Restuccia reminds contractors to take advantage of the situation, take the time to find suitable replacement solutions and continue moving forward.

"This is an unprecedented time," Restuccia says. "It's time to hope for the best and plan for the worst. Remember, smart controllers save water over many years. Don't get impatient and purchase something that is not up to the job and then be disappointed with the lack of water savings. Sometimes it is OK to wait." 🌱

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THE MORE
INFORMATION
AND ADVANCED
NOTICE THE
CONTRACTOR CAN
PROVIDE THEIR
DISTRIBUTOR,
THE BETTER THE
ODDS ARE OF THE
DISTRIBUTOR
BEING ABLE TO
SUPPLY THE
CONTRACTOR
WITH WHAT THEY
NEED, WHEN THEY
NEED IT.

— David Peters, Mottech
Water Management



SMARTPHONE-FRIENDLY IRRIGATION CONTROLLERS FOR RESIDENTIAL/LIGHT COMMERCIAL APPLICATIONS

Manufacturer	Model name(s)	EPA WaterSense certified	Maximum stations	Weather data source	Rain data source	Rain delay	
Aeon Matrix	Yardian Pro Smart Irrigation Controller	✓	12	Aerisweather, PWS	Aerisweather, PWS	auto.	
Aifro	Water Eco and Water Eco Lite		36	real-time local weather data, uses OpenWeatherMap	real-time local weather data, uses OpenWeatherMap	auto.	
Asante	Asante Irrigation Controller Kit		6				
Blossom	Blossom, Scotts Gro Controller	✓	12	current local weather and forecasts from multiple weather services	current local weather and forecasts from multiple weather services	auto.	
BlueSpray	BlueSpray		64	NOAA	NOAA	auto.	
Galcon	Cyberrain	✓	24	local weather stations			
Hunter	HC, Pro-HC, HPC-FP, Pro-C Hydrowise, HCC	✓	54	Weather Underground and The Weather Channel; local airport weather stations, personal weather stations and/or virtual weather station options available	Weather Underground and The Weather Channel forecasts, weather station data and/or on-site rain shutoff sensor	user conf.	
HydroPoint	WeatherTRAK LC+	✓	36	proprietary ET Everywhere Weather Data (public and private weather stations, NOAA)	current local weather and forecast from weather stations	✓	
Hydro-Rain	HRC 400 WiFi	✓	16	smart WeatherSense local weather data		user conf.	
H2OPro	H2OPro		8	local weather stations or user-defined local weather stations	weather station, no sensor	auto.	
Irritrol	Climate Logic proprietary plug in for Irritrol Kwik Dial, Rain Dial, Total Control and MC-E Controllers	✓ ◆	12	on-site sensor	rain sensor, no rainfall measurement	user conf.	
Jain/ET Water	SmartBox, SmartWorks and Hermit Crab 2	✓	48	multiple streaming weather data sources	multiple streaming weather data sources	auto.	
K-Rain	Pro EX 2.0 WiFi		16	WeatherIQ	WeatherIQ	user def.	
Netro	Netro Sprite and Whisperer		12	local weather data from multiple sources, as well as historical climate data	based on address, with latitude and longitude, collection of weather data from multiple sources	✓	
Nxeco	Nxeco	✓	36	real-time weather			
Orbit	B-Hyve	✓	12	smart WeatherSense local weather data	smart WeatherSense local weather data	user conf.	
Rachio	Rachio Irrigation Controller	✓	16	NOAA, PWS	NOAA, PWS	user def.	
Rain Bird	Lnk Wi-Fi Module works with ESP-TM2 and ESP-Me Series Controllers and WR2 Series Wireless Rain/Freeze sensors; ST8-Wi-Fi Controller	✓	22	World Weather Online	World Weather Online	user def.	
Rain Machine	RainMachine Touch HD	✓	16	options include NOAA, MetNo, Weather Underground, DarkSky.net, FAWS and CIMIS (with subscription to CIMIS)	options include NOAA, MetNo, Weather Underground, DarkSky.net, FAWS and CIMIS (with subscription to CIMIS)	auto.	
RainCommander	RainCommander RC1200		12	None		user def.	
RainPal	RainPal Pro	✓	12				
Signature	EZ Connect and EZ Share series controllers	✓	24	integration of weather data feeds from NOAA, Accuweather, weather forecast data and weather alerts	integration of weather data feeds from NOAA, Accuweather, weather forecast data and weather alerts	user def.	
Skydrop	Skydrop Halo Controller	✓	16	local weather stations	local weather stations	✓	
Smart Rain	ComPro3	✓	48	NOAA/IBM New	NOAA/IBM New	auto.	
Spruce Irrigation	Spruce Controller WiFi	✓	16	DarkSky.net and optional soil moisture sensors			
Toro	TMC and Evolution Series Controllers	✓ ◆	24	on-site sensor and/or Toro Precision Soil Sensor with Evolution controller	on-site rain sensor, no measurement of rainfall	user def.	
Weathermatic	SL and PL Series with SLW15 weather station	✓	48	on-site sensor	on-site rain sensor, no measurement of rainfall	user def.	

✚ "discovery" mode | ◆ with Climate Logic | ★ yes, if more than one airport station is to be subscribed | ✱ yes, backup mode from panel | ⚙ with Toro soil moisture sensors

Subscription fee for weather data	Automatic scheduling interval capable	Guest access (contractor)	Home automation	Connectivity	Other product information	Sensor capabilities	Run time input	Watering restrictions	Predictive scheduling (rain, freeze)	Zone customization	Cycle and soak (custom or calculated)	Operation without internet connection
	✓	✓	✓	Wi-Fi, Ethernet	zone scanning and diagnosis, automatic weather adjustments, customizable zone settings, smart watering time/intervals, conditional program, water restriction	rain, flow	✓	✓	✓	✓	✓	✓
	✓	✓		Wi-Fi	pause feature, winter dormancy, AiCan smart plug to operate house appliances, manually water more than one zone at a time, Aifro Cloud accessible via app	built-in temperature sensor, optional rain sensor	✓	✓	✓	✓	✓	
		✓		Wi-Fi plus	rain forecast feature	rain, freeze	✓	✓	✓			
	✓	✓	✓	Wi-Fi	only for indoor installation	rain, freeze	✓	✓	✓	✓	✓	
			+	Wi-Fi	run time in min/sec, can turn on multiple valves simultaneously, expands up to 64 zones via extension port	rain, freeze, flow	✓	✓	✓		✓	
		✓		RF, HW	flow monitor, alerts							
★	✓	✓	✓	Wi-Fi	automatic weather adjustments customizable by zone, contractor portal for multi-site management, real-time alerts and notifications, built-in milliamp sensor, event logs and reports	rain, freeze, soil moisture, flow	✓	✓	✓		✓	✓
✓	✓	✓	✓	Cell	centralized cloud control for multisite management, alerts, 30+ customizable reports, over the air updates	rain, flow (with optional key)	✓	✓	✓	✓	✓	*
	✓	✓	✓	Wi-Fi	optional catch cups and irrigation audit input, smart watering options based on site conditions	rain, freeze, flow, soil moisture	✓	✓	✓	✓	✓	✓
				Wi-Fi	flow monitoring, alerts, restrictions, Watersense used to create auto or manual watering schedules, automatic schedule interval capable	rain, flow	✓	✓	✓			✓
		✓		RF plus	SMRT logic allows auxiliary wireless control up to 250 wireless relays	Climate Logic (rain, freeze)	✓	✓			✓	✓
✓	✓	✓		Cell	subscription-based product; standalone or add-on to various models of Hunter, Irritrol, Toro, Superior, Weathermatic, Rain Bird and Rain Master controllers	flow, rain	✓	✓	✓	✓	✓	✓
		✓		Wi-Fi	optional long-range antenna, virtual rain sensor, Wi-Fi hub plugs into internet router to use RF connection, increases router to controller distance through RF, can be configured as Wi-Fi/conventional/remote-controlled	rain, freeze	✓	✓	✓		✓	✓
	✓		✓	Wi-Fi			✓	✓	✓	✓	✓	✓
		✓	✓	Wi-Fi	24-zone extension module to build 36-zone controller	rain, freeze	✓	✓	✓		✓	✓
	✓	✓	✓	Wi-Fi			✓	✓	✓	✓	✓	✓
	✓	✓	✓	Wi-Fi	current and historic weather data used, real-time notifications	rain and soil, flow with Rachio 3	✓	✓	✓	✓	✓	✓
		✓	✓	Wi-Fi	off-site management, real-time alerts and advanced water management tools available	rain, freeze, soil, flow	✓	✓	✓		✓	✓
	✓	✓	✓	Wi-Fi		rain, freeze	✓	✓	✓	✓	✓	✓
				Wi-Fi		rain sensor	✓	✓			✓	✓
	✓		✓	Wi-Fi, cell	optional leak/freeze detection (FL-100), sensitive water leak/freeze detection, cloud-based server capability	rain, flow, freeze	✓	✓	✓	✓	✓	✓
	✓	✓	✓	HW, Wi-Fi, cell	programming accessed via the Signature Share app, end-user of contractor web portal	can integrate two sensors, such as flow, rain, pressure, freeze, ET, soil moisture; some models can use DC latching solenoids	✓	✓		✓	✓	✓
	✓	✓	✓	Wi-Fi			✓	✓	✓	✓	✓	
✓	✓	✓		Wi-Fi, cell		rain, freeze, soil moisture, flow, ET	✓	✓	✓	✓	✓	✓
	✓		✓	Wi-Fi	combines real-time moisture sensor data and weather predictions	rain, flow, spruce soil moistures sensors	✓	✓	✓	✓	✓	✓
	⚙	✓		RF, Wi-Fi plus	grow-in schedule able to control fountains, gates, landscape lighting via a wireless relay	rain, freeze, ET, soil moisture sensor	✓	✓		✓	✓	✓
✓		✓	✓	RF, cell, Wi-Fi	SmartLine Air Card, no Wi-Fi or router required	rain, freeze, weather sensor, flow	✓	✓		✓	✓	✓

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