

IRRIGATION IDIOMS

Taking on maintenance of an existing irrigation system often provides unwanted and unexpected headaches. Here's how to avoid the Tylenol.

by Jerry Roche, editor

Your landscape company has just agreed to perform regular maintenance on Wonder Company's five-acre irrigated landscape. It's going to be a nice money-maker, you're thinking.

But on your crew's first trip to the site, one of your mowers runs over a protruding sprinkler head. Instant chaos. Not too long thereafter, another head springs a leak. A bad leak. Later that same summer, in mid-July, the lawn develops a large round brown spot: another head has malfunctioned and the grass burns out.

What promised to be a profitable account has turned into a nightmare.

What could you have done to avoid some of the aforementioned problems?

Michael Essenwein of RainBird has some answers, as he told members of the Associated Landscape Contractors of America at the recent Green Team conference and trade show.

"Rather than have to use a band-aid approach, you should outline a preventive program first," said Essenwein.

The first step is to locate a site plan through the company under contract. Even if you need to go all the way back to the original landscape architect, do it.

Next, you need to locate the point of connection, where the irrigation system ties into a water source. That will be one of two spots: a pump or well or a potable water system. "You should be concerned with the potential for problems and correct errors in the existing system," Essenwein said.

Check that the connection to a potable water system has the proper (and working) backflow system, or you could be in for big troubles. "Install the proper valves here, if necessary, to isolate the irrigation system," Essenwein adds.

At this time, also check the irrigation pipe exposed to the air that leads into the ground. Galvanized pipe is always better than PVC.



Essenwein: "More people are using moisture sensors to eliminate a water cycle after a recent rainfall or when the soil is already moist."

If the point of connection is exposed it should either be boxed or, more preferably, placed under the cover of landscape plants. This will avoid accidental mower damage.

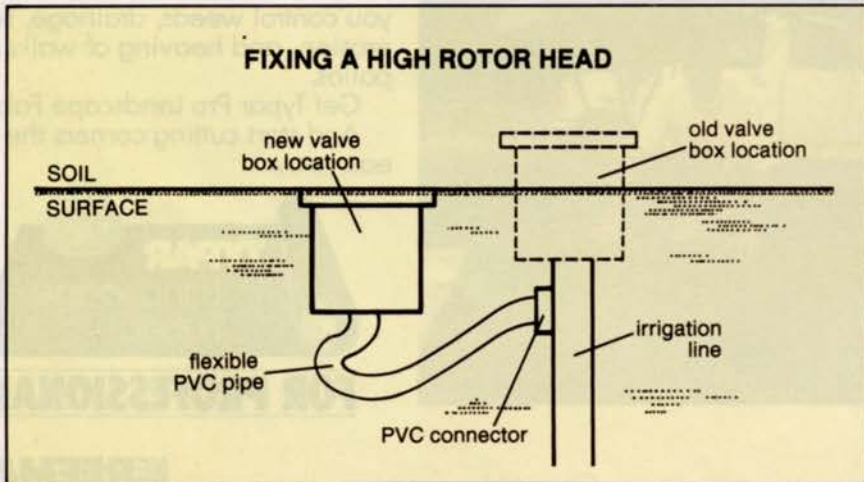
Next, go to the controller. This will be either a solid-state unit with a keypad and LED display, or a mechanical unit with switches and dials. The newer solid-state models are more versatile in their programming capabilities and lend themselves more easily to drip irrigation. The older mechanical models are usually easier to program.

"Find the instruction manual," Essenwein suggested, "even if you have to go to a local distributor. Don't shy away, though, because of water conservation considerations, from electronic solid state models. They are the coming thing."

The next task that has to be performed is to sequence the system through its zones, turning water to each station on and off.

"And with water conservation efforts, more people are using moisture sensors to eliminate a water cycle after a recent rainfall or when the soil is already moist," Essenwein noted. "If there is one, familiarize yourself with it. If there isn't one, it's a good idea to install one."

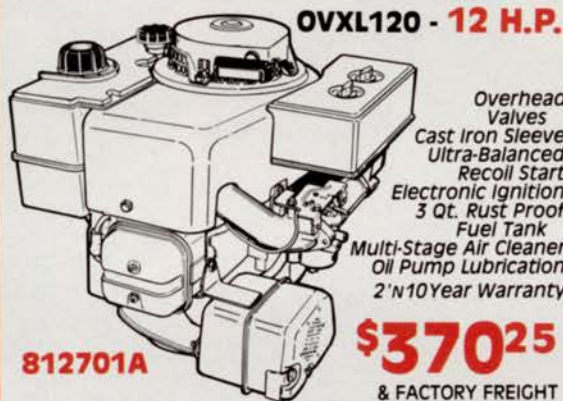
Next step is to locate the valves by starting at the wiring on the controller. Check the wiring using an ohmmeter. If you retain the account for



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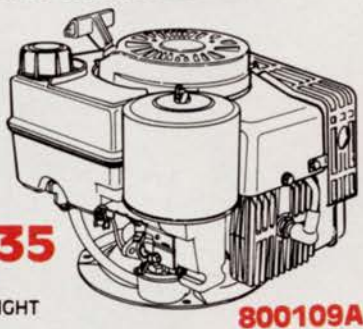


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The first step when installing an irrigation system is to locate a site plan through the company under contract. Even if you need to go all the way back to the original landscape architect, do it.

more than one year, "it's a good idea to do it every year," Essenwein suggested.

If a valve is not working, the problem is either the controller, the valve or a break in the line. Essenwein pointed out that Progressive Electronics has a device that will track underground wires to minimize trenching damage. He said to make sure to disconnect the valve wire from the controller and hook up an earth ground before doing anything else. "If you don't have success with the Progressive Electronics unit," he noted, "some irrigation contractors offer this as a service." When the break is found, repair it using waterproof connectors.

The newer, solid-state models are more versatile in their programming capabilities and lend themselves more easily to drip irrigation.

"Not having waterproof wiring is the single most important factor if there are problems," Essenwein said. "Put them in at the valve, if they are not. If the wire to the valve is pulled tight, then you might even need an extra length of wire."

Too much water pressure on the line creates a lot of problems. Check the flow control and adjust it as necessary.

If, during testing, the head gets stuck in the "up" position, you'll have to remove sand and debris from the seal. Replace it now, before it is broken off. You may have to take the unit apart and clean the filter screen, too.

"For heads above grade, flexible PVC pipe is available to correct the problem," says Essenwein (see illustration). "For loose soil around the head, ground stabilizers are available. And for broken heads or nozzles, the Geyser-Off is a remarkable device that cuts water to the head or nozzle off when water is flowing through at a high rate."

Take lots of notes during your first run through the system.

"All irrigation systems are bound to fail from time to time," concludes Essenwein. "If you understand the product, it'll be easier to choose something that will do the right job."

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