

1595 Mojonier Road Sprinkler System Notes

There are five sprinkler boxes, two behind the back door of the garage that water the lawns, and the grapes and flowers north of the driveway, between it and Mojonier Road. There is one on the south side of the driveway that waters the fruit trees south of the driveway. There is a sprinkler box just south of the greenhouse on the south side of the shop that waters the greenhouse and outside the greenhouse. The last box is down at the east end of the garden, at the bottom of the hill near the well.

Fall Winterization: The boxes all need to be insulated with plastic bags or peanuts. There are T junctions with a screw in plugs on the T part on the pipes that go from the southwest lawn to the greenhouse, and another between the greenhouse box and the box on the edge of the southeast hill. The ones in front of the house are under the evergreen bushes. There is one for each of the five zones in the garden too. These need to be removed every fall, and replaced before using the sprinkler in the spring. There are several valves that need to be turned off. One has a red handle in the sprinkler box west of the garage. One is on the water box in the garden and needs a pipe wrench to turn a pipe to do the deed. There is one in the box by the greenhouse, but I don't know if it needs to be turned off.

Spring Restart: In the spring the T plugs need to be replaced. The valves need to be turned on. Every zone needs to be tested to make sure it will run electrically. I have had some trouble with valves not wanting to start in the spring. Also there has been some problems with the control boxes. The one for the lawns zone 6 is not working. There is a spare Rain Bird controller in the greenhouse. It may have problems. We were having some difficulty with it spring 2020, so we simplified the system to use only the Hunter controller. You need to look for leaks. If there seems to be low pressure, then it is very likely there is a break in the line, and water is running out where it should not be.

Zones:

Lawn Sprinkler Box:

Facing east, count from the north toward the south. The numbers are given by the position of the valves. Control box number 6 is not working, and number 7 was used in its place, because it was to the obsolete orchard zone. The one inch PVC pipe that extends from the south lawn across the hillside to the greenhouse area is not buried.

Outside #	Control #	Location
1	1	Flowers by the road, northeast corner
2	2	Northeast corner of the lawn, just north of the parking lot with the fruit trees and flowers.
3	3	Faucet by the grapes
4	4	Northwest corner of the lawn
5	5	Midsection of the lawn west of the sprinkler box
6	7	Dog yard
7		(Maybe the old black ABS that went to the orchard)
8	8	Faucet by the path down the hill just past the gate on the dog yard
9	9	Side yard by the shop

North box

South box

Greenhouse Zones:

The Hunter controller on the south wall of the shop inside the greenhouse controls the sprinkler box just south of the greenhouse and the box out by the orchard. The orchard sprinklers are not buried where they go along the hillside. The box is not well dug in either yet.

Zone #	Location
1	East orchard just south of the end of the driveway
2	West orchard, closer to the shop near bushy apricot tree
3	Southeast corner of the greenhouse
4	Southwest corner of the greenhouse
5	Mostly near the controller (southwest) and outside southwest
6	Southeast outside

Orchard box valves

Greenhouse box valves

Garden Zones:

You count from the left to the right, facing toward the pump house. The controller is on the wall of the pump house garden tool shed. Much of the PVC piping in the garden is not buried very deep if at all.

Zone #	Location
1	Blackberries on the northeast side
2	Strawberry patch southeast side
3	Middle of the garden, both sides of the trail, but not high on the hill
4	Middle on the west side & raspberries
5	North high elevation mostly on the west of the path



Figure 1: This shows the boxes by the west end of the garage. Numbers are shown in yellow.

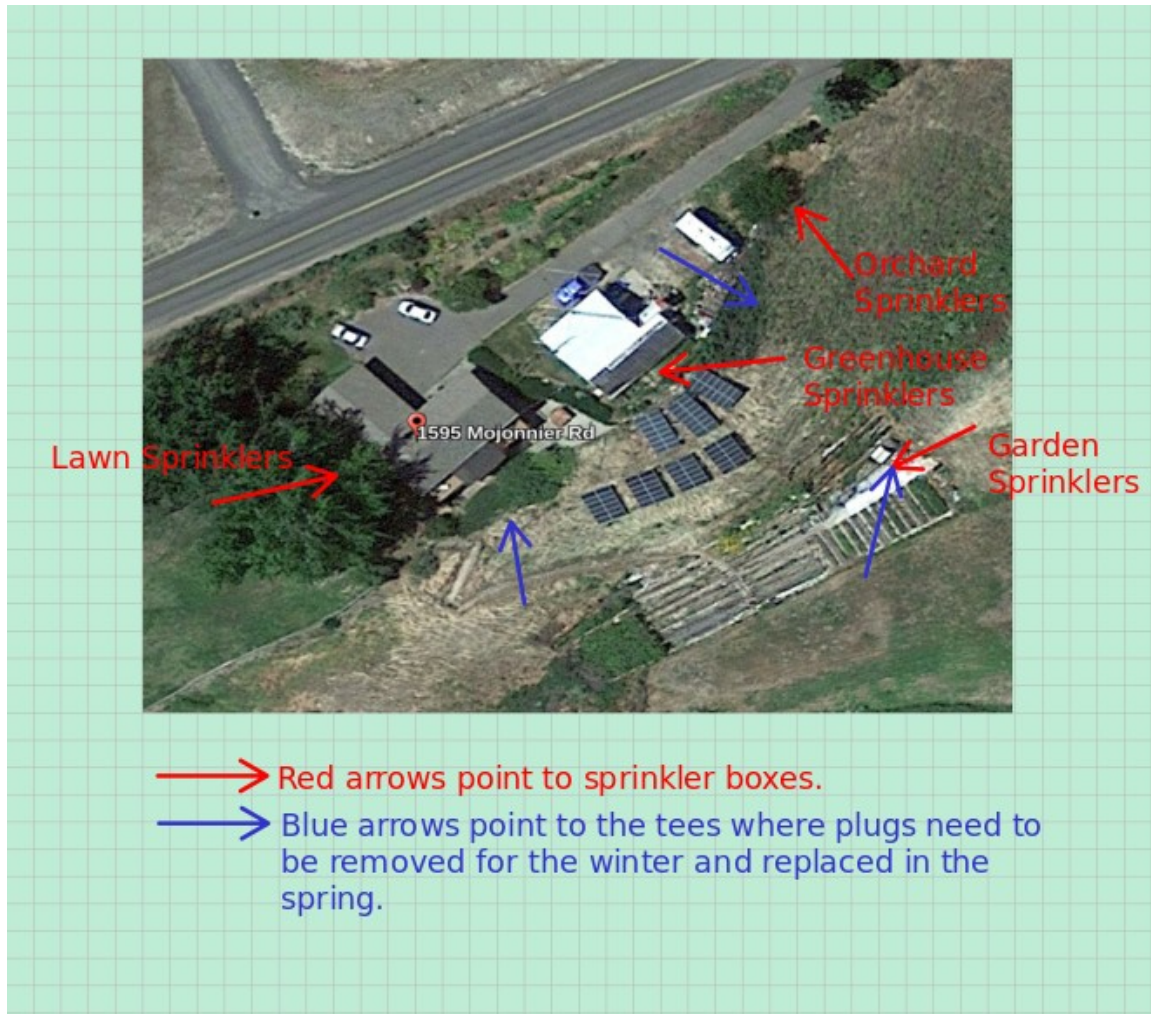


Figure 2: This shows where on the property the sprinkler boxes (red) and T plugs (blue) are located.



Figure 3: Orchard sprinkler (one zone not used)



Figure 4: Pipe faucet for the garden



Figure 5: Sprinkler box outside the greenhouse.

Controller instructions:

The valves run on 24 volts AC. You can check for the voltage with a multimeter. Sometimes wires are disconnected, especially at junctions held together with small wire nuts. They need 9V backup batteries to keep their program, but the backup batteries will not run the valves. Valves can be turned on completely manually by twisting them in the box. This is sometimes handy for troubleshooting, and for emergency watering.

Greenhouse controller

The instructions for programming the Hunter controller are in the lid in the greenhouse. Here is a [video tutorial for the Hunter Pro C](#).

Lawn Controller:

The one in the garage which controls the lawn sprinkler boxes just west of the west wall of the garage, has instructions on the lid too. You set the times with the knobs. If you want to test a sprinkler, you turn the knob clockwise all the way and then back to a number of minutes you want manually. You can turn it all the way counterclockwise to turn it off. The owner's manual is available [here](#).

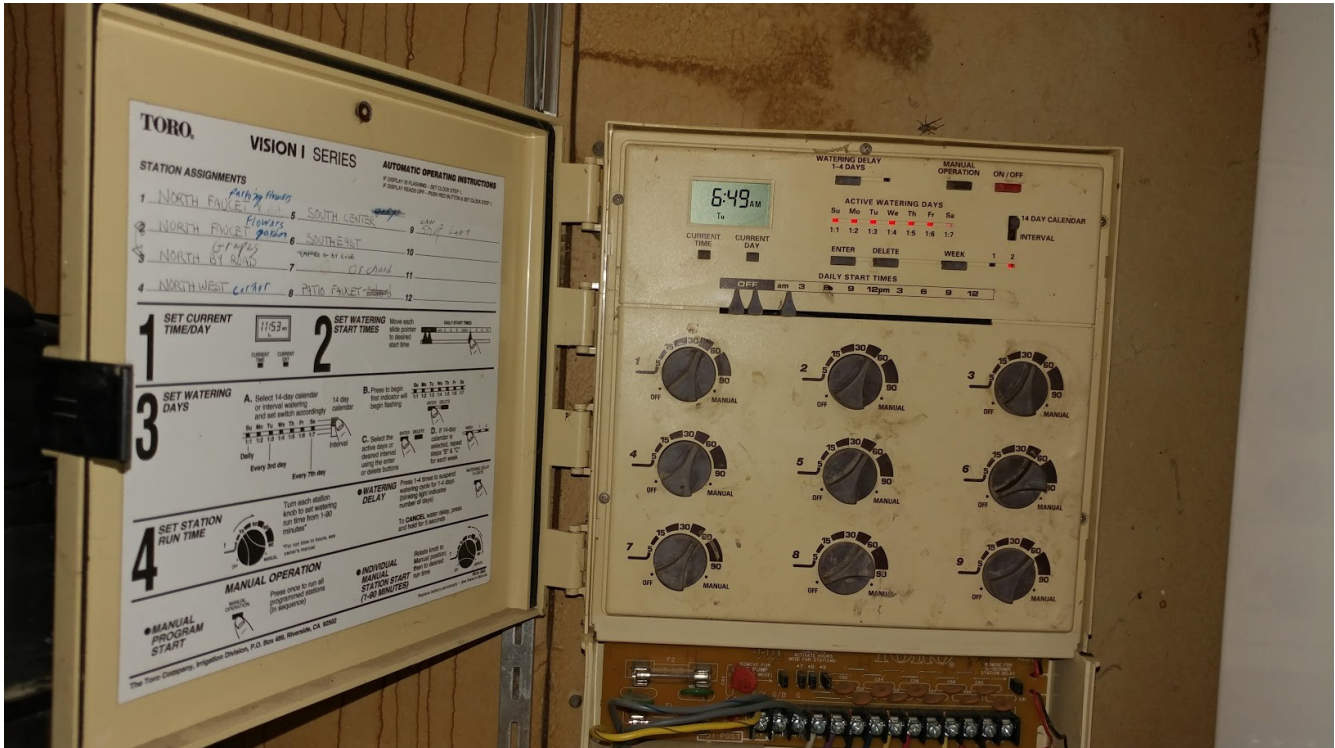


Figure 6: Controller for lawn sprinklers in the garage west wall

Garden Sprinkler Controller:

The garden sprinkler controller, an Orbit Easy Dial Timer, is on the outside south wall of the pump tool shed in the garden. A [video tutorial is here](#), and a manual is [here](#).

Repairs:

Repairs are often needed during the summer and spring. You especially need to keep an eye where there is a possibility that a mower or other thing damaged a sprinkler head. There can be “gushers” that erode the hillside. There can also be damage if the water isn’t drained completely in the fall. The original lawn sprinklers don’t seem to need to be blown out, but the newer zones added for the orchard, garden, greenhouse and side yard need to be drained. I’ve also had some problem with faucets, especially the one by the grapes. I also had problems with sprinklers getting clogged. This happens with the little drip ones, especially, but I’ve also had problems with the bigger pop up sprinkler types. The solution is to take them apart and clean them out. The gears on the rotating sprinklers wear out, and you notice that they are not watering the whole area they are supposed to water any more. The drip irrigation in the garden sometimes ends up with holes in it. Pops uses the gray 6000 glue to fix most of those holes. Bigger ones he uses splices found in the pump house tool shed. For repairs on PVC I prefer glue that gives you some time to work. I often like to dig less, which means I need to slide the glue junction back and forth sometimes. If the glue sets too quickly, it impedes

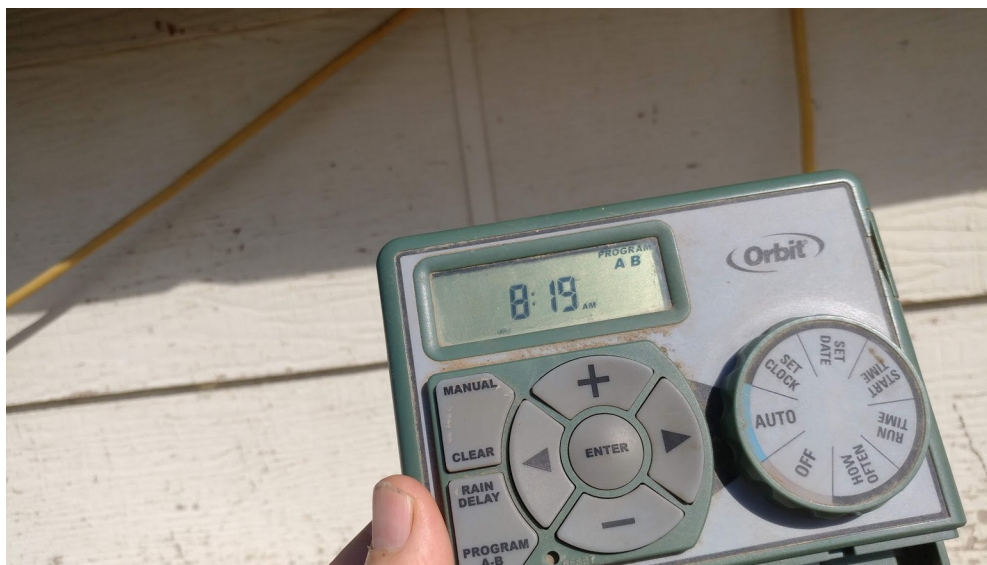


Figure 7: Garden sprinkler controller, an Orbit Easy Dial Timer

Mowing:

When mowing be careful not to destroy sprinklers. Especially make sure you know where they are located in the orchard.

Programming watering times:

You should be careful not to program two sets of sprinklers at the same time. You need all the pressure to be available to each zone. You may be able to get away with an overlap in some circumstances, but it isn’t advisable.

It is a bit advantageous if the sprinklers run at night, so daytime uses of the water are not compromised. However, a disadvantage of night watering is you don’t notice problems until damage has been done.

More information:

You can ask Rob Frohne, (509) 730-5573 or Leonard Spencer (509) 240-3082, for more details, and they may be able to help a little. This document was written by Rob for whoever ends up needing to use the sprinkler system at 1595 Mojonner Road, Walla Walla, Washington. If you find errors in this document, you should let Rob know, or edit and fix them, and send the changed document to Rob.



Figure 8: Garden sprinkler valve box