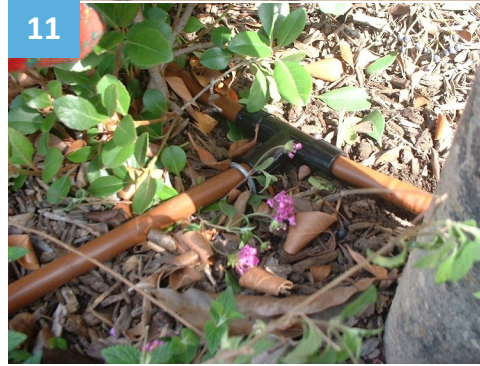
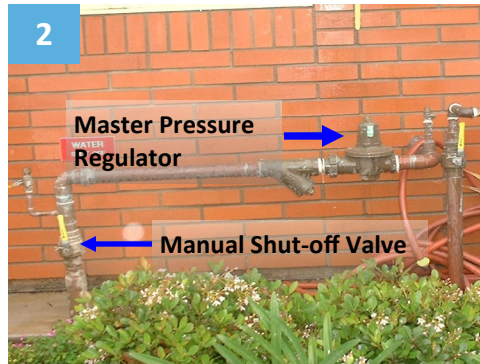


Sprinkler to Drip Retrofit

Step-By-Step Instructions



Sprinkler to Drip Retrofit

www.WaterWiseSB.org

Tools/Parts:

- Flags
- Cutters
- Wrench
- Master Pressure Regulator
- Anti-Siphon Low Flow Valve
- Rain Bird Retro 1800 Kit
- In-line Drip Tubing
- Rain Bird Easy Fit Compression Tee
- Rain Bird Easy Fit Adaptor (MDCF50FPT for 3/4")
- Elbow Compression Fittings
- Marlex Street Elbow
- Rain Bird PA 80 Adaptor
- White PVC Caps
- Galvanized Stainless Steel "U" hooks
- "Figure 8" Drip Tubing Closure
- Mulch



Before you retrofit...

Look at each sprinkler and write down the brand name and model number, i.e. Rain Bird 1800, Toro 570, etc. This will determine the parts you'll need in Steps 8 & 9.

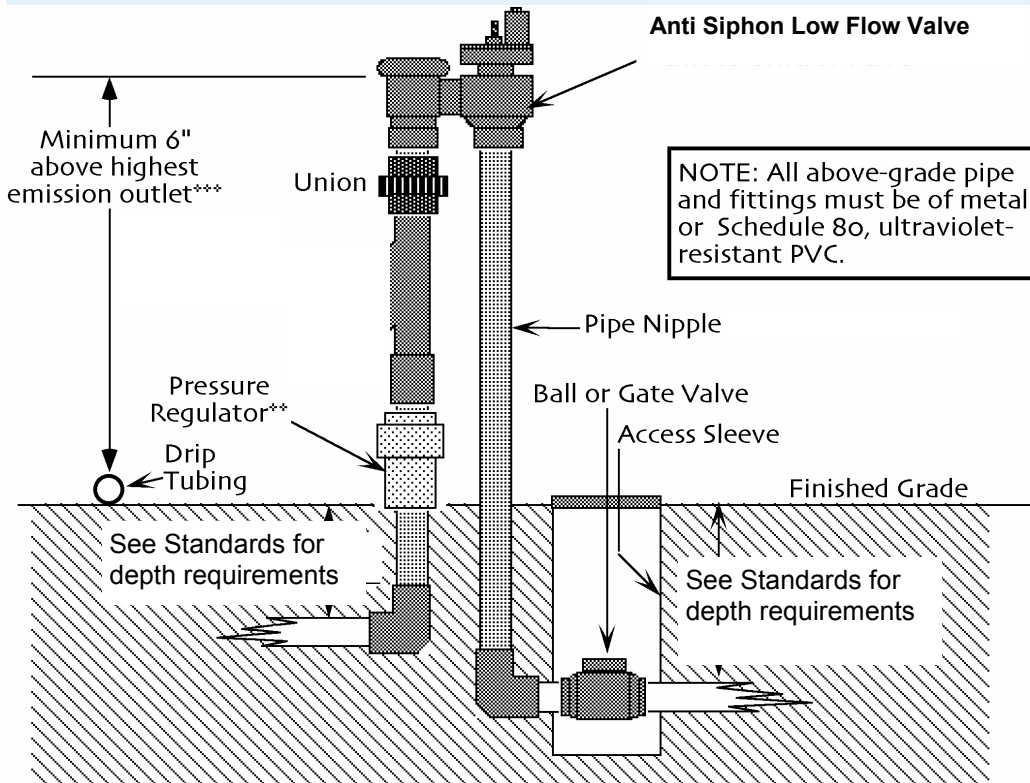
- 1 Drip tubing that has warmed in the sun is easier to handle.
- 2 If missing from the existing system, install a master pressure regulator and a manual shut-off valve before modifying sprinklers. See Detail A; page 3.
- 3 Replace existing control valve with low flow valve with anti-siphon valve included. Anti-siphon not necessary if master backflow device currently exists. See Detail A; page 3.
- 4 Turn on system. Mark each sprinkler with a flag. Further, identify which sprinkler is the last to receive water on the line. Place 2 additional flags.
- 5 Choose a sprinkler conveniently located to install the drip retrofit kit. Often a drip grid is best run off a corner sprinkler. Place 1 additional flag.

- 6 Convert the last sprinkler on the line (3 flags) to a tattletale sprinkler. Unscrew the spray head, install a *Rain Bird PA 80 adaptor*, and screw on a white *PVC cap* onto the adapter. When your drip system is running this fake sprinkler will pop-up letting you know that the system is working properly. See Detail B; page 3.
- 7 Unscrew the top of the sprinkler in Step 5. Remove the insides of the sprinkler.
- 8 Replace with the *Rain Bird Retro 1800 filter & pressure regulator*, *Marlex street elbow*, and a *Rain Bird Easy Fit Compression Tee and Adaptor*. Note, if you have Toro or Brass sprinklers, you need to replace the entire sprinkler head with a Rain Bird 1800 sprinkler that comes with the Rain Bird Retro 1800 kit.
- 9 Find the other sprinklers with the flags and cap them;
 - For Rain Bird and Hunter sprinklers -unscrew the tops and replace with the caps from the *Rain Bird Retro 1800 kit*.
 - For Toro sprinklers—use Toro caps.
 - For all other brands, you'll need to remove the sprinklers and install PVC caps on the riser.
- 10 Take the drip tubing & push into the compression tee on both sides. Maximum of 200 feet per valve.
- 11 Make a grid with the drip tubing. See Detail D; page 4. You may need elbow compression fittings to make the 90° turn in the tubing. For trees wrap a drip line around the entire tree but leave at least 12" from the trunk. See Detail C; page 4.
- 12 Stake down the drip line every 3 feet with the galvanized stainless steel U hooks.
- 13 Flush the system. Remove the cap of the tattletale then turn on system to let the water flow then replace cap. Then tie-off each end of the drip tubing with the "figure 8" part.
- 14 Add 2" of mulch to cover the tubing and exposed soil.
- 15 Change the automatic timer – use the Watering Calculator and Watering Index as a guide. Visit www.WaterWiseSB.org

Sprinkler to Drip Retrofit

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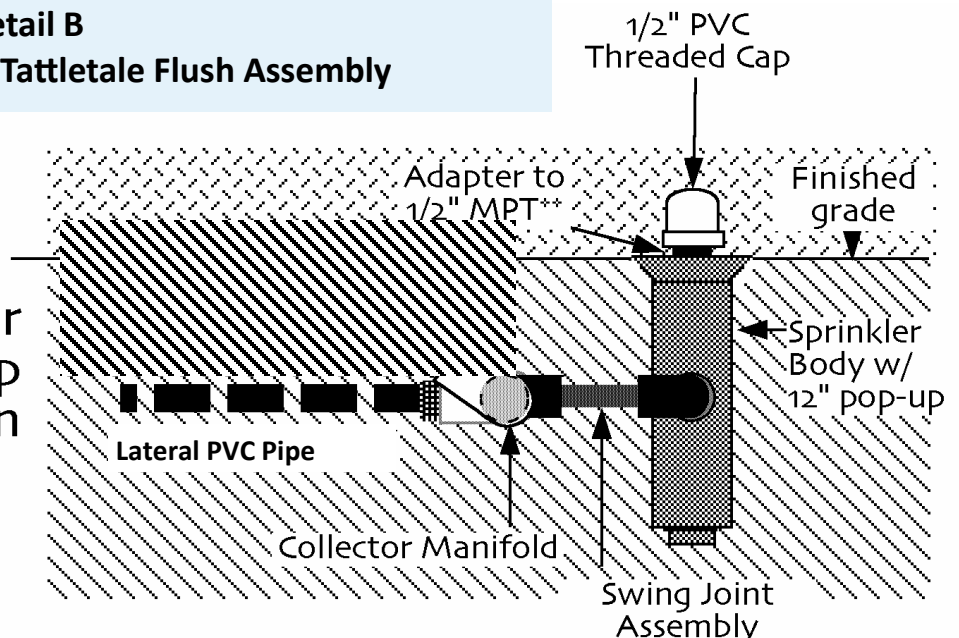
Detail A Valve Assembly for Residential Drip Irrigation System*



* The minimum flow rate of the valve must be equal to or less than the flow rate of the zone.
 ** Optional if Master Device installed at Point of Connection
 *** For container zones this dimension must be at least six inches above the rim of the highest container.

Detail B Drip Irrigation System Tattletale Flush Assembly

TFA Assembly for Linear or Grid Drip Installation

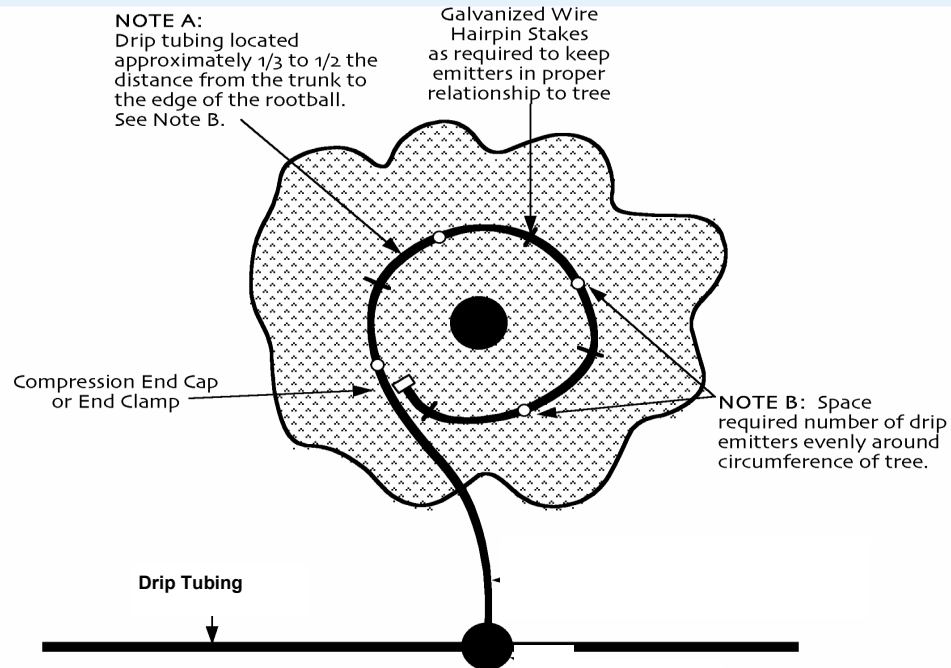


** Rain Bird PA-80 or equivalent

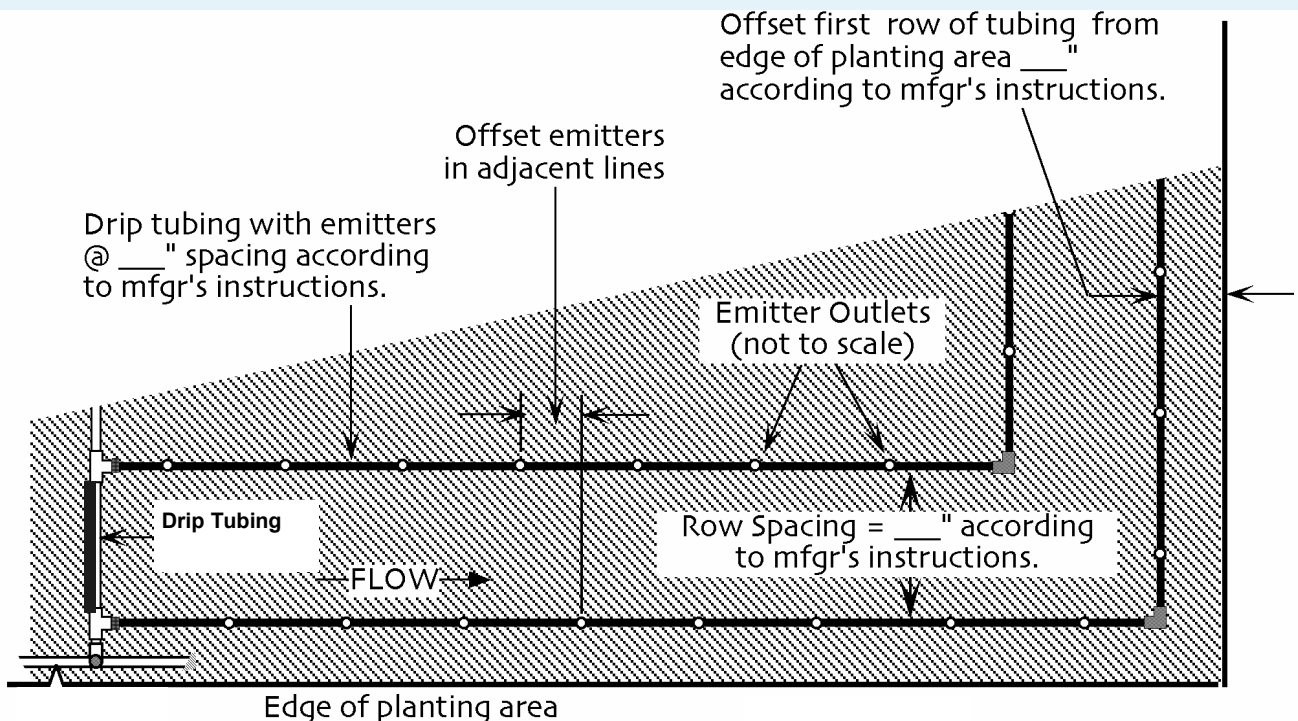
Sprinkler to Drip Retrofit

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Detail C Drip Tubing Around a Tree



Detail D Linear Grid for Drip Irrigation



Carpinteria Valley Water District Water Conservation Program

These details are not to scale. The Carpinteria Valley Water District is not responsible for the performance of any product listed here. Select photos provided by Amy Williams Photography. Courtesy of the City of Santa Monica