



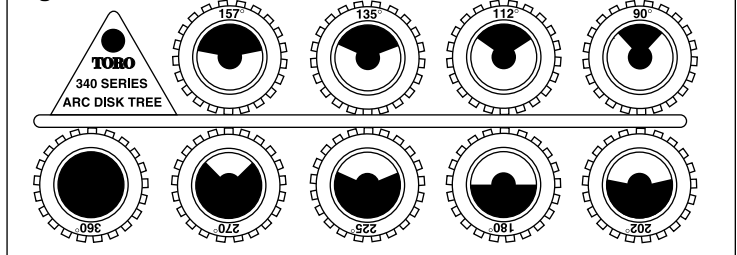
# 340 Series Stream Rotor Sprinkler Installation Instructions

## Introduction

The Toro 340 Stream Rotor sprinkler series is designed to deliver maximum watering efficiency and adjustment simplicity. The gentle carousel spray applies water slowly for minimal run off making it ideal for newly seeded lawns and planted slopes as well as established landscape areas.

Each 340 sprinkler is supplied with a plastic arc disk tree providing nine matched-precipitation rate arc disks. The arc disks, as shown in **Figure 1**, range from 90° to 360°, enabling the 340 sprinkler to adapt perfectly to virtually any landscape design. Also included with each sprinkler is the popular Omni™ nozzle which enables the spray radius to be easily adjusted from 15' to 30' (4.6m to 9.1m) with a simple twist of the nozzle adjustment ring.

Figure 1 – Arc Disk Tree

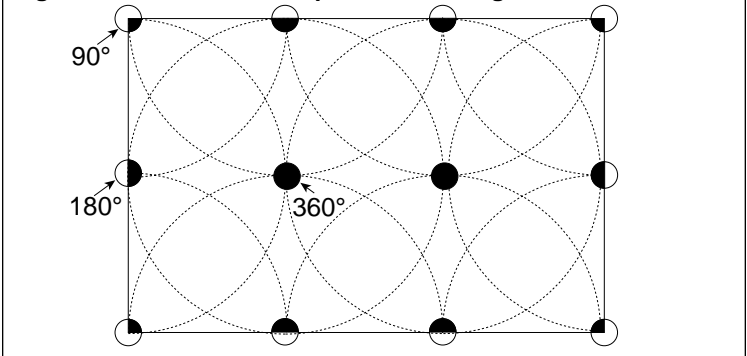


Each of the 340 sprinkler models has their own unique qualities as well. The Lawn sprinkler pops up a full 4" (10cm) to clear tall-cut grass and features a built-in check valve, effective for up to 8' (2.4m) of elevation difference, preventing seepage from lower elevation sprinklers. The shrub sprinkler has a versatile, stepped-thread inlet base enabling either 1/2" or 3/4" NTP riser pipe to be used for installation. The High-Pop model extends nearly 12" (31cm) to easily clear shrubs and tall ground cover. Provided with side and bottom 3/4" NTP inlets, the High Pop installs easily without deep trenching.

## Planning Your Installation

Proper application and placement of the 340 sprinklers is essential for optimum water distribution. The illustration in **Figure 2** shows a basic sprinkler layout which provides the required head-to-head coverage. Quarter circle (90°) spray patterns are used in each corner, half circle (180°) arcs are equally spaced on the perimeter and full circles (360°) are located in the middle. As you can see, the sprinklers are placed to enable the spray of each sprinkler to reach all neighboring sprinklers.

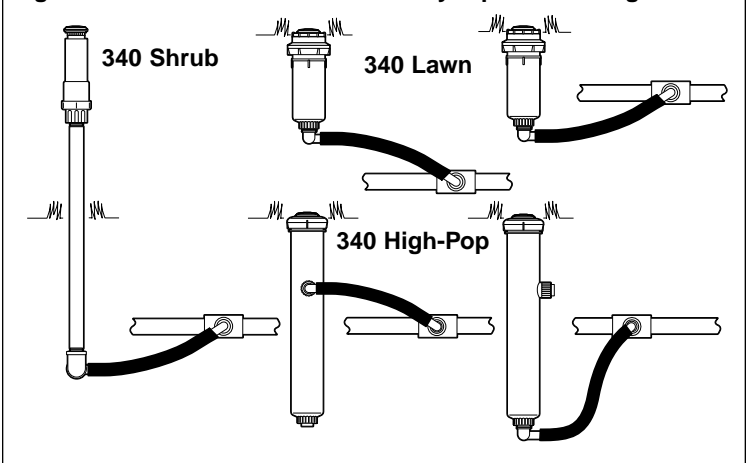
Figure 2 – Head-to-Head Sprinkler Coverage



## Sprinkler Installation Methods

When installing the 340 sprinkler, Toro Funny Pipe™ and fittings are recommended for ease of installation, accurate sprinkler positioning and lateral line protection. The flexible Funny Pipe link helps protect the lateral pipe and fittings from damage due to a forced downward or lateral movement. **Figure 3** illustrates how easily Funny Pipe can connect the various 340 sprinkler models. This is extremely helpful when replacing sprinklers of different height or inlet position. Installing the sprinklers on a traditional swing joint is also an acceptable installation method. Rigid pipe risers are not recommended due to the potential for lateral line damage.

Figure 3 – Installation with Toro Funny Pipe and Fittings



## Installation Procedure

**Caution: Plastic pipe threads will be damaged by the use of pipe dope or other plumbing sealants and must be avoided. If a thread sealant is needed, use only Teflon tape or equivalent.**

1. Install a 3/4" male thread elbow Funny Pipe fitting into each lateral line female threaded tee. Tighten the fitting by hand to a snug fit, positioning the barbs toward the intended location of the sprinkler.

**Installation Tip:** Placing Funny Pipe in the sun to warm for several minutes prior to installation will soften the plastic, making it easier to install onto the barbed fittings.

2. Install a 2' (61cm) section of Funny Pipe onto each barbed fitting. Rock the Funny Pipe back and forth, working it onto the fitting until all barbs are covered. Clamping the pipe connection is not required.
3. At each sprinkler location, position the end of the Funny Pipe out and away from the trench. Open the zone control valve momentarily to run water through the system, flushing out all dirt and debris.

**Note: Flushing the system thoroughly prior to installing the sprinklers is very important.** Small particles of sand and debris entering the sprinkler can stop nozzle rotation and/or clog the nozzle orifices.

4. For Shrub sprinklers, install a 90° elbow onto one end of the schedule 80 PVC or galvanized iron threaded riser pipe. Install the sprinkler onto the remaining end of the pipe. See **Figure 3**.

**Note:** Either 1/2" or 3/4" riser pipe can be used.

5. Install a 3/4" male thread elbow into each sprinkler body inlet or shrub riser elbow. Tighten by hand to a snug fit.

**Note:** On High-Pop models, if the side inlet is used, install the threaded pipe plug removed from the side inlet into the bottom inlet. See **Figure 3**.

6. Using the same installation method as in Step 2, install the sprinkler or shrub riser pipe fitting into the Funny Pipe section.

7. Position the top of the Lawn or High-Pop sprinkler at finish grade level. Position perimeter sprinklers approximately 2" (5cm) in from the border edge. Position the shrub riser perpendicular to the finish grade. Backfill and compact the soil thoroughly to maintain the sprinkler or riser position.

**Note:** Ensure the top of the sprinkler is free of dirt and sand prior to removing or installing the nozzle.

8. Remove the debris plug (or nozzle) from the top of the sprinkler.

9. Remove the desired arc disk from the tree. Note the guide ring on the bottom of the disk. Place the disk into the top of the sprinkler assembly with the guide ring side facing down. Align the arc pattern opening with the intended watering area. See **Figures 4 and 5**.

10. Remove the nozzle cover. Install the nozzle into the sprinkler and tighten just until resistance is felt.

**Over-tightening the nozzle can prevent it from rotating freely.**

11. Apply water to the sprinklers and observe the spray pattern alignment and radius. Adjust pattern alignment by either turning the sprinkler body slightly or removing the nozzle and rotating the arc disk. To adjust spray radius, turn the nozzle adjustment ring clockwise to decrease or counterclockwise to increase throw. See **Figure 6**. Reinstall the nozzle cover when finished.

