Installation Guide
Step I - Site Evaluation

When determining which downspout is best suited for your RainReserve® System, consider the following:

- Determine where water would be used most frequently, and locate nearest downspout

- Ensure the elevation of the barrel/tank is above the point of use, as system water pressure is created by gravity (note: cinder block base described below will add elevation). A watering can or bucket can be filled easily from the barrel.

- Ensure barrel/tank will not interfere with casement window operation when elevated on base.

500 square feet of roof area in a 1" rain fall will yield over 300 gallons of water. That's a lot of water from an area smaller than the roof of a typical 2 car garage!

One standard 55 gallon barrel weighs nearly 450 pounds when filled with water. When setting up the RainReserve® system, ensure barrels/tanks will be secure and the ground is level and solid. For optimal stability, place barrel on hard and level surface. A carpenter's level be may be used to ensure a level surface.

Safety Warning

Full barrels are extremely heavy and could be dangerous if accidentally tipped over. A falling barrel could cause property damage, serious injury, or even death.

Note: Barrel must be positioned close enough to downspout to prevent kinking of tubing.
Step II - Barrel/Tank Preparation
Skip this step if you only purchased a Basic Kit or if your barrel is already equipped with inlet and outlet hardware.
Any water tight closed tank (metal or plastic) of any size and shape will serve as an adequate container to collect the rain water. If you are reusing a tank from any factory or manufacturer, please keep in mind that the barrel must be a food-grade container and must not have contained harmful chemicals during any of its prior functions or uses. Go to www.RainReserve.com and click on "Locate a Barrel" to find new and recycled barrels/tanks locally.

1a. Wrap teflon tape around threaded ends of Tubing Adapter and Spigot Adapter as shown in figures below. Teflon tape should be wrapped 2 to 3 layers thick.

1b. Insert Pilot Drill in Hole Saw. Pilot drill should stick out ½". Tighten set screw with Flat Head Screwdriver. Pilot Drill must be tightened securely so it does not slip.

2. Insert Hole Saw and Pilot Drill into power drill. Hold drill firmly and slowly begin drilling pilot drill into top of barrel/tank (see figure below). Continue holding drill firmly with both hands and press straight in. Run drill slowly and adjust angle until Hole Saw teeth are contacting the surface evenly. Continue drilling until 1 3/16" hole is created. Repeat this step to drill a hole in side of barrel/tank (see figure below).

The hole saw will cut a plastic disk which may fall into the barrel. If it does, there is no need to fish it out. It will not interfere with the performance of your system.

Safety Warning

Power tools can cause serious damage to property, injury and death. Persons operating drill must have sufficient experience.

3. First insert Tank Seal into hole created on top of barrel/tank. Then screw Tubing Adapter into Tank Seal using your hand to start it and tighten as much as possible. Use pliers to grip Tank Seal Ear to resist rotation. Tighten with wrench only if leaking. Care should be taken not to damage threads when tightening.

4. First insert Tank Seal into hole created on side of barrel/tank. Then screw Spigot Adapter into Tank Seal, then screw High Flow Spigot onto Spigot Adapter using your hand to tighten as much as possible. Use pliers to grip Tank Seal Ear to resist rotation. Care should be taken not to damage threads when tightening.

TIP: Use soapy water as a lubricant or warm with body heat to assist the Barrel Seal into the hole.
Step III - Downspout Preparation

1. Lay out the system before any modifications are made. Measure downspout to determine size of downspout cut to make (see figure below). Cut out the section indicated below from downspout with a hacksaw and/or tin Snips. It may be necessary to remove downspout from house to aid installation. Ensure house is protected prior to making any cuts. (Note: Care must be taken to ensure accurate measurements as the dimensions shown below are critical for proper installation)

3x4 Installation: When downspouts on the house are 3" x 4" the 3x4 Downspout Adapter is required. Use different dimensions as shown below. When attaching the 3x4 Downspout Adapter use pliers to form the house's downspout to fit inside the 3x4 Downspout Adapter to prevent leakage.

Safety Warning

*Using a hack saw can cause serious damage to property, injury, and possibly death. Only persons with sufficient experience should operate hack saw.*

Tip: Protect exterior wall of house with cardboard to prevent damage while cutting downspout.

8" Minimum Recommended

Minimum 6" from final turn in downspout (Eye level is best for debris removal)

16" Minimum or 0" for open top barrels

Water Level

Note: For Basic Kits and open top barrels, the Diverter must be placed at the same level of the water in the barrel for automatic overflow to function. 90° elbows make it easier for tight fits.

Note: RainReserve® is designed for use on 2"x3" and 3"x4" gutters. Other sizes must be bent into shape or adapted.

www.RainReserve.com
Step IV - Final Assembly

1. Hang RainReserve® Diverter from downspout with two Self Tapping Downspout Screws. Downspout must be secured with downspout strap to hold a minimum of 5 lbs.

2. Slide bottom portion of downspout on to RainReserve® Diverter and attach with two Self Tapping Downspout Screws. (Attach to tabs if 3"x4" downspouts are used)

TIP: Use soapy water as a lubricant or warm tubing with body heat to assist the Tubing onto the Diverter and Adapter.

3. Push Tubing onto Diverter Tank Outlet. Use RainReserve® Plug on second Tank Outlet if only one barrel/tank is in use.

4. Check tubing for proper length and cut with hack saw if necessary to prevent kinking. Push tubing onto Tubing Adapter. (Note: To ensure proper operation, tubing should slope continuously from Diverter Tank Outlet to Tubing Adapter.)

Note: To prevent kinking twist Hose while installing. If Hose is still kinked, soak in warm water (approx. 110°F) to relieve stress and repeat twisting.

5. Apply "Do Not Drink" sticker on side of barrel/tank above High Flow Spigot.

Note: Use caution during installation as plastic components may become brittle as temperature drops below 50°F.

After installation, a final wet test should be conducted. This can be accomplished by spraying the applicable section of roof with a standard water hose. The runoff should be unrestricted as it flows through the RainReserve diverter and tubing, and fills the rain barrel. A small amount of water should be left inside the rain barrel to prevent movement of the barrel/tank during windy conditions.

www.RainReserve.com
Safety Warning

This guide is provided to help you install your own RainReserve® System. Please use caution during installation as the tools used for assembly can cause property damage, severe injury, and possibly death. Always wear safety goggles, and proper attire. Persons assembling the system should have adequate experience operating power tools and other machinery.

Water intended for non-potable use only. **DO NOT DRINK.**

For questions about features, operation, assembly, additional accessories, replacement parts and any other product issues, visit www.RainReserve.com or call 1-866-372-8842.

<table>
<thead>
<tr>
<th>Included Components</th>
<th>Basic Diverter Kit</th>
<th>Complete RainReserve System</th>
<th>Complete RainReserve System (Double Capacity)</th>
<th>Barrel Expansion Kit</th>
<th>Daisy Chain Kit</th>
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</thead>
<tbody>
<tr>
<td>Diverter</td>
<td>1</td>
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<tr>
<td>Tubing (5')</td>
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<td>Hole Saw (1 3/16&quot;)</td>
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**Included in Kit**

Refer to table above for what is included in your kit.

- Diverter Top
- Tubing Adapter
- High Flow Spigot with Hose Thread Connection
- 1 1/4" Hole Saw w/ Pilot Drill
- RainReserve Plugs
- Downspout Screws
- 3"x4" Adapter (included in 3"x4" kit only)

*Pull RainReserve plugs off of Spigot Adapter for Downspout Screws

**Required for Installation**

- 1 or 2 Closed Barrels/Tanks
- 3 Cinder Blocks (other structures optional)
- Pliers
- Power Drill
- Hack Saw (metal cutting)
- Phillips Screw Driver

[Image of a water barrel and tools]
Double Capacity System

Two tanks can easily be used by attaching the second tank system to second Diverter Tank Outlet. Refer to page 4 and repeat "Step II- Barrel/Tank Modification" for each additional barrel or tank.

Maintenance/Trouble Shooting

- Slide door up to periodically inspect and clean debris from Diverter.
- Clean gutters to minimize debris transferred to Diverter and barrel/tank.
- With many tanks, algae growth is natural. Excessive amounts can be deterred by using rainbarrel frequently, by decorating, shading, and covering barrel to reduce direct sunlight.
- Periodically clean out barrel/tank with a gentle, environmentally sound cleaner. A solution of 2 tsp castile soap and 2 tsp vinegar or lemon to 1 gallon of water is a great alternative to ugly, harsh chemicals.
- If barrel or tank leaks, make sure lid or caps are tight.
- If Tubing kinks see note on page 6.

Winterization

Prior to freezing temperatures, remove tubing from barrel/tank and diverter. Empty and store barrel/tank indoors or upside down so that barrel cannot fill with water. Place both RainReserve® Plugs on Diverter Tank Outlets. Do not use excessive force. Under no circumstances should barrel/tank be allowed to freeze with water inside.

In Spring, to remove RainReserve® Plugs, remove Door and push Plugs from inside of Diverter with blunt cylindrical object (i.e. pen with cap on). Hold the Diverter in place while gently removing Plugs. Replace barrel and reattach Tubing. Make sure ground is still level.

"Sustainable Life Cycle"

We need your help to fulfill our mission and ensure that the RainReserve® Kit is a sustainable product. We ask that you:
1. Use as much stored water as often as possible, to make more room for new rain.
2. Complete the material life cycle loop of the RainReserve Kit by using the tables below to properly dispose of the kit components. Check with your local recycling authority for options in your area.

If you have any questions regarding this, please contact us at 1-866-372-8842.

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>Material</th>
<th>Source</th>
<th>End of life cycle option</th>
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<tbody>
<tr>
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<td>Tubing</td>
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<td>RainReserve® Plugs</td>
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<td>Recycle (PVC #3)</td>
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<td>Hose Adapter</td>
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<td>Installation Manual</td>
<td>100% PIR</td>
<td>Made In USA</td>
<td>Recycle Paper or compostable</td>
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<td>Outside Box</td>
<td>30% PCR and New growth</td>
<td>Made In USA</td>
<td>Recycle Paper or compostable</td>
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<tr>
<td>Inner Box</td>
<td>100% PCR Chipboard</td>
<td>Made In USA</td>
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<tr>
<td>Downspout Screws</td>
<td>Tool Steel</td>
<td>Made In USA</td>
<td>Re-use or &quot;Take Back Program&quot;</td>
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</tbody>
</table>

(PIR is Post Industrial Recycled and PCR is Post Consumer Recycled)