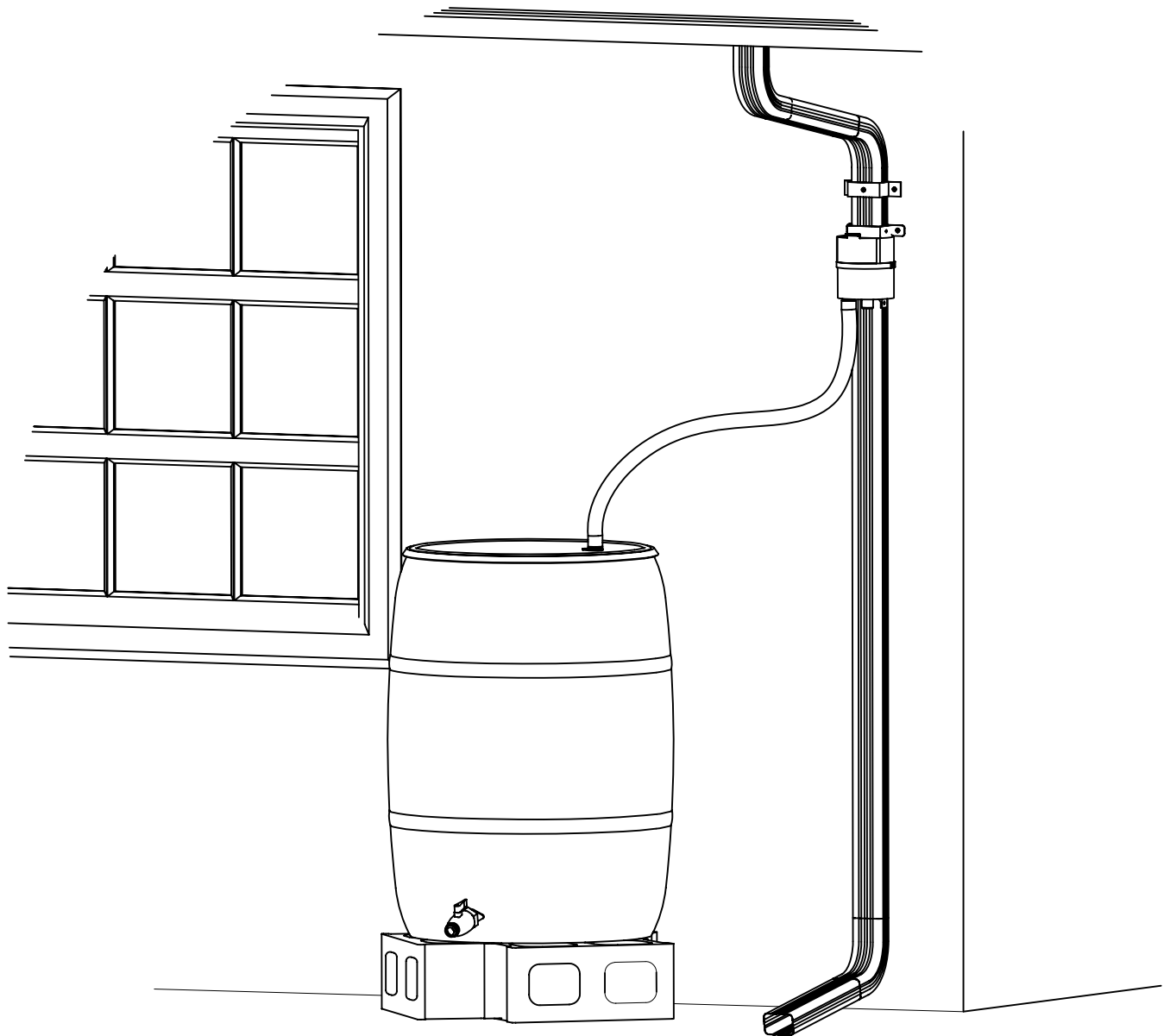


RAIN RESERVE®

RESERVING YOUR RAIN. PRESERVING OUR FUTURE.

Installation Guide



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.

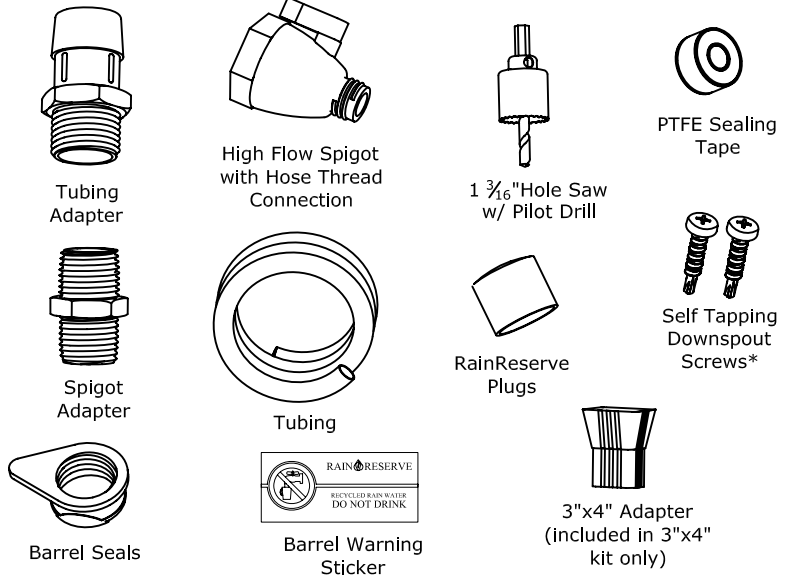
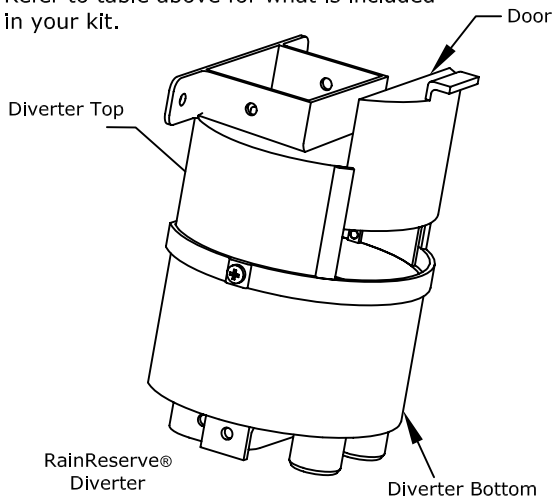
Water intended for non-potable use only. **DO NOT DRINK.**

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.

Included Components	Basic Diverter Kit	Complete RainReserve System	Complete RainReserve System (Double Capacity)	Barrel Expansion Kit	Daisy Chain Kit
Diverter	1	1	1		
Tubing (5')	1	1	2	1	2.5'
RainReserve Plugs	2	2	2		
Downspout Screws	6	6	6		
High Flow Spigot		1	2	1	1
Barrel Seals		2	4	2	3
Tubing Adapter		1	2	1	2
Spigot Adapter		1	2	1	1
Hole Saw (1 3/16")		1	1		

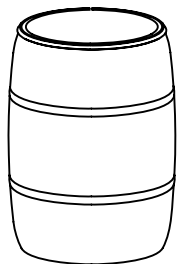
Included in Kit

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

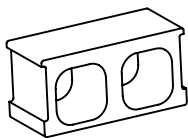


*Pull RainReserve plugs off of Spigot Adapter for Downspout Screws

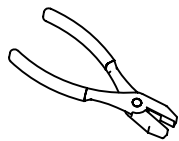
Required for Installation



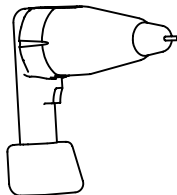
1 or 2 Closed Barrels/Tanks



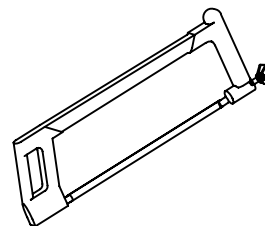
3 Cinder Blocks (other structures optional)



Pliers



Power Drill



Hack Saw (metal cutting)



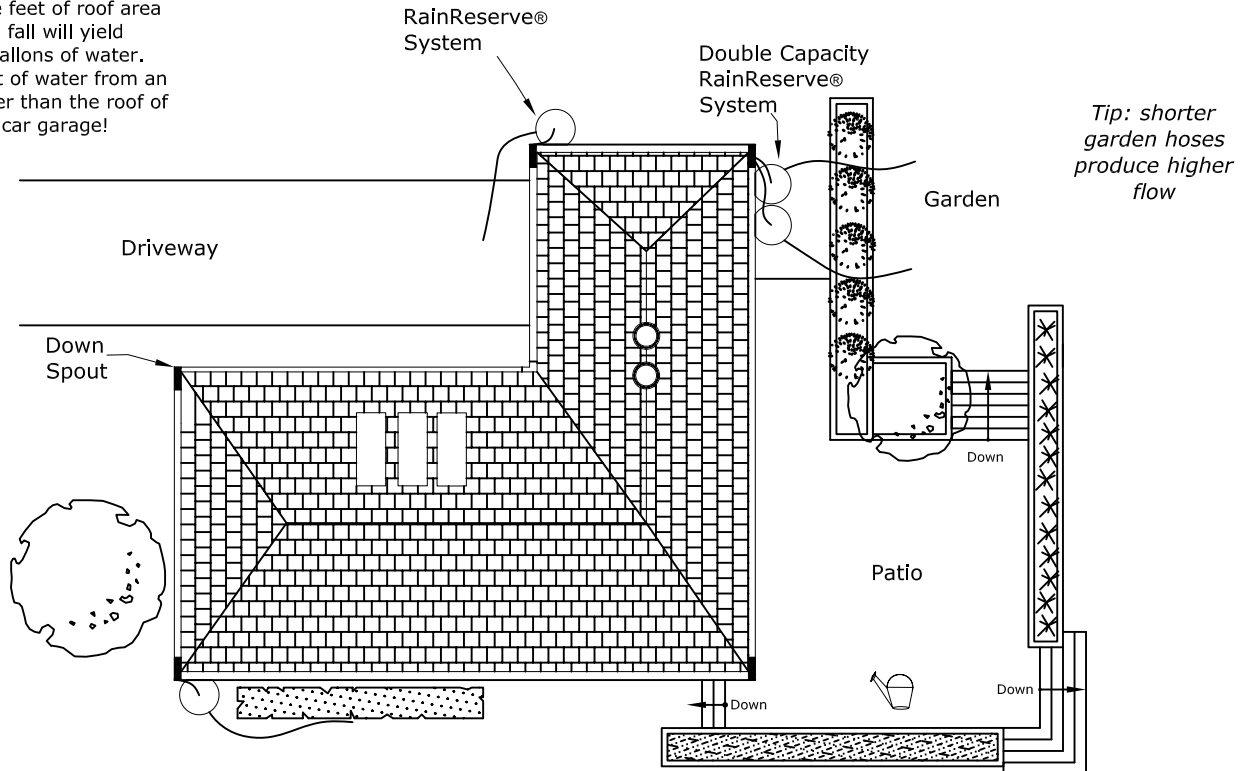
Phillips Screw Driver

Step I - Site Evaluation

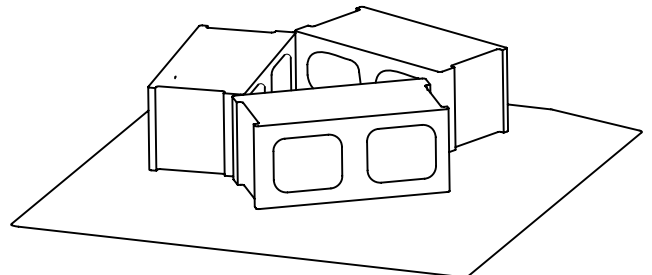
When determining which downspout is best suited for your RainReserve® System, consider the following:

- 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 may be used to ensure a level surface.



Recommended base for 55 gallon barrel

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

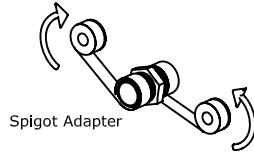
Note: Barrel must be positioned close enough to downspout to prevent kinking of tubing.

Step II - Barrel/Tank Preparation

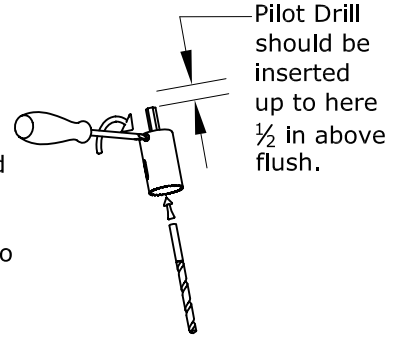
Skip this step if you only purchased a Basic Kit or if your barrel is already equipped with inlet and outlet hardware.

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.



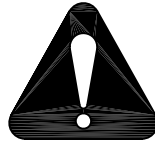
1b. Insert Pilot Drill in Hole Saw. Pilot drill should stick out 1/2". Tighten set screw with Flat Head Screwdriver. Pilot Drill must be tightened securely so it does not slip.



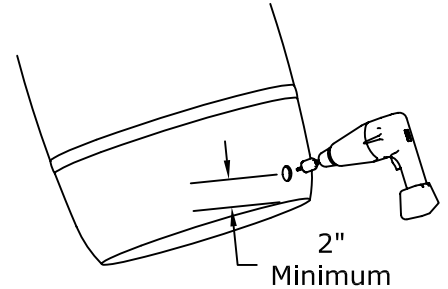
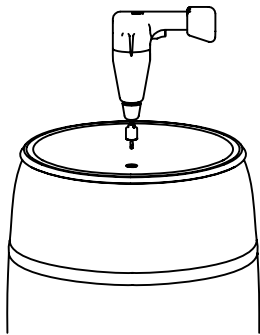
2. Insert Hole Saw and Pilot Drill into power drill. Hold drill firmly and slowly begin drilling pilot drill into top of barrel/tank (see figure below). Continue holding drill firmly with both hands and press straight in. Run drill slowly and adjust angle until Hole Saw teeth are contacting the surface 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.

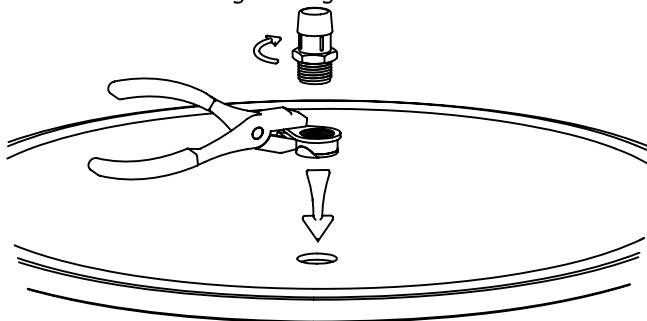
Safety Warning



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

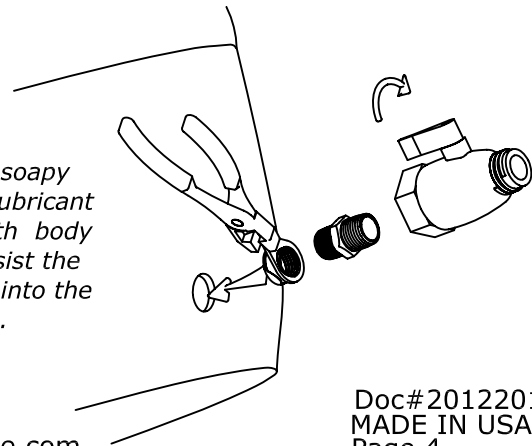


3. First insert Tank Seal into hole created on top of barrel/tank. Then screw Tubing Adapter into Tank Seal using your **hand** to start it and tighten as much as possible. Use pliers to grip Tank Seal Ear to resist rotation. Tighten with wrench **only** if leaking. Care should be taken not to damage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

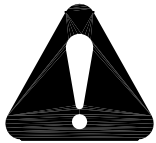


Step III - Downspout Preparation

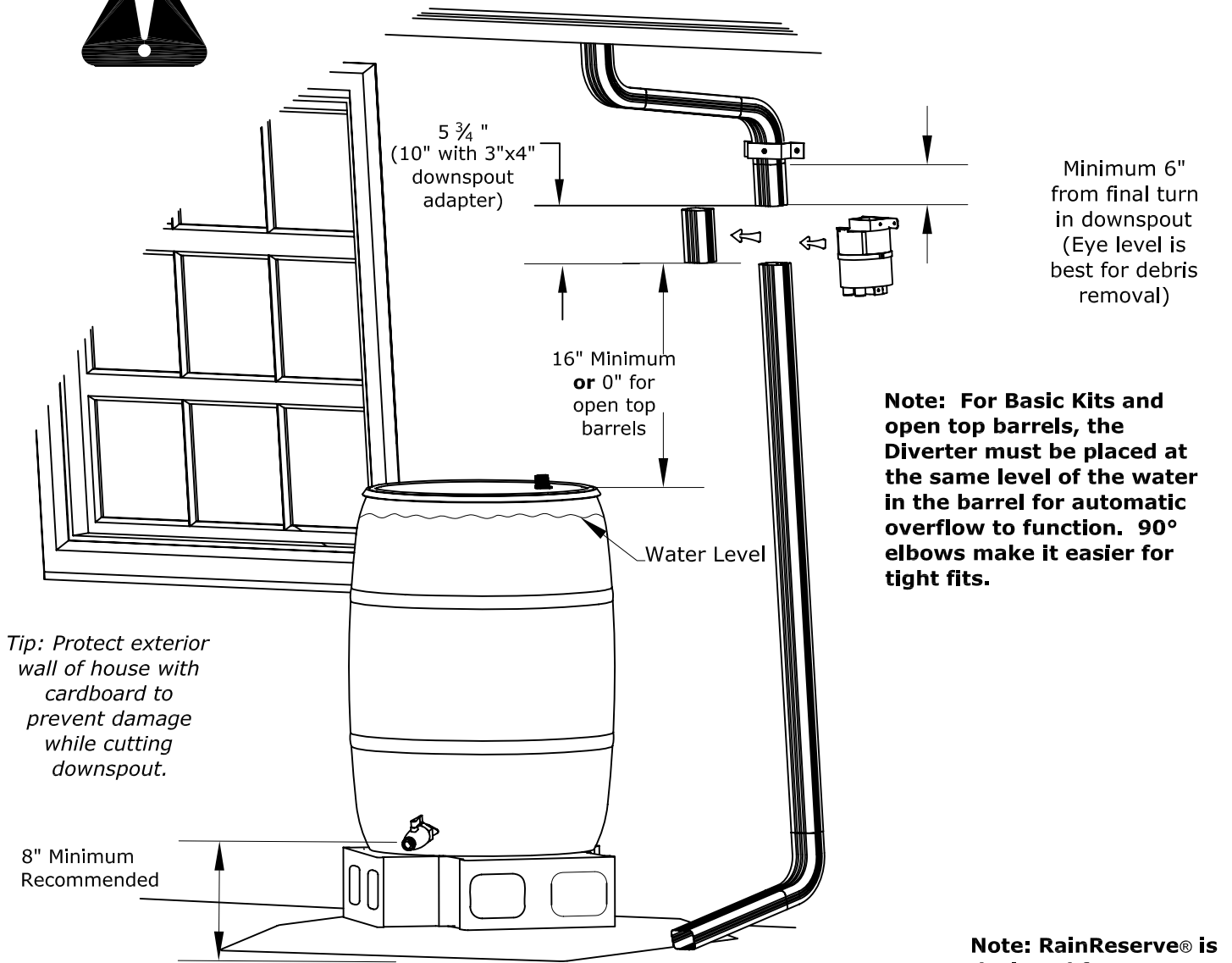
1. Lay out the system before any modifications are made. Measure downspout to determine size of downspout cut to make (see figure below). Cut out the section indicated below from downspout with a hacksaw and/or tin Snips. It may be necessary to remove downspout from house to aid installation. Ensure 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.

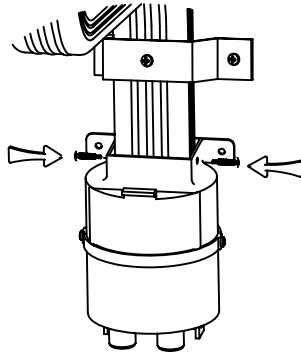


Tip: Protect exterior wall of house with cardboard to prevent damage while cutting downspout.

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

Step IV - Final Assembly

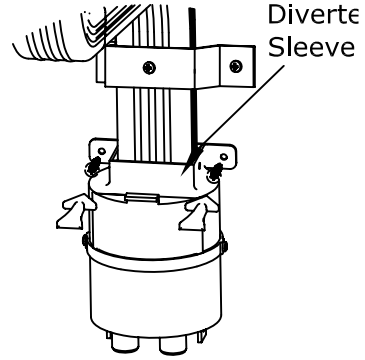
1. Hang RainReserve® Diverter from downspout with two Self Tapping Downspout Screws. Downspout must be secured with downspout strap to hold a minimum of 5 lbs.



Option #1

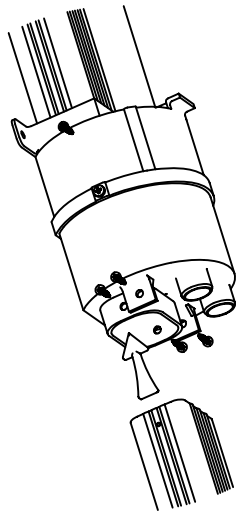
OR

1. Slide RainReserve® Diverter sleeve over downspout and attach RainReserve® Diverter to outside wall with two Self Tapping Downspout Screws. If necessary, mount a board or shim between the wall and diverter to ensure downspout is parallel to wall. If outside wall is brick or penetration is not desired see option #1.



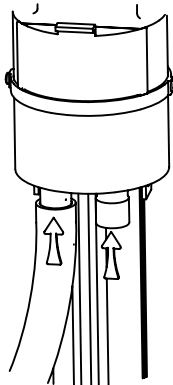
Option #2

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)

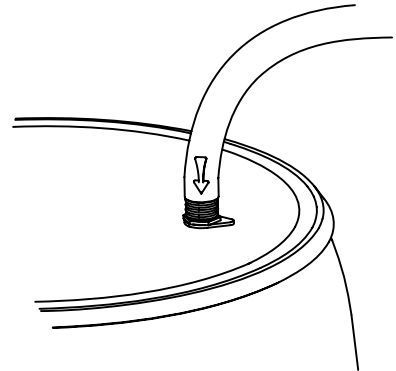


TIP: Use soapy water as a lubricant or warm tubing with body heat to assist the Tubing onto the Diverter and Adapter.

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.

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

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

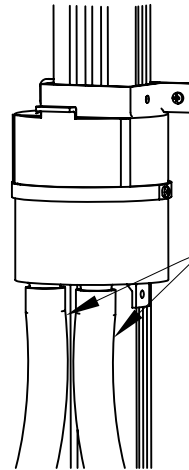
After installation, a final wet test should be conducted. This can be accomplished by spraying the applicable section of roof with a standard water hose. The runoff should be unrestricted as it flows through the RainReserve diverter and tubing, and fills the rain barrel. A small amount of water should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

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.

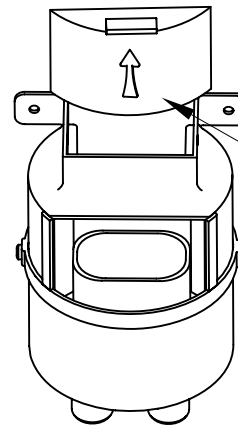


Double Diverter Outlets for filling two barrels/tanks in parallel.

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.



Maintenance Door Slides straight up. **Watch for sharp edges.**

"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**.

Kit Component	Material	Source	End of life cycle option
RainReserve Diverter	Hybrid Bio-Resin	Made In USA	"Take Back Program"
Label Sticker	Corn Plastic	Made In USA	"Take Back Program"
PTFE Seal Tape	PTFE	Made in China	NA
High-Flow Spigot	Polypropylene	Made In USA	Recycle (HDPE #2)
Barrel Seal	PVC	Made In USA	Recycle (PVC #3)
Tubing	PIR PVC	Made In USA	Recycle (PVC #3)
RainReserve Plugs	PVC	Made In USA	Recycle (PVC #3)

Kit Component	Material	Source	End of life cycle option
Spigot Adapter	PIR Polypropylene	Made In USA	Recycle (HDPE #2)
Hose Adapter	PIR Polypropylene	Made In USA	Recycle (HDPE #2)
Installation Manual	100% PIR	Made In USA	Recycle Paper or compostable
Outside Box	30% PCR and New growth	Made In USA	Recycle Paper or compostable
Inner Box	100% PCR Chipboard	Made In USA	Recycle Paper or compostable
Hole Saw 1 3/16"	Tool Steel	Made In USA	Re-use or "Take Back Program"
Downspout Screws	Scrap Steel	Made In USA	Re-use or "Take Back Program"

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

WARRANTY INFORMATION

1. About this Warranty:

This is a limited Warranty. There are no warranties express or implied, which extend beyond the warranty described in this document.

2. Limited Warranty:

RainReserve® (Sustain Dane, Inc and Enginuity, LLC) warrants the Rain Barrel Diverter for a period of **1 year from the date of purchase** from Sustain Dane or authorized distributor against defects in workmanship and materials. During the warranty period, RainReserve® will repair or replace a defective diverter with a new or repaired product without charge to you. Shipping or processing fees may apply. It is at RainReserve's® sole discretion to repair or replace products under warranty. To validate the warranty, proof of purchase must be provided.

To obtain service under this warranty, you must contact RainReserve® by email at ProductSupport@RainReserve.com <<mailto:ProductSupport@RainReserve.com>> or 211 South Paterson, Madison, WI 53703 with a description of the problem with the product. RainReserve® will then give you a "Return Number" to be posted on the outside and inside of the container in which you return the product. No returned product will be accepted by RainReserve® without this number. Proof of purchase must accompany the product.

3. What this Warranty will not cover:

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs made by others, or alterations or lack of maintenance to the Rain Diverter.

The warranty does not extend to the following:

1. Damage or injury to house or property from attaching the diverter to the exterior of the house.
2. Damage or injury due to rain barrel or tank tipping.
3. Sickness, disease or death resulting from livestock, pets, and humans consuming the water collected. Potential contaminants include bacteria, viruses, and other organic compounds from the roof or used barrel or tank.
4. Disease or death of gardens and crops.
5. Injury or property damage resulting from using the supplied hole saw when modifying the barrel or tank.
6. Injury or death resulting from sharp edges caused from modifying the barrel or tank.
7. Injury or property damage from using the tools required for assembly including, but not limited to a hacksaw, tin snips, razor and any other tool to modify the current downspout and gutter.

4. Disclaimer of other Warranties:

This is the sole warranty of RainReserve®. No other warranties, express or implied, including but not limited to any warranty of merchantability or fitness for a particular purpose or use, are made by RainReserve® or are authorized to be made with respect to this product. RainReserve® undertakes no responsibility for the quality of the goods except as otherwise provided in this warranty. RainReserve® assumes no responsibility that the goods will be fit for a particular purpose for which you may be buying these goods, except as otherwise provided in this manual.

5. Limitation of Liability:

The entire liability of RainReserve® with respect to this product shall be limited to the purchase price paid for the product. RainReserve® has the sole discretion to repair or, if not possible to repair, to replace product.

6. Choice of Law:

Legal action against RainReserve® shall be brought in the Dane County Circuit Courts or District Courts located in the State of Wisconsin.

7. Miscellaneous:

The manufacturer reserves the right to change specifications at any time because it is constantly striving to achieve a better quality product and reduce any adverse environmental impact. The manufacturer makes every effort to ensure that its products meet high quality and durability standards.

Please feel free to email RainReserve® at CustomerCare@RainReserve.com <<mailto:CustomerCare@RainReserve.com>> with any questions about the product or the product manual.

Thank you again for your business and support for helping create a better world and a more sustainable way of life.

**Post a photo of your setup on
www.RainReserve.com/RainReserveCommunity**

