



MANUAL

TINYWOODSTOVE.COM

support@tinywoodstove.com

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Congratulations on your new Dwarf Small Wood Stove! We are excited about your little space and we are honored you have chosen the Dwarf!

WARRANTY

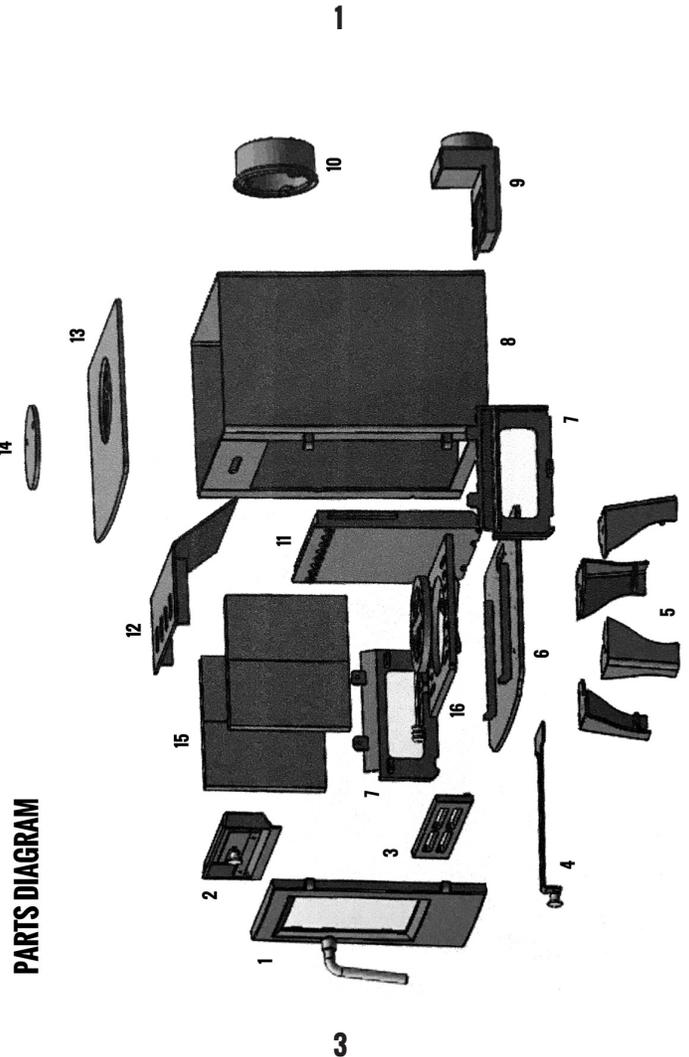
We created the Dwarf with quality, efficiency and affordability in mind. With proper operation & maintenance your stove should give you many years of trouble free use. We stand behind our stove with a 5 year warranty on defective parts. If you have any issue with your stove contact us at: support@tinywoodstove.com.

APPLICATIONS

The Dwarf was made specifically for small spaces less than 500sq' like: tents, trailers, boats and tiny houses. This stove is not currently certified (UL / CSA) for residential heating and only offered for recreational use.

WARNING

Improper use or installation of a wood burning stove can cause fire, injury and death. Use only solid fuel rated vent pipe and installation by a professional is highly recommended.



PARTS LIST

1. Cast iron door with handle
2. Tertiary air supply / air wash
3. Coal bar
4. Primary & secondary air gate valve & lever
5. 4" Stock Legs
6. Stove bottom plate (5/16th's steel plate)
7. Fire grate support x 2
8. Stove body (3/16th's steel plate)
9. Direct-Air Box
10. Flue flange
11. Rear air plate
12. Baffle
13. Stove top plate (5/16th steel plate)
14. Flue cover plate
15. Fire bricks x 4
16. Fire grate (cast iron) with mechanical riddling grate

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ASSEMBLY / UNBOXING

6. Using a phillips screwdriver install the flue flange. If installing the flue flange on the top of the stove use the short hardware that's installed with the flue flange cover plate (#14 on parts diagram). If you use the longer hardware the baffle will not fit. Install the flue flange cover plate on whichever opening the flue flange is not installed on.
7. Reinstall the baffle. Lift up and forward until bottom of the baffle is above the rear air plate then set on top of the rear air plate.
8. Reinstall coal bar.
9. Once you stove is assembled it's a good idea to slide in a small section of pipe and do a initial fire outside. As the paint cures and oils from manufacturing process burn-off the stove will smoke. It's best to do this outside your space. If you do the initial fire inside it's wise to keep windows and doors open.

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ASSEMBLY / UNBOXING

For a detailed un-boxing video check out our videos page on our website: <https://www.tinywoodstove.com/videos/>

1. Unscrew the (4) phillips screws at the bottom of the crate. Remove crate.
2. Remove box, cover plastic and paper. Remove the coal bar, baffle, wrapped flue flange and legs from inside the firebox. TO REMOVE BAFFLE: life up and forward until the bottom is free from the rear air plate. Once the baffle is clear from the air plate remove from the firebox.
3. Close door and gently set stove on it's back. NOTE: It's best to lay stove on a raised surface so the crate bottom is off the ground when the stove is on it's back.
4. Using a 10mm socket remove the (4) bolts on the bottom of the crate. Remove crate bottom.
5. Unwrap the stove's legs and use the given bolts and washers to secure the legs to the bottom of the stove. If you are installing the direct-air box bolt this on next. The direct-air box gets bolted on over the primary & secondary air gate valve. Stand stove up on it's legs.

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INSTALLATION

If you have any doubts about installing your small wood stove it's highly recommended to get a professional installer. For safe installation maintain the following clearances from combustibles:

CLEARANCES

Sides: 16" from combustibles
Rear: 18" from combustibles

Single Wall Stove Pipe: 18" from combustibles
Insulated Chimney Pipe: 2" from combustibles

**Clearances can be reduced by 2/3 with a non-combustible heat shield.*

HEAT SHIELD

A basic heat shield should be composed of non-combustible material (metal or cement board) and have at least a 1" air gap behind, above, below and beside the shield. A heat shield can be as simple as a piece of sheet metal with a 1" air gap behind and around. The, "air wash" behind the shield is very effective but there has to be at least a 1" gap on all sides of the shield. Ceramic spacers can be purchased for installing your shield.

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SAFETY PRECAUTIONS

HEARTH

If you are using the add-on tall legs or wood storage stand all you need for a hearth is ember protection. This is some type of non-combustible material (metal, glass, tile, stone, etc) to shield combustible flooring from any embers or coals that could potentially fall from the stove.

If you're using the stock legs you'll need to add a little bit of insulation under your ember protection. This can be achieved by placing a layer of mineral fiber board under your non-combustible material.

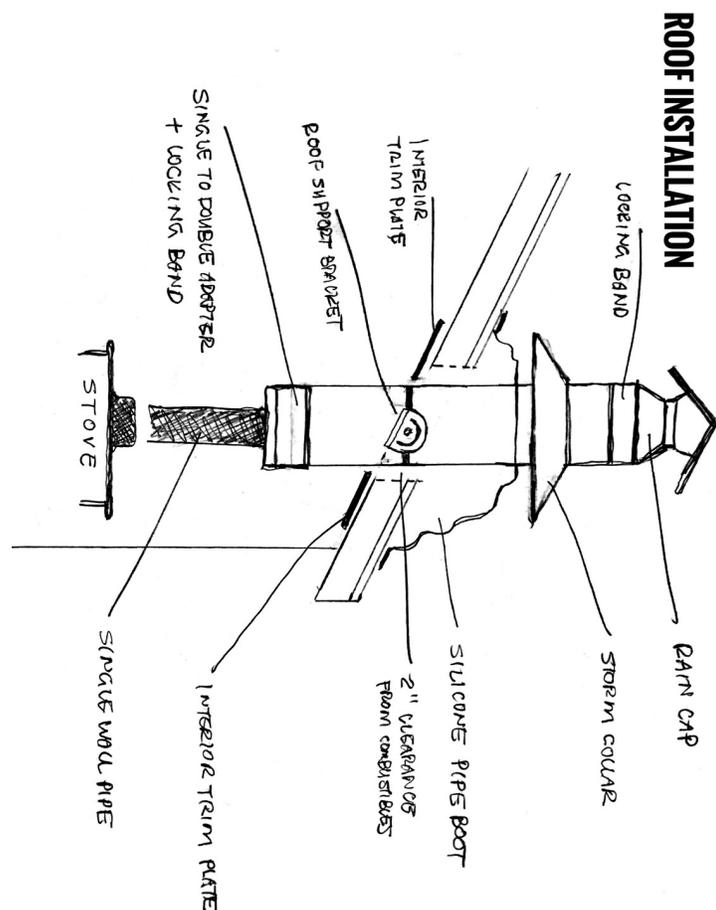
Hearth Pad Recommended dimensions
Rear & sides (match clearances)
Front 12"

SAFETY PRECAUTIONS

Along with a proper stove installation it's import to use the follow tools as safety precautions:

Smoke Alarm
CO2 Detector / Alarm - Installed at ground level
Fire Extinguisher
Flue Thermometer
Chimney Brusv

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It can be a challenge to find solid fuel pipe in diameter less than 5" in North America. Most small diameter (3" & 4") vent pipes are made for pellet or gas appliances and do not have the temperature ratings suitable for solid-fuel wood burning stoves. While this pellet or gas pipe may fit the stove it's not rated for the high temps of solid-fuel and it includes a galvanized outer pipe which can off-gas at higher temperatures.

Solid Fuel Pipe is rated up to 2100 degrees for a 10min chimney fire and pellet pipe is only rated to 570 degrees.

In the event you had a chimney fire which can often start and end without you ever knowing it you want pipe that's made for the high temps of solid fuel.

We want to offer the best and safest pipe with our stoves so we are working with a manufacturer to build us custom stove pipe, chimney pipe and components in 3", 4" & 5" diameters.

3" PARTS <https://www.tinywoodstove.com/product-category/3in-flue-parts/>

4" PARTS <https://www.tinywoodstove.com/product-category/4in-flue-parts/>

5" PARTS <https://www.tinywoodstove.com/product-category/5in-flue-parts/>

For more in-depth installation info checkout our videos:
<https://www.tinywoodstove.com/videos/>

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OPERATION

LIGHTING FIRE

Step 1 - Clean off fire grate from previous fire if needed. Empty ash pan if needed. Open primary air 100% (lever pulled completely out from the stove). Open air wash 100% (gate valve above the door slid completely to the right).

Step 2 - Add kindling to fire box. (I like to build a log cabin or tipi) Light fire starter and add to kindling. Leave door cracked until fire starter has caught the kindling on fire. Close door.

Step 3 - Add fuel to kindling. Leave air setting 100% until your first load of fuel is a nice and hot coal bed.

FIREWOOD LENGTH

5kw 10-12"

4kw 8-10"

3kw 6-8"

ADJUSTING AIR SUPPLY

You can adjust the air settings on your stove to increase the heating efficiency & lengthen your burn time. Burning the stove wide open (both air settings open 100%) makes for a very hot and fast fire which sends a lot of heat out the flue and requires more frequent stoking.

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OPERATION

After a good hot coal bed is formed you can close both the primary/secondary + air-wash to slow the rate of burn. A good starting point is around 50%.

If you dampen down the stove too soon or too much there won't be enough heat for thorough combustion (you'll see black smoke coming out the flue) and you'll potentially have creosote problems. It's a good idea to use a flue/stove thermometer and dampen your stove according to thermometer readings.

Flue Thermometer - best operating range: 400-800 degrees F.
Stove Thermometer - best operating range: 400-650 degrees F.
Going to far above or below these temperature readings can cause problems.

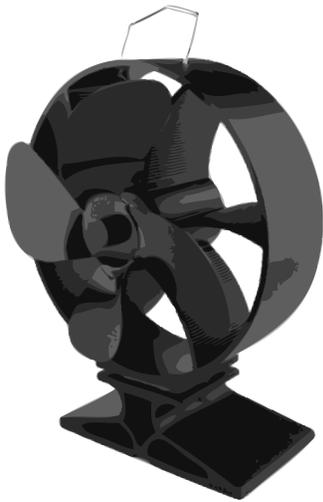
RIDDLING GRATE

The lever on the bottom left of the stove is to activate the mechanical riddling grate. This feature is made specifically for coal use but is handy for use with any fuel. You can periodically pull the lever which sifts ash from the firebox into the ash pan. This keeps your primary air feeding the fire for an efficient burn.

ASH PAN

The ash pan should be cleaned between fires. If you need to empty the ash pan during the fire use the given ash pan tool and empty the pan in a heat proof container.

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CHECKOUT OUR GROWING SUPPLY OF ACCESSORIES!

Heat Fans, Firestarters, Flue-Brushes, Stove Thermometers, Firewood Bags & More!

<https://www.tinywoodstove.com/product-category/accessories/>

MAINTENANCE

The main point of maintenance on your stove is checking and periodically cleaning your flue system. Depending on your installation this can be done from inside your stove by removing the baffle (part #12 on page 3). The baffle sets on the rear air plate and the air wash manifold. To remove lift up and forward until the baffle is clear of the air plate then drop down into the fire box. You will need to turn the baffle 90 degrees to get it out the door. *NOTE after a fire the baffle will be dirty.*

To inspect from inside the stove you can use a flashlight and mirror or perhaps a phone camera to see if there is any build up on the interior walls of the pipe. If you have build up more than a 1/4" thick you need to clean the flue.

Or if you have access to the roof simple remove the rain cap and inspect the interior of the pipe.

CLEANING FLUE

To clean the flue use a chimney brush that will fit your diameter of pipe. Brush the interior of pipe until buildup is removed.

Failure to maintain the flue system can lead to poor stove performance and potential chimney fire. Signs of a dirty flue system are very poor draft and puffs of smoke entering the room when you open the door.

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THANK-YOU!

Our business is much more than selling wood stoves. Tiny living has given our family freedom to live life on our terms. We are passionate about Tiny Living and would love to see your little space! Share your pictures with us on facebook, instagram or email.

INSTAGRAM: @tinywoodstove
FACEBOOK: /tinywoodstove
EMAIL: support@tinywoodstove.com