

Q. I notice when I'm generating lots of smoke that some smoke still comes through the unit. Why doesn't the Razaire™ MINI remove all of the smoke that enters it?

A. Small table-top units are limited in how much smoke they can remove. Highly efficient smoke absorbing filtration units are made but they are quite large, not portable at all, and very expensive. The goal of the Razaire™ MINI is to have a compact, portable, economical unit that will draw smokey air away from the user while removing much of the smoke from the air passing through it.

Q. How can I know when the filters need replacing?

A. There is no objective way to determine when the filters need replacing. Filters don't look any different when they've lost their ability to absorb smoke. If you think the unit isn't cleaning the air as well as it did when you first started using it, you can replace the filters. One other indicator for filter replacement is a "smokey" smell. As the filters become more loaded with smoke particles they may start to smell progressively smokier. If the unit constantly gives off a smokey smell when running the filters are probably "full" and should be replaced.

Q. Can I use the Razaire™ MINI without any filters?

A. Yes. The fan will continue to function. It is possible for smoke residue to build up on the fan blades if the unit is used for a very long period with no filter or a very old Pre-filter; however, smoke build-up on the fan blades would have minimal effect on the fan's ability to move air.

More Questions? Don't hesitate to contact us - that's what we're here for!

The longer the air stays in contact with the carbon filters, the more smoke particles will be removed. Because the carbon filters are an open design they are not able to remove 100% of the smoke from the air that passes through them, but they do always capture some of the smoke. The Razaire™ MINI has been designed to provide the best balance of air flow, smoke capture and low noise. The amount of smoke captured depends on several factors:

1. Fan speed. A lower fan speed means that the air will take longer to pass through the filter, allowing for more capture of smoke particles. At a higher fan speed the air passes through the filter more quickly, so the filter will not be able to capture as many smoke particles.

2. Amount of smoke coming into the unit. When burning hot and generating a large amount of smoke, some of the smoke particles will still pass through the filters. If you are generating a small amount of smoke the filters will capture a higher percentage of smoke particles.

3. Age of the filters. The longer a filter is used, the less effective it is at capturing smoke particles. As each filter captures smoke its surface eventually becomes covered with smoke particles until it has no remaining exposed carbon surface. In this condition the filter would be completely ineffective. There is no way to clean the filters; they should be replaced before they become ineffective (see "Filter Replacement").

4. Amount of filtration. Another option to increase the effectiveness of the unit is to add one or more additional Primary Filters (see "Adding Primary Filter Stages"). Adding more filters increases the amount of exposed filter area. It also restricts air flow slightly, resulting in more time for the air to pass through the filter. These two factors result in an increased percentage of smoke being removed from the air.

5. The amount of air captured at the source. If the unit is too far away from the smoke source some of the smoke will release into the air before it can be drawn into the unit. Obviously the unit can only filter air that passes through it. Leaving the unit running for extended periods of time will allow it to continue "scrubbing" the ambient air of remaining smoke particles, but it's always best and most efficient to capture smokey air at the source.

Razaire™ MINI

**Smoke
Extractor
Model X60**



Please take a few minutes to read these instructions. The Razaire™ MINI is a small, quiet smoke extracting fan that is designed to draw smoke away from the user. It will reduce smoke particles and the smell of smoke when burning a variety of materials. It will not eliminate smoke or harmful fumes produced from burning. If more protection is needed, use of a suitable mask or respirator is recommended.

Warnings:

Shock Hazard: Do not disassemble (except as shown for filter replacement). No user serviceable parts inside. Keep it well away from water or sources of moisture.

- This tool should not be used by children unless under the direct supervision of an adult.
- Always be sure to have adequate ventilation. Some materials give off dangerous fumes when burned. This unit will not protect from toxic or dangerous fumes.
- Technical questions concerning this product can be directed to Razertip Industries.

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Overview

- 1 Transformer and Power Switch:** 3 positions: Power on low (position I), Power off (center position) and power on high (position II).
- 2 Top Cap:** Remove this cap (snap fit) to change the Primary Filter or to add #XF200 Primary Filter Expansion Kit(s), available separately.
- 3 Primary Filter:** Activated carbon filter (Replacement # XF102)
- 4 Power Inlet Jack:** Plug in transformer cord here.
- 5 Mounting Hole:** 1/4"x20 threaded hole allows for mounting unit on a tripod, etc. Max screw length 5mm.
- 6 Pre-filter:** Activated carbon fiber pad (Replacement # XF105)
- 7 Hood:** Removable. Can be attached in any position.
- 8 Hood Grip:** Soft rubber, removable.

Basic Operation

Connect the Transformer cord to the Power Inlet Jack on the main housing. Plug the Transformer into a power outlet. The Power Switch has two positions marked "I" and "II". Switch position I provides quieter operation and lower air flow for more efficient smoke removal. Switch position "II" provides higher air flow. Use the setting that best suits your needs.

The unit should be placed close to the source of smoke for best results. We recommend using it with the Hood attached, but it can be used without the Hood if desired. Because the Hood is square it will snap into the housing in any position. The unit can be used upright or laying on its side (see front page). It is generally most effective at capturing smoke in the upright position. The Hood can be used with or without the supplied Hood Grip.

The Razaire™ MINI can be left running for extended periods in order to further reduce smoke particles from the air.

Cleaning

If desired the main body of the unit and the Top Cap can be cleaned with a damp cloth. The Hood and Hood Grip can be cleaned in soapy water and dried with a soft cloth. Do not use cleaning chemicals on the Hood. Use care to avoid scratching the Hood when cleaning. Do not attempt to wash or otherwise clean the filters.

Technical Data

Model: Razaire™ MINI X60
Operating Power requirements: 12DC 1.0A
Power Transformer Input: 120-240VAC, 50/60Hz, 0.50A
Output: 12VDC, 1.0A
Operating temperature range: 13C to 40C
Size: 5.25"x5"x6" (133mm x 127mm x 153mm)
Weight: 0.95 lb / 430gm

Filter Replacement

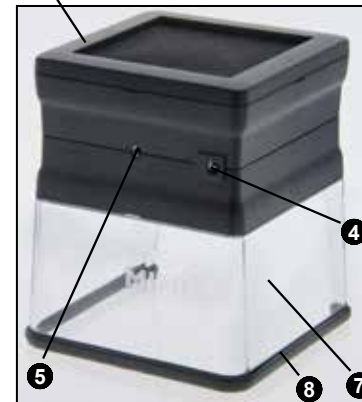
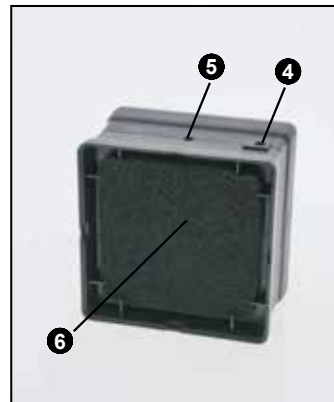
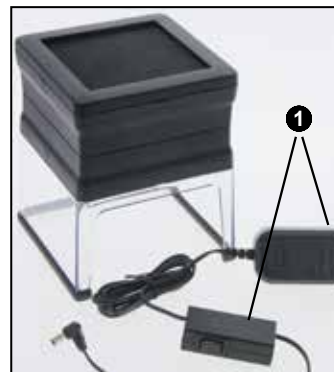
For most effective smoke reduction the filters must be replaced regularly. Recommended replacement interval for the Pre-filter is approximately every 25 hours of burning if you burn hot and generate lots of smoke, and approximately every 50 hours if you burn more moderately. The Primary Filter should be replaced every other time you replace the Pre-filter. This works out to roughly 50-100 hours between Primary Filter changes. This is a basic guideline only. You may find that you want (or need) to replace filters more frequently or less frequently, depending on how effective you feel the filter is removing smoke while you're burning. The unit can still be used as a fan to draw air away from your burning surface even if the filters are removed or no longer effective. Replacement filters are available from your dealer or directly from Razertip.

Replacing the Pre-filter

The Pre-filter **6** is held in by friction and simply pulls out of the unit. Install a new filter by pressing it into place. This can be done with the Hood either attached or removed. Dispose of old filter with household trash.

Replacing the Primary Filter

Pry the Top Cap **2** from the body of the unit. The Primary Filter **3** simply lifts out of the unit. Drop the new filter in place (any position will work). Snap the Top Cap back in place. Old filters are compostable (with paper frame removed), or they can be disposed of with household trash.



Adding Primary Filter Stages

You can increase the filtering efficiency of the Razaire™ MINI by adding one or more Primary Filter Expansion Kits (#XF200). Each kit includes an Expansion Frame and a new Primary Filter. To install simply remove the Top Cap from the unit and snap in the Expansion Frame. The extra filter can be set directly on top of the existing filter (be sure to remove the protective paper sides from the new filter first). Snap the Top Cap back in place. You can add as many extra Primary Filter stages as you want, however air flow through the unit will be reduced slightly with each additional filter stage you add. Note: You cannot add extra Pre-filters to the Razaire™ MINI.



Warranty Information

Your Razaire™ MINI is guaranteed to operate properly for a period of three (3) years. This warranty does not cover filters as they are a consumable item. Filters are guaranteed to be free from defects at time of purchase. The warranty provides for repair or replacement, at the manufacturer's option, of any defective components. This warranty is limited to the actual cost of repairs and will not cover shipping costs or any consequential damages resulting from failure of the unit or its components to perform as stated. All warranty work must be done by the manufacturer. The manufacturer will not cover the costs of repairs done elsewhere. Warranty will be voided if the unit has been tampered with, altered or repaired by unauthorized persons or companies. In the event that your unit should need service, our average repair turn around time is only one day in shop. To receive in-warranty or out-of-warranty servicing, return the complete unit to your dealer or send it directly (prepaid) to Razertip Industries Inc.