

The HearthCAT™ Emission Control System for Wood Burning Fireplaces is an add-on catalytic device that reduces particulate pollution and smoke from wood burning fireplaces by 80%. It is a passive technology that doesn't require any power. The unit operates maintenance free and is not visible to the homeowner.

## HearthCAT™ Emission Control System

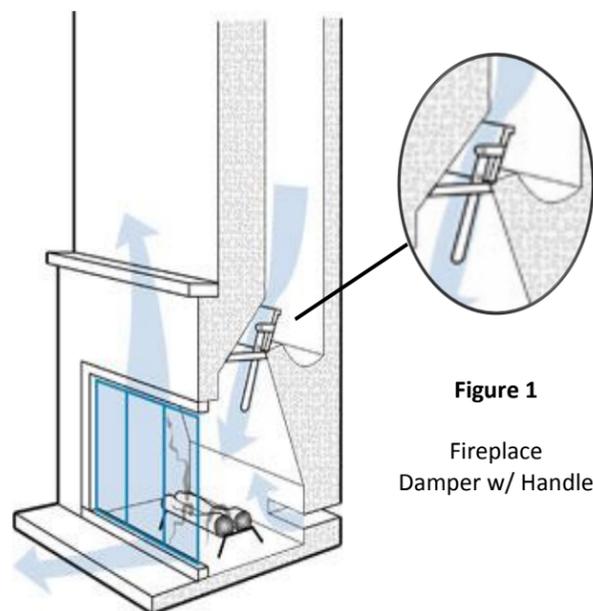
Proper use of a wood burning fireplace equipped with the HearthCAT™ is important to insure maximum pollution reduction. Simple fuel considerations with regard to moisture content, size, and quality of wood fuel will help control the wood smoke and ultimately improve the performance of the catalyst and the fireplace. With proper care, the unit will provide years of fuel savings and lowered emissions. By following some simple guidelines, you will ensure maximum performance and longevity. The smoke that is usually seen coming out of a chimney is essentially a combination of unburned fuel (carbon and hydrogen) and moisture in the form of water vapor. The catalyst is a technology that provides secondary combustion for the wood burning process.

### Burn Clean Dry Firewood Only

Burn **only** dry, seasoned (cured) wood with less than 20% moisture. Avoid the use of treated, painted and laminated wood. Never burn garbage or other foreign materials. Avoid artificial logs, colored newspaper or petroleum based fire starters. Avoid wood with high salt content. All of these materials may contain compounds which can shorten the life of the catalyst. Wet or unseasoned wood may lower catalytic temperatures and result in inefficient operation. The catalyst is designed to function at optimum efficiency when the fireplace is burning clean, dry cordwood as fireplace fuel. A simple visual inspection of the chimney during the wood burning process will determine catalyst performance.

**NOTE:** Chimney smoke may be visible during the first 8-10 minutes of fireplace operation when the fire is first started and also during the final 8-10 minutes of operation when the fire is dissipating. Under normal operating conditions, you should see little or no smoke coming out the chimney. If a continuous plume is visible from the chimney, make sure you are burning only dry seasoned wood (<20% moisture content).

In most cases, a visible plume is the result of high moisture content in the firewood.



**Figure 1**  
Fireplace  
Damper w/ Handle

### Fireplace Damper

Your fireplace is equipped with a "flapper" style damper with an operating handle that extends downward into the upper chamber of the firebox. The HearthCAT™ is designed to slide over the damper handle and attach to the damper opening. The damper handle will pass through the center of the HearthCAT™ device when the device is installed. Two ¼" mounting bolts will anchor the HearthCAT™ securely to the back wall of the fireplace.

#### CAUTION

***The damper must be in the open position at all times when the fireplace is in use. Never burn a fire with the damper closed!***

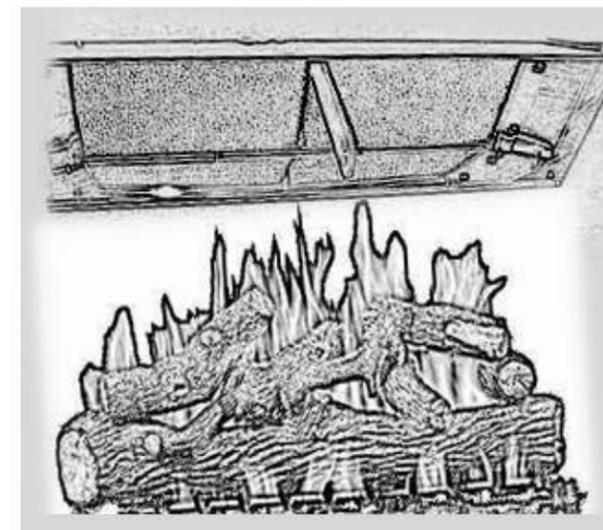
## HearthCAT™ Fireplace Technology

The HearthCAT™ Emission Control Technology from Clear Skies Unlimited is a catalytic system designed especially for wood burning fireplaces. The HearthCAT™ utilizes a patented smoke hood to capture the pollutants from the fire allowing most of the dilution air to bypass the hood and exit through the flue system. The HearthCAT™ Combustor provides a secondary ignition for the wood smoke combustibles preventing them from leaving the firebox as particulate pollution. The direct flame on the catalytic surface actually cleans the catalytic unit.

The HearthCAT™ is manufactured from high quality stainless steel. The catalytic component is a state-of-the-art ceramic material designed to operate in the direct flame of a fireplace.

The HearthCAT™ is equipped with (2) sets of mounting brackets to attach the hood assembly onto the wall of the firebox. The flat brackets are designed for masonry fireplaces while the other brackets should be used on factory built "metal box" fireplaces. The mounting hardware is designed with a lip on the front to prevent the HearthCAT from moving. The attachment brackets will suspend the HearthCAT™ above the grate. The mounting screws will securely attach the hood to the sides of the firebox.

**Figure 3** HearthCAT™ Device in Operation



**Figure 2** HearthCAT™ Device  
with Masonry Mounting  
Brackets



### HearthCAT™ Operation

The HearthCAT™ Wood Burning Fireplace Emission Control System is positioned directly above the grate against the back of the firebox.

The damper handle will extend downward in the center of the HearthCAT™. The fireplace damper remains fully operational. The opening between the HearthCAT™ Combustor blocks will allow the damper handle to move freely "back-and-forth".

#### CAUTION

***The damper must be in the open position at all times when the fireplace is in use. Never burn a fire with the damper closed!***

### Maintenance & Catalyst Replacement

The HearthCAT™ Wood Burning Fireplace System does NOT require any maintenance. It utilizes a "self-cleaning" catalytic component. The only time you should remove the catalytic component is for replacement purposes. There are four (4) screws holding the catalytic block in the HearthCAT™ hood. Once the screws are removed, the catalytic block is easily removed. New screws are provided with the replacement catalyst.

# Warranty

Clear Skies Unlimited, Inc. ("Clear Skies") warrants to the consumer who purchases a new HearthCAT™ Emission Control System as a new component, to replace the catalytic component at no charge should it cease to function within three years from the date of purchase.

The HearthCAT™ Catalytic System is designed to perform efficiently for a minimum of three years of fireplace operation. ONLY recommended fuels should be burned. Follow the fueling directions in manufacturers operating manual. For warranty replacement, proof of HearthCAT™ purchase and return of defective unit is required. Labor for removal and/or re-installation of the catalytic component is not the responsibility of the manufacturer. This warranty applies only to CS-100 Series HearthCAT™ catalytic components manufactured by Clear Skies Unlimited Inc.

For replacement of a Clear Skies catalytic combustor or to file a warranty claim under the conditions of this warranty, please contact the manufacturer @ [www.clearskiesunlimited.com](http://www.clearskiesunlimited.com) and complete the online Warranty Return Form.

## DISCLAIMER

NEITHER CLEAR SKIES UNLIMITED INC. NOR THE DEALER WHO SELLS THE HEARTH-CAT™ EMISSION CONTROL SYSTEM IS RESPONSIBLE FOR INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE IMPROPER USE OF THIS PRODUCT OR THE CONTINUED USE OF THIS PRODUCT BEYOND THE REQUIRED REPLACEMENT PERIOD.

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Changes may periodically be added to this information, and Clear Skies may change the products or services described in this publication at any time. Contact your local HearthCAT™ dealer for further information before relying on the accuracy of any information contained herein.

Contact:

**Clear Skies Unlimited Inc**  
11208 Cochiti SE  
Albuquerque, NM 87123

[www.clearskiesunlimited.com](http://www.clearskiesunlimited.com)

**HearthCAT™**  
**Fireplace Technology**



**Wood Burning Fireplace  
Retro-Fit Instructions**

**Model MFR-36**

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