

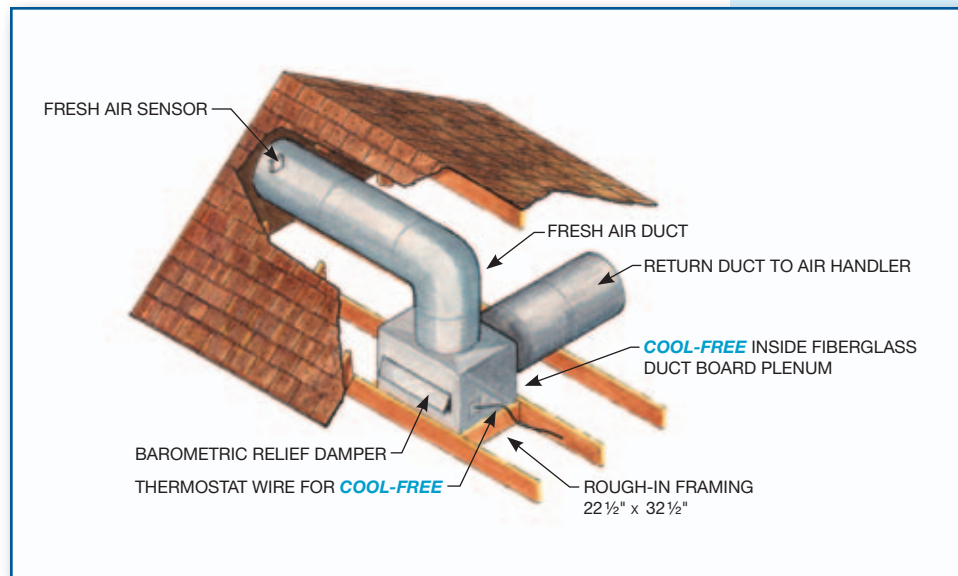
Get Free Cooling with the “COOL-FREE” fresh air economizer system.

Why have the complete air conditioning system operating when it is cool outside?

Why open windows for fresh air when the **COOL-FREE** system provides the fresh air without the security concern of open windows? The **COOL-FREE** works great for both Day and Night operation!

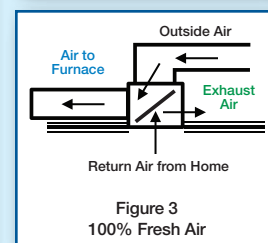
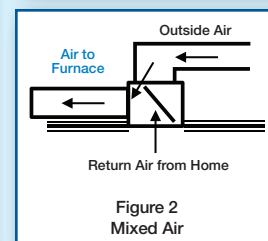
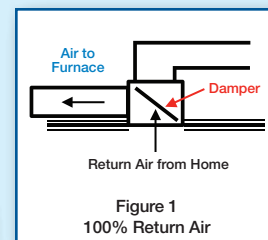
Let the fresh air cool the house
AUTOMATICALLY when outside
conditions allow!

Provide fresh air with cooling and
heating for better indoor air quality
and to meet new IAQ standards!



How It Works

The **COOL-FREE** economizer is installed with the home's air conditioning system. During heating or air conditioning operation, the system operates normally (Figure 1). If desirable, a minimum amount of outside air can be added to the system's return air to provide better indoor air quality (Figure 2). When the outside air is cool and the home needs cooling, the damper will open, allowing the furnace blower to bring cool outside air into the home while automatically disabling the most costly part of the A/C system, the compressor (Figure 3).



Fresh air economizers have been used for over 30 years in commercial air conditioning applications. In many areas of the country (including California) they are required on commercial buildings by the building codes. Now, the **COOL-FREE** system utilizes the same proven commercial control system for residential applications, insuring a quality system. The chart below illustrates the tremendous amount of cool air that is available for economizer usage in California.

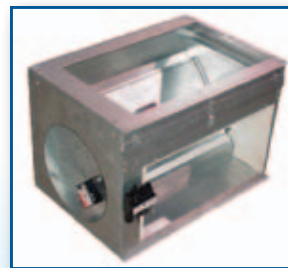
Outside Air Temperature Ranges with Hours per Year

Temperature (F)		Hours per Year between Temperatures					
		Bakersfield	Fresno	Los Angeles	Sacramento	San Diego	San Fran
>105	110	10	7				
>100	105	87	96		19		
>95	100	243	278	1	87		1
>90	95	300	272	1	154		6
>85	90	492	387	10	258	27	15
>80	85	721	525	66	406	115	28
>75	80	798	599	279	429	401	69
>70	75	671	603	609	433	880	185
>65	70	859	879	1,734	724	2,221	619
>60	65	1,005	1,025	2,812	1,252	2,502	1,313
>55	60	925	851	1,986	1,304	1,769	2,299
>50	55	1,040	1,016	979	1,363	602	2,535
>45	50	686	848	229	851	182	1,050
>40	45	519	699	51	942	53	478
>35	40	336	473	3	470	8	149
>30	35	57	176		68		13
>25	30	8	26				
>20	25	3					
>15	20						
Hours per Year		8,760	8,760	8,760	8,760	8,760	8,760
Econ Hours (50° to 70°)		3,829	3,771	7,511	4,643	7,094	6,766
% Economizer Hours		44%	43%	86%	53%	81%	77%

Hourly data per the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)



COOL-FREE
Behind the Return Grill



COOL-FREE
Outside/Return assembly with pre-wired factory-mounted sensors and logic center