



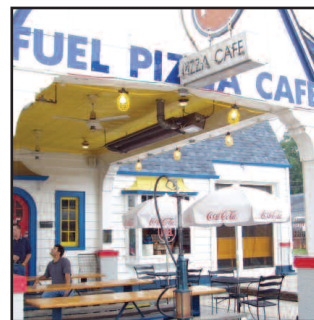
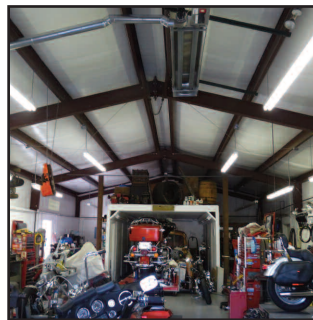
**SPACE-RAY**  
INFRARED GAS HEATERS

# COLD BLOCKER™ CB SERIES

*Pull Through Tube Heater  
Negative Pressure*



Solutions For Commercial & Residential Heating





# Cold Blocker Infrared Tube Heaters

*Solutions For Commercial & Residential Heating Since 1949*

- Residential Garages ■ Workshops
- Swimming Pools ■ Solariums
- Enclosed Patios ■ Entry Ways
- Small Unheated Areas ■ Club Houses
- Restaurants ■ Warming Stations
- Storage Warehouses ■ Farm Buildings
- Greenhouses ■ Mechanical Rooms



## Announcing The Space-Ray Cold Blocker

A compact size energy efficient infrared gas tube heater is now available for use in residential garages and light commercial buildings. The Space-Ray Cold Blocker industrial strength infrared heater is made especially for residential garages, workshops, or virtually any small unheated space. Its compact size (only 9 feet 3 inches in overall length) allows placement in those small, hard to heat areas where longer infrared tube heaters could not previously be used.

## Heat From The Bottom Up

The Space-Ray Cold Blocker heats from the bottom up. People, objects and floors are warmed directly by the sun like radiant infrared heat. These surfaces absorb the heat and then re-radiate it back to the surrounding air to maintain a blanket of warmth within the heated space. Working from the bottom up saves energy and lowers fuel bills. In contrast, with a conventional forced air heating system, energy dollars must be spent to constantly heat, circulate and re-heat the cold air. Forced air works from the top down, heating the air in the upper sections of the building and stratifying from the ceiling downward. This makes the floor area the last and most difficult to heat. In addition, draft-free and quiet operation makes it the preferred heater when compared to forced air heaters.

## Fuel Savings Up To 50%

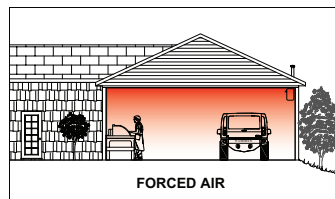
With the Space-Ray Cold Blocker, improved comfort levels can be achieved along with lower fuel bills. In many buildings, owners have experienced annual fuel savings of between 30% and 50% when compared to conventional forced air systems. Now this savings and comfort can be yours, too.

## Versatile And Reliable

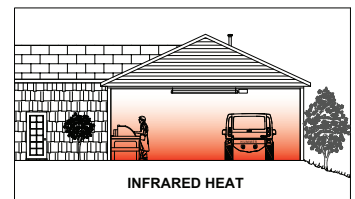
The Space-Ray Cold Blocker is both versatile and reliable. Each unit is factory pre-assembled for easy, low cost installation and is available in four sizes from 20,000-50,000 BTU/Hr. All models are available in either natural or propane gas and have been design certified by CSA. Reliability and durability are underscored through the use of high quality materials like calorized (heat treated) tubes, maintenance-free draft inducer assemblies and redundant step-opening gas valves.

## Call For More Information

So, when you think comfort heating for residential garages, restaurants or light commercial buildings, think about the Space-Ray Cold Blocker. Call our toll-free number, 1-800-438-4936 or visit us at [www.spaceray.com](http://www.spaceray.com) for more information and the name of the Space-Ray representative nearest you.



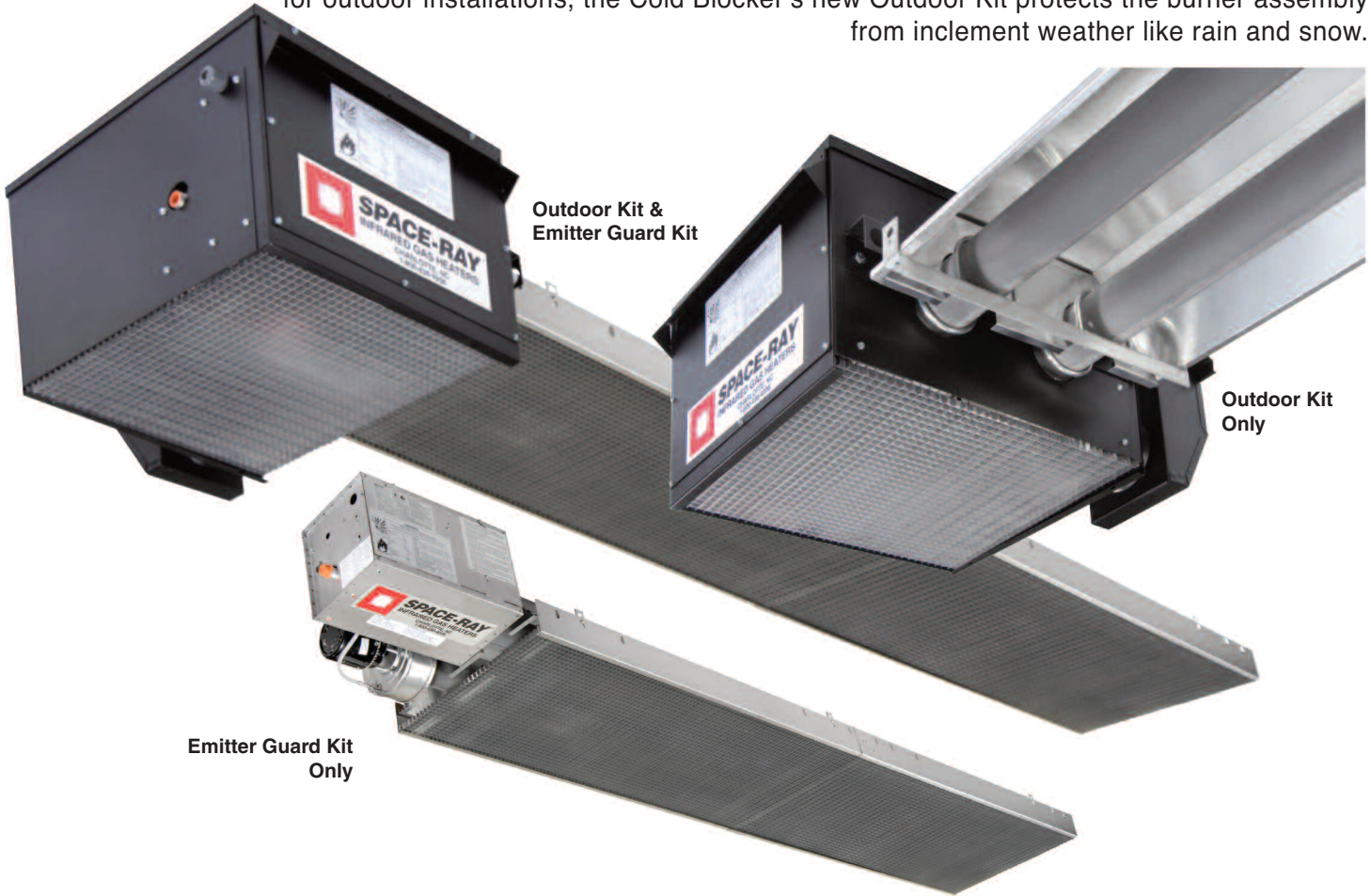
Forced air works from the top down, heating the air first and stratifying from the ceiling downward. More heat is wasted in the upper area of the building.



Infrared heat works from the bottom up, warming people, floors and objects first without heating the air. Comfortable heat is retained at floor level.

# Optional Emitter Guard Kit & Outdoor Kit

The new Emitter Guard Kit covers the bottom, exposed area of the heater for cosmetic purposes - ideal for commercial patios and restaurants or other areas where appearance may be a concern. When used for outdoor installations, the Cold Blocker's new Outdoor Kit protects the burner assembly from inclement weather like rain and snow.



MODEL	SINGLE STAGE BTU/HR INPUT	TWO STAGE		TOTAL EMITTER TUBE LENGTH
		BTU/HR HIGH INPUT	BTU/HR LOW INPUT	15FT
CB 20	20,000	20,000	NA	X
CB 30	30,000	30,000	NA	X
CB 40	40,000	40,000	25,000	X
CB 50	50,000	50,000	31,500	X

CONTROL SUFFIX	TYPE OF GAS	CONTROL OPTION DESCRIPTION
N5 / L5	Natural / Propane	Single Stage Gas Valve - Single Stage Input
N7 / L7	Natural / Propane	Two Stage Gas Valve - Modulating Input - High/Low Fire

Indicate model number based on Btu/hr input (e.g. 50,000 Btu/hr), emitter length (e.g. 15 ft.). Control suffix (e.g. Natural Gas single stage input). The unit selection would be CB50-15-N5

GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE		VOLTAGE	AMPS	IGNITION TYPE	FLUE CONNECTION	OUTSIDE COMBUSTION AIR CONNECTION
		MIN	MAX					
NATURAL	3.5" W.C.	5" W.C.*	14" W.C.	120 VAC 60 HZ	2.6	DIRECT SPARK	4" Round	4" Round
PROPANE	10" W.C.	11" W.C.	14" W.C.					

NOTE: For all installations higher than 2000 ft. above sea level, please consult the factory regarding recommended derating of heaters.

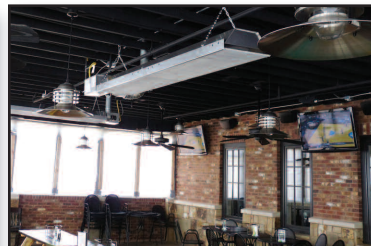
## Space-Ray's Cold Blocker Is Suited For Many Applications, Indoors and Out



A covered restaurant patio application



A private club dining area



Mellow Mushroom outdoor dining area



Heaters embedded in the overhang at a rooftop bar

# CB Specifications, Clearances & Dimensions

Cold Blocker Tube Heater Features
<ul style="list-style-type: none"> <li>Four input sizes from 20,000 to 50,000 BTU/Hr</li> <li>Natural or propane gas</li> <li>Single stage or modulating two stage controls</li> <li>U-tube design for uniform energy distribution</li> <li>Compact size for easy installation from 8' to 16' above floor</li> </ul>

Vacuum System- Pull Through System
<ul style="list-style-type: none"> <li>Products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety</li> <li>75 feet sidewall venting capability</li> </ul>

Burner System
<ul style="list-style-type: none"> <li>One-piece cast iron burner</li> <li>10-year limited warranty on burner</li> <li>Direct outside air for combustion</li> <li>4" O.D. combustion air intake and vent</li> <li>Direct spark ignition system with step-opening gas valve and 100% gas shut-off safety control (pre-purge)</li> <li>Three monitoring lights for diagnosis of maintenance needs</li> </ul>

Radiant Emitter Tube System
<ul style="list-style-type: none"> <li>3" O.D. calorized aluminized steel emitter tube for long life and high radiant efficiency</li> <li>5-year limited warranty on the emitter tube</li> <li>Smooth cast iron "U" bend</li> </ul>

Reflector System
<ul style="list-style-type: none"> <li>Highly efficient aluminum reflectors with reflectivity rating of 97%.</li> <li>Reflector ends are enclosed for maximum radiant heat output and minimum convection loss</li> <li>Suitable for horizontal or angle mount up to 45 degrees</li> </ul>

Other
<ul style="list-style-type: none"> <li>Lower mounting height kit required on heater installations between 6 and 8 feet</li> <li>Optional Deflector Kit for reduced clearances to combustible materials</li> <li>Optional Decorative Grille Kit for drop ceiling applications</li> <li>Optional Outdoor Kit and Emmitter Guard Kit</li> </ul>

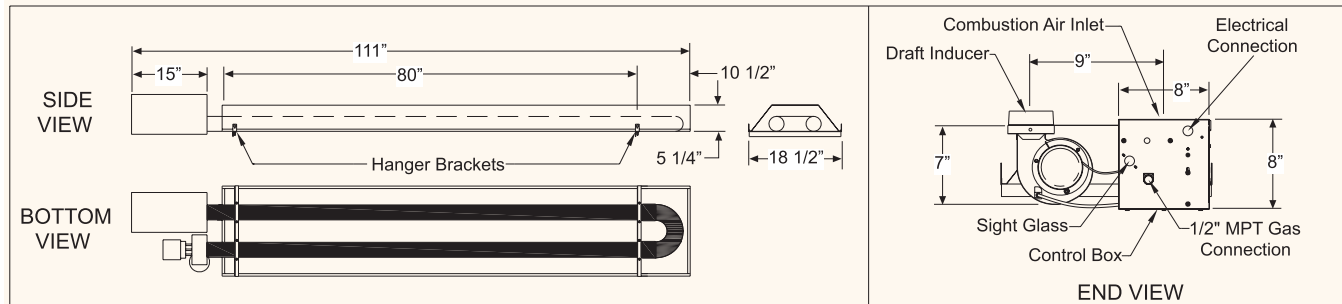
## Minimum Clearances To Combustibles

MINIMUM CLEARANCES TO COMBUSTIBLES	MODEL NO.	SIDE	CEILING	BELOW	END	(45°) FRONT	(45°) REAR
	CB 20	8"	4"	41"	8"	30"	4"
	CB 30	8"	4"	41"	8"	30"	4"
	CB 40	12"	4"	57"	8"	40"	4"
	CB 50	12"	4"	57"	8"	40"	4"

Notes: 1) The clearances below with deflector are: CB(50,40) – 42" and CB(30,20) – 33". 2) In Canada, the clearances below the heater are: CB(50,40) – 48" (36" with deflector) and CB(30,20) – 36" (27" with deflector). 3) Maintain 30" side clearance with deflector

## Dimensions

For versatility side reflectors are available for close area mounting near walls and decorative grilles above suspended ceiling applications.



## Venting Requirements

In residential applications, heaters must be vented outside the building with a flue pipe. In commercial applications, heaters can be common vented, individually vented or indirect vented. A vented installation must be vented outside the building with a flue pipe. An indirect vented installation requires a minimum ventilation flow of 4 CFM per 1000 BTU/hr of total installed heater capacity on natural gas by either gravity or power ventilation (4.18 CFM per 1000 BTU/hr on propane).

## Installation Requirements

Installation and service must be performed by a licensed contractor. The installation must conform to local codes. In the absence of local codes, the installation must conform with the National Fuel Gas code, ANSI Z223.1 (latest edition also known as NFPA54) or GCA B149 (latest edition) installation codes. These codes are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, MA 02269 or the Canadian Gas Association, 55 Scarsdale Road, Toronto, Ontario M3B 2R3, CANADA

## For Your Safety

Operate Cold Blocker infrared heaters with proper care and observe all safety precautions. Carefully follow printed installation, operating and cleaning instructions furnished with the heater. Do not store gasoline or combustible products in the vicinity of the heater. Keep children, clothes and drapery away from the heater. Do not touch the heater or the tubes while the heater is in operation. Adequate ventilation must always be provided in accordance with codes.



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