SPACE-RAY®
INFRARED GAS HEATERS

The Cold Blocker™

Infrared Gas Heating For
Restaurants & Patios

SPACE-RAY®
INFRARED GAS HEATERS
Since 1949

Cold Blocker™ Infrared Tube Heaters

- ✓ Restaurants
- ✓ Patios
- ✓ Entry Ways
- ✓ Club Houses
- ✓ Warming Stations
- ✓ Small Unheated Areas

- ➤ **4 Different Sizes From 20 To 50,000 BTU/Hr.**
- ➤ **Single Or Two Stage Controls with Thermostat.**
- ➤ **No Exposed Flame — Wind Resistant.**
- ➤ **U-Tube Design For Uniform Energy Distribution.**

Announcing The Space-Ray Cold Blocker

Space-Ray's compact-sized, energy efficient, infrared gas tube heater is designed for use in indoor restaurant facilities and outdoor patio spaces. 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.

How Infrared Heating Works

The Space-Ray Cold Blocker™ heats from the bottom up. Surfaces at floor level will absorb the heat and then re-radiate it back to the surrounding air to maintain a blanket of warmth within the heated space. With forced air heating systems, energy is expended to constantly heat and re-circulate the air in the upper sections of the building first, before it stratifies down from the ceiling. This makes seating areas the last and most difficult area to heat.

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.

The Best Alternative To Mushroom Style Heaters

The Cold Blocker offers 3 distinct advantages over round, free-standing mushroom style patio heaters. First, it's not affected by windy conditions. The flame is totally enclosed inside the emitter tube and not affected by atmospheric or environmental-conditions. Second, 20 lb. LP gas tanks are eliminated – restaurant staff can focus on serving customers rather than routinely replacing empty LP tanks. Finally, in most cases a Cold Blocker system owner can reduce heating cost as much as 75% when connected to natural gas system, 50% when connected to an LP system.

INFRARED RADIANT HEAT

This illustration shows how infrared heat energy works from the bottom up. People, objects and floors are warmed directly by the sun-like radiant infrared heat. Unlike forced-air heaters, a comfort level is achieved without first warming the surrounding air. Comfortable heat is retained at floor level.

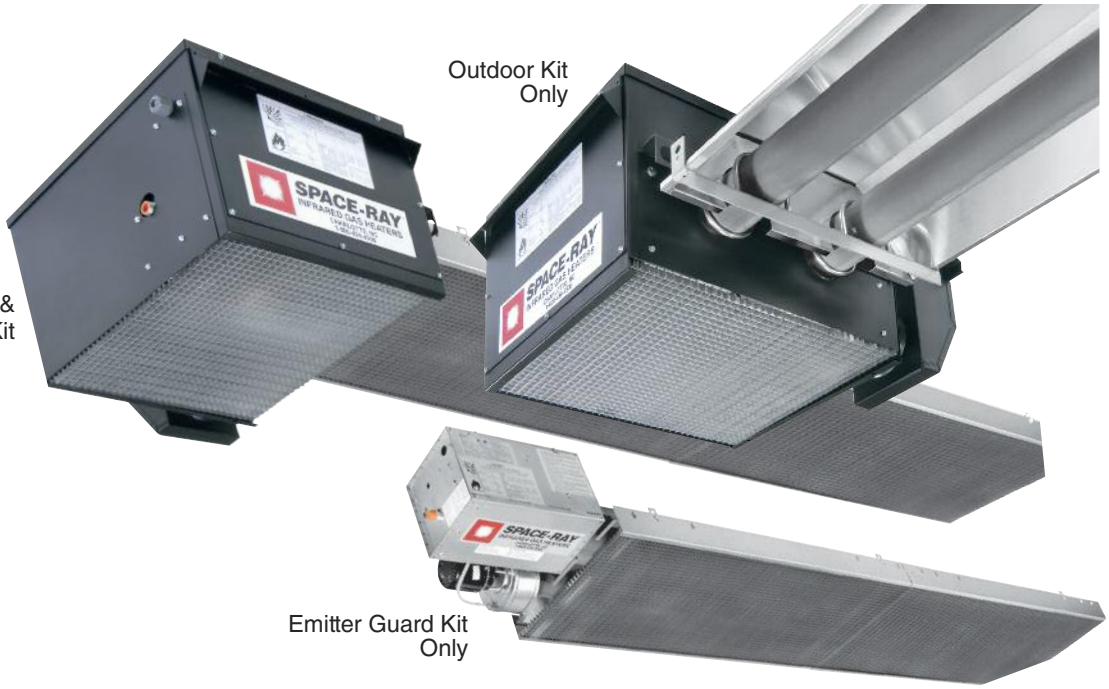
Versatile And Reliable

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 motors and redundant step-opening gas valves.

Call For More Information

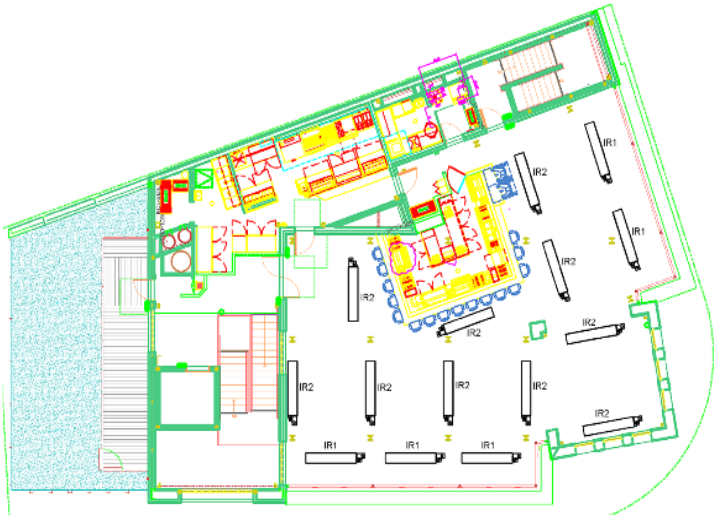
Consider the Space-Ray Cold Blocker for your restaurant facility or outdoor patio. Call our toll-free number, 1-800-438-4936 for more information and the name of the Space-Ray representative nearest you, or visit us at www.spaceray.com.

Optional Emitter Guard Kit & Outdoor Kit



3 Position Switch for N7/L7 Controls

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. The Emitter Guard Kit with the egg-crate decorative grill limits the heater's radiant throw, when compared to exposed emitter tubes, by approximately 30%. When used for outdoor installations, the Cold Blocker's new Outdoor Kit protects the burner assembly from inclement weather like rain and snow.



Restaurant Layout Design

Multiple Cold Blockers can be used to provide ultimate comfort in restaurants. Heaters can be zoned based on restaurant occupancy and can be controlled with a thermostat or a three position switch.

MODELS	SINGLE STAGE BTU/HR INPUT	TWO STAGE BTU/HR HIGH INPUT	TWO STAGE BTU/HR LOW INPUT	TOTAL EMITTER TUBE LENGTH 15 FT
CB 20	20,000	20,000	N/A	●
CB 30	30,000	30,000	N/A	●
CB 40	40,000	40,000	25,000	●
CB 50	50,000	50,000	31,500	●

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

	BURNER PRESSURE	SUPPLY PRESSURE MIN	SUPPLY PRESSURE MAX	VOLTAGE	AMPS	IGNITION TYPE	FLUE CONNECTION	OUTSIDE COMBUSTION AIR CONNECTION
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.

CB Specifications, Clearances & Dimensions

Cold Blocker Tube Heater Features

- Four input sizes from 20,000 to 50,000 BTU/Hr
- Natural or propane gas
- Single stage or modulating two stage controls
- U-tube design for uniform energy distribution
- Compact size for easy installation from 8' to 14' above floor

Vacuum System Pull Through System

- Products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety
- 75 feet sidewall venting capability

Burner System

- One-piece cast iron burner
- 10-year limited warranty on burner
- 4" O.D. combustion air intake and vent
- Direct spark ignition system with step-opening gas valve and 100% gas shut-off safety control (pre-purge)
- Three monitoring lights for diagnosis of maintenance needs

Radiant Emitter Tube System

- 3" O.D. calorized aluminized steel emitter tube for long life and high radiant efficiency
- 5-year limited warranty on the emitter tube
- Smooth cast iron "U" bend

Reflector System

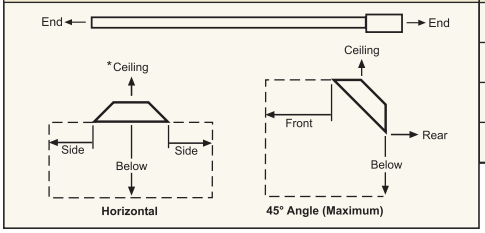
- Highly efficient aluminum reflectors with reflectivity rating of 97%
- Reflector ends are enclosed for maximum radiant heat output and minimum convection loss
- Suitable for horizontal or angle mount up to 45 degrees

Other

- Optional Deflector Kit for reduced clearances to combustible materials
- Optional Decorative Grille Kit for drop ceiling applications
- Optional Outdoor Kit and Emitter Guard Kit

Minimum Clearances To Combustibles

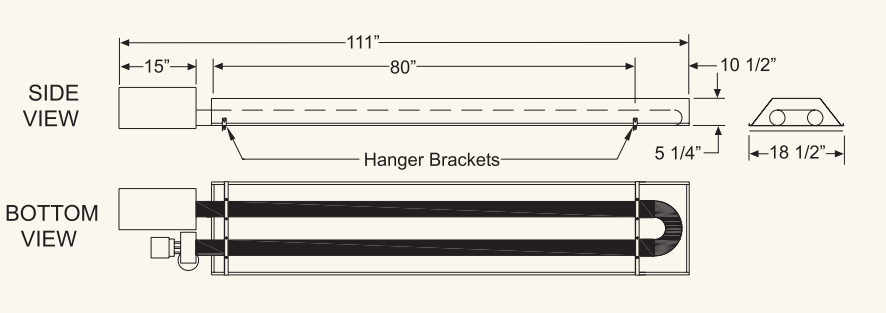
MINIMUM CLEARANCES TO COMBUSTIBLES

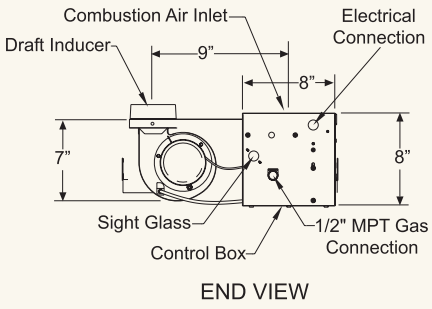


MODEL NO.	SIDE	CEILING	BELOW	END	(45°) FRONT	(45°) REAR
CB 20	8"	4"	41"	8"	30"	4"
CB 30	8"	4"	41"	8"	30"	4"
CB 40	12"	4"	57"	8"	40"	4"
CB 50	12"	4"	57"	8"	40"	4"

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





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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A Division of Gas-Fired Products, Inc

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