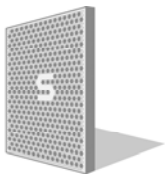
INSTALLATION / OWNER'S MANUAL

Schwank
INNOVATIVE HEATING SOLUTIONS



infrasave
radiant heaters

ECOSCHWANK & ECOSCHWANK X-Series

IL & IL X-Series

LUMINOUS GAS FIRED INFRA RED HEATERS

FOR YOUR SAFETY:
Do not store or use gasoline or other flammable vapours and liquids in the vicinity of this or any other appliance.
If you smell Gas:
>Extinguish any open flames
>Don't touch electrical switches

FIELD CONVERTIBILITY:

"The conversion shall be carried out in accordance with the requirements of the authorities having jurisdiction and in accordance with the requirements of the B149.1-00 (latest edition) INSTALLATION CODE" in Canada, and the ANSI Z223.1 (latest edition) in the U.S.A.

DESIGN CERTIFIED®

FOR YOUR SAFETY
If you smell gas:
1) Open windows
2) Don't touch electrical switches
3) Extinguish any open flame
Immediately call your gas supplier

CERTIFIED®

GP-MECX-CX-04D
eco / IL & eco-X / IL-X Manual
RD: JAN 2009
RL: 4D
BA

NOTICE:

The manufacturer reserves the right to make changes to equipment and specifications without obligation or notification.

Schwank Group
5285 Bradco Boulevard,
Mississauga, Ontario,
phone: (905) 712-4766
fax: (905) 712-8336
1-866-361-0417

PO Box 988, 2 Schwank Way
Waynesboro,Georgia,
USA 30830
Phone: (706) 554-6191
Technical Support: 1-877-446-3727
Fax: (706) 554 9390

e-mail: info@schwankgroup.com

www.schwankgroup.com

InfraSave
Mississauga, Ontario
Waynesboro,Georgia
1-866-INFRASV (463-7278)
Fax: 1-866-724-9265

Info@infrasave.com

www.infrasave.com

ecoSchwank & ecoSchwank X Series / IL & IL X Series
LUMINOUS
INFRA-RED GAS HEATERS

TABLE OF CONTENTS

GP-MECX-CX-04D
eco / IL & eco-X / IL-X Manual
RD: JAN 2009
RL: 4D
BA

ECOSCHWANK & IL SERIES
ECOSCHWANK-X & IL-X SERIES
GAS FIRED INFRA-RED LUMINOUS HEATER
INSTALLATION INSTRUCTIONS

1. GENERAL

ecoSchwank and **IL** gas fired infra-red luminous heaters are suitable to be installed for heating of non-residential indoor or outdoor spaces. These installation instructions are intended for the eco-Schwank and IL model heaters. All installations must conform to the following installation requirements. All local, state, provincial and national code requirements including the current latest edition B149.1 INSTALLATION CODE" in Canada, and ANSI Z223.1 in the U.S.A. for gas burning appliances and equipment. The latest edition Electrical Code PART 1 CSA C22.1 in Canada and ANSI/NFPA N0 70 in the U.S.A. must also be observed. Due to ever changing standards and requirements, revision to our equipment and installation procedures may be necessary. In case of discrepancies, the latest installation manual will take priority.

The **ecoSchwank** or **IL** heater may be installed for heating of non-residential indoor spaces. It is beyond the scope of these instructions to embrace all conditions that will be encountered. All system piping must be supported in accordance with acceptable practice, local codes, and applicable standards.

2. INSTALLATION REQUIREMENTS

2.1 INSTALLATION IN AIRCRAFT HANGARS

ecoSchwank and **IL** Luminous Heaters are suitable for use in aircraft hangars when installed in accordance with the following:

A. A minimum clearance of 10 ft above either the highest fuel storage compartment or the highest engine enclosure of the highest aircraft which may occupy the hangar. The clearance to the bottom of the heater shall be measured from the upper surface of either the fuel storage compartment or the engine enclosure, whichever is higher from the floor.

B. A minimum clearance of 8 ft must be maintained from the bottom of the heater in other sections of the aircraft hangars, such as offices and shops, which communicate with areas for servicing or storage. Refer to sections 8.3 to 8.5 for proper mounting clearances to combustibles.

C. Heaters must be located so as to be protected from damage by aircraft and other objects, such as cranes and movable scaffolding.

D. Heaters must be located so as to be accessible for servicing and adjustment.

GP-MECX-CX-04D
eco / IL & eco-X / IL-X Manual
RD: JAN 2009
RL: 4D
BA

2.2 INSTALLATION IN COMMERCIAL GARAGES

ecoSchwank and **IL** Luminous Heaters are suitable for use in commercial garages when installed in accordance with ANSI/NFPA No. 88B 1985 (latest edition), which states clearances to combustible construction or material in storage, from heater and vent, must conform to standard NFPA No. 54 (ANSI Z223.1 latest edition), in the U.S.A. and the CSA B149.1 in Canada. "Overhead heaters shall be installed at least (8) feet above the floor". In addition, they shall be located high enough to maintain the minimum distance to combustibles, as shown on the heater rating plate, between the heater and any vehicles parked below the heater.

2.3 INSTALLATIONS OTHER THAN SPACE HEATING

Use for process applications will void the C.S.A. certification and require governing authority field certification at the installers / owners responsibility and expense.

2.4 MOUNTING CLEARANCES

ecoSchwank and **IL** Luminous Heater must be mounted with minimum clearances as shown in sections 8.3 to 8.5. It should also be located with respect to building construction and equipment so as to provide sufficient clearance and accessibility for servicing and cleaning of burners and ignition control.

WARNING:

ecoSchwank and IL Luminous Heaters cannot be installed inside degreasing plants, nor can they be in an area where chlorine, fluorine or bromine are present.

2.5 HEATER MOUNTING

ecoSchwank and **IL** Luminous Heaters are approved for both horizontal and angle mounting. When angle mounting, the short axis may be rotated in either direction to a maximum of 30 degrees with the venturi always in the upper position. Improper angle mounting can result in damage to the heater or unsafe operation.

IMPORTANT:

For either horizontal or angle mounting, the long axis of the heater must be level. Use only non-combustible mounting hardware.

2.6 VENTILATION REQUIREMENTS

Canada: Codes require that an un-vented heater be electrically interlocked to an independent exhaust fan by means of an Air Proving Switch. The exhaust fan must be sized to provide 3 cfm for every 1000 Btu/hr or fraction thereof, of total input of installed equipment. Consult CSA.B149.1 latest edition for requirements.

USA: When a heater is installed un-vented the system requires the exhausting of at least 4 cfm per 1000 Bth/hr on NG, and 4.5 cfm per 1000 Btu/hr for LP. By natural or mechanical means, or electrically interlocked to an independent exhaust fan, for the total input of all heaters installed. Exhaust openings for removing flue products shall be above the level of the heaters.. Consult your state and local codes and ANSI Z223.1 latest edition.

2.7 GAS SUPPLY LINE INSTALLATION

A. All piping must be installed according to local codes.
B. It is recommended to install an approved flexible connector between the heater and gas piping available as option from the manufacturer.
C. A drip-pocket at the inlet connection must be provided.
D. On propane-fired units, a main line filter is recommended.
E. Piping joint compounds must be resistant to the action of liquefied petroleum gases.
F. All piping joints should be tested for leaks with a soap and water solution.

CAUTION: **Do not install any gas piping in heat zones. Do not subject heater controls to leak test pressures when checking the main supply piping.**

2.8 GAS PRESSURE

The maximum supply pressure must be limited to 14" W.C. (0.51 psi). If the line pressure is above 14" W.C., then a separate pressure reducing regulator must be used. The minimum pressure at the inlet to the heater regulator must be equal to or greater than 6.0" W.C. for natural gas and 11.0" W.C. for propane gas.

A sealed regulator is supplied with the heater which maintains the proper manifold pressure when the main burner is operating under the following pressure:

	LINE PRESSURE IWC		MANIFOLD PRESSURE IWC AT TAP IN GAS VALVE
	MINIMUM	MAXIMUM	
NATURAL GAS	6.0	14.0	5.0
PROPANE GAS	11.0	14.0	10.0

INPUT CAPACITIES: Natural gas models have an orifice sized for heat content of 1000 BTU/ CU FT., and propane gas models have an orifice sized for 2500 BTU/CU FT.

2.9 ELECTRICAL REQUIREMENTS AND THERMOSTAT CONTROL

All electrical installations must meet local and the latest edition Electrical Code PART 1 CSA C22.1 in Canada and ANSI/NFPA N0 70 in the U.S.A.. Single heater requires 24 Volt, 60 Hz electrical transformer sized at 40 VA. If multiple heaters are connected to a single transformer, the proper transformer is 24 Volt, 60 Hz, sized at 40 VA for the first heater, and 20 VA each for all subsequent additions. For example, four heaters wired together (parallel), require a transformer of 100 VA. It is not recommended to install more than 12 heaters per zone. PROPER WIRING POLARITY MUST BE MAINTAINED, particularly when grouping the heaters in a zone.

Total wiring distances of up to 200' must use minimum 16 gauge electrical wire, and wiring distances of over 200' must use minimum 14 gauge electrical wire. The heater must be electrically grounded in accordance with the local electrical code. Malfunction of the heating system will result if the voltage varies by more than +10% or -10%.

The heater can be controlled by a line voltage thermostat, a TrueTemp thermostat or “off-on” switch. Total load of all heaters must be considered in determining the required contact rating of the controlling thermostat or switch.

3. INSTALLATION PROCEDURES

A. Properly install gas line as outlined in section 2.7, page 3.
B. Properly connect the ignition control assembly to the heater.
C. Mount heaters by using non-combustible mounting hardware as illustrated in section 3A next page, and section 8.2, page 7. Observe the minimum clearances as outlined in sections 8.3.
D. Connect heater to the main gas line. It is recommended to use a 1/2" flexible connector to absorb gas line expansion and any building vibration (available as option from Schwank Ltd.).
E. Mount thermostat at desired location, away from direct infra-red rays of heater and not on cold wall without sufficient insulation backing. Install exhaust fan, air switch and transformer, as per section 2.6, page 3 and section 2.9, page 4.
F. Check gas line for leakage by using soap test or gas meter test. Ensure gas pressure meets the requirements outlined in section 2.8, page 3.

WARNING:

When testing the main gas line pressure, ensure the gas shut-off valve is “OFF”, otherwise damage to the combination gas valve will result.

G. Ensure proper electrical rating in the system by checking voltage at ignition module terminals. To avoid system malfunction, the voltage range must be within 21.6 volts to 26.4 volts.
H. Test fire the heating system by following the lighting instructions as shown on the next page and on heater.

3.1. ECOSCHWANK-X & IL-X SERIES ONLY - SUSPENSION

1. Insert open Jack Chain link or ‘S” hook from the outside edge through the top hole at each end and each side of the heater body.
   Alternate: secure chain to heater with a nut and bolt through the four top holes

2. Secure in place by closing the chain link or ‘S” hook using pliers

3. Adjust chain lengths for horizontal or angle mount (up to 30°)

4. LIGHTING INSTRUCTIONS

A. Open the isolation valve in the main gas line and turn gas control knob on the combination gas valve to the "ON" position.
B. Switch on electrical circuit by turning the thermostat to the highest temperature setting.
C. The heater should attempt ignition and remain lit within thirty seconds. Note that the corresponding exhaust fan is operating properly.
D. If ignition does not occur, then cut off electrical power by turning the thermostat to off position.

WARNING: If heater back-fires during operation, then it must be turned off immediately.

Indication of back-firing:

A. Loud ignition noise, then followed by distinct hissing sound.
B. Little or no visible burning on the ceramic tile.
C. Combustion is taking place inside the burner body.

Cause & remedy of back-firing:

A. Improper gas pressure entering the venturi tube = check pressure.
B. Breakage of a ceramic tile and or gasketing = replace damaged part.
C. Faulty sealing of the ceramic tile to the burner body, caused by breakdown of gasketing material = contact your Schwank distributor.

5. SHUT DOWN INSTRUCTIONS

A. Turn off electrical circuit for temporary shutdown.
B. Turn off the electrical circuit and turn gas control knob to the "OFF" position for complete shut-down.

6. AIR BORNE PARTICLES

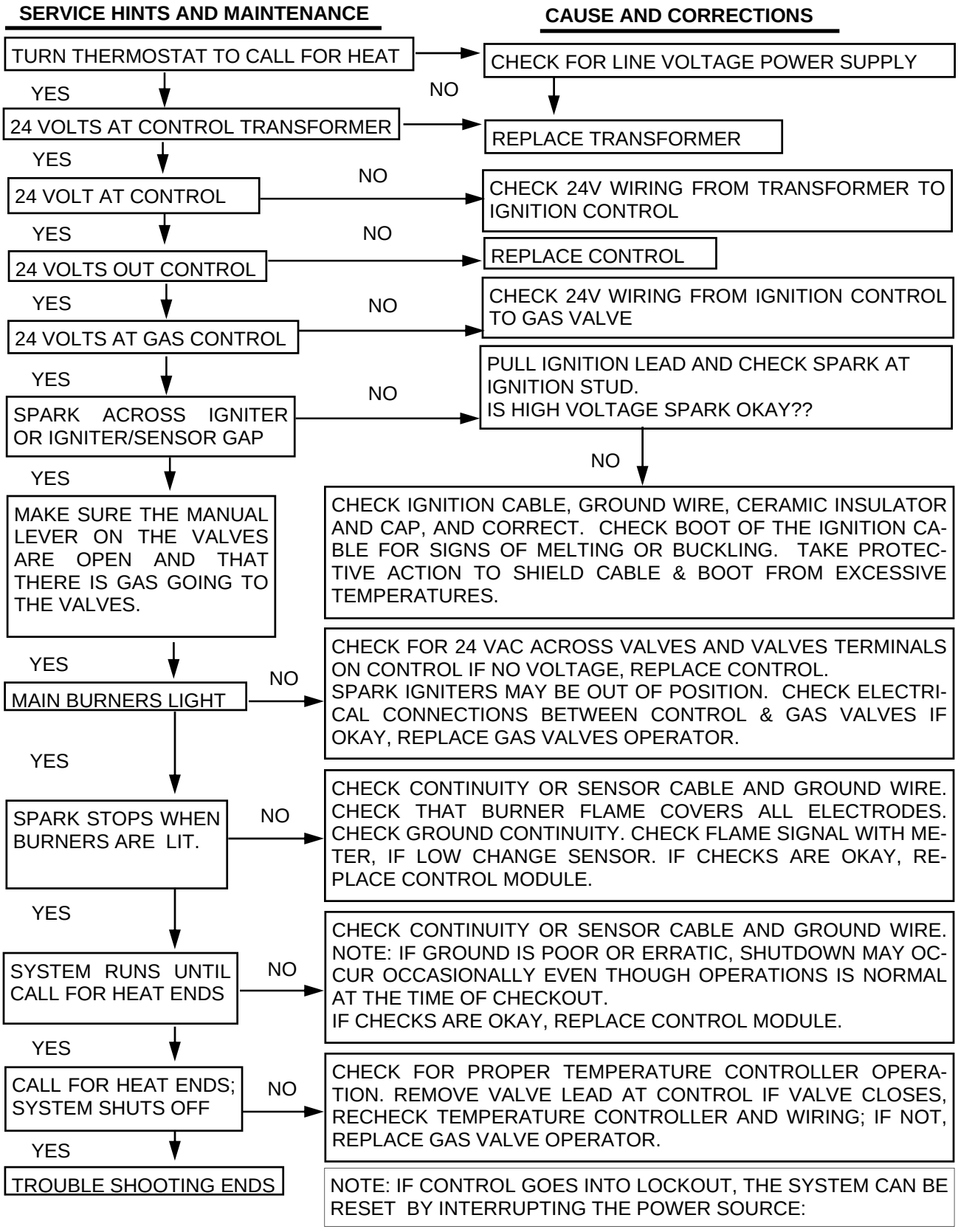
Under certain conditions, heater may discolour due to ambient air borne particle deposits on the outside surface. These deposits in no way affect the operation of the heater nor the manufacturer's warranties.

7. SERVICING GUIDE

Servicing of heater is essential for continued efficient operation. Servicing should be carried out annually by qualified service personnel.

Clean the ceramic tile with compressed air. Avoid directing the air stream at the gasket material located between the tile and heater body. The air pressure must be lower than 20 psi.

7A. TROUBLE SHOOTING GUIDE



8. DIAGRAMS AND SPECIFICATIONS:

8.1 DIMENSION DIAGRAM FOR THE ECO / IL LUMINOUS HEATERS

(Refer to next page for dimensions of ECO-X / IL-X models - Figure 1B & Table 1B)

FIGURE 1A: DIMENSIONS : ECOSCHWANK & IL MODELS

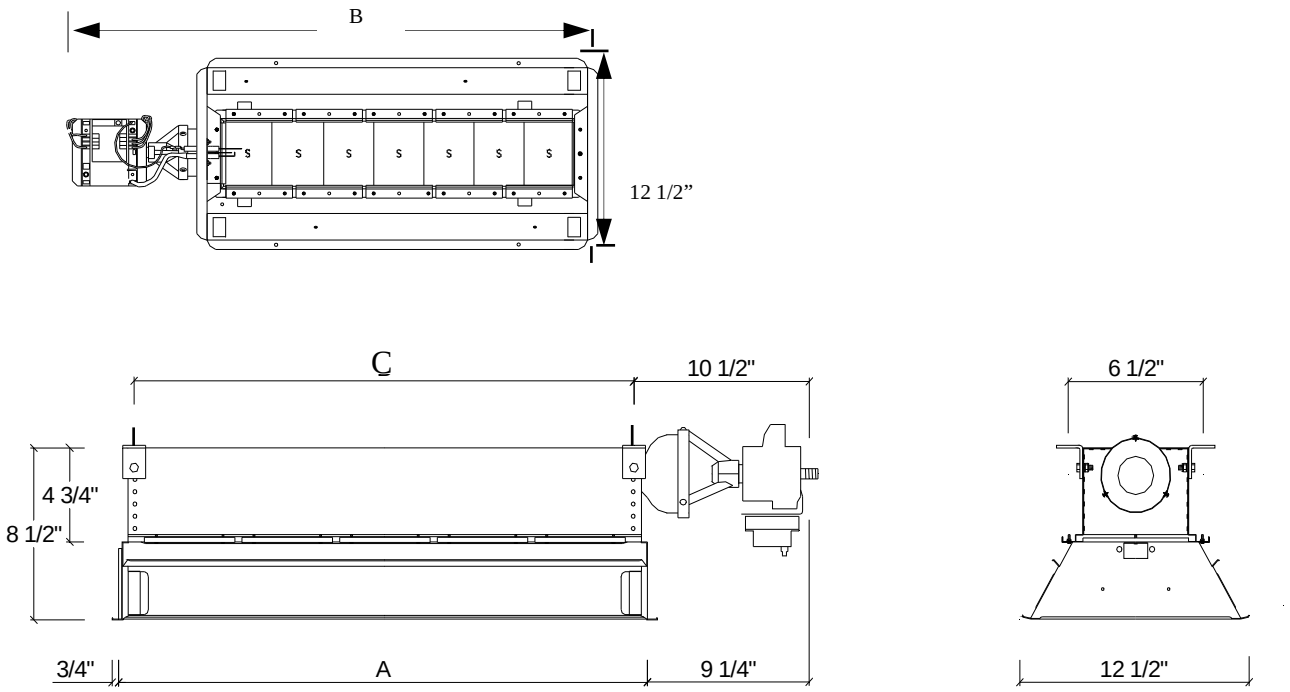


TABLE 1A: DIMENSIONS : ECOSCHWANK & IL MODELS

MODEL N0.	A	B	C	RATING BTU/ HR	WEIGHT LBS.
ecoSchwank 6 / IL 25	13 1/2”	24”	11 1/4”	21,500	22
ecoSchwank 10 / IL 37	20 1/2"	30 1/4”	15 1/2”	34,000*	26
ecoSchwank 13 / IL 50	28"	38 1/2”	18 1/2”	50,000	31
ecoSchwank 18 / IL 75	38 3/4"	48 1/2”	29 1/2”	71,500	38
ecoSchwank 26 / IL 100	53 1/4"	63 3/4”	44”	100,000	45

* BTU Inputs: ecoSchwank-X 10 / IL-X 37 NG - 34,000 & ecoSchwank-X 10 / IL-X 37 LP - 33,000

FIGURE 1B: DIMENSIONS : ECOSCHWANK-X & IL-X MODELS

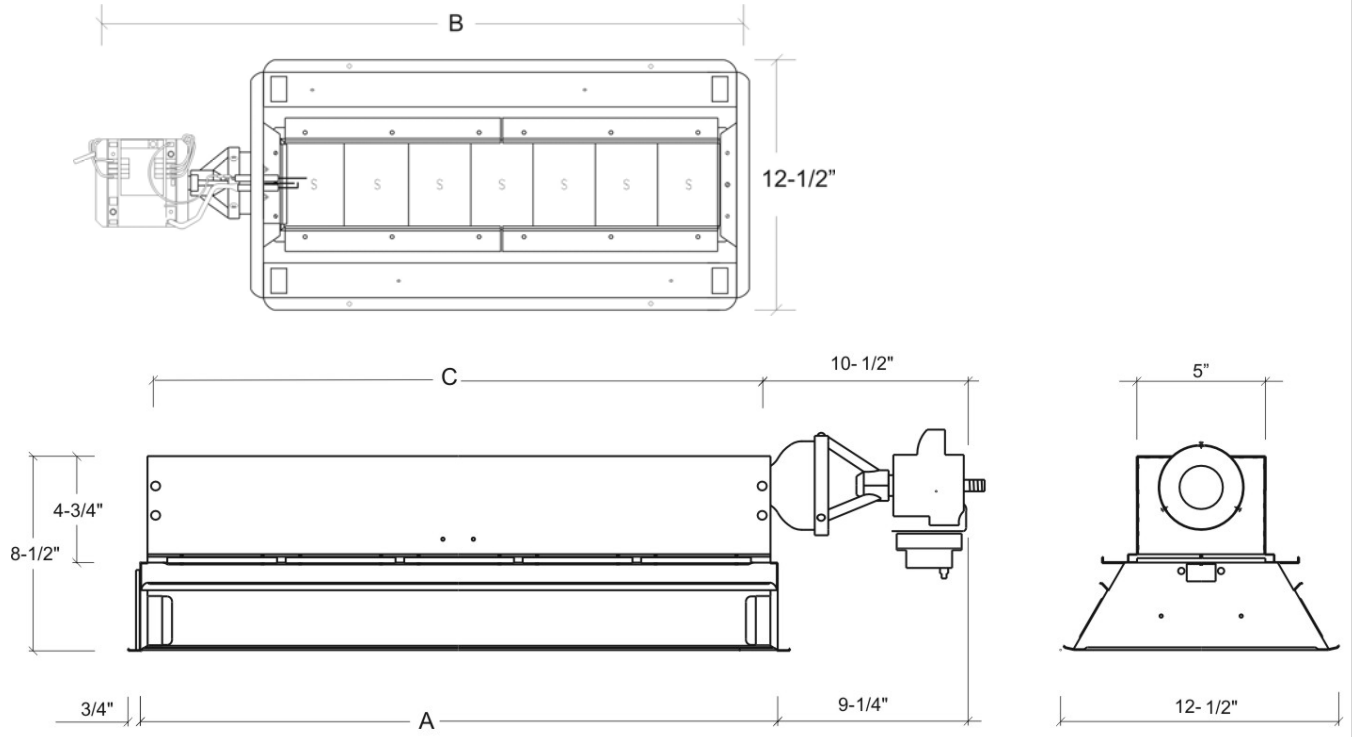
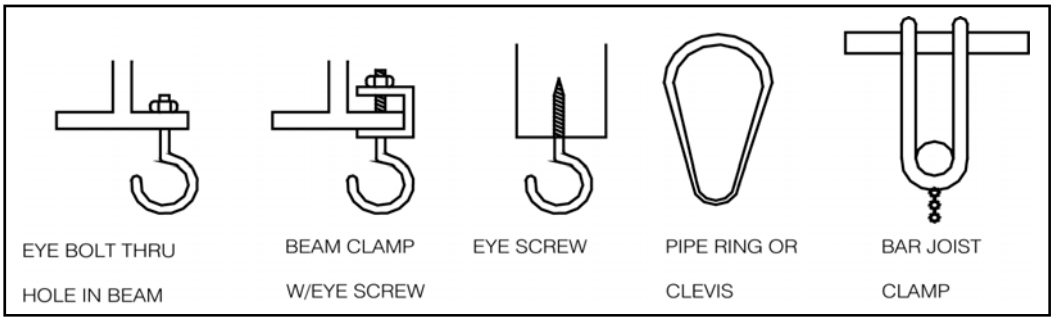


TABLE 1B: DIMENSIONS : ECOSCHWANK-X & IL-X MODELS

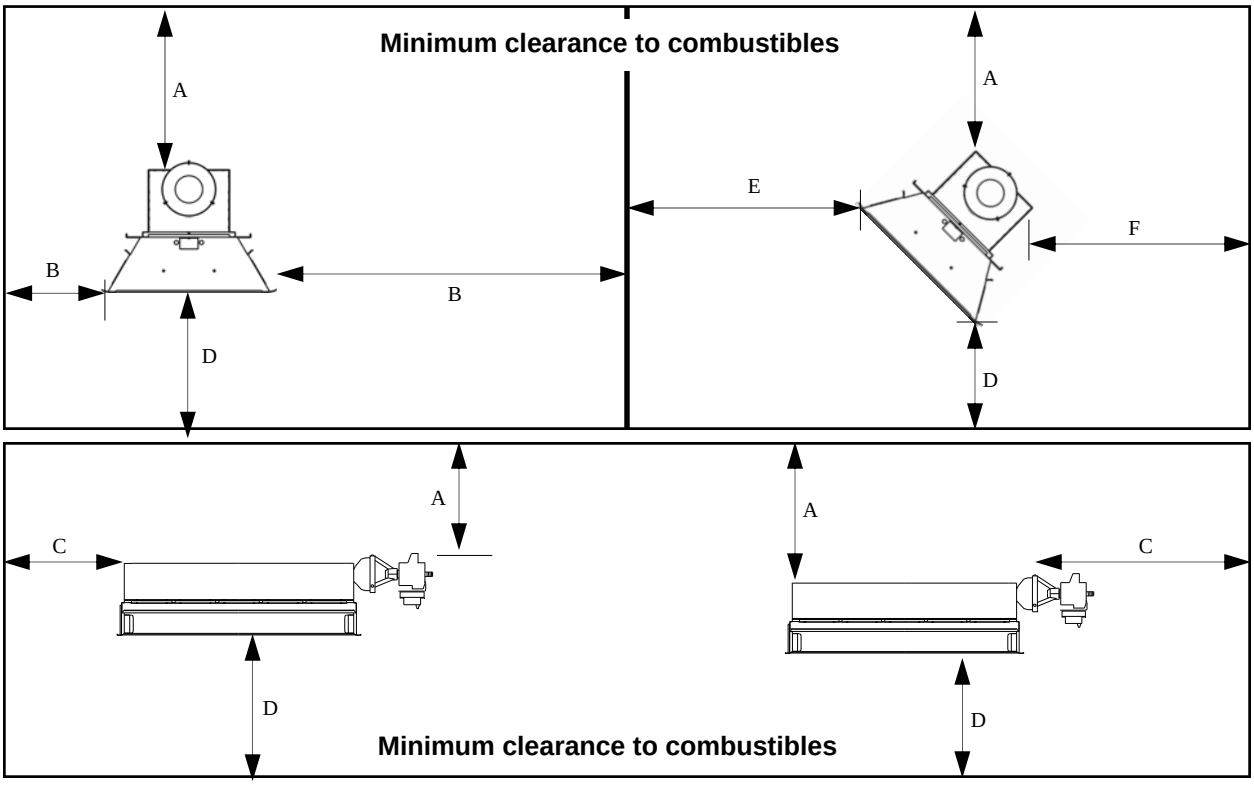
MODEL N0.	A	B	C (SUSPENSION POINTS)	RATING BTU/ HR	WEIGHT LBS.
ecoSchwank-X 6 / IL-X 25	12 5/8”	24”	14”	21,500	22
ecoSchwank-X 10 / IL-X 37	19 3/4"	30 1/4”	18 1/4”	34,000*	26
ecoSchwank-X 13 / IL-X 50	27 1/8"	38 1/2”	25 1/2”	50,000	31
ecoSchwank-X 18 / IL-X 75	38"	48 1/2”	36 3/8”	71,500	38
ecoSchwank-X 26 / IL-X 100	52 3/4"	63 3/4”	51”	100,000	45

* BTU Inputs: ecoSchwank-X 10 / IL-X 37 NG - 34,000 & ecoSchwank-X 10 / IL-X 37 LP - 33,000

8.2 SUSPENSION HARDWARE (supplied by others)



8.3 CLEARANCES TO COMBUSTIBLES*



HORIZONTAL CLEARANCES TO COMBUSTIBLES* CHART :

HEATER MODEL NO	TOP < A>	SIDE < B>	END < C >	BOTTOM < D >
ecoSchwank 6 N/L - IL 25 N/L	24”	27”	24”	60”
ecoSchwank 10 N/L - IL 37 N/L	24”	27”	24”	60”
ecoSchwank 13 N/L - IL 50 N/L	24”	27”	24”	78”
ecoSchwank 18 N/L - IL 75 N/L	30”	33”	30”	84”
ecoSchwank 26 N/L - IL 100 N/L	36”	33”	30”	84”

ANGLE CLEARANCES TO COMBUSTIBLES* CHART :

HEATER MODEL NO	TOP < A>	FRONT < E>	END < C >	BOTTOM < D >	REAR < F >
ecoSchwank 6 N/L - IL 25 N/L	24”	60”	24”	60”	24”
ecoSchwank 10 N/L - IL 37 N/L	24”	60”	24”	60”	24”
ecoSchwank 13 N/L - IL 50 N/L	24”	78”	24”	78”	24”
ecoSchwank 18 N/L - IL 75 N/L	30”	84”	30”	84”	30”
ecoSchwank 26 N/L - IL 100 N/L	36”	84”	30”	84”	30”

*NOTE: Clearances to Combustibles are the same for ecoSchwank, ecoSchwank-X & IL, IL-X

8.4 SUGGESTED MOUNTING DISTANCE FOR COMFORT*

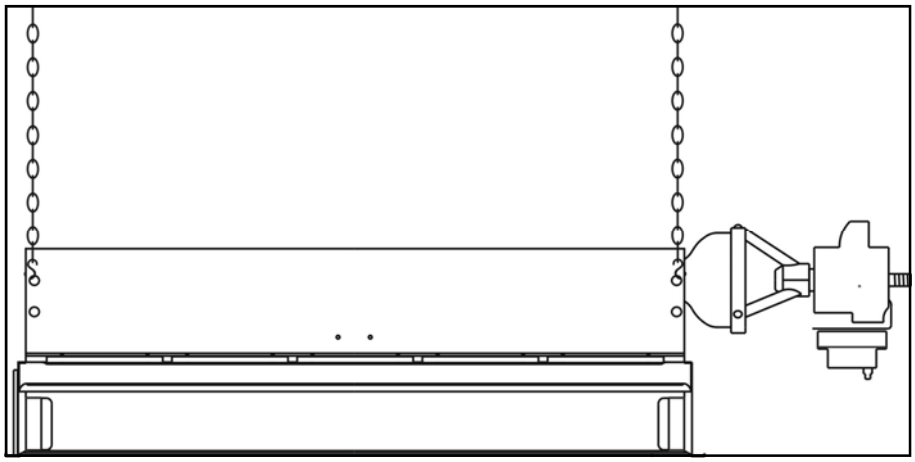
Since most installations will differ in many details, these instructions are general. Sound judgment must be exercised and careful supervision is essential to ensure the installation will be made in the best manner possible for trouble-free operation and at minimal cost. All systems must be installed in accordance with acceptable practices, local codes, and applicable standards.

This heater is suitable for reflector mounting angles up to 30 degrees on the short axis. Improper angle mounting can result in overheating of controls and combustible materials.

IMPORTANT: For either horizontal or angle mounting, the long axis of the heater must be level.

Use only non-combustible mounting hardware.

NOTE: It is the responsibility of the installer to insure that the chosen suspension system will support at least 200 lbs.



MOUNTING HEIGHTS:

8.5 HORIZONTAL suggested mounting distance for comfort.*

ecoSchwank / IL	6 / 25	10 / 37	13/ 50	18 / 75	26 / 100
Distance to floor	12’	16’	20’	24’	28’
Maximum heater spacing	16’	22’	28’	34’	39’
Maximum distance between heater rows	25’	30’	40’	50’	70’

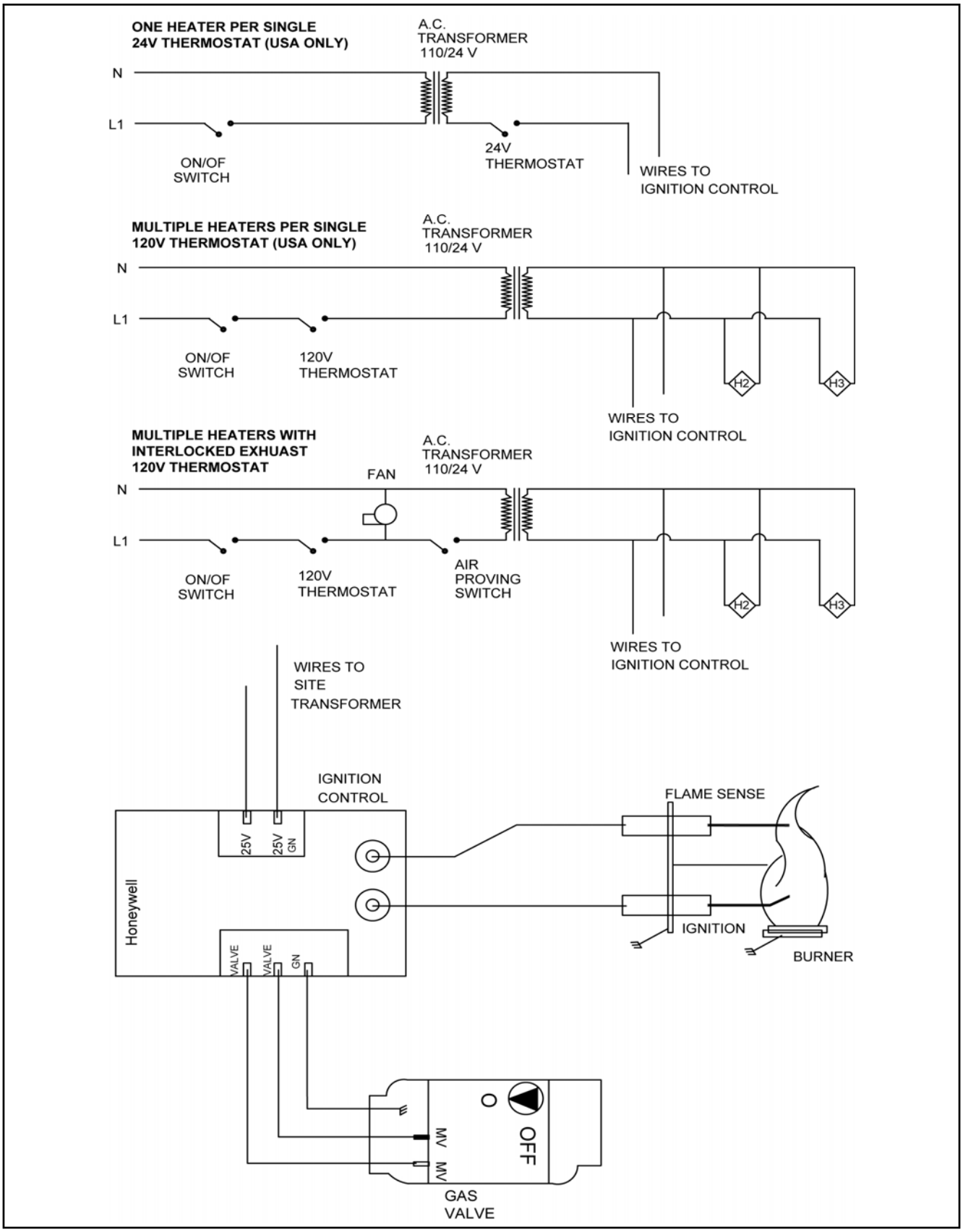
8.6 ANGLE suggested mounting distance for comfort.*

ecoSchwank / IL	6 / 25	10 / 37	13 / 50	18 / 75	26 / 100
Distance to floor	12’	13’	17’	20’	22’
Maximum heater spacing	16’	22’	28’	34’	39’
Maximum distance between heater rows	25’	30’	40’	50’	70’

* These mounting distances are suggested and are subject to site conditions. If in doubt, please contact your Schwank distributor.

8.7 ELECTRICAL WIRING DIAGRAM FOR THE LUMINOUS HEATERS

DIAGRAM 11: LUMINOUS WITH INTERLOCKED EXHAUST



9. HIGH ALTITUDE INSTALLATIONS

Canada: All Luminous heaters are approved for altitudes zero to 2000 ft above sea level. If installed at 2000 ft to 4500 ft above sea level the heater must be ordered as **High altitude**.
Contact Technical Services at 1-866-361-0417 for further information.

USA: If a heater is to be installed at altitudes above 2000 ft, the input must be reduced by 4% per 1000 ft. Some gas utilities de-rate the heat content in the gas supply to suit local conditions and no modification of the heater is required.

If the gas supply is not de-rated, then the orifice must be changed.

Contact your local gas utility regarding the de-rating requirements of this appliance.

Contact the manufacturer's Technical Services at 1-877-446-3727 for orifice sizing.

10. SEQUENCE OF OPERATION FOR HONEYWELL S87C DSI CONTROL

1. On A call for heat the S87C DSI Control will check for a false flame condition / short to ground. The module will lock out if a false flame condition is present. (Reset is usually done from the Thermostat manually).

2. Spark (30,000 volts) is generated at the Spark Ignition Stud, for direct ignition of the main Burner by the single Spark Igniter.

3. Main Gas Control Valve is powered and OPENS lighting off the Main Burner.

4. Separate Flame Sensor, relays the presence of Main Burner flame back to the DSI Control by a rectified dc voltage signal. (TFI period)

5. If this dc signal is a minimum of 1.5ua (micro amps) the flame remains established and the DSI Control discontinues the ignition spark.

6. This is the 21 second T.F.I (Trial For Ignition) period where flame has to be established first, and confirmed with a minimum signal strength of 1.5 micro amps back to the DSI Control. Failing this the DSI will go into the Safety Lockout Mode and shut down the Burner. (Reset is manually done from the Thermostat).

7. On a loss of power the S87 allows the system to shut down safely. Start up is initiated when power is restored

8. On a loss of Main Burner flame, the timed T.F.I. is repeated.
   Safety Lock-out occurs if the flame is not re-established within the T.F.I period, (Reset is manually done from the Thermostat.)

11. SPARK IGNITION CIRCUIT

The step-up transformer in the ignition control provides spark ignition at 30,000 volts (open circuit). To check the spark ignition circuit, proceed as follows.

1 Shut off gas supply to the gas control
2 Disconnect the ignition cable at the ignition control stud terminal to isolate the circuit from the spark igniter or igniter/sensor
3 Prepare a short jumper lead, using heavily insulated wire such as ignition cable

CAUTION

In the next step, DO NOT allow fingers to touch either the stripped end of the jumper or the stud terminal. This is a very high voltage circuit and electrical shock can result.

1 Perform this test immediately upon energizing the system before the ignition control goes into safety lockout and interrupts the spark circuit. Touch one end of the jumper firmly to the ignition control GND terminal. (DO NOT remove the existing ground lead.) Slowly move the other end of the jumper wire toward the stud terminal on the ignition control to establish a spark.

2 Pull the wire away from the stud and note the length of gap at which spark discontinues.

3 A spark length of 1/8 in. (3 mm) or more indicates satisfactory voltage output. If no arc can be established, or the maximum spark is less than 1/8 in. (3 mm), and power to the ignition control input terminals was proved, replace the ignition control.

COMMISSIONING REPORT
AS PER I&O MANUAL AND LOCAL CODES

CONTRACTOR NAME: .....DATE.....

ADDRESS:.....

.....

CITY:.....

PHONE:.....

CELL: .....

JOB SITE.....CITY.....

HEATER MODEL NUMBER:.....

HEATER SERIAL NUMBER: .....

THIS EQUIPMENT HAS BEEN FACTORY FIRED AND TESTED BEFORE DELIVERY, NEVERTHELESS IT IS NOT A PLUG IN APPLIANCE..IT DOES REQUIRE COMMISSIONING AND FIELD ADJUSTMENTS

TO ENSURE THAT SITE CONDITIONS ARE COMPATIBLE WITH THIS HEATER, AND TO ALLEVIATE NUISANCE CALL BACKS FOR THE CONTRACTOR, THE FOLLOWING START-UP NEEDS TO BE COMPLETED BY THE LICENSED GAS INSTALLER.

A CONTRACTOR IS CALLING FOR TECHNICAL SUPPORT, MUST PROVIDE THE FOLLOWING INFORMATION FROM HIS COMPLETED COMMISSIONING REPORT ON NEXT PAGE

FAX COMPLETED FORM TO TECHNICAL SERVICES: CANADA - 905-712-8336 USA - 706-554-9390

TO BE COMPLETED BY THE LICENSED INSTALLER:
HIGH INTENSITY COMMISSIONING REPORT

TYPE OF GAS:	NG	☐	☐
DOES BUILDING HAVE A NEGATIVE CONDITION:	YES	☐	☐
WILL HEATER BE EXPOSED TO WELDING FUMES:	YES	☐	☐
IS HEATER EXPOSED TO CHEMICAL OR CORROSIVE ATMOSPHERE:	YES	☐	☐
IS AN OPEN FLAME COMPATIBLE WITH THE INSTALLED LOCATION:	YES	☐	☐
MINIMUM CLEARANCES CONFORM AS PER I&O MANUAL:	YES	☐	☐
IF THIS IS A HIGH ALTITUDE AREA WHAT IS THE ALTITUDE ABOVE SEA LEVEL		☐	Feet
IS HEATER SHORT AXIS HORIZONTAL WITH THE VENTURI ON TOP:	YES	☐	☐
IS HEATER INTERLOCKED WITH AN EXHAUST FAN SYSTEM:	YES	☐	☐
IS FAN SYSTEM 3 CFM PER 1000Btu/hr OF THE TOTAL HEAT LOAD:	YES	☐	☐
WILL HEATER BE AFFECTED BY OVERHEAD CRANES / VIBRATION:	YES	☐	☐
IS GAS SUPPLY LINE ADEQUATELY SIZED FOR SYSTEM VOLUME:	YES	☐	☐
HAVE GAS LINES AND BRANCHES BEEN PURGED OF AIR:	YES	☐	☐
THIS HEATER WAS FIELD TEST FIRED WITHOUT ANY MALFUNCTION:	YES	☐	☐
INLET GAS SUPPLY PRESSURE WITH HEATER OPERATING:		☐	WC"
GAS VALVE OUTLET (Manifold) PRESSURE WITH HEATER OPERATING:		☐	WC"
HAS THE WIRING POLARITY BEEN MAINTAINED THROUGHOUT:	YES	☐	☐
WHAT IS THE VOLTAGE READING AT THE IGNITION MODULE:		☐	VOLTS
WHAT IS THE FLAME SIGNAL STRENGTH IN uA FROM SENSOR:		☐	uA (microamps)
IS THE HEATER CONTROLLED BY A THERMOSTAT:	YES	☐	☐
IS THE THERMOSTAT STRATEGICALY LOCATED:	YES	☐	☐
TOTAL HEATERS SUPPLIED FROM ONE SINGLE TRANSFORMER:		☐	TOTAL
WHAT IS THE RATING OF THE TRANSFORMER IN VA:		☐	V.A.
WHAT IS THE TOTAL LENGTH OF THE LOW VOLTAGE WIRING:		☐	FEET
WHAT IS THE GAUGE OF THE LOW VOLTAGE WIRING:		☐	GAUGE

THIS HEATER MUST HAVE GOOD ELECTRICAL GROUNDING:

*** FAX COMPLETED FORM TO TECHNICAL SERVICES: CANADA - 905-712-8336 USA - 706-554-9390**

Schwank
INNOVATIVE HEATING SOLUTIONS

LIMITED WARRANTY CERTIFICATE

infrasave
radiant heaters

GAS-FIRED INFRA-RED LUMINOUS SERIES: ECOSCHWANK / IL SERIES

The Manufacturer warrants that this product is free from defects in material or workmanship under normal use and service subject to the terms of this document.

TWO YEAR WARRANTY

Subject to the conditions and limitations stated herein, during the term of this limited warranty, we will supply any component part (at our option a new or repaired component part) of the heater, as defined below, excluding any labor, which the Manufacturer's examination determines to be defective in workmanship or material for a period of two years (2 years) from the date of installation, unless otherwise specified below. This warranty applies to the heater's original owner, and subsequent transferees and only if the unit is installed and operated in accordance with the printed instructions accompanying the unit and in compliance with all applicable installation, building codes and good trade practices. Warranty is only applicable to Schwank components, other parts are limited to their own Manufacturers warranty. (1 year)

TEN YEAR WARRANTY

The Manufacturer warrants the Ceramic Tiles for a period of ten years (10 years)

WHAT IS NOT COVERED

The Manufacturer shall not be responsible for any expenses, including service, labor, diagnosis, analysis, material or transportation charges incurred during removal or reinstallation of this product, or any of its components or parts. All labor or service charges shall be paid by the owner. This warranty does not cover heating products improperly installed, misused, exposed to or damaged by negligence, accident, corrosive or contaminating atmosphere, water, excessive thermal shock, impact, abrasion, normal wear due to use, alteration or operation contrary to the owner's manual or if the serial number has been altered, defaced or removed. This warranty shall not apply if the input to the heating product exceeds by more than 2% of the rated input on the rating plate. The Manufacturer shall not be liable for any default or delay in performance by its warranty caused by any contingency beyond its control, including war, government restrictions, or restraints, strikes, fire, flood, acts of God, or short or reduced supply of raw materials or products.

WARRANTY PROCEDURE

To establish the installation date for any purpose under this Limited Warranty, you must retain the original records that can establish the installation date of your unit. If you do not provide such documents, the start date of the term of this Limited Warranty will be based upon the date of unit manufacture, plus thirty (30) days. Failure to maintain the equipment through regular annual service maintenance by a qualified service technician shall void the warranty.

LIMITATIONS AND EXCLUSIONS

This document contains all warranties made by the Manufacturer and may not be varied, altered or extended by any person. There are no promises, or agreements extending from the Manufacture other than the statements contained herein. THIS WARRANTY IS IN LIEU OF ALL WARRANTIES EXPRESSED OR IMPLIED, TO THE EXTENT AUTHORIZED BY THE LAWS OF THE JURISDICTION, INCLUDING SPECIFICALLY THE WARRANTIES OR MERCHANTIBILITY OF FITNESS FOR A PARTICULAR PURPOSE.

It is understood and agreed that the Manufacturer's obligation hereunder is limited to repairing or replacing parts determined to be defective as stated above. In no event shall the Manufacturer be responsible for any alleged personal injuries or other special, incidental or consequential damages. As to property damages, contract, tort or other claim the Manufacturer's responsibility shall not exceed the purchase priced paid for the product.

All replacement parts will be warranted for the unused portion of the warranty coverage period remaining on the applicable unit.

Some Authorities do not allow certain warranty exclusions or limitations on how long a warranty lasts or the exclusions or limitations of incidental or consequential damages. In such cases, the above limitations or exclusions may not apply to you and are not intended to do so where prohibited by law. This warranty gives you specific legal rights. You may also have other rights which vary by each jurisdiction.

5285 BRADCO BLVD. MISSISSAUGA, ON, L4W 2A6
2 SCHWANK WAY, WAYNESBORO, GEORGIA. 30830-8336

SCHWANK **Ph: 905-712-4766 Fax: 905-712-8336**
INFRASAVE **Ph: 1-866– INFRASV (463 7278) Fax: 1-866-724 –9265**

GP-DECQ-CX-03B
ECO / IL WARRANTY
March 2006
RL: 3B
KH