


**OWNERS MANUAL  
INDIRECT OIL-FIRED HEATERS  
Models  
K150-FAI, K275-FAI**



**QUESTIONS?  
MISSING / DAMAGED PARTS**

**Please do not return this product to the store.**  
If a part is damaged or missing, simply e-mail us at [php@universal-heaters.com](mailto:php@universal-heaters.com), or visit our website at <http://universal-heaters.com>, or call our Customer Service Department at (888) 619-7060. We will be happy to assist you!  
You can register your heater on line at <http://universal-heaters.com/warranty>.

**TABLE OF CONTENTS**

HEATER SPECIFICATIONS.....	2
 WARNINGS .....	2
SAFETY PRECAUTIONS .....	3
OPERATING INSTRUCTIONS .....	3
INSTALLATION INSTRUCTIONS .....	3
SERVICING .....	4
WIRING DIAGRAM .....	5
EXPLODED VIEWS.....	6
PARTS LIST .....	7
WARRANTY.....	8
SERVICE CENTERS .....	8

**RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE**

## HEATER SPECIFICATIONS

Model	K150-FAI	K275-FAI
Heating power (BTU/hr) .....	150,000 .....	275,000 .....
Air delivery (cfm) .....	1,207 .....	1,765 .....
Oil consumption (lb/hr) .....	7.5 (1.05 gal/hr) .....	14.0 (1.97 gal/hr) .....
Sound pressure level (dB(A)) .....	70 .....	71 .....
Voltage .....	115 V 60 Hz 1ph AC .....	115 V 60 Hz 1ph AC .....
Motor power (HP) .....	0.32 .....	0.50 .....
Current intake (A) .....	2.4 .....	2.7 .....
Weight (lb) .....	165 .....	232 .....
Length (in) .....	49 .....	62 .....
Width (in) .....	23 .....	26 .....
Height (in) .....	41 .....	47 .....
Stack diameter (in) .....	5.51 .....	5.51 .....
Tank capacity (gal) .....	13.5 .....	21.0 .....
Pump pressure .....	9.5 bar/138psi .....	12 bar/175 psi .....
Fuse .....	15A .....	15A .....
Fuel types .....	Kerosene .....	kerosene .....
	#1 Diesel .....	#1 Diesel .....
	#2 Diesel .....	#2 Diesel .....
	#1 Fuel Oil .....	#1 Fuel Oil .....

### WARNINGS

**YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS, SO PLEASE READ THESE INSTRUCTIONS BEFORE YOU OPERATE THIS HEATER.**

#### GENERAL HAZARD WARNING:

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.

IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.

#### WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE

 WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.

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customerservice@scheuco.com

# MODEL K150-FAI, K275-FAI

## SAFETY PRECAUTIONS

This is a portable, indirect oil-fired air heater with closed combustion chamber and connection duct for a stack to exhaust combustion fumes.

1. Check the heater thoroughly for damage. DO NOT operate a damaged heater.
2. DO NOT modify the heater or operate a heater which has been modified from its original condition.
3. READ AND UNDERSTAND THE INSTRUCTIONS IN THIS HANDBOOK BEFORE USING THE APPLIANCE. The electrical system to which the appliance is connected must comply with current legislation. Installation requires a minimum 15 A circuit breaker.
4. Always unplug the appliance before performing any maintenance operations.
5. Before using the appliance, check the power cable. It must not be bent, taut, stretched, crushed or damaged in any way.
6. The power cable connection must be made by qualified personnel only. Use a AWG 12/3 SJT x 50' type of cable only with an approved plug.
7. DANGER (BURNS)! Do not touch the exhaust gas outlet.
8. The appliance must be installed for industrial use only.

## OPERATING INSTRUCTIONS

### Start-up

1. To operate the appliance with remote thermostat, remove the protective cap from the thermostat outlet (ill. 1 #1) and insert the thermostat plug into the outlet. To operate without thermostat, leave (or re-insert) the protective cap into outlet.
2. Fill the tank with clean fuel (Diesel #1, Diesel #2, Kerosene).
3. Insert the power plug in a 115V ~ 60 Hz single-phase, grounded power outlet. If the green light (ill. 1 #5) is ON, the appliance has power. Electrical grounding is mandatory.
4. Connect the appliance to a stack of a flue to vent fumes to the outside air.
5. To obtain a good draft (.04 in w.c.), the flue path must rise. Avoid any bends or elbows in the initial section of pipe for at least 10 ft. If the appliance is used in a closed environment without stack, refer to the installation instructions.
6. For use with a remote thermostat set thermostat to maximum temperature.
7. Move the switch (ill. 1 #3) to the "ON" position.
8. Adjust the thermostat to the required temperature (if applicable).

### Manual reset

1. The appliance is equipped with a manual reset button light (RESET) (ill. 1 #2). When the appliance locks out, the red light of the push-button (ill. 1 #2) comes on. In this case, press the RESET button to re-start the appliance.

### Overheating thermostat

1. The heater is equipped with a safety thermostat. In case of overheating the safety thermostat shuts the heater down. If this occurs, find and eliminate the cause of overheating

before using the heater again. Have the heater inspected by a qualified technician if required. To reset: unscrew the black cap on the left side of heater and push the thermostat reset button.

### Shut-down

1. Move the switch to the "OFF" position. The fan continues to operate for approximately 3 minutes in order to cool the combustion chamber. The appliance shuts down only when this temperature has dropped sufficiently.

**NEVER STOP THE HEATER BY DISCONNECTING THE ELECTRICAL SUPPLY.**

## MAINTENANCE

BEFORE PERFORMING ANY MAINTENANCE OPERATIONS, ALWAYS DISCONNECT THE HEATER FROM THE ELECTRICAL SUPPLY.

Maintenance must be carried out by qualified personnel.

The appliance must be thoroughly cleaned once a year to assure correct combustion and long life.

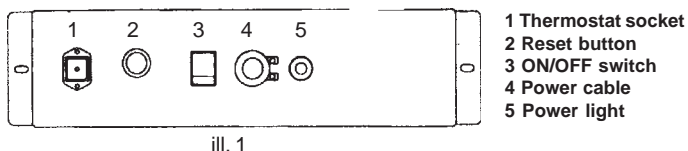
In addition the following must be cleaned more often depending on fuel and operating environment:

- a) Oil atomization nozzle and associated filter - Unscrew the nozzle from the burner head. Clean nozzle and filter with compressed air.
- b) Tank filter cartridge - The filter is located on the right side of the heater above the tank. Open the filter glass, extract the cartridge, blow compressed air and wash with kerosene. Depending on the quality of fuel used, replace the cartridge if it is very dirty.
- c) Electrodes - Distance between tips should be .12 inch. Remove carbon deposits from electrode tips using a metal brush.
- d) Fan - Blow air on the fan blades through rear guard to remove dust.
- e) Inside of appliance - Open inspection panel. Blow compressed air to remove dust from inner parts.
- f) Photoelectric cell - Extract the photoelectric cell from its seat near the burner head and clean the front glass surface using a light detergent. Take care to place the photoelectric cell in the right position when reassembling.
- g) Electrical - Make a periodic inspection of cables and electrical connections by a qualified personnel.

## INSTALLATION INSTRUCTIONS

### General Instructions

1. Never install the appliance in environments containing flammable materials or in places with a risk of fire or explosion.
2. The approximate area that can be heated is 28,300 ft³ for K150-FAI model and 53,000 ft³ for K275-FAI model. Fill the fuel tank with clean kerosene, No. 1 fuel oil or No. 1 diesel fuel only. Kerosene is recommended for use when the temperature drops below 0°F (-18°C). In extremely cold weather, condensation may develop in the tank and it is recommended that a tablespoon of de-icer be added for each gallon (4 liters) of fuel in the tank. When filling the heater, use at least 2 gallons (8 liters) of fuel. Be sure heater is level and do not overfill. Use a funnel or can with a long fill spout.
3. When the appliance is installed in closed environments with



ill. 1

## MODEL K150-FAI, K275-FAI

fume venting to the open air through a stack, an external air delivery of approximately 47 cfm must be assured for good combustion.

4. If the appliance is installed in a closed environment and fumes are not vented through a stack, good ventilation of the environment must be assured.
5. Good ventilation is guaranteed in the case of an hourly air exchange equal to 2.5 times the volume of the heated area. To obtain this, an opening for air inlet from below and an opening for air exhaust from above, with a free surface of at least (8.6 ft<sup>2</sup> each), must be provided.
6. The appliance is intended for use in the construction industry and agriculture. All safety regulations applicable to these industries must be complied with. In particular, the following safety distances from flammable materials or components must be assured:  
Side: 2 ft.                      Air inlet side: 2 ft.  
Top: 5 ft.                      Hot air outlet side: 10 ft.  
Floor: 0 ft.

### **THE AIR INLET AND OUTLET MUST NEVER BE OBSTRUCTED, FOR ANY REASON.**

#### **Installation in the construction and agricultural industries**

1. The appliance must only be operated by trained and experienced personnel. The manufacturer's instructions must be complied with.
2. The appliance must be installed in such a way that operators are not exposed to any danger from the exhaust gases of the flow of hot air.
3. The appliance must be installed in compliance with fire prevention safety distances so that there is no risk of fire. The appliance must be installed on a stable and level surface.

#### **Inspection**

1. Prior to start-up, operating personnel must check for any non-compliance with rules of use, safety and protection.
2. According to working conditions, the appliance must be inspected by qualified personnel at least once a year.

## SERVICING

A hazardous condition may result if a heater is used that has been modified or is not functioning properly. When the heater is working properly:

- \* The flame is contained within the heater.
- \* The flame is essentially blue with perhaps some yellow tipping.
- \* There is no strong disagreeable odor, eye burning or other physical discomfort.
- \* There is no smoke or soot internal or external to the heater.
- \* There are no unplanned or unexplained shut downs of the heater.

The parts lists and wiring diagram show the heater as it was constructed. Do not use a heater which is different from that shown.

A heater which is *not* working right must be repaired, but *only* by a trained, experienced service person. To find the service center closest to you, visit our website at [www.scheuco.com](http://www.scheuco.com) or call (888) 619-7060.

You may also obtain in-warranty or out-of-warranty service by taking the product to your local service center.

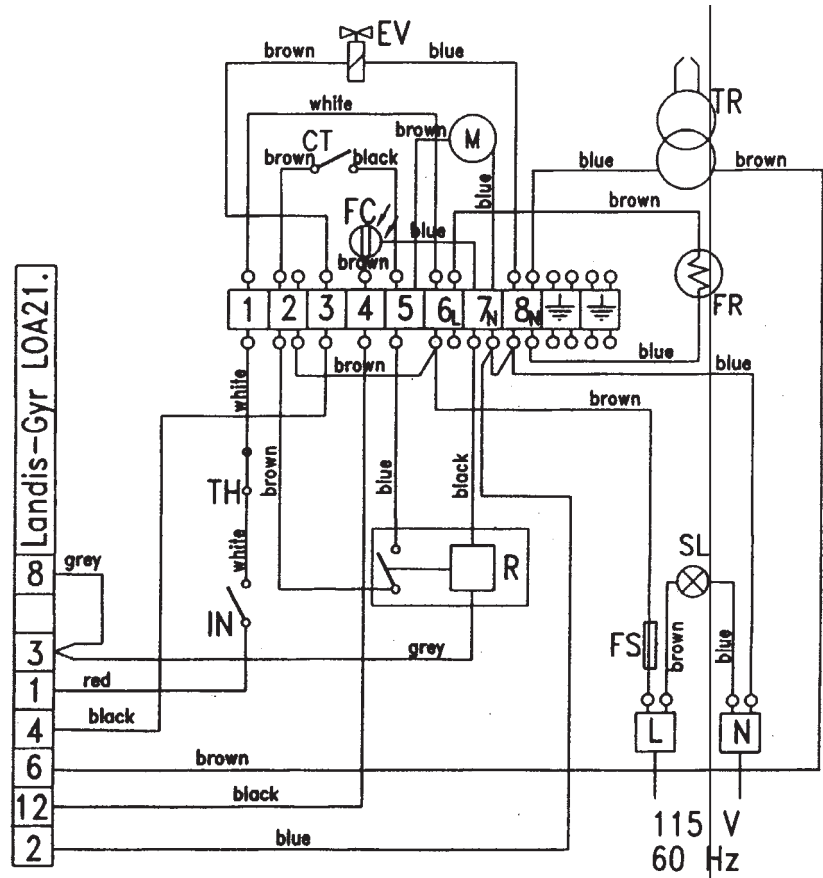
In-warranty products will be repaired with no charge for either parts or labor. Please include a brief statement indicating date, place of purchase, the nature of the problem and proof of purchase.

Out-of-warranty products will be repaired with a charge for parts and labor.

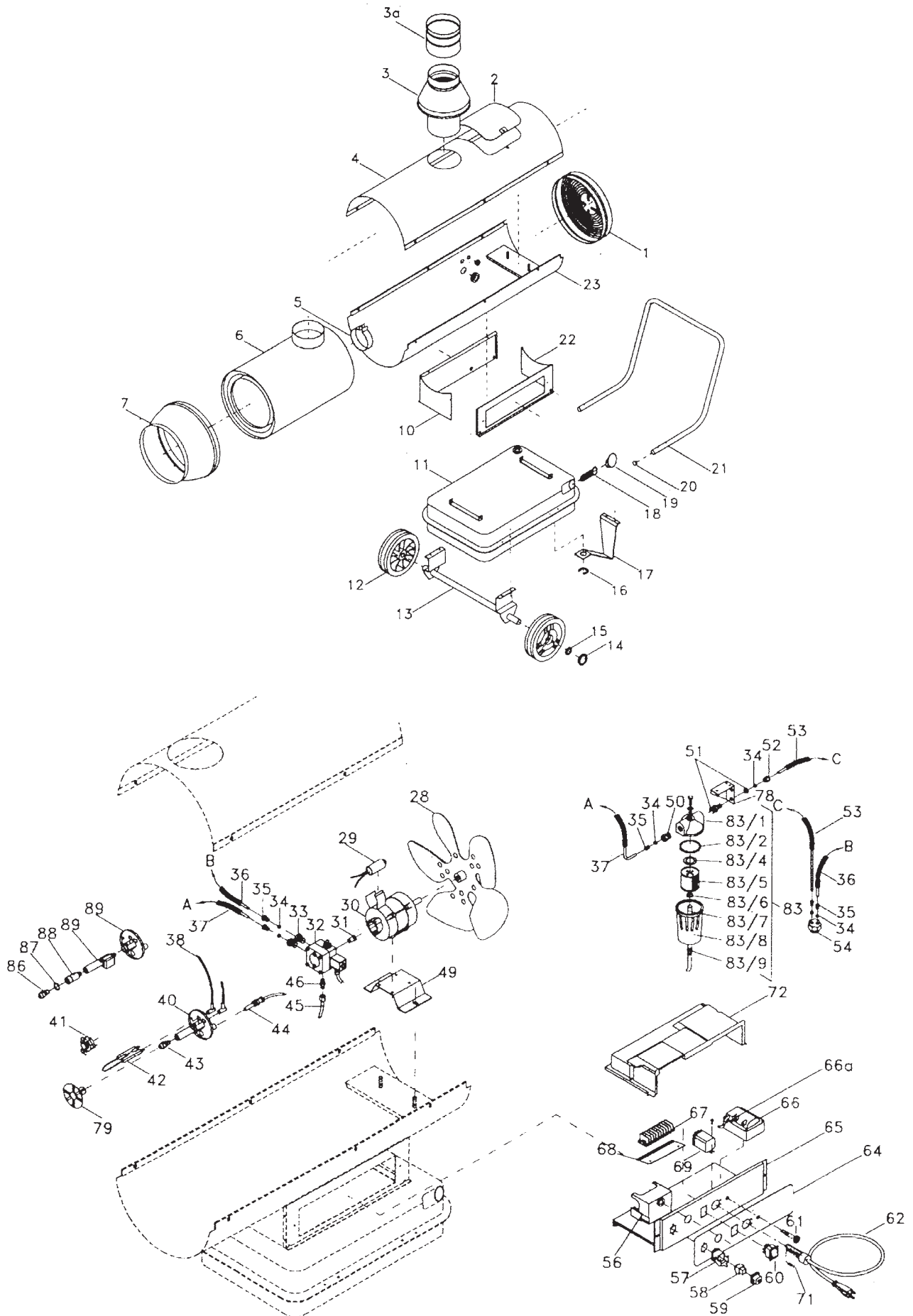
# MODEL K150-FAI, K275-FAI

## WIRING DIAGRAM

CT Aftercooling thermostat  
 EV Solenoid valve  
 FC Photocell  
 FR Heated filter  
 FS Fuse  
 IN Switch  
 M Motor  
 SL Power light  
 TH Remote thermostat  
 TR Ignition transformer  
 R Relay



# EXPLODED VIEWS



## MODEL K150-FAI

## PARTS LIST

## MODEL K275-FAI

Item	Part No.	Description	Item	Part No.	Description
1	8467	Rear grid	1	8468	Rear grid
2	PORTISP#TOMM011	Inspection cover	2	PORTISP#TOMG011	Inspection cover
3	8420	Exhaust hood	3	8420	Exhaust hood
3a	8421	Stack adapter	3a	8421	Stack adapter
4	COPERC98#MIR03511	Cover	4	COPERC98#MIR06511	Cover
5	1094001700	Air lock	5	1094001700	Air lock
6	CAMERA#MIR035	Combustion chamber	6	CAMERA#MIR065	Combustion chamber
7	8469	Cone	7	8470	Cone
10	SUPCORPOGEN98#MOFIL11	Side panel	10	SUPCORPOGEN98#MOFIL11	Side panel
11	SERBATGEN#M022	Tank	11	SERBATGEN#G822	Tank
12	8471	Wheel D.250	12	8471	Wheel D.250
13	ASSALE#GENM020	Axle	13	ASSALE#GEN020	Axle
14	8472	Wheel cap	14	8472	Wheel cap
15	8473	Seeger ring D.25	15	8473	Seeger ring D.25
16	1023001500	Spring	16	1023001500	Spring
17	8474	Tank foot	17	8474	Tank foot
18	8422	Filter	18	8422	Filter
19	8423	Tank cap	19	8423	Tank cap
20	1005001000	Handle cap	20	1005001000	Handle cap
21	MANT#GENM020	Handle	21	MANT#GENM020	Handle
22	SUPCORPOGEN98#MOCRU11	Side panel	22	SUPCORPOGEN98#GOCRU11	Side panel
23	CORPO98#TOMM011	Lower body	23	CORPO98#TOMG011	Lower body
28	8424	Fan D.300 23°	28	8425	Fan D.300 23°
29	8426	Capacitor 30uF	29	8427	Capacitor 30uF
30	8428	Motor 250W 115V 60Hz	30	8429	Motor 250W 115V 60Hz
31	8430	Coupling	31	8431	Coupling
32	8432	Oil pump	32	8433	Oil pump
33	1066001300	Fitting	33	1066001300	Fitting
34	1067009100	Ferrule	34	1067009100	Ferrule
35	1066001600	Fitting	35	1066001600	Fitting
36	TUBOIL#MIR035RIT	Back flow hose	36	TUBOIL#MIR065RIT	Back flow hose
37	TUBOIL#MIR035AND	Inlet hose	37	TUBOIL#MIR065AND	Inlet hose
38	8434	HT cable	38	8434	HT cable
40	1094002700	Burner head	40	1094002700	Burner head
41	8477	Aftercooling thermostat	41	8477	Aftercooling thermostat
42	8436	Electrode	42	8436	Electrode
43	8437	Nozzle 0.85 GPH 80° S	43	8438	Nozzle 1.5 GPH 80° S
44	8439	Flame sensor	44	8439	Flame sensor
45	1076004300	Microhose	45	1076004300	Microhose
46	1067004100	Nipple	46	1067004100	Nipple
49	1094030200	Motor support	49	1094030300	Motor support
50	1066001400	Fitting	50	1066001400	Fitting
51	1066001500	Fitting	51	1066001500	Fitting
52	1066001700	Nut	52	1066001700	Nut
53	8478	Sucking hose	53	8479	Sucking hose
54	1066001200	Fitting	54	1066001200	Fitting
56	8440	Flame control unit	56	8440	Flame control unit
57	8480	Socket casing	57	8480	Socket casing
58	8481	Socket	58	8481	Socket
59	8482	Socket cap	59	8482	Socket cap
60	8441	Switch	60	8442	Switch
61	1041001700	Power light	61	1041001700	Power light
62	8443	Power cord	62	8443	Power cord
64	1105091100	Panel label	64	1105091100	Panel label
65	1094054900	Control panel	65	1094054900	Control panel
66	8444	Transformer	66	8444	Transformer
66a	8445	Transformer cable	66a	8445	Transformer cable
67	1034001600	Terminal board	67	1034001600	Terminal board
68	1105091000	Terminal board label	68	1105091000	Terminal board label
69	8446	Relay	69	8446	Relay
71	8452	Fuse 15A	71	8448	Fuse 15A
72	1001007500	Cover	72	1001007500	Cover
78	1094002400	Filter bracket	78	1094002400	Filter bracket
79	DEFLETTORE#075018	Baffle plate	83	8449	Oil filter
83	8449	Oil filter	83/1	1145000500	Cover
83/1	1145000500	Cover	83/2	8456	O ring
83/2	8456	O ring	83/4	8457	Gasket
83/4	8457	Gasket	83/5	8459	Filter
83/5	8459	Filter	83/6	8458	O ring
83/6	8458	O ring	83/7	8450	Cartridge
83/7	8450	Cartridge	83/8	1135000600	Filter glass
83/8	1135000600	Filter glass	83/9	1031000300	Cable clamp
83/9	1031000300	Cable clamp			



# MODEL K150-FAI, K275-FAI

## WARRANTY

We are pleased that you have selected our product and take this opportunity to assure you that qualified service facilities are available if required. With the cooperation of independent dealers, a nationwide network of authorized servicing dealers is available for your servicing requirements.

Should your product require servicing, read the section of the manual entitled "Servicing".

Who gets the warranty? The warranty is limited to the consumer who originally purchases the product.

What is covered? This limited warranty covers all imperfections in workmanship and material.

What is not covered? This limited warranty does not cover damage resulting from accident, misuse or abuse, lack of proper maintenance, affixing of any attachments not provided with the products, or loss of parts. IN NO EVENT SHALL SCHEU PRODUCTS COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES NOR FOR ANY DAMAGES RESULTING FROM MISUSE OR MODIFICATION OF THIS PRODUCT.

Registering this heater within 10 days of date of purchase ensures the buyer the protection as stated on our limited warranty form.

### LIMITED WARRANTY

The company warrants this product to be free from imperfections in material or workmanship, under normal and proper use in accordance with instructions of The Company, for a period of one year from the date of delivery to the buyer. The Company, at its option, will repair or replace (f.o.b. factory, California) products returned by the buyer to the factory, California, transportation prepaid within said one year period and found by the Company to have imperfections in material or workmanship.

If a part is damaged or missing, simply e-mail us at [php@scheuco.com](mailto:php@scheuco.com), visit our website at [scheuco.com](http://scheuco.com), or call our Technical Support Department at (888) 619-7060.

Address any Warranty Claims to the Customer Service Department, Scheu Products Company, Incorporated, P.O. Box 250, Upland, California 91785, or e-mail us at [php@scheuco.com](mailto:php@scheuco.com). Include your name, address and telephone number and include details concerning the claim. Also, supply us with the purchase date and the name and address of the dealer from whom you purchased our product.

The foregoing is the full extent of the responsibility of the Company. There are no other warranties, express or implied. Specifically there is no warranty of fitness for a particular purpose and there is no warranty of merchantability. In no event shall the Company be liable for delay caused by imperfections, for consequential damages, or for any charges of the expense of any nature incurred without its written consent. The cost of repair or replacement shall be the exclusive remedy for any breach of warranty. There is no warranty against infringement of

the like and no implied warranty arising from course of dealing or usage of trade. This warranty will not apply to any product which has been repaired or altered outside of the California factory in any respect which in our judgment affects its condition or operation.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

## SERVICE CENTERS

Scheu Products Company has over 1,000 service centers throughout North America. Call (888) 619-7060 or email [php@scheuco.com](mailto:php@scheuco.com) to request the service center nearest you. Include the Make and model of your heater in any emails.

## INSTRUCTIONS FOR ORDERING PARTS

We recommend that only parts supplied by the manufacturer be used on this unit. A locally purchased part may appear to be identical, although in reality it might endanger the heater or the persons operating the heater.

The heater should be serviced only by a trained, experienced service person.

Read the section on "Servicing" before ordering parts.

For parts orders, call 888-619-7060 or e-mail us at [php@scheuco.com](mailto:php@scheuco.com). Please have the model number of your heater and the replacement part number when placing your order.



Hand print only. Use black or blue ink pen to fill in this form. Cross or check inside the circle.

# Warranty Registration

## Your Information

First Name

Last name

Mailing Address

City

State

Postal code

E-mail Address

Annual house hold income before tax

☐ <\$9,999

☐ \$10,000 to \$19,999

☐ \$20,000 to \$34,999

☐ \$20,000 to \$34,999

☐ >\$50,000

Age of Purchaser

☐ <20 years

☐ 20-29 years

☐ 30-39 years

☐ 40-49 years

☐ 50-59 years

☐ >60 years

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## Your Preferences

Who selected the heater?

☐ Male

☐ Female

☐ Both

Heater will be used by?

☐ Individual

☐ Business

How did you learn about our heater?

☐ Advertising

☐ Relative/friend

☐ Store display

☐ Previously owned heater

☐ Other

What prompted you to buy your heater?

☐ Sudden cold weather

☐ Emergency backup heat

☐ Replaces old model

☐ Hard to heat location

☐ Heater on sale

☐ Other

☐ Construction project

Where will you use the heater?

☐ Construction site

☐ Warehouse

☐ Shop

☐ Patio

☐ Other

In choosing your heater the following categories were:

	Somewhat Important	Important	Very Important
Features	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat Output	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warranty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serviceability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## Product Information

Date of Purchase (MM/DD/YY)

Cost of Heater (\$)

S/N (Located on a silver label on heater)

Model Number (Located on a black and white label on heater)

Brand Name

☐

All Pro

☐

Universal

☐

National Riverside

## Store Information where heater was purchased

Store Name

City

State

Type of Store

☐

Hardware

☐

Home Center

☐

Warehouse Retailer

☐

Discount Store

☐

Farm Supply

☐

Contractor's Supply

☐

Other

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SCHEU PRODUCTS COMPANY, INC  
ATTN: MARKETING DEPARTMENT  
8855 BAKER AVENUE  
RANCHO CUCAMONGA, CA 91730

Visit our website for product information, technical support, customer service, and warranty registration at:  
[WWW.ALLPRO-HEATERS.COM](http://WWW.ALLPRO-HEATERS.COM) for All-Pro products or [WWW.UNVERISAL-HEATERS.COM](http://WWW.UNVERISAL-HEATERS.COM) for Universal products.