

OPERATOR MANUAL  
AND PARTS LIST

***EXTRACTOR L14 220Volt***



USE AND MAINTENANCE MANUAL

ING. O. FIORENTINI S.p.A

INDUSTRIAL CLEANING MACHINES

# IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock, or injury:

1. Do not operate without filters (dry or wet) in place.
2. Use only as described in this manual. Use only manufacturer's recommended attachments.
3. Use indoors only. Do not use outdoors and do not expose to rain.
4. Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.
5. Do not pick up flammable fluids, dust or vapors.
6. Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
7. Do not handle the plug or machine with wet hands.
8. Do not leave the machine unattended. Unplug machine from outlet when not in use and before servicing.
9. Do not unplug machine by pulling on cord. To unplug, grasp the plug, not the cord.
10. Do not use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.
11. If the machine is **not working properly**, has been dropped, damaged, left outdoors, or cropped into water, return it to an Authorized service center.
12. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners.
13. Do not pull/run machine over cord. Keep cord away from heated surfaces.
14. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
15. Do not operate machine with any openings blocked. Keep openings free of debris that may reduce airflow.
16. Keep hair, loose clothing, fingers, and all parts of the body away from openings and moving parts.
17. Use extra caution when cleaning on stairs.
18. Do not use machine as a step.
19. Connect to a **properly** grounded outlet. See Grounding Instructions.
20. Maintenance and repairs must be done by qualified personnel.

SAVE THESE INSTRUCTIONS

### INSPECTION

Carefully unpack and inspect your extractor for shipping damage. Each unit is operated and thoroughly inspected before shipping, and any damage is the responsibility of the carrier, who should be notified immediately.

### ELECTRICAL

This extractor operates on a standard 15 amp 115 volt AC circuit. \*Voltages below 105 volts or above 125 volts could cause serious damage to motors.

\*Special voltage models available.

**WARNING:** To avoid electric shock:

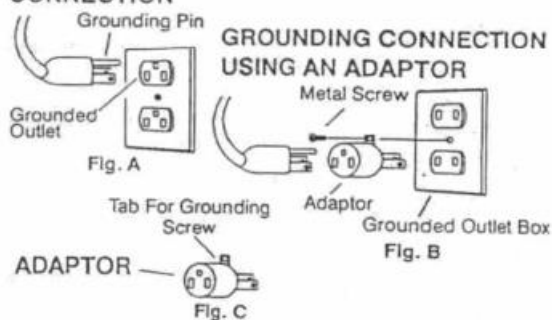
1. Use indoors only.
2. To reduce risk of fire, do not use volatile substances.
3. Use only cleaners intended for carpet application.

### GROUNDING INSTRUCTIONS:

This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig. C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

### PROPER GROUNDING CONNECTION



**NOTE:** In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code

**NOTE:** Au Canada, l'utilisation d'un adaptateur temporaire n'est pas autorisée par le Code canadien de l'électricité.

### EXTENSION CORDS

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine: The is equipped with a 50 ft. 114/3 power cord. Do not exceed the 50 ft. cord limit.

### WARNING:

- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

### CAUTION:

To avoid possible distortion of polyethylene solution/recovery tanks, DO NOT USE WATER TEMPERATURE THAT EXCEEDS 150° F (65° C).

**NOTE:** Make sure dome is seated correctly to ensure proper vacuum seal.

### CAUTION:

- Use only the suitable chemicals listed below. Using incompatible chemicals will damage the machine. Damages of this type are not covered under the 6-3-1 warranty. Carefully read ingredients on manufacturer's label before using any product in this machine.

#### SUITABLE CHEMICALS

Alkalis  
 Clorox II Bleach\*  
 Defoaming Agents  
 Detergents  
 Hydroxides  
 Oxygen Bleaches  
 Soaps  
 Sta-Puf Fabric Softener\*  
 Vinegar  
 White Monday Bleach\*

#### INCOMPATIBLE CHEMICALS

Aldehydes  
 Aromatic Hydrocarbons  
 Butyls  
 Carbon Tetrachloride  
 Clorox\*  
 Chlorinated Bleaches  
 Chlorinated Hydrocarbons  
 D-Limonene  
 Lysol\*  
 Methyls (MEK)  
 Perchloroethylene(perc)  
 Phenols  
 Trichloroethylene

\* Registered Trademark

## EQUIPMENT SETUP

**NOTE:** Vacuum the carpet and make sure it is cleared of surface debris before cleaning with the

**NOTE:** Attach strain relief/cord retainer to the power cord.

1. Make a loop in power cord approximately 12" from twist lock receptacle end.
2. Slide cord loop through slot in retainer arm. Pull slack cord back through slot to secure. Attach retainer to handle.
3. Plug power cable from machine into properly grounded wall outlet.
4. Using a clean container, fill solution tank with hot water.



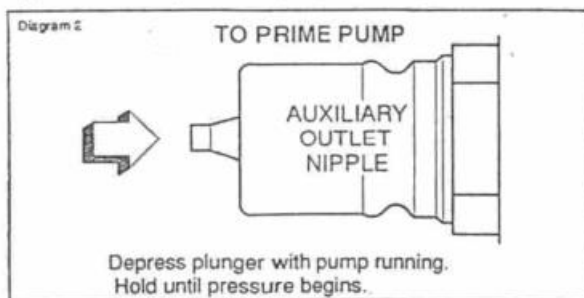
**CAUTION:** To avoid possible distortion of polyethylene solution recovery tanks, DO NOT USE WATER TEMPERATURE THAT EXCEEDS 150 °F (65 °C). The maximum capacity of the is 7 gallons. Mix in a non foaming cleaning concentrate for use in hot water extraction machines at the proportions noted on the container for various carpet soil conditions.

**NOTE:** When using a powder cleaner, premix with hot water in clean container before adding to solution tank.

## OPERATING

**NOTE:** Vacuum the carpet and make sure it is cleared of surface debris before starting the cleaning process.

**NOTE: Pump Priming:** If the machine has been in storage or the pump runs dry - air entrapment within the solution line can occur. This is alleviated by depressing the tip of the auxiliary nipple momentarily while the pump is running.



1. Dispense solution by using either the continuous flow switch for cleaning smaller more confined areas. Switch on power brush, depress pedal to Lower brush head assembly. Walking backwards move the machine over the area to be cleaned. Turn solution off about 8 inches before the end of each pass to insure all solution is removed from the carpet. When through cleaning depress pedal to Raise brush head assembly. Switch off vac and brush switches.

**WARNING:** Do not leave power brush running when machine is not in cleaning mode. Damage to carpet could occur.

2. As you work, check to see if there is a foam buildup in the recovery tank. If there is a foam buildup, turn the machine off and add the recommended amount of a defoaming solution to the recovery tank.

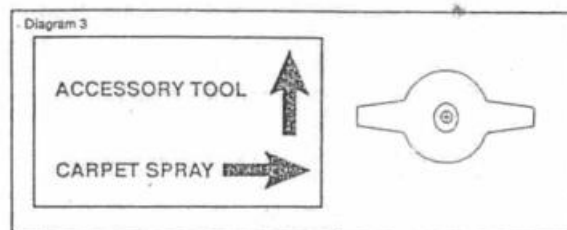
**NOTE:** Never put defoamer in the solution tank.

**WARNING:** An overflow of foam into the vacuum intake can damage the vac motor. Always be aware of the waste water level in the recovery tank. When the tank is about three quarters full, turn off the machine, remove drain hose from keeper and empty dirty water into bucket or floor drain.

3. When machine runs out of cleaning solution, turn off the machine and refill the solution tank. Turn machine on and continue cleaning process.

## OPERATING THE ACCESSORY TOOLS WITH

The is easily adapted for use with the following accessory tools; DHT-UPH3-SW-SFW-SW/PRO



**NOTE:** Turn machine off before connecting any accessory tools.

1. Turn solution control valve from "Carpet Spray" to accessory tool. (See Diagram 3.)
2. Remove recovery hose from dome and insert vacuum hose for accessory tool in its place.
3. Attach solution hose from accessory tool to solution outlet nipple on back panel of machine.
4. Make sure that sufficient amount of cleaning solution is in solution tank and that the dome is in place and ready for operation.
5. Turn on vacuum and continuous pump switches.

**CAUTION:** Do not switch on power brush when using with accessory tools.

**NOTE:** Make sure the solution control valve is returned to the "Carpet Spray" position before using for carpet cleaning.

## DAILY/REGULAR MAINTENANCE

**WARNING:** Before making any adjustments or repairs to the machine, disconnect the power cord from electrical source.

1. Empty unused cleaning solution from solution tank.
2. Inspect and clean filter screen in solution tank.
3. Flush pumping system with 1 to 2 gallons of clean hot water.
4. Empty and clean recovery tank with clean water.
5. Check spray jets daily for full spray pattern.
6. Check for and remove any debris or lint buildup from vac shoe.
7. On power brush models remove lint and dirt buildup from brush and housing.

### PERIODIC MAINTENANCE

Twice a month, flush a white vinegar solution (One quart vinegar to two gallons of water) or anti-browning solution (mixed as directed) through the pump. This will prevent build-up of alkaline residue in the system.

If spray jets become clogged, remove the spray tips, wash them thoroughly, and blow dry.

**NOTE:** Do not use pins, wire, etc. to clean nozzles as this could destroy spray pattern.

If spray jets drip after the pump is turned off, solenoid valve may need to be cleaned. (230/250V models only)

Apply silicone lubricant to solution nipple.

Periodically inspect all hoses, electrical cables, filters and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss. Because the electrical cable must be well insulated and cable connector screws kept tight, if the cable insulation is broken or frayed, repair or replace it immediately. Don't take chances with electrical fire or shock.

### PROTECT FROM FREEZING

If it becomes necessary to store in temperatures that could drop below 40 F, the pumping system, hoses and valves must be protected from freezing with a methyl hydrate window washer antifreeze solution. Do not use ethylene glycol or cooling system antifreezes.

1. Add a gallon or two of window washer antifreeze to the supply tank, turn on pump switch and spray until the antifreeze solution fills the solution lines.

### MAINTENANCE INSTRUCTIONS

**WARNING:** Remove machine power cord from electrical source before making any adjustments or repairs to the machine. Only qualified maintenance personnel are to perform repairs.

**NOTE:** In the following instructions all letter designations, IE: **1** will be shown in the upcoming graphical examples in this guide.

### TO ACCESS VAC MOTOR/ PUMP ASSEMBLY

Remove solution from both tanks.

1. **SOLUTION TANK:** Attach the 4 ft. vac hose, supplied with machine, to dome. Switch on vac motor and vacuum unused solution into recovery tank.
2. **RECOVERY TANK:** Remove drain hose from keeper and empty solution into bucket or floor drain.

### VACUUM MOTOR

1. Remove (2) tank mounting bolts from rear chassis panel. **1**
2. Lift up recovery tank to access vac exhaust hose. Disconnect hose from vac motor, motor wire leads and remove tank/vac motor. **2**

3. To inspect motor brushes, remove brush holder assembly. Brushes should be replaced when worn to 3/8 inch or after about 250 operating hours. After second brush replacement the armature commutator should be checked for pitting and concentricity. Vac motors can be repaired but such repairs should be made by a qualified motor repair shop.

### VAC SHOE

1. Tilt machine back to rest on handle.
2. Remove (3) bolts holding shoe to tank. **3**  
(3rd bolt located at motor mounting plate.)  
**NOTE:** When reinstalling a new vac shoe, proper alignment of shoe to floor must be made.

1. Install vac shoe and tighten screws.
2. Set machine upright on a flat-level surface and check vac shoe for level contact on the flat surface.
3. Make adjustment at axle leveling screws by tightening/loosening both of the lock nuts until shoe is level.

### TRANSPORT WHEELS

1. Remove screw and hub cap **4** and slide wheel off axle. Before reinstalling wheel, clean axle and apply light coating of silicone lubricant.

### BRUSH ASSEMBLY / BEARING

1. Remove belt guard and "ROLL" belt off motor pulley.
2. Remove screw from each end of brush shaft and remove brush assembly from housing. Replace brush or bearings as required.

### SWITCH CONTROL PANEL

1. Remove (2) screws holding switch housing to handle. **5**
2. Replace switches as required.

**CAUTION:** When replacing switches, make sure wire leads are connected to proper terminals. Refer to wiring diagram located on back panel (or owners guide) for assistance.

### PUMP ASSEMBLY

**CAUTION:** When re-installing valve make sure arrow is pointed in the direction of solution flow. (230/250V only)

### POWER HEAD REMOVAL

2. Tilt machine back to rest on handle.
3. Remove cable from lift bracket. **6**
- Remove (2) pivot bolts. **7**
4. Disconnect solution hose from elbow.
5. Remove (4) bolts holding pump/plate assembly to tank. **8**
6. Lift out pump & plate assembly. Disconnect hoses from pump and pump lead wires from junction box.
7. Refer to pump parts list for replacement parts.

**CAUTION:** When replacing electrical parts refer to the machine wiring diagram for proper connections.

**CAUTION:** When replacing hosebarbs on pump head- **DO NOT OVER TIGHTEN** - as this could crack intake and discharge ports in pump head.

#### SOLENOID VALVE (I and IA Only)

If the machine continues to drip solution from the manifold after pump is switched off check for: (A) Alkaline buildup in solution lines (B) Lint or debris lodged in the solenoid valve.

1. Remove (2) Tank mounting bolts **1** from chassis panel. Remove recovery tank/vac motor assembly.
2. Remove left wheel to access valve retaining screws.
3. Remove in line solenoid valve: **11**  
Clean, repair or replace as required.

NOTE: The solenoid valve can be disassembled for cleaning when positive shut-off is interrupted and valve leaks through tee jets.

4. Remove hex nut at top of valve and lift off coil assembly.
5. Use spinner wrench or small punch and hammer to remove plunger body. Remove lint and soap residue from plunger.

CAUTION: When reinstalling valve make sure arrow is pointed in the direction of solution flow.

#### BELT ADJUSTMENT

1. When servicing brush motor or brush assembly always check belt for proper tension. The belt should be taut to prevent it from slipping on cogged pulleys. To tighten belt, loosen motor mounting nuts and rotate motor rearward just enough to tighten belt.

#### VAC MOTOR EXHAUST FILTER

1. Remove (2) bolts holding chassis to tank. **1**
2. Tilt machine back to rest on handle.
3. Remove hex nut from PVC muffler. **9**  
Repair or replace as needed.

#### POWER HEAD LIFT CABLE

1. Remove recovery tank/vac motor assembly. **1**
2. Tilt machine back to rest on handle. Remove bolt holding cable to lift bracket and (2) power head pivot bolts. **5** **7**
3. Remove guide pulley bracket assembly and remove from pulley.
4. Remove pedal and bracket assembly (4) screws. Replace cable as required. Reinstall pedal assembly and power head assembly. To adjust cable: Depress cable so that power head almost touches vac shoe housing. Raise and lower power head with pedals to make sure that the head will "Lock" in UP position when pedal is depressed.

#### GOODS TO BE RETURNED

In case of goods to be returned for warranty replacement, it is necessary to have a written acceptance from

FIORENTINI technical department before sending them.

All defective parts must be carefully packed in order to avoid further damages during transport.

Goods must be shipped ex-warehouse and followed by :

- **serial number of the equipment where they were installed on;**
- **item code of the defective part;**
- **detailed description of the defect and of the conditions where it happened.**

In case of defective electric or electronic goods, please return them separately from other materials, in order to help us in dividing dangerous wastegoods and recycle the (RAEE) as DER 2002/96/CEE LOW.



**CONFORMITY DECLARATION**

Conformity declaration is consigned with the support and the manual of operating and maintenance instructions.

**DICHIARAZIONE CE DI CONFORMITA'-DECLARATION OF CONFORMITY  
DECLARATION DE CONFORMITE-EG-KONFORMITÄTSEKTLÄRUNG-  
DECLARACION DE CONFORMIDAD**  
(ai sensi dell'allegato II 1.A della Direttiva Macchine 2006/42/CE)

**La ING.O.FIORENTINI SPA**  
con sede in Via Piancaldoli 1896 Firenzuola, 50033, (FI)

**DICHIARA/DECLARES/DECLARE/ERKLÄRT/ DECLARA**  
in qualità di costruttore sotto la propria responsabilità che la macchina  
As manufacturer under its own responsibility that the machine  
En tant que fabricant sous sa propre responsabilité que la machine  
Als Hersteller, erkläre, in alleiniger Verantwortung, dass das Produkt  
Como fabricante, bajo su responsabilidad que la máquina

CE

**Modello/model/modèle/Typ/modelo**  
**Matricola/serial number/numero de série/  
Fabriknummer/ Número matricula**  
**Anno di costruzione /  
Year of production/ Année de production/  
Baujahr/ Año de producción**

a cui la presente dichiarazione si riferisce è conforme alle prescrizioni  
which this declaration refers to, is in conformity with the requirements  
à laquelle se réfère cette déclaration, est en conformité avec les prescriptions  
Auf das sich diese Erklärung bezieht, mit der normativen übereinstimmt.  
que esta declaración se refiere, está en conformidad con los requisitos

*della direttiva macchine 2006/42/CE/ Directive 2006/42/CE / de la Directive 2006/42/CE / der EG-Richtlinie 2006/42/EG über  
Maschinen / De la directiva maquinars 2006/42/CE*

*della direttiva compatibilità elettromagnetica 2014/30/EU/ the Electromagnetic Compatibility Directive 2014/30 / EU / de la Directive  
Compatibilité Electromagnétique 2014/30 /EU / elektromagnetische Verträglichkeit (EMV) 2014/30/EU / la directiva de  
compatibilidad electromagnetica 2014/30/EU*

*della direttiva sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE) 2012/19/UE/ Directive on Waste of Electrical and  
Electronic Equipment (WEEE) 2012/19 / EU / de la directive relative aux déchets d'équipements électriques et électroniques (DEEE)  
2012/19 / UE / Elektrische und elektronische Geräte Abfälle (DEEE)2012/19/UE Directiva sobre residuos de aparatos eléctricos y  
electrónicos (RAEE) 2012/19/UE/  
(ISCRIZIONE AL REGISTRO PRODUTTORI A.E.E.: N° IT 12010600007391)*

In particolare alle disposizioni normative  
In particular, the regulatory rules  
En particulier, les dispositions réglementaires  
Gemäß den Bestimmungen der Richtlinie  
En particular, las normas reguladoras

**EN ISO 12100, EN ISO 13857, EN ISO 13850, EN 60204-1, EN 349,  
EN 953, EN ISO 4413, EN 60335, EN 60335-1, EN 60335-2-69, EN 60335-2-72, EN 55014-1, EN 55014-2,  
EN 62233, EN 61000-6-2, EN 61000-6-4**

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**Ing. O. Fiorentini S.p.a.**  
Il Legale Rappresentante/president/gérant/ representante  
Angelica Maria Cerutti

Piancaldoli  
Luogo e data

Firma *Angelica Maria Cerutti*

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Nr. de serie

Data di spedizione  
Date of shipment \_\_\_\_\_  
Date de spedition

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