



6630 - 6640 - 6650 - 6670



Read carefully the present use and maintenance manual in every part before proceeding to use. The following machine has been examined according to the Directive Machines 2006/42, 2004/108, 2006/95 and following changes and integrations.



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USE AND MAINTENANCE HANDBOOK

Code XXXXX - XX

SECTION	INDEX	PAGE
1	GENERAL INSTRUCTIONS	2
2	MACHINE IDENTIFICATION PLATE	3
3	TECHNICAL FEATURES AND DIMENSIONS	4
4	MAIN PARTS	5
5	JOBS AND SAFETY RULES	6
6	MACHINE INSTALLATION	7
7	MACHINE RUNNING	8
8	STANDARD EQUIPMENT	8
9	DETERGENTS	8
10	ELECTRIC WIRING DIAGRAM	9-10
11	LABELS	11
12	MAINTENANCE	12-13
14	COOLING COIL INTERNAL CLEANING	14
13	MACHINE DEMOLITION	14
15	WARRANTY	14
16	DRAWBACKS, CAUSES AND SOLUTION	15-16
17	DECLARATION OF CONFORMITY	17

1. GENERAL INSTRUCTIONS

Congratulation for your choice on the purchase of your new cleaner; it means that you have keep technical knowledge and good taste for the nice design. Technological innovation, high performances and strenght are the main features of the machine **6630 / 6640 / 6650 / 6670**.

This manual is an integral part of the washer and it must be found easily by the personnel responsible about the maintenance and by the user.

The users, the qualified individuals must know the contents of this manual.

In case of troubles, doubts as to understand this manual, please contact the Company **ANNOVI REVERBERI** - Via Aldo Moro, 40/42 - 41030 Bomporto (MO) Italy, support@annovireverberi.it.

Descriptions and images contained in this manual are not binding, therefore, the Company, reserves the right to make changes at any time and without prior notice.



IMPORTANT !

For a proper and safe operation of the machine, read this manual carefully before connecting the machine to the power supply and before setting it at work.

The machine has been designed to clean or wash, with hot or cold water, objects or surfaces which can stand the mechanical treatment of the water jet under high pressure and by the action of the chemicals products (detergents).

Before starting, be sure that it is supplied with the relevant identification rating plate; otherwise you must contact your dealer immediately and don't use the machine.

Never leave an operating cleaner unattended in the work place.

After a working day we suggest to place the machine in a dry place and protected from the bad weather conditions.






The machine must be used only for the purposes for which it has been designed.

Never use the machine if the safety conditions are uncertain.

In case of demolition, please follow the law in force in your Country.

2. MACHINE IDENTIFICATION PLATE



		Model:		L
	MADE IN ITALY	Nr. xxxxxxxx		
A	Working Pressure	bar - Mpa		
B	Max pressure	bar - Mpa		
C	Flow Rate	L/h - Lt/min	IPX5	M
D	Max Temperature	°C - °F		O
E	Burner Power	kW		
F	Absorbed Power	kW		N
G	Volt/Hz	V/ Hz		
H	Fuel	Diesel		
I	Fuel Tank	Lt.		
Annovi reverberi S.p.a 41100 Modena Italy				

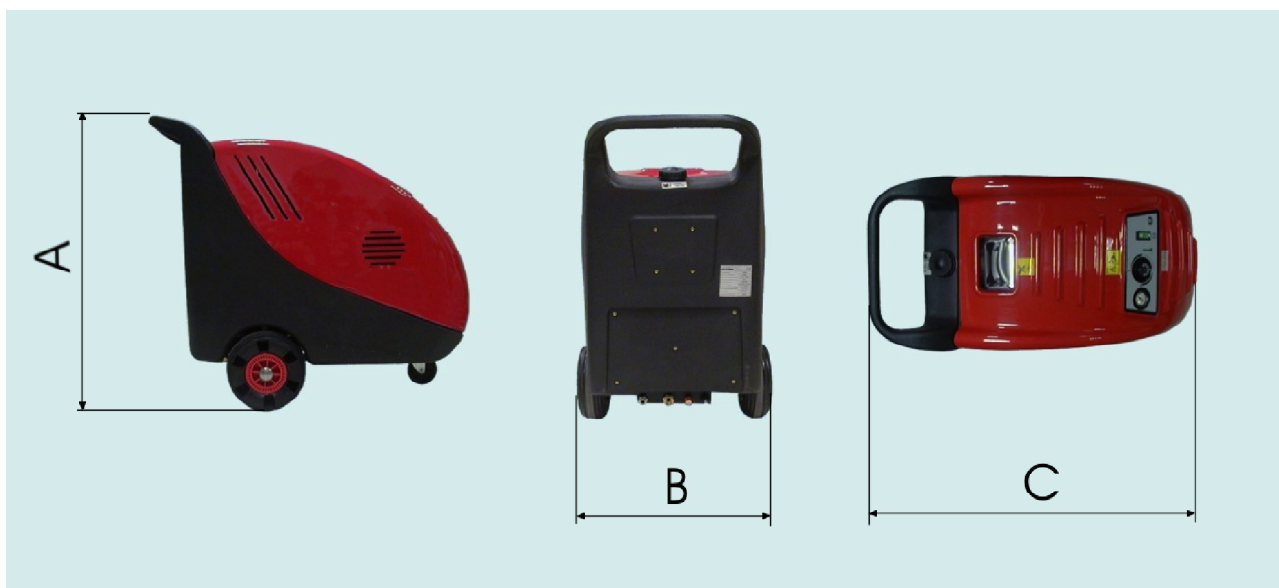
Key of the identification plate

- A = WORKING PRESSURE
- B = MAX PRESSURE
- C = FLOW RATE
- D = WATER TEMPERATURE
- E = BURNER POWER
- F = ABSORBED POWER
- G = VOLT/HZ
- H = FUEL TYPE
- I = FUEL TANK CAPACITY
- L = SERIAL NUMBER
- M = PROTECTION DEGREE
- N = NOISE VALUE
- O = PRODUCT CODE

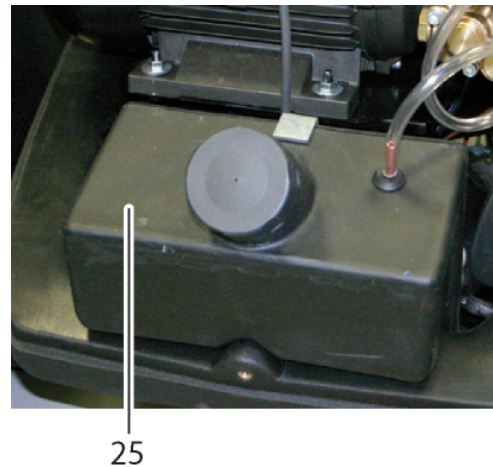
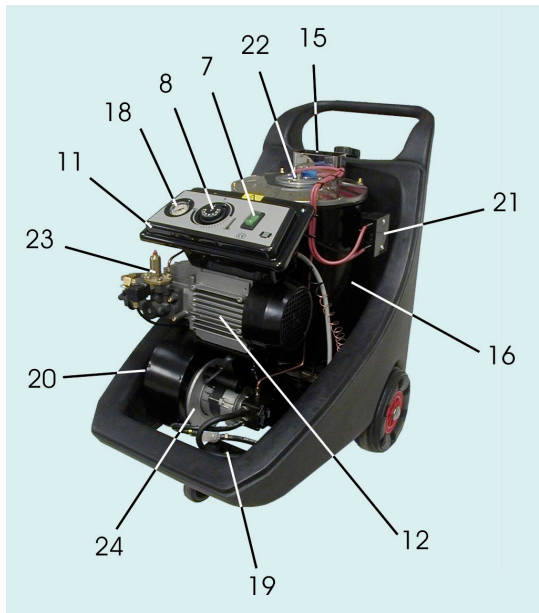
The data on the plate must not be erased for any reason.

3. TECHNICAL FEATURES AND DIMENSIONS

MODEL		6630	6640	6650	6670
Pressure	BAR	150	130	150	170
	P.S.I.	2200	1900	2200	2500
Power	KW (OUTPUT)	2,32	2,2	3	4
	KW (INPUT)	3,1	3	4	5
	RPM	2800	1450	1450	1450
Voltage	V/Hz	230-50Hz 1 ~	230-50Hz 1 ~	400-50Hz 3 ~	400-50Hz 3 ~
Max capacity	L/H	540	600	600	780
	Gal/h	145	159	159	206
Temperature °Δ T	°C	65	65	55	47
Fuel tank	Liters	22	22	22	22
Detergent tank	Liters	4	4	4	4
Dimensions	H.	820	820	820	820
	L.	570	570	570	570
	P.	1000	1000	1000	1000
Lpa(EN60704-1)	Db (A)	85,8	85,8	81,3	84,8
Lwa(EN 60704-1)	Db (A)	94	94	89	93
Machine vibrations	M/s ²	1,23	1,23	1,23	1,23
Weight	kg	80	82	82	85



4. MAIN PARTS



1 = THERMAL LANCE	14 = FUEL TANK CAP
2 = HIGH PRESSURE HOSE	15 = CHIMNEY UNLOADED SMOKES
3 = WATER OUTLET	16 = BOILER
4 = WATER INLET	17 = HIGH PRESSURE PUMP
5 = POWER CABLE	18 = PRESSURE GAUGE
6 = DETERGENT SUCTION	19 = CHASSIS
7 = ON/OFF SWITCH	20 = AIR FLAP REGULATOR
8 = TEMPERATURE REGULATOR	21 = TRANSFORMER
9 = COVER	22 = COMBUSTION HEAD
10 = WHEEL	23 = BY-PASS VALVE
11 = ELECTRIC WIRE BOX	24 = IMPELLER BURNER
12 = ELECTRIC MOTOR	25 = DETERGENT TANK
13 = FUEL TANK	

5. JOBS AND SAFETY RULES

Please be sure that the machine is always fed with water. Running the unit dry, causes serious damages to the sealing systems.

Never attempt to move the unit by dragging it by the power cord of the high pressure machine.

Please store the machine in a place protected from freezing and from the possibility of use by unauthorized individuals.

Avoid transit of vehicles on the high pressure hose.

During the running do not cover and position the machine in areas without good ventilation.

If the unit work in a closed environments, it's compulsory to install a vent-stack in a way to discharge the toxic gases outside.

Never use the unit with rain or storms.

Use protective clothes during working phases.

Don't let the cleaner run for over 5 minutes with the gun closed; after this time the water temperature increases fastly, causing serious damages to the sealing system.

Discharge the residual pressure by means of the spray gun, every time you stop the machine.



IMPORTANT !

- Don't make any operation on the machine before having reduced the pressure, removing the plug from the socket;
- always disconnect the power cord before making any repairs;
- never direct the high pressure jet towards people, animals, wiring installations or on the unit itself;
- always use clean water; dirty water and corrosive chemicals products are very dangerous for the machine;
- never put hands on the gases exhaust chimney;
- in case an extension is required, be sure that plugs and sockets have a protection type IP65 and that the power cord complies with the table reported here below.

VOLTAGE V	EXTENSION LENGTH	CABLE SECTION
220 - 240	0 mt UP TO 25 mt	3x2,5 mm ²
220 - 240	25 mt UP to 50 mt	3x4mm ²
380 - 415	0 mt UP TO 25 mt	4x2,5 mm ²
380 - 415	25 mt UP to 50 mt	4x4 mm ²

6. MACHINE INSTALLATION

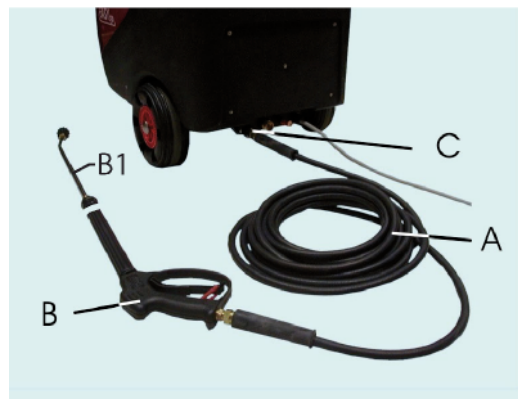
The machine you are about to use will give you the best performances if you install itself following our instructions.

Before setting the machine at work, make sure that the machine lies perfectly on a horizontal surface.

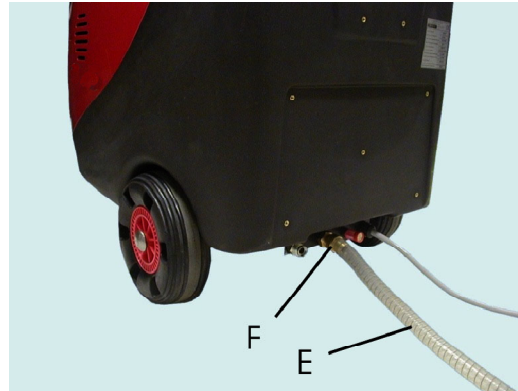
Make sure that the voltage and amperage corresponding to the machine requirements.

Connect the machine to a fixed supply point fitted with an efficient earth contact controlled by break devices against overload and leakages.

Connect the high pressure hose A to the spray gun B and the other hose at the end to the delivery fitting, by tightening the metal ring C. Connect the lance B1 to the gun B.



Connect the water supply hose E to the inlet fitting F. We suggest to use a reinforced hose having an internal diameter of 10 mm. Water delivery must be 15 l/min. at least, and have a max. inlet temperature of 60 °C.



Fill the fuel tank G with gasoil (Diesel).



7. MACHINE RUNNING



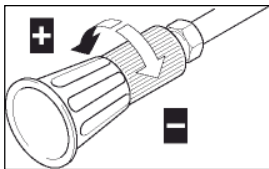
After having installed the machine, it can be started; open the water faucet H, press the start button I and pull on the gun lever L for a few seconds, in a way to discharge the air contained in the hose.

When the machine is started for the first time, it's necessary to let it run for a few minutes without nozzle, so that any impurities and air will be discharged from the pump; after this operation, reassemble the nozzle.

The performance with cold water, can be obtained by pressing the start switch I, so the pump running, then pull the gun lever L.

The hot water, can be obtained by pressing the start switch I, than adjust the working temperature on the thermostat handgrip M, pull the gun lever L and the burner starts burning and producing hot water at the temperature desired.

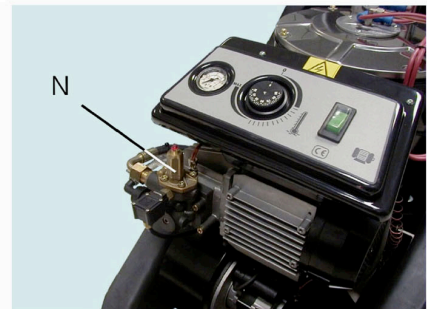
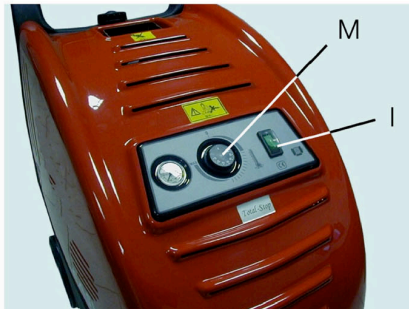
After having used the cleaner with hot water, before you stop it, let it run with cold water for a few minutes.



The pressure regulation N is fixed by the manufacturer and cannot be changed for any reason.

The detergent is applied by opening the intake device of the lance (on the position - see figure) and then operating with the gun lever.

At the end of the working day, switch off the start button and, operating on the gun, remove the residual pressure from the hose.



8. STANDARD EQUIPMENT

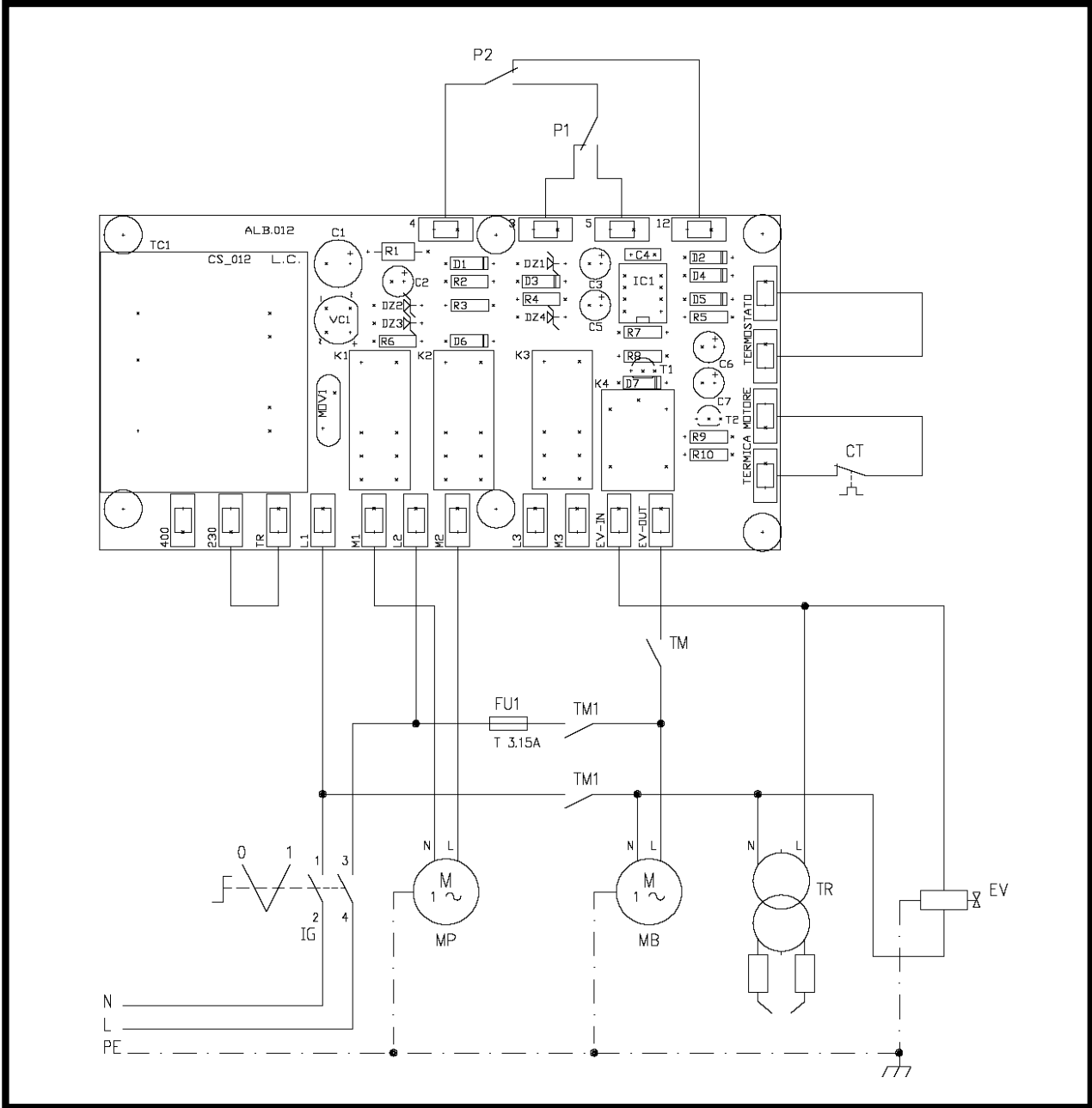
- Thermal lance with spray nozzle-holder and gun
- High pressure hose: length m 10
- Spray nozzle 1/4" MEG

9. DETERGENTS

It is advisable to use detergents with liquid base and **not with dusts**. Use biodegradable detergents, observing the relative regulations in force.

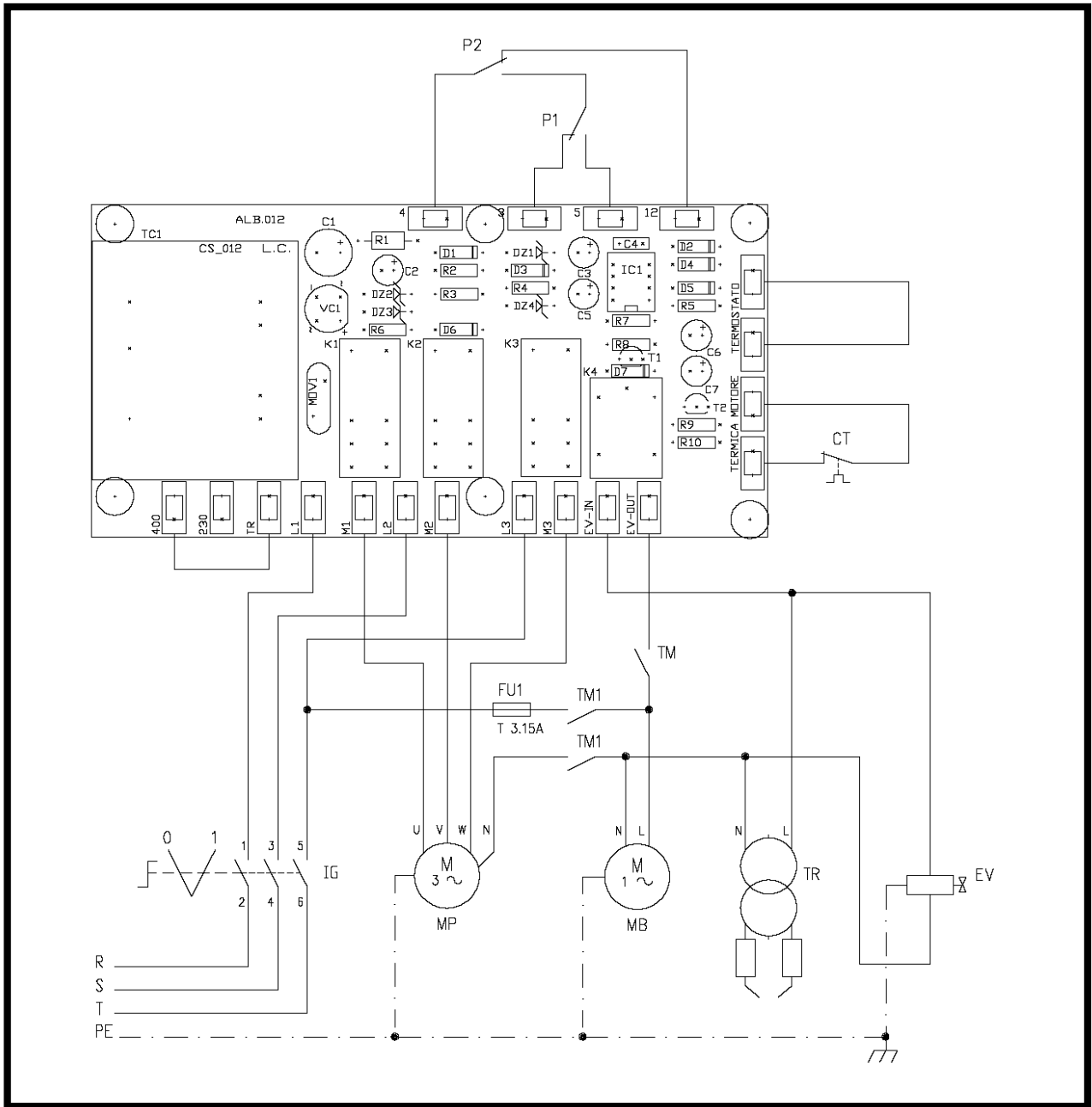
10. ELECTRIC WIRING DIAGRAM

SINGLE PHASE DIAGRAM FOR AR 6630/6640 WITH 4 MODE PRINT BOARD ALB012



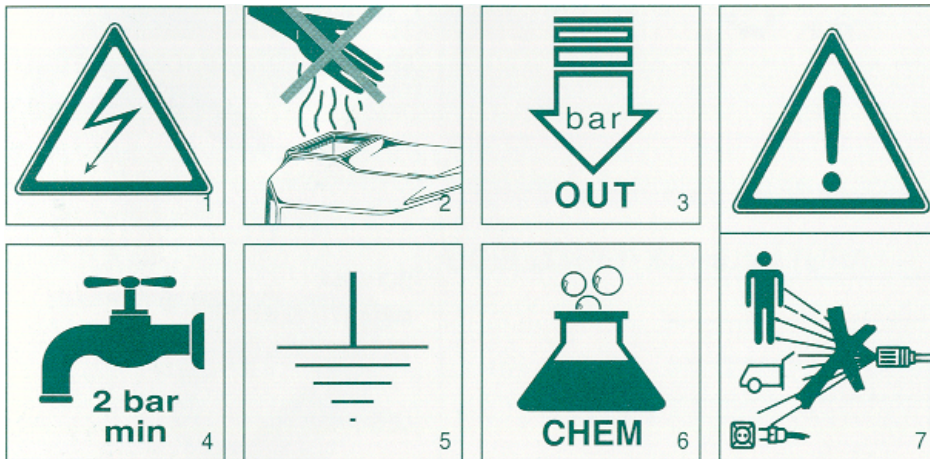
IG	GENERAL ON-OFF SWITCH	P2	PRESSURE SWITCH 15 BAR
CT	THERMAL PROTECTOR	P1	PRESSURE SWITCH 40 BAR
FU1	FUSE	TM1	THERMOSTAT SWITCH
TR	BURNER TRASFORMER	EV	FUEL ELECTROVALVE
TM	THERMOSTAT	MP	PUMP MOTOR
SE	ELECTRONIC PRINT BOARD	MB	BURNER MOTOR

TRHEE-PHASES DIAGRAM FOR AR 6650/6670 WITH 4 MODE PRINT BOARD ALB012



IG	GENERAL ON-OFF SWITCH	P2	PRESSURE SWITCH 15 BAR
CT	THERMAL PROTECTOR	P1	PRESSURE SWITCH 40 BAR
FU1	FUSE	TM1	THERMOSTAT SWITCH
TR	BURNER TRASFORMER	EV	FUEL ELECTROVALVE
TM	THERMOSTAT	MP	PUMP MOTOR
SE	ELECTRONIC PRINT BOARD	MB	BURNER MOTOR

11. LABELS



1	Electrocution controls box
2	Danger! Gases at high temperature - outlet
3	Outlet
4	Water supply
5	Earth connection
6	Detergent intake
7	Caution! Don't direct the high pressure jet towards people, animals, wiring installations, etc.....



IMPORTANT!

Make sure that the plates and labels are available and well legibles on the machine; if not, fix or replace them. Please ask labels to your dealer or to Authorised Service Centres!

12. MAINTENANCE

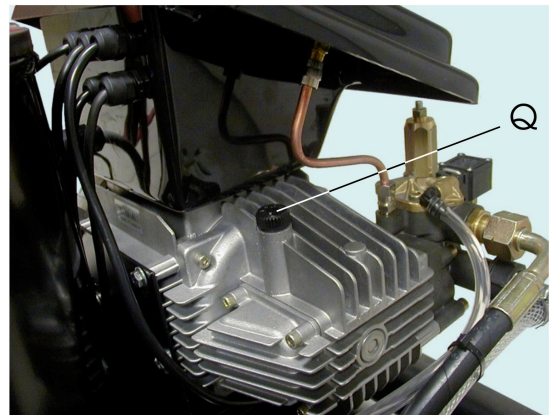


IMPORTANT!

- **Maintenance and repairs must be executed by qualified individuals.**
- **All maintenance operations must be carried out with the machine placed on an even plane and disconnected from the main power and from the water supply.**
- **A good maintenance and a proper use are the necessary conditions to guarantee good performances and safety of the machine.**
To ensure a constant and regular operation, please use original spare parts only.
- **The machine you have purchased has been subjected to an approval test and inspection to our factory; this guarantees a correct operation.**
- **In addition to the preliminary checks, the machine must be maintained at the following intervals:**

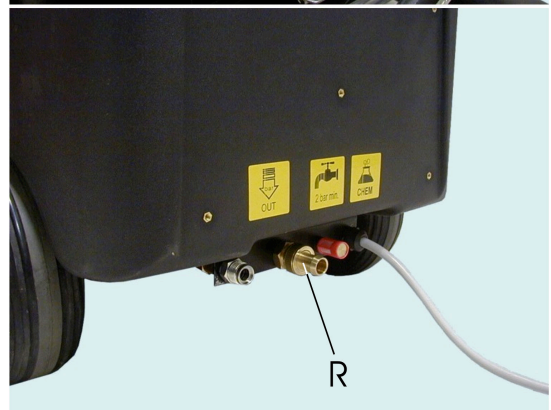
DAILY

Check the oil level through the cap with dipstick Q (if foreseen), in case add some. Remove the cap with the oil dipstick in order to check the lacking quantity, add oil (SAE 15W/40) then fit again the cap. The first oil filling must be made every week or after a work. Check also the integrity of the power cord and eventually of the extension.



EVERY 2 WEEKS OR 50 WORKING HOURS

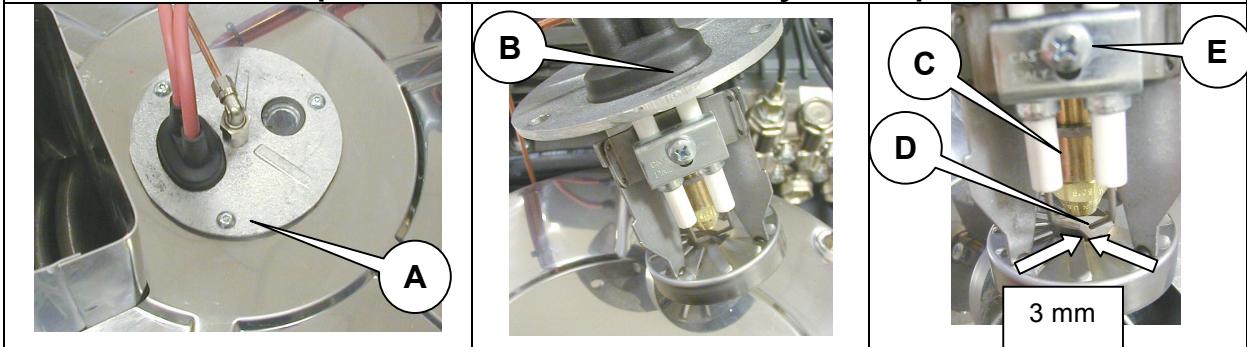
Clean the water filter R with a compressed air jet.



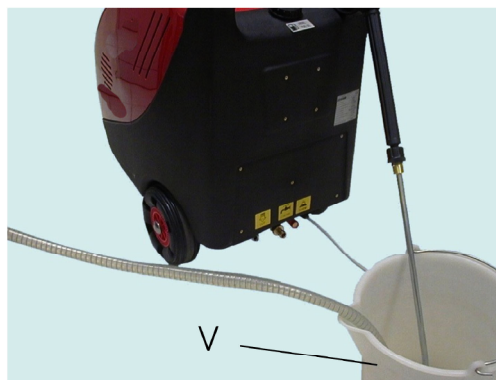
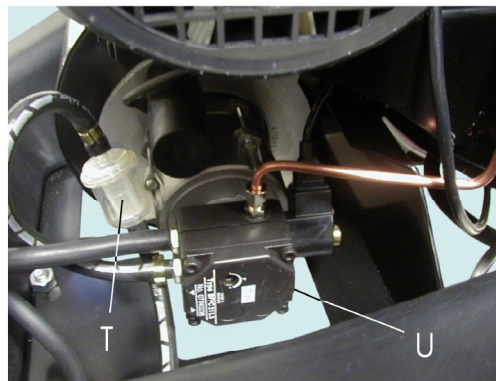
Every month or after 100 hours of work

Clean the combustion head and check the electrodes. Remove the cover, unscrew the three screws pos. **A**, extract the combustion head group pos. **B**. Clean with an air jet the head and check the glow plug pos. **C**. The distance between the electrodes must be of 3 mm. If the distance must be adjusted, unscrew glow plug screw pos. **E**, remove the glow plug, adjust the distance to achieve the 3 mm distance. Reassemble the glow plug while checking it is fixed correctly. Place the combustion back in place using the three screws pos. **A**.

This maintenance operation must be carried out by skilled personnel.

**EVERY 3 MONTHS OR 300 WORKING HOURS**

Fill up with oil through the plug Q.
 Replace the fuel filter T.
 Clean the filter of the fuel pump U.



13. COOLING COIL INTERNAL CLEANING

Contact an Authorized Service Centre.

14. MACHINE DEMOLITION

If you want to junk your machine, please comply to the laws in force in your Country. The machine is manufactured with parts containing recyclable metals and plastics. The oil found inside the pump is highly dangerous and pollutant and **must not** be wasted in the environment or poured into civic drains. **For further informations, please contact your local committee for exhaust oil drainage.**

15. WARRANTY

For as much as the machine's warranty is concerned apply to **WARRANTY CONDITIONS** and **WARRANTY CERTIFICATE** given with the machine.

16. DRAWBACKS, CAUSES AND SOLUTION

PROBLEM	CAUSE	SOLUTION
NO WATER DELIVERY	Dirty water filter Pumps valves jammed Spray nozzle closed	Clean or replace Check Clean
INSUFFICIENT OR INCONSTANT PRESSURE	Detergent valve sucking air Insufficient water supply Pump sucking air Valve worn-out Nozzle worn-out Water filter dirty Gasket worn-out Excessive water temperature Coil dirty	Check Check pump delivery Check Replace Replace Clean or replace Replace Check Clean coil
THE BURNER DOESN'T START	Excessive air sucking Dirty fuel filter Dirty fuel-pump filter Burner nozzle dirty Thermostat fault Electrovalve fault or damaged Insufficient spark to the electrodes Pump joint worn-out Insufficient voltage	Check Replace Clean or replace Replace Replace Replace Check Replace Replace
THE MACHINE IS NOISY	Air suction Dirty valves or jammed Excessive water temperature	Check the air duck Clean or replace Reduce the temperature
PRESENCE OF WATER IN THE OIL	Seal gaskets oil/water damaged High rate of humidity in the air	Replace Check
OIL LEAKS FROM THE HEAD	Seal gaskets worn-out	Replace gasket
PUSHING THE SWITCH THE MOTOR DOESN'T START	Non-intervention of the socket for overheating	Check power cord, plug and socket
THE MOTOR SUDDENDLY STOP	The thermal protection is intervened to prevent overheating	Check if the voltage is correct

17. DECLARATION OF CONFORMITY**DECLARATION OF CONFORMITY**

Declares taking full responsibility that
the product is in accordance with the following regulations
and relative documents

**EN 60335-1 - EN 60335-2-79; EN 55014-1; EN 55014-2;
EN 61000-3-2; EN 61000-3-3; EN 61000-3-11; EN 60704-1**

on the basis of the directives prescriptions

2006/42/CE

2006/95/CE, 2002/95/CE, 2002/96/CE, 2004/108CE, 2000/14/CE

Date: 29/12/2009
MODENA (I)

A handwritten signature in black ink, appearing to read 'Rf Sh' followed by a long horizontal stroke.

Stefano REVERBERI
MANAGING DIRECTOR



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