

Introduction

Please read this technical handbook carefully since it provides important information on the correct installation, use and maintenance of your ECM coffee machine.

The information contained in this manual is necessary for the safe installation and operation of your ECM coffee machine. It should be retained in a safe place for future reference. Copies are available from your local ECM dealer.

The information contained in this manual relating to installation and operation is not a substitute for safety instructions and technical data affixed to the machine and/or its packaging.

The manual provides information that is current at the time of publication. The information is subject to amendment or alteration without notice.

Your ECM machine should only be operated in accordance with instructions contained in this manual and verbal instructions and training provided by an authorised ECM dealer.

Installation and maintenance should only be carried out by technicians and service providers authorised by ECM.

ECM accepts no liability for injury and damage to person, persons or property caused by incorrect installation, misuse, operator negligence, neglect of the machine or any other circumstances beyond its control.

Instruction for use

This machine has been designed for the sole purpose of producing coffee, hot water and steam for hot beverages.

All other uses are outside of the scope of this machine and, therefore, dangerous and hazardous.

The machine has been designed from safe, accessible, durable components and materials and manufactured to the highest standards for use only in a professional catering environment.

The machine should not be exposed to elements such as sunlight, rain, snow, extreme temperatures etc.

The machine must be operated by professional trained adult personnel and should not be used by children, minors or untrained staff.

The operator should be fully conversant with safety operating procedures contained in the manual and should follow the training instructions and advice provided by a qualified technician during the installation procedure.

To ensure maximum performance efficiency, it is essential to follow the manufacturer's instructions concerning routine preventative maintenance and servicing. This must only be carried out by ECM authorised technicians.

It is the responsibility of the user to notify the manufacturer of any defects or damages which may affect the safety of the original installation or future safe operation of the machine.

The user must respect the safety regulations at the point of installation.

The user must check the surrounding area to ensure safe and hygienic use are guaranteed.

The machine component's manufacturers are responsible for the parts supplied by them. The customer is responsible for the personal use of the equipment.

It is the responsibility of the user ensure that the location of the machine is hygienic, and that its continued safe operation can be guaranteed.

When the machine is not being used for long periods of time, the hydraulic systems should be drained completely and the machine stored in a temperature above freezing (0°C or 32°F). This will prevent the hydraulic system from freezing which could damage internal pipes and boiler.

All spare parts fitted to the machine must be original ECM components.

All maintenance must be carried out exclusively by ECM authorized technicians.

Before any cleaning or undertaking internal maintenance the machine should be disconnected from the electric supply.

Never pull the electrical supply cable.

When cleaning the machine never use caustic or abrasive cleaning chemicals.

To avoid electric shocks:

- Ensure that the machine is installed with a proper Earth/ground in accordance to local safety practises, codes and legislation.
- Prevent the power cable from being stretched, or pulled tight.
- Avoid using the machine with wet hands.
- Never operate the machine in bare feet.

Never operate the machine without ensuring the tank contains water.

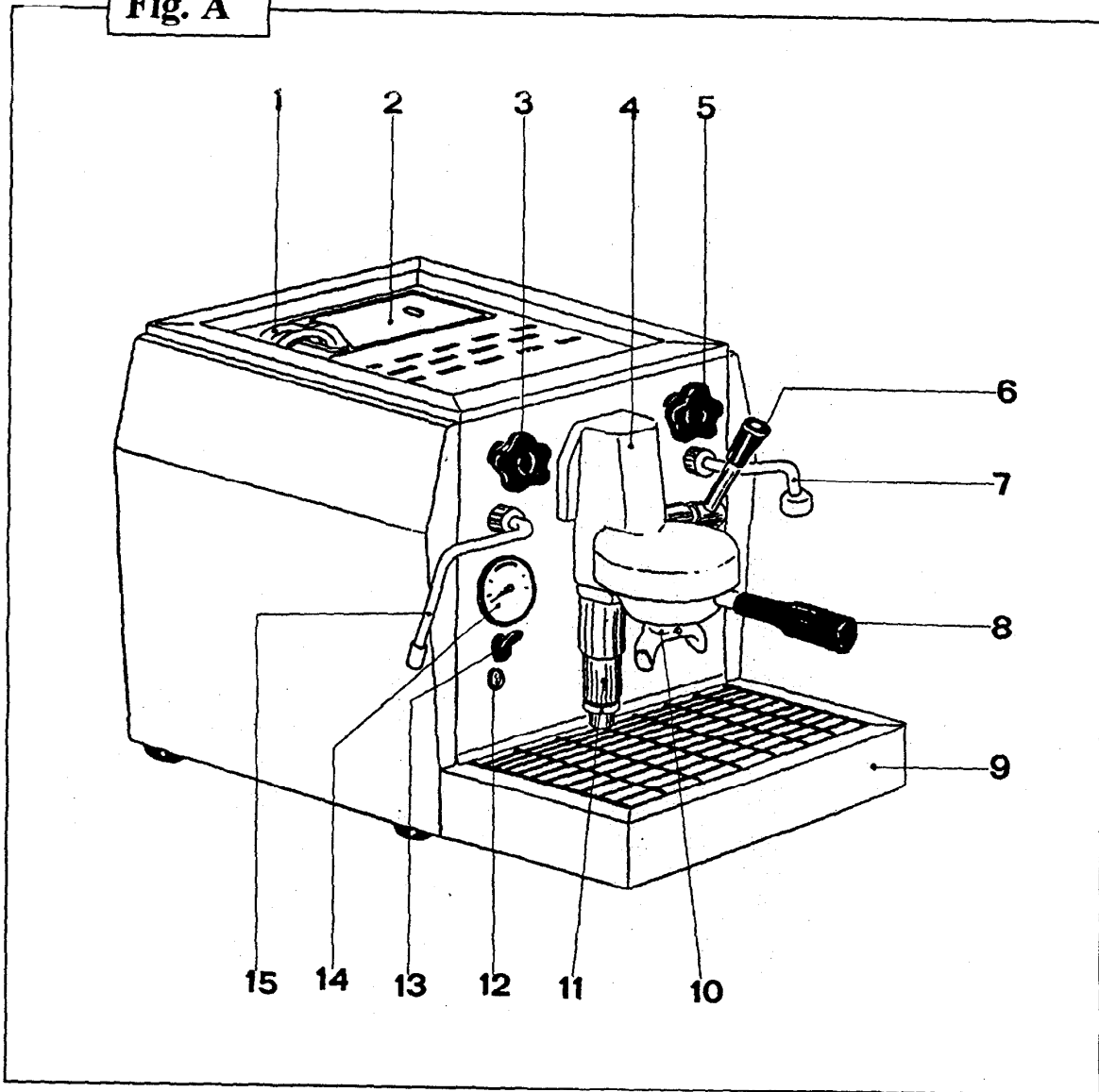
The machine must be operated with clean water. If the local water supply has a high mineral content use water softeners. A build up of mineral deposit may restrict the flow of water within the hydraulic systems causing damage to the machine and risking personal injury.

The machine must only be operated with drinking water.

The machine must be switched off whenever it is left unattended.

4. Description of external components

Fig. A



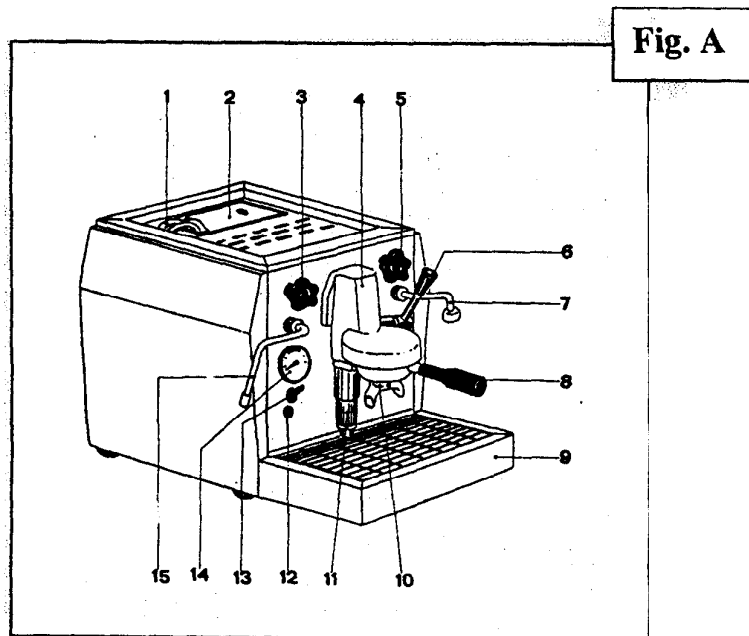
1. Flexible pipes	9. Drip tray
2. Water tank cover	10. Coffee spout
3. Hot steam handle	11. Infusion piston
4. Coffee brewing group	12. Control lamp
5. Hot water handle	13. On/off switch
6. Lever	14. Boiler pressure gauge
7. Hot water wand	15. Hot steam wand
8. Filter holder	

5 Installation

All ECM machines are designed to ensure maximum possible operator safety. It is, however, an important responsibility of the user to observe the following safety codes to further enhance safe installation and operation.

- Always ensure that hazardous packing items such as plastic bags, styrofoam, nails, etc. are properly disposed of to prevent accidental injury to children or other persons.
- If there is evidence of defect or damage to the machine an authorised ECM dealer or technician should be notified immediately so that remedial action can be taken.
- This machine is safe only when it has been correctly connected to an efficient earthing/grounding system. This should conform to local safety standards and legislation in force at the time of installation.
- Installation of any ECM product should only be undertaken by duly authorised, properly trained and qualified personnel
- Dangerous or improper electrical connections are extremely hazardous and should never occur.
- Always check the integrity of the components elements of the machine.
- Never fit defective or damaged spare parts. Always request replacement from ECM.
- Before connecting the machine to electric supply, always check that capacity and power rating at least equals the power requirement of the machine.
- Protect the operator by fitting a circuit breaker to electric supply feeding the machine.
- Never attempt to tune the machine with water that is harder than 7°F.

This equipment is to be installed to comply with the applicable Federal, state, or local plumbing codes having jurisdiction.



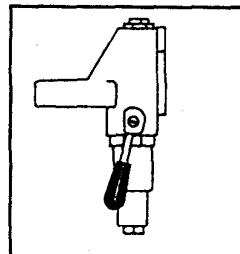
Never touch the following parts. They are hot and could cause burns

Fig. A	Pos.	3	Not insulated metal parts of hot steam handle
		4	Coffee brewing group
		5	Not insulated metal parts of hot water handle
		6	Not insulated parts of lever
		7	Hot water wand and spout
		8	Not insulated metal parts of filter holder
		10	Coffee spout
		11	Infusion piston
		15	Hot steam wand and spout

7. First start up of the machine

7.1 Prior to start up the machine control the following:

7.1.1 Lever (Fig. A-6) is completely down.



- 7.1.2 Hot steam handle (Fig. A-3) is closed.
- 7.1.3 Hot water handle (Fig. A-5) is closed.
- 7.1.4 On/off switch is on position "O" (=machine switched off)
- 7.1.5 Machine is unplugged.
- 7.1.6 Drip tray (Fig. A-9) is properly placed in the machine.

- 7.2 Remove the cover (Fig. A-2), pull the flexible pipes (Fig. A-1) out and take the tank out of the machine.
 - 7.2.1 Fill the water tank with fresh drinking water to just over ¾ full.
 - 7.2.2 Place the tank inside the machine taking care not to spill water.
 - 7.2.3 Place the flexible pipes (Fig. A-1) in the water ensuring that the end are fully submerged.
 - 7.2.4 Put on the cover (Fig. A-2).
 - 7.2.5 Plug in the machine
 - 7.2.6 Turn the on/off switch (Fig. A-13) to the on position "1" and open the steam handle (Fig. A-3). Boiler water fill starts (you will hear the pump's noise).
 - 7.2.7 When the boiler is properly filled with water the pump stops (=no more noise). Now close the steam handle (Fig. A-3). The heating up of the boiler water starts.
 - 7.2.8 Wait till the boiler pressure gauge (Fig. A-14) indicates approx. one bar.
 - 7.2.9 **Now open the steam handle (Fig. A-3) for 5 seconds to let out some steam. This operation is extremely important. Close the steam handle (Fig. A-3) again.**
 - 7.2.10 Wait until the boiler pressure gauge (Fig. B-14) reaches again 1 Bar.
 - 7.2.11 Pull the lever (Fig. A-6) up.
 - 7.2.12 Allow a cup of water to come out of the coffee brewing group (Fig. A-4).
 - 7.2.13 Pull the lever (Fig. A-6) completely down (water will stop flowing).

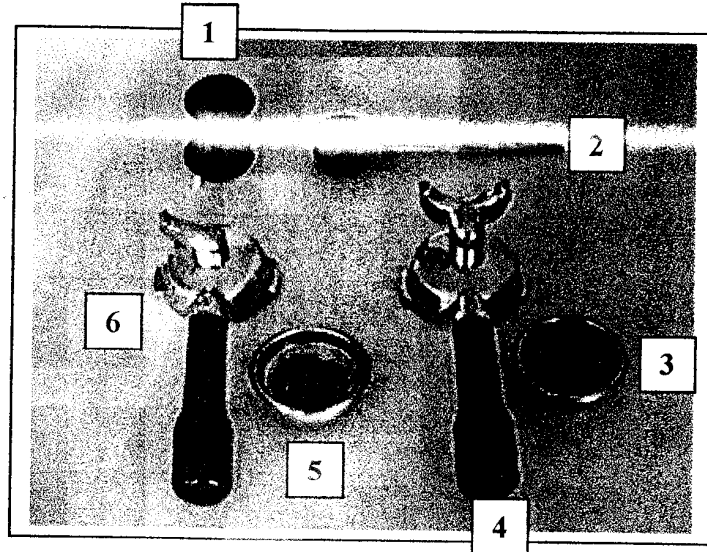
Now the machine is ready for operation.

7.3 Normal start up of the machine (for example in the morning after the machine has been switched off over night)

- 7.3.1 Check water in water tank.
- 7.3.2 Turn on/off switch (Fig. A-13) to the on position "1". The control lamp (Fig. A-12) illuminates.
- 7.3.3 Wait until the boiler pressure gauge (Fig. A-14) indicates approx. one bar.
Now open the steam handle for 5 seconds only to let out some steam. This operation is extremely important to avoid milk or other liquids to be heated up or frothed to be drawn inside the machine's boiler causing serious damage and high service costs.
- 7.3.4 Wait again until the boiler pressure gauge (Fig. A-14) indicates approx. one bar.
- 7.3.5 Now the machine is ready for operation.

10. Preparing coffee

Fig. B

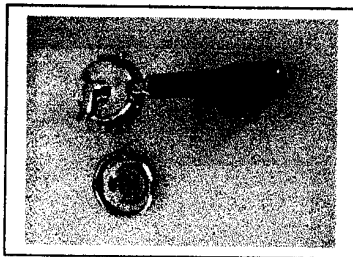


Standard accessories coming with the machine:

- 1 Presser
- 2 Measuring spoon
- 3 Two cups metal filter basket
- 4 Two cups filter handle
- 5 One cup metal filter basket
- 6 One cup filter handle

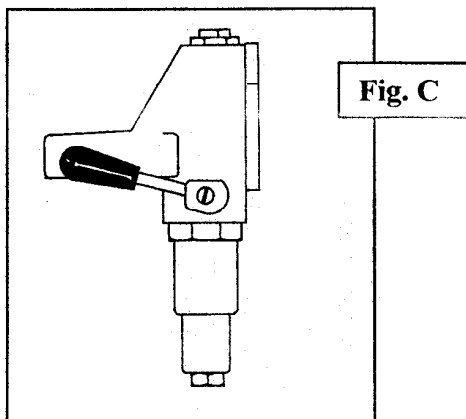
10.1 Preparing one cup of espresso

10.1.1 Use one cup filter handle with one cup metal filter basket (Fig. B-5,6).



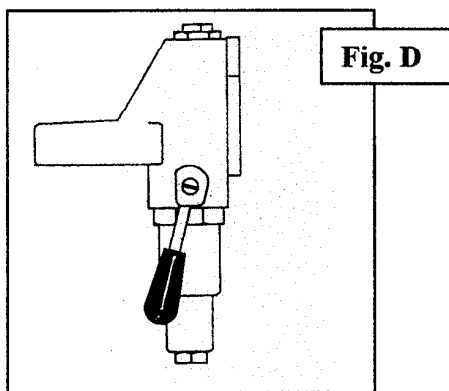
- 10.1.2 Position the one cup metal filter basket (Fig. B-5) firmly in the one cup filter handle (Fig. B-6)
- 10.1.3 Fill one measuring spoon (Fig. B-2) with ground espresso coffee in the metal filter basket (Fig. B-5) and press it with the presser (Fig. B-1).
- 10.1.4 Tighten the filter handle (Fig. A-8) firmly inside the machine's coffee brewing group (Fig. A-4).
- 10.1.5 Now position one empty cup under the coffee spout (Fig. A-10).

10.1.6 Pull the lever (Fig. A-6) up as shown in Fig. C.



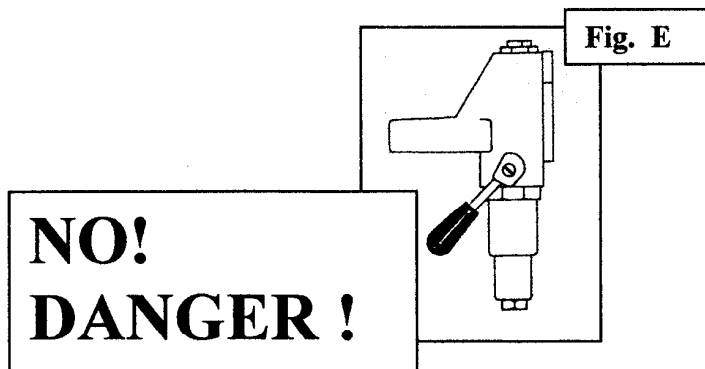
10.1.7 Hot coffee flows into the cup from the coffee spout (Fig. A-10).

10.1.8 When the desired quantity of coffee has been dispensed, pull the lever (Fig. A-6) completely down as shown in Fig. D. The cup of coffee is ready.



For safety reasons and to avoid personal injury it's extremely important that the lever (Fig. B-6) is pulled completely down and not just to the position where the coffee stops to flow out and the pump's noise can't be heard any more.

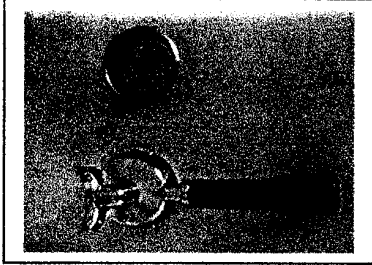
Never leave lever (Fig. B-6) in the position shown in Fig. E.



10.1.9 Remove the filter holder (Fig. A-8) from the machine and empty used coffee grounds.

10.2 Preparing two cups of espresso

10.2.1 Use two cup filter holder with two cup metal filter basket (Fig. B-3,4).



10.2.2 Position the two cup metal filter basket (Fig. B-3) firmly in the two cup filter handle (Fig. B-4)

10.2.3 Fill two measuring spoons (Fig. B-2) with ground espresso coffee in the metal filter basket (Fig. B-3) and press it with the presser (Fig. B-1).

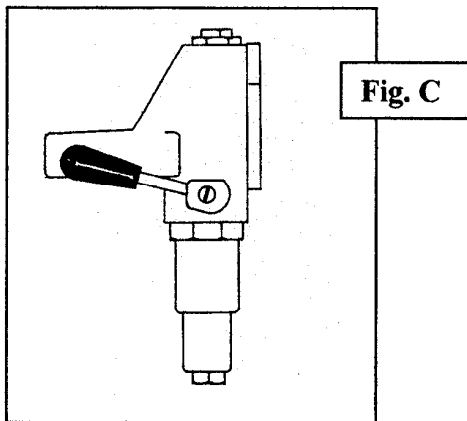
10.2.4 Tighten the filter handle (Fig. A-8) firmly inside the machine's coffee brewing group (Fig. A-4).

10.2.5 Now position two empty cups under the coffee spouts (Fig. A-10), one under each spout.



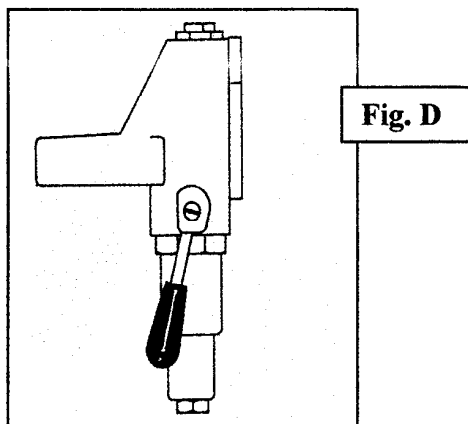
Making 2 cups of espresso

10.2.6 Pull the lever (Fig. B-6) up as shown in Fig. C.



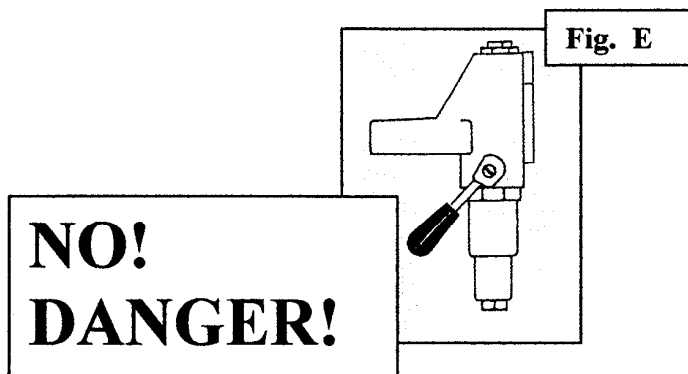
10.2.7 Hot coffee flows into the cups from the coffee spout (Fig. A-10).

10.2.8 When the desired quantity of coffee has been dispensed, pull the lever (Fig. A-6) **completely down** as shown in Fig. E. The coffee is ready.



10.2.9 For safety reasons and to avoid personal injury it's extremely important that the lever (Fig. A-6) is pulled **completely down** and not just to the position where the coffee stops to flow out and the pump's noise can't be heard any more.

Never leave lever (Fig. A-6) in the position shown in Fig. E.



10.2.10 Remove the filter holder (Fig. A-8) from the machine and empty used coffee grounds.

11. Preparation of hot water

- 11.1 Position the hot water wand (Fig. A-7) inside a suitable container which is used only for food and has an insulated grip.
- 11.2 Open the hot water valve (Fig. A-5).
- 11.3 Hot water flows into the container.
- 11.4 When the desired volume of hot water has been dispensed into the container, close the hot water valve (Fig. A-5).