CHAIR TYPE

ECO19
ECO.next

OPERATING INSTRUCTIONS

TECNODENT
ERGONOMIC INNOVATION

INDEX

GENERAL WARNING

The dental patient chairs type ECO19 and ECO.next, do not cause electromagnetic or other influences to other equipments. They are not susceptible of such influences by other equipments, as they comply with Electro-Magnetic Compatibility Directive 89/336/EEC, emended by 92/31/EEC and 93/68/EEC directives, and they comply with the requirements of the EN 60601-1-2:2001 harmonized standard.

TECNODENT S.r.l. will make available on request: circuit diagrams, components part list, descriptions, calibration instructions and other information which will assist the user's technical personnel to repair those parts of the chair which are designed by the manufacturer as repairable.

WARNING

The manufacturer is responsible for the security, reliability and performance of the equipment in the following conditions:

- **installation, modification and any repairing, is carried out only by authorised personnel;**
- **the electrical wiring of the premises, complies with all regulations currently in force at the time of installation;**
- **the equipment is used in accordance with the operating instructions.**

NOTE

Please note that in accordance with Art. 14 of EEC Directive 85/374 "Liability for damages arising from de fective products", implemented in Italy by "Decreto del Presidente della Repubblica 24 maggio 1988, n. 224": "the right to compensation ceases ten years after the day the manufacturer, or the importer within the EU Nations, first marketed the product, which is object of the claim".

OBJECT OF THIS MANUAL

This manual, related to the dental patient chairs model ECO19 and ECO.next, includes information about their operation, performance, servicing, troubleshooting and corresponding solutions, and is directed to the final user, i.e. the professional who uses the equipment in order to perform his/her own job.

DEFINITIONS
The following graphical and linguistic definitions have been used in this manual:

NOTE

It contains important information that has to be highlighted regarding the text.

CAUTION

This message can appear before the description of some procedures. Its non-observance may cause damages to the equipment.

WARNING

This message can appear before the description of some procedures. Its non-observance may cause damages to the equipment and to the operator.

DOUBLE FUNCTION CONTROL(S): foot control switch which activates different chair functions, depending on how it is pressed (i.e. press and hold: manual chair movement; tap: automatic movement of a pre-programmed working position).

SYNCHRONIZED MOVEMENT: simultaneous and interdependent variation of the position of two chair parts. It may occur both during a manual or an automatic movement (i.e. chair lifting combined with simultaneous backrest tilting).

PCB: Printed circuit board

CN: Electric connector

PWR: Power supply

LED: Light-emitting diode.

TRANSPORTATION AND STORAGE
When the chair is packed for transportation or storage, can be exposed for a period not exceeding 10 weeks, to environmental conditions in the following ranges:
a) ambient temperature: from -5 °C to +40 °C;
b) relative humidity: from 10% to 100% (condensation included);
c) atmospheric pressure: form 500 hPa to 1060 hPa (500 mbar to 1060 mbar).

PACKING DISPOSAL
The following materials used for packing, respect the environment and are 100% recyclable:
- wooden pallet with fumigation treatment,
- cardboard,
- polythene with air bubbles.

Collection and recycling of the packing materials increase the saving of raw materials and decrease the amount of waste materials. Please give the packing to an authorized rubbish dump that collects this kind of materials.

CHAIR DISPOSAL
- When the chair reaches the end of its working life, it is necessary to definitely put it out of service, by disconnecting the plug from the socket and cutting the power supply cable.
- The chair disposal it is not related to any kind of effect on the human health.
- For a proper environmental safeguard, please give the out of service chair to an authorized waste collector for the materials that are part of the chair.

This symbol, placed in the identification label, indicates that the equipment collection and disposal, must be performed separately form other kind of wastes.

1.0 INTRODUCTION

ECO19

This chapter reports the main features of the ECO19 dental patient chairs.
The main chair's components and the corresponding accessories are also presented.

WARNING

The equipment was developed and manufactured only for dental use. No other kind of use is permitted. It is furthermore not permitted to perform any modification of the equipment or its parts, without a previous written authorization of the manufacturer.

1.1 GENERAL FEATURES

A dental patient chair model ECO19 with or without programs, includes the following features:

- Completely electromechanical seat lifting/lowering and backrest tilting movements.
- Compensated backrest tilting, up to the horizontal position
- Short anatomical backrest.
- ELLE-2 MOBILE type headrest.
- Complete symmetry, for right-handed and/or left-handed professionals.
- Double foot controls on the base.
- Security STOPS on the backrest and in the foot control.
- Return to "zero" position automatic program.
- Rinse position automatic program.
- Low voltage controls: 5 V.

The chair can also be equipped with different accessories, depending on the working needs of the professional, as well as the comfort needs of the patient to be treated. In detail, the following optional are available:

- Headrest type UNI.
- Large anatomical backrest.
- Magnetic pillow C95.
- Magnetic pillow C2002.
- Right and/or left armrest(s).
- Device for rotation around the vertical axis.
- Device for programming three different working positions.
- Trendelenburg movement.
- Movable foot controls (with cable).

The operation and the performance of these accessories are described in chapter 4.0.

ECO.next

This chapter reports the main features of the ECO.next dental patient chairs.
The main chair's components and the corresponding accessories are also presented.

WARNING

The equipment was developed and manufactured only for dental use. No other kind of use is permitted. It is furthermore not permitted to perform any modification of the equipment or its parts, without a previous written authorization of the manufacturer.

1.1 GENERAL FEATURES

A dental patient chair model ECO.next with or without programs, includes the following features:

- Completely electromechanical seat lifting/lowering and backrest tilting movements.
- Compensated backrest tilting, up to the horizontal position
- Short anatomical backrest.
- ELLE-2 MOBILE type headrest.
- Complete symmetry, for right-handed and/or left-handed professionals.
- Security STOPS on the backrest and in the foot control.
- Return to "zero" position automatic program.
- Rinse position automatic program.
- Low voltage controls: 5 V.

The chair can also be equipped with different accessories, depending on the working needs of the professional, as well as the comfort needs of the patient to be treated. In detail, the following optional are available:

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- Magnetic pillow C95.
- Magnetic pillow C2002.
- Right and/or left armrest(s).
- Device for rotation around the vertical axis.
- Device for programming three different working positions.
- Trendelenburg movement.
- Foot controls on the base.
- Movable foot controls (with cable).
- IR remote control

The operation and the performance of these accessories are described in chapter 4.0.

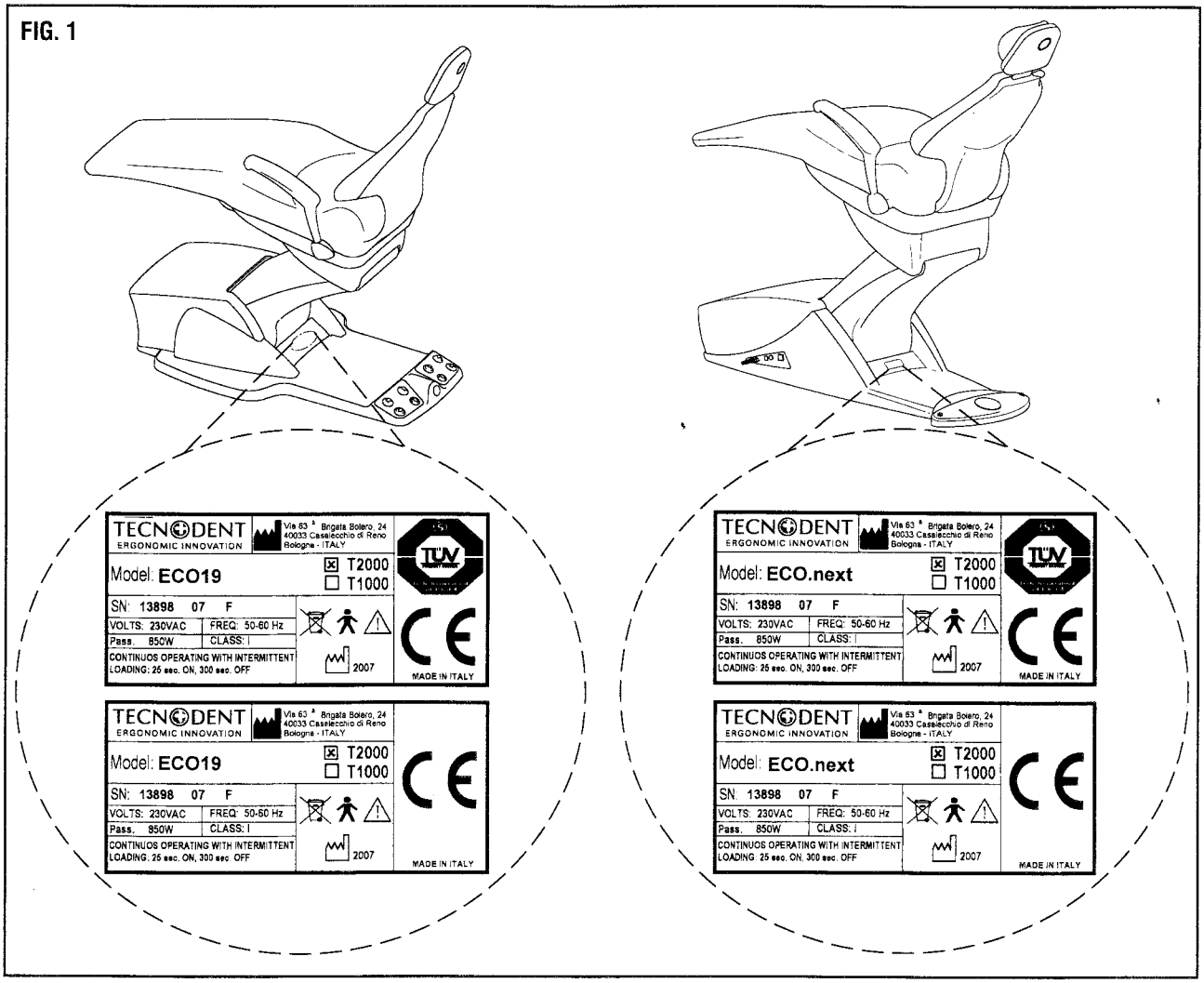
1.2 WARRANTY

The Warranty Certificate is delivered together with the equipment. If such certificate would not be sent, it must be immediately requested to the dealer. The Warranty Certificate must be completely filled in and sent back to the manufacturer (TECNODENT S.r.l.), within 8 days from the date of delivery of the equipment. If this procedure is not observed, the warranty conditions are not valid and the servicing technicians will be compelled to completely charge any needed repairing.

1.3 IDENTIFICATION

The chair identification label, where you can find the chair model, the serial number and other information, is placed in the base of the chair under the seat. Fig. 1 shows the label position and a facsimile.

FIG. 1



1.4 TECHNICAL DATA

The ECO19 and ECO.next dental chairs, comply with:

- Electromagnetic Compatibility Directive 89/336/CEE, emended by 92/31/CEE and 93/68/CEE Directives.
- Medical Devices Directive 93/42/CEE.

Particularly, the chairs comply with the requirements of the following standards:

- IEC 60601-1-2:2001 = EN 60601-1-2:2001 = CEI EN 60601-1-2:2003
- ISO 6875:1995 = EN ISO 6875 : 1996
- IEC 60601-1:1988 = EN 60601-1:1990 = CEI EN 60601-1:1998

According to the above mentioned standards, ECO19 and ECO.next chairs, are medical devices classified as shown on table I.

Table I			
Chair		ECO19	ECO.next
Classification		I	I
Type		B	B
Operation mode	100/110 V	Intermittent loading, 20s ON – 200s OFF	Intermittent loading, 20s ON – 200s OFF
	230 V	Intermittent loading, 25s ON – 300s OFF	Intermittent loading, 25s ON – 300s OFF

For ECO19 and ECO.next chairs (in their both versions), please refer to the technical data reported on tables II and III. The detailed dimensions are presented in figures 2, 3, 4 and 5.

Table II					
Chair		ECO19		ECO.next	
Supply voltage	[VAC]	230±10%	100/110±10%	230±10%	100/110±10%
Frequency	[Hz]	50-60	50-60	50-60	50-60
Input power	[W]	850	700	850	700
Main fuses		2 x T 6,3A; 250V	2 x T 10A; 250V	2 x T 6,3A; 250V	2 x T 10A; 250V
Controls voltage	[VDC]	5	5	5	5
External controls provided		Yes	Yes	Yes	Yes

Table III					
Chair		ECO19		ECO.next	
		Without rotation	With rotation	Without rotation	With rotation
Max. height	[mm]	780	795	780	795
Min. height	[mm]	380	395	380	395
Width	[mm]	660		660	
Rotation angle	[deg]	-	±30	-	±30
Length (with completely elongated headrest)	[mm]	1950		2050	
Gross weight	[kg]	170		170	
Net weight	[kg]	140		140	
Packing dimensions	[mm]	1430x700x970 h		1430x700x1105 h	
Maximum lifting capability	[kg]	135 + 75		135 + 75	
Minimum space required for installation	[m]	3 x 2	3 x 3	3 x 2	3 x 3

FIG. 2 (ECO19)

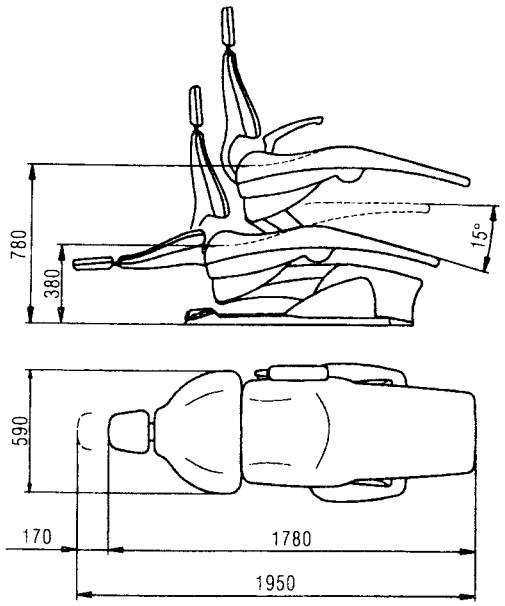


FIG. 3 (ECO19 with rotation)

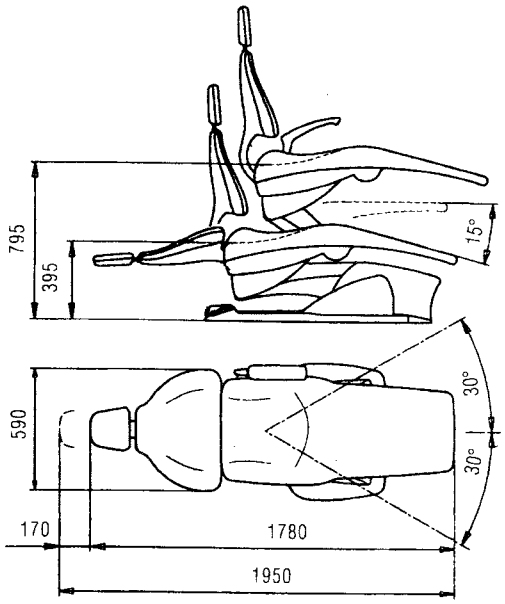


FIG. 4 (ECO.next)

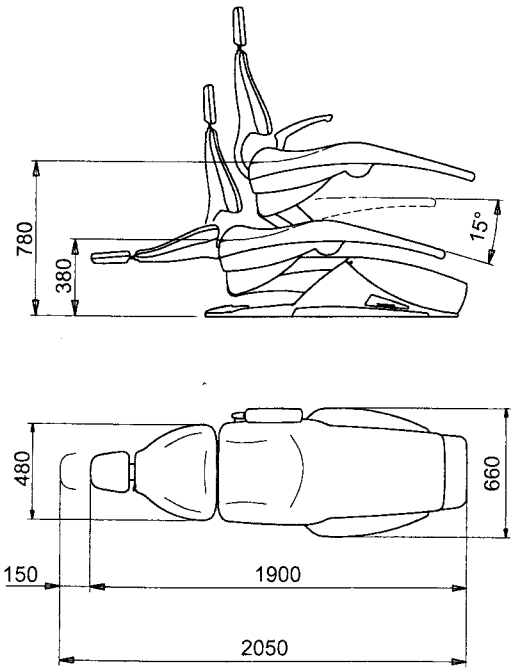
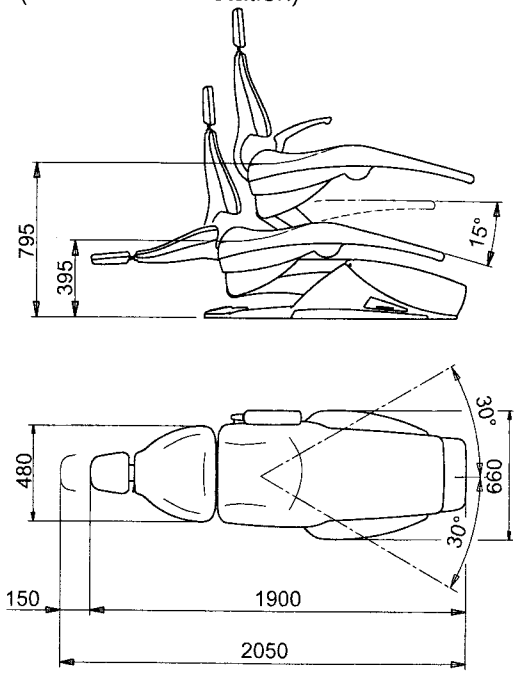


FIG. 5 (ECO.next with rotation)



2.0 CHAIR USE

The advanced technology applied to produce this equipment, allowed the design of a chair with multiple functions and performances, all of them easily usable: all the chair's functions are coordinated, processed and stored in a database, by a microprocessor inside the chair. The ECO19 and ECO.next chairs, were conceived to be easily controlled by foot controls, allowing the professional to have his/her hands completely free to execute the own work.

2.1 CONTROLS

ECO19 without programs (PCB T1000)
The controls are shown in figure 6a:

P Main switch (ON/OFF).
L Foot controls, on the base. They control the seat lifting (up and down) and the backrest tilting movements, as well as the automatic return to "zero" position.
S Controls the automatic movement of rinse position, to allow the patient's mouth wash and the return to the last working position.

WARNING

Before using the information contained in this section, please make sure that the chair was correctly installed by the service technician.

FIG. 6a

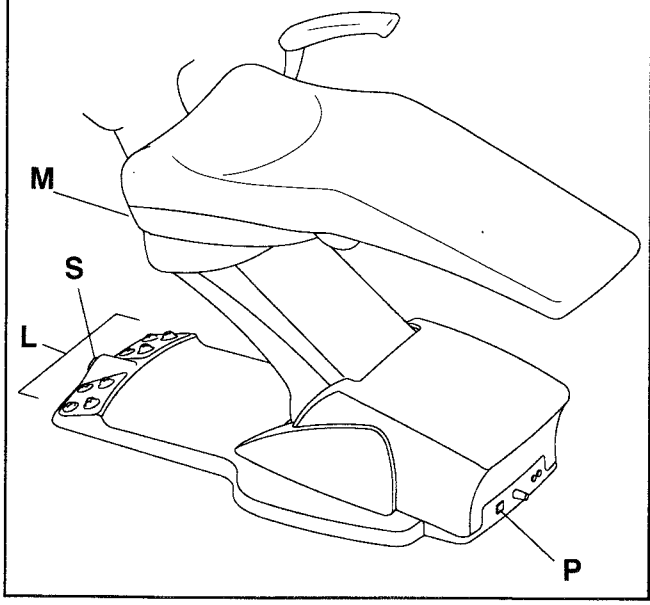
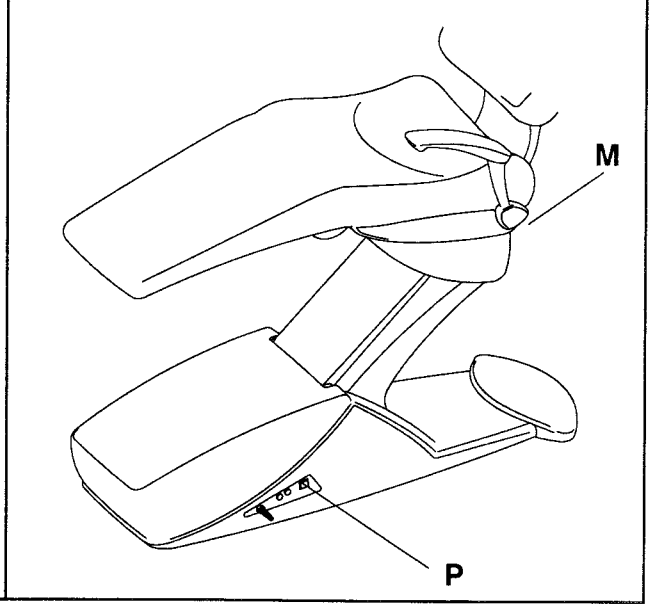


FIG. 6b



ECO19 with programs (PCB T2000)
The controls are shown in figure 6a:

P Main switch (ON/OFF).
L Foot controls, on the base. They control the seat lifting (up and down) and the backrest tilting movements, as well as the three programmable working positions and the automatic return to "zero" position.
S Controls the automatic movement of rinse position, to allow the patient's mouth wash and the return to the last working position.
M Saves the programmed positions.

ECO.next without programs (PCB T1000)
The controls are shown in figure 6b:

P Main switch (ON/OFF).

ECO.next with programs (PCB T2000)
The controls are shown in figure 6b:

P Main switch (ON/OFF).
M Allows the memorisation of the programmed working positions.

NOTE

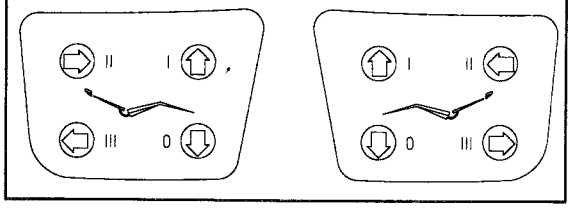
The ECO.next chair was studied to be controlled from the unit.
In case this option is not available, one of the following chair's controls is needed: foot controls on the base, movable foot controls, IR remote control (for controls, please refer to section 4.0).

2.2 CHAIR OPERATION

ECO19 without programs
Connect the plug in the socket and switch ON the chair with the main switch "P". The chair is now ready to be used.

"L" FOOT CONTROL OPERATION (fig. 7)
- To make the chair go down, keep pressed the "0" button;
- to make the chair go up, keep pressed the "I" button;
- to put the backrest in vertical position, keep pressed the "II" button;
- to put the backrest in horizontal position, keep pressed the "III" button;
- to let the chair reach the return to "zero" position, tap "0" button.

FIG. 7



"S" BUTTON OPERATION (fig. 6a)
- By pushing the "S" button, the rinse position function is activated; the chair backrest moves up to the seated position, to allow the mouthwash;
- by pushing the "S" button again, the chair backrest moves back to its last position.

NOTE

Any switch, if pushed during an automatic movement, acts as security STOP.

NOTE

Any switch, if pushed during the automatic reset to "zero" position movement, acts as security STOP.

ECO19 with programs
Connect the plug in the socket and switch ON the chair with the main switch "P". The chair is now ready to be used: you will hear a double sound signal ("BEEP-BEEP"), which indicates that everything is working normally.

"L" FOOT CONTROL OPERATION (fig. 7)
- To make the chair go down, keep pressed the "0" button;
- to make the chair go up, keep pressed the "I" button;
- to put the backrest in vertical position, keep pressed the "II" button;
- to put the backrest in horizontal position, keep pressed the "III" button;
- to let the chair reach the return to "zero" position, tap "0" button;
- to let the chair reach the desired programmed working position, tap "I", "II" or "III" buttons.

"S" BUTTON OPERATION (fig. 6a)

- By pushing the "S" button, the rinse position function is activated; the chair backrest moves up to the seated position, to allow the mouthwash;
- by pushing the "S" button again, the chair backrest moves back to its last position.

NOTE

Any switch, if pushed during an automatic movement, acts as security STOP.

NOTE

Any switch, if pushed during the automatic reset to "zero" position movement, acts as security STOP.

ECO.next without programs

Connect the plug in the socket and switch ON the chair with the main switch "P". The chair is now ready to be used.
For control's operation, please see section 4.0.

ECO.next with programs

Connect the plug in the socket and switch ON the chair with the main switch "P". The chair is now ready to be used: you will hear a double sound signal ("BEEP-BEEP"), which indicates that everything is working normally.
For control's operation, please see section 4.0.

2.3 PROGRAMMING PROCEDURE

This function is only available on chairs equipped with such feature.

I. Let the chair reach the automatic reset to "zero" position, by tapping the "0" button in the foot control.
II. Let the chair reach the desired position, using the foot control.
III. While keeping the M button pressed, tap the "I", "II" or "III" (or "P1", "P2" or "P3") buttons, according to the selected program number. A sound ("BEEP") will indicate that the working position has been memorised. Each time the "I", "II" or "III" (or "P1", "P2" or "P3")buttons will be tapped, the chair will automatically reach the selected previously programmed working position.

NOTE

To avoid loosing the programmed position, it is recommended to regularly set the chair to its "zero" position, by using the "0" function at any patient change.

3.0 SERVICING

The ECO19 and ECO.next chairs, were conceived to not require any servicing during their working life. Consequently, it is not required to perform any adjustment of the equipment. If the chair will not be used for some time, it is recommended to cover it with a cloth, to switch OFF the main switch, and to disconnect the plug from the socket.

WARNING

Any technical adjustment, as well as any repair of the equipment not specifically listed in this chapter, must be carried out by qualified technicians.

3.1 CLEANING

For a better and longer life of the equipment, it is necessary to perform an accurate, methodical and periodical general cleaning of the chair. It is recommended to proceed as follows:

UPHOLSTERIES
The fabric that covers the chair upholstery has to be cleaned using the liquid contained in the bottle kit supplied with the chair, using a soft cloth to avoid any surface scrape and to guarantee a better elasticity and smoothness of the surface.

NOTE

It is recommended to order a new bottle of cleaning product, as soon as it is finished, to the closest servicing centre.

POLYURETHANE (PU) AND PAINTED PARTS
The polyurethane parts, as well as the metal parts (painted and not) have to be cleaned with a soft cloth dipped in water and soap.

CAUTION

It is recommended to avoid the use of any detergent or strong abrasive agent for removing the "difficult" stains.

3.2 TROUBLESHOOTING

The steps to detect a faulty condition in the ECO19 and ECO.next chairs are described in table-form. Each table reports the title of the troubleshooting procedure, and three columns in which it is possible to detect and solve the problem. Below is an example:

Procedure name		
Problem	Test procedure	Corrective action(s)
Problem description.	If the answer to the proposed question is "YES", look at the question written in the next box below; if the answer to the question is "NO", take all the corrective action(s) described in the right box, before reading the next question.	Action(s) to be carried out in order to fulfil the requirements of the question asked by the test procedure in the left side. Only after all actions have been carried out with positive result, it is possible to read the next test procedure.

The troubleshooting tables are only related to electrical or electronic faulty conditions, because the mechanical problems are easily detectable by a simple visual inspection. In order to execute a visual inspection, it is only needed to remove the upholstery parts, as described in section 3.4.

Main supply control procedure		
No chair movement.	Is the supply voltage correctly rated?	If an OHM-meter or a similar testing device is not available, plug any other apparatus (i.e. a lamp) into the socket and verify the presence of the power supply.
	Is the power cord plugged in?	Plug the cord into the socket.
	Is the green light of the main switch on?	Turn the main switch on.
		After having unplugged the chair, check the main fuses. If necessary, replace them as described in the servicing manual. Otherwise call the technical service.
	Does the PCB emit a "BEEP" sound when the main switch is turned on?	The PCB has probably failed. Call the technical service.
	The problem is not related to the chair main supply group. Continue checking the chair movements one by one.	

Chair lifting movement control procedure		
The chair doesn't lift.	Is there too much weight on the chair?	Apply the chair movement testing procedure.
	Remove the excessive weight. Look at the chair operating instruction manual to determine the maximum chair lifting capability	

Backrest tilting movement control procedure		
The chair backrest doesn't tilt.	Is there an object that collides with the chair, activating the security device and stopping the backrest tilt movement?	Apply the chair movement testing procedure.
	Remove the object that collides with the chair.	

Backrest raising movement control procedure		
The chair backrest doesn't raise	Was the chair movement testing procedure duly applied?	Apply the chair movement testing procedure.
	Call the technical service.	

Chair movement testing procedure		
The chair doesn't move at all, even if the main switch is switched on and the main group is working correctly.	Do you hear a "CLICK" sound when you try to activate the controls?	If no "CLICK" sound is emitted, the PCB has probably failed. Call the technical service.
	Does the motor hums?	The motor may have over-heated and the thermal security switch may have turned on. Wait for about 15 minutes, allowing the motor to cool down and operate the motor again. If the chair doesn't moves or the motor overheats immediately after, call the technical service.
	It is impossible to determine the cause of the failure unless further and more complex tests are performed. Call the technical service.	

Chair programming control procedure		
The chair moves properly in all manual movements, but it is impossible to store working position programs.	Was the programming procedure properly applied? (see section 2.3 for reference)	Apply the procedure as quoted on section 2.3.
	Did you hear a "BEEP" sound when the programming procedure was completed, to confirm the programs' saving?	It is impossible to determine the cause of the failure unless further and more complex tests are performed. Call the technical service.
	The PCB has probably failed. Call the technical service.	

3.3 MAIN FUSES REPLACEMENT

ECO19 and ECO.next chairs are protected against electrical power overrating, by two fuses placed, as shown in figure 8a, 8b. To replace them, proceed as follows:

I. Turn off the chair's main switch.
II. Disconnect the plug from the socket.
III. Unscrew the fuse holder cap, by using a crosshead screw driver of medium size.
IV. To re-install the fuses, follow the inverse sequence of the above steps.

FIG. 8a

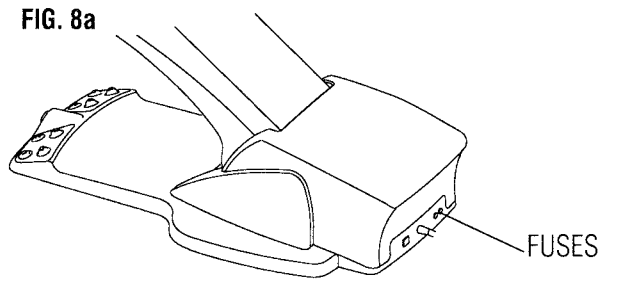
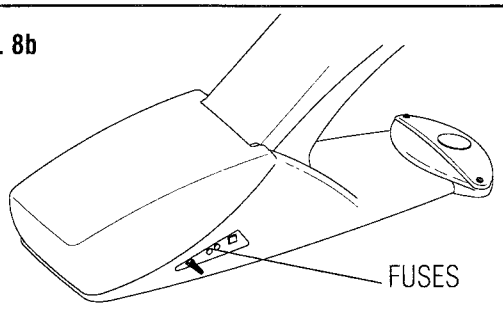


FIG. 8b



WARNING

Fuses must be replaced by other fuses having the same nominal characteristics. Table II contains the relative information.

3.4 UPHOLSTERIES REPLACEMENT

To replace the chair upholsteries, proceed as follows and as shown in figure 9:

SEAT

I. Unscrew the screws 1 and 2 from the seat support.
II. Remove the upholstery, by pulling it up from its support, and uncoupling it from the plastic pins that fix it.
III. To re-install the seat upholstery, follow the inverse sequence of the above steps.

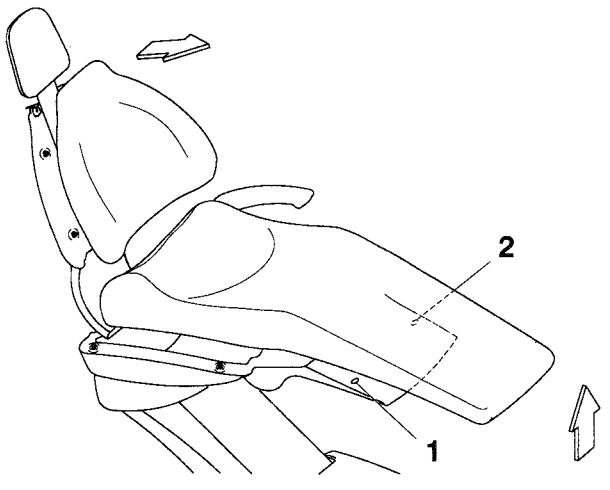
BACKREST

I. The backrest upholstery is mounted by pressure with four special plastic caps. To remove it from its counterpart it is necessary to pull it away.
II. To re-install the seat upholstery, follow the inverse sequence of the above steps.

HEADREST

To replace the headrest upholstery, please refer to section 4.1.

FIG. 9



4.0 ACCESSORIES

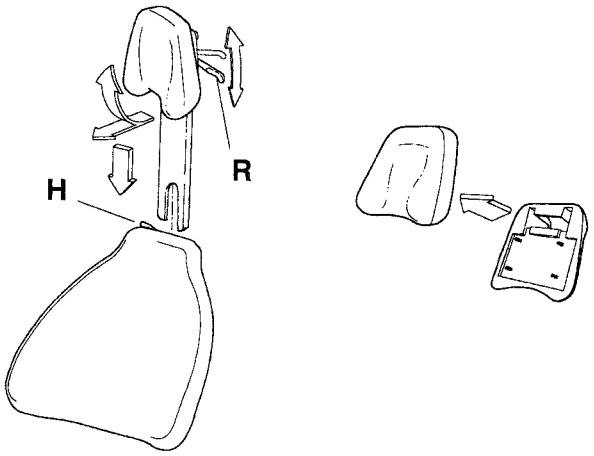
4.1 HEADREST
The ECO19 and the ECO.next chairs can be provided with different kinds of headrests.

"UNI" HEADREST
This headrest allows the optimum positioning of the patient's head, according to the required treatment, thanks to its double articulating mechanism and the possibility to adjust its height (see fig. 10).

OPERATION
- To regulate the double articulation, turn clockwise the "R" handle to unlock the mechanism. To lock the mechanism in the desired position, turn anti-clockwise the "R" handle.
- By pushing the "H" lever, the mechanism is released, allowing the headrest to freely move to adjust its height. Releasing the lever, the headrest remains in the selected position.

MAINTENANCE
- The headrest upholstery can be easily replaced, by simply pulling and separating it from its counterpart.

FIG. 10

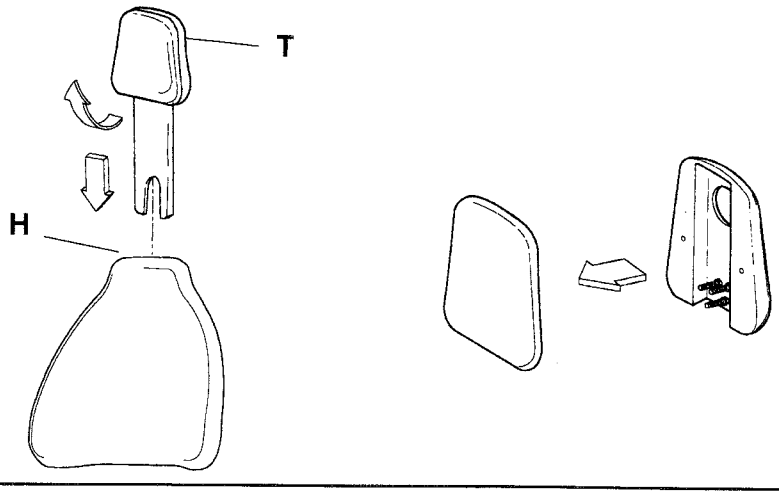


HEADREST TYPE "ELLE-2 MOBILE"
This headrest allows the positioning of the patient's head by adjusting its elongation as well as its inclination angle, as shown on figure 11.

OPERATION
- By pushing the headrest form its back part towards the patient's head, can be selected the forward position. The backward position can be reached by pushing the headrest from its frontal part, while simultaneously pushing the release button "T".
- By pushing the "H" lever, the mechanism is released, allowing the headrest to freely move to adjust its height. Releasing the lever, the headrest remains in the selected position.

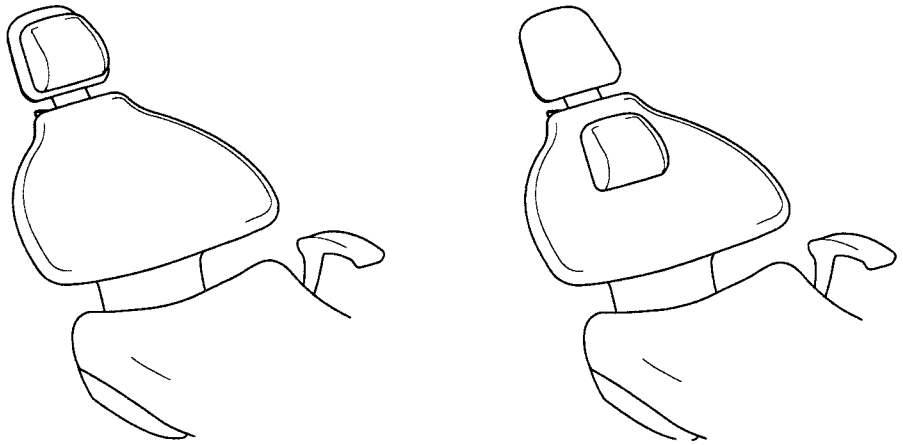
MAINTENANCE
- The headrest upholstery can be easily replaced, by simply pulling and separating it from its counterpart.

FIG. 11



C95" or "C2002" MAGNETIC PILLOW
The magnetic pillow, as shown in figure 12, can be used to hold the patient's head during a specific treatment. It can be attached to the surface of the ELLE-2 MOBILE headrest, or in the backrest upper section, using it in the cases where the patient's height is not enough to reach the headrest.

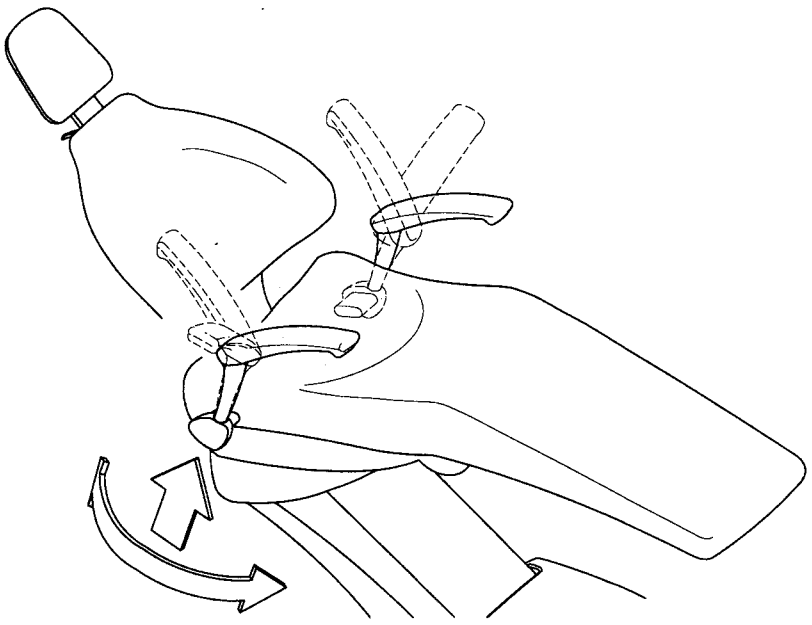
FIG. 12



4.2 ARMRESTS
The ECO19 and ECO.next chairs, can be equipped with left and/or right armrests (see fig. 13).

OPERATION
- To swivel the armrest, pull it upwards (holding it from its bottom part) until the mechanism is unlocked and swivel it outwards, until it reaches the stroke limit. To move the armrest back to its original position, turn it inwards until it gets automatically locked.

FIG. 13



4.3 BACKRESTS
Upon request, the ECO19 and the ECO.next chairs can be equipped with two different kinds of backrests, to allow the professional to choose the one that better fits to the own requirements.

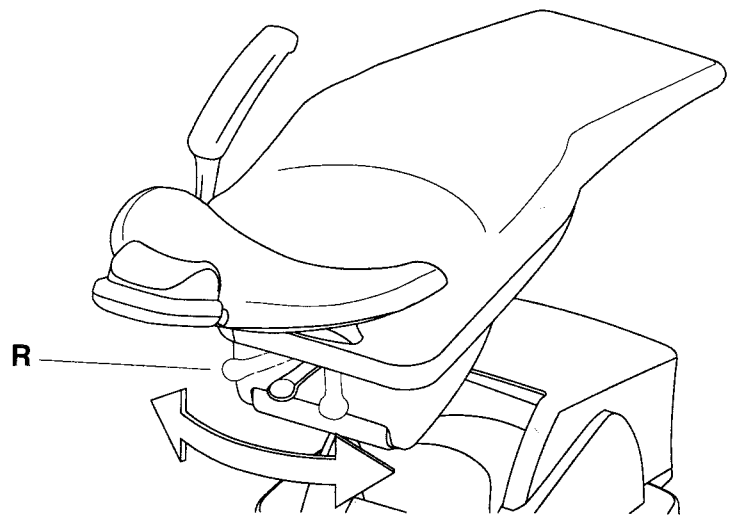
"SHORT" BACKREST
This backrest was studied to allow the dentist the closest approach to the patient during the treatment, also guaranteeing an optimum comfort of the patient.

"LARGE" BACKREST
This backrest was studied to allow the dentist a good approach to the patient, guaranteeing the maximum comfort of the patient and avoiding the dentist's direct contact with the patient's body.

4.3 ROTATION
Upon request, ECO19 and ECO.next chairs can be equipped with a rotating device which allows the chair to rotate around the vertical axis (fig. 14).

OPERATION
- To unlock the rotating top assembly of the chair, turn the "R" lever counter clockwise: now it is possible to manually swivel the chair to the desired position.
- To lock the rotating mechanism, turn the "R" lever clockwise.

FIG. 14



WARNING

After every re-adjustment of the chair position, always lock the rotating device.

4.5 PROGRAMS
Upon request, at the moment of the order, the ECO19 and ECO.next chairs can be equipped with a programming device which allows the operator to program three different working positions, which can be activated at any time. For operation, please refer to section 2.3.

4.6 TRENDELENBURG POSITION
Upon request, the ECO19 and ECO.next chairs can be equipped with a movement kit which allows the chair to reach the Trendelenburg position.

4.7 REAR BASE FOOT CONTROLS, ECO.next chair

The rear base foot controls are provided with a rounded joystick for the movement's control and two buttons (see fig. 15).

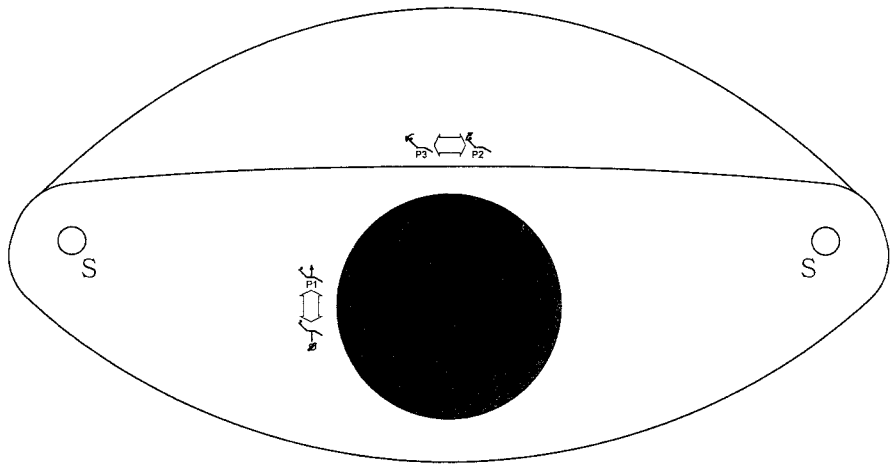
The chair's movements are controlled using the rounded joystick, by pushing it in the desired point (up, down left or right) for more than 0.4s:

- to make the chair go down, keep pressed the button;
- to make the chair go up, keep pressed the button;
- to put the backrest in vertical position, keep pressed the button;
- to put the backrest in horizontal position, keep pressed the button.

To recall the chair's programs or the previously programmed working positions (when available, see section 2.3 for programming), it is necessary to tap the rounded joystick in the desired zone, or the "S" button:

- to let the chair reach the return to "zero" position, tap the "Ø" button;
- to allow the mouthwash, push the "S" button;
- to let the chair reach the desired programmed working position, tap "P1", "P2" or "P3" buttons.

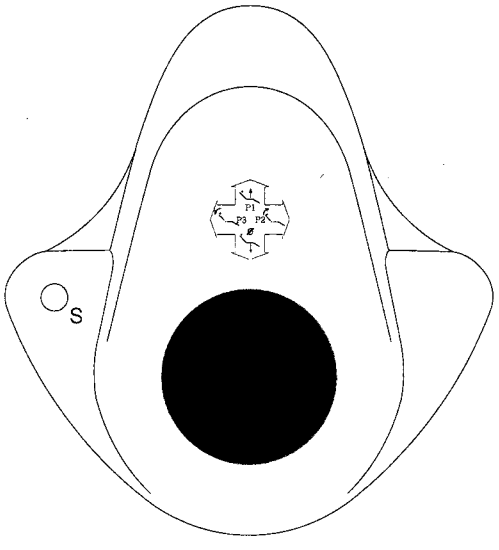
FIG. 15



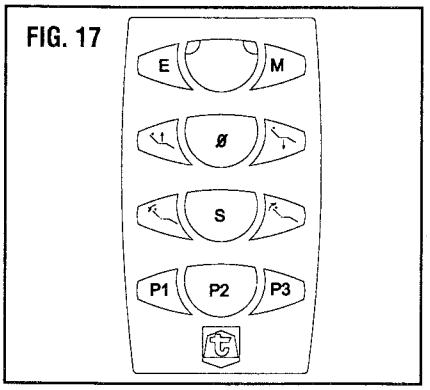
4.8 MOBILE FOOT CONTROLS, ECO.next chair

The movable foot controls are provided with a rounded joystick for the movement's control and one button (see fig. 16).
The chair is provided with a DIN socket, and the foot control can be connected to it.
All the movements and program recall are controlled in the same way as in the case of the foot controls in the chair's base (see section 4.7).

FIG. 16



4.9 REMOTE CONTROL (only for ECO.next chair)
The IR remote control "T" (fig. 17), control the chair movements and allows its programming.



OPERATION
- to make the chair go down, keep pressed the button;
- to make the chair go up, keep pressed the button;
- to put the backrest in vertical position, keep pressed the button;
- to put the backrest in horizontal position, keep pressed the button.
- to let the chair reach the return to "zero" position, tap the "Ø" button;
- to allow the mouthwash, push the "S" button;
- to let the chair reach the desired programmed working position, tap "P1", "P2" or "P3" buttons.

BATTERIES REPLACEMENT
I. Remove the hexagonal screw located in the back side of the remote control.
II. Remove the back cover of the remote control.
III. Replace the batteries with new ones, having the same characteristics (2 x AAAA, 1.5V).
IV. To re-install the back cover, follow the inverse sequence of the above steps.

CAUTION

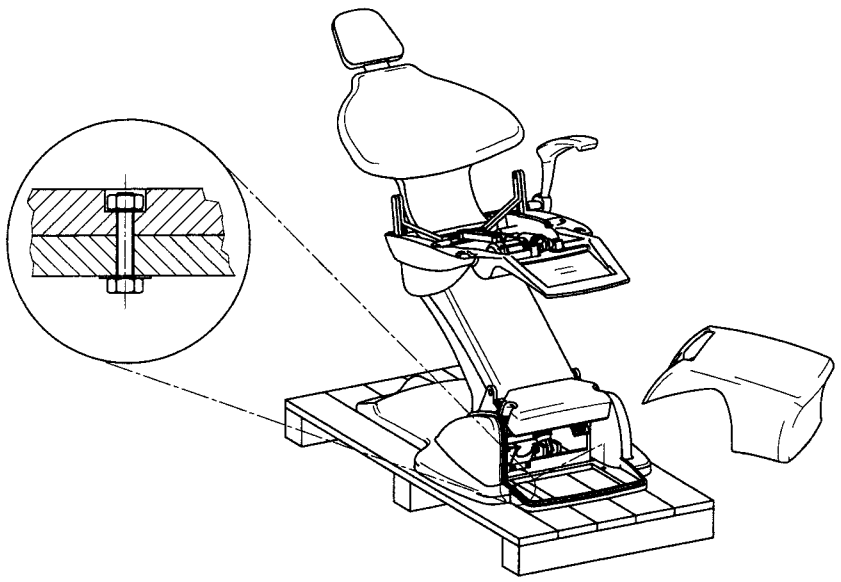
Remove the battery if the remote control will not be used during a long time period.

5.0 UNPACKING

To remove the cardboard box, it is necessary to cut the straps and to unscrew the screws located in the lower part of the box. Inside the box, you will find:

I. One ECO19 or ECO.next chair.
II. One operating instruction manual.
III. One warranty certificate.
IV. One bottle kit for the chair's upholsteries cleaning.
V. Two handles.

FIG. 18

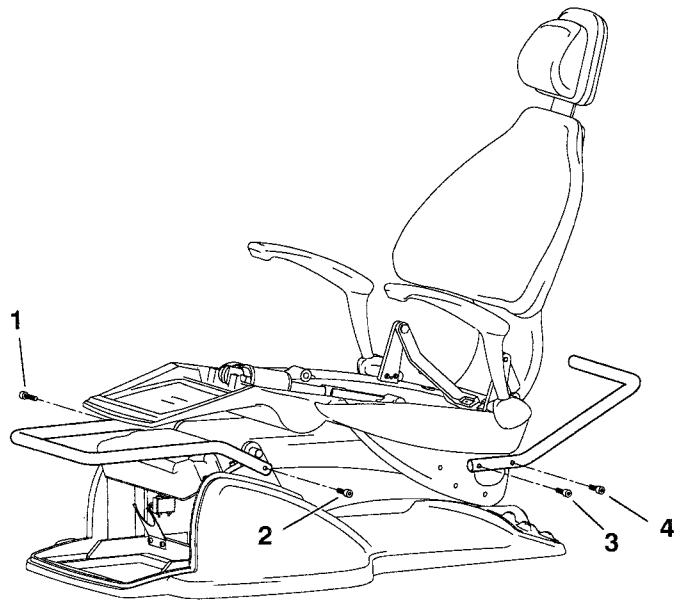


5.1 HANDLING

To remove the chair from the wooden pallet, remove the cover "A" by pulling it upwards and by unscrewing the two screws that fix the chair base to the pallet (see fig. 18).
To move the chair from the wooden pallet, it is necessary to be helped by another person.
To move the chair, hold it by the handles.
After positioning the chair, remove the handles as follows (see fig. 19):

I. Unscrew the hexagonal screws 1 and 2.
II. Remove the "U" shaped handle, near the lower body.
III. Unscrew the hexagonal screws 3 and 4.
IV. Remove the "L" shaped handle, near the upper body.

FIG. 19



6.0 INSTALLATION

After having placed the chair in the desired position, having (if necessary) fixed it to the floor by the holes on the base (figs. 20a, 20b), proceed as follows:

I. Be sure that the installation area has a good electrical earth.
II. Be sure that the main power supply of the installation area corresponds to the one of the identification label.
III. Check that the chair fuses, located at the front side of the chair and near to the base, are correctly fixed, because during transportation they may have loosened.
IV. Insert the plug into the socket.
V. Turn on the chair by using the main switch: the chair is now ready to work. If the chair does not operate, please refer to section 3.2 for troubleshooting.
VI. If required, let the chair reach the desired height and assembly the unit bracket as per unit manufacturer's instructions.

FIG. 20a (ECO 19)

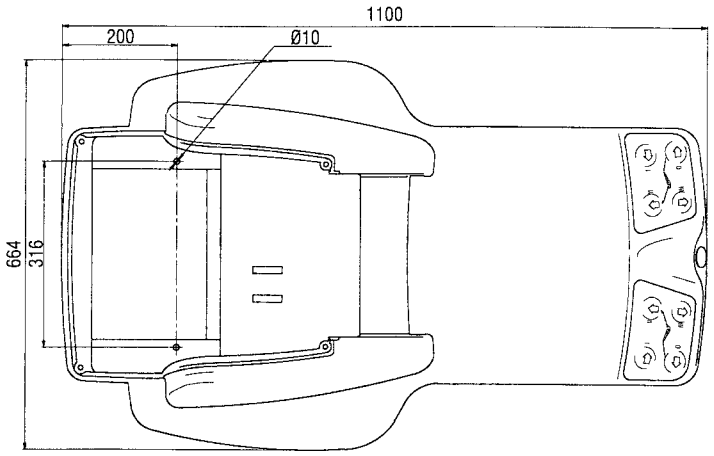
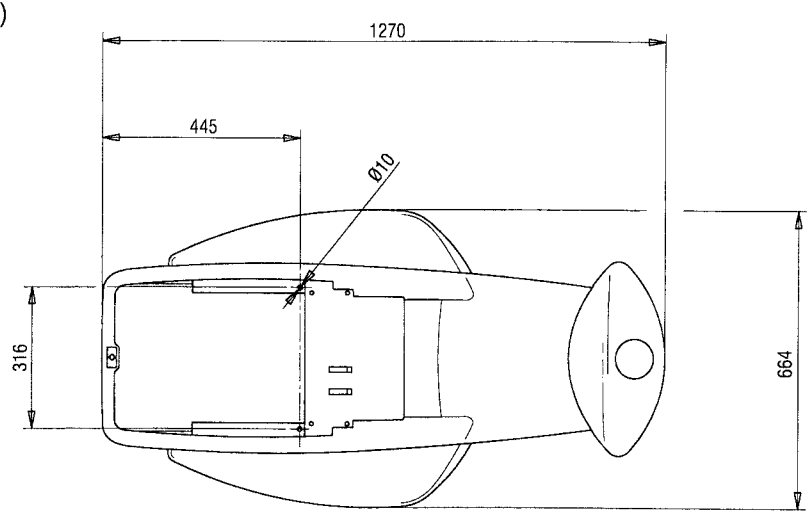


FIG. 20b (ECO.next)



WARNING

TECNODENT S.r.l. declines any responsibility for damages caused by the non-compliance of the above instructions.