

CONTOUR PACKAGE

OPERATING AND INSTALLATION GUIDE

CE 0120

 **TRIDAC Ltd**

~~Unit 11 Rectory, Farm Gate, Valley Close, Kings Langley, WD4 8HG~~
Unit 13, The Wenta Business Centre, Colne Way, Watford, WD24 7ND

Manual part No. 86-1183 issue A rev.2



CONTENTS

SECTION	TOPIC	PAGE
	IMPORTANT SAFETY NOTE	(i)
1)	PRODUCT DESCRIPTION	1
2)	GENERAL NOTES	1
	2.1) General safety notes	1
	2.2) Intended environment of use	1
3)	OPERATION	2
	3.1) Switching ON	2
	3.2) Mains fuse	2
	3.3) Changing from L.H to R.H.	2
4)	SPECIFICATION and RATINGS	3
5)	CLEANING and MAINTENANCE	4
6)	PARTS IDENTIFICATION	4
	6.1) Parts ident cont.	4
	6.2) Wiring layout / Fuse locations	5
7)	INSTALLATION	6
	7.1) Chair services	6
	7.1.1) Pre assembled services	6
	7.2) Mains input location	7
	7.3) Trionic 5 installation	7
	7.4) CSM installation	7
	7.5) Operating light installation	7
	7.6) Continuation of installation	7
	7.7) Testing	7

IMPORTANT SAFETY NOTE

CHAIR MOVEMENTS

Before any chair movements are undertaken, make sure that the surrounding area is clear of obstructions, such as stools and cabinets, that may come into contact with the chair or any equipment attached to it and cause damage.

Whenever chair movements are instigated, whether MANUAL or AUTO, the operator must remain vigilant and in control until all chair movements have ceased.

NOTE: At anytime the chair is performing a AUTO movement, pressing ANY chair function button will STOP all movements INSTANTLY.

OPERATING AND INSTALLATION GUIDE. 86-1183 FOR 'CONTOUR' DENTAL EQUIPMENT PACKAGES

1) PRODUCT DESCRIPTION

There are two designations of 'CONTOUR' package, comprised of the elements shown below.

CONTOUR II Packages

The TECNODENT ECO19 dental chair,
A 'Trionic 5' dental operating unit,
A 'CSM' dental spittoon.

CONTOUR.Next packages

The TECNODENT ECO.Next dental chair,
A 'Trionic 5' dental operating unit,
A 'CSM' dental spittoon.

Optionally a POLARIS operating light may be fitted to either package

They have been configured in such a way, that makes it easily adaptable for left or right handed operators.

For full operating instructions, please refer to the individual manuals which were supplied with each.
Their reference numbers are as follows:

ECO.Next/ECO19 chair manual, TC762400

TRIONIC 5 UNIT operating manual, 86-1017

TRIONIC 5 UNIT technical supplement, 86-1018

CSM SPITTOON operating and installation, 86-1179

POLARIS light, MAN.INST.1110.REV 05

2) GENERAL NOTES

These operating instructions form an integral part of the unit. They must be kept close to the unit at all times. Precise observance of these instructions is a precondition for use of the unit for the intended purpose and for its correct operation.

New personnel must be made aware of the contents, and they should be passed on to future operating staff.

2.1) GENERAL SAFETY NOTES

The Tridac 'CONTOUR' package is a dental treatment centre and intended for use only in the practice of dentistry and for use only by trained dental personnel. Please note the following:

The dental chair is an 'APPLIED PART', as are any instruments attached, their hoses could also come into contact with the patient.

ALTERATION OR MODIFICATION OF THIS EQUIPMENT MAY IMPACT UPON IT'S SAFETY AND AFFECT ITS CONFORMITY TO THE STANDARDS TO WHICH IT IS BUILT.

WARNING: If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.

If any part of the enclosure(s) is dented or cracked following an impact, servicing is required before continued use.

DO NOT stand or climb on this equipment. Sit only on the chair and in the correct manner, DO NOT sit on the headrest/backrest, arms or toe of chair.

2.2) INTENDED ENVIRONMENT OF USE

The 'CONTOUR' package is intended to be installed in dental surgeries in domestic, commercial, and light industrial premises, clinics and hospital dental departments. These premises must be able to maintain an ambient temperature not exceeding 35C and relative humidity of 30% to 70%.

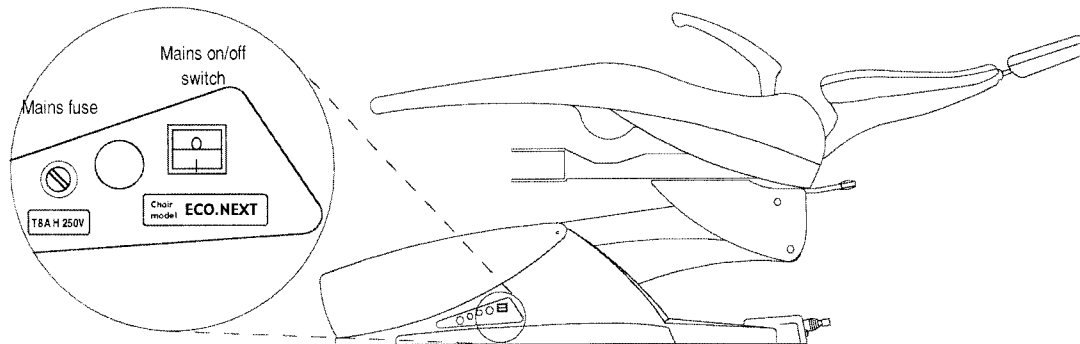
It must be confirmed that the floor of the installation site is capable of safely supporting the weight of the chair and any other dental equipment in the area.

3) OPERATION

3.1) Switching on the equipment

Switch on the equipment by means of the on/off mains switch located on the chair base. The green indicator light within the switch will illuminate.

Note: When leaving the surgery always switch OFF the equipment at the mains **isolating** switch,(not the switch on the chair), this is usually located on a nearby wall for easy access.



3.2) Mains fuse

Caution: Isolate the mains electrical supply before attempting to change the fuse.

To change the mains fuse, use a suitable flat bladed screwdriver and unscrew the fuse carrier. Only use a T 8AH 250V rated fuse as a replacement. Note, this is the only user changeable fuse on the equipment.

For further operating instructions, refer to the relevant manuals for each element.

3.3) Changing from left hand to right hand

The CONTOUR equipment package is easily adaptable for left or right handed operators.

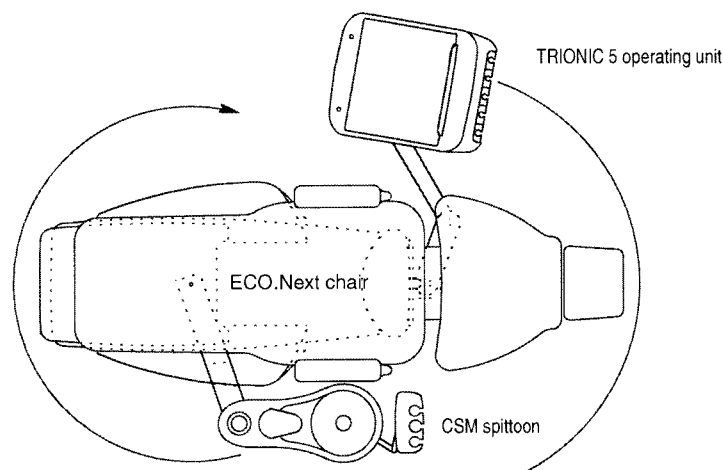
In order to change the equipment from left to right hand, first, make sure the area is clear of obstructions and that it is safe to carry out the procedure.

CAUTION, care must be taken when moving parts of the equipment so as not to cause injury either to yourself or other persons and to prevent damaging the equipment, take particular care when moving an operating light if one is fitted.

Procedure

First, lower the chair backrest at least half way, this will give you access to the handwheel located under the knee section of the seat, removing this will free the spittoon bracket and allow you to swing the spittoon around the toe of the chair. Locate the spittoon bracket in its new working location and refit the retaining handwheel and return the backrest to the upright position. If an operating light is fitted, reposition the arms so that the light head can be manoeuvred to its previous location.

The drill unit may now be swung around the back of the chair to its new position.



4) SPECIFICATIONS AND RATINGS

Manufacturer Tridac Ltd. ~~Unit 1A Rectory Farm, Gade Valley Close, Kings Langley, Herts. WD4 9JG, England~~
Unit 13, The Wenta Business Centre, Colne Way, Watford, WD24 7ND

Model Reference	CONTOUR delivery packages
Transport and Storage	Unit and packaging may be transported and stored at 0 to 50 deg.C and relative humidity 30% to 95%
Installation Type	Permanently installed
Mode of operation :	Continuous with intermittent loading
Maximum patient weight	135kg
Classification (EN 60601-1)	Class 1. To avoid risk of electric shock this equipment must only be connected to a mains supply with protective earth.
Equipment type (EN 60601-1)	Type B
Anaesthetic Category	Not intended for use in an oxygen rich environment. Not intended for use with flammable anaesthetics
Electricity Supply :	230 Volts
Phase	Single Phase
Frequency	50 Hz.
Ratings	8 Amps.
Fuses :	
Mains input fuse(floor box)	T 8 A H 250 V 20mm x 5mm to IEC 60127-2. Part No. 10-1312 Note: This is the only user changeable fuse
Water Supply :	Minimum 2.1 bar (30 PSI) Maximum 6.9 bar (100 PSI) Note : Water Bye Laws may require an anti siphon valve between the unit and supply.
Air Supply	Minimum 5.5 bar (70 PSI) Maximum 6.9 bar (100 PSI)
Vacuum.Max.	-250 hPa.
Vacuum connection	To 32 mm plastic pipe, to BS 5255.
Waste connection	To 32 mm plastic pipe, to BS 5255. Note: ABS material is NOT suitable for vacuum/waste pipes.
Weight	Total gross weight, 269kg Total net weight, 224kg

5) CLEANING & MAINTENANCE

Daily

Daily cleaning and maintenance should be carried out as specified in the individual equipment manuals.

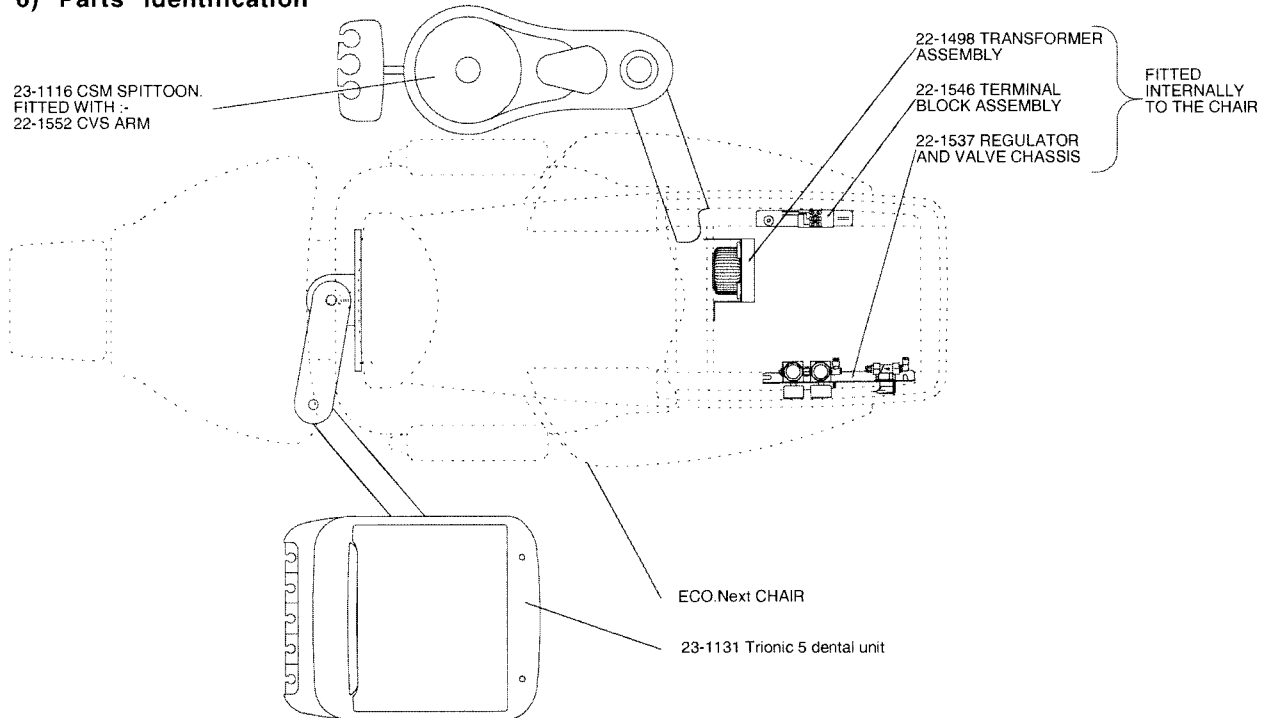
Annual

Annual maintenance must be carried out by trained and qualified service personnel, to whom Tridac will make available a maintenance shedule and service kit.

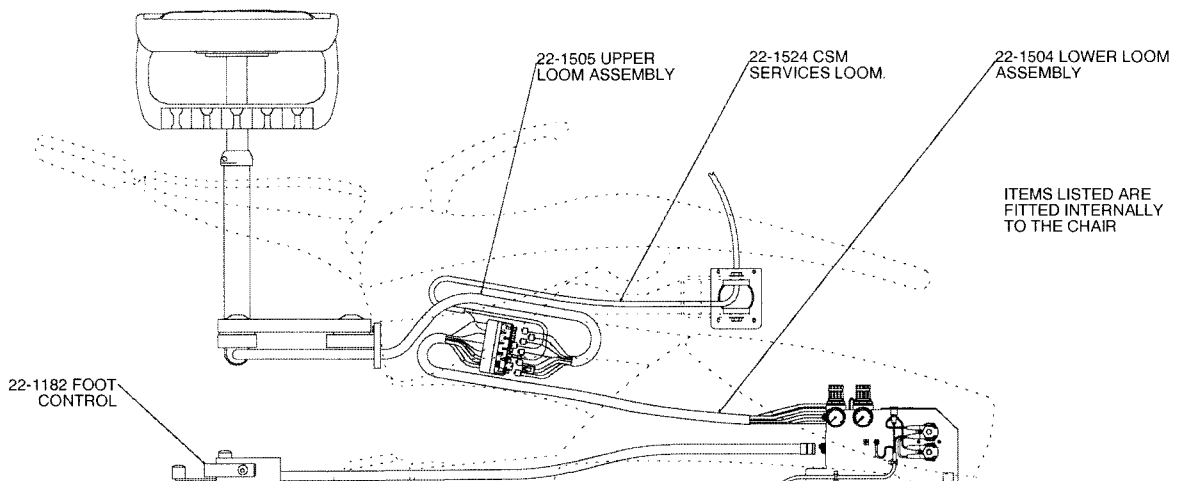
The Contour service kit P/No. 70-1206 covers the Trionic 5 unit and the CSM spittoon.

There is no service kit required for the actual chair.

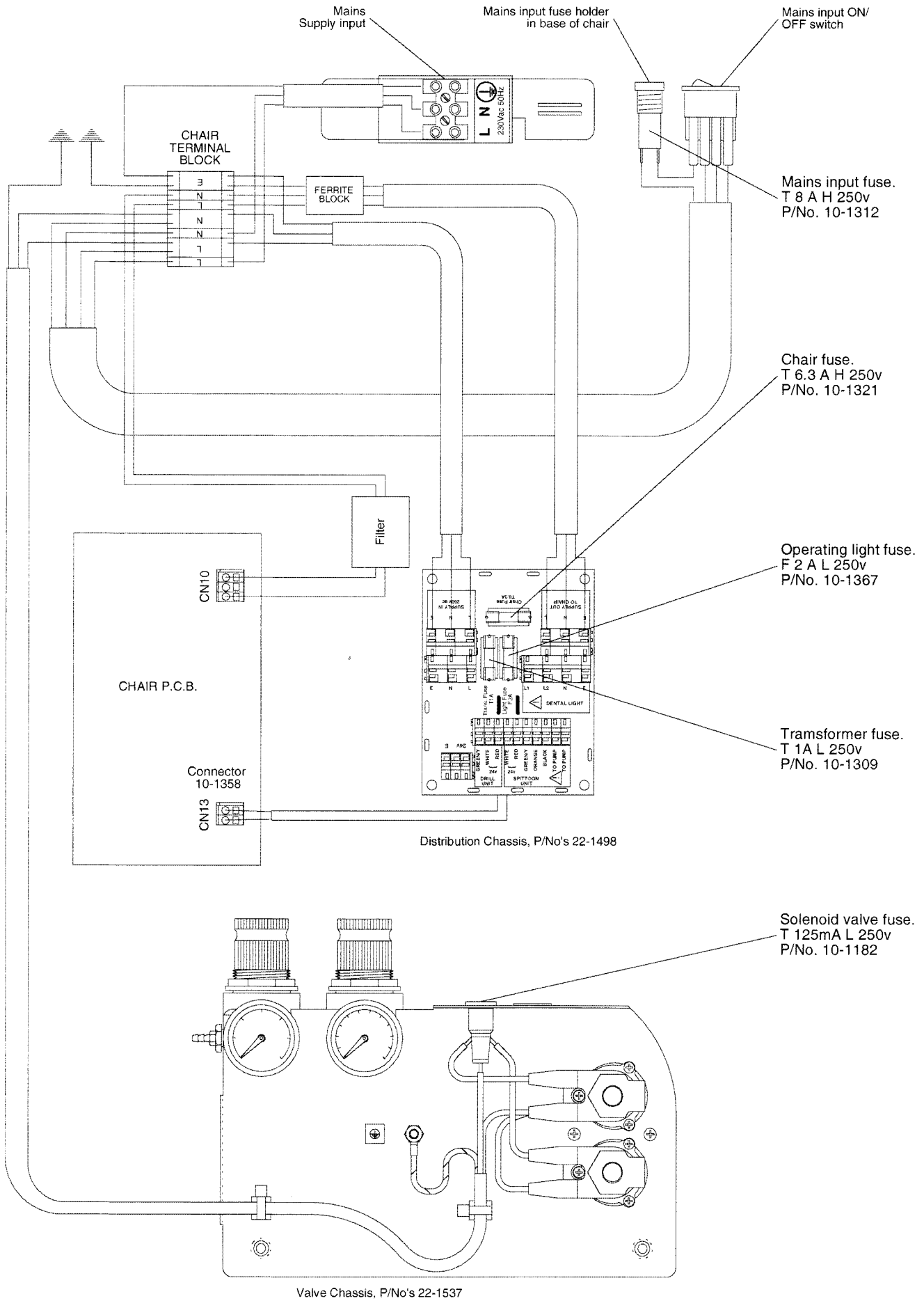
6) Parts identification



6.1) Parts identification cont.



6.2) Wiring layout and fuse locations



7.) INSTALLATION

Installation must be carried out by the supplier of the equipment who will have the necessary qualified and trained staff.

When the equipment is being installed in a surgery that may produce waste amalgam, an amalgam separator conforming to the current edition of BS EN ISO 11143 must be incorporated within the equipment or the waste water/suction line from it.

Collected waste must be disposed of via a registered hazardous waste collection service.

7.1) Chair Services

Service lines:

Waste and Vacuum lines. 40mm terminating in 32mm plastic pipe to B.S. 5255

Air and Water lines. 15mm copper tube to B.S. 2871

Suction Pump switching wires. As required, see note below.

Electrical supply. Must be rated at 13Amps 230 volts 50 Hz

NOTE: The mains supply to the equipment must be provided via a double pole **isolating** switch conforming to BS 1363-4 or IEC 61058-1 for creepage distance and air clearances for a mains transient voltage of 4kV. The most convenient location of this would be on the wall adjacent to the exit door.

The fittings supplied with the equipment are suitable for connecting to the above mentioned service lines.

Ensure that the required services are available in accordance with the model chosen and the specifications. Refer to the installation plan 86-1158, a copy is attached to each chair when despatched. If the positions shown are used, it will allow plenty of room for any ancillaries. When these locations are not achievable, we suggest you keep in mind the following.

The waste and suction line if applicable, should be positioned so that no undue strain is put on the tubing as the chair is raised and lowered, also that they may need to be accessed at some time in the future for cleaning purposes.

The service valves incorporate a screen filter that may need servicing and therefore should also be positioned to give easy access. Other services are less important from the servicing point of view and can be positioned less critically.

The electrical supply to the services area must conform to the standards required by the local electricity supply authority. Although the equipment is rated at 8 Amps, the supply wiring must be rated at 13 Amps 230 V 50 Hz.

Any necessary switching wires from a remote pump should also be included.

When provided, the switch wires from the suction manifold, are intended for Safety Extra Low Voltage (see section 4, specifications in the CSM spittoon manual) : **Avoid the use of connecting cables which could be mistaken for mains wiring.** Observe the ratings and recommendations on low voltage switching. Ensure that the low voltage circuit of the host system is fused at the lowest appropriate rating and that motor control gear of the host system does comply. Also note the comments on EMC in section 1.3).

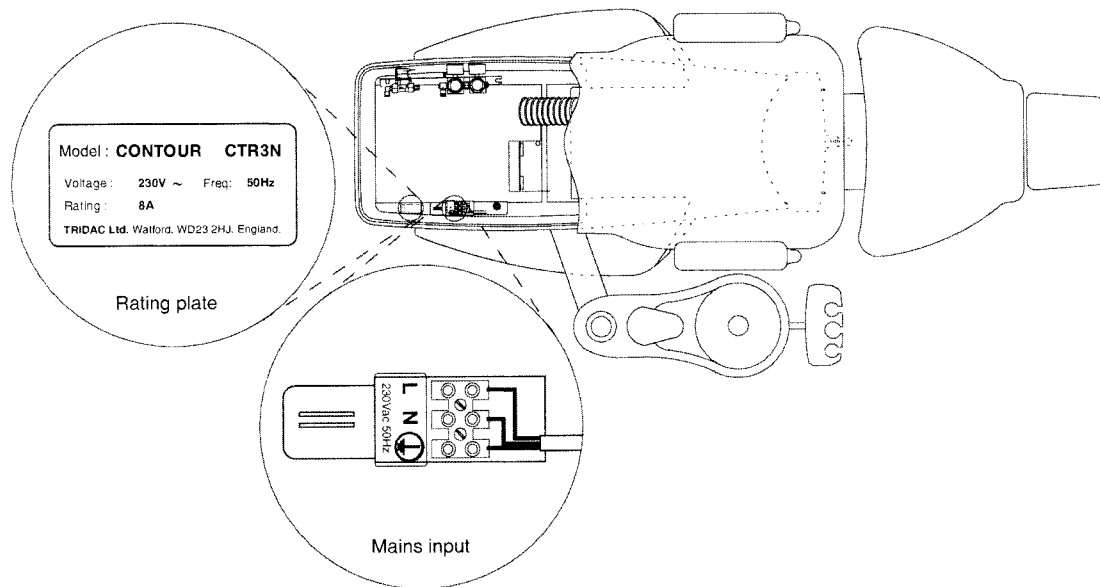
CAUTION Clear any debris from all pipes including the water supply line, before connecting any equipment.

7.1.1) Preassembled Services

In order to make installation as quick and easy as possible, we have already fitted the following items to the chair:

- MAINS input terminal block assembly
- Transformer assembly
- Regulator and valve chassis
- Trionic 5 lower services loom and connection panel
- CSM spittoon services loom
- Trionic 5 unit mounting arm assembly

7.2) Mains input location



7.3) Trionic 5 installation.

With the chair raised and the undercover of the Pantograph removed, feed the foot control coupling through the hole in the base of the chair. Pull through until you are able to reach the coupling on the regulator chassis. Line up the pegs with the holes and do up the knurled nut to secure it onto the coupling, tighten firmly.

To continue with the installation of the Trionic 5 unit, refer to it's 'Technical Supplement' 86-1018 section 8)

7.4) CSM Spittoon installation

To continue with the CSM installation, refer to it's 'Operating Manual' 86-1120 section 5.2)

7.5) OPERATING LIGHT installation.

Refer to the CSM 'Operating Manual' 86-1120 section 5.3.1 and to any instructions supplied with the light.

7.6) Continuation of Installation

Connect up the services in the base of the chair using the fittings supplied, do not use the small grey waste elbow to connect Dry-line suction hose as this will restrict the air flow.

The GREEN nylon tube connects to the water isolating valve by means of a Push-in fitting, the YELLOW tube likewise to the air valve. It is a good idea to leave a neat loop of tubing rather than cutting them very short, as this can make future servicing difficult.

Low voltage switching wires for the suction pump should be connected to the two vacant terminals marked 'Pump' on the transformer/distribution chassis. Refer to instruction sheet 86-1141 attached to the chair. Secure the wires by means of a Cable Tie through an adjacent slot in the P.C.B..

Finally, connect the 'MAINS' supply to the 'INPUT' terminal block in the order indicated on the label. Cable Tie the wires together where they enter the terminal block to ensure that if a wire comes free, it is held in place by adjacent wires and cannot contact other wires or parts.

7.7) Testing

Test all the various elements of the CONTOUR package as described in their corresponding Operating Manuals. When complete and after any faults have been rectified, replace any covers that have been removed, the small angled bracket that was supplied loose will need fitting to the front of the chair base in order to secure the front cover.