Voyager

OPERATING CONSOLE UNIT

Voyager-M : Side delivery module

Voyager-MC : Doctor's cart

INSTALLATION AND OPERATING INSTRUCTIONS

IMPORTANT

This manual provides installation and operating instructions for the BELMONT VOYAGER (Operating Console Unit).
The instructions contained in this booklet should be thoroughly read and understood before installing the unit.
Keep this manual and refer back to it for future maintenance.

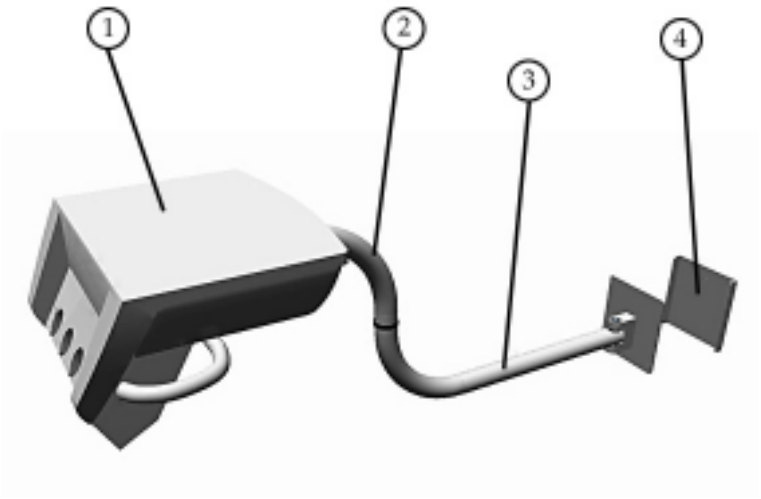
Belmont

UK Ver 1.0 (March 99)

TABLE OF CONTENTS

1. OVERALL VIEW AND MAJOR COMPONENTS

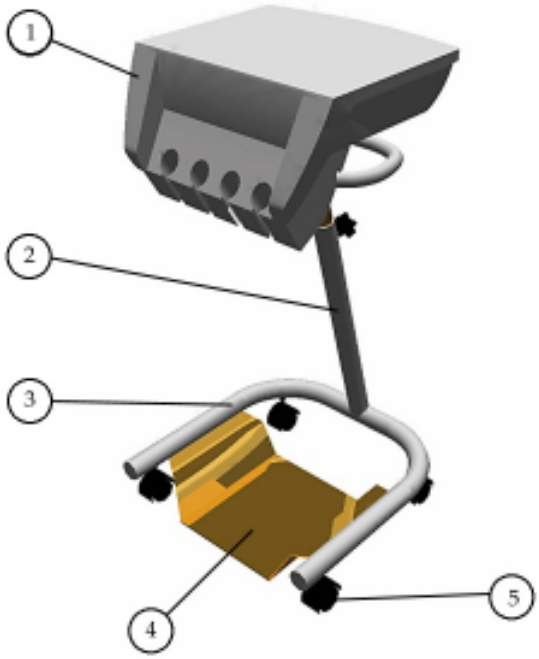
Voyager-M : Side Delivery Module



MAJOR COMPONENTS

1. Doctor Table Assembly
2. Upper Mounting Arm
3. Lower Arm and Mounting Bracket Assembly
4. Back Plate

Voyager-MC : Doctor's Cart

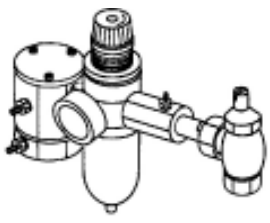


MAJOR COMPONENTS

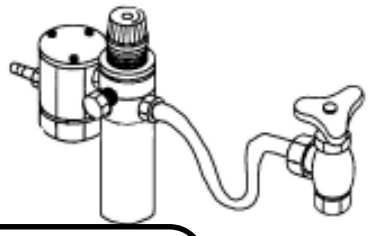
1. Doctor Table Assembly
2. Cart Upright Stem
3. Cart U-Base
4. Cart Base Plate
5. Caster

FITTING KITS

Air Master Valve Kit



Water Master Valve Kit

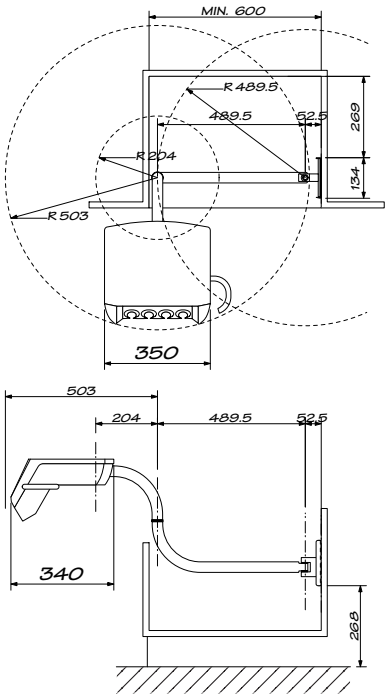


Not required if CWS is fiied.

2. DIMENSIONS AND SPECIFICATIONS

2-1. DEMENNSIONS

Voyager-M Dimensions



2-2. SPECIFICATIONS

Doctor Hanpiece

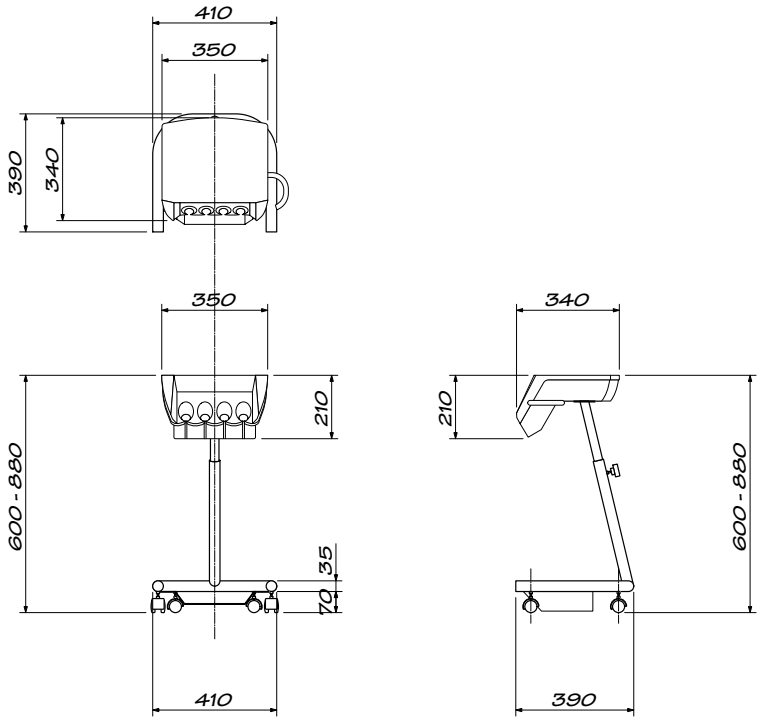
2 x High Speed Turbine Tubings

1 x Low Speed Air Motor Tubing

1 x 3-way Syringe

Voyager-MC Dimensions

NET WEIGHT	kg
MODULE	kg
MC CART	kg



3. INSTALLATION INSTRUCTIONS

PRE-INSTALLATION REQUIREMENTS

A. General Requirements

(1) The contractor is to supply the necessary service and materials to complete the installation of the satisfaction of the dentists and the installation engineer.

(2) This includes the supply and installation of the electric power supply cables with main isolatingswitch and fuses, air supply piping, water supply piping

Table 1 The Recommended Sizes, Materials and End Piece of Pipes

Item	Material	Size	End Piece
Compressed Air Supply Pipe	Shock Resistance P.V.C. Pipe HI-13	Out. Dia.18mm In. Dia. 13mm	PTI/2
Water Supply Pipe	Shock Resistance P.V.C. Pipe HI-13	Out. Dia. 18mm In. Dia. 13mm	PTI/2
Power Supply Cable Conduit	P.V.C. VE-16	In. Dia. 16mm	

Air Supply Requirements

(1) Compressed air to be supplied should be filtered.
Dirty and moistured air may cause trouble in unit air system.

(2) Air Pressure
Regulate the outlet air pressure of the compressor to the utility' section at 5.5 - 6.0kg/cm^2 andthe air pressure should be kept higher than 5.0kg/cm^2 at any time.

(3) Compressed Air Supply Capacity
Compressed air supply capacity is at least 55 1/min.

Water Supply Requirements

(1) The supply water should be clean.
Dirty water may cause trouble in unit water line.

(2) Water Pressure
More than 1.0kg/cm^2 water pressure in utility section is required for operating unit efficiently at any time.

Electric Supply Requirements (When Optional Extra's are fitted).

(1) The connection of power supply cable is to be carried out in accordance with the local electric regulation.

(2) Rating of supply voltage and power consumption

100/110/1 15V Type Single Phase 50160 Hz : 10 A

220/230/24OV Type Single Phase 50160 Hz: 6 A

(3) Power supply line should be provided with fuses or circuit breaker in accordance with power consumption.

(4) The earth wire (ground wire) should be proved in the utility section.

(5) All cables should have at least 500mm surplus from the floor so that they are long enough to be connected with the terminals in the utility section.

4. FIXING INSTRUCTION FOR THE VOYAGER SIDE DELIVERY MODULE

1. Using the dimensions shown as a-guide. Fix the wall bracket back plate to the cabinet with 2-countersunk screws through the countersunk holes, and cheek to make sure it is level. (See fig l.)

2. Mount the lower section of the module arm together with the mounting bracket with 4 x screws through the 4- holes in the corners of the bracket mounting plate. (See fig 2.)

3. Grease up steel pivot/bearing section of the lower arm.

4. Fit the module and upper mounting arm to the lower arm by threading the tubings through the lower arm and out of the bottom hole (bottom hole located near the mounting bracket). Pull the tubes all the way through and connect the upper arm to the lower arm.

5. When the two sections of the arm are connected the supply tubes should be coming out of the bottom hole in the lower arm. Cover these supply tubes with the white sleeve (supplied) and cable tie this sleeve at the bottom end. (See fig 4.)

6. Level the module head by using the 4 x Allen type grub screws fitted to the mounting bracket. Slacken off the 4 fixing screws and adjust the grub screws, tighten the grub screws where necessary against the back plate.

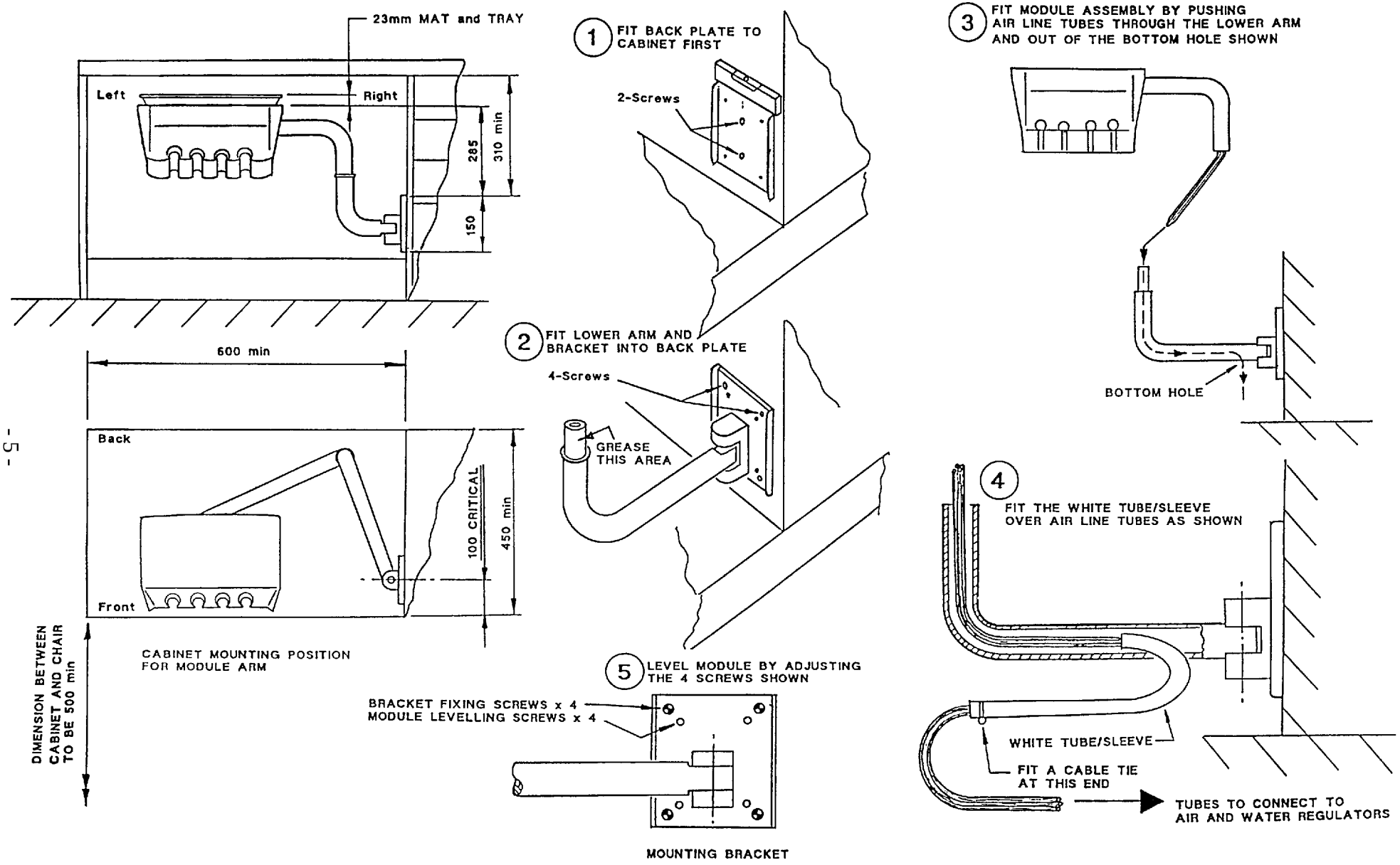
    A. To raise the left side of the module head tighten the 2 x lower grub screws.
    B. To lower the left side of the module head tighten the 2 x upper grub screws.
    C. To lift the front edge of the module head tighten the front bottom grub screw.
    D. To lower the front of the module head tighten the bottom rear grub screw.

7. After the module head has been levelled tighten the 4 x fixing screws again.

8. Connect the chrome main taps to the main pipes (air and water). Fit the air and water filter regulators to the supply chrome taps. Connect all the supply tubes to the bar fittings on the filter regulator assemblies. Make sure to fit the sleeves (supplied) over the tube connections.

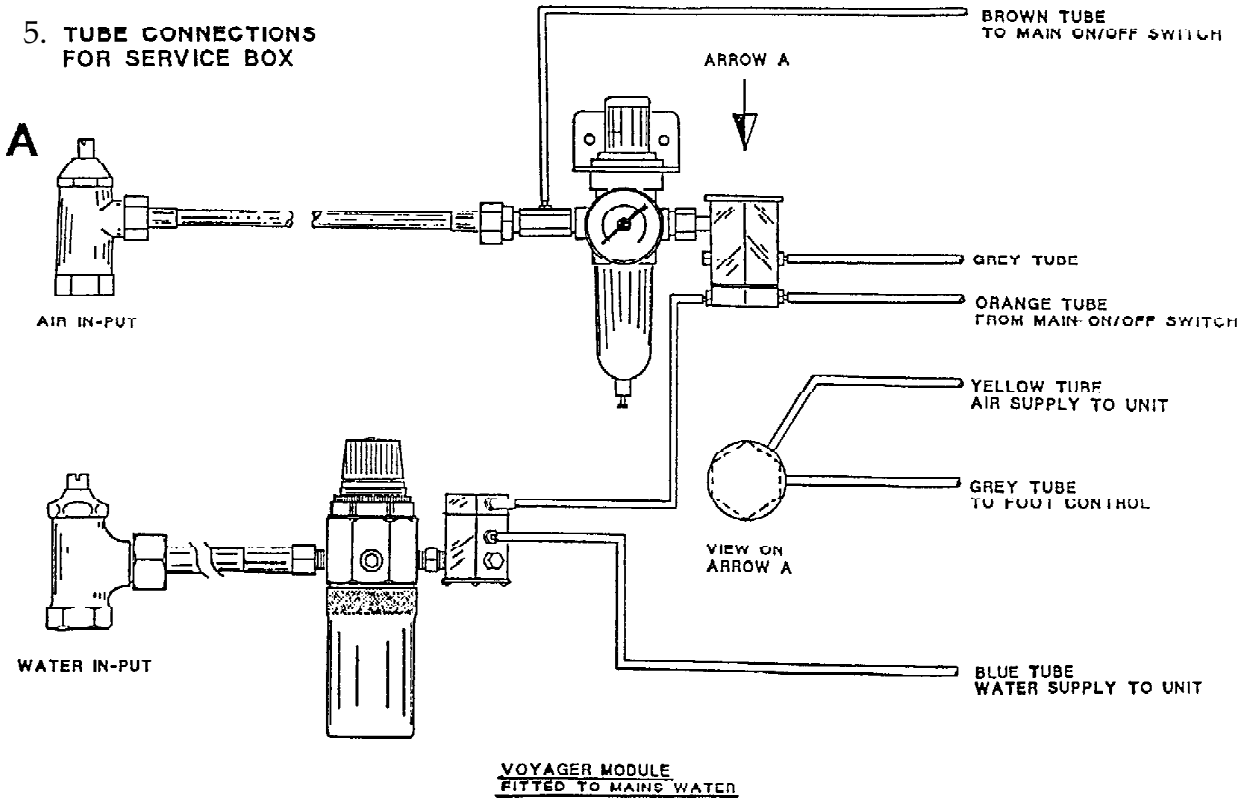
9. See the tube connection drawing.

    A. For module or cart fitted to mains water.
    B. For module or cart fitted with a clean water system.

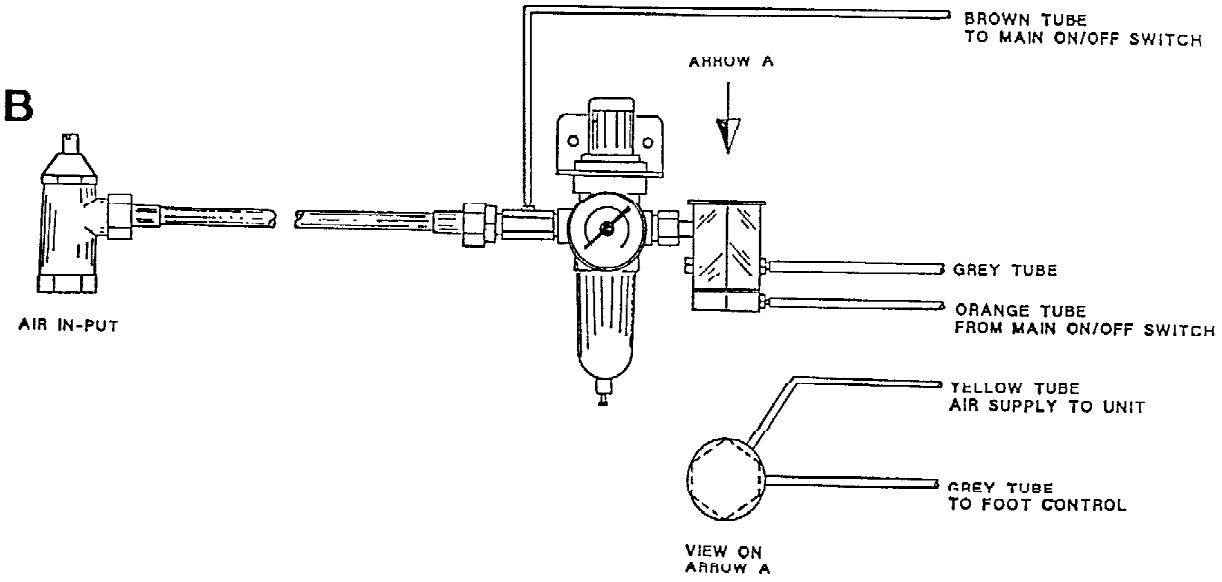


FIXING INSTRUCTION FOR THE VOYAGER SIDE DELIVARY MODULE

5. TUBE CONNECTIONS FOR SERVICE BOX

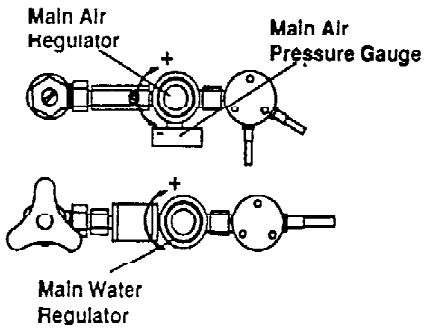


VOYAGER MODULE
FITTED TO MAINS WATER



VOYAGER MODULE
FITTED WITH A CLEAN WATER SYSTEM

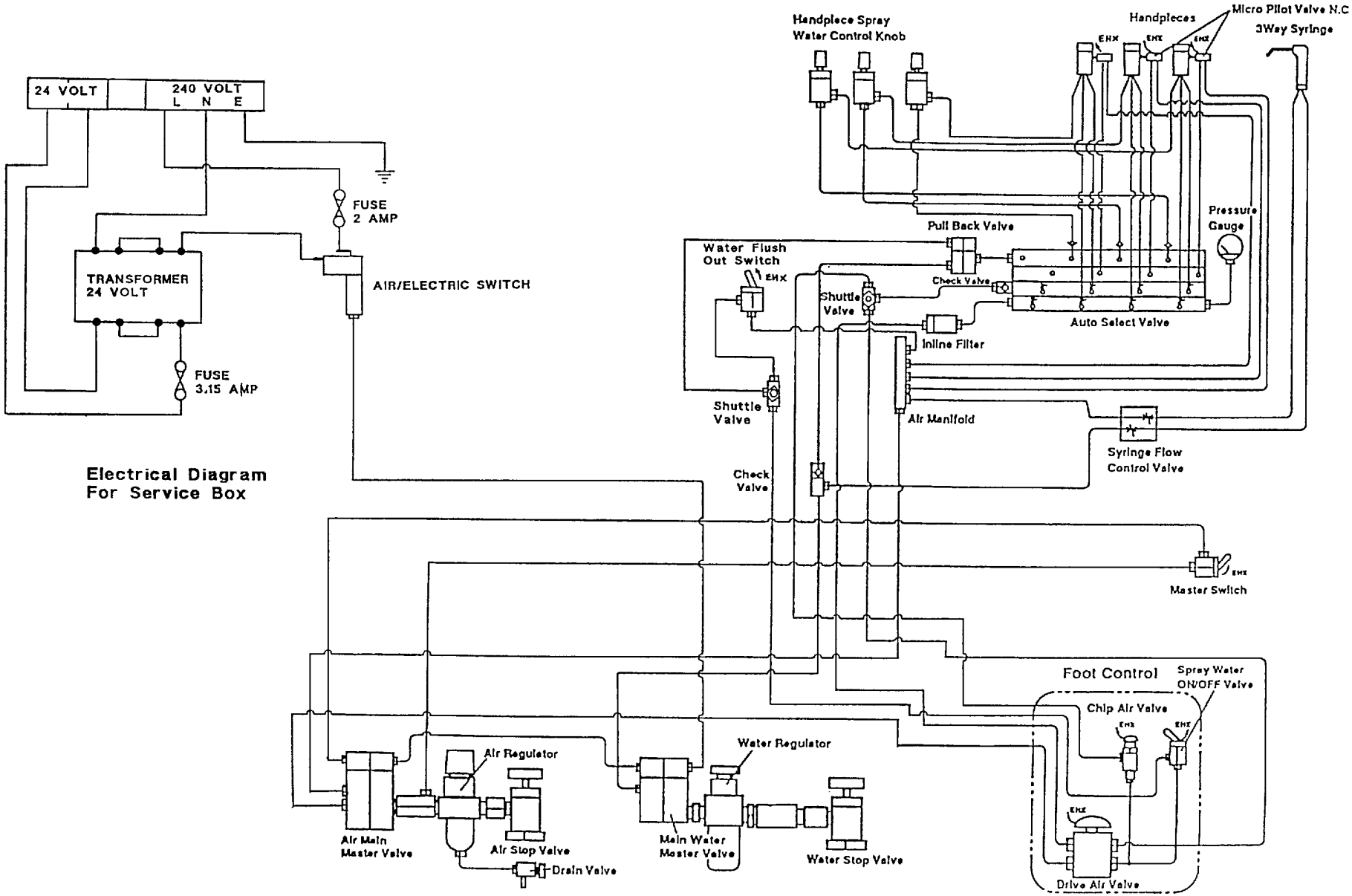
Confirm the main air pressure is at 5.0 - 5.5 kg/cm^2
Confirm the main water pressure is at 1.0 2.0 kg/cm^2.
The main air pressure can be regulated by the main air regulator.
The main water pressure can be regulated by the main water regulator.



Main Air and Water
Pressure Adjustment

⚠ CAUTION

Do not exceed the main air and main Water pressure at 6.0 kg/cm^2 at any time.



6. Flow Diagram For VOYAGER M and MC units

7. OPERATING INSTRUCTIONS FOR Unit

Note : Before operation, confirm that air compressor is fully charged.

MASTER SWITCH

Turn on the master switch located under the doctor table .

⚠ CAUTION

Turn off the master switch after daily operation

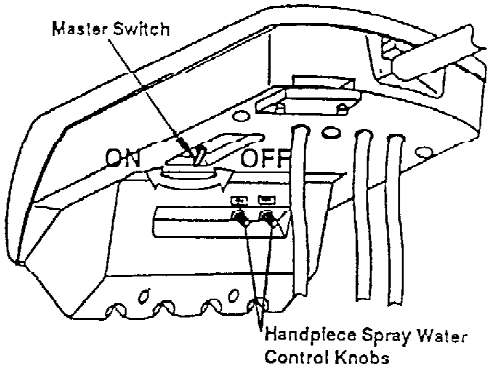


Fig. 3-1 Master Switch and Handpiece Spray Water Control Knobs

DOCTOR TABLE SECTION

(1) Handpiece Spray Water Flow Control Knobs (Fig.3-1)

The handpiece spray water flow control knobs located under the doctor table provide for individual adjustment.

Each handpiece spray water flow control knob is lined up from the facing left hand side HP 1. HP2. HP3. Turning a flow control knob coun terclockwise increases flow volume and turning clockwise decreases.

(2) 3-Way Syringe

A. 3-Way Syringe Operation (Fig.3-3)

Depressing either or both buttons, this syringe offers air, water and spray.

Syringe tip can be rotated freely.

To remove syringe tip : Keep depressing the lock ring and pull out the syringe tip.

To set syringe tip : Keep depressing the lock ring, insert the syringe tip and release the lock ring.

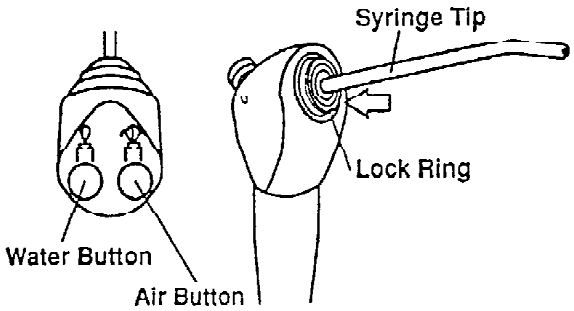


Fig. 3-3 3-Way Syringe

B. 3-Way Syringe Flow Control Screws (Fig.3-5)

Air and/or water flow of 3-way syringe can be adjusted by the flow control screws located bottom of the table.

Facing right hand side screw controls air and left hand side controls water.

Turning a flow control screw counter clockwise increases flow volume and turning clockwise decreases.

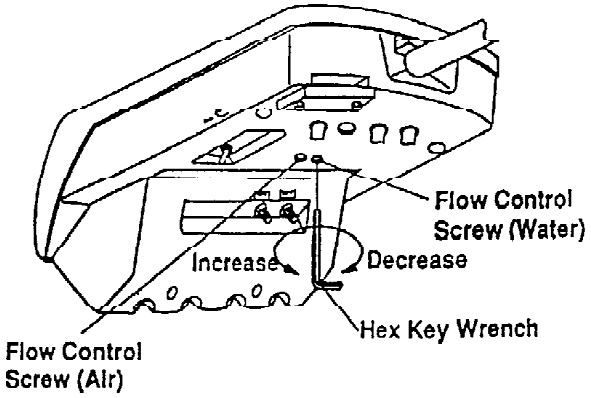


Fig. 3-4 3-Way Syringe Flow Control Screws

(3) Removing Table Top (Fig.3-5)
Loosen 4-screws from the table bottom and remove the table top.
The auto select valve and the handpiece pressure gauge are located in the table.

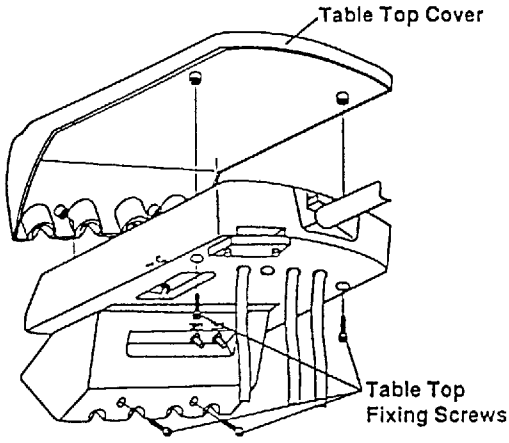


Fig. 3-5 Removing Table Top Cover

(4) Handpiece Drive Air Adjustment Screws (Fig.3-6 & Fig.3-7)
Adjustment of drive air of each handpiece can be made by the screw on the auto select valve. It is important to set the drive air pressure in according with the handpiece manufacture's recommendation.
Drive air pressure is indicated by the handpiece pressure gauge.

Setting The Optimum Condition (Fig.3-7)
Turn the appropriate drive air screw fully clockwise, then depress the drive air pedal of the foot control fully (maximum foot pressure) and turn the screw counterclockwise slowly. Stop turning the screw immediately when the handpiece pressure gauge shows the desired drive air pressure.

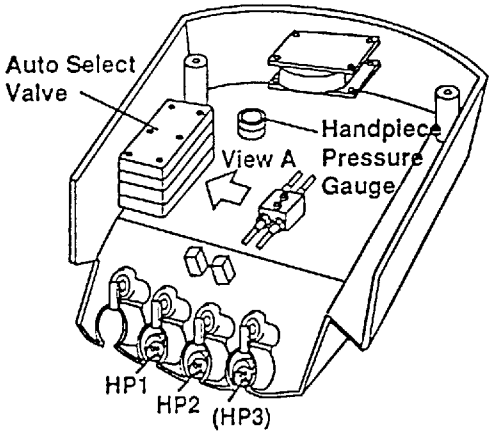


Fig. 3-6 Auto Select Valve and Pressure Gauge

(5) Handpiece Coolant Air Adjustment Screws (Fig.3-6 & Fig.3-7)
Handpiece coolant air adjustment screws are provide for individual adjustment of handpiece coolant air. Turning a handpiece coolant air ad justment screw counterclockwise increases flow volume and turning clockwise decreases.

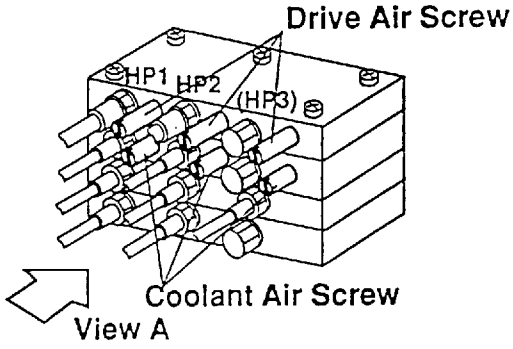


Fig. 3-7 Auto Select Valve

FOOT CONTROL SECTION

(1) Drive Air Pedal
Depressing the drive air pedal controls handpiece rotation speed and coolant air on/off.

(2) Spray Water ON/OFF Switch
Spray water ON/OFF switch allows water to be turned on or off.
Refer to 3-1 of this manual for adjusting water of each handpiece.

(3) Chip Blower Button
By depressing the chip blow button, chip blower comes out from handpiece without bur turning

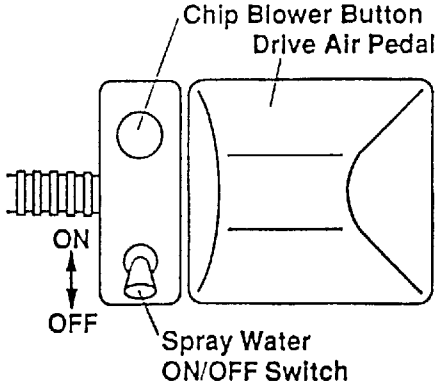


Fig. 3-1

(5) Disinfection

All tubings and hoses can be cleaned with a weak ethanol.

Note : Refer to Fig 3-3 to remove and to set syringe tip.

(6) Cleaning Oil Mist Separator (Fig.5-3)
Handpiece oil mist separator is located rear side of the doctor table.
Once a week open the oil mist separator and clean the oil mist filter.

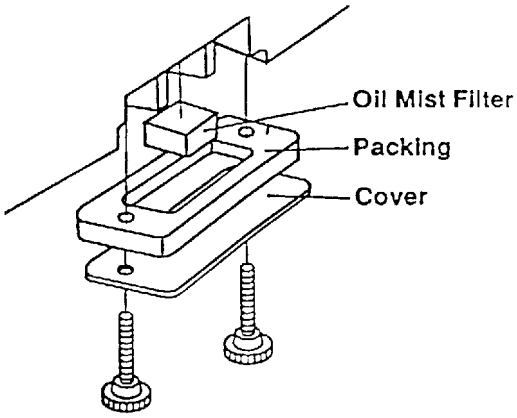


Fig.5-3 Cleaning Oil Mist Separator

CARE AND MAINTENANCE

⚠ CAUTION

Turn OFF the master switch after daily operation or in long term interval.
Keep the main water valve OFF after daily operation or in long term interval.

Cleaning Unit

⚠ CAUTION

Do not drench the unit for cleaning.
Do not use polishing powder, solvents, strong disinfectant or hot water for cleaning. After cleaning, wipe with a dry soft cloth and keep the unit dry.

Painted, metal and plastic surfaces can be cleaned with weak ethanol.

Belmont

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Chuo-ku,Osaka, Japan

DECLARATION OF CONFORMITY

CE CONFORMITY

We hereby declare that the product listed below complies with the essential requirements of the Medical Device Directive, 93/42/EEC.
The product has been designed and manufactured in accordance with the international standards IEC601-1:1988 including A1:91 and A2:95 and IEC601-1-2 : 1993.
Our quality system has been certified to MDD ANNEX II & EN46001:1996 (Certificate No.948368) by Notified Body, LLOYD'S REGISTER QUALITY ASSURANCE LTD. (NO.0088).

DENTAL UNIT & CHAIR (CLASS IIa)

VOYAGER

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MANAGING DIRECTOR
PRODUCTION DIV.

Date: 19th February, 1998

641
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