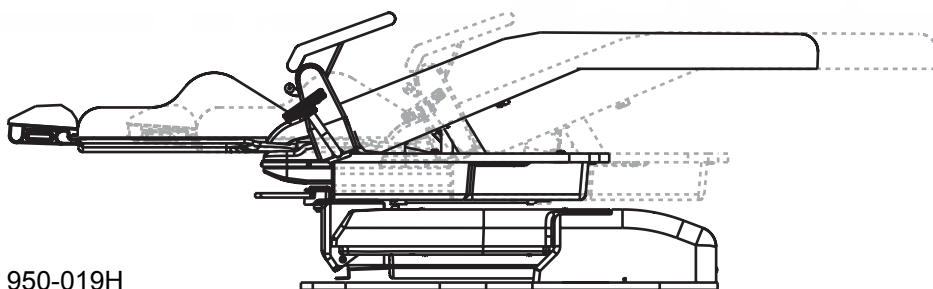
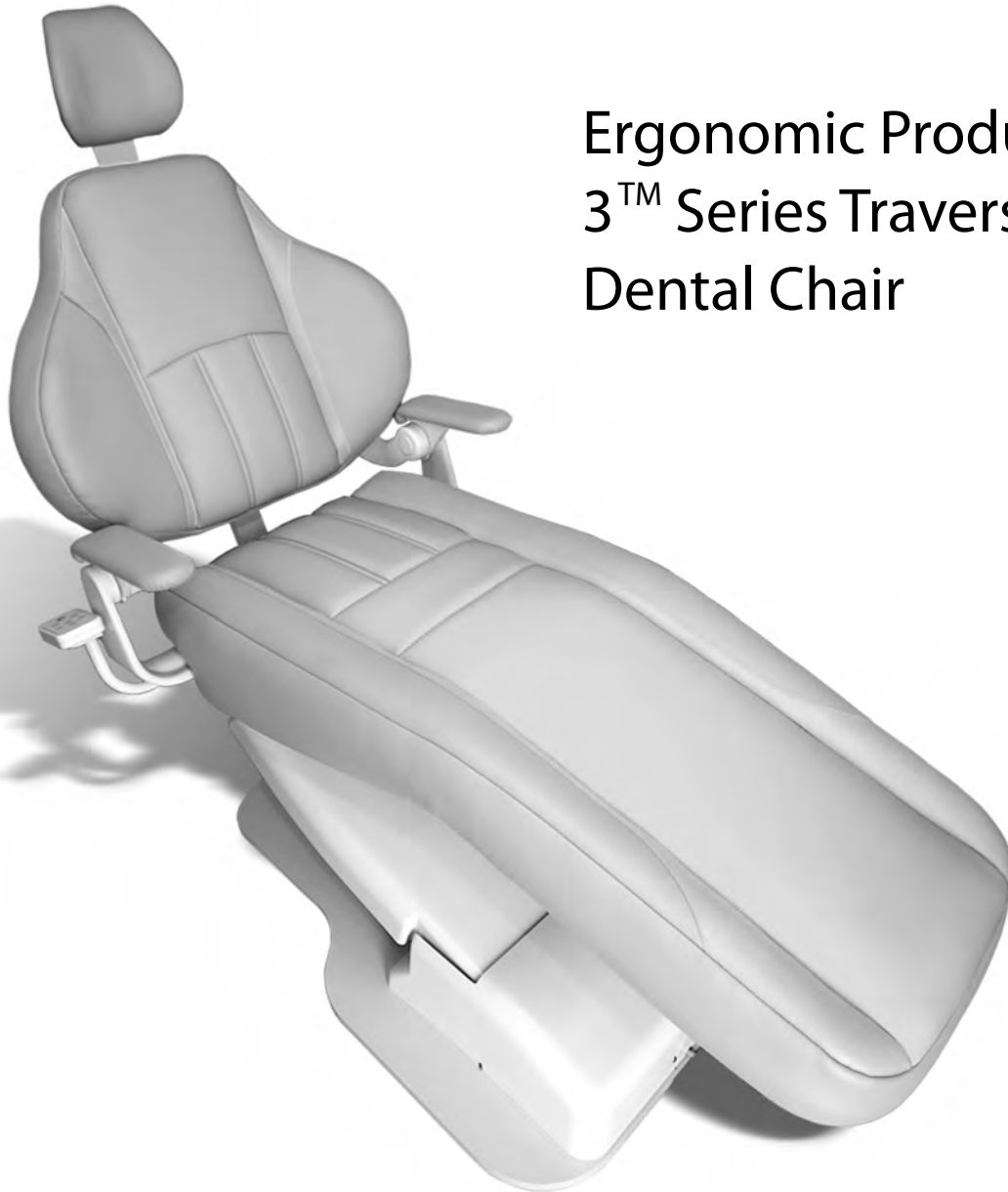


Installation and Operations Manual

Ergonomic Products 3™ Series Traverse Dental Chair



950-019H
3/24/23



Ergonomic Products

INSTALLATION AND OPERATION MANUAL

Customer Service/Technical Support

Phone: 1.866.ERGO.4.US/1.866.374.6487

Fax: 1.508.636..3680

Email: info@ergonomic-products.com

A PROMISE FROM THE EMPLOYEES AT ERGONOMIC PRODUCTS, INC.

At Ergonomic Products, Inc., we understand that placing a dental equipment order, whether it be with a local distributor, one of the big names in the industry, or a specialty firm like ours, can be a difficult decision. Whether your order is large or small, we promise to treat every customer with the same level of complete honesty and courtesy. We know you won't get this kind of commitment everywhere you go.

We promise to offer you on-time delivery of your orders, and will keep you continuously apprised of your ship date. We promise to give you answers to your technical questions as quickly as possible. Our technicians are working diligently every day to deliver the finest equipment in the industry. When a service need does occur, which is extremely rare due to the exceptional quality of our components, we will take full responsibility and do everything in our power to correct the problem.

We promise to always have a toll free technician line for you to reach us. If you call us toll free you can usually talk directly with one of our technical representatives. In the event that you need to leave a message, a technical representative will return your call promptly.

We promise to always be honest in describing our products and their technological capabilities. We are confident that our equipment is absolutely the best value available. Period. We believe that it will tell its own story. We will never sell you more than our equipment can deliver. Life is too short for that.

We promise to offer you prompt, inexpensive repairs. Products under warranty will, of course, be fixed as quickly as possible and service will be done on site if feasible. If a product must be returned to our technical center, it will be returned to you without additional shipping charges. If the time needed to repair your equipment will affect your practice schedule, we will try to provide a loaner so as to not interrupt your service to your patients. In an emergency, our Doctor Delivery Power Channels can be shipped overnight. The entire new unit can be placed in service in 45 minutes or less. No one else in the industry can come close to this level of response. Further, if a warranty does not apply, we will quickly repair your product and promise that our repair costs are very modest.

Should your office damage equipment due to improper use or inadequate installation or maintenance, we'll still make sure to fix your problem promptly and without complaint. Obviously, however, the warranty will not apply, nor is there any warranty for fabric damaged by infection control products.

We promise to continuously satisfy you with our products and services. We think of our customers as friends. We want to hear from you and help you improve your practice.

Sincerely,
The Staff at Ergonomic Products, Inc.

CLEANING AND DISINFECTING ERGONOMIC PRODUCTS SEATING EQUIPMENT

This section is not an attempt to specify the required intervals for disinfection, nor can we state what is the overall best surface disinfectant quite simply because there is no one best solution. However, infection control in the dental office continues to be a high priority for our customers and end users. O.S.H.A., the A.D.A., and the C.D.C. are involved in this complex issue. Please refer to the Infection Control Recommendations published by the American Dental Association for further reference.

Most fabric manufacturers hate chemical disinfectants – simply because they are unpredictable. Formulations can change, combinations of chemicals can be reactive, and the full results for every chemical on every shade of material will only be known over time. As a result, they try to discourage the use of spray and liquid disinfectants and, instead, have you wrap your beautiful new equipment in a plastic bag.

The fact of the matter is this:

- 1) Disinfectants may slowly stain your fabric.
- 2) When they stain, they stain slowly.
- 3) Darker fabrics stain less (or the change is less noticeable) than lighter shades.
- 4) If you wash the chair with soapy water after disinfection, you will minimize any potential change.
- 5) Most offices are way too busy to wash chairs after wiping!
- 6) Barrier technologies work and are the safest choice for maintaining the look of your chair. If you decide to barrier, please replace them between every patient.

When using a chemical disinfectant, always pay strict attention to the manufacturer's directions of the disinfectant. When using a concentrated disinfectant, adhere to the manufacturer's diluting directions. Disinfectant solutions that are relatively harmless to surfaces at their recommended strengths can be corrosive at higher/purer concentrations.

Unacceptable Disinfectants

These disinfectants WILL harm the surface finishes of EP equipment and are NOT recommended.

USE OF THESE PRODUCTS WILL VOID YOUR WARRANTY.

CHEMICAL COMPOSITION

Strong Phenols/Phenol-Alcohol Combinations

Sodium Hypochlorite/Household Bleach

Alcohol

Household Cleaners

TRADE NAMES

Lysol, Lysol 2, Lysol Professional, Coe Foam, Coe Spray Pump, Vitaphone, Omni II

Clorox, Ajax, Purex

Conditionally Acceptable Disinfectants *

These disinfectants have been found to be the LEAST HARMFUL to th equipment surfaces.

While none of these products are recommended for chair upholstery, most of our clients use these.

CHEMICAL COMPOSITION

Iodophors***

Mild Phenols

Glutaraldehyde/Phenol sprays

Synergized Super Quat

Phenol/Water sprays

TRADE NAMES**

Biocide, Aseptic-IDC, Wescodyne, SD5, Promedyne, Ido-Five

Procide ES, Asepti-Steryl Aerosol

Sterall Spray, Coldspor

Dis-cide, Cavicide, Kleenaseptic

Top-Cide, Sporicidin Pump Spray, Bires se

* Ergonomic Products makes no representation as to the disinfectant efficacy of these products. We make no warranty, expressed or implied, that these disinfectants will not damage the surface finishes. Damage and discoloration of the surface finishes is not covered under the warranty.

** For chairs upholstered using Ultrafabrics Ultraleather: Ultrafabrics has tested a large number of retail and commercial disinfectants on their Ultraleather (291) fabric to the Federal Standard 191A, Method 5850. The following disinfectants were found to cause no changes or damage to Ultraleather fabric in terms of tackiness, bubbling, color change, stain or loss of finish – Birex, Cavicide, Discide, Lysol, Lysol Foaming, Viraguard, Asepticare TB + 11, Pro Spray, Pro Phene, Solo and Surflets.

*** Iodophor-based disinfectants will cause yellow staining on many surfaces. Regular washing with soap and water will minimize this staining.



Sticker Information for EP 3™ Series Dental Chair

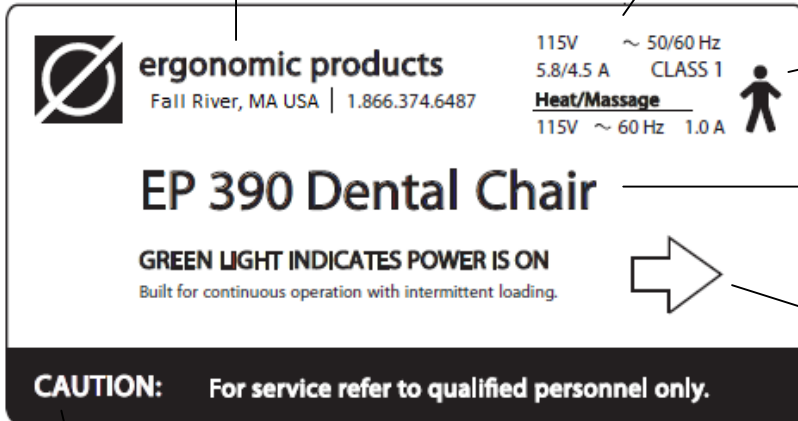
Ergonomic Products contact information.
(See the Technical support section on the first page of this manual for more contact information.)

This Indicates the power source for this chair and heat/massage components if applicable.

This Indicates that the chair is a Type B device.

EP 3 Series Dental Chair™
Model #

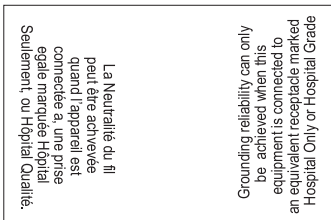
If the green light on the power switch of the chair is illuminated, then there is electrical power running to the chair.



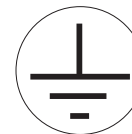
This chair contains dangerous electrical and mechanical elements. It should be serviced by qualified personnel only.



This sticker indicates that this equipment has been **Certified** by a **Third Party Organization**.



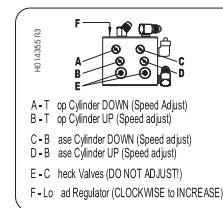
This sticker indicates that this equipment should only be used on **HOSPITAL GRADE** electrical circuits. Circuits of lesser Grade may not be able to handle the electrical load of this equipment and may cause **PROPERTY DAMAGE, INJURY, OR DEATH**.



This sticker indicates that this is a protective **GROUND** location.



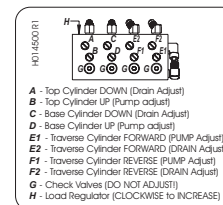
This sticker indicates that **HIGH VOLTAGE** electrical current is present in this area. **DANGER: EXTREME CAUTION** should be taken when this area is exposed. It also indicated the ratings of fuses to be used.



This sticker indicates **Adjustments for Chair Speed and Load Capacity** for the Standard Chair.



Identification. Product number, model number, and serial number. This sticker is located below the seat at your left side when you sit in the chair.



This sticker indicates **Adjustments for Chair Speed and Load Capacity** for the Traverse Chair.



- 1
 - A. Open the package from the top.
 - B. Remove the sides of the shipping box from the pallet.



- 2 Remove the Hydraulic Access Shroud. To do this, remove the two Attachment Screws (one on each side of the shroud), and slowly pull the shroud away from the chair.



- 3
 - A. Detach the chair from the shipping pallet by removing the two bolts (one on each side) located on the Base Plate.
NOTE: Use these two 7/16" diameter holes (one each side) located in the Base Plate for two hardened bolts that can properly secure the chair to the floor, if desired.
 - B. Remove the chair from the shipping pallet and move it to the location you wish to use the chair.



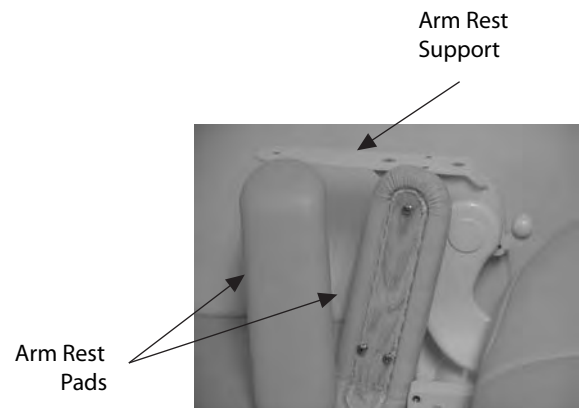
- 4
 - A. Remove shipping bolt.
CAUTION: Do not operate the chair before removing this shipping bolt.
 - B. Optional: With two hardened bolts (not included), properly secure the chair to the floor using the two 7/16" diameter thru holes located in the base of the chair.
 - C. Cut zip tie on Hydraulic Tank vent (yellow tag).
 - D. Re-install the Hydraulic Access Shroud



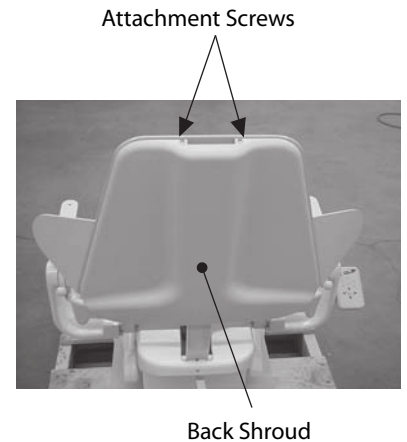


- 5
 - A. Connect any Touch Pad controls at this time.
NOTE: For Touch Pad operation, refer to IL1262 "Description of Functions - Ergonomic Products 3 Series Touch Pad" in this manual.
 - B. You may now connect the chair's power cord to a "HOSPITAL GRADE" power source.
 - C. Raise chair for ease of upholstery installation.

- 6 Remove the two Arm Rest Pads from their shipping box, and install the Arm Rest Pads, using the attached screws, to the Arm Rest Supports.



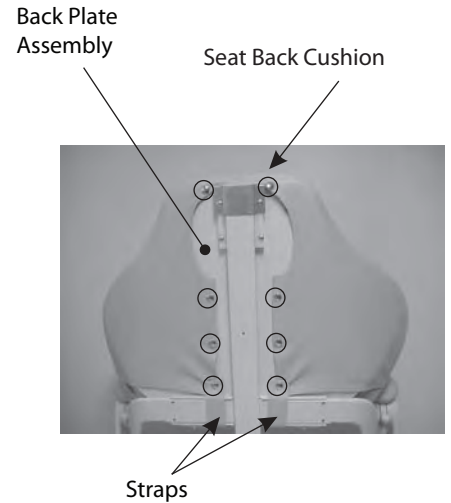
- 7 Remove the Back Shroud. To do this, while securing the Back Shroud, Loosen the two Attachment Screws and slowly slide the shroud down and away from the chair.





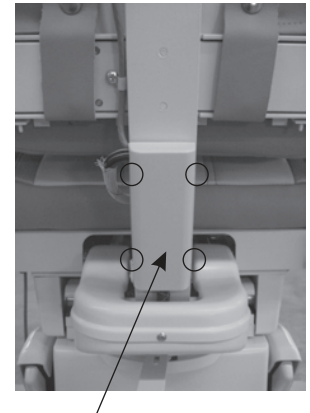
8 Remove the Seat Back Cushion from its shipping box and install. Holding the rear flaps open, attach the Back Lumbar Pad to the Back Plate Assembly.

9 From top to bottom, attach the snaps on the rear flaps and the two straps of the Back Lumbar Pad to the Back Plate Assembly in eight places.
TIP: To easily attach the two strap snaps, with one hand simultaneously place the hole located on the corner of the flap over the "male" snap and compress the cushion at the base of the strap with the "female" snap, and attach the "female" snap.



Note: If your chair does not contain heat and massage, skip to step 16 located on page 9.

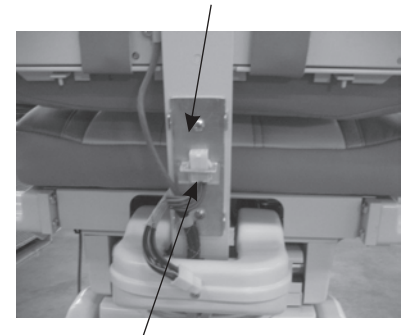
10 Remove the Heat and Massage Connection Bracket Cover located on the seat back central support spine under neath the Back Shroud, by removing four 4-40 machine screws located on each side of the cover using a #1 phillips head screw driver.



Heat and Massage Connection Bracket Cover

11 Once the Heat and Massage Connection Bracket Cover is removed, position the Seat Back Upholstery Heat and Massage Wire Harnesses. The Chair Heat and Massage Wire Harness is already pre-assembled (clipped) into the bottom of the rectangular cutout of the Heat and Massage Connection Bracket. The Seat Back Upholstery Heat and Massage Wire Harness will feed in from the top of the Connection Bracket, plugging into the secured Chair Wire Harness.

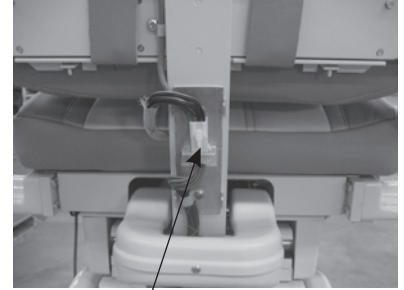
Heat and Massage Connection Bracket



Chair Heat and massage Wire Harness Connector

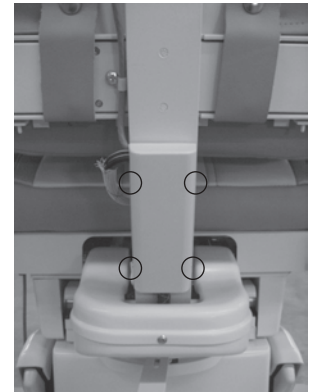


- 12 Plug the Seat Back Heat and Massage Wire Harness Connector into the mating Chair Heat and Massage Wire Harness Connector secured in the connection Bracket.



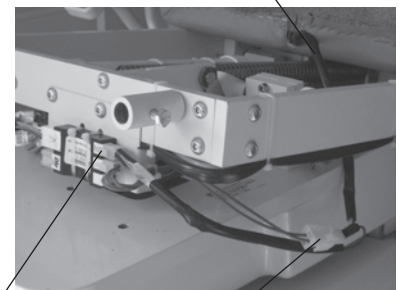
Seat Back Upholstery Heat and Massage Wire Harness Connector

- 13 Attach the Heat and Massage Wire Connection Bracket Cover using the four 4-40 threaded machine screws that were removed to take the cover off. Fasten the screws using a #1 phillips head screw driver, being careful to route both Heat and Massage Wire Harnesses and Seat Back Button Wire Harness through the proper "mouse" holes on the top left side of cover.



Seat Bottom Heat and Massage Wire Harness

- 14 The Heat Wire Harness coming out of the Seat Bottom Upholstery terminates by splitting into two separate connectors. Connector 1 plugs into the Wire Harness Two Pin Plug shown at Connection Point 1 being careful to route wires away from moving parts. Connector 2 plugs into the top right socket of the Heat and Massage Controller shown at Connection Point 2.

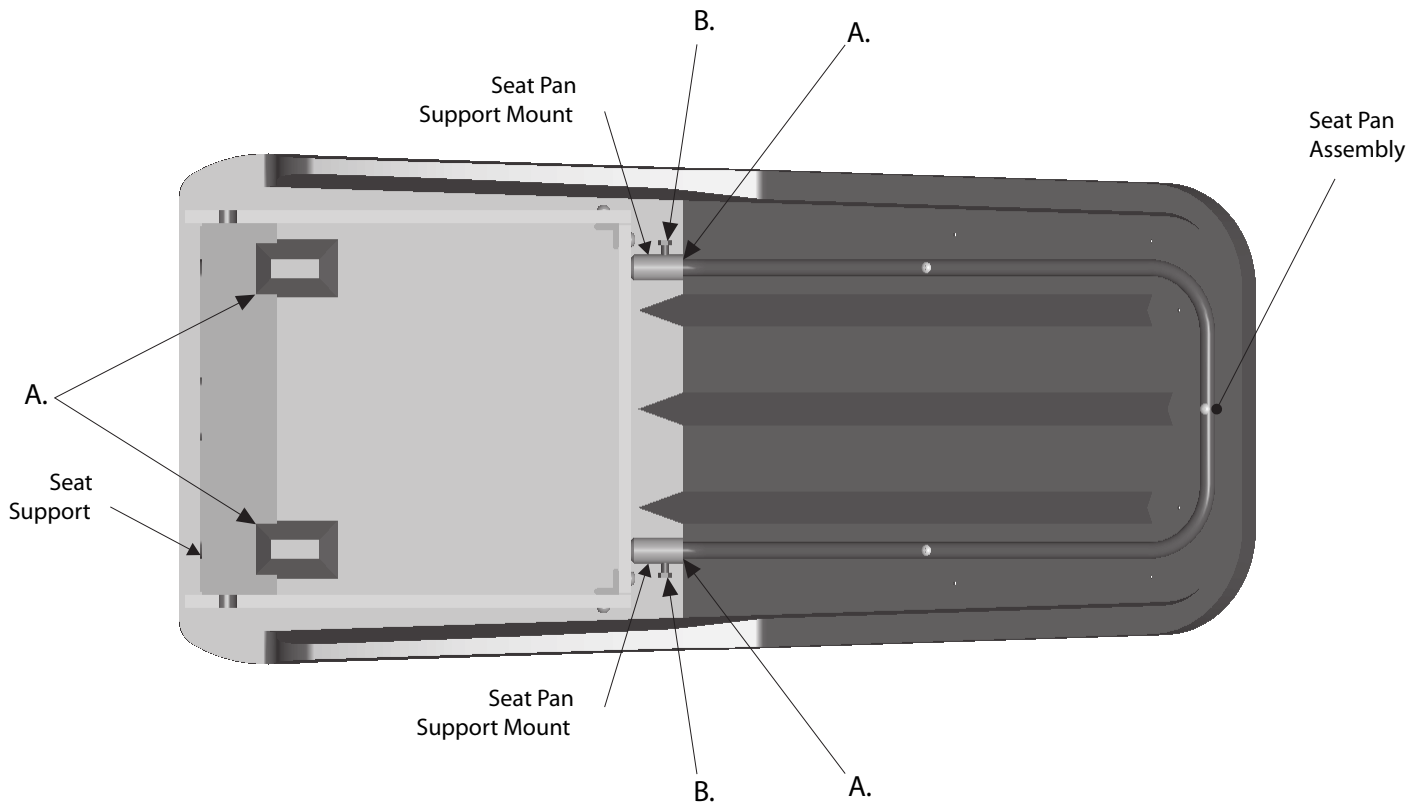


Connection Point 2 into top right socket of Heat and Massage Controller

Connection Point 1 into Wire Harness Two Pin Plug



15 Assemble seat pan onto seat frame according to the drawing and instructions below.



Partial Bottom View

- A. Simultaneously insert both Seat Pan Assembly tabs into the Seat Support and the Seat Pan Support into the Seat Pan Support Mount.
- B. Secure the Seat Pan Assembly by tightening the Adjustment Bolts.



NOTE: EP patented Arm-slings are optional on this chair. If your unit does not include Arm-slings, skip to step 19 on page 10.

16 Remove the two Arm-Slings from their shipping box.

NOTE: Left and Right Slings are not identical. The upper back end of each Sling will curve toward the center of the chair when the Sling pocket is face-down.

Align Arm-Sling pocket with chair arm. Slid pocket fully over arm (Sling on top of arm, pocket face-down)



17 Pressing firmly, snap the upper back end of the Sling to the two anchor snaps.

Anchor
Snaps

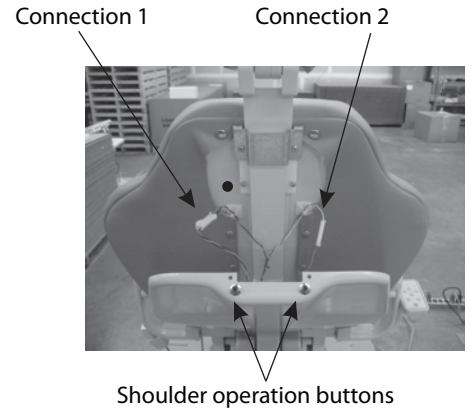


18 Repeat with second Arm-Sling.

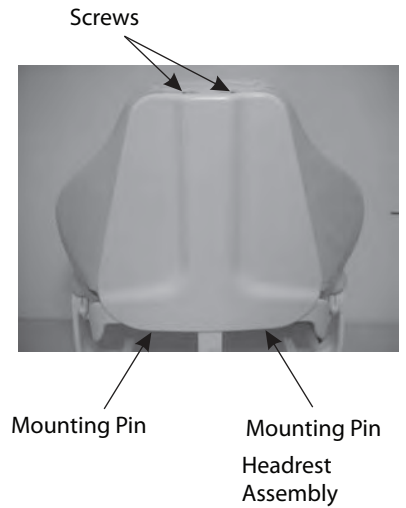




19 Next, connect seat back shoulder operation buttons by plugging in 2 wire connectors coming up from the bottom of the chair frame, to the 2 wire connectors coming from the shoulder buttons located on the back shroud. These connectors should be plugged into one another according to their matching color.



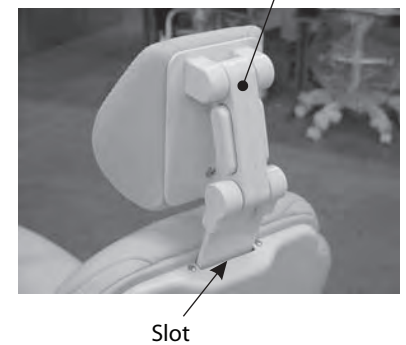
20 Reinstall the Back Shroud. To do this, guide the two Mounting Pins on the bottom of the Back Plate Assembly through the two holes on the bottom of the Back Shroud and secure.



21 Remove the Headrest from its shipping box and attach using the two 10-32 screws provided.

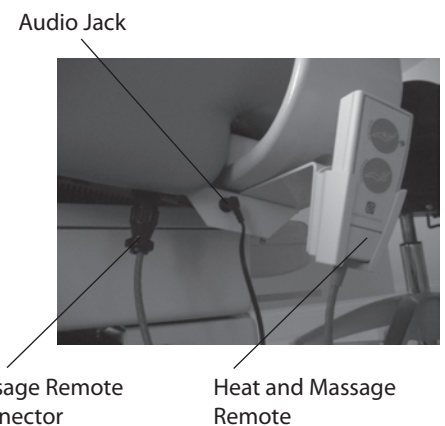
The Ergonomic Products dental chair is now ready for use.

NOTE: For Touch Pad operation, refer to IL1262 "Description of Functions - EP 3 Touch Pad" in this manual.

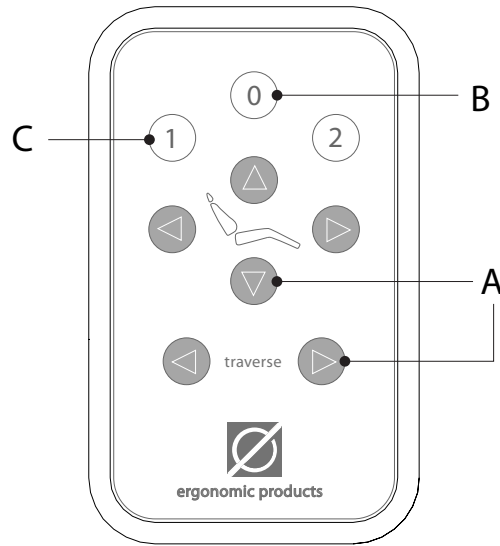


22 If your chair is equipped with Heat and Massage, connect the Heat and Massage Remote by inserting the female half of the Threaded Heat and Massage Remote Connector into the male half of the Heat and Massage Remote Connector and thread connector until tight.

NOTE: A 3mm Audio Jack is also located on this bracket. For wiring information see page 19 of this manual.



TEST ALL CHAIR FUNCTIONS



A Manual Positioning Buttons and Manual Traverse Positioning Buttons

These arrow buttons manually operate the chair in the direction indicated
The manual traverse positioning buttons move the chair forward and backward relative to the chair icon on the touch pad.

B "0" Exit Button
(Programmable exit position button)

This button is generally used to automatically and consistently return the chair to a desired preset "Patient Exit" position

Programming an exit position:

Manually position the chair using the green arrows. Once you have finished positioning the chair, press and hold the "0" button. Once the chair beeps, release the button. The chair will now return to that exit position any time the button is pressed.

C "1" and "2" Buttons
(Programmable position buttons)

These buttons are used to automatically and consistently position the chair to its pre-programmed position. One pre-programmed position is allowed per button.

Programming a position:

Manually position the chair using the green arrows. Once you have finished positioning the chair, press and hold the programmable position button of your choice. Once the chair beeps, release the button. The chair will now return to that programmed position any time that button is pressed.

"0", "1" and "2" Buttons
(Programmed position buttons)

Returning to a preset position:

After you have programmed a position into "0" or a programmable position button, you can automatically and consistently return to that position at any time by simply pressing the designated button. The chair will remember your programmed positions even after loss of power and/or unplugging the chair from its electrical source.



1 Position the chair so that the chair base and backrest is all the way up and the seat is traversed all the way forward for ease of access, then turn its Power Switch to "off" for safety.

2 Remove the Brake Shroud. To do this, first remove the "two" Mounting Screws. See Figure 1. Slowly slide the brake shroud away from the chair

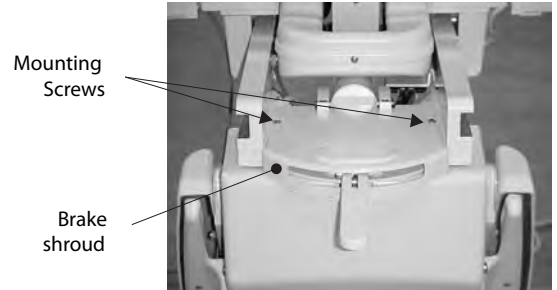


Figure 1

3 As shown, loosen the Brake Lever Bolt with a 3/16" Allen Wrench until the Brake Lever releases its grip on the large Brake Bolt (see Figure 2).

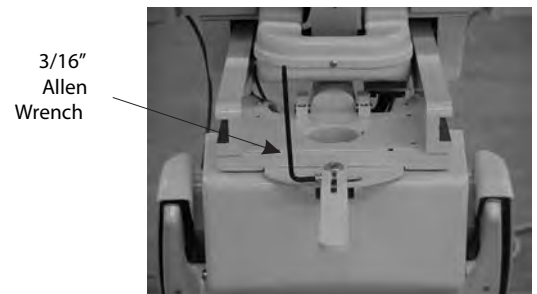


Figure 2

4 As shown, use a 3/8" Allen Wrench to tighten the Brake Bolt until the desired amount of braking resistance is achieved (see Figure 3).

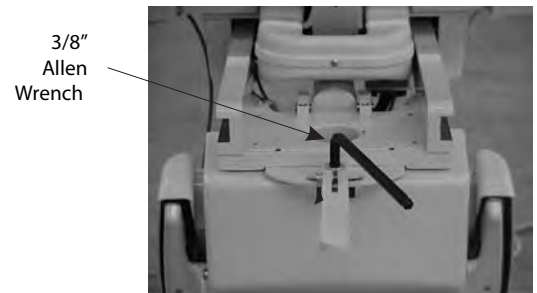


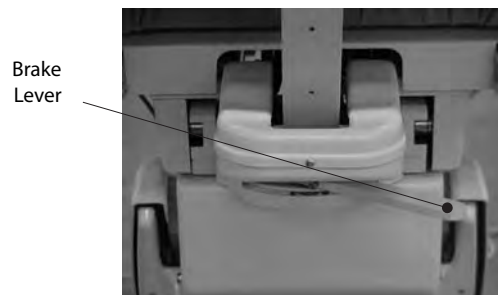
Figure 3

5 With the braking resistance achieved and constant, orient the Brake Lever so that it is in line with the front and back of the chair Base Plate, and has full gripping contact with the Brake Bolt head. Tighten the smaller Brake Lever Bolt firmly with the 3/16" Allen Wrench, so that the Brake Lever has a sufficient amount of grip on the head of the Brake Bolt, so it does not slip when the Brake is reapplied to the chair (see Figures 2 and 3).

6 Reinstall the Brake Shroud using its "two" Mounting Screws.



The Chair Top Brake is engaged when the Brake Lever handle is shifted to the left as shown.

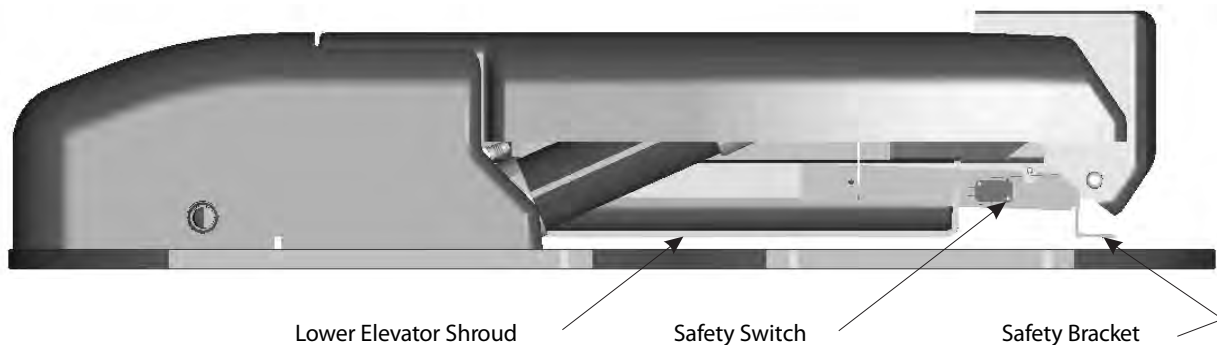


The Chair Top Brake is disengaged when the Brake Lever handle is shifted to the right as shown.



This page explains the many safety devices used to protect the patient, doctor, and chair from injury and/or damage. Do not tamper with any safety devices unless specified for the installation of an optional accessory. Ergonomic Products will not be held responsible for any damage or injury resulting from the adjustment of a safety device. All chairs are tested for correct safety device settings prior to shipment.

Lower Elevator Shroud and Safety Switch Bracket Assembly - When triggered, this Safety Switch automatically stops downward movement of the chair, but still allows the chair to be raised upward. This switch is meant to prevent the chair from crushing anything beneath the Elevator, such as a foot.



Partial Side View

Hydraulic System PCB - This advanced Printed Circuit Board continuously monitors and processes all incoming and outgoing signals from the Safety Switch, Touch Pads, Foot Controls, and Sensor Positioning Systems, and then controls the chair movements accordingly. If the PCB senses a problem with the chair positioning or safety systems, it has the ability to communicate by showing a code on its PCB Status component screen that pinpoints the cause. The PCB will then stop full chair function until the problem is resolved.

NOTE: manual positioning arrow buttons will still work for emergency patient care.

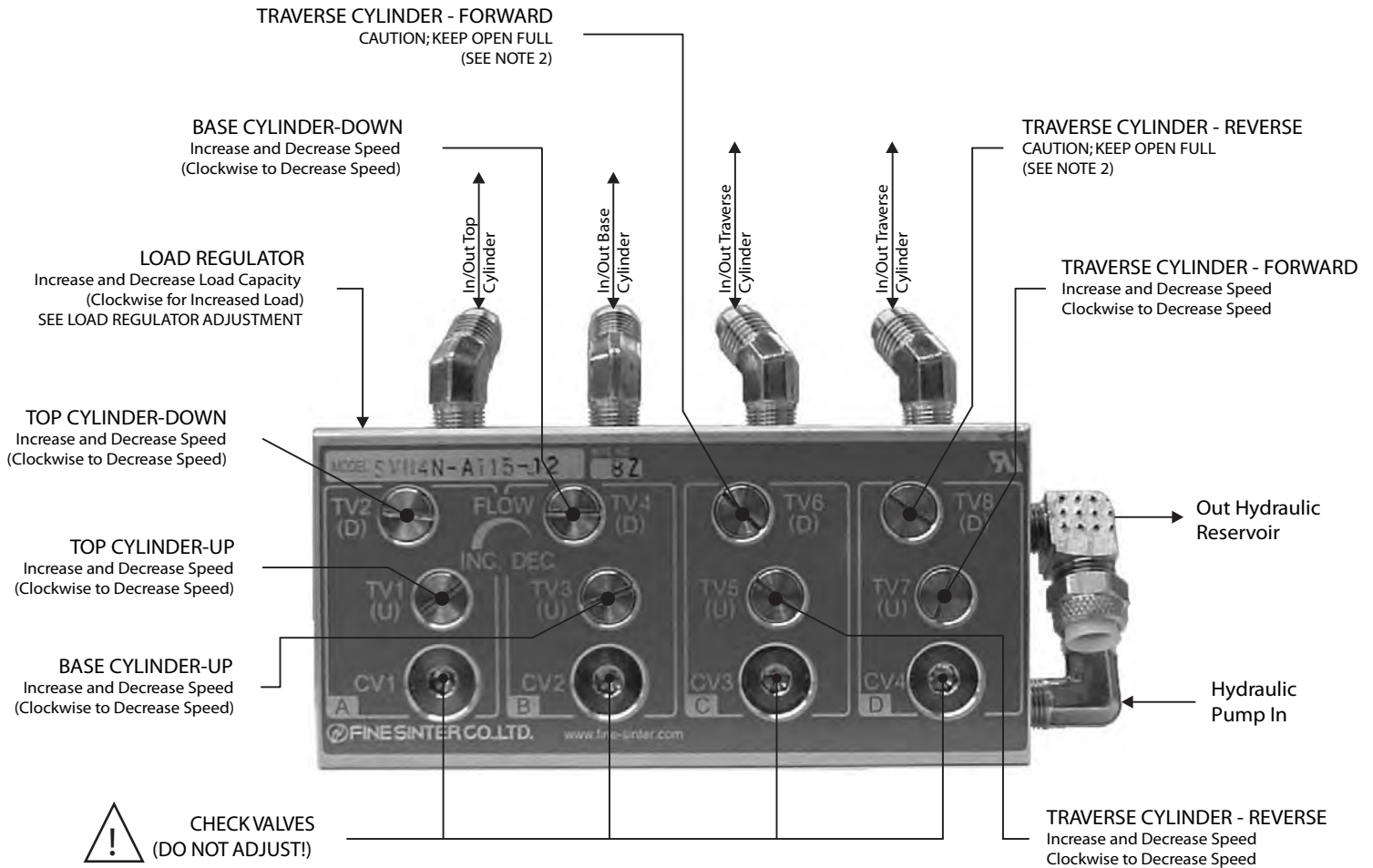


Hydraulic System PCB

Upper Sensor Positioning System



Upper/Lower Sensor Positioning System - These assemblies constantly monitor the chair's position and allows the Hydraulic System PCB to precisely and repeatedly return the chair to any preprogrammed position. Also, the Sensor Positioning System allows the Hydraulic System PCB to accurately know the end limits of the chair's movement.



CYLINDER SPEED ADJUSTMENT

To INCREASE SPEED, turn COUNTER_CLOCKWISE.

To DECREASE SPEED, turn CLOCKWISE.

NOTE 1: Top and Base Hydraulic Cylinder Maximum speed is reached when its adjustable Slotted Valve Head is located at 4-1/4 revolutions counter-clockwise from its full clockwise seated position (DO NOT over tighten) or when the top surface of the Slotted Valve Head is flush with the outside surface of the valve body.

NOTE 2: TV6 and TV8 OPEN FULL is achieved when the adjustable Slotted Valve Head is located at 4-1/4 revolutions counter-clockwise from its full clockwise seated position (Do not over tighten)

LOAD REGULATOR ADJUSTMENT

For MORE LOAD CAPACITY, turn CLOCKWISE.

For LESS LOAD CAPACITY, turn COUNTER-CLOCKWISE

• FACTORY PRE-SET (RECOMMENDED) = 525 LBS. GROSS BASE-LIFT
1 FULL REVOLUTION = 100 LBS.

PATIENT CHAIR WEIGH-CAPACITY CHART

EP 310 - 525 LBS Gross Base Lift | EP 330 - 525 LBS Gross Base Lift | EP 370 - 325 LBS Gross Base Lift | EP 390 - 325 LBS Gross Base Lift

NOTE: To return the regulated setting back to its Factory Pre-set, do so by turning the Slotted Valve clockwise until it stops (DO NOT over tighten). Then turn the Slotted Valve counter-clockwise two full revolutions.



The EP 3™ Series Dental Chair requires very little regular maintenance. The following sections outline what functions should be performed and how often.

REGULAR MAINTENANCE

- Check cleanliness of Hydraulic Oil - 1 time per year
- Check for Hydraulic Oil leaks from all fittings - 1 time per year.

HOW TO CHECK THE CLEANLINESS OF THE HYDRAULIC OIL

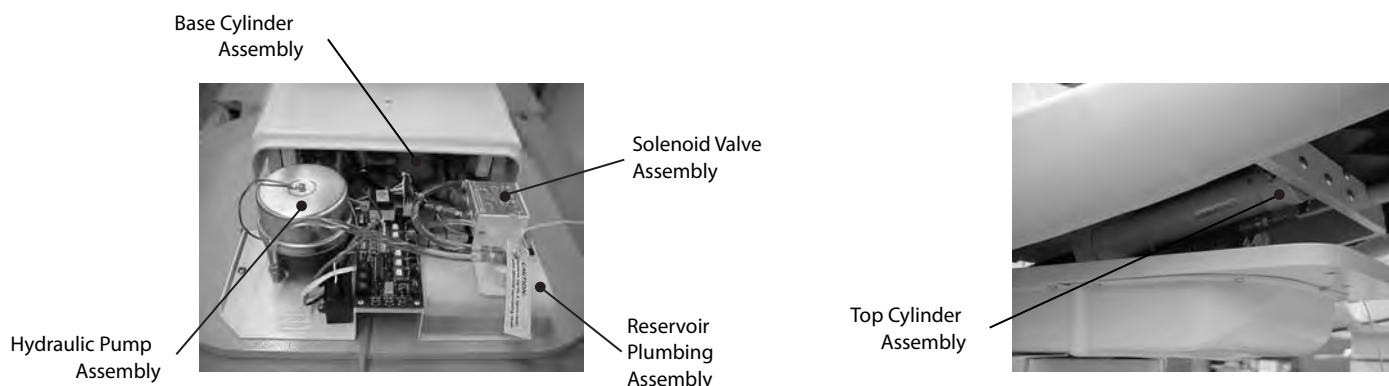
Remove the Hydraulic Access Shroud by removing the two Attachment Screws on the sides of the shroud (see step 2. of "Installation Instructions for the EP 3 Series Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).

Visibly inspect all clear low-pressure Hydraulic Fluid Lines. The Hydraulic Fluid should be clear or slightly yellow in color.

HOW TO CHECK FOR A HYDRAULIC FLUID LEAK FROM FITTINGS

Remove the Hydraulic Access Shroud by removing the two attachment screws on the sides of the Shroud (see step 2. of "Installation Instructions for the EP 3 Series Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).

Visibly inspect all fittings (a fitting is a device that connects a hose to a part) attached to the Top Cylinder Assembly, Base Cylinder Assembly, Hydraulic Pump ssembly, Solenoid Valve Assembly, and Reservoir Plumbing Assembly. If a Hydraulic Fluid leak is found from any fitting, contact your local service person immediately. The Hydraulic Fluid can be under pressure. Thus, any leaking could potentially create injury, an unsanitary mess, and potentially damage your EP system.





CAUTION: Follow safety precautions from the hydraulic fluid mfg. when handling used and unused hydraulic fluid.

HOW TO REPLACE THE HYDRAULIC FLUID

1 Raise the chair BASE to the full UP position.
Raise the chair BACK to the full UP/FORWARD Position
(This will evacuate most of the hydraulic fluid from the Hydraulic Fluid Reservoir to both Top Cylinder Assembly and Base Cylinder Assembly.)

2 ATTENTION - This step has the potential to spill fluid. Take the utmost CAUTION: You will need a drip rag and a pan or bucket that can accommodate at least 32 ounces of fluid.

- A. Remove the Hydraulic Access Shroud (see step 2. of "Installation Instructions for the EP 3 Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).
- B. Now have your drip rag and pan or bucket ready. Unscrew the Reservoir Cap from the Reservoir Plumbing Assembly. Slowly remove the Reservoir Manifold Assembly, with tubes attached, out of the Hydraulic Fluid Reservoir and, without dripping, position it in your pan or bucket.

3 ATTENTION - Steps A and B will discharge the Hydraulic Fluid. Make sure the two open large tube ends of the Reservoir Manifold are aimed inside your pan or bucket.

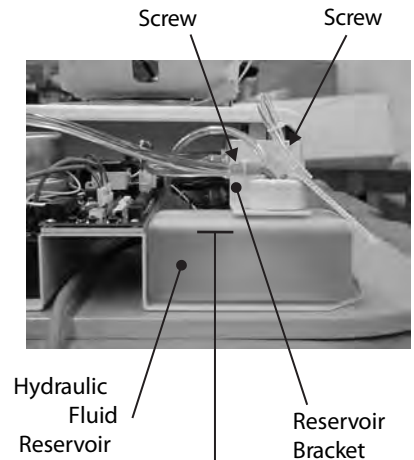
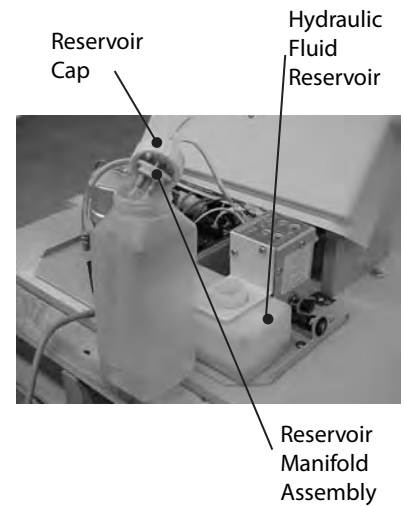
- A. Lower the chair BASE to the full DOWN position.
- B. Lower the chair BACK to the full DOWN position.

4 Now uninstall the Reservoir Bracket by removing the two screws that secure it; carefully remove the Hydraulic Fluid Reservoir and pour the remaining Hydraulic Fluid from the reservoir into your pan or bucket.

5 Reinstall the Hydraulic Fluid Reservoir Bracket by securing them using the two screws you previously removed. WITH THE CHAIR BASE AND CHAIR BACK FULLY DOWN, fill the Hydraulic Fluid Reservoir with 32 ounces or until Hydraulic Fluid level is approximately 1/8" below the reservoir ceiling, with new "Mobil DTE Oil Light" (CAUTION: DO NOT OVER FILL. IT IS IMPORTANT THAT "MOBIL DTE OIL LIGHT" FLUID BE USED). Contact Ergonomic Products if you need replacement fluid (see the first page of this manual for contact information).

6 Carefully return the Reservoir Manifold Assembly with tubes attached onto the secured Hydraulic Fluid Reservoir, then install and hand tighten the Reservoir Cap. Using the drip rag, wipe off any Hydraulic Fluid drips from the chair (HYDRAULIC FLUID WILL STAIN PAINT) and reinstall the Hydraulic Access Shroud using the two screws you previously removed.

7 Finally, you must CYCLE the chair BASE full UP and full DOWN a minimum of 3 times, and the chair BACK full UP/FORWARD and full DOWN a minimum of 3 times (this will "purge" the air bubbles that may have gotten into the hydraulic system and retain smooth, quiet operation).



NOTE: Fluid level. Base down fully, Back down fully. 1/8" below Reservoir ceiling.



Hydraulic Motor Pump

115V ~ 60Hz

3.9A

45μF

Maximum Cycle Time - 1 minute

Thermally Protected

Hydraulic Solenoid Valve

115V ~ 50/60Hz

19/13W

Maximum Cycle Time - 10 minutes

Maximum Operating Pressure - 853psi (5880kPa)

Relief Valve Setting - 853psi

Hydraulic Cylinders

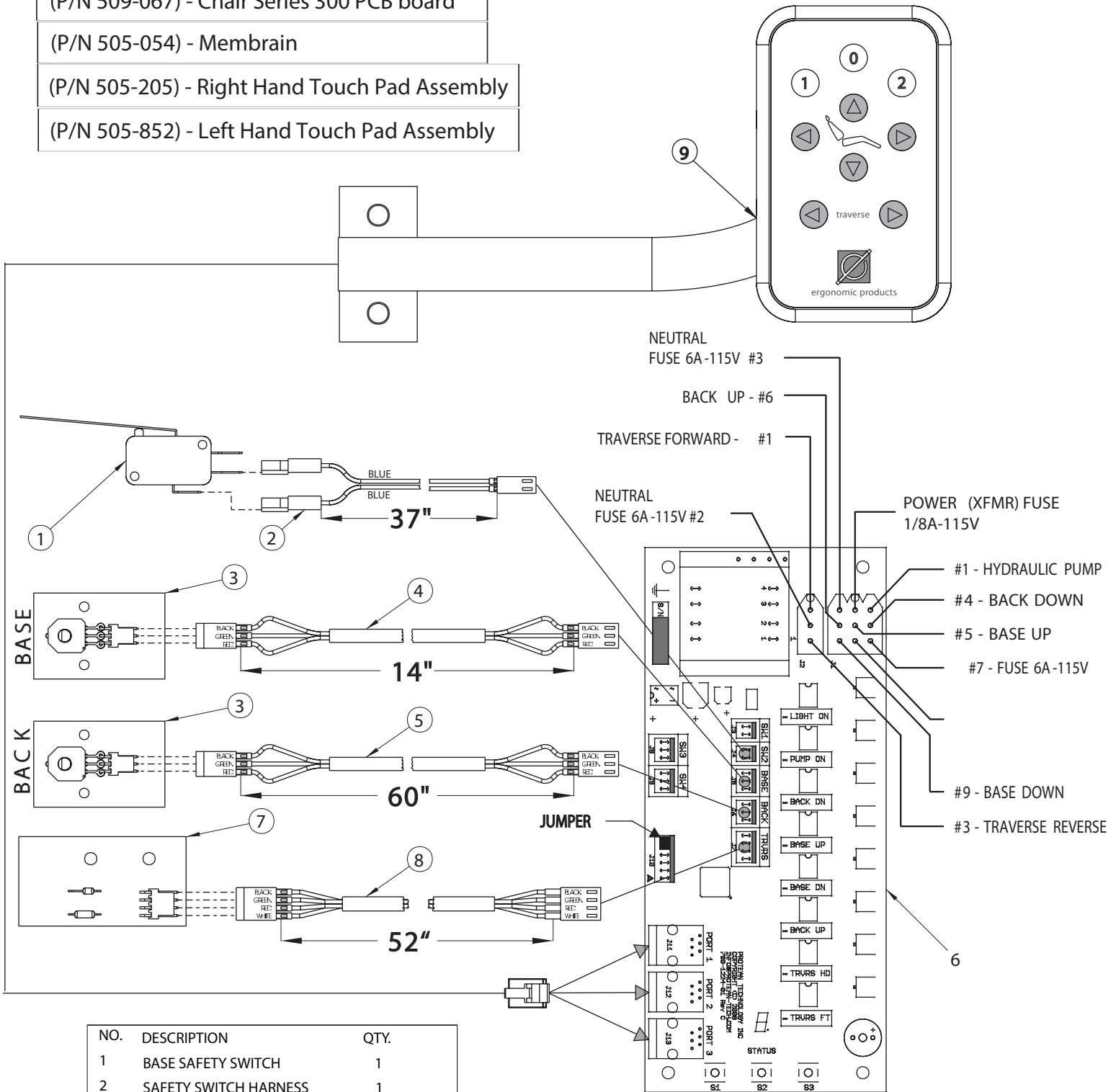
Maximum Operating Pressure - 800psi (5515kPa)
(All Cylinders)

Fuses

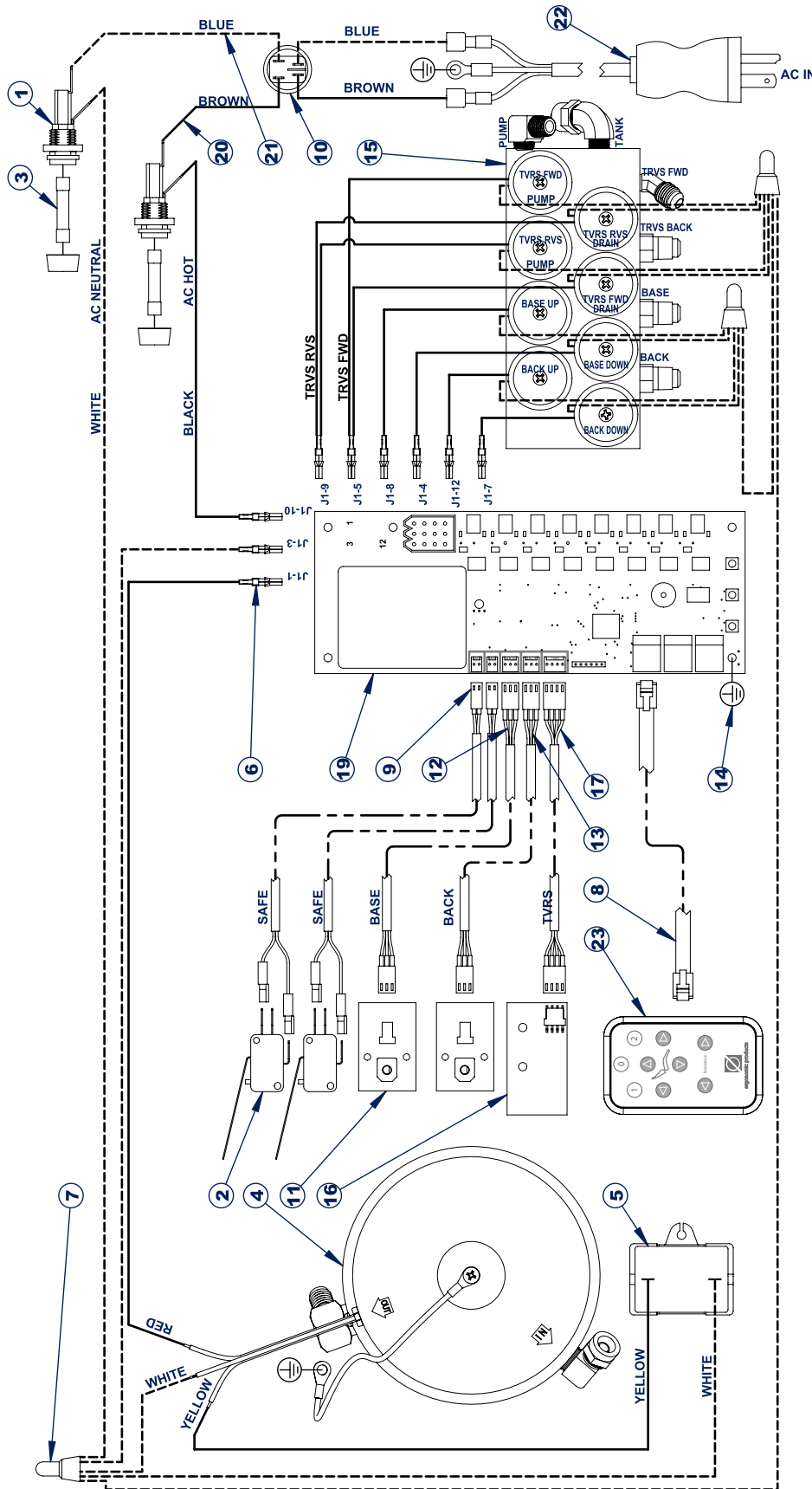
Mains Fuses - 6A 250V



- Part Replacement**
- (P/N 509-067) - Chair Series 300 PCB board
 - (P/N 505-054) - Membrain
 - (P/N 505-205) - Right Hand Touch Pad Assembly
 - (P/N 505-852) - Left Hand Touch Pad Assembly



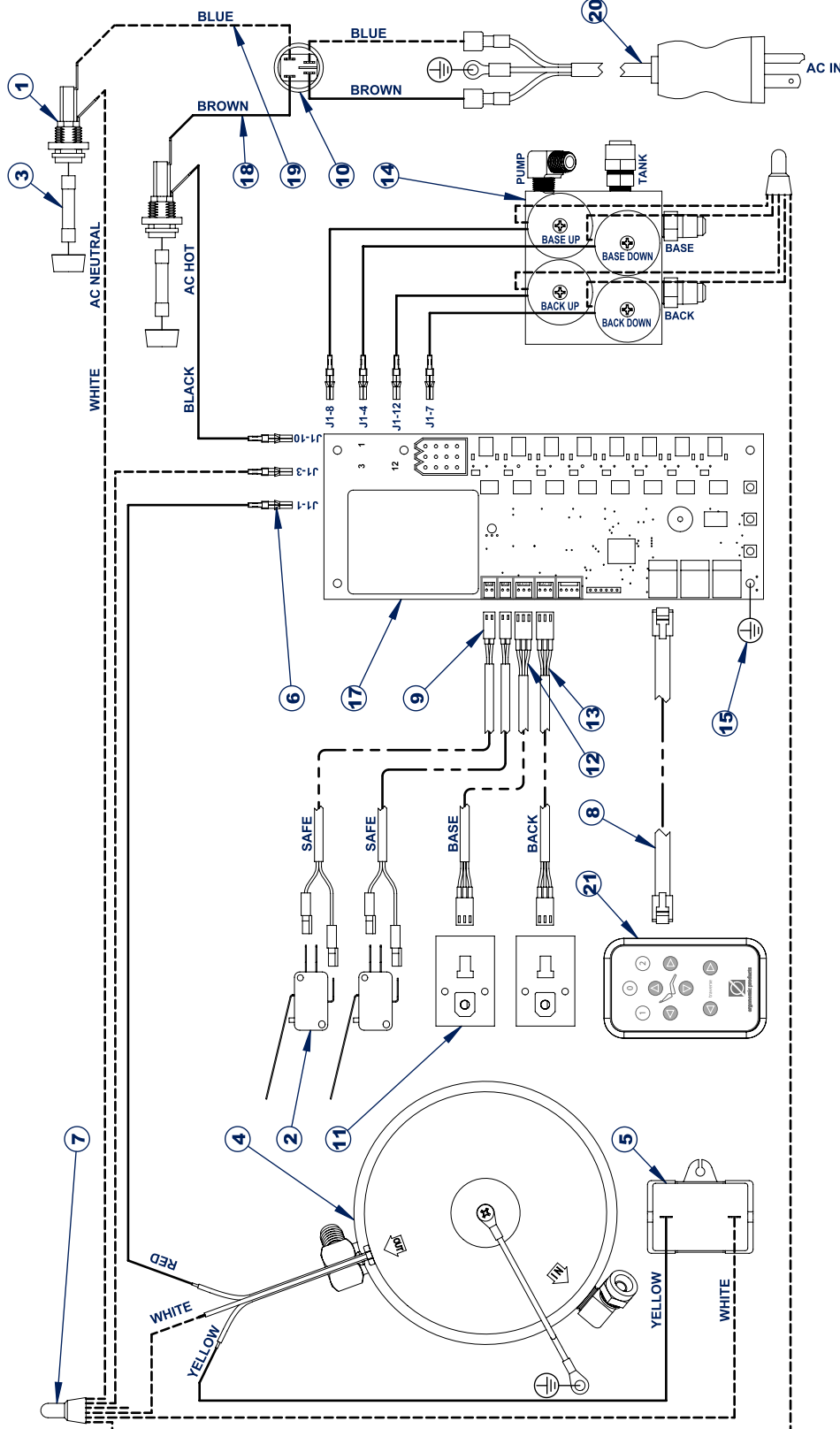
NO.	DESCRIPTION	QTY.
1	BASE SAFETY SWITCH	1
2	SAFETY SWITCH HARNESS	1
3	SENSOR P.C.B.	2
4	BASE SENSOR HARNESS	1
5	BACK SENSOR HARNESS	1
6	EP 3 P.C.B.(115V CHAIR) ⚠	1
7	EP 3 R.H.TOUCHPAD ASSEMBLY	1
8	TRAVERSE ENCODER PIGTAIL	1
9	EP 3 R.H.TOUCHPAD ASSEMBLY ⚠	1



NOTE 1: P096730R-EP - REPLACEMENT TRAVERSE T.P. ASSY, R.H.
P096731R-EP - REPLACEMENT TRAVERSE T.P. ASSY, L.H.
P096780T-EP - TRAVERSE FOOT CONTROL

* INDICATES PARTS NOT SHOWN.
** INDICATES PARTS NOT USED WITH HEAT & MASSAGE.

NO.	DESCRIPTION	QTY.	NO.	DESCRIPTION	QTY.
1	FUSE HOLDER	2	11	BACK/BASE POTENTIOMETER	2
2	LIMIT SWITCH	2	12	BASE ENCODER HARNESS	1
3	6A F.A. FUSE (AGC-6)	2	13	BACK ENCODER HARNESS	1
4	PUMP MOTOR ASSY - 120V	1	14	* GROUND WIRE ASSEMBLY	1
5	PUMP CAPACITOR, 120V	1	15	SOLENOID ASSY (120V) - TRAVERSE	1
6	FEMALE PIN CONNECTOR	9	16	TRAVERSE ENCODER BOARD	1
7	CONNECTOR - CLOSED END	3	17	TRAVERSE ENCODER HARNESS	1
8	TOUCH PAD CABLE - TRAVERSE (102')	2	18	* 12 CONTACT MOLEX PLUG	1
9	SAFETY SWITCH HARNESS	2	19	POWER CONTROL BOARD	1
10	ROCKER SWITCH (120V) - GREEN	1	20	** BROWN POWER LEAD	1
			21	** BLUE POWER LEAD	1
			22	POWER CORD ASSEMBLY (120V)	1
			23	TOUCH PAD OR FOOT CONTROL	1



NOTE 1: P096660R-EP - REPLACEMENT T.P. ASSY, LEFT HAND
 P096662R-EP - REPLACEMENT T.P. ASSY, RIGHT HAND
 P096780-EP - STANDARD FOOT CONTROL
 *INDICATES PARTS NOT SHOWN.

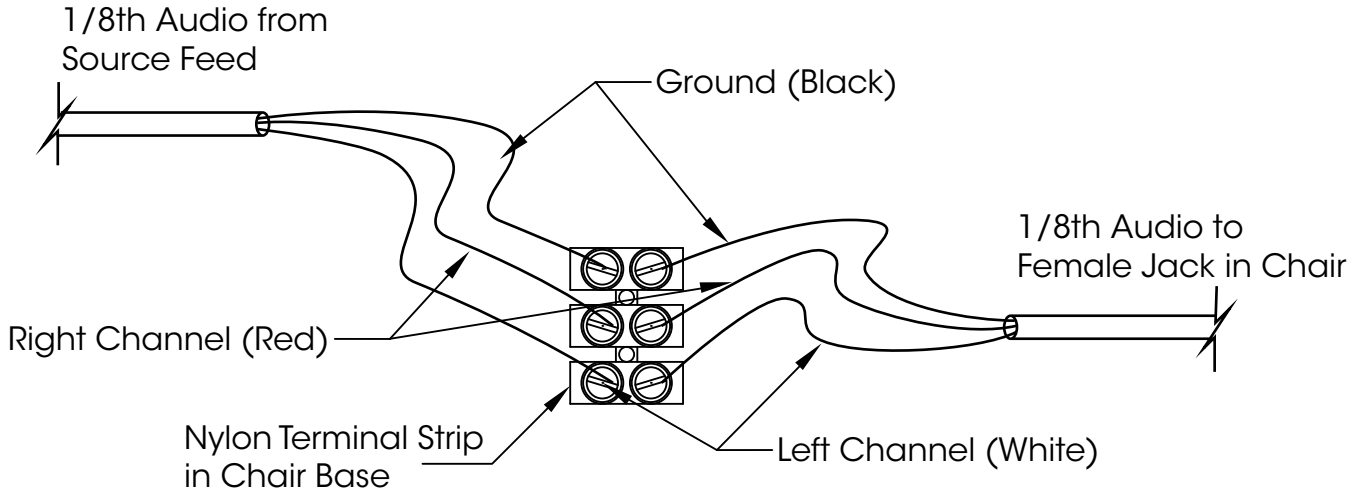
NO.	DESCRIPTION	QTY.
21	TOUCH PAD OR FOOT CONTROL	1

NO.	DESCRIPTION	QTY.
11	BACK/BASE POTENTIOMETER	2
12	BASE ENCODER HARNESS	1
13	BACK ENCODER HARNESS	1
14	SOLENOID VALVE ASSEMBLY (120V)	1
15	* GROUND WIRE ASSEMBLY	1
16	** 12 CONTACT MALE PLUG	1
17	POWER CONTROL BOARD	1
18	** BROWN POWER LEAD	1
19	** BLUE POWER LEAD	1
20	POWER CORD ASSEMBLY (120V)	1

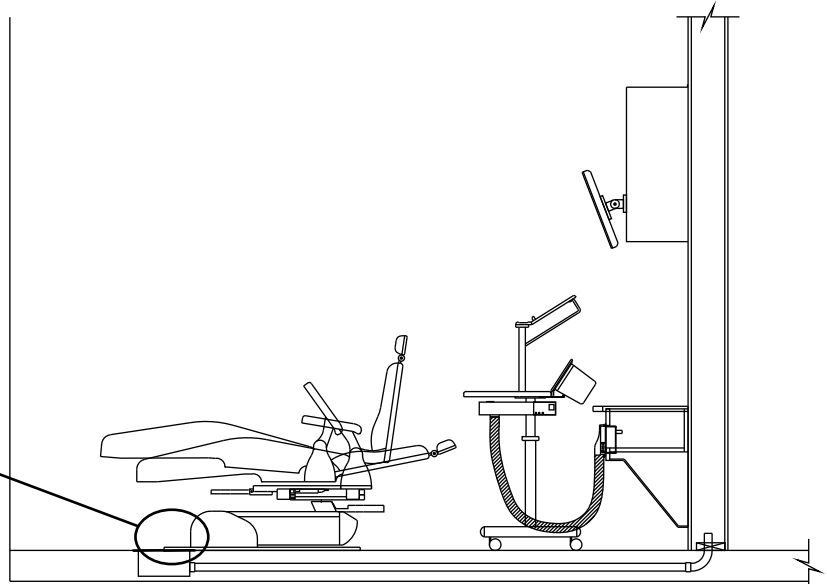
NO.	DESCRIPTION	QTY.
1	FUSE HOLDER	2
2	LIMIT SWITCH	2
3	6A F.A. FUSE (AGC-6)	2
4	PUMP MOTOR ASSY - 120V	1
5	PUMP CAPACITOR, 120V	1
6	FEMALE PIN CONNECTOR	7
7	CONNECTOR - CLOSED END	2
8	TOUCH PAD CABLE - TRAVERSE (73")	2
9	SAFETY SWITCH HARNESS	2
10	ROCKER SWITCH (120V) - GREEN	1



Headphone Jack Connection



Chair Base to Junction Box in Floor Connections



TYP. ROOM SECTION
AUDIO RUNS FROM SOURCE (PC OR TV) THROUGH HEADWALL & CONDUIT UNDER FLOOR TO J-BOX AT TOE OF CHAIR

EP 390 CHAIR
AUDIO JACK WIRING
 C-10/21/07



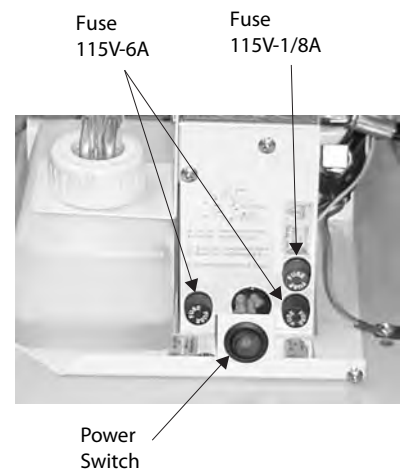
DANGER: Stay away from high voltage components. Make sure to UNPLUG the chair's POWER CORD from its POWER SOURCE any time the Hydraulic Access Shroud is uninstalled unless otherwise specified (see step 2 of page 4 "installation Instructions for the EP 3 Series Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).

THE CHAIR DOESN'T WORK: Green Power Light "OFF" (115V chair)
Power Switch "ON"

- Is the chair plugged into a working outlet? Make sure to check the circuit breaker.
- Are the fuses blown? (**DANGER:** Make sure chair Power Cord is unplugged.) The fuses are located inside the Hydraulic Access Shroud, near the Power Switch. If they are blown, replace them with the correct fuses for your chair:

115V Chair - 6A, 250V fuses (P/N 014-250)
115V Chair - 1/8A, 250V fuse (P/N 014-234)

- Has the power cord been damaged? (**DANGER:** Make sure chair Power Cord is unplugged.) Visibly inspect the cord and its connections to the chair base.



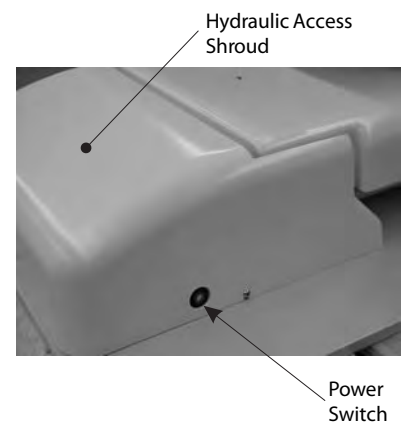
THE CHAIR DOESN'T WORK: Green Power Light "ON" (115V chair)
Power Switch "ON"

- Verify that your Touch Pad and/or Foot Control are each plugged into one of the three control ports on the Printed Circuit Board located inside the Hydraulic Access Shroud.
- Check Hydraulic PCB Status Screen for an error code, and troubleshoot accordingly using page "3 of 3" of this section ("Troubleshooting the EP 3™ Series Dental Chair).

If the problem persists, please contact the Ergonomic Products Technical Support Team to help diagnose the problem.

REPEATED PRESSING OF A TOUCH PAD OR FOOT CONTROL BUTTON IS REQUIRED TO REACH CORRECT POSITION:

- This problem is typically due to a bad connection or a broken wire in an Encoder harness. Check Hydraulic PCB Status Screen for an error code, and troubleshoot accordingly using page "3 of 3" of this section ("Troubleshooting the EP 3™ Series Dental Chair).



If the problem persists, please contact the Ergonomic Products Technical Support Team to help diagnose the problem (See the page 1 of this manual for contact information).



DANGER: Stay away from high voltage components. Make sure to UNPLUG the chair's POWER SOURCE any time the Hydraulic Access Shroud is uninstalled unless otherwise specified (see step 2 of page 4 "Installation Instructions for the EP 3™ Series Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).

THE CHAIR MAKES A SQUEALING SOUND WHEN MOVING:

- There is air in your hydraulic system. Cycle the chair base completely up and down 3 times and cycle the chair back completely up and down 3 times. If this doesn't correct the problem, check your hydraulic fluid level (The Hydraulic Fluid Reservoir is located inside the Hydraulic Access Shroud).

HOW TO CHECK AND RETAIN CORRECT FLUID LEVEL:

- Lower the chair base down completely (IMPORTANT).
- Recline the chair back down completely (IMPORTANT).
- The fluid level in the Hydraulic Fluid Reservoir needs to be 1/8" below the reservoir ceiling or 32 ounces of hydraulic fluid.
- If the fluid level is low, add "Mobil DTE Oil Light" hydraulic fluid (IT IS IMPORTANT THAT "MOBIL DTE OIL LIGHT" FLUID BE USED) to the Hydraulic Fluid Reservoir until the fluid level is approximately 1/8" below the reservoir ceiling or 32 ounces of hydraulic fluid. DO NOT OVER FILL. See the picture of noted fluid level on page 15 of this manual, "Scheduled maintenance for the EP 3 Series Dental Chair."
- Now cycle the chair as described above in "The Chair Makes A Squealing Sound When Moving."

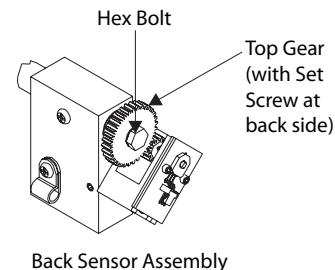
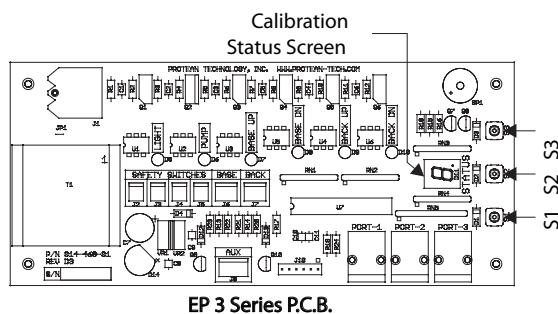
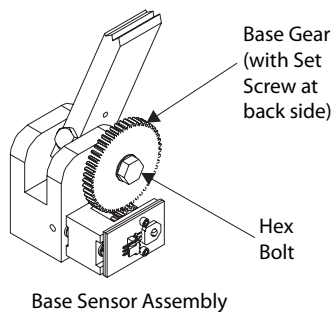
If the problem persists, please contact the Ergonomic Products Technical Support Team to help diagnose the problem (see page 1 of this manual for contact information).



DANGER: Stay away from high voltage components. Make sure to UNPLUG the chair's POWER SOURCE any time the Hydraulic Access Shroud is uninstalled unless otherwise specified (see step 2 of page 4 "Installation Instructions for the EP 3™ Series Dental Chair" in this manual for a detailed version of removing the Hydraulic Access Shroud).

EP 3 SERIES POWER PACK PCB TROUBLESHOOTING GUIDE

CODE	DESCRIPTION	ACTION	LOCATION
	Operating Mode (Circular running Dash)	Note: If the chair is malfunctioning, refer to Base and Back Calibration.	N/A
C	In Status and Calibration Mode	Press S1, then S2, then S3. Cycle the chair Power Switch OFF/ON to exit & return to operating mode. Also refer to Base & Back Calibration sticker	Above Base Plate at Power Pack.
F	Safety Switch engaged	Make sure the Safety Switch assembly is functioning properly.	Below seat level at back of chair.
7	Base Sensor connection fault	Make sure the Base Sensor wiring harness is installed properly in its designated parts. Check for broken connections in harness assembly.	Harness location is from the Power Pack PCB to Base Sensor assembly PCB on Base Plate.
8	Back Sensor connection fault	Make sure the Back Sensor wiring harness is installed properly in its designated parts. Check for broken connections in harness assembly.	Harness location is from the Power Pack PCB to Back Sensor assembly PCB under seat.
9	Base & Back Sensor connection fault	Make sure the Base & Back Sensor wiring harness is installed properly in its designated parts. Check for broken connections in harness assembly.	See Code 7 Base assembly location. See Code 8 Back assembly location.



EP 3 SERIES BACK AND BASE ENCODER CALIBRATION

- STEP 1. Locate the EP 3 Series P.C.B. under the Power Shroud on the Base Plate.
- STEP 2. **IMPORTANT** - Press buttons S1 and S3 on the P.C.B. simultaneously and manually position the chair until its BASE IS COMPLETELY DOWN FULL, then press button S2 on the P.C.B. until the chair BACK IS COMPLETELY UP FULL.
- STEP 3. Enter calibration mode by simultaneously pressing S1, S2, and S3, located on the front of the PCB, until an audible beep is heard and the Status component indicates the letter "C."
- STEP 4. Press and release S1 on the PCB to check calibration of the Base Sensor assembly located on the Base Plate and S2 to check calibration of the Back Sensor located under the seat. **NOTE: IF THE DASH APPEARS AT ITS CENTER LOCATION ON THE P.C.B. STATUS COMPONENT FOR S1 AND S2, SKIP STEP 5 AND PROCEED TO STEP 6. CHAIR DOES NOT NEED CALIBRATION**
- STEP 5. For this step, remove the Seat Pan assembly and/or the Upper Elevator Shroud, depending on which Sensor assembly needs calibration. After choosing a Sensor assembly as noted in STEP 4, loosen the Set Screw first and Hex Bolt second, from the large gear of the particular Sensor assembly to be calibrated. Rotate the large gear until the dash symbol appears in its center location on the PCB Status component. Adjust it so that it is located in the middle of that center dash segment. Precisely maintain that calibrated large gear position and tighten the Hex Bolt first and then the Set Screw second. That Sensor is now calibrated. Repeat for the other Sensor assembly. **IMPORTANT: DO NOT RE-POSITION THE CHAIR FROM ITS FULL BASE DOWN AND FULL BACK UP CALIBRATION POSITION BEFORE STEP 6.**
- STEP 6. press S3 on the P.C.B., then cycle the chair Power Switch OFF/ON to exit and return to Operating Mode. The Status component on the PCB will show a P Series number, then a circle running dash (Operating Mode). Re-install the Seat Pan and /or Upper Elevator Shroud, and Power Shroud.

Clearing all pre-programmed positions

- Step 1. Push the Power Switch to the OFF position for a minimum of 2 seconds.
 - Step 2. Press and hold down button S1, S2, OR S3 on the PCB while pushing the Power Switch to the ON position.
 - Step 3. The Letter "L" will appear on the PCB Status component to confirm deletion, then release the button.
- All pre-programmed positions are now deleted.



General Dimensions - EP 3™ Series Dental Chairs

