

# INSTALLATION AND OPERATING INSTRUCTIONS

OWNERS MANUAL

EN | FR

## MODEL 520 LOW VOLTAGE CONTROL CHAIR



— **Reliance** —  
MEDICAL PRODUCTS, INC.®

## **SERIAL NUMBER**

**For your future reference, mark the serial number  
in the space provided.**



QUALITY MANAGEMENT  
SYSTEM  
REGISTERED TO  
ISO 9001  
ISO 13485





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## IMPORTANT INFORMATION

### SAFETY SYMBOLS

 **“DANGER”, “WARNING”, or “CAUTION”**  
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in this Installation and Operating Instructions.

 **« DANGER », « AVERTISSEMENT », ou « PRÉCAUTION »**  
Le point d'exclamation à l'intérieur d'un triangle équilatéral vise à alerter l'utilisateur à la présence d'importantes instructions de fonctionnement et de maintenance (service) dans ce manuel d'installation et d'instructions de fonctionnement.

 **“NOTE”**  
Amplifies a procedure, practice, or condition.

 **« REMARQUE »**  
Amplifie une procédure, pratique ou condition.



Type B, Applied Part



Dangerous Voltage / Shock Hazard



Fuse Rating Specification



Protective Earth Ground



Burn Hazard/Hot Surface



Alternating Current-AC



Safe Working Load



“Attention, Consult Accompanying Documents”



Refer to Instruction Manual/Booklet

### TRANSPORTATION / STORAGE CONDITIONS

Temperature: Operating: 59 to 104° F  
15 to 40° C

Storage: -22 to +140° F  
-30 to +60° C

Relative Humidity: Operating: 5 to 95% without condensation

Storage: 10 to 100% including condensation

Atmospheric Pressure:

Operating: 700hPa - 1060hPa

Storage: 500hPa - 1060hPa

## 1. INTRODUCTION

1.1. This manual contains information applicable only to the Reliance® Model 520 Chair.

1.2. Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.



**“DANGER”- THE DANGER SYMBOL IDENTIFIES SPECIAL INSTRUCTIONS OR PROCEDURES WHICH, IF NOT CORRECTLY FOLLOWED, COULD RESULT IN LOSS OF LIFE OR PERSONAL INJURY.**



**« DANGER » : LE SYMBOLE DANGER IDENTIFIE DES INSTRUCTIONS OU PROCÉDURES SPÉCIALES QUI, SI ELLES NE SONT PAS SUIVIES CORRECTEMENT, POURRAIENT CAUSER UNE PERTE DE VIE OU UNE BLESSURE.**



**“WARNING”- THE WARNING SYMBOL IDENTIFIES SPECIAL INSTRUCTIONS OR PROCEDURES WHICH, IF NOT CORRECTLY FOLLOWED, COULD RESULT IN PERSONAL INJURY.**



**« AVERTISSEMENT » : LE SYMBOLE AVERTISSEMENT IDENTIFIE DES INSTRUCTIONS OU PROCÉDURES SPÉCIALES QUI, SI ELLES NE SONT PAS SUIVIES CORRECTEMENT, POURRAIENT CAUSER UNE BLESSURE.**



**“CAUTION”- This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.**



**« PRÉCAUTION » : Ce symbole de précaution identifie des instructions ou procédures spéciales qui, si elles ne sont pas strictement suivies, pourraient causer un dommage ou la destruction de l'équipement.**



**“NOTE”- Note indicates points of particular or additional information.**



**« REMARQUE » : Remarque indique des points d'intérêt particulier ou des renseignements additionnels.**

1.3 Should your product not perform properly, or if you have any questions concerning the use and care of any Reliance® product, contact the Reliance® Distributor, where you purchased this product or contact the Technical Service Department, Reliance® Medical Products, Inc., 3535 Kings Mills Road, Mason, Ohio 45040-2303, or call (800) 735-0358.



**NOTE:** Always have the model number and serial number available before contacting Reliance® or your authorized Reliance® Distributor.



**REMARQUE :** Ayez toujours le numéro de modèle et le numéro de série à portée de la main avant de contacter Reliance® ou votre distributeur Reliance® autorisé.

**“CLASSIFIED BY CANADIAN STANDARDS ASSOCIATION® WITH RESPECT TO ELECTRIC SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH UL 60601-1.”**

According to Clause 5 in IEC 60601-1, sec 6.8.1, this unit is classified by the following:

- The type of protection against electric shock: EQUIPMENT energized from an external electrical power source: CLASS I EQUIPMENT
- The degree of protection against electric shock: TYPE B EQUIPMENT
- The degree of protection against harmful ingress of water: ORDINARY DEGREE
- The degree of safety of application in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE: EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE
- The mode of operation: CONTINUOUS OPERATION



**WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**




**AVERTISSEMENT : POUR ÉVITER UN INCENDIE OU UN RISQUE DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET ÉQUIPEMENT À LA PLUIE OU À L'HUMIDITÉ.**

## TECHNICAL SPECIFICATIONS

### Rating for 120V Low Voltage Chair

This equipment is rated Class I, Type B

Equipment		Model
Low Voltage Chair		520
Volts	Hertz	Amps
120V	50/60	6.3
Class I	Type B	





ANSI / AAMI  
ES60601-1: 2005  
CAN / CSA-C22.2  
NO. 60601-1-08

### Rating for 220-240V Low Voltage Chair

This equipment is rated Class I, Type B

Equipment		Model
Low Voltage Chair		520
Volts	Hertz	Amps
220-240V	50/60	4.0
Class I	Type B	




ANSI / AAMI  
ES60601-1: 2005  
CAN / CSA-C22.2  
NO. 60601-1-08



## IMPORTANT USER WARNINGS



**WARNING: EXPLOSION HAZARD. THIS EQUIPMENT MUST NOT BE USED IN THE PRESENCE OF FLAMMABLE ANESTHETICS.**



**AVERTISSEMENT : RISQUE D'EXPLOSION. CET ÉQUIPEMENT NE DOIT PAS ÊTRE UTILISÉ EN PRÉSENCE D'ANESTHÉSQUES INFLAMMABLES.**

## POTENTIAL ELECTROMAGNETIC or OTHER INTERFERENCE

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.



**WARNING - STORAGE OF THIS EQUIPMENT BELOW 40°F (4.4°C) WILL CAUSE THE HYDRAULIC OIL TO BECOME THICK. THIS MAY CAUSE UNUSUAL NOISES WHEN THE BASE MOTOR IS OPERATED. IT IS RECOMMENDED THAT THE EQUIPMENT STAY AT A TEMPERATURE OF 60°F (15.6°C) OR ABOVE FOR AT LEAST 8 HOURS BEFORE OPERATING.**



**AVERTISSEMENT : L'ENTREPOSAGE DE CET ÉQUIPEMENT À MOINS DE 4,4°C (40°F) FERA EN SORTE QUE L'HUILE HYDRAULIQUE DEVIENDRA ÉPAISSE. CECI POURRAIT CAUSER DES BRUITS INHABITUELS LORSQUE LE MOTEUR DE LA BASE FONCTIONNE. ON RECOMMANDE QUE L'ÉQUIPEMENT DEMEURE À UNE TEMPÉRATURE DE 15,6°C (60°F) OU PLUS DURANT AU MOINS 8 HEURES AVANT DE L'UTILISER.**

## 2. INSTALLATION

### 2.1. Unpacking

#### 2.1.1. Chair

2.1.1.1. Cut the shipping bands, open the top of the shipping carton, and remove all packing material and boxes that can be easily reached. Remove (4) nuts and remove both base clamping boards.

2.1.1.2. It is recommended that the skid be positioned as close as possible to the desired Chair location.

2.1.1.3. Remove at least two small shipping blocks stapled to the top of the skid. The Chair can now be slid and/or tipped from the skid onto the floor.

2.1.1.4. Do not lift the Chair by the upper structure. However, the Chair may be tipped or slid into position by pushing or pulling on the upper structure.

2.1.1.5. With the Chair in position, remove all remaining paper pads, plastic, tape, strings, etc.

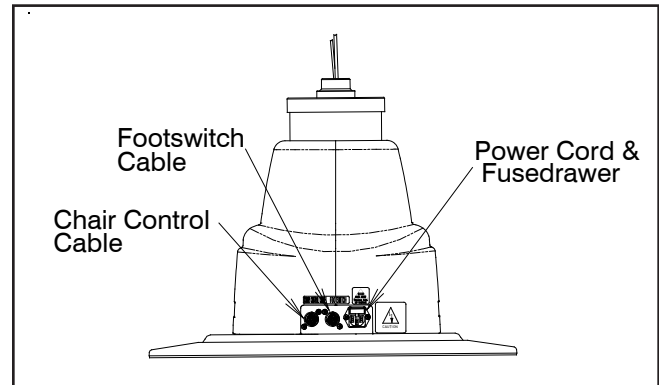
### 2.2. Assembly

#### 2.2.1. Headrest

2.2.1.1. Remove the Headrest from its carton. Begin removing the seat upholstery by loosening the two screws under the front of the seat by about  $\frac{1}{4}$ ". See item 43 Figure 6. Move the bottom front edge of the seat up slightly and forward while moving the upper back edge of the seat in a downward direction. The two screws loosened must move up and out of slots in the seat frame. Two clips on the upper back of the seat upholstery must disengage from the seat frame with a downward motion. Attach Headrest to Chair frame using two  $\frac{5}{16}$  x  $\frac{5}{8}$  socket hex head cap screws supplied with Chair. Replace seat upholstery with a reverse motion of removal. The two screws must drop in and engage into the slots in the front edge of the seat frame. The two clips on the back of the upholstery must travel behind the plate on the upper end of the seat frame. Once the upholstery is in place tighten the two screws.

#### 2.2.2. Power Receptacle

2.2.2.1. Locate the Footswitch assembly, Chair Control Cable, and the Power Cord Assembly. Refer to figure 1 for receptacle location and attach all cables.



**FIGURE 1  
BASE**

2.2.2.2. To disconnect power to Chair unplug Power Cord from Instrument Stand or from wall receptacle.



**NOTE:** If this Chair is purchased in conjunction with a Reliance® Instrument Stand, the Chair Control Cable supplied will provide proper operation. Refer to the Instrument Stand Manual for connection to the Stand.



**REMARQUE :** Si cette chaise est achetée avec un support à instruments Reliance®, le câble de commande de la chaise fourni permettra un fonctionnement adéquat. Se référer au manuel du support d'instrument pour savoir comment faire la connexion au support.

### 3. OPERATION



**CAUTION-** Caution should be taken to ensure there are no obstructions (instruments, trays, tables) impeding movement of the Chair



**PRÉCAUTION :** On devrait faire attention pour s'assurer qu'il n'y a pas d'obstructions (instruments, plateaux, tables) empêchant le mouvement de la chaise.

Each time main power is applied to the Chair, the circuit board inside the Chair will respond with a one second beep. The beep indicates the electronics are functioning properly.

#### 3.1. Chair Lift

##### 3.1.1. Raising & Lowering the Chair Lift from the Footswitch

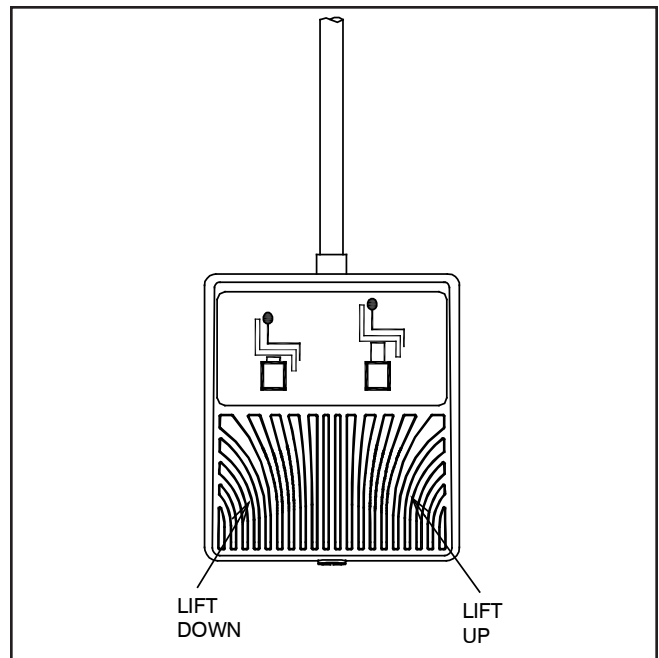
- For operation from the Footswitch (Figure 2), depress the right side of the pedal to raise the Chair lift.
- Depress the left side of the pedal to lower the Chair lift.



**NOTE:** The RAISE and LOWER BASE switches on the Footswitch are programmable. By design, the motion of the Chair will STOP when either of these switches is released. If you want the motion of the Chair to CONTINUE after either of these switches is released, then see Section 4 for programming instructions.



**REMARQUE :** Les interrupteurs RAISE (LEVER) et LOWER (BAISSER) la base sur l'interrupteur au pied sont programmables. Selon la conception initiale, le mouvement de la chaise S'ARRÊTE lorsque l'un ou l'autre de ces interrupteurs est relâché. Si vous désirez que le mouvement de la chaise CONTINUE, après que l'un ou l'autre de ces interrupteurs est relâché, consultez la section 4 pour connaître les instructions de programmation.



**FIGURE 2  
FOOTSWITCH OPERATION**

#### 3.2. Chair Top

##### 3.2.1. Positioning The Chair Top

- The Chair top may be manually tilted. To do so, release the lock by squeezing the Release Lever and the Grab Bar on the back of the Chair together. Push back to recline. Release two bars to lock top in desired position. (Figure 3).

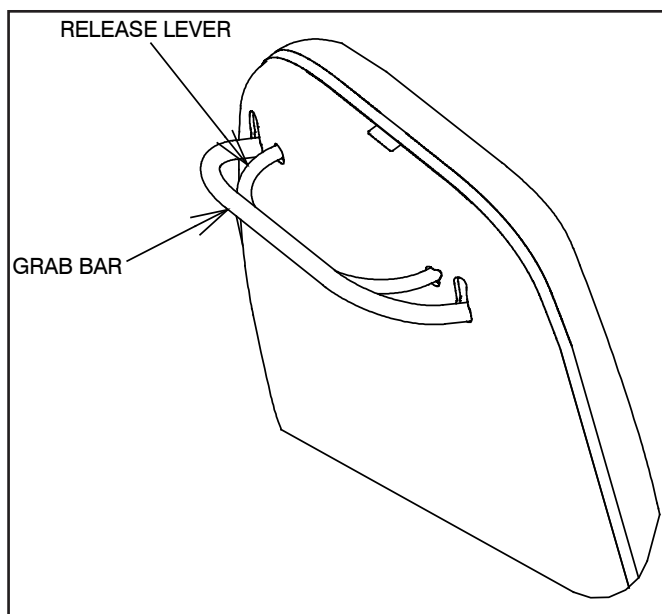


**WARNING-** FIRM CONTROL OF THE CHAIR TOP MUST BE MAINTAINED DURING THE RECLINING OPERATION. THIS IS ESPECIALLY IMPORTANT WITH HEAVIER OR LIGHTER THAN AVERAGE PATIENTS.



**“AVERTISSANT” - LE CONTRÔLE FERME DU SOMMET DE PRÉSIDENTE DOIT ÊTRE MIS À JOUR PENDANT L'EXÉCUTION ÉTENDUE. C'EST PARTICULIÈREMENT IMPORTANT AVEC PLUS LOURD OU LE CHALAND QUE LES PATIENTS MOYENS.**





**FIGURE 3  
RELEASE LEVER**

### 3.3. Revolving/Rotation


3.3.1. The Chair upper structure may be revolved 350°, with a built-in stop to prevent continuous rotation. The lock for revolving is controlled by a hand lever with black knob located below the seat at the center and on either side. Push the lever backward to release the lock and pull upward to apply the lock.


### 3.4. Armrest Movement


3.4.1. The Chair Armrests may be raised to provide better access to the patient or to permit entrance to or exit from the Chair.


3.4.2. The movements of both Armrest are identical and completely independent of each other.


3.4.3. To raise the Armrest simply lift Armrest to the stop parallel to Chair back.


 **CAUTION:** This exam Chair is designed for use in a specific position called the Intended Use Position. Prior to reclining a patient, ensure the Chair Back is aligned with the Chair's power receptacle and that the Chair Swivel is locked. The safe working load is reduced if the Chair is swiveled away from this Intended Use Position, and may result in insufficient stability.

 **PRÉCAUTION :** Cette chaise d'examen est conçue pour utilisation dans une position spécifique appelée la position d'utilisation prévue. Avant d'incliner un patient, assurez-vous que le dossier de la chaise est aligné avec le réceptacle d'alimentation de la chaise et que le pivot de la chaise est verrouillé. La charge de travail sécuritaire est réduite si la chaise est tournée hors de sa position d'utilisation prévue et cela pourrait causer une stabilité insuffisante.

 **CAUTION-**This exam Chair is designed for use with a specific maximum patient weight as a static (non-moving) load. Sudden weight shifts or impact loads can exceed the safe static load rating of this Chair, and may result in insufficient stability.

 **PRÉCAUTION :** Cette chaise d'examen est conçue pour utilisation avec un poids de patient maximum spécifique comme charge statique (sans mouvement). Les déplacements de poids soudains ou les charges dynamiques peuvent excéder la norme de charge statique sécuritaire de la chaise, ce qui pourrait causer une stabilité insuffisante.

 **CAUTION-**This exam Chair is designed for use with a patient properly positioned in the Chair. Prior to reclining the Chair, ensure that the patient is seated in the Chair and that the patient position does not move to an extreme position either toward the head of the Chair or toward the foot of the Chair, since this may result in insufficient stability.

 **PRÉCAUTION :** Cette chaise d'examen est conçue pour utilisation avec un patient correctement positionné dans la chaise. Avant d'incliner la chaise, assurez-vous que le patient est assis dans la chaise et que la position du patient ne se déplace pas vers une position extrême soit vers la tête, soit vers le pied de la chaise, puisque cela pourrait causer une stabilité insuffisante.

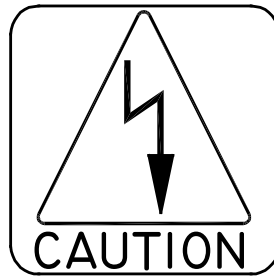
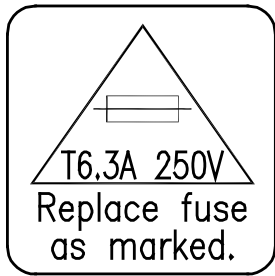
### 3.5. Footrest

3.5.1. The Footrest may be retracted by lifting near its outer edge. When retracted, the Footrest stays in place.

### 3.6. Headrest

3.6.1. A fixed, non-articulating Headrest is the only Headrest available on the 520 Chair. This Headrest is ergonomically designed for patients of a wide range of heights.

## 4.0 LOCATING AND REPLACING FUSES



**WARNING: DISCONNECT EQUIPMENT FROM MAIN INPUT POWER BEFORE PROCEEDING WITH ELECTRICAL INSPECTIONS OR MAINTENANCE.**



**AVERTISSEMENT : DÉCONNECTEZ L'ÉQUIPEMENT DE L'ALIMENTATION ÉLECTRIQUE PRINCIPALE AVANT DE PROCÉDER À DES INSPECTIONS ÉLECTRIQUES OU À DE L'ENTRETIEN.**



**CAUTION - Replace fuse(s) as marked. All fuses must be replaced with a fuse of the same size and rating. Refer to the Wire Diagrams at the end of this Manual.**



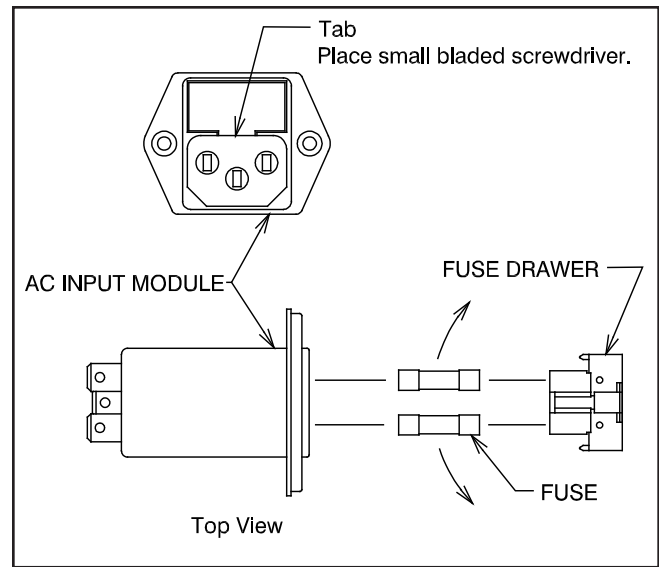
**PRÉCAUTION : Remplacez le(s) fusible(s) comme indiqué. Tous les fusibles doivent être remplacés par un fusible de la même dimension et de la même valeur. Se référer aux schémas de câblage à la fin de ce manuel.**

The Chair contain two fuses located inside the AC Input Module in the Base Assembly.

## 4.1. Fuse Replacement (AC Input Module)

4.1.1 Unplug the power cord from the AC power Input Module. Referring to Figure 4, locate tab. With a tool similar to a small common screwdriver placed under tab, pry Fuse Drawer out. Remove the Fuse Drawer by pulling it out with your fingers.

4.1.2 To remove fuses from Fuse Drawer, tilt fuses in direction of arrows as shown in Figure 4. Examine the fuses, replace as necessary.



**FIGURE 4  
AC INPUT MODULE**

## TROUBLESHOOTING GUIDE

PROBLEM	PROBLEM CAUSE	SOLUTION
CHAIR WILL NOT OPERATE.	<ol style="list-style-type: none"> <li>1) POWER CORD NOT PLUGGED IN.</li> <li>2) NO AC POWER AT WALL RECEPTACLE.</li> <li>3) BLOWN LINE FUSE.</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK ALL WIRING CONNECTIONS.</li> <li>2) RESTORE OUTLET POWER.</li> <li>3) REPLACE FUSE.</li> </ol>
OUTLET POWER OK, BUT NO BEEP IS HEARD WHEN POWER IS APPLIED.	<ol style="list-style-type: none"> <li>1) BLOWN LINE FUSE.</li> <li>2) LOOSE WIRING IN BASE.</li> <li>3) OTHER.</li> </ol>	<ol style="list-style-type: none"> <li>1) REPLACE FUSE.</li> <li>2) CHECK ALL WIRING CONNECTIONS.</li> <li>3) CONTACT FACTORY</li> </ol>
FOOTSWITCH FUNCTIONS NOT OPERATING	<ol style="list-style-type: none"> <li>1) FOOTSWITCH CORD NOT CONNECTED.</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK ALL INTERNAL AND EXTERNAL FOOTSWITCH WIRING</li> </ol>
CHAIR BASE WILL NOT STAY UP	<ol style="list-style-type: none"> <li>1) SOLENOID VALVE NOT CLOSED. (DIRT IN VALVE.)</li> <li>2) CONSTANT POWER APPLIED TO SOLENOID.</li> <li>3) OTHER</li> </ol>	<ol style="list-style-type: none"> <li>1) REPAIR OR REPLACE SOLENOID VALVE.</li> <li>2) CHECK FOR SWITCHES STUCK "CLOSED" .</li> <li>3) CONTACT FACTORY.</li> </ol>
CHAIR BASE WILL NOT LOWER.	<ol style="list-style-type: none"> <li>1) NO POWER TO SOLENOID ASS'Y.</li> <li>2) SOLENOID COIL BURNED-OUT</li> <li>3) OTHER</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK FOR VOLTAGE.</li> <li>2) REPLACE SOLENOID COIL.</li> <li>3) CONTACT FACTORY.</li> </ol>
CHAIR BASE WILL NOT RAISE. PUMP MOTOR DOES NOT RUN.	<ol style="list-style-type: none"> <li>1) NO POWER TO MOTOR PUMP ASS'Y</li> <li>2) UP-LIMIT SWITCH STUCK "OPEN".</li> <li>3) PUMP MOTOR BURNED-OUT.</li> <li>4) OTHER</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK FOR VOLTAGE.</li> <li>2) RE-ADJUST OR REPLACE SWITCH.</li> <li>3) REPLACE MOTOR-PUMP ASS'Y.</li> <li>4) CONTACT FACTORY.</li> </ol>
CHAIR BASE WILL NOT RAISE. PUMP MOTOR RUNS.	<ol style="list-style-type: none"> <li>1) SOLENOID VALVE NOT CLOSED. (DIRT IN VALVE.)</li> <li>2) CONSTANT POWER APPLIED TO SOLENOID.</li> <li>3) OTHER.</li> </ol>	<ol style="list-style-type: none"> <li>1) REPAIR OR REPLACE SOLENOID VALVE.</li> <li>2) CHECK FOR SWITCHES STUCK "CLOSED".</li> <li>3) CONTACT FACTORY.</li> </ol>
BASE "STUTTERS" DURING ASCENT.	<ol style="list-style-type: none"> <li>1) HYDRAULIC FLUID LEVEL IS LOW.</li> </ol>	<ol style="list-style-type: none"> <li>1) CONTACT DEALER OR FACTORY FOR INFORMATION ON ADDING OIL.</li> </ol>
CHAIR BASE WILL NOT RAISE OR LOWER FROM FLOOR UNIT.	<ol style="list-style-type: none"> <li>1) CHAIR CONTROL CABLE NOT PLUGGED IN.</li> <li>2) BLOWN FUSE IN CHAIR BASE.</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK CABLE CONNECTIONS AT STAND CHAIR</li> <li>2) REPLACE FUSE.</li> </ol>
CHAIR TOP "WOBBLES" ON CHAIR BASE	<ol style="list-style-type: none"> <li>1) LOCK NUT IS LOOSE. (UNDER SEAT BOARD.)</li> </ol>	<ol style="list-style-type: none"> <li>1) TIGHTEN LOCK NUT.</li> </ol>
CHAIR BACK RECLINES FULLY WITHOUT HANDLE BEING ACTIVATED.	<ol style="list-style-type: none"> <li>1) GAS SPRING IN NEED OF ADJUSTMENT</li> <li>2) GAS SPRING FAILURE</li> </ol>	<ol style="list-style-type: none"> <li>1) ADJUST GAS SPRING</li> <li>2) REPLACE GAS SPRING</li> </ol>

## CLEANING AND MAINTENANCE

### Cleaning the Upholstery

When cleaning upholstery, it is suggested that you use all recommended commercial cleaning agents in an inconspicuous spot to check for potential damage to the upholstery material before applying to the entire area to be cleaned.

#### Day to Day soil:

Remove ordinary dirt and smudges with a mild soap and warm water solution. Dry with a soft, lint-free cloth or towel. For more difficult stains, use of a stronger detergent is recommended; however, follow the detergent manufacturer's instructions closely.

#### Disinfecting Material:

In order to disinfect, use a 1:9 solution of bleach and water (1 part bleach to 9 parts water). Wipe surface with damp cloth then rinse with water immediately, using a damp cloth.

#### Special cleaning problems:

The following methods are recommended to clean stains on PreFixx-protected vinyl upholstery. Most stains will be removed when these cleaning agents are used in the following order.

**Type 1 Cleaners:** Nonabrasive household cleaners to be used with water and a soft cloth.

- Formula 409®~ All-Purpose Spray Cleaner
- Fantastik® Spray Cleaner
- Other similar household cleaners and bleaches

**Type 2 Cleaners:** Solvent-type cleaner to be liberally applied with a soft cloth. Dry area with another cloth, rinse with clean water and dry.

- Rubbing alcohol (isopropyl alcohol)
- Lighter fluid (naphtha)

**Type 3 Cleaners:** Strong, active solvent cleaners such as nail polish remover (acetone/water) to be applied with a soft cloth. Stain should be removed with less than six (6) rubs; if stain persists after six rubs, contact manufacturer. Dry area with another cloth, rinse with clean water and dry.



**CAUTION-** These solvents are highly flammable. Exercise proper care in cleaning and notify personnel in area of danger. Wear rubber gloves during all cleaning activity. Use caution in cleaning around buttons, stitching and wooden or other decorative trim, since these solvents could seriously damage such areas.



**PRÉCAUTION :** Ces solvants sont extrêmement inflammables. Faites très attention lors du nettoyage et avisez le personnel dans la zone de tout danger. Portez des gants de caoutchouc durant toute activité de nettoyage. Faites attention en nettoyant autour des boutons, des coutures et autres finitions de bois ou décoratives, puisque ces solvants pourraient endommager sérieusement ces endroits.

### Cleaning Painted Surfaces

The painted metal surfaces are covered in durable, powder-coated paint which is resistant to scratching and scuffing. It may be cleaned with a clean cloth dampened with mild, soapy water or equivalent household product that uses spray application.

### Recommended Infection Control Products

The disinfectant/cleaner products that we have tested and recommend for our upholstery, painted items and plastic covers are as follows.

- Cavicide® Hospital Disinfectant
- Precise® Hospital Foam Cleaner Disinfectant



**CAUTION :** Follow manufacturer's directions for concentration and application of disinfecting cleaner. Avoid prolonged application of any disinfectant/cleaner products, because they may cause staining or discoloration of material.



**PRÉCAUTION :** Suivez les instructions du fabricant pour la concentration et l'application de nettoyeurs désinfectants. Évitez une application prolongée de tout produit désinfectant/nettoyant, parce que ceux-ci pourraient causer des taches ou une décoloration du matériel.

**(NOTES)**

**PARTS LIST**  
**RELIANCE® MODEL 520**  
**EXAMINATION AND TREATMENT CHAIR**



**Note:** When ordering parts, please:

1. Advise dealer or factory of model and serial number of unit. These numbers are on the plate that is located at rear, near bottom, of Chair back.
2. Specify color of painted parts. Painted parts have an asterisk(\*) behind the part description.

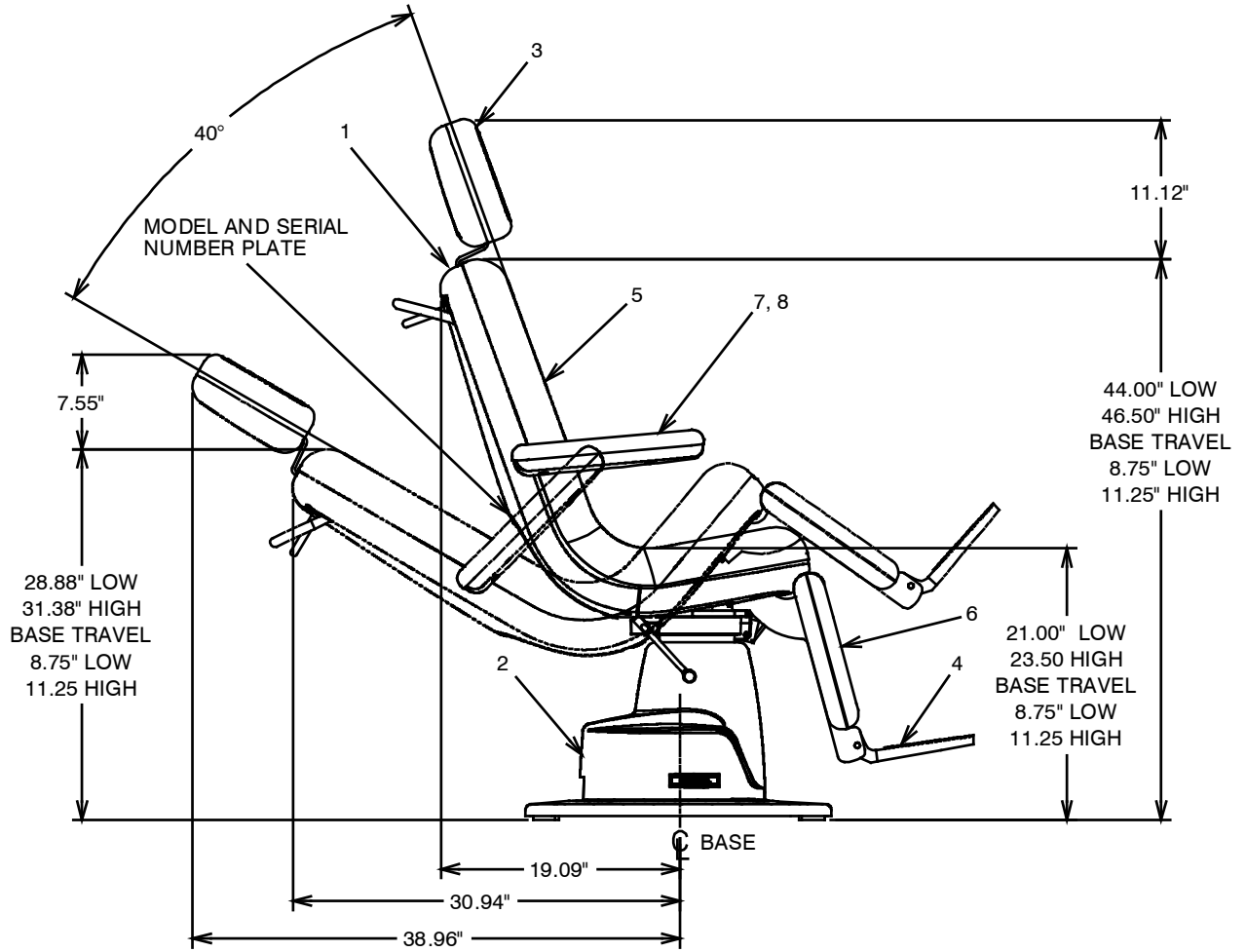


**REMARQUE :** Lorsque vous commandez des pièces, veuillez :

1. Informez le distributeur ou l'usine du modèle et du numéro de série de l'ensemble. Ces numéros sont de la plaque qui est située à l'arrière, près du bas, de l'arrière de présidence.
2. Spécifier la couleur des pièces peintes. Les pièces peintes ont un astérisque (\*) derrière la description de pièce.

Should your Chair not perform properly, or if replacement parts are needed, contact the Reliance® Distributor, where you purchased this product or contact the Technical Service Department, Reliance® Medical Products, Inc., 3535 Kings Mills Road, Mason, Ohio 45040-2303, or call (800) 735-0358.

**FIGURE 5  
520 CHAIR ASSEMBLY**

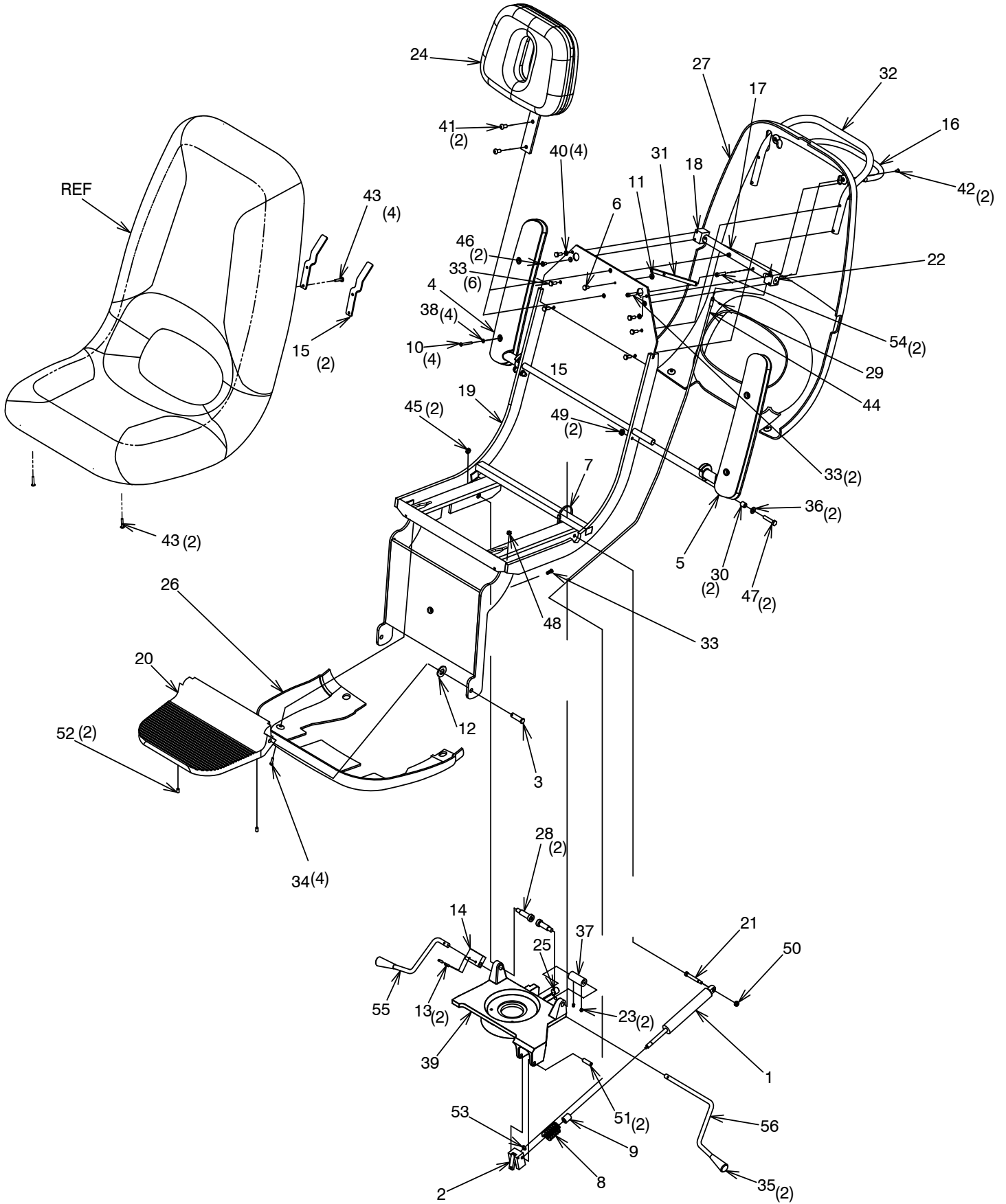


ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1		Chair Top Assembly* (See Figure 6)	6	2964373	Upholstered Apron Assembly**
2		Chair Base Assembly* (See Figure 7)	7	2347373	Upholstered Armrest Assembly - RH**
3		Headrest Assembly* (See Figure 9)	8	2347473	Upholstered Armrest Assembly - LH**
4	2342203	Footrest			
5	2964473	Upholstered Seat Assembly W/O Hole**			
	2964573	Upholstered Seat Assembly W/Hole**			

\*\* Please specify upholstery color when ordering.  
To order complete Upholstery Set use P/N.

3086773 Upholstery Set - 520 with holes  
3086973 Upholstery Set - 520 without holes

**FIGURE 6**  
**520 CHAIR TOP ASSEMBLY**

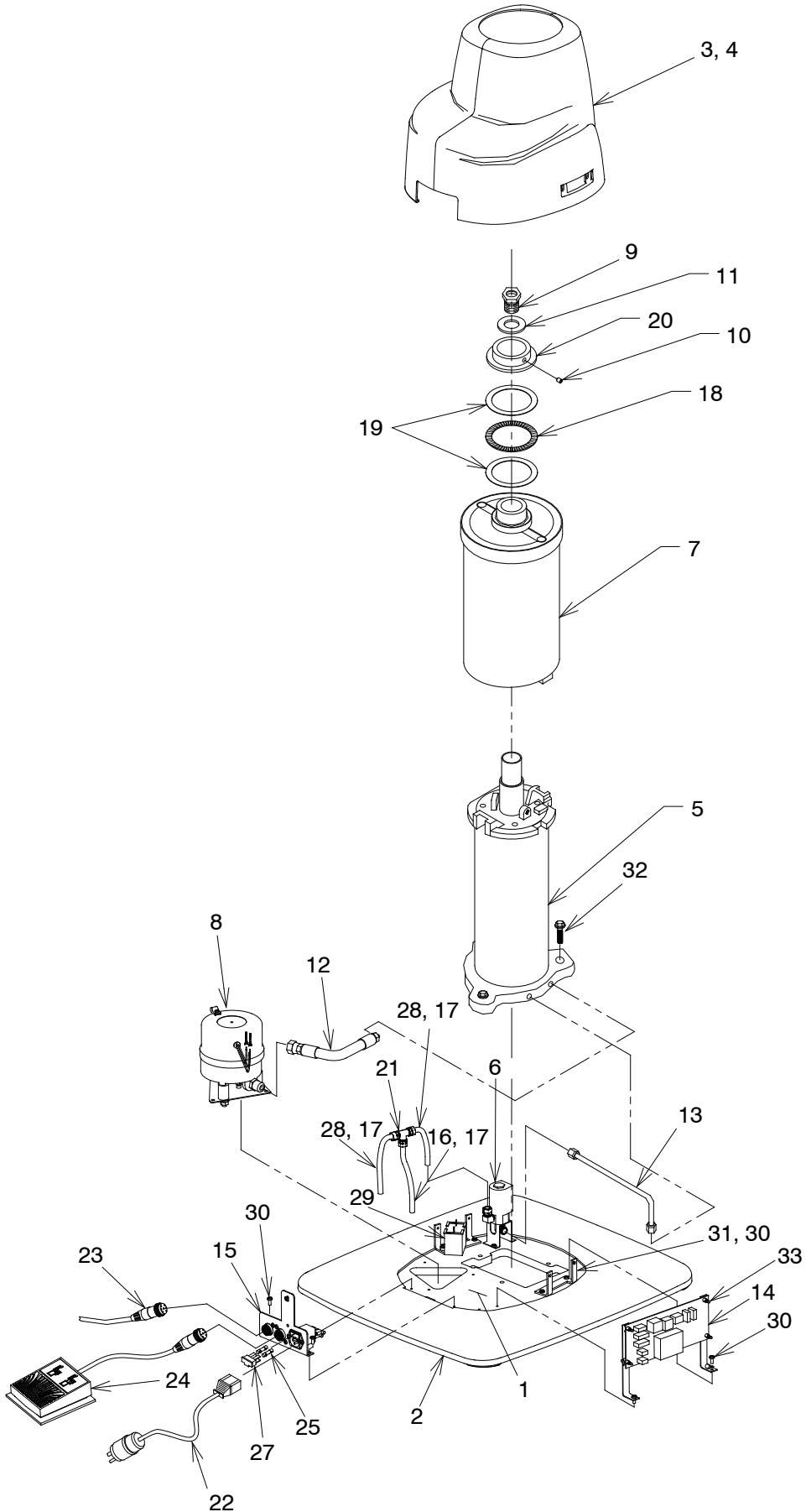




ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	2056599	Gas Spring	29	0297899	1/4 Retaining Rng
2	2337692	Gas Spring Release Sub-Assembly	30	2060099	Spacer, .50 O.D. x .31 I.D. x .5
3	2346599	Clevis Pin - 7/16 x 1 1/2	31	2060699	Cable Lever
4	2346103	Armrest - RH*	32	2062103	Grab Bar*
5	2346203	Armrest - LH*	33	3053199	B.H.C.S. 1/4-20 x 3/4
6	0705899	H.H.C.S. 1/4-20 x .50	34	1638599	R.H.M.S.#10-24 x .63 Phil
7	0904499	Bundle Strap	35	2055599	Knob
8	2061399	1.25 O.D. Die Spring	36	0730199	Washer-.317x.739 x .06
9	2061499	Spring Guide	37	0561799	Locking Cam
10	2061699	R.H.M.S. #10-24 x 1-1/2 Phillips	38	0728899	Lockwasher-#10
11	0729999	Flat Washer	39	2055185	Seat Support
12	0396299	Washer, Spring-Bow-270-S-12	40	0728299	Lockwasher, 1/4 Split
13	0569499	3/16 Dia x 3/4 Roll Pin	41	1749999	B.H.C.S. 5/16-18 x 3/4
14	2055499	Handle Block	42	0789199	R.H.M.S. #10-24 x .38 Phil
15	2964699	Clip-Seat Back	43	3086899	BHCS 10-24 X 1 Flange
16	2737203	Tilt Release Bar*	44	2058699	Control Cable Assembly
17	2737399	Tilt Release Bar Mount	45	0508599	Lock Nut, 3/8-16, Thin
18	2056699	Tilt Release Mount - RH	46	2898099	FHCS, 1/4-20 X 1/2
19	2342303	Seat Frame Weldment*	47	0789399	S.H.C.S. 5/16-18 x 1.25
20	2342203	Footrest*	48	0705699	#10-24 Keps Nut
21	2058099	Bolt, Shoulder 5/16 x 1-3/4	49	0704699	5/16-18 Keps Nut
22	2060599	Tilt Release Mount - LH	50	0703699	1/4-20 Keps Nut
23	0722699	S.H.S.S. 1/4-20 x .25 K.C.P.	51	0604599	Mounting Screw
24		Headrest Assembly*(See Figure 9)	52	0722899	S.H.S.S. 1/4-20 x .38
25	0643599	Lock Plug	53	0295699	1/4-28 Jam Nut
26	2059399	Bottom Cover*	54	0807799	S.H.C.S. 1/4-20 x .375
27	2059299	Back Cover*	55	2055699	Lock Handle - RH
28	2839099	Bolt, Shoulder 1/2 x 3.00	56	2055799	Lock Handle - LH

\*Please specify paint color when ordering.

**FIGURE 7  
CHAIR BASE ASSEMBLY**



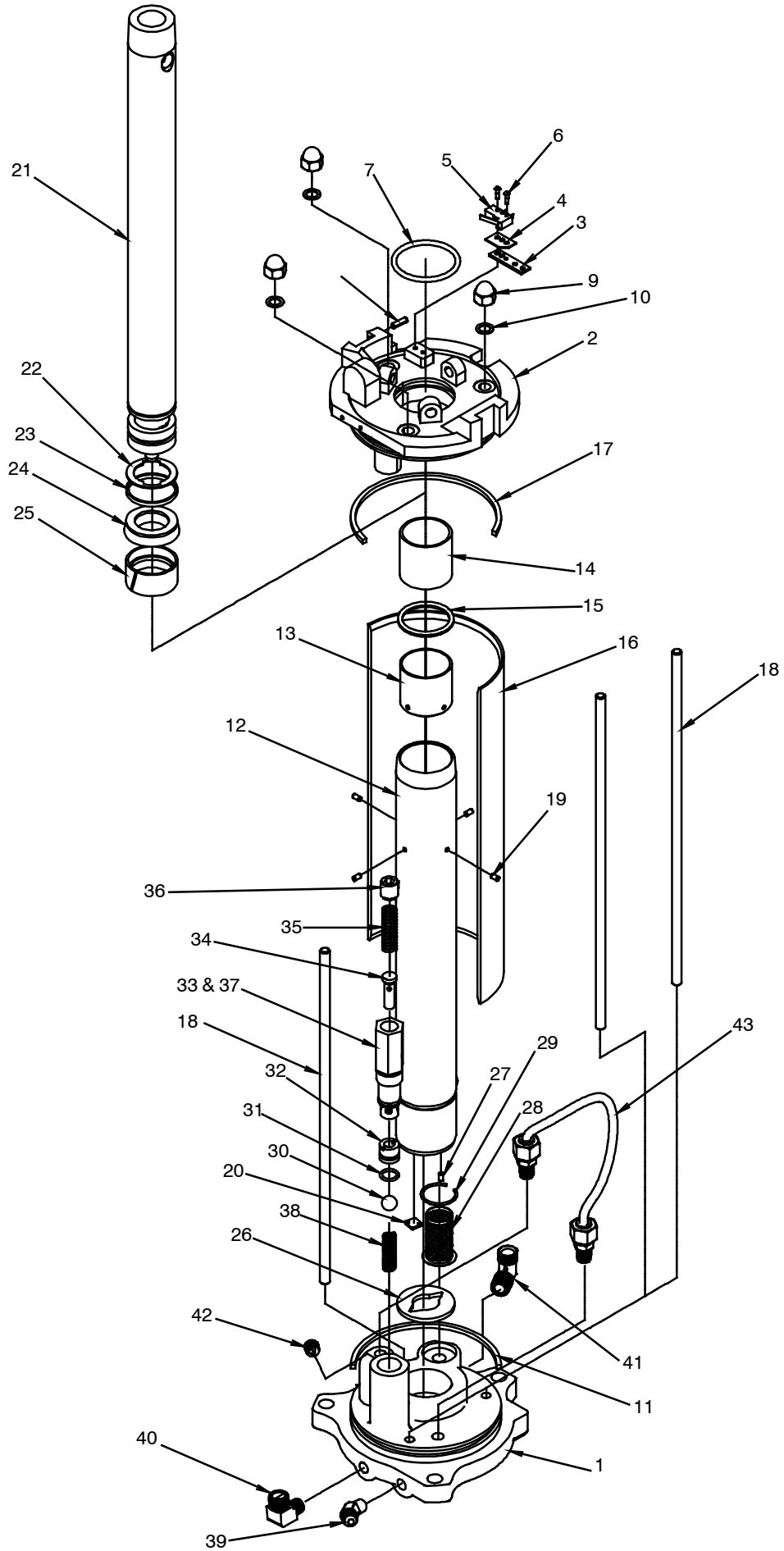
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	2081203	Base	16	0458999	Tubing-5-1/2 in
2	2065599	Base Cover	17	1081999	Tubing Insert
3	2065199	Base Housing - Low - RH	18	0559999	Thrust Bearing
	2065399	Base Housing - High - RH	19	0560099	Thrust Washer
4	2065299	Base Housing - Low - LH	20	0123885	Lock Nut
	2065499	Base Housing - High - LH	21	1127599	Union Tee
5		Lift Assembly (See Figure 8)	22	1659299	Power Cord Assembly
6	1707792	Solenoid Valve Assembly-120V	23	1550599	Chair Control Cable-LV To LV
	1707892	Solenoid Valve Assembly-230V	24	2346492	Footswitch Assembly
7	1702892	Keyshield Assembly-Low*	25	1634299	Fuse, 6.3 A / 250V-120V
	1702992	Keyshield Assembly-High*		1634999	Fuse, 4 A / 250V-230V
8	2720092	Pump/Motor Assembly-120V	26	1976799	Power Entry Module W/ Filter
	2720192	Pump/Motor Assembly-230V	27		Fusedrawer, 2 Pole (In Item 26)
9	1547899	Piston Rod Bolt	28	0458999	Tubing-5 in
10	1525899	Set Screw-#10-24 x 1/4	29	1597299	Capacitor, Starting-120V
11	0607299	Washer		2002199	Capacitor, Starting-230V
12	2721092	Hose Assembly	30	1720399	PH Phil w/Lock Washer-#10-24 x 1/2
13	1596292	Pressure Tube Assembly	31	2081099	Housing Mount Bracket
14	2025599	P.C. Board Assembly	32	0708599	HHCS 3/8-16 x 1.5
15	2720892	AC Input Assembly	33	1569999	Circuit Board Support

To order complete Base Assembly use P/N's.

- 2724092 Chair Base Assembly - Low - 120V\*
- 2724192 Chair Base Assembly - High - 120V\*
- 2724292 Chair Base Assembly - Low - 220-240V\*
- 2724392 Chair Base Assembly - High - 220-240V\*

\*Please specify paint color when ordering.

**FIGURE 8**  
**LIFT ASSEMBLY**



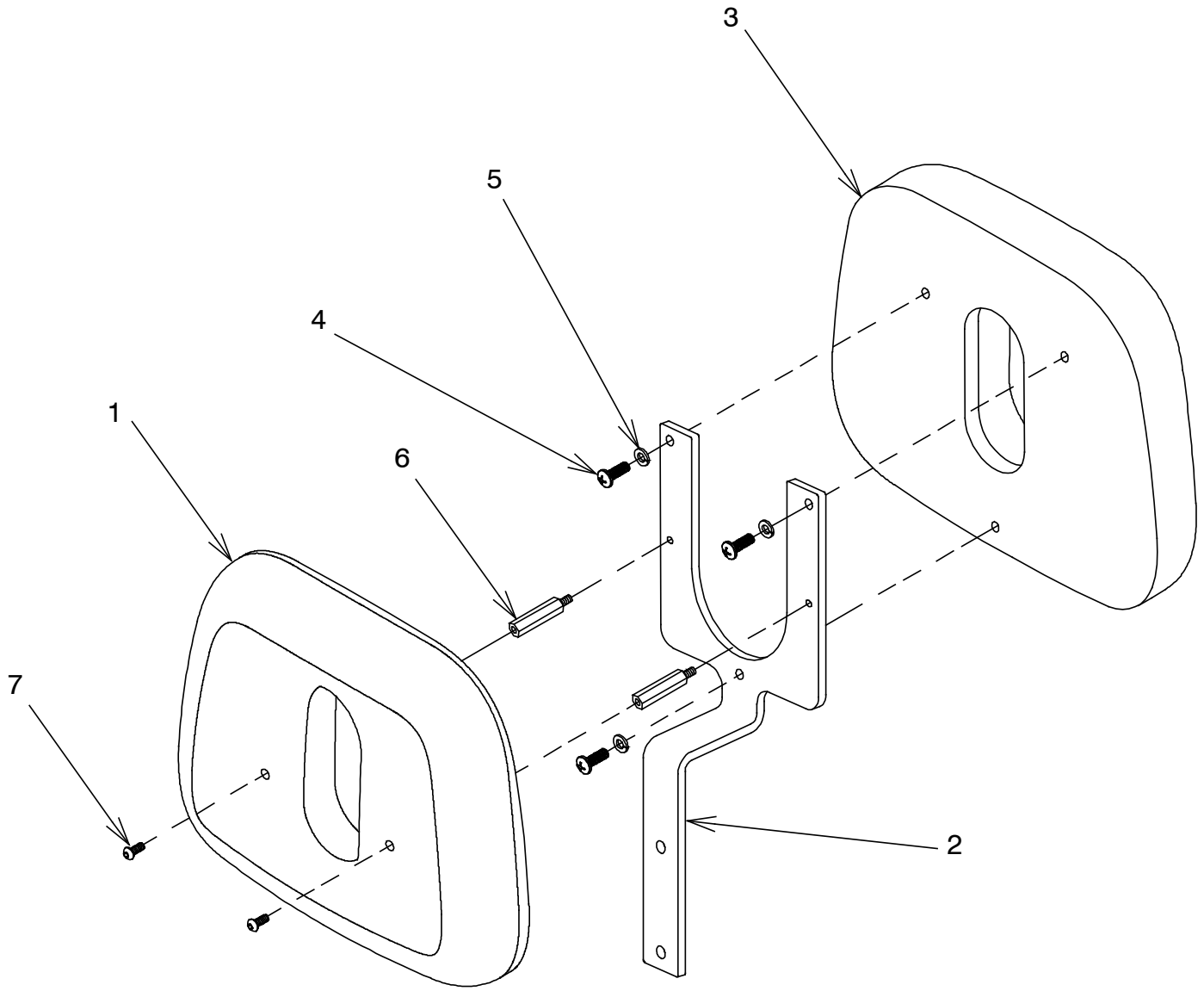
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	1012795	Lift Base	22	0733299	Retaining Ring
2	1019095	Lift Top	23	0512599	Backup Ring
3	0439979	Switch Plate	24	0730899	U - Pack
4	0929699	Insulator	25	0512499	Piston Ring
5	1011399	Switch	26	0353199	Cylinder Gasket
6	0727599	Drive Screw	27	0569299	Pin - Roll
7	0731499	"O" Ring	28	0466399	Filter Screen
8	1454699	Pin	29	0446099	Snap Ring
9	0485199	Nut - Acorn 5/16	30	0741799	Valve Ball
10	0365799	Gasket - Tie Rod	31	0731199	"O" Ring
11	0432599	Base Column Seal	32	0441999	Valve Seat
12	0903292	Cylinder Assembly - High	33	1012499	Valve Housing
	0526792	Cylinder Assembly - Low	34	0363299	Relief Valve Plunger
13		Spacer - Cylinder (in Item 12)	35	0784699	Relief Valve Spring
14		Bushing (in Item 12)	36	1012399	Set Screw
15		Ring - Quad (in Item 12)	37	0731299	"O" Ring
16	0902285	Base Column - High	38	0442499	Valve Spring
	0563885	Base Column - Low	39	2720799	Elbow - 45°
17	0432599	Base Column Seal	40	1081899	Elbow - 90°
18	0901999	Tie Rod - High	41	0447199	Elbow - 90°
	0563699	Tie Rod - Low	42	0303699	Plug - Pipe 1/8-27 Sckt Head
19		Pin - Roll (in Item 12)	43	1060392	Tubing Assembly
20	0422899	Disc - Valve			
21	1183592	Piston Rod - High			
	1183692	Piston Rod - Low			

To order complete Base Assembly use P/N's.

2721192 Lift Assembly - Low\*  
2721292 Lift Assembly - High\*

\*Please specify paint color when ordering.

**FIGURE 9**  
**HEADREST ASSEMBLY**



ITEM	PART NO.	DESCRIPTION
1	2059499	Headrest Cover *
2	2057103	Headrest Support Bracket*
3	3071773	Uph. Headrest FX520 W/Hole **
	3070773	Uph. Headrest FX520 WO/Hole **
4	0713199	R.H.M.S. 1/4-20 x 3/4
5	0728299	1/4 Split Washer
6	2728099	Standoff, Hex Male/Female-#10-32 x 1.50
7	0593799	B.H.C.S #10-32 x .50 Sck't

To order complete Headrest Assembly use P/N.

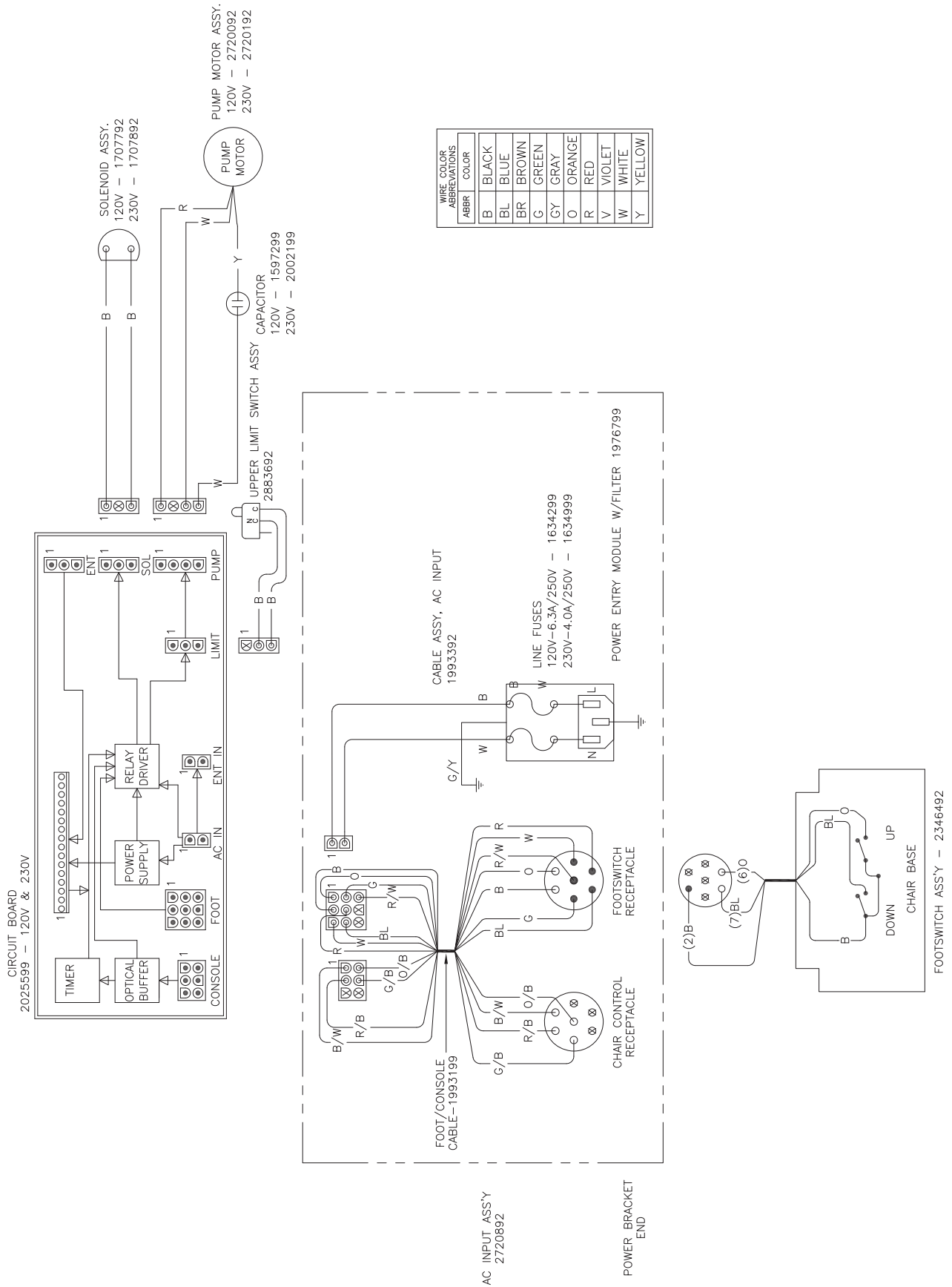
3085892 Headrest Assembly W/Hole\*\*

3085992 Headrest Assembly WO/Hole\*\*

\*Please specify paint color when ordering.

\*\* Please specify upholstery color when ordering.

# FIGURE 10 WIRING DIAGRAM





**(NOTES)**

**(NOTES)**

## LIMITED WARRANTY

The Reliance® product must be used only for the purposes and in the manner described in the literature distributed with the product. The products are warranted against defective materials and workmanship for a period of one (1) year from date of installation. Products or parts thereof will be repaired or replaced as required at Reliance® Medical Products, Inc. Such repair or replacement shall be the sole remedy under this warranty. This warranty extends only to the original purchaser from an authorized Reliance® dealer and is subject to the following conditions:

1. The warranty card must be completed and returned to Reliance® Medical Products, Inc. within two (2) weeks from the date of installation.
2. Installation and servicing of the products must be performed by trained Reliance® equipment dealer service personnel in accordance with the appropriate instructions manual for the products. Warranty will be voided if installation is performed by a non-authorized individual
3. The products have not sustained breakage or other types of damage due to accident or misuse.
4. This warranty will not apply to Reliance® products which have had the serial number removed, altered or effaced.

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Claims covered by this warranty will be honored when presented within one (1) month from discovery of a defect.



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