



FX 920 Chair Operation & Installation



Look closer. See further.





SERIAL NUMBER

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

Haag-Streit USA Inc.

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MADE IN USA

QUALITY MANAGEMENT
SYSTEM
REGISTERED TO
ISO 13485:2016

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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 .

NOTE:

Amplifies a procedure, practice, or condition.

REMARQUE:

Amplifie une procédure, pratique ou condition.



Alternating Current-AC



Safe Working Load



"Attention, Consult Accompanying Documents"



Refer to Instruction Manual/Booklet



Type B, Applied Part



Fuse Rating Specification



Protective Earth Ground



Burn Hazard/Hot Surface

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 FX920 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. la note indique des remarques d'information particulière ou supplémentaire.

1.3. Should your product not perform properly, or if you have any questions concerning the use and care of any Haag-Streit product, contact the HaagStreit Distributor, where you purchased this product or contact the Technical Service Department, Haag-Streit USA, 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 Haag-Streit or your authorized Haag-Streit Distributor.

REMARQUE : Ayez toujours le numéro de modèle et le numéro de série à portée de la main avant de contacter Haag-Streit ou votre distributeur Haag-Streit autorisé.

“CLASSIFIED BY CANADIAN STANDARDS ASSOCIATION® CSA WITH RESPECT TO ELECTRIC SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH IEC 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:
 - Chair - Continuous Operation
 - Motor - 10% Duty Cycle
 - Normal Use - 6240 duty cycle/year: 3 patients per hour, 8 hours per day, 5 days a week, 52 week calendar year.



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		FX920
Volts	Hertz	Amps
120V	50/60	9.0
Class I	Type B	




Rating for 220-240V Low Voltage Chair

This equipment is rated Class I, Type B

Equipment		Model
Low Voltage Chair		FX920
Volts	Hertz	Amps
220-240V	50/60	4.0
Class I	Type B	




U.S. Patent No.
6,106,065

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, and mount it into position onto the chair back. Using the proper hex key wrench, tighten the cap screw to clamp the headrest securely into its mounting bracket.

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.

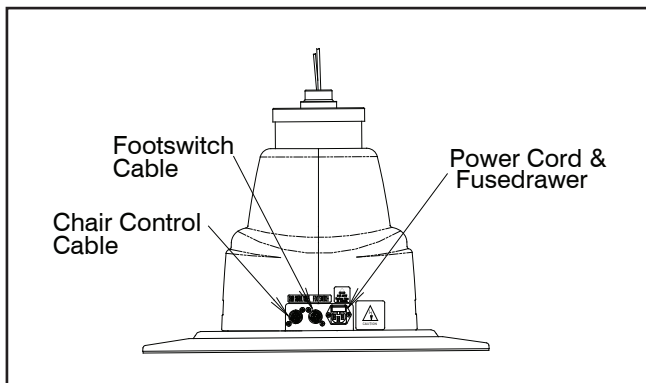


FIGURE 1
BASE

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 electronic are functioning properly.

3.1. Stop Switch



3.1.1. Depressing the STOP switch on either side of the chair back will STOP ALL movement of the chair. The STOP switch is shaped like a stop sign, and may be either RED or ORANGE in color. It is located above the text "STOP". (Refer to Figure 2). The STOP switch is also used to program the chair. See Section 4 (page 12) for programming instructions.

3.2. Chair Lift

3.2.1. Raising & Lowering the Chair Lift with Membrane Switches



- The chair lift may be raised or lowered by Membrane Switches on either side of the chair back (Figure 2).
- To raise the chair lift from these switches, depress the triangular-shaped UP arrow located ABOVE the text "BASE". This is called the RAISE BASE switch.
- To lower the chair lift, depress the triangular-shaped DOWN arrow located BELOW the text "BASE". This is called the LOWER BASE switch.

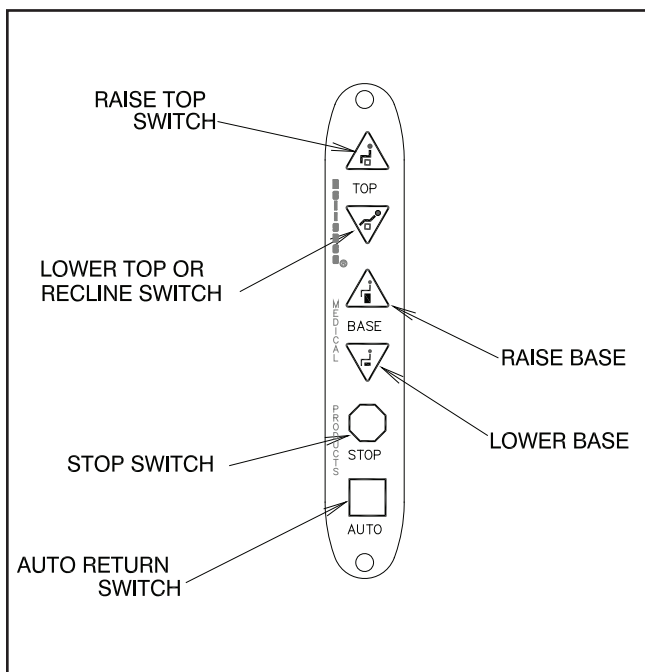


FIGURE 2
MEMBRANE SWITCH

NOTE: The RAISE and LOWER BASE switches on the Chair Back 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 le dossier de la chaise 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.

3.2.2. Raising & Lowering the Chair Lift from the Footswitch



- For operation from the footswitch (Figure 3), depress the right side of the pedal to raise the chair lift.
- Depress the left side of the right-hand pedal to lower the chair lift.

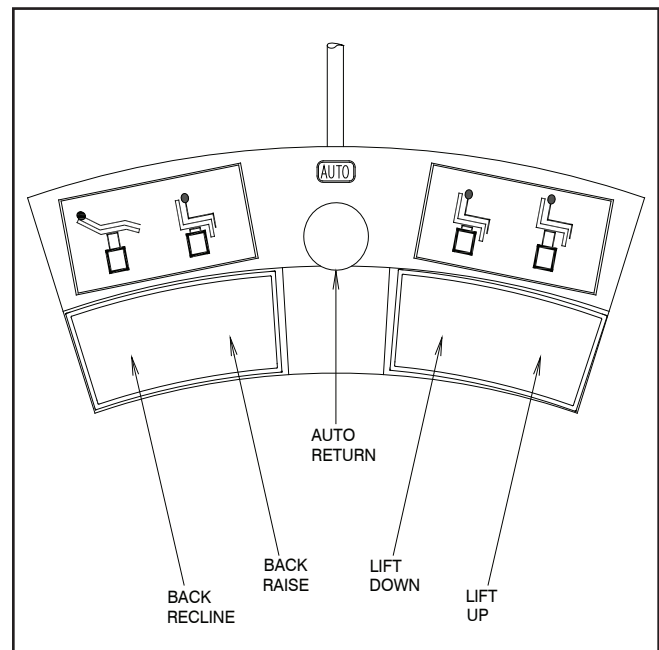


FIGURE 3
Footswitch Operation

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.

3.3. Chair Top

3.3.1. An electric motor supplies power for the movement of the chair top.

3.3.2. Raising & Reclining the Chair Top with Membrane Switches.

- The chair top may be raised or reclined by Membrane Switches on either side of the chair back (Figure 2).
- To lower, depress the triangle-shaped DOWN arrow located BELOW the "TOP". This is called the LOWER TOP or RECLINE switch.
- To raise the chair top from these switches, depress the triangle-shaped UP arrow located ABOVE the next "TOP". This called the RAISE TOP switch.

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

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



CAUTION - ANY chair movement that CONTINUES after the switch is released may be stopped by depressing the STOP switch or by depressing the same switch a second time.



PRÉCAUTION : TOUT mouvement de la chaise qui CONTINUE après que l'interrupteur est relâché peut être arrêté en appuyant sur l'interrupteur STOP (ARRÊT) ou en pressant le même interrupteur une seconde fois.

3.3.3. Raising & Lowering the Chair Top From the Footswitch.



- For operation from the footswitch (Figure 3), depress the right side of the left-hand pedal to raise the chair top.
- Depress the left side of the left-hand pedal to lower/recline the chair top.

NOTE: The RAISE and LOWER/RECLINE 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/INCLINER) 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.

3.4. Automatic Return

3.4.1. This feature is employed as a simple way for the operator to lower the chair lift and raise the chair back after completion of an examination or treatment. The automatic return system is activated by depressing the square switch located ABOVE the text "AUTO" on either side of the chair back. The chair lift, if raised, will then lower, and the chair back, if reclined, will rise to the upright position. These movements will CONTINUE after the switch is released until the chair lift is fully lowered and the chair back is fully upright. These movements may also be stopped by depressing the STOP switch or by depressing the AUTO switch a second time. The AUTO switch is square and is located in the same

place on both Membrane Switches.

3.4.2. These instructions and operations also apply to any AUTO switch that is installed in a footswitch, console, or base cap.

3.5. Memory Feature

3.5.1. This system allows the operator to select a preferred examining position. The chair will automatically stop reclining when that point is reached.

3.5.2. Programming the Memory Feature

- Step 1) Press the AUTO Switch. The chair will lower the chair base to its lowest position. It will also raise the chair back to its most upright position. Wait 20 seconds.
- Step 2) Press and hold the RAISE TOP Switch. The chair back will NOT move since it is already upright. While maintaining pressure on the RAISE TOP switch, press the RECLINE switch. The chair will enter a programming mode and begin to recline and the switches will blink rapidly. At this point release the switches.
- Step 3) Press the STOP Switch when the chair top arrives at the desired recline position. This completes the programming setup.
- Step 4) To use the memory feature once it has been programmed, press the AUTO Switch. The LED's will blink and the chair will return to its full upright position. The LED's will stop blinking. Then press the RECLINE Switch which is programmed for memory mode. (Specify which RECLINE Switch will utilize this feature.) The switches will blink and the chair will recline on its own and stop at the programmed point.

NOTE: Memory switches on the right and left sides of the Chair Back work independently of each other. If the Memory Feature is activated on the left side, the right side will continue to recline the Chair all the way back with one touch. If you also want to activate the Memory Feature on the right side of the Chair, repeat Steps 1-4 on the right side of the Chair.

REMARQUE : Les interrupteurs à mémoire sur les côtés droit et gauche du dossier de la chaise fonctionnent indépendamment l'un de l'autre. Si la fonctionnalité de mémoire est activée du côté gauche, le côté droit continuera à incliner la chaise jusqu'au bout avec une seule touche. Si vous désirez aussi activer la fonctionnalité de mémoire du côté droit de la chaise, répétez les étapes 1 à 4 sur le côté droit de la chaise.

NOTE: The Memory Feature does not control the raise motion of the Chair Back.

REMARQUE : La fonctionnalité de mémoire ne commande pas le mouvement d'élévation du dossier de la chaise.

3.6. Revolving/Rotation

3.6.1. 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 chrome plated knob located below the seat at the center and on either side. Push the lever in the direction of footrest to apply the lock and in opposite direction to release the lock.

NOTE: The lock must be applied each time before the Chair is used. 30 lbs. of locking force is necessary to lock the Chair for one working day. Vibration of the Chair during transportation or movement on a rough surface will release the lock..

REMARQUE : Le verrouillage doit être appliqué chaque fois avant que la chaise soit utilisée. 30 lb de force de verrouillage est nécessaire pour verrouiller la chaise pour une journée de travail. La vibration de la chaise durant le transport ou le mouvement sur une surface rugueuse relâchera le verrouillage.

3.7. Arm Movement

3.7.1. The chair arms may be raised to provide better access to the patient or to permit entrance to or exit from the chair.

3.7.2. The movements of both arms are identical and completely independent of each other.


3.7.3. To raise an arm, push rearward on the middle joint of the arm support link while raising upward on the arm. A stop limits upward motion of the arm to a point parallel to the plane of the back. Lowering the arm automatically locks it in place against vertical motion in either direction.


3.8. Footrest

3.8.1. The footrest may be retracted by lifting near its outer edge. When fully retracted the footrest will stay in place.

3.9. Headrest

3.9.1. The No. 26 headrest is the standard headrest for the Model FX920 Chair.

 **WARNING- IF THE NO. 26 HEADREST RECEIVES A IMPACT OR STRIKES AN OBJECT WITH FORCE CONTACT RELIANCE® TECH SERVICE IMMEDIATELY.**

 **AVERTISSEMENT : SI L'APPUIE-TÊTE # 26 REÇOIT UN CHOC OU FRAPPE UN OBJET AVEC FORCE, CONTACTEZ IMMÉDIATEMENT LE SERVICE TECHNIQUE RELIANCE®.**

3.9.2. Operation-No. 26 Headrest

3.9.2.1. The No. 26 headrest is designed so it can be operated with just one hand. To unlock, squeeze the clear plastic actuator into lock housing. This will allow both pivots of the articulating arm to rotate so the headrest can be moved to a new desired position. Once in the new position, release the actuator. Make sure the actuator expands to its original position fully exposing black dot on handle to insure a positive lock. The headrest pad is free to rotate at all times. (See Figure 4).

3.9.3. Adjustment-No.26 Headrest

3.9.3.1. There are three adjustments provided on the No. 26 headrest. The first is the tension on the pad rotation. By tightening the two hex acorn nuts on the pad pivots with a 3/8" open end wrench, the tension will be increased. To adjust the drag on the pivots of the articulating arm, loosen the set screw in the center of the pivot with (Figure 4, item 1) a 3/32" hexagon key wrench. Next, tighten the pivot screw on the other side of the pivot, with a 1/8" hexagon key wrench. Now, retighten the set screw to retain the pivot screw at the new adjustment. Either pivot may be adjusted.

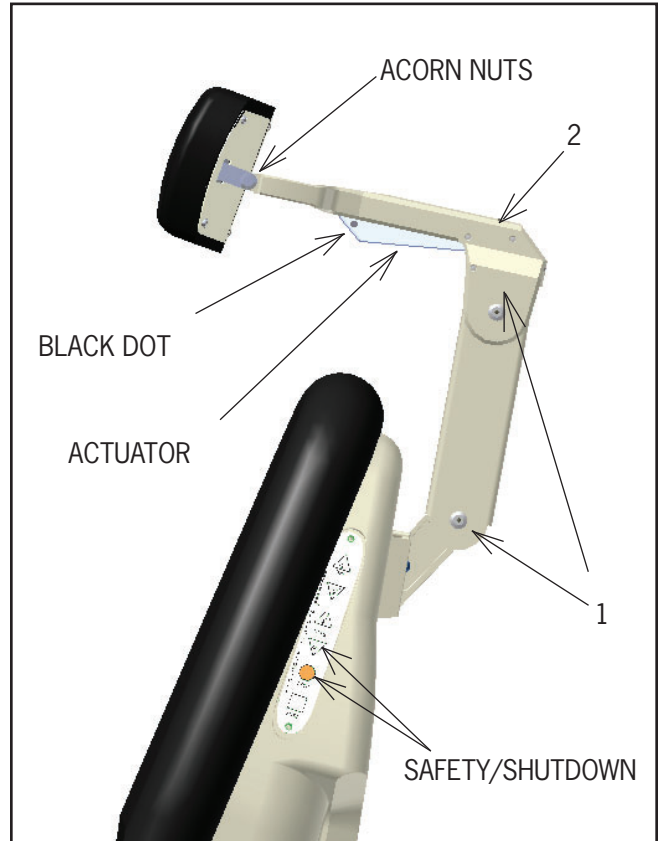


FIGURE 4

3.9.3.2. The third adjustment is for proper clearance of the block dot to indicate that the headrest is properly locked. If the dot does not fully clear the lock housing when the headrest is lock securely, turn the set screw located at the top of the lock housing (Figure 4, item 2) counterclockwise until the dot on the actuator is fully exposed.

4. PROGRAMMING THE CHAIR

The items described in Section 4. are built-in features of the chair. Only those users who wish to utilize these features need to be concerned with this Section. The chair will operate as previously designed if these features are not used. The chair can be programmed in the same fashion from either switch located on the chair back.

4.1. Safety/Shutdown Feature

The chair has a built-in Safety/Shutdown feature. This feature causes the chair to shutdown or become inoperable. This feature prevents unauthorized use of the chair. (See Figure 2).

4.1.1 To ENTER Safety/Shutdown Mode

4.1.1.1 Depress and HOLD either STOP switch.

4.1.1.2 With the STOP switch depressed, depress the LOWER BASE switch on the same side of the chair back.

4.1.1.3 A two second beep will be heard to indicate the chair will NOT move if any additional switches are depressed.

4.1.1.4 The LED's on the Membrane Switches will blink every three seconds while in Safety/Shutdown Mode.

4.1.2 To EXIT Safety/Shutdown Mode, repeat the above sequence.

4.1.2.1 Depress and HOLD either STOP switch.

4.1.2.2 With the STOP switch depressed, depress the LOWER BASE switch on the same side of the chair back.

4.1.2.3 A two second beep will be heard to indicate the chair is functional, and movement of the chair WILL OCCUR when another switch is depressed.

4.1.2.4 The LED's will come back on when the chair becomes operational.

4.2. Individual Programming of the RAISE TOP, RECLINE TOP, RAISE BASE, and LOWER BASE switch located on the Chair Back or Footswitch. (See Figure 2 & 3).

4.2.1 These individual switches may be programmed to function in two ways. If the movement of the chair STOPS when the switch is released, this is called the MOMENTARY

MODE of operation. If the movement of the chair continues after the switch is released, this is called the MAINTAINING MODE of operation. The factory designed setting for the RAISE TOP and RECLINE TOP switches located on the chair top is MAINTAINING MODE. The factory designed setting for the RAISE BASE and LOWER BASE switches located on the chair top is MOMENTARY MODE. If changed, the new settings will remain permanent as long as main power remains applied to the chair and will apply to the similar function on the other side.

4.2.2 To change these settings the chair must be placed in Setup Mode. Once in Setup Mode, depressing one of these switches will change its present setting from MOMENTARY to MAINTAINING or from MAINTAINING to MOMENTARY. Depressing a switch repeatedly will cause the setting to toggle between the two modes of operation.

4.2.3 To ENTER Setup Mode and change current settings

4.2.3.1 Depress and HOLD either STOP switch.

4.2.3.2 With the STOP switch depressed, depress the AUTO switch on the same side of the chair back.

4.2.3.3 A one second beep will be heard to indicate you have ENTERED Setup Mode. The LED's will blink on and off while in Setup Mode.

4.2.3.4 Depress any of the following switches (including footswitch), one at a time, to toggle its current setting - RAISE TOP, RECLINE TOP, RAISE BASE, OR LOWER BASE. When the switch is depressed, a SHORT beep (0.25 seconds) will indicate the switch is now in MOMENTARY MODE of operation. A LONG beep (1.05 seconds) will indicate the switch is now in MAINTAINING MODE of operation.

4.2.3.5 When finished programming the chair, the chair MUST be taken out of Setup Mode.

4.2.4 To EXIT Setup Mode, repeat steps 1 & 2 above.

4.2.4.1 Depress and HOLD either STOP switch.

4.2.4.2 With the STOP switch depressed, depress the AUTO switch on the same side of the chair back.

4.2.4.3 A one second beep will be heard to indicate the chair has EXITED Setup Mode. The LED's will come back on.

NOTE: Depressing a switch causes the mode of operation to TOGGLE between MOMENTARY and MAINTAINING operation. If a mistake is made, depress the same switch again to return that switch to its previous mode of operation. If, at any time, the user becomes lost or confused during the programming procedure, the chair can be reset to the factory settings by disconnecting and then reconnecting main power to the chair. Once reset, the programming procedure can be repeated.

REMARQUE : Appuyer sur un interrupteur fait BASCULER le mode de fonctionnement entre MOMENTANÉ et MAINTENU. Si vous avez fait une erreur, appuyez de nouveau sur le même interrupteur pour le ramener à son mode de fonctionnement préalable. Si, en tout temps, l'utilisateur devient perdu ou confus durant la procédure de programmation, la chaise peut être réinitialisée aux réglages d'usine en déconnectant et en reconnectant l'alimentation principale à la chaise. Une fois réinitialisée, la procédure de programmation peut être répétée..

4.3. BEEP-ON-SWITCH Feature

4.3.1 The chair can be programmed to beep whenever a switch is depressed. This gives the user additional feedback on the operation of the chair. The factory design is to have NO BEEP occur when a switch is depressed. To change this setting the chair must be in Setup Mode. See Section 4.2.4. on how to ENTER Setup Mode, once in Setup Mode.

4.3.2 Depress either AUTO switch on the chair back to toggle the BEEP-ON-SWITCH feature between ON and OFF.

4.3.3 A short beep (0.25 seconds) indicates NO BEEP will occur when a switch is depressed. A long beep (1.05 seconds) indicates a BEEP occur when a switch is depressed.

4.3.4 When finished programming the chair, the MUST be taken out of Setup Mode. See Section 4.2.4. on how to EXIT Setup Mode.

4.4. Auto Up/Retinal Feature

The Auto Up/Retinal Feature is a convenient feature for Retinal Specialists. When either recline switch is programmed to operate in this mode, depressing that switch will cause the chair lift to rise and the chair top to recline

4.4.1 To ENTER Auto Up/Retinal Mode.

4.4.1.1 Depress and HOLD either STOP switch.

4.4.1.2 With the STOP switch depressed, depress the LOWER TOP switch on the right side of the chair back to program that switch for Retinal Mode.

4.4.1.3 A one second beep will be heard to indicate that switch has ENTERED Auto Up/ Retinal Mode. When depressed, the RECLINE TOP switch on the right-hand side of the chair will now cause the chair lift to rise and the chair top to recline.

4.4.1.4 To program the RECLINE TOP switch on the left-hand side of the chair, use that switch and repeat the same steps as described above.



CAUTION: ANY Chair movement that CONTINUES after the switch is released may be stopped by depressing the STOP Switch or by depressing the same switch a second time.



PRÉCAUTION : TOUT mouvement de la chaise qui CONTINUE après que l'interrupteur est relâché peut être arrêté en appuyant sur l'interrupteur STOP (ARRÊT) ou en pressant le même interrupteur une seconde fois.

4.4.2 To EXIT Auto Up/Retinal Mode, repeat the above sequence.

4.4.2.1 Depress and HOLD either STOP switch.

4.4.2.2 With the STOP switch depressed, depress the LOWER TOP switch on the same side of the chair back.

4.4.2.3 A one second beep will be heard to indicate that switch has EXITED Auto Up/Retinal Mode.

4.5. Home Feature

4.5.1 The Home Feature allows the user to program the distance the chair lift will travel when starting from the fully lowered position. Activating this Feature causes the chair to move upward for a fixed amount of time. The actual height achieved by the chair will vary slightly from the programmed height, depending on the weight of the patient.

4.5.2 The Home Feature can be initiated by any of the RAISE BASE switches, located on the chair back, footswitch, or instrument stand. Each switch can be independently programmed for a specified height.

4.5.3 To PROGRAM the Home Mode Feature.

4.5.3.1 The chair lift must be fully lowered. To make sure the lift is all the way down, DEPRESS the AUTO switch and wait at least fifteen seconds.

4.5.3.2 The RAISE BASE switches that are to be programmed for Home Mode, must be in Momentary Mode.

4.5.3.3 DEPRESS and HOLD either STOP switch located on the chair back.

4.5.3.4 With the stop switch depressed, DEPRESS the RAISE BASE switch to be programmed. The chair lift will begin to rise and the LED's will blink. Release both switches.

4.5.3.5 When the chair rises to the desired height, DEPRESS either STOP switch to program that height into the chair.

4.5.3.6 Repeat steps 1 thru 5 to program any other RAISE BASE switch for Home Mode.

4.5.4 To UTILIZE the Home Mode Feature.

4.5.4.1 When the chair is all the way down, depressing a Raise Base Switch that has been programmed for Home Mode will cause the chair to rise to the programmed height.

4.5.4.2 If a RAISE BASE switch is programmed for Home Mode, but the chair lift is not all the way down, the Raise Base switch will function like a momentary switch.

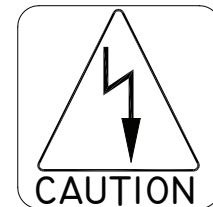
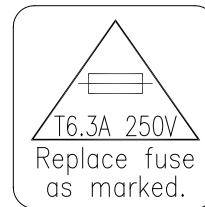
4.5.4.3 If any RAISE BASE switch is programmed for Home Mode, the LED's will blink for 15 seconds after the AUTO DOWN switch is depressed. When the LED's stop blinking, the chair lift is all the way down.

4.5.5 To EXIT the Home Mode Feature.

4.5.5.1 If the Home Feature is no longer needed for any of the RAISE BASE switches, depress a STOP switch and the desired RAISE BASE switch at any time when the chair lift is not all the way down.

REMARQUE : La fonctionnalité Accueil et la fonctionnalité Mémoire peuvent être utilisées seulement lorsque la base est en bas et que l'arrière est entièrement relevé. Consultez la Section 3.5.2 Étape 4.

5.0 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 contains two fuses located inside the AC Input Module in the Base Assembly.

NOTE: The Home Feature and Memory Feature can only be operated with the Base down and the Back fully upright See Section 3.5.2 Step 4

5.1. Fuse Replacement (AC Input Module)

Unplug the power cord from the chair base. With a tool similar to a small common screwdriver, unsnap the locking tab on the bottom of the fuse drawer. Remove and examine the fuses. Replace as necessary. See Figure 5.

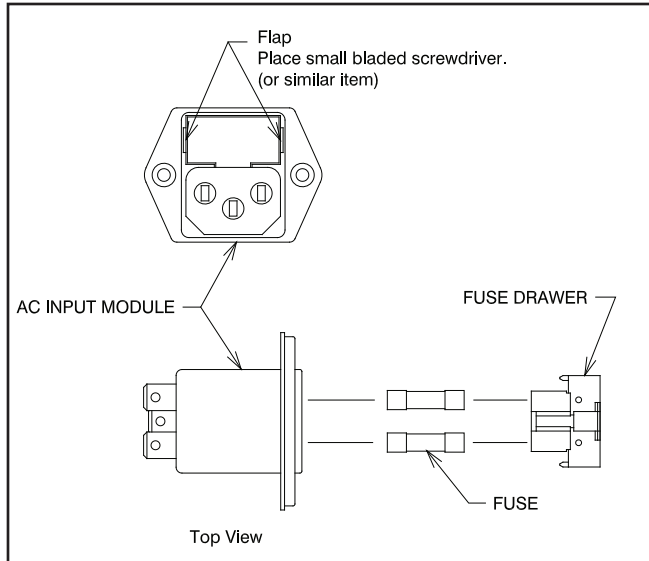


FIGURE 5
AC INPUT MODULE

Method for removing fuse drawer:

1. The fuse drawer is located above the power cord.
2. Remove the power cord.
3. Place a small bladed screwdriver into appropriate slot (shown above) and push the flat spring towards the center of the power module until a click is heard. (Click may not be heard in all cases.) The drawer will come forward slightly.
4. Once the flap has been pushed towards the center, the drawer will extend slightly beyond the power module.
5. Remove the drawer by pulling it out by your fingers.



CAUTION: To avoid a bind of the Fuse Drawer within the AC Input Module, never install the Fuse Drawer into the AC Input Module without fuses.



PRÉCAUTION : Pour éviter que le tiroir à fusible reste bloqué dans le module d'entrée CA, n'installez jamais le tiroir à fusible à l'intérieur du module d'entrée CA sans fusibles.



WARNING: TO ENSURE A LONG LIFE, THE DEVICE MUST BE CLEANED AS DESCRIBED. IT IS ALSO RECOMMENDED THAT THE DEVICE BE INSPECTED ANNUALLY BY A LICENSED SERVICE TECHNICIAN.



AVERTISSEMENT : POUR ASSURER UNE LONGUE DURÉE DE VIE, L'APPAREIL DOIT ÊTRE NETTOYÉ COMME DÉCRIT. IL EST ÉGALEMENT RECOMMANDÉ QUE L'APPAREIL SOIT INSPECTÉ ANNUELLEMENT PAR UN TECHNICIEN DE SERVICE AGRÉÉ.

TROUBLESHOOTING GUIDE

PROBLEM	PROBLEM CAUSE	SOLUTION
CHAIR WILL NOT OPERATE.	<ol style="list-style-type: none"> 1) POWER CORD NOT PLUGGED IN. 2) NO AC POWER AT WALL RECEPTACLE. 3) BLOWN LINE FUSE. 	<ol style="list-style-type: none"> 1) CHECK ALL WIRING CONNECTIONS. 2) RESTORE OUTLET POWER. 3) REPLACE FUSE.
OUTLET POWER OK, BUT NO BEEP IS HEARD WHEN POWER IS APPLIED.	<ol style="list-style-type: none"> 1) BLOWN LINE FUSE. 2) LOOSE WIRING IN BASE. 3) OTHER. 	<ol style="list-style-type: none"> 1) REPLACE FUSE. 2) CHECK ALL WIRING CONNECTIONS. 3) CONTACT FACTORY
FOOTSWITCH FUNCTIONS NOT OPERATING.	<ol style="list-style-type: none"> 1) FOOTSWITCH CORD NOT CONNECTED. 	<ol style="list-style-type: none"> 1) CHECK ALL INTERNAL AND EXTERNAL FOOTSWITCH WIRING
BACKSWITCH FUNCTIONS NOT OPERATING.	<ol style="list-style-type: none"> 1) DAMAGED OR DISCONNECTED WIRES IN CHAIR BACK, UNDER CHAIR SEAT, OR IN CHAIR BASE 	<ol style="list-style-type: none"> 1) CHECK ALL WIRING CONNECTIONS.
CHAIR BASE WILL NOT STAY UP	<ol style="list-style-type: none"> 1) SOLENOID VALVE NOT CLOSED. (DIRT IN VALVE.) 2) CONSTANT POWER APPLIED TO SOLENOID. 3) OTHER 	<ol style="list-style-type: none"> 1) REPAIR OR REPLACE SOLENOID VALVE. 2) CHECK FOR SWITCHES STUCK "CLOSED" . 3) CONTACT FACTORY.
CHAIR BASE WILL NOT LOWER.	<ol style="list-style-type: none"> 1) NO POWER TO PUMP MOTOR ASS'Y. 2) SOLENOID COIL BURNED-OUT 3) OTHER 	<ol style="list-style-type: none"> 1) CHECK FOR VOLTAGE. 2) REPLACE SOLENOID COIL. 3) CONTACT FACTORY.
CHAIR BASE WILL NOT RAISE. PUMP MOTOR DOES NOT RUN.	<ol style="list-style-type: none"> 1) NO POWER TO PUMP MOTOR ASS'Y 2) UP-LIMIT SWITCH STUCK "OPEN". 3) PUMP MOTOR BURNED-OUT. 4) OTHER 	<ol style="list-style-type: none"> 1) CHECK FOR VOLTAGE. 2) RE-ADJUST OR REPLACE SWITCH. 3) REPLACE PUMP MOTOR ASS'Y. 4) CONTACT FACTORY.
CHAIR BASE WILL NOT RAISE. PUMP MOTOR RUNS.	<ol style="list-style-type: none"> 1) SOLENOID VALVE NOT CLOSED. (DIRT IN VALVE.) 2) CONSTANT POWER APPLIED TO SOLENOID. 3) OTHER. 	<ol style="list-style-type: none"> 1) REPAIR OR REPLACE SOLENOID VALVE. 2) CHECK FOR SWITCHES STUCK "CLOSED". 3) CONTACT FACTORY.
BASE "STUTTERS" DURING ASCENT.	<ol style="list-style-type: none"> 1) HYDRAULIC FLUID LEVEL IS LOW. 	<ol style="list-style-type: none"> 1) CONTACT DEALER OR FACTORY FOR INFORMATION ON ADDING OIL.
CHAIR BASE WILL NOT RAISE OR LOWER FROM FLOOR UNIT.	<ol style="list-style-type: none"> 1) CHAIR CONTROL CABLE NOT PLUGGED IN. 2) BLOWN FUSE IN CHAIR BASE. 	<ol style="list-style-type: none"> 1) CHECK CABLE CONNECTIONS AT STAND AND CHAIR 2) REPLACE FUSE.
CHAIR TOP "BINDS-UP".	<ol style="list-style-type: none"> 1) CHAIR TOP MOTOR IS OUT OF ADJUSTMENT. 	<ol style="list-style-type: none"> 1) CONTACT DEALER OR FACTORY FOR ADJUSTMENT PROCEDURE.
CHAIR TOP "WOBBLES" ON CHAIR BASE	<ol style="list-style-type: none"> 1) LOCK NUT IS LOOSE. (UNDER SEAT BOARD.) 	<ol style="list-style-type: none"> 1) TIGHTEN LOCK NUT.
MEMORY SYSTEM INOPERATIVE.	<ol style="list-style-type: none"> 1) NOT PROGRAMMED PROPERLY. 2) LOOSE CONNECTIONS UNDER CHAIR SEAT. 	<ol style="list-style-type: none"> 1) SEE SECTION 3.5.1 OR SECTION 4. 2) CHECK ALL WIRING CONNECTIONS.

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.



WARNING: REFER TO LOCAL OR HEALTHCARE PROFESSION GUIDELINES FOR SELECTING EFFECTIVE INFECTION CONTROL PRODUCTS.



AVERTISSEMENT : SE RÉFÉRER AUX DIRECTIVES LOCALES OU DES PROFESSIONS DE LA SANTÉ POUR SÉLECTIONNER DES PRODUITS DE CONTRÔLE D'INFECTION EFFICACES.



WARNING: TO AVOID BIOLOGICAL HAZARDS WHEN EQUIPMENT HAS REACHED THE END OF ITS USEFUL LIFE, DISPOSE OF EQUIPMENT PER LOCAL REGULATIONS OR HEALTHCARE PROFESSION GUIDELINES.



AVERTISSEMENT : POUR ÉVITER LES RISQUES BIOLOGIQUES LORSQUE L'ÉQUIPEMENT A ATTEINT LA FIN DE SA VIE UTILE, DISPOSEZ DE L'ÉQUIPEMENT SELON LES RÉGLEMENTATIONS LOCALES OU LES DIRECTIVES DES PROFESSIONS DE LA SANTÉ.



WARNING: TO ENSURE A LONG LIFE, THE DEVICE MUST BE CLEANED AS DESCRIBED. IT IS ALSO RECOMMENDED THAT THE DEVICE BE INSPECTED ANNUALLY BY A LICENSED SERVICE TECHNICIAN.



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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 Haag-Streit USA, Inc. Such repair or replacement shall be the sole remedy under this warranty. This warranty extends only to the original purchaser from an authorized Haag-Streit dealer and is subject to the following conditions:

1. The warranty card must be completed and returned to Haag-Streit USA, Inc. within two (2) weeks from the date of installation.
2. Installation and servicing of the products must be performed by trained Haag-Streit USA, Inc 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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Haag-Streit USA, Inc neither assumes nor authorizes any person to assume for it, any other liability in connection with the sale and use of its products.

REMEDIES ARE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF PARTS. HAAG-STREIT USA, INC. EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE RESULTING FROM THE USE OF THE EQUIPMENT.

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



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P/N 27158 REV G
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Printed in U.S.A.
Revised 02-2024-9484