

# INSTALLATION AND OPERATING INSTRUCTIONS

OWNERS MANUAL

## **Reliance**<sup>®</sup>

### MODEL 980 FC CHAIR/TABLE [LOW VOLTAGE CONTROL]



**HS**

**Reliance**<sup>®</sup>

MEDICAL PRODUCTS, INC.

A HAAG-STREIT COMPANY

3535 Kings Mills Road  
Mason, Ohio 45040-2303  
1-800-735-0357 (Customer Service)  
1-800-735-0358 (Technical Service)  
(513) 398 3937

# INSTALLATION AND OPERATING INSTRUCTIONS

## RELIANCE® MODEL 980 FC CHAIR/TABLE

### 1. INTRODUCTION

1.1. This manual contains information applicable only to the Reliance® Model 980 FC Chair/Table.

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

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

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

**"NOTE" —** Note indicates points of particular or additional information.

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.

### 2. INSTALLATION

#### 2.1. Unpacking

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

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

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.

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.

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

#### 2.2. Assembly

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.

Locate the footswitch assembly, chair control cable, and the power cord assembly. Refer to Figure 1 for receptacle location and attach all cables.

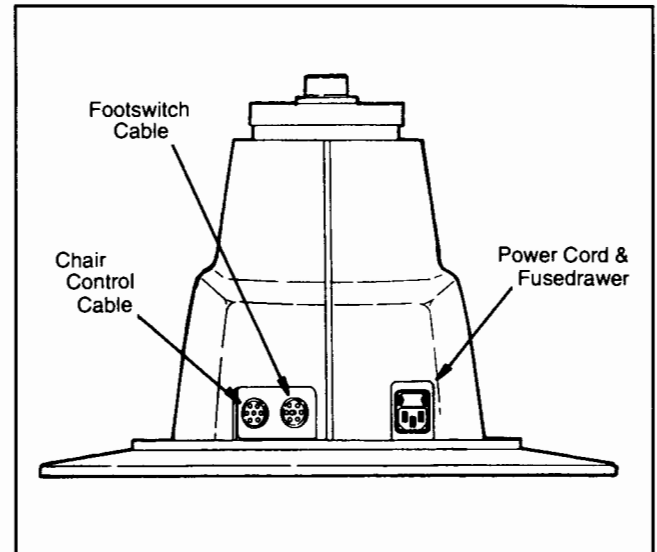


FIGURE 1. Receptacle Location

**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. If used with an older instrument stand, a different chair control cable may be required. Locate the serial number of the stand and contact your dealer or the Reliance® Technical Service Department.

### 3. OPERATION

**CAUTION:** Caution should be taken to observe that there are no obstructions (instruments, trays, or tables) to impede the movement of the chair.

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

#### 3.1. Stop Switch

Depressing the STOP switch on either side of the chair back will STOP ALL movement of the chair. On the Membrane Switches, 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 2A). On the Mechanical Switches, the STOP switch is square in shape and ORANGE in color. It is also located above the text "STOP". (Refer to Figure 2B). The STOP switch is also used to program the chair. See Appendix A 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 2A). 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.

##### 3.2.2. Raising & Lowering the Chair Lift with Mechanical Switches

The chair lift may be raised or lowered by a rocker switch on either side of the chair back (Figure 2B). To raise the chair lift from these switches, depress the upper side of the rocker switch. To lower the chair lift, depress the lower side of the rocker 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 Appendix A for programming instructions.

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

For operation from the footswitch (Figure 2C), 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.

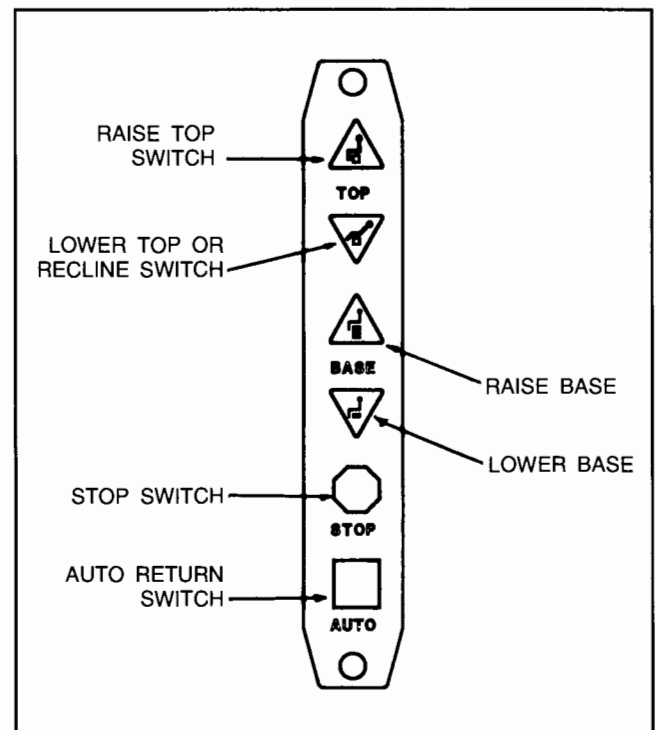
**NOTE:** The RAISE and LOWER BASE switches on the footswitch are also programmable. The motion of the chair will STOP when either of these switches is released. If you want the motion of the chair to continue after either of these switches is released, then see Appendix A for programming instructions.

#### 3.3. Chair Top

An electric motor supplies power for the articulation of the chair top. Note that as the chair top reclines the footstep and upholstered apron rise. In the extreme reclined position these surfaces form a nearly flat table.

##### 3.3.1. 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 2A). To lower, depress the triangular-shaped DOWN arrow located BELOW the text "TOP". This is called the LOWER TOP or RECLINE switch. To raise the chair top from these switches, depress the triangular-shaped UP arrow located ABOVE the next "TOP". This is called the RAISE TOP switch.



**FIGURE 2A.** Membrane Switches

### 3.3.2. Raising & Reclining the Chair Top with Mechanical Switches

The chair top may be raised by depressing the square black switch located BELOW the text "TOP RAISE" on either side of the chair back (Figure 2B). To lower/recline the chair top from the chair back, depress the square black switch located BELOW the text "TOP RECLINE" on either side of the chair back.

**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 Appendix A for programming instructions.

**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.**

### 3.3.3. Raising & Lowering the Chair Top from the Footswitch

For operation from the footswitch (Figure 2C), 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.

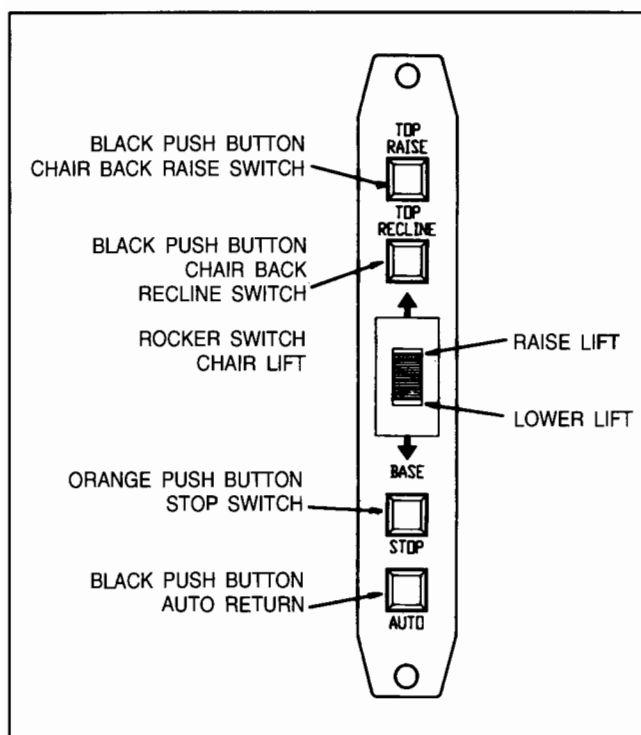


FIGURE 2B. Mechanical Switches

**NOTE:** The raise and lower/recline switches on the footswitch are also programmable. 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 Appendix A for programming instructions.

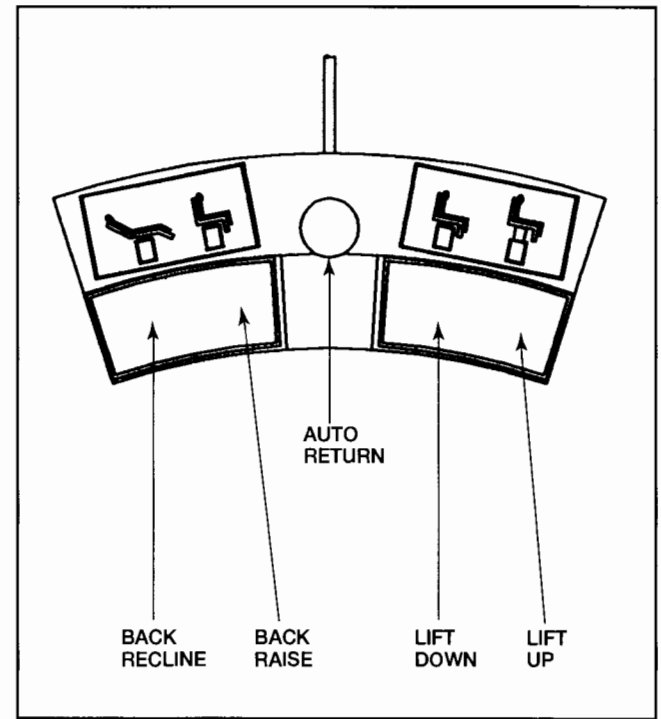


FIGURE 2C. Foot Switch Operations

### 3.4. Automatic Return

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.

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

### 3.5. Memory Feature

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

### 3.5.1. 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 and the software acknowledges the chair is in the exit or home position.
- 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 maintaining mode. (Specify which RECLINE Switch will utilize this feature.) The chair will recline on its own and stop at the preprogrammed point.

**NOTE:** The left chair back switch and the right chair back switch work independently of each other. If the programming is done from the left side, the right side will still recline the chair all the way back with one touch. It also allows you to have two preprogrammed stops, one from the left chair back switch and one from the right chair back switch.

**NOTE:** The memory system does not control raise motion of the chair back.

### 3.6. Revolving

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 down to release the lock and lift to apply the lock.

### 3.7. Arm Movements

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

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

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

The footrest may be retracted by lifting near its outer edge. A spring detent holds the step in place when retracted.

### 3.9. Headrest

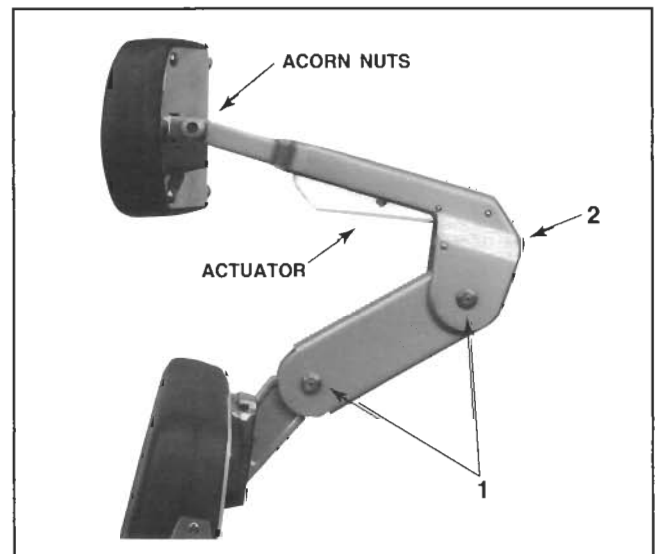
The No. 18 headrest is the standard headrest for the Model 980 Chair.

#### 3.9.1. Operation - No. 18

The No. 18 headrest is designed so it can be operated with just one hand. To unlock, squeeze 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 to insure a positive lock. The headrest pad is free to rotate at all times.

#### 3.9.2. Adjustment - No. 18

There are three adjustments provided on the No. 18 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 a 3/32" hexagon key wrench (figure 3, item 1). 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.

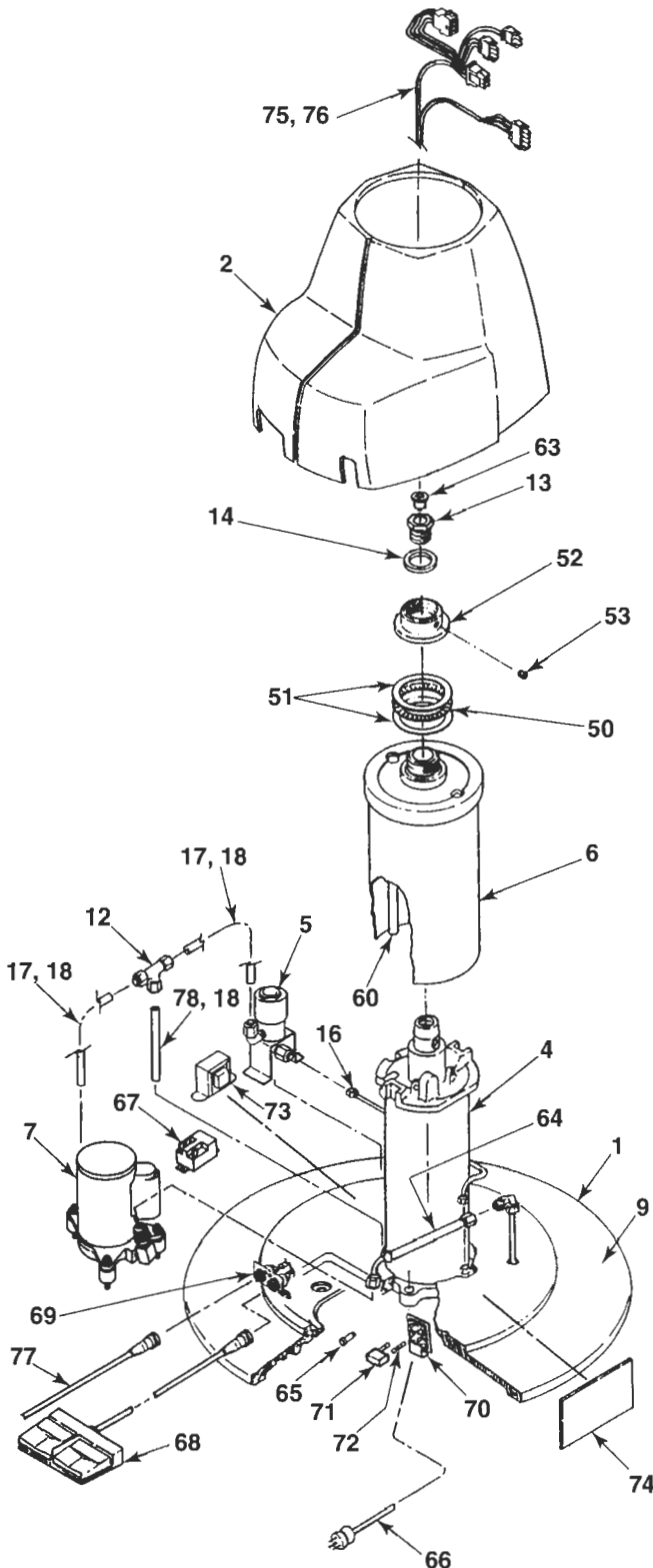


**FIGURE 3.**

The third adjustment is for the spring plunger at the rear of the lock housing (figure 3, item 2). If the plastic actuator does not readily return to its original position assuring a positive lock, the spring plunger requires adjustment inward (clockwise). If a clicking, dragging noise is apparent when the actuator is fully depressed and the headrest is moved, the spring plunger requires adjustment outward (counter-clockwise).

#### 4. PARTS LIST

**NOTE:** When ordering parts, please advise dealer or factory of model and serial number of unit. The serial number plate for the chair top is located on the rear of the chair back.



#### 4.1. Parts List — Chair Base Assembly (FIGURE 4.)

ITEM	PART NO.	DESCRIPTION
1	1711772	Base*
2	1568072	Housing Ass'y - Low*
	1568172	Housing Ass'y - High*
4		Lift Assembly (See Figure 5)
5	1707792	Solenoid Valve Assembly - 115V
	1707892	Solenoid Valve Assembly - 230V
6	0607772	Keyshield Assembly - Low*
	0903672	Keyshield Assembly - High*
7	1684592	Motor & Pump Assembly - 115V
	1684692	Motor & Pump Assembly - 230V
9	0556880	Base Ring Assembly
12	1127599	Union Tee
13	1547899	Piston Rod Bolt
14	0607299	Washer
16	1506392	Pressure Tube Assembly
17	0458999	Tubing - 5.00 (2 pc's)
18	1081999	Tube Insert (2 Ea. Tube)
50	0559999	Thrust Bearing
51	0560099	Thrust Washer
52	0123885	Lock Nut
53	1525899	Set Screw
60	1548395	Wiring Tube - Low
	1548195	Wiring Tube - High
63	1547999	Snap Bushing
64	1445499	Hose Assembly
65	1711399	Console Fuse - .031 Amp
66	1596999	Power Cord Assembly
67	1722299	Relay - 115V
	1722399	Relay - 230V
68	1608192	Footswitch Ass'y
69	1710492	Ft/Console Brk't Ass'y
70	1597099	Power Entry Module
71	1597199	Fusedrawer, 2 Pole
72	1634299	Fuse, 6.3 Amp (For 115V)
	1634999	Fuse, 4.0 Amp (For 230V)
73	1722692	Transformer - 115V - (W/ENT)
	1722792	Transformer - 230V - (W/ENT)
74	1659699	P.C. Board Ass'y
75	1710092	Base Cable - Black
76	1710899	Base Cable - Grey
77	1550599	Chair Control Cable - LV to LV
	1550799	Chair Control Cable - LV to HV
78	0458999	Tubing - 5.50

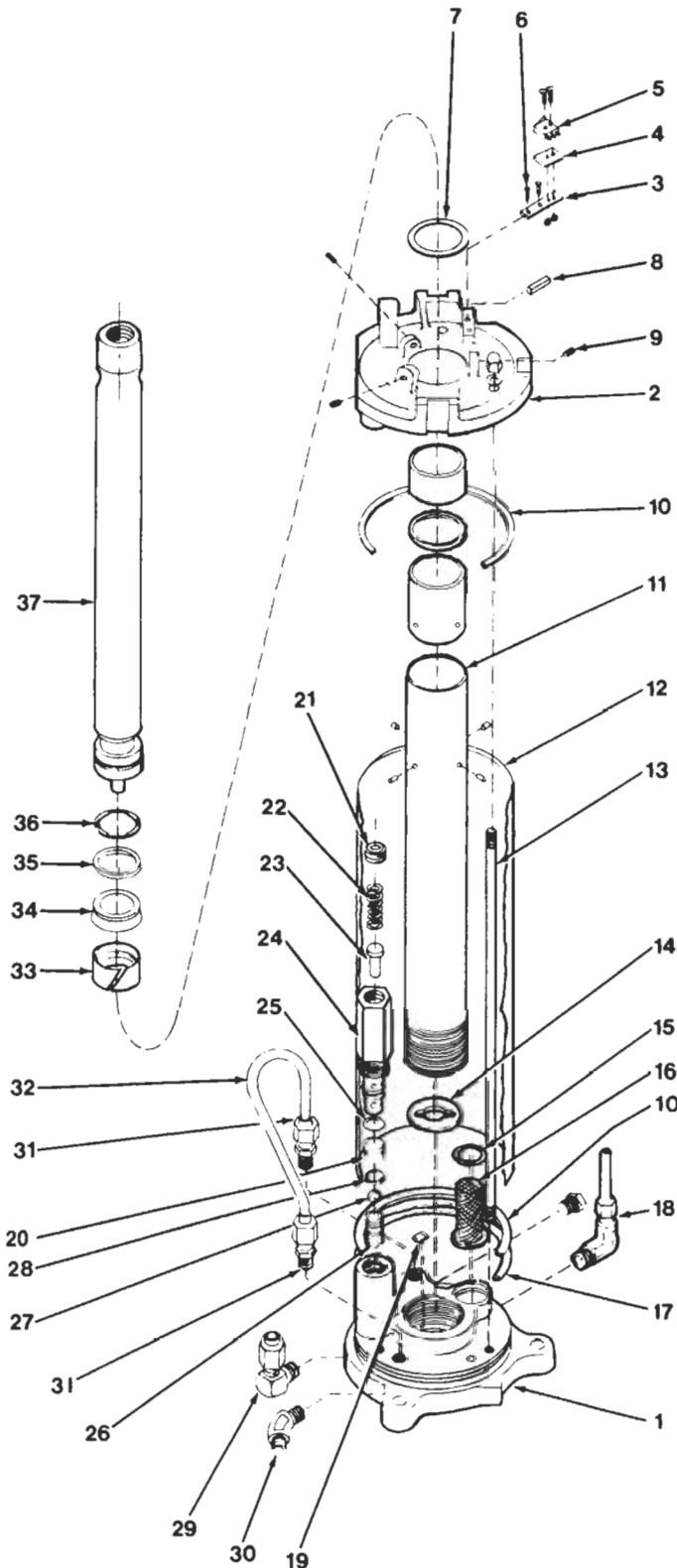
For complete base use the following part numbers.

1709272	Chair Base - High - 115V*
1709172	Chair Base - Low - 115V*
1709472	Chair Base - High - 230V*
1709372	Chair Base - Low - 230V*

\*When ordering please specify color.

**NOTE:** Power cord for 230V base does not include a

#### 4.2. Lift Assembly (FIGURE 5.)



ITEM	PART NO.	DESCRIPTION
1	1012795	Lift Base
2	1019095	Lift Top
3	0439979	Switch Plate
4	0929699	Insulator
5	1011399	Switch
6	0727599	Drive Screw
7	0731499	"O" Ring
8	1019599	Pin
9	0723699	Set Screw
10	0432599	Base Column Seal
11	0903292	Cylinder Assembly - High
	0526792	Cylinder Assembly - Low
12	0902285	Base Column - High
	0563885	Base Column - Low
13	0901999	Tie Rod - High
	0563699	Tie Rod - Low
14	0353199	Cylinder Gasket
15	0446099	Snap Ring
16	0466399	Filter Screen
17	0930899	Backup Ring
18	0447199	Elbow - 90°
19	0422899	Valve Disc
20	0441999	Valve Seat
21	1012399	Set Screw
22	0784699	Relief Valve Spring
23	0363295	Relief Valve Plunger
24	1012499	Valve Housing
25	0731299	"O" Ring
26	0442499	Valve Spring
27	0741799	Valve Ball
28	0731199	"O" Ring
29	1081899	Elbow - 90°
30	0447499	Elbow - 45°
31	0447299	Tube Fitting - Male
32	0580295	Tubing
33	0512499	Piston Ring
34	0730899	U-Pack
35	0512599	Backup Ring
36	0733299	Retaining Ring
37	1015995	Piston Rod - High
	1015895	Piston Rod - Low

To order complete lift assembly use:

P/N 1012992 - High

P/N 1012892 - Low

FIGURE 5. Lift Assembly



\* Please specify paint color when ordering.

\*\* Please specify upholstery color when ordering.

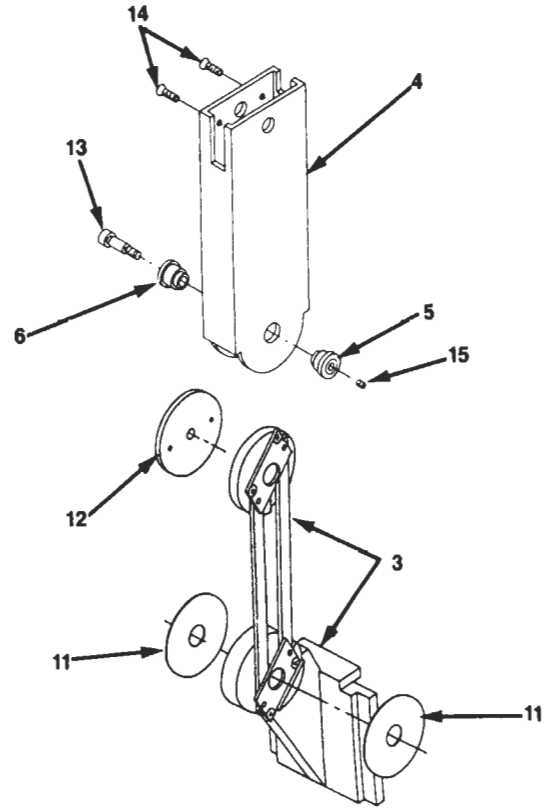
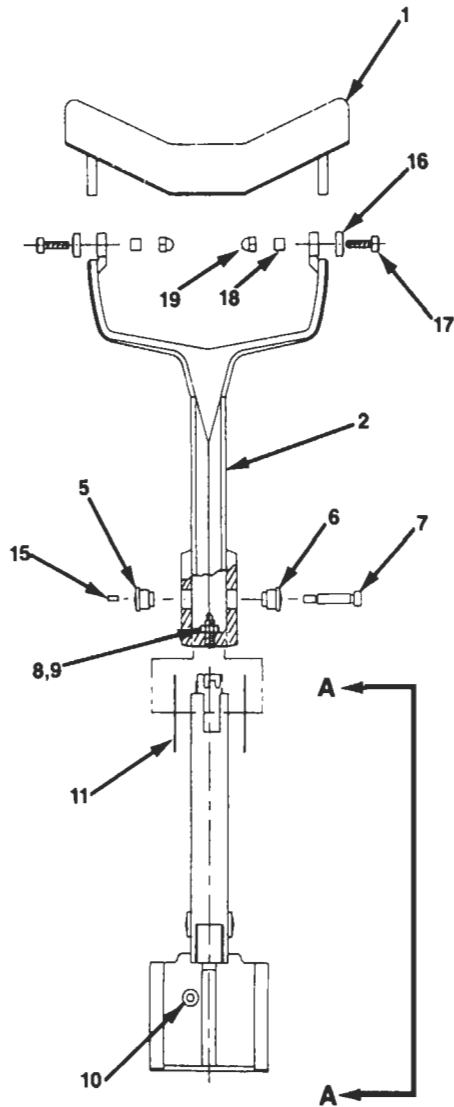
**4.3. Parts List — Chair Top Assembly (FIGURE 6.)**

ITEM	PART NO.	DESCRIPTION
1	1548099	Membrane Switch Ass'y - St'd.
	1547699	Mechanical Switch Ass'y - Opt.
3	0604092	Hanger Bracket Assembly - R.H.
4	0604192	Hanger Bracket Assembly - L.H.
6	0603872	Back Hinge Assembly - R.H.*
7	0603972	Back Hinge Assembly - L.H.*
8	0609592	Seat Support
9	1022372	Back Link Assembly*
10	0603585	Connecting Rod
11	0126395	Footstep Crank*
12	0609372	Hanger Assembly - R.H.*
13	0609472	Hanger Assembly - L.H.*
14	0126485	Apron Bracket
15	0611292	Footstep Assembly
16	0603685	Apron Link
17	0125372	Back Bracket R.H.*
18	0125472	Back Bracket L.H.*
19	0614280	Pin Assembly
21	0605999	Spring
22	0606099	Steel Ball
23	1597773	Uph. Back Board - Rem.**
24	1597873	Uph. Seat Board - Rem.**
25	1597973	Uph. Apron Board - Rem.**
27	1548872	Back Cover*
29	0569699	Wood Screw #6 x 3/4
30	1442799	Machine Screw #10 x 3/8
37	0722899	Set Screw 1/4 x 3/8
39	0609699	Washer
40	0401699	Finishing Washer
46	0732599	Retaining Ring
52	0603495	Push Rod
53	1467673	Upholstered Armrest R.H.**
54	1467773	Upholstered Armrest L.H.**
56	0604292	Armrest Link Assembly - R.H.
57	0604392	Armrest Link Assembly - L.H.
58	0603172	Side Plate Assembly - R.H.*
59	0603272	Side Plate Assembly - L.H.*
60	1546299	Ribbon Cable Ass'y
61	0122272	Armrest Bracket - R.H.*
62	0122372	Armrest Bracket - L.H.*
65	0556299	Armrest Cover
66	0606399	Bracket Hinge Pin
67	0387372	Plug Button*
68	0506899	Snap Bushing
69	0563299	Linkage Hinge Pin
71	0411199	Spacer Washer

ITEM	PART NO.	DESCRIPTION
72	0396299	Spring Washer
73	0603399	Retaining Ring
74	0732699	Retaining Ring
77	0824399	Machine Screw #8 x 3/8
80	0136780	Bracket Holder
81	0725999	Set Screw 1/4 x 3/4
83	0761899	Roll Pin 3/16 x 1
84	1660092	Actuator Assembly - 115V
	1660192	Actuator Assembly - 230V
85	0605280	Lock Handle - R.H.
86	0605380	Lock Handle - L.H.
87	0605499	Lock Shaft
88	0561799	Lock Cam
89	0643582	Lock Plug
90	0604599	Mounting Pin
91	0569499	Pin
92	0722699	Set Screw 1/4 x 1/4
94	0611899	Machine Screw 1/4 x 1-3/4
95	0789299	Machine Screw 1/4 x 1-1/2
96	0729199	Lock Washer - 1/4
97	0808699	Cap Screw - 1/4 x 1
98	1111399	Cap Screw - 1/4 x 3/4
99	0706180	Cap Screw - 1/4 x 1-1/4

The following parts/assemblies may also be ordered:

PART NO.	DESCRIPTION
1660273	Complete Chair Top 980 FC - 115V** (With Memory)
1660373	Complete Chair Top 980 FC - 230V**
1110373	Back Cushion - 980 FC**
1108973	Seat Cushion - 980 FC**
1109273	Apron Cushion - 980 FC**
1110973	Skirt - 980 FC**
1104373	Complete Cushion Set - 980 FC**
1455773	Arm Pad Kit**



**VIEW A-A**

**FIGURE 7. #18 Headrest Assembly**

**4.6. #18 Headrest Assembly (FIGURE 7.)**

ITEM	PART NO.	DESCRIPTION
1	0475672	Pad Assembly*
2	1460473	Yoke Assembly - 18 HR*
3	1460573	Gear & Bracket Ass'y*
4	1425772	Arm Cover*
5	1425299	Pivot Cap, Tapped
6	1425399	Pivot Cap
7	0307599	Shoulder Screw - 1.00
8	1427099	Spring Plunger
9	0704099	Nut
10	1454799	Cap Screw
11	1424999	Washer, 2 Inch
12	1511699	Free Gear
13	1425699	Shoulder Screw - .50
14	1460399	Cap Screw - #8
15	0726099	Set Screw - #10
16	1434799	Pad Pivot Cap
17	1454999	Cap Screw - #10
18	0467195	Bushing
19	1456199	Acorn Nut - #10

To order complete #18 headrest assembly use:  
P/N 144080\*

\*Please specify color.

## TROUBLE SHOOTING GUIDE

PROBLEM	PROBABLE 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>	<p>Check All Wiring Connections. Restore Outlet Power. Replace Fuse.</p>
Outlet Power OK, But No Peep 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>	<p>Replace Fuse. Check All Wiring Connections. Contact Factory.</p>
Footswitch Functions Not Operating.	<ol style="list-style-type: none"> <li>1) Footswitch Cord Not Connected.</li> </ol>	<p>Check All Internal And External Footswitch Wiring.</p>
Backswitch Functions Not Operating.	<ol style="list-style-type: none"> <li>1) Damaged Or Disconnected Wires In Chair Back, Under Chair Seat, Or In Chair Base.</li> </ol>	<p>Check All Wiring Connections.</p>
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> </ol>	<p>Repair Or Replace Solenoid Valve.  Check For Switches Stuck "Closed." Contact Factory.</p>
Chair Base Will Not Lower.	<ol style="list-style-type: none"> <li>1) No Power To Solenoid.</li> <li>2) Solenoid Coil Burned-Out.</li> <li>3) Other.</li> </ol>	<p>Check For Voltage. Replace Solenoid Coil. Contact Factory.</p>
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>	<p>Check For Voltage. Re-Adjust Or Replace Switch. Replace Motor-Pump Ass'y. Contact Factory.</p>
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>	<p>Repair Or Replace Solenoid Valve. Check For Switches Stuck "Closed."  Contact Factory.</p>
Base "Stutters" During Ascent.	<ol style="list-style-type: none"> <li>1) Hydraulic Fluid Level Is Low.</li> </ol>	<p>Contact Dealer Or Factory For Information On Adding Oil.</p>
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>	<p>Check Cable Connections At Stand And Chair. Replace Fuse.</p>
Chair Top "Binds-Up".	<ol style="list-style-type: none"> <li>1) Chair Top Motor (Nut-Tube) Is Out Of Adjustment.</li> </ol>	<p>Contact Dealer Or Factory For Adjustment Procedure.</p>
Chair Top "Wobbles" On Chair Base.	<ol style="list-style-type: none"> <li>2) Lock Nut Is Loose. (Under Seat Board.)</li> </ol>	<p>Tighten Lock Nut.</p>
Memory System Inoperative.	<ol style="list-style-type: none"> <li>1) Switch Not Properly Adjusted.</li> <li>2) Loose Connections Under Chair Seat.</li> </ol>	<p>Re-Adjust Switch. Check All Wiring Connections.</p>

## APPENDIX A

### PROGRAMMING THE CHAIR

The items described in Appendix A are built-in features of the chair. Only those users who wish to utilize these features need to be concerned with this Appendix. 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.

#### A.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.

To ENTER Safety/Shutdown Mode,

- 1) Depress and HOLD either STOP switch.
- 2) With the STOP switch depressed, depress the LOWER BASE switch on the same side of the chair back.
- 3) A two second beep will be heard to indicate the chair will NOT move if any additional switches are depressed.
- 4) The LEDS on the Membrane Switches will blink every three seconds while in Safety/Shutdown Mode.

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

- 1) Depress and HOLD either STOP switch.
- 2) With the STOP switch depressed, depress the LOWER BASE switch on the same side of the chair back.
- 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) The LEDS will come back on when the chair becomes operational.

#### A.2. Individual Programming of the RAISE TOP, RECLINE TOP, RAISE BASE, and LOWER BASE Switches Located on the Chair Back or Footswitch.

The operation of these switches has been programmed at the factory to operate as previously designed. The chair requires NO additional programming to operate in this manner. The chair may be reset at any time to the factory designed settings by turning main power to the chair OFF and back ON.

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. The settings for each switch can

the new settings will remain permanent as long as main power remains applied to the chair.

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.

To ENTER Setup Mode and change the current settings,

- 1) Depress and HOLD either STOP switch.
- 2) With the STOP switch depressed, depress the AUTO switch on the same side of the chair back.
- 3) A one second beep will be heard to indicate you have ENTERED Setup Mode. The LEDS will blink on and off while in Setup Mode.
- 4) Depress any of the following switches, 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) will indicate the switch is now in MOMENTARY MODE of operation. A LONG beep (1.05) will indicate the switch is now in MAINTAINING MODE of operation.

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

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

- 1) Depress and HOLD either STOP switch.
- 2) With the Stop switch depressed, depress the AUTO switch on the same side of the chair back.
- 3) A one second beep will be heard to indicate the chair has EXITED Setup Mode. The LEDS will come back on.

**NOTE:** Keep in mind that 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.

#### A.3. BEEP-ON-SWITCH Feature

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 A.2. on how to ENTER Setup Mode. Once in Setup Mode,

- 1) Depress either AUTO switch on the chair back to toggle the BEEP-ON-SWITCH feature between ON and OFF.
- 2) A short beep (0.25) indicates NO BEEP will occur when a switch is depressed. A long beep (1.05) indicates a BEEP WILL occur when a switch is

- 3) When finished programming the chair, the chair MUST be taken out of Setup Mode. See Section A.2. on how to EXIT Setup Mode.

#### A.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.

To ENTER Auto Up/Retinal Mode,

- 1) Depress and HOLD either STOP switch.
- 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.
- 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) 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.

**NOTE:** This movement will continue after the LOWER TOP switch is released. To stop the chair movement, press the STOP switch, or depress the same LOWER TOP switch a second time.

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

- 1) Depress and HOLD either STOP switch.
- 2) With the STOP switch depressed, depress the LOWER TOP switch on the same side of the chair back.
- 3) A one second beep will be heard to indicate that switch has EXITED Auto Up/Retinal Mode.

#### A.5. Home Feature

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.

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.

To PROGRAM the Home Mode Feature.

- 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.
- 2) The RAISE BASE switches that are to be programmed for Home Mode, must be in Momentary Mode.
- 3) DEPRESS and HOLD either STOP switch located on

- 4) With the stop switch depressed, DEPRESS the RAISE BASE switch to be programmed. The chair lift will begin to rise and the LEDS will blink. Release both switches.
- 5) When the chair rises to the desired height, DEPRESS either STOP switch to program that height into the chair.
- 6) Repeat steps 1 thru 5 to program any other RAISE BASE switch for Home Mode.

To UTILIZE the Home Mode Feature.

- 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.
- 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.
- 3) If any RAISE BASE switch is programmed for Home Mode, the LEDS will blink for 15 seconds after the AUTO DOWN switch is depressed. When the LEDS stop blinking, the chair lift is all the way down.

To EXIT the Home Mode Feature.

- 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.

## APPENDIX B

### LOCATING AND REPLACING FUSES

**WARNING — DISCONNECT CHAIR BASE FROM A.C. POWER INPUT BEFORE PROCEEDING WITH ELECTRICAL INSPECTIONS OR MAINTENANCE.**

**CAUTION — Replace fuse(s) as marked. All fuses must be replaced with a fuse of the same size and rating. Refer to the wiring diagram on page 19.**

#### B.1. Power Entry Module Fuse(s)

(Item 26, FIG. 4)

These fuses are housed in a fusedrawer which is located in the Power Entry Module. (Item 31, FIG. 4).

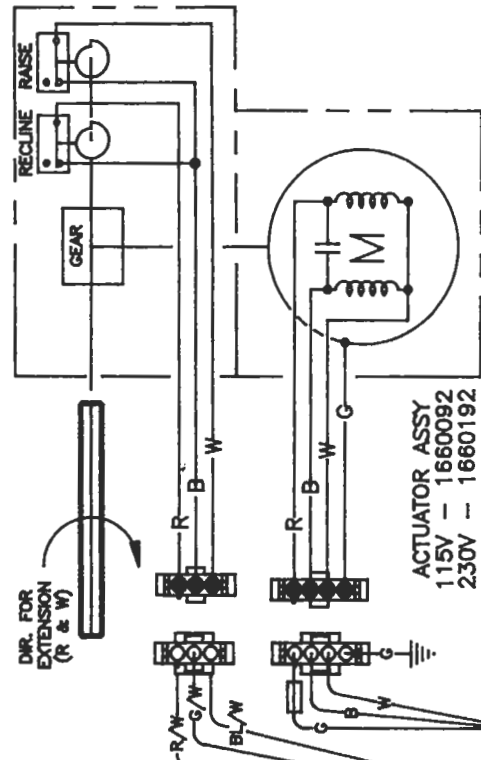
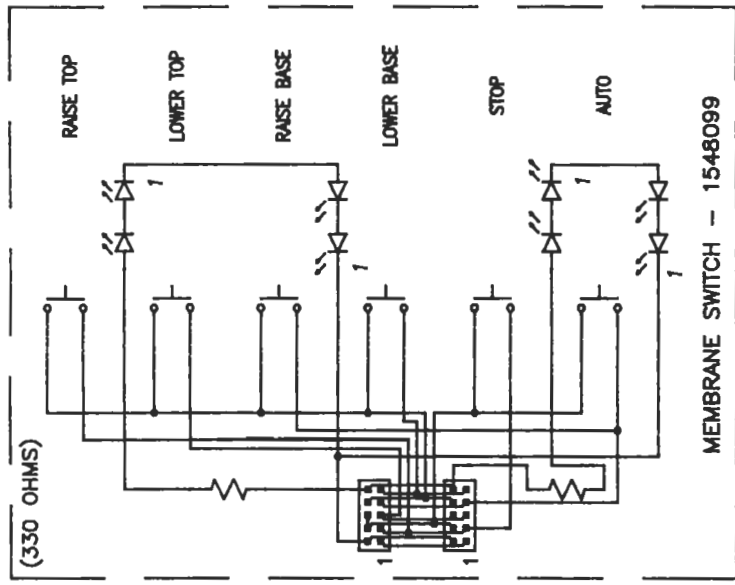
Unplug the power cord and with a tool similar to a small common screwdriver, unsnap the locking tab on each side of the fusedrawer. Remove the fusedrawer to examine the fuses. See Item 25, FIG. 4.

#### B.2. Console Fuse Replacement

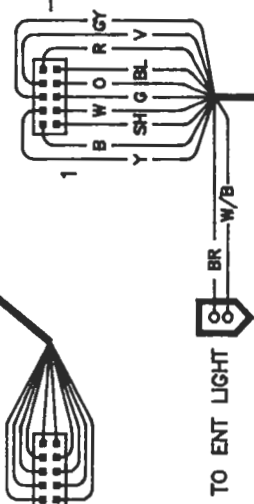
(Item 32, FIG. 4)

The (in-line) fuse holder for this fuse is located inside the base housing. Disconnect electrical power and remove all screws in base housing. Slide housing halves apart, remove and set them aside.

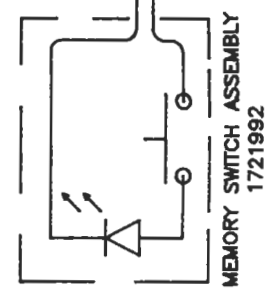
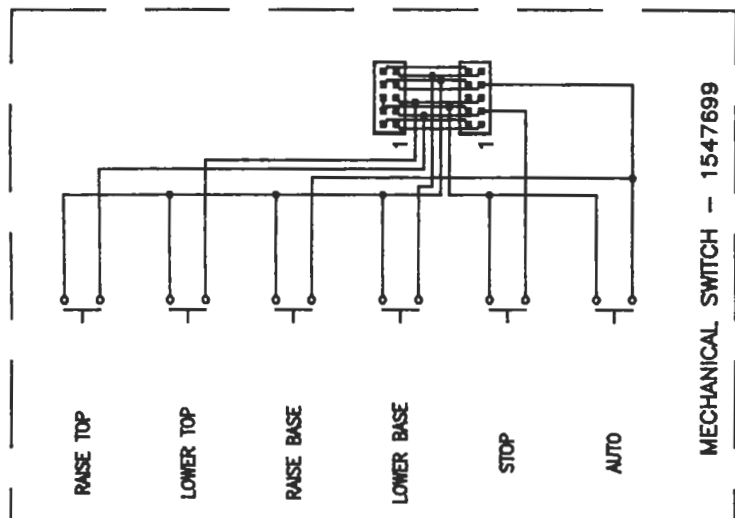
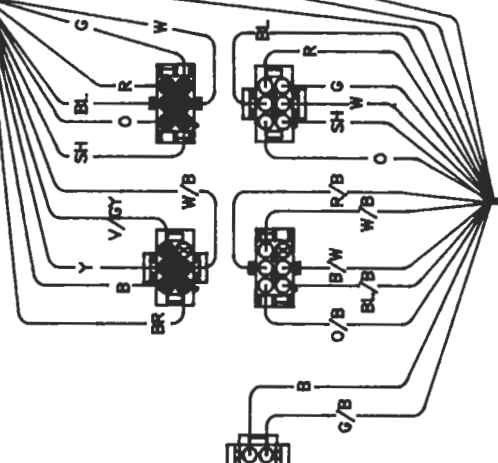
Locate fuse holder and remove center section with a screwdriver. (1/4 turn counter-clockwise). Inspect fuses —



RIBBON CABLE - 1546299  
STRIPE TO PIN 1,  
BOTH ENDS.

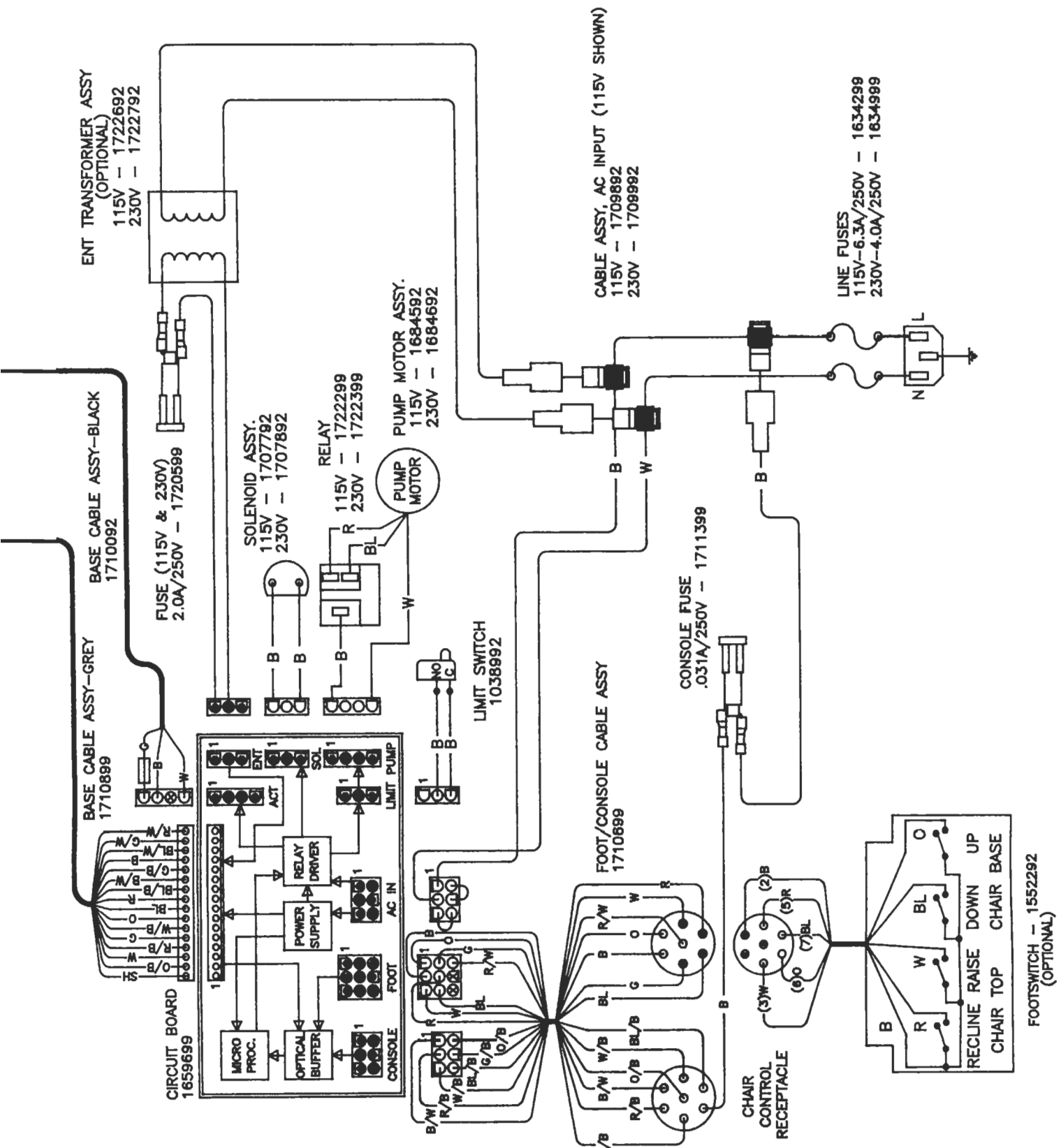


HINGE CABLE ASSY  
1546698



WIRING DIAGRAM  
980 FC LOW VOLTAGE  
17212 REV. B

WIRE COLOR ABBREVIATIONS	
ABBR	COLOR
B	BLACK
BL	BLUE
BR	BROWN
G	GREEN
GY	GRAY
O	ORANGE
R	RED
V	VIOLET
W	WHITE
Y	YELLOW



FOOTSWITCH - 1552292  
(OPTIONAL)

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2. Installation and servicing of the products must be performed by trained Reliance<sup>®</sup> equipment dealer service personnel in accordance with the appropriate instructions manual for the products.
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