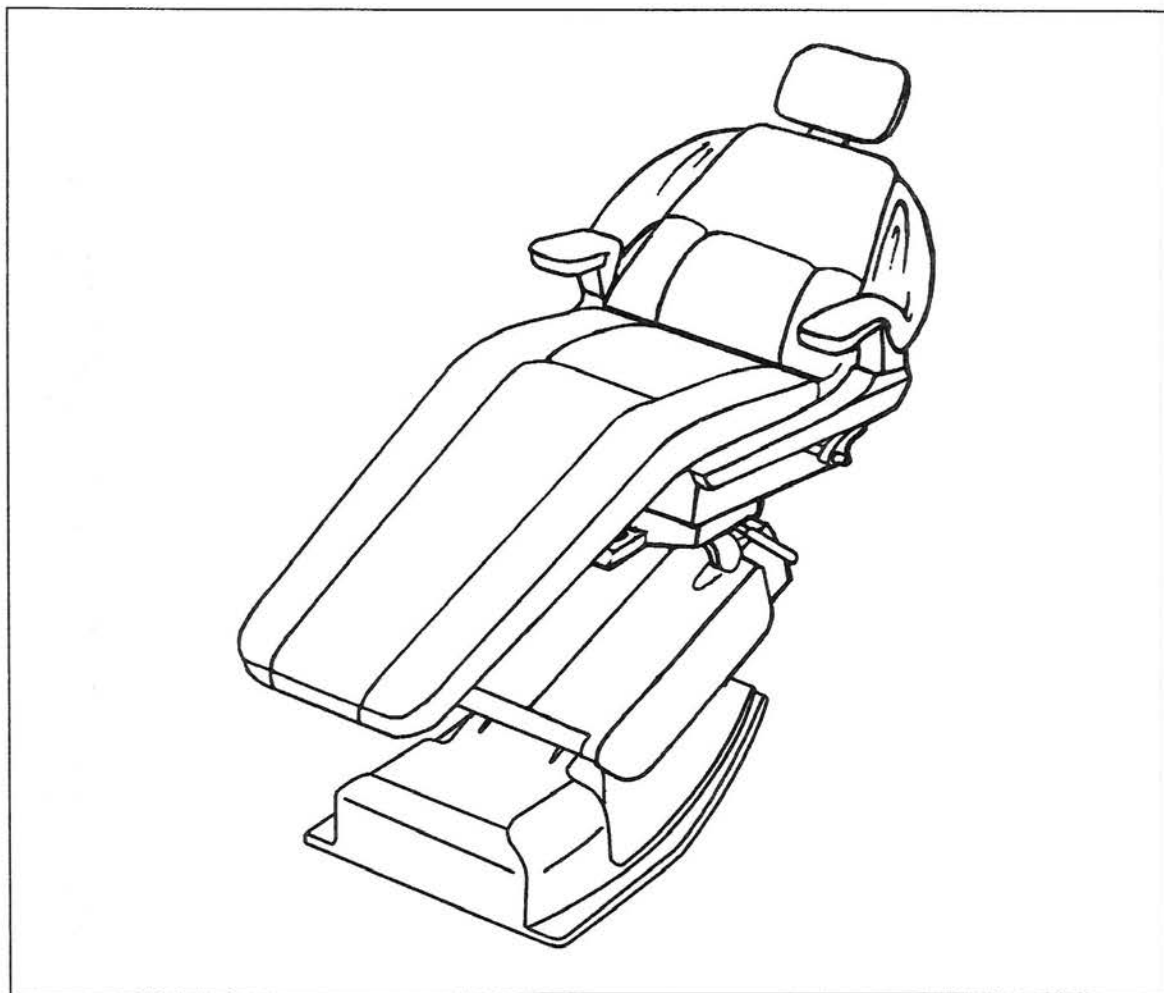


X-CALIBUR

BEL-10
(Bel-20)

DENTAL CHAIR



OPERATING
INSTRUCTIONS
(REV. 03)

 **Belmont**

BEL-20 Chair Operation Procedures

Please take time out to read through the features and to familiarize yourself with the chair.

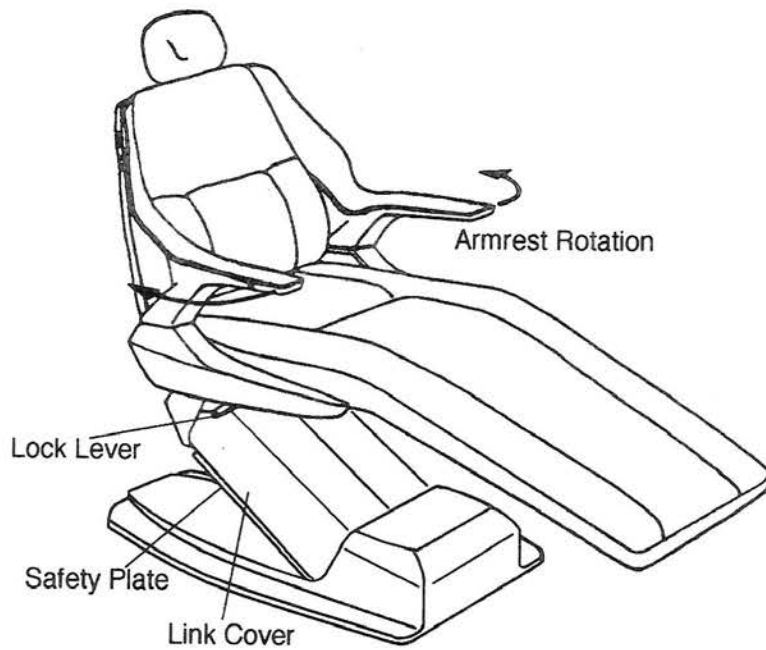


Figure 1

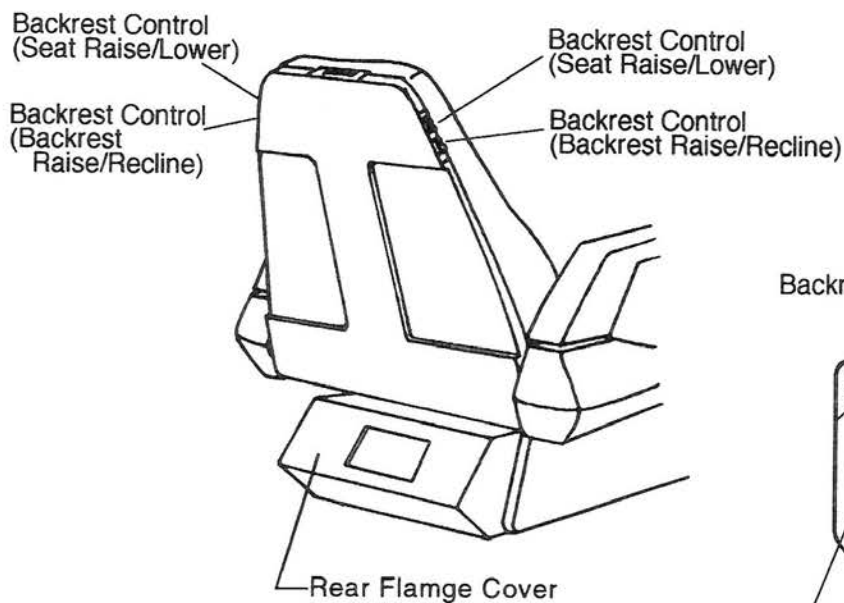


Figure 2

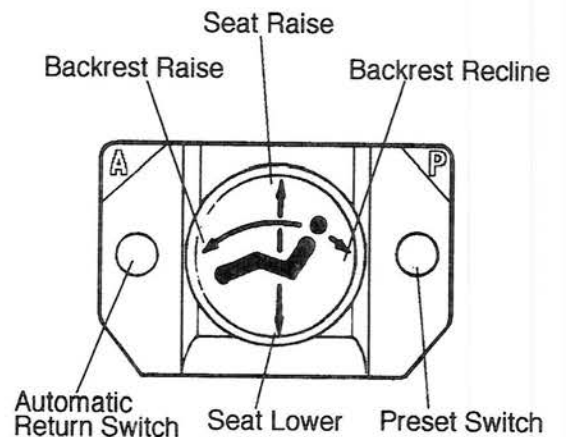


Figure 3 FOOT CONTROL

1) Seat Height Adjustments

To raise - press down on upper area of foot control disc or use backrest controls.

To lower - press down on lower area of foot control disc or use backrest controls.

2) Backrest Adjustments

To raise - press down on left side of foot control disc or use the backrest controls.

To recline - press down on right side of foot control disc or use the backrest controls.

3) Preset Operation

Momentarily press preset switch on foot control.

4) Adjusting Preset

The preset mode is factory installed but can be changed at your convenience as shown below.

Set backrest angle and seat height to desired position using manual controls (can be done by foot control or backrest controls). Press preset switch on foot control and keep it being pressed until buzzer sounds.

5) Automatic Return

Momentarily press automatic return switch on foot control to activate chair to return to normal position.

6) Safety plate is provided below base link cover to stop motion of chair when object is accidentally caught underneath.

7) Armrest Rotation

Either armrest can be rotated outward by grasping lower back portion of armrest, pulling upward and turning.

8) Chair Rotation

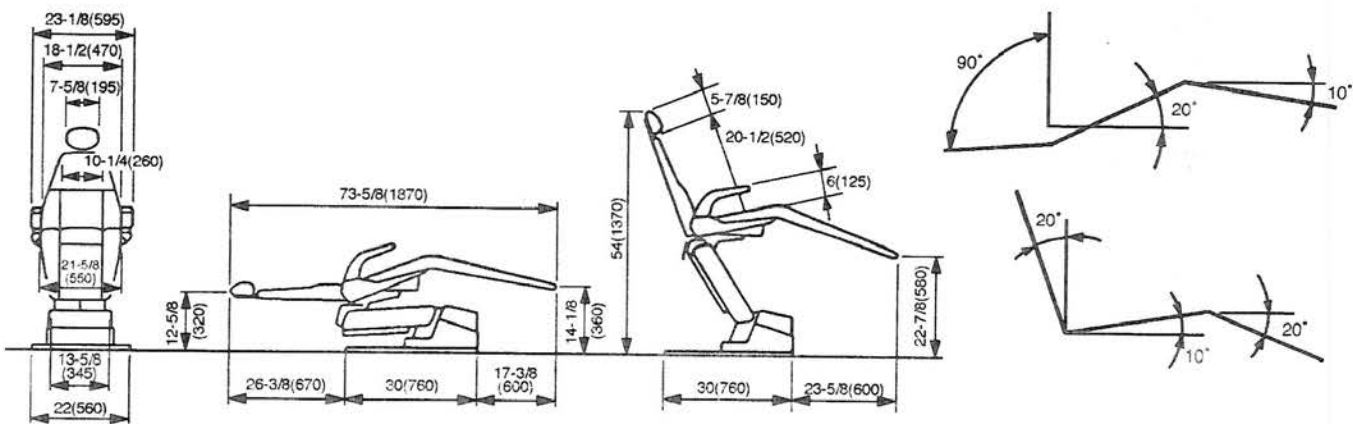
To rotate chair, release lock lever located on both sides of the chair, by pushing downward. Pull lever up to lock.

9) Headrest Adjustments

Height of headrest can be adjusted simply by pulling headrest up or down due to friction mount incorporated in backrest. Angle of articulating headrest (optional), can be changed by releasing slide bar on headrest back.

10) Automatic motion activated either by automatic return switch or preset switch, can be cancelled at any time by depressing any control switches.

SPECIFICATIONS:



DIMENSIONS INCHES & (MILLIMETERS)

- * Power sealed hydraulic system powered by 4.6 A motor pump
- * Base plate: 1/2" steel
- * Bearings at link points - low friction in steel jacket.
- * Steel seat cradle
- * Steel backrest support

- * Electrical requirements: 115 VAC, 4.6 A
- * Hospital grade plug
- * Base component housing formed from solid color acrylonitrile butadiene styrene (ABS)
- * All exposed ferrous parts covered with corrosion-resistant paint or plating
- * Weight: 381 lbs. (173 kg)

BEL-20 Chair Adjustments

1 MOTION LIMIT CONTROLS

A. Function

The BEL-20 dental chair does not use conventional mechanical or mercury limit switches. Motion of the chair base and backrest move variable resistances (potentiometers) making it possible for the control circuitry to continuously know the exact position of the base and backrest, not only when they hit the end of their travel. Adjustments for all four actions (seat raise/lower, backrest raise/recline) are located on the control PCB.

- B. Adjustment - Follow these steps in sequence shown to obtain proper adjustment. Remove Rear Flange Cover(Figure 2) for access to control PCB. (See Figure 4) Set the Slide Switch on Control PCB to LIMIT.

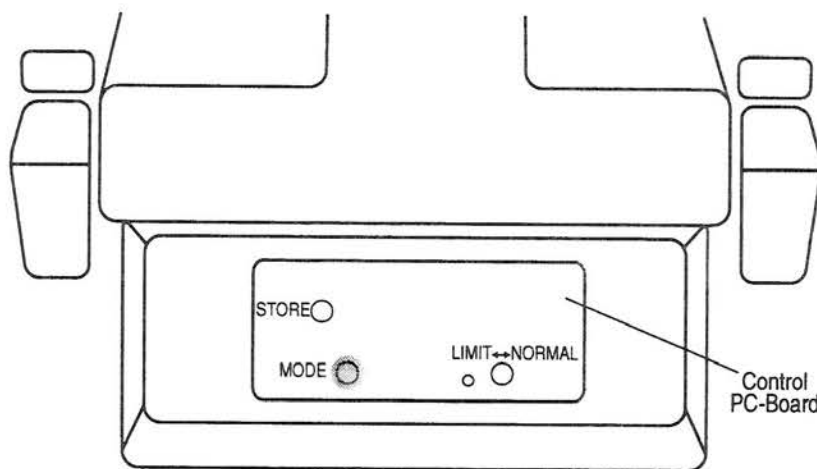


Figure 4

SEAT LOWER LIMIT

Using the manual controls, set seat height to the position where the lower limit is set. Press STORE Switch on Control PCB, then press lower area of foot control disc or seat lower switch on Backrest Controls.

If no other limit setting is necessary, reset the Slide Switch on PCB to NORMAL.

If other limit settings are necessary, keep the Slide Switch at LIMIT.

SEAT HIGHER LIMIT

Raise the seat height fully. At the physical top of travel, the motor will continue to run, but upward motion will stop (oil bypass channel has opened in cylinder). Lower the seat height slightly from this point, and press STORE Switch on Control PCB, then press upper area of Foot Control Disc or Seat Higher Switch on Backrest Controls.

BACKREST RECLINE LIMIT

Recline the backrest fully. Raise the backrest slightly from this point, and press STORE Switch on Control PCB, then press right side of Foot Control Disc or Backrest Recline Switch on Backrest Controls.

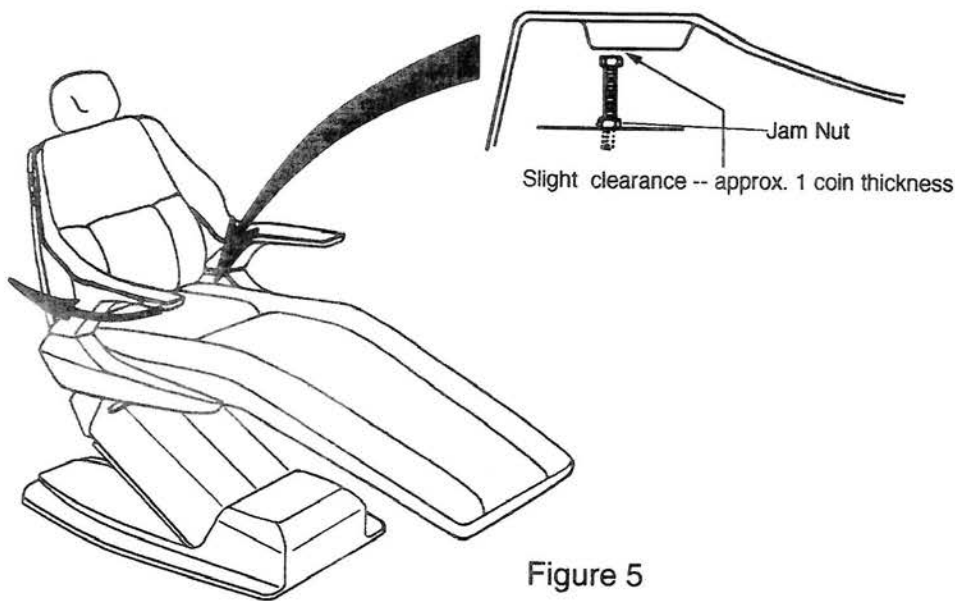


Figure 5

BACKREST UP LIMIT

Raise the backrest fully. Remove rubber cover under left hand armrest (See Figure 5.) to expose mechanical limit screw. Loosen jam nut and turn the screw in a few turns to provide additional clearance. At the physical top of travel, the motor will continue to run, but upward motion will stop (oil bypass channel has opened in cylinder).

Back out the mechanical limit screw until it almost contacts underside of side casting (about 1 coin thickness). Retighten jam nut. This adjustment is **CRITICAL** to prevent damage to the chair if the backrest is pushed forward by band beyond cylinder travel.

Recline the backrest slightly from this point (about 70 degree angle), and press STORE Switch on Control PCB, then press left side of Foot Control Disc or Backrest Up Switch on Backrest Controls.

2 OPERATING SPEED CONTROLS

Operating speeds are preset at factory, but can be change if desired.

To increase speed - turn to counterclockwise appropriate speed control valve on solenoid valve block.

To decrease speed - turn to clockwise appropriate speed control valve on solenoid valve block.

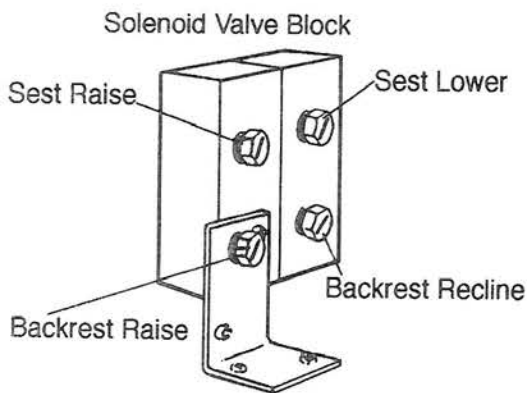


Figure 6

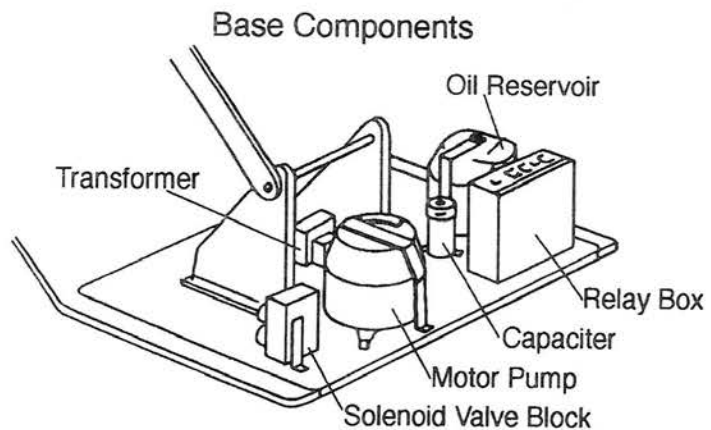


Figure 7

BEL-20 Chair Care and Maintenance

No maintenance is required except normal care and cleaning.

Clean vinyl upholstery and plastic components with mild soap and water.

Barrier covers should be used on chairs for asepsis.

Surface disinfecting chemical will eventually cause some discoloring of upholstery.

Suggested Disinfectant Application:

1. Clean dirt and stains with mild soap & water.
2. Moisten an applicator with disinfectant; mildly wipe the material with the disinfectant.
3. Do not allow the disinfectant to soak in or dry on the surface; wipe off with soap and water.

PLEASE KEEP LIQUIDS AWAY FROM ELECTRICAL CONNECTIONS!

In our travels, we have recently seen a rash of equipment and electrical switch failures caused by using liquid/spray surface disinfectants.

Most electrical control switches ARE NOT hermetically sealed.

When a switch gets wet, it can self-activate - or perhaps short out and damage other system components.

Keep switches dry - Avoid costly equipment damage or failure.

Avoid downtime by following these guidelines:

- A. Please DO NOT spray disinfectants directly AT OR INTO electrical switches and controls.
- B. Simply spray these solutions onto a cloth and wipe down the control surfaces. Be careful not to saturate the cloth... this will prevent liquids from flowing into the switches.

For additional information please contact your Belmont dealer.

MEMO



BELMONT EQUIPMENT, Division of Takara Belmont, USA, Inc.

101 Belmont Drive Somerset, New Jersey 08873 U.S.A. TEL.:(732) 469-5000 / (800) 223-1192 Fax.:(732)526-6322 / (800) 280-7504

TAKARA CO, CANADA LTD.

2076 S. Sheridan Way, Mississauga, Ont., L5J2M4, Can. TEL.:(905) 822-2755 Fax.:(905)822-6203