

# DENTAL CHAIR

# CLESTA II

## INSTALLATION INSTRUCTIONS

### IMPORTANT

**This manual provides installation instructions for the BELMONT CLESTA-II. The instructions contained in this booklet should be thoroughly read and understood before attempting installation of chair.**

**After the installation has been completed, keep this manual in a safe place and refer to it for future maintenance.**

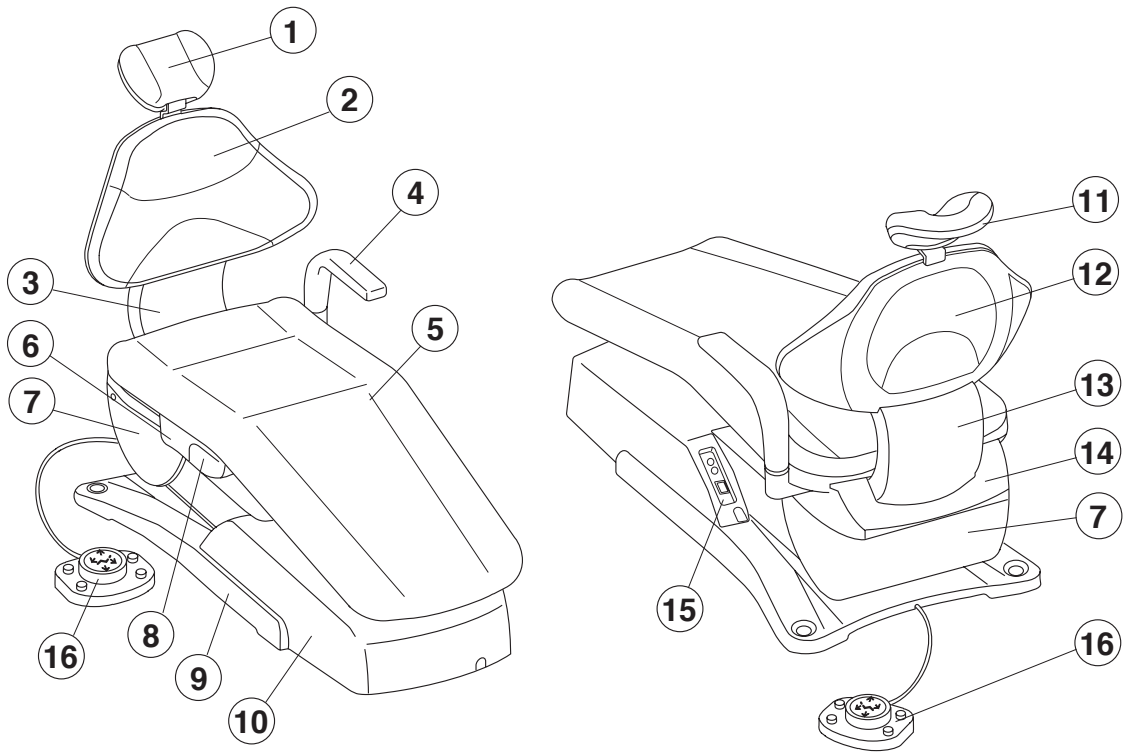




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# 1. OVERALL VIEW AND MAJOR COMPONENTS



**Fig.1-1 Overall View**

## Major Components

- |                          |                          |
|--------------------------|--------------------------|
| (1) Headrest             | (12) Backrest Rear Cover |
| (2) Backrest             | (13) Back Support Cover  |
| (3) Back Support         | (14) Upper Flange Cover  |
| (4) Armrest (Left)       | (15) Main Switch Panel   |
| (5) Seat                 | (16) Foot Control        |
| (6) Flange               |                          |
| (7) Lower Flange Cover   |                          |
| (8) Flange Hose Cover    |                          |
| (9) Base                 |                          |
| (10) Pump Cover          |                          |
| (11) Headrest Rear Cover |                          |

## 2. DIMENSIONS AND SPECIFICATIONS

### 2-1. DIMENSIONS

-mm-

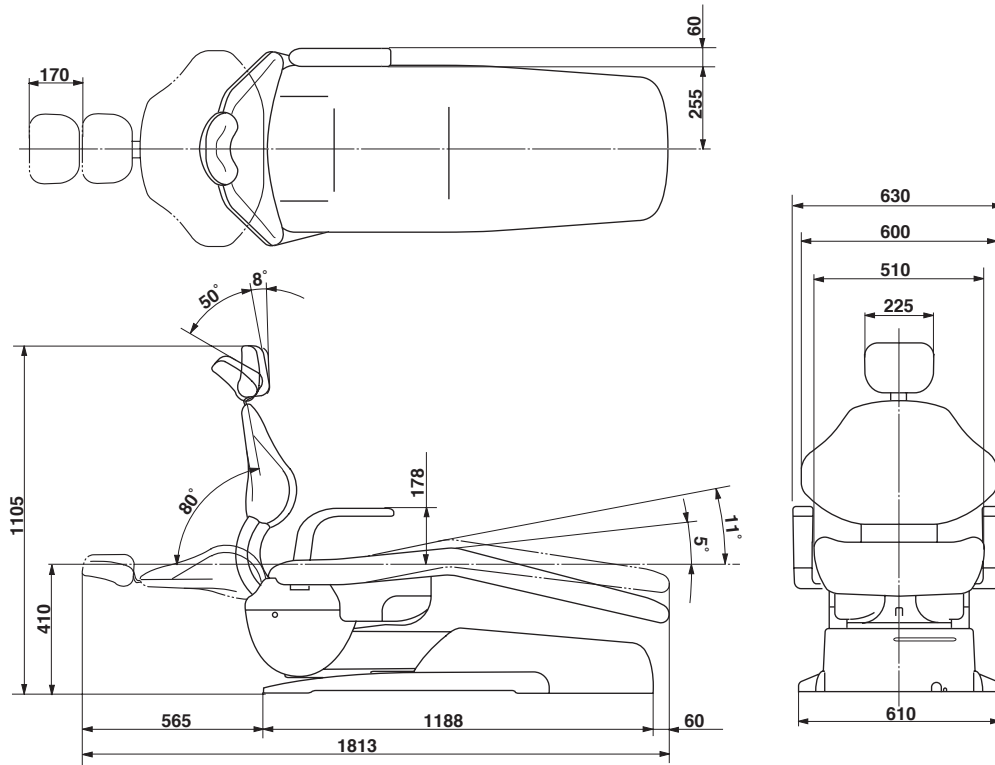


Fig.2-1 Dimensions

### 2-2. SPECIFICATIONS

Seat Initial Height	-----	410mm
Seat Lifting Stroke	-----	380mm
Backrest Movement	-----	0° ~ 80° above Horizontal
Tilting Mechanism	-----	Backrest Synchronized Tilting (5° ~ 11° above Horizontal)
Auto Movements	-----	2-Preset, 1-Last Position Memory and 1-Auto Return
Control Voltage	-----	DC12V
Power Consumption	-----	115V, 50/60Hz, 5.1A/3.5A 220V, 50/60Hz, 1.8A/1.8A 230V, 50Hz, 2.0A 240V, 50Hz, 2.3A
Net Weight	-----	115 kg

### 3. CHAIR SECTION PREPARATION FOR INSTALLATIONS

#### 3-1. CHAIR SECTION UNPACKING

The chair is delivered 2 cartons (base section and top section cartons).  
Open the upper section carton and check the contents with following check list.

**⚠CAUTION**

Do not use sharp instrument, it may damage upholstery.

**Check List for Upper Section Carton**

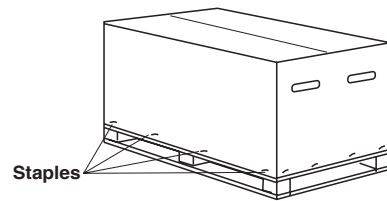
- 1. Headrest Assembly ----- 1 set
- 2. Backrest Assembly----- 1 set  
(Backrest Cushion with Backrest Support Plate, Backrest Cover)
- 3. Seat Assembly----- 1 set
- 4. Armrest (Standard Type; Left Side only) ----- 1 set
- 5. Screw Kit
  - (1) M6 Wood Screw for Fixing Base (2 x L40, 2 x L55)----- 4 pcs.
  - (2) M12 x 20 Set Screw for Base Level Adjustment----- 4 pcs.
  - (3) M10 x 30 Set Screw for Level Adjustment Adapter ----- 4 pcs.
  - (4) M6 Screw, Flat washer and Armrest Collar for Armrest ----- 1 set
  - (5) M6 x 20 Screw for Fixing Backrest Cushion and Seat----- 6 pcs.
  - (6) M6 Flat Washer for Fixing Seat ----- 2 pcs.
  - (7) M8 x 20 Cap Bolt with Spring Washer for Back Support Plate ----- 4 pcs.
  - (8) M5 x 12 Screw (White) for Flange Hose Cover and Pump Cover----- 5 pcs.
  - (9) Hole Plug for Carriage Bar Hole ----- 2pcs.
  - (10) Nylon Clamp with M5 Screw for Fixing Drain Hose ----- 1 set
  - (11) M5 x 15 Screw , Set Cap Washer and Set Cap Cover for Pump Cover----- 1 set

#### 3-2. CHAIR SECTION PREPARATIONS FOR INSTALLATIONS

**⚠CAUTION**

**Do not connect in the power supply line before removing Red tagged bolt.**

(1) Remove all the staples fixing the carton to the pallet,  
or cut the carton just above the stapled line, and  
remove the carton. (Fig.3-1)



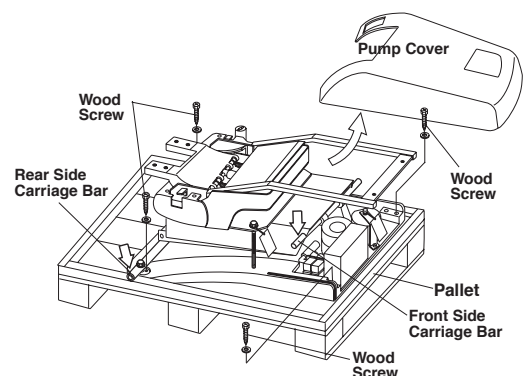
**Fig.3-1** Chair Base Section Carton

(2) Place the base section with pallet behind the  
planned location for chair.

(3) Remove the pump cover.

Remove wood screws from the base.

Remove the base section from the pallet by holding the  
carriage bars (Front side and Rear side) and place it  
at the planned location. (Fig.3-2)



**Fig.3-2** Removing Base Section from Pallet

**⚠CAUTION**

Do not lift the chair by the upper structure after removing the carriage bolt (Red tagged bolt).

- (4) Remove the rear side carriage bar from the base. (Fig.3-3)

Note : The front side carriage bars can not remove. They are covered by the pump cover.

- (5) Remove the carriage bolt (Red tagged bolt) from the support plate. (Fig.3-3)

- (6) Remove the red tagged oil plug from the oil reservoir. (Fig.3-3)

- (7) After removing the carriage bolt, plug the power supply cable into suitable power supply outlet. Raise the upper structure by the foot switch to the highest position. Raise the backrest by the foot switch to the upright position.

Note : Refer to the operating manual for chair operation.

- (8) Remove the support plate and fix the lower flange cover under the flange. (Fig.3-4)

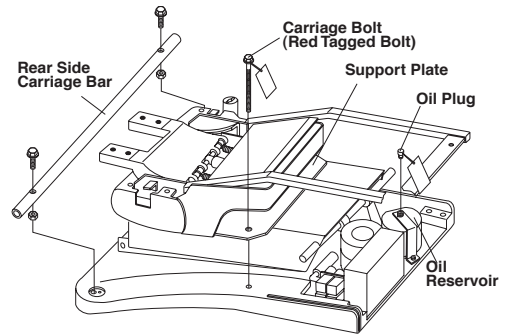
Note : Mount the Clesta-II unit on the chair, before removing the support plate. Refer to the Unit installation manual.

- (9) Place the base on the planned location and fix the base to the floor with 4 x wood screws. Fix the hole plugs into the carriage bar holes on the base. (Fig.3-5)

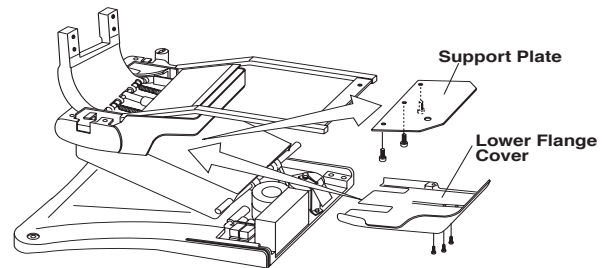
- (10) Open the top section carton.

Backrest cushion, backrest cover, headrest, armrest, seat and screw kit are packed in top section carton.

- (11) Fix the back support plate to the back support by 4 x M8 cap bolts and spring washers. (Fig.3-6)



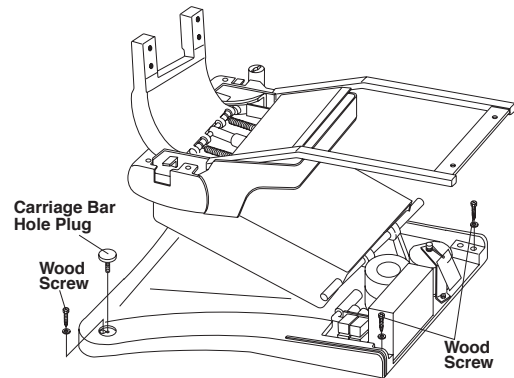
**Fig.3-3** Removing Red Tagged Bolt



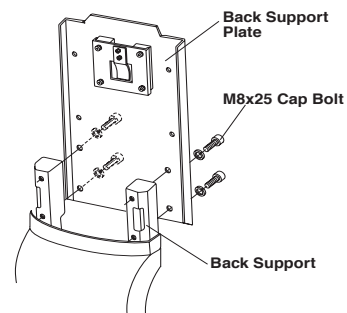
**Fig.3-4** Removing Support Plate and Fixing Lower Flange Cover

**⚠CAUTION**

Chair must be fixed to the floor with bolts to prevent from falling down. When fixing chair to the floor, be careful not to damage pipings under the floor.

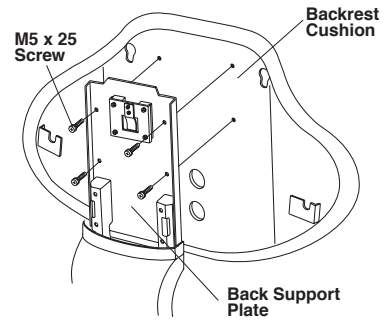


**Fig.3-5** Fixing Base on Floor



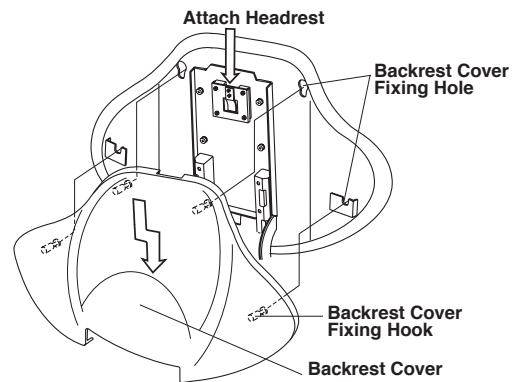
**Fig.3-6** Fixing Back Support Plate

- (12) Fix the backrest cushion to the back support plate by 4 x M5 screws. (Fig.3-7)



**Fig.3-7** Fixing Backrest Cushion

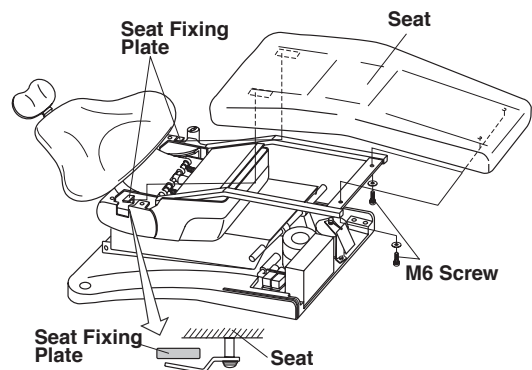
- (13) Attach the backrest cover to the backrest cushion.  
 Insert upper two hooks of the backrest cover into the upper fixing holes of backrest.  
 Keep pressing the backrest cover against backrest cushion, slide down the backrest cover so that lower two hooks catch the lower fixing holes.  
 (Fig.3-8)



**Fig.3-8** Fixing Backrest Cover and Headrest

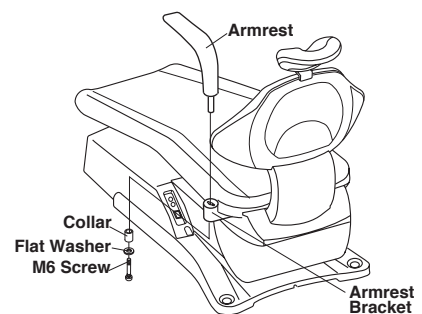
- (14) Attach the headrest. (Fig.3-8)

- (15) Fix the seat to the chair base.  
 Hook the seat hooks under the seat fixing plates on the chair base and secure the seat to the seat frame with 2 x M6 screws and flat washers.  
 (Fig.3-9)



**Fig.3-9** Fixing Seat

- (16) Fix the armrest to the armrest bracket with M6 screw, flat washer and collar. (Fig.3-10)

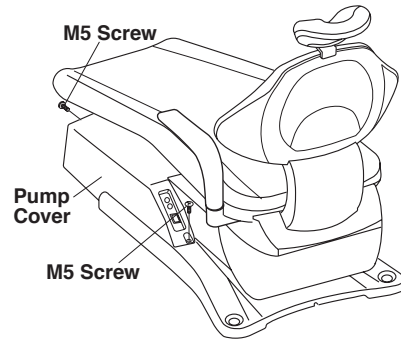


**Fig.3-10** Fixing Armrest



(17) Fix the pump cover to the base with 3 x M5 screws. (Fig.3-11)

**Note :** Mount the Clesta-II unit on the chair, before fixing the pump cover.  
Refer to the Unit installation manual.  
After installation is completed, check all movement by following the operating manual.



**Fig.3-11** Fixing Pump Cover

#### 4. SPEED ADJUSTMENT (Fig.4-1 and Fig.4-2)

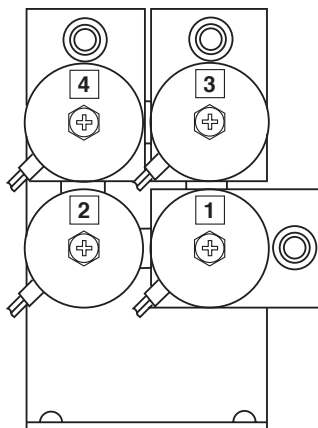
Seat lowering speed and backrest reclining speed can be adjusted by the speed control knob on the solenoid valve block.

The solenoid valve numbers and functions are shown in Fig.4-1.

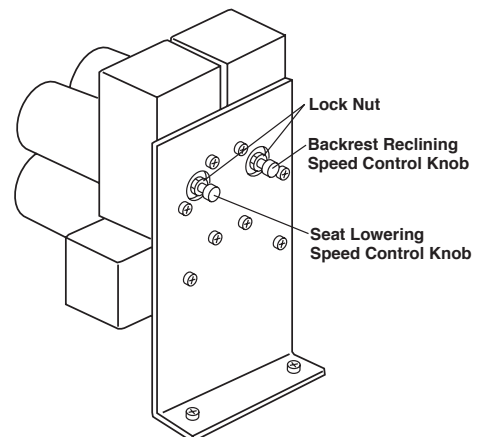
- A. Remove the pump cover.  
The solenoid valve block is located on the left side at the front of the chair base.  
Each speed control knob is located on the rear side solenoid valve block.
- B. Loosen the lock nut for the speed control knob.
- C. Turning the speed control knob clockwise to decrease the speed and turning counterclockwise to increase the speed.
- D. After adjustment, tighten the lock nut and reattach the pump cover.

#### **⚠CAUTION**

The chair movement will be locked if the speed is reduced excessively.  
Oil may leak from the speed control knob if the speed is increased excessively.



Solenoid Valve Functions  
SV1 : Seat Lifting  
SV2 : Backrest Raising  
SV3 : Seat Lowering  
SV4 : Backrest Reclining



**Fig.4-1** Solenoid Valve Numbers and Functions

**Fig.4-2** Speed Control Knobs on Solenoid Valve Block

## 5. HYDRAULIC DIAGRAM

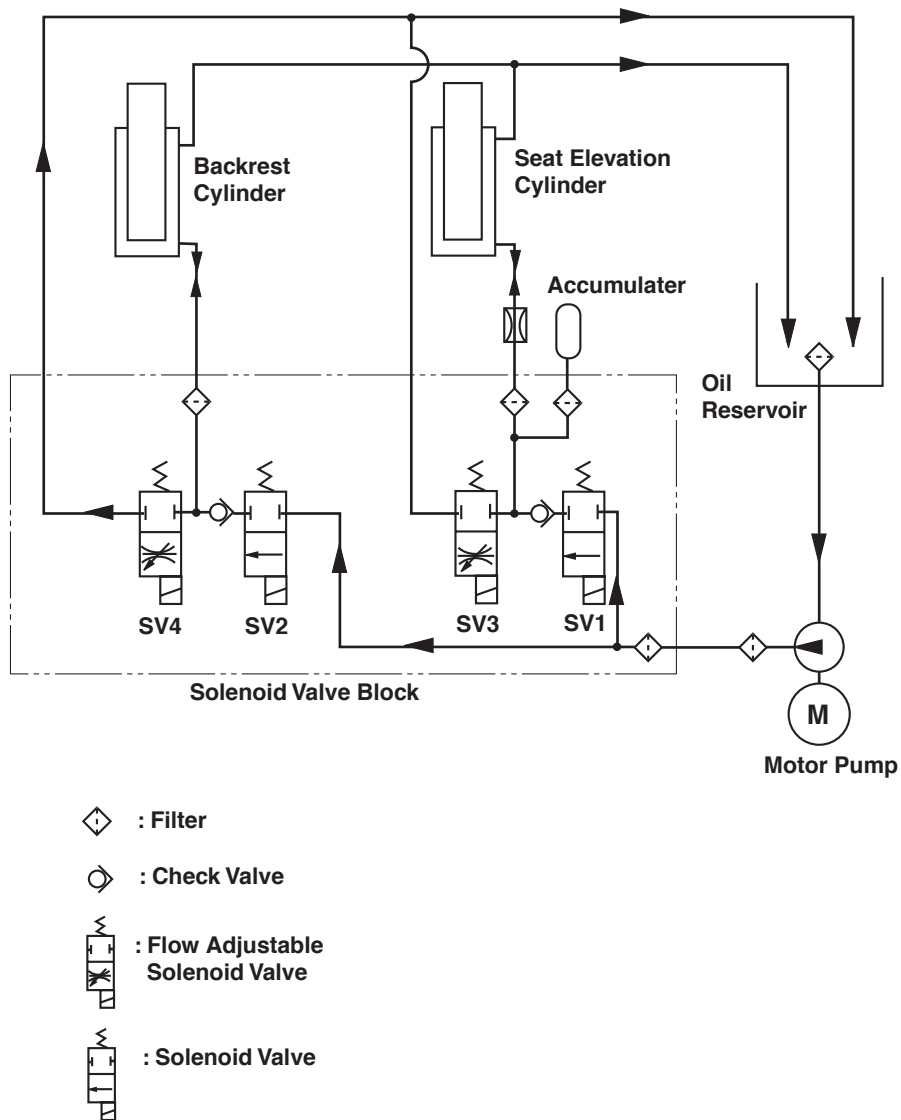
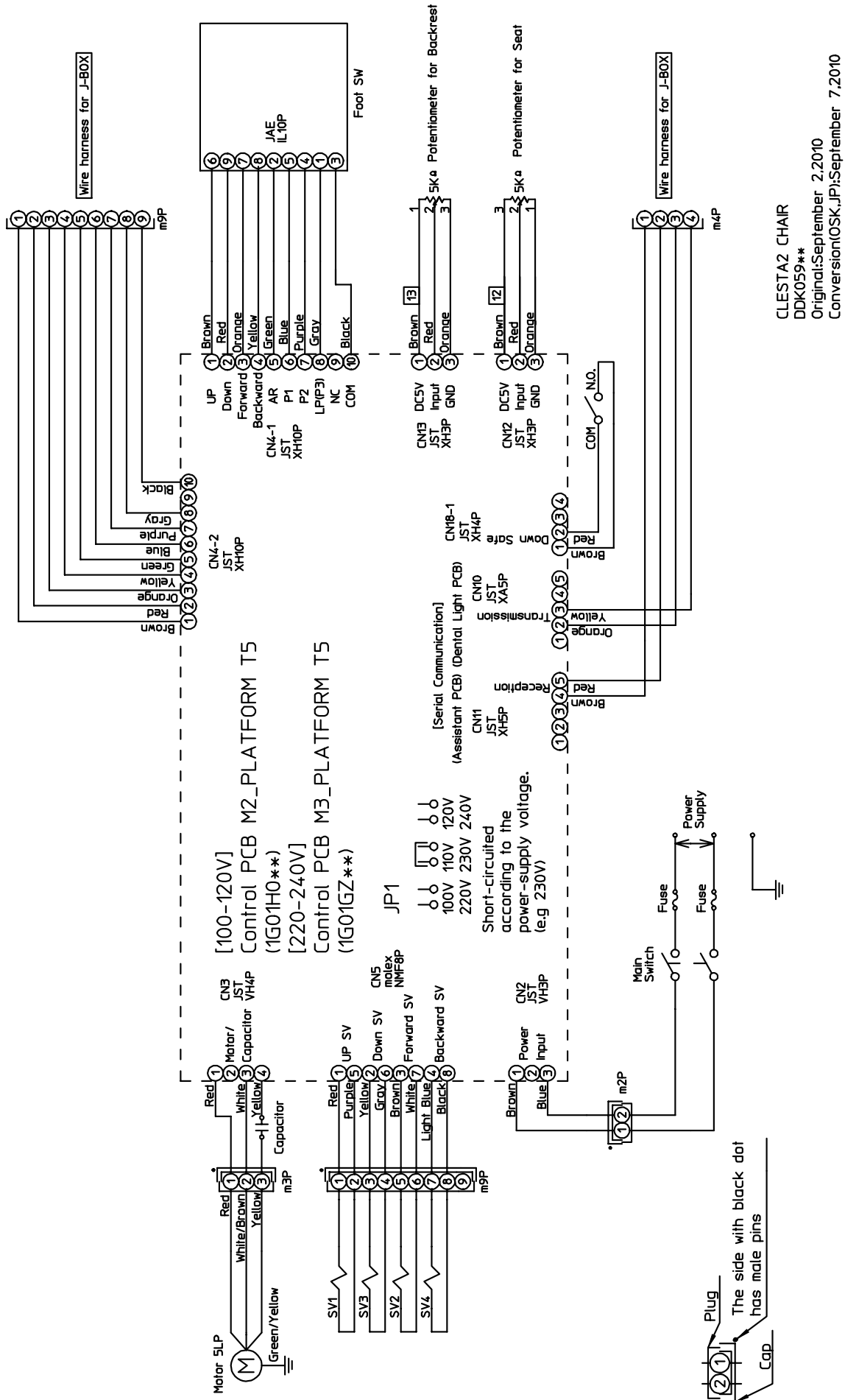


Fig.5-1 Hydraulic Diagram

# 6. ELECTRICAL DIAGRAM



CLESTA2 CHAIR  
DDK059\*\*  
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**NOTE**

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