

# NRS Installation Manual

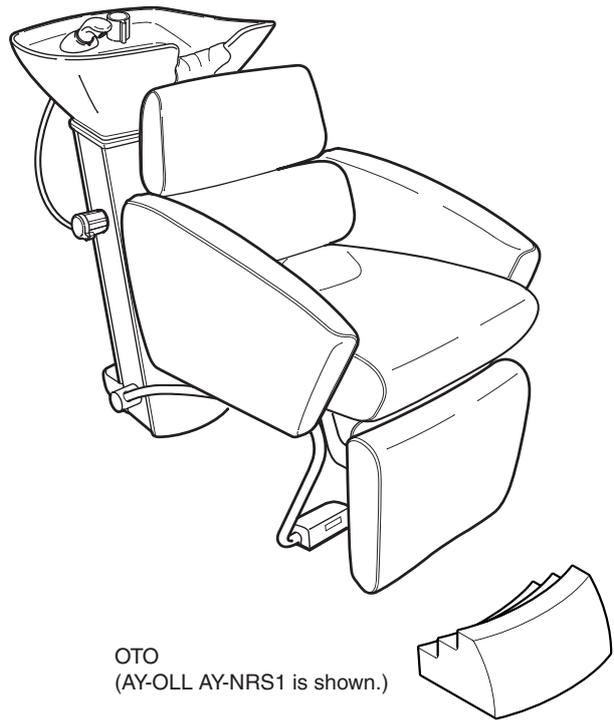
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## Standard / EU Spec.

### Chair Mount Type

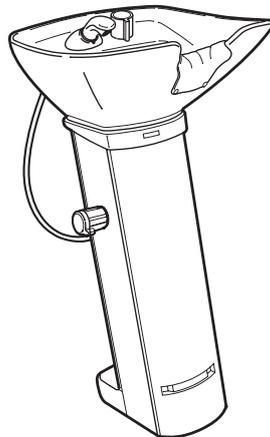


KAZE  
(AY-KFPLU AY-NRS1 is shown.)



OTO  
(AY-OLL AY-NRS1 is shown.)

### Separate Type



(AY-NRS2B-W is shown.)

Installer: Read through this installation manual to ensure proper installation.

Leave this manual to the owner after installation completed.

Owner: Keep this manual in a safe place for your future reference.

### ● Definition of markings

These markings indicate important information to avoid personal injuries, or property damages against you or your customers by using this product correctly. All instructions are important for safety operation. Please be sure to observe them.



### CAUTION

This mark warns the user that "improper use may cause personal injuries or material damages".

## Before Installation

### ■ Plumbing

This section includes important information about plumbing.

Please understand the content fully for proper plumbing.

- Please follow the "Notes in plumbing" when plumbing. If not followed, the water mixing may not work properly and hot water of specific temperatures will not come out.
- This product is designed for the use indoors.

### ■ Notes in plumbing

- Do NOT use a material which rusts easily for water supply pipes.  
Use VP pipes or other designated material in your area as a standard.
- Use deacidified copper pipes for hot water supply pipes as a standard.
- Use the pipes of same diameter and for same pressure for both hot water supply and cold water supply pipes.
- Ream the cut face of the pipes to clear the face of burrs.
- Avoid using a reverse U-shape pipe. This may cause air trapping.
- Plumbing refuses, dust, sand or oil in the hot water supply pipe and cold water supply pipe may cause trouble. Remove them before connecting pipes.
- After plumbing and a flow test are completed, clean the strainer and the shower head.
- Adjust the inclination of the drain pipe to be at least 1/50 for the pipe of  $\phi$  100 or less, and at least 1/100 for the pipe of  $\phi$  100 or more.
- Do not mix up the cold water supply pipes and the hot water supply pipes. Connect the pipes in the correct combination.
- Arrange the hot water supply line in a shortest distance from the water heater so as to minimize the resistance. With longer distance, temperature of hot water may fluctuate or water amount may be reduced.
- Cover the pipes with heat insulating material after plumbing completed.
- Plumbing particulars for boiler
  - Main pipes of same diameter and for same pressure must be used for both hot water supply and cold water supply as a standard.
  - A boiler must be installed by a qualified installer.
- This product is equipped with a deodorant trap.

# Requirements for Use

## ■ Requirements for hot/cold water supply

Water for use	<ul style="list-style-type: none"> <li>• Drinking water (Non-drinkable well water, or water including sand or rust are not approved for use.)</li> <li>• If the water hardness is 80 ppm or more, treat the water with a water softener in order to prevent scale clogging of the equipment.</li> </ul>
Pressure of hot/cold water supply	<ul style="list-style-type: none"> <li>• Set the pressure within the range from 0.08 MPa to 0.6 MPa (0.8 to 6 kgf/cm<sup>2</sup>).</li> <li>• When the pressure exceeds 0.2 MPa (2 kgf/cm<sup>2</sup>), select the floor unit "with pressure reducing valve" type.</li> <li>• The cold water supply pressure must be equal to or higher than the hot water supply pressure.</li> <li>• The difference between the cold water supply pressure and the hot water supply pressure must be 0.2 MPa (2 kgf/cm<sup>2</sup>) or less.</li> </ul>
Temperature of hot water supply	<ul style="list-style-type: none"> <li>• The temperature of hot water supply must be at least 10°C higher than that of hot water from the shower.</li> </ul>

## ■ Floor

- Make sure that the floor is level.
- Make sure that the installation area is flat and free of irregularities.
- Use floor panels with high water resistance.
- Raising pipes

Cold/Hot water supply	Rc1/2" Floor raising pipe Raising height: Hot water supply 80 mm, Cold water supply 110 mm
Drain	VU40 Floor raising pipe Raising height: 90 mm

- In the case where the floor is finished with tiles etc., screwing bolts into the floor surface when installing the shampoo unit may cause a crack on the floor surface. Change the material of the floor of the installation area to plywood, mortar, etc., referring to the product layout drawing and the pattern paper.

\* The floor panel must have the strength as shown below.

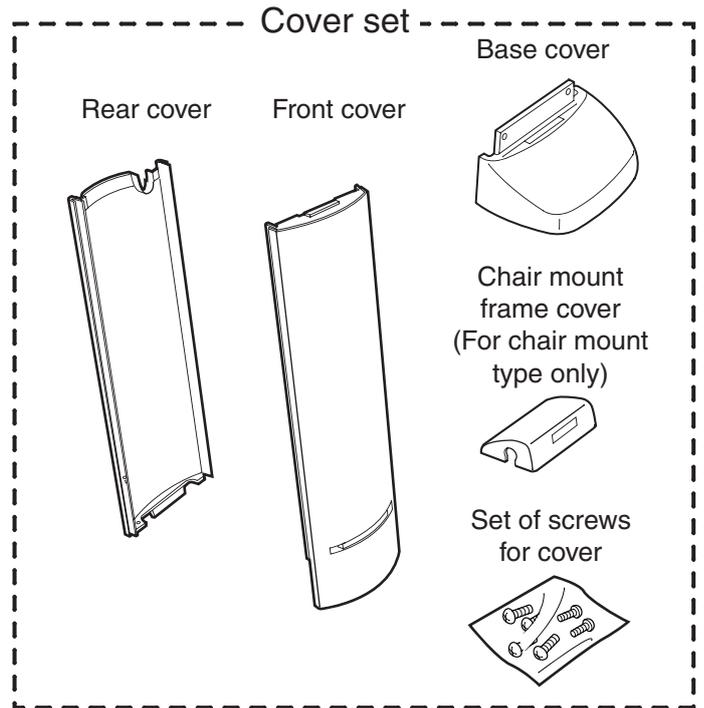
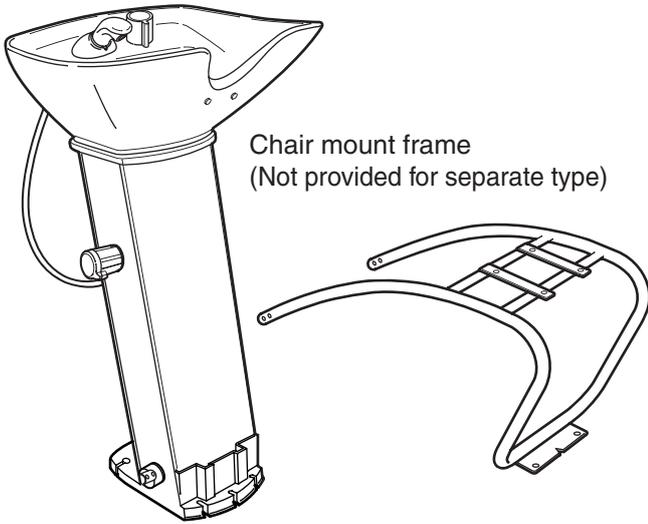
Wooden floor	strength of plywood of 30 mm thickness or more
Mortar floor	strength of mortar of 50 mm thickness or more
Special floor (stone etc.)	a base with the strength equivalent to the above must be installed at the installation position.

- Waterproofing
  - In case of the installation on the second floor or higher, waterproof the floor appropriately.

# Packing Material (Standard spec.)

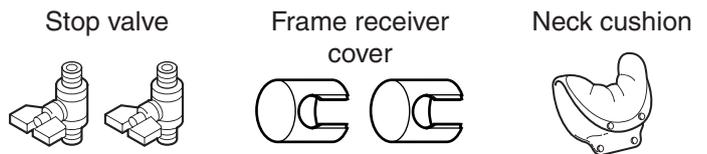
## ● Shampoo unit side

- Shampoo unit
- Stop valve



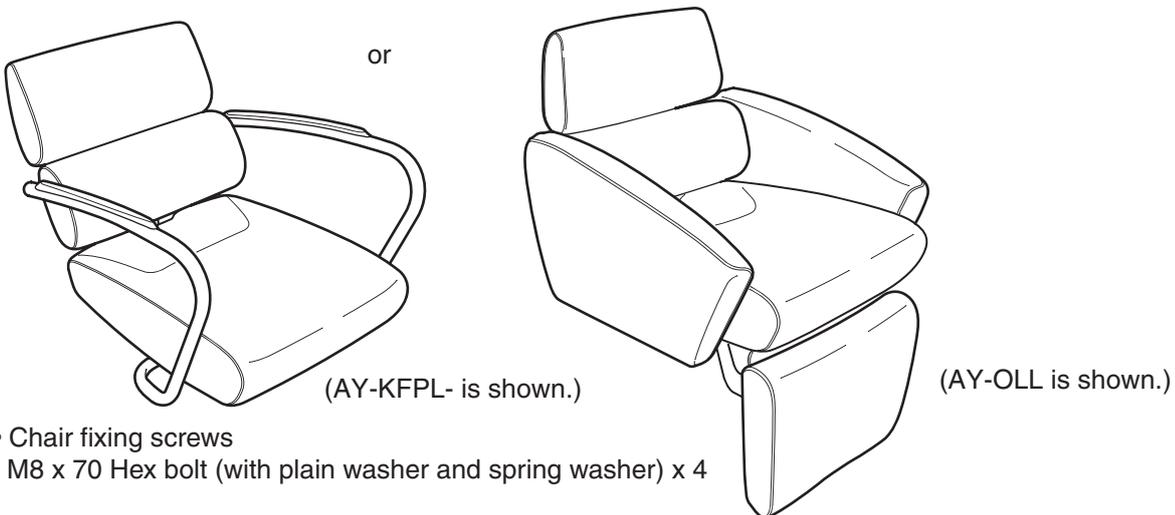
- Neck cushion
- Shampoo unit floor fixing screw  
( M8 x 70 Anchor bolt  
M8 x 65 Hex head tapping bolt ) x 8  
Plain washer

- \*Separate type: x 6
- Operation Manual, Installation Manual, Pattern Paper



## ● Chair side (Not provided for separate type)

- Chair (KAZE)
- Chair (OTO)

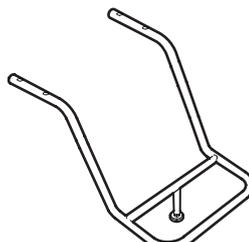
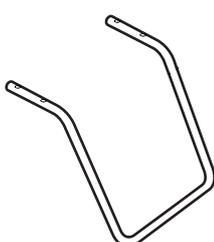


- Chair fixing screws  
M8 x 70 Hex bolt (with plain washer and spring washer) x 4

## • Footrest

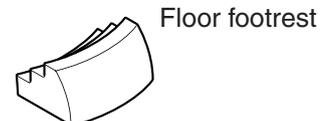
U-footrest

W-footrest



or

or

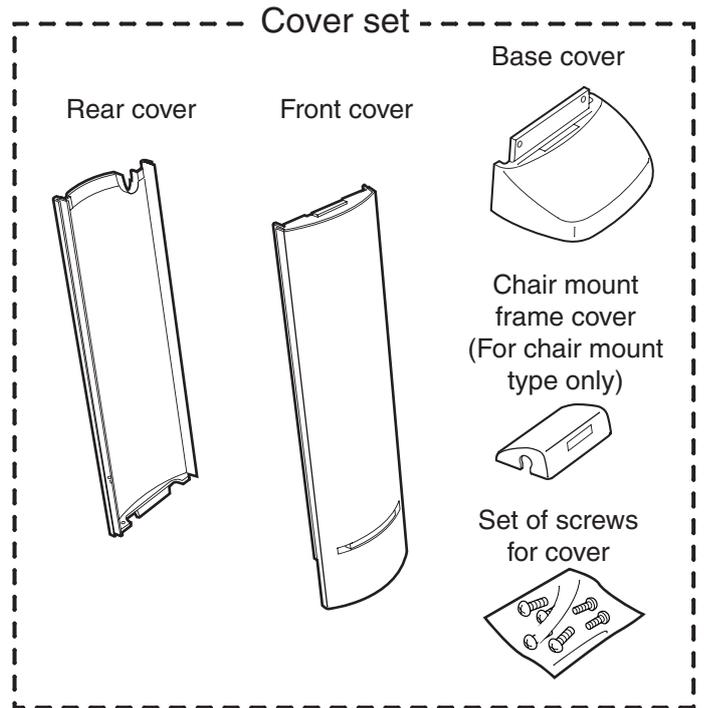
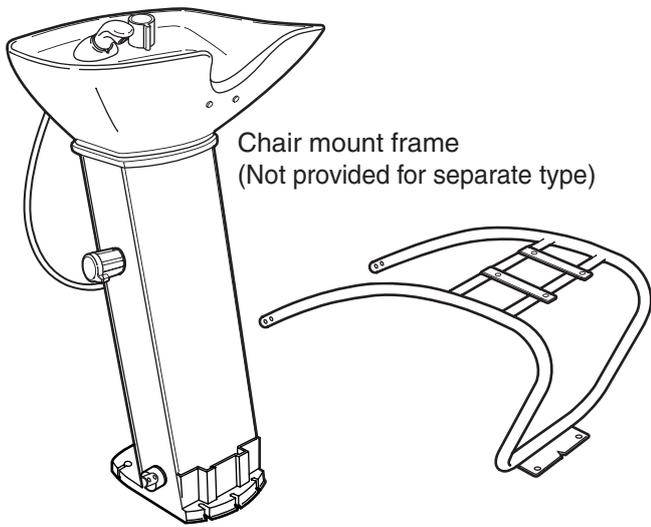


- Footrest fixing screws (for U-footrest and W-footrest only)  
M8 x 30 Hex bolt (with spring washer) x 4

# Packing Material (EU spec.)

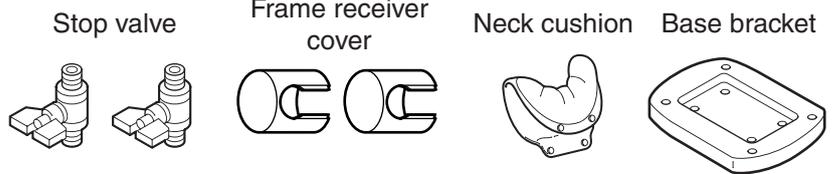
## ● Shampoo unit side

- Shampoo unit
- Stop valve



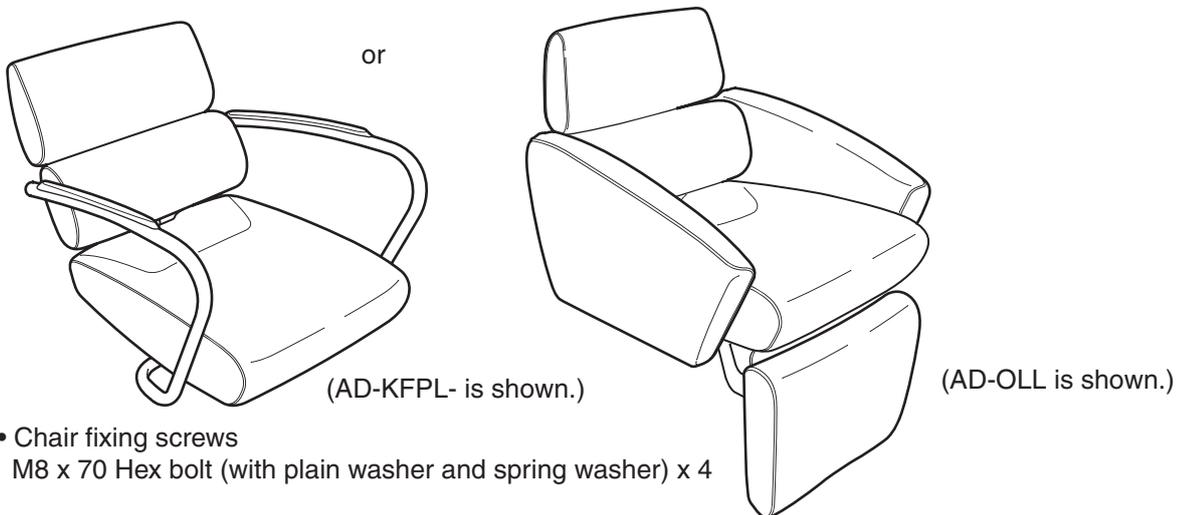
- Neck cushion
- Shampoo unit floor fixing screw  
( M8 x 70 Anchor bolt X 6  
M8 x 50 Hex head tapping bolt x 6  
Hex bolt (with spring washer) x 4  
Plain washer x 10 )

- Operation Manual, Installation Manual, Pattern Paper



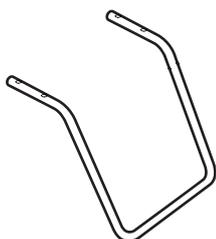
## ● Chair side (Not provided for separate type)

- Chair (KAZE)
- Chair (OTO)



## • Footrest

U-footrest



W-footrest



or

or



Floor footrest

- Footrest fixing screws (for U-footrest and W-footrest only)  
M8 x 30 Hex bolt (with spring washer) x 4

# 1

# Installing Shampoo Unit (Standard spec.)

## 1 Marking

- ① Lay the accessory pattern paper on the floor at the installation position referring to the raising positions of cold/hot water supply pipes and tape the pattern paper.
- ② Mark the floor with a pencil at the positions of the shampoo unit base and the screw holes.
- ③ Remove the pattern paper.

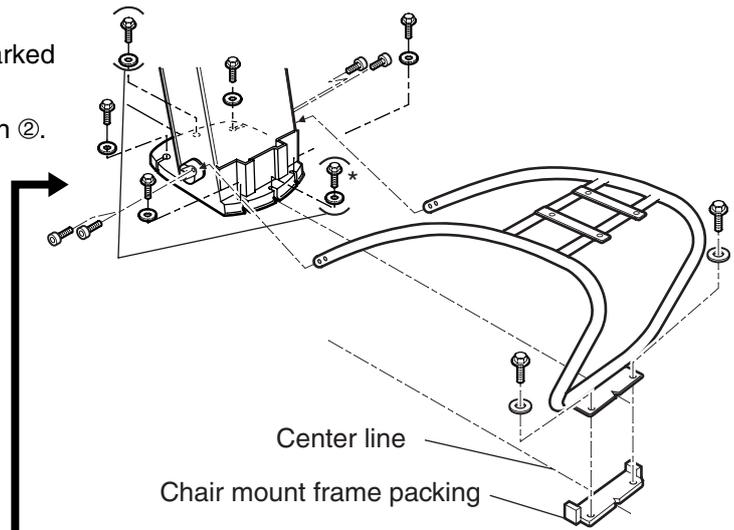
## 2 Fixing the shampoo unit.

- ① Detach the four screws on the shampoo unit.
- ② Attach the chair mount frame to the shampoo unit. Then fix the shampoo unit temporarily with the screws detached in ①.
- ③ Fix the chair mount frame on the floor at the marked position.
- ④ Tighten the screws that were loosely fastened in ②.

Bolts to be used

(Accessory to shampoo unit):

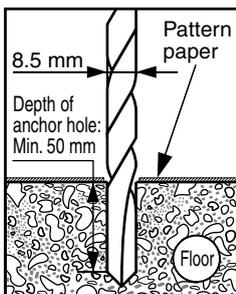
- Plywood floor:  
Hex head tapping bolt +  
Plain washer (8 mm x 65)
- Concrete floor:  
Anchor bolt + Plain washer  
(M8 x 70, Anchor hole 8.5 m/m)  
(Use a wrench with across flat 12 mm.)



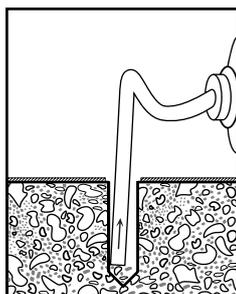
### CAUTION

When using anchor bolts, do not use the spare hole in the rear side. The bolts will make contact with the cover.

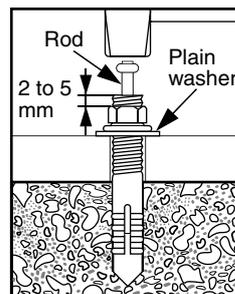
## ● Anchoring procedure



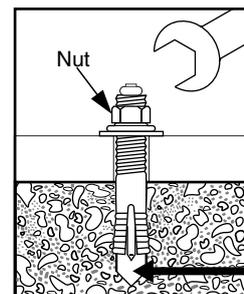
- ① Drill the anchor holes of a specific diameter and depth.



- ② Clean each anchor hole thoroughly using a vacuum cleaner, with a narrow nozzle attachment to reach into the hole and remove all debris.



- ③ Insert the anchor, tapping it lightly with a hammer to seat it. Position the material, and then drive the rod into the anchor until it is snug.



- ④ Adjust the fastening strength of the nut using a wrench etc.



### CAUTION

If the anchor bolt is tapped with its end contacting the bottom of the hole, the strength will be lowered. Proper clearance must exist between the end of the anchor bolt and the bottom of the hole.

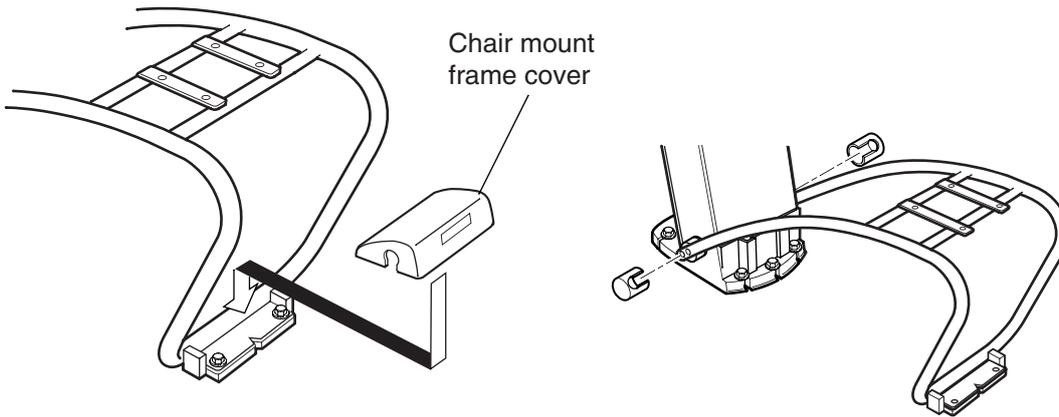


### CAUTION

- Be sure to use the chair mount frame packing when fixing the chair mount frame.
- Be sure to use the plain washer when tightening the bolt.
- The center of the shampoo unit must be aligned with the center of the chair mount frame. (The center of the chair mount frame is the notch of the chair mount frame packing.)

### 3 Attaching the chair mount frame cover and frame receiver cover.

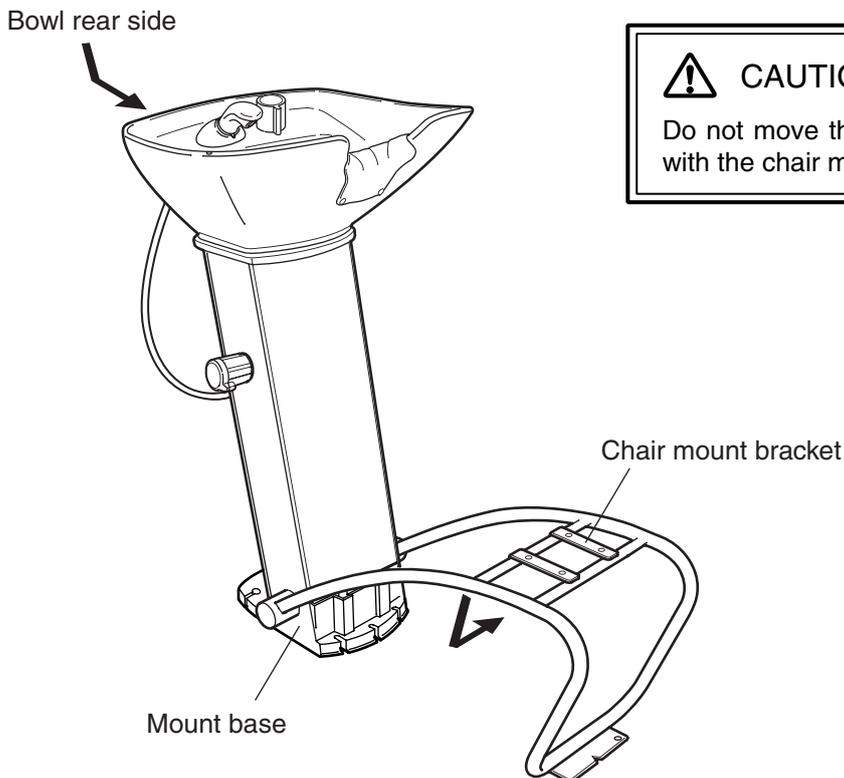
Attach the chair mount frame cover on the chair mount frame.



Place the frame receiver cover on the chair mount frame and press it firmly to the end.

#### Notes in moving the shampoo unit

- When moving the shampoo unit, hold the shampoo unit at the rear side of the bowl and the mount base. Do not hold the mixing pipe in the rear side of the bowl.
- Move the shampoo unit carefully and deliberately. The bowl is heavy and easy to break.
- Do not drag the shampoo unit. If dragged, the metal portion of the mount base and the frame may damage the floor.



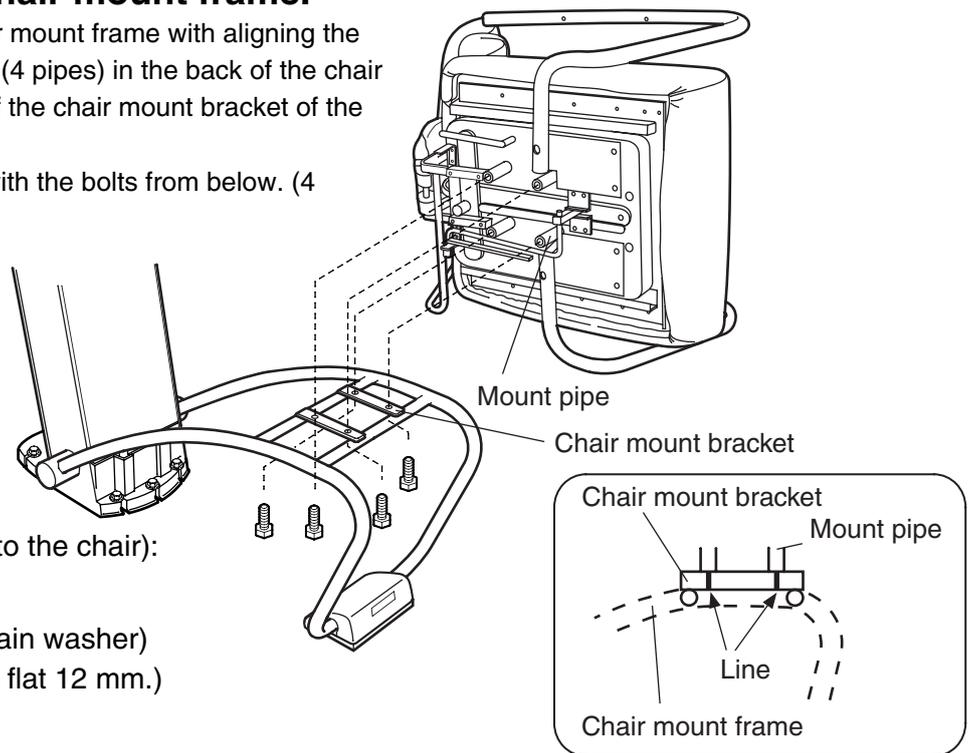
**CAUTION**  
Do not move the shampoo unit with the chair mounted.

## 2

# Mounting Chair (Standard spec.)

### 1 Attaching to the chair mount frame.

- ① Place the chair on the chair mount frame with aligning the centers of the mount pipes (4 pipes) in the back of the chair with the lines on the side of the chair mount bracket of the chair mount frame.
- ② Fix the chair to the frame with the bolts from below. (4 points)

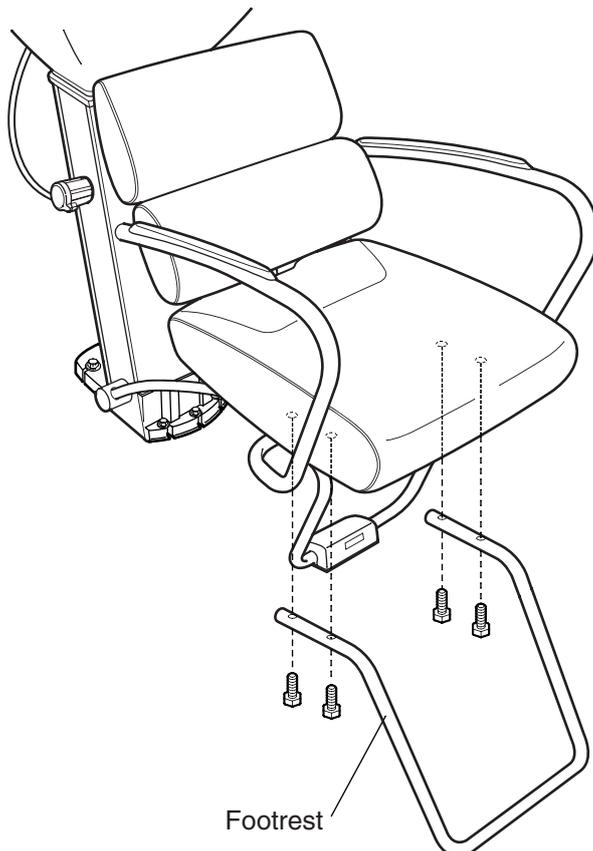


Bolts to be used (Accessory to the chair):

M8 x 70 Hex bolt  
(with spring washer and plain washer)  
(Use a wrench with across flat 12 mm.)

### 2 Attaching the footrest (U-footrest, W-footrest).

Align the holes on the ends of the footrest with the holes on the back of the seat. Fix the footrest to the chair with the bolts from the back of the seat.



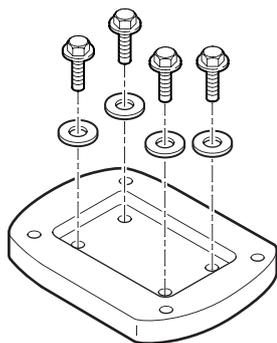
Bolts to be used (Accessory to the chair):  
M8 x 30 Hex bolt x 4  
(with spring washer)  
(Use a wrench with across flat 12 mm.)

# 1 Installing Shampoo Unit (EU spec.)

## 1 Marking

- ① Lay the accessory pattern paper on the floor as a template at the installation position referring to the raising positions of cold/hot water supply pipes and tape the pattern paper.
- ② Trace the positions of the shampoo unit base and the screw holes onto the floor.
- ③ Remove the pattern paper.

## 2 Installing the base bracket.

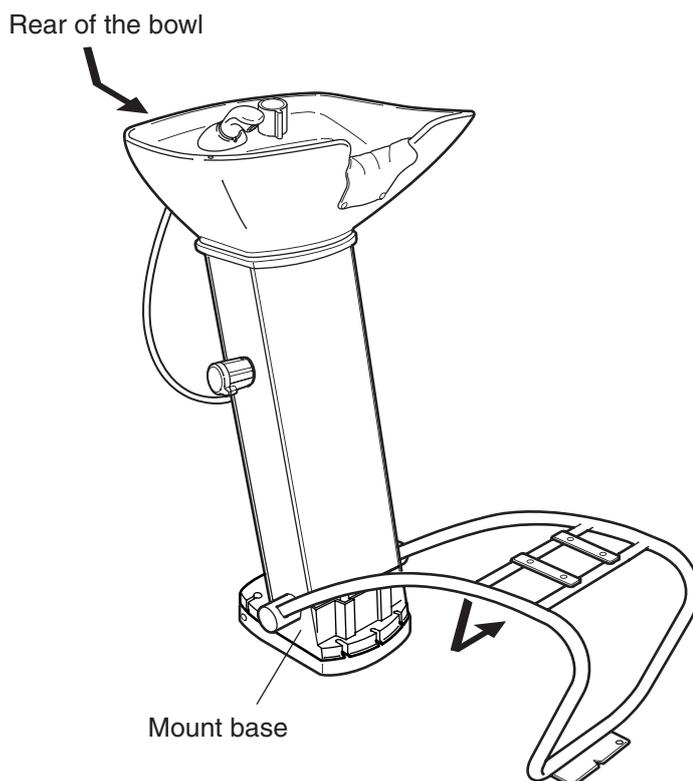


Bolts to be used:  
Hex bolt x 4  
(with spring washer)

Fix the base bracket with accessory bolts on the floor at the marked position.

### Notes in moving the shampoo unit

- When moving the shampoo unit, hold the shampoo unit at the rear side of the bowl and the mount base. Do not hold the mixing pipe in the rear side of the bowl.
- Move the shampoo unit carefully and deliberately. The bowl is heavy and easy to break.
- Do not drag the shampoo unit. If dragged, the metal portion of the mount base and the frame may damage the floor.



### 3 Fixing the shampoo unit.

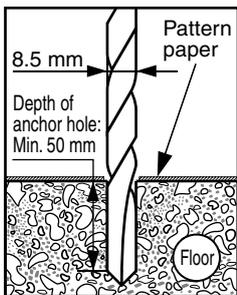
- ① Attach the shampoo unit to the base bracket securely.
- ② Detach the four screws on the shampoo unit.
- ③ Attach the chair mount frame to the shampoo unit.  
Then fix the shampoo unit temporarily with the screws detached in ②.
- ④ Fix the chair mount frame on the floor at the marked position with the chair mount frame packing inserted.
- ⑤ Tighten the screws that were loosely fastened in ③.

Bolts to be used

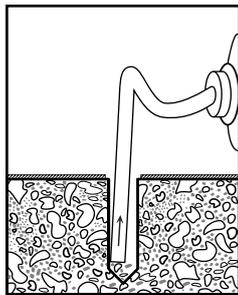
(Accessory to shampoo unit):

- Plywood floor:  
Hex head tapping bolt + Plain washer  
(8 mm x 50)
- Concrete floor:  
Anchor bolt + Plain washer  
(M8 x 70, Anchor hole 8.5 m/m)  
(Use a wrench with across flat 12 mm.)

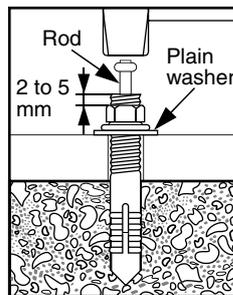
#### ● Anchoring procedure



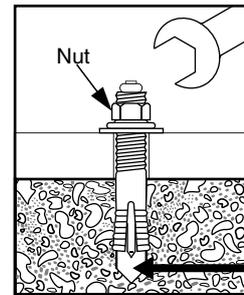
- ① Drill the anchor holes of a specific diameter and depth.



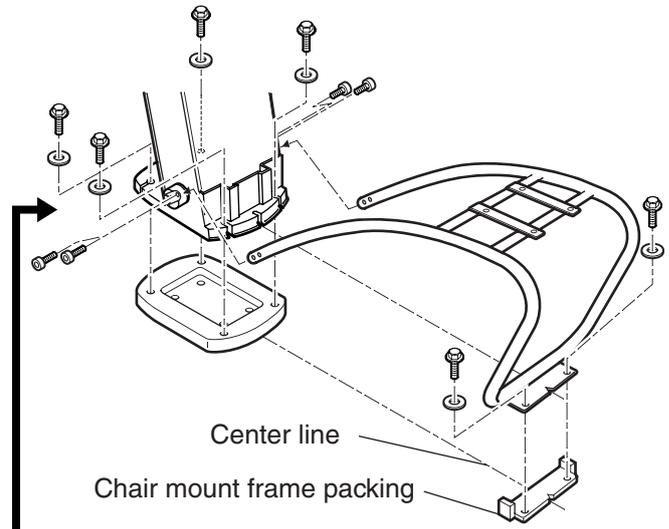
- ② Clean each anchor hole thoroughly using a vacuum cleaner, with a narrow nozzle attachment to reach into the hole and remove all debris.



- ③ Insert the anchor, tapping it lightly with a hammer to seat it. Position the material, and then drive the rod into the anchor until it is snug.



- ④ Adjust the fastening strength of the nut using a wrench etc.



#### CAUTION

When using anchor bolts, do not use the spare hole in the rear side. The bolts will make contact with the cover.



#### CAUTION

If the anchor bolt is tapped with its end contacting the bottom of the hole, the strength will be lowered. Proper clearance must exist between the end of the anchor bolt and the bottom of the hole.

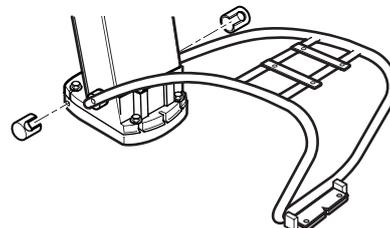
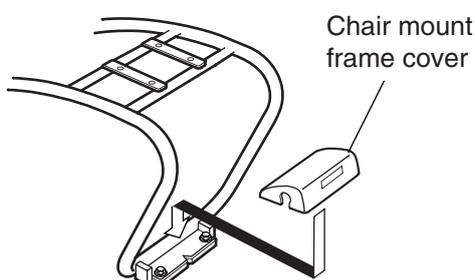


#### CAUTION

- Be sure to use the chair mount frame packing when fixing the chair mount frame.
- Be sure to use the plain washer when tightening the bolt.
- The center of the shampoo unit must be aligned with the center of the chair mount frame. (The center of the chair mount frame is the notch of the chair mount frame packing.)

### 4 Attaching the chair mount frame cover and frame receiver cover.

Attach the chair mount frame cover on the chair mount frame.



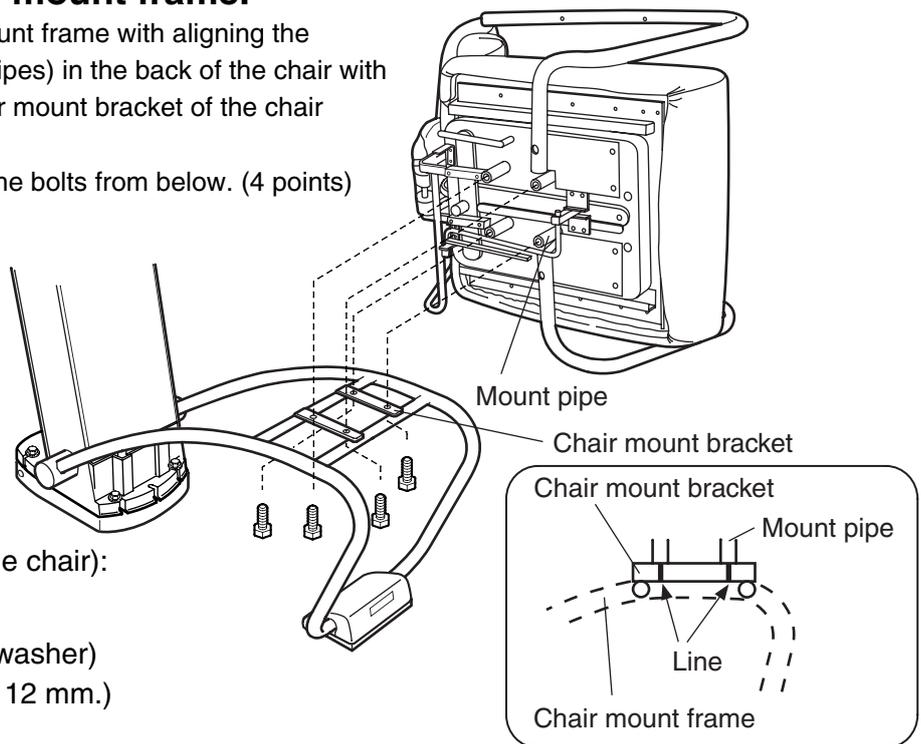
Place the frame receiver cover on the chair mount frame and press it firmly to the end.

## 2

# Mounting Chair (EU spec.)

### 1 Attaching to the chair mount frame.

- ① Place the chair on the chair mount frame with aligning the centers of the mount pipes (4 pipes) in the back of the chair with the lines on the side of the chair mount bracket of the chair mount frame.
- ② Fix the chair to the frame with the bolts from below. (4 points)

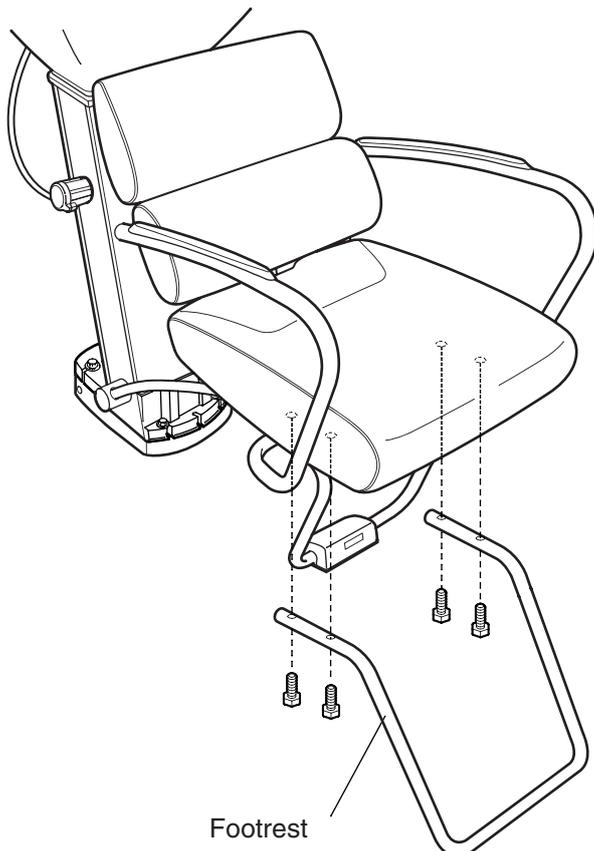


Bolts to be used (Accessory to the chair):

M8 x 70 Hex bolt  
(with spring washer and plain washer)  
(Use a wrench with across flat 12 mm.)

### 2 Attaching the footrest (U-footrest, W-footrest).

Align the holes on the ends of the footrest with the holes on the back of the seat. Fix the footrest to the chair with the bolts from the back of the seat.



Bolts to be used (Accessory to the chair):

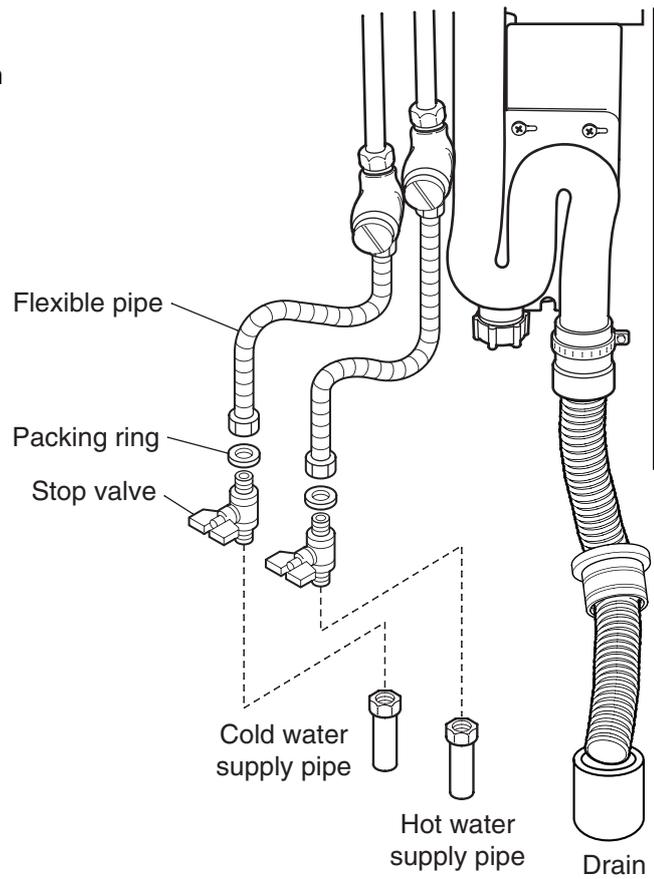
M8 x 30 Hex bolt x 4  
(with spring washer)  
(Use a wrench with across flat 12 mm.)

**1 Attaching the flexible pipe.**

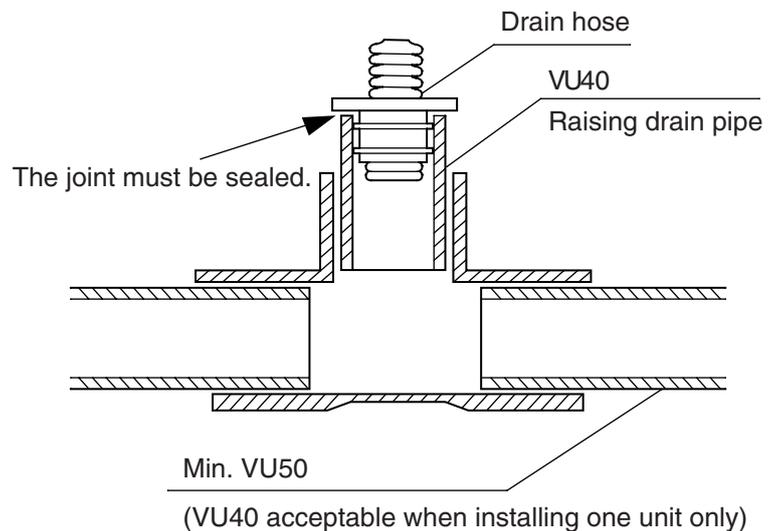
Clean the piping area of plumbing refuses such as dust, sand and oil first.

Attach the stop valves to the cold water supply pipe and the hot water supply pipe. And then attach the flexible pipes together with the accessory packing rings to the stop valves.

- Be sure to use the accessory packing ring when attaching the flexible pipe. If not used, there may be a risk of water leakage.
- Do not mix up the cold water supply pipes and the hot water supply pipes.

**2 Attaching the drain pipe.**

- ① Insert the drain hose with a bearing sleeve to the raising drain pipe.
- ② Press the bearing sleeve to the drain pipe and fit it into the drain pipe so that the drain hose and the drain pipe are connected tightly.
- ③ Fix the bearing sleeve into the raising pipe tightly using a tape, adhesive, etc.

**CAUTION**

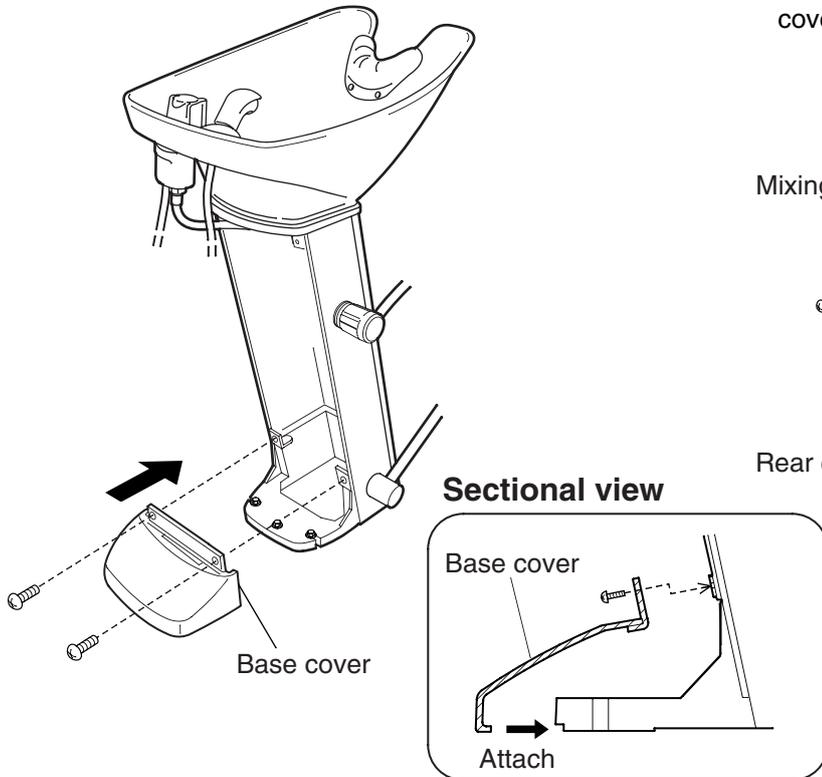
The raising height of the drain pipe must be 90 mm. Do not cut the raising drain pipe short.

# 4

## Attaching Covers

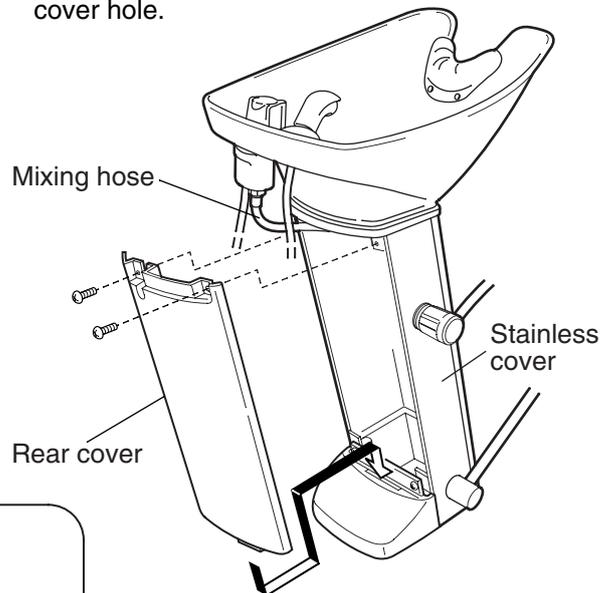
### 1 Attaching the base cover.

Attach the base cover to the unit and fix it with two screws.



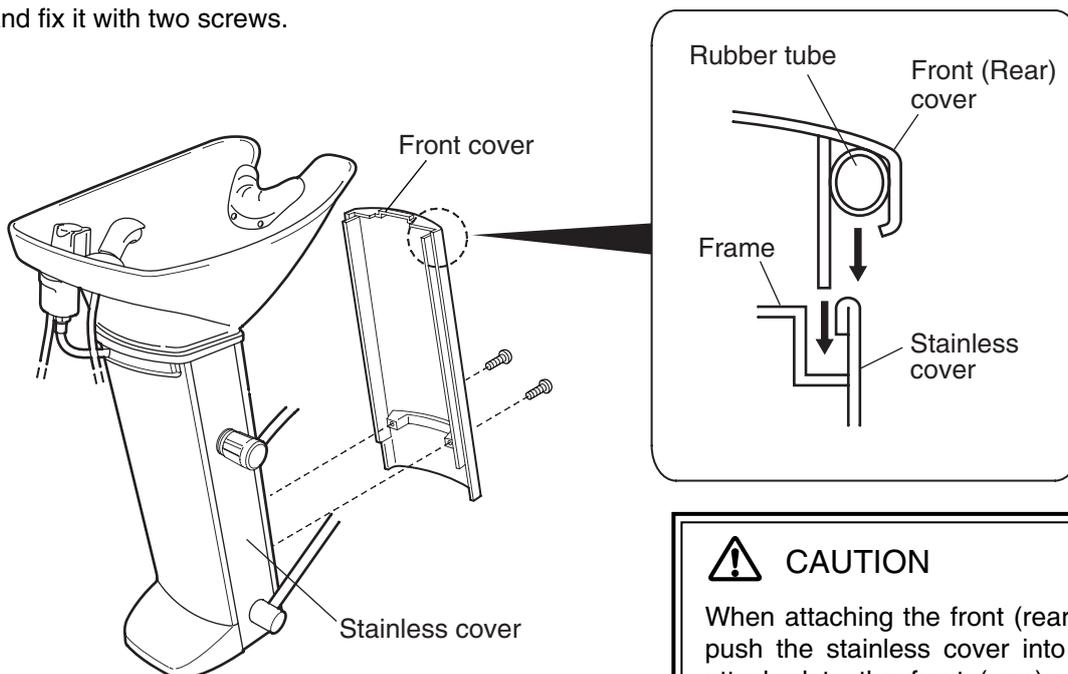
### 2 Attaching the rear cover.

Attach the bottom of the rear cover to the unit first. Then fix the rear cover with two screws to allow the mixing hose to pass through the rear cover hole.



### 3 Attaching the front cover.

Attach the top of the front cover to the unit first and fix it with two screws.

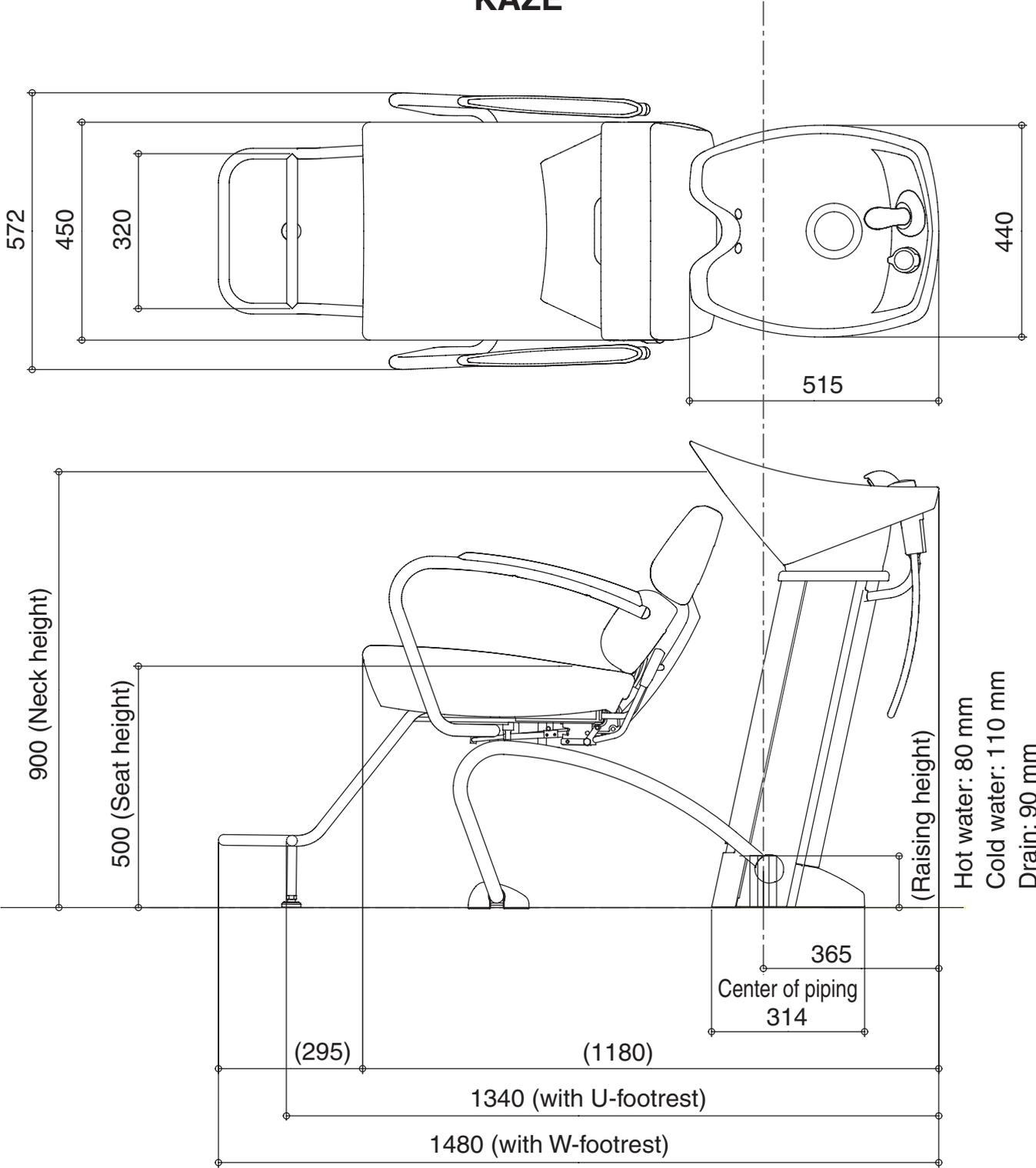


### ⚠ CAUTION

When attaching the front (rear) cover, securely push the stainless cover into the rubber tube attached to the front (rear) cover. If not, the water may go through the unit.

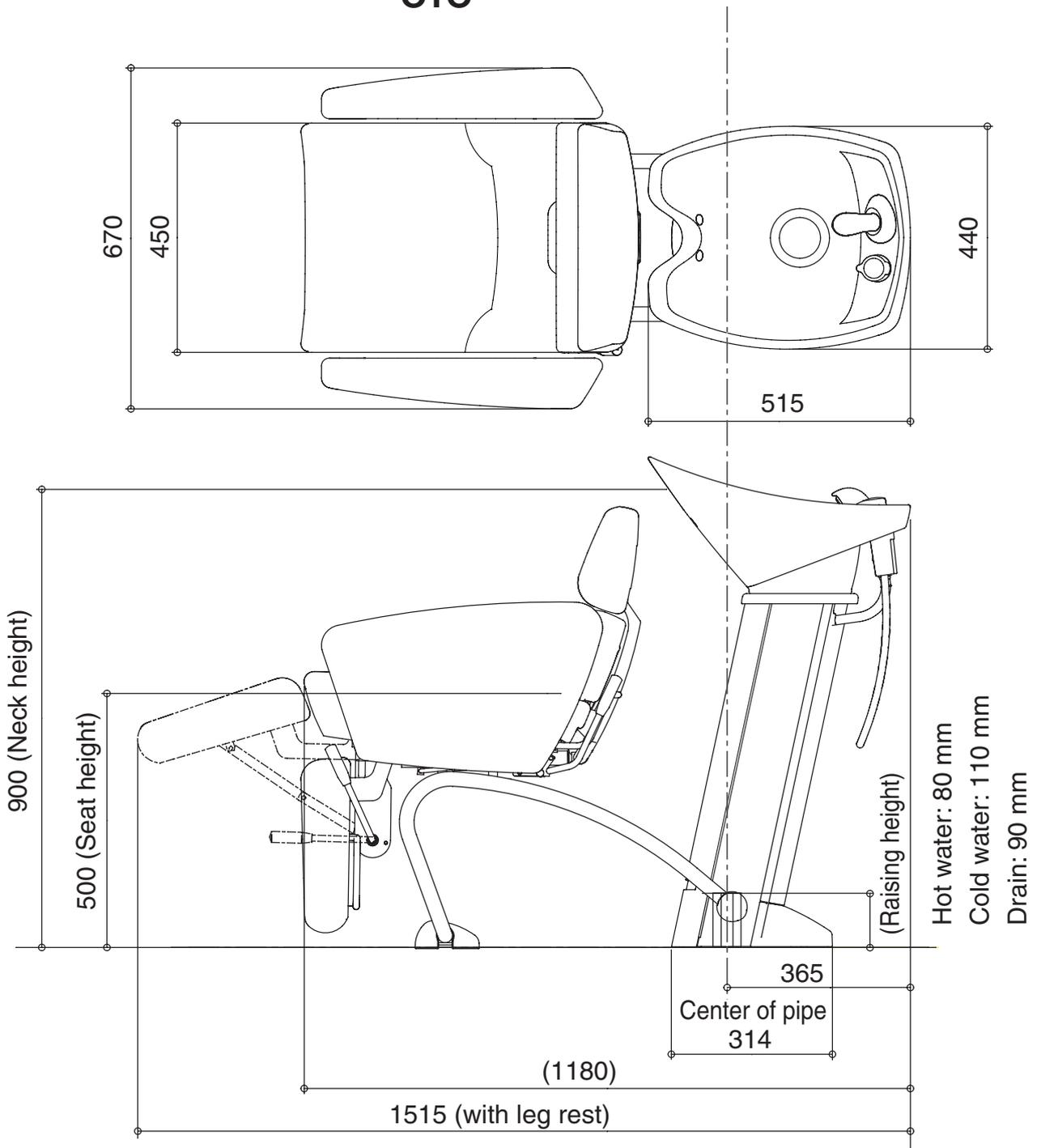
# Plumbing Drawing (Standard spec.)

## Chair Mount Type KAZE



\* The dimension in parentheses is a reference value. (AY-KFPLW AY-NRS1 is shown.)

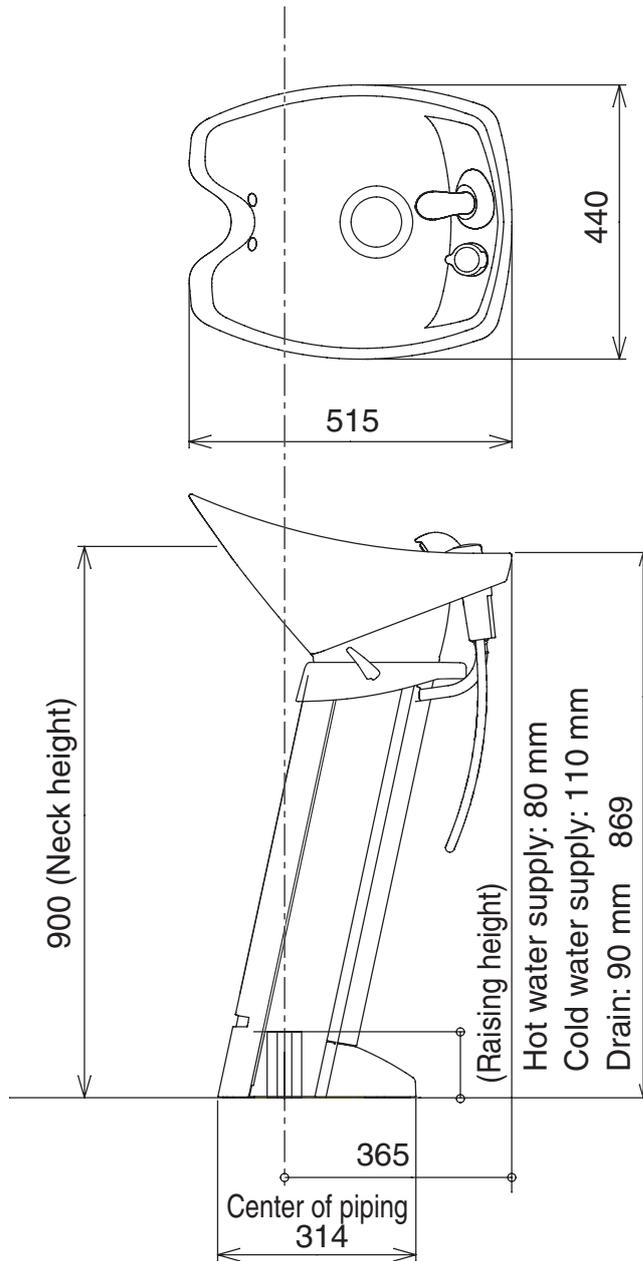
# OTO



\* The dimension in parentheses is a reference value. (AY-OLL AY-NRS1 is shown.)

\* The distance between the end of the leg rest and the wall or the furniture shall be at least 650 mm.

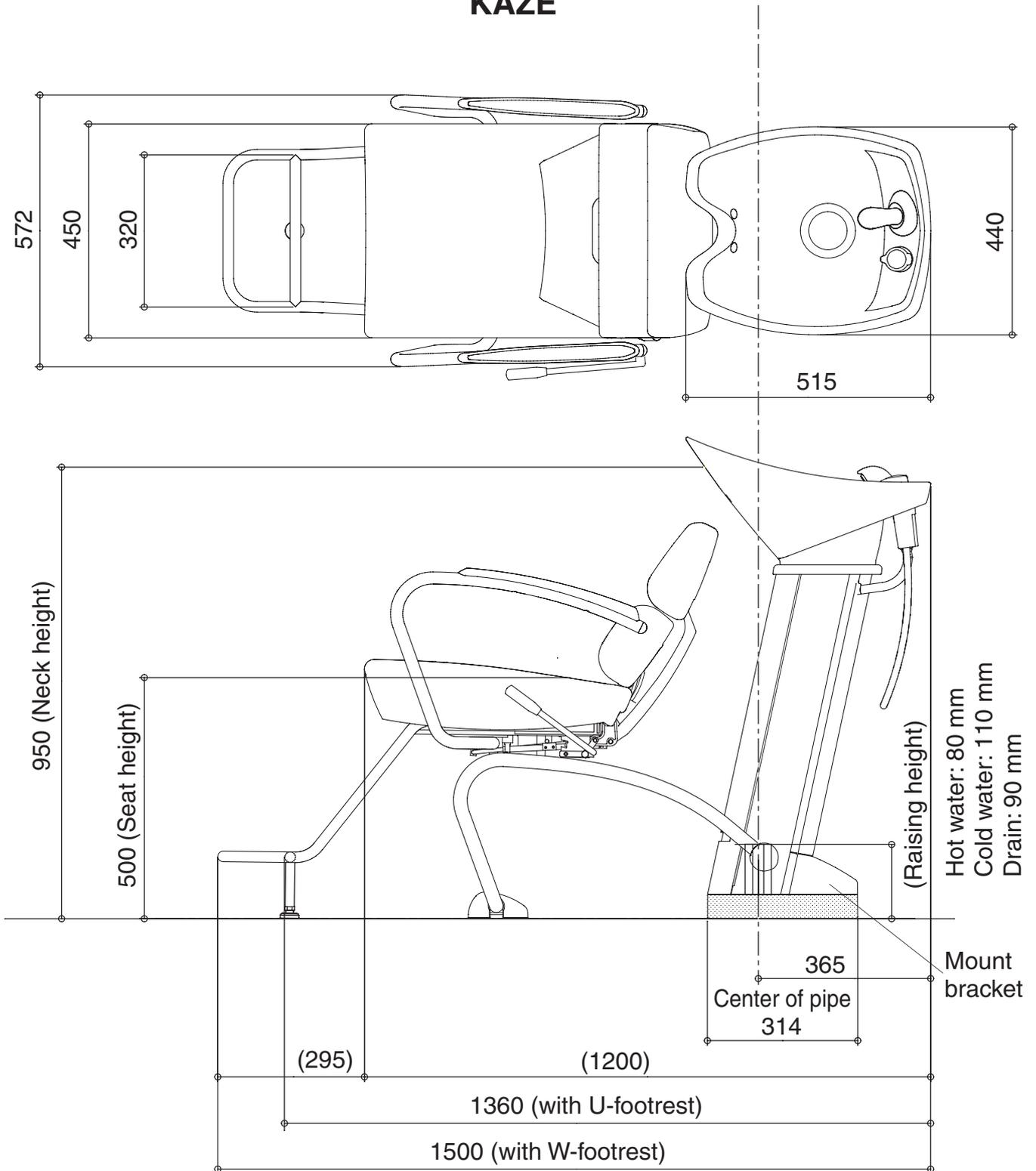
## Separate type



(AY-NRS2 is shown.)

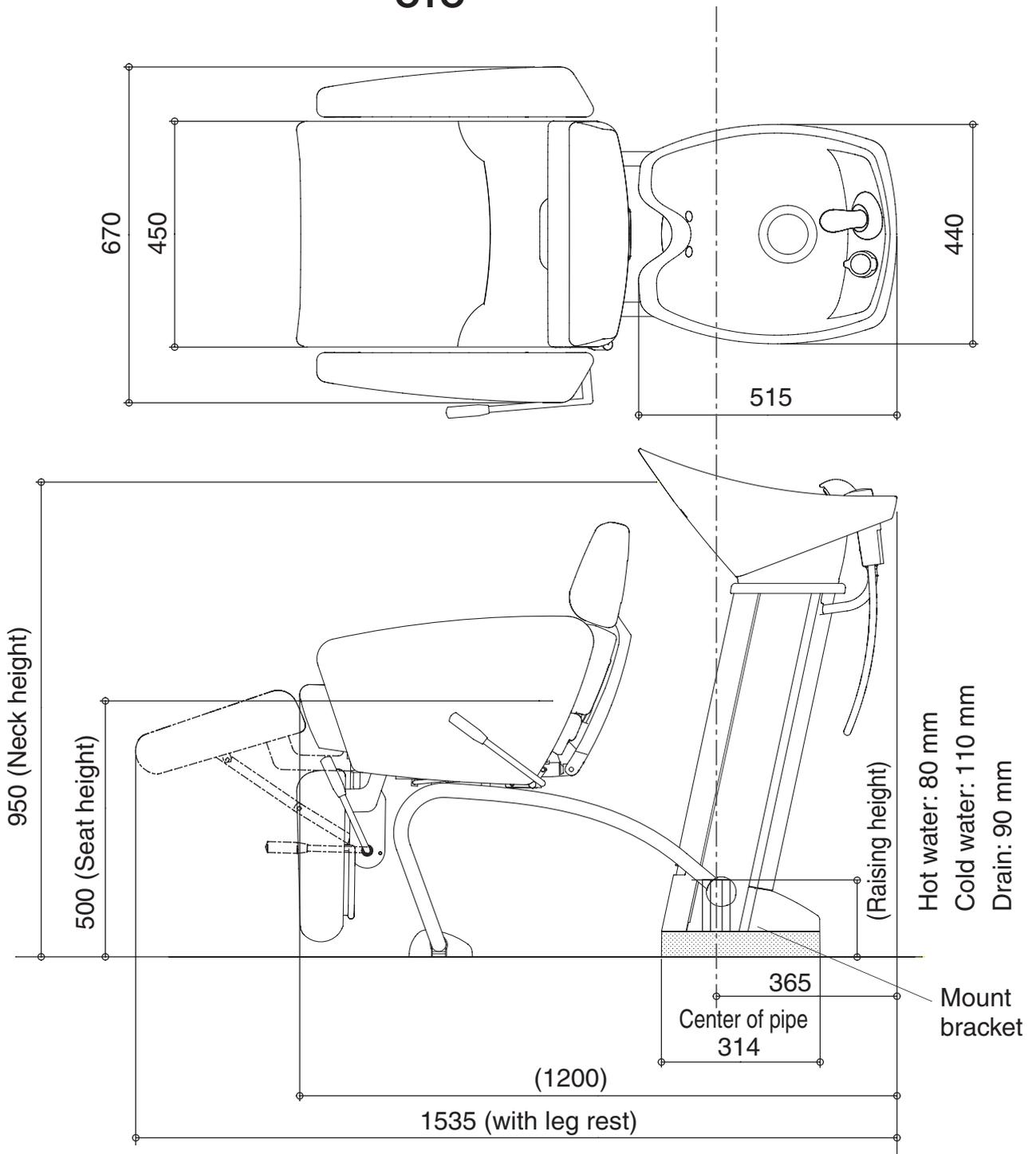
# Plumbing Drawing (EU spec.)

## Chair Mount Type KAZE



\* The dimension in parentheses is a reference value. (AD-KFPLW AY-NRS1 is shown.)

# OTO

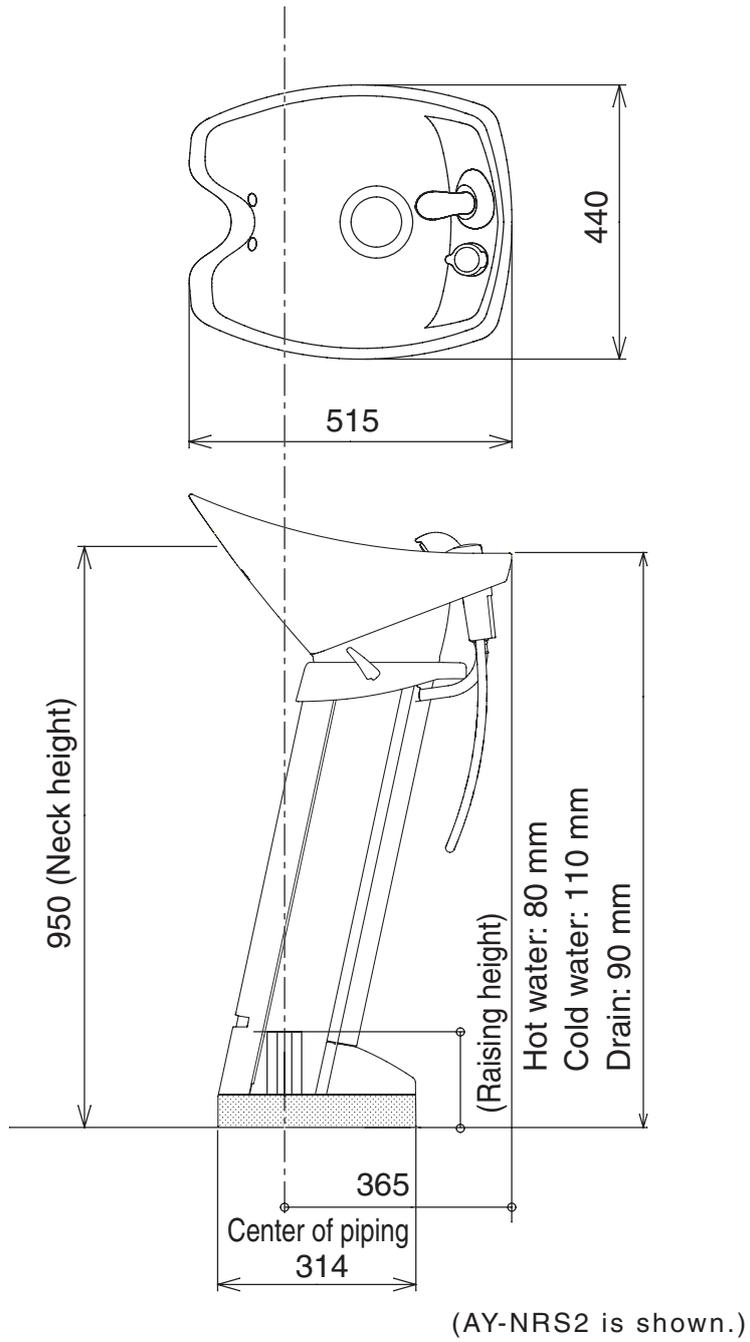


\* The dimension in parentheses is a reference value.

(AD-OLL AY-NRS1 is shown.)

\* The distance between the end of the leg rest and the wall or the furniture shall be at least 650 mm.

## Separate type



# After Installation (Standard / EU spec.)

## ● Checking after installation.

Check the following points.

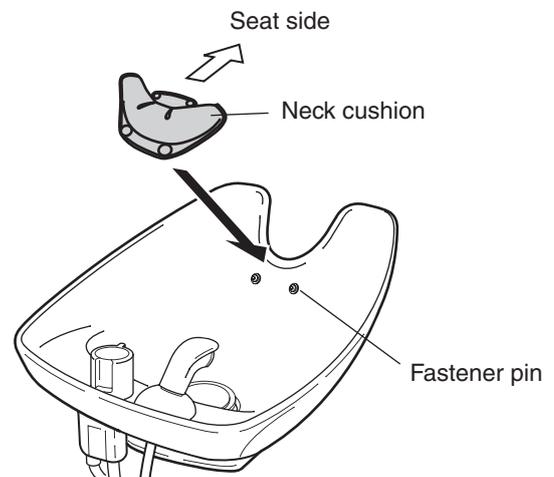
**⚠ CAUTION** In order to prevent accidents during operation, be sure to check that

- ① All bolts and screws, etc. are attached.
- ② The shampoo unit and chair are securely attached.  
If there is a slack in the shampoo unit or the chair, check if the bolts at the attaching portions are fastened tightly.

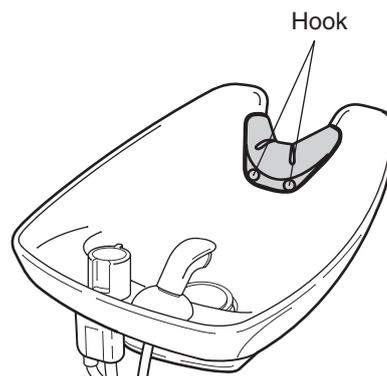
## ● Attaching the neck cushion.

Attach the neck cushion by following the procedure below.

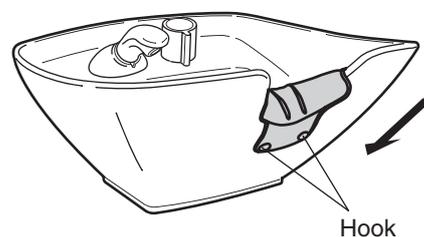
- 1 Place the neck cushion in the depression of the bowl and fit it on the edge of the bowl. (Please pay attention to the direction of back and forth.)



- 2 Attach the hooks of the neck cushion to the fastener pins inside the bowl.



- 3 Fit the neck cushion on the edge of the bowl and attach the hooks of the neck cushion to the fastener pin outside the bowl.

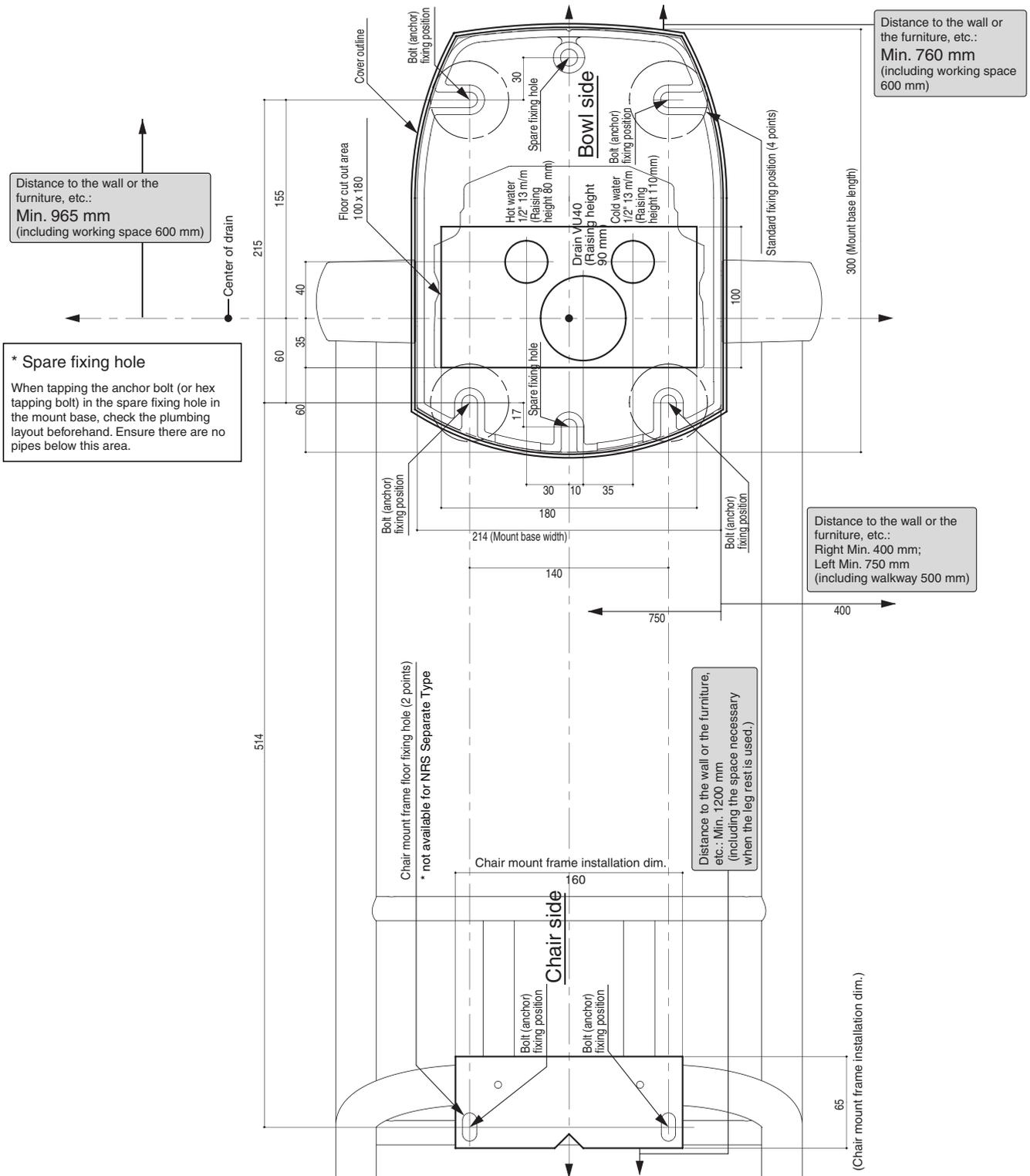


# Layout Drawing (Standard spec.)

## Notes on the floor finished with tiles or glass

In the case where the floor is finished with tiles etc., screwing bolts into the floor when installing the shampoo unit may cause a crack on the floor surface. Change the material of the floor of the installation position to plywood, mortar, etc.

- 1 Mark the floor at the base outline and the chair mount frame installation position. Cut the tile or glass along the outer edge of the pattern you traced on the floor. Remove the area of tile or glass precisely over the installation position.
- 2 Place the plywood on the area where the tile or glass was removed. The floor height of the plywood portion must be higher than that of the tile or glass portion. (2 to 3 mm)

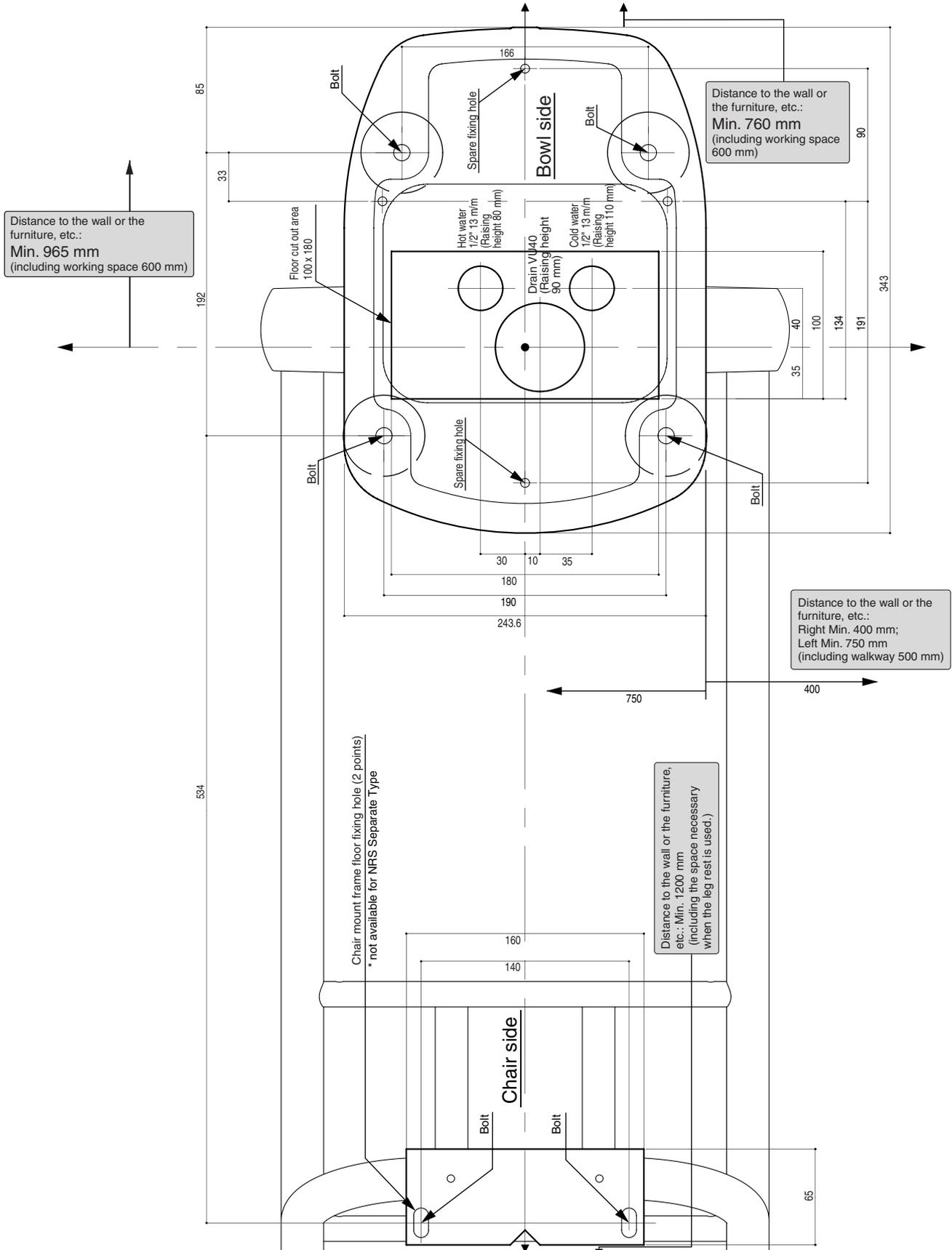


# Layout Drawing (EU spec.)

## NRS EU SPEC

### FULL-SCALE PATTERN PAPER

○ The designed piping position shows the standard piping position.



# MEMO

Memo



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