

# DENTAL LIGHT 701

## INSTALLATION AND OPERATION INSTRUCTIONS

### IMPORTANT

After installation is completed, check all the bolts, screws and fasteners to confirm that they are securely fastened.



 **Belmont**

## TABLE OF CONTENTS

[1] SPECIFICATIONS.....	2
[2] CLASSIFICATION .....	2
[3] WIRING DIAGRAM .....	2
INSTALLATION INSTRUCTIONS	
[4] UNIT MOUNT TYPE .....	4
4-1 Dimensions	
4-2 Installation Instructions	
[5] LIGHT HEAD .....	4
[6] CEILING MOUNT TYPE.....	5
6-1 Dimensions	
6-2 Installation Instructions	
6-3 Ceiling Mounting Template	
[7] TRACK MOUNT TYPE .....	8
7-1 Dimensions	
7-2 Ceiling Preparation	
7-3 Electrical Preparation	
7-4 Installation Instructions	
OPERATING INSTRUCTIONS	
[8] OPERATING INSTRUCTION .....	12
[9] ADJUSTMENTS .....	14
[10] HALOGEN LAMP REPLACEMENT .....	14
[11] CLEANING .....	15
[12] INFORMATION FOR YOUR SAFETY .....	16
[13] HOW TO ATTACH AND REMOVE HANDLE (OPTION) .....	17
[14] ELECTROMAGNETIC COMPATIBILITY .....	18

### Intended Use of the Product

This product is intended for the exclusive use for diagnoses, treatments and relative procedures of dentistry, and must be operated or handled by the qualified dentists or by dental staffs under the supervision of the dentist.

Such dentists or dental staffs should instruct and/or assist the patients to approach to and leave from the product.

Patients should not be allowed to operate or handle the product unless he/she is so instructed.

### Environmental Requirements

Ambient Temperature	Operating +5 - +40	Storage -10 - +50
Humidity	10 % - 80%	
Atmospherical Pressure	600 hPa - 1060 hPa	

### Important Notes

In case of the troubles, please contact Takara Belmont offices or your dealers.

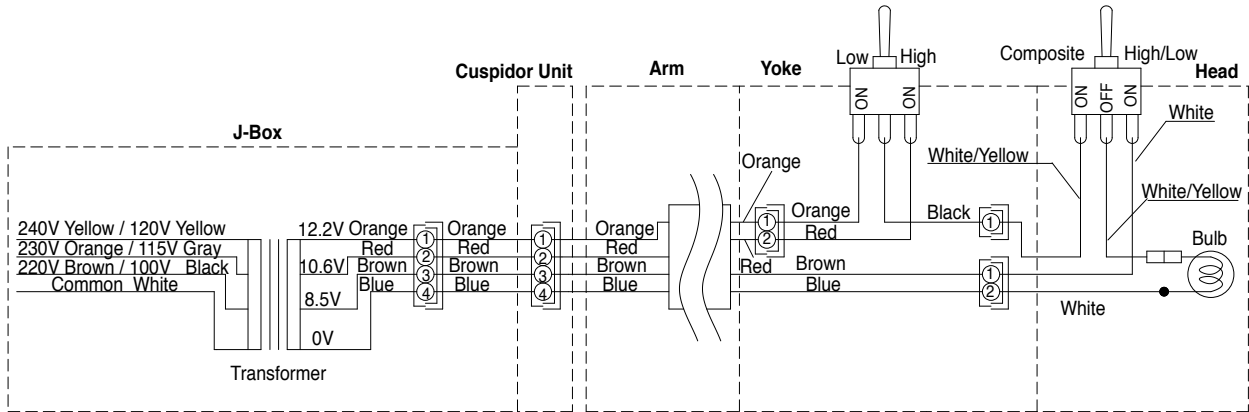
Do not disassemble or attempt to repair.

Disassembly, repair or modifications should only be done by a qualified repair technician.

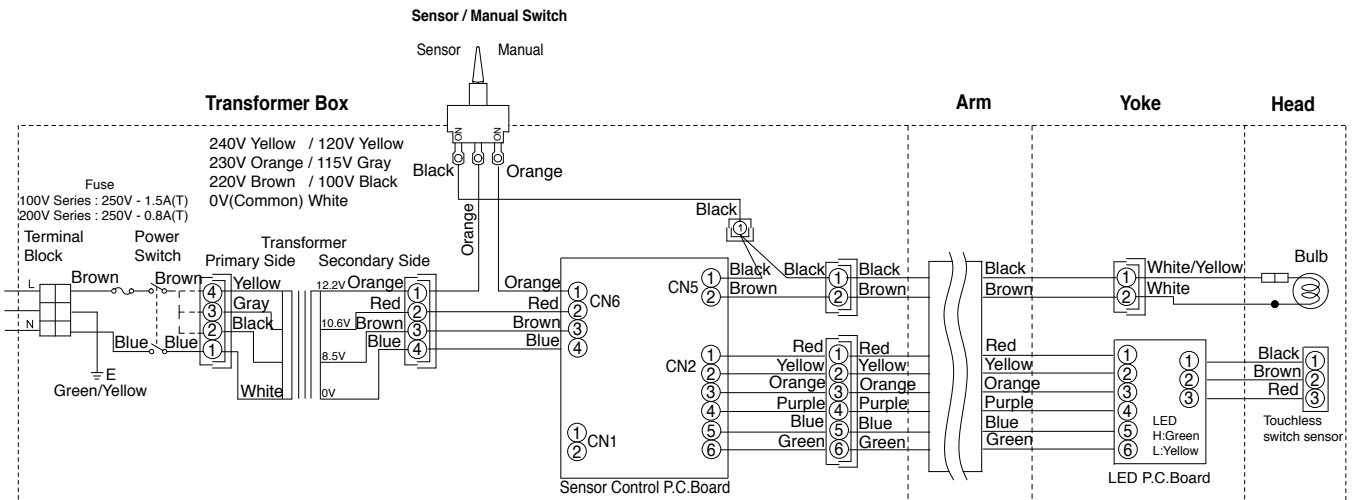
Attempts at disassembly, repair or modifications may lead to abnormal operation and accidents.



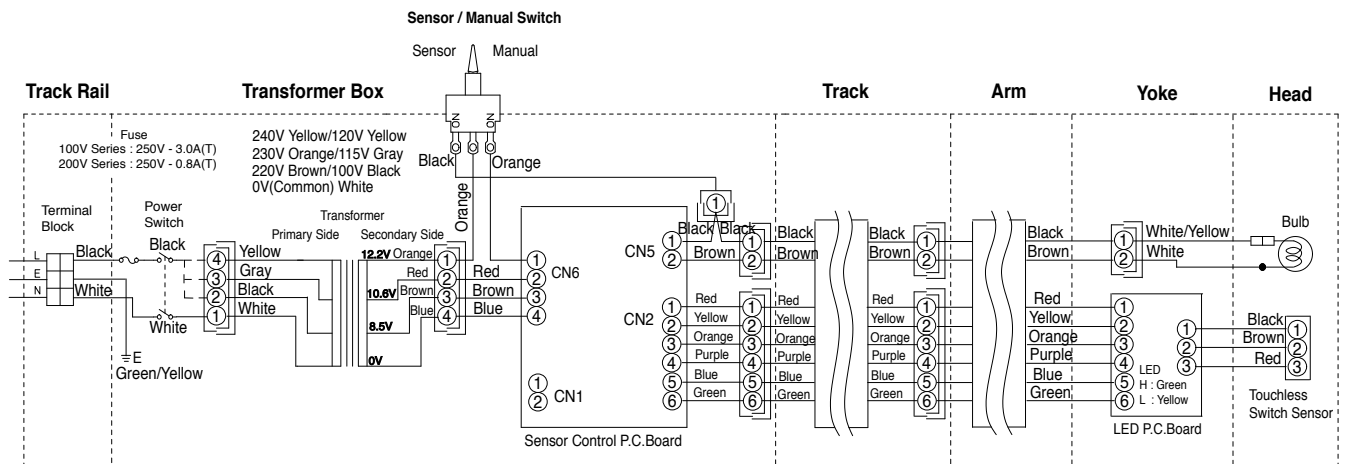
### 3-2. Unit Mount Type (AL-720M)



### 3-3. Ceiling Mount Type (AL-702S)



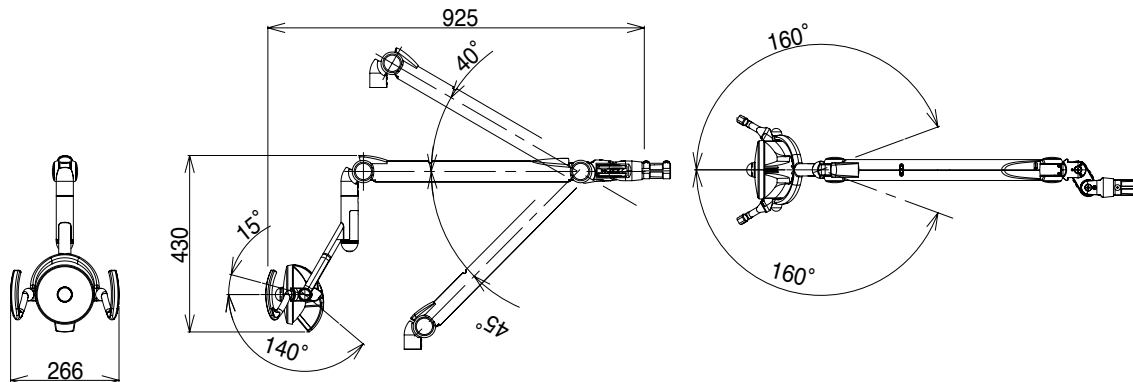
### 3-4. Track Mount Type (AL-705S)



# INSTALLATION INSTRUCTIONS

## [4] UNIT MOUNT TYPE (AL-720S / AL-720M)

### 4-1. Dimensions (mm)



### 4-2. Installation

Pass the light wires through the L-light pole and insert the light spigot into the L-light pole and fix it with 2 x M6 screws.  
(Refer to Fig.4-2)

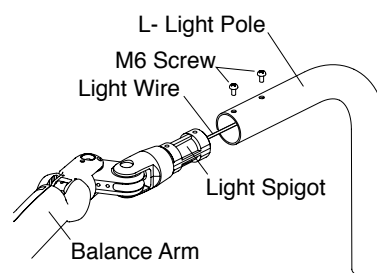


Fig.4-2 Fixing Light to L-Light Pole

## [5] LIGHT HEAD INSTALLATIONS(AL-702S / AL-705S)

Connect the light-head with the balance arm. (This section also applies to [6] Track type)

All necessary parts are included in the carton box.

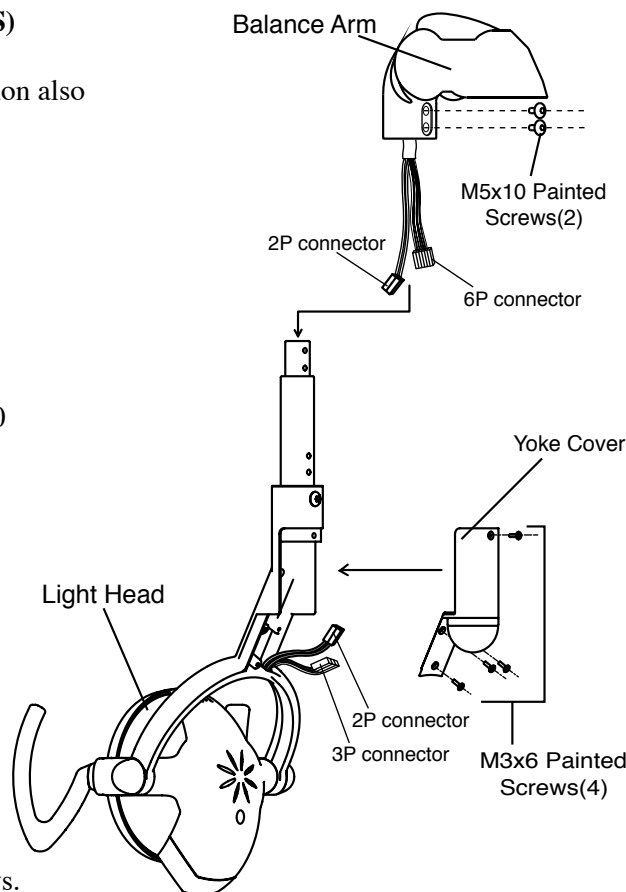
- M3 x 6 Painted Screw..... 4pcs.
- Yoke Cover..... 1pce.
- M5 x 10 Painted Screw..... 2pcs.

1) Install the light head to balance arm with two M5 x 10 painted screws.

2) Connect the wire harness.

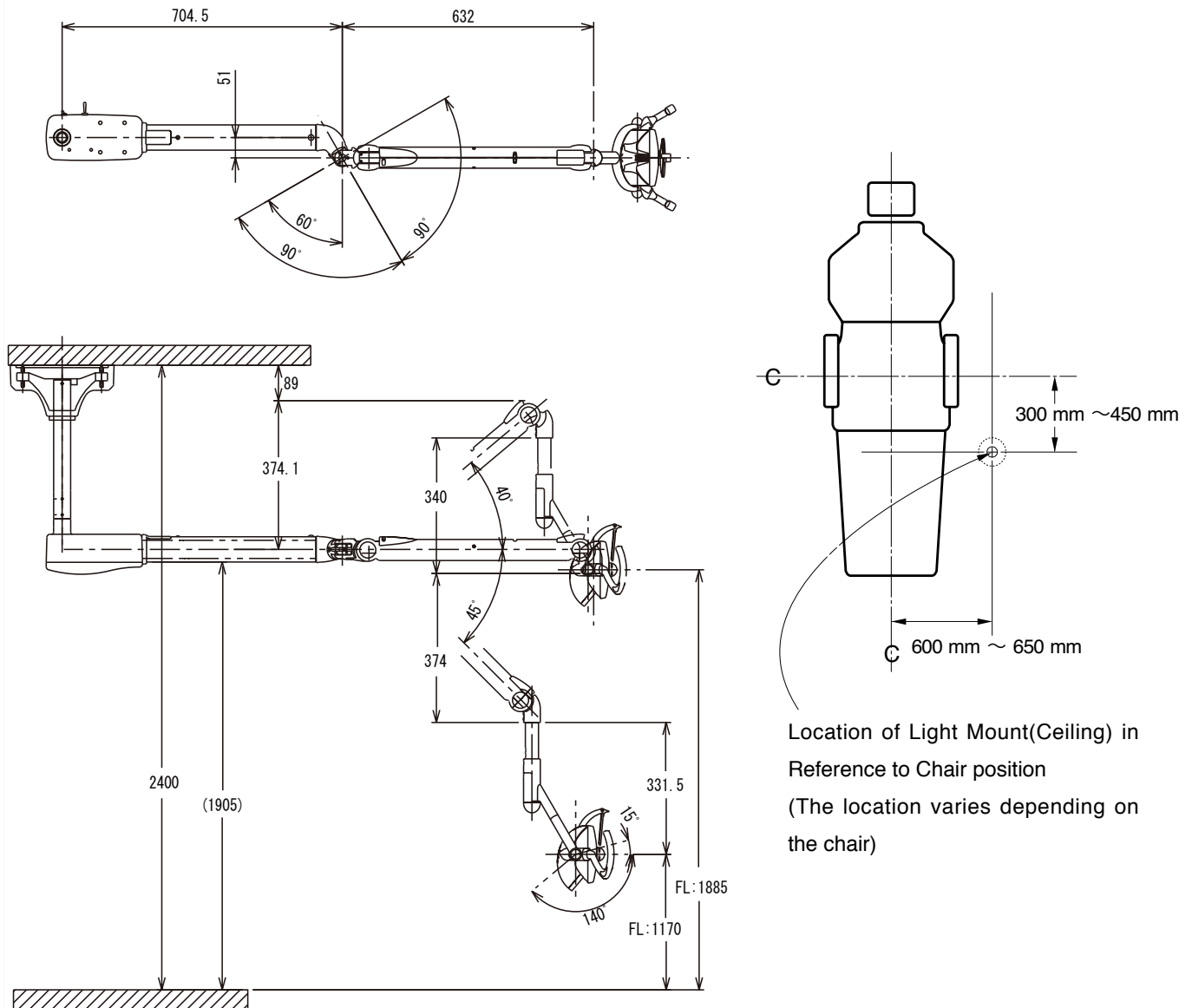
- 2P connector : black / brown from balance arm to white / white & yellow from light head.
- 6P connector : red / yellow / orange / purple / blue / green from balance arm to LED P.C.Board in the yoke cover.
- 3P connector : black / brown / red from light head to LED P.C.Board in the yoke cover.

3) Attach the yoke cover with four M3 x 6 painted screws.



## [6] CEILING MOUNT TYPE (AL-702S)

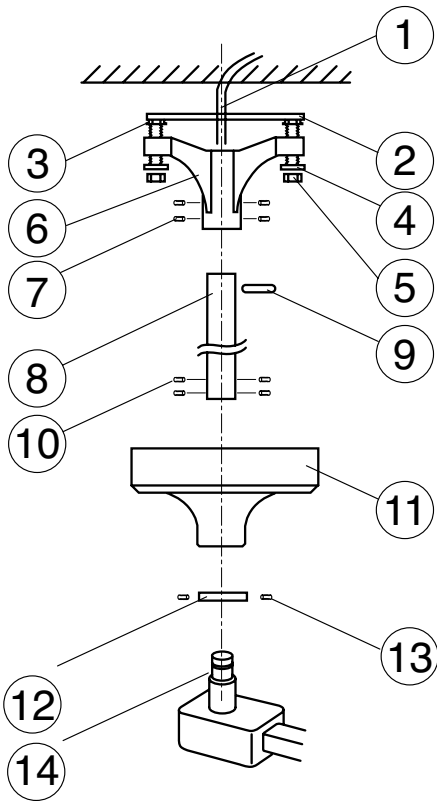
### 6-1. Dimensions (mm)



### 6-2. Installation Instructions

- 1) Secure mounting plate to the ceiling, using the parts which will give the equipment enough structural strength.
- 2) Route the power supply cable (1) through the center of the mounting plate(2).
- 3) Insert the suspension tube(8) into the ceiling flange and secure with roll pin(9) and set screws(7) supplied.
- 4) Use a level to make certain suspension tube is plumb.
- 5) Slide the flange cover(11) and flange cover ring(12) (flat side up) over the suspension tube and secure about half way up the tube. Use only one set screw(13) as you will be moving this on final installation.
- 6) Install the light assembly to the suspension tube by first running the 3 wire cord from the light up through the suspension tube to the ceiling flange.  
Secure light assembly to suspension tube with 4 Allen set screws.

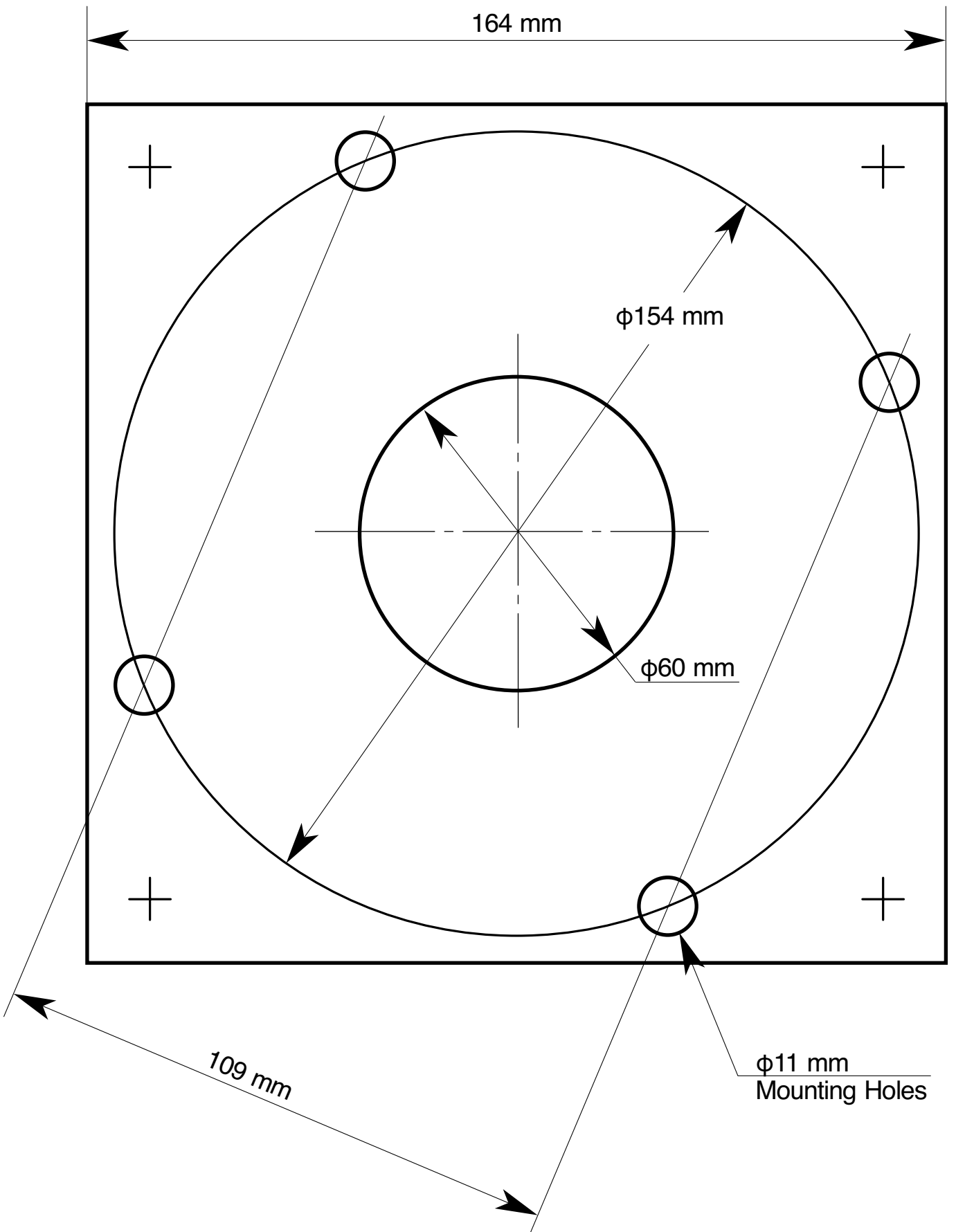
- 7) Connect the power supply cable to the 3 wire cord from the light assembly.
- 8) Test light for proper operation.
- 9) Reposition flange cover and secure with flange cover ring - Secure all set screws.



- (1) Power Supply Cable
- (2) Mounting Plate
- (3) Leveling Nut (M8 : 4pcs)
- (4) Washer (M8/Plain Washer / M8/Spring Washer : 4pcs)
- (5) Nut (M8 : 4pcs)
- (6) Ceiling Flange
- (7) Socket Screw for Flange (M6x 8 : 4pcs)
- (8) Suspension Tube
- (9) Roll Pin (6 x 70 : 1pce)
- (10) Socket Screw for Arm (M5 x 8 : 4pcs)
- (11) Flange Cover
- (12) Cover Ring
- (13) Socket Screw for Ring (M5 x 8 : 3pcs)
- (14) Light Assembly

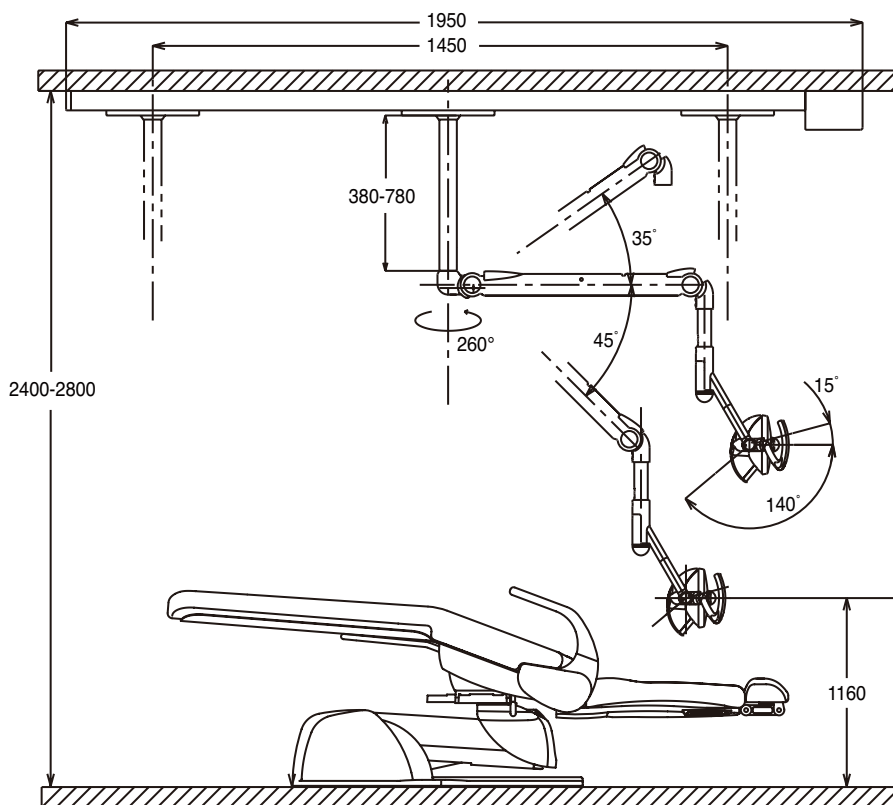


6-3.AL-702S CEILING MOUNTING TEMPLATE



**[7] TRACK MOUNT TYPE (AL-705S)**

7-1. Dimensions (mm)



7-2. Ceiling Preparation

For safety in operation as well as stability of the light source, the importance of proper ceiling structure can not be overemphasized. In general, a ceiling structure capable of supporting 90kg(200 lbs) dead weight is required.

- 1) In conventional ceilings with joists perpendicular to center line of light, attach pallet by at least 6 (M8 x 76mm)lag screws. Suitable holes are provided in pallet for most installations, utilizing 16"(406 mm) or 12"(305 mm) center to center ceiling joists. For other spacings or locations, additional holes can be drilled in pallet.

(Refer to Fig.7-2-1)

**IMPORTANT:Locate transformer end of track at headrest end of chair only.**

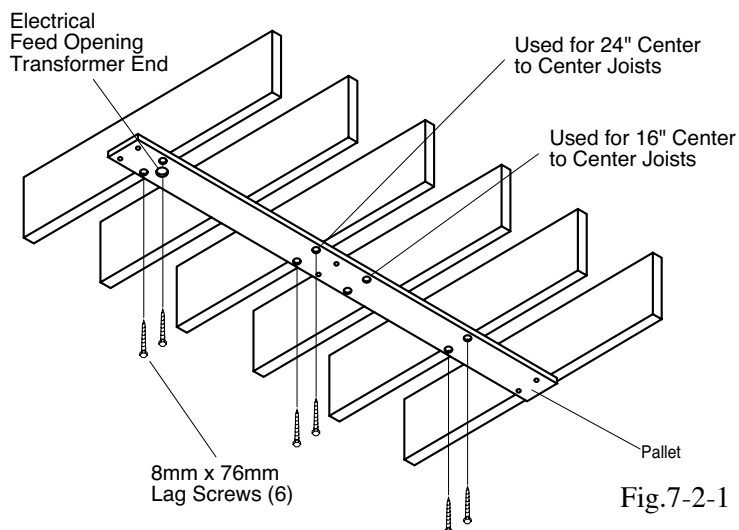
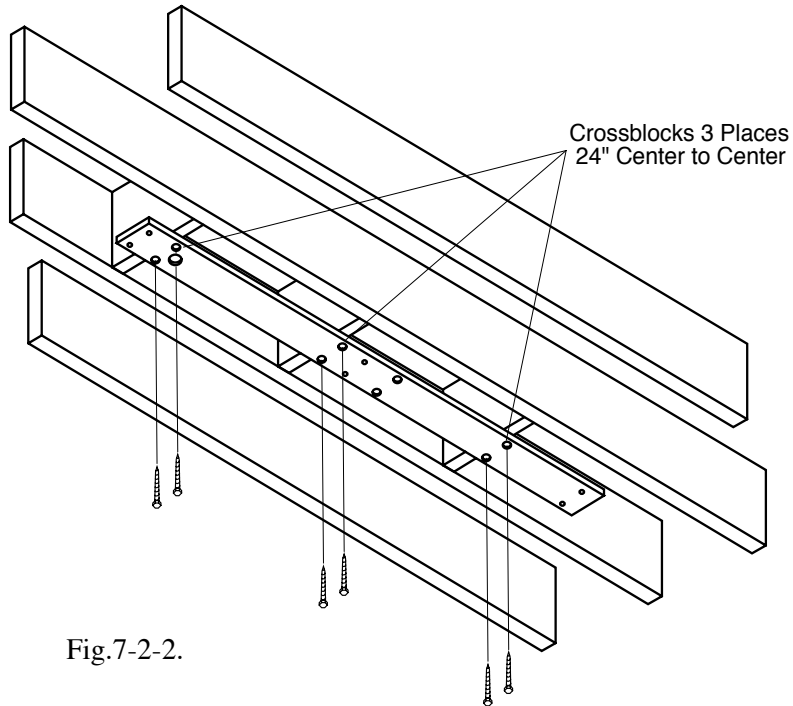
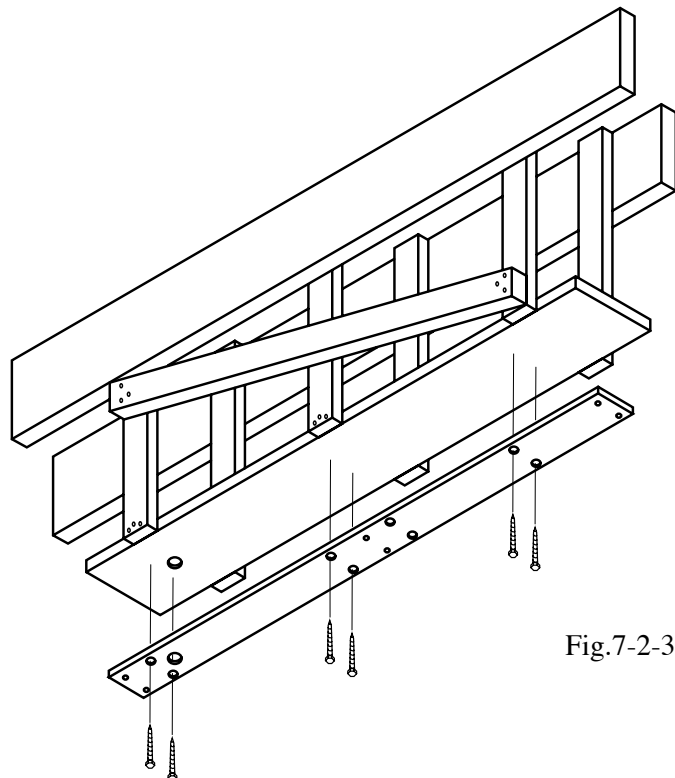


Fig.7-2-1

- 2) For conventional ceilings with joists parallel to center line of light, cross blocks must be installed in 3 places to allow mounting with at least 6 (M8 x 76mm) lag screws.  
(Refer to Fig.7-2-2.)



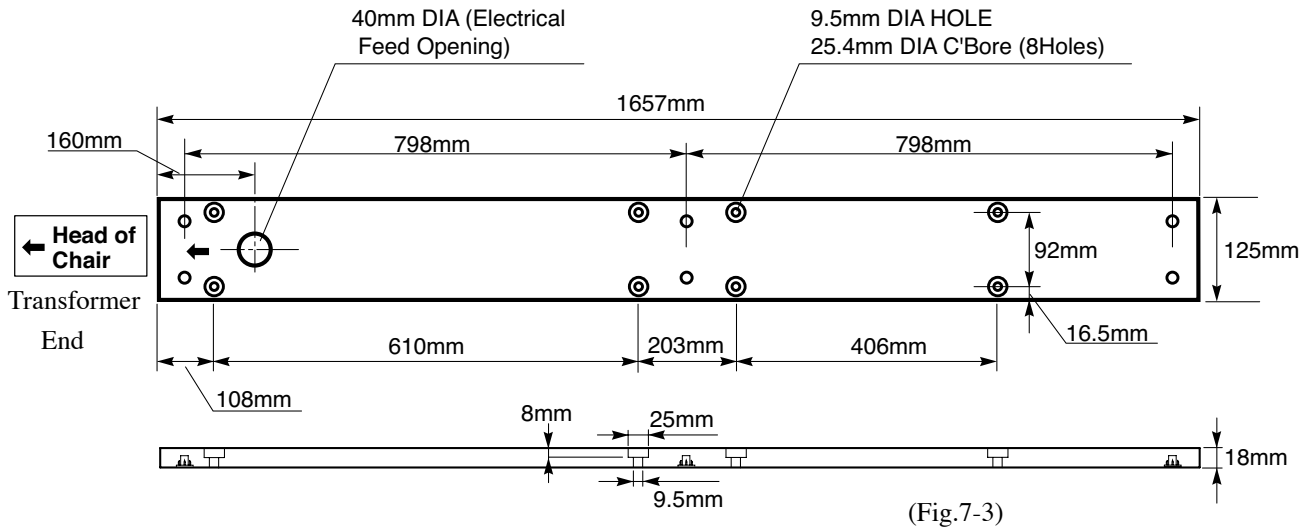
- 3) For suspended ceilings, appropriate rigid structure must be attached to ceiling framework to provide 90kg(200 lbs.) dead weight capacity. (Refer to Fig.7-2-3.)



### 7-3. ELECTRICAL PREPARATION

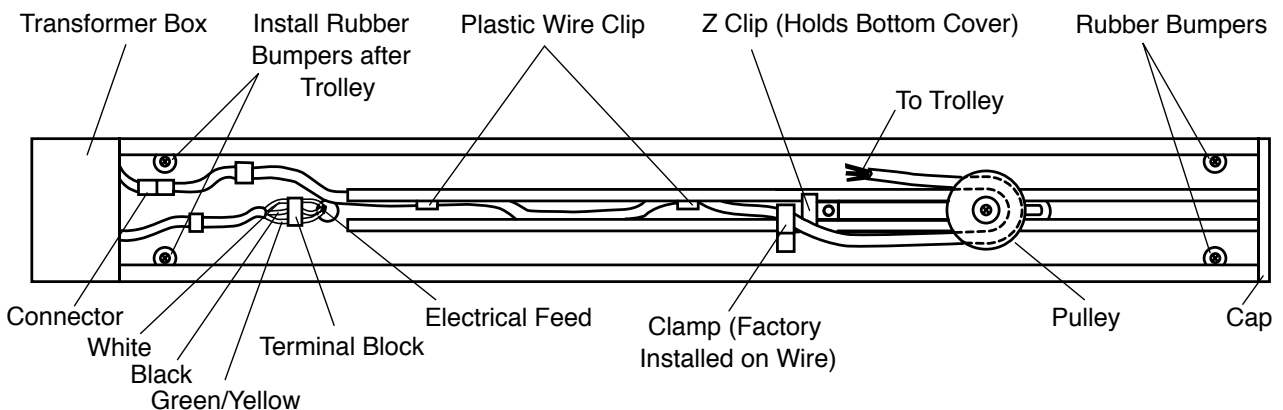
Refer to Fig.7-3. for location of electrical feed opening in pallet, provide 3 wire, circuit (fuse or breaker through) flexible conduit with enough slack to protrude at least 50mm below pallet when installed. Terminate conduit with 13mm body box connector suitable for mounting through 5mm thickness.

A readily accessible shut-off switch for this circuit is recommended. Use wiring suitable for 90°C service.

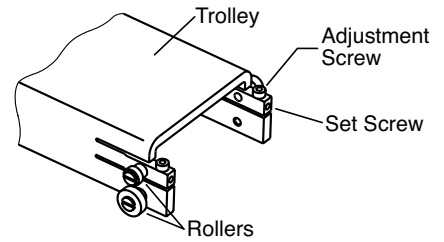


### 7-4. INSTALLATION INSTRUCTIONS

- 1) Lead out the power supply cable from the ceiling where the track light is mounted.
- 2) Run the power supply cable through the electrical feed opening in the pallet and mount pallet to ceiling.
- 3) Place track against pallet and slightly engage two mounting bolts(M8 x 25 Hex. Head bolt:6pcs and M8 spring washer:6pcs) at end opposite the electrical opening.
- 4) Allowing the free end to hang down slightly for access, install the conduit box connector to the track.
- 5) Finish bolting track securely to pallet.
- 6) Connect wires from feed to terminal block.
- 7) Slide trolley onto track (end near electrical opening) with arrow on trolley oriented toward pulley on track.
- 8) Carefully guide wire from trolley, around spring loaded pulley and back toward transformer end of track.
- 9) Attach retainer clamp to small screw(M4x8 : 1pc) in track. Clip free end of trolley wire into plastic clip near end.
- 10) Install rubber bumpers both ends of track in holes provided.

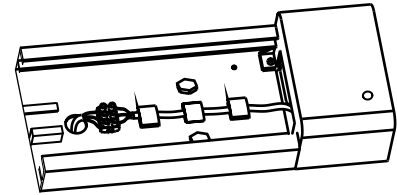


11) Check operation of trolley. It is factory adjusted to provide smooth effortless travel, without play; however rollers can be readjusted if necessary. Loosen set screw and adjust socket cap screw to vary roller clearance.



12) Unpack transformer / housing assembly and mount to track with screws (M4x15 Screw with plain washer & spring washer : 2pcs) provided.

13) Attach pigtail leads to corresponding power line wires at terminal block. Retain wires under plastic clip.



14) Connect plug-in transformer connector to trolley wire harness.

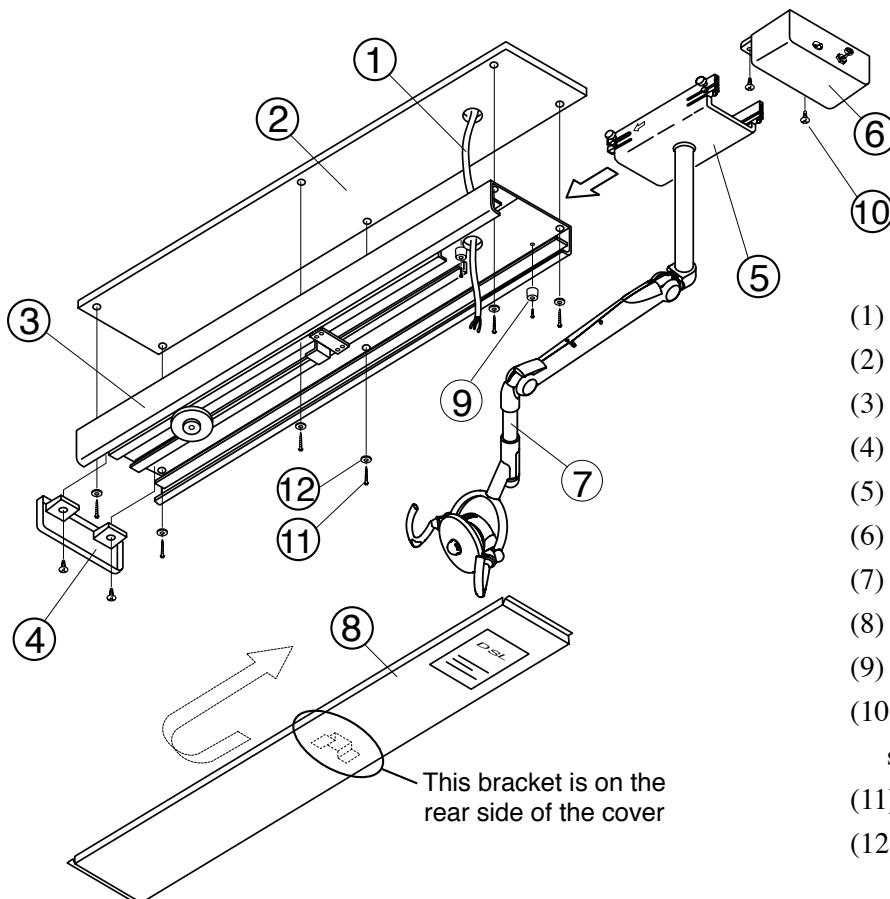
15) Carefully slide bottom cover onto track from the end on the opposite side of the transformer end. Be sure to engage lip inside of the bottom covers onto the Z bracket on the track.

16) Install end-cap with screws (Screw with plain washer & spring washer M4x15 : 2pcs) provided.

17) Slide trolley back and forth checking for binding or rubbing.

18) Confirm that balance arm is properly adjusted to stay where it is placed. If necessary, move head up or down to expose appropriate cross drilled nut and adjust with tool provided. (See Page 12, adjusting tension of balance arm.)

19) Turn on power and check electrical operation of light.



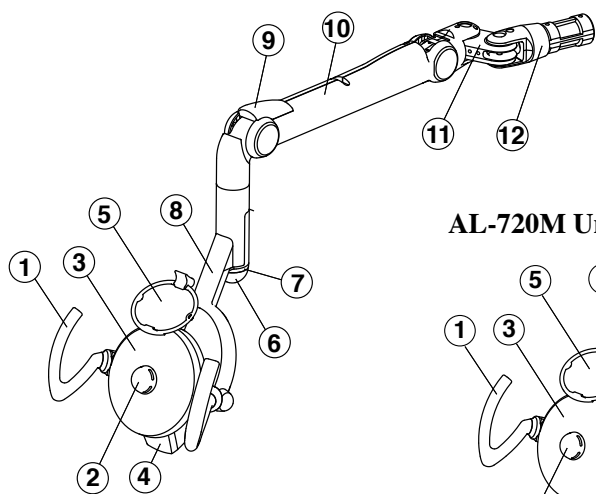
- (1) Power supply cable
- (2) Pallet
- (3) Track
- (4) End-cap
- (5) Trolley
- (6) Transformer Box
- (7) Light Assembly
- (8) Bottom Cover
- (9) Rubber bumper(4pcs)
- (10) Screw with plain washer & spring washer M4x15(2 pcs)
- (11) Hex Head Bolt M8x25(6 pcs)
- (12) Spring Washer M8 (6 pcs)

This bracket is on the rear side of the cover

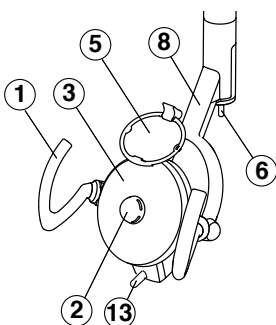
## [8] OPERATING INSTRUCTIONS

### 8-1. Overall View and Major Components

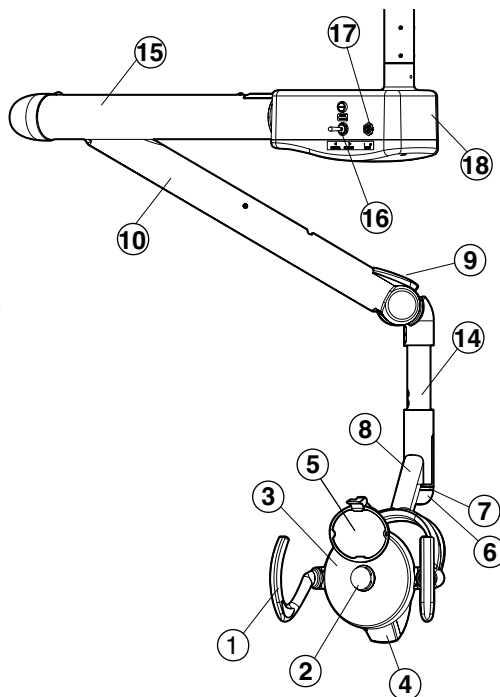
AL-720S Unit Mount Type



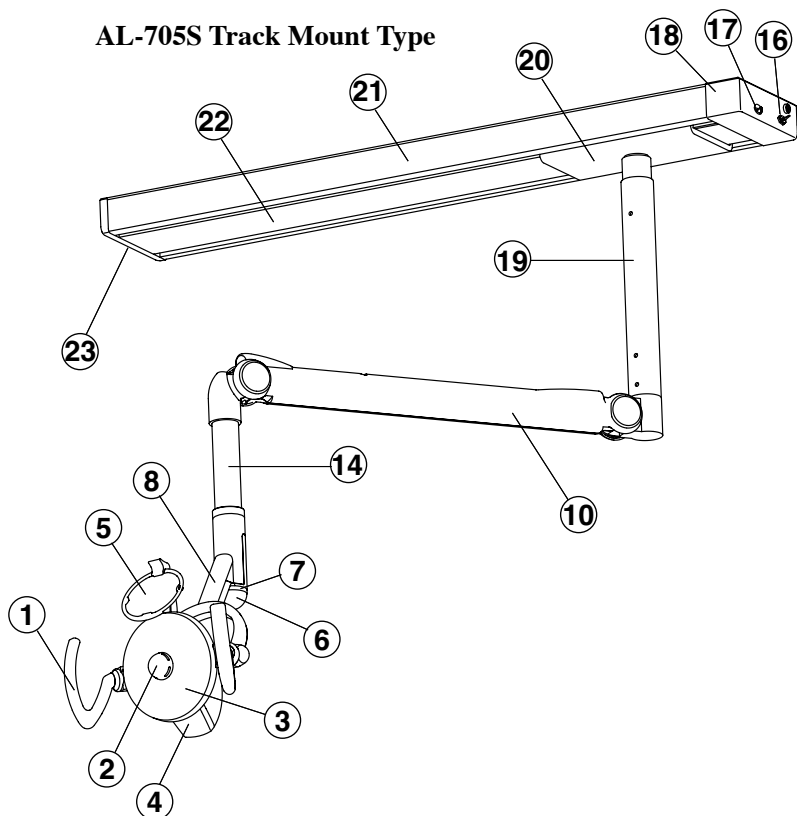
AL-720M Unit Mount Type



AL-702S Ceiling Mount Type



AL-705S Track Mount Type



- (1) Handle
- (2) Bulb Cover
- (3) Front Shield
- (4) Touchless Switch
- (5) Patient Mirror(Optional)
- (6) Intensity Switch
- (7) LED
- (8) Yoke
- (9) Arm Rubber Cover
- (10) Balance Arm
- (11) H-Bracket
- (12) Spigot
- (13) Manual Switch
- (14) Extension
- (15) Swing Arm
- (16) Mode Selection Switch
- (17) Main Switch
- (18) Transformer Box
- (19) Track Pole
- (20) Trolley
- (21) Track
- (22) Bottom Cover
- (23) End Cap

#### **⚠ CAUTION**

CAUTION-Electric shock hazard, do not remove cover. Refer servicing to qualified service personnel

## 8-2 Operation (Sensor Type AL-720S / AL-702S / AL-705S)

### 8-2-1. Main Switch (AL-702S / AL-705S)

Flip the toggle switch to the side marked with ' I ' to turn on the light.

(Refer to Fig.8-2-1)

I - ON / O - OFF

### 8-2-2. Mode Selection Switch (AL-702S / AL-705S)

(Refer to Fig.8-2-1)

Switching modes can be changed by this switch.

Sensor : Touchless mode ON/OFF

Manual : Manual mode ON (only)

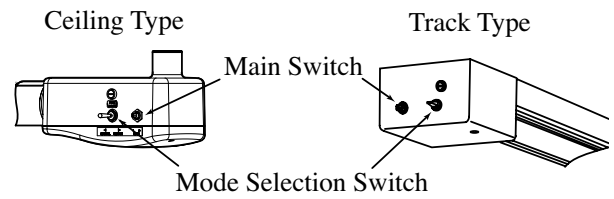


Fig.8-2-1 Main & Mode Selection Switch

### 8-2-3. Touchless Switch (AL-720S / AL-702S / AL-705S)

(Refer to Fig.8-2-2 & 8-2-3)

Approach a hand to touchless switch within the reaction zone to turn on/off for the light.

To change the light intensity into composite mode, approach a hand to touchless switch and stay the hand there for about 2 seconds. Green or Amber LED blinks.

To return to the original light intensity, repeat the same procedure.(Reaction zone : 0 - 85mm)

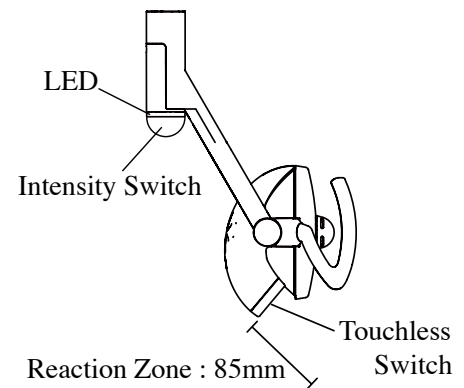


Fig.8-2-2 Model 720S / 702S / 705S

### 8-2-4. Intensity Switch (AL-720S / AL-702S / AL-705S)

(Refer to Fig.8-2-3)

Push intensity switch

High beam : Green LED turns ON.

Low beam : Amber LED turns ON.

	Light Intensity	LED
High	28,000Lux	Green
Low	18,000Lux	Amber
Composite	8,000Lux	Blink

Fig.8-2-3

## 8-3 Operation (Manual Type AL-720M)

### 8-3-1. Intensity Switch (AL-720M)

(Refer to Fig.8-3)

High beam ; Push toggle to left

Low beam ; Push toggle to right

### 8-3-2. Manual Switch (AL-720M)

(Refer to Fig.8-3)

High (Low) beam ; Push toggle to left

Composite Mode beam ; Push toggle to right

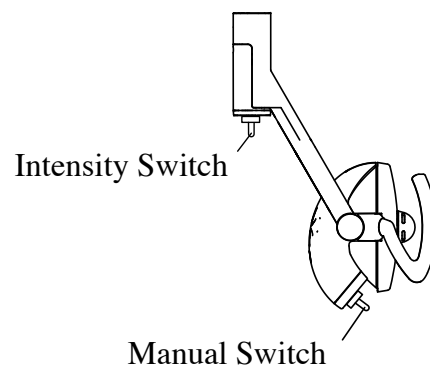


Fig.8-3 Model 720M

## [9] ADJUSTMENTS

### 9-1. Adjusting Tension of Balance Arm

Use slot A when making adjustment for upward / downward drifting of balance arm.

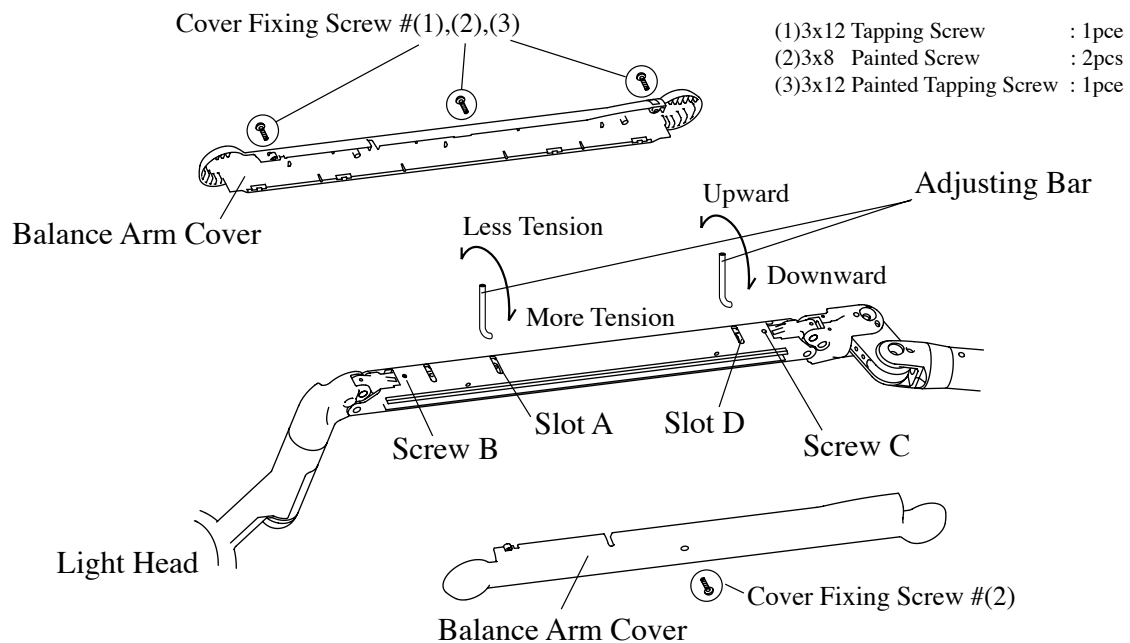
Insert adjusting bar into slot A on top of balance arm, turn spring adjustment nut clockwise for more tension ; counterclockwise for less tension.

### 9-2. Adjusting Angle of Light Head

Use slot D when adjusting light head angle. Remove four cover fixing screws and the balance arm covers. Lift the balance arm to upmost position, and hold it. Loosen screw B and C.

Insert adjusting bar into slot D on top of the balance arm, turn spring adjustment nut clockwise for downward angle ; counterclockwise for upward angle.

After adjustment, tighten the screw B,C and reattach the balance arm cover.



## [10] HALOGEN LAMP REPLACEMENT

### ⚠ CAUTION

Make sure the power supply is turned off.

Halogen bulb and surrounding parts may be hot immediately after the lamp goes off.

Wait until all parts are cool before changing bulb.

### IMPORTANT

Do not touch light bulb glass with bare hand.

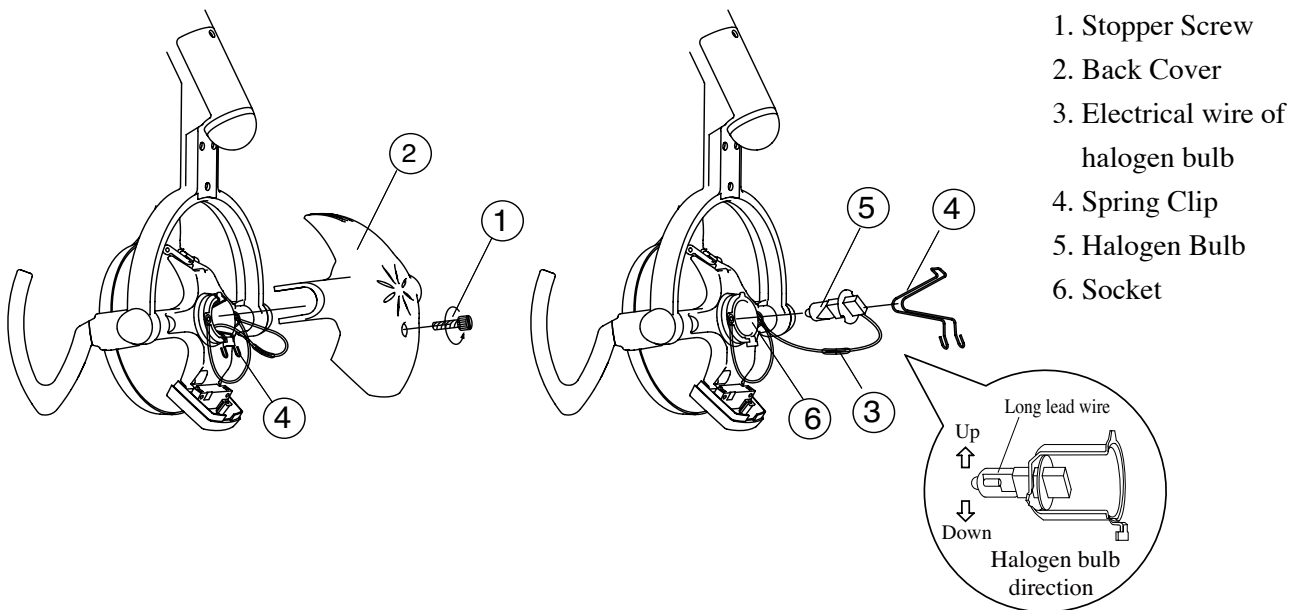
Halogen bulb surface must be clean.

Oil or body moisture will affect bulb life.

If glass surface is touched, clean with it alcohol.



- 1) To install replacement halogen bulb, turn off the light off and remove the back cover by loosening stopper screw.
- 2) Disconnect the electrical connector of halogen lamp.
- 3) Unlock the spring clip and pull the electrical wire of halogen bulb to remove the halogen bulb from socket.
- 4) Attach the electrical wire of new halogen lamp and insert halogen lamp into socket.
- 5) After new halogen lamp is seated in housing, insert and lock the spring clip into position.
- 6) Reattach the back cover.



**⚠ CAUTION**

Replace halogen lamp only with type JA-12V55WD/DL8 obtainable through your local dealer or contact Belmont Equipment.

**[11] CLEANING**

**⚠ CAUTION**

Allow light to cool prior to cleaning.

**⚠ CAUTION**

All surfaces can be cleaned with DURR FD333 cleaner.  
 Spray the cleaner (DURR FD333) on cloth and wipe the surfaces with the cloth.  
 Wipe all surfaces dry after cleaning.

**REFLECTOR :** Extreme care should be taken to prevent scratching reflector surfaces, as this will degrade the performance of the light.

**[12] INFORMATION FOR YOUR SAFETY**

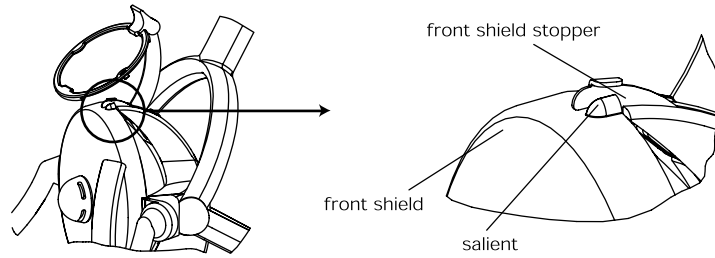
Confirming the proper installation of the front shield to the light head

**⚠ CAUTION**

Before operation, make certain that the front shield is firmly inserted into the slots located at the feet of the both, right and left, handles. Also confirm the front shield is appropriately hooked and held with a front shield stopper. If these conditions are not fulfilled, the shield may become loose and drop.

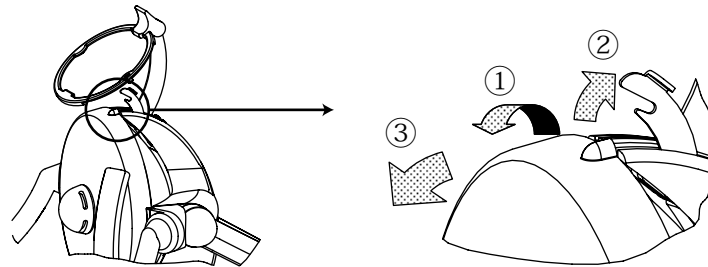
**12-1. Front shield properly secured**

When a shield is properly secured, a salient on the front shield can be seen at the right of the stopper when viewed from the front. It can also be confirmed that the stopper holds the edge of the shield from up and down.



**12-2. Front shield imperfectly attached**

If the edge of the shield is pulled back slightly at the point where the stopper holds it ( ① ) then the stopper is raised ( ② ), the shield goes loose. Under this condition, if the front shield is turned counterclockwise ( ③ ), the shield will be detached.

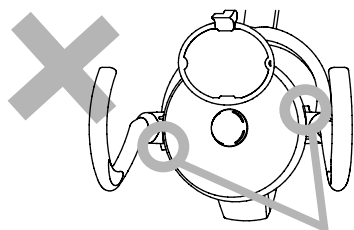


**12-3. If this should happen, the shield can be reinstalled to the light head by :**

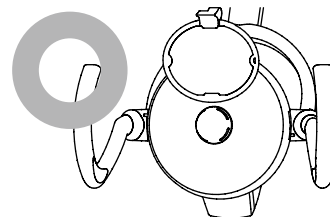
- Inserting the two protruding parts ( not the salients mentioned above ), which are located at right and left edges of the shield, into the designated slot at each foot of the handle, then turning the shield clockwise, and
- Lowering the front shield stopper to hold the edge of the shield from up and down while pulling back the shield slightly.

**12-4. Confirming the proper installation of the front shield to the light head**

Make certain the front shield is firmly inserted into the slots located at the feet of the both, right and left, handles. Also confirm the front shield is appropriately hooked and held with a front shield stopper from up and down.





Front shield imperfectly attached to the light head

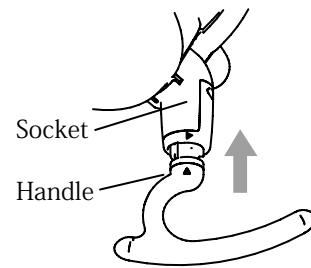



Front shield securely installed to the light head

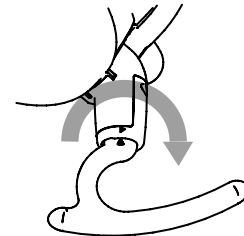
### [13] HOW TO ATTACH AND REMOVE HANDLES (OPTION)

#### 13-1. Attaching a handle

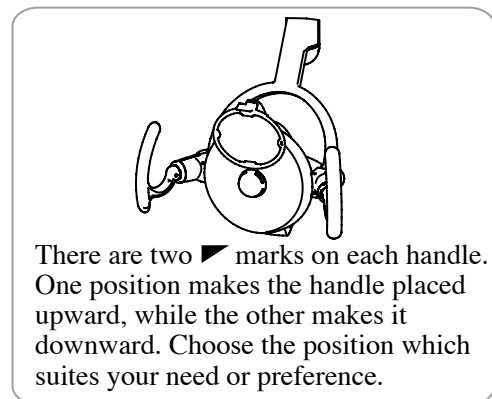
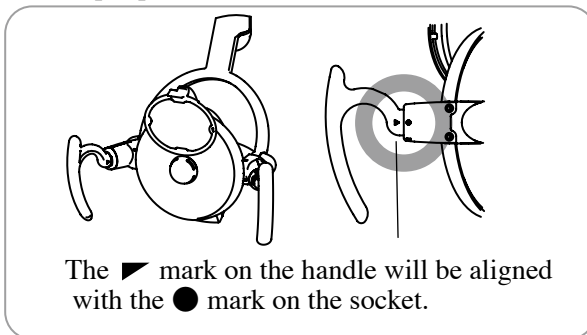
1) Insert a handle into the socket of the light head, aligning the  mark on the handle with the  mark on the socket.



2) Push the handle all the way in (the  mark on the handle should come to the edge of the socket), then turn it clockwise. When the handle reaches its proper position, it clicks. Now the handle is fixed.



Proper position of the handle when inserted





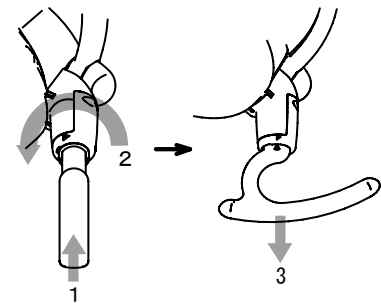
**Make sure that both handles are securely attached to the socket.**

#### **WARNING**

If the handles are not secured properly to the sockets, they may become loose and fall off.

#### 13-2. Detaching a handle

While pushing the handle all the way in, turn it counterclockwise until the mark on the handle () and the one on the socket () meet. Then pull off the handle from the socket.

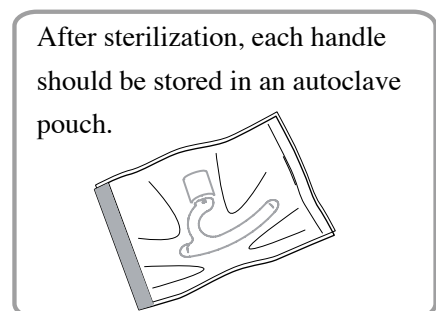


#### 13-3. Proper sterilization and storage

- 1) Handles should be sterilized with high-pressure steam of the autoclave.
- 2) Keeping handles under an ultraviolet germicidal lamp will cause discoloration and deterioration.  
(After sterilization, please store the handle in an autoclave pouch.)

#### **WARNING**

Do not keep the handles under an ultraviolet germicidal lamp. It will cause discoloration and deterioration.



## [14] ELECTROMAGNETIC COMPATIBILITY(EMC)

Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.

Portable and mobile RF communications equipment can affect medical electrical equipment.


The equipment or system should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

<b>Guidance and manufacture's declaration - electromagnetic emissions</b>		
The 701 is intended for use in the electromagnetic environment specified below. The customer or the user of the 701 should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emissions CISPR 11	Group 1	The 701 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The 701 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

<b>Guidance and manufacture's declaration - electromagnetic immunity</b>			
The 701 is intended for use in the electromagnetic environment specified below. The customer or the user of the 701 should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	$\pm 6$ kV contact $\pm 8$ kV air	$\pm 6$ kV contact $\pm 8$ kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	$\pm 2$ kV for power supply lines $\pm 1$ kV for input/output lines	$\pm 2$ kV for power supply lines $\pm 1$ kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	$\pm 1$ kV differential mode $\pm 2$ kV common mode	$\pm 1$ kV differential mode $\pm 2$ kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	$<5\% U_T$ ( $>95\%$ dip in $U_T$ ) for 0.5 cycle $40\% U_T$ ( $60\%$ dip in $U_T$ ) for 5 cycle $70\% U_T$ ( $30\%$ dip in $U_T$ ) for 25cycle $<5\% U_T$ ( $>95\%$ dip in $U_T$ ) for 5 s	$<5\% U_T$ ( $>95\%$ dip in $U_T$ ) for 0.5 cycle $40\% U_T$ ( $60\%$ dip in $U_T$ ) for 5 cycle $70\% U_T$ ( $30\%$ dip in $U_T$ ) for 25cycle $<5\% U_T$ ( $>95\%$ dip in $U_T$ ) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the 701 requires continued operation during power mains interruptions, it is recommended that the 701 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE $U_T$ is the a.c. mains voltage prior to applications of the test level.			

### Guidance and manufacture's declaration – electromagnetic immunity

The 701 is intended for use in the electromagnetic environment specified below. The customer or the user of the 701 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz outside ISM bands <sup>a</sup>	3 Vrms	<p>Portable and mobile RF communications equipment should be used no closer to any part of the 701, including cables, than the recommended separation distance calculated from the equation applications to the Frequency of the transmitter.</p> <p><b>Recommended separation distance</b></p> $d = 1.2 \sqrt{P}$
Radiated RF IEC 61000-4-3	3V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2 \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2.3 \sqrt{P} \quad 800 \text{ MHz to } 2.5 \text{ GHz}$ <p>Where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,<sup>a</sup> should be less than the compliance level in each frequency range.<sup>b</sup></p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> <div style="text-align: center;">  </div>

NOTE 1 At 80 MHz and 800MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by adsorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the 701 is used exceeds the applicable RF compliance level above, the 701 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the 701.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

#### Essential performance (purpose of IMMUNITY testing)

There is no essential performance.

**Recommended separation distances between  
Portable and mobile RF communications equipment and the 701**

The 701 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the 701 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the 701 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by adsorption and reflection from structures, objects and people.



# NOTE



**Takara Belmont (UK) Ltd.**  
Belmont House  
One St.Andrews Way,Bow,  
London E3 3PA U.K.  
Tel: (44)20 7515 0333  
Fax:(44)20 7987 3596

 **Belmont**

TAKARA BELMONT CORPORATION



2-1-1, Higashishinsaibashi, Chuo-ku, Osaka, 542-0083, Japan

TEL : 81-6-6213-5945

FAX : 81-6-6212-3680

Book No. CAFN91D0

Printed in Japan 0904