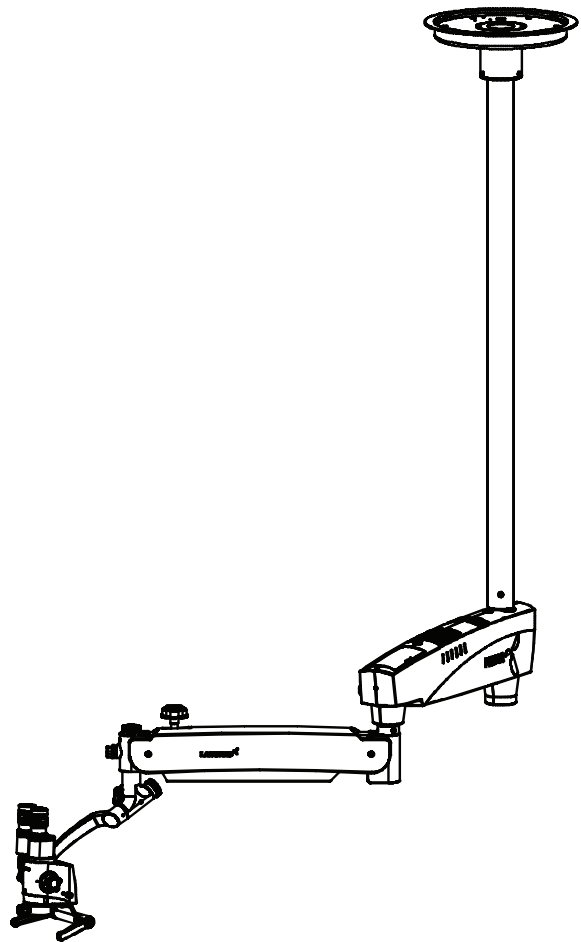


PRIMA CEILING MOUNT

Installation Manual

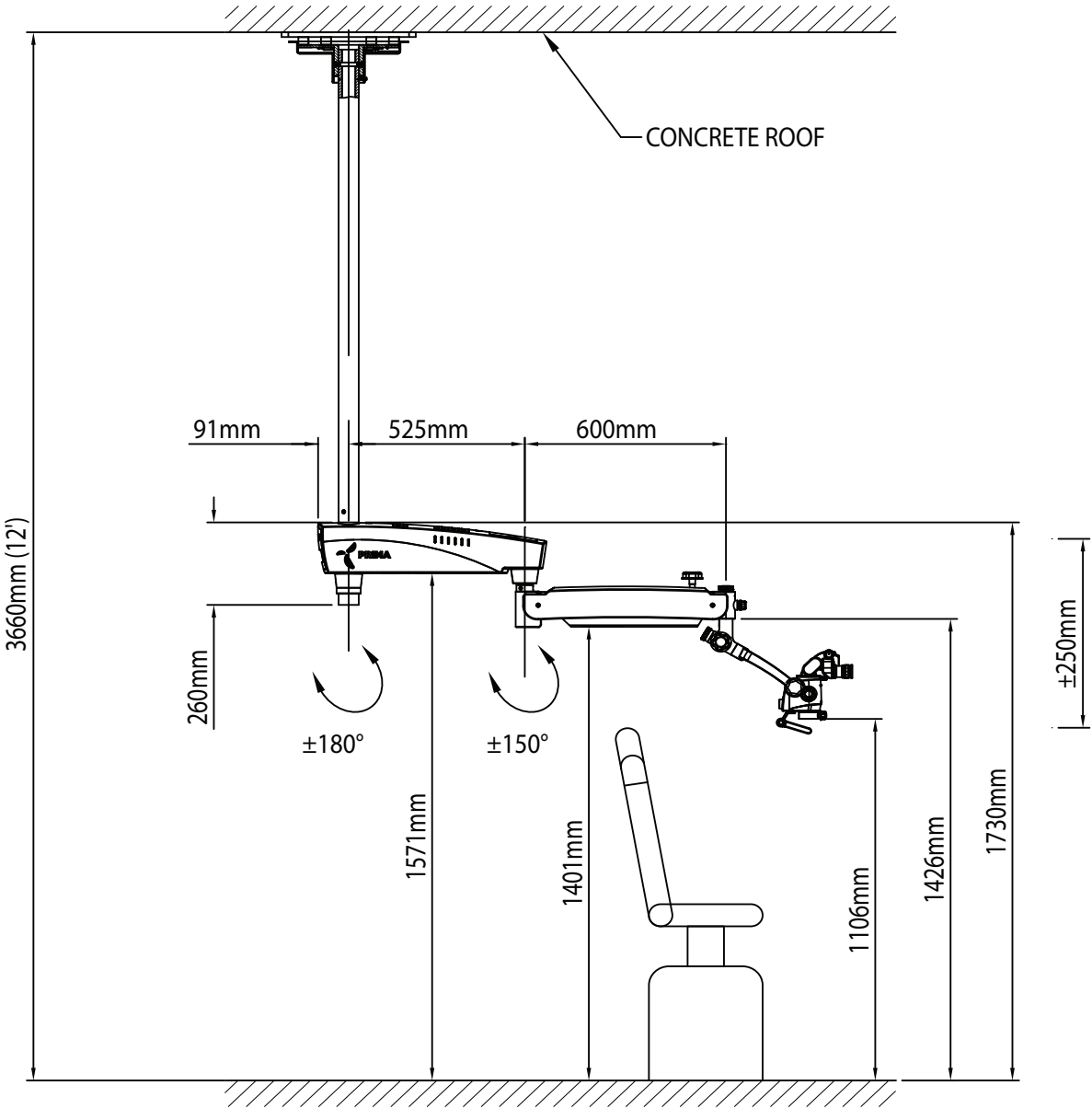


To ensure proper use of this instrument as well as to avoid injury while operating Instrument, understanding this manual completely before use is highly recommended.

Part No: 6137200-795
Issue 1.4
Printed on Aug, 2023

DIMENSIONS OF CEILING MOUNT

CEILING MOUNT WITH STANDARD SUSPENSION ARM



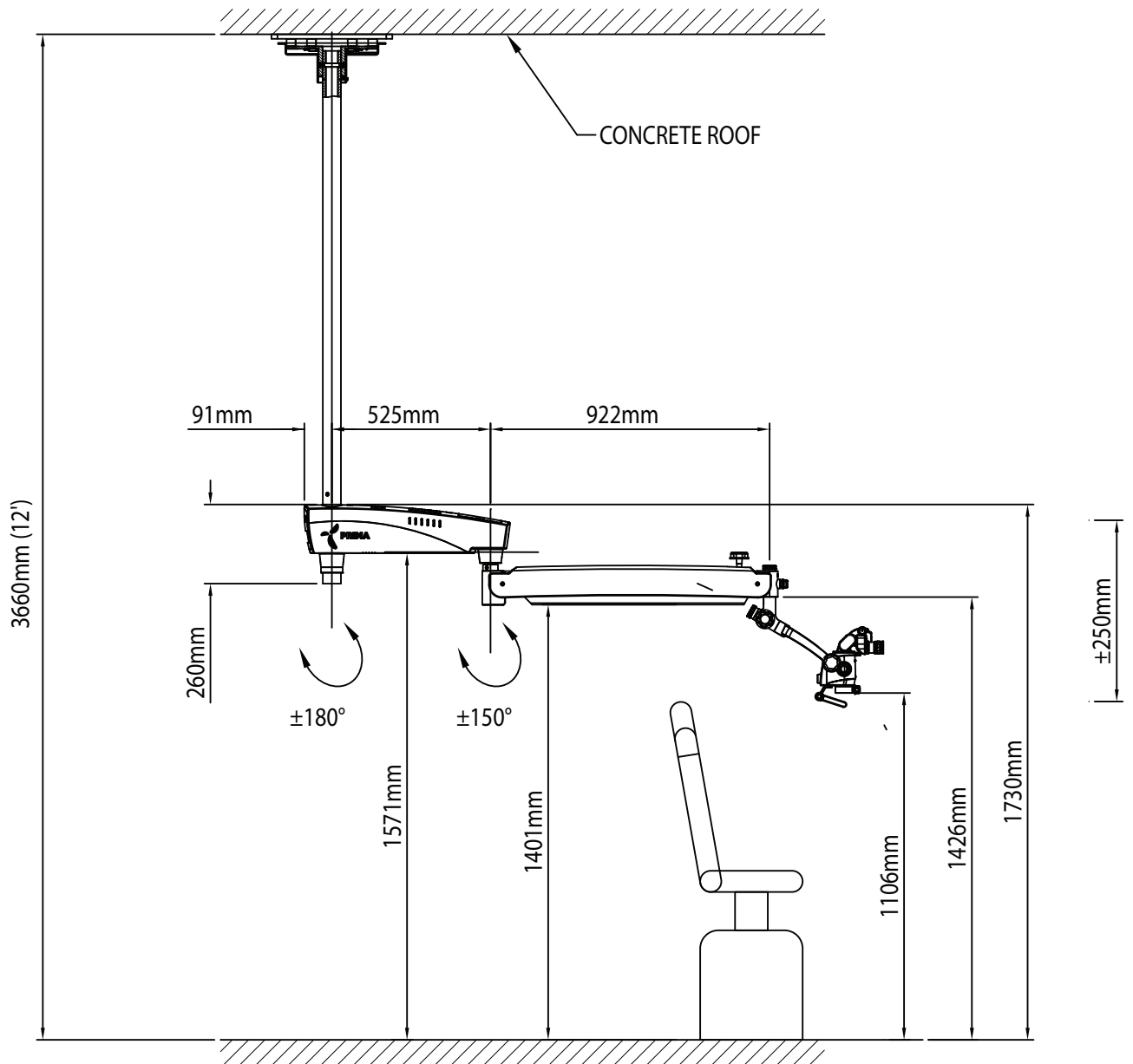
PRIMA CEILING MOUNT DESIGN

FORMULA TO CALCULATE MICROSCOPE COLUMN LENGTH

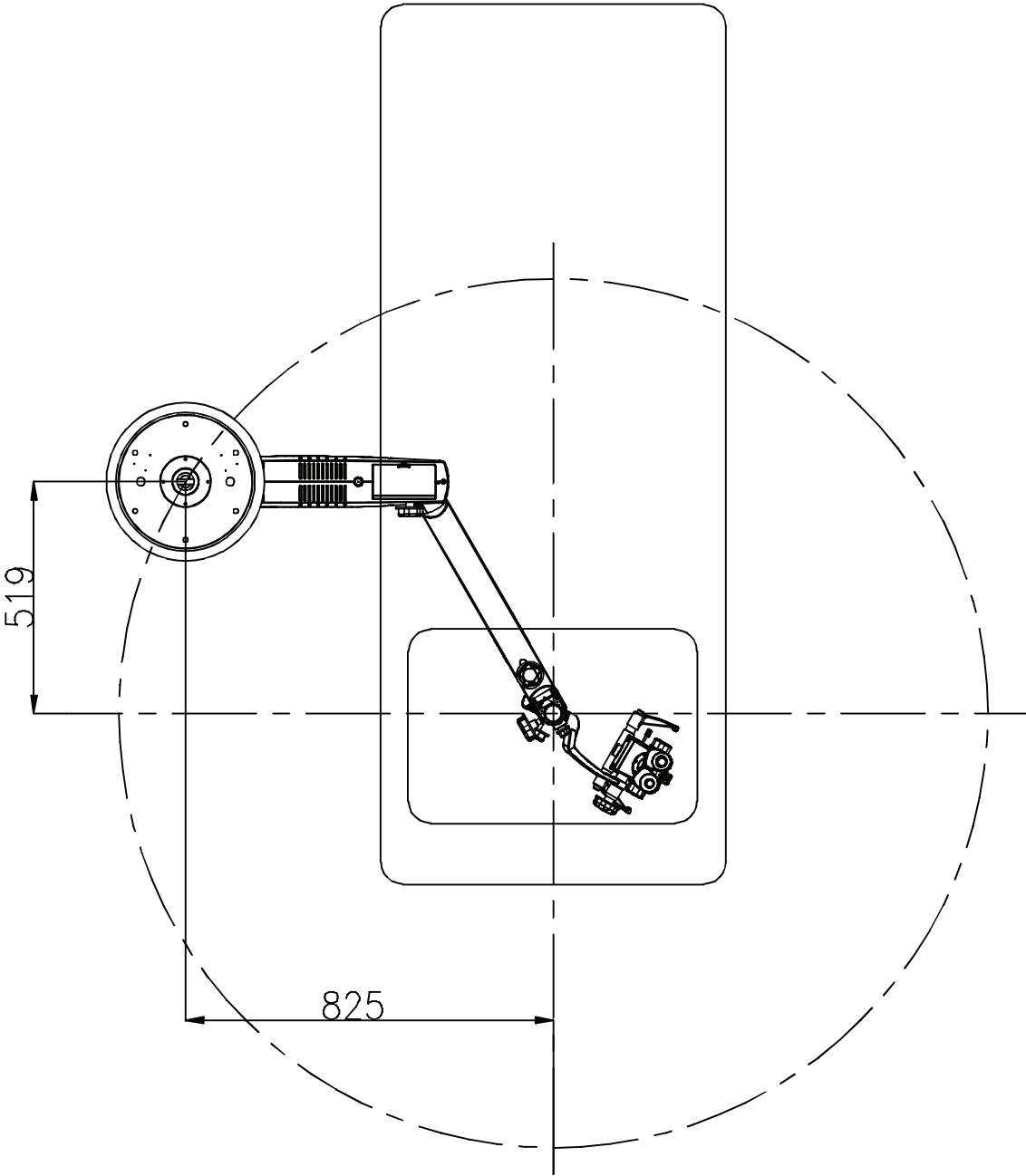
COLUMN LENGTH = (FLOOR TO CEILING HEIGHT - 1755mm)

GIVEN EXAMPLE :- COLUMN LENGTH = 3660mm - 1755mm = 1905mm

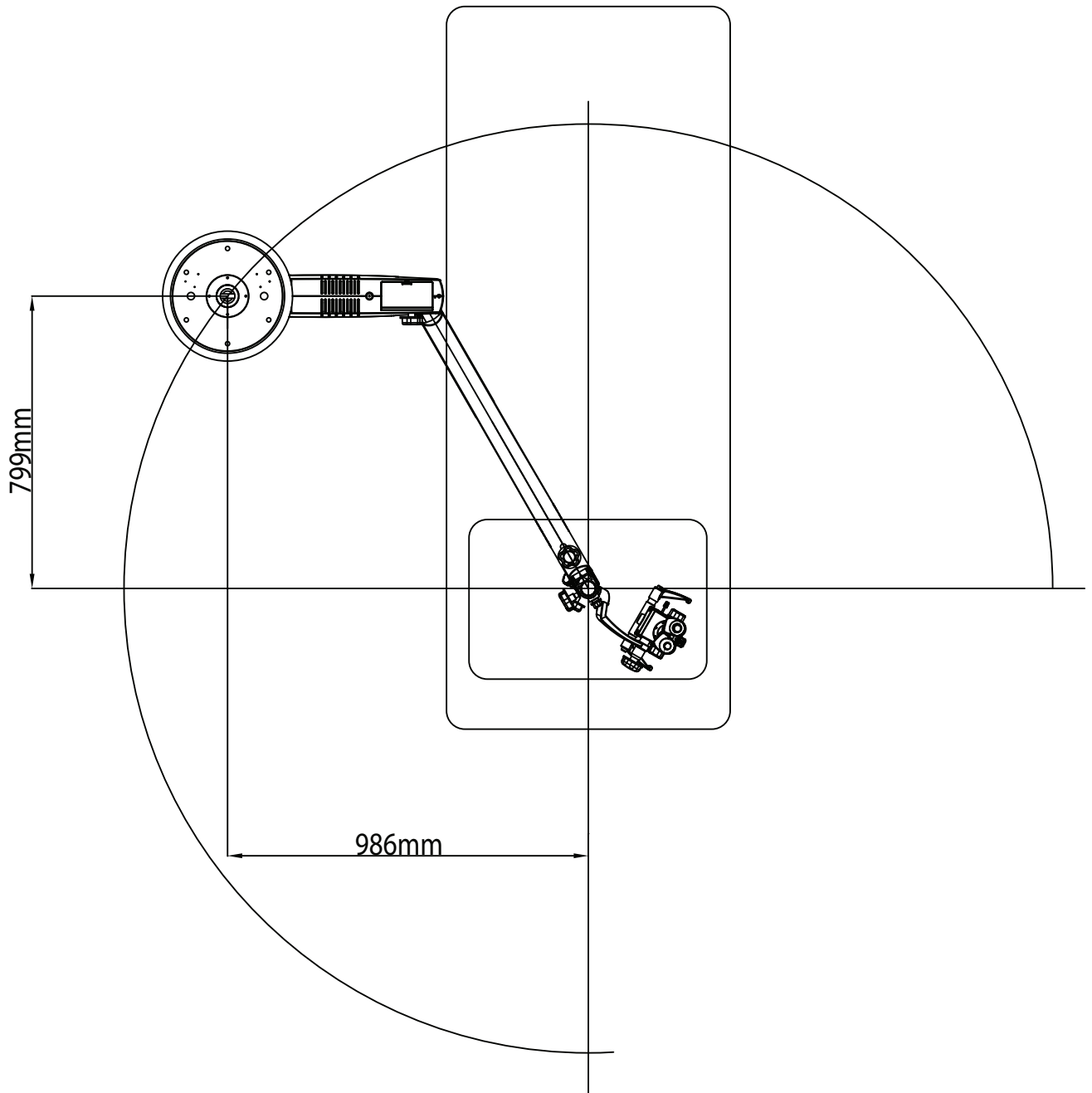
CEILING MOUNT WITH LONG SUSPENSION ARM



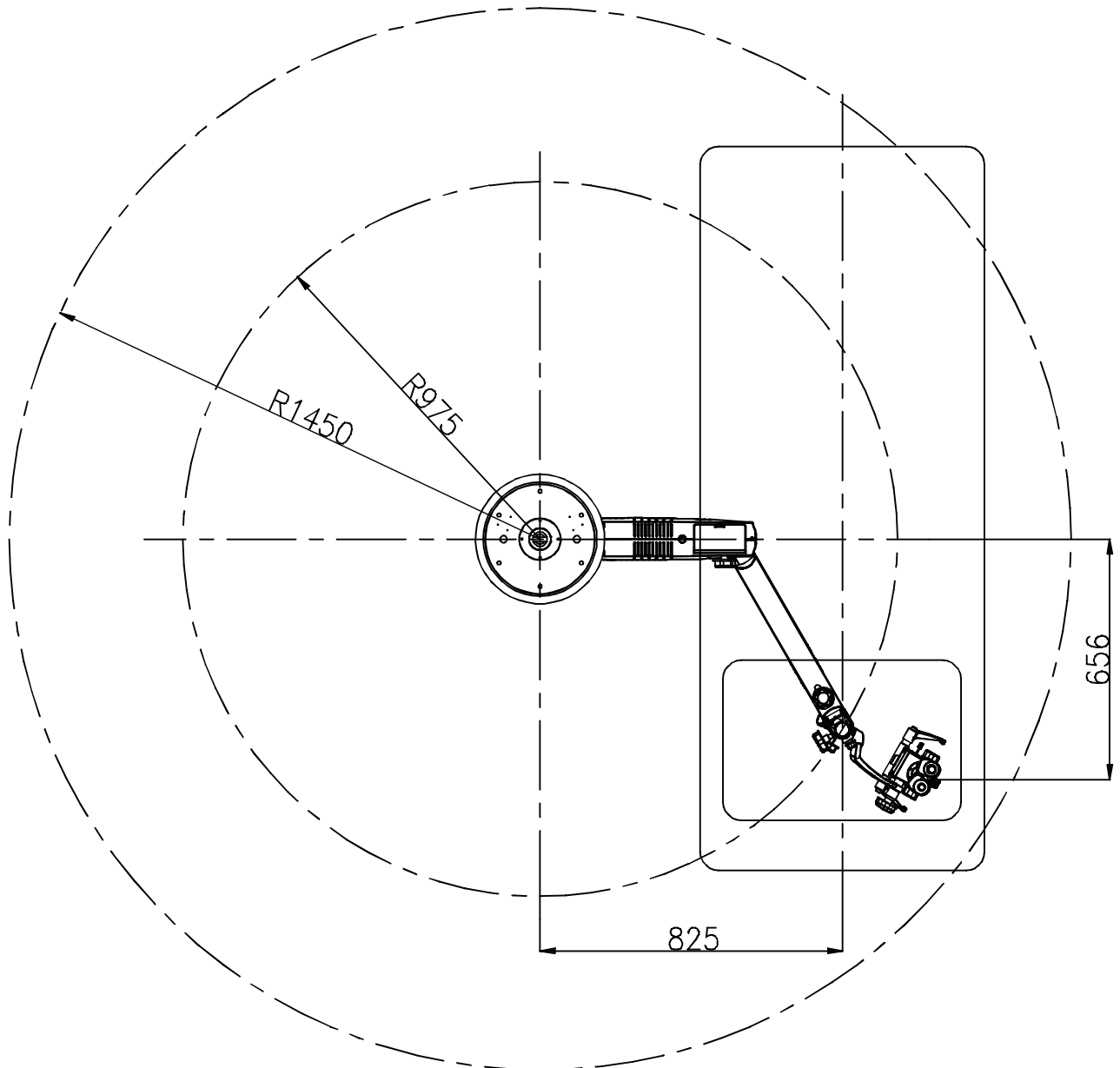
CEILING MOUNT: ALTERNATIVE INSTALLATION TO THE PATIENT'S SIDE WITH STANDARD ARM



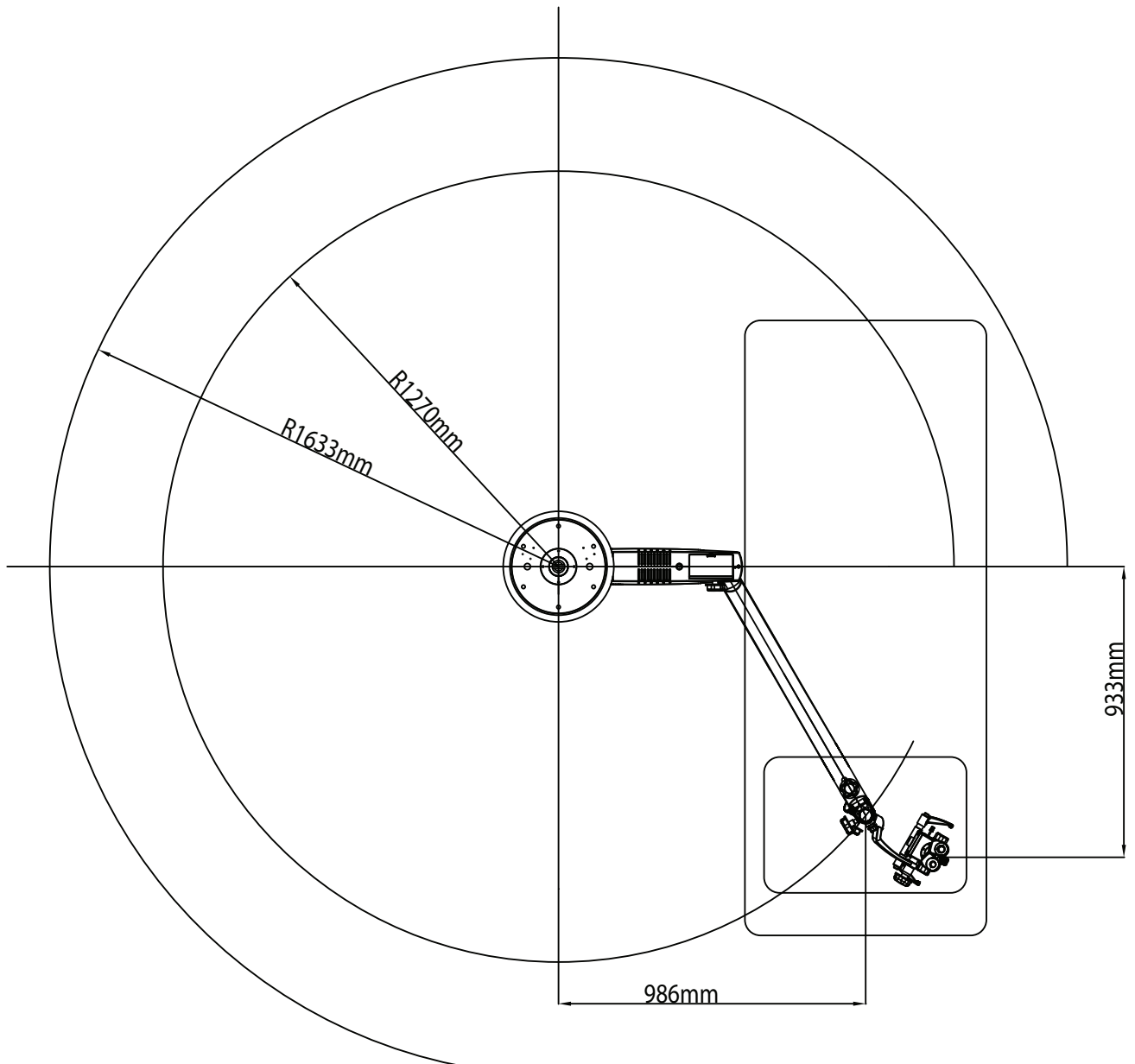
CEILING MOUNT: ALTERNATIVE INSTALLATION TO THE PATIENT'S
SIDE WITH LONG ARM

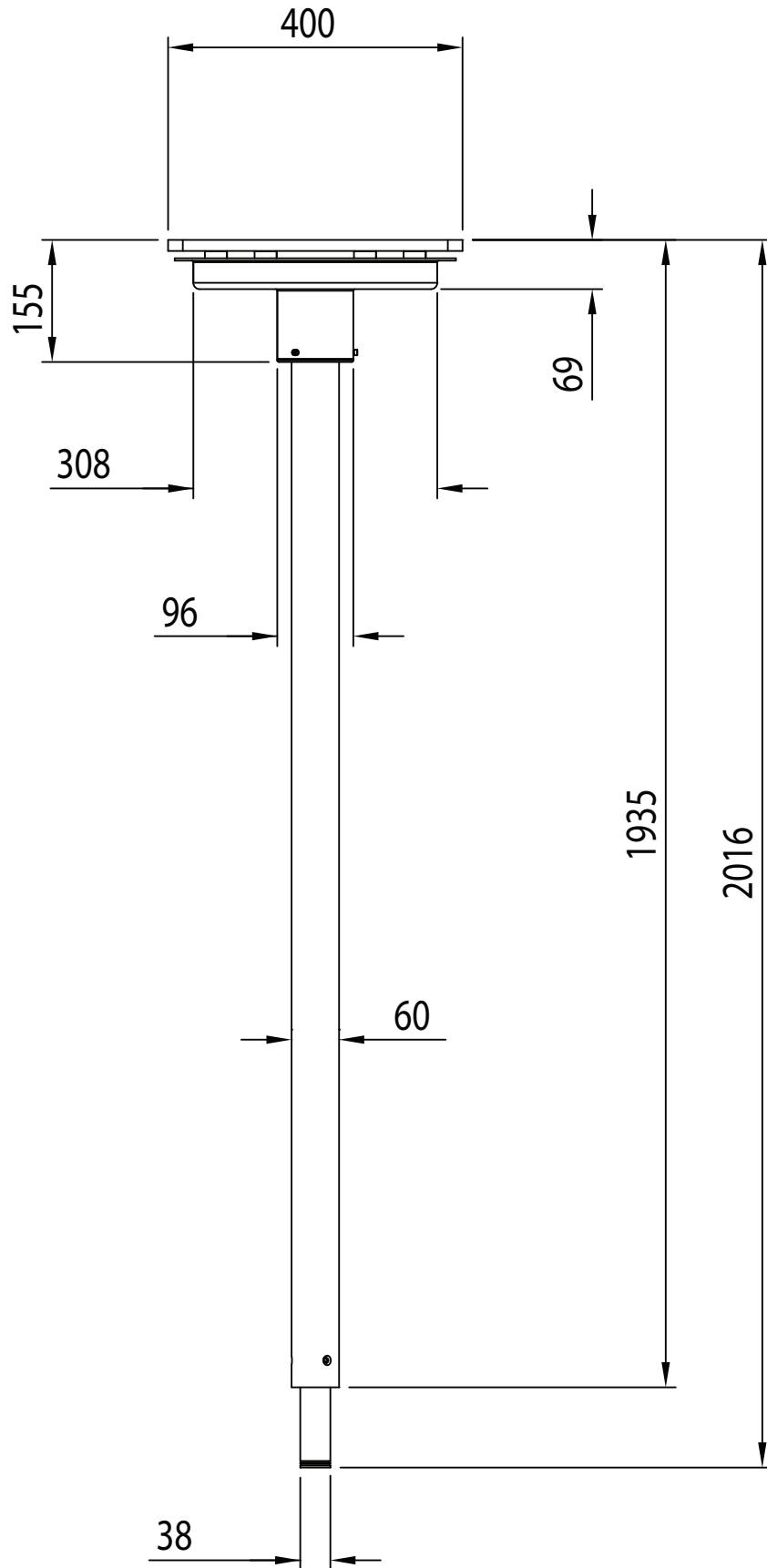


WORK RANGE RECOMMENDED FOR IDEAL INSTALLATION SITE
STANDARD ARM

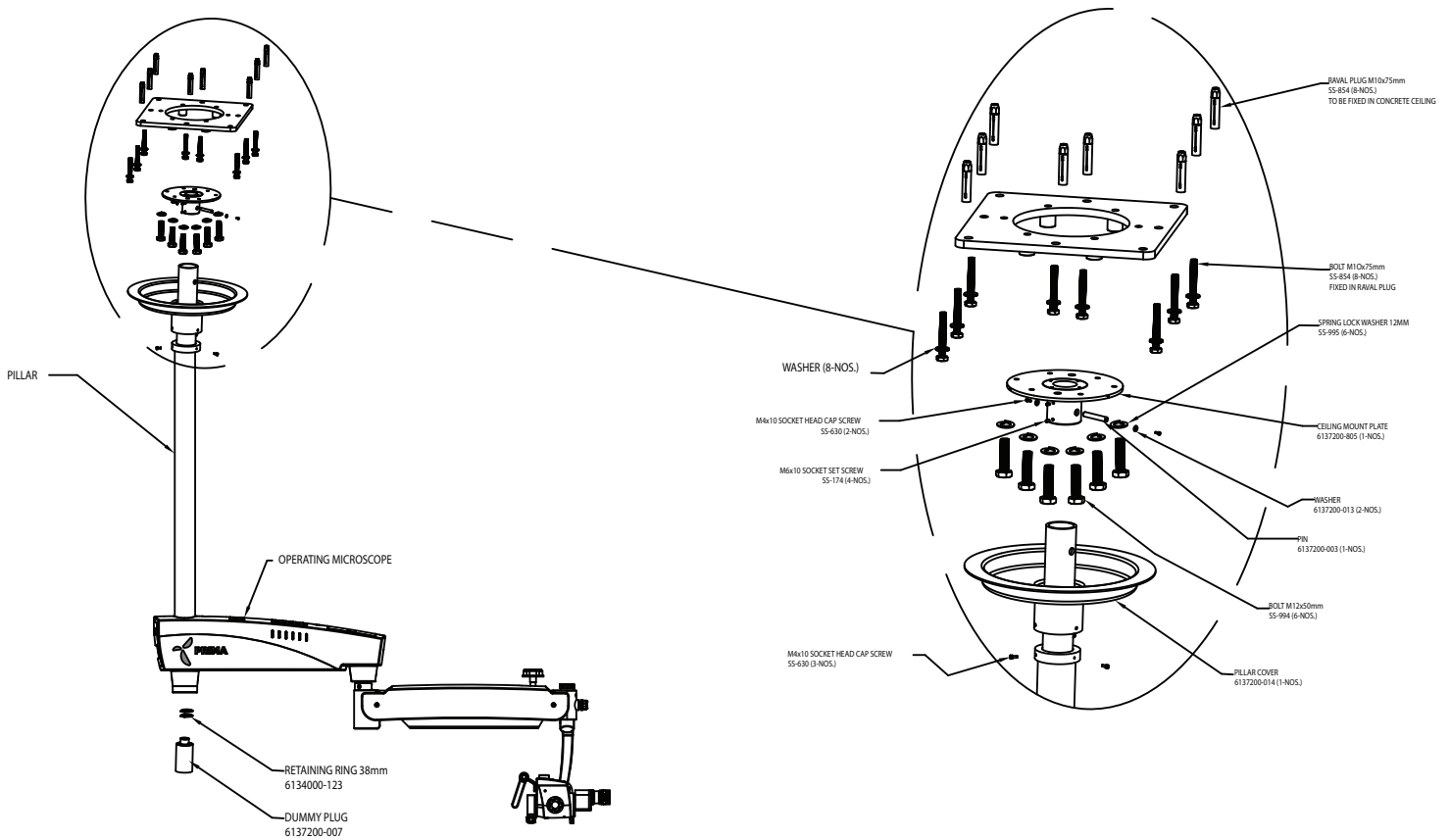


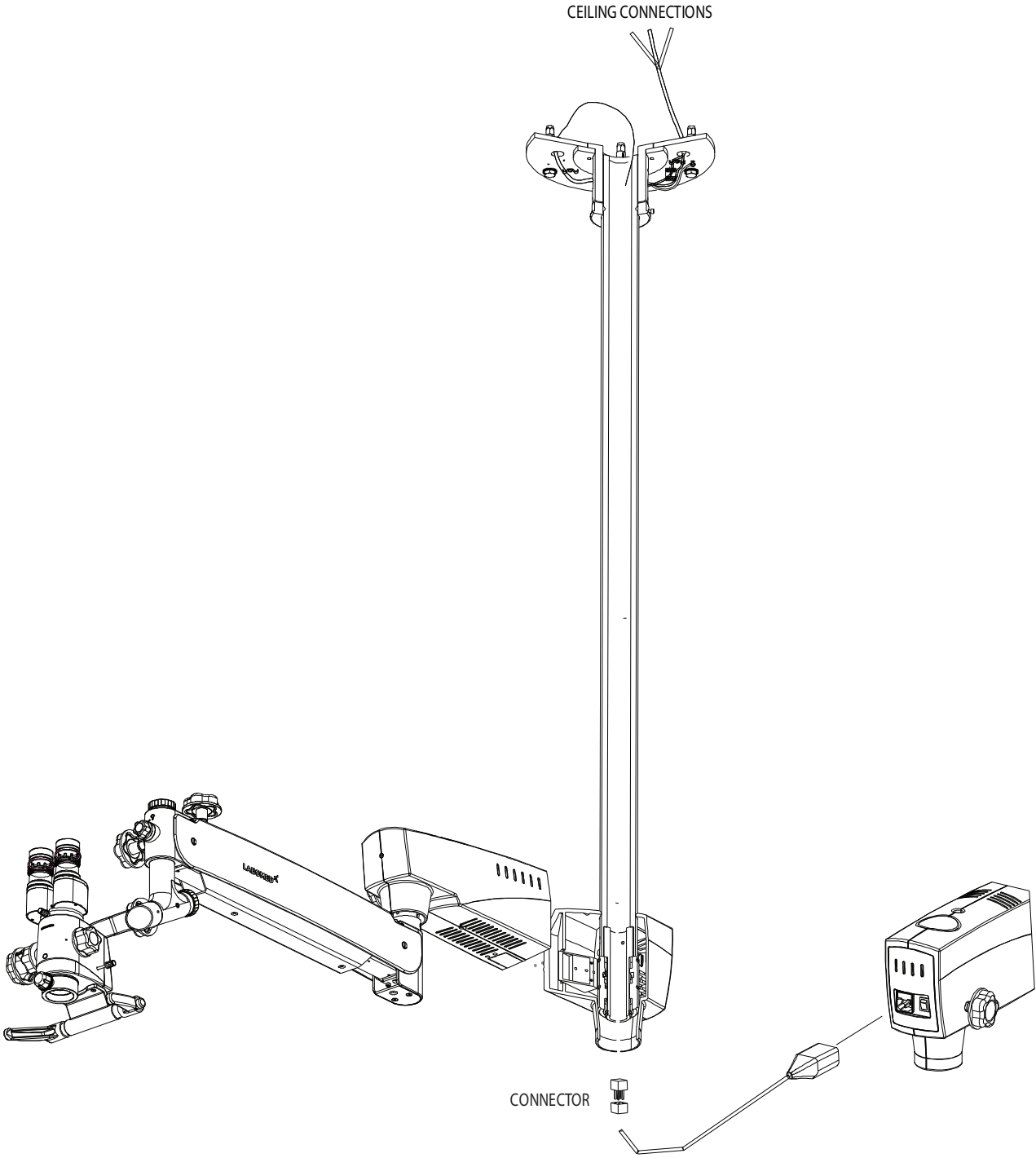
WORK RANGE RECOMMENDED FOR IDEAL INSTALLATION SITE
LONG ARM



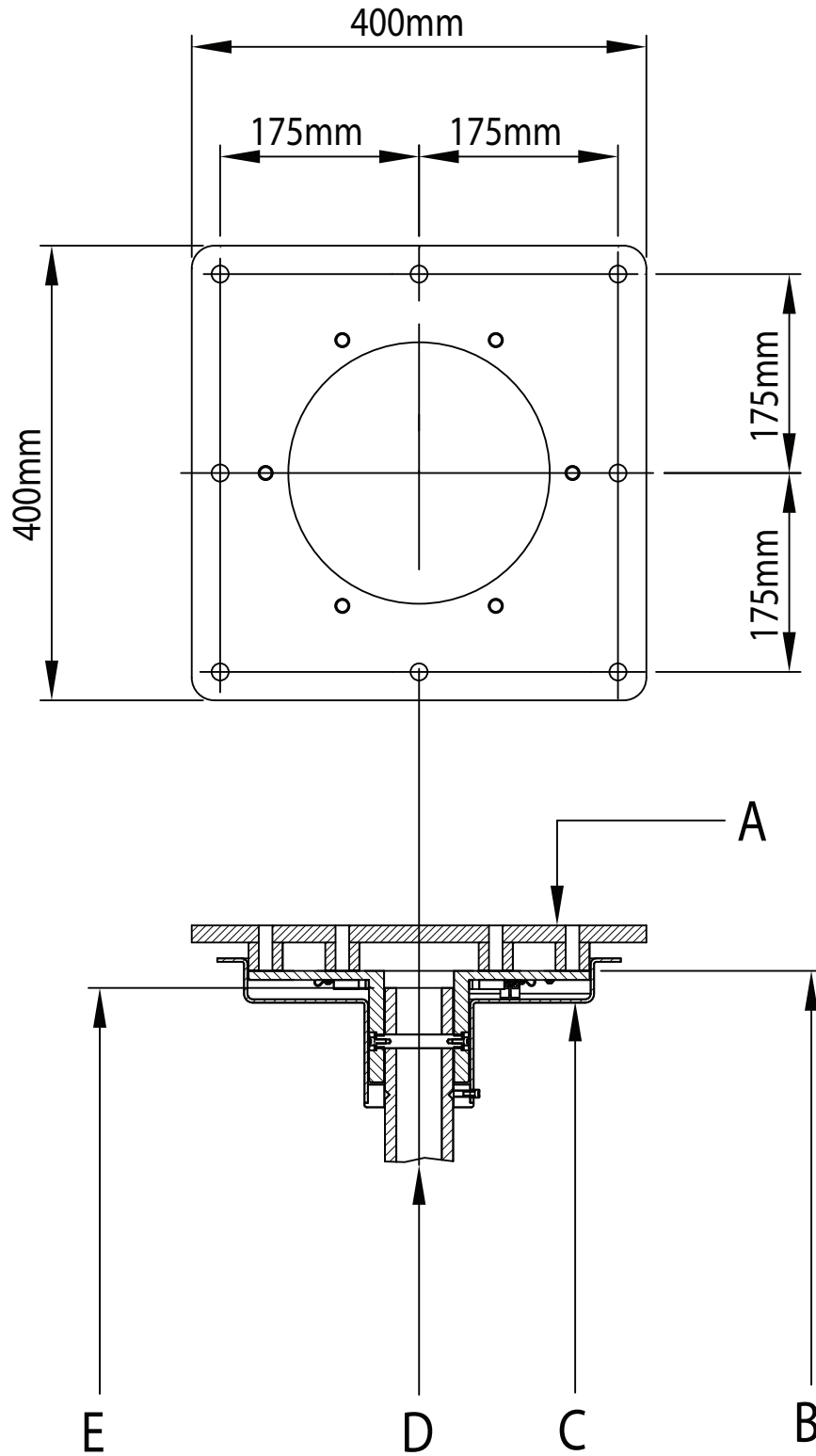


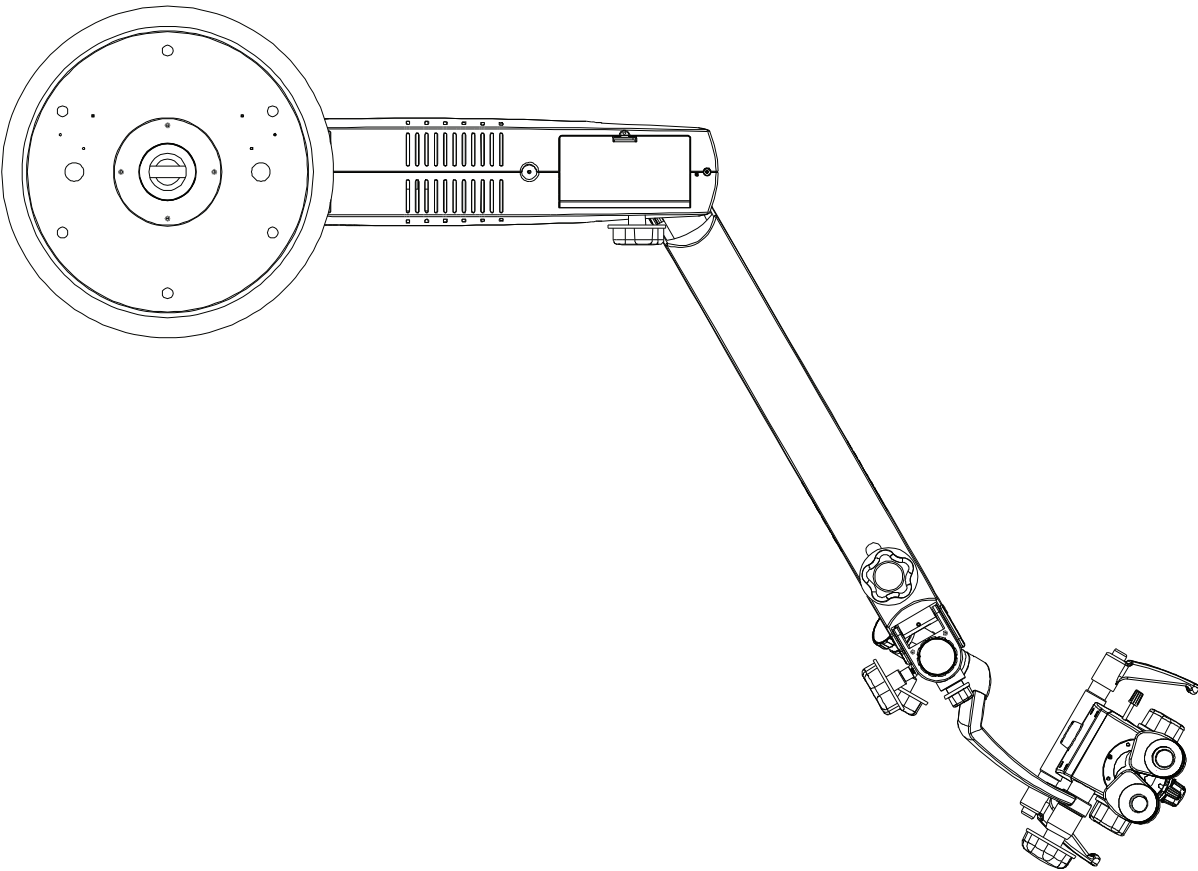
Ceiling Mount for Prima

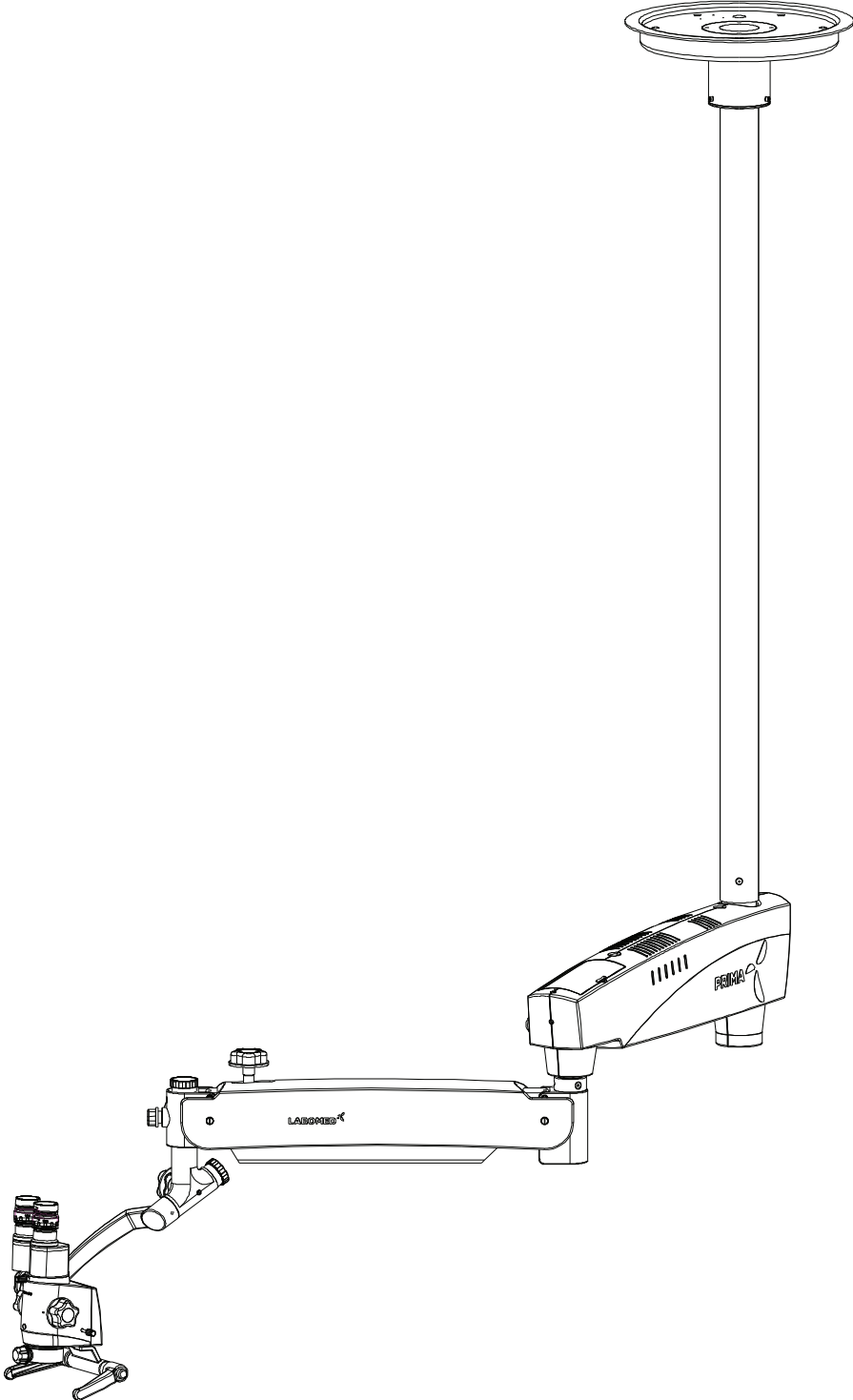




MARKING REFERENCE







CEILING MOUNT INSTALLATION

CAUTION: IT IS STRONGLY RECOMMENDED THAT A CERTIFIED CONTRACTOR PERFORM THE FOLLOWING INSTALLATION PROCEDURES.

The Ceiling Mount Model should be installed on the side of the room with the least amount of traffic. Refer to Figure "Recommended Mounting Locations" and proceed as follows. It should be determined where the unit will be connected to an electrical power source. If the source is to be inside the ceiling and controlled by a wall switch, a grounded receptacle (115VAC, 15A; 230VAC, 25A), provided by the customer, must be installed prior to the installation of the Ceiling Mount Plate. Refer to figure

NOTICE: The recommended height for installing models in the M A730-C8 series is 8' (2.44m). A height of more than 8' (2.44m) for these models will diminish the travel of the arm assemblies. Models in the M A730-C9 series require a height of 9'(2.74m) and Models in the M A730-C10 series require a height of 10' (3.5m).

WARNING: THE SUPPORTING STRUCTURE FOR BOTH THE CEILING MOUNT AND WALL MOUNT INSTALLATION MUST BE CAPABLE OF SUPPORTING A MINIMUM WEIGHT OF 500 LBS.(227KG).

WARNING: ENSURE ELECTRICAL CIRCUIT IS OFF! PUSH CIRCUIT BREAKER TO OFF POSITION.

- CEILING MOUNT PLATE AND COLUMN ASSEMBLY WEIGHT APPROXIMATELY 35LBS (15.9KG).
- TO AVOID PERSONAL INJURY TWO (2) PEOPLE ARE REQUIRED FOR PROPER INSTALLATION.

The following items will be the responsibility of the customer (or a construction contractor hired by the customer):

- Provide properly grounded, hospital grade duplex electrical outlet (115/230 VAC, 15Amp, 50/60 Hz) above the mounting surface and within 2 feet (610mm) of the center of the microscope, recommended to be connected to a separate circuit breaker with the electrical outlet controlled by a wall Switch.
- Provide a mounting surface which is at the proper height for the unit purchased and which will support a weight of 500 pounds (227kg). All structural requirements are the customer's responsibility.
- Attach the Ceiling Mount Plate and column assembly to the ceiling, ensuring that it is secure, the column is level, and the support is plugged into a hospital grade earth-ground AC outlet.
- The Global Surgical Sales Representative will be responsible for completing the rest of the installation.

POWER CORD INSTALLATION FOR CEILING MOUNT APPLICATIONS

1. Connect the female end of the 014-001-044 power cord to the male end of 014-0010045 power cord.
2. Lay Ceiling Mount column on its side and feed the connected power cords through the column.
3. Tape or loosely loop the plug end to the column so that it does not fall through the column when Assembling the column to the ceiling mount plate.
4. It is recommended that the area where the two power cords are connected be outside of the Column to ensure that the connection is secure.

WARNING : TO AVOID THE RISK OF ELECTRICAL SHOCK, THIS EQUIPMENT MUST ONLY BE CONNECTED TO A SUPPLY MAINS WITH PROTECTIVE EARTH (=GROUND).

WARNING: THIS MUST BE USED ONLY WITH HOSPITAL GRADE EARTH-GROUNDED AC OULETS. CAUTION: DO NOT PLUG SUPPORT SYSTEM INTO WALL SOCKET UNTIL AFTER ALL CONNECTIONS CONNECTED TO A SUPPLY MAINS WITH PROTECTIVE EARTH (=GROUND).

DROP CEILING APPLICATIONS

Many newer constructions use drop ceilings. Whenever this type of application is used, all supporting structure and electrical service (115/230 VAC, 15A, 50/60 Hz) is the customer's responsibility and must be completed before the installation can proceed.

WARNING: THE SUPPORTING STRUCTURE FOR BOTH THE CEILING MOUNT AND WALL MOUNT INSTALLATION MUST BE CAPABLE OF SUPPORTING A MINIMUM WEIGHT OF 500 LBS(227KG) AND BE STABLE Laterally AND VERTICALLY, AND ISOLATED FROM VIBRATION.

WARNING: ENSURE ELECTRICAL CIRCUIT IS OFF! PUSH CIRCUIT BREAKER TO OFF POSITION.

- CEILING MOUNT PLATE AND COLUMN ASSEMBLY WEIGHS APPROXIMATELY 35LBS(15.9KG).
- TO AVOID PERSONAL INJURY TWO (2) PEOPLE ARE REQUIRED FOR PROPER INSTALLATION.

WARNING: THE SAFETY SELF TAPPING SCREW MUST BE INSTALLED IN THE CEILING MOUNT COLUMN. FAILURE TO INSTALL THE SAFETY SELF TAPPING SCREW COULD RESULT IN INJURY OR DEATH IN THE EVENT THE PRIMARY CLAMP FAILED.

CUSTOMER'S RESPONSIBILITY:

- Duplex Outlet (wall switch controlled highly recommended) located within 2' (610mm) of top column
- 1-1/2" (38.1mm) diameter (minimum) conduit if Optional Video Camera is ordered.
- Conduit must be run from the top of the column to the monitor location chosen by the customer with video, monitor location must be within 20'(6096mm) of the top of the column.



1. Ensure that there is a 3-1/2" (89mm) diameter hole in the drop ceiling, and that there is a 6" (152mm) diameter hole in the mounting surface before proceeding. The 3-1/2" (89mm) hole and the 6" (152mm) hole should be located where the center of the microscope will be.
2. Using the ceiling template, 107-027-462 provided, mark the positions of the six (6) mounting screws on the mounting surface. See figure
3. Drill six (6) 1/4" (6mm) pilot holes into the joists as marked above.
4. Place a 3/8" flat washer over each of the six 3/8" X 3" hex head lag screws.
5. Position the ceiling plate onto the mounting surface preferably with the column clamp facing up, and line up the holes in the plate with the pilot holes in the mounting surface.
6. Insert the hex head lag screws into the holes and tighten with a 9/16" socket or wrench. Loosen the four (4) hex socket cap screws which hold the column clamp together. See figure
7. Loosen the three (3) set screws in the trim ring and slide the ring down close to the bottom of the column. see figure
8. Slide the column assembly through the 3-1/2" (89mm) diameter hole in the drop ceiling and through the ceiling plate, and adjust the height and orientation of the column as recommended. Secure the column by tightening the four (4) screws in the Column Clamp.

WARNING: THE SAFETY SELF TAPPING SCREW MUST BE INSTALLED IN THE CEILING MOUNT COLUMN. FAILURE TO INSTALL THE SAFETY SELF TAPPING SCREW COULD RESULT IN INJURY OR DEATH IN THE EVENT THE PRIMARY CLAMP FAILED.

9. Once the column is securely clamped in place, Use the 9/32" drill bit (part number 039-002-273) provided and the hole in the side of the ceiling clamp as guide make a small indentation into the side of the column. Note be careful to not drill through the column wall. Drill a 3/16" hole for the self-tapping safety screw using the indentation in the column (to keep the drill from moving off center) and the 3/16" drill bit (part number) provided.
10. Use a level to ensure the column assembly is vertically level. Refer to section Leveling the Ceiling Mount system to correct any leveling concerns.
11. Plug the support system power cord into the hospital grade earth-ground AC outlet, and verify that there is power to the system.
12. If the video camera option was ordered, route the cable down through the column at this point.
13. Put the drop ceiling tile back into place.
14. Slide the trim ring upward until it is in contact with the drop ceiling, and secure it by tightening the three set screws.

LEVELING THE CEILING MOUNT SYSTEM

It is important to ensure the column for the ceiling mount is plumb after installation. The column must be perfectly vertical to prevent the microscope system from drifting from side to side.

1. Use the 3/8" ratchet and 9/16" socket to slightly loosen all of the 3/8" X 3" hex head lag screws.
2. Place a level across the surface of the mounting plate next to the row of mounting screws to check the horizontal leveling in two directions. Adjust the lag screws until the plate is level in both directions. See figure.
3. Insert shims between the ceiling and the mounting plate until it is level and tighten the six lag screws until snug as illustrated in Figure
4. Check to ensure mounting plate is still level in both direction and add or remove shims as necessary.
5. Tighten all lag screws securely.

CONVENTIONAL CEILING APPLICATIONS

A conventional ceiling would be one that is 8' (2.44m) from the floor using wooden 2" X 8" (51 x 203 mm) ceiling joists covered by plaster board or similar material. A hole, approximately 14" (356mm) square, must be cut in the ceiling between the 2" X 8" (51 x 203mm) ceiling joists. This hole will permit access to an electrical receptacle (115/230 VAC, 15 Amp, 50/60 Hz) which must be installed by the customer before the installation can proceed. The hole will also permit access to the leveling screws of the microscope column and to the screws for tightening the clamp if the plate is installed with the clamp on top.

The ceiling mount installation can be mounted above the ceiling joists if access is available. Then only a 3 1/2" (89mm) diameter hole would be needed.

WARNING: THE SUPPORTING STRUCTURE FOR BOTH THE CEILING MOUNT AND WALL MOUNT INSTALLATION MUST BE CAPABLE OF SUPPORTING A MINIMUM WEIGHT OF 500 LBS (227KG) AND BE STABLE LATERALLY AND VERTICALLY, AND ISOLATED FROM VIBRATION.

WARNING: •ENSURE ELECTRICAL CIRCUIT IS OFF! PUSH CIRCUIT BREAKER TO OFF POSITION.
• CEILING MOUNT PLATE AND COLUMN ASSEMBLY WEIGHS APPROXIMATELY 35 LBS (15.9Kg).
• TO AVOID PERSONAL INJURY TWO (2) PEOPLE ARE REQUIRED FOR PROPER INSTALLATION.

1. Using the ceiling template,107-027-462 provided, mark the positions of the six (6) mounting screws on the ceiling joists. see figure
2. Drill six (6) 1/4" (6mm) pilot holes into the joists as marked above.
3. Place a 3/8" flat washer over each of the six (6) 3/8" X 3" hex head wood screws.
4. Position the ceiling mount plate onto the ceiling joists and line up the holes in the plate with the pilot holes in the ceiling joists.
5. Insert the hex head wood screws into the holes and tighten with a 9/16" socket or wrench.

6. Loosen the four (4) hex socket cap screws which hold the Column Clamp together.
7. Loosen the set screws on the trim ring and slide the trim ring to the bottom of the column.
8. Slide the column assembly up through the hole in the Ceiling Mount Plate, and adjust the height of the column until the mount post in the end of the column is 86.5" - 92.5" (2197 - 2350mm) for Dental, 92.5"-98.5" (2350-2502mm) for ENT, above the floor.
9. Tighten the clamp screws.
10. Once the column is securely clamped into place, pre-drill a 3/16" hole for the safety self tapping screw. Using a #3 Phillips driver bit, secure with a power drill.

WARNING :THE SAFETY SELF TAPPING SCREW MUST BE INSTALLED IN THE CEILING MOUNT COLUMN. FAILURE TO INSTALL THE SAFETY SELF TAPPING SCREW COULD RESULT IN INJURY OR DEATH IN THE EVENT THE PRIMARY CLAMP FAILED.

11. Slide the trim ring upward until it is in contact with the ceiling, and secure it by tightening the three set screws.
12. Use a level to ensure the column assembly is vertically level. Refer to section "Leveling the Ceiling Mount System" to correct any leveling concerns.

INSTALLING CEILING MOUNT ON CONCRETE CEILINGS

1. Refer to section 4, Figure 4-3 "Recommended Mounting Locations" for recommended mounting location.
2. Use the ceiling template, 107-027-462 provided to mark the position for the anchors.
3. Drill the four (4) mounting holes 1/2" (12.7mm) diameter and 3" (76mm) deep.
4. Insert the blunt nose punch into the threaded portion of the anchor and tap it into one of the drilled holes until it is flush with the bottom of the hole.

NOTICE: USING A BOLT THREADED INTO THE ANCHOR AND TAPPING ON THE BOLT HEAD IS NOT RECOMMENDED.

5. Place a flat washer over the 3/4" long bolt (included) and thread it into the concrete anchor. Tighten the bolt until the washer and bolt are flush with the concrete. Then turn about 3-4 more turns to wedge the anchor security in the concrete. If the bolt spins freely after multiple turns then more washers are needed. Remove the bolt, add 3-5 washers, and tighten the bolt again until the force to turn the bolt is about equal to the force expected to tighten the final assembly. This sets the anchor so it cannot pull out.
6. Remove the 3/4" bolt and washer and repeat steps 4 and 5 until all four (4) anchors are securely set.
7. Attach the spacers, mounting plate, and split lock washers and thread the 3/8-16" x 2-1/2" hex head cap screws into the concrete anchors. See figure .
8. Loosen the set screws in the trim ring. Slide the trim ring to the bottom of the column.

NOTICE: YOU MAY ROTATE THE COLUMN TO DEFINE WHERE THE ANTI-ROTATION STOP ENGAGES. THE "STOP PIN" ON THE BOTTOM OF THE COLUMN ASSEMBLY SHOULD BE ORIENTED IN A POSITION DIRECTLY OPPOSITE OF WHERE YOU ENVISION THE MICROSCOPE HEAD TO BE.

9. Slide the column assembly up through the hole in the ceiling mount plate, and adjust the height of the column until the mount post in the end of the column is 81" - 87" (2057 - 2210mm) for Dental, 87" - 93" (2210 - 2362) for ENT, above the floor. The column assembly must be up through the entire clamp to be safe. The column may need to be trimmed for proper installation height.

10. Once the column is securely clamped into place, pre-drill a 3/16" hole for the safety self tapping screw. Using a #3 phillips driver bit, secure with a power drill. Run power cable through the column and over the ceiling mount plate. Drill or cut an appropriate size opening in the cover for any conduit or wire raceway used.

WARNING: THE SAFETY SELF TAPPING SCREW MUST BE INSTALLED IN THE CEILING MOUNT COLUMN. FAILURE TO INSTALL THE SAFETY SELF TAPPING SCREW COULD RESULT IN INJURY OR DEATH IN THE EVENT THE PRIMARY CLAMP FAILED.

11. Slide ceiling mount cover onto the column and then secure the trim ring on the column to hold the cover in place using the three set screws. See figure

12. Use a level to ensure the column assembly is vertically level. Refer to section "Leveling the Ceiling Mount system" to correct any leveling concerns.

Constructional requirements for the Ceiling mount on a Concrete Ceiling

1. The 6137200 Ceiling mount must only be installed on the LABOMED Ceiling Column plate.
 2. The construction specialist responsible must confirm in writing that the applicable regional and local codes & regulations have been compiled with and the points listed below have been observed. The customer must keep this confirmation with his records on the Ceiling mount. A copy of this document must be enclosed by the customer with this order.
 3. The Ceiling mount on which the Prima Ceiling mount is to be mounted must have the following load capacity:
Perpendicular force: minimum 1500 Nm
Torque:
Perpendicular to the Ceiling 1500 Nm minimum Parallel to the Ceiling 1200 Nm minimum
Also take into account any additional loads acting on the Ceiling and any other loads anchored in the Ceiling .
The Ceiling should preferably be made of minimum 6 inches concrete.
 4. The Ceiling Plate 'A' should be installed at the time of Construction.
 5. The Ceiling Plate 'B' must be aligned in a parallel position (max. deviation $\pm 0.5^\circ$).
 6. The effective strength of each of the three Ceiling anchors must rate at least 5000 Nm. The following must be taken into consideration when calculating the effective strength:
 - Specifications of the bolt/anchor manufacturer
 - quality of the structural roof , e.g. the strength of the concrete
 - spacing of the anchor holes and weakening effect of anchor holes in the Ceiling .
- Note:
If an existing Ceiling anchor plate is ever exchanged, never re-use the old anchors. New anchor holes must be drilled. When calculating the effective strength of the new anchors, make sure to take into account the weakening effective of the holes in the Ceiling .
7. On the basis of the above aspects, the person responsible for the building must decide on and take responsibility for the most suitable method of anchoring.

Control and Power Supply of the system

Note:

The maximum weight of the surgical microscope including accessories must not exceed 7kg and the respective weight of our accessory equipment is specified in the price list.

The weight of the mount including the surgical microscope is as follow:

Ceiling mount kit: Approx.....17 kg.

Surgical microscope: Approx.....18 Kg.

Total: Approx.....35 kg.

Power line: 3 X 1.5mm²

Fusing: 2.5A

Power consumption: max. 130W

Note:

A socket with properly installed protective earth connection must be provided at the installation site on Ceiling flange. The terminals for power connection are allocated on Ceiling Mount .

Potential equalization: Take the necessary actions in the building to include the instrument in the protective measure of "potential equalization."

Note:

The series 6137200 suspension systems including the components mentioned here comply safety requirement with CE, MDD 92/42 EEC and IEC 60601-1-3rd.

Such activities as the installation of the flange and the installation of conduits and electrical lines are the customer's responsibilities.

List of contents: Ceiling Kit

1. Raval Plugs- 6pcs
2. Washers- 6pcs
3. Ceiling Mount
4. Ceiling Mount cover
5. Column



Confirmation of structural calculation and execution

We hereby confirm that the installation of the Ceiling flange for the 6137200 Ceiling mount from LABOMED is the sole responsibility of the customers and will be in compliance with the applicable national standards and regulations.

Customer's name and address:

Project (address of site of installation, if required):

For proper execution of installation: Name and address of executing company:

Date:

Signature:

Labo America, Inc.
920 Auburn Court
Fremont CA 94538
U.S.A.

Fax: (510) 991 9862
Global: sales@laboamerica.com
www.laboamerica.com



Labo America Inc.
920 Auburn Court
Fremont, CA
94538
U.S.A.

Phone: 510-445-1257

Fax: 510-991-9862

E-mail: sales@laboamerica.com

www.laboamerica.com

EU REP.

Labomed Europe
Essebaan 50
NL-2908 LK Capelle a/d IJssel
The Netherlands

Tel: +31 (0)10 4584222

Fax: +31 (0)10 4508251

E-mail: info@labomedeuropa.com



A16372



ISO13485

LABOTECH MICROSCOPES INDIA Pvt Ltd