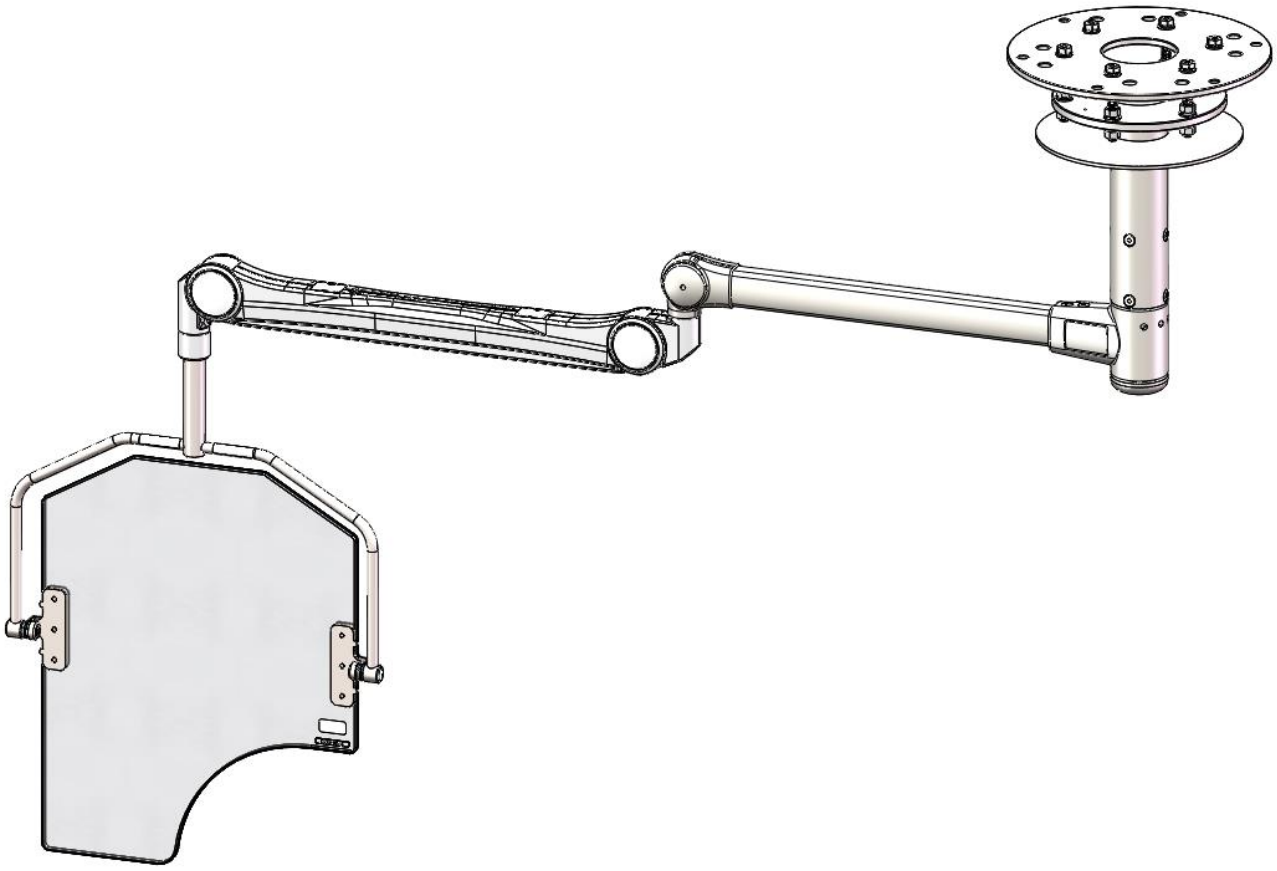
Compass Suspension System, Single Arm



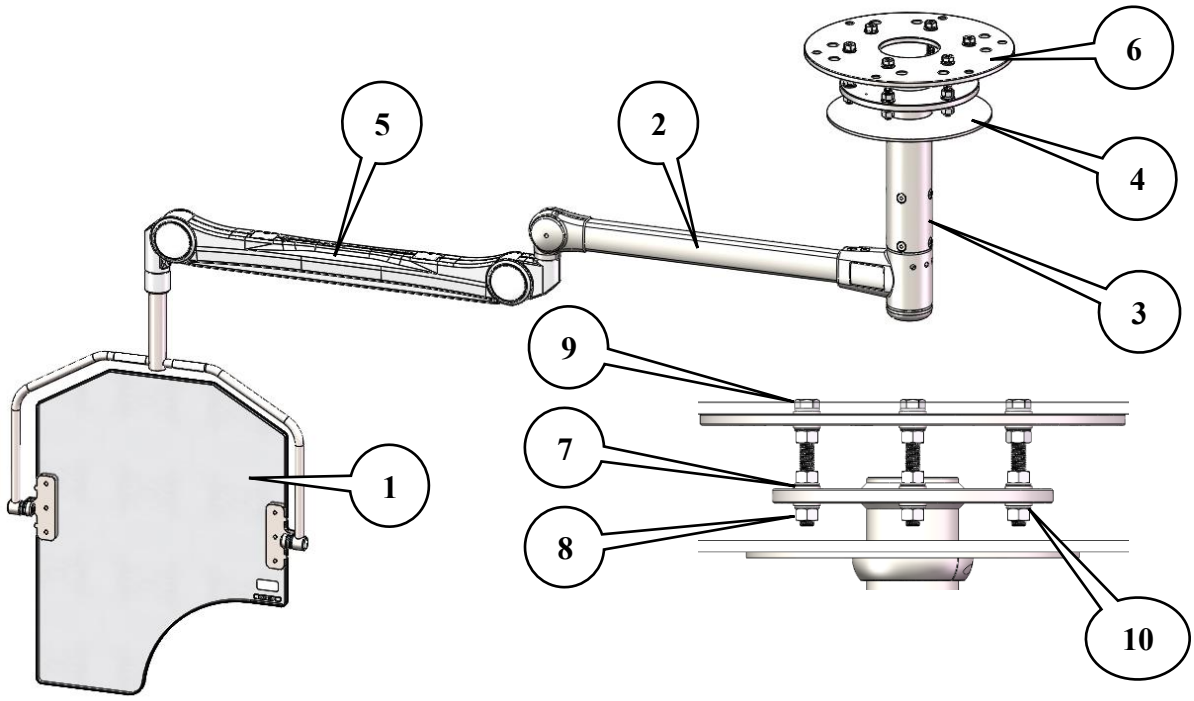
Installation Guide

Made in the USA

L610-0476 REV A

Installation Guide Compass Suspension System, Single Arm

1. Product Picture - Main Assembly Installation



2. Product BOM, Main Assembly

Item 1: A610-0200 Compass Contour Assembly, IDI Boxed
Item 2: C000-1507 Sing Cent Axis, 850mm, No E/Stop, Vendor Boxed
Item 3: C000-1515 Drop Tube, Vendor Boxed
Item 4: C000-1526 Cover Disc, Vendor Boxed
Item 5: C000-2043 Spring Arm 2075, No E/Stop, 20-30Kg,Ral9010), Vendor Boxed
Item 6: C000-2045 Plate, Ceiling Interface, Vendor Boxed
Hardware Kit
Item 7: H0000500 WSH, FLT, ZP, M16 (24x)
Item 8: H0002164 NUT, HEX, ZP, M16-2,GR10 (18x)
Item 9: H0002165 SCR, HEX, HD, M16-2x130,GR10 (6x)
Item 10: H0002166 WSH, LCK, SP, ZP, M16 (24x)

3. Protego Disposables, not shown

- C610-0256 Bag, Sterile, Compass (20 per Box)

4. Other Protego features

- Shield acrylic window panel rated for 0.50mm Pb EQ.
- Spring Arm rated for 10-20 kg for attached products with spring angle 45 up/75 down degree angles.

5. Site Installation Instructions

5.1. **Crate unpacking performed by crate shipping company staff or IDI Rep. Installer**

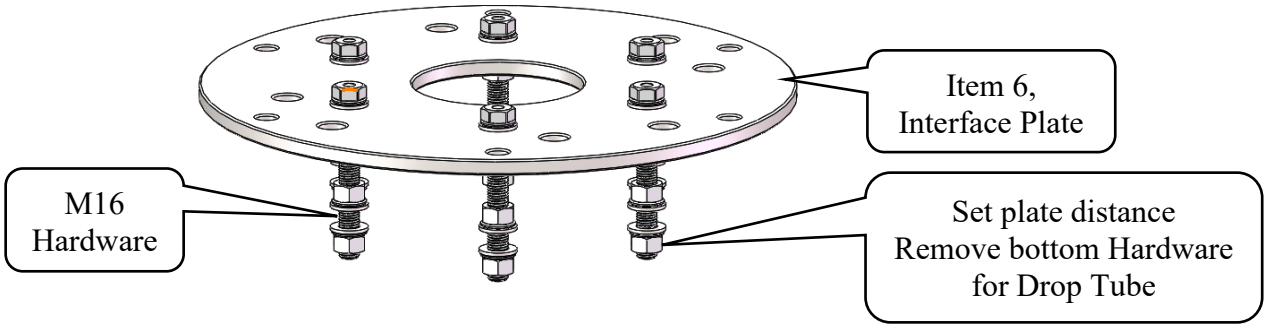
5.1.1. Remove boxes from pallet. Dispose of pallet. Move all components boxes to designated location for installation in Lab Room.

5.2. **IDI Representative Lab Installation:**

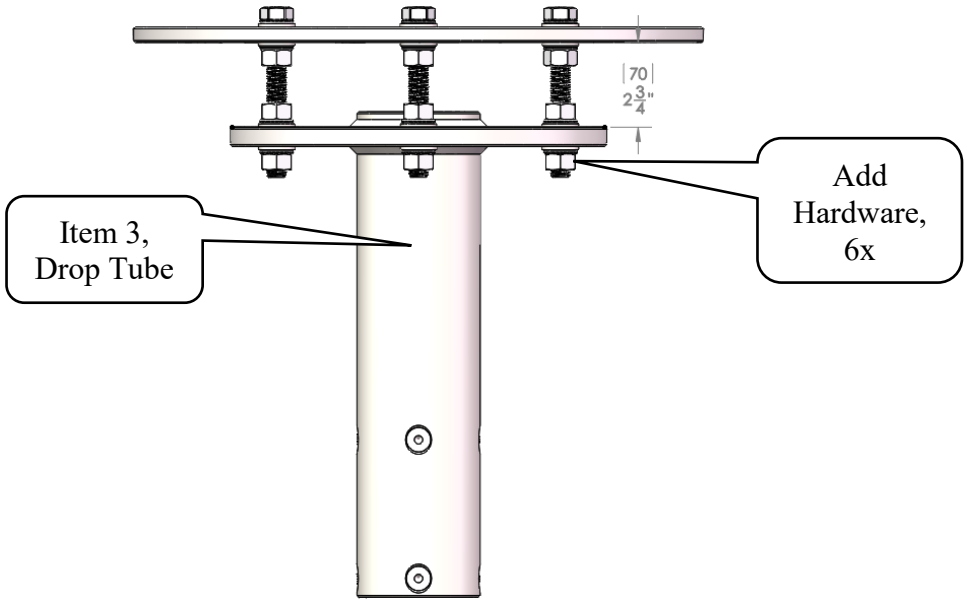
5.2.1. IDI Rep. tools needed: Utility Knife for boxes, Allen Wrench sets for English and Metric, 9" Torpedo Level, Pliers, Adjustable Wrench/Open End Wrenches/Ratchet set for ceiling plate **Metric** nuts.

5.3. **Installing Ceiling Components:**

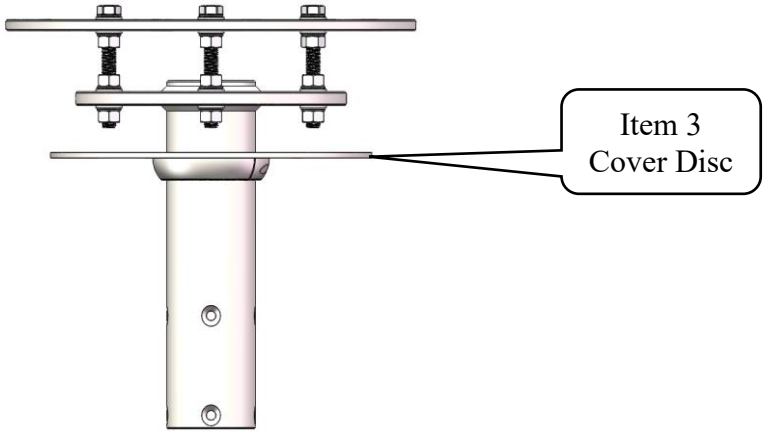
5.3.1. Install Ceiling Interface Plate (**Item 6**). Cross Beam or Ceiling Rod support to Plate must bypass and not interfere with the 6x bolt hardware pattern to attach Drop Tube (**Item 3**). Bolts can be reversed when installing M16 hardware (**Items 7-10**) if needed. For this install, inside distance to Plate (**Item 6**) to Drop Tube Plate (**Item 3**) is set to 2.75" (70mm) by using the hardware to set distance.



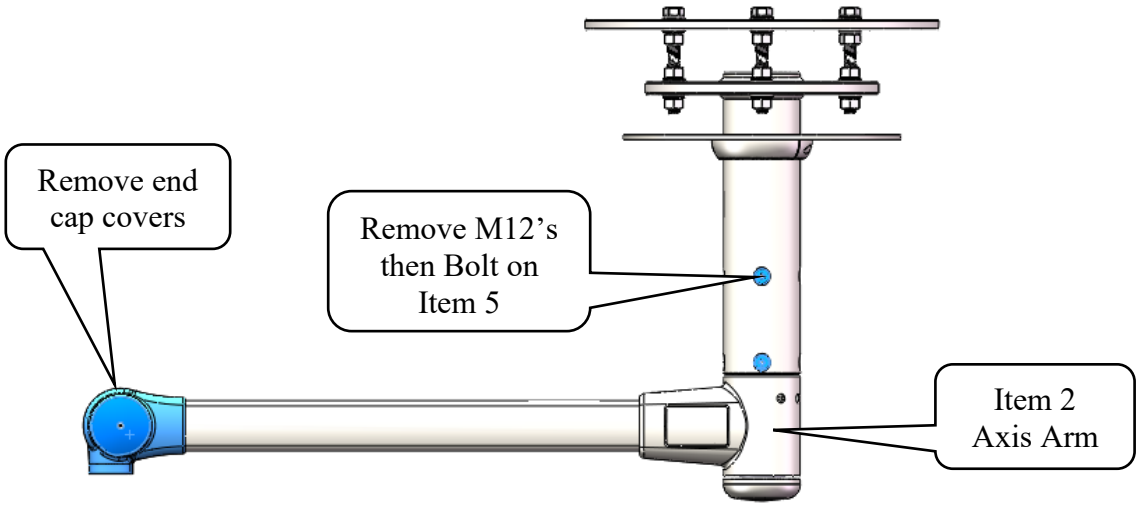
5.3.2. Install Drop Tube (**Item 3**). Add the bottom hardware to secure plate. **Important:** Level plate top before securing all hardware, 6 locations. Leveling plate is used to control Compass Window wandering movement around table. Leveling may also be needed after full product assembly.



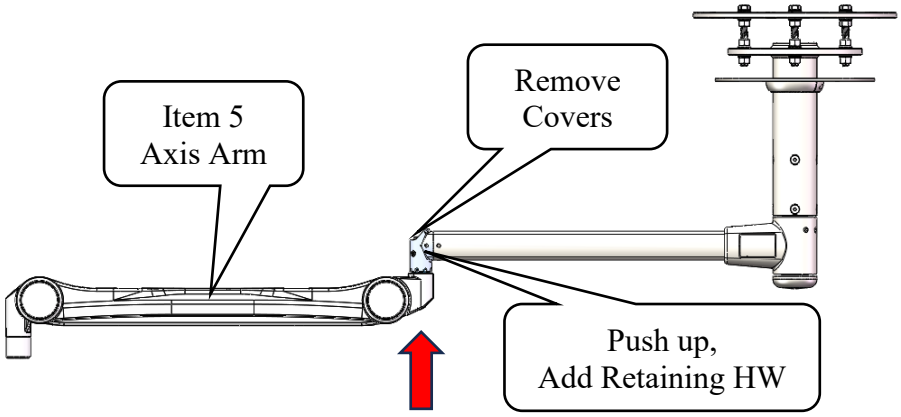
5.3.3. Install Cover Disc (**Item 4**) on Drop Tube shaft. Secure above 8-hole pattern to later move up under later installed drop ceiling panel.

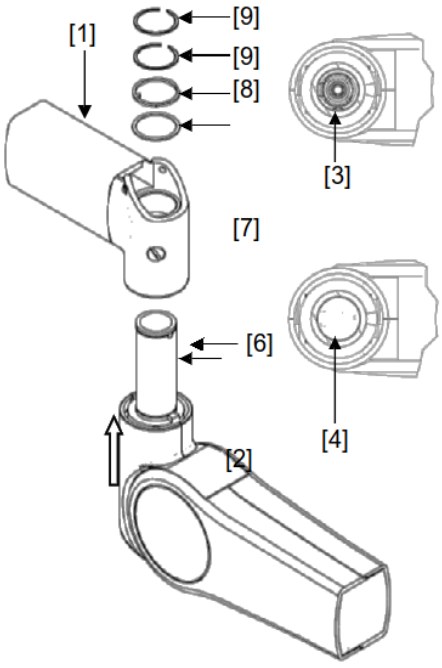


5.3.4. Install Central Axis Arm (**Item 2**). Remove the 8x M12 screws from the axis hub and the two small end cap covers, this is for later adding the spring arm shaft. Two people may be needed: As one person brings the axis hub into the Drop Tube, the other person must add the bolts to secure Drop Tube.



5.3.5. Install Spring Arm (**Item 5**). One person pushes the spring arm shaft into Central Axis Arm. The other person adds the provided washers and retaining ring to top of the inserted arm shaft as shown below. Add 2-piece end covers back. Disregard Figure 9, slipring uses (No power).
The following figure numbers listed below are from the OASYS Operating Instructions Manual!





Installation/Removal (Refer to Figure 9 - Figure 10*)*

In order to install/remove an OASYS spring arm, please observe the following steps:

NOTE: *Do not remove shipping stops until the end device had been mounted (Section 4.5)*

1. Ensure ceiling mount and extension arm [1] are securely installed and the covers are removed. (For further installation instructions, please consult the applicable OASYS assembly manual.)
2. Locate the mounting stem [2] of the spring arm and examine the electrical connection inside. If the stem is fitted with a slip ring [3] proceed to Step 3. If the stem is not fitted with a slip ring [4] proceed to Step 4.
3. Remove the two screws [5] holding the slip ring to the extension arm, and lift the slip ring up and out of the way.
4. Slide the mounting stem upwards into the extension arm sleeve [6] and securely hold in place.
5. Have a second person install the following hardware (in order):
   a) **Washer** [7]
   b) **Safety washer** [8]
   c) (2x) **Retaining rings** [9]
6. While installing the safety washer, ensure that its tooth [10] fits into the hole at the top of the mounting stem (see Figure 10).
7. Ensure that both retaining rings snap into the groove [11] at the top of the mounting stem.
8. If a slip ring was removed in Step 3, re-install it as per the reverse of Step 3. Do not over tighten the screws.
9. In order to **remove a spring arm**, please conduct the preceding Steps 2-8 in **reverse**.

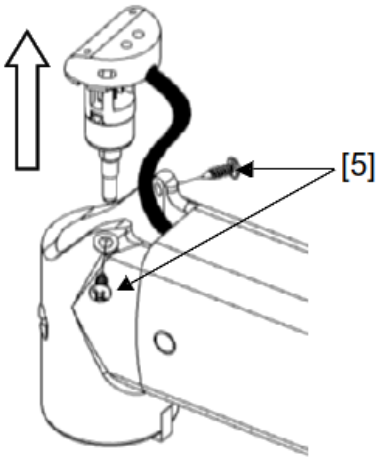


Figure 9: Mounting Spring Arm to Extension Arm

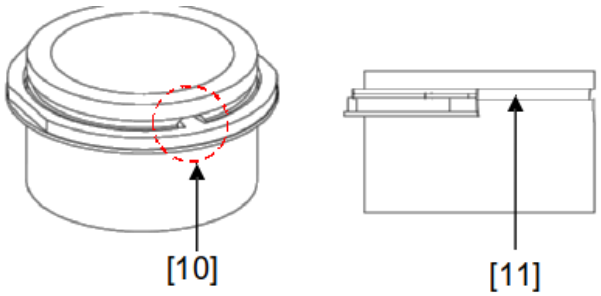
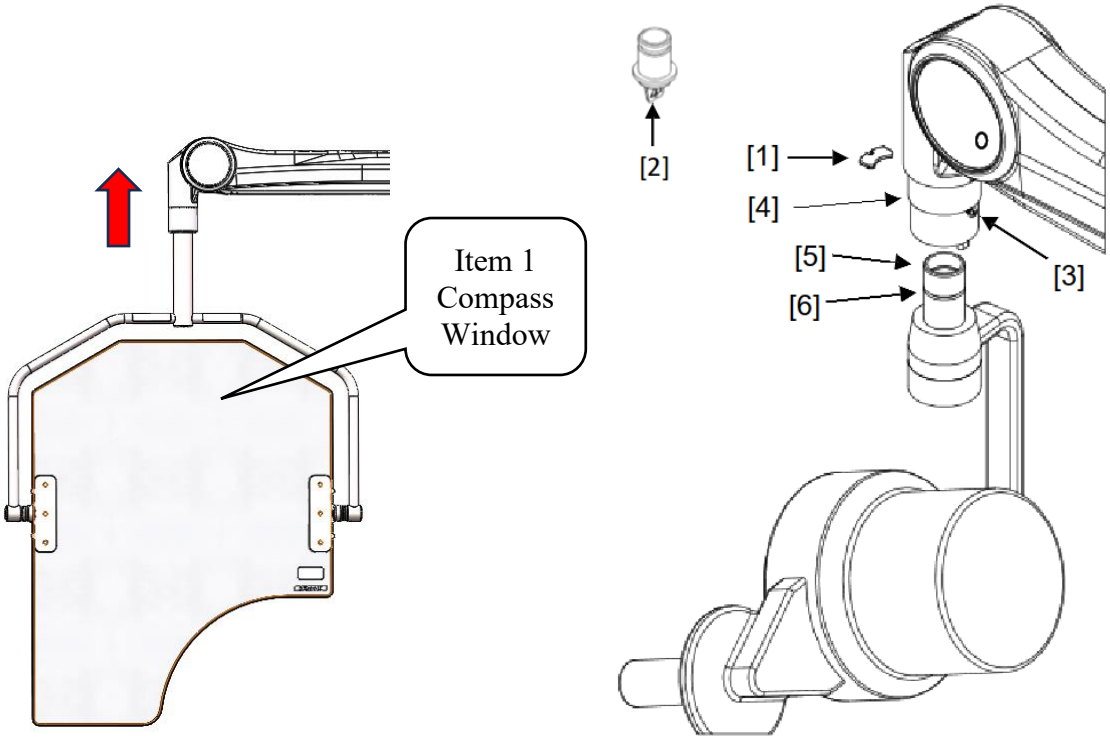


Figure 10: Correct Installation of Safety Washer and Retaining Rings

5.3.6. Connecting Compass Window (**Item 1**). Window upper support shaft must be lifted into spring arm end hub. Remove the cover and key to the spring arm hub. Insert Window support shaft, insert key, and cover.



- The steps for installing any end device are as follows:
- Ensure that the locking key [1] and safety plug [2] have been removed from the device end of the spring arm, and the sleeve screw [3] is holding up the sleeve [4].
- Ensure to apply OASYS approved grease to the male end of the adaptor [5] (or end device) and locking key before installation to ensure smooth movement.
- With one person holding the end device steady, have a second person stand by with the locking key in hand.
- Slide the male end of the adaptor (or end device) into the female device end of the spring arm until the locking key groove [6] lines up with the locking key slot on the spring arm.
- While holding the adaptor or end device steady, have the second person insert the locking key into the grooves. **Be sure that the key slides all the way into the groove (if installed properly, the surface of the key will be flush with the outer surface of the locking key slot).**
- Remove the screw, lower the sleeve until the hole in the sleeve aligns with the appropriate hole in the spring arm. Any gap between the spring arm and the end device should be covered by the sleeve.
- Re-install the screw into the hole through the sleeve.
- In order to remove an end device, complete Steps 1-7 in reverse.

5.3.7. The following directions are from OASYS Operating Instructions Manual and are for reference only to make adjustments to Vertical (arm angle), and Load (load capacity). Quick Guide for adjustment instructions also shown below. The following figure numbers listed below are from the OASYS Manual!

5.3.7.1. Vertical Adjustment – **Note: You should refer to Manual for full details**.

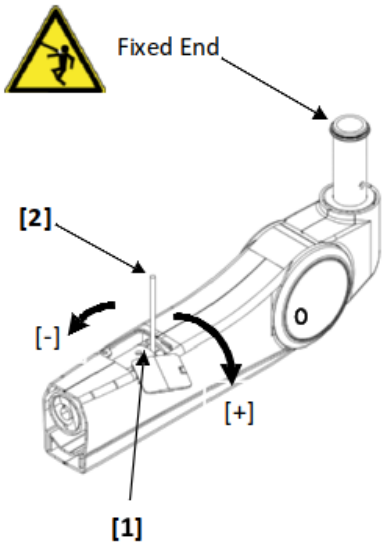


Figure 20: Spring arm vertical adjustment

In order to carry out vertical adjustments of the spring arm, observe the following instructions (refer to *Figure 20*):

1. Ensure that the end device has been installed to the spring arm. The arm must be loaded according to its calibration before adjustments can be made (see Section 5.3 for load adjustments).
2. Open the window cover near the fixed end and locate the adjustment nut access slot [1]. NOTE: If working with an OASYS LCH 2075 spring arm, covers will need to be removed as shown in Section 4.4.1 in order to access this slot.
3. Raise the arm to its maximum height to position the adjustment nut inside the slot.
4. Using the adjustment tool [2], turn the vertical adjustment nut clockwise [+] to raise the height limit or counter clockwise [-] to lower the height limit. You will need to raise or lower the arm as the adjustment is made so that the nut is free to move.
5. When the adjustment is complete, close the window cover.

Note: The vertical limit nut functions as an upper limit only, however, it can be adjusted to any position between -75˚ and +45˚.

5.3.7.2. Load Adjustment – **Note: You should refer to Manual for full details**.

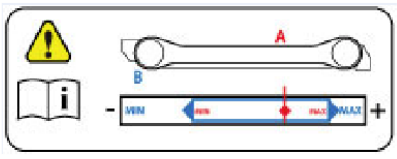


Figure 22: Load adjustment label

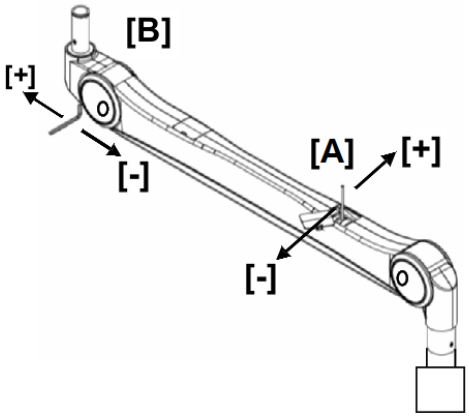


Figure 23: Direction of rotation for Nut A [A] and Screw B [B]

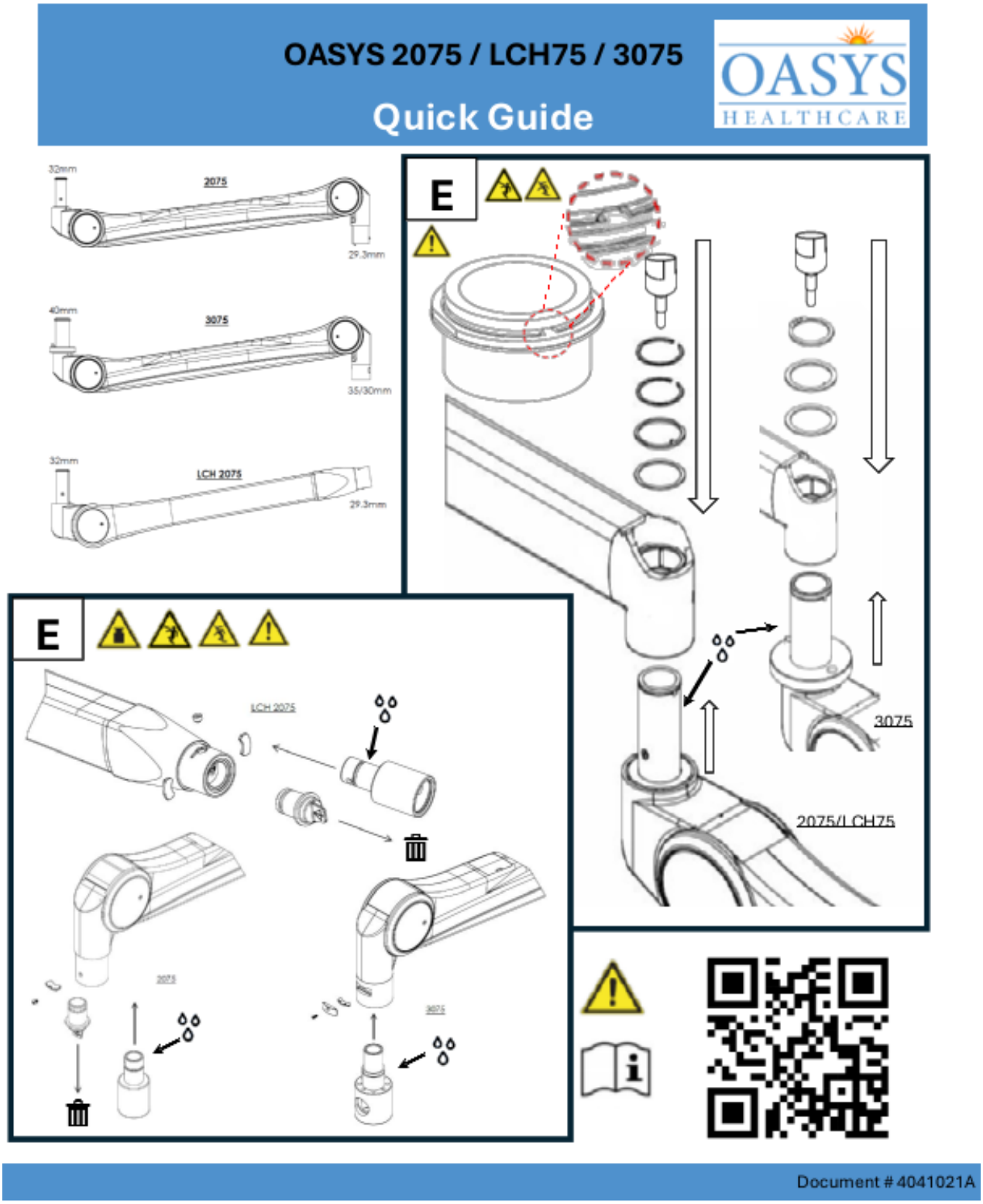
OASYS 2075 and 3075 spring arms must have their load capacity calibrated so that the arm is able to hold its position at any point within its range of motion while bearing the load of an end device.

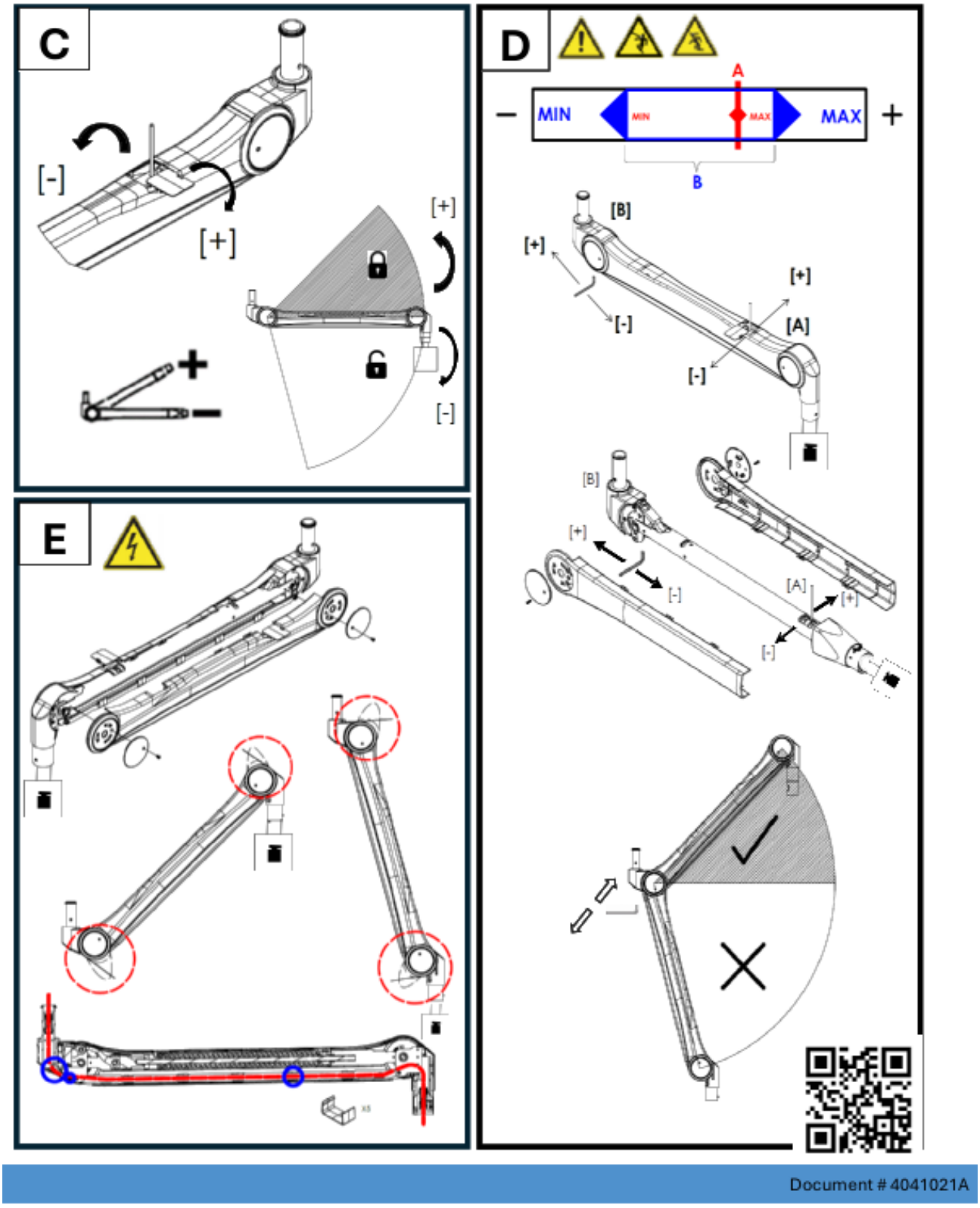
Mechanics of Load Adjustment

The graphic in *Figure 22* depicts the levels of adjustment using a double box analogy. Please note that the double box is purely conceptual; there is no physical double box. The **screw** underneath the fixed end **(B)** and the **nut** on the arm **(A)** are used in conjunction to achieve the full load range of the spring. Turning **Screw B** moves the **inner box with respect to the outer box**. Turning **Nut A** moves the **vertical line with respect to the inner box**.

When turning the nut and the screw, follow the convention shown in *Figure 23* for an OASYS 2075 or 3075 spring arm. For an LCH 2075 spring arm, first remove the cover as described in section 4.4.1, then follow the convention shown in *Figure 24*.

- **[+]** denotes an increase in spring compression.
- **[-]** denotes a decrease in spring compression.


OASYS 2075 / LCH75 / 3075
Quick Guide
OASYS HEALTHCARE
32mm
2075
29.3mm
40mm
3075
35/30mm
32mm
LCH 2075
29.3mm
E
3075
2075/LCH75
E
LCH 2075
Document # 4041021A


C
[-]
[+]
[+]
[-]
D
A
MIN
MIN
MAX
MAX
B
[B]
[+]
[+]
[-]
[A]
[-]
[B]
[+]
[-]
[A]
[+]
[-]
E
Document # 4041021A

6. General Cleaning

6.1. Instructions for Cleaning:

6.1.1. Acrylic 0.5mm Pb EQ Window can easily scratched. Care for it is very specific. Only use the following when cleaning the acrylic windows and be sure to read the following warnings.

- Use only a very soft damp cloth when cleaning acrylic surfaces. If required, use a mild soap or dishwashing solution. Carefully wipe all surfaces dry once complete.

It is possible to scratch acrylic, so NEVER use any scouring compounds or chemical cleaners such as Windex or other glass cleaners (even if they are environmentally friendly, organic, or non-scented).

Should anything ever stick to an acrylic surface (such as an adhesive label or gummy substance) do not use any type of solvent.

Never use the same cloth that you clean other items with – it can retain dirt, grit, and chemical residues that may harm your acrylic items. We recommend using a new or separate cloth for your acrylic care.

However, scratches do happen – but don't worry! Unlike other materials, scratches on acrylic can be easily removed with Novus products.

Keep your acrylic surfaces free from dust and dirt, with Novus 1. It is a clear, anti-static formula specially created to remove the negative charge that can attract dust and dirt to the surface of acrylic. It is easy to use simply wipe on and wipe off! The Novus 2 anti-static formula to remove surface scratches while it cleans. The Novus 3 is for removal of heavier scratches and requires Novus 2 for final finishing.

6.1.2. Metals and Plastics: Articulating Arms. Cleaning agents containing strong acids or bases may affect plastic components of pendant system or its components causing damage to it and potentially causing loose parts or cleaning agents to fall into areas around operating table.

- Ensure no liquid agents penetrate the spring arm covers or end devices.
- Do not use strong hydrocarbon solvents, strong acids or bases or cleaning agents with an alcoholic concentration above 10%. The following list of cleaning and disinfecting agents have been evaluated and approved for use with the metal and plastic parts of the product.
- In order to carry out cleaning procedure, observe the following instructions:
    - Wipe surfaces with a moist cloth (Water). If required, use a mild soap or dishwashing solution.
    - Carefully wipe all surfaces dry once complete.
- In order to carry out cleaning procedure, observe the following instructions:
    - Avoid using alcoholic disinfectants, highly alkaline solutions, acids, and pure alcohol.
    - Disinfect all surfaces of the spring arm and end device.
    - Carefully wipe all surfaces dry once complete.
- The following list of cleaning and disinfecting agents have been evaluated and approved for use with the metal and plastic parts of the product.
    - Water, Mild soap, or dishwashing solution – **Warning: Only solution to use on Window**
    - Simple Green™ is the tested and approved general cleaning agent to use on the product.
    - Precise Hospital Foam Cleaner Disinfect
    - Envirocide® Disinfectant and Cleaner.
    - Disinfecting Wipes (Lysol or equivalent), Ammonium Chloride 0.2 to 0.5%