

TRACK INSTALLATION GUIDE
GENERAL INFORMATION



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ArjoHuntleigh and the environment. Several measures more respectful of the environment have already been implanted in our offices. Small gestures to major changes; everything is important and makes a real difference.

ArjoHuntleigh in brief

ArjoHuntleigh is committed to support people, caregivers and residents by providing solutions that enhance their everyday interactions. We focus on the key area of patient handling.

Part of the GETINGE GROUP, ArjoHuntleigh is a leading global provider of equipment and systems that contribute to quality enhancement and cost efficiency within healthcare and life sciences. Equipment, services and technologies are supplied under the brands ArjoHuntleigh for patient handling and hygiene, disinfection, DVT prevention, medical beds, therapeutic surfaces and diagnostics; Getinge for infection control and prevention within healthcare and life science and Maquet for surgical workplaces, cardiopulmonary and critical care.

Track Installation Guide

ARJOHUNTLEIGH designed this guide to help you understand the installation process and particularities.

Contact the ArjoHuntleigh technical support team at +1-819-868-0441 to obtain more information or visit on our web site at www.ArjoHuntleigh.com

Using this guide

This Track Installation Guide provides technical information that must be taken into account when planning or undertaking an installation and should not be used as a substitute for the formal accredited ArjoHuntleigh training. Although every attempt is made to use language that is clear and concise, occasionally questions and specific circumstances may arise regarding the meaning of sections of a standard as they relate to specific applications. ArjoHuntleigh will be responding to all written request, including interpretation clarifications, in a timely manner.



Hardware and material

The ArjoHuntleigh products presented in this installation guide are to be assembled as per current procedures. Only ArjoHuntleigh approved components should be used. Particular specifications on hardware (e.g. "zinc-plated" lag bolts) must be respected.

This installation guide explains the basics of ceiling tracks requirements from a Canadian perspective, and should never substitute a complete hands-on training given by a recognized ArjoHuntleigh trainers. The users of this manual shall always follow local, regional and national applicable standards and requirements. Every effort has been made to ensure the accuracy of contents of this document. However, if you discover any errors or anything that seems peculiar, please notify your dedicated ArjoHuntleigh ceiling track installation representative.

ArjoHuntleigh assumes no liability, either explicit or implicit, with respect to the information presented in this installation guide. And specific circumstances may arise regarding the meaning of sections of a standard as they relate to specific applications. ArjoHuntleigh will respond to all written request, including interpretation clarifications, in a timely manner.

NOTE...

All documents concerning installations are subject to alterations and corrections without notice.
Contact us to make sure you have the latest version of any document.

For information, call at **+1-819-868-0441**.



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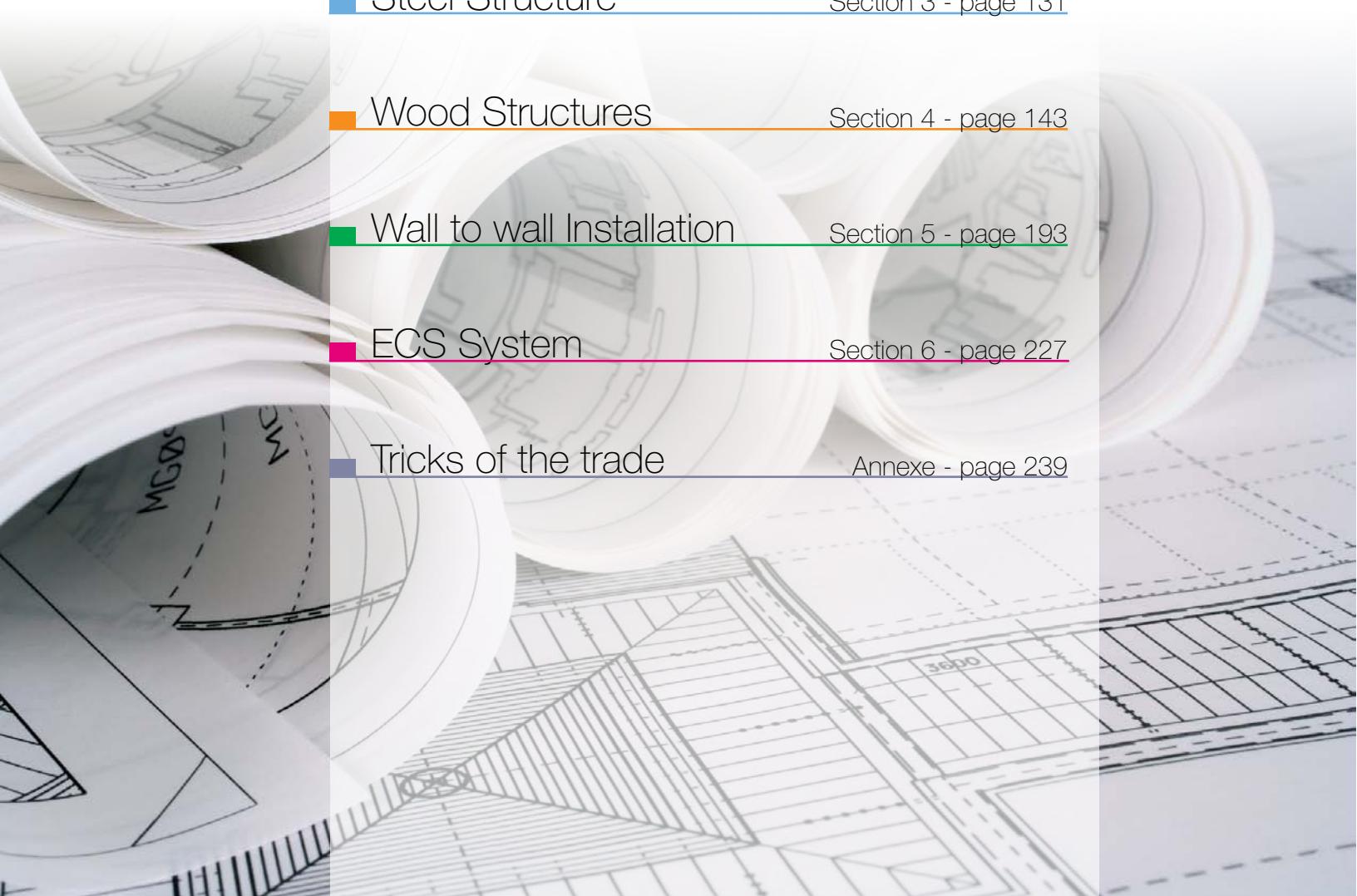
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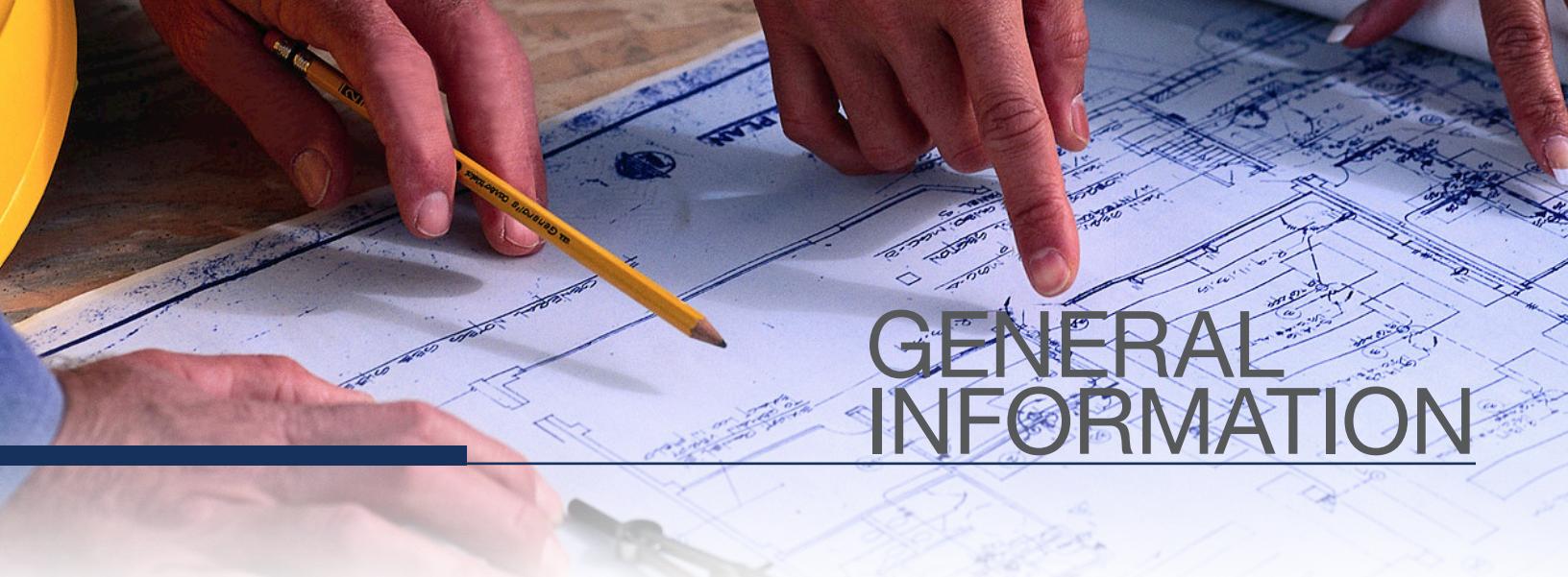
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GENERAL INFORMATION

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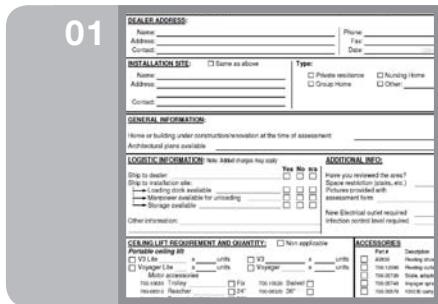
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Seven Installation Steps

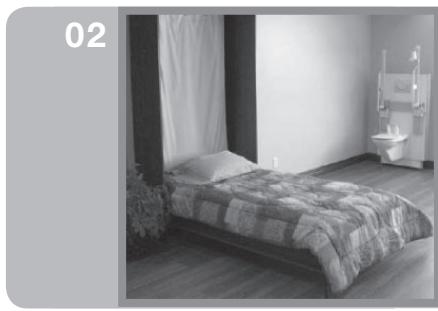
The complete track installation procedure is divided into 7 different steps.



Site assessment



Weight load test



Room evaluation (when the installers arrive)



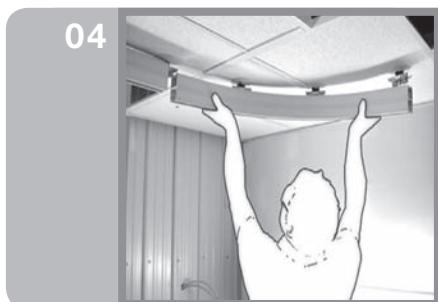
Ceiling lift and charger installation



Bill of material and drawings



Inspection and commissioning



Track Installation

Step 1: Site Assessment

The site assessment document is composed of multiple pages.

The first page is dedicated to general information on the project:

- Customer information
- Installation site details.
- Logistical information.
- Quantity/type of ceiling lifts, spreader bars, slings and possible accessories.

ARJOHUNTLEIGH Global Assessment form for Ceiling Lifts
GETTINGE GROUP

Page 1 of 3

ISU Name: _____	Contact Name: _____	Bus. Phone: _____	E-Mail: _____	ISU Name: _____	Contact Name: _____	Bus. Phone: _____	E-Mail: _____
Type: <input type="checkbox"/> Residential <input type="checkbox"/> Long-term care <input type="checkbox"/> Hospital <input type="checkbox"/> Rehab area <input type="checkbox"/> ICU <input type="checkbox"/> Other	Project Name: _____ Contact: _____ Bus. Phone: _____ E-Mail: _____						
INSTALLATION SITE							
<input type="checkbox"/> No <input type="checkbox"/> Yes		<input type="checkbox"/> Actually under construction/renovation? <input type="checkbox"/> Are there any plans available? (CAD or PDF)? <input type="checkbox"/> If yes, color CAD available? <input type="checkbox"/> Spreader dock available? <input type="checkbox"/> Space available? <input type="checkbox"/> If yes, how much needed? <input type="checkbox"/> Local <input type="checkbox"/> Container <input type="checkbox"/> Managed by ArjoHuntleigh <input type="checkbox"/> Customer <input type="checkbox"/> Manpower available for unloading?					
<input type="checkbox"/> No <input type="checkbox"/> Yes		<input type="checkbox"/> Space restriction? <input type="checkbox"/> Details (and photos): _____ <input type="checkbox"/> Sketches/measurements taken during initial assessment? <input type="checkbox"/> Initial assessment required? <input type="checkbox"/> Other information?					
TRACK SYSTEM							
<input type="checkbox"/> Below ceiling installation <input type="checkbox"/> Standard charging <input type="checkbox"/> ECS Charging		<input type="checkbox"/> Embedded ceiling installation method <input type="checkbox"/> Wall-mounted track system <input type="checkbox"/> Wall Post <input type="checkbox"/> Wall Bracket <input type="checkbox"/> Wall-Mount Solution <input type="checkbox"/> Spacers required for Wall to Wall					
CEILING LIFT		ROOMS					
1	Units: _____ SWL: _____	2	Units: _____ SWL: _____	3	Units: _____ SWL: _____	4	Units: _____ SWL: _____
Hand Control	Charging system	Hand Control	Charging system	Hand Control	Charging system	Hand Control	Charging system
Portables LP Trolley (xx-x-xxx) Pneumatic Trolley Swivel casters 41 mm (1.6")							
ROOF/Ceiling							
Room number: _____							
STRUCTURE							
Units: _____ Resistor: _____ Expansion joint: _____ Frame: _____							
CEILINGS							
Concrete/Hollowcore <input type="checkbox"/> Concrete beams <input type="checkbox"/> Steel joists <input type="checkbox"/> Firewall structure <input type="checkbox"/> cathedral ceiling <input type="checkbox"/> Wood <input type="checkbox"/> Engineered Wood Beams <input type="checkbox"/> Open web steel <input type="checkbox"/> drywall <input type="checkbox"/> tiles <input type="checkbox"/> plaster <input type="checkbox"/> Walls composition <input type="checkbox"/> concrete <input type="checkbox"/> brick <input type="checkbox"/> steel <input type="checkbox"/> other							
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WALLS							

Step 2: Room Evaluation

The purpose of this step:

- First contact with customer.
- Confirm remaining details of installation (schedule, times, contacts).
- Compare the drawings vs actual room in question for accuracy.
- Check if all the necessary materials are present on-site.

- Verify with the person in charge if there are any special requirements for the proposed locations.
- Verify if infectious control procedures are applicable.
- Compare drawings with actual room layout and structure.
- Check room dimensions, furniture location (bed, bathroom sink, etc.), transfer points, access to the structure and structure details.
- Evaluate potential obstructions:
 - Height min: 2.1 m (7 ft) - max: 3.0m (10 ft)
 - Sprinklers (varies according to local regulations)
 - Curtain track
 - Lights
 - Vents
 - Other...



NOTE...

...Each point above should be considered before the beginning of the installation.

If modifications and/or relocations are required, make sure they are completed prior to the beginning of the installation project.

Step 3: Bill Of Material (BOM)

This step is to ensure that all necessary hardware is included based on the assessment form information and CAD drawings as per ArjoHuntleigh standards.

The following documents might be provided by ArjoHuntleigh upon completion of the CAD drawing and technical review.

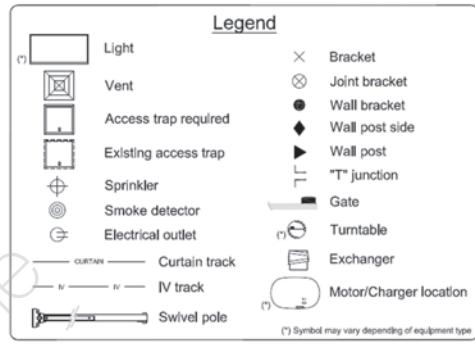
IMPORTANT NOTES

1. Drawings will illustrate the information provided by the Arjo-Huntleigh Equipment Consultant.
 2. All obstructions to the rail and/or installation components (vent, light, sprinkler, door header...) are the responsibility of the facility, unless specified on the official quotation and purchase order.
 3. Installation shall be conducted by an installation team certified by the manufacturer.
 4. Installer shall install only according to methods approved by the manufacturer.
 5. For all typical structures, remarks described in document AM-ING-027-1 -General Installation Notes- shall be applied.
 6. The capacity of the structure shall be validated by an expert (engineer) mandated by the facility. The manufacturer is not responsible to validate if the structure information supplied is correct (for span, capacity and deflection).
 7. Facility must consult the lift Operating and Product Care Instructions for recommendations regarding preventative maintenance and inspection.
 8. Drawings need to be signed (page 1) and initialized (all other pages with the exception of standard installation methods) by the facility designate responsible to confirm that the details have been reviewed and accepted.
 9. For regulatory reasons, a initial weight load test at the charges specified by the manufacturer, along with complete inspection are mandatory to validate, on each track installed, the conformity of the track assembly. Related documentation shall be kept available for consultation for a minimum of 15 years.

GENERAL DRAWING APPROBATION

- Review of all 3 pages
 - Total quantity of rooms 1
 - Approbation of layout for each room
 - Approbation of structure for each room

INITIALS



INSTALLATION DRAWING

EXAMPLE

DISTRIBUTOR :	ARJOHUNTLEIGH
REPRESENTATIVE :	ARJOHUNTLEIGH
DATE (DD-MMM-YYYY) :	01-OCT-2012
REFERENCE # :	PAGE : QC-XXXXX 1 / 3

- ALL HARDWARE INCLUDED.
(ACCORDING TO STRUCTURE)

CUSTOMER APPROVAL: _____ DATE: _____

QUANTITY OF ROOMS: 3
LISTING OF ROOM NUMBER(S): 2001, 2001, 2334

GENERAL HOSPITAL

SAFE WORKING LOAD BELOW LIFT: 600LBS [272KG]
WEIGHT LOAD TEST OF: 750LBS [340KG]

DATE CREATED (DD-MMM-YYYY): _____

DRAWN BY: _____ SCALE: 1/4" = 1'
REFERENCE #: _____ PAGE: 2 / 3

THIS LAYOUT HAS BEEN PREPARED WITH SUPPLIED DATA.
VERIFICATIONS MUST BE DONE ON SITE.

NOTE: CUTTING OF RAILS ON SITE ONLY

- ALL HARDWARE INCLUDED.
(ACCORDING TO STRUCTURE)

CUSTOMER APPROVAL: _____ DATE: _____

QUANTITY OF ROOMS:
NOTE:
THE STRUCTURAL ENGINEER ON RECORD
OF THE BUILDING IS RESPONSIBLE FOR
VERIFYING THE ADEQUACY OF THE
STRUCTURE TO SUPPORT THE LOAD.

GENERAL HOSPITAL

SAFE WORKING LOAD BELOW LIFT: 600LBS [272KG]
WEIGHT LOAD TEST OF: 750LBS [340KG]

DATE CREATED (DD-MMM-YYYY): _____

DRAWN BY: _____ SCALE: NOT TO SCALE
REFERENCE #: _____ PAGE: 3 / 3

NOTES:
 △ - LAG BOLT SHALL BE LOCATED AT THE CENTER OF WOODEN JOIST.
 △ - THREADED ROD LENGTH MUST BE DETERMINED ON SITE. THE THREADED ROD MUST
EXCEED THE SADDLE NUT BY $\frac{1}{4}$ ".
 △ - IF THE SPAN VARIES BETWEEN TRUSSSES, THE MAXIMUM SPAN SHALL BE USED TO
DETERMINE APPROPRIATE STRUT TYPE.
 △ - CLIENT MUST ALLOW APPROPRIATE ACCESS FOR INSTALLATION.
 △ - THE STRUT SHALL EXCEED THE TRUSSES BY 2" MINIMUM.
 △ - APPROPRIATE COMBINATION OF SHIMS SHALL BE DETERMINE DURING INSTALLATION.

Item #	Part #	Description	Qty
1	000.01230	STRUT *	-
2	000.0394	THREADED ROD 3/8-16 X 12 ZINC	-
3	000.09402	LOCKNUT STOVER 3/8-16 ZINC	1
4	000.04045	NUT 3/8-16 ZINC	2
5	000.00424	HILTI STRUT SADDLE NUT 3/8-16	1
6	000.00680	WOOD SCREW #10 X 2 1/2	2
7	000.03480	FLAT WASHER M8 ZINC (25 OZ)	2
8	000.04430	FLAT WASHER M10 ZINC	1
9	000.04430	TAB WASHER M10	1
10	200.11140	CEILING PLATE #100MM	2
11	200.11170	12MM KWIKTRAK BRACKET SHIM	1
12	700.11100	TRACK BRACKET KWIKTRAK	1

MAXIMUM SPAN OF STRUT "D"

LOAD BHM PART	HILTI PART.	440 lbs	600 lbs	800 lbs	1000 lbs
000.01230	HS-156-12	42"	31"	23"	19"

Step 4: Track Installation

The purpose of this step:

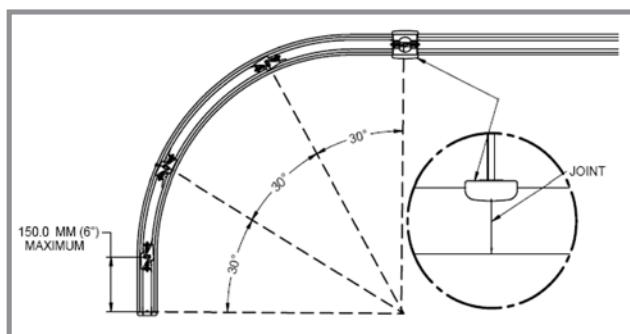
- Transpose the plans (drawings) into the room targeted for installation.
- Establish exact anchor points relative to equipment.
- Maximize the transfer points and follow the recommendations/requests of the customers.

TRICKS:

- Use clamps to align multiple pieces of track together.
- It is highly recommended to keep the curves that you are using to mark the layout for that particular room (curve length and radius may vary slightly).
- Use the rotary laser vertically to assure straight lines.
- Use the plumb laser to determine the bracket locations.
- Start layout with track junctions to ensure that there is no obstruction in the way of the joints.
- Target areas without obstructions for easier installation (avoid vents, lights, etc.).

MEASUREMENTS:

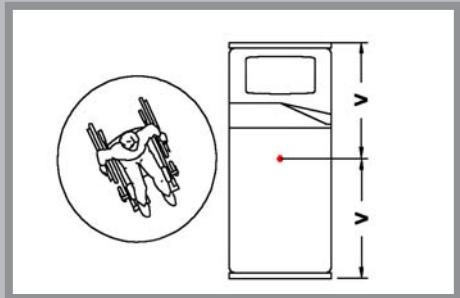
- Maximum distance between brackets: see table in “Bracket Positioning”.
- Maximum distance between last bracket and end of the track (overhang): 30cm (12in).
- Minimum quantity of brackets on a curve: 1 on each extremity and 2 equally spread in the middle of the curve (total: 4 brackets).



- Minimum distance between the end of the track and the wall for motor insertion:
30cm (11 in) for 272kg (600lb) motors and less.
45cm (18in) for 454kg (1000lb) motors.

Establishing the transfer point location - Bed

01



When the bed is in position, measure 100 cm (40 in) plus bumpers or head board.

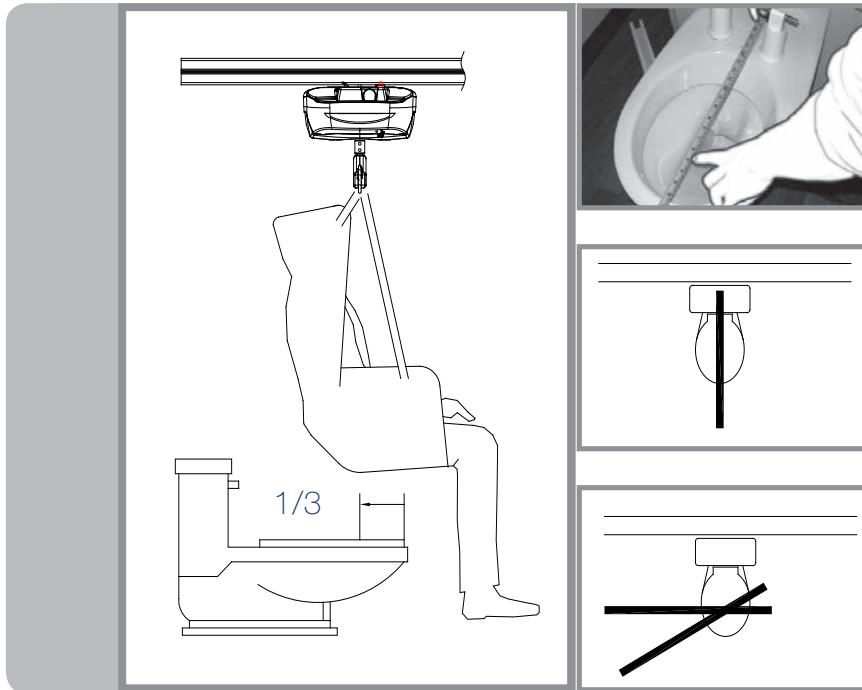
If the bed is not in the room, ask to see a similar available bed and measure the length of the mattress.

02



Divide the dimensions by two and add all obstructions/ additional spacing from the head of the mattress to the wall.

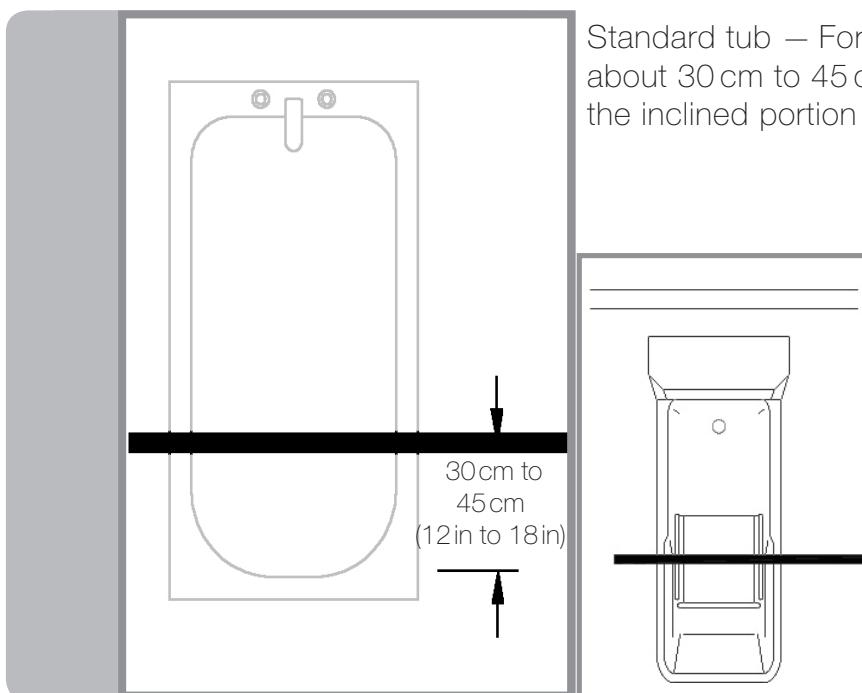
Establishing the transfer point location - Toilet and bath



Toilets — When approaching sideways over a toilet, aim for the forward 1/3 of the bowl for the transfer point.

Frontal transfer

Side transfer — If track is in the toilet's axis, place the track centered with the bowl, in line with the axis.



Standard tub — For standard tubs, the transfer point is at about 30 cm to 45 cm (12 in to 18 in) from the bottom of the inclined portion of the bath.

Sit-in tub — For tubs with integrated or fixed seats, the track must be centered with the seat.

Marking transfer points

01



Analyse the drawings.

02



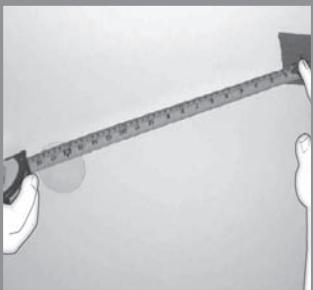
Verify measurements.

03



Reassess obstacles and readjust drawing with actual conditions.

04



Determine transfer points for each area. For example: the middle of the mattress...

05



...front 1/3 of the toilet, etc.

06

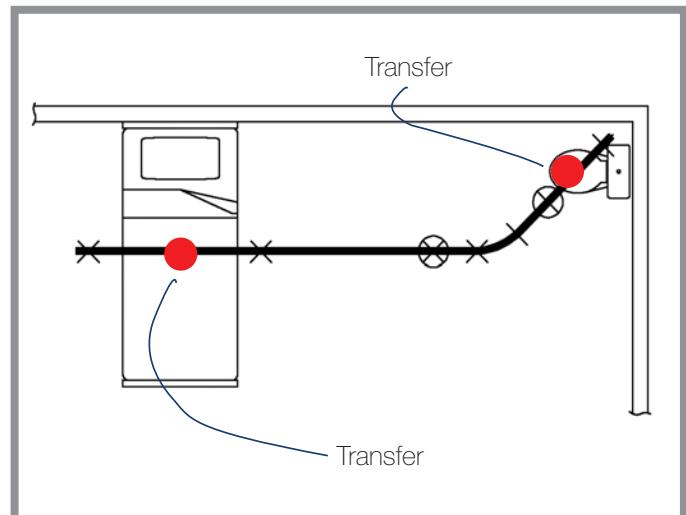


Using the plumb laser, transfer the optimal point onto ceiling...

07



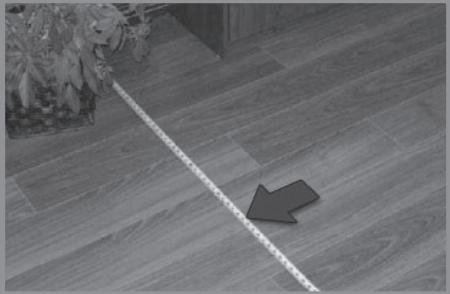
...and clearly indicate it on ceiling to make sure that the track layout will pass over requested areas.



TRANSFER POINTS

Placing guidelines

01



Transpose bed transfer measurement onto the floor.

02



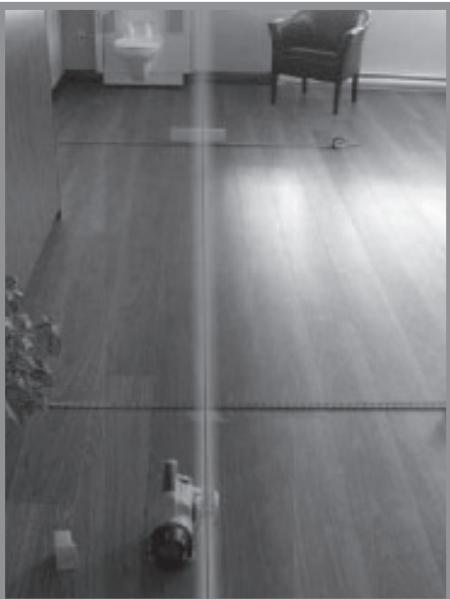
To do so, use masking tape and a fine-pointed marker.

03



Mark the same measurement on the opposite side of the room.
Both marks will be used as a straight line for the track.

04



Align the self-levelling rotary laser over both marks. The laser line indicates the straight length of the future installation.

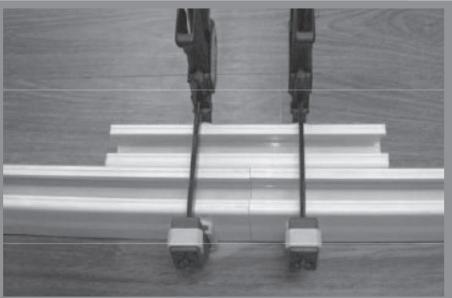
Laying out the design on the floor

01



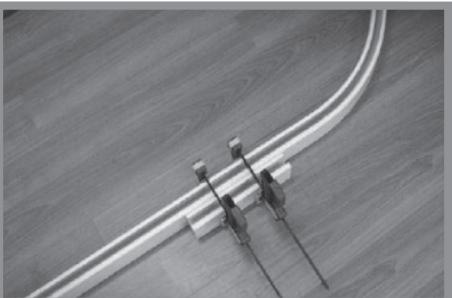
Put all parts of the layout on the floor. Track pieces can be cut to predetermined lengths.

02



Using clamps and some rigid, straight material (e.g. pieces of track), join all the pieces together.

03



All joints must be perfectly aligned and tightened for best results.

04



Repeat for all the track sections.

Positioning layout on the floor



01

Move track layout and lasers to meet transfer points and avoid obstructions.



02

Using alignment tool, center the tracks over guidelines...



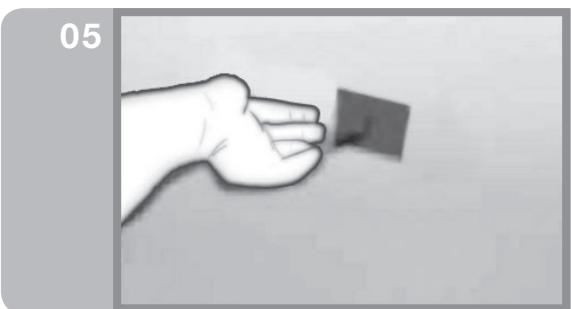
03

...and transfer points marked earlier.



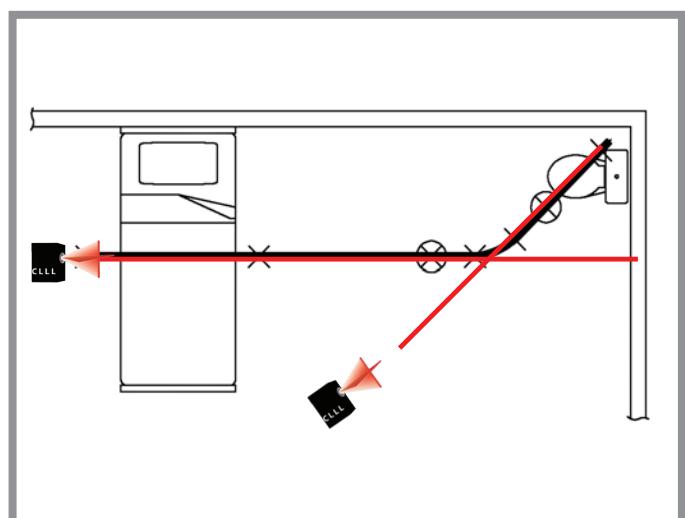
04

Make sure the guidelines are parallel to the center of the tracks.



05

Finally, transpose predetermined toilet and bed transfer points.



LASER GUIDELINES

Positioning the brackets

Critical measurements:

- Make sure to leave a space of 27 cm (11 in) at the end of one track to allow the insertion of the lift.
- Always leave more than 30.5 cm (12 in) between the track and the wall to avoid damaging the wall with the spreader bar.
- For maximum distances between brackets refer to the KWIKtrak Span Chart (001-01014).
- You can also find the critical measurements in the documentation from the various hardware manufacturers approved by ArjoHuntleigh.

01



Lay the measuring tape next to the side of the tracks placed as guidelines to determine the bracket locations.

02



Aligned with the laser guideline, measure a 20-30cm (8-12in) overhang distance on one end.
Mark the spot on the floor, using masking tape and a marker.
This point is going to be used as reference.

03



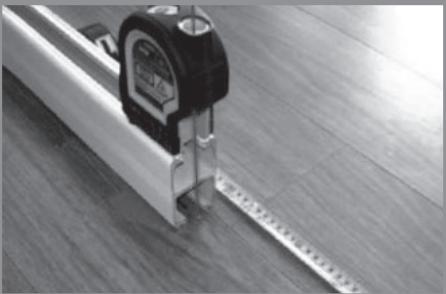
Place plumb laser over the mark. Transfer the mark onto the ceiling.

04



Repeat the process for the remaining bracket locations of each straight track. Spread distances between each bracket evenly.
Do not exceed distances allowed (refer to Kwiktrak span chart).

05



For track junctions, the bracket location has to be perfectly centered with the joint.

06

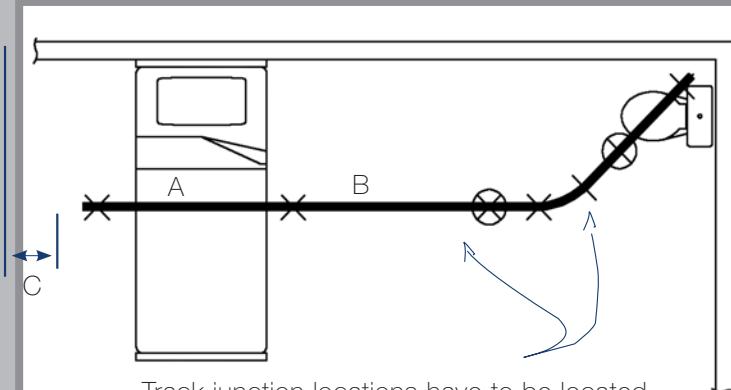


Example 1: The remaining distance between the last bracket and track junction = 2.7 m (108 in). Divide this distance so that there is a bracket every 1.3m (50in).
Example 2: For a straight track of 3m (118 in). Take off both overhang distances ($2 \times 25\text{ cm}$ (10in) = 0.5 m (20in)). Divide the remaining 2.5 m (98in) in two, so that there is 1.25 m (49in) between each bracket.

07



Mark all bracket locations on floor and ceiling as reference. Drill locations on the ceiling.



Maximum distance between remaining brackets of the straight portion is 177 cm (70 in) for 272 kg (600 lb) and 208 cm (82 in) for 200 kg (440 lb).

Example: A track of $300\text{ cm} - 25\text{ cm} = 275\text{ cm}$ (118in - 10in = 108in)
 $\Rightarrow 300\text{ cm} - \text{"C"}$ divided by 2 = Distance between brackets.
(See KWIKtrak Span Chart for other lifting devices)

Bracket positioning on curves (at the end of the trackway)

01



Repeat process for remaining bracket locations of each curved track.

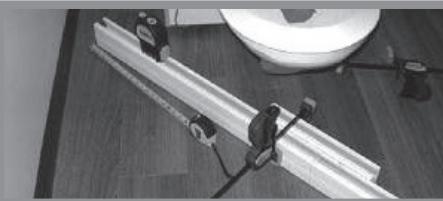
Spread distances between each bracket evenly.

02



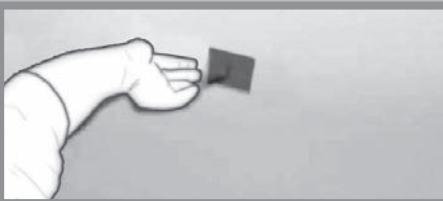
For track junctions, the bracket location has to be perfectly centered with the joint.

03

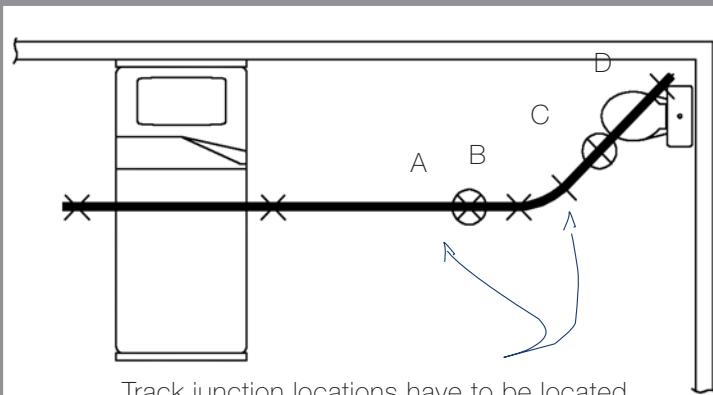


Mark the last bracket location of the layout at 25 cm (10in) from the end of the straight piece of track, making sure the track finishes far enough from the wall to avoid damaging the wall with the spreader bar.

04



Mark all bracket locations on the floor and ceiling as reference. Drill locations on the ceiling.



Track junction locations have to be located perfectly in the middle of the joints.

Mark the last bracket location of the layout (D) at 15.2cm (6in) from the end of the straight piece of track. Make sure the track finishes far enough from the wall to avoid damaging the wall with the spreader bar.

Lateral Brace Preparation

Concrete to tile

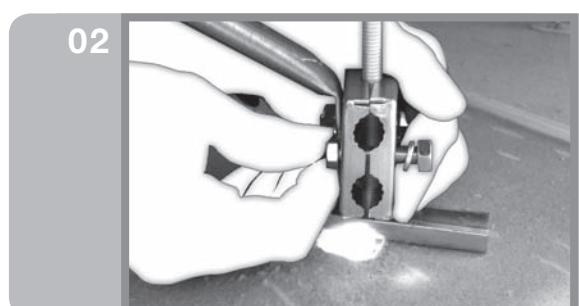
Lateral braces minimize bracket movements caused by patient handling and transfer. Optimal brace installation must be performed to avoid premature aging of installation and ensure safety. Lateral braces are required only with suspended tile ceilings or direct installations.

- Lateral braces must always be installed perpendicularly to track junction and every end of track.
- A lateral brace must always be perpendicular to straight rails.
- The lateral braces must be attached firmly to the structure and need to respect a 45° angle (from the threaded rod) for a better support.



01

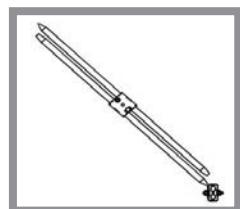
Loosen the center clamp of the lateral brace.



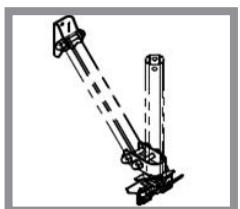
02

Attach the bottom clamp to the threaded rod.

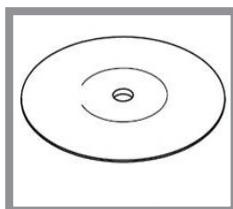
Material



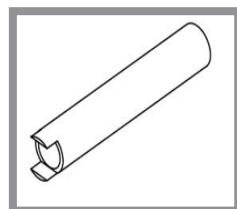
Adjustable
lateral brace



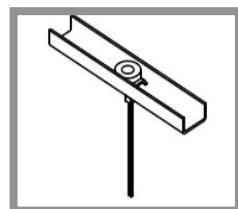
Visible
lateral brace



Ceiling plate



Tool for
pressure nut



Pressure nut

Guidelines

Producing a “sandwich effect” with ceiling plates or pressure nuts is **ALWAYS** required (refer to: “sandwich effect” preparation section).

Lateral brace for:

—Suspended tile ceilings:

- Apply the *sandwich effect*.
- Lateral bracing is strongly recommended if the distance between the structure and the subceiling exceeds 15 cm (6 in).

—Drywall ceilings:

- Apply the *sandwich effect*.
- Well applied, the pressure nut method provides sufficient stiffness for drywall ceilings with a concrete structure.
- When access is available, the *sandwich effect* with two ceiling plates is sufficient.

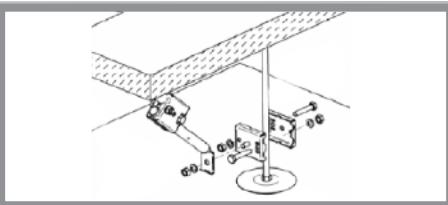
—Suspended rails below suspended ceiling:

- Visible laterals are required when the suspension is greater than 5 cm (6 in).

—Locations:

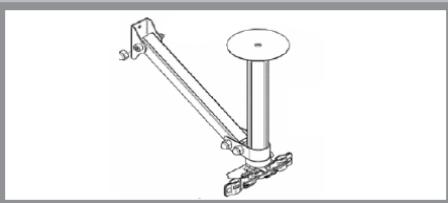
- Lateral braces on every end of track and joint (perpendicular), and at least one parallel brace in the track axis (it can be anywhere) per two sections of track.

01



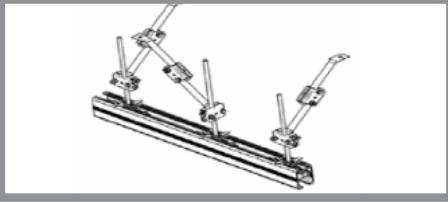
Adjustable lateral brace

02



Visible lateral brace

03



Lateral brace position

Bracket Installation

Levelling (find the lowest point, or Datum point)

The purpose of this step:

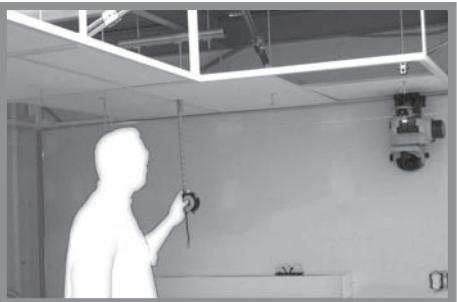
- Find the optimal levelling installation.
- Install the brackets to the proper height.

01



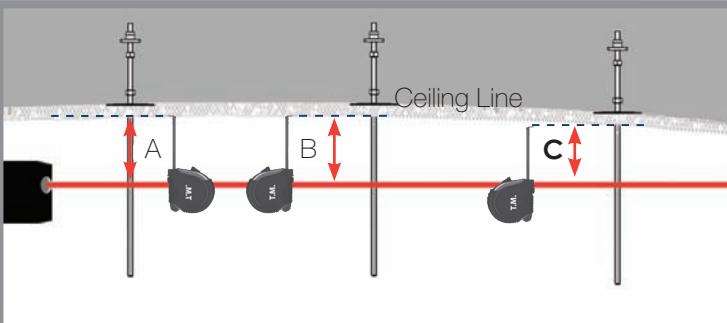
All threaded rods should exceed approximately 5 cm (6 in) from the suspended ceiling.

02



Using a self-levelling rotary laser line as reference, find the threaded rod where the lowest ceiling location of the layout is found.

03



Start with the lowest point (smallest measurement).

EXAMPLE OF MEASUREMENTS

Ceiling height at each bracket location compared to the reference laser line.

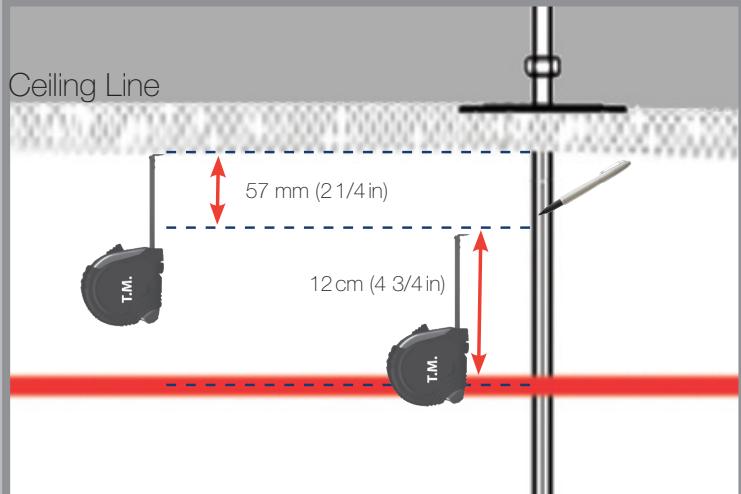
Example:

- Bracket A: 11.8 cm (4 5/8 in)
- Bracket B: 12 cm (4 3/4 in)
- Bracket C: 11.5 cm (4 1/2 in)

Levelling (levelling the threaded rods)

01

Ceiling Line

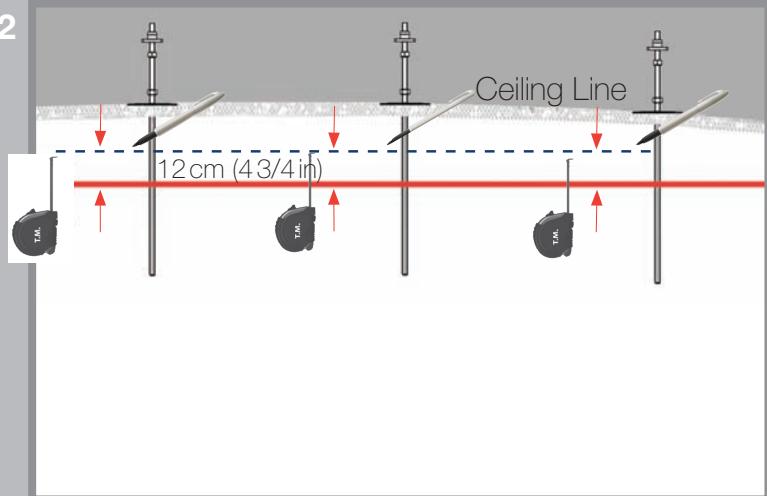


Locate the threaded rod with the lowest ceiling height. At that location measure downwards 57 mm (2 1/4 in) and mark your threaded rod.

The minimum threaded rod length required for a bracket is 57 mm (2 1/4 in) (ceiling plate, shim 12mm (1/2 in), bracket, washer, tabwasher and stover locknut).

02

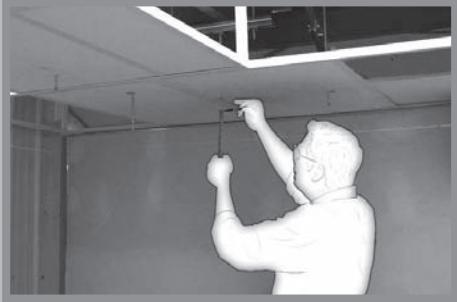
Ceiling Line



Once the first threaded rod has been marked, we now need to mark the remaining rod locations.

Hold the end of your measuring tape on the mark. Determine the measurement from your mark to the cross line laser level. Transcribe that measurement to all of the other threaded rods in the layout.

03



With all threaded rods marked and levelled, proceed to the next step, cutting the threaded rods.

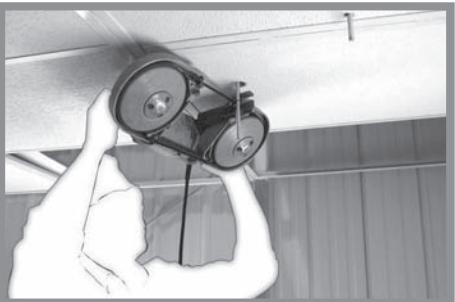
Cutting the threaded rods

01



Double-check the reference measurement and verify the height of each threaded rod.

02



Using the portable band saw and safety goggles...

03



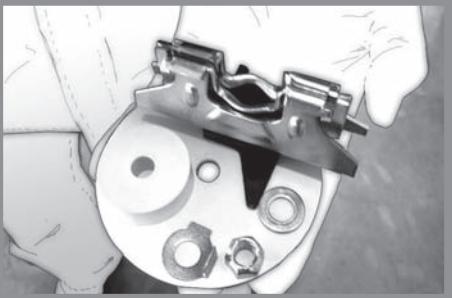
...cut the threaded rods to their determined marks.

Preparing the tabwashers

Note:

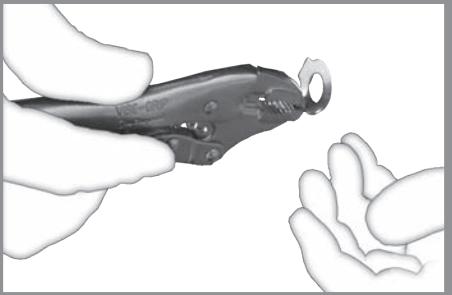
This procedure is identical for both standard brackets and joint brackets.

01



Prepare the tabwashers before assembling of the reference bracket.

02



Using a pair of pliers, bend the tab at 90°.

03



You are now ready to install the reference bracket.

Installing the reference bracket

01



When installing the KwikTrak directly to the ceiling—that is, with no suspension—57 mm (2 1/4 in) of threaded rod is needed to protrude out of the ceiling at the “lowest point”. The first part to install is the ceiling plate. The rounded side of the plate goes downwards for a nicer finish.

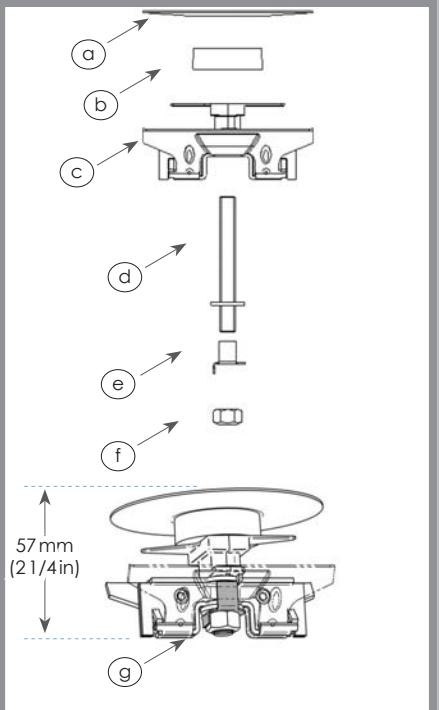
Install the 12 mm (1/2 in) shim, the empty side upwards.

02



Install the bracket, followed by the washer and the pre-bent tabwasher (the long tab of the tabwasher goes upward, between the middle core of the bracket and a side wing).

03



Install the stover nut and tighten it until the first thread of the rod surpasses the bottom of the stover nut.

The bracket should remain firmly snug but not overly tight. Using the rotary laser, take a reading of the height of the reference bracket.

Repeat that assembly for all other brackets. Adjust to the exact same height.

Later, use 1.5 mm (1/16 in), 3 mm (1/8 in) and 12 mm (1/2 in) shims to fill the difference in height.

Once all brackets have been installed, revalidate that they are level and at equal distance when measuring at the same location at each bracket area.

- a. ceiling plate
- b. 12mm shim
- c. KwikTrak bracket
- d. washer
- e. tabwasher
- f. stover nut
- g. plus 2-3 threads surpassing the stover nut

Bending/securing the tabwasher

Note:

This procedure is identical for both standard brackets and joint brackets.

01



Using a flat screwdriver or longnose pliers, bend the small tab of the tabwasher downward until it rests against one flat side of the stover nut.

02



Repeat step and make sure that the washer is on top of the tabwasher. The small tab will not reach the stover locknut if the washers are not at the proper position.

On this picture, washer and tabwasher are reversed.

03



Double-check the height of all remaining brackets. The maximum acceptable tolerance is 1 mm (1/16 in).

Installing under a drywall-dropped ceiling

01



Insert the pressure nut through hole in drywall. Make sure to keep the tie-wrap beneath the drywall.

02



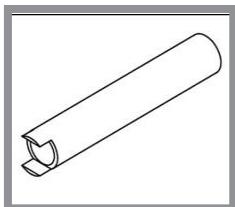
Take the end of threaded rod and insert it into the drill chuck.

03

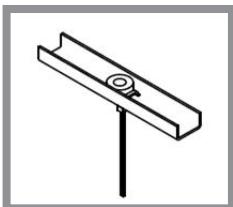


Once locked in, pull on the plastic tie-wrap to keep the pressure nut from moving.

Material



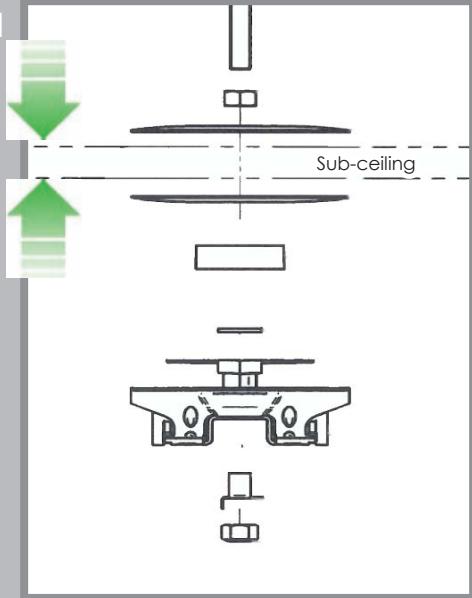
Tool for
pressure nut
(3/8-16 in and
M10)



Pressure nut
(3/8-16 in and
M10)

Preparing the sandwich effect

01



The purpose of this step:

- Attach the threaded rod to the anchoring system.
- Prepare the sandwich assembly.

The *sandwich effect* involves creating a permanent force of pressure that acts on the sub-ceiling through the use of two ceiling plates (one above and one below the sub-ceiling).

02



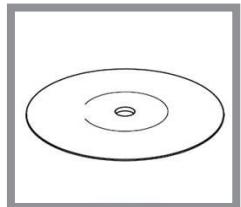
Direct installation

- Cut a piece of threaded rod to 18 cm (8 in).
- Tighten threaded rod into the anchor until you get to the end of the anchor. Turn an additional 1/4 turn to lock the threaded rod into the anchor.

Suspended installation

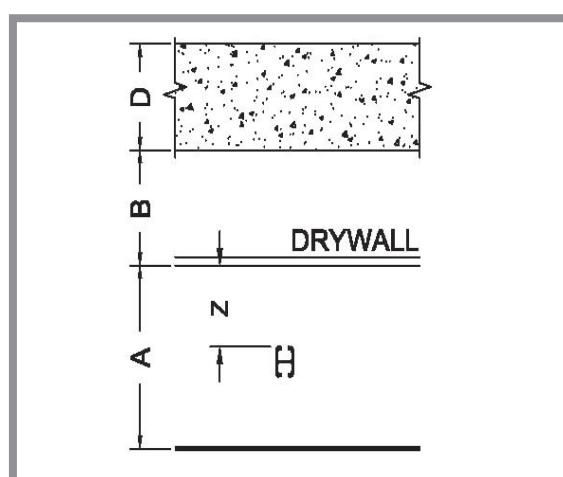
- Cut the threaded rod to the proper length (suspension distance [value Z on drawings] + 15 cm (6 in)).
- Turn this piece of threaded rod into the anchor until you get to the end of the anchor. Add a 1/4 turn to lock the threaded rod into the anchor.

Material



Ceiling plate

Diagram



Installing below a suspended ceiling

01



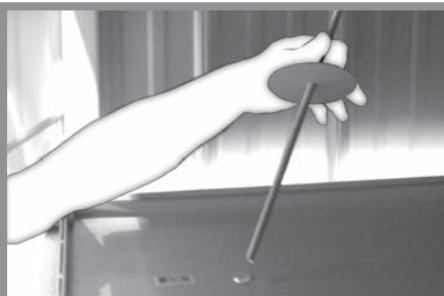
Direct installation:

Cut the threaded rod to the proper length (distance between structure and tiles (value B on plan) + 15 cm (6in).

Suspended installation:

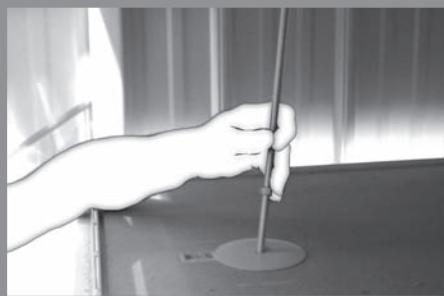
Cut the threaded rod to the proper length (distance between structure and tiles (value B on plan) + suspended distance (value Z on plan) + 15 cm (6in).

02



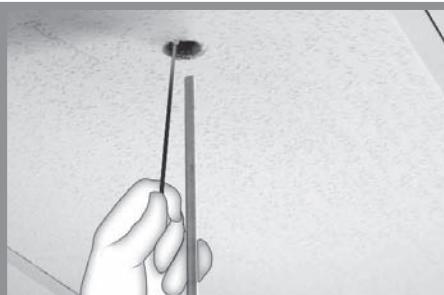
Put a ceiling plate and a nut at one extremity of the threaded rod. For the *sandwich effect*, the rod needs to protrude 15 cm (6in) below the suspended ceiling.

03



Tighten the threaded rod into the anchor until you get to the end of the anchor. Turn an additional 1/4 turn to lock the threaded rod into the anchor.

04



While holding the tie-wrap, insert the threaded rod into the pressure nut and turn the rod into pressure nut.

05



Use drill to insert the threaded rod into place, all the while holding the pressure nut tie-wrap to prevent it from moving.

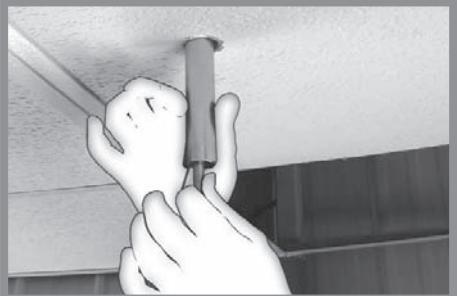
06



Once the threaded rod is all the way into the anchor, lock the threaded rod into the anchor using vise grip pliers and turning the rod an additional 1/4 turn.

Once the threaded rod is locked in the nut, turn clockwise to bring pressure nut tight against the drywall.

07



Use the pressure nut tool to rotate the pressure nut downward, until the *sandwich effect* is achieved.

08



When access is not possible, a pressure nut is used to achieve the *sandwich effect*. Another common application for the pressure nut is during "phase jobs".

09



Once this step is complete, cut off the unused part of the tie wrap from the pressure nut.

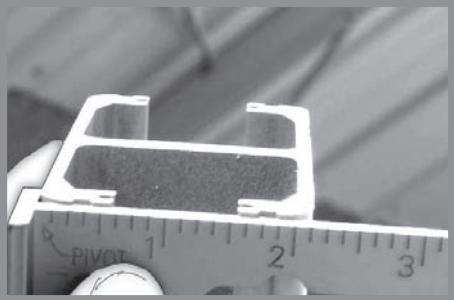
Track Installation

Checking the ends of track

The purpose of this step:

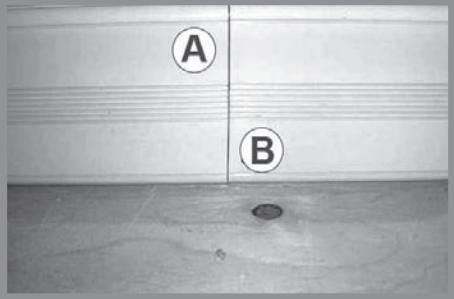
- Place the rails in the correct position.
- Get perfect track junctions.
- Secure the track brackets.

01



Verify if the ends of the tracks are squared and undamaged (e.g. bent, kinked or scratched).

02



If not exactly squared, try flipping some tracks upside down to match reverse angles.

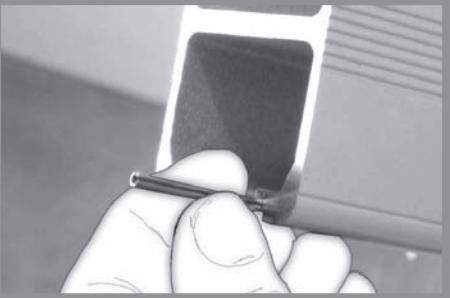
03



Or recut the track to get the ideal angle.

Installing the spring pins

01



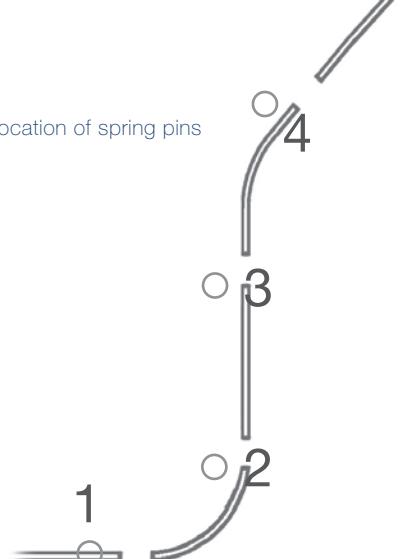
Install the spring pins on bottom grooves of the track. Make sure to align the slot of each spring pin so that it is facing sideways and outwards in relation to the track.

02



Using a hammer, fully insert spring pins into the grooves in the tracks.

Location of spring pins



Note:

A good practice when installing spring pins is to punch all the springs in the same direction. This will help keeping the joints closed.



If required, at the end of junctions, predrill the spring pins grooves (bottom of the track) with 3.3mm drill bits to remove any excess paint.

Clipping the tracks

01



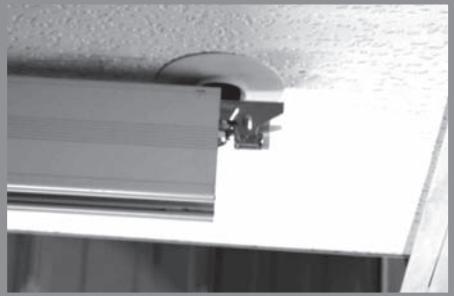
Align the brackets in the direction of the track.

02



Clip the track up into the brackets and shake it to ensure the brackets will fully open.

03



Align the tracks to get the end of the track exactly in the middle of the joint bracket.

Locking the brackets

01

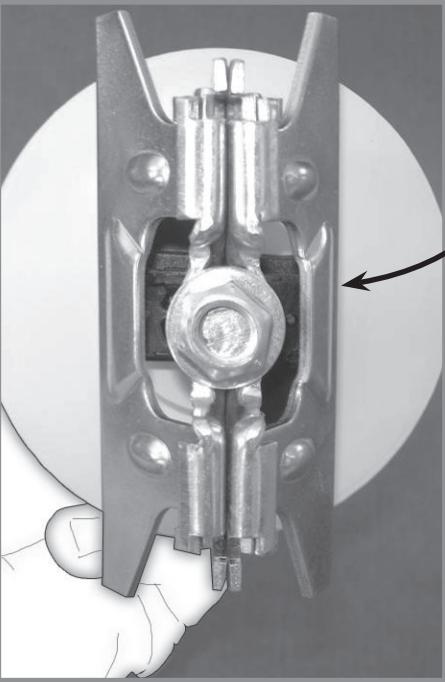


The lock-unlock tool is required to proceed with this next step. Use the smaller extremity of the tool to lock the bracket. Use the bigger extremity of the tool to unlock the bracket.

02



Insert the tool between the track and the black wings of the bracket below it. Turn clockwise when looking from under until black wings become aligned with the track. The bracket is locked.

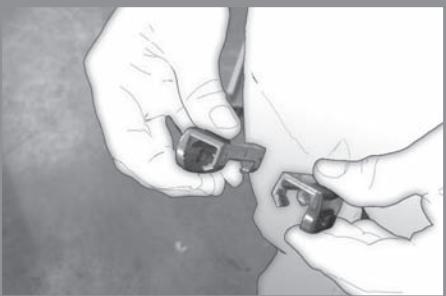


Locked bracket (black wings not visible)

Unlocked bracket (black wings are still visible)

Installing the block joints

01



Two KwikTrak block joints are necessary on each track joint. They are screwed to the block joints.

02



Carefully insert the cam joints on the upper part of the track, below the black cam of the bracket.

03



Use a hammer to push the block joints until they get halfway over the junctions of the two tracks.
Make sure you do not scratch the tracks.

Do not tighten the setscrews right away.



NOTE...

Q: Impossible to push the block joints.
A: Check if spring pins are in the way.

Q: Difficult to position the cam joints.
A1: Check if tracks are uneven at the joint.
A2: Check if there are missing spring pins.

Positioning the spring pins and block joints

01



Rotate the spring pin tool into the bottom grooves of the track.

02



Once the spring pin tool's dowel pin is in the lower grooves of the track, position the spring pin tool as horizontally as possible, without the tool handle touching the bottom of the track. Slide the tool until it makes contact with the two spring pins.

03



Using a hammer, hit the spring pin tool until the spring pins are inserted halfway into both tracks.
If the track junction is still open, readjust the spring pins on the other side of the bracket.

04



Once the spring pins are centered and the cam joints are closed, tighten the cam joint setscrews.

05



Clip the plastic caps, provided in joint bracket kit, over the cam joints.

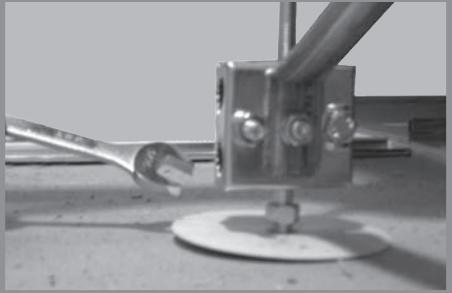
Final adjustments

Tightening the lateral braces

The purpose of this step:

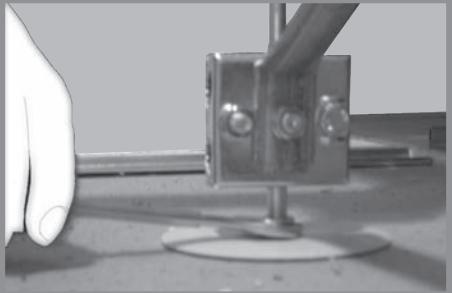
- Tightening the lateral bracing assembly for maximum (long lasting) stiffness.

01



Apply sandwich effect.

02



Align the straight parts of the tracks for smooth lines by adjusting the track junctions. You may need to push or pull at the junctions.

03



Tighten the middle clamp of the lateral braces.

Installing the end stopper

01



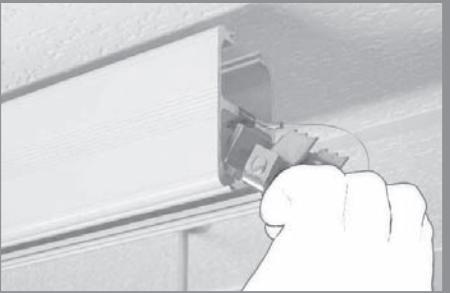
Use the clip to attach the end stopper to the middle part of the track.



NOTE...

The following 5 points are extremely important. Never forget to securely install the end stoppers.

02



Slide the end stopper into the bottom cavity of the track, until you get to the end of the wire (use black clip to secure wire). Make sure that:

- the end stopper bumper faces the middle of the track layout.
- The setscrews are facing downwards on the track.

03



Insert the plastic end cap.

04



Push back the end stopper until it touches the plastic end cap.

To do so, use an Allen Key or a screwdriver, and push on the spring-loaded mechanism accessible by a hole on the bottom of the end stopper. When the spring-loaded pivoting portion is pushed upwards, the end stopper can move laterally.

05



Verify if the self-locking mechanism is working properly by pushing the end stopper.

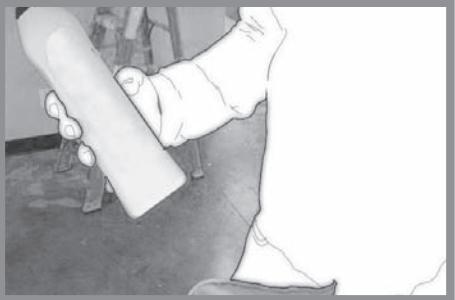
If the end stopper does not move, tighten the setscrew using a 6mm Allen key 20N·m (15lbf·ft).

Cleaning the installation

The purpose of this step:

- Remove debris from the track to avoid damage to the ceiling lift's wheels.
- Return the room to its original state.

01



Using a rag and a mild cream cleaning detergent, remove any small debris and dust from inside and outside the tracks.

02



Clean off any handprints on the tracks.

03



Use white touch up paint for scratches and scrapes on tracks.

Remove construction debris and dust caused by the installation work performed in the room.

Step 5: : Initial Weight Load Test

The purpose of this step:

- Make sure the structure and the hardware will be able to support the full capacity of the system. The 3-phases of the weight load test includes:
 - Phase 1—Initial run through.
 - Phase 2—Measuring the height unloaded.
 - Phase 3—Measuring the height loaded.

Generalities

01



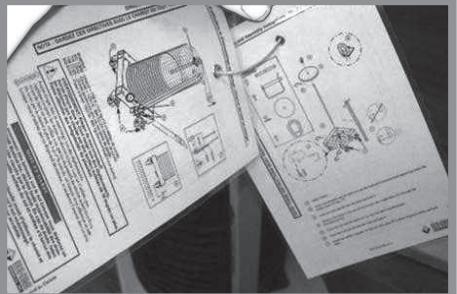
Use a safe weight load test trolley (WLT) and make sure it is going to be able to bear the weight load once it is suspended.



NOTE...

The weight to be applied must be equivalent to the maximum capacity of the track, multiplied by 1.25 or 1.5, according to local regulations.

02



Read instructions carefully.

03



Make sure the elevator and building are able to bear the weight.



NOTE...

Regulatory authorities requires archiving weight load test documents for future consultations. Fill out the Weight Load Test Form (001-11760)

Assembling the WLT trolley

01



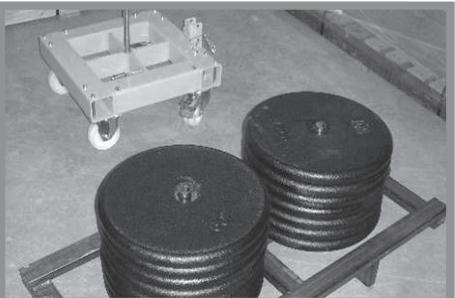
Unwrap the skid and put the trolley's base on the floor.

02



Install the threaded rod by removing the hook head attachment..

03



Transfer the weights onto the WLT trolley, replace and secure the hook head attachment using the pin provided with it.

04



Install the carrying arm using the provided pins.
The load test is ready to be performed.

Initial walk-through

01



Insert the portable trolley into the track to be tested.

02



Make sure there are end stoppers at every extremity of the track and make sure the autolocks are working properly by pushing outwardly on each one.

03



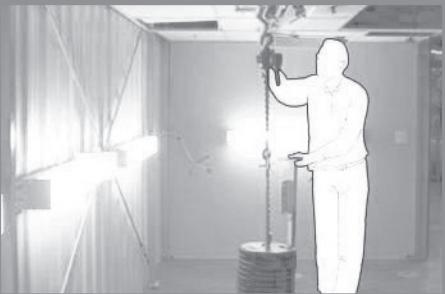
Hook on the weight load trolley. Check if all security parts of the trolley are in place and if the lifting pulley is securely hooked.

04



Lift the WLT trolley from the ground, no more than 50mm (2in) to make sure it does not touch the floor.
Never stand with your feet under the trolley during the test.

04



Slowly and carefully circulate the trolley within the track layout from one end to the other.

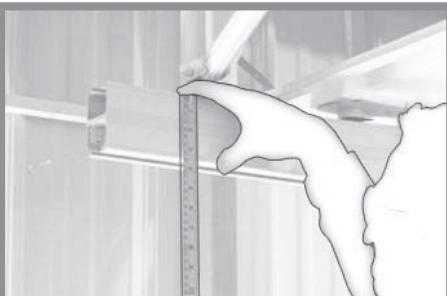
Taking measurements (unloaded tracks)

01



Install the rotating laser on a stable location that is 15cm (6in) - 30cm (12in) lower than the bottom of the tracks. Make sure the reference laser line is level.

02



Using a measuring tape, measure between the track and the laser line.

Always take the same reference point (either at the top or at the bottom of the laser line).

Be sure to use the same measuring tape throughout; different measuring tapes may have varying looseness in their tape end hooks.

03



With the above mentioned measurements, fill the corresponding columns into the weight load test document.

04



Repeat the process under each bracket prior to moving to next phase.

Taking measurements (loaded)

01



DO NOT MOVE YOUR LASER

Make sure you have completed phase 2 and that the laser is still at the same position.

Lift the WLT trolley from the floor maximum 50mm (2 in).

02



Take measurements of the height of the track while you pass under each bracket.

03



With the above mentioned measurements, fill in the corresponding columns in the weight load test document (001-11760).

Compare heights loaded and unloaded, calculate the difference (deflection) and complete the appropriate column of the form. Keep the completed form in order to archive it with the project file. Evidence of the initial test must be kept.

04



Fill out the weight load test sticker and apply it properly on the most visible side of the track, nearest to the transfer location.

Step 6: Ceiling lift and charger installation

Installing the ceiling lift and the charging station

01



Place the box on the floor and cut the tie wraps.

02



Open the box and carefully take everything out...

03



...finishing with the lift*

04



Remove the white end cap where the ceiling lift is going to be installed.

05



Loosen and remove the end stopper...

*The Maxi Sky 600 is being used as an example in these illustrations. Details and specifications from one ceiling lift to another will vary.

06



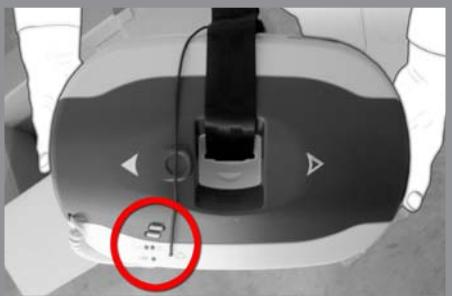
Slide the end stopper out and put it on the top of the track without unclipping it from the track.
This precaution will prevent you from forgetting to replace the end stopper later on.

07



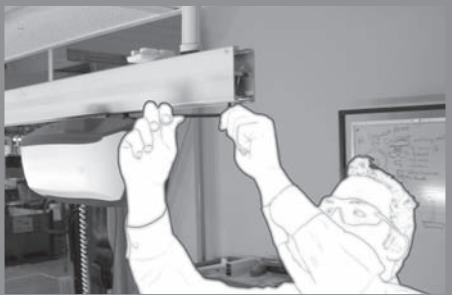
After removing the plastic packaging from around the ceiling lift, carefully insert the wheels in the lower cavity of the track.

08



Ideally, install the ceiling lift so that the LEDs on the underside of the lift will be visible to the care provider upon entering the room.

09



Replace the end stopper. Verify if the self-locking mechanism is working properly and tighten the setscrew using a 6 mm Allen key 20 N·m (15 lbf·ft).



NOTE...

This step is extremely important.

Never forget to correctly install the end stoppers.

10



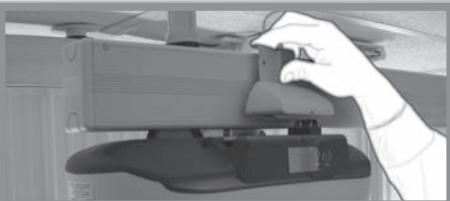
Reinstall the white cap.

11

Slide the ceiling lift until it reaches the end stopper, where the charger is going to be installed.

12

There are 3 electrical contacts on the charger. To ensure that the ceiling lift will be able to charge, the two charging contacts of the ceiling lift must be in contact with the two terminals indicated in the illustration.

13

Align charger station with ceiling lift contacts.

14

...clip the charger onto the track by:

- first hooking the bottom of the charger bracket onto the bottom of the track,
- then pushing the top of the charger bracket inwards to fully clip it in place.

15

Take this opportunity to remove the door sticker.



NOTE...

ArjoHuntleigh does not recommend having more than one ceiling lift on the same layout.

- The installation methods must respect the manufacturer recommendations
- The installation must respect the track span requirements;
- The installation must be done by a certified installer;
- The structure has been validated by the engineer mandated by the customer;
- The weight load test (125% or 150 % of the safe working load, depending on local codes) must be performed immediately after the installation has been completed by a certified installer/technician;
- A weight load test with the safe working load and a visual inspection must be conducted at least once a year by a certified installer/technician;

ArjoHuntleigh remains available at all times to support and guide you in any installation project.

16

Unpack the spreader bar and separate the split ring from the clevis pin.

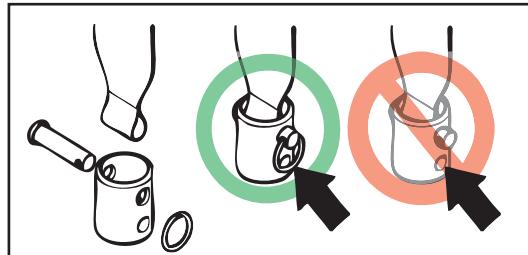
17

Insert the strap of the ceiling lift into the pivoting adaptor on the spreader bar.

18

Push the clevis pin into its hole, going through the loop of the strap.

Secure the installation by installing the split ring completely.

**19**

Turn the ceiling lift on by pulling on the red cord.

20

With the hand control, perform some basic tests (move forward/backward, up/down), and hook it on the spreader bar.

21

Fold the installation manual of the ceiling lift and squeeze it into one of the spreader bar hooks.

The ceiling lift installation is now completed.

Step 7: Inspection and commissioning

ARJOHUNTLEIGH GETINGE GROUP		REF#
		ROOM COMMISSIONING FORM
INSTALLATION SITE		Instal. name: _____ Country: _____ Address: _____ Room #: _____ Structure: _____ Other area #: <input type="checkbox"/> IT <input type="checkbox"/> FX GEA
TYPE OF LOAD TEST		Certified Load Test: <input checked="" type="checkbox"/> @ 125% or 150% of SWL <input type="checkbox"/> @ 100% of SWL (Lift & Track) Certified Load Test: <input type="checkbox"/> Deflection testing <input checked="" type="checkbox"/> Track inspection Certified Load Test: <input type="checkbox"/> Track inspection
@ DEFLECTION TESTING		<p><input checked="" type="checkbox"/> TRACK INSPECTION</p> <p>Yes No</p> <p>1. Track respects transfer zones <input type="checkbox"/> 2. Respect minimum sprinkler distances <input type="checkbox"/> 3. Installation avoids obstructions (signs, vents, curtains, ...) 4. Installation is secured by 10 mm diameter lift cables (10 mm or 12 mm) 5. Brackets are in locked position <input type="checkbox"/> 6. Alignment of the tracks respects straight portion, smooth lines <input type="checkbox"/> 7. Track junction showing gaps smaller than 1mm ($\leq 1\text{mm}$) <input type="checkbox"/> 8. End stopper is in place, attached, set screw tightened & adjusted <input type="checkbox"/> 9. Maximum rail camber is 12 inches <input type="checkbox"/> 10. Wall track is secured to wall <input type="checkbox"/> 11. Wall track is secured to ceiling, walls and signed <input type="checkbox"/> 12. Minimum damage to the ceiling, walls and tracks <input type="checkbox"/> 13. Transformer box properly installed, charging correctly <input type="checkbox"/> 14. Excess charger wires hidden in plastic conduit, clean installation <input type="checkbox"/> 15. Anchors/Hardware respects methods and specifications <input type="checkbox"/> 16. Anchors/Hardware respects methods and specifications <input type="checkbox"/> 17. Respect technical shop drawings for this particular structure <input type="checkbox"/> 18. Sandwich effect applied correctly, proper alignment of the tracks <input type="checkbox"/> 19. All parts of the installation are secured, tightness required <input type="checkbox"/> 20. All parts of the installation are locked, safely attached <input type="checkbox"/></p> <p>TEST SUMMARY</p> <p>SITUATION QUICK DRAFT</p> <p>21. Inspected track brackets <input type="checkbox"/> Yes No <input type="checkbox"/> 22. Tracks end stops secure <input type="checkbox"/> 23. Track height 2 mm max deviation <input type="checkbox"/> 24. Charger box properly installed in place <input type="checkbox"/> 25. Transfer zones <input type="checkbox"/> 26. Load test sticker applied <input type="checkbox"/> 27. If failed (no.) item(s) # <input type="checkbox"/> Weight of Load Test: <input type="checkbox"/> • Pass = All test points = Active deflection • Fail = One or more test points = Active deflection & confirmed Give INVEST CHECK</p>
<input checked="" type="checkbox"/> TEST PASS <input type="checkbox"/> Yes <input type="checkbox"/> No If failed (no.) item(s) # _____		<input checked="" type="checkbox"/> TEST PASS <input type="checkbox"/> Yes <input type="checkbox"/> No If failed (no.) item(s) # _____
Technician: _____ Date: _____ Signature: _____		

The purpose of this step is to:

- Identify loose/missing end stoppers, unlocked brackets...
- Use red tags for quarantine issues, as shown below.
- Identify problem with layout, incorrect transfer points, obstruction, missing lateral brace, deficient ceiling lift and charging stations.



Material

Ladder

- Camera
- Allen keys
- Measuring tape
- Flashlight
- Flat screwdriver (to open the access doors)
- Clipboard with drawings of the project
- Weight load test (if requested)



NOTE...

...all documents concerning inspections must be available for ArjoHuntleigh for a period of ten (10) years from the date of inspection.

Required documents

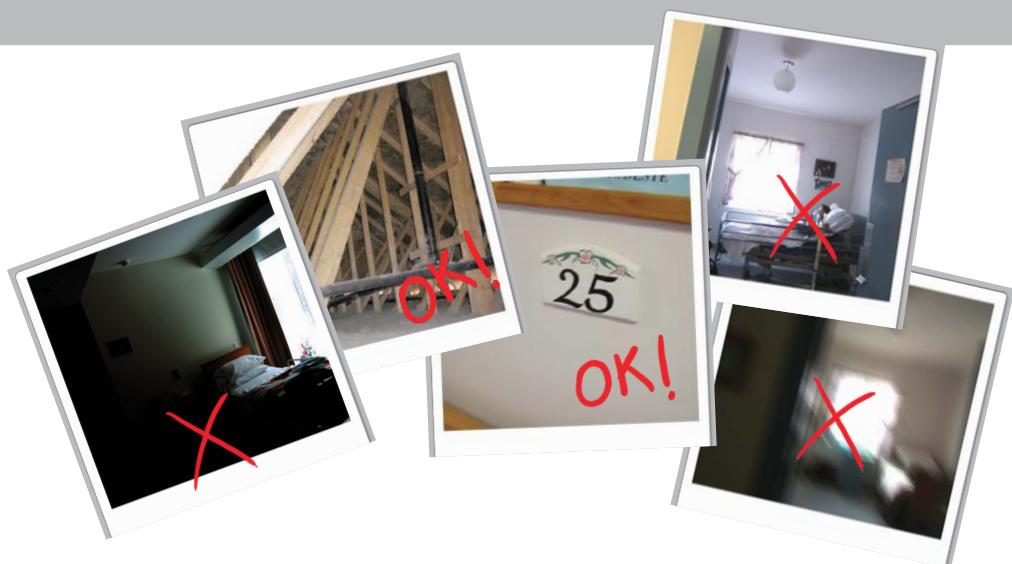
- Room Commissioning (001-11760 document, available from arjhuntleighbility.com.
- Drawings, authenticated and signed by the client.
- Red tags for quarantine issues, as shown below.



Taking pictures

Do not hesitate to take the most pictures you can while reading measurements.

- Avoid pictures that are blurred, too dark.
- For rooms, take picture of the room number before entering, but hide patients' names for privacy. Try to avoid taking pictures with patients in the shot.
- For pictures above and below the ceiling, try capturing the structure, anchoring methods, lateral braces, layout, transfers, charger, joints, etc.



ROOM COMMISSIONING FORM

INSTALLATION SITE		Installer name: _____	
Facility: _____		Company: _____	
Address: _____		Lift model: _____ No lift: <input type="checkbox"/>	
Room #: _____ Structure: _____		Serial number: _____	
		Sticker number: _____ BHM: <input type="checkbox"/> Arjo: <input type="checkbox"/>	
Other serial # <input type="checkbox"/> TT <input type="checkbox"/> EX <input type="checkbox"/> GA : _____			
TYPE OF LOAD TEST		Certified Load Test:	
Certified Load Test: <input type="checkbox"/> <input type="checkbox"/>		(A) @ 125% <input type="checkbox"/> or 150% <input type="checkbox"/> of SWL (B) Deflection testing (C) Track inspection	
		In accordance with: CSA Z323/ISO10535 CSA-B167-96 OHSR/WCB	
		Functional Load Test:	
		(A) @ 100% of SWL (Lift & Track) (C) Track inspection	

(A) DEFLECTION TESTING						(C) TRACK INSPECTION					
Bracket	X/Y	Wall Mount	Height Unloaded	Height Loaded	Deflection (add span when Wall/ceil or XY)	Yes	No	Yes	No	Yes	No
1	L1	Wall 1									
2	L2	Track 1									
3	L3	Wall 2									
4	L4	Wall 3									
5	L5	Track 2									
6	L6	Wall 4									
7	L7	Track 3									
8	L8										
9	L9										
10	L10										
11	L11										
12	L12										
13	R1										
14	R2										
15	R3										
16	R4										
17	R5										
18	R6										
19	R7										
20	R8										
21	R9										
22	R10										
23	R11										
24	R12										
25	Moving track 1										
26	Moving track 2										
27	Turn table										
28	Exchanger										
29	Gate										
30	Rev. Gate										

(A) TEST PASS Yes No
If failed (no), item(s) # : _____

(B) TEST PASS Yes No
If failed (no), item(s) # : _____

(C) TEST PASS Yes No
If failed (no), item(s) # : _____

Technician: _____ Date: _____

Signature: _____

Recommended Tools

Electric and hand tools

Electric tools and associated accessories:

- Portable band saw (pic. #1)
- HDI/HDIP setting tool (threaded or not) (pic. #2)
- HDI/HDIP 50cm (21 in) and 100cm (42 in) punch extension (pic. #2)
- Self-levelling plumb bob laser (pic. #3)
- Impact drill (SDS CHUCK) (pic. #4)
- Self-levelling rotating laser (pic. #5)
- Blades for band saw
- Mitre saw
- Non-ferrous blades for mitre saw
- Cordless drill
- 150mm x Ø13mm SDS (6in x Ø1/2) concrete drill bit
- 460mm x Ø13mm SDS (18in x Ø1/2) concrete drill bit
- 1m x Ø13mm SDS (42in x Ø1/2) concrete drill bit
- 150mm x Ø22mm concrete drill bit (6in x Ø7/8)
- Chemical applicator gun



1.

Portable band saw



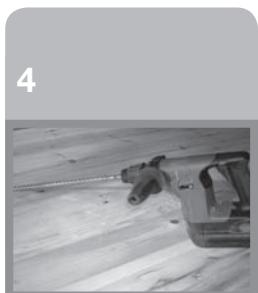
2

HDI setting tool and punch extensions



3

Self-levelling plumb bob laser



4

Impact drill with SDS chuck



5

Self-levelling rotating laser

Hand tools

- Metric and imperial measuring tape
- Hammer
- Vise grip
- Metric Allen key kit
- Electrical extension cord
- 3M mask and filters
- 3/8 in drive ratchet
- 9/16 in socket
- 10mm socket
- 13mm socket
- 3/8 in socket adaptor for drill
- 9/16 in open key
- 13mm open key
- 17mm open key
- Quick grip medium clamps
- Headlamp

- Cutter knife
- Wire cutter
- 3/8 in chuck adaptor for cordless drill
- 2m (6ft) ladder
- #2 screwdriver
- Phillips #2 screwdriver
- T20 torx screwdriver
- Square 30cm x 30cm (12 in x 12 in)
- Hole saw 102 mm (4 in)
- Hole saw 32 mm (1 1/4 in)
- Wood drill bit 6.5 mm x 300 mm (1/4 in x 12 in)
- 3.3 mm drill bit for spring pin
- Wood drill bit 3mm x 150mm (1/8 in x 6 in)
- Universal drill 8mm x 150mm (5/16 in x 6 in)
- Varybit 3.2 mm - 12.7 mm (1/16 in - 1 in)
- Masking tape

NOTE...

To ensure accuracy, tool calibration according to manufacturer requirements is recommended.



Safety

Both the patient and the technician safety is very important. That is why you must be adequately equipped. Here is a short reminder of important security elements:

Equipment recommended:

- Safety shoes.
- Safety goggles.
- Ear plugs.
- Air filtration mask.
- Negative air unit (when required).
- Tyvek suit.
- Danger sign to put on the doors of work areas.
- Construction hat.
- Harness.
- Ladder.
- ...and any other safety-related equipment.

Certifications:

- Must have proper training and certification by ArjoHuntleigh.
- Any other regulation applicable where the system is installed.

Successful Installation

To complete a successful installation, always keep in mind the following points:

- Anchors are installed properly and will support the targeted safe working load.
- The installation respects tested and approved procedures (follow the step sequence found in this guide).
- All material used meet equivalent specifications (size, gauge, quality, etc.) (comparing to typical methods).
- Track system is suitable to the structure.
- The installation focuses on low maintenance and durability.
- Lateral reinforcements are installed when required.
- *Sandwich effect* is always applied.
- Appearance
- The track is levelled without obvious junctions.
- Once the work is completed, the room and track system must be properly clean of dust and debris.
- Functional installation
- The layout respects transfer points identified on signed drawings.

General Installation Notes

1. General points

- 1.1. *Installation drawings and Installation recommendations were elaborated in compliance with the National Building Code of Canada.*
- 1.2. The materials and the quality of the work performed must comply with the *National Building Code of Canada*.
- 1.3. It is the responsibility of the engineer in charge of the building to ensure that the bearing capacity of the building structure is adequate to support additional charges related to the installation and use of the track system as well as the use of lag bolts in the structures of the construction will not contravene the rule of cross-section reduction in wood.
- 1.4. The nominal capacity of typical installations is shown in the drawing title blocs and corresponds to the following charge distribution depending on the capacity indicated in the drawing title blocs:
 - 454 kg (1000 lb) for the Live Load and 22 kg (48 lb) for the Dead Load as long as the note is 1.3 respected.
 - 272 kg (600 lb) for the Live Load and 14 kg (30 lb) for the Dead Load as long as the note is 1.3 respected.
 - 120 kg (265 lb) for the Live Load and 14 kg (30 lb) for the Dead Load as long as the note is 1.3 respected.
- 1.5. ArjoHuntleigh emphasizes that it is imperative that the track system is installed by trained and certified personnel by ArjoHuntleigh that comply with the current regulations.
- 1.6. If concerned or doubt the method of installation, please communicate with our technical service department at ArjoHuntleigh by phone at 1-819-868-0441.

2. Strut Profiles

- 2.1. Material used for Strut channels must comply with ASTM A653 GR 33.

3. Drop-in anchors and expansion anchors

- 3.1. All drop-in anchors and expansion anchors installations must be with ArjoHuntleigh approved hardware only.
- 3.2. Additional attention must be addressed between reinforcement distances and the edge distance.
- 3.3. If the information relative to the installation of the anchors shown on drawings provided by ArjoHuntleigh and the recommendations prove to be contradictory in comparison with the ones provided by another manufacturer, always contact ArjoHuntleigh before using any suspicious hardware.
- 3.4. The resistance calculations were performed by considering an installation in concrete of good quality with no crevices and with a resistance of 27.6 MPa (4000 psi) unless otherwise noted.
- 3.5. If the reinforcement bars are intercepted during drilling, stop drilling and relocate the position for the anchoring to a distance minimum of two (2) times the height of the anchoring. Advise the chief engineer of the building of all possible deterioration of reinforcement.

4. Chemical anchor

- 4.1. All recommendations for the use and installation of adhesive anchoring systems must be followed.
Additional attention must be addressed to the level of cleaning for anchoring holes and for the minimum cure time to respect.

5. Wood

- 5.1. The calculation of resistance is performed with help of regulation CAN/CSA-O86-01 – Engineering Design in Wood.
- 5.2. The installation is always performed in a dry environment, as defined within the regulation CA/CSA.086-01.
- 5.3. The wood has a percentage of humidity of 15% or less.
- 5.4. The duration of the charge is normal, as defined within the regulation CA/CSA.086-01.
- 5.5. The wood was not subjected to safeguarding treatment or fireproofing.
- 5.6. The calculations were considered with category SPF wood. (this grade has no influence on the fasteners).

Responsibilities

ArjoHuntleigh is responsible to establish and maintain adequate installations and inspection instructions, as well as appropriate testing procedures, so that devices will perform as intended after installation.

The certified technician installing tracks must ensure that the installation, inspection, and any required testing is performed in accordance with ArjoHuntleigh instructions and procedures. Files should be kept in accordance with ArjoHuntleigh regulatory agreement.

 WARNING: ArjoHuntleigh's responsibilities with regards to installation procedures are limited to the part assembly's capacity to support the tracks. The load capacity of any structure has to be assessed by an engineer under the responsibility of the client.

 WARNING: Any arrangements concerning new electrical outlets, consulting services for the structure, local specifications, building services, or any supplements to the installation must be coordinated and cared for financially by the client.

 WARNING: The manufacturer recommendation for load tests is to be performed by qualified personnel each year. Documents related to these tests must be archived for 10 years.

 WARNING: Our policy is one of continuous development, and we therefore reserve the right to make technical modifications without notice. The content of this publication may not be copied either whole or in part without the consent of ArjoHuntleigh.



NOTE...

This symbol  is used to alert the reader of potential risks or unsafe practices, which could result in serious injuries.

Metric Conversions and Equivalents

The metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988, establishes the SI (System International) metric system as the preferred system of measurement in the United States. Many products are currently manufactured and supplied in SI or "hard" metric sizes such as anchor bolts of 10mm, 12mm, etc. diameter. Where the inch-pound system is given or used, "soft" metric conversion can sometimes be used (but specifically not when selecting critical to only use the specified Imperial or Metric diameter bit). The soft conversion diameters for anchor bolts is given by Table 1. Standard metric conversion factors commonly used for fastening products are given in Tables 2 & 3.

Table 1: Diameters

Inch-Pound System Inch	Hard Metric Conversion mm	Use for Soft metric Conversion mm
1/4	6.35	6
5/16	7.94	8
3/8	9.52	10
1/2	12.70	12
5/8	15.88	16
3/4	19.05	20
1	25.40	25
1-1/4	31.75	32

Table 2: Imperial Units to SI Units

To Convert	Into	Multiply By
Length		
inch (in)	millimeter (mm)	25.4000
foot (ft)	meter (m)	0.3048
Area		
square inch (in ²)	square millimeter (mm ²)	645.1600
square inch (in ²)	square centimeter (cm ²)	6.4516
square foot (ft ²)	square meter (m ²)	0.0929
Volume		
cubic inch (in ³)	cubic centimeter (cm ³)	16.3871
cubic foot (ft ³)	cubic meter (m ³)	0.0283
gallon (US gal)	liter (L)	3.7854
Force		
pound force (lbf)	newton (N)	4.4482
pound force (lbf)	kilonewton (kN)	0.0044
Pressure		
pound/square inch (psi)	newton/square millimeter (N/mm ²)	0.0069
pound/square inch (psi)	mega pascal (MPa)	0.0069
KIP/square inch (ksi)	mega pascal (MPa)	6.8946
pound/square foot (psf)	newton/square meter (N/m ²)	47.8801
Torque or Bending Moment		
foot pound (ft·lb)	newton meter (N·m)	1.3558
inch pound (in·lb)	newton meter (N·m)	0.1130
Diaphragm Shear		
pounds/ lineal foot (plf)	newton/meter (N/m)	14.5939

Table 3: SI Units to Imperial Units

To Convert	Into	Multiply By
Length		
millimeter (mm)	inch (in)	0.0394
meter (m)	foot (ft)	3.2808
Area		
square millimeter (mm ²)	square inch (in ²)	0.0016
square centimeter (cm ²)	square inch (in ²)	0.1550
square meter (m ²)	square foot (ft ²)	10.7639
Volume		
cubic centimeter (cm ³)	cubic inch (in ³)	0.0610
cubic meter (m ³)	cubic foot (ft ³)	35.3147
liter (L)	gallon (US gal)	0.2642
Force		
newton (N)	pound force (lbf)	0.2248
kilonewton (kN)	pound force (lbf)	224.8089
Pressure		
newton/square millimeter (N/mm ²)	pound/square inch (psi)	145.0400
mega pascal (MPa)	pound/square inch (psi)	145.0400
mega pascal (MPa)	KIP/square inch (ksi)	0.1450
newton/square meter (N/m ²)	pounds/square foot (psf)	0.0209
Torque or Bending Moment		
newton meter (N·m)	foot pound (ft·lb)	0.7376
newton meter (N·m)	inch pound (in·lb)	8.8496
Diaphragm Shear		
newton/meter (N/m)	pounds/ lineal foot (plf)	0.0685

Notes



CONCRETE

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Structure Family: Concrete Beams

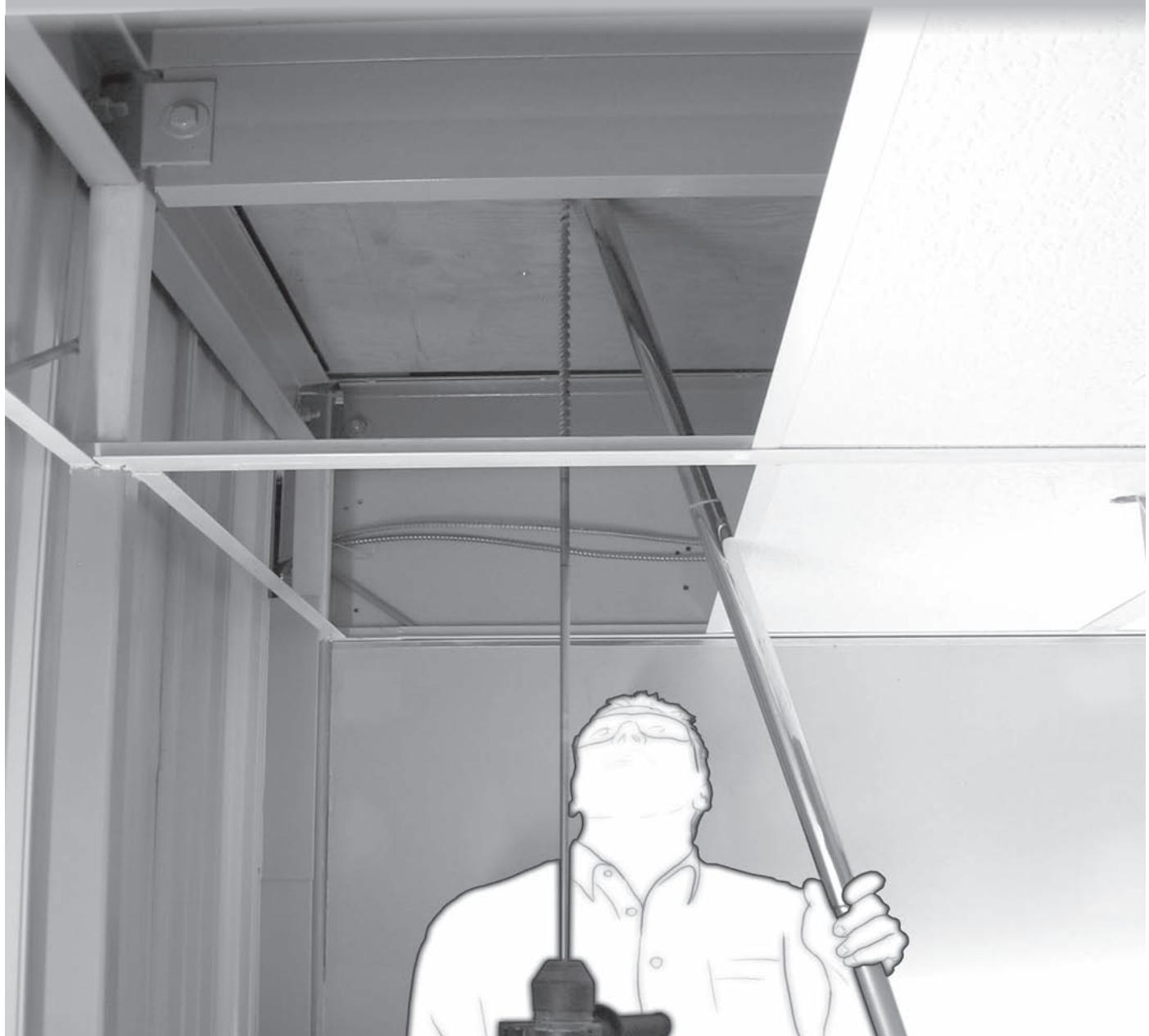
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Structure Family: Dense Concrete

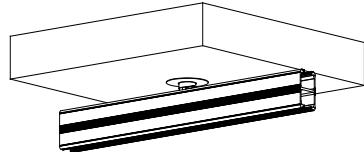
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure in supporting the load.
- Minimum requirement for concrete thickness: 78mm (3 1/8in) HDI (North America Only)
- Minimum requirement for concrete density: 27.6MPa (4000PSI) for anchor fixing HDI - HDI-L.
- Before installing, make sure concrete is in good condition.

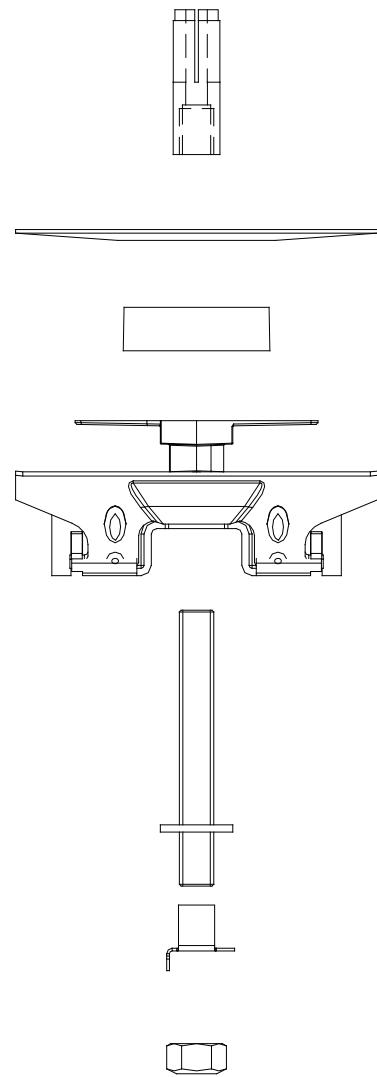


Detail: Direct Concrete

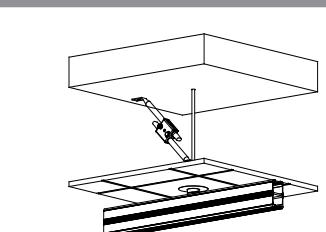


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 30110.01

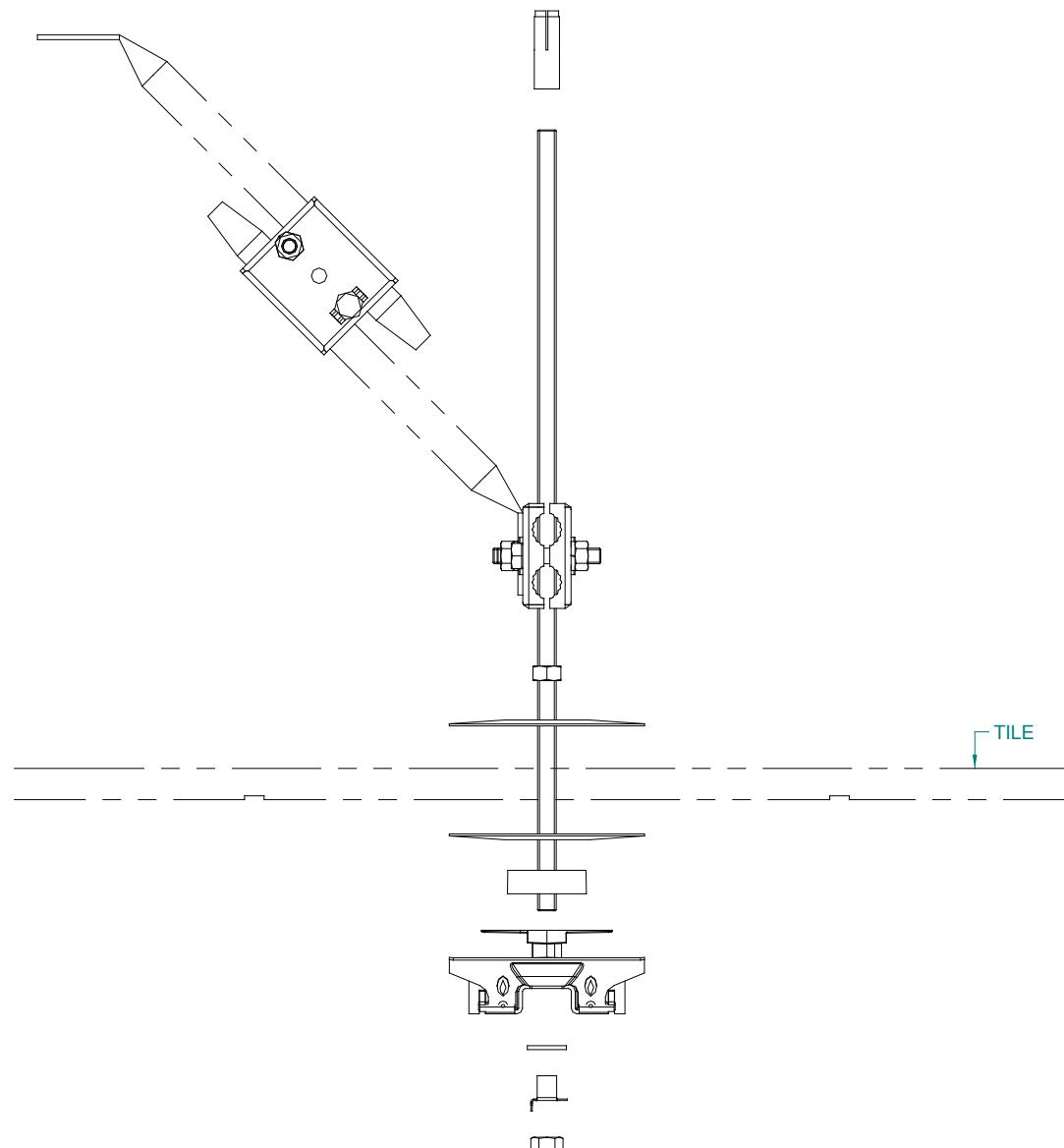


Detail: Concrete with Suspended Tiles

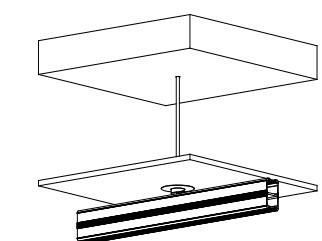


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 31210.01

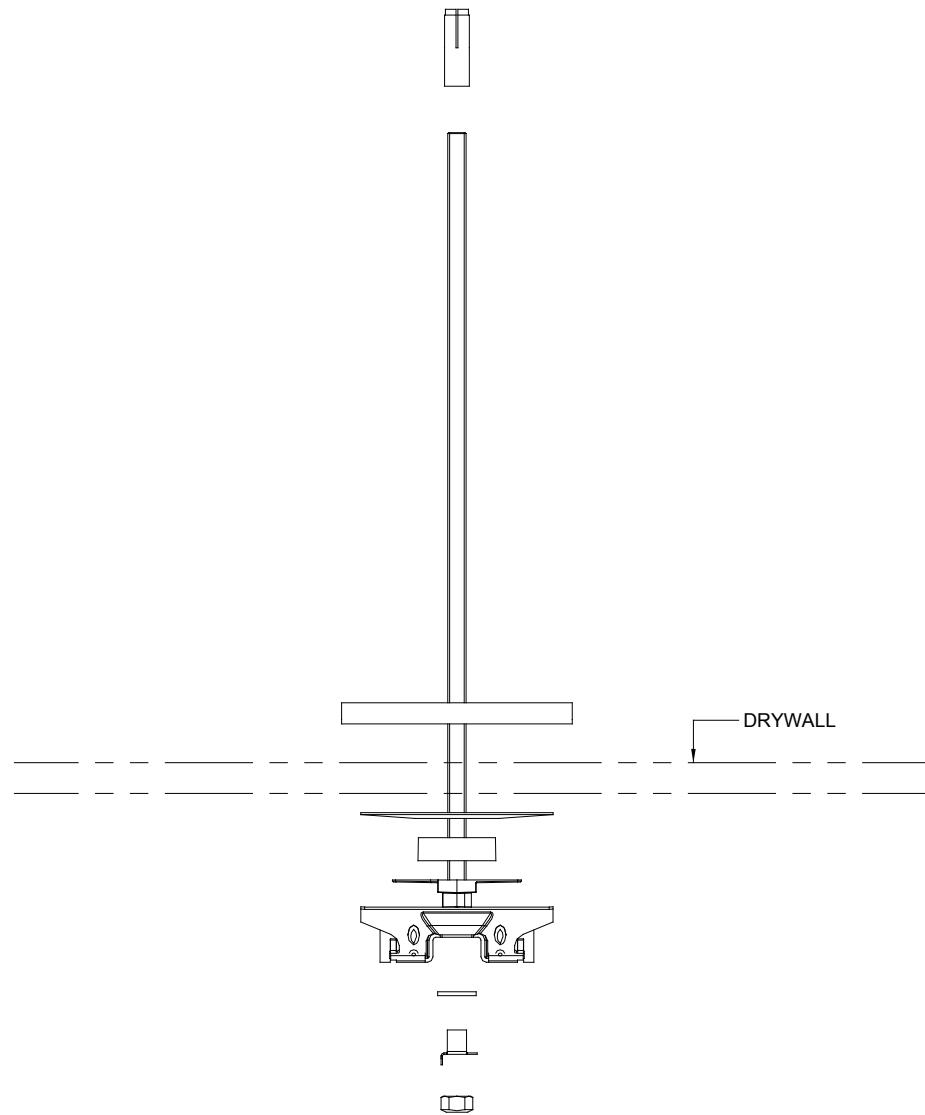


Detail: Concrete with Suspended Drywall



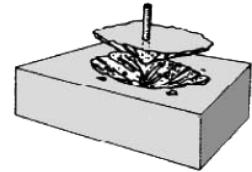
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 32210.01



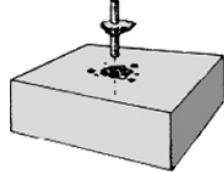
Risks from installations in concrete structures:

01



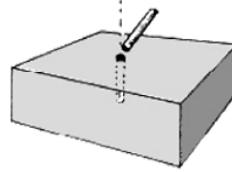
Concrete spall cone

02



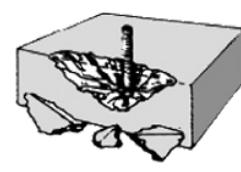
Bond failure

03



Steel breakage

04



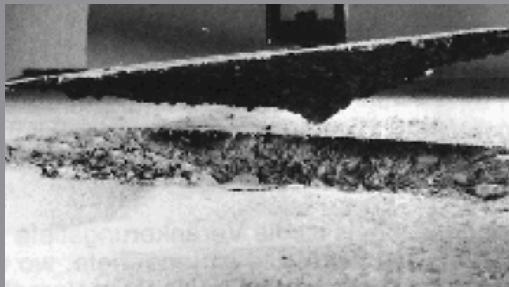
Edge breakout



NOTE...

Respect spaces and distances with the edges of concrete slabs.

Avoid anchors that exceed from concrete slabs.



Method: Direct Concrete

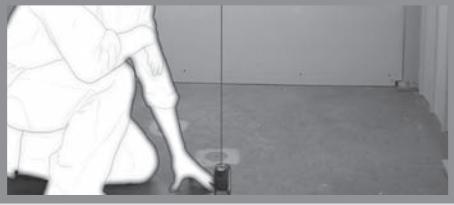
- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Mark ceiling bracket positions.

02



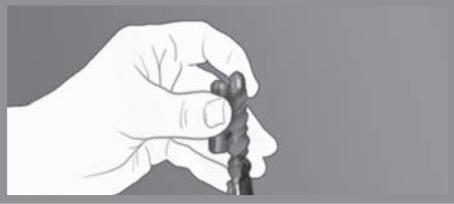
Place the plumb laser in the centre of marks on the floor...

03



...and transfer bracket positions onto ceiling with a black marker.

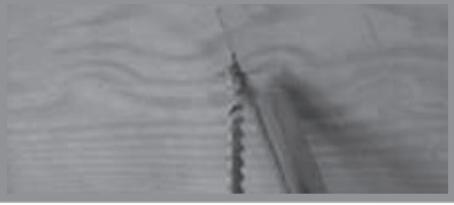
04



Once all brackets have been located on the ceiling, begin drilling procedures.

Measure the anchor's depth on the drill bit and mark it with a black marker. This mark will help you to know when the right measurement of depth has been reached.

05



Place the drill bit in the middle of your transferred mark and place a vacuum nozzle beside.

06



The vacuum is optional but will greatly reduce the dust particles in the room.

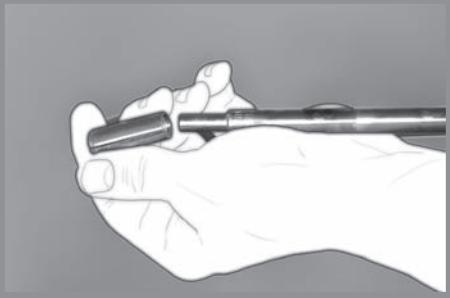
07



Start drilling until you have reached your anchor's predetermined depth.

Follow these steps for each anchor.

08



Using a setting tool, insert the anchor onto it.



NOTE...

There are two kinds of setting tools. In this case, use the one with the longest tip and with no square marking.

09



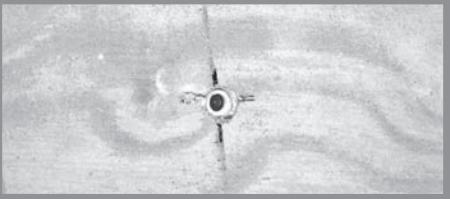
With setting tool, place anchor into drilled hole to a maximum of half length.

10



Remove setting tool from anchor and using the setting tool, push up on the exterior of the anchor to completely insert it into the hole. This will avoid pushing the anchor too far. Do not use the setting tool inside the anchor to push it all the way in. This may result in the anchor opening before reaching all the way in.

11



Once the anchor is flush to concrete, insert setting tool into the anchor and using a hammer, keep hitting the setting tool until there is a "bouncing effect".

Another way to know if you have punched correctly is by the sound the tool will make when the anchor is completely open.

Method: Concrete to Suspended Ceiling

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Measure the anchor's depth on the drill bit and mark it with a black marker.

02



Transfer the center of the hole in the tile onto the concrete using a sharpie pen.

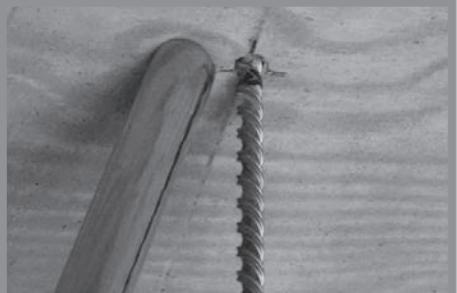
If the distance is too great, use the setting tool with a pen taped to it (e.g. with masking tape).

03



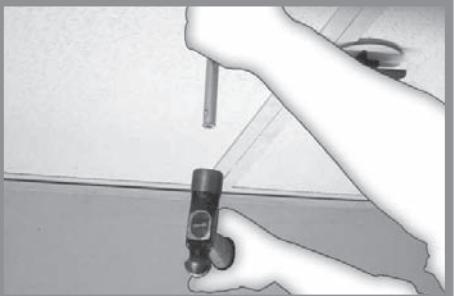
Before drilling, remove tile. If this is not possible due to sprinklers and/or other obstructions, drill through tile.

04



Continue drilling until depth mark has been reached.
When drilling, you can have a vacuum nozzle nearby to reduce the dust particles in the room.

05



Using a setting tool, insert the anchor into it.

i

NOTE...

There are two kinds of setting tools. In this case, use the one with the longest tip (and with no square marking).

06



With setting tool, place anchor into drilled hole to a maximum of half length.

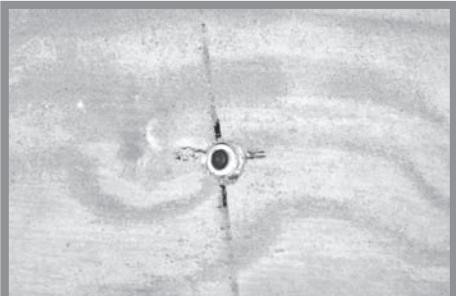
07



Remove setting tool from anchor and using the setting tool, push the anchor completely into the hole by using the exterior of the anchor to push on. This will avoid pushing the anchor too far.

Do not use the setting tool inside the anchor to push it all the way in. This may result in the anchor opening before reaching all the way in.

08



Once the anchor is flush to concrete, insert setting tool into the anchor and using a hammer, keep hitting on setting tool until there is a "bouncing effect".

Another way to know if you have punched correctly is by the sound the tool will make when the anchor is completely open.

Method: Concrete to Drywall

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Mark ceiling bracket positions.

02



Place the plumb laser in the centre of marks on the floor...

03



...and transfer bracket positions onto ceiling with a black marker.

04



With 32 mm (1 1/4 in) hollow punch on drill, drill out drywall in centre of predetermined mark.

05



Measure drilling depth onto drill bit using an anchor and a black marker.

05



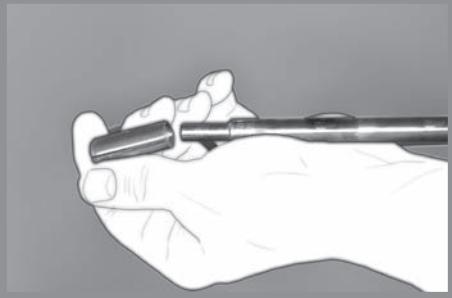
With drill bit of 50 to 100 cm (18 to 42 in)

07



...drill to desired depth and make sure the drill bit is perfectly vertical (preferably with a bubble level).

08



Insert anchor onto setting tool.



NOTE...

There are two kinds of setting tools. In this case, use the one with the longest tip (and with no square marking).

09



Using setting tool, push anchor into drilled hole, up to halfway point.

Remove setting tool.

10



Using the side of the anchor, push anchor until fully inserted in concrete. This will avoid pushing the anchor too far.

11



Once the anchor is flush to concrete, insert setting tool into the anchor and using a hammer, keep hitting the setting tool until there is a "bouncing effect".

Another way to know if you have punched correctly is by the sound the tool will make when the anchor is completely open.

Possible issues and recommended solutions

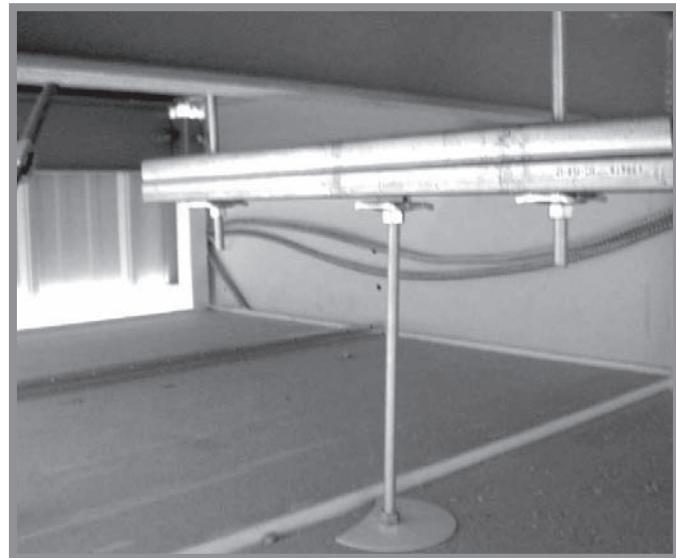
- Considering the possibility of having various elements (structural, HVAC, electrical, etc.) blocking the installation, here are some solutions:

VENTILATION, BEAM, etc:

- Bridging is required.
- Drop a threaded rod on each side of the obstruction.
- Install a "C" strut, respecting required distances according to the manufacturer.
- All installation components must be tightened and locked.

STEEL REINFORCEMENT, ELECTRICAL CONDUIT, AND SMALL OBSTRUCTIONS:

- Bridging is required.
- Drop a threaded rod on a minimum distance of 15 cm (6in) on each side of the obstruction.
- Install a "C" strut, respecting required distances according to the manufacturer.
- All installation components must be tightened and locked.



NOTE...

...when bridging is visible, all noticeable parts should be painted white and end caps should be used for better appearance.

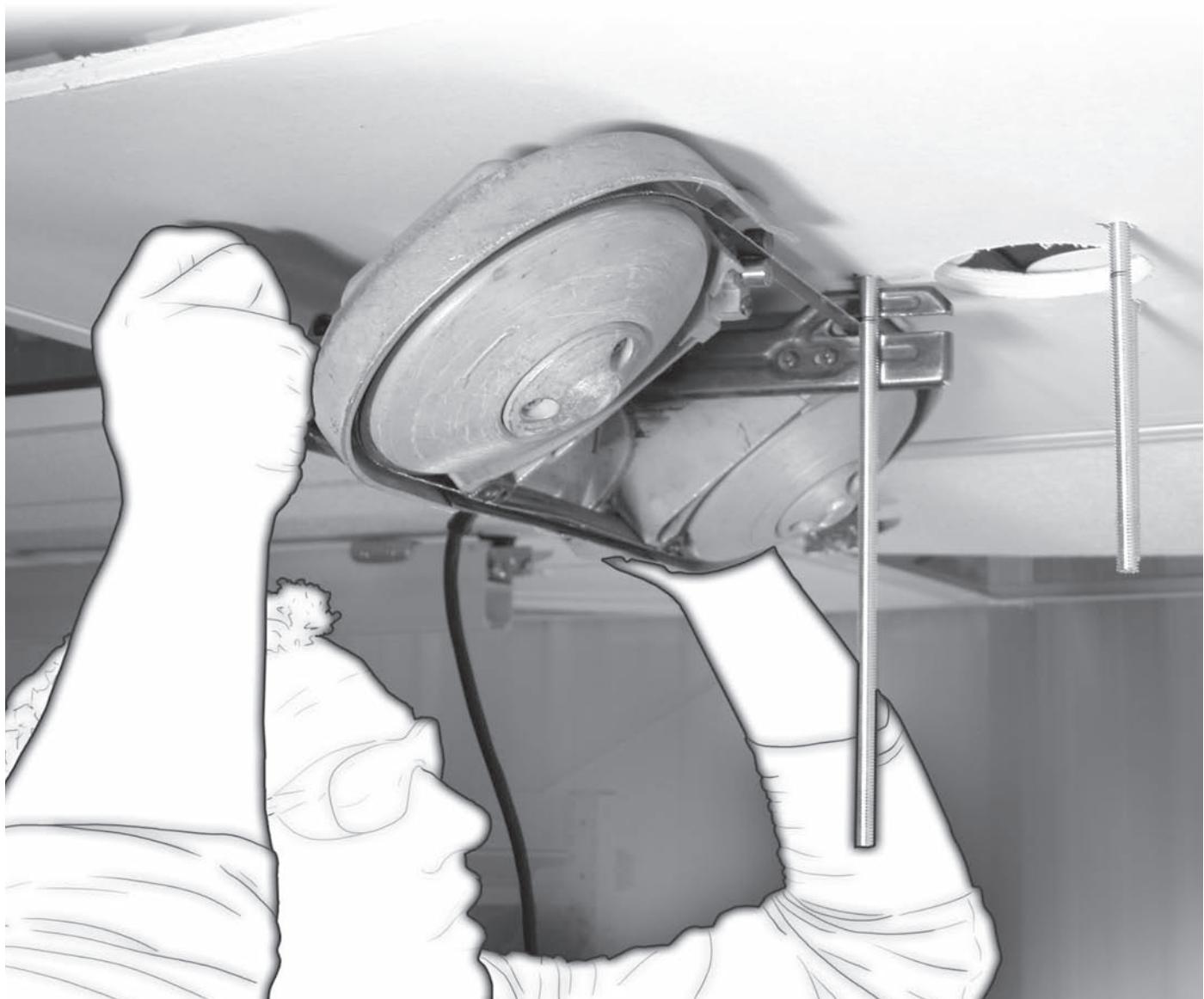
Notes

Structure Family: Hollowcore

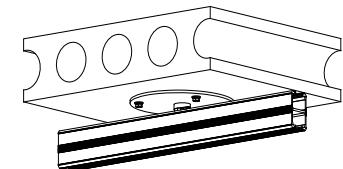
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure to support the load.
- Follow manufacturer's instructions for anchor installation.
- Minimum requirement for concrete thickness: 79 mm (3 1/8 in)
- Minimum requirement for concrete density: 27.58 MPa (4000 psi) for anchor fixing.
- Before installing, make sure concrete is in good condition.

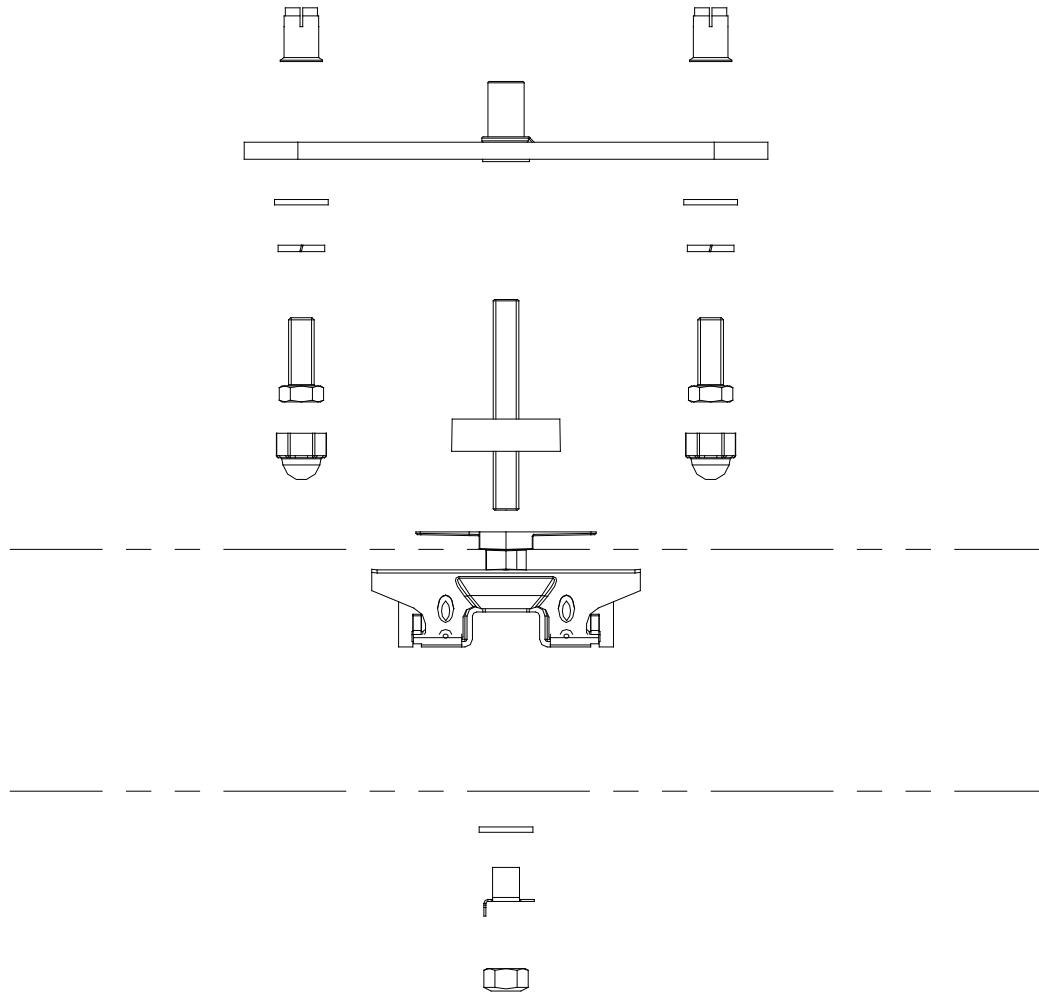


Detail: Direct Hollowcore

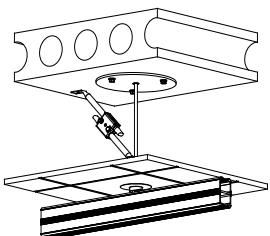


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 30110.02

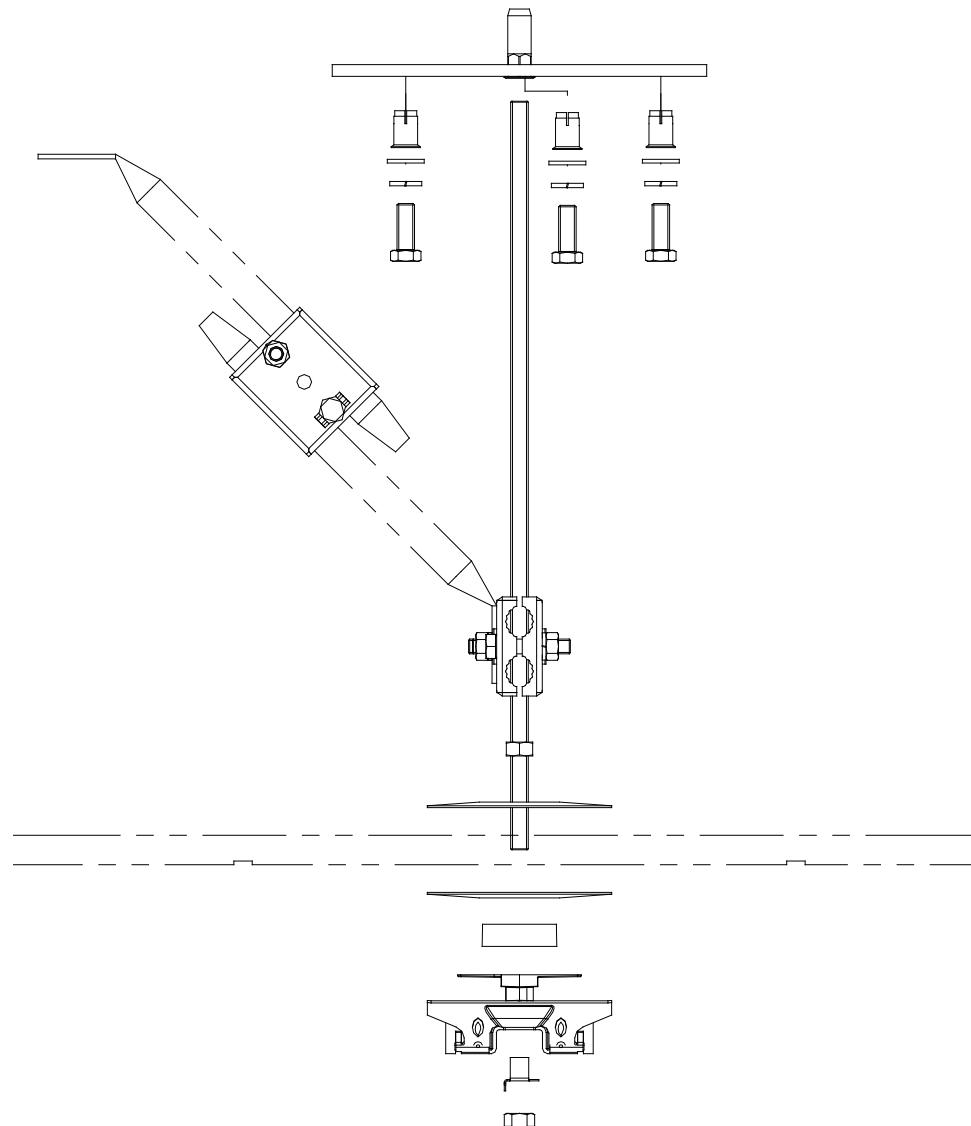


Detail: Suspended Tiles under hollowcore

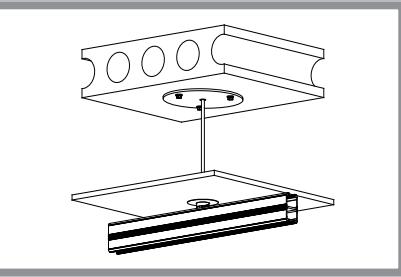


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 31210.02

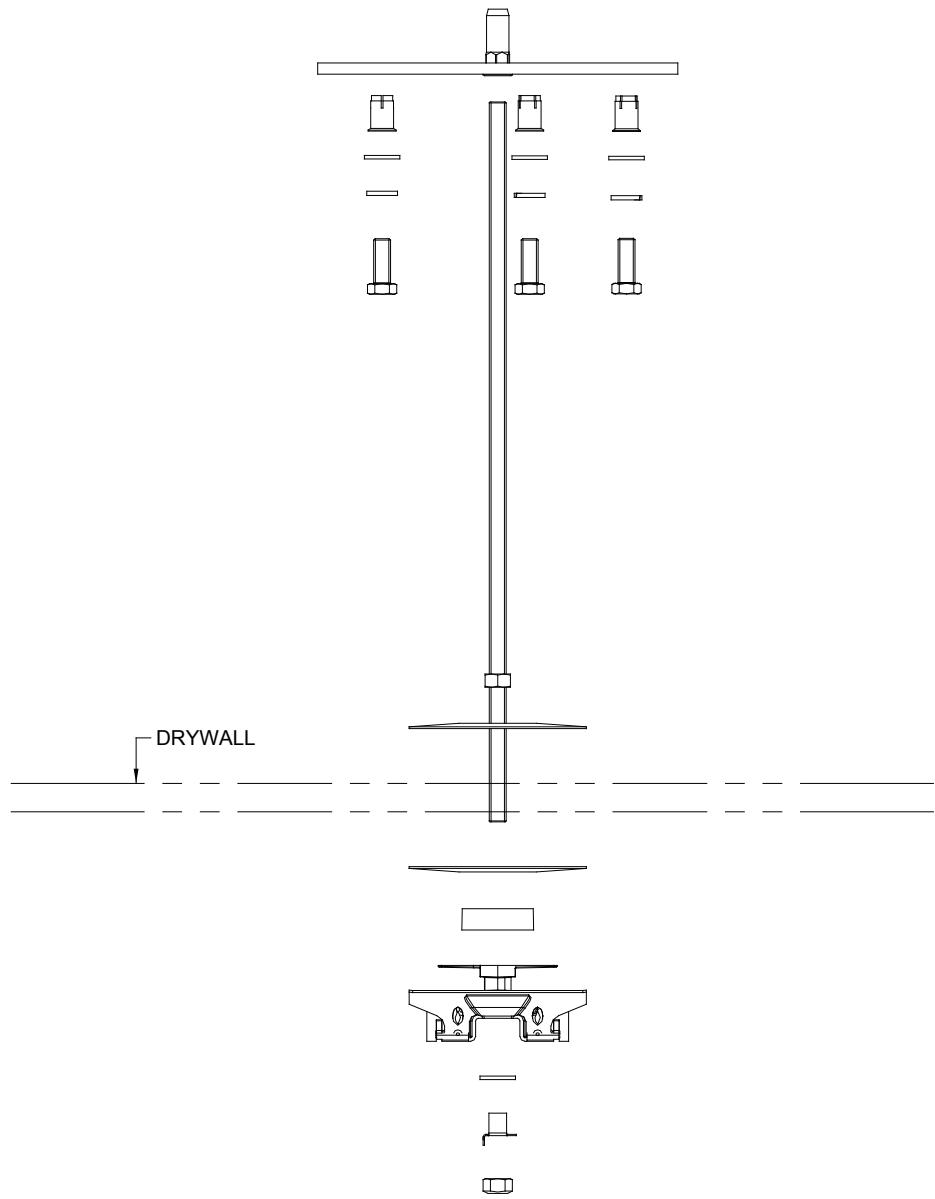


Detail: suspended Drywall under hollowcore



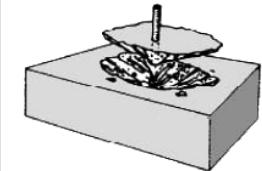
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 32210.02



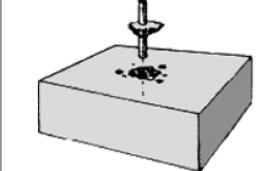
Risks from installations in concrete structures:

01



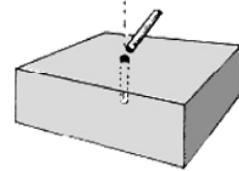
Concrete spall cone

02



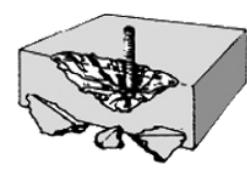
Bond failure

03



Steel breakage

04



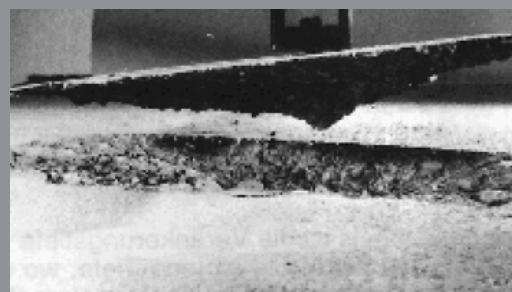
Edge breakout



NOTE...

Respect spaces and distances with the edges of concrete slabs.

Avoid anchors that exceed from concrete slabs.



Method: Direct hollowcore slabs with dropped ceiling

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.
- If concrete is really porous or if thickness at the bottom of cores is inferior to 28 mm (1 1/8 in), use a chemical anchor. For more information, refer to the end of this procedure.

01



Mark the centre spot of the bracket...

02



...this centre spot corresponds to the PEM nut on the hollow core plate...

03



Drill slab.

See manufacturer recommendations for choosing the right drill bit. The minimum requirement is that it must fit with the PEM nut.

04



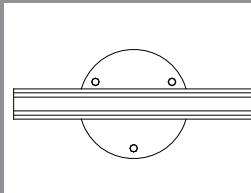
Position the hollowcore plate.



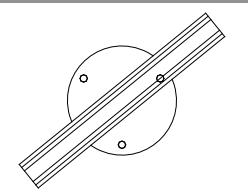
MAKE SURE...

...the track will not come into conflict with the bolts. In that case, you will have to reconfigure the plate or put bracket shims.

✓ Correct



✗ Incorrect

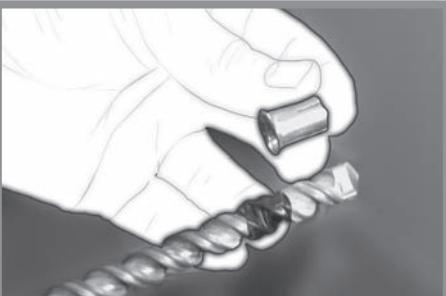


05



Mark positions.

06



With masking tape or a black marker, mark the correct depth for the anchors on your drill bit.

07



Drill each anchor position to the required depth.

08



Insert the anchors into the holes.

09



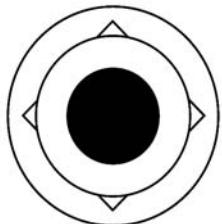
Fix anchors with a setting tool.



NOTE...

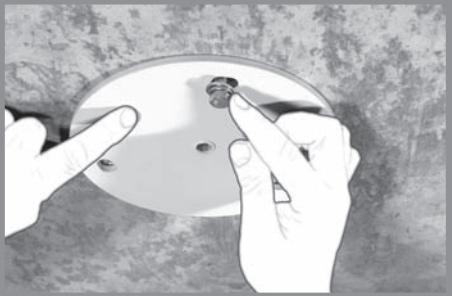
There are two kinds of setting tools. In this case, use the one with the shortest tip.

10



Make sure there is a mark left by the setting tool on the edge of the sleeve. This mark signifies that the anchor has been well installed.

11



Install the plate and required hardware...

12



...and securely fix the plate to the anchors.

i

NOTE...

...the recommended torque is 14.9 N·m (11 lbf·ft).

13



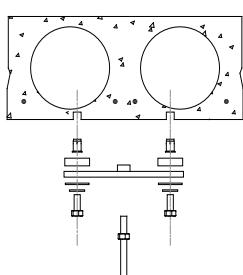
Insert threaded rod into PEM nut.

i

NOTE...

...it is highly recommended that a strong glue (e.g. Loctite 262 or equivalent) be applied to the anchor.

14



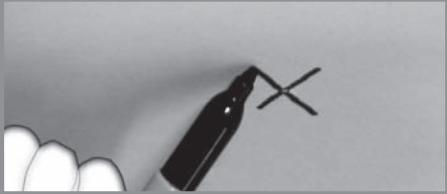
Only for a suspended installation:

Add a nut onto the threaded rod.

Method: hollowcore slabs with drywall dropped ceiling

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Mark the center point on the drywall ceiling.

02



Leaving the plate on the floor, mark anchor points on the ceiling.

03



Using a hole saw with a 100mm (4 in) diameter, drill in the middle for an easier access above the drywall plate and slab.

04



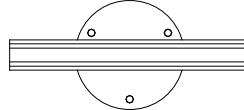
With the appropriate drill bit, drill three anchor points.



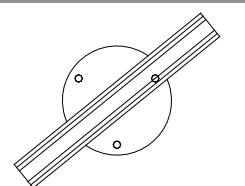
MAKE SURE...

...the track will not come into conflict with the bolts. In that case, you will have to reconfigure the plate or put bracket shims.

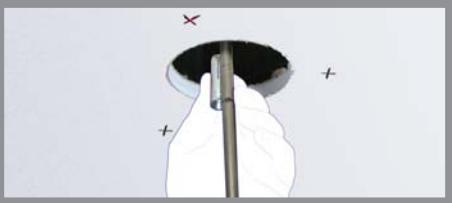
✓ Correct



✗ Incorrect



05



Measure the drilling depth using a black marker and an anchor.

06



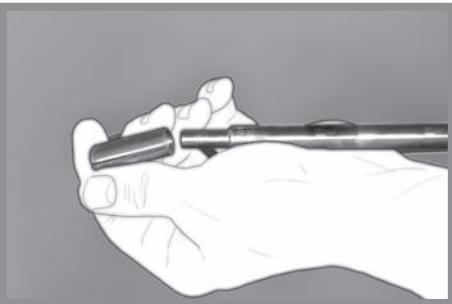
With a level, position the drill bit perfectly to the vertical.

07



Then, with a drill bit length of 50 to 100 cm (18 to 42 in), drill the slab according to the determined depth.

08



Insert anchor onto setting tool.



NOTE...

There are two kinds of setting tools. In this case, use the one with the shortest tip.

09



Using a setting tool, push anchor into drilled hole to a maximum of half length.

Remove the setting tool.

10

Using the side of the anchor, push it all the way into the concrete.

11

Once the anchor is flush to concrete, insert setting tool into the anchor and using a hammer, keep hitting on setting tool until there is a "bouncing effect".

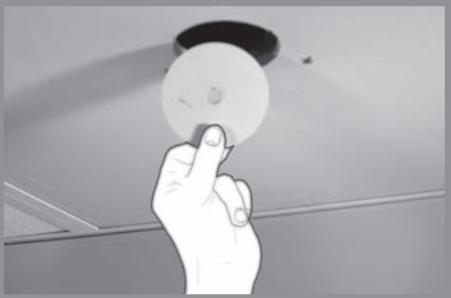
Another way to know if you have punched correctly is by the sound the tool will make when the anchor is completely open.

12

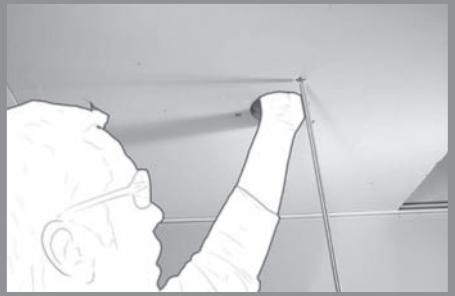
Measure the threaded rods to the proper length distance between ceiling and slab + 15 cm (6in).

13

Cut the threaded rods to the proper lengths.

14

Insert a ceiling plate through the principal hole made in the drywall.

15

Then, through the first of the three "attachment holes", insert the first threaded rod. Make it pass by the hole in ceiling plate.

16

...and add a nut.

17

Place the threaded rod in the drill mandrel and screw the threaded rod into the nut.

18

Fix the threaded rod in the first anchor installed in concrete.

19

To produce the *sandwich effect*, tighten nut until it makes a slight pressure on ceiling.

Repeat process for the three anchors.

20



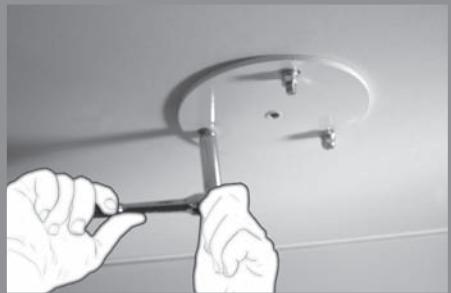
Measure length of rods beneath drywall dropped ceiling, and mark a 22mm (7/8 in) length.

21



Cut rods using the portable band saw.

22



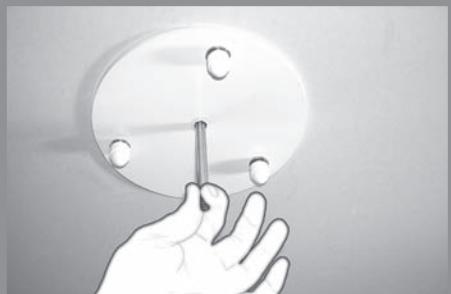
Install the plate and attach hardware.

23



Install plastic caps.

24



Install a threaded rod of about 15 cm (6 in) and tighten with a pair of pliers.



NOTE...

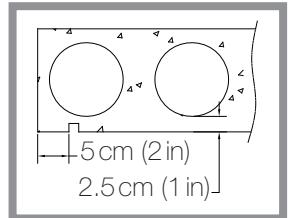
...It is recommended that a strong glue (e.g. Loctite 262 or equivalent) be applied on the anchors

Method: chemical anchor installation

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

Chemical anchors are required only in exceptional situations:

- when concrete is very porous.
- when thickness of concrete at the bottom of cores is inferior to 28 mm (1 1/8 in).
- when an anchor is located at less than 50 mm (2 in) from the edge of a slab.



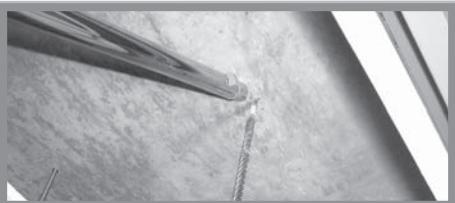
01



Mark the anchor's location.

If possible, drill in one of a core axis.

02



Using the appropriate drill bit

03



...drill a hole.

04



Cut the tip of the threaded rod that is to be inserted into the anchor at 45° angle...

05



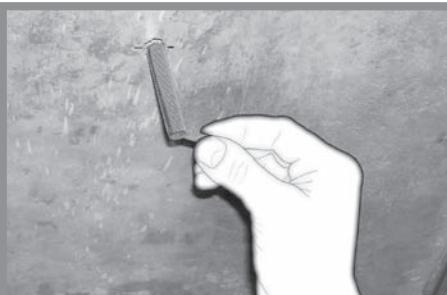
...this will keep the threaded rod from moving in the anchor.

06



Make sure to use the chemical mixture that has reacted correctly by laying out a bead of mixture of about 15 cm (6 in). That bead should not be used.

07



Insert screen tube into hole.

08



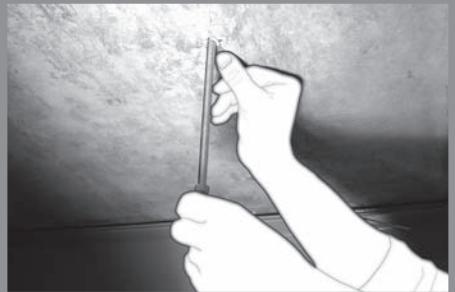
Following the manufacturer's recommendations, inject adhesive into screen tube.

09



A mass of adhesive will be created inside the core.

10



Insert the rod delicately into screen tube. Take care to not move the rod.

11



To maintain the rod in position, use masking tape.

It takes 4 to 6 minutes for the chemical mixture to congeal.

12



Remove masking tape and add the appropriate hardware.

Possible issues and recommended solutions

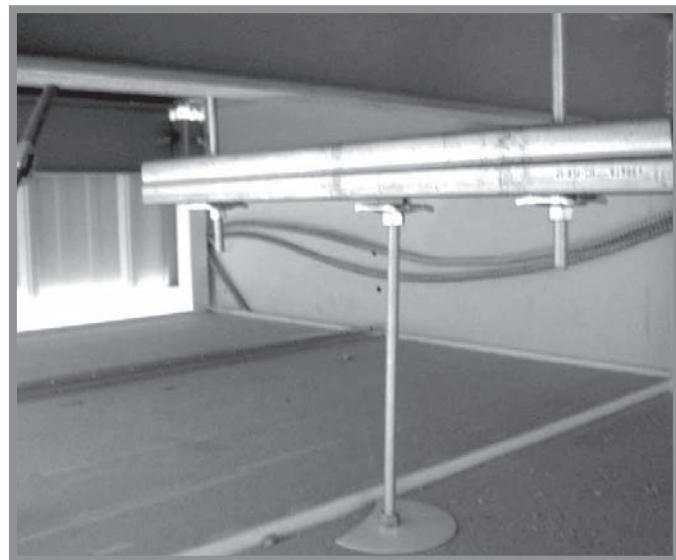
- Considering the possibility of having various elements (structural, HVAC, electrical, etc.) blocking the installation, here are some solutions:

VENTILATION, BEAM, etc.:

- Bridging is required.
- Drop a threaded rod on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.

STEEL REINFORCEMENT, ELECTRICAL CONDUIT, AND SMALL OBSTRUCTIONS:

- Bridging is required.
- Drop a threaded rod on a minimum distance of 15 cm (6in) on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.



NOTE...

...when bridging is visible, all noticeable parts must be painted white and end caps must be used.

Notes

Structure Family: Concrete Beams

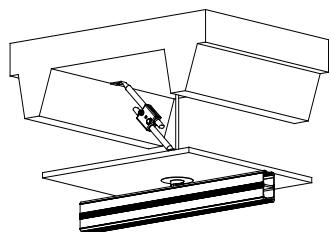
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.
- Follow manufacturer's instructions for anchor installation.
- Minimum requirement for concrete thickness: 79 mm (3 1/8 in)
- Minimum requirement for concrete density: 27.6 MPa (4000 psi) for anchor fixing.
- Before installing, make sure concrete is in good condition.

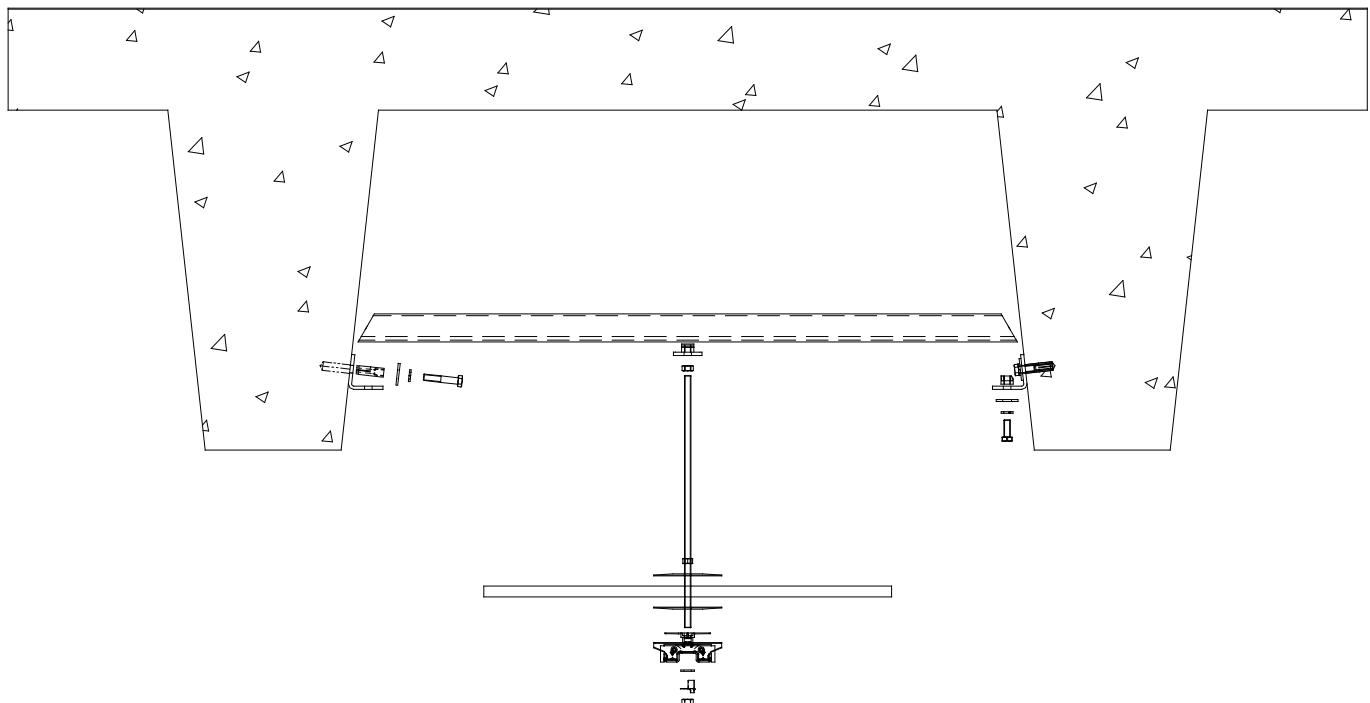


Detail: concrete beams with strut channel

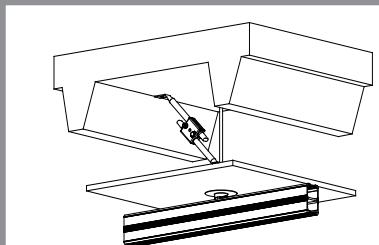


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 32210.10

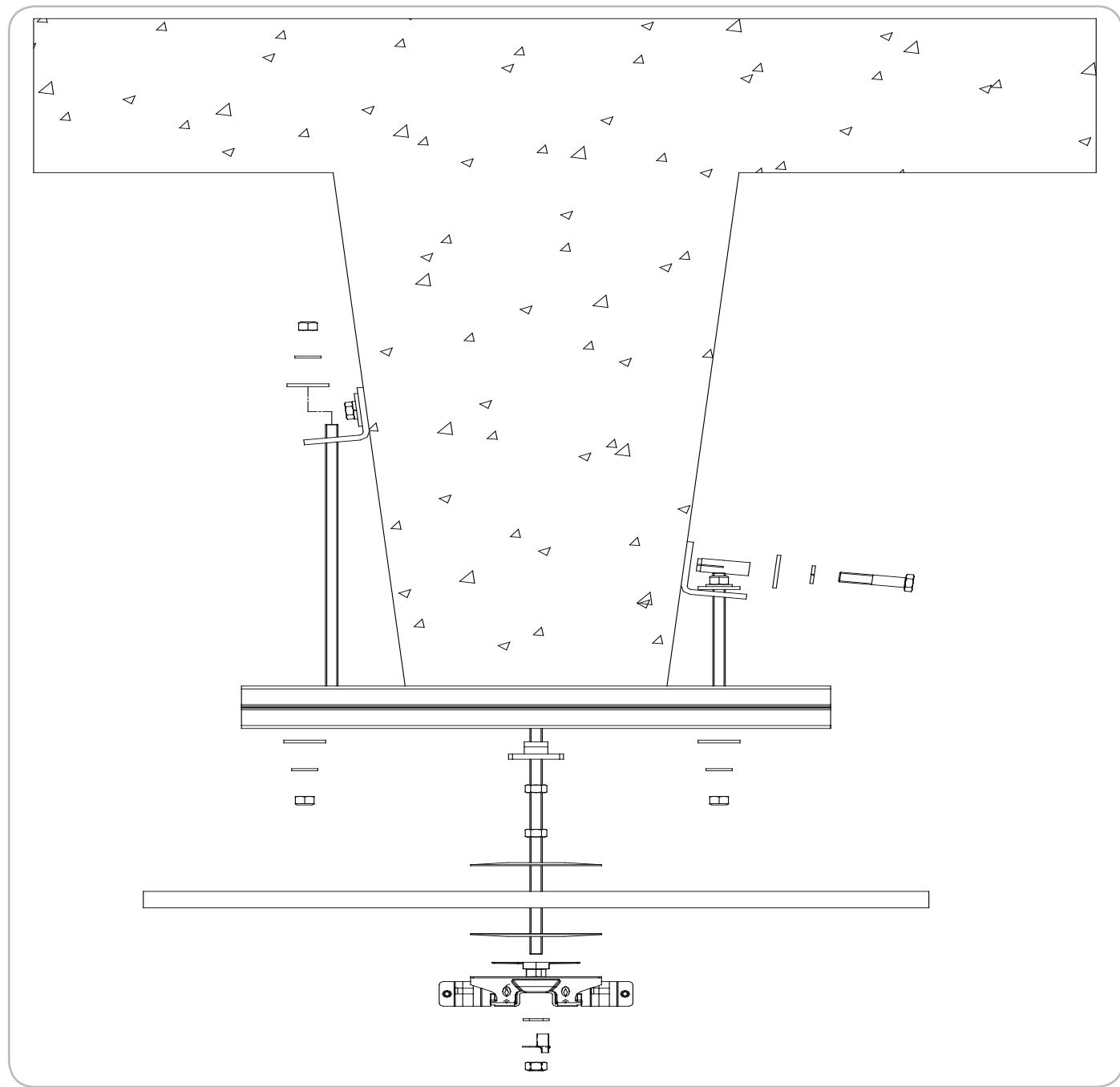


Detail: concrete beams with attachment under beam



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

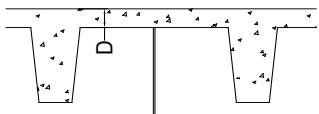
Ref.: 32210.11



Installing carriage pieces in the existing structure

Installation in concrete beams can be performed in different ways, according to beam dimensions, slab thickness and the threaded rod's position. In order of importance, proceed with the following methods:

01



Anchor located directly in concrete slab:

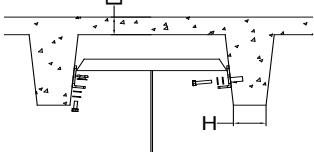
Required condition:

- Slab thickness of less than 79 mm (3 1/8 in).

Installation:

- Refer to "Direct Concrete" section.

02



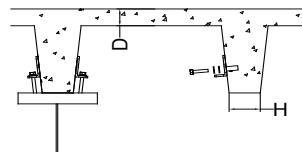
Anchor into beams' sides:

Required condition:

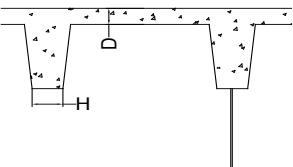
- Slab thickness of less than 79 mm (3 1/8 in).
- An access to the sides of the beams.
- Beam thickness of 79 mm (3 1/8 in) minimum, to the anchors.

Installation:

- Refer to the methods found in the following pages:
- Attachment with a strut channel on beam's sides.
- Attachment without strut channel on beam's sides.



03



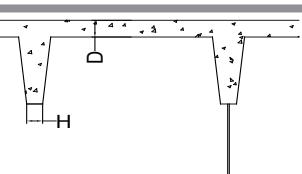
Anchor into beams' sides: Anchor at the bottom of beams:

Conditions:

- Slab thickness of less than 79 mm (3 1/8 in).
- No access to the sides of beams.
- Method A: beam of 16 cm (6 in) minimum / HDI anchor.
- Method B: beam of 10 to 15 cm (4 to 6 in) / Chemical anchor.

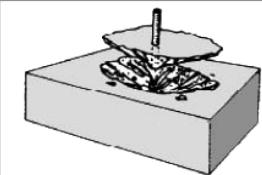
Installation:

- Procedures found in the next pages.



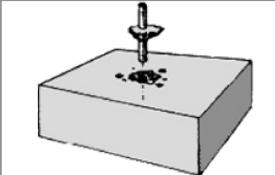
Risks from installations in concrete structures:

01



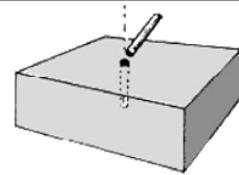
Concrete spall cone

02



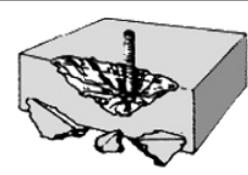
Bond failure

03



Steel breakage

04



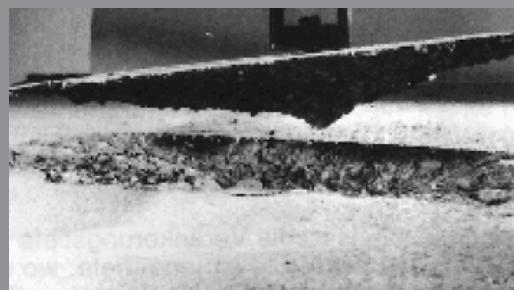
Edge breakout



NOTE...

Respect spaces and distances with the edges of concrete slabs.

.Avoid anchors that exceed from concrete slabs.



Method: Attachment with a strut channel on concrete beams' sides

01



Mark the threaded rod's location on slab.
Transfer this point at a right angle, on each side of the beams,
to get the anchor point axis of squares.

02



Once you get the anchor point axis, determine anchors' height. Take care to:

- Position the two squares at the same level.
- Place squares at 4 1/2 in from the bottom of beams.
- Leave enough space above to fix the "C" strut.

03



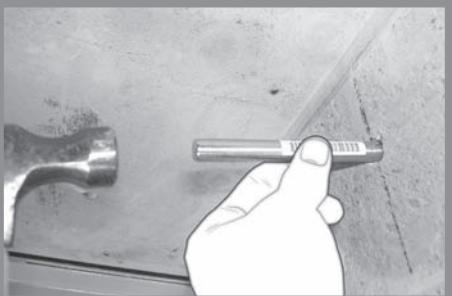
Drill according to the manufacturer's recommendations.

02



Attach anchors.

03



Using a setting tool and a hammer, fasten the anchor (expansion).

06

Fold the square so that, once installed, the tab is perfectly horizontal.

07

Fasten the appropriate bolt and washer (see technical drawing).

08

Tighten.



NOTE...

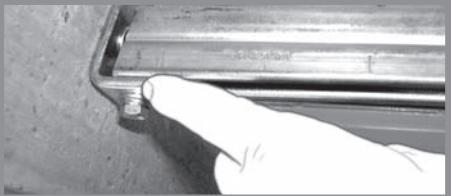
...the recommended torque is 14.9 N·m (11 lbf·ft).

09

Repeat procedure on the other side.

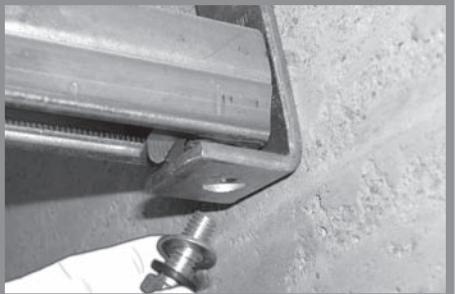
10

Cut the strut channel in the appropriate length.

11

Make sure the strut channel covers the maximum of the 90° square's horizontal leg.

12



Install the appropriate attachment hardware.

13



Tighten hardware to secure the strut channel.

14



Insert the threaded rod and its attachment hardware in the strut channel.

15



Move the threaded rod to the right position and tighten to secure it.

16



Move the threaded rod to the right position and tighten to secure it.

01



Mark the threaded rod's location on slab.
Transfer this point at a right angle, on each side of the beam,
to get the anchor point axis of squares.

02



Once you get the anchor point axis, determine anchors' height. Take care to:

- Position the two squares at the same level.
- Place squares at 4 1/2 in from the bottom of beams.
- Leave enough space above to fix the "C" strut.

03



Drill according to the manufacturer's recommendations.

04



Install anchors.

05



Using a setting tool and a hammer, fasten the anchor (expansion).

06



Fold the square so that, once installed, the tab is perfectly horizontal.

07



Fasten the appropriate bolt and washer (see technical drawing).

08



Tighten.



NOTE...

...the recommended torque is 14.9 N·m (11 lbf·ft).

09



Install the threaded rod with its attachment hardware.

10



Add hardware...

11



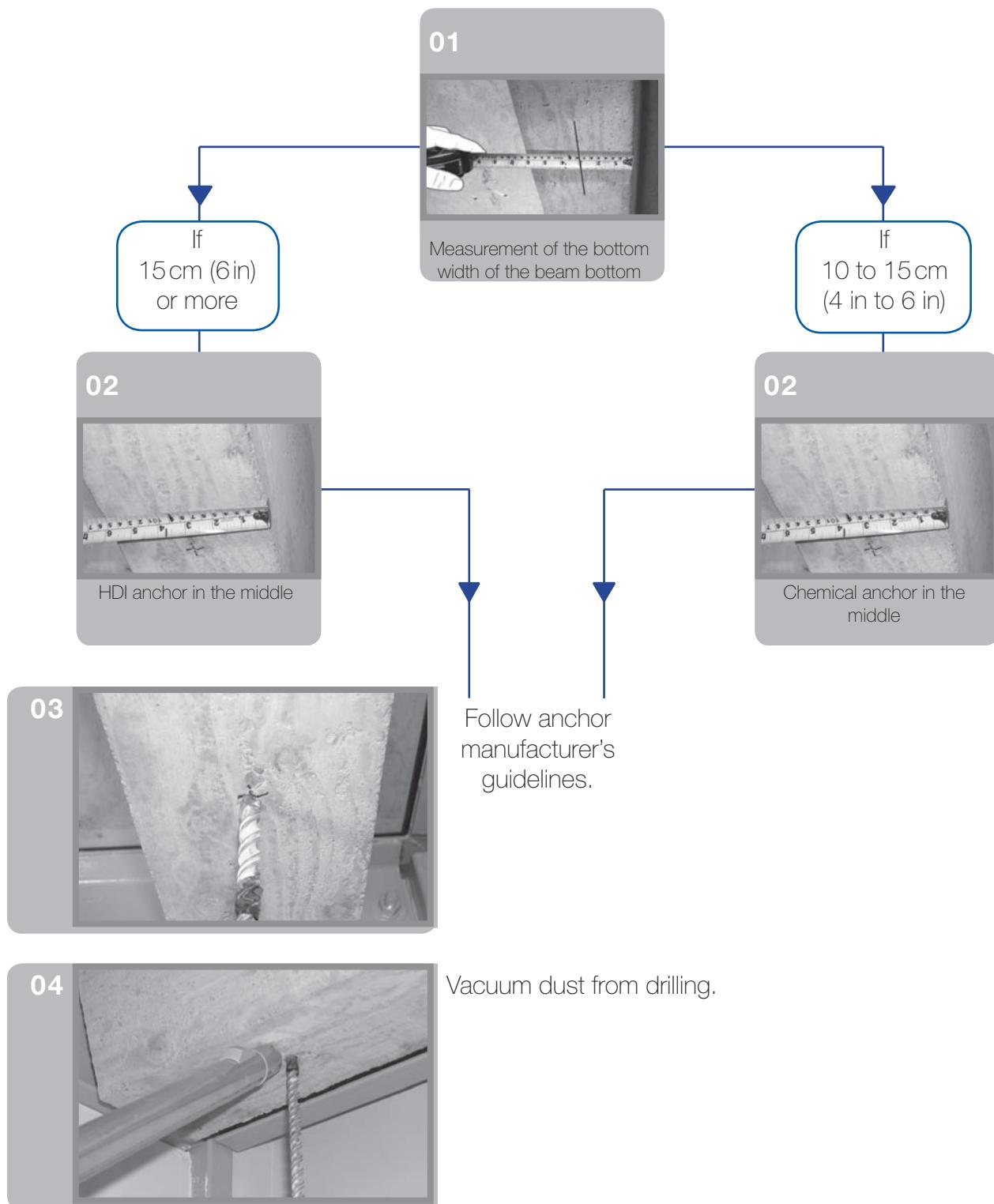
...and tighten.

12



Method: attachment at the bottom of beams

Before performing this step, refer to bracket positioning and transfer points section.



05



Install the anchor...

06



...and fasten it with a setting tool and a hammer.

07



Screw the threaded rod into the anchor.



NOTE...

...the recommended torque is 14.9 N·m (11 lbf·ft).

Possible issues and recommended solutions

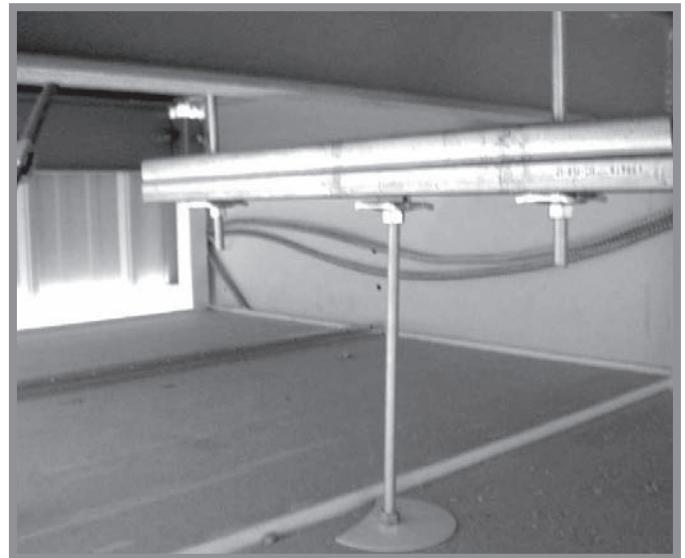
- Considering the possibility of having various elements (structural, HVAC, electrical, etc.) blocking the installation, here are some solutions:

VENTILATION, BEAM, etc.:

- Bridging is required.
- Drop a threaded rod on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.

STEEL REINFORCEMENT, ELECTRICAL CONDUIT, AND SMALL OBSTRUCTIONS:

- Bridging is required.
- Drop a threaded rod on a minimum distance of 15 cm (6in) on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.



NOTE...

...when bridging is visible, all noticeable parts must be painted white and end caps must be used.

Annexes

Structure details

Drawing list

22210.02 - Steel beam/Suspended drywall	112
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32210.13 - Drywall/Bottom of beams (without chemical anchors).....	127

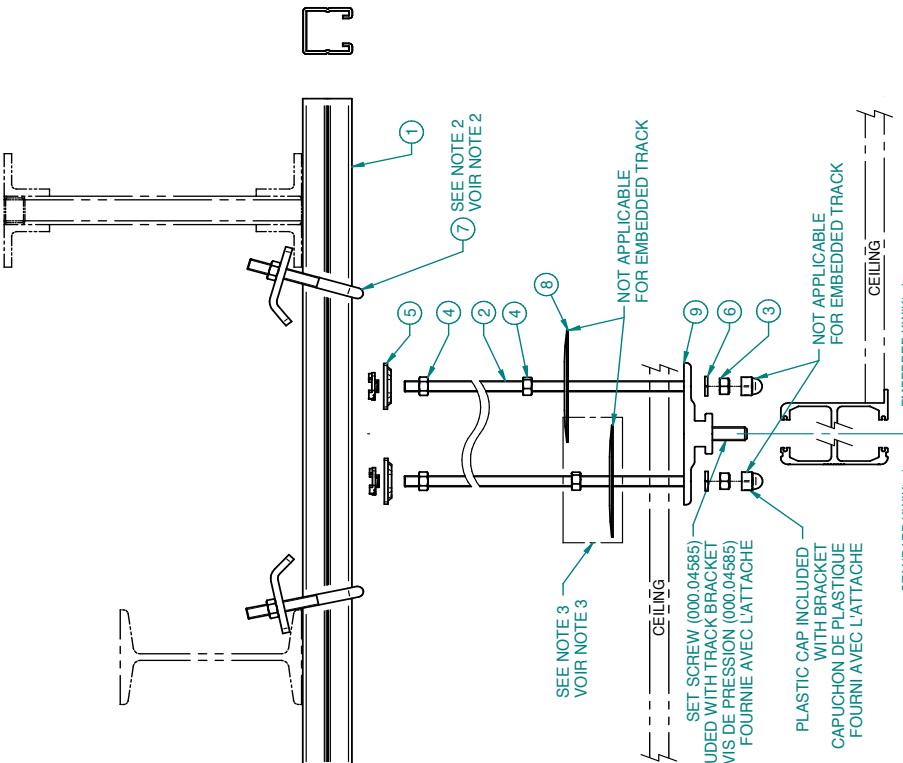


LOG ON!

ArjoHuntleigh is constantly improving its products and procedures. For this reason, it may be possible that technical drawings have been updated since this manual was produced. We highly recommend you to obtain the latest revisions of these technical drawings in the restricted section of the website.

NOTES:

- THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES).
1. DESIGN DRAWING UNQUOTE AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GÉNÉRALES D'INSTALLATION).
2. WHEN STRUT HEIGHT IS 7'11" AND BEAM CLAMP #000.000501 WHEN STRUT HEIGHT IS 7'11".
3. UTILISE LA PRINCE #000.000505 ÉQUIVALENT IMPÉRIAL DU #000.000501 LORSQUE LE PROFIL EST DE 7'11" DE HAUTEUR ET LA PRINCE #000.000501 QUAND LA
4. PROFIL EST DE 7'11" DE HAUTEUR.
5. LES ITEMS 4 & 8 PEUVENT ÊTRE remplacés PAR LA PIÈCE #700.11090 (ÉQUIVALENT OF #700.11095).
6. EACH PARTS LIST MUST BE TAKEN IN SENTENCE FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
7. DO NOT MIX THE HARDWARE FROM DIFFERENTISTS OF MATERIALS.
8. CHACUNE DES LISTES DE PIÈCES DOIT ETRE PRISE INTEGRALMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).
9. NE PAS MÉLANGER LES QUINZAILLES ISSUES DE LISTES DE MATERIELS DIFFÉRENTS.
10. THE CONTRACTOR RESPONSIBLE FOR THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE
11. FOR AESTHETIC USE ONLY, THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY.
12. L'ENTREPRENEUR CHARGE D'INSTALLATION DU PLAFOND AUTOUR DEVEUT AVERTIR QUE LES LEVRES DU RAIL ENCASTRE
13. SONT SEULEMENT POUR FIN ESTHÉTIQUE. LE PLAFOND AUTOUR DOIT DONC ÊTRE SUPPORTÉ INDEPENDANTMENT.



4

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NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM ING 907-1 EN" (GENERAL INSTALLATION NOTES).
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJUNTE DU DOCUMENT "AM ING 907-1" (NOTES GENERALES D'INSTALLATION).
3. USE BEAM CLAMP #000.00505 (#000.046 INFERIOR EQUIVALENT) WHEN STRUT HEIGHT DIMENSION IS 2.7/16 AND BEAM CLAMP #000.00601 WHEN STRUT HEIGHT DIMENSION IS 4.78".
4. UTILISER LA CLAMP #000.00505 (#000.046 INFERIOR EQUIVALENT) LORSQUE LA HAUTEUR DU PROFIL EST DE 2 7/16. UTILISER LA CLAMP #000.00601 QUAND LA HAUTEUR DU PROFIL EST DE 4 7/8".
5. ITEMS 4 & 8 MUST BE REPLACED BY ART #700.11080 (IMPERIAL EQUIVALENT OF #700.11085) (EQUIVALENT IMPERIAL DU #700.11095).
6. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
7. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.
8. CHAQUE DES LISTES DE PIECES DOIT ETRE POUR LA PECHE #700.11080 (EQUIVALENT IMPERIAL DU #700.11095).
9. NE PAS MELENGER LES QUINCAILLERIES ISSUES DES LISTES DE MATERIELS DIFFERENTES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE CEILING HAST TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AES THE IC USE ONLY. THEREFORE SURROUND CEILING MUST BE SUPPORTED INDEPENDENTLY.
11. L'EN TREPRENEUR CHARGE DE LINS D'INSTALLATION DU PLAFOND DOIT ETRE AVERTE QUE LES LEVRES DU RAIL ENCASTRE SONT SEULEMENT POUR FIN ESTHETIQUE; LE PLAFOND AUTOUR DOIT DONC ETRE SUPPORTE INDEPENDANTEMENT.

STANDARD INSTALLATION

EMBEDDED INSTALLATION

ARJO HUNTLIGH GETTING GROUP

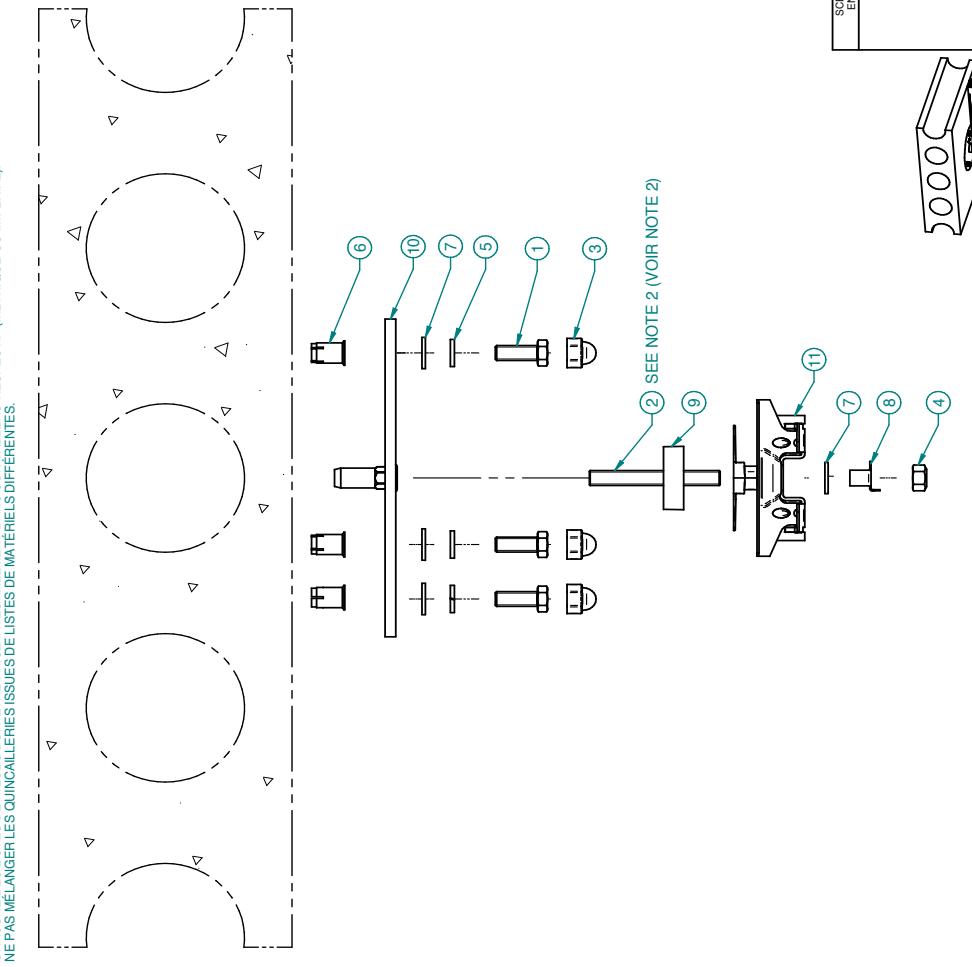
REF	DESCRIPTION	REV BY	APP BY	DATE
1	UPDATE: MIS A JOUR	-	-	10/NOV/2008
2	700.11204/WALS (ÉMINT/700.11205, NOTE ADDED (AJOUTÉE) CM#04835)	-	-	19-FEV-2010
3	GENERAL REVISION IN CM#02086	J.C.	-	-
4	ADD METRIC STD + EMBEDDED + NOTES (CM#04469)	J.C.	-	-

REF	DESCRIPTION	REV BY	APP BY	DATE
1	700.11204/FRACK (ÉMINT/700.11205, NOTE ADDED (AJOUTÉE) CM#04835)	-	-	10/NOV/2008
2	GENERAL REVISION IN CM#02086	J.C.	-	19-FEV-2010
3	ADD METRIC STD + EMBEDDED + NOTES (CM#04469)	J.C.	-	-

REF	DESCRIPTION	REV BY	APP BY	DATE
1	700.11204/CEILING (ÉMINT/700.11205, NOTE ADDED (AJOUTÉE) CM#04835)	-	-	10/NOV/2008
2	GENERAL REVISION IN CM#02086	J.C.	-	19-FEV-2010
3	ADD METRIC STD + EMBEDDED + NOTES (CM#04469)	J.C.	-	-

NOTES:

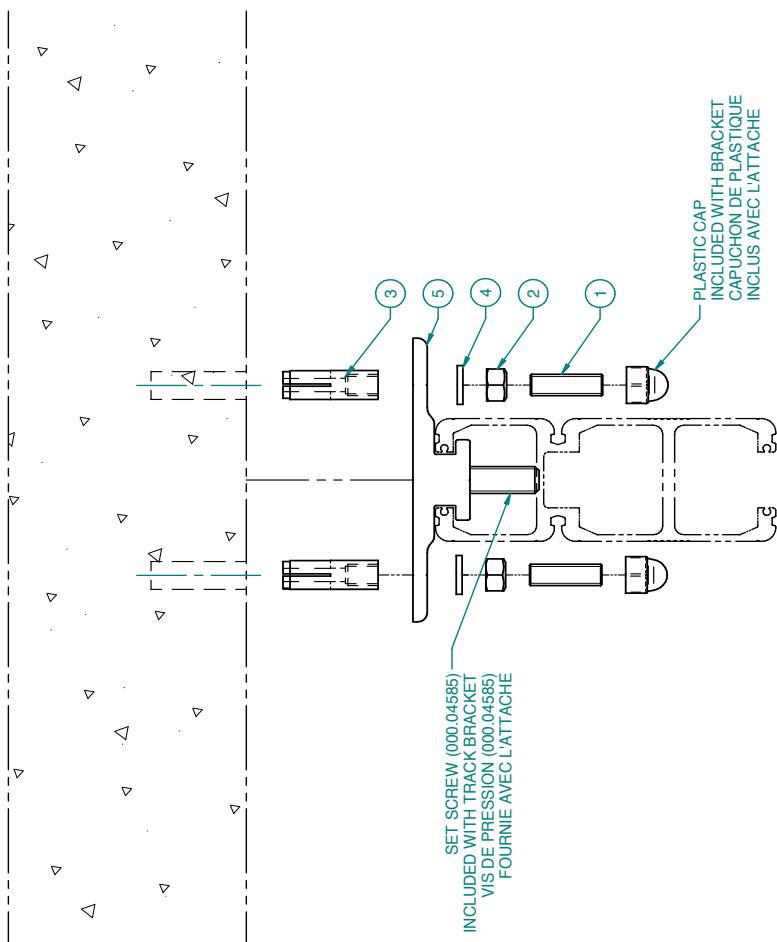
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES).
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).
3. APPLY LOCITE 262 ON EXTREMITY OF ITEM #2 BEFORE FASTENING INTO ITEM #10.
4. APPLIQUER DU LOCITE 262 SUR L'EXTREMITE DE L'ITEM #2 AVANT DE VISSEER CELUI-DANS L'ITEM #10.
5. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
6. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.
7. CHAQUE DES LISTES DE PIECES DOIT ETRE PRISE INTEGRALMENT DANS SON TABLEAU RESPECTIF (METRIQUE OU IMPERIAL).
8. NE PAS MEANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFERENTES.



NOTES:		REV	DESCRIPTION	REV BY	APP BY	DATE
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES).		5	UPDATE, MISE A JOUR	-	-	-
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).		6	GENERAL REVISION (CH42086)	J.C.	-	-
3. APPLY LOCITE 262 ON EXTREMITY OF ITEM #2 BEFORE FASTENING INTO ITEM #10.		7	ADD METRIC STD + NOTES (CH42086)	J.C.	-	-
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NOTES:

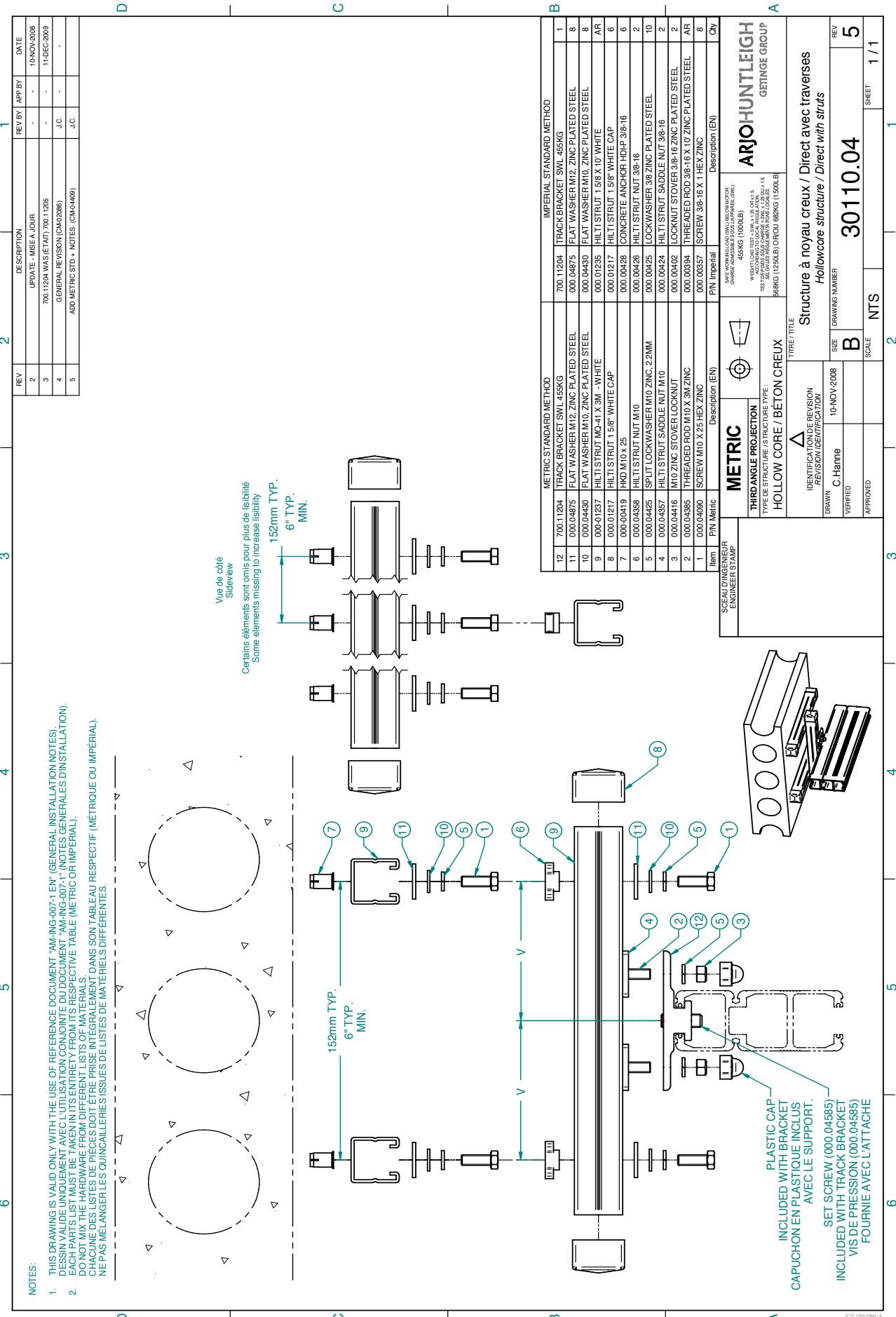
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AMING-007-1 EN" (GENERAL INSTALLATION NOTES). DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GÉNÉRALES D'INSTALLATION).
2. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL). CHACUN DES LISTES DES PIÈCES DOIT ÊTRE PRISSE INTÉGRALEMENT DANS LES TABLEAUX CORRESPONDANTS.
3. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS. NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIAUX DIFFÉRENTES.



METRIC STANDARD METHOD		IMPERIAL STANDARD METHOD	
5	700-11204 TRACK BRACKET SWL 458KG	700-11204 TRACK BRACKET SWL 455KG	1
4	000-004425 SPLIT LOCKWASHER M10 X ZINC	000-00425 LOCKWASHER 3/8 INCH PLATED STEEL	2
3	000-004556 CONCRETE ANCHOR HRCF M10 X 40	000-00423 CONCRETE ANCHOR IDI 3/8-16	2
2	000-004416 M10 ZINC STOVER LOCKNUT	000-00402 LOCKNUT STOVER 9/16 ZINC PLATED STEEL	2
1	000-004395 THREADED ROD 3/8 INCH X 30 ZINC	000-00394 THREADED ROD 3/8 INCH X 10 ZINC PLATED STEEL	1
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		Description (EN)	
		ARJOHUNTLEIGH GETINGE GROUP	
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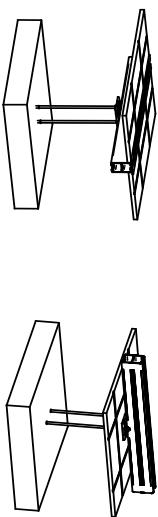
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NOTES:	REVISION	DESCRIPTION	REV BY	APP BY	DATE
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT 'AM-ING-007-1 EN' (GENERAL INSTALLATION NOTES).	1	UPDATE: MIS A JOUR	-	-	10/NOV/2008
2. DESSIN VALIDE UNIQUEMENT AVEC L UTILISATION CONJOINTE DU DOCUMENT 'AM-ING-007-1 EN' (NOTES GENERALES D'INSTALLATION).	2	NOTE ADDED - NOTE AJOUTEE	-	-	11-DEC-2009
3. FOR ADJUSTABLE LATERAL BRACE, USE PART #700.11360 OR 700.11365 DEPENDING ON CEILING HEIGHT.	3	GENERAL REVISION (CM-0086)	J.C.	-	
4. POUR LE RENFORT LATÉRAL ADJUSTABLE, UTILISER LA PIÈCE #700.11360 OU 700.11365 DÉPENDANT DE LA HAUTEUR DU PLAFOND.	4	ADD METRIC STD + EMBEDDED - NOTES (CM-0409)	J.C.	-	
5. REFER TO LATERAL BRACE REQUIREMENTS IN ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).					
6. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).					
7. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.					
8. CHAQUE UN DES LISTES DE PIÈCES DOIT ÊTRE PRISE INTÉGRALEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).					
9. NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES.					
10. THE CONTRACTOR RESPONSIBLE FOR THE CEILING HAS TO BE AWARE THAT THE UPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY. THEREFORE, SURROUND CEILING MUST BE SUPPORTED INDEPENDENTLY.					
11. L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT ÊTRE AWARE QUE LES LÈVRES DU RAIL ENCASTRE SONT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT DONC ÊTRE SUPPORTÉ INDEPENDAMMENT.					
SEE NOTE 2 - VOIR NOTE 2					
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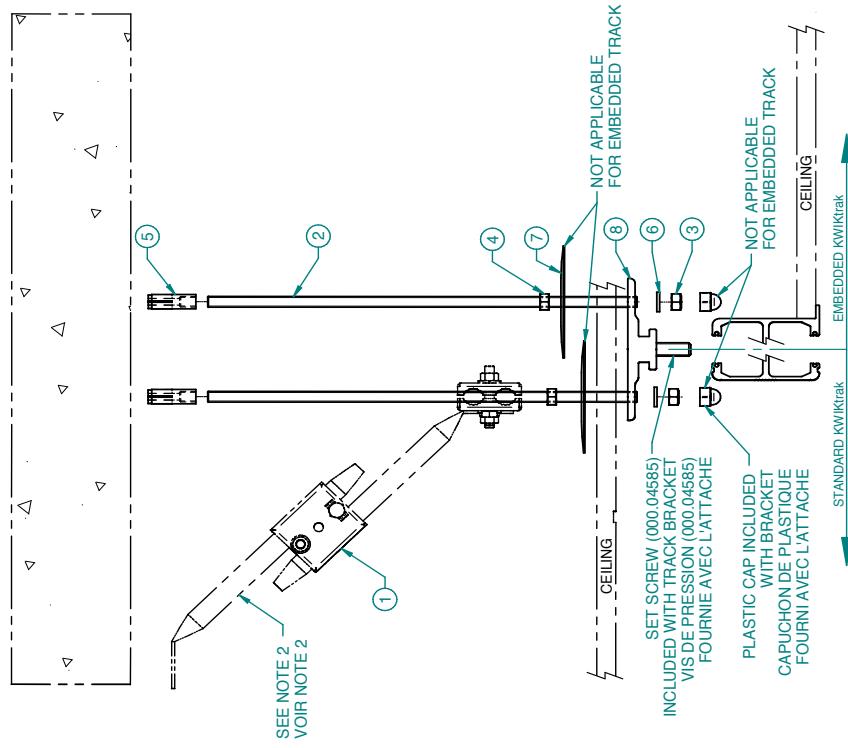
STANDARD INSTALLATION



EMBEDDED INSTALLATION

NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1 EN" (GENERAL INSTALLATION NOTES). DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION). POUR ADAPTER LA LATÉRAL BRACE, USE PART #0011360 OR 70011360 DÉPENDENT SUR CEILING HEIGHT.
2. POUR LE RENFORT LATÉRAL, UTILISER LA PIÈCE #0011360 OU 70011350 DÉPENDANT DE LA HAUTEUR DU PLAFOND. REFER TO LATÉRAL BRACE REQUIREMENTS ANNEX. SE REFERER A L'ANNEXE DES RENFORTS LATÉRAUX.
3. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (MÉTRIC OR IMPERIAL).
4. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS. CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE INTÉGRALEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL). NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES. THE CONTRACTOR RESPONSIBLE FOR THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY. L'ENTREPRENEUR CHARGE DE L'INSTALLATION DU PLAFOND DOIT ÊTRE AVENTI QUE LES LÉGÈRES DU RAIL ENCASTRÉ SONT SEULEMENT FOURNIS EN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDANTMENT.



NOTES

Concrete Structure

001-11161-EN - REV 0

NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT 'AM-ING-007-1 EN' (GENERAL INSTALLATION NOTES).
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION DU DOCUMENT 'AM-ING-007-1 EN' (NOTES GENERALES D'INSTALLATION).
3. FOR ADJUSTABLE LATERAL BRACE, USE PART #700.11360 OR 700.11350 DEPENDING ON CEILING HEIGHT.
POUR LE REFORTE LATÉRAL AJUSTABLE, UTILISER LA PIÈCE #700.11360 OU 700.11350 DÉPENDANT DE LA HAUTEUR DU PLAFOND.
4. REFER TO LATERAL BRACE REQUIREMENTS ANNEX.
5. EACH PARTS LIST MUST BE TAKEN INTEGRITELY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
6. CHAQUE LISTE DES PIÈCES DOIT ÊTRE PRISSE INTEGRALMEMENT DANS SON TABLEAU RÉSPÉCIFIQUE (MÉTRIQUE OU IMPÉRIAL).
7. DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.
8. NE PAS MÉLANGER LES OUNICAILLES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES.
9. EACH CONTRACTOR RESPONSIBLE FOR THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE SE REFERER A L'ANNEXE DES RENSEIGNEMENTS SUR LES EXIGENCES DES SUPPORTS LATÉRAUX.
10. THE CONTRACTOR RESPONSIBLE FOR THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE SE REFERER A L'ANNEXE DES RENSEIGNEMENTS SUR LES EXIGENCES DES SUPPORTS LATÉRAUX.
11. FOR AESTHETIC USE ONLY, THEREFORE SURROUNDING CEILING HAS TO BE SUPPORTED INDEPENDENTLY.
12. L'ENTREPRENEUR EN CHARGE DE L'INSTALLATION DU PLAFOND DOIT ÊTRE Avertis QU'LES ÉLÉVÉES DU RAIL ENCASTRE SONT SEULEMENT POUR FIN ESTHÉTIQUE, LE PLAFOND AUTOUR DOIT DONC ÊTRE SUPPORTÉ INDEPENDAMMENT.

1	2	3	4	5	6
REV	DESCRIPTION	REV	DESCRIPTION	REV	DESCRIPTION
2	UPDATE, MISE À JOUR	2	NOTE ADDED (AJOUTÉE) ->001.1170/ REMOVED (ENLEVÉ)	-	-
3	GENERAL REVISION (CH-A0298)	3	NOTE ADDED (AJOUTÉE) ->001.1170/ REMOVED (ENLEVÉ)	-	-
4	ADD METRIC STD+ EMBEDDED + NOTES (GM-0469)	4	GENERAL REVISION (CH-A0298)	J.C.	-
5	ADD METRIC STD+ EMBEDDED + NOTES (GM-0469)	5	ADD METRIC STD+ EMBEDDED + NOTES (GM-0469)	J.C.	-

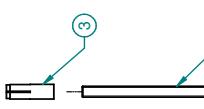
D		C		B		A	

Z	REV	DESCRIPTION	REV BY	APR BY	DATE
	1	UPDATE - MSIA JC01B GENERAL REVISION (JC04086)	-	-	10-Nov-2008
	2	GENERAL STMT + EMBEDDED + NOTES (OM-20409)	J.C.	-	-
	3	ADD METRIC Stmt	J.C.	-	-

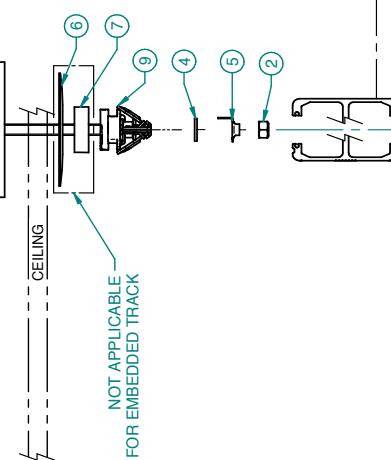
NOTES:
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT 'YAM-ING-007-1 EN' (GENERAL INSTALLATION NOTES).
2. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT 'YAM-ING-007-1 (NOTES GENERALES D'INSTALLATION).

2. EACH PARTS MUST BE TAKEN IN DIFFERENTLY FROM RESPECTIVE TABLE (METRIC OR IMPERIAL).
DO NOT MAKE THE HARDWARE IN DIFFERENT LIST OF MATERIALS.
CHACUNE DES PIÈCES DOIT ÊTRE PRISSE DANS DIFFÉRENTES LISTES DE MATERIAUX.
NE PAS MELANGER LES QUINCAILLERIES DANS LES LISTES DE MATERIAUX DIFFÉRENTES.

3. THE CONTRACTOR RESPONSIBLE OF THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY, THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY.
L'ENTREPRENEUR A CHARGE DE LINSTRUMENTATION DU PLAFOND DOIT ETRE AVERTE QUE LES LEVRES DU PLAFOND ENCASTRÉ SONT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.

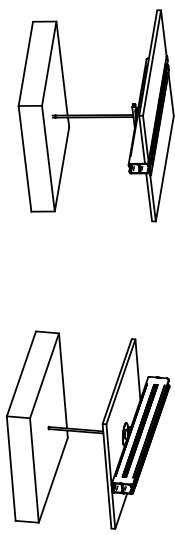


NOT APPLICABLE
FOR EMBEDDED TRACK



EMBEDDED INSTALLATION

STANDARD INSTALLATION



METRIC STANDARD METHOD		IMPERIAL STANDARD METHOD	
Item	P/N Metric	Description (EN)	Description (EN)
9	700.11100	TRACK BRACKET KWIKTRAK	700.11100 TRACK BRACKET KWIKTRAK
8	700.11095	PRESSURE NUT M10 FOR GYPSUM	700.11095 PRESSURE NUT 3/8-16 FOR GYPSUM
7	200.11170	12MM KWIK TRAK BRACKET SHIM	200.11170 12MM KWIK TRAK BRACKET SHIM
6	200.11140	CEILING PLATE Ø10MM	200.11140 CEILING PLATE Ø10MM
5	000.04435	FLAT WASHER M10. PLAIN STEEL	000.04435 FLAT WASHER M10 ZINC PLATED STEEL
4	000.04430	FLAT WASHER M10 ZINC PLATED STEEL	000.04430 FLAT WASHER M10 ZINC PLATED STEEL
3	000.04456	CONCRETE ANCHOR HKD-M10 X 40	000.04423 CONCRETE ANCHOR HKD-10 X 36
2	000.04416	M10 ZINC STOVER LOCKNUT	000.04024 LOCKNUT STOVER 3/8-16 ZINC PLATED STEEL
1	000.04395	THREADED ROD M10 X 3M ZINC	000.0394 THREADING ROD 3/8-16 X 10 ZINC PLATED STEEL
SCOEUD D'INGENIEUR		SPECIFICATION	
		SFR WORKING CARD USE WITH MOTOR	
		1	

ARJO
E SOUTIEN APPAREIL (SW/L)
3 (600 LB)

Gypse suspendu
Suspended drywall

1

REV
3

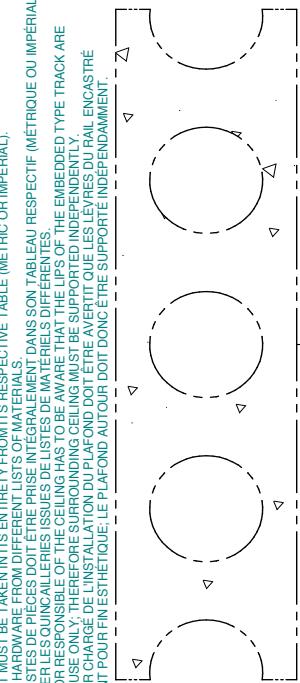
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F-NIG-007-2.3

NOTES:

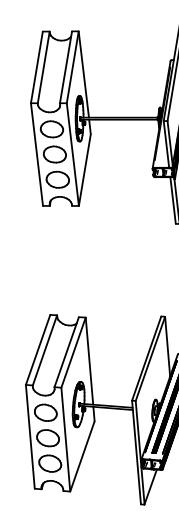
- THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1 EN" (GENERAL INSTALLATION NOTES).
- DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).
- ITEMS 9 & 4 PEUVENT ETRE REMPLACÉS PAR LA PIÈCE #700.1059 (IMPERIAL EQUIVALENT OF #700.1059).
- APPLIQUEZ LA LOCOTITE 282 SUR L'EXTREMITY DE L'ITEM #2 BEFORE FASTENING ON ITEM #1.
- APPLIQUEZ LA LOCOTITE 282 AVANT DE VISER L'ITEM #2 A VERS L'ITEM #1.
- CHACUNE DES LISTES DE PIÈCES DOIT ETRE PRISSE INTEGRALLEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).
- NE PAS MELANGER LES QUINCAILLERIES ISSUES DE LISTES DE PIÈCES DIFFERENTES.
- THE CONTRACTOR RESPONSIBLE OF THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY; THEREFORE SURROUND CEILING MUST BE SUPPORTED INDEPENDENTLY.
- L'ENTREPRENEUR CHARGE DE L'INSTALLATION DU PLAFOND DOIT ETRE AVERTI QUE LES LEVRYS DU RAIL ENCASTRE SONT SEULEMENT POUR UNE SUPPORTATION INDEPENDANTE.

DESCRIPTION	REV	REV BY	DATE
UPDATE: MISE A JOUR	-	-	10-NOV-2008
NOTE ADDED -NOTE AJOUTEE	-	-	11-DEC-2009
GENERAL REVISION (CM-0268)	4	J.C.	-
ADD METRIC STD+ EMBEDDED + NOTES (CM-0469)	5	J.C.	-



C

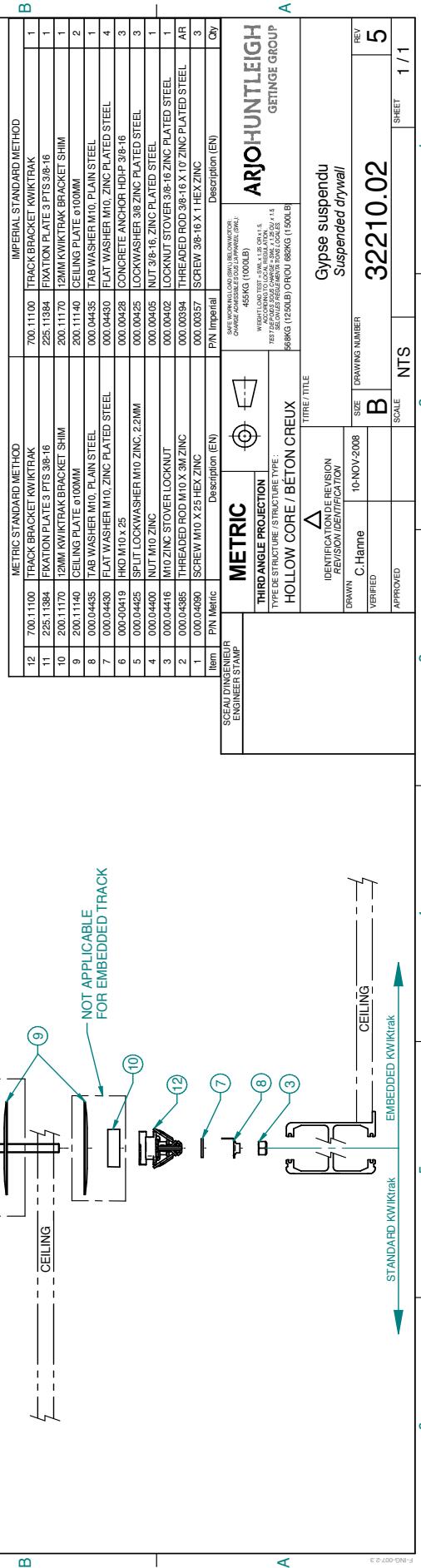
STANDARD INSTALLATION EMBEDDED INSTALLATION



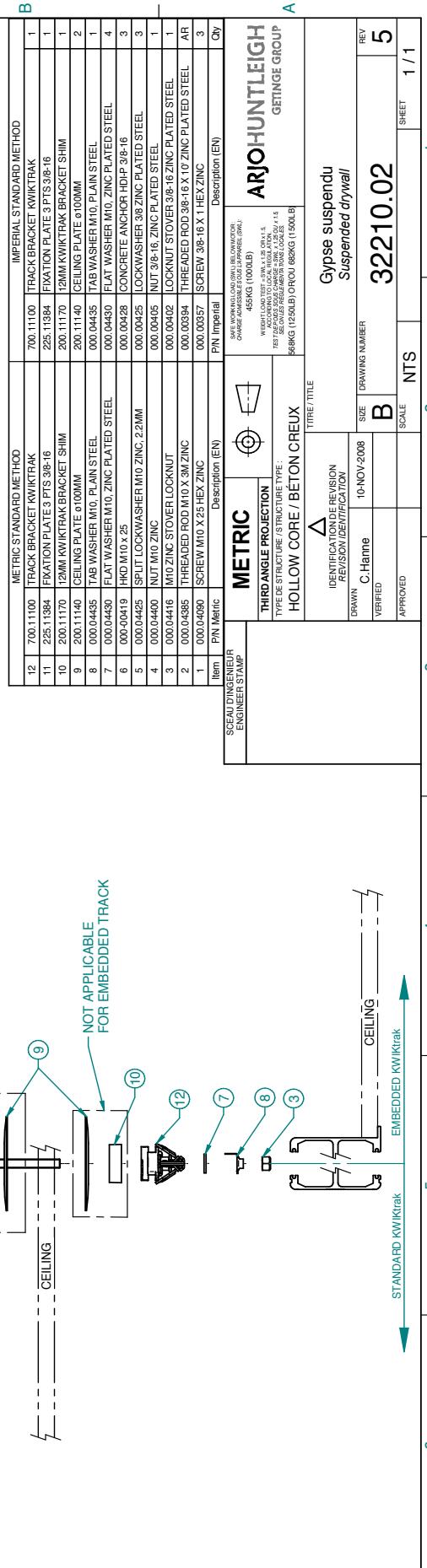
D

METRIC STANDARD METHOD		IMPERIAL STANDARD METHOD	
12	700.11100	TRACK BRACKET KWIKTRAK	700.11100
11	225.11384	FIXATION PLATE 3 PTS 3/8-16	225.11384
10	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170
9	200.11140	CEILING PLATE Ø10MM	200.11140
8	000.04435	TAB WASHER M10, PLAIN STEEL	000.04435
7	000.04430	FLAT WASHER M10, ZINC PLATED STEEL	000.04430
6	000.04419	HKD M10 x 25	000.04428
5	000.04425	SPLIT LOCK WASHER M10 ZINC, 2.2MM	000.04425
4	000.04440	NUUT M10 ZINC	000.04045
3	000.04416	M10 ZINC STOVER LOCKNUT	000.04042
2	000.04385	THREADED ROD M10x3M ZINC	000.04394
1	000.04090	SCREW M10 x 25 HEX ZINC	000.04057
SCHEMATIC DRAWINGS ENGINEER STAMP		P/N Imperial	Description (EN)
THIRD ANGLE PROJECTION		METRIC	
HOLLOW CORE / BETON CREUX		TIRE / TITLE	
TYPE D'STRUCTURE / STRUCTURE TYPE :		ARJOHUNTLEIGH GETTING GROUP	
DRAWN	C.Hanne	10-NOV-2008	SIZE / DRAWING NUMBER
VERIFIED			B
APPROVED			SCALE NTS
F-ING-007-3		32210.02	
REV 5		SHEET 1 / 1	

B



B

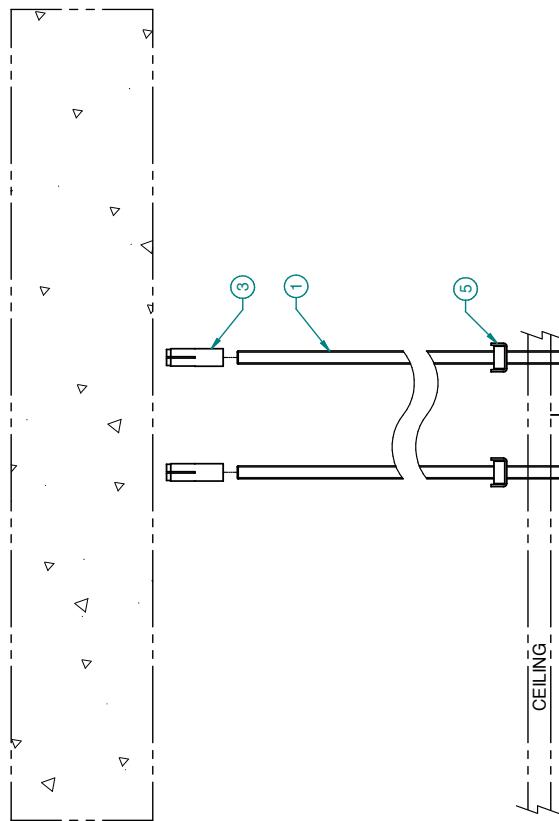


A

NOTES

- NOTES

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 2. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL). NE PAS MELANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFERENTES.
 3. FOR AESTHETIC PURPOSES ONLY, THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY. L'ENTREPRENEUR CHARGE D'AFLAISON D'ORIENTER QUE LES LEVRES DU RAIL ENCASTRE SONT SEULEMENT POUSSE EN ESTHETIQUE. LE PLAFOND AUTOUR DOIT DONC ETRE SUPPORTE INDEPENDANTMENT.

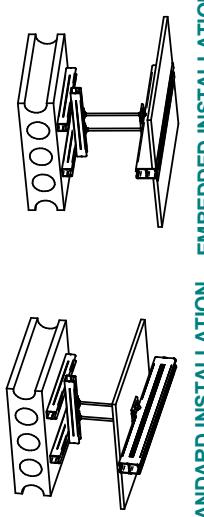
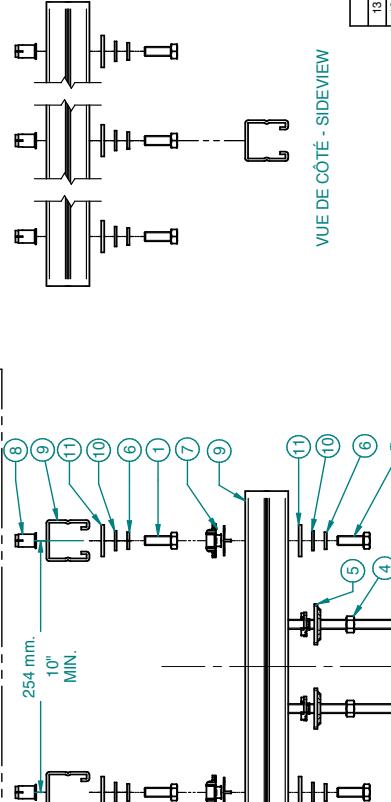
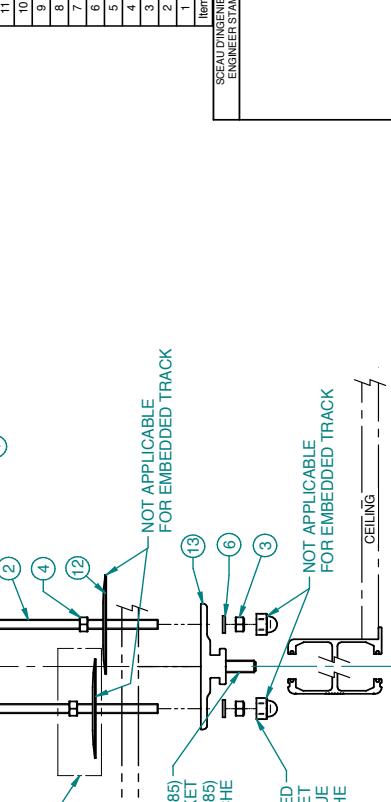
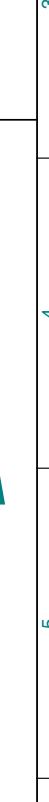
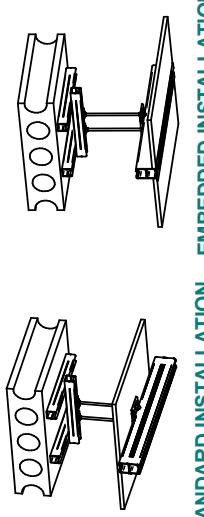
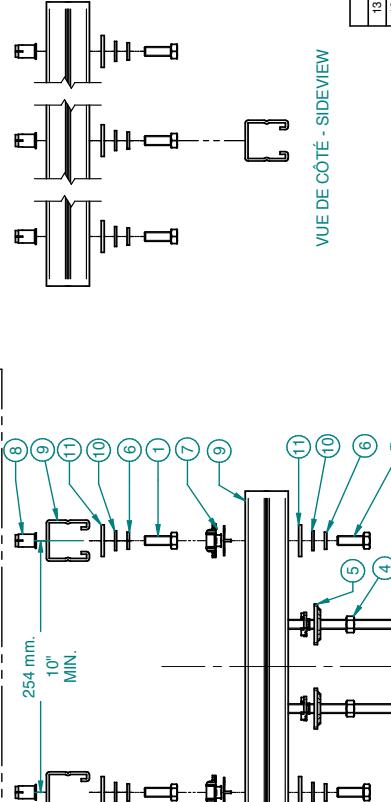
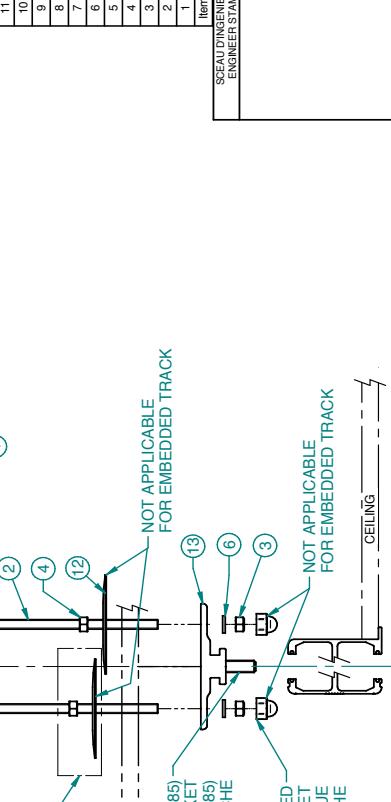
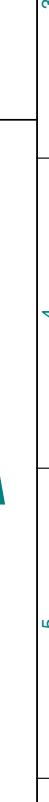
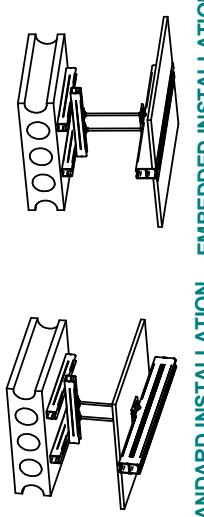
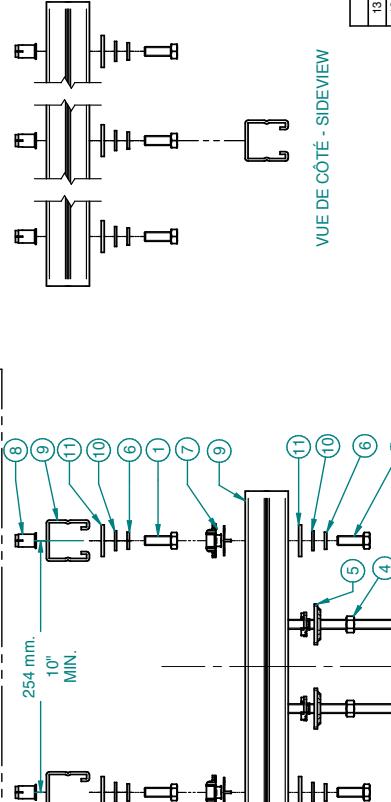
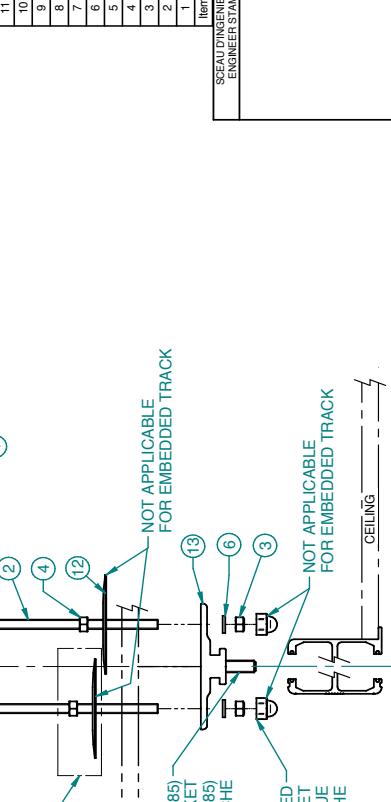
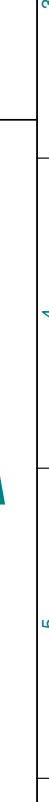
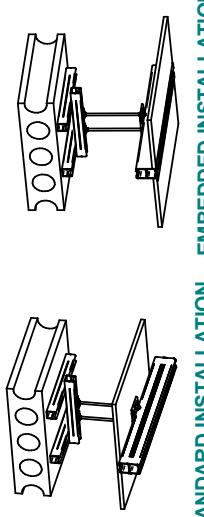
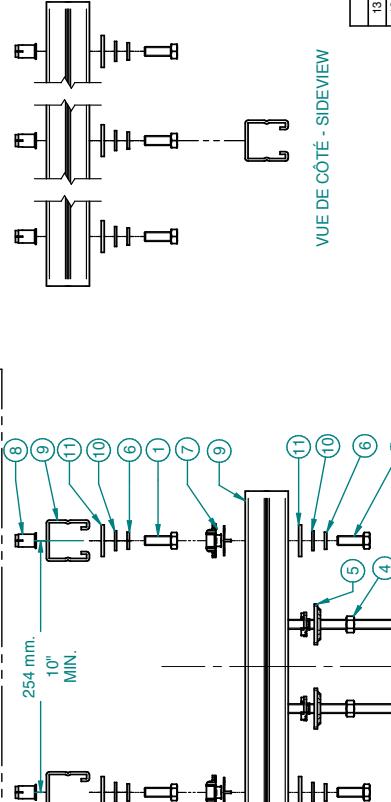
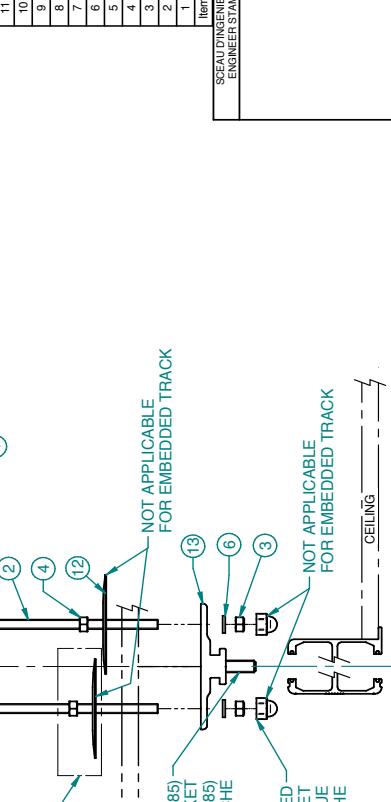
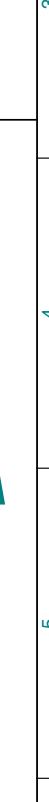
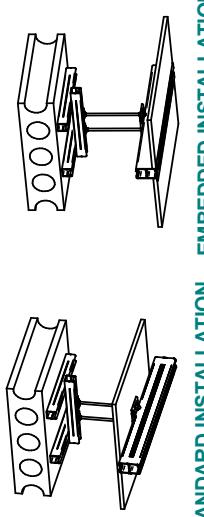
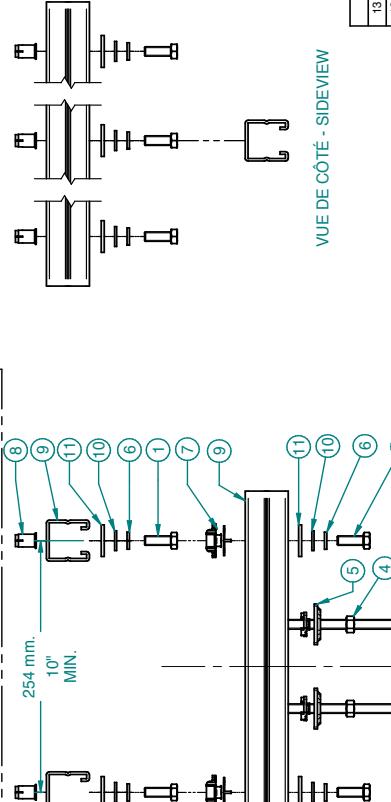
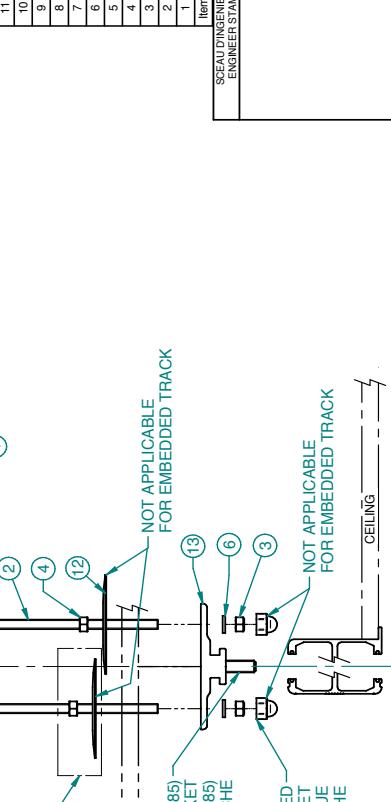
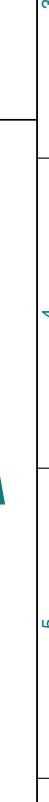
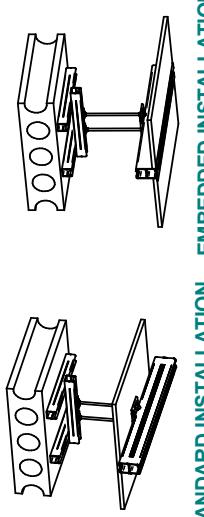
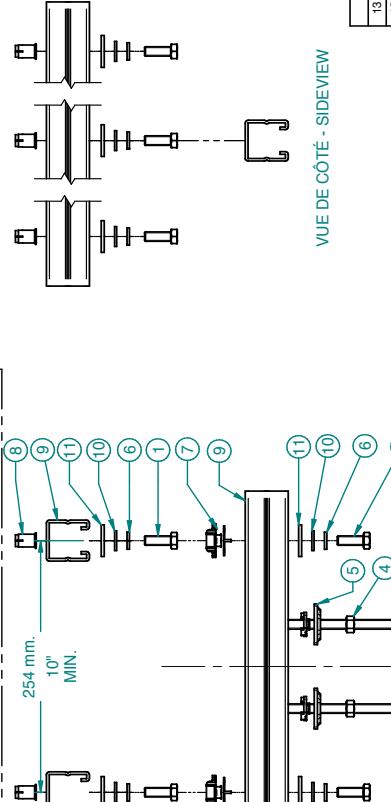
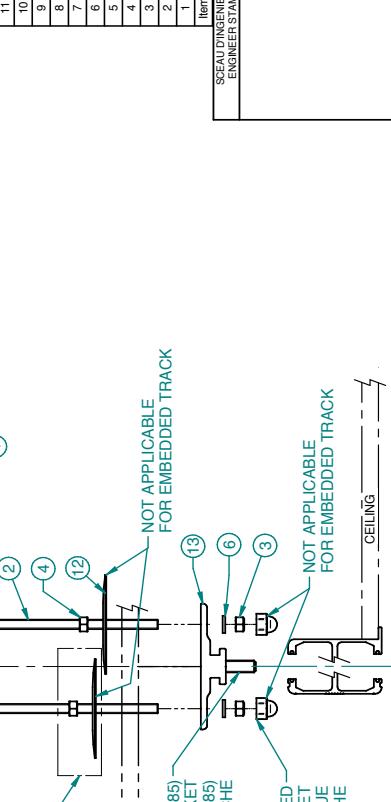
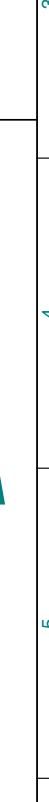
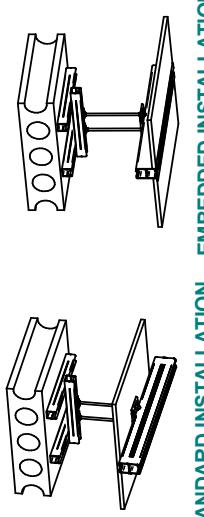
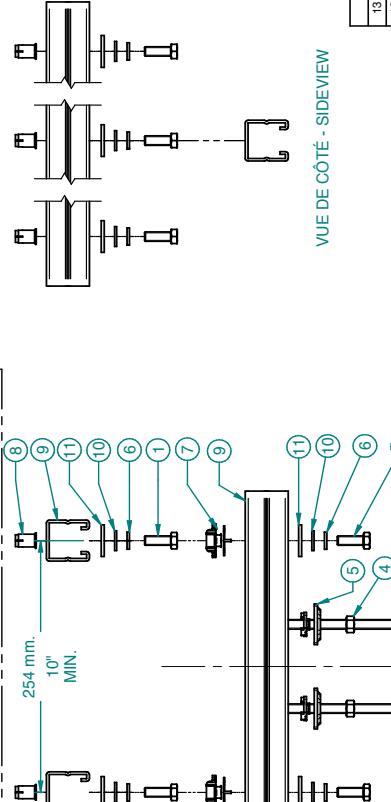
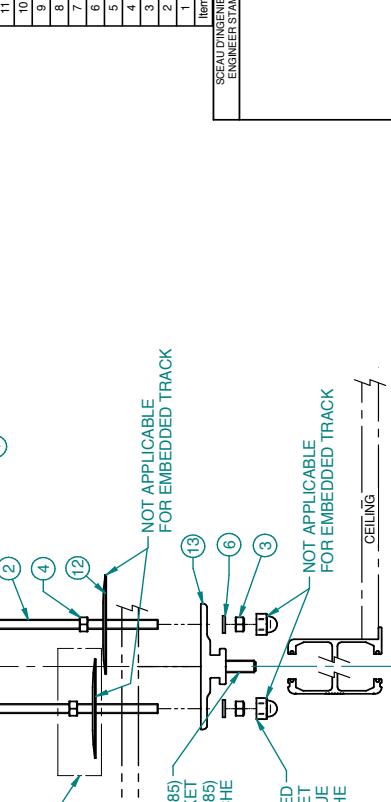


PLASTIC CAP INCLUDED —
SET SCREW (000-04585) —
INCLUDED WITH TRUCK BRACKET
VIS DE PRESSION (000-04585)
FOURNIE AVEC L'ATTACHE

WITH BRACKET
CAPUCHONS DE PLASTIQUE
INCLUS AVEC L'ATTACHE

METRIC STANDARD METHOD		IMPERIAL STANDARD METHOD		ARJOHUNTLEIGH					
ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION				
6	700.11.204 TRACK BRACKET SWL 45KG	700.11.204 TRACK BRACKET SWL 45KG	1		GEOTEXTILE GROUP				
5	700.11.095 PRESSURE NUT M10 FOR GYPSUM	700.11.095 PRESSURE NUT M10 FOR GYPSUM	2						
4	000.04245 SPLIT LOCK WASHER M10 X 22MM	000.04245 SPLIT LOCK WASHER M10 X 22MM	2						
3	000.04356 CONCRETE ANCHOR HDI M10 X 40	000.04343 CONCRETE ANCHOR HDI M10 X 40	2						
2	000.04364 MID ZINC STOVEP 38 X 16	000.04364 MID ZINC STOVEP 38 X 16							
1	000.04385 THREADED ROD M10 X 3M ZINC	000.04384 THREADED ROD 38 x 6 x 10 ZINC PLATED STEEL							
Item	P/N Metric	Description (EN)	P/N Imperial	Description (EN)	On/Off				
METRIC		THIRD ANGLE PROJECTION							
SUITABLE FOR USE IN ALL TYPES OF FOUNDATIONS, CLAY AND SAND BASES, SOILS, SPANNING SPANS, CONCRETE, METAL, GLASS, ETC. WEIGHT LOAD SWL = 45KG (100LB).									
TEST ACCORDING TO EN 12090-1, 12090-2, 12090-3, 12090-4, 12090-5, 12090-6, 12090-7, 12090-8, 12090-9, 12090-10, 12090-11, 12090-12, 12090-13, 12090-14, 12090-15.									

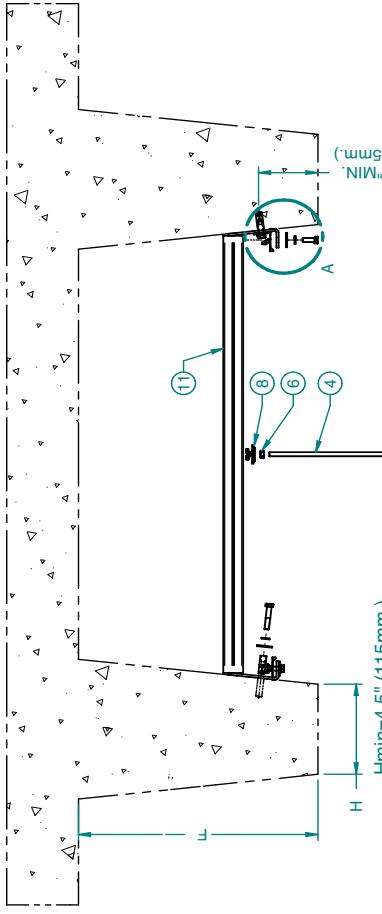
TYPE DE CONCRETE / BÉTON		TITRE / TITLE		5886G (1290,15) REV.00 884 KG (1500 LB)	
 IDENTIFICATION DE REVISION DRAWN/REVISION IDENTIFICATION		SIZE		REV	
C Hanne VERIFIED		B		4	
APPROVED		SCALE	NTS	SHEET	1 / 1
		2			1
		3			

		REV	DESCRIPTION	REV BY	APP BY	DATE
		3	UPDATE - MSE - JOUR	-	-	10-Nov-2008
		4	NOTE ADDED (ADOUTEE) 201116A 201116 REMOVED (ENLEVÉ)	-	-	11-Dec-2008
		5	GENERAL REVISION (CH43286)	J.C.	-	-
		6	ADD METRIC STD + EMBEDDED + NOTES (CH43409)	J.C.	-	-
D						
						
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NOTES:						
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "MA4-ING-007-1-EN" (GENERAL INSTALLATION NOTES).						
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (NOTES GENERALES D'INSTALLATION).						
3. ITEMS 1 & 12 CAN BE REPLACED BY PART #7011090 (IMPERIAL EQUIVALENT OF #7001095) ABOVE CEILING.						
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM MITS RESPECTIVE TABLE (METRIC OR IMPERIAL).						
DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.						
CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
THE CONTRACTOR OR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LISTS OF THE EMBEDDED TYPE TRACK ARE						
FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT FAIRE AVEUGLE QUE LES LEVÉES DU RAIL ENCASTRÉ						
SOIENT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.						
D						
						
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NOTES:						
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (GENERAL INSTALLATION NOTES).						
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CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
THE CONTRACTOR OR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LISTS OF THE EMBEDDED TYPE TRACK ARE						
FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT FAIRE AVEUGLE QUE LES LEVÉES DU RAIL ENCASTRÉ						
SOIENT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.						
D						
						
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DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.						
CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
THE CONTRACTOR OR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LISTS OF THE EMBEDDED TYPE TRACK ARE						
FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT FAIRE AVEUGLE QUE LES LEVÉES DU RAIL ENCASTRÉ						
SOIENT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.						
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NOTES:						
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (GENERAL INSTALLATION NOTES).						
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (NOTES GENERALES D'INSTALLATION).						
3. ITEMS 1 & 12 CAN BE REPLACED BY PART #7011090 (IMPERIAL EQUIVALENT OF #7001095) ABOVE CEILING.						
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM MITS RESPECTIVE TABLE (METRIC OR IMPERIAL).						
DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.						
CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
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FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
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1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (GENERAL INSTALLATION NOTES).						
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3. ITEMS 1 & 12 CAN BE REPLACED BY PART #7011090 (IMPERIAL EQUIVALENT OF #7001095) ABOVE CEILING.						
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM MITS RESPECTIVE TABLE (METRIC OR IMPERIAL).						
DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.						
CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
THE CONTRACTOR OR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LISTS OF THE EMBEDDED TYPE TRACK ARE						
FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT FAIRE AVEUGLE QUE LES LEVÉES DU RAIL ENCASTRÉ						
SOIENT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.						
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NOTES:						
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (GENERAL INSTALLATION NOTES).						
2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "MA4-ING-007-1-EN" (NOTES GENERALES D'INSTALLATION).						
3. ITEMS 1 & 12 CAN BE REPLACED BY PART #7011090 (IMPERIAL EQUIVALENT OF #7001095) ABOVE CEILING.						
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM MITS RESPECTIVE TABLE (METRIC OR IMPERIAL).						
DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.						
CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE EN COMpte POUR LA PRÉCISEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).						
NE PAS MÉLANGER LES SCREWS QU'UNIQUEMENT LES LISTES DE MATERIELS DIFFÉRENTES.						
THE CONTRACTOR OR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LISTS OF THE EMBEDDED TYPE TRACK ARE						
FOUR AS STATED USE ONLY. THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY						
L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT FAIRE AVEUGLE QUE LES LEVÉES DU RAIL ENCASTRÉ						
SOIENT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.						
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REV	DESCRIPTION	REV BY	APP BY	DATE
0	INITIAL RELEASE: RELEASE INITIALE	C.H.	-	10-NOV-2008
1	NOTE ADDED (AUTOPDF) - 20011107WMAS (ET FAIT) 200111160	-	-	11-DEC-2009
2	GENERAL REVISION (CM-42086)	J.C.	-	-
3	ADDMETRIC STD + EMBEDDED + NOTES (CM4409)	J.C.	-	-

NOTES.

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES). DESSIN VALABLE UNIQUEMENT AVEC CONDUITE CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).
 2. ITEMS 6 & 15 CAN BE REPLACED BY PART #0011100 (IMPERIAL EQUIVALENT OF ITEM #0011090) ABOVE CEILING. LES ITÉMENS 6 & 15 PEUVENT ÊTRE REMPLACÉS PAR LA PIÈCE #0011100 (ÉQUIVALENT IMPÉRIAL DU #0011090) AU-DESSUS DU PLAFOND.
 3. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL). CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRIS EN INTEGRALITÉ DANS LES TABLEAUX CORRESPONDANTS (MÉTRIQUE OU IMPÉRIAL).
 4. NO MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS. PAS MÉLANGER LES HABILLAGES DES LISTES DE MATERIELS DIFFÉRENTES.
 5. THE CONTRACTOR RESPONSIBLE FOR THE CEILING MUST BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY, THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY. L'ENTREPRENEUR CHARGÉ DE L'INSTALATION DU PLAFOND DOIT ÊTRE AÉRÉ QUE LES LÈVRES D'UN RAIL ENCASTRÉ SOIENT SEULEMENT POUR FINISTHÉTIQUE, LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDANTMENT.



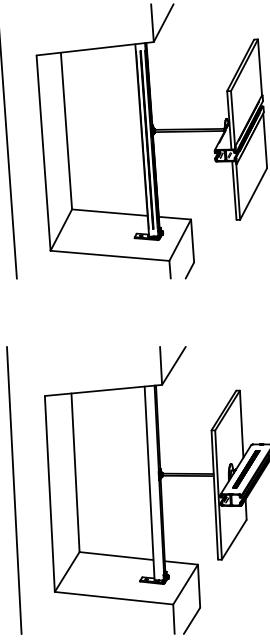
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This technical diagram illustrates a standard KwikTrak embedded track system. It features a ceiling track assembly (1) with a support bracket (2) and a track section (3). A vertical track section (4) is shown being inserted into a ceiling frame (5). The diagram highlights several key components: a lightning rod (6), a junction box (7), a track section (8), a support bracket (9), a track section (10), a track section (11), a track section (12), a track section (13), a track section (14), and a track section (15). A note indicates that track sections 14 and 15 are used for transitions. A callout labeled 'SEE NOTE 2' points to a detail showing a lightning rod (6) and a junction box (7) connected to the track. Another callout labeled 'JOINT NOTE 2' points to a detail showing two track sections (16) and (17) being joined together. A legend on the right side defines the terms: 'CEILING' for the top horizontal track, 'CEILING' for the vertical track, and 'STANDARD KWIKTRAK EMBEDDED KWIKTRAK' for the entire system.



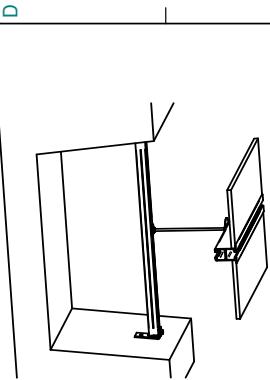
STANDARD INSTALLATION

EMBEDDED INSTALLATION



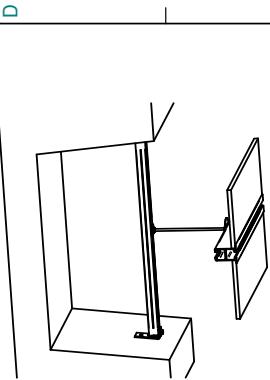
A line drawing of a double-paned window. The window frame is rectangular with two panes. A vertical handle is attached to the right pane, and a horizontal lock mechanism is shown at the bottom right corner of the frame.

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A technical line drawing of a mechanical assembly. It features a vertical rectangular frame standing on a base. A central vertical rod extends from the top of the frame. A horizontal beam is attached to the right side of the central rod. At the end of this horizontal beam is a rectangular panel held in place by a bracket. The entire assembly is shown in perspective, with lines indicating depth.

6



A technical line drawing of a mechanical assembly. It features a vertical rectangular frame standing on a base. A central vertical rod extends from the top of the frame. A horizontal beam is attached to the right side of the central rod, extending to the right. At the end of this horizontal beam is a rectangular panel held in place by a bracket. The entire assembly is shown in perspective, with lines indicating depth.

	Metric Standard Method	Imperial Standard Method
17	700.11100 TRACK BRACKET KWIKITRAK	700.11100 TRACK BRACKET KWIKITRAK
16	200.11170 12MM KWIKITRAK BRACKET SHIM	200.11170 12MM KWIKITRAK BRACKET SHIM
15	200.11140 CEILING PLATE Ø10MM	200.11140 CEILING PLATE Ø10MM
14	000.04812 FLAT WASHER M12, ZINC PLATED STEEL	000.04812 FLAT WASHER M12, ZINC PLATED STEEL
13	000.04435 FLAT WASHER M10, PLAIN STEEL	000.04435 FLAT WASHER M10, PLAIN STEEL
12	000.04430 FLAT WASHER M10, ZINC PLATED STEEL	000.04430 FLAT WASHER M10, ZINC PLATED STEEL
11	000.04363 HILTI STRUT M6x41 X 3M	000.04130 STRUT 1.58 X 10'
10	000.04358 HILTI STRUT NUT M10	000.04026 HILTI STRUT NUT 36x146
9	000.04354 SPLIT LOCK WASHER M10 ZINC, 2.2MM	000.04255 LOCK WASHER 3/8 ZINC PLATED STEEL
8	000.04357 HILTI STRUT SADDLE NUT M10	000.04248 HILTI STRUT SADDLE NUT 38x16
7	000.04356 CONCRETE ANCHOR HHD-E M10 x 40	000.04023 CONCRETE ANCHOR HHD-E 30x16
6	000.04416 M10 ZINC STUDER LOCKNUT	000.04005 NUT 38x16 ZINC PLATED STEEL
5	000.04416 M10 ZINC STUDER LOCKNUT	000.040042 LOCKNUT STOVER 38x16 ZINC PLATED STEEL
4	000.04385 THREADED ROD M10 x 3M ZINC	000.040394 THREADED ROD 38x16 X 10 ZINC PLATED STEEL
3	000.04270 SCREW M10x1.50 x 25 ZINC	000.040381 SCREW 38x16 X 10 HEX ZINC
2	000.04090 SCREW M10x1.50 x 25 HEX ZINC	000.040057 SCREW 38x16 X 10 HEX ZINC
1	000.01617 UNISTRUT PLATE P1326	000.01617 UNISTRUT PLATE P1326
		000.01617 UNISTRUT PLATE P1326

REV	3
SHEET	1 / 1
ARJOHUNTLEIGH GETTINGE GROUP	
METRIC	
THIRD ANGLE PROJECTION	
TYPE DE STRUCTURE / STRUCTURE TYPE : CONCRETE / BÉTON	
DRAWN BY C.Hanne	
VERIFIED	
APPROVED	
SIZE	B
SCALE	NTS
DRAWING NUMBER	32210.10
DATE / DATE	10-Nov-2008
TITLE / TITRE : Poutrelles de béton CONCRETE BEAM	
IDENTIFICATION DE REVISION REVISION IDENTIFICATION	
SHEET NUMBER / SHEET NUMBER : 1 / 1	
NAME / NAME : SEAU D'INGENIERIE ENGINEER STAMP	
FIN INTRALIP	
DESCRIPTION (END)	
SAFETY INFORMATION / SAFETY INFORMATION :	
SAFE OPERATING LOAD OF HYDRAULIC MOTOR CHARGE 1000 LBS (453.6 KG) @ 1000 RPM WEIGHT OF CHASSIS 272KG (600 LB) ACCORDING TO LOCAL REGULATIONS TEST BEARING CAPACITY OF CHASSIS 340KG (750 LB) OR 490KG (900LB)	

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NOT APPLICABLE
FOR EMBEDDED TRACK

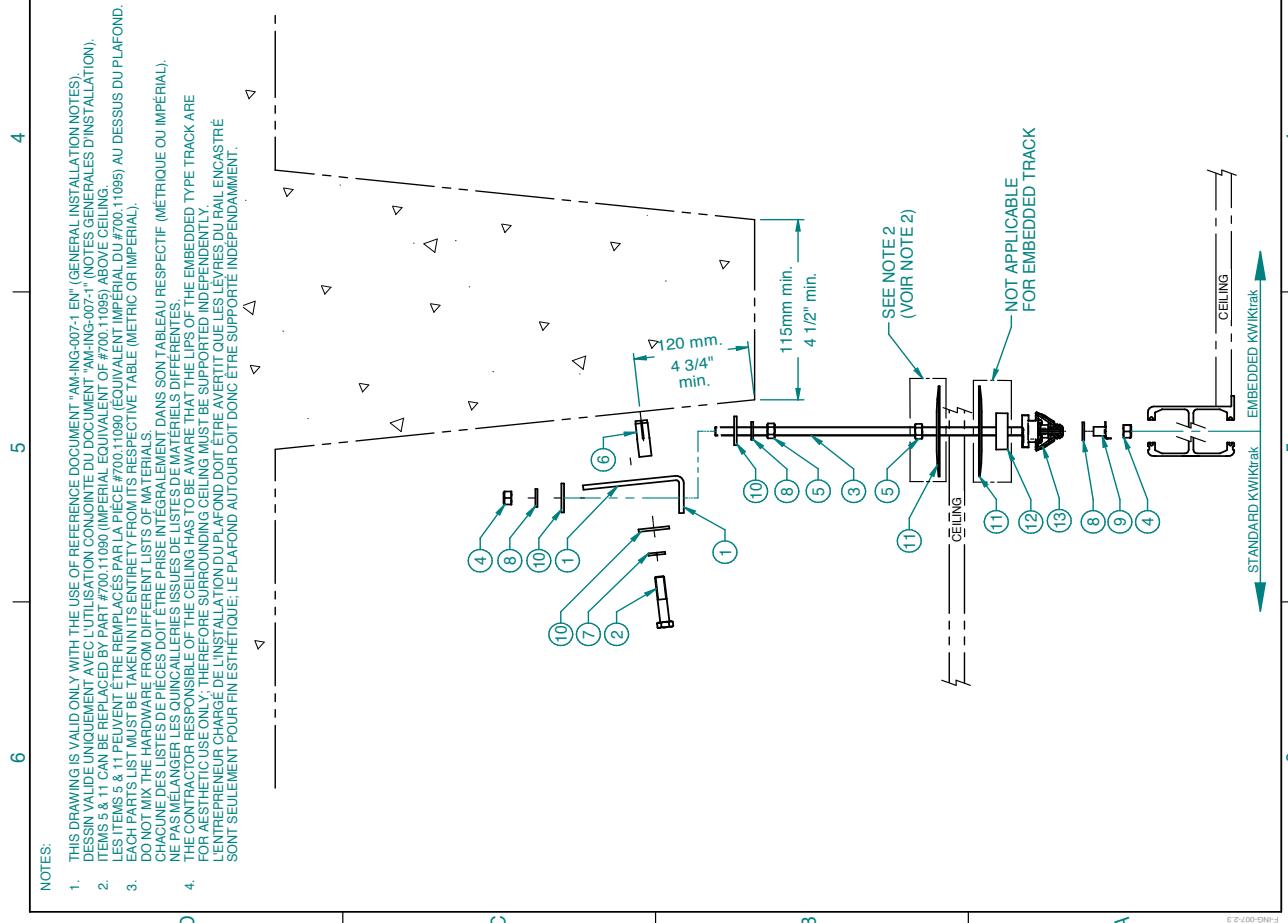
SEE NOTE 2
JOIN NOTE 2

The diagram illustrates a standard KwikTrak embedded ceiling track system. It features a rectangular ceiling frame with a central horizontal track. The track is labeled "CEILING" and "STANDARD KWIKTRAK EMBEDDED KWIKTRAK". A vertical bracket labeled "DETAIL B" is shown on the right side.

4

NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT A-MING-007-1 EN[®] (GENERAL INSTALLATION NOTES).
 2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DES DOCUMENTS A-MING-007-1[®] (NOTES GENERALES D'INSTALLATION).
 3. ITEMS 5 & 11 MUST BE REPLACED BY PART #700.11089 (IMPERIAL EQUIVALENT OF #700.11085) ABOVE CEILING.
 4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
- DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.
- CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRÉPAREE INDEPENDAMMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).
- NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIAUX DIFFÉRENTES.
- THE CONTRACTOR RESPONSIBLE OF THE CEILING HAS TO BE AWARE THAT THE LIPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY; THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY.
- L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT ÊTRE Avertis QUE LES LÈVRES DU RAIL ENCASTRE SONT SEULEMENT POUR FIN ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT ÊTRE SUPPORTÉ INDEPENDAMMENT.



REV	DESCRIPTION	REV BY	APP BY	DATE
0	INITIAL DESIGN	-	-	10-NOV-2008
1	NOTE ADDED (ACCEPTED) - 200.111160	-	-	11-DEC-2009
2	GENERAL REVISION (CM-04409)	J.C.	-	-
3	ADD METRIC STD + EMBEDDED - NOTES (CM-04409)	J.C.	-	-

IMPERIAL STANDARD METHOD		METRIC STANDARD METHOD	
13	700.111160	TRACK BRACKET KWIKTRAK	700.111160
12	200.111170	12MM KWIKTRAK BRACKET SHIM	200.111170
11	200.111140	CEILING PLATE Ø100MM	200.111140
10	000.04875	FLAT WASHER M12 ZINC PLATED STEEL	000.04875
9	000.04435	FLAT WASHER M10 PLAIN STEEL	000.04435
8	000.04430	FLAT WASHER M10 ZINC PLATED STEEL	000.04430
7	000.04425	SPLIT LOCK WASHER M10 ZINC 2.2MM	000.04425
6	000.04536	CONCRETE ANCHOR HKDE M10 X 40	000.04536
5	000.04400	NUT M10 ZINC	000.04400
4	000.04416	M10 ZINC STOVER LOCKNUT	000.04416
3	000.04365	THREADED ROD M10 X 3M ZINC	000.04365
2	000.04270	SCREW M10 X 50 HEX ZINC	000.04270
1	000.01617	UNISTRUT PLATE P1326	000.01617

FIXATION LATÉRALE
LATERAL FIXATION

ARJOHUNTLEIGH

GETTING GROUP

SIZE	DRAWING NUMBER	REV
B	32210.12	3
1	1	1

NOTES:											
1.	THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM/ING-007-1 EN" (GENERAL INSTALLATION NOTES).										
	DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM/ING-007-1" (NOTES GENERALES D'INSTALLATION).										
2.	ITEMS 7 & 3 CAN BE REPLACED BY PART # 700.11090 (IMPERIAL EQUIVALENT OF #700.11085) ABOVE CEILING.										
3.	LES ITEMS 7 & 3 PEUVENT ÊTRE REMPLACÉS PAR LA PIÈCE #700.11090 (ÉQUIVALENT IMPÉRIAL DU #700.11085) AU DESSUS DU PLAFOND.										
4.	EACH PARTS LIST MUST BE TAKEN IN ITS ENTITIETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).										
	DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.										
	CHACUNE DES LISTES DE PIÈCES D'ETIERRE PRISE INTÉGRALEMENT DANS CHAQUE LISTE DE MATERIELS DIFFÉRENTES.										
	NE PAS MELANGER LES LISTES DE PIÈCES D'ETIERRE PRISE INTÉGRALEMENT DANS CHAQUE LISTE DE MATERIELS DIFFÉRENTES.										
	THE CONTRACTOR RESPONSIBLE FOR AESTHETIC IS ECONOMICALLY RESPONSIBLE FOR THE CEILING. THE EFFECTS OF THE CEILING MUST BE SUPPORTED INDEPENDENTLY.										
	LE CONTRACTEUR RESPONSABLE DE L'ENTREPRENEUR CHARGÉ DE L'INSTALLATION DU PLAFOND DOIT ÊTRE AVERTI QUE LES LÈVRES DU RAIL ENCASTRE SONT SEULEMENT POUR FIN ESTHÉTIQUE. LE PLAFOND AUTOUR DOIT DONC ÊTRE SUPPORTÉ INDEPENDANTMENT.										
SEE NOTE 2 (VOIR NOTE 2)		120mm min. 4¾" min.		120mm min. 4¾" min.		1		4		NOT APPLICABLE FOR EMBEDDED TRACK	
NOT APPLICABLE FOR EMBEDDED TRACK		SEE NOTE 2 (VOIR NOTE 2)		5		6		7		8	
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STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING		CEILING	
STANDARD KWIKTRAK EMBEDDED KWIKTRAK		CEILING		CEILING		CEILING		CEILING			

Notes



STEEL

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Structure Family: Steel

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Structure Family: Steel

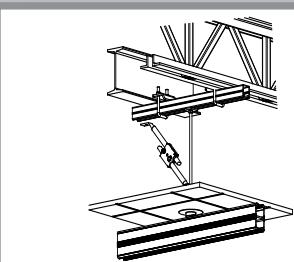
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure to support the load.
- Follow manufacturer's instructions for anchor installation.

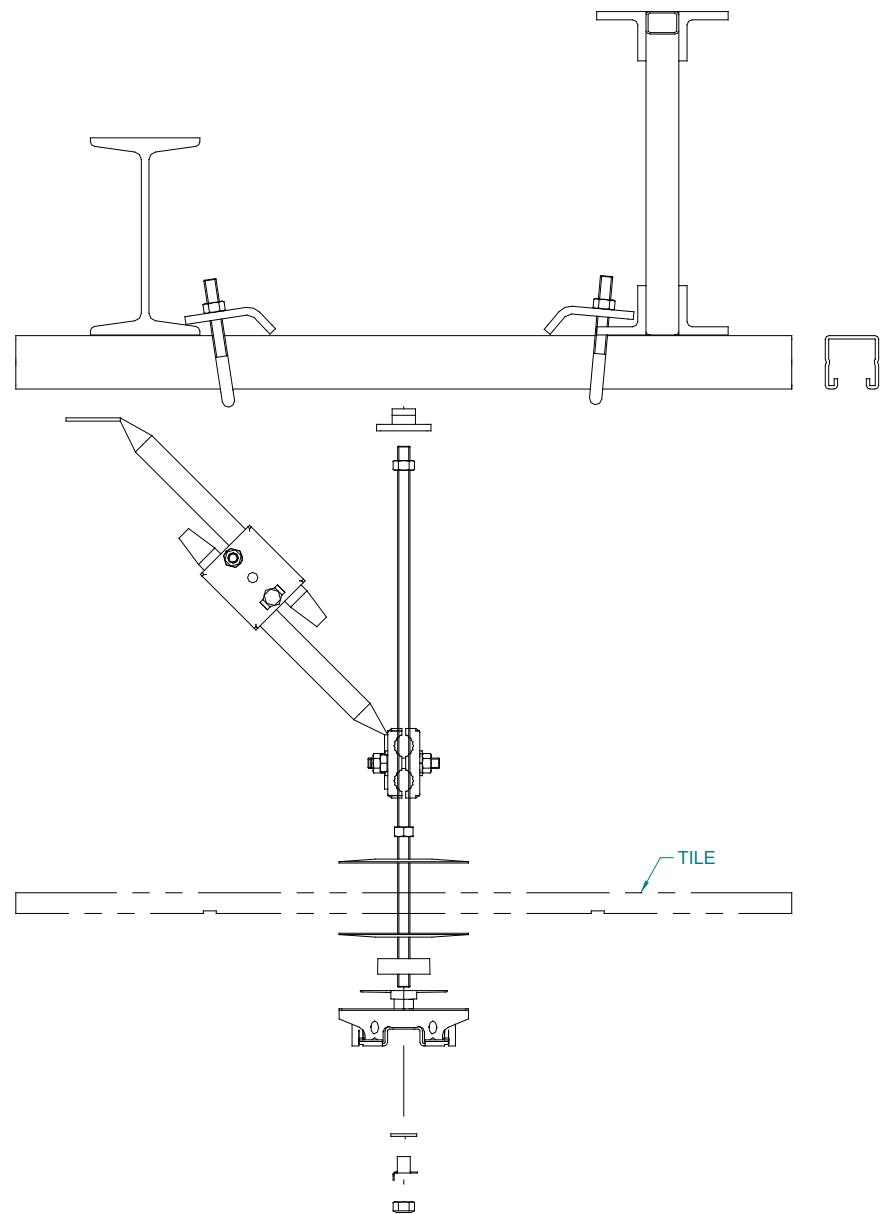


Detail: Steel with suspended tiles

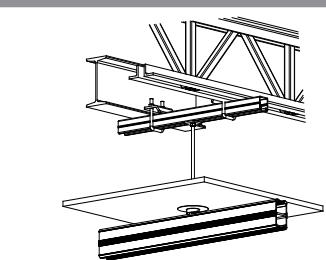


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 21210.01

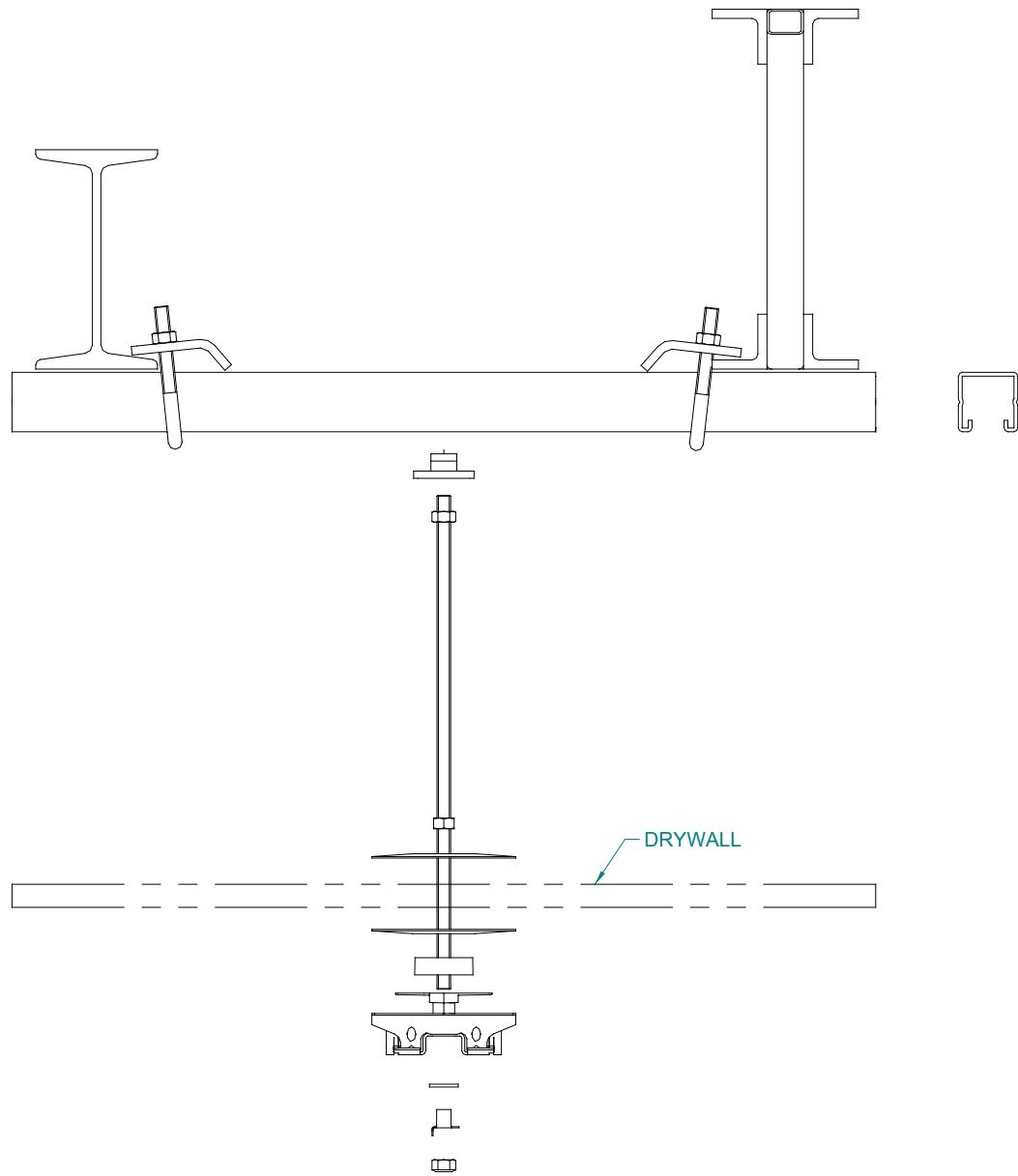


Detail: steel with suspended drywall



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 22210.01



Method: Steel

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



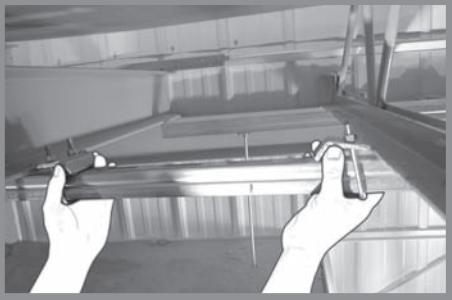
The following installation procedure can be used with reinforcing metal joists and "I" or "L" shaped joists.

02



Slide a clamp on each side of the "C" strut that has already been cut to the correct length. The C strut must exceed the joists by about 50 mm (2 in).

03



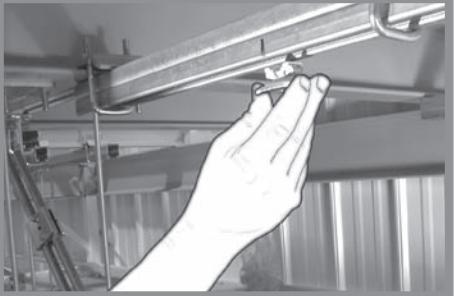
Position the "C" strut in the hole's axis of the attic floor...

04



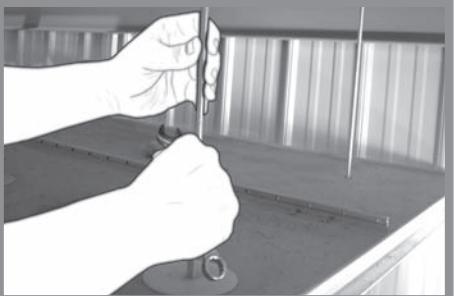
...and firmly tighten the two screws located at the ends of the "C" strut.

05



Fasten a coupling nut in the hole's axis of the suspended ceiling.

06



Insert the bottom end of a threaded rod into a ceiling plate that is in contact with the suspended ceiling, and then, into the suspended ceiling itself.

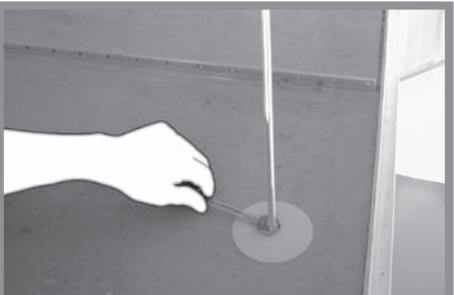
Screw the other rod's extremity into the coupling nut.

07



Make sure the rod is perfectly vertical and placed in the hole axis. Then, tighten the coupling nut.

08



Tighten the nut of the ceiling plate for a proper *sandwich effect*.

09



Possible issues and recommended solutions

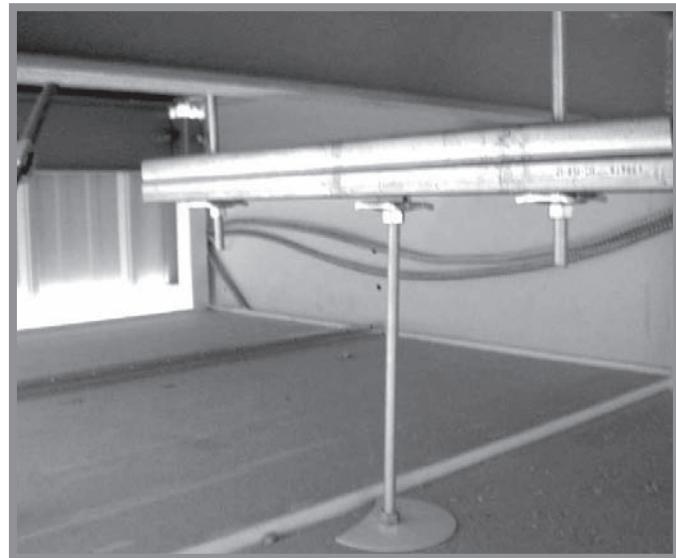
- Considering the possibility of having various elements (structural, HVAC, electrical, etc.) blocking the installation, here are some solutions:

VENTILATION, BEAM, etc.:

- Bridging is required.
- Drop a threaded rod on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.

STEEL REINFORCEMENT, ELECTRICAL CONDUIT, AND SMALL OBSTRUCTIONS:

- Bridging is required.
- Drop a threaded rod on a minimum distance of 15 cm (6in) on each side of the obstruction.
- Install a "C" strut respecting required distances according to the manufacturer.
- All installation components must be properly tightened and locked.



NOTE...

...when bridging is visible, all noticeable parts must be painted white and end caps must be used.

Annexes

Structure details

21210.01 - Suspended tiles	139
21210.02 - Steel beams/Suspended tiles	140
22210.02 - Steel beams/Suspended drywall.....	141



LOG ON!

ArjoHuntleigh is constantly improving its products and procedures. For this reason, it may be possible that technical drawings have been updated since this manual was produced. We highly recommend you to obtain the latest revisions of these technical drawings in the restricted section of the website.

NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES). DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).
2. FOR ADJUSTABLE LATERAL BRACE, USE PART #00.11360 OR #00.11350 DEPENDING ON CEILING HEIGHT. POUR LE RÉFORT LATÉRAL AJUSTABLE, UTILISER LA PIÈCE #00.11360 OU #00.11350 DÉPENDANT DE LA HAUTEUR DU PLAFOND.
3. REFER TO LATERAL BRACE REQUIREMENTS IN APPENDIX A. SE REFERIR A L'ANNEXE DES RÉFERTS LATÉRAUX.
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL). DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRIS INTÉGRALEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL). NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES.
5. THE CONTRACTOR RESPONSIBLE OF THE CEILING HAS TO BE AWARE THAT THE UPS OF THE EMBEDDED TYPE TRACK ARE FOR AESTHETIC USE ONLY; THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY. L'ENTREPRISE CHARGE DE L'INSTALLATION DU PLAFOND DOIT ÊTRE AVEUT QUE LES LÈVRES DU RAIL ENCASTRE SOIENT SEULEMENT POUR UNE ESTHÉTIQUE; LE PLAFOND AUTOUR DOIT DONC ÊTRE SUPPORTÉ INDEPENDAMMENT.

NOTES:

SEE NOTE 2 Voir Note 2
SEE NOTE 3 Voir Note 3

STANDARD INSTALLATION EMBEDDED INSTALLATION

REF.	DESCRIPTION	REV.	REV BY	DATE
1	UPDATE: MIS A JOUR	1	C.H.	10/NOV/2008
2	NOTE ADDED - NOTE AJOUTÉE	2	-	19-FEV-2010
3	GENERAL REVISION CM-002086	3	J.C.	-
4	ADD METRIC STD + EMBEDDED - NOTES CM-0449	4	J.C.	-

ITEM	PN Metric	PN Imperial	Description (EN)	Qty
1	SEE ADDED	SEE ADDED	SEE ADDED	1
2	SEE NOTE 2 Voir Note 2	SEE NOTE 2 Voir Note 2	SEE NOTE 2 Voir Note 2	1
3	NOT APPLICABLE FOR EMBEDDED TRACK	NOT APPLICABLE FOR EMBEDDED TRACK	NOT APPLICABLE FOR EMBEDDED TRACK	1
4	SET SCREW (000.04585) INCLUDED WITH TRACK BRACKET (000.04585) VIS DE PRESSION (000.04585) FOURNIE AVEC L'ATTACHE	SET SCREW (000.04585) INCLUDED WITH TRACK BRACKET (000.04585) VIS DE PRESSION (000.04585) FOURNIE AVEC L'ATTACHE	SET SCREW (000.04585) INCLUDED WITH TRACK BRACKET (000.04585) VIS DE PRESSION (000.04585) FOURNIE AVEC L'ATTACHE	1
5	PLASTIC CAP INCLUDED WITH BRACKET (000.04585) CAPUCHON DE PLASTIQUE FOURNIE AVEC L'ATTACHE	PLASTIC CAP INCLUDED WITH BRACKET (000.04585) CAPUCHON DE PLASTIQUE FOURNIE AVEC L'ATTACHE	PLASTIC CAP INCLUDED WITH BRACKET (000.04585) CAPUCHON DE PLASTIQUE FOURNIE AVEC L'ATTACHE	1
6	EMBEDDED KWIKTRAK	EMBEDDED KWIKTRAK	EMBEDDED KWIKTRAK	1
7	STANDARD KWIKTRAK	STANDARD KWIKTRAK	STANDARD KWIKTRAK	1
8	CEILING	CEILING	CEILING	1
9	NOT APPLICABLE FOR EMBEDDED TRACK	NOT APPLICABLE FOR EMBEDDED TRACK	NOT APPLICABLE FOR EMBEDDED TRACK	1
10	CEILING	CEILING	CEILING	1

ARJO HUNTLEIGH GETTING GROUP

MATERIAL	IMPERIAL STANDARD METHOD	IMPERIAL STANDARD METHOD
10	700.11294 TRACK BRACKET SWL 45KG	700.11294 TRACK BRACKET SWL 45KG
9	200.11140 CEILING PLATE Ø100MM	200.11140 CEILING PLATE Ø100MM
8	000.04363 HILTI STRUT NO.41 X 3M	000.01230 STRUT 1.5M X 10'
7	000.04360 HILTI STRUT BEAM CLAMP MGT 21-41	000.00560 HILTI STRUT BEAM CLAMP 1.5M
6	000.04425 SPLIT LOCKWASHER M10 ZINC, 2.2MM	000.00425 LOCK WASHER 38 ZINC PLATED STEEL
5	000.04357 HILTI STRUT SADDLE NUT M10	000.00324 HILTI STRUT SADDLE NUT 38-16
4	000.04400 NUT M10 ZINC	000.00405 NUT 3/8-16 ZINC PLATED STEEL
3	000.04416 M10 ZINC STOVER LOCHNUT	000.00402 STOVER 3/8-16 ZINC PLATED STEEL
2	000.04385 THREADED ROD M10 X 3M ZINC	000.00394 THREADED ROD 3/8-6 X 10 ZINC PLATED STEEL
1	-- ADJUSTABLE LATERAL BRACE --	-- ADJUSTABLE LATERAL BRACE --

METRIC

THIRD ANGLE PROJECTION

TYPE DE STRUCTURE / STRUCTURE TYPE : STEEL / ACIER

IDENTIFICATION DE REVISION / REVISION IDENTIFICATION : C.Hanne 10-NOV-2008

DRAWN / DÉSSINÉ : VERIFIED / VÉRIFIÉ : APPROVED / APPROUVE :

SIZE / DIMENSION : B DRAWING NUMBER / NUMERO DE DIBUJO : B

SCALE / ECH. : NTS SHEET / HOJA : 1/1

NOTES:

- THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AMING-007-1 EN" (GENERAL INSTALLATION NOTES).
 1. DESIGN UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AMING-007-1 EN" (NOTES D'INSTALLATION GÉNÉRALES).
 2. BEAM CLAMP #000.00505 (#000.004361 IMPÉRIAL EQUIVALENT) WHEN STRUT HEIGHT DIMENSION IS 2 7/16" AND BEAM CLAMP #000.00501 WHEN STRUT HEIGHT DIMENSION IS 2 11/16".
 3. UTILISE LA PLANCHE #000.00505 (ÉQUIVALENT IMPÉRIAL #000.004361) LORSQUE LE PROFIL EST DE 2 7/16" DE HAUTEUR ET LA PLANCHE #000.00501 LORSQUE LE PROFIL EST DE 2 11/16".
 4. LES TIENS & & SONT POURREMETTRE EN PLACE LA PIÈCE #700.11090 (ÉQUIVALENT IMPÉRIAL DU #700.11095).
 5. EACH PARTS LIST MUST BE TAKEN IN ENTIRE & FROM ITS RESPECTIVE TABLE (METRIC OR IMPÉRIAL).

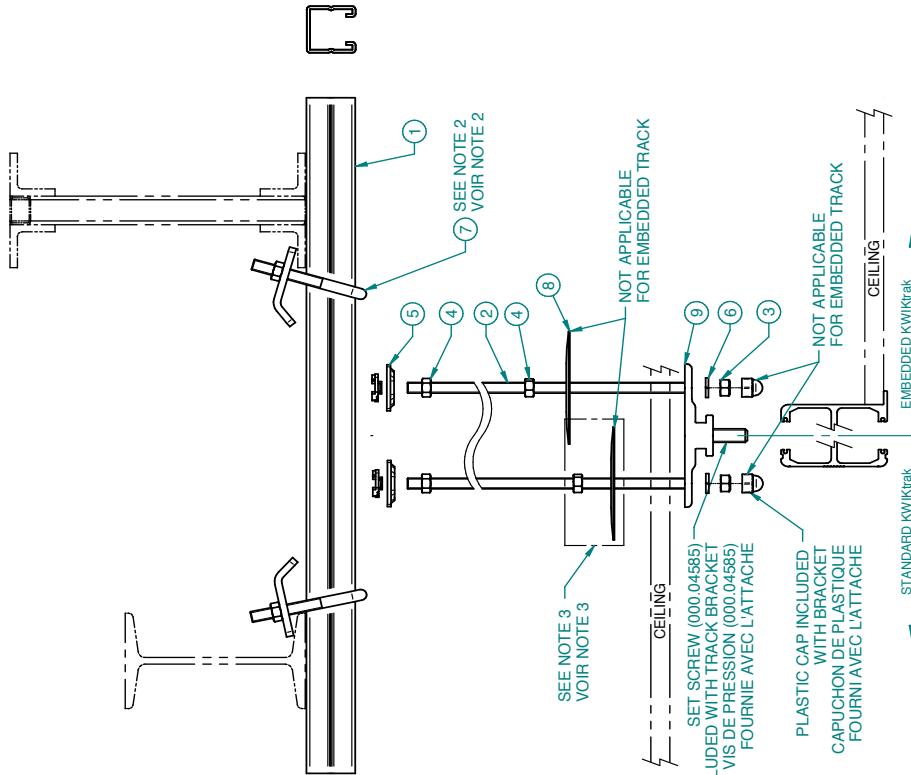
EACH PARTS LIST MUST BE TAKEN IN ENTIRE & FROM ITS RESPECTIVE TABLE (METRIC OR IMPÉRIAL).

DON'T MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.

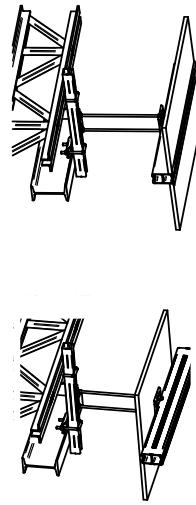
NE PAS MELANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES.

FOR AESTHETIC USE ONLY, THEREFORE SURROUNDING CEILING MUST BE SUPPORTED INDEPENDENTLY.

L'ENTREPRENEUR CHARGE DE L'INSTALLATION DU PLAFOND DOIT ETRE AVERTE QUE LES LEVRES DU RAIL ENCASTRE SONT SEULEMENT FOURNIS POUR FIN ESTHÉTIQUE. LE PLAFOND AUTOUR DOIT DONC ETRE SUPPORTÉ INDEPENDANTEMENT.



STANDARD INSTALLATION EMBEDDED INSTALLATION



METRIC STANDARD METHOD		IMPERIAL STANDARD METHOD	
9	700.11204 TRACK BRACKET SWI-455KG	700.11204 TRACK BRACKET SWI-455KG	1
8	200.11140 CEILING PLATE 6.10MM	200.11140 CEILING PLATE 6.10MM	2
7	000.04640 HILTISTRU BEAM CLAMP MGT 21-41	000.04640 HILTISTRU BEAM CLAMP 1.58	
6	000.04255 SPLIT LOCK WASHER M10 X ZINC 2.2MM	000.04255 SPLIT LOCK WASHER 3.8, ZINC PLATED STEEL	2
5	000.04357 HILTISTRU SADDLE NUT M10	000.04357 HILTISTRU SADDLE NUT 38-16	
4	000.04400 NUT M10 ZINC	000.04400 NUT 3/8-16, ZINC PLATED STEEL	4
3	000.04416 M10 ZINC STOVERLOCKNUT	000.04416 LOOKOUT STOVER 3/8-16 ZINC PLATED STEEL	2
2	000.04385 THREADED ROD M10 X 2M ZINC	000.04385 THREADED ROD 3/8-16 X 10 ZINC PLATED STEEL	AR
1	000.04665 HILTISTRU TM-22 X 3M	000.04665 HILTISTRU TM-22 X 3M	AR
Item	P/N Metric	Description (EN)	Pin Imperial Description (EN)
			Qty
METRIC		ARJOHUNTLEIGH GETINGE GROUP	
SCALING ENGINEER ENGINEER STAMP		TITLE / TITLE	
THIRD ANGLE PROJECTION		DRAWING NUMBER	
TYPE DE STRUCTURE / STRUCTURE TYPE : STEEL / ACIER		SIZE	
DRAWN	10-NOV-2008	B	DRAWING NUMBER
VERIFIED	C.Hanne		
APPROVED		NTS	SCALE
		22210.02	REV
			4
			SHEET
			1 / 1

Notes



WOOD

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Method: 2x6in with access to the structure	149

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Detail: Roof trusses 2x4in with tiles	179
Detail: Roof trusses 2x4in with drywall	180
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Structure Family: Wood Beams (2×6 in) and more

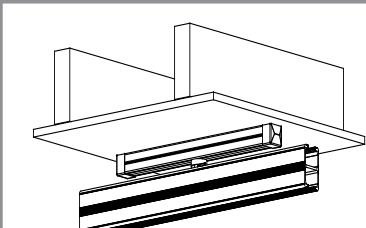
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.

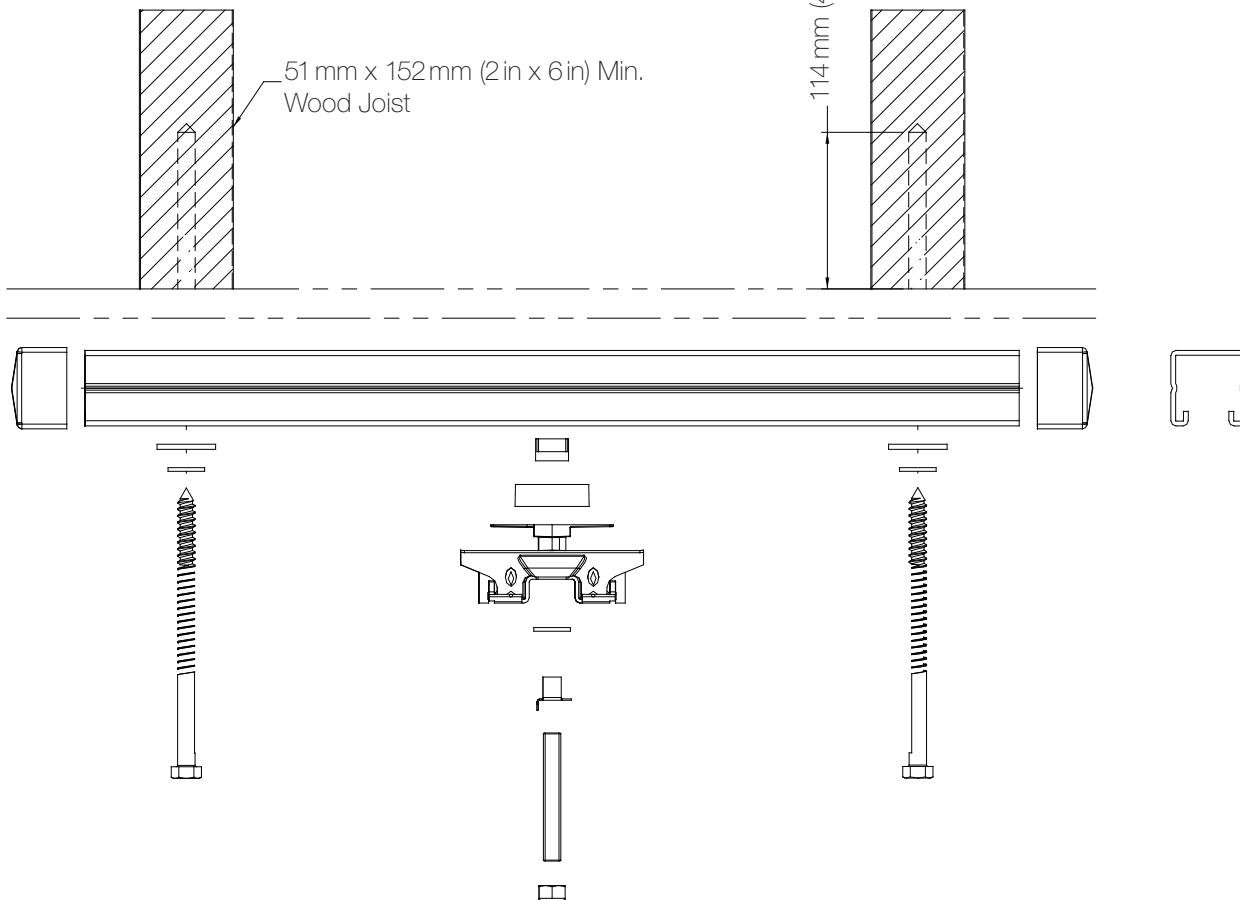


Detail: 2x6 in with no access to the structure

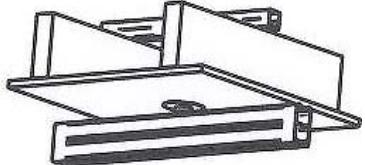


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12110.03

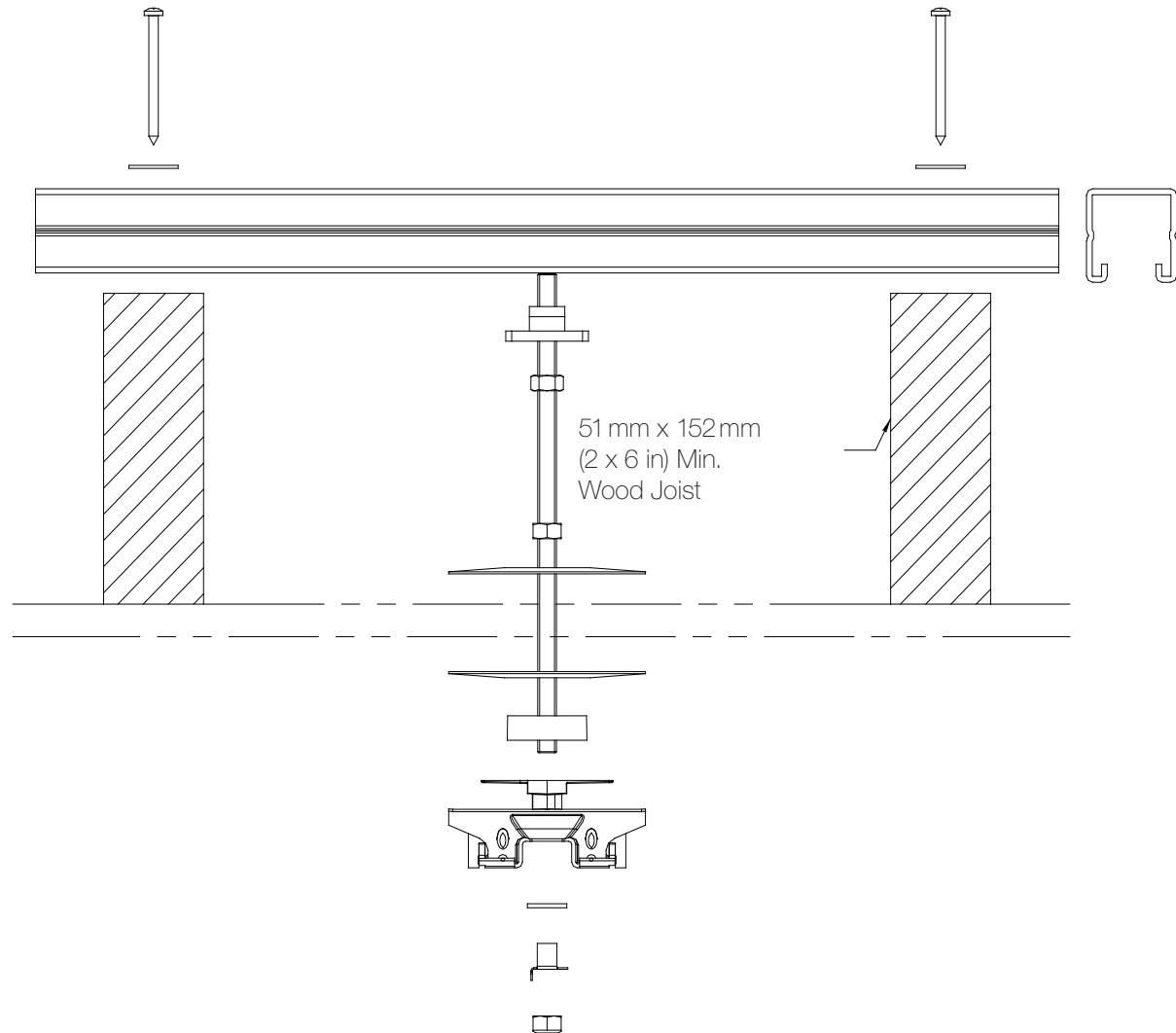


Detail: 2x6 in with access to the structure



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12110.02



Method: 2x6 in with access to the structure

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Find the anchor's position and transfer it onto the suspended ceiling.

02



Drill the suspended ceiling where there is a marked point.

03



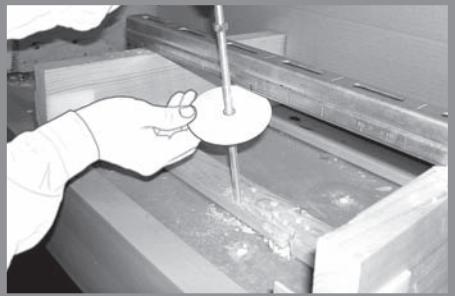
Measure the distance between beams and cut a "C" strut to the corresponding length, then add 10cm (4 in).

04



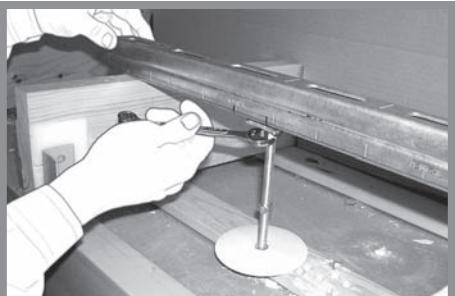
Install the strut channel on beams by aligning it with the hole's axis on the suspended ceiling.

05



Insert a portion of the threaded rod with its hardware into the hole of the suspended ceiling.

06



Fasten the saddle nut to the strut channel and tighten it firmly. Tighten also the nut of the ceiling plate to produce the *sandwich effect*.

07



With the appropriate hardware, fasten the ends of the strut channel into the beams.

08



Method: 2x6 in with access to the structure

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Determine the anchor point and transfer it onto the suspended ceiling using a plumb laser.

02

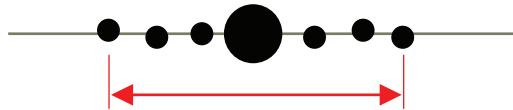


Using a pencil, draw a line that passes by the anchor point and in the axis of the track to be installed.

03



To detect the edges of a beam, drill holes, using a sharp drill bit, along the line that you have previously drawn.
Find out whether there is a beam or not behind the holes.



04



Having the edges of beam as reference points, use a 6mm (1/4 in) drill bit to drill the middle of beam at a depth of 10 to 14 cm (4 to 5 in).

05



Measure the distance between beams...

06



...and transfer that measurement onto a white strut channel, then add 4".

07



Cut the strut channel to the measured length.

08



Fix the caps to the ends of the strut channel.

09



With the required hardware, fasten the strut channel in the anchor points.

10



Tighten the lag bolt into the wood and repeat step for the other end of the strut channel.



Respect the minimum threaded depth of the lag screw specified on approved technical drawings.

The minimum threaded depth must be strictly followed, otherwise the carrying capacity of the lag bolt will be seriously reduced..

The lag bolt must be turned with a wrench, not driven with a hammer.

11



Place a saddle nut, tighten it...

12



...and attach the threaded rod on it.

13



Notes

Structure Family: Roof Truss (2x4 in)

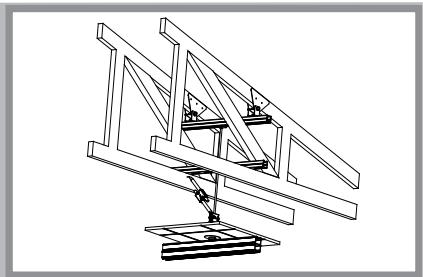
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.
- Follow manufacturer's instructions for anchor installation.

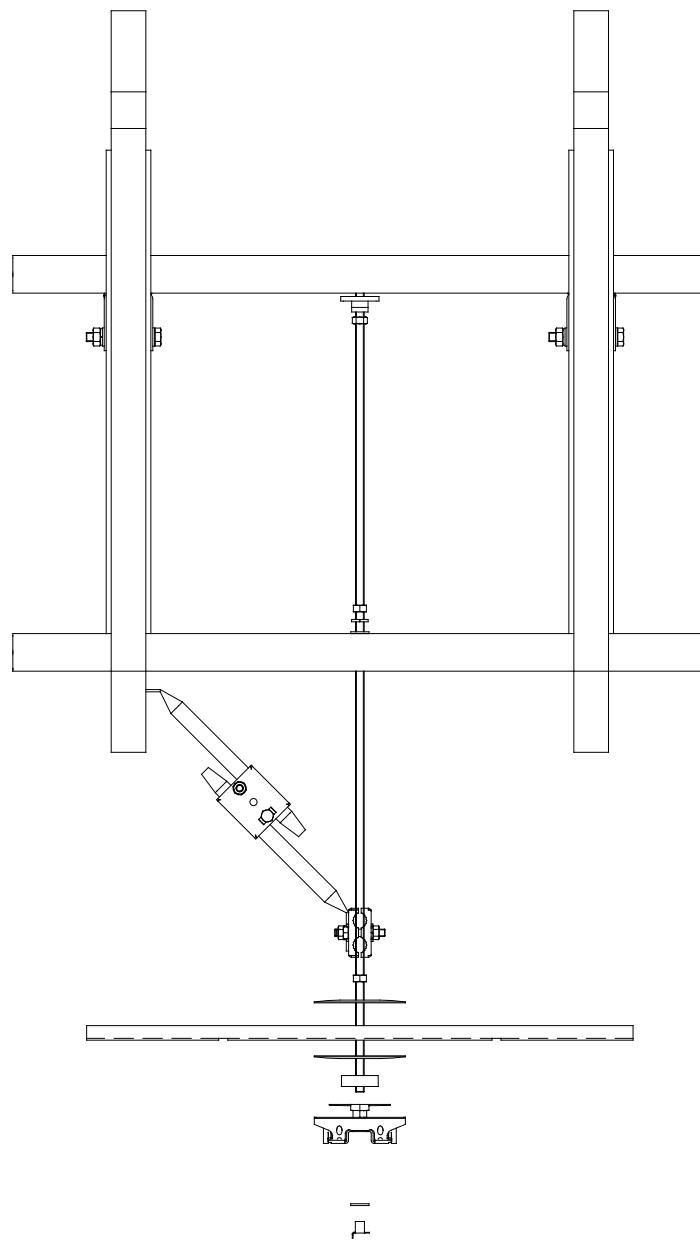


Detail: 2x4 in Truss with drywall



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

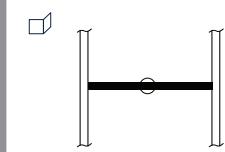
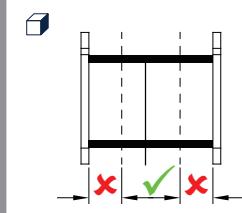
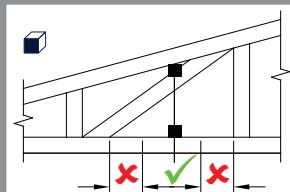
Ref.: 11210.04



Four possible methods for attachment

- Installing in roof trusses can be performed in different ways, according to the bracket's positions and other parameters.
- Here are the methods to follow for every case:

01



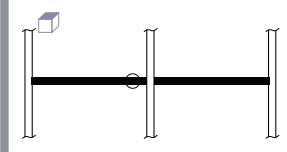
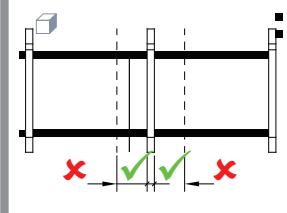
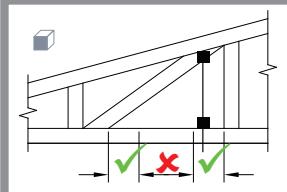
Conditions:

- Anchor at less than 20 cm (8 in) from a node.
- Anchor at less than 20 cm (8 in) from a beam.

Advantages:

- Low price
- Quick installation

02



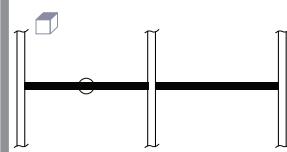
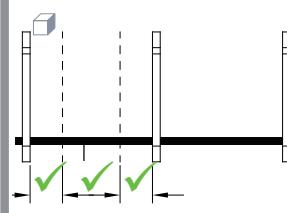
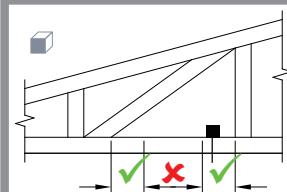
Conditions:

- Anchor at less than 20 cm (8 in) from a node.
- Anchor at less than 20 cm (8 in) from a beam.

Advantages:

- Low price
- Quick installation

03



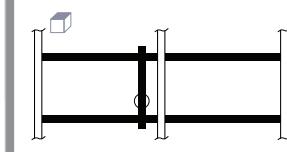
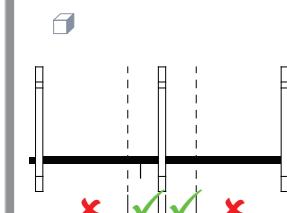
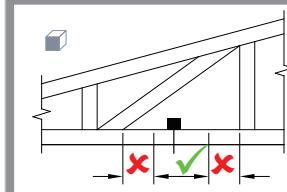
Conditions:

- Anchor at more than 20 cm (8 in) from a node.
- Needs 3 beams.

Advantages:

- Less restraining

04



Conditions:

- Anchor at less than 20 cm (8 in) from a node.
- Needs 3 beams.

Advantages:

- Less restraining

Method: 2x4 in truss - (Method A)

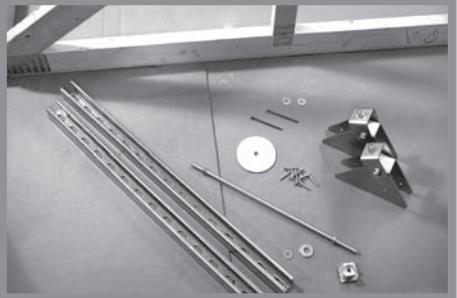
- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Before starting, make sure there are no possible obstructions within the structure.

02



The kit contains everything necessary to install a bracket.

03



Mark the anchor location on the dropped ceiling.

04



Drill the anchor point in the dropped ceiling.

05



Once in the dropped ceiling, place a vertical laser into the predrilled hole axis.



NOTE...

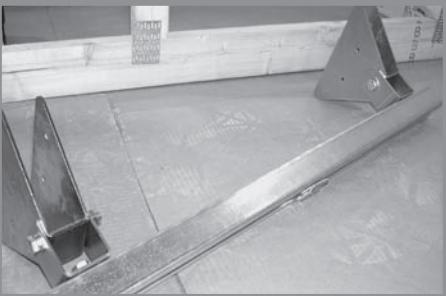
Note that the following step must be performed only when the bracket is located at more than 20 cm (8 in) from a node AND at more than 20 cm (8 in) from a truss. Otherwise, consult method B or C.

06



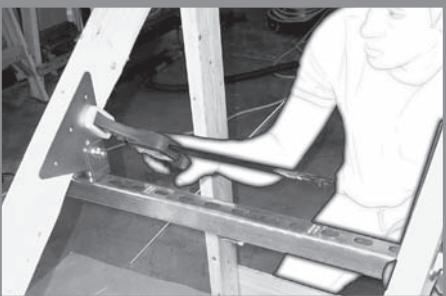
Measure the distance between trusses...

07



...and, later, adjust the kit.

08



Temporarily install the kit at an approximate location and secure one of its side using a vice.

09



Align the other side of the kit with the truss to reach the anchor point marked by the laser.

10



Mark the bracket location.

11



Fasten both brackets on each side.
Three screws on one side...

12



...and two on the other side. Repeat this procedure on the other truss. In total, there should be 10 screws.

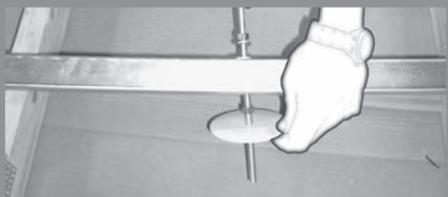
13



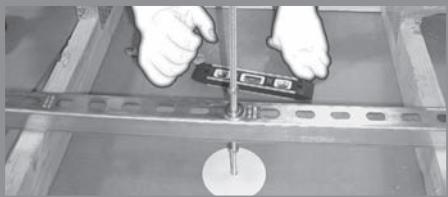
Measure the necessary threaded rod length above the suspended ceiling. Add a 25 cm (10 in) measurement that will be needed to attach the bracket below the suspended ceiling.

14

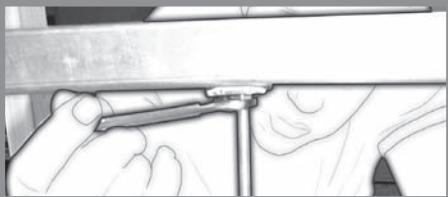
Cut the threaded rod in the predetermined length.

15

Prepare the "C" strut and threaded rod's assembly. Take care to leave enough space for you to be able to adjust the rod's position once everything is in position.

16

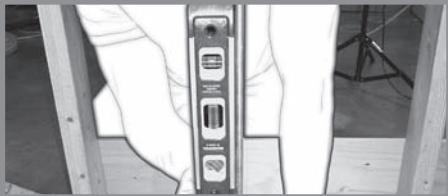
Insert the top of rod into the upper "C" strut using the included bracket.

17

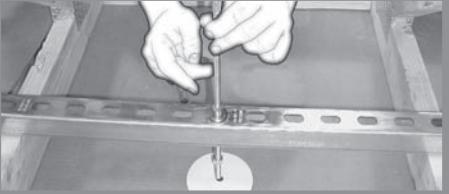
Tighten the nut firmly.

18

Make sure the threaded portion of the threaded rod is completely inserted into the bracket.

19

Using a level, make sure the rod is perfectly vertical.

- 20**  Adjust the central nut.
Make sure it exerts a slight pressure against the lower "C" strut.

- 21**  Adjust the nut at the bottom.
Make sure it exerts a slight pressure against the ceiling.

- 22**  Fasten the lower "C" strut using included screws and washers.

- 23**  Make sure the assembly is firmly anchored.

- 24**  Control and adjust the upper "C" strut. It needs to be perfectly horizontal.



Method: 2x4 in truss - (Method B)

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Follow the same method as in “Truss 2x4 in (Method A)” section, using 1.5m (60 in) “C” struts that will be leaned against three trusses instead of two.

02



Method: 2x4 in truss - (Method C)

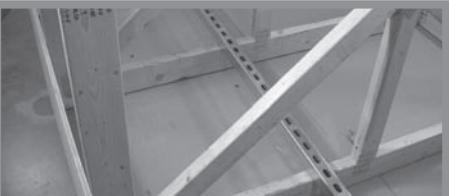
- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Locate the bracket's hole.

02



Align the strut channel above the hole, making sure the strut channel covers 3 trusses.

03



Check if the hole is located in the axis of a strut channel opening.

04



Screw the ends of the two struts channel.

05



Fix the threaded rod and its hardware.

06



Tighten the assembly and make sure the *sandwich effect* has been applied.

Method: 2x4 in truss - (Method D)

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Find the anchor point on the suspended ceiling.

02



Fasten the first strut channel above the 3 trusses with the appropriate hardware. The nearest truss to the anchor point is the central truss.

03



Proceed in the same way to fasten a second strut channel.

04



Place a strut channel perpendicularly, above the first two strut channels and mark its position with a marker.
Make sure a hole in the small strut channel is in the axis of the anchor point.

05



Turn the small strut channel over (hollow part facing the top) and attach two saddle nuts...

06



...tighten them firmly.

07



Where the bracket is located, insert a portion of the threaded rod with its corresponding hardware.

08



Insert a saddle nut...

09



...and tighten it.

10



Tighten the bottom nut to produce the *sandwich effect* with the ceiling plate.

11



Notes

Structure Family: Engineered Beams (TJI)

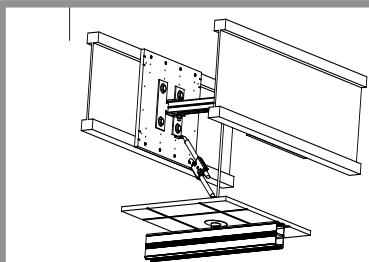
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.
- Follow manufacturer's instructions for anchor installation.

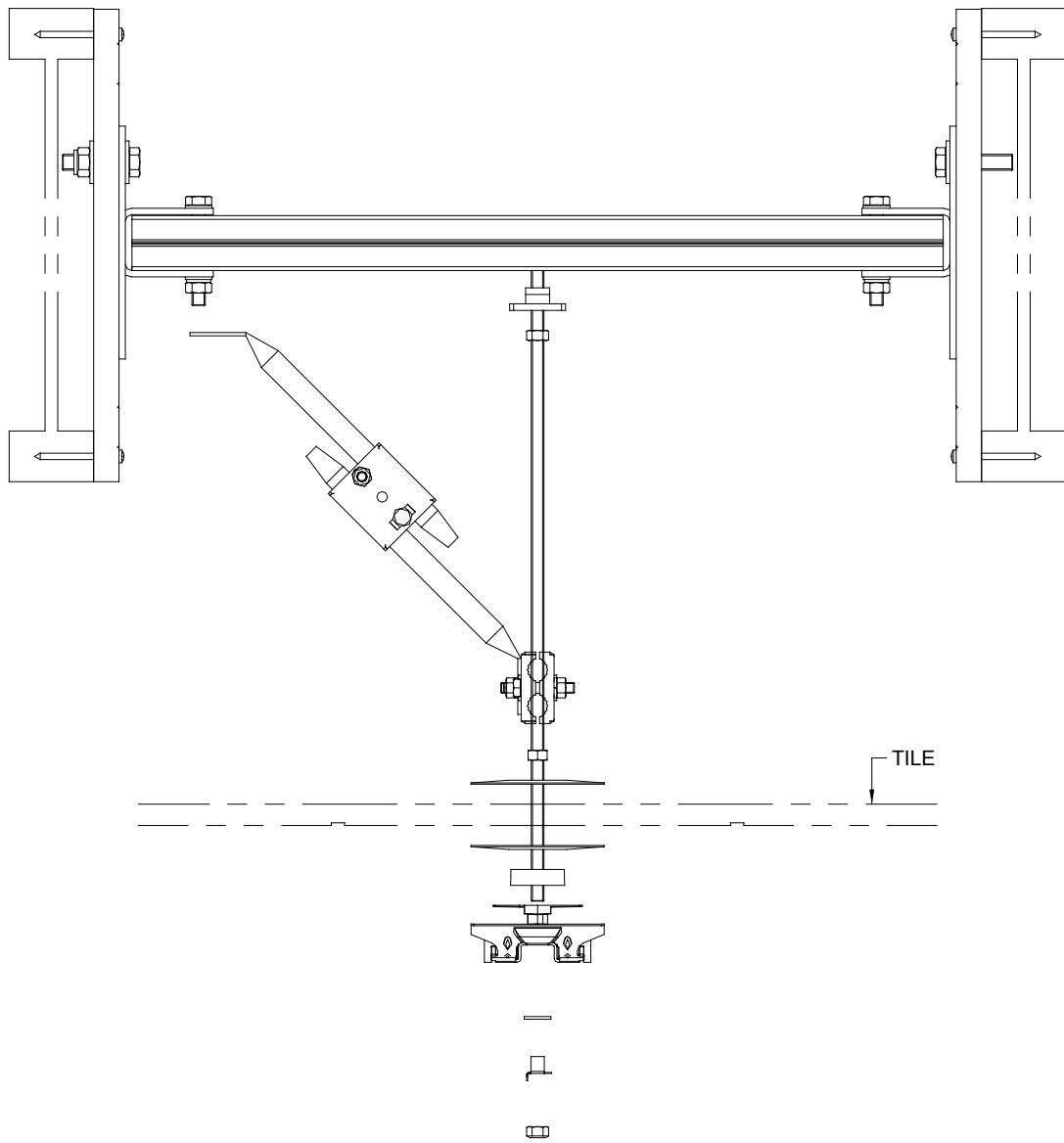


Detail: engineered beams (TJI) with tiles

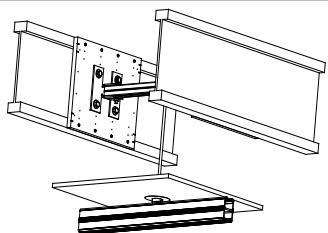


A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 11210.08

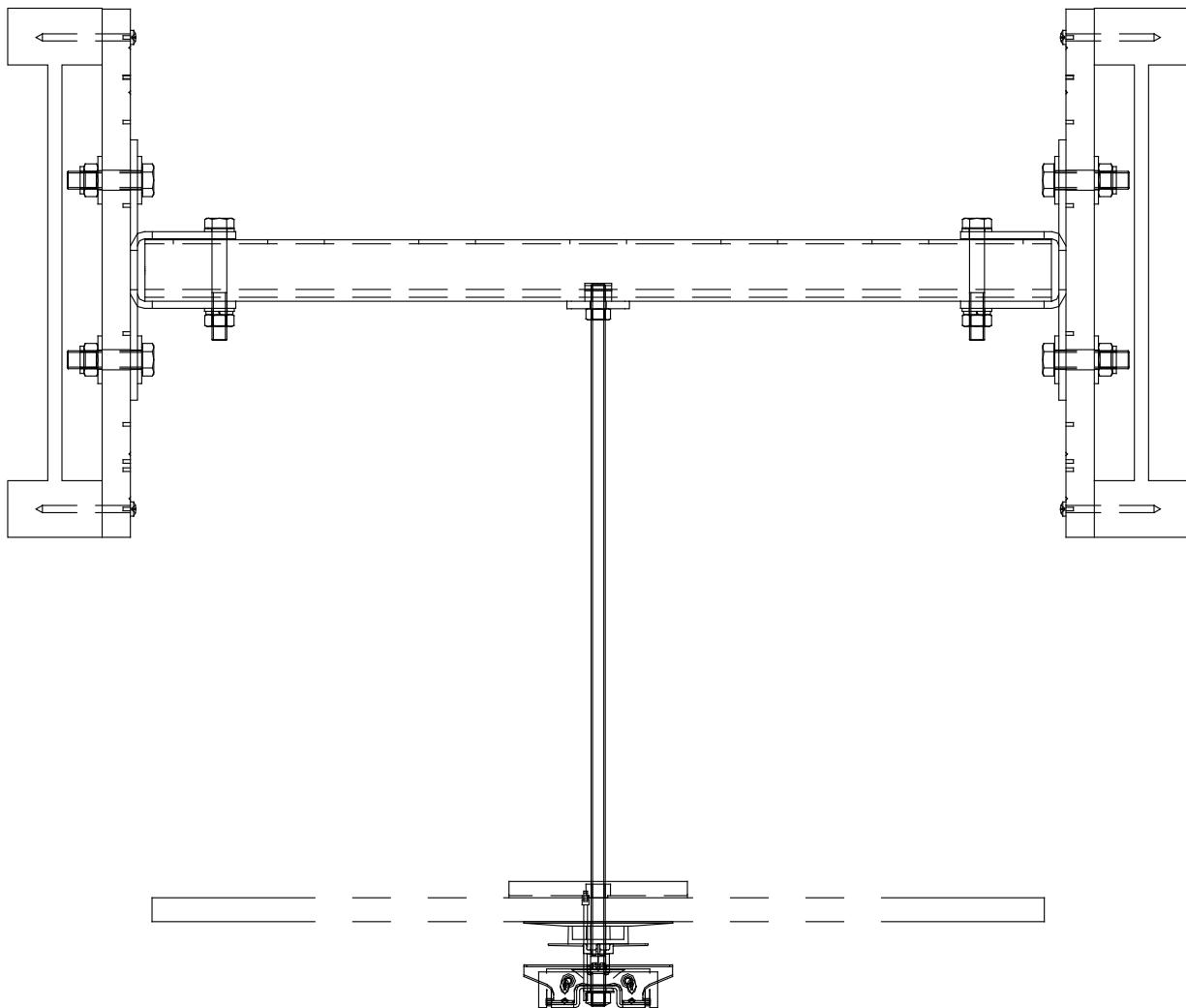


Detail: engineered beams (TJI) with drywall



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12210.08



Method: engineered beams (TJI)

- Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Perpendicular to the beams...

02



...transfer the anchor points on both beams.

03



Measure the beams' height...

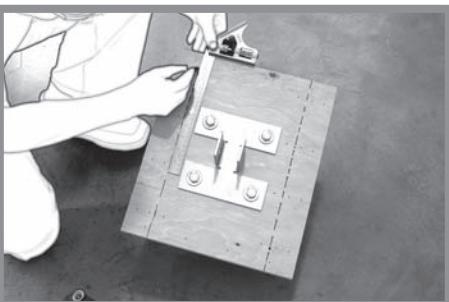
04



...and transfer this measurement on the two plates required for mounting.

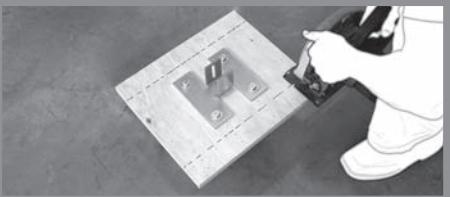
Make sure the metallic attachment is perfectly centered on the plate after the plate has been cut.

05



Respecting your measurements, trace some cut lines.

06



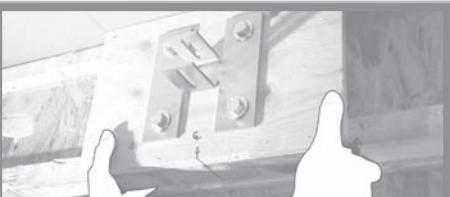
Cut plywood to size by sawing off the excess parts.

07



Measure and mark the central axis onto the plates.

08



Put the plate on the beam and mark both locations of beams' lowest and upper edges onto the plate.
These measurements will help you to spread the attachment screws evenly.

09



Lay out a glue line so that it is in contact with the beams' lowest and highest sections.

10



Apply a thin line of glue on previous drawn lines...

11



Stick the plate on the beam by aligning your reference marks.
Tighten everything with a clamp.

12

Set screws in the predrilled holes.

13

Repeat the procedure on the opposite beam.
Then, measure the distance between the two fastening plates.

14

Transfer this measurement onto a strut channel.

15

...and cut it to the determined length.

16

Put the strut channel into the "H-brackets" of the two fastening plates.

17

Install the required hardware...

18



...and tighten firmly.

19



Place a saddle nut and a portion of a threaded rod.

20



Firmly tighten the saddle nut.

21



The "Lite" ceiling lifts are designed to support a maximum working load of 100 kg (220 lb). Some methods have been specially developed to facilitate the installation.

The anchoring system methods for light installations are almost the same as those intended for conventional ceiling lifts (272 kg [600 lb] or more).

For light installations, use the installation details found in this section, and follow procedures explained in the previous sections (2x4 in, 2x6 in, and TJI).



NOTE...

The methods described in this section ("Light installations") can only applied to "Lite" Ceiling Lifts that are LIMITED TO THEIR INFERIOR LIMIT OF 100kg (220 lb).

In all other cases, it is mandatory to follow the anchoring methods for the conventional ceiling lifts (272 kg [600 lb] or more).

Light Installations

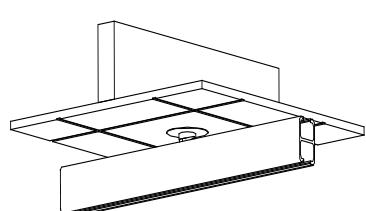
Special considerations

The purpose of this step:

- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.

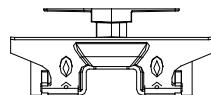
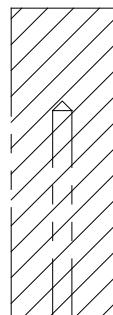


Detail: Wood 2x4 in directly

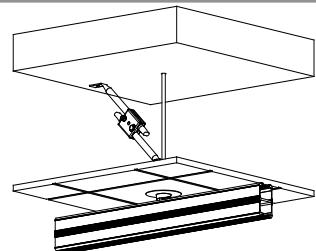


This detail is valid for the Lite Ceiling Lifts motors limited to 100kg (220lb) only. A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12110.50

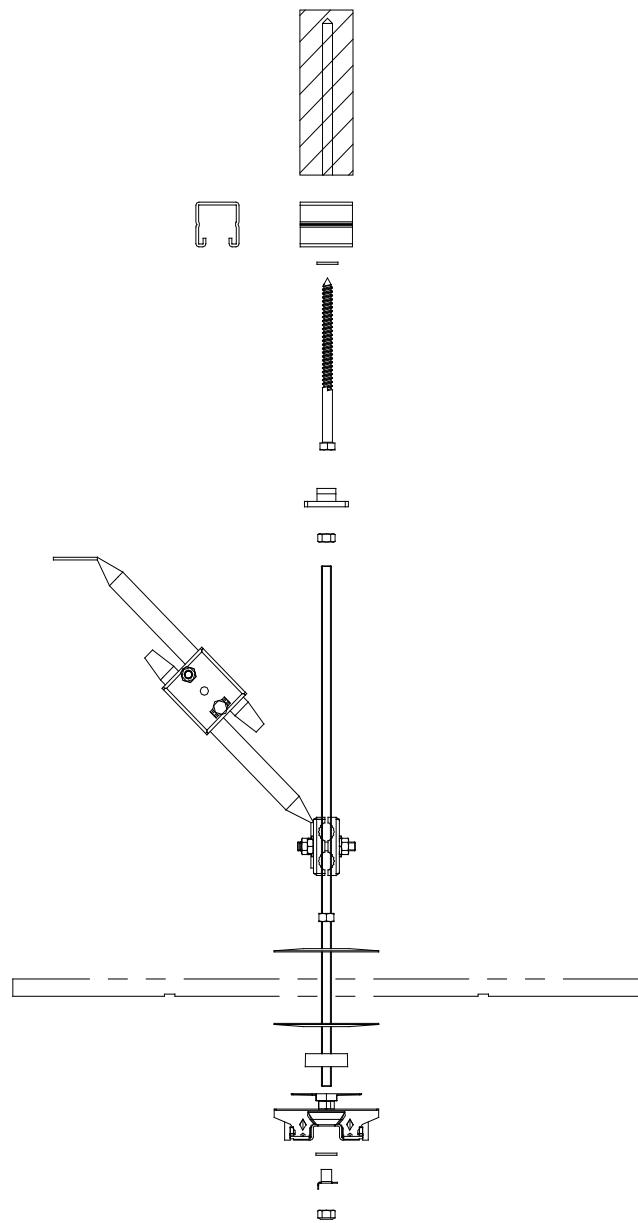


Detail: Wood 2x4 in with tiles

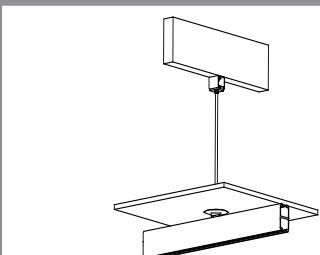


This detail is valid for the Lite Ceiling Lifts motors limited to 100 kg (220 lb) only. A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 11210.50

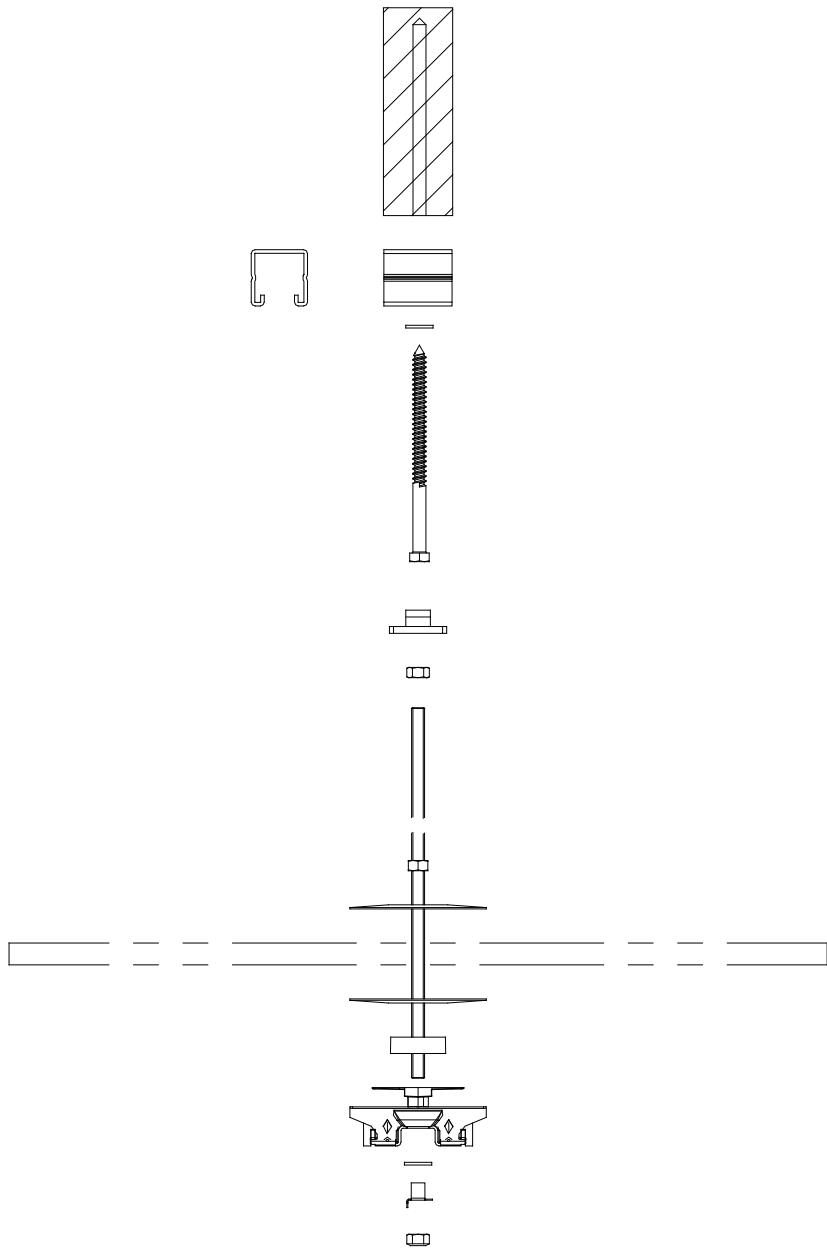


Detail: Wood 2x4 in with drywall

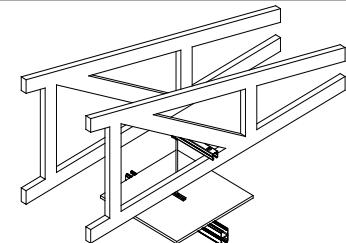


This detail is valid for the Lite Ceiling Lifts motors limited to 100kg (220lb) only. A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12210.50

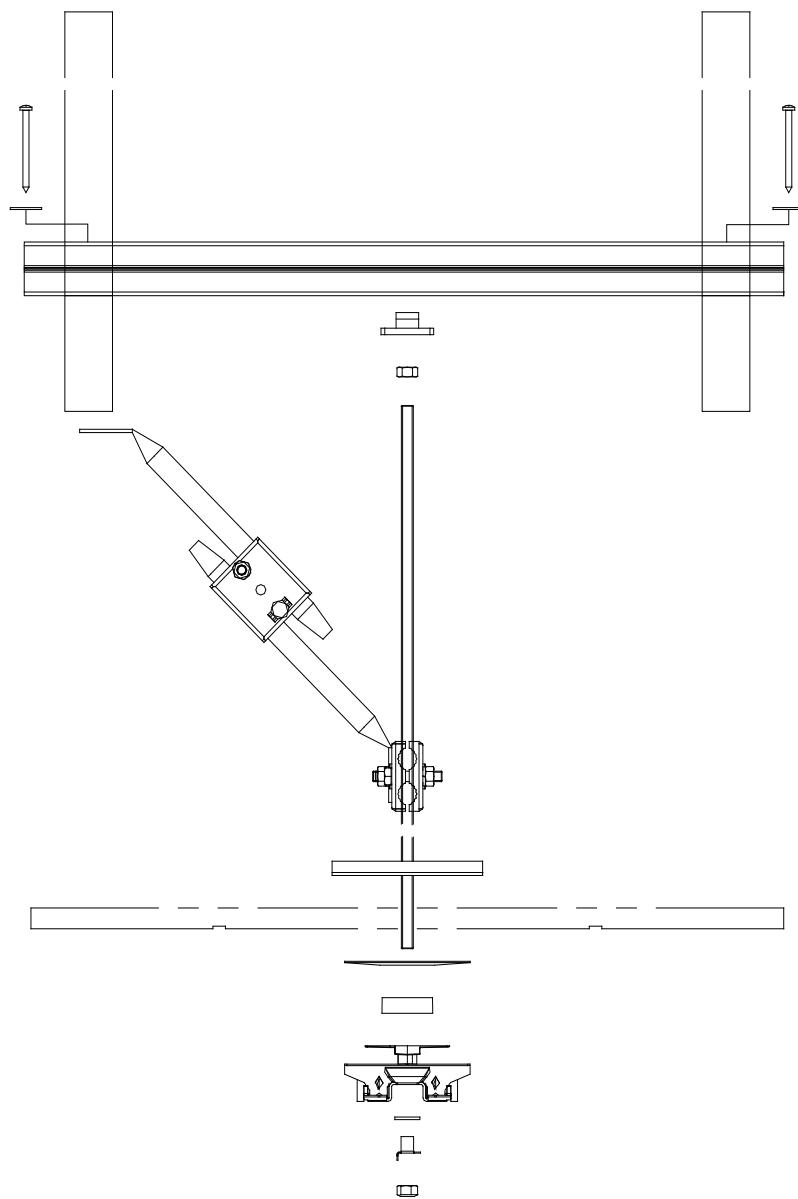


Detail: Roof trusses 2x4 in with tiles

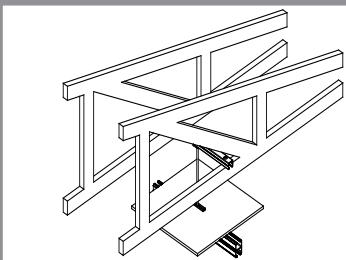


This detail is valid for the Lite Ceiling Lifts motors limited to 100kg (220lb) only. A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 11210.51

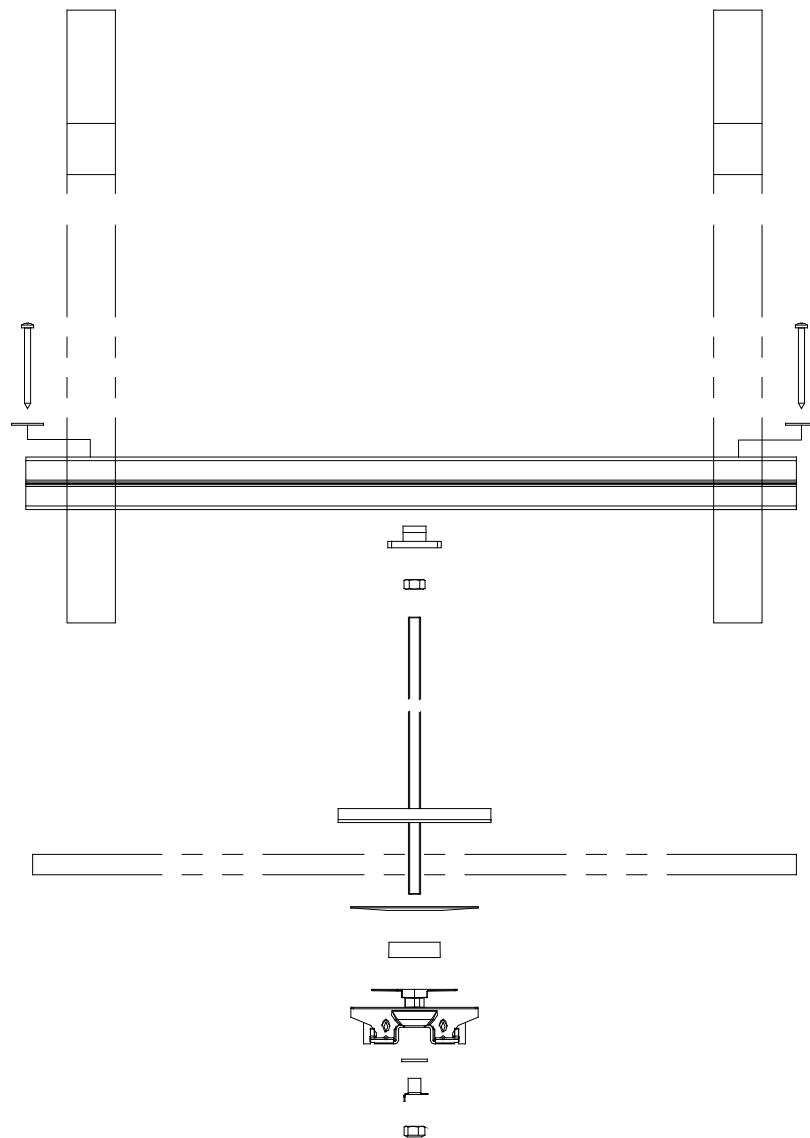


Detail: Roof trusses 2x4 in with drywall



This detail is valid for the "Lite" Ceiling Lifts limited to 100kg (220lb) only. A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).

Ref.: 12210.51



Annexes

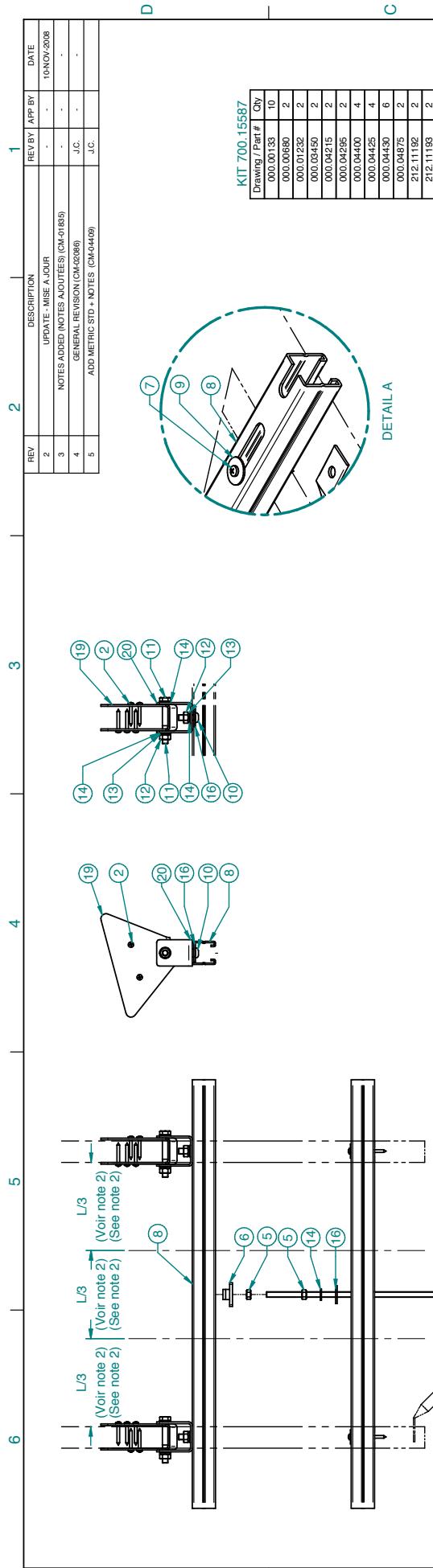
Structure details (Original format: 11x7 in)

11210.01 - 2 x 6 - Suspended tiles	182
11210.04 - Installation on 2 x 4 wood trusses/Tiles.....	183
11210.08 - Installation on engineering wood joist/Tiles.....	184
12110.03 - Direct with visible unistrut.....	185
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12210.01 - 2 x 6 - Drywall with access	187
12210.04 - Installation on 2 x 4 wood trusses/Drywall.....	188
12210.08 - Installation on engineering wood joist/Drywall	189
12210.50 - 2 x 4 Suspended drywall	190
12210.51 - Installation on 2 x 4 wood trusses/Gypsum	191



LOG ON!

ArjoHuntleigh is constantly improving its products and procedures. For this reason, it may be possible that technical drawings have been updated since this manual was produced. We highly recommend you to obtain the latest revisions of these technical drawings in the restricted section of the website.



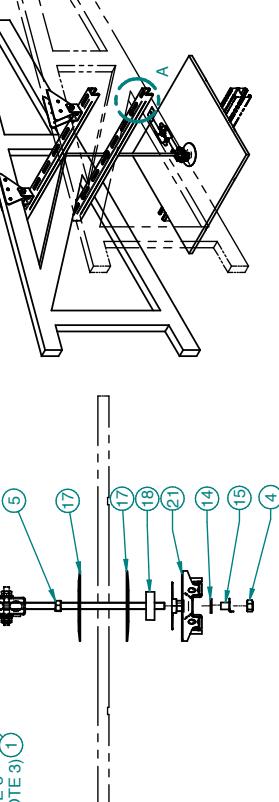
KIT 700 15587

REV	DESCRIPTION	REV BY	APP BY	DATE
2	UPDATE - MISE A JOUR	-	-	TONOV/2008
3	NOTES ADDED (NOTES AJOUTÉES) ICM-01835	-	-	-
4	GENERAL REVISION ICM-20086	J.C.	-	-
5	ADD METRIC STD + NOTES ICM-04090	J.C.	-	-

DETAIL A

IMPERIAL STANDARD METHOD				
21	700.11100	TRACK BRACKET KWIKTRAK	700.11100	TRACK BRACKET KWIKTRAK
20	212.11193	ROOF TRUSS BRACKET PIVOT	212.11193	ROOF TRUSS BRACKET PIVOT
19	212.11192	ROOF TRUSS BRACKET	212.11192	ROOF TRUSS BRACKET
18	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170	12MM KWIKTRAK BRACKET SHIM
17	200.11140	CEILING PLATE Ø100MM	200.11140	CEILING PLATE Ø100MM
16	000.04375	FLAT WASHER M12 ZINC PLATED STEEL	000.04375	FLAT WASHER M12 ZINC PLATED STEEL
15	000.04355	TAB WASHER M10 PLAIN STEEL	000.04355	TAB WASHER M10 PLAIN STEEL
14	000.04350	FLAT WASHER M10 ZINC PLATED STEEL	000.04350	FLAT WASHER M10 ZINC PLATED STEEL
13	000.04425	LOCK WASHER M10	000.04425	LOCK WASHER M10
12	000.04400	NUT M10 ZINC PLATED STEEL	000.04400	NUT M10 ZINC PLATED STEEL
11	000.04595	SCREW M10 X 75 HEX ZINC PLATED STEEL	000.04595	SCREW M10 X 75 HEX ZINC PLATED STEEL
10	000.04215	SCREW M10 X 30 BUTTON ZINC	000.04215	SCREW M10 X 30 BUTTON ZINC
9	000.03450	FLAT WASHER M6 (25 OD) ZINC PLATED STEEL	000.03450	FLAT WASHER M6 (25 OD) ZINC PLATED STEEL
8	000.01532	HILT STRUT 1.58" X 30° PREGALVANIZED STEEL	000.01532	HILT STRUT 1.58" X 30° PREGALVANIZED STEEL
7	000.00581	EZ WESPLS T-S 3.5 X 50MM	000.00581	EZ WESPLS T-S 3.5 X 50MM
6	000.04357	HILT STRUT SADDLE NUT M10	000.04357	HILT STRUT SADDLE NUT 3/8-16
5	000.04400	NUT M10 ZINC	000.04400	NUT 3/8-16 ZINC PLATED STEEL
4	000.04416	M10 ZINC STOVER LOCKNUT	000.04416	M10 ZINC STOVER LOCKNUT
3	000.04385	THREADED ROD M10 X 3M ZINC	000.04385	THREADED ROD 3/8-16 X 10 ZINC PLATED STEEL
2	000.00133	WOOD SCREW #10 X 112 ZINC PLATED STEEL	000.00133	WOOD SCREW #10 X 112 ZINC PLATED STEEL
1	--	ADJUSTABLE LATERAL BRACE **	--	ADJUSTABLE LATERAL BRACE **

NOTES:

SEE NOTE 3
(VOIR NOTE 3)

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES).
2. ALLOWABLE ZONE FOR THREADED ROD IF THREADED ROD IS TO BE INSTALLED OUTSIDE THIS ZONE, THE INSTALLATION MUST BE DONE USING THE NEXT WOOD TRUSS ITEM 8 SHALL THEN BE REPLACED USING PART #00001230 CUT TO THE APPROPRIATE LENGTH, IN THE ZONE AUTORISEE DUE LA GRANDE FILETE, SIELLE DOTTÉ ET INSTALLE HORS DE CETTE ZONE, IL FAUT ETENDRE LA STRUCTURE SUR UNE TROISIÈME POUTRELLE, ITEM 8 DEVRAIT ALORS ETRE REMPLACÉ PAR LA PIÈCE #0001230 ET SA LONGUEUR ADAPTÉE AU BESOIN.
3. FOR ADJUSTABLE LATERAL BRACE, USE PART #0001360 OR #0001380 DEPENDING ON CEILING HEIGHT.
4. REFER TO LATERAL BRACE REQUIREMENTS ANNEX.
5. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONDUITE DU DOCUMENT "AM-ING-007-1-EN" DANS LA ZONE PERMISE. DANS LE CAS CONTRAIRE, UTILISER LA PIÈCE #0001360 OU #0001380 DEPENDANT DE LA HAUTEUR DU PLAFOND.

SE REFERER A L'ANNEXE DES REINFORCES LATERAUX.

ITEMS 12, 17 TO 4, 16, 19 & 20 ARE INCLUDED IN KIT #700.15587.

ITEMS 12, 17, 18, 19 & 20 SONT INCLUS DANS L'ENSEMBLE #700.15587.

EACH PARTS LIS MUST BE TAKEN IN ITS ENTIRETY FROM THE FRONT PAGE (METRIC OR IMPERIAL).

CHACUNE DES PIÈCES DOIT ÊTRE PRENUE INDÉMMENT DANS SON TABLEAU RESPECTIF (METRIQUE OU IMPÉRIAL).

NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIAUX DIFFÉRENTES.

SE REFERER A L'ANNEXE DES REINFORCES LATERAUX.

ITEMS 12, 17 TO 4, 16, 19 & 20 SONT INCLUS DANS L'ENSEMBLE #700.15587.

EACH PARTS LIS MUST BE TAKEN IN ITS ENTIRETY FROM THE FRONT PAGE (METRIC OR IMPERIAL).

CHACUNE DES PIÈCES DOIT ÊTRE PRENUE INDÉMMENT DANS SON TABLEAU RESPECTIF (METRIQUE OU IMPÉRIAL).

NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIAUX DIFFÉRENTES.

IMPERIAL STANDARD METHOD				
21	700.11100	TRACK BRACKET KWIKTRAK	700.11100	TRACK BRACKET KWIKTRAK
20	212.11193	ROOF TRUSS BRACKET PIVOT	212.11193	ROOF TRUSS BRACKET PIVOT
19	212.11192	ROOF TRUSS BRACKET	212.11192	ROOF TRUSS BRACKET
18	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170	12MM KWIKTRAK BRACKET SHIM
17	200.11140	CEILING PLATE Ø100MM	200.11140	CEILING PLATE Ø100MM
16	000.04375	FLAT WASHER M12 ZINC PLATED STEEL	000.04375	FLAT WASHER M12 ZINC PLATED STEEL
15	000.04355	TAB WASHER M10 PLAIN STEEL	000.04355	TAB WASHER M10 PLAIN STEEL
14	000.04350	FLAT WASHER M10 ZINC PLATED STEEL	000.04350	FLAT WASHER M10 ZINC PLATED STEEL
13	000.04425	LOCK WASHER M10	000.04425	LOCK WASHER M10
12	000.04400	NUT M10 ZINC PLATED STEEL	000.04400	NUT M10 ZINC PLATED STEEL
11	000.04595	SCREW M10 X 75 HEX ZINC PLATED STEEL	000.04595	SCREW M10 X 75 HEX ZINC PLATED STEEL
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8	000.01532	HILT STRUT 1.58" X 30° PREGALVANIZED STEEL	000.01532	HILT STRUT 1.58" X 30° PREGALVANIZED STEEL
7	000.00581	EZ WESPLS T-S 3.5 X 50MM	000.00581	EZ WESPLS T-S 3.5 X 50MM
6	000.04357	HILT STRUT SADDLE NUT M10	000.04357	HILT STRUT SADDLE NUT 3/8-16
5	000.04400	NUT M10 ZINC	000.04400	NUT 3/8-16 ZINC PLATED STEEL
4	000.04416	M10 ZINC STOVER LOCKNUT	000.04416	M10 ZINC STOVER LOCKNUT
3	000.04385	THREADED ROD M10 X 3M ZINC	000.04385	THREADED ROD 3/8-16 X 10 ZINC PLATED STEEL
2	000.00133	WOOD SCREW #10 X 112 ZINC PLATED STEEL	000.00133	WOOD SCREW #10 X 112 ZINC PLATED STEEL
1	--	ADJUSTABLE LATERAL BRACE **	--	ADJUSTABLE LATERAL BRACE **

ARJOHUNTLEIGH GETTING GROUP				
TYPE DE STRUCTURE / STRUCTURE TYPE :	WOOD / BOIS	TYPE / TITLE	INSTALLATION SUR FERMES DE TOUT 2X4/TUILES /INSTALLATION ON 2X4 WOOD TRUSSES / TILES	
Item	P/N Metric	Description EN	P/N Imperial	Description EN
SCAE DININGRED ENGINEER STAMP				

ARJOHUNTLEIGH GETTING GROUP				
IDENTIFICATION DE REVISION REVISION IDENTIFICATION	△	DRAWN DRAWN	E. Duply	19-FEV-2008
VERIFIED VERIFIED				
APPROVED APPROVED				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				
SIZE / DRAWING NUMBER	B	SCALE	NTS	
REV				

ARJOHUNTLEIGH GETTING GROUP				

<tbl

NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1 EN" (GENERAL INSTALLATION NOTES).
 2. DESSIN VALIDE UNIQUEMENT AVEC L'UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GÉNÉRALES D'INSTALLATION).
 3. 1 LEAD HOLE Ø 014/16 MM MUST BE DONE VERTICALLY ON THE PIECE OF WOOD BEFORE INSTALLATION OF THE LAG SCREW.
 4. THE LAG BOLT MUST BE TURNED WITH A WRENCH NOT DRIVEN WITH A HAMMER.
 5. SOAP OR NON-PETROLEUM-BASED LUBRICANT CAN BE USED TO MAKE TURNING EASIER.
 6. THESE INSTALLATION PROCEDURES MUST BE STRICTLY FOLLOWED OR THE CARRYING CAPACITY OF THE BRACKET WILL BE SERIOUSLY REDUCED.
- LE TROU PILOTE DE Ø 14/16 MM DOIT ÊTRE FAIT VERTICALEMENT DANS LA PIÈCE DE BOIS AVANT D'VISSEER LE TRE-FOND.
LE VISSEAGE DU TRE-FOND DOIT SE FAIRE À LAIDUE D'UNE CLÉ NE PAS UTILISER DE MARTEAU POUR ENFONCER LE TRE-FOND.
- UN SAVON OU LUBRIFIANT NON À BASE DE Pétrole PEUT ÊTRE UTILISÉ AFIN DE FACILITER LE VISSEAGE.
- CES PROCéDURES D'INSTALLATION DOIVENT ÊTRE SUIVIES TRÈS STRICTEMENT FAUTE DE QUOI LA CAPACITé PORTANTE DE L'ATTACHE POURRAIT ÊTRE SERIÉUSEMENT DIMINUÉE.
3. LE TRE-FOND DOIT ÊTRE INSTALLÉ DANS UNE FAÇON TELLE QUE LA LONGUEUR DE FILET EN CONTACT AVEC LA PIÈCE DE BOIS SOIT DAU MOINS 89 MM.
- LE TRE-FOND DOIT ÊTRE INSTALLÉ DANS UNE FAÇON TELLE MANIèRE QU'A LA LONGUEUR DE FILET EN CONTACT AVEC LA PIÈCE DE BOIS SOIT DAU MOINS 89 MM.
4. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).
- DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.
- CHAQUE DES LISTES DE PIÈCES DOIT ÊTRE PRISE INTÉGRALEMENT
- UN SAVON OU LUBRIFIANT NON À BASE DE Pétrole PEUT ÊTRE UTILISÉ AFIN DE FACILITER LE VISSEAGE.
- NE PAS MELANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFéRENTES.

	1	2	3	4	5	6
REV	INITIAL RELEASE - RELAIS INITIALE	PART #000-00743 WAS 000-00741 (CM0185)	PART #000-00741 WAS 000-00748 (CM0206)	PART #000-00741 + NOTES (CM0449)	PART #000-00741 + NOTES (CM0449)	
APP BY	-	-	-	-	-	DATE
10-NOV-2008	19-FEV-2010	-	-	-	-	-
1	2	3	4	5	6	

Min.:2"X4"
See note 2 & 3
Voir note 2 & 3

Min.:3 1/2"

Min.:3 1/2"

Min.:89mm

Min.:3 1/2"

Min.:0.8mm (*)

Min.:0.3125"

Profoundeur de filet:
Threaded depth:
Min.:89mm (*)
Min.:0.3125"

(*)
Distance minimum entre le bord de la solive et le tre-fond.
-Minimum edge distance from lag screw.

METRIC		THIRD ANGLE PROJECTION		IMPERIAL STANDARD METHOD		IMPERIAL STANDARD METHOD	
Item	Part Number	Type of Structure / Structure type :	Wood / Bois	Part Number	Description (EN)	Part Number	Description (EN)
6	700.11100	TRACK BRACKET KWIKTRAK	700.11100	TRACK BRACKET KWIKTRAK	700.11100	TRACK BRACKET KWIKTRAK	700.11100
5	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170	12MM KWIKTRAK BRACKET SHIM	200.11170
4	200.11140	CEILING PLATE 6100MM	200.11140	CEILING PLATE 6100MM	200.11140	CEILING PLATE 6100MM	200.11140
3	000.04435	FLAT WASHER M10, PLAIN STEEL	000.04435	FLAT WASHER M10, PLAIN STEEL	000.04435	FLAT WASHER M10, PLAIN STEEL	000.04435
2	000.04420	FLAT WASHER M10, ZINC PLATED STEEL	000.04420	FLAT WASHER M10, ZINC PLATED STEEL	000.04420	FLAT WASHER M10, ZINC PLATED STEEL	000.04420
1	000-00743	LAG BOLT 3/8 X 7 HEX ZINC	000-00743	LAG BOLT 3/8 X 7 HEX ZINC	000-00743	LAG BOLT 3/8 X 7 HEX ZINC	000-00743
SCEAU D'INGENIEUR ENGINEER'S STAMP		TYPE DE STRUCTURE / STRUCTURE TYPE :		P/N Imperial		P/N Imperial	
		WOOD / BOIS		Description (EN)		Description (EN)	

IDENTIFICATION DE REVISION / REVISIOn / IDENTIFICATION
DRAWN C.Hanue 10-NOV-2008
VERIFIED
APPROVED

ARJOHUNTLEIGH
GETINGE GROUP

2x4 - Tuiles suspendues
2x4 - Suspended tiles

2

1	2	3	4	5	6
REV	DESCRIPTION	REV	APP BY	REV BY	DATE
3	NEW METHOD RELEASE: CH-04091	-	-	-	13-FEV-2008
4	NOTES ADDED - NOTES AJOUTÉES	-	-	-	
5	GENERAL REVISION (CA042086)	J.C.	-	-	
6	ADD METRIC STD + NOTES (OM-040909)	J.C.	-	-	

KIT 700_15587	
Drawing / Part #	Qty
000000133	10
000000680	2
000000232	2
000003450	2
000004215	2
000004295	2
000004400	4
000004425	4
000004430	6
000004475	2
21211192	2
21211193	2

DETAIL A

DETAIL B

DETAIL C

DETAIL D

DETAIL E

IMPERIAL STANDARD METHOD	
20	700-11100 TRACK BRACKET KWIKTRAK
19	212-11133 ROOF TRUSS BRACKET PIVOT
18	212-11192 ROOF TRUSS BRACKET
17	200-11170 12MM KWIKTRAK BRACKET SHIM
16	200-11140 CEILING PLATE Ø100MM
15	00004875 FLAT WASHER M2, ZINC PLATED STEEL
14	00004435 FLAT WASHER M10, ZINC PLATED STEEL
13	00004430 FLAT WASHER M10, ZINC PLATED STEEL
12	000004425 LOCK WASHER M10
11	000004400 NUT M10, ZINC PLATED STEEL
10	000004426 SCREW M10 X 75 HEX, ZINC PLATED STEEL
9	000004215 SCREW M10 X 30 BUTTON ZINC
8	000003450 FLAT WASHER M6 (25 OD) ZINC PLATED STEEL
7	0000010232 HILTI STRUT - 5/8" X 30" - PRE-GALVANIZED STEEL
6	000-000881 EVZ-YK-SPLT-T-5.5 X 60MM
5	000004357 HILTI STRUT SADDLE NUT M10
4	000004400 NUT M10 ZINC
3	000004416 M10 ZINC STOVERLOCKNUT
2	000004385 THREADED ROD M10 X 3M ZINC
1	000000133 WOOD SCREW #10 X 1 1/2" ZINC PLATED STEEL

METRIC	
THIRD ANGLE PROJECTION	WOOD / BOIS
TYPE DE STRUCTURE / STRUCTURE TYPE:	
WOOD	
APPROVED	

IDENTIFICATION DE REVISION / REVISION IDENTIFICATION	
DRAWN	E.Dupuy
VERIFIED	13-FEV-2008
TITLE / TITLE	
INSTALLATION SUR FERMES DE TOIT 2X4/GYPSE	
INSTALLATION ON 2X4 WOOD TRUSSES / DRYWALL	
SIZE / DRAWING NUMBER	
B	12210.04
APPROVED	SCALE
NTS	NTS
Description EN	
PIN Imperial	
SAFE WORKING LOAD (SWL) FOR MOTOR CHARGE CAPACITY (SCA) 1000 LB (454 KG) 2.72 KG (600.65) WEIGHT OF SYSTEM: 1000 LB (454 KG) ACCORDING TO CAN/CSA-Z240-15 TEST DATA SHEET: 1000 LB (454 KG) TEST DATA SHEET: 1000 LB (454 KG) TEST DATA SHEET: 1000 LB (454 KG)	
340KG (750LB) OR 100KG (900LB)	

ARJOHUNTLEIGH
GETTING GROUP

/

6

NOTES:					
1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-307-1-EN" (GENERAL INSTALLATION NOTES).					
2. DESSIN VALIDE UNIQUEMENT AVEC L UTILISATION CONJOINTE DU DOCUMENT "AM-ING-007-1" (NOTES GENERALES D'INSTALLATION).					
3. LEAG BOLT (Ø 1/4" 16 MM) MUST BE TURNED WITH A WRENCH NOT DRIVEN WITH A HAMMER.					
SOAP OR NON-PETROLEUM-BASED LUBRICANT CAN BE USED TO MAKE TURNING EASIER.					
THESE INSTALLATION PROCEDURES MUST BE STRICTLY FOLLOWED. IF THE CARRYING CAPACITY OF THE BRACKET WILL BE SERIOUSLY REDUCED.					
1. TROU PILOTE DE Ø 1/4" (6 MM) DOIT ÊTRE FAIT VERTICAMENT DANS LA PIÈCE DE BOIS AVANT D Y INSERER LE TIREFOND.					
LE VISEAGE DU TIREFOND DOIT SE FAIRE À LA DÉURE D'UNE CIE. NE PAS UTILISER DE MARTEAU POUR ENFONCER LE TIREFOND.					
UN SAVON OU LUBRIFIANT, NON À BASE DE PÉTROLE DOIT ÊTRE UTILISÉ AFIN DE FACILITER LE VISEAGE.					
CES PROCÉDURES D'INSTALLATION DOIVENT ÊTRE SUIVES STRICTEMENT, FAUTE DE QUOI LA CAPACITÉ PORTANTE DE L'ATTACHE POURRAIT ÊTRE SÉRIEUSEMENT DIMINUÉE.					
3. THE LAG SCREW MUST BE INSTALLED IN SUCH A WAY THAT THE LENGTH OF THREADS IN CONTACT WITH THE PIECE OF WOOD IS AT LEAST 89 MM.					
LE TIREFOND DOIT ÊTRE INSTALLE DE TELLE MANIÈRE LA LONGUEUR DE FILET EN CONTACT AVEC LA PIÈCE DE BOIS SOIT D'AU MOINS 89 MM.					
4. ITEM 3 & 10 CAN BE REPLACED BY PART #700.1090 (IMPERIAL EQUIVALENT #700.11090) ABOVE CEILING.					
LES ITEMS 3 & 10 PEUT ÊTRE REMPLACÉ PAR LA PIÈCE #700.11090 (ÉQUIVALENT IMPÉRIAL #700.11095) AUDESSUS DU PLAFOND.					
5. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM ITS RESPECTIVE TABLE (METRIC OR IMPERIAL).					
DO NOT MIX THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.					
CHAQUE DES LISTES DE PIÈCES DOIT ÊTRE PRIS INTÉGRALEMENT DANS SON TABLEAU RESPECTIF (MÉTRIQUE OU IMPÉRIAL).					
NE PAS MÉLANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATERIELS DIFFÉRENTES.					
SEE NOTE 4 (VOIR NOTE 4)					
SEE NOTE 4 (VOIR NOTE 4)					
<img alt="Technical drawing showing the installation of a track bracket. It shows a cross-section of a wooden board with a lag screw being driven through it. Callouts indicate dimensions: Min. 2 1/4" (See note 2 & 3), Min.					

NOTES:

- NOTES:

1. THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1-EN" (GENERAL INSTALLATION NOTES). THIS DRAWING IS VALID ONLY WITH THE USE OF REFERENCE DOCUMENT "AM-ING-007-1" (NOTES GÉNÉRALES D'INSTALLATION).

2. LE HOLE Ø1/4" (6 MM) MUST BE DONE VERTICALLY ON THE PIECE OF WOOD BEFORE INSTALLATION OF THE LAG SCREW.

3. THE LAG BOLT Ø1/4" (6 MM) MUST BE TURNED WITH A HAMMER.

4. SOUP OF NON-PETROLEUM-BASED LUBRICANT CAN BE USED TO MAKE TURNING EASIER.

5. THESE INSTALLATION PROCEDURES MUST BE STRICTLY FOLLOWED OR THE CARRYING CAPACITY OF THE BRACKET WILL BE SERIOUSLY COMPROMISED.

6. TROUILLOLE DE Ø1/4" (6 MM) DOIT ÊTRE FAITE VERTICALEMENT SUR LA PIÈCE DE BOIS AYANT UN VISSEUR EN TIE-FOND. LE VISSEAGE DU TIE-FOND SE FAIT A LAIDE D'UNE CLÉ. NE PAS UTILISER DE DEMARTEAU POUR ENFONCER LE TIE-FOND. UN AVAISON OULIBRIFIANT, NON À BASE DE PÉTROLE PEUT ÊTRE ÊTRE UTILISÉ POUR AIDER À FACILITER LE VISSEAGE.

7. CES PROCÉDURES D'INSTALLATION doivent être suivies avec précision. FAUTE DE QUELQUA CAPACITÉ PORTANTE DE L'ATTACHE, LA LAG SCREW NE SERA INSTALLEE DANS UN SUCH A WAY THAT THE LENGTH OF THREADS IN CONTACT WITH THE PIECE OF WOOD IS NOT DÉTERMINÉE PAR LA LONGUEUR DE FILET EN CONTACT AVEC LA PIÈCE DE BOIS SOIT D'UN TIE-FOND DOIT ÊTRE remplacé par PART #700.11080 (ÉQUIVALENT IMPÉRIAL DU #700.11085) ABOVE CEILING.

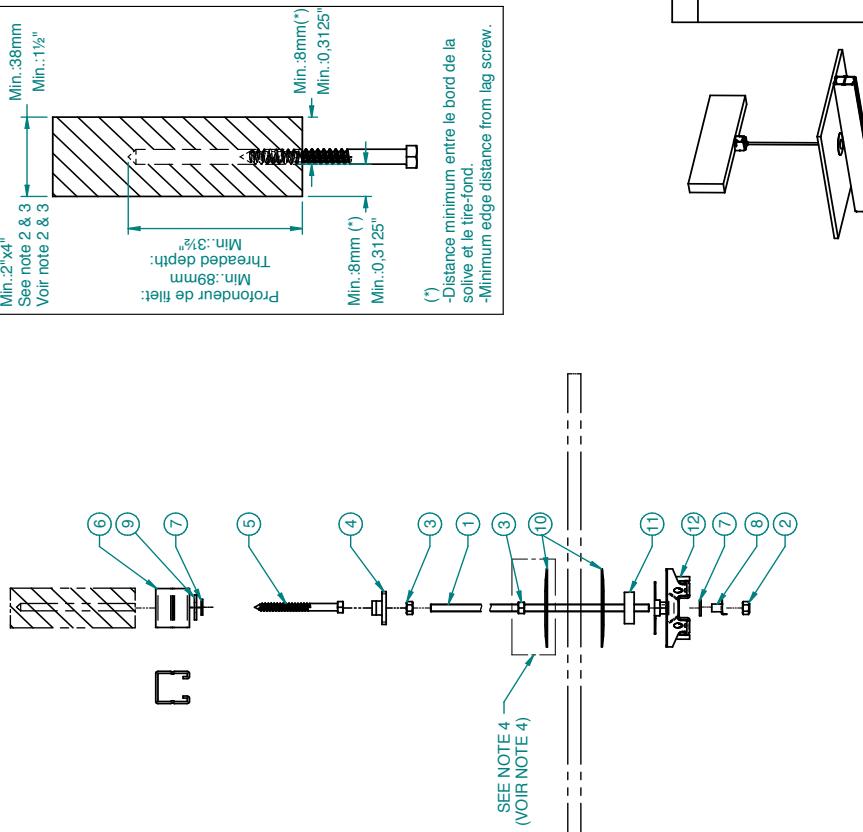
8. LES ITEM 3 & 4 peuvent être remplacés par la pièce 700.11080 (ÉQUIVALENT IMPÉRIAL DU #700.11085) AU DESSUS DU PLAFOND.

9. EACH PARTS LIST MUST BE TAKEN IN ITS ENTIRETY FROM THEIR RESPECTIVE TABLES (METRIC OR IMPERIAL).

10. DO NOT MAKE THE HARDWARE FROM DIFFERENT LISTS OF MATERIALS.

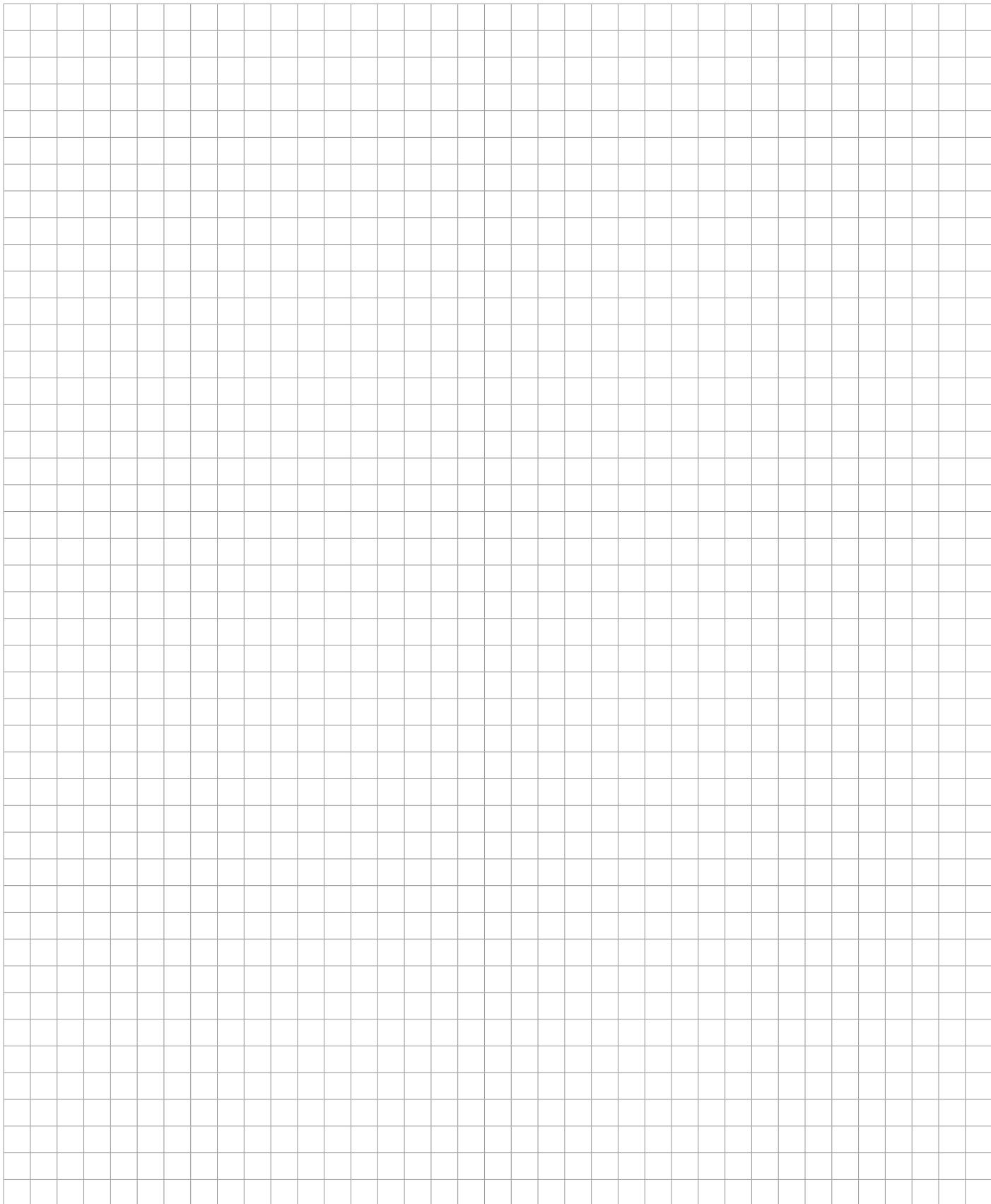
11. CHACUNE DES LISTES DE PIÈCES DOIT ÊTRE PRISE INTÉGRALEMENT DANS MATELIERS DIFFÉRENTES.

NE PAS MELANGER LES QUINCAILLERIES ISSUES DE LISTES DE MATELIERS DIFFÉRENTES.



| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 |<
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Notes





WALL TO WALL

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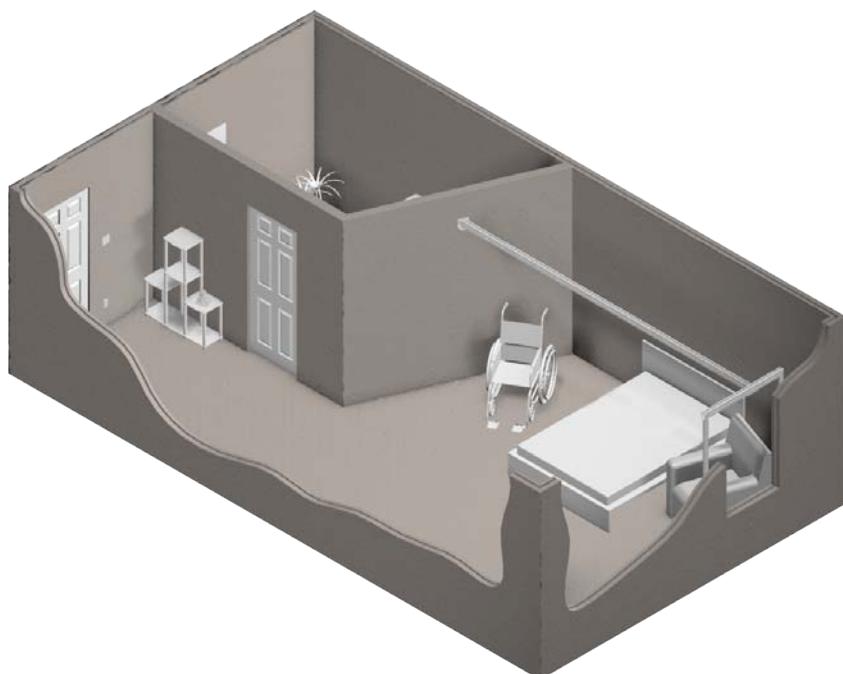
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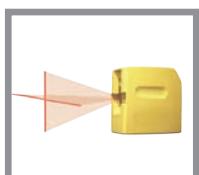
Wall to wall, T-junction/Wall bracket

The purpose of this layout:

- When it is not possible to install the tracking system onto the above structure, wall applications can be the solution. Many options are possible: angled walls, wrapping around windows, etc...



Tools required for this layout:



Crossline Laser Level (CLLL)



Tape Measure (T.M.)



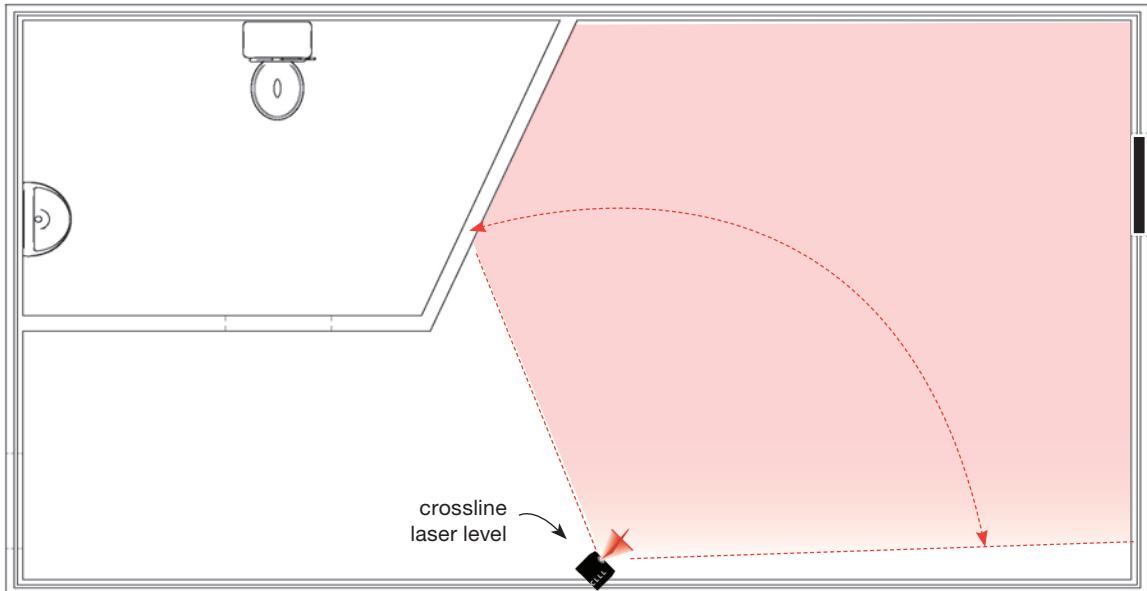
Masking Tape



Marker



Determining the datum point prior to cutting wall posts



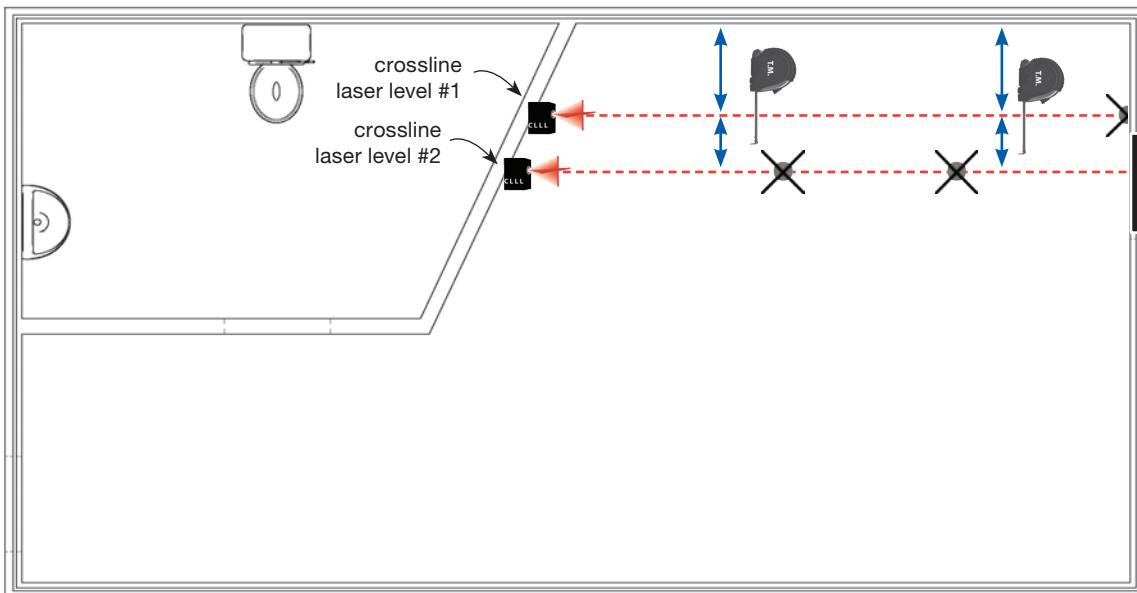
- Using the crossline laser level, position it in a location where you can establish the lowest point in the ceiling (Datum point).
- From the lowest point, measure down the width of the track and add 50 mm (2 in) make a mark on the wall. From there, measure to crossline laser level. (Refer to document 001.12900.**).
- If it is on the wall post side, you will not have to mark the wall bracket as it does not go mounted on the same line.
- Proceed to mark both wall posts from that mark. Measure down to the floor for the length of each wall post.
- At this point you can cut the wall posts and prepare them for installation.



NOTE...

When installing wall posts with wall brackets, you should always start with the wall posts even if the wall bracket is at the lowest point.

Determining first wall post location and transfer point over a bed



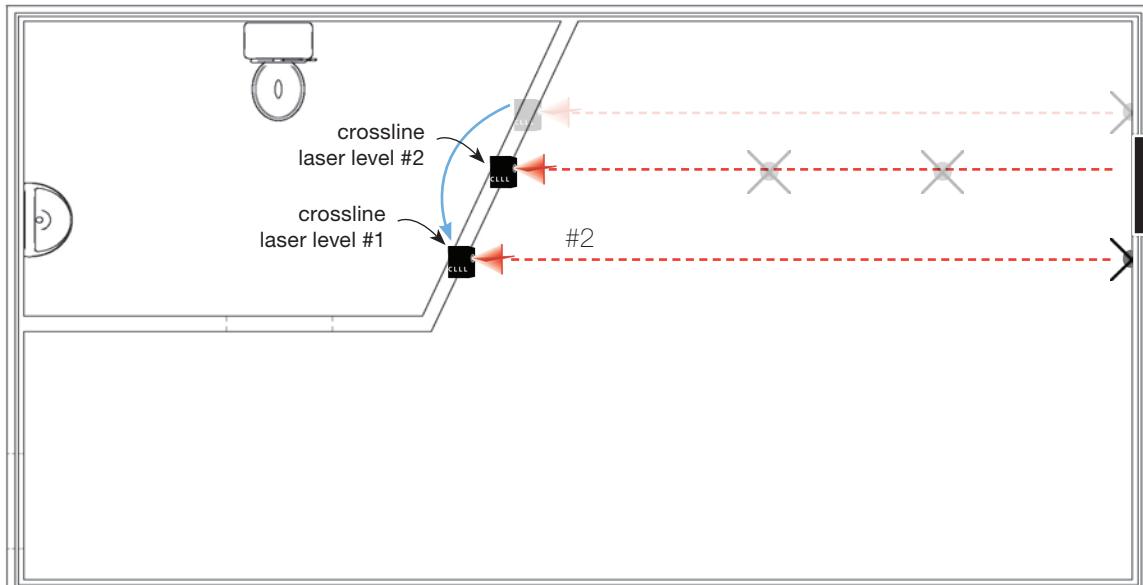
- Using a tape measure, locate the drop point over the bed.
- Make two marks on the floor and line up with the crossline laser level #1.
- Using crossline laser level #2, line up and mark for your first wall post. Make sure you are not too close to the window. Usually, 76 mm (3 in) to 127 mm (5 in) works best.
- Line the wall post up with the center of the crossline laser level #1 and mark the wall where you had predrilled the holes.
- Drill out the holes using a 10 mm (3/8 in) drill bit.
- Insert the anchors supplied and attach the wall post to the wall.



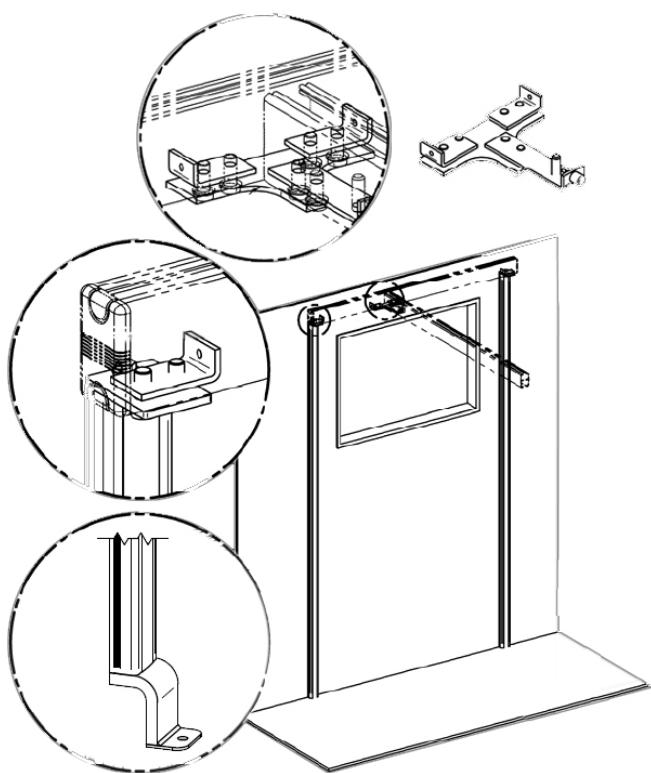
NOTE...

Check to see if you will need to use shims; if so, place the shim behind the wall post and drill the shim and the wall at the same time.

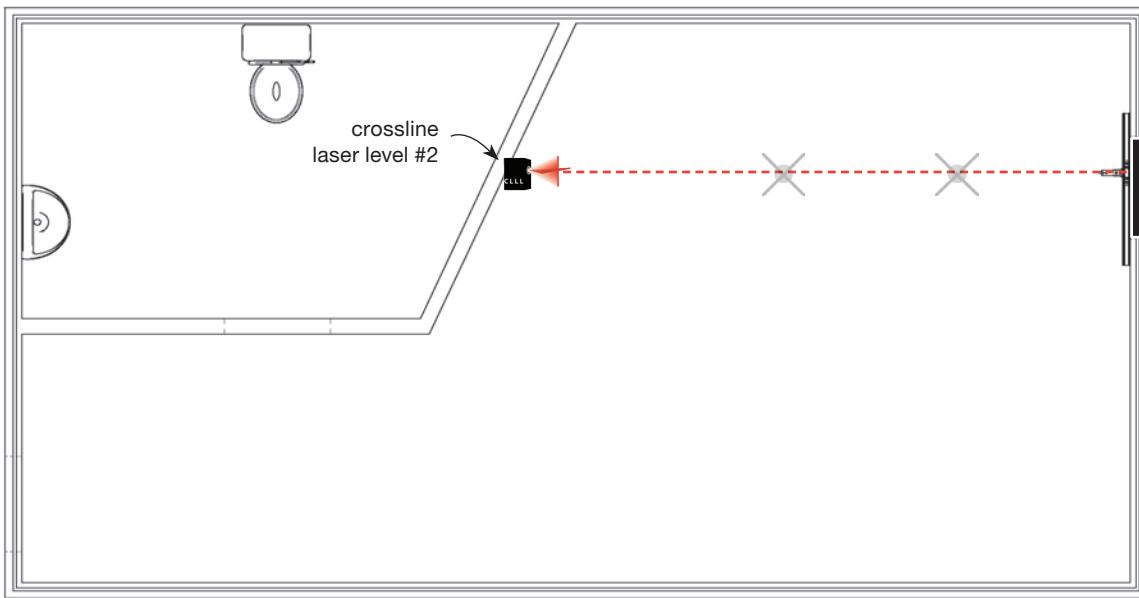
Installing wall posts, wrapping around a window



- Repeat the same step previously mentioned for the second wall post.
- Once the wall posts have been installed, install the side-mounted wall post bracket heads (Refer to document #001.12910).
- You can now measure from bracket to bracket to find the length of your track.
- Once the track is measured and cut, be sure to slide in the t-junction stops before installing the track.

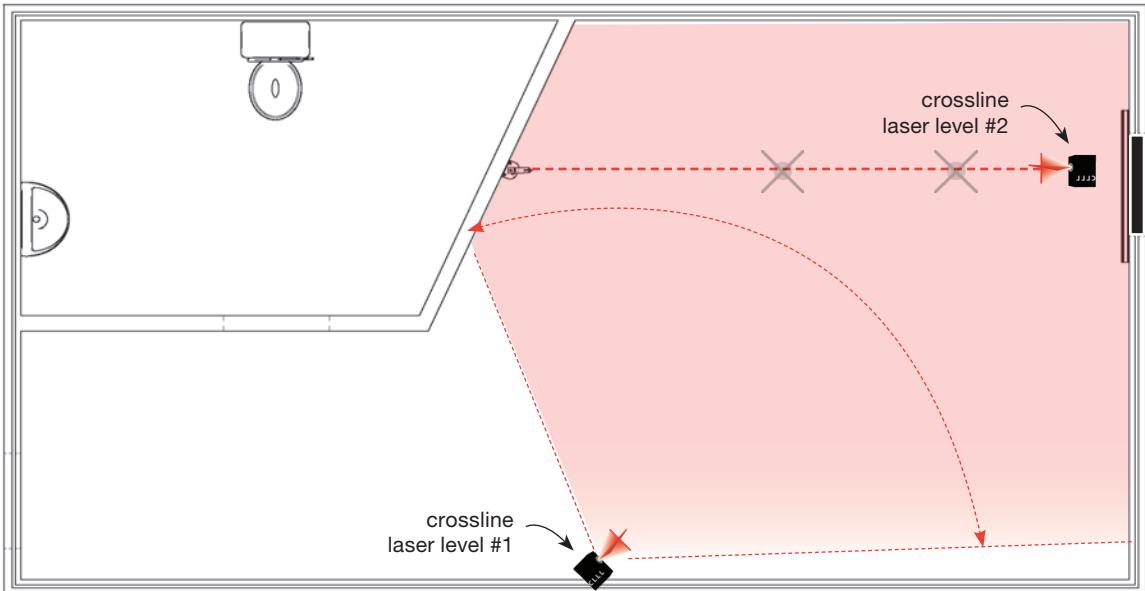


Positioning the T-Junction



- With the section of the track installed, we can now install the T-junction.
- Center the T-junction with crossline laser level #2, and bolt it in place.

Positioning the third point (wall bracket)



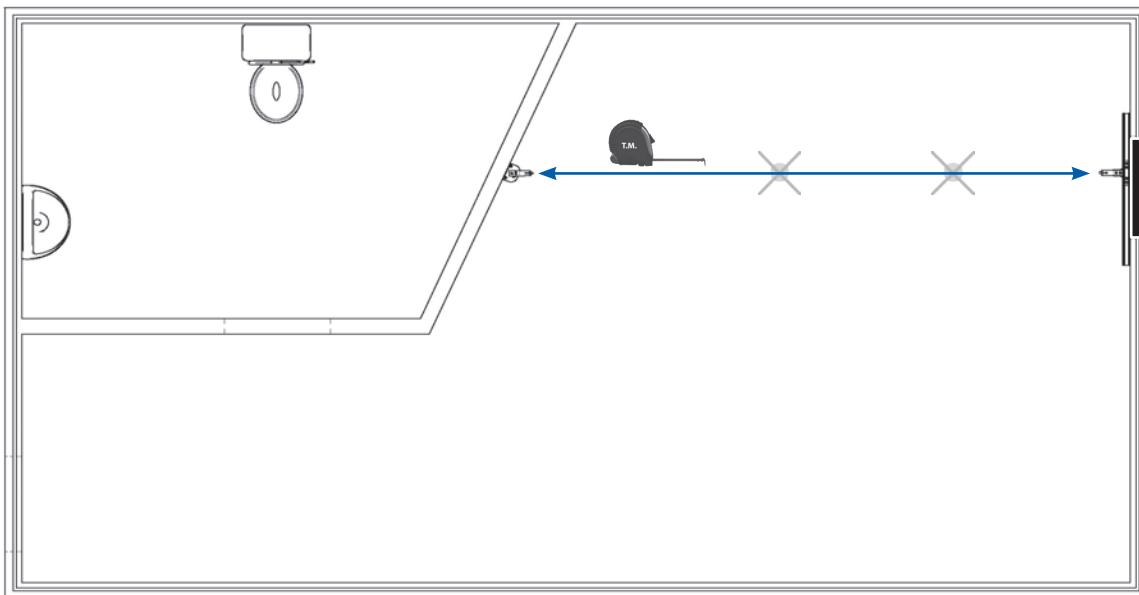
- Once we have the T-junction in place, we can now move crossline laser level #1 to the other side of the room so the line is below the T-junction.
- From the top of the T-junction measure down to the line on crossline laser level #1.
- You can now transfer that measure down to the wall bracket side of the installation using the same method.
- Line up with crossline laser level #2 and mark where the holes are to be drilled. (Refer to section 4, using the correct installation method, depending on the structure)



NOTE...

When installing wall posts with wall brackets, you should always start with the wall posts even if the wall bracket is at the lowest point.

Measuring and installing traversing track



- With a tape measure, find the length of the track. Leave about 0.64 cm ($\frac{1}{4}$ in) of space on each side.
- Slide the wall bracket stop and the T-junction stop into the ends of the track and mount on the brackets.
- Line the stops up and bolt in place.
- Install PVC strip on wall posts.



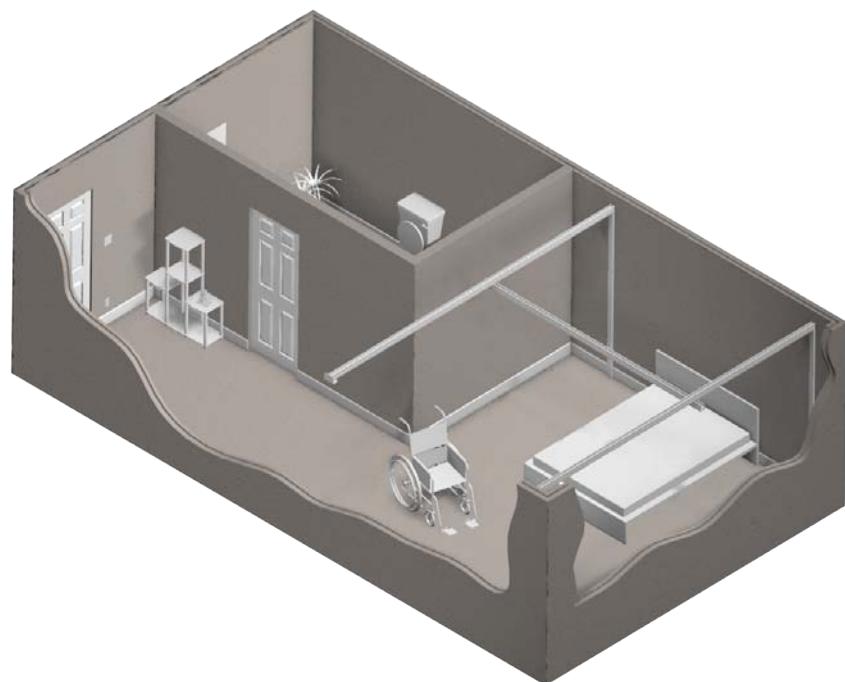
NOTE...

If you are using a portable lift in the track, you need to install the trolley before installing the track.

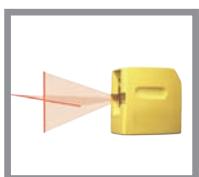
X-Y with wall to wall layout

Purpose of this layout:

- Full room coverage in bedroom area
- No access to the structure above



Tools required for this layout:



Crossline Laser Level (CLLL)



Tape Measure (T.M.)

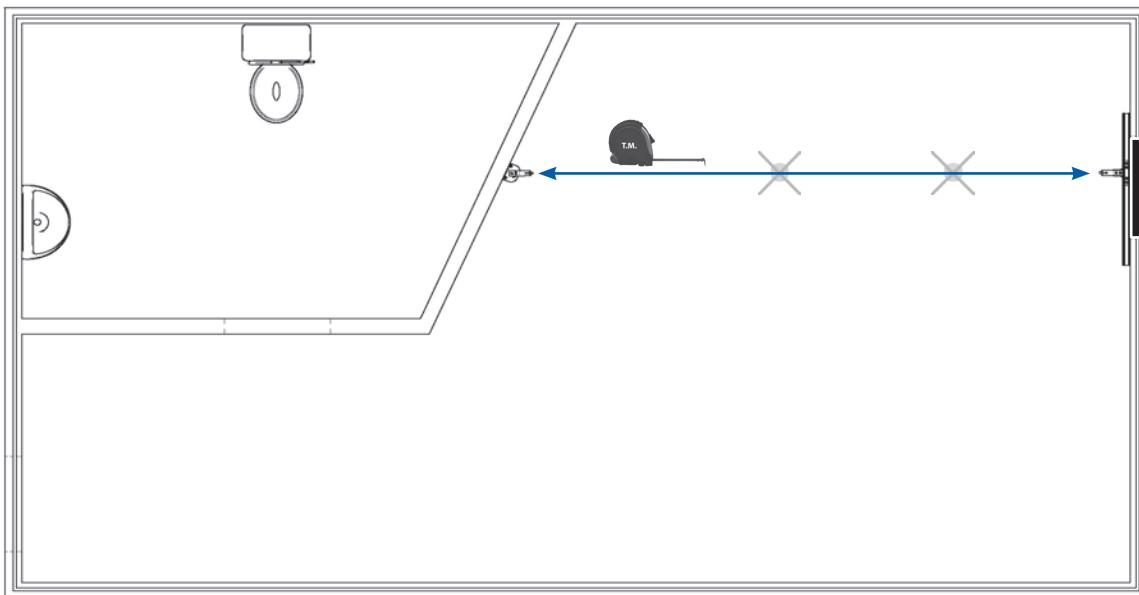


Masking Tape



Marker

Finding the datum point to ensure spacing above fixed tracks



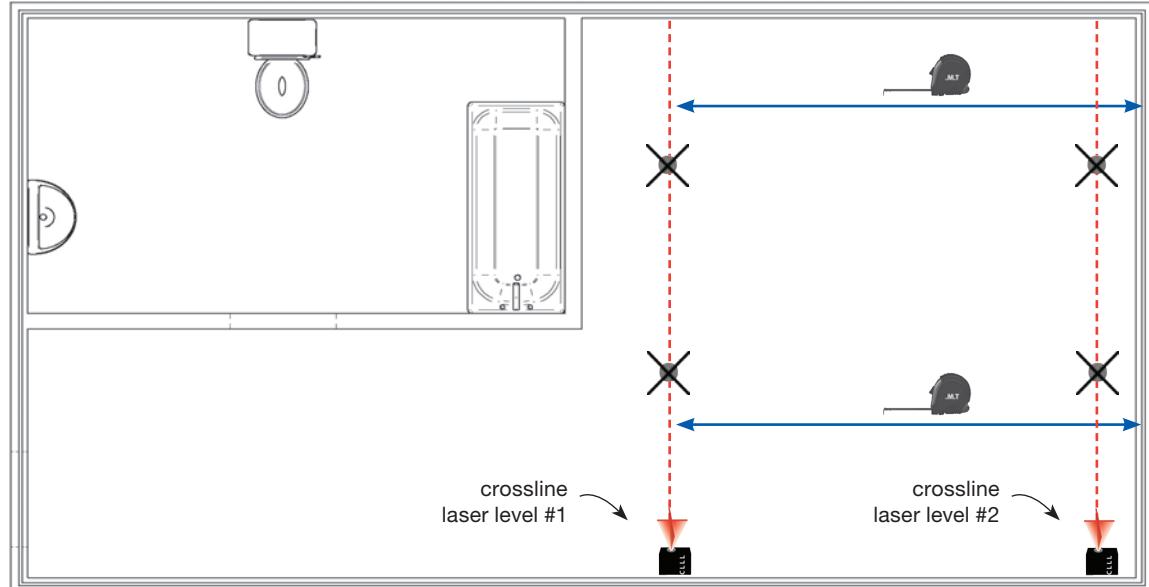
- Find the lowest point in the area where you will be installing the wall posts and wall brackets.
- Measure from the ceiling down the width of your fixed track and add 5.08 cm (2 in).
- Mark that spot.
- From that mark measure down to your crossline laser level #1.
- Transfer that measurement to all wall post locations. (Refer to document 001.12900.**)



NOTE...

When installing wall posts with wall brackets, you should always start with the wall posts even if the wall bracket is at the lowest point.

Identifying wall post locations and heights



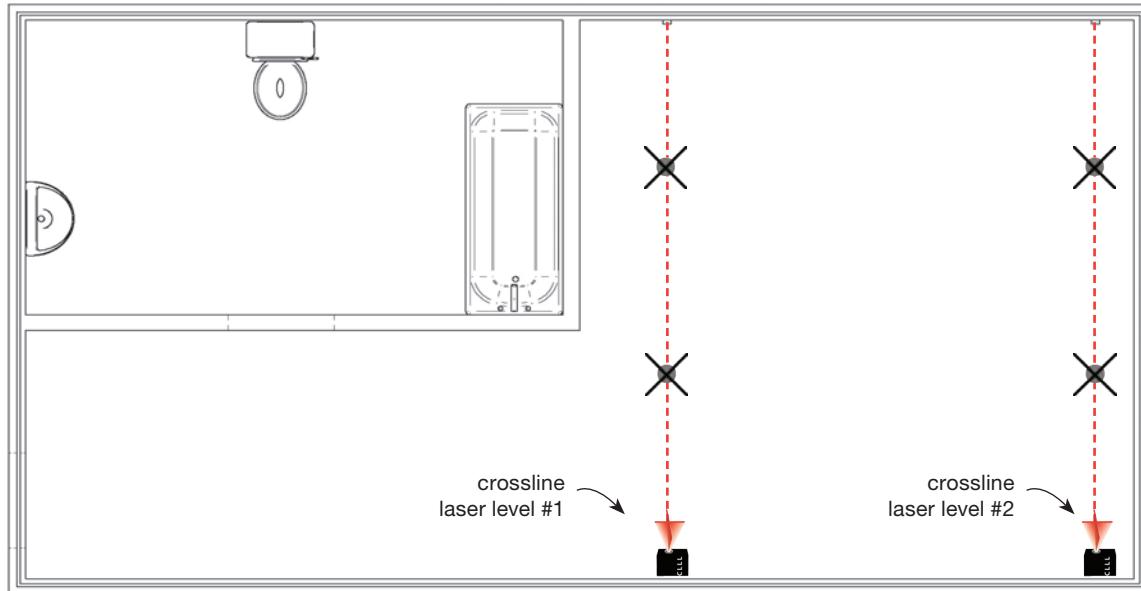
- Find the exact location of the wall posts and measure from the wall marks to the floor; that will be the length you will need to cut the wall posts to.
- Then you can prepare the wall posts for install.
- Be sure to use the crossline laser level #1 to mark lines on the floor. (Refer to document 001.12900.**)



NOTE...

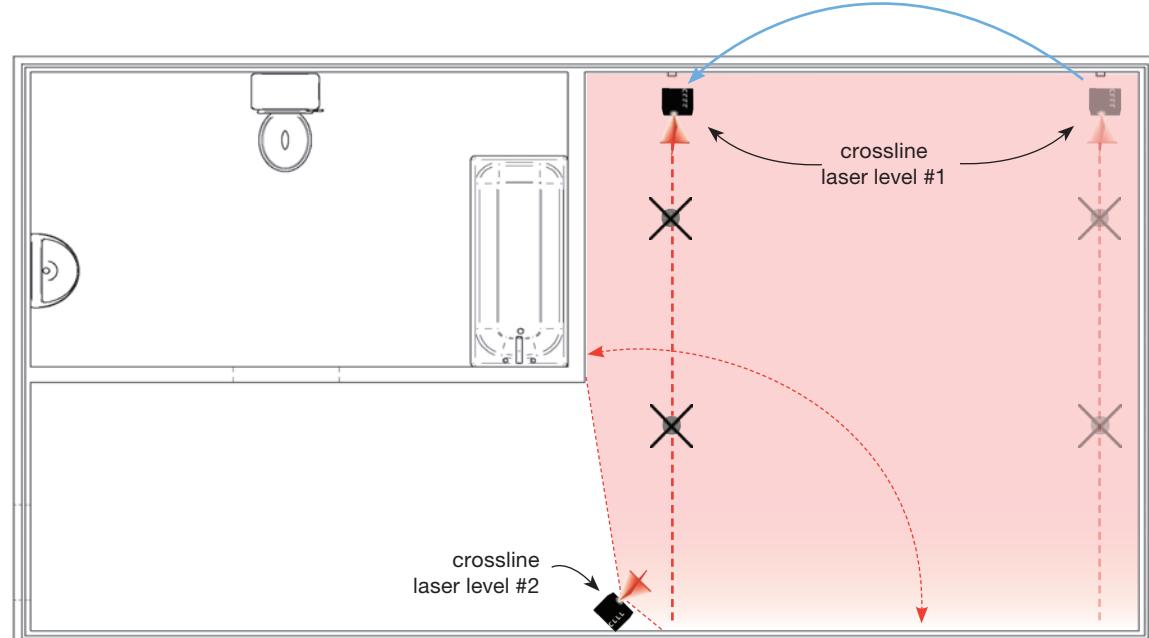
A good practice would be to number the wall posts according to the location where they are being installed.

Install wall posts on headwall



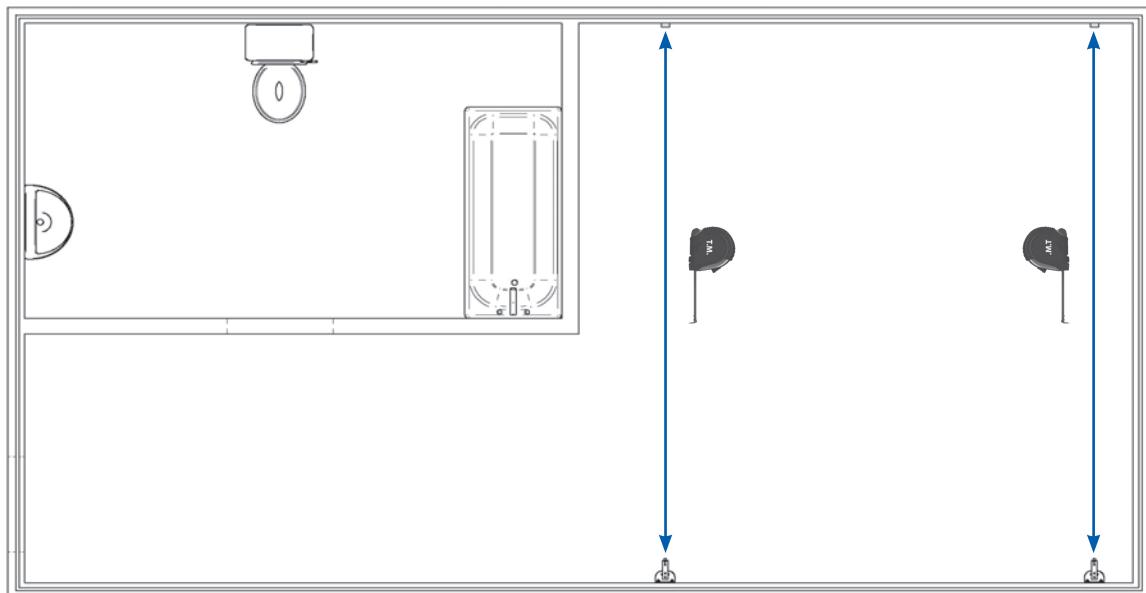
- Line the wall posts up with your crossline laser level.
- Mark the wall with a 6.3 mm (1/4 in) drill bit using the holes you predrilled.
- Move the wall posts and re-drill the holes in the wall with a 9.5 mm (3/8 in) drill bit.
- Insert the expansion anchors supplied and install the wall post.
- Use the same method for both wall posts.
- Install the wall post brackets. (Refer to document 001.12900.**)

Identifying wall post locations and heights



- Turn crossline laser level #1 ground and line it up with the marks on the floor.
- Set up crossline laser level #2 to cover all four walls.
- With a tape measure, establish the measure from the lowest point on the wall post bracket to the line of the crossline laser level.
- Transfer the measurement onto the wall bracket.
- Adjust the wall bracket until it lines up with crossline laser level #1.
- Adjust the height until you achieve the correct measurement and mark the holes for drilling.
- Install the wall bracket depending on the structure described in section 4.
- Move the crossline laser level #1 to the second wall post and repeat the procedure. (Refer to document 001.12900.**)

Finding the datum point to ensure spacing above fixed tracks



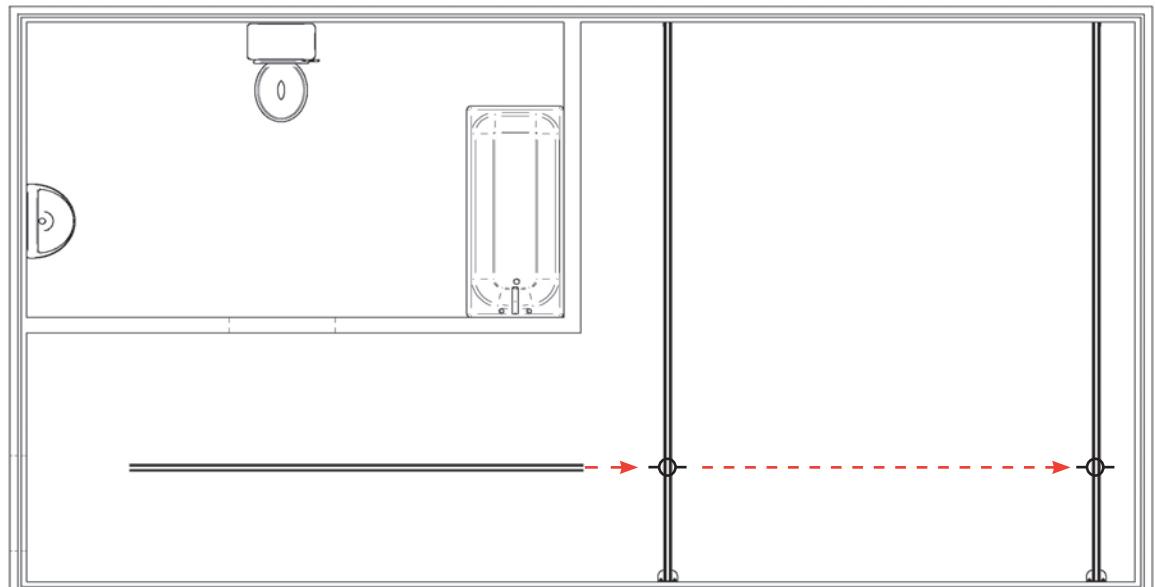
- With a tape measure find the length of the track. Leave about 6 mm (1/4 in) of space on each side.



NOTE...

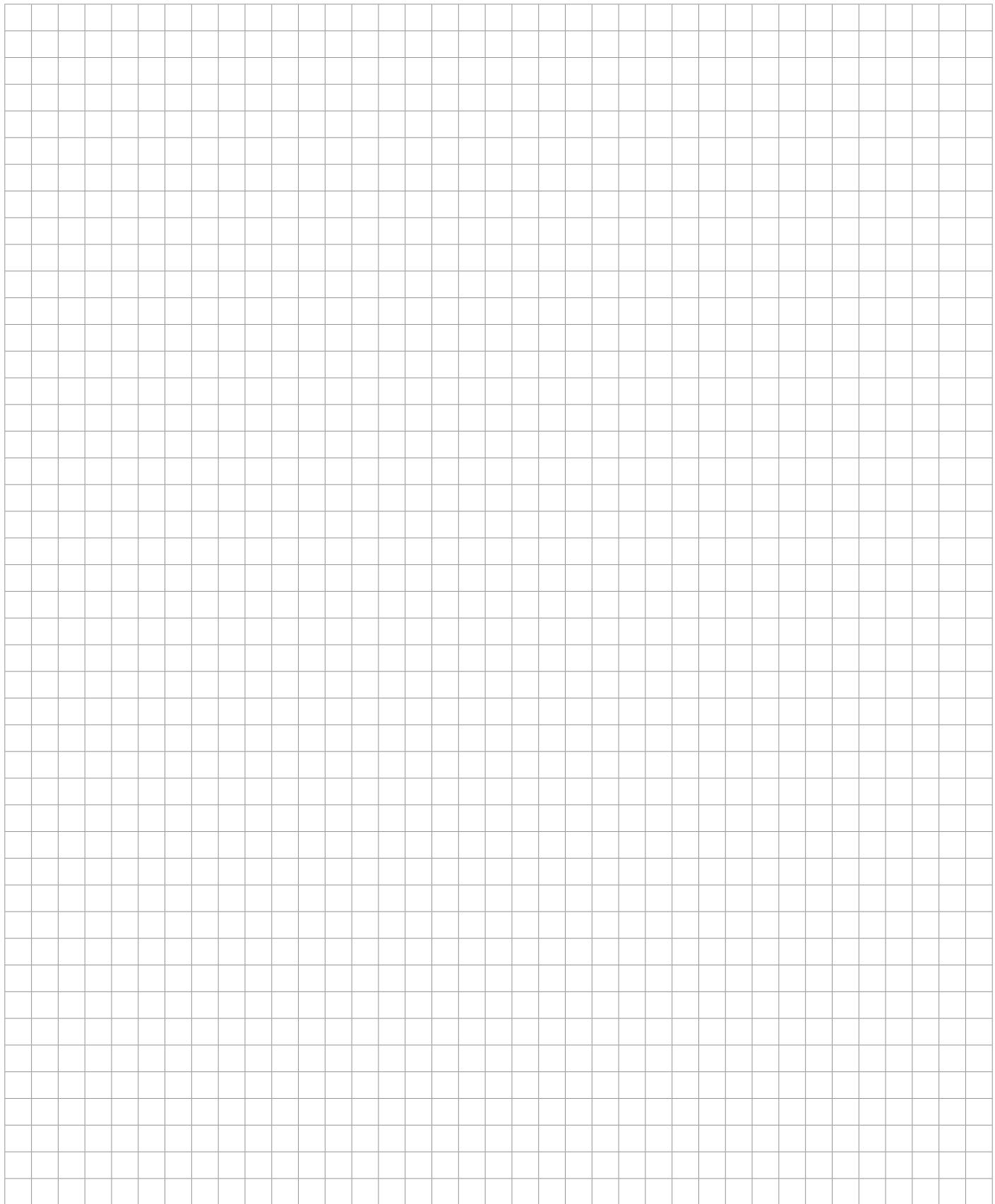
Make sure you install the X-Y trolley and the bracket stops before mounting the track. The charging location will determine where the fixed trolley will go.

Identifying wall post locations and heights



- Slide the moving track through one of the trolleys.
- Install the autoblock stoppers and slide the track through the next trolley.
- Adjust the autoblock and lock down the fixed trolley.
- Install the autoblocks and end caps and lock into place.

Notes



Structure Family: Wall to wall - Posts

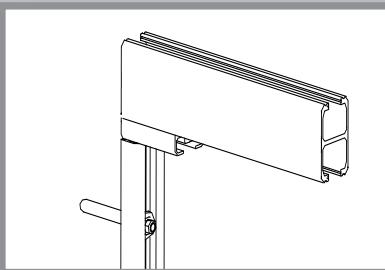
Special considerations

Purpose of this step:

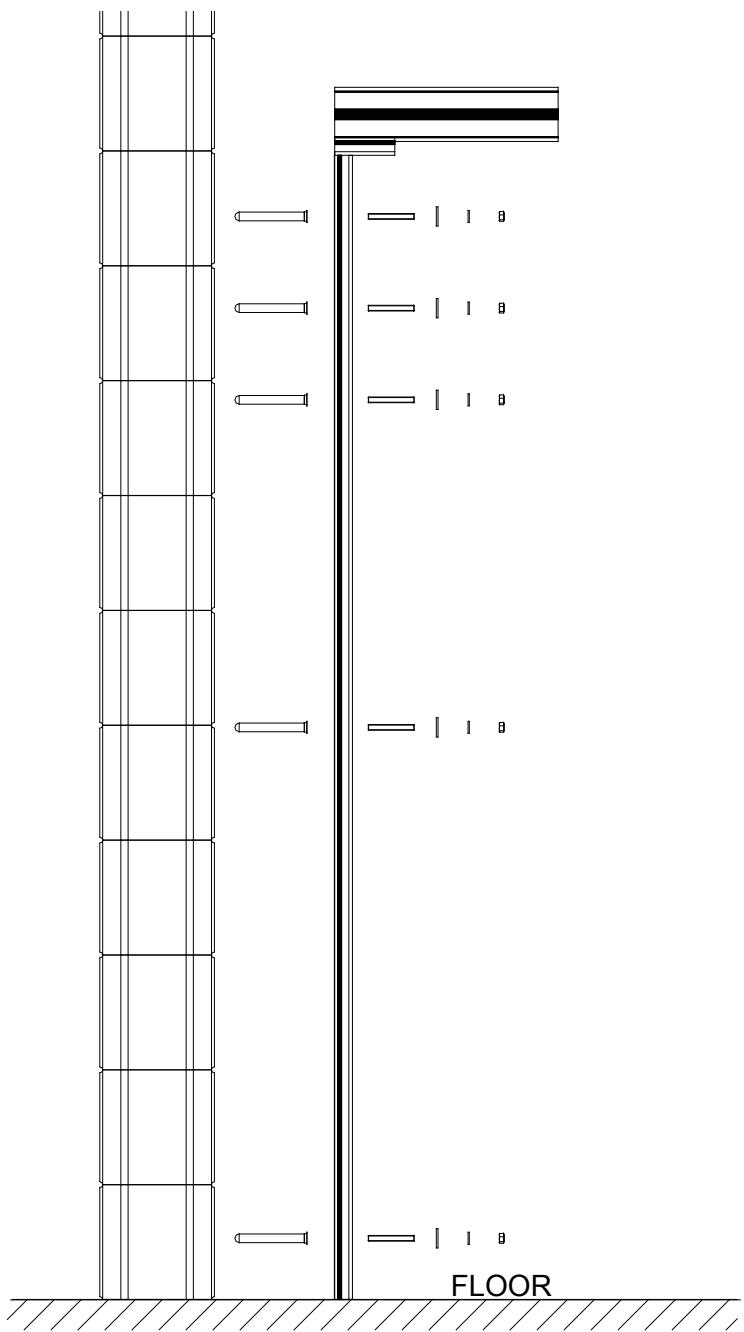
- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.
- Follow manufacturer's instructions for anchor installation.



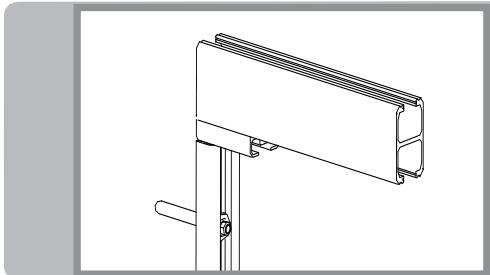
Detail: wall posts - concrete



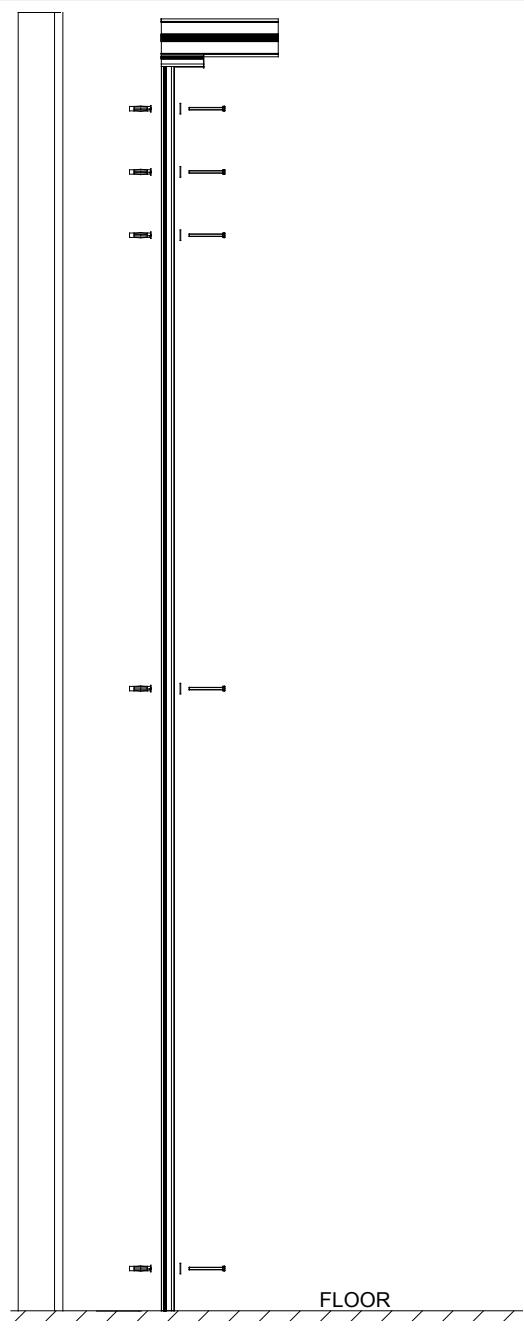
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



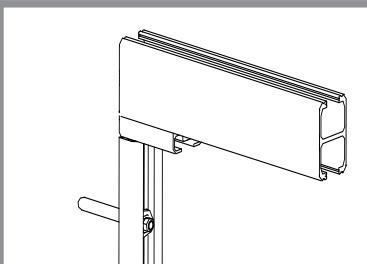
Detail: wall posts - steel



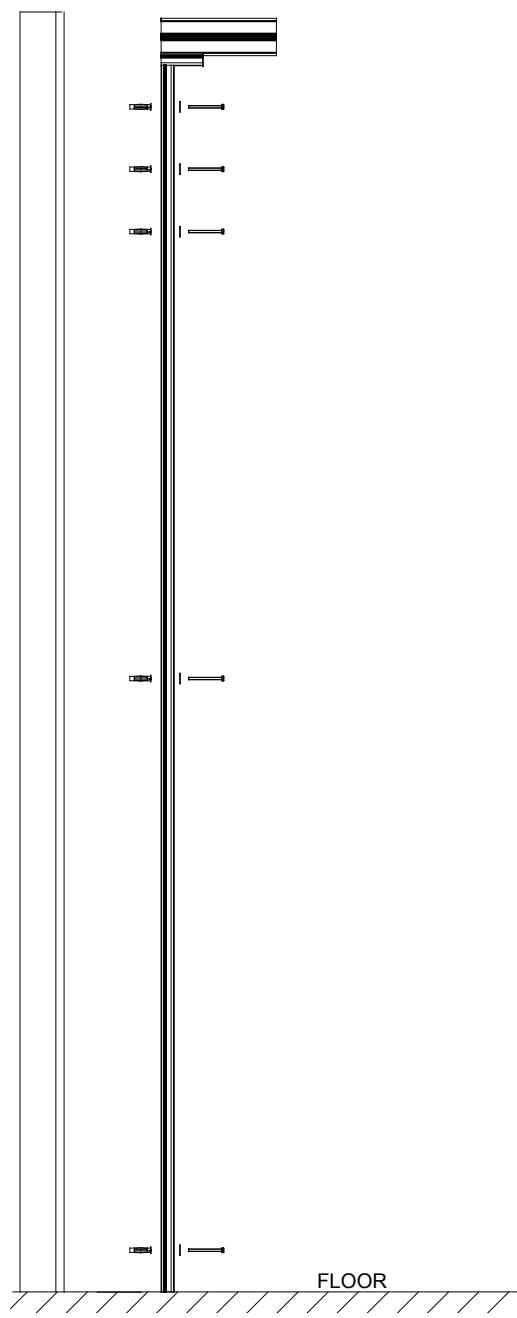
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



Detail: wall posts - wood



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



Method: Wall to wall posts

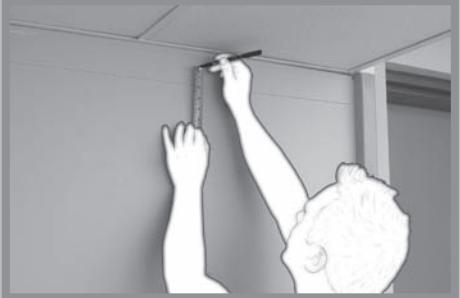
Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



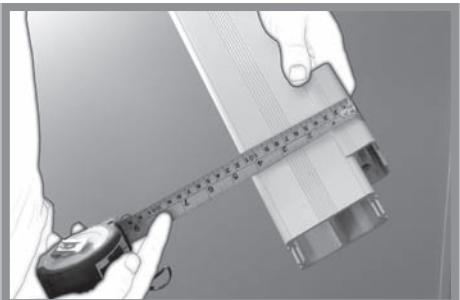
Measure the distance between any possible obstructions (e.g. sprinklers) and the reference laser line.

02



Transfer this measurement onto the wall.

03



Measure the height of track to be installed...

04



...and transfer it under the reference laser line of the sprinkler. Or, in case there is no obstruction, retransfer it at 2 in from the suspended ceiling.

05



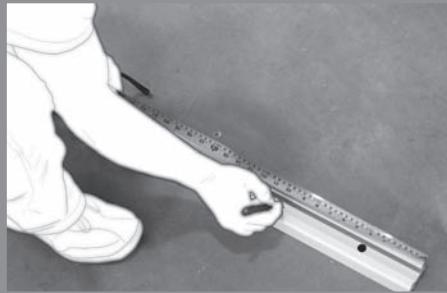
Measure the distance between this mark and the floor.

06



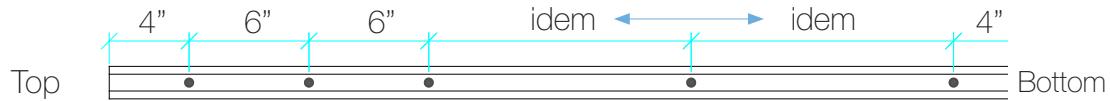
Cut the post to the measured length.

07



Following the sketch below, mark the 5 points to be drilled on the post.

In other words, at 100 mm (4 in) from the bottom. At 100 mm (4 in), 250 mm (10 in), 400 mm (16 in) from the top, and halfway to the remaining part.



08



Drill holes.

09



Place the HSL anchor provided with wall post into the post's head...

10



...and insert it in.

11



Then, tighten it firmly.

12



Place the post against the wall and predrill the holes by using the post's holes as reference points.

13



Remove the post and finish drilling the holes into the wall.

14



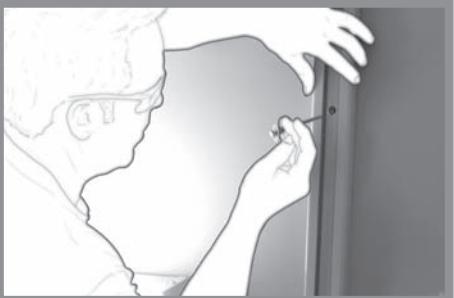
Insert anchors.

15

To set the anchors use the provided 6.3 mm (1/4 in) bit included with wall post. Continue turning the bolt using 13 mm (1/2 in) or 10 mm (25/64 in) socket on drill.



This step is essential for correctly securing the post. Without it, anchors will not be locked and there may be a high risk of them detaching themselves.

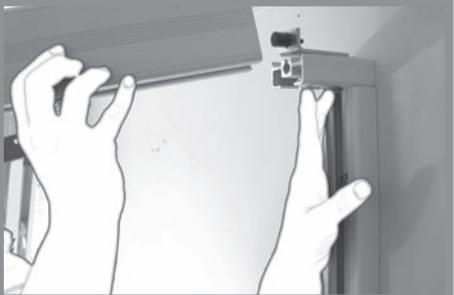
16

Remove screw for set anchor, place predrilled post against the wall. Place provided washer as well as the 6.3 mm (1/4" in) bolt on the screw.

17

...and tighten them firmly.

Be careful: overtightening the bolt will cause the anchor to pull itself out.

18

Once the second post is attached by following the same method, place the track on its support... Follow the same method for opposing post. We can now add the post. Remove the end stopper on the post head and slide into the track.

19

...and tighten firmly.

Need to redo these steps.

20

Measure the distance between bottom at post head and floor...

21

...and cut a piece of a PVC strip to this length.

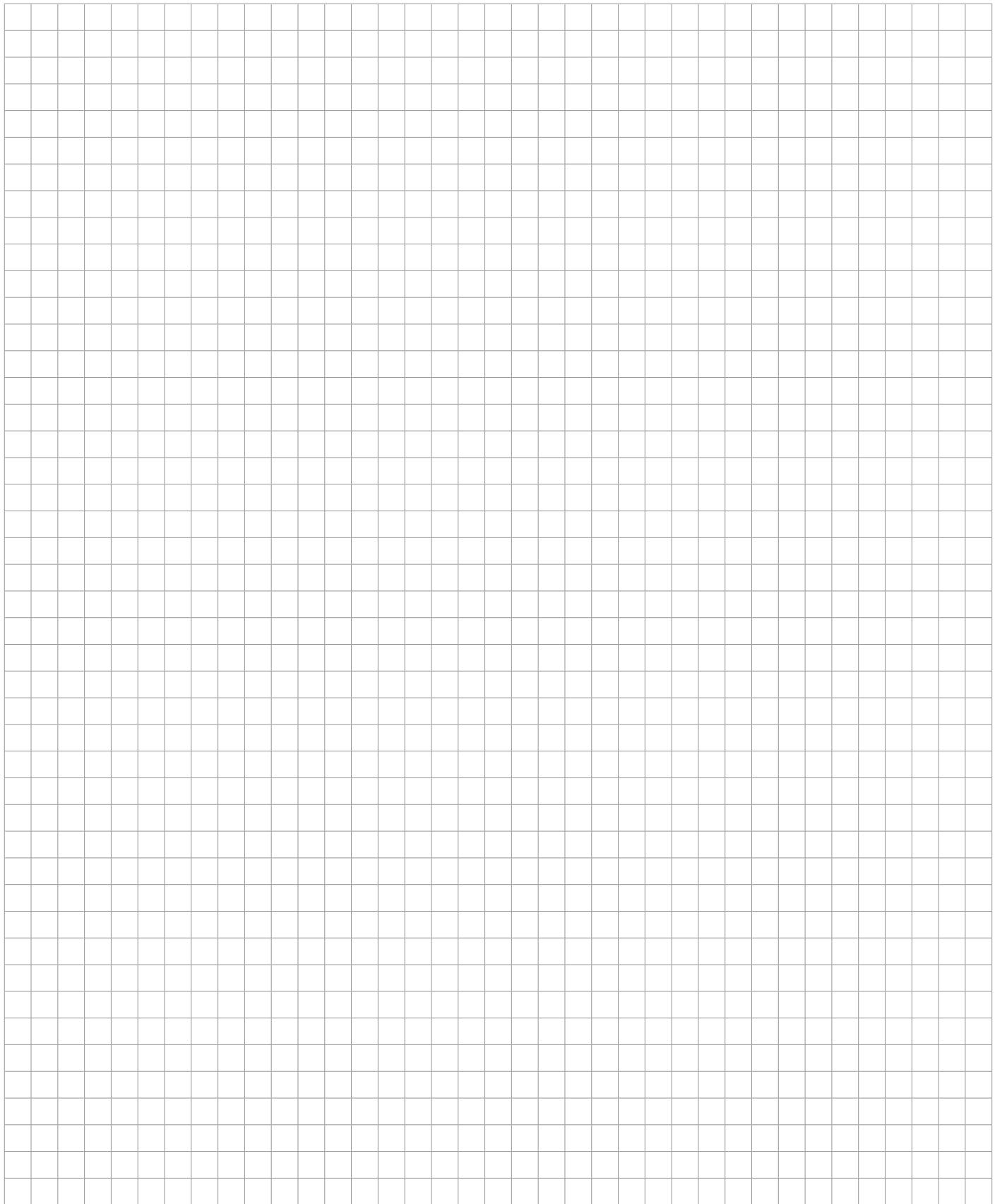
22

Fasten this PVC strip onto the post, below the track's end stopper.

23

Finally, stick self-adhesive on the track end stopper.
Need to redo.

Notes



Structure Family: Wall to wall - Wall brackets

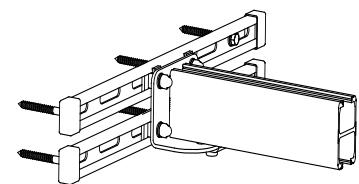
Special considerations

Purpose of this step:

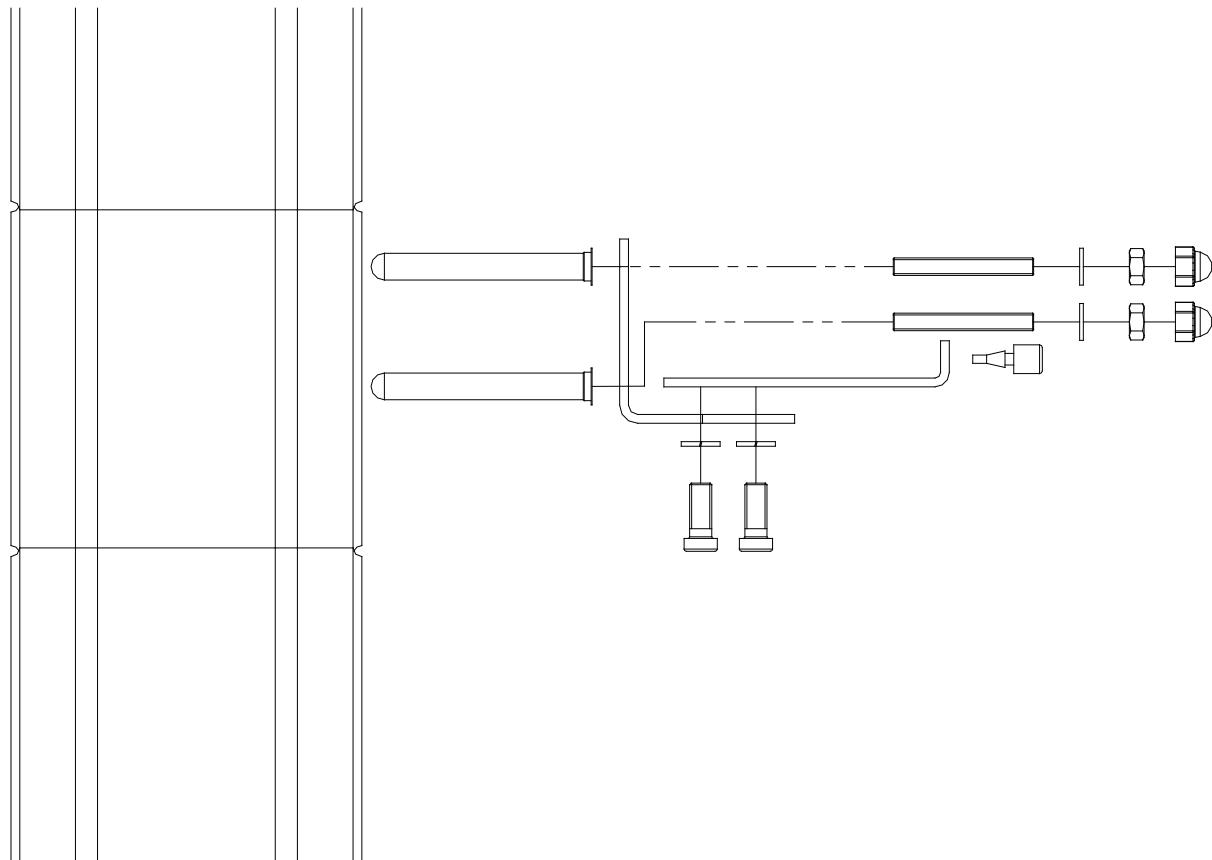
- The structural engineer hired by the client is responsible for verifying the adequacy of the structure that will support the load.
- Follow manufacturer's instructions for anchor installation.



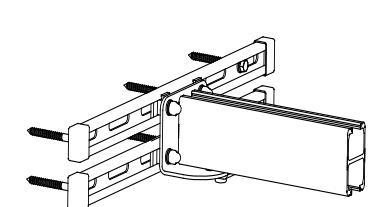
Detail: Wall brackets - bricks



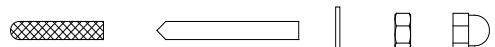
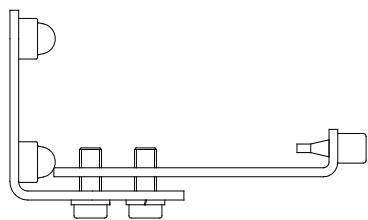
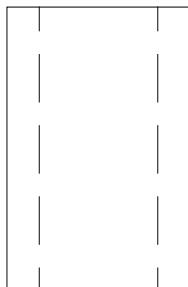
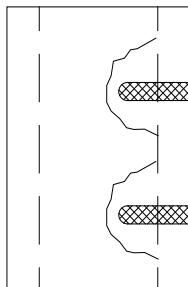
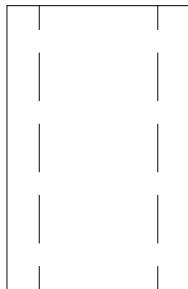
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



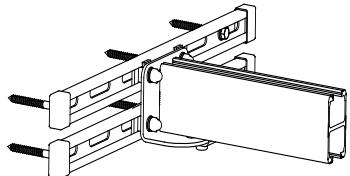
Detail: Wall brackets - blocks



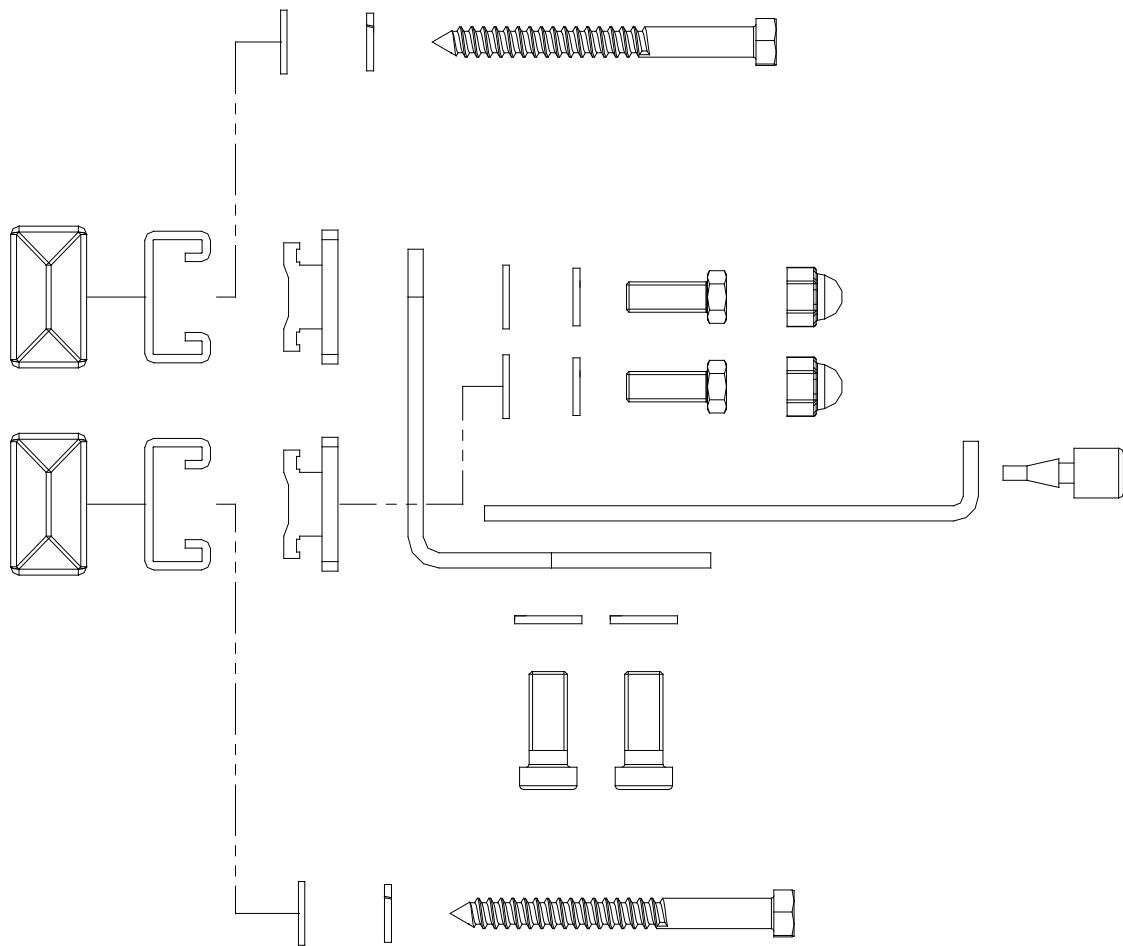
A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



Detail: Wall brackets - wood



A detailed and updated version of this technical detail is available in the restricted section of the ArjoHuntleigh website (directions are enclosed in the appendix).



Method: Wall brackets

Before performing this step, refer to step 3 for layout, bracket positioning and transfer points.

01



Measure the total height of the track installed on the wall bracket.

02



Transfer this height at 50 mm (2 in) under the suspended ceiling, 25 mm (1 in) below the lowest ceiling height

03

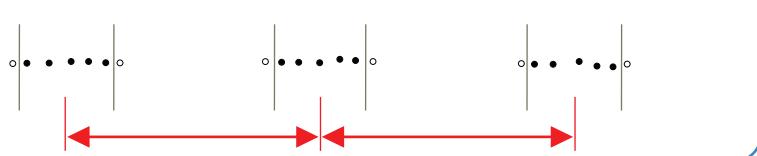


Taking into account these marks, place the wall bracket on the wall and mark 4 holes with a dot.
Make sure the bracket is perfectly horizontal.

04

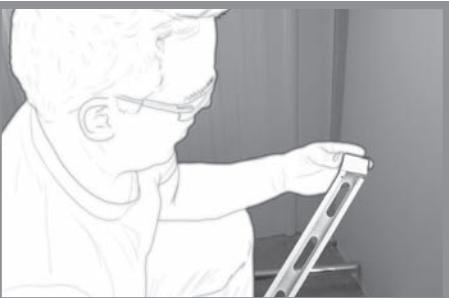


Find the joists' positions by drilling little holes side-by-side as represented on sketch below.
Measure the distance from axis to axis of three joists.



05

Transfer this measurement onto a white "C" strut length, add 100mm (4 in) to it then cut the strut.
Repeat this step to get two lengths per bracket.

06

Place three washers and white caps onto the bracket.

07

Drill holes in the middle of the three joists and place the hardware in it.

08

Tighten firmly.

09

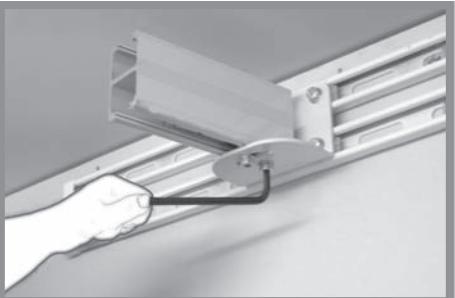
Repeat this step for the second "C" strut.
Place the four strut nuts.

10



Tighten the attachment hardware.
Insert into end of track, then sit track on Wall Bracket

11



Install the track, adjust the angle and lock the attachment by firmly tightening the hardware.

12



Add the four white caps.

13



Notes



Table of contents

ECS Installation

Installing an ECS system into a X/Y installation	228
Installing the ECS system into a layout of tracks	230

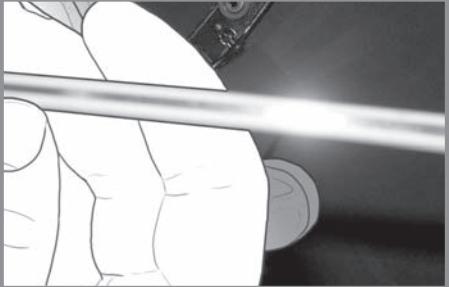
ECS Installation

Installing an ECS system into a XY installation

The purpose of this step:

- Place copper strips into the grooves along the bottom of the tracks.
- Attach the cable system and lock the attachments and end caps.
- Attach the tracks.

01



Place the contact strips into the mobile track and into one of the two straight tracks (the one which will power the charger). Cut two lengths of contact strip per track, cutting them an additional 25 mm (1 in) more than the track's length.

02



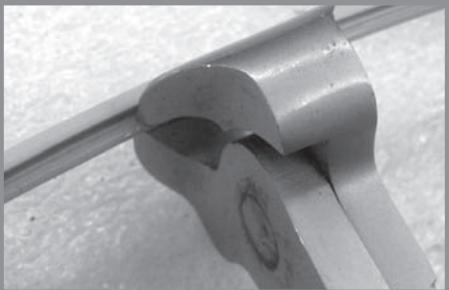
Before installing the contact strips, make sure the copper part is flush with the rubber strip end.

03



Using holding blocks, insert one contact strip into the mobile track and one into the fixed track that is going to receive the charger.

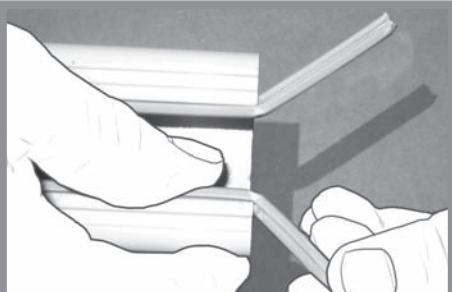
04



At joints, using a pair of cutters, carefully cut the contact strip bottom part at a 50 mm (2 in) length so as to avoid the spring pins.
Do not expose the copper strip.

05

With the proper tool, insert the contact strips into the grooves.

06

Make sure the strips are well placed.
Then, fold the exceeding strip lengths at each end of tracks
and cut them down to approximately 10mm (3/8in) past the
end of track.

This will facilitate the step where the contact box is inserted.

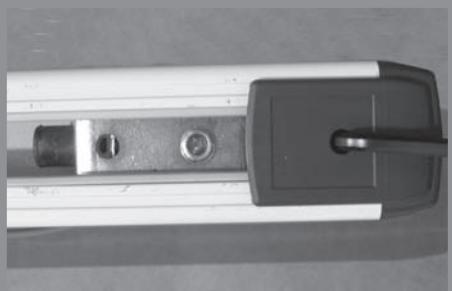
07

Install the two ECS trolleys into the mobile track. Make sure to
install the trolley equipped with a wire on the same side that
the charger is going to be installed.

Slide the trolley and the track into the two straight tracks. Insert
the motor into the mobile track.

08

Place an autolock stopper and a contact box at the ends of
the mobile and fixed tracks, on the same side that the charger
equipped with a wire is installed. The autolock stopper must
be at 50mm (2in) from the end of the track and the contact
box must be at 25mm (1in) from the end of the track. Then,
install each autolock stopper and contact box on each end of
every track, at the same distances described previously.

09

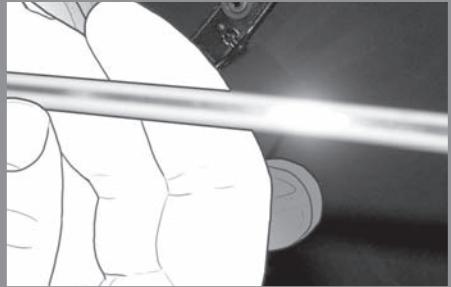
Lock all the autolock stoppers and all the contact boxes. Then,
place all the end caps and lock them.
Connect the contact box's cable to the cable from the trolley.
Connect the cable from the trolley to the charger's cable.
Plug the charger into the electrical outlet.

Installing the ECS system into a layout of tracks

The purpose of this step:

- Place copper strips into the grooves along the bottom of the tracks.
- Attach the cable system and lock the attachments and end caps.
- Attach the tracks.

01



To install an ECS system, you have to install contact strips. Measure the track layout total's length. Add about 50mm (2 in) to this measurement and cut an equivalent contact strip.

02



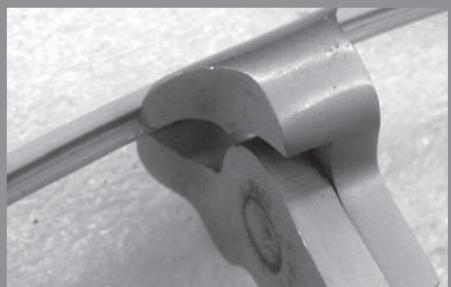
Before installing the contact strips, make sure the copper part is flush with the rubber strip end.

03



Using holding blocks, place the two contact strip lengths into the tracks.

04



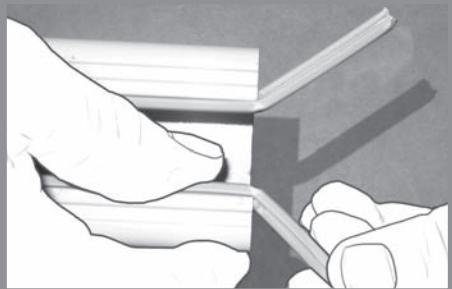
At joints, using a pair of pliers, carefully cut the contact strip bottom part at a 50mm (2 in) length so to avoid the spring pins.
Do not expose the copper strip.

05



With the proper tool, insert the contact strips into the grooves.

06



Make sure the strips are well placed. Then, fold the exceeding strips at each end of tracks and cut them down to approximately 10 mm (3/8 in) past the end of track.

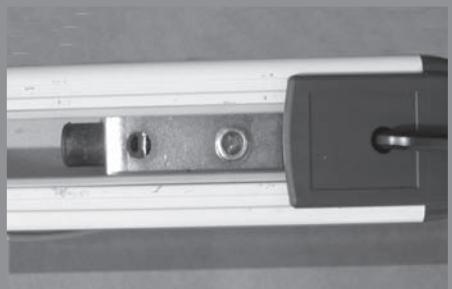
This will facilitate the step where the contact box is inserted.

07



Place an autolock stopper and a contact box at the ends of the mobile and fixed tracks, on the same side the charger with a wire is installed. The autolock stopper must be at 50 mm (2 in) from the end of the track and the contact box must be at 25 mm (1 in) from the end of the track. Then, install each autolock stopper and contact box on each end of the tracks, at the same distances described previously.

08



Lock all the autolock stoppers and all the contact boxes. Then, place all the end caps and lock them. Connect the contact box's cable to the cable from the trolley. Connect the cable from the trolley to the charger's cable. Plug the charger into the electrical outlet.

NOTE...

...the complete procedure (document 001.07650.**) may be available upon request or at the ArjoHuntleigh website.

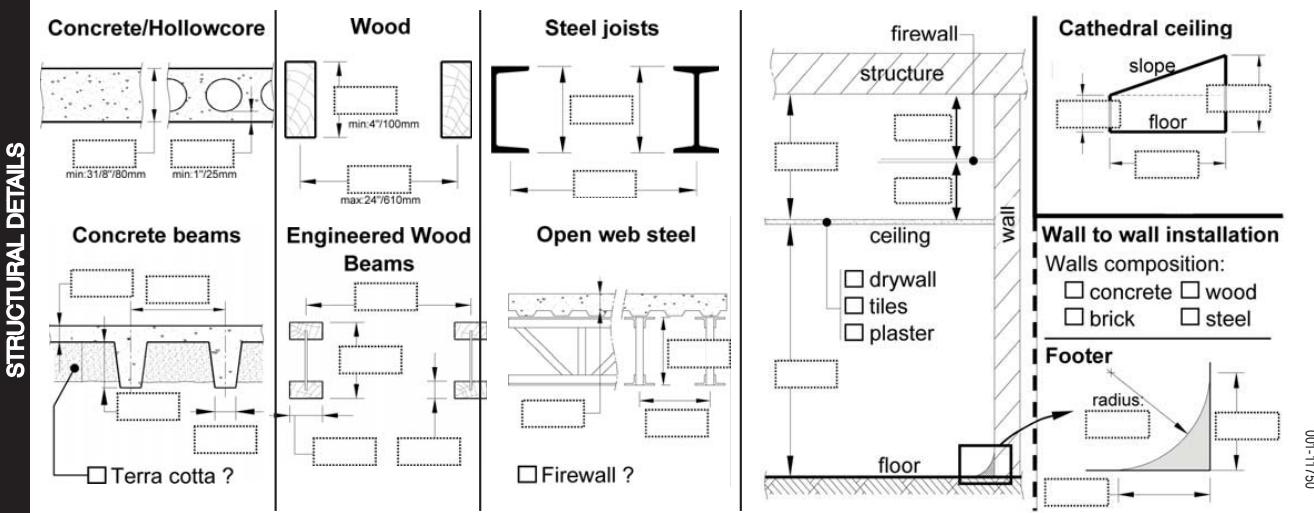


SSU	SSU Name:	Distr. Name:
	Contact Name:	Contact Name:
	Bus. Phone: E-Mail:	Bus. Phone: E-Mail:
DISTR.		
Type: <input type="checkbox"/> Residential <input type="checkbox"/> Long-term care <input type="checkbox"/> Hospital <input type="checkbox"/> Rehab area <input type="checkbox"/> ICU <input type="checkbox"/> Other:		
Project Name: Contact: Bus. Phone:		
Address: E-Mail:		
INSTALLATION SITE	Yes No <input type="checkbox"/> <input type="checkbox"/> Actually under construction/renovation? <input type="checkbox"/> <input type="checkbox"/> Architectural plans available (CAD or PDF)? → If Yes, collect CAD drawings <input type="checkbox"/> <input type="checkbox"/> Loading dock available? <input type="checkbox"/> <input type="checkbox"/> Storage available? → If rental is needed: <input type="checkbox"/> Local <input type="checkbox"/> Container <input type="checkbox"/> <input type="checkbox"/> Infectious control required? → Managed by: <input type="checkbox"/> ArjoHuntleigh <input type="checkbox"/> Customer → Level: <input type="checkbox"/> <input type="checkbox"/> Manpower available for unloading?	
	Yes No <input type="checkbox"/> <input type="checkbox"/> Space restriction? → Details (and photos): <input type="checkbox"/> <input type="checkbox"/> Sketches/measurements taken during initial assessment? <input type="checkbox"/> <input type="checkbox"/> Access to structure? <input type="checkbox"/> <input type="checkbox"/> Other information?	
TRACK SYSTEM	 <ul style="list-style-type: none"> <input type="checkbox"/> Below ceiling installation <ul style="list-style-type: none"> <input type="checkbox"/> Standard charging <input type="checkbox"/> ECS Charging <input type="checkbox"/> Embedded ceiling installation method <input type="checkbox"/> Wall-mounted KWIKtrak <ul style="list-style-type: none"> <input type="checkbox"/> Wall Post <input type="checkbox"/> Wall Bracket <input type="checkbox"/> Wall-Mount Solution <input type="checkbox"/> Service zones required for Wall to Wall 	
CEILING LIFT	1) Hand Control: Units: SWL: 2) Hand Control: Units: SWL: 3) Hand Control: Units: SWL: 	SPREADER BARS 1) Type Units 2) Type Units 3) Type Units 4) Type Units <small>(Refer to Annex 1)</small>
ACCESSORIES	Portable Lift Trolley (xxx-xxxx) Pivoting Trolley Reacher 61 cm (24") Other (See Annex 3): Units: 	Reacher 91.5 cm (36") Extension strap Carry bag Units:
"I have reviewed the data contained on this form and confirm it as correct. I understand that missing or incorrect information may have an impact on the quoted installation price."		
PLEASE X	Authorized signature	
Date: dd/mm/yyyy		06/11/10

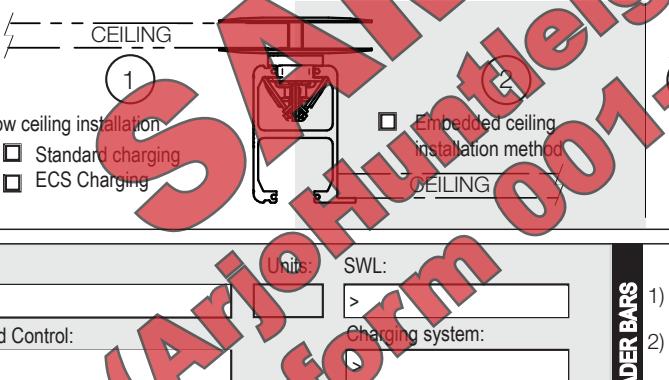
Room numbers: _____

SKETCH AREA

SAMPLE
(Arjhuntleigh form 001.11.150)



SSU	SSU Name: > _____ Contact Name: _____ Bus. Phone: _____ E-Mail: _____	DISTR.	Distr. Name: _____ Contact Name: _____ Bus. Phone: _____ E-Mail: _____
INSTALLATION SITE	<p>Type: <input type="checkbox"/> Residential <input type="checkbox"/> Long-term care <input type="checkbox"/> Hospital <input type="checkbox"/> Rehab area <input type="checkbox"/> ICU <input type="checkbox"/> Other: _____</p> <p>Project Name: _____ Contact: _____ Bus. Phone: _____</p> <p>Address: _____ E-Mail: _____</p> <p>Yes No <input type="checkbox"/> <input type="checkbox"/> Actually under construction/renovation? <input type="checkbox"/> <input type="checkbox"/> Architectural plans available (CAD or PDF)? If Yes, collect CAD drawings <input type="checkbox"/> <input type="checkbox"/> Loading dock available? <input type="checkbox"/> <input type="checkbox"/> Storage available? If rental is needed: <input type="checkbox"/> Local <input type="checkbox"/> Container <input type="checkbox"/> <input type="checkbox"/> Infectious control required? Managed by: <input type="checkbox"/> ArjoHuntleigh <input type="checkbox"/> Customer Level: _____ <input type="checkbox"/> <input type="checkbox"/> Manpower available for unloading?</p> <p>Yes No <input type="checkbox"/> <input type="checkbox"/> Space restriction? Details (and photos): _____ <input type="checkbox"/> <input type="checkbox"/> Sketches/measurements taken during initial assessment? <input type="checkbox"/> <input type="checkbox"/> Access to structure? <input type="checkbox"/> <input type="checkbox"/> Other information?</p>		
TRACK SYSTEM	<p>CEILING</p> <p>1) <input type="checkbox"/> Below ceiling installation <input type="checkbox"/> Standard charging <input type="checkbox"/> ECS Charging</p> <p>2) Embedded ceiling installation method</p> <p>CEILING</p> <p>3) <input type="checkbox"/> Wall-mounted KWIKtrak <input type="checkbox"/> Wall Post <input type="checkbox"/> Wall Bracket <input type="checkbox"/> Wall-Mount Solution <input type="checkbox"/> Service zones required for Wall to Wall</p>		
CEILING LIFT	<p>1) > _____ Units: SWL: _____ Hand Control: > _____ Charging system: > _____</p> <p>2) > _____ Units: SWL: _____ Hand Control: > _____ Charging system: > _____</p> <p>3) > _____ Units: SWL: _____ Hand Control: > _____ Charging system: > _____</p>	SPREADER BARS	<p>Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip Units</p> <p>1) > _____ 2) > _____ 3) > _____ 4) > _____ <small>(Refer to Annex 1)</small></p>
ES	<p>1) > _____ Units 1) > _____ Units</p>	SLINGS	<p>Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip Units</p> <p>1) > _____ 2) > _____ 3) > _____ 4) > _____ <small>(Refer to ArjoHuntleigh Sling Guide)</small></p>

SSU SSU Name: Contact Name: Bus. Phone: E-Mail:	DISTR. Distr. Name: Contact Name: Bus. Phone: E-Mail:																																													
Type: <input type="checkbox"/> Residential <input type="checkbox"/> Long-term care <input type="checkbox"/> Hospital <input type="checkbox"/> Rehab area <input type="checkbox"/> ICU <input type="checkbox"/> Other:																																														
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CEILING LIFT <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1) > _____</td> <td style="width: 50%;">Units: _____</td> <td style="width: 50%;">SWL: _____</td> <td style="width: 50%;">Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip</td> <td style="width: 50%;">Units: _____</td> </tr> <tr> <td>Hand Control: _____</td> <td></td> <td>Charging system: _____</td> <td></td> <td></td> </tr> <tr> <td>> _____</td> <td></td> <td>> _____</td> <td></td> <td></td> </tr> <tr> <td>2) > _____</td> <td>Units: _____</td> <td>SWL: _____</td> <td>Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip</td> <td>Units: _____</td> </tr> <tr> <td>Hand Control: _____</td> <td></td> <td>Charging system: _____</td> <td></td> <td></td> </tr> <tr> <td>> _____</td> <td></td> <td>> _____</td> <td></td> <td></td> </tr> <tr> <td>3) > _____</td> <td>Units: _____</td> <td>SWL: _____</td> <td>Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip</td> <td>Units: _____</td> </tr> <tr> <td>Hand Control: _____</td> <td></td> <td>Charging system: _____</td> <td></td> <td></td> </tr> <tr> <td>> _____</td> <td></td> <td>> _____</td> <td></td> <td></td> </tr> </table> <p>(Refer to Annex 1)</p>		1) > _____	Units: _____	SWL: _____	Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip	Units: _____	Hand Control: _____		Charging system: _____			> _____		> _____			2) > _____	Units: _____	SWL: _____	Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip	Units: _____	Hand Control: _____		Charging system: _____			> _____		> _____			3) > _____	Units: _____	SWL: _____	Type: <input type="checkbox"/> Loop <input type="checkbox"/> Clip	Units: _____	Hand Control: _____		Charging system: _____			> _____		> _____		
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ACCESSORIES <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1) > _____</td> <td style="width: 50%;">Units: _____</td> <td style="width: 50%;">1) > _____</td> <td style="width: 50%;">Units: _____</td> </tr> <tr> <td>2) > _____</td> <td></td> <td>2) > _____</td> <td></td> </tr> <tr> <td>3) > _____</td> <td></td> <td>3) > _____</td> <td></td> </tr> <tr> <td>Other: _____</td> <td></td> <td></td> <td></td> </tr> </table> <p>(Refer to ArjoHuntleigh Sling Guide)</p>		1) > _____	Units: _____	1) > _____	Units: _____	2) > _____		2) > _____		3) > _____		3) > _____		Other: _____																																
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2) > _____		2) > _____																																												
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Other: _____																																														
I have reviewed the data contained on this form and confirm it as correct. I understand that missing or incorrect information may have an impact on the quoted installation price. PLEASE → X _____ Authorized signature _____ Date: _____ dd/mm/yyyy																																														

Room numbers: _____

SKETCH AREA

X-Y CONFIGURATION OPTIONS

Access to structure: Yes No

Leged

- Standard
- Embedded
- Flush-mounted
- Wall-mounted
- Wall-mounted
- X-Y Curtain Gap

Joist direction

Existing electrical outlet **Tracks (length)**

Charging station **Curtains**

Smoke detector **Sprinklers**

Desired transfer zone **Vents**

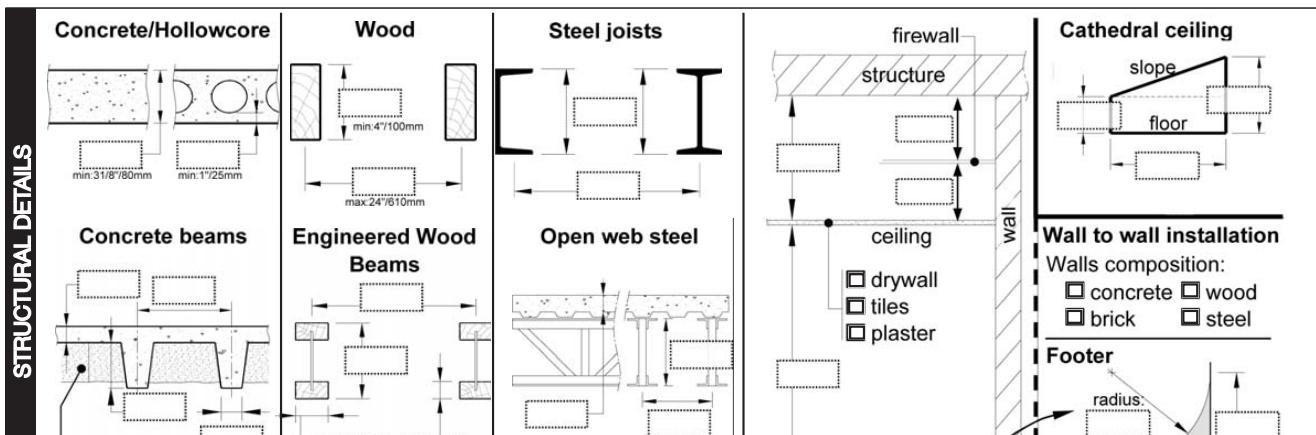
Lights

ACC

INSTALLATION METHOD CAPACITY (SWL)

<input type="checkbox"/> 120 kg (265 lb)	<input type="checkbox"/> 272 kg (600 lb)
<input type="checkbox"/> 200 kg (440 lb)	<input type="checkbox"/> 454 kg (1000 lb)

SAMPLE
ArjoHuntleigh form 001-111750)



ROOM COMMISSIONING FORM

INSTALLATION SITE		Installer name: _____
Facility: _____	Address: _____	Company: _____
Room #: _____	Structure: _____	Lift model: _____ No lift: <input type="checkbox"/>
		Serial number: _____
		Sticker number: _____ BHM: <input type="checkbox"/> Arjo: <input type="checkbox"/>

Other serial # TT EX GA : _____

TYPE OF LOAD TEST

Certified Load Test: _____

Certified Load Test:

- (A) @ 125% or 150% of SWL
- (B) Deflection testing
- (C) Track inspection

In accordance with:

CSA Z323/ISO10535

CSA-B167-96

OMSR/WCB

Functional Load Test:

- (A) @ 100% of SWL (Lift & Track)
- (C) Track inspection

(A) DEFLECTION TESTING						(C) TRACK INSPECTION		
Bracket	X/Y	Wall Mount	Height Unloaded	Height Loaded	Deflection (add span when WalltoWall or XY)	Yes	No	
1	L1	Wall 1			(B)	<input type="checkbox"/>	<input type="checkbox"/>	
2	L2	Track 1				<input type="checkbox"/>	<input type="checkbox"/>	
3	L3	Wall 2				<input type="checkbox"/>	<input type="checkbox"/>	
4	L4	Wall 3				<input type="checkbox"/>	<input type="checkbox"/>	
5	L5	Track 2				<input type="checkbox"/>	<input type="checkbox"/>	
6	L6	Wall 4				<input type="checkbox"/>	<input type="checkbox"/>	
7	L7	Track 3				<input type="checkbox"/>	<input type="checkbox"/>	
8	L8					<input type="checkbox"/>	<input type="checkbox"/>	
9	L9					<input type="checkbox"/>	<input type="checkbox"/>	
10	L10					<input type="checkbox"/>	<input type="checkbox"/>	
11	L11					<input type="checkbox"/>	<input type="checkbox"/>	
12	L12					<input type="checkbox"/>	<input type="checkbox"/>	
13	R1					<input type="checkbox"/>	<input type="checkbox"/>	
14	R2					<input type="checkbox"/>	<input type="checkbox"/>	
15	R3					<input type="checkbox"/>	<input type="checkbox"/>	
16	R4					<input type="checkbox"/>	<input type="checkbox"/>	
17	R5					<input type="checkbox"/>	<input type="checkbox"/>	
18	R6					<input type="checkbox"/>	<input type="checkbox"/>	
19	R7					<input type="checkbox"/>	<input type="checkbox"/>	
20	R8					<input type="checkbox"/>	<input type="checkbox"/>	
21	R9					<input type="checkbox"/>	<input type="checkbox"/>	
22	R10					<input type="checkbox"/>	<input type="checkbox"/>	
23	R11					<input type="checkbox"/>	<input type="checkbox"/>	
24	R12					<input type="checkbox"/>	<input type="checkbox"/>	
25	Moving track 1							
26	Moving track 2							
27	Turn table							
28	Exchanger							
29	Gate							
30	Rev. Gate							

TEST SUMMARY

Yes	No	N/a
21. Inspected track brackets: <input type="checkbox"/> <input type="checkbox"/>		
22. Track end stops secure: <input type="checkbox"/> <input type="checkbox"/>		
23. Track joints (>2mm resolve): <input type="checkbox"/> <input type="checkbox"/>		
24. Charger box/Cords in place: <input type="checkbox"/> <input type="checkbox"/>		
25. Transfer zones: <input type="checkbox"/> <input type="checkbox"/>		
26. Load test sticker applied: <input type="checkbox"/> <input type="checkbox"/>		
27. Inspection pictures taken <input type="checkbox"/> <input type="checkbox"/>		

SITUATION QUICK DRAFT

Weight of Load Test: _____ lbs

• Pass = All test points < Allowable deflection
 • Fail = Any test point > allowable deflection & confirmed.
 (See I-INS-014.X)

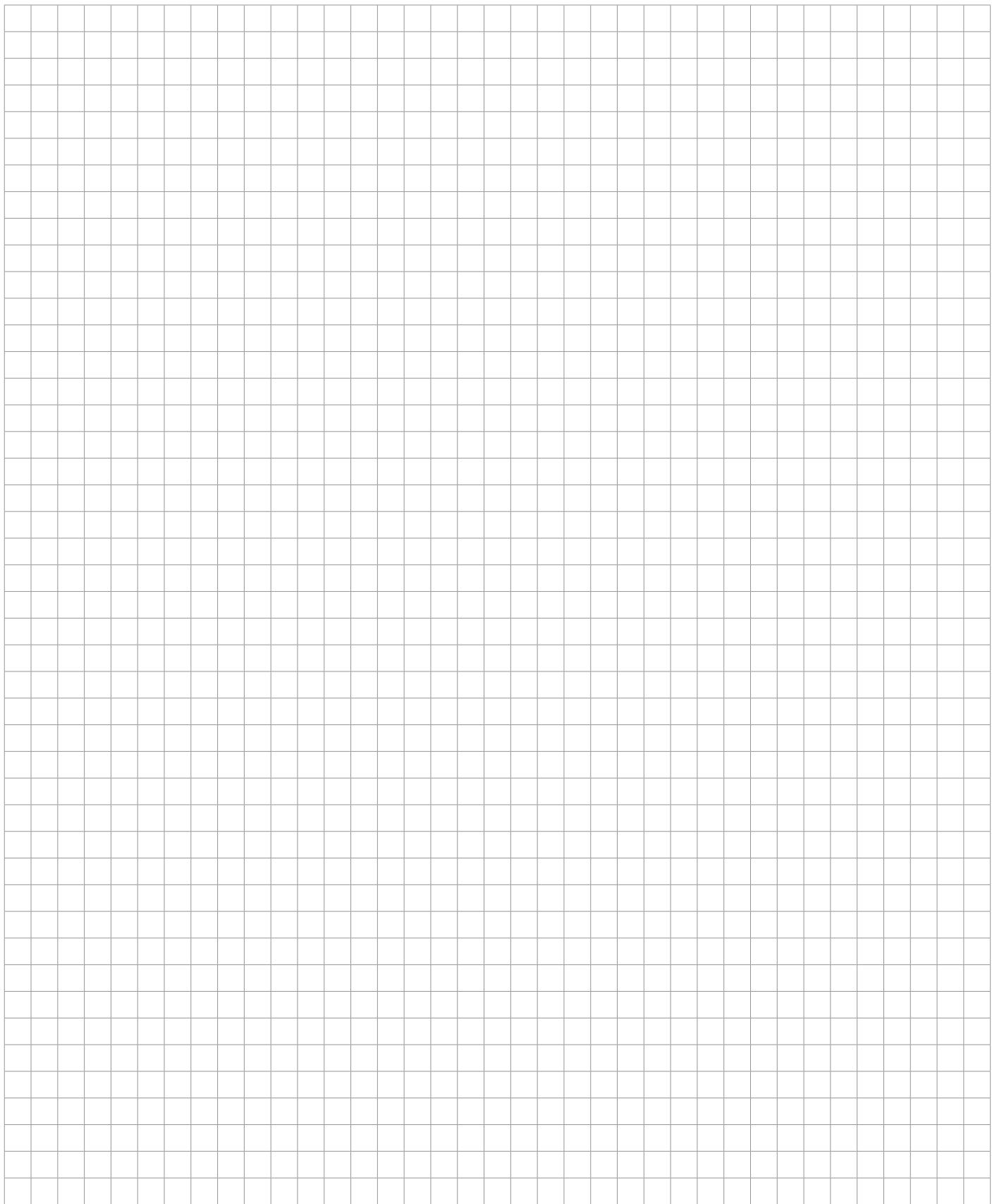
(A) TEST PASS
 If failed (no), item(s) # : _____

(B) TEST PASS
 If failed (no), item(s) # : _____

(C) TEST PASS
 If failed (no), item(s) # : _____

Technician: _____	Date: _____	Signature: _____
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Notes





ANNEXES

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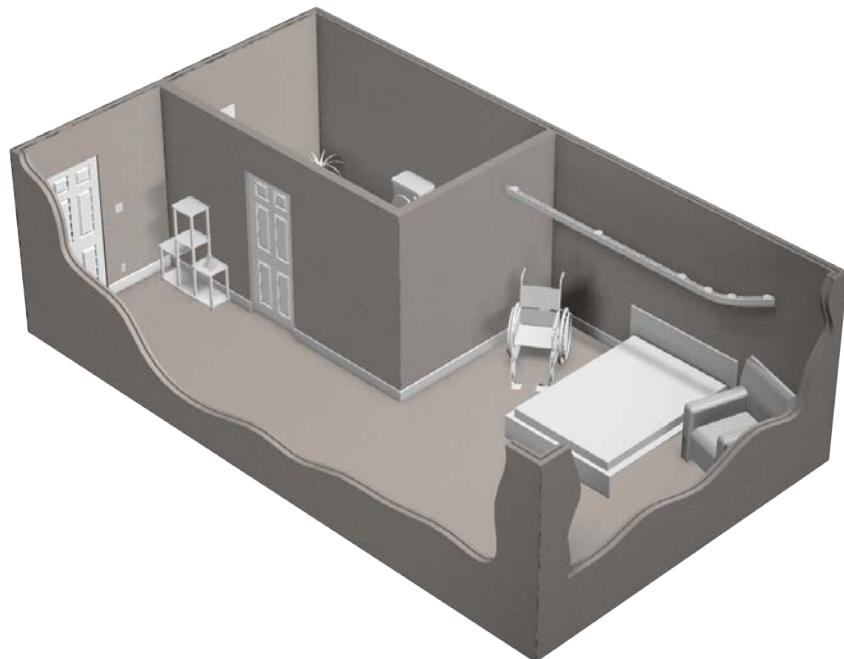
Specific Rooms Layouts

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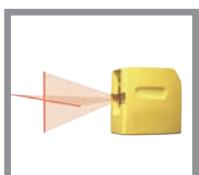
Typical “J” Layout

The purpose of this layout:

- **Transpose the plans (drawings) in the room to be installed.**
- **Establish exact anchor points relative to equipment.**
- **Maximize the transfer points and follow the recommendations/requests of the customers.**



Tools required for this layout:



Crossline Laser Level (CLLL)



Tape Measure (T.M.)



Plumb Laser (P.B.)



Masking Tape

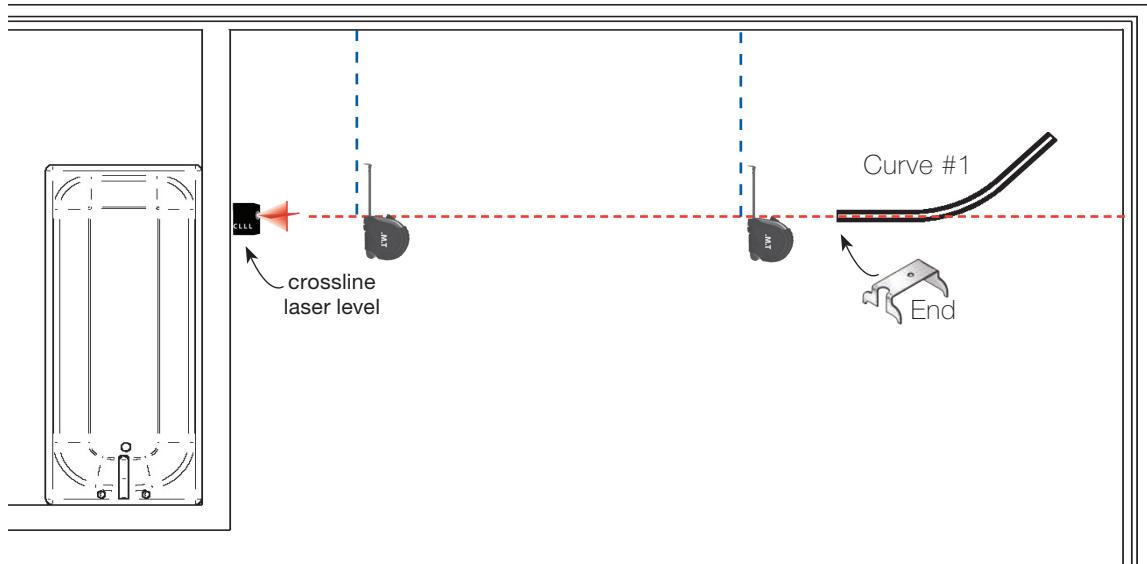


Marker



Curve alignment tool

Aligning curve with straight section



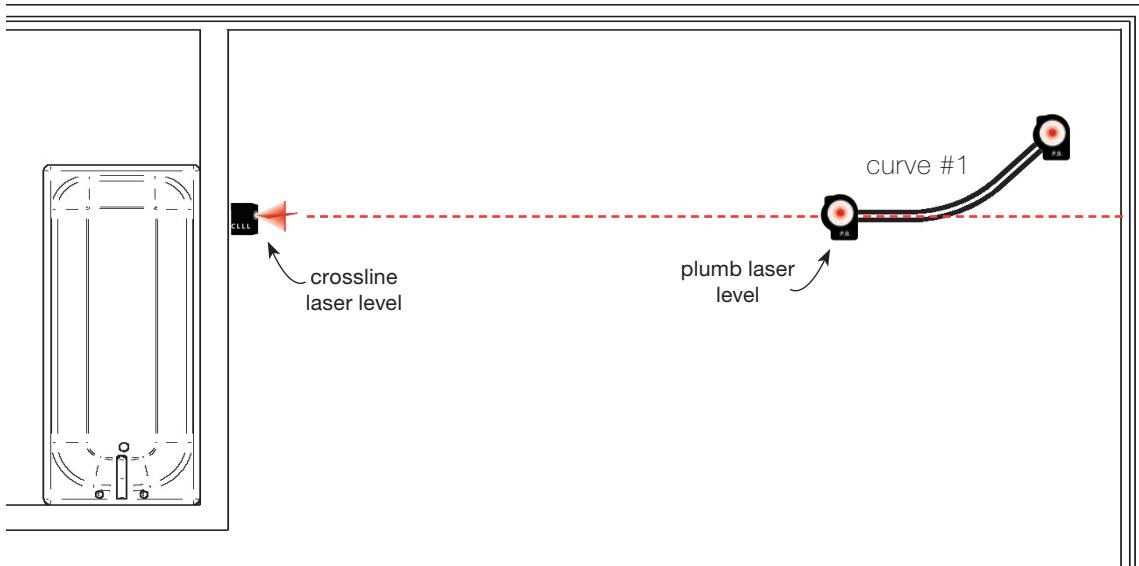
- Set up the crossline laser level parallel with the head wall at desired transfer zone over the bed.
- Add curve #1 into the layout by placing and aligning it with the curve alignment tool.
- Slide the curve alignment tool back and forth on the curve end, to ensure the curve is not kicking “in” or “out” versus the crossline laser line.



NOTE...

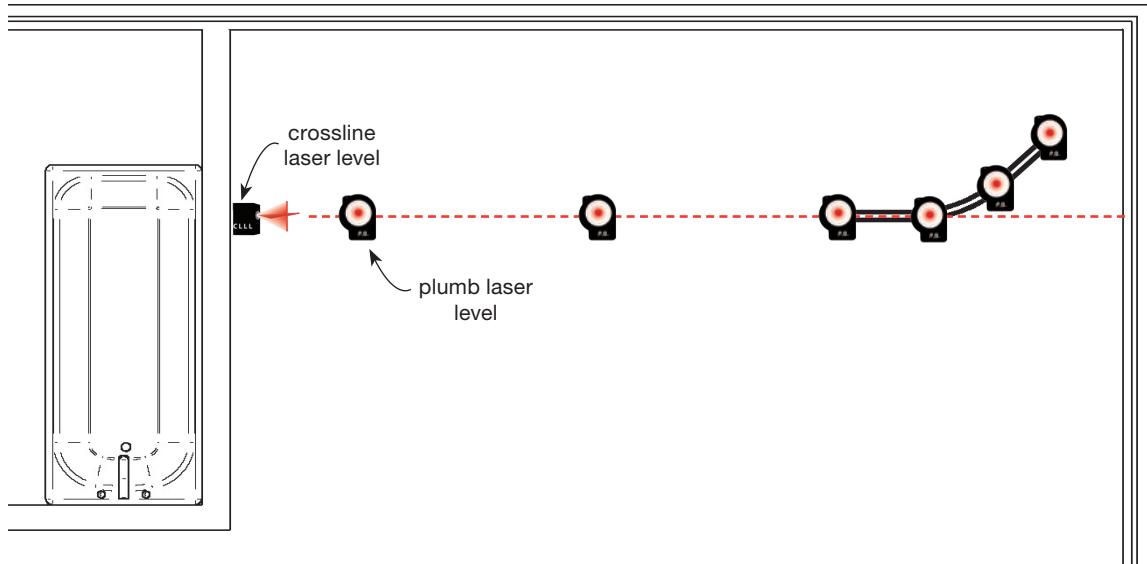
To determine the standard drop point on a bed refer to “Basic knowledge/
Transfer points”

Validating at joint bracket locations



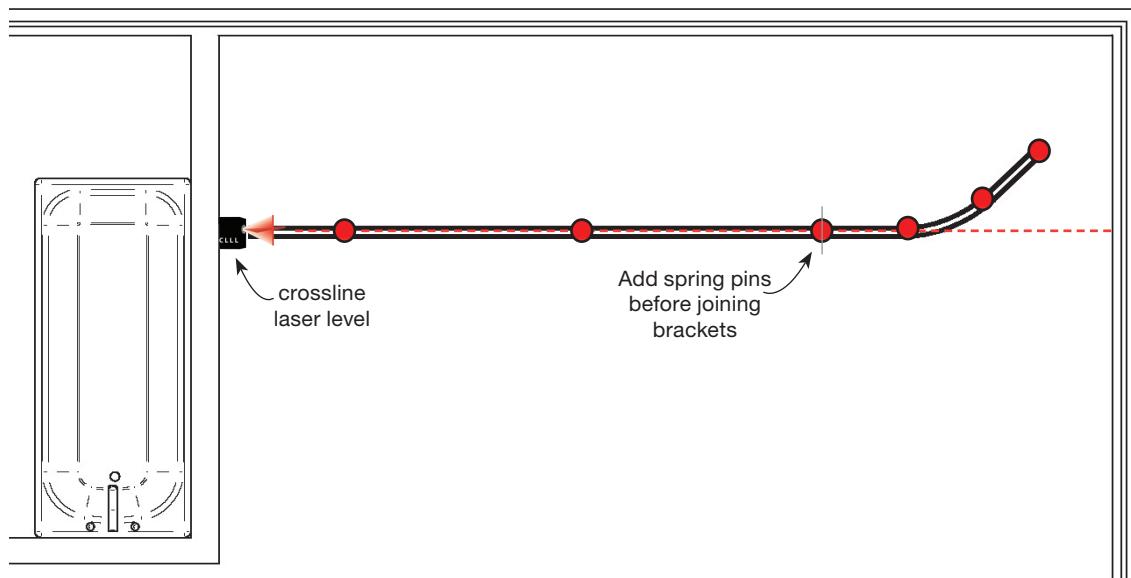
- To facilitate your installation, validate at each curve end using a plumb laser, so that there are no obstructions in your way. If there are, make necessary adjustments and then proceed to identify all bracket locations.

Identify remaining bracket locations



- At each plumb laser position, we recommend that you mark both floor and ceiling using masking tape and a marker at every location. As per the KWIKtrak Span Chart (001-01014), 4 brackets are required for every curve. Every track section larger than 100 cm (39 in), requires 3 brackets supporting the section. If longer, refer to KWIKtrak Span Chart.
- Drill the ceiling at each plumb laser location.
- Level all rods and brackets.

Clip the tracks up

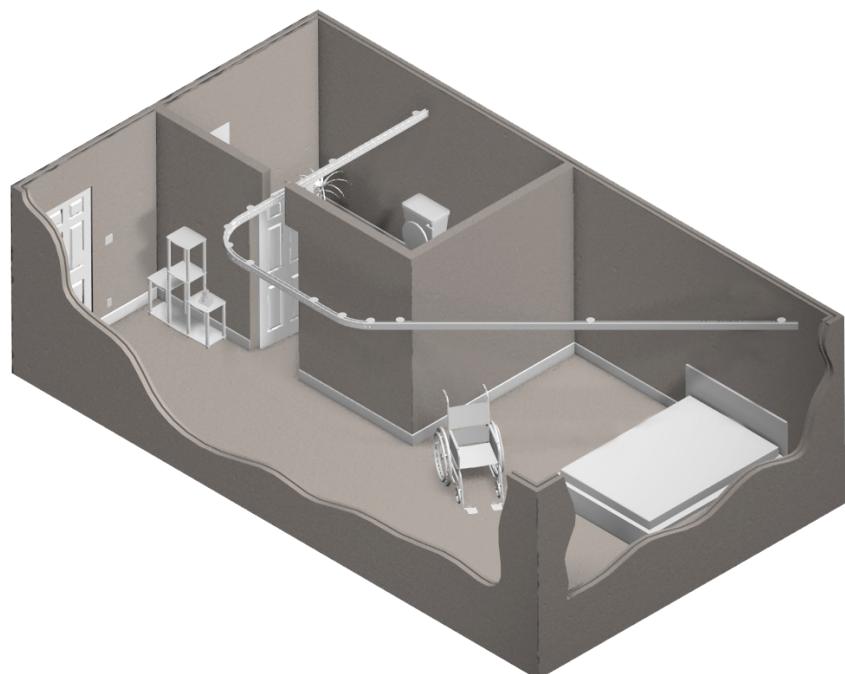


- Once all brackets are installed and levelled off, you are ready to clip the curve up. Center the end of the curve that connects with the following straight track at the joint location, then clip the curve up.
- Align the joint center with joint bracket, ensuring the gap is tight.

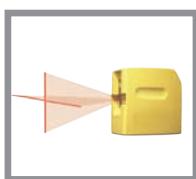
Multiple Curve Layout

The purpose of this layout:

- A multiple curve type layout provides access to multiple areas in that particular room, or possible entry into another room, or area of the home.



Tools required for this layout:



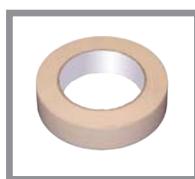
Crossline Laser Level (CLLL)



Tape Measure (T.M.)



Plumb Laser (P.B.)



Masking Tape

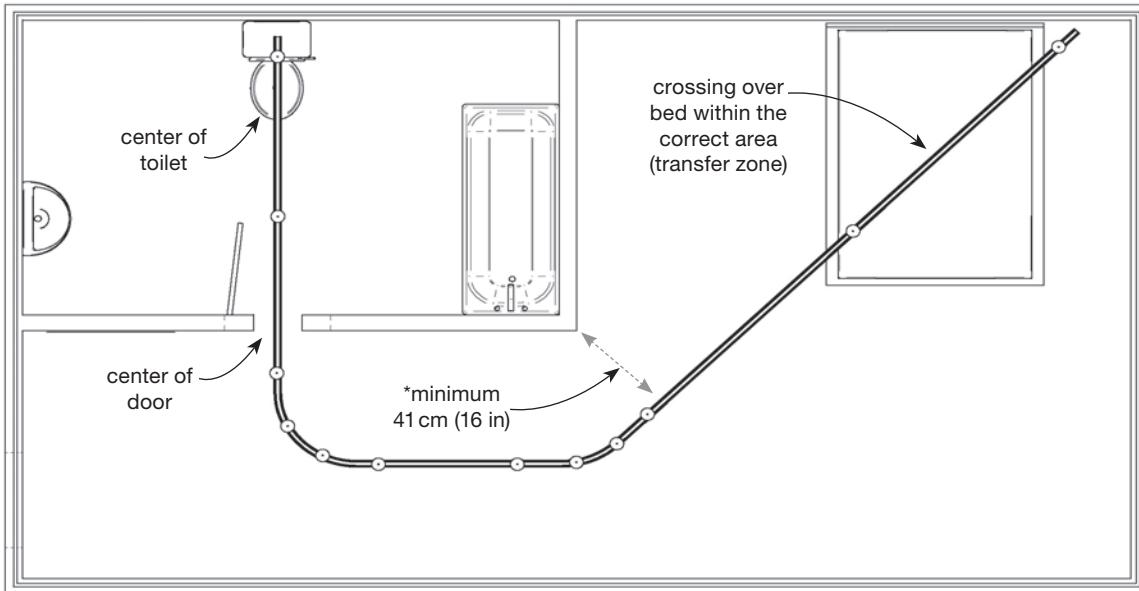


Marker



Curve alignment tool

Ensure that final result will respect ArjoHunleigh minimum requirements



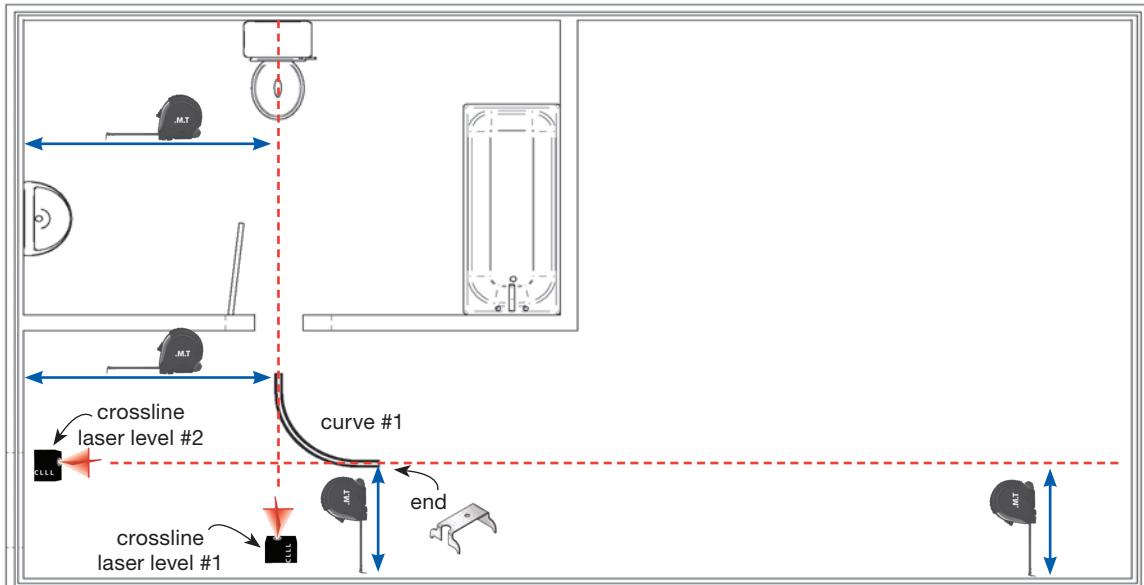
- When installing this type of layout, make sure that you clear at least 40 cm (16 in) from the corner wall. Aim to install in the center of the doorway and achieve proper transfer zones on the bed and the toilet.



NOTE...

Never cut a curve within its radius. A minimum of 76 mm (3 in) is required at the end of the curve to allow the use of the curve alignment tool.

Posistioning the curves



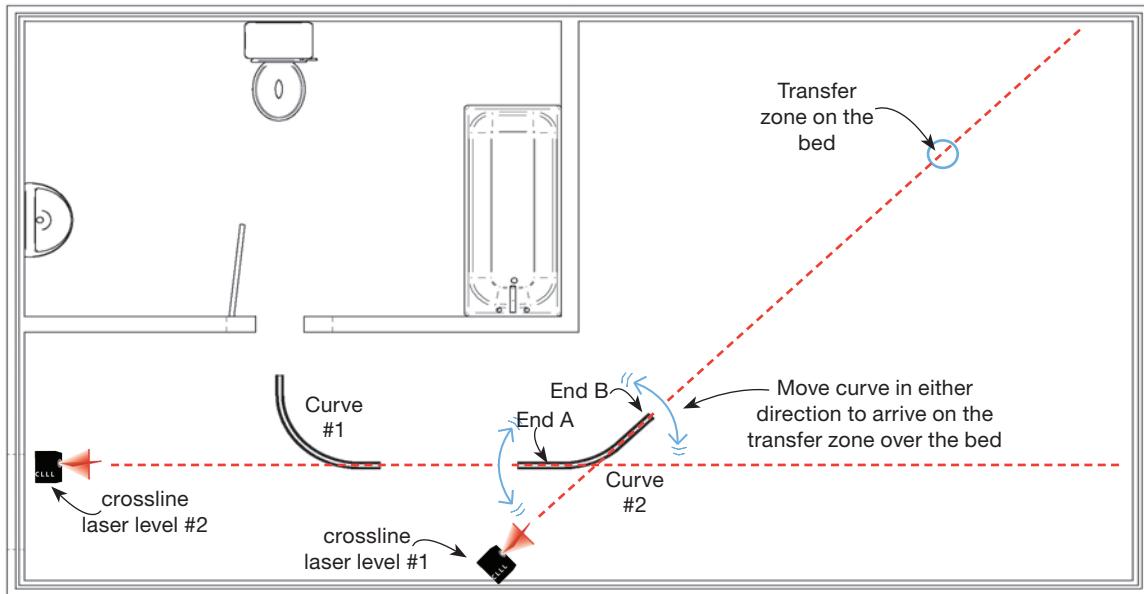
- Ensure the crossline laser level #1 is square with the wall and that we are passing through the center of the doorway and achieving the center of the toilet.
- Position the curve on the floor, in line with the crossline laser level #1. Slightly tilt the curve back and forth, ensuring that it lines up with center of the straight section on the curve, with the crossline laser level #1, using the curve alignment tool.
- Once the curve is in position we are ready to set-up crossline laser level #2 in line with center of the other end of curve #1. To assist with this step, use the curve alignment tool, moving back and forth on the end and move crossline laser level #2.
- Do not move the curve, only the curve alignment tool.



NOTE...

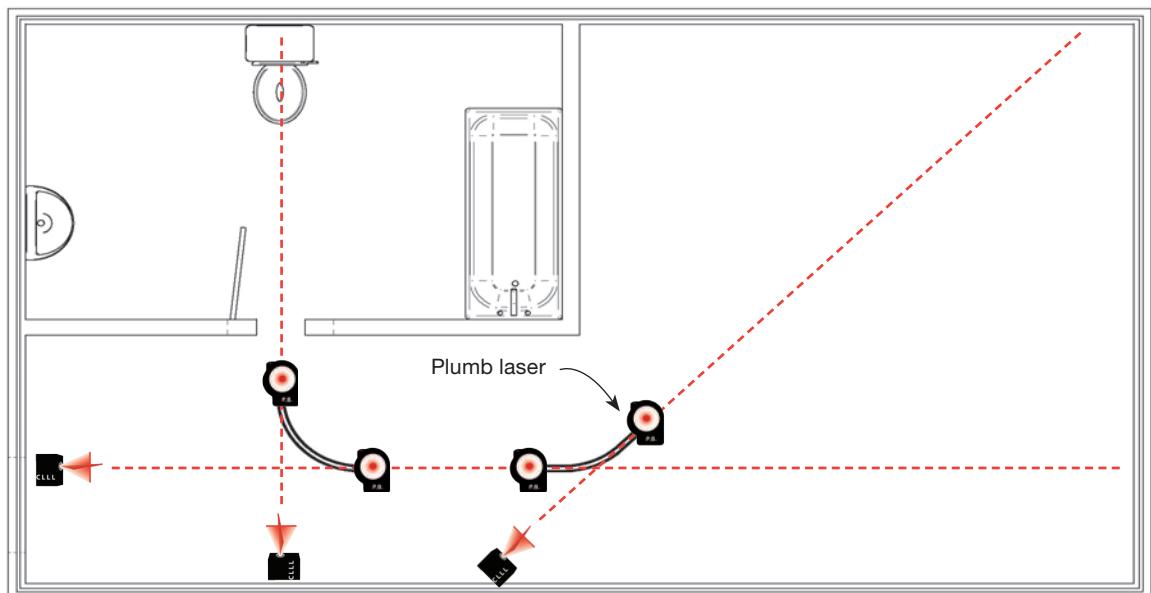
Glide the curve alignment tool back and forth on end of curve to ensure that curve is not kicking out vs the crossline laser level tool.

Validating at joint bracket locations



- Once curve #1 is setup, we are ready to place curve#2 in line with the transfer zone on the bed.
- Move crossline laser level #1 and position it so that it is shining in line with the center of the straight section of curve #2 (end B).
- Now use the curve alignment tool, and line-up crossline laser level #1 with marks on the curve alignment tool.
- Slide curve #2 (left or right) until laser line is hitting the transfer zone over bed.
- Curve #2 needs to keep to the center line of crossline laser level #2. Once this is achieved and you agree to the transfer zone on the bed, ensure that crossline laser level #1 is centered on the curve, again using the curve alignment tool .

Reviewing possible obstructions at joint locations



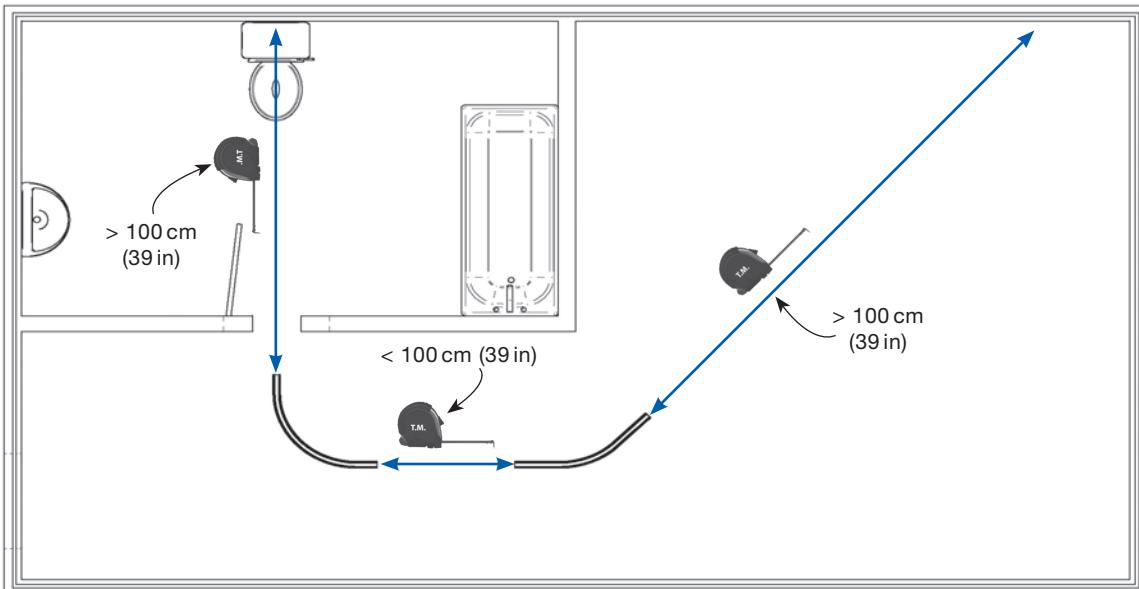
- Once both curves are in place on the floor, and we have achieved our transfer positioning, we need to ensure that we won't be dealing with any obstructions at the joint bracket locations.
- Due to the fact that we cannot shift left or right at a joint location and that we need to keep to the center of any joint location/bracket, you need to survey these areas to ensure you are not in conflict with any obstacles (lights, vents, sprinklers, etc.). If you come into conflict with such obstacles, then it would be best to shift or reconfigure the layout at this point.
- Use the plumb laser to assist with this step.



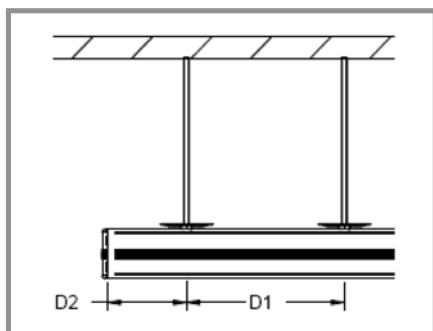
NOTE...

Position the plumb laser tool on the end of curve to confirm that you are avoiding obstacles in the ceiling.

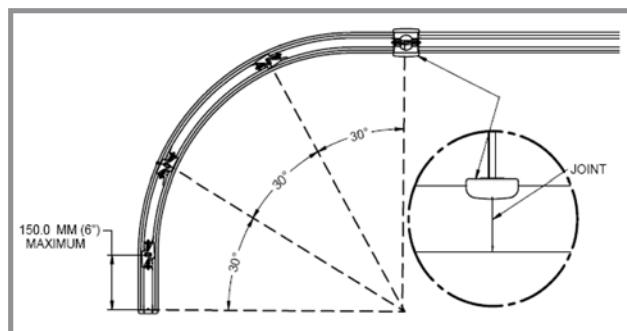
Reviewing bracket spacing



- With a measuring tape, start measuring the straight sections and refer to the KWIKtrak Span Chart (001-01014) to see if a marking is required in center of that particular section.

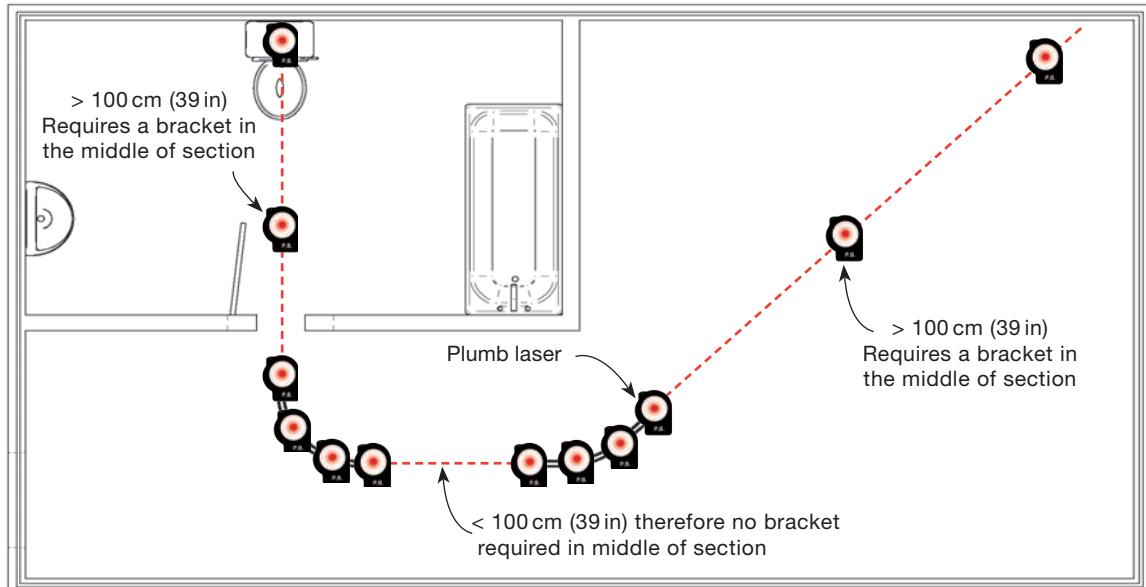


Maximum center to center distance between two consecutives brackets...



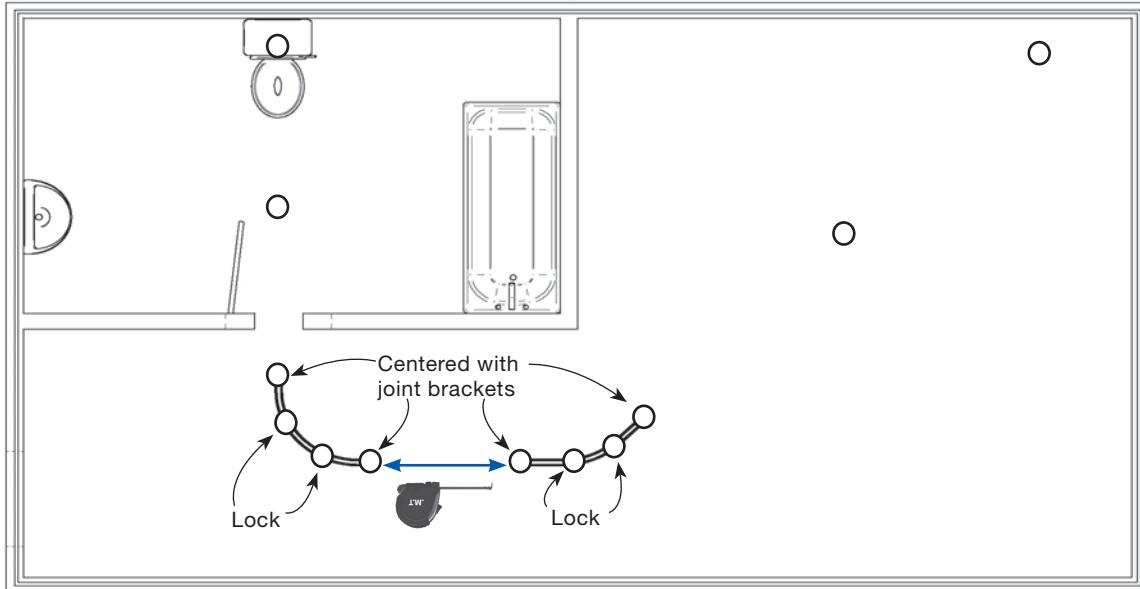
All curved tracks must be supported by 4 brackets...

Marking bracket locations



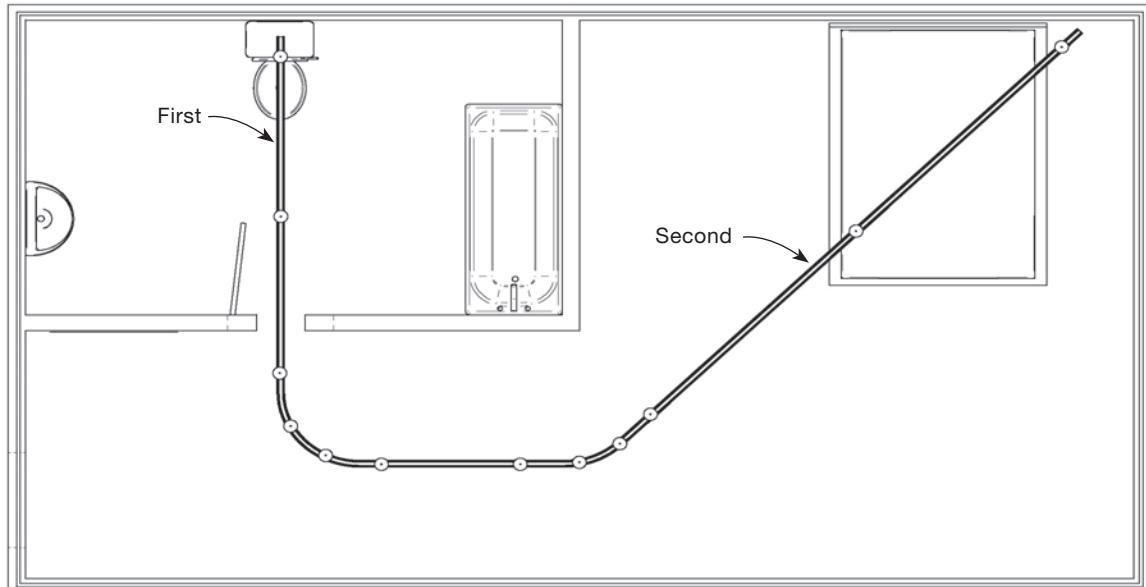
- At each plumb laser position we recommend that you mark both the ceiling and the floor at every bracket location. Refer to KWIKtrak Span Chart (001-01014).
- Mark the floor and the ceiling with a piece of painter's masking tape along with a marker.
- You are now ready to drill the ceiling at each mark and proceed in dropping your rod.
- Level off all the rods, and install brackets on them.

Connecting the sections



- Once all brackets are installed and levelled off you are now ready to clip the curves up.
- Add the spring pins before clipping the curves up into the brackets. Be sure to center the curve ends with the joint brackets. Lock the two middle brackets on each curve.
- Measure the section of track to be positioned between the two curves. Carefully take your measurements between every curve end. Proceed to cut the section of track with your mitre saw.
- Now clip up the track section between the two curves, making sure the joints are touching on both sides of the track.

Positioning the curves



- Clip the first track up over the toilet and a second one over the bed.

i

NOTE...

Always move with the flow of your layout. If you have more than two curves, start with the closest together, line them up at the same time, then proceed to the next curve, and so on, moving with the flow of your layout.

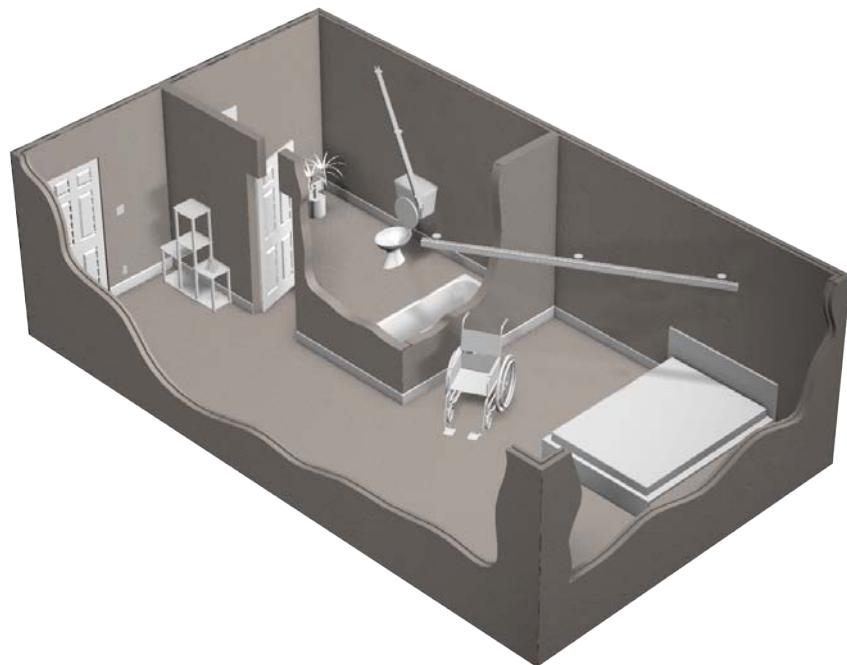
Never cut into a radius of a curve.

Leave room at either end of the layout for inserting the ceiling lift.

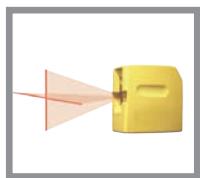
Two-Track Layout

The purpose of this layout:

- Installing track for two main areas of a home (e.g. bedroom and bathroom).



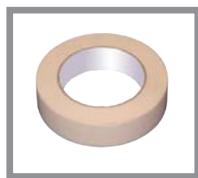
Tools required for this layout:



Crossline Laser Level (CLLL)



Plumb Laser (P.B.)

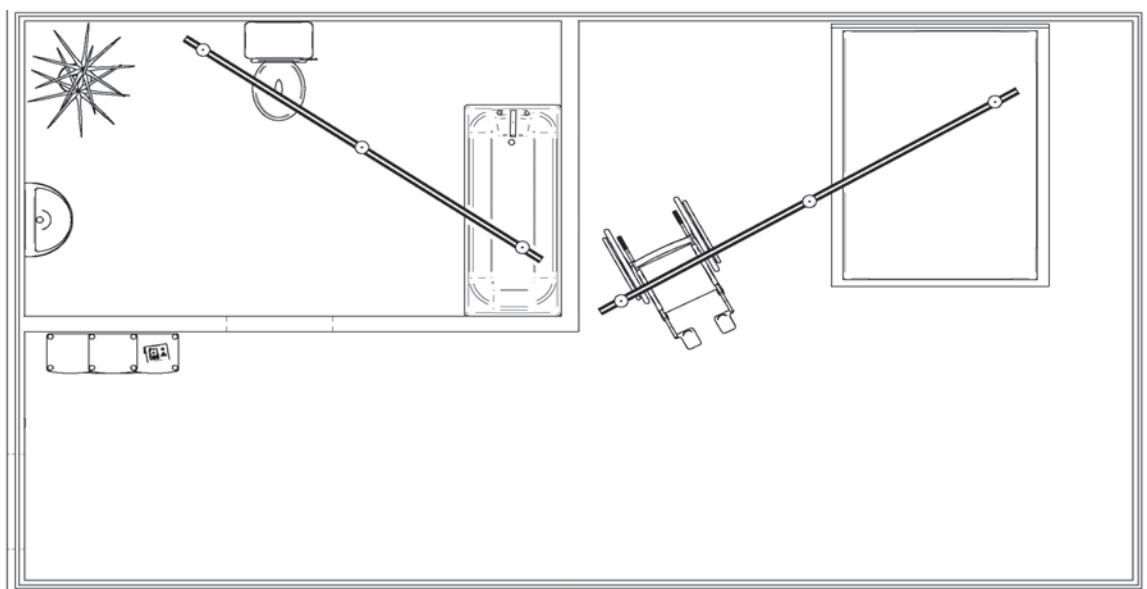


Masking Tape



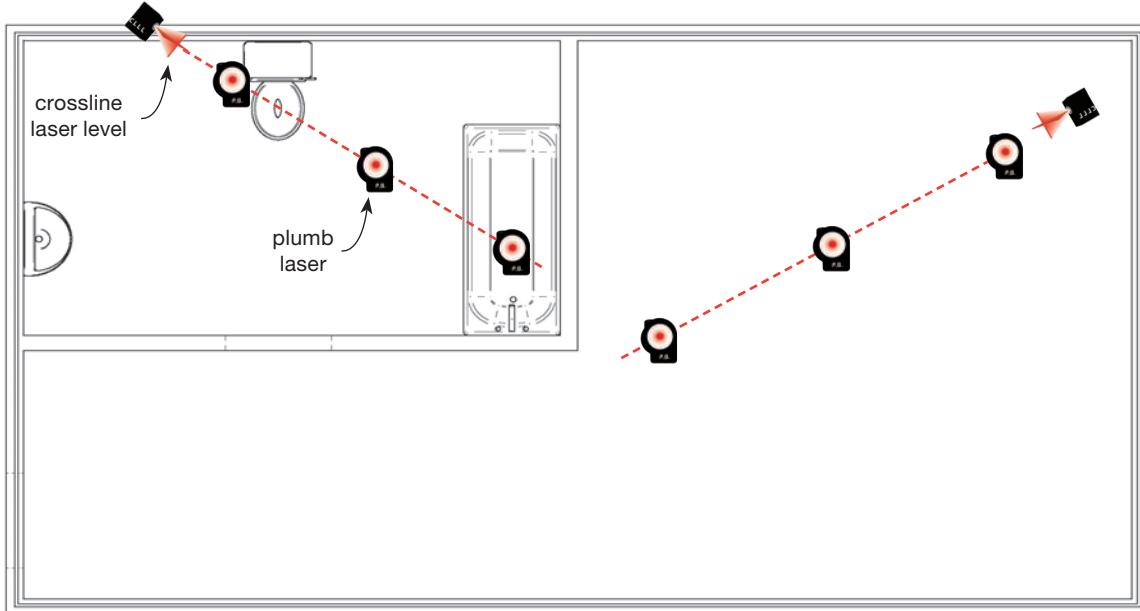
Marker

Ensure final result will respect to ArjoHuntleigh standard requirements.



- When considering this type of layout, make sure that there is no obstruction by the corner wall and be sure to achieve the transfer zone in the bathtub and on the front 1/3 of the toilet.

Bracket positioning



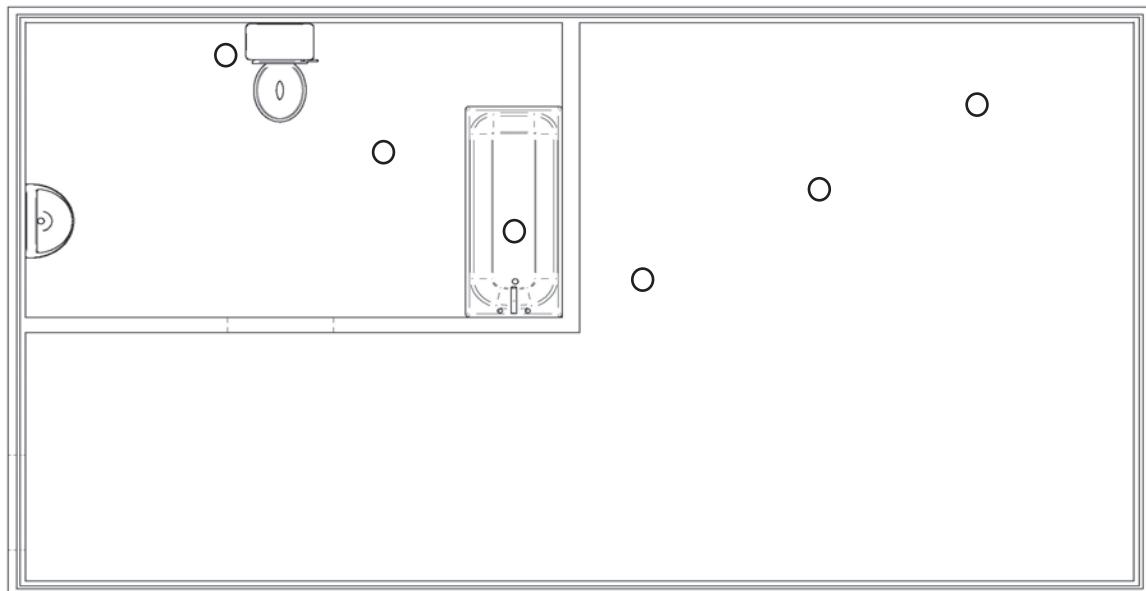
- Take your crossline laser level and shine a clear path, aiming for a transfer point on the toilet and a transfer point in the tub.
- Refer to KWIKtrak Span Chart (001-01014) for bracket distances.
- Use a plumb laser to identify rods locations.
- Mark both the ceiling and the floor with masking tape and a marker.
- Do the same in the bedroom area, with a transfer area beside the bed, keeping to the transfer zone on the bed.



NOTE...

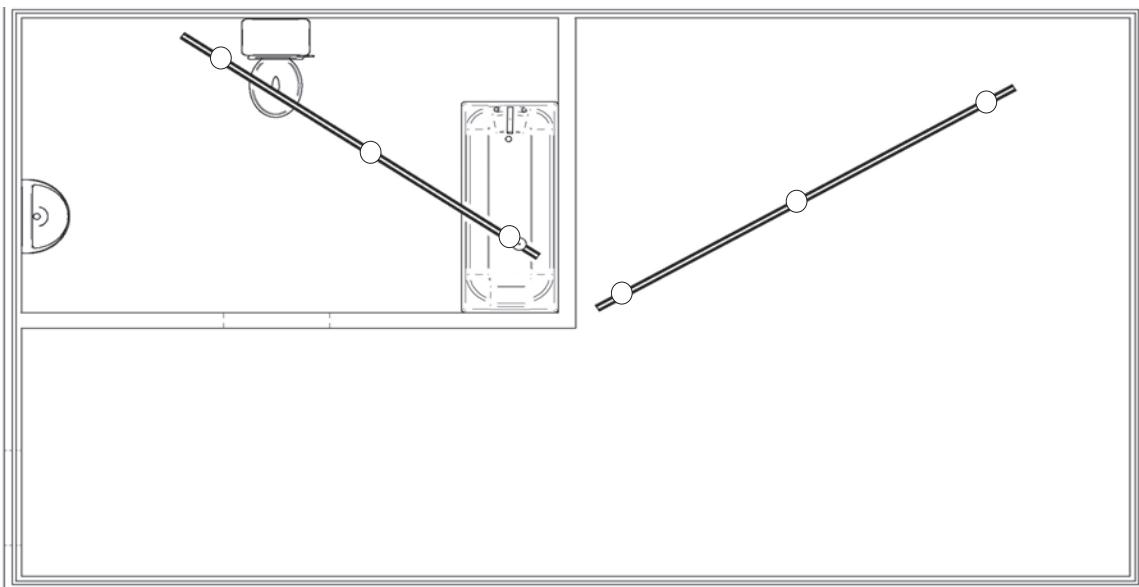
Make sure there will not be a conflict between the faucets of the tub and the patient during a transfer.

Installing the brackets



- Be sure to level off the brackets in the bathroom area separately from the ones located in the bedroom.

Clipping track sections up into place

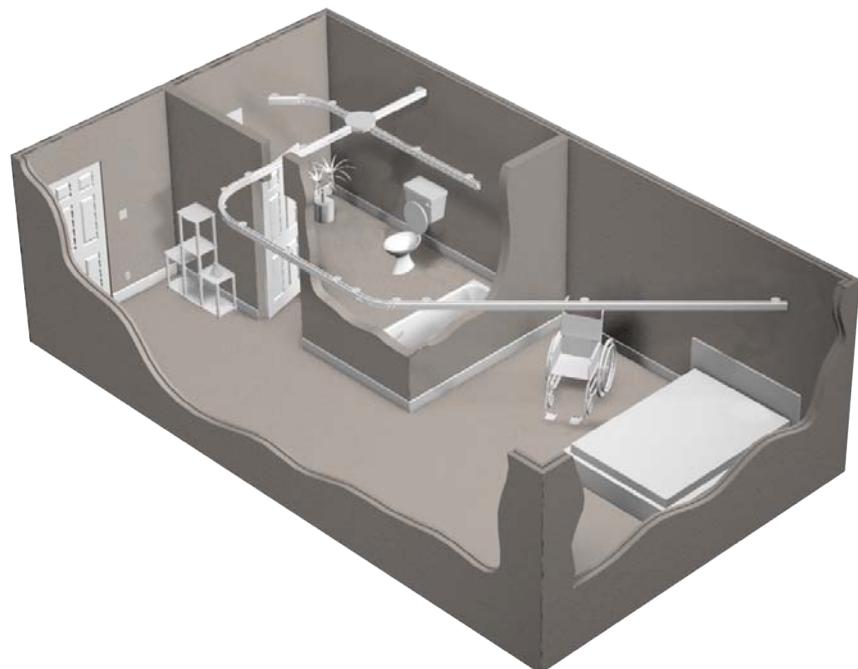


- Clip the track up over the toilet/bath and the one up over the bed.

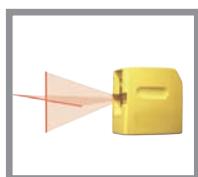
Two Curves with a Turntable Layout

The purpose of this layout:

- Full room layout, providing access to three areas.



Tools required for this layout:



Crossline Laser Level (CLLL)



Tape Measure (T.M.)



Plumb Laser



Masking Tape

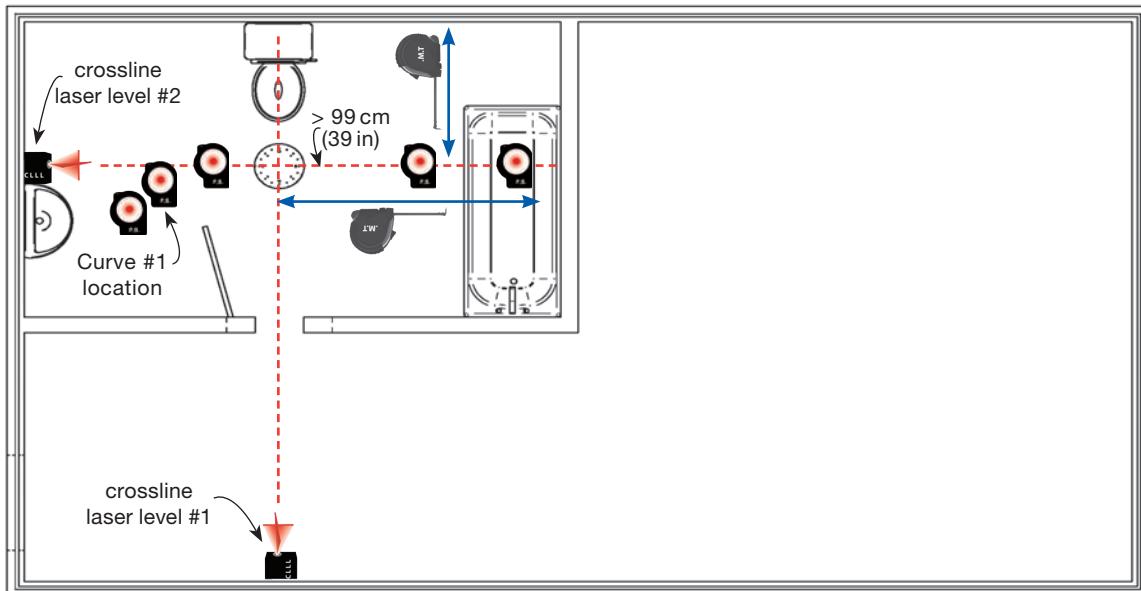


Marker



Curve Alignment Tool

Starting layout with positioning turntable



- Line the turntable up with crossline laser level #1, measure from back wall to drop point in tub to find the distance for crossline laser level #2.
- Position crossline laser level #2 to line up with the floor marks and drop point in tub. Put turntable into position in line with crossline laser level #1. You may need to adjust crossline laser level #2 to line up with turntable.
- Never use crossline laser level #1 to adjust your layout, as it needs to be centered with the door/toilet.
- Place curve in position and line it up with crossline laser level #2. Use the curve alignment tool and the plumb laser to mark out curve and straight section to the tub.



NOTE...

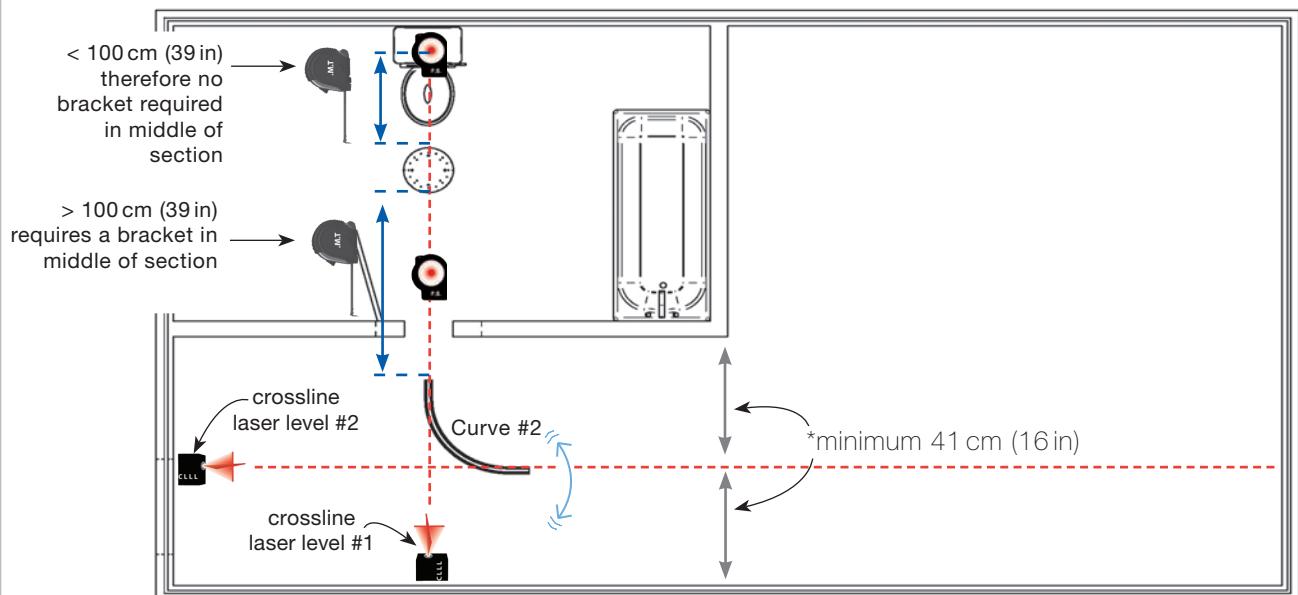
Always perform a visual assessment of the room before starting any layout to determine if there are any obstructions (light, curtain, vent, etc.) and adjust if necessary.

Once your turntable is in place, make sure that there are no problems with the structure when it comes to installing your threaded rods.

Laser pointer positioned on turntable over one of the attachment holes.

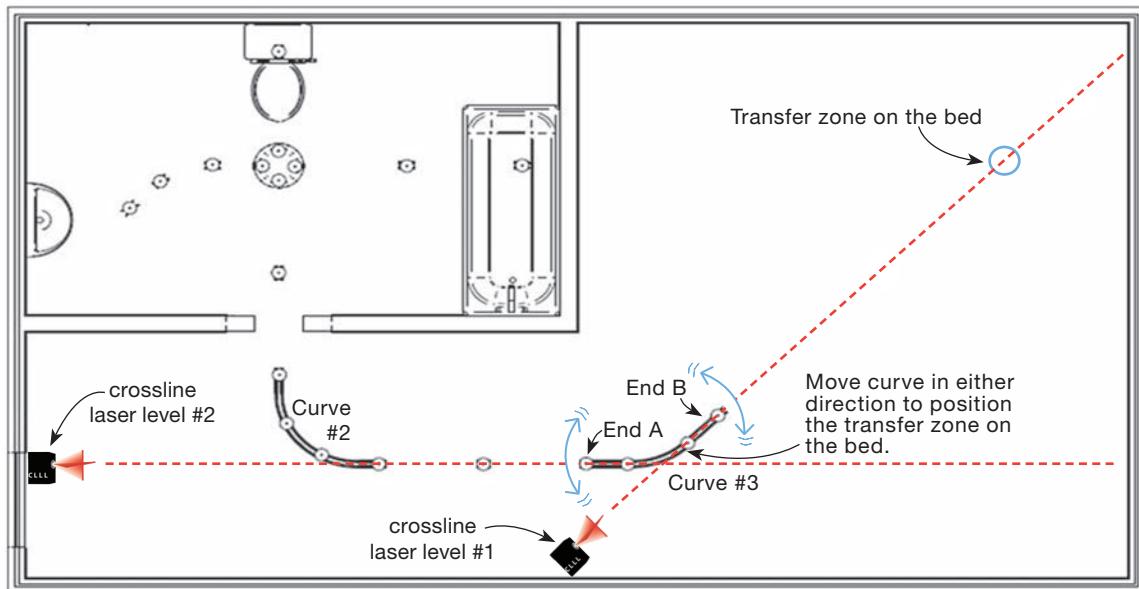


Aligning curve #2 with turntable



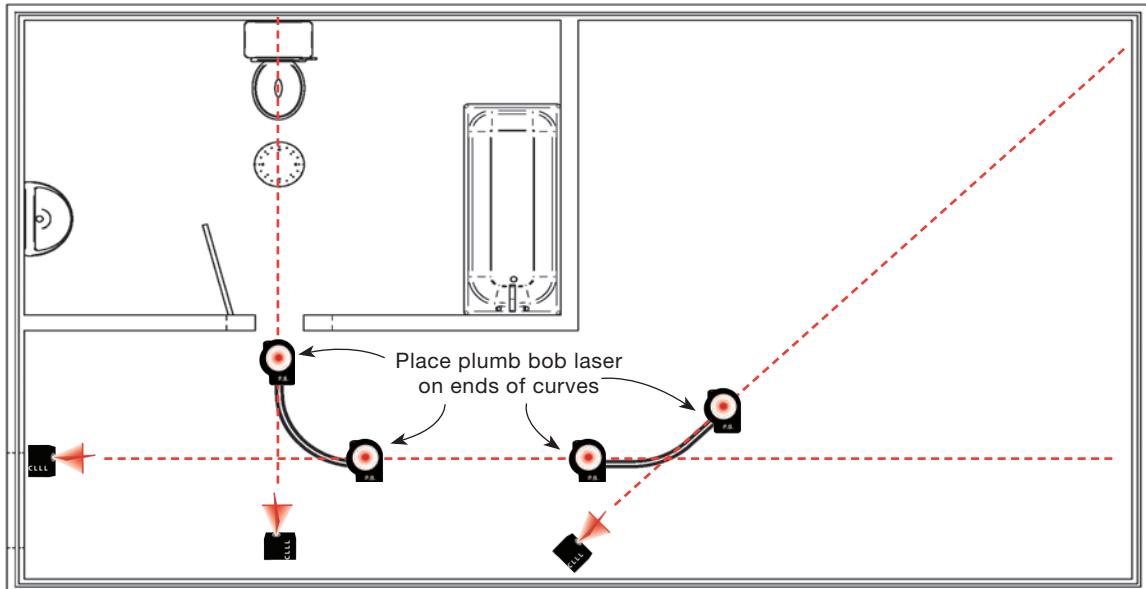
- Using the Curve alignment tool, line up curve #2 with crossline laser level #1, move crossline laser level #2 into position to line up with curve #2, use the curve alignment tool, to find the center line.
- Using a plumb laser, mark the straight section from the turntable to the second curve. If >100cm (39in), see KWIKtrak Span chart (001-01014).
- Repeat the same steps for the section from the turntable to the toilet.

Aligning curve #3 with end of curve #2



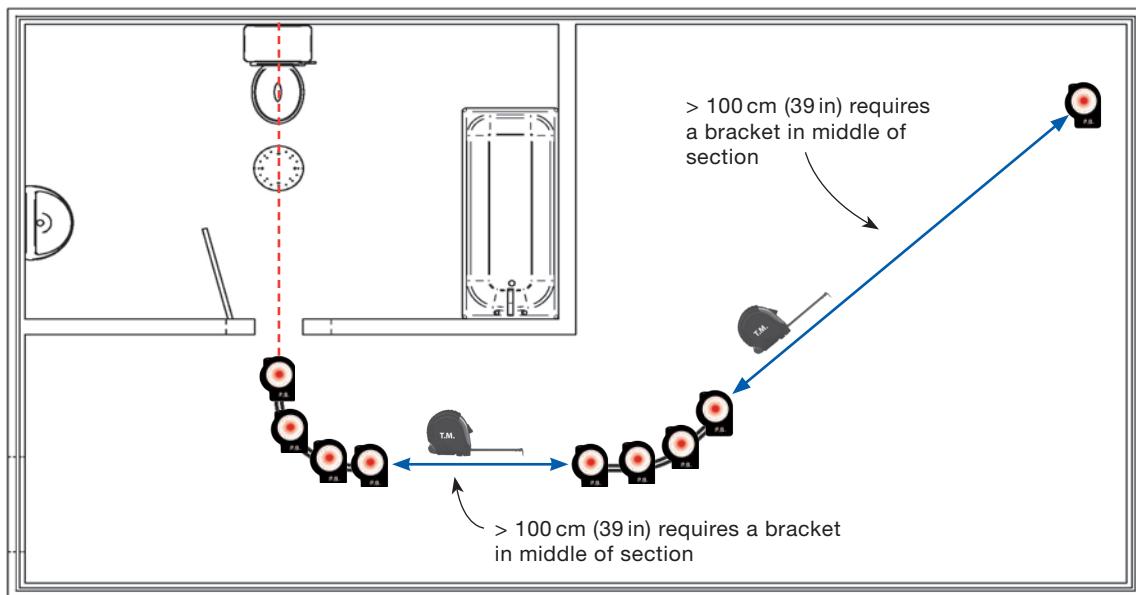
- Once curve #2 is set up, place curve#3 in line with the transfer zone on the bed.
- Move crossline laser level #1 and place it on curve #2 (end B).Line up crossline laser level #1 with the center of the curve using the curve alignment tool.
- Slide curve #3 left or right until the laser line is hitting the transfer zone over the bed.
- Curve #3 needs to keep to the center line of crossline laser level #2. Once you have achieved this and you confirm the transfer zone on the bed, ensure that crossline laser level #1 is centered on curve #3, using the curve alignment tool.

Reviewing joint locations for obstructions

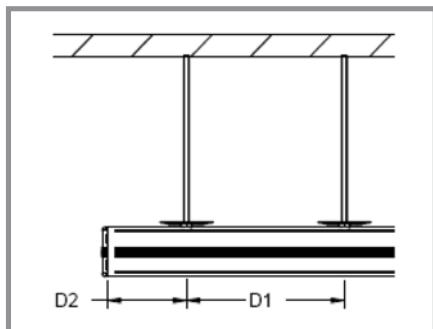


- Once curve #2 and #3 are in place on the floor, and you have established your transfer position, ensure we do not have any obstructions at joint bracket locations. To do so, you need to place the plumb laser on the end of the curve to ensure that you are avoiding ceiling obstacles.
- Due to the fact that we cannot shift left or right at a joint location and that we need to keep to the center of any joint location/bracket, you need to survey these areas to ensure you are not in conflict with any obstacles (lights, vents, sprinklers, etc.). If you come into conflict with any of these obstacles, then it would be best to adjust or reconfigure the layout at this point.
- Use the plumb laser to assist with this step.

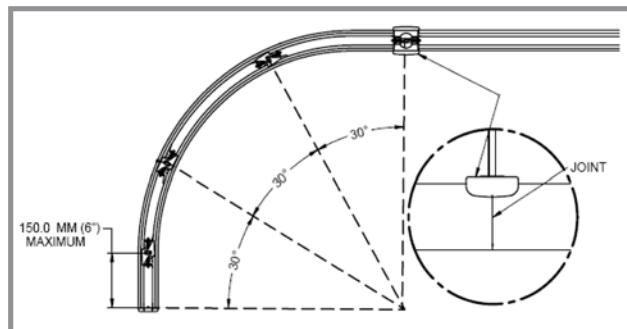
Marking of the remaining layout



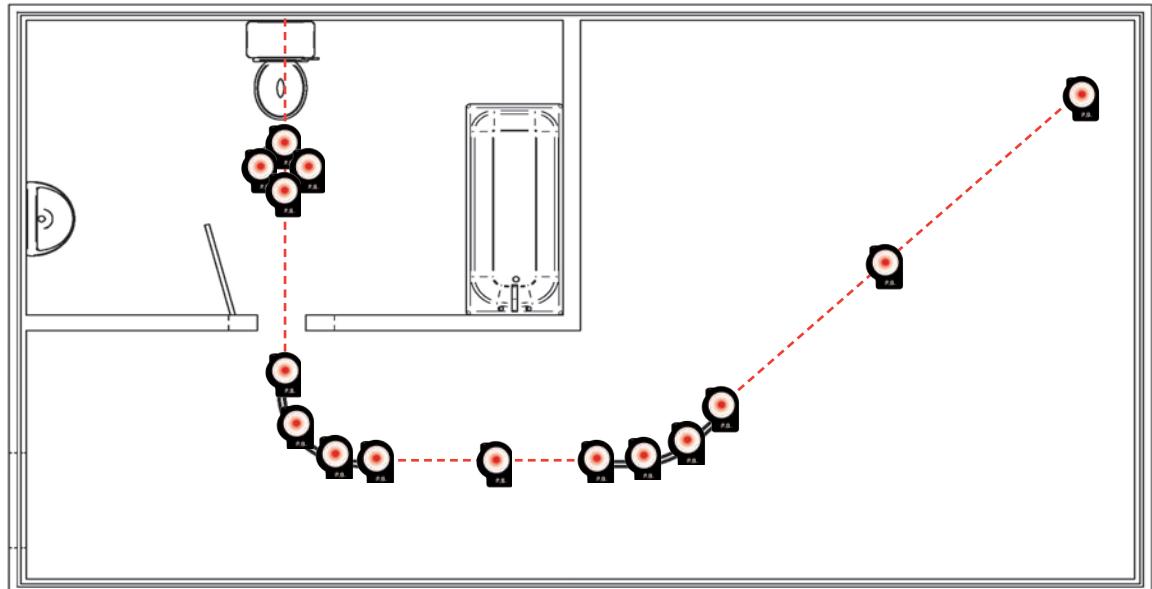
- With a measuring tape, start measuring the straight sections, and refer to the KWIKtrak Span Chart (001-01014) if a marking is required in the center of that particular section.
- Using the plumb laser, locate the remaining drop points.



Maximum center to center distance between two consecutives brackets...

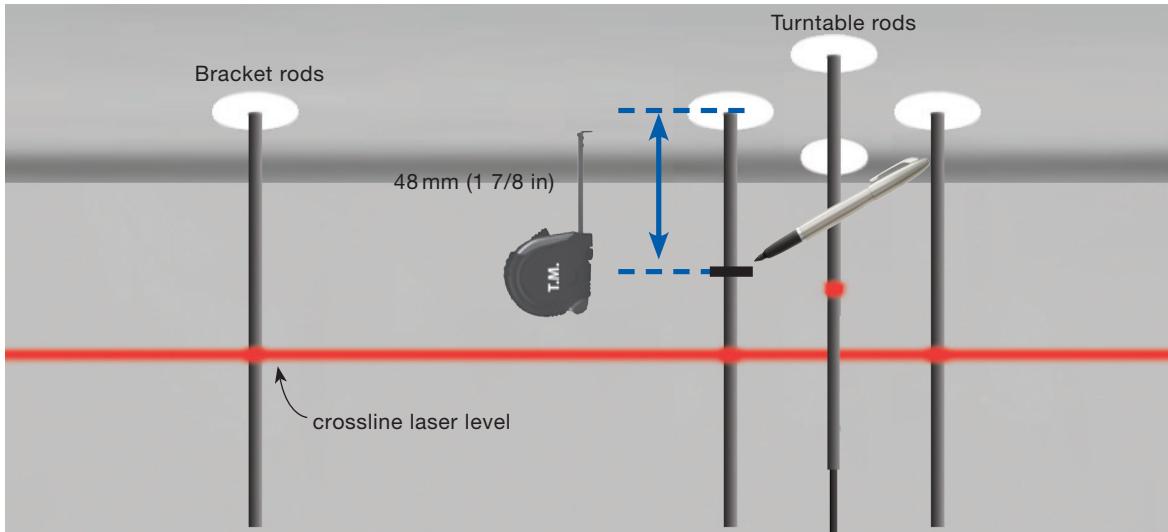


All curved tracks must be supported by 4 brackets...



- We recommend that you mark both the floor and ceiling at each plumb laser position as well as at each bracket location. Four brackets are required for each curve, as per the KWIKtrak Span Chart (001-01014).
- Mark the floor and the ceiling with a piece of masking tape along with a marker.
- Drill the ceiling at each plumb laser and proceed with installing the threaded rods.

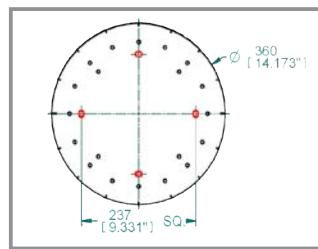
Finding the datum point



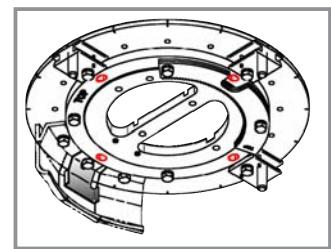
- Once all rods are protruding through the ceiling, level them for layout and set up the crossline laser level in the room
- With a tape measure, establish the lowest versus the highest point of ceiling. Start at the lowest point and build up with shims. There are two possibilities in order to do this: The lowest point is at the turntable location, or the lowest point location is elsewhere in the track layout.

1st possibility - Lowest point at the turntable location:

- If the lowest point happens to be at the turntable location, measure the four threaded rods of the turntable to find the lowest point.
- Measure that rod down 48 mm (1 7/8 in) and mark it.
- With the help of the crossline laser level mark the remaining 3 rods.
- Add the ceiling plate and the 12 mm (1/2 in) shim to each rod, holding them in place with masking tape.
- Install the turntable (See Turntable Installation, document #001-11719-XX) for proper mounting instructions)
- Add 15 mm (5/8 in) to the closest bracket rod, to the turntable and level the rest of the rods.

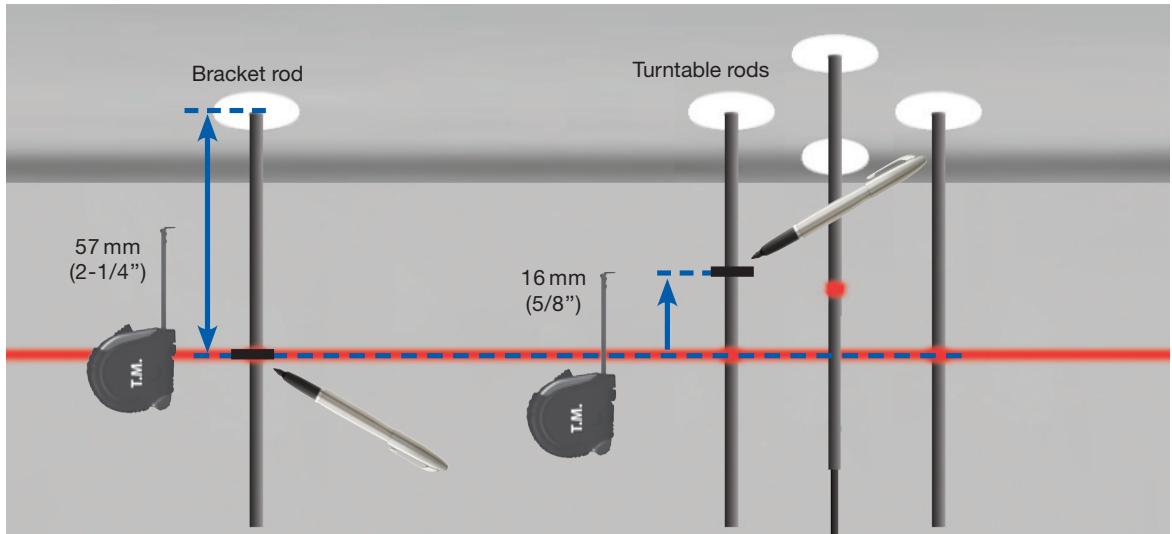


Back of turntable
(Mounting holes)



Back bearing of
turntable

Threaded rod drops



2nd possibility - Lowest point elsewhere in the track layout:

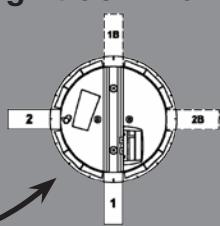
- With the crossline laser level, find the lowest point in the track layout area.
- Once you locate the lowest point, start by measuring 57 mm (2-1/4 in) down from ceiling and mark the first threaded rod.
- Proceed to level all remaining threaded rods including the turntable
- Cut an extra 16 mm (5/8 in) off the threaded rods for the turntable.
- Measure the turntable rods again to determine if you need to add more than one shim;

anything over 60 mm (2 3/8 in) will require more than one 12 mm (1/2 in) shim.

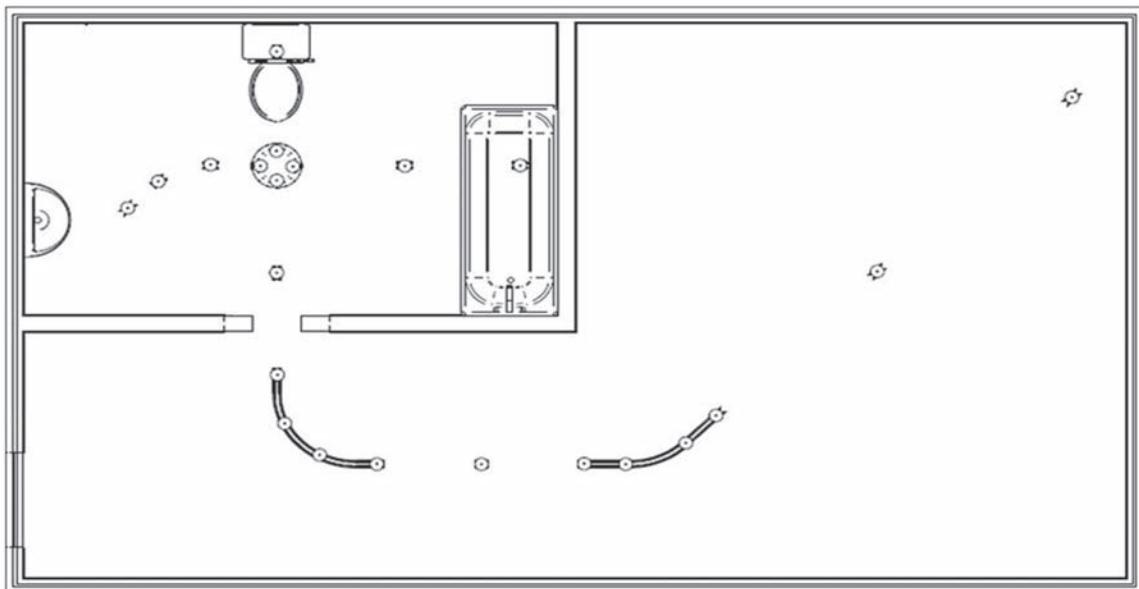
- Install ceiling plates and shims as needed and hold in place with masking tape.
- Install the turntable (See Turntable Installation, #001-11719-XX) for proper mounting instructions)
- Once the turntable is installed, you can proceed to install the rest of the brackets.

NOTE...

When track #1 and track #2 are installed, you can then align track #1b and track #2b. You may have to fine tune the levelling of the turntable after the track has been installed. Place limit arm facing this area.



Adding track sections to the layout

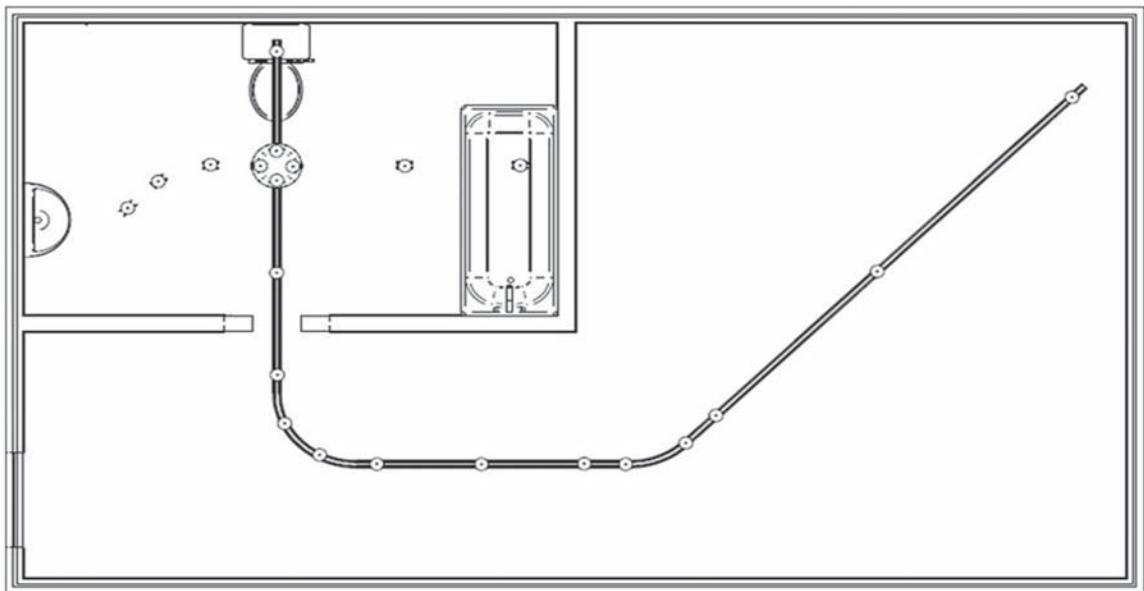


- Once the brackets and the turntable are installed and levelled off, clip the curves up.
- Be sure to center the curve ends with the joint brackets (see diagram).
- Lock the two middle brackets of each curve.
- Measure the section of the track to be positioned between the two curves.



NOTE...

Flipping and/or rotating the track section may be required to achieve the best possible joint. Remember you may need to pre-drill the spring pin grooves on the track before inserting the spring pins and prior to clipping sections into place.



- Install the connecting adapter on turntable and measure from spring pin in the adaptor to the end of curve.(Make sure the curve is properly positioned before you take your measurements.)
- Once you have the straight track's proper length, remove the connecting adapter from the



NOTE...

Make sure the spring pins are touching the track.



Track junction fastening is detailed in document #001-11720-XX. View details regarding spring pin installation previously discussed in this guide .

- turntable and attach it to the end of your straight track.

- You can now attach the other straight sections of your track.

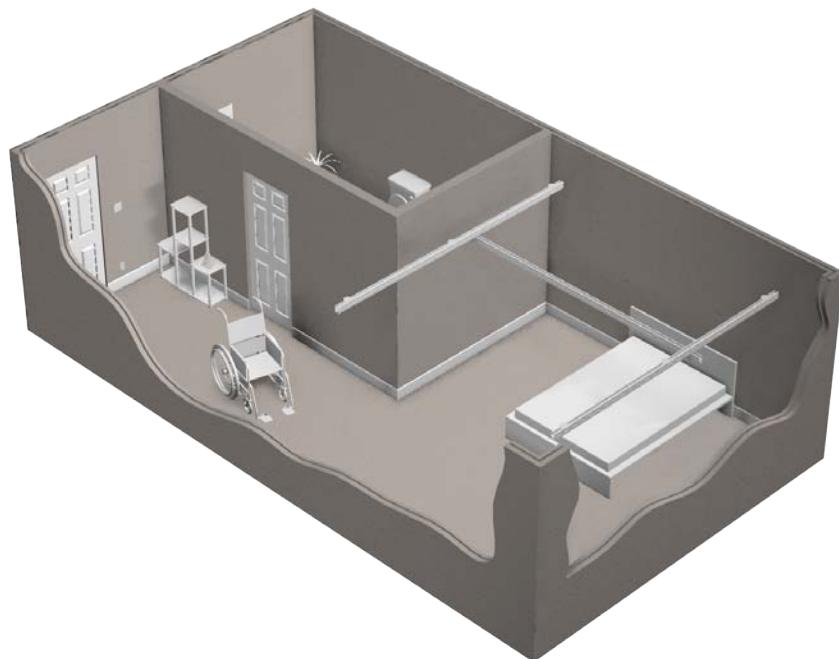
Final Steps:

- Attach the rest of your track sections to the turntable, make sure all the brackets are locked and the *sandwich effect* is produced.
- Make sure you leave enough space at one end of the sections connecting to the turntable for the insertion of the lift.
- In the case shown in the image above, the 45° curve off the turntable would be a good location to install the lift.

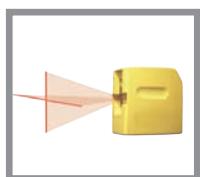
Typical X-Y Layout

The purpose of this layout:

- "H" or "X-Y" layouts permit full room coverage. A transfer can be achieved anywhere below the two parallel tracks.



Tools required for this layout:



Crossline Laser
Level (CLLL)



Tape Measure
(T.M.)



Plumb Laser

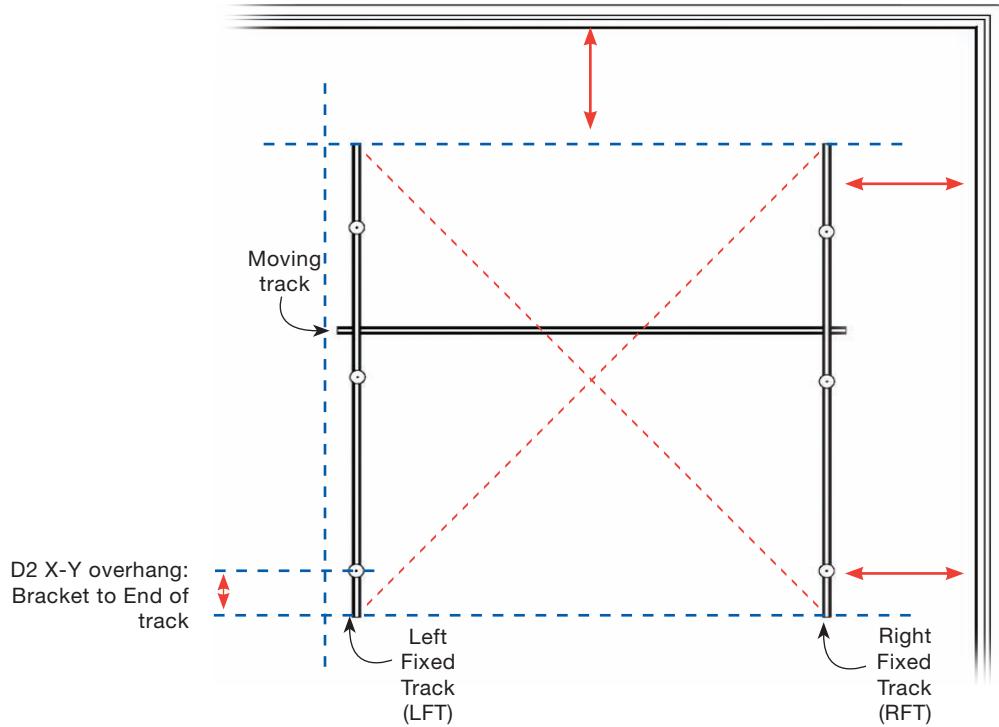


Masking Tape



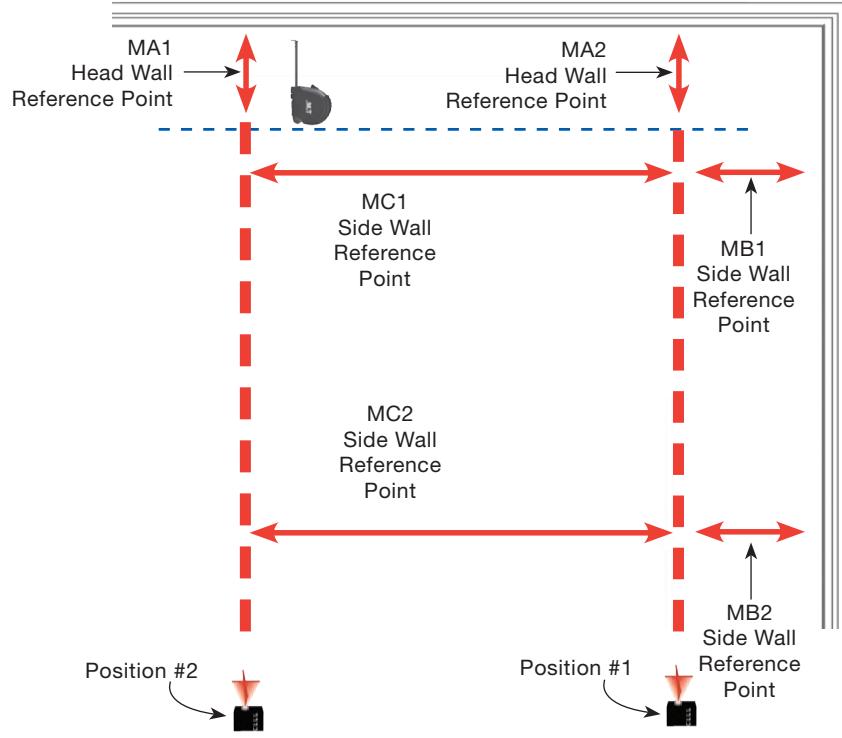
Marker

Positioning X-Y layout in a room



- Square up (LFT + RFT), ensuring they are perfectly parallel.
- Take note of D2 overhang measurement: D2 = 30 cm (12 in) max.
- Transfer measurements to the ceiling.

Lining up the two fixed tracks

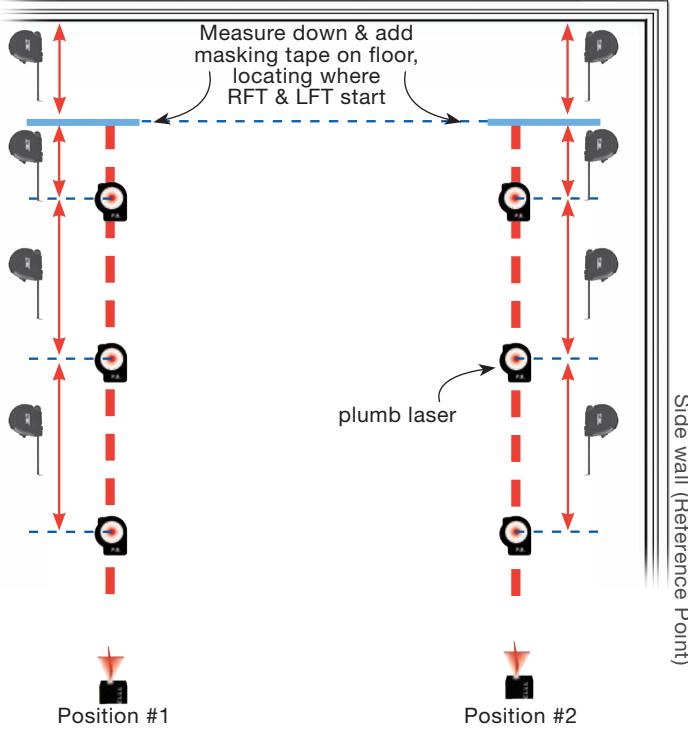


Review and compare the drawing versus the actual room, surveying the area that needs to be covered.

- Step 1: With the tape measure, and with reference to the head wall, make sure that distances MA1 and MA2 are equal.
- Step 2: With the tape measure, and with reference to the side wall, make sure that distances MB1 & MB2 are equal. Place the crossline laser level on the floor, and verify if it crosses the tape measure at the same measurement in both locations. This establishes the position of our first fixed track.
- Step #3: In order to set the second fixed track parallel to the first, start the measurements from crossline laser level #1 to the second track's desired location. Move the crossline laser level to position #2, and verify if it crosses the tape measure at the same measurement in both locations. This establishes the position of our second fixed track.

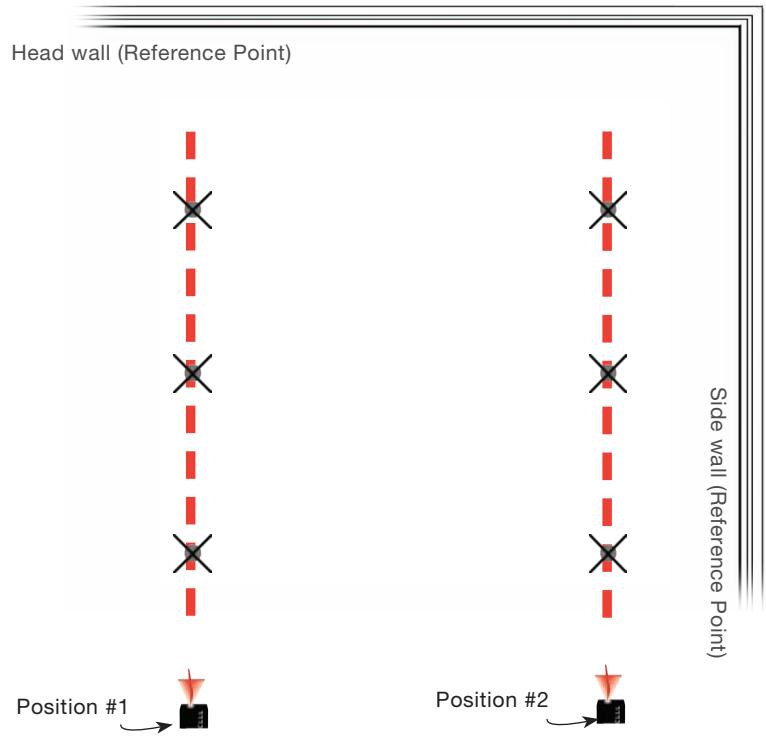
Determining the two parallel tracks positioning in the room along with bracket locations

Head wall (Reference Point)



- Mark where left fixed track & right fixed track (LFT & RFT) will start, with masking tape & marker.
- Refer to KWIKtrak Span chart (001-01014) for bracket distance.
- Use masking tape and a marker to identify each bracket location on the floor. Once identified, use the plumb laser to transfer the marks onto the ceiling.

Final alignment of the two fixed tracks



Once all the bracket positions have been established:

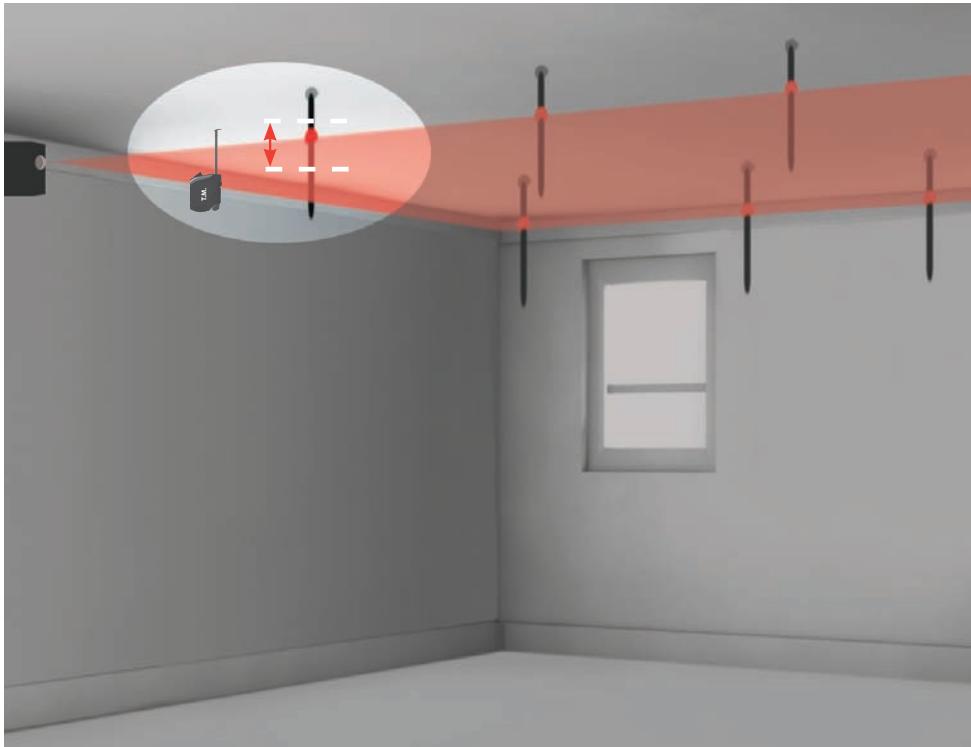
- Turn to the appropriate section of this guide to review fastening to structure information.



NOTE...

All bracket positions need to be validated for datum point.

Finding the datum point on an X-Y



- The scenario that we are demonstrating requires 6 brackets (3 for the left fixed track and 3 for the right fixed track (LFT & RFT)).
 - Set up the crossline laser level so that it is pointing in the direction of all 6 of the rods protruding through the ceiling.
 - Determine the lowest part of the ceiling vs the highest part of the ceiling (turn to Bracket Levelling section).
-
- Refer to X-Y Trolley installation instructions: ArjoLibrary 001-11275-EN



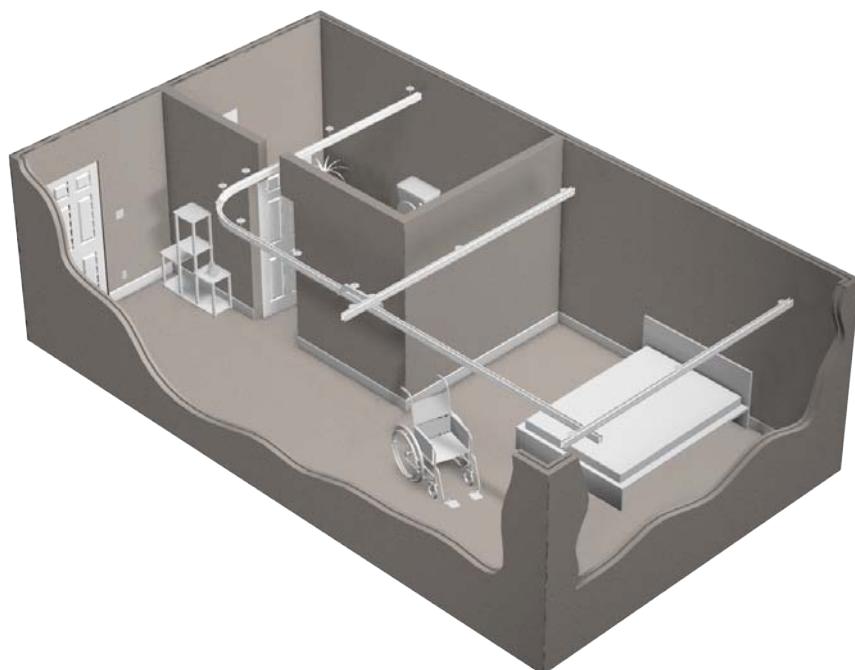
NOTE...

Threaded rods protruding out of the ceiling must measure approximately 15 cm (6in) to 25.4 cm (10in)

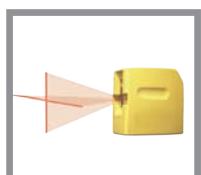
X-Y Layout and Gate Layout

The purpose of this layout:

- An X-Y system providing full room coverage in the bedroom, combined with a gate system, and tracking leading into the bedroom.



Tools required for this layout:



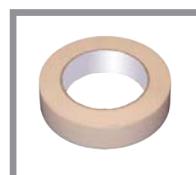
Crossline Laser
Level (CLLL)



Tape Measure
(T.M.)



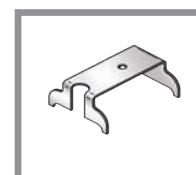
Plumb Laser



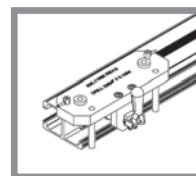
Masking Tape



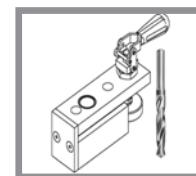
Marker



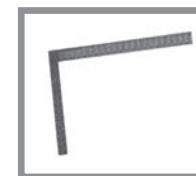
Curve Alignment
Tool



Drilling Jig

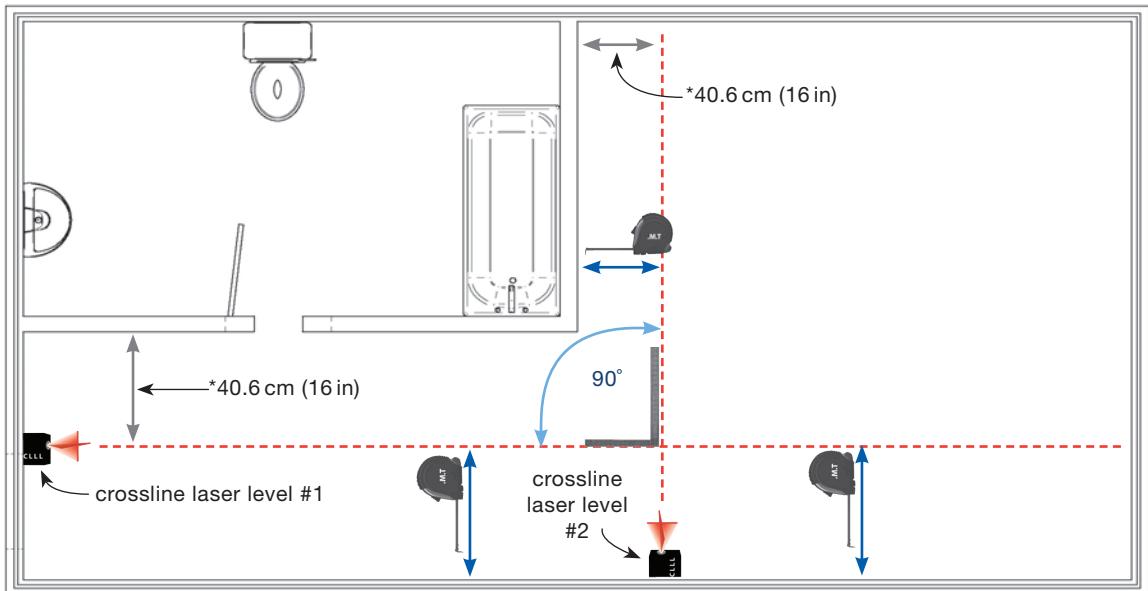


Locker Drilling Jig



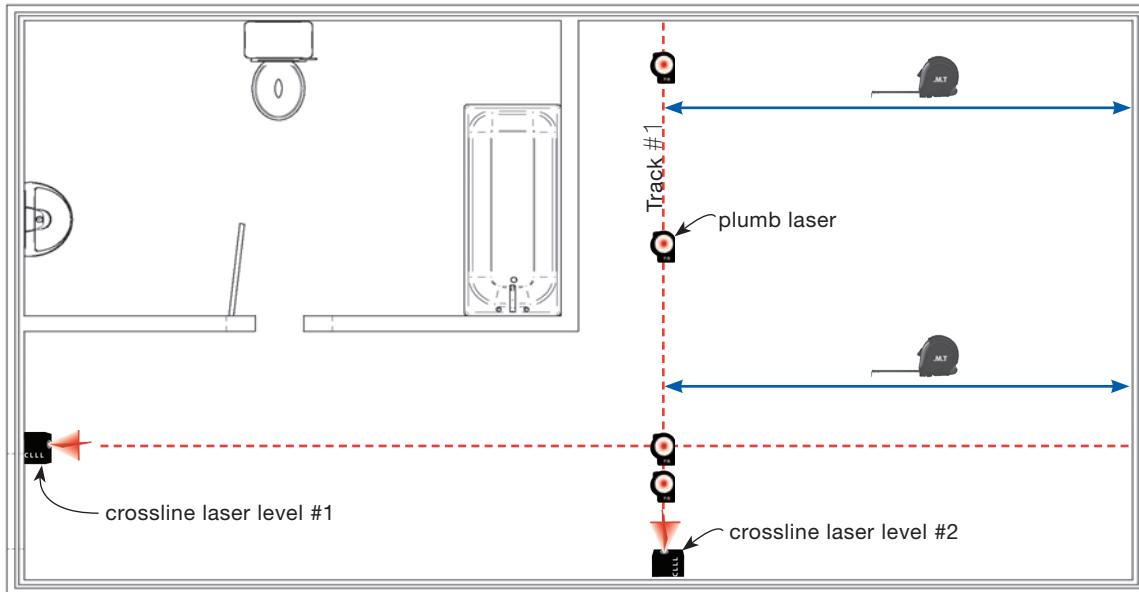
60.96 cm (24 in)
X 60.96 (24 in)
Square

Squaring up the X-Y system with the existing track



- Review "KWIKtrak Gate System" installation manual #001.11500.XX
- Line up the crossline laser level #1 with the tape measure so that your first line is parallel with the back wall.
- Determine where you want your first fixed X-Y track to be installed.
- This step is very important: Using crossline laser level #2, square up your line with crossline laser level #1.

Marking bracket locations on left fixed track and avoiding unnecessary deflection at gate crossover area



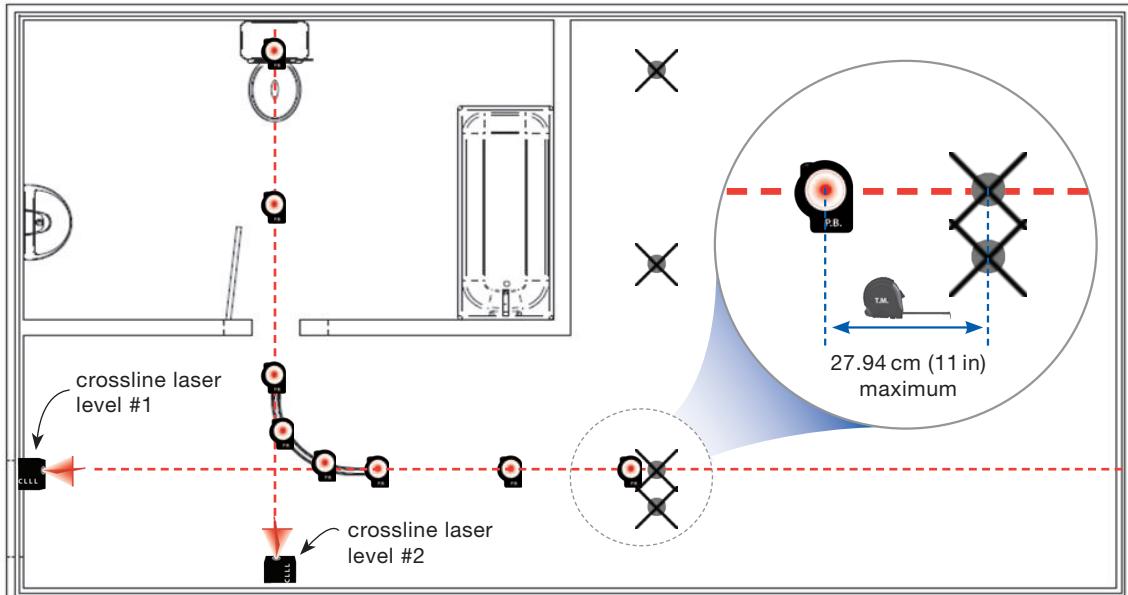
- Once you have squared up both lines, proceed to measure from crossline laser level #2, making sure that your second fixed X-Y track is parallel with your first.
- Put masking tape down and mark track #2.
- Proceed to determine the drop points for track #1 using the plumb laser. Please note: You must install an anchor point where both laser lines intersect. This is mandatory in order to eliminate unnecessary deflections in the track.
- Mark an "X" at every plumb laser location.



NOTE...

When setting up to mark for an X-Y system, be sure to leave 30 cm (12 in) of space, from track end to wall, to be able to insert the X-Y trolleys into the parallel fixed tracks.

Marking bracket positions leading into the room



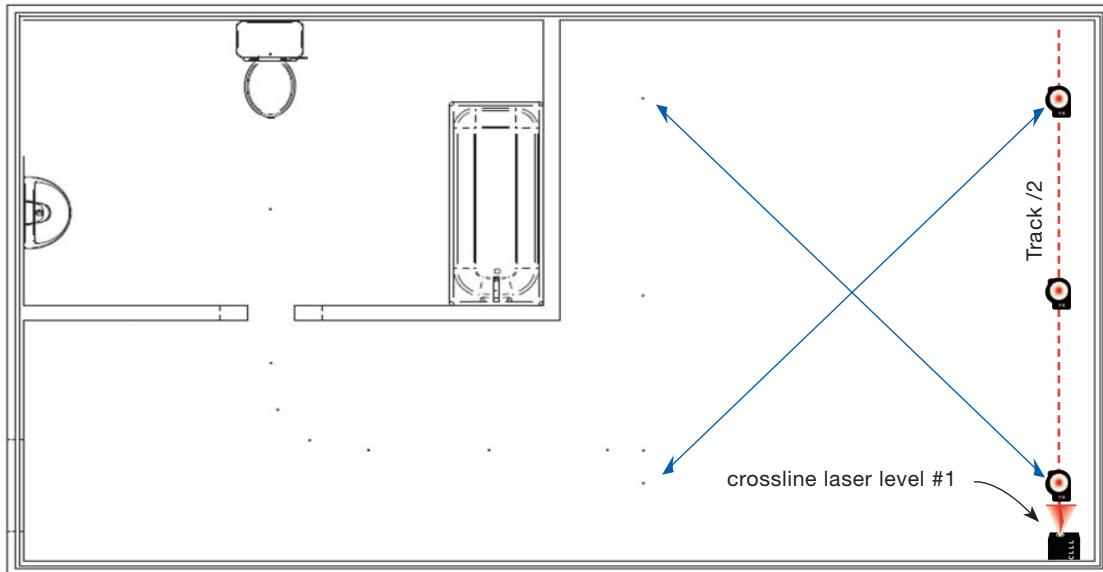
- Move crossline laser level #2, and line it up with the center of the door header and toilet.
- Using the curve alignment tool, line up the curve with crossline laser level #1.
- Adjust the curve left or right to get it as close to the center of doorway as possible.
- At this point, you may have to adjust crossline laser level #2 or the curve to get it as close as possible to the center of the doorway.
- Start marking the rest of your anchor points using the plumb laser. Refer to the KWIKtrak Span Chart (001-01014) if the distance is greater than 99 cm (39 in).
- Double check the end of the curve to make sure there are no obstructions preventing you from anchoring your threaded rods. Make any adjustments if needed.



NOTE...

The distance between the fixed X-Y track and the first bracket is 25.4cm (10in) minimum and 27.9cm (11in) maximum

Marking other fixed tracks and bracket positions



- To mark the last three anchor locations, position crossline laser level #1 to line up with marks you made earlier. (This can also be done before positioning the curve.)
- Using the plumb laser, mark your anchor points for this section of track.

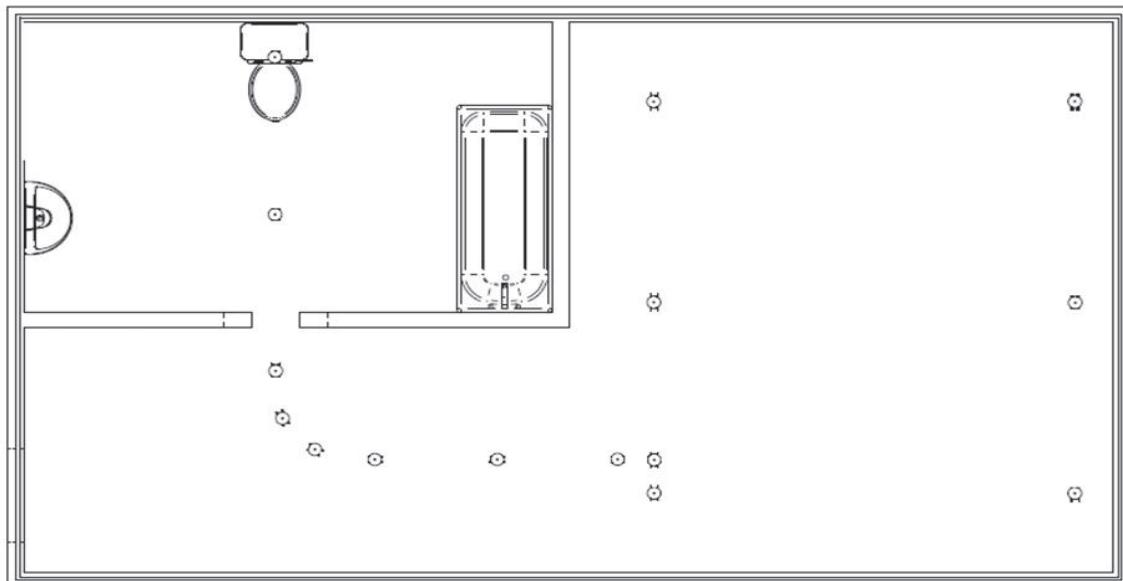


NOTE...

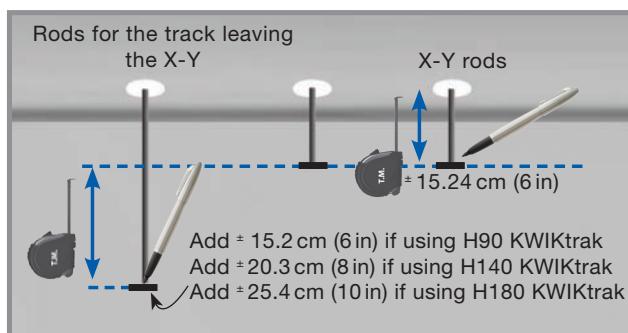
You do not need to add an extra bracket in this section, only the section where the gate is going to be installed.

Square up left fixed track and right fixed track, ensuring they are perfectly parallel.

Anchoring the rods at each bracket location and installing the brackets

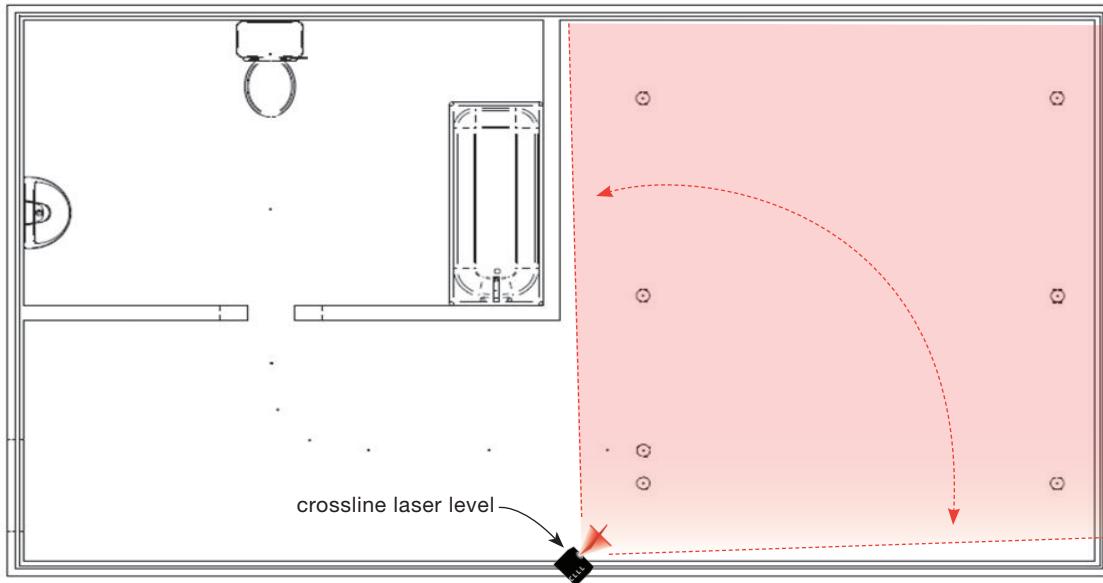


- Once you determine that there are no obstructions, install the threaded rods.
- Make sure that rods in the bathroom are at least 15.2 cm (6 in) longer compared to the ones in the X-Y portion.
- Depending on the size of your moving track, the above measurement could be as much as 25.4 cm (10 in). This is a rough cut as you will adjust the lengths in the next step.
- The next step is to find the datum point (lowest point) for the X-Y only.

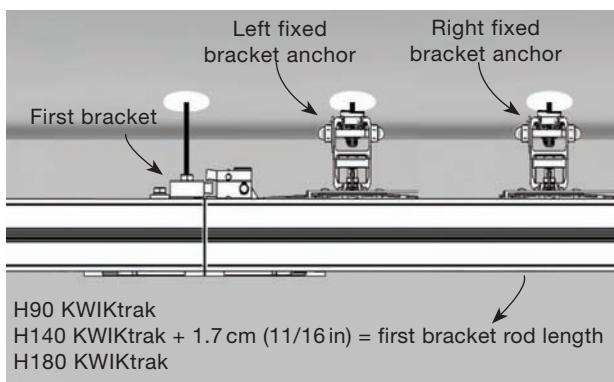


Closest bracket rod vs Turntable rods

Levelling off the X-Y brackets first

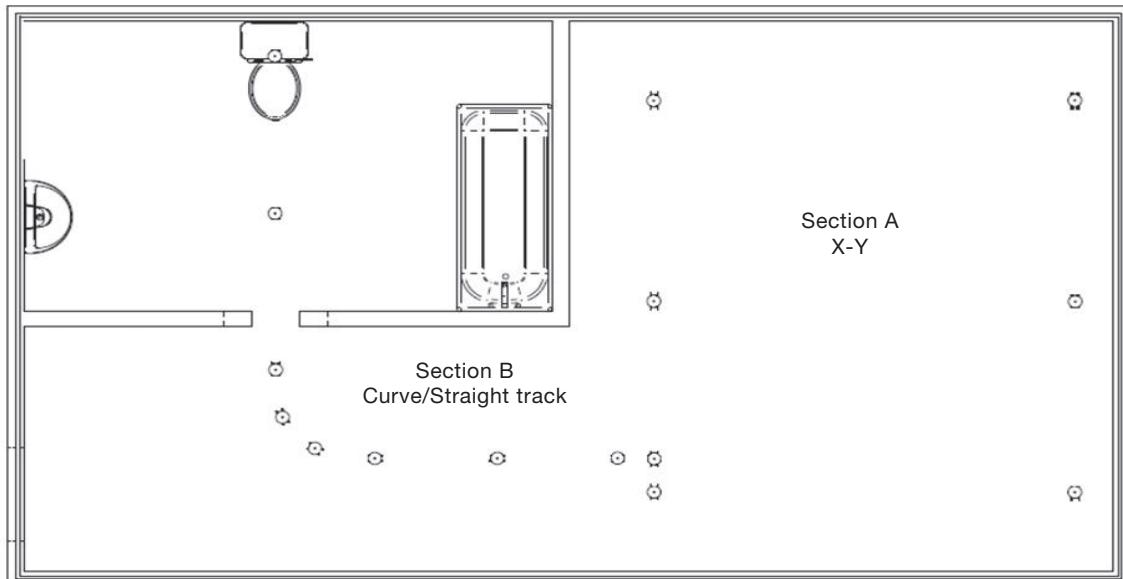


- Take the crossline laser level and position it in a location where you can access all the rods in the X-Y.
- Once you locate the lowest point, measure down 57 mm (2 1/4 in) and mark that rod.
- Proceed to level the rest of your rods in the X-Y.
- Install and level your brackets.
- Measure the rest of the rods, keeping in mind that you must add 1.7 cm (11/16 in) plus the width of the moving track.

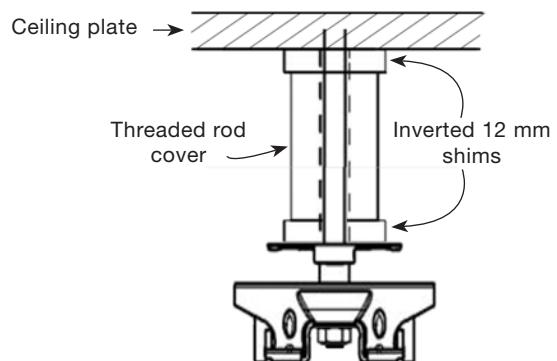


For example, if you are using a H90 Kwiktrak, the bottom of bracket B must be 157 mm (6 3/16 in) lower than the bottom of bracket A. The rod for the fixed block can be cut at the same length but it will need to be cut again later on in the install. Once the correct length for bracket B is determined, use that length to level and cut the rest of the rods.

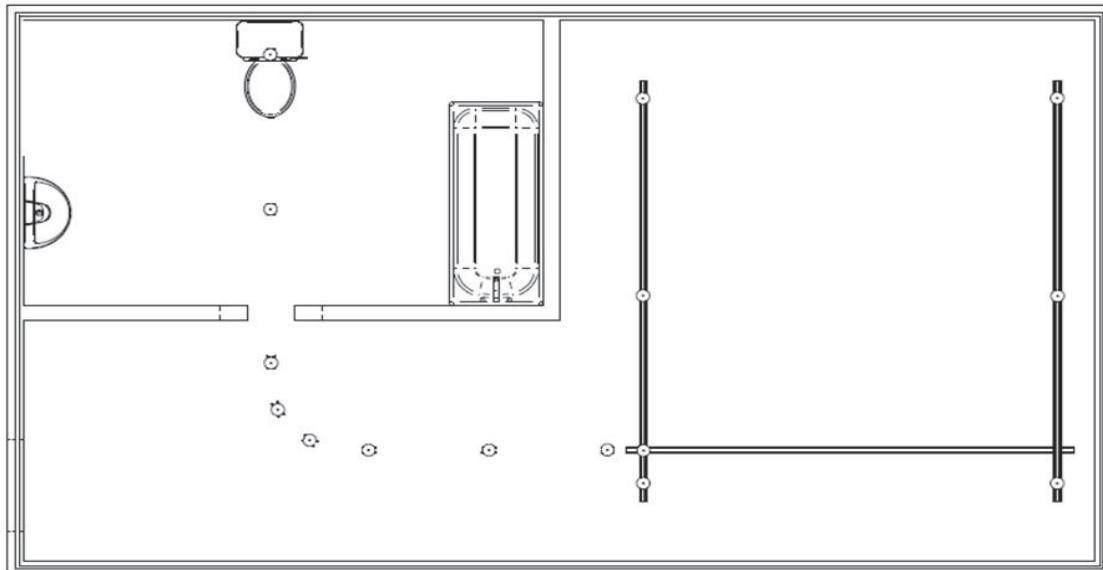
Levelling off the brackets on sections heading into the bathroom



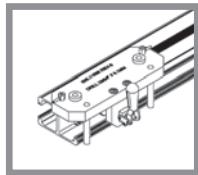
- You are now ready to install the brackets in section B.
- Because these threaded rods are longer than the X-Y threaded rods, you need to use a threaded rod cover in this section. A quick way to find the length you will need for your threaded rod cover is to measure your threaded rod and subtract 51 mm (2 in).
(For example: If the length of your threaded rod is 21 cm (8 1/4 in), then cut your threaded rod cover at 15.9 cm (6 1/4 in). The length of each threaded rod cover will vary depending on how level the ceiling is. This measurement will not work for the threaded rods in the fixed block.)



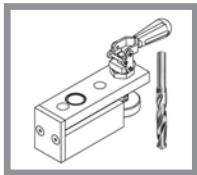
Mounting the tracks and preparing them for gate boxes



- Install the X-Y system. Before you install the moving track you should drill the holes necessary to install the gate.(Refer to document 001.11500.XX)
- Drill the holes for the DF-locker using the locker drilling jig.(Refer to document 001.11500.XX)
- If you are using a H140 or H180 KWIKtrak as the moving track, you will have to cut a section of the track away to install the gate clamp.
- Install the moving track. Be sure to mount the fixed trolley on the gate side (Do not forget to install the autoblocks between the two trolleys)
- Slide moving track into the two fixed tracks, install autoblocks and end caps.



Drilling jig



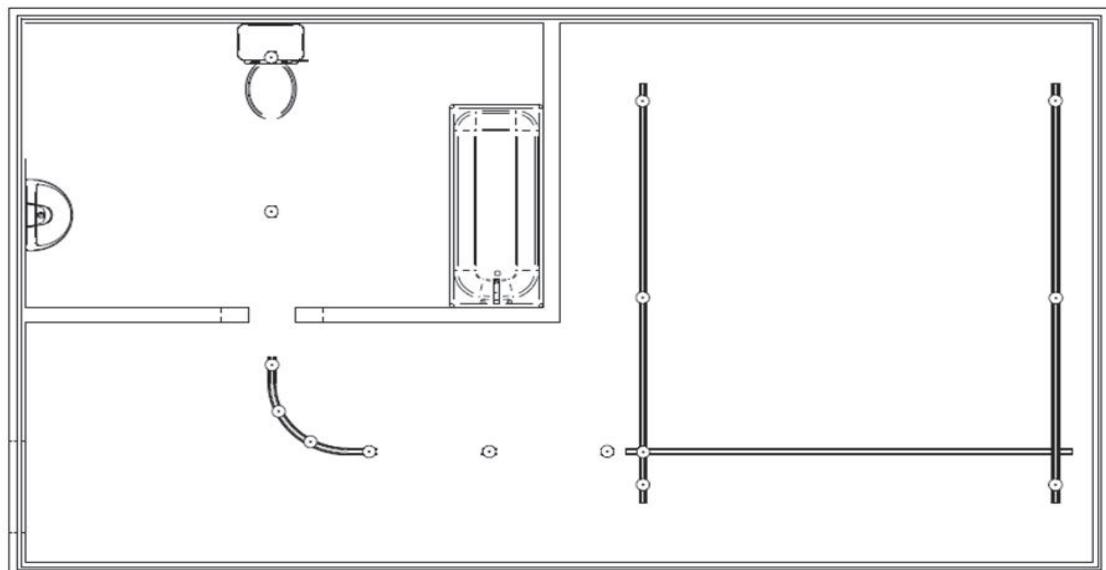
Locker drilling jig



NOTE...

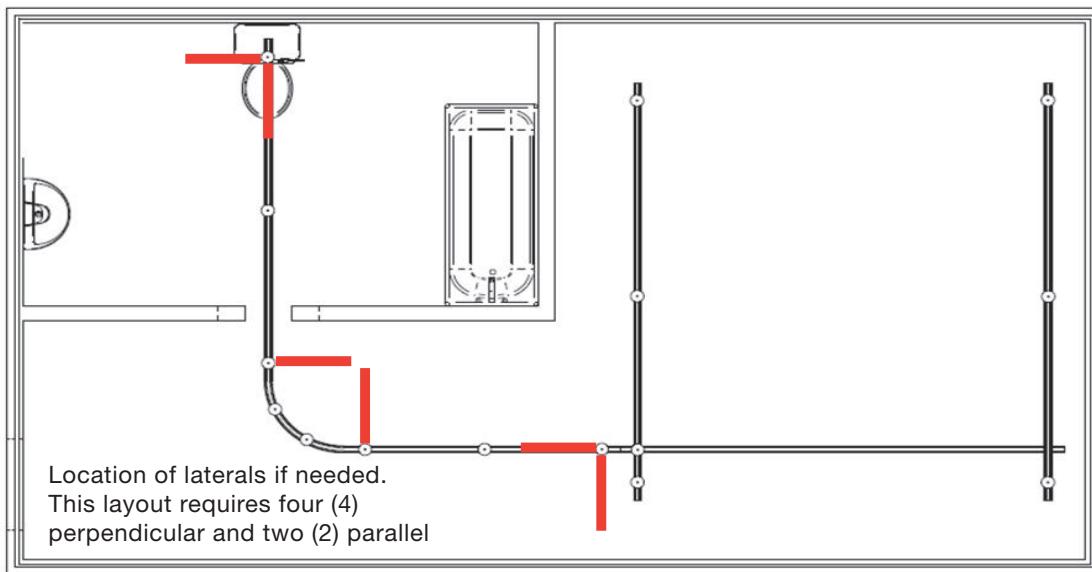
The moving track should not exceed 30.5cm (12in) past center of the fixed track.

Completing the track installation

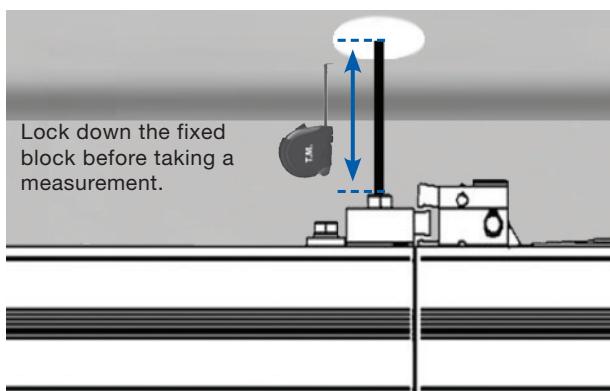


- Clip the curve up, making sure to center the curve ends with the joint brackets.
- Lock the curve's two middle brackets.
- Measure from the end of the curve to 25.4 mm (1 in) past the threaded rod for the fixed block.
- Cut the section of track and predrill the holes for the gate and the DF locker (Refer to document 001.11500.XX)
- Install the track and measure from the fixed block to the ceiling to determine the length of your threaded rod cover. Subtract 9.5 mm (3/8 in) from that measurement.
- Adjust the nut under the fixed block until the track is flush with the moving track.
- Cut any protruding threaded rod so that it is flush with the nut under the fixed block.

Adding lateral braces to eliminate unnecessary movement



- Clip the remaining tracks and lock all brackets and joint brackets.
- It may be necessary to install visible lateral braces if the distance from the ceiling to the fixed track exceeds 25 cm (10 in). (See Lateral Braces Installation Guide #001-01015 for detailed instructions.)
- To find the proper length for the fixed block's threaded rod cover, install and secure the fixed block to the end of the track, put the track up and lock the middle bracket only.
- Measure from the ceiling to the top of the fixed block and subtract 9.5 mm (3/8 in) for the shims and ceiling plate.



Notes

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