Connexus Anchoring Guidelines Edge, Hub, Column & Compact

Johnson Health Tech REQUIRES that MATRIX Connexus group functional training equipment be secured to either the floor or wall – Column, Compact, Edge and Hub.

Version 6 I May 2024

REQUIREMENTS FOR ANCHORING CONNEXUS EXERCISE EQUIPMENT ALL FLOORING

- Each anchoring fastener must withstand 3.3 kN (750 LBS) pull-out force from the floor.
- Anchor the exercise equipment at all provided locations.
- Understand where all bolt-down points are located on the exercise equipment and mark the locations prior to drilling holes into the floor.

WOOD/TILE/RUBBER OVER CONCRETE SUB-FLOOR

Understand the thickness of the flooring material. Add this height to the overall length of the anchoring fastener when selecting fastener length to ensure proper embedded depth into concrete flooring.

WALL MOUNTING – CONCRETE OR WOOD STUDS

- Each anchoring fastener must withstand 2.2 kN (500 LBS) pull-out force from the wall.
- Anchor the exercise equipment at all provided wall locations.

When calculating the required overall length of the anchoring fastener to ensure proper embedded depth into the wall, be sure to account for the thickness of the dry wall/sheet rock, as well as the thickness of any mounting plate or mounting hardware, such as hardware used to span the distance between wall studs (such as Unistrut).

Manufacturer REQUIRES anchoring the MATRIX CONNEXUS stationary exercise equipment. Manufacturer recommends using Titen HD -brand concrete anchor fasteners (ZMS4018082). Regardless of the fastener used, each anchoring fastener must withstand a minimum pull-out force of 3.3 kN (750 LBS) from the floor, and a minimum pull-out force of 2.2 kN (500 LBS) from the walls.

Concrete Anchor – Floor Engagement Standard For use with Manufacture's recommended Titan HD-brand concrete anchor fasteners		
16.5 mm (typical) (0.65")	Foot Thickness	This part of the fastener is not engaged with the concrete.
13 mm (0.5")	Allowance for upper flooring over concrete sub-floor	If upper flooring is thicker than this allowance, choose a longer concrete anchoring fastener.
64 mm (2.5")	64 mm (2.5") Engagement into Concrete	Matrix recommends a 64mm (2.5") engagement into concrete. Regardless of the type of flooring, the anchoring fasteners use must be able to withstand a pull-out force of at least 3.3 kN (750 lbs)
Remaining fastener length		Concrete fastener chosen should have a 64mm engagement into concrete as mentioned above. Any additional concrete engagement is acceptable.

CAUTION: If it is possible that the length of your concrete anchoring fastener will not provide the minimum requirement of 64 mm (2.5") of engagement, a longer anchor should be used.

INSTALLATION RECOMMENDATIONS

The following provides an example of one way in which this MATRIX exercise equipment may be anchored.

NOTE: Building construction varies from facility to facility. This guide cannot and does not purport to provide instructions for anchoring MATRIX exercise equipment into any type of building construction.

MATRIX requires specific pull-out forces for all locations where this MATRIX exercise equipment is anchored.

NOTE: Use a licensed contractor to ensure the required retention force is met.

TOOLS NEEDED

- Safety Glasses
- Permanent marker (fine tip) for marking hole location
- Hammer Drill
- Impact Wrench
- Right-Angle Drive
- 6.35 mm x 300 mm (1/4” x 12”) Carbide Drill Bit (for 6.35 mm (1/4”) Anchors)
- Canister of compressed air or Hand pump and hose (optional)
- Large Shim Washer (optional)
- Recommended concrete anchoring fasteners: For Standard anchor:
- Titen HD brand Concrete Anchor: 1/4” x 3” (Item# THD25300H) - ZMS4018082
- Additional Items Needed For Wall Mounting:
- NOTE: Due to tight spacing between wall and Matrix CONNEXUS stationary exercise equipment, a Right-Angle Drive is recommended to drill holes and anchor unit to wall.
- **Recommended concrete anchoring fasteners** (Choose one):
- Into Concrete: Recommended concrete anchoring fastener:
- Titen HD brand Concrete Anchor: 1/4” x 3” (Item# THD25300H) - ZMS4018082

For Standard anchor:
Into Wood: 1/4" x 4.5” SPAX Screws.
Into Steel Studs: Dependent upon type of construction. Seek the advice of the building architect.
Regardless of the type of anchoring fastener chosen, follow instructions from the manufacturer of the chosen anchoring fastener for installation instructions regarding the anchoring hardware.

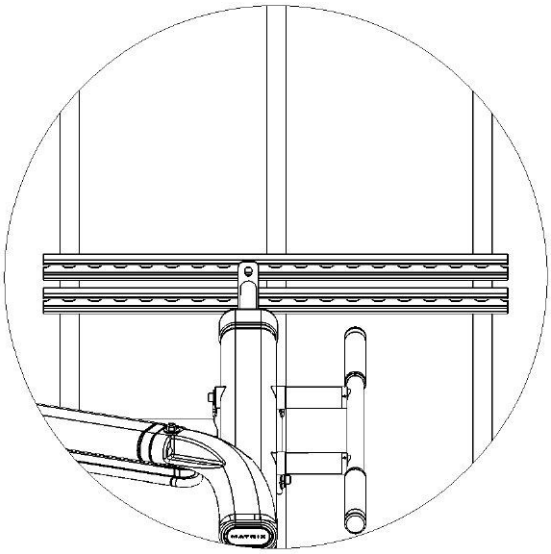
CONNEXUS INSTALLATION TO BE PERFORMED BY INSTALLATION TEAM

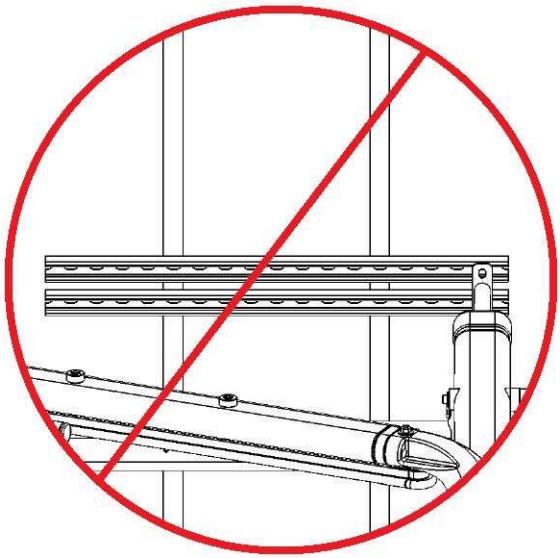
Unless otherwise specified, Johnson will send installers to fully assemble the Connexus frame in the location where it is to be permanently located. They will tighten hardware per the Connexus owner's manual torque specifications.

CONNEXUS ANCHORING PROCEDURE – **This must be performed by a licensed contractor**: Place the exercise equipment where it is to be anchored to the floor/wall. Ensure all frame members are plumb, level, and square to the environment.

Locate the position of all required wall studs. Ensure that wall mounts are securely attached to the structural components within the wall. For wood stud construction, ensure that wall mounts are secured to the center of each wall stud.

If using a stringer or other mounting hardware (such as Unistrut) to span between wall studs, appropriately position the mounting hardware on the wall and securely fasten to wall, ensuring that fasteners are centered on the wall studs. Ensure that the mounting hardware is secured to the wall studs on either side of the location where the MATRIX exercise equipment will be secured to mounting hardware.





Carefully mark all of the hole positions on the floor and wall for every anchoring point.

Ensure that every wall anchoring point on the equipment is utilized.

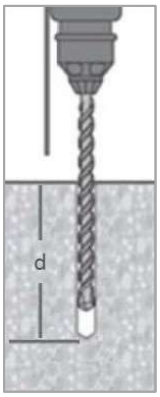
It is the responsibility of the fitness facility to ensure that all provided locations on the exercise equipment are anchored. Each anchoring fastener must be able to withstand a 2.2 kN (500 LBS) pull-out force from the wall.

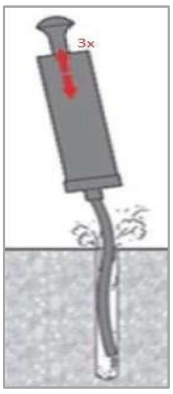
Prior to anchoring to the floor, calculate the required length of concrete anchor. Follow instructions from anchoring fastener manufacturer to choose proper length. If using Hilti brand concrete anchors, minimum length of anchor should be: **L**min = 64 mm + (thickness of upper flooring material) + 16.5 mm (thickness of foot) **L**min = 2.5” + (thickness of upper flooring material) + .65” (thickness of foot)

Hole depth:
Should ensure an embedded depth of the concrete anchor in the concrete to at least a depth of 64 mm (2.5”).

Should be at least:
(Length of Anchor fastener + 13mm extra depth) – (thickness of foot)
NOTE: 13 mm (0.5”) extra depth provides extra clearance at the bottom of hole.

Wear safety glasses while drilling down into the floor.
Drill down into flooring to the calculated depth.





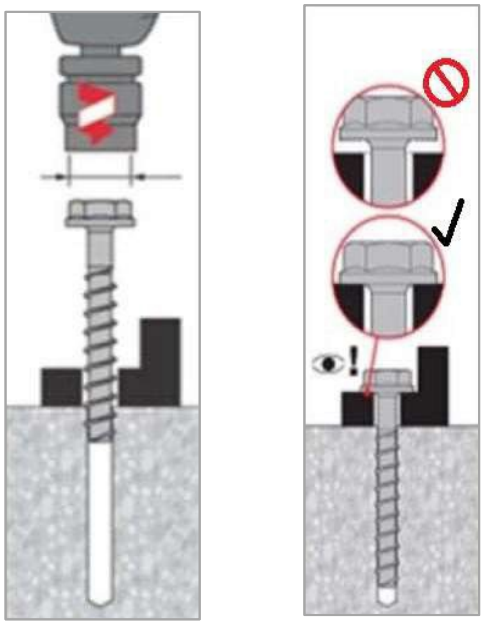
Required: Holes must be cleared of debris. Use canister of compressed air or hand-pump to blow debris out of the drilled holes.

Ensure that every anchoring point on the equipment is utilized. There are three anchoring points per foot.

If bolt-down plate or foot does not contact the mounting surface, adjust foot until it does contact the ground. DO NOT pull down with the fastener or anchor. Shim the bolt-down plate or foot with a large steel washer to close the gap if required.

Use impact wrench to insert concrete anchoring fastener into concrete. Torque to recommendations of anchor manufacturer. For Titen HD concrete fastener, this torque would typically be to 54 Nm (40 Foot-Pounds) for a 6.35 mm anchor (1/4” anchor).

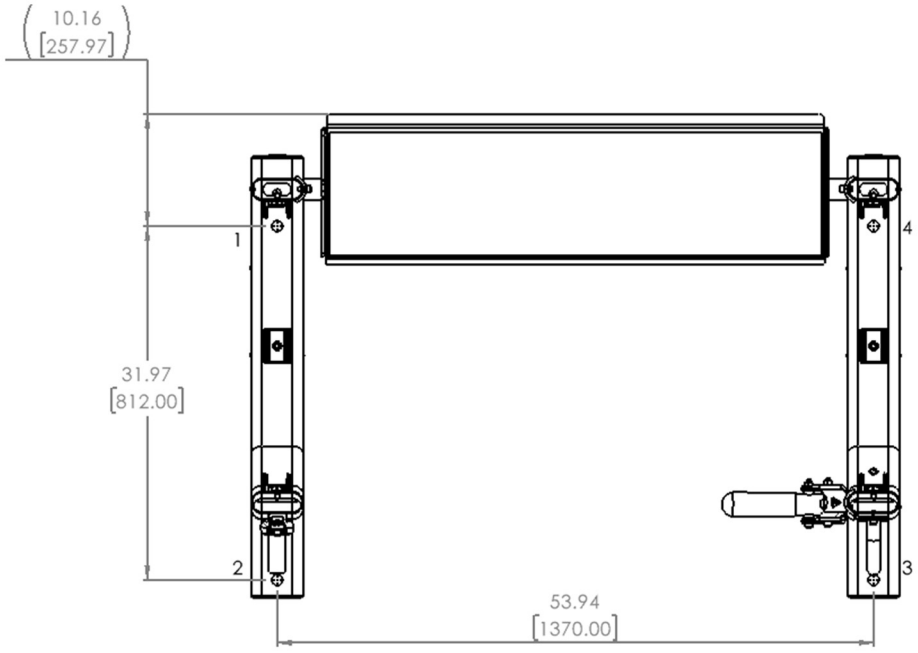
Ensure that the concrete anchoring fastener is fully seated against the bolt-down plate.



It is the responsibility of the fitness facility to ensure that all provided locations on the exercise equipment are anchored. Each anchoring fastener must be able to withstand a 3.3 kN (750 LBS) pull-out force from the floor. Ensure that exercise equipment is stable and secure.

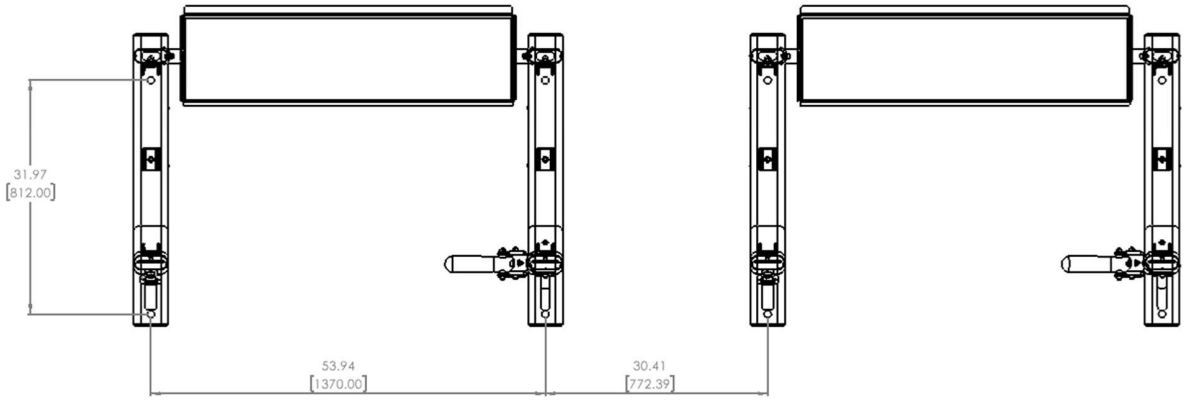
Floor Mounting for Connexus Edge

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.



Floor Mounting for Connexus Edge + Side connector

NOTE: Add 772.39mm to length for every Connexus side connector that is added.
NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.

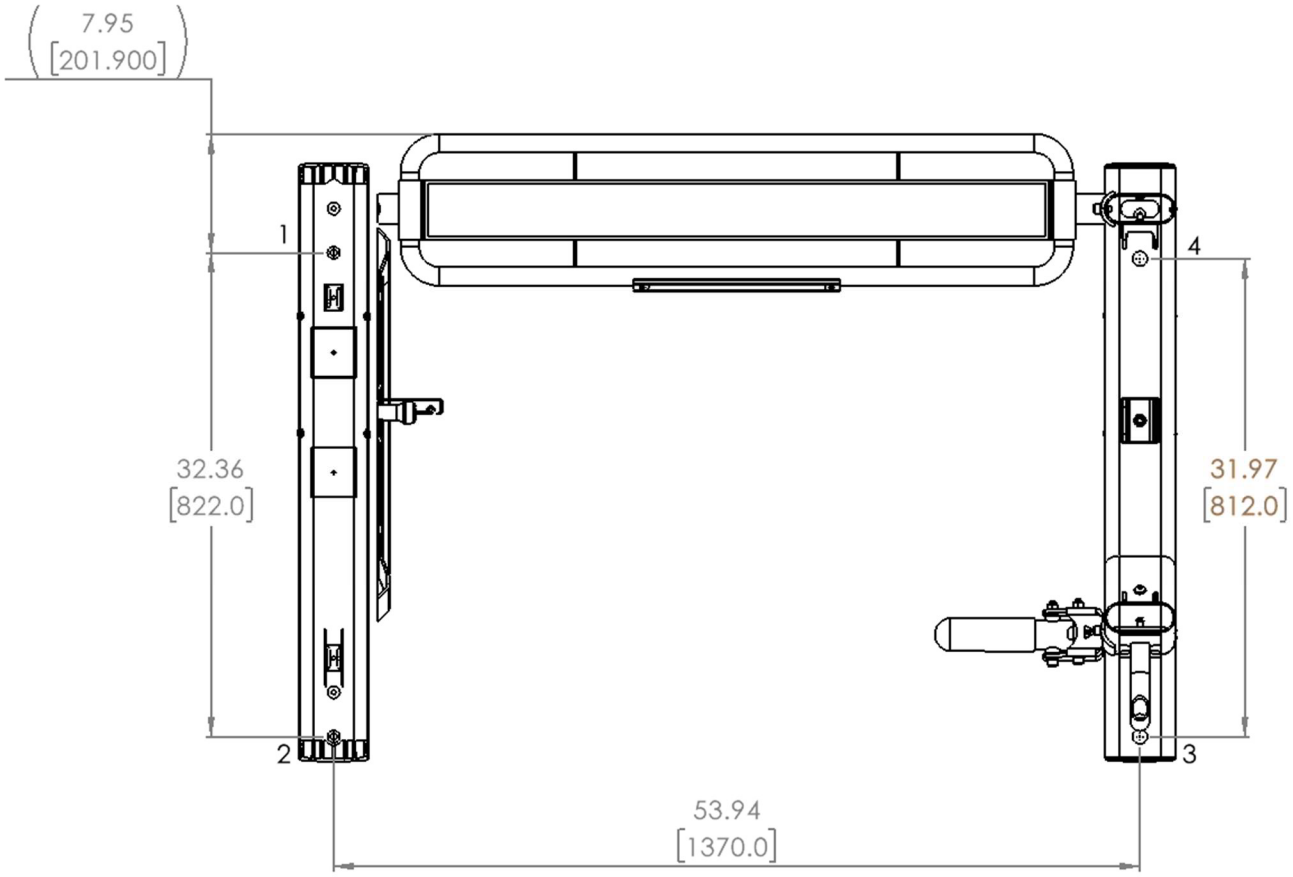


Floor Mounting for Connexus Hub

NOTE: All dimensions are for reference only. Mark and drill holes based on the actual built unit.

Floor Mounting

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.



Floor Mounting for Connexus Hub + Side connector

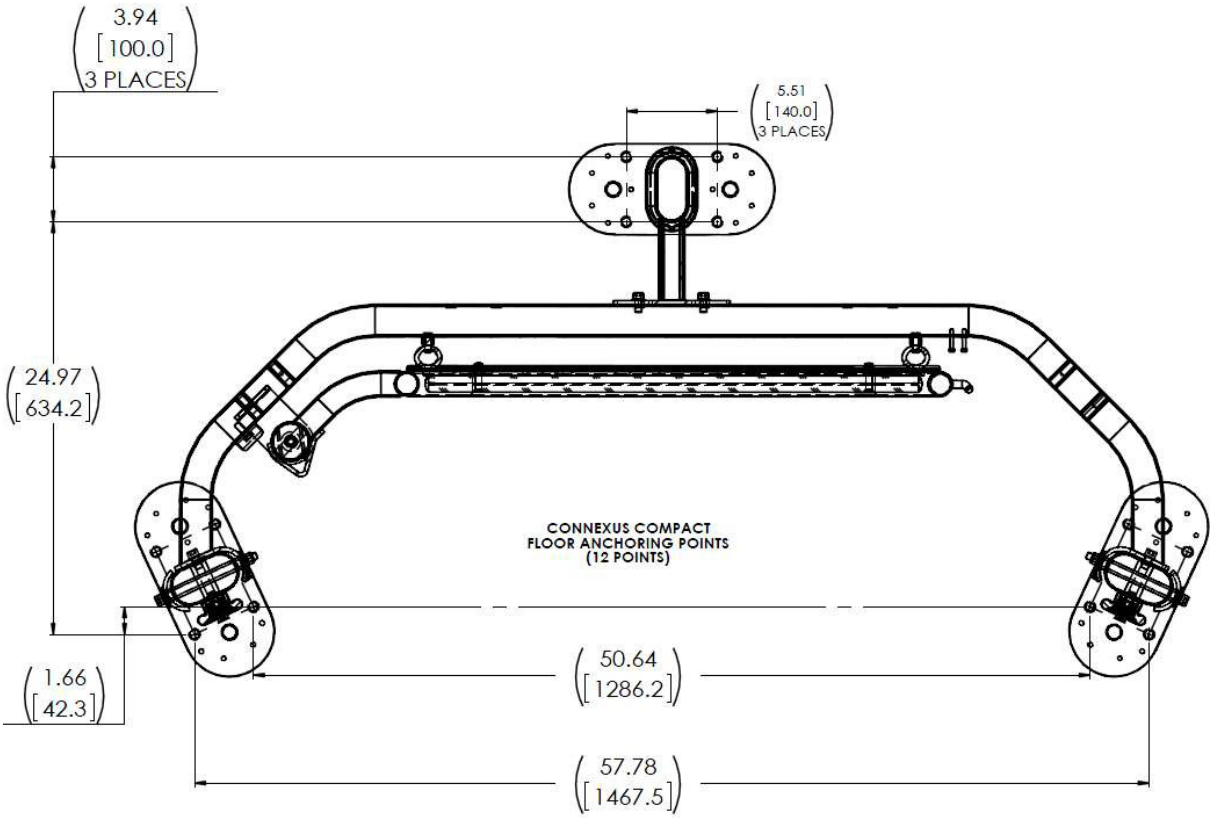
NOTE: Add 772.39mm to length for every Connexus side connector that is added.

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.

The Connexus Compact frame comes with decorative foot covers which hide anchoring points. Remove decorative foot covers to access the outside anchoring points. Fully anchor the outside anchoring points to the floor. Reinstall decorative foot covers over anchoring points.

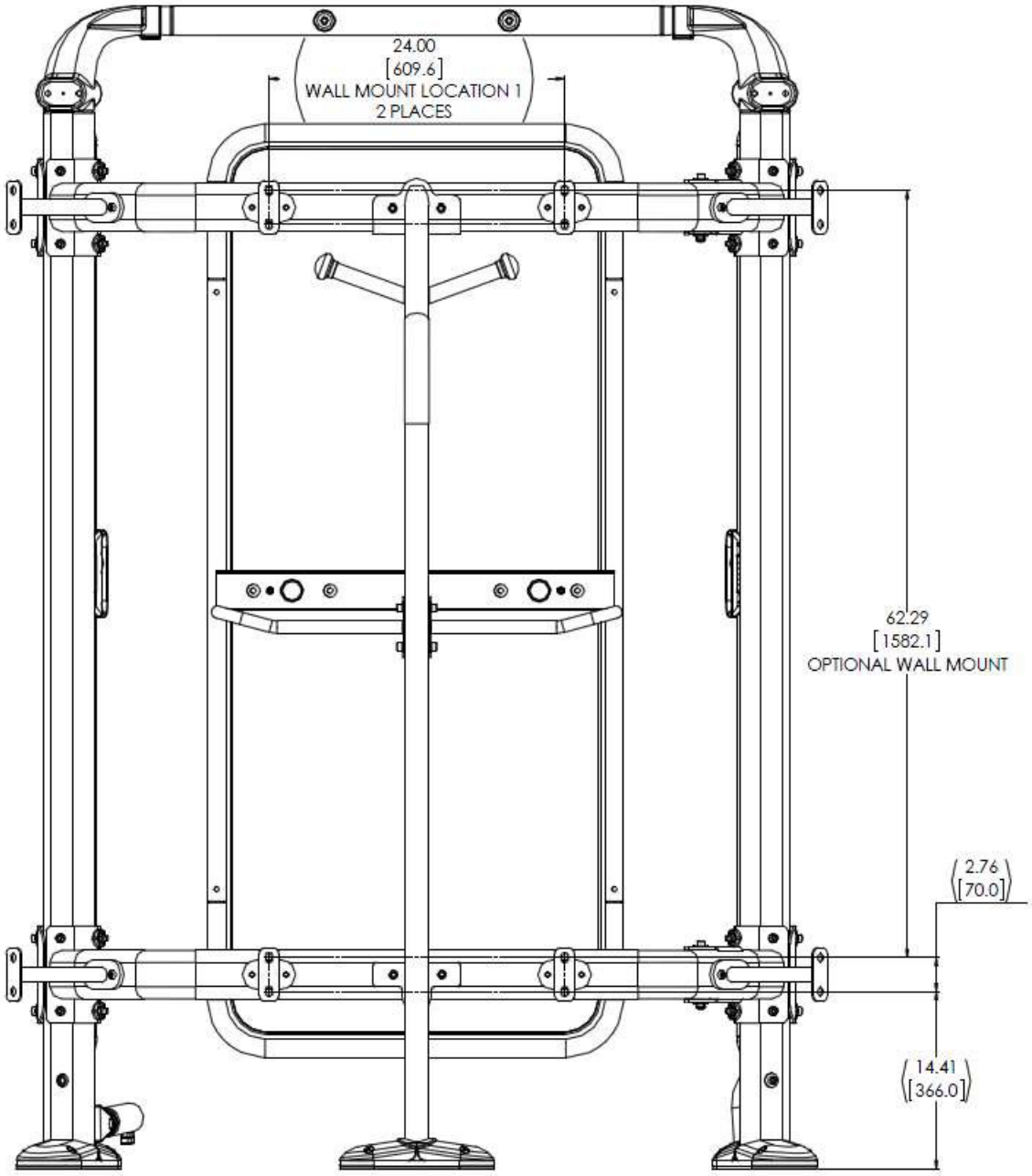
Floor Mounting for Connexus Compact

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.



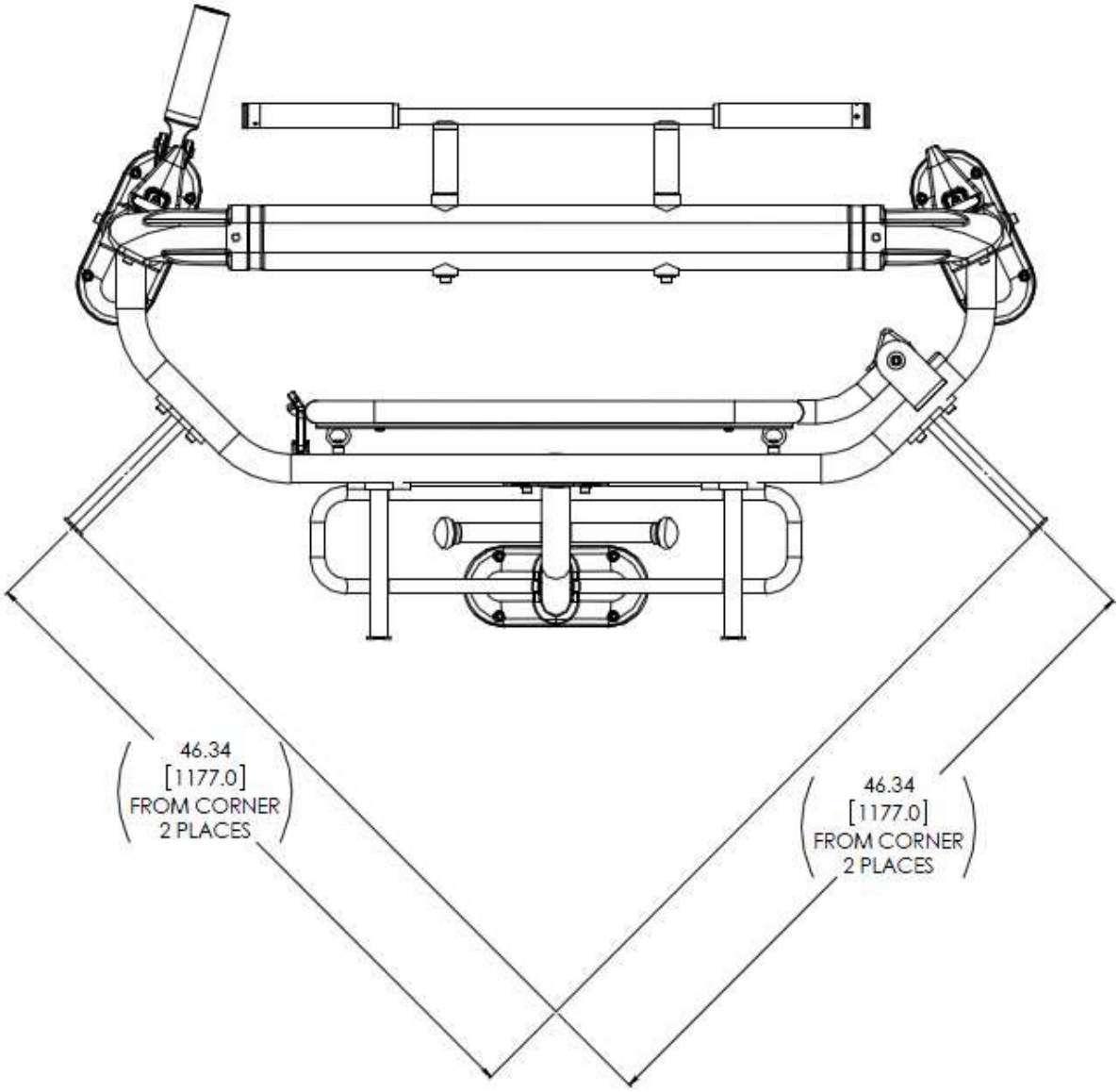
Wall Mounting – Mounting unit against a flat wall

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.



Wall Mounting – Mounting unit in a corner

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.



Wall Mounting – Connexus Column

NOTE: All dimensions are for reference only. Mark and drill holes based on actual built unit.