



DDB UNLIMITED, INC.

**2301 S. Hwy. 77
Pauls Valley, Oklahoma
73075**

1-800-753-8459 Toll Free

405-665-2876 Local

OWNERS MANUAL FOR OD ENCLOSURES

Updated February 2016

WWW.DDBUNLIMITED.COM

INDEX:

• Cover Page	Page 1
• Index	Page 2
• Company Introduction	Page 3
• Safety Precautions	Page 4
• Enclosure Overview	Page 5
• Accessory Options	Page 6
• Warranty and Returns	Page 7
• Index of Parts	Page 8
• Depth Comparison of enclosures	Page 9-14
• Pad Mounting Diagrams	Page 15-17
• Mounting Indentions	Page 18
• Mounting Recommendations	Page 19
• RU Markings	Page 20
• RU Measuring	Page 21
• Installing Rails	Page 22
• Adjusting Rails	Page 23
• 3 Point Pad Locking Handle	Page 24
• Filter Replacement	Page 25-26
• Optional Fan Installment or Replacement	Page 27-36
• Installing a Wind lock	Page 37-48
• For More Information	Page 49

COMPANY INTRODUCTION

DDB Unlimited is an OEM NEMA Outdoor Cabinet Enclosure Manufacturer. We provide a large variety of standard enclosure from 16"-90"H and 25"-42"D. Equipped with adjustable and reversible EIA 19"/23" racking Rails, Front and Rear Doors with 3 Point Pad Locking Handles, NEMA 4, 4X. Air Conditioners ,Heaters, Fans , Batteries and Power options are available. Very Large Inventory and Fast Lead Times.

DDB Unlimited, Inc. was founded by Kelvin "Dusty" Mahorney. Being raised in Broken Arrow, OK, Dusty and his three brothers shared the daily duties in the father's television repair shop. As an adult and holding a first class license, Mr. Mahorney was employed by a Motorola repair facility in Tulsa, OK and then went on to a GE repair facility in Oklahoma City, OK. In 1978 at the age of 23, Mr. Mahorney opened and operated, a two-radio repair shop in Lindsay, OK. In 1987 Mr. Mahorney and his four children moved to Jacksboro, TX and started a company called Texas Two-Way Fone. TTWF sold and repaired two-way radio systems and also provided service as a private carrier, serving a four state area TX, OK, AR, LA.

It was the building out of TTWF systems that brought on the need for a secure, economical, available and less cumbersome outdoor enclosure. Having serviced almost every brand in the industry for 21 years, Mr. Mahorney knew what the aggravating moments were as to purchasing, repairing and building out with outdoor enclosures.

(Trying to get the doors open in the rain, keeping mice from destroying the equipment inside, trying to lug the monster enclosure from the tower site single handedly in for repair, backorder promises, vandalism ...).

In 1996, DDB Unlimited, Inc. was formed and intensive engineering, testing, and development were completed. With a new 11 acre, 12,000 sq ft facility we rolled out the OD series line product. The industries response was miraculous, resulting in the Mahorney family solely focusing their efforts on customer satisfaction and delivery..

In 2003, a 29,000 sq ft facility was purchased in Wynnewood, Ok, and OEM contract manufacturing began..

In 2004, the Corporate offices, production and employees was moved to the new Wynnewood Facility..

In 2007, another 43 acre parcel of land and office building of 6,000 sq ft was purchased in Wynnewood, OK..

In 2009, another 19 acre parcel of land and production facility of 74,000 sq ft was purchased in Pauls Valley, OK.

With our now 140 employees and a total square footage of 121,000 sq. ft.. we define ourselves, as a grateful and competitive enclosure manufacturer. Daily we accommodate the single unit customer as well as the major players in their build outs, shipping products worldwide.

Today various product lines have been developed. Bullet proof products are being shipped. Time and engineering developing all aspects of thermal management is ongoing.

Billing Department

800-753-8459 (Toll Free)

P.O. Box 669 Wynnewood, OK 73098

Pauls Valley Sales & Shipping Department

405-665-2876 (Direct Voice)

2301 S. Hwy. 77 Pauls Valley, OK 73075

877-220-7236 (Toll Free Fax)

Wynnewood Shipping Department

8445 Hwy 77 North Wynnewood, OK 73098

405-665-2481 (Direct Fax)

8:00 am – 5:00 pm CST

WWW.DDBUNLIMITED.COM

SAFETY PRECAUTIONS

Please Note : It is the responsibility of the installer to follow your local building and electrical codes before installation. Local codes will always supersede DDB recommendations.

Warnings and Dangers:

To Avoid the below Hazards please follow the included tips.

➤ Tip Hazards:

- Secure enclosure to Pad or Pole whenever possible.
- Install on level surfaces
- Evenly distribute weight inside enclosure.

➤ Pinch Hazards:

- When bolting, securing, or adjusting shelves, rails, wind locks, door handles, etc... Use Caution and keep your fingers and skin clear of areas that could be pinching hazards.

➤ Electrical Hazards:

Any and All electrical safety procedures should be followed when installing electrical components into this enclosure. See your local building and electrical codes for more information.

ENCLOSURE OVERVIEW

- **Material** – The ASTM B209-04 is the material standard for our Aluminum class 5052h32 manufacture. ASTM B209-04 can be sold and or used in special fire rated categories such as fire block between buildings or fire protection of critical supports.
- The standard flash point of 5052h32 is 606 degrees C. Aluminum 5052h32 is considered RoHS compliant by both American and European Standards agencies.
- Reference: ASTM B209-04 “standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate”
- **Aluminum temper designation**

Aluminum is specified with a 4 digit alloy followed by a temper designation. For example, 5052-H32 indicates an aluminum/magnesium alloy that has been strain hardened and stabilized by low temperature heating and is 1/4 hard.

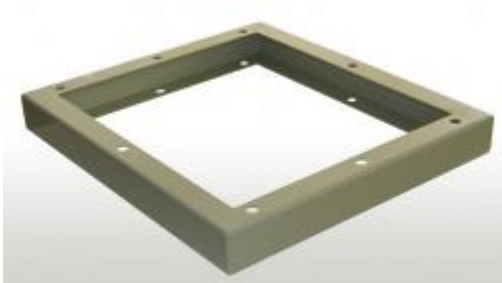
-H	Strain hardened (Cold Worked) with or without thermal treatment
-H1	Strain hardened with thermal treatment.
-H2	Strain hardened and partially annealed.
-H3	Strain hardened and stabilized by low temperature heating.
2 ND Digit	<p>A second digit denotes the degree of hardness.</p> <p>-HX2 = 1/4 hard -HX6 = 3/4 hard -HX4 = 1/2 hard -HX8 = full hard</p>

OPTIONAL ACCESSORIES

Available Upon Request for Enclosure

General:

- Rails
- Mounting Shelves
- Lifting hooks
- Mounting Feet
- Bases and Pedestals



Climate Control:

- AC Units
- Fans
- Heaters
- BuFu's
- Heat Exchangers
- Insulation



Electrical:

- Load Centers LC-(30,60,100, or 200)
- Generator Plugs 30 & 50 amp
- Pre Installed Cut-Outs
(with approved drawing diagrams)



Sealing for Cable Entry:

- Variety of Roxtec Sealing Systems



WARRANTY & RETURNS

DDB Unlimited manufactures NEMA rated weatherproof enclosures from high quality materials and warrants all enclosures for a period of (15) years from date of original purchase. This warranty covers workmanship and materials to include, but not limited to, the non-corrosive properties of the material and manufacturing defects. (WARRANTY DOES NOT COVER PRODUCTS NOT MANUFACTURED BY DDB UNLIMITED, THEY WILL HAVE THERE OWN MANUFACTURE WARRANTY.)

DDB Unlimited warrants to Customer that DDB Unlimited manufactured products sold to Customer pursuant to this Contract will be free from defects in material and workmanship, will conform to DDB Unlimited specifications or to Customer's specifications where agreed to in writing for a period of 15 years from the date of shipment to Customer, provided that:

DDB Unlimited is promptly notified (within the warranty period) of any warranty claim; and

DDB will not issue allow RMA's, Refunds or Returns on orders past 45 days of Invoice date. DDB will not issue credit or warranty any non-stock item; items in which cutouts or non DDB standard products have been placed on enclosure. DDB will not allow RMA, Refund or Return for items that have been altered in any way from stock condition. RMA credit will be given based on a management approved basis with restocking fee.

The goods and merchandise are returned to DDB Unlimited, freight prepaid, after Customer has received a return merchandise authorization number from DDB Unlimited; and

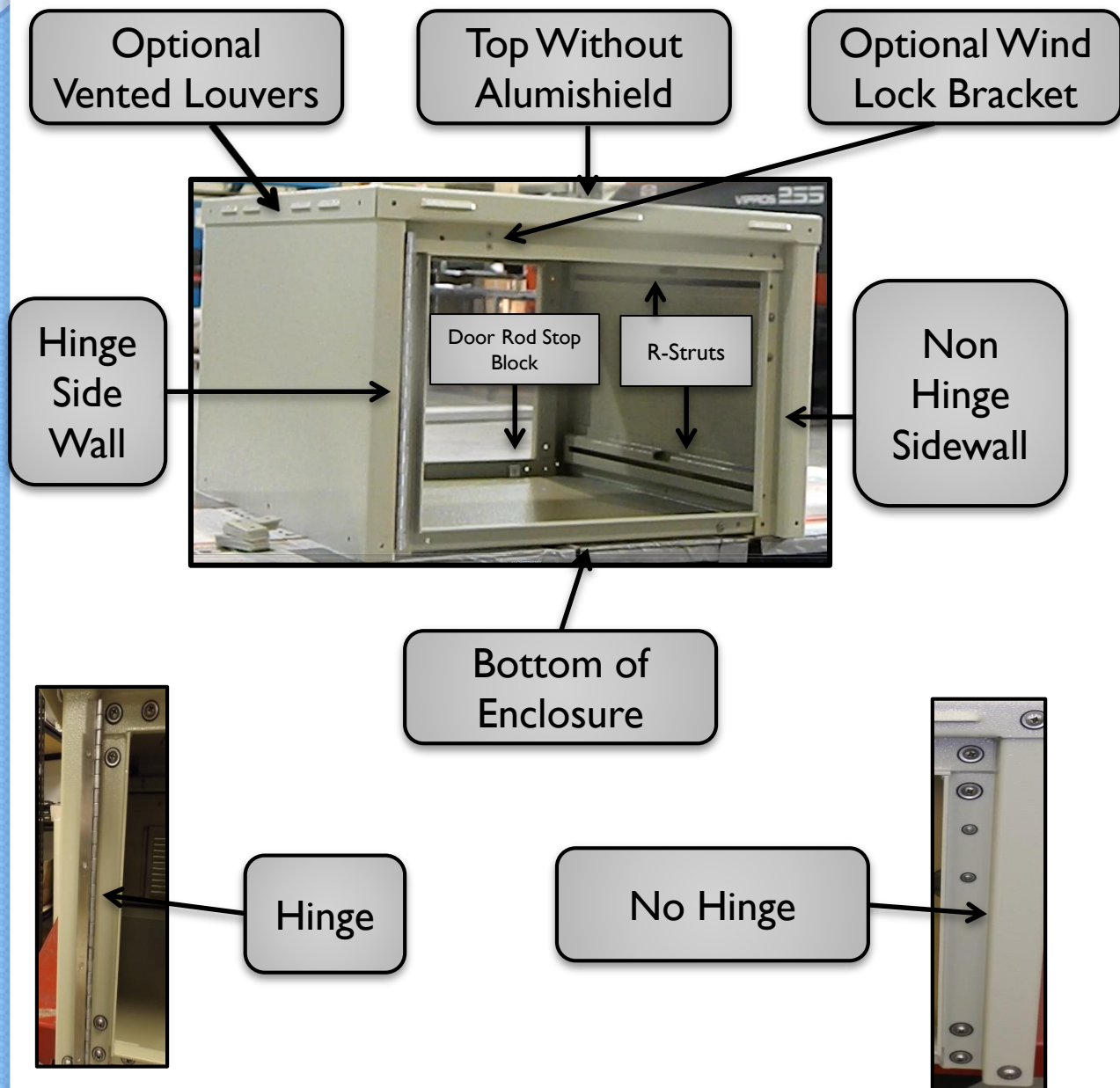
DDB Unlimited examination of such items shall disclose to its reasonable satisfaction that the claimed defect in the DDB Unlimited manufactured product was not caused by abuse, improper handling, installation, unauthorized repair, alteration or accident. Modification of DDB Unlimited manufactured product by Customer, or at Customer's direction, shall invalidate the above warranty.

DDB Unlimited liability under this warranty is limited to repairing, replacing or issuing a credit in the amount of the unit contract price, at its election, for any such claim. Any repair or replacement shall not extend the warranty period.

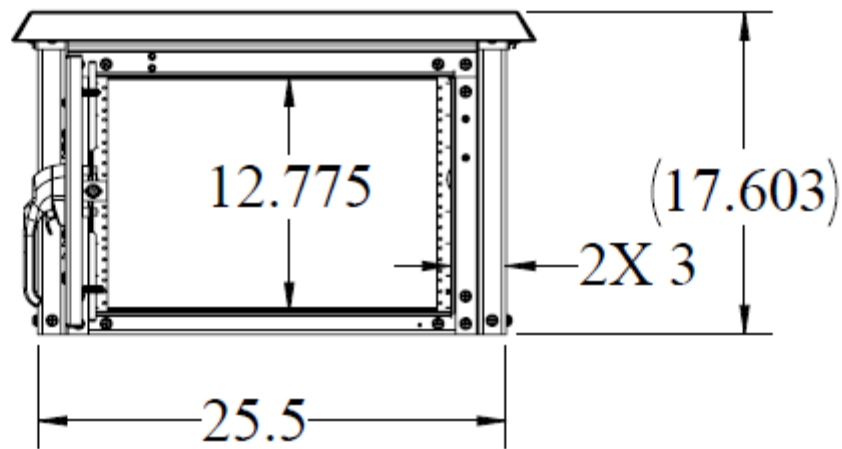
Discoloration of DDB Unlimited manufactured products from metal oxidization and/or severe/normal environmental atmospheric conditions due to exposure over a period of time is normal/anticipated and is not covered by this warranty.

This warranty is extended to Customer only and is not transferable to subsequent purchasers or users of goods and merchandise. This warranty is given in lieu of all other warranties, express or implied, including implied warranties of merchantability and fitness for a particular purpose.

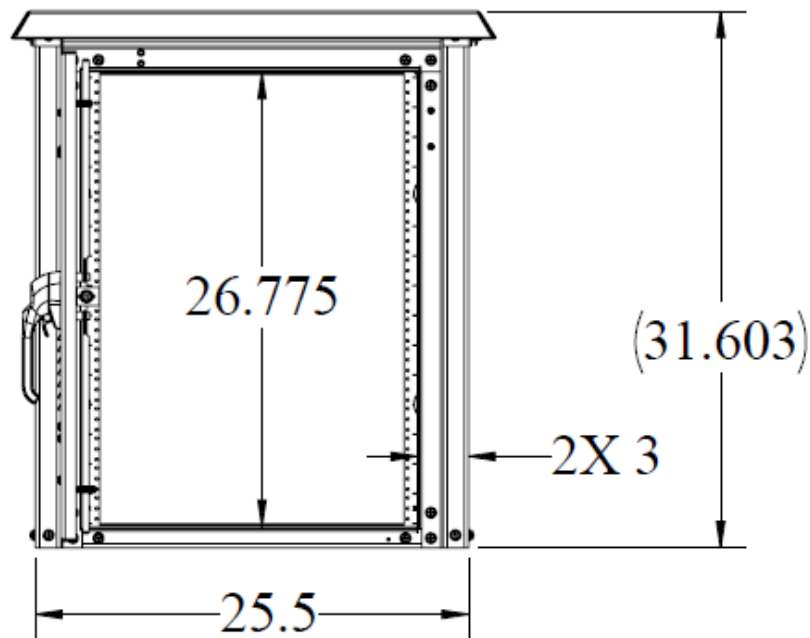
INDEX OF PARTS



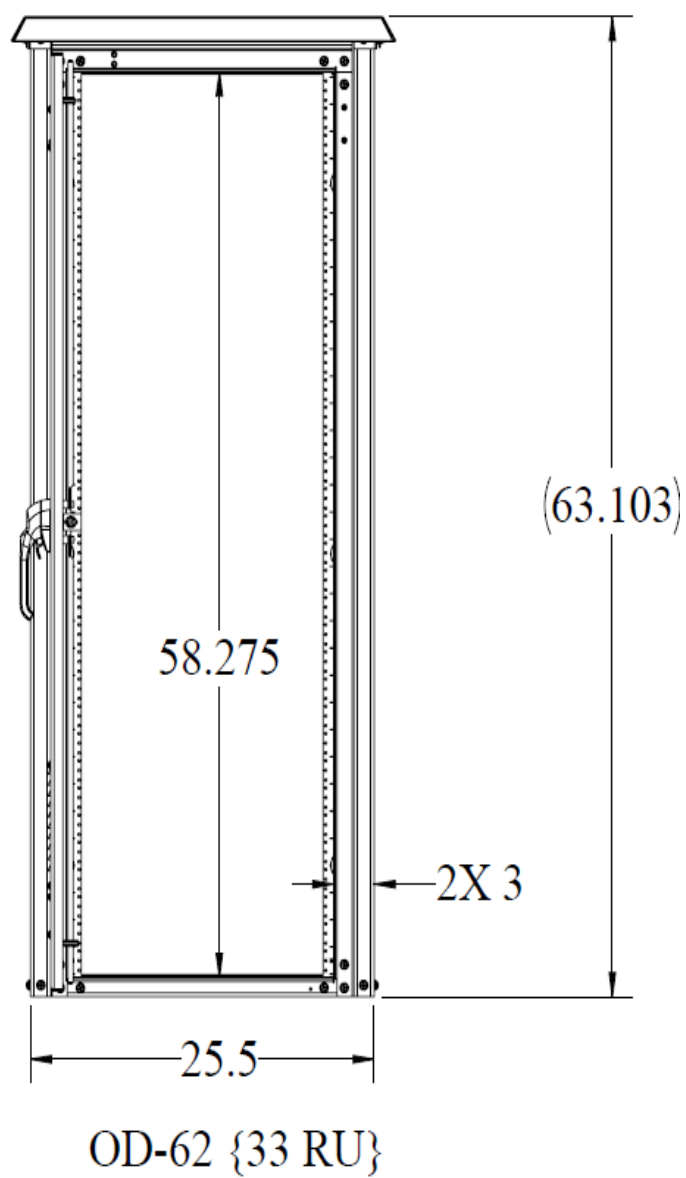
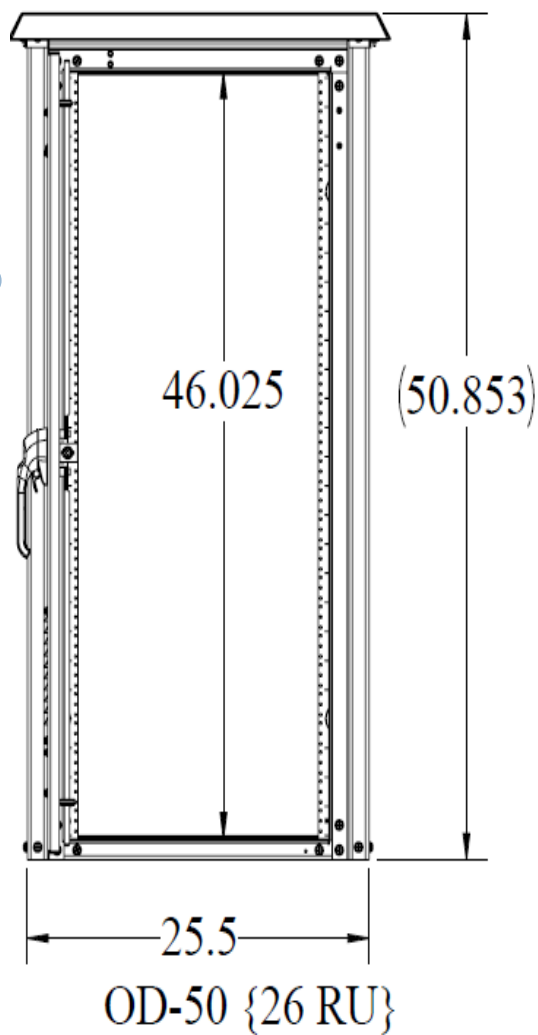
COMPARISON OF OD ENCLOSURE DIMENSIONS

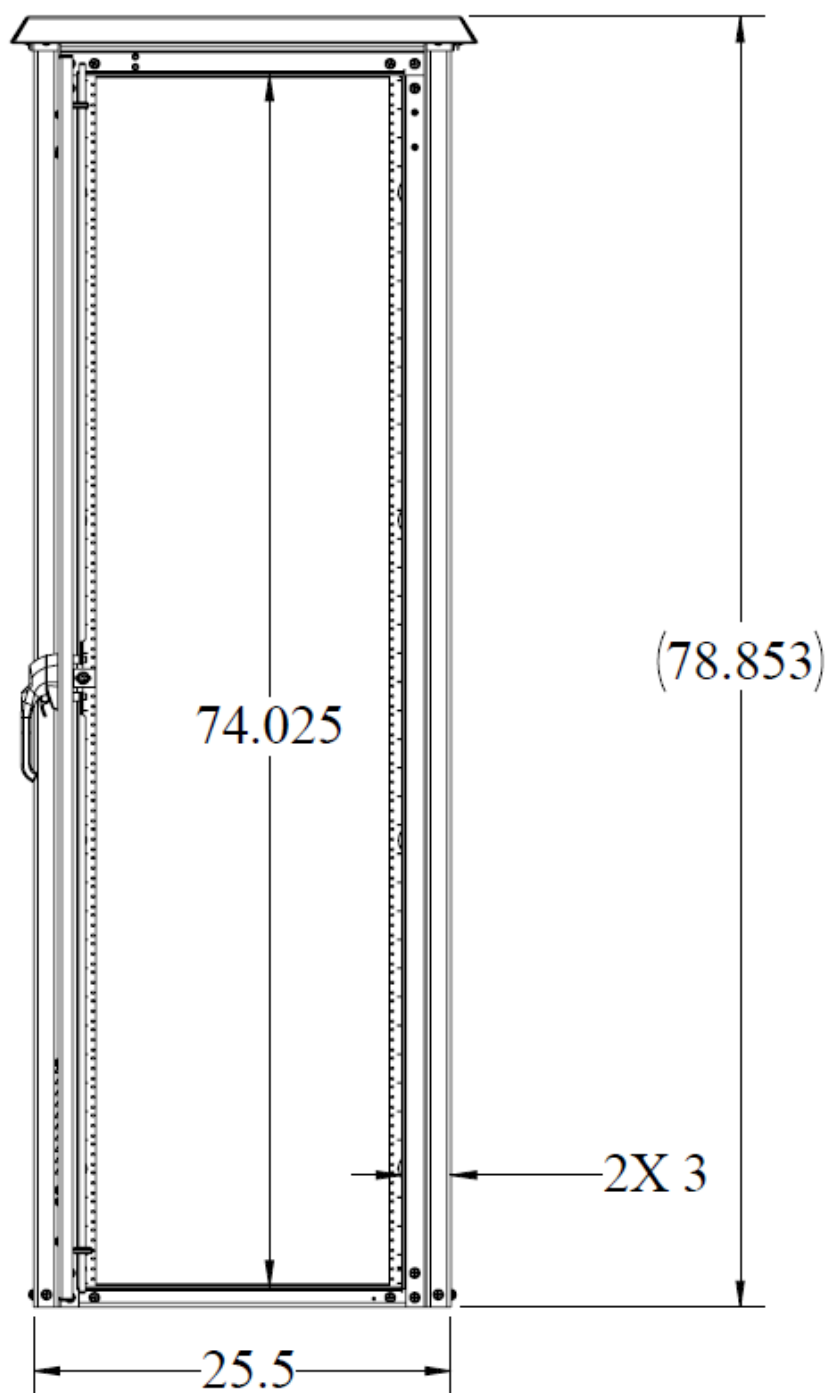


OD-16 {7 RU}

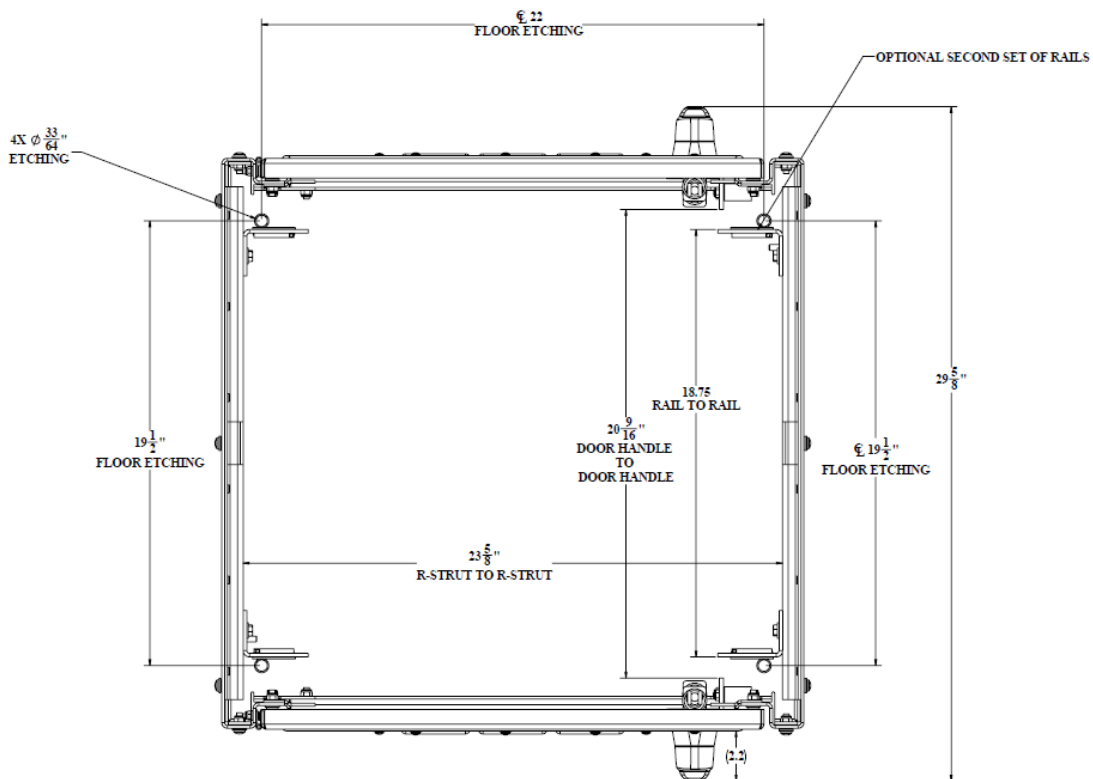
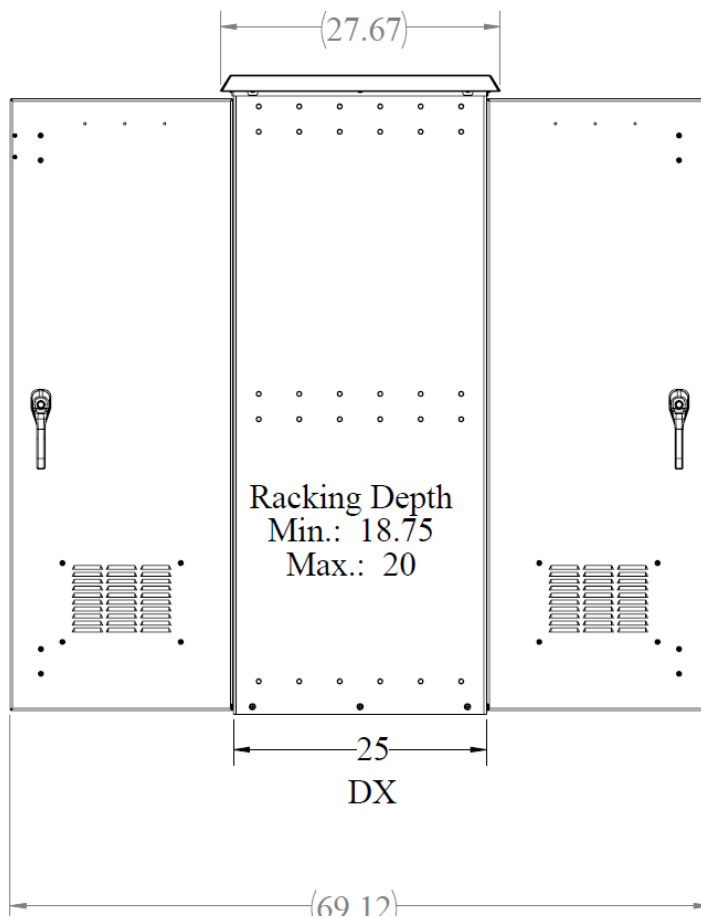


OD-30 {15 RU}

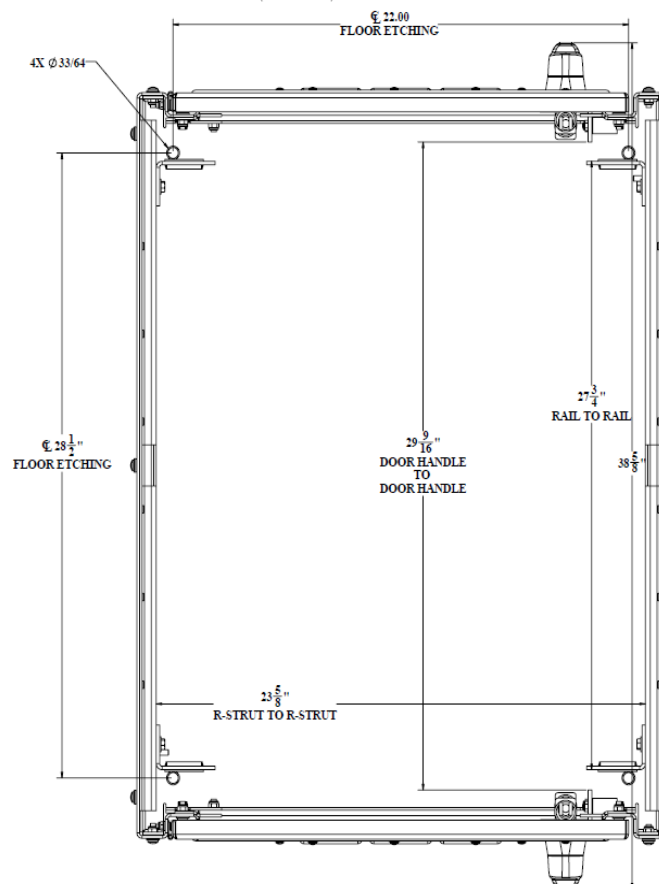
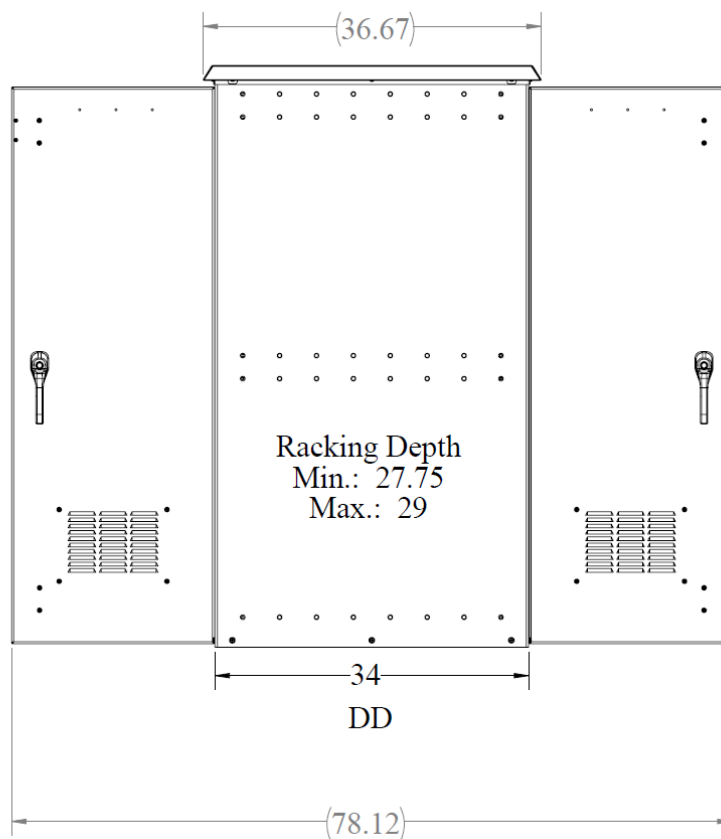




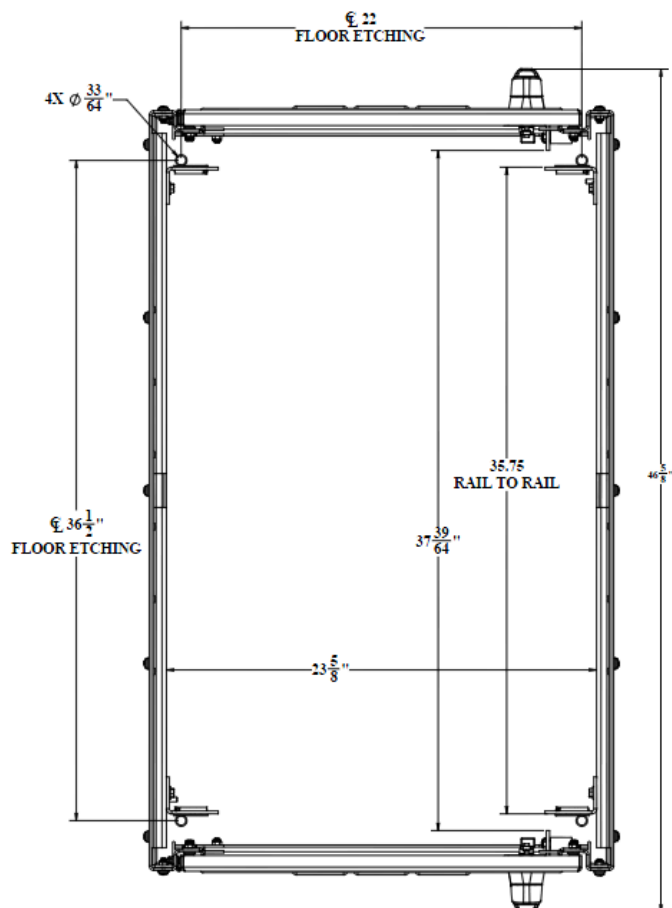
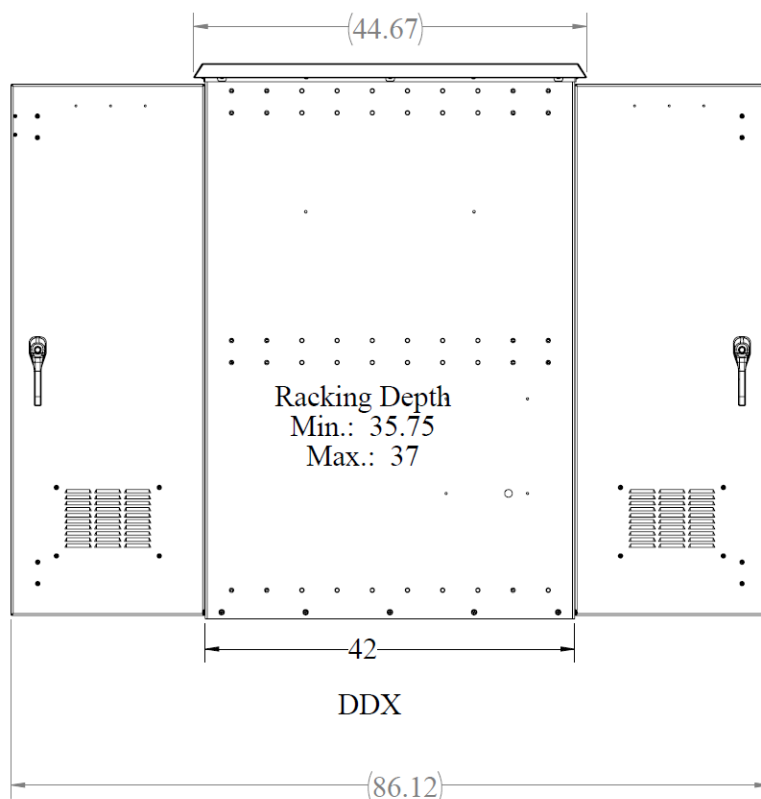
OD-78 {42 RU}



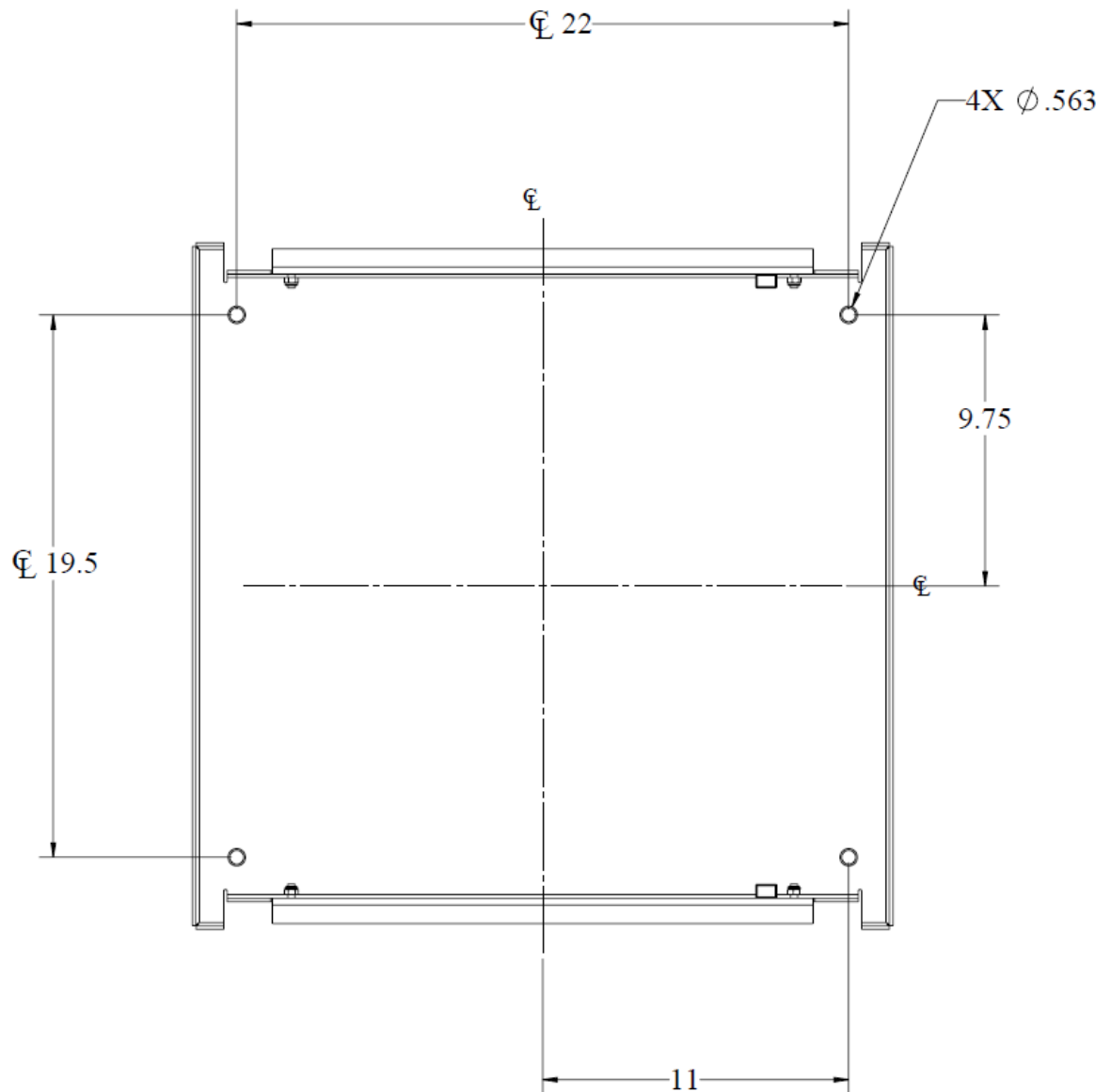
TOP VIEW CEILING AND ALUMASHIELD NOT SHOWN



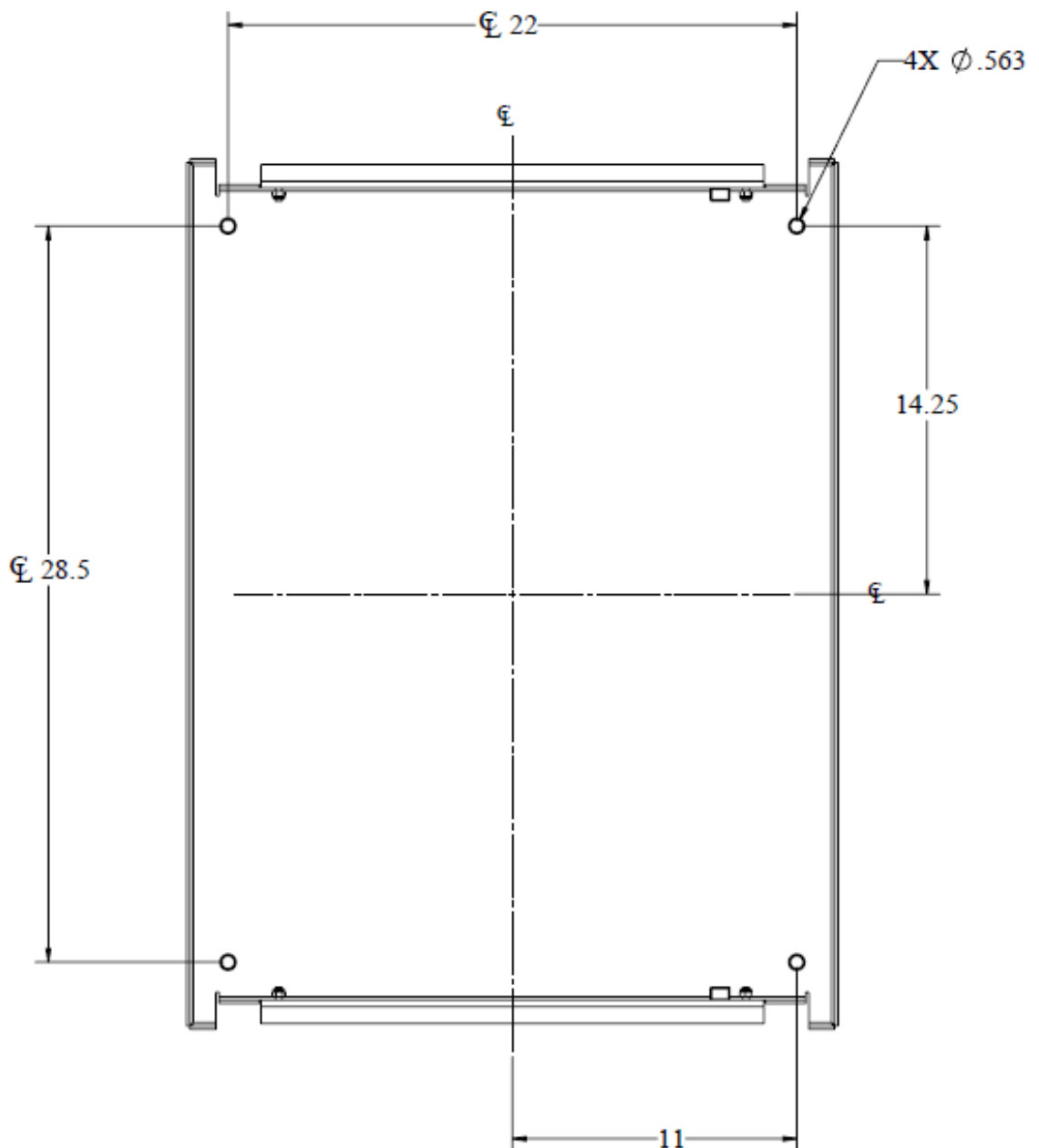
TOP VIEW CEILING AND ALUMASHIELD NOT SHOWN



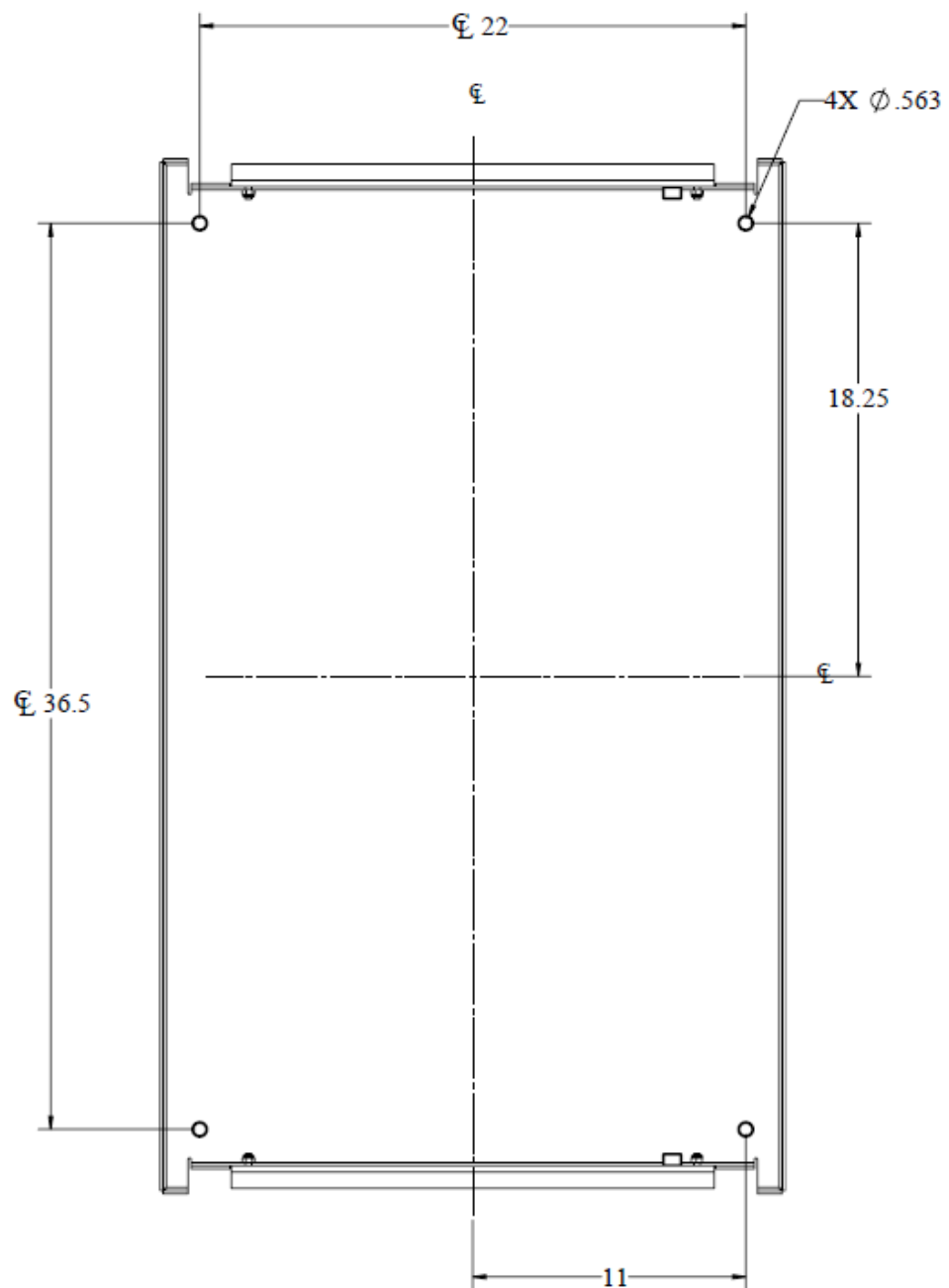
MOUNTING HOLE LOCATIONS DX



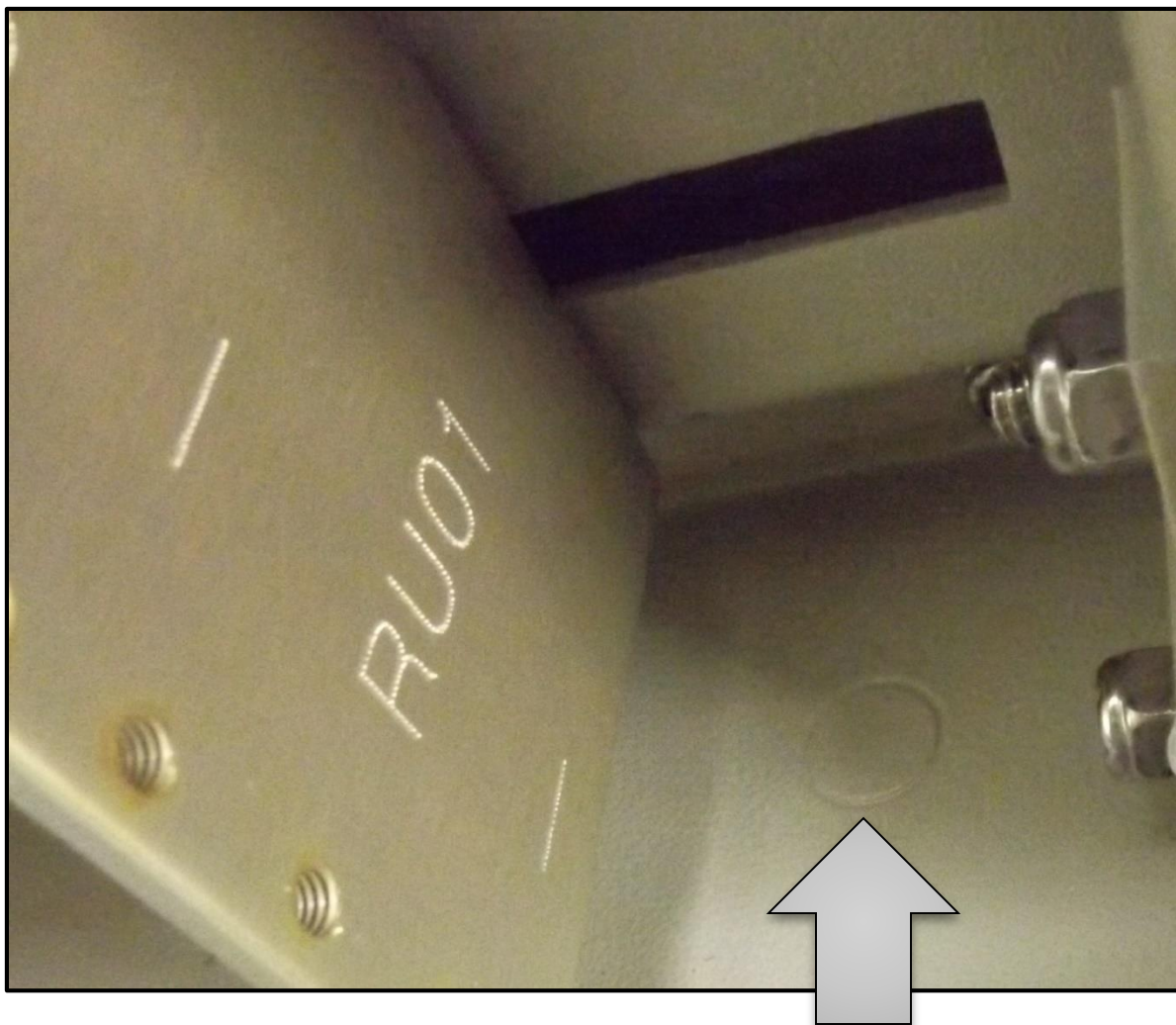
MOUNTING HOLE LOCATIONS DD



MOUNTING HOLE LOCATIONS DDX



MOUNTING INDENTATIONS



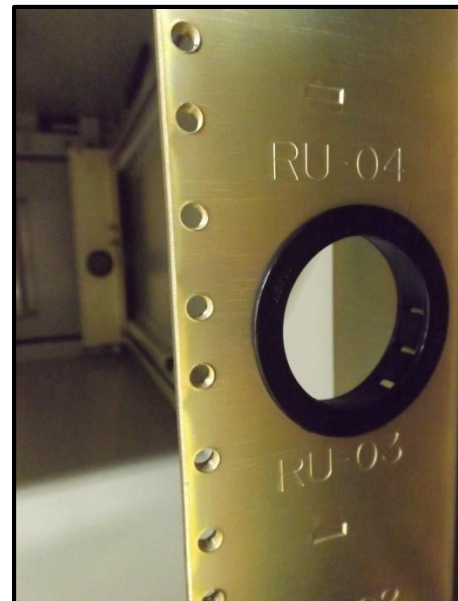
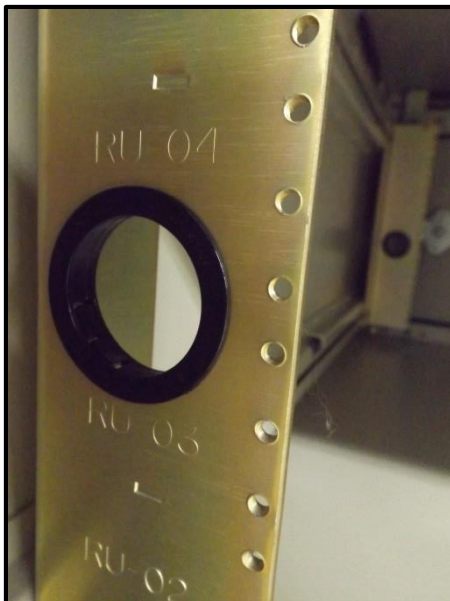
On the inside bottom corners of each enclosure you will find the indentions in all 4 corners, and in some cases on the middle edges, for mounting as shown above.

MOUNTING RECOMENDATIONS

- Minimum 4" gravel base stone should be leveled and compacted thoroughly using a vibratory tamper
- Minimum 4" thick pad with #10 6x6 steel mesh or fiber mesh reinforcement, 3000 psi minimum
- Minimum 4" clearance around all sides with a slope of 1/4" from center to edge
- Mounting to be done with appropriate hardware per local building codes and conditions

*** ALL LOCAL CODES TO BE ADHEARED TO AND SUPERCEED DDB RECOMENDATIONS ***

RU MARKING



- The Rack Rails are made from 0.125" Aluminum and have an Alodine coating. The mounting holes are tapped for a 10-32 mounting screw and are spaced according to EIA standard for 19" rack mounting.
- The rack rails are etched with RU numbers for simplified installation of equipment to a prescribed mounting location. Rack rails are oriented so the RU markings are visible on the right hand rail through either the front door or the rear door; rails are adjustable front to rear to aid in equipment profile positioning.

RU MEASURING

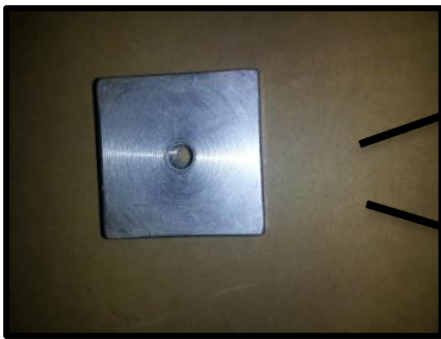


STANDARD EIA 19" Racking

EIA-310 is a specification for what is often called the “standard rack”. This specification standardizes several important features of 19” racks, such as the Rack Unit (RU or U), vertical hole spacing, horizontal hole spacing, rack opening, and front panel width. The specification also set tolerances on each of these dimensions. The EIA-310 specification has been the 19” racks standard for equipment for 50 years. The items that the specification does not cover are the real reason for the industry wide incompatibility we now face. Rack features such as hole type, rack mounting depth, front and rear space, and obstructions between front and rear rails are the cause of real rack headaches. Vertical Hole Spacing Vertical hole spacing is defined as a repeating pattern of holes within one Rack Unit of 1.75”. The hole spacing alternated at: 1/2” – 5/8” – 5/8” and repeats. The start and stop of the “U” space is in the middle of the 1/2” spaced holes. See the diagram above.

INSTALLING RAILS

- Place R-Nut into slot on R-Strut on top and bottom then attach Rail with 1/4-20 (1/4in.) Hex head bolt

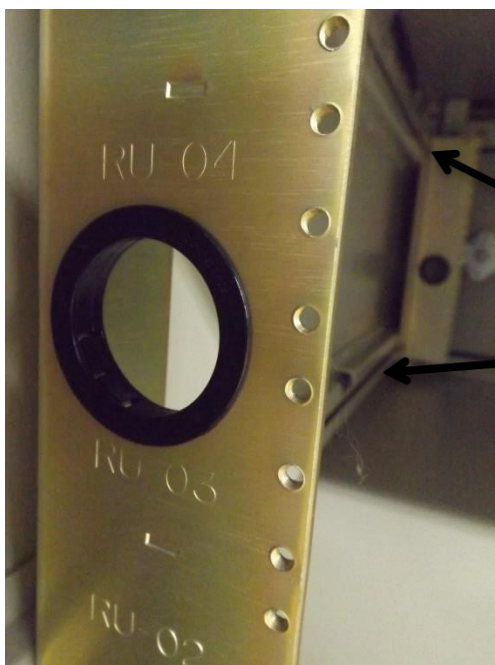


Note: Rails are fully adjustable , slide to front or back and tighten bolts.

ADJUSTING RAILS



Loosen Bolt at Top and Bottom of Rail



Slide Along Both R-Struts Until Rail is in Position Desired and Tighten Bolts Back.

3 POINT PADLOCKING HANDLE



Standard Handles

Specialty Keyed
Handles Also Available



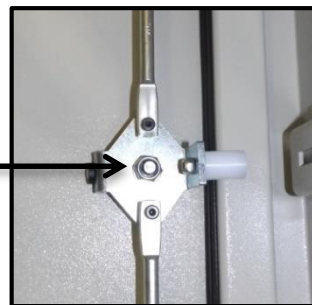
Remove
Customer
Supplied
Lock, and
Pull Toward
Handle.
(Be Careful
of Pinching
Hazard)



Turn Handle
Towards
Hinge Side of
Door to
Open and
Return to
Secure



The 3 Point
Locking
Mechanism on
the Inside of
Door Adjust by
Bolt in Middle as
Shown.



CHANGING FILTER

- WITHOUT INSULATION

Open Door and Insert filter with the gasket side toward door as shown through opening in top of filter bracket.



Filter
Bracket

Gasket
Side



Insert as
shown



CHANGING FILTER

- WITH INSULATION INSTALLED

Remove 4 Screws on Filter Bracket - Place Filter and Re-Secure Bracket. Place Gasket Side Towards Inside Door Face.

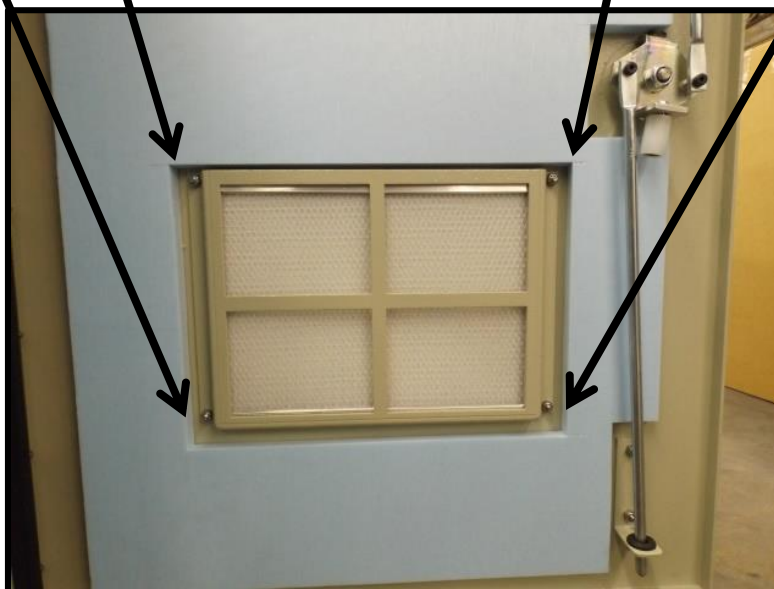


Plate in the Top of the Enclosure as Shown Below.



Under the Cover Plate There
are Two Pre Punched Fan Cut-
Outs with Tapped Holes for
Screws.



Top View of Enclosure With
Alumishield Removed Showing
Fan Hole Cut Outs.



Fan Kit Hardware for the OD Series Includes 8 Screws, 2 Fan Screens, 2 Fan Mesh Screens, Thermostat, and Thermostat Bracket



Place the Fan Mesh Screen on
Top of the Fan, in Between the
Fan and the Roof of the
Enclosure.



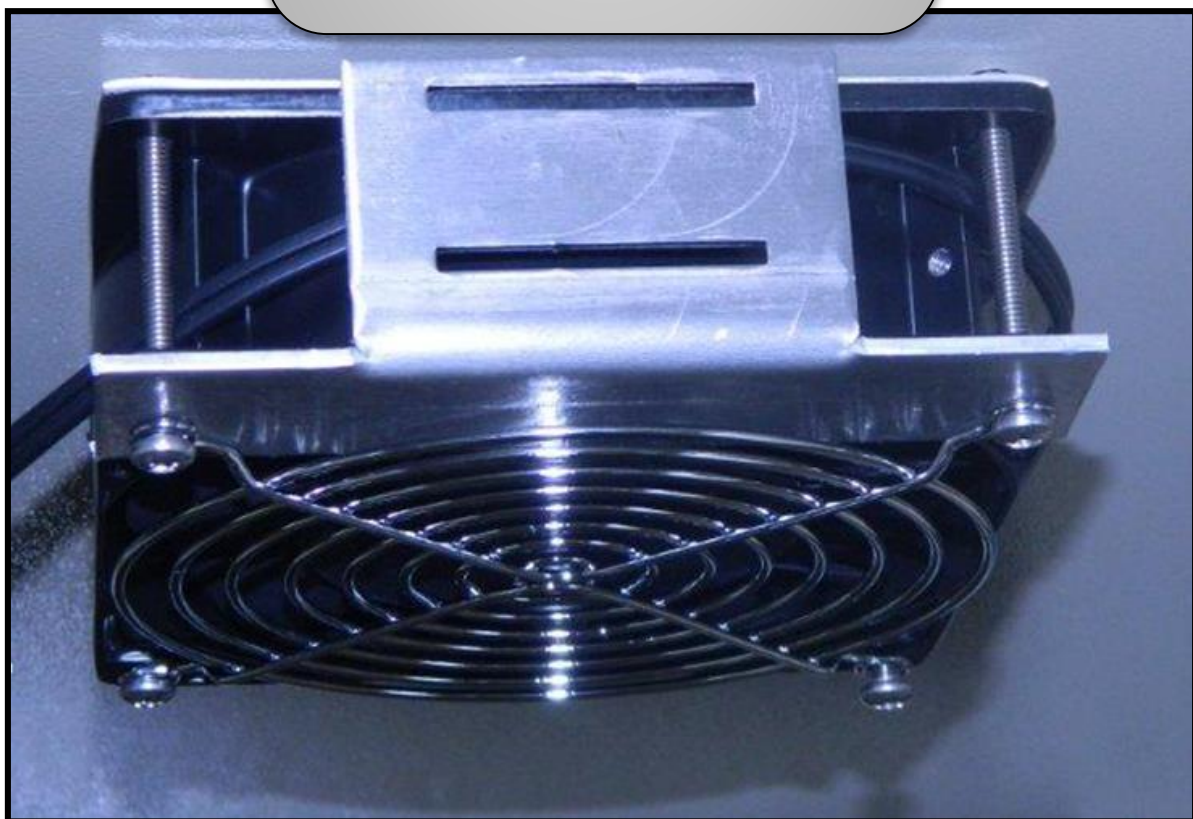
Place the Fan Finger Guard
Under Fan (Note: Fan Wire
Screen is Above Fan) and
Insert Fourth Screw Into Roof
of the Enclosure.



Place the Fan Screen Over the Fan and Insert Screws Through the Holes and Begin Tightening Hardware into Roof of the Enclosure



Place Thermostat Bracket
Onto Fan as Pictured



Place Thermostat Onto
Thermostat Bracket

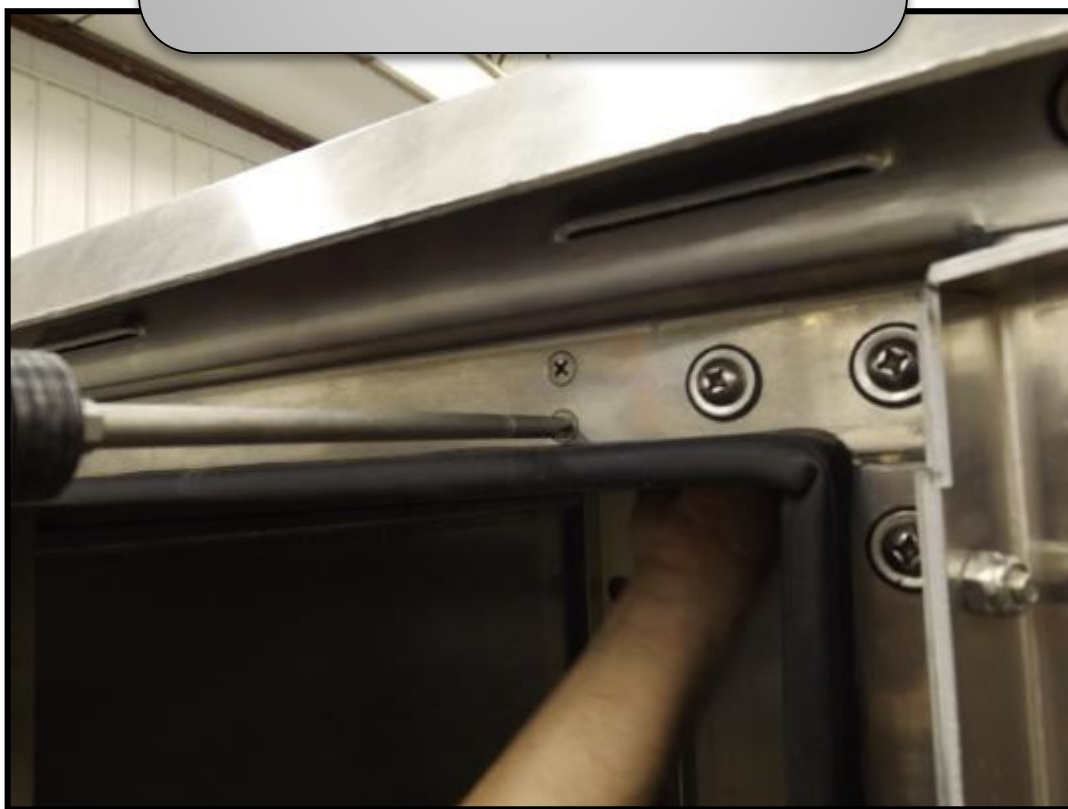


Tighten Hardware and Fan Kit is
Successfully Installed.

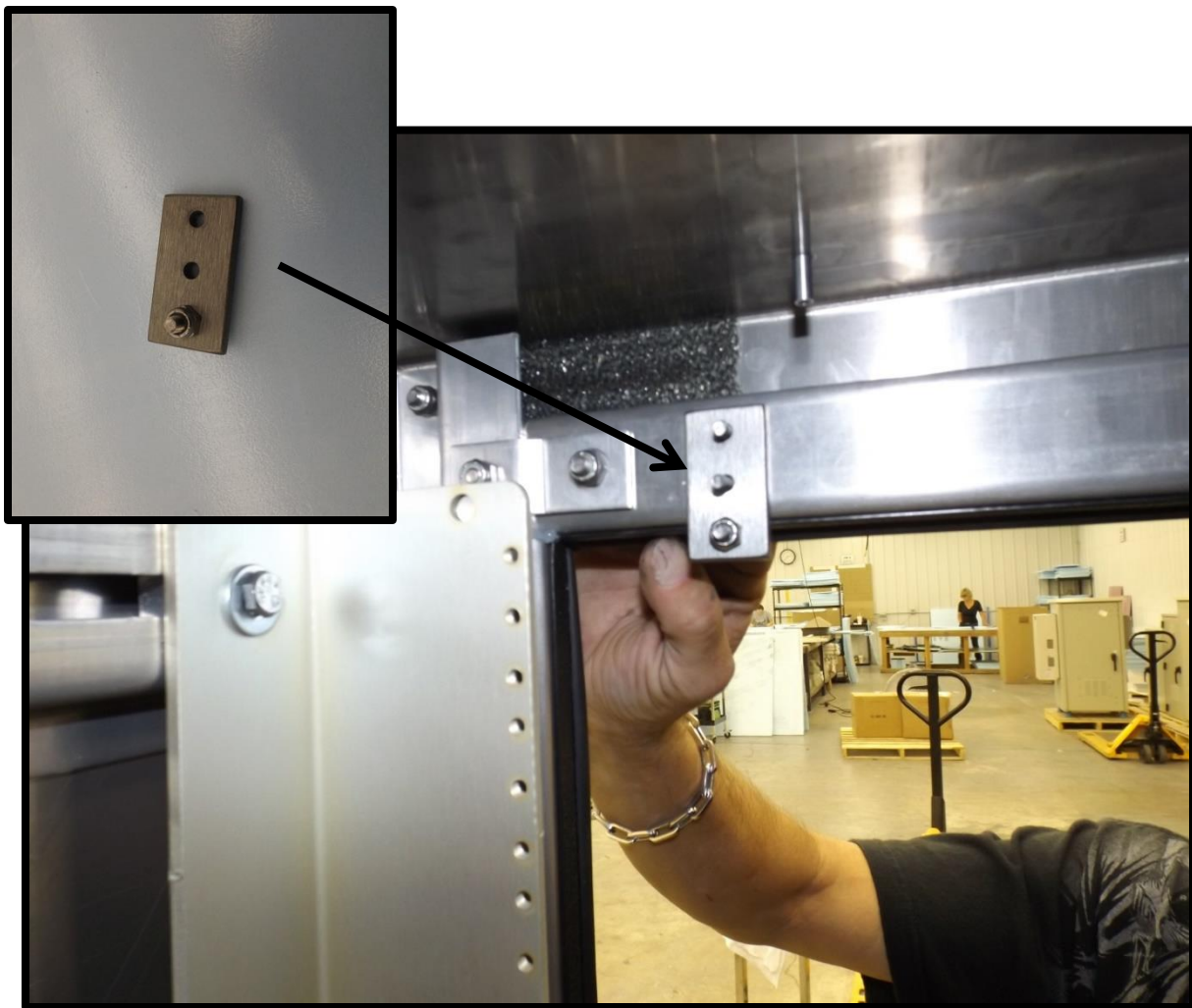


INSTALLING WINDLOCK MECHANISM

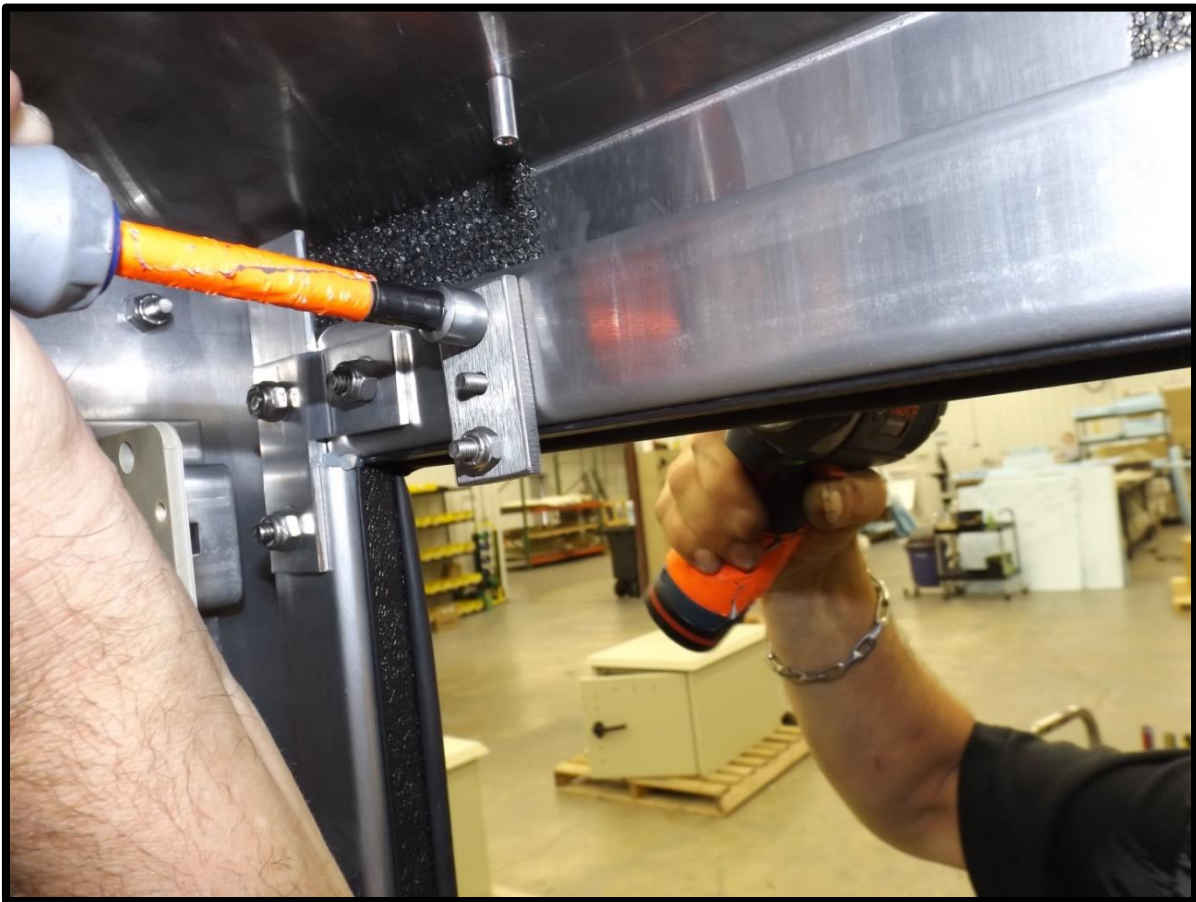
Loosen Nuts on Existing Bolts as
Shown Below



Install Bracket as Shown Below



Replace and Tighten Top Nut on Existing Bolt



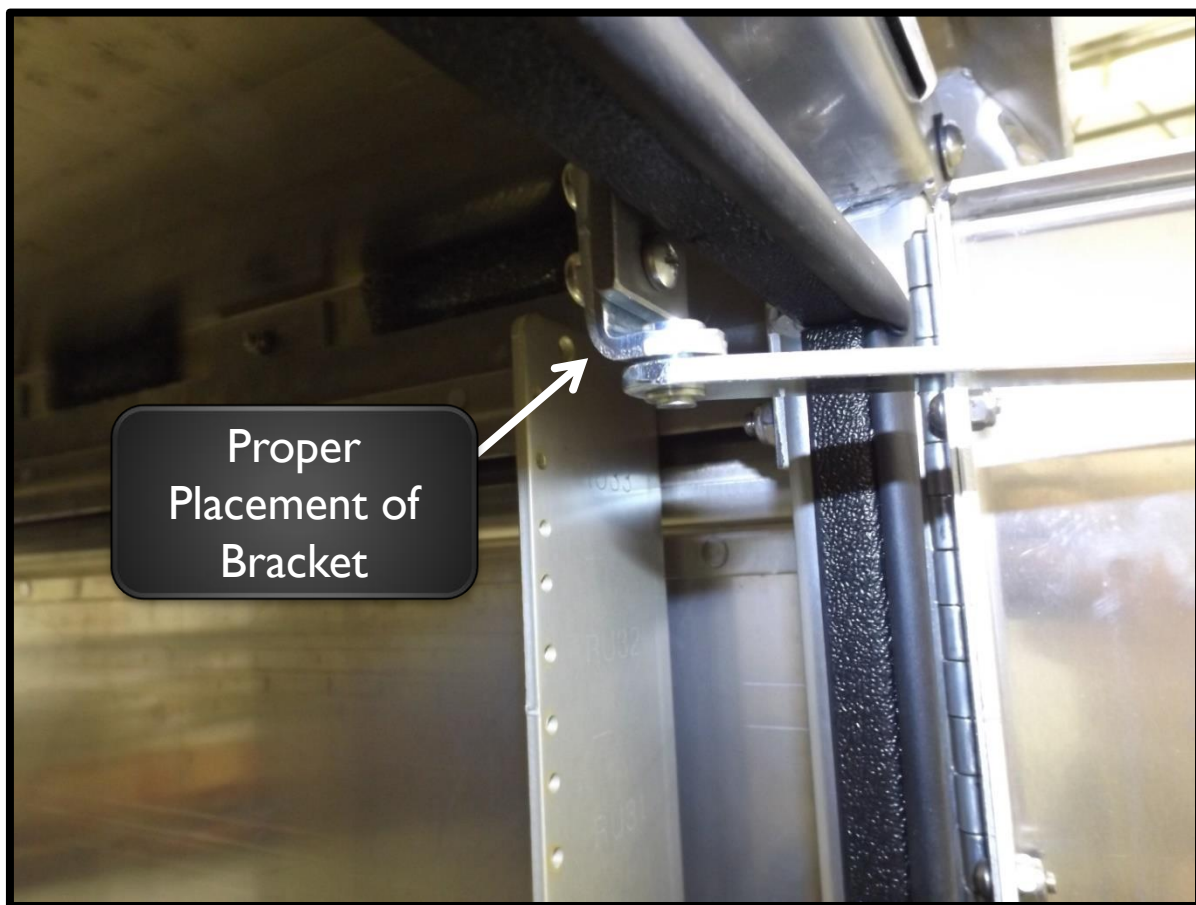
Remove Bottom Nut on Bracket



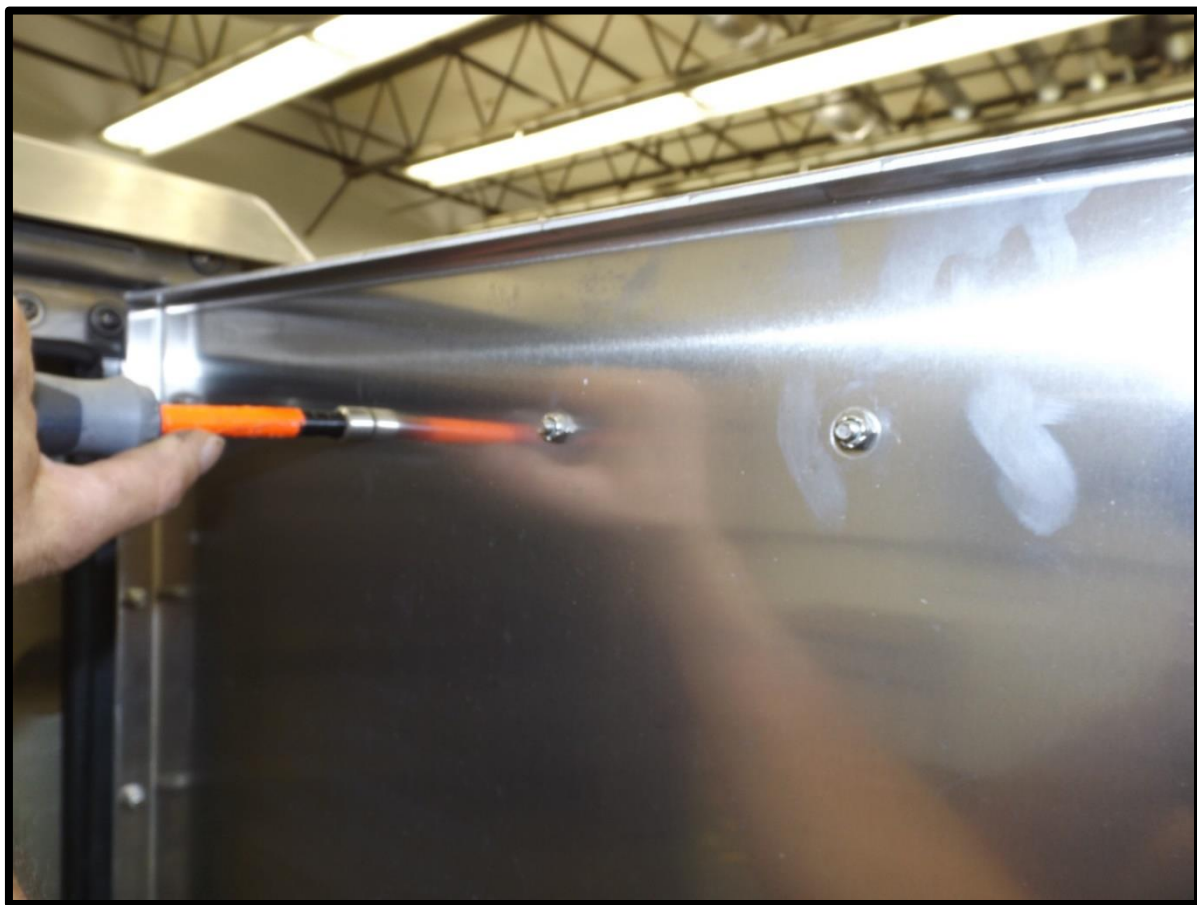
Place Wind Lock Rod as Shown on
Bottom 2 Bolts, Replace and Tighten
Nuts.



Note: Make Sure Bottom of L is Facing
the Outside of Cabinet as Shown
Below



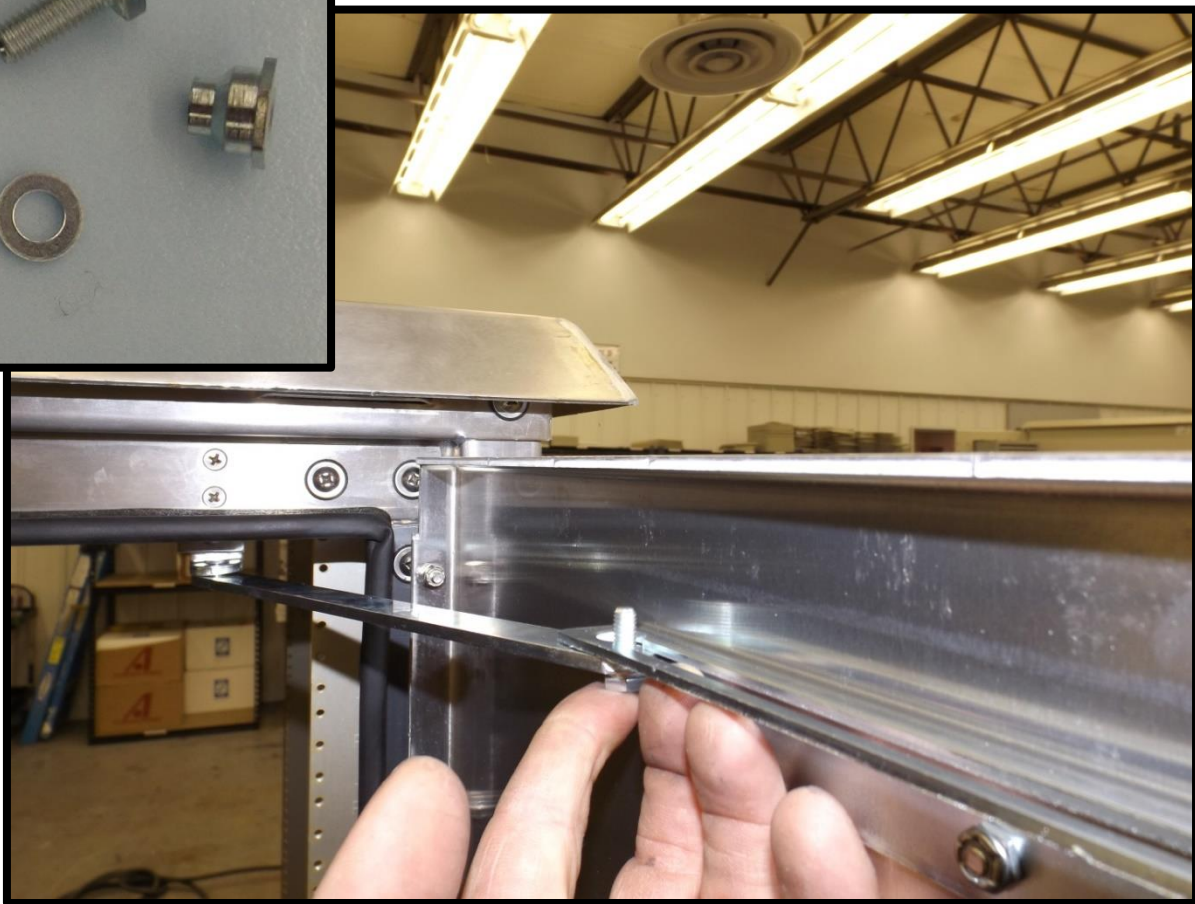
Loosen 3 Existing Bolts in Top-Middle of Door



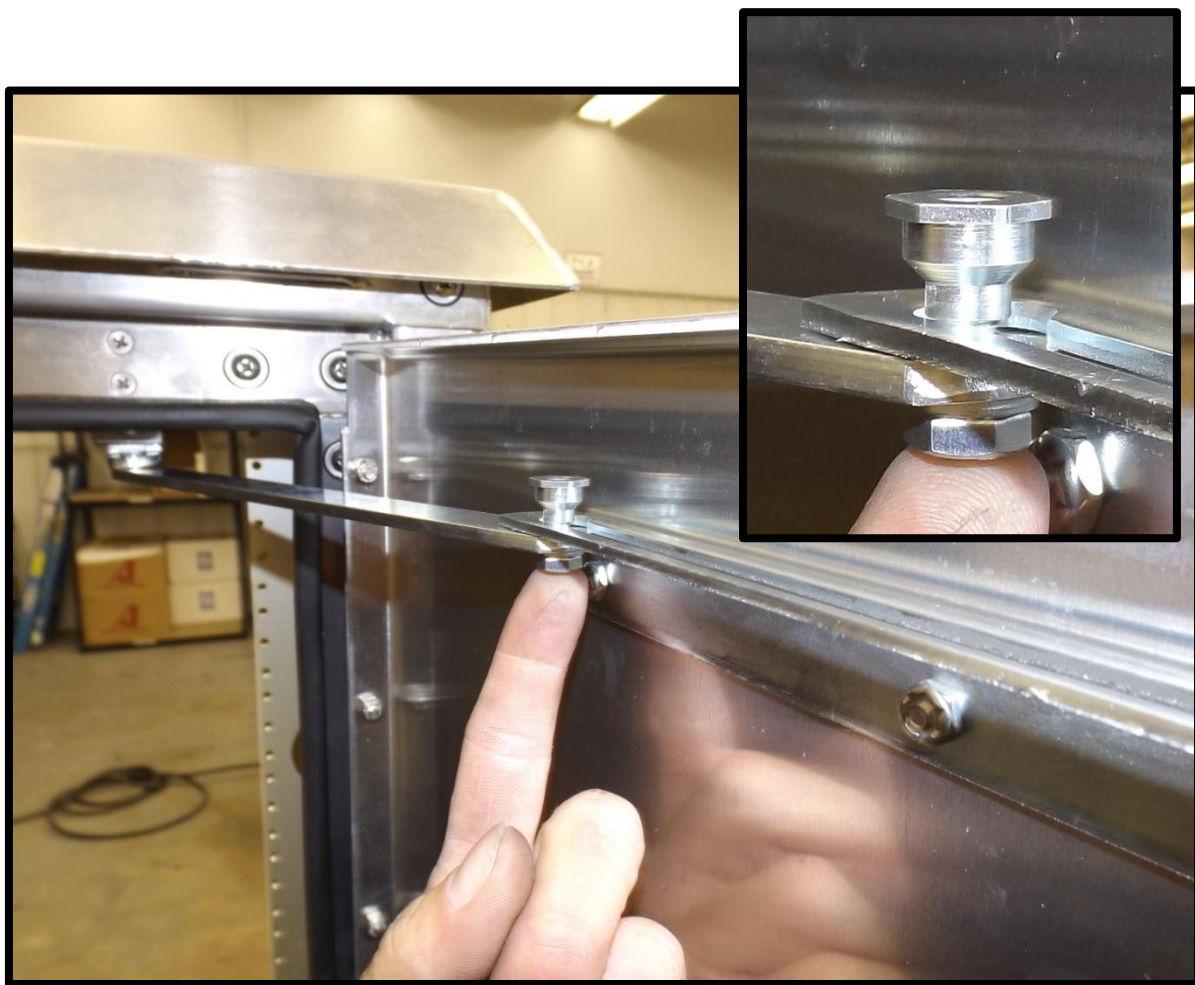
Place Bracket on Bolts as Shown
Replace and Tighten Nuts



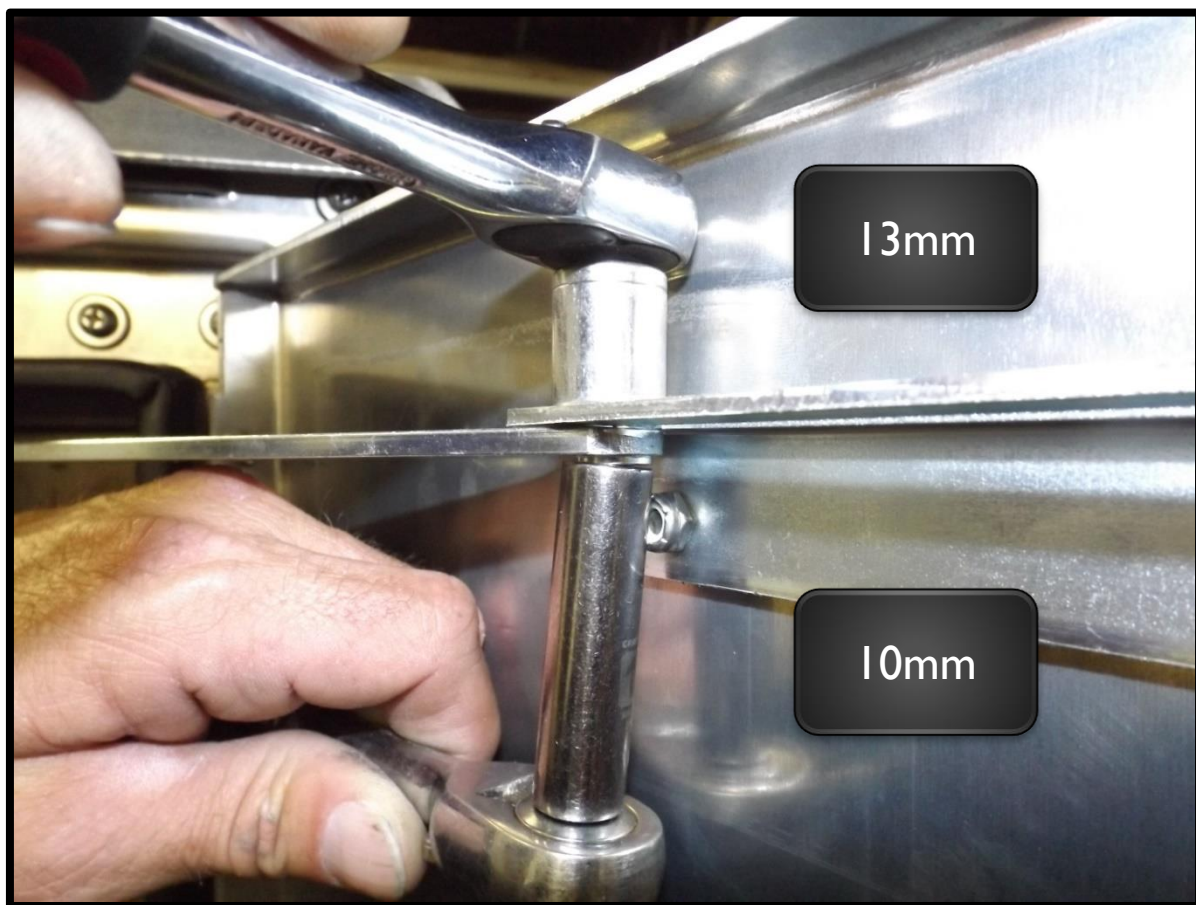
Place Washer on Bolt
Place Bolt Through Wind Lock Rod
and Through Door Bracket as Shown
Below



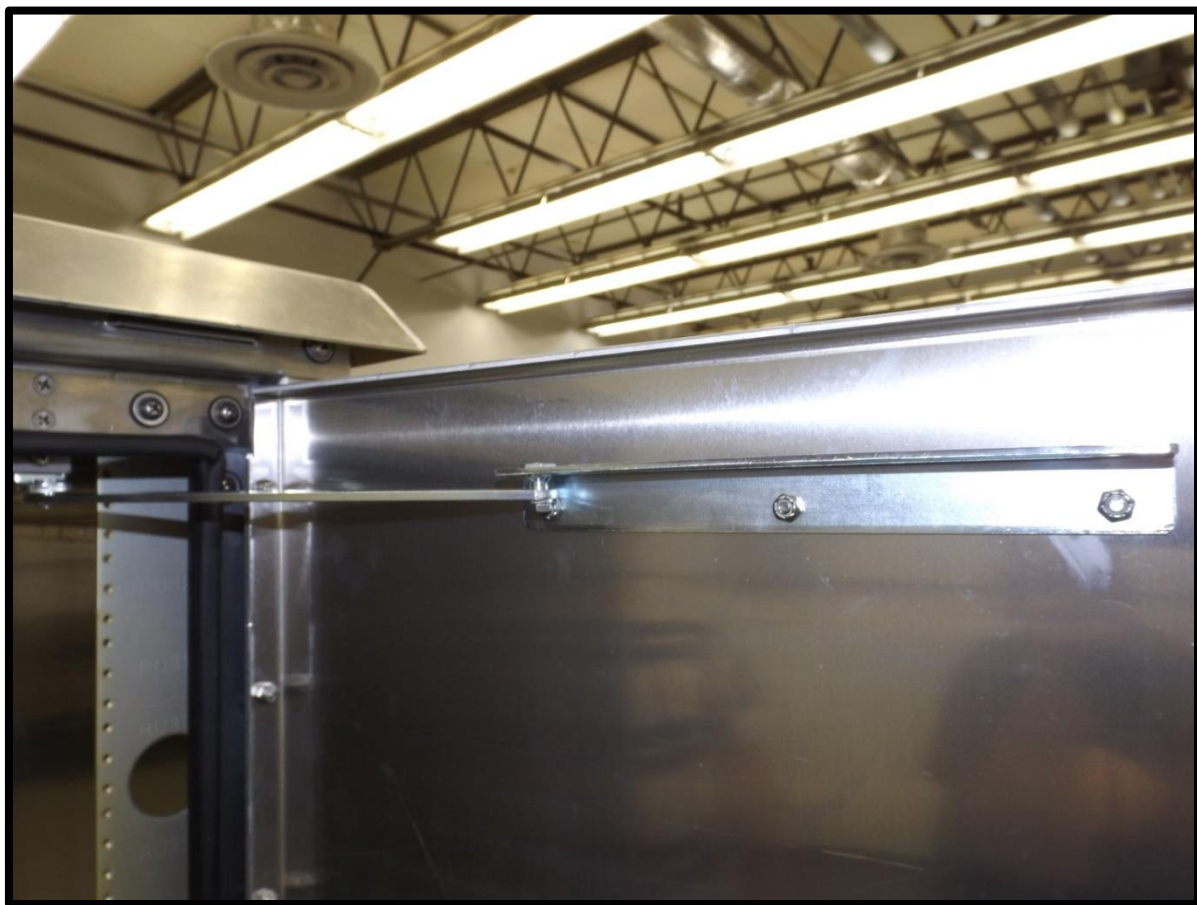
Place Nut on Bolt as Shown Below



Tighten as Shown



Your Wind Lock is Now Installed



For any questions or concerns regarding this manual, please contact our experienced Account Managers at the number below.

DDB Unlimited, Inc.

Sales@ddbunlimited.com

- 1-800-753-8459 Toll Free
- 405-665-2876 Local