

Installation Instructions

Silent Sentry Hardwire Series

SSH, SHCS

BEFORE YOU BEGIN:

Read these instructions carefully before attempting to install this product.

- **IMPORTANT** — Save these Instructions for local inspectors use.
- **IMPORTANT** — Observe all governing codes and ordinances.
- **Note to Installer** – Be sure to leave these instructions with the end user.
- **Skill Level** – Installation of this appliance requires basic mechanical skills.
- **Completion time** 3 – 4 hours.
- Proper installation is the responsibility of the installer?
- Product failure due to improper installation is not covered under the warranty.
- This product should not be altered in anyway without manufacturer's consent.

FOR YOUR SAFETY:

- Be sure all hardwire electrical connections are done by a certified electrical contractor.
- Be sure the power system is securely fastened to a solid structure.
- Take special care when working with battery cables, connectors & terminals to make sure they are never short circuited.
- Always wear protective eye, hand and footwear while assembling this system and installing it's batteries.

Prepare to for the Installation

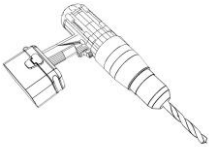
Needed Tools:



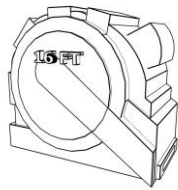
Gloves



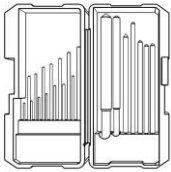
Wrench



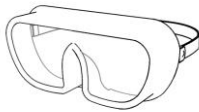
Screw
Gun/Drill



Tape
Measure



Drill Bit
Set



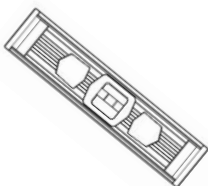
Safety
Glasses



Stud
Finder



Pencil



Level



Phillips Head
& 1/4" Hex Bit

Parts & Supplies Provided:

Sheet Metal Screws

Top and Bottom Rail

1/4 20 Screws

Flip Toggle Fasteners & Bolts

Fender Washers

Battery Bolts

Battery Cable Set

User Manuel & Testing Guide

1/2" Snap Wire Connectors

Pre-Installation:

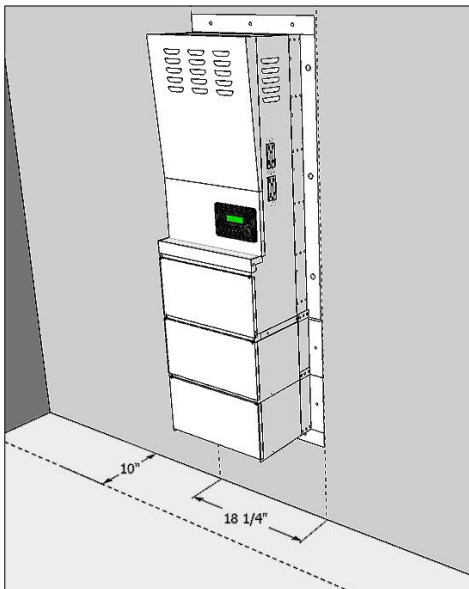
PRE-INSTALLATION STEPS:

1) Prepare your Wall:

Identify the area on the wall where you will be mounting the Silent Sentry system.

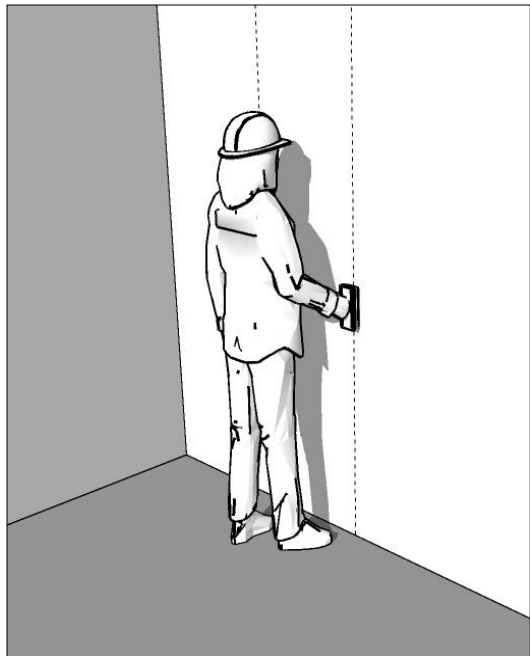
Check all measurements to ensure there are no obstructions. You will need a space that is minimum 18 1/4" wide and 10" clearance away from the wall.

The necessary height requirement varies with each model, check your unit's spec sheet for this information.



The space directly in front of the unit will need to be accessible to remove the unit's access panel covers and for future servicing.

Locate and mark the wall studs directly behind the intended location where the unit will be mounted using a stud finder.

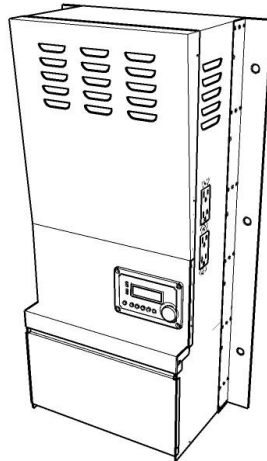


It's important that your unit is fastened to at least 1 sturdy wall stud, preferably 2 if possible.

2) Un-Wrap Unit & Prepare for Mounting

Units larger than 1200 Watts (SACS20XX, SACS31XX, SACS40XX, SACS44XX) Only:

a) Unwrap the Battery Box & Upper Cabinet:

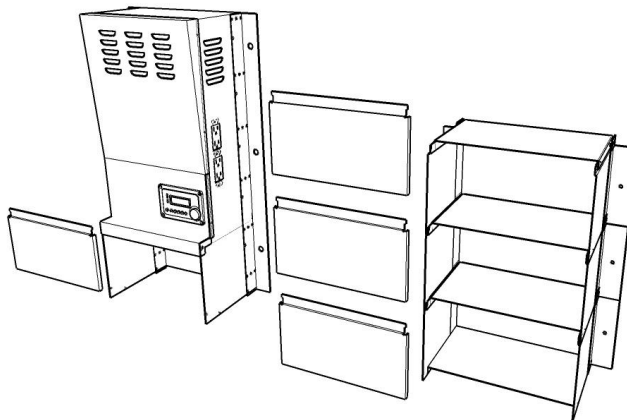


Upper Cabinet



Empty Battery Box

b) Remove the Battery Box Covers using the 1/4" hex driver. Each cover has 2 screws one on each side.

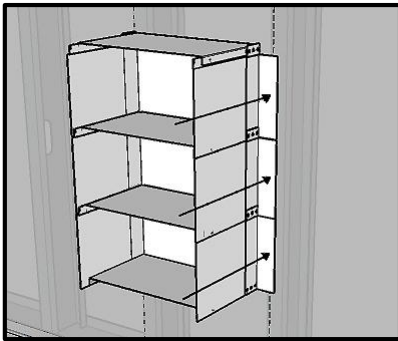


In the top upper battery compartment you will find these installation instructions, users guide and hardware. Because the covers overlap you will need to remove the top one first.

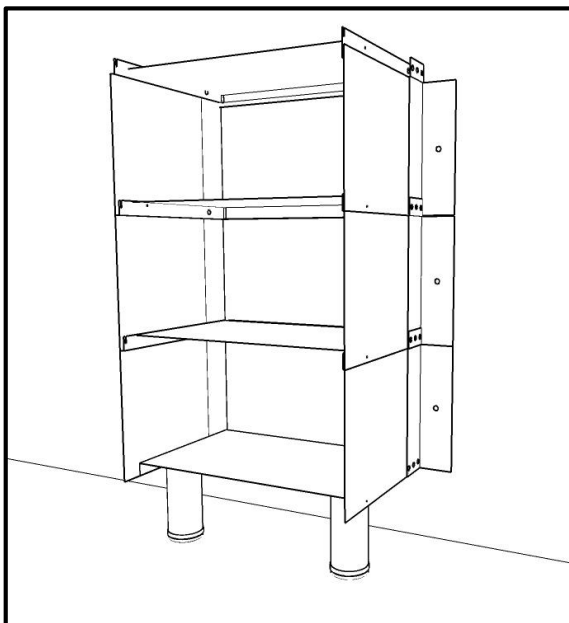
3) Mounting the Unit

Surface Mounting

Hold the battery box up to the wall and mark each mounting hole. If possible, be sure that at least one of the side rails is lined up with a wall stud (ideally attach to 2 wall studs whenever possible).

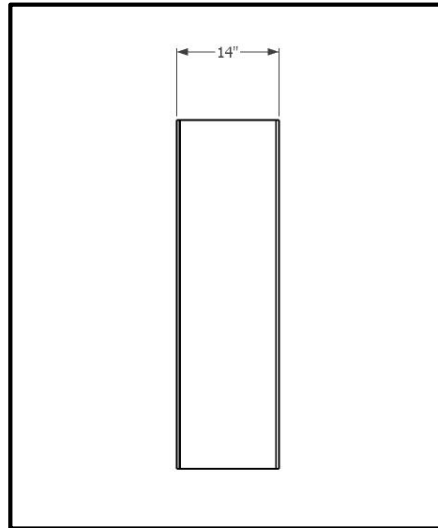


For units with 3 or more batteries, we recommend supporting the unit's weight on the unit's feet on the floor as shown:

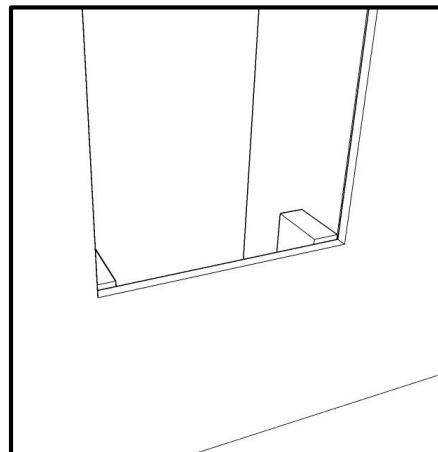


Recessed Mounting

Cut out the sheetrock between 2 wall studs 14" wide, and to the height of the power system. The height will vary with the depending on the model.



Cut and install bracing blocks that will span between the wall sill plate and the bottom of the rectangular cut out. Secure these blocks in place as shown. These supports will carry the weight of the power system.

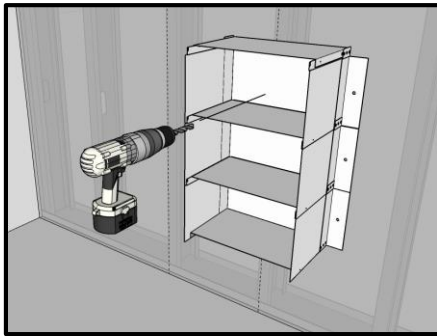


4) Mounting the Unit:

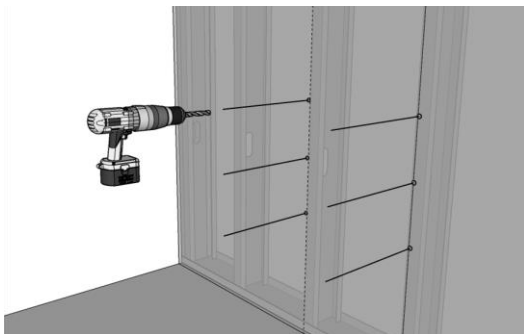
Surface Mounting

Note:

If the area restricts the possibility of lining up the mounting flanges with the wall studs, remove each battery box cover and drill a 5/16" hole in each compartment thru the rear of the cabinet in a location that lines up with a stud. **(in addition to marking each hole on the mounting flanges)**

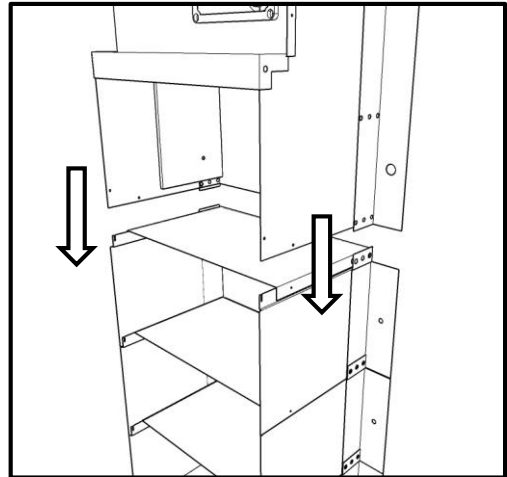


For installations that involve securing to metal studs, drill out the marked-out holes using a 1/2 inch drill bit.

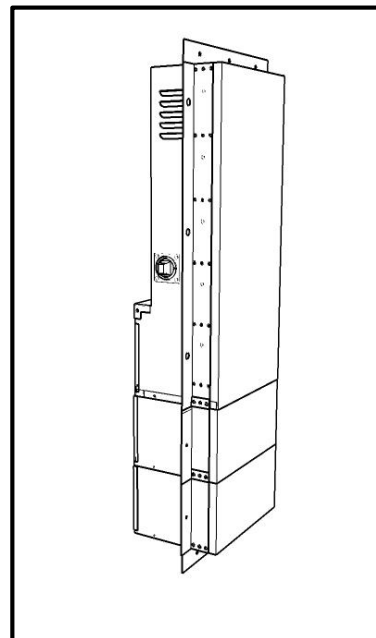


Recessed Mounting

Make sure the unit is fully assembled prior to installing into the wall, attaching the upper cabinet to the lower cabinet.



If the flanges are not already set up for reverse mounting, reverse them around are installed as shown:



5) Mounting & Securing the Cabinet

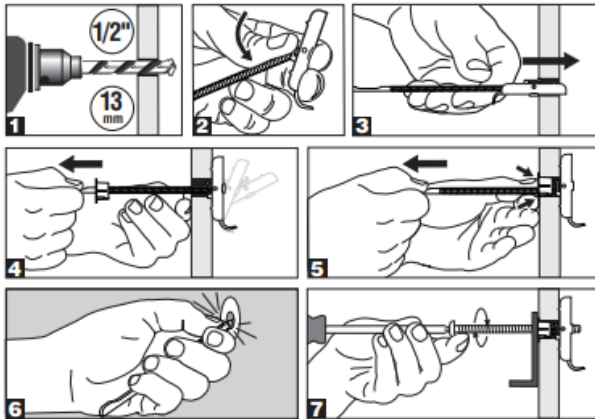
Surface Mounting

Note: For installations that involve wood studs, predrill the marked holes with the appropriate bit for 3/8" lag bolts.

Install the provided wall fasteners thru the 1/2" holes securing the toggle nut plate to the metal stud as shown:

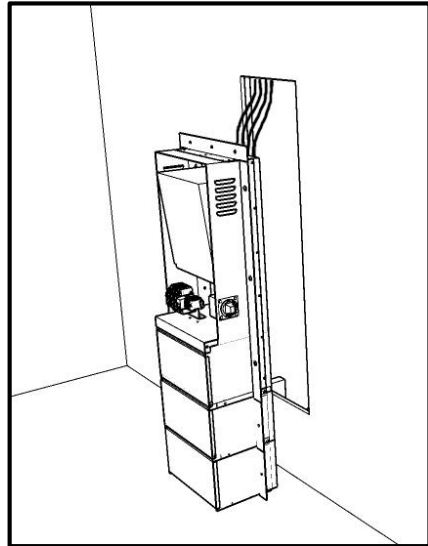


When fastening to the metal stud, it is important that the toggle plate be positioned horizontal and that your hole is positioned in the center of the stud.

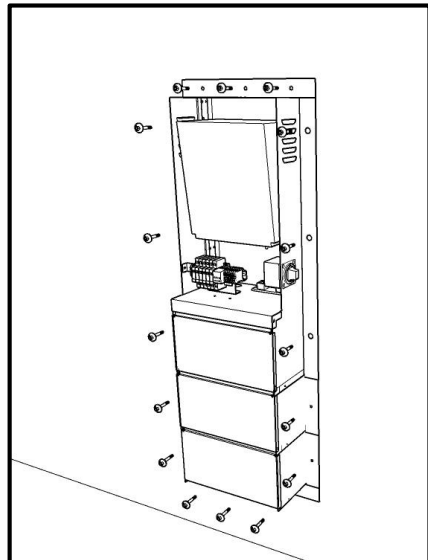


Recessed Mounting

Feed the Input & Output Cables into the knockouts at the top of the cabinet using the 1/2" snap wire connectors provided.



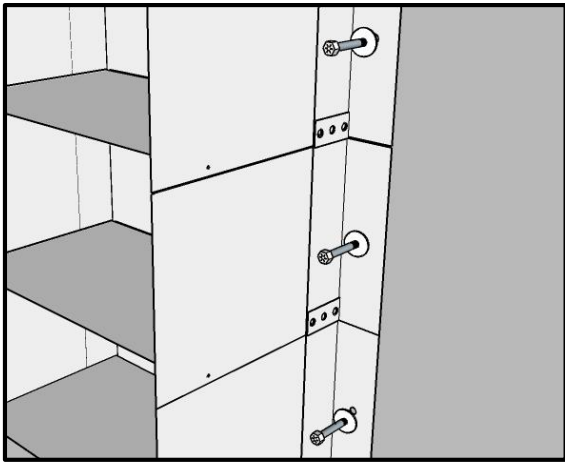
Set the system in the wall and fasten to the wall studs on each side with the provided fasteners. (refer to the fastener instructions on the left side of this page)



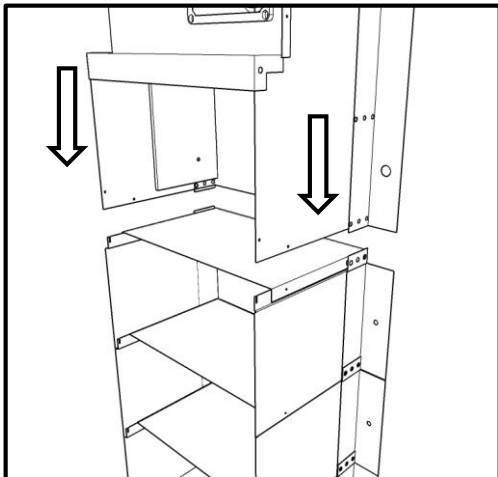
6) Mounting & Securing the Cabinet

Surface Mounting

Once the wall fasteners are all in-place, secure the cabinet to the wall using the 1/4 -20 anchor bolts with the fender washers:



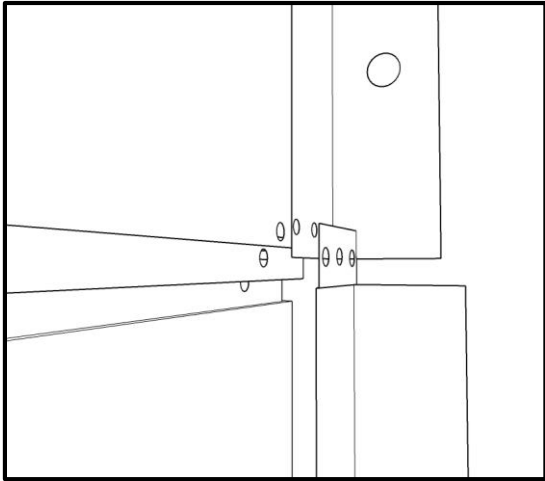
Once the battery cabinet is securely fastened place the upper cabinet onto the lower cabinet. The upper cabinet will be supported with the temporary wooden installation support.



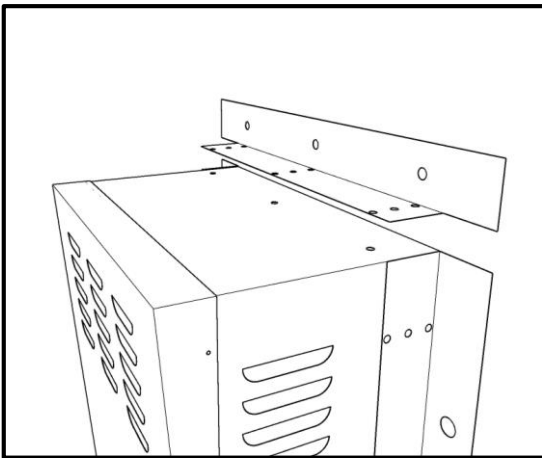
7) Installing the Upper Cabinet

Surface Mounting

The upper cabinet shell should surround the outside of the top battery box shelf but be positioned behind the top ear of the side angle bracket as shown:



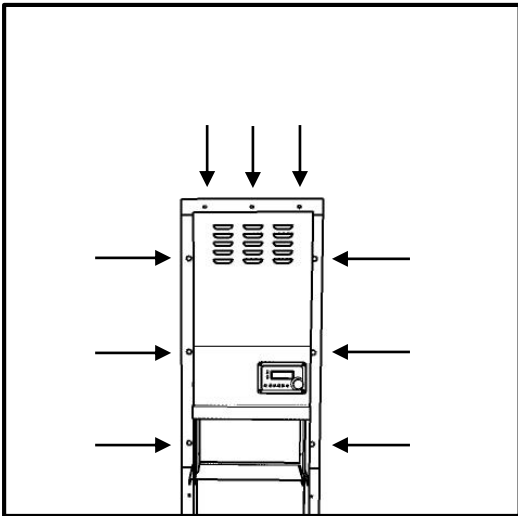
Install the top angle bracket to the upper cabinet.



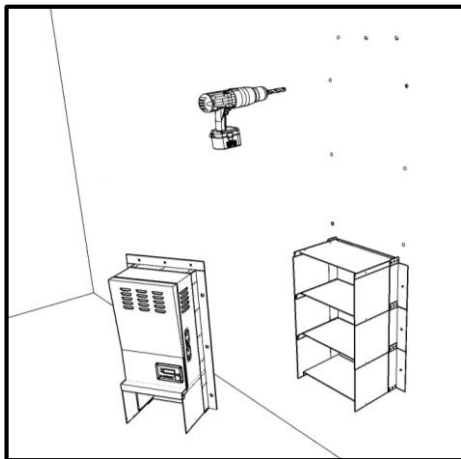
8) Fasten the Top Cabinet

Surface Mounting

Mark the wall where the 6 mounting holes are located along each sides of the upper cabinet mounting angles, and the 3 holes along the top mounting angle.



Remove the top cabinet, set it aside while you drill each of the 9 marked holes with a $\frac{1}{2}$ " drill bits.

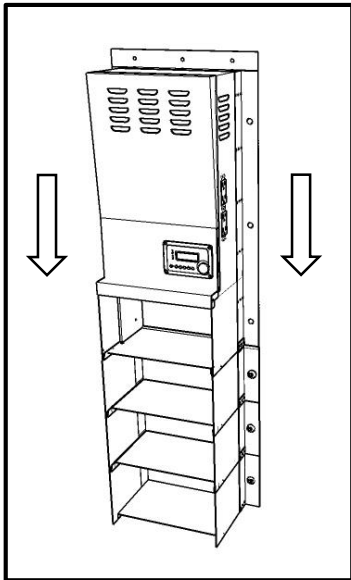


Install the wall toggle fasteners in each $\frac{1}{2}$ " hole securing them to the metal studs.

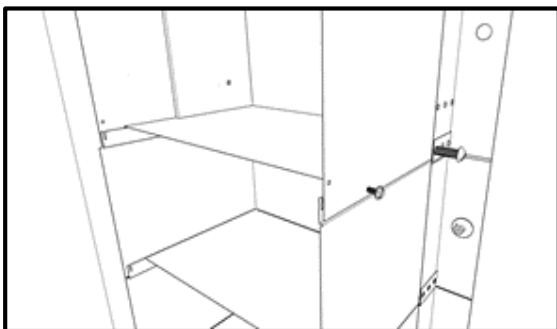
9) Figure Upper Cabinet :

Surface Mounting

Re-Position the upper cabinet onto the lower cabinet.



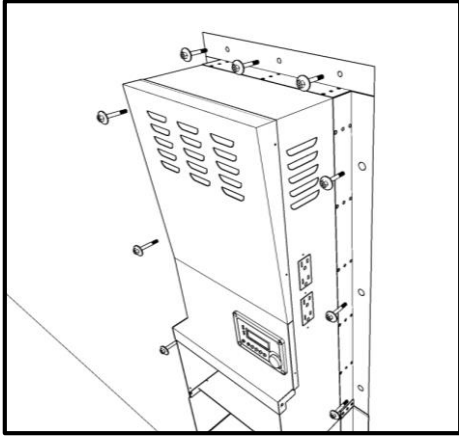
Install the 2 $\frac{1}{4}$ -20 Philips pan head bolts and 2 # 8 self drilling sheet metal screws on each side of the cabinet securing the upper lower cabinet to the lower cabinet.



10 Complete Cabinet Installation:

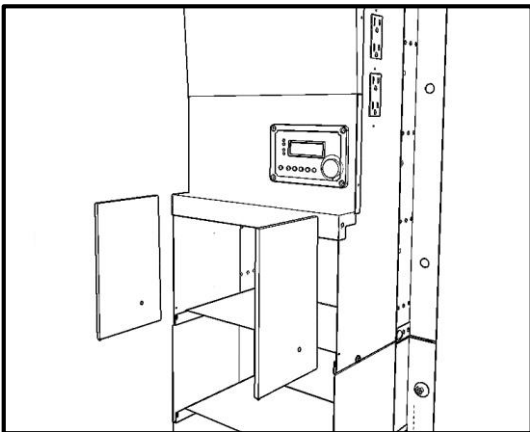
Surface Mounting

Finish securing the upper cabinet to the wall using the 9 3/8" anchor bolts,



If Necessary: Also mark out the bottom rail. This is only necessary if the unit is mounted high enough that the bottom edge is visible. In order to do so you will need to drill 1/8" holes and use the self driller screws to fasten it to the bottom battery shelf.

Remove and discard the Installation Blocks.

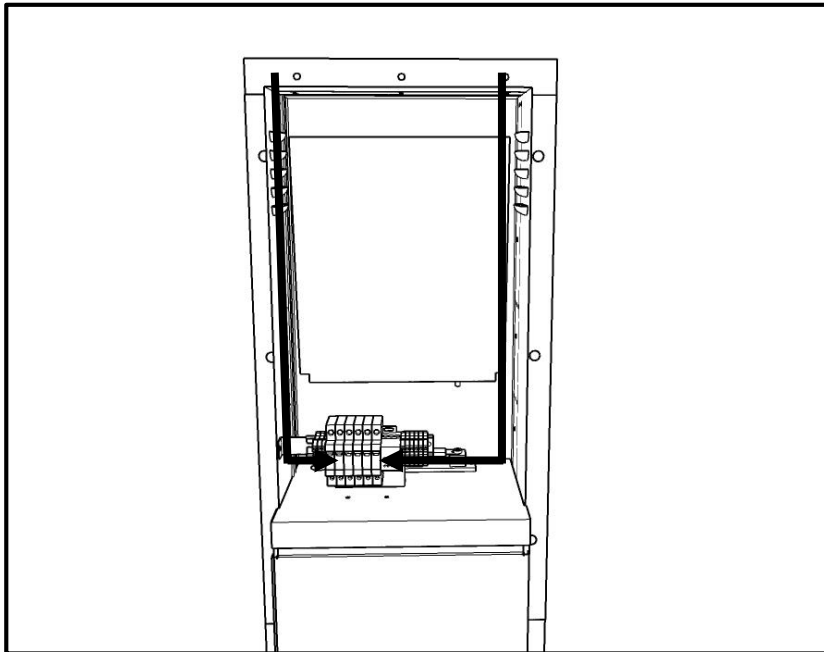


Now that the full cabinet is secured in place, it is now time to install the batteries.

11) AC Input and Output Wiring

System Wiring:

Run the input and output wires down each side of the inverter to the center terminal block as shown:



Wiring Configurations:

Input / Output Circuits:

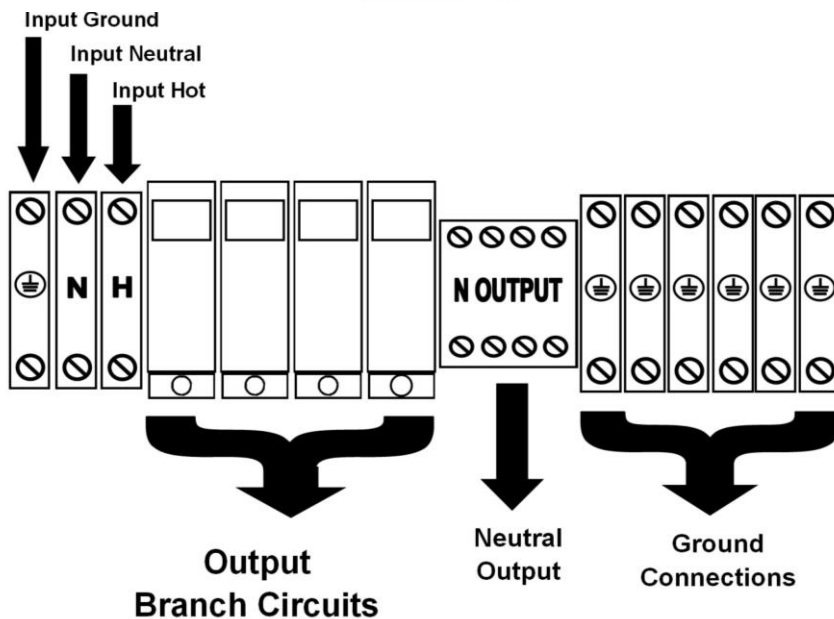
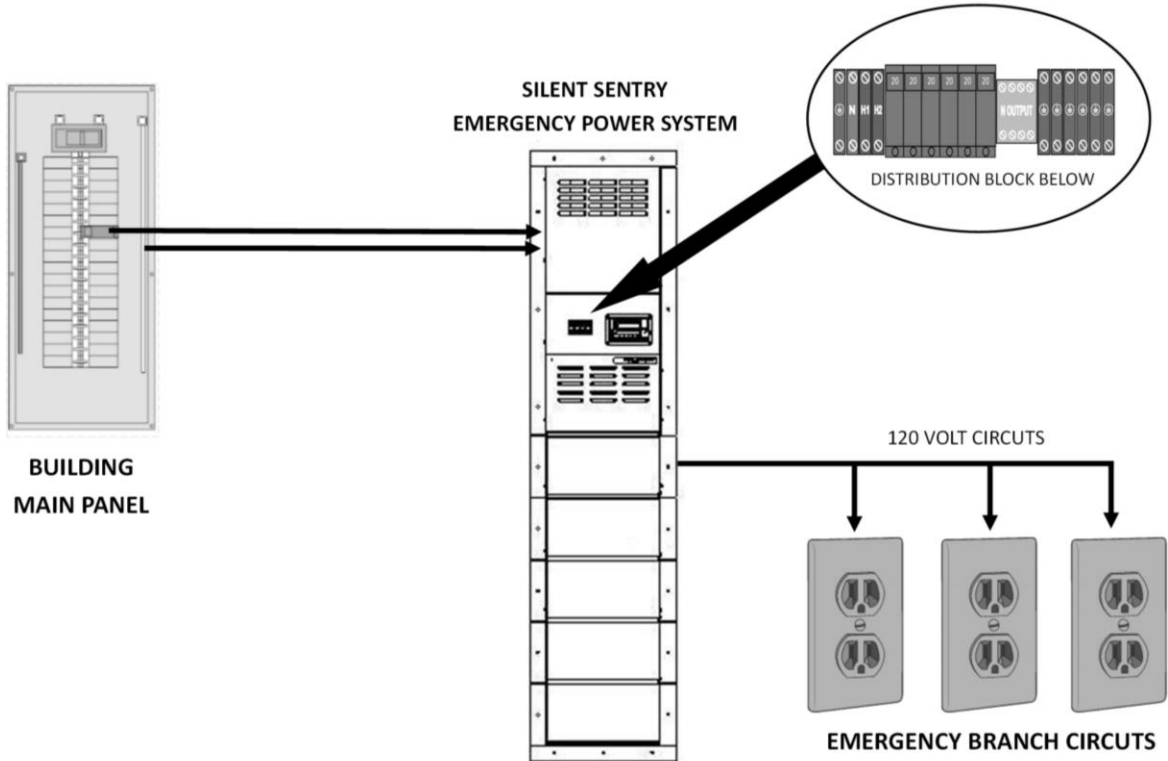
The input circuit must be a dedicated line. The size of this dedicated line is as follows:

System Wattage	Input Voltage	Input Circuit Size
2000	120	20
3100	120	20
4000	120 or 240	30
4400	120 or 240	30
8800	120 or 240	60

12) AC Input and Output Wiring

Input Wiring:

120 Volt Wiring:



13) AC Input and Output Wiring

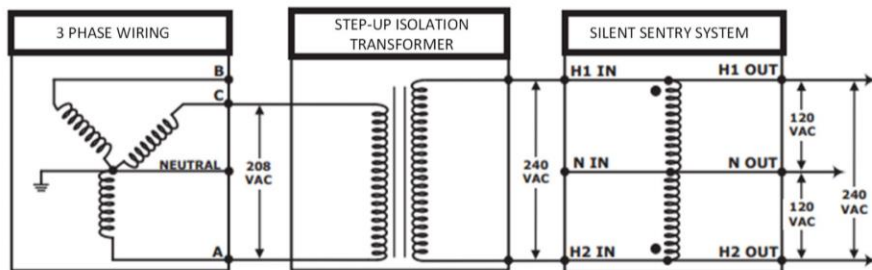
Input Wiring 3 Phase Power:

If the origin of the input power is 208 volts 3 phase, the system can **only** be powered by one of the following methods: one hot (120 volts) or using an isolation transformer inline when 2 hots (240 volts). **This will avoid having a phase mismatch which will cause damage to the unit's inverter.** Medi-Products does not supply this transformer, we recommend contacting your local electrical supply house and reference the Hamond model number below.

Use the following diagrams to power the unit for applications where 3 phase power is the origin of the input power:

NOTE: DO NOT POWER UNIT WITH 208 VOLTS

240 VOLT INPUT FOR 3 PHASE APPLICATIONS:

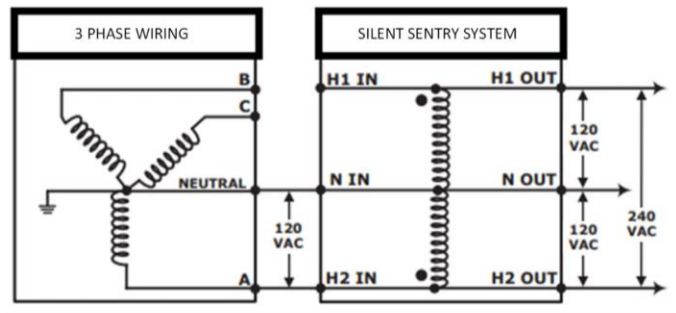


RECOMMENDED TRANSFORMER :

5KVA Hammond model C1F005GES

10KVA Hammond model C1F010GES

120 VOLT INPUT APPLICATIONS:

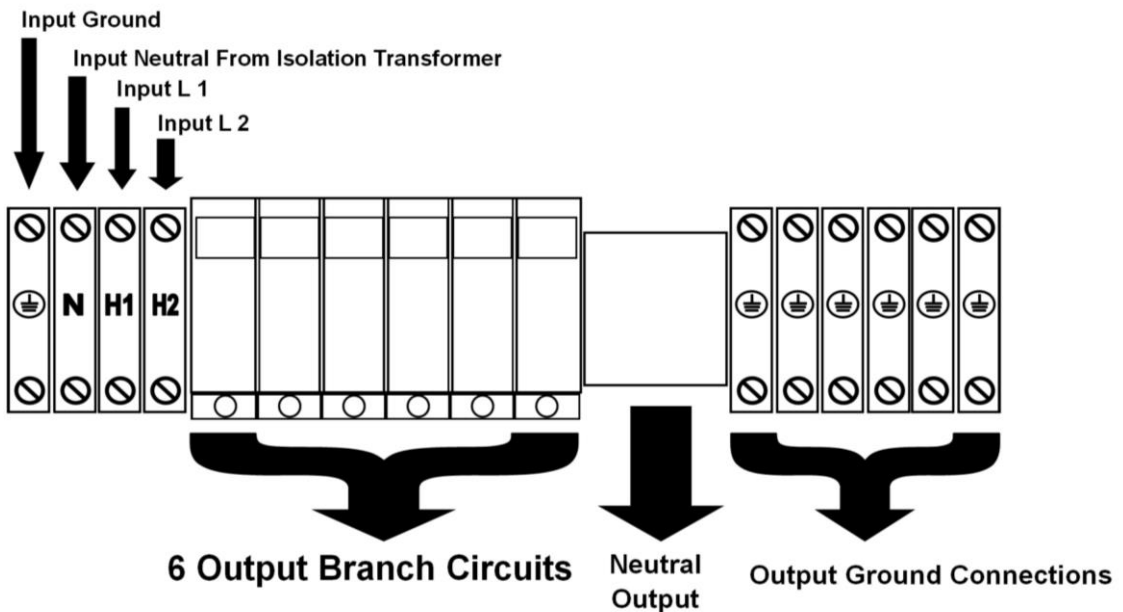
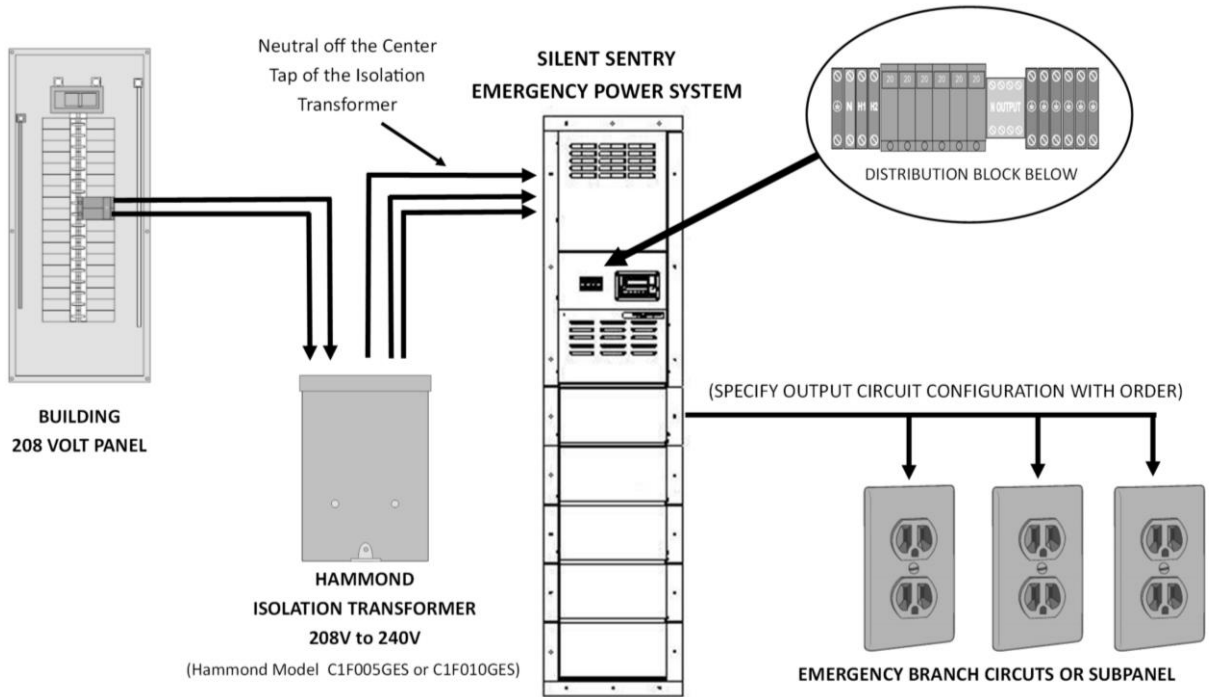


Single Breaker From Main Panel

14) AC Input and Output Wiring

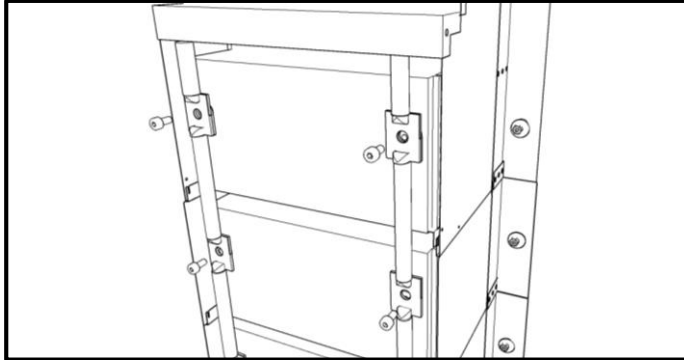
Input Wiring:

240 Volt Wiring:



15) Battery Installation:

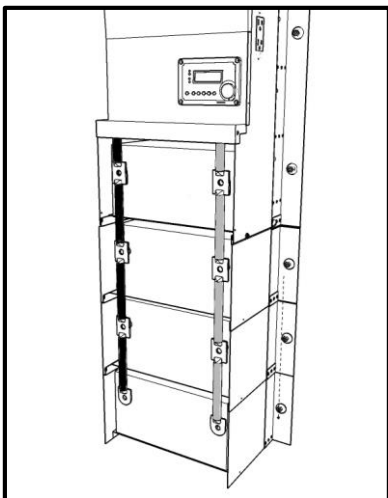
Note: You may experience a small arch while making the connecting the inverter cables:



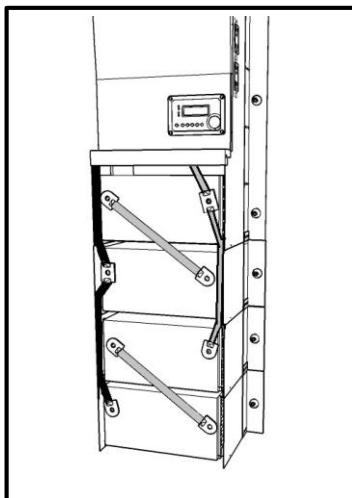
It is important that you install your battery cables correctly, 1200, 2000, and 3100-watt systems use a 12 volt configuration, 4000 watt systems use a 24 volt configuration and 4400 watt units use a 48 volt configuration.

Refer to following page to ensure that you install the batteries correctly:

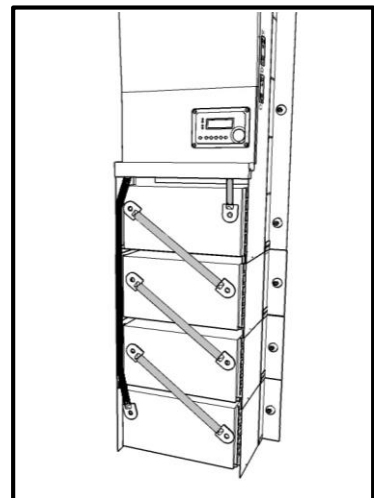
Battery Cable Configurations:



12 Volt



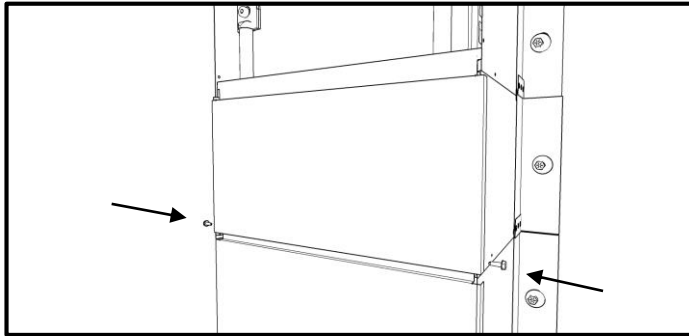
24 Volt



48 Volt

16) Battery Installation:

Reinstall the battery box covers, starting with the bottom cover first, reusing the #8 self drilling hex nut sheet metal screws.



You have now fully assembled the system; you will need to test it. Please refer to the User and Testing Guide and follow the Startup and testing procedures.

