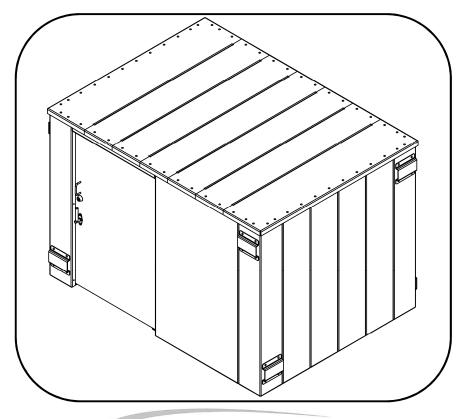
www.ESP.swisherinc.com

OWNER'S MANUAL SR114X84G



Starting Serial #: L117-001001

Patent No. 9,644,420





Smergency Security

FEMA P-320-2014 Fourth Edition ICC 500-2014 FEMA P-361-2015 Third Edition

# PREPAREDNESS SAFETY SHELTER.

SWISHER ACQUISITION INC. 1602 CORPORATE DRIVE, WARRENSBURG, MISSOURI 64093 PHONE 660-747-8183 FAX 660-747-8650 Made In The

USA
of US and Global Parts

1/29/2021

### **Near-Absolute Protection**

"Having a safe room in your home or small business can help provide <u>near-absolute</u> <u>protection</u> for you and your family or employees from injury or death caused by the dangerous forces of extreme winds. Near-absolute protection means that, based on our current knowledge of tornadoes and hurricanes, the occupants of a safe room built and installed according to the guidance in this publication will have a high probability of being protected from injury or death." FEMA P-320 (2014)

### **Lifetime Storm Damage Replacement Benefit**

For the life of this product and to the original purchaser, the manufacturer will replace any structurally damaged components (excluding accessories) of the Safe Room resulting from a NOAA (National Oceanic and Atmospheric Association) confirmed tornado missile impact. This replacement benefit does not include labor to replace the components, cosmetic damages to any surface, or shipping. For this benefit to be valid this Safe Room must have been properly installed (or if moved properly reinstalled) per all the manufacturer's guidelines, and affixed with a valid NSSA (National Storm Shelter Association) Type 4 Seal (for its current location) which was obtained from the manufacturer. This replacement benefit is not transferable to anyone beyond the original purchaser.

To obtain this benefit, the owner of the Safe Room must also allow the Manufacturer (or its representative) onsite to inspect the structurally damaged components if requested. The owner must also agree in writing to allow manufacturer to take photographs of the Safe Room and to use these photographs and story for marketing purposes at its sole discretion.

In the event you have a claim under this benefit, you must notify the manufacturer in writing either via US mail or electronic mail. All transportation charges, damage, or loss incurred during transportation of parts submitted for replacement or repair under this benefit shall be borne by the purchaser. Should you have any questions concerning this benefit, please contact us toll-free at 1-800-222-8183. The model number, serial number, date of purchase, NSSA Type 4 Seal Number and the name of the authorized dealer from whom you purchased the product will be needed before any benefit claim can be processed.

To maintain this replacement benefit the original owner must perform the following:

- 1. During installation the original owner must follow all manufacturer's installation guidelines, checklists and inspection requirements as needed to obtain the NSSA's (National Storm Shelter Association) Type 4 Seal which is outlined here:
  - a. This tornado safe room was designed, tested and manufactured by a Producer Member of the National Storm Shelter Association (NSSA) in accordance with FEMA, ICC, and NSSA requirements, but may have been assembled and/or installed outside of the control of the Producer Member. The manner, in which this safe room is installed, including the foundation to which this safe room is affixed, is integral to the

successful performance of this product under extreme weather The manufacturer has provided detailed Installation Instructions, including an Installation Checklist and an Inspection Checklist. Installation must be in strict accordance with these instructions. The National Storm Shelter Association (NSSA) and the Producer Member recommend that the owner or their representative arrange for inspection by a Qualified Inspector immediately upon installation of this shelter. A Qualified Inspector is defined as either a local building inspector or the authority having jurisdiction where the safe room is installed, a registered architect, a professional engineer, a licensed professional inspector, or the NSSA Producer Member or his qualified safe room installer or qualified technical representative. The Inspector should complete the Inspection Checklist, and this Checklist should be returned to the Producer Member. Upon receipt of the completed Checklist, the Producer Member will issue a Type 4 NSSA Seal to affix to the shelter to confirm that the shelter meets all FEMA, ICC, and NSSA standards. We encourage you to contact the manufacturer of this shelter with any questions that you may have.

b. If the original purchaser removes the Safe Room from its originally installed location all warranties and benefits are immediately null and void. However, if the original owner follows all the required installation, inspection and certification procedures at the new location then the replacement benefit can be reinstated.

FAILING TO FOLLOW ALL THE INSTALLATION, INSPECTION AND DOCUMENTATION PROCEDURES REQUIRED TO OBTAIN THE NSSA TYPE 4 SEAL THE SAFE ROOM MAY NOT DELIVER THE NEAR-ABSOLUTE PROTECTION IT WAS DESIGNED TO PROVIDE AND WILL MAKE ALL BENEFITS PROVIDED TO THE PURCHASER UNDER THE LIFETIME STORM DAMAGE REPLACEMENT BENEFIT NULL AND VOID.

### 5 Year Manufacturer's Limited Warranty

The manufacturer's limited warranty to the original consumer purchaser is as follows: The Safe Room is free from defects in materials and workmanship for a period of five (5) years from the date of purchase by the original consumer purchaser. The manufacturer will repair or replace, at its discretion, parts found to be defective due to materials or workmanship only.

To exercise this limited warranty the owner must allow the manufacturer (or its representative) at its discretion to inspect the Safe Room onsite. Failure to allow this inspection will void the warranty. Upon inspection, the manufacturer will determine if the damaged or malfunctioning components will be repaired or replaced.

### **Limitations and Exclusions**

This limited warranty is subject to the following limitations and exclusions:

- 1) Limitation This limited warranty applies only to products which have been properly assembled, adjusted, and operated in accordance with the instructions contained within this manual. This limited warranty does not apply to any product that has been subject to alteration, misuse, abuse, improper assembly or installation, shipping damage, or to normal wear of product. This limited warranty does not apply to damage caused by any act of man or any natural event.
- 2) Exclusions Excluded from this limited warranty are: Normal wear, normal adjustments, and normal maintenance. Small damage to the powder coat finish that may have occurred during shipping, installation, or from normal wear and tear. To reduce the likelihood of rusting, the owner should repair any damage to the powder coat finish as soon as possible. This limited warranty is not transferable to anyone beyond the original purchaser.

In the event you have a claim under this limited warranty, you must notify the manufacturer in writing either via US mail or electronic mail. All transportation charges, damage, or loss incurred during transportation of parts submitted for replacement or repair under this limited warranty shall be borne by the purchaser. Should you have any questions concerning this limited warranty, please contact us toll-free at 1-800-222-8183. The model number, serial number, date of purchase, NSSA Type 4 Seal Number and the name of the authorized dealer from whom you purchased the product will be needed before any limited warranty claim can be processed.

THIS LIMITED WARRANTY DOES NOT APPLY TO ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR ALL EXPRESSED WARRANTIES. Some states do not allow the limitation of consequential damages or limitations on how long an implied warranty may last, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights and you may have other rights, which vary from state-to-state. This is a limited warranty as defined by the Magnuson-Moss Act of 1975.

### **When Choosing a Location For Your Safety Shelter:**

- 1) Location of Shelter is at the minimum elevation of the lowest floor required by the floodplain ordinance of the community, or One Foot above the flood elevation corresponding to the highest recorded elevation if the area is not in a mapped special flood hazard area or is in a mapped nonparticipating community.
- 2) Shelter is located within the interior of a residence or located within 150 feet of the residence it is intended to serve. If located outside the residence, shelter is protected from all external weather conditions.
- 3) Do not locate the Safety Shelter over an expansion joint in the concrete slab.
- 4) Do not locate the Safety Shelter in a low or potentially wet area. If the Safety Shelter is allowed to sit in water or a damp area, damage may result that is not covered by the manufacturer's warranty.
- 5) Do not locate Safety Shelter closer than three (3) feet to any electrical or gas appliance.
- 6) Do not locate Safety Shelter where it will block access to any electrical panel or breaker box.
- 7) Do not locate Safety Shelter closer than 2" from any wall or structure. The side of the Safety Shelter you install the Lower and Upper Wall Panel Assembly should be far enough away from any wall or structure to allow a person to be able to safely walk between. A distance of at least 32" is recommended for wheelchair accessibility. See pgs 12 & 22 of this manual and the yellow Emergency Exit Instruction Sheet (PN 20056) for additional information.
- 8) Do not store any items in a manner that would block any of the Safety Shelter vents.

### **Operating and Safety Instructions**

#### **Safety Precautions**

- 1) Your ESP Safety Shelter has been designed and certified by Professional Registered Engineers and physically tested at Texas Tech University to ensure that it meets or exceeds FEMA P-320 Guidelines and the ICC-500 Specifications.
- 2) Your Safety Shelter also meets the standards set for by the National Storm Shelter Association (NSSA) and once properly installed can bear their Seal.
- 3) NEVER allow children to play in or around the Safety Shelter.
- 4) Keep the Safety Shelter locked at all times and place the keys out of reach of children but where they can be located quickly in case of emergency.
- 5) When closing door from the inside one hand must be on the long handle located on the door jamb and the other hand on the inside door handle. NEVER place hands on or near either edge of the door or the door jamb while closing the door. Failure to strictly follow this procedure could result in serious injury to the user.

- 6) NEVER attempt to attach any type of AC (alternating current) or high voltage lighting fixtures or appliance to the Safety Shelter without first consulting a licensed electrician and your local electrical codes. Failure to strictly comply with all applicable electrical codes could result in serious injury and/or death. Battery operated lights and appliances can be used inside the Safety Shelter.
- 7) NEVER store flammable materials or fuel in your Safety Shelter.
- 8) NEVER have an open flame in your Safety Shelter. An open flame could deplete the oxygen in the room and cause asphyxiation.
- 9) Keep a flashlight(s) or other battery operated lights inside the Safety Shelter. Check or replace the batteries in these lights twice per year.
- 10) Become familiar with your Safety Shelter and the operation of the door, so that in case of an emergency you can open and close it quickly and safely.
- 11) NEVER store any items in front of the Safety Shelter that would block access to the door in the event of an emergency.
- 12) Establish and practice a plan for all family members to meet and enter the Safety Shelter in case of an emergency. Practice the plan at least once a year.
- 13) When entering the Safety Shelter during a storm be aware that the floor may be wet and slippery from water entering the open door (depending upon the location).
- 14) You should always take a mobile phone with you into the Safety Shelter so you can contact emergency help if needed. However, if you forget your phone during a Tornado Watch or Warning do not leave the Safety Shelter to retrieve your phone.
- 15) Any time the National Weather Service issues a Tornado Watch or Warning for your area you should enter the Safety Shelter.
- 16) We suggest stocking your Safety Shelter with provisions and supplies so that it is ready when needed.

#### **Safety Shelter Periodic Inspection**

- 1) At least twice a year inspect the operation of the Safety Shelter.
- 2) Inspect the outside of the Safety Shelter for items blocking the door or any vents. Remove these items if found.
- 3) Unlock the Safety Shelter Door.
- 4) Slide the door to the fully open position. If the door does not slide freely look for obstructions behind the door or inside the door's overhead rail and remove. The bearings inside the door rollers are sealed for the life of the Safety Shelter and should not need lubrication.
- 5) Using a flashlight or lights inside the Safety Shelter move the door latch handle. Everything should move freely without binding. Adjust and/or apply light oil to all joints if necessary.
- 6) Close the door. In the closed position the latch must fully engage over the three latch pins (without force). If not, follow the procedures in the Installation Instructions for alignment of the door.
- 7) Turn the deadbolt to the locked position and attempt to unlatch the door with the knurled door handle. The handle should not move or in any manner unlatch the door from the three latch pins. If the deadbolt fails to prevent the handle from unlatching the door check the deadbolt lock for proper operation and engagement into the latch bar.
- 8) Relock the deadbolt and remove all three Latch Pins and the Locking Pin from the Door Jamb. The door should open freely for an emergency escape.
- 9) Reinstall the three Latch Pins, exit the Safety Shelter and close the door. Test that the door is fully latched onto the pins by pulling strongly on the door to the right. Lock the deadbolt and attempt to open the door by pulling on the Handle. If it does open follow the Installation Instructions for alignment of the door.
- Once a year check the torque on all anchor bolts to 40 ft-lbs and all other bolts in the Safety Shelter to 31 ft-lbs.

#### Safety Shelter Periodic Maintenance

- 1) To clean your Safety Shelter use warm water and a damp rag with dish soap. Thoroughly rinse with water and dry.
- 2) Solvents and harsh chemicals should NEVER be used on the Safety Shelter. They will damage the powder coat finish causing the metal to rust and will void the Warranty.
- 3) NEVER attempt to repair the Safety Shelter yourself. Call the manufacturer at 800-222-8183.
- 4) Once every year lubricate all moving joints on the door latch mechanism with light (3n1) oil.

#### **Safety Shelter Operation Instructions**

- 1) Children should NEVER be allowed to play near or in the Safety Shelter.
- 2) Your Safety Shelter can be used for many purposes: 1) As a Storm Shelter to provide near-absolute protection from wind blown debris during a Tornadic event or sever wind storm, 2) as a panic room or safe place of harbor during a home invasion or similar type event, and 3) as a vault to store valuable items. If used as a vault be sure that no items are placed in the Safety Shelter that would inhibit a person from using it as a Storm Shelter or Panic Room.
- 3) Be sure to store the keys to the Safety Shelter deadbolt out of reach of children but where an adult can get to it easily and quickly.
- To be ready for any type of event equip your Safety Shelter with a minimum list of supplies: first aid kit, weather radio (with extra batteries), ear plugs of the appropriate size and quantity for everyone expected to use the Safety Shelter, drinking water (approximately one (1) gallon per person), books and games to keep children occupied, extra flashlights (with extra batteries and suggest one flashlight for each person using the Safety Shelter). Be sure to also keep the supplied Wrench (item 32 on page 12) or similar tools, this manual and the yellow Emergency Exit Instruction Sheet in the Safety Shelter at all times. Other items could be included as deemed necessary.
- 5) Have a family meeting and make an emergency plan. Practice your plan once a year including entering and exiting the Safety Shelter. This will also allow everyone an opportunity to become comfortable inside the Safety Shelter.
- 6) You should always take a mobile phone with you into the Safety Shelter so you can contact emergency help if needed. However, if you forget your phone during a Tornado Watch or Warning do not leave the Safety Shelter to retrieve your phone.

- 7) Family members that are old enough to be left home alone should be trained on how to properly and safely use the Safety Shelter. A plan should be established and practiced just for them.
- 8) To prevent children from playing inside the Safety Shelter it is recommended that it remain locked at all times.
- 9) To enter the Safety Shelter unlock the deadbolt and remove the key from the deadbolt. Take the key with you into the Safety Shelter.
- 10) To open the door from the outside, rotate the handle to the right and pull the door from left to right. Slide the door all the way to the right until it is fully opened.
- 11) Enter the Safety Shelter and be sure everyone is accounted for.
- Be sure everyone is clear of the door. Place your right hand on the vertical handle on the door jamb. Then, grasp the round vertical Door Handle Bar (not the black knurled handle) with your left hand and pull the door closed to the right until it latches inside the door jamb and all three pins are engaged.
- To ensure the door has properly latched push the Black Knurled Door Handle to the right and visibly check that the latch bar is fully engaged over the three latch pins. Lock the Deadbolt lock by turning the key to the right. Grab the vertical door handle and pull back to the left to ensure the door is properly latched. If the door opens, repeat the previous steps above until the door latches to the jamb properly and all three latches pins are engaged.
- During a high wind event occupants <u>MUST</u> stay at least 3" away from the walls and door and remove all loose items from walls, shelves and other accessories by placing them on the floor to avoid potential injury from debris impact. If sitting on a bench, do not lean back against the wall during an event.
- In the event of a direct hit or damage outside, it is recommended not to leave the Safety Shelter until emergency personnel arrive to assist. There may be unforeseen hazards directly outside the Safety Shelter created by the storm that could cause serious injury or death. If you have a cell phone in the Safety Shelter with you call 911 and let them know your location. If you must exit the Safety Shelter prior to emergency personnel arriving, do so with extreme caution and be aware of all your surroundings.
- 16) You should also listen to your weather radio to determine when it is safe to leave your Safety Shelter. Just because the wind has slowed, does not mean it is safe to exit!

- To exit the Safety Shelter, unlock the Deadbolt, move the Black Knurled Door Handle to the left and slide the door open to the left. Exit the Safety Shelter to a safe location.
- 18) If for any reason any part of the door latching mechanism becomes damaged and inoperable causing the door to not open, there is a failsafe relief method to get the door open. There are three Latch Pins in the jamb. Remove the Cotter Pins from the back of these pins and then pull these three pins out of the jamb. The door will now open no matter how it is locked. This can only be performed from inside the Safety Shelter.
- In the unlikely event that the door or exit path beyond the door becomes blocked by debris, the Lower and Upper Wall Panel Assembly can be disassembled from the inside of the Safety Shelter using the supplied Wrench (PN 20075Y) or similar tools. See pgs 12, 22 and 26 of this manual and the yellow Emergency Exit Instruction Sheet (PN 20056) for additional information.

#### **Recommended Tools For Assembly:**

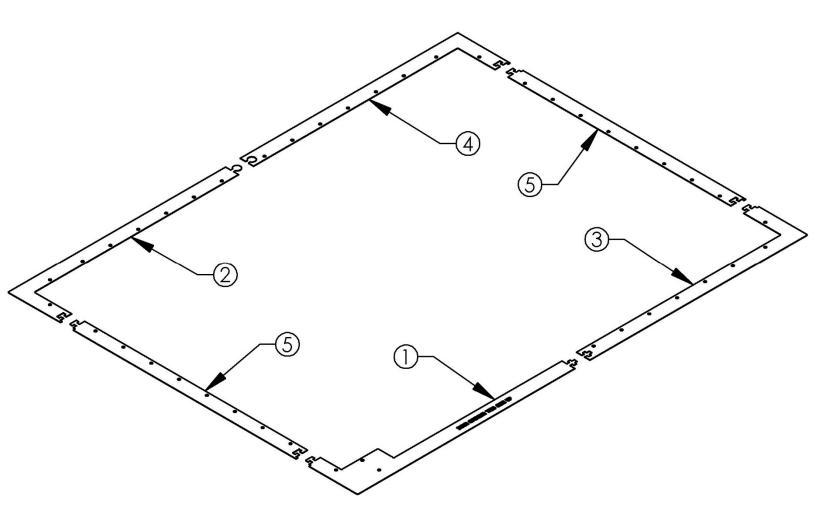
- Leather Gloves
- Safety Glasses
- Flashlight
- (1) Hammer Drill with 1/2" Carbide Concrete Drill Bits (Do Not Use Diamond Bits)
- (1) Hammer
- (1) Torque Wrench Capable of 40 Ft-lbs
- (1) 9/16" Open End Wrench or Socket Wrench
- (1) 3/8" Drive X 9/16" Deep Well Socket Wrench & Extension
- (2) 3/4" Open End Wrenches
- (1) 3/4" Deep Well Socket Wrench
- (1) Screwdriver or Punch for Aligning Holes

#### Note:

The supplied Wrench (PN 20075Y) is intended to be used in an emergency. It is not recommended to be used to assemble the Safety Shelter.

# ANCHOR BOLT ALIGNMENT TEMPLATE

Item #	Part #	Description
1	20434	Template - Anchor Bolt, Front Left
2	20435	Template - Anchor Bolt, Rear Left
3	20436	Template - Anchor Bolt, Front Right
4	20437	Template - Anchor Bolt, Rear Right
5	19797	Template - Anchor Bolt, 60"



# **ASSEMBLY**

Note:

One Cage Nut (item 24) is preassembled in two of the Inside Hanger brackets (item 17).

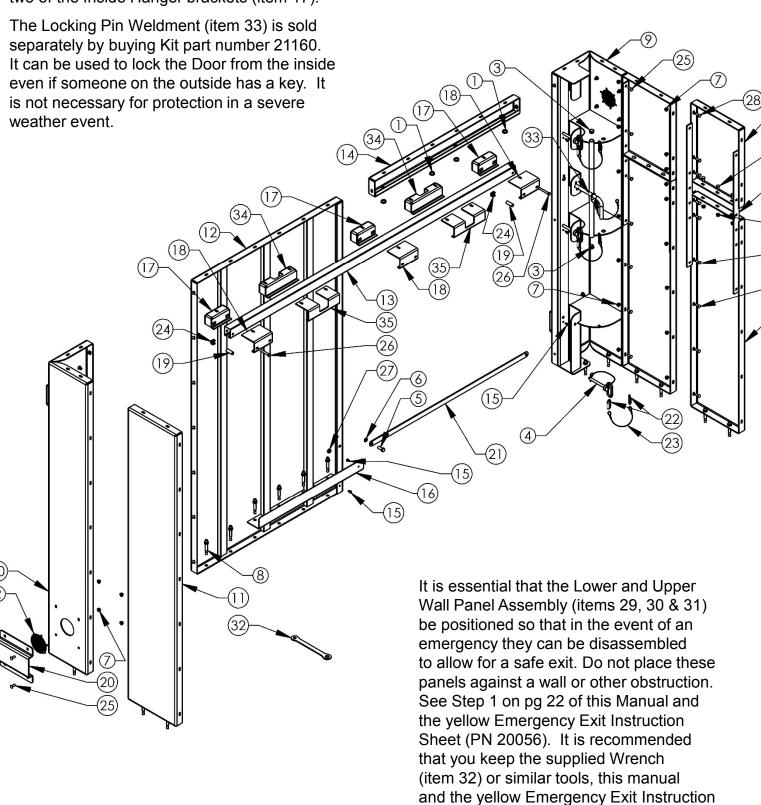
Some components have been hidden for clarity.

Sheet in the Safety Shelter at all times. The supplied Wrench is intended to be used in an emergency. It is not recommended to be used to assemble the Safety Shelter.

(30)

(28)

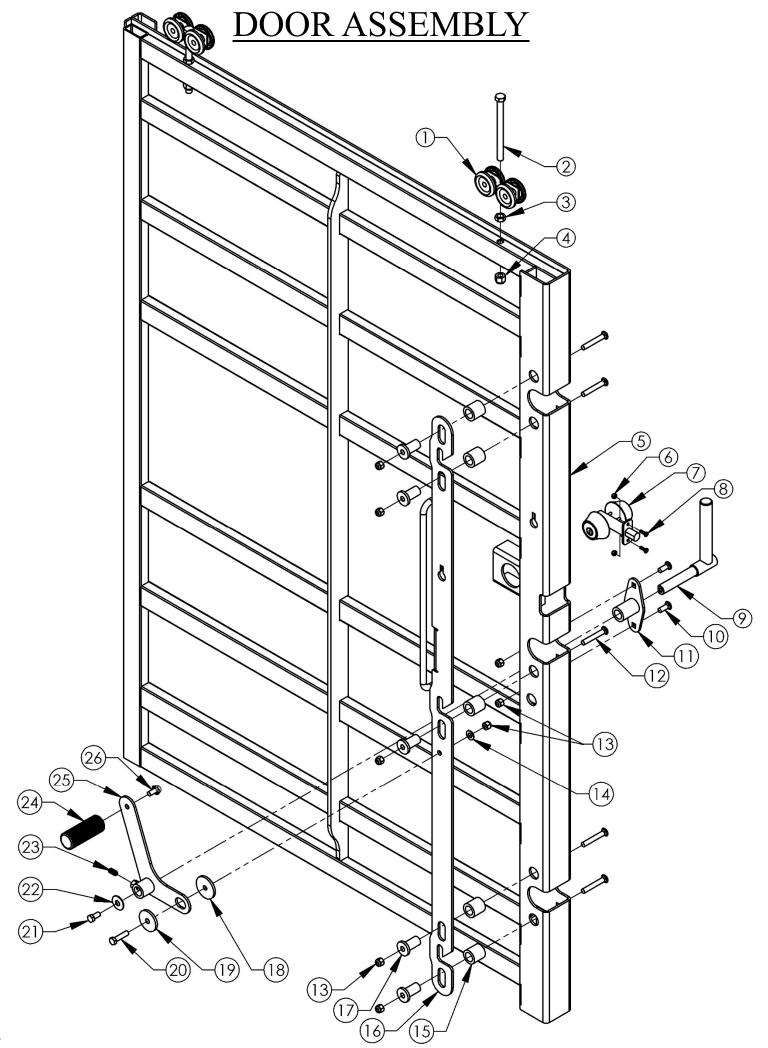
25)



# **ASSEMBLY**

Item#	Part #	Description
1	19785	Plug - 3/16 Plate, 1" Steel
2	19775	Vent - Round, 4"
3	19784	Plug - End, 1" Tube 10-14ga
4	19758	Pin - Ø1/2", w/ Hair Pin & Tether
5	NB647	Bolt - 1/2-13 X 1 1/4
6	NB177	Washer - 1/2 NR
7	19799	Nut - Serrated Flange, Hex 3/8-16
8	19790	Anchor - Concrete 1/2 X 3 3/4
9	19736*	Weldment - Jamb Corner
10	19742*	Panel - Corner
11	19743*	Panel - Wall
12	20417*	Weldment - Front Wall Panel
13	20419	Channel - Trolley
14	20412*	Brace - Doorway
15	19135	Clip - Panel
16	20421*	Guide - Door
17	21074*	Bracket - Inside Hanger
18	19774*	Bracket - Outside Hanger
19	12785*	Spacer407 X .625 X 1.750
20	19776*	Shield - Vent
21	20422Y	Support - Threshold
22	NB781	Connector - Chain, 3/16"
23	20197	Cable Assembly
24	21075	Cage Nut - 3/8-16
25	19828	Bolt - Carriage 3/8-16 X 1
26	19831	Bolt - 3/8-16 X 3
27	19832	Nut - Jam, 1/2-13
28	19829	Bolt - Carriage 3/8-16 X 1 1/4
29	20062*	Panel - Wall, Upper
30	20063*	Gusset - Wall Panel
31	20061*	Panel - Wall, Lower
32	20075Y	Wrench - Combination, 9/16 & 3/4; Yellow
33**	20131Z	Weldment - Locking Pin ZP
34	20430*	Bracket - Inside Hanger, Long
35	20429*	Bracket - Outside Hanger, Long

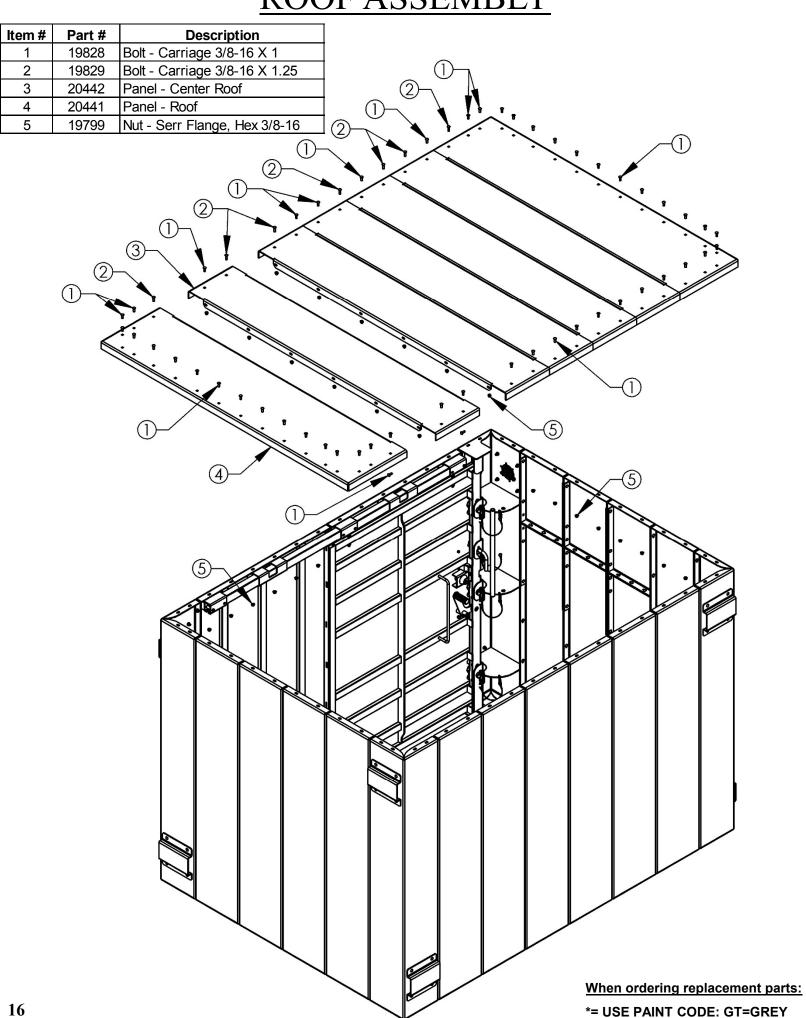
<sup>\*\*</sup>Sold Separately, Kit PN 21160



# **DOOR ASSEMBLY**

Item#	Part #	Description
1	20137	5050 Box Rail Truck Pair Steel Brgs 600#
2	19787	Bolt - 1/2-13 X 6, GR8 Full
3	19832	Nut - Jam, 1/2-13
4	20117	Nut - Nyloc 1/2-13
5	20413*	Weldment - Door
6	024900	Nut - 10-24 Nylon Lock
7	21094	Lock - 2 Cylinder Deadbolt
8	19782	Screw - Phillips Pan Head, 10-24X5/8
9	19770Z	Weldment - Door Handle
10	19828	Bolt - Carriage 3/8-16 X 1
11	19767Z	Weldment - Handle Housing
12	19313	Bolt - Carriage, 3/8-16X2 1/2
13	19825	Nut - Nyloc 3/8-16
14	19826	Washer - SAE Flat 3/8
15	19020 19761Z	Spacer - Latch
16	20121Z	Latch - Door, Three Pin
17	19762Z	Bushing - Latch
18	6040Z	Washer390 X 2
19	6037	
20	19833	Bushing870 x 1.875 Bolt - 3/8-16 X 1 1/2
21	19633	
22	699	Bolt - 3/8-16 X 3/4
		Washer - Belleville 7/16 X 1 1/4
23	19781	Screw - Set, Knurl-Grip .375-16 X 3/4
24	18603B	Handle - Latch
25	20119Z	Weldment - Latch Handle
26	19830	Bolt - Serr Flange 3/8-16X3/4

# **ROOF ASSEMBLY**





# Part # 20254 Decal - NSSA Producer Member



Part # 20884
Decal - Swisher Information



Part # 20363 Decal - ESP Safety Shelter

# !!! WARNING !!!

During a high wind event occupants <u>MUST</u> stay at least 3" away from the walls and door and remove all loose items from shelves and walls by placing them on the floor to avoid potential injury from debris impact.

# **!!! WEAR HEARING PROTECTION !!!**

20006

# Part # 20006 Decal - Impact Warning

### Swisher Acquisition Inc.

WARNING!! PROPER INSTALLATION & INSPECTION ARE REQUIRED!
This shelter will not meet the requirements of the ICC/NSSA Standard or FEMA safe room guidelines for storm shelter construction unless properly installed and inspected by a Qualified Inspector as described below.

This tornado safe room was manufactured by the above-named Producer Member of the National Storm Shelter Association (NSSA) in accordance with the ICC/NSSA Standard but was not installed or site-built by the Producer Member or an NSSA Installer Member.

Correct storm shelter installation and the adequacy of the foundation to which this shelter is anchored are integral to the successful performance of the shelter under extreme weather conditions. The Producer Member has provided detailed installation instructions, including an Installation Checklist and an Inspection Checklist. Installation must be in strict accordance with these installation instructions.

The owner or the contractor installing the shelter is required to arrange for inspection by a Qualified Inspector to be conducted upon installation and before enclosing this shelter. A Qualified Inspector is defined as a local building inspector or the authority having jurisdiction where the safe room is installed, a registered architect, a professional engineer, a licensed professional inspector, or a Producer Member's safe room installer or technical representative.

The Inspector should complete the Inspection Checklist and promptly return this Checklist to the Producer Member. Upon receipt of the completed and signed Checklist, the Producer Member will issue a NSSA Seal Type 4 to affix to the shelter to confirm that the shelter meets the requirements of the ICC/NSSA Standard. Until receipt of the Inspection Checklist by the Producer Member, this shelter is to be deemed non-compliant with the ICC/NSSA Standard.

20007



Part # 20025 Decal - Caution, Upper Jamb



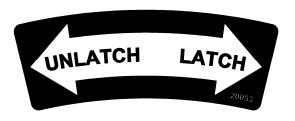
Part # 20027 Decal - Caution, Lower Jamb



Part # 20026 Decal - Caution, Middle Jamb



Part # 20055 Decal – Caution, Locking Pin



Part # 20053 Decal - Unlatch & Latch

### **Closing Instructions**

- NEVER place hands or feet near Door Jamb while moving Door.
- With your right hand, grasp the Vertical Handle on the Door Jamb.
- With your left hand, grasp the Vertical Handle on the Door.
- Pull the Door to the right until it securely latches on all three Pins.
- Ensure the Black Knurled Door Handle is fully rotated clockwise to the Latched position.
- Attempt to pull the Door to the left using the Vertical Handle on the Door; it should not open.
   If it opens, repeat the previous steps.
- Lock the Deadbolt by inserting the key and turning it clockwise.

### **Opening Instructions**

- Unlock the Deadbolt by inserting the key and turning it counterclockwise.
- Pull the Black Knurled Door Handle counterclockwise to the Unlatched position until the Latch disengages all three Pins.
- Pull the Door to the left using the Vertical Handle on the Door.
- If the Door Latch Mechanism or Lock isn't functioning properly, pull the three Pins from the Door Jamb by first removing the Cotter Pins at the back of the Jamb. The door should now open freely.
- If an obstruction will not allow the Door to be opened, refer to the Emergency Exit Instruction Sheet that is included with your Owner's Manual.

21097

Part # 21097 Decal - Closing & Opening

## Concrete Slab and Anchoring Requirements

To ensure Near-Absolute Protection the ESP Safety Shelter must be anchored to an adequately reinforced concrete slab to resist the forces applied during a severe wind event. The minimum thickness, reinforcing and overhang of the concrete slab are shown in the chart below. If the thickness of the concrete is increased then the overhang could be decreased if reviewed and approved by a Licensed Structural Engineer.

Any deviation from the design criteria will require a Licensed Structural Engineer in your State to review and make recommendations for your specific situation and approve your slab. This slab analysis is not provided by the manufacturer. Failure to follow the installation and inspection checklist provided with this shelter can result in catastrophic failure up to and including loss of life as a result. ESP Safety Shelters, Swisher Acquisition Inc. (SAI) or any of its affiliated companies have no liability if the slab and anchoring design criteria are not followed and verified by a third party qualified inspector.

Anchor bolt installation is for slab on grade applications only. Do not drill or cut into supported slab over a basement or crawl space. Steps should be taken to avoid drilling into pre-tensioning or post tensioning strands or reinforcing in the slab.

### MINIMUM SLAB REQUIREMENTS

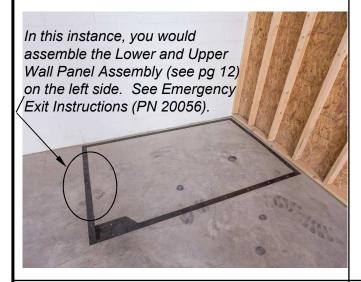
Model	Minimum	Minimum	Overhang	Minimum
Number	Thickness	Reinforcing	(Minimum All Sides)	Strength
SR114X84G	4"	#4's @ 18" O.C.	2'-5"	2,500 psi

# Guidelines for Locating a Qualified Installer

- ESP Safety Shelters, Swisher Acquisition Inc. or any of its affiliated companies do not endorse, recommend or prequalify any shelter installation companies or individuals. The information below is only provided as a guide to assisting the shelter owner in identifying a qualified installer. ESP Safety Shelters, Swisher Acquisition Inc. or any of its affiliated companies shall have no liability in regards to the performance or cost of any installer hired by the shelter owner.
- ESP Safety Shelters are designed to be installed by the owner (DIY) if desired. DIY Installation does require heavy lifting, some tools (as listed in this manual) and assistance from 2 to 3 additional people. DIY Installation does not eliminate the need for a Qualified Inspector to certify the installation.
- ESP Safety Shelters can also be installed by a third party. To locate a third party installer you have a few choices:
  - Visit the National Storm Shelter Association's website <u>www.nssa.cc/installers</u>. This site will provide you with a list of pre- approved installation companies who are registered members of the NSSA.
  - 2) Locate a local installer that is experienced in general construction and installing anchor bolts in concrete. There are also a number of resources online to assist in your search. However, word of mouth referrals are always the best option. The installer you choose does not have to be experienced in Storm Shelter installation, but they should have experience in the above mentioned trades. Always ask for references and contact the Better Business Bureau to thoroughly check the installer's reputation.
  - Remember, the Installation and Inspection Checklists MUST always be followed to ensure the near-absolute protection provided by your ESP Safety Shelter.
  - 4) Finally, regardless of who installs your ESP Safety Shelter it MUST be inspected by a Qualified Inspector using the Inspection Checklist that came with your unit.

# **Assembly Instructions**





When drilling holes in concrete a Carbide Bit MUST BE used, DO NOT use a Diamond Bit. See Step 5 below for further information.



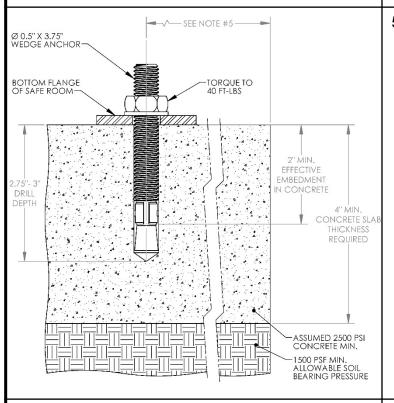
- 1. Locate all pieces of the Anchor Bolt Alignment Template (see pg 11). Lay the template out on the floor in the approximate location the Safety Shelter will sit. See note at left regarding the proper placement of the Emergency Exit Wall Assembly It should not be against a solid object or wall. Be sure the door side template labeled "Door Opening This Side Up" is in the front left and all pieces are solidly locked together. Check to ensure there is a minimum of 7' of vertical clearance above the footprint of the template and a minimum of 2" clearance around all sides. See the table on Page 20 to determine the minimum concrete requirements for your Model. Once the final location is set, draw a line on the floor along the inside edge of the template. Use this line to ensure the template does not move while drilling the anchor holes.
- 2. Do not allow the template to move during this next step. Using the template as a guide, drill all holes in the concrete floor to a minimum depth of 2 ¾" and a maximum depth of 3". Do not drill completely through the concrete slab. If a hole is drilled through slab an adjacent hole may be drilled not closer than 3" from the abandoned hole or contact supplier or a licensed engineer to evaluate alternatives.
- After all the holes have been drilled, remove the template and store it in a safe location for future use. Using a vacuum cleaner remove all concrete dust from each hole and from the surrounding area. The template should NOT be left under the Safety Shelter.



Template shown for illustrations purposes only. It must be removed prior to installing any anchor bolts.

4. Following the manufacturers instructions, install the 3 anchor bolts (PN 19790) in the front left corner (Door Jamb Corner) to the proper depth in the concrete (see next step). At this time leave the washer and nut on the bolts to protect the threads.

Mark depth on Drill Bit to 2.75"-3.00". Be sure NOT to drill through concrete.



5. To the left is a view of the proper anchor bolt installation. The embedment length of 2" is critical to the safe function of the Safety Shelter.

Note: The minimum thickness of concrete is 4" as long as appropriate overhang outside the Safety Shelter exists on all four sides (see chart on Page 20).

When drilling holes in concrete a Carbide Bit MUST BE used, DO NOT use a Diamond Bit.





Outside View Inside View

6. Install 8 Vents (PN 19775), two vents in each corner section. Vents should be installed from the outside the tabs should be bent to the inside.



**Outside View** 





7. Install a Vent Cover (PN 19776) over each of the 8 Vents using 4 Carriage Bolts (PN 19828) and 4 Nuts (PN 19799) each. Torque each bolt to 31 Ft-lbs.



- 8. Remove the nuts and washers from the 3 anchor bolts previously installed.
- Locate the Door Jamb Corner (PN 19736) and place it over the 3 anchor bolts at the front left of the Safety Shelter. Replace the Flat Washer and Nut on each anchor bolt. Only fingertighten the nuts at this point.
- 10. Repeat this procedure for the Right Front Corner section (PN 19742) opposite the door. Install 2 anchor bolts in the corner section but only finger-tighten the nuts at this time.



11. Using 7 Carriage Bolts (PN 19828) and Nuts (PN 19799) attach the Front Wall section (PN 20417) to the Right Corner Sections (PN 19742) installed in Step 10. Be sure the Front Wall is placed with the six large round holes at the bottom. The end with the six smaller slotted holes will be on top for the roof to be attached later. Finger-tighten these bolts at this time.



12. The Front Wall Section (PN 20417) should be set exactly 45" away from the Jamb Corner (PN 19736) (see picture at left). This will become the Door Opening.





13. Using 2 Bolts (PN 19828) and 2 Nuts (PN 19799) install the Door Header Brace (PN 20412) between the Corner Jamb (PN 19736) and the Front Wall Panel (PN 20417). Using a Straight Edge (see inset) be sure the Door Header, Door Jamb and the Front Wall Panel are all flush at the top. Tighten the two Bolts and Nuts to 31 Ft-lbs.

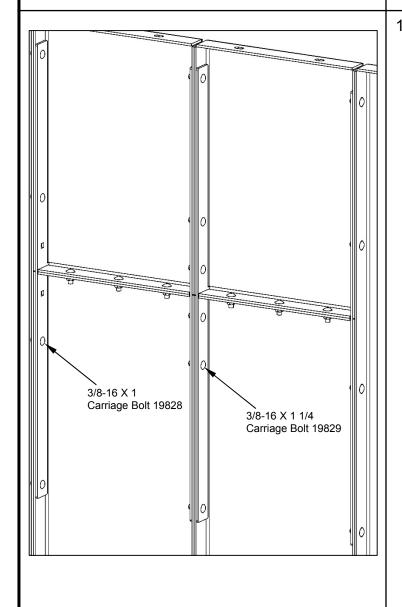


Yellow Door Alignment Bar PN 20422Y

Use caution to avoid tripping while the Alignment Bar is in place. 14. Attach one side of the Door Alignment Bar (PN 20422Y) to the lower Door Latch Pin (PN 19758) by removing the pin and sliding it back through one end of the Alignment Bar (PN 20422Y). Using a Bolt (PN NB647), Washer (PN NB177) and Nut (PN 19832), attach the other end of the Alignment Bar to the back flange of the Front Wall Panel (PN 20417). The hole in the flange is directly across the door opening from the Lower Door Latch Pin. Leave this bar in place until after all the Anchor Bolts are installed and remove before the door is installed. This bar will ensure that the door opening remains at the correct width throughout the assembly process.



15. At this point it is suggested that you determine how the door will be brought into the Safety Shelter. If clear access can be gained on either side then leave the panel for that side out until after the door is installed. If clear access is not available to either side or back of the Safety Shelter, the door can later be brought in through the door opening. It is just much easier to bring it in through one of the sides or the back.



16. **Emergency Exit Lower and Upper Wall** Section Assembly – The Emergency Exit Wall Sections must not be located where there is an obstruction or wall blocking your exit from the shelter through this wall when removed. You do have the flexibility to place it in either of the Side Walls or the Back Wall. It cannot be placed in the front wall. When assembling these panels, Gussets (PN 20063) must be installed along the inside edge of each vertical wall section rib (as seen at left), two per wall panel section. Note that the two innermost bolt holes are used on the center rib. The outside ribs do not require these bolts. See Page 12 for the appropriate size bolts and nuts for this assembly. Tighten all nuts to 31 Ft-lbs torque.



17. Using Carriage Bolts (PN 19828) and Nuts (PN 19799) attach all the remaining Wall Panels (PN 19743) and Corner Sections (EXCEPT where you want to bring the door into the Safety Shelter). Be sure the large round holes are in the lower flange of each wall and corner panel. The top flange of the wall and corner panels will have smaller slotted holes that will be used to attach the roof panels. Only finger-tighten all the bolts between panels and corners at this time. Be sure to line up each panel and corner on the lines placed on the floor and over the anchor bolt holes.



Note: For our application the door was brought in from the left because there was no access from the right or back. Your application may be different but the procedure for installing each panel and corner is the same, no matter the order or direction.

18. With the help of a second person carry the preassembled Door into the Safety Shelter and lean it safely against the back or side wall of the Safety Shelter.



19. Install the last remaining Wall Section following the same procedures. Leave all bolts finger-tight at this time.



20. Ensure the Door Latch Pins (PN 19758) are installed in the Door Jamb (PN 19736) as shown.



21. With the help of a second person install the End Roof Panels (PN 20441) and Center Roof Panels (PN 20442) over the Safety Shelter walls. For the End Roof Panels the flange with holes always goes to the inside of the Safety Shelter.



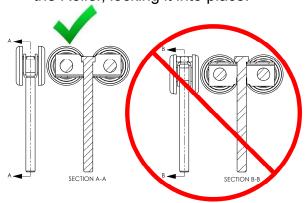
22. Attach Roof Panels using Carriage Bolts (PN 19828) and Nuts (PN 19799) to top of side walls and corners. At this time do not install the 7 Bolts (PN 19829) in the front wall/roof that hold the Rail Support Brackets. Only hand tighten all nuts at this time.



- 23. Locate the following Door Rail Items:
  - 1 PR Box Rail Truck Roller (PN 20137)
  - 2 Bolt ½" x 6" (PN 19787)
  - 1 Rail (PN 20419)
  - 3 Rail Support Outside (PN 19774)
  - 3 Rail Support Inside (PN 21074)
  - 2 Rail Support Outside, Long (PN 20429)
  - 2 Rail Support Inside, Long (PN 20430)
  - 2 Stop Bolt (PN 19831)
  - 2 Spacer (PN 12785)



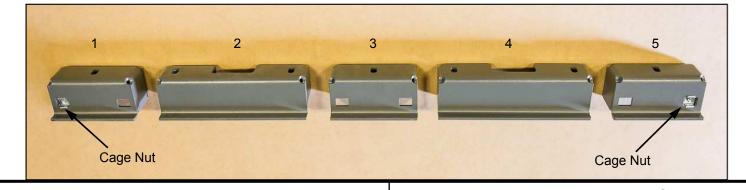
24. Install a ½" Bolt (PN 19787) into the center of each Roller Truck (PN 20137) from the top. The head of the Bolt should rest solidly between the inner flanges of the Roller, locking it into place.





25. Install two sets of rollers into Rail and secure with a rubber band or tape to temporarily hold them in place during assembly.

Note: Tighten the two Carriage Bolts (PN 19828 from Step 22) that connect the Roof Panel to the Door Header Brace prior to attaching the Rail Assembly to the Shelter.



The bolt pattern on page 16 identifies the roof hole locations for Bolt 19829. One person must be on the outside holding the bolts down in the roof and the other lifting the rail assembly in place and putting the 7 nuts on. A deep socket and extension must be used to place the nuts through the access holes in the Door Header (PN 20412).



26. Lay out the three Inside Rail Supports (PN 21074) and two Long Inside Rail Supports (PN 20430) as shown above. This is the order of the brackets as seen from the inside of the Shelter. Note the orientation of the Cage Nuts (PN 21075) on the two outermost Inside Rail Supports. Loosely install brackets 3, 4 and 5 to the roof using four Carriage Bolts (PN 19829) and Nuts (PN 19799). This is necessary to keep the bracket from falling out while installing the Rail (PN 20419). The holes in the Doorway Brace (PN 20412) are access holes for these nuts.



- 27. Place the Rail (PN 20419) within the three brackets. While holding the Rail, remove the nut from bracket 5 and install an Outside Rail Support (PN 19774) between the Inside Rail Support and the Roof. Loosely reassemble with the Nut (PN 19799). Repeat this process for bracket 4 using a Long Outside Rail Support (PN 20429). Continue for bracket 3 using an Outside Rail Support (PN 19774). Loosely install brackets 1 and 2 using an Outside Rail Support (PN 19774), a Long Outside Rail Support (PN 20429), three Bolts (PN 19829) and three Nuts (PN 19799).



- 28. Install a spacer (PN 12785) inside each end of the Rail (PN 20419) and secure using a Stop Bolt (PN 19831) and the preinstalled Cage Nut (PN 21075).
- 29. Tighten all bolts in the rail assembly to 31 Ft-lbs.
- 30. Remove the tape or rubber bands (see Step 24) from both Rollers and test that they move freely back and forth the complete length of the Door Rail.



31. Install all the remaining anchor bolts around the bottom flange of the entire Safety Shelter. Once installed, make sure to torque them to 40 Ft-lbs. See instruction in Step 5 of this manual and follow the Manufacturers Instructions. If needed a steel punch or large screw driver can be used to help align the holes in the base flanges with the holes in the concrete.

It is ok to install the six anchor bolts at the base of the Front Wall. However, before you torque them down, remove the nuts and washers. In a later Step these will be reinstalled.



32. Tighten all bolts around the roof exterior and interior flanges to 31 Ft-lbs.



33. Tighten all bolts in every wall flange to 31 Ft-lbs.



34. The Door will come to you preassembled with all latches and hardware installed.

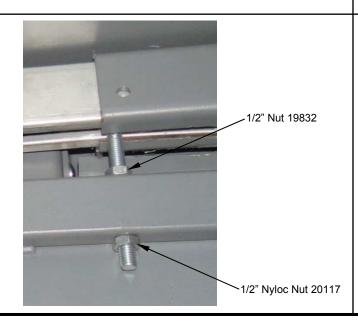
The Door is extremely heavy so you must use caution and practice proper lifting techniques when positioning it.

Hanging the Door is a 2 to 3 person job. It cannot be done by one person!



35. In preparation for hanging the door you will need 2 ea. 1/2" Nuts (PN 19832) and 2 ea. Nyloc Nuts (PN 20117). First, install 1 Nut on each ½" bolt hanging from the Rollers. Thread this nut all the way up the bolt to just below the roller. Position the two rollers so that the ½" bolts hanging from them are approximately 35" apart and centered on the Door Rail.

While raising the door carefully align the two ½" bolts into the holes in the top frame member of the door. Once both bolts are in the holes slightly raise the door just enough to put the ½" Nyloc Nut on the bolt under the top frame of the door.



36. Using a wrench, tighten the nuts under the door frame upward (raising the door) evenly until there is approximately ¾" of thread exposed on the ½" bolts. This is a good starting place for the door alignment to be done later.



37. You will need a light inside the Safety Shelter for the following steps.

Position the door all the way in the closed position to expose the inside of the Front Wall Panel.

Install the Lower Door Guide (PN 20421) over the anchor bolts at the base of the Front Wall Panel. Reinstall the flat washers and nuts and torque to 40 Ft-lbs.



38. Door Adjustment/Alignment – For proper and safe operation the door must be aligned so that it will easily latch on all three pins without forcing the handle.

Adjust both nuts evenly on the bottom of the ½" Roller Bolts supporting the door until the hook point on the center Door Latch (in the unlocked up position) is 1/16" above the Center Latch Pin in the Corner Jamb. Adjust each nut evenly so that the door remains level.



39. Now attempt to close the door. If it shuts and all three latches easily engage with out forcing them down, you're done. If not, follow the steps below:

First, remove the three latch pins from the Door Jamb.

Close the door and place the handle in the locked position.

Replace the center latch pin only. It should slide through the center Door Latch Plate easily. If it does not, adjust both nuts evenly to move the door up or down until the pin moves freely.



40. Attempt to replace the top Latch Pin through the Jamb and the Door Latch Plate. If it hits the Door Latch Plate adjust the ½" Nyloc Nuts (PN 20117) under the top door frame until the Latch Pin will easily slide through the Latch Plate.

Do not make large adjustment to the nuts, ¼ or ½ turns will make a significant change in the location of the Latch Plate. Make small adjustments and check alignment often.

Double check that the center Latch Pin continues to slide in and out freely.

Repeat the alignment procedure above for the bottom Latch Pin. It may take some time (depending upon how level the concrete floor is) going back and forth, checking all three Latch Pins often and making small adjustments to get them all latching freely.

Once the door is aligned, securely tighten the ½" Nuts (PN 19832) on the top side of the door frame down to the frame.



41. The Locking Pin is sold separately by buying Kit part number 21160. It can be used to lock the Door from the inside even if someone on the outside has a key. It is not necessary for protection in a severe weather event. With the door in the closed and latched position check the operation of the Locking Pin. Install the Locking Pin into the Key Hole on the Door Jamb. If the Pin will not freely slide through the Jamb further adjustment is needed to the door. Once the Pin is fully engaged through the Jamb and Door rotate the handle 90° counterclockwise (down) to the locked position.

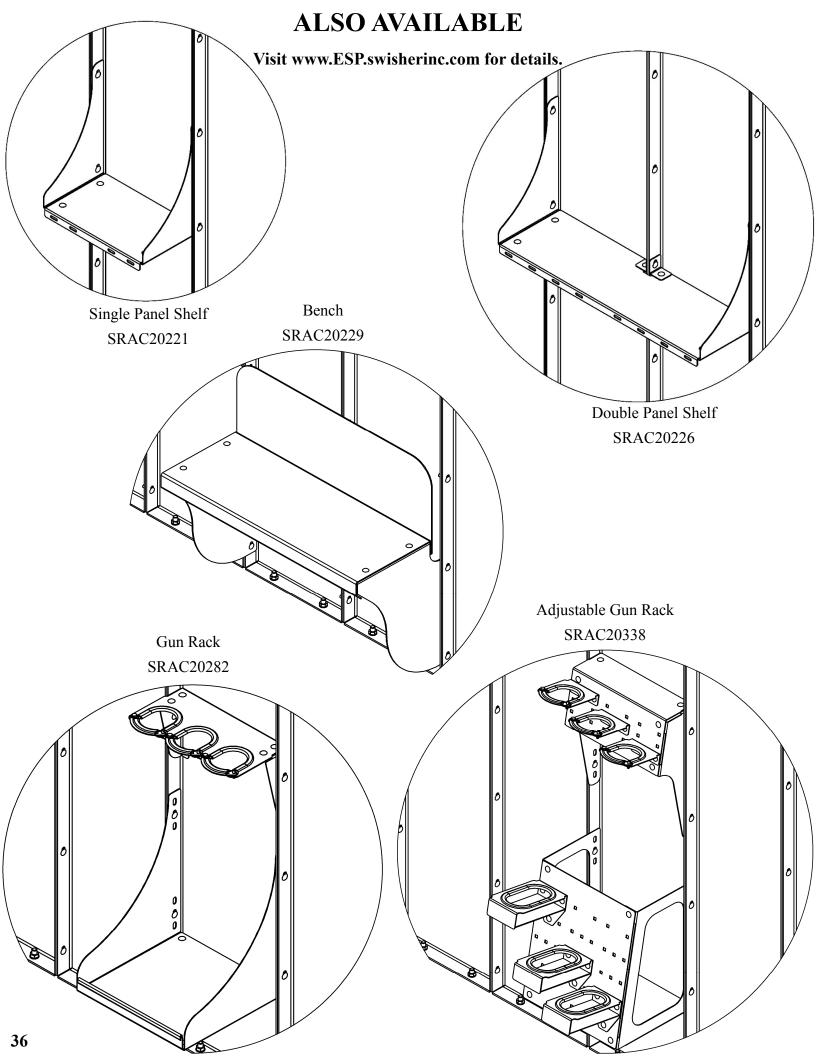
# **IMPORTANT!**

# Medeco Key Registration Card

Inside your Owners Hardware Bag you will find two keys to your new Safety Shelter Door and a Key Registration Card (it looks like a credit card).

# DO NOT LOSE THIS CARD

Keep the Key Registration Card in a safe location. In the event you lose your keys, take this card to a participating Medeco Locksmith to have replacement keys made. You will need this card to have duplicate keys made. Without this card you will not be able to get replacement keys made.



# NOTES:

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# NOTES:

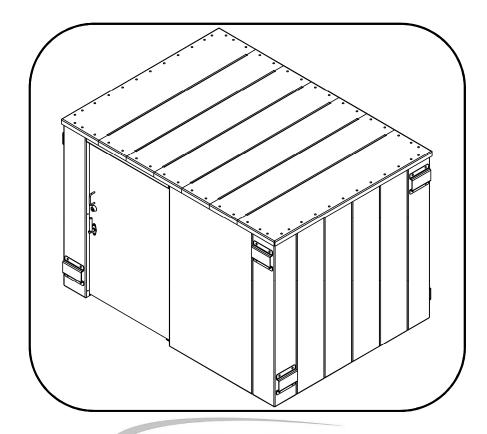

# NOTES:

www.ESP.swisherinc.com

OWNER'S MANUAL SR114X84G



Patent No. 9,644,420





WHEN ORDERING PARTS, PLEASE HAVE THE FOLLOWING INFORMATION AVAILABLE:

- \* PRODUCT -
- \* SERIAL NUMBER -
- \* MODEL NUMBER -
- \* PART NUMBER WITH PAINT CODE
- \* PART DESCRIPTION

TELEPHONE - 1-800-222-8183 FAX - 1-660-747-8650

### SWISHER ACQUISITION INC.

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